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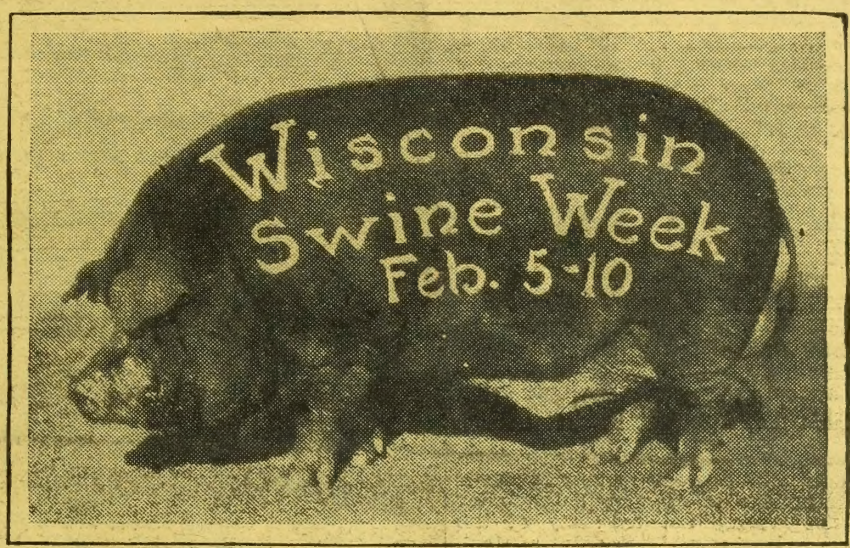
THE WISCONSIN FARMER

VOL. XLVI. NO. 1. THURSDAY, JANUARY 4 1917. WHOLE NO. 1823

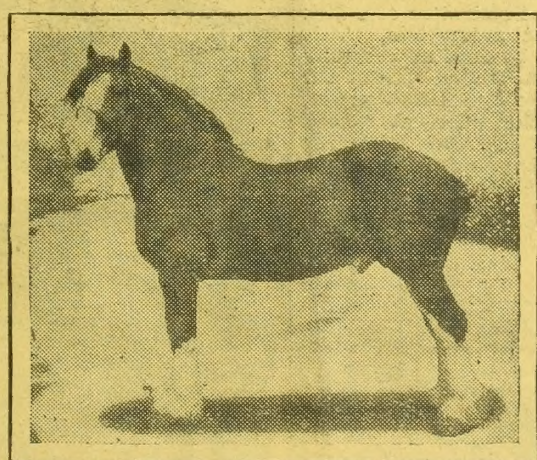
Swine Week an Important Event.

WE HAVE so much to say about dairying and dairy cattle in Wisconsin that we sometimes forget that there are other very important divisions of live stock. Whether our agricultural experiment workers had this in mind when they decided upon Swine Week, at Madison, February 5th-10th, or not, we do not know, but their action directs our attention to a most important division of stock raising, and one which we believe is not given sufficient attention in this great state. While we have 2,250,000 hogs in Wisconsin, an average of about a dozen to the farm, and these hogs are worth $25,000,000 to $30,000,000, The Wisconsin Farmer believes the industry could easily be doubled, and that farmers would greatly profit by this increased live stock population. The old saying is that meat can be produced cheaper on a hog than on any other animal, still holds good, and when we consider the present prices of pork, in connection with the cheap production cost, the hog business looks very inviting, indeed.



THE HOG HAS THE CENTER OF THE STAGE THIS YEAR.

Associations interested in the various swine breeds will hold the center of the stage at Madison, Swine Week. Members of eleven national swine breeders' associations will attend the conferences of the week, which include meetings of twenty separate organizations. The swine breeders will be represented by the state meetings of Poland China, Duroc Jersey, Chester White, Berkshire and Hampshire associations. The latter association is to be formed during Swine Week. In addition to these swine meetings, which are to be given the most prominence this year, there will be meetings of the Wisconsin Live Stock Breeders' Association, and others as follows: Dairy—Holstein, Jersey, Guernsey, Ayrshire and Brown Swiss; Beef—Shorthorn, Hereford, Aberdeen Angus and Red Polled; Wisconsin Horse Breeders' Association and the Wisconsin Sheep Breeders' Association. Swine Week will not only include conferences, such as the Country Life Conference, the meetings of the Wisconsin Agricultural Experiment Association, etc., but it will be featured by exhibits and shows of special interest. There will be a swine-and-pork-products exhibit in the University live stock pavilion. In this exhibit all breed associations and several packing houses and other business concerns are lending a hand. By-products of the pork industry as well as a full-fledged meat market and a culinary department, setting forth tempting pork dishes, will add to the attractiveness of the display. Two sales of high-grade hogs will interest many hogmen of the state. These will be staged under the direction of J. D. Gant, of Delavan, secretary of the Wisconsin Duroc Jersey Association, and J. F. Diley, of Rush Lake, secretary of the Poland China Club.



CRITERION, A NOTED CLYDESDALE HORSE, WILL BE AT THE UNIVERSITY FARM THIS YEAR FOR BREEDING AND DEMONSTRATION PURPOSES.

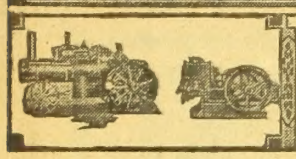
The opening day, February 5th, will be devoted to a discussion of profitable beef production. Mr. Walter L. Houser, of Mondovi, Wisconsin, is to be chairman of the day, and the discussion will be supported by the various representatives of state beef associations. In the afternoon of the first day, the Wisconsin Sheep Breeders' Association will hold a special meeting, with Arthur Broughton, of Albany, president of the Wisconsin Live Stock Breeders' Association, in charge. Mr. Broughton was a conspicuous winner with his sheep at the recent International Live Stock Exposition in Chicago. W. C. Coffrey, of the Illinois Experiment Station, and "Uncle Dick" Stone, breeder and judge, of Stonington, Illinois, are slated to appear on the program.

The second day, Tuesday, February 6th, is to be known as "Pork Production Day," and Mr. James Dillon, of Mondovi, will preside. There will be seven speakers, including representatives of the State and National Swine Breeders' Club. Draft horse prospects of Wisconsin, under the direction of the Wisconsin Horse Breeders' Association, with W. K. Caldwell, of Morrisonville,

(Continued on page 6.)

FOUR OF THE FIVE CHAMPIONS AT THE INTERNATIONAL FROM THE UNIVERSITY FARM FLOCK. FROM LEFT TO RIGHT—A RAMBOUILLET, CHEVIOT, HAMPSHIRE AND SHROPSHIRE.

FARM MECHANICS



Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Sawing Wood With a Ford Car.

Would you kindly advise me if by elevating one wheel of a Ford automobile and using it for power to saw wood, the gearing would have a tendency to cut out?

Answer.—This would be very hard on the differential gearing and would soon either break the gears or wear them out. If you wish to use your car for power let the rear wheels run on a jackshaft mounted under a platform, as recently illustrated in these columns.

Traction Engines on Roads.

A subscriber, Manning, Iowa.—Does the law of Iowa require the operator of a steam tractor or threshing machine to plank bridges or culverts on the public roads when crossing them?

Answer.—It does not. The law requiring this to be done ceased to have force or effect on the first day of November, 1910. The law as it now exists as to moving traction engines on the public roads, is as follows, viz: "Whenever any traction engine is being propelled upon the public road, the whistle thereof shall not be blown, and the operator thereof shall exercise reasonable care and caution in the management of the same, so as to avoid any accident that might occur from fright upon the part of any horse, or other draft or domestic animal. Any person operating a traction engine upon the public highway, shall, upon request or signal, by putting up the hand from the person riding or driving, a restive horse or other draft or domestic animal, bring such traction engine immediately to a stop, and if traveling in the opposite direction, remain stationary so long as may be reasonable, to allow such horse or animal to pass—and if traveling in the same direction, use reasonable caution while such horse or animal is passing, and the operator or any other person employed by the owner of said traction engine shall render necessary assistance to the party having in charge said horse or other draft or domestic animal in so passing."

The Leyden Jar.

Will you please tell how to make a Leyden jar battery and how to charge it? I have a generator. Where could I get a good one, and how much would it cost?

Answer.—The Leyden jar cannot be used as an ordinary storage battery. It is similar to the condenser used on a magneto and is used to store an electric charge of very small quantity and very high voltage. It is very easy to make. Obtain a half gallon glass fruit jar and coat it inside and outside about two-thirds of the way up, also the bottom, with tinfoil, pasting it on with flour paste. Make a wooden cover for it. The cover must be dry; it should be shellaced and dried in a warm place for several days. A brass rod about six inches long should then be driven through the wooden cover at the center. A chain attached to the bottom end of the rod is allowed to touch the bottom of the jar on the inside. A brass ball about an inch in diameter is usually placed on the upper end of the rod, to prevent leakage, as an electric charge leaks off a sharp point rapidly. The wooden cover is usually held in place by means of insulating tape. The jar is charged by connecting the ground wire of a jump spark coil to the outside lining, and the spark terminal to the brass rod, the coil being operated by batteries. The longer the spark produced by the coil the greater the charge that may be given the jar. A Tesla coil, operated by lighting current, is often used to charge the jars. Sometimes the jar receives too large a charge, and the electricity actually breaks a hole through the glass, ruining the jar. Care must be used in handling a charged jar, as a very serious shock may be received from it. It may be discharged by touching a wire to the outside lining and the brass rod at the same time, the wire being held by a long dry stick, or other insulator.

On account of its small capacity the Leyden jar is of little practical value, being used chiefly for experimental work with electricity. Condensers made of alternate layers of tinfoil and paraffined paper may be made with a comparatively large capacity in a small space, and are used on magnetos and in alternating current work.

Removing Boiler Scale.

I have a twenty-horse-power steam engine. The boiler is scaled up pretty badly. I have removed all the hand hole covers for the winter. What will be the best thing to do or to use when I fire up again next spring?

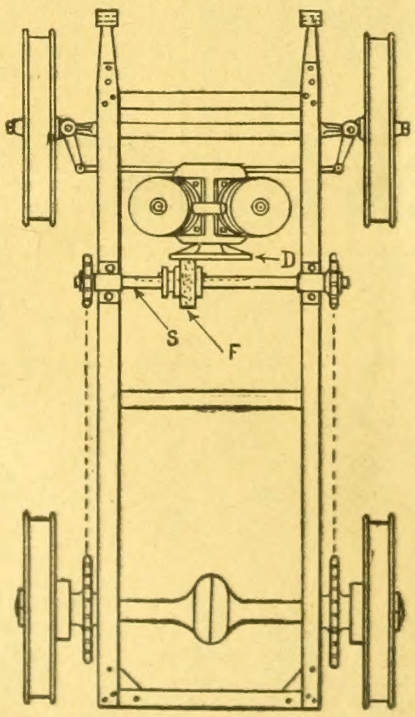
Answer.—The scale will air-slake during the winter so that a considerable amount can be scraped and washed out next spring before the hand holes are closed. When in use it may be necessary to clean the boiler twice a week if the water is very bad. If the water is very clear and free from mineral once in six weeks might be sufficient. To clean the boiler, allow the fire to die out and the steam pressure to drop below ten pounds. Then, keeping all the doors and drafts closed, open the blow-off cock and drain the boiler. Then remove the washout plugs or hand hole covers and wash out all the mud and as much scale as possible.

A Small Automobile.

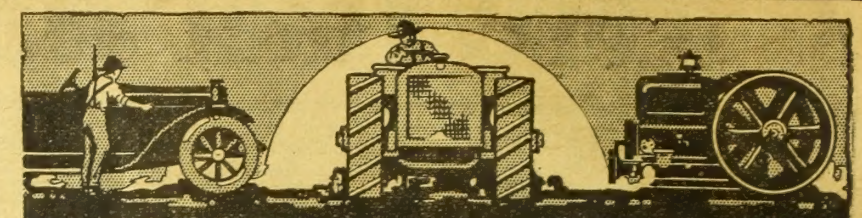
Please publish an illustration showing how to make a twin-cylinder motorcycle engine pull a small automobile by worm drive. Also state how much power a new Harley-Davidson engine has. Would it have power enough to pull itself and two passengers up a fair-sized hill?

Answer.—We doubt that it would be practical for you to make an automobile with a worm drive. A worm drive presents some engineering problems that make it difficult for an experienced engineer to construct one successfully. There must be ball bearings to take the end thrust; the gear must be located exactly at the center of the worm; the tendency of the worm to heat must be guarded against, and the outfit is usually wasteful of power. Instead of a worm drive we are publishing an illustration of a disk drive for a light automobile. This same drive could be used successfully on gasoline farm engine trucks for moving the engine by its own power.

In place of the sprocket wheel, mount a smooth-faced disk D on the engine shaft. The disk must be balanced, and the speed of the rim of



the disk at the greatest engine speed should not exceed a mile a minute. For an engine making 2,000 R. P. M., this disk should be about ten inches diameter. The disk may be made of cast iron, steel or aluminum. The fiber friction wheel F is driven by the disk. This wheel should be about ten inches diameter. The friction surface should be about one and a half inches wide, and may be made from heavy pasteboard clamped between two metal flanges and trued up in a lathe. The groove in the hub of the wheel takes the fork of the speed-changing lever. As the wheel is shifted toward the center of the disk, the car slows down. When the wheel passes the center of the disk and is driven on the opposite side, the motion of the car is reversed. The wheel drives shaft S by means of a sliding key. The sprocket wheels should be proportioned so as to give the desired speed. The twin-cylinder Harley-Davidson motorcycle is rated at eleven horse power and, therefore, should have plenty of power to pull the car and two passengers up a fairly steep hill.



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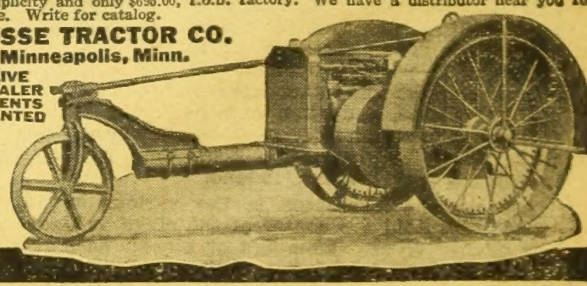

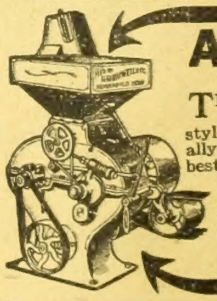

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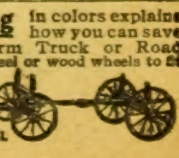

The Wisconsin Farmer

THURSDAY, JANUARY 4, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

AS THE NEW YEAR DAWNS.

AS WE stand on the threshold of this new year, my friends, I feel that we can well pause for a few moments to survey the results of the months that have slipped away beyond recall, like water over the mill-wheel, and to plan for the months to come. In the former we may find encouragement and instruction for the duties and opportunities ahead. Not unwisely did the ancients represent the god, Janus, for whom this first month was named, as a two-headed being, facing behind and before.

The past year has been a glorious one for us in Wisconsin. It has seen the Badger state go forward by leaps and bounds. Never were her farm products worth so much, her citizens more contented or her industries more prosperous. She has set an example of agricultural and industrial efficiency for other states to follow.

As usual, Wisconsin has led the nation in the value of her dairy products, surpassing the hundred-million-dollar mark, in the number of her dairy cows, exceeding that of any other state, and in the output of her creameries and cheese factories, comprising more than one-sixth the butter and one-half the cheese of the country.

But even without her dairying industry, Wisconsin would have been a great agricultural state in 1916, because of the wonderful diversification of her agriculture. Her crops of rye, cabbages, hay, potatoes, oats and barley would have put her well to the fore of agricultural states, while a score of other food products, such as peas, rivaling the French peas in quality, and her cranberries, would fill the cup of her farming prosperity full to overflowing.

When I think of these things it seems to me that the Creator must have saved His richest materials for making Wisconsin, and then have looked upon the work of His hands and found it good. It stands us well to stop and think of these things at times, in our busy, rushing, work-a-day world, that we may get a renewed sense of pride, as well as of obligation. I sometimes wonder if you and I really appreciate Wisconsin's greatness. Familiarity, while not breeding the proverbial contempt, (for none of us can ever have anything but pride in the Badger state) makes us forgetful or indifferent to her blessings and accomplishments.

When I turn from the past to the future I see an even brighter picture before me. I see a Wisconsin more prosperous, more efficient, more filled with ambition and determination to lead the world. I see her farms peopled with the best citizenship of the nation; her young men and women taking up the tasks of their fathers and mothers with renewed life and hope; her barns, granaries and silos filled to bursting; her dairies and factories with increased output; her northern empire coming into its own, with the woods cleared away, its broad acres dotted with splendid, happy homes, the little church in the valley and the schoolhouse on the hill, and the land under the same high state of intensive cultivation that the southern and central portions are. In a word, I see in the future the promise of everything that goes to make life worth while in a bigger and better Wisconsin.

And now for just a few words of a personal nature, such as might be inappropriate at other times, but which I feel I may indulge myself in with my readers at this holiday season, just as one shares confidences with the family circle seated around the fire of a winter's evening.

I like to think of the State of Wisconsin and The Wisconsin Farmer as having grown up together. They were twins at birth, in that stirring year, 1848, when the first dull rumbles of "the inevitable conflict" were just beginning to be heard, and they have gone forward, side by side, sharing the same struggles, trials and final success.

When I stop to realize that Wisconsin today has the largest percentage of farms operated by owners of any state in the nation (over 150,000 out of about 175,000 farms being so operated) I am proud to feel that The Wisconsin Farmer always has been a home paper, for all the family circle, and when I see the extent to which co-operative effort and farmer organization have been carried, it fills me with pleasure to feel that The Wisconsin Farmer has played a part in promoting such activities for the economic and social welfare of the farmers of this state.

And so, as I contemplate the glorious history which The Wisconsin Farmer has shared with its readers, as I rejoice in our mutual prosperity at the close of this year of grace, 1916, and look forward to the year 1917, with its bright prospects for Wisconsin farmers and Wisconsin institutions, I feel that my greatest ambition is to continue to do my part in the upbuilding of Wisconsin a little better, a little more helpfully, a little more efficiently, during the next twelve months than ever before, so that, when the year 1917 draws to its close, I may feel that I am a little more worthy to share with you the blessings which I am sure it will contain for all of us, if we work loyally, faithfully and harmoniously together.

FARM-LOAN BANKS LOCATED.

I AM able to announce this week the location of the twelve federal farm-loan banks and to give further particulars of the working of the plan to which so many farmers all over the country are looking for financial relief. I am glad to be able to report that four of the twelve banks are to be located here in the grai ,belt. This is eminently fitting, for, while in this field are less than one-fourth of all the farms in the United States, yet herein is produced more than one-half of all the corn, wheat, oats and other crops which, plus the value of live stock sold and slaughtered, reaches the immense annual total of over ten and one-half billion dollars. The four grain-belt cities selected are Omaha, Nebraska; St. Paul, Minnesota; Wichita, Kansas, and St. Louis, Missouri.

The Federal Farm Loan Board has divided the country into twelve districts, as provided by the law, making the divisions as follows:

District No. 1—Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York and New Jersey. Bank at Springfield, Mass.

District No. 2—Pennsylvania, Delaware, Maryland, Virginia, West Virginia and the District of Columbia. Bank at Baltimore, Md.

District No. 3—North Carolina, South Carolina, Georgia and Florida. Bank at Columbia, S. C.

District No. 4—Ohio, Indiana, Kentucky and Tennessee. Bank at Louisville, Ky.

District No. 5—Alabama, Mississippi and Louisiana. Bank at New Orleans, La.

District No. 6—Illinois, Missouri and Arkansas. Bank at St. Louis, Mo.

District No. 7—Michigan, Wisconsin, Minnesota and North Dakota. Bank at St. Paul, Minn.

District No. 8—Iowa, Nebraska, South Dakota and Wyoming. Bank at Omaha, Neb.

District No. 9—Oklahoma, Kansas, Colorado and New Mexico. Bank at Wichita, Kan.

District No. 10—Texas. Bank at Houston, Texas.

District No. 11—California, Nevada, Utah and Arizona. Bank at Berkeley, Calif.

District No. 12—Washington, Oregon, Montana and Idaho. Bank at Spokane, Wash.

Now that the districts have been decided upon and the banks located, the next step is to organize the twelve land banks, each one to have a capital stock of $750,000, or $9,000,000 altogether. The public is to be allowed a certain length of time to subscribe to the stock of these banks (thirty days, I believe) and if it does not respond quickly enough to take up all the stock in this time, the United States government will furnish the rest of the preliminary capital. Farm-loan bonds will then be issued, in denominations as low as $25, bearing probably 4 or 4½ per cent. These will be free from taxation and being in small denominations, bearing good interest and backed by the government, they should be splendid investments, snatched up by the public without delay. This will give working capital for the banks, so that they will not be handicapped by any temporary lack of funds at the beginning of operations. Inasmuch as each farm borrower must subscribe to stock in the bank to the amount of 5 per cent of his loan ($50 for each $1,000 borrowed) the funds will be constantly replenished and the banks will go ahead indefinitely, loaning their money over and over again, mortgages being deposited each time that new bonds, based on these mortgages, are issued.

I am in receipt of private advices which convince me that the system will be in working order by the first of March, when the majority of farm loans are made. The rate of interest is not yet announced definitely, but it cannot be over 6 per cent, and will probably be 5½ per cent to begin with, reductions to be made later on, as the law works out in due course of time.

I am advised that already inquiries have been made to the board indicating desired loans to an amount twenty times in excess of the total capital stock of the twelve banks, or $180,000,000 altogether. I am convinced, from the great number of letters which I have received, that the farmers of the grain belt are intensely interested in the new law and propose to give it a full and fair trial. This is right. The law was passed in the interests of the deserving farmer; it should have such an impartial tryout as will prove its worth and show what its defects are, so that these can be remedied or dispensed with promptly. In the meantime, as I come into possession of other facts, I shall pass them on to you, for I realize that your interest in this subject is great.

COMMON-SENSE HEALTH.

MAKING due allowance for the exaggeration which often characterizes the speech of those who are carried away by a single idea, there still remains much truth in what a noted health evangelist has been preaching the last few weeks. He has been talking to large audiences in Kansas City and has awakened people to the value of the old-fashioned notions of common-sense home treatment and self-denial.

I was quite interested in something this man said recently, directed especially to the farmer, and I am going to take the liberty to quote from him rather liberally. He had given a day's menu for the farmer, making "ground wheat with cream, poached eggs and hot cakes with butter" take prominent place. Then he added:

> The farmer should be the healthiest, best-looking man in the world. He should be straight, supple, strong and vigorous. Statistics and the most casual observation show us he isn't. The reason is that he violates all the rules of health. The basic principles of health are diet, exercise and mental influence. The farmer eats too much and eats the wrong kind of food. Just for example. You'll notice poached eggs on the menu. The farmer always eats his fried. That turns the white of the egg into the most indigestible hunk of solid albumen you could find. It's not only worthless, it's dangerous. You'll notice hot cakes with butter. The farmer—and nearly everyone else—uses sirup. That means fermentation in the stomach. Also, he makes the cakes of white flour or denatured corn meal. Let him have a hand mill and grind his own wheat or corn. That saves the elements the body needs, instead of wasting them. Then there's exercise. The farmer thinks he exercises because he works. He doesn't. Work hardens his muscles and uses up his energies, but it doesn't do what the right kind of exercise does —make the worker supple and keep him young. As for mental attitude, the farmer is all too apt to look on life as nothing but hard work. He needs more fun, more pleasure, more companionship.

I do not want you to dismiss this man's remarks with a smile of contempt or disbelief, for behind his levity and exaggeration there is much truth. Let us ignore the charge that the farmer's life is all work and no play and get down to some of the more important details.

Take that item of "ground wheat with cream" on the menu, to begin with. The Iowa State College of Agriculture has recently issued a special pamphlet dedicated to this laudable end: "More action and less talk to reduce the high cost of living." Prominent in this pamphlet is the story of a young farmer who grinds his own flour; and not only saves money thereby, but finds the health of all his family better as a result. Bread being the old, reliable standby on his table, three times a day, this young farmer reduced his household expenses by returning to the practice of his forefathers and grinding his own flour. He simply hitches his gasoline engine to his feed grinder and the trick is turned. Let me give his experience, in his own words:

> I have winter wheat and a gasoline engine and a feed grinder. Two years ago I ground some wheat as fine as my mill would grind it and used it to make bread. We all liked the change from white to whole-wheat bread and each year since I have ground enough for our family use. The wheat I grind is run through the fanning mill three or four times, polished by being placed in a barrel churn, then fanned again, when it is ready to be ground. We find this flour very satisfactory for bread making. The bread is not as light as if made with white flour, but it is much more nutritious. It is also cheaper, since sixty pounds of wheat make sixty pounds of flour, at a cost of $1.70, while forty-eight pounds of white flour cost us $3. Moreover, the whole-wheat flour goes further in bread making than white flour, as it does not require as much flour to thicken the sponge.

Why do not more farmers pattern after the example set by this young farmer and set their fanning mills, their barrel churns and their feed grinders to converting their wheat into flour, incidentally giving them the ground wheat recommended on the bill of fare by the health evangelist I have just quoted?

When we can save money, conserve our health and make a meal more tempting and palatable, should we not abandon some of our wrong ideas of living and return to the simplicity and the healthfulness of the days of our forefathers? What with "hominy and samp" and home-ground flour, are we not in a fair way to furnish our body the food it demands and reduce the high cost of living so that we shall all be stronger and our bank accounts larger? I am not an expert on health matters, but I do know what seems to be common sense when I hear it preached and recited.

James M. Pierce

THE WISCONSIN FARMER

WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Renew Promptly.

Now that the new year is fairly launched, we wish to repeat our suggestion that all readers whose subscriptions expire in the near future, lose no time in sending us their renewal so as not to miss a single issue of The Wisconsin Farmer for 1917. Those who adopt our suggestion will find that there is no delay whatever in extending their subscription upon our books, but those who delay until the busy season is at its height (which will be within a few weeks now) may find themselves missing an issue because of their tardiness. We have extensive plans already well-nigh perfected to make The Wisconsin Farmer more interesting and entertaining and of greater practical value in 1917 than in any previous year, and we sincerely trust that every one of our present large circulation family will remain with us throughout the entire year.

We wish to urge once more that those whose subscriptions expire attend to the renewal promptly. But this is not all. We hope all of our readers will take the time and trouble to ask their friends and neighbors if they are readers of this paper and, if they are not, induce them to send in their subscriptions also. By this cooperation between publisher, editor and subscribers we shall be able to carry out all our plans and leave nothing undone to make The Wisconsin Farmer stand without a peer among the practical and dependable farm weeklies of the country.

Send in your renewal promptly and ask your friends and neighbors if they are subscribers to The Wisconsin Farmer. If they are not, take their orders or see to it that they send them in direct.

Encourage the Wisconsin Boy Farmer.

More than 25,000 boys and girls in Wisconsin are interested in some branch of boys' and girls' club work. Some are raising a pig, others feeding a calf or tending a plot of ground. An address delivered by Mr. J. G. Poynton, of Fort Atkinson, at the dairymen's convention on the "Boy Farmer" causes us to wonder how many fathers and mothers had their heart and soul in the boys' and girls' work. Mr. Poynton's plea was to make the boy the partner of father. The same should hold true as it affects the daughter and we wish to quote briefly from Mr. Poynton's address:

The boy is father to the man. The dairy farm boy of today should be the dairy farmer of tomorrow. Therefore, his education and training at home should be such as will interest him in the dairy farm and give him practical training in dairying while he is yet a boy. There is no better way to do this than for the father to help him get started in business in a small way for himself. The desire to own something and to be a business man like father is inherent in most boys and the wise, dairy farmer father will build upon these foundation stones. A good dairy calf or other farm animal will satisfy the first desire and the right kind of help and encouragement will help the boy satisfy the second for himself. That such a plan can be made successful has been and is being proved repeatedly. Farm boys in various sections of the country today have small paying business of their own built up from a calf or pig or a plot of ground.

The danger in this work is that the father will not play fair with the boy. He may let him have the calf or pig, but later after the youngster has developed it into a first-class animal, he perhaps takes it back, sells it, and pockets the money. This is manifestly unfair to the boy and certainly does not tend to interest him in the farm or the dairy business. "Boy's calf—father's cow" will educate the boy away from the farm.

This plan, as outlined, applies to individual effort on the individual farm. It is the spirit that every father should have. Every boy should desire, while still in his knee pants, to undertake something on his own account. Experience is a valuable teacher—it might as well come while the boy is young that he may profit by it.

The thought occurs to us that this same spirit of partnership should prevail between every one of the 25,000 boys and girls in the young folks' club work and their parents. The club contests start them to doing something—the fathers and mothers should encourage them to continue. If the son is feeding a calf in some club contest let him have the calf. If a pig give him the pig. If he grows an acre of corn give him what he produces. In other words, put him into business; make him a partner and there will be provided then a greater incentive than a prize for which he may strive.

Cannot Make Pure Breds Out of Grades.

There is an interesting principle in animal-breeding operations which involves the question of whether it is possible by continually using pure-bred sires to eventually bring a grade herd to a point, so that the progeny can be regarded as pure bred, or, in other words, so that they will become eligible for registration. A case in point comes from one of our readers, who sends the following communication:

My principal hobby has been hog raising. What I want to find out is this. As I stated before I started fourteen years ago with some of the best Poland China grade sows that I could find. Since that time I have always bred to pure-bred boars which were always big, strong, heavy-boned pigs, sometimes buying at the state fairs and sometimes at county fairs. Now the question, are my hogs pure breds? Some people tell me they are.

I sell male pigs and brood sows every year and never have enough to go around. Of course, understand, I never sell pure breds. When asked what they are I always tell them the course I have been following. I have just sold twelve male pigs that came from the 16th of April to the 22d of May last, averaging less than seven months at $25 per head and weighing from 230 to 250 pounds, and have sold a good many young sows with pig at eleven months old and less, weighing 400 pounds and over each.

I raise from 100 to 125 each year. On August 20th last I sold the young boar that I used last year at the age of sixteen months and eight days old that weighed 510 pounds.

I am using a boar this year that came the 12th of last February and weighs at present 360 pounds.

Please let me know through the columns of The Wisconsin Farmer if I have pure-bred hogs or if I would ever have by using pure-bred males, having started with grade sows.

These hogs are not pure breds and never could be, no matter how many generations of pure-bred sires are used in the future on this foundation stock. No animal can be regarded as a pure bred that is not eligible for registration in one of the legally recognized registry associations. For all practical purposes from the standpoint of pork production this subscriber's hogs would compare favorably with pure breds, because it seems that special pains have been taken to use extra good sires generation after generation. On the other hand, the registry association requires that all animals recorded must come from recorded sires and dams and, this being the case, it becomes apparent at once that it would be impossible to reach a point by using pure-bred sires alone on grade stock that would make the progeny eligible for registration.

There is no question in our mind but what this is a case where a few pure-bred sows should be purchased and in due time it would result in having a fine pure-bred herd, and the animals could be sold at much higher prices than those mentioned by this subscriber. A pair of good pure-bred sows would answer every purpose to start with and from this beginning a full herd would soon result.

Food Production and Supply.

The relation of food production to the increase in population in the United States is a matter which was given some attention at the recent annual convention of the American Society of Equity at Wausau, Wisconsin. The Organized Farmer, the official organ of this society, publishes some very interesting statistics along this line. In June, 1900, the population of the United States was 75,994,575. According to the government census of 1899 there was in this country 18,865,000,000 pounds of beef, veal, mutton and pork, or 248.2 pounds per capita, based on the population statistics above referred to. The population of the United States in 1916 had increased to 101,882,479. The pounds of meat had increased to 22,378,000,000 in 1915, according to the latest available figures. The per capita loss of beef, veal, mutton and pork had decreased from 248.2 pounds to 219.6 pounds. If we take into consideration the inevitable law of supply and demand it would seem very reasonable that these meat products would be increased in value.

A similar condition exists in the relation of dairy products to population. In 1899 there was produced in this country 7,265,804,304 gallons of milk, or 95.6 gallons per capita. Ten years later, in 1909, there was produced 7,466,406,384 gallons, or 81 gallons per capita a loss of 14.6 gallons per capita in ten years. The production of milk in 1915 (estimated and based upon average annual increase) was 7,696,844,000, or 75.5 gallons per capita, a decrease of 20.1 gallons per capita in twenty years. In 1899 this country produced 1,790,097,214 pounds of butter and cheese, an average of 23.6 pounds per capita. Ten years later the production of butter and cheese was 1,942,378,069, or 21.1 pounds per capita, a loss of 2.5 pounds per capita. There are no available figures on the production of butter and cheese in 1915.

The items above referred to are those of greatest interest in Wisconsin. It is interesting to recount some other important items in the food supply of the nation and this may be done by ascertaining the per capita relationship of production to population without going over the dizzy mass of figures necessary to state the actual production.

In poultry we seem to be keeping up pretty well with the increased population. In 1909 the poultry produced averaged 5.3 per capita and in 1915, 5.5. In 1899 the egg production was 17 dozen per capita; in 1909, 17.3 dozen per capita and in 1915 (estimated) 17.8 dozen per capita.

In the matter of cereals the country produced 43.9 bushels of corn, wheat and rice per capita in 1899 and only 40.2 bushels per capita in 1915. In potatoes we produced 3.6 bushels per capita in 1899 and 3.5 bushels per capita in 1915; sweet potatoes, .56 bushels in 1899 and .73 bushels in 1915. In orange, lemon and grapefruit the production was .093 boxes per capita in 1899 and .272 boxes per capita in 1915. In apples, peaches and pears the production was 2.6 boxes in 1899 and 3 boxes per capita in 1915. In 1899 6.1 quarts of small fruit were produced per capita and in 1909 only 4.6 quarts.

As effecting Wisconsin and surrounding states of the grain belt there is an increased demand and a diminishing supply of the more important products, such as meats, dairy products and cereals. These figures will furnish us with some basis for estimating the importance of other farm products and the probabilities of their remaining at good prices in the years to come.

Remarkable Gains on Hogs.

Some stockmen have the elements of success in their make-up, while others, try as they will, meet failure half way. The situation would be altogether discouraging if shining examples of success could not be given, and at this time we desire to relate the experience of a subscriber whose modesty is responsible for the request that we withhold his name.

This subscriber purchased nine hard-looking, runty fall pigs last April. They were about six months old and the nine weighed 600 pounds, which is ample proof that their growth had been stunted for lack of feed and care. They were not only small and hard looking but their forlorn appearance, according to this subscriber, suggested that they were not in the best of health. The tails of these pigs were not curled in pride over their backs, as should have been the case, but pointed straight to the ground, the position in this respect being in harmony with the way the pigs looked and felt. They were a dejected lot. Life was an uphill road for them and there was no profit forthcoming from the bunch, as the owner thought. A neighbor, our subscriber, was short on pigs and long on courage so he bought these pigs for $27.

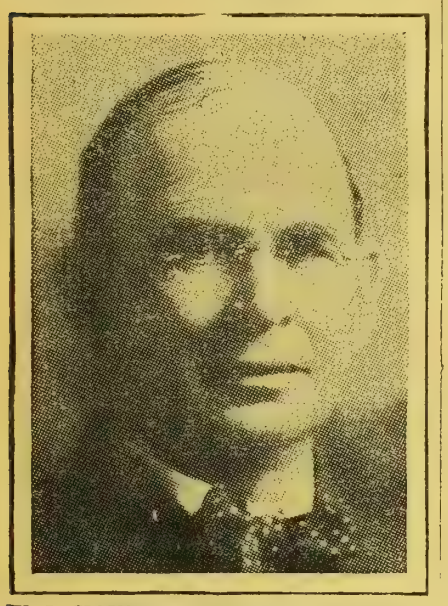
The purchaser was short on grain, but he had five good cows and was selling the butter fat from these cows

so that he had an ample supply of good skim milk. With this product, together with 150 pounds of middlings and eight bushels of oats, he carried these nine pigs through the summer up until the 1916 corn crop was ready to feed. For a period of three or four weeks they had access to a pasture of rape and oats, but during the balance of the time the grazing was rather slim. Beginning about the middle of September they were started on corn and they had access to all the tankage that they would eat, this being supplied in a self-feeder.

We come now to the third and final chapter in the career of these shoats. On November 18th they were sold for $9.15 per 100 pounds and they tipped the beam at 3,000 pounds, or an average of 333 pounds each. The gross selling price of one pig paid for the original nine and, while no record was kept of the corn consumed, every practical swine breeder will see at a glance that these pigs paid a handsome profit even though they were fed high-priced grain. The incident shows the possibilities of realizing profit in pork production when there is plenty of good common sense rationally mixed with the right kind of food and fed in the proper manner.

Interesting Wisconsin Farmers in Beef.

The recent baby beef contest conducted under the auspices of the Wisconsin Live Stock Breeders' Association and the International Live Stock



W. L. HOUSER, MONDOVI, WIS., CONDUCTOR OF BEEF INSTITUTES.

Exposition at Chicago, have each served to arouse interest in great beef production in this state. Wisconsin has about 1,750,000 dairy cows and about 1,250,000 head of beef cattle, so it may be seen that the beef industry has not been entirely neglected. But there is great room for advancement both in number of beef animals and in quality of beef animals. In fact, if every one of the beef animals we now have were a first-class animal, well bred and well fed, Wisconsin would be a good deal higher in the scale of beef-producing states than she is.

To further stimulate interest in better beef, as well as more of it, a series of special beef institutes have been arranged under the auspices of the Wisconsin Live Stock Breeders' Association, the Hereford, Aberdeen Angus, Short-horn and Red Polled state breed associations and the department of farmers' institutes. According to the schedule sent out, the first meeting was to have been held in New Richmond, the home of the new farmers' packing plant, this week, and the dates announced for other meetings are as follows:

January 5th, Ellsworth, Pierce county; January 9th, Alma, Buffalo county; January 11th, Bangor, La Crosse county; January 16th, La Farge, Vernon county; January 18th, Viola or Yuba City, Richland county; January 23d, Lodi, Columbia county; January 25th, North Freedom, Sauk county; January 30th, Dodgeville, Iowa county; February 2d, Mineral Point, Iowa county; February 13th, Lancaster, Grant county; February 15th, Bloomington, Grant county; February 20th, Livingston, Grant county; February 22d, Darlington, La Fayette county; February 27th, La Grange, Walworth county; March 1st, Lake Geneva, Walworth county; March 6th, Evansville, Rock county; March 8th, Avalon, Rock county; March 13th Cambia, Columbia county; March 15th, Fox Lake, Dodge county.

These institutes will be conducted by Mr. W. L. Houser, a well-known stockman of Mondovi, Wisconsin, who has had experience raising beef and horses. The Wisconsin Farmer urges every reader who can to attend these beef institutes.

While we have some of the foremost breeders of the nation in Wisconsin, there is not the general interest in good beef raising that there should be. We have had a good corn year throughout the state, and it has been demonstrated that corn can be raised in paying quantities every year as far north as the central portion of the state, provided care is taken as to the selection of varieties. Corn is even being raised to good advantage in Upper Wisconsin, and some of our northern counties have been making the southern counties look small when it came to yields per acre.

It is an entirely mistaken notion that the great grass crop of Wisconsin can be turned into profit only through the agency of the dairy cow. We would not depreciate the value of the dairy cow, nor her possibilities in the way of profits, but it is a well-known fact that not every farmer is adapted to dairying. Some do better with hogs and some do best with beef cattle, and The Wisconsin Farmer wishes to encourage the beef cattle industry, especially in the southern and southwestern counties. Wisconsin grass-fed cattle have commanded good prices at the Chicago and St. Paul stockyards for years.

Work of Cow-Testing Association

What It Means to Organize the Work—By Noel Negley, of Wisconsin Dairy Association, in Address at Tower Hill, Wis.

EVERY dairyman should be interested in the cow-testing association, for it is a movement that touches his pocketbook, a proposition that makes more money for the man who milks. Progress and then success spring from dissatisfaction with present conditions. The fifty-three active cow-testing associations in Wisconsin are made up of dissatisfied men. A year ago Mr. E. O. Frihart, of Waupaca, was dissatisfied. He was milking eleven cows and getting a monthly cream check of $35. He joined the Waupaca and Butternut Ridge Association and by weeding out the robber cows and replacing them with good cows, by giving the herd better feed and care has increased his monthly cream check from ten cows to $110 per month, one cow less to milk and a cream check three times as large. One thousand five hundred men, now members of Wisconsin cow-testing associations, could tell somewhat similar experiences of the benefits the cow-testing associations have been to them.

A cow-testing association is simply a group of twenty-five or thirty dairymen who unite in hiring a man to weigh and test the milk of each cow in their herds, to keep the production and feed records and to do what else he can to promote the interests of the members. The movement is neither old or new, yet it is old enough to have proved its worth in making dairying more interesting and profitable, but so new that your community is not getting the benefits of one.

During the past fifteen years the price of feed has increased about 50 per cent, while the price of dairy products has increased only about 30 per cent. Labor and land values have also risen, making it necessary to lower the cost of production in order to make a profit in the business. The low producing or "robber" cow is undoubtedly the greatest factor in increasing the cost of production. To detect these "robber" cows is then the first duty of the cow-testing association. "The poor ye have with ye always" is true of cows, as it is of people, unless we detect and dispose of them. If we do not dispose of these poor cows we become poor like they, and the more we have the poorer we get. The Stanley association sold 101 poor cows or one-fourth of the cows in the association before the year closed. Welcome association sold twenty-eight unprofitable cows the first year and ninety-two the second year. Antigo association sold fifty-four "boarder" cows before the end of the year. The Sheboygan association, in one of the best dairy sections of the state, found eighty-nine out of the 480 cows to be unprofitable and sold them during the year. If this be true in sections where men are recognized as competent breeders and care takers I believe I am safe in saying that Wisconsin, with her 1,700,000 dairy cows, is feeding, milking and caring for a half million of them for the fun of it. Last year records of 19,000 cows were kept and about 4,000, or more than one-fifth the number under test, were sold as unprofitable. The time is past in Wisconsin when a man claims that he can tell by looking at or even by milking her how much milk or fat a cow will give in a year. The Babcock test, the milk scale, and the yearly record are the only reliable judges of cow ability to convert feed into fat, and the cow-testing association seems the best way to use these means, for it insures the work being done accurately, promptly, impartially and economically.

While the cow-testing association is locating the unprofitable cow, it is also locating the profitable cow—the cow that will return $1.50 to $3 worth of dairy products for every $1 worth of feed. To know what each cow produces during the month and the cost of the production stimulates interest in the cows as individuals and causes the whole family, and the hired man, too, to take new interest in the dairy business.

The cow-testing association renders also an important service in breeding. The best way to get a high-producing herd is to raise it, for no other dairyman is anxious to sell you his best cows or heifers from his best cows. "Like produces like" is our safest maxim in breeding and we must then know what kind of a sire we have and what kind of cows we breed him to. It is known that under Wisconsin conditions the total net cost of raising a calf to two years of age is over $60. We cannot afford to spend this amount of time and money to raise an unknown quantity. The "sire is half the herd" and usually is a pure bred and costs a big price, yet we seldom know much more about him. Too often his real ability is indeed scrubby. The cow-testing association tests the bull, too. The records of the daughters compared with their dams give his true value, and if he is a good one he can be kept in the association and render valuable service for many years.

Wisconsin cow-testing associations are also saving their members hundreds of dollars in feed bills and yet getting greater returns in milk. Before feed and milk records are kept many of the dairymen are feeding all of the cows the same regardless of production, usually overfeeding the low-producing cow and underfeeding the high producer. When the milk and feed are weighed daily, or weekly, or even monthly, he becomes interested in the individual cow and feeds her according to her ability to pay for it. Many dairymen know that they pay $24 per ton for bran, but they do not know if they are getting $18 or $40 per ton for it when they sell it to the herd. From the cow-testing association record you can know each month the cost of producing one pound of fat, 100 pounds of milk and the returns for $1 expended for feed for each cow in your herd.

Many of the associations are also co-operating in the purchase and sale of cattle, the purchase of feed and other necessities about the farm. In most cases in purchasing feed the members give the local dealer a small commission for handling the order, the members usually paying cash and taking the feed direct from the car soon after its arrival.

The cost of running such an association is merely the cost of hiring the tester to do the work and to furnish him with the necessary outfit and supplies. This cost will vary depending on the wages paid the tester and the number of cows in the association. The usual cost is $1.25 per cow per year when 500 cows can be obtained among the membership. Since the tester spends a day at each place once a month, there are usually only twenty-six members. However, if the herds are small and so situated that the tester could handle two herds in one day the membership can be increased. In addition to the charge per cow most associations assess a 50-cent membership fee to pay for the testing machine and to meet incidental expenses of the association. Desiring to further this work, the Wisconsin Dairymen's Association, the United States Department of Agriculture and the University of Wisconsin furnish the herd record book to each member and the other blanks and books needed by the tester and will give the association as much assistance as possible in its organization and supervision. The officers of the association consist of the president, secretary, treasurer and a board of directors consisting of three other members together with the three officers mentioned. All fees are paid to the treasurer quarterly in advance that he may pay the tester his monthly wage at the end of each month.

Backing Up the Cow.

To the Editor:—No matter how good a cow we may have we need to back her up well or she will fail.

Turn the best cow in the world into a pasture where the grass is thin and poor all the time and it may be set down as a fact that her milk will not come up to the mark it might were she well pastured. Thousands of cows are thus hampered and prevented from doing their best. That is why on our farm we have for a long time been bending every effort toward clearing up the pastures of brush and weeds. Naturally the land is strong and runs to brush. It was once a forest evidently, although that was before we came on it. After it was cleared of the heavy timber great numbers of shoots grew up and so shaded the earth that what grass did grow there was scant and not very good. But as soon as the brush and stuff were cut off we got fine grass. I have often wondered where the sweet clover seed came from that followed this clearing. No seed ever was sowed there that I know of. Still, there it is, rank, sweet and juicy. The stock like it immensely and it makes milk that is rich as gold. Every acre we clear makes it possible for us to keep one cow more, and it is the one cow more that brings success.

Then, too, we can back our cows up by supplying them with better water. Much of the water of the pastures of this country is below par. A great deal of it is warm and unpalatable in the summertime. Low, swampy places do not afford the best water. On farms where there are no springs it pays well to put down drilled wells. We did that and never were sorry for it. Many years when other wells in the neighborhood were dry and the farmer folks out of water we have had a plenty and been able to help out our friends in their time of trouble. When the well is low an engine does the pumping for us.

The good cow needs the added backing of good feed, well prepared and fed with intelligence. We have been slow to learn this. A good many have not yet mastered the art of feeding. Few farmers that I know have anything like a well-planned method of balancing and dealing out a cow's ration. The bill of fare in most cases is one-sided and aside from the purpose for which it was intended. Even the hogs are fed more systematically and effectively than are the cows.

We are in a hurry, night is coming on, the chores will be a bit late. So the cows are chased up from the pastures on the run and milked when hot and uncomfortable. A small matter, do we say? It is a big matter in the course of the year. No such detail of dairy farming can safely be passed by lightly. Everything counts.

It is worth while to second the efforts of our cows to do their best. In fact, we must do it or we will sooner or later go down before the hot blast of latter-day competition. Far more often than we know the reason why men drop out and give up dairying is not that the cows and the farm are not all right; the man himself is at fault, and a little good thinking would have prevented all this difficulty.

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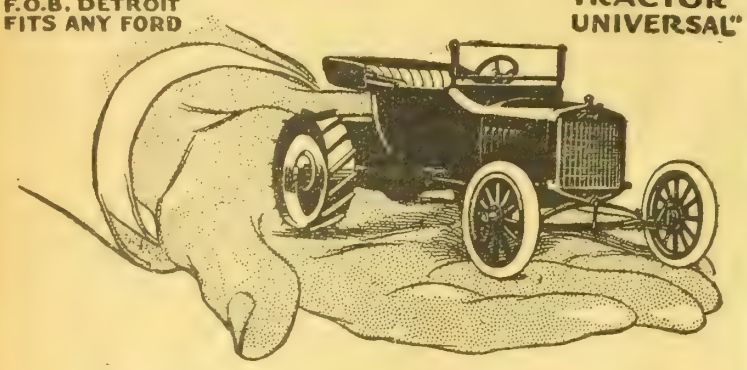

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Swine Week an Important Event.

(Continued from page 1.)

Wis., in the chair, will be discussed.

Henry Michels, of Malone, will be chairman in charge of the annual meeting and program of the State Agricultural Experiment Association, Thursday, February 8th.

On Friday, February 9th, will occur the Wisconsin conference with especial attention to better rural schools. C. J. Galpin will preside. This day is to be known as Dairy Cattle day, and a considerable portion of the program will be in charge of the Wisconsin State Dairymen's Association, with N. Michels as chairman. Addresses will be delivered by five well-known dairy authorities.

Grouped about the program of the "main show" will be several group sections and special courses, given by departments of the college of agriculture. These will include a course for dairy manufacturers at the dairy school, a school in gas engine and tractor operation, given by the agricultural engineering staff, a course for farm fruit growers, a conference of cow testers, and the interesting state high school stock judging contest with more than twenty-five three-man teams in the ring.

During the early morning hours of each day separate class room sections on side lines of farming will be discussed and demonstrated. These include tile drainage, soil management, poultry raising, orchard management, the farm-loan act in all its phases, feeds and fertilizers, co-operation in marketing and other things, tuberculin testing, care and use of farm separators, relation of landlord and farm tenant, hog cholera prevention and a number of other miscellaneous items of great value.

Evening assemblies will be an added attraction of the big week, as usual. The speakers who will talk at these sessions have not all been decided upon, but the present list includes Dr. A. S. Alexander, department of horse breeding, University of Wisconsin; Prof. W. M. Hayes, formerly assistant secretary United States Department of Agriculture; M. D. Munn, president National Dairy Council.

How This Hobo Idea May Save Time.

To the Editor:—The average live farmer is always on the lookout for new ideas that make for efficiency. This is why the social farmer has the advantage, because the other fellow usually has some ideas that he can appropriate.

This is about an idea that originated with a hobo and was appropriated by a senator-farmer, who thought it was the best he had ever seen.

"For years," said the farmer-politician, I had always backed my team out of the hay barn, each horse singly. The ordinary hay barn on the farm is given over mostly to mows with a narrow drive between them for the load to come in. When the wagon is in the barn it is necessary to separate the team and lead each horse out one at a time. This had always been my plan and it had never occurred to me that there was any better way of doing the stunt. In fact I had never thought of any different plan because, I suppose, I had learned to do it this way.

"One day I hired a hobo to help me remove a crop of hay from a field into the barn. The approach of the barn floor is elevated and this day the hobo was driving the team. We had driven a load into the barn and I was in the mow helping to distribute the hay around. After the last fork had come up and I had scarcely turned around and looked down the "bo" had the team unhooked from the wagon and standing in the rear waiting to push the wagon back. The apparent speed of the transaction surprised me and I thought I would watch him next time.

"Instead of doing it as I had, and the only way I thought it could be done, he simply unhooked the traces, backed the right hand horse to the right of the wagon and made the other horse follow out head foremost. Of course, he had to take them by the bits when he did it, but the whole thing was so ludicrously simple that it amused me and forced the thought upon me that all the glittering ideas in the world don't necessarily have to spring from respectable sources.

"The single file, nose-to-nose plan had mine beat a mile and will no doubt be of value to me in future haying operations." The senator who told me this little tale the other day thought it was good enough to tell other farmers and asked me to write it out. He thinks for doing things with ease the hobo has it on the rest of the world by several laps.

W. E. Wood.

Patrons of the Barron Creamery received some good-sized checks for use about Christmas time. There were seventeen who received over $100 each for butter fat sold in November. The price per pound for butter fat was 42 cents.

Want to buy or sell a farm? Make it known by inserting an advertisement in THE FARMERS' MARKET. Six cents a word each insertion.

E-B Farm Tractor

Model L—12-20 Horse Power

A four-cylinder, 2-speed, light-weight tractor of great power, suitable for any size farm. Will pull the implements you now have on your farm—gang plows, harrows, mowers, binders, manure spreaders, road drags or graders. Will also operate your ensilage cutter, feed grinder, circular saw, etc. Does more work than horses—costs less and is so simple anyone can run it.

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We have a wonderful new system of teaching note music by mail. To first pupils in each locality, we will give a $20 superb Violin, Mandolin, Ukulele, Guitar or Cornet absolutely free. Very small charge for lessons only expense. We guarantee to make you a player or no charge. Complete outfit free. Write at once — no obligation.

SLINGERLAND SCHOOL OF MUSIC, Dept 95, Chicago, Ill.

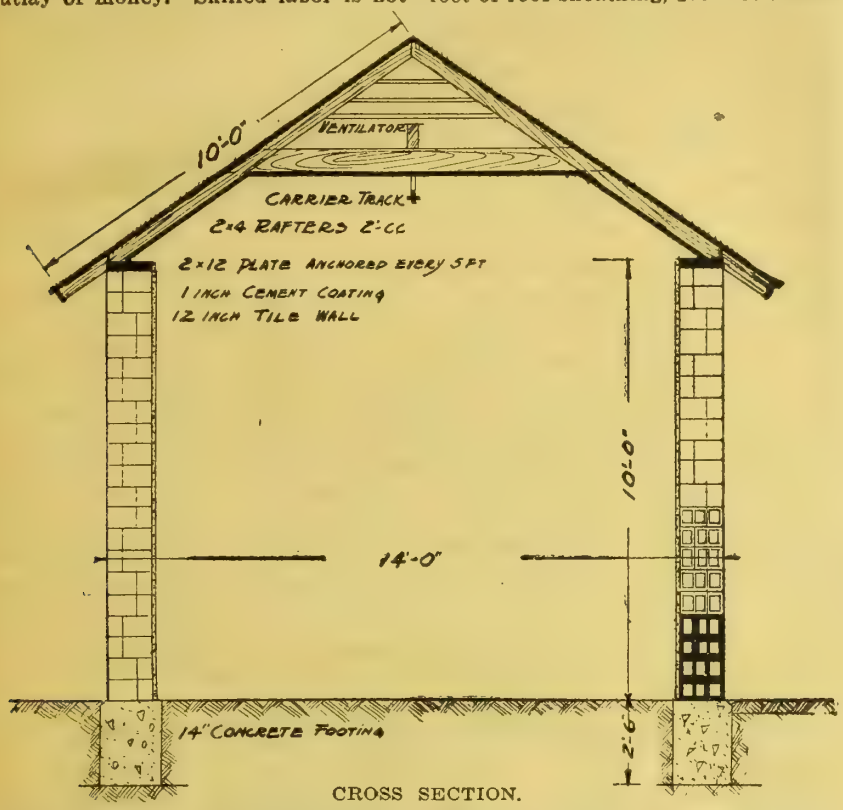
A Tile Ice House For the Farm.

Ice Is No Longer Regarded as a Luxury But Rather a Necessity From Standpoint of Health.

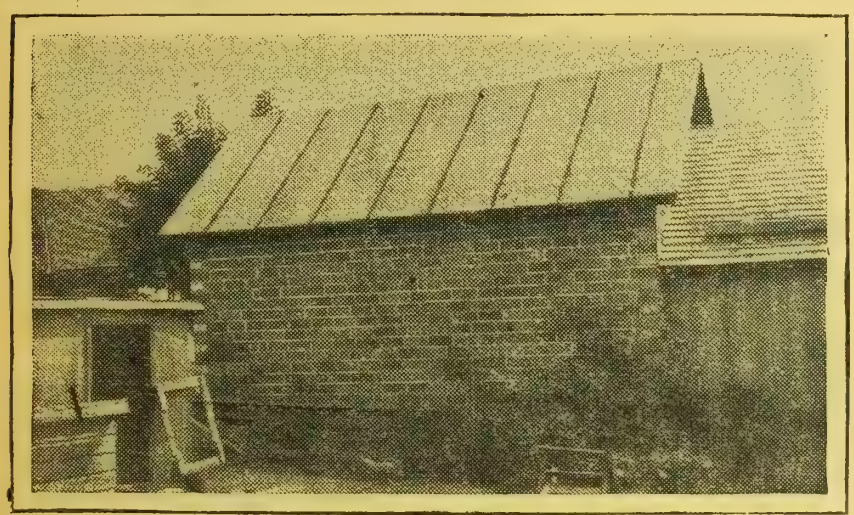
THOSE farmers who were thoughtful enough last winter to look ahead and store up a supply of ice surely enjoyed the fruits of their labor the past summer. On the farm ice is a necessity and also a luxury. Ice is used for a large number of purposes. It deserves a place on every corn-belt farm. Ice houses can be built with but a small outlay of money. Skilled labor is not necessary for the construction if care is used. In most every section there will be found running water that can be dammed up into a small ice pond. It is common for three or four farmers to get together in the ice harvesting business.

The ice house that is shown here is made of hollow clay tile, making a wall that is twelve inches thick. It stores ice with but little loss during the summer months. Its size is fourteen feet and capacity is about fifty tons. In many sections the materials as are listed here can be had for $139. It has a dirt floor and the footings for the tile walls are of concrete fourteen inches thick made of a 1:3:5 mixture of cement, sand and gravel. The tile walls are laid up in a lime and cement mortar true and in perfect line and the wood sill at the top will be bolted to the wall every five feet.

This makes a solid connection between the tile walls and the frame roof. The rafters are two feet center to center and are spiked firmly to the plate. Set them at one-third pitch and place a cross tie on every set of rafters so as to form a support for the carrier track. The gable ends of the ice house shown here are of frame. The rafters are covered with a shiplap sheathing lumber laid tight and with smooth joints so as to make a firm and solid foundation for the three-ply prepared asphalt and felt roofing material. Build ventilators in the gable ends so as to allow the moisture-laden air to pass out. The material list follows: Ten barrels cement, 650 hollow tile blocks, two pieces 2x12 fourteen-foot plates, two pieces 2x12 twenty-foot plates, twenty-two pieces 2x4 ten-foot rafters, ten pieces 2x4 eight-foot cross ties, two pieces 2x12 ten-foot door frame, 530 feet of roof sheathing, 100 feet six-inch flooring lumber for doors and gable, four and one-half squares of three-ply roofing. At one end of the house is the door which runs from the ground up to the plate. Build this door in sections and make it double thick with building paper in between the layers of lumber. Cut some short lengths of planks or leaves that can be set in back of the door so that the ice and the sawdust filler will not crowd in against the doors.



CROSS SECTION.



THE TILE ICE HOUSE MAKES A GOOD APPEARANCE.

Central Wisconsin Cheesemakers.

The Central Wisconsin Cheesemakers and Buttermakers' Advancement Association met recently at Thorpe. There were thirty-one cheese exhibits and two exhibits of butter scored. Ten of the exhibits scored over 93. It is proposed to try to get the next state cheesemakers' convention for Marshfield.

Bonus For Sugar Beet Growers.

Sugar beet growers of Marinette county and vicinity received a bonus of over $2,000 when the sugar factory announced a bonus of 50 cents per ton on all beets delivered to the factory during the past season. The contract price is $6 per ton and the company has agreed to distribute another bonus next year in case the wholesale price on sugar is as high as $6 per 100 pounds. Farmers in the vicinity of Loomis, Marinette county, purchased twenty-three carloads of beets in 1916. The growers in this vicinity did not purchase a carload five years ago.

Used Paris Green For Bugs.

To the Editor:—My potatoes were planted May 31, 1916. They were planted in old ground which was manured in the spring and the manure was plowed under. We went over them with a smoothing harrow when they were just coming up. They were hoed twice and cultivated four times, being hilled a little each time. They were Paris greened two different times in the morning when the bugs were small.

They were dug by hand on the 25th day of September and laid in the sun for an hour. Then they were picked up. One and one-half bushels were taken to the county fair.

G. M. Householder, our county agent, received those which were at the fair. Elizabeth Guns.
Rusk Co., Wisconsin.

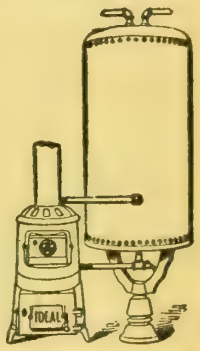
Don't wait to put in IDEAL heating!

It is a mistaken idea to think that you have to wait until warm weather to put in an IDEAL Boiler and AMERICAN Radiator outfit.

An IDEAL Boiler and AMERICAN Radiators can be put in your building just as quickly and easily in January as in August. The AMERICAN Radiators come all assembled for placing in the rooms; the IDEAL Boiler sections are easily carried in and made up into a complete boiler in basement or sideroom. The piping connecting the IDEAL Boiler with AMERICAN Radiators is readily run up through corners of the rooms, closets or out-of-the-way places, and the outfit may be completed in a few days to your utmost satisfaction. You will then notice the striking contrast between the chills and cold of old, wasteful methods, and the sure, economical heat aplenty from the IDEAL-AMERICAN outfit, making you glow all over with satisfaction.

AMERICAN RADIATORS & IDEAL BOILERS

A No. 4-19-W IDEAL Boiler and 270 ft. of 38-in. AMERICAN Radiators, costing the owner $200, were used to heat this farm house. At this price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which vary according to climatic and other conditions.



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HERCULES MFG. CO. 159 25th St. Centerville, Iowa

From Iowa

Fruits and Garden

Two-Dollar Potatoes.

With potatoes retailing at 50 cents a peck, they become a luxury to many people. And that there should be an actual shortage in many sections, and this is one of the very best farming countries in the world, makes one thoughtful.

The potato is a staple food product and ought to be produced in abundance. Unfortunately it is perishable and cannot, like wheat and corn, be kept from year to year. But even with this disadvantage, if proper attention were given to this crop, we need never have a shortage. This writer has never yet seen a season in which either the early-planted, or the late-planted did not give a satisfactory yield. Sometimes both late and early-planted give good crops, but that is exceptional. Some seasons being favorable for one and some for the other makes the venture of potato growing something of a gamble.

There are several causes leading up to such a shortage as we have in evidence now. First: Comparatively few farmers in our rich prairie sections are potato growers. They specialize in corn and cattle, and only now and then do we find a man who grows potatoes as a main crop. In other words, there is not enough attention given to this crop—not enough effort is made to tide us over bad seasons. And second: Not care enough is taken in selecting good seed and choosing proper varieties to secure the best possible yield in unfavorable seasons.

In the first case doubtless more farmers would plant spuds if they were convinced that there was money in it. They have had some experience in growing more of this crop than they could sell, and have decided to let it severely alone. This is going too far. Following the general principle of diversity of crop, it would prove wiser, in the long run, to keep the potato in the rotation. There might occasionally be a surplus, but even that need not be lost, for the potato has a positive feeding value for stock.

And then when the shortage comes, as in this season, the successful grower may recoup his possible losses in several seasons of overproduction. The words, "successful grower," are used purposely, for even in this difficult year, and right in sections where we say the crop failed, there is now and then a farmer who has grown a very fair crop. How did he do it? Why, by attention to details and by not having his eggs all in one basket.

It happened that in 1916 the very early planted, with best treatment following, gave a good yield. This reversed the experience of two years ago, when in many places the earlies failed and the lates yielded a full crop. It is a question of heat and moisture and the time at which they come. As no one can foresee this, the wise farmer will divide his venture, using half his space for the early crop and half for the late.

The ground for early potatoes should be plowed in the fall. It should be rich, but high, well-drained land. Then plant just as soon as the frost is out. Encourage a strong, rapid growth by constant culture and weeding. The late crop may be planted any time in June. Some would strongly recommend the first half of the month. And, of course, the same thorough culture should be given as for the earlies.

If this course is persistently followed there will not be many years without a fair supply of spuds. And famine prices will never come. The same wise care should be given to selecting the tubers for seed as is now given in selecting seed corn. The time to do this is when the potatoes are dug. Select the best yielding hills and the best specimens from those hills and then your crop will tend to get better each year instead of worse.

If farmers generally, even in the black soil belt, will follow the plans outlined above we will never have again such a shortage as now prevails.

Grading of Rutabagas.

Mr. H. J. Thompson, superintendent Northeast Experiment Station at Duluth, suggests the grading of rutabagas, the poor grades to receive a mark with the choicer grades. If possible, these poor grades should be marketed late in the winter when the market usually advances. An inquiry was addressed to Mr. Thompson asking whether roots or grain would be fed.

One pound of grain is usually regarded as equivalent to from four to nine pounds of roots. This comparison, however, Mr. Thompson says, ignores the succulence of the roots so essential to the health and productivity of animals. Likewise, in the northern country it leaves out of consideration the cost of exchange, that is, of hauling the roots to the market and of hauling the grain back. Moreover, the yield of rutabagas last fall ranged from two to four tons.

Therefore, even with rutabagas at from $17 to $25 a ton, Mr. Thompson feels that the plan should be considered.

As a general result of the year's work at the northeast station, Mr. Thompson recommends a good acreage of hay and roots annually on every timberland farm.

Pruning Trees in Winter.

Mr. W. G. Brierely, of the division of horticulture at the university farm, St. Paul, advises fruit growers that they need not wait until spring to prune their trees. Results at the university farm show little or no difference in the growth or maturity of the wood where pruning has been done any time between November and May. Mr. Brierely advises care in cutting close to the main trunk or branches so that no stubs will be left to die or decay. The covering of the wounds with white lead, oil paint or with common grafting wax, warmed to the consistency of cold molasses, will give added protection.

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The World's Best Evergreens—thousands of my customers will tell you so. Four times root pruned and transplanted trees that will grow right from start. Hardy—vigorous—healthy—every tree perfect. Sold under my "Safety First" plan—contract guarantee backed up by $25,000 Bond makes you SAFE.

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Turn The Granary Into A Model Elevator
Save Labor and Money
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into a model elevator at a slight cost for best results. Get our plans FREE; remember, NO CHARGE. We are glad to aid you. Also complete plans for new modern elevator suitable for a small farm free for asking. Take advantage of this.

Takes Out Every Wild Oat

Take Out Every Wild Oat—
No Matter How Badly Mixed—With

Owens Grain Graders and Cleaners

They are the most complete and successful line of Grain and Seed Mills ever put on the market. They will take out every weed seed and impurity, and grade your grain for the market. They will positively rid your wheat of **cockle, wild pea, buckwheat and mustard.** They chaff and clean wheat, corn, oats, rye, barley, beans, timothy, clover, millet, flax, alfalfa, and all other kinds of grain and seed. The Owens is the absolutely reliable machine for northwestern crops.

Owens "New Superior" Grain Grader and Separator

Sow Plump, Healthy Seed

Give your land a chance to produce a real crop. Clean and grade your seed and be sure you are planting just what you want to harvest—not weed seeds. Also be sure you plant plump, live, vigorous kernels. You are not running an experiment farm or a hospital. C. F. Chase, Assistant Professor, Agricultural Engineering, North Dakota Agricultural College says that:

Northwestern grains are infested with mustard, wild oats, kingheads and other weeds, and a grain cleaner would solve the problem. The Wisconsin Agriculturist says: "Grain of high quality cannot be produced from mixed seed. Unless the very best kind of seed is used, the results will be indifferent and unsatisfactory. The best investment a farmer can make is to buy a good fanning mill. Such a mill will more than pay for itself in one season."

Send for the free Owens Book and get the details of our Special 1917 offer.

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WARNING On account of the drouth last season, much of the grain is weak and undeveloped. Don't plant poor, undersized seed and cut your crop in half. Grade everything, and plant only strong well developed kernels that will grow. The farmer who does this will pay for his Owens Mill several times over in next season's crops.

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Give your farm a chance. Salzer's seed corn is hardy Northern Grown, fully matured, vigorous, pedigreed stock. Twenty-five years of specialized breeding make Salzer's types invincible producers.

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The best arranged, most comprehensive and easiest catalog to order from ever issued. Offers the best.

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If you mention this paper, will include a packet of choice Flower Seeds.

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Write today for a pair of **Mated Everbearing Strawberry** plants, one large packet each of the new Cereal **Feterita, Sudan Grass and Silk Leaf Peony** seed, all **Free for Testing.** Send 10 cents for mailing expense, or not, as you please. We offer genuine Progressive Everbearing plants at 60c per dozen; 90c for 50; $1.75 for 100; $5.00 for 825, all postpaid. CATALOGUE FREE.

The Gardner Nursery Co., Box 435 Osage, Iowa

In and Around Wisconsin

COMING EVENTS.

Winter Course Wisconsin Dairy School, Madison, Wis., November 8th to February 1st.

Wisconsin Poultry Association Show, at Madison, January 1st to 5th.

Automobile Show, Milwaukee, Wis., January 5th to 11th.

Wisconsin Cheesemakers' Association, at Fond du Lac, January 10th to 12th.

Farmers' Week (Swine Program), Madison, Wis. Beginning February 6, 1917.

The fourteenth annual convention of the American Society of Equity was held last month at Wausau. Judge D. O. Mahoney, of Viroqua, Wisconsin, and H. A. Fuller, of Mankato, Minnesota, were unanimously re-elected president and vice president respectively. The report of the secretary-treasurer, Mr. H. G. Tank, of Wausau, Wisconsin, shows an increase in membership of about 40 per cent.

The Rock County Live Stock Breeders' Association has decided to continue for another year the calf contest. This work will be in charge of Ira Inman, E. H. Parker, J. H. Fisher, Jas. Van Etta and L. A. Martin. The association has also determined to get behind the various conferences of the farmers to be held in Rock county this winter. Furthermore, it is expected that Rock county will send one of the largest delegations of any county in the state to Madison for Swine Week, February 5th-10th.

At a recent meeting of cheesemakers, held in Dodge county, the new Wisconsin cheese factory license law and its administration by E. L. Aderhold was discussed at some length. C. Hemling discussed this topic from the standpoint of the patron and Frank Westphal from the standpoint of the operator, while Mr. E. F. Horn gave the cheesemaker's point of view. Dodge county has 163 factories, most of which were erected some years ago. There has been a determined effort to comply with the new law and improve the condition of the cheese factories. In this connection the meeting approved the work done by Mr. Aderhold. A great deal has been accomplished in the last year toward bettering cheese factories in Dodge county and more will be accomplished in the near future.

Wild West stories are usually considered out of date in Wisconsin, but one comes from Iowa county which is of considerable interest. The Polzskill Bros., stockmen of Mineral Point, purchased a carload of cattle from Jas. McGilligan. This herd was raised by Anderson Bros., and has been purchased six times within the past year, but in each instance the buyer has been unable to get his cattle to the stockyards. These cattle, having been pastured on a wooden tract of land always became frightened by those who attempted to drive them up. Even attempts to drive them at night failed. Some time ago Mr. McGilligan, with a force of ten men, undertook to drive these cattle to the stockyards. For one-half mile they went without trouble and then started on a regular stampede. They tore down several fences, finally arriving at the Anderson farm. Repeated efforts to drive them up resulted in similar failures. We quote the following from the Dodgeville Chronicle relative to the final round-up of these cattle.

The Polzskill Bros., John, Peter and Chris, who have the reputation of being the best herds in this section, accompanied by Joe and Henry Graber, Joe Marr and Fred Gulner, of Mineral Point; John and Chris Anderson and Charles and Henry Paull, of Dodgeville, mounted horses and started to drive the cattle from the Anderson farm to the Polzskill farm in Mineral Point. Some cows were taken to help keep the others quiet. When they had gone about 200 yards from the farm, the wildest of the steers became frenzied and broke through the fence near the John Grenfell farm and ran east through Cox's hollow to the Edw. Williams farm. The rest of them followed the leaders. The men being unable to keep up with the cattle on their mad dash through fences and over rocks and brush, were obliged to telephone the neighboring farmers in order to locate them. The second attempt proved more successful. This time with the aid of other men who gathered to watch the excitement, they were able to get eleven of them into the stockyards at the Northwestern depot. The other ten still maddened and frightened ran east of the Williams farm to Bunker Hill. Tuesday morning the men succeeded in getting nine of the outlaws back to the Anderson farm, but one still remains at large somewhere near Arena.

Still determined to bring the steers to the stockyards, the men procured an abundance of strong rope and tied three steers together and with the aid of a few more volunteer helpers, they were safely driven to the yards. This scheme having worked out very well, the determined drivers went out Wednesday and brought in the balance of them in the same day.

The cattle are of good quality, but the owners were unable to get the best prices for them because of the uncertainty of getting them to market. The cattle will be shipped to Chicago, as hopes of getting them to the Polzskill farm were abandoned.

Mrs. M. Holub, a patron of the South Kodan Cheese Company in Kewaunee county, for the month of November received a milk check representing the price of $3.42 per 100 pounds of milk. The average price paid patrons of this creamery per 100 pounds of milk is $2.51. The average test of all the milk received was 4.4 and the average price paid for cheese sold during the month was 24 cents. The factory paid 57 cents per pound for butter fat. The Algoma Creamery in the same county paid 63 cents for butter fat and sold its November cheese at 24½ cents per pound. Two patrons of this creamery received $3.15 per pound for milk and the average price of $2.68 was paid to all patrons.

Henry Wertheimer, of Watertown, Wisconsin, well known as being interested in the stuffed geese industry, reports that Mr. Fred Albrecht has raised about 100 birds, averaging twenty-eight pounds each. The heaviest bird of the flock weighed thirty-eight pounds. Mr. Frank Gervig raised thirty-six birds and had the same average weight. His heaviest bird also weighed thirty-eight pounds. At retail, these heaviest birds, worth 50 cents a pound or over, would bring about $18. Mr. Wertheimer remembers a heavier bird which weighed thirty-eight and one-half pounds and was shipped to San Francisco some years ago. The 100-bird flock hereinabove referred to brought its owner nearly $900.

Minnesota and Michigan will pattern after the work done by Wisconsin to interest settlers in land clearing. Arrangements are being made to run special trains over the railroads of these two states and land clearing in the same way that it was done on the Soo Line and North-Western roads in this state.

Sixty milk producers of Walworth met recently at the court house in Elkhorn and organized the Walworth County Milk Producers' Association. Three members were selected as the county's representation on the board of the parent association in Chicago. Harry D. Dunbar was chosen president and Paul Gavin was elected secretary and treasurer.

"At Your Service"

EVERY one of the 296 men and women employed by Northrup, King & Co.—errand boys, truck drivers, warehouse men, seed experts, clerks and executives—are "at your service." Many have had 20 to 30 years' experience in growing and handling seeds. Some are experts in grasses, some in seed grains, others in garden and flower seeds. Through their efforts, coupled with our complete mechanical equipment, we have established definite standards of quality. For the protection of seed buyers, as well as our own reputation, our seeds are sold under three brands.

NORTHRUP, KING & Co.'s SEEDS

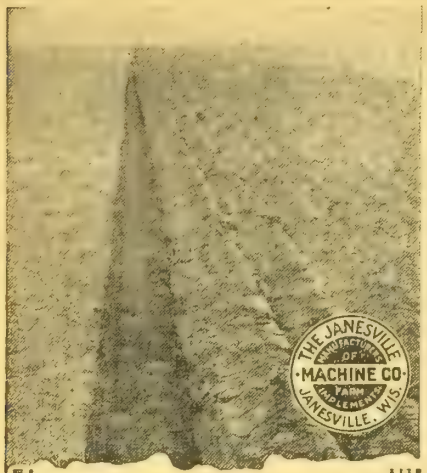
These seeds are carefully selected to produce profitable crops in the severe climate of the North. They are thoroughly recleaned, and tested for purity and germination. Because of their real merit, the demand is steadily increasing. They are sold by dealers in nearly every community throughout the Northwest. A merchant can get for you, quickly, any of Northrup, King & Co.'s Seeds which he may not have in stock—no matter the size of your requirements—one packet or a carload.

In anticipation of the largest seed demand this firm has had in thirty-three years—greater even than last season—we have gathered together tremendous stocks of high grade garden, grass and field seeds. Many hundred carloads are now stored in our several large warehouses. Our facilities for quick and accurate distribution were never so complete as this year. But, to avoid disappointment in not being able to secure desired stocks, we advise planters to list their requirements and place early orders with our dealers for 1917 seed.

For Successful Crops Sow Seeds Which Are

Identified By These Three Brands

NORTHRUP, KING & CO., Hennepin Av. at First St. MINNEAPOLIS, MINN.



"The Furrows Just Rolled Off the Mouldboard"

"And they rolled out all day long as we went round after round over the field. Scour? I never saw a plow scour so clean in my life, and the soil was wet in spots, too. Plowed as well in low land as in my best field. I simply drove the team and kicked the foot lever to raise and drop the plows at the ends of the furrows. The floating plow bottoms peeled off the furrows as slick as rolling a rug. The team had a snap compared with the old plow. It makes one feel good to look back over a field of furrows all the same size and straight as pins." So writes Will Hughes, Johnstown, Wis., telling about his work with a

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Magnificent for Fall Plowing

With S & S Pulver Twist Mouldboards

It is logical to expect such work from Janesville Plows. They have been made and sold for many years. Were designed from the "know-how" taken out of actual everyday work on the farm.

The Janesville Auger Twist Mouldboard is not only formed to curl the furrow smoothly, but glides through the soil with a *"flexible" movement.* It acts somewhat like the movement that you get in a spade when digging in a hard ground. The plow bottoms have just enough "floating" motion at the cutting edge to take away the "pinch" at the plow points. Reduces the steady all-day pull on the team. This *"flexibility" is found only in a single bar plow such as the Janesville.* With the Janesville, you can make *one plow do all your plowing.* No need to change plows for different kinds of soil. Use the same plow in sod, corn land, stubble, sticky loam or heavy clay. Write for catalog.

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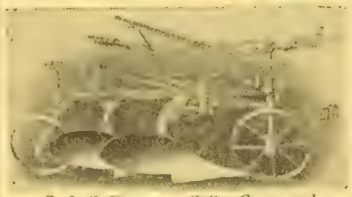

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Sell the high-grade Confer line of Household and Stock Remedies, Extracts, Toilet Articles, Spices, etc. direct from wagon to farmers homes. We furnish goods on credit—teach you how to sell them and make $80 to $200 a month clear. Steady, year-through work. HOME territory now open for live, energetic men. If you want to get into business for yourself here's your BIG OPPORTUNITY. Write for full explanation of our plan, giving your age and present occupation.

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Stump Land Is Expensive Land.

Whether the Stumps Be in Pastures or Crop Fields They Lessen the Opportunity to Get All of the Profits Out of the Soil.

THERE ARE STILL MANY STUMPS IN OUR WELL-CULTIVATED SECTIONS WHICH OUGHT TO BE PULLED.

"HOW can I get a little more good land?" This query doubtless comes up in the mind of every reader of this paper at some time or other. Some have gone a long distance to far countries, but this is not always the most satisfactory way; others try to buy out their neighbors, but if the neighbor has a really good farm the chances are that he will want so much for it a deal is not likely to be made.

A great many have added to their holdings by draining sections of marsh and lowlands. This gives some more good land at a reasonable price and without moving from the old home. Another good way to get more productive acres on the average farm is to clear up the brush and stump lands and pull out the old hedge fences. In this manner it is also possible to get good land without going away for a long distance; in fact, without even removing at all from the old homestead.

IN WISCONSIN'S CUT-OVER LANDS WITH STUMP PULLER.

A NEAT JOB ON A GOOD-SIZED STUMP—DYNAMITE IS USED TO SPLIT LARGEST STUMPS BEFORE PULLING.

How many of our readers have ever stopped to figure how much loss there really is in the stump patch or in the uncultivated grounds about the old hedge fence. We would not think of leaving stumps in the fields which are to be seeded to grain or planted to corn, but quite frequently we do not see the necessity of removing the stumps from pasture land. If a farm contained forty acres of pasture and a neighbor came along and fenced off a quarter or a third of it, there would, of course, be a big row on the part of the owner if he did not get the fence taken down at once. He would probably go to law. He might spend a good many hundreds of dollars getting back this quarter or third of his pasture land. If he didn't get it back he would feel that he had been robbed. He is just as certainly robbed if he has a piece of pasture which is partly covered with stumps. We not infrequently see 150 to 250 stumps to an acre of pasture land, and, while the fence line is not changed about the pasture which is full of stumps, the owner is just as surely robbed of the use of a portion of his ground. But does he go to law about it? He may look at the stumps and wish they were out. If he would sit down with a pencil and paper and see how much the stumps cost him in loss of ground he would see that the stumps were torn out.

The waste caused by stumps, brush and hedges has been computed by a number of our agricultural experiment workers, and the pasture land may be figured as to its value, according to the number of head of stock which can be sustained upon it. If one-fourth of the ground is taken up with stumps or brush or hedge the pasture will sustain just one-fourth less animals than it would if the stumps, brush and hedges were removed.

Our readers will probably be surprised to learn that it has been scientifically demonstrated that a stump twelve feet in diameter practically destroys the value of a piece of ground containing 100 square feet of space. Those who do not believe this statement, or have never had the matter put up to them in this way before, should take a yardstick and go out into the field or pasture and measure off in each direction from the center of the stump to see how much land is actually worthless by the presence of the stump. Take an acre of ground which has about 100 stumps in it, or more, and measure up and figure the loss on each stump. By the time the loss on twelve or fifteen stumps is computed the average man with a good, long head will quit figuring on what the stumps are costing him and begin figuring on how best to remove them.

It is interesting to know that land which may be reclaimed by the removal of stumps by the use of stump pullers is, in almost every case, good land. It is often some of the best land on the place. Soil which will raise good trees will raise good crops. The trees are valuable until they are cut down and carted away, but the stumps have no value at all, unless they can be cut up for firewood. Some of the very best orchards in the grain belt have been built up on old stump lands. There have been two reasons for this: In the first place, the orchard has been neglected until all of the good cleared land is in crops or pasture, but perhaps there is an old woodlot back of the house or somewhere around handy, which has been neglected on account of the fact that it would take a little labor to remove the stumps. That is an ideal place for the orchard. It would also be a good plot for the farm garden or for an alfalfa or rape patch.

When a new field with its extra profits can be added by removing stumps it is certainly not right to let the stumps stay. Get right after these stumps by all means. Any farm will sell better with all the stumps removed. If the prospective buyer is careful at figures he will count up the loss from every stump before he buys the farm. It is just as important to do this as it is to count up the loss which might be sustained by marshes and bogs. This being the case, it pays us to get rid of the stumps, especially since it can be done easily and at small expense, with modern stump pulling machinery.

Our advice for the new year is to clean up the farm and make every acre as valuable as it is possible to make it.

The Wisconsin Farmer has had a good deal to say the past year on the

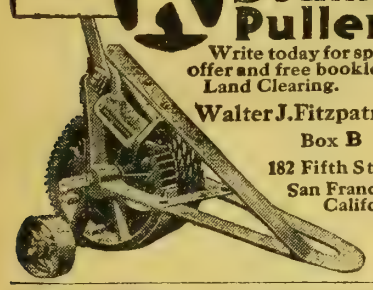
Pull Big Stumps by hand

Clear your stump land cheaply—no digging, no expense for teams and powder. One man with a K can rip out any stump that can be pulled with the best inch steel cable.

Works by leverage—same principle as a jack. 100 pounds pull on the lever gives a 48-ton pull on the stump. Made of Krupp steel—guaranteed against breakage. Endorsed by U. S. Government experts.

Showing easy lever operation

HAND POWER **K Stump Puller**



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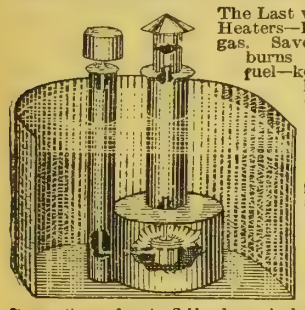

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Saves time. It is always ready for operation. Can be generated in five minutes by any eight-year-old boy. Requires no attention after being lighted.

Saves worry, no sparks to burn your buildings. No night firing. The Sunbeam will be on the job in the morning.

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We manufacture three sizes of the Four Burr Mills, also Bovee Western Steamers.

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Fresh Frozen FISH

WILL start as soon as cold weather sets in. Your name and address on a postal will bring our price-list.

Wisconsin Fishing Co., Dep. C, Green Bay, Wis.

EAT MORE FISH

THE FINEST FLAVORED come from the waters of Green Bay. Fresh Frozen Large Round Herring 4c per lb.; Dressed Herring 4½c; Perch 5c. Lots of 500 lbs. or more ¼c lb. less. Write for complete price list of everything in Fresh, Smoked, Salt and Spiced Fish. **BADGER FISH CO., Dept. F, Green Bay, Wisconsin.**

62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 23 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 607, Mankato, Minn.

25 CENTS CALF RENNETS We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address THE MARSCHALL DAIRY LABORATORY Madison, Wis.

ALFALFA SEED ALSO Red Clover, Sweet Clover, Alsike, Timothy, Brome Grass, Blue Grass, Cane, Millet, Kaffir Corn, etc., etc. At Campbell's Seed House, Dept. C, Seward, Nebraska.

subject of clearing lands. The state and other agencies, including the college of agriculture, have inaugurated a campaign of education along this line which has resulted in a good deal of good for our state. But one-half has not yet been said that should be said to enthuse our readers to the point where they will get rid of all the stumps and turn their lands into productive property.

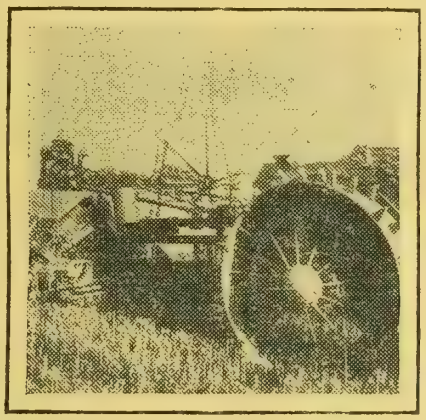
We believe every farmer should make a study of this matter of land clearing. It is even more important in our state than drainage, although we do not aim to minimize the importance of drainage.

Farmers' Open Forum

Delighted With His Tractor.

To the Editor:—I purchased a tractor last July and cut 140 acres of oats, operating from the binder seat without taking a team into the field. I found this method very satisfactory for harvesting.

I used about one gallon of gasoline per hour and cut on an average of about two acres per hour. At present I am operating a 170-acre farm. It is level land. Corn, oats and hay are the main crops. My tractor has displaced four horses for me, as I now keep only four work horses on the place. I plowed forty acres of clover sod seven



Lyman Sutton, Bureau county, Illinois, and his tractor hitched to binder.

inches deep, using two gallons of gasoline per acre. This gasoline cost me 15½ cents per gallon. I also used one and a half gallons of oil per day at 35 cents per gallon. I plowed forty acres in six and a half short days in November. I also plowed forty acres of stubble ground away from home. This was very hilly ground and at times I had to plow up grades 25 per cent or more. My tractor seemed to have plenty of power and operated without a particle of trouble. I have not used this tractor for belt work, but I believe it would be all right, as it does all they claim for it in other ways.

Bradford, Ill. Lyman Sutton.

Experience With No. 25 Corn.

To the Editor:—I purchased two bushels of Wisconsin No. 25 seed corn last spring and planted it on good, heavy clay soil. The weather for several weeks after planting was very backward for corn growing, being wet and cool until about five weeks after planting. The corn during this period made a good growth and when the warm days and nights came it was certainly gratifying to note its growth.

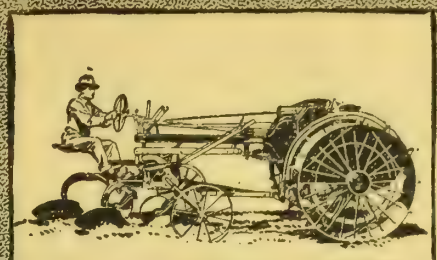
Ten days before any other corn in this locality was tassled out the No. 25 had been tassled out, and before we had any killing frost I had my seed corn already picked.

The average height of the stalks grew from eight to nine feet, was very leafy and heavy and I noticed many stalks carrying two ears of corn of medium size, the kernels deep and well dented.

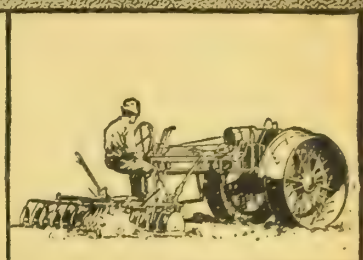
Many farmers in this locality have noted the growth and maturity of this corn and have already taken advantage of placing their orders for seed corn already. They realize that No. 25 is way ahead in maturing in the fall than any other variety they can obtain on the market, and to get ripe corn as far north as Rhinelander certainly speaks well of this variety.

The growing season for corn in this vicinity was very short this year and no doubt if we had a good corn year there is no telling what this variety would do. A. S. Post.

Oneida Co., Wisconsin.



PLOWING



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Pulls the usual 5 horse load. Does the work of 7 horses because of greater speed and endurance. Turns in a 16 ft. circle. Backs with the implement attached. Will work close to fences and in corners.

Does All Field Work

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Develops 10 to 12 H. P. on the belt.

Operator sits on seat of implement at work—just like driving a team of horses.

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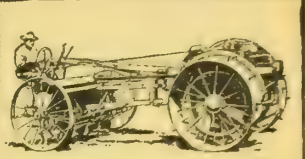
PLANTING



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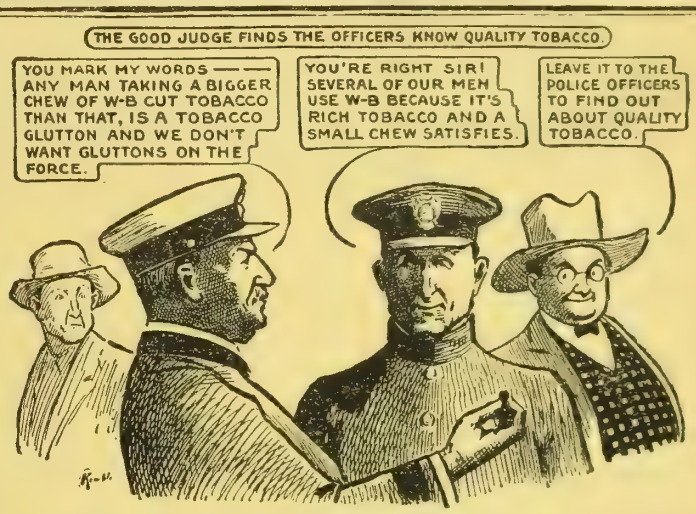
THE GOOD JUDGE FINDS THE OFFICERS KNOW QUALITY TOBACCO.



YOU notice a fine regard for appearance among the officers from Roundsmen to Captain—that's one reason they are so keen for W-B CUT Chewing. The pass-word among these gentlemanly fellows is "If you won't take a little chew don't take any." No need to disfigure the face, when a nibble of *rich* tobacco gives *more satisfaction* than a wad of ordinary stuff—also less grinding and spitting. Take a tip from the officer on W-B.

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WIN VALENTINE SURPRISE PACKAGE

4		7
	7	3
6	4	

SOLVE THIS PUZZLE

Here is the "Missing Number Puzzle" which will make you think. What numbers placed in the vacant squares will make a total of fifteen for each column when added either up and down or across?

Is It Easy? If you fill in the missing figures and send us your name and address, we will send you as a prize, **a Valentine surprise package, containing 36 beautiful assorted Valentine cards, stamps and novelties. This is one of the most artistic Valentine packages put out.** All you have to do is to enclose 2 two cent stamps in your letter to pay postage and cost of mailing. We will also send a certificate of entry in our grand contest for a $395 Saxon Automobile.

Saxon Car Given Away

Remember the Saxon car will absolutely be given away at the close of the grand contest. In case of a tie, a Saxon car will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars free.

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OUR DAIRY DEPARTMENT

ALL communications relating to dairy matters should be addressed to this office. Inquiries of general interest regarding dairy management and production will be promptly answered.

The Mystery of Feeding Dairy Cows.

To the Editor:—It is a mystery to the average farmer how to feed his cows so as to get the best and the most out of them. I am sure I have used the right word here. Not one out of a hundred farmers that I know has anything like an adequate knowledge how a cow ought to be fed. And that is one reason why dairying is not the success it ought to be with the majority of men. Usually the feed is good so far as it goes. That is, the hay is well cured, the corn of a good quality. But the ration is one-sided, wholly inadequate for the purpose for which it is intended.

Now, can we expect the everyday farmer to have a knowledge such that he will be able to make up a ration scientifically correct? Shall this be gained from books and papers? How shall he learn what is best to feed and how to feed it?

If we depend on the study of books and papers I am afraid we will have to wait a long time before the general run of farmers ever will master this subject. They may read and straightway go away and forget what manner of truth they have been considering.

And here is where the benefit of a personal visitor at the farm or at some gathering of farmers comes in. Call him what you will, farm manager, farm bureau head, farm doctor, that does not count for so much as that there shall be somewhere a man who knows and who will come to the help of farmers who have added hundreds of dollars to their yearly income, simply by becoming members of cow-feeding associations and having the personal guidance of the men at the head of these organizations in buying the right kind of feedstuffs and using them economically. These men have made some changes in their herds since they engaged in this close inquiry into the ability of their cows to take food and make milk and butter of it. A good many cows have gone to the market, while others have been put in their place. In some instances with fewer cows, men have made more money. Great savings in help and food are thus effected.

Now, this work of the farm manager is still in its infancy in this country. We have not all yet understood the value of such a public servant, but wherever farmers have taken interest enough in the matter to look it up they have satisfied themselves that it is a good thing. True, the men assigned to this work ought to be men of ability, men who are qualified to meet the farmers face to face and give them the needed instruction, not only in the matter of feeding stock for the best returns but also in the management of soils and the growing of crops.

It is the opinion of the best farmers that there is no better, no quicker way of acquiring needed information as to farm stock feeding than through the farm bureaus. Personally, I believe it would be a great thing if such a bureau could be established in every county. It would not be long before we would all have a chance to master the art of feeding, as well as some other things concerning which we are now quite in the dark.

E. L. Vincent.

Protecting the Dairy Interests of the Future.

The agricultural extension service of Illinois is looking to the training of its future dairymen. Future members of the cow-testing associations will have been prepared to drop into line for duty, though the junior extension department, which aside from divers other clubs, has added a new department.

This new project is one by which boys and girls from twelve to eighteen years of age will run a test of from one to five cows for a period of six months, starting in October. The test will require the keeping of accurate records of feed, milk and butter fat. Such records as the daily weight of milk from each cow, by each milking, weekly tests for butter fat and the weights of all feeds necessary for the production. A monthly summary will include, among other items, the cost of one quart of milk or the cost of one pound of butter fat.

To further promote this good work a separator company is offering forty $25 scholarships, to be distributed in ten states to junior clubs. Two $25 scholarships, one to each of the best two individuals in the largest club in the state. One $25 scholarship to the best individual in the state. All individuals must belong to eligible clubs. An eligible club must have not less than five members under local leadership and at least five club members must have completed two months' work. Prizes are to be awarded at the end of two months' work and the money thus won is to be expended in a trip to the two weeks' short course at the University of Iowa this winter. An endless chain for a good cause, as it were.

The junior extension service will furnish an outline of work, record blanks and final reports. The assistance of the university will be available at all times. A Babcock tester will be necessary, which will either be purchased or borrowed from someone in the neighborhood.

Cow Testing Reports.

Alban and New Hope Association.

To the Editor:—In the past month, we have succeeded in weeding out five more unprofitable cows which went to the butcher. We have also added two pure breds at the head of two herds in this association. There is still room for more.

Every farmer in our association has a silo on his farm. The average production per cow in this association, for the period covered by the attached report, was 453 pounds milk and 20.3 pounds of butter fat. At the present price of butter fat, this would be an average in production of $8.65 per cow. It has cost us on an average of $4.49 per cow, for feed. This leaves a profit of $4.15 per cow. Would like to know where farmers can find a better argument for good feeding.

The highest producing cow for the period, is owned by Norman Dahlen. She is a grade Guernsey, five years old and produced 1,572 pounds of milk and 66.3 pounds of butter fat. The highest average is held by J. P. Madsen, who has a herd of grade Gurnseys. They produced an average of 702 pounds of milk and 32.3 pounds of butter fat, per cow. The total value of the product was $106.20. The cost of feed was $52.50, making a profit of $53.70. The following table gives the names and records of cows in this association, which have produced more than forty-five pounds of butter fat during the thirty-day period, ending December 10, 1916:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
G. J. Olstad					
Salrose, G. H	6	10-18-16	1296	4.2	54.4
Tom Olson					
Gr. Hol.	8	10-20-16	1224	4.3	52.6
Ole P. Dobbe					
Embrat, G. H.	3	11-6-16	1131	4.0	45.2
Norman Dahlen					
Gr. Guern.....	3	11-1-16	869	5.4	46.9
Gr. Guern.....	5	11-4-16	1275	5.2	66.3
E. O. Hellum					
Gr. Guern.* .	10	11-17-16	912	5.1	46.5
John Mark					
Native*	7	11-17-16	984	4.8	47.2
M. J. Wrolstad					
Gr. Guern.* ..	3	11-17-16	878	5.3	46.5
Gr. Guern.....	3	10-26-16	1046	4.8	50.2

*Received twenty-four-day test.

M. E. Smith, Official Tester.
M. J Wrolstad, Secretary.

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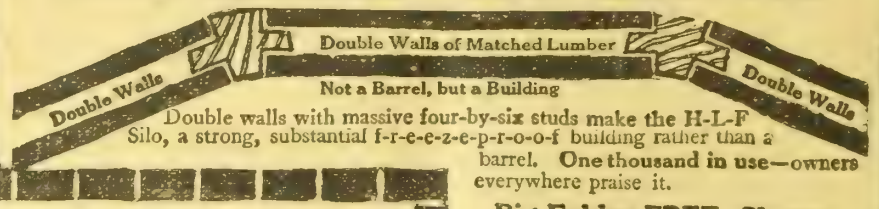

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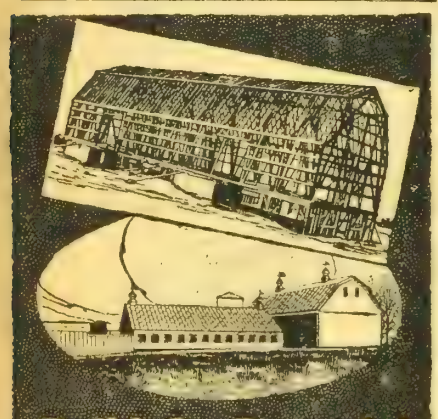

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TOLD IN THE HILLS

By Marah Ellis Ryan

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PART IV.---One Squaw Man.

CHAPTER I—Lamonti.

"You've been a good friend to me," he continued, "whether I was near or far—MacDougall told me things that proved it; and if my time should come quick, as many a man's has in the Indian country, I believe you would see I was brought here, where I want to be."

"You may be sure of it," she said earnestly; "but I don't like to hear you talk like that—it isn't like you. You give me a queer, uncanny feeling. I can't see you, and I am not sure it is Jack—nika tillikum—I am talking to at all. If you keep it up, you will have me nervous."

He held her hand and drew it up to his throat, pressing his chin against the fingers with a movement that was as caressive as a kiss.

"Don't you be afraid," he said gently; "you are afraid of nothing else, and you must never be of me. Come, come, my girl, if we're to go, we'd better be getting a move on."

The prosaic suggestion seemed an interruption of his own tendencies, which were not prosaic. The girl slipped her fingers gently but decidedly from their resting place so near his lips, and laid her one hand on his arm.

"Yes, we must be going, or"—and he knew she was smiling, though the darkness hid her—"or it will look as if there are two witched folks in our chapel—our white chapel—tonight. I'm afraid we happened here, since the thought is any comfort to you; but I hope it will be many a day before you are brought here, instead of bringing yourself."

He took her hand, and through the white masses turned their faces down the mountain. The mare followed meekly after. The stimulant of bread and whisky—and more, the coming of this man, of whom she was so stubbornly confident—had acted as a tonic to Rachel, and she struggled through bravely, accepting little of help, and had not once asked how he came to be there instead of the ranchmen.

Perhaps it was because of their past association, and that one night together when he had carried her in his arms; but whatever he was to the other people, he had always seemed to her a sort of guardian of the hills and all lost things.

She did not think of his presence there nearly so much as she did of those ideas of his that seemed "uncanny." He, such a bulwark of physical strength, to speak like that of a grave site! It added one more to the contradictions she had seen in him.

Several things were in her mind to say to him, and not all of them pleasant. She had heard a little of the ideas current as to his Indian sympathies, and the doubt with which he was regarded in camp; and, while she defended him, she many times felt vexed that he cared so little about defending himself. And with the memory of the night before, and feminine comments at the ranch after he had gone, she made an attempt to storm his stubbornness during a short breathing spell when they rested against the great bole of a tree.

"Genesee, why don't you let the other folks at the ranch, or the camp, know you as I do?" was the first break, at which he laughed shortly.

"They may know me the best of the two."

"But they don't; I know they don't; you know they don't."

"Speak for yourself," he suggested; "I'm not sure either way, and when a man can't bet on himself, it isn't fair to expect his friends to. You've been the only one of them all to pin faith to me, with not a thing to prove that you had reason for it; it's just out-and-out faith, nothing else. What they think doesn't count, nor what I've been; but if ever I get where I can talk to you, you'll know, maybe, how much a woman's faith can help a man when he's down. But don't you bother your head over what they think. If I'm any good, they'll know it sometime; if I'm not, you'll know that, too. That's enough said, isn't it? And we'd better break away from here; we're about the foot of the mountain, I reckon."

Then he took possession of her hand again, and led her on in the night; and she felt that her attempt had been a failure, except that it showed how closely he held her regard, and she was too human not to be moved by the knowledge. Yes, he was very improper, as much so as most men, only it had happened to be in a way that was shocking to tenderfeet lucky enough to have families and homes as safeguards against evil. He was very disreputable, and, socially, a great gulf would be marked between them by their friends. But in the hills, where the universe dwindled to earth, sky, and two souls, they were but man and woman; and all the puzzling things about him that were blameful things melted away, as the snow that fell on their faces. She felt his strong presence as a guard about her, and without doubt or hesitation she kept pace beside him.

Once in the valley, she mounted Betty, and letting Mowitza follow, he walked ahead himself, to break the trail—a slow, slavish task, and the journey seemed endless. Hour after hour went by in that slow march—scarcely a word spoken, save when rest was necessary; and the snow never ceased falling—a widely different journey from that other time when he had hunted and found her.

"You have your own time finding the trail for me when I get lost," she said once, as he lifted her to the saddle after a short rest.

"You did the same thing for me one day, a good while ago," he answered simply.

The night had reached its greatest darkness, in the hours that presage the dawn, when they crossed the last ridge, and knew that rest was at last within comparatively easy search. Then for the first time, Genesee spoke of his self-imposed search.

"I reckon you know I'm an Indian?" he said by way of preface.

"I don't know anything of the sort."

"But I am—a regular adopted son in the Kootenai tribe, four years old; so if they ask you if an Indian guide brought you home, you can tell them yes. Do you see?"

"Yes, I see, but not the necessity. Why should I not tell them you brought me?"

"Maybe you know, and maybe you don't, that I'm not supposed to range far from camp. Kalitan was to go for you. Kalitan had some other work, and sent a Kootenai friend of his. The friend's name is Lamonti. Can you mind that? It means 'the mountain.' I come by it honest—it's a present Grey Eagle made me. If they ask questions about your guide, just put them off some way—tell them you won't. Now, can you do that?"

"I can, of course; but I don't like to have you leave like this. You must be half dead, and I—Jack, Jack, what would I have done without you!"

He was so close, in the darkness, that in throwing out her hand it touched his face, one of the trivial accidents that turn lives sometimes. He caught it, pressing it to his lips, his eyes, his cheek.

"Don't speak like that, unless you want to make a crazy man of me," he muttered. "I can't stand everything. You'll never know, and I—can't tell you! Don't act as if you were afraid—the only one who has ever had faith in me! I think that would wake up all the devil you helped put asleep once. Here! give me your hand again, just once—just to show you trust me. I'll be worth it—I swear I will! I'll never come near you again!"

The bonds under which he had held himself so long had broken at the touch of her hand and the impulsive tenderness of her appeal. Through the half sob in his wild words had burst all the repressed emotions of desolate days and lonely nights, and the force of them thrilled the girl, half stunned her, for she could not speak. A sort of terror of his broken, passionate speech had drawn her quickly back from him, and she seemed to live hours in that second of indecision. All her audacity and self-possession vanished as a bulwark of straws before a flood. Her hands trembled, and a great compassion filled her for this alien by whose side she would have to stand against the world. That certainty it must have been that decided her, as it has decided many another woman, and ennobled many a love that otherwise would have been commonplace. And though her hands trembled, they trembled out toward him, and fell softly as a benediction on his upturned face.

"I think you will come to me again," she said tremulously, as she leaned low from the saddle and felt tears as well as kisses on her hands, "and you are worth it now, I believe; worth more than I can give you."

A half hour later Rachel entered the door of the ranch, and found several of its occupants sleepless and awaiting some tidings of her. In the soft snow they had not heard her arrival until she stepped on the porch.

"I've been all night getting here," she said, glancing at the clock that told an hour near dawn, "and I'm too tired to talk; so don't bother me. See how hoarse I am. No; Kalitan did not bring me. It was a Kootenai called Lamonti. I don't know where he has gone—wouldn't come in. Just keep quiet and let me get to bed, will you?"

Chapter II—A Philosophical Horse Thief

An hour before dawn the wind came, hurtling down through the mountains and moaning along the valleys; before it drove the flying snow in great chilly sheets, as it was lifted from the high places and spread in every nook that would warrant its safekeeping.

Through its fitful gusts Genesee walked into camp, his tracks filled by the eager flakes as he left them. There seemed a strange alertness about the place for so early an hour—even through the commotion, blissful and despairing, in his own breast, he noticed it as the guard hailed him, and when he replied, he heard from that individual an excited exclamation of astonishment.

"By jolly, if it ain't Genesee!"

"I reckon it is," he answered, and passed on, too tired, yet elated by his night's work, to care whether or not his absence had been commented on.

The door of the shack had barely closed on him when one of the several lanterns that he had noticed floating like stars along the snow at his door, then a knock, and the entrance of a very wide-awake-looking corporal.

"You are to report to Captain Holt at once," was the message he brought.

"What's up?" and the boot that was half way off was yanked on again.

"That's all the message I was given."

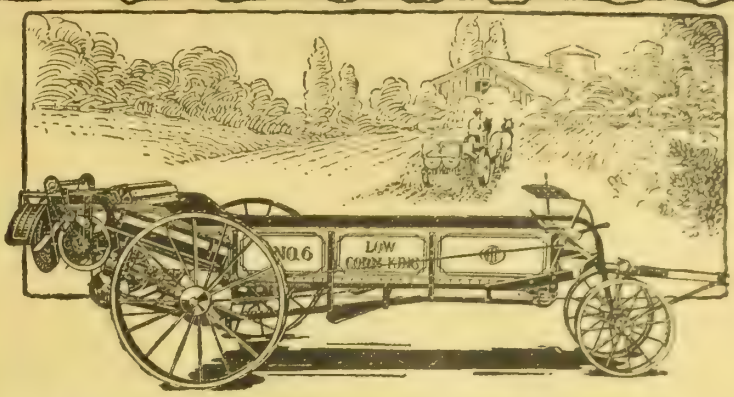
"Well, trot along."

His own frowning perplexity was no more decided than that of Captain Holt, as he looked up to notice the entrance of the scout—and there was little of friendliness in the look.

"You sent a man to say you wanted me."

"Yes, I sent a man about two hours ago to say I wanted you," was the ironical reply. "You were not to be found. Have you any report to make?"

(To be continued.)



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Hot Lunch For School Children.

The plan of supplementing school lunches with hot dishes prepared by the pupils under the direction of the teacher is gradually coming to be a common practice in rural schools.

This extract from a letter written to a Wisconsin girl who is an agricultural extension worker in a neighboring state gives an idea of how the plan works when put into actual operation:

Last Wednesday I saw a noon lunch served in a school fifteen miles from here. I wish you could have been with us to see the girls in their white aprons preparing scalloped potatoes as they recited on the theory of potato growth, cookery and digestion. You would have enjoyed too, seeing the rest of the school preparing for lunch by washing their hands and drying them on their own individual towels brought from home; then laying out on their desks their balanced lunches on old clean, white towels; waiting till all were served and then eating and chatting while the younger ones practiced, at the teacher's suggestion, holding their forks correctly, and finally the orderly gathering of crumbs, closing of pails and marching out to play. But the most pleasing incident occurred when one of the smaller boys insisted on bringing a pail of water alone, because, as he said quite simply, "We ought to be willing to bring water when the girls are good enough to give us a hot lunch.

To carry on the work of preparing hot dishes to add to the lunch brought from home and correlate with it practical information about food values and marketing problems, the rural school-teacher must have a vision. To add this task to her already overcrowded program seems like asking too much, but it is one of the ways to overcome the charge that schools educate children away from the home rather than into it. The teacher's vision must be of a community where the homes are filled with children that help willingly and intelligently with the indoor and outdoor work on the farm, and the reward for her work will be the knowledge that the foundation for the building up of such a condition can be traced to her schoolroom.

Because of the lack of equipment, only very simple dishes can be prepared for the school lunch, but a great deal can be done by the mothers of a community to stimulate effort on the part of the teacher and board, and to secure the co-operation and interest of the pupils. By taking an active interest in the work and helping to furnish the school with the necessary equipment, they certainly can accomplish much. Many of the rural teachers who are trying the hot-lunch plan are using small oil stoves or the flat-topped heating stove. The utensils and towels necessary for preparing and serving the food can be furnished very easily and at little expense if each mother will contribute those necessary for the use of her own children.

In some schools where the equipment is very meager the teacher attempts to serve only a hot drink or one hot dish. This dish, however, furnishes a basis for many practical lessons and the warm food is a helpful addition to the ordinary lunch on a very cold day.

Children in Agriculture.

Child Labor Day, which will be observed by churches, January 28th, synagogues, January 27th and schools and clubs, January 29th, is called a "Look-Around-You Day" by the National Child Labor Committee, and those observing it are urged to study child labor as it exists in their immediate vicinity. In the pamphlets issued by the committee for use on Child Labor Day special mention is made of children in agriculture and people are urged to consider this form of child labor which has heretofore been unregulated. "Nearly three-fourths of our child laborers (1,431,254 between ten and fifteen) are engaged in agricultural pursuits, yet the movement for child labor reform has not even touched this greatest field of all," says one pamphlet. It is stated that the need for regulation of agricultural child labor is great because in many districts children work in large numbers in cotton fields, sugar beet fields, onion fields, cranberry bogs, and so on, to the detriment of their education. In Colorado, where the National Child Labor Committee investigated sugar beet fields last year, 5,000 children between six and sixteen years of age lose from two to twenty-two weeks of school annually working in the beet fields. "The possibility of exploitation in this field is so great as to demand thorough investigation," says the National Child Labor Committee, urging the general public to interest itself in this problem and support its investigations.

This campaign by the National Child Labor Committee is directly in line with the movement for better rural schools initiated by the United States Bureau of Education, and it is hoped that everyone interested in bettering rural conditions and in raising the educational standards in farm districts will co-operate. "How many weeks of school do the young agricultural workers in your state have?" is a question that every farmer will do well to answer.

Further information as to child labor in agriculture may be obtained from the National Child Labor Committee, 105 East 22d St., New York City.

Folding Work Basket

To the Editor:—I saw the request of one of our number for a work basket made of cretonne and mounted on legs made of broomsticks. I do not know how the one this lady referred to was made, but I have just made the frame for a folding work basket made of cretonne. I will send the dimensions of mine and perhaps it will help the lady who asked for the other kind.

I took four pieces of wood twenty-six inches long, an inch and a quarter wide and three-fourths of an inch thick. Then I took two pieces of wood an inch and a quarter wide, one-half inch thick and fourteen and three-

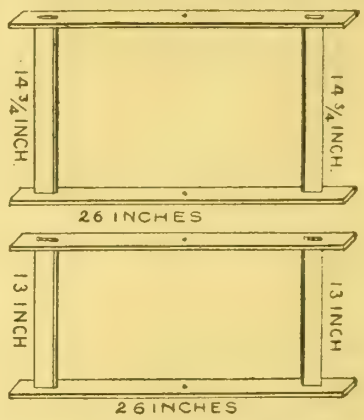
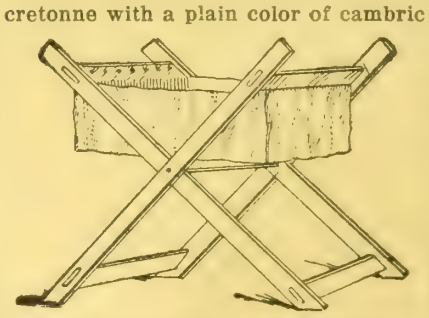


DIAGRAM OF FRAME BEFORE PUTTING TOGETHER.

fourths inches long; and two pieces an inch and a quarter wide, one-half inch thick and thirteen inches long. I placed them together as shown in the diagram and then with a brace and bit made holes in the four upright pieces so that a rod of wood or metal might be put through them, allowing the inner section to turn on the rod while the ends of the rod were fastened in the outside section.

The basket itself is to be made of cretonne with a plain color of cambric



THE FINISHED WORK BASKET.

for the lining. Small headed nails are driven in the crosspiece on one side to hold spools, and a needle case is fastened to the side. A loop of cretonne is fastened at the center of the two top strips by which the bag is closed when not in use. The frame is enameled or painted white.

I enjoy the Home page very much and I hope that I have made my directions plain and that someone may wish to make such a basket.

Ruth Smith.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Valentine a Wonderful Cow.

Dear Young Folks:—When I was a small girl my father said he would give me a calf to keep if I would take it and care for it. My father sold the mother of my calf when it was only five months old. I named the calf Valentine, for she was born in February. Valentine learned to come to the barnyard gate when I called her to give her corn and oats ground together. My father bought me a little Swiss bell to put around her neck. She was as proud of that bell as I was of my first doll, for she was only a little calf.

When Valentine had a fine heifer calf I was prouder of her than ever. I named her calf April. I never would let my father milk my cow, for I thought no one could do it as well as I. Valentine still comes to the barnyard gate to get her corn and oats. She got so she gave two and a half gallons of milk at a milking. If the state was full of cows like Valentine there would be enough milk to supply the whole country of Asia and we would want all the pretty milkmaids to make it sweeter. Why, I think we would have to import all the little dogs from England and all the little cats from Paris to consume the foam. Then we would make the milk into milkshake for the pretty milkmaids to treat the soldier boys. You see I like the soldiers.

When I milk my Valentine cow my pet pigeon sits on the highest point of the gate and coos and coos.

—Rosetta.

Makes Money Trapping.

Dear Young Folks:—I have always been interested in the Young Folks' corner and I wish the editor could find room for my letter.

I have done a good deal of trapping this year. I have sold over $15 worth of skunk furs. Skunks are quite numerous around the creeks where I live. I use a plain gopher trap. I usually bait the trap with a piece of rabbit meat. I nearly always set my trap by guess.

I skin them by splitting the skin on the hind legs and then pulling the fur off just like a rabbit. To stretch the skins I take a board from a cracker box and cut it the size of the skin so it will fit tight. Then I hang it out of the sun to dry. It takes from four to ten days to dry a skin properly. I think this is a good way to catch, skin and stretch skunks. I have always got pretty good prices for my skins.

I hope the boy trappers will be interested in my letter. —Peter.

Recipes.

Candied Sweet Potatoes.—Boil potatoes of uniform size, until nearly tender. Peel under cold water, slice and roll each slice, or half, in melted butter, then in sugar, and place in a buttered baking dish. When dish is full, pour over the juice of one lemon, also any sugar or butter which may be left. Put in oven and bake until glazed—about thirty minutes.

Apple Charlotte.—Cut slices of stale bread about one-fourth inch thick, then cut in small rounds; fry in hot butter to a light brown color; line a plain buttered mold with the bread rounds. Peel and core one and one-half pounds of apples; add half a cupful sugar and cook; season with half teaspoonful cinnamon and two cloves. Remove from the fire when soft, and stir in the yolks of two eggs, slightly beaten; pour into the prepared mold, cover with rounds of fried bread, bake in a moderate oven forty minutes. Serve with cream.

Cabbage Puree.—This is a dish not to be lightly considered and may well prove an addition to the repertoire of soups. Chop a small white cabbage with one onion, one stalk of celery and a tablespoon of parsley. Put to cook in boiling salted water to cover. When very soft, drain through sieve and pound to a pulp. Put over the fire in a saucepan two tablespoons of butter and when bubbling hot add two tablespoonfuls of flour, cook until smooth, add a pint of rich milk, season to taste and serve with a beaten egg added the last thing.

Quick Raisin and Nut Roll.—Three cupfuls flour, two teaspoonfuls baking powder, three-fourths teaspoonful salt, one-third cupful butter (scant), one egg beaten light, three-fourths cupful milk, one tablespoonful softened butter, one-third cupful raisins, one-third cupful nut meats, broken in pieces, two tablespoonfuls sugar, one teaspoonful cinnamon. Sift together the dry ingredients twice. Work in the shortening; beat the egg, and add part of the milk. Mix well, using more milk if needed. Turn out on a floured board and roll into a sheet about one-third of an inch thick. Spread with soft butter, sprinkle with the sugar, nut meats and raisins; roll up like a jelly roll, cut in pieces an inch and a half long; set on end close together in a well-greased pan. Bake twenty-five minutes

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1841—Boy's blouse, with yoke in square or pointed outline, and with two styles of collar. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 3⅛ yards of 36-inch material for a 12-year size.

1620—An attractive costume for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 6 yards of 44-inch material for a 16-year size.

1569—Ladies' shirt waist, with sleeves in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3¼ yards of 36-inch material for a 36-inch size.

1947—Ladies' house dress with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46

inches bust measure. It requires 6⅞ yards of 36-inch material for a 36-inch size.

1823—Girls' dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 1, 2, 4 and 5 years. It requires 2⅜ yards of 44-inch material for a 4-year size.

1944—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. Size 8 will require 2¾ yards of 44-inch material.

1967—Ladies' combination corset cover and drawers. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 36-inch material for a medium size.

1963—A new and pleasing apron model. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. Size 38 requires 5¼ yards of 36-inch material.

1948—Girls' overblouse dress, with guimpe having sleeve in either of two styles. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 1¾ yards of 27-inch material for the guimpe and 3⅜ yards for the dress, for an 8-year size.

1964—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4 yards of 44-inch material for a 12-year size.

1956—Girls' bath robe.—Pattern is cut in 6 sizes: 4, 6, 8, 10, 12 and 14 years. It requires 5 yards of 44-inch material for a 12-year size.

1971—Ladies' dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 44-inch material for a 36-inch size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for January 7, 1917.

Jesus the Light and Life of Men.

The studies for the first six months of this year are devoted to the gospel of John; the remaining portion of the year to II Kings, Ezra and Nehemiah, being a study with the prophets. One year from now we begin the new "graded uniform lessons" recently adopted by the reorganized international lesson committee.

John was younger than his brother, James, and lived to be the oldest of the apostles, dying somewhere between A. D. 95 and 98. His name means "Peace," though he is surnamed the "son of thunder" (Mark 3:17). Five of the New Testament books bear his name. He blended the gentleness of a dove with the force and vision of an eagle." The purpose of his gospel is clearly stated (ch. 20:31). Only about 8 per cent of it is found in the other three gospels. Seventy-six times the word "witness" is used. The word "father" occurs 140 times and the name "Jesus" 240 times.

I. The Word (vv. 1-5). Words utter thoughts; a word is an expression of an inaudible and invisible thing. As the Word, Christ is Creator (ch. 14:9; 8:19), he is the source of light. "The word is God heard; the life is God felt, and the light is God seen"—Moody. This eternally existing person is called the Word because in him God fully expresses or reveals himself. The Bible is the written word because in it God speaks and reveals himself through this person who is the eternal Word (Heb. 1:3). The first verse brings out the fact that there are at least two persons in the Godhead, the one divine person in company with whom the word was, and the word, himself, was God; that is, was also a divine person. He who by his incarnation became our brother and our savior was first our creator and the creator of all things and apart from him not anything came into existence. The Word did not become the light of men by his incarnation in Jesus of Nazareth. He was ever the Light of Men. The light that shone in the Old Testament time shone from him. When sin came, night came.

II. The Witness (vv. 6-10). John the Baptizer came for a witness. He was not the light. Some might have thought him to be the promised Messiah. This he denied. He was a lamp which held forth light to men concerning the true light "which lighteth every man that cometh into the world." He reflected light (v. 8). John told all that he knew. Testimony will expand as experience enlarges. The spoken word of man must confirm the experience of the word in our lives. John was a wonderful man, a man whom God delighted to honor, but he was a man. Men are not asked to believe blindly, but always upon an abundance of testimony.

III. The World (vv. 11-14). This world was created by Jesus, and throughout its existence he has been in the world, though the world knew him not. This living light had been coming into the world, and was not fully come until he was manifest to Israel at the baptismal act of John. In order to be made manifest the "Word was made flesh" in the person of Jesus. The world did not apprehend the light (v. 5) nor did the world which he was in and which was made by him (v. 10). Even his own people, literally his own household servants, i. e. Israel, received him not to themselves, but whoever receives him, even the vilest sinner on earth, and takes him into his heart to be all Jesus desired to be, savior, lord, teacher, friend, that instant he becomes a child of God. We cannot attempt to explain this mystery. The union of spirit and body was in one person, a simple fact; though unexplained, still true. The union of God with a human body, forming one person, Christ Jesus, sometimes spoken of separately, sometimes as a whole, sometimes as divine, sometimes as human. We cannot divide his activities into two sections and say this is divine and this is human; they are inexplicably blended into one. This Christ really dwelt among us. He did not merely appear to some persons, or come in a vision, and yet his abode among us was only temporary, only a few years, and we beheld his glory, the glory of the only begotten Son. The world expected a Messiah and his own creation, his own inheritance received him not, rejected him, opposed him, crucified him, their lord, savior, king and messiah. Those who received him and believed on his name became sons.

To be a child of God we must be born into the nature and character of God, into his spiritual life. We are members of his family.

We are heirs of all things through him, his joy, his love, his character and his blessing and the privileges of working for him and with him. We become heirs by being born of God, not of blood, physical descent nor inheritance, for the best of parents cannot bestow this gift upon their children.

More than seven and one-half tons of honey which he now has stored in his bee house is the result of a summer's work of the 200 swarms of bees owned by G. E. Capwell, of Cottonwood Falls, Kansas. The value of his honey "crop" at present market quotations is about $1,500 and the rich alfalfa fields in the Cottonwood valley and the 10,000,000 bees, more or less, which Capwell owns (for he has never yet been able to count them) did the work. But that is not all the work attached to the bee business, for while the alfalfa blossoms furnished the pollen and the bees did the work of honey making, yet Mr. Capwell has never put in a busier season than he did this year in overseeing his 10,000,000 industrious little workers; taking off full supers and replacing them with empty ones, extracting the honey and preparing it for market, besides attending to dozens of other necessary things to be found around an apiary.

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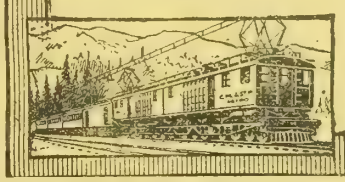

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POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Dry, Fresh Air For Poultry.

Keeping hens in fresh, reasonably dry air is one of the secrets of keeping them successfully. In the henhouse good ventilation and dryness are so essential that the most skillful breeding, feeding and rearing cannot make up for their lack. It is difficult to secure dryness without a generous amount of fresh air.

There has been in recent years a marked tendency in poultry house construction toward securing more fresh air, both day and night, by replacing the glass windows with cloth or muslin or by making the front either of muslin or entirely open. Fresh air is one of the prime essentials in poultry houses, and warmth secured by keeping the house shut up tightly is not as desirable at a lower temperature and some ventilation.

The front of the house should be so high that the windows or openings will allow the sun to shine well back into the interior during the winter. Burlap, unbleached muslin or lightweight duck cloth may be used for curtains in the front. This cloth should be thin enough to allow a slow circulation of air without draft.

A large amount of glass in the front of the house makes it warm during the day, but cold at night, as glass radiates heat very rapidly. Some glass, however, is helpful in providing light when the curtains are closed. Some ventilation should be given in a poultry house even on the coldest night. It is usually best secured by leaving a small window open or having muslin curtains in the house. If the house is shut up tightly without any muslin curtains in the front there is a tendency for moisture to collect in the house and condense on the rafters and other woodwork on frosty mornings.

It is not necessary to close the muslin curtains in the front of the house except in very cold or stormy weather. Hens are protected by nature with warm feathers and a high body temperature so that they are better able to withstand dry, cold air than warmer air which is damp. You can make up your mind that a hen appreciates dry, clean and sunny quarters as much in the wintertime as you do. What a hen very much dislikes is a draft, no matter how little it is. Therefore, make provisions accordingly.

During the daytime when a hen can exercise she prefers it cool, even cold, as long as it is dry and sunny and free from drafts. You can imagine how much a hen feels like working, singing, and laying in a house with clean surroundings, deep litter, dry interior, free from drafts, yet plenty of fresh air with the sun shining on her back.

She feels as though she was really living, she is comfortable and feels at home, she is happy and contented and shows her appreciation by filling the egg basket. Across from her is her companion, confined in a small, unsanitary, dark, gloomy, damp, close dungeon. She sits on the roosts most of the time, except for about a few minutes at feeding times, she is dull, sick, cast down and walks about in an indifferent way, careless as to whether she lives or not. You do not notice her digging in the litter very much, singing and walking about in a happy and contented way.

Instead she stays up on the roosts in a humped up kind of dormant way until spring comes along with its longer days and sunshine. Then all at once she sums up her spirits, starts to exercising, singing and laying. Why does she do this? Because her owner by this time sees fit to let her outside into the sunshine and fresh air. It is needless to say that before very long she starts to laying.

All your hens ask for in winter is protection on three sides, east, west and north. A hen dislikes a draft, consequently it is important that these ends be as nearly air tight as possible. Endeavor to keep the temperature of the house as uniform as possible and the result will be that your hens will be comfortable and laying throughout the winter.

Stopping a Leak in the Poultry House.

To the Editor:—Most poultrymen notice that as the crops are harvested and the cold weather approaches, rats and mice increase in numbers about their buildings. Perhaps few think much about the number of rodents and give little attention to them, except to aid the cats and dogs in their efforts to catch them, thus giving sport to the boys and girls, and sometimes the grownups, too. Little thought is given to how much grain they destroy.

Recently the writer had his attention called to a case where only a small flock of poultry was kept, but where rats to the number of over a hundred were present about the building. Traps were used to catch this number, and then new feed bins were secured to save the feed and make the keeping of the flock a paying proposition. A full-grown rat will eat and waste as much feed during a winter as a laying hen will consume. This makes good feed bins very important. Good bins not only prevent this loss, but tend to cause the rodents to look elsewhere for food. When the buildings are free from the pests, the danger from disease, which is often carried by them, is much lessened, and the safety of the young chicks is insured when they begin to hatch in the spring.

Poultry feeds are generally sold in bags that may be returned at a nominal price, which, if used properly, will purchase material for bins that will prevent waste of feeds by rodents. An excellent bin can be made from discarded oil barrels which are too leaky to be used for oil or gasoline, but which make perfectly good containers for ground mash or scratch feed. Many times these may be found in the dump piles of towns and cities. By removing one head with a cold chisel and hammering the edges smooth the barrel is ready for use. For a lid a sheet of tin may be tacked on wood or two thin boards may be nailed together with the grain of the wood at right angles. One of these may be cut a half inch larger than the other and one cut to fit the top of the barrel, then the wood covered with wire screening.

Galvanized water tanks make good containers, providing they are equipped with hinged covers. These are practically indestructible when properly cared for. The first cost is not great, and they can be obtained in sizes to suit the requirements of a small or a large flock. In addition to protection from rodents, the iron bins are a protection against dampness.

Another form of bin that can be made by most any poultryman during odd times, and also one that can be made to suit any size flock is the concrete bin. This is especially good if a permanent bin is desired. Forms may be set up about three inches apart. These forms to be in a square or rectangle to hold the desired amount of feed. Fill these forms with the following concrete mixture: One part portland cement, three parts good sand, and six parts of coarse gravel or crushed rock. When well set, the forms may be removed and the top covered with one quarter inch mesh wire netting. About two feet from one end or side a narrow board may be tacked to the concrete, or held by weights, allow the netting to be raised as a door to the bin.

A. R. Finley.

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The Wisconsin Farmer, Madison, Wis.

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FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

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HONEY. Pure extracted honey. Guaranteed first-class. Two 60-lb. cans, $12.60; one 60-lb. can, $6.60; six 10-lb. pails, $7.20; six 5-lb. pails, $3.75. Write M. E. Eggers, Station G, Eau Claire, Wisconsin.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $2,000 to $25,000. 6% with any pre-payment privilege desired. Addressed 206 Washington Bldg., Madison, Wisconsin.

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TELEGRAPHY taught, positions secured, at the oldest, largest and most thorough equipped railroad training school in Wisconsin. Established 1897, under same management for 19 years. Investigate, ask for our new rate sheet, special inducements. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY. Short hours. Positions guaranteed. Write Signal Dept., Northwestern Telegraph School, Eau Claire, Wis.

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FOX HOUNDS. Stamp for prices. Lafe Fox, Norwalk, Wisconsin.

BUFF ROCKS.

BUFF Rocks! Splendid breeders for sale. Frank Kramer, Ft. Atkinson, Wisconsin.

EMPTY FEED BAGS WANTED.

HIGH prices paid for empty feed bags. Write for prices to Springfield Bag & Burlap Co., Springfield, Illinois.

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TWENTY Duroc and Poland China sows, bred. Ten Poland China boars. Holstein bulls ready for service. E. G. Carpenter, Hortonville, Wis

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WANTED at once, one man for general farm work until next fall. Roy Dolphin, Montfort, Wisconsin.

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WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

Law Questions.

Death of Borrowed Mare—Damages.

Mr. Ed Nickel, De Pere, Wis.—My neighbor borrowed a mare from me, and worked her at the plow for four days. On the fifth morning he found her dead. Can I recover damages from my neighbor for the loss of the mare?

Answer.—If you can prove that the death of the mare was caused by any neglect, negligence, carelessness, overwork, or any other act of your neighbor, you can recover damages from him for the loss of the mare.

Delinquent Produce Company.

A Minnesota Subscriber.—I received a quotation of poultry market prices from a produce company, and I shipped to the company a crate of chickens. The company sent me a report of the shipment, but has not sent me any pay for the chickens, nor returned the crate, although I have written them several letters, which they failed to answer. How can I get pay for the chickens?

Answer.—You will have to bring a suit against the produce company unless it pays you voluntarily. Put your claim in the hands of a lawyer or collector in the town where the produce company does business.

Wages of Carpenter and Carfare.

A Subscriber, Amherst, Wis.—I hired a carpenter to do some work at my place. He lives near a railroad station eight miles away and he came on the first train, which reached my place at noon, and went to work. Nothing was said about the amount of wages. Is he entitled to wages for the forenoon, and the amount of carfare he paid.

Answer.—The carpenter is entitled to pay for his time in going from his home to your place, and in returning to his home and also to the carfare going and coming which he paid, and reasonable pay for his work.

Exempt Property.

A Subscriber, Sheboygan, Wis.—What amount of property does the law of Wisconsin allow a resident of that state to hold exempt from the payment of debts?

Answer.—A homestead of forty acres and house in the country, or a quarter acre and house in town and earnings of head of family for three months. Also a great number and variety of articles of personal property, enumerated on pages 2083 to 2086 of the Wisconsin statutes of 1898, which can be found in the office of any lawyer or justice of the peace. The description is too long to be published in these columns.

Lawful Fences in Minnesota.

A Subscriber, Wheaton, Minn.—What is a lawful fence in the state of Minnesota, when made of posts and wire?

Answer.—First, thirty-two-inch woven wire and two barbed wires, the first barbed wire four inches above the woven wire and the second barbed wire eight inches above the first. Or, second, forty-inch woven wire and one barbed wire four inches above it. Or, third, forty-eight-inch woven wire without any barbed wire. Or, fourth, four barbed wires of forty barbs to the rod, the top wire forty-eight inches high and the bottom wire from twelve to sixteen inches from the ground. In all such fences the wires must be firmly fastened to well-set posts not more than one rod apart.

Care and Oversight of the Poor.

A Subscriber, Wausaukee, Wis.—A is the chairman of a township board, but is not a freeholder or a taxpayer. A, while out hunting, shot B's boy and the boy had to be taken to a hospital for treatment. B is a poor man and cannot pay the hospital bill. Can A be compelled to pay said bill, or would it have to be paid by the township?

Answer.—A cannot be personally compelled to pay the hospital bill; but if the shooting was negligent, A is liable to the boy or the boy's father for damages, which would much more than cover the hospital bill. The supervisors of the town have the care and oversight of the poor who reside in the town, and it is their duty to relieve and take care of them properly. In this case the town is bound to furnish relief if the boy's father is poor and cannot do so.

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Your car is an investment worth protecting, and a garage of "Old Faithful" HEMLOCK is the way to protect it. Keep the car by itself where it won't get damaged; where greasy rags, gasoline and other inflammable things are out of harm's way, and where you have a place with everything handy when you have a job of engine-tinkering or cleaning to do. *A garage built of*

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Canadian Farmers Profit From Wheat

The war's devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and wheat near $2 a bushel offers great profits to the farmer. Canada's invitation is therefore especially attractive. She wants settlers to make money and happy, prosperous homes for themselves by helping her raise immense wheat crops.

You can get a Homestead of 160 acres FREE and other lands at remarkably low prices. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to acre. Wonderful crops also of **Oats, Barley and Flax.**

Mixed farming as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent.

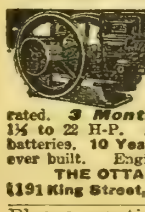
Military service is not compulsory in Canada, but there is an extra demand for farm labor to replace the many young men who have volunteered for the war. The Government is urging farmers to put extra acreage into grain. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Canada, or

Geo. A. Hall,
123 2d St., Milwaukee, Wis. Canadian Gov't Agt.

Stock Farms FREE

The Southeastern Land Show, to be held in Atlanta, February 1-15, 1917, is planning the distribution of about 100 stock farms to those making application for same while in attendance at the Land Show. The farms will contain from ten to 100 acres in each tract and will represent a money value of from $1,000 to $10,000. Full particulars will be furnished anyone desiring same upon application to the

SOUTHEASTERN LAND SHOW,
401 Flatiron Building Atlanta, Ga.



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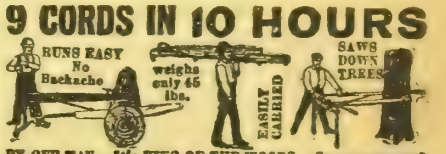

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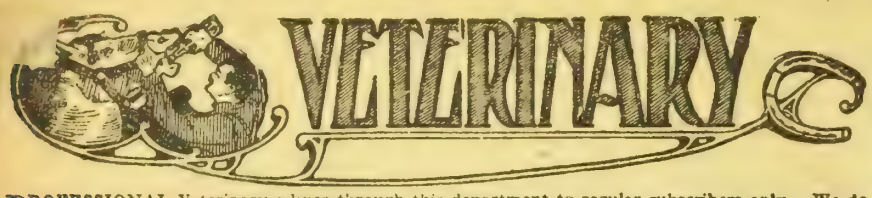

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Necrobacillosis in Pigs.

Please tell me what makes big lumps on pigs' jaws. We have some pigs that have these lumps on their jaws. We have tried different remedies, but have found nothing that helps them.

This is one form of sniffles in pigs and very little, if anything, can be done for them.

Rough Skin.

I would like your advice about a sick calf. This calf has a thick, dry scurvy skin on neck and all along back. It is very poor but seems to eat with a relish. Last spring he was terribly lousy and I tried different things and finally finished up on sheep dip, which did away with the lice. Would the sheep dip leave his hide in such shape? I tried to curry off his hide but I have to scratch hard to make any impression on it and then it bleeds. I feed him warm slop in the morning and all the nice second crop clover he wants.

This calf needs a general tonic and the very best of food. Give this calf two teaspoonfuls of Fowler's Solution of Arsenic in its soft feed once daily. Do not curry the rough skin, but use a brush and brush the parts gently once daily.

Eye Disturbance.

In August I had a cow that had sore eyes and went blind in about two months, dwindled and died. Her calf sucked her about all the time and did not seem to contract anything. About a week ago my best cow took the same way in one eye. I thought it might be pink eye, but it seems to be too slow, as none of the rest of the herd takes it.

You should have this herd examined by a competent veterinarian before any more animals become affected. There may be something in your herd that is slightly affected. The trouble with the eye has probably come through some general disturbance.

Ailing Cow.

I have a cow on my farm that has been sick for about three months. Some of my neighbors think it is pink eye. When she first took sick she would stand and keep turning her head from one side to the other, then later on she commenced to get blind and very thin in flesh. She always has a pretty good appetite. Some days she seems to be almost well, then again she is so bad that she hardly gets up, and she cannot see anything.

We would not attempt diagnosis without more symptoms. It might be possible there is some digestive disturbance, but it may be far more serious. It might pay you to get a veterinarian to look her over.

Unthriftiness in Horse.

Will you tell me what I can do for my horse? He is twelve years old. He is very thin and will not pick up. He has worms and I have been giving him worm medicine, but it does not seem to help him. He passes small blue worms. His teeth are in good shape.

First, give this animal two or three parts of oil of turpentine in a pint of linseed oil. Then start with a tonic composed of the following: Powdered cinchona, four and one-half ounces; dried iron sulphate, one and one-half ounces; powdered nux vomica, one and one-half ounces; powdered fennel, one ounce. Have this mixed by your druggist and give a heaping tablespoonful in feed three times daily. You will probably have to get this amount put up three or four times.

Sniffles in Pigs (Necrotic Rhinitis).

I would like some information as to cause and cure of a peculiar ailment of some of my pigs. Their noses swell up, some being sore, with considerable catarrhal discharge. Gradually they became snubnosed or bull dog effect, with lower jaw usually protruding a little and almost always the nose twisted more or less to one side, sometimes to a very marked degree, giving them a very odd appearance. Unless the catarrhal discharge stops they become quite runty, but a few with no discharge but with very marked twist to nose do pretty well. About one-eighth of my pigs are more or less affected. My nearest neighbor has the same trouble. Our pigs are of good quality.

It is not possible to efficiently treat these cases because of difficulty of applying medicaments to the lesion and further because of the destructive changes in the bones of the nose and face.

Dysentery.

Last fall my Short-horn bull took the scours and became very thin, whereupon I proceeded to doctor him. To get him back in condition was a hard job, so I decided to turn him in the feed lot and ship him along with the steers last June. He was in fine condition when I shipped my last load of steers, but I had no room for him in the car. I did not care, as I thought he was all over his trouble. I turned him on pasture and gave him a light feed of grain twice a day all summer, but he took the scours again soon after I turned him on grass. I did not doctor him after that. He is in the feed lot at present and can get all the hay and corn and corn fodder he wants, but he is too thin and poor to make a good shadow. Can I get this animal back in condition? If not, his hide is the most valuable part of him.

Your bull is probably troubled with dysentery, a severe form of diarrhea. It is probable it would take careful treatment to do him any good and this may even be impossible. What is causing the trouble is a question, as there are so many causes for a severe diarrhea. You might try giving a pint of linseed or castor oil and then give the following: Salol, two ounce, and water to make sixteen ounces. Mix and give two tablespoonfuls in a pint of warm water three times daily. Feed just moderately of good wholesome feed and give a less amount of water than usual.

Indigestion.

We had thirteen pigs about ten weeks old that were running with the mother and had milk and corn all the time. They were on an alfalfa pasture which had not been cut the last cutting but had gone to seed and been allowed to fall off. They had a good range. One morning when they came to drink milk I noticed one began to rear up and have fits. Then it fell over like it was in severe pain and lay like it was dead. It came to again but died that day. I lost seven the same way. There did not seem to be anything wrong with them until they were suddenly taken. I opened several but found everything all right except the bladder was all blood shot and their eyes were full of blood when they died. I penned the rest up in a dry pen and fed slop and grain and gave a few doses of a stock tonic and have not lost any more. They seem to be doing fine now. What do you think ailed them?

Your pigs were probably victims of severe indigestion from something they had eaten. The change of feed was the right move to make.

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A new trap for Rat, Skunk, Mink, Rabbit, Squirrel, Gopher, Musk Rat, all Small Game, Big Fish, Duck Turtle, Snake, stray Chickens. A sure catch, firm hold

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The Dreaded Scours Lead Direct to Calf Cholera

The digestive organs are paralyzed; food lies in an undigested mass in the stomach; it sours and ferments and decomposes. Do you wonder that so many calves die in a few hours after cholera strikes?

Dr. David Roberts' CALF CHOLERA REMEDY

overcomes the trouble by righting the digestive organs. It regulates the flow of gastric juice and soothes and heals the sore mucous membrane. It liquefies the poisonous gases already formed in the stomach and prevents fermentation. Digestion becomes normal and the disease is ended. Don't let the trouble go too far. Begin with Calf Cholera Remedy right away when scours appear. The disease is contagious.

Dr. David Roberts' Laxotonic

Removes all risk of improper treatment of live stock for stoppage of the bowels Three out of four cases of stoppage of the bowels are due to paralysis of the bowels. This is caused by partial or complete paralysis of the digestive organs. The food and contents of the bowels lie dormant, decomposition sets in and gives off a poisonous gas The result is that the animals show high fever, sunken eyes, loss of appetite and a gradual wasting away until finally death comes. Dr. David Roberts' Laxotonic relieves the paralytic condition of the digestive organs, moves the rapidly decomposing matter along and opens the bowels.

Cow Cleaner helps cows at calving time. Cleans and removes the afterbirth naturally; leaves organs in healthy breeding condition. Use *Antiseptic* to soothe and heal soreness of the genital organs.

Cow Tonic aids digestion, tones and conditions the cow system, keeps up appetite and prevents falling off of milk.

Breeding Tonic prepares and conditions for breeding. Calves are dropped naturally, complications are avoided. Use also for other animals.

Calf Meal, Diolice, Badger Balm, Laxotonic and Stokvigor are other Dr. Roberts' Prescriptions which mean better live stock.

Get Dr. Roberts' Live Stock Prescriptions at your drug store—nearly 4000 dealers in United States. Don't take anything but the package that has Dr. Roberts' picture right on the front. If you do not have Dr. Roberts' 184-page "Practical Home Veterinarian," treating all diseases of all live stock, enclose $1.00 and receive copy by mail. Address

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Minnesota Grange Meeting.

To the Editor:—New Year's greetings to The Wisconsin Farmer, and many of them. The forty-eighth annual meeting of the Minnesota State Grange was held at the University Farm School in the engineering building December 12th and 13th. Nearly every grange in the state was represented. On the first day we were invited in a body to the assembly hall. The officers were escorted by the principal, D. D. Mayne, to the platform. There our worthy state master, Bro. Chas. Rice, of Austin, Minn., addressed the audience, his topic being "Grange Work as Carried on in Minnesota." Brother McKaig, master of the North Dakota grange, scented us out by a notice in one of the Minneapolis dailies that we were in session at the University Farm. He was traveling through the state and had to change cars. He gave us a splendid address on what North Dakota had done in a legislative way by the farmers combining together.

It was voted to use $250 for extension work during the coming year; also to have a three days' session after this in place of two.

The master's annual address was largely on rural credits, co-operation, extension work, home economics, prohibition. During the meeting the lecturers of the different granges held a conference of their own.

The dean of the college addressed us on "Ten Questions Asked the College by Business Men." These questions are now in pamphlet form and are well worth reading, with their answers. C. P. Bull, professor of agronomy, also gave us a fine talk on pure seed.

We were very fortunate in being able to both eat and sleep on the grounds. The dean left no stone unturned to make us comfortable.

This year was the election of officers. I will make mention of but four, there being thirteen all told. Master, Chas. Rice, Austin; overseer, Chris Reinhard, Medford; lecturer, Geo. Brush, Owatonna; secretary, L. L. Hockett, Austin. The reports of the subordinate granges were very good. Three, I feel, are worthy of mention. One grange met together on Thanksgiving day and had dinner, another bought a canning outfit for their people, which was a great success, and still another bought 40,000 pounds (two carloads) of twine from our state twine exhibition and have an order ready for 45,000 pounds more. We advocate using state-prison-made goods. Why not? We certainly help to pay the taxes.

George H. R. Brush,
Lec. Minn. State Grange.

Fond du Lac County Orchard Report.

Report has been made by R. H. Roberts, of the college of agriculture, horticulture department, on spraying of fruit trees at the Thomas Rhodes farm in Fond du Lac county. The apple crop was recently sold off the Rhodes farm, so that the production of the sprayed trees and the unsprayed trees might be compared as to their value. Eighty-five per cent of the fruit grown by the sprayed trees was first grade, while none of the fruit produced by the unsprayed trees was first grade. The net gain per bushel for spraying was 74 cents. In this report Mr. Roberts says:

Regarding the report of our spraying results at the Thomas Roach farm the fruit has but lately been sold so that we could definitely sum up our results.

From the trees which we helped Mr. Roach to spray we obtained 85 per cent of the first grade fruit, 12 per cent of second grade, and 3 per cent culls, which sold at an average price of $1.14 per bushel. From the trees which were unsprayed, there was no first-grade fruit, but 37 per cent was second grade, the balance or 63 per cent being culls.

The average price for this fruit was 24 cents a bushel. It is also to be noted that the unsprayed trees had a smaller crop than the others, due to smaller-sized fruits and the dropping of a large per cent of the crop due to apple scab. On the basis mentioned, however, we would have the gain of 90 cents per bushel, due to spraying. The cost, including labor and material, was 16 cents a bushel or a net gain of 74 cents. The cost per bushel was high owing to a light yield, as the cost per tree was about 24 cents. These figures apply to the variety, Gano.

These results are due almost entirely to the spraying which Mr. Roach did while we were not present, as our spray plat included, but a small portion of the trees on which we gathered these data. The season gave one of the worst infections of apple scab that has been known, so we feel quite pleased with the results which we have obtained this year and feel confident that these can be duplicated by any farmer who follows carefully the time of application and the use of proper materials.

The spray used this year was the commercial lime sulphur solution, one gallon to forty gallons of water, to which was added one and one-half pounds of powdered arsenate of lead to each fifty gallons of water.

The applications were made as follows:

(1) Just after the blossom buds separated in the cluster so as to permit the covering of their entire surfaces. This was just previous to the blossoms opening. (2) Just after the blossoms fell. (3) Two weeks after the second spray. (4) About the first of August.

Study Your Fruit Diseases.

The federal department of agriculture has been making an exhaustive study of deciduous tree fruit. One subject of importance to Wisconsin is cedar rust on apples. Observations in the Eastern Appalachian mountains show that complete or partial eradication of cedar trees in the vicinity of apple orchards has completely solved the problem of cedar rust. There are quite a few communities in Wisconsin where the red cedars must be eradicated to protect the apple crop. The government has conducted practical field tests or methods of control of apple bitter rot. The report says that removal of cankers and diseased fruit supplemented by spraying reduced damage by these diseases to 2 per cent on early varieties and 1 per cent on late varieties. The orchard in which these field tests were conducted had previously been sprayed, but lost 10 to 25 per cent of the fruit each year. Adjacent orchards which had not been sprayed lost about 50 per cent on early varieties and 25 per cent on late varieties.

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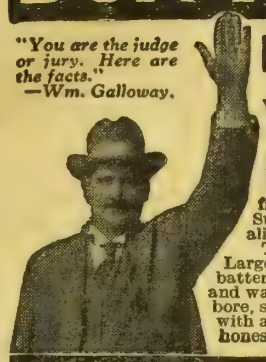

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—Wm. Galloway.

KNOW THE FACTS BEFORE YOU BUY!

My new 1917 book tells you the truth about heavy weight engines, about light weight engines, about four cycle engines, about two cycle engines, about high speed engines, about engines built to sell for a price—and about Galloway Masterpiece engines built **in our own factories** right here in Waterloo by Master engine designers and builders—their **heavy weight, large bore** and **long stroke**, low speed and genuine inbuilt durability and perfect service. My book gives bore, stroke, speed (RPM) and weight of every engine we manufacture.

All sizes, all styles at lowest prices. My 1917 model is a mechanical masterpiece from which it gets its name. It is a master-stroke in engine designing and building. Superior material, skilled workmanship, every part standardized, interchangeable and alike make it the peer of all engines on the market. Develops way above rated h. p.

The points mentioned in my engine talk No. 2 are only a few of its superior features. Large, heavy flywheels, Webster oscillating magneto supplies blue hot spark, needs no batteries. Make and break ignition, never misses fire, easily started, no cranking. Cylinder and water pot frost proof. Compare this 1917 Galloway Masterpiece engine size for size, bore, stroke, weight and low speed (which means easy running and long, satisfactory service), with any engine that is made anywhere, then be your own judge. Galloway engines are honestly rated, scientifically, accurately, handsomely built. Thousands of users testify to truth of my assertions. The Galloway Engine line is the finest, most complete, biggest value for the money on the market.

AW-4

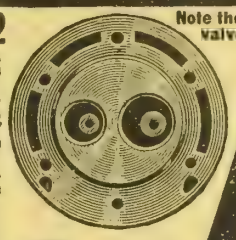
GALLOWAY'S ENGINE TALK NO. 2

1. **Valves in the Head.** Built like the modern automobile motor. Large intake valve means ample charge of gas and perfect combustion. Large exhaust valve means perfect cleaning of cylinder for next charge. No gasoline waste. No lost power. All burnt gases quickly driven out of cylinder after explosion. Automobile-ground valves insure perfect compression.

2. **Arch-of-Strength Cylinder Head.** Positively cannot blow off. Held by steel studs—nuts perfectly seated. Perfectly machined, makes absolutely tight joint with end of cylinder. All Galloway engines from 4 h. p. up are water jacketed. Water circulates freely around valves and valve stems. This type cylinder head provides nearly double amount of water space found on other styles. Valves always cool. Cannot warp out of shape.

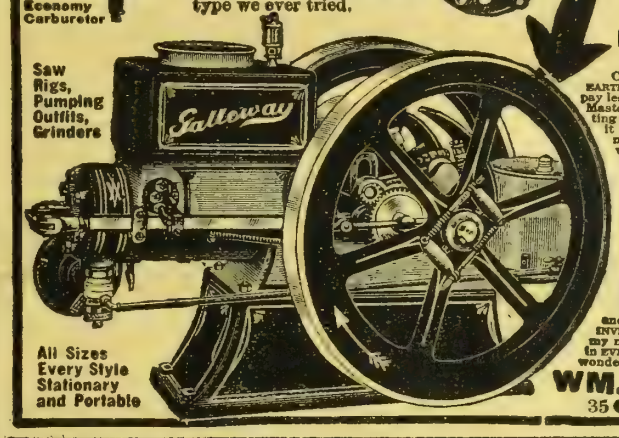
3. **Economy Carburetor.** Worth $15 more on any engine. Costs nothing extra on a Galloway. Cuts down fuel bills. Simple, positive and effective air valve adjustment—regulated at will—makes easy starting engine in any weather. Supplies perfect charge. Makes gasoline most satisfactory and cheapest fuel.

4. **Galloway Make and Break Sure-fire Igniter.** Our own design. No trouble. Never misses fire on batteries or magneto. Unaffected by heat or cold. Thousands in continuous operation for years without replacing igniter points. Gives least trouble from soot or carbon of any type we ever tried.


Note the big valves

Arch of Strength Cylinder Head

Economy Carburetor



Saw Rigs, Pumping Outfits, Grinders

All Sizes Every Style Stationary and Portable

Get This Free Book!

I want you to have this new book about Galloway Masterpiece engines. It tells you how to pick out, size up and judge an engine. Gives you engine secrets and facts. Tells why to insist on heavy weight, large bore, long stroke and low speed. Tells why we sell direct to farm or shop at wholesale. How to install an engine and hook up machinery. How Galloway engines are built. How to lay out and build a cheap, efficient power house. Why our prices on high-class portable and stationary engines, saw rigs and grinding outfits are so low considering quality. This book will guide you to a saving of $250 or even more in fitting up a farm power house. That's why I want you to get it. Ask today. A postal gets it.

I MAKE IT EASY FOR YOU TO BUY A GOOD ENGINE. SIX LIBERAL SELLING PLANS—CASH OR TIME.

In addition to making the lowest prices a GOOD engine can be sold for, I allow you your choice of SIX LIBERAL SELLING PLANS--which include every possible plan or terms of payment you could possibly ask for--practically YOUR OWN TERMS.

My NEW BOOK gives you complete information--get the book to-day--select the engine you want--choose the plan you want to buy ON--CASH--PART CASH--PART NOTE--ALL NOTE--INSTALLMENT--BANK DEPOSIT, etc., and I'll ship the engine at once. Besides, I will allow you to

TRY A GALLOWAY ENGINE ON ACTUAL POWER TEST WITHOUT EXPENSE TO YOU!

Free power test to satisfy yourself arranged if you desire. Our engines must prove to you in your own hands, you to be the sole judge, whether or not they actually do everything we claim for them. My engine must stand on its merits. If you like it keep it—if it is not satisfactory, fire it back to me and I'll PAY FREIGHT BOTH WAYS. Could any offer be more fair, more square, more liberal? It's simply a case of

YOUR MONEY BACK IF IT ISN'T THE BIGGEST ENGINE VALUE YOU EVER SAW!

Compare my engine with ANY ENGINE ON EARTH, whether it costs more or less. If you pay less for an engine than for a Galloway Masterpiece you could NOT POSSIBLY be getting as good an engine. If you pay more it would only be PAYING TOO MUCH. No matter what size or style engine you want I BUILD THEM here in Waterloo in my own great chain of factories to fill every WANT. My 1 3-4, 2 1-4, 4 h. p. and other sizes are just as SCIENTIFICALLY DESIGNED, BUILT, MACHINED and FINISHED as my mogul engines from 12 to 16 h. p. What better proposition can you get anywhere? My engines are the best that can be designed, built of finest materials that can be procured. Sold at prices that barely cover actual cost or ONE small profit.

Grinding Outfits of Every Capacity

This big book prices and describes power and sweep mills of every kind and style. Also lists all kinds of farm machinery. Ask for it today.

My $25,000 Bond PROTECTS YOU!

and every one of my customers and proves my willingness to have EVERY CLAIM and statement I make FULLY INVESTIGATED. I want you to TRY a Galloway engine on your farm--in your own shop. That's why I prepared my new 1917 special proposition. I want a Galloway Masterpiece 1917 model gas, kerosene or distillate engine in EVERY TOWNSHIP between NOW and APRIL 1st. Write me personally--now--today. I'll see that you get my wonderful book by return mail. You'll learn the truth about engines if you'll only let me tell you.

WM. GALLOWAY, Pres., WM. GALLOWAY CO.
35 GALLOWAY STATION WATERLOO, IOWA

Get My Price—FIRST
Freight Prepaid—30 Days' Free Trial

I want to quote you a price that will cause you to sit right up and take notice on the grandest, best plow that ever turned a furrow. I can do it because we are the *actual manufacturers*, and sell *direct to you*. We don't have traveling salesmen—don't sell to jobbers or dealers. You save those expenses and profits when you order direct from our factory. But that isn't all. You get a *better plow*. I say to you that the

MONMOUTH SULKY OR GANG PLOW

will prove easier for you to handle, easier on your horses and will do your work better than any plow you can buy, regardless of price. It's positively the only plow that actually carries the beams **on top** of the frame. No pressure on bottom of furrow—no friction. Single Bail and Horse Lift; and "Point First" action,

ALL SOLD DIRECT FROM FACTORY
FREIGHT PREPAID, SO YOU KNOW EXACTLY WHAT YOUR PLOW IS GOING TO COST YOU

I'll give you a chance to prove every statement I make, and we'll pay the "damages"—freight *both* ways—if we "fall down" in a single assertion. I want to tell you all about these plows and our other implements—Cultivators, Disc and Spike Tooth Harrows, Grain Drills, Mowers, Rakes, Farm Gates and other farm tools—all sold at factory prices. Satisfaction guaranteed. Just write a postal for our complete catalog. It's free. Write to me, **The Plow Man**, with

Get My Free Book

Lightest Draft Plow Made

Monmouth Plow Factory, 117 So. Main St. Monmouth, Ill.

Letz Grinds Oat Hulls

In one operation fine enough to feed swine. Grinds ear corn, SNAPPED CORN, oats, wheat, rye, ALFALFA, kafir corn with stalk, pea vines, cow peas. 1,000 to 3,000 bushels per set of plates—they will outlast from three to five sets of other plates. Self-sharpening, SILENT RUNNING, self-aligning. TEN DAYS FREE TRIAL. Valuable Feeding Book free.

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Books "What to Invent" and "How to Obtain a Patent" sent free. Send rough sketch for free report regarding patentability. A C & C patent on your idea to-day may mean independence tomorrow. Manufacturers constantly writing us to buy patents. Patents advertised for sale at our expense.

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And The AGENCY For Your Territory

Drive a new 1917 Model Birch Motor Car. Pay for it out of your commissions and make big money on sales. Special offer now. Write quick for Big Free Book and full information. Address Ralph Birchard, Pres.

BIRCH MOTOR CARS, Dept. 140 81 E. Madison St., Chicago

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

An Opportunity to Buy Bred Durocs.

WE sincerely believe that good registered sows are going to command a good figure the coming spring and especially later in the season, for that reason we believe that the buyers that make their selections early will derive the benefit. Riley Martiny & Son, Baraboo, Wis., have one of the good Duroc Jersey herds of the state and for a short time they will offer yearlings and spring gilts for sale at very reasonable prices. Their Durocs have size and quality and inasmuch as the writer was on their farm when the "culling" took place we are glad to say that the gilts and sows retained for the trade are of a meritorious character. This firm has recently added an outstanding boar to their herd. He is sired by King Royal, he a son of the champion, Royal King by Orion Cherry King. The dam is by the champion, Volunteer. This is one of the best prospects for a show boar that we have seen. Some of the best sows have been bred to this boar. Others are safe in pig to a son of the champion, Lee's Defender. This boar represents the blood of Defender, Crimson Wonder Again and Golden Model 2d. Two Guernsey bulls of serviceable age are also being offered for sale. One is imported and the other one is a son of George Washington of the Fairfield Farms. Write the above firm, we gladly recommend their stock. Please mention The Wisconsin Farmer. See page 23.—Adv.

E. W. Hendricks' Sale Offering.

WHEN February 14th is at hand the Poland China breeders of the state will have a feast for their eyes if they attend the sale of E. W. Hendricks, at Hazel Green, Wis. It has been some time since the writer has seen thirty better gilts than have been listed for this sale. We did not get to see the offering Ed had last year, but those that did say that this is a better bunch, so some of you will know what to expect. They have been bred for early farrow to two boars and in our estimation we believe that two of the best boars in the state are in this herd. Black Jumbo needs no introduction at this time; he is conceded to be one of the best sires in the state. The sows not sired by him have been bred to him. Those sired by Black Jumbo have been bred to Model Major 2d. We consider the latter boar the best of his age in the state. You can pass your judgment on him sale day at which time we believe you'll want a sow bred to him.—Adv.

The Poland Chinas For Madison.

AT this time it looks like an "even break" between the two breed associations that hold sales during swine week at Madison. We have recently seen some twenty head of Poland Chinas that are going in this sale and if the remainder of the sale offering is as good as the twenty we saw it will be the greatest lot of Poland Chinas that ever entered a sale ring. The interest being taken in these sales is remarkable and we have no doubt but what they are going to be a grand success. The catalogs are now in the hands of the printer and every man in the state that is interested in the Poland China should have one. Send your name and address to any one of the following breeders, who have charge of the mailing: J. F. Diley, Rush Lake; Rob't Smiley, Albany, and Burlie Dobson, Lancaster.—Adv.

Of Interest To You.

NOW is when the whole family will appreciate the use of an indoor toilet. They are very reasonable in price and furnish the convenience and comfort of a modern home at an extremely low cost. Every home not using a modern bath room should have one of these sanitary, odorless indoor toilets sent at once. It is a necessity for old or invalids and worth many times its price in convenience to the entire family. For particulars address Kawnear Cabinet Co., 705 Kawnear Bldg., Kansas City, Mo. See advertisement on page 6.—Adv.

Relative to the Grant County Sale.

WE HAVE just called on the men that will consign Poland Chinas to the Grant county sale, February 13th, and we will make the statement now that gilts will be sold in this sale that will compare favorably with any to be sold in the state. Frank Morehouse will have some in the sale as good as ever entered a sale ring. They now weigh over 300 pounds. Dobson & Eastman will have their usual high-class consignment. Frank Renalde will sell a few that will weigh around 375 pounds by sale day, and with the good gilts consigned by Mr. Flesch you can figure on a real sale offering.—Adv.

Shekletons' Stallions.

FRANK P. SHEKLETON & SONS, Lawler, Iowa, write as follows, under recent date: The horse business with us this fall has been good and inquiries are commencing to come in from all over the country for ton stallions. We expect a big business through the coming winter months, and have now on hand more ton stallions than we ever owned at one time before. We can show ten two-year-old black and dark gray Percheron stallions that weigh ten tons and they have the conformation and the right kind of bone to carry their immense weight. Our older Percheron stallions are a grand lot and should appeal to the most critical. In Belgians we offer imported four and five-year-old stallions, some of them good enough to go into any show ring, these together with our American-bred stallions weighing up to 2,300 makes one of the strongest collections of Belgians stallions in the state. Within the past two months we have sold to Arnold Lenth, of Farmersburg, Iowa, a four-year-old Percheron stallion. Kellering Bros., Goldfield, Iowa, took a good two-year-old Percheron stallion. Carl Jordan, of Beach, N. D., purchased a dark gray two-year-old Percheron stallion to breed to his full-blooded mares. C. T. Pisek, of Ole, Mont., took a six-year-old Belgian stallion. M. P. Simard, of Syndey, Mont., purchased a five-year-old Percheron. Byron C. Hill, of Glasgow, Mont., who is esablishing a herd of full-blooded mares purchased a grandson of Besique to head his herd. To Pat Sisk, of Baylor, Mont., we sold a good three-year-old dark gray Percheron. John Casey, of Opheim, Mont., was the buyer of a first-class five-year-old Belgian stallion. John Montague, of Tampico, Mont., purchased a black four-year-old Percheron stallion. To Chris Bulmer, St. Paul Park, Minn., we sold a four-year-old Belgian stallion. Now is the time to buy your stallion. You have a larger bunch to select from and can get your choice. The early bird catches the worm. Write us for prices and description." See page 21.—Adv.

Staude Mak-a-Tractor.

A RECENT invention, enables the farmer to solve the problems of economical plowing, preparation of seed beds and harvesting on small farms, by converting his Ford car into a dependable tractor, guaranteed to do the work of four horses, with greater efficiency and at a decided saving. It is the Staude Mak-a-Tractor. The Mak-a-Tractor was designed to meet the needs of the farmers with small farms of a quarter section or less, who cannot afford the more expensive labor-saving machinery of present-day farming. The Mak-a-Tractor can be attached to the car, or removed from it in twenty minutes, and does not injure the car. The advertisement on page 24 tells more about this economical invention which is doing so much for the small farmer. Readers of this paper who are interested may obtain a copy of the big illustrated free book "Reaping a Golden Harvest," by writing to the manufacturers of the Mak-a-Tractor, the E. G. Staude Manufacturing Co., 2669 West University Avenue, St. Paul, Minn. Be sure to mention that you read the advertisement in this paper.—Adv.

The Madison Duroc Sale.

FROM the present outlook here is going to be some sale of Duroc Jersey sows at Madison, February 7th. Some of the breeders that promised entries for his sale have failed to send them in, but others were secured, so we can advise our readers that there will be fifty head in the sale as promised. The writer has seen several of the sows that are going in this sale and we are glad to say that in many instances, the best individuals in the herd have been listed. Swine week at Madison is going to be a grand success. Tell all your friends to "meet me during swine week at Madison." The catalogs for the Duroc Jersey sale is now in the hands of the printer and should be ready for mailing about the 10th of January. If you want a catalog, send your name to J. D. Grant, Delavan; John L. Fisher, Janesville, or L. F. Atwater, Bangor, and they will see that you get your copy.—Adv.

Dunbar's Holstein Dispersion.

THE dispersion of Harry Dunbar's fine herd of Holstein cattle will be held Tuesday, January 30th, at Elkhorn, Wis. This herd has become well known to lovers of the breed by the winnings at the leading fairs throughout the state, including the state fair. It is a herd of more than the usual quality both in type and in production. Watch next week's issue for the announcement advertisement and the two following issues for larger advertisements descriptive of the offering.—Adv.

BOVEE'S PIPELESS FURNACES

Bovee's Central Heating Furnaces
Bovee's Regular Piped Furnaces

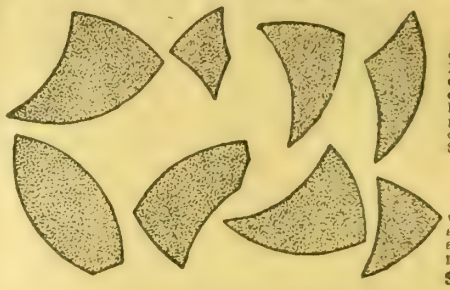
At Manufacturer's Prices
Save 40% of Cost
Save one-third of your fuel

GET the benefit of our 21 years' experience in manufacturing and installing furnaces. Get our positive guarantee (and it's good). Get our free three-colored catalogue. Address

BOVEE FURNACE WORKS
204 W. 8th Street Waterloo, Iowa.

Win Easter Surprise Packet

by Solving This Puzzle



Can you put these pieces together so as to make a circle? If you can do this, I will send you as a prize an Easter **surprise package, containing 36 beautiful assorted Easter cards, stamps and novelties. This is one of the most artistic Easter packages put out.** All you have to do is to enclose 4 cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate of entry in our grand contest for a $395 Saxon Automobile.

Saxon Car Given Away

Remember, the Saxon car will absolutely be given away at the close of the grand contest. In case of a tie a Saxon car will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars by return mail along with Easter packet.

SAXON EDITOR, 580 Popular Bldg., Des Moines, Iowa

JERSEY CATTLE.

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753,629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.

FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

OAK GROVE JERSEY FARM

WE are pricing our young bulls very low as we are crowded for calf stable room and have 22 cows to freshen. We are offering two sired by **OAK GROVE NOBLE LAD 122654, a grandson of Eminent and Noble of Oaklands.**

No. 1—Born Feb. 9, 1916. Out of **Volunteer's Sally**, that made 597 lbs. butter. Her daughter made 594 lbs. butter as a 2 year old and holds state record for her age. **Price $100.** Send for extended pedigree.

No. 2—Born Dec. 18, 1915. Out of **Koffee of Oak Grove**, in 305 days made 413.8 lbs. butter. She finishes her record Dec. 21st as a 2 year old. This bull won 1st at the Elkhorn fair. **Price $75.** Send for extended pedigree.

WM. KNIGHT - - - EAGLE, WIS.

JERSEYS

100 FEMALES in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write
FRED STUBLEY BLACK EARTH, WIS

Dairymen! —The Truth

You may be prejudiced against the Jersey because you don't know her. Look her up. She's the *Money Cow.*

Get This Book—a history of the breed and full of very interesting tests and facts. It proves conclusively that for pure dairy type, economy of production, richness of milk, long life and adaptability to feeds and climates—all these combined—she stands way above them all. This book "About Jersey Cattle" is free. Get your copy now. You'll find it mighty good reading.

Get This Book

The American Jersey Cattle Club
338 West 23rd Street, New York City

SALE DATES.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Short-horn Cattle.

Feb. 15, Wisconsin Short-horn Breeders' Assn., Sale at Madison, J. L. Tormey, Secy.

Holstein Cattle.

Jan. 30, Harry Dunbar Dispersion Sale, Elkhorn, Wis.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

Percheron, Belgians, Shires.

Jan. 30-31-Feb. 1-2, Breeders' Sale Co., C. W. Hurt, Mgr., Bloomington, Ill.

Poland China Swine.

Feb. 6, Percy Young, Prosper, Minn.
Feb. 6, M. Madson & Sons, Madison, Wis.
Feb. 7, Wisconsin Poland China Breeders, Assn., J. F. Diley, Rush Lake, Secy. (Sale at Madison, Wis.)
Feb. 8, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 13, Grant County Poland China Breeders' Assn., Lancaster, Wis., Burlie Dobson, Secy.
Feb. 14, E. W. Hendricks, Hazel Green, Wis.
Feb. 15, J. C. Hendricks, Hazel Green, Wis.
Feb. 16, Chris Kartman, Cassville, Wis.
Feb. 16, Gerlick & Barker, Mankato, Minn.
Feb. 22, William Smiley & Son, Albany, Wis.

Duroc Jersey Swine.

Jan. 8, F. M. Washburn, Lake Crystal, Minn.
Jan. 9, Johnson Bros., Winnebago, Minn.
Jan. 26, W. H. & A. D. Van Meter, Williamsville, Ill.
Jan. 29, Grimes Bros. & W. G. Krueger, West Union, Iowa.
Jan. 29, W. G. Krueger, Hawkeye, Iowa. (Sale at West Union, Iowa.)
Jan. 30, Dennis Shea, Melvina, Wis.
Jan. 31, L. F. Atwater, Bangor, Wis.
Feb. 2, Geo. Wilsie, Prosper, Minn
Feb. 7, Wisconsin Duroc Jersey Breeders' Assn., J. D. Gant, Delavan, Secy. (Sale at Madison, Wis.)
Feb. 8, Rock County Breeders' Sale, Janesville, Wis. P. V. Kuhn, Secy.
Feb. 15, Gant's Farm, Delavan, Wis.
Feb. 26, George W. Pagel, Zumbrota, Minn.

NEXT WEEK'S SALE PROGRAM

Monday, January 8 { Duroc Jerseys, F. M. Washburn, Lake Crystal, Minn.

Tuesday, January 9 { Duroc Jerseys, Johnson Bros., Winnebago, Minn.

YEARLING JERSEY BULL

BORN Oct. 15, 1915, ready for service; straight type, good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
Ora P. Taylor Elkhorn, Wis.

REGISTERED JERSEY
COWS AND HEIFERS

WITH **register of merit records** or **breeding.** Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
Ed. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . **JERSEYS**

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
H. Holt & Son Oconomowoc, Wis.

TOO LATE TO CLASSIFY.

PADDY by SCHOOLMASTER
CHESTER WHITES
C. EVANS by COMBINATION 2d

SPRING boars and gilts for sale by above boars. Only the tops shipped. Order early and get the pick. A. L. Gray, Mt. Hope, Grant Co., Wis.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640 born April 27, 1916, price $100. L. V. Garvens, Brookfield, Wis.

FINE IMPORTED BELGIAN STALLION

DARK bay six years old; priced at sacrifice for immediate sale. Mrs. J. F. Jones, West Salem, Wisconsin.

FOR SALE-3 REGISTERED PERCHERON stallions. J. D. Howarth, De Soto, Wis.

BIG HATCHES!

On One Gallon of Oil-One Filling of Tank!

RAYO Incubators produce higher average hatches because center heat insures even temperature. Hinged glass top puts eggs, thermometer and oil in plain sight, saving labor. Oil tank needs but one filling for entire hatch. Flame regulator saves 2 to 6 gals. oil every hatch. Hatching chart and money making book on request. Write for them and new catalog.

Rayo Incubator Co., U. D. Sta. 3398 Omaha, Neb.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, s'red by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.
ADAM SEITZ WAUKESHA, WISCONSIN

ALDEBARAN FARMS **A. R. AYRSHIRES**

YEARLING AYRSHIRE BULL ready for service, ¾ white, well grown, good, straight type. Dam has an Advanced Registry record of over 500 pounds of butter in a year. This youngster is backed by rich Advance Registry breeding. His dam, both grandams and both grandsires being Advance Registry animals. Send for pedigree and price. Address
STEPHEN BULL RACINE, WISCONSIN

AYRSHIRES

Can supply your wants if you want
HEIFERS OR BULLS
from A. R. dams. Also breeder of
Clydesdales and Durocs
Write your wants Address
JAS. VAN ETTA LIMA CENTER, WIS.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

YORKSHIRE SWINE.

FOR sale—Thoroughbred young Yorkshire hogs andOxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

SHORT-HORN CATTLE.

A Few Females Left

SHORT-HORNS that are good milkers, well bred and good individuals. Our cattle must give satisfaction—we want pleased customers. Write
WILLIAMS BROS. BANGOR, WISCONSIN

At Denver, Friday, Jan. 26th, 60 Short-horn Bulls

SELECTED from the tops of 500 Short-horn bulls to be assembled at the Western Live Stock Show at the Denver Stockyards, will be offered at public auction. These bulls are selected with the special purpose of securing the type most in favor in Colorado and in adjoining states. Don't forget the date.
American Short-horn Breeders' Ass'n 13 Dexter Park Ave., Chicago, Ill.

100 Short-horns to Select From-100

BULLS and females. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASSN., J. E. Kennedy, Secy. - - JANESVILLE, WIS.**

PURE SCOTCH SHORT-HORN BULL

SULTAN GOODS. White, January, 1915, tuberculin tested, right, bred by Anoka Farms. Sire, Royal Silver (sold for $4,000). Combines the blood of Choice Goods, Sultan, Premier, The Lad For Me and Princess Alice. Dam, Missie Sultana 2d, a Marr Missie. Few such bulls for sale—your opportunity. Address
F. S. BUNKER, KILBOURN, WISCONSIN

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AM offering several **red bulls** of serviceable age. They are a nice dark red and the finest in the land. Have one that weighs 650 pounds at 8 months old. Priced reasonable for immediate sale. Write for pedigrees. Address
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2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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OUR offering in Scotch Short-horns this year is probably the best we have had to offer our patrons in years. We have several young bulls of serviceable age, high in quality and rich in breeding, and these are priced to sell. Could also spare a few females.
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HAVE a few young cows with first calf; also a few mature cows, for sale. Three choice young bulls ready for service,reds and roan color, sired by Orange Clipper. Bull and heifer calves, born in October, sired by Clipper Sultan, a grandson of Whitehall Sultan. Prices reasonable. Address
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A Guernsey Show Bull Backed by Show and Production Records

DAM, Beatrix B, that at two years, five months of age, made 428 pounds of fat and gave 9,024 pounds of milk testing 4.74% fat. She is a daughter of Atwood Prince, whose offspring have been heavy prize winners and whose get of sire was never defeated. His seven A. R. daughters average 460 pounds fat at three years, five months. Sire, King Talladeen of Chestnut Hill, that has been first and champion at several leading fairs, has sired many prize winners. His dam made 635 pounds fat from 11,907 pounds of milk. Price $125. Two other yearling bulls of Glenwood breeding for sale from A. R. cows. Can also spare a few females. Send for our sale list or, better yet, come and visit Waukesha. If we haven't got what you want some of our fellow breeders will have.
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IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.
Berkshire Spring Boars and Gilts
of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address
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FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
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READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

YEARLING GUERNSEY BULL

SIRED by **Bond of Maud Iris** (whose dam made 45.7 lbs. of fat as a 2-yr.-old) and out of a daughter of Benton Harbor. The bull for sale is an outstanding individual.
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PURE-BRED Guernsey bulls, two of serviceable age, and eight calves at special prices for thirty days. A rare chance to get some of the best blood lines of the breed. Address
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REGISTERED bull calves 4 to 8 months old. Herd tuberculin tested. **EDW. H. KIESLING, JEFFERSON, WISCONSIN.**

TWO YEARLING
GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl,** a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.
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FT. ATKINSON, WIS.,
FOR GUERNSEY BULLS

FROM 2 to 10 months old; also a few females. Best of breeding and good size. Come and see them, or write for description and prices.

Yearling Guernsey Bull

BORN December 5, 1915, sired by Stranford Glenwood of Pinehurst 3d. Dam also of Glenwood breeding. One other bull ready for service. Price right. Send for extended pedigrees.
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SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

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The Bull Is Half the Herd!

King Segis Johanna, whose two nearest dams average over 39 pounds.

VISIT the Pabst Stock Farm and look over our splendid lot of youngsters from one to ten months old. Our sires are strong in Pontiac Korndyke breeding, backed by high records. All our cows have A. R. O. records nearly all from 20 to over 33 pounds. Our 38 yearly records average 16,619 pounds milk and 709.3 butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four year olds and 12 mature cows.

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HOLSTEIN BULL CALVES $100 and Up
VIGOR BREEDING

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.

Reuben Klofanda R. 1, Racine, Wis.

WELL GROWN, WELL MARKED HOLSTEIN BULL

BORN December 1, 1915. Ready for immediate service. Sire, Crown Pontiac Korndyke, a richly bred son of Pontiac Butter Boy, that has 59 A. R. O. daughters, 4 above 30 pounds, and that is a half brother of Hengerveld De Kol and out of the same dam as Pontiac Clothilde De Kol. Dam, Stellaris Burke Pontiac 3d 255567, a big, roomy heifer with a fine large udder and good teats. She will be [illegible] when she freshens again. Her dam is a 24.44-pound granddaughter of Hengerveld De[illegible]pe and high production have been bred into him in every line of his pedigree. Buy [illegible] soon be worth twice what we ask now. Send for pedigree. Address

[illegible]ON FARMS RACINE, WISCONSIN

A Richly Bred Aaltje Salo Bull

BORN February 28, 1915. **Ready for immediate service.** His dam, Aaltje Salo Netherland Mechthilde 78488, as a five year old made 23.35 pounds butter in seven days, 38 days after calving. She comes from a long line of heavy-producing ancestors. She not only has inherited this heavy-producing ability, but also transmits it. She has three A. R. O. daughters, one with a record of 28.63 pounds butter as a four year old. Her grandam, Aaltje Salo 5th's Netherland, has eight A. R. O. daughters holding the world's record for five years. The sire of the bull for sale is the 27-pound bull, DAISY JOHANNA 5TH, 1st prize two year old at the Wisconsin State Fair. Address

ARTHUR RUST WEST ALLIS, WISCONSIN

HOLSTEIN BULLS Ready For Service

BACKED by large 7-day and yearly records. King Segis Concordia Rigtje, born Dec. 13, 1915. Sire, King Segis Concordia Hengerveld, 3 junior 2-year-old daughters above 15 lbs., one 18.391 lbs. He is 32-lb. son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer. 1st dam, junior 2-year-old, 17.29 lbs. 7 days, 16,313.0 lbs. milk, 704.087 lbs. butter 1 year. 2d dam, junior 3-year-old, 14,083.0 lbs. milk, 550.6 lbs. butter. 3d dam, 23,485.0 lbs. milk, 918.76 lbs. butter. Weighed 115 lbs. at birth—large, growthy, handsome individual. Priced right. Send for extended pedigree and further information. Address

PINEHURST DAIRY, SHEBOYGAN FALLS, WISCONSIN

2 Richly Bred Holstein Yearling Bulls

BOTH sired by **King Pietertje Hengerveld Ormsby,** a full brother to **Pietertje Maid Ormsby.** Both are out of daughters of **Sir Aaggie Ormsby.** One an A. R. O. cow making 17.50 pounds butter as a three year old. These bulls are of **Ormsby** breeding on both sides. Send for extended pedigrees and prices. **HUTCHINSON BROTHERS & BURBACH, RANDOLPH, WISCONSIN**

TWO HOLSTEIN BULLS EIGHT MONTHS OLD

SIRED by Johanna Chief De Kol, that has 62½% of the same breeding as Johanna De Kol Van Beers, 40.07 lbs., with 7 tested daughters. First bull out of a 20.51-lb. dam, she sired by a grandson of De Kol Burke. Second bull out of a 19.50-lb. four year old, she a granddaughter of Sir Johanna Fayne, with a 31-lb. daughter. Also a few heifer calves nearly one year old by the above sire. Prices reasonable. Address **Edward O. Mueller, Appleton, Wisconsin**

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REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address

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THE two greatest Holstein counties in Wisconsin. Holsteins from these two counties have made Wisconsin famous. You can buy the same kind of blood now. Our breeders can now supply you with both males and females of all ages. Write Francis Darcey, Watertown, Wisconsin, Secretary, Inter-County Holstein Breeders' Association.

LA BELLE VIEW HOLSTEIN bulls keep moving. I told you so and there is a reason, we never have a yearling. People know good breeding and appreciate low prices. Only two youngsters left and they are dandies, from splendid A. R.O. dams and by a grandson of the famous bull, Sir Ormsby Hengerveld De Kol, that had world record dghts. and granddghts. to his credit. Satisfaction guar. E.E. Rosenkrans, Oconomowoc, Wis.

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MEQUON FARM offers Holstein bull calves sired by a [illegible] grandson of King of the Pontiacs [illegible] of high-producing cows at very reasonable [illegible] bull ready for service. Address

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High Grade Holstein

HEIFER calves, 15-16 pure, from high producing dams $18 crated. Also two bulls 11 and 9 mos. old from A. R. O. dams. Good individuals, nicely marked, 7-8 white. As we are short of room will price these right. Also bull calves. Send for pedigree and price. Mountain Ash Stock Farm J. B. Cain, Glenbuelah, Wis.

HIGH grade Holstein heifer calves, well marked, sired by registered bulls and out of heavy producing cows, $18.00 crated. Registered bull calves for sale. Paul McFarland, Watertown, Wis.

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HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - WAUKESHA, WISCONSIN

HOLSTEIN BULL FOR SALE

THE bull advertised last week has been sold and we now offer a grand individual, straight top line, square, broad rump, smooth over shoulders, well sprung ribs, good head and lots of style. Dropped July 1, 1915. Sired by Prince Johanna Belle, that came from the same herd that produced Johanna De Kol Van Beers, Cedarlawn Johanna and other noted animals. His dam is a half sister to a former world's record two year old, both being sired by Gem Pietertje Hengerveld Paul De Kol, 13 A. R. O. daughters. We are pricing this youngster at $90.00.

EDGEWOOD FARMS, Inc. PEWAUKEE, WISCONSIN

A PROVEN HOLSTEIN BULL FOR SALE

IN order to avoid inbreeding we offer for sale our great herd sire, King Artis Pontiac, born Jan. 25, 1911. His daughters have made records up to 20 pounds butter in 7 days at 2 years of age. His two nearest dams averaged over 29 lbs. butter in 7 days and his sire's dam has a record of 31.7 lbs. butter in 7 days and 21,834 lbs. of milk and 1,076 lbs. butter in one year. Write for pedigree and photo.

Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

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OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grandams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

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OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

SHORTAGE of milk compels sacrifice of young calves. Owing to increase in number of our milk customers, we are compelled to sell some unusually fine bull calves 1 to 2 months old. A. R. O. breeding on both sides. Price for quick sale, $35 to $50. Also a few heifer calves.

SILVER SPRING FARM CO. - EAU CLAIRE, WIS.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers Ixonia, Wisconsin

Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.

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Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

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HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb. cow, and out of A. R. O. dams. Write **R. C. Walker, Kilbourn, Wisconsin.**

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

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FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis.

REGISTERED HOLSTEIN BULLS

SIRED by King Liebe Jessie De Kol and out of good, heavy-producing dams. Bulls well-marked, over half white. R. W. Hume, Endeavor, Wis.

17 REGISTERED Holstein cows and heifers due to freshen soon. Best of breeding at farmers' prices. D. E. Buckley, Hartford, Wis.

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakburst Milk and Butter King. Price reasonable Send for extended pedigrees. Address

B. F. Winckler & Sons Medina, Wis.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

AT A REASONABLE PRICE

A SON of our noted herd sire, Cornucopia Pontiac Johanna 48355, that is by King of the Pontiacs (192 A. R. O. daughters) The bull for sale was born March 10, 1916. He is very well grown and of show ring conformation. His dam is an A. R. O. daughter of the 32-pound bull, Sir Pietertje Lyons Hengerveld. Send for extended pedigree—picture. Price very reasonable.

N. Dickinson & Son Lake Geneva, Wis.

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

W. H. S. Rhoda Watertown, Wis.

TWO HOLSTEIN BULLS

OF serviceable age, both from A. R. O. dams of choice breeding. One sired by the 27-lb bull, Daisy Johanna 5th, and one by Julip Segis Korndyke. Price $85 and $125.50. Address

L. V. GARVENS BROOKFIELD, WIS.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

HEIFERS BULLS

HOLSTEINS

A. R. O. backing—write.

FRIES & TULLOCH GENOA, WIS.

REG. Holstein Bull calves for sale. Sired by relatives of world's record cow, Duchess Skylark Ormsby. I can save you 50% on the price of your next bull; write for chart. Mark W. Rich, Buffalo Lake, Minn.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your wants. Address L. C. Underwood, Avoca, Wis.

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OFFERING two bulls of serviceable age for sale. Also a limited number of heifers. Choice individuals. Write **J. W. Salter & Sons, Unity, Wis.**

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HAVE a choice lot of yearlings, two and three-year-old heifers, bred and open. A few well-bred top bull calves. A great opportunity to buy foundation stock. Correspondence invited.

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SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.

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A SELECTED lot of Poland China spring and fall boars sired by CHIEF PRICE, the 700 lb. 1st prize senior yearling, and SELECT MAJOR, the 1st prize junior yearling at the 1916 Wisconsin State Fair, and other noted boars.

10 SPRING BOARS WEIGHED 2,070 POUNDS

on October 17th in just breeding condition. They measure 45 to 48 inches length, 44 to 46 inches around heart and flank and have 7 to 8 inch bone. The fall yearlings are exceptionally good, big, husky fellows.

L. P. MARTINY, CHIPPEWA FALLS, WIS.

THANK YOU

MR. OLD AND NEW CUSTOMER, for your patronage during the past year. It has been our banner year as breeders of Poland Chinas. We wish you success with each animal you purchased from us. Nothing more to sell.

DOBSON & EASTMAN LANCASTER, WIS.

NOTE:—The Wisconsin Farmer was the only paper in which they advertised

MADSON & SONS' POLANDS

ARE offering March and April boars that weigh 250 pounds, sired by CORRECT I AM and TRIUMPH. Buy the big type that have quality, the easy-feeding kind. 2 Short-horn bulls left.

M. MADSON & SONS MADISON, WISCONSIN

HENDRICKS' BIG-TYPE POLANDS

OUR annual Brood Sow Sale on Feb. 15th will be the most preeminent offering we have ever been able to produce by 15 different sires. Wait for this great sale to get your bred sows. Write for catalog. We hold the state's record on account of superiority. Address

J. C. Hendricks Box F, Hazel Green, Wis.

Model Major 2d

is considered by many as being the best 2-year-old POLAND CHINA BOAR in the state. I have spring boars sired by him that are GREAT. Why not buy where you can get the BEST?

CHAS. S. MALTBY JANESVILLE, WIS.

Master's Giant Orange Wonder Young's Big Joe

NO breeder has three better Poland China boars. They will make my bred sow sale, February 6, 1917.

P. W. Young Prosper, Minn.

BIG-TYPE POLAND CHINA

SPRING crop of boars at farmers' prices while they last at $25 and $30 each. Brood sow sale will be held February 16, 1917.

CHRIS KARTMAN - CASSVILLE, WIS.

POLANDS

BOARS and gilts of spring farrow ready to ship. Everything guaranteed and priced according to individuality and breeding. Write

R. MEINKING BANGOR, WIS.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

C. S. Flesch Mt. Ida, Wis.

FEBRUARY 22nd

WE SELL 50 POLAND

BRED SOWS

WAIT

WM. SMILEY & SONS ALBANY, WIS.

BIG-TYPE BOAR LONG PROSPECT FOR SALE

ONE of the best Poland China boars in Wisconsin. He is too good to be slaughtered, but am offering him at $65. Fall pigs of both sexes for sale. Jacob Kreuscher, Jr., Somers, Wisconsin.

Big Type Poland China

BOARS and gilts—well grown—of proven lines of breeding. Priced right.

Solomon Anderson, Green Bay, Wisconsin

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).

Marinette County Asylum - Peshtigo, Wis.

Big-Type Poland Chinas

75 BOARS and gilts of spring farrow. You get the pig and if suited send me the price is the way I sell. Write your wants. Address

W. T. Hartley R. 3, La Crosse, Wis.

BOARS! BOARS! BOARS!

POLAND CHINAS

Weighing from 225 to 300 pounds

Some of them sired by

MAC'S CHIEF

Grand champion Boar Wis. State Fair

I guarantee satisfaction in every respect. Address

OLAF C. OLSON

STRUM - WISCONSIN

BIG POLANDS

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.

E. W. HENDRICKS

Hazel Green Wis.

ABERDEEN ANGUS CATTLE.

ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

Buena Vista Aberdeen Angus

COWS, HEIFERS and CALVES all sold out. One bull of serviceable age and two bull calves for spring delivery, will go at $100 per head.

E. F. Ganz & Son Alma, Wisconsin

ANGUS BULLS FOR SALE

IF you are going to need a **good** herd bull get our prices before you buy. We have the goods. Hauk Bros., Cassville, Wisconsin

HEREFORD CATTLE.

HEREFORDS

BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.

J. J. F. WINTERS SPARTA, WIS.

SHEEP.

Ram and Ewe Yearlings and Rams

SHROPSHIRE, Oxford, Hampshire, Southdown, Rambouillet, Delaine, Cheviot, Merino, Cotswold, Angora goats. The best families of each breed represented. Our winnings at the fairs are proof of the quality.

Geo. A. Phillipi - Bear Creek, Wisconsin (Formerly Welcome)

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

A. P. CORTTE LOMIRA, WISCONSIN

DUROC JERSEY SWINE.

DUROC HOGS and JERSEY CATTLE

WE are offering well-grown, good-type Duroc fall boars and gilts at reasonable prices, sired by Lee's Defender, Corrector and Model Lady's Trade Mark. Fall pigs at weaning time—they are strong and vigorous.

YEARLING Jersey bulls and several high-grade cows and yearling heifers. We belong to the cow testing association; can tell you what each cow is producing.

F. R. CONSTANCE & SONS WAUPACA, WIS.

BURN BRAE DUROCS---The Good Kind

WE have 50 spring pigs for immediate sale sired by Burn Brae Golden Model and Burn Brae Orion. They have size and quality. Every pig guaranteed. Write or wire.

BURN BRAE FARM - - - ROSENDALE, WISCONSIN

Don't Forget Washburn's DurocSale

Lake Crystal, Minn., Jan. 8

IT isn't too late yet to attend. If you want to wire send same Monday to T.P.Shreve in care of

F. M. Washburn, Lake Crystal, Minn.

CEYLON COURT FARM

DUROCS

BOARS and gilts of March and April farrow of **Professor, Defender, Proud Advance** and **Cherry Chief** breeding. The most and richest popular lines of blood represented in our herd. Prices reasonable. Send for pedigrees.

Ceylon Court Farm - Lake Geneva, Wis.

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.

ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

Parker's Prolific Porkers

BRED GILTS FOR SALE

DUROCS safe in pig to King Orion, son of the grand champion at Omaha, and Pal's Chief by The Chief's Col. Illustrator, Orion Chief, Marion's Wonder, Defender and King of Col.s breeding. Guaranteed in every respect. Write

E. B. Parker & Son Janesville, Wis.

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailingilist.

Dennis Shea Melvina, Wis.

(10 miles from Sparta)

GEO. H. WILLSIE

Breeder of Big Durocs

Can supply your wants. Write.

Prosper - - - Minnesota

E. E. WYATT, Tomah, Wis.

GET my prices on **Duroc Jerseys**—boars and gilts, out of matured dams. Letters answered promptly.

BURT DUROC FARMS

70 BOARS and 70 sows by Professor B, Model Wonder, Col. S. Jr., Orion, Cherry King Jr. ☞ **We ship on approval and give 10 days' trial.** Write for our new guaranteed descriptions. Burt Duroc Farms, Brodhead, Wis.

BOARS ALL SOLD

REMEMBER my **Duroc Jersey sow sale January 31st**

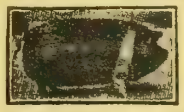
L. F. ATWATER BANGOR, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address

Geo. D. Sprain & Sons, West Salem, Wis.

HAMPSHIRE SWINE.



HAMPSHIRES

OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each; 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Dane's Model 25929.

DANE STOCK FARM OSHKOSH, WIS.

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"

We satisfy our customers. Write

Riley Martiny & Son Baraboo, Wis.

Also an imported Guernsey bull.

SAVE $$$$

BUY DUROC JERSEYS

of me. What do you want?

J.W. HIGGINS GOTHAM, WIS.

King Defender

GRAND champion Wisconsin State Fair, heads my herd of Duroc Jerseys. Am offering fall and spring boars of the most fashionable breeding for sale. Sows bred to King Defender will be offered later. Write your wants. Address

JOHN L. FISHER JANESVILLE, WIS.

Duroc Boars

OF early farrow all sold, some summer boars offered at reasonable prices. Will also sell Professor C, one of my well-bred herd boars. A limited number of spring gilts for sale. Write your wants. Address

M. STOEHR VIROQUA, WIS.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address

Emmett Cook & Son, Richland Center, Wis.

DUROC BOARS FOR SALE

BY Prince Defender, Royal King 4th, and Lee's Defender. Big, stretchy fellows. Shipped on approval. McCLURG BROS., Viroqua, Wis.

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write

Harry Crandell Cass City, Mich.

CHESTER WHITE SPRING

BOARS and gilts sired by **Elmo D** and out of daughters of the 800-lb. boar, **Monroe.** Pigs well grown and good heavy bone. Send for prices.

O. P. Coates - Elkhorn, Wisconsin

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.

H. A. DERENTHAL WYKOFF, MINN.

CHESTER

SOWS and gilts of fine quality and growth and of best blood lines. Safe in pig, at farmers' price. White Wyandotte cockerels from a big flock of high laying quality.

ART G HOSKINS DODGEVILLE, WIS.

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

WEST SALEM WISCONSIN

CHESTER WHITE SOWS AND GILTS

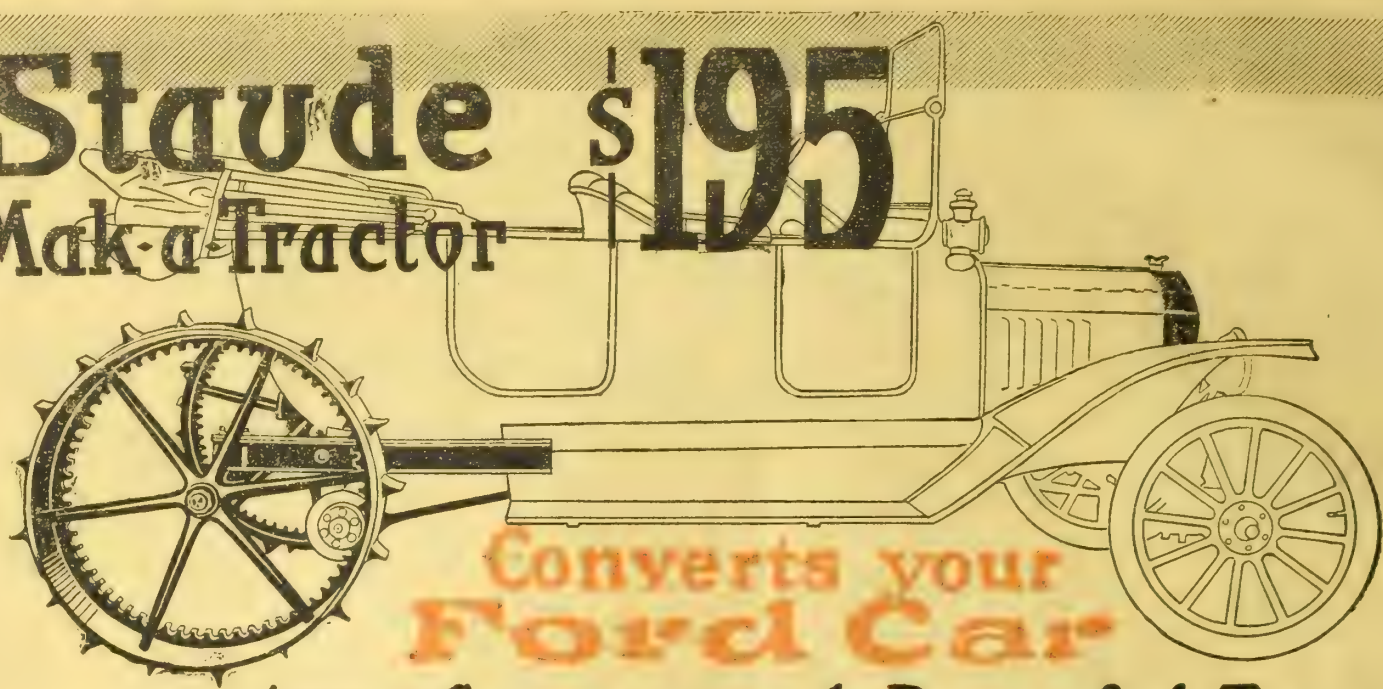
BRED for March and April farrow to Pay Streak and King Cole, a son of Chief Keokuk. Also August and September boars sired by Pay Streak, 2d prize junior yearling at the 1916 Wis. State Fair. Wm. F. BUTTS, Evansville, Wis.

IF YOU WANT

CHESTER WHITES

write W. P. Miller, West Salem, Wisconsin.

Staude Mak-a-Tractor $195



Converts your Ford Car into a Guaranteed Powerful Tractor

Make One Dollar Do The Work of Four in All Your Heavy Farm Work

Adapt the wonderful power and service value of your Ford to real labor saving, money earning work on your farm and still have your car ready for the use of your family when you are not working in the fields. You can do it with the Staude Mak-a-Tractor and improve the running of your Ford at the same time, by the permanent features of the Staude Mak-a-Tractor. New radiator, six times more efficient than the present Ford radiator—new force feed oiler—direct feed to motor bearings—sight gauge on dash. The tractor feature itself is installed or removed in twenty minutes.

Four Horse Work—One Horse Cost

In all your farm work, Plowing, Listing, Cultivating, Discing, Crushing Clods, Pulling Stumps, Spreading manure, and any other farm work you are now doing with horses, Staude Mak-a-Tractor will give you four horse efficiency and yet it costs no more than one horse to buy and nothing to keep when it is not working.

Plowing, it has been used with wonderful results by farmers all over the country pulling 28-inch bottom gang plows at a rate of 2½ miles an hour—hauling binders 3 miles an hour—and it will haul your heaviest farm wagons—fully loaded—anywhere horses can go—at 5 miles an hour.

Yet it gives you the use of your car for your family at any time, with only twenty minutes required to change it back for road use.

Staude's Masterpiece

This masterpiece of the inventive genius of E.G.Staude is time-tried, owner-tested, by hundreds of users all over the country in every kind of farm work during the past season. Install it on your car without boring any holes—without making any complicated connections. Take off the rear wheels and rear fenders—clamp the attachment to the car with four bolts—replace the Ford wheels with the Staude Roller Driving Pinion integral with the brake drum and the work is done. The radiator and oiling system are permanent and valuable additions to your car.

Remove the Staude axle, tractor wheels and drive pinions when you want your car for the road. The channel frame may stay on the car without injuring the appearance or riding qualities, or you can easily take it off in five minutes.

Only the Best Materials

Staude Mak-a-Tractor is Quality designed, Quality built. The cellular radiator—Staude designed—is the best radiator ever built for Fords and the special oiling system is the most efficient.

The channel section-rolled steel attachment frame is 4 inches deep. The Staude Tractor type wheels are 33 inches in diameter with 8½ inch face, 18 special Staude concave creepers for use in soft soil and sand, cut into the soil and give a pulling effect that cannot be attained through creepers of any other design.

The Staude Roller driving pinions mesh into a driving gear with self cleaning teeth, and this gear bolted to the inside of the tractor wheel carries the driving power, eliminating torsional strain on hub and spokes.

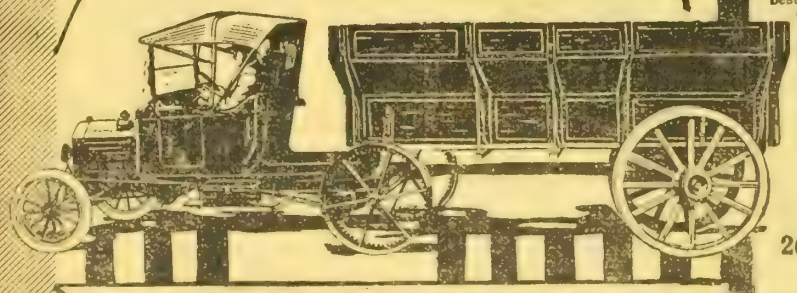
Staude rear axle is back of the car axle, an exclusive feature. The drive pinions *push down* on the tractor wheels instead of pulling up on them. The Ford is pushed by the tractor wheels. There is no waiste effort. Axle is cold rolled steel with 38 inch hitch. All the load is carried on the Staude Mak-a-Tractor axle: none on the rear axle of the car.

Wonderful Motor Efficiency

We furnish a Special Staude Ford Radiator — cellular type—six times as efficient as the standard Ford Radiator. The motor on a tractor heats up much quicker than if it were used in a faster moving vehicle. This is because the volume of air which passes through the radiator is much less when the car is moving slowly. We overcome this by increasing radiator capacity to offset this lower volume of air. Leave this on the car permanently—it's the best Ford Radiator ever built. 1917 Fords require individual radiator equipment — (specify model).

Staude Mak-a-Tractor final drive gear reduction gives 2½ miles an hour for plowing with regular pinion equipment. An extra pinion gives a speed of five miles an hour for hauling vehicles. The motor speed never goes above 1000 R. P. M., a safe, economical, efficient rate of speed.

And so great is the mechanical efficiency that the Ford you use not only runs in high gear, but starts in high.



Lessen Your Work—Increase Your Earnings Today

Figure it out yourself—rental of two teams is easily $10.00 a day—Staude Mak-a-Tractor doing the work of four horses at the cost of one, easily pays for itself in the first few weeks. After that it keeps on earning its cost price, month in and month out for years of service. Compare it with any other tractor—first cost is less than one-third that of any other doing anywhere near the same work and operating cost is only one-third as much.

References: Any Bank in St. Paul or Minneapolis

E. G. STAUDE MANUFACTURING CO.
2669 West University Avenue St. Paul, Minn.

See your automobile or farm implement dealer today and mail the coupon NOW—TODAY for the big illustrated book—FREE.

You can more than pay for a Staude Mak-a-Tractor in the saving it will make for you the first month.

E. G. STAUDE
MFG. CO.
2669 W. Univ. Av.
St. Paul, Minnesota

I would like to know how the Staude Mak-a-Tractor will cut down my cost of farming and increase my crops. Please send me your Big Illustrated FREE Book "Reaping a Golden Harvest" without any obligation to me whatever.

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THE WISCONSIN FARMER

VOL. XLVI. NO. 2. THURSDAY, JANUARY 11, 1917. WHOLE NO. 1824

SIGNITI VAGIN
Reading Room
Univ. of Ill.

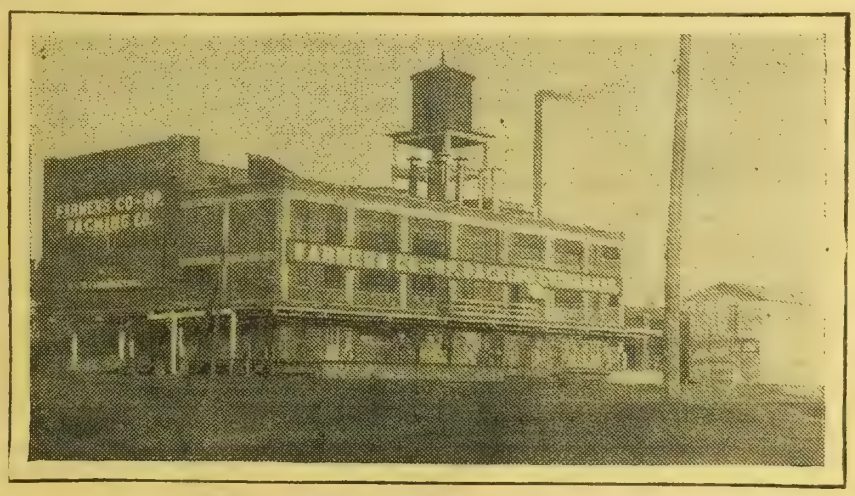
Farmers' Packing Plant at Wausau, Wis.

THE Farmers' Co-operative Packing Company, of Wausau, Marathon county, has now been in operation almost a year. Its success has been watched very closely by those interested in such enterprises, as they affect the farmer, and all the more since similar plants are now under construction in Madison, Dane county, and New Richmond, St. Croix county.

There has always existed more or less doubt whether such co-operative enterprises, with the big packers as competition, can succeed. The Wausau group of farmers are the second group in Wisconsin to so organize. Two years ago farmers near La Crosse co-operated to this end and bought a private packing plant, but its operation has met with many ups and downs and at the present time it is closed with the hope of reopening during the coming months. So with new plants at Madison and New Richmond soon to begin operations, the natural question is what is the plant at Wausau doing and is it returning to its farmer patrons a better price than could have been secured had these patrons shipped their stock to Chicago or other markets. In answer, it can be said that the Wausau plant meets the market quotations and there is certainly a saving in freight, shrinkage, etc., on the shorter haul to Wausau than on the longer hauls to the outside market. There also remains the opportunity for the stockholders in the company to share in the dividend if the company makes a profit.

The Wausau company is capitalized at $250,000 and the first killing was done on last January 17th. Its plant was built at a cost of $180,000 and an editor of The Wisconsin Farmer acknowledges with pleasure the courtesy extended to him recently on a visit to the plant. It is a model of convenience and cleanliness and has been built along the most advanced lines in packing plant construction. It has its own refrigeration system, its own ice house for icing cars of dressed meats. The building is of fire-proof construction, four stories high and 118x87 feet in size. It has cold storage capacity to take care of from 60,000 to 70,000 pounds of dressed meats and it is contended that such a plant, to be economically operated, must be able to carry this much meat in storage.

OFFICERS OF FARMERS' PACKING PLANT.
Left to Right—Charles H. May, Auditor; Ben Lang, Treasurer; L. C. Hoopman, Manager.



FRONT VIEW OF THE $180,000 PLANT.

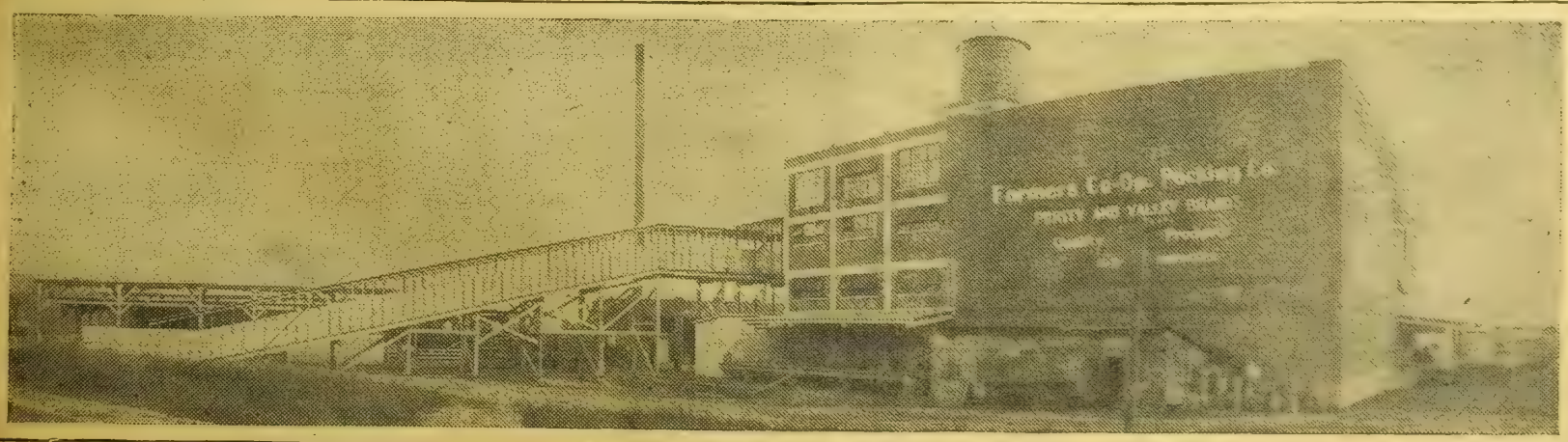
These are details that must all be worked out in management and concern the farmer little so long as the plant is operated at a profit and that he is getting good prices for his stock.

The functions of a packing plant are twofold—to dress and then sell. The business has been recognized as highly speculative. If the stock comes in so fast that the plant soon becomes overstocked and cannot sell its product, it faces a serious condition. The essential is to receive just enough stock daily to keep the plant working nicely and not to stock the stock rooms with dressed meats so heavily that it cannot be readily sold and moved.

If every one of the stockholders, of which there are 2,000, shipped to the Wausau plant in the same week, it would have more than it could care for and probably for two or three weeks would have nothing. So the first plan following organization was to divide the Wausau territory into shipping districts and by the organization of local shipping societies regulate the shipment of stock to meet the daily needs of the plant. There are now thirty-four of these local associations with a manager at each shipping point, and in this way the company at Wausau can notify when to ship and when not to ship. The practice during the killing season is for each association to ship once every two weeks, and this, it has been found, provides a steady supply of stock—enough to keep the plant working normally and not overstocking its yards and tying up its money in that way.

Mr. L. C. Hoopman, manager, believes that the shipping association plan is the ideal one for co-operative plants of this kind. None but stockholders are permitted to ship unless there is a shortage, when outsiders may ship to the plant, but without these organ-

(Concluded on page 15.)



REAR VIEW AND YARDS OF THE WAUSAU, WIS., FARMERS' PACKING PLANT.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Using Coal Oil in Radiator.

I would like to ask if it would be advisable to use coal oil in the radiator of my car to prevent freezing in cold weather. Would it hurt the radiator or engine in any way? Is there any danger of its exploding?

Answer.—We would not advise the use of coal oil in the radiator of either an automobile or a tractor. Its cooling properties are not as great as water; there is danger of an explosion; it ruins hose connections and cuts out the packing of the water manifolds and water pumps; and a coating of gum and carbon is likely to form around the engine cylinders that may prevent the motor from cooling even with water.

Automatic Spark Advance.

I have a 1916 model Metz roadster, equipped with a Bosch magneto having an automatic spark advance. I would like to know how to advance or retard it. There seems to be a clickety noise coming from the valves. A friend said that one of the tappets was loose. Would like to know how to remedy it.

Answer.—It should not be necessary to advance or retard the spark of a motor having an automatic spark advance, while the car is running. If you wish to test the spark so as to occur earlier or later, change the position of the timing gear on the shaft that drives the magneto. There are several things that can cause a clickety noise in the valves. The usual cause is too much play between the end of the push rod and the end of the valve. This end play should be about the thickness of a piece of newspaper when the cam is not raising the valve. Ford cars allow somewhat more than this. Most cars have an adjusting screw at this point, so that the lost motion may be easily taken up. The noise can also be caused by an incorrectly formed cam; a bent cam shaft; a worn valve tappet; or a worn valve tappet guide. The only remedy then is to replace or repair the worn or bent part.

A Drag Saw.

Is it practical to run a crosscut saw for sawing wood with a one-horse-power engine? Please publish diagram showing how saw and frame should be constructed.

Answer.—One horse power should be sufficient to run a cross-cut saw. Figures 1 and 2 are offered as a possible way to construct the machine; Figure 1 being the top view, and Figure 2 the view from the pulley

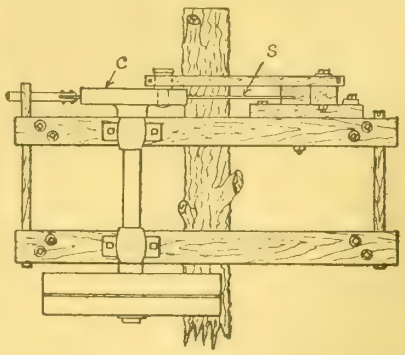


FIG. 1.

side. A shaft having a tight-and-loose pulley at one end and a crank disk at the other is mounted on a wood frame. The engine should be belted to the tight-and-loose pulley. The crank drives the pitman P, which drives the rocker arm T, at the lower end of which is fastened the saw, which must be free to turn about the bolt, so that the saw will drop

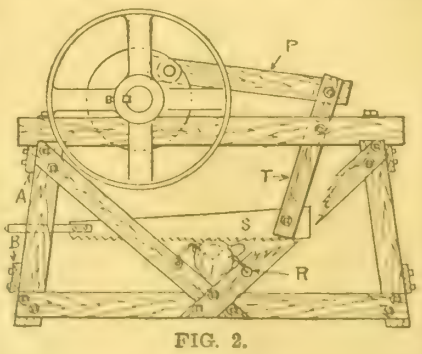


FIG. 2.

down of its own height. The log is supported between the diagonal bracing of the frame. It may be kept from turning by two hooks, shown at R. When the saw cuts through the log, the handle on the end of the saw falls down on B, and prevents the saw from digging into the ground. When the log is being moved forward, the saw may be hooked up over A. The saw should make seventy to 100 forward strokes per minute. If the frame is inclined to "wabble," use diagonal bracing to steady it.

Sawing With Five-Horse-Power Engine.

Please publish an inexpensive practical method of making a drag saw outfit for light work. Would it be practical to use a one-man crosscut saw, run by a five-horse-power gas engine?

Answer.—You could use a one-man saw, as illustrated on this page. If you have a five-horse-power engine, it would be much better for you to buy a circular sawing outfit. Your engine is large enough to run a 26-inch saw. The saw and frame complete should cost you less than $30.

Ford Engine on Tractor.

How would the horse power of a Ford automobile engine compare with the horse power of a stationary engine for such work as running a corn sheller or wood saw? What horse power would it have running on low? What horse power would it have running at the same speed as other engines? Does the Ford Company make a tractor?

Answer.—It is impossible to answer the above questions definitely. About one-third of the rated horse power of any automobile motor might be taken as the safe working capacity of the motor used as a stationary engine. This would give the Ford engine somewhat over seven horse power. At high engine speeds, the Ford engine will deliver its rated horse power, but it would not be advisable to run it constantly at so great a speed. It should deliver seven to ten horse power at a speed of 800 R. P. M. Driving through the transmission on low gear would not increase the available horse power, and the transmission would not stand the strain for a great length of time. Driving through low gear would increase the pull on the belt, but would also decrease the speed of the belt, so there would be no gain in power; the gain in pull being lost in the lower speed. Mr. Ford has done considerable work toward developing a tractor, but we have not heard of its being placed on the market.

Power of Auto Engine.

Would a forty-horse-power Studebaker car pull as much as a twenty-horse-power gasoline farm engine at the same speed all day? Is the motor good and correctly rated? Does the clutch of this car give good satisfaction? How much power will the motor develop on high, intermediate, and low? What makes the best wheels for tractor drive wheels?

Answer.—The remarks in the preceding article apply also to the Studebaker motor. It could be expected to deliver twelve to fifteen horse power when used as a stationary engine. Like nearly all automobile engines, it will deliver more than its rated horse power at high motor speed. The clutch of this car appears to be satisfactory. As stated above, the horse power is little affected by running in high or low gear; the loss of power due to friction being somewhat greater in low gear.

For homemade tractors, old binder bull wheels are often used. For tractors used to pull two 14-inch plows, two drivers about fifty inches diameter and eight inches wide should be used.

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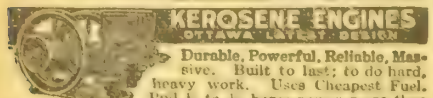

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The Wisconsin Farmer

THURSDAY, JANUARY 11, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

TO MY WISCONSIN NEPHEWS AND NIECES.

AMONG the many letters of deep personal interest that come to my desk from Wisconsin Farmer readers every day, there are none which arouse a greater feeling of pleasure, and also of responsibility, than those from my young friends all over the state. I think that the richest reward which life can hold for us, whose hair is fast silvering, is the feeling that perhaps we have helped some young man or woman to solve the problems and to meet the difficulties of youth, which are just as perplexing in their way as those of later years.

That is why the following letter from one of my young Wisconsin friends brought a thrill of pleasure, as I read it over the other day:

Waukesha, Wisconsin, Box 13, R. F. D. 4, December 26, 1916. Mr. James M. Pierce, Madison, Wisconsin. Dear Uncle: I should beg your pardon for taking the liberty of calling you uncle, but you make one feel that you are everybody's uncle, and I often speak of you in that way to my father and mother. After reading your advice for a couple of years I feel that it has always been good, and comes from one who is the guardian of all his nephews and nieces in Wisconsin. That is why I call you uncle. The Wisconsin Farmer carries off the purple, in my estimation. Its little hints and suggestions are always timely. I enjoy every department, especially your own page and the stock reports. Mother and father say they can't do without The Wisconsin Farmer, and I won't; so send it along for another year, for which please find draft enclosed. Yours for better farming and more good editorials.

Sincerely your nephew, F. A. NORTON.

My young friend does not need to ask my pardon for addressing me as uncle, for I feel that he has paid me one of the finest compliments possible. As I read his lines, with all the sincerity of youth written into them, it carried me back across the years to my own boyhood days in Ohio, when I, too, was a country lad, working as a farm hand for the princely sum of $5 a month. It recalled most vividly to me those days of struggle, when, a year later, my father fell beneath the stars and stripes before Vicksburg and I had to go to work to earn my own living and help provide for our family at the age of fifteen. It awakened memories of the winter days, when I walked a mile to my work in our local printing plant, sweeping out the five rooms that comprised the editorial and job printing departments, building fires in four stoves and being at my type case by seven o'clock every morning. I often think that, if I had had some paper or magazine to which I could have looked for inspiration, for words of friendly cheer and encouragement, for wise counsel and practical advice, how much it would have meant to me and how it might have helped to smooth the path that was oftentimes rough to my tender feet.

And so my heart goes out to the boys and girls of Wisconsin. If there is anything which I can do or say to help them avoid mistakes, to shun evil, to become useful, efficient, public-spirited men and women, I shall feel that no greater compensation could be asked. The Wisconsin boys and girls of today are the citizens of tomorrow, on whose shoulders will rest the grave responsibilities and burdens of nearly 180,000 prosperous Wisconsin farms. They are our greatest wealth—our hope and our future.

Uncle to the boys and girls of the Badger state? Yes, a hundred times yes—an uncle and friend, who sees in all his thousands of nephews and nieces, scattered over the state, the realization of the vision of good things which he dreams for the Wisconsin of tomorrow. That out of my own experiences I may help them to accomplish the great work which is before them is my fondest wish.

PROTECTION AGAINST SWINDLES.

I WANT to commend the example set by the farmers of Dakota county, Nebraska, who have organized what they call the Farmers' Protective Association. The chief aim and object of this organization is to protect the farmer-members against swindling schemes. Every member is pledged to refuse to invest a single penny in any plan or enterprise which does not have the endorsement of the association, and this endorsement is not to be had until a full investigation has been made of the plan and of the men back of it.

These farmers are determined (as a newspaper clipping sent to me by one of the number expresses it) that none of them "shall buy a city hall or court house or railroad station of some smooth-talking, affable stranger." The plan of the association, as I understand it, is just this: Anybody who has a speculative proposition, which he wishes to interest the farmers in, must submit it to all the members of the association at a public meeting and be ready with proofs that it is all he represents it to be. If the association then votes that the proposition is all right, the promoter may go out among the farmers and endeavor to interest them in it. If the association finds no merit in the plan, the promoter cannot get the ear of any of the members.

From this distance, I can see only good in the plan. The farmer should be protected against the unscrupulous and the wily fully as much as the merchant; and the latter has associations, in almost every town and city, for just such protection. I might cite the situation as it exists in the city where my publishing plant is located. The local Chamber of Commerce has a committee to which all promoters must come to secure credentials, entitling them to admittance to the office or place of business of members of the association. It does not matter what the plan is. It may be simply the insertion of a small advertisement in the program of a home-talent theatrical performance. It may be a book writing up the prominent men of the community. It may be a plan to sell stock in an altogether worthy enterprise. Regardless of its scope or merits, the proposition must be presented to this investigating committee and a favorable report made by them before credentials are issued, which entitle the promoter or agent to enter the place of business of the members. The Farmers' Protective Association, of Dakota county, Nebraska, is right in line. After all, the farmer needs such protection even more than the city man. Not that he is more credulous or gullible, for the farmer of today is too hard-headed and practical to be taken in by the slick schemes of former years. But the city man has the advantage of his daily newspaper to warn him against "slickers" the minute they put in an appearance. He meets his friends and neighbors on the street a half dozen times a day and the word is passed around that a new swindling scheme is being attempted. The farmer does not have all these advantages and protections. His daily paper may be late; the swindler may put in his appearance before the paper, exposing him, arrives. The farmer does not meet his friends and neighbors on the country road a half dozen times a day; the swindle may be effected before the word can be passed around the countryside. Therefore, it seems to me that such a protective association as I have outlined here is invaluable.

The world is undoubtedly growing better, but swindlers will continue to the end of time. Just recently the courts have convicted some dozen or more men, who made a cool million dollars selling imaginary wild horses, supposed to exist "somewhere in Arizona," to confiding investors, mainly in Kansas, Nebraska, Missouri, Iowa and South Dakota. Altogether something like 25,000 of these non-existent wild horses were sold. One man is said to have bought 1,000 head. The promoters claimed the wild horses were the "get" of certain Percheron stock that had been brought out to a government Indian reservation many years ago and that had broken loose and had never been recaptured. To begin with, there were no such wild horses as were sold, and, in the second place, even had there been, it was practically impossible to catch them and get them to market. But the scheme worked and $1,000,000 was cleared up in a couple of years. It only remains to add that most of the investors were city and town men, the farmers kept aloof. But wild-horse schemes, in some form or other, are constantly being promoted, and anything which will protect the farmer, as well as the town dweller, from the unscrupulous deserves our praise. I hope the example set by the Nebraska farmers will be widely followed.

PERSONAL CREDIT.

I AM in receipt of a number of letters, of which the following is a fair sample. It comes to me from a farmer in Wisconsin who cannot see how the new federal farm-loan law is going to improve conditions very materially. He writes:

How is the new federal loan law going to help the man who cannot already secure help from his local banker? Isn't there a factor in money loaning just as big as the security? Isn't that factor personal credit? Give us your ideas on this.

I have repeatedly stated in these columns that no laws can permanently help the man who is undeserving of help and who will not do all that he can for himself. The new federal farm-loan law is not designed so much to aid the farmer who cannot secure a loan under existing conditions as it is to enable the worthy farmer to secure his loans for a longer time, at a lower rate of interest and with an easier method of repayment. Back of all financial systems stands a factor which must never be overlooked for a minute. That factor is personal worth, or credit, as it might better be called.

I cannot do better in explanation of what I mean than to reprint the testimony of the late J. Pierpont Morgan before a congressional committee of investigation. Mr. Morgan was being examined by the noted lawyer, Samuel Untermyer, on the question of what entitles a business man (the same principles apply to the farmer, who is now generally recognized as being a business man) to credit. Here is an actual transcript of the testimony:

Mr. Morgan—I know lots of men, business men, too, who can borrow any amount, whose credit is unquestioned.

Mr. Untermyer—Is not that because it is believed that they have the money back of them?

Mr. Morgan—No, sir; it is because people believe in the man.

Mr. Untermyer—And it is regardless of whether he has any financial backing at all, is it?

Mr. Morgan—It is very often.

Mr. Untermyer—And he might not be worth anything?

Mr. Morgan—He might not have anything. I have known a man to come into my office, and I have given him a check for a million dollars when I knew he had not a cent in the world.

Mr. Untermyer—Commercial credits are based upon the possession of money or property?

Mr. Morgan—No, sir; the first thing is character.

Mr. Untermyer—Before money or property?

Mr. Morgan—Before money or anything else. Money cannot buy it.

Mr. Untermyer—So that a man with character, without anything at all behind it, can get all of the credit he wants, and a man with property cannot get it?

Mr. Morgan—That is very often the case.

Mr. Untermyer—But is that the rule of business?

Mr. Morgan—That is the rule of business, sir.

Mr. Untermyer—If that is the rule of business, Mr. Morgan, why do the banks demand, the first thing they ask, a statement of what the man has got, before they extend him credit?

Mr. Morgan—That is what they go into, but the first thing they say is, "We want to see your record."

Mr. Morgan is quoted as having said that a millionaire is not necessarily a man who has a million; it is a man who can get a million. The successful farmer is not necessarily a man with a hundred thousand idle dollars in the bank; it is one with pedigreed herds, whose fields yield above the average, whose buildings are kept in the best condition and whose farm produces to the utmost at a minimum of effort and expense.

I printed the letter, a couple of weeks ago, of a poor Holland immigrant-farmer, who came to northern Wisconsin and confronted almost insuperable difficulties, facing want and actual hunger before he finally began to make good. You may recall this portion of his letter:

Then the third day of March a certain person came to our place and asked us how we were getting along with our farm and how we stood with the real estate man from whom we bought. I told him as well as I could how things were with us. It was always the same story—I had so many expenses and I did not have a dollar in the house. Then he says, "I know you and your woman so well that I know you are too honest to try to beat anybody and I feel sorry for you and for your family. If there is any way of going after that man I will give you the money to pay for your farm on 5 per cent interest." Five days after that everything was all right, and now we have a good, clear title.

That poor immigrant-farmer had nothing to back up his note with, to make him a safe risk, except personal worth; personal credit, if you like that term better. Keep your credit good and you can hardly fail to forge ahead in the world. Pay your notes the very day they are due, or go on that day to the banker or implement dealer (or whoever holds them) and make arrangements for their extension. Never fail to do this. It is best even to ignore the customary three days of grace; bankers quickly notice the man who pays promptly and who takes no advantage of any subterfuge or delay. That man will get the next desired loan without a word of protest and at a lower rate of interest than the man who is careless of his credit.

The man behind the loan is just as important as the man behind the gun or the plow. He is fully as important as the security behind the loan. After all, he is the security, fully as much as the land or the stock or whatever is the collateral named in the mortgage. Keep your credit good under whatever financial system is in vogue; nothing is more important, nothing will advance you along the highway of prosperity at a surer, swifter pace.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Some Facts of Which We Are Proud.

There are many things to which The Wisconsin Farmer points with pride, as proof of the fact that it is the leading agricultural weekly of the state—first in the hearts and homes of Wisconsin's farmers.

The Wisconsin Farmer is proud not alone of the fact that it has the largest circulation, both inside and outside the state, of any farm weekly published in Wisconsin, but also of the additional fact that it has always been frank and fair with its readers and advertisers alike in circulation matters.

We believe that both of these classes of patrons are entitled to information regarding a paper's minimum guaranteed circulation, and, in line with that policy, The Wisconsin Farmer presents its figures in every issue, being the only farm weekly in the state that is doing this. In addition we furnish all advertising patrons desiring it with a map, showing the actual circulation in every county in the state, which is reliable evidence of our circulation supremacy.

The Wisconsin Farmer has nothing to conceal, and is willing and anxious to furnish the fullest information regarding its affairs to those who are interested. Not only are we proud of our circulation, but we are also proud of the kind of homes in which The Wisconsin Farmer is a weekly visitor; we are proud of the editorial features which we publish weekly and of the fact that we have one of the largest, strongest and most practical agricultural editorial staffs in the country; and we are proud of the character of the commercial and live stock advertising which appears in these columns.

All of these factors are important in the publication of a well-balanced farm journal, and The Wisconsin Farmer is glad to be able to base its claim to recognition as the Badger state's leading farm weekly on so substantial and well-tested a foundation as these facts afford.

Clean Milk the Wisconsin Dairyman's Ideal.

The cost of producing milk is one of the most important problems that confront Wisconsin dairymen today. It is true they are getting more for their milk than during past years, but feeds are also higher and as the cost of production goes up, even with higher prices, there is the possibility that the dairyman is none the better off. Unless prices rise more rapidly than the cost of producing the milk producer is none the gainer, so when production costs are watched carefully and cut to the minimum the margin of profit will just that much increase.

This brings us to the very able address of Mr. W. J. Dougan, of Beloit, at the recent state dairymen's convention. Mr. Dougan left the ministry to take up dairying and today his farm supplies a large part of milk for the city of Beloit.

Mr. Dougan does not belong to that school of thinkers who believe that milk to be clean must be surgically clean, that is, produced in a stable like an operating room and the milking approached with all the care of a critical surgical operation and that all milk be cooled close to the freezing point. Such requirements as these secure results there is no doubt, but these methods place the cost of production beyond reach of the average consumer. While Mr. Dougan does believe in clean milk, these extreme precautions he does not regard as necessary or absolutely essential. On this point he said:

There are three essentials embodied in the idea of clean milk, however, that cannot be disregarded. Namely: The cow, the utensils and the dairyman. The cow must be healthy, well fed and well groomed. But these factors cannot all be added to cost of production for the healthy, well-cared-for cow will pay a large part of the expense in increase of milk. Everything that comes in direct contact with the milk must be bacterially clean. The factor overshadowing all others and without which others are futile, is the clean dairyman himself. Not only must he be clean in appearance, but he must be of a clean, conscientious mind. That these methods get the desired results is proven by experiments carried on by the New York Experiment Station and in our own experiments. We had our own milk tested for bacteria at the experiment station at Madison each month for two years. Sixty-four per cent of the samples were under 5,000 bacteria per cubic centimeter; 88 per cent of the samples were below 10,000 bacteria per cubic centimeter, and our lowest was 800. This milk has also stood the test of satisfactorily feeding and saving the babes of our town.

It is as important to have clean milk for cheese and buttermaking as for the direct consumption. Farmers often object that they cannot afford to produce a clean milk, so they ask the public to consume their dirty product and to pay a good price for it. There is no better way to increase the use of dairy products than by giving the public to feel that these products are pure and wholesome, and handled with conscientious care to safeguard the public.

The mission of this association is to promote education in the production and use of clean dairy products, to fasten sane legislation on our statute books and to secure uniformity in regulations and inspection. Wisconsin should become famed for producing milk only from clean, healthy cows handled by clean-minded, high-principled men.

The production of clean milk should be the ideal of every dairyman. It not only means better prices in the end, but there is a lot of satisfaction in knowing that such is the case.

Special Issues Coming Soon.

The schedule of The Wisconsin Farmer for the next two months calls for some unusually interesting and valuable special issues, as follows:

Poultry number—February 1st.
Dairy and silo number—February 15th.
Building number—February 22d.
Garden, orchard and spraying number—March 1st.
Farm home number—March 8th.

Already the editors of The Wisconsin Farmer are hard at work, preparing and purchasing articles for these special numbers, which will be richly illustrated and which will go exhaustively and entertainingly into the various subjects. We are quite confident when we predict that no farm paper ever issued better editions (dealing with the all-important subjects of profitable poultry raising, fruit culture, dairying, building and farm home improvement) than The Wisconsin Farmer will issue on these subjects on the dates scheduled above.

Because of the fact that these big special editions are coming at so early a date, we want to repeat our suggestion to present subscribers to lose no time in renewing their subscriptions, so as to insure their receiving every copy. To procrastinate is to run the risk of missing one or more of these special issues, which alone will be found worth the whole year's subscription price. If every one of our present readers, whose subscription expires within the next few weeks, will renew promptly and will take the trouble to secure at least one new subscriber, we shall be able to make this the busiest, biggest and most useful year The Wisconsin Farmer has ever enjoyed.

Renew promptly, send in as many new subscriptions as possible and watch for these special issues; they will be authoritative, entertaining, practical, readable, richly illustrated and of interest to every member of every farm household into which The Wisconsin Farmer comes on its weekly visits.

Marketing Wisconsin Corn

Mr. John L. Tormey, secretary of the Wisconsin Short-horn Breeders' Association, has written a good bulletin on meat making, and this bulletin has been distributed by the Wisconsin Bankers' Association. Mr. Tormey takes the position that marketing corn direct should be generally condemned as a soil-robbing process. The farmer with a good eye for business should market his farm crop through live stock, reserving for his land a large proportion of plant food produced and selling his products in finished form and hence at an advanced price.

Mr. Tormey gives some interesting illustrations:

First: He shows an illustration of beef animal through which corn was marketed at 66 cents a bushel. The animal had to be fed 176 days, gaining but 1.7 pounds daily, and being fed each day, thirteen pounds of timothy hay, and fifteen pounds of corn.

Second: Another good well-bred animal marketed corn at $1.01 a bushel. It took this animal 120 days to make the same total gain as the animal referred to above. While the first animal gained 1.7 pounds daily, the second used as an illustration gained 2.5 pounds daily. But see what the second animal had to eat daily: Twenty-five pounds of corn silage, four pounds of clover hay, three pounds of cottonseed meal and fifteen pounds of corn.

This forcible illustration of introducing business methods into the feeding of steers is of no less interest than another illustration on feeding hogs. Mr. Tormey says there are many men who hesitate to feed their high-priced corn to hogs, and this has resulted in hog raising on many of our dairy farms as a mere side issue, and in many cases it is dropped altogether, usually we might add resulting in loss of profits on the farm. There are two illustrations on hog feeding:

First: A bunch of hogs market corn at 90 cents a bushel, or less. They must be fed 180 days weighing fifty-three and one-half pounds at the beginning and each to weigh 225 pounds at the finish with an average daily gain of .91 pounds daily. While these hogs have a balanced ration, they are kept in a dry lot and are eating daily 4.3 pounds of corn and .348 pounds of tankage.

Second: Another bunch of hogs which sold at 9 cents a pound at the feed lot and paid back $1.22 a bushel for the corn which they ate. It took only 125 days to increase the weight of these hogs from 52.2 pounds to 225 pounds on the average, and the gain was 1.36 pounds daily. These hogs had the run of one-fifteenth of an acre of rape. Besides this they ate daily 5.1 pounds of corn and .222 pounds of tankage. Under the conditions which they were raised, they had a great appetite for corn.

Continuing his illustrations and applying same to the sheep raising, Mr. Tormey gives two instances again in point:

First: This feeder lost money—the animal fed returned only 86.9 cents a bushel for corn and had to be fed 146 days to gain thirty-five pounds. This animal had a balanced ration, but an expensive and inefficient one. The daily ration included one pound timothy hay, one pound of corn and .2 pound of cottonseed meal.

Second: This feeder made money. The animal returned $1.19 per bushel for corn and made thirty-five pounds of gain in 109 days. This animal was fed on a farm where clover was grown. The daily ration fed was 1.5 pounds of clover hay and 1.3 pounds of corn.

In summing up his statement, Mr. Tormey shows that the meat-making business furnishes the farmer with a market for grain and forage, saves the by-products for farm use, and supplies the nation with an important article of food. If the farmers of this state would adopt proper feeding methods and make a little more careful study of the production of meat they would engage more actively in this business and would certainly profit by so doing.

Better Farm Animals Greatest Need of 1917.

Investigations made by the department of agriculture pertaining to the relative income obtained from grain farming as compared with stock farming shows up strongly in favor of the latter. One of the most farseeing agriculturists who is now before the public eye, Mr. Carl Vrooman, assistant secretary of agriculture, says there are three things necessary to make a money-maker of a farm that has been a losing proposition through steady grain farming. First, says Mr. Vrooman, grow more legumes; second, raise live stock as a side line, thus saving waste in pasture, fodder, straw, etc., holding down grain sales and keeping up the productivity of the soil; third, keep accounts of receipts and expenditures, thus substituting figures for guesswork as to whether money is being made or not. It was ascertained by the Iowa Beef Producers' Association that the yield of hay per acre on representative stock farms was two and one-fifth tons, while on grain farms the yield was one and one-fifth tons. Corn yielded on the average fifty-two bushels per acre on stock farms and thirty-eight bushels on grain farms. Even oats yielded seven bushels per acre more on the former than on the latter.

In spite of this splendid showing, live stock production is not keeping pace with the increase in our production. Prices during the last year have been most attractive and these may stimulate a keener interest in that type of farming which leads to the marketing of all the roughage and most of the grain through the medium of live stock. In all agitations, however, that are made favoring live stock farming the mistake must not be made of losing sight of the necessity of dealing with animals of an improved type. In the production of horses, cattle and hogs, as well as sheep, the extended use of the pure bred becomes imperative if progress is to be made. In any event live stock farming means a steady occupation every day in the year and what could be more discouraging than to have our boys and young men on the farm feeding scrub cattle, scrub hogs or scrub horses three times a day during 365 days in the year?

Those individuals who want their boys to follow in their footsteps and take up agriculture as a life calling will find their greatest aid in having their plans carried out in familiarizing the boys with the right class of stock. Without any sort of bookkeeping test the young man who cares for a cow that will only average 150 or 200 pounds of butter a year knows instinctively that there are meager profits from labor spent in handling trash of this kind and it is likewise true that the boy is apt to quickly pass up the work of farm choring if he has under his care thriftless, long-faced, slab-sided steers or late-maturing, long-legged, profitless hogs.

The tables are entirely turned if instead of the types we have referred to boys have to deal with animals having a cross or two of improved blood. This means in the dairy cow a possible doubling of her capacity, while in the case of the steer it means that the same weight can be attained in possibly twelve months shorter time than with the inferior animal. In the draft horse the first cross may add anywhere from 200 to 400 pounds onto the mature weight of the progeny and this may mean practically the doubling of the market value of an animal at four or five years old. In every way the arguments are all in favor of the improved animal.

In advising improvement of animals we are not overlooking the increased revenue that comes from the expenditure of a given effort, but after all it must be remembered that the greatest and most important factor to be dealt with on the farm is the farm family. Such policies as will contribute to their development must be enforced at all hazard and on the average we maintain that the well-conducted live stock farm where improved animals are dealt with takes a much firmer grip on the boys as they come into manhood than the grain farm which of necessity means a continuous and constant soil depletion.

Of Interest to Wisconsin Hog Raisers.

More and more stockmen are coming to believe that the policy of getting meat animals ready for market at an early age is sane and sound and in a recent issue of the Illinois Agriculturist E. T. Robbins gives a number of instances where swine breeders have been able to bring their hogs to a weight of practically 200 pounds at six months. Mr. Robbins places much emphasis on the importance of balancing the ration and the feeding of tankage has been attended with excellent results. In discussing these matters Mr. Robbins says:

Before our farm bure[illegible] began,

very little tankage was fed to hogs. Farmers have now been told the results they could expect from tankage. Farmers' elevators have been persuaded to put this in at a moderate profit so now several carloads of tankage are used in the country every year. The feeding of tankage is increasing steadily and is evidence that farmers appreciate the profit in its use.

Hog breeders have also been persuaded to pasture their hogs on alfalfa. This method has given splendid results in rapid and cheap gains on young hogs. Some of them have been persuaded to feed alfalfa hay to their brood sows in winter and this has brought their sows through the winter in splendid condition with very little other feed and they have had strong pigs. The last two years a special effort has been made to get farm bureau members to breed their sows for March pigs and push these along rapidly and sell them in September. This fall we got in reports from several members who carried this plan through and they were greatly pleased with the results.

L. E. Brown, of Delavan, had his pigs farrowed on the average the first week in March and he sold them September 8th, weighing 197 pounds in Delavan and the local shipper there paid him $10.50 per hundredweight. They topped the market in Peoria at $11.25. They had ear corn and tankage in self-feeders, and ashes and salt and part of the time corn-cob charcoal. They had blue grass pasture.

Wilbert C. Sommer, of Pekin, had thirty-two Chester White pigs farrowed between February 10th and March 19th. These were fed ear corn and tankage in the spring and later had shelled corn and tankage in self-feeders together with alfalfa pasture. He sold them at Peoria, September 12th, averaging 195 pounds at $10.90 per hundredweight.

S. L. Ackerman, Tremont, fed his March Poland China pigs ear corn and tankage in self-feeders with alfalfa pasture. He sold them in Peoria, September 20th, and the forty-nine head averaged 105 pounds at $11.05 per hundredweight.

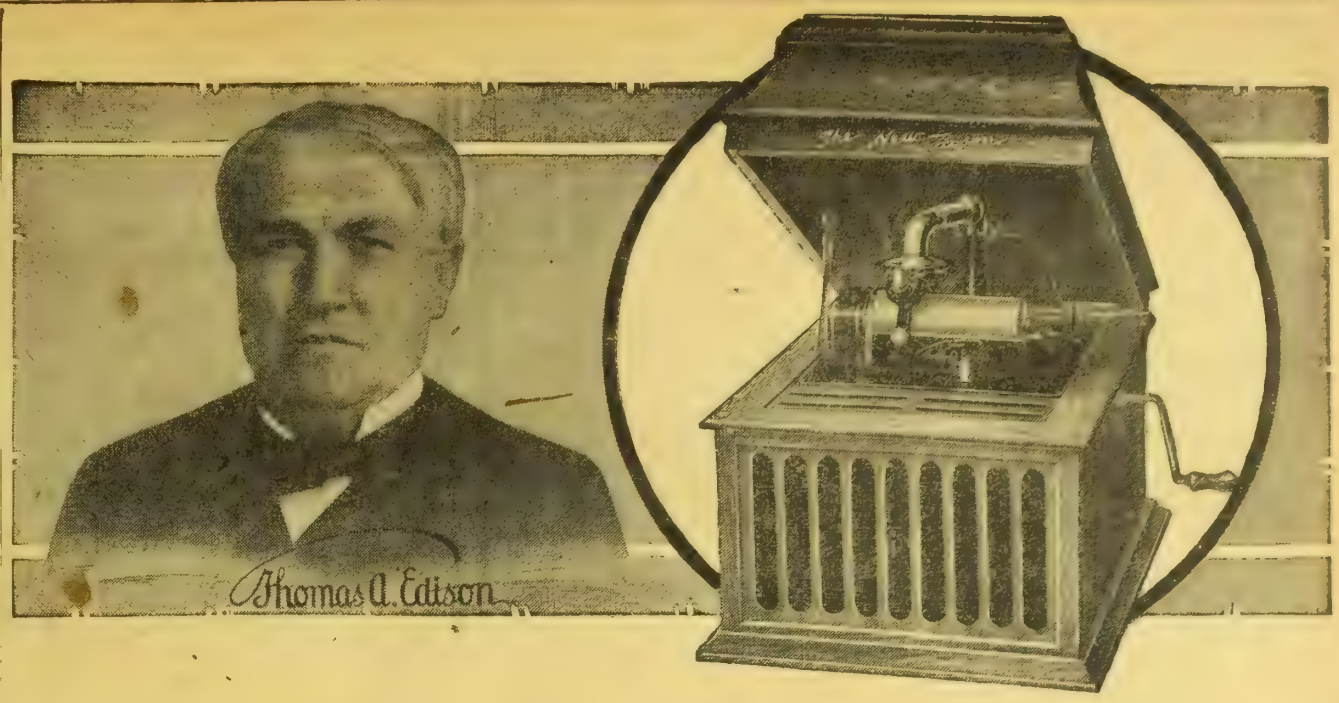
R. B. Orndoff, Hopedale, had fifty-seven March and April Poland China pigs which he fed shelled corn and tankage in self-feeders with blue grass pasture and sold in Peoria, September 28th, averaging 186 pounds at $10.25 per hundredweight.

Frank Harris, Tremont, had forty March and April Poland China pigs which he fed shelled corn and tankage with a little middlings in self-feeders and sold September 18th, at home, averaging 188 pounds at $10.65 per hundredweight.

Jos. Morris, Washington, had eighteen March cross-bred Duroc Jersey-Chester White pigs which he fed skim milk and alfalfa pasture with a little corn until August and after that all the corn they would eat. He sold eight on August 21st, averaging 160 pounds at $11.10 per hundredweight, and ten on September 21st, averaging 165 pounds at $9.25 per hundredweight.

These are examples of what can be done in pushing early pigs along so as to sell early in the fall when the price is usually the highest of the year. For the last twenty years the September top prices of hogs in Chicago have averaged $7 per hundredweight and for December $5.97 per hundredweight. On the average for twenty years a 200-pound hog could be sold in September for $14 and in December it would take a 235-pound hog to bring as much money. The 235-pound hog would have eaten about three bushels more corn than the other, and would run the risk of cholera three months longer. These are some of the reasons why these men and many other farm bureau members are breeding their sows in November.

It is a well-known fact that instances can be found in every neighborhood where hogs are no heavier at eight or nine months than those marketed by these Tazewell county stockmen in September. It is interesting to note that, considering prices for a twenty-year period, a 200-pound hog will bring as much money in September as the same hog would in December, providing he had run up to 235 pounds in weight. There is, as stated by Mr. Robbins, not only the three bushels of corn extra and the risk of cholera but there is the labor involved in its care, which in these days is an important item. Caring for fifty or a hundred hogs during the period of threshing, fall plowing and corn husking makes life rather strenuous during those periods, because under ordinary circumstances one has to put in full days at these tasks in addition to the time spent in choring. All things considered, it must be conceded that there is a clearly defined advantage in getting rid of hogs and indeed all classes of meat animals at an early age.



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Read the Coupon Below! An astounding offer—the New Edison, Mr. Edison's great new phonograph with the new Diamond Stylus reproducer, and twelve brand new Diamond Amberol Records sent to you on **absolutely free trial. Send no money**—just fill out the coupon below and send it to us at once. We will send you the complete outfit immediately. Entertain your family and friends with the latest song hits of the big cities. Laugh at the side-splitting minstrel shows. Hear anything from Grand Opera to Comic Vaudeville. Then, if you choose, send the whole outfit back to us **at our expense.**

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Think of it—a $1.00 payment, and a few dollars a month to get this outfit of Mr. Edison's new phonograph with the Diamond Stylus reproducer, the life-like music—the same Diamond Amberol Records—all the musical results of the highest priced outfits. The *finest*, the *best* that money can buy at very much less than the price at which imitations of the Genuine New Edison are offered.

After years of labor on his favorite invention, Mr. Edison has made the music of the phonograph true to life. There is no reason, now—especially since we make this rock-bottom offer—why you should be satisfied with anything less than Mr. Edison's genuine instrument.

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Convince yourself first. Get the New Edison in your home on free trial. See for yourself how much you *need* it in your life. See how much happier it will make your home. Just fill out the coupon and send it in. No money down, no C. O. D. You pay us nothing unless you keep the outfit. Send it back, if you wish, at our expense. Or pay only $1.00 after the trial, and $3.50 a month until you have paid $36.00. Send the coupon today.

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Dear Mr. Babson:—As per your offer, I should like to hear Mr. Edison's wonderful new style phonograph with the new Diamond Stylus reproducer in my own home on free trial. Also send me twelve records. If I decide to keep the outfit, I will have the privilege of the rock-bottom price of $36.00 direct from you on your special terms. I merely agree to take the outfit promptly from the depot, pay the small freight or express charges, and if I do not find it thoroughly satisfactory, I reserve the right to return the outfit at once at your expense. Otherwise, I will send the first payment of $1.00 within forty-eight hours after the free trial or as soon as possible, in no case exceeding one week, and will make monthly payments thereafter of $3.50 for 10 months. The outfit is to remain your property until the last payment has been made.

My name.....My post office.....Shipping point.....

Ship by.....State.....Occupation.....

Age.....Married or single.....If steadily employed at a salary please state.....

How long a resident in your neighborhood and your vicinity?.....If there is any possibility of changing your address during the next year, what will be your next address?.....

Bad Shoeing the Cause of Sidebones.

A writer in the North British Agriculturist discusses an ailment that is altogether too common among draft horses and he points out that "sidebones" are in most cases produced by the wearing of high-heeled shoes which lift the frog of the foot from its weight-bearing functions and from the ground pressure, thus throwing all the weight on the lateral cartilages, and these, from the extra work that they have to do, become inflamed and finally are turned into bone. They are found in the forefeet of draft horses and particularly in horses with strong, upright feet. If this ailment is hereditary it is due to the fact that certain conformations predispose the animal in favor of this ailment and irrational shoeing contributes to the rapid development of the trouble.

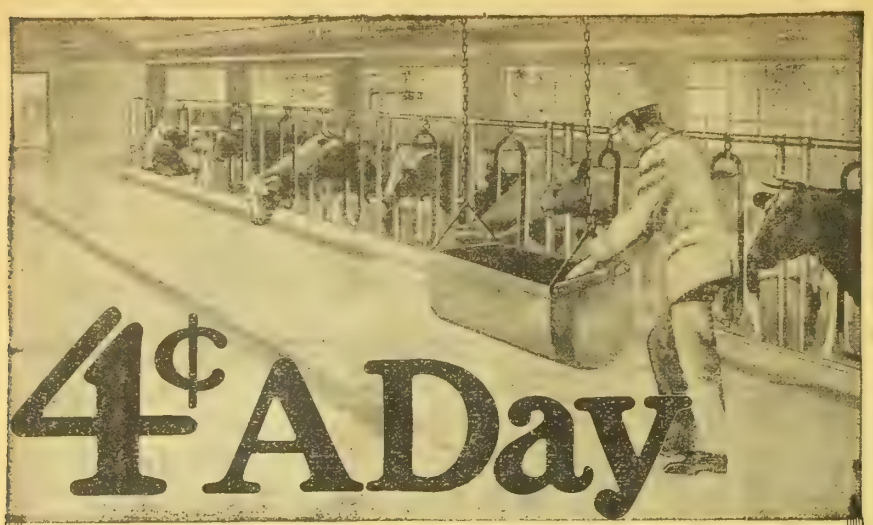
While the writer referred to points out that in a great majority of cases of sidebones there is no lameness and little or no inconvenience, it may be said that this holds true merely where horses are kept on the land, but when they are put on the city paving tenderness or soreness will sooner or later develop, the practical effect of which is to shorten the period of usefulness of the draft horse so affected. If it is true that even a sound foot can be put out of condition by high-heeled shoes, then it follows that those who are handling good draft horses and particularly those who deal with pure breds should not leave the shoeing entirely to the judgment of the blacksmith. The latter is inclined to use a little too much metal and in many cases he does not realize the serious results that may come from throwing a horse too high up in the air and taking the weight from the frog where it naturally belongs. We are not attempting to cast any aspersion on the profession of blacksmithing, but we do say that there is a tendency on the part of some individuals in the profession to commit this outrage on almost every heavy horse that comes into the shop.

Buying Cattle For Upper Wisconsin.

G. M. Householder, Rusk county agent, recently made a trip to Eau Claire county in company of prominent farmers, and purchased a carload of high-grade Guernsey and Holstein cows, including two pure-bred sires. These sires will head the J. S. Schmidt and A. T. Atwood herds in Rusk county. Mr. Householder reports that owing to the shortage of feed and overstocking on young animals it is possible to buy high-grade cows at this time at a quite reasonable figure. His recent trip was so successful that he is offering to make a similar purchasing tour for other farmers of the county, providing several will go in together and co-operate on the purchase of a carload or more.

The thirtieth annual meeting of the Wisconsin State Cranberry Growers' Association will be held at the G. A. R. hall in Grand Rapids, January 16, 1917. The officers of this association are: President, Andrew Sells, Grand Rapids; secretary, J. W. Fitch; vice president, C. J. Hoffman, Mather; treasurer, H. J. Gebhardt, Black River Falls.

With four large markets but a day's distance from any farm in the hog-producing section, Wisconsin farmers are ideally situated to market their hogs on foot successfully.



To Protect them from Tuberculosis

WHAT farmer wouldn't give 4 cents a day for one year to protect his stock from this dangerous disease for all time? This small sum for each animal in the barn quickly pays the cost of a King System of Ventilation. And no one can suggest better protection from tuberculosis than fresh air. Write for our new book on barn ventilation and let us tell you about the service back of the

KING SYSTEM OF VENTILATION

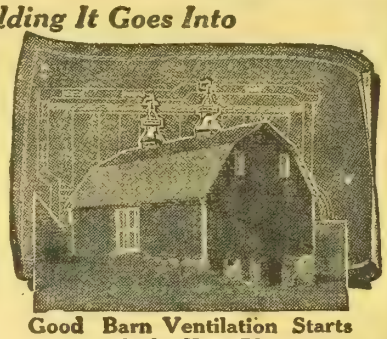
Planned for the Building It Goes Into

It costs less money to install a King System than to try to get the same results in any other way. We have eliminated guess work from planning the system—and we are equipped to supply the material for the system at lowest cost. In other words, we can give you more for your money and in addition *guarantee* the results after it is installed.

GET THIS BOOK

You can install a King System in any barn, new or old. The King Aerators are the first units of the system. They can be installed with or without the complete system. Write for our new book on barn ventilation.

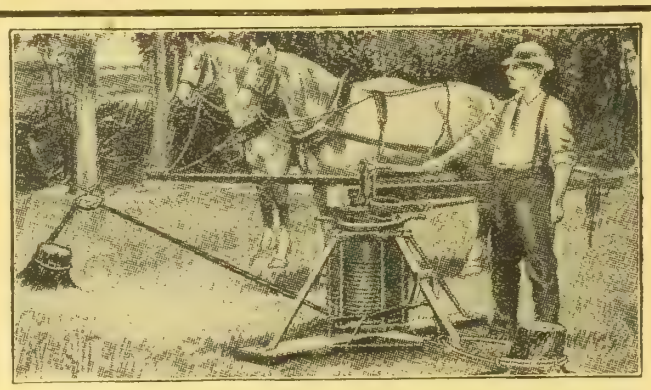
KING VENTILATING CO.
1144 Cedar St., Owatonna, Minn.



Good Barn Ventilation Starts with the King Plan.

Faultless Stump Puller

At a Special Low Price



The Faultless actually pulls from 50 to 100 percent more stumps at less cost of time and labor than any other stump puller. The cable winds onto the drum at the bottom all the time and the idle coils slide toward the top. This keeps the pull down and in a direct line with the anchor, and increases power. The machine cannot tip. Drum accommodates all of the cable, and it goes on only one layer deep. This prevents wear and relieves the strain on team and machine.

Machine and Cable are Guaranteed

against breakage for one year. Machines in use 15 years and longer are still in service.

Pull Stumps for 10 Days---Free

Clear from 10 to 50 acres. If not then satisfied that the Faultless Stump Puller will do more than we claim, return it to us at our expense.

The superiority of the Faultless is recognized by hundreds of farmers and railroads. It received highest awards at both the World's Fair at St. Louis and the Lewis & Clark Exposition at Portland in competitive demonstrations.

Write for special low price on our complete outfit, and our free book on clearing stump land.

Faultless Stump Puller Company, Dept. E, Cresco, Iowa.

MINNEAPOLIS PANEL SILOS

The silo that adds attractiveness to your farm buildings.

Built of Steel and Wood

Won't collapse when empty, rests uniformly on foundation, no tightening of hoops. Mechanically and structurally correct.

Shiplap, Drop Sided, Paneled Walls means longer life because seams and joints are always dry.

Catalogue and information sent upon request.

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Cow-Testing Reports.

Highest Cow's Ration.

To the Editor:—The Waupaca and Butternut Ridge Association had a fine report for the month ending Decemb r 20th. There were thirty-nine cows which produced forty pounds of butter fat or over in a thirty-day period. A grade Holstein belonging to E. O. Frihart, of Maple Grove Farm, produced sixty-one pounds of fat for the period, from 1,572 pounds of 3.9 per cent milk. The feed ration for this cow was corn silage, clover hay, roots, hominy, bran, ground oats and oil meal. Mr. Frihart's herd averaged 38.8 pounds of butter fat for the month. The report for the thirty-day period, giving the cows which produced forty-five pounds of fat or over, is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
F. R. Constance					
Lady, R. J. ..	3	11-12-16	921	5.0	46.0
Mary, G. J....	4	10-8-16	798	5.8	46.3
E. F. Schroeder					
Daisy, N.....	3	11-1-16	1092	4.7	51.3
Belle, G. G....	4	11-20-16	894	6.0	53.6
E. O. Frihart					
Daisy, G. H...	5	11-20-16	1572	3.9	61.3
Daisy, II, G. J.	10	11-5-16	1029	4.5	46.3
Brownie, G. G.	6	10-20-16	780	5.8	45.2
Herman Becker					
Nigger, G. J..	10	3-28-16	900	5.3	47.7
Schoolmaam, G. J.	3	10-14-16	1005	5.0	50.2
Guy Anderson					
Pearl, R. G...	6	10-3-16	831	5.5	45.7
Frank Bauer					
Bessie, N.....	3	11-10-16	1008	3.7	48.3
Jessie, N.	4	10-10-16	1344	4.1	55.1
Eva, N.	6	10-28-16	1467	3.4	49.9
Jno. C. Backes					
Alice, G. G....	3	10-22-16	972	4.9	47.6
Ira Farley					
Brownie, N...	10	19-19-16	1071	5.0	53.6
Jessie, G. H...	7	11-4-16	1512	3.6	54.4
Belle, G. H....	5	10-25-16	1641	3.4	55.8
Wm. Kneip					
Dora, N.	8	12-7-16	1104	4.1	45.3
Aug. Guenther					
Nora, G. G....	7	10-20-16	954	5.0	47.7
Wm. Rossey					
Dandy, G. G...	6	10-26-16	1158	4.9	56.7
Peterson & Miller					
Golden Tidy, R. G.	9	6-7-16	820	5.8	47.6
Jno. Hanson					
Edith, N.	5	10-28-16	1209	4.0	48.4

Geo. L. Moss, Official Tester.
Wm. Kneip, Secretary.

Argument For Pure-Bred Stock.

To the Editor:—Wood County Cow-Testing Association No. 1 had thirty-one cows and heifers which produced forty pounds of butter fat or over for the thirty-day period ending December 30, 1916. The highest producing cow, a registered Holstein, produced 64.7 pounds of butter fat, and this record in comparison with other grade or native cows having the same advantages, show up well for the pure breds. The record for the month is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
J. F. Schmidt					
Joh. Piet Fobes, R. H.	4	12-8-16	1749	3.7	64.7
H. J. Bassuener					
Clothilde, R.H.	5	11-10-16	1464	3.4	50.8
J. T. Holland					
Cynthia Ann, N.	4	12-10-16	1035	4.6	47.6
O. Osenga					
Dora Thorn, R. H.	3	11-23-16	1322	3.6	48.9
Mary, G. H...	6	11-10-16	1271	3.8	48.3
J. C. Keeffer					
No. 18, R. H...	4	11-10-16	1488	3.1	46.1
Peter Van Der Ploeg					
Bonnie, G. H..	6	10-31 16	1456	3.5	50.0
Belle Wood, R. H.	3	10-11-16	1314	3.6	47.3

J. L. Williams, Offcial Tester.

From a New Association.

To the Editor:—This is the first report from our new association, known as Sauk Prairie Cow-Testing Association. The cows which produced forty-five pounds of butter fat for the thirty-day period ending December 31, 1916, are as follows:

Owner, name and breed	Age	Lbs. milk	Per cent fat	Lbs. B. fat
A. G. Arcola				
Fern's Bebelle, R. J.	10	930	4.9	45.5
J. H. Arcola				
Spot, G. S. H.....		976	5.2	50.7
Martin Moely				
Grandma, G. H.....	8	1047	4.6	48.2
Holstein, G. H.....	4	1370	3.8	52.0

There were six cows between forty and forty-five pounds.

Earl Clingman, Official Tester.
C. A. Bickford, Secretary.

Luck Association.

The Luck Cow-Testing Association in Polk county now numbers twenty-seven herds. H. L. Trede and Alex. Holmberg had the two highest producing cows last month. A grade Guernsey owned by Mr. Trede produced 4 .3 pounds of butter fat from 900 pounds of milk, testing 4.7 per cent. A grade Holstein owned by Alex. Holmberg produced 40.4 pounds of butter fat from 1,155 pounds of milk, testing 3.5 per cent. The tester for this association, Marius Neilsen, reports having found three separators last month which left excessive amounts of butter fat in the skim milk.

Geneva Records.

To The Editor:—The following table shows the cows in the Geneva Cow-Testing Association, which produced forty-five pounds of butter fat or over for the thirty-day period ending November 30, 1916:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
O. P. Taylor					
Erma, R. J...	4	11-6-16	900	7.3	65.7
Queen, R. J...	6	10-22-16	963	5.5	53.0
A. G. Palmer & Sons					
Gem, R. H...	4	10-15-16	1584	3.7	58.6
Nora, G. H...	9	10-8-16	1224	3.9	47.7
Lucien Curtis					
May, G. G.....	8	10-23-16	1014	5.3	53.7
No. 20, G. G...	8	10-11-16	1386	3.6	49.9
D. E. La Bar					
Kicker, G. H..	6	10-30-16	1368	3.8	49.2
Dallas Davis					
Mercedes, R.H.	7	10-28-16	1593	3.3	52.6
Hartog, R. H.	7	10-1-16	1425	3.3	47.0
Bettie, G. H...	5	10-22-16	1299	3.5	45.5

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.

Practically no injury to alfalfa from summer heat has been recorded in dry climates, but high temperatures combined with much moisture in the atmosphere are so injurious that it is difficult to grow the crop successfully under these conditions.

Don't you prefer a "no-winter" farm! California

Maybe where you now live everything is frozen up —in winter's grip

Roads snowdrifted Bare fields, bare trees

Stock eating their heads off in costly shelters

Coal pile getting low

Can't keep warm Ears frostbitten Fingers numb

Br-r-r-r!

Only three or four days away, by quick Santa Fe train, is a sunny land, where the world is different

Farm busy every day

Stock graze green fields

Family enjoy balmy outdoors

Burn little fuel

Wear light clothing

Something always ready to market

Work easy for all

January like May

Won't you write to-day for our San Joaquin Valley land folder (California)? It's full of facts, full of pictures.

It tells all about what farmers like you are doing out there—how they make good money raising alfalfa and wheat, apricots and oranges; how they succeed in dairying and live stock, vineyards and orchards.

Only costs you a postcard inquiry.

Santa Fe personally-conducted tourist-car parties lessen travel cost.

C. L. Seagrave, Industrial Commissioner
Atchison, Topeka & Santa Fe Ry.
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FARMERS HANDY WAGON

Low steel wheels, wide tires, make loading and handling easier. We furnish Steel Wheels to fit any axle, to carry any load. Plain or grooved tire. Catalogue sent free.

EMPIRE MFG CO., Box 387 Quincy, Ill.

Wisconsin Poultry Ass'n Awards

Largest of Thirteen Annual Shows Is Staged at the Stock Pavilion, College of Agriculture, Madison, Last Week.

THE Wisconsin Poultry Association staged its thirteenth and largest state show at the stock pavilion at the college of agriculture, Madison, last week. There were sixty-six exhibitors. M. C. Gerard, of Stoughton, president of the association, and James E. Halpin, of the college of agriculture, were in charge of the show. Interesting exhibits were offered by the state experiment station, including several record laying hens. A veteran Plymouth Rock held the high record of 258 eggs laid in twelve months. The following is the list of awards:

Exhibition Barred Plymouth Rocks—Wm. F. Belda, DeForest, Wis., 1st ckl., 3d ck.; Joseph Fix, Madison, Wis., 1st ck.; Dr. D. D. Culham, Stoughton, Wis., 2d ckl.; Geo. Hackett, North Freedom, Wis.; 2d hen; John F. Johns, Dodgeville, Wis., 1st hen, 4th and 5th ckl.; Ives Roberts, Fort Atkinson, Wis., 1st and 4th ck., 3d ckl., 3d hen, 1 . and 2d plt., 1st pen.

Barred Plymouth Rocks (Cockerel Bred)—Joseph Fix, Madison, Wis., 1st plt., 2d hen; John F. Johns, Dodgeville, Wis.; 2d, 3d and 4th plt.; Ives Roberts, Fort Atkinson, Wis., 1st hen, 5th plt.

Barred Plymouth Rocks (Pullet Bred)—Wm. F. Belda, DeForest, Wis., 1st and 4th ckl.; Ives Roberts, Fort Atkinson, Wis., 1st ck., 3d ckl.; Geo. Hackett, North Freedom, Wis., 1st pen; John F. Johns, Dodgeville, Wis.; 2d ck., 2d ckl.; J. N. Summerfield, Sparta, Wis., 5th ckl.

Buff Plymouth Rocks—Christ. Krugman, Madison, Wis., 2d ck., 3d ckl., 2d and 3d plt.; Arthur B. Larsen, Colfax, Wis., 1st ckl., 1st plt.; Dwight Philpot, Sun Prairie, Wis., 1st ck., 1st hen; H. F. Viteuse, Madison, Wis., 2d ckl., 4th plt.

White Plymouth Rocks—J. J. Flad, Madison, Wis., 1st and 3d ckl., 2d ck., 1st hen, 1st, 2d and 3d plt., 1st pen; Claude Skibrek, Stoughton, Wis., 1st ck., 2d and 3d hen, 4th and 5th plt.

Partridge Plymouth Rocks—Alfred Anderson, Stoughton, Wis., 1st ck.; A. V. Buth, Sullivan, Wis., 4th and 5th pen; James Flint, Oregon, Wis., 2d and 4th ck., 4th hen, 2d pen, 1st, 4th and 5th ckl., 3d plt.; H. G. Jackson, Mineral Point, Wis., 1st and 2d plt.; Geo. Hackett, North Freedom, Wis., 2d ckl., 5th ck.; M. C. Gerard, Stoughton, Wis., 3d ck., 1st, 2d, 3d and 5th hen, 3d ckl., 4th plt., 1st pen.; Ed J. Wagner, Arlington, Wis., 3d pen.

White Wyandottes—H. G. Angle, Sparta, Wis., 5th ck.; T. O. Evans, Dousman, Wis., 1st ckl., 2d and 3d plt., 4th and 5th hen, 1st pen; Paul Johnson, Stoughton, Wis., 3d and 4th ck., 2d and 3d hen, 2d, 3d and 5th ckl., 4th and 5th plt., 2d pen.; Hugh L. Templeton, Lima Center, Wis., 2d ck.; Edgar H. Zobel, Ripon, Wis., 1st ck., 1st hen, 4th ckl., 1st plt.

Buff Wyandottes—Thos. Clayton, Dodgeville, Wis., 1st, 2d, 3d and 5th ckl., 1st and 2d pen, 1st, 2d and 3d ck., 1st and 2d hen, 1st, 2d and 5th plt.; H. B. Durner, Evansville, Wis., 4th ck., 4th and 5th hen; J. R. Love, Waukesha, Wis., 4th ckl., 3d hen, 3d and 4th plt.; Robert Pribbenow, Arlington, Wis., 5th ck.

Black Wyandottes—Robert Pribbenow, Arlington, Wis., 1st ck., 1st and 2d plt.

Partridge Wyandottes—W. W. Day, Janesville, Wis., 2d and 3d ck., 1st and 2d hen, 1st, 2d, 3d and 4th ckl., 3d plt., 1st and 2d pen.; A. J. Ehrishman, Rushmore, Minn., 2d plt., 5th hen; W. H. Milward, Madison, Wis., 5th ck.; J. V. Pottier, Green Bay, Wis., 1st and 4th ck., 1st, 4th and 5th plt.

Silver Wyandottes—H. A. Davies, Dodgeville, Wis., 1st, 2d and 3d ckl., 1st, 2d and 4th plt., 1st ck.; C. & B. Reinke, Middleton, Wis., 2d ck., 4th and 5th ckl., 3d and 5th plt.; F. M. Statz, Madison, Wis., 1st pen, 1st hen.

Golden Wyandottes—Gabriel Lewis, Hollandale, Wis., 2d ck., 4th hen, 2d, 3d and 4th ckl., 1st pen, 2d, 3d and 5th plt.; Chas. Love, Waukesha, Wis., 1st, 3d and 4th ck., 1st and 3d hen, 1st ckl., 1st and 4th plt.; Robert Pribbenow, Arlington, Wis., 2d hen, 2d pen.

Single Comb Rhode Island Reds—Charles Brace, Lone Rock, Wis., 1st hen, 2d ckl.; B. A. Beach, Madison, Wis., 3d and 5th plt., 4th and 5th hen, 1st ckl., 1st ck., 2d pen.; Geo. Hutton, Madison, Wis., 5th ckl.; C. E. Copeland, Jefferson, Wis., 2d and 3d hen, 3d and 4th ckl., 1st and 2d plt., 1st pen.

Rose Comb Rhode Island Reds—Fred L. Clark, Madison, Wis., 1st ckl., 2d and 5th plt., 2d hen; J. L. Herbst, Sparta, Wis., 4th ck., 2d ckl., 3d and 4th plt; Wm. H. Laabs, Waupaca, Wis., 5th ck., 1st hen; Mrs. J. M. Murrey, Albany, Wis., 1st ck., 4th and 5th ckl.; C. J. Nelson, Cottage Grove, Wis., 1st pen and 3d ck.; Patton & Breen, Juda, Wis., 2d pen, 1st plt, 3d ckl.; Chas. Wheeler, Dousman, Wis., 2d ck.

Light Brahmas—Roy Beck, Galesville, Wis., 1st ck., 4th ckl., 3d hen, 3d plt.; John Blanchard, Columbus, Wis., 3d and 5th ckl., 1st and 2d hen, 4th and 5th plt.; Geo. Daniels, Beloit, Wis., 1st and 2d ckl., 1st and 2d plt.

White Orpingtons—F. A. Cooper, Baraboo, Wis., 2d and 3d hen, 1st ckl., 3d and 4th plt.; C. F. Swerman, La Crosse, Wis., 5th hen and 2d plt.; Russell Williams, Orfordville, Wis., 1st plt., 1st and 4th hen, 1st ck.

Buff Orpingtons—Clyde Fischer, Evansville, Wis., 1st pen, 1st, 2d, 3d and 4th ckl., 1st, 2d, 3d and 4th plt.

Black Orpingtons—L. I. Fairman, Brodhead, Wis., 1st ck., 1st and 2d ckl., 1st hen, 1st and 2d plt., 1st pen.

Red Sussex—J. A. Fiedler, Cuba City, Wis., 1st ck., 1st, 2d and 3d hen.

Speckled Sussex—J. A. Fiedler, Cuba City, Wis., 1st ck., 1st and 2d hen.

Single Comb White Leghorns—Wm. H. Laabs, Waupaca, Wis., 4th hen; J. H. Durfee, Madison, Wis., 1st, 2d, 3d, 4th and 5th ck., 1st, 2d, and 3d hen, 1st, 2d, 4th and 5th ckl., 1st, 2d and 4th plt., 1st and 2d pen; Leslie Flint, Stoughton, Wis., 3d and 5th plt., 3d ckl.; Dwight Philpot, Sun Prairie, Wis., 5th hen and 3d pen.

Rose Comb Buff Leghorns—Dwight Philpot, Sun Prairie, Wis., 1st ck., 1st plt.

Rose Comb Brown Leghorns—J. A. Fiedler, Cuba City, Wis., 1st and 2d ckl., 1st ck., 1st and 2d hen.

Single Comb Brown Leghorns—J. Sumner, Madison, Wis., 1st, 2d and 3d plt.

Silver Campines—I. R. Welch, Madison, Wis., 1st and 2d plt., 1st and 2d hen.

Rouen Ducks—Russell Williams, Orfordville, Wis., 1st ck., 1st hen.

Championships—Champion ck. and champion hen, Edgar H. Zobel, Ripon, Wis., on White Wyandottes; champion ckl. and champion plt., J. H. Durfee, Madison, Wis., on Single Comb White Leghorn; champion pen, John F. Johns, Dodgeville, Wis., on Barred Plymouth Rocks.

Preventable Fire Losses in Wisconsin.

What farmer does not worry about the fire hazard? A fire on the farm is not accompanied by any spectacular rush of fire engines. Practically all of our farms are unprotected against fire. Some attention has been given this matter in the way of erecting buildings which are more nearly fire proof and also in separating farm structures so that fire may not be so easily communicated from one building to another.

On account of the great danger of fire on the farm the farmer is naturally interested in any information which may lead him to adopt preventive measures. It is a well-known fact that a very large per cent of fires both in the country and in town are preventable. The National Board of Fire Underwriters has recently compiled statistics on the causes of fire in Wisconsin for the year 1915. The following table shows losses by fire in Wisconsin in 1915 from strictly preventable causes:

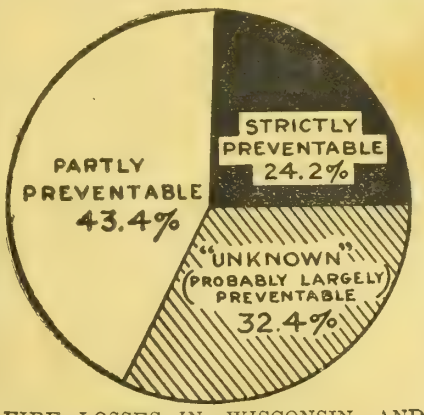
Defective chimneys and flues	$175,402 or	7.2%
Fireworks, firecrackers, etc.	2,677 or	0.1%
Gas, natural and artificial	2,182 or	0.1%
Hot ashes and coals	7,147 or	0.3%
Ignition of hot grease, oil, tar, wax, asphalt, etc.	6,059 or	0.3%
Hot or molten metal	327 or	0.0%
Matches	64,732 or	2.7%
Open fires	31,308 or	1.3%
Open lights	24,702 or	1.0%
Petroleum and its products	19,104 or	0.8%
Rubbish and litter	6,815 or	0.3%
Smoking (cigars, cigaretts, pipes, etc.)	48,849 or	2.0%
Steam and hot water pipes	2,118 or	0.1%
Stoves, furnaces, boilers and their pipes	194,336 or	8.0%
Total	$585,758 or	24.2%

The following table shows the loss in Wisconsin in 1915 from partly preventable causes:

Electricity	$209,596 or	8.6%
Explosions	66,634 or	2.7%
Exposure	255,713 or	10.5%
Incendiarism	26,965 or	1.1%
Lightning	56,228 or	2.3%
Miscellaneous, cause known but not classified	148,496 or	6.1%
Sparks—from fires	121,613 or	5.0%
Sparks—from machinery	11,821 or	0.5%
Spontaneous combustion	159,884 or	6.6%
Total	$1,056.950 or	43.4%

It can be seen from these tables that two-thirds of the fires in Wisconsin (including both fires in the city and the country) are either strictly preventable or partly preventable.

Some of the specific items may be taken up and discussed. For instance, chimneys and flues caused 7.2 of the fires reported and resulted in a total loss of $175,402. Of course, there is no reasonable excuse for a defective chimney or flue. If everyone would look after their chimneys and flues properly this loss could no doubt be cut down to $25,000 or $35,000 a year. Defective stoves, furnaces, boilers and pipes caused a loss of almost $200,000 in a year. It is needless to explain that practically all of this loss could be eliminated by proper inspection of stoves, furnaces, etc. A little more care in handling lighted cigars, cigarettes and pipes would easily cut the $50,000 annual fire loss from this cause in two. A good many of the strictly preventable causes of fires may be traced to nothing less than carelessness. This is especially true in the handling of fire boxes, ashes and live coals, grease, oil, matches, rubbish, cigarettes, cigars, etc. Because a man has thrown cigar stubs about



FIRE LOSSES IN WISCONSIN AND PERCENTAGE WHICH MIGHT BE PREVENTED.

the barn for several years and gotten away with it is no sign that the next time he does it there will not be a disastrous fire. A good breeze or draft will often keep fire smoldering in cigar stubs or ashes for a long time until finally it breaks out into a blaze.

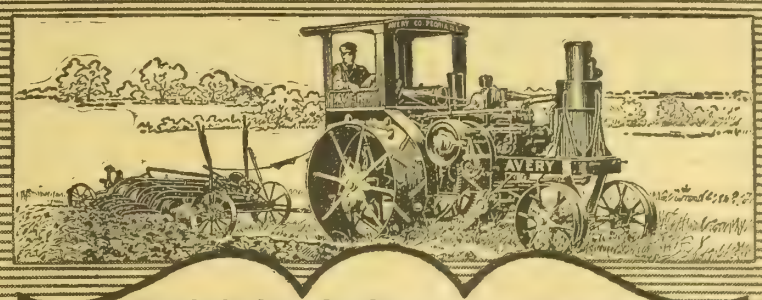
It will pay our readers to make a careful study of the tables which are given herewith and in order to enforce the points of interest a little diagram is given showing the strictly and partly preventable causes of fire and also the unknown causes. The latter are doubtless in many cases preventable.

Law Questions.

Will of Property—Heirs Sell Shares.

A Subscriber, Oconto, Wis.—A certain man who owned property in this state died here leaving a will which reads as follows, viz: "I leave my real estate in the hands of my children, to be divided equally, and I want my children after my death, to meet together and have a consultation; I want one of my children to buy my property, and pay to the other members of my family in good security at 5 per cent." Two members of the family sold their shares to a stranger, without consulting the other members. One of them wants to buy the real estate. (1) Has said stranger a right to demand a higher price than he paid for the two shares? (2) Have the members of said family a right to sell their shares of the property to a stranger under the terms of the will?

Answer.—(1) The effect of this will was to give the property of the testator to his children equally and the provisions in the will about consultation of the heirs and one buying the others out are too vague and indefinite to be enforced by a court. The stranger has a right to demand his own price for the shares he bought. (2) They have.



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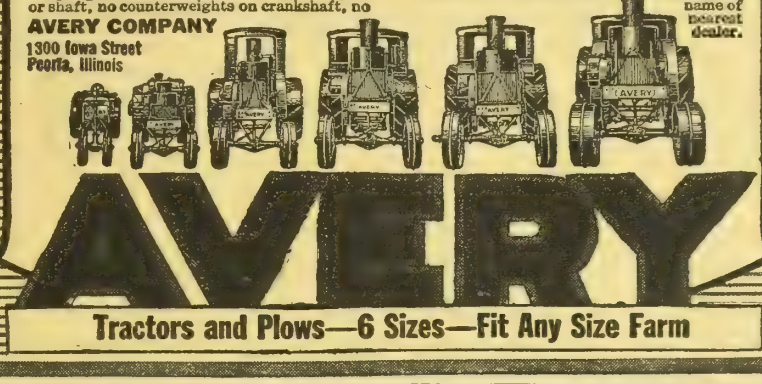

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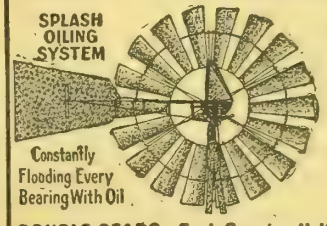

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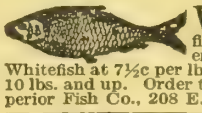

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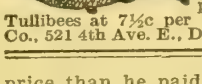

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Fruits and Garden

The Asparagus Bed.

People who enjoy the delicious, fresh asparagus in May will not willingly do without a bed of it in their own gardens, and when they have it started will not neglect any precaution needed to secure a bountiful crop of the tender stalks.

It has been truly said that asparagus will grow and yield fair crops with less care and attention than any other garden vegetable. But when beds are persistently neglected, and allowed to become grassy, the quality of the crop will be wonderfully improved by cleaning them out.

Set a man at work, any time between now and spring, when the surface is not frozen, and have him dig out all grass roots and weeds. It may be necessary to remove the whole surface, an inch or two deep, but it should be done. Carry this rubbish away and burn it. Of course, it is supposed that you have cut and removed the old tops before the grassing operation begins. After the sod is removed, if there is any room at all between the rows, go through with a cultivator and stir the soil. Then give the bed a good dressing with manure—preferably well-rotted barnyard compost. If that is not at hand, good, clean leaf mold is the next best thing. If neither of these be available, fine straw, or chaff, which is free from weed seed, will answer the purpose. There is an objection to coarse, strawy manure—fresh, in that it will make the sprouts tough and strong. There will be a very unpleasant taste for the first year after such an application.

After such treatment of the asparagus bed, follow it up next spring with good culture. By frequent weeding, keep down all obnoxious growths. And when you stop cutting about July 1st, give another good stirring with the cultivator. This is the way to get the greatest possible yield with the highest possible quality.

Winter Pruning.

Proper pruning of fruit trees is absolutely essential to the production of good fruit. And yet there is no other necessary work about a farm orchard so constantly neglected.

And when it is done, in the majority of cases, it is only half done. As a result of crowded limbs, and thick foliage, half of the fruit produced is of small size, and bad color.

Now, all of this inferior fruit is unnecessary, for it is entirely possible to have every apple on the tree, of good full size, and color fully up to the standard of its variety.

There is no sufficient excuse for the prevailing neglect of pruning, for it may be done in the winter time, that season of comparative leisure in the country. The months of November, December and January make up the right trimming season. If done at that time the wounds dry up, so that loss of sap later becomes impossible. But if this work is done in February and March, it is so near the period of the flow of sap, that bleeding becomes inevitable.

In pruning a tree to secure good fruit, the amount of work to be done depends upon the age of the tree, and the previous work which has been done upon it to keep it in shape.

A tree which has been entirely neglected until it is ten years old presents a hard problem when you wish to bring it into shape.

Three-fourths of the top should be removed, but as to take that amount off at once would be a serious shock to the tree. It is customary to take two years for the work, cutting out half of the superfluous branches one winter—and as many more the next year.

The wise way is never to let trees get into that crowded, overgrown condition.

When three-year-old trees are first planted, all crotches should be avoided, and for the next two years trees should be examined occasionally, and so cut as to secure a well-balanced top. For many reasons high tops are the best—high enough so as to admit a full-grown man walking about them upright.

As the trees get larger, naturally more and more work will be needed in pruning. Thrifty eight or ten-year-old trees will make an astonishing growth of wood in one season.

Bear in mind that the tops should be kept thin enough so that the sunlight can penetrate to all parts. It is light which makes perfect fruit—other conditions being favorable.

In general, remove the weakest limbs, and where two interfere cut one. Then shorten in all branches which show an abnormal growth, thus preserving the symmetry of the tree.

Water sprouts—those sappy shoots which have started since the last pruning, should be cut without mercy, except in cases where one is needed to fill a vacant place.

If you have followed the rules for pruning, you will have a spreading, open-topped tree—so scattered in foliage that it will be a poor shade tree for a hot day, but exactly adapted to the growing of large, showy apples.

Owing to the prevalence of strong southwest winds, it is best to plant trees with a little inclination to the two o'clock sun, and in pruning encourage the heaviest top on the same side of tree.

It is customary to say—make a smooth cut, and a very little thought will show the necessity of this. Nature will repair the damage, by healing over the wound as soon as possible. But if a rough, uneven surface is left, it is difficult, or perhaps impossible for the bark to cover it.

All cuts above an inch in diameter should be painted with a soft grafting wax. This is needed, because the hot sun will check the wound and water will penetrate

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Quack Grass Can Be Killed Out.

Minnesota Experiments Show Pest May Be Eradicated by Practical Means—Proper Tillage Is First Essential.

QUACK grass is a serious pest in many parts of Wisconsin. Its rapid means of propagation and growth has permitted it to overrun wide areas in a few years' time, and crop yields in fields infested with it have often been reduced from 20 to 50 per cent, or more. In many cases bankers will not accept, as security for loans, land infested with quack grass, because crop yields on it are so uncertain. For these reasons every effort should be made to keep it in check and prevent its spread into uninfested territory. Although its eradication is difficult, it may be stamped out by certain tillage methods which have been learned by a study of the plant and its habits.

Several years ago the Minnesota Agricultural Experiment Station made a series of experiments designed to test the methods by which quack grass might be killed out by practical means. The results of these experiments showed that the work could be done and a crop grown on the land every year, if a proper rotation is adopted, in connection with thorough tillage methods, or if the land is cropped continuously to a cultivated crop which can be removed from the land early enough in the season so that the young quack grass can be kept down by plowing and disking during late summer and fall.

In order to understand the methods of fighting quack grass, it is necessary to know something of its nature and habits. This pest is a perennial, which propagates by means of seeds and underground stems. The seeds may be carried long distances in feed, baled hay, grain and straw, and when dropped on the soil, will germinate and grow. For the first two or three months after the young plants begin to grow, they may be killed out as easily as young wheat plants, but after the underground stems form, the task becomes very much more difficult. The seeds ordinarily ripen during July and August, and some of them, under favorable conditions, will germinate in the fall and make a good growth before winter, while others will not germinate until the following spring.

While quack grass usually is introduced by means of seeds, it spreads mainly by underground stems, which may send up a shoot at each joint to develop a new plant. It is against these underground stems that the war of extermination must chiefly be waged. On undisturbed land they lie near the surface, but on plowed land they become scattered throughout the furrow slice. If the underground stems can be buried seven or eight inches deep, the shoots are not likely to reach the surface and develop into new plants. Without these new plants the underground stems die, since they are needed to build up food compounds for the underground parts. Therefore, the most satisfactory means of eradication are deep plowing, to bury as many of the underground stems as possible, and subsequent harrowing and disking, to destroy any plants which chance to break through the soil.

The Minnesota experiments showed that there were several rotations which could be used in the corn belt that would give an opportunity to kill out the quack grass by tillage methods, without losing the use of the land during any year. Among these a four-year rotation of grain, hay, corn and corn proved the most satisfactory, and probably would be best adapted to the infested farms of northern Iowa. In this rotation, as followed by the Minnesota station, a crop of wheat or oats was grown the first year, in which was sown clover and timothy seed. The next year the crop of clover and timothy hay was cut in July, and the land plowed as soon as possible, in order to bury deeply the underground stems of quack grass and destroy the growing plants. Then the field was disked whenever the young plants appeared above the surface of the ground. The disking was kept up during the rest of the season and the following spring, until corn-planting time. On most fields seven or eight diskings were necessary. When the corn crop was planted and had started to grow, thorough cutlivation was commenced, so that the quack grass could not get a start, and as soon as the cornstalks were large enough to be safe from injury, the ground was thrown against them in order to cover up any quack grass which had come up in the rows. The following year the land was planted to corn again and treated in the same manner. This treatment completed the eradication of the quack grass. In preparing the seed bed for grain, the careful use of the harrow was effective in dragging quack-grass plants to the surface, where they were killed by exposure to the sun and wind.

According to the plan of the rotation, it was necessary to put two fields in corn the first year, and greater difficulty was experienced by the Minnesota station in getting rid of the quack grass on these fields than on either of the others, a fact which shows that it is better to plow under as much of the pest as possible before attempting to keep it down with a cultivated crop. The surest method is to begin the attack by plowing the land just after the first hay crop is removed, and then keep the land thoroughly worked until corn-planting time; after this, frequent corn cultivation will keep the young plants of quack grass from coming up. Tillage given now and then, when no other work is pressing, is useless for eradicating quack grass. The work must be well planned and an attack made whenever the young shoots show green above the ground. In the Minnesota experiments, the cost of this work, in addition to the labor ordinarily required in growing the crops, averaged $8.71 per acre. This is the principal cost; no implements are required other than the plow, harrow and disk, used on the ordinary farm, except that a jointer should be attached to the plow in order that all weeds may be completely turned under. Without thorough plowing, the work of eradication becomes almost impossible.

In the experiments, it was found that quack grass persisted longer on the back furrows than anywhere else in the field. This was attributed to the fact that, in striking out the land by the ordinary method, a strip of sod was left unturned. For this reason a new method was recommended, as follows: Instead of throwing the second furrow slice against and overlapping the first, the second is cut just under the first furrow slice and both slices are turned back toward the first furrow. This permits all the land to be turned, which is important in order to bury all vegetation.

Although a four-year rotation was most satisfactory in the Minnesota experiments, a five-year rotation of grain, hay, hay or pasture, corn and grain worked very well. In this rotation, the attack on the quack grass was begun by plowing the hay or pasture land after the crop had been utilized. Then disking was kept up during the rest of the season and the following spring until corn-planting time. The corn was thoroughly cultivated as soon as it became large enough, and all young plants of quack grass were turned under. By this procedure, the eradication of the pest was completed during one round of the rotation.

A three-year rotation, consisting of grain, clover hay and corn, was also used with success. The work of eradication was the same as that outlined above with regard to the five-year rotation. In actual farm practice, the three-year period has the advantage over the five-year, in allowing more frequent attempts at eradication in case they are not entirely successful at first, but the methods are the same in either system. The four-year rotation is probably the best, since it provides two cultivated crops in succession and thereby permits thorough tillage during a longer period.

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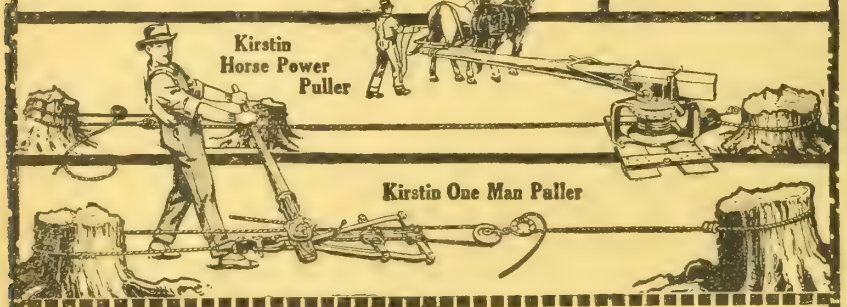

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Butchering Hogs on the Farm.

An Outline of the Methods of Dressing and Curing Pork Which Are in Common Use Among Farmers.

BUTCHERING hogs and curing the meat on the farm has decided advantages over selling off all the hogs and buying back meat as needed for home use. It saves for the farmer the profits of the packer and meat dealers and provides a supply of fresh meat which is always conveniently at hand when wanted. But more important than these advantages is the satisfaction of eating farm-cured hams and bacon that have a flavor and relish which no packing house product can equal.

Dressing and curing pork on the farm is not difficult; the equipment need not be expensive; and the work may be arranged for the late fall or early winter when other work is not pressing. The first essential, perhaps, is to have an accurate knowledge of how farm butchering is done, and it is

Fig. 1—Arrangement of scalding barrel and platform.

the aim of this discussion to present first-hand information on the subject as it has been gathered from farmers who have had experience in the work.

In preparing hogs for slaughter no feed should be given them for from twenty-four to thirty-six hours before killing, but plenty of fresh water should be provided and the animal allowed rest and quiet. These precautions will make the carcass better colored and more attractive. Only fat hogs should be used if possible, because they yield a much better quality of meat than unfinished hogs. Furthermore, no animal should be used that is not in good health.

The necessary equipment for hog butchering consists of a six or seven-inch curved knife for skinning, a six-inch sticking knife, a candlestick hog scraper, an ax, a meat saw, a gambrel for hanging up the animal by its hind legs and an iron kettle for heating water, having a capacity of about twenty gallons.

In addition to this equipment a bar-

Fig. 2—Opening a hog to remove entrails.

rel for scalding and a low table or platform for scraping and cleaning the hogs should be provided. For convenience the barrel should be arranged to lean against one end of the table, as shown in Fig. 1. With this arrangement the hog may easily be pulled upon the platform from the barrel in which it is scalded, so that scraping and cleaning may take place without delay. The fire for heating the water should be as near at hand as possible in order to reduce the amount of handling and prevent cooling of the water before it is used.

The animal may be killed by sticking or may be shot with a .22 rifle before being stuck. Two men can stick a hog with very little difficulty if one of them reaches under the animal and, grasping the fore and hind legs on the far side, turns the animal over onto its back and holds it there while the other man forces back its snout with his left hand and uses the knife with his right. The knife is thrust into the animal's throat just above the breastbone and directed toward the root of the tail with the sharp edge up. Then it is given a quick thrust to the left and withdrawn. This movement cuts the arteries just inside the breast bone. Care should be taken that the knife is inserted straight in order not to bruise the shoulders and thereby reduce the value of these parts.

When the hog shows no signs of life it is dipped in the scalding barrel which is shown in Fig. 1. The water should have a temperature of from 185 to 195 degrees Fahrenheit; if hotter than this it will cause the hair to set, which makes it very difficult to remove; if colder, say from 165 to 175 degrees, it will scald the hog, but takes a longer time. From one-half to three-quarters of a minute should be sufficient time for scalding so that the hair will start readily. All parts of the hog should be scalded uniformly. A shovelful of ashes or a tablespoonful of lye put into the water will loosen the scurf on the skin. After scalding is finished the hog is pulled upon the platform or table and scraped with a candlestick hog scraper. The hair should be removed from the head and feet first, since these parts are hardest to clean. On spots where the hair or

Fig. 3—Shoulders, trimmed and untrimmed.

scurf will not come off readily gunny sacks may be applied and hot water poured on. This method may be employed to scald the whole hog in case it is too large to be dipped into the barrel. When most of the hair and scurf are off the skin is soaked with hot water and shaved with a sharp knife.

Then the carcass is hung from a limb of a tree or a pole or ladder, as shown in Fig. 2. A gambrel made from an old singletree may be used to support the carcass. Its ends should be sharpened and inserted under the tendons of the hind legs just below the hocks. After hanging the carcass it should be washed and scraped to remove all dirt and scurf. Then it is cut open. To do this, split directly through the joint between the hind legs and run the knife down the belly line, taking care not to penetrate too deeply and cut the stomach and intestines. When the knife is used in the right hand the left hand should follow the blade and the first two fingers of this hand should be placed on either side of the blade to control the depth to which it cuts. A glance at the drawing in Fig. 2 will make this clear.

Next the rectum is cut loose and pulled downward in order that it may be removed with the stomach and intestines. These parts are then removed, the cords which hold them in place being cut whenever necessary. When the entrails are all loosened down the diaphragm, the gullet is pulled up and cut off and the entire mass removed. Then the breast bone is split a little to one side of the middle with an ax or a knife and the pluck, consisting of the heart, lungs, liver and windpipe, is removed. The gall bladder must not be bursted; after the duct between it and the liver is cut it must be peeled off carefully

in order not to spill its contents on the meat.

In order to insure good drainage of blood and free circulation of air a block of wood should be inserted into the hog's mouth. Or in hot weather the head may be cut off just behind the ears and the backbone split with an ax or cleaver so that aeration may be better still and cooling more rapid. The gut fat should be removed from the intestines before it cools and must be kept separate from the leaf and back fat, since it has a strong flavor. The carcass should cool now for from twelve to eighteen hours, but not freeze. The best temperature for cooling is between 34 and 40 degrees.

When the carcass has cooled through, it is laid on the block or cutting table and the head removed and the back split if these operations have not already been done. Now cut through the carcass between the fourth and fifth ribs to remove the shoulder and trim up this part by taking out the ribs and neck bones and cutting away the flesh down to the top of the shoulder blade. The lean meat is saved for

Fig. 4—Carcass of hog showing how cuts are made to separate the head, shoulders, middle and hams.

sausage and the fat for lard. Then remove the foot from the shoulder just above the knee joint, as shown in Fig. 3. Next cut the hams from the carcass about two inches in front of the hip bones, running the knife diagonally from the flank toward the root of the tail. Fig. 4 shows this cut. The two hams are then separated and trimmed to the shape shown in Fig. 5, the foot being removed just above the hock.

The next step is to remove the leaf fat from the middle if this was not done when the hog was cleaned. Then remove the spareribs, cutting as close to the ribs as possible in order to leave the lean meat with the bacon, thus improving its quality. The middle now consists of the back strip and the bacon strip. Separate these parts by making a cut parallel with the backbone, starting at the rear end just below the loin. This makes the back strip about one-half the width of the bacon strip. Trim the bacon strip to the shape shown in Fig. 6, b, and cut the fat from the lean meat on the back strip, saving the fat for lard. The lean meat is used for chops and roasts.

The tongue should now be removed from the head by cutting the muscles at its base and pulling it away with a sharp, upward jerk. The head should be cut into quarters and the brain, ears, skin, snout and eyes removed. The meat left on the head may be cut

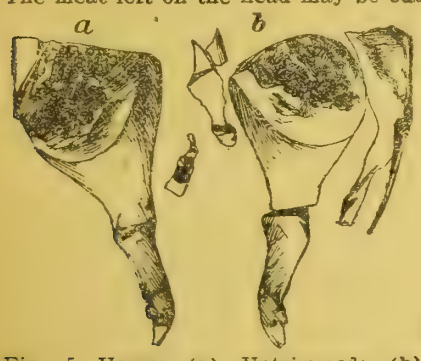

Fig. 5—Hams: (a) Untrimmed; (b) trimmed.

off and soaked in cold water overnight to remove the dirt and then cut up fine to be boiled for head cheese. The snout and ears may be pickled together with the feet.

In making sausage all the clean, fresh trimmings of the lean meat may be used. To every three pounds of this lean pork add one pound of fat and mix thoroughly by chopping or grinding. Then spread out thin and season, using one ounce of pure, fine salt, one-half ounce of ground black pepper and one-half ounce of pure leaf sage, rubbed fine, to each four pounds of meat. After adding the seasoning, mix thoroughly with the meat by grinding or chopping. If desired a little beef may be added to the mixture.

To keep for summer use the sausage should be fried down and packed in air-tight jars or in muslin bags which are rubbed with melted lard to form an air-tight covering. Smoking the sausage in these bags for from three to five hours adds much to its flavor.

For making lard, cut all fat meat, except gut fat, into pieces about one and one-half inches square and cut away all pieces of lean meat, because they will stick to the sides of the kettle and scorch, which taints the lard. Put the squares of fat into a kettle with a small quantity of water or hot lard, which will prevent burning, and cook over a slow fire, stirring the fat frequently. When the cracklings turn brown and come to the surface remove the kettle from the fire and allow the lard to cool slightly. Then strain it through a muslin cloth into a large jar. Stirring while the lard is cool-

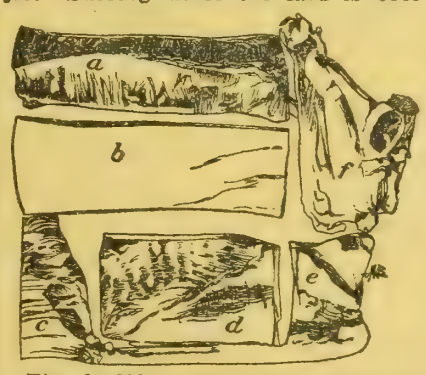

Fig. 6—Side cuts of porl.: (a) loin; (b) fatback; (c) sparerib: (d) bacon strip; (e) trimmings; (f) leaf fat.

ing tends to make it whiter and smoother.

Curing of the hams, shoulders and bacon strips in order that these parts will keep for later use is an essential part of farm butchering. It determines both the keeping quality and flavor of these cuts. Although there are several ways of curing pork on the farm, the sugar cure is probably the best, because it is very little trouble and gives the meat ample protection from insects and vermin. In this method a brine is used which consists of eight pounds of common salt, two pounds of brown sugar and two ounces of saltpeter dissolved in four gallons of water. These amounts are sufficient for 100 pounds of meat. Boiling the mixture makes it keep and is especially necessary in warm weather. If at any time during the curing process the brine becomes ropy the meat should be taken out and the brine boiled again.

When ready to cure each piece of meat is rubbed thoroughly with salt and allowed to stand overnight. Then it is packed in a barrel, the hams and shoulders being placed in the bottom with the skin side against the sides and bottom of the barrel and the bacon strips on top. When the barrel is packed the meat is weighted down and the brine poured on. The bacon strips should remain in the brine from four to six weeks and the hams and shoulders from six to eight weeks.

Another method of curing is called the dry cure. The mixture used consists of four pounds of salt, one pound of brown sugar, six ounces of black pepper, two ounces of saltpeter and one ounce of red pepper for every 100 pounds of meat. One-half of this mixture is rubbed well over the meat, then the meat is allowed to stand in a cool place for about two weeks, after which the other half of the mixture is applied. When the meat has stood for about six weeks longer it is washed in warm water to remove the surplus curing mixture and then smoked.

Smoking aids in preserving the meat and adds to its flavor. The process is usually carried on in a smokehouse especially adapted for the purpose, but sometimes large boxes are used with good results. It is essential, however, to keep the meat seven or eight feet from the fire or it will become discolored. A good way is to suspend the pieces of meat from above on No. 9 galvanized wire hooks so that no pieces are touching one another. Hickory wood makes the best fire for smoking because it gives a particularly good flavor to the meat, but any hard woods, such as maple, may be used, and some farmers report that corn cobs make a very satisfactory fire. The fire should be in the nature of a smudge and should smoulder rather than burn brightly. With a steady, constant fire the meat may be smoked to a light straw color in from twenty-four to forty-eight hours. A piece of bacon or shoulder may be sampled to determine whether it is sufficiently smoked or not. After smoking the meat may keep well for a time hanging in the smokehouse, but it is usually best to store it in some manner to keep it for any length of time.

Smoked meat is sometimes kept in good condition by wrapping in paper and burying in a grain bin. But the better way is to wrap each piece in paper and put in a strong muslin or canvas bag, which is then tied up tightly and painted with whitewash to which glue has been added. The bags of meat should be hung in a dry, cool place where they will not touch one another and need not be disturbed until the meat is wanted for use.

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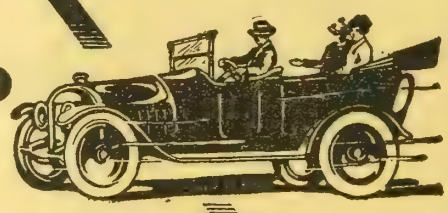

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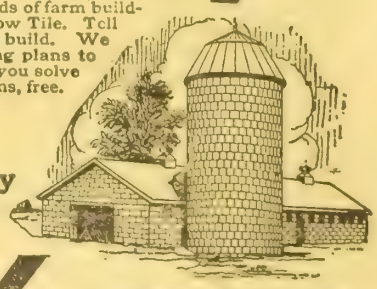

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It is interesting to note that Irene's Cherry is the first cow to go on official test at Fewacres Farm, located at Wauwatosa, Wisconsin. She was bred by Clark & Emery, of Belvidere, New York, and sold to Mr. F. D. Underwood, her present owner, before she was two years of age.

Making Gilt-Edged Butter.

There are a great many things to be considered in making gilt-edged, first-class butter that will bring the highest price on the market. In the first place, we should have good butter-making cows; a part of the herd should at least be Jerseys. This breed will give the butter that fine yellow color and the butter will be more firm and solid. A part of the herd, however, can be Holsteins, Durhams or any of the other milk breeds, as desired. The cows should have good clover, timothy or blue grass pasture, or, better still, if we have it, is an alfalfa field, and not be compelled to run in the woods to shift for themselves. If they are treated in this latter way we cannot expect the best results. Good, clean, fresh water is essential when wanted and they should not be compelled to drink from stagnant pools which are infested with all kinds of microbes which will contaminate the milk. Milk cows should also have some ground feed in summer as well as in winter. This can be corn and oats or a little wheat bran is good, and aside from these a daily ration of some kind of roots will be found a great help to them. The milk cow deserves and is entitled to grain the year round as well as the work horse and should be treated as well, for it pays well, as she is surely working every day. No day passes without her giving a pail of milk and just that sure she must work to produce it; therefore, she should receive the treatment of a work animal.

Butter always retails at the present time in our towns from 20 to 30 cents per pound and even higher sometimes. I have been keeping some dairy cows a good many years and I know of no better feed than good pasture during summer with some grain and shredded fodder and clover hay during winter where there is no silo, but silage is by far the cheapest and best for winter feeding.

Cows with a good, warm barn and fed on silage will do nearly as well in winter as in summer on good pasture. The stables, however, should be clean at all times, for this is one of the essentials in making good, first-class butter.

The milk at all times should be kept in a sanitary condition and we can also make better butter and more of it by having a cream separator; in fact, I should not attempt the keeping of a great many cows without one. Churn as often as is necessary to keep the cream from getting old and too sour.

The butter should be made in pound prints arranged in a tasty manner by the use of a little ice in the summer. The butter can be so arranged at all times and will be a source of pride and pleasure as well as profit to the producer and will be sought after by those who want a first-class article of food.

Subscriber.

January Butter Scoring.

To the Editor:—The next Wisconsin butter scoring will be held at the dairy school at Madison, Friday, January 12, 1917. The butter will be examined as formerly by judges who are carefully selected to pass upon its merits. It is expected that both commercial and educational judges will be present.

As a new feature which no doubt will be both interesting and educational it is planned to ask the managers from two or three creameries to send their buttermakers to participate in these scorings hereafter. Different managers will be asked each time to send their makers to Madison. In this way the boys sending butter will get the opinion of their fellow buttermakers as to the merits of their make and at the same time the buttermakers sent by their managers will derive a great deal of good from the experience. Arrangements have already been made to have two buttermakers assist in the scoring this month. Your turn will come later and we hope your creamery manager will co-operate with us in securing this benefit for you.

We will also be pleased to know if you care to participate in a "Creamery Beautiful Contest." We feel that great good will result from an arrangement for conducting such a contest. Let us hear from you on this point.

The beginning of the year is a good time to make resolutions. We hope that your plan for the year 1917 will be to improve not only the quality of the butter made at your factory but also to work for your own improvement. The aim of these exhibitions is not only to bring up the standard of butter made in Wisconsin but also to aid the buttermaker to become more proficient in his line.

G. H. Benkendorf.

The hog turns a bushel of corn into about ten pounds of pork, leaves most of the fertility of the corn behind him and concentrates the bushel of corn into one-sixth the space.

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In and Around Wisconsin

COMING EVENTS.

Wisconsin Cheesemakers' Association, at Fond du Lac, January 10th to 12th.
Sixth Annual Road School, Madison, January 29th to February 3d.
Farmers' Week (Swine Program), Madison, Wis. Beginning February 6, 1917.

Wisconsin does not raise a great deal of winter wheat. The acreage in 1915 was 101,000 and a preliminary estimate of the acreage at this time is approximately the same. Wheat was worth 95 cents a bushel December 1, 1915, and sold at $1.60 a bushel December 1, 1916.

A Holstein cow in the town of Morgan, Oconto county, gave birth last week to a five-legged calf. This calf is healthy and well and has good use of its four normal legs. The fifth leg grows out of the right shoulder, extends over the back and down the side. The fifth leg is well developed and can be moved at will by the calf.

Wisconsin farmers sowed 25,000 acres of rye in 1915, and a preliminary estimate of the crop put in the past fall is 446,000 acres. The condition of this crop given by the Federal Department of Agriculture, December 1, 1916, is 95 per cent as compared with 93 per cent a year ago and a ten-year average of 95 per cent. The price of rye December 1, 1916, was $1.32 cents a bushel as compared with 87 cents a bushel December 1, 1915.

The 1917 automobile show will be held at the Union Transfer Storage Company new building, January 24th-25th-26th. The officers of this show are: President, L. F. Schoelkopf; vice president, Rudolph Hokanson; secretary, R. H. Ritter; and treasurer, Chas. Spooner. The Wisconsin Farmer is advised that this show will have exhibits of practically every new model car for 1917.

The state tax commissioner of Madison reports that there are several counties in the state where the average sale price of land during the past year has been in excess of $100 per acre. Ten years ago there was not a single county in the state, outside of Milwaukee county, which could show such an average. The counties where the sale price per acre exceeds $100 are: Milwaukee, $226.60; Dodge $136.13; Calumet, $125.25; Racine, $118.58; Walworth, $115.60; Ozaukee, $112.25; Rock, $111.40; Dane, $110.73; Green, $110.10; Sheboygan, $07,79 LaFayette, $106.65; Waukesha, $106.63; Kenosha, $104.96; Manitowoc, $103.50; Washington, $100.73. A few counties approach the $100 mark very closely.

In discussing cheese-factory payments for milk at a recent meeting of farmers, J. L. Sammis, of the University of Wisconsin, compared a series of patrons' payments figured by the straight fat test with the correct values of the same lots of milk calculated from the average yields of cheese obtained from milks of different fat tests. He showed that, in 95 per cent of all cases among 15,000 payments studied, the straight fat test payments agreed with the calculated value within less than 2 cents on the dollar. He reported that wherever the highest and lowest fat tests do not differ by more than 1 per cent fat, the straight fat-test method gives payments so nearly correct as to be entirely satisfactory to patrons. At a few factories, less than 5 per cent of all, it is found that one or more patrons keep herds whose milk tests higher than the other milk at the factory. In all such cases, where the difference between the highest and lowest patron's test is more than 1 per cent fat, a modification of the straight fat-test method of figuring payments was recommended, called the fat-plus-six-tenths method, which was shown to give correctly payments, agreeing exactly with the average yield values in all cases. Mr. Sammis is urging local cheesemakers to attend the annual meeting of the Wisconsin Cheesemakers' Association, to be held in Fond du Lac in January. Reports of the year's work sent in from each local association would be a valuable addition to the program at the Fond du Lac meeting.

Mr. L. L. Oldham, county agricultural agent of Walworth county, is arranging for a party of farmers, 100 strong, to visit Madison February 5th-10th, during Swine Week. The Walworth county delegation will have special headquarters at one of the Madison hotels, and there is no doubt it will attract a good deal of attention.

Mr. Fred Pabst, of the Pabst Stock Farm, Oconomowoc, Wisconsin, advises us that he has sold one of his young bulls to Prof. Milton P. Jarnigan, of the State College of Agriculture, Athens, Georgia. Mr. Pabst writes us as follows:

The South is not satisfied with plain breeding. Professor Jarnigan selected a young bull by Maplecrest King De Kol by Friend Hengerveld De Kol Butterboy, that in turn is the sire of Daisy Grace De Kol with over 1,200 pounds of butter in 365 days as a four year old, Highlawn Hartog De Kol, over 1,247 pounds, Banostine Belle De Kol, over 1,300 pounds and several others with records nearly as high.

The dam of the young bull purchased is Pabst Lulu Lady with a yearly record at the age of two years and two months of 849 pounds of butter and over 20,000 pounds of milk. This heifer was sired by King Pontiac Champion, one of King of the Pontiacs' best sons with close to fifty A. R. O. daughters.

The calf is a splendid individual and we understand the Georgia College is accumulating a small, but choice herd of Holstein-Friesian cattle and it stands to reason that before very long they will be quite in line with their northern brothers who have been breeding for so many years. We are particularly pleased to see that the South is coming to the front in dairying and that they are strongly inclined toward the Holstein cattle.

This is only another illustration of the market which exists for good dairy cattle. If the breeders of Wisconsin will keep the standard high as Mr. Pabst tries to keep it, they will have no trouble in disposing of their pure-bred stock at good prices.

A great deal of interest in Wisconsin has been aroused by the Wisconsin Products' Special, which has now toured southern Minnesota, central Iowa and northern Illinois, and is winding up a very successful season with a tour through southern Wisconsin. Upper Wisconsin is getting the bulk of publicity out of this special train, and most of the products are raised in that section of the state, but Mr. B. C. Packer and his associates in charge of the train have not forgotten while in neighboring states to give the whole state of Wisconsin a good name and fame. That their work will result in a great deal of good for the state goes without saying. Already hundreds of young men have interested themselves in our upper country and they are receiving valuable information as to crops, soils, etc. There is no doubt a large number of these will come to Wisconsin to live and certainly everyone will be welcome in this state of wonderful opportunity.

A statement from Stoughton, Wisconsin, says that receipts for tobacco in 1916 will exceed by $1,000,000 the receipts of any previous season. This is a splendid showing considering the frost and hail damage which has been reported. Buyers have been busy of late picking up the odds and ends in the tobacco districts and paying as high as 16 cents a pound straight. The weight of leaf this year is very good, and $200 per acre may be the average for the tobacco season.

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UPPER WISCONSIN

Where Spraying Brings Results.

To the Editor:—We treat our potato seed with corrosive sublimate about two or three weeks before planting. We use the solution 1,000 to 1 and use it four times. The first time we leave the potatoes in it one and one-half hours; second time one and three-fourths hours; third time two hours, and fourth time two and one-fourth hours. But if potatoes are very dirty it is not advisable to use it the fourth time, as the dirt weakens the solution. We use four barrels for treating. We set them on two low horses with planks across for them to rest on and we have plugs in the bottom of the barrels to draw the solution off. (You can't use anything but wood when you are treating with corrosive sublimate). Set your barrels on your platform and fill them up with potatoes and pour the solution over them. Be sure they are all covered and when they have soaked the required length of time draw the solution off the first barrel and dump the potatoes out on the grass to dry. (It is always best to choose a warm day when treating seed out of doors so they will dry fast) and fill your barrel up with potatoes again and pour the solution back and go to the next barrel, etc., and as fast as the potatoes dry out on the grass you can put them back in the crates or bags and put them away until cutting time. (Be sure to keep them away from the stock.)

We generally plant our potatoes from the 20th of May until the 1st of June. We cut our seed large and always cut down through the seed end, as the closer to the seed end the stronger the eyes are. We use a two-man potato planter and plant in drills thirty-six inches wide and from fifteen to eighteen inches apart in the drills and plant them four to five inches deep.

On our sandy loam we find fall plowing is the best. We always turn under a green clover crop and on that we use from 400 to 1,000 pounds of 1-8-3 fertilizer put in with an attachment on the potato planter.

We spray with Bordeaux mixture to prevent blight. We seldom have to spray for early blight. We start before blossoming time and spray four times, allowing from ten days to two weeks between sprayings. We use arsenate of zinc for killing the bugs and have gotten better results with it than Paris green. We get the Bordeaux zinc already mixed and put on the Bordeaux mixture and kill the bugs at the same time.

At digging time we dig our seed for next year with forks, keeping the hills separate as they are dug and then go and select all the high-yielding hills that have nice type and are free from any disease. This way you can rid your field of disease and increase your yield. We dig all the rest of our potatoes with a digger and pick them up in crates.

We grow the Green Mountain and Early Ohio potatoes. We have tried most all of the other standard varieties, but have found the Early Ohio and Green Mountain will produce the best in our sandy loam. We have raised 375 bushels per acre with Green Mountains. This last season, although it was a very unfavorable one, our Green Mountains went 185 bushels to the acre on fourteen acres and our Early Ohios went 212 bushels per acre.

We took first prize at the Oneida County Potato Show this fall in both Green Mountains and Early Ohios and at the state show we took first in Early Ohios and third in Green Mountains.

W. P. Jewell & Son.
Oneida Co., Wisconsin.

PREPARATION OF THE SOIL IS AN IMPORTANT ITEM.

DIGGING POTATOES IN JEWELL FIELD, ONEIDA COUNTY, WISCONSIN.

Mr. Juday Married.

Mr. Wesley D. Juday, county agent for Oneida county, was recently married to Miss Ida Thurston at the home of the bride's parents in Rhinelander.

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Farmers' Packing Plant at Wausau, Wis.

(Continued from page 1.)

izations Mr. Hoopman says the yards would be overflowing one week and empty the next.

Farmers at some particular shipping point organize a local association and the company appoints a manager whose pay comes from an assessment of 6 cents per hundred on stock shipped. He receives, marks and ships the stock, makes up the records and the company pays the manager on the basis of the Wausau weight. The manager furnishes the assistants needed, marking equipment, feed, bedding, ice, etc., so that the charges against the farmer are very small and, therefore, his income the maximum.

These associations also establish a sinking fund, raised by an assessment of 3 cents per hundred, which is used to meet unusual expenses such as losses in transit, etc. Some animals may be crippled or may die en route and the owner is reimbursed out of this sinking fund. When the stock reaches Wausau it is weighed, and shrinkage, freight and percentage for sinking fund deducted. Then the manager is sent his check; a complete record is furnished the farmer or shipper so that he knows where every penny was spent. This record shows the tag number, animal, home weight, shrinkage, sales weight, price per 100 pounds, gross amount, freight, sinking fund, manager's commission, any miscellaneous charges and the net amount. Then the company mails a check direct for the net amount and there are no grounds for argument.

Shipments are regulated by the company keeping in constant touch with the local managers. Each association has specified shipping days and two or three days in advance the plant calls up the manager and asks him what he expects to ship. If the prospective shipments fall below the demand some other association is asked to fill in and if one association has a car arrangements are made to ship jointly with another association in order to make up a car and cut freight costs. The entire plan is one for conserving the interests of the shippers and the plant at the same time.

When the stock reaches Wausau it is turned into the company yards to await slaughter. After the farmer's records have been made up it is then a matter of killing, dressing, storing and selling the dressed meat. Much of the output is consumed in that vicinity, though many long shipments are made. Another advantage to the stockholder and shipper is that the books are always open to his inspection and he is in touch with the management which is not possible when shipping to Chicago or elsewhere.

The plant handles on an average about 500 hogs per week, 150 to 200 cattle and 200 to 300 calves and a general packing business is done as shown by the following lines of stock carried:

Dressed Beef.—Such grades as prime, choice, good, medium and common.

Beef Cuts.—Loins, ribs, chucks, rounds, plates, flanks, shanks, suet and trimmings. Also smoked and cured beef.

Dressed Veal.—Such grades as choice, good, medium, light and heavy.

Veal Cuts.—Saddles and racks.

Dressed Lamb and Mutton.—Such grades as choice, good, medium and common.

Lamb and Mutton Cuts.—Saddles, legs, loins, rack, short rack and stews.

Dressed Hogs.—Grade as follows: Heavy, medium, light, choice and good bacon hogs.

Pork Cuts.—Hams (cured, smoked, rolled or cooked) regular, short cut, skinned, boneless, rolled and long cut.

Shoulders.—(Cured, smoked, rolled or cooked.) Boneless, picnic, rough, regular, skinned, square, New York and New Orleans.

Butts.—Boston style, Milwaukee, boneless, cottage and New England.

Trimmings—(A), (B), (X), (XX).

Loins.—Regular loins and loin rolls.

Backs.—Short rib, short clear, short fat and long fat.

Bacon—Dry salt, sweet pickle and breakfast.

Barrel Pork, Cured.—Clear plates, regular plates, fat back pork, bean pork, prime mess pork, lean belly pork, extra prime mess pork, brisket pork, family back pork and ham butt pork.

Lard.—Kettle rendered leaf lard, refined pure lard and prime steam lard. Lard will be put in tins, wooden pails, tubs, barrels or tierces.

Sausage.—Choice grades of pork sausage, special summer, Frankfurters, tonque sausage, Berlin, New England luncheon, Minced, liver, Braunschweiger, blood, bologna, head cheese and various grades as trade demands.

Offal.—(Pickled, fresh and cooked). Pigsfeet, tripe, tongue, ears, snouts, rinds, kidneys, hearts, trimmings, cheek meat, tails, sweetbread and spareribs.

Inedible Products.—Grease, white and brown. Tallow, A and B commercial.

Fertilizer.—Onground and blood, also dried bones.

Hides Cured.—Grades as beef, cow, bull, kosher, native, western. Also calf and slunk hides and sheep pelts. Sinews and switches.

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There is a great demand for Michigan State Auto School students. Garages throughout the country write us for men. Auto factories write and phone for men constantly to fill permanent places. Why not fit yourself for one of these good paying positions?

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We guarantee to qualify you in a short time for a position as chauffeur, repair man, tester, demonstrator, garage man, or automobile dealer, paying from $75 to $300 monthly, or refund your money. We have constantly more requests for Michigan State Auto School Graduates than we can supply.

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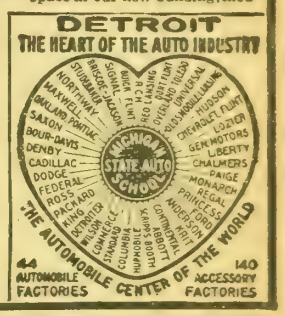

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FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

YOUR CHANCE IS IN CANADA — Rich lands and business opportunities offer you independence; Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; Twenty years to pay; $2,000 loan on improvements, or ready made farms. Loan of live stock; Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock: Good markets, churches, schools, roads, telephones; Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allan Cameron, General Superintendent Land Branch, Canadian Pacific Ry., 82 Ninth-av., Calgara, Alberta.

FOR SALE—500-acre Polk county farm; 100 acres under plow, 40 more can be opened, balance covered with heavy second-growth wood; soil a rich clay loam; 12-room two-story brick house, furnace heat and waterworks, large basement barn and brick silo, granary and machine sheds, waterworks in barn also; price $40 per acre. For further information address Chas. Engelhardt, Osceola, Wis.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

1917 PROMISES to be a record year in the settlement of Aitkin county, Minnesota's favored Dairy District. The best pieces will go first. Be in time. Send NOW for literature. Read up this Winter. Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

SALESMEN wanted to canvas the farming and threshing trade, soliciting orders for Lubricating Oils, Greases and Paints. Excellent opportunity for right party. Previous experience unnecessary. Address at once The Victor Oil Company, Cleveland, Ohio.

GOOD 80 only $800; clay loam soil, nearly level; 20 acres hay marsh; good hardwood timber; large portion easily cleared; $200 cash; No. 1032. The Ev. Luth. Colonization Co., Dept. 10, Merrill, Wisconsin.

SELL your farm direct and keep the big agents' commissions. No listing. No land men to deal with. YOU CAN DO IT. Particulars Free. Address Chas Renich, G-2, Woodstock, Illinois.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

FOR SALE or exchange for northern Wisconsin land, prosperous livery and dray business. Address C, care of Wisconsin Farmer.

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TELEGRAPHY taught, positions secured, at the oldest, largest and most thorough equipped railroad training school in Wisconsin. Established 1897, under same management for 19 years. Investigate, ask for our new rate sheet, special inducements. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY. Short hours. Positions guaranteed. Write Signal Dept., Northwestern Telegraph School, Eau Claire, Wis.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $2,000 to $25,000. 6% with any pre-payment privilege desired. Addressed 206 Washington Bldg., Madison, Wisconsin.

PERCHERON STALLION FOR SALE.

REGISTERED Percheron stallions for sale. One yearling, dark bay; one four-year-old brown, a good one; one black, blocky, 1800 lbs. All round and clean, heavy boned, cheap. Julius Schmidt, Wild Rose, Wis.

HELP WANTED.

WANTED at once, single man to work on dairy farm, thoroughbred Holsteins. No booze or cigarettes. State wages and experience in first letter. C.J. Taylor, R. 3, Box 77, Whitewater, Wis.

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TWENTY Duroc and Poland China sows, bred. Ten Poland China boars. Holstein bulls ready for service. E. G. Carpenter, Hortonville, Wis

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BUFF Rocks! Splendid breeders for sale. Frank Kramer, Ft. Atkinson, Wisconsin.

FOX HOUNDS.

FOX HOUNDS. Stamp for prices. Lafe Fox, Norwalk, Wisconsin.

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200 ACRES, well improved, corn, wheat, oats, clover, blue grass and fruit land, near town, school and church; 75 acres fine, dry, branch bottom, over 100 acres almost level upland, good 5-room house, large barn, cattle shed, granary, poultry house, orchard, excellent water, $50 acre, easy terms, low rate int. F.R.Bigler, Neosho, Mo.

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WANTED to hear from owner of good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

NEWS OF THE SALE RING

Minnesota Breeders' Short-horn Sale.

The first sale of Short-horn cattle held January 3d, at South St. Paul, Minn., under the auspices of the Minnesota Short-horn Breeders' Association was a grand success in every respect. The show, preceding the sale was very interesting and inasmuch as this was only for the small farmer and breeder, a great deal of interest centered around the placings. Col. H. O. Tellier sold the offering in a very satisfactory manner and worked hard for the success of the sale. We follow with a complete list of the cattle and buyers:

BULLS.

Archer's Monarch, Jan., 1916, Chas. H. Chamberlain, Mora, Minn., $675; Avon Laddie, Oct., 1915, C. Lexbold, $115; A Village Cumberland, Aug., 1914, Wm. Hoffman, New Ulm, Minn., $260; Colonel Sultan, March, 1916, F. F. Probst, Douglas, N. D., $180; Cumberland Marshall, Nov., 1915, R. C. Oliver, McCluskey, N. D., $150; Drednaught King, Feb., 1916, Chas. Cumberland, Havana, N. D., $125; Drednaught Diamond, Nov., 1915, Geo. Sanders, Twin Brook, S. D., $120; Fortune Goods, Sept., 1915, University of Minnesota, $225; Gold Mine, Feb., 1916, R. C. Oliver, $180; Hans, March, 1913, L. W. Johnson, Milltown, Wis., $185; Hampton Gloster, Dec., 1915, S. N. Enloe, River Falls, Wis., $200; Hampton Prince, Oct., 1915, I. W. Nelson, Brooten, Minn., $220; Hersman, Dec., 1914; J. S. Nelson, St. Peter, Minn., $205; Keystone 3d, Feb., 1916; W. Parent, Parent, Minn., $305; Lavender Sultan, Sept., 1915, A. D. Watson, Great Falls, Mont., $425; Marshall Monarch, March, 1916; J. E. Davis, Goodrich, Wis., $225; Marshall Masterpiece, Sept., 1915, R. C. Oliver, $1,035; Missie's Sultan, Aug., 1915, Carl A. Peterson, Watertown, S. D., $310; Matchless Lad, March, 1916, M. E. Stoner, Albert Lea, Minn., $190; Maggie's Chief, Nov., 1915, M. E. Ston r, $3 ; Mason, Nov., 1915, H. P. Todd, Altoona, Wis., $410; Northcote Goods, March, 1916, Hans C. Peterson, Tyler, Minn., $195; Royal Secret, April, 1916, Wm. Beck, Empire, Minn., $85; Roy Marshall, Dec., 1915, E. L. Patterson Land Co., St. Paul, Minn., $260; Starlight, Jan., 1916, G. A. Erstad, Glenwood, Minn., $325; Rosy's Cumberland, Jan., 1916, Geo. Potter, Springfield, Minn., $410; Silver Flake Sultan, Oct., 1913, Aug. Kennedy, Rochester, Minn., $300; Sultan Stamford, Oct., 1914; A. F. Hultquist, Red Wing, Minn., $255; Silver Marshall, Oct., 1915, Bryan Bros., St. Peter, Minn., $225; Victor Cumberland, Sept., 1915, J. G. Sewart, Necoma, N. D., $405.

FEMALES.

Arabella, March, 1916, N. S. Chermer, Maple Lake, Minn., $100; Autumn Lady, A. Stonehouse, Larimore, N. D., $210; Banner Blossom 9th, Jan., 1915, M. J. Thompson, Montevideo, Minn., $1,010; Bessie Buell, April, 1914, M. J. Otte, Farmington, Minn., $230; Claudie 5th, Aug., 1915; Geo. Berkner, Sleepy Eye, Minn., $150; Cheerful 12th, Feb., 1915, J. C. Meyers, Atwater, Minn., $360; Countess 4th, April, 1914, W. J. Otte, $175; Dale Lassie 2d, Feb., 1914, Marsh Bros., Litchfield, Minn., $375; Drednaught Choice, Dec., 1915; W. J. Otte, $115; Gracie 6th, April, 1915, Chas. Norell, St. Peter, Minn., $150; Grace 5th, March, 1911, Chas. Barrett, Atwater, Minn., $200; Gloster's Maid, Dec., 1915, Axel Anderson, Taylor Falls, Minn., $155; Hillcrest Lass, Dec., 1915, W. J. Otte, $190; Lady Countess, May, 1914, W. J. Otte, $180; Lady Archer, Dec., 1914, A. W. Stonehouse, $290; Lady's Choice, Sept., 1908, R. C. Oliver, $275; Miss May 4th, Feb., 1915, Marsh Bros., $375; Northcote Buttercup, Jan., 1916, (No name) $360; Princess Royal 21st, Feb., 1915, M. J. Johnson, $350; Queen Esther, Sept., 1910, C. Norell, $215; Rose of Red Cedar, Aug. Hitt, Alma, Wis., $250; Ruth, April, 1915, R. C. Oliver, $250; Rosoanoke Northcote, Sept., 1915, Henry Stiers, Zumbrota, Minn., $450; Rose Mary Northcote, Oct., 1915, R. C. Oliver, $500; Tetonka Bride, Jan., 1916, R. C. Oliver, $160; Theresa 4th, June, 1915, Marsh Bros., $230; Ury Beauty, May, 1915, R. C. Oliver, $285; Violet Maid 8th, Sept., 1915, F. N. Lee, Britton, S. D., $50 ; Village Princess 6th, Sept., 1915, J. S. Billings & Son, Furges Falls, Minn., $460; Victryllis, Oct., 1914, Joe Vitek, Braham, Minn., $275.

SUMMARY.

30 bulls...	$ 8,509.80;	average...$283.66
30 females	8,824.80;	average... 294.16
60 head ...	17,335.00;	average... 288.91

The Owatonna Duroc Sale.

The second sale of Duroc Jersey bred sows consigned by the Steele County Duroc Breeders' Association was held in Owatonna, January 3d, and resulted in a satisfactory average.

CONSIGNED BY C. W. HOLMES.

No. 5, F. S. Vanderhyde, West Concord, Minn., $77.50; 6, Antone Johnson, Glenville, Minn., $67.50; 7, C. P. Fisher, Owatonna, Minn., $40; 8, E. R. Webster, Owatonna, Minn., $37.50; 9, Geo. D. Sprain & Son, West Salem, Wis., $52.50; 31, Ames Bros., Weaver, Minn., $32.50.

CONSIGNED BY R. E. MORRISON & SONS.

No. 10, E. A. Sidel, Owatonna, Minn., $32.50; 11, John H. Page, Bloom Prairie, Minn., $30; 12, W. J. Erdmain, Ellendale, Minn., $35; 13, Jos. Pollinky, Bigbee, Minn., $32.50; 20, Geo. Pagel, Zumbrota, Minn., $60; 21, Geo. E. Purves, Eyota, Minn., $30; 22, Geo. E. Purves, $32.50; 23, M. Webling, Owatonna, Minn., $30; 32, Ed Degner, Owatonna, Minn., $32.50; 35, J. E. Mailey, Bloom Prairie, Minn., $32.50; 36, J. E. Mailey, $40; 37, Dr. W. W. Arms, Owatonna, Minn., $32.50; 42, J. E. Mailey, $40; 43, Geo. E. Purves, $35.

CONSIGNED BY PRESTEGARD BROS.

No. 1, E. R. Webster, $45; 2, E. R. Webster, $50; 14, L. F. Atwater, Bangor, Wis., $87.50; 15, Clinton Falls Nursery Co., Kasson, Minn., $85; 29, T. Tollefson, Owatonna, Minn., $40; 30 E. G. Papke, Wauzeka, Minn., $42.50; 30½, Antone Johnson, $42.50; 33, Dan Hardy, Ellendale, Minn., $40; 34, M. L. Young, Glenville, Minn., $40; Antone Johnson, $45; 46. Ed Cortill, Bloom Prairie, Minn., $40.

CONSIGNED BY O. A. FARESTAD.

No. 16, Geo. H. Willsie, Prosper, Minn., $75; 17, A. J. Logan, Wauzeka, Minn., $45; 18, Henry Neilson, Medford, Minn., $37.50; 27, Henry Neilson, $40; 28, J. E. Mailey, $30.

CONSIGNED BY W. W. ARMS CO.

No. 26, A. P. Olson, $30.

44 head ...$1,867.50; average....$42.50

E. J. Wilson's Duroc Jersey Sale.

E. J. Wilson held his closing-out sale of Duroc Jerseys at his farm near Renville, Minn., January 4th. John Swenson secured the bargain of the sale, getting a two-year-old daughter of Defender for $180. F. S. Vanderhyde, Johnson Bros., J. M. Hosmer, C. P. Dexheimer, Geo. D. Sprain & Sons were good bidder and buyers of the better sorts. Col. H. S. Duncan was on the block. We follow with a list of those selling for $40 or over:

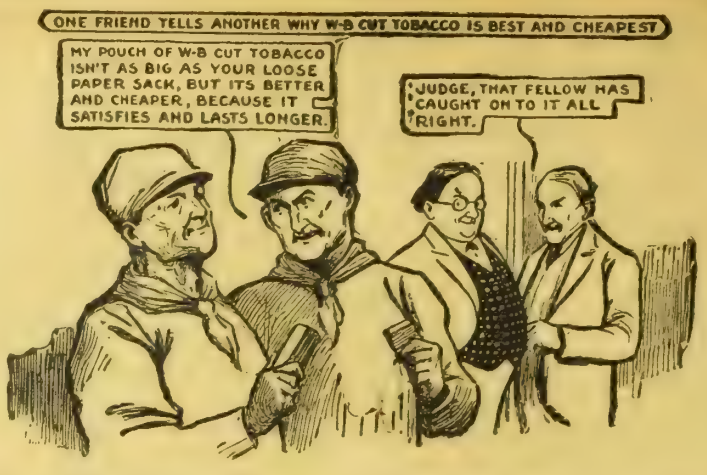
No. 1, F. S. Vanderhyde, West Concord, Minn., $95; 2, J. W. Wordes, Renville, Minn., $52.50; 3, John Swenson, Willmar, Minn. $180; 5 Neil Bannan, Raymond, Minn., $65; 6, A. H. Anderson, Montevideo, Minn., $50; 7, J. M. Hosmer, Hitterdahl, Minn., $57.50; 8, F. S. Vanderhyde, $67.50; 8½, R. Peterson, Renville, Minn., $47.50; 9, C. P. Dexheimer, Spencer, S. D., $90; 10, J. W. Wordes, $57.50; 14, Larson & Haugland, Dexter, Minn., $40; 16, Johnson Bros., Winnebago, Minn., $55; 17, O. N. Fjestad, Granite Falls, Minn., $65; 19, Aug. Hovland, Ortley, S. D., $52.50; 17½, Larsen & Haughlund, $42.50; 20, C. H. Nelson, Olivia, Minn., $40; 22, John Swenson, $82.50; 23, Johnson Bros., Hector, Minn., $45; 27, H. Wendorf, Hector, Minn., $47.50; 32, Johnson Bros., $40; 34, A. Hoveland, $42.50; 35, C. P. Dexheimer, $65; 36, J. M. Hosmer, $57.50; 39, Mitchell Bros., Milbank, S. D., $42.50; 49, S. M. Jones, Canby, Minn., $50; 51, John Smalley, Odessa, Minn., $40; 52, Mitchell Bros., $55; 53, O. N. Fjestad, $77.50.

60 head .....$2,784; average....$46.40

Vanderhyde's Duroc Jersey Sale.

F. S. Vanderhyde, West Concord, Minn., started the ball to rolling, January 2d when he sold fifty-two head of Duroc Jersey bred sows at the satisfactory average of $62.35. Col. H. S. Duncan made some timely remarks in his opening address. We follow with a list of all selling for $50 and over:

(Concluded on page 23.)



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CUCUMBER,.Olds' Ex. Ey.White Spine
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Dept. 197 Great Northern Railway, St. Paul

LAND AUCTION

I WILL sell at public auction, 3 quarters of Minn. land, to the highest bidder, sale to begin at one o'clock, Jan. 24th. Sale to be held in front of Bank at Chokio, Minn., the second station west of Morris, on the Great Northern R. R. Land all safe in the corn belt—that's what made Iowa famous. No. 1, N.W.¼, Sec.29, Twp.125, Range 44, Stevens county; improved, good house, barn and other bldgs., orchard and grove; Mtg. $5,300.00 @ 6%; good drainage. No. 2, unimproved, 30 a. broken; S.W.¼, Sec.22, Twp.125, R. 44; Mtg. $3,600 @ 6%; lies 3 mi. north of Chokio; a fine ¼ Sec., good drainage. No. 3, unimproved, ¼ Sec.; lies 4 mi. N.W. of Norcross, Minn. on G. N. R. R.; all in native grass, a splendid ¼ Sec.; Mtg $3,500 @ 6½%. All sold subject to Mtg. Terms, $1,000 per quarter down at time of sale; bal. Mar. 1. Good title given. Would advise those from a distance to start in time on account of R. R. service. Auctioneer, Col. B. Kelehan, of Granite Falls, assisted by Col. McMurray. Come early. Address all inquiries to C. M. Shaffer, owner, Deep River, Iowa.

CROP failures are unknown in eastern Washington, northern Idaho and western Montana—that's why these states hold most of the records for the best yields in the United States. In addition to the certainty of satisfactory crops and good markets, a fine climate makes life worth living—it never gets too cold or too hot. Write for our folder, "A Farm Home For You." It gives you descriptions and prices of farm land opportunities in this favored country, where you can get the benefit of the advance in values sure to come in a section that has rich soil, sufficient rainfall and splendid climate. Farm Development Bureau 14, Chamber of Commerce, Spokane, Washington

WANTED Buyers who know a good thing when they see it. Ranches and farms for sale in the wheat and alfalfa growing valley of the Platte. Why pay high prices when better land can be purchased for less money?. Correspondence solicited and descriptions furnished. Address B. L. Neff, Lexington, Neb. Office, First National Bank Building.

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HAVE two farms for rent. Will sell one to right party with small down payment on long time. M. A. Peoples, Ladysmith, Wis.

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My Big Poultry Book "Hatching Facts", sent free, will tell you how to become a successful chicken raiser. It contains photographs and letters from Belle City owners who have won cups and prizes for high per cent hatches. What I have done for others I can easily do for you with my

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The Incubator with the Paragon Board construction, the choice of America's most successful chicken raisers. Sales to date over 524,000. With the book come full particulars about my Low Price, My 10-Year Money-Back Guarantee, my $1,000 Gold Offers. Your opportunity to make extra money. Write me today. - - Jim Rohan, Pres.
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130 Egg Incubator and Brooder Both For $10
If Ordered Together. Freight paid east of Rockies. Hot water copper tanks, double walls, dead air space, double glass doors, all set up complete, or 180 Egg Incubator and Brooder $12.75. FREE Catalogue describing them. Send for it TODAY or order direct. (2)
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POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Dropping Boards Essential For Cleanliness.

To the Editor:—In going about the country, one seldom sees the dropping boards in use on the farm. The dropping board has, for a long time, been considered necessary in order to preserve cleanliness. The filth made during the long winter nights is accumulated in one place, kept off the floor, out of the litter, and can be removed daily if desired without much effort.

In some cases the droppings are removed but once a week, and in that case become a great breeding place for lice. Where dropping boards are used, they should be cleaned at least twice a week for small flocks and every other day with large flocks. The advantage of using dropping boards gives the hens more floor space and the room for a given flock need not be as large as where dropping boards are not used. The advantage over the dropping boards is that it saves labor, is more sanitary, and takes better care of the manure, as the droppings otherwise drop to the floor and are mixed with the litter, and soon make a dirty litter for the hens to scratch in. The house is not only kept cleaner than otherwise, but it is easier to keep it clean.

If a dropping board is not used and the droppings are allowed to fall on the litter, the chickens will walk over this and carry it out among the clean litter, and in many cases get a good deal on the feed as they scratch it over. Then, again, the litter soon becomes dirty, and in this case means the cleaning out of the house more often.

Dropping boards should be removable, and should be just wide enough to pass through the henhouse door, and in this case it will take but a few minutes to pick them up and carry them up and carry them outdoors for a thorough cleaning. It is a good idea to have two sets, so when one becomes foul, carry that set out and use the other, leaving the first one out for a month and there will be no danger of any mites being on it. One should sprinkle a light coat of ashes over the boards; this serves two purposes: First, it dries up the droppings, and second, keeps the vermin from hatching or living after they are hatched.

These dropping boards suggested are usually made of matched lumber and two inches deep, covered with light tin sheathing, which makes them vermin proof and easily cleaned. These boards slide onto the dropping board platform, and in this case are removable at any time. Where the ordinary plan is used, allowing the droppings to fall on a permanent dropping board that is not removable, filth at times becomes settled in these cracks, and in these cracks are found mites, that the poultry keeper had never expected seeing. These cracks as a usual thing are never cleaned out at the time the boards are cleaned off, and here is found a breeding place for mites.

By using the removable dropping boards, as suggested, the roosting quarters are kept more sanitary, more easily cleaned, and less cracks for mites to enter. F. F. Hunstock.

With Duluth and Superior to the north, St. Paul and Minneapolis to the west, Lake Michigan on the east with its numerous shore cities and abundant lake traffic and Chicago to the south the Wisconsin farmer is surrounded with most ideal markets for his products.

Common Sense in Handling Chickens.

IN A few weeks we will be in the midst of the hatching season and thousands of Wisconsin Farmer readers will be operating incubators. Some will succeed and others will fail. It is one function of the poultry department of The Wisconsin Farmer to cut down the number of failures by pointing out the pitfalls in the business. Possibly some of our readers would be willing to take the time to describe their method of handling the flock, of selecting eggs, and incidentally reference might be made to incubator management and to the early care of young chicks. Poultry breeders as a rule are unselfish. They are willing to help a neighbor out and it is in this spirit that we want you to write a letter to The Wisconsin Farmer, touching on some of the points referred to. Your letter would be read by thousands of other breeders and what you say would be helpful to them.

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The Tractor That Increases Crops

HERE is one of hundreds of reports from farmers whose crops have been increased from 10% to 33⅓% by the subsoiling feature of the Big Bull Tractor. (The bull wheel runs in the furrow and loosens the subsoil with its long spade lugs, 3 to 5 inches below plow depth.)

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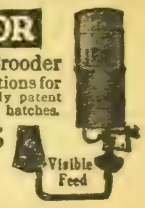

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POULTRY AND PET STOCK.

THE WINNEBAGO REDS
ARE now in the market. Excellent quality, standard weight cockerels and pullets. High-class exhibition and common laying stock. Satisfaction guaranteed or no sale. **Winnebago Poultry Yards, R. 23, Omro, Wis.**

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FOR sale. March hatch, of a great laying strain; at $2.00 each. A rare opportunity to get high-bred birds at a low price. Greenwood Poultry Farm, Route 5, West Allis, Wisconsin.

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"ARISTOCRAT" Silver Wyandotees. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

BREEDERS Cheap, all varieties chickens, ducks, geese, turkeys, bantams and guineas. Also incubator eggs. Bare Poultry Co., Box 650, Hampton, Iowa.

2949 COCKERELS, hens and pullets, 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O.C.Olson, R.2, Strum, Wis.

WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cock'ls. Mrs. J. F Bloom, R.1, Stillwater, Minn.

FIFTY varieties chickens, ducks, geese, turkeys, guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

GOOD Light Brahma cockerels for sale, from $2 to $5 each. Mrs. C. Olsen, R. 4, Box 25. Stoughton, Dane county, Wisconsin.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Can Meat For Summer.

There is a winter as well as summer canning season and it is an important one if one wishes to provide an adequate meat supply for the family during the summer months when otherwise only salt meats would be available to those far from market.

When a beef has been killed part of the meat is preserved for winter use by freezing. The remainder, including the inferior cuts, may be canned successfully. Strip the meat from the bones, using that which is well streaked with fat, or add sufficient fat to each can to give it richness and flavor. Cut the meat into convenient-sized pieces to pack closely in glass jars, and add salt and pepper to taste. Fill the jars almost full of meat, adding no water. Put on new rubbers (which should have been previously boiled for five minutes) and the tops. If glass top jars are used adjust the top spring only. In the case of screw tops screw the top on until it touches the rubber. Put the jars into a boiler or any receptacle having a false bottom and tight cover, which has in it enough cool or lukewarm water to cover the jars. Boil from three to four hours, depending on the age of the beef, counting the time from the moment the water begins to boil. Remove the jars from the boiler and tighten the covers. Do not invert the jars, as this will disturb the layer of fat which will have formed on top.

Meat canned in this way may be used cold, for meat loaf, hash or stews of various kinds. Fish, pork, chicken or any other kind of meat may be canned in this manner.

1917 Baby Week.

Nineteen sixteen was baby year. That was settled once for all by the 2,000 and more communities scattered over every state in the Union which observed the first nation-wide Baby Week. Forty-seven of the fifty cities with more than 100,000 population and 700 villages and rural communities with less than 2,500 population had baby weeks.

The 1917 Baby Week bids fair to be an even bigger, more worth while celebration than last year's, but 1916 will keep the distinction of being the year when each community's provision for the welfare of its babies was generally recognized as a serious civic responsibility.

The children's bureau at Washington has already received numerous inquiries concerning the 1917 Baby Week, and the bureau is making the following suggestions:

Have your Baby Week from the 1st to the 6th of May, if possible. This date has been agreed upon by the bureau and the General Federation of Women's Clubs as the time best adapted to the varying conditions of different states.

Remember the older babies! As one woman stated it:

It requires only twelve months for a baby to become one year old and no longer subject to the hazards of "infant mortality," but there are still many risks for him to encounter; he is still absolutely helpless, although increasingly charming, and his parents are as eager to keep him well and happy as desirous of sound advice, as they were last year. Open out the 1917 baby week to include all children still at home with their mothers.

Remember the mothers. Well-cared for, healthy mothers are necessary for the health and happiness of their babies. Find out what your community is doing to insure to every mother skilled advice and adequate care before her baby is born and during her confinement, and give the importance of protecting the mother a prominent place in the educational work of the campaign.

And one word to communities where infantile paralysis has been epidemic: Mothers should be urged to leave the baby at home during Baby Week. Any feature of the campaign involving the bringing together of numbers of babies must, of course, be omitted, but such features are not essential to the interest and success of a campaign. And Baby Week will afford an excellent opportunity for giving information as to the proper physical training of children with paralyzed muscles.

The children's bureau has a bulletin of suggestions for Baby Week campaigns which may be had upon request, and it is now preparing a revised edition describing the interesting new features reported from the 1916 campaigns.

Wisconsin Homemakers Meet.

Real economy, not merely from the dollars and cents buying standpoint, but in the matter of time and labor as well, will be seriously and practically considered by a large number of Wisconsin women at Madison, February 5th-10th, when the special one-week Homemakers' Conference will be held.

"Submerged factors" in household expenditures will be the leading theme of the course, which will consist of addresses, demonstrations, laboratory practice and open discussions. Household costs as measured in time, labor, fuel and food value will be traced and pointed out.

One of the "round table" meetings scheduled for Tuesday, February 6th, will be on "Some Unnoted Factors in the High Cost of Living." Miss Emma Conley, Miss Ada Hunt, both of the department of home economics, and Harry Kleuter, state chemist, will contribute to the interest of this subject. The preparation of economical and healthful menus for three meals a day throughout the year will be discussed by Miss Amy L. Daniels, formerly director of the work in home economics. Systems of direct marketing, means of increasing the family income, and the making of yearly expense budgets will also be freely considered.

Throughout the week sections will be held where practice work in cooking, sewing and home decoration will be available to visitors. Newer methods of home laundering to reduce the amount of labor and to increase the life of garments will be demonstrated.

Child welfare, one of the state's biggest questions, will be handled at this conference by Dr. Dorothy Mendenhall and Miss Daniels, both recognized as authorities on this subject. Special laboratory sections in this subject will be held, including work in foods and diet for infants and growing children, care of mother and child, and the use of safe, simple and economical treatment in case of sickness. Plan for local baby week campaigns will also be discussed.

"The County Nurse" will be the subject of a paper by Miss Katherine Olmstead, Milwaukee, while "Home Economics Work in State Clubs," will be discussed by Mrs. R. B. Johns, Antigo, and "Elimination of Costly Middlemen," by Mrs. Anna L. Meredith, Eagle.

Thorough and careful short courses on household decoration will be conducted by Misses Turner and Grady, and the organization of girls' canning clubs on a working basis will be explained by Miss Elizabeth Kelley, who is engaged in home economics extension work in farming communities.

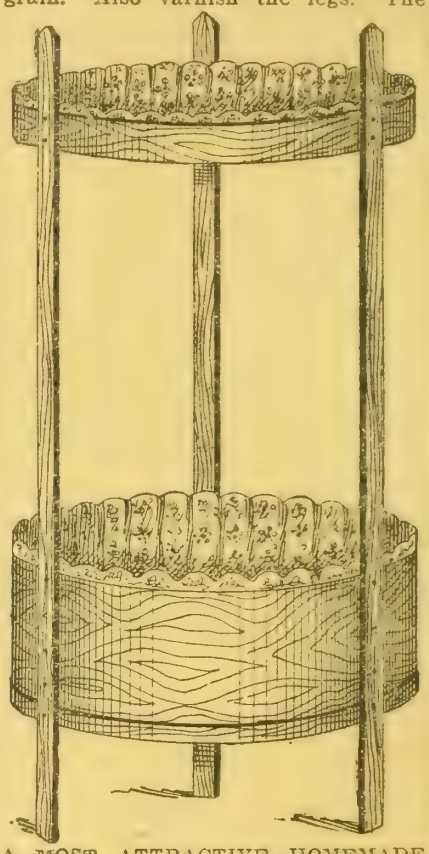
Copies of the complete program will be ready within a short time and may be had by applying to Miss A. L. Marlatt, home economics department, college of agriculture, Madison.

As the homemakers' course is during the regular Farmers' Week and special Swine Congress, it will afford an excellent opportunity for many farm women to avail themselves of the work.

Cheese Box Work Basket.

To the Editor:—One of our circle who signed her letter "E. B." asked how to make a cretonne work basket. I am sending my idea and, while it may not be like the one she referred to, I think it is a very novel affair.

Ask your grocer for a cheese box and then varnish it to bring out the grain. Also varnish the legs. The



A MOST ATTRACTIVE HOMEMADE WORK BASKET.

three legs can be made of most anything you think suitable, such as molding or laths which have been smoothed. They are fastened on with thin wire nails so as not to split the box. The top of the table is made of the lid of the box "deep side up" and lined with cretonne, as is the bottom basket also. Cut the cretonne the size of the bottoms and then the side lining should be gathered on this, leaving a heading above the edges.

I am sending a little sketch which may help one in making the basket.

I use mine as a mending basket, the lower box holding stockings and such articles that need mending and the upper shallow box scissors, thread, thimble and such things. A small cushion can be made and hung on the side for needles and pins.

The legs of the basket should be made such a length as will make it most convenient for the user.

I hope my suggestion will help another "handy home" maker.

—Edith.

Recipes.

Cornmeal and Sausage Croquettes.—Four cupfuls boiling water, two teaspoonfuls salt, one cupful cornmeal, one and one-fourth cupfuls sausage meat, flour, fat for frying. Add salt to boiling water. When boiling hard add cornmeal gradually, stirring constantly. Cook and stir over the direct heat for ten minutes, then put in a double boiler and cook one and one-half hours. Stir in the uncooked sausage meat and cook twenty minutes longer. Set aside to cool. When cold shape into croquettes, dip and fry in deep, hot fat.

Sausage With Cabbage.—One pound small sausages, three cupfuls cabbage, minced, two tablespoonfuls minced onion, seasonings to taste. Fry the sausages until brown and crisp. Remove from frying pan and pour off all the fat except three or four tablespoonfuls. Put cabbage and onion into frying pan and cook five or six minutes, stirring constantly with a fork.

Graham Cookies.—One cupful sugar, four tablespoonfuls melted butter, one half cupful sour milk, one-fourth teaspoonful soda, flour to make soft dough. Roll thin and bake in moderate oven.—A. B.

Seafoam Candy.—Two cupfuls brown sugar covered with just enough water to moisten. Let come to a boil and cook until it spins a hair. Pour sugar and water into the white of an egg, beaten stiff, and stir until hard. Add one-half teaspoonful flavoring if wanted. Mold with a teaspoon and put in buttered plates.—G. Q.

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THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Helped Mamma Make a Quilt.

Dear Young Folks:—This is the first time I have written to your page. We have taken this paper many years and we all like it fine. When it comes I always turn to the Young Folks' page first, as I enjoy reading the letters.

We live in the country. My sister and I both go to town school. We are in the eighth grade. I am twelve years old and my sister is fourteen.

I have two pet cats named Toby and Tabby, and a dog named Shep. We have lots of fun with them.

We are having vacation now and I helped mamma make a quilt.

—Catherine.

Sends a Recipe.

Dear Young Folks:—I enjoy reading your letters and riddles and stories very much. This is my first letter. I am a girl eight years old. I walk to school a mile and a quarter. I am in the third grade.

We live on a farm. My papa is dead. I have a pet chicken and a calf and a mule that papa gave me.

I am sending a recipe for a one-egg cake. One large egg, one cupful of sugar, one tablespoonful of butter or lard, three-fourths cupful of sweet milk, two teaspoonfuls baking powder, one teaspoonful of flavoring, flour enough to make a good batter. Beat well. I hope some of the girls will try this and like it. —Daisy.

Taking Care of Sister.

Dear Young Folks:—I have been reading your letters and have been very much interested in them.

I live on a 640-acre farm. I have two sisters and one brother. My youngest sister is only eight months old and I take a great deal of care of her.

I go to school and am having a nice vacation. I am in the sixth grade and like to go to school. There are twenty-six pupils in our school. We play ball and other games. We had a box supper and there were a great many boxes. We took in $21.60. The teacher said she was going to get a basketball for the pupils to play with.

I had a good time Christmas and I hope all the rest of the boys and girls did, too. —A Little Friend.

Our Fashion Department.

All Patterns, 10 Cents Each.

THIS department is prepared especially for The Wisconsin Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering, all you have to do is to write your name and address plainly, tell us the correct number and size of each pattern you want, and inclose 10c for each number. We agree to fill all orders promptly and guarantee safe delivery.

Catalog of Fall and Winter Fashions

Send 10c in silver or stamps for our up-to-date 1916 large fall and winter catalog, containing over 400 designs of ladies', misses', and children's patterns, as well as the latest embroidery designs, also a concise and comprehensive article on dressmaking, giving valuable hints to the home dressmaker. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wis.

1743—Juniors' dress, with two styles of sleeve and with underwaist. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 1¼ yards of 27-inch material for the underwaist and 5½ yards for the dress for a 14-year size.

1667—Ladies' house dress with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6⅛ yards of 44-inch material for a 36-inch size.

1736—A comfortable apron, easy to adjust. The pattern is cut in 3 sizes: Small, medium and large. It requires 6⅛ yards of 36-inch material for a medium size.

1696—Boys' blouse suit with shield. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 3 yards of 44-inch material for a 4-year size.

1970—A very becoming and comfortable lounging robe. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5⅝ yards of 44-inch material for a medium size.

1957—Skating set for ladies, misses and girls. The pattern is cut in one size for ladies, one size for misses, and one size for girls. The ladies' size requires ⅞ yard for the cap, of 24-inch material; 1 yard for the inside of muff and 1⅛ yards for the outside, of 27-inch material; ¾ yard for the scarf, of 24-inch material, and ⅞ yard for the bag, of 24-inch material.

1973—Dress for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5⅝ yards of 44-inch material for an 18-year size.

1966—Ladies' maternity skirt, in raised waistline. Pattern is cut in 7 sizes: 24, 26, 28, 30, 32, 34 and 36 inches waist measure. It requires 5½ yards of 36-inch material for a 30-inch size.

1972—Juniors' dress, with sleeve in either of two lengths. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 4¾ yards of 44-inch material for a 14-year size.

Waist 1961-Skirt 1962—A good style for many occasions. Waist pattern cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 8¼ yards of 44-

inch material for the entire dress in a medium size. Two separate patterns, 10 cents for each pattern.

1969—Girls' dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 8 years requires 3 yards of 44-inch material.

1953—Ladies' waist in surplice style. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¾ yards of 44-inch material for a 36-inch size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for January 14, 1917.

John the Baptist and Jesus.

LESSON TEXT—John 1:19-34.

GOLDEN TEXT—Behold, the lamb of God that taketh away the sin of the world.—John 1:29.

John began his public ministry in the summer of A. D. 26 and the baptism of Jesus probably took place in January, A. D. 27. The delegation from Jerusalem to interview John must have appeared along toward the latter part of February.

I. John the Witness (vv. 15-18). John's ministry created great excitement. The people were in expectancy. All classes were reasoning as to who this strange, but marvelously forcful, man might be. Some thought perhaps he was the Christ (Luke 3:15). To settle this question a committee was sent to Jerusalem to investigate. Malachi, the prophet, has suggested the coming of Elijah (Mal. 4:5) before the Messiah should come, and another prophecy indicated that the prophet should be like unto Moses (Deut. 18:16-18). John freely confesses to this delegation that he is not the Christ nor Elijah nor the prophet predicted by Moses. How foolish and silly are those modern ones who profess to be the messenger of the covenant or some other fanciful title, indicating the return of the witness which is to precede the coming of Christ. John exercises humility in the way he states his real position though he does apply to himself the prophecy of Isaiah (Isa. 40:3-5) which sets forth what his mission was to be. A voice can be heard, but not seen. With our bodily eyes we never see a spirit. No man ever saw the soul of his nearest friend. We do see God, however, in his works, in his marvelous deliverances and his guidance of the world and his answers to prayer.

II. John the Baptizer (vv. 19-29). As John had denied that he was the Christ or Elijah, the priests and Levites made bold to question his authority at a later time (Matt. 21-23), and still later the authority of the apostles and the priests (Acts 5:28). John answers them with another display of his humility. His baptism in water was nothing to the baptism of the coming one (See Matt. 3:11; Acts 1:5). Though Christ was in their midst, they were blind and did not recognize him. (See vv. 10, 11; ch. 8:19; 16:3). John's baptism of repentance denotes a baptism which a penitent submitted to that he might receive the pledge and assurance that his sins were forgiven. Baptism meant the cleansing of the people from past sins that they might be fitted for entrance into the kingdom. Baptism is not conversion. It is a witnessing and a symbol of a spiritual truth that we are dead unto sin, and have risen to newness of life (Rom. 6:3-5). Like John, our voice must be not only that of humility, but it must be really a voice with a message from God, one that sounds an unmistakable note, one that can be heard wherever we go, one that will make men happier, stronger, braver, more like God, to prepare the way for Christ in the hearts of men.

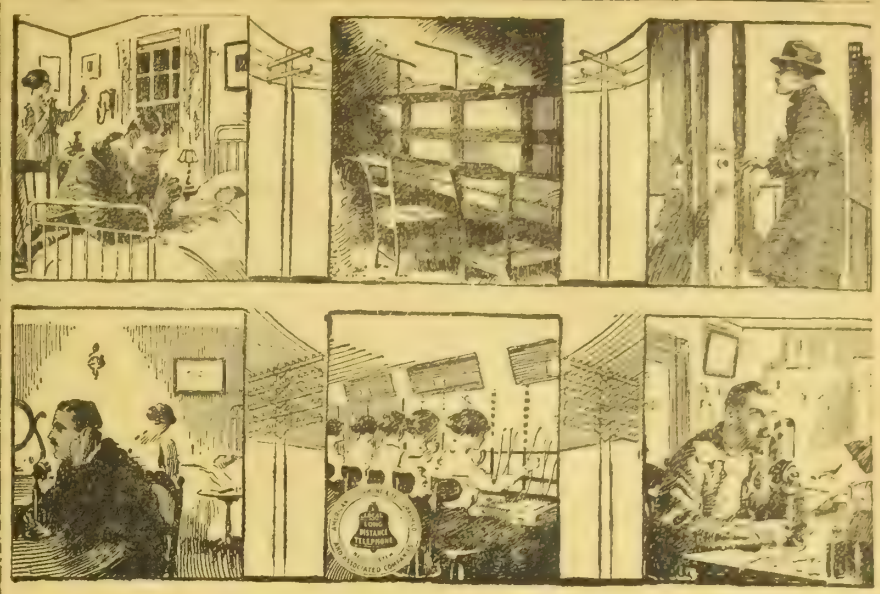
III. The Witness of the Spirit (vv. 28-34). The writer is very explicit, stating the exact time that these things occurred, for he was an eye witness. John first testifies that Jesus was the Lamb of God, referring, of course, to the sacrificial lamb, the atoning sacrifice of the Old Testament (Gen. 22:7-8; Ex. 12:3; Isa. 53:7). As the Lamb of God, Jesus would take away the sins of the world; thus the thought is primarily that of atonement, a substitution of another and the deliverance from the guilt of sin. The next day after John's witness to the delegation from Jerusalem he saw Jesus coming unto him, and said to the assembled people, "Behold the Lamb of God." This refers not so much to his character, that of innocence, meekness and patience, as to his office, his completed work of atonement by the sacrificial death wherein he takes away the sins of the world. On the ground of the propitiation for sin which Jesus wrought (I John 2:2; Matt. 20:28; II Cor. 5:21; Gal. 3:13) sin is removed from the sinner as far as the East is from the West. God dealt in mercy with men before Christ's time because of the lamb which was slain from the foundation of the world (Rev. 13:8). Here John says that at first he did not recognize Jesus as the Messiah, but he does bear record that he saw the spirit descending at his baptism, and it abode upon him.

The work of Christ is for the whole world till all its sin is removed.

He is actually removing sin from the world, and when he comes again, sin will be banished. Luke's record adds that this same Messiah is to baptize with the Holy Ghost and fire.

Christians are to be on fire for God.

The gift of the holy spirit at Pentecost was the first and most manifest expression of this power of Christ who is the real baptizer. Begotten of God (Luke 1:35), possessed of all the attributes of the Father (Phil. 2:6), the one in whom the fullness of the Godhead dwelt bodily (Col. 2:9) he is to be honored and worshiped as God (Heb. 1:6).



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A telephone to one person in ten.	Not one person in a hundred has a telephone.
3,000,000 miles of interurban or long-distance wires.	Not one-eighth as many miles in proportion to population and territory.
Prompt connections, the speed of answer in principal cities averaging about 3½ seconds.	In the principal cities, it takes more than twice as long for the operator to answer.
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As to cost, long-distance service such as we have here was not to be had in Europe, even before the war, at any price. And exchange service in Europe, despite its inferior quality, cost more in actual money than here.

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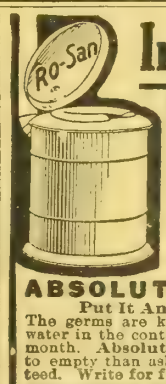

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TOLD IN THE HILLS

By Marah Ellis Ryan

Author of "That Girl Montana," "The Bondwoman," "My Quaker Maid," Etc., Etc.

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PART IV.---One Squaw Man.

CHAPTER II—Continued.

"Not that I know of," he said curtly. A sort of quiet antagonism had always been felt between the chief of scouts and the new commander, but this was the first time any expression had been given it, and Genesee's intolerance quickly responded to the manner of the officer that had in it both dislike and distrust.

"Then you refuse to tell me where you spent the night?"

The light in Genesee's eyes flashed sudden defiance.

"Yes; if it comes to that, and that's the way you put it, I do."

"You had better think twice before you give that answer," advised Captain Holt, his face paling with anger at the insubordination; "and another question to be put to you is: Where is the half-breed, your runner?"

"I don't know as that concerns you, either," answered Genesee coolly. "He is my Indian, and neither of us belonging to the United States army, we can leave camp when it suits us. But I don't mind telling you I sent him to Holland's yesterday."

"For what purpose?"

"My own business."

"The same thing that took you from camp at three yesterday and kept you out all night?"

"Just so."

"Then, since you refuse to answer a very necessary question, you may—until I have an opportunity of investigating an absence that is, to say the least, suspicious—you may consider yourself under arrest."

"What in—"

"For horse stealing," finished the Captain calmly.

Genesee's hand dropped to his belt in a suggestive manner, and from the door two guards stepped forward. He turned to look at them, and the ridiculous idea of his arrest quelled the quick rage that had flashed up in his face.

"You needn't have troubled yourself with these protectors," he remarked, "for I reckon there isn't much I'd want to do that they would stop me from; and as for you—this is a piece of dirty work for some end. I'm ready to be put under arrest, just to see some fun when your commander gets back. And now maybe you'll just tell me whose horse I stole?"

"It is not one horse, but one-half the stock belonging to the company, that was run off by your Kootenai friends last night," replied Captain Holt grimly; "and as your disappearance was likely helpful to them, and a matter of mystery to the command, you will be debarred from visiting them again until the matter is investigated. Even the explanation is more than your insolence deserves. You can go back to your quarters."

"It's an infernal lie!" burst out Genesee wrathfully. "No Kootenai touched your stock. It's been some thievin' Blackfeet and their white friends; and if you interfere with the Kootenais, and try to put it on their shoulders, you'll get yourself in trouble—big trouble."

"When I want your advice, I will ask for it," was the natural reply to the contradiction and half threat. Genesee walked to the door with the guards, and turning, came back.

"Captain Holt," with more of appeal in manner than one would look for in him, "I'm ready to take my chances in this business, and I'm not trying to give advice, but I'm going to ask you, on the reputation you know I have in Indian matters, to be mighty careful what you do or what you let the men do toward the Kootenai people. They're only waiting the Major's return to send word to camp that their arms and fighting braves are willing to help the troops against the Blackfeet if they're needed. I know it. Their messenger is likely to come any day, and it will be a bad thing for our cause if their friendliness is broken by this suspicion."

"Your cause?"

"No, I haven't got any," he retorted. "I'm not talking for myself—I'm out of it; but I mean the cause of lives here in the valley—the lives on both sides—that would be lost in a useless fight. It's all useless."

"And you acknowledge, then, that you don't consider the cause of the whites as your own cause?" asked the captain quietly.

"Yes!" he burst out emphatically, "I'll own up to you or anyone else; so make me a horse thief on that, if you can! I'd work for the reds quicker than for you, if there was anything to be gained by fighting for them; but there isn't. They'd only kill, and be killed off in the end. If I've worked on your side, it's been to save lives, not to take them; and if I've got any sympathies in the matter, it's with the reds. They've been dogged to death by your cursed 'cause.' Now you've got my ideas in a nutshell."

"Yes," agreed the captain sarcastically, "very plainly expressed. To establish entirely your sympathy with your red friends, it only remains for you to be equally frank and report your movements of last night."

"Go to thunder and find out;" and with this climax of insubordination, the scout left the presence of the commanding officer and marched back to his shack, where he took possession of the bunk and was sound asleep in five minutes, and altogether undisturbed by the fact that a guard was stationed at the door of the impromptu prison with orders to shoot him if an attempt to escape was made.

Captain Holt's leniency with the scout, who simply ignored military rule and obedience in a place where it was the only law, was, for him, phenomenal.

The one thing in Genesee's favor was his voluntary return to camp; and until he learned what scheme was back of that, the captain was obliged, with the thought of his superior officer in mind and the scout's importance, to grant him some amenities, ignore his insolence, and content himself with keeping him under guard.

The guard outside was not nearly so strong in its control of Genesee as the bonds of sleep that held him through the morning and well-nigh high noon. He had quickly summed up the case after his interview with Holt, and decided that in two days, at most, the Major would be back, and that the present commander would defer any decided movement toward the Kootenais until then. As for the horses, that was a bad business; but if they chose to put him under arrest, they plainly took from him the responsibility of hunting for stock. So he decided, and in the freedom from any further care, dropped asleep. Once a guard came in with some breakfast, which he ate drowsily, and turned again to his pillow.

"When that fool, the commanding officer, concludes to let up on this arrest, there's likely to be some work to do—I'll fortify myself while I have the chance;" and that determination, added to his exhaustion, served to make his rest a very deliberate affair, not to be disturbed by trifles.

Several things occurred during that winter's morning that were far from trifling; yet no sound of them came to him, not even when a shot on the ridge echoed across the valley, and ten minutes later was followed by several more, accompanied by yells, heard faintly, but clearly enough to tell that a skirmishing party was having a shooting match with someone across the hills. In three minutes every horse left in camp was mounted and scurrying fast as their feet could carry them through the drifts, while the horseless ones, whose stock had been run off in the muffled silence of the snow storm, remained unwillingly behind.

At the end of the avenue Lieutenant Murray caught sight of Stuart and Hardy, riding toward camp. There was a hallooed invitation to join, another of acceptance, and the civilians joined the irregular cavalcade and swept with them over the hill, where the sounds of shots were growing fainter—evidently a retreat and a chase—toward which they rode blindly.

Through all of it their chief of scouts slept unconcernedly; a solid ten hours of rest was taken possession of before he aroused himself to care whether it was daylight or darkness.

"Major come yet?" was the first query.

"No."

"Am I still under arrest?"

"Yes."

"Then bring me something to eat. Past chuck?"

On being informed that the midday meal had been ended two hours before, his next query was whether anyone from the ranch had been to camp; but the guard thought not—a reply most grateful to the prisoner.

(To be continued.)

I MET HIM ON THIS VERY SHIP!

It was within an hour of sailing time. I was on my way home from Europe five years ago. The Mauretania lay beside her Liverpool wharf. Everybody was hurrying to get on, as we were to sail at five o'clock. Suddenly, without warning—without a propeller turning—she commenced to pull away from her moorings. The gang planks creaked--broke loose--and there was quite a commotion as the mighty Mauretania tore loose from her moorings and floated out in the water. It was not a serious accident, but it was exciting. In the excitement I met a man leaning over the rail who looked at me and we laughed together. Then we just naturally got acquainted like people do when they are traveling. He was J. J. Berrigan, of Orange, N. J., the famous cream separator expert and inventor. I had never seen him before, but I had heard of him. I told him I was from Waterloo, Iowa, and he said, "You are Galloway." I soon found out that he was the great cream separator expert and a man I was very glad to meet. Naturally we became very well acquainted. He told me what he had done in perfecting cream separator patents and improvements. I told him he was just the man I was glad to get acquainted with. After the Mauretania had been lashed to her wharf again the excitement was over, and we pulled out of Liverpool several hours late--Berrigan and I began to talk cream separator, and every day after that we spent several hours together visiting. I told Mr. Berrigan that we were perfecting what I thought was the best cream separator ever produced, and I also told him if he would come to Waterloo and put on the finishing touches, go over the separator, test it, criticize it, find fault with it wherever he could and suggest any possible improvements, I would pay him well for his time. In a few days after we landed in New York he did come to Waterloo. He said our separator was one of the finest designs he had ever seen, and with the few recommendations which he made, he pronounced it O.K.--good as the best--and better than many of the separators on the market today. Our engineers, designers and separator builders had produced a machine with graceful lines, simplicity of construction, combined all the good features and left out all the faults. Mr. Berrigan commended us on the work and immediately put his stamp of approval upon this machine. That's why I say

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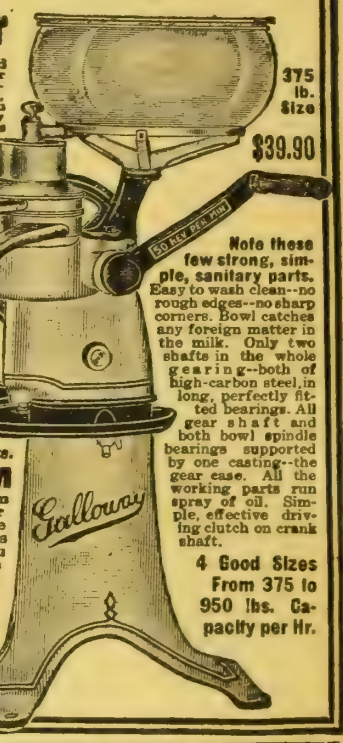
before we offered it on the market. We put out in the hands of farmers and dairymen enough of these separators to know that they would stand up under any test, whether operated and used in the kitchen, the milk house, the creamery or elsewhere, used two or more times per day, every day, week after week, month after month. I JUST WANT YOU TO TRY IT. If you like it, buy it. If you don't, send it back. We pay freight both ways. If the new Galloway Sanitary Separator is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is, I could not afford to make this ninety-day trial offer and I could not afford to guarantee it for ten years.



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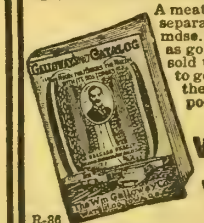

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VETERINARY MATTERS

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Ailing Animals.

Worms.

Please tell me the best remedy for worms in a horse.

A very good agent to remove round worms from a horse is the following: Give twice daily for three or four days a drench composed of turpentine or creolin, one ounce in three or four ounces of linseed oil, this to be followed on the fourth day by a physic of Barbados aloes, one ounce. Let the horse stand twenty-four hours after giving the aloes.

My horses have worms about three inches long and black. I have been feeding them tobacco, wood ashes and some medicine I bought but they don't seem to get rid of them. The horses are from four to seven years old. I have been feeding shelled corn, oats and good timothy hay.

Give each horse oil of turpentine, four ounces, and oleoresin of aspidium, one ounce, in a pint of linseed oil. After the effects of this have passed off give your horses the following: Dried iron sulphate, three ounces; powdered gentian, three ounces; powdered nux vomica, two ounces; soda bicarbonate, six ounces. Mix and give heaping tablespoonful in ground feed three times daily.

Ringworm in Calves.

Will you please tell me what to do for my calves? They get scabby around the eyes and nose and lose their hair and then it will spread in spots here and there all over the body and forms a hard crust wherever these spots are. They do not seem to be sick, but they do not grow or thrive one bit. I have tried dipping, but it was not successful as it is too cold. I have twenty-eight head and am afraid I will lose some of them, as they can hardly stand up now.

First soak the crusts in oil and several hours later remove the crusts with pure soap and water. Be sure to remove all the soap with warm water. Now paint diseased parts with tincture of iodine or rub in an ointment of one part of iodine crystals and eight parts of goose grease once daily. Salicylic acid, one part, and alcohol, ten parts, is also good. Burn the scabs you remove.

After Effects of Castration.

I have a dark gray colt coming three years old that was castrated as a yearling. One of the incisions closed up. I opened it and he apparently held up all right, but since that time he has never done any good. When I took him from pasture last fall he was very thin and had small scabs scattered over his body. I gave him the best of care all winter and he was in fair flesh when turned in pasture this spring but had no life. This fall he is simply a skeleton, with hind legs swollen to twice their natural size from hocks to ankles, sheath also swollen. His appetite is good and he drinks lots of water. Have given no medicine.

This trouble may be a sequella of castration and again it may not. Try giving this animal a tablespoonful of Fowler's solution of arsenic once daily. This should be given in a half-pint or more of water. If he does not improve in three or four weeks you had better have a veterinarian examine him.

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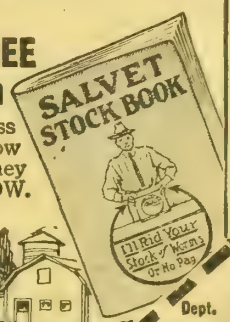

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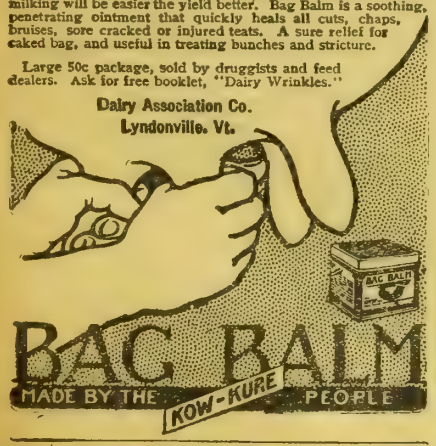
Keep the cow's udder free from irritating conditions and the milking will be easier the yield better. Bag Balm is a soothing, penetrating ointment that quickly heals all cuts, chaps, bruises, sore cracked or injured teats. A sure relief for caked bag, and useful in treating bunches and stricture.

Large 50c package, sold by druggists and feed dealers. Ask for free booklet, "Dairy Wrinkles."

Dairy Association Co.
Lyndonville, Vt.



Ear Tags FOR STOCK

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog and samples free on request.
F. S. Burch & Co., 262 W. Huron St. Chicago

FREE—Postpaid
This Big Sample Box of My Famous Healing Ointment

C. G. PHILLIPS
The Wool Fat Man

I want you to see for yourself what a wonderful healing preparation CORONA WOOL FAT COMPOUND is. I want to prove to you on your own horses and cows and WITHOUT A CENT OF COST, how quickly it will heal and cure Split Hoofs, Barbed Wire Cuts, Grease Heel, Galled Shoulders, Hard and Contracted Feet, Mud Fever, Corns, Scratches, Thrush, Quarter Cracks, Boils, Ulcers, Old Sores, Caked Udders and Sore and Inflamed Teats on cows.

CORONA WOOL FAT

The Wonderful Healing Compound

is unlike anything you ever tried or used. Don't confuse it with salves which contain grease and blister compounds. This remedy will penetrate the hoof of a horse which is 60% to 70% water. It is not a grease but the fatty secretions extracted from the skin and wool of the sheep. It is readily absorbed by skin and hoof, penetrates to the inflamed inner tissues and

Heals Without Leaving a Scar

CORONA does not burn or blister, grows hair over cuts and sores, causes no pain, soothes and heals surprisingly quick. The free sample will prove my claim. A postal brings it postpaid, and I'll also send you my free book "HOW TO TREAT HOOFS, WOUNDS, SORES, etc." Send for both today. Be sure to give name of your Horseshoers.

How To Treat Hoofs Wounds Sores etc.

(23)

C. G. PHILLIPS, Mgr. THE CORONA MFG. CO., 44 Corona Block, KENTON, O.

YOU CAN'T CUT OUT A
Bog Spavin or Thoroughpin
but you can clean them off promptly with

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

and you work the horse same time. Does not blister or remove the hair. $2.00 per bottle, delivered. Will tell you more if you write. Book 4 M free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Wens, Cysts. Allays pain quickly. Price $1 and $2 a bottle at druggists or delivered. Made in the U. S. A. by W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Holstein Breeders, Stop! Look! Listen!

IF YOU are interested in Holstein cattle you will be interested in the dispersion of the herd of Harry D. Dunbar, Elkhorn, Wisconsin. You have read of the winnings of this herd at the Wisconsin State Fair and many know something of the records made in the herd. We have been acquainted with this herd for the past three years and we can assure you that you will be well repaid if you attend the sale. There will be some forty head in the sale ranging from small calves to mature animals. However, it is a herd of young animals, as there are only eight over four years old. All of the younger and most of the older ones are from A. R. O. dams, ranging from 15.42 pounds as two year olds to 28.70 pounds. Ten of the cows going into the sale have A. R. O. records. Six have semi-official records from 542.44 to 936.62 pounds. Nearly every animal in the herd was raised by Mr. Dunbar. The herd sire, Beauty Walker Pietertje King, will be sold. His sire is King Colantha Clothilde, that has twenty-four A. R. O. daughters, sixteen with records ranging from 20 to 30.51 pounds of butter in seven days. His dam is Beauty Walker Pietertje, that made 19.90 pounds of butter in seven days, as a three year old. Her dam and both grandams are all 30-pound cows. There are nineteen daughters of Beauty Walker Pietertje King in the herd, which offers an especially good opportunity to get a sire and a number of his daughters. Sixteen of the cows in the sale are bred to the 30.51-pound bull, Colantha Hamilton Pietertje. This is one of the best bred bulls in the state. His dam, Colantha Hamilton, made 30.51 pounds of butter and 587.2 milk in seven days, at three years three months of age and is a daughter of Beauty Betsy Hamilton, 32.39 pounds butter in seven days. Among the cows to be sold are Knight Errant Queen with a seven-day record of 28.70 pounds and 936.62 pounds in 365 days. This cow is a daughter of Knight Errant, whose other daughters to be tested have made good records. One of these, Happy Home Vera Ormsby, made 30 pounds of butter in seven days. Among the other cows in the herd are those that have higher butter records. Four of the heifers are daughters of Knight Errant Queen, whose yearly record is 936.62 pounds butter and 28.705 in seven days. Average yearly test 3.94 per cent. The sale will be held on the farm, which is two miles southeast of town. Transportation will be furnished to the farm from Elkhorn. The sale will start at twelve o'clock. R. E. Haeger, Algonquin, Ill., and Jack White, Elkhorn, will cry the sale. H. S. Hoard will represent The Wisconsin Farmer. Catalogs will soon be ready for mailing. Send for one at once and get your name on the list. When writing for catalog kindly mention that you saw this advertisement in The Wisconsin Farmer. See page 23.—Adv.

Lefebure's Belgians.

H. LEFEBURE & SONS, Fairfax, Ia., write as follows, under recent date: "Our Belgian stallions, mares and colts have become accustomed to and are now enjoying their winter quarters. We have nine barns full of select individuals of this breed. Two large barns are filled with stallions, both American bred and imported, with size, quality, weight and colors demanded by the American horseman. Two other barns accommodate our young American Belgians, consisting largely of big, heavy-boned, growthy yearlings. We have another barn full of foals, while there are four large spacious barns devoted entirely to imported and American Belgian brood mares. We are in better shape than ever before to supply customers with anything they may want in the line of a good Belgian of any age, color or sex. We greatly enjoy meeting visitors at Fairfax or at the hourly Cedar Rapids and Iowa City interurban cars and bringing them out to look over our stock. Visitors can easily spend an entire day examining the animals in our different barns." See page 24 and when writing kindly mention this paper.—Adv.

McDonald Sale Off.

WE have just been advised that J. D. McDonald, of North Bend, Wis., has called off his Poland China sale that was to be held at West Salem, February 8th. Mr. McDonald has had such a demand for bred gilts that he feels certain that he can dispose of those that he wishes to sell at private treaty and, inasmuch as he would have to haul his sows about twenty miles in order to sell at West Salem, he thinks it best to call the sale off for this year. In view of this fact, the yearlings and gilts that had been reserved for the sale will now be offered at private treaty. McDonald has the goods and the best ones are bred to the 1,000-pound Mac's Chief. If you order from McDonald you get big Polands with quality and bred to a grand champion boar. Write him at once, for he has one of the best herds in the Northwest, and, as you know the good ones are always in demand. Please mention The Wisconsin Farmer when writing.—Adv.

Joe Hendricks and His Big Polands.

IF there ever was a natural hog man, J. C. Hendricks, Hazel Green, Wis., is one of them. One can travel many miles before he will find a better herd of big-type Polands than those owned by Joe Hendricks. He holds the bred sow sale record for the state and from the looks of his sale offering now, those to be sold on February 15th are equally as good as the ones that made the high average last winter. The gilts will weigh right at 400 pounds by sale day and fifteen noted Poland China sires will be represented in the offering. At the proper time we will have more to say about this sale bunch, but in the meantime, don't think that you have to go to Iowa to get good Polands. See page 25.—Adv.

Atwater's Banner Offering.

WHEN L. F. Atwater, Bangor, Wis., makes the announcement that he will sell bred Duroc Jerseys on Wednesday, January 31st, those interested know that they will receive a treat on that day. It has not been the writer's pleasure to see Mr. Atwater's previous offerings of Duroc Jersey sows, but those that have seen the former consignments say that this will be his banner offering. We will say, however, with all due respects to the other good breeders that he will drive the best lot of Duroc Jersey gilts into the sale ring on January 31st, that we ever saw go through an auction sale. That is a broad statement, but he has the goods. Mr. Atwater is a progressive breeder. He realizes that a breeder must go forward or backwards, one cannot stand still and he certainly has gone forward since he has been in the Duroc business. At any sales where he makes purchases he always buys the best that is sold. The same condition exists when he buys his herd boars, consequently at the present time he has one of the best herds of this breed to be found in the entire country. Wisconsin does not appreciate the Atwater Durocs as it should. If this breeder was in Iowa or Minnesota, where good Durocs are appreciated he would be a head liner in every respect. Forty-five head have been cataloged for this sale. The attraction will be the two-year-old sow, Defender Queen. This sow was grand champion at Minnesota, Wisconsin and at the Interstate Fair at La Crosse, and was third at Omaha. We feel certain in saying that she is the best sow that will be sold in the Northwest this winter, and anyone wanting an aged sow to show next fall will make no mistake in buying her. She is safe in pig for a February litter to the service of Proud Chief Jr., the junior champion boar at Hamline and Milwaukee. If you want sows to show in the senior yearling class next fall you can find them in this sale. Of the spring gilts, there are about six that are real show prospects. Just now we want you to get one of the catalogs and make arrangements to attend this great sale of Duroc Jerseys. Buying instructions should be sent to T. P. Shreve in care of Mr. Atwater. Write at once for a catalog and mention The Wisconsin Farmer. Dennis Shea will sell a great lot of sows at Melvina, near Bangor, the day before and you should attend both sales. Watch the issue of January 18th for further announcement. See page 23.—Adv.

Geo. Willsie's Sale Offering.

WHEN Friday, February 2d, rolls around, Geo. H. Willsie, will drive a bunch of sows into the sale ring on his farm, near Prosper, Minn., that will be pleasing to the eye. We saw this sale offering a short time ago and he is selling thirty-five spring gilts that no breeder need be ashamed of. The important part is that these good gilts are sired by Big Col., in our estimation, one of the three or four best boars that ever did service in the stae of Minnesota. We have often said that we consider Big Col., the second best King the Col. boar we ever saw. The gilts sired by Big Col. are out of Chief Defender dams which makes a very desirable cross. Other gilts are sired by Chief Defender. The last mentioned boar is a litter mate to old Disturber, being by Defender, out of Lucy Wonder 112th. The good yearlings and gilts sired by the above boars have been bred to a son of Burke's Good Enough, out of a King the Col. dam. Willsie has named him Burk. Others are bred to Top Col. King, a son of American Top Col., out of a King of Cols. dam. This is certainly a Colonel bred herd and no one will deny the fact that this is as good a line of breeding as a person can get into. We won't mention the many good individuals that will go to make up this sale. Just mark the date down and arrange matters so that you can attend the sale. If you can't do this, get the catalog, look over the pedigrees and send your buying instructions to T. P. Shreve who will represent The Wisconsin Farmer at this sale. Notice the advertisement that appears on page 25 and write at once for one of the catalogs and please mention this publication.—Adv.

GRIMES BROS. & KRUEGER'S SALE OF DUROCS

WEST UNION, IOWA

MONDAY, JANUARY 29, '17

40 HEAD---GILTS, YEARLINGS, TRIED SOWS---POPULAR BLOOD LINES

SIRED by **Col. the King** by **King the Col.** by **High Model** by **Col. Taxpayer** by **Pal's Col.** by **John's Orion Again** by **John's Orion** and out of Col. Gano, King the Col., High Model and Crimson Wonder Again sows. SOME BREEDING.

Bred to: **Critic's Model** by Critic's Perf. (2d at Omaha), **Invincible's Pride** by Chief Invincible, **Sunkist Model** by Golden Model 2d, **Queen's Model** by I Am Golden Model 2d, and **Gano Wonder** by Col. Gano.

GOOD SOWS—GOOD BREEDING—GOOD CONDITION.

If you like that kind you'll attend this sale. Send for a catalog at once. Send bids to T. P. Shreve, field man for The Wisconsin Farmer. Col. H. S. Allen, auctioneer.

W. G. KRUEGER
HAWKEYE, IOWA

GRIMES BROS.
WEST UNION, IOWA

SALE AT WEST UNION, IA.

Dennis Shea's Duroc Offering.

ONE of the Duroc Jersey breeders of Wisconsin that has come to the front rapidly is Dennis Shea, of Melvina. He was fortunate in making his original brood sow selections; has taken good care of them and he now has a good herd of "red hogs." His foundation sows were daughters of Marion's Wonder. They have the size, consistent with that line of breeding, and they have been bred to big-type boars. Three years ago Mr. Shea bought a fall pig of O. S. Larson sired by King the Col. This boar he named Col.'s Choice and he is a typical King the Col. boar, deep and thick, a good back, heavy boned and a worthy sire. His dam, Miss Choice Goods was by H. A.'s Choice Goods, a half brother to the noted H. A.'s Quality. When you see this boar he will appeal to you. Some of the best gilts in the sale are bred by him. Wonder's Chief, a son of that great sire, Cherry Chief, did some good work in this herd, but Mr. Shea sold him before he realized what a good sire he was. When you see his get, you'll want a gilt or two. Pal's Defender by the champion, Lee's Defender, is a boar with great scale, a rainbow back, deep sides and plenty of bone. A few of the gilts are by him, but there are more bred to him than sired by him. No doubt the greatest demand will be for the gilts bred to the Pathfinder boar, namely, Pathfinder 2d, and about two-thirds of the offering has been bred to him. This boar is of spring farrow, has worlds of quality, an ideal head and ear, plenty of bone, and in another year, we believe he will make quite a boar. Mr. Shea has used him heavily, as you can see by the catalog, and for that reason do not expect to see him in show condition sale day. Thirty-five head will be sold, thirty spring gilts and five fall yearlings. It will pay you to attend this sale. It comes the day ahead of L. F. Atwater and the two farms are not far apart. You can make the two sales as easily as one. If you can't attend send instructions to T. P. Shreve. Write at once for the catalog and mention The Wisconsin. See page 24.—Adv.

GILTS OFFERED FOR SALE BY E. H. PARKER & SON, JANESVILLE, WIS. SEE ADVERTISEMENT ON PAGE 25 OF THIS ISSUE.

TOO LATE TO CLASSIFY.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

Folding Sawing Machine Saves Labor.

IT IS no longer necessary to use the old-fashioned cross-cut saw with a man at each end for the winter sawing on the farm. The folding sawing machine, manufactured by the Folding Sawing Machine Co., 161 W. Harrison St., Chicago, Ill., is easily operated by one man, and does excellent work, permitting sawing close to the ground. The machine is light and easy to carry about. It is inexpensive. Readers of this paper may obtain literature explaining the folding saw and giving testimonials of farmers who have used it, by writing to the company, mentioning that you saw the advertisement in this paper.—Adv.

Cook-Scheibe-Vaughn Chester Sale.

WE will say it's "some offering" of Chester White swine that the boys at Burlington are going to put up in their sale on Monday, February 5th. Cook Brothers, W. C. Scheibe and W. W. Vaughn & Son are offering the tops of their three herds. If you saw their herds at the state fair you know what kind of gilts you will see at the sale and we might add that these gilts have been kept coming right along ever since the fair. Watch next week's issue for the announcement advertisement.—Adv.

Big Mint.

THIS is the name of the spring boar now doing service in the C. S. Flesch Poland China herd at Mt. Ida, Wis., and you breeders that are going to show next fall will have to consider this boar. He is as big as they make them, yet he has the desired quality. He is sired by Jumbo Again by Big Jumbo 2d, which gives him a line of breeding most popular. He sells gilts in the Madison sale that will be attractions. This herd will also be represented in the Grant county sale with about fourteen head, mostly by his

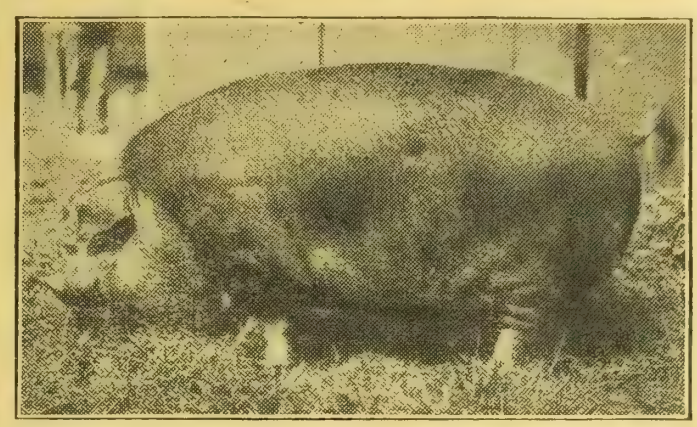
45 HEAD WISCONSIN'S PREMIER 45 HEAD

DUROC JERSEY SOW SALE

BANGOR, WISCONSIN, WEDNESDAY, JAN. 31

"I Have Sold Good Sows Before, But These Are the Best Yet"

45 HEAD
1 TRIED SOW
9 FALL YEARLINGS
35 SPRING GILTS



BRED TO
P. S. Wonder, full brother to Marion's Wonder.
Proud Chief Jr. by Cherry Chief, dam by Proud Col.
Model King by High Model, dam by King the Col.

THE ATTRACTION.—**Defender Queen**—An 800 pound 2-year-old sow. Grand Champion at Minnesota and Wisconsin State Fairs and third at Omaha. Bred for a February litter to **Proud Chief Jr.**, the Junior Champion at the above state fairs. One of the greatest sows to be sold this winter. The fall yearlings are by **Lee's Defender**, among which are several show prospects. Bred early. The 35 spring gilts are as good as ever entered a sale ring. Some will weigh right at 400 lbs. Sired by Model King, Great Chief (by Cherry Chief), Lee's Defender and out of daughters of **King The Col., Col. Gano, Marion's Wonder, Sensation's Wonder**, etc. **REMEMBER**—It pays to raise the best—buy where you get that kind. **I WANT YOU TO SPEND THE DAY WITH ME.** Send all mail bids to T. P. Shreve in my care, I'll guarantee his selection. Write at once for my catalog, and mention The Wisconsin Farmer. Col. I. E. Stickelman, auctioneer.

45 HEAD **L. F. ATWATER, BANGOR, WIS.** **45 HEAD**

Dennis Shea Sells January 30, at Melvina. George H. Willsie, February 2, at Prosper, Minnesota
Make all sales.

good boar, Jumbo's Equal 2d. See page 25.—Adv.

A Sale Worthy of Your Attention.

ON MONDAY, January 29th, there will be a sale of Duroc Jersey bred sows at West Union, Iowa, that should appeal to the breeders of the better sorts. W. G. Krueger, of Hawkeye, Iowa, and Grimes Bros., of West Union, Iowa, have combined forces and will sell forty head of gilts, yearlings and tried sows on the above date in the latter town. We have recently seen this offering and it is one that we do not hesitate to recommend. The tried sows are the big kind that have raised good pigs, the yearlings are well grown and of the most popular breeding and in gilts they are selling some as good as we have seen this year. By picking twenty from each of two herds it is only natural that one would expect to find a high-class offering, and you will not be disappointed. At this time we will mention the boars that are used in these herds and next week we will tell you something of the good sows that will be sold. Critic's Model is a son of Critic's Perfection, a junior yearling boar that was second at the Omaha swine show—the very best of breeding. Sunkist Model is an aged boar sired by the great Golden Model 2d. Gano Wonder is of the real big type, being a son of the noted Col. Gano. Invincible Pride is one of the best sons of the 1,000-pound Chief Invincible that we have seen. The offering has been bred to these boars and practically the entire lot has been bred for early March farrow. Notice the advertisement that appears on page 22 of this issue and you can, in a measure, appreciate this offering, for you will see that the breeding is the very best and individually the offering is consistent with the breeding. Write at once to either of the above breeders for their catalog, mentioning The Wisconsin Farmer. If you can't attend, send bids to T. P. Shreve. Remember the date and place.—Adv.

SALE DATES.

Poland China Swine.

Feb. 6, Percy Young, Prosper, Minn.
Feb. 6, M. Madson & Sons, Madison, Wis.
Feb. 7, Wisconsin Poland China Breeders, Assn., J. F. Diley, Rush Lake, Secy. (Sale at Madison, Wis.)
Feb. 13, Grant County Poland China Breeders' Assn., Lancaster, Wis., Burlie Dobson, Secy.
Feb. 14, E. W. Hendricks, Hazel Green, Wis.
Feb. 15, J. C. Hendricks, Hazel Green, Wis.
Feb. 16, Chris Kartman, Cassville, Wis.
Feb. 16, Gerlick & Barker, Mankato, Minn.
Feb. 22, William Smiley & Son, Albany, Wis.

SALE DATES.

Duroc Jersey Swine.

Jan. 29, Grimes Bros. & W. G. Krueger, West Union, Iowa.
Jan. 29, W. G. Krueger, Hawkeye, Iowa. (Sale at West Union, Iowa.)
Jan. 30, Dennis Shea, Melvina, Wis.
Jan. 31, L. F. Atwater, Bangor, Wis.
Feb. 2, Geo. Wilsie, Prosper, Minn.
Feb. 7, Wisconsin Duroc Jersey Breeders' Assn., J. D. Gant, Delavan, Secy. (Sale at Madison, Wis.)
Feb. 8, Rock County Breeders' Sale, Janesville, Wis. P. V. Kuhn, Secy.
Feb. 15, Gant's Farm, Delavan, Wis.
Feb. 26, George W. Pagel, Zumbrota, Minn.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Short-horn Cattle.

Feb. 15, Wisconsin Short-horn Breeders' Assn., Sale at Madison, J. L. Tormey, Secy.

Holstein Cattle.

Jan. 30, Harry Dunbar Dispersion Sale, Elkhorn, Wis.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

News of the Sale Ring.

(Continued from page 16.)

1, Freese Bros., Marshall, Minn., $200; 2, B. F. King, Austin, Minn., $107.50; 3, Ames Bros., Weaver, Minn., $82.50; 4, Albert Quie, Dennison, Minn., $77.50; 5, B. F. King, $100; 6, H. E. Nellier, Nashville, Minn., $57.50; 7, J. M. Hosmer, Hitterdahl, Minn., $52.50; 8, J. W. Smith, West Concord, $55; 9, John Hartle, Owatonna, Minn., $60; 10, Mr. Hellerud, North Strand, Minn.; 11, Wasson Quinn, Lamberton, Minn., $120; 12, B. F. King, $65; 13, E. Engle, West Concord, Minn., $52.50; 14, Mr. Hellerud, $57.50; 15, E. R. Emery, Stanton, Minn., $52.50; 16, Ames Bros., $60; 17, B. F. King, $57.50; 18, F. Hasler, Pine Island, Minn., $45; 10, Ed McInroy, Dodge Center, Minn., $52.50; 22, J. M. Hosmer, $75; 23, H. Fox, West Concord, Minn., $57.50; 24, C. H. Eighmey, Waterloo, Iowa, $60; 26, J. L. Erler, West Concord, Minn., $55; 28, J. J. Cain, Skyberg, Minn., $52.50; 30, J. M. Hosmer, $52.50; 38, C. L. Smith, Minneapolis, Minn., $90; 39, B. F. King, $75; 40, J. M. Hosmer, $80; 42, J. J. Cain, $175; 49, Geo. D. Sprain & Sons, West Salem, Wis., $60; 51, R. Lurke, Dodge Center, Minn., $52.50; 56, C. H. Eighmey, $62.50; 57, John Hartle, $60; 55, Albert Quie, $57.50. Total, $3,212.50. Average on 52 head, $62.35.

The corn belt is being pushed to the north. The hog is naturally following.

DISPERSION SALE OF
OAK LODGE HERD OF A. R. O.

HOLSTEIN-FRIESIANS

ELKHORN, WIS., JAN. 30, 1917

38 Cows and Heifers, 10 Bulls

INCLUDED in the lot are six cows and heifers with yearly semi-official records from 542.44 to 936.64 pounds of butter and thirteen of their sons and daughters. Four daughters of the cow with the 936.64-pound record. Almost every animal has an A. R. O. record or is from an A. R. O. dam. Herd is headed by Beauty Walker Pietertje King, whose seven nearest dams average 28.72 pounds of butter in seven days. On his daughters we are using Colantha Hamilton Pietertje, a son of Colantha Hamilton, that made 30.51 pounds of butter from 587.2 pounds of milk in seven days as a junior three year old. She is out of Betsey Hamilton Beauty 32.39. Auctioneers, R. E. Haeger and Jack White. Catalogs ready Jan. 15th. Address

HARRY D. DUNBAR **ELKHORN, WIS.**

Services of Expert Live Stock Photographer

Up-to-date live stock breeders are more and more using photographs in advertising their herds. It is the modern way of doing things, and The Wisconsin Farmer is meeting the situation by offering the services of a skilled live stock photographer. Appointments may be made by mail at any time. For estimates of cost and other information write The Wisconsin Farmer.

DUROC JERSEY SOWS

bred to PATHFINDER 2d by Pathfinder; PAL'S DEFENDER by Lee's Defender; COL.'S CHOICE by King the Col. sell at

MELVINA, WISCONSIN, TUES., JAN. 30

35 HEAD
30 SPRING GILTS
5 FALL YEARLINGS
35 HEAD

MANY BRED TO PATHFINDER 2D (BY PATHFINDER)

NEW BLOOD FOR WISCONSIN

MANY gilts out of daughters of the noted Marion's Wonder—they have that desired size. Some by Col.'s Choice, he by King the Col. Others by Wonder Chief by Cherry Chief. Bred to the boars mentioned above. NO OTHER BREEDER IN THE STATE HAS AS MUCH CHERRY CHIEF AND KING THE COL. BLOOD. My first sale and I am offering you GOOD DUROC JERSEYS. Melvina is only 24 miles from Bangor, where L. F. Atwater sells the day following—attend both sales. Write at once for a catalog and mention The Wisconsin Farmer. Send bids to T. P. Shreve. Col. I. E. Stickelman, auctioneer. T. P. Shreve, field man for The Wisconsin Farmer.

DENNIS SHEA **MELVINA, WIS.**

Sale held in heated building.

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write

Harry Crandell **Cass City, Mich.**

CHESTER WHITE SPRING

BOARS and gilts sired by **Elmo D** and out of daughters of the 800-lb. boar, **Monroe.** Pigs well grown and good heavy bone. Send for prices.

O. P. Coates **Elkhorn, Wisconsin**

PADDY by SCHOOLMASTER
CHESTER WHITES
C. EVANS by COMBINATION 2d

SPRING boars and gilts for sale by above boars. Only the tops shipped. Order early and get the pick. A. L. Gray, Mt. Hope, Grant Co., Wis.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.

H. A. DERENTHAL **WYKOFF, MINN.**

CHESTER

SOWS and gilts of fine quality and growth and of best blood lines. Safe in pig, at farmers' price. White Wyandotte cockerels from a big flock of high laying quality.

ART G HOSKINS **DODGEVILLE, WIS.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

WEST SALEM **WISCONSIN**

CHESTER WHITE SOWS AND GILTS

BRED for March and April farrow to Pay Streak and King Cole, a son of Chief Keokuk. Also August and September boars sired by Pay Streak, 2d prize junior yearling at the 1916 Wis. State Fair. Wm. F. BUTTS, Evansville, Wis.

IF YOU WANT
CHESTER WHITES
write W. F. Miller, West Salem, Wisconsin.

When writing to advertisers kindly mention The Wisconsin Farmer.

GUERNSEY CATTLE.

A Guernsey Show Bull Backed by Show and Production Records

DAM, Beatrix B, that at two years, five months of age, made 428 pounds of fat and gave 9,024 pounds of milk testing 4.74% fat. She is a daughter of Atwood Prince, whose offspring have been heavy prize winners and whose get of sire was never defeated. His seven A. R. daughters average 460 pounds fat at three years, five months. Sire, King Talladeen of Chestnut Hill, that has been first and champion at several leading fairs, has sired many prize winners. His dam made 635 pounds fat from 11,907 pounds of milk. Price $125. Two other yearling bulls of Glenwood breeding for sale from A. R. cows. Can also spare a few females. Send for our sale list or, better yet, come and visit Waukesha. If we haven't got what you want some of our fellow breeders will have.

FOX BROTHERS **WAUKESHA, WISCONSIN**

REG. GUERNSEY HEIFERS

10 to 14 months old, daughters and granddaughters of the richly bred sire,

GOODWILL'S HERO 17073

DAMS imported and richly home-bred animals. These animals are well grown, good, straight type and well bred. For further particulars send for copy of pedigrees or color description. Address

Charles Schmidt **Wrightstown, Wisconsin**

TWO YEARLING
GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

IMPORTED GUERNSEY BULL

(Imported in dam.) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.

Berkshire Spring Boars and Gilts
of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address

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FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address

Frank E. Swan **Wauwatosa, Wis.**

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

YEARLING GUERNSEY BULL

SIRED by **Bond of Maud Iris** (whose dam made 15 ? lbs. of fat as a 2-yr.-old) and out of a daughter of Benton Harbor. The bull for sale is an outstanding individual

Emory C. Meltz **Appleton, Wisconsin**

SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl,** a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.

W. G. Jamison & Sons **Appleton, Wis.**

GO TO W. J. HEID
FT. ATKINSON, WIS.,
FOR GUERNSEY BULLS

FROM 2 to 10 months old; also a few females. Best of breeding and good size. Come and see them, or write for description and prices.

GUERNSEYS

REGISTERED bull calves 4 to 8 months old. Herd tuberculin tested. **EDW. H. KIESLING, JEFFERSON, WISCONSIN.**

Yearling Guernsey Bull

BORN December 5, 1915, sired by Stranford Glenwood of Pinehurst 3d. Dam also of Glenwood breeding. One other bull ready for service. Price right. Send for extended pedigrees.

L. J. Wendt **Waukesha, Wisconsin**

ATTENTION

PURE-BRED Guernsey bulls, two of serviceable age, and eight calves at special prices for thirty days. A rare chance to get some of the best blood lines of the breed. Address

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FOR SALE—10. mo. Guernsey bull sired by richly bred Glenwood. Blue ribbon calf. A dandy. Price reasonable. W. A. Lawson, Rosendale, Wis.

HAMPSHIRE SWINE.

HAMPSHIRES
OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each 3 duly males at $15 each September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Danes Model 2[illegible]

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PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

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CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

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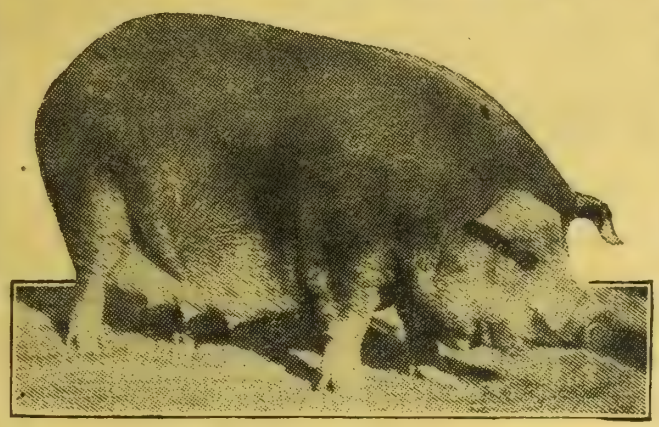
DUROC JERSEY SOW SALE PROSPER, MINN., FRI., FEB. 2

35 Spring Gilts, 5 Tried Sows

SIRED BY BIG COL. BY KING THE COL. CHIEF DEFENDER BY DEFENDER. BRED TO CHIEF DEFENDER, BURK BY BURKE'S GOOD ENOUGH AND TOP COL. KING BY AMERICAN TOP COL.



AM selling a good, useful lot of spring gilts and yearlings. They are not overly fat, but in nice condition to insure satisfactory litters. Five choice gilts by BIG COL. out of a CHIEF DEFENDER dam. One choice gilt out of a daughter of the grand champion, CRIMSON KING. Two gilts by BIG COL. out of a daughter of GOLDEN COL. The sows that I sell are big and smooth. There will be good buys made in this sale. Good railroad connections from any point in Wisconsin. If you can't attend, send buying orders to T. P. Shreve, field man for THE WISCONSIN FARMER. I extend a personal invitation to attend my sale. Col. Don Cunningham, Wayne, Neb., auctioneer. Write for a catalog and mention The Wisconsin Farmer.

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PROSPER, MINN., FEB. 2, 1917

40 Durocs by Big Col.--Chief Defender

Bred to sons of Burke's Good Enough and Americad Top Col. Write for catalog. Address
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WE are offering well-grown, good-type Duroc fall boars and gilts at reasonable prices, sired by Lee's Defender, Corrector and Model Lady's Trade Mark. Fall pigs at weaning time—they are strong and vigorous.

YEARLING Jersey bulls and several high-grade cows and yearling heifers. We belong to the cow testing association; can tell you what each cow is producing.

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BURN BRAE DUROCS---The Good Kind

WE have 50 spring pigs for immediate sale sired by Burn Brae Golden Model and Burn Brae Orion. They have size and quality. Every pig guaranteed. Write or wire.
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THIS is the kind we breed and sell. If you want good Durocs, write or come and see them. A splendid lot of gilts bred to King Orion, a son of the world's grand champion. Address
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GRAND champion Wisconsin State Fair, heads my herd of Duroc Jerseys. Am offering fall and spring boars of the most fashionable breeding for sale. Sows bred to King Defender will be offered later. Write your wants. Address
JOHN L. FISHER JANESVILLE, WIS.

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailinglist.
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(10 miles from Sparta)

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GET my prices on **Duroc Jerseys**—boars and gilts, out of matured dams. Letters answered promptly.

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"

We satisfy our customers. Write
Riley Martiny & Son Baraboo, Wis.
Also an imported Guernsey bull.

SAVE $$$$

BUY DUROC JERSEYS

of me. What do you want?

J.W. HIGGINS GOTHAM, WIS.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC BOARS FOR SALE

BY Prince Defender, Royal King 4th, and Lee's Defender. Big, stretchy fellows. Shipped on approval. McCLURG BROS., Viroqua, Wis.

BOARS ALL SOLD

REMEMBER my Duroc Jersey sow sale January 31st
L. F. ATWATER BANGOR, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

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PUBLIC SALE CALLED OFF

But offer bred gilts and sows at private treaty. Bred to the 1,000-pound Mac's Chief. Buy where you get the best Poland Chinas.
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The Feature of the Winter Sales. Write for catalog NOW. Address
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A SELECTED lot of Poland China spring and fall boars sired by CHIEF PRICE, the 700 lb. 1st prize senior yearling, and SELECT MAJOR, the 1st prize junior yearling at the 1916 Wisconsin State Fair, and other noted boars.

10 SPRING BOARS WEIGHED 2,070 POUNDS

on October 17th in just breeding condition. They measure 45 to 48 inches length, 44 to 46 inches around heart and flank and have 7 to 8 inch bone. The fall yearlings are exceptionally good, big, husky fellows. L. P. MARTINY, CHIPPEWA FALLS, WIS.

MADSON & SONS' POLANDS

ARE offering March and April boars that weigh 250 pounds, sired by CORRECT I AM and TRIUMPH. Buy the big type that have quality, the easy-feeding kind. 2 Short-horn bulls left.
M. MADSON & SONS MADISON, WISCONSIN

BRED SOWS POLAND CHINAS

THE big type, individuality and pedigree. I guarantee every sow. Write your wants. Address
OLAF C. OLSON STRUM, WIS.

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OUR annual Brood Sow Sale on Feb. 15th will be the most preeminent offering we have ever been able to produce by 15 different sires. Wait for this great sale to get your bred sows. Write for catalog. We hold the state's record on account of superiority. Address
J. C. Hendricks Box F, Hazel Green, Wis.

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BRED SOWS AND GILTS

Write your wants. Address
R. MEINKING BANGOR, WISCONSIN

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch Mt. Ida, Wis.

DUROC JERSEY SWINE.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

BIG-TYPE POLANDS

SOWS and gilts bred to SMOOTH KING, a son of Golden Gate King. Order one. Address
CHAS. S. MALTBY JANESVILLE, WIS.

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.
E. W. HENDRICKS
Hazel Green Wis.

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).
Marinette County Asylum - Peshtigo, Wis.

Big-Type Poland Chinas

75 BOARS and gilts of spring farrow. You get the pig and if suited send me the price is the way I sell. Write your wants. Address
W. T. Hartley R. 3, La Crosse, Wis.

FEBRUARY 22nd

WE SELL 50 POLAND
BRED SOWS
WAIT
WM. SMILEY & SONS ALBANY, WIS.

BIG-TYPE BOAR LONG PROSPECT FOR SALE

ONE of the best Poland China boars in Wisconsin. He is too good to be slaughtered, but am offering him at $65. Fall pigs of both sexes for sale. Jacob Kreuscher, Jr., Somers, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

The Bull Is Half the Herd!

King Segis Johanna, whose two nearest dams average over 39 pounds.

VISIT the Pabst Stock Farm and look over our splendid lot of youngsters from one to ten months old. Our sires are strong in Pontiac Korndyke breeding, backed by high records. All our cows have A. R. O. records nearly all from 20 to over 33 pounds. Our 38 yearly records average 16,619 pounds milk and 709.3 butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four year olds and 12 mature cows.

SIZE HEALTH **HOLSTEIN BULL CALVES $100 and Up** VIGOR BREEDING

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

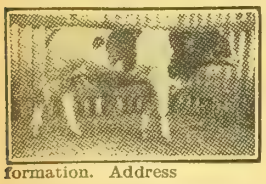
A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.

Reuben Klofanda R. 1, Racine, Wis.

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.
BAIRD BROS. - - - - **WAUKESHA, WISCONSIN**



HOLSTEIN BULLS Ready For Service

BACKED by large 7-day and yearly records. King Segis Concordia Rigtje, born Dec. 13, 1915. Sire, King Segis Concordia Hengerveld, 3 junior 2-year-old daughters above 15 lbs., one 18.391 lbs. He is 32-lb. son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer. 1st dam, junior 2-year-old, 17.29 lbs. 7 days, 16,313.0 lbs. milk, 704.087 lbs. butter 1 year. 2d dam, junior 3-year-old, 14,083.0 lbs. milk, 550.6 lbs. butter. 3d dam, 23,485.0 lbs. milk. 918.76 lbs. butter. Weighed 115 lbs. at birth—large, growthy, handsome individual. Priced right. Send for extended pedigree and further information. Address **PINEHURST DAIRY, SHEBOYGAN FALLS, WISCONSIN**

TWO HOLSTEIN BULLS EIGHT MONTHS OLD

SIRED by Johanna Chief De Kol, that has 62½% of the same breeding as Johanna De Kol Van Beers, 40.07 lbs., with 7 tested daughters. First bull out of a 20.51-lb. dam, she sired by a grandson of De Kol Burke. Second bull out of a 19.50-lb. four year old, she a granddaughter of Sir Johanna Fayne, with a 31-lb. daughter. Also a few heifer calves nearly one year old by the above sire. Prices reasonable. Address **Edward O. Mueller, Appleton, Wisconsin**

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address
EDGEWATER STOCK FARM **FT. ATKINSON, WISCONSIN**

RUST BROS.

OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heavy producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address

ARTHUR RUST
West Allis Wisconsin

High Grade Holstein

HEIFER calves, 15-16 pure, from high producing dams, $18 crated. Also two bulls 11 and 9 mos. old from A. R. O. dams. Good individuals, nicely marked, 7-8 white. As we are short of room will price these right. Also bull calves. Send for pedigree and price. Mountain Ash Stock Farm, J. B. Cain, Glenbuelah, Wis.

REGISTERED HOLSTEIN HEIFERS

From 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Bull calves also for sale. Address
Lawrence Robers **Lyons, Wis.**

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address
B. F. Winckler & Sons **Medina, Wis.**

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MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

LA BELLE VIEW HOLSTEIN bulls keep moving. I told you so and there is a reason, we never have a yearling. People know good breeding and appreciate low prices. Only two youngsters left and they are dandies, from splendid A. R.O. dams and by a grandson of the famous bull, Sir Ormsby Hengerveld De Kol, that had world record dghts. and granddghts. to his credit. Satisfaction guar. E.E.Rosenkrans, Oconomowoc, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons **Elgin, Illinois**

REGISTERED HOLSTEIN BULLS

SIRED by King Piebe Jessie De Kol and out of good, heavy-producing dams. Bulls well-marked, over half white. R. W. Hume, Endeavor, Wis

HOLSTEIN-FRIESIAN CATTLE.

WELL GROWN, WELL MARKED HOLSTEIN BULL

BORN December 1, 1915. Ready for immediate service. Sire, Crown Pontiac Korndyke, a richly bred son of Pontiac Butter Boy, that has 59 A. R. O. daughters, 4 above 30 pounds, and that is a half brother of Hengerveld De Kol and out of the same dam as Pontiac Clothilde De Kol. Dam, Stellaris Burke Pontiac 3d 255567, a big, roomy heifer with a fine large udder and good teats. She will be tested when she freshens again. Her dam is a 24.44-pound granddaughter of Hengerveld De Kol. Good type and high production have been bred into him in every line of his pedigree. Buy him now. He will soon be worth twice what we ask now. Send for pedigree. Address
NORTON FARMS **RACINE, WISCONSIN**

HOLSTEIN BULL FOR SALE

THE bull advertised last week has been sold and we now offer a grand individual, straight top line, square, broad rump, smooth over shoulders, well sprung ribs, good head and lots of style. Dropped July 1, 1915. Sired by Prince Johanna Belle, that came from the same herd that produced Johanna De Kol Van Beers, Cedarlawn Johanna and other noted animals. His dam is a half sister to a former world's record two year old, both being sired by Gem Pietertje Hengerveld Paul De Kol, 13 A. R. O. daughters. We are pricing this youngster at $90.00.
EDGEWOOD FARMS, Inc. **PEWAUKEE, WISCONSIN**

A PROVEN HOLSTEIN BULL FOR SALE

IN order to avoid inbreeding we offer for sale our great herd sire, King Artis Pontiac, born Jan. 25, 1911. His daughters have made records up to 20 pounds butter in 7 days at 2 years of age. His two nearest dams averaged over 29 lbs. butter in 7 days and his sire's dam has a record of 31.7 lbs. butter in 7 days and 21,834 lbs. of milk and 1,076 lbs. butter in one year. Write for pedigree and photo.
Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

DODGE AND JEFFERSON COUNTIES

THE two greatest Holstein counties in Wisconsin. Holsteins from these two counties have made Wisconsin famous. You can buy the same kind of blood now. Our breeders can now supply you with both males and females of all ages. Write Francis Darcey, Watertown, Wisconsin, Secretary, Inter-County Holstein Breeders' Association.

Purebred Registered

HOLSTEIN CATTLE

During the fiscal year ending April 30, 1916, there were reported to the Advanced Registry Office of the Holstein-Friesian Association, 11,868 short time official records, over one-half of which were by heifers with first or second calves. The average seven-day production of these 11,868 animals was 401.1 lbs. of milk, containing 3.53 per cent of butterfat. These figures emphasize the fact that Holstein merit is based, not on individual records, but upon the wonderful uniformity of high productiveness of the purebred Holstein cow. There is big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

SHORTAGE of milk compels sacrifice of young calves. Owing to increase in number of our milk customers, we are compelled to sell some unusually fine bull calves 1 to 2 months old. A. R. O. breeding on both sides. Price for quick sale, $35 to $50. Also a few heifer calves.
SILVER SPRING FARM CO. - **EAU CLAIRE, WIS.**

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address
Dopp Brothers **Ixonia, Wisconsin**

Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.
JOHN STEELE **OCONOMOWOC, WIS.**

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt **Oxford, Wisconsin**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER, SHEBOYGAN FALLS, WIS.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey **Grafton, Wisconsin**

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb. cow, and out of A. R. O. dams. Write **R. C. Walker, Kilbourn, Wisconsin.**

HIGH grade Holstein heifer calves, well marked, sired by registered bulls and out of heavy producing cows, $16.00 crated. Registered bull calves, $40. Paul McFarland, Watertown, Wis.

TWO REGISTERED

HOLSTEIN HEIFERS

GRANDDAUGHTERS of Johanna Mc Segis from a bull whose four nearest dams average over 25 lbs. butter in 7 days, 15 months old, very good type. One is five-sixths and one three-fourths white. Bred to a bull out of a 20.45-lb. 5-year-old cow. Price $300 for the pair. Send for pedigrees or come and see them.
Mrs. Peter Milfried **Cazenovia, Wisconsin**

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born March 10, 1916, nicely marked, well grown, a good individual and tuberculin tested. His sire, Cornucopia Pontiac Johanna Lad, a full brother to world's yearly record senior 2 year old, and the sire of most of our state fair winners. His dam is a 16-lb. 2-year-old daughter of a 33-lb. bull. Seven nearest dams average 22.89 butter. Write now for reasonable price, pedigree and photo to
N. Dickinson & Son **Lake Geneva, Wis.**

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write
W. H. S. Rhoda **Watertown, Wis.**

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).
Marinette County Asylum - Peshtigo, Wis.

HEIFERS BULLS

HOLSTEINS

A. R. O. backing--write.
FRIES & TULLOCH **GENOA, WIS.**

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L.V.Garvens, Brookfield, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your wants. Address L. C. Underwood, Avoca, Wis.

Red Poll Headquarters

OFFERING two bulls of serviceable age for sale. Also a limited number of heifers. Choice individuals. Write **J. W. Salter & Sons, Unity, Wis.**

RED POLLED HEIFERS

HAVE a choice lot of yearlings, two and three-year-old heifers, bred and open. A few well-bred top bull calves. A great opportunity to buy foundation stock. Correspondence invited.
H. A. Martin **Gotham, Wis.**

MAPLE LAWN RED POLLS

SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.
L. F. Biglow & Son **Brooklyn, Wis.**

LIVE STOCK AUCTIONEERS.

ORVAL A. JONES

Auctioneer
14 N. Sacremento Blvd. **Chicago, Ill.**
Pedigreed Live Stock and Real Estate.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY versed on pedigrees of leading breeds of live stock.

HOLSTEIN-FRIESIAN CATTLE.

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

HOLSTEIN BULL

BORN February 21, 1916. ¾ white. Good individual, sired by a son of Pontiac Korndyke and out of a daughter of De Colantha Johanna, champion. Price $100. Address
Peter Larson Randolph, Wis.

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

John Bradley

Randolph Wisconsin

A FEW yearling bulls and younger from A. R. O. dams with creditable records. Send for pedigree and price.

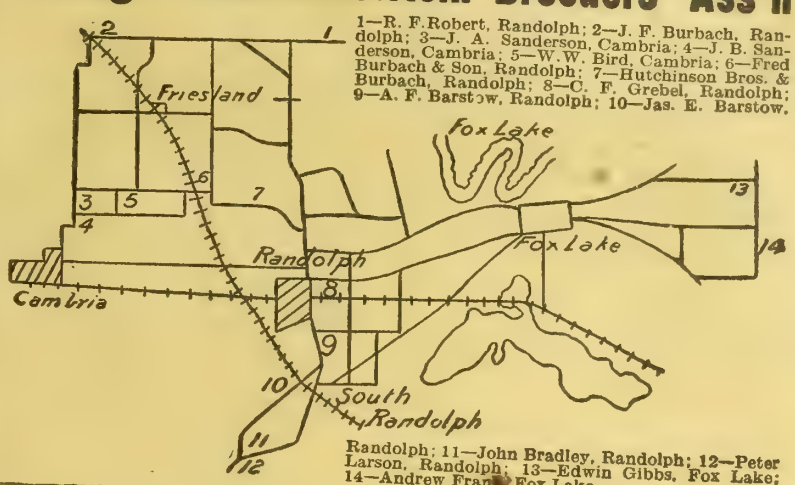
Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

WE CAN SPARE A FEW HEIFERS

OF CHOICE De Kol Wit breeding. They are **from A. R. O. dams** with good records. They are safe in calf to our great herd sire, **King Pietertje Hengerveld Ormsby,** full brother to the former world's record cow, **Pietertje Maid Ormsby.** Send for pedigrees or come and see these heifers. They are right in every way. **Hutchinson Brothers & Burbach, Randolph, Wis.**

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Randolph; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

REG. HOLSTEINS

Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
J. B. Sanderson - Cambria, Wisconsin

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

Yearling Holstein Bulls

READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
Andrew Frank - Fox Lake, Wisconsin

Registered Holsteins

BULLS from A. R. O. dams, of the right type to improve your herd. Prices reasonable.
W. W. Bird - - Cambria, Wisconsin

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.
ADAM SEITZ WAUKESHA, WISCONSIN

ALDEBARAN FARMS

A. R. AYRSHIRES

YEARLING AYRSHIRE BULL ready for service, ¾ white, well grown, good, straight type. Dam has an Advanced Registry record of over 500 pounds of butter in a year. This young-grandams and both grandsires being Advance Registry animals. Send for pedigree and price. Address
STEPHEN BULL RACINE, WISCONSIN

AYRSHIRES

Can supply your wants if you want
HEIFERS OR BULLS
from A. R. dams. Also breeder of
Clydesdales and Durocs
Write your wants Address
JAS. VAN ETTA LIMA CENTER, WIS.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

YORKSHIRE SWINE.

FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

JERSEY CATTLE.

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753,629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.
FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

OAK GROVE JERSEY FARM

WE are pricing our young bulls very low as we are crowded for calf stable room and have 22 cows to freshen. We are offering two sired by **OAK GROVE NOBLE LAD 122654, a grandson of Eminent and Noble of Oaklands.**

No. 1—Born Feb. 9, 1916. Out of **Volunteer's Sally,** that made 597 lbs. butter. Her daughter made 594 lbs. butter as a 2 year old and holds state record for her age. **Price $100.** Send for extended pedigree.

No. 2—Born Dec. 18, 1915. Out of **Koffee of Oak Grove,** in 305 days made 413.8 lbs. butter. She finishes her record Dec. 21st as a 2 year old. This bull won 1st at the Elkhorn fair. **Price $75.** Send for extended pedigree.

WM. KNIGHT - - EAGLE, WIS.

YEARLING JERSEY BULL

BORN Oct. 15, 1915, ready for service; straight type, good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
Ora P. Taylor Elkhorn, Wis.

REGISTERED JERSEY
COWS AND HEIFERS

WITH **register of merit records** or breeding. Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
Ed. Bruins - - Fairwater, Wisconsin

JERSEYS

100 FEMALES in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write
FRED STUBLEY BLACK EARTH, WIS

ELMDALE FARM . . .

JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
H. Holt & Son Oconomowoc, Wis.

HEREFORD CATTLE.

HEREFORDS

BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.
J. J. F. WINTERS SPARTA, WIS.

SHORT-HORN CATTLE.

SHORT-HORN COWS AND HEIFERS

Fresh or to freshen soon. Priced very reasonable. Write to
WILLIAMS BROS. BANGOR, WISCONSIN

100 Short-horns to Select From-100

BULLS and females. One or a carload. Write now.
BREEDERS' ASSN., J. E. Kennedy, Secy. - - ROCK COUNTY SHORT-HORN JANESVILLE, WIS.

PURE SCOTCH SHORT-HORN BULL

SULTAN GOODS. White, January, 1915, tuberculin tested, right, bred by Anoka Farms. Sire, Royal Silver (sold for $4,000). Combines the blood of Choice Goods, Sultan, Premier, The Lad For Me and Princess Alice. Dam, Missie Sultana 2d, a Marr Missie. Few such bulls for sale—your opportunity. Address
F. S. BUNKER, KILBOURN, WISCONSIN

SHORT-HORNS POLANDS OXFORDS

CAN supply your wants in the above breeds. Write or come.
P. N. Collins River Falls, Wis.
(35 miles S. E. St. Paul)

MILKING SHORT-HORNS

HAVING several choice young bulls from dams giving 10 to 12,000 pounds of milk. I have a well-bred herd and keep records of production. Inspection invited. Address
Harvey H. Little Evansville, Wisconsin

Bates Milking Short-horns

2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

FOXHALL STOCK FARM

OUR offering in Scotch Short-horns this year is probably the best we have had to offer our patrons in years. We have several young bulls of serviceable age, high in quality and rich in breeding, and these are priced to sell. Could also spare a few females.
Fox & Gallagher Oregon, Wisconsin

SHORT-HORNS The get of Rosebud Champion, winning 2d at the International; Highland Sultan, winning 3d; Buchan Marshall, he from winners on both sides at same show. Can show you ton cows and 2,400-lb. sires. If you want size and milk come or write W. J. Bernd, New Richmond, Wisconsin.

MILKING SHORT-HORN BULLS

TWO REDS, eight to nine months old, sired by Milkman, that is out of a 4.4% butter fat cow that gave over 60 lbs. of milk per day. Send for prices and description. Address
Geo. Smith & Son - Burnett, Wisconsin

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
B. W. Little Janesville, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

GREEN VIEW STOCK FARM OFFERS

7 Pure-Bred SHORT-HORN BULLS

7 to 17 months old, and a few choice

POLAND CHINA BOARS

Farm joins the village. Address John H. Bear & Son, Spring Green, Wis.

SULTAN BRED SHORT-HORNS

WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
H. B. Drake & Son, Beaver Dam, Wisconsin

RIVERDALE STOCK FARM SHORT-HORNS

HAVE a few young cows with first calf; also a few mature cows, for sale. Three choice young bulls ready for service, reds and roan color, sired by Orange Clipper. Bull and heifer calves, born in October, sired by Clipper Sultan, a grandson of Whitehall Sultan. Prices reasonable. Address
H. Wehmhoff Burlington, Wis.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

SHORT-HORNS

SCOTCH and Scotch-topped. Herd headed by Collynie Sultan by Roan Sultan, out of Marchioness dam. If interested write
E. E. JONES ROCKLAND, WISCONSIN
President, Wisconsin Short-horn Association

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address
A. P. CORTTE LOMIRA, WISCONSIN

Evergreen Windbreaks on the Farm

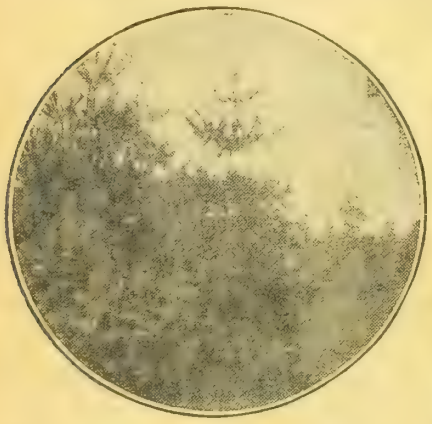
THE REASONS FOR SUCCESS OR FAILURE

By Earl Ferris, Hampton, Iowa—Leading Evergreen Specialist

The value of a good Evergreen Windbreak to the farmer in those sections of the country where hard winters prevail is generally recognized. It has been established through the experiences of thousands of farm owners for more than half a century and can easily be figured on an actual, yearly dollars-and-cents basis.

An adequate Windbreak row is a money-maker on two counts—first, for the saving in feed that its protection makes possible for the stock fed back of it; second, for the increased sales value it gives the farm.

The best authorities—farmers and stockmen who **know** from their own experience—state that an average good Windbreak saves the owner $2.50 to $3.00 for every head of stock fed in its shelter each season. They further estimate that a good Windbreak row adds from



$500.00 to $2,000.00 to the value of an average farm on the market.

Any Farmer Can Have a Good Windbreak

It is possible for any landowner, in any section of this country where a Windbreak is an advantage, to have one. **That is a fact** in spite of the many failures which have been experienced in attempts to grow Evergreens by farmers and stockmen. These failures have been found invariably to be due to causes that can be remedied—not to natural, unchangeable conditions.

There are four big factors which contribute to the success or failure of any attempt to develop an Evergreen Windbreak. Three of them constitute problems for the Nurseryman to solve—the fourth depends upon the man who buys the trees. Any one of them alone may cause a total failure and loss of time and money to the landowner. Here they are:

1st—The selection of the proper varieties of Evergreens for the section where they are to be planted.

2d—The hardiness, vigor and vitality of the trees, and the condition of their root systems when they leave the Nursery.

3d—The condition in which the trees reach the buyer—that depending, of course, upon the way in which they are prepared for shipment and packed at the Nursery.

4th—The care and cultivation given the trees after they are set out in the purchaser's Windbreak row.

Given the **right variety** of Evergreens—strong, healthy trees with big fibrous root systems—prepared and packed so that they reach the buyer alive and in condition to grow—properly cared for **after set out**—no man need fear failure with Evergreens. They will grow and thrive.

Proper Selection is Important

Right selection of varieties is extremely important—mistakes on this point cause a big percentage of all failures. Not all Evergreens will grow equally well in the same section—some thrive where others will not grow at all. Selection should be made with regard to the natural habitat of the trees—if it is not so made the attempt to start a Windbreak is foredoomed to failure. The highest quality, strongest, best-rooted trees produced will not grow satisfactorily in localities not adapted to them. Be sure, when you buy trees, that you get a variety suited to your locality.

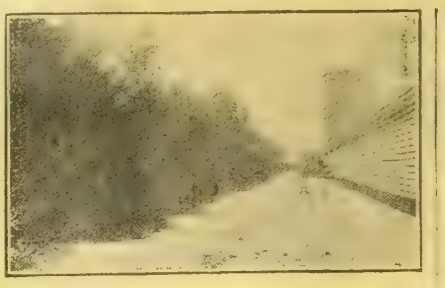
Big Root Development is Essential

The quality of the trees set out for the Windbreak is probably the biggest factor of all in getting a shelter belt started. Strong, vigorous, healthy trees, **with well-developed, fibrous root systems,** are an absolute essential to success.

This tree quality depends upon the way the young Evergreens have been cared for in the Nursery—modern, scientific methods and constant care there produce dependable trees.

Big, fibrous root systems—the most important part of an Evergreen—can be developed to nourish the tree and insure its rapid growth in the Windbreak row.

If you want to be sure of success with



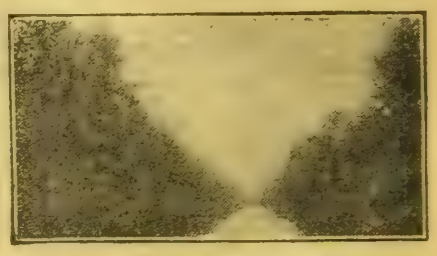
a Windbreak, buy and set out root-pruned and transplanted trees. No other known process produces the kind of roots that you want on your trees. Evergreens left to themselves grow only tap roots which must be cut when the trees are taken up. Cutting weakens the tree and, if there are no fibrous, small roots to nourish it, it is very likely to die.

An Evergreen, root-pruned and transplanted two to four times in the Nursery, will develop enormous masses of fibrous rootlets. The tap roots are prevented from growing and small roots take their place. The small illustra-

tions here show this—note the increased growth of roots after each pruning. Root masses like these—developed in this way—make tree value for the Evergreen buyer.

The greater the number of root-prunings and transplantings an Evergreen receives, the better it is—the more sure to grow when set into a Windbreak. Four times root-pruned and transplanted trees are the top-notch stock—finest produced in this country for Windbreak purposes. They are a paying investment for any man—are sold under a binding Guarantee that insures satisfaction to the purchaser.

The best trees that grow, however, are only as good—so far as the purchaser is concerned—as the methods used in preparing and packing them for



shipment. Unless that is rightly done they may reach the buyer dead or so weakened as to be useless for planting. To insure unimpaired vigor when they reach destination they should be thoroughly "mudded" at the Nursery and carefully packed and boxed with roots protected and tops exposed freely to the air. The best material known for packing is a mixture of moss and red cedar shavings—well-"mudded" trees packed in it can be shipped any distance.

If you buy trees that are **right** on these three points, proper care and cultivation will insure you a Windbreak. Success will depend on your own efforts—if you follow instructions your trees will grow.

GUARANTEED EVERGREENS FOR WINDBREAKS

Sold on New Plan—Bonded—Insured

The greatest Evergreen offer ever made by anybody, anywhere. Finest—strongest—most perfect—best rooted Evergreens that grow in the ground sold under a wonderful new plan. "Safety First" for **you**—value absolutely guaranteed and insured. You take no chances—run no risks of failure. The opportunity of your lifetime to start **right** to grow a Windbreak.

Says ... "Pay Only For The Trees That Grow!"

That's the big feature of my new plan. You're not asked to pay one penny for any Ferris Evergreen that does not grow for you in your Windbreak Row. **You buy a Windbreak growing right on your farm** when you buy my famous Ferris trees under the terms of my great new plan. The money you put into Ferris Evergreens insures you a Windbreak—no "ifs" or "ands" about it. My trees will grow for you—I'll prove that to you before you've paid for them—and my prices save you 30 to 60 per cent.

My $25,000 Bond

And Fair Terms Protect You

I make you **safe** when you buy—give you an ironclad written contract-guarantee backed up by a $25,000 Bond. I guarantee my trees true to name—guarantee them to be perfect trees, **four times** root-pruned and transplanted—guarantee them to reach you alive and in good growing condition. Lowest prices ever made on trees of this quality—fair, square, easy terms. Part payment, cash with order, which only pays cost of handling and preparing trees—balance remains in your own pocket until end of first season, then deduct from balance for dead trees, or pay balance and I'll replace all dead trees free. I take all the chances. I can afford to because I know my trees will grow and absolutely satisfy you. I grow them myself, every one of them, and I **know** what they are. I know that a trial order will convince you of the superiority of my trees.

Remember This Ferris Trees Are Best—Prices Lowest

I don't care where you buy or how much you pay you **cannot** buy better trees and all kinds of nursery stock than I'm offering you. Better ones don't grow. You can compare Ferris' stock on quality and price with any other ever offered—if you don't decide that I'm giving the biggest, surest value, I don't ask you to buy of me.

Just a Few of Many Bargains

This is the best collection of Hardy Shrubs we have ever offered. All large, two year old, field grown, with extra good roots and tops. 2 Hydrangea, worth 70c; 1 Snowball, worth 50c; 1 Purple Lilac, worth 35c; 1 Cornius Siberica, worth 50c. Our special advertising price only .. **$1.45**

A model orchard of 30 hardy fruit trees. True to name, northern Iowa grown, two years old, average 4 feet and over. 5 Red Astrachan, best early summer apple; 5 Iowa Blush, good quality winter apple; 5 Peerless, winter apple; 5 Gano, long keeping winter apple; 5 Delicious, the grandest fancy apple ever produced; 5 Early Richmond cherries. 90% of all cherries grown in Iowa and other northern states are Early Richmond. Only $3.65. **$3.65**

100 transplanted evergreens, 10-15 inches high. Your choice of White Pine, Jack Pine, Scotch Pine and Norway Spruce. Only..... **$4.50**

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THE WISCONSIN FARMER

VOL. XLVI. NO. 3. THURSDAY, JANUARY 18, 1917. WHOLE NO. 1825

MAKING MARSH SOILS PAY.

WHAT may be accomplished on Wisconsin drained marsh lands, of which there are thousands of acres in this state, when the proper methods of cultivation are practiced, is well illustrated by the experience of Mr. John Sautter on his farm in Portage county, near Bancroft, on what is known as the Buena Vista marsh. Mr. Sautter, after several years of failures, has finally brought his farm to a stage of good production and his experience should be of considerable benefit to those already farming this class of soil or who contemplate buying marsh farms.

Mr. Sautter's experience, since he left a tenant farm in central Illinois eight years ago, has been fraught with many disappointments and has demonstrated beyond doubt that the lot of the marsh land farmer is not an easy one. His dream of the "wonderful opportunities" pictured by the land men has been punctured. This 240-acre farm was drained by big ditches a mile apart, without any tile between the ditches, but Mr. Sautter is convinced that supplementary tile drainage on this type of soil is absolutely essential and that it requires more than the manure produced on such a farm to put the land in good condition. He is also convinced that grain and corn is not the profitable type of farming, but that dairy farming will prove much more profitable on this type of soil. These conclusions Mr. Sautter has drawn after eight years of actual experience and he has found that, though his farm was apparently cheap per acre when he bought it, that it is expensive to put it into productive condition. On the other hand, he has also found that this expense has been more than offset by the increased yields and consequently increased profit.

Mr. Sautter broke and planted to corn and grain quite a large acreage the first year. The land had been pictured to him as well drained and especially adapted to these crops. Standing water on some of the fields in the spring handicapped him as well as water after heavy summer rains and his first crops were failures, excepting small areas which had been burned over and where raw, spongy, peaty surface soil has disappeared, leaving instead an accumulation of ashes on black soil. He tried the same crops the second year, again the third and fourth years, each year losing more money. He blamed seasonal conditions. The only good crop was wild hay and it did not contain sufficient nourishment to feed the cattle he brought with him from Illinois.

Then the tide turned. Four years of failures had started him to reading and studying and in 1913 he fertilized ten acres with phosphorus and potash. He still held to grains, but the late spring prevented him from seeding oats, so he seeded barley, but this crop failed. In 1914 he bought more fertilizer and his neighbors told him he was wasting his money. Then it was that Mr. H. W. Ullsperger, instructor in soils at the college of agriculture, was called in and experiments began that are of much value to owners of peaty, marsh lands.

The first thing was to change from the grain type of farming to dairy farming. Mr. Ullsperger pointed out the need of commercial fertilizers; discussed the advantages of supplying phosphorus as either bone meal or acid phosphate and potash as muriate of potash rather than buying mixed fertilizers. Then twenty acres of potatoes were planted, the remainder of the farm being turned to oats, hay, rye and corn. Rye on fertilized acres yielded eighteen bushels per acre; on fertilized, seven bushels. Potatoes were almost a failure on unfertilized plots, but went 110 bushels on fertilized areas. Manure on the potato fields tended to produce scab, not apparent with commercial fertilizer. The result this year was that after selling his crops and deducting expenses, Mr. Sautter had a profit of $1,200, the first profit since he settled on this farm.

That fall more fertilizer was purchased. This brought his total fertilizer expense to $1,100. In 1915, corn, Early Ohio potatoes, rye, oats and timothy were the principal crops on seventy-five acres, properly fertilized. His rye went 1,000 bushels on twenty acres; potatoes, 3,000 bushels on twenty acres, and enough oats to feed his stock and corn for silage, although caught by the frost. That year, after paying for his fertilizer and other necessary expenses, he had $2,500 profit. This he used to establish a dairy herd and his pasture on fertilized land is producing a good flow of milk and does not scour as formerly. This has brought him to the conclusion that dairy farming is the proper type on this soil.

No fertilizer in 1916 was bought, because potash was unavailable on account of the war. Crops were put in on previously fertilized land, and though the dry weather cut the yield of oats and rye, his potatoes went seventy-five bushels to the acre, hay three tons and his 1916 income in estimated at $2,500 in addition to the income from his ten dairy cows.

To summarize the work since he began fertilizing in 1913, Mr. Sautter has spent $1,100 for fertilizer and his income is approximately $7,000, or a return of approximately $6 for each dollar invested.

Others in Portage county are now using fertilizer, but Mr. Sautter was the pioneer. There was a time when the value of commercial fertilizer on this type of soil was in doubt, but Mr. Ullsperger believes Mr. Sautter's experience with other demonstration has indicated the method to be followed. Any farmer may secure the services of the soils department of the college of agriculture at a small cost if he has these problems to contend with, and in buying marsh lands it is urged that particular attention be given to fertility, complete drainage and crops raised in the locality. Mr. Sautter bought what he thought was well-drained land, but each year he realizes the yields are appreciably smaller because of poor drainage and that supplemental lines of tile, draining into the open ditches and laterals, are necessary.

Mr. E. R. Jones, in charge of the drainage division of the Wisconsin College of Agriculture, tells us, in bulletin 229, how small marshes may be organized under the town ditch law. He says that six or more freeholders in any town in Wisconsin may petition the town board to lay out a ditch or main tile, according to plans based on a survey which the landowners have caused to be made of the marsh land, whose drainage is proposed. If the supervisors of the town favor the plans, or if they are forced to act by a successful appeal to the county judge, they let the contract for the construction of the drain, allow damages to parcels of land damaged, and apportion the cost among the several parcels of land benefited whether the ditch or tile actually touch a particular parcel or not, and whether the owner is willing or not. They should, however, assess the land touching the ditch or tile higher than that farther away.

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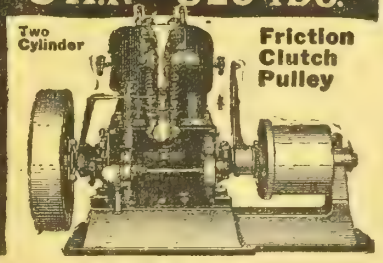

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FARM MECHANICS

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Questions and Answers.

Fire Clay.

I am building a small forge where intense heat is to be used. My plan was to use asbestos and fire clay, mixed half and half. Would the asbestos protect the clay? Where can I secure a good grade of fire clay? Is there any material that will stand up longer under intense heat than fire clay?

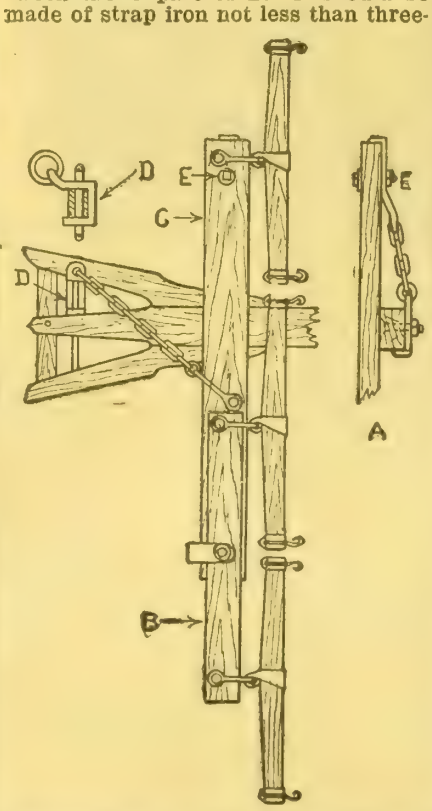
Answer.—We never heard of asbestos being mixed with fire clay and we think that you will get better results from the fire clay alone. We know of no better lining for a furnace than fire brick set in fire clay. These bricks may be obtained for different sizes of circular furnaces, as well as for square furnaces. Any dealer in cement and mortar should be able to supply you.

A Three-Horse Evener.

Several years ago I saw in your question and answer department how to make a three-horse evener for a wagon. I would like to see it published again.

Answer.—A good three-horse evener for a wagon is a difficult problem. We received word from one of our subscribers that the one we published last June was not a success. We publish in this issue a sketch of an evener that should work fairly well, as it is similar to the Gamble and the Heider eveners that have been on the market for years. As a rule, it is better to purchase an evener than to make one, as some of the large implement concerns are putting out eveners at a very low cost.

The evener illustrated is really a three-horse evener for a sulky plow or drag, attached to the wagon tongue by means of a diagonal chain above; and a straight chain below to keep the doubletree from shifting endwise toward the single horse. The diagonal chain is the pull chain. It is fastened to the rear end of the tongue of the wagon by means of an iron, bent as shown in the small figure at D; and drilled to take the draw bolt that fastens the tongue together. It may be stiffened by a piece of pipe fit in between the U part of D. D should be made of strap iron not less than three-



quarters of an inch thick and two and one-half inches wide. The chains should have links made of seven-sixteenths-inch rod. The lower chain runs from the bolt, E, to a bolt in the coupling pin hole in the tongue. The evener bar C, is not pinned to the tongue.

The singletrees are ordinary plow singletrees, twenty-eight inches long. Wagon singletrees thirty-six inches long may be used also, in which case the other parts must be lengthened accordingly. B is a doubletree made of hickory, two inches thick and four inches wide. A U-shaped strap made of strap iron one-half inch thick and two inches wide is used at the coupling pin to keep B from tilting. The singletrees are coupled to B and C by ordinary clevises. For twenty-eight-inch singletrees B should be about thirty-six inches long, the holes being drilled about three inches from each end. C should be made of hickory two inches thick and five inches wide. For twenty-eight-inch singletrees C should be about fifty-two inches long, the end holes being located three inches from the ends, and the draw chain clevis hole seventeen inches from the end hole for the doubletree coupling pin.

Changing Carburetors.

We have a 25-horse-power 1915 Maxwell car that has a Kingston carburetor. The motor leaks around the valve stems and is very hard to start. How would a Holly carburetor work on this car? Would the Schebler carburetor work well, and if it would do, which model would work best? Where are these two carburetors made?

Answer.—No carburetor is likely to work perfectly on a car having considerable air leaks at the valve stems. It would be worth the cost to you to have the defective parts replaced. Any of the three carburetors mentioned should work all right on your car after the air leaks are stopped. In its present condition a Model L Schebler might work the best. The Schebler carburetor is made in Indianapolis, Ind.; the Holly is made in Detroit.

Making Small Engine Pull Itself.

I have a one-horse-power gas engine mounted on a truck. I would like to make it move by its own power. It runs 500 r. p. m. The rear wheels are fifteen inches in diameter. It is a Fairbanks-Morse engine. Would I have to put it on a new frame, or could I fix it some way as it is?

Answer.—If your engine is mounted on the truck with the crankshaft parallel to the side of the truck you might drive the truck from a friction disk bolted to the end of the crankshaft or to the flywheel, as was recently illustrated. If the engine sets crosswise the truck mount a jackshaft under the truck. Have a tight-and-loose pulley on the jackshaft, driven from the engine pulley. Drive the rear wheels of the truck by chain and sprocket from the jackshaft.

Replacing Electrolyte.

Would you kindly advise me about changing the fluid in my storage battery? The battery has been run two seasons, during which time nothing but pure water has been added. Lately the battery seems to run down rather fast. Folks tell me the acid is too weak, and must be changed. How must this be done?

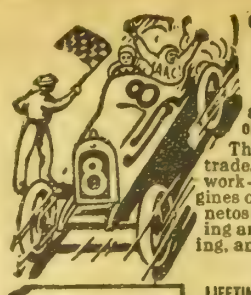
Answer.—Have your druggist mix you enough concentrated sulphuric acid and distilled water to fill your cells, the strength of the solution testing about 1.22 at 60 degrees Fahrenheit. Give your battery a complete charge before removing the old electrolyte. Then remove the old electrolyte, pour in the new, and recharge the battery at once. The cells should not be filled clear full, but the plates should be covered at least half an inch.

Ford Magneto Trouble.

We would like some advice about our Ford magneto. The motor will begin to misfire, and keep gettting worse until it will stop, when running on the magneto. It will run as good as ever on the battery. After a day or two, it will run all right for a while on the magneto. We have been unable to find the trouble. The magneto was put on new about two years ago. Can you give me the address of the following magazines: Motor, Motor Age, Automobile, and Automobile Topics?

Answer.—It might be that the insulation on the magnet windings is becoming poor, and that carbon in the oil causes a partial short circuit. Keep clean oil in the transmission case. However, the trouble is more likely to be at the magneto contact—the wiring terminal directly over the magneto. Remove the three screws that hold this part in place; clean the spring and the brush thoroughly, and see that they work freely in the post. For good results, the brush must make good contact with the magneto.

The addresses are: "Motor," New York City; "Automobile," 319 West 39th St., New York City; "Automobile Topics," 1790 Broadway, New York City; "Motor Age," 910 South Michigan Ave., Chicago, Ill.



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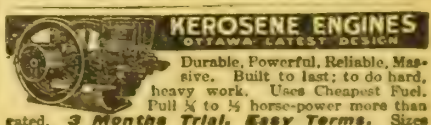

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The Wisconsin Farmer

THURSDAY, JANUARY 18, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

WISCONSIN'S PAST, PRESENT AND FUTURE.

EXCAVATORS among the ruins of one of the old Babylonian cities recently came across the crumbled foundation of what had evidently been designed for a noble palace. There was no indication as to why the plans of the royal builder had not been completed, but it is safe to presume it was due to the interruptions of war. On the cornerstone was graven the words, "After me cometh a builder; tell him I, too, have known."

I know of no state that owes more to its early builders than does Wisconsin. Blessed at the start, with New England pioneers of high ideals and with infusions of the sturdiest blood of the Old World, the foundations were laid truly and well for the magnificent social and political structure which has been erected on them and which we know as the Wisconsin of today.

Our state history is filled with glorious traditions of the noble men and women who wrought and toiled that we might live in comfort and plenty, overcoming hardships that would have discouraged a less vigorous race of settlers. It is they who made Wisconsin great, who made possible her present supremacy among the sisterhood.

All this came over me anew, with a sense of personal obligation, as I was glancing over the old files of The Wisconsin Farmer in an idle moment the other day. In the very first issue, published at Racine on January 1, 1848, I came across the following words, whose prophetic vision almost startled me with its accuracy.

> There is a spirit of improvement abroad with reference to agriculture. Improvements may be made, but there will still be room for other and greater improvements. The result of the improved practice of a few farmers shows that good lands may be made to produce double the amount raised by the usual mode of husbandry, and that sterile and barren soils may be reclaimed and made to pay good interest on $100 and $200 an acre.

When it is recalled that those words, which might be printed in these columns today, almost without alteration, were written nearly seventy years ago, the foresight of their author appears almost startling. In the Wisconsin of today we see the fulfillment of the prophecy of The Wisconsin Farmer of 1848.

I found myself wondering if seventy years from now some future editor of The Wisconsin Farmer, glancing through these pages, may not run across my vision and hopes for an Upper Wisconsin that shall be a land flowing with milk and honey and find in it the fulfillment of my dreams. If so I wish to commend to him not only my own prophecy of the bigger and better Wisconsin, which is coming as surely as hope springs forever in the human breast, but also the words I have quoted above, from my predecessor of seventy years ago, which will be nearly a century and a half old when he reads them.

To him I would commend such words as the Babylonian king of old—"After us cometh a builder; tell him we, too, have known."

THE FARMER IN PUBLIC AFFAIRS.

WITHIN the last fortnight two of the ten states of the grain belt inaugurated farmer governors. A third elected a farmer speaker of the house of representatives of its legislature. The farmer is dominating public affairs nowadays as never before.

The farmers' revolt against industrial injustices in North Dakota is one of the most interesting movements in the country today, in my opinion. It is succeeding beyond the fondest hopes of a few months ago. The determined farmers who left their harvest fields last summer and, in the face of storm, and flooded streams out of their banks, pushed on until they reached the polls, have won a victory which deserves to rank alongside the historic victory of the embattled farmers at Lexington, at the beginning of the war to free the thirteen colonies from the tyrant. North Dakota not only has a farmer governor, but it has a farmer legislature. I look for such reforms to be inaugurated there this winter as will leave no question in the minds of anybody as to the progressiveness of the farmers of the middle West.

But North Dakota, although it has moved a little faster than its neighbors, is not altogether alone in the campaign to give the farmer the recognition which has long been his due. The new governor of Illinois, Mr. Frank O. Lowden, is a product of the farm and owns one of the finest farms in the country today. He was born on a farm in Minnesota and moved, with his parents, in a prairie schooner, to another farm in Iowa when only seven years old. He is proud to be called a farmer, and he is not of the curb-stone school of agriculture, either.

Iowa deserves a place alongside North Dakota and Illinois, in recognition of farming interests, for the legislature which is now in session at Des Moines contains more farmers than any other class of workers. Not only that, but in electing Hon. M. B. Pitt, of Logan, speaker of the house of representatives last week, it chose an Iowa farmer of the highest type for this responsible position. It is positively infectious, this spread of farming enthusiasm and domination in public affairs nowadays.

Look at the financial world, for instance. The presidents of the two largest banks in America came from farms. More than that, they came from farms here in the grain belt. I refer to Mr. Frank A. Vanderlip, of New York City, and Mr. George M. Reynolds, of Chicago. The latter was a plow boy until he was sixteen or seventeen years old. He is a product of the typical farm and country town.

Whichever direction I look in public affairs nowadays, I find the figure of a farmer looming large, dominating affairs, dictating measures, directing men. It is a good sign of the times, and gratifying. I know of nothing which gives me greater hope for the future. Our affairs are in safe hands, when the patriotic, progressive farmer holds the reins of leadership.

SAFETY AT RAILROAD CROSSINGS.

FOR some unaccountable reason the man who drives an automobile is not as careful as the man who drives a team of horses. The man in the motor car approaches a railroad crossing at a high rate of speed; there is danger on the crossing, but all too many drivers ignore or belittle it, with the result that hundreds upon hundreds of lives are needlessly lost every year.

I have before me, as I write, a report of the California railroad commission, showing the comparative carefulness (or carelessness) of automobilists, drivers of teams and pedestrians. I can sum it all up in a table in this manner:

	Auto drivers	Team drivers	Pedestrians
Looked neither way	69.5%	39.4%	49.1%
Looked one way only	2.7%	8.6%	15.0%
Looked both ways	27.8%	52.0%	35.9%

In brief, the driver of a team of horses is far more careful when danger impends than is either the automobilist or the pedestrian. This is a remarkable tribute to the farmer, for while automobiles are being driven by farmers in large number, there is no question but that far more teams are driven by country people than by city folks and it is the team driver who is the most careful.

The Public Utilities Commission, of Illinois, makes official recognition of the team-driver's comparative carefulness in this manner:

> The transition from team to automobile traffic in the last few years has been remarkable. * * * Automobile drivers will not approach a railroad crossing in the same careful manner as will the driver of a team.

Will not those of you who drive motor cars resolve to be more careful hereafter, to hark back to the ordinary prudence and caution which you manifested when you were dependent upon a team altogether, and had no thought of ever possessing a car of your own? After all, what is there about an automobile that should change our very natures and make reckless speeders of the most prudently cautious?

In conclusion, let me print a little warning note, which I find in the "safety first" advertisement of one of our large grain-belt railroads:

> A train running sixty miles an hour goes eighty-eight feet in one second and cannot be stopped in much less than a quarter of a mile.
> An automobile running twenty-five miles an hour can be stopped in fifty feet.
> A horse or team can be stopped quickly.
> A pedestrian can stop almost instantly.

There is a moral to this comparison, and I hope it will not be lost upon you. It is better to be careful than to be sorry the rest of our lives, or to lose our lives in a foolhardy manner.

A SORRY STRUGGLE IN TOWN.

SOME weeks ago we carried on a most pleasant and profitable discussion, here on this page, as to the advisability of quitting the farm for the town or city under any circumstances. I thought the discussion was at an end, but a letter which reached me this past week added so many interesting and material facts, I believe I will reopen it for a few minutes in order to print this letter. It was written by "a mother homesick for the farm again" and was inspired by the fact that the public sales this year promise to be more numerous than ever before, testifying to all too many farm families tearing themselves up from the earth of the country and transplanting themselves to the pavements of the cities. The recurring plea of this homesick farm mother is this: "Don't leave the farm." Let me tell you how she and her loved ones fared, after she had spent twenty-six years of married life on a grain-belt farm. They sold their fine stock and rented a little suburban place in some town or city, she does not give the exact location. And here is how they fared thereafter:

> The plot of ground on which the house stood (the house was not modern in any way) was void of shade, grass and everything which grew in such abundance out on the farm and had added to our comfort. This plot of ground we found was so poor in soil and so worn out that we could not raise enough vegetables to supply the table for only three in the family, after careful planting and strenuous cultivation. When fall came, for the first time in twenty-six years, our cellar was empty of the abundance of vegetables and fruits, cured meats, lard by the gallon, eggs put down by the forty-dozen lot for home use, and all the other things which the farm had produced so abundantly.
>
> The chicken industry for residents in town, as a side line to keep down the high cost of living, has been lauded to the skies, both for women and men. Well, we tried it out on that plot of ground. We went out and found the best eggs we could get, paying a good figure. When the baby chicks were three days old the city officers came down with a warrant. Three of those baby chicks had got through the fence into the garden of a neighbor, so the city officers came out and fined us. Yes, sir, fined us for trying to earn an honest dollar. The passing automobiles got their share. The dogs and stray animals had theirs, too. When fall came the poultry business in town looked mighty dubious to all of us. And the prospect for the future is no brighter, no matter how hard we struggle.

This discouraged, homesick farm mother figures that one year's residence in the city has already cost them several thousands of dollars, for they have been obliged to draw out some of the savings of the happy years spent on the farm, some of the proceeds from their public sale of land and stock. Is it any wonder that she cries out:

> All summer I have looked out over the growing fields of waving grain with a great homesickness. My heart was out there in the country, with its freedom, its quietness, its coolness. As I passed along the fields and farms and saw the grain and stock, grazing in God's sunshine everywhere, oh I could not express the longing to stay there. Stay out there on the farm; keep your boys and girls there with you.

She goes on to make a plea for the boys and girls of the farm, that they be given something to call their own, just as I have pleaded with you here many a time. This homesick farm mother adds weight to what she says by citing her own experience:

> When I was a girl at home father gave me all the orphan lambs I would care for. By so doing, in time he sold them and bought me two young heifers. They were cows when I went to a home of my own and father gave them to me. From those two heifers we built up a good herd, the beginning of our possessions with which we were so happy and prosperous on the farm for twenty-six years, but which we gave up when we moved here to town.

I had no intention of reopening this subject, in the very near future, until this letter came to me, but I believe I would be making a grave mistake if I did not pass it along to you. Many of us are tempted, at some time or other in our lives, to pull up and quit the place where we have lived so long; life in the old place seems to be getting monotonous, we crave a change. Will we not do well to read this letter from the well-nigh heart-broken farm mother and heed its lesson before we take the step that may land us, forever, outside the happy circle of peace and prosperity and progress? There are many things to be considered when we start life anew in middle age; or when we put behind us the customs and friends and work of a lifetime to launch out into an altogether unknown venture. Read this letter from the homesick farm mother and think it over well and carefully. It may be the means of keeping you from committing a big mistake, one which you will regret the rest of your life. It is practical testimony such as this, based on our actual experiences, which sheds the best light on the subject. We have opinions and prejudices many times, but actual facts will more quickly convince the incredulous. I consider this a most valuable letter.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Co-operative Live Stock Breeding.

Some twelve or thirteen years ago the organization of co-operative live stock breeding associations began to be advocated and a few associations were organized two or three years later. Progress was slow at first, as is the case with all co-operative movements; still here and there the plan was bringing results and registered sires were being used on farms where none but scrubs had been used before.

Today co-operative breeding associations are quite numerous in some localities. Wisconsin leads with 136 associations and Michigan, perhaps, has the next largest number. In some of the leading dairy sections of New York considerable progress has also been made in the line of community breeding.

The object in co-operative buying or community breeding is to arouse greater interest in the particular class of cattle or other live stock that has proved to be best adapted for a given locality, to secure greater uniformity in the live stock throughout a certain neighborhood, to make it possible through co-operative buying to secure good breeding stock at a lower price and to increase the number of individuals of a certain breed in a community and thus attract buyers for any surplus sale stock that may be raised from year to year. In all these particulars the well managed associations have been very successful and their success should serve as an incentive for the organization of others. So far most of these associations have been organized by dairymen. In Wisconsin, for example, four-fifths of all the breeding associations deal with dairy cattle, but that state also has two associations breeding beef cattle, ten breeding horses, two swine and fourteen breeding general live stock.

When a breeding association has been organized a committee of the best posted live stock men in the association is appointed to buy bulls or female foundation stock for all the members. In this way a saving in original cost due to buying on a larger scale is effected and transportation charges are also reduced because stock can then be bought by the carload instead of a dozen or more individuals buying two or three head each. Then, too, greater uniformity in the cattle purchased is secured when one set of men does the buying, and that in itself is a matter of considerable importance when the members reach the stage where they have stock for sale.

At the end of two years all bulls that have proved to be good sires are interchanged between the members of the association, thus making it possible to keep worthy sires throughout their entire period of usefulness. This is a matter that has proved to be of great importance not only because it effects a great saving but more particularly because it offers the finest chance in the world to find the real meritorious bulls, retaining them in the community and getting the full benefit of their breeding powers. The real value of a dairy bull cannot be determined till his heifers come into milk or until they have completed two full lactation periods. A bull that cannot be retained in a given herd more than two or, at the most, three years, because of inbreeding, has no opportunity of demonstrating his real value, but when he can go into another herd in the same community until his first heifers have demonstrated their value as producers, he may be considered much more valuable at five or six years of age than he was as a two year old.

After a bull has established a reputation as a producer of high-producing daughters his progeny from the best females in the community will quickly raise the standard of the stock of all the members of the association. This is perhaps the greatest advantage that arises from community breeding. There are many other advantages, however. Where a number of men are banded together for the same purpose more interest is taken in the common work, and there springs up a friendly rivalry among the members that accrues to the benefit of all.

Those of our readers who are interested in organizing breeding associations should correspond with the agricultural college authorities in their respective states, as it is frequently possible for those institutions to send a man or two to help organize associations, or to fully explain the advantages of such organizations.

Profitable to Give Good Care to Auto.

Nearly all our agricultural colleges are now giving courses in what might be called farm engineering. Special attention is being given to the automobile, and owners are seeking information that will enable them to get better service out of their cars at a less cost for fuel, oil and general upkeep.

Five years ago the automobile was looked upon largely as a luxury, but more and more it is viewed in the light of a necessity. The body designs are not changing as rapidly as formerly and the majority of owners are settling down to the belief that they will get years of service out of a car. The Wisconsin Farmer is contributing to this end by offering to its readers the services of an expert who is in charge of the farm mechanics department of this paper. The man who is contented to simply put gasoline, lubricating oil and water in his car and take his place at the wheel without any understanding of the mechanism which is under his control is bound to face some big expense items in the end. Not that we are advocating that any owner "tinker" with his car, but rather that we believe in the policy of getting just as much information about the type of machinery that you are handling as is possible to obtain.

Interesting as has been the farm mechanics department in the past, we believe that its usefulness can be increased in the future if automobile owners will submit to this paper their difficulties. The service rendered by this department is not confined to automobiles, but rather to all types of farm machinery that call for expert knowledge in their handling. The colleges are doing good work and we endorse it most enthusiastically, but after all, only a small percentage of auto owners or gasoline engine owners take advantage of that special form of instruction. We, therefore, hope that all our readers will keep in mind the service that this paper is offering free of charge to any of its readers who are in need of aid along this line.

Uses Both Farm Wagon and Farm Truck.

In a discussion of timely topics it is seldom that the farm wagon or farm truck ever comes up for consideration and yet both are important parts of the equipment of every farm. In the following communication one of our subscribers, Mr. J. K. Rodgers, gives his observations and experience about the use and care of the farm truck and also the farm wagon:

On our farm we have found that the farm wagon is the cheapest part of our equipment. We use it twelve months in the year, and there is seldom a week passes that it is not in evidence. We know that while a farm wagon, with proper care, will last at least twenty years, it is possible to cut the life of a wagon in half by using it carelessly and failing to keep it under cover when not in use. A wagon has a guaranteed carrying capacity of so many pounds; and we govern the load according to the condition of the roads. We have found it pays to keep the wagon in its shed when not in use. When exposed to the ravages of the elements the iron rusts, and the box decays. One farmer who has no shed for his wagon, finds that a tarred wagon sheet gives good protection. Not long ago a wagon was sold at a public auction. It had not been in use many years, yet it was ready for the junk heap. Exposure to the elements (weather extremes are sudden and severe in this section) had ruined it.

A farm wagon is not a farm truck; these are two distinct articles. Both have their places on the farm; but a farm truck is not built to withstand the service required of a wagon. We have seen it proven, that while the truck will do the heavy work generally expected of a wagon for a short time, it is not economical for heavy work, because the heavy loads reduce its life to such a short period of time that the higher price of a wagon is more than offset by its greater endurance. We get best results from the truck by using it for light work about the farm. In company with other farmers who own wagons and need a vehicle for supplemental work, we get much service from the truck. For use on the farm the broad tired truck is superior to the narrow-tired wagon, it may be drawn with greater ease over soft soil, and when hauled over alfalfa meadows, etc., the broad tires do not cut through and injure the plants. We use broad-wheeled trucks under hay racks at all seasons of the year.

Wagons offered for sale at the present time may be listed as good and "fairly good." When judging the quality of a wagon we first consider the wheels. The greatest strain comes on the wheels. The wagon with poor wheels is a poor wagon and will not give satisfactory service. Next we consider the axles and skeins; for the next greatest strain comes on these. Some wagons have strong axles and skeins, but are burdened with poor wheels. We do not use this type.

The double box is a great convenience, when buying a wagon box few men can be certain what they are getting, for wood of poor quality can be covered over with paint and varnish. Usually dependence must be made upon the manufacturer's reliability and reputation for fair dealing.

Nearly every implement on the farm excepting the wagon is used only for a short period during the year, and this in itself would suggest that it be given good care, and by this we mean given protection from the elements when not in use. As a labor saver the truck unquestionably has an important place on the farm. Primarily it is designed to transfer from the shoulders of man to those of the horse many of the heavier tasks, and this applies during the haying and harvesting season, in the hauling of manure where a spreader is not available and in all light work about the farm. It is designed, as this subscriber says, for supplementary work and there are scores of uses to which it may be put every month of the year.

Since this topic has come up for discussion we would be very much pleased if some of our readers would give their experience regarding the service that they have had from the truck. Those who will undertake to do this for the benefit of readers of this paper should name the various tasks that they perform with the truck rather than with the wagon. Is it possible to use one truck and one wagon where ordinarily two wagons are used, or, on the other hand, has it been found necessary to use a truck as an "extra" where ordinarily two wagons are required? There are many phases of the matter that will present themselves to those who undertake to discuss this subject and we hope several of our readers will give their views relative to this matter.

Compel the Brood Sow to Exercise.

In spite of the fact that the hog has earned his title "the mortgage lifter," there are numerous instances that can be found each year in every county of the corn belt where an attempt to raise a considerable number of hogs turns out to be a flat failure. In most cases the breeder who falls down could trace his misfortune to one or two brood sows or in the care of the young pigs. It is our opinion that more loss is due to the fact that brood sows are not properly exercised during the gestation period than from any other, or from all other causes combined, and that being the case we propose now to outline a system which we know from past experience brings good results.

At the present time most of the gilts and old sows kept for breeding purposes are running with the fattening hogs, and for a time this may be allowed. There is always advantage in having breeding stock in fairly good flesh, and in order to bring this about it is entirely practicable to flesh up the sows during the early part of the winter. It is a mistake, though, to handle sows in this way too long, because their ration is invariably too strong in corn, and they will get too fat for best results. Sometime during the month of January, in case sows are bred to farrow early, they should be separated from the fattening hogs and given quarters of their very own. It is not at all necessary to coddle them, or to provide expensive sleeping or loafing quarters. Some sort of shed is necessary, to be sure, but one that is closed on three sides, with a good roof, will answer the purpose. Even the individual hog-house may be used to advantage, and these are not expensive. If there are a number of sows on the farm, simply place the houses side by side, so that in this way they will make a good windbreak, and a few sows will occupy each pen. We will in a future article outline a sensible system of feeding, but at this time we want especially to refer to the matter of exercise.

Let it be understood in the first place that neither gilts nor sows should be allowed the privilege of deciding how much exercise they need. If they are well fed they will not be disposed to move around much, and every day they will loaf just a little more than they did the day before. To offset this loafing tendency they should be absolutely turned away from their sleeping quarters and allowed to roam over the fields or up and down a lane for hours at a time. Of course, there are periods when the weather is especially cold and stormy, when it will not be advisable to expose them in this way, but during the clear days of the winter months brood sows should be made to spend a considerable part of the forenoon and much of the afternoon on the move.

If no straw is available for bedding they will remain active and their activity may be contributed to by the manner of feeding. It is an excellent plan to have a supply of corn placed at a considerable distance from the outbuildings, and a few ears can be fed from this supply daily. By following this plan it is amazing how many trips the sows will make to this crib during the day. In fact, they will just spend their time going to and from their feeding quarters and, as a result, they are built up in flesh rather than loaded down with fat. We well realize the fact that successful swine breeders are not in need of advice along this line, because they regard this matter of exercise as fundamental. However, we are interested in the individual who is starting out and who is not in a position to stand a heavy loss among his hogs. Where anything like a prolific strain is dealt with there is absolutely no reason why a bunch of gilts and sows cannot be brought through the winter in such a way that they will raise an average anywhere from six to eight pigs per litter, but this cannot be done if they are allowed to spend most of each day in their sleeping quarters. Where exercise is made compulsory it should be kept right up until farrowing date, with the assurance that there will be less difficulty at farrowing time, sows will not become fevered, as is often the case where they are closely confined all winter, and last, but not least, the little pigs will be strong and robust if, in addition to adopting a sensible plan of exercise, the sows have had a ration suited to their needs.

Almost $9,000,000,000 was the aggregate value of all crops of the country last year. In an estimate announced by the department of agriculture, the exact value was set at $8,934,587,000. That was an increase of $2,165,989,000 over the value of 1915 crops, and $2,867,206,000 over the average of the years 1910 and 1914. Texas held its lead as first state in value of its crops, but Illinois, as second state in 1915, was displaced by Iowa last year. The other states of the leading ten in order of value of their crops, were Nebraska, Georgia, Kansas, Pennsylvania, New York, Indiana and Ohio. Except North Dakota, every state showed an increase in the value of its crops last year over 1915.

The 1917 Automobiles on Display

Thousands of People Including Many Farmers Get Ideas on New Cars at Milwaukee Automobile Show in Milwaukee Last Week

THE 1917 automobile offerings were on exhibition in the gaily decorated auditorium in Milwaukee last week. The most prominent fact brought out at the show was that prices on all classes of cars are to be higher. Added to this is the uncertainty of delivery, due to the shortage of freight cars and the congestion of freight traffic in some of the large centers of the country. Those manufacturers who were able to promise delivery at once had little difficulty in interesting the farmers and dealers who attended the show, in their offerings. One firm had brought recently a large number of cars across the state of Michigan and hence by boat to Milwaukee, and these people considered themselves lucky to be able to make immediate deliveries.

That the recent advances in price were but forerunners of further advances was the general belief of the leaders at the show. Materials entering into the construction of cars are advancing every day, especially the metals and upholstery materials. Advances run from 10 to 20 per cent. Those firms which have not received notice recently from the factories covering an advance are expecting such notice almost daily. It was because of this fact that sales at the 1917 show were the largest of any show held in the history of this state.

Three weeks ago The Wisconsin Farmer advised its readers to take in the automobile show, and to be consistent with our advice, one of our editors was assigned to the pleasurable task of looking over the new models. The trip was well worth while.

Offerings in the line of touring cars were not such a marked departure from those of last year, as the offerings in the closed models and the roadsters.

The all-weather car is growing in popular favor and may be secured at an added price which is reasonable considering the service.

A number of chassis models were on exhibition, showing the working parts, and these were of great interest, especially as illustrating the use of good bearings, tires, spark plugs, piston rings, and other things listed as accessories. Tires have come into the "higher priced" class, and recent announcements have shown an advance of 10 to 15 per cent with prospects of still further raises.

Manufacturers and dealers are paying more and more attention each year to the farm trade, and the past season of good prices for dairy and farm products in this state has made the rural trade more than usually attractive. No one knows when prices in cars and accessories will drop back to a level of a year ago, but some predict that this cannot be expected for several years. As a matter of fact, automobile, tire and accessory prices have not advanced, even in the proportion that farm and dairy products have advanced. Advance in farm products seems to have come first, and advances along the line of implement, automobiles, buggies, wagons, etc., and many other products is simply a readjustment to meet changed conditions all along the line.

Farmers of the state will not be especially interested in the freakish things in new cars. The farmer wants a car for work as much as pleasure. Most of his trips are a part of the day's business of the farm, and the automobile fits in as an ideal timesaver. It is also a price-cutter in the matter of transportation. When a car carries five persons the expense per person is reduced to a minimum. In fact, it is a cheap, as well as pleasant, means of travel.

The truck show at Milwaukee was the largest ever presented to a Wisconsin public. The truck is no longer a city proposition. The writer talked with one of the truck manufacturers who expects to market more than 50 per cent of his output this year to farmers. The truck is an evolution of the automobile business. First we looked upon the auto as a pleasure vehicle only. Then it became necessary at times in emergencies to use the family pleasure car for carrying purposes. The advantage from this use of motive power in a small way was so apparent that a vehicle for constant work use was welcomed with open arms by the larger farmers. It will not be long until a large part of our cream collection will be made with automobile trucks. This will permit more frequent collection, and will result in better cream at the factories, and hence in a better factory product. The truck is also ideal for delivery from truck farms. It is now in general use by farmers and gardeners who live near the large population centers. The manufacturers are designing bodies suitable for carrying cattle, hogs, hay, grain and other produce to market.

Changes in the actual working machinery of automobiles this year are slight. Engines have been so perfected that changes are not needed on many cars. We still have the four, six, eight and twelve-cylinder cars. The most radical changes apparent in the new cars apply to lines in the bodies. Several of the new cars have the shutter front on the radiator, making it possible to close up the front in cold weather. The shutter answers the same purpose as the hood cover. The straight windshield is being discarded by most makers for the tilted one. Several cars have improved the springs, especially under the tonneau seats, and a novelty is the adjustable front seat, which may be slipped backward or forward with a play of four to six inches, to accommodate the long or the short-legged driver. This is a convenience greatly appreciated where more than one person drives the car, or when a man and his wife both drive, as is now so frequently the case. The "clover-leaf" type of roadster will be much in evidence this year. The designers have accomplished some wonderful results on four-passenger roadsters. The sedan type for all-weather use is also very popular, and enclosed cars are being offered with a variety of upholstery to suit the most fastidious from the standpoint of either comfort or appearance.

It is difficult to get any accurate line of probable gasoline and oil prices for the coming summer season. Most dealers do not expect higher prices than last summer, though we may expect prices to advance some before the demands of the touring season. Users of cars are paying much more attention each year to the matter of lubrication, which has an effect on the life of the car, the smoothness of running and also the amount of gasoline consumed.

In handling chickens remember that it is the eggs laid in November, December, January and February that bring the high prices. It takes extra care and feed to get the eggs during this time, but it pays.

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Only $7.50 if satisfied after trial—then a few monthly payments —and—

You Keep This Genuine Melotte

Write for catalog—it explains everything

Think of it!—Only $7.50 down on the world's greatest cream separator, the imported Belgian Melotte—the separator with the wonderful, self-balancing bowl. We are taking the lead. Let others follow if they will. Our catalog explains. We'll prove to you that the world's greatest Melotte will give you *more cream*, bigger profits and greater satisfaction. You have a right to insist upon the proof when *anybody* makes claims for his separator.

Not a Cent in Advance

Just ask for a 30 day free trial. Then we ship the Melotte. No salesman around to influence you. Use the machine according to every test you can think of. If you decide against it, all right—send it back *at our expense*. But—

If after 30 days you decide to keep the great Melotte you can do so on our rock bottom price offer—only $7.50 down after the thirty day trial, and thereafter just the same monthly payments. Send the coupon now for free catalog and full details of this offer.

Extra!

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Save $15.25

The high tariff has been cut right off—the great Melotte comes in absolutely free of duty. Good for the American farmer! He gets the great Melotte Cream Separator now at an extra reduction of $15.25!

The high tariff and patent arrangements have kept the Melotte out of reach of the American farmer. Now this handicap is off. You can get the world's greatest separator now without this excessive duty charge—and on our rock-bottom, direct offer.

Wonderful Record

The Melotte has won more than 264 international prizes. At Brussels, Vienna, London, Paris, Amsterdam, Milan, St. Louis, etc.

One Melotte has been running at Remincourt, Belgium, the equivalent of 54 years of actual work without appreciable wear.

Here is *one* great reason for Melotte superiority: The bowl is *self-balancing*—it hangs down from a single bearing and spins like a top. Can't get out of balance. The Melotte turns so easily that the bowl spins for 30 minutes after you stop cranking unless you apply brake. No other separator requires a brake to stop the spinning. *The Melotte is guaranteed for 15 years.*

Repairs—

are hardly ever needed on the Melotte on account of its self-balancing bowl—no repairs compared with other separators.

BUT—We have on hand repair parts for 10 years ahead. That is the first thing we attended to, a huge stock of repairs when we introduced the Melotte in this country, and it has been a gratifying surprise that we are using hardly any of that stock.

Rock-Bottom Price

Highest-Grade Separator

WE offer you the Imported Belgian Melotte—the world's greatest cream separator—at the rock-bottom, before-the-war price: the same price charged in Belgium plus only $1.75 for water freight.

Seize this opportunity to get a highest grade separator on this astounding offer. You want a quality separator, one that you can be proud of all your life, one that will never bother you and that will always give you the maximum amount of cream without loss. So, we recommend to you the Imported Belgian Melotte—the separator with the wonderful self-balancing bowl that can not get out of balance and vibrate—especially now as we are making our rock-bottom offer. The Melotte is guaranteed for 15 years. Write now, *while this offer lasts.*

Try Them All!

All the Makes on the Market

HERE'S a frank open suggestion:—Have *every* manufacturer that is willing to give you a free trial, ship his separator to you. If he is not willing to give you a 30 day free trial, ask him *why* he won't—get his reason.

Set them all up side by side, the Melotte and all the others, and then make the test. Keep a record of the results. See which skims the closest—which gives you the most cream. Figure out, on this basis, which will bring you the most profit. Notice which machine is easiest to operate—which is the least tiring. Then notice the construction. Which will stand the most wear? Which is most substantial?

Then decide. Keep the one which has proved best. We are willing to abide by your judgement without a word. Remember the terms of our offer—if you want to return the Melotte, you may do so at our expense. We're only *too glad* to have such a test of all machines together; then when you've bought the Melotte you'll be all the more a "booster" for us.

Don't buy any separator until after you have tried it 30 Days Free on your own farm.

Send the coupon at once for our Melotte catalog and the valuable book on dairying—no obligations.

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The book is the work of B. H. Benkendorf, Wisconsin Dairy School Agricultural College, Madison, Wis., and K. L. Hatch, Winnebago County Agricultural School, Winneconne, Wis. 88 pages. Contains no advertising. A real, practical, commonsense treatise, telling everything about cows and dairying—how to feed and care for cattle—how to make more money out of your cows. Every farmer should have this book in his library. It is worth while getting now, even if you are not considering a cream separator at present. Sent free upon receipt of the coupon.

We'll send also our new Melotte catalog and details of our rock bottom, 30-day free trial, easy payment offer. Send the coupon now—while this offer lasts.

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Without any obligation on me send me, free and prepaid, your book, "Profitable Dairying," and your special free tariff prices on the Belgian Melotte Cream Separator. Also full details of your free-trial, monthly-payment, no-money-down offer.

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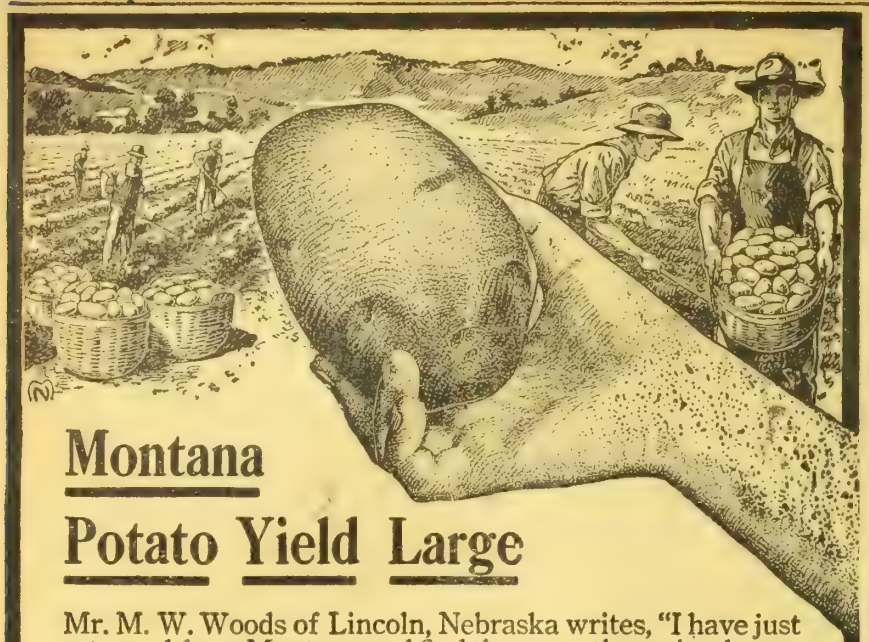

Montana Potato Yield Large

Mr. M. W. Woods of Lincoln, Nebraska writes, "I have just returned from Montana and find the crops there simply marvelous—potatoes running as high as 175 sacks to the acre and bringing $1.70 a sack. Alfalfa two years old, cutting four tons to the acre and bringing $16.00 a ton on side track at Piedmont. Other crops are in proportion."

This is not an isolated case—it is the rule, not the exception. Millions of acres that grow such crops can be bought reasonably cheap. Draw your savings and make a new start in Montana. It will pay you.

The whole state is pulsating with activity. A great achievement, and one that is to play an important part in the future development of Montana recently was staged there—the Electrification by the *"St. Paul Road"* of its main line across the state at a cost of over $12,000,000—an eloquent expression of faith in Montana's future.

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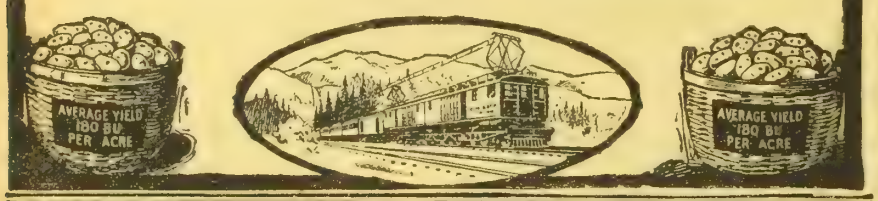

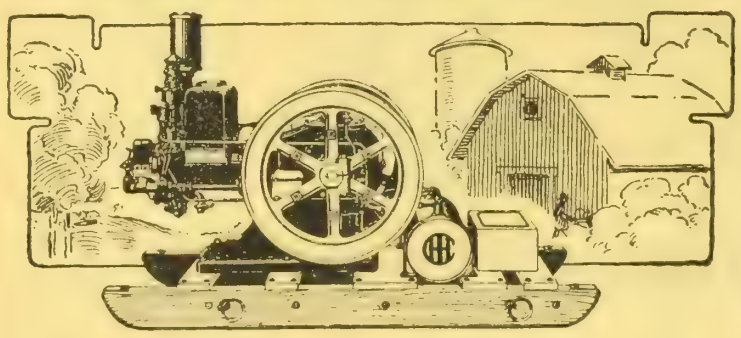

Does Its Work for Little Money

WHEN buying an engine for any farm job you can't beat the **Mogul** engine for economy—no matter where you look or what price you pay. A **Mogul** gives you steady power at the lowest cost per day or per year of service—any way you figure it. It works on the cheapest engine fuel you can buy, common coal oil. It uses only just enough fuel to carry the load. It starts and runs on magneto—no batteries to buy or renew. Its oiler takes care of every bearing, and never forgets. It is as near automatic as an engine can be made and it handles all kinds of engine work.

The **Mogul** is made to **do its work** for little money—less than any cheap engine. Then, it will outlast two or three cheap engines. If you want steady reliable power at the lowest possible cost—and, of course, you do—buy a **Mogul** engine in any size from 1 to 50 H. P. If you don't know the local dealer who sells **Mogul** engines, write to us. We'll tell you where to find him and we'll send you our engine books.

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Farmers' Open Forum

Noon Lunches at School.

To the Editor:—I was interested in your article on lunches in the schools, published December 21st, and thought you might like to publish also some recipes used in the Sauk county schools. These were printed in our last issue of Sauk County Schools, issued by our county superintendent, G. D. Davies. The recipes are as follows:

Thin White Sauce.—Two tablespoonfuls butter, one and one-half tablespoonfuls flour, one cup scalded milk, one-fourth teaspoonful salt. Few grains pepper. Melt butter in saucepan, add flour mixed with seasonings and stir until thoroughly blended. Pour on gradually the milk, stirring until well mixed.

Baked Bean Soup.—Three cups cold beans, three pints water, two slices onion, two stalks celery, one and one-half cups stewed and strained tomatoes, pepper, two tablespoons butter, two tablespoonfuls flour, one tablespoonful Chili sauce, salt. Put beans, water onion and celery in saucepan; bring to boiling point and simmer thirty minutes. Rub through a sieve add tomato and Chili sauce, season and bind with flour and butter cooked together.

Cream of Lima Bean Soup.—One cup dried Lima beans, three pints cold water, two slices onion, four slices carrot, one cup of cream or milk, four tablespoonfuls butter, two tablespoonfuls flour, one teaspoonful salt, one-half teaspoonful pepper. Soak beans overnight. In the morning drain and add cold water, cook until soft, and rub through a sieve, cut vegetables in small cubes and cook five minutes in half the butter; remove vegetables, add flour, salt and pepper and stir into boiling soup. Add cream, reheat, strain and add remaining butter.

Celery Soup.—Three cups celery (one-half-inch pieces) one pint boiling water, two and one-half cups milk, one slice onion, three tablespoonfuls butter, one-fourth cup flour, salt and pepper. Cook celery until soft and rub through sieve. Scald milk with onion, remove onion and make white sauce, add celery.

If any other readers have good recipes for school lunches, please send them in to The Wisconsin Farmer.

Subscriber.

Found April a Good Month to Plant Evergreens.

To the Editor:—Evergreens are something that but few farmers have on their places and, in fact, they give them but little thought. Most any kind of a tree, so that it will make shade, is set out in the yard in a haphazard way which does not improve the looks of the place, while an evergreen always looks nice and is an improvement.

When I was a boy I had a great deal of experience in setting out evergreens when I lived on another farm. I set them out in several different places and at different times of the year, but the most successful time was in the month of April. I never lost one set out at that time.

La Salle Co., Ill. Chas. Raudlett.

Law Questions.

Lights on Motor Vehicles.

A Subscriber, Royal, Wis.—Does the state law of Wisconsin require all vehicles on the public roads to carry headlights at night?

Answer.—It does not. It requires automobiles and other similar motor vehicles to carry headlights at night.

Clothing Exempt.

A Subscriber, Leola, S. D.—A, while working in Iowa, ran up a grocery bill at B's store. A went to South Dakota intending to return when threshing time was over, but did not return. He intends to pay B when he is able. B threatens to put an attachment on A's clothes in Iowa for the bill. Can B lawfully do this?

Answer.—The ordinary wearing apparel of a nonresident of Iowa and the trunks which contain the same are exempt and cannot be taken by attachment or execution for payment of his debts.

Collection of Note.

A Minnesota Subscriber.—A borrowed $100 from B and gave his note for the same payable in six months with 8 per cent interest. The note was due three years ago, and no part of it or the interest has been paid. The note has not been renewed, A has no property. Both parties live in Minnesota. What recourse has B against A, if any?

Answer.—The note is not outlawed. B can sue A and get judgment against him for the amount and then if A should acquire property the judgment might be collected, but if A remains insolvent it could not.

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Cheesemakers at Fond du Lac.

Largest Convention of Cheesemakers in History of State—H. J. Kuschel, of Coleman, Has Highest Scoring Cheese on Exhibition.

NOT in the twenty-five years of their existence as an association have the Wisconsin cheesemakers had so successful a convention as the one held at Fond du Lac last week. Interest in proposed legislation, better prices for their product, scarcity of rennets and discussion of substitutes, location of next convention and the formation of a Wisconsin cheese advancement association were factors in bringing out the big crowd. There was a more representative delegation than this convention has had in years, due largely to the fight on location of the next meeting, Appleton, Milwaukee and Marshfield, the latter city backed by the Central Wisconsin Cheesemakers' Association, desiring it. The location of the convention has not been decided. The convention delegates, representing several district and county associations, formed a new association to be known as the Wisconsin Cheesemakers' Advancement Association. N. M. Scott, of Waldo, is president; W. A. Rausch, of Spencer, vice president; H. A. Chaplin, of Plymouth, secretary, and Mrs. L. C. Dix, of Auburndale, treasurer. The Cheesemakers through their state organization and through the new organization will make an effort to secure the passage of a state law fixing minimum moisture in cheddar and American cheese at 40 per cent. The exhibit of cheese was within two samples of being as large as that shown at Milwaukee last year. The following are the scores of cheese exhibited, only a few of the lowest-scoring exhibitors being omitted:

James Millorn, Richland Center, Wht. Twins, 97.1; C. Austin, Spring Green, Americas, 92.8; John Discher, Boaz, Americas, 93.3; Wm. Winder Richland Center, Cheddar, 96.1; Charles H. Good, Boaz, Twins, 95; Andrew Peterson, Lone Rock, Wht. Twins, 93.8; Emil Boeing, Woodstock, Wht. Cheddar, 93.6; Peter A Schmidt, Lone Rock, Americas, 95.6; Henry L. Naumann, Plain, Daisy, 96; Herman Ziebarth, Lone Rock, Flat, 97; Fred Swenick Loyd, Flat, 96; Geo. Wright, Loyd, Wht. Flat, 93.3; William Wright, Richland Center, Wht. Flat, 92.1; Michael Wajtkiewicz Thorp, Americas, 93; Joe A. Gehrman, Brillion, Daisy, 96.6; Robert Naumann, Two Rivers, Daisy, 96.8; John G. Fischer, Stratford, Daisy, 92.3; E. J. Fokett, Reedsville, Daisy, 91.4; Fred Benishek, Manitowoc, America, 95: Anton Benishek, Manitowoc, Daisy, 96; Arthur Bobb, Thorp, Daisy, 96.5; O. W. Klemme, Thorp, Longhorn, 93; A. J. Blahnik, Kewaunee, 1 longhorn, 1 sq. print, 94; Ed A. Volz, Cecil, America, 93.6; C. M. Englebretson, South Wayne, America, 92.1; Gottfried Loosle, Browntown, Round Swiss, 93.50; Aug. Reusch, Gratiot Swiss, 94.75; Chas. Mullen, Lone Rock, Twins, 95.3; Fred Schuler, Ridgeway, Brick, 94; Thos. Martin, Leeman, Second, Daisy, 97.5; L. L. Clark, Greenleaf, Twin, 91.9; H. A. Kalk, Sheboygan Falls Longhorn, 94½; Herman H. Behrens, Plymouth, Longhorn, 91.5; A. F. Zelm, Plymouth (Horns) America, 90; John Emmenegger, South Wayne, Swiss, 92; E. E. Quimby, Marion, Daisy, 92.6; W. H. Maves De Pere, America, 90.5; Arnold Grimm Marion, Daisy, 96.3; Harry Weaver, Beaver Dam, Brick, 93 50; Hans Nelson, Withee (Comp.) Longhorn, 90.5; R. M. Schmidt, Unity, America, 96.7; Joseph Oberholzer Monticello, Block Swiss, 96.25; Joseph Schnyder, Winneconne, Brick, 95; Ayex Hoerbyrger, Darlington, Drum Swiss, 96.75; Karl Lang, Darlington, Drum Swiss, 92.75; R. A. Pieper, DeForest, Daisy, 90.8; Gottfried Vogel, Monroe, Brick, 92.75, Drum Swiss 93.25; J. L. Gibbs, Muscoda, America, 94; Frank Schumate Muscoda, America, 94.4; Carl Lietchti Verona, Limburger, 93.50; Frank W. Wonn, Avoca, Daisy, 96.1; John Greiner, North Kankana, Flat, 94.3; A. G. Peterson, Appleton, Drum Swiss, 94; Henry Loehr, Calvary, America, 90.9; Joseph Sevcik, Pound, America, 93.6; C. H. Schneider Heller, Twin, 92.1; Chas. W. Beeman, Viroqua, Daisy, 95.1; F. J. Burish, Lena, Daisy, 93.4; Jule Bolanger, Brussells, Daisy, 96½; Mrs. J. Bonlanger, Brussells Daisy, 96; H. J. Kuschel, Coleman, America, 98½, (high); A. F. Schwartz, Lyndhurst, Daisy, 95.6; Herman Kalkofen, Greenwood, America, 96.7; J. H. Deicher, Glenbeulah, America, 93.6; Albert Koopman, Jr., Grafton, Longhorns, 93.3; O. Schwantes, Clintonville, Daisy, 96.5; Leonard Bentle, Appleton, America, 92.3; Oswald Schneider, Appleton, Limburger, 91, Brick, 96; Fred Baertschy, Mayville, Brick, 94; E. G. Horn, Beaver Dam, Brick, 92; Gust Drachenburg, Hustisford, Roound Cream, 91.50; Chas. Marschall, Knowles, Brick, 92.75; Rudolf Urbin, Ridgeway, Swiss, 93; Fred Emmenegger, Ramona, Drum Swiss, 96; Dan Entringer, St. Cloud, America, 96.2 Hugo L. Shimek, Leopolis, America, 93.8; Ed Gruenstern Marion, America, 92; Wm. F. Gerholz, Buhl, Idaho, Daisy, 92.2; Wm. Lindlow, Plymouth, Young America, 92.5; Wm. S. Walsh, Fennimore, Flat, 93.6; O. C. Greiner, Little Chute Twin, 94.1; Arthur Zivney, Ringle, Daisy, 94.8; O. W. Friemund, Daisy, 91; Fred Keunzi, Beaver Dam, Brick-Cream, 91.75-90.75; R. H. Gruenke, Auburndale, Daisy, 94.8; Alb. Gruenstern, Tigerton, America, 97.1; A. C. Werth, Appleton, Wht. Y. A., 93 7; Alex E. Korth, Menasha, Wht. Y. A., 96.6; N. E. Possley, Neenah. Wht. Daisy, 95; Geo. E. Bird, Neenah, Wht. Daisy, 97.4; Joseph E. Bogueki, Milwaukee, Wht. Daisy, 94.7 J. F. Bachman, Fremont, Flat, 94.1; Robert Jastrow, Algona, Daisy, 97.1; O. E. Kielsmeier, Manitowoc, Daisy, 94; Geo. H. Scannell, Eden, Daisy, 90.2; Arthur Bobb, Thorp, Daisy, 96.3; Mrs. O. Dix, Auburndale, Horns, 91.3; P. H. Kasper, Bear Creek, Cheddar, 96.6; Louis B. Kohlman, St. Cloud, Cheddar, 94; F. E. Hoge, DePere, Daisy, 94.9; A. J. Schulte, Marshfield, Longhorn, 94.8; Englebert Neeman, Auburndale, Sing. Horns, 93; Louis J. Blahnik, Kewaunee, Sq. Print, 96.3; Fred Schaller, Barneveld, Brick, 91.75; Hans Widener, West Rosendale, Brick, 91.50; Fred Fentz, Rubicon, Brick, 90; Robert Kohli, Knowles, Brick, 91.75; Otto Haefli, Monticello, Limburger, 91; R. Salvisberg, Livingston, Limburger, 96.50; Aug. H. Roether, Watertown Muenster, 89.75; Anton Suther, Cambria, Brick, 93.25; Alfred Hirsig, Lomira, Brick, 94.75; Math Myer, Stanley, Longhorn (Comp.) 96½ George Schickert, West Bend, Limburger, 93.50; Otto Voeks, Sturgeon Bay, Daisy, 90.4; F. D. Cootway, Stetzer, Daisy, 94.1; Robert Emmenegger, Gratiot, Pound, 95.25; Emil Forste, Meadow Valley, Round Swiss, 92.50; B. L. Splitt, Wausau, Horns, 96; C. J. Ebert, Ringle, Daisy, 94.2; Oscar Dix, Rozelville, Young America, 94; F. E. Gotter, Pardeeville, Daisy, 94.5; W. G. Prinse, Seymour. Daisy, 94.4; Albert Drone, Muscoda, Flat, 90.5; Nath Meyer, Stanley, Americas, 94.

Wisconsin Legislature.

The Wisconsin legislature is in session, having heard Gov. E. L. Philipp's message last Thursday. There is a feeling that Wisconsin will not again be subjected to the long siege of legislative investigation which dragged along into the summer two years ago. The governor is in favor of a short session, but there is no telling what legislatures will do when they get down to an actual fighting basis.

The governor's recommendations include the following:

Extension of governor's term to four years.

Appointment of secretary of state, state treasurer and attorney-general by governor.

Legalizing of party conventions for the purpose of drafting platforms.

Pledging of candidates nominated at primary to party platform.

Permitting only adherents of party to vote its ticket at primary.

Restriction of public construction until war prices fall.

Investigation of social insurance and revision of workmen's compensation law.

Abolition of township assessors and appointment of county assessors by civil service.

Reassessment every four years instead of annually.

Building of system of trunk road with federal aid.

Requiring high school education of rural teachers after 1920.

Repeal of state fire fund law.

Referendum of the primary law to the people.

Give state superintendent of public instruction supervisional power over the educational division of penal institutions.

Broad-gauge plans for developing Upper Wisconsin.

Commends members of Wisconsin National Guard, and hopes to see measure in congress providing for shorter term of enlistment.

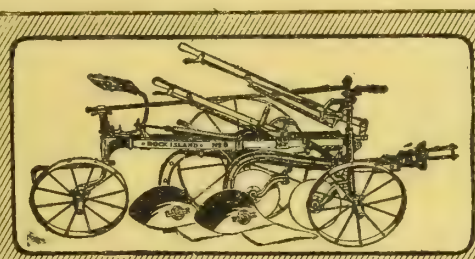
Additional conservational powers for the fish and game commission.

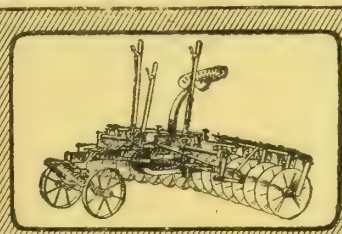
Revision of fire insurance laws.

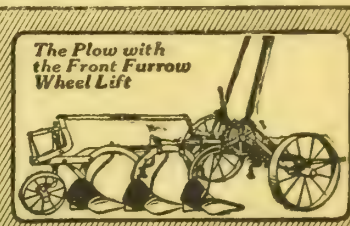
These are in the main the chief points in the governor's message and they provide a foundation for legislative discussion. It is too early to predict what our solons may undertake especially for the benefit of the farmer, but we will give this attention in our columns from time to time. The governor's message, recommending the referendum of the primary law, instead of its abolition as the governor desired two years ago, the change to the short ballot, and other measures, is regarded as somewhat more progressive than some of the governor's former papers and speeches. The recommendations for a longer term for the governor and for the abbreviated ballot will require constitutional changes.

At Marshfield, Wisconsin, a little city of only 6,000 inhabitants, there was marketed $4,000,000 worth of cheese alone last year. Wisconsin sells $189,000,000 worth of what is known as American cheese annually.

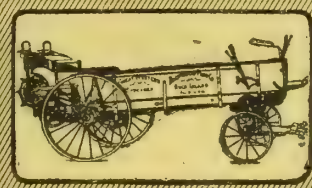
Wisconsin pea-fed pork finds favor with the butcher and packer.

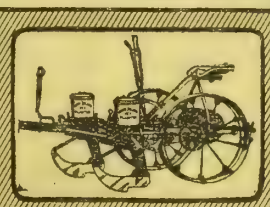

Rock Island "CTX" Plow

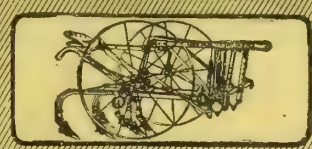

Rock Island Bonanza Disc Harrow

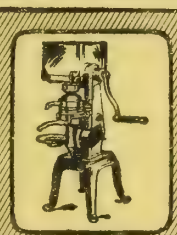


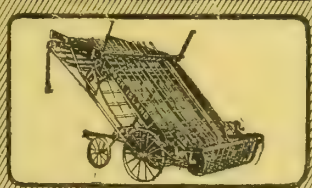
Rock Island Tractor Plow


Great Western Manure Spreader


Rock Island Corn Planter


Rock Island Perfection Cultivator


Great Western Separator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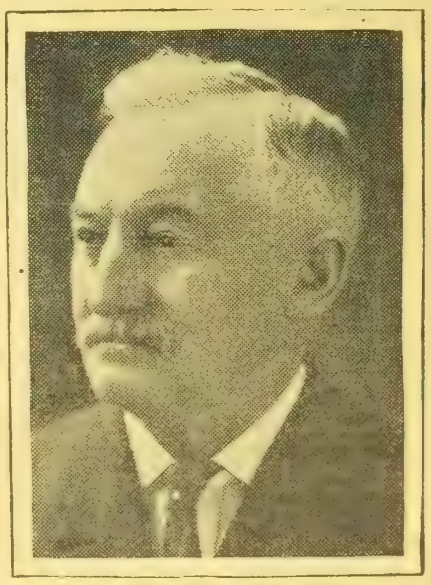
Co-operative Cheese Marketing.

How Sheboygan County Cheese Producers Organized and Added to Their Profits--Sixteen Factories Now Market in This Economical Manner.

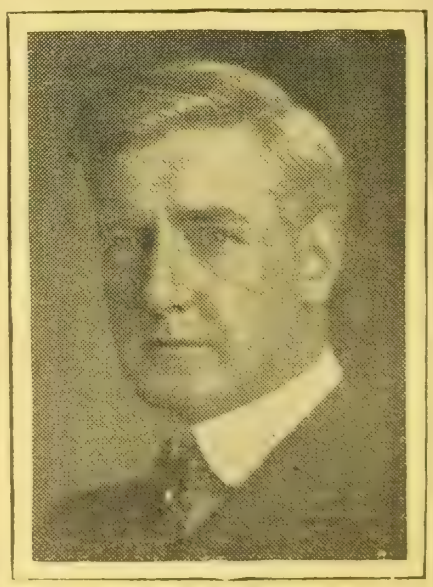
IN THESE days of soaring cheese prices many farmers who derive their principal income from the milk which they haul to Wisconsin factories to be made into cheese may lose sight of the benefits of co-operative marketing. The general tendency, when prices are good, is to let well enough alone—when poor to evolve some effective plan of marketing by which the farmer may secure the maximum price for his product and his labor.

WAREHOUSE AND COLD STORAGE PLANT OF THE SHEBOYGAN COUNTY CHEESE PRODUCERS' FEDERATION AT PLYMOUTH. COST ABOUT $25,000.

Although cheese prices are higher than ever before, all farmers are not sharing proportionately with the dealers in the increase in market prices. Where factories are offering their cheese, week by week, on the open market, the farmers are getting more for their milk than those who are patrons of factories that contract each spring for the summer "make." These contracts with dealers are made when prices are low and the entire situation revolves back to the need of co-operative marketing, such as has been worked out in Sheboygan county by the Sheboygan County Cheese Producers' Federation where the factories haul or ship their cheese each day and are paid according to the market quotations on that day. The federation then attends to the disposal of the cheese and its success during its three years of operation has earned for it the title, from the Wisconsin Board of Public Affairs, "a model of its kind."



MR. HENRY KRUMREY, President.



MR. R. B. MELVIN, Secretary-treasurer.

MR. J. B. McCREADY, Manager.

The Sheboygan county federation came into existence in the spring of 1912 as a protest against falling prices. Under the leadership of Mr. Henry Krumrey, a farmer of Plymouth, more than a thousand farmers were called together to devise some means to counteract the actions of the so-called "cheese trust." Mr. Krumrey declared that the dealers manipulated the Plymouth, Sheboygan, Appleton, Muscoda and Highlands boards in a way to stifle competition and force the farmer to take what he could get for his cheese. The rule then was to drop cheese prices to rock bottom in the spring when contracts were made for the summer output of the Wisconsin factories and then gradually increase them until the following spring when they would drop again. Mr. Krumrey figures that $400,000 went into the pockets of Plymouth dealers on the 1911 "make" in that county that should have gone to the farmers. He aroused farmers to action with the organization of this federation, now comprising forty-eight factories, or half the factories in Sheboygan county. Since then efforts have been made in other Wisconsin localities to organize such federations. These efforts will be renewed this winter and The Wisconsin Farmer has had so many requests concerning this organization that we are herewith presenting a story of its detailed organization and success since it began business in the city of Plymouth, April 1, 1914, with Mr. J. B. McCready as manager.

The plan, in brief, was to secure for the farmers who were patrons of the factories that belonged to the federation, the ruling market price for the cheese made from their milk. The system has worked well and these producers are no longer at the mercy of the cheese boards and there is no doubt but that the federation has broken to some extent, at least, the power once wielded by these boards. Mr. McCready, who left what has been termed the "cheese trust" to direct the destinies of this federation, told the writer that it was his honest opinion that cheese prices during 1915 would have averaged from 3 to 4 cents lower had it not been for this federation. Mr. McCready knows the inner workings of the board, as he says, "I once did my part in 'spiking' them." So the real services of this organization to the farmers of Wisconsin can only be surmised. To the members of the federation the service has been better prices for their cheese.

The federation is incorporated under the state laws with a capital stock of $500. The members are factories. The patrons of a factory meet, co-operate into a local association and vote to become a member. Though the leanings of the cheesemaker may be toward the dealers, he must ship to the federation. That was one obstacle the new organization had to overcome. It was to be expected the cheesemakers who had previously sold to dealers would be favorable to them. Under those conditions the farmer paid the cheesemaker 1¾ or 2 cents a pound for making; he sold the cheese and the farmer was paid accordingly. So far as the cheesemaker was concerned it mattered not to him whether prices were high or low—he got the same for making. This difficulty was soon overcome and a subsidary warehouse company was formed. It was necessary to store cheese; to operate a storage plant and about $25,000 was invested in this plant, a model of its kind. There are about 1,100 stockholders in the warehouse company and it guarantees 5 per cent dividends. In this way the federation handles the cheese, stores it, insures it and issues warehouse receipts which are good collateral at the banks. The cheesemaker still receives around 2 cents for making and then he ships to the federation all his product where it is paraffined, boxed and made ready for sale. Here the cheesemaker's duties end. The federation keeps check of the payments for milk and the farmers get their checks from the federation so that they can see at a glance that they are getting the maximum price.

There are many other advantages to the farmer, but none so important as the fact that he receives a price for his milk proportionate with the ruling market prices for the cheese and and he is not at the mercy of the cheese boards. There is also a saving in handling—the federation charging the factories an eight to a quarter of a cent against five-eighths by dealers.

The federation has sixteen factories which haul to it by wagon; the others ship by rail. Combining of cars absorb switching charges and reduce freight costs in car lots, as many factories are at the same stations and ship jointly. The charge for handling meets the running expenses and the cheese already sold but waiting shipment meets the 5 per cent dividend on the warehouse stock.

The federation is now completing its second complete year. During last year 7,558,796 pounds of cheese were handled for the factory members; cheese sales amounted to $1,132,867

and factories were paid $1,115,795. The undivided net income last year was $10,104 and the total operating cost $16,337. The operating expenses per 100 pounds of cheese handled was .0218.

Through this organization the farmer has the certainty that he is getting all for his product the market justifies. He does his own figuring, computes his own returns, keeps his own books and the books are always open for inspection. Such was not the case when the factory owner was doing this for him, regardless of his honesty and integrity.

News of the Sale Ring.

Washburn's Duroc Jersey Sale.

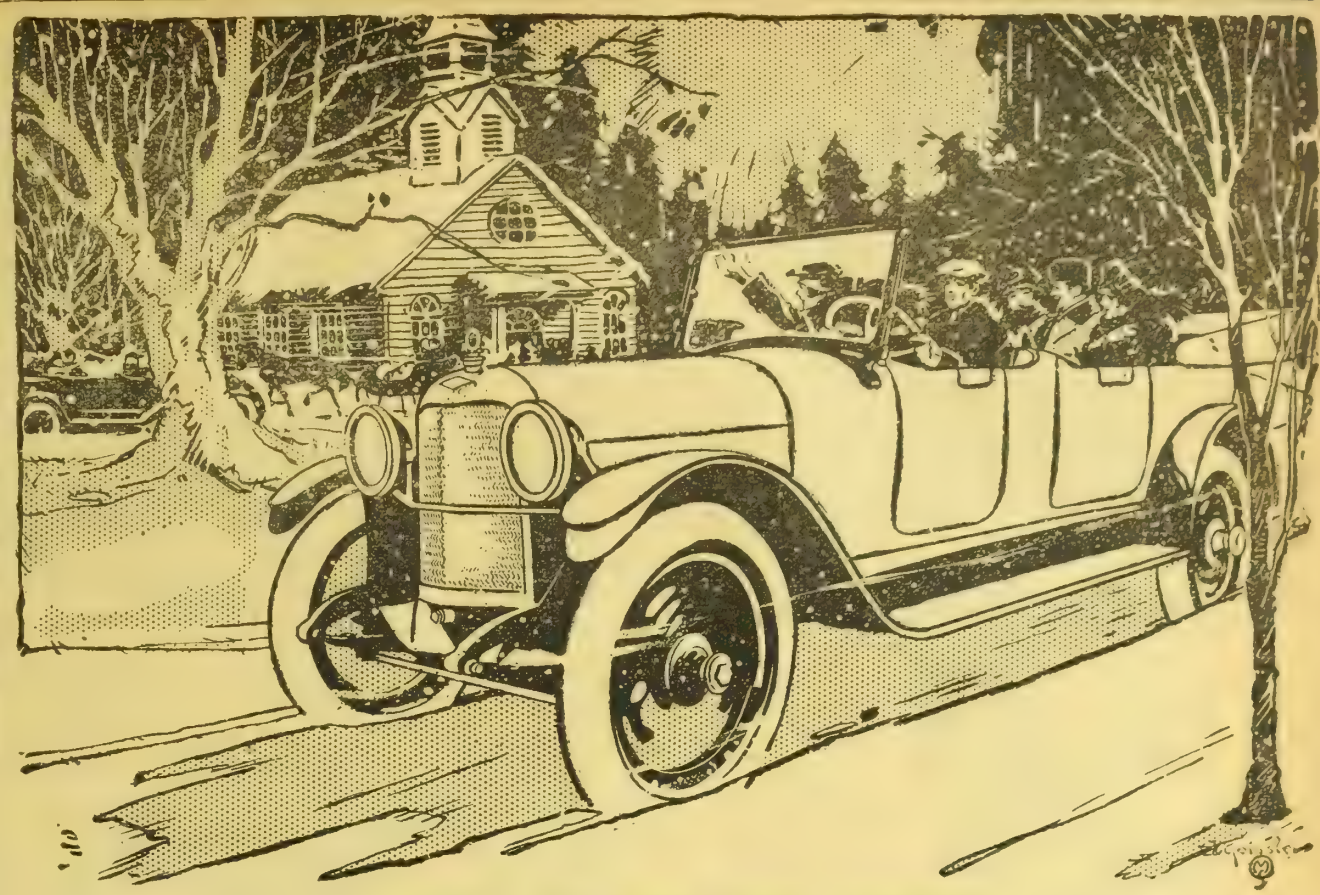
F. M. Washburn made a great sale of Duroc Jerseys at his farm near Lake Crystal, Minn. Breeders were present from several states to bid on sows bred to the great Chief Invincible. To show what the public think of this boar, we wish to say that thirty-two sows in the sale bred to him made an average of $124, while the average on the cataloged stuff was $109.90. The top of the sale was $375 for the Pathfinder yearling. She went to a buyer from South Dakota at that figure. It was a great sale in every respect and it demonstrated the fact that one cannot figure the value of a good sire by dollar and cents. Chief Invincible cost Mr. Washburn $1,000, he made that back in this one sale. We follow with a complete list. Col. H. S. Duncan officiated:

No. 1, Geo. A. Lee, Grand Forks, N. D., $375; 2, R. E. Steele, Fall City, Neb., $265; 3, C. P. Schultz, Mankato, Minn., $90; 4, Lester Flemming, Garden City, Minn., $80; 5, D. A. Williams, Lake Crystal, Minn., $85; 6, Lester Fleming, $135; 7, Lester Flemming, $110; 8, Manning & Desmond, St. James, Minn., $120; 9, W. E. Elliott, Amboy, Minn., $75; 10, H. E. Jones, Mankato, Minn., $67.50; 11, Crowley & Keyser, St. James, Minn., $100; 12, N. G. Burton, Storm Lake, Ia., $95; 13, Ernest Carlson, Washington, Ia., $75; 14, Geo. E. Brooks, Sparta, Wis., $90; 15, Fred M. Olson, Dover, Minn., $67.50; 16, F. Nicholson, Lynd, Minn., $175; 17, W. R. Winter, Wessington Spring, S. D., $115; 18, Lester Flemming, $102.50; 19, Geo. Pagel, Zumbrota, Minn., $120; 20, Fred M. Olson, $57.50; 21, Urbanside Farm, Waterloo, Iowa, $135; 22, R. W. Mein, Lake Crystal, Minn., $102.50; 23, Johnson Bros., Winnebago, Minn., $140; 24, Aug. Rethwill, Le Suere, Minn., $70; 25, C. E. Conklin, Garden City, Minn., $60; 26, C. E. Smith, Grafton, N. D., $195; 27, F. Fink, Albert Lea, Minn., $67.50; 28, Burk Bros., Welsh, Minn., $67.50; 29, John Swenson, Willmar, Minn., $67.50; 30, O. A. Farestad, Owatonna, Minn., $125; 31, R. J. Weiland, Canistota, Minn., $180; 32, Lester Flemming, $110; 33, O. C. Westphal, Gary, S. D., 34, O. C. Westphal, $85; 35, F. Christianson, Fairmont, Minn., $115; 36, Ogle Bros., Minnesota Lake, $87.50; 37, A. R. Crothers, Badger, S. D., $70; 38, E. Upgraff, Garden City, Minn. $62.50; 39, Keinholtz Bros., Amboy, Minn., $90; 40 Frank Truey, Amboy, Minn., $72.50; 41, Lester Flemming, $65; 42, M. E. Merfield & Son, Greene, Ia., $135; 43, Antone Johnson, Glenville, Minn. $87.50; 44, W. E. Elliot, $77.50; 45, Urbanside Farm, $165; 46, D. B. Smith, Mission Hill, S. D., $80; 47, Lester Flemming, $75. Summary: 47 head sold for $6,165.30; average, $109.90.

John Swenson's Duroc Sale.

The fourth sale of bred Duroc sows held by John Swenson, Willmar, Minn., was the "best ever." The day was ideal and the pavilion was crowded to overflowing by brother breeders that wanted to buy the blood of the great champions. It was a breeders' sale and the successful average of $71, show that the breeders appreciated Swenson's offering. The top of the sale was a two-year-old daughter of the champion, Big Wonder, a great sow, and s 'd to T. H. Hagen, of Minneapolis. Twenty-one head bred to the champion, E. J.'s Crimson Wonder, averaged $82. Geo. W. Pagel, Zumbrota, Minn., bought the second highest sow at $140. C. F. Johnson, North Branch, Minn., bought the top gilt at $105. The sale was a success from every angle and Mr. Swenson is to be congratulated on his ability to place such a high-class lot of sows before the public. His two grand champion boars and his son of Orion Cherry King made hits with the crowd. He certainly has three excellent herd boars. We follow with a list of those selling for $50 or over. Col. H. S. Duncan was on the block:

1, Mitchell Bros., Milbank, S. D., $107.50; 2, Manning & Desmond, St. James, Minn., $67.50; 3, P. J. Fosse, St. Cloud, Minn. $137.50; 4, Carl Berg, Clarkefield, Minn., $85; 5, Ben Bush, Morris, Minn., $60; 6, Olaf Gilbertson, Volin, S. D., $60; 7, John Rene, $100; 8, T. H. Hagan, Minneapolis, Minn., $200; 9, J. C. Murphy, Delano, Minn., $50; 10, Geo. V. Pagel, Zumbrota, Minn., $140; 11, L. P. Larson, Labolt, S. D., $80; 12, Art Anderson, Montivideo, Minn., $77.50; 13, Antone Johnson, Glenville, Minn., $102.50; 14, C. F. Johnson, North Branch, Minn., $105; 16, T. H. Hagen, $52.50; 17, T. H. Hagen, $100; 20, E. Reiter Altamont, S. D., $77.50; 21, John Traeger, Albany, Minn., $52.50; 22, Geo. Severeign, Milaca, Minn., $50; 23, J. M. Hosmer, Hitterdahle, Minn., $50; 26, Geo. Potter, Andover, S. D., $50; 28, J. C. Murphy, $50; 29, Freese Bros., Marshall, Minn., $60; 30, Volenze Bros., Browersville, Minn., $80; 32, P. J. Haley, Willmar Minn., $72.50; 33, A. Hoveland, Ortely, S. D., $72.50; 34, E. J. Hublon, Milbank, S. D., $52.50; 35, L. F. Atwater, Bangor, Wis., $62.50; 36, Dan Haley, Willmar, Minn., $52.50; 37, Manning & Desmond, $50; 38, J. J. Haley, $60; 39, J. A. Fey, Edgerton, Minn., $80; 40, P. J. Haley, $57.50; 41, J. A. Fey, $80; 42, J. M. Hosmer, $102.50; 43, A. Hublon, $97.50; 44, R. C. Slettea, Willmar, Minn., $55; 45, M. O. Vick, Clarkfield, Minn., $55; 46, P. J. Haley, $57.50; 47, Geo. D. Sprain & Sons, West Salem, Wis., $50; 48, Hilman & Traeber Albany, Minn., $65; 50, Ed Sommerville, Raymond, Minn., $50; 49, E .E. Ryder, Altamont, S. D., $52.50; 51, Joe Henderson, Cocato, Minn., $55; 52, P. J. Haley, $60; 53, Wendt & Painter, Canton, S. D., $105. 53 head brought $3,769.50; average, $71.12.



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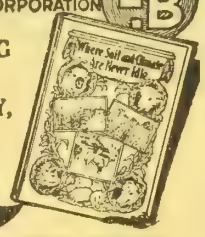

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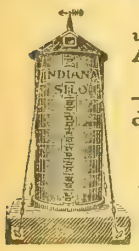

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Johnson Bros.' Duroc Sale.

Johnson Bros., of Winnebago, Minn., made their second sale of bred Duroc sows at their farm with the satisfactory result of getting $4,812.50 on forty-three head. There was not room in the barn for the crowd, and they were there to buy hogs. The top went to John Swenson, Willmar, Minn., who has been topping most of the good sales lately. She was a daughter of Chief's Col. 40th and sold for $215. Several of the best sows were bred late, which had a serious effect on the outcome of the sale. Fancy Victor, the great Iowa herd boar recently added to this good herd, made a wonderful impression on the visiting breeders. He and Royal King should make a wonderful combination. The boys sold some wonderful animals, and had some of the better sows been bred for early farrow the other breeders would have had a high mark to shoot at. Col. N. G. Kraschel did the selling in his usual satisfactory manner. We follow with a complete list of the cataloged stuff:

No. 1, E. Bloom, Briceton, Minn., $180; 2, John Swenson, Willmar, Minn., $215; 3, H. H. Gestie, Frost, Minn., $85; 4, R. J. Weiland, Canistota, S. D., $190; 5, Geo E. Brooks, Sparta, Wis., $115; 6, E. A. Erdahl, Frost, Minn., $112.50; 7, B. C. Marts, Hampton, Ia., $155; 8, Paulson Bros., Fulda, Minn., $127.50; 9, Robt. Steele, Fall City, Neb., $117.50; 10, Manning & Desmond, St. James, Minn., $87.50; 11, F. D. Weyhusch, Blue Earth, Minn., $77.50; 12, L. F. Atwater, Bangor, Wis., $150; 13, C. W. Holmes, Owatonna, Minn., $100; 14, Rhodie Bros., Elmore, Minn., $100; 15, E. F. Kahl, Germania, Ia., $130; 16, H. S. Tillitson, Brooten, Minn., $75; 18, Frend Hank, Blue Earth, Minn., $110; 19, W. E. Elliot, Amboy, Minn., $77.50; 20, H. Steinhour, Keister, Minn., $90; 21, H. H. Gestie, $85; 22, W. J. Crenan, $65; 23, E. Bloom, $105; 24, Fred Hanks, $130; 25, F. J. Werington, St. Ances, Ia., $127.50; 26, F. D. Weyhusch, $80; 27, A. G. Mereness, Windom, Minn., $100; 28, E. Bloom, $185; 29, L. F. Atwater, $125; 30, Prestegaard Bros., Owatonna, Minn., $152.50; 31 A. G. Mereness, $100; 32, R. E. Morrison, Owatonna, Minn., $82.50; 33, F. M. Washburn, Lake Crystal, Minn., $152.50; 34, Wm. Myers, Blue Earth, Minn., $105; 35, H. C. Loft, Winnebago, Minn., $77.50; 36, M. Trier, Keota, Ia., $80; 38, Riley Martiny & Son, Baraboo, Wis., $145; 39, F. Christianson, Fairmont, Minn., $155; 40, A. G. Mereness, $90; 41, F. W. Ritter, Winnebago, Minn., $92.50; 42, C. M. Olson, Blue Earth, Minn., $90; 43, C. E. Reynolds, Winnebago, Minn., $65; 44, T. Gus Torine, Swea City, Ia., $67.50; 45, Berg Bros., Welch, Minn., $60. Total, $4,812.50; forty-three head averaged $111.90.

With Our Advertisers.

Oak Lodge Holstein Sale.

THE dispersion sale of the Oak Lodge herd of Holsteins will be held at Elkhorn, Wis., January 30th. On that date thirty-eight cows and heifers and ten bulls will be sold. There are several cows in this herd that have made over 500 pounds of butter in six months and some of them have run over 900 pounds in one year. There are four daughters of the cow that made 936.64 pounds of butter in a year. The head of this herd, Beauty Walker Pietertje King, is a remarkably well-bred bull, as his seven nearest dams have an average of 28.72 pounds of butter in seven days. Catalogs for the sale are now ready and those who are interested in top-notch Holsteins should send for it and plan to attend. For catalogs write Harry D. Dunbar, Elkhorn, Wis., and please mention The Wisconsin Farmer when you write. See page 24.—Adv.

The Denver Short-horn Sale.

THERE will be 500 Short-horn bulls assembled at the Western Live Stock Show at Denver, January 20th-27th, affording an opportunity for ranchmen to make selections of their stock bulls. From the tops of this number will be selected sixty which will be offered at public sale at the sale pavilion on the show grounds, Friday, January 26th. These will represent the country's leading breeding herds and will enable breeders who are in quest of high-class sires to make their selections. The offering will be composed of strong, well-bred, well-marked, long yearlings and two year olds. The sale will be held under the auspices of the American Short-horn Breeders' Association and prospective buyers will be admitted free to the show on the day of the sale. This Short-horn auction is one of the features of the week. It will be remembered that the champion car lot at the Western Live Stock Show at Den er a year ago were Short-horns. There is a general inclination on the part of ranchmen to make use of Short-horn blood in order to maintain the size and quality of flesh. This sale offers the opportunity. See page 30.—Adv.

Watch For Grant County Advertisement Next Week.

THE Grant County Poland China Breeders will fire the first gun of the Southwestern Wisconsin Poland China circuit that starts February 13th, and we are glad to say that it will be some opening. When Dobson and Eastman, Frank Morehouse, Chas. Flesch and Frank Renalde offer the public the tops from their respective herds, you can rest assured that there will be "some show." These boys have the goods and if you will go to Lancaster on Tuesday, February 13th, your time and money will be well spent. They will show you spring gilts weighing right at 400 pounds and they are safe in pig to some of the best boars in the state. Breeders should attend this sale—this is a live association and it is for your own interest to attend. The following day E. W. Hendricks will sell forty head at Hazel Green, Wis. Good connection from the Lancaster sale. Notice the advertisement that appears next week in this publication.—Adv.

Buy the Good Ones.

NOTHING can be more convincing, that the good ones make money, than to follow a sale circuit and see how the buyers fight for the best. Most sale stuff is fed alike, yet some will sell for two and three times as much as others and it is generally because they come from better stock. The same conditions exist when you buy at private treaty—buy the good ones, it is so much cheaper in the long run. Just at this time J. D. McDonald is offering thirty-five gilts that he had reserved for his sale but since that has been called off they will be sold at private treaty. They are of March farrow and big. Their dams are the big brood sows that are the feature of the McDonald herd. Many of them are sired by Jim Crow and he is the sire of most of the gilts that Mac made the killing on at the fairs the past season. Some are by A Wonder 2d by A Wonder (Fes.) others by Crow's Progress a son of Great Progress the aged boar that recently sold for $700. There is one litter by Black Jumbo, one by Smooth Price and the lot has been bred to Jumbo's Giant in our estimation, the best boar pig shown at Minnesota last fall, purchased at that place by Mr. McDonald. The placing at Minnesota last fall in the pig classes were a joke and many thought this pig should have been first in class. Mc's Big Bone is a yearling that is good all over and if you could see him, you would want a sow bred to him. Several have been bred to Matchless Wonder, a boar good enough to win second at Iowa in 1915. McDonald has a wonderful lot of big, smooth Poland Chinas, the kind that are in demand and you will make no mistake in buying one or more at once. He also has fifty fall pigs if that is of interest to you. Four head from this herd have been consigned to the Madison sale—they are dandies. This herd will be nominated in the Poland China futurity and anyone buying a sow will be eligible to show the litter at Milwaukee next fall. Write J. D. McDonald, North Bend, Wis. and please mention The Wisconsin Farmer. See page 27.—Adv.

Farmers in Upper Wisconsin use their excellent forage to grow hogs.

Faultless Stump Puller

At a Special Low Price

The Faultless actually pulls from 50 to 100 percent more stumps at less cost of time and labor than any other stump puller. The cable winds onto the drum at the bottom all the time and the idle coils slide toward the top. This keeps the pull down and in a direct line with the anchor, and increases power. The machine cannot tip. Drum accommodates all of the cable, and it goes on only one layer deep. This prevents wear and relieves the strain on team and machine.

Machine and Cable are Guaranteed

against breakage for one year. Machines in use 15 years and longer are still in service.

Pull Stumps for 10 Days---Free

Clear from 10 to 50 acres. If not then satisfied that the Faultless Stump Puller will do more than we claim, return it to us at our expense.

The superiority of the Faultless is recognized by hundreds of farmers and railroads. It received highest awards at both the World's Fair at St. Louis and the Lewis & Clark Exposition at Portland in competitive demonstrations.

Write for special low price on our complete outfit, and our free book on clearing stump land.

Faultless Stump Puller Company, Dept. W, Cresco, Iowa.

Raise High Priced Wheat on Fertile Canadian Soil

Canada extends to you a hearty invitation to settle on her **FREE Homestead lands of 160 acres each** or secure some of the low priced lands in **Manitoba, Saskatchewan and Alberta.** This year **wheat is higher** but **Canadian land just as cheap,** so the opportunity is more attractive than ever. Canada wants you to help **feed the world** by tilling some of her fertile soil **—land similar to that** which during many years **has averaged 20 to 45 bushels of wheat to the acre.** Think of the **money you can make** with wheat around **$2 a bushel** and land so easy to get. Wonderful yields also of **Oats, Barley and Flax. Mixed farming** in Western Canada is **as profitable an industry as grain growing.**

The Government this year is asking farmers to put increased acreage into grain. Military service is not compulsory in Canada but there is a great demand for farm labor to replace the many young men who have volunteered for service. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

GEO. A. HALL,
123 2d St., Milwaukee, Wis.
Canadian Government Agent.

Send for 36 page illustrated Northern Minnesota Bulletin. Tells about the wonderful opportunity—literally millions of fertile acres of virgin cut-over land waiting for cultivation. Watered by thousands of lakes; unexcelled for dairying, cattle and hog-raising. Wonderful crops of corn and clover. And the cost is small. Upwards of $25 per acre on easy payments.

Write Now for FREE Bulletin

giving full information regarding money-making farms along the Great Northern Railway in Northern Minnesota. Actual facts and figures about how farms here double and treble in value. Write for booklet. Address

GREAT NORTHERN RAILWAY

E. C. LEEDY, Gen. Immigration Agt.
Dept. 198 Great Northern Railway, St. Paul

YOUR CHANCE IS IN CANADA—Rich lands and business opportunities offer you independence; Farm lands, $11 to $30 acre, irrigated lands, $35 to $50; Twenty years to pay; $2,000 loan on improvements, or ready made farms. Loan of live stock. Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock; Good markets, churches, schools, roads, telephones. Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allan Cameron, General Superintendent Land Branch, Canadian Pacific Ry., 82 Ninth-av., Calgary, Alberta.

WANTED Buyers who know a good thing when they see it. Ranches and farms for sale in the wheat and alfalfa growing valley of the Platte. Why pay high prices when better land can be purchased for less money?. Correspondence solicited and descriptions furnished. Address B. L. Neff, Lexington, Neb Office, First National Bank Building.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

Two Farms For Rent

HAVE two farms for rent. Will sell one to right party with small down payment on long time. M. A. Peoples, Ladysmith, Wis.

TEXAS school land for sale by the state at $2 per acre; 5c per acre cash and balance in 40 years, at 3 per cent. Write Investor Pub. Co., Dept. 53, San Antonio, Texas.

Waste Land Is Too Expensive.

Non-Producing Land Must Be Taken Into Consideration in Purchasing Value of Any Piece of Farm Property.

EVERY acre of non-producing tillable land should be put to work or sold, says a new publication of the United States Department of Agriculture, Farmers' Bulletin 745. Many farmers would make more money if their business were larger, but the size of a farm, from a financial standpoint, is measured not by the number of acres embraced in it but by the number that are producing crops, pasturing animals economically, or supporting a growth of marketable forest products. Non-productive acres are loafer acres, and the money tied up in them is dead capital.

On every farm, however, there are certain areas necessarily devoted to non-productive purposes. Fences, ditches, lanes and building lots produce nothing themselves, but they are frequently essential to production on the rest of the farm. Nevertheless, they may occupy in the aggregate a considerable percentage of the available land. It is a part of efficient farm management to see to it that this percentage is no higher than necessary.

In this connection some interesting figures are given by the bulletin already mentioned in regard to the amount of land occupied by fences of different kinds. It takes, for instance, only 209 rods of untrimmed hedge and only 214 rods of zigzag rail or worm fence to waste an acre of what might be productive land. For the same expenditure of land one can run 459 rods of woven wire and 473 rods of barbed wire. Other considerations, of course, may make it desirable to use the hedge or the worm fence, but the waste involved is a factor that should not be overlooked.

Similarly, farm lanes often may be eliminated by a simple rearrangement of fields; headlands, or turning spaces at the edges of fields, avoided; and the farmstead itself, the group of farm buildings with their lots and yards, the garden and the orchard, made compact. In the case of the farmstead, however, considerations of health and attractiveness may well justify a slight sacrifice of economy.

While a little planning often will result in the saving of much land now devoted to these unproductive uses, a more difficult problem is presented by waste land—land that is rendered untillable by swamps, ravines, rocks, slopes, etc., woodland that produces nothing salable, and pastures that are too poor to be profitable. Some areas are, of course, hopeless, and in that case they should be left out of the reckoning altogether. Before this is done, however, it will pay to look into the possibilities of profitable reclamation. Many untillable fields, for example, may be turned into productive pastures, or if they will not grow enough grass to make this economical they can be used for the production of timber. On the other hand, it frequently happens that woodlots which yield nothing but a little firewood for home consumption are permitted to occupy valuable land. In deciding whether such lots should be cleared and tilled the cost of clearing, the increased value of the cleared land, the interest on the investment, the salable value of the timber products, and the added expense for firewood which will follow the disappearance of the timber must all be taken into account. With unwooded areas, the advisability of bringing them under the plow may be determined by comparing the probable cost with the market price of good arable land in the neighborhood.

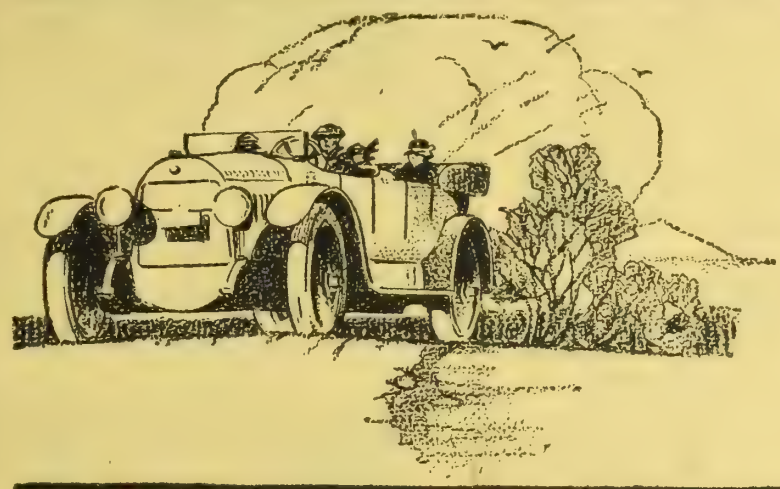
Obviously, the higher the price of laid rises the more incentive there is for the farmer to avoid waste in the utilization of it. It is significant, however, that the investigations of the department of agriculture have shown that. irrespective of the price, tenants put a greater part of their land to productive use than owners. The tenant pays rent for each acre and he cannot afford to have any of them idle. On the other hand, the man who has no rent to pay may be able to get along on the produce of only a part of his farm, and he is, therefore, more likely to overlook the potential value of the part he wastes. By so doing he is, of course, throwing away opportunities to make money, but this is not always appreciated by those who have not grasped the important fact that the average farm is too small for maximum efficiency and that in the majority of cases to increase the size of the farm business is to increase the profits from it. Those owners, however, who, realizing this, are operating leased land in addition to their own, are, like tenants, careful to see that they pay for no loafer acres.

To anyone who is buying or leasing land, then, the important question is not "How much am I paying an acre for this tract?" but "How much am I paying for the acres that are going to work for me?" In the new bulletin it is calculated that a farm of 100 acres selling at $100 an acre will cost the purchaser actually $111.11 an acre if 90 per cent of it is productive and $200 an acre if only 50 per cent of it is. As a matter of fact, the percentage of improved land in farms east of the Mississippi is only 59.5 and west of that river only 50.8. Improved land, however, it should be noted, is not always the same as productive land. A good timber lot, for example, is not improved, but it may be highly productive and farm buildings and fences stand on land that is improved, but producing nothing. In the final analysis it is the amount of productive land that determines the earning capacity of a farm and that should, therefore, determine its price.

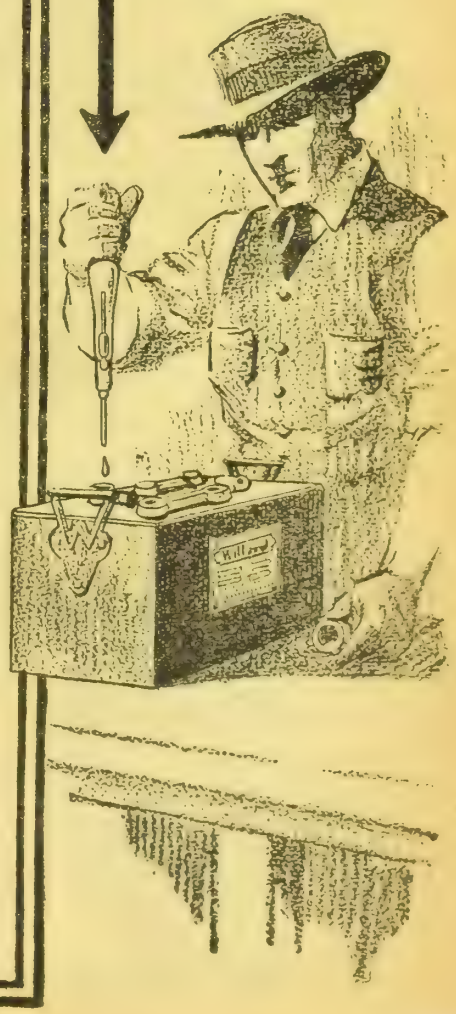
Money at 5 per cent for farmers throughout the United States is the ultimate aim of the federal government in the extension of rural credits under the National Farm Loan Act, James B. Morman, representing the federal loan board of the treasury department, told delegates to the fourth national conference on marketing and farm credits, in session in Chicago. Four per cent bonds, secured by the farm mortgage bearing 5 per cent interest will be the basis of the credit if the plan works out, he said. The extra 1 per cent, it was explained, is expected to meet the cost of operation. Dallas, Texas, banks, he said, already have offered to take $2,000,000 of the proposed bonds, which may be issued for the district including Texas. The proposed bonds, he added, would be issued in denominations ranging from $25 to $1,000.

A good, warm house must be provided for your fowls if you want to have success with them. You never saw a successful poultryman let his hens roost out in a tree or in the buggy shed. The henhouse should be warm, but well ventilated. Avoid drafts and all dampness, for these are fatal enemies of chickens.

Wisconsin has more dairy cows than any other state in the Union. Why not the same record for swine?



If You want to do THIS next Spring You'd better do THIS now



Batteries Need Care in Winter

Even if your car is laid up for the winter, the battery needs some attention.

It must be kept in a dry place—not too cold.

It must be kept filled with *pure* water, and tested regularly with a hydrometer to see that it is fully charged.

These and other valuable hints on battery care in winter are given in an interesting little booklet, H-1, "Will She Start In Cold Weather?" sent free on application to the Willard Storage Battery Company, Cleveland, Ohio.

If you need battery repairs ask your car dealer about the expert service given at over 850 Willard Service Stations. He can arrange for you to get this service.

And when you need a new battery—for even the best of batteries will wear out in time—remember that Willard quality has made it the choice of over four-fifths of all builders of electrically equipped cars.

WILLARD STORAGE BATTERY COMPANY
Cleveland, Ohio

Cars Carrying Willard Batteries as Regular Equipment

Abbott-Detroit
Allen
Am. La France
Am. Standard
Ames
Amplex
Anderson "Six-Forty-Six"
Anger
Apperson
Argo
Armleder
Atterbury
Auburn
Austin
Avery

Bartholomew
Bell
Blumberg
Brockville Atlas
Brookway
Bull Moose
Burford

Case
Chalmers
Chandler
Chevrolet
Coey Flyer
Colby
Coleman
Commerce
Consolidated
Crane
Crow
Cunningham
Cutting

Daniels
Dart
Davis
Day-Elder
Denby

DeDion-Bouton
Detroiter
Dile
Dixie Flyer
Dodge Bros. Motor Car
Dort
Drexel
Drummond
Eagle-Rotary
Elcar
Empire
Excelsior
Farmack
Federal
F. I. A. T.
Fisher
Fostoria Light Car
Franklin
Front Drive
F. W. D.
General L. C. E.
Gersix
Glide
Gramm
Gramm-Bernstein
Grant
Great Western
Halladay
Hanger
Harroun
Harwood-Barley
Haynes
Herff-Brooks
Hollier "Eight"
Houghton
Hupmobile

Imperial
Indiana
Inter-State
Jackson
Jones

Kelly
Kent
Kentucky
King
Kissel-Kar
Kline
Knox

Lane
Lexington
Liberty
Lippard-Stewart
Locomobile
Lozier
Luverne
Lyons Atlas

McFarlan Six
McLaughlin
Maccar
Madison
Marion
Marmon
Martin
Mason
Meteor
Metz
M. H. C.
Mitchell
Moline Knight
Monarch
Monitor 4-30, 6-40
Monroe
Moon
Murray

National
National Motor Truck (Canada)

Ogren
Old Hickory
Overland
Owen Magnetic

Packard
Paige
Patterson
Pathfinder
Peerless
Pennsy
Phianna
Pilgrim
Pratt
Premier

Reo
Republic
Richmond
Riddle
Roamer

S. G. V.
Sandow
Sayers Scoville
Scripps-Booth
Simplex
Singer
South Bend
Spaulding
Stafford
Standard
Stanley
Stearns
Stephens
Sterling
Studebaker
Stutz
Sun

Thomas

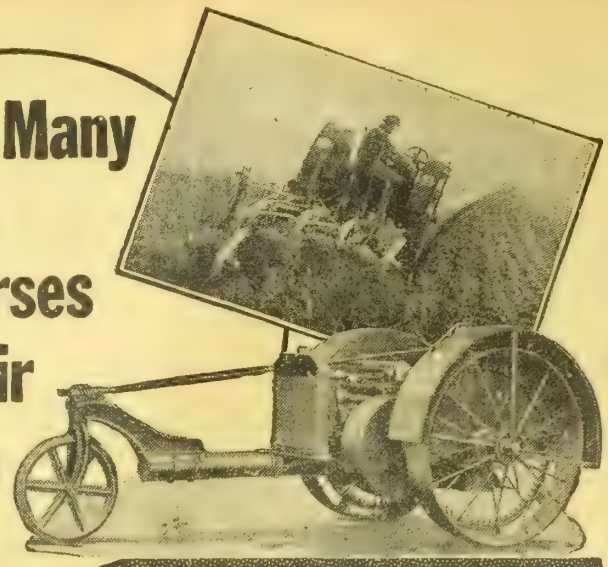
Union

Velie

Westcott
Willys-Knight
Winton

Zimmerman

How Many of Your Horses Earn Their Board?



IT takes *5 good acres* of your farm to support each horse. How many of them *earn their board?* Some horses are necessary, but a **La Crosse HAPPY FARMER Tractor** will replace from 6 to 8 horses on all field work—pulling two or three 14 in. plows, 7 in. deep; also for disking, drilling, and practically all work for which horse power is used. Sell your extra horses and use the land you have been donating to their support to produce more crops. Farm more acres for bigger profits with one or more

La Crosse HAPPY FARMER Tractors

Two Models—built with an unbeatable quality construction

Model "A" pulls two plows practically anywhere—weighs only 3,500 lbs. 88 per cent of this weight is on drive wheels. 1,500 lbs. guaranteed drawbar pull—16 h.p. on all belt work. Burns gasoline—or kerosene, with special attachment.

Model "B" is strictly a *Kerosene Burning Tractor.* Our own Twin-Cylinder Motor—Perfect Cooling System—Automatic Oiler—All gears steel cut and inclosed—every part easily accessible. One-piece unbreakable cast steel frame—Contracting clutch—*Hyatt roller bearings*—Universal hitch—Self-steering—Turns square corners, right or left. Write for catalog. **Live Dealer Agents Wanted.**

La Crosse Tractor Co. Dept. 17 **Minneapolis, Minn.**

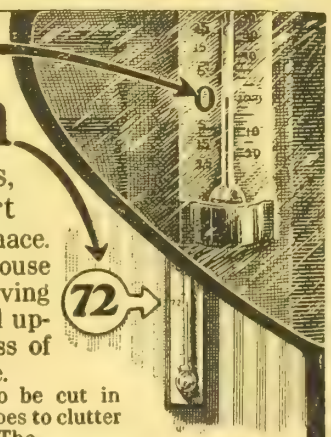
We have a Distributor in your vicinity for prompt service.

Model "A" 8-16 H.P. $585.00

Model "B" 12-24 H.P. $735.00

F. O. B. La Crosse, Wis.

Zero Outside Summer Within



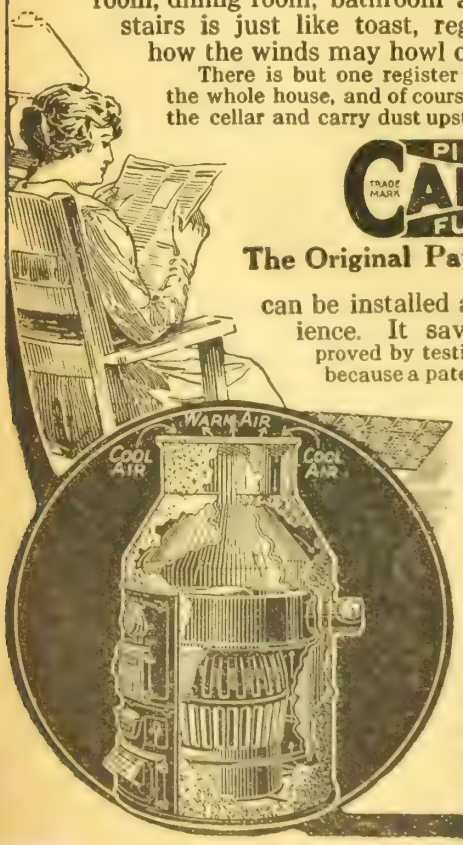
IN thousands of happy homes, people are living in solid comfort because they own a Caloric Pipeless Furnace. This is the furnace that warms a house through ***one register.*** Entrance hall, living room, dining room, bathroom and all upstairs is just like toast, regardless of how the winds may howl outside.

There is but one register hole to be cut in the whole house, and of course no pipes to clutter the cellar and carry dust upstairs. The

PIPELESS CALORIC FURNACE

The Original Patented Pipeless Furnace

can be installed at any time without inconvenience. It saves 35% of fuel (abundantly proved by testimony) because its heat is direct and because a patented triple casing, without which no pipeless furnace can be a success, prevents radiation in any direction except up through the register.



Mr. John E. Drach, New Windsor, Md., writes this: "Our house has ten large rooms and is on a high hill. Two rooms are exposed to the north winds but the furnace heats them just the same as the other rooms." Hundreds of people write such letters--we've a book of them. Suppose you write Mr. Drach yourself, sending him a self-addressed, stamped envelope, and get his testimony direct.

There's a Caloric dealer in your town--see him soon. If you don't know who he is, write us and we'll tell you.

Let us send you our free booklet containing our remarkable guarantee.

The Monitor Stove & Range Co.
2523 Gest St. Cincinnati, Ohio

WRITE OUR DISTRIBUTORS:
Morley-Murphy Hdwe. Co., Green Bay, Wis.

Work of the County "Ag." School

Some Important Facts Concerning the County Extension Work Handled By the Dunn County Agricultural School.

WHAT is the function of the county agricultural school? In what ways may it be of direct interest to the farmers of its county as well as the boys and girls who attend?

These are probably now as important questions facing this branch of Wisconsin agricultural education as when these schools were first established some years ago. There is no doubt but that these schools are doing good work, but the question often brought up by the taxpayers is whether they are worth the expense. Like all new things, it takes some time to work out the details. With the county agricultural schools it takes time to fit them into the educational system of the state. So most of these schools in Wisconsin, in addition to the schoolroom and school farm work, have reached beyond the schoolroom in order to be of more usefulness and are carrying the gospel of better farming and better breeding to the farmers themselves.

In extension work few of the schools do more work than the Dunn county school at Menomonie. This school performs many of the functions of the county agricultural representative in addition to supplying four-year agricultural and academic courses. This extension work gives the parents some direct benefit from the school and has succeeded in tying the school a little more to the community than could probably otherwise be done. So when a Dunn county farmer has a problem to solve he has only to get in touch with the school faculty. If his boy or his girl wish an education along these lines the school is there affording the opportunity.

Mr. Theodore Sexauer, principal, who has served three years in this school, believes strongly in extension work. He does not favor this at the expense of school work, but surely the school that can be of benefit to the parent is going to stand high in his estimation when his son or daughter gets ready for an education that will fit them primarily for life in the country. So Mr. Sexauer is doing much along this line and from an enrollment of ten when he took charge the school has grown to an enrollment of eighty-one last year.

During the past summer Dunn county, quite important in swine, had an epidemic of hog cholera. Did the school sit by and watch it ravage the herds? No, the faculty members went at the call of every farmer, examined his herds, ordered the serum needed and vaccinated hogs free of labor cost. For days these men were kept working almost night and day, but the

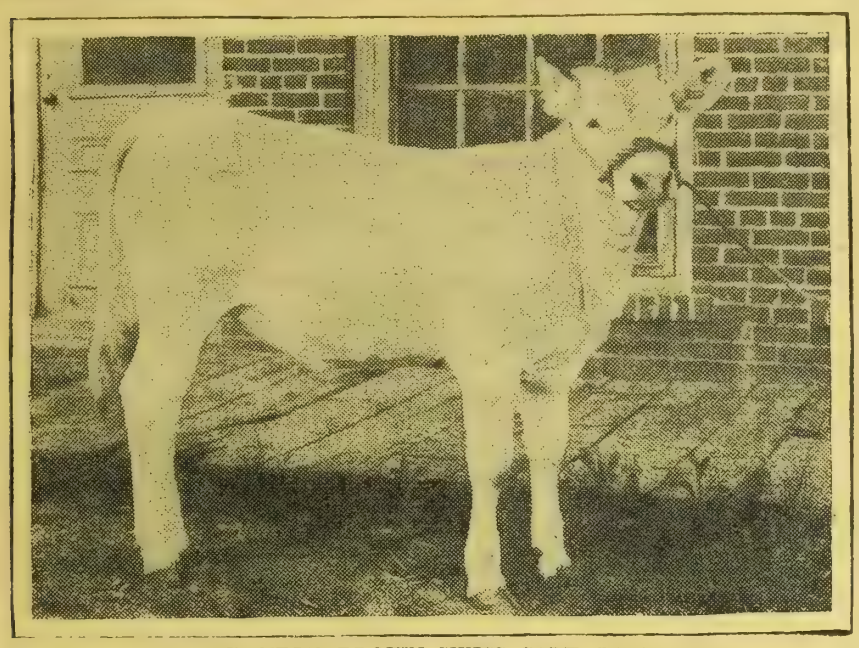
DUNN COUNTY AGRICULTURAL SCHOOL WORKERS CARRYING THE GOSPEL OF BETTER FARMING INTO THE RURAL COMMUNITIES.

MR. SEXAUER'S BROWN SWISS COW, THANKS, WITH A RECORD OF 429 POUNDS OF FAT.

DUNN COUNTY BOYS AND GIRLS DOING WORK IN FARM CROPS.

epidemic was checked. If there is blight in the potato fields the school men are ready to advise; ready to help do the actual work of spraying. And so it has been in all lines.

Last winter the school arranged for county institutes throughout the country. One tour took in the northern half of the county, one the southern half and with a big bobsled these extension workers carried the gospel of better farming and better dairying to every community center. The results were splendid. It is probable similar tours will be made this winter. In the summer months picnics are arranged so that the farmers may be brought together to hear good addresses. The purpose is to get the farmers to thinking about better methods, to interest the dairyman in cow testing and such matters.



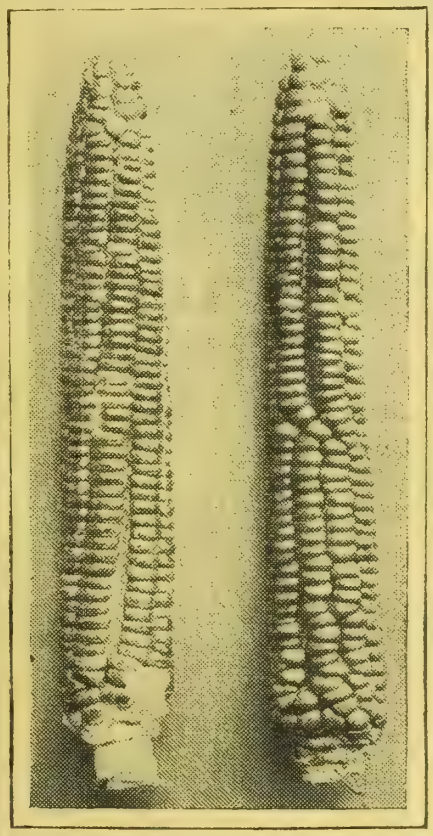
MR. SEXAUER'S BROWN SWISS CALF, WELCOME.

Unlike many of these schools the Dunn county school does not own its own farm. Experimental work to make practical the text-book work is carried on at the fair grounds and Mr. Sexauer owns a herd of eight dairy cows for the special benefit of the boys interested in this branch of farming. The course includes the usual studies in agriculture, grains, animal husbandry, etc. As an added attraction the school also maintains its own dormitories accommodating thirty boys and fifteen girls and the girls in the domestic science department can much of the food used there during the year. At the end of four years any boy or girl, with their credits, can enter any university or college.

A Success in Vilas County

To the Editor:—Just to show what we can do in Vilas county, I am sending you a small sample of corn from a ten-acre field that we raised this year. It was drilled in at sixteen inches and this corn shows the results Had we put it in hills we would have had at least eighty baskets to the acre. They say we are in the land of frosts, but we have a quick soil. This corn was planted on the 1st day of June and cut the 10th of September. We could have planted the 15th of May, as we had no frost after that date.

We have an abundance of vegetables all ripened; also small grain—



Corn raised in 1916 on A. E. Manning farm near Woodruff, Vilas county, Wis.

barley forty bushels per acre and oats thirty-three bushels, so you can see that Vilas county is not so slow. You must first remove the stumps to get this land, which means some hard work, but that you will find in all trades if you wish to succeed.

I am a steady reader of your most valuable paper and hope you will keep up the good work of showing the farmers what is in store for the ambitious young man if he cares to make a farm for himself. I have 240 acres with fifty acres all stumped and have been on the place four years. My sister, Mrs. E. A. DuBoice, and myself, after living there for over sixty years, sold our old homestead on Lake Butt des Morts in Winnebago county and are not sorry for making the change. I hope that others will see as we see things in this part of the state and locate on these cheap lands which cannot be beat in the state for farming.

Vilas Co., Wis. A. E. Manning.

THEY like Firestone Tires in New England. Where the successful tilling of the soil represents a constant struggle of scientific effort with unfavorable conditions, farmers appreciate the way Firestone methods hold out against road wear and tear.

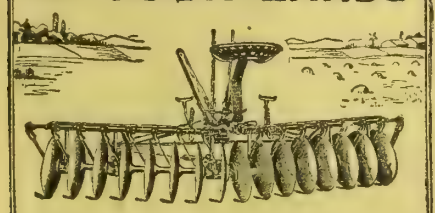
New England is not easily convinced, but once for Firestone always for Firestone as long as Firestone standards continue. Your dealer and the nearest Firestone Branch unite to give you service.

New book, "Mileage Talks" No. 17, sent free on request.

FIRESTONE TIRE AND RUBBER COMPANY
Akron, Ohio — Branches and Dealers Everywhere

Firestone

HOLD THE MOISTURE IN YOUR LANDS



No tool on the farm has greater value as a crop maker than a good disc harrow.

Discing before and after plowing is the only sure way to make a moisture holding seed bed.

Moline Economy Disc Harrow

Penetrates deeply, thoroughly pulverizes hard ground.

Sharp discs cut stalks and stubble, mixing them thoroughly with the soil.

Flexible gangs follow uneven ground.

Patent spring device absorbs end thrust between gangs, prevents bumping and friction—reduces draft.

Bearings dust proof; have hard oilers and oil soaked maple bushings.

The Economy is convertible into a Double Cut harrow. Does the work of two harrows at once.

Ask your Moline dealer about the Moline-Economy, or write us for illustrated literature.

THE MOLINE LINE
Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Loaders, Hay Rakes, Lime Sowers, Listers, Manure Spreaders, Mowers, Plows (chilled and steel), Reapers, Scales, Seeders, Stalk Cutters, Tractors, Farm Trucks, Vehicles, Wagons.

Moline Plow Co., Moline, Ill. Dept. 30

Get My New Concrete Mixer Offer

I want ten men in every county right now to accept my special co-operative offer. It will help you obtain a Sheldon Batch Mixer at little or no cost. Let me tell you about it.

You probably need a mixer for concreting on your place—most farmers do. The Sheldon is the ideal mixer for the farm. Light and easily portable, durable, low-priced. You'll find it will prove a mighty good investment. Write for special offer.

Sheldon Batch Mixers $11.50 Up

MAKE BIG MONEY Concreting In Your Section.

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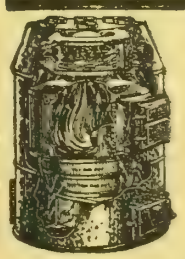

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High and Low Producers.

An impressive argument for good cows, good care and good feeding is very ably presented in a comparison of high and low producers which has been compiled from cow-testing association records in Wisconsin. The figures speak for themselves and we are giving them herewith:

HIGH PRODUCER.

9,182 pounds milk sold in 25 per cent cream 386.9 pounds of fat	$125.83
7,682 pounds skimmilk at 30 cents	23.05
Value of manure	19.90
Value of calf	15.00
Total receipts	$183.76
Cost of feed	$51.81
Depreciation	20.00
Interest on investment	7.50
Labor	20.00
Total expenses	$99.31
Net income	$84.45
Cost per 100 pounds milk	1.09
Cost per one pound fat	.257

POOR PRODUCER.

4,317 pounds milk sold in 20 per cent cream, 169.8 pounds fat	$55.40
3,467 pounds skim milk at 30 cents	10.40
Value of manure	12.15
Value of calf	2.00
Total receipts	$79.95
Cost of feed	$35.50
Depreciation	3.00
Interest	3.25
Labor	15.00
Total expenses	$56.75
Net income	$23.20
Cost per 100 pounds milk	1.31
Cost per one pound fat	.334

Although the dairymen with the good producer—a 386-pound cow, which is not without the reach of any man—spent considerably more for feed; his overhead charges were higher, etc.; he produced both milk and fat at a much less cost than the man who fed sparingly and had smaller overhead charges. This is an important subject for the dairyman. The cost of producing milk and fat is a big item—when this is accurately known, the market value of a quart of milk or a pound of butter fat can positively be ascertained. Too many farmers are content to know that the prices they receive are a little higher, paying no attention to the great item of cost of producing that product. For instance, in these two cases one farmer would be making money with fat at 30 cents a pound; the other would be losing. It is, therefore, important to keep down production costs, but this comparison shows that this is best done by keeping none but good producers and then feed and care for them well, so that they will have every incentive to remain good producers.

The dairyman who produced milk and fat at the lowest cost, it will be noted, spent $51.81 for feed against $35.50 for the poor producer. His profits from skim milk were also larger, as he skimmed a 25 per cent cream against 20 per cent for the other man and, therefore, kept more skim milk on the farm. Labor costs vary little, indicating that one cow demands almost as much as the other, while the difference in depreciation, due to age and interest, comes from a greater original investment. The entire comparison is a story of the best methods set alongside poor methods and a testimonial to good care, good feeding and the value of building up a herd of good producers, whether grade or pure bred.

Co-operation Among Dairymen.

Co-operation offers itself to dairymen as an ever present means of self help. Dairy co-operation is perennial in that it is with us every year. It is not perennial if we think of something that occurs only at stated seasons of the year. Co-operation is like some of the varieties of fruit of which some scientists dream. It is everbearing. It is unlike the fruit of the idealistic plant breeder because it actually exists and is a positive fact and its success is proven by instances without number.

Active practical co-operation is simple. It is teamwork applied with practical sense. Often it has an effect similar to that of hitching two horses to the load which enables the load to be moved without extraordinary effort, while were each horse to be hitched to the same load in turn it might be impossible to start it no matter how the good animals would struggle and strain. Teamwork has helped dairymen in hundreds of ways and by means too numerous to be listed here and it is not the purpose to do so.

All over our country are organizations of dairymen which have made a success of their effort from the start. Most readers are familiar with the work of some of those county or local clubs and know that their work is good. Each year sees them enlarging and taking on new enterprises. Each year sees the number of such clubs increasing and it sees new clubs everywhere. To the locality that feels that a club might advance the interests of its members there is nothing but encouragement. To the man who feels the call to start a movement to unite his fellow dairymen in some common cause for mutual benefit there is every reason to believe that he may be successful and that results of the future will justify his effort.

Dairymen and High Feed Prices.

This year is testing the nerve of dairymen. Prices of feed have risen to figures almost unheard of in the past. Farmers who have grown their feed are tempted to sell it for the cash that can be realized upon the market. Dairymen who make a practice of buying their grain are in doubt as to the advisability of spending the large amount of money necessary to procure the feed they have been using with a lavish hand. The interest in feeding problems this year is probably keener than ever before. This is a natural consequence of present high prices.

The man who has plenty of alfalfa or clover hay and silage this year is fortunate. With those feeds a satisfactory ration can be provided with a remarkable small amount of grain. Dairymen are thinking in terms of alfalfa and silage as never before. An extension worker in a state not far from Iowa has expressed himself as follows: "There never was such a good opportunity for us to talk alfalfa and silage with a hope of getting definite results." The high prices are no doubt temporary in the main. However, permanent good will result, because so many men will have been induced to grow alfalfa and to build silos. In a few years, when another period of high prices comes along, more men will be ready for it.

"Preparedness" seems to have been a slogan on many dairy farms as well as upon the political stump. Many dairymen scattered over the country have grain on hand which they purchased early in the season when prices began to soar. Bran, gluten feed

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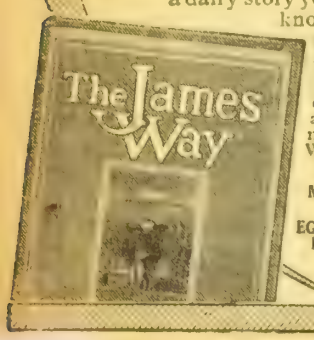


James Manufacturing Company
EG63 Cane Street
Fort Atkinson, Wisconsin
Elmira, N. Y.

brewer's grains, cottonseed meal, oil meal and other feeds were secured in abundance at moderate figures. While bins may not be bulging with these feeds, the man who purchased a supply of them early is very fortunate. They are using this feed wisely and are feeding it according to the very best standards of requirement in the production of milk.

It is a very common belief among successful dairymen that some grain or concentrated feed is necessary. A judicious amount fed to a good cow has invariably made excellent returns. In all states and in practically every locality are men who have tried to winter their cows without grain. Their trials have been unsatisfactory to themselves and they do not plan to repeat their experience this year. They will feed their grain very carefully. Such feed as they purchase will be upon the protein basis almost entirely. From their standpoint that feed will be cheapest which furnishes protein at the lowest price per pound. Of course, the matter of palatability will not be overlooked. Neither will it be forgotten that some feeds may have an injurious effect when fed in large quantities. This is not a year to forego the use of grain to dairy cows. It is rather a year to use them carefully and judiciously.

The Dairyman and His Veterinarian.

The dairyman must patronize the veterinarian. He must do more than that, he must literally go into partnership with him. This does not mean that he is to divide his income fifty-fifty with his veterinarian. It means simply that each must have the most supreme respect and confidence in each other. The dairyman must not presume to have a greater technical knowledge and whenever he calls a veterinarian proceed to tell him the name of the ailment and how best to treat it. That is nonsense. He may with good judgment tell the veterinarian a clear history of the case as a basis for forming judgment later. Then he should leave it to the veterinarian to form his opinion and to prescribe to the best of his knowledge. It is folly for a dairyman to try to play the parasite and to obtain free advise by asking in a direct or a roundabout way for suggestions concerning proper treatment or handling of a case. No veterinarian who possesses the attributes of a human will prescribe under such conditions. No real man, and dairymen are men of the four-square type, will try to obtain professional services without settling in a business-like way for them.

The veterinarian in whom the dairyman puts his trust is a stockman at heart. He will have learned from first hand hard work on the farm many things concerning the nature of cows that could not possibly be taught in any school save the school of experience. He will have a wholesome respect for the business of his dairyman patron. He will be qualified to discuss feeding and other problems of the dairy. He will seek to advance the interests of his patron and will help him to operate his business upon a basis of preventing disease rather than allowing the animals to become ill and then prescribing for them. He will be a graduate of a veterinary college. No dairyman can afford to employ any veterinarian who has not obtained a knowledge of all that is best in the way of modern practice. The idea of employing a country veterinarian on full time appeals to dairymen. A veterinarian employed for full time and given assurance that his pay will come regularly will devote his time almost exclusively to the prevention of disease and to helping dairymen to provide sanitary conditions. Large stock farms and large dairies employ a veterinarian on full time. The country veterinarian will be available at all times for public projects and will be able to help every dairyman directly or indirectly. The employment of a country veterinarian is a progressive forward movement and is certain to be adopted. Once it is tried out thoroughly there is every reason to believe that it will spread.

COW TESTING REPORT.

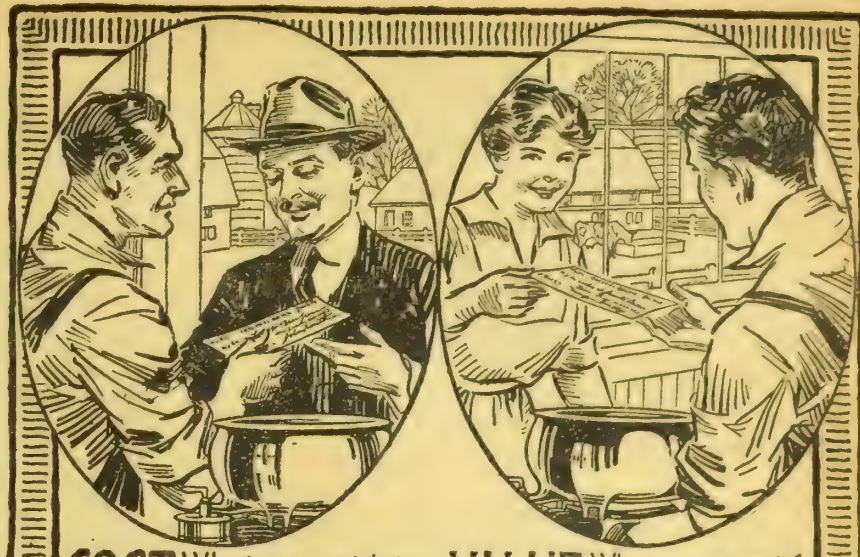
Cows Making Better Records.

To the Editor:—The number of cows producing forty pounds of butter fat or over for thirty-day period is increasing rapidly in our association. For the month of December we had forty. The following is the number of cows each month which have made this record or better: April, thirty-six; May, forty; June, eighty; July, twenty-five; August, seventeen; September, nine; October, twelve; November, twenty-one; December, forty. The highest average herd production was 40.6 pounds of fat during December. This record was made by the M. R. Pritchett herd. The highest producing cow was owned by J. L. Chapman, her record being seventy pounds of fat. This cow was two years and six months old and has had two calves. She freshened the first time at the age of eighteen months. In her first lactation period she produced a little more than 360 pounds of butter fat. L. W. Ash, of our association has a herd of twenty-five cows with an average test of 6.07 per cent fat. From his twenty-five cows 729.4 pounds of fat was produced in thirty days.

The following table gives the names and records of cows in our association which have produced more than forty-five pounds of butter fat during the thirty-day period ending January 3, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
H. R. Taylor					
Sis 2d, G. S. H.	6	9-8-16	993	4.3	46.7
M. R. Pritchett					
Pet G. G....	10	11-4-16	849	6.4	54.3
Blossom, G. G.	9	11-4-16	1005	5.0	50.2
Beauty, G. G.	5	11-23-16	1005	5.3	53.3
J. L. Chapman					
Johanna, G. H.	2	11-24-16	1893	3.7	70.0
Martha, G. H.	5	12-2-16	1800	3.5	63.0
Bird, G. H....	4	11-4-16	2016	3.4	68.5
Belle, R. H...	3	10-24-16	1500	3.9	58.5
Glen Batten					
Fanny, G. G..	9	10-31-16	1287	3.8	48.9
Wm. Fillbach					
No. 8, G. H...		11-15-16	1266	3.7	46.8
S. E. Batten					
No. 11, G. H..	11	10-30-16	1515	3.0	45.4
Frank Coit					
Ruby, G. H...	8	11-23-16	1230	3.9	48.0
J. E. Rundell					
No. 39, R. H...	6	11-22-16	1260	3.6	45.4
No. 51, G. G...	7	11-20-16	1395	3.3	46.0
F. D. Ash					
Spot, G .J....	3	10-10-16	810	6.0	48.6
H. A. Rundell					
Lillie, G. G...	6	10-17-16	978	5.3	51.8
Topsy, G. G...	4	11-17-16	975	5.6	54.6
Geo. Graham					
Lady Ella, G.G.	4	12-1-16	1014	4.5	45.6
Madam X., G.G.	3	12-4-16	1197	5.4	65.8
Wm. Lamb					
Bob, G. J.....	7	11-13-16	1065	5.2	55.4
Mildred, G. J..	5	10-30-16	1035	4.4	45.5
Annie, G. J....	4	12-14-16	1020	5.9	60.2
W. W. Wilcox					
Whitie, N. ...	7	11-27-16	1101	4.6	50.6
D. E. Flower					
Star, R. H. ...	4	12-25-16	1401	4.5	63.0
Lady, R. H...	4	12-14-16	1248	4.1	51.2

C. G. Carlson.
Official Tester River Falls and Roberts' Association.



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Kow-Kure is making thousands of new friends among the best dairymen every year, because it supplies this great need. It is a cow *medicine*, pure and simple—not a food. It has great curative and tonic powers that immediately act upon the digestive and genital organs and enable the cow to thrive on her natural food. Kow-Kure has back of it twenty years of success in making backward cows profitable and in the prevention and cure of Abortion, Barrenness, Retained Afterbirth, Milk Fever, Scouring, Lost Appetite, Bunches and other common ills.

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Pail always clean and right side up. Soon Saves Cost. Check for $1.75 brings stool by parcel post, or two stools for $3.00.

KEITH & KENNETH
Iowa Falls, Ia.

HORTICULTURE

Protect Young Trees.

A valued subscriber of this paper has an orchard of young trees near a piece of woodland and is a little nervous over the rabbit danger. We do not wonder at that, for the rabbit danger is real. As soon as the tender growths of summer, succulent plants and grasses are frost killed or snow covered bunny looks about for the next best thing to add to his bill of fare.

The bark of the young fruit tree is tender, tasty and easily reached, no matter how deep the snow, and when rabbits are plentiful and the season severe whole orchards of hundreds of trees are practically ruined.

As a rule, there is not much danger until snow comes, for the little beasts are only driven to the bark diet as a last resort.

Methods of protection divide into two general classes—washes and covers. Washes may be of blood or of various chemical mixtures. Some men take the liver or lungs of a freshly killed animal and rub it up and down on the tree. The smell of the blood and fresh meat is very offensive to the vegetarian enemy.

A mixture of slaked lime, sulphur and a little asafoetida is sometimes used with good results.

It is creditable to the good taste of Mr. Rabbit that he will starve to death rather than come near such a smell. This can be mixed up in a pail and applied with a paint brush and it is quite a speedy job. It remains in place very well, but in case of heavy, washing rains may need to be replaced during the winter. Perhaps the more common method of protection is by wrapping or covering and for this a great variety of materials is used. Perhaps the cheapest and handiest material is the common newspaper. One of the present-day Sunday dailies, will wrap a half dozen trees. And this is perhaps the best use it can be put to. Wrap two or three thicknesses around the tree. Tie at top, bottom and middle. Be sure that it comes close to the ground so that no injury can be done below it, and, if in doubt, mound up a little earth over the bottom of paper. Let it come up clear to the limbs. Another cheap protector is the cornstalk. Stand them up close about the tree and tie in place. If put on carefully they will do the business effectually.

If you want something more tony than these cheap materials the woven wire window screen makes an excellent protection and it has one advantage over all other wrappings. If put on loosely it need not be removed in summer. And it will last until rust weakens it so that bunny can poke his nose through.

One of the most commonly used protectors is the wooden veneer. This is put up and sold in large quantities and is not very expensive. It has to be tied and, like the cornstalks, should be removed in spring. Old cloths may be used, and one pair of overalls will be enough to wrap two trees.

Another device is to use twisted hay ropes, or long slough grass may be used precisely as cornstalks are.

Almost any man of ordinary originality can think of some method not commonly practiced which will do the work of keeping bunny's sharp teeth away.

Some of these methods should be tried where there is danger. Every fruit tree well set and cared for for two or three years is worth $5 and that is too much to lose for the lack of 10 cents' worth of time and materials.

The Care of Apples in Winter.

There are all kinds of apples, and even with long-keeping varieties you may set it down as a fact that you cannot keep them unless they are good and sound specimens. Fruit that is wormy or that has been bruised is already on the road to decay and you cannot stop it. All the imperfect fruit, the culls, should be disposed of early in the season. But if you must depend upon that grade of apples for your home supply there are just two courses open to you. You can the stuff or dry it.

The keeping quality of winter apples depends in a large measure upon the season and occasionally those which have the highest reputation will disappoint you. Of course, much depends upon how you try to keep them and something upon where they were grown, but we have known the reliable Ben Davis to be two-thirds rotten before Christmas. And that, of course, is outrageous.

But suppose you have a supply of good, sound apples, and of winter varieties, the problem is how to store them so that they may still be sound when March arrives. Temperature and moisture are two of the conditions which you must first consider. The air must be cool and moist. A dry atmosphere will cause them to shrivel and wilt and a warm one will produce rot. The ideal room would be a dark one with a stream of water running through it and a constant temperature of 35 to 40 degrees. But as the ideal is rarely attainable we must be satisfied to approach it as nearly as possible.

The temperature may be controlled fairly well by ventilation. Have a thermometer in your cellar and windows on opposite sides which you can easily open and close at pleasure. These should be opened each day long enough to secure the required coolness in the cellar. One must use judgment in this matter, for sometimes the outside air is too warm and the windows should be kept closed to keep it out. Moisture may be secured by keeping water in cellar in open vessels. A big washtub half full will give enough evaporation.

Spread out upon shelves so that ventilation is insured. Wrapping each apple in soft paper is a help. In all this moving of fruit it is of prime importance to handle carefully. Handle apples just as you would eggs, for just as sure as breaking the shell ruins the egg so bruising the skin spoils the apple. Rot develops a little slower in the apple, but it comes surely. The great numbers of people who buy apples by the barrel begin by sorting over the fruit and using up the spotted specimens first, the good fruit being put back in barrel more or less hastily. A week or two later another sorting is

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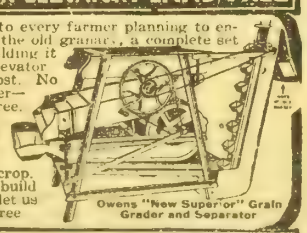

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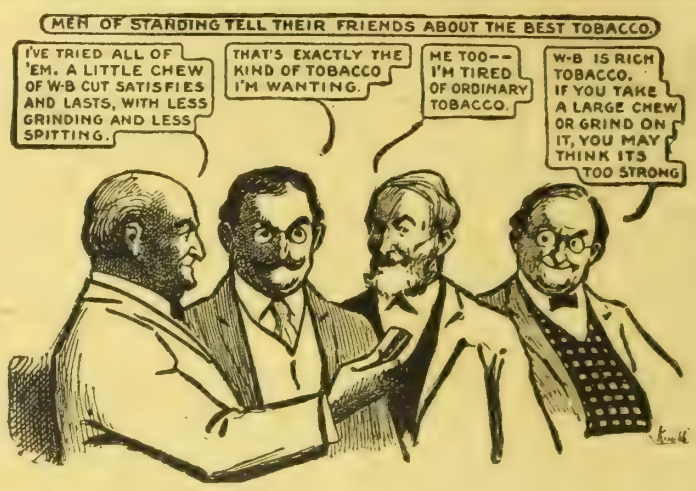

WHEN you gentlemen get together at your lodge meetings, somebody is pretty sure to start the little pouch of W-B CUT up the line for his brothers. It's conducive to brotherly feeling. There is gratitude for the *rich* tobacco that makes a *little* nibble go so *far* and for the touch of salt that brings out the *tobacco satisfaction* without so much jaw work.

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Increase your profits by using our potato planter. Opens furrow, drops seed any distance or depth, covers, marks for next row—all automatically. Puts on fertilizer if desired. One man operates and sees seed drop. Made of steel and malleable iron, assuring long service and few repairs.

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tell how you can increase your farm profits and build up your farm through more profitable farming methods, including the use of fertilizers. Crops, soils, seeds, lime, cultural methods, harvesting, marketing, drainage, cover crops, farm manures, rotations, etc., are among subjects discussed.

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A four-cylinder, 2-speed, light-weight tractor of great power, suitable for any size farm. Will pull the implements you now have on your farm—gang plows, harrows, mowers, binders, manure spreaders, road drags or graders. Will also operate your ensilage cutter, feed grinder, circular saw, etc. Does more work than horses—costs less and is so simple anyone can run it.

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YOU can bank on big, full, bountiful yields under normal conditions when you plant Currie's "Sure-Yield" Seeds. Fresh and pure. Backed by 42 years of successful seed production. Your purchase insured by our Money-Back Trial Test. Write at once for special free offer.

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Contains much valuable information—over 300 illustrations—lists farm, vegetable, flower seeds of every good variety, also plants, bulbs, etc. A postal brings it—free

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ALFALFA SEED ALSO Red Clover, Sweet Clover, Alsike, Timothy, Brome Grass, Blue Grass, Cane, Millet, Kaffir Corn, etc., etc. At Campbell's Seed House, Dept. C, Seward, Nebraska.

made and the bad ones taken out for immediate use. In this way the family continues eating the rotten apples all winter. A better way would be after the first sorting is made, not to put the fruit back in the barrel. Wrap each good apple in paper and put upon shelves and not one on top of another. By doing this there will be less rot and you will be privileged to use some good apples.

Scarcity of Vegetables.

A marked condition of the markets last fall was the great scarcity and consequent high price of garden vegetables. Cabbage, celery, onions, beets, carrots and parsnips have been considered staple products and there has been enough produced in past years—even in corn and hog sections—to supply local demands. But 1916 was the exception to the rule. The farmers who have these supplementary table products in store are very rare. And those who make market gardening a business had such short crops that they are entirely unable to supply customers. As a consequence retailers are calling upon the city markets to furnish the vegetables for use not only in the towns of the prairie states but for the farmers as well.

The natural result of this condition of trade is the highest prices ever known. With cabbage and onions selling at high prices, cultivators of the soil may well be asking themselves what can be done to prevent such scarcity in future. The reason given for the short crops is the unfavorable season. There was too much heat and a lack of rain at the time when rain was most sorely needed. But back of this was another reason which should be considered in the same connection.

The vegetables listed above are usually so easily grown that there is but little profit in their culture. In fact, it very often happens that cabbage and root crops are overproduced and sold at a loss. This fact leads to caution in growing them, in many cases to total abandonment. We may say that the markets are now bare because the limited space given to truck crops could not, in an unfavorable season, produce the required amount.

It should be understood that these crops were not a total failure, but in nearly all cases the yield was far below the average. Bear in mind that the shortage of vegetables disturbs the balance of the food markets. It leads to a greater consumption of the staples and that causes higher prices of flour and meats, where the prices are already too high. In fact, the continued failure of the vegetable crop (counting potatoes in the list) might develop such a weakness in our food supply system, with continued light crops of cereals, as to bring upon the country actual famine. We are near enough to it now and the character of the crop season of 1917, whether it is to be good or bad, will be watched with no little anxiety.

It is important that enough vegetables be produced to supply all demands, and farmers will grow them if they can be assured of an outlet for any likely surplus. If farmers would get in the way of using cabbage and root crops for feed to stock they would have an outlet for any surplus. On suitable and well-prepared land the yield is enormous and milk cows relish such an addition to their usual rations. Much might be said upon the point of proper soil. If it is rich, well drained and deeply plowed there will be no failure even in such seasons as the one just passed.

What we need to prevent another shortage of vegetables is more attention to their culture. Let farmers include these crops in their regular rotation. And let all who undertake the growing of vegetables give more thought and more time to the thorough preparation of the soil. This is the secret of success. If this is mastered there will be enormous crops in good years and half crops even in the seasons best represented by Pharaoh's lean kine.

Foodstuffs continue to leave American ports for Europe in vast quantities. Figures published by the bureau of foreign and domestic commerce show that, in the first eleven months of this year, they reached a value of about $670,000,000, or at the rate of more than $60,000,000 a month. Breadstuffs lead in value of foods sold abroad. In the eleven months they reached a total of $404,000,000. Meat and dairy products amounted to $245,000,000. Shipments of cattle, hogs and sheep fell off in the year.

Meat should be supplied to the hen during the winter, but if this is impossible skimmed milk makes a good substitute. Even when meat is fed milk should be given occasionally. It will do no harm.

Good, pure drinking water and plenty of it is just what the chickens need. Eggs are 75 per cent water, so the hens must have it.

Dependable Clover Seed

FOR a third of a century we have been specializing in Clover and constantly working to bring better seed within the reach of everyone. Steadily increasing sales prove that our Clover Seed is dependable and profitable to sow. It can be obtained from any of our 15,000 dealers.

You can identify this seed by the brands indicated below. Behind these brands are 33 years' experience in seed selection, recleaning and testing. Every bag of Clover Seed we send out is tagged, showing its purity and germination.

Can you afford to purchase unidentified seed of unknown quality when you can obtain standardized, tested seed under these brands?

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STERLING BRAND — TRADE MARK
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The World's Best Evergreens—thousands of my customers will tell you so. FOUR times root-pruned and transplanted trees that will grow right from start. Hardy—vigorous—healthy—every tree perfect. Sold under my "Safety First" plan—contract-guarantee backed up by $25,000 Bond makes you SAFE.

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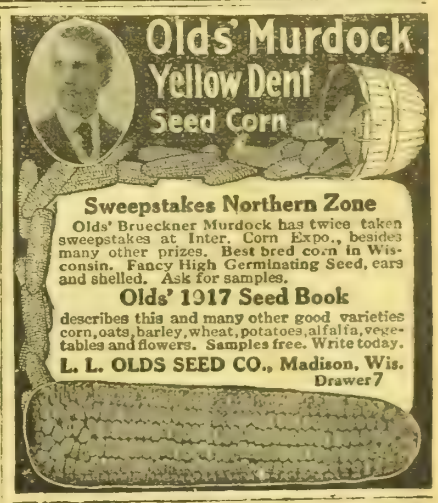

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Olds' Brueckner Murdock has twice taken sweepstakes at Inter. Corn Expo., besides many other prizes. Best bred corn in Wisconsin. Fancy High Germinating Seed, ears and shelled. Ask for samples.

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describes this and many other good varieties corn, oats, barley, wheat, potatoes, alfalfa, vegetables and flowers. Samples free. Write today.

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SEEDS Platte Valley Peerless—the Best Seeds Grown

I want you to have that kind. For 3c, to cover postage, I'll send you a packet of Western Giant Pansy, 10 sorts Spencer Sweet Peas and catalog. Write today. A. C. ANDERSON, Box 5, Columbus, Neb.

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Our oldest Old Trusties are now 13 years old and still in use. For example figure Old Trusty at $10. Thirteen years' use would be about 77c per year and if four hatches per season were made, each hatch would cost about 19¼c per hatch. That makes a pretty **low cost for big hatches** in

H. H. Johnson "The Incubator Man"

Old Trusty

And big hatches are easier than ever with the new conveniences in Old Trusty. Note the handy thermometer holder and the big oil drawer that is instantly removed but doesn't have to be removed to fill, nor is it used as a leg brace. Saves time and work. Quick shipment from factory at Clay Center, Neb. or warehouses in St. Joseph, Mo. or Seattle, Wash. **We pay the freight and guarantee safe arrival.**

Book Free

$9.60 Buys our Old Trusty "Special" with redwood case, freight paid east of Rockies. A trifle more farther west. Write today.

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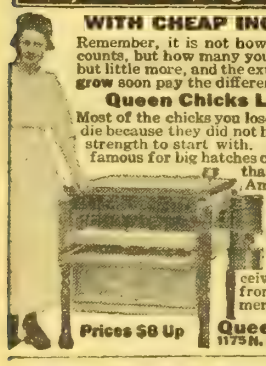
Stop Hatching Weak Chicks

WITH CHEAP INCUBATORS

Remember, it is not how many you hatch that counts, but how many you raise. A Queen costs but little more, and the extra chicks that **live and grow** soon pay the difference.

Queen Chicks Live and Grow

Most of the chicks you lose in the first two weeks die because they did not have proper vitality or strength to start with. Queen Incubators are famous for big hatches of strong healthy chicks that live and grow. The American Poultry Journal wrote us: "During the many years you have been advertising Queen Incubators in our paper we have not, to the best of our recollection, received a single complaint from one of your customers." Catalog free



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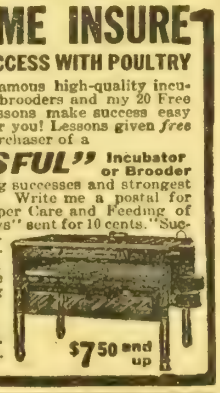
My world-famous high-quality incubators and brooders and my 20 Free Poultry Lessons make success easy and sure for you! Lessons given *free* to every purchaser of a

"SUCCESSFUL" Incubator or Brooder

Backed by 22 years of big successes and strongest guaranty ever written. Write me a postal for book and prices. "Proper Care and Feeding of Chicks, Ducks and Turkeys" sent for 10 cents. "Successful" Grain Sprouters furnish green food—make hens lay in winter. Ask about my high-grade poultry—all leading varieties.



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Ironclad TRADE MARK WINS In 2 Biggest HATCHING CONTESTS Ever Held

Mrs. C. F. Merrick, Lockney, Tex., with her Ironclad Incubator wins in the Mo. Valley Farmer and Nebr. Farm Journal Big Hatching Contest. She placed 148 eggs in the incubator and hatched 148 strong chicks. Think of that. You can now get these famous **winners, made of Calif. Redwood.**

150 Egg Incubator } BOTH FOR $11.00
Chick Brooder }

If ordered together. 30 days trial, 10-year Guarantee. Order direct from this advertisement—money back if not satisfactory. Incubator is covered with galvanized iron, triple walls, copper tank, nursery egg tester. Set up ready to run. The Brooder is roomy and well made. Send for free catalogue.

Freight Paid East of Rockies

Made of Redwood covered with galvanized iron.

150 Chick Brooder

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62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 28 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 607, Mankato, Minn.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Selecting the Incubator.

A great deal of serious study has been given to the matter of incubation during the past few years, and a distinct advance has been made in methods, because of the better understanding of what is really required to produce a good hatch. The beginner, when selecting a machine, will do well to consider carefully the reports of actual operators of the incubators, to call upon neighboring poultry farms and get the testimony at first hand. Nowadays the choice of an incubator is not nearly so serious a matter as it was a number of years ago. There are quite a number of good ones, any one of which will yield good results if the directions are followed.

The size of the machine will depend upon the amount of hatching you intend to do. In small machines you get incubators that will hatch well that will cost very little, and if you want the very best you can get a machine well built, finely finished and fully guaranteed at a very reasonable price. An incubator with a capacity of fifty eggs is better than no incubator at all. It is wiser to get one of twice or three times the capacity. If larger things are contemplated, larger machines should be bought. It takes little more time and expense to run a machine of 150-egg capacity than to run a machine of one-third the size.

Send for the catalogs of the different incubator companies. Study the matter with much care, and pick out the machine as to size and kind that will best suit your purposes. Send for it promptly, study the directions most carefully and follow them to the letter. Take nothing for granted. Ability to follow instructions is a sign of a trained and acute mind.

The prospective purchaser of an incubator is, if without experience, greatly perplexed by the claims made for various types of machines. There are two general classes of incubators—hot air and hot water heat—each class having machines of the moisture and the nonmoisture type. The hot air heated machines are those in which fresh air is taken in at the lamp, over a metal radiator above the eggs, then over the eggs and out through variously arranged outlets. In some hot-air machines the heated air only passes over the radiator above the eggs, never entering the egg chamber.

The hot-water machines are heated by tanks or pipes above the egg trays in which water heated by the lamp circulates. Incubators of the radiator type, either hot air or hot water, obtain ventilation through special openings; the ventilation machines in which the heated air enters the egg chamber is through this heated current of air.

The question of whether a machine using moisture is better than one of the nonmoisture type is one that the buyer must decide; there are in use as many of one as of the other, and they give equally good results.

The questions of moisture and heating are really matters for personal solution. Experience has shown that incubators built to use moisture pans do not give good results when the pans are not used. Nor are nonmoisture machines improved by the use of moisture pans.

Aside from the instructions furnished with every incubator, a few things need to be specially emphasized. The machine should be looked after with strict regularity. It is not a hen that may be left a few days at a time. It is a machine that is dependent absolutely on your intelligence and your constant care. The lamp should be cleaned and filled and trimmed every day. The trimming of the lamp is of great importance. An old, charred wick in a dirty half-filled lamp is in great danger of spoiling the eggs.

The adjustment of the thermostat now and then is of vital importance.

The temperature is everything to the developing germs. It must be kept at an average of about 103 degrees or disappointment will be certain to follow. Of course, enough can be learned from the printed instructions concerning the turning and testing of the eggs.

Testing Parent Stock For White Diarrhea.

A successful poultryman, who ships eggs for hatching as well as supplying baby chicks, understands the importance of keeping untainted flocks. By attending the short course at the agricultural colleges he learned that white diarrhea may be transmitted to the offspring through the eggs from infected hens. At a cost of 5 cents each this enterprising poultryman has his flock tested by the state authorities and rejects all hens that are not up to requirements.

The test is made by an operator who brings as many sterile tubes as there are birds to be tested. These tubes are numbered to correspond with the legbands worn by the different birds. The bird is firmly held, a few feathers pulled from the under side of the wing between the second and third joints. With a sharp sterilized instrument, an incision is made, causing the blood to flow into the tube. A slight pressure on the wound and the blood almost immediately stops and soon clots over.

As soon as the report from the laboratory is complete all undesirables are culled out with the result that the disease has never got started. Now, this is science, and what have we but just common sense and that is all.

Improving the Farm Flock

It frequently happens that a man and his wife are not in perfect harmony on the poultry question. The wife whose work is with the chickens is interested in having a flock of which she may be proud, a uniform flock a little better than her neighbor's. The husband may object on the ground that he has no money to put into pure-bred poultry. He may even tell how his mother paid the grocery bill and clothed the family with a flock not as good as theirs.

To begin with, cull the flock carefully. Look at the rear of the bird first for signs of straining about the vent and bagging down, as with overfat, and reject all such birds, also any that have crooked breast bones. Choose birds with long breast bones. Along the keel is where the best meat lies. Examine the head also. Choose the birds with bright, round, alert eyes, the quick-moving ones, those that are always first at the feed hopper. Reject long-beaked, snake-headed birds, the ones with the dull eyes and those that sit on the roosts through the day.

When the flock has been culled as here suggested cull again, choosing six or eight of the best specimens of a uniform type for a breeding pen. Take the best of the old male birds and the same general type to mate with the hens and sell all the other males.

A breeding pen necessitates a separate run and house, but the house may be a large dry goods box. If a run is absolutely out of the question for lack of means to enclose it give the breeders and the laying hens range on alternate days, or for a time give the breeders only free range. Many a pen of fine birds has lost its usefulness as breeders because of being too closely confined during the breeding season. If from all the hens there are but one or two from which you care to breed furnish these with a house and yard and put the male with them for a few hours only each day.

If the male is put with the hens early in the morning it is said that the progeny will be mostly males. If he

Save Oil and Work —Get Biggest Hatches

ALL records in hatching eclipsed! The 1917 X-Ray Incubator possesses

20 Great Improvements

5 New 1917 Features Make

X-Ray Incubator

The Record Hatcher of ALL Time

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X-Ray Gas Arrestor, ingenious device that prevents lamp fumes entering egg chamber; X-Ray Nursery Tray, new feature that assures sanitation; protects little chicks; X-Ray Egg Tester, most perfect, handy tester ever conceived; New Handy Height; New 1917 Quick Cooling Egg Tray. All new, exclusive X-Ray features that make poultry success sure. And—nevertheless, the price of the 1917 X-Ray has not been advanced one penny. Write for Free 1917 Book.

X-RAY INCUBATOR CO. Box 43 Des Moines, Ia.

Write for Free 1917 Book TODAY

X-RAY INCUBATOR CO., Box 43, Des Moines, Iowa

Send me immediately a Free Copy of the 1917 X-Ray Book of Incubators and Brooders.

Name_____ St. or R. R. No._____ City_____ State_____

Write For Jim Rohan's Big Free Poultry Book "HatchingFacts"

It is filled from cover to cover with facts, proofs and information that will start you right. It tells how you can be successful raising chickens. It shows hundreds of actual photographs and letters from delighted users everywhere who have made big money year after year and won many prizes, including the Silver "Tycos" Cup. Tells how F. F. Waltermyer of Penn. received First Prize in "Poultry Items" 1916 Hatching Contest for two 100 per cent hatches made with his

World's Champion

Belle City Incubator

Exact Duplicates of Which I Now Offer to You

"Sooner or Later—Your Incubator"

Jim Rohan, Pres.

THE incubator that is automatically self-regulated and self-ventilated. Equipped with patented thermometer holder—round cornered, non-leakable copper heating tank and big safety lamp. The incubator with the Paragon Board construction, that has led the field for over ten years.

The Choice of America's Successful Poultry Raisers

—the kind used by Uncle Sam and leading Agricultural Colleges. The incubator that is built to serve you best—easy to run—small in cost—big in results, will put you in the championship class from the start. Sales to date over $24,000. The book fully describes and illustrates in actual colors my incubator and brooder, and tells all about

My 10-Year Money-Back Guarantee
My 1-2-3 Months' Home Test Plan
My Low Price—Freight Prepaid

You will want to know just what this means to you before you buy a hatching outfit. With the book comes full details of

My $1000 Gold Offers

The chance of a lifetime to make extra money with a hatching outfit. Belle City users everywhere make big money year after year. What I have done for others, I can easily do for you. Write me for this big free book—it tells what you need to know—a postal will do, write today. Jim Rohan, Pres.

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RESULTS— A CHICK FROM EVERY HATCHABLE EGG. STRONG, HEALTHY, ROBUST CHICKS THAT LIVE! MAKES POULTRY BUSINESS PAY.. MATCHES NEAREST OF ALL THE NATURAL PROCESS OF THE SETTING HEN.

THE SECRET OF PROGRESSIVE BIG HATCHING RECORDS

BUILT OF GENUINE CALIFORNIA REDWOOD. Egg chambers surrounded with special insulator having hundreds of air cells, guard against temperature change. Corrugated copper hot-water heater. Automatic ventilation and regulation. No dry, hot blasts to kill chicks in shell. Machines complete. Money back guarantee if not satisfied. Big Free Book explains all special deals.

Progressive Incubator Co. Box 128 Racine, Wis.

$9.85 FOR BOTH

FARMERS' MARKET

Wanted--For Sale--To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

FOR SALE—500-acre Polk county farm; 100 acres under plow, 40 more can be opened, balance covered with heavy second-growth wood; soil a rich clay loam; 12-room two-story brick house, furnace heat and waterworks, large basement barn and brick silo, granary and machine sheds, waterworks in barn also; price $40 per acre. For further information address Chas. Engelhardt, Osceola, Wis.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

SALESMEN wanted to canvas the farming and threshing trade, soliciting orders for Lubricating Oils, Greases and Paints. Excellent opportunity for right party. Previous experience unnecessary. Address at once The Victor Oil Company, Cleveland, Ohio.

THE name Aitkin county stands for all that's good in rich Dairy Lands, where prices are yet low. Just what you are looking for. Send for literature, easy terms. Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

GOOD 80 only $800; clay loam soil, nearly level; 20 acres hay marsh; good hardwood timber; large portion easily cleared; $200 cash; No. 1032. The Ev. Luth. Colonization Co., Dept. 10, Merrill, Wisconsin.

FORTY and eighty-acre tracts well located in upper Wisconsin. Small buildings and clearings. $20 to $30 per acre. Very easy terms. Frank M. Doyle, Immigration Agent, Ladysmith, Wisconsin.

WHY pay big commissions to land agents? Sell your Farm direct. No middle-man. Your own price. **You can do it.** Particulars Free. Address Chas. Renich, G-2, Woodstock, Illinois.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

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CLOVER seed. Medium red clover seed, guaranteed free from foul or noxious weeds, @ $9.95 per bu.; new sacks 25c extra. Good, clean timothy seed @ $3.50 per bu. Order now before seed goes higher, from Reuter Bros., Carlos, Minn.

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TWENTY Duroc and Poland China sows, bred. Ten Poland China boars. Holstein bulls ready for service. E. G. Carpenter, Hortonville, Wis

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FOY'S BIG BOOK FREE POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs. **Frank Foy Poultry Farm, Box 82 Clinton, Iowa**

be put with them in the afternoon or toward the evening the progeny will be mostly females. Also a mating of a cockerel with hens produces pullets and of pullets with cock birds produces cockerels. Some may doubt what is said in the above three sentences, but in our experience and observation we have found that things work out just about as stated. Small breeding pens give excellent opportunities for experiment and if a note book is kept the record of such mating makes most interesting and valuable reading.

Whatever else is done look for vigor and constitution in the birds. A hen that does not have a good constitution will never be a good egg producer. A male without a good constitution will never breed good egg producers. If a flock of mixed chickens lacks constitution they are practically worthless, a nuisance and an expense about the place. Some breeders of pure breds will sacrifice constitution to beauty of feather, fancy lacing, pure silvery white, rich deep buff, etc., but in the long run they lose by it.

Proper Ways of Feeding Poultry.

The practice of poultry feeding, while governed largely by circumstances, should as far as possible be confined to a regular routine. Regularity is one of the keynotes to success. The hens very soon learn when to expect their daily feed, and if they are disappointed the effect may be noticed in the egg basket. In addition, the poultry feeder should learn the characteristic needs of his flock and cater as much as possible to its desires. He should attend to his duties in a quiet manner, avoiding any action which might frighten the hens or cause them to become excited. He should also gain their confidence and make them feel that he is their friend. This can be easily done by displaying interest in their welfare. By occasionally feeding them some grain from the hand pets will soon be created, making the keeping of hens a little more interesting, and also influencing the egg yield.

In the morning grain should be fed—a small amount in the litter. This should be buried deep. Clean water should be provided. The grit and shell hopper should be kept filled. At noon the dry mash should be fed. At night more grain should be fed—enough so that no bird goes to roost hungry. Every bird should have a full crop when it goes to roost.

If the feeder has any doubt, a visit to the henhouse after the birds have gone to roost and an examination of the crops will indicate the correct amount has been fed. A hen eats approximately three to four ounces a day, or about six pounds a month. The amount fed each day varies with the appetite of the bird. There is no danger of overfeeding, providing the birds are compelled to take sufficient exercise. The aim in poultry feeding is to feed all that the bird can consume and yet be kept busy.

Approximately twice as much grain should be fed at night as in the morning. In the morning feed half a handful to each bird; at night double this amount. If the birds do not appear hungry at the next feeding too much has been fed. If they are unusually eager at the next feeding too little was fed at the last feeding. The amount also varies with the time of the year, more being eaten in the winter, especially if the birds are unable to get food from the yards upon which they run.

The success of egg production depends largely upon the activity of the bird. The reason the Leghorns excel in egg production is largely because they keep themselves in good physical condition. They exercise. The hen that is inactive and shows long toenails is seldom a good producer. The hen that is first off the roost in the morning, keeps busy during the day and is the last to go to roost at night is the profitable hen. Some birds have the disposition to take exercise, others have to be forced. This is especially true of the heavier breeds. Strains of Rocks and other breeds are inclined to be lazy and in a short time get so fat that they cannot produce eggs in satisfactory quantities. The circulation of blood in the ovary is restricted by the excessive fat. This unquestionably interferes with the normal functioning of the ovary and reduces egg production. Exercise can best be encouraged by not overfeeding. The skill of the poultry feeder is tested by the manner in which he compels the hens to exercise. Overfeeding causes inactivity, which will be manifested by no holes being dug in the straw. Egg production is quite largely dependent upon keeping the birds in condition.

A Few Poultry Experiences.

To the Editor:—As we have not seen anything about the Barred Plymouth Rocks for some time, we thought we would tell a few of our experiences, for there are always beginners who profit by the experiences of others.

When we were first married we cast about in our minds to see what line of poultry we cared to keep as a side line to farming. We at last decided to keep Barred Plymouth Rocks, not because we considered them the best of all breeds, for there is no "best," but because we considered them the best all-around fowl for us. Having decided on the breed, we purchased our eggs from an old breeder and started the poultry side of farming in earnest. We soon found there were ups and downs in poultry raising, especially the "ups."

Some of our neighbors have told us that they were going to get some other breed that would lay better, but to date our egg supply has far exceeded theirs and their birds are certainly a mixture of colors, while ours are a pride to us at least and when buyers come for cockerels we are not ashamed to show them ours. In fact, we have built a poultry house 12x30 feet facing the south, six double windows and two half ones. We use a "hennery" that will accommodate fifteen hens, also an incubator. We lay our poultry success largely to two things. One is the adding of new blood each year and the other is sticking to our chosen breed.

Clarence Heide.

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50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents. **Theodore Franz, Box 104, Mankato, Minn.**

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SINGLE Comb R. I. Reds only. Excellent quality, standard weight cockerels and pullets. High class exhibition and common laying stock. Satisfaction guaranteed or no sale. **Winnebago Poultry Yards, R. 23, Omro, Wis.**

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COCKERELS, hens, pullets. Ckls. weighing 7 to 9 lbs., each $2 and $3. Scored ckls. $5 each. Write your wants or order direct from this ad. Satisfaction guar. Chas. L. Berry, Iowa City, Ia.

HOUNDS: Coon, Fox, Wolf, Deer, and Rabbit Hounds; pedigreed and eligible to reg. Young and old stock for sale. Sent on ten days' trial. Money back guar. Otis Slater & Son, Oconee, Ill., Succes'rs to R.F.Johnson, Assumption, Ill.

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WANTED to buy—Pure-bred poultry of many varieties. Also ducks, geese, turkeys and pigeons. Write, describing what you have, quoting lowest price. Z. G. McKay, Lyons, Ia.

"ARISTOCRAT" Silver Wyandotees. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Redr. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

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SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O.C.Olson, R.2, Strum, Wis.

WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cock'ls. Mrs. J. F. Bloom, R.1, Stillwater, Minn.

FIFTY varieties chickens ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

House Plants.

There have been numerous requests for information on the care of house plants, the temperature of the rooms in which they are kept, the soil, when and how to water, time to repot, etc. Here is a little information that may be of interest.

Sunlight is necessary to produce the chemical reactions which transform the elements found in soil into available plant food. This plant food is taken up by the plant into the leaves in the form of a green-colored substance. When a plant has insufficient light the leaves will appear of a sickly, yellowish green color, and eventually the whole plant will become weak and spindly.

Air, not a draft of cold wind, but good, fresh air, and plenty of it, is necessary for plant growth. Plants are quite human in many ways. They must breathe and become refreshed like animals. Fortunately for us, plants also absorb the carbon dioxide gas, which is the waste material breathed out by human beings. In this way plants in the house are valuable, since they help to purify the air we breathe.

Soil—good soil, one that is composed of a rich sand loam; two parts orchard black dirt; three-fourths part sand; one-half sifted, well-rotted stable manure or leaf mold.

The man or woman who knows how to use the watering pot will be successful with plants. Plants at certain times need to have the dust syringed off the leaves, mostly from the upper side, occasionally from the under side, as we wash our faces to remove dirt and perspiration. Some few plants, like begonias, will not endure much water on the foliage. These should be wiped off carefully with a sponge or damp cloth.

The application of water to the soil is the most important practice in flower culture, gently on top, so as to overpack the soil, in ample quantity, when necessary, but not at all until it is necessary. The bottom of a flower pot should be covered with broken bits of crockery to insure good drainage. A cool temperature (60° to 70° F.) and watering heavily once a week is best. Plants like the morning sun and light, and the east window should be chosen for them if possible.

Blooming plants ought to be repotted each year; ferns and palms every three years, as a rule. The pot must not be too large for the plant if you wish it to bloom heavily. Crowding the roots slightly increases the top growth, flowers and foliage. This is called "forcing" a plant. It has a tendency to weaken the plant as a whole, and should not be permitted for any length of time. Keep the pot full of roots, but not so full that they show at the top or push through the hole at the bottom. Yellow leaves mean too much water; brown leaves mean drouth.

A little vegetable-cooking oil poured over the surface of the soil around plants in boxes or pots, or over soil before potting, will rid it of worms. Use a tablespoon to an eight-inch pot. Float it over the entire surface with a little water. At night worms will be suffocated by the oil and come to the top. They may be gathered and destroyed. After two days stir up the top soil, mixing in the oil.

Do not "fuss" with and handle plants too much. Like human beings, they do not want to be "nagged" all the time. On the other hand, they must not be neglected.

Plants Dried Up.

To the Editor:—I wish to ask a question which I would like to have answered by some of the readers of the Home page.

My house plants seem to dry up slowly. These are chrysanthemums, roses and yellow geraniums. They had buds in the early fall, but they died when they were almost large enough to break open. We have gas light and a hard-coal heater in the same room. Does this have any effect on them?

If anyone has had a like experience or knows how to prevent it I wish they would tell about it.

A Reader.

GIVE BOYS AND GIRLS AN INTEREST

WELL-DEVELOPED boys and girls are the biggest asset of any farm, and there is no better way to foster their proper mental and physical growth than by giving them a share and an interest in farm affairs. They need to be taught to think for themselves, decide questions for themselves, and study out for themselves whatever problems come into their daily lives. They need an active interest in something, and if that something can be their very own, so much the better.

The boy who has a calf or colt or pig of his own to watch and care for will develop faster, learn more and get bigger returns for the amount of energy expended than the boy who merely does the chores among father's stock. The girl who has a garden or a few chickens, the proceeds from which belong to her, will care for them better and will be drawn closer to farm life than she would if the work were done merely because it is there to do. While they are caring for their stock or chickens or little patch of ground their minds will be broadening and they will be molding into strong, sturdy, steady-going young men and women.

But one thing must not be forgotten. That is, when the time comes to sell the stock or the produce the young people, who have done the work, are entitled to the returns. It is no fun for son to own a calf and take care of it if father gets the money when it is sold, and daughter will not give good care to a second bunch of hens if mother buys groceries with the egg money. When they see the results of their efforts, and are allowed to enjoy it in their own way, they will be all the more anxious to try another time.

Give the young folks a share in the farm life. Let them learn the fundamentals of farming and stock raising and housekeeping by experimenting with their own stock and their own ground. Then they will know the value of every effort put forth—they will know whether the best results come from industry or from slip-shod methods—they will know along what lines their tastes and abilities lie so that when they actually start out for themselves they will need make no false moves. The boys will be getting a lot of fun out of their pigs and calves and the girls out of their chickens and gardens, and at the same time they will be learning some valuable lessons. We can well afford to let the boys and girls in on the business side of farming, even when they are small.

Cornstarch Beads.

To the Editor:—Someone asked a week or two ago how to make beads with cornstarch and salt, and I am writing to tell this reader how I make them. Mix three-fourths cupful of cornstarch with cold water to the consistency of cream. Dissolve one-half cupful salt in hot water, let it come to a boil, then add the cornstarch gradually, stirring constantly until well mixed. It should be thick when done. Be careful not to scorch. When cool enough to handle work with the hands until smooth. For black color with ink or with water colors for any desired color. Pinch off small pieces for beads and roll in the hands until round. If the mixture sticks use a little olive oil. When the beads are shaped drop on white paper and let remain an hour. Stick a pin through each bead and stick in pin cushion until the beads are solid. Leave on pin cushion six or seven days before stringing.

—H. T.

Twelve-year-old Margaret Lowry, of Mount Sterling, Ohio, raises pigs while other girls of her age "play house." From 628 contestants Margaret was announced as the prize pig raiser of the state by the agricultural extension department of Ohio State University. The contest was limited to members of the pig raising clubs formed under the direction of the extension department to promote interest in scientific farming among boys and girls of the state. Only seven other girls competed. Margaret had a good margin over her boy competitors. She raised two thoroughbreds at a cost of 3.76 cents a pound. "Pigs is pigs" doesn't go with this future stockwoman. She believes that pigs may be pigs and they may be better pigs. And she raises the better pigs.

Following are some suggestions for simple, effective, inexpensive trimming:

1. Rows of featherstitching between clusters of tiny, hand-run tucks.
2. Three rings interlaced, the middle one fagotted and the other two featherstitched.
3. Butterflies outlined with a double row of blanket stitch.
4. Hand-run tucks edged with a simple crocheted or tatted design.
5. Bands of narrow bias tape finished to the right side of the garment and featherstitched.

These touches are attractive on lingerie and children's clothing. They require only a few cents' worth of embroidery or crochet thread, and often transform an otherwise plain garment into a thing of beauty.

Recipes.

Nut Pudding.—One cupful bread crumbs, one cupful dates or figs chopped, one cupful milk, one cupful nut meats chopped, one cupful sugar, one egg, pinch of salt. Mix well. Bake thirty minutes. Serve with lemon sauce.

Lemon Sauce.—Wet two tablespoonfuls of cornstarch and one-half teaspoonful salt with four tablespoonfuls cold water. Pour on one cupful boiling water, stirring constantly till the sauce boils. Let boil five minutes. Cream together one-third cupful butter, two-thirds cupful sugar. Just before serving beat this into the hot sauce with a wire whisk, add lemon flavoring and serve.

Lamb Stew en Casserole.—Two pounds of lamb, one and one-half cupfuls diced potatoes, one cupful peas, one-fourth teaspoonful pepper, three-fourths cupful diced carrots, four quartered onions, one and one-half teaspoonfuls salt, flour. Cut meat into cubes, brown in spider. Put meat in casserole, add layer of flour. Add vegetables and sprinkle with flour, salt and pepper; add peas one-half hour before serving. Cover with boiling water and cook an hour and a half. To vary, add two tablespoonfuls catsup or one teaspoonful Worcestershire sauce ten minutes before serving.

Stuffed Cabbage.—Select a hard head of cabbage, cut away the outside leaves, then soak in salt water to dislodge any insects that may have been lurking within. Drain again and cool, put into ice water, then dry between folds of cloth, being careful not to destroy the shape of the head. Carefully scoop out the center of the head and fill with a forcemeat of ham and veal, a quarter of a pound of each pounded to a pulp. Season meat with salt, pepper, parsley, nutmeg, chipped green pepper and bind with the yolks of two eggs. Tie neatly in a cloth, cover with boiling water and cook until the liquid is reduced to a glaze. Remove the cabbage and stand in a hot serving dish. Serve cut in wedge-shaped pieces.

Cranberry Bavarian Cream.—Stew a quart of cranberries. While hot rub through a sieve; add a cupful of sugar. Soak a quarter of a box of gelatine in a quarter of a cup of water one hour, set over steam and dissolve the gelatine, then add it to the berries. Turn into a bowl, set in a pan of ice water and beat until cold and the mass begins to thicken, add a half a cup of rich milk and beat again, then add a half cupful of whipped cream, folded in. Turn into a mold, set on ice to chill. Serve with a few chopped almonds sprinkled over the top.

Lemon Raisin Pie.—Three eggs, one cupful sugar, one small cupful cream, one and one-half cupfuls seeded raisins, one lemon. Beat the yolks of the eggs, add the sugar, cream, the grated rind of the lemon, and then the juice of the lemon. Stir well while mixing in the lemon juice. Beat the whites of the eggs until stiff and fold in. Add the raisins. Have a pie crust ready and pour the mixture into it. Bake twenty minutes.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Letter Box From Alabama.

Dear Young Folks:—I want to join your circle. May I? I am eleven years old and am in the sixth grade at school.

A few weeks ago our school wrote letters to a school in Alabama. They sent us back a letter box. Besides the letters in the box there were some cotton balls, some sticks of sugar cane, some holly, some carnations and some pecans. They sent some Japanese persimmons, too, but they must have fallen out of the box, because there was a note that said they were sending the persimmons. There were two green cotton balls that we mistook for the persimmons.

I think Alice's story about why we celebrate Christmas was very nice.

—Oliver.

A Wonderful Pet Bantam.

Dear Young Folks:—When my sister was two years old she was given a bantam. It was a great pet and would eat out of our hands. She was a good mother and raised about three broods of chickens a summer. She always came in the house to lay in the wood box. In 1912 we went to California to spend the winter and we left the little bantam with grandma to take care of while we were gone. She was twelve and a half years old when she died this winter. She only weighed one and a half pounds when she died and and she never weighed over two pounds at her best. I would like to know if anyone can beat this.

—Mildred.

Enjoying the Fine Winter.

Dear Young Folks:—I am interested in your letter writing in the paper. I can hardly wait until it comes each week, for I love to read the letters.

I suppose all of you are glad we are having such fine winter weather, are you not? Indeed I am.

My father runs the livery barn, so I can have lots of sleigh rides. We had a week's vacation for Christmas and New Year's and we had lots of fun.

I am also interested in trying the recipes that some of the girls have been sending to our page and I wish they would send some more.

—Gladys.

[Editor's Note.—The Young Folks evidently enjoy the riddles that are published, but we want to suggest that in sending in their riddles they accompany them with the answer, as no riddles will be published if the answer is not given in the same letter. Also, we are afraid some of the boys and girls have been disappointed in not seeing their little stories in the paper. The stories we want, you know, should be original with you, and some of those which have been sent in we fear have been copied. Send us your own little stories, for we are sure that all the other readers will be most interested in them.]

Our Fashion Department.

All Patterns, 10 Cents Each.

THIS department is prepared especially for The Wisconsin Farmer. We can supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering, all you have to do is to write your name and address plainly, tell us the correct number and size of each pattern you want, and inclose 10c for each number. We agree to fill all orders promptly and guarantee safe delivery.

Catalog of Fall and Winter Fashions

Send 10c in silver or stamps for our up-to-date 1916 large fall and winter catalog, containing over 400 designs of ladies', misses', and children's patterns, as well as the latest embroidery designs, also a concise and comprehensive article on dressmaking, giving valuable hints to the home dressmaker. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wis.

1952—Ladies' house or home dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6⅛ yards of 44-inch material for a 36-inch size.

1945—Children's set of short clothes. Pattern is cut in 5 sizes: 6 months, 1, 2, 3 and 4 years. It will require for the dress, 2⅝ yards of 36-inch material, for the drawers, ¾ yard. For the slip, 1½ yards, for a 2-year size.

1974—Children's outdoor set, consisting of leggings and coat. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 3¼ yards of 44-inch material for a 4-year size.

1805—Ladies' apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 3¼ yards of 36-inch material for a medium size.

1958—Girls' one-piece dress, with sleeve in wrist or elbow length. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 2½ yards of 44-inch material for a 6-year size.

1760—An attractive negligee. Pattern is cut in 3 sizes: Small, medium and large. It requires 6¼ yards of 44-inch material for a medium size.

1407—A dainty frock for mothers' girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3½ yards of

36-inch material for a 10-year size for the dress, and ¾ yard for the Lolero.

1807—Ladies' shirt waist, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3¼ yards of 27-inch material for a 36-inch size.

1965 Waist-1816 Skirt.—A very smart afternoon dress. Waist pattern cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 6¾ yards of 44-inch material for the entire dress for a medium size. Two separate patterns, 10 cents for each pattern.

1794—A smart juniors' dress. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 5⅛ yards of 44-inch material for a 14-year size.

1954—Ladies' one-piece dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7½ yards of 36-inch material for a 36-inch size.

1756—A smart skirt model. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires for a 26-inch size 3⅝ yards of 44-inch material.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)
Lesson for January 21, 1917.

First Disciple of the Lord Jesus.

LESSON TEXT—John 1:35-49.

GOLDEN TEXT—Jesus saith unto him, follow me.—John 1:43.

The words "I see" or "behold" occur fifteen times in this first chapter. John was a witness to the Son of Man. This term, "Son of Man," occurs eighty times in the gospel. The words "Come and see," or their equivalents, occur nine times in this lesson. This is a great invitation lesson. It would be interesting if the scholars would tell what the voices are which say, "Come," and those which are urging them to "stay" away from God. Bethabara was probably two miles from the fords of the Jordan, where John baptized. Jesus was thirty years old, just entering up his ministry. Tiberius Caesar was the emperor and Pontius Pilate the governor of Judea.

I. The Son of Man Attracts Men. (vv.35-39) not by his ethical teachings nor alone by his works and his character, but what he was and inspired in others attracted men to Jesus (John 10: 41). Crowds still gathered around the baptizer who "changed the hearts of men as by a spell." John, the Baptizer, brought terror to men. He broke through the crust of self-righteousness and indifference, and compelled men to see their need of forgiveness and of a new life, but the time had come when John must step aside and Jesus "to increase," to begin his ministry. Four successive days are noticed in this chapter. Andrew (v.40), and doubtless the apostle John, who wrote this account, were the two disciples (v. 35) to whom John, the Baptizer, speaks. It is interesting to note the different kinds of men who were attracted to Jesus; the aggressive Peter, the reflected Thomas, the practical Judas. He had what the souls of men needed, and they followed him. Aware of their questioning, Jesus turns to them with the question: "What think ye?" the first recorded words of his public ministry. This is a great testing question of every man's life. What is the aim and purpose of your life? Jesus, the kingdom of God, goodness, righteousness, usefulness or on the other hand selfishness, wordliness, success, ambition, money, pleasure? These disciples who had listened to this testimony of the baptizer, replied that they wanted to know where he dwelt, implying that they would like to talk with him and discuss the problems which were arising in their minds. Three steps of Christian experience are here suggested. These two disciples heard, they looked and they followed. Other steps must come shortly, but we must first look at Jesus as the Lamb, if we are to follow him as our example. We must believe what he has done (Rom. 3:25) before we can ask what would Jesus do or try to imitate him. It is by following that we demonstrate that we have really looked unto him and been saved.

II. The Son of Man Cares for His Own. (vv. 39-42). The instruction which they received from abiding with him impelled them, as we have already indicated, to go out and spread the good news. The greatest act in the life of Andrew was the bringing of his brother Peter to Jesus. Jesus changed Peter's name, and gave him a prophecy of his future life and career. He saw the possibilities within him, though it took much instruction, bitter experiences, prayer and long abiding with Jesus before he attained to those possibilities. It is this passage which gave rise to the organization of the Brotherhood of St. Andrew, which has adopted, first, the "Rule of Prayer," that of daily prayer for the spread of Christ's kingdom among young men; second, "The Rule of Service," to make an earnest effort each week to bring at least one young man within the hearing of the gospel of Jesus Christ. On the morrow Jesus would go forth to Galilee, that is to the East side, across the Jordan river, and on the way he found Philip. It was Philip who asked the question, "Show us the Father," and of whom the question was asked as to the resources sufficient to feed the hungering multitude (John 6:5). John, the Evangelist, alone tells us about Philip. Philip saw not only the resources of Jesus, but he saw a union of the law of the prophets (v. 45) in this Jesus, and, therefore, could and did invite his brother to Jesus.

Christianity would soon fill the earth if Christians would put forth the personal effort here suggested.

Nathaniel (v. 46) repeated a proverb of the country, "Can any good thing come out of Nazareth?" Philip's reply was: "Come and see," and to his amazement Jesus reveals not only his character, but his supernatural power; whereupon Nathaniel's reply was: "Thou art the Son of God, the King of Israel" (v. 49). Jesus, seeing his faith, promised that he should see still greater things (vv. 50, 51).

Everybody in this lesson who found Jesus seemed to go at once for someone else, and though some were sceptical, yet their scepticism ended, even as Nathaniel's, in following him.

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PART IV--One Squaw Man.

CHAPTER II—Continued.

"Suppose you tell me something about the horses being run off," he suggested. "Oh, yes, I reckon I'm supposed to know all about it," he added; "but, just to pass the time, suppose you tell me your side of it."

There was not much to tell. Hardy's men had been riding around after stray stock until late; had passed camp after ten o'clock. About one in the morning the snow was falling thick; a little racket was heard in the long shed where the horses were tied, and the sentry, thinking some of Hardy's stray stock had wandered in there, tramped around with a light to see what was wrong. He had barely reached the end of the corral when someone from behind struck him over the head. In falling, his gun was discharged; and when investigations were made, it was found that nearly half the horses—about forty head—had been quietly run off through the snow, and the exploded gun was all that saved the rest.

The trail was hot, and pursuit began, but the thieves evidently knew the country, while the troops did not; and every moment lost in consultation and conjecture was gained by the people ahead, until the wind rose and the trail was buried in the snow.

The followers had only returned to camp a few minutes before Genesee was reported back; but the man surmised that if the troops did not get the horses, they were taking their pay out of the hides of the redskins.

"How's that?" demanded Genesee, with the quick, perplexed frown that was as much anxiety as displeasure.

"Well, a young cub of a Siwash came a-riding along to camp about noon, as large as life and independent as a hog on ice, and Denny Claflin—you know him; his horse was roped in by them last night—well, he called the buck to halt, as he'd a perfect right to do, and got no more notice than if the wind had whistled. Denny hates an Injun as the devil does holy water, and being naturally riled over last night, he called to halt, or he'd fire. Well, Mr. Siwash never turned his head, and Denny let him have it."

"Killed him?"

"Dead as a door nail. Right over the ridge north. Our boys were just coming in, after skirmishing for signs from last night. They heard the shot, and rode up; and then, almost before they saw them, some ambushed Injuns burst out on them like all-possessed. They'd come with the young one, who was sent ahead, you see. Well, there was a go-as-you-please fight, I guess, till our men got out from camp, and chased them so far they haven't showed up since. Some of us went out afoot to the ridge, and found the dead buck. We buried him up there, and have been keeping an eye open for the boys ever since."

"Did Captain Holt go?"

"You bet! and every other man that had a horse to go on; even that Mr. Stuart and Hardy from the ranch went."

"And they haven't showed up?"

"Naw."

No more questions were asked, and the guard betook himself to his pipe and enjoyment of the warm room, for intense cold had followed in the wake of the snow.

And the prisoner? The man on watch eyed dubiously the dark face as it lounged on the bunk. Aroused and refreshed by rest, he drifted away from the remembrance of his prison by living over with tender eyes the victory of the night before. Once he had seen it was possible for her to care for him—that once of a year ago, before she knew what he was; but lately—well, he thought her a plucky, cool-headed girl, who wouldn't go back on a friend, and her stanchness had shown that; but the very frank and outspoken showing had taken from him any hope of the warmer feeling that had existed in the old days, when she had likened him to a Launcelot in buckskin. The hope? His teeth set viciously as he thought of it as a hope. What right had he for such a wish? What right had he to let go of himself as he had done, and show her how his life was bound up in hers? What a hopeless tangle it was; and if she cared for him, it meant plainly enough that he was to repay her by communicating its hopelessness to her.

If she cared! In the prosaic light of day, he even attempted to tell himself that the victory of the night might have been in part a delusion; that she had pitied him and the passion she had raised, and so had stooped from the saddle. Might it not have been only that? His reason told him—perhaps; and then all the wild unreason in the man turned rebel, and the force of a tumultuous instinct arose and took possession of him—of her, for it gave her again into his arms, and the laws of people were as nothing. She was his by her own gift; the rest of the world was blotted out.

CHAPTER III.

"The Squaw Who Rides."

AT THE ranch a strange cloak of silence hung around the household in regard to the horse stealing. The men, hearing of the night raid, had endeavored to keep it from the women for fear of giving them uneasiness, but had not altogether succeeded. Jim had frustrated that attempt by forgetting, and blurting out at the dinner table something about Genesee's arrest.

"It isn't true; it can't be true!" and Rachel turned with such an appeal in her tired eyes that Andrews dropped his own.

"It's true, Miss; he's accused of knowin' all about it, even if he didn't help. It's supposed to be his Kootenai friends that did it, and they say he's mighty close-mouthed over it; that tells against him. I hope it ain't true, for he seemed a mighty good man; but he's under guard at the camp; won't allow folks to see him, I hear—leastwise, no Injuns."

Rachel glanced at the others, but found in their faces no strong partisanship for Genesee. Tillie and Fred were regretful, but not hopeful.

"It seems a shame that such a fine-looking fellow should be a squaw man," said the Major's daughter; "but since he is one, there is not much to be hoped of him, though papa did have a wonderful lot of faith in this one."

Rachel's eyes lightened at the words. "What day do they look for your father back?" she asked quickly.

"Today or tomorrow, though this snow may hinder them some."

"Well, he can't get here any too soon," chipped in the loquacious Jim. "I reckon they—"

Then his discourse was cut short by the toe of Andrews' boot under the table. Although the horse stealing was known at the ranch, and now the suspicion of Genesee, yet there was one thing that Andrews and Ivans had maneuvered to keep quiet, and that was the absence of Hardy and Stuart, and the fact that hostile Indians had descended from the hills.

Apocryphal stories had been told Tillie of an early supper her husband and guest had eaten at camp, and a ride they had taken after stock overlooked the night before; and the hours dragged on, the night came, and the two conspirators were gaining themselves the serious anxiety they had endeavored to shield the women from, and Jim, once outside the door, was threatened with instant annihilation if he let his tongue run so far ahead of his wit again.

The ladies had decided not to tell Rachel about Genesee—Tillie had so clear a remembrance of her stubborn friendliness for that outlaw; but Jim had settled the question of silence, and all the weariness dropped from her at thought of what that accusation meant to him—death. Once she got up with the strong light of hope in her eyes, and running across the

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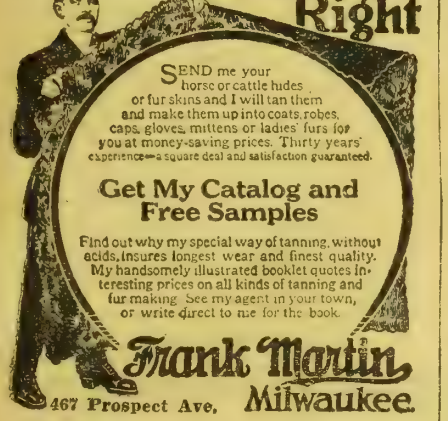

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snow in the dark, opened the door of the stable where Jim was bedding the horses.

"Jim!" she called sharply; "when was it the stock was run off from camp—what time?"

"Early this mornin'," answered that youth sulkily. He had just received the emphatic warning against "tattling."

"This morning? What time this morning?"

"Oh, early; afore daylight."

Before daylight! She had gained a wild hope that it was during the time they were together; but from Jim's vague suggestion they had returned just about the time it had occurred—in time for it. She turned hopelessly toward the house, then hesitated and came back.

"Jim."

"Well?"

"Is Mowitza here?"

"Yes, can't you see?"

But she could not see very clearly. Something in her eyes blinded her as she thought of Mowitza and the glad days when they knew each other first; and of Mowitza's master, and his voice as she had heard it last—and the words! Oh, the despairing, exultant, compelling words! And then, after he had gone from her, could it be so?

"Take good care of the mare, Jim, until—until he needs her."

When the girl re-entered the house, Tillie turned with a lecture to deliver on the idiocy of going out without a wrap; it was not spoken, for a glance into Rachel's eyes told she had been crying—something so unusual as to awe the little woman into silence, and perplex her mightily. Headstrong as the girl had been in her championship of Genesee, Tillie had always been very sure that the cause was mainly Rachel's contrariness; and to associate him with the tears never entered her mind.

The evening wore on, and about the fire there were conjectures about the protracted stay of Hardy and Stuart, and wonderment from Fred that not a man had called from the camp all day and evening. Rachel sat silent, thinking—thinking, and finding a glimmer of hope in the thought that Major Dreyer would soon be back; there, she felt, would be no prejudicial mind come to judgment.

At last they were startled by the sound of a step on the porch, and all looked around, glad of the return of the two wanderers, when the door opened, and there entered Kalitan—a very tired-looking Arrow, and with something in his face that was more than fatigue—anxiety.

"Rashell Hardy?" he said, and deliberately walked into the other room, intimating that she was to follow and the interview to be private—an interview conducted in low tones and in Chinook, after which Rachel asked Aunty Luce to give him some supper; for he was very tired, and would not go on to camp until morning.

The night before had been one of wakefulness, because of Rachel's absence, and all were sleepy enough to hunt beds early; and leaving a lunch on the table for the absent ones, the hearth was soon deserted—Ivans and Andrews, however, agreeing to sleep with one eye open.

Both must have closed unawares, or else the moccasined feet that stole out in the darkness must have been very, very light, and the other figure beside him very stealthy; for no alarm was given, no ear took note. It was late, past eleven o'clock, when the sentry challenged a horse and rider coming as briskly and nonchalantly into camp as if it had been eleven in the morning, and occasioning as much astonishment as had Genesee, when it was seen to be Miss Hardy.

"Rather late to be out alone, Miss, ain't it?" asked the sentry, as she stopped to chat with him of the continued absence of the men.

"Is it?" she laughed. "I don't know what you call late over here; but I suppose we of the ranch would be considered night owls. I rode over with some mail that came late, and thought I'd hear if there was any news before we went to bed. Who's in command?"

"Lieutenant Kennedy; but he turned in an hour ago."

(To be continued.)

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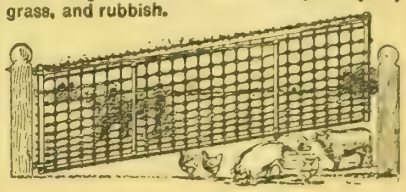

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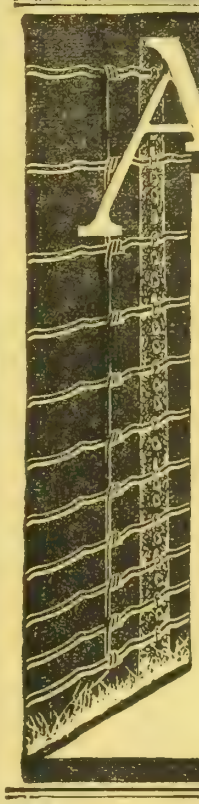

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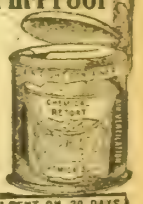

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Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Don't Forget the Atwater Sale.

IF YOU miss the L. F. Atwater Duroc Jersey sale at Bangor, Wis., Wednesday, January 31st, you'll miss a treat, for the best lot of this breed ever sold in Wisconsin will go through the sale ring on the above date. The boars in service and to which the offering has been bred are, Proud Chief Jr. a son of Cherry Chief out of a Proud Col. dam. This is the "under-year" boar that Atwater showed so successfully last fall. He was junior champion at the Minnesota and Wisconsin State Fairs, and is a great prospect for a senior yearling next fall. P. S. Wonder is a full brother to Marion's Wonder, the greatest breeding boar ever in the state of Wisconsin. Sired by Crimson Wonder Again and out of H. A.'s Queen. This boar died the latter part of December, so this is your last chance to get some of this good breeding. Model King is the sire of some of the best gilts in the sale. He is a son of High Model and out of a King the Col. sow. Daughters of Lee's Defender have been bred to him. Don't forget about the grand champion sow that sells in the sale. There is an outstanding litter out of a daughter of old Marion's Wonder. Some show prospects can be found in this litter. There are also three full sisters to the grand champion sow in the sale. There are four choice gilts out of a full sister to the champion sow. But there are too many good ones to try to mention each one individually. There are three features that we want especially to call your attention to. First is the extreme size, combined with quality, second is the high, arched backs, not a poor back in the offering, third, the good feet and pasterns, not a sow in the sale has poor feet. If you are progressive and take pride in owning good Durocs, you'll sell some of the common sows you have and buy one or two real good ones. It costs less to keep them and the profits derived are greater. One of the best places to buy is at Atwaters. Arrange now to attend the sale. If it is absolutely impossible to attend, be represented. Mail bids should be sent to T. P. Shreve in care of L. F. Atwater. If you haven't received your catalog, write for same at once and please mention The Wisconsin Farmer. Don't forget the Shea sale at Melvina on the 30th and Willsie at Prosper, Minn., on the 2d. See page 28.—Adv.

The Madison Sale of Durocs.

THOSE attending "Swine Week" at Madison, Wisconsin, will have a treat when they see the bunch of Duroc Jersey sows that will be driven into the sale ring of the sheep pavilion at the University Farm at one o'clock on Wednesday, February 7th. It has been our pleasure to see several of the sows and gilts that have been consigned to this sale, and we are glad to say that a few of the best sows to be found in the state have been listed for this sale. Sows that carry the blood of the most noted boars of the Duroc breed—daughters of boars and sows that have been winners in the big shows. Many of the gilts are good enough, if properly cared for, to go out and make a creditable showing next year. The Duroc Jersey predominates in many states and it is because there is a live bunch back of this breed. It is up to the breeders of Wisconsin whether they want to push their chosen breed to the front or not. Your attendance and assistance at this sale will show a tendency on your part to boost your chosen breed. The outcome of the two sales which will be held on the 7th, Poland Chinas and Duroc Jerseys, will depend on the breeders of the state and the breed that puts up the best offering and displays the most "pep" will make a strike for the future of the breed in Wisconsin. The Duroc Jersey offering is good and is deserving of the support of all farmers that favor this good breed. It is useless to try to describe the offering in detail for there are too many individual consignors. If you are interested you will write for a catalog and attend the "Swine Week" and incidentally the sale of Durocs. The catalogs are now ready and by writing to J. D. Gant, Secretary, Delavan, Wisconsin, you can get one. When writing please mention The Wisconsin Farmer. Tell your friends to meet you at Madison, Swine Week. See page 26.—Adv.

Don't Overlook the Sale at West Union, Iowa.

REMEMBER the Grimes Bros.-Krueger Duroc Jersey sow sale at West Union, Iowa on Monday, January 29th. They sell forty head on that date and the offering will please even the most critical. Eighteen gilts in the sale are sired by Col. the King, a very good son of King the Col. There is a yearling sired by the champion, High Model, that is outstanding in every respect, and she is bred for an early March litter to a son of the second-prize yearling boar at the National Swine Show. There will be one gilt by Col. K., a noted Iowa boar by King the Col. She is safe in pig to a son of the great boar, Chief Invincible. The dam of this gilt was the first-prize aged sow at Iowa in 1913 and she is a wonderful sow today. Two gilts are sired by Col. Taxpayer, he by Pal's Col., and out of the High Model sow mentioned above. Two gilts sired by John's Orion Again should be attractions for those that appreciate the most popular eastern breeding. Two gilts out of a Col. Gano dam are about as good as anything in the sale. The dams of many of the good yearlings and gilts are sired by Crimson Wonder Again and as you know that is standard breeding. We told you last week what this offering has been bred to. Grimes Bros. live at West Union and W. G. Krueger is at Hawkeye, the sale will be held in a heated building at West Union, where there is good train service and everything possible will be done for your comfort. Try to attend this sale—sows and gilts will be sold that you should have in your herd. The day following, Dennis Shea sells at Melvina, Wis., and those attending the West Union sale can make good connections for Melvina. The next day, Atwater will sell at Bangor. Friday of that week, Geo. Willsie will sell at Prosper, Minn. Arrange to attend all sales. Write at once for a catalog and please mention The Wisconsin Farmer. Send buying orders to T. P. Shreve. See page 28.—Adv.

Poland China Men—Attention.

IF YOU are interested in better swine, you'll be in Madison, Wisconsin, during "Swine Week"—if you are interested in Poland Chinas, you'll attend the sale of this breed which will take place in the evening at the University Farm, Wednesday, February 7th. At the present time the Poland Chinas lead in the state of Wisconsin and there is no reason why this great breed should not be a leader if those "behind the gun" will get together and push. Another breed has forged to the front in several of the states simply because there was not enough co-operation among the men breeding Poland Chinas. Do not let this happen in Wisconsin—it is up to you. If you attend this sale and boost the game you are in, you will be doing something. You should have a sow or two in the sale, if you have them good enough; if you haven't, there is all the more reason you should attend and buy a few of the good ones so you will have Poland Chinas in a few years that you will not be ashamed of. This is the opportune time to get good seed stock. We can see no reason why pork products will not be high for some time to come. At the present time there is no surplus of hogs, if there was the packers would not continue to pay what they are for hogs. Europe is our heaviest buyer of pork products—she is drawing heavily on us now and when the war is over there will be a still greater demand. There is more pork going into cold storage now than ever before—there is a reason. Is the farmer and breeder preparing as he should? Buy one or two of the good gilts or sows that will be sold in this sale, even if you have to sell four or five of your scrubs to do this. In a year from now you'll be glad you made the change besides the satisfaction you will get out of it. Owing to the many consignors, it is impossible for us to tell the breeding, etc., of the sows that will go into this sale. We will say, however, that we have seen some twenty head that are listed and if the remaining thirty are as good, it will be the greatest lot of Poland Chinas ever seen in a sale in Wisconsin. You can find any blood lines that you want. Bred to boars of the most popular breeding. The Duroc Jersey association will hold their sale in the afternoon and the Poland Chinas will be sold in the evening. Attend both sales if possible and boost the swine industry in Wisconsin. Remember the date and place and if you want a catalog, write to J. F. Diley, Secretary, Rush Lake, Wisconsin. Please mention The Wisconsin Farmer. See page 27.—Adv.

Last Call For Shea's Duroc Sow Sale.

REMEMBER that on Tuesday, January 30th, Dennis Shea sells thirty-five spring gilts and fall yearlings at his farm, which adjoins Melvina, Wis., twelve miles south of Sparta on the Sparta-Viroqua branch of the C., M. & St. P. Those coming from a distance should get to Sparta Monday night. One can get to Sparta from most any direction, for the Northwestern and Milwaukee both run in there. Leave Sparta Wednesday morning for the sale, twelve miles distant, and return to Sparta that night and leave Wednesday morning for Bangor also about twelve miles from Sparta. Arrange to attend both sales. They have good Durocs and deserve your patronage. Shea is selling a good, useful lot of Durocs, sired by good boars and out of some of the best sows owned in the state. Mr. Shea has one of the best sow herds that we know of. The big kind that show by their udders that they have been raising more than one or two pigs. We like to get our breeding stock from sows that farrow and raise large litters and if you are of that opinion you'll be pleased with the sows in the Shea herd. In last week's issue we commented on the boars doing service in this herd. Col.'s Choice and Pal's Defender are as good breeding boars as can be found in the state, they have demonstrated their ability. The young boar, Pathfinder 2d, comes from a line of breeding that is most popular. You will make no mistake if you attend this sale. This being his first sale Mr. Shea does not expect any high average and no doubt there will be good buys made in this sale and if you are "on the job" you'll get the benefit. If you can't attend be represented—send instructions to T. P. Shreve, who will represent The Wisconsin Farmer. If you haven't received your catalog, write for same at once and mention this journal. See page 25.—Adv.

DISPERSION SALE OF

OAK LODGE HERD OF A. R. O.

HOLSTEIN-FRIESIANS

ELKHORN, WIS., JAN. 30, 1917

38 COWS AND HEIFERS, 10 BULLS

INCLUDED in the lot are six cows and heifers with yearly semi-official records from 542.44 to 936.64 pounds of butter and thirteen of their sons and daughters. Four daughters of the cow with the 936.64-pound record. Almost every animal has an A. R. O. record or is from an A. R. O. dam. Herd is headed by Beauty Walker Pietertje King, whose seven nearest dams average 28.72 pounds of butter in seven days. On his daughters we are using Colantha Hamilton Pietertje, a son of Colantha Hamilton, that made 30.51 pounds of butter from 587.2 pounds of milk in seven days as a junior three year old. She is out of Betsey Hamilton Beauty 32.39. Auctioneers, R. E. Haeger and Jack White. Catalogs ready Jan. 15th. Address

HARRY D. DUNBAR ELKHORN, WIS.

"The Three Best Poland Boars in One Herd."

THAT s a strong statement, but those that have seen, Master's Giant, Orange Wonder and Young's Big Joe, say that P. W. Young, Prosper, Minn., has the three best Poland China boars doing service in one herd in America. Mr. Young is a constructive breeder. He is always ready to buy a boar or a sow if he thinks the addition will improve his herd. In Master's Giant and Orange Wonder he has two boars that would make a reputation for him, but soon as he saw the Big Joe boar he thought that the cross would prove beneficial, and it certainly can do no harm. Tuesday, February 6, 1917, is the date of his annual bred sow sale. It will be a Master's Giant-Orange Wonder sale. Mr. Young made the right nick when he crossed Master's Giant sows with Orange Wonder, for the best gilts that go in the sale are from this cross. We believe that Mr. Young has as much quality in his big-types as any breeder we know of. In this issue we will mention something of the record of the herd boars. Master's Giant won the yearling futurity at the Iowa State Fair in 1913. Second in the aged class at Iowa in 1915 weighing 1,005 pounds. He is out of the great sow, Mabel's Choice 2d, that sold for $400. Orange Wonder won first as senior yearling at the Minnesota State Fair in 1915. Combines the breeding of Big Orange, A Wonder, Giantess and Mollie Fair families. Young's Big Joe is "some boar." He weighed 800 pounds the day he was eighteen months old. He will be shown at the fairs this fall weighing better than 1,000 pounds. This boar has the most quality, for a boar of his scale, we have ever seen. This should be a wonderful cross on the Master's Giant-Orange Wonder sows. In next week's issue we will tell you something of the sows that will be sold, but plan now to attend one of the greatest Poland China sales to be held in the Northwest this season. Write at once for one of the catalogs. Please mention The Wisconsin Farmer when writing. See page 29.—Adv.

Plan Your Swine Week.

THE Chester White sale of Cook, Schiebe and Vaughn is the opening gun of the Swine Week planned for Wisconsin breeders. Every Chester White reader of the Wisconsin Farmer should plan to attend this sale. There are several reasons why. Firstly, it is the only Chester White sale scheduled for Wisconsin. Secondly, you will see a mighty good bunch of gilts. Thirdly, pork promises to be very high next fall as the supply will be very low. High-priced pork always makes a big demand for breeding stock. There will be forty gilts in the sale, the tops from the herds of Cook Brothers, W. C. Scheibe and W. W. Vaughn & Son. These are three of the best herds in the state. During the past season animals from these three herds won forty-seven first, thirty-five second, seventeen third and seven fourth prizes; two sweepstakes and two grand championships in heavy competition, including the Wisconsin State Fair. W. W. Vaughn has been breeding Chester Whites for twenty-two years and has shown at the Wisconsin State Fair twenty years. The offering is of well-known and proven lines of breeding. They are well grown and of good type. They are bred for March and April litters to outstanding good boars. The sale will be held in the city of Burlington at Gill's Livery barn on Feb. 5th. No driving in the country and a warm, comfortable barn regardless of weather conditions. Burlington, Wis., is conveniently reached over the C. M. & St. Paul or Soo railroads, there being twenty-two trains per day and electric interurban trains every two hours f om Milwaukee. Out of town buyers will be entertained free of charge at the Burlington Hotel. Send for a catalog of the offering to W. C. Scheibe, Burlington, Wisconsin, and mention The Wisconsin Farmer when writing. Auctioneer, C. C. Evans. Field man, Wisconsin Farmer, H. S. Hoard. See page 26.—Adv.

Brook Valley Farm Stock.

WE have just had a letter from P. N. Collins, River Falls Wis., advising that he has had an excellent trade in Poland China boars. This fact demonstrates that he raises the type that the

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

public want—the big type. Mr. Collins has a good herd of sows and at this time he is offering gilts bred to two good boars, namely Chief Price 264707 he by the champion, Big Price, and the other boar is a son of the great Hendricks boar, Black Jumbo. This latter boar is one of the best that was sold in the Hendricks sale last fall. Mr. Collins also has a few Short-horn heifers that he can spare. They range in age from twelve to fifteen months, are red in color and are right in every way. Remember that good Short-horn heifers are in demand and here is a chance to get a few at a very reasonable figure. Write Mr. Collins if you are interested in either of the above breeds. Don't forget to mention The Wisconsin Farmer when writing. See page 27.—Adv.

Duroc Jersey Sale at Janesville, Wisconsin.

THE first sale of Duroc Jersey sows and gilts ever held in the city of Janesville, Wisconsin, will take place on Thursday, February 8th, the day following the breeders' sale at Madison. Those interested in good Durocs should arrange to attend both sales. John L. Fisher, the owner of the Wisconsin champion, King Defender; E. H. Parker & Son, the owners of King Orion, a son of the Omaha champion, Orion Cherry King Jr., and three other local breeders have contributed to this sale. Mr. Fisher will sell about twenty spring gilts and tried sows. They are out of daughters of the champion Illustrator, A.'s Defender (this sow, litter mate to Lee's Defender), Pal's Col., Joe Orion 2d, and safe in pig to the 1,000-pound grand champion, King Defender. No breeder of the state has better blood lines in his herd than John L. Fisher, and inasmuch as this is the first time he ever consigned to a swine auction, he is giving you the best he has. Fisher is one of the live wires of the Duroc fraternity in the state. E. H. Parker & Son will sell about fifteen spring gilts. These gilts are in nice condition and are sired by a Golden Model 2d-Defender bred boar and a son of the noted Royal King. The dams of these gilts are by such noted boars as Marion's Wonder, Volunteer, Orion Chief, Lee's Defender and Illustrator. They are bred to King Orion, one of the best yearlings and the only son of Orion Cherry King Jr. in the state. You can buy sows and gilts bred to a grand champion of Wisconsin and a son of the world's champion. Make a note of this sale and arrange to attend. Mail bids should be sent to T. P. Shreve, field man for The Wisconsin Farmer. Write at once for the catalog. Address P. V. Kuhn, Secretary, Janesville, Wis. Please mention this publication. See page 28.—Adv.

Be at Willsie's Friday, February 2d.

THIS is the last opportunity we will have to call your attention to the forty head of Duroc Jersey sows that will be sold by George Willsie at Prosper, Minn., on Friday, February 2d. Mr. Willsie is selling a lot of sows and gilts that will make money for the buyer, for we do not expect them to sell so high, but what the buyer can double his money the first year. We don't mean that he hasn't good hogs, for he has, but inasmuch as he has never shown Durocs he does not expect to get the average that some of the breeders do that go out and show at the various state fairs. No breeder in the state has had two better breeding boars than Chief Defender and Big Col. and most of the progressive breeders are getting some of this blood in their herds. The tops of many sales the past two or three years have been daughters of Chief Defender. Big Col. sows are just beginning to be appreciated and when you see the gilts sired by him sale day, you'll not stop bidding until you get one. The best gilts and sows have been bred to Top Col. King, a yearling son of American Top Col. out of a King of Cols. dam. This boar has been used very heavy and is very thin in flesh, but those that can appreciate a boar not loaded with fat will not be disappointed in this hog. We believe that Mr. Willsie will make a boar out of him that they'll all look at next fall. If you havn't received your catalog by this time get one at once. Remember that Atwater sells on Wednesday and Willsie Friday of the same week. Owing to the fact that Hyzer and Sprain dropped out it leaves an open date in between. Send bids to T. P. Shreve, field man for The Wisconsin Farmer. Be sure and attend if possible. See page 30.—Adv.

Where Price and Quality Meet.

SUCH is the slogan "patented" by Tulloch & Fries, Genoa, Wisconsin. They sure have a herd of Holstein cattle that have the "quality" combined with production and you simply can't duplicate the price at any other breeding establishment. Mr. Fries was formerly of the firm C. C. Fries & Son, Richland Center, Wisconsin, and the public of Wisconsin are familiar with the various cows that the junior member "brought out." Some time ago Mr. Fries bought a half interest in the Tulloch herd of Genoa. Mr. Tulloch had purchased some of the best cows that money could buy and these combined with a few record cows owned by Mr. Fries gave them a foundation herd of Holsteins second to none in the western part of the state. At this time the above firm is offering several young bulls sired by a 32-pound sire and out of A. R. O. dams, with records up to 24 pounds butter in seven days. If you want a bull good enough to head the very best herd, write them about one they have out of a daughter of King Pontiac Portia and the great cow, Aaggie Texal Wayne 2d, and sired by Richland Pontiac Butter Boy, the 31.76-pound sire at Richland Center. It will pay you to investigate the young bulls being offered by the above firm. Write them at once and please mention The Wisconsin Farmer. See page 31.—Adv.

Madson & Sons' Poland China Sale.

MADSON & SONS' annual sale of bred Poland China sows will be held in Madison, Wisconsin, Tuesday, February 6th. This will be during Swine Week and those planning to take in this event should also attend the Madson & Sons' sale, for they are selling a bunch of Poland Chinas that are better than ever offered before by these prominent breeders. The sale will be held in Drs. West & Wolcott's veterinary barns at 753 East Washington Avenue and will begin at one o'clock, Tuesday. The Madson Poland Chinas have been conspicuous winners at the state fairs during the past several years. They have bred their winners and are among Wisconsin's leading breeders. During the past year, the junior member of the firm made a trip through Minnesota, Iowa and Illinois in search of boars that he thought could be used to advantage in their herd. One of the boars purchased is a son of Choice Expansion, the Gerlich & Barker boar—out of Lady Defender. The writer is very familiar with this line of breeding, in fact, it has been this strain that has made E. S. Barker the leading breeder in Minnesota. The young boar is called Defender and he is a real prospect for a junior next year at the big fairs. Big Ben, a boar that needs no introduction to the public, is the sire of one of the young boars purchased and he comes from a Big Bone bred sow. He is of the biggest of the big-types. Big Carver is the yearling boar that was the sensational winner at Illinois and the Madsons have a son of this boar in their herd that you will like. In these three boars, these breeders have prospective herd sires that will appeal to the lovers of good Polands. The majority of this sale offering are safe in pig to their service. A few have been bred to Triumph, the show boar and son of the good sire, Hidestretcher. Get a line on this offering by reading the catalog. This is the year to buy pure-bred sows and the Madsons have the goods. They have a catalog for you and if you will send them your name they will be glad to send you one. Write at once to the above firm, addressed to Madison, Wis., and don't forget to mention The Wisconsin Farmer. H. S. Hoard will represent this paper at the sale. Watch next week's issue for further announcement. See page 26.—Adv.

A Good Short-horn Herd.

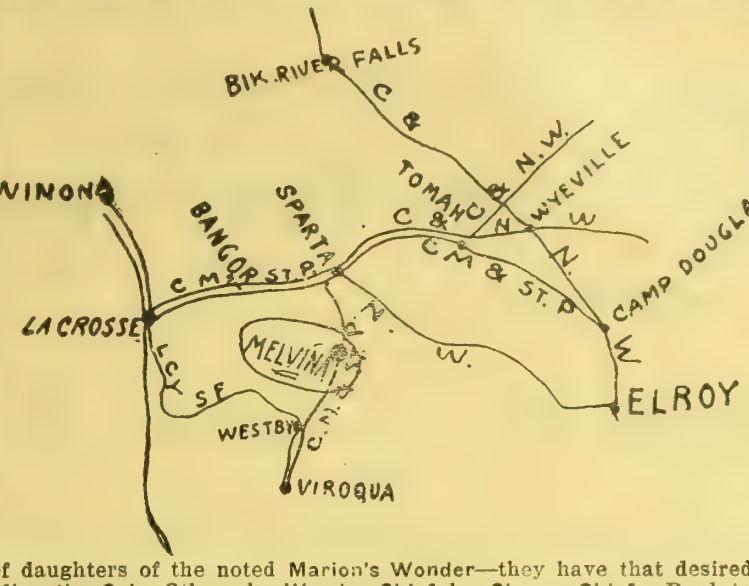
W. J. BERND, New Richmond, Wis., has one of the good herds of Short-horns in the state of Wisconsin and the best herd in the northern part of the state. If you want Scotch cows of the most fashionable breeding, he has that kind; if you want Scotch-topped cows that are heavy milkers, he has that kind. The get of Rosebud Champion is being offered at this time. This bull won second at the Chicago International. A few are being offered sired by Highland Sultan, a third-prize bull. The good bull, Buchon Marshall, that comes from International winners is the sire of some of the young stuff. Mr. Bernd's cows are noted for their size and milking qualities. Your wants can be supplied whether you are in the market for reds, whites or roans, bulls or females. Mr. Bernd is one of the old-time Short-horn breeders of the state and you will not make any mistake if you investigate what he has for sale. New Richmond is just over the

DUROC JERSEY SOWS

bred to PATHFINDER 2d by Pathfinder; PAL'S DEFENDER by Lee's Defender; COL.'S CHOICE by King the Col. sell at

MELVINA, WISCONSIN, TUES., JAN. 30

35 HEAD
30 SPRING GILTS
5 FALL YEARLINGS
35 HEAD



MANY BRED TO PATHFINDER 2D (BY PATHFINDER)

NEW BLOOD FOR WISCONSIN

MANY gilts out of daughters of the noted Marion's Wonder—they have that desired size. Some by Col.'s Choice, he by King the Col. Others by Wonder Chief by Cherry Chief. Bred to the boars mentioned above. NO OTHER BREEDER IN THE STATE HAS AS MUCH CHERRY CHIEF AND KING THE COL. BLOOD. My first sale and I am offering you GOOD DUROC JERSEYS. Melvina is only 24 miles from Bangor, where L. F. Atwater sells the day following—attend both sales. Write at once for a catalog and mention The Wisconsin Farmer. Send bids to T. P. Shreve. Col. I. E. Stickelman, auctioneer. T. P. Shreve, field man for The Wisconsin Farmer.

DENNIS SHEA **MELVINA, WIS.**

Sale held in heated building.

Cook-Scheibe-Vaughn SALE OF CHESTER WHITES

at Gill's Livery Barn at 2 P.M. **BURLINGTON, WIS.**

MONDAY, FEB. 5, 1917

40 Head of Fall and Spring Gilts 40

WELL-KNOWN breeding—good type—well grown. Our three herds, during the season just past, won forty-seven first, thirty-five second, seventeen third and seven fourth prizes against heavy competition; two sweepstakes and two grand championships. Plan to make a swine week of it by starting at our sale. Catalogs may be obtained by writing

W. C. SCHEIBE **BURLINGTON, WIS.**

Kindly mention The Wisconsin Farmer when writing.

DISPERSION SALE

TUBERCULIN TESTED PURE-BRED HOLSTEINS

PLEASANT VALLEY STOCK FARM **ARGYLE, WIS., JAN. 30, 1917**

STARTING at 11 a. m. Having rented my farm I will sell my entire herd headed by **KING PONTIAC PIONEER,** a grandson of the famous King of the Pontiacs, and a son of the noted 30 lb. sire and show bull, Oakland Paul Beets Burke. His dam is sister to the first cow to make 44 lbs. of butter in a week and to the first two year old to make 1,000 lbs. butter in a year. **Nine daughters and six sons of King Pontiac Pioneer.** The herd consists of daughters of Sir Aaggie Burke, Sir Johanna van Beers, Sigmund Colantha, Sir Ormsby Netherland, Sir Porcelain Pontiac, Colantha Piebe Mercedes. Good producing young cows raised on the farm that will **make money for their purchasers.** Young bulls suitable for herd headers. Sale on my farm less than one-half mile north of Argyle. For catalog write

T. A. THOMPSON, PROP., ARGYLE, WIS. OR HOLSTEIN SALES CO., ELGIN, ILL.

Argyle is on the Illinois Central R. R. line from Freeport, Ill., to Dodgeville, Wis., 10 miles from Dill, Wis., where connections can be made with the C. M. and St. P., and 30 miles from Dodgeville, where the C. & N. W. connects.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

A. P CORTTE LOMIRA, WISCONSIN.

Swine Week's Climax

50

Bred Gilts
Yearlings
and Aged Sows

Who's Who in Wisconsin Durocs

WIS. DUROC JERSEY SWINE BREEDERS' ASSOCIATION COMBINATION SALE

Wednesday, Feb. 7, '17

AT THE UNIVERSITY AT

Madison, Wisconsin

SEND FOR CATALOG TO

John D. Gant, Sec'y Delavan, Wis.

Sale Committee

E. H. PARKER, Janesville
F. R. CONSTANCE, Waupaca

Catalog Committee

L. F. ATWATER, Bangor
JOHN L. FISHER, Janesville

In following issues we will give names of all the consigners to this big demonstration sale.

Wisconsin Duroc Jersey Breeders' Association

Wisconsin Poland China Breeders' Association Sale in the Evening.

Services of Expert Live Stock Photographer

Up-to-date live stock breeders are more and more using photographs in advertising their herds. It is the modern way of doing things, and The Wisconsin Farmer is meeting the situation by offering the services of a skilled live stock photographer. Appointments may be made by mail at any time. For estimates of cost and other information write The Wisconsin Farmer.

line in Wisconsin from St. Paul with the very best of shipping facilities. His advertisement appears in this issue. Write for further information and please mention The Wisconsin Farmer. —Adv.

Pure-Bred Holsteins.

HOLSTEIN breeders will find some splendid animals worthy of a place in their herds at the dispersion sale of T. A. Thompson, Argyle, Wis., January 30th. This herd is headed by King Pontiac Pioneer, whose sire and grandsire were famous in the show ring and as breeders, and whose dam is a sister to record-making producers. The herd includes many young animals who already have splendid records and will be money-makers for their purchasers. Read the advertisement on page 25 and write Mr. Thompson that you will be at the sale.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 29, Grimes Bros. & W. G. Krueger, West Union, Iowa.
Jan. 29, W. G. Krueger, Hawkeye, Iowa. (Sale at West Union, Iowa.)
Jan. 30, Dennis Shea, Melvina, Wis.
Jan. 31, L. F. Atwater, Bangor, Wis.
Feb. 2, Geo. Wilsie, Prosper, Minn.
Feb. 7, Wisconsin Duroc Jersey Breeders' Assn., J. D. Gant, Delavan, Secy. (Sale at Madison, Wis.)
Feb. 8, Rock County Breeders' Sale, Janesville, Wis. P. V. Kuhn, Secy.
Feb. 15, Gant's Farm, Delavan, Wis.
Feb. 26, George W. Pagel, Zumbrota, Minn.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Short-horn Cattle.

Feb. 15, Wisconsin Short-horn Breeders' Assn., Sale at Madison, J. L. Tormey, Secy.

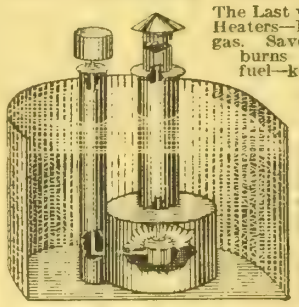
Holstein Cattle.

Jan. 30, Harry Dunbar Dispersion Sale, Elkhorn, Wis.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

Poland China Swine.

Feb. 6, Percy Young, Prosper, Minn.
Feb. 6, M. Madson & Sons, Madison, Wis.
Feb. 7, Wisconsin Poland China Breeders, Assn., J. F. Diley, Rush Lake, Secy. (Sale at Madison, Wis.)
Feb. 13, Grant County Poland China Breeders' Assn., Lancaster, Wis., Burlie Dobson, Secy.
Feb. 14, E. W. Hendricks, Hazel Green, Wis.
Feb. 15, J. C. Hendricks, Hazel Green, Wis.
Feb. 16, Chris Kartman, Cassville, Wis.
[illegible] 16, Gerlick & Barker, Mankato,
[illegible] am Smiley & Son, Albany,

THE SUNBEAM TANK HEATER



The Last word in Tank Heaters—Burns kerosene gas. Saves money. It burns the cheapest fuel—kerosene, a gallon burns from eight to fourteen hours.

Saves time. It is always ready for operation. Can be generated in five minutes by any eight-year-old boy. Requires no attention after being lighted.

Saves worry, no sparks to burn your buildings. No night firing. The Sunbeam will be on the job in the morning.

It never tires or forgets. Sold under an absolute guarantee. Write for descriptive literature and prices.

BAIN BROS. MFG. CO., Dept. B, CEDAR RAPIDS, IOWA

Ear Tags FOR STOCK

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 262 W. Hurst St. Chicago

TOO LATE TO CLASSIFY.

LEARN TO BE AN AUCTIONEER EARN $15 to $100 PER DAY

Study at home. Thorough, practical mail course. Endorsed by the peer Auctioneers of the world. Big 40-page catalogue Free. The National Auctioneering School of America, Dept. 103 Walnut Hill Station, Omaha, Neb.

VALLEY VIEW STOCK FARM
SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds, Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

Geo. A. Philippi, R. 40, Bear Creek, Wis.

GOOD JERSEY BULL

BORN October 22, 1916, a good one, straight type good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent, she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.

Ora P. Taylor Elkhorn, Wis.

POLANDS Madson & Sons' POLANDS

BRED SOW SALE

(During Swine Week.)

Sale held at Drs. West & Wolcott's Veterinary Hospital, 753 East Washington Ave., 5 blocks from east side depots, in

MADISON, WIS., TUESDAY, FEB. 6, '17

8 FALL YEARLINGS AND TRIED SOWS—
35 SPRING GILTS.
The Largest and Best We Ever Offered.

THE get of the good boars—Correct I Am, Big Price Again, Triumph, Hidestretcher and others. Bred for March farrow to **Defender**, a great prospect by the noted **Choice Expansion, Big Bone Bob** by the noted **Big Ben** and **Big Buster** by **Big Carver, the sensational winner at Illinois.** Some bred to **Triumph**, our show boar. We sell the QUALITY KIND—with SIZE. An offering that we are proud of. You should attend SWINE WEEK and incidentally this sale. Sale starts at 1 o'clock. Write at once for one of the catalogs. Send bids to H. S. Hoard, Wisconsin Farmer representative. Col. W. H. Cooper, auctioneer.

M. MADSON & SONS MADISON, WISCONSIN

CHESTER WHITE SWINE.

CHESTER WHITE SOWS AND GILTS

BRED for March and April farrow to Pay Streak and King Cole, a son of Chief Keokuk. Also August and September boars sired by Pay Streak, 2d prize junior yearling at the 1916 Wis. State Fair. Wm. F. BUTTS, Evansville, Wis.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

ABERDEEN ANGUS CATTLE.

ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

Buena Vista Aberdeen Angus

COWS, HEIFERS and CALVES all sold out. One bull of serviceable age and two bull calves for spring delivery, will go at $100 per head.

E. F. Ganz & Son Alma, Wisconsin

ANGUS BULLS FOR SALE

IF you are going to need a **good** herd bull get our prices before you buy. We have the goods. **Hauk Bros., Cassville, Wisconsin**

TOO LATE TO CLASSIFY.

HAMPSHIRE boar bargains. Must sell my herd boar, Bull Moose, an excellent breeder. Price $40 if taken at once. Also a few November pigs at $10 each. Address Wilton G. Johnson, Route 1, Oconto Falls, Wisconsin.

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write

Harry Crandell Cass City, Mich.

CHESTER WHITE SPRING

BOARS and gilts sired by **Elmo D** and out of daughters of the 800-lb. boar, **Monroe.** Pigs well grown and good heavy bone. Send for prices.

O. P. Coates - Elkhorn, Wisconsin

PADDY by SCHOOLMASTER
CHESTER WHITES
C. EVANS by COMBINATION 2d

SPRING boars and gilts for sale by above boars. Only the tops shipped. Order early and get the pick. A. L. Gray, Mt. Hope, Grant Co., Wis.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.

H. A. DERENTHAL WYKOFF, MINN.

CHESTER

SOWS and gilts of fine quality and growth and of best blood lines. Safe in pig, at farmers' price. White Wyandotte cockerels from a big flock of high laying quality.

ART G HOSKINS DODGEVILLE, WIS.

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

WEST SALEM WISCONSIN

THE WISCONSIN POLAND CHINA BREEDERS

WANT TO MEET YOU AT

MADISON, WISCONSIN, WEDNESDAY, FEBRUARY 7, 1917

50 WELL-BRED, WELL-GROWN, BIG-TYPE POLAND CHINAS SELL

THE BEST IN THE STATE

THE members of the Wisconsin Poland China Breeders' Association are making this sale, **not** to make money, but to try to stimulate more interest in **pure-bred swine,** and especially their **chosen breed**—the **Poland China.** The greatest opportunity ever offered the beginner, to inspect the tops of the various herds in the state. The greatest opportunity ever offered the old breeder to get new blood for his herd. Each bred sow will be an advertisement for the herd from which it is entered, so it is only natural to expect to see the best. We have seen sows that are going in this sale that will weigh close to 800—gilts of last spring farrow that will weigh 400. They have been bred to boars that have weighed over 1,000 pounds. Come and be convinced that one can raise big types that possess as much quality as the medium kind—but look how much more size they have. "Swine Week" means any and everything pertaining to the swine industry. A "get-together" week. Be sure to attend, and especially this sale of **bred Poland Chinas.**

SPECIAL NOTICE

Sale takes place **at night** in the **sheep pavilion** on the **University Farm. Sale will start at 7 o'clock. Poland Chinas sell at night—Durocs in the afternoon.** Remember. Cols. Ira Cottingham and Lloyd Seeley, auctioneers. T. P. Shreve, field man for The Wisconsin Farmer. Write for the catalog at once and mention The Wisconsin Farmer. Address

J. F. DILEY, Sec'y -:- RUSH LAKE, WIS.

DUROC JERSEY SWINE.

PROSPER, MINN., FEB. 2, 1917

40 Durocs by Big Col.--Chief Defender

Bred to sons of Burke's Good Enough and Americad Top Col. Write for catalog. Address
GEO. H. WILLSIE - - - PROSPER, MINNESOTA

DUROC HOGS and JERSEY CATTLE

WE are offering well-grown, good-type Duroc fall boars and gilts at reasonable prices, sired by Lee's Defender, Corrector and Model Lady's Trade Mark. Fall pigs at weaning time—they are strong and vigorous.

YEARLING Jersey bulls and several high-grade cows and yearling heifers. We belong to the cow testing association; can tell you what each cow is producing.

F. R. CONSTANCE & SONS WAUPACA, WIS.

BURN BRAE DUROCS---The Good Kind

WE have 50 spring pigs for immediate sale sired by Burn Brae Golden Model and Burn Brae Orion. They have size and quality. Every pig guaranteed. Write or wire.
BURN BRAE FARM - - - ROSENDALE, WISCONSIN

PARKER PROLIFIC PORKERS

THIS is the kind we breed and sell. If you want good Durocs, write or come and see them. A splendid lot of gilts bred to King Orion, a son of the world's grand champion. Address
E. H. PARKER & SON - - - JANESVILLE, WISCONSIN

DUROC SOW SALE

AT PUBLIC AUCTION ON
FEBRUARY 8TH, JANESVILLE, WIS.

I WILL sell twenty sows and gilts bred to the grand champion boar, King Defender. Write for catalog. Address
JOHN L. FISHER JANESVILLE, WIS.

M. STOEHR

VIROQUA - WIS.

DUROC sows and gilts of best blood lines and bred to good boars for sale at farmers' prices. Write me, mentioning The Wisconsin Farmer.

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailingilist.
Dennis Shea Melvina, Wis.
(10 miles from Sparta)

E. E. WYATT, Tomah, Wis.

GET my prices on **Duroc Jerseys**—boars and gilts, out of matured dams. Letters answered promptly.

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"
We satisfy our customers. Write
Riley Ma tiny & Son Baraboo, Wis.
Also an imported Guernsey bull.

SAVE $$$$

BUY DUROC JERSEYS

of me. What do you want?
J.W. HIGGINS GOTHAM, WIS.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC BOARS FOR SALE

BY Prince Defender, Royal King 4th, and Lee's Defender. Big, stretchy fellows. Shipped on approval. **McCLURG BROS., Viroqua, Wis.**

BOARS ALL SOLD

REMEMBER my **Duroc Jersey sow sale January 31st**
L. F. ATWATER BANGOR, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

POLAND CHINA SWINE.

OPPORTUNITY

OFFERING March gilts out of my big sows, bred for March and April farrow. Sired by JIM CROW, the sire of my WINNERS. Bred to JUMBO'S GIANT (3d at Minn.), Mc's BIG BONE and MATCHLESS WONDER (2d, Ia., 1915). Will sell a few sows. The fact that I SOLD 71 SPRING BOARS shows what the people think of my POLANDS. Buy from a winning herd—it adds prestige to yours.
J. D. McDONALD NORTH BEND, WIS.
"BIG POLAND CHINAS." Selling 4 sows at Madison.

WATCH For My Poland Ad. Next Week

The Feature of the Winter Sales. Write for catalog NOW. Address
P. W. YOUNG PROSPER, MINNESOTA

MARTINY'S BRED SOWS

30 BIG, growthy Poland China March and April gilts, gired by Chief Price and Select Major 2d, 1st prize senior and 1st prize junior yearling boars at the Wisconsin State Fair this fall; and other boars. These sows are bred for April farrow to Golden Gate Giant and Long Black Jumbo, a boar I am going to show next year. If you are looking for something good I can suit you in sows and price.
L. P. MARTINY CHIPPEWA FALLS, WIS.

BRED POLAND GILTS

OF big-type breeding and bred to **Chief Price** by the champion, Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

BRED GILTS

POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.
OLOF C. OLSON STRUM, WIS.

BIG-TYPE POLAND CHINA

SPRING crop of boars at farmers' prices while they last at $27 and $30 each. Brood sow sale will be held February 16, 1917.
CHRIS KARTMAN CASSVILLE, WIS.

POLAND CHINAS

BRED SOWS AND GILTS
Write your wants. Address
R. MEINKING BANGOR, WISCONSIN

DUROC JERSEY SWINE.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

FEB. 15

Poland China Brood Sow Sale

40 TOP OF TOPS - WRITE FOR CATALOG
J. C. HENDRICKS
Box F - - Hazel Green, Wis.

BIG-TYPE POLANDS

SOWS and gilts bred to SMOOTH KING, a son of Golden Gate King. Order one. Address
CHAS. S. MALTBY JANESVILLE, WIS.

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.
E. W. HENDRICKS
Hazel Green Wis.

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).
Marinette County Asylum - Peshtigo, Wis.

FEBRUARY 22nd

WE SELL 50 POLAND
BRED SOWS
WAIT
WM. SMILEY & SONS ALBANY, WIS.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch Mt. Ida, Wis.

45 HEAD

WISCONSIN'S PREMIER

45 HEAD

DUROC JERSEY SOW SALE

BANGOR, WISCONSIN, WEDNESDAY, JAN. 31

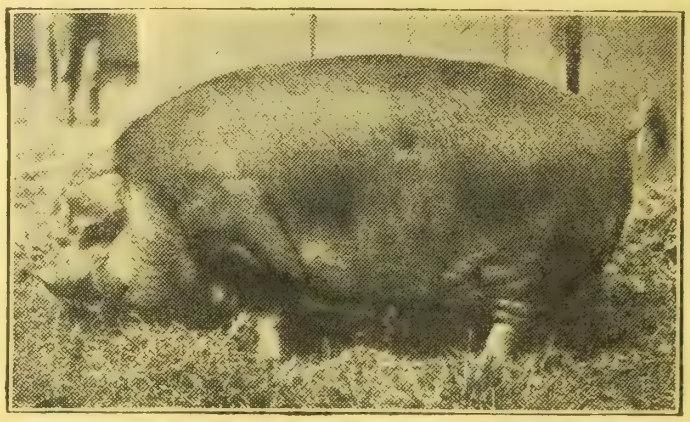
"I Have Sold Good Sows Before, But These Are the Best Yet"

45 HEAD

1 TRIED SOW

9 FALL YEARLINGS

35 SPRING GILTS



BRED TO

P. S. Wonder, full brother to Marion's Wonder.

Proud Chief Jr. by Cherry Chief, dam by Proud Col.

Model King by High Model, dam by King the Col.

THE ATTRACTION.—**Defender Queen**—An 800 pound 2-year-old sow. Grand Champion at Minnesota and Wisconsin State Fairs and third at Omaha. Bred for a February litter to **Proud Chief Jr.**, the Junior Champion at the above state fairs. One of the greatest sows to be sold this winter. The fall yearlings are by **Lee's Defender**, among which are several show prospects. Bred early. The 35 spring gilts are as good as ever entered a sale ring. Some will weigh right at 400 lbs. Sired by Model King, Great Chief (by Cherry Chief), Lee's Defender and out of daughters of **King The Col., Col. Gano, Marion's Wonder, Sensation's Wonder**, etc. REMEMBER—It pays to raise the best—buy where you get that kind. I WANT YOU TO SPEND THE DAY WITH ME. Send all mail bids to T. P. Shreve in my care, I'll guarantee his selection. Write at once for my catalog, and mention The Wisconsin Farmer. Col. I. E. Stickelman, auctioneer.

45 HEAD **L. F. ATWATER, BANGOR, WIS.** 45 HEAD

Dennis Shea Sells January 30, at Melvina. George H. Willsie, February 2, at Prosper, Minnesota Make all sales.

GRIMES BROS. & KRUEGER'S SALE OF

DUROCS

WEST UNION, IOWA

MONDAY, JANUARY 29, '17

40 HEAD---GILTS, YEARLINGS, TRIED SOWS---POPULAR BLOOD LINES

SIRED by **Col. the King** by **King the Col.** by **High Model** by **Col. Taxpayer** by **Pal's Col.** by **John's Orion Again** by **John's Orion** and out of Col. Gano, King the Col., High Model and Crimson Wonder Again sows. SOME BREEDING.

Bred to: **Critic's Model** by Critic's Perf. (2d at Omaha), **Invincible's Pride** by Chief Invincible, **Sunkist Model** by Golden Model 2d, **Queen's Model** by I Am Golden Model 2d, and **Gano Wonder** by Col. Gano.

GOOD SOWS—GOOD BREEDING—GOOD CONDITION.

If you like that kind you'll attend this sale. Send for a catalog at once. Send bids to T. P. Shreve, field man for The Wisconsin Farmer. Col. H. S. Allen, auctioneer.

W. G. KRUEGER HAWKEYE, IOWA

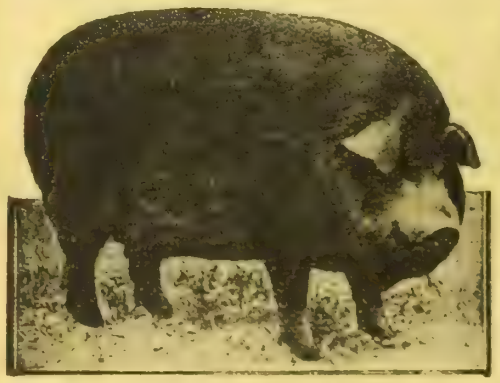
GRIMES BROS. WEST UNION, IOWA

SALE AT WEST UNION, IA.

DUROC JERSEY BRED SOW SALE

Will be held in the city of JANESVILLE, WIS.

THURSDAY, FEB. 8, '17



45 HEAD 45

THE TOPS OF FIVE HERDS

45 HEAD 45

20 SPRING gilts and tried sows sired by or bred to **King Defender**, the 1,000-pound Wisconsin grand champion in 1916. Consigned by **John L. Fisher.** Fifteen spring gilts bred to **King Orion**, the only boar in the Northwest sired by **Orion Cherry King Jr.**, the Omaha grand champion. Consigned by **E. H. Parker & Son.** Ten head from three other good herds. Out of sows by Illustrator, A.'s Defender, Marion Wonder, Pal's Col., Orion Chief, Volunteer, Big Wonder, Joe Orion 2d, etc. Bred for March and April farrow. This follows the association sale at Madison, February 7, 1917. Lloyd Seeley and W. T. Dooley, auctioneers. Send buying orders to T. P. Shreve, Wisconsin Farmer representative. Send for catalog to

P. V. KUHN, Sec'y **JANESVILLE, WIS.**

Your Opportunity
Tuesday, February 6, 1917

45

Head of Selected

SOWS AND GILTS

All of the Choicest Big-Type

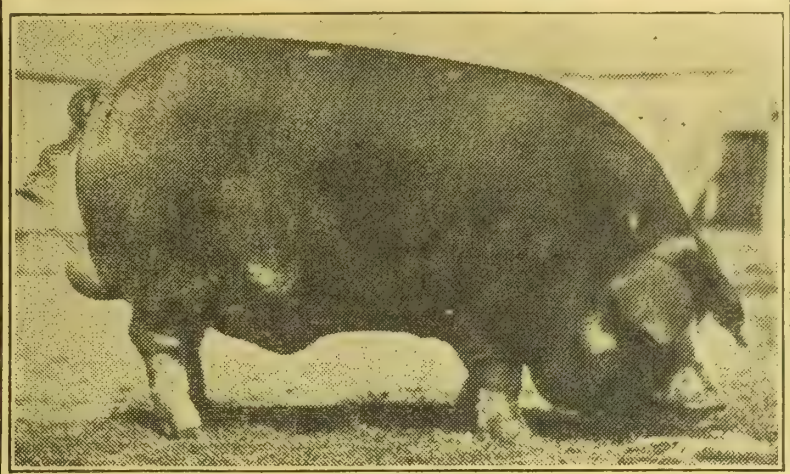
POLAND CHINA

Breeding

EVERYTHING IMMUNE

Get the catalog. It tells all about the breeding lines. Mention The Wisconsin Farmer.

Auctioneer:
COL. H. O. TELLIER



YOUNG'S BIG JOE.

AN INVITATION

To every breeder and prospective breeder in Wisconsin, an invitation is extended you to attend this sale. We will show you one of the greatest lots of **big, good, qualitied** sows you ever saw and **three of the best boars you ever saw in one herd.** The catalog tells you all about how to get here. You can be in Madison the next day.

BRED TO

MASTER'S GIANT
ORANGE WONDER
YOUNG'S BIG JOE

Three Real 1,000-lb. Boars and Every One a Show Boar

They carry the choicest blood lines, those that have made **big-type** Poland China history.

Everything arranged for your convenience and comfort.

Mr. T. P. Shreve represents this paper. If you cannot attend, your buying instructions to him will be given careful attention and any purchases made are guaranteed satisfactory or money back.

P. W. YOUNG Prosper, Minn.

GUERNSEY CATTLE.

A Guernsey Show Bull Backed by Show and Production Records

DAM, Beatrix B, that at two years, five months of age, made 428 pounds of fat and gave 9,024 pounds of milk testing 4.74% fat. She is a daughter of Atwood Prince, whose offspring have been heavy prize winners and whose get of sire was never defeated. His seven A. R. daughters average 460 pounds fat at three years, five months. Sire, King Talladeen of Chestnut Hill, that has been first and champion at several leading fairs, has sired many prize winners. His dam made 635 pounds fat from 11,907 pounds of milk. Price $125. Two other yearling bulls of Glenwood breeding for sale from A. R. cows. Can also spare a few females. Send for our sale list or, better yet, come and visit Waukesha. If we haven't got what you want some of our fellow breeders will have.

FOX BROTHERS **WAUKESHA, WISCONSIN**

REG. GUERNSEY HEIFERS

10 to 14 months old, daughters and granddaughters of the richly bred sire,

GOODWILL'S HERO 17073

DAMS imported and richly home-bred animals. These animals are well grown, good, straight type and well bred. For further particulars send for copy of pedigrees or color description. Address

Charles Schmidt **Wrightstown, Wisconsin**

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.

Berkshire Spring Boars and Gilts

of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address

O. R. FRAUENHEIM, RANDOM LAKE, WIS

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address

Frank E. Swan **Wauwatosa, Wis.**

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl,** a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.

W. G. Jamison & Sons **Appleton, Wis.**

GO TO W. J. HEID

FT. ATKINSON, WIS.,

FOR GUERNSEY BULLS

FROM 2 to 10 months old; also a few females. Best of breeding and good size. Come and see them, or write for description and prices.

A FEW WELL-BRED YOUNG BULLS — *the Harvem Farm* — **WRITE YOUR WANTS**

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

GUERNSEYS

REGISTERED bull calves 4 to 8 months old. Herd tuberculin tested. **EDW. H. KIESLING, JEFFERSON, WISCONSIN.**

Yearling Guernsey Bull

BORN December 5, 1915, sired by Stranford Glenwood of Pinehurst 3d. Dam also of Glenwood breeding. One other bull ready for service. Price right. Send for extended pedigrees.

L. J. Wendt **Waukesha, Wisconsin**

ATTENTION

PURE-BRED Guernsey bulls, two of serviceable age, and eight calves at special prices for thirty days. A rare chance to get some of the best blood lines of the breed. Address

S. A. Merriman **Fort Atkinson, Wisconsin**

FOR SALE—10. mo. Guernsey bull sired by richly bred Glenwood, Blue ribbon calf. A dandy. Price reasonable. W. A. Lawson, Rosendale, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

FRANK P. SHEKLETON & SONS **LAWLER, CHICKASAW CO., IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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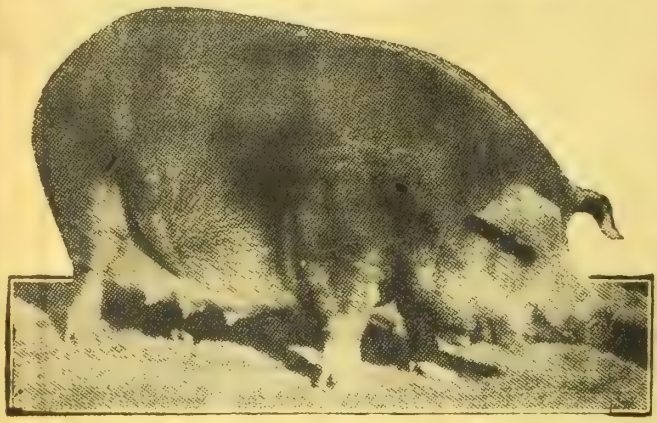

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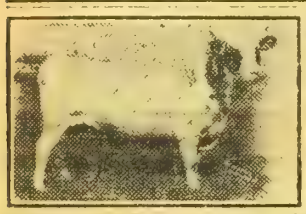

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Can supply your wants if you want
HEIFERS OR BULLS
from A. R. dams. Also breeder of
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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

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WE are pricing our young bulls very low as we are crowded for calf stable room and have 22 cows to freshen. We are offering two sired by **OAK GROVE NOBLE LAD 122654, a grandson of Eminent and Noble of Oaklands.**

No. 1—Born Feb. 9, 1916. Out of **Volunteer's Sally**, that made 597 lbs. butter. Her daughter made 594 lbs. butter as a 2 year old and holds state record for her age. **Price $100.** Send for extended pedigree.

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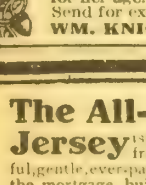

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BORN Oct. 15, 1915, ready for service; straight type, good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
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BULLS and females. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASSN., J. E. Kennedy, Secy. - - JANESVILLE, WIS.**

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OUR offering in Scotch Short-horns this year is probably the best we have had to offer our patrons in years. We have several young bulls of serviceable age, high in quality and rich in breeding, and these are priced to sell. Could also spare a few females.
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YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
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SCOTCH and Scotch-topped Herd headed by Collynie Sultan by Roan Sultan, out of Marchioness dam. If interested write
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WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
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2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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D. S. Polled Durhams. An extra good, dark roan bull 11 mos. old and a dark red 10-mo.-old bull. They'll suit. F. S. Bunker, Kilbourn, Wis.

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OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy
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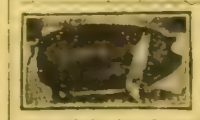

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OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each; 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Dane's Model 25929.
DANE STOCK FARM **OSHKOSH, WIS.**

HOLSTEIN-FRIESIAN CATTLE.

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

ALL of our cows have A. R. O. records nearly all from 20 to 33 pounds. our 38 yearly records average 16,619 pounds milk and 709.3 pounds butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four year olds and 12 mature cows. Pay us a visit and be impressed with the size, health and vigor of our stock.

SIZE HEALTH **HOLSTEIN BULL CALVES $100 and Up** VIGOR BREEDING

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.

Reuben Klofanda R. 1, Racine, Wis.

HOLSTEIN BULL FOR SALE
Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediate sale. Address

PINEHURST DAIRY SHEBOYGAN FALLS, WISCONSIN

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

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TWO HOLSTEIN BULLS EIGHT MONTHS OLD

SIRED by Johanna Chief De Kol, that has 62½% of the same breeding as Johanna De Kol Van Beers, 40.07 lbs., with 7 tested daughters. First bull out of a 20.51-lb. dam, she sired by a grandson of De Kol Burke. Second bull out of a 19.50-lb. four year old, she a granddaughter of Sir Johanna Fayne, with a 31-lb. daughter. Also a few heifer calves nearly one year old by the above sire. Prices reasonable. Address **Edward O. Mueller, Appleton, Wisconsin**

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REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves, $18.00 each crated. Write us. We have what you want. Address

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OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heay producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address

ARTHUR RUST
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High Grade Holstein

HEIFER calves, 15-16 pure, from high producing dams, $18 crated. Alsotw o bulls 11 and 9 mos. old from A. R. O. dams. Good individuals, nicely marked, 7-8 white. As we are short of room will price these right. Also bull calves. Send for pedigree and price. Mountain Ash Stock Farm, J. B. Cain, Glenbuelah, Wis.

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FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

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TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address

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MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address

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WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

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SIRED by King Piebe Jessie De Kol and out of good, heavy-producing dams. Bulls well-marked, over half white. R. W. Hume, Endeavor, Wis

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WELL GROWN, WELL MARKED HOLSTEIN BULL

BORN December 1, 1915. Ready for immediate service. Sire, Crown Pontiac Korndyke, a richly bred son of Pontiac Butter Boy, that has 59 A. R. O. daughters, 4 above 30 pounds, and that is a half brother of Hengerveld De Kol and out of the same dam as Pontiac Clothilde De Kol. Dam, Stellaris Burke Pontiac 3d 255567, a big, roomy heifer with a fine large udder and good teats. She will be tested when she freshens again. Her dam is a 24.44-pound granddaughter of Hengerveld De Kol. Good type and high production have been bred into him in every line of his pedigree. Buy him now. He will soon be worth twice what we ask now. Send for pedigree. Address

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HOLSTEIN BULL FOR SALE

THE bull advertised last week has been sold and we now offer a grand individual, straight top line, square, broad rump, smooth over shoulders, well sprung ribs, good head and lots of style. Dropped July 1, 1915. Sired by Prince Johanna Belle, that came from the same herd that produced Johanna De Kol Van Beers, Cedarlawn Johanna and other noted animals. His dam is a half sister to a former world's record two year old, both being sired by Gem Pietertje Hengerveld Paul De Kol, 13 A. R. O. daughters. We are pricing this youngster at $90.00.

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Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

HOLSTEIN BULL CALVES FOR SALE

BY 32-lb. sires and from A. R. O. dams up to 24 pounds butter in 7 days. Popular breeding. Good individuals. Priced from $100 up. Mention The Wisconsin Farmer and address

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"Where Price and Quality Meet."

2 Richly Bred Holstein Yearling Bulls

BOTH sired by **King Pietertje Hengerveld Ormsby,** a full brother to **Pietertje Maid Ormsby.** Both are out of daughters of **Sir Aaggie Ormsby.** One an A. R. O. cow making 17.50 pounds butter as a three year old. These bulls are of **Ormsby** breeding on both sides. Send for extended pedigrees and prices. **HUTCHINSON BROTHERS & BURBACH, RANDOLPH, WISCONSIN**

DODGE AND JEFFERSON COUNTIES

THE two greatest Holstein counties in Wisconsin. Holsteins from these two counties have made Wisconsin famous. You can buy the same kind of blood now. Our breeders can now supply you with both males and females of all ages. Write Francis Darcey, Watertown, Wisconsin, Secretary, Inter-County Holstein Breeders' Association.

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.

SILVER SPRING FARM CO. - EAU CLAIRE, WIS.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers Ixonia, Wisconsin

Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.

JOHN STEELE OCONOMOWOC, WIS.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

Fred Kohlwey Grafton, Wisconsin

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L.V. Garvens, Brookfield, Wis.

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb. cow, and out of A. R. O. dams.

Write **R. C. Walker, Kilbourn, Wisconsin.**

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grandams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

GEO. H. GIBSON NASHOTAH, WIS.

TWO REGISTERED

HOLSTEIN HEIFERS

GRANDDAUGHTERS of Johanna Mc Segis from a bull whose four nearest dams average over 25 lbs. butter in 7 days, 15 months old, very good type. One is five-sixths and one three-fourths white. Bred to a bull out of a 20.45-lb. 5-year-old cow. Price $300 for the pair. Send for pedigrees or come and see them.

Mrs. Peter Milfried Cazenovia, Wisconsin

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born March 10, 1916, nicely marked, well grown, a good individual and tuberculin tested. His sire, Cornucopia Pontiac Johanna Lad, a full brother to world's yearly record senior 2 year old, and the sire of most of our state fair winners. His dam is a 16-lb. 2-year-old daughter of a 33-lb. bull. Seven nearest dams average 22.89 butter. Write now for reasonable price, pedigree and photo to

N. Dickinson & Son Lake Geneva, Wis.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

W. H. S. Rhoda Watertown, Wis.

HIGH grade Holstein heifer calves, well marked, sired by registered bulls and out of heavy producing cows, $16.00 crated. Registered bull calves, $40. Paul McFarland, Watertown, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your wants. Address L. C. Underwood, Avoca, Wis.

Red Poll Headquarters

OFFERING two bulls of serviceable age for sale. Also a limited number of heifers. Choice individuals. Write **J. W. Salter & Sons, Unity, Wis.**

RED POLLED HEIFERS

HAVE a choice lot of yearlings, two and three-year-old heifers, bred and open. A few well-bred top bull calves. A great opportunity to buy foundation stock. Correspondence invited.

H. A. Martin Gotham, Wis.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

MAPLE LAWN RED POLLS

SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.

L. F. Biglow & Son Brooklyn, Wis.

LET 1917 BE A YEAR of GREATER SAVING ON QUALITY GOODS

"The best separator I know how to build."
—Wm. Galloway.

Four New Sizes—Skimming Capacities 375, 500, 750 and 950 lbs. per hour

Get my new 1917 Wholesale Prices

I AM STILL "DIVIDING THE MELON!"

By making better farm implements in greater quantities and selling them at the lowest possible prices. My prices on the highest quality Cream Separators, Gasoline Engines, Manure Spreaders, Tractors, etc., that I manufacture in my own chain of factories right here in Waterloo include only the cost of raw material, the skilled labor that is required to produce them and one small profit, based on enormous volume. I sell these goods direct to you—from FACTORY TO FARM—without a single dollar of expense in selling through the ordinary salesman-jobber-dealer methods. My motto is NO LOST PROFIT BETWEEN PRODUCER AND CONSUMER. Galloway prices have **not** advanced more than to take care of the increased cost of first-class materials and the expert labor that it takes to turn out high-class gasoline engines, cream separators, manure spreaders and tractors. I was the first manufacturer to offer a high-grade gasoline engine direct to you at one small profit. I built the first high quality spreader and sold it direct at a reasonable price. I was the first bona fide manufacturer of high-class cream separators to build and sell direct to you on the farm, cream separators as good or better than you have been paying fancy prices for. The whole story about the growth of the Galloway institution, the policies and selling plans on which we sell high-class goods, the growth of the great chain of Galloway factories, the story of the **MILLIONS OF DOLLARS OF SAVING** I have made directly and indirectly for the farmers of America is told in Galloway's 1917 catalog. To get this book, to read it, to study it means that 1917 will be a year of great saving for you and it will prove that I am **STILL DIVIDING THE MELON WITH MY FRIENDS AND CUSTOMERS.** Ask for this book today. Read the advertisement below. Please state what you are interested in buying and I will send the book free by the first mail.

MY NEW SANITARY CREAM SEPARATOR

IS NOT EXCELLED in skimming ability, in beauty of design, in the fine material which goes into building, in workmanship, finish or the lasting satisfaction that it will give every user, by any cream separator on the American market. Remember, that we took four years to design and perfect this separator--to build into it every good cream separator feature.

It has not been built down to a price as many separators have been, but instead has been built up to a high standard IN OUR OWN FACTORIES right here in Waterloo. Don't get fooled on separators only assembled by so-called manufacturers and priced at figures you positively know a satisfactory sanitary cream separator cannot be built for. Stand the Galloway side by side with cheaper machines and YOU WILL SEE THE DIFFERENCE in material, workmanship, down-to-date design and skimming qualities. Stand it beside the highest priced machine--test them side by side for months and you will see that higher-priced machines will not run any easier or skim any closer, cannot be more perfectly sanitary, nor better built.

TRY IT 180 MILKINGS ON YOUR OWN FARM!

Note its few strong, simple, sanitary parts. See how easy to wash and clean--no sharp corners. Bowl catches any foreign matter in the milk while skimming. Only two shafts in the whole gearing, both of high-carbon steel, in long, perfectly fitted bearings. You will find all gear shaft and both bowl-spindle bearings supported by one casting--the gear case. This means perfect alignment, little wear and easy running. All working parts run in a SPRAY OF OIL. Note that the cream shelf drops when not in use--that it forms a vise to hold the bowl while handling.

I just want you to try this separator. If you like it, buy it. IF YOU DON'T, SEND IT BACK. We pay freight BOTH WAYS. If the new Galloway Sanitary is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is I could not afford to make this 90-day (180 milkings) trial offer, and I could not afford to GUARANTEE IT TEN YEARS, nor make

EVERY SALE BACKED BY A $25,000 BOND

Ask for Galloway's 1917 catalog today. I want you to have this book. It tells how we build Galloway Sanitary Separators from the ground up. How they are designed, and the story of how we perfected this wonderful cream separator. It gives many separator secrets and facts. Chock full of dairy wisdom. Why by selling direct I can make a machine as good or better than many high-priced separators sold through the three and four profit system and sell it for much less.

My Book Is Free to You

It tells the whole story. It tells the facts. It will settle the separator question for you. ASK FOR IT TODAY and mention cream separators.

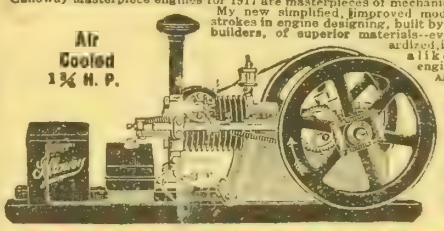
"Yes sir, I divide the melon with you!"

MASTERPIECE ENGINES FOR 1917 INCLUDE EVERY SIZE-STYLE

No matter whether you want a stationary pumping engine, a 4 h. p. portable engine to move about, a 6, 9 or 12 h. p. saw rig, a horse portable 16 h. p. mogul engine for the biggest, toughest jobs--I BUILD THEM in my own factories right HERE IN WATERLOO and sell them DIRECT TO YOU at the actual cost of material and labor and one small profit which is based on tremendous output. I want you to try a Galloway engine on your own farm or in your own shop and see for yourself how scientifically they are designed, how wonderfully built, machined and finished. If you pay more you are PAYING TO MUCH. If you pay less for an engine than for a Galloway Masterpiece you COULD NOT POSSIBLY be getting as good an engine. I want a Galloway Masterpiece 1917 model gasoline, kerosene or distillate engine in every township between now and April 1st, and my 1917 special prices and proposition will put them there. Ask for Galloway's 1917 catalog today.

HERE ARE THE 1917 IMPROVEMENTS!

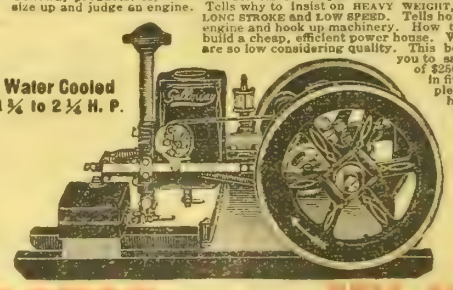
Galloway Masterpiece engines for 1917 are masterpieces of mechanical construction. My new simplified, improved models are master strokes in engine designing, built by master engine builders, of superior materials--every part standardized, interchangeable, alike. All Galloway engines develop WAY ABOVE RATED H. P. Bearings adjustable. Economy carburetor, worth $15 more on any engine--costs nothing extra on the Galloway--cuts down fuel bills. Valves in the head, exactly like highest-class automobile motors. Double ball governor, never sticks, regulates speed perfectly. Large, heavy flywheels. Large bore, long stroke, heavy weight, perfect balance. (Galloway engines will not rack and tear themselves to pieces like high speed, light weight engines). Perfect lubrication, winter or summer. Magneto (extra) supplies blue-hot spark. Make and break Galloway igniter, never misses fire. EASY TO START--no cranking, needs no batteries. Cylinder and water pot frost-proof. Compare the 1917 Masterpiece engine size for size, bore, stroke, weight and low speed (which means easy running and long satisfactory engine life) then be your own judge. My



Air Cooled 1¾ H. P.

FIVE NEW SELLING PLANS NOW READY!

Buy on your own terms--cash or time--any way to suit you. That's how I sell all Galloway products. My 1917 book describes each plan in full. Tells how to pick out, size up and judge an engine. Tells why to insist on HEAVY WEIGHT, LARGE BORE, LONG STROKE and LOW SPEED. Tells how to install an engine and hook up machinery. How to lay out and build a cheap, efficient power house. Why our prices are so low considering quality. This book will guide you to saving upwards of $250 or even more in fitting up a complete farm power house. That is why I want you to get it.



Water Cooled 1¾ to 2¼ H. P.

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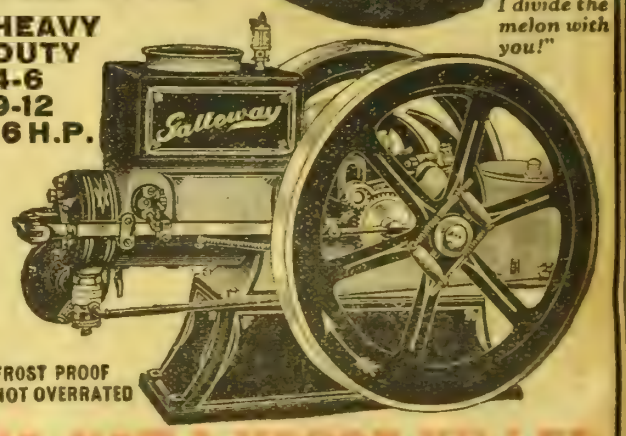
Please mention engines in writing.

HEAVY DUTY 4-6 9-12 16 H.P.



FROST PROOF NOT OVERRATED

1917 EFFICIENCY TRACTOR = MY No. 9 IS NOT A HORSE KILLER

Users call it the wonder of all farm tractors. It is unlike other tractors for we have eliminated unnecessary friction and built it along automobile lines. How far and how easily could you go in your automobile if it had an axle like your farm wagon or your mower? The Galloway Efficiency tractor is built with **anti-friction bearings.** Twenty-one sets of Hyatt roller and ball bearings--which save engine power for the draw bar and the pulley--where power is really needed. By actual dynamometer test the Galloway tractor only takes 13 1-2% of the motor's power to drive the tractor unloaded. On many tractors it takes from 30 to 50% of the engine power to propel themselves.

A ONE-MAN TRACTOR—OTHERS ASK $500 MORE!

This new tractor has a four cylinder, valve in the head, modern motor, water cooled; **all** working parts protected. 12 h. p. on the draw bar and 20 h. p. on the pulley guaranteed. Turns short. Weighs 5,200 lbs. Transmission a unit with the motor. We have **exclusive manufacturing rights** on this patented transmission. Will pull three 14-in. bottoms 8 to 9 in. deep in clover or timothy sod. Will do any portable engine job--sawing, silo filling, corn shelling, shredding, handles a 28-in. grain separator, any kind feed grinder, a pumping or irrigation plant. **Double chain drive.** Engine runs in tight oil-bath case. Rear wheels 68 in. high. Famous Pierce governor on the motor—engine never races. **Only two levers control it.** Complete description of this wonderful farm tractor in my new 1917 book.

Le Mars, Iowa, November 15, 1915.

Wm. Galloway Co., Waterloo, Iowa.

Gentlemen:—

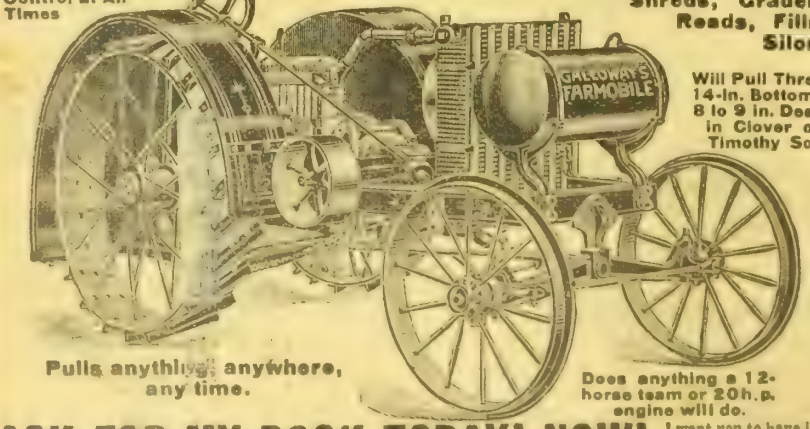
I have tried it out in every way and it is right up and coming. I have run an ensilage cutter with it, filling a silo 16x32 ft. two-thirds full in 4 1-2 hours and it was play for it. I have plowed in all kinds of soil, stubble, backsetting and clover sod and wild prairie sod. I can pull the three plows 6 inches deep in the prairie sod and do it with ease. I know it has power enough to pull four plows in stubble. It is very economical on gas and oil. After the demonstration here three different parties here told me it did better work than at the Fremont plowing match.

GEO. R. STEELE.

My new catalog illustrates and describes this tractor in full. Ask for it today. If you are going to buy a tractor within the next twelve months, kindly let us know.

Driver in Absolute Control at All Times

Plows, Hauls, Threshes, Saws, Grinds, Shreds, Grades Roads, Fills Silos



Will Pull Three 14-in. Bottoms 8 to 9 in. Deep in Clover or Timothy Sod

Pulls anything, anywhere, any time.

Does anything a 12-horse team or 20 h. p. engine will do.

But is the lightest draft, best built, low down spreader in the world, with all four wheels under the load. It is worth more to you **in the field in actual use** than any other spreader. First—it is low down—only 42 in. high to center of box. Two horses handle it anywhere. The Galloway wide spreading V-rake — **worth $15 extra** on any spreader, costs you nothing extra on the Galloway. The invincible irresistible patented roller feed—an exclusive Galloway feature—the secret of its light draft—**alone worth $25** on any spreader, costs you nothing extra. Patented automatic stop, uniform clean-out push board—**worth $10 extra** on any spreader, costs you nothing extra, exclusive on the Galloway.

SHORT TURN—WHEELS UNDER LOAD —STEEL BEATER!

These are **only a few** of the special features you will find on the Galloway spreader, all of which are protected by Galloway patents. Don't buy a spreader of any make or kind until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk, **without obligating yourself** in any way. Give my spreader THIRTY DAYS' ACTUAL FIELD TRIAL and return to me within one year if not perfectly satisfactory. Could anything be more fair? Could you want a better offer?

My 1917 spreader improvements include beater bolts 1-16 in. larger with lock nuts. Beater bar bolts increased in size and strength. Beater teeth longer and stronger than ever--tear the toughest manure finer than ever and spread it easier. Rear shaft increased in strength--higher carbon steel used. Larger drive sprockets, which mean lighter draft than ever. Fifth wheel castings larger and stronger--makes spreader box steadier in turning. Rear conveyor shaft now made of 40 carbon steel. All steel tongue. All metal parts thoroughly coated with asphaltum weather-proof paint. Spreader box better finished and painted. No other spreader compares with it.

ASK FOR MY 1917 CATALOG. It tells all about manure spreaders--how to increase your corn crop. How to increase small grain crops by the judicious use of manure. How to handle manure with the least labor. How a Galloway spreader will pay for itself in one year by increasing crop profits. How we save you money on a high class, light draft spreader and **still give you a better spreader than the old-fashioned, cumbersome three and four-horse machine.** How a run-out, unproductive farm was turned into a gold mine crop producer. Why I built a manure pit on my own dairy farm to save all fertility. Ask for this book today and if interested in spreaders please say so.

Gear lever throws both both sides of beater in gear simultaneously.

Adjustable Feed Lever—Convenient, Accessible.

Steel Tongue

Angle steel endless apron. Double chain drive.

All-steel V-shape rake Patent roller feed

From 4 to 24 Loads Per Acre

ASK FOR MY BOOK TODAY! NOW!

I want you to have it. All I ask you to do is tell me what you are interested in—what you expect to buy—what you need on your farm, whether one, two, or all of the above lines that we manufacture. A postal card will do. Make it a letter if you like. I know I can save you money if you will get this book before you buy. It will show you that I am still dividing the melon here in Waterloo. Remember we ship engines, spreaders, separators from our transfer houses in Council Bluffs, St. Paul, Chicago, Kansas City and from the factories here in Waterloo. Also remember that we WANT YOU TO COME AND SEE US any time you can. The latch-string is always out at the Galloway Agricultural Club--a building that we put up to take care of our friends and customers when they come to see us. Thousands visit our offices, club building, display and sample rooms and factories every year. Why not come and see us yourself?

WM. GALLOWAY, President, WM. GALLOWAY COMPANY, Farm Implement Manufacturing Specialists **37 Galloway Sta., WATERLOO, IOWA**

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THE WISCONSIN FARMER

VOL. XLVI. NO. 4. THURSDAY, JANUARY 25, 1917. WHOLE NO. 1826

Indiana Univ.
Urbana Ill.
Oct 16 1917

The "Family Unit" Type of Farming

HERE IS A CHESTER WHITE HERD WELL UP ON THEIR TOES AND WITH SPLENDIDLY ARCHED BACKS.

ATTENTION has frequently been called to the fact that the glut of new land has eliminated the necessity for efficiency on the farm in times past. We have engaged in extensive rather than intensive farming, but now that all our best lands are occupied, we are confronted with the necessity of increasing the efficiency not only of the individual, but of the farm family. Facing, as we are, the insurmountable difficulty of hiring help to tend more acres, we find relief in varying the plan of farming, so that all members of the family may have a part in making the same acres produce more. This does not mean a theoretical condition that cannot be worked out in practice, because here and there throughout the entire corn belt can be found fine examples of this so-called "family-unit" type of farming.

At this time we have in mind the 240-acre farm operated by G. L. Emmert & Sons, in Cerro Gordo county, Iowa. To begin with, this farm was wet, and it was uphill work to make desired improvements out of the income from the land, and outside capital was not obtainable. At first an attempt was made to solve the problem by handling more land, but this divided the family without increasing the efficiency of the indiv l-uals. The next step was to tile the land, and the outcome of this venture furnishes an example that might well be followed by thousands and tens of thousands of central western farmers. It was not all accomplished in a season, but as each forty was tiled out, yields were doubled and trebled, thereby furnishing new capital for more tiling, for farm buildings, for comforts and luxuries in daily living. On this very page some improvements, that are the outcome of this tiling program, are shown in illustration. Here is a barn, 34x82, with thoroughly equipped stabling for fifty head of animals. The group of buildings includes a 160-ton hollow tile silo. There is, in addition, a magnificent eight-room hollow tile dwelling with stucco facing equipped from basement to garret with modern conveniences that cannot possibly be excelled in any city home. The basement furnace does away with the need of the old-fashioned stove with the attending dirt and grime, saying nothing of the labor of caring for it. A complete wiring system for electricity is installed ready for the turning on of the current, and there is, in addition, a basement vacuum cleaning system, which is one of the greatest godsends that has ever come to the farm woman. The equipment in this home means increased efficiency of those who have it in charge. Imagine what it would mean in the cutting down of labor if all farm homes could have water under pressure in every room, as in the case in this instance. Compared with the old-fashioned plan of carrying water from out of doors, one may safely assert that the labor is cut squarely in two, because the plumbing system in this home includes waste pipes that reduce enormously the number of steps in a day's work. We shall later on see that effective work is being done in every department of this 240-acre farm, but nowhere do we find it excelling that performed in the home, because Mrs. Emmert, with the equipment that we have described, is not a slave to the washtub and dishpan, but an alert, interested helper, working out with her husband and with her splendid sons an efficiency program on this beautiful farm.

When you go to the stables you find Frank in charge of the dairy cattle. He has done good work in getting together a productive grade Holstein herd, with a sire at the head chosen from high-producing ancestors. Two things are required of every cow in this herd, or she is sent to the shambles. She must have large productive capacity and, secondly, she must be able to sustain it throughout a long lactation period. In the dead of winter, with only twenty-one cows giving milk, Frank's weekly returns are running from $75 to $85. The milk is disposed of to a wholesaler for $2 per hundred pounds in winter and for $1.75 during the spring and summer

FINE BASEMENT BARN WITH EVERY IMPROVEMENT IN INTERIOR THAT A MODERN BARN SHOULD HAVE.

HOLLOW TILE FARMHOUSE WITH STUCCO FACE, EQUIPPED WITH MODERN CONVENIENCES FROM CELLAR TO GARRET.

months. But this fine income is not the result of change. As before stated, the cows are large producers, but this is only half the story, because they are liberally and scientifically fed. No bulletin on feeding dairy cows has escaped Frank in recent years, and he long ago learned that a dairy cow should be fed grain in proportion to her productive capacity, and he is now obtaining excellent results from feeding one pound of grain to three pounds of milk produced. His grain mixture is composed of 200 pounds of corn meal, 100 pounds of bran, thirty pounds of cottonseed meal and twenty pounds of oil meal. The cows are fed twice a day and in addition to their grain they are given about three pounds of ensilage for each hundred pounds of live weight. This means that a cow weighing 1,000 pounds will consume thirty pounds of ensilage in a day. In addition, this dairy herd receives all the good hay that they will consume. They spend the cold days in their stanchions and are only turned into the yards at watering time. The condition of these cows and the fine, big, well-developed udders that they show right in the middle of winter indicate that this plan of feeding is a meritorious one, and every dairyman who is not satisfied with his returns can well afford to follow the fine example of Frank Emmert in handling his dairy herd as outlined above.

But there is another interesting thing in connection with the management of this herd. They are not milked by hand, but by machine. Five years ago a milking machine was installed, and it has operated most successfully ever since. It has been found possible to milk as many as twenty-eight cows in an hour and to do it most efficiently. Head work is needed, to be sure. The easy milker requires less and the hard milker more "vacuum," so that, after all, success in operating the machine depends on the skill of the operator. Three men would ordinarily be required to do the milking in this herd in order to get it done on time for delivery. As it is, the machine, under the operation of one man, performs the service and not more than two or three times in the entire five years has it been out of condition, necessitating milking by hand. All in all the milking machine is a great success on this farm, and it is safe to say that it has multiplied the efficiency of one man at least 100 per cent.

But there is another important department on this farm with another son, Ben, in charge of a fine, pure-bred herd of Chester White hogs. Ben is literally a crank on good breeding, and he has already made his mark as a showman, because the records of the 1915 Iowa State Fair show that Ben captured the grand champion ribbon on W. A.'s Wonder, the real meaning of this honor being that this was the great boar in the Chester White classes at the Iowa fair that year. A $1,000 cash offer was refused for this hog, and it was turned down because Ben believed that herd improvement necessitated the use of the best sires obtainable. A study of the old sows, the gilts and the yearlings in this herd shows that there has been a complete transformation in the type of the Chester in the last decade. Every student of this breed knows that they were formerly low in the back and in many cases they were simply wretched in their feet and legs. Here is a herd well up on their toes, with splendidly arched backs and with scale and quality to suit the most fastidious taste. The cafeteria system of feeding is practiced, and here and there in the hog yards can be found the self-feeder with tankage, mill stuffs and corn available at all times. These Chesters balance their own ration and their activity and sturdiness and their growthiness indicate that they are doing it in ideal fashion. Under this policy of liberal feeding the herd has remained prolific, thus disproving the theory that you have to starve a breeding animal.

It might be proper to ask what occupies the attention of the senior member of this firm, Mr. G. L. Emmert. With Frank tending the cows and Ben the hogs, what important branch is left for the father? Let it be remembered that this 240-acre farm is being forced for all it is worth. A four-year rotation system is followed, so that after taking off one crop of clover, over it goes and back into corn the next year. They, therefore, have two crops of corn, then oats seeded to clover, followed by a meadow one year and back again to corn. This rotation is keeping the land in productive condition, and a 75-bushel corn crop is not unusual. General farming is the hobby of the senior member of this farm, with the boys specializing in dairying and in hog raising, and, in addition, giving much of their time to farm work and outside farming activities. All in all, the plan has worked out admirably

Everybody on the Emmert farm is busy and happy. If the work is strenuous it is agreeable, and everything is being done in a fine spirit. The returns per acre are amazingly large, as they always will be on good land where sensible live stock farming is engaged in and where good, common sense is used in the planning of the crops.

Get My Price—FIRST
Freight Prepaid—30 Days' Free Trial
I want to quote you a price that will cause you to sit right up and take notice on the grandest, best plow that ever turned a furrow. I can do it because we are the *actual manufacturers*, and sell *direct to you*. We don't have traveling salesmen—don't sell to jobbers or dealers. You save those expenses and profits when you order direct from our factory. But that isn't all. You get a *better plow*. I say to you that the
MONMOUTH SULKY OR GANG PLOW
will prove easier for you to handle, easier on your horses and will do your work better than any plow you can buy, regardless of price. It's positively the only plow that actually carries the beams on top of the frame. No pressure on bottom of furrow—no friction. Single Bail and Horse Lift; and "Point First" action.
ALL SOLD DIRECT FROM FACTORY
FREIGHT PREPAID, SO YOU KNOW EXACTLY WHAT YOUR PLOW IS GOING TO COST YOU
I'll give you a chance to prove every statement I make, and we'll pay the "damages"—freight *both* ways—if we "fall down" in a single assertion. I want to tell you all about these plows and our other implements—Cultivators, Disc and Spike Tooth Harrows, Grain Drills, Mowers, Rakes, Farm Gates and other farm tools—all sold at factory prices. Satisfaction guaranteed. Just write a postal for our complete catalog. It's free. Write to me, The Plow Man, with

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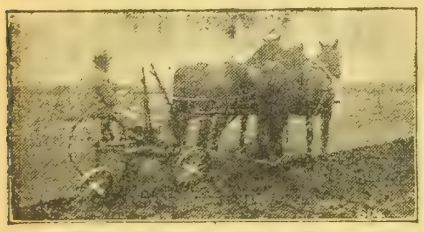
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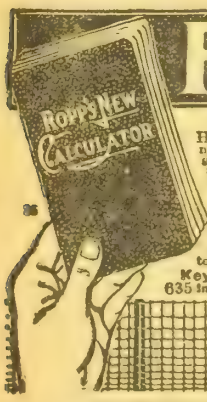

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The Wisconsin Farmer

THURSDAY, JANUARY 25, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

WISCONSIN FARMER KEEPS PACE WITH WISCONSIN.

THERE are none of my readers who rejoice more than I do over the wonderful prosperity which has come to Wisconsin farmers during the past year, not only because of increased production, but because of increased prices as well. Statistics are proverbially dry reading, but in reading the figures for Wisconsin's farm wealth the other day I saw behind the plain details on the printed page a scene of prosperous farms, comfortable homes, happy families, splendid herds, and barns and silos bursting with their stores. That is what the figures meant to me as I read that Wisconsin farmers produced field crops and dairy products worth over $410,000,000 last year, which was nearly $80,000,000 more than in 1915, and that Wisconsin ranks first among all the states in the number and value of her dairy cows, in the production and value of rye, in the number of silos, in the production and value of creamery butter and cheese, and in the percentage of farms operated by owners. A vision of unequaled prosperity unfolded itself before me as I noted that dairy cows are kept on nearly 165,000 out of about 170,000 farms, with an average of nine cows to the farm. Then, as I recalled that these cows furnished the material for one-sixth the creamery butter and one-half the cheese of America, and that the prices this year are far in advance of those of a year ago, I realized that peace hath its victories no less than war, for one would have to turn to the tainted wealth of eastern munition factories to equal Wisconsin's farming prosperity this year.

But, fortunately for Wisconsin, her agricultural interests are not all carried in one, or even two or three, baskets; for her farming industry is the most diversified of any in the Union. Not only in dairy, field, garden and fruit products is Wisconsin well to the fore, but her beef cattle and hogs are making her more and more a leading live stock state, with every passing year.

Realizing these things, it is my great ambition that The Wisconsin Farmer shall keep pace with the state's development; and in line with this policy I have added another practical field man to our already large and efficient editorial staff. Mr. Fred A. Koenig, who will devote his entire time to gathering editorial matter of general interest to Wisconsin farmers for these columns, has been closely associated with dairying interests all his life. He received a degree from one of the leading agricultural colleges in the country for special work along dairying and farm journal lines. He has contributed largely to leading dairying publications, and he comes to his permanent work on The Wisconsin Farmer with great faith in Wisconsin and her agricultural supremacy. An expert photographer and a fluent speaker of German, it is my hope that, as he goes about our splendid state with his camera and his editorial note book, he may meet all the leading dairymen and as many of my readers as possible, so that he may reflect their views, present their problems and add practical editorial efficiency and interest to the columns of The Wisconsin Farmer every week.

Mr. Koenig was to have joined The Wisconsin Farmer force some six months ago, but he was one of the soldier boys who responded to the call for the national guard on the Mexican border. Now that his country needs him no longer he is ready to devote his energies and his fine ability to promoting the interests of the readers of The Wisconsin Farmer and of our beloved state. I bespeak for him a friendly reception from those of my thousands of readers with whom he will come in personal contact, and I hope the acquaintances which he forms may lead to a closer relationship between them and myself.

MR. FRED A. KOENIG,
Farm journalist, dairying expert and photographer, who has joined The Wisconsin Farmer editorial staff after service on the Mexican border.

A TRIBUTE TO WISCONSIN.

I FIND many tributes paid to Wisconsin, in the course of my general reading, for no state excels ours in progressiveness, prosperity and the generally advanced position of the people. One of the most interesting of these tributes is to be found in the American Magazine and is from the pen of Ray Stannard Baker, a well-known writer of the day.

Mr. Baker devotes himself more to the political and intellectual progress of Wisconsin than to its agricultural. But just as there are many facets to a diamond, and all are necessary to its brilliancy, so our beloved state is many-sided and would be incomplete if we were to omit a single one. I find myself greatly interested in what Mr. Baker has to say of the advanced position which Wisconsin takes in public thought and affairs. He congratulates our state in this manner:

> Wisconsin is the least partisan, the most fearless-thinking of the states; and its most important contribution to the nation is its hard-wrought political and educational pioneering and experimentation. With it all, Wisconsin is not a radical state; it is too tough-minded, too practical. It wants to go ahead, but to go ahead solidly and cautiously. Wisconsin wants to be certain that all its political reforms are buckled down to real educational and economic ends. And it has the smallest per capita state debt of any Northern state, and no bonded indebtedness whatever.

Much as Wisconsin has already accomplished, Mr. Baker believes she is destined to still greater things. He sees her taking more commanding position in the sisterhood of states, a leader in every branch of thought. Here is the picture he paints at the conclusion of his article:

> A strong, sound, healthy state, she has employed her youthful energies thus far in subduing the virgin forests, opening the mines, developing the commerce of her lakes and rivers, building her roads and cities. She has harnessed her imagination to the creation of institutions in a new land. In that process of hard work and frugal living she has grown strong and clear. One day, she will pause at her task and look up at the stars! One day she will perceive newly the beauty of her surroundings—the little lakes that John Muir played about as a boy and called the "eyes of God," the wonderful wooded valley, the hills and streams and forests of the north, and the wide-rolling farm country of the south; and the marvel of the strange new human amalgam of northern races coming up in a wild and free environment, and eager for the adventure of self-expression. I love Wisconsin, and so I know that one day she will speak out of the depths of her heart.

Can we not all join, with Mr. Baker, in repeating the sentiment with which he closes his tribute:

> I love Wisconsin. Is there a fairer, richer, greater, nobler state in all this broad land than ours? Are there any people anywhere more devoted to progress, more firmly enlinked with a well-deserved prosperity, more Christianly charitable than ours?

I say no, most emphatically; and so I add this thought: Let us stop every little while to pay tribute (humble, though it may be, and perhaps not even by word of mouth, but simply by thankful heartbeat) to the state which means so much and is so dear to us all.

ALL WISCONSIN JOINS IN SINGING "AMERICA."

I TAKE the greatest pleasure imaginable in complying with the numerous requests from readers of The Wisconsin Farmer for copies of "America" printed in slip form. If I can be responsible, in any degree, for thousands upon thousands of farmers in this fair state of ours, lifting up their voices in loving praise to "My Country" and returning thanks to the Giver of all good gifts for the many blessings which we enjoy, I shall feel amply repaid for all the expense and trouble to which I am put to get these slips to all who desire them. In these trying times when trouble might so easily be precipitated, the more we unite in returning thanks to "Our Father's God," for peace, plenty and prosperity, the better for us and all concerned.

I am going to take the liberty to print a few letters from among the many hundreds which I have received, asking for "America," within the last few days. All the letters which I print herewith came to me in the same mail, on the same day, and are characteristic of the many I am receiving.

The first was written by J. B. Cusack, of Kilbourn, Wisconsin, and is as follows:

> Mr. Pierce:—I am a subscriber to The Wisconsin Farmer, read it carefully and like it very much. I certainly hope it is receiving the generous support to which it is entitled. Please send me some extra copies of the national hymn, "America."

I am glad to be able to reassure Mr. Cusack as to the support which the farmers of Wisconsin are giving this paper. We are having the best year of all the twenty-four which the paper has been published by me, and all the sixty-nine which it has been in existence. For this I am duly and deeply thankful to all my good friends throughout our beloved state.

The following letter came to me from Mrs. Wm. Lambrecht, Route 2, Gillett, Wisconsin, and pleased me immensely:

> Dear Mr. Pierce:—Having read of your offer to send printed slips of "America" I enclose stamps for postage, as you are doing enough without paying the postage. Please send three, as each of my children wants one to keep. We are all very well pleased with The Wisconsin Farmer—even the children read it. I thank you for your kindness.

That letter, my friends, made me feel good the whole day. I certainly appreciate such words of praise. "Even the children read it." I am well repaid for every effort which I have put forth to make The Wisconsin Farmer a paper for all the family.

Here is a splendid letter from Mrs. Maude Morey, of Sheridan, Wisconsin, one of the best of the entire lot:

> Dear Mr. Pierce:—I am taking advantage of your kind offer to send "America" on request. I would like to ask you to send enough for the school children in our district. Some of them have song books, though many have not. Possession means much to a child. They have the use of the song books at Sunday school which is held in the schoolhouse during all but the coldest months. From being with them at Sunday school I know your slips would give much pleasure. The Wisconsin Farmer comes to our home regularly.

Whatever I can do for the children is done most willingly, for no one loves them better than I do. I hope every child in the district where Mrs. Morey lives will soon be able to sing all four stanzas of "America" without having to look at the printed slips once, even just a tiny glance.

I want to add just one more letter, which was received from Eddie Block, of Shepley, Wisconsin, as follows:

> Dear Mr. Pierce:—I saw your offer to send copies of "America" and we have decided to sing the song in our Farmers' Club. I would therefore very much appreciate it if you would send me quite a number to my address.

How better could the farmers' club of Shepley, or any other neighborhood, open or conclude its program than by singing "My Country, 'Tis of Thee?" I hope every church society, club, grange, social circle, school, church, Sunday school—in fact, every "get-together" organization of whatever nature in all of Wisconsin—will feel impelled to add "America" to its program of exercises, to the end that the words of the noble hymn may rise to heaven from every quarter of the state. I am deeply in earnest on this subject, my friends. I believe international peace will be restored to this sadly harrowed world of ours sooner than you perhaps may think. Once restored, I believe it will last many, many years; longer than you perhaps may dream.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

A Year of Prosperity.

The United States Department of Agriculture, in its December crop estimates, places the aggregate value of the thirteen principal field corps of the country, in 1916, at $7,014,983,000, as compared with $5,332,929,000 in 1915. In other words, the American farmer earned $1,682,054,000 more, from his principal crops, in 1916 than he did in 1915. Surely, there is reason here for great congratulation to all concerned.

But it will never do to sit down and be content with the records of the past. The farmer, who finds his produce bringing better prices today than they have brought any time since the civil war, owes it to himself to make his acres and his herds produce more abundantly this year, and next, than ever before. Any agency which will enable him to accomplish this is deserving of enthusiastic support.

The Wisconsin Farmer is pledged to do everything in its power to maintain and to increase these production and value records of the farmers of this fertile section of the country. We propose to make this paper more valuable, practical, entertaining and instructive this year than ever before. To accomplish this we must have the heartiest support of every reader. Let us repeat our suggestion that every reader of The Wisconsin Farmer, whose subscription has recently expired, or will shortly come to an end, renew without any delay, and that every one of our readers make himself a committee of one to point out the value of this paper to his friends and neighbors and secure us as many new subscribers as possible. By thus working together we can make The Wisconsin Farmer bigger, better and more valuable to every reader in 1917 than ever before, and we can continue our agricultural prosperity, by spreading far and wide, the practical tenets of successful farming, so that the whole nation will prosper. We will do our share; will you do yours, promptly, without any delay whatever?

For a Shorter Legislative Session.

A commendable effort in the Wisconsin legislature to shorten its session, with a consequent saving to the state, has been temporarily sidetracked by referring it to a committee which may put the whole matter quietly to sleep.

The Wisconsin Farmer will be disappointed if the governor and his friends at the state house are unable to accomplish any reform along this line. There are two years between legislative sessions in which to give old laws a thorough trying out and to consider the need for new ones. There is also a period of several weeks between election and the time the general assembly convenes in which members can prepare themselves for their duties. Of course, the necessary preliminaries, such as the organization of the two houses, the appointment of committees and the hiring of help, require some time, but it would seem as though two weeks were certainly sufficient for this.

As a rule, long legislative sessions are due to partisan or factional politics. This year, when the republicans have a large working majority, little time need be lost in partisan divisions. There is no reason why the custom of leaving much important legislation till the closing days should not be discarded this year, and April 1st or earlier be definitely set now as the date of adjournment.

Not only is every unnecessary day added to the length of the session a source of heavy expense to the state, but it is a loss to most of the members of the legislature, who are anxious to be at their personal business affairs. This is especially true of the thirty-one farmer-members of the legislature, whose spring plowing will be calling them by April 1st. If there are others in the general assembly, whose work is not pressing, we would suggest to them that it looks as though there would be a scarcity of farm help this spring and they can serve their state fully as well by going up and down the furrows of our fine fields, as they can by prolonging the legislative session for political purposes.

A short legislative session has commended itself to our sister state of Iowa, where both the governor and the speaker of the house have urged seventy days as a maximum length. Wisconsin, always at the forefront of political reforms, can well afford to make the same effort along this line.

A WELCOME VISITOR.

Farmers Not Alone Responsible.

The farmer gets most of the kicks for the high cost of living and most of those who kick do not seem to take into consideration that the cost of production on the farm is increasing, too. Land values in Wisconsin, according to recent report of the tax commission, have increased from $34 an acre to $66 an acre on the average in ten years. The land is the farmer's plant, and if he has to make a double investment without doubling his acres or producing capacity, it is, of course, much more expensive to produce. If he buys a farm for cash it takes more money, hence he has the loss of interest. If he buys on time he must pay more interest. And in the meantime he is getting no more acres than he did ten years ago at the smaller price.

Then we must also look at other expenses on the farm. In the first place, taxes are higher and the farmer has to pay a good share of the taxes even if he is looked upon as a rather despised individual. The farmer cannot raise everything which he eats, though he has the advantage over the city man in this regard. The staples which he purchases have advanced in price just as much for him as they have advanced for people in town. Labor has advanced for the farmer, just as high a percentage as it has advanced in the industrial centers. The farmer is in need of steel and iron in implements and he has to pay more money for all these things. Those who howl that the farmer must raise more stock and bigger crops so as to help feed the people, must understand that more stock means more labor and machinery and these things are not only very high in price at this time, but they are in many cases hard to get at any price.

So it is not fair at all to charge up the cost of living to the farmer, even though he may be getting better prices for his produce. He must have better prices to keep up with the increased demands on his own purse.

Work For Wisconsin Farmers' Clubs.

At this time of the year our Wisconsin farmers' clubs are most active and we believe they will all be interested in suggestions which Mr. E. L. Luther, superintendent of farmers' institute, has to make. A number of things suggested cannot be done in the winter time, but they can be arranged for and committees and workers named so that the work will be organized when the season for doing it approaches. Here are a few things which Mr. Luther says a farmers' club in Wisconsin may accomplish:

Improve the country cemetary.
Provide better outhouses for the country schools.
Hold clean-up days spring and fall, about premises of each member.
Drag the roads systematically.
Conduct a community fair.
Erect sign boards at corners.
Agitate and enforce Wisconsin dog law.
Improve landscape about community creamery or cheese factory.
Build a community hall.
Make a community exhibit at county fair.
Secure consolidated school and pupil transportation.
Increase the bird population of community.
Secure community growing of crops—that is one variety of potatoes, corn or barley, etc.
Clean up the roadsides.
Club buy and club sell.

This is a very comprehensive list and will give any club sufficient food for thought and grounds for action for some time to come. There are various angles of several of the subjects. It seems we cannot start out to do even one of these things without others are suggested to the workers in the club as they go along.

The writer visited one of our large tire factories recently and found that old tires are very much in demand. Clubs might easily collect these at some place where there is a suitable shed with lock and key and a good watch dog, and when there is a large enough shipment sell the lot either to a local dealer or ship a carload to some factory. Paper is also a commodity which is much in demand these days, and paper may be collected, tied in packages, and when a large quantity of it is on hand, sold at a good price. In almost any county seat town there is a man who will buy tires or paper in carload lots. If any club wishes to take up such work and has no buyer perhaps the editor can put them in touch with some one, and we will surely be glad to help.

A good letter from any of our club-worker readers, outlining the work which they have been doing, and particularly any new ideas, will be very greatly appreciated by the editor.

Wisconsin Farmers' Electric Company.

The first farmers' company to make use of electric current and power from Wisconsin river dam projects is the Sumpter Light & Power Company, organized a few days ago at Prairie du Sac, Sauk county. This company will purchase electric current from one of the big dam companies and sell it out to farmers. The company now has $9,000 capital and, while it will not serve a large number of farmers to begin with, it is expected that the service will become popular and be widely extended. There is talk of another similar company for farmers in the vicinity of Kilbourn, where there is also a power dam project. It does not take a great stretch of imagination to look forward to the time when electric light and power plants will be erected with a capacity not only for the town in which they are located but also for the farmers for miles around. It is said that the great power plant at Keokuk, Iowa, which serves St. Louis with light and power, could easily supply electricity for farmers within a radius of 200 miles. This means that a large part of the farmers in Illinois, Iowa and Missouri could be supplied from this one power plant. Wisconsin is rich in water power and the time is coming when this power will be used to serve the farmers as well as the cities. It is only a question of organizing subsidiary companies to take over the work of running current wires and the smaller feed wires into the homes and other farm buildings. For several years farmers in Cass county, Iowa, have been supplied with electric lights and power furnished them through a company organized on the same basis as a rural telephone line. The power plant at the city of Red Oak has more current than is needed. It has run a strong current wire up through a rich farming community. Farmers along this route may get electric connection when they have a sufficient number of customers for the current.

The farmers for three or four miles along a main road will form a local company to build and operate wires which tap the main feed wires. In several cases the farmers have banded together and taken a certain day or week to string the line of poles needed. Then each man pays for the wiring of his own place, while all share in the up-keep of the feed wires running from the main station into the country. The little company handling the farmers' electric business has regular meetings like a rural telephone company, and regular officers to look after the property and keep it in shape. The service is very satisfactory and is not expensive after the original investment.

Why "Swine Week" in Wisconsin?

In some quarters the question, "Why Swine Week?" may be asked. Well, why not Swine Week? Dairying has been talked in Wisconsin until we think, dream, and figure as well as converse, in terms of cows. Almost everyone knows the "Guernsey Capital of America" and the big Holstein counties, and who it is that cops off

THIS tonic is making me rich," —that is what thousands of users of International Stock Food Tonic are saying every day. These farmers would no more attempt to "get along without it" than they would try to get along without feeding their animals their regular grain.

International Stock Food Tonic saves money in feed. It puts more flesh on their hogs—increases the milk flow of their cows—and gives their horses greater strength and vitality—all at a big saving in regular grain feed.

What these farmers, located in all sections of the country and working under all conditions, can do—you can do also. If International Stock Food Tonic had not been a money saver to those who use it, it would not have withstood the test of time for twenty-seven years.

International Stock Food Tonic will help you make greater profits. You can raise larger, healthier pigs, shoats, hogs, sheep and cattle—You can get them on the market at least 30 days earlier—You can get more milk from your cows—You can get more work from your horses—Above all,—you can save money and make more money.

Why Your Stock Need International Stock Food Tonic

International Stock Food Tonic is based on the laws of Nature.

It is just a common-sense mixture in the proper proportion of the roots, herbs, barks and seeds which Nature provided to safeguard the health of animals.

One by one, these ingredients have been taken away from the animals through domestication.

When anything that Nature has provided is taken away, it must be supplied. International Stock Food Tonic does this, supplying these necessary elements in concentrated form and in just the proper proportions.

International Stock Food Tonic prevents the waste of grain passing through the system unassimilated. With it, more grain goes into flesh, bone and muscle. That is why it helps to keep farm animals in a healthier, thriftier condition by aiding digestion and the promotion of proper assimilation.

Save ⅓ of Your Feed Bill

Reports from farmers for many years show that three quarts of oats with International Stock Food Tonic will keep stock in better condition than four quarts of oats without it. International Stock Food Tonic gives to your horses greater strength and endurance with a big saving in grain. Many users of International Stock Food Tonic find that it increases the milk flow from their cows two to four quarts a day. And when you feed it to your hogs, you can see the grain you give them go right into extra weight.

The amount of high priced grain feed given to hogs matters little unless they digest and assimilate it. When you raise hogs, raise BIG ones. International Stock Food Tonic will help you do it.

You Can Make Greater Profit Too

Read what Mr. A. K. Campbell of Bainbridge, Indiana, says about fattening hogs with International Stock Food Tonic:

"I have an old sow which shows the results of using International Stock Food Tonic. This sow **gained 400 pounds in 100 days.** I gave her about 75 cents worth of International Stock Food Tonic and 30 bushels of corn with some slop. I made over 200%. How is that for profit? One of my neighbors gave me the sow because he thought she would die within a week. She could not walk to my place, a distance of 1½ miles and I had to haul her. I never saw or heard of any Stock Food Tonic having such great value as a **conditioner** and **fattener.**"

This is just one of thousands of similar letters which come to us unsolicited daily. Experience makes us sure that **you** can make more money by using International Stock Food Tonic.

Stop Losing Money

Do you realize that the farmers of the United States lost last year $168,089,110 in horses, cows and hogs? According to the annual report of the United States Department of Agriculture, the average weight of hogs decreased 12 pounds or $1.47 a head. Think of it! $1.47 lost on every hog—a total of $100,089,110 lost forever on account of improper care. Horses decreased in value $1.73 a head—a total of $31,442,840.

The farmers of the United States can't stand such a loss this coming year. **You** can't stand it with all expenses going up. You must make more out of your stock. International Stock Food Tonic will help you.

Order International Stock Food Tonic From Your Dealer

Make more money this year. Order International Stock Food Tonic from your dealer today. Telephone him now.

Every $3.50 spent for International Stock Food Tonic will save you $7.00 in feed. If your dealer can't supply you write us. Do it today.

International Live Stock Guide FREE

To make this your most profitable stock year, we have had the leading stock experts in the country prepare the International Live Stock Guide. This handy easy reference should be in your hands.

There are few questions which may come up in relation to live stock on your farm which the Guide won't answer.

The Guide is indexed with unusual care. Keep it handy where you can refer to it in an emergency and where you can find it to study in the evenings. The International Live Stock Guide contains pointers for every owner of stock and poultry.

The contributors to the International Live Stock Guide have spent their lives studying stock. Some of them are members of the staffs of the leading farm papers in the United States.

Send for a copy of the International Live Stock Guide Book today. We have a limited edition which we will send free to the first who write.

The supply of the Guide may be exhausted. Send in the coupon at the bottom of this advertisement immediately. Be sure to fill out all the blanks. Just clip off the coupon or tear it out. Write your name and address in the space given—Then mail it at once and the International Live Stock Guide is yours by return mail.

INTERNATIONAL STOCK FOOD TONIC

Clip this Coupon and get this Book FREE

Please send me, Postage Prepaid, ABSOLUTELY FREE, your book: *International Live Stock and Poultry Guide.* I am a farmer and stockman over 21 years of age.

Name .....

Post Office Address ..... State.....

My Dealer's Name is .....

Below find answers to your TWO QUESTIONS

1. Have you EVER used International Stock Food Tonic?.....
2. I own the following Live Stock: (Write numbers in spaces)

Horses	Cattle	Sheep	Hogs	Poultry

Address—Dept. WF, International Stock Food Co., Minneapolis, Minnesota

the big prizes on Ayrshires, and Brown Swiss, and Jerseys at the state and national shows.

But who will tell us what county is first in hog raising, or the production of beef cattle? Tell us offhand without looking in the census reports or the reports of the state department of agriculture. A few farmers in this state have made a name for themselves by producing swine, sheep and beef cattle, and a good many more have made good money in these branches of live stock and said very little about it.

Hogs and cows can be raised on the same farm. Some men can make more money out of beef cattle than they can out of dairying. Others are best adapted to sheep. There is great room for expansion along all these lines, as well as in dairying. The Wisconsin Farmer does not minimize the importance of dairying, nor do we expect to let up on discussion of dairy subjects. But we believe a "Swine Week" is eminently proper and fitting, and that the hog has a place in the agricultural economy of the state which not even the dairy cow should be permitted to displace.

The farm is the nation's source of food, but Uncle Sam hasn't gone to a vegetable or milk diet by any means as yet. There is a big market for beef and pork and mutton. The number of beef cattle is not increasing as rapidly as the population in this country. The same grass which is good for dairy cows is good for beef cows, and you never saw any animals happier than hogs in alfalfa. Corn is high priced, but it sells at its highest price when marketed on foot through a well-bred hog or steer. A few farmers who have had the right vision have been selling corn for $1 a bushel for several years, while the balance of us have been getting 50 cents.

We expect to see a big revival of the hog business in Wisconsin in the next few years. Not of the razorbacks, but of the well-bred and scientifically fed hog.

A big increase in number of good hogs and good beef cattle in this state will not injure the dairy business a particle. Take the cue from "Swine Week" February 5th-10th, and look around for some good stock to start a herd.

Better Products For Creameries.

The problem of how to secure a better grade of cream in order that a better quality of butter may be marketed and greater returns made to the farmer has been successfully solved by the creamery managers of La Crosse county and the manager of the Sparta creamery in Monroe county.

The Holmen and West Salem creameries are among the largest creameries in Wisconsin and, while the quality of butter sold has been above the average, it did not satisfy the wide-awake managers, Val Keppel, of Holmen, and J. H. Moran, of West Salem. For years both of these gentlemen have been keen students of milk production, creamery methods and butter marketing. They saw that if their patrons would send a better quality of cream throughout the year that much more could be paid for a pound of butter due to the increased price received for better butter. They also saw that it was not fair to the man producing an excellent quality of cream throughout the year to be held down and to have his profits lowered by a few men who would not make an honest effort to deliver better cream. As a result, the idea of an extension instructor to go among the farmers and demonstrate the good methods of producing milk and handling it after being produced was conceived.

Early in the year 1915 the creamery managers were called together and, after careful consideration of the question before them, they decided to try the plan for one year. In May of the same year the plan went into force, but Mr. E. M. Jackson was not hired until August and did not get to work until October 15, 1915.

Mr. Jackson is an ideal man for this position. For five years he worked in the West Salem creamery. Before this time he spent his early life on a farm in Jackson county. With a splendid training for the work, a strong personality and an abundance of good common sense, the success he has made of the work was assured. Mr. Jackson's report to the buttermakers of Wisconsin covering his activities in La Crosse county will be found in a special signed article which appears in this issue of The Wisconsin Farmer.

Mr. Jackson's territory is large and hard to travel, but with the aid of a car he has worked among 1,500 farmers the past year in the interest of better dairying. In his territory more than 15,000 cows are owned. As a result of his work farmers are remodeling their barns, building milk houses and feeding more intelligently. He is performing a big missionary work.

Likes the Wisconsin Farmer Best.

The publisher is in receipt of a letter from T. P. Scannell, Fond du Lac county, Wisconsin, and we take the liberty of quoting some very encouraging words from this letter:

I have read The Wisconsin Farmer for a number of years and do not want to miss a copy of the paper now. So I am enclosing you my subscription for three years. I have taken different farm papers, but I like The Wisconsin Farmer the best. We have been breeding registered Durocs for the past five years and The Wisconsin Farmer has been a great help along that line.

This is just a sample of many letters which come to cheer the heart of the publisher and enthuse the editors to give their best efforts to make The Wisconsin Farmer a better farm paper. Mr. Scannell is located in a very rich farming district in Fond du Lac county, quite properly named Eden, for it is indeed a garden spot. The Wisconsin Farmer has a larger circulation in Fond du Lac county than any other farm paper, and it is certainly very encouraging to have such a good letter from one of our regular readers in this splendid territory.

Attend Wisconsin Breeders Meetings.

It is important that each of the breeds represented in Wisconsin in the live stock industry have a good turn-out at the annual meetings to be held in Madison, Swine Week, or Farmers' Week, February 5th-10th.

The Wisconsin Farmer has received letters from a number of the officers of Wisconsin live stock associations asking us to make special announcement of these meetings and for the benefit of our readers we give herewith a list of the meetings with the dates when each will be held:

February 5th, 3:30 p. m.—Wisconsin Sheep Breeders' Association, Wisconsin Aberdeen Angus Breeders' Association, Wisconsin Hereford Breeders' Association, Wisconsin Short-horn Breeders' Association, Wisconsin Red Polled Cattle Club.

February 6th, 4 p. m.—Wisconsin Berkshire Breeders' Association, Wisconsin Chester White Breeders' Association, Wisconsin Duroc Jersey Breeders' Association, Wisconsin Hampshire Breeders' Association, Wisconsin Poland China Breeders' Association.

February 7th, 11:30 a. m.—Wisconsin Horse Breeders' Association.

February 8th, 3 p. m.—Wisconsin Ayrshire Breeders' Association, Wisconsin Brown Swiss Breeders' Association, Western Guernsey Breeders' Association, Wisconsin Holstein Breeders' Association, Wisconsin Jersey Breeders' Association.

All of the meetings will be held at the college of agriculture, Madison. These meetings will occupy but a portion of each day and there will be opportunity to spend the balance of the time listening to some of the good addresses which are a part of the Farmers' Week program.

Handling a Thin Meadow.

One of our subscribers, Mr. L. D. Hampton, of a neighbor state, asks for information about the handling of a clover field where there is about half a stand. This field was seeded in the spring of 1916 and the problem that is puzzling Mr. Hampton is whether it should be seeded to oats again or is it worth while to try to supplement the present stand by the use of more seed. He asks if the preparation of the seed bed for oats will destroy clover that is already there.

As clover seed has been high in price for several years the failure of a crop involves the owner in considerable loss. As a rule, the best plan is to start all over again when there is but half a stand and in this particular case we would not hesitate to advise disking the surface thoroughly in the spring, sowing oats as a nurse crop and using the customary amount of seed. A mixture of four quarts of clover and four quarts of timothy will produce a good stand if conditions are favorable. If it is the intention to leave it meadow only for a year or two then more clover and less timothy should be seeded, but where two crops of hay are to be taken and the field afterwards pastured the half-and-half mixture will give good results.

There is one way by which a half stand of clover may be saved, but this can be carried out only where the owner is in position to pasture it. In that case use a little more fresh seed this spring and give the surface a good harrowing just as soon as the soil will work well. It is quite likely that the crop is killed out in spots so that it will not be necessary to seed over the thick patches. Where this plan is followed it is generally advisable to sow three or four pecks of oats per acre before harrowing. This will thicken up the meadow and in addition to furnishing considerable good pasture the oats will check weed growth and they will also protect the tender clover and timothy plants.

Advise Against Haste With Hemp.

Some of our agricultural experiment workers have been obliged to back up on the proposition of raising hemp in Wisconsin, at least in so far as such a crop is practical for the average farm. There are very few farmers in the state who can raise hemp profitably, no matter how big a crop they may get. The facts concerning hemp were given in The Wisconsin Farmer almost a year ago, and these were the result of a rather extensive investigation carried on by C. P. Norgord, of the Wisconsin Department of Agriculture.

If any of our readers have been led into the idea that they can produce big crops of hemp and get an average of "$100 per acre, etc.," they had just as well drop the notion now. Hemp will grow well in many places in Wisconsin and will yield well, but it is a community proposition and not applicable to the individual or isolated farm. Expensive machinery is necessary for breaking the fiber, and this cannot be provided with profit for the individual farm, or even for a few farms. This is pointed out very clearly in a recent statement issued from the Wisconsin Experiment Station, which has conducted tests on hemp growing in the state for several years. Before a Wisconsin farmer thinks of going into hemp he should see that there are a large number of farmers in his neighborhood who will devote time and land to the same crop, and that there will be a sufficient yield in his neighborhood to warrant the purchase of machinery necessary for getting the crop ready for market.

Almost any farmer in the state could raise some tobacco—at least any farmer in the southern half of the state But if he were the only farmer in his neighborhood raising tobacco he might have a hard time marketing his product. At least the buyers would not be running out after his crop, even though it were a large one and the manufacturers would not feel justified in establishing a warehouse in his neighborhood to handle his individual crop.

Tobacco is grown successfully and with big profits in the centers where a considerable area is devoted to the crop. And the prospect of a big yield from many farms attracts the buyers and makes the market good. Hemp is far less likely to be a profitable crop than tobacco, because of the more expensive methods which are necessary for preparing it for the market. The time may come when there are several neighborhoods in Wisconsin which will raise hemp and make profits, but hemp is not likely to be a general crop, and the average farmer in this state had better devote his energies to thinking of other things.

"Standard"
Plumbing Fixtures
for
Bath Room
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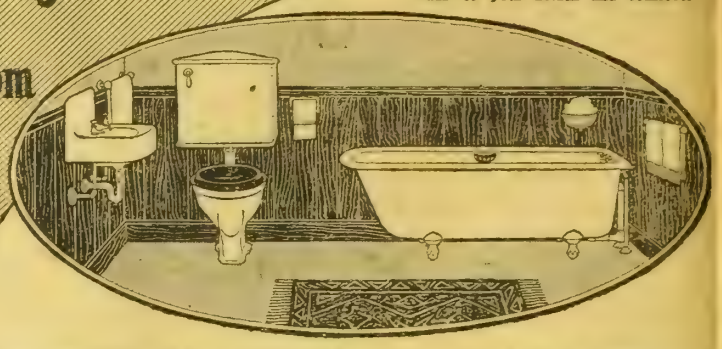
A "Standard" bathroom in your home adds to your health and comfort.



"Standard" Plumbing Fixtures have been standard in American homes for many years. They represent a big variety for every use—for bathrooms, kitchens and home laundries.

Installing "Standard" fixtures not only means getting the equipment that is backed by experience and service—it means that your home is fitted with plumbing conveniences that are so well known and highly thought of as to add to the value of any property in which they are placed.

If equipped with running water in your home—or if planning to install a water system—by all means see to it that your plumbing is "Standard"—the line best known, backed by the company best equipped to serve.

WRITE FOR FREE COPIES OF THESE BOOKS

They contain a lot of helpful information for use in putting in plumbing fixtures. Model bathroom installations are shown—all reasonable in cost when superior quality and appearance are considered. Good plumbing is a comfort necessity that should have a place in every home.

"Standard" plumbing leads. Find out about it now—whether you intend to build or remodel today, or whether your plans are still indefinite. Most Plumbers sell "Standard" Plumbing Fixtures. Talk to some nearby Plumber about "Standard"—but by all means let us send you the booklets shown here. Use the coupon—send it today.

Dept. 207 Standard Sanitary Mfg. Co. Pittsburgh, Pa.

Standard Sanitary Mfg. Co., Dept. 207, Pittsburgh, Pa.
Please send me copies of "'Standard' Plumbing Fixtures for the Home", and Sink Booklet.

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Guernsey Breeders' Meeting

The eleventh annual meeting of the Waukesha County Guernsey Breeders' Association, held at Resthaven Hotel, Waukesha, January 18th, still further emphasizes the growing popularity of this great breed of dairy cattle. More than 200 persons, including breeders and their families, sat down to an excellent banquet served at noon and listened to a fine program of addresses in the afternoon. President Gavin McKerrow was in his happiest mood and presided over the deliberations of the meeting in a most satisfactory manner. This association, according to the records of F. E. Fox, secretary-treasurer, carried on a total business amounting to over $46,000 last year. Accurate and detailed reports of all the receipts and expenditures were given by Mr. Fox and he was highly complimented for the splendid work which he has done as secretary. This association is governed by a president, secretary-treasurer and nine directors. In the past year the directors have held nineteen meetings and there has been an average attendance of seven directors. This shows in a large measure why the association is such a great success. The officers and members are not afraid to take off their coats and work for the good of their association and for the advancement of the Guernsey breed. A year ago the secretary-treasurer reported $790.40 on hand in the treasury and the report just issued shows $1,352.49, almost double. The officers of the association are elected by the board of directors. The term of Messrs. Gavin McKerrow, Earl Roberts and John H. Williams expired this year and they were re-elected for another three years. One may get some idea of the magnitude of the work of this association from the fact that in the past year the secretary has sent out 5,760 letters and post cards, of which 4,048 were personal letters. More than 1,100 return postals were sent to members asking for information concerning the stock they have for sale. The association has almost 150 paid-up members at this time and this is the largest list of breeder-members in its history. There are usually 200 to 300 people at the winter meetings of this association and about 500 at the big summer meeting and picnic which is held on some member's farm. One important feature of the sale business of this association is that about one-third of all the stock sold goes back to Waukesha county farms While the breeders are producing for the best herds of the country, they are also looking out for themselves, and the fact that they have confidence in the stock raised in their own neighborhood is a very high testimonial to the character of this stock There were 235 animals sold in the sales held by this association last season, and eighty-seven, more than a third, were bought by Waukesha county people. In the past year the secretary has issued 23,900 association envelopes to members, and around 6,000 association letterheads. These envelopes go through the mails to all parts of the dairy world, and are considered a good advertisement. They, of course, carry the slogan "Waukesha County Is the Guernsey Capital of America." The association has decided to take up cow testing and to interest as many members as possible in this work.

Among the speakers at the meeting last week were Prof. H. C. Searles, of Fond du Lac, on the subject of "Cow Testing;" W. E. Skinner, of Chicago, on "The Work of the National Dairy Council," and Prof. E. L. Luther, superintendent of Wisconsin Farmers' Institutes and the state county agricultural representative work. The National Dairy Council, as shown by Mr. Skinner, who is one of the old show men of the country both in the beef and dairy business, to be trying to educate the people to understand the nutritive properties of milk. He said that advertising and salesmanship has made it possible to sell beer at a quarter a quart, and that in comparison milk would be decidedly cheap at the same figure. Even when milk is increased in price to a fair basis where the dairyman and the dealer can make a good living out of it, it is still much cheaper than almost any other article of food containing the same nutritive values. Mr. Skinner brought a message of optimism for the milk producer. Professor Searles shows the value of the cow-testing work. It has been found that there is a market for cows which have association records at better prices than those which can show no records. Professor Luther's message was filled with encouragement for future business from the great new empire in Upper Wisconsin. Professor Luther is enthused with this subject and incidentally has accomplished a great work in helping, through the county agent system, this wonderful northern country which is the greatest factor by far in the future greatness of Wisconsin, especially along dairy lines.

JOHN DEERE IMPLEMENTS

BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

Describes and illustrates Plows for Tractors; Walking and Riding Plows; Disc Plows; Cultivators; Spring Tooth and Spike Tooth Harrows; Disc Harrows; Alfalfa and Beet Tools; Farm and Mountain Wagons; Manure Spreaders; Inside Cup and Portable Grain Elevators; Corn Shellers; Hay Loaders; Stackers; Rakes; Mowers and Side Delivery Rakes; Hay Presses; Kaffir Headers; Grain Drills; Seeders; Grain and Corn Binders.

This book will be sent free to everyone stating what implements he is interested in and asking for Package No. X-64.

JOHN DEERE, MOLINE, ILL.

Van Brunt Broadcast Seeder and Cultivator

This is the oldest type of Van Brunt seeding machines.

The wood and iron construction has been replaced by steel and malleable iron. The famous Van Brunt adjustable gate force feed scatters every kind of small grain evenly on the soil without bunching, and the seed is covered by the cultivator teeth.

The tooth bars are equipped with spring-trip teeth. When the teeth strike an obstruction they spring back—are pulled over it—and then return to place.

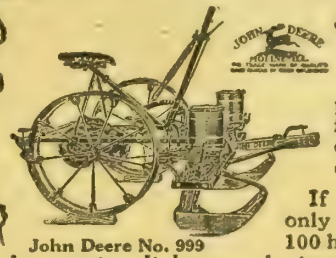
The Van Brunt Broadcast Seeder and Cultivator handles any small grain.

Van Brunt adjustable gate force feed—even sowing always certain.

Independent tooth bars.

Teeth are soft-centered steel, tempered and guaranteed to scour. They are bolted in place and are reversible to double the wearing period. They can be adjusted to cultivate deep or shallow. Spring-trip is adjustable.

Sizes—12, 14, 16, 18, 22 and 24 bars, 6 inches apart.



John Deere Corn Planters

Accuracy in a corn planter means uniform drop—number of kernels the same in each and every hill.

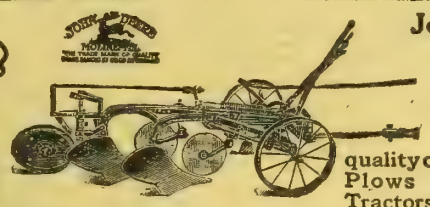
If the planter misses only six kernels in every 100 hills, the loss in yield is nearly two bushels per acre.

Accuracy in planting has been the main object in designing John Deere planters. One of the many advantages of using a John Deere planter is that with proper handling it will plant practically 2, 3 or 4 kernels in every hill, as desired.

John Deere No. 999 is accurate. It has the John Deere *Natural Cell Fill, Edge Delivery Seed Plate.* Surface of hopper bottom and openings to seed cells are oblique, or sloping. Kernels move toward and enter the cells in their natural position. They do not have to be tipped on edge.

Merely move foot lever to change number of kernels per hill.

Drilling distances varied, and change hilling to drilling or back to hilling made easily.



John Deere Plows for Light Tractors

So far as quality of John Deere Plows for Light Tractors is concerned they are built for the farmer who realizes that it is business judgment to buy a high-grade tractor plow. Don't forget that a tractor plow is not an everyday purchase.

John Deere Plows for Light Tractors are noted for their high-grade work in the field—the real test of tractor plow value.

Before you make your purchase, be sure to see John Deere Plows for Light Tractors. A careful purchase means permanent saving.

High and Level Lift. Two, three and four bottoms.

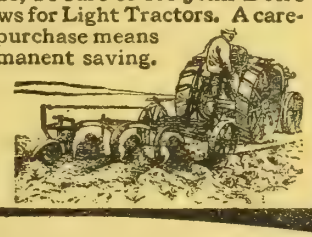
High and level lift means level plows out of the ground, no cutting of ridges when crossing or turning on plowed ground.

Steady running furrow wheel—does not drag or bind against furrow wall.

Stiff hitch—plow can be backed.

John Deere bottoms, the standard for over 78 years. There is a John Deere bottom for every kind of soil.

Equipped with John Deere Quick Detachable Shares—great labor and time savers.



THE JOHN DEERE TRADE MARK

To designate and brand their goods, "Deere & Company," use the "leaping deer" trade mark. It is the best known implement trade mark in the world.

The reason that it is so well known is because of the high quality of the implements themselves.

Prestige in farm implements is obtained solely through the superior merits of the goods.

The permanent prestige of John Deere implements has been maintained by the company's strict adherence to principles of manufacture that originally made the goods popular.

The "leaping deer" trade mark is Deere & Company's stamp of approval. It distinguishes John Deere Implements from inferior goods. It means that the implement was made in a John Deere factory, in the John Deere way. It is a guarantee of satisfaction and an insurance policy against disappointment.

Look for the John Deere trade mark when you buy.

JOHN DEERE, MOLINE, ILLINOIS

Underhill Association.

To the Editor:—During the month of December there were 302 cows tested in our association, and of this number three produced over forty pounds of butter fat. The highest cow, a grade Guernsey belonging to Paul Drucksey, of Underhill, produced 1,206 pounds of 5.3 per cent milk, or 53.1 pounds of butter fat. The highest herd was one of nine grade Guernseys belonging to George Schuman. They averaged 406.6 pounds of milk and 22.2 pounds of butter fat. We have bought two registered bulls and gotten rid of four more cows which didn't pay, making a total of thirty-five cows sent to the block by members of this association.

C. M. Rydberg, Tester,
Shawano County Association.

Don't Neglect the Horse.

"Balanced rations and food mixtures for the dairy cow and the feeding steer are carefully examined and discussed, but the feeding of the horse is usually all the hay they can eat and varying quantities of corn or oats, according to the work being done," says W. L. Blizzard, of the department of animal husbandry of the Oklahoma Agricultural College.

"If a horse is required to do extra hard work he should be liberally and frequently fed," said Mr. Blizzard. "The amount of feed given should be regulated by the size of the horse and by the amount and kind of work he is required to do. The horse has a small stomach in proportion to his size; hence, frequent feeding when under hard work is necessary.

"Bran added to a grain ration of either corn or oats will increase its efficiency, and it will also keep the digestive system in a more healthy condition. A little sprinkling of oil meal to this ration will be helpful in keeping the horse in a more healthful condition. When fed with bran it has the desirable effect of keeping the horse from becoming hidebound; it also adds gloss to the hair.

"No colt or horse of any age will grow, develop and put on flesh when the flesh is hard and the skin 'tight or hidebound.'

"Too much hay is often fed to horses. It is not necessary for a horse to gorge himself with hay; a good, liberal allowance is sufficient, and is more beneficial than too much. Dusty or moldy hay should not be fed, as it is apt to cause digestive disorders."

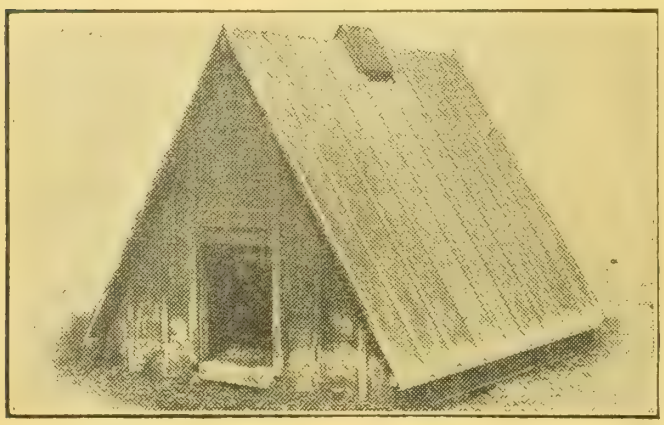
Oregon is planning to copy Wisconsin's Farm Management organization, and Mr. D. H. Otis, who has charge of the work in this state, has been invited to take part in the far western state's Farmers' Week this year.

Comfort Makes More Pork and Profit.

Types of Comfortable and, as a Rule, Inexpensive Hog Houses Found Upon Wisconsin Farms—Housing an Important Part of Swine-Raising Program.

A WELL-LIGHTED WALWORTH COUNTY FEED AND FARROWING PEN.

HOG HOUSE ON EXPERIMENT STATION FARM HAS CENTRAL DRIVEWAY.



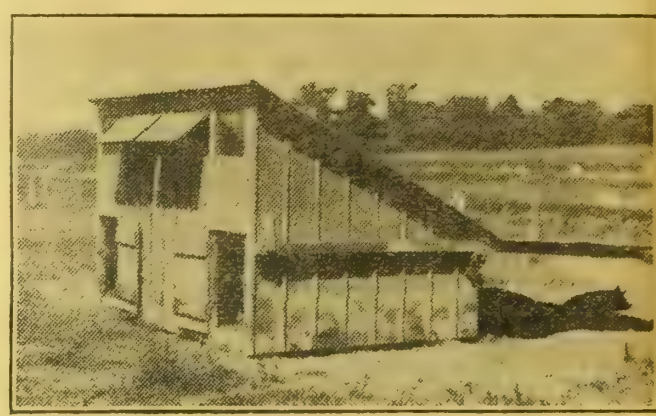
THE A-shaped portable hog house is easiest and cheapest to construct and is more durable than other shapes. It can be moved about the feeding lot or pasture on its joists, which serve as runners.

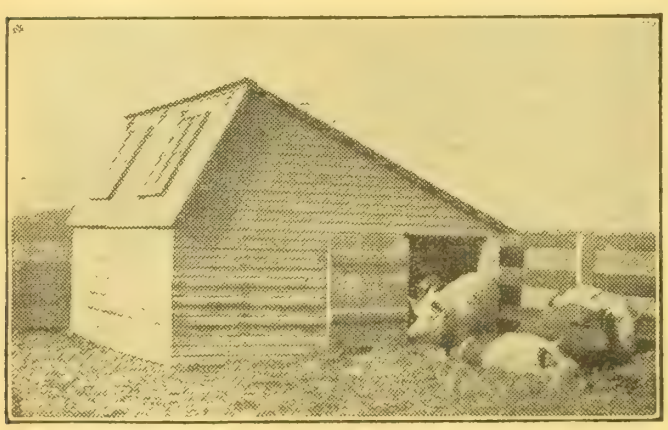
Many prefer shed roof hog house to the A-shaped pen. It. too, can be moved about the field on runners. Temporary shade can be provided by means of a cheaply constructed umbrella-like attachment. See it at Wisconsin Swine Week, Madison, Feb. 5th-10th.

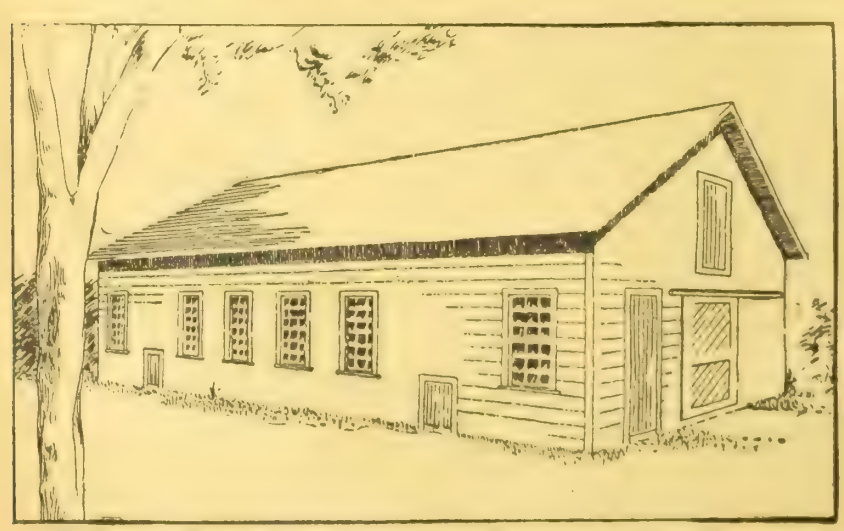
Wisconsin swine breeders who annually hold mid-winter sales have sale pavilions which during the year are used as feeding floors, farrowing houses and store rooms.

A field pen is usually provided with a hinged roof-door to make cleaning and bedding easier.

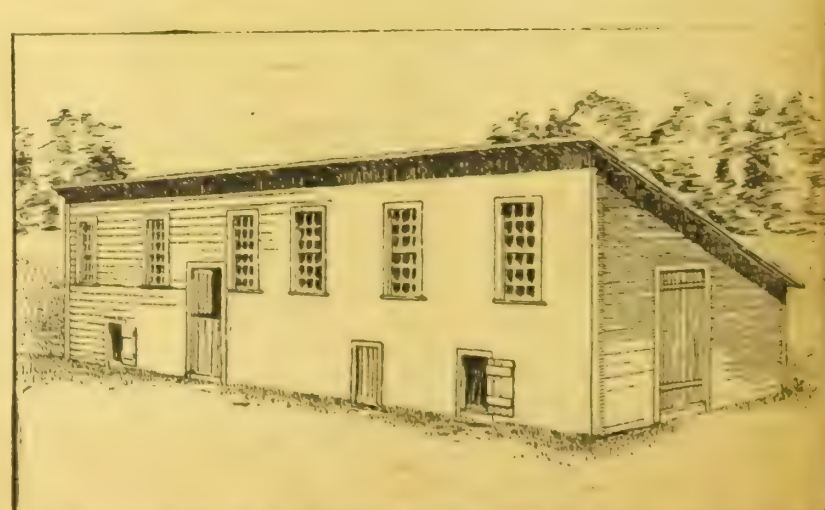
Every breeder of swine should look into the merits of these individual houses. They are inexpensive, may be warmed quickly by using hot bricks at farrowing time, and they admirably fit into the scheme by which each litter is kept by itself. It is entirely practicable to place one of these houses in a half-acre lot so that the sow and her litter may be cared for by themselves, thereby eliminating wholesale robbery which takes place when too many pigs are allowed to run together.



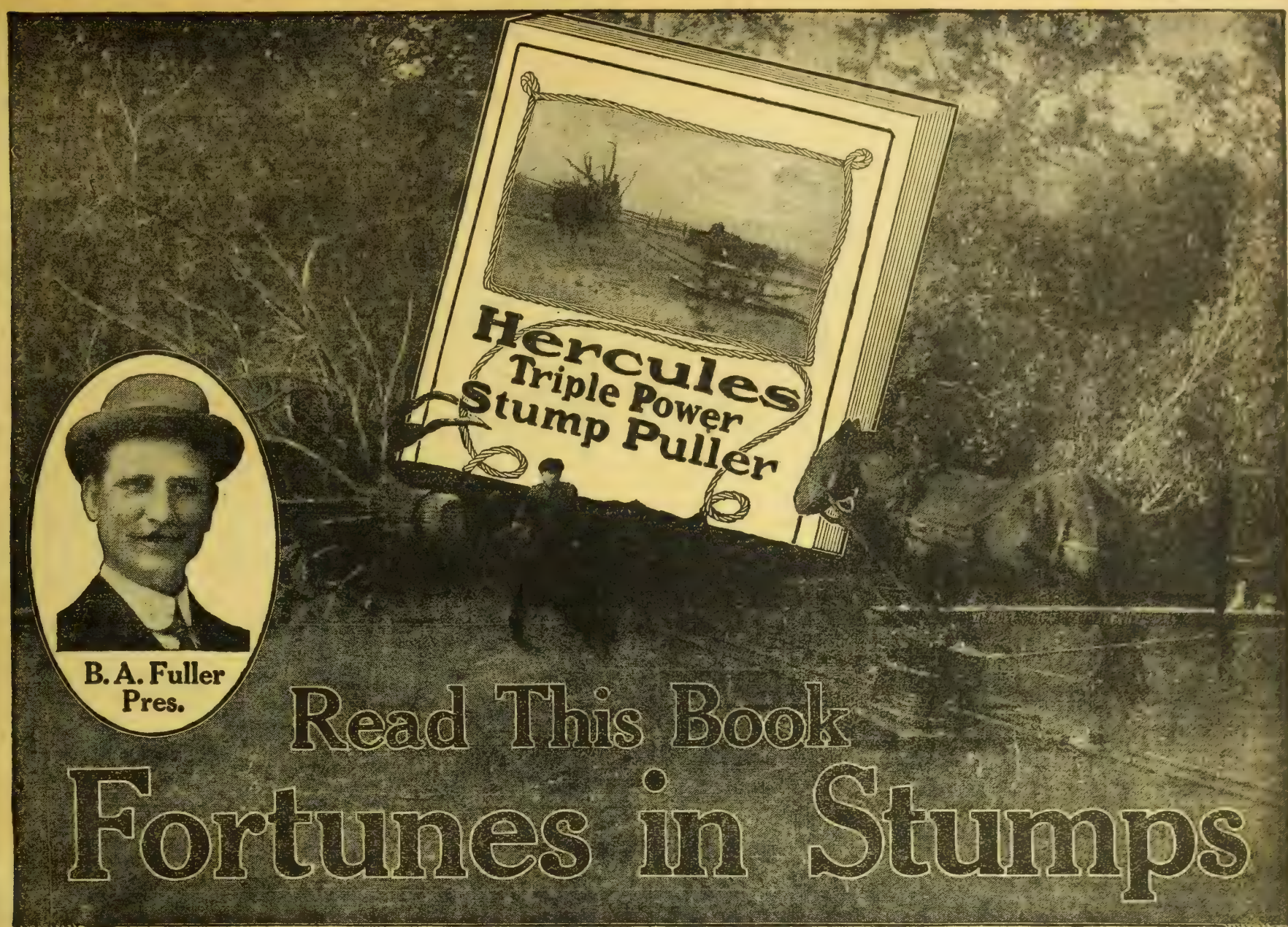




THE COMBINATION GRANARY AND HOG HOUSE.



THIS SHED ROOF HOG HOUSE PROVIDES PERMANENT QUARTERS.



Read This Book
Fortunes in Stumps

NEIGHBORS—land owners—all who are after the money from the soil, **Get My Special Offer Now.** I'll show you how to snake out the stumps. My book is full of live information. 25 years' experience boiled down. The plain unvarnished truth set forth in a plain, simple way. There is money in it for you. **Read the truth.**

HERCULES TRIPLE POWER PORTABLE STUMP PULLER

King of The Stump Fields—A New Record-Smashing Offer For You Now.

Let's talk horse sense and get on the right track. Write to me. I want to tell you how to make your acres produce double profits.

Hercules is the King of all Stump Pullers and always has been king.

Because it was the first all-steel puller ever built.

The first to introduce the grooved device that all others have had to copy.

The first to introduce the double safety catch.

First and today the only real triple power puller.

First and still the only Portable Puller.

Get the book. Read our extraordinary proposition. The Hercules is the puller that has the single, double and triple power features, giving you three machines in one. One man with a team can handle it and move it from place to place. No heavy lifting. It is the real One-Man Puller.

The new Portable is equipped with a solid steel bedplate and broad steel wheels. There isn't a land clearing job in the country but that can be done cheapest and quickest the Hercules Way.

It's the low-down constructed puller that has self-anchoring and stump-achoring features—the one with double safety ratchets that insure the absolute safety of men and team. I want to send you a Hercules on

30 Days' Free Trial

so you can see how **powerful** it is and how **easy it works.** I want you to **know** for yourself that the all-steel construction means 60 per cent less weight and 400 per cent greater strength than cast-iron or "semi-steel." Besides that, I want to save you big money on the cost. I'm making you a brand new offer now.

Unlimited Guarantee

I mean that. When you buy a Hercules I don't fuss or quibble with you. I make a signed and sealed guarantee to you that has no limit of time to it. I can do this because the Hercules is so extraordinarily strong and well built that no job is too tough for it. Write and see.

Bateman's New Special Reheat Treatment Steel in Every New HERCULES

Read about it in a special circular just issued. It has enabled us to make the broadest, most amazing guarantee ever heard of. Again the Hercules has smashed all records.

Get My Special Offer Now

If I get **one** of my new Hercules Machines in each locality, **more will surely follow** because of Hercules quality and efficiency—that's my experience. So I can easily afford to sacrifice my profit on the first machine in each locality. Take advantage of the big profit and big saving opportunity **now.**

Send for Free Book and Special Proposition That Explains My Unlimited Guarantee--This Free Book Tells All

Just simply send your name and address on the coupon or on a postal so I can send you the convincing facts about the superiority and efficiency and value of this wonderful new Hercules Stump Puller.

Only 1000 of these machines will be sold at this remarkable introductory price, so get your name in now.

My new book is a beauty. See the real pictures of big stumps it has pulled out like you would pull weeds.

Read the many interesting letters from farmers, lumbermen and land promoters. Stumps, stumps, stumps, pulled out quick, making fortunes for owners of Hercules Stump Pullers.

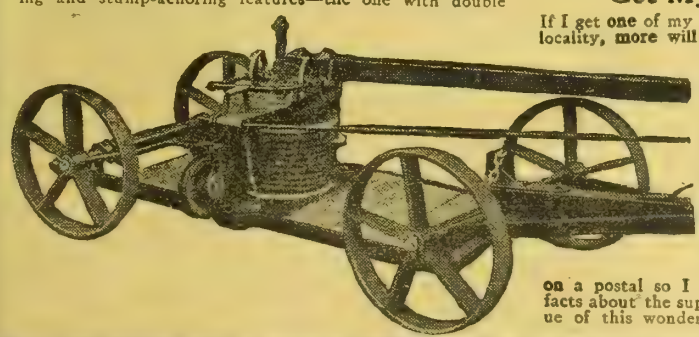
I want you to know the facts. Just mail coupon or postal **now.** I'll send the book and price by return mail. I'll tell you the best crops to raise on virgin land where stumps were before.

I simply want to get my free book to you at once, so that you can read the remarkable facts about the Hercules All-Steel Triple Power Stump Puller and how it does such splendid work, making big profits for owners everywhere.

Mail Me the Coupon or Postal Right Now

before you forget, or take down the name and address and write me as soon as you get a postal card. Address me personally, **B. A. Fuller, Pres.**

Hercules Manufacturing Co.
659 25th Street Centerville, Iowa



Get the Book—Mail the Coupon

Rush Coupon for Book and New Low Price

Mr. B. A. Fuller, President Hercules Mfg. Co.,
659 25th Street, Centerville, Iowa

Dear Mr. Fuller: Mail me your free book and special price on the Hercules All-Steel, Triple Power Stump Puller.

Name.....

Town.....

State.....

Route No.....

A New Help For the Dairyman.

How La Crosse County Creameries Are Trying to Improve Their Raw Material and Make More Money For the Farmer—By E. M. Jackson.

THE creameries of La Crosse river valley, consisting of Sparta, Rockland, New Berg Corners, Bangor, Barre Mills, Holmen and West Salem, realizing that the dairyman was not improving the quality of his cream rapidly enough to meet the demands of the consumer, formed an organization and called it the Association Co-operative Creameries of La Crosse River Valley.

It was then decided that a man should be hired to visit the patrons of the different creameries and educate them as to the importance and how to produce a better quality of cream, and I was chosen for this position which certainly gives me a great opportunity for doing good.

I will try to explain how we are bettering the quality of our raw materials in this way, classing the dairyman in three classes: 1—the good dairyman; 2—the ordinary dairyman; 3—the poor dairyman.

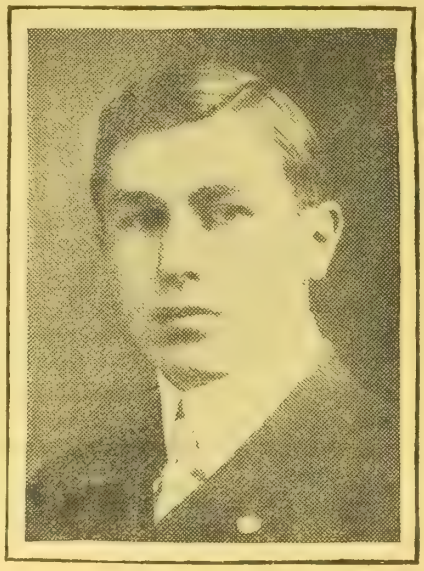
1. The good dairyman is a patron who is trying to do his best, keeps his cows clean, feeds them good, wholesome food; washes and scalds his utensils after each skimming, keeps his barn clean, well lighted and ventilated and then takes the best care of his cream he knows how until it is delivered to the creamery. In other words, he takes an interest in dairying. I find that when I visit the good dairyman he wants to know if there is any way in which he can better his conditions.

2. The ordinary dairyman is milking cows because this is one way of making money on the farm. He means well. Possibly there is another part of the farming he takes more interest in. Nobody has said anything to him about the importance of producing a high-quality cream and so he has not been trying to produce a better cream. When his faults are pointed out to him he will admit them and is willing to remedy them as soon as it is convenient. In some cases it takes quite a while where they have to build an ice house or separator room. Possibly he has not the money and doesn't want to borrow it. He may be a renter and it would hardly be fair to expect him to make permanent improvements and then in a year or so have to move away and leave them. It is then necessary for me to get in touch with the owner.

3. The poor dairyman is producing his cream in the easiest way possible and does not care in what shape it is delivered to the creamery. He rinses his separator at night and washes it in the morning when through separating. He may be busy in the morning and the separator will not be washed until the next day. He may leave his cream stand in the separator and skim his warm cream into the previous skimming. He may have a spring a few rods from the house, but rather than carry the cream to the spring he will set it in a tub of water and change the water whenever he thinks of it or doesn't happen to be busy, or puts it in a poorly ventilated cellar. When his faults are pointed out to him it goes against his grain. He will say he has sold cream for fifteen, twenty or thirty years and nobody has ever complained of the quality of the cream and I have no reason to. He may not admit that what I have told him is true on the first visit.

On making another visit some time later I find that in most cases what I have told him is commencing to take root and he is a more pleasant man to talk to. Again on a return visit I have found other dairymen that do not show any signs of improvement and don't talk as if they were going to improve. It has been necessary in these cases to call a state inspector and have the law laid down to them. I find that as a last resort this will make them come to time.

In all three classes of dairymen I find that some suggestions can be given to a more or less extent. We are asking the dairymen to keep their barns remarkably well lighted and ventilated and keep them whitewashed. I find that it is an easy matter to convince them that whitewash is an important part of cleanliness. Those having wooden floors are willing to put in cement as soon as the old ones give out. I have urged those having separators in the barn to build a room outside and also tell them that it is against the law to keep the separator in the barn. The biggest opposition I meet here is that it is too cold outside for the separator in the winter. By taking the utensils to the house at night and washing them this is overcome.



E. M. JACKSON, LA CROSSE COUNTY. He is helping to establish a closer relationship between farmers and creameries.

I have urged those living a reasonable distance from a pond or river to put up ice and those not having that chance to arrange so that all of the water pumped to the stock will pass through a cooling tank for the cream first. During the winter some of the dairymen have been keeping the cream in the kitchen, not knowing where else to keep it from freezing. Those having a spring have not that trouble. Those that have a tank with water passing through every day can by insulating the tank with sawdust keep the cream in there all winter. Those having an ice tank can be placing a can of hot water in the tank in the coldest nights and keep the cream in there all winter. During the summer some dairymen keep their cream in the cellars. I have urged them to either use ice or water for cooling.

I have found that a common place for finding old particles of cream is in faulty seams, some of them due to the factories not soldering their seam flush with the rest of the can and the dairyman not soldering the seams when they break open. This has been the cause of considerable poor cream.

All of these troubles are not remedied at once. On my trip through my territory I notice from time to time a new milk house or ice house going up and this can be used as a leverage on the fellow that is backward about improving his. I ask those not up to the standard to go with me to some place that is and let them see for themselves how the up-to-date dairyman is doing things.

We are troubled with a good many dairymen having low tests. Some of them think they get more out of their cream by doing so; others think that the man doing the testing will not give them their accurate tests. I then take a sample of their cream and take them to the creamery and test the sample before their eyes and let them see for themselves.

Most of the creameries in the association have a system of charging the patrons for hauling according to the

SAFEGUARD your stock, tools, hay and grain. The farmer needs fire protection even more than the city dweller. Most of the great "skyscrapers" of America are fireproofed with Natco Hollow Tile. Fireproof your farm the same way. Natco Barns need practically no repairs—age and weather-proof. The Hollow Tile walls do not hold moisture or odors. Dead-air spaces prevent sudden changes in temperature. And the cost—but a trifle more than frame construction. You will soon save the difference in reduced insurance, coal and repair bills.

Build with Natco Hollow Tile

Corn cribs, milk houses, garages, poultry houses, etc., may be made fireproof and permanent with Natco Hollow Tile.

Send for our new book "Natco on the Farm." Fully illustrated from photographs. Tell us what you plan to build. We have many farm building plans to submit and will help you—*free*.

Natco Imperishable Silo is the ideal silage preserver. The glazed hollow tile walls are moisture and acid-proof and fire-resisting. Stoutly reinforced with steel bands laid in mortar. No hoops to tighten. Any mason can erect a Natco. Fully guaranteed. Truly, "The Silo that Lasts for Generations."

Write *today* for our book, "Natco on the Farm," also ask for Silo Catalog.

National Fire Proofing Company
1123 Fulton Bldg., Pittsburgh, Pa.
23 Factories
Prompt Shipments

Natco Silo Wall: Note perforated shell, providing firm anchorage for mortar joints.

Get This Big Illustrated Catalog FREE

Tells how the Hinmans—father and son—designed and built the first machine on their farm at Stockbridge, N. Y., in 1907. Shows the modern plant in Oneida, N. Y., with 500-machines-a-week capacity. Gives records of famous dairymen throughout the country, using the machine. Explains Hinman simplicity—why no vacuum tank, no air pipe lines, no complicated pulsating mechanism are used. Describes simple Hinman combination of pump, vacuum in valve chamber (in pail cover) and natural action (not upward squeeze) teat cups with metal rubber rings instead of rubber sacks.

HINMAN MILKERS

Will Soon Pay For Themselves

Simple, Single Unit

Over 22,000 Sold

They cost less than one hired man and his board for six months. Simplicity is the reason for this low cost. Lay aside your prejudice against milking machines until you understand **the simplicity of the Hinman.**

Write today for Catalog and estimate of outfit for your needs. State how many cows you milk and how many in a row.

HINMAN MILKING MACHINE CO.
62-72 Elizabeth St. Oneida, N. Y.
Service Dealers Everywhere

MINNEAPOLIS PANEL SILOS

The silo that adds attractiveness to your farm buildings.

Built of Steel and Wood

Won't collapse when empty, rests uniformly on foundation, no tightening of hoops Mechanically and structurally correct.

Shiplap, Drop Sided, Paneled Walls means longer life because seams and joints are always dry.

Catalogue and information sent upon request.

PUFFER-HUBBARD MFG. COMPANY
3205 26th St. MINNEAPOLIS, MINN.

"So Boss" -Adjustable MILK STOOL

Handiest tool on the farm. Will serve you 730 times a year for life

BOYS, we want AGENTS

Pail always **clean** and right side up. **Soon Saves Cost.** Check for $1.75 brings stool by parcel post, or two stools for $3.00.

KEITH & KENNETH
Iowa Falls, Ia.

THE HUMANE WEANER.

The only calf and colt weaner made that is guaranteed to **wean.** Cannot be opened so long as animal's head is raised. We will pay $500.00 for any calf or colt that cannot be weaned with this Weaner. No. 1 size for calves and colts, 65c. No. 2 size for yearlings, 80c. No. 3 size for grown animals $1.00. Prepaid to you.

A. W. Swender Mfg. Co. • • St. Louis, Mo.

Please mention this paper when writing

Says the Calf—

Ask ME — I know

The calf knows that when bossy has a sore udder or teats the milk comes hard and the cow is restless and irritable. A cow that is nervous and uncomfortable cannot yield her full milk supply.

Bag Balm is a wonderfully effective, healing ointment, and quickly clears up scratches, cuts, chaps, bruises, inflammation, or caked bag. A valuable aid in treating bunches and stricture. Have a package on hand and keep little hurts from getting big.

Sold by feed dealers and druggists in generous 50c packages. Write for our free booklet, "Dairy Wrinkles."

DAIRY ASSOCIATION CO.
Lyndonville, Vt.

BAG BALM

MADE BY THE KOW-KURE PEOPLE

number of pounds of cream delivered. For instance, hauling costs 30 cents per 100 pounds of cream; one man sends 100 pounds of cream testing 50 per cent butter fat and another sends 100 pounds of cream testing 15 per cent butter fat. It costs the patron with the 30 per cent butter fat 1 cent per pound of fat to have it hauled, while it costs the patron with the 15 per cent cream 2 cents per pound of butter fat. This is used as an argument against thin cream. Besides he has more skim milk to feed the hogs and calves, less cream to cool and it keeps better.

The patrons knowing that somebody is coming around to look over their dairies has a tendency to make them keep things in better shape so they will not be ashamed to have him look them over.

The association is practically in its infancy now. We have other problems that we intend to work out in the future, one in particular—the long routes which some of the cream has to travel over before reaching the creamery. Just what course will be taken has not been decided on at present. We also intend to work out a plan so that all the supplies of the different creameries can be bought as one and the butter sold on the same plan.

Briefly stated, we are trying in a friendly way to point out to the dairyman his shortcomings and at the same time educate him to that point where he will understand the importance of furnishing a pure and wholesome product, thereby increasing his profit in addition to his having the satisfaction of knowing that his efforts and product will stand whatever comparison they are called upon to meet.

Holstein Calf Brings $21,500.

A new world's record price for a bull calf at public sale was established when J. G. Von Herberg, of Lodge Von Heim, Kent, Washington, paid $21,500 for Finderne Mutual Fayne Valdessa, a ten-months-old Holstein-Friesian bull calf, at the Portland (Oregon) Sixth International Live Stock Exhibit, Friday, December 8th.

The buying of Finderne Mutual Fayne Valdessa was not a two-handed affair. More than a half dozen breeders came to the sale for the express purpose of buying this bull. When he was led into the tent the buzz around the ring quieted in anticipation of the coming sensation. Colonel Gue recited briefly the outstanding features of the young bull referring to his pedigree, which he said was considered to be a record of marvelous achievement in production lines, records back of every ancestor of the fourteen constituting the three generations shown in the pedigree. Before he had gotten half wound up on calling for bids to start the calf a breeder broke into the oratory with a bid for $1,000. The price quickly climbed under the spirited bidding to $16,000, when the field narrowed down to two. At $21,500 Mr. Von Herberg bought the coveted bull calf and hung up a Pacific coast record for a bull (of any age) and an international record price for a bull calf at public sale.

The dam of Finderne Mutual Fayne Valdessa is Finderne Mutual Fayne, that has the world's record for butter for year (1,200.64 pounds) as a junior

THE $21,500 YOUNGSTER.

two year old—exceeding the previous record by over 200 pounds of butter in one week eight months after calving. Freshening shortly thereafter as a three year old, she produced almost thirty-seven pounds of butter in one week.

The sire of Finderne Mutual Fayne Valdessa is King Valdessa, whose two nearest dams averaged 43.03 pounds of butter in seven days, the world's highest average.

State Holstein Breeders to Meet at Manitowoc.

To the Editor:—At a special meeting of the board of directors of the Holstein-Friesian Breeders' Association of Wisconsin it was decided to hold the next annual convention of this organization at Manitowoc, Wisconsin, on Wednesday and Thursday, February 28 and March 1, 1917. The annual banquet will be held on the evening of the first of these days. A literary and business program were also arranged, to be announced later when the speakers have been definitely engaged.

Other matters brought up for discussion were the Annual Holstein Booklet now under preparation, and soon to be issued, and the adoption of a campaign of association advertising. The association now has a substantial fund available for the purpose and the campaign will be started with the issue of the first annual booklet. It was also voted as the sense of the board of directors that preparation be made immediately upon the issue of the first booklet, to commence work on the next annual booklet.

Members of the board who attended the meeting were R. J. Schaefer, Appleton, president; J. P. Riordan, Mayville, and S. E. Jones, Watertown, directors, and Chris J. Schroeder, Racine, secretary. Others who attended the meeting to present matters of business were Chas. Hampke, Manitowoc, secretary of the Manitowoc County Holstein Breeders' Association; H. E. Harrington, Madison, associate editor of the Black and White Record, and J. P. Torrey, Kenosha, manager of the Stephenson Farm.

C. J. Schroeder, Sec'y.

Milk Production Improves.

To the Editor:—The Stratford Co-operative Cow-Testing Association has practically been out of the forty-pound list for the past two months, but we came back again in December with ten cows which produced forty pounds of butter fat or better in thirty days. One cow, a member of the Greenwood Stock Farm herd produced 1,838.4 pounds of milk, 3.1 per cent test, or 57 pounds of butter fat. Harry B. Keller, a member of our association, had the best herd average the past month with six cows producing on an average of 588.6 pounds of milk, of 4.63 per cent test, or 27.25 pounds of butter fat each. One cow in the Chrouser Bros.' herd produced 1,277.7 pounds of milk testing 4.1 per cent or 52.3 pounds of fat for the month.

Harry A. Johnson, Official Tester.

"How To Feed Silage" FREE

Special 36-page chapter from famous 264-page book "Modern Silage Methods." Write for copy. Get up-to-the-minute helpful suggestions free. Also get our free catalog on Silver's "Ohio" Silo Fillers. 1917 revised edition of "Modern Silage Methods" 25c, covers entire silage subject—every type of silo—how to build, 41 crops used, feeding, 8-page index. 56 illustrations. Write now.

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TABER LINED SILO

Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.

The latest improved Silo. A woodstave Silo; choice of lumber. Entire Silo creosoted. Special paint for outside. Acid-Proof Lining for coating inside after erection. The finest door and door frame on the market.
Special Galvanized Steel Octagon Roof—best manufactured.

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ESTABLISHED 1855
AGENTS WANTED IMMEDIATELY.

25 CENTS CALF RENNETS
We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address
THE MARSCHALL DAIRY LABORATORY
Madison, Wis.

Why Let Your Cows Slink Their Calves? You Need'nt

What is Abortion in cows?
A contagious, communicable venereal disease that is costing the breeders of the U. S. millions of dollars yearly.

Can this disease be prevented or overcome?
It can be prevented and overcome.

What do the agricultural colleges say?
Some say it can be prevented and overcome and others say it cannot be.

What does the U. S. Government say?
The U. S. Government recommends the hypodermic treatment as the very best method of combating this disease.

Who says that Abortion cannot be prevented and overcome?
People who have not used the Roberts treatment, or who have used only part of the treatment and not according to instructions.

Who says that Contagious Abortion can be prevented and overcome?
The owners of 5,000 herds of cattle who have treated their cattle from one to four times during the past 25 years, owing to the fact that their herds had become reinfected through new animals purchased.

Has this treatment always proved successful?
No, it has not.

Why not?
Because the directions have not been followed.

Does Dr. Roberts claim that this treatment will wipe Abortion out of any herd regardless of how long it has been afflicted?
Yes, absolutely; providing the cattle are free from tuberculosis and providing directions for treatment are followed.

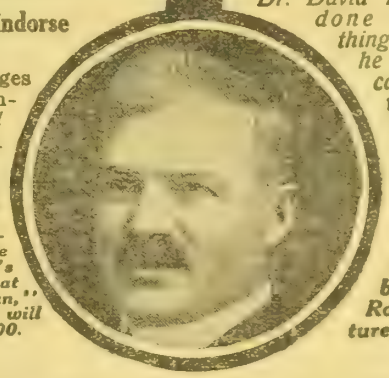
What evidence is there that this is true?
Animals and herds that were pronounced incurable by veterinarians and owners after having many kinds of abortion treatments given and applied to them have been successfully treated by Dr. Roberts and have been given splendid 7-day and yearly records. Lynden Grove Betsy De Kol, 5 years old—yearly butter record, 721.49 lbs. and 18,563 lbs. of milk—is a typical case.

Do agricultural colleges indorse the Roberts treatment?
No; agricultural colleges will not indorse or recommend any *commercial* treatment for live stock diseases.

If one of the agricultural colleges had discovered the Roberts treatment, would colleges indorse and recommend the Roberts treatment, knowing that it had stood the test of 25 years?
No question but what they would do so.

Does the U. S. Government recommend the Roberts treatment?
The U. S. Government indorses no commercial treatment, but in the government bulletin it recommends a treatment that is embodied in the Roberts treatment. Everything that is recommended in the U. S. Government bulletin is contained in the Roberts treatment, with ingredients that have never been made public.

If Dr. Roberts can take infected herds, knowing them to be such, and by his treatment wipe out the disease; if Dr. Roberts can introduce the disease into a herd through infected animals, then check it and wipe it out; if Dr. Roberts can keep his own valuable herds of pure bred cattle free from tuberculosis and contagious abortion, it proves that it can be done. *Dr. David Roberts has done these very things and what he can do you can do if you will do as he tells you to do.*



There is a Roberts medicine for every animal ailment. Sold by nearly 4000 druggists; if not at yours, write us direct, give your druggist's name. Dr. Roberts' great "Practical Home Veterinarian," 184-page cloth-bound book, will be sent you postpaid for $1.00.

Look for and insist on getting the package bearing Dr. Roberts' picture.

DR. DAVID ROBERTS VETERINARY COMPANY
950 Wisconsin Avenue, Waukesha, Wisconsin

SUPERIOR 4 Inch Grain Drills

ARE made for the farmer who wants to sow his grain in rows closer together. The Superior 4 Inch Drill distributes the seed more evenly, with more rows per acre and less seed in the row, giving each plant more root room, fertility, moisture and a better chance for sturdier, healthier growth.

Bigger Crops—Fewer Weeds

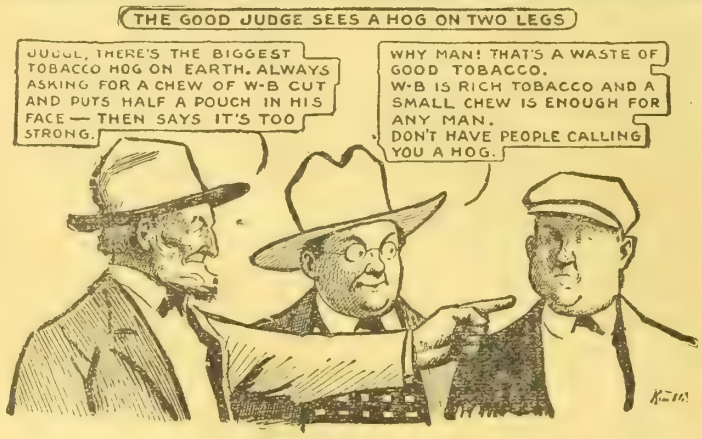
It has been proven that a greatly increased yield is obtained, some claiming almost one-third more than by the old method of seeding. The discs are so spaced that a highly cultivated seed bed is obtained with almost total elimination of weeds.

Superior 4 Inch Grain Drills are made in two sizes, plain and fertilizer styles. Operate perfectly under the most exacting conditions. The heavy angle steel frame will stand up to all strains encountered in field work. Superior Disc Bearings are guaranteed against wear. Positive force feed for both grain and fertilizer.

Ask your Dealer for further information, which he will be glad to furnish you, or write us for descriptive pamphlet.

The American Seeding-Machine Company, Inc.
Springfield, Ohio

THE GOOD JUDGE SEES A HOG ON TWO LEGS

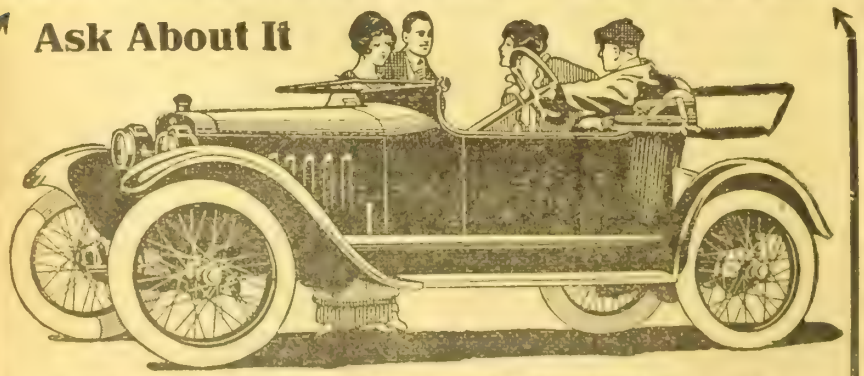


SOME call these face-stuffers hogs, some call them gophers. But they are getting scarcer and scarcer since gentlemen found out about W-B CUT Chewing. There is no excuse for a man making a monkey of himself today. The fine *rich tobacco flavor* was put into W-B by nature, the touch of salt brings it out nice and tranquil like, without your worrying your jaw around continually. W-B is getting to be pretty nearly as popular as sunshine these happy days.

Made by WEYMAN-BRUTON COMPANY, 50 Union Square, New York City

Who Wants Saxon Auto?

Ask About It



Suppose I came to you in your home and said: "I have some work I want done in your neigborhood. It is work you can do during your spare time and I will pay you well for it. A boy or girl can do this work as well as a man and the pay is just the same. People will be glad to help you when they find what you are doing.

This sounds like a pretty good offer, doesn't it? You would ask me to sit down and tell you more about it wouldn't you?

Well it is a good offer and a pleasant surprise too. The best part of it is that you not only get paid forevery bit of work you do, but all the time you have a chance to get the splendid $395 Saxon Auto shown in the picture. This auto is going to some lucky chap without it costing him a cent of money. You can be the lucky one. I cannot tell you all about it here but your name and address on a post card will bring you my big free offer right away.

The Auto Man, 410 Popular Bldg., Des Moines, Iowa

Tractors on Wisconsin Farms.

A Few Experiences of Our Readers With This New Motive Power and Its Adaptation to General Farm Work in This State.

[Editor's Note.—The Wisconsin Farmer has corresponded with several Wisconsin farmers whom we have learned have had experience with tractors and the following will give some results of their work.]

Record Sheets of Tractor's Work.

Mr. J. H. Bublitz, of Edgerton, Wisconsin, has forwarded to The Wisconsin Farmer one of his daily record sheets covering the operation of his 8-16 tractor. This sheet is made out for August 14, 1916. It is furnished by the manufacturer of his tractor and the purpose is to keep an accurate record of expense and performance. The accompanying illustrations will give some idea of work which Mr. Bublitz is able to accomplish with his tractor. On the particular day in question the tractor worked ten hours at plowing, pulling three fourteen-inch bottoms and plowing at an average depth of six inches. Eight acres of wet, heavy soil stubble were turned over in the ten hours. This tractor uses kerosene, which was bought in 100-gallon lots at 8 cents. On the day in question about fifteen gallons were used. The measurement is not given as accurate and Mr. Bublitz estimates the quantity at fifteen to twenty gallons. In addition to using one cup of gasoline, or about 30 cents' worth, and about a gallon of oil, it cost him 23 cents. He buys his oil in fifty-gallon lots. This operator ran his own tractor and had no expense for hired man. We quote from Mr. Bublitz's letter:

This tractor is used to run a threshing machine. The tractor is what is known as the 8-16 and the thresher is the 24-42 and the tractor handles it in fine shape. On a good day's run we thresh 1,200 bushels. We also fill silos. This year we filled ten and at the time this is written we are shredding corn. The shredder is a four-roll machine and the tractor could almost handle another one.

Our farm is slightly rolling. The chief crops are corn, tobacco and hay. This tractor has not displaced any horses, as we did not get it to do farm work, although on very hot days we use it to plow land for millet. We are well pleased with the tractor in every way. It has been used for moving buildings, pulling trees, hauling logs and pulling up stone. We can always find some good use for it.

This letter certainly gives us a splendid idea of what a good tractor can do in the way of plowing and also some of its other important accomplishments.

SHREDDING CORN WITH TRACTOR ON J. H. BUBLITZ FARM, NEAR EDGERTON, WISCONSIN.

TRACTOR HAS ALMOST COMPLETED THIS JOB FOR MR. BUBLITZ.

MOVING ON TO THE NEXT JOB.

Horses Gave Out--He Bought Tractor.

To the Editor:—I purchased a small tractor in April, 1916. I didn't expect to buy until fall or next spring, but two old horses gave out without warning and I had to do something. I have plowed about 160 acres with it and find it to be O. K. I pull three fourteen-inch bottoms and plow nine acres in ten hours, using twenty-two gallons of kerosene and five quarts lubricating oil. I tie one section drag behind in all plowing except sod and find it does good work. It would certainly require seven good horses to pull three fourteen-inch bottoms and one section drag behind, plowing six inches deep in heavy soil. We have a few grades to work, but nothing steeper than about 5 per cent. Our chief crop is corn, with barley a close second. The horses necessary to cultivate corn, and for 100 acres I should say five or possibly six, would be plenty.

I cut most of the grain with the tractor after the hot weather came. I drove the engine from the binder seat without help. I used engine in dragging and spring plowing and was surprised to get such good results. I also disked forty acres of sod, using my

regular four-horse disk and two-section drag behind. In belt work a tractor cannot be beat. I have used it on grinder, husker and wood saw and for any amount of little odd jobs. Also graded roads five days. I expect to see tractors as thick in the country in a short time as automobiles now are.
Rock Co., Wis. A. J. Locke.

Uses Machine For Several Purposes.

To the Editor:—We bought a tractor this fall in time to get a little experience filling four or five silos. We were pleased with it. We also plowed one day with it, but my land is very stony and the stones bother quite a little. If there were no stones I would not think of using anything else but a tractor. We will probably use this machine in the spring for pulverizing and getting in spring crops.
Dane Co., Wis. Wm. Blamy.

Uses Tractor With Brush-Breaker

To the Editor:—I have a gas power truck and have been having better success with it on belt work than I did with steam for the same class of work. For one reason, I can get over the road faster and I can pull some load, too, when I have to. I run a 32-52 separator with feeder and wind stacker and I get along with less men. Nowadays if I cannot get a man I can do my work alone. I used a brush-breaker on some land where it was impossible to use horses. I am also owning a 15-30 and have purchased a 30-60 oil-pull, especially for saw mill use. Carl Paskey.
Columbia Co., Wisconsin.

Uses Tractor in Muck Lands.

To the Editor:—During the past five years I have had under my care about a dozen different tractors. At present I have six of one make in operation. Five of them are fifteen line horse power machines and the other a 30-60. The former machines were purchased in 1914. The latter machine I am very partial to, as it certainly does work which I had never expected a tractor would do. It displaces about twenty-eight horses and means a daily saving of about $12 in the work which it will do.

I have not had any experience with tractors on rough, hilly land, all my work being on muck bottoms. This machine which I am now using has a fifty-inch drive wheel and a twenty-four-inch front wheel, and I have never at any time found it incapable of looking after seven heavy plows or double set of disks. Just what would be the condition trying to use this machine on the average-sized Wisconsin upland farm I am not able to say, as I have not had experience along that line. Ed Oliver.
Waupun, Wisconsin.

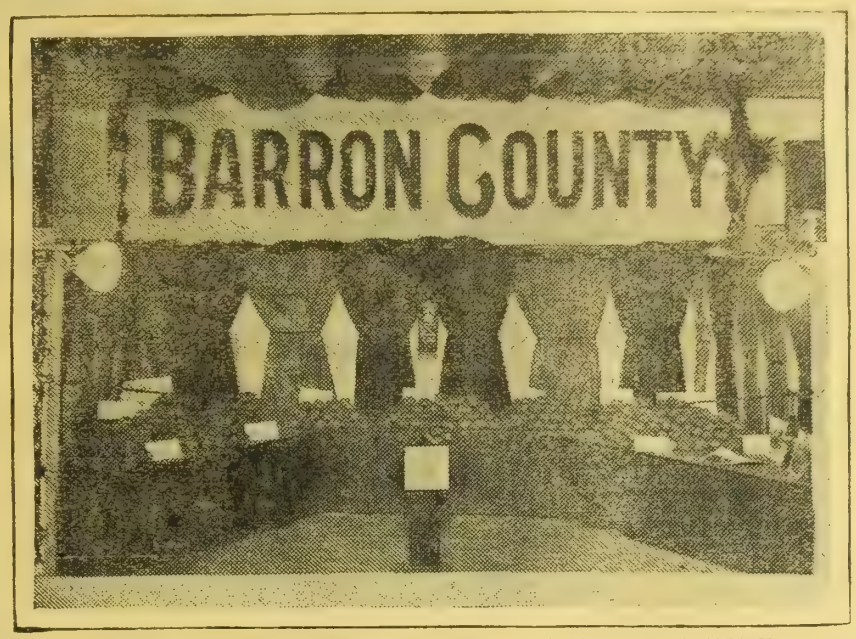
Could Save Three Horses.

To the Editor:—I am a little green about the tractor as yet and may be able to give your readers more information later, but am glad to give what I know up to this time. I run a twelve-inch silo filler with my tractor and filled my 32x14 silo in two days. My tractor pulls two fourteen-inch bottom plows, and I plow about five or six acres in nine hours' work. I think this is pretty good work. I have six horses now, but expect to sell two of them, besides I have all my horses in foal now which would not be possible without a substitute for horsepower on my farm. If it wasn't for the fact that I want to raise some good colts I believe I could cut down to three horses. My farm is on the rolling order and I wish you could see me go up hill with the tractor at two and three-quarters miles an hour, plowing with two bottoms eight and nine inches deep. My chief crops are corn and oats. John Lies.
Naperville, Illinois.

Extra feed this winter weather is resulting in worth-while egg production on the Harry D. Dunbar Farm, Walworth county. Mr. Dunbar says he is obliged to feed anyway, and a little extra feed more than pays for itself when the eggs are counted and sold. He has been getting two and a half to three dozen eggs a day, and these are worth enough money to count up in these days of good prices.

In and Around Wisconsin

The Sauk County Agricultural Society has re-elected S. A. Pelton as secretary for the ensuing year. The total debt of the society is about $6,000. The 1916 fair was the best the county has ever held, so the people say, and the society is cutting down its indebtedness.



SECOND-PRIZE-WINNING EXHIBIT AT 1916 POTATO SHOW.
This Exhibit was Gathered Under the Direction of R. L. Cuff, County Agent.

River Falls has adopted the market-day plan, and the first special day is January 25th. One feature will be a stock sale, where farmers will have an opportunity to offer all kinds of stock which will be auctioned off to the highest bidder.

During the year ending December 2d, last, the Ellsworth Shipping Association, of Pierce county, shipped 296 cars of stock for farmers to South St. Paul. The farmers received for this stock, $364,143.94. It is claimed that Ellsworth ships more stock than any town of its size in the state. It is in the midst of a good hog and beef country. Pierce county has a number of co-operative societies, and shipping societies have handled 800 cars of stock, for which more than $1,000,000 has been paid farmers.

The Central Wisconsin Live Stock Association will hold its annual sale at the new pavilion in Marshfield, May 10th. The offering will consist of Holsteins, Guernseys and Jerseys. The auctioneers will include Col. D. S. Perry, of Columbus, Ohio; W. H. Krause, Thorpe, Wisconsin; William Ebbe, Marshfield, Wisconsin, and G. D. Hammil, Grand Rapids, Wisconsin.

Announcement is made that the 1918 convention and show of the Wisconsin Potato Growers' Association will be held in Madison. Arrangements for a big gathering of southern Wisconsin farmers is expected. This is the first time for several years that this organization has moved its convention outside the potato belt of central and Upper Wisconsin. A great many of the potato growers up state are anxious to visit the capital and the experiment station here, and plans are being made to entertain the convention royally.

The average price paid for American cheese on Wisconsin dairy boards for the sixteen years is as follows: 1901, 10¼ cents; 1902, 11⅝ cents; 1903, 11 cents; 1904, 9⅛ cents; 1905, 11 cents; 1906, 12 cents; 1907, 13½ cents; 1908, 12¾ cents; 1909, 15 cents; 1910, 15½ cents; 1911, 14 cents; 1912, 16 cents; 1913, 15 cents; 1914, 15¼ cents; 1915, 14¾ cents; 1916, 18 cents. The average price paid for cheese in 1916, which is the best cheese year, from the price standpoint in the history of the state, is as follows: January, 17½ cents; February, 18⅜ cents; March, 17¾ cents; April, 16 cents; May, 15¼ cents; June, 14⅝ cents; July, 15¼ cents; August, 15½ cents; September, 18¾ cents; October, 19⅞ cents; No-

(Concluded on page 21.)

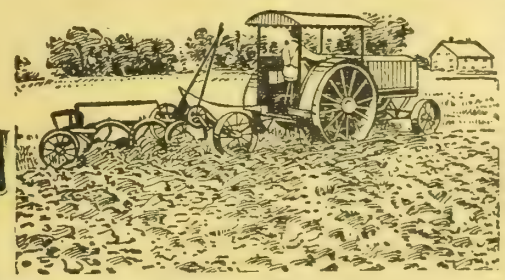
Model C 12-20 H.P. $1095
Heider
Model D 9-16 H.P. $795
Made and Sold By Rock Island Plow Company

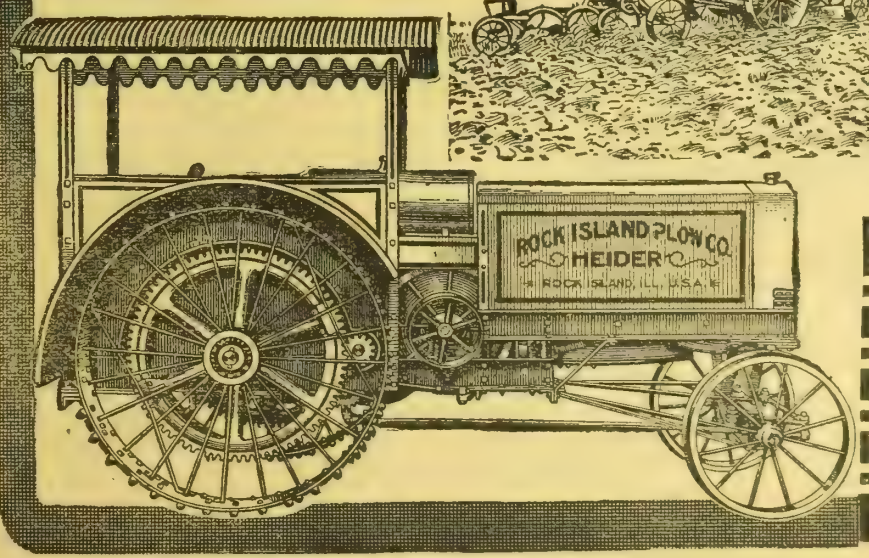
The Heider Friction Drive is the finest feature.—C. E. HUGHES.
We drag 22 miles of road a day with our Heider.—ED. WILSON.
My two boys 13 and 14 years old run my Heider.—C. W. RANDALL.

Stacks of Letters Like This—
Looked at 40 Makes—Glad He Bought Heider
Beaman, Iowa, Oct. 3, 1916.
My Heider has always given me the best of service. I use it for hauling corn, oats and hogs, plowing and operating ensilage cutter and corn sheller; also put out my oats crop with it. I pulled two 8-ft. discs and a 20-ft. harrow. I looked at 40 different makes and sizes of tractors before I bought mine. The Heider is the easiest of any to handle.
The friction drive does not slip any. The engine works just as well on kerosene as on gas. My machine has never cost me one cent except for fuel and oil.—C. O. MYERS.

LESS GEARS
THE HEIDER has less gears than any other tractor. Less gears mean less trouble, easier operation and your repair expense cut to a minimum. It costs a good deal to replace broken gears. The 4-cylinder, heavy-duty, Waukesha motor is another guarantee against trouble. It is recognized everywhere as the best possible type of motor construction for a tractor.

A Real One-Man All-Purpose Tractor
for the heavy work of plowing, seeding, harvesting, threshing and hauling. Pulls three 14-inch plows under average conditions, or four 14-inch plows where conditions are favorable. Does the belt work of every power machine you own or intend to own up to its rated power. Throttles down to just the fuel needed. Famous Heider Friction Drive proved by nine years of success. Transmits most power and is easiest to handle. For proof read the letters of Heider owners which we will send you with new catalog. See how they save money and make money with their Heider Tractors, on small farms as well as large farms. Backed by our 62 years' manufacturing success and the reputation of Rock Island Implements in all parts of the world.
Fill out coupon below or write us today and book will be promptly mailed.
ROCK ISLAND PLOW CO.
414 Second Ave., Rock Island, Ill.





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414 Second Ave., Rock Island, Ill.
Send me your new Heider Tractor book.
Name _____
Address _____

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Care of Incubator and Chicks.

To the Editor:—I will give you a little of my experience with incubators.

First, one should have a good, reliable machine and a proper place for running one.

Next, one should have good, clean eggs from strong breeding stock that has been properly fed and cared for and sorted as to size and color. The majority should be of the same color, that is, dark or light.

After the machine has been run a few days at the proper temperature, which the catalog accompanying the machine will give you, the eggs should be placed in the machine in the morning so one can watch the eggs during the day to see that the proper temperature is attained. Then they should be left in the machine until the third day in the morning when they should be turned by taking out a few eggs and gently rolling the rest around in the tray with the palm of the hands, being careful not to crack any, and should be turned and aired ten minutes night and morning thereafter till the eighteenth day. They should then be left quietly till the hatch is completed on the morning of the twenty-first day.

Then the chicks may be taken out and placed in the brooder, which has been properly warmed up to 95 degrees or with hens, as desired, and should receive no feed for forty-eight hours. They should be given some fresh water in small vessels arranged so they cannot get wet. A good drinking vessel is made by inverting a common goblet or water glass in a saucer, placing a piece of match or something under one edge to let the water out as the chicks drink it. They should then have some wheat bran sprinkled over some clean, sharp sand. The wheat bran can be added from day to day till an inch deep on the floor of the brooder. In the evening of the third day they may have some good commercial chick feed sprinkled in the bran, or some bread crumbs mixed with hard-boiled eggs placed on clean paper and can be fed this same feed until old enough to eat coarser feed. After about ten days some commercial meat scrap or any animal feed that is obtainable, sour milk being one of the best, and is often a preventive of bowel trouble. Should any of them show signs of bowel trouble they should be destroyed or taken from the clutch and fed by themselves, being careful to burn the paper on which they are fed and scalding the vessels every day from which they drink. Too many should not be placed in one brooder, as trouble is sure to follow sooner or later.

In handling the incubator during cold weather it should be carefully watched, but not opened any more than is absolutely necessary. The lamp should be filled and the wick trimmed morning and evening after the eggs have been turned and while they are airing, and the machine should be thoroughly cleaned with some hot water in which a little carbolic acid or some good disinfectant has been added before being reset.

Manville, Ill. Harry Dicken.

The Mixed Flock.

To the Editor:—No doubt the thoughts of the average farm wife and other admirers of poultry are at this time of year turning to the farm flock. And justly they should do so early because "well begun is half done" with chickens the same as anything else. A little attention now in culling the weaklings and off colored birds will be a most profitable investment. This is the time of year to decide on the one variety you will have in the farm flock. Poultry breeders have yet to see the mixed flock, no matter how carefully attended, that will measure up to a pure-bred flock having the same legitimate care.

Some people have the idea that by promiscuous mixing of breeds you get a better laying flock; you may get a few good layers, but for every good one there will be six or a dozen scrubs admired by no one. There is nothing more beautiful than a fine flock of pure-bred chickens regardless of what the variety may be. Then there is the more economic aspect because farmers do not generally raise chickens for fun.

There is always a good demand for fine young cockerels at at least several dollars each, while with the mixed or scrub flock the best use one can make of the young males is for meat which is a scarce article on some of the smaller so-called egg breeds. There is absolutely no justification for raising mixed or scrub chickens when in one season you can establish a flock of pure breds at such a reasonable figure, and which will be the pride of anyone, to say nothing of the added profit. Breeders of pure-bred chickens would no more consider a mixed flock than would our famous Wisconsin dairymen think of losing interest in their herds to the extent of using a scrub bull, and it takes years of time and more cash to get a pure-bred herd, while a flock of pure-bred chickens can be established in a season no matter how humble one's means.

Decide now to keep a flock of pure breds or improve the one you have already started. Look up some of the poultry advertisements in this paper and buy your male birds early and insure the best possible selection. If you need eggs place your orders early, because breeders fill them in the order received. Do it now and you will be amply rewarded before this time next year. J. H. Dance.

Waukesha Co., Wisconsin.

Packing Incubator Eggs.

To the Editor:—I have been reading your paper for many years and enjoy the poultry department very much. I wish to ask some of the readers if they will tell me through the papers how to pack eggs for setting in lots of 100 or more, that is, large eggs such as duck and turkey. A bushel

$8.55 Buys
140-Egg Size
World's Champion
Belle City Incubator
The Prize Winning World's Champion Model
Hot-water—Double-walled—Copper Tank—a Thermometer Holder—Deep Nursery—Self-regulating, same as used by Uncle Sam and America's most successful Poultry Raisers.—When ordered with my $4.85 Double-walled, Hot-water 140-chick Brooder—Both cost only $12.50.
90 Days' Trial
I Ship Quick from Kansas City, Minneapolis, Buffalo or Racine
Freight Prepaid East of Rockies Allowed that far to points beyond
Satisfaction Guaranteed — Handiest machines, sure to please—and you can share in my
$1000 Cash Prizes
Conditions easy to get biggest prize. Start early—order now—anyway write today for my Big Free Book, "Hatching Facts". It gives short cuts to poultry success. Jim Rohan, Pres.
Belle City Incubator Co., Box 106 Racine, Wis.

Ironclad TRADE MARK
Wins in the Two BIGGEST HATCHING Contests Ever Held
Why take chances with untried machines when for only $11 we guarantee to deliver safely, all freight charges paid (East of Rockies), BOTH of these big prize winning machines fully equipped, set up ready for use? Why not own an IRONCLAD—the incubator that has for two years in succession won the greatest hatching contest ever held? In the last contest conducted by Missouri Valley Farmer and Nebraska Farm Journal, 2,000 Machines were entered including practically every make, style and price. With the Ironclad—the same machine we offer with Brooder freight, paid for only $11, Mrs. C. F. Merrick, Lockney, Texas, hatched 148 chicks from 148 eggs in the last contest.
30 Days Free Trial
Money Back if not Satisfied
Both for $11 Freight Paid East of Rockies
150 EGG ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery—hot water top heat, copper tanks and boilers, self regulator, Tycos Thermometer, glass in door, set up complete ready for use and many other special advantages fully explained in Free Catalog. Write TODAY or order direct from this advertisement.
Galvanized Iron, Asbestos, Redwood, Insulated Board
10-Year Guarantee
MADE OF CALIFORNIA REDWOOD
150 Chick Brooder
IRONCLAD INCUBATOR COMPANY, Box 113, Racine, Wis.

No Raise In Price
No Cut In Quality
$7.25
While our stock lasts we are quoting the same unbeatable low price on
Mankato
the quality Incubator for money making hatches—now used by thousands of poultry raisers.
Write Today — Get your machine before price goes up. Same quality—redwood case, double hot water and hot air heating system, pure copper tank. Mail postal quick for money saving offer.
Mankato Incubator Co. Box 708 Mankato, Minn.

Both Machines Freight Paid Only $10
WINNERS IN BIG HATCHING CONTESTS EVERY YEAR
Think of it! These two UNBEATABLE Wisconsin Machines—both for only $10—freight paid east of Rockies. Guaranteed 10 years and sold on 30 days trial—
30 Days Free Trial
130 Eggs 130 Chicks
MONEY BACK IF NOT SATISFIED
Wisconsins are made of genuine California Redwood. Incubators have double walls, air space between, double glass doors, copper tanks, self-regulating. Shipped complete with thermometers, egg tester, lamps, etc., ready to run. Biggest incubator bargain of the year. Send for our new 1917 catalog fully describing this outfit. A postal brings it by return mail.
180-Egg Incubator and Brooder both $12.75
WISCONSIN INCUBATOR COMPANY
Box 100, Racine, Wis.

BIG HATCHES!
On One Gallon of Oil—One Filling of Tank!
RAYO Incubators produce higher average hatches because center heat insures even temperature. Hinged glass top puts eggs, thermometer and all in plain sight, saving labor. Oil tank needs but one filling for entire hatch. Flame regulator saves 3 to 6 gals. oil every hatch. Hatching chart and money making book on request. Write for them and new catalog.
Incubator Co., U. D. Sta. 3098 Omaha, Neb.

64 BREEDS Valuable New Poultry Book Free—108 pages. Fine pure-bred chickens, ducks, geese and turkeys. Choice, hardy, Northern raised. Fowls, eggs and incubators at low prices. America's greatest poultry farm. 24th year in business. Write today for Free Book.
R. F. NEUSERT CO., Box 806, Mankato, Minn.

58 BREEDS Fine Pure-bred Chickens, Ducks, Geese, Turkeys, Guineas at low prices. America's Finest Poultry Farm. Low Prices. Large Catalog 4 cents.
A. A. ZIEMER, Box 15 AUSTIN, MINNESOTA

basket will not hold 100 duck eggs if you put a top on it and if there is a covering of excelsior the eggs are sometimes broken. If packed in twelve-dozen egg cases it would take two egg cases to hold 100 duck eggs, as they are so much larger than hen eggs that several places must be left empty, and that makes the express rather high for the purchaser.

Mrs. J. H. W.

Lice-Proof Nests

WRITE QUICK for Catalog and SPECIAL OFFER

Nests won't cost you 1c. Your hens will pay for them in More Eggs

You will get 20 to 50 per cent more eggs with KNUDSON Galvanized Steel Lice Proof Nests. These wonderful sanitary nests last a lifetime. Satisfaction—Unlimited Guarantee. The illustration shows our leader—6 Nest Set. Cost Less Than Wood Nests. Don't Wait. Make Big Money on Poultry. Write Knudson Mfg. Co., Box 130, St. Joseph, Mo. Over 25000 in use.

Chicken Money

1917 is going to be the biggest year known for poultry raisers. Start right—Get the Cyphers Book—A mine of information which shows the way. Write for free copy.

How to Succeed With Poultry

Cyphers Incubator Co. Dept. 44 Buffalo, N. Y

DEHORN CALVES FOR 2c

Without Saw or Clippers

AGENTS WANTED: $4.00 PER DAY

EVERY farmer and stockman buys. Absolutely guaranteed. Sent on 30 days' trial. Apply remedy to horn when calf is small and horn never grows. No bleeding. No torture. 65c bottle dehorns 35 calves. Write today. Address KUMMETH BROS. HERON LAKE, MINN.

SEND $1 and we will send you 100 Progressive Everbearing Strawberry plants (post. prepaid). Trees, shrubs, roses and grapes. Free catalog. Write. Something good. Welch Nursery, Shenandoah, Ia.

POULTRY AND PET STOCK.

WANTED—500 COCKERELS, HENS

AND Pullets, in Plymouth Rocks, Rhode Island Reds, Wyandottes, Orpingtons, Leghorns, Brahmas and other varieties. Also want Ducks, Geese, Turkeys and Pigeons. Fully describe what you have, quoting lowest prices. Z. G. McKay, Lyons, Iowa.

WINNEBAGO REDS

SINGLE Comb R. I. Reds only. Excellent quality, standard weight cockerels and pullets. High class exhibition and common laying stock. Satisfaction guaranteed or no sale. Winnebago Poultry Yards, R. 23, Omro, Wis.

50 Best Paying Varieties Hardy Northern raised Chickens, Ducks, Geese and Turkeys. Pure-bred heaviest laying strains. Fowls, Eggs, Incubators, all at low prices. Large new Poultry Book and Breeders' Complete Guide Free. W. A. WEBER, Box 14, Mankato, Minn.

62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 23 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 607, Mankato, Minn.

50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents. Theodore Franz, Box 104, Mankato, Minn.

FOY'S BIG BOOK FREE

POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs. Frank Foy Poultry Farm, Box 82 Clinton, Iowa

WHITE PLYMOUTH ROCKS

COCKERELS, hens, pullets. Ckls. weighing 7 to 9 lbs., each $2 and $3. Scored ckls. $5 each. Write your wants or order direct from this ad. Satisfaction guar. Chas. L. Berry, Iowa City, Ia.

HOUNDS: Coon, Fox, Wolf, Deer, and Rabbit Hounds; pedigreed and eligible to reg. Young and old stock for sale. Sent on ten days' trial. Money back guar. Otis Slater & Son, Oconee, Ill., Succes'rs to R. F. Johnson, Assumption, Ill.

"ARISTOCRAT" Silver Wyandotees. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns. $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

BREEDERS Cheap, all varieties chickens, ducks, geese, turkeys, bantams and guineas. Also incubator eggs. Bare Poultry Co., Box 650, Hampton, Iowa.

2949 COCKERELS, hens and pullets. 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O. C. Olson, R. 2, Strum, Wis.

WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cock'ls. Mrs. J. F. Bloom, R. 1, Stillwater, Minn.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box 9, Janesville, Minn.

Waukesha Poultry Show.

To the Editor:—The ninth annual show of the Waukesha Poultry and Pet Stock Association will be held in Waukesha, January 29 to February 3, 1917. There are large cash and special prizes and also silver cups offered.

As this is one of the large shows of the state it will pay you to show with us, as a prize won here means something.

The state meet of the Rhode Island Red Club, both single and rose comb, will be held at this show. Also the annual state meet of the Wisconsin branch of the American Buff Wyandotte Club will be held here.

George M. Wells will place the ribbons. J. R. Love, Secy.

Waukesha, Wisconsin.

Program For Farmers' Week

An elaborate program has been arranged for Farmers' Week, better known as Swine Week, at the college of agriculture, Madison, February 5th to 10th. In addition to a swine show, swine sales, meetings of all the swine breeders' associations, swine lectures and exhibits of pork by-products and hog houses, there will be special programs for dairymen, including conferences of creamery and cheese managers, conferences of cow testers, etc. The horticultural school, soil school, county life conference and homemakers' program will be complete as usual. The following is a brief review of some of the more important events of the week:

Monday February 5th.—W. L. Houser, chairman. Morning subject "Beef Cattle." Addresses by Dean H. L. Russell, Dean W. L. Carlyle, of Oklahoma Agricultural College, and W. S. Tasker. General subject for afternoon, "Sheep," with Arthur Broughton, chairman. Addresses by W. C. Coffey, Illinois station; R. J. Stone, breeder and judge, of Stonington, Ill. At 3:30 p. m. annual meetings of the Wisconsin Short-horn, Aberdeen Angus, Hereford, Red Polled and sheep breeders' associations. Evening, address by Dr. A. S. Alexander. Moving pictures.

Tuesday, February 6th—From 8:30 to 10, annual meeting Wisconsin Live Stock Breeders' Association. Addresses by E. R. Jones, on drainage, B. H. Hubbard, on new federal land loan law, J. G. Halpin on poultry topics, J. B. Hayes on poultry topics, and R. H. Roberts on horticultural topics, in Agricultural Hall. At 10 o'clock occurs the "Profitable Pork" meeting with James Dillon, chairman. Addresses by A. M. Laird, J. G. Fuller, G. B. Van Norman. At the afternoon session addresses by F. B. Morrison, L. P. Martiny, James Fisher, Dr. F. B. Hadley. Annual meetings of Poland China, Duroc Jersey, Chester White and Berkshire Associations of Wisconsin. A banquet will take place at 6:30 p. m.

Wednesday, February 7th—From 8 to 10 devoted to addresses by Wisconsin Station workers. At 10 a. m. addresses by E. T. Robbins, representing Percheron Horse Breeders' Association and M. F. Woodhouse, who was manager of the Bloomington, Wis., Colt Show. The annual meeting of the Wisconsin Horse Breeders' Association will be held at 11:30. In the afternoon the Duroc sale will be held in the sheep pavilion, J. D. Gant in charge, and at 7:30 in the evening the Poland China sale will be held in the sheep pavilion, J. F. Diley in charge.

Thursday, February 8th—Lectures by station workers, 8 to 10 a. m. M. Michaels will be chairman of the 10 a. m. meeting to discuss breeding, feeding and testing dairy cattle. C. H. Eckles, Missouri Station; N. A. Negley, Wisconsin; F. R. Crane, of the Great Northern railroad; A. H. Wilkinson, of Bayfield, and Charles L. Hill, of Rosendale, will be other speakers of the day. At 3 o'clock will occur the annual meetings of the Guernsey, Holstein, Jersey, Ayrshire and Brown Swiss Associations. The annual recognition service occurs at 7:30 in the evening. Address by M. D. Munn, president National Dairy Congress.

Friday, February 9th—Following talks by station workers the country life conference will convene at 10 a. m. An elaborate program has been arranged, C. J. Galpin in charge. In cooperation with the Wisconsin Experiment Association a program covering the general topics of breeding, growing and disseminating of pure-bred grains, will occupy a large part of the day. The program will be in charge of Henry Michels. Speakers will include Alfred Wenz, Henry A. Moehlenpah, W. L. Ames, president National Farmers' Congress, P. W. Jones, T. H. Campion, F. J. Seivers, James B. Cheesman, L. F. Graber and Peter Swartz. The last three named will represent the Wisconsin alfalfa order, and interesting illustrated pictures of growing alfalfa will be shown.

Saturday, February 10th—Business meeting of the Wisconsin Experiment Association. Addresses in the morning by Matt Michaels, William Budlong, of Rockford, Ill., Ford Allen and R. A. Moore.

The sixteenth annual grain show under the auspices of the Wisconsin Experiment Association will be held Farmers' Week. It is expected this will be the largest exhibit of pedigreed grains ever held in Wisconsin.

This brief review by no means tells all the good things that are offered for Farmers' Week, February 5th-10th.

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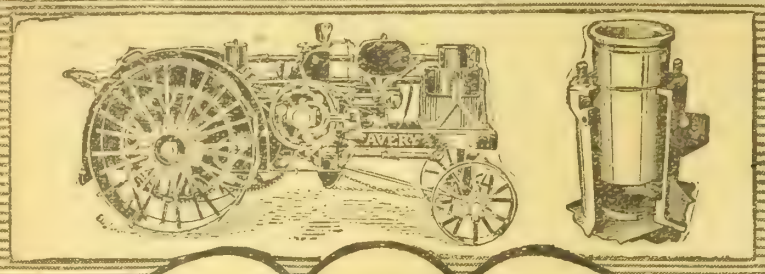

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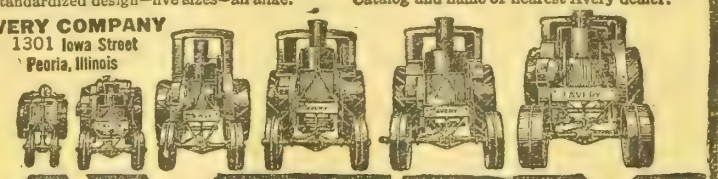

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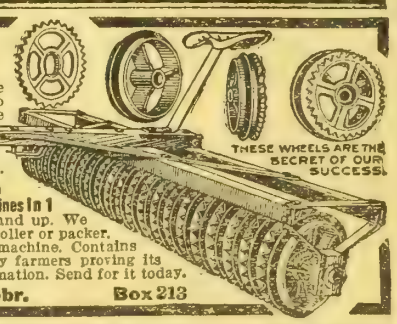

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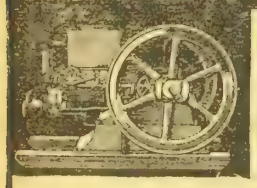

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FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Long or Short Hitch.

I have been troubled for some time with a few mechanical problems, and I know of no other place that would be so well to submit them to as your paper; for not only myself, but thousands of others will be benefited by your answers. My question is about the difference in power of a long and short hitch.

Other things being equal, I do not think that there is anything gained by a close hitch; and I do believe that oftimes the farmer makes the mistake of getting his team too close to the load. I want to know whether I am right or wrong. I will admit that there are instances where hitching a team closer to the load is advantageous. However, it is not the mere fact of being closer to the load that makes for this.

I was plowing sod this fall with four horses hitched tandem to a gang. One of my neighbors came over and wanted to know why I did not hitch abreast. He argued that all the horses would be closer to the load, and, therefore, they could pull more. He could give no reason why they could pull more, but insisted that they would, "just the same." I argued that when I had a pulley attached to the beam of my plow and a chain run through the pulley and a team on each end of the chain, that both teams must pull an equal number of pounds, neglecting, of course, the friction of the chain in the pulley. It would make no difference if one team were two rods ahead of the other team; both would have to pull equally or the chain would slip through the pulley.

In a recent issue of a magazine published by one of the largest plow manufacturers, the writers contend that when a team is hitched so close to a sulky that some of the weight is removed from the front wheel, even though it is not removed from the ground, there is a loss of power. That front wheel is intended to carry the burden of turning the furrow, and it would be better to have the tugs let clear out. I have heard men say that they could hold a team with a hundred feet of rope, but I have yet to see one of them do it.

I contend that if a locomotive engineer has fifty empty cars and one loaded one to pull, the train will pull just as easy with the loaded one on the rear end, so long as the pull is on a straight track. It might pull a little harder around a sharp curve. Did anyone ever hear of an engineer placing the loaded cars ahead of the empties? An instance where being close to the load would make for easier pulling would be in a case where the front wheels of a wagon were sunk down in a mud hole. If the team were hitched close, they would lift some on the wheels, thereby making the wheels rise from the depression. Or a log will drag easier if you hitch close to it, provided the chain is hitched to the under side, because the team will lift it some, thereby lessening the friction between the ground and the log.

In case the point of hitching is higher than a level trace, the closer the hitch to the load, the harder the pull. We will suppose, for instance, that you wish to pull over a windmill tower, sixty feet high, by a rope fastened to the top. A team hitched to the rope sixty feet away from the base of the tower will not have to pull as hard as one hitched only fifty-five feet away. Threshermen always want a long belt between the engine and separator. I think they are right in this, even though they are further from their "load."

In brief, hitching close to the load has nothing whatever to do with the pull on a straight, horizontal pull, where you reckon distance only. Am I right?

Answer.—You are right. On a straight pull, that is, on a pull where the line of force is parallel with the plane over which the load is being pulled, whether horizontal or not, it makes no difference whether the hitch is long or short. On a straight pull a horse will pull as much hitched fifty feet from the load as if hitched five feet from it. In making a hitch there are other things to be considered besides the straight pull and to obtain best results the farmer must use considerable judgment. For instance, the short hitch may be the better for dragging a log, for the reason given by you; the long hitch would undoubtedly be the better for pulling over a windmill tower. We can see where there might be some loss of power if the horses are hitched too close to a sulky plow. Whether to hitch tandem or abreast is largely a question of which way the farmer prefers to handle the horses. The mere fact that the horse is closer to the load does not enable it to pull more. There is usually more power lost in side draft when an abreast hitch is used than when a tandem hitch is used.

A train starts better with the empty cars at the front, because there is always some "slack" in the train. The empties start first, and part of the momentum they gain on the first pull is used to start the loaded cars. The friction at starting is always greater than the running friction. Threshermen use a long belt because a long belt grips the pulleys tighter and the lineup need not be so exact as when a short belt is used. The danger of fire is also less. The distance alone between the engine and the separator does not affect the pull.

Another Small Truck.

We have a 1¾-horse-power Associated engine. Could we make it pull itself? Would it pull itself up a fairly steep grade?

Answer.—Mount the engine on a light truck and drive it as stated above. The engine should have power enough to pull itself up a fairly steep grade at two miles per hour.

Voltage For Ford Lights.

I have a 1915 Ford car. It has been run about 25,000 miles. When I speed it up to about twenty-five miles per hour, it always burns out one bulb or the other. We burn out a bulb every other night. We are using a nine-volt lamp. Would a ten or twelve-volt lamp burn out as easily? Would it be hard on the magneto?

Answer.—If you are having trouble with your lights burning out you should use bulbs of higher voltage, probably about twelve volts. This will not make it harder, but easier, for your magneto. If you use bulbs of too high a voltage, however, your lights will be dim, especially at low speeds.

Recharging Flash Light Battery.

Would you please tell me if I can recharge a flash light battery that is not quite worn out? It gives a red light when I flash with it. I do not think it is the globe that is giving the trouble. It is the Fresno semi dry battery, and is guaranteed to last two months.

Answer.—As a rule it is not advisable and often it is impossible to charge a flash light battery. You could probably strengthen your battery by putting it in series with a six-candle-power light in a six-volt circuit, connecting it so that the current would flow through the right way. Doubtless it would be better for you to buy a new battery.

Corliss Engine Valve.

Please designate the Corliss valve on steam engines.

Answer.—Steam engines may be divided into three types; the slide valve, the Corliss valve and the turbine. The slide valve engine is the most common, the piston valve being but a modified type of the slide valve. In this type of engine the steam is admitted to the cylinder through a sliding valve, operated by means of a valve rod driven by an eccentric on the crankshaft. The valve, sliding back and forth, uncovers a port first on one end of the cylinder and then on the other, which admits the live steam first to one end of the cylinder and then the other, while the exhaust passes out of other ports through the middle of the valve. The Corliss engine has four valves, located at the upper and lower corners of the cylinders. The two upper valves admit the steam to the cylinders, the two lower valves being the exhaust valves. These valves do not slide, but rotate back and forth about a third of a turn, thereby opening or closing the steam ports. The valves are rotated by means of rods attached to a disk called the "wrist plate," fastened to the side of the cylinder. The wrist plate is partly rotated from an eccentric rod from the crankshaft. The motion is such that the valves may be opened and closed very quickly, which makes the engine very economical in the use of steam—much more so than the slide valve engine. It is heavy and expensive to make, however, and cannot be run at a high speed. The turbine engine has no valves, the steam blowing against the vanes mounted on the rims of disks. These disks are mounted on the engine shaft and enclosed in a heavy cast iron case which retains the steam and guides it in the right direction.

Fruits and Garden

Plans to Grow Onions.

One of our subscribers sends the following communication:

I went to my grocer for onions last week, and only got four pounds for a quarter. I call that scandalous, and think I'd rather be a producer than a consumer. I have a piece of land and propose to grow onions myself and sell them at three dollars per bushel. I understand that it is a simple thing to grow this crop. All you have to do is to plant the seed, and keep the weeds down. But I'm in the dark as to the best variety. The catalogs list so many that it is confusing. Should I take Prizetaker, or Silver King?

We are very glad to hear from this friend and will say that we think his spirit is commendable; also it is very wise to be reaching out after information. It is a simple thing to grow onions. You have the right theory, but notice this there is always a difference between theory and practice. The plan may be good, but the execution may be difficult. The architect's blueprints may be faultless, but you will meet many a problem in erecting the building.

Your plan presupposes ideal conditions, but, in fact, the conditions are rarely perfect. All we can do is to observe certain general principles and rules of work, making the best of weather conditions, which will greatly help or hinder us. You may have a great success and then you may have a partial failure. The chances are that you will have an average crop, neither as good as you hope for nor as poor as is possible.

We understand from your letter that you have had no experience in this line of work. While we can give in our limited space a few essential points, we strongly advise you to look up some practical onion grower and question him closely. If he is a practical, honest man he will put you very close to the secrets of the business.

First, get good seed. Better buy one pound at $3 than three pounds for $3. Second, plant very early, in March if possible. If the frost is out only one inch, just enough to run the seeder, get them planted promptly. Of course, the surface needs to be dry, but it will do no harm if it freezes up tight as a brick afterwards. Third, cultivate thoroughly while the plants are small. Begin with the wheel cultivator as soon as you can see the rows. Keep down all weeds and never let the surface get crusted. These are the main conditions and the reasons for them are not far to seek. Poor seed, if it sprouts at all, will make poor onions. And to buy cheap seed is to throw away your chance of success at the start.

Early seeding is imperative because the onion plant makes its growth during low temperatures. Great heat ripens them up. You need to get the most of the growth done before the hot weather of July. The early cultivation is essential in order to push on the early development. Never let the plants get stunted by weeds. If you do good-by to your hopes of a crop.

There are other important points to consider. You should have a rich soil, mellow, and plowed at least ten inches deep. It should be as free from weed seeds as possible. Foul land will double your work of weeding. Poor land will make your onions small and shallow plowing will make them dry and ripen prematurely. Selection of varieties should be carefully considered. It is likely that the two you name attract you because of their large size. We would take neither of them. They are both poor keepers and the demand for them, especially for the white, is limited.

Choose standard market varieties. Red globe, yellow globe, yellow Danvers, red Weathersfield, these are all good keepers, large onions and popular with consumers. If you are as wise as we think you are these hints will help you a little.

It is well to be hopeful and anticipate good results, but avoid building too big "castles in the air." For instance, you are no ways likely to sell your crop at $3. You can do well at $1.50. This year's scarcity will not continue. Exclusive onion growers are often glad to sell at 70 cents and that pays when the yield is 600 bushels per acre.

Do Strawberries Run Out?

We have lately read the statement that all of the hundreds of varieties of berries, once favorably known, have "run out," ceased to be profitable and been abandoned. "Where," asked the writer, "are the Wilson, the Crescent, the Sharpless and a score of other varieties which stood first in popular esteem thirty years since?" And he declared they had failed, "run out," deteriorated, and because of that their places had been taken by worthier sorts.

We must positively dissent from that proposition. It is true that the older sorts have been displaced, but not because of change in the berries. They have been drowned out by the flood of new varieties sent out like a spring freshet by the plant growers. It is a case of the survival of the advertised. It is the "push" of the plant seller which has driven the old sorts from public favor.

See how easily this can be done. The average planted sets a bed of berries, gets three crops from it and then finds that he must renew it. But there are no new plants formed the third year, so he must perforce buy a new start of the plant dealer. Looking at his catalog he finds extravagant praise of some new sort, and as, of course, only wants the best, he takes it. It only takes six years to make an in any neighborhood, except in cases, and they are rare, where an expert has carefully planted good runners annually from his beds.

We have known cases where careful men have kept the same old favorite for fifteen years and found them as good the fifteenth year as the first.

Take the case of the Warfield, which is now twenty-five years old at least. The writer has a fresh bed of it and finds it just as good as at first. And in size and yield it compares very favorably with the Senator Dunlap, which has been the brag berry for the last few years.

If you can get the old Crescent and Wilson pure plants, they will do just as well in 1917 as they did in the seventies and eighties of the last century.

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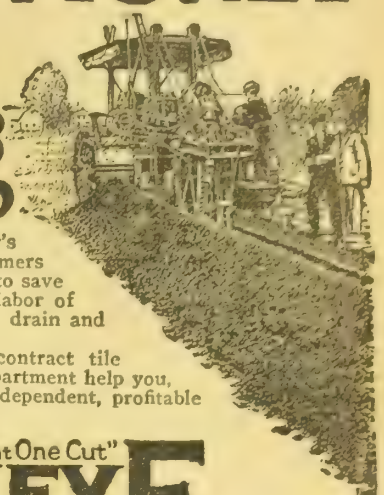

Thousands of American and Canadian acres will be tiled this year. Last year's extremely wet weather has convinced farmers and land owners everywhere that if they are to save their crops after going to the expense and labor of planting and cultivating them, they must tile drain and do it thoroughly.

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Curtice, Ohio, January 10, 1916.
"I am well satisfied with my Buckeye. That machine is making me more money than 40 acres of land. I have made about $1200, on a rough guess, this season, and you know what a bad summer we have had. But I am getting along fine, and if I had another machine I could keep both of them busy. I have more work now than I can do, and, another thing, I think the Buckeye Traction Ditcher Company used me first rate."—EDWARD YOSTER.

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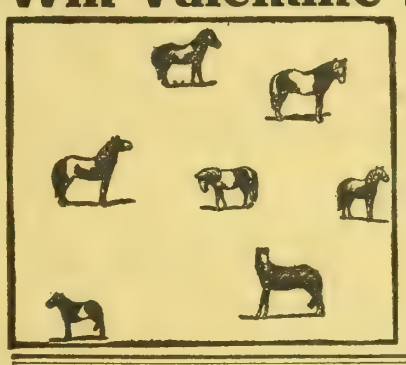

Solve This Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, a Valentine surprise package, containing 42 beautiful Valentine novelties, seals, tags and stickers. This is one of the most artistic Valentine packets put out. All you have to do is enclose two 2c stamps in your letter to pay postage and cost of mailing. Will also send a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland pony.

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Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Full particulars by mail.

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Fat in Cookery.

Food materials differ in price with place and with season, and when a housekeeper wishes to follow a recipe she often finds that some of the ingredients called for are either too expensive, or are very difficult to obtain. If she understands the composition of foods, she can often, under these circumstances, substitute some other material with good results. In order to do this, the housekeeper needs at least a general knowledge of the composition and properties of foods and is greatly helped by experience. In the main, it is knowledge of foods and experience which free the cook from slavery to a recipe.

Experts in home economics at the United States Department of Agriculture have studied the matter recently with respect, especially, to the uses of fat in cookery.

For example, chicken fat or sour cream can often be substituted for part or all of the butter in cake making, but if this is to be done successfully the cook must know how much of either one it takes to supply the fat contained in the amount of butter for which the recipe calls. Cream contains more water than butter does, and rendered chicken fat usually far less, because it has been heated and the water which it originally contained driven off.

Egg yolks, which are rich in fat and which are often left over from cake making, may be used to enrich soups, or may be combined with milk to make custards, which resemble the cream in composition, and can be used as cream is on desserts. Cheese is often added to soups or milk sauces to flavor them and also to make them richer in protein, but one should remember that it adds greatly to the fat also, and so the amount of butter should either be lessened or left out entirely, according to the amount of cheese used. It is convenient in these cases to know just how much fat is contained in an egg yolk or in a given amount of cheese.

Sometimes chopped nuts, which contain much fat, are added to recipes which did not originally call for them, with the idea of making the dish more appetizing. In this case also the nut fat should be taken into account, and the amount of butter or other shortening should be reduced accordingly; otherwise the dish is almost sure to be overfat.

It is easy to find out from bulletins published by the United States Department of Agriculture the percentage of fat in different food materials, and one can then compute the amount in a given weight of milk, cream, cheese, and so on. But the home cook does not usually weigh all her food materials, and still less does she like to do problems in arithmetic as a part of her baking. She measures her materials, using level teaspoonfuls, tablespoonfuls, and cupfuls, and uses them as her recipe or her general knowledge of cookery suggests. The more reliable data she has, the better results can she count on.

With these facts in mind, the table given above has been made, which shows in housekeepers' terms the volume of fat in several commonly used food materials. An illustration of how the facts in the table may be used is given below. The proportions for a good cup cake, in which fat is supplied by butter and milk, are as follows:

Two-thirds cup butter, two cups sugar, four eggs, one cup milk (containing two teaspoons fat), three and one-fourth cups flour, four teaspoons baking powder.

In this recipe a cupful of sour cream (18 per cent) can be substituted for the cupful of milk. It contains, as the table shows, a little more than two tablespoonfuls more fat and, of course, correspondingly less water. The two tablespoonfuls of fat can be taken from the butter, which will reduce the butter to one-half cupful, and two tablespoonfuls of water can be added. The regular allowance of soda, one-half teaspoonful for a cupful of sour milk or cream, should be used and the baking powder reduced to three and one-half teaspoonfuls.

This illustration will serve to show how a knowledge of facts will help housekeepers to use fats economically in cookery.

AMOUNT OF FAT IN VARIOUS COMMON FOOD MATERIALS.*

Food material	Quantity	Fat content.
Whole milk	1 cup	About 2 level teaspoons
Ordinary cream (18 per cent)	1 cup	About 3 level tablespoons
Double or whipping cream (40 per cent)	1 cup	About 6 level tablespoons
Butter	1 cup	14 level tablespoons
English walnut meats (finely chopped)	1 cup, or 8 oz.	Nearly two-thirds cup
Peanuts (finely chopped)	1 cup, or 8 oz.	A little more than 1-3 cup
Chocolate	1 sq. or 1 oz.	1 scant tablespoon
Cheese (grated)	1 cup or 4 oz.	2½ level tablespoons
Egg	1	A little more than 1 level teaspoon
Egg yolk	1	A little more than 1 level teaspoon
Egg white	1	Only a trace
Egg yolks	1 cup	About 5 level tablespoons
Egg whites	1 cup	One-fourth level teaspoon
Vegetable oil or lard or drippings from which all water has been driven off by heat	1 cup	1 cup

*In making these estimates it is assumed that three level teasp ns make one level tablespoon, and sixteen level tablespoons one cup.

Tatted Ecru Trimming.

To the Editor:—I am sending you a sample of tatted trimming that I think is very pretty for use on plaid ginghams. It is easy to make, and I think some of your readers may like it.

Only half the pattern is made, as many yards as is needed, and then tat back on the strip.

With the shuttle thread make ring of 6 d. s. 1 p. 6 d. s. close. Join spool thread and chain 4 d. s, 3 p.'s separated by 2 d. s. With spool thread make small ring 6 d. s., join to p. of other ring d. s., close. Leave no thread. Make ring of 6 d. s., 1 p. 6 d. s., close. Shuttle thread made 4 d. s., 3 p.'s separated by 2 d. s., 4 d. s. Shuttle thread make ring of 6 d. s., join to last ring 6 d. s. and close. Repeat until you have as many yards as desired, then turn and do the same back, so there are four rings in the same picot. Mother D.

TRIMMING FOR GINGHAMS, TO BE USED AS INSERTION.

Recipes.

Baked Indian Pudding With Sweet Apples.—Mix four tablespoonfuls of Indian meal with a cup of cold water and stir into two cups of milk scalded over hot water; continue to stir until the mixture thickens, then add one cup of molasses, two eggs beaten light, half a teaspoonful of salt, half a teaspoonful of ginger and a teaspoonful of cinnamon. In a buttered pudding dish lay four sweet apples, pared, cut in quarters and cored; over these pour the hot mixture and let bake in a moderate oven half an hour, then pour on half a cup of cold milk and bake without stirring two hours. Serve with cream or hard sauce.

Chicken Soup.—Simmer one quart of chicken broth, the bones of the chicken, two tablespoonfuls each of onion and carrot, a sprig of parsley, a stalk of celery, half a teaspoonful of sweet herbs and a teaspoonful of salt one hour. Strain into a double boiler; add two cups of milk and when scalded, two tablespoonfuls of tapioca; stir occasionally until the tapioca is transparent. Beat the yolks of two eggs, add half a cup of cream and stir into the soup. Beat the whites of the eggs with a few grains of salt until light; put, by spoonfuls, into hot water, dip the water over the egg, and remove with a skimmer, one portion to each cup of soup.

Delicious Hot Cakes.—One cup graham flour, two cups wheat flour, two level teaspoonfuls soda, one teaspoonful salt, enough buttermilk to make batter. Sour milk or sour cream may be used with equally good results.—Mrs. P. J. A.

Buttermilk Bran Muffins.—Three-quarters pint buttermilk, two cups bran, one cup white flour, one teaspoonful salt, one teaspoonful soda, one-quarter cup molasses, one-half cup of dates. Stir the bran and white flour into the buttermilk, add salt, soda, molasses and finely chopped dates, which have been thoroughly dredged with flour. Bake forty-five minutes in greased muffin rings or gem pans. Dissolve soda in a tablespoonful of hot water.

Spanish Cream.—Dissolve one-half a box of granulated gelatine in one pint of milk. When thoroughly dissolved add the yolks of two eggs beaten with one-half cup of sugar. When it comes just to a boil, remove from the fire, and add the whites of the eggs beaten to a froth. Flavor to taste. Turn into a mold and set in a cool place. Serve with cream.

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Christmas Ladder Instead of Tree

Dear Young Folks:—I live on a 200-acre farm. I have one brother and three sisters. My brother and I go to school. We take our sleds and have many a good time sliding down hill. There are twenty-one pupils at our school. I am ten years old and am in the fourth grade. There are seven pupils in my grade.

We had a Christmas ladder at our school and we thought it was prettier than a tree. We had two dialogues and six songs. My brother and I sang one song and we also spoke a piece. We had a candy sale at Christmas and made over $19. —Ruth.

Lines to Be Remembered.

Oh who will walk a mile with me
Along life's merry way?
A comrade blithe and full of glee,
Who dares to laugh out loud and free,
And let his frolic fancy play,
Like a happy child, through the flowers gay
That fill the field and fringe the way
Where he walks a mile with me.
—Henry Van Dyke.

Bought Her Own Piano.

Dear Young Folks:—Have you forgotten me? I wrote a long time ago and now I am writing again. You will remember me as the girl who was going to grow potatoes and earn her own piano.

Well, I have my piano now and I do not think you could find a happier girl. The piano is finished in mahogany and is very beautiful.

I have won a lot of prizes with my potatoes at county and state fairs and potato shows. I sold some potatoes to a man in St. Louis, some to a man in Madison, and some were to go on a demonstration train through Iowa. I have sent my story to the state club leader of my state, so some of you may see it in print.

I would certainly like to read the stories of some of the young folks who are growing potatoes or something else and see how much good it did them.

I still have some money in the bank which I am saving for use when I go to a conservatory of music.

Probably some of the girls can play these pieces: "Dying Poet," "Mis-

souri Waltz," "Woodland Echoes," "Humoresque," "First Heart Throbs," "Perfect Day" and "Mother Machree." I have all of them and many more.

The last time I wrote my letter was not printed for a long time, but one day, to my delight, I saw it in print. I wonder if all who write have that delightful feeling.

I am thirteen years old and in the eighth grade now. I take arithmetic, United States history, literature, agriculture, grammar, spelling, penmanship and geography. I did take civil government, but have finished that and after three months of geography will take physiology. The eighth grade is the hardest of all grades. Every night I take books home to study.

Florence.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for January 28, 1917.

Reverence of Jesus For His Followers' House.

LESSON TEXT—John 2:13-22.

GOLDEN TEXT—My house shall be called a house of prayer.—Matt. 21:13.

Skipping the details of geneology, birth and boyhood, John plunges into the work and ministry of our Lord. Our previous lessons have taken up the matter of his eternal Godhead, the word made flesh, the witness of John, Jesus and John the Baptist, his first disciples and the wedding at Canaan. Some of these events have been skipped over without much consideration, yet the teacher should review them briefly. The wedding at Canaan probably occurred in March A. D. 27, and the events of this lesson in April of the Passover week of that year, both events occurring early in the first year of the ministry of our Lord. Jesus went to the wedding, for he had many things to teach by means of it. The story is familiar, and yet God is performing the same miracle every year except by somewhat slower process. John lays strong emphasis upon the "signs" which Jesus performed as evidence of his office. This miracle is an allegory. It also throws light upon Jesus' relation to the home.

I. Jesus Applies the Word of God (vv. 12-17). As the "Son of the Law" Jesus observed all of its requirements and, therefore, went to the Passover (Deut. 16:16; Luke 2:41). We would suggest the reading of Edersheim's "Life of Christ" at this point, especially his description of the feast. Jesus found much of interest, and also saw that which filled his spirit with indignation as he entered the temple (v. 14). Great numbers of oxen and sheep and doves were required for the sacrifices. Every family must bring for sacrifice a lamb, the sacrifices being lain in the inner court near the great altar. Those living nearer the city could bring their own sacrifices, but those who came from far distant points found it more convenient to purchase their sacrifices nearer the temple. Thus a business had grown up within the courts, which gave rise to an immense amount of covetousness and selfishness. The yearly tax due from every Jew could not be received except in the native coin; hence the money changers within the courts. The result was that the temple had become a "den of thieves" (Mark 11:17). This had undermined the power of religion, and turned men away from the truth. This place, made to be a house of prayer (Jer. 7:11; Isa. 56:7) had become a vanity fair; a show, and the very object of the temple was sacrificed to the greed of gain. The defense often made in our day, of buying and selling in the house of God that it has to do with the cause of worship will not bear scrutiny in the light of this passage. Into these surroundings this young reformer enters, and places his finger upon the heart of the matter when he quotes the scripture. The reason of his action was what the scripture said about the house of God. Present day followers of Jesus can learn a lesson from these words.

II. Jesus Fulfills the Word of God (vv. 18-22). Jesus spake as one having authority, and these merchants knew they were in the wrong. He embodied in himself, as prophet, the moral sentiment of the nation, and exerted his authority. It looked like high-handed usurpation unless Jesus were a prophet sent from God; therefore, the demand for his credentials (v. 18). Jesus gave a sign, a sign which they did not understand at the time (v. 19; Matt. 12:38-40; 16:1-4). The resurrection of Jesus is God's seal to all of the claims of Jesus. He also speaks of his body as a symbol and type of what is to take place in their national temple, an event which occurred some forty years later, though they at the time did not understand it. Jesus foresaw that these leaders would destroy his body on the cross, and that for the same reason they were at the present time opposing him in what he had done. The Jews, thinking only of their temple, in whose courts they were standing, referred to the time spent in the erection of the building (v. 20), and thought that their argument was invincible, but they did not know what was to take place. Not even the disciples of Jesus understood his words at the time, but after his resurrection they remembered them and their fulfillment. The death and resurrection of Jesus was in accordance with the word of God. His whole life, birth and works can be traced in the Old Testament in type and prophecy.

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Send 10c in silver or stamps for our up-to-date 1916 large fall and winter catalog, containing over 400 designs of ladies', misses', and children's patterns, as well as the latest embroidery designs, also a concise and comprehensive article on dressmaking, giving valuable hints to the home dressmaker. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wis.

1960—Dress for misses and small women. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires 4½ yards of 44-inch material for an 18-year size.

1955—Ladies' overall apron with sleeve portion in either of two lengths. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 6½

yards of 36-inch material for a 38-inch size.

1796—Ladies' dress—Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 44-inch material for a 36-inch size.

1968—Girls' dress with sleeve in either of two lengths. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3⅜ yards of 44-inch material for a 6-year size.

1786—A neat and simple style. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size.

1951—Girls' slip, with empire waist and with or without envelope chemise finish. Pattern is cut in 6 sizes: 4, 6, 8, 10, 12 and 14 years. It requires 2½ yards of 36-inch material for a 10-year size.

1946—Girls' gymnasium suit. Pattern is cut in 5 sizes: 8, 10, 12, 14 and 16 years. It requires 3¾ yards of 27-inch material for the blouse, and 3⅜ yards for the bloomers, for a 12-year size.

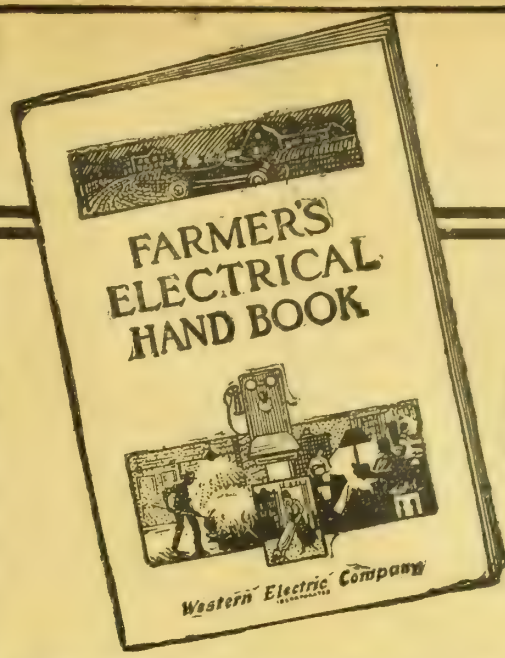
1668—Girls' dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3⅛ yards of 44-inch material for an 8-year size.

1832—A dainty frill shirt waist. Pattern is cut in 6 sizes: 34 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 44-inch material for a 36-inch size.

1660—Ladies' house or home dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

Waist 1950-Skirt 1959—A popular model for business or afternoon wear. Waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 5⅞ yards of 44-inch material for a 36-inch size. Two separate patterns 10 cents for each pattern.

1825—A simple, practical skirt model. Pattern is cut in 6 sizes: 22, 24, 26, 28, 30, and 32 inches waist measure. It requires 3¾ yards of 44-inch material for a 24-inch size.



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PART IV.---One Squaw Man.

CHAPTER III—Continued.

"The Sqauw Who Rides."

"Good gracious! Do you folks go to bed with the sun? I have a magazine for him, but he can wait for it, then, until tomorrow. Tell him I will expect him over."

"Yes, Miss."

Just then from along the avenue sauntered a soldierly figure, who drew near at the sound of voices.

"There comes Sergeant Kelp," remarked the sentry. "He's on night duty in Kennedy's place."

Instantly the girl turned to the officer in charge.

"Well, I'm glad to find someone up and awake," she said, leaning over to shake hands with him. "It helps to keep me from seeming altogether a night-prowler. I came over to get the returns, if there were any. The folks are getting anxious at the ranch."

"Naturally," answered the young fellow. "I would have called this evening, but am on duty. Don't let the ladies worry if you can help it. We are likely to hear from the men before morning. Every scout we had went with them, and without horses we can't do much but just stay here and wait; all the boys find it mighty hard work, too."

"You remind me of half my mission, Sergeant, when you speak of your scouts. I brought over some mail, and everyone I wanted to see is either away or asleep. How about your chief of scouts—is he asleep, too?"

It seemed to her that her heart ceased beating, the wind ceased blowing, and the stars ceased twinkling above the snow, as she waited for his disgusted reply.

"No; not by a good deal. I never saw such a crank as that fellow! When everything was smooth sailing, that man would skulk around camp without a work to speak to anyone, the surliest white man I want to see; but now that he's jailed for horse stealing, tied up and watched in the shack, I'm blest if he doesn't put in the time singing. Yes, he does; been at it ever since taps. I threatened to have him gagged if he disturbed the boys; but they say he don't. Roberts is the only one who has to listen to it; says he never heard so many Indian songs in his life. But it's a mighty queer streak of luck for a man to be musical over."

Rachel laughed, and agreed. "I have a letter for him, too," she added. "Look, here; I'd like to take it to him myself, and get to hear some of those songs. Can I? I know it's rather late, but if he is awake, it doesn't matter, I suppose; or is no one allowed to see him?"

"Indians only are tabooed, but none of them have shown up, not even his runner, and I guess you can speak to him if you want to; it isn't a thing most ladies would like to do, though," he added.

"I suppose not," she said good-humoredly; "but then, I've known the man for something over a year, and am not at all afraid—in fact, I'd rather like to do it and have something to horrify the ladies at the ranch with. Think of it! An interview with a horse thief—perhaps a duet with him all alone in the middle of the night. Oh, yes, that's too good to miss. But I must hurry up, or they will be sending someone after me."

At the door of the shack, however, she paused a moment in what might be trepidation, her hand laid hesitatingly on the saddle, as if in doubt whether to remount or enter the shanty, from which she could hear the low refrain of a song of their cultus corrie —"Tsolo, tso-lo!"

"The guard will not leave the door?" she whispered; and Sergeant Kelp concluded that, after all, she was pretending to greater nerve than she possessed.

"Never fear," he returned; "I will call him out to hold your horse, and he won't stir from the door. By the way, I'll have someone to see you home when you're ready to go. Goodnight."

Then the guard was called out, and a moment later the visitor slipped in, the prisoner never turning his head or noticing the exchange until she spoke.

"Jack!"

He turned quickly enough.

"My gracious, girl! What are you doing here?"

She thought of the ears, possibly listening ears, on the other side of the door, and her tone was guarded and careless, as it had been with the Sergeant, as she laughed and answered in Chinook:

"To pay a visit; what else?"

She noticed with exultation that it was only rope he was tied with—his hands and his feet, as he sat on the bunk—a plaited rope of rawhide; strong enough when strengthened by a guard opposite and a loaded gun; but without the guard and with a keen knife! She checked him in the midst of a passionate protest against her coming.

"I am here, so that fact is settled," she said quietly. "I didn't come for fun, and we haven't any time to lose. I brought you a letter; it is in this," she said.

"You have seen Kalitan?"

He took from her the rubber case and extracted the letter from it, but scarcely noticed it, his eyes were turned so anxiously to her face.

"Yes; and you had better read it," she advised, walking back to the door.

"Rachel—"

"Read it; let them see you!" and she opened the door wide and stepped out as if to make sure of the guard's presence.

"It's all right, Miss, I'm here," he whispered, looking past her to the prisoner opening the letter and throwing the envelope in the fire. "I'll not stir from here with the beast. Don't be uneasy;" and then she turned back and closed the door. She had seen he was not close enough to listen.

"Jack," she said, coming back to him, "you must get out of this. Mowitza is at the door; I have brought the things you will need. Can you make a dash for it and get away?"

He looked at her in utter amazement.

"I didn't know it until tonight," she continued; "this is your chance, before the others get back—if they ever do get back! God help them!"

"What do you mean? Where are they?" And his hand, tied as it was, caught her own quickly.

"They are in a death trap, in that gully back of the Tamahnous ground. You know where—right over the peak from the old mine. They've been there since dark, hedged in by the Kootenais, who are only waiting for daylight to come. Heaven help our men when it does come!"

"The Kootenais? It can't be them. They are not hostile."

"Not yesterday," she agreed bitterly, "but they are today. They sent a messenger of good will to camp this morning, the grandson of Grey Eagle. He was shot down, almost in sight of camp, by one of the soldiers, and the braves he had brought, the best in the tribe, attempted a rescue. Our cavalry pursued them, and were led into that ravine. The Indians knew the ground, and our men didn't. At the end of the narrow pass, the reds rolled boulders down the mountain and closed it up, and then cut off retreat; and there they are, waiting for daylight or starvation—God knows what!"

"Who told you this?"

"Kalitan; he met an Indian trapper who had passed the gulch but a little while before. He came directly to me. The whites here blame you for helping the trouble—the beginning it, the—"

"You mean the horse stealing?" he said, looking at her curiously.

(To be continued.)

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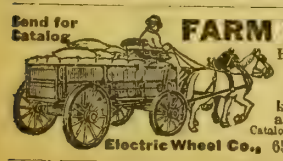

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In and Around Wisconsin.

(Continued form page 13.)

vember, 24½ cents; December, 22¾ cents.

Steele county, Minnesota, is to have a county agent financed by the Journal-Chronicle, a very live and popular newspaper. This is a new wrinkle. The publisher of the paper expects to increase his business among farmers and also to get a larger advertising patronage from the rural districts.

The Wisconsin Farmer has a letter from a laundryman, three years with one of the large state institutions of Wisconsin, who is anxious to communicate with any creamery manager who thinks of installing a co-operative laundry in connection with his business. If this notice attracts the attention of any creamery man so interested, please communicate with us and we will put you in touch with the laundryman referred to.

The Bloomer, Chippewa county, creamery was recently sold for $35,000 to C. E. Blodgett, of Marshfield. Mr. Blodgett intends to erect a condensery plant at Bloomer at a cost of $150,000. The creamery plant will also be used. When completed and in operation the new plant will give employment to seventy-five to 100 people and will be a big addition to Bloomer. It will also be a stimulus to the dairy business in Barron county, a county which has already taken many state honors in the dairy line.

The annual meeting of the Welcome Holstein-Friesian Association in Outagamie county will be held January 20th, in the village of Bear Creek. This association has been doing splendid work and the stock in this section is of high standard. There is no doubt that the country is adapted to dairying and the raising of good stock for breeding purposes, and we expect to see this association branching out into larger fields in the near future. Mr. George Philippi, president of the association, is a well-known stockman who has been making a success in the Welcome district.

Southern breeders have been looking toward Wisconsin for live stock and quite a lively trade has grown up with Texas, Louisiana and even Florida. This is almost exclusively in dairy stock, though some pigs have been shipped. The Wisconsin Live Stock Breeders' Association has heard of a few shipments to the south which have been unsatisfactory. As a result of these shipments some southern states are demanding shipment of stock on approval. When buyers will ship almost a thousand miles they want nothing but the best and they are usually willing to pay for it. Wisconsin cannot afford to send any other than good stuff, as we have a reputation to maintain, to insure our share of the business in the future.

Considerable complaint is heard that farmers have stored a large part of the 1916 potato supply. It is even predicted that potatoes will go lower in price when the surplus stock is unloaded in the spring. As a matter of fact, it is highly improbable that there is any great amount of surplus stock on hand in this section of the country. Farmers are saving a considerable amount of stock for seed and they certainly cannot be blamed for that. The production in this state last year on potatoes was cut from a normal crop of 30,000,000 bushels or more to 13,000,000 bushels. This is where the real trouble arises. Furthermore, growers expect that next year will be a good price year and they are saving more than the usual amount for seed. It is our own view that no relief of any consequence need be expected by reason of Wisconsin potato growers unloading their hoardings later in the winter.

The month of February will be a very busy one for farmers' institute workers. W. C. Bradley will conduct the following: Bonduel, February 1st-2d; Juda, February 13th-15th; Albany, February 15th-16th; Windsor, February 20th-21st; Lodi, February 22d-23d; Dalton, February 27th-28th. David Imrie's institutes will be as follows: Big Suamizco, February 1st-2d; Rockfield, February 13th-14th; Edwards, February 15th-16th; Blackhawk, 20th-21st; Ithica, February 22d-23d; Elroy, February 27th-28th. H. D. Griswold's institute dates are: Schleisingerville, February 1st-2d; Neward, February 13th-14th; Magnolia, February 15th-16th; Wonewoc, February 20th-21st; Fairfield, February 22d-23d; Coon Valley, February 27th-28th. E. C. Jacob's institute dates are: Cedar Grove, February 1st-2d; Argyle, February 13th-14th; Fayette, February 15th-16th; Rockdale, February 20th-21st; Dousman, February 22d-23d; Sussex, February 22d-23d. W. H. Clark's institute dates are: Casco, February 1st-2d; Pilsen, February 13th-14th; Norman, February 15th-16th; Eagle, February 20th-21st; Genesee Depot, February 22d-23d; Watertown, February 27th-28th.

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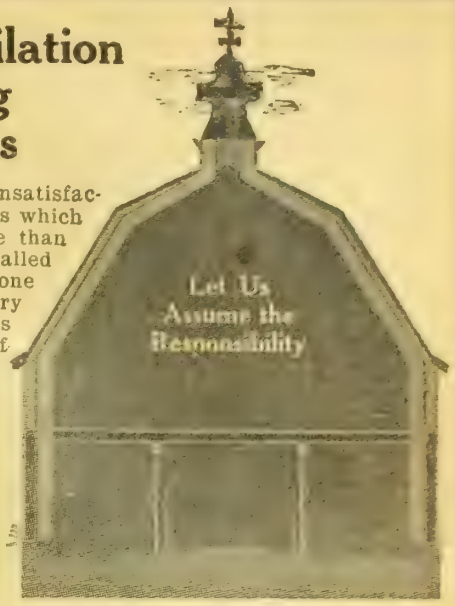

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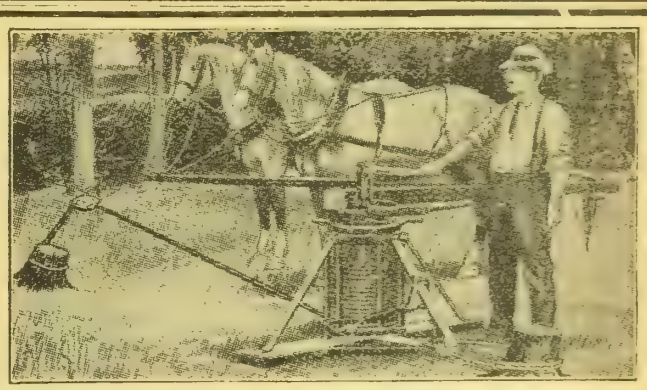

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Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Don't Forget Young's Great Poland Sale.

IF YOU miss the P. W. Young sale of big-type Poland Chinas at Prosper, Minn., Tuesday, February 6th, you'll miss one of the Poland events of the season. Mr. Young has the goods for this sale and they are safe in pig to three of the best herd boars in the Northwest. We will mention a few of the attractions that will be sold. Miss Wonder B. is a two year old by B. Wonder by A Wonder, dam by Long King's Best. This sow is big, has wonderful feet and bone, a great top line, in fact she is one of the best sows on the Young farm. The owner didn't intend to sell her, but another one didn't get with pig so he substituted this sow—a better one. She is bred for an early litter to Young's Big Joe. Big Lady A. is a daughter of the 1,100-pound Long Jumbo out of a daughter of the noted Grand Master. One fine yearling bred for early March to Orange Wonder. Edna Expansion traces to old Expansion and the Hadleys, bred for March to the Big Joe boar. Three choice gilts sired by a good son of Master's Giant and out of a Pawnee Defender dam will please you. Choice Expansion, the grandam of these gilts, is a litter sister to Meese's Choice, grand champion at Nebraska in 1915. Two more of the good gilts are sired by Orange Wonder out of a daughter of Big Knox, the sire of the Iowa and Wisconsin grand champion sow. Three summer yearlings are included. They are sired by Master's Giant Jr. and their dam is Miss Wonder B., included in the sale. Alma Wonder A., is sired by Orange Wonder out of a Master's Giant sow and bred to Young's Big Joe for an early March litter. This last mentioned is an ideal mating; Orange Wonder on Master's Giant sows, then bred to the Big Joe boar. It that doesn't produce good Poland Chinas, we are at a loss to know what cross would be desirable. Wisconsin breeders can well afford to attend this sale and secure some of this breeding. No herd has better blood lines or three better boars. Those that wish to attend the sale at Madison on the 7th can make good connections from Prosper and arrive at Madison early Wednesday morning. If it is impossible for you to attend send bids to T. P. Shreve who will represent this paper at the sale. If you haven't received a catalog, get one at once. After you see the illustrations you will want to attend. Please mention this publication when writing. See page 28.—Adv.

Some Chester White Sale.

THE only sale of Chester Whites so far scheduled for Wisconsin this season is the Cook-Scheibe-Vaughn sale to be held in Burlington Wis., on Monday, February 5th. This is one of the reasons why Chester White breeders should plan to attend this sale. Another reason is that you will find good animals when you get there. The offering in this sale is one of the best ever made in the state. There will be forty head of the top gilts from the herds of Cook Bros., W. C. Scheibe and W. W. Vaughn & Son. When you get the tops of these herds you have a mighty good looking lot of animals. An evidence of the quality of these herds is shown by the winnings they made at the leading fairs in Wisconsin the past season. Animals from these three herds won forty-seven first, thirty-five second, seventeen third and seven fourth prizes; two sweepstakes and two grand championships. The large number of first and second prizes and the small number of fourth prizes speaks volumes for the quality of the animals, as they competed with the best herds in many sections of the state, including the state fair. The breeding of the animals is, as you would expect, of the same high quality. There will be daughters of the following boars: Great Wonder 29377 and Eagle Chief, a son of the noted boar, White Eagle Chief, of Doolittle breeding; Wildwood Prince 2d 32953 by Wildwood Prince, grand champion at the 1915 Iowa State Fair; Highland John 28133, that won second at the Minnesota State Fair; Model Price 30329 by Scherer's noted herd sire, a son of the champion boar, Don Raymore; Right Kind 27479 by Elmo Jr., that won four grand champions including the Illinois State Fair. When writing kindly mention The Wisconsin Farmer. See page 25.—Adv.

Go to Janesville From Madison.

EVERY live Duroc Jersey breeder of the state should be at Madison, Wednesday, February 7th. The day following, there will be a Duroc Jersey sale at Janesville that all Duroc men should attend. E. H. Parker & Son, John L. Fisher and three other Duroc Jersey breeders of Rock county will contribute to this sale. This will be the first sale held in Rock county and those interested are sparing neither time nor money to make this sale a success. The individuals going into this sale will justify your attendance. Good sows and gilts bred to two of the best boars of the state will be offered for your approval on February 8th. The sale will be held in a heated building and the day will be well spent. Inasmuch as you are away from home attending Swine Week at Madison, one more day will make no material difference. The catalog contains the pedigrees of some of the most noted sires of the breed. Some of the best breeding to be found in the state can be found in the Duroc Jersey herds around Janesville. Write to P. V. Kuhn, Secy., Janesville, Wis., for a catalog and don't fail to mention The Wisconsin Farmer when writing. T. P. Shreve will represent this publication at the sale and buying instructions should be sent to him in care of the secretary. See this page.—Adv.

Some Great Polands to Be Sold at Lancaster.

DURING the past year a great deal has been written about Grant county, Wis., as the headquarters for Poland Chinas. This county has come into prominence very fast the past year, owing to the strong organization they have. In the first place, there are more good Poland China herds in Grant county than in any other county in Wisconsin, and when forty head of bred sows are drawn from these good herds for their sale, which will be held in Lancaster, February 13th, the public can rest assured that there will be a grand offering. We recently saw several of the sows and gilts that go in this sale and we will say that there will be gilts consigned to this sale, as good as will be sold this winter. Several of the gilts will weigh right at 400 pounds and are bred to excellent big-type boars. Big Ben H. is a big, long, high-backed boar sired by the noted Big Ben, out of Great Lady C Again, that goes back to that great brood sow, Great Lady C. This is one of the best young boars in Wisconsin. Another boar is Big Type Jim 2d, a spring boar that was a winner at Wisconsin, sired by Jim Crow by Crow's Kind, out of a Hadley-A Wonder dam. A boar that the big-type breeders will like is, Big Mint, one of the largest spring boars in the state of Wisconsin. Sired by Big Jumbo 2d. Several of the good gilts in the sale have been bred to this boar—make a note of this fact and look for them sale day. Some will be bred to Big Ben Jr., another son of the great breeding boar, Big Ben. A couple of the best gilts in the sale have been bred to Sunrise Price, a son of the good Smooth Price, well known to northern Poland China men. Now, anyone interested in good Poland Chinas should attend this sale, staged by the Grant County Poland China Breeders' Association. They have the goods and every breeder guarantees his sows to be in pig to the service given in the catalog. Some good yearlings will be sold and the spring gilts will appeal to the man that wants Polands better than his neighbor has. The catalogs are now ready and you should get one at once. Don't forget the date, Tuesday February 13th. E. W. Hendricks sells the following, attend both sales. Write to Burlie Dobson, secretary, Lancaster, Wis., for a catalog and please mention The Wisconsin Farmer. See page 39.—Adv.

Some Great Breeding at Kartman's.

THE fourth and last day of the Grant county Poland China sale circuit will be at Chris Kartman, Friday, February 16th, and it will be a "grand finale" for Chris is going to sell a bunch of Poland Chinas that he need not be ashamed of. In the first place this breeder is a critical buyer and when he buys a herd boar it must be a top notcher. Last summer he traveled through several states in search of a boar that he thought would be suitable to head his herd and he finally secured a son of the noted Fessy's Timm and this spring boar is the largest boar of his age that we have seen in Wisconsin. He is sure a 1,100-pound prospect. The breeding of this boar appears in the advertisement on page 24. Another boar that has been used heavily is Giant Wonder a 500-pound yearling. This boar won second at the Wisconsin State Fair and the general opinion was that he should have headed the class. He is a boar with scale, combined with great quality. The big noise, until he died, was Monster Big Bone, and many of the gilts in this sale are sired by this good boar. His sire, Black Big Bone, is the sire of Long Big Bone, the grand champion Poland China boar at the National Swine Show. There is not very much of this breeding in Wisconsin and it is very popular just at this time, owing to the fact that this strain has been winning at Iowa for the past three years. There are three outstanding gilts that will be sold sired by this boar out of a dam tracing to Big Bone. They have been bred for early farrow and are worth bidding on. You will realize the value of Monster Big Bone, as a sire, when you see his get and especially some of the fall sows that sell. The fact that some of the spring gilts will weigh right at 400 pounds goes to show that Mr. Kartman has the big kind that combine the easy feeding qualities. Plan to attend this sale. The day before, J. C. Hendricks sells at Hazel Green and you can make good connections to the Kartman sale on the day following. Write at once for the catalog and if you appreciate popular blood lines you can get your fill by reading this catalog. Don't forget to mention The Wisconsin Farmer when writing. Send bids to T. P. Shreve in care of Mr. Kartman.—Adv.

Percherons For Sale.

IT WILL soon be time to think about buying that stallion for your own use or to place on the stand. For those that are going to want a Percheron stallion, L. P. Martiny, Chippewa Falls, Wis., has a three year old that is a good one. He was first in class at the Northern Wisconsin Fair last fall, is a dark gray, will weigh right at 1,900 pounds with heavy bone and a draft conformation. An outstanding colt in every respect. Mr. Martiny also has a five-year-old black horse that will appeal to a horseman. He weighs about 1,900 pounds, is clean and sound and was used last season. These horses are broke to work and are nice to handle. Write for prices and further description. See page 27.—Adv.

John L. Fisher's Consignment to the Janesville Sale.

JOHN L. FISHER is one of the breeders that will consign to the Duroc Jersey sale to be held in Janesville, February 8th, the day following the Madison sale. Mr. Fisher will have some attractions in that sale. Among them will be the tried sow, A.'s Model a litter mate to Lee's Defender. She is a great brood sow. There will be a daughter of the great King the Col. An attraction will be Chief's Col. Duchess, a daughter of the noted sire and show boar, Chief's Col. Her dam was by The Professor, a son of Ohio Chief. Fisher will sell gilts out of daughters of Joe Orion 2d, Pal's Col. and Volunteer. The feature is the fact that they will be bred to King Defender, the 1,000-pound grand champion Duroc Jersey boar of Wisconsin. Keep your eye on this sale and in the meantime write to Mr. Fisher and have him send you one of the catalogs. E. H. Parker & Son will also consign some good sows to this sale, bred to a son of Orion Cherry King Jr. See this page.—Adv.

Schultz's Holstein Bulls.

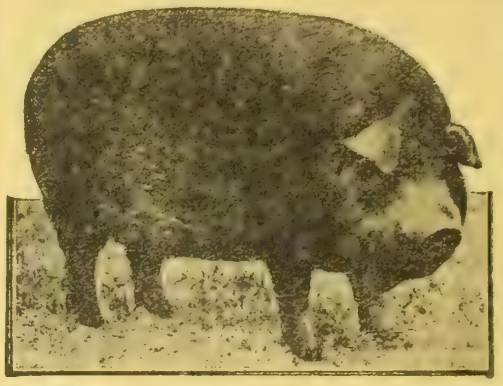
SOME fine registered Holstein bulls out of large record A. R. O. cows are offered for sale by Ed M. Schultz, Hartford, Wis. These bulls are splendid young animals, from one to eleven months old. The lot includes a number of sons of King Artis Pontiac. Mr. Schultz's senior herd sire, which he recently sold to Nelson Bros., Stromsburg, Neb., who have one of the record

DUROC JERSEY

BRED SOW SALE

Will be held in the city of JANESVILLE, WIS.

THURSDAY, FEB. 8, '17



45 HEAD 45

THE TOPS OF FIVE HERDS

45 HEAD 45

20 SPRING gilts and tried sows sired by or bred to **King Defender**, the 1,000-pound Wisconsin grand champion in 1916. Consigned by **John L. Fisher**. Fifteen spring gilts bred to **King Orion**, the only boar in the Northwest sired by **Orion Cherry King Jr.**, the Omaha grand champion. Consigned by **E. H. Parker & Son.** Ten head from three other good herds. Out of sows by Illustrator, A.'s Defender, Marion Wonder, Pal's Col., Orion Chief, Volunteer, Big Wonder, Joe Orion 2d, etc. Bred for March and April farrow. This follows the association sale at Madison, February 7, 1917. Lloyd Seeley and W. T. Dooley, auctioneers. Send buying orders to T. P. Shreve, Wisconsin Farmer representative. Send for catalog to

P. V. KUHN, Sec'y JANESVILLE, WIS.

POLANDS Madson & Sons' POLANDS

BRED SOW SALE

(During Swine Week.)

Sale held at Drs. West & Wolcott's Veterinary Hospital, 753 East Washington Ave., 5 blocks from east side depots, in

MADISON, WIS., TUESDAY, FEB. 6, '17

8 FALL YEARLINGS AND TRIED SOWS—
35 SPRING GILTS.
The Largest and Best We Ever Offered.

THE get of the good boars—Correct I Am, Big Price Again, Triumph, Hidestretcher and others. Bred for March farrow to **Defender**, a great prospect by the noted **Choice Expansion, Big Bone Bob** by the noted **Big Ben** and **Big Buster** by **Big Carver, the sensational winner at Illinois.** Some bred to **Triumph**, our show boar. We sell the QUALITY KIND—with SIZE. An offering that we are proud of. You should attend SWINE WEEK and incidentally this sale. Sale starts at 1 o'clock. Write at once for one of the catalogs. Send bids to H. S. Hoard, Wisconsin Farmer representative. Col. W. H. Cooper, auctioneer.

M. MADSON & SONS MADISON, WISCONSIN

One of the Features of WISCONSIN SWINE WEEK Will Be the

WISCONSIN POLAND CHINA BREEDERS'

CONSIGNMENT SALE

TO BE HELD AT 7 P. M. AT

Madison, Wis., Wednesday, Feb. 7, '17

ABOUT 45 BIG-TYPE BRED SOWS AND GILTS

THIS will be the greatest variety of breeding ever placed before the buying public. There never was a greater lot of sows and gilts sired by and bred to as great a lot of famous boars as will be included in this offering. There will be tried sows, fall sows and an array of spring gilts that are hard to fault. A great many of them have been state fair winners and others trace back to the purple. The sale of Poland Chinas will be held on the University Farm at Madison, Wis., and will be held in the evening following a sale of Durocs which will be held in the afternoon. The Poland China sale will be conducted by Colonel Cottingham, assisted by Colonel Seely. Clerk, Burlie Dobson. Write for catalog and plan to be with us February 7th. Address

R. F. SMILEY, Pres., ALBANY, WIS. OR J. F. DILEY, Sec'y, RUSH LAKE, WIS.

herds of the stae. See Mr. Schultz's advertisement on page 31 and write to him for further particulars about these fine young bulls.—Adv.

E. W. Hendricks' Big-Type Poland Sale.

ONE can ride a long way and visit the good herds of big-type Poland Chinas and you will not find many herds better, and few the equal of the E. W. Hendricks' Poland Chinas at Hazel Green, Wis. E. W. comes from a "Poland China family," for his father was one of the oldest breeders in the Northwest. Mr. Hendricks held his first sale of bred sows last winter and sold a meritorious lot of big Polands and those that attended the sale last year will have some idea of the offering that will be sold February 14th, when we say that a better bunch will be sold this year. We have attended many sales of bred sows but very few of them contained thirty spring gilts the equal to those that will be sold on the above date. They represent the best blood lines known to the breed. They are big, yet have not been overdone by feeding. Some breeders still advocate the medium-type Poland, saying that the big types do not take on meat, or do not have quality until they are matured. If you will attend the Hendricks sale you will be convinced that one can raise the big ones and still retain the quality and feeding value. A great deal of the success of this herd is due to the senior herd boar, Black Jumbo—a boar that is very deep, with excellent feet and bone, a good head and ear and a great top. A boar with quality, yet one that could be made to weigh 1,100 pounds. The best gilts in the sale are sired by Black Jumbo. Those not sired by him have been bred to this boar. The Black Jumbo gilts have been bred to Model Major 2d. In our estimation the last mentioned boar is the largest boar of his age in the state two years old last April. A boar of great length, a "rainbow" back, heavy bone, good feet and pasterns and we believe he will cross well on Black Jumbo gilts. The entire offering has been bred to these two tried boars, sires that have proven their value in the breeding pen. Anyone wishing to improve his herd can find material in this sale. The catalog is very interesting and contains some great pedigrees. Write for one at once and please mention The Wisconsin Farmer. T. P. Shreve will represent this publication at the sale. See advertisement on page 27.—Adv.

Tell Them to Meet You at Madison, February 7th.

THE prospects now are for big doings in Madison, Wis., during swine week, and if you miss that you will miss one of the interesting events of the year. The Poland China sale that will be held in the evening of February 7th is going to be one of the features of the week. We have just been advised by Robt. Smiley who has been compiling the catalog, that he has received entries for fifty-three head of Poland Chinas which insures a great sale offering. The representative breeders of the state will have Polands in this sale and it will be a grand opportunity to inspect the entries from the various herds. We don't believe it necessary to go into detail about this sale, for in traveling over the country we find a great deal of interest being taken in this sale and we sincerely believe that all farmers and breeders interested in this good breed of swine are going to be on the job, February 7th to lend a hand and boost this good breed in Wisconsin. The catalogs are now ready for distribution and you can write any one of the following men, who have had this sale in charge: J. F. Diley, Rush Iake; Robt. Smiley, Albany, or Burlie Dobson, Lancaster. Be sure and attend this sale and bring one or more of your neighbors with you. You should attend in person, but if that is impossible send buying instructions to T. P. Shreve, care of Wisconsin Farmer or any of the above breeders. Write for one of the catalogs and mention The Wisconsin Farmer. See this page.—Adv.

Madson & Sons During Swine Week.

TELL them to meet you at Madison, Wis., during "Swine Week" February 5th to 7th. On the 6th, Madson & Sons, Poland China breeders of Madison, Wis., will sell forty head of bred sows and this will be a sale that all men interested in pure-bred swine should attend, and especially those that are followers of the Poland Chinas. Madson & Sons are too well known to Wisconsin breeders and farmers that they need very little introduction at this time. The offering that they will put up for your appraisal on the above date is the best that ever came from this good herd. There will be five tried yearlings and three fall yearlings. By the way, the junior champion at Milwaukee will be sold and she is some sow and bred for an early litter. The thirty-five gilts that go into this sale are real toppers, that have size and quality and are bred to boars of the most noted big-type breeding, which was explained in our previous issue. A yearling sow that is an attraction is sired by Hidestretcher, a boar that has been producing winners in Minnesota for several years. Now you will not be disappointed with this sale offering—they will offer you more size than they ever had before and are bred to boars that are sired by 1,000-pound boars. No doubt Madsons will have their boars on exhibition and we are anvious for you to see these young boars, for we believe they have a couple that will be heard from. Get their catalog at once and study the line of breeding that will go to make up this sale offering. Address M. Madson & Sons Madison, Wis., and please mention The Wisconsin Farmer. See page 22.—Adv.

The Durocs at Madison, February 7th.

IT would be difficult to find a better offering of Duroc Jerseys than will be sold at Madison, February 7th, during swine week, and if you want to boost the swine game in Wisconsin be in Madison that week, If you want to boost the Durocs be at the sale in the afternoon of February 7th. It will not be necessary for the breeders that want the best to go out of their own state to buy Duroc sows, for there will be sows in this sale as good as will be sold in any sale of the winter. They are well bred and individually, some of them are good enough to show next fall. Now it's up to the Duroc breeders of the state to make this sale a success. There must be more co-operation among the breeders of Durocs in the state of Wisconsin, before they are going to get very far. There is too much "knocking" going on between breeders, for the good of the breed, in the state. It's time to "bury the hammer" and all pull together for the success of this sale. There never was a time when good sows were more in demand. The breeders of Wisconsin have the goods, so put your shoulder to the wheel and boost from now until after the sale, then you will have the habit and it will be easier for you. Remember, the Durocs will be sold in the afternoon and the Polands at night. If you haven't received your catalog, write to J. D. Gant, Delavan, Wis., he has one for you, and he has been the "man behind the gun" getting up this sale. If you want to send bids, mail your instructions to T. P. Shreve in care of The Wisconsin Farmer. When writing for catalog please mention The Wisconsin Farmer. See page 26.—Adv.

Do You Want Holstein Heifers.

WE HAVE just had a letter from the Silver Spring Farm Co., Eau Claire, Wis., sending in change of copy for their advertisement. They advise that most of the bulls are sold and at the present time they offer a few heifers. These heifers are out of dams with large productions, in fact their average for the past year—three months dry—was 9,120 pounds of milk. The dams of the heifers offered have A. R. O. records. We are glad to recommend this herd of cattle, for we know that the owners will sell you Holsteins that will make good. Notice their advertisement on page 30 and when writing please mention The Wisconsin Farmer. Adv.

Good Demand For Bred Durocs.

MICHAEL STOEHR, Viroqua, Wis., one of the old-time breeders of that section advises that he has had a good demand for bred Duroc Jerseys, He says he only has ten of the best ones

POLAND CHINA SWINE.

OPPORTUNITY

OFFERING March gilts out of my big sows, bred for March and April farrow. Sired by JIM CROW, the sire of my WINNERS. Bred to JUMBO'S GIANT (3d at Minn.), Mc's BIG BONE and MATCHLESS WONDER (2d, Ia., 1915). Will sell a few sows. The fact that I SOLD 71 SPRING BOARS shows what the people think of my POLANDS. Buy from a winning herd—it adds prestige to yours.

J. D. McDONALD NORTH BEND, WIS.

"BIG POLAND CHINAS." Selling 4 sows at Madison.

MARTINY'S BRED SOWS

30 BIG, growthy Poland China March and April gilts, gired by Chief Price and Select Major 2d. 1st prize senior and 1st prize junior yearling boars at the Wisconsin State Fair this fall; and other boars. These sows are bred for April farrow to Golden Gate Giant and Long Black Jumbo, a boar I am going to show next year. If you are looking for something good I can suit you in sows and price.

L. P. MARTINY CHIPPEWA FALLS, WIS.

BIG POLANDS

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.

E. W. HENDRICKS
Hazel Green Wis.

FEB. 15

Poland China Brood Sow Sale

40 TOP OF TOPS—WRITE FOR CATALOG

J. C. HENDRICKS
Box F - - Hazel Green, Wis.

SHEEP.

VALLEY VIEW STOCK FARM
SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

Geo. A. Philippi, R. 40, Bear Creek, Wis.

BRED POLAND GILTS

OF big-type breeding and bred to Chief Price by the champion, Big Price, and to a son of the noted Black Jumbo. The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.

P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

BIG-TYPE POLANDS

SOWS and gilts bred to SMOOTH KING, a son of Golden Gate King. Order one. Address

CHAS. S. MALTBY JANESVILLE, WIS.

BRED GILTS
POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.

OLOF C. OLSON STRUM, WIS.

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).

Marinette County Asylum - Peshtigo, Wis.

FEBRUARY 22nd
WE SELL 50 POLAND
BRED SOWS
WAIT

WM. SMILEY & SONS ALBANY, WIS.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

C. S. Flesch Mt. Ida, Wis.

POLAND CHINAS
BRED SOWS AND GILTS

Write your wants. Address

R. MEINKING BANGOR, WISCONSIN

When writing to advertisers kindly mention The Wisconsin Farmer.

You Get the Blood of Champions
At Cassville, Wisconsin, Friday, Feb. 16, '17

Poland Chinas

31 Gilts, 5 Fall Sows, 3 Tried Sows

at Wis., Timm Wonder by Fessy's Timm, dam by A Wonder. Omaha grand champion. Bred to Giant Wonder, 2d-prize boar at Wis., Timm Wonder by Fessy's Timm, dam by A Wonder.

Notice the Popular Blood Lines

MOST of the spring gilts are by **Monster Big Bone,** a son of Black Big Bone, the sire of Lone Big Bone, the grand champion at Omaha. Some by **King Joseph,** he by Big Joe, others by **Big Crushader 2d.** One tried sow by **Big Ben,** one by **Big Orange,** one sow by son of **Mouw's Jumbo.**

Bred to Excellent Boars

Timm Wonder is the largest spring boar in the state. Sired by Fessy's Timm, junior champion at Neb., by Big Timm, grand champion at Neb. Dam by A Wonder. **Giant Wonder** was the 2d-prize under-year boar at Wisconsin State Fair, 1916. He combines the blood of Heavy Bone, Chief Price, A Wonder and Giantess. Will show you gilts weighing 400—fall yearlings weighing over 500. **You get individuality and breeding combined.** Cassville is on the Burlington between East Dubuque and Prairie du Chien, in Grant county. If you can't attend, let Shreve buy a sow for you; I'll guarantee his buy. Write at once for one of the catalogs and mention The Wisconsin Farmer. Col. W. H. Cooper, auctioneer. T. P. Shreve, field man. Address

Chris Kartman - - - - Cassville, Wisconsin

This sale follows J. C. Hendricks, Hazel Green. Good connection.

left. They are well bred and have been well grown and if you are going to want a few gilts bred for early farrow, write Mr. Stoehr for description of what he has. His advertisement appears on page 26.—Adv.

The West Demanding Short-horns.

NEVER in the history of the Short-horn breeding business has there been such a general demand through the West for Short-horn breeding cattle. Buyers from California, Washington, Oregon, Utah, Montana, in fa t all of the western states have had representatives through the central states in quest of breeding stock during the past year and the demand is on the increase. A good many western ranchmen and breeders have availed themselves of the field services provided by the American Short-horn Breeders' Association, Chicago, and have obtained their supply of cattle through the representatives of the association. The demand is for better standards and the success of the sales held at Portland and elsewhere clearly demonstrates the call for Short-horn breeding stock throughout the mountain and coast states. The moving picture film showing all of the Short-horn winners at the recent International Exposition, Chicago, is being displayed in the picture houses in various parts of the country. It is a remarkable film and has created unusual interest wherever shown. It conveys a definite idea of the type that is held in favor by skilled judges in the show ring. It has an informing and instructive value.—Adv.

Martiny's Poland Bargains.

JUST at the present time L. P. Martiny, Chippewa Falls, one of the leading Poland China breeders of Wisconsin, is offering March and April gilts bred for April farrow. These gilts are sired by Chief Price, the first-prize senior yearling boar at Milwaukee last fall and Select Major 2d the first-prize junior at the same fair. The gilts have been bred so as to farrow in April. They are in pig to Golden Gate Giant a good son of the noted Goldengate King and to Long Black Jumbo a Poland China boar that will be heard from next fall. Mr. Martiny has a good herd of this breed and he will quote you prices on these good spring gilts, that will appeal to you. Write for details and mention this publication. See page 23.—Adv.

Dunbar's Dispersion Sale.

BUYERS in attendance at the dispersion sale to be held on January 30th, of the Oak Lodge Holstein-Friesian cattle owned by Harry D. Dunbar at Elkhorn, Wis., will have an opportunity to secure some of the best offerings made in a public sale in Wisconsin, cattle with both show ring and A. R. O. records at your own price. Knight Errant Queen, a big, square show cow with a seven-day and a yearly record, and her four daughters are in the lot. In the fair circuit in 1916 these cows took eight firsts, eight seconds, two thirds and two fourths at five fairs. Six yearly record cows, five bulls and nine heifers from yearly record dams are in the herd which will be dispersed. Read Mr. Dunbar's advertisement on page 25 and write him for catalog mentioning that you saw his advertisement in The Wisconsin Farmer.—Adv.

Kirkpatrick's Fine Stock.

KIRKPATRICK BROS., Reedsburg, Wis., have an unusually fine lot of live stock for sale this year. They have been building up their Holstein herd for ten years adding a few good cows each year, so that they now have a herd of sixty head, of which twenty-three have A. R. O. records. They have been using the best sires obtainable, testing every year and exhibiting at fairs with excellent results. Kirkpatrick Brothers also have a fine herd of Chester White swine. Read their advertisement on page 30 and write them for further particulars about their Holsteins and Chester Whites.—Adv.

Hart Bros.' Stallions.

ON page 25 Hart Bros., Osceola, Iowa, start their Percheron and Belgian advertisement and they are now offering some splendid stallions and mares for sale. They are now in position to offer you stallions from yearlings to matured horses and some good mares. They have both imported and home-bred. They now have the best bunch of stallions and mares that have ever been quartered in their barns. It will pay you to stop off at Osceola and see these horses. Their barns are located just one block from the C., B. & Q. depot. When writing Hart Bros. kindly mention this paper.—Adv.

THIS is our last opportunity to call your attention to the Duroc bred-sow sale to be held at Alexandria, Neb., on January 31st by J. H. Proett & Son and H. J. Nachtigall & Son. The attraction of the sale is the large number of sows going in bred to Big Lincoln Valley Chief, the Ohio Chief bred boar doing service in the herds. He is a great boar himself and his dam is Missouri Lady, one of the most valuable breeding sows, of the breed. Outstanding sows by Col. Sensation, King's Col., May Watt's Model, Kelley's Defender, King Illuminator, King the Col. and many others of such good breeding. Big Lincoln Valley Chief is a real 1,000-pound boar and you will be pleased with his get. Make your arrangements to attend the sale and buy some of the choice sows selling. They will add prestige to your herd and are the kind you can sell. Address J. H. Proett & Son, or H. J. Nachtigall & Son, Alexandria, Neb.—Adv.

SALE DATES.

Poland China Swine.

Feb. 6, Percy Young, Prosper, Minn.
Feb. 6, M. Madson & Sons, Madison, Wis.
Feb. 7, Wisconsin Poland China Breeders, Assn., J. F. Diley, Rush Lake, Secy. (Sale at Madison, Wis.)
Feb. 13, Grant County Poland China Breeders' Assn., Lancaster, Wis., Burlie Dobson, Secy.
Feb. 14, E. W. Hendricks, Hazel Green, Wis.
Feb. 15, J. C. Hendricks, Hazel Green, Wis.
Feb. 16, Chris Kartman, Cassville, Wis.
Feb. 16, Gerlick & Barker, Mankato, Minn.
Feb. 22, William Smiley & Son, Albany, Wis.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Holstein Cattle.

Jan. 30, Harry Dunbar Dispersion Sale, Elkhorn, Wis.
Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

Short-horn Cattle.

Feb. 15, Wisconsin Short-horn Breeders' Assn., Sale at Madison, J. L. Tormey, Secy.

Duroc Jersey Swine.

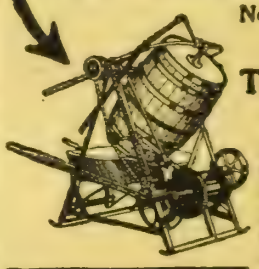
Jan. 29, Grimes Bros. & W. G. Krueger, West Union, Iowa.
Jan. 29, W. G. Krueger, Hawkeye, Iowa. (Sale at West Union, Iowa.)
Jan. 30, Dennis Shea, Melvina, Wis.
Jan. 31, L. F. Atwater, Bangor, Wis.
Feb. 2, Geo. Wilsie, Prosper, Minn
Feb. 7, Wisconsin Duroc Jersey Breeders' Assn., J. D. Gant, Delavan, Secy. (Sale at Madison, Wis.)
Feb. 8, Rock County Breeders' Sale, Janesville, Wis. P. V. Kuhn, Secy.
Feb. 15, Gant's Farm, Delavan, Wis.
Feb. 26, George W. Pagel, Zumbrota, Minn

Minister of Agriculture Honorio Puerrydon wants congress to appropriate $200,000 as a prize to anybody who supplies Argentina with an effective scheme for exterminating grasshoppers, or locusts, as they are known here. The pest there is nearly as bad as in Kansas and other western parts of the United States twenty or thirty years ago. Crops have suffered enormously from the grasshoppers' appetites.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Do Your Own Concrete Work Cheaply and Easily

No more mixing by hand



The Barrel Mixer

enables you to tackle every job big or little, as you think of it, and do it without calling in outside help.

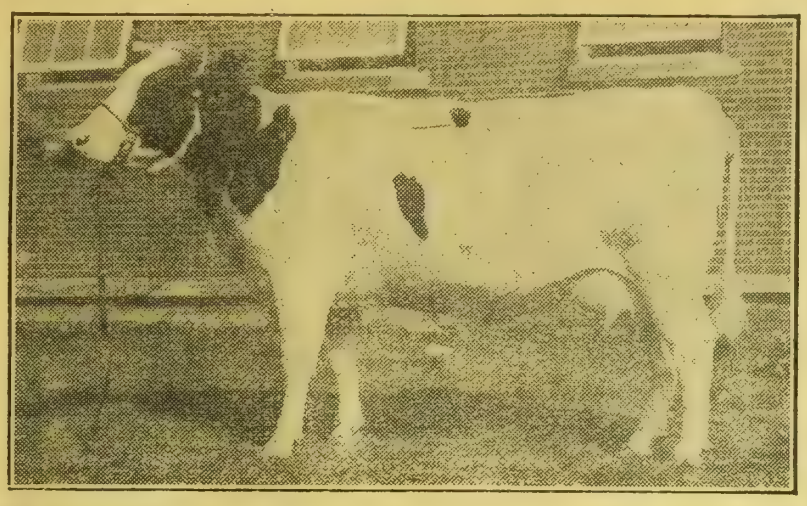
WRITE FOR FULL PARTICULARS

Find out about our GUARANTEED HAND and POWER MIXERS. Learn how easily and cheaply you can make hog troughs, feeding troughs, well curbs, floors, steps, foundations, silos, and hundreds of other things that ought to be in concrete on your farm.

THE BARREL MIXER CO., Dept. 8, Madison, Wis.

I Will Do Your Tanning Right

DISPERSION SALE OF
OAK LODGE HERD OF A. R. O.
HOLSTEIN-FRIESIANS
ELKHORN, WIS., JAN. 30, 1917
38 COWS AND HEIFERS, 10 BULLS



INCLUDED in the lot are six cows and heifers with yearly semi-official records from 542.44 to 936.64 pounds of butter and thirteen of their sons and daughters. Four daughters of the cow with the 936.64-pound record. Almost every animal has an A.-R. O. record or is from an A. R. O. dam. Herd is headed by Beauty Walker Pietertje King, whose seven nearest dams average 28.72 pounds of butter in seven days. On his daughters we are using Colantha Hamilton Pietertje, a son of Colantha Hamilton, that made 30.51 pounds of butter from 587.2 pounds of milk in seven days as a junior three year old. She is out of Betsey Hamilton Beauty 32.39. Auctioneers, R. E. Haeger and Jack White. Catalogs ready Jan. 15th. Address

HARRY D. DUNBAR **ELKHORN, WIS.**

Cook-Scheibe-Vaughn
SALE OF
CHESTER WHITES
at Gill's Livery Barn at 2 P.M. **BURLINGTON, WIS.**
MONDAY, FEB. 5, 1917

Chester White sow and litter owned by Cook Bros., Burlington, Wis.

40 HEAD of Fall and Spring Gilts sired by Great Wonder 29377, Great Scott 31749, Wildwood Prince 2d 32953, Highland John 28113, Eagle Chief 28291, Model Prince 30329 and Right Kind 27479. Well-known breeding, good type, well grown. During the past season our herds won 47 first, 35 second, 17 third, 7 fourth prizes, 2 sweepstakes and 2 grand championships. Buyers from a distance entertained free of charge at the Burlington Hotel. Crates furnished free for all animals shipped. Auctioneer, C. C. Evans. Field man, Wisconsin Farmer, H. S. Hoard. Write to W. C. Scheibe, Burlington, for catalog. Mention The Wisconsin Farmer when writing.

UPPER WISCONSIN

Raising Swine up North.

Lawmakers and lobby interests are not the only ones with whom the pork barrel is a vital question. Settlers in northern Wisconsin should find swine raising highly profitable, both as a means of furnishing a home meat supply, and for commercial purposes.

Farmers of foreign birth, who are helping to develop the resources of the empire in north Wisconsin counties, are especially interested in pork production, which works in splendidly with general farming and with dairying as well. As the corn belt is pushed farther north, so will the advantages in pork production become more firmly established.

There are plenty of examples at hand to show that immigrants can succeed in this line of animal industry. One of the most inspiring careers to encourage the farmer of foreign parentage is afforded by the accomplishments of Mace Madson, a Dane county hogman, who has attained independence and a wide reputation through careful breeding and wise management of swine.

Coming to this country in 1872, unacquainted with the language or customs of his adopted land, and without funds, he began work as a hired hand on a Dane county farm. During ten years devoted to serving his farm apprenticeship, Mr. Madson saved money with which to start a business of his own. When he finally got his start, grade hogs started with him, and have been gradually improved, until since 1905 he has had nothing but pure stock on his farm.

Industry, brains and perseverance have enabled Mr. Madson to establish a herd that has won enviable prizes at many state fairs and national shows. What he has done other farmers of foreign birth, who are located on good land, and have native ability and an inclination to learn improved methods, can accomplish fully as well.

The ins and outs of the swine business will receive careful consideration at the first state swine conference, demonstration and public sales to be held at the College of Agriculture, Madison, during Farmers' Week, February 5th-10th.

Expenses for attendance at this meeting include only car fare, board and lodging. All the programs and demonstrations, as well as the big swine exposition, are free.

Helps and hints to hog raisers, given by men who have devoted years in experience and experiment, will make the event worth much to the man who wants to specialize in pork production.

Some of the special speakers for this conference include George B. Van Norman, commission man, Chicago; James Fisher, Eastman, Wisconsin, a practical hogman and market authority; L. P. Martiny, Chippewa Falls, who will discuss forage crops for swine; and F. B. Morrison, assistant director of the State Experiment Station, whose subject will be dairy by-products and forage-crop feed for hogs.

Live stock of all classes will have innings at the conference. Special days for beef, dairy cattle, sheep and horses have been arranged, with excellent speakers and demonstrators.

Other attractions of the week include a grain show of the State Experiment Association, a country life conference, a woman's course in home economics, a cow testers' meeting, a fruit school, and a course for creamery and cheese factory operators and managers.

Wisconsin leads all states in the number of silos, the latest estimate of the department of agriculture being 58,000. This is about one to every third farm, showing that a third of our farmers are alive on the value of silage for feed. But what about the other two-thirds. Still room for a good deal of missionary work.

TOO LATE TO CLASSIFY.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS **R. R. 11** **FRANKSVILLE, WIS.**

Dairy Program, Farmers' Week.

There will be no let up on discussion of dairy topics at Farmers' Week, Madison, February 5th-10th, notwithstanding this week has been designated as Swine Week this year. The following special dairy program has been arranged:

Monday, February 5th—10 a. m. to 12 m., Conference in Dairy Building and Inspection of Equipment; 2 to 4 p. m., Starter Making at Dairy Building; 7:30 p. m., Address: Illustrated with motion pictures in the Auditorium, Agricultural Hall, Dr. A. S. Alexander.

Tuesday, February 6th—8 a. m., Inspection of Starters made previous day; 9 a. m., Buttermaking in Creamery from Sweet Cream, A. C. Dahlberg; 10 a. m., Conference on the Value of Skim Milk to Patrons, E. H. Farrington; 11 a. m., The Value of Milk in Nutrition, E. B. Hart; 2 to 4 p. m. Manufacture of casein and soft cheese from skim milk and buttermilk, J. L. Sammis; 6:30 p. m., Banquet for visitors.

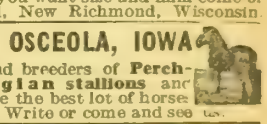
Wednesday, February 7th—8 to 10 a. m., Milk Testing at the Cheese Factory, Cream Testing at the Creamery, E. H. Farrington; 10 a. m. to 12 m., Buttermaking in Creamery from Pasteurized Cream, A. C. Dahlberg, Cheesemaking in Cheese Factory from Pasteurized Milk, J. L. Sammis; Ice Cream Making in Factory from Pasteurized Cream, D. F. Mattson; 2 to 4 p. m., Butter and Cheese Scoring of entries received for the month, G. H. Benkendorf, Cheesemaking and Ice Cream Making continued from morning session, Testing Cheese Samples for Moisture, J. L. Sammis; 7:30 p. m., Swine Show in Stock Pavilion.

Thursday, February 8th—8 to 10 a. m., Care and Use of Farm Separators, G. H. Benkendorf; 10 a. m., The Breeding of Dairy Cattle, C. H. Eckles, Columbia, Mo.; 11 a. m., Increasing Production through Cow-Testing Associations, N. A. Negley; 2 to 4 p. m., Buttermaking in Creamery, A. C. Dahlberg, Regulating Moisture Content of Butter, Cheesemaking in Cheese Factory, J. L. Sammis, The Use and Tests of Pepsin, Ice Cream Making in Factory, The Use of the Emulser, D. F. Mattson; 7:30 p. m., Address, M. D. Munn, President National Dairy Council.

Friday, February 9th—8 a. m., Calculating Creamery Dividends and Cost of Manufacturing Butter, G. H. Benkendorf; 9 a. m., Methods of payment of Cheese Factory Milk, J. L. Sammis; 10 a. m., Disposal of Creamery and Cheese Factory Drainage by the septic tank and other methods, E. H. Farrington; 11 a. m., Butter Moisture Regulation at the Present Time, G. H. Benkendorf; 2 to 4 p. m., Buttermaking in Creamery, A. C. Dahlberg, Leaky Butter, Prevention of Mold and other losses in Packing, Cheesemaking in Cheese Factory, J. L. Sammis, Branding Cheese and Soft Cheese Making, Ice Cream Making in Factory, D. F. Mattson, Increasing solids in ice cream mix; 7:30 p. m., Address, W. M. Hays, formerly assistant secretary United State Department of Agriculture.

SHORT-HORNS The get of Rosebud Champion, winning 2d at the International; Highland Sultan, winning 3d; Buchan Marshall, he from winners on both sides at same show. Can show you ton cows and 2,400-lb. sires. If you want size and milk come or write W. J. Bernd, New Richmond, Wisconsin.

HART BROS., OSCEOLA, IOWA



IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

Dependable—That's the Word

Just describes Capewell horse nails. When you drive your horse—if shod with Capewell nails—you don't have to worry about losing shoes. These nails can be depended on to hold the shoes. They hold even under severe and unusual strains. Not the cheapest nail regardless of quality but best in the world at a fair price.

THIS CHECKED HEAD OUR TRADE MARK

BIG DOINGS IN MADISON

WEDNESDAY, FEBRUARY 7, 1917

Wisconsin Duroc Jersey Breeders' Ass'n Combination Bred Sow Sale

FIFTY TOP SOWS FROM THE FOLLOWING HERDS

L. F. ATWATER ..... Bangor
F. H. ARNOLD ..... Janesville
W. C. BARDOLPH ..... Burlington
J. W. BEETHAM ..... Lancaster
CEYLON COURT FARM ..... Lake Geneva
F. R. CONSTANCE ..... Waupaca
J. L. FISHER ..... Janesville
CLARENCE GEORGE ..... Evansville
GANT'S FARM ..... Delavan
W. C. JENKINS ..... Bangor
ALLIC KNUDSON ..... Brodhead
F. LEONARD & SON ..... Jefferson
R. MARTINY & SON ..... Baraboo
McCLURG BROS. ..... Viroqua
M. H. O'KEEFE ..... Waunakee
E. H. PARKER & SON ..... Janesville
C. A. PETERSON ..... Rosendale
GEO. SPRAIN ..... West Salem
J. W. THOMAS ..... North Bend
FRED VAUGHN ..... Lyons
R. W. WHEELER ..... De Forest
WEBB BROS. ..... Poynette

50 Sows, All Humdingers, at the Big Show. Write for Catalog to

JOHN D. GANT, SECRETARY - - - - - DELAVAN, WISCONSIN

Wisconsin Poland China Breeders' Association Sale in the Evening.

DUROC DREAMS COME TRUE

BRED SOW SALE | **Write for Dream Book**

GANT'S FARM, DELAVAN, WIS., FEBRUARY 15,'17

PROSPER, MINN., FEB. 2, 1917

40 Durocs by Big Col.--Chief Defender

Bred to sons of Burke's Good Enough and Americad Top Col. Write for catalog. Address
GEO. H. WILLSIE - - - PROSPER, MINNESOTA

BURN BRAE DUROCS---The Good Kind

THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Roxy (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
BURN BRAE FARM - - - ROSENDALE, WISCONSIN

M. STOEHR

VIROQUA - WIS.

DUROC boars all sold out. Ten of my best gilts for sale. Farmers' prices. Write me, mentioning The Wisconsin Farmer.

SAVE $$$$

BUY DUROC JERSEYS

of me. What do you want?

J.W. HIGGINS GOTHAM, WIS.

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

BOARS ALL SOLD

REMEMBER my **Duroc Jersey sow sale January 31st**
L. F. ATWATER BANGOR, WIS.

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"

We satisfy our customers. Write
Riley Martiny & Son Baraboo, Wis.
Also an imported Guernsey bull.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC GILTS

OFFERING gilts bred for March and April farrow. Also breed Jerseys. Write
E. E. WYATT TOMAH, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

DUROC HOGS and JERSEY CATTLE

WE are offering well-grown, good-type Duroc fall boars and gilts at reasonable prices, sired by Lee's Defender, Corrector and Model Lady's Trade Mark. Fall pigs at weaning time—they are strong and vigorous.

YEARLING Jersey bulls and several high-grade cows and yearling heifers. We belong to the cow testing association; can tell you what each cow is producing.

F. R. CONSTANCE & SONS WAUPACA, WIS.

PARKER PROLIFIC PORKERS

THIS is the kind we breed and sell. If you want good Durocs, write or come and see them. A splendid lot of gilts bred to King Orion, a son of the world's grand champion. Address
E. H. PARKER & SON - - - JANESVILLE, WISCONSIN

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailinglist.
Dennis Shea Melvina, Wis.
(10 miles from Sparta)

DUROC BOARS FOR SALE

BY Prince Defender, Royal King 4th, and Lee's Defender. Big, stretchy fellows. Shipped on approval. **McCLURG BROS., Viroqua, Wis.**

DUROC SOW SALE

AT PUBLIC AUCTION ON
FEBRUARY 8TH, JANESVILLE, WIS.

I WILL sell twenty sows and gilts bred to the grand champion boar, King Defender. Write for catalog. Address
JOHN L. FISHER JANESVILLE, WIS.

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

Services of Expert Live Stock Photographer

Up-to-date live stock breeders are more and more using photographs in advertising their herds. It is the modern way of doing things, and The Wisconsin Farmer is meeting the situation by offering the services of a skilled live stock photographer. Appointments may be made by mail at any time. For estimates of cost and other information write The Wisconsin Farmer.

BIG POLANDS

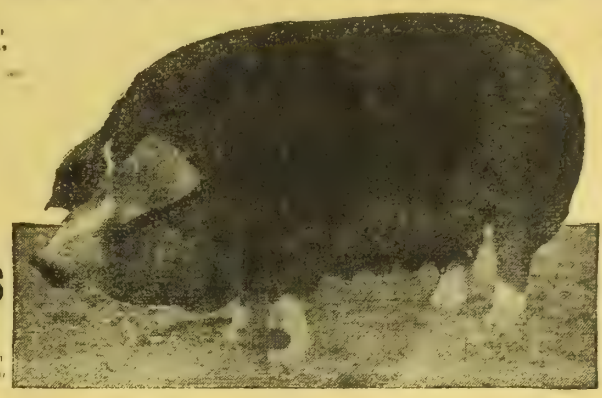
BLACK JUMBO--MODEL MAJOR 2D

E. W. HENDRICKS' POLAND CHINA SOW SALE

Hazel Green, Wisconsin, Wednesday, February 14

40---EVEN BETTER THAN LAST YEAR---40

5 Tried Sows
5 Fall Yearlings
30 Spring Gilts



Bred to 2 Tried Sires

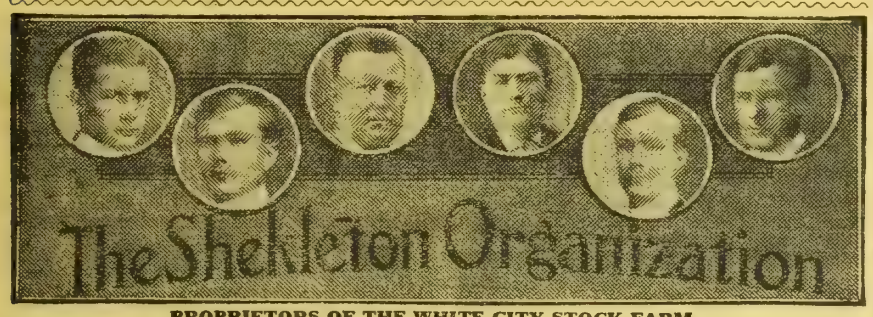
BLACK JUMBO—The largest boar in the state.

MODEL MAJOR 2D—The largest 2 year old in Wis.

BIG AS THE BIGGEST, Smooth as the Smoothest. Those sired by **Black Jumbo** are bred to **Model Major 2d,** all others bred to **Black Jumbo.** Boars of proven ability. **Features: Half Ton Mollie** by Big Bug out of the dam of Black Jumbo. **King's Lady** (840 lbs.) by King Jumbo, going back to Big Bug. **Miss Oakland** by Oakland's Equal, dam by Big Henry Ex. Two fall yearlings by **Peerless Wonder** (by A Wonder) dam by Big Bug. One by Big Martin (by Big Tom) dam by King of Wonders. Most of the spring gilts are by **Black Jumbo. No sale of the winter will have bigger or better gilts.** Send mail bids to T. P. Shreve, field man for The Wisconsin Farmer. I'll guarantee his selection. Col. W. B. Duncan, auctioneer. **Write now for catalog and mention The Wisconsin Farmer.**

BIG POLANDS **E. W. HENDRICKS** **HAZEL GREEN, WISCONSIN** BIG POLANDS

HORSES.



PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

FRANK P. SHEKLETON & SONS **LAWLER, CHICKASAW CO., IOWA**

☞ We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

---

4 Stallions PERCHERONS 2 Mares

WE are offering 6 very high-class Percheron stallions and mares: 1 two-year-old and one yearling stallion out of **Diana 53532** by Phil Sheridan and 1 yearling stallion and a 2 and 3 year old mare out of Karel 33640, a double bred **Baccarat** mare. The two-year-old stallion sired by Imp. Haricot 74108 is particularly good. Send for prices and description.

JOHN KLOEHN **FOREST JUNCTION, WISCONSIN**

PERCHERON STALLION FOR SALE

First - prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

W. A. LANG & CO.

Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

W. A. LANG & CO. **GREELEY, IOWA**

Percherons--Belgians. Imported and home-grown mature stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **FRED CHANDLER, R.7, Charlton, Iowa.**

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Andrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

AYRSHIRE CATTLE.

ALDEBARAN FARMS **A. R. AYRSHIRES**

YEARLING AYRSHIRE BULL ready for service, ¾ white, well grown, good, straight type. Dam has an Advanced Registry record of over 500 pounds of butter in a year. This youngster is backed by rich Advance Registry breeding. His dam, both grandams and both grandsires being Advance Registry animals. Send for pedigree and price. Address

STEPHEN BULL **RACINE, WISCONSIN**

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ **WAUKESHA, WISCONSIN**

HORSES.

LEFEBURES' BELGIANS

A Large and Choice Collection of Stallions, Mares and Colts

for sale at all seasons of the year. Correspondence solicited. Catalog mailed upon application.

H. LEFEBURE & SONS, Fairfax, Iowa

8 miles west of Cedar Rapids

FOR SALE-3 REGISTERED PERCHERON stallions. J. D. Howarth, De Soto, Wis.

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write

Harry Crandell **Cass City, Mich.**

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.

H. A. DERENTHAL **WYKOFF, MINN.**

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

AYRSHIRES

Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

Clydesdales and Durocs

Write your wants Address

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PADDY by SCHOOLMASTER

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C. EVANS by COMBINATION 2d

SPRING boars and gilts for sale by above boars. Only the tops shipped. Order early and get the pick. A. L. Gray, Mt. Hope, Grant Co., Wis.

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SOWS and gilts of fine quality and growth and of best blood lines. Safe in pig, at farmers' price. White Wyandotte cockerels from a big flock of high laying quality.

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BRED for March and April farrow to Pay Streak and King Cole, a son of Chief Keokuk. Also August and September boars sired by Pay Streak, 2d prize junior yearling at the 1916 Wis. State Fair. Wm. F. BUTTS, Evansville, Wis.

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Everything arranged for your convenience and comfort.

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SHORT-HORN CATTLE.

SHORT-HORN COWS AND HEIFERS

Fresh or to freshen soon. Priced very reasonable. Write to
WILLIAMS BROS. **BANGOR, WISCONSIN**

100 Short-horns to Select From-100

BULLS and females. One or a carload. Write now. ROCK COUNTY SHORT-HORN BREEDERS' ASSN., J. E. Kennedy, Secy. - - JANESVILLE, WIS.

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HAVING several choice young bulls from dams giving 10 to 12,000 pounds of milk. I have a well-bred herd and keep records of production. Inspection invited. Address
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OUR offering in Scotch Short-horns this year is probably the best we have had to offer our patrons in years. We have several young bulls of serviceable age, high in quality and rich in breeding, and these are priced to sell. Could also spare a few females.
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2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

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YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt **Rosendale, Wis.**

SHORT-HORNS

SCOTCH and Scotch topped. Herd headed by Collynie Sultan by Roan Sultan, out of Marchioness dam. If interested write
E. E. JONES **ROCKLAND, WISCONSIN**
President, Wisconsin Short-horn Association

GREEN VIEW STOCK FARM OFFERS
7 Pure-Bred SHORT-HORN BULLS
7 to 17 months old, and a few choice
POLAND CHINA BOARS

Farm joins the village. Address John H. Bear & Son, Spring Green, Wis.

SULTAN BRED SHORT-HORNS

WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
H. B. Drake & Son, Beaver Dam, Wisconsin

MILKING SHORT-HORN BULLS

TWO REDS, eight to nine months old, sired by Milkman, that is out of a 4.4% butter fat cow that gave over 60 lbs. of milk per day. Send for prices and description. Address
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OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
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D. S. Polled Durhams. An extra good, dark roan bull 11 mos. old and a dark red 10-mo.-old bull. They'll suit. F. S. Bunker, Kilbourn, Wis.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

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FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

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Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753,629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.
FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. **A. M. SERSTED, Supt. Cattle**

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Nothing for Sale at Present
Watch This Space for Future Offerings
W. M. KNIGHT EAGLE, WISCONSIN

GOOD JERSEY BULL

BORN October 22, 1916, a good one; straight type good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
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REGISTERED JERSEY COWS AND HEIFERS

WITH **register of merit records** or breeding. Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
Ed. Bruins - - Fairwater, Wisconsin

BURN BRAE JERSEYS

REGISTER of Merit bulls from calves to ready for service. High class and priced to sell.
BURN BRAE **ROSENDALE, WIS.**

JERSEYS

100 FEMALE in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write FRED STUBLEY BLACK EARTH, WIS

HEREFORD CATTLE.

HEREFORDS BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.
J. J. F. WINTERS **SPARTA, WIS.**

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
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ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

ANGUS BULLS FOR SALE

IF you are going to need a **good** herd bull get our prices before you buy. We have the goods. **Hauk Bros., Cassville, Wisconsin**

HAMPSHIRE SWINE.

HAMPSHIRES
OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each; 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned blocky boar, Dane's Model 258029.
DANE STOCK FARM **OSHKOSH, WIS.**

Mulhall's Hampshires

BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, trios and spring gilts. Best of breeding and priced to sell.
TERRY MULHALL **SIOUX CITY, IOWA**

HAMPSHIRE boar bargains. Must sell my herd boar, Bull Moose, an excellent breeder. Price $40 if taken at once. Also a few November pigs at $10 each. Address Wilton G. Johnson, Route 1, Oconto Falls, Wisconsin.

Lancaster, Wisconsin
Tuesday, February 13, 1917

50 Poland Chinas 50
Sows and Gilts

WE INVITE YOU FOR WE HAVE THE GOODS

Spring gilts that weigh 385---sows at 700 lbs. Not a poor animal in the entire sale.

Big Hadley Big Jumbo and A Wonder Breeding

Guarantee: Every Sow a Breeder or Money Refunded

Bred to the best boars money could buy: **Big Ben H.** by Big Ben, **Big Type Jim 2d** by Jim Crow by Crow's Kind, **Big Ben Jr.** by Big Ben, **Sunrise Price** by Smooth Price, **Big Mint** by Jumbo Again, **Big Quality** by Blue Valley Again. **Grant county** is the leader in Poland Chinas. Why not buy at **headquarters?** We want you to see the offering, but if you can't come, send bids to T. P. Shreve. We stand back of his selection. Col. W. H. Cooper, auctioneer. We have a catalog for you. Write to

BURLIE DOBSON, Sec'y **LANCASTER, WIS.**

50 Poland Chinas 50
Noted Families of the Breed

Grant County
Poland China Breeders' Association

GUERNSEY CATTLE.

A Guernsey Show Bull Backed by Show and Production Records

DAM, Beatrix B. that at two years, five months of age, made 428 pounds of fat and gave 9,024 pounds of milk testing 4.74% fat. She is a daughter of Atwood Prince, whose offspring have been heavy prize winners and whose get of sire was never defeated. His seven A. R. daughters average 460 pounds fat at three years, five months. Sire, King Talladeen of Chestnut Hill, that has been first and champion at several leading fairs, has sired many prize winners. His dam made 635 pounds fat from 11,907 pounds of milk. Price $125. Two other yearling bulls of Glenwood breeding for sale from A. R. cows. Can also spare a few females. Send for our sale list or, better yet, come and visit Waukesha. If we haven't got what you want some of our fellow breeders will have.
FOX BROTHERS **WAUKESHA, WISCONSIN**

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl**, a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.
W. G. Jamison & Sons **Appleton, Wis.**

GO TO W. J. HEID
FT. ATKINSON, WIS.,
FOR GUERNSEY BULLS

FROM 2 to 10 months old; also a few females. Best of breeding and good size. Come and see them, or write for description and prices.

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

Guernsey Bull For Sale

BORN March 17, 1916, Glenwood breeding. Sire, Colonel Waukesha. Dam, Park's Pet. He is well marked, a good individual and right in every way. Price made right to sell. Address
L. J. Wendt **R. 6, Waukesha, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

GUERNSEYS

REGISTERED bull calves 4 to 8 months old. Herd tuberculin tested. **EDW. H. KIESLING, JEFFERSON, WISCONSIN.**

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.
Berkshire Spring Boars and Gilts
of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address
O. R. FRAUENHEIM, RANDOM LAKE, WIS

REG. GUERNSEY HEIFERS

10 to 14 months old, daughters and granddaughters of the richly bred sire,
GOODWILL'S HERO 17073

DAMS imported and richly home-bred animals. These animals are well grown, good, straight type and well bred. For further particulars send for copy of pedigrees or color description. Address
Charles Schmidt **Wrightstown, Wisconsin**

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
Frank E. Swan **Wauwatosa, Wis.**

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick **Greenville, Wis.**

ATTENTION

PURE-BRED Guernsey bulls, two of serviceable age, and eight calves at special prices for thirty days. A rare chance to get some of the best blood lines of the breed. Address
S. A. Merriman **Fort Atkinson, Wisconsin**

SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

FOR SALE—10. mo. Guernsey bull sired by richly bred Glenwood, Blue ribbon calf. A dandy. Price reasonable. W. A. Lawsen, Rosendale, Wis.

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LA BELLE VIEW HOLSTEIN bulls keep moving. I told you so and there is a reason, we never have a yearling. People know good breeding and appreciate low prices. Only two youngsters left and they are dandies, from splendid A. R.O. dams and by a grandson of the famous bull, Sir Ormsby Hengerveld De Kol, that had world record dghts. and granddghts. to his credit. Satisfaction guar. E.E.Rosenkrans, Oconomowoc, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your wants. Address L. C. Underwood, Avoca, Wis.

Red Poll Headquarters

OFFERING two bulls of serviceable age for sale. Also a limited number of heifers. Choice individuals. Write **J. W. Salter & Sons, Unity, Wis.**

RED POLLED HEIFERS

HAVE a choice lot of yearlings, two and three-year-old heifers, bred and pen. A few well-bred top bull calves. A great opportunity to buy foundation stock. Correspondence invited.
H. A. Martin **Gotham, Wis.**

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

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SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.
L. F. Biglow & Son **Brooklyn, Wis.**

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Purebred Registered
HOLSTEIN CATTLE

Fifteen thousand dollars in prize money, for milk and butterfat production, was distributed among breeders of registered Holstein-Friesian cattle during the year ending April 30, 1916. The official supervision, by the Advanced Registry Office of the Holstein-Friesian Association, of all regularly conducted tests, and the award of liberal prize money have proven a mighty stimulus and an educational factor of great value, in the promotion of interest and progress in the breeding of Holstein cattle.

Send for FREE Illustrated Descriptive Booklet.
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RUST BROS.

OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heay producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address
ARTHUR RUST
West Allis **Wisconsin**

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey **Grafton, Wisconsin**

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L.V.Garvens, Brookfield, Wis.

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

HOLSTEIN BULL

BORN February 21, 1916. ¾ white. Good individual, sired by a son of Pontiac Korndyke and out of a daughter of De Colantha Johanna, champion. Price $100. Address
Peter Larson Randolph, Wis.

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

John Bradley

Randolph Wisconsin

A FEW yearling bulls and younger from A. R. O. dams with creditable records. Send for pedigree and price.

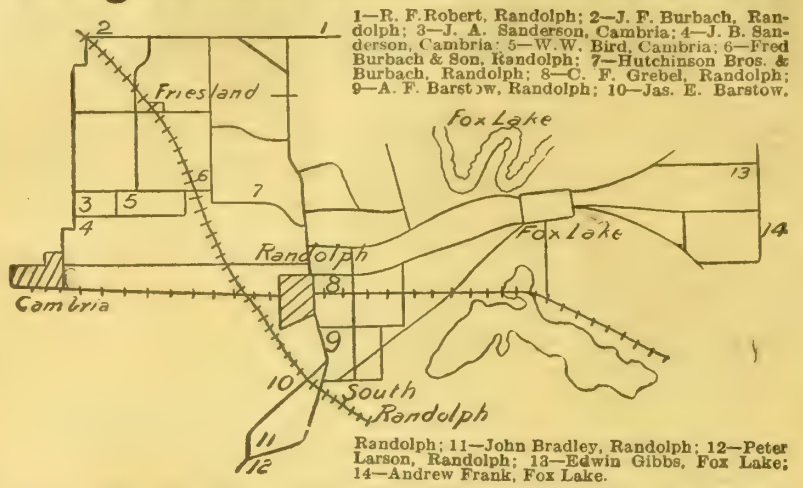
Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address
HUTCHINSON BROTHERS & BURBACH CAMBRIA, WISCONSIN

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Randolph; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

REG. HOLSTEINS

Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
J. B. Sanderson - Cambria, Wisconsin

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

Yearling Holstein Bulls

READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
Andrew Frank - Fox Lake, Wisconsin

Registered Holsteins

BULLS from A. R. O. dams, of the right type to improve your herd. Prices reasonable.
W. W. Bird - - Cambria, Wisconsin

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

ALL of our cows have A. R. O. records nearly all from 20 to 33 pounds. our 38 yearly records average 16,619 pounds milk and 709.3 pounds butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four year olds and 12 mature cows. Pay us a visit and be impressed with the size, health and vigor of our stock.

SIZE HEALTH VIGOR BREEDING
HOLSTEIN BULL CALVES $100 and Up

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

WELL GROWN, WELL MARKED HOLSTEIN BULL

BORN December 1, 1915. Ready for immediate service. Sire, Crown Pontiac Korndyke, a richly bred son of Pontiac Butter Boy, that has 59 A. R. O. daughters, 4 above 30 pounds, and that is a half brother of Hengerveld De Kol and out of the same dam as Pontiac Clothilde De Kol. Dam, Stellaris Burke Pontiac 3d 255567, a big, roomy heifer with a fine large udder and good teats. She will be tested when she freshens again. Her dam is a 24.44-pound granddaughter of Hengerveld De Kol. Good type and high production have been bred into him in every line of his pedigree. Buy him now. He will soon be worth twice what we ask now. Send for pedigree. Address
NORTON FARMS RACINE, WISCONSIN

HOLSTEIN BULL FOR SALE

Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediate sale. Address
PINEHURST DAIRY SHEBOYGAN FALLS, WISCONSIN

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.
BAIRD BROS. - - - - WAUKESHA, WISCONSIN

HOLSTEIN BULL CALVES FOR SALE

BY 32-lb. sires and from A. R. O. dams up to 24 pounds butter in 7 days. Popular breeding. Good individuals. Priced from $100 up. Mention The Wisconsin Farmer and address
TULLOCH & FRIES' HERD - - - GENOA, WISCONSIN

"Where Price and Quality Meet."

HOLSTEIN BULL FOR SALE

THE bull advertised last week has been sold and we now offer a grand individual, straight top line, square, broad rump, smooth over shoulders, well sprung ribs, good head and lots of style. Dropped July 1, 1915. Sired by Prince Johanna Belle, that came from the same herd that produced Johanna De Kol Van Beers, Cedarlawn Johanna and other noted animals. His dam is a half sister to a former world's record two year old, both being sired by Gem Pietertje Hengerveld Paul De Kol, 13 A. R. O. daughters. We are pricing this youngster at $90.00.
EDGEWOOD FARMS, Inc. PEWAUKEE, WISCONSIN

A HOLSTEIN BULL

BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.
L. A. KIMBALL LAKE GENEVA, WIS.

DODGE AND JEFFERSON COUNTIES

THE two greatest Holstein counties in Wisconsin. Holsteins from these two counties have made Wisconsin famous. You can buy the same kind of blood now. Our breeders can now supply you with both males and females of all ages. Write Francis Darcey, Watertown, Wisconsin, Secretary, Inter-County Holstein Breeders' Association.

TWO HOLSTEIN BULLS EIGHT MONTHS OLD

SIRED by Johanna Chief De Kol, that has 62½% of the same breeding as Johanna De Kol Van Beers, 40.07 lbs., with 7 tested daughters. First bull out of a 20.51-lb. dam, she sired by a grandson of De Kol Burke. Second bull out of a 19.50-lb. four year old, she a granddaughter of Sir Johanna Fayne, with a 31-lb. daughter. Also a few heifer calves nearly one year old by the above sire. Prices reasonable. Address
Edward O. Mueller, Appleton, Wisconsin

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address
EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk, and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.
SILVER SPRING FARM CO. - EAU CLAIRE, WIS.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address
Dopp Brothers Ixonia, Wisconsin

Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.
JOHN STEELE OCONOMOWOC, WIS.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs.
Marinette County Asylum - Peshtigo, Wis.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

High Grade Holstein

HEIFER calves, 15-16 pure, from high producing dams, $18 crated. Also two bulls 11 and 9 mos. old from A. R. O. dams. Good individuals, nicely marked, 7-8 white. As we are short of room will price these right. Also bull calves. Send for pedigree and price. Mountain Ash Stock Farm, J. B. Cain, Glenbuelah, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER, SHEBOYGAN FALLS, WIS.

HILLSIDE STOCK FARM

REGISTERED Holstein cows, heifers and bulls and Chester White swine. Write your wants.
KIRKPATRICK BROS. - Reedsburg, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31-17 lb. bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers Lyons, Wis.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb. cow, and out of A. R. O. dams. Write **R. C. Walker, Kilbourn, Wisconsin.**

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TO increase your profits buy a bull sired by Princess Mercedes Piebe Champion 98024, whose dam has a record of 26.39 pounds butter in seven days as a four year old, and 667.4 pounds in one year as a two year old. Write for description and price.
R. B. Melvin, Prop. Glenbeulah, Wis.

CARLOAD YEARLING HOLSTEIN
HEIFERS

AND a few two-year-olds for sale. Will sell them separately or as a whole.
August Meyer - Plymouth, Wisconsin

FOR sale—7 registered Holstein heifers coming 2-yrs.old, granddaughters of King Lyons, bred in May and June to King Segis Alcartra Beauty Herd Sire 136938. Sire, King Segis Pontiac Alcaltra 76602, the $50,000 bull, grandson of King Segis, dam a 23½ lb. 2 year old daughter of Johanna McKinley Segis, the $25,000 son King Segis and Johanna De Kol Van Beers, the 40 lb. $7,000 cow with butter record as follows: 7 days, 40.07; 30 days, 151.39; 60 days, 288.45; 90 days, 416.71; 120 days, 541.35. He is a beautiful individual with all the dairy qualities we like. Will weigh 2,000 lbs. at 2 years. For prices and description address Jas. Doyle, Waldo, Wis.

For Sale

BULL calves, sire Johanna Segis Pontiac Polkadot; grandsire, King Segis Pontiac Polkadot, that is a full brother in blood to King Segis Pontiac Alcartra.
R. C. Stolper - Random Lake, Wis.

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HERD SIRE
Dutchland Creamelle Ascalon Lad

FIVE dams average: 7 day, butter 28.97; milk 631.20; 30 days, butter 118.46, milk 2,565.20; 1 year, butter 995.00, milk 24,100.00. One yearling bull ready for service. Write for information.
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Registered Holstein Cows

AND heifers to freshen in fall. Bred by Sir Veeman Hengerveld Wayne 9th and from 2 to 5-months-old bull calves. Address
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Breede of Registered Holstein Cattle
Stock for sale at all times.

Bates Stock Farm

75 HEAD Registered Holsteins to select from —herd headed by Walker Prilly Ormsby Wayne, whose dam and sire's dam average over 30 pounds of butter in seven days.
G. W. Bates, Prop. - Waldo, Wisconsin

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WM. LAUX
RANDOM LAKE WIS.

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1-2 to ⅞ white; 11 to 12 months old. Straight rumps, ready for service. Also heifer and bull calves for sale. All the young stock is sired by Piebe Champion 2d 91262, a richly bred bull backed by high seven-day and yearly records. Stock is priced for quick sale. Address
Henry W. Breher, R. 4, Sheboygan Falls, Wis.

FOR SALE
6 REGISTERED Holstein heifer-calves, ranging in age from Dec. 12, 1915, to April 10, 1916; nicely marked, more white than black, from heavy producing dams, some with A. R. O. records. Also a few registered Holstein cows.
P. J. Liebenstein, R. 19, Adell, Wisconsin

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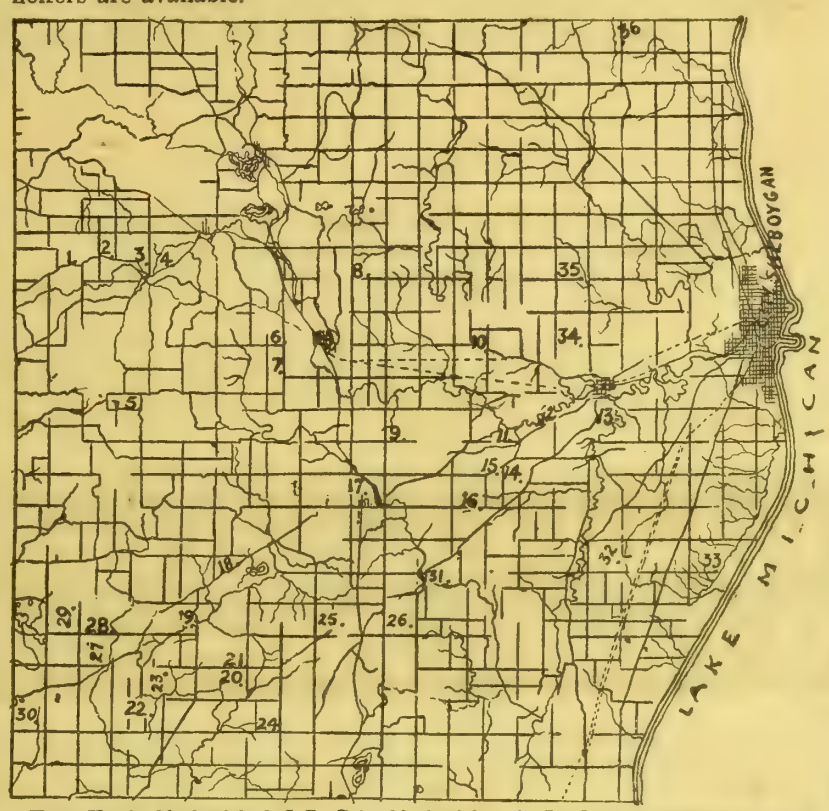
THE greater part of which are Holsteins. No matter how many you want or of what type, it will pay you to come to Sheboygan county. Thirty-two of the best pure-bred breeders are offering cattle for sale at the present time, and a great many high-grade springers and heifers are available.



1, Harry Keach, Glenbeulah; 2, J. B. Cain, Glenbeulah; 3, R. B. Melvin, Glenbeulah; 4, T. H. Thackray, Glenbeulah; 5, J. M. Rock, Plymouth; 6, Emil Titel, Plymouth; 7, Aug. Meyer, Plymouth; 8, Struve Bros. Plymouth; 9, C. J. Nehrling, Plymouth, 10, G. W. Ubbelohde & Sons, Sheboygan Falls; 12, Wm. Fenner, Sheboygan Falls; 13, Pinehurst Dairy, Sheboygan Falls; 14, Henry Walsh, Sheboygan Falls; 15, Fred Dankwert, Sheboygan Falls; 17, D. E. Vanderhoff, Waldo; 19, John Melius, Adell; 20, G. A. Schultz, Adell; 21, P. J. Liebenstein, Adell; 22, Wm. Laux, Random Lake; 24, R. C. Stolper, Random Lake; 25, G. W. Bates, Waldo; 26, J. Doyle, Waldo; 27, B. C. Hicken, Adell; 28, Walter Hemmen, Adell; 29, James Mulvey, Cascade; 30, John Fellenz, Kewaskum; 31, John Liezen, Oostburg; 32, G. W. Weiberdink, Oostburg; 33. J. P. Brill, Sheboygan; 34, Ernst Markwardt, Sheboygan Falls; 35, Henry Breher, Sheboygan Falls; 36, H. R. Weiskopf, Cleveland. All of Wisconsin.

FOR SALE

A BEAUTIFUL Holstein bull calf, ⅞ white, from a daughter of Pearl Longfield De Kol, the cow that took four Association prizes this year. His dam has a record of 23 lbs. butter as a three year old; 891 lbs. butter in 331 days as a four year old. Grandam has a record of 27.29 lbs. butter in 7 days and 28,050.5 milk and 1,215 butter in one year. The sire is a grandson of Hengerveld De Kol. Calf was born May 9, 1916.
Harry Keach Glenbeulah, Wis.

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ADELL WISCONSIN
Breeder of registered Holstein cattle. Herd headed by the 28.65-pound bull,
KING OF SCOTT VALLEY 98813

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WALDO WISCONSIN
Breeder of Registered Holstein Cattle
Stock for sale at all times.

Registered Holstein Heifer

AND **bull calves** sired by **Pabst Canary Pontiac Champion 142885,** a grandson of King of the Pontiacs, that has 165 A. R. O. daughters. Write for pedigrees, description and prices.
Wm. Fenner - Sheboygan Falls, Wis.

For Sale

KING Piebe Champion, three years old. 1 bull from dam, A. R. O. 22,093 pounds, 16 mos. o.d. 3 bull calves, six weeks old for sale cheap if taken at once.
Fred Dankwert - Sheboygan, Wis.

2 Bulls

TWO good bulls of serviceable age, with good A. R. O. backing on both sides. These bulls are under one year old, are large and straight and good all around individuals, three-fourths to seven-eighths white. If you are interested in stock of this kind write for price and pedigree. **Mountain Ash Stock Farm, J. B. Cain, Owner, Glenbeulah, Wisconsin.**

Sire, Sir Pinehurst Champion, for Sale

A BULL calf from Vickery Vale Beechwood, that made 1,225 pounds butter in one year, and his four nearest dams average over 900 lbs. in a year. A bull from Vickery Vale 2d, that made 900 lbs. in a year, and is a full sister to Vickery Vale Beechwood. Address
EMIL TITEL, R. 27, PLYMOUTH, WIS.

HEIFER and BULL CALVES

FOR SALE sired by the 28-pound bull, King Johanna Abberkerk 149412, whose dam made 28.71 pounds of butter in seven days; 677.45 pounds butter in a year; 109 pounds of milk in one day. When in need of registered Holsteins write us.
STRUVE BROS. PLYMOUTH, WIS.

SIRES in service—King Segis Concordia Hengerveld 96214. Sire King Segis De Kol Korndyke 56110. Dam, Sadie Vale Concordia 3d's Hengerveld 100308. King Korndyke Akkrummer Ormsby 166274. Sire, Sir Korndyke Hengerveld De Kol 41266. Dam, Akkrummer Ormsby 112773. Enrich the blood of your herd by using a bull bred for size, type, constitution and production and related in a close degree to King Segis, Hengerveld De Kol, Pontiac Korndyke, Sir Korndyke Hengerveld De Kol, Colantha 4th's Johanna, Mabel Segis Korndyke, Pontiac Clothilde De Kol 2d, Pietertje Maid Ormsby and Duchess Skylark Ormsby.
Pinehurst Dairy - Sheboygan Falls, Wis.

7 Registered Holstein Heifers 7

SIRED by **Sir Ormsby Pontiac Mercedes,** well marked and well grown. B. C. Hicken, Adell, Wisconsin.

GERRIT J. WIEBERDINK
OOSTBURG, WISCONSIN

Breeder of pure-bred Holstein-Friesian cattle. Stock for sale at all times.

REGISTERED HOLSTEIN

HEIFER calves, about two months old, sired by Piebe Champion 16th, a richly bred bull backed by high seven day and yearly records.
Ernst Markwardt - Sheboygan Falls, Wis

Registered Holsteins

FOR SALE—Cows from five to nine years old, price $125.00 to $200.00. Bull calves from $35.00 and up. Visitors welcome.
John J. Fellenz Kewaskum, Wis.

CLEVELAND HERD offers a 29.50 lb. 7-year-old cow—fine individual. Due December 3d by a 30-lb. Pontiac bull. Also two bull calves 7 months old, one from a 24-lb. cow and one from a 26.18 lb. junior 3-year-old, marked over half white, well grown. Send for pedigree and extra low price H. R. Weiskopf, Cleveland, Wis.

SPRUCE LAWN STOCK FARM
OFFERS two registered Holstein bull calves, one from 19.60 pound 2-year-old dam. Price $100. The other from 18.56 pound dam. Price $65. Also several grade yearlings for sale. Write you wants. Address **G. W. Ubbelohde & Sons, Sheboygan Falls, Wis.**

FOR SALE

THREE granddaughters of Sir Johanna De Kol. One granddaughter of Sir Veeman Hengerveld. Bred to Cedar Lawn Sir Johanna De Kol. Also four of his sons.
John H. Liezen - Oosterburg, Wis.

Holstein Calves for Sale

REGISTERED heifer and bull calves for sale sired by Dr. Johanna Sarcastic 74862.
Walter P. Hammen Adell, Wis.

Holstein Calves For Sale
KING Segis Pontiac Beauty 112516, at head of herd, three years old, ten A. R. O. sisters. All bulls one year old sold. A few bull calves for sale, two heifers, one one-year-old, one three months, dark in color. Address Henry Walsh, Sheboygan, Falls, Wisconsin.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write
W. H. S. Rhoda Watertown, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.
Reuben Klofanda R. 1, Racine, Wis.

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

TWO SONS OF THE 27.56-POUND BULL
Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakburst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address
B. F. Winckler & Sons Medina, Wis.

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born March 10, 1916, nicely marked, well grown, a good individual and tuberculin tested. His sire Cornucopia Pontiac Johanna Lad, a full brother to world's yearly record senior 2 year old, and the sire of most of our state fair winners. His dam is a 16-lb. 2-year-old daughter of a 33-lb. bull. Seven nearest dams average 22.89 butter. Write now for reasonable price, pedigree and photo to
N. Dickinson & Son Lake Geneva, Wis.

HIGH grade Holstein heifer calves, well marked, sired by registered bulls and out of heavy producing cows, $16.00 crated. Registered bull calves, $40. Paul McFarland, Watertown, Wis.

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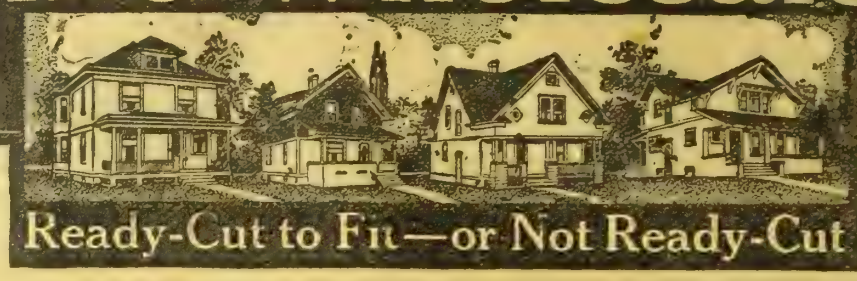

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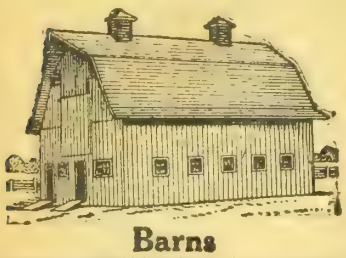

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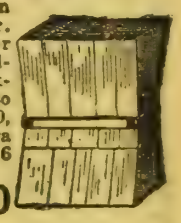

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THE WISCONSIN FARMER

VOL. XLVI. NO. 5. THURSDAY, FEBRUARY 1, 1917. WHOLE NO. 1827

Poultry For Profit—Not For Fun.

HENRY FIGGE, of Milwaukee county, is not exclusively a poultryman. His main interests are tied up in a wholesale house in Milwaukee, but he manages nevertheless to sell a few hundred thousand eggs every year as a side line, and our readers may well profit by his experiences. Producing eggs by the hundred thousand necessitates an establishment of considerable size, the proper kind of chickens and a long head to run the business. Mr. Figge is fortunate in having all these points in his favor. His farm, called the Greenwood Poultry and Egg Farm, consists of forty acres of fertile land a few miles out of Milwaukee. As the proper kind of chickens, Mr. Figge has the Single Comb White Leghorns. Open-air houses and colony houses, some thirty odd, dot the place. The colony houses are used in summer for the young chicks. They are moved from place to place on the twelve acres of natural timber, which is part of the farm. There are 1,500 layers on the job at Greenwood all the time. They are kept in flocks of 500 to 600 in the open-air houses. Constant selection and careful study of individuals has brought the flock to a standard of perfection that is hard to beat. One flock of 600, which was closely watched for a whole year, averaged 167 eggs per bird. From this flock 400 birds have been mated to the best of the Greenwood cockerels, all backed by records well above the 200 mark. This method of careful mating and mating with knowledge of the records behind the birds is the secret of Mr. Figge's success. Sanitation and ability to handle the business are important, but the stock itself must be there to start with.

Only the eggs from two-year-old hens are used for hatching, as a rule. The pullets in Mr. Figge's estimation do not give their eggs the necessary size and vigor which insures a healthy and growing chick. Considerable success with eggs from a few three-year-old hens has induced Mr. Figge to try a larger number of settings this year. Previous losses with such eggs were as low as 1 per cent, and less.

While show points are not neglected, the main object of all breeding operations is to increase egg production. In what he calls the Greenwood strain, Mr. Figge thinks he has a strain of Leghorns which have all the qualities of this famous breed intensified to a marked degree.

The best of each flock are mated about this time of the year—January. In February a battery of incubators with a capacity of 2,500 eggs are started to work. A brooder house, equipped with a standard hot-water brooding system, brings the chicks to proper growth. From here they are transferred to the colony houses.

A certain number of eggs and day-old chicks are offered for sale each year, about March, and Mr. Figge's policy of giving satisfaction has brought business his way. The surplus stock of cockerels is disposed of to breeders. Culls do not find their way into breeders' hands in this manner, but are sold as such on the market.

Mr. Figge contracts all his eggs at a fancy price, and the attractiveness of the product plays no small part here. Leghorn eggs, naturally large in size and a pure white, bring a premium over brown shelled eggs in this case. Last year the contract stipulated that this season's eggs must be contracted for three months in advance. A little over four months before the time set, a satisfactory price was offered for this year's production. And the 1,600 Leghorns at Greenwood are doing their best.

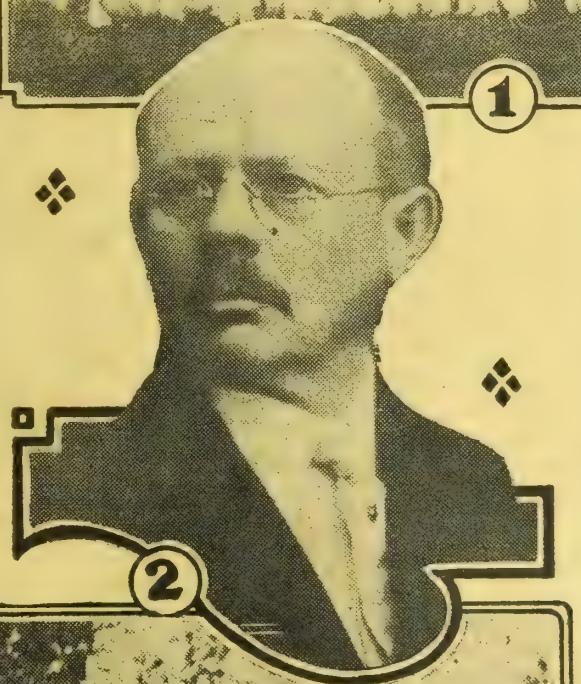
The feature that strikes one as especially outstanding is the absolute cleanliness at Greenwood. Everything is ship-shape all the time. As soon as a bucket has been used, it is put away. The incubators not in use at present had scarcely a coat of dust. All farm machinery was stored inside. The henhouses, though there had been damp weather for a week, had a fresh smell about them seldom met with. The brooder house, also not in use, was as clean as the front parlor. "We have not had a mite on the place for years," said Mr. Figge. "We can't afford to. The roosts in the houses are cleaned every other day and the boards and floors sprinkled with a light coating of slaked lime. The straw is changed regularly; during damp weather more frequently than at other times. I can't remember having even a sick chicken."

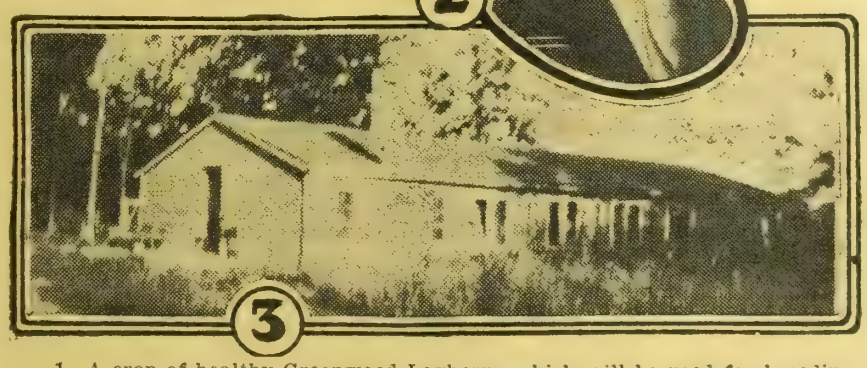
Most of the feed for the flocks is raised on the farm. Corn, oats, wheat, barley and alfalfa are the main crops. The barn contains a power-room, where the feed is ground and chopped for the chickens. A 175-foot well, worked by an engine, supplies the entire place with running water. Mr. Figge is very careful in his methods of feeding.

He says feeding is an important factor in raising chickens and he takes great care to supply his flocks with all they need, but no more. Each night the water is taken out of the feeding tanks in the houses and the tank rinsed out and left empty till morning. The first thing in the morning fresh water is supplied, and then the hens are given a light breakfast of cracked corn and barley. They have to scratch for this in the scratching pen, as the exercise keeps them healthy and working. At noon a milk mash is fed; also light. In the evening the biggest feed of the day is given and the hens are sent then to bed with a full crop, which is, according to Mr. Figge's notion, the only way. Feeding them too heavy during the day makes them lazy, and that means a falling off in laying. The eggs are shipped every day, so that there is not an egg in the house for more than twenty-four hours.

Mr. Figge has in Greenwood an excellent location and has built up a paying egg farm in the short time of five years. Careful methods, however, will do more towards success than big investments. While the average farmer would not go into the poultry business so extensively, he may well profit by the experience which this big egg producer has had.

There is an increasing demand for eggs for consumption, and while eggs have been selling at big prices, it has been demonstrated that some hens with poor treatment will not even earn their board. But the farmer who will pick a good laying strain, and pay sufficient attention to the sanitary conditions around his poultry yard and houses, and in addition give thought to the matter of feeding for egg production, may well expect to reap rich rewards, especially during the season when eggs sell at such high prices. Good eggs, marketed daily, will bring 30 to 50 cents a dozen in the months of January and February, and at that rate they will pay big, provided the hens will lay in sufficient quantities. In Wisconsin farmers are close to market and they can in many cases market their own eggs direct, and this usually means added profits. Now that the egg market is a cash market, it certainly is worth while for us to look into the matter of higher egg production.





1—A crop of healthy Greenwood Leghorns which will be used for breeding purposes this year. 2—Henry Figge, West Allis, Wis., who is intensely interested in egg production. 3—The brooder house at Greenwood Poultry Farm, near West Allis, Wis., will accommodate about 2,500 chicks.

NEW DE LAVAL

A Bigger and Better Cream Separator for the Same Money

THE FARMER who buys a [illegible] year will get [illegible] and better value for [illegible] money than ever before.

Not only will he get a better machine, a simpler machine, a machine that will skim even closer than any previous De Laval, but he will get a machine of larger capacity.

And the price has not been increased one cent.

Just think what that means to cow owners in the face of rising prices on almost everything else the farmer has to buy, including other cream separators.

Only the tremendous volume of De Laval sales makes it possible to give the farmer more for his money when others are giving less.

The NEW De Laval is the culmination of nearly forty years of experience and development by the largest and oldest cream separator concern in the world. It represents

The greatest improvement in separator construction in the last thirty years

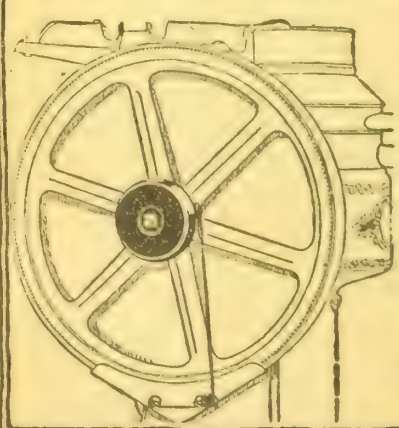
If you are trying to get along without a cream separator, or with a half-worn-out or unreliable machine, why not get a NEW De Laval NOW and stop your cream waste? You don't need to count the cost, because the De Laval will soon pay for itself.

There is a De Laval agent near you who will be glad to explain all the improvements and advantages of the NEW De Laval, and who will set and start a machine for you on your farm and let you try it for yourself.

If you haven't the spare cash right now, that need not stand in the way of your having the use of a NEW De Laval the rest of the winter. We have an arrangement with De Laval agents which makes it possible for any reputable farmer to secure a De Laval on the partial payment plan—a small payment at the time of purchase and the balance in several installments—so that your De Laval will actually pay for itself while you are using it and getting the benefit from it.

Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for any desired information.

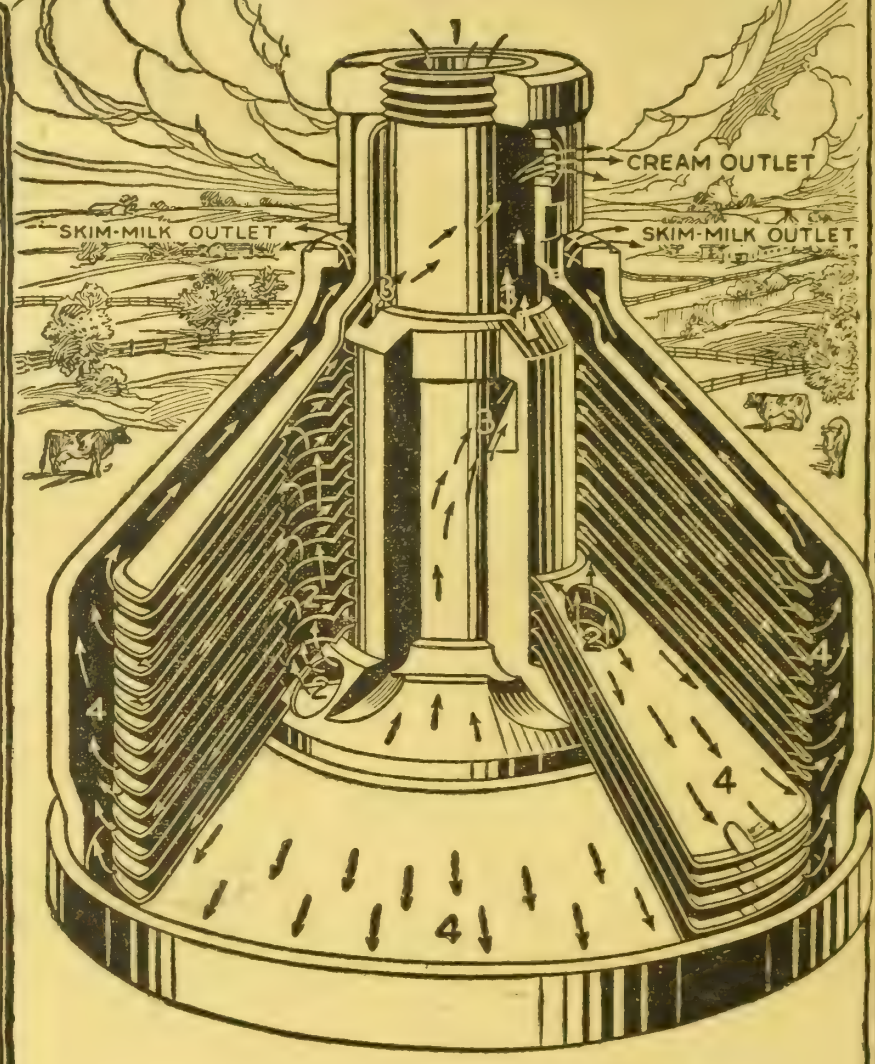
Every NEW DE LAVAL is now equipped with a Bell Speed-Indicator



The "Warning Signal" which insures proper speed and uniform cream

Because nine people out of ten turn the separator handle too slowly and because this always means loss of cream and cream of uneven thickness, every cream separator should be equipped with a reliable speed indicator.

Every NEW De Laval is now so equipped. The De Laval Bell Speed-Indicator is simple. It is accurate. It is reliable. There is nothing to wear out or get out of order. No matter who runs your De Laval, the "warning signal" will tell you when the speed is not right. You hear it and do not need to see it.



THE NEW SELF-CENTERING DE LAVAL BOWL

Some of the points of superiority of the NEW DE LAVAL

The New De Laval bowl design and the new method of delivering the milk into the discs give increased capacity without increasing the weight or size of the bowl or increasing its speed. The incoming whole milk is delivered beyond the cream wall, and this, in conjunction with the improved design of the bowl, makes possible closer skimming than ever before, especially under the more difficult conditions of separation, such as skimming a very heavy cream or separating milk below usual temperature.

The much lower speed of the De Laval than other cream separators (in most cases from one-half to one-third less) insures minimum wear of gears and much longer life of the machine.

The New De Laval concave-bottom, self-centering bowl is so designed and so supported by the detached spindle that it will run true and do perfect work even after long wear, the great importance of which every separator user will appreciate.

There are fewer discs in the New De Laval bowl, and all discs are unnumbered and are interchangeable.

By reason of its simpler construction and the fewer number of discs, the New De Laval bowl is more easily washed and cleansed.

All New De Lavals are automatically oiled, every moving part of the machine being bathed in a constant film of oil. There are no oil holes anywhere on the machine, and the sight feed oil cup on the top of the frame provides for a constant supply of fresh oil.

The gears, pinions and other moving parts of the De Laval are exceedingly simple in arrangement, substantial in dimensions and always interchangeable.

The De Laval tinware is sturdy and heavily tinned, well suited for long and hard wear, and easy to clean.

The low speed of the De Laval bowl, in combination with greater capacity for a given size and weight of bowl than is found in other separators and the automatic De Laval oiling system, make the De Laval the easiest cream separator to turn.

New Catalog will be mailed upon request

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago

50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

The Wisconsin Farmer

THURSDAY, FEBRUARY 1, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

THE HIGH PRICE OF FARMING IN WISCONSIN.

NOTHING is more offensive to me than to hear some city man remark, with an air of knowing it all: "The farmers are responsible for the high price of living; they're the ones to blame." Nothing could be further from the truth. Notwithstanding the fact that the farmers of Wisconsin are enjoying the greatest prosperity they have ever known, the existing high prices for our farm products do not necessarily mean greater farm profits all along the line.

According to the December Crop Report, issued by the United States Department of Agriculture, the farmers of Wisconsin are receiving considerable above the average for the nation for their farm products. Thus, we find the price for Wisconsin corn given at 24 cents above the price at the corresponding time last year; Wisconsin oats, 15 cents a bushel higher; Wisconsin wheat, 65 cents higher; Wisconsin hay, $1.70 a ton more; Wisconsin potatoes, $1.02 a bushel more. In the large quantities in which these crops are raised in our state, these increases mean an immense sum in the aggregate. But it is wrong to hold the idea that the farmers of Wisconsin are to blame for the high prices which the consumer has to pay. The farmer, in due turn, is obliged to pay much more than he paid a few years ago for what he buys, even more than he paid last year.

I called attention, in these columns, a few weeks ago to the fact that the Wisconsin farmer, who is obliged to buy a new set of harness this spring, will have to pay from $15 to $35 more than he would have paid last fall. Nor is the harness manufacturer altogether to blame, for the same grade of leather for which he paid 38 cents a pound, two years ago, is now costing him 72 cents a pound. Here is a considerable increase which the farmer must shoulder in the increased price charged for harness, boots, shoes and other leather products.

But this is not all. The farmers of Wisconsin spend on an average about $3,000,000 a year for new machinery, which does not include the amount spent for new automobiles. I am advised by the leading agricultural implement men of Milwaukee and Madison that farm machinery (particularly tilling and harvesting machinery) will cost from 10 to 25 per cent more this year than last, on account of the condition of the steel market. Here is another burden for the farmers of Wisconsin to shoulder and to be considered when they are charged with taking unfair advantage of the poor consumer.

Nor is this all. The farmers of Wisconsin are obliged to pay more for practically everything they buy nowadays, and the advance is continuing steadily. A few days ago the Western Retail Implement, Vehicle and Hardware Association held its annual convention. One of the important subjects up for discussion was the attitude of the sisal trust, which controls the binding twine market and prices. It was estimated that the grain farmers of America will be compelled to pay from $12,000,000 to $15,000,000 more this year than last for their binding twine. This is an important item here in Wisconsin, where grain is such a big factor in our annual field-crop production. It gives point most emphatically to the plea of these implement men that the farmers sign petitions and send them to congress, praying for relief from the exorbitant prices imposed upon them by the sisal trust. In order that my readers may understand the situation thoroughly, I am going to print a portion of the resolutions adopted by the implement men, as follows:

On behalf of the users of binder twine, we urge the department of justice and the department of state to act immediately in accordance with the recommendations of the senate committee. We deprecate the fact that under existing conditions our farmers must continue to submit to the extortion of the sisal trust, so far as their twine requirements for 1917 are concerned, and we demand that the necessary steps be taken by those in authority to prevent the continuance of the hold up. We deplore the failure of the government to proceed against the monopoly when it first began to advance prices without warrant, for we believe that prompt action would have prevented the enormous advances that have been made during the past few months applicable to fiber purchased for 1917 twine requirements, and which advances will force the farmers of the United States to pay from $12,000,000 to $15,000,000 more for their twine this year than they paid last year; and we demand of the authorities such action as will reduce the price to a normal basis for 1918 and subsequent years.

We heartily approve the efforts being made by the United States Department of Agriculture to develop fiber growing in our own possessions and the efforts of twine manufacturers to obtain a fiber which will release our farmers from the grip of the Yucatan sisal trust, and we pledge them our support in these efforts

Wisconsin being one of the leading small-grain states, this is an important matter here. It should be investigated and relief secured, if at all possible. I urge upon all readers of The Wisconsin Farmer that they talk this matter over with their local implement dealers and sign the petitions which are presented to them, if they find the situation to be as I have pointed out here. The farmers of Wisconsin, who are making their acres yield so abundantly, by the hardest and most efficient labor, should reap every possible reward and not be held up by any agency or person. But to hold Wisconsin farmers responsible for the high price of living, and argue that they, in turn, pay no toll to the Robin Hoods of commerce today, is altogether wrong. The high price of living is affecting the producer just as well as the consumer.

AGRICULTURAL CONTEST IN WISCONSIN.

THE spirit of friendly rivalry is a splendid incentive to improvement in every line of human endeavor, but in nothing more than in farming in Wisconsin. Agricultural exhibits and contests of all kinds, in which the competition to excel is keen but clean, stimulate the raising of better crops and better stock, the production of better dairy products and better farm management of every kind.

I doubt if there is a state in the Union which has profited more by the ambition to lead one's neighbors, which has grown up as a result of these contests, than has Wisconsin. Reports come to me of hog-fattening contests in Winnebago county, where, among 120 entries, the world's record for increase in weight during thirty days was surpassed; of 800 farmers all over the state working feverishly to complete all the necessary reports and records for the farm-management contests; of the local trials in stock judging, now being held among school boys in twenty-five sections of the state for places on the three-man teams, which will meet in the live stock judging tournament, to be held during Farmers' Week at the State Agricultural College, in February, and of dozens of similar events being held all over Wisconsin.

The best feature about such contests is that everybody wins and nobody loses. I do not know which one profits the most, the man who carries off the blue ribbon or the man who is at the bottom of the list. The former knows the joys of victory and the reward for the efforts which he has put forth, but the fact that he was able to excel may mean that he did not need the stimulus which the desire for achieving the prize the next time gives to the latter. Then there is the mental and moral discipline, which such events develop and in which the good winner and the good loser are both worthy of honor.

There are just two things which must be kept in mind in such competitive efforts. The first is that only fair means shall be used toward securing the coveted prize, and the second is that it shall all be treated in a friendly, generous spirit. When the victor can look all the other contestants in the eye and accept their congratulations, with the knowledge that they are deserved through merit alone, and when the losers can congratulate the winners with the sincere acknowledgment that the award was well deserved, then the keener the competition the better for all concerned.

I hope that these agricultural contests may grow in number and in quality throughout the Badger state, and especially that the young boys and girls may feel the impulses to farm betterment and obtain the added strength of character and the feeling of increased power that comes "when you can meet with triumph or disaster and treat those twin imposters just the same."

ORGANIZING TO IMPROVE WISCONSIN LIVE STOCK.

I AM tremendously inteested in the splendid work which is being done in Wisconsin in organizing the supporters of the various breeds of live stock. It has been my privilege in the past twenty-five years to be intimately connected with the advancement of the live stock industry. From personal interviews with a large number of successful farmers in Wisconsin and other surrounding states, I have been convinced that in a majority of cases it is safe to say that the most successful farmer is the one who devotes at least a portion of his energies to the development of live stock upon his farm. I am well aware that here in Wisconsin many of our breeders specialize in grains, potatoes, fruits or garden crops, but I do not think that any of our people can afford to neglect the live stock end of farming operations.

In the early days of live stock breeding in this country it was a case of every man for himself. I think that Wisconsin has made more progress in the line of organization and co-operation in the live stock industry than any other state. I have before me a little pamphlet which I have just received from Mr. Math. Michels, of Peebles. Mr. Michels is president of the Fond du Lac County Guernsey Breeders' Association. I am certainly pleased to note the large number of representative farmers of Fond du Lac county who are members of this association and who are co-operating to advance the interests of this good breed of dairy cattle in their neighborhood. Of course, I take this only as an illustration. The Holstein breeders of the same county have also organized, and they are doing their best to advance the interests of another splendid breed of dairy cow. Within the past two weeks representatives of The Wisconsin Farmer write me that they have had an opportunity to attend Holstein and Guernsey Breeders' Associations in Waukesha county. I have before me a statement of the business transacted by the Waukesha County Guernsey Breeders' Association within the past year, and I note that it totals almost $50,000. Just a few days ago the Short-horn breeders met in Janesville and decided to push the interests of the dual-purpose or milking strain of Short-horns. I have heard a great deal about the activity of the hog men in various counties in southern Wisconsin, and I know that the breeders are accomplishing a great deal by these co-operative efforts.

I should like to have every one of my readers understand that I am heartily in sympathy with the work which is being done by all of the breed organizations of the state. I do not know of any state where this organization work is carried on more systematically than in Wisconsin. In this connection I want to call the attention of my readers to the following announcement of special breed meetings which will be held in Madison during Farmers' Week.

February 5th, 3:30 p. m.—Wisconsin Sheep Breeders' Association, Wisconsin Aberdeen Angus Breeders' Association, Wisconsin Hereford Breeders' Association, Wisconsin Short-horn Breeders' Association, Wisconsin Red Polled Cattle Club.

February 6th, 4 p. m.—Wisconsin Berkshire Breeders' Association, Wisconsin Chester White Breeders' Association, Wisconsin Duroc Jersey Breeders' Association, Wisconsin Hampshire Breeders' Association, Wisconsin Poland China Breeders' Association.

February 7th, 11:30 a. m.—Wisconsin Horse Breeders' Association.

February 8th, 3 p. m.—Wisconsin Ayrshire Breeders' Association, Wisconsin Brown Swiss Breeders' Association, Western Guernsey Breeders' Association, Wisconsin Holstein Breeders' Association, Wisconsin Jersey Breeders' Association.

I strongly recommend to the breeders of Wisconsin that they identify themselves with some branch of the live stock association work represented in the above program. It may be that not every one of these organizations has accomplished everything that it should have accomplished, but shall we not say that this is more the fault of those who stay out than those who are on the inside? The men who are intimately connected with the work of these organizations are striving determinedly to better the standard of live stock in this state. Their ambition is to help Wisconsin to get rid of the poor animals and supplant them with more profitable stock. This is a worthy ambition, and I should like to see every one of my readers support such efforts with all his might.

WISCONSIN SINGING "AMERICA."

IT PLEASES me greatly that so many readers of The Wisconsin Farmer have written to me, asking for the copies of "America," which I offered to send to all who desired them. Do not hesitate to ask for them; they are at your disposal. I should be glad, indeed, if the inspiring words of "My Country, 'Tis of Thee" were to ring out from every corner and quarter of our beloved state. After all, has any state done more than Wisconsin to make America great, and to take the advanced position it now occupies? I say "No!" Should we not be duly grateful for the privilege which has been ours and thank the Giver of all good things, "our fathers' God," for the pleasures and opportunities which are ours in such abundant measure? Write to me for printed slips containing all the stanzas of "America." They will be sent to you free of charge.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Magnitude of the Poultry Industry.

There were nearly 300,000,000 birds in the poultry yards of the United States when the last census was taken. Of this tremendous total, 95 per cent was made up of chickens, a little over 1 per cent turkeys, approximately 1 per cent ducks and 1½ per cent geese. Then, of course, there were pigeons, guinea fowls, etc. The census revealed the fact that poultry was raised on eighty-eight out of every hundred farms, so that it may be taken for granted that the great majority of farm incomes are enhanced more or less by the diligence of old biddy. Her cackles are not in vain, as the department of agriculture estimates that the annual revenue from farm poultry flocks amounts to three-fourths of a billion dollars. You would have to add together the value of the gold, the silver, the coal and the iron mined in one year to approximate this grand total. The average income from farms upon which poultry is raised and reported in the census was $104.98 per farm. This does not include the value of the poultry products consumed in the home, which would be twice this amount. This conclusion may be arrived at when it is considered that the census reports the total annual income from the sale of eggs and carcasses to be only $256,000,000, whereas investigation by the department of agriculture into the total value of the eggs and carcasses sold as well as those consumed revealed the fact that these products are worth $750,000,000.

Those of our readers who are engaged in some phase of poultry production belong to one of three classes; they are either breeders, fanciers or producers. The breeder is defined by Lippincott as "one who seeks to raise the food manufacturing efficiency of a standard breed or variety." In some instances this may have to do with increasing the egg-laying ability of certain strains so that cockerels from the breeders' flocks when mated with grade flocks tend to increase production with a corresponding increase in the profits. This class of poultry producers is doing a most important work and unquestionably one result of their skill shows up in a greater margin of profit from those flocks where improved cockerels are used.

It may not be easy to distinguish at all times between the breeder and the fancier, though the latter is one who carries the work of a breeder to its final issue. Out of his work has grown the show system whereby one flock is pitted against another for premiums. Strong emphasis is placed on beauty points and utility ends are not always attained by the types that dominate the show ring. It may be said that the fancier leads the way for the breeder and the work of the fancier finally reaches the producer through the hands of the breeder.

To the third class belong the producers and here we find anywhere from 90 to 98 per cent of the poultry raisers of the country. They are engaged in this line of production only in a secondary way, their main efforts being devoted to crop growing and the raising of farm animals. On these farms the revenue derived from the poultry yards is largely net profit because to a considerable extent waste products are used for feed during most of the year. Only in one respect may it be said that special skill is used in handling these flocks and this is shown in the tendency to work improvement by using breeding stock from the flocks of the breeder and the fancier. Here we have the great outlet for surplus pure-bred stock, which creates a stable market for those who use skill in breeding operations and who adopt sensible means of bringing their record as breeders to the attention of producers to a sufficient extent so that their surplus stock is disposed of.

Poultry production is on the in- [illegible] this being partly due to the [illegible] on that has resulted from in- [illegible] prices and partly to the improvement brought about in the farm flocks by the use of better blood. It is scarcely necessary to say that the future looks bright. All meat products are high because they are scarce, and, as poultry products can be increased much more quickly than any other class of meat it follows that poultry breeders should be able to reap a large harvest during the next few years or until the supply of meats more nearly catches up with the demand. Considerable attention is given in this issue of The Wisconsin Farmer to the discussion of poultry problems. Experts have been called upon to give instruction on various branches and this is designed to meet the needs primarily of the producer, though the exchange of views will unquestionably be beneficial to those who may be classed as "breeders," or, in other words, to producers of pure-bred stock.

The Egg Case Now Has the Center of the Stage.

Wisconsin Ayrshire Interests.

The Wisconsin Farmer is in receipt of a good letter from Frank T. Stare, of Ladysmith, secretary of the Wisconsin Ayrshire Breeders' Association, in which Mr. Stare reviews to some extent the activities of the supporters of this breed of dairy cattle in this state the past year. Mr. Stare writes as follows:

Probably the one thing that has done most to bring the breed to the attention of the public during the last year is the magnificent exhibit made at the state fairs and dairy shows during the past year. Three Wisconsin herds and one Iowa herd made the complete western circuit. In addition local herds, sometimes as many as half a dozen, were exhibited. At some of the fairs there were more Ayrshire cattle exhibited than any other dairy breed. The exhibits were uniformly good and attracted a good deal of attention.

Much interest was manifested at the Southwestern Dairy Show at Kansas City and the Missouri State Fair. There were probably more Ayrshire cattle sold at these two shows than all of the other dairy breeds combined. Great interest was also manifest in the Northwest, particularly at the two North Dakota shows at Fargo and Grand Forks. Exhibitors report very satisfactory sales at both of these shows.

The breed in general has made more progress during the last few years than any other dairy breed. One record after another has been smashed. The 25,000-pound mark has been passed in the mature form and new world's records have been made in two and three-year-old forms. While no world's records have been claimed by a Wisconsin cow during the last year, Wisconsin breeders are showing increased interest in advanced registry work, and if reports are true, Wisconsin will soon be heard from along these lines.

Farmers and dairymen are beginning to realize that the Ayrshire cow is preeminently adapted to the climatic conditions of Wisconsin and the Northwest. She is a rugged individual which by environment and breeding is fitted to withstand the extreme temperature of the Northwest. This perhaps as much as any one thing, is the cause for her greatly increased popularity throughout this section of the country.

Mr. Stare has been a very faithful supporter of the Ayrshire breed and he has been ably supported by such men as Dr. David Roberts, of Waukesha; A. J. McNab, of Black River Falls; A. G. Austin, of Janesville; Adam Seitz, of Waukesha; James Van Etta, of Lima Center; Fred Tschudy, of Monroe, and others who might be mentioned. Included in the list of Ayrshire breeders of the state are men who have been very successful in the show ring. It is quite generally conceded that Mr. Seitz is one of the best dairymen in the country when it comes to handling show cattle. We are glad to see this good breed of dairy cattle taking its place in the live stock industry of the state.

Some Results of the "Snug" Winter.

This has been a "snug" winter in Wisconsin and our subscription department has felt the effect of it. The Wisconsin farmer likes to get indoors when the weather is away down below zero and the snow heavy on the ground. It is at such a time that he most enjoys looking over his farm paper. It is because of these facts that the subscription department of The Wisconsin Farmer has been literally swamped the past few weeks, that we know The Wisconsin Farmer is growing in popularity in this state. Never in the history of this publication has there been such an avalanche of subscriptions coming in direct from the farmers, a big majority of whom are old subscribers, and have been looking it over carefully these cold winter evenings and deciding, with the approval of other members of their family, that they want the paper to continue.

If any reader has been disturbed by the failure of the subscription department to get the label on his paper changed at once we trust that the tardiness on our part will be overlooked. It has become custom on the part of our readers to renew every winter, and the cold months are the ones when we get the most renewals on our subscription lists. If all these renewals were distributed evenly through the year it would be no trouble for our large force of clerks to handle everything promptly. But coming as they do, a large per cent within two or three months, and in so much larger numbers this year than ever before, it has been found impossible to get enough experienced help on short notice to give the subscription orders the attention which they should have. This is written so that subscribers, new or old, who have had any delays or trouble about getting their papers, will understand that we are working our very best to get all the subscriptions properly entered and the papers started. No one will get any less number of issues than we have contracted to send.

The publisher of The Wisconsin Farmer appreciates the hearty response of our readers to our suggestion that they renew early, and if we had realized that so many would answer this suggestion and in such a substantial way, we might have been better prepared to handle the vast volume of business.

We still have room on the subscription lists for Wisconsin farmers who are interested in a weekly agricultural paper, which strives to aid the farmer in every possible way. Special features on farm and home life, on dairying, the culture of fruits and gardens, beef and hog raising, sheep raising and many other subjects are planned for the coming year, and we are confident that those who join The Wisconsin Farmer family will feel that the money they send us for the paper is well spent.

Expect Big Week at Madison.

This is the last issue in which The Wisconsin Farmer will have an opportunity to call attention to the Swine Week program at the college of agriculture, Madison, February 5th-10th. Every department of agricultural activity in Wisconsin is to be represented at this series of conferences and the station workers have drawn upon many states for help in presenting problems which the everyday farmer has to meet. While the humble hog is to be exalted and given a position of greatest prominence, this does not mean that the other conferences which have proved so helpful in the past will be in any sense minimized. It is called "Swine Week," but there will be more than the usual number of meetings covering everything which will be of interest to the farmers of our state.

The Wisconsin Farmer believes that it pays to attend these meetings. This paper will be represented by members of its staff and reports of some of the more important conferences and utterances will be given, but it will not

It's Up to You

When Your Animals Get "Off Feed" and Do Not Thrive

I'll Save Your Veterinary Bills

When you have a sick or injured animal, write me, telling symptoms. Enclose two-cent stamp for reply and I will send you prescription and letter of advice free of charge.

Dr. Hess Stock Tonic

Gets Rid of Worms Makes Stock Healthy

We are now in the dead of winter. Animals are closely stabled and on dry feed. You are crowding them. You want them to eat well and turn their feed to good account. Remember, your animals are not out on pasture. It is up to you to supply the laxatives and tonics and blood purifiers. Dr. Hess Stock Tonic will

Condition Your Animals

It cleans out the worms and improves the appetite. They will then eat their feed with a relish because worms will not be distressing them. They will be free to digest, assimilate and get the good out of their feed. Dr. Hess Stock Tonic is not a secret preparation. Here are some of the ingredients and what they do—the same for animals as for the human family. Ask any doctor, consult any medical work:

Nux Vomica, nerve tonic, aids digestion.
Quassia, tonic and worm expeller.
Sulphate of Iron, blood builder, worm expeller.
Charcoal, prevents unhealthy fermentation.
Sulphate of Soda, a laxative and liver tonic.
Epsom Salts, a laxative.
Nitrate of Potash, acts on the kidneys.
Foenugreek, a flavor.

You will be well repaid for this special care of your live stock. Horses will be in condition for spring work, cows for heavy milking, sheep will fatten up, hogs will be free from worms and make larger growth.

Why Pay the Peddler Twice My Price?

My Stock Tonic is never peddled. It is sold only by reputable dealers—28,000 dealers in the United States and Canada. You buy it from the dealer in your town, a man with whom you trade every week, at rock-bottom prices.

25-lb. pail, $2.00; 100-lb. drum, $6.50

Smaller packages as low as 50c (except in Canada and the far West and the South).

So sure am I that Dr. Hess Stock Tonic will put your animals in a thriving condition, make the ailing ones healthy and expel the worms, that I have authorized my dealer in your town to supply you with enough for your stock, and if it does not do as I claim, return the empty packages and my dealer will refund your money.

Dr. Hess Poultry Pan-a-ce-a

This is just the time you should be giving your poultry this splendid tonic. It will put them in fine condition, make your hens lay, insure fertile hatching eggs and strong, vigorous chicks. Very economical—a penny's worth is enough for 30 fowl per day. Sold only by reliable dealers—1½ lbs. 25c; 5 lbs. 60c; 12 lbs. $1.25; 25-lb. pail, $2.50 (except in Canada and the far West). Guaranteed.

Dr. Hess Instant Louse Killer

Kills lice on poultry and farm stock. Provide your hens with a dust bath, to which add Dr. Hess Instant Louse Killer occasionally. The hens will do the rest. For lice on stock, with one hand rub against the hair and with the other sift the Louse Killer. Rub thoroughly into the skin. 1 lb. 25c; 3 lbs. 60c (except in Canada).

96-page Veterinary Book free for the asking

DR. HESS & CLARK, Ashland, Ohio

be possible to get all the good out of Swine Week by reading the paper. It is much better to be on the ground.

Madison will be crowded Swine Week, and there will probably be a larger number of live stock breeders in the city than ever in the history of Farmers' Week programs. The city has a large number of good hotels and all who come will be cared for.

Our readers will not forget the two big hog sales at Madison, Wednesday, February 7th. There will be offered a choice collection of Duroc Jersey and Poland sows, under the auspices of the Wisconsin Duroc Jersey Breeders' Association and the Wisconsin Poland China Breeders' Association, respectively. It will pay to take a trip to the stock pavilion Wednesday afternoon and evening, February 7th, and look over these offerings.

Special features of Farmers' Week include a practical gas engine and farm [illegible] by N. A. Negley, home[illegible]g programs directed by Miss A. L. Marlatt; high school judging contests, directed by T. L. Bewick; country life conferences, directed by C. J. Galpin; fruit school, directed by J. G. Moore, and special work on soils problems, directed by university experiment workers. The Wisconsin Experiment Association and the Wisconsin Alfalfa Order will hold their annual grain show and discussion of best methods for growing pedigreed grains. The grain show will be the largest exhibit of pure-bred grains ever gathered in Wisconsin.

Inoculating Soils For Alfalfa.

It is uphill work to undertake to grow alfalfa on soils that are lacking in certain forms of low organic life. In the absence of these germs or microbes, or whatever they may be called, alfalfa will take on a pale, sickly look and it will not grow vigorously. The crop will make poor headway against weed encroachment and when it is cut for hay the product will in all probability be made up largely of weeds, even though there is a fair stand of alfalfa. The character of the growth can usually be entirely changed if the soil is sweet by the introduction of the kind of infection needed by alfalfa roots. This matter is referred to in the last quarterly report of the Kansas State Board of Agriculture by Prof. H. F. Roberts. He points out that any kind of land that will grow a luxuriant crop of sweet clover, showing tubercles on its roots, is then already properly inoculated for alfalfa. In the case of soil that needs inoculation, two methods are possible—the soil method and the pure-culture method.

The soil method has been found by most of the experiment stations to be the more certain and satisfactory. By this method not less than 400 to 500 pounds of soil per acre is recommended. This may be broadcasted, or sifted, and applied with a fertilizer drill. If the inoculated soil has to be brought from a long distance, then 200 to 300 pounds may be used, mixed with a large quantity of the soil from the field to be inoculated, and applied as before stated. The inoculated soil should be kept in a cool, shady place until ready for use. If the inoculated soil is broadcasted, it is best to put it on in the late afternoon of a cloudy day, since the sun's rays soon kill the bacteria. Immediately after broadcasting the soil should be well harrowed.

Another method, recommended by the California Experiment Station, is to take soil from an alfalfa or sweet clover field in which the roots show an abundance of nodules. To this volume of soil two or three times its volume of water is added. The mixture is then stirred vigorously several times a day for two days and the soil is then allowed to settle. The alfalfa seed to be inoculated is then dipped into the water, which is now more or less filled with the nodule-forming bacteria. The seed is then dried in the shade sufficiently to enable it to run through the drill easily, and it is then planted. If preferred, the inoculated soil may be puddled, the seed mixed with it and the whole mixed with dry soil and planted.

The only objection to the use of the soil method of inoculation is the risk of bringing in weed seeds.

The pure-culture method of inoculation consists in the use of a liquid culture of the root-tubercle germs. This may be obtained free, in small quantities for experiment, from the United States Department of Agriculture.

Big Demand For Short-horn Cattle.

Complying very kindly with a request from The Wisconsin Farmer, Mr. John L. Tormey, secretary of the Wisconsin Short-horn Breeders' Association, has written us the following concerning the Short-horn cattle situation at this time in the state:

Our association has not done anything remarkable during the past year. In fact our breeders have all they can do to take care of the active demand for Short-horn breeding cattle. There [illegible] what might be called a dearth of [illegible]ort-horn breeding bulls, and a Short[illegible]n cow for sale is practically an un[illegible]wn quantity. There has been a [illegible]d call, not only for Short-horns of the beef type, but an extremely active demand for Short-horns of milking strain. The demand for the utility Short-horns has been active, not only in Wisconsin, but has been widespread throughout the United States. An instance of widespread interest and recognition of Wisconsin as a breeding state might be shown from the fact that calls have come to this state from the Pacific coast for good milking Short-horn cows. These orders, however, could not be filled. Local demand for these cattle has been too strong and breeders could not part with their good animals.

During the past year, Wisconsin has sent some excellent Short-horns to the Argentine trade, and this state furnished breeding cattle to practically every part of the Union, and we had in the state of Wisconsin during 1916 the highest-priced Short-horn calf sale ever recorded in the United States. We now have in the state of Wisconsin four county breeders' associations; three of which were formed the past year. This shows active community interest, which is one of the real tests of the popularity of any breed.

The producer of commercial material is the hope for the future of any breed of live stock. The prices which breeders are now receiving for breeding cattle are remunerative and are due in no small part to the high prices r[illegible]ived for provisions, foodstuffs and other materials of commerce. We expect that these high prices will obtain even after the European war closes. We naturally look for some readjustment of values, but do not feel that the readjust[illegible]ent will take the nature of a slump. It will take some years before complete repletion of the European breeding herds can come to pass, and in this country high prices have caused people to sell short of breeding stock so that there is every indication that good prices will prevail for some time, even after the war.

Short-horn breeders of the state, we believe, are better satisfied with their position now than at any time since the introduction of the breed into Wisconsin territory. Short-horn breeders are still talking about the wonderful Short-horn show at the International in December and believe they will profit by this showing. Mr. Tormey has stated the situation very aptly and his remarks are the more pertinent because he has close association with the best breeders of the state and is in a position to know whereof he speaks.

PRESIDENT WILSON AT A HOG SHOW.

The president thought his time well spent in attending the National Swine Show. Can't Wisconsin farmers afford to attend the Swine Week show and exhibition at Madison, February 5th to 10th?

The Tractor in Spring Work.

It is not difficult to find individuals who look with distrust and disfavor on the farm tractor for no other reason than that this form of power encroaches on the domain of the draft horse. Fear is created in the hearts of horse breeders that their industry will be menaced, and to thwart this outcome the tractor must of necessity be opposed. The whole trouble is due to the fact that the problem is not viewed in the light of the general welfare of society, including producers and consumers alike. It will be found in the end that the tractor supplements rather than displaces horse power, and as thousands have already been put into operation in the corn belt, enough data has been accumulated to prove beyond doubt that there is a place for them.

Even the smaller types of tractors will plow anywhere from six to ten acres of stalk or stubble ground in a day and disk anywhere from thirty to forty acres. One instance was called to our attention last year where an 8-16 tractor was harrowing eighty acres of plowed land in a single day. In this case one man was doing as much work with the tractor as could be done by two men with two five-horse outfits. While performing this enormous amount of labor the daily expense for fuel and lubricating oil was no greater than the cost of horse feed required in performing the same amount of labor. On the other hand, when this tractor stopped the expense was at an end, whereas even a maintenance ration of the work horse is no inconsiderable item.

There is no gainsaying the fact that there is a clearly defined advantage in performing certain kinds of farm labor in a hurry. Of necessity our seasons for preparing land for crops are short, and our best crops are raised by those who are equipped with good machinery and good power to handle it, so that the seed bed can be prepared not only quickly, but when it is in good condition. The tractor meets this situation ideally, and while those who oppose its introduction are free to point out the tractor's helplessness in wet weather, they must not lose sight of the fact that most of our soils ought to be let alone when they are soaking wet, because tillage at such a time leaves the soil in a physically unfit condition for crop production. In most cases following heavy rains one can afford to wait until the soil has become fairly well dried out, and tractor owners are well fortified against emergencies of this kind. Every corn grower knows that crop production would be enhanced if, for example, stalk ground on a given farm could all be plowed in a week or ten days, and so much the better if the work could be done early in the season. Weeds would grow and, in turn, be destroyed before corn planting, so that the labor of tending the corn is lessened and in the end the yield is increased.

Those who are debating whether they can use a tractor to advantage or not can well afford to consider the extent to which the tractor reduces the labor of choring. We stated before that when the tractor stops, the expense is at an end, and so is the labor, whereas the attention required by a five or six-horse team means at least two hours a day of one man's time. But cutting out this superfluous labor, time is made available for productive tasks; that is, tasks that earn something, such as those involved in the feeding of live stock, the care of poultry, or to some phase of dairying.

The Real Dual-Purpose Animal.

An interesting communication has recently appeared in a Canadian publication, the Farmer's Advocate, dealing with the question of dual-purpose animals, from which communication we beg leave to quote at this time:

A few years ago, when certain breeders of Short-horn cattle commenced to lay emphasis on milk production in the breed, breeders of the specialized dairy breeds smiled awhile and then emphatically proclaimed that there could be no such thing as a dual-purpose cow. Thinking breeders of Short-horns recognized that it was a difficult task to breed up and establish the dual-purpose type, which if it means anything, should stand for meat and milk, both in fair amount and neither to excess. In Great Britain considerable success has been attained. In Canada and America may be found at the present time a considerable number of cows carrying fairly good Short-horn type and a reasonable amount of mellow fleshing, which at the same time produced in a single lactation period anywhere from 7,000 to 10,000 pounds of milk. Some go much higher, but the majority of these latter are bordering on the specialized dairy cow type, and we have always held that the breeder of dual-purpose cattle was getting on dangerous ground when he shoved milk production beyond 10,000 pounds, and he is much safer to average around 7,000 pounds. Our contentions are borne out by the appearance of the calves from many of these heavy producers.

But this is not what we started out to discuss. Previous to the time Short-horn men began to boost milk in their breed, a little or nothing was heard of the milking qualities of the Hereford, the Aberdeen Angus, or the Scotch Short-horn, and no one took very seriously the man who boasted about the beef qualities of the Holstein, the Jersey, the Guernsey, or the Ayrshire, although the last-named breed, being a hardy, rustling sort, produced some fairly good, light-weight steers. Everything is changed now. There are Holstein men who call their breed the real dual-purpose breed; there are Ayrshire men who see dual-purpose characteristics in their breed; and no doubt some Guernsey and Jersey breeders could be found to praise their respective breeds for their dual-purpose value. We have heard Hereford men talk about their cows being good milkers and Aberdeen Angus breeders do likewise. There seems to be no good reason why breeders of the specialized dairy breeds which have been brought to the present high standard of perfection should attempt to lead themselves or others to believe that their breeds are dual-purpose cattle.

It would be a mistake to make, or attempt to make, dual-purpose animals out of Holstein herds which will average upwards of 15,000 pounds of milk per animal per year. The same is true to a certain extent of Ayrshire cattle. The Jersey, small, economical and efficient, is essentially a butter cow. The Hereford is a great grazer, a good feeder, a maker of big gains, and essentially a beef animal. True, breeders may require their cows to give a fair amount of milk, but they should not emphasize the dual-purpose nature of the breed. The Aberdeen Angus, winner of the strongest competition in the big tests, like Smithfield and Chicago International, is essentially and must remain a butcher's beast. The Scotch Short-horn, a successful competitor on many occasions in the beef ring, must not be ruined by a dangerous infusion of strictly dairy-bred Short-horn blood. There is a dual-purpose Short-horn; there is also a danger of there being a dairy-bred Short-horn, which has no place in view of the excellence of present-day specialized dairy breeds. Why run the risk of spoiling other breeds which are essentially milk breeds or beef breeds?

It is unquestionably true that the policy of pushing too far the characteristic of milk production in these so-called dual-purpose breeds can only end in the establishment of another breed of dairy cattle. Whether the limit in milk production should be 7,000 or 10,000 pounds a year depends upon the extent to which the breeder proposes to carry his program of specialization. Our best breeders of all the beef breeds are retaining in their herds the cows with well-developed udders and it will not be surprising if in the future our best herds of Short-horns, Herefords and Angus are entitled to the "dual-purpose" designation. We would be glad, indeed, to have the comments of some of our readers on the practicability of giving attention to milk production in pure-bred beef herds. How important is this matter, anyway?

The Farmers' Open Forum
WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

[Editor's Note.—Several of our readers have written us their experience in growing potatoes. This is a most important subject especially in the counties where potatoes are grown for commercial purposes. The standard of commercial stock is the table standard—that is, what the housewife likes best to cook is really the best potato—hence the methods used in potato growing sections are applicable to farms everywhere in the state. The next Wisconsin State Potato Growers' Convention, we are advised, is to be held in Madison, and we hope to see this convention arouse our southern and central Wisconsin farmers to the point of better potato culture.]

Fifteen Years of Potato Growing.

To the Editor:—I will try to give you some of my experiences in raising potatoes here in Langlade county, Wisconsin. In the first place, I am very careful in selecting seed. I always cut the potato seed if possible so that I get one or two eyes to a piece for the Rural New Yorkers and three or four for the Triumphs. These are the only two varieties that I grow. I have raised stock from which I started. Some people say that the seed will run out in three or four years, but those are the people who take their seed stock out of the bin in the spring after the choice tubers have been used for table stock all winter. I always dip my potatoes in formaldehyde before planting. The Rurals I plant about twelve inches apart in the rows and the rows about three feet and six inches apart. The Triumphs I plant a little closer, about ten inches apart in rows three feet apart. The first ten years I cleaned up a piece of new land each year to plant the potatoes in, but the last five years I have turned over clover sod in the fall of the year and in the spring I disk and drag it good to get a good seed bed. I use a cultivator until the vines are about six or eight inches in height. Then I run the shovel plow through to hill them up a little, not too much, as I like the hills flat on top. Then we keep busy with the hoe to keep the weeds down. I spray with Pyros and find that it answers the purpose very well. At digging time we dig with the fork so as to have ample opportunity to select the seed for next year's planting as we go along. When we find a hill with five or six nice potatoes all about the same size, we set them all aside for seed. If possible we prefer to get all the seed in this manner. But if we cannot get enough of the hill-selected seed we pick the best of the tubers as they come. My potatoes get better every year under this system. At the Antigo show this year I took first on Triumphs and second on Rural New Yorkers and at the state show at Eau Claire, second on Triumphs and seventh on Rurals. J. W. Smith.
Langlade Co., Wisconsin.

From Barron County.

To the Editor:—I have raised fifty to seventy-five acres of spuds each year beginning in 1911. Last season, however, I did not have the land in shape to raise more than fifteen acres. So I got mostly certified seed. I planted these on new breaking and had a good crop for the year, as in this county the crop was generally short. I kept these potatoes very clean and kept the bugs down the best I could, though it was a bad year for bugs. I did not use anything for blight or scab and still my crop was about as clean as I have ever raised. As I have not used the remedies suggested for these things it is hard for me to tell you what I think of their value. J. S. Crisler.
Barron Co., Wisconsin.

Used Truck Garden Fertilizer.

To the Editor:—The year recently closed was our first experience in raising certified potatoes. We planted these on new land and the planting was very late, June 27th and 28th. We used land plaster with arsenate of lead for killing bugs. We found it necessary to use this only once. As our potatoes were planted so late we did not expect much of a crop. The 1st of September our potatoes were not much larger than beans, but from that time on they did fine and we dug about 100 bushels to the acre about October 15th. We used about 800 pounds of truck and vegetable fertilizer to the acre. Everything considered we were certainly well pleased with the yield and expect to put in a larger acreage next season.
Oconto Co., Wis. J. N. Bassett.

A Young Woman's Experience.

To the Editor:—This was my first year in potato growing. I got my seed from the county agent, Mr. Griffith Richards, but we have also two other kinds of seeds from La Crosse, one kind being a Burbank, a white potato, and the other an Early Ohio, a red potato. The Early Ohios did not do well for us, but the Burbanks were just fine. I selected for seed only the middle-sized ones with the most eyes. I cut them so as to have two or three eyes on each piece. I used a common table knife for the cutting. I planted them in furrows about a foot apart. When they were about four to six inches in height I cultivated them for the first time. After they were about ten or twelve inches in height I cultivated them again and about two or three weeks later did it again. Then in a week or so I took the potato hiller and hilled them. After that I left them alone. I did not have many bugs, so I did not have to worry about what to use for them. Some of our neighbors use Paris green. I dug all my potatoes with a garden hoe, brushed them off after selecting the middle-sized ones, and prepared to market them. When the potatoes are selected for seed they should be selected in the field and the middle-sized ones are, as a rule, the best ones. Potatoes should not be washed off before they are put in a cellar or warehouse, as that is liable to cause spots on them. They should only be brushed off. I believe that white potatoes like the sandy soil the best. They should be planted about the middle of May. We have not lived on the farm very long.
Price Co., Wis. Anna Schiessl.

Has Escaped Potato Diseases.

To the Editor:—In reply to your letter of January 3d will say that I don't use treatment of any kind on my potatoes. I select good, sound seed (White Mammoth or Green Mountain); I think that is very important and I plow up clover sod and prepare same in May and plant as soon as ground gets warm enough. I don't use treatment on the vines, only Paris green and water for bugs. I never had any potato disease that I know of.
Sawyer Co., Wis. Oluf Cook.

There were 2,700,000 hogs averaging about 200 pounds each slaughtered in Wisconsin in 1915. Dressing about 70 per cent this means 324,000,000 pounds of pork ready for consumers.

No Other Six Resembles Hudson Super-Six

Don't Be Misled—It Is a Hudson Invention

Sixes have come into renewed popularity since the Super-Six won the top place. But the Super-Six invention—controlled by our patents—added 80 per cent to the six-type efficiency. And that 80 per cent is what gave it supremacy, when the V-types threatened to displace the Six.

Late in 1915, remember, the Six was a waning type. Even the Light Six, which Hudson gave first rank, had revealed some vital engineering limitations.

It had not solved the problem of motor vibration. It had not minimized friction and wear. Its endurance had proved disappointing.

Sixes at that time held hardly a single record. They were mostly held by Fours.

And leading engineers, including the Hudson, were seeking a remedy in Eights and Twelves. At that time the Six, for high-grade cars, seemed verging on displacement.

What Saved the Day

It was the Super-Six invention, remember, which then saved the day for the Six.

Hudson engineers discovered the shortcoming. By a basic invention they corrected the fault. They ended nearly all the vibration. They doubled the motor's endurance. Thus they created a motor which has since won all the worth-while records.

But that doesn't mean that the old-type Six is any better than it was.

'Twas the Super-Six That Won

The Super-Six, in a hundred tests, has out-performed all other motor types. It has not merely broken records. It has made new records which, a year ago, no man considered possible.

It broke the 24-hour endurance record by 52 per cent. It broke the transcontinental record twice in one round trip. A Super-Six touring car went from San Francisco to New York and back in 10 days and 21 hours.

It beat twenty famous rivals up Pike's Peak. It broke all stock-car speed records, and all for quick acceleration.

Then, after 7,000 record-breaking miles, it showed itself in new condition. Not a part or bearing showed evidence of wear.

No other motor ever built has shown anywhere near such endurance.

All By Saving Waste

The Super-Six develops no more power than other like-size motors. It simply delivers more. It almost eliminates motor friction and wear by ending nearly all the vibration.

That vibration, which wasted power, was the great fault of the Six. It is that which led to the Eight and Twelve as a possible solution. Any motor in which that fault remains can't compare with the Super-Six.

A New Gasoline Saver

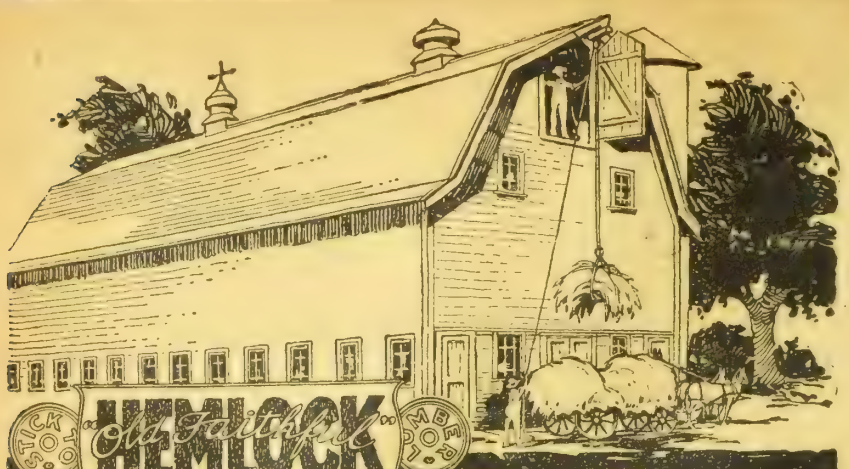
The Hudson Super-Six, in endurance and performance, stands foremost in the world. The new style bodies which we have created make the car look its supremacy. A new exclusive feature—a gasoline saver—gives it this year another advantage.

It now outsells any other front-rank car. It has 25,000 enthusiastic owners, who know that no rival can match them.

You can prove in one hour, at any Hudson showroom, that this car deserves its place. And that no other car, at any price, can be classed with it. Do that before the spring demand overwhelms us.

Phaeton, 7-passenger,	$1650	Touring Sedan	$2175	Town Car	$2925
Roadster, 2-passenger,	1650	Limousine	2925	Town Car Landaulet	3025
Cabriolet, 3-passenger,	1950	*(All prices f. o. b. Detroit)*		Limousine Landaulet	3025

HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN



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We are mighty glad to ... xperienced architect has ... and they are real farmer's barns—strictly up-to-date but designed for use and not according to any unpractical theory. We want to give you these

Practical Barn Plans Free

with our compliments and those of your **local lumber dealer** because we want to call your attention to the many merits of "Old Faithful" Hemlock as a general farm building lumber. It has been the farmer's standby for over 200 years. Being cut not far from you it is economical because your money goes into **lumber** not into freight charges.

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and give the name of your local lumber dealer Book No. 3 shows 4 fine, economical barns and dairy barns and contains a coupon good at your **local lumber dealer's** for any complete plan you want.

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(of Wisconsin and Northern Michigan)
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We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your ***LOCAL LUMBER DEALER***

"I'm Here to Stay!"
says the Grouchy Bull:

"I've been up against this Peerless Fence, but it's the toughest proposition I've ever rammed my bony skull into. Fence bends a little, yes, but it comes right back like a steel trap. I give it up—guess my pasture isn't such a bad place, after all."

The grouchy Bull or the inquisitive Porker are equally safe behind
PEERLESS FENCING

That stiff one-piece cross bar, fastened with the famous Peerless Tie, puts an end to roaming. The Bull can't get over and the Pig can't get under.

Peerless Fencing Lasts

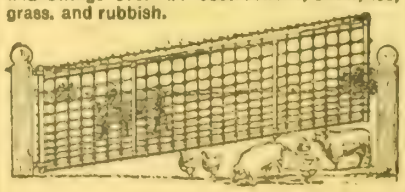
Those big open hearth steel, extra heavily galvanized wires will give you the best kind of service. It will give you more dollar for dollar, year after year, and all around satisfaction than any fence you ever put up.

And a good fence deserves a good gate. Peerless Gates are designed to match the Fencing. Big, heavy, high-carbon steel frames, filling of all No. 9 Wire Peerless close-woven fabric, put long life and all kinds of resistance in these gates.

Send for your copy of our big, free Fence Book showing a hundred styles of fencing and several types of gates. We can fit both your ideas and pocketbook.

The Peerless Self-Raising Gate

IS one of the best selling styles in our entire line. It is no longer necessary to lug around the old-fashioned sagging, dragging, heavy gates. The Peerless lifts automatically and swings over all obstructions, snow, ice, grass, and rubbish.



In addition to being self-raising, it is extra heavy in both frame and filling Big, massive frames of 1⅝-inch tubing and close woven all No. 9 wire, close mesh filling, insures long life.

Every part heavily electro-galvanized—no paint to wash or wear off in a year or two.

PEERLESS WIRE FENCE CO., 216 Michigan St., ADRIAN, MICH.

Cow-Testing Reports.

Good Record in Sauk County.

To the Editor:—In this, the ninth month of our testing work, there were 307 cows on our list and fifty-five of these produced forty pounds of butter fat or over. Twenty-four of these produced forty-five pounds of butter fat or over.

The best cow was a grade Holstein owned by William Von der Ohe and she produced 1,745 pounds of milk which made 69.8 pounds of fat. Her feed cost us $8.91, leaving a profit of $19.71 or a return of $3.21 for every dollar expended for feed. She was fed alfalfa, silage, ajax, flax oats and oil meal. Seven herds totaling eighty-five cows averaged over thirty pounds of butter fat per cow. William J. Hahn's herd of six grade Holsteins averaged 1,172 pounds of milk and 46.1 pounds of fat. The William Von de Ohe herd of grade Holsteins averaged 1,129 pounds of milk and 41.1 pounds of fat. The James Carroll herd averaged 1,089 pounds of milk and forty-one pounds of fat.

We believe these records indicate that there are some fine dairymen in Sauk county and men who do not believe in underfeeding cows. We rely greatly on good grade, proper feeding and system and regularity in feeding and milking. Sauk county has four associations, namely: Reedsburg, Baraboo, Prairie du Sac, and Witwen. We expect to have two more before long.

Below is a list of all cows producing forty-five pounds of butter fat or over for the month ending January 6, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Wm. Von der Ohe					
No. 3, G. H.....	5	Nov.	1745	4.0	69.8
No 10, G. H.....	4	Oct.	1581	3.5	55.3
No. 5, G. H.....	6	Oct.	1349	3.9	52.6
No 13, S. H.....	4	Nov.	1373	3.7	50.8
Wm. Hahn					
Beauty, G. H ...	5	Sept	1445	3.9	56.4
Josie. G. H.....	7	Nov.	1364	4.1	55.9
Polly, G. H.....	5	Nov	1345	3.8	51.1
James Carroll					
No. 23, G. H.....	4	Nov	1445	3.9	56.4
No 3, G. H.....	6	Oct	1407	3.8	53.5
No. 24, G. H.....	4	Oct.	1383	3.8	52.6
No. 4, G. H.....	7	Oct.	1088	4.4	47.9
No. 15, G. H.....	7	Nov.	1119	4.2	47.0
No. 25, G. H....	3	Oct.	1414	3.3	46.7
No. 22, G. H.....	4	Oct.	1197	3.8	45.5
Smith Bros.					
No. 9, G. J.....	9	Dec	946	5.8	54.9
J. J. Marshall					
Bell, G. H.....	6	Nov.	1711	3.2	54.8
F. J. Hilmer					
No. 6, G. J.....	11	Dec.	1048	5.1	53.5
Kirkpatrick Bros.					
Flossie, R. H....		Des.	1305	3.9	50.9
Jennie, R. H....	6	Dec.	*1150	4.1	47.2
Frank Groat					
Pepper, G. G.....	6	Dec.	1116	4.5	50.2
Fred Thorne					
Lucy, G J.....	9	Oct.	905	5.5	49.8
Miranda, G. J....	4	Aug.	955	5.0	47.8
John Geise					
Violet, G. H.....	6	Dec.	1364	3.4	46.4
Riley Stone					
No 8, G. H.....		Nov.	899	5.0	45.0

*Twenty-five days

Alvin W. Wardas,
Official Tester Reedsburg Association.

Holstein Has Best Record.

To the Editor:—The Medford Association has just completed its second month of work with some very fine records. There were eighteen cows which produced forty pounds of butter fat and over. A grade Holstein owned by Rudolph Baehler produced 62.37 pounds of butter fat from 1,386 pounds of 4.5 per cent milk.

The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending January 15, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
R. Baehler					
No. 7, G. H.....	6	Nov.	1386	4.5	62.37
No. 4, G. H.....	8	Nov.	1380	4.4	60.72
No. 3, G. H.....	9	Nov.	1140	4.2	46.3
Mrs. Mat Heinz & Sons					
B. B. No. 5, G. G.	5	Nov.	879	6.9	60.65
Schuster, G. G...	5	Dec.	973	5.0	48.64
G. Baehler					
No. 5, G. H.....	7	Dec.	1350	3.6	48.6
Charles Pitzke					
Julia. No. 1 R. H.		Oct.	1659	3.5	57.06
Hy Suter					
Bessie, G. H.....		Dec.	1374	4.2	57.7
Sam Suter					
Bessie, G. H.....	8	Nov.	1299	3.8	49.36

A. F. Zeddies,
Official Tester Medford Association.

Good Records in Columbus Association.

To the Editor:—A pure-bred Jersey, Sister Empress, owned by Mr Leffingwell made 521.4 pounds of fat or 651.75 pounds of butter in the year ending November 27, 1916. His grade Jersey, Jennie May, made 378.9 pounds of fat in the year ending February 1, 1917, at two years and nine months. Mr. J. E. Barstow, one of our members, cut down his gain to one pound for every three pounds of milk. His cows did just as well and he saved in feed, $100.52. Three more cows have come in, however. R. F. Roberts fed a balanced ration this month in place of bran and whole oats and increased the milk for the month 1,344 pounds, and increased profit of $20.29. A. F. Barstow had the best herd in our association, being an average of 33.4 pounds of fat and 983.4 pounds of milk.

Records of forty pounds for the month were made in the Hutchinson and Burback herds in twenty-two, twenty-seven and seventeen days respectively. The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending January 12, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Julius Heyden					
No. 29, G. H.....		10-28	1458	3.1	46.2
No. 34, G. H.....		11-18	1302	3.7	48.2
Henry Westphal					
White IV, G. H..	4	11-26	1515	3.1	47.0
J. E. Powers					
Charlotte, G. H..		10-21	1026	4.5	46.2
Henry Dolan					
Spofford, P. B. H.	3	12-2	1533	3.1	47.2
J. E. Barstow					
Pet, P. B. H.....	4	12-15	1248	3.9	48.7
Dummie, G. H...	5	10-30	1422	3.5	46.8
New Year's Greeting, P. B. H.....	12	11-12	1347	3.9	52.5
Nellie, G. H.....	9	11-14	1410	3.2	45.1
Buzzle, G. H.....	6	11-19	1275	3.9	49.7
J. E. Barstow					
White Sox, G. H.		11-16	1230	4.1	50.4
Hutchinson Bros & Burbach					
Canary Wit Bonnie Meade 4th, P.B.G.		12-6	1421	3.3	47.9
Wm. Meyers					
Cora, G. J.....	9	10-7	1038	5.0	56.9
Molly, G. J.....	9	11-10	975	6.2	60.5
Hannah G. J....	9	12-1	1074	5.5	58.9
Buttercup, G. J..	9	12-15	1191	4.4	52.5
A. F. Barstow					
De Kol, P. B. H.	6	12-5	1348	3.6	48.5
Maud 2d, P. B. H.	8	10-17	1387	3.8	52.7
Wm. Meyers					
Ruby, G. J.....	9	12-7	972	5.7	55.4

C. F. Wehrwein.
Official Tester Colur bus, Wis., Assn.

Importance of Inspecting Cream Separators.

To the Editor:—The Baraboo Cow-Testing Association finished its first six months' work December 23d, last. There were thirty-one members in the association with a total of 480 cows. There are twelve Holstein, ten Guernsey and eight Jersey herds; also one pure-bred herd of milking Short-horns. Thirty-three cows made forty pounds of fat or over last month. The highest record in the association was 71.2 pounds of fat by a grade Jersey. The best cow in the association for six-month period is a registered Guernsey, belonging to Henry Winke, of Portage, Wis. During the first six months she gave 5,754 pounds of milk, testing 4.81, making 277 pounds of fat. The value of her product was $89.99; cost of feed, $27.95, leaving a profit of $62.04. This cow was fed some grain all summer and the grain

(51)

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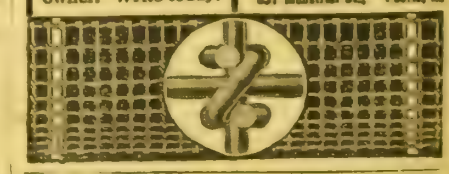

was increased as the pasture grew shorter. Every farmer in our association has his separator tested to see whether the cream is all taken out of the milk. A separator doing good work should not leave more than .03 per cent of fat. Not long ago I saw one losing 9 per cent of fat. This man was getting 594 pounds of milk daily. That milk made a loss of 5.3 pounds of fat daily. Butter fat last month was 44 cents per pound and 5.3 pounds was worth $2.33. This was his loss in one day, and so far as I know he had been running along this way for a month or more. That would have meant a loss of $69.90 for the month. The following is our list of cows producing forty-five pounds of butter fat or over for December:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Martiny & Son					
No. 16, G. J.....			1423	5.0	71.2
No. 11, G. G.....	4	11-3	1597	4.4	70.3
No. 7 R. G.....	2	11-1	1454	4.4	64.0
No. 8, R. G.....	4	10-25	1200	4.6	55.2
No. 2, G. G.....	4	11-3	884	6.1	53.9
No. 6, R. H.....	4	10-28	955	4.9	46.8
Henry Winke					
Lillie, R. G.....	8	10-25	1290	5.4	69.7
Ed Egerer					
Joanna, G. G.....		10-25	1218	5.0	60.9
Rhone, G. G.....			989	4.6	45.5
Rollo Webster					
Grace, G. H.....			915	6.0	54.9
L. R. Siebecker					
Old Maiden, Grade			906	6.0	54.4
Bessie, G. H.....			972	4.8	46.7
L. M. Wickern					
No. 22, G. G.....			1231	3.9	48.0
Genn Porter					
Maud, G. J.....	5	11-23	911	5.1	46.5
Clifford Copener					
G. Empress, R. G..	3	11-5	664	6.9	45.8
Ernest Hanger					
Mabel, G. H.....			1140	4.0	45.0

W. C. Johnson, Official Tester.

Registered Holstein Leads.

To the Editor:—The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-one-day period ending December 31, 1916:

Owner, name and breed	Age	When fresh	Pound milk	Per cent of fat	Pounds B. fat
A. G. Palmer & Sons					
Beauty, R. H.	9	11-27-16	1818	3.8	71.7
Mary, G. H...	5	11-23-16	1721	3.3	56.8
W. Gem, R. H.	3	11-22-16	1637	3.4	55.7
Breeze, R. H..	3	11-25-16	1277	4.2	53.6
Gem, R. H....	4	10-15-16	1290	4.1	52.9
Daisy, R. H...	6	12-2-16	1440	3.6	51.8
Nora, G. H....	9	10-8-16	1240	3.7	45.9
Ora R. Taylor					
Erma, R. J...	4	11-6-16	1143	6.0	68.6
Dora, R. J....	6	9-6-16	989	5.4	53.4
Dark, G. J....	5	11-13-16	1107	4.4	48.1
W. E. Palmer					
Queen, R. H..	4	11-12-16	1854	3.4	63.0
F. Breeze, R.H.	4	11-28-16	1620	3.8	61.6
Nettie, R. H..	5	11-21-16	1488	3.3	49.1
D. E. La Bar					
Big C. 40, G.H.	7	11-19-16	1618	3.3	53.4
John Matteson					
Snowball, G.H.	7	11-24-16	1457	3.3	48.1
Dallas Davis					
Mercedes, R.H.	7	10-28-16	1562	3.0	46.9
Hartog, R. H.	7	10-1-16	1395	3.3	46.0
I. W. Baker					
Lineback, G. J.	7	11-5-16	942	4.9	46.2
Chas. Topping					
Maggie, G. H..	5	11-27-16	1305	3.5	45.7
W. C. Dodge					
O. Moodie, G.H.	9	10-1-16	1138	4.0	45.5

F. W. Drake,
Official Tester Geneva Association, Walworth county.

Grade Guernsey Heads List.

To the Editor:—Forty-two cows in this association produced over forty pounds of butter fat in the month ending January 5, 1917. There were 600 cows enrolled. Silage, hay and a grain mixture of dried brewers' grains, bran and oats is the feed most commonly used. A grade Guernsey belonging to Mrs. A. N. Woodruff heads the list with 1,025 pounds of milk, testing 5.3 per cent and producing fifty-eight pounds of butter fat. The herd of B. L. Snyder had an average butter fat production of 34.8. Frank Lebeis had ten cows in his herd which completed the year's work with an average of 292.3 pounds of butter fat and an average income of $102.31. The average feed cost of these ten cows was $37.80 and the average profit $64.83.

The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending January 5, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Peter Bowe					
Susie, G. H.....	5	11-29	1263	3.8	48.0
Frank Stoik					
No. 18, G. J.....	9	9-27	780	6.0	46.8
Cherries Bros.					
Whitey, N.....	8	12-6	987	5.0	49.4
F. Douglas					
Nig, N.....	8	12-13	828	6.4	53.0
M. H. Meagher & Sons					
Judy, G. H.....	7	12-22	1101	4.1	45.1
L. P. Martiny					
No. 52, G. G.....	7	12-22	1098	5.0	54.9
No. 54, G. G.....	8	12-3	1137	4.5	51.2
Arba, P. B. G....	3	12-15	1089	4.6	50.1
Verena, P. B. G..	7	12-14	1182	4.4	52.0
Mrs. A. N. Woodruff					
Ebony, G. J.....	8	12-10	1095	5.3	58.0
Bess, G. J.....	6	12-17	882	5.3	46.7
H. V. Bartlett					
No. 28, G. J.....	6	10-31	972	5.4	52.5
Chas. Liehe Co.					
No. 15, G. H.....	6	12-17	1110	4.1	45.5
No. 20, N.....	5	12-27	978	5.5	53.8
F. B. Woodard					
No. 12, G. G.....	4	11-27	804	5.7	45.8
J. H. Kelly					
No. 9, G. H.....	5	12-4	1488	3.4	50.6
No. 37, G. H.....	4	10-5	1173	4.1	48.1
No. 22, G. H.....	2	11-27	1260	3.6	45.4

R. A. Boyd,
Official Tester Eagle Point and Bloomer Association.

H. V. Bartlett, Secretay.

In Winnebago County.

To the Editor:—I appreciate the space which you devote to cow-testing reports in your valuable paper. The members of our association are always on the look-out for these reports.

On account of shortage and poor quality of roughage our cows are not doing so well as usual.

The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending December 31, 1916:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
G. W. Searles					
Louise, G. G..		11-4-16	1125	4.6	51.8
Jennie, G. G..		11-22-16	961	4.8	46.1
Madje, G. J...		10-23-16	828	5.5	45.5
G. E. Washburn					
Nubbs, G. J...	7	10-16-16	681	6.1	47.7
Spots, G. J....	7	10-12-16	961	5.4	51.9
Lynda, P. B.J.	5	10-11-16	1023	5.0	51.2
Charley Ruelke					
Anna, G. G...	6	11-5-16	973	5.1	49.6
Dolly, G. G...	8	11-23-16	1280	5.0	64.0
T. A. Farrow					
Bess, G. G....	9	11-28-16	1004	6.2	62.2
E. E. Mackie					
Daisy, G. G...	9	10-5-16	930	5.0	46.5
Ed Jennings					
Fae, G. D.....		10-22-16	1122	4.1	46.0
Charles Brooks					
Jane, G. H....	5	11-12-16	1163	4.7	54.7
Frank Brooks					
Eve, G. D.....	6	10-24-16	1085	5.9	64.0
W. P. Bussey					
No. 7, G. D....	9	11-12-16	1349	3.8	51.3
No. 8, G. D....	9	11-11-16	1240	3.8	47.1
J. W. Thrall					
Newell's Beauty, G. J.	10	10-12-16	1029	6.0	61.7
Ruth, G. G...	9	11-26-16	1141	4.4	50.2
Boldy's Best, G. G.	4	11-23-16	912	5.3	49.9
Edna of Liberty Prairie, G. G.	3	11-26-16	853	5.4	46.1
H. R. Mosely					
Delma, P.B. G.	7	8-8-16	880	5.8	51.0
Bessie, G. G...	8	4-20-16	837	5.6	46.9
Daisy, G. G...	9	10-31-16	1054	4.8	50.6

Archibald R. House,
Official Tester Winnebago Association.
Levi Brunson, Secretary.

The trap nest is the only way of telling what each hen in your flock is doing. The trap nest is to the poultryman what the Babcock tester is to the dairyman.

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60 Days FREE Treatment

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You Can't Pass This By! **Avalon Farms Hog-Tone** is the only Veterinary Remedy ever sold with a guarantee to produce a definite percentage of profit. I guarantee it to produce 400% profit on the cost of the medicine on any hogs **no matter how healthy they appear to be,** and prove it to your own satisfaction. If it doesn't do it I don't ask you to pay a cent.

I know I am safe in making this guarantee. **I know** what Hog-Tone has done and is doing for the herds of other hog raisers. I also know that the market price of hogs is going higher every day—and is **bound** to go higher from now on. There is a **serious** hog-shortage. Especially a shortage of high-grade porkers **—hogs absolutely free from worms—big hogs with sound, clean flesh!** Worms are killing off the hogs!

"More hogs may be lost from worms this year than from hog cholera, and many cases of apparent cholera are only worms," says Dr. J. T. Dinwoodie, Veterinary Specialist of the South Dakota State College. "Nearly every hog is infested with worms," declares the U. S. Dept. of Agriculture. The malignant Thorn Head Worms—Stomach Worms—Liver Worms—Lung and Bronchial Worms weaken the Hogs—affect every sow's litter—make million of hogs easy victims of cholera, scours, thumps, rheumatism, enteritis, gastritis—rob surviving hogs of nourishment their food should bring, cut down their weight and quality at marketing time. Grasp this opportunity to try

AVALON FARMS HOG-TONE

The Liquid Worm Killer and Hog Conditioner
To Treat All Your Hogs for 60 Days—FREE—At My Risk!

Avalon Farms Hog-Tone Costs Very Little

I will ship you one $1.00 bottle of Hog-Tone for each eight hogs in your herd—the day the coupon below, filled in, reaches this office. That will be sufficient to treat your hogs 60 days or more, according to size. This will mean just 12½ cents per hog for all the treatment—and that treatment is guaranteed by me to give you a 400 per cent profit over and above the cost of the Hog-Tone treatment, at marketing time. This is the same opportunity that these men grasped—and made money by doing so.

M. S. McFadden, Poland China Editor of Swine World (who feeds about 1000 hogs annually near Flossmoor, Illinois) advises: "I received Hog-Tone and gave it a test on five pigs. Our farm manager says that it is the best worm-expeller he ever used. **The pigs fed on Hog-Tone have made 25 per cent larger gains than those not fed on Hog-Tone."**

John Heinman, R. F. D. No. 5, Decatur, Ind., states: "I fed the Hog-Tone to a lot of hogs that had the scours. **Some of my pigs had their backs turned up like a rainbow.** In less than two weeks I could not get to the trough to feed them. I do not know exactly what the gain on this lot of hogs was, but I could see a great change in them."

Avalon Farms Hog-Tone is a highly concentrated liquid medicine FOR HOGS ONLY. It contains highly important medical ingredients which are liquids and which cannot be combined in Medicated Salts, Stock Foods or Condition Powders of any kind.

Avalon Farms Hog-Tone is safe. It is very easy to treat your hogs with Avalon Farms Hog-Tone. IT IS EASILY MIXED WITH ANY KIND OF SLOPS, WITH THE DRINKING WATER OR DAMPENED FEED. It is only given every third day for the first six weeks and after that only once a week. 100 per cent strong.

Thoroughly proved on Avalon Farms, near Fort Wayne, Indiana. Cleans out every kind of worms that infest hogs. By doing so, it gives **protection** to your hogs from easily contracting Cholera, Rheumatism, Scours, Thumps, caused by worms and indigestion. Enteritis, Indigestion and other diseases that destroy literally millions of hogs. A simply **wonderful** tonic and conditioner—gives hogs voracious appetites, aids digestion, helps them thrive, grow and put on fast increases of flesh. Makes hogs eager for their feed.

Avalon Farms Hog-Tone is the best known tonic for sows during gestation. Its use insures strong healthy pigs. It is the **reliable** worm expeller which is safe to use at this time.

Don't Send a Penny! Just Mail Me FREE Coupon

Simply tell me how many head of hogs you have—write down your name and address—and mail to me. I will immediately ship you enough **Avalon Farms Hog-Tone** to treat your hogs for 60 days! You simply pay transportation charges. Treat your hogs according to directions. If at the end of the treatment you are not **completely** satisfied—simply return the labels to me and you don't owe me a cent.

Grasp This Opportunity—Mail the Coupon to Me Today!

AVALON FARMS COMPANY, W. O. GANDY President 612 Rand McNally Bldg., Chicago

SEND NO MONEY—TAKE NO RISK

W. O. Gandy, President, Avalon Farms Co., 612 Rand McNally Bldg., Chicago, Ill.

There _____ hogs. Ship me immediately enough AVALON FARMS HOG-TONE to treat them for 60 days. I am to pay nothing now except transportation charges. I agree to report results to you at end of 60 days and pay for the Hog-Tone at that time if it has done all that you claim. If it does not, I will return the labels to you and you agree to cancel the charge.

Name _____

P. O. _____

R. R. No. _____ State _____

Ship to _____

Name and address of my dealer _____

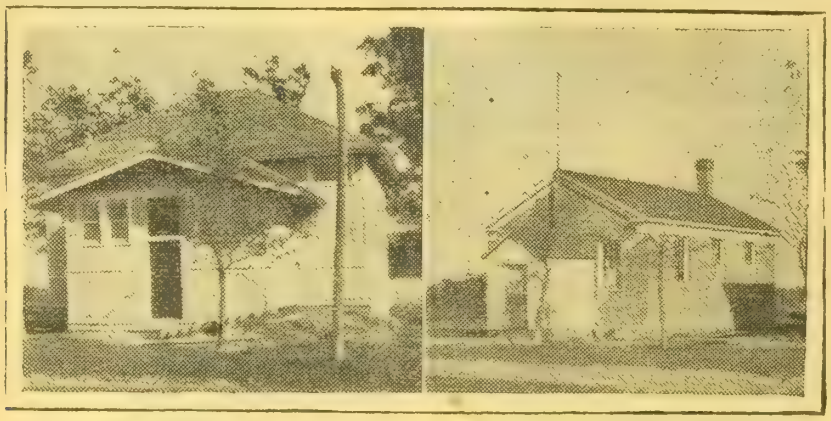
School Consolidation Pro and Con

What Some of Our State Educators and Farmers Say About This Topic Which Has Assumed Considerable Importance

A SUBSCRIBER from Price county asks us for information regarding consolidated schools. This is rather a big subject, but one which is getting more attention in the state each year, and the arguments for and against the consolidated district are being threshed out as usual this winter. There is a growing tendency to improve the school properties of the state and some patrons feel that several districts joined together can afford a better schoolhouse and better facilities than each could have in separate districts.

OLD AND NEW SCHOOLHOUSES IN DISTRICT NO. 6, BROWN COUNTY, WISCONSIN.

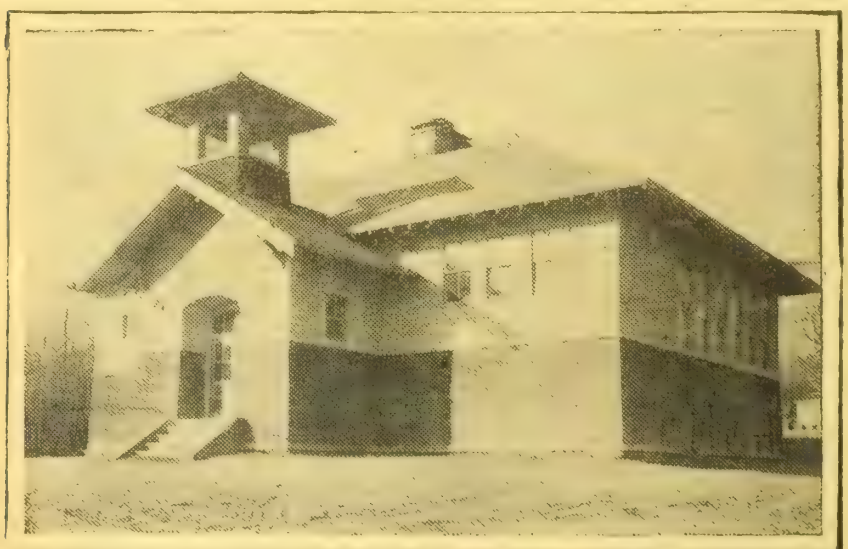
The state of Wisconsin, through the department of public instruction, is putting a premium on the consolidated school by offering state aid. W. E. Larsen and A. A. Thomson, of Madison, Wisconsin, care state capitol, are in charge of rural school work, and a letter addressed to either of them or direct to Mr. C. P. Cary, state superintendent of schools, will receive prompt reply with copies of our laws telling how to consolidate and the propositions which are made on state aid. In the past two years there have been more than 300 meetings in the state to discuss the subject of consolidation and fifty-six counties out of seventy-two had some sort of school transportation in the year 1915. This has been increased and there is still more interest. It must be admitted, however, that there is opposition in many quarters to consolidation. Mr. A. A. Thomson, above referred to as a rural school supervisor, has summed up the arguments for and against consolidation of school districts in a very comprehensive manner and we are indebted to him for much of the information pro and con contained in this article.



OLD AND NEW SCHOOLHOUSES IN SHARON CORNERS DISTRICT, WALWORTH COUNTY, WISCONSIN.

It is argued in favor of consolidation that the cost of instruction is less in a larger district. More pupils may be taught by one teacher. One building may be maintained cheaper than four or five or even three. The salary of several se s of school officers is cut off. By clubbing together several districts united can afford better equipment. One library of books will do for a large school as well as a small one and by combining district funds the libraries may be made of much greater service. Another claim is set up that cost of wear and tear on children's clothes is less where they are transported back and forth to school. This item would probably be so small that it need not be considered as a factor in so important a matter as consolidating school districts.

The second big point argued by the consolidation is that better teachers can be secured. Better teachers prefer larger schools with associate teachers, close to better churches and where in all probability they can get better board and enjoy better social conditions. It is argued that the subjects taught in a larger school are more to the teacher's liking, there are better sanitary arrangements, a janitor does the cleaning and building fires, and the state and pupils rank a teacher higher if she teaches in a graded school. Hence it is claimed that she will like the consolidated school better and will remain longer at one school. It is further argued that the consolidated school offers more competition and interest in common school subjects, games, sports and home project work. Each teacher has more time to devote to classes. She has longer recitations on interesting subjects and few changes of classes. Teachers especially prepared for certain lines of work will be secured for the graded school. There will be enough children to grade them in departments. Classes may be formed in subjects which could not be taken up by one teacher in a one-room school. Better classification and graduation is possible.



GARDNER CONSOLIDATED DISTRICT SCHOOL, DOOR COUNTY, WIS. FINE TYPE OF NEW CONSOLIDATED SCHOOL DISTRICT BUILDINGS IN THIS STATE.

A strong argument for consolidation is that it offers social life which will not be had in the smaller school. There will likely be more pride in the school, it will be the center of social life, of club and contest work, will become a greater object of interest on the part of the parents and the young people just out of school and will have a generally higher appreciation because of its size, and better teachers. Then another argument is that land values will be increased because the neighborhood has a better school, because it may have a high school developing from the graded school and because of the improved social conditions. That the physician as well as the social life of the pupils is safeguarded is the final claim. Pupils are transported in warm, dry conveyances, are taken directly home after school, are at home nights with parents while attending upper grades, and because of less loss in time in getting to and from school have more time for social enjoyment.

There are those who feel that arguments presented on the other side of the case are just as important and who believe that the consolidated district is not really the thing after all. They say in the first place that the teachers in the consolidated school will require more pay. Janitor service will be an added cost, because the "better teachers" will not want to do this class of work in the fine, new

(Concluded on page 29.)

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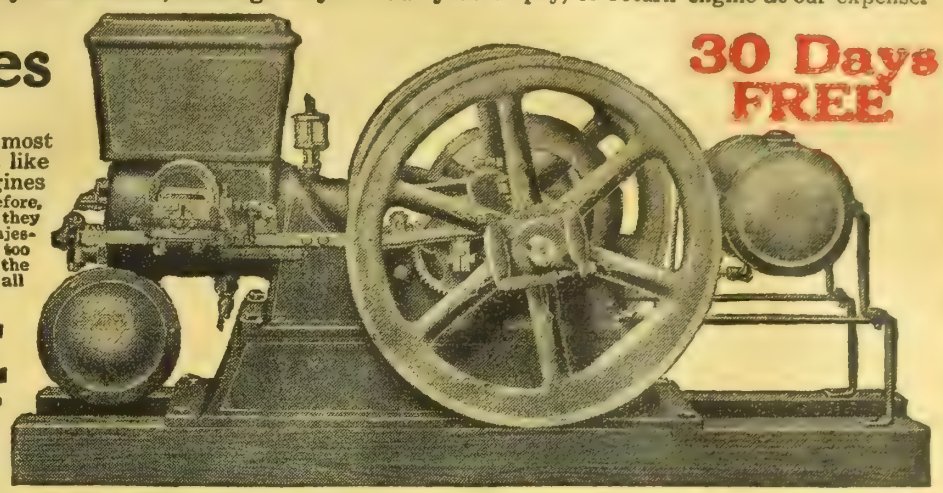

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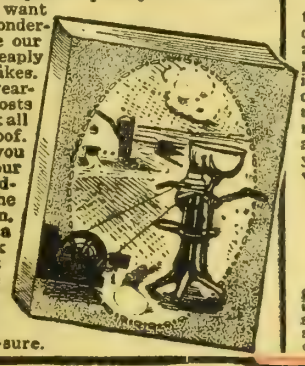

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FARM POULTRY FOR PROFIT.

How a Farmer's Wife Has Increased Her Income From Poultry Through Systematic and Intelligent Methods of Feeding and Breeding.

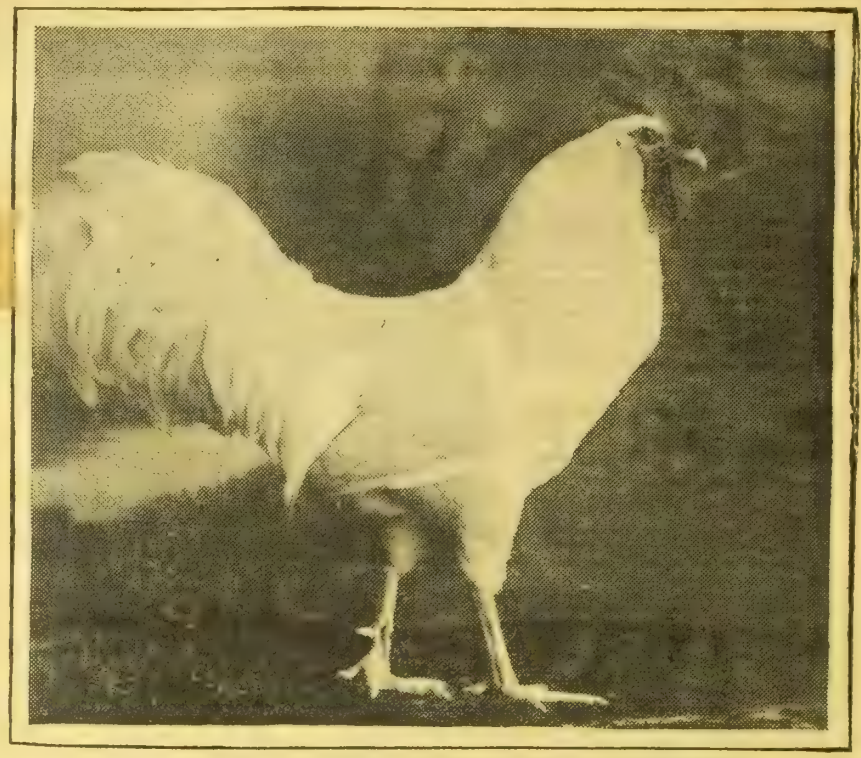
MISSOURI farmers annually produce and market more eggs than those of any other state. At least such was the case six years ago, according to the federal census report. For a number of years unusual interest has been displayed by Missourians in poultry culture along scientific lines and the chances are that Missouri as a state still leads in this important branch of farming. Until recently poultry raising on the farm has been carried on in a very slipshod manner, and it still is in the great majority of cases; on the other hand, a great many people have come to realize that intelligent [illegible] business on [illegible] is produced by women and that is one reason why such rapid strides in better methods of production are being made, for as a class women are less conservative about adopting new methods than men. Then, too, no great amount of capital is required to raise a flock of high-producing birds, while at the same time such a flock can be built up in a remarkably short time. With cattle the process is a slow one unless one has unlimited means, and that is one of the reasons why so many farmers fail to make as rapid progress in cattle improvement as do their wives in the improvement of poultry.

In these days of high-priced poultry and eggs it is but natural that there should be an unusually strong demand for improved poultry and a desire on the part of thousands upon thousands of farm women to raise the standard of their flocks for producing purposes. However, in spite of the fact that this is a comparatively simple thing to do, a great many women are in doubt as to how to proceed and at the same time a little fearful about the outcome. In view of this we believe that we can do our readers no greater service than to call their attention to the achievements of one woman in building up a highly profitable flock under farm conditions during the past four years.

Seven years ago F. W. Spicer moved from one of the eastern states to Marshall, Saline county, Missouri, where he purchased a quarter-section farm of good qaulity, but with very few improvements. Mrs. Spicer had lived in town for six or eight years and had never raised poultry, except as she had helped her mother on the farm during her girlhood days. In other words, she didn't know much about chickens or any other kind of poultry. However, she was ambitious to raise chickens, so her mother gave her forty White Wyandotte hens and five cockerels. Since possession could not be obtained of the farm purchased the first year, a place was rented, and Mrs. Spicer's chicken quarters were exceedingly poor that year. However, she managed to raise 350 chicks the first summer.

The following year when the Spicers moved onto their own farm, on which there were no chicken quarters, Mrs. Spicer thought she would try Rhode Island Reds and bought several settings of eggs. The year after that some Brown Leghorn eggs were purchased, this under the impression that Leghorns would produce more eggs because of being a special-purpose breed.

We are not mentioning this start as an ideal one, but rather to call attention to the fact that Mrs. Spicer had practically no knowledge of chickens when she began in the poultry business, and, therefore, did not know what breed she wanted to raise. During those three years of getting acquainted with hens and breeds she did a good deal of reading and studying. A number of books on poultry were read and digested; bulletins on various phases of poultry culture were received from the Missouri Experiment Station at Columbia and from the Missouri State Poultry Experiment Station at Mountain Grove. From these publications she learned how a poultry house should be built, how a hen should be fed, what was meant by a balanced ration for egg production, and why it was necessary to supply the hen with food of a certain composition in order to get the largest number of eggs from her that she was capable of laying.



ONE OF MRS. SPICER'S PRIZE-WINNING COCKERELS.

The knowledge which Mrs. Spicer acquired from books and bulletins during the first three years of what might be called "experimenting with poultry" is the basis of her success today. She began, not on the assumption that she knew all about how to raise chickens, nor with the idea that there was nothing to learn about the business that would require study on her part, but rather with a conviction that the men at the experiment station, who had spent years in studying poultry culture, could tell her many things about the business and thus be of incalculable assistance to her. She didn't assume that the feeding of a balanced ration was theoretical, impractical nonsense, or that it was something to be read about, but not to be put into practice. On the other hand, she started to feed according to the formulas the experiment stations recommended and with the utmost confidence in the results that would follow, and she wasn't disappointed. Feeding according to definite rules in regard to feed mixtures materially increased the average number of eggs from her hens; in fact, the closer she followed directions, not only with respect to feeding but also in regard to housing, sanitation, culling out of inferior birds, etc., the larger her egg checks became.

A 20x80-FOOT HOUSE WITH ROOM FOR 400 HENS—FOUR COMPARTMENTS.

This preliminary work resulted in Mrs. Spicer gradually disposing of all her colored chickens and early in 1912 buying 100 S. C. White Leghorn eggs, which became the foundation for her present flock. This change was made because she had come to the conclusion that White Leghorn hens laid standard weight eggs, the color of eggs she liked best, and which command the highest market price—2 cents more per dozen than brown eggs on western markets. And by getting into the largest strain of this breed she would get large eggs that in her opinion would always find a ready market at a premium. She liked chalk white eggs and white birds and why not raise the kind she liked best so long as she was going to give them the very best possible care and attention that she knew how to give? Why not, also, buy eggs from the very best stock of the variety she had chosen? It made comparatively little difference whether she paid $10 or $40 for the first 100 eggs from which she was to lay the foundation of her flock so long as she got her money's worth, and this she had no doubt about getting by buying from a well-known breeder who had been recommended to her by someone who knew all about the man.

A TYPICAL 20x40 HOUSE WITH TWO COMPARTMENTS AND ROOM FOR HOUSING 200 HENS COMFORTABLY.

If you were to visit Mrs. Spicer's flock of pullets and hens, of which she now has 750 head, as we did a short time ago, you would agree with her that it pays to start with the best foundation stock obtainable and then keep it up to standard by introducing superior males. Mrs. Spicer has laid down two rules for her own guidance as a poultry raiser which are never changed or violated. They are: First, always feed liberally of the right kind of feed, regardless of price; second, always buy the best obtainable males with which to mate the breeding hens and never let price interfere with carrying out that plan. Given first-class stock to start with, it can readily be seen that by following these two rules to the letter her flock is bound to be a good one and that it must improve from year to year. This is exactly what has happened. Her birds are uniform in size, shape and quality and each year's pullets are a little better egg layers than the old hens they replace, because they are bred to lay large, uniform, chalk white eggs.

To show what her 450 hens did in the way of egg-laying from January 1, 1916, to September 30, 1916, Mrs. Spicer kindly gave us the following record from her ledger showing the number of eggs laid per month: January, 2,583; February, 5,589; March, 8,880; April, 10,687; May, 9,504; June, 7,260; July, 4,572; August, 4,022; September, 3,336. Total, 56,433 or 125 eggs per hen. This is 10.43 dozens per hen for nine months.

While Mrs. Spicer's chickens have come from bred-to-lay stock of the highest order one must not overlook the fact that feeding is just as essential to egg-laying as breeding. No matter how well bred a hen may be, unless she is properly fed and cared for she will not lay up to her capacity. For this reason we wish to speak of Mrs. Spicer's method of feeding, which, as has been stated before, however, is not original with her, but is based upon the recommendations of the Missouri Experiment Station. Roughly speaking, the plan is to feed one-third of the grain ration in the form of a dry mash and the remainder as whole or cracked grain—scratch feed. During the winter season the dry mash consists of the following mixture: 100 pounds wheat bran, 100 pounds shorts, 100 pounds finely ground corn, 50 pounds meat scraps and 3.5 pounds of salt and charcoal. The scratch grain is composed of one-half wheat and one-half cracked corn. The latter is fed in litter, half in the morning and half at night, just before the birds are ready to go to roost. The dry mash is fed from hoppers to which the hens have constant access. Grit, oyster shell or lime is kept before the birds at all times. A hen will consume approximately fifty pounds of scratch feed and twenty-five pounds of dry mash a year.

Mrs. Spicer invariably has excellent success in rearing chicks notwithstanding that she hatches her chicks very early in the season. This is partially due to the method of handling the hens that are used for breeding purposes. Her breeding flock this year will consist of five pens of fifteen hens each picked from second-year birds, not from the pullets. The most vigorous birds showing the best egg-laying qualities are selected and mated with strong, vigorous males. They are then given special attention with a view of maintaining them in

Are *You* Living on the Chickens?

By H. H. Johnson

H. H. Johnson
"The Incubator Man"

AN odd confession came to light the other day. One of our nearby customers came into the office and among other things said, "Do you know it just dawned on me that during the five years we lived in Texas the wife kept me and the children? She raised chickens and always seemed to have money. The children were never without good clothes, and grocery and meat bills were always paid. I cannot recall of having taken care of these things, and I really believe that her poultry kept us while I kept myself busy farming."

I wouldn't doubt this. I have received many letters from farmers who admitted that their wives made more dollars from poultry than they made dimes farming. This is no reflection on grain and stock raising but it shows what poultry can do when put to the test.

Of late years, more farmers are taking to poultry raising. Instead of leaving it all to the women folks and cussing every time the hens roost on the buggy or farm machinery, they are providing for poultry houses and giving the chickens a place to stay. They find that it pays. Maybe the chickens require a little grain. But so do the hogs. And what farmer couldn't raise a few hundred chickens for the time and expense put in on raising half a dozen hogs?

The old order of things is changing. The poultry farmer has found it profitable to look at his chickens in the same light that the dairy farmer looks at his cows. That is so far as the money-making possibilities are concerned. But instead of having to buy feed for his poultry, the chickens can be fed the scraps from the table, and the waste from the feed bins and feeding that cattle and hogs tramp into the mud.

You Can Live Well on Poultry Profits

No one is too poor to raise poultry profitably. And it takes less expense, less work, and less management to make farm poultry pay than any other kind of poultry. By farm poultry I do not necessarily mean mongrels. I am of the opinion that most poultry is now pure or cross breeds of two pure varieties which should not be classed as mongrels.

There is not much capital needed for starting. Some unused shed can do for the chicken house, hence no expense in that direction. About the only equipment needed is a good incubator, a brooder and the eggs. If the incubator is built right, no special room or cave is needed for it. It supplies its own protection from the weather. The same can be said for the brooder, although it is always well to set the brooder in a big box, such as a piano box, so that the little chicks can run around with comfort.

The best farm incubator is the one that runs itself and that can be depended upon to hold the heat even in cold weather. Lots of times argument is made on one or two special advantages. Usually these are real advantages but they are played up to make the reader overlook defects in some vital point which cannot be corrected because others hold exclusive patents, as for example our Old Trusty heating system. We have exclusive patents on this system.

This year as eggs and poultry are high, there is a tendency on the part of small town folks to get into the business. We make an Old Trusty in 100 to 120 size with a California redwood case that is adaptable for such folks. Also it's less expensive. With 120 eggs and this little Old Trusty "Special" you can start in the poultry business and in seven months time have a good sized flock of layers. The cost would be about $15 to $17 for pure bred eggs and the incubator.

A flock of only 50 laying pullets this fall should be worth $50.00 at $1.00 each, or if kept for layers should bring twice the amount in income. In most families, some member makes the incubator their special care and it does not interfere with the work. The spring fries are welcome to the family table or bring big market prices.

It has been our experience that an investment of a few dollars to start early hatching means 200 to 400% profit. On a bigger scale it wouldn't do it, of course. In fact the money in poultry is in carrying it on in a small way. I am not, you see, offering you a proposition that means a fortune or bankruptcy, but just a plain business proposition and it makes me less than $1.00 and you from $40.00 up according to the attention you want to give it.

At this writing we have a little over 700,000 customers. We have dealt with more poultry raisers and sold three or four times as many incubators as any other concern that I know of. I believe this success is due, first to our practical common sense incubators and brooders; second to our knowledge of poultry raising as 95 per cent of the people have to raise it; third to our plan of facing the proposition fairly, striking the average without playing head lines of sensational and unusual successes, of which we have our share; and fourth to our settling down to business here in Clay Center, Neb., among the people who bought our first machines.

We built from the ground up, and have grown year by year. We stuck hard and fast to making incubators and brooders, built with a construction that was right in the first place and that did not call for changes every year, or new faddish frills to help them sell.

We have always tried to give a well-rounded value, a proposition with meat on the bone, so to speak. Yet we do not sell anything for less than it costs. Our profit is a fair one, about seven per cent, so that it is not necessary to ask two profits to make up losses somewhere else.

Are You Selling Eggs or Buying Them?

Now, Reader, it would not be good business for me to urge you to take up something that you could not make money on. So whether you decide to do business with us or not, let me give you this one point. There's good money to be made in poultry raising. This year is a year of opportunity—meat prices are high and it looks as though they will be higher. With the increasing cost of living everywhere, poultry could prove more than handy to help square off the table expenses.

Our new annual catalog deals with profitable poultry raising and we are always glad to send a copy free. Also we like to write letters. If you have any poultry troubles, tell us and maybe we can offer a suggestion or two that would fit. Write for our book anyway and let's get acquainted.

Table Scraps Make Good Feed

No incubator is better than its heating system, H. H. Johnson, "the Incubator Man."

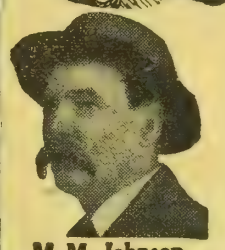
Big oil drawer can be removed instantly but does not require removing to be filled. Holds 5 to 6 quarts.

1917 Conveniences
Make Big Hatches Easier Than Ever
Old Trusty

EASIER hatches, but not *bigger* hatches, because no feature could improve Old Trusty's present record for higher average hatches year in and out, even in coldest winter weather. I call these new conveniences work savers. And they are big work savers, too.

Note the big oil drawer. It slides away in under the case—big enough to hold five or six quarts. Saves filling the lamp bowl every day.

Next, note the handy thermometer holder on the door. I don't want to be accused of saying this would make bigger hatches, but if easier watching means better watching and correct temperature then this device helps for bigger hatches. Open the door and the thermometer comes out. Instantly in view. No fumbling over the eggs—saves stooping and delay.



M. M. Johnson
Inventor of "Old Trusty"

Write for Catalog

Of course these new work savers are not the big things to look at in Old Trusty. No one part of Old Trusty is any more important than another. We make *each* part of Old Trusty as though your entire hatch depended on that one part.

For example, note the heating system, the part I am holding in my hand. I won't attempt to describe it, except to say that it's all copper and lock jointed and built on a plan that puts even heat all over the eggs. Note the shape of the discharge pipe in center and return pipes on the outside. Allows no cold corners nor hot centers.

Only **$9.60** Buys this redwood cover Old Trusty—freight paid east of Rocky Mountains—a trifle more farther west.

Quick shipment from factory at Clay Center or warehouse at St. Joseph, Mo., or Seattle, Wash.

Here's the money-saving sensation of 1917. It's Old Trusty through and through—same as we sold in 1908, which machines are still in good service. This is 120 egg size.

Quick Shipment—Mail the Coupon

In spite of OLD TRUSTY'S unbeatable construction it is not expensive. It's made in the largest exclusive incubator and brooder factory in the world. That's why we can give you such a big value for your dollar in OLD TRUSTY Incubators and Brooders. Write for our catalog telling all about them and giving you the "know how" on poultry raising.

Have fat broilers to sell at high prices in June and July and laying pullets in October and November. It's easy—thousands are doing it—let me show you how. Write today for our book if convenient, and tell us your poultry troubles. Yours truly, H. H. Johnson.

The M. M. Johnson Company
Clay Center, Neb.

The M. M. Johnson Company
Clay Center, Neb.

Please send me copy of your 1917 OLD TRUSTY Book.

Name _____

Address _____

Town _____ State _____

Write a letter if convenient and tell us your poultry troubles. Mention how many chickens you keep, whether hens lay in fall and winter, whether you have used an incubator and have been successful.

strong condition. The result of this is apparent in the young chicks as soon as they are hatched. All chicks are hatched in incubators and from eggs not over seven days old when incubation begins.

As soon as the young chicks are perfectly dry they are removed from the incubator and put into a room provided with a special brooder stove which keeps them warm (90 degrees on the floor) without much attention from an attendant. With this stove they can move near to or away from the heat as they please and the air in the room is always pure. When forty-eight hours old or older they are given their first food, mixed as follows: Two pounds rolled oats and one pound wheat bran, plus a small amount of granulated bone meal, grit and charcoal. They are also given a little buttermilk, this being considered especially valuable in maintaining the digestive tract in a healthful condition [illegible] days [illegible] feed is changed to the following: Two pounds wheat bran, one pound shorts, one pound corn meal and one-half pound pinhead oat meal, plus charcoal and bone meal. The scratch feed after six weeks of age consists of equal parts by weight of cracked corn and whole wheat, with dry mash always before them.

Each chicken house is provided with a good-sized yard, fenced with high poultry netting—about five acres in all being fenced in that way. During the growing season these yards are seeded to oats for green feed. The sprouted oat kernels are scratched out of the soil by the chickens, or, if not found, the oats come up and are eaten down by the birds. During the winter season green feed is furnished in the shape of beets, turnips and other root crops. These are not sliced, but thrown into the henhouse and the birds allowed to pick at them at their pleasure.

One thing that strikes the average farm poultry producer as somewhat novel in Mrs. Spicer's yards and poultry houses is the absence of roosters. Male birds are kept only in the breeding pens from which all eggs for hatching are taken. Males are never allowed with the hens and pullets that lay eggs for the market, because all eggs sold for human consumption are guaranteed infertile both in winter and summer. As soon as the young roosters are large enough—when they weigh from one and a quarter to one and a half pounds—they are caponized by Mrs. Spicer herself or the work is hired done at a cost of 10 cents per head, and when the breeding season is over the roosters are taken away from the breeding pens and put in a yard by themselves.

This method not only makes the handling of the hens easier but greatly raises the quality of the eggs, especially during the hot season. Then, too, it effects a considerable saving of feed. The young males grow much more rapidly as capons than they would as cockerels and besides make greater gains in weight from a given amount of feed. As stated above, since all Mrs. Spicer's market eggs are infertile they sell at a premium. She ships her market eggs to commission men in St. Louis or Kansas City by the case and obtains from 13 to 15 cents net a dozen above the price paid locally by grocerymen or egg buyers. From January, 1916, to June, inclusive, her eggs sold for an average of 4 cents a dozen over local prices after transportation charges had been paid, and during the last six months of the year she obtained an average of 10 cents more per dozen net. It pays to supply a first-class article for the market if one will look about and find the right outlet for it.

In regard to poultry houses, as the illustrations herewith presented show, Mrs. Spicer does not have fancy buildings for her birds; at the same time, they answer the purpose as well as if they had cost 300 per cent more. Each house is 40x40 feet in size divided into two rooms of 20x20 feet each. The buildings are eight feet high in front (south side), and five feet high in the rear, each being provided with dropping boards, roosts and nests approved by the University of Missouri. The fronts are left open for ventilation, but are provided with curtains made of strong bed ticking, to be used on stormy nights. The roofs are covered with two-ply rubber roofing which material is also used for the walls. Lumber is employed only for the framework and floor of these houses. In the early built houses dirt floors built up above the level of the surrounding ground are used, but the last two built are provided with good matched pine floors, the latter being considered more satisfactory.

Mrs. Spicer not only raises eggs for the market but also sells eggs for hatching and birds for breeding purposes. To help advertise her business she has begun exhibiting some of her birds. At the recent 400-bird poultry show held at Marshall, her own town, she was awarded the following: Best White Leghorn cock and cockerel, best cock in Mediterranean class, best cockerel in show, the A. P. A. medal for the best cockerel in show, three colored A. P. A. diplomas, three S. C. White Leghorn Club prizes, first and third on hens, first, second and third on white eggs, and the state cup for best display. At Louisiana, Missouri, she captured first on cockerel, where she exhibited but one bird. At the recent poultry show at Odessa, Missouri, Mrs. Spicer also won a number of important prizes, among which were first Leghorn cockerel, grand champion male in the show with a score of 95½, first and second pullet, best pen of Leghorns, and the state cup for grand champion pen of the show.

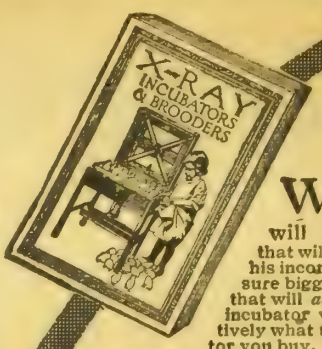
The point to this story is that through intelligent management Mrs. Spicer is obtaining an average of twelve dozen eggs per hen, almost twice the average number for the state as a whole, and is selling those same eggs at an advance of from 24 to 33 per cent over average local prices. Her flock has grown to 750 hens and will be increased to 1,000. When that has been done it will be an easy matter for this progressive lady, who believes in up-to-date methods of handling her flock, to net $1 per hen per year. What Mrs. Spicer can do others can do equally well, if they will change from slip-shod methods and put the work on a rational business basis.

Mating Up the Breeding Pen

To the Editor:—In writing this article I am telling of what I found the best way to mate up a breeding pen for the farmer and small poultryman, but not for the fancier, as the fanciers use more care and there are many more fine points that he has to watch.

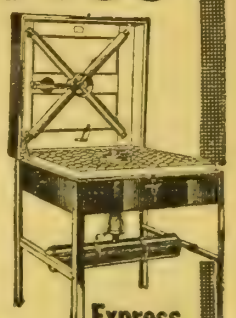
The first thing to decide is what breed. Now, nearly all breeds can be put into two classes, the heavy breeds or the light breeds. The ones breeding the heavy breeds say that you have more meat and you get more from the market; the lighter breed adherents will tell you that the lighter breeds mature quicker and lay more. But be that as it may, after you have decided on the breed next pick your breeding pen. Now is the time to pick the birds that lay. A winter layer is the best hen to breed from, but the main thing is to pick that layer. On the big farms they have the trap nest; that is what we use, but here is a method I would use if I did not have the trap nest. The bird that meets you in the morning when you come out with the feed is the one that is laying the eggs. The ones that are always busy may not look red and plump, but if she is scratching around and always keeps working for more to eat she is the bird for you, as she needs the extra feed for the eggs. You will nearly always find her the first out in the morning and the last in at night. If you examine the fowls at night the ones with the full crops are the ones that lay. The laggards are the ones with the half-full crops and the ones that sleep the longest. Now you may be fooled on some of these birds, as some you will think lay, as you see them in the nests, but if she isn't a busy bird around looking up feed you had better watch her and nine times out of ten you will find that she goes into the nest not to lay but to get warm or rest. After you have picked your layers, look over your birds, see which are the largest and the best type and be sure that you have only birds that have never been sick. Next see that all are well formed; that none have crooked toes or bent kneels. With the heavy breeds I would never mate more than six to eight hens to one male. With the lighter ones you can go all the way from twelve to twenty with perfect safety.

Now to pick your male bird. If you pick the right male bird your success as good layers and early maturing pullets will be the fruit of your breeding pen, for I have found that it isn't the good laying hen that gives you the best-laying pullets, but if your male bird comes from a hen which has a good egg record then he will give you pullets that will fill the egg basket. If you haven't such a male bird I would advise that you go to a reputable breeder and tell him that you want a good male bird with an egg record back of him. If you mate this bird to hens you will want the male bird to be a fully matured cockerel; if to pullets then to at least a year-old cock bird. When picking out your male bird, if you wish to improve your flock then pick out a bird that has more than an abundance of the qualities that your females lack and vice versa. If you have what is commonly called scrubs I would advise that you get a male bird of whatever breed you decide on and mate him to some of your best scrubs, that is, if you do not wish to tie any more money up into what is termed "fancy chickens" and then next year pick out the best that comes up to that breed you will soon have all chickens of the same color and looks. And what looks better



The Fact-Packed 1917 Book That Points the Way To Bigger Hatches Free

WRITE for it *today*. It is a handsome book—one that will interest you intensely. One that will help every poultry raiser to *add* to his income—to increase his hatches—to assure bigger hatches of sturdier chicks. One that will *add* to your knowledge of genuine incubator values—enable you to *know* positively what to expect and *demand* in the incubator you buy. Write for it—read it—and learn the secret of the wonderful hatches assured to users of



X-Ray Incubators

One Gallon Oil—One Filling to the Hatch

Express Prepaid to Practically All Points

Fill the big oil tank of the X-Ray Incubator just once—at the beginning of the hatch. Light the lamp—in fifteen minutes the temperature in the hatching chamber is exactly right—other incubators require four to five hours. The big X-Ray tank, squarely underneath, holds enough oil to last during the entire hatching period. The lamp's flame is scientifically adjusted by the X-Ray Automatic Trip. The flame is automatically decreased or increased as needed. No cold corners, no wasted heat, no "cooked" eggs—none chilled.
And the Five New 1917 Features make the 1917 X-Ray Incubator better than ever. X-Ray Gas Arrestor—new ingenious device that prevents lamp fumes entering egg chamber; X-Ray Nursery Tray, new feature that assures sanitation, protects little chicks; X-Ray Egg Tester, most perfect, handy tester ever conceived; New Handy Height; New 1917 Quick-Cooling Egg Tray. All new, exclusive X-Ray features that make poultry success sure. Be sure to write for the 1917 X-Ray Book *tonight*.

X-RAY Brooders

Built this year with famous X-Ray Duplex Heater, assuring uniform and properly distributed heat. Canopy top that protects chicks against draughts and excessive sunlight. Write for our

Free 1917 Book

X-RAY INCUBATOR CO.
Box 43, Des Moines, Ia.

Wisconsin Wins In Big Hatching Contests Every Year

Why Pay More

For only $10 you can get these two prize winning machines, delivered, freight paid east of the Rockies. You take no risk—money back if not satisfied. You can order direct from this ad. Ask the publisher about us.

Both Machines $10 Freight Paid For Both

Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on 30 Days' FREE Trial

MONEY BACK IF NOT SATISFIED

10-YEAR GUARANTEE

180 Egg Incubator and 180 Chick Brooder both for only 12.75

Wisconsins have hot water heat, double walls, air space between double glass doors, copper tanks and boilers, self regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1917 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.

WISCONSIN INCUBATOR COMPANY, Box 100 Racine, Wis.

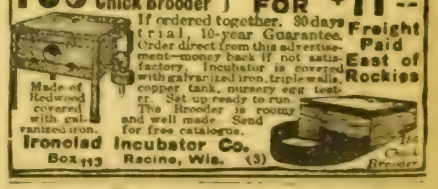
Ironclad WINS In 2 Biggest HATCHING CONTESTS Ever Held

Mrs. C. F. Merrick, Lockney, Tex., with her Ironclad Incubator wins in the Mo. Valley Farmer and Nebr. Farm Journal Big Hatching Contest. She placed 143 eggs in the incubator and hatched 148 strong chicks. Think of that. You can now get these famous winners, made of Calif. Redwood.

150 Egg Incubator Chick Brooder } BOTH FOR $11.00

If ordered together. 30 days trial, 10-year Guarantee. Order direct from this advertisement—money back if not satisfactory. Incubator is covered with galvanized iron, triple walls, copper tank, nursery egg tester. Set up ready to run. The Brooder is roomy and well made. Send for free catalogue.

Freight Paid East of Rockies



Ironclad Incubator Co.
Box 113 Racine, Wis. (3)

than a flock of poultry all of the same kind. You will be surprised when you take a bunch of poultry to the market what a better price you will get for them than a bunch of all kinds.

Just a few words in regards to keeping hatching eggs. Keep the eggs in a place that is well ventilated and of an even temperature of about 60 degrees; not any warmer than that. Do not have them in a damp place. Turn eggs every twenty-four hours at the least. Hatching eggs should never be kept longer than fifteen days; the quicker you use them the better.

La Crosse Co., Wis. Wm. Friese.

FACTS ABOUT CAPONIZING

Value of Capons and Description of Best Methods For Operation—By J. C. Halpin and O. N. Johnson, Wisconsin Experiment Station.

A WELL-FATTENED capon is usually worth, during the winter, just as much as his feathered brothers—the cockerel and the rooster. At all times of the year the price paid for capons is higher than the price paid for uncaponized birds.

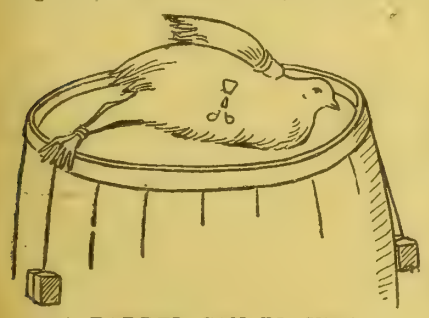
With the exception of a few of the best which are kept for breeding purposes, all of the male chicks should be caponized. That too few persons in Wisconsin make use of the simple operations of caponizing is due largely to a lack of knowledge concerning the necessary methods of treatment. Almost anyone can learn to caponize if the simple directions given in this bulletin are followed.

A capon is a male bird from which the reproductive organs have been removed. The results are similar to those produced in pigs, cattle or horses. The caponized bird becomes more docile and sluggish, his comb and wattles cease to grow, and he is no longer able to crow. But his saddle and tail feathers will grow unusually long and silky, his head will look too small for his body and he will put on more and sweeter meat at less cost than if left unaltered.

USING A HOMEMADE TABLE.

A great many farmers keep a large number of cockerels for table use. It would be much better if these were caponized. The operation is simple and practically safe. It would then do no harm for them to run with the pullets. They can be taught to brood young chicks and they are much better feathered, larger and slower in their movements than the average hen.

It would not be advisable to caponize all breeds for market purposes. The Mediterranean class, such as the Leghorn, would never pay on account of their small size. But if they are kept for home consumption they should be caponized.



A BARREL CAN BE USED.

Weak, sickly or stunted cockerels should never be caponized because they have not enough vitality to recover from the operation or make satisfactory gains. It is the birds that weigh six to ten pounds when mature that are in the greatest demand, since that is the size fowl used by the average family.

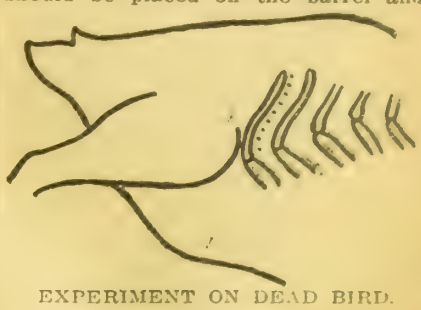
The proper time to caponize is just before the comb begins to redden and when the testicles are about the size of a navy bean. If the cockerels are of the American class they should weigh from one and one-half to two pounds. A Leghorn should weigh about one-half pound less. The operation should never be performed upon a mature bird, for it would cause a great loss of blood, which usually proves fatal.

The required set of instruments consists of a knife, spreader, tearing hook and remover. With the exception of the knife these instruments have to be especially made for the purpose and cost from $2 to $5. Two barrels should be provided, one to operate on and the other to lay the tools on, and also a dish of 2 per cent carbolic acid solution. If many birds are to be operated upon it pays to make a table to lay on the head of the barrel. The table consists of two one-inch boards, twelve inches wide and twenty inches long, which are joined together at one end with strong hinges. Nails are driven in two inches apart on each edge of the upper board. A loose block which can be moved to secure the desired angle to catch the direct rays of the sun is placed between the boards.

Until a person becomes expert at caponizing he should only operate when and where he can have the most light. The first attempt should be made on a dead cockerel so that one can take time enough to learn each step and not be unnecessarily cruel. Kill a cockerel of the right size, caponize it and then use it for the table.

The cockerels to be caponized should be kept in a cool, dark place without food or water for about thirty-six hours before the operation. This is for the purpose of emptying the intestines and in order that there will be less hemorrhage.

To perform the operation the bird should be placed on the barrel and one end of a cord tied around his shanks and the other around a weight about that of a half brick. With a similar cord and attached weight the wings should be bound together close to the body. The leg weight is placed over one side of the barrel and the



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Montana Hatch — Note the happiness the World's Champion Belle City Incubator brings to way out West people—a 96 per cent hatch
Missouri Hatch—Women and children take great delight in World's Champion Belle City hatches and the pretty gold dollars they make with little effort.
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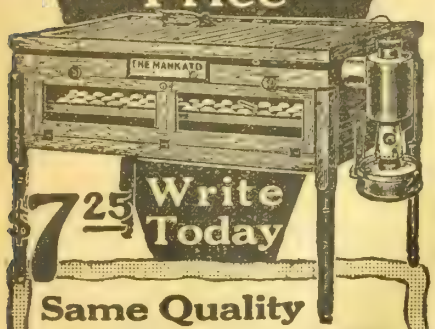

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Same Quality

—and at the same old unbeatable price. Prices everywhere are climbing, but not on the poultry raiser's old standby, the MANKATO

old price. Write and get your machine before our stock is gone. Same quality redwood case—combination hot air and hot water heating system. Write today.

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CHICKEN RAISERS
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Let me send you my new money-saving plan that will help you get a Rayo Incubator at little or no cost to you. Most liberal offer ever made. No canvassing. No soliciting. Just a straight business offer that you will be glad to accept. I want to help you make this your banner year.

RAYO Center Heated INCUBATORS
Give Bigger Hatches at Less Cost

Takes just one gallon of oil--1 filling of tank to a hatch. Others require 3 to 6 gallons and as high as 21 fillings of lamp. You can't beat it for big hatches at small operation cost. Saves time, labor and money. Has six big special features. Center Heating System. Double Panel Glass Top. Special Ventilation System and Moisture Arrangement. Many others described in our free book. Get it.

Write for FREE Catalog
Just a postal brings it free, postpaid. Chuck full of incubator and poultry raising facts. Get my catalog sure before you buy any other style or make. You want to know more about the Rayo, world's best hatcher. Write today. D. M. Davis, Pres.
RAYO INCUBATOR COMPANY
U. D. Sta. 5598 Omaha, Neb.

Did You Have "Good Luck"
With Your Chicks?

"Luck" with chicks starts with the incubator. If it is properly heated, **properly regulated,** and properly ventilated, your chicks will start off with vitality. They won't come out of the shell **half dead.** So many people trust their eggs to a cheap machine, forgetting that it is not only how many you hatch that counts, but how many **live and grow.**

Start Your Chicks With a Queen Constitution

The Queen has a reputation for hatching **strong, healthy chicks.** It is built of genuine Redwood—very scarce in these days of cheap substitutes. Redwood does not absorb odors from the hatching eggs. Cheaper woods, and pasteboard lining in iron and tin machines, retain the odors to weaken and kill the hatching chicks.

Queen incubators are not cheap, but they are built to **hatch big hatches of chicks that live.** Book sent free.

Queen Incubator Co., 1175 N. 14th St., Lincoln, Nebr.

UNBEATABLE

For record hatches of healthy, profitable chicks--chicks that dodge the great chick graveyard--you can't beat the

"PROGRESSIVE"

Hundreds of dead air cells surrounding hatching chamber protect against sudden outside changes and insure nearest to nature's healthy hatching conditions. No dry, hot blasts to "cook" eggs--no hatches spoiled by temperature changes. GENUINE CALIFORNIA REDWOOD. Double-Disc Heat Regulator, Safety Lamp, Egg Tester, etc. Your money back with 8 per cent interest if not satisfied. Freight prepaid East of Rockies. Special deal if you mention this paper. Send for 31G FREE BOOK.

$9.85 FOR BOTH

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Lice-Proof Nests

WRITE QUICK for Catalog and SPECIAL OFFER
Nests won't cost you 1c
Your hens will pay for them in More Eggs
You will get 20 to 50 per cent more eggs with KNUDSON Galvanized Steel Lice Proof Nests
These wonderful sanitary nests last a lifetime. Satisfaction-Unlimited Guarantee.
The illustration shows our leader-6 Nest Set.
Cost Less Than Wood Nests. Over 25,000 in use.
Don't Wait. Make Big Money on Poultry. Write
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64 BREEDS Valuable New Poultry Book Free—148 pages. Fine pure-bred chickens, ducks, geese and turkeys. Choice, hardy, Northern raised. Fowls, eggs and incubators at low prices. America's greatest poultry farm. 24th year in business. Write today. Free Book.
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wing weight over the other side. If the table is used the cord should be placed near the top on one side and near the bottom on the other for large birds. If the birds are small the weights should be nearly opposite.

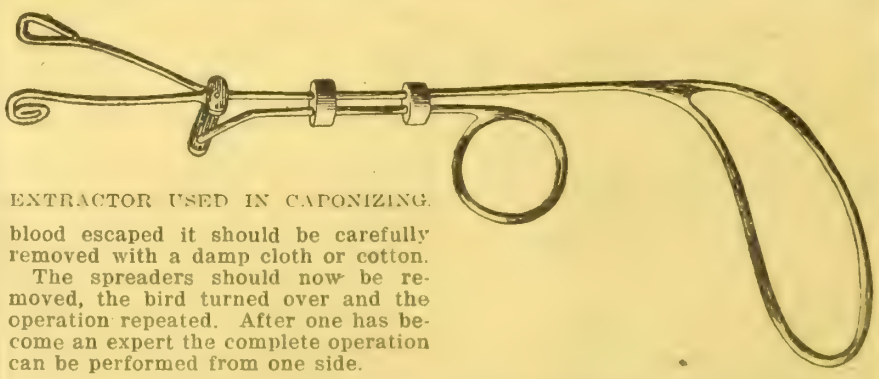
In this position the bird is stretched out ready for the operation The feathers should now be moistened and plucked out between the thigh and the third rib, the skin drawn to one side, and the last two ribs located with the end of the first finger. The point of the knife is now inserted between these ribs about one-half inch from the center of the back between the ribs making the incision about one inch long. If any blood appears it should be sponged off with the solution of

THIS SPREADER CAN BE SET AT ANY DESIRED WIDTH.

carbolic acid. The spreader should now be inserted, being sure that each side of the spreader is against a rib, and opened as widely as possible without tearing the flesh. With the hook tear an opening through a thin membrane which will have been noticed after the insertion of the spreaders. Then with the probe or remover gently press the intestines away from the back. The upper testicle should now be in plain view.

As stated before, the testicles should be about the size of a navy bean. The color should be a rich yellow. If they are pinkish in color the bird is too matured.

Next comes what is usually the only dangerous part of the operation. Insert the remover, lightly move the testicle in order to make sure of the location, and then gently grasp it, being sure not to go any deeper than necessary, since a large artery lies close to the back of the testicle. If this blood vessel is ruptured the bird will bleed to death at once. The remover must be closed so that no part of the testicle will slip through and then slowly withdrawn with a twisting motion. If the connecting membrane is not all broken away when the testicle is nearly removed it should be cut or scraped loose. If any foreign matter has entered the wound or any



EXTRACTOR USED IN CAPONIZING.

blood escaped it should be carefully removed with a damp cloth or cotton.

The spreaders should now be removed, the bird turned over and the operation repeated. After one has become an expert the complete operation can be performed from one side.

After the operation has been performed the bird should be placed in a coop where there are no roosts and given soft feed and water. In about three days they should be looked over for wind puffs, and if they are found, a very small cut through the skin will relieve them, no harm resulting from this. At the end of a week the capons can be turned loose with the rest of the flock. Some do this as soon as the birds are caponized, but it is not advisable. Before turning them loose they should be marked. One way to do this is to sever the nail of the right middle toe.

Speed cannot be expected in the beginner. Some birds will die and a small per cent will be slips which are caused by a small portion of the testicle not being removed. These birds will develop the same as the cockerel except that they will not have the power to reproduce and should be disposed of as soon as possible.

To the Beginner.

To the Editor:—To one who has never bred poultry of any certain breed, but are hit by the "hen fever," which seems to get the best of a great many of us about this time of the year, especially when we have had a chance to visit a poultry show and there get a chance to see the many different varieties of poultry and compare them side by side there is always one or two breeds that appeal to us above all others.

If you are fortunate enough to be able to look over the entire exhibit and can leave the show room feeling that you have at least found the breed you are sure you can tie to, then is the proper time to invest a few dollars for either a good trio or pen or a sitting of good eggs.

After you have decided to make a start buy the best you can afford. If you do not know just where to invest your money subscribe for one or more of our leading poultry or farm journals and look over the many advertisements and no doubt you will be able to find many an advertisement that offers just what you are looking for. Any of the hundreds of poultry breeders who sell their stock and eggs through the columns of the poultry and farm journals will give you a square deal and also help you in a great many ways in making your start.

You must also remember that the location has a great deal to do with the selection of a breed. For the city fancier who has only a small space to devote to poultry the Plymouth Rocks, Wyandottes, Orpingtons, Rhode Island Reds, Sussex, or any of the other heavier varieties, make an ideal fowl for the city. They are unusually tame, as a rule stand confinement well and can be kept in a small inclosure.

If you prefer a breed that will look clean and neat and not show the dirt and smoke of the city I would suggest the partly or dark colored birds. Any of the above varieties would give the very best satisfaction. They are large and the young chicks, when properly fed and taken care of, grow to broiler size in from twelve to sixteen weeks and many a city fancier has had broilers at a younger age than this. As layers any of the American class will not be found loafing on the job very many days during the year, providing you have started with a good-laying strain. Of course, we must allow for the time spent in hatching and rearing of chicks and also during molt.

For the farmer or suburban poultryman who intends to keep a large number of fowls the year around and have eggs and market poultry in mind the Langshans, Minorcas, Anconas, or any other of the lighter breeds, would be best suited to their wants. The Leghorns, perhaps, would be the best all-around fowl where eggs are the main object. Although small, they are perfect egg machines. Being non-sitters they do not waste any time hatching and rearing chicks, but instead utilize this time in shelling out eggs. A great many Leghorn hens have records of better than 280 eggs a year, and in some instances they have surpassed this mark. Being great foragers, Leghorns pick up a great amount of their feed when allowed to range at large over the farm. They can be kept in confinement if necessary and seem to do just as well as when allowed their freedom. The young chicks are generally spry and full of life, and, as they feather out much sooner than the heavier breeds, they do not use up their strength and vitality in growing feathers, but can use the same to put

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Extreme care in the shaping, the building, and in the selection of materials used has produced in the Scotch Knocker a horse collar that entirely overcomes galled necks and sore shoulders.

The Scotch Knocker Collar works with your horse, assists him. It responds to every play of the muscles, snugs into every neck hollow, and lays back soft as velvet, yet staunch and firm against the pull of the powerful shoulders. Built so strong and durable that one Scotch Knocker will outlast *two* ordinary collars.

These collars come in different styles. Some are cloth faced but all are built of real 7-oz. *bark-tanned leather.* They are stuffed with hand-failed, long rye straw. Faced with soft, elastic sweat and rain proof hulls. Point of greatest strain triple reinforced. Write for free book.

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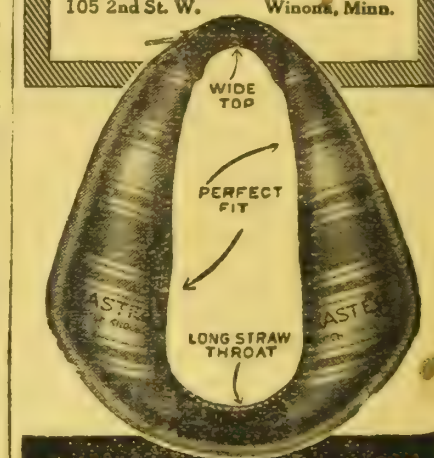
105 2nd St. W. Winona, Minn.



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With INCLOSED MOTOR
Keeping OUT DUST and RAIN-Keeping IN OIL

DOUBLE GEARS - Each Carrying Half the Load
Every feature desirable in a windmill in the
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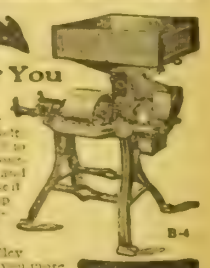

With a 3 or 5 horse power engine and a Dandy 12 Belt Mill you can grind from 15 to 25 bushels of feed per hour. The mill is made of iron and steel throughout and has self lubricating double cup shaft bearings, and the best ball bearings, and shake feed and double spring tension. Shipped complete with pulley and belt. Let us tell you more about it. Write for folder B which illustrates and describes "Dandy" Feed Grinders. Also ask for folder "A" which tells all about the famous "Diamond" Wood Sawing Outfits. Both folders mailed free.

B-4

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Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.

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on flesh. As they mature early they can be sold to market at ten to twelve weeks of age and will bring the highest possible market price at this age. The pullets are ready to lay at five months and very often sooner.

To you who are thinking very seriously of making a start in the poultry business or to the farmers who have awakened to the advantages of thoroughbred stock over mongrels, let me repeat, by all means pick out the breed that suits your needs, look up some good, reliable specialty breeder of the breed you have chosen, write him asking for prices on stock or eggs, but by all means do not describe a Chicago winner and then expect the breeder to sell you birds of that class for $2 or $3. In making your start get nothing but full blood stock and do not allow this original stock to become crossed with any other breed in any way. Start with a good strain and keep it pure and remember the "old saying" that the very best is the cheapest in the end. Ero. G. Nelson.

Walworth Co., Wisconsin.

Paving the Way For Winter Eggs.

Importance of "Time of Hatching" Cannot Be Overemphasized in Winter Egg Production—By W. G. Smith.

IF WE could only establish within our minds the fact that the success or failure to get eggs when eggs are high and to have hens laying when the snows of next winter come is very much dependent upon the hatching season that is at hand we would have less failure. The breeding pen, the time chicks are hatched and the care that is given them during the period from the time they hatch until they mature all are of the most vital importance in securing winter eggs. Given well-matured pullets when frost comes the matter of winter eggs is not a difficult problem. It is simply a matter of care and feeding providing your pullets come from a laying strain, but with small, immature pullets when the cold weather sets in winter eggs are next to an impossibility. Such pullets will seldom, if ever, lay before the middle of January and very likely not until a month later. So if we are to have winter eggs we must begin in the spring to prepare for them—as a matter of fact, we should begin with the breeders from which we shall hatch eggs this spring.

June and July pullets are not winter egg producers except occasionally in the smaller varieties. The larger ones from the Wyandotte and Red upward should be hatched in April and May with a hatch in March if eggs can be secured and one has a place where chicks may be safely kept during the squally days that often come before Easter. We have always found that these early hatches pay the best dividends. We have had pullets that began to lay in November and continued throughout the winter that were hatched in March. We brought off a hatch of thirty Orpington pullets the last day of February a few years ago. These pullets began to lay in September and continued until Christmas, when they began to let up. A few molted, but the majority of them went back to the laying job in a short time and continued until they became broody in the spring. Such hatches cannot be made the rule and this one was made in the nature of an experiment. It proved successful, for the pullets furnished us with eggs while the old hens were molting and eggs were high at that time. They also proved to be good breeders and eggs hatched well from them, which seems to refute the argument that hatching eggs should not be kept from heavy winter layers.

I am of the opinion that winter laying will not hurt the breeders as long as they have not been forced for eggs. If they have not been fed stimulants and their natural inclination has been to lay I have found no reason to refrain from using the eggs in the incubator. However, where forcing feeds and stimulating condiments have been fed in the hope of boosting the winter egg yield results will probably be disappointing, for the vitality of the fowls has been lowered. This thing of forcing for eggs is a poor practice in my mind and where pullets have been properly hatched and properly reared is unnecessary. It is but a makeshift at best and any results which may be had are only temporary and very often harmful. Big, strong, vigorous hens and cockerels with plenty of snap and vitality, no matter what the breed, make the best breeders. From such fowls we seldom hatch puny chicks unless something has happened during incubation to cause puny chicks. From such breeders we can hatch pullets that will be strong enough to stand the natural strain of egg laying and whose worth in the laying pens will be marked. If we can choose hens with good egg records and cockerels from egg-producing dams so much the better, but even strong, healthy breeders without regard to their egg-laying propensities make the start easier and success a little more certain. Then while choosing eggs for incubation it is a good plan to pick eggs of a uniform size—rather large ones preferred. Sometime we may be selling eggs by weight instead of at so much per dozen and the forehanded man will be on the safe side by producing a strain that will in turn produce large eggs. Of course, there is a limit to size and no abnormally large eggs should be incubated, but the average may be safely raised.

Chick rearing is the test of the poultryman's efficiency. Few people need expert advice on hatching chicks, but in rearing them even the experts need advice. That is one reason why we prefer hens to artificial brooders and try to set several hens timed to hatch with the incubator. We give all of the chicks to the hens if possible and find this method of rearing very good. However, it is not always practicable to do this and when we use heated brooders we aim to have plenty of ventilation and room in them. We keep an extra brooder for the sole purpose of dividing up the flock after it is a week or so old, for chicks take up space rapidly in a short time. I believe one of the stove-heated colony brooders would be a paying investment on any farm where considerable numbers of chicks are artificially hatched, as their capacity is very pliable and there is less danger of overcrowding and poor ventilation. As the rearing of these chicks has the utmost importance in the future poultry profits it pays to exercise care.

After chicks are five or six weeks old food should not be stinted. They are growing and need plenty of feed. We have fed from open hoppers with excellent results and find that the chicks are more contented and easier handled where food is constantly before them. Stunted chicks mean pullets that will not come to maturity properly and small chance for winter egs. It means little or no profit in the surplus that goes to the butcher or to the huxter. On the other hand, big, strong, well-fed chicks make a path for themselves from the brooder to the egg basket. Cockerels that have had good care and attain size early are attractive as breeders and sell easier. Even if they are of mixed varieties and of no value as breeders they bring more money on the butcher's block.

Stands Up For the Cat.

To the Editor:—In your issue of January 4th you had an article, entitled, "Cats Destroy Too Many Birds." The writer of this article, I think, has never had very much experience on a farm. There undoubtedly are many cats which should be killed, as they do too much harm to birds, but if we should kill all the cats, as he seems to think should be done, we would soon find that rats and other vermin would get so plentiful that they would do a lot of damage. The common timber squirrel does much more damage to small birds than cats do, as one squirrel destroys more small birds and eggs than twenty house cats. This we know from experience, because when first the squirrel came in here we thought they were so cute we did not want to kill them, but in a few years there were hardly any small birds. The last two years we have been shooting the squirrels during the winter, and we never had so many small birds as we have had the last two summers.

Each farm needs three to five good cats and the rats will be so few that there will be little damage done by them. I do not think that the common house cat be termed as worthless, that is as a class. Subscriber.

Careful Mating Is Important

To the Editor:—As the season is now at hand to properly mate and pen your birds for the coming year, I believe these topics are of sufficient importance to demand the attention and consideration of all of us. As to proper mating you should select some of your best males, paying close attention to shape, color, etc. The females should also receive the same

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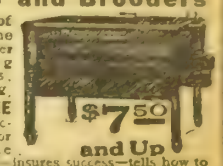

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Poultry Lessons FREE to every buyer of a "Successful" Incubator or Brooder. A complete course—well worth $25—insures success—tells how to save on feed—get top-notch prices, etc.

Feed Sprouted Grain—Get More Eggs—with *"Successful" Grain Sprouters*—built in all-steel sections—fireproof. Changes 1 lb. of oats into 3 bushels fresh, green egg-making feed. Makes hens lay in winter. Send for free descriptive circular and low prices.

Write for Catalog of "Successful" Incubators and Brooders. Enclose 10c if you also want "Proper Care and Feeding of Chicks, Ducks and Turkeys." Incubator catalog is FREE—Write today.

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Fresh Fish

WE are catching all varieties daily. Write for complete price list. Fresh, salted spiced and smoked lake and ocean fish. JOHNSON FISH COMPANY, Lock Box 44, Green Bay Wis.

Our Winter Production of

Fresh Frozen FISH

WILL start as soon as cold weather sets in. Your name and address on a postal will bring our price-list.

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THE FINEST FLAVORED comes from the waters of Green Bay. Fresh Frozen Large Round Herring 4½c per lb.; Dressed Herring 5c; Perch 5c; Whiting 6c. Lots of 500 lbs. or more ¼c lb. less. Write for complete price list of everything in Fresh, Smoked, Salt and Spiced Fish. BADGER FISH CO., Dept. F, Green Bay, Wisconsin.

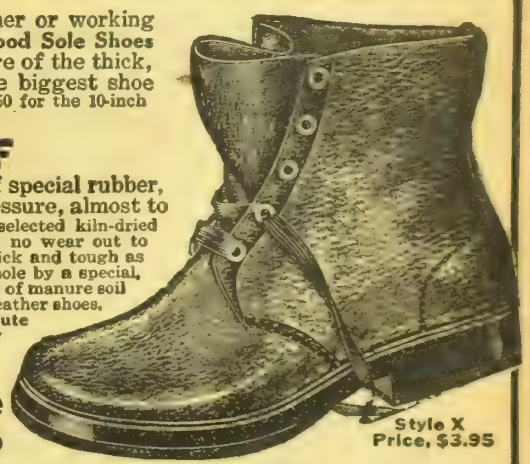
Want to buy or sell a farm? Make it known by inserting an advertisement in THE FARMERS' MARKET Six cents a word each insertion.

No Money In Advance

Just to prove to you that these are the grandest shoes any farmer or working man ever put on his feet, we will send you a pair of Hy-D-Rubber-Wood Sole Shoes without one cent in advance! When you see the shoes, feel the texture of the thick, tough, yet wonderfully soft and pliable leather. If you think it the biggest shoe bargain you ever saw, simply pay the price upon arrival—$3.95 for Style X, or $4.50 for the 10-inch top Style Y—and keep the shoes. Otherwise, return them at our expense.

MANURE AND WATER-PROOF

Outwear six pair of shoes. And can't leak! The sole is made of special rubber, mixed with Sea Island cotton canvas and hardened under a ton of pressure, almost to the toughness of armor plate. Then there is a thick inner sole of non-conducting selected kiln-dried wood which is the most comfortable substance in the world to walk on. Practically no wear out to these soles. Uppers are of best old-fashioned oak-bark-tanned AA grain leather—thick and tough as whang but soft, flexible and absolutely water-proof. Uppers are attached to the sole by a special, patented process which positively won't let a drop of water through. And the acids of manure soil and in the milk on creamery floors which quickly rot out rubber boots and ordinary leather shoes, simply can't touch these shoes. Comfortable as a pair of felt slippers from the minute you put them on. Fine looking, too—not heavy, awkward and clumsy like ordinary work shoes. Wear them indoors as well as out. Soles are sound-proof and do not mark floors. And wear? They wear like iron. They will easily give you



Style X
Price, $3.95

$12.00 Worth of Shoe Wear For Only $3.95

What with the leather work shoes, rubber boots and overshoes you ordinarily buy, and cost of repairs, the bill easily amounts to $12.00 a year. Probably more. And one pair of these Hy-D-Rubber-Wood Sole Shoes at $3.95—the 10-inch high tops are $4.50—will give you more wear and comfort than all the footwear you have been buying. Wear a pair for a year and see.

This One Style Comprises Our Entire Factory Output

That's how we keep cost of production down to the lowest notch and maintain a uniform standard of quality. By selling the entire output of our factory direct to the men and boys who wear our shoes we save and give you all jobbers' and retail shoe dealers' profits. A dealer would ask you anywhere from $6 to $8 for shoes like these if he could get them to sell. You pay us only what it costs to make them plus one small profit.

Style Y
Price, $4.50

SPECIAL NOTICE The demand is so big that we are behind in some sizes. Sizes 7, 8, 9 and 10 we can ship at once. Other sizes within two weeks.

A Snap for Agents Sell our shoes to farmers and working men. Shoes sell on sight. No capital or experience necessary. Write for particulars.

Mail Coupon Today Send no money. If not all you expect return at our expense. If you must have more information write for free booklet.

WILSON, The Water-Proof Shoe Maker, 2373 Milwaukee Ave., Factory 11 Chicago

Send This Coupon

Wilson, The Water-Proof Shoe Maker, 2373 Milwaukee Ave., Factory 11 Chicago

Send me one pair Hy-D-Rubber-Wood Sole Manure and Water-Proof Shoes. Style X.. ..Style Y .....Size.. ..

If, upon arrival, I decide to keep them, I agree to pay $3.95 for Style X—$4.50 for Style Y. If I decide not to keep them, after 10 days trial I agree to return them to you at your expense, you to refund my money.

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At Home In Any Soil—And Behind Any Tractor

"I HAVE been using the Janesville horse plow for many years. Have just bought a tractor and want to get the same auger twist mouldboard in a tractor plow. Can I get it?" Hundreds of such letters have poured into our office. Our answer has been, "Yes, you can get it, and here it is."

The N[illegible] [illegible]perience

[illegible] demand the first day [illegible]mous JANESVILLE [illegible]r Twist mouldboards [illegible] F. D. 2 says, "It's like [illegible] furrows curl over just like they did [illegible] anywhere as well as in my best field and without [illegible]. Plowed 60 acres this fall for 28 cents an acre."

The Janesville frame gets the greatest efficiency out of the plow bottoms. The frame is flexible and plows are hung so as to allow a "floating" movement through the soil. It's the same construction that owners say "pulls a horse lighter" behind the team. It insures getting the most out of your power in a tractor. And the furrows curl in an easy flow at any speed.

This is the only tractor plow we know of that can be set to turn 12, 13 or 14 inch furrows without changing plow bottoms. We make it with two or three bottoms. Two bottom plow makes a three bottom outfit by adding a third bottom and beam. All bottoms are interchangeable on any beam. Removed or replaced quickly. Power lift operated by a rope.

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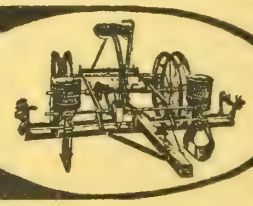
41 Center St., Janesville, Wis.
Builders of Better Farm Machinery Since 1858

This Book FREE
Write for copy. Also learn about Janesville Cultivators, Corn Planters, Disc Harrows, Horse Plows, Listers, Hallock Weeders and Seeders. Write today.

More and Better Corn



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has gained the favor of farmers throughout the corn belt, because it always increases the yield per acre where other conditions are right.

Has a reliable drop—no bunching or scattering.

Deposits every kernel at uniform depth. Four wheels cover the seed evenly and pack the moist earth around it leaving the top of the ridge open and loose to insure quick germination.

Operator has clear view of the work at all times.

THE MOLINE LINE INCLUDES
Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Loaders, Hay Rakes, Lime Sowers, Listers, Manure Spreaders, Mowers, Plows (chilled and steel), Reapers, Scales, Seeders, Stalk Cutters, Tractors, Farm Trucks, Vehicles, Wagons.

Flying Dutchman Planter
has a record of planting 3550 perfect hills to the acre. Plants corn to suit your soil—2, 3 or 4 kernels to a hill and with unvarying accuracy—change the drop while the machine is in motion. Plates for edge drop, flat drop or drill are supplied with each machine. Every machine must stand a rigid test for accuracy and efficiency before it leaves the factory.

Ask your Moline dealer about these corn planters or write us for illustrated literature.

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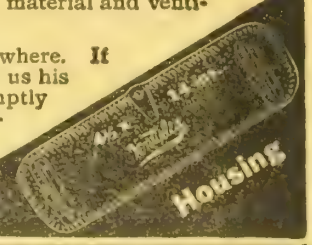
In order to introduce the **Ventiplex Collar Pads** to more horse owners, we shall give away absolutely free a **Ventiplex Housing** to all who send us two full labels from Ventiplex Collar Pads and five cents in stamps to pay cost of mailing. Size of housing 4½ x 14 inches.

Ventiplex Pads and Housing are made of special material and ventilated—curative, cooling, sanitary.

Ventiplex Collar Pads are sold by dealers everywhere. If your dealer does not carry them send us his name and we will see that you are promptly supplied. We make the famous Burlington Stay-on Stable Blankets.



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WILL GRIND A WAGON LOAD OF FEED FOR 10 CENTS.

THIS is the **Famous Howell Roller Mill** you have heard so much talk about. The new improved mill for the scientific grinding of grain. Old style Burr and Stone Mills are out of date. Thousands of them are being annually replaced by the Famous Howell Roller Mills. Grind twice as fast as the best burr mill made. Does not heat the feed. Grinds Graham and Rye flour as well as feed. Has big capacity. Requires little power. No burrs or stones to wear out. Guaranteed to last a life time. Made in 13 sizes suitable for any size engine. Save one-half your time, gasolene and money by using a Howell Roller Mill. Write for Catalog F-16. We will send it free, together with the **Famous Howell Roller Feed Mill Puzzle.**

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consideration. However, the male is really the most important part of the mating pen. Look the birds over very carefully and what the male lacks in good points should be furnished by the female if you have the right birds. If this close attention is given to mating then it will not be long until the flock is built up to a bunch of nice fowls, most of them good enough to be taken to your poultry show. Of course, even though you have these points in view in mating, it is well to have a good foundation stock to begin with. To get this you will have to make purchases from good, reliable breeders. If you do this and take good care of your flock and of the coops, barns, runs, etc., you will surely succeed. In the mating pens I have the best results by taking eight or ten old hens and using them with a vigorous cockerel. My experience proves this to be the best way. I hope my friends will see fit to carry out some of these ideas and that they will meet with success. W. F. Gernetzky.

Portage Co., Wisconsin.

Hens Lay All Winter.

To the Editor:—I wonder how many of the readers are getting eggs this winter? I believe we can get eggs in winter if our chickens have the proper care, for I have been getting eggs all winter with the mercury sometimes down to twenty below. I feed wheat and oats in the morning, making them scratch in the straw for it. Then I feed corn about three o'clock. I always keep plenty of oyster shell for them as well as a box of bran and tankage, about four parts bran to one of tankage, set before them at all times. The box is arranged with cross wires, so they can stick their heads through and not get in the box. They should have plenty of fresh water. I use a poultry tonic to keep them healthy, and I give it to the baby chicks once each day in a mash for four weeks, then about three times a week to all chickens.

We have a large scratching pen with muslin over the south side, giving them light and protecting them from the wind. Everyone should have a scratching pen for their chickens, so they can have plenty of clean straw and exercise for their feed.

I have a cross between Rhode Island Red hen and Brown Leghorn single-comb cockerel. One pullet laid her first egg a few days before she was four months old, and several wanted to sit when they were six months old I have forty-one pullets and twelve old hens, but it is the pullets that are doing most of the laying. I am getting from fourteen to twenty-two eggs per day. Last spring my young chickens weighed one and three-quarters pounds in seven weeks.

Mrs. George A. Kyle.

Packing Eggs for Incubator.

To the Editor:—The lady who wanted to know how to pack large eggs for incubation should go to her storekeeper and get one of the corrugated boxes about twelve or fourteen inches long and ten or twelve inches wide, although it makes but little difference in regard to an inch or two longer or wider, as she can make her fillers to correspond. Some of these boxes may be twenty inches or more in height, but that will make no difference, as they can be cut down to the required height when the eggs are packed.

I make my fillers by taking an old corrugated box and cutting pieces about two inches wide and the length of the box, and others to equal the width of the same. I then cut notches in each piece as far apart as the size of the egg calls for, and fit these notches into each other. In fact, I make the fillers on the same principle as those in shipping cases, only I use heavier paper.

I then place a layer of excelsior in the bottom, then a filler, and fill each space with an egg wrapped in excelsior. After filling the spaces in the first layer, I put on the cover for that layer and start another, continuing until I have the number of eggs I wish in the box.

When preparing the box, cut down the ends to the level you intend to fill, but leave the sides, so that they may be bent over, forming a strong cover to place over the excelsior, which is placed above the last layer. Then take a stout cord, such as is bound around newspaper bundles; or, if you cannot secure that, use binding twine, and wrap the box securely. I make a rope handle, so that the box can be handled like a suitcase. I never have had an egg broken in shipping. I use the same sort of boxes, only smaller ones, for fewer eggs, and they have always arrived at their destination in good shape. In fact, you can take the regular shipping as your guide and make one to suit yourself in regard to size of egg.

Jas. Lawrey.

Packing Eggs For Shipping

To the Editor:—Someone asked for directions for packing hatching eggs for shipping. I have shipped hundreds during the last two years, and when I shipped in market baskets by express, no complaints came in. Once I shipped 100 in an orange box and the box was mashed in on one side en route. That was the railroad company's fault and they should have stood for the loss, but I made it good myself, and after that I always shipped in baskets.

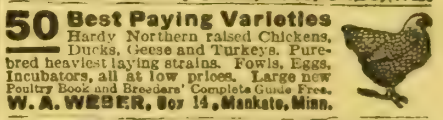
For 100 hen eggs I take two common 5-cent market baskets. Get them filled with excelsior at the drug store—they are glad to get rid of it, as they only burn it anyway. I sometimes get them to save it for me. I use a thick pad of the excelsior in the bottom of the basket, then make a little nest for each egg, so they will not touch, or wrap each egg in paper before settling in the nest, small end down. Over these I put another thick layer of excelsior, then another layer of eggs, and a thick pad of excelsior on top. A muslin cover labeled, "Eggs for hatching—handle carefully," is sewed all around the wooden band on the basket with corn. It is addressed below the label and sent on its journey, and I never have had a complaint come in. A few can be sent by parcel post in the same way, but express is the safest. Mrs. J. H. M.

POULTRY AND PET STOCK.

WANTED--500 COCKERELS, HENS
AND Pullets, in Plymouth Rocks, Rhode Island Reds, Wyandottes, Orpingtons, Leghorns, Brahmas and other varieties. Also want Ducks, Geese, Turkeys and Pigeons. Fully describe what you have, quoting lowest prices. Z. G. McKay, Lyons, Iowa.

WINNEBAGO REDS
SINGLE Comb R. I. Reds only. Excellent quality, standard weight cockerels and pullets. High class exhibition and common laying stock. Satisfaction guaranteed or no sale.
Winnebago Poultry Yards, R. 23, Omro, Wis.

50 Best Paying Varieties
Hardy Northern raised Chickens, Ducks, Geese and Turkeys. Pure-bred heaviest laying strains. Fowls, Eggs, Incubators, all at low prices. Large new Poultry Book and Breeders' Complete Guide Free.
W. A. WEBER, Box 14, Mankato, Minn.



62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm: 23 years exp. Large fine Annual Poultry Book and Catalog FREE.
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50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents.
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FOY'S BIG BOOK FREE
POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs.
Frank Foy Poultry Farm, Box 82 Clinton, Iowa

WHITE PLYMOUTH ROCKS
COCKERELS, hens, pullets, Ckls. weighing 7 to 9 lbs., each $2 and $3. Scored ckls. $5 each. Write your wants or order direct from this ad. Satisfaction guar. Chas. L. Berry, Iowa City, Ia.

HOUNDS: Coon, Fox, Wolf, Deer, and Rabbit Hounds; pedigreed and eligible to reg. Young and old stock for sale. Sent on ten days' trial. Money back guar. Otis Slater & Son, Oconee, Ill., Succes'rs to R. F. Johnson, Assumption, Ill.

57 Varieties Chickens, Ducks Geese and Turkeys Prize-winning, pure-bred, hardy northern raised. Fowls, eggs and incubators low prices. Most successful farm; 18th year. Large fine catalog free. LARKIN & HERZBERG, Box 30, MANKATO, MINN.

"ARISTOCRAT" Silver Wyandottes. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S. C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS: prize-winning S.C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns. $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

HATCHING EGGS: S. C. Reds, prize-wins at all leading shows. Eggs $1.50, 15, $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

2949 COCKERELS, hens and pullets. 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O. C. Olson, R. 2, Strum, Wis.

WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cockerels. Mrs. J. F. Bloom, R. 1, Stillwater, Minn.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

In and Around Wisconsin

COMING EVENTS.

Sixth Annual Road School, Madison, January 29th to February 3d.

Farmers' Week (Swine Program), Madison, Wis. Beginning February 6, 1917.

The annual meeting of the Washington County Agricultural Society was held recently and officers elected as follows: President, C. A. Schroeder; vice president, John Jansen; secretary, Joseph H. Huber; treasurer, Louis Kuelthau. The society has a balance in the treasury of $841.91.

On January 17, 1866, Mrs. C. C. Fisk, of St. Croix Falls, bought a bill of goods at the store as follows:

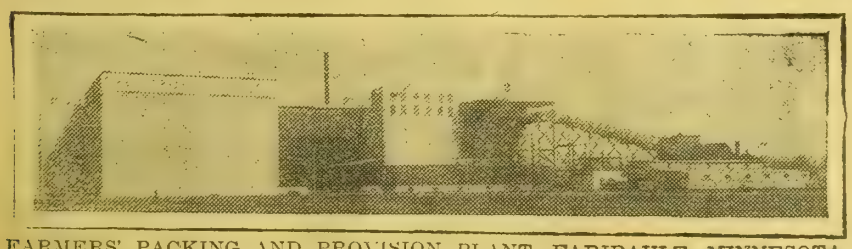
One fine comb	$ .30
Seven yards sheeting	1.75
Two pounds green tea	4.40
One sack fine salt	.35
Three pounds plug tobacco	3.00
One barrel flour	9.50
Two boxes matches	.30
One hundred pounds sugar	15.00
Six tin plates	.75
One lamp wick	.10
One-half pound cinnamon	.75

Those of our readers who are worried about the high cost of living today had better give these figures a little study. Our grandfathers and grandmothers lived and thrived on these prices, so let's take heart.

A recent report of the Geneva Cow-Testing Association, in Walworth county, shows that a Jersey led the list for butter fat production in November last, a Holstein was second and a Guernsey third. This is distributing the honors and indicates that each of the breeds probably has its enthusiastic supporters in this section. Of the cows which produced forty pounds of fat or better for the month, the Holstein breed furnished twelve, the Guernsey breed five, and the Jerseys three. It is also interesting to note that four out of the first five heading the list are registered stock—two Jerseys, two Holsteins and one, the only grade animals of the five, a Guernsey.

The most modern, up-to-date hog house in Wisconsin. Where the Gant Farms' Duroc Jerseys are raised. On February 15th J. D. Gant, proprietor, will sell forty head of bred sows at his farm, Delavan, Wisconsin.

The Fond du Lac County Holstein Breeders' Association, at a recent meeting, decided to hold its annual sale at the fair ground, April 26th and 27th. This sale promises to come up with the big live stock events of the state next spring. The officers of this association are S. H. Bird, president; S. C. Stanchfield, vice president; C. M. Corcoran, treasurer; C. H. Brugger, secretary, and Messrs. W. J. Gillett, S. M. Randall, and F. J. Bristol, with the other officers, are the board of directors. The sale in April will include about 150 head of pure-bred stock, according to reports. The breeders of Fond du Lac county are discussing the question of erecting a sales pavilion to accommodate the increasing sales business of the county. The Guernsey breeders of the county and the Jersey breeders are also interested in the proposed sales pavilion. The representatives of these three breeds will hold a meeting with the Wisconsin Experiment Association and the Farm Contest organization some time in February. The Fond du Lac Guernsey Breeders' Association is one of the big associations of the state and has a membership in six counties.



FARMERS' PACKING AND PROVISION PLANT, FARIBAULT, MINNESOTA.

The following table gives the land values per acre in Wisconsin counties, 1906, 1911 and 1916, as reported by the tax commission. These figures are based on the reports of assessors and also on reports of actual land sales, and they are believed to be fairly accurate. It is apparent that land values, as a whole in the state, have almost doubled in the past ten years. The greatest increase has been in some of the newer counties, but the increase in the older counties is also large. The tax commission gives out the figures as follows:

County	1906	1911	1916
Adams	$ 13.78	$ 17.24	$ 22.[illegible]8
Ashland	10.63	13.01	20.21
Barron	25.18	33.27	51.61
Bayfield	9.95	11.20	16.18
Brown	66.85	77.87	97.53
Buffalo	28.48	33.53	44.61
Burnett	13.36	11.35	19.10
Calumet	85.96	105.48	142.77
Chippewa	21.43	31.01	46.61
Clark	25.59	30.89	45.58
Columbia	51.83	63.75	80.32
Crawford	24.03	28.14	47.88
Dane	76.14	94.43	127.34
Dodge	90.65	105.49	129.23
Door	32.83	48.32	54.33
Douglas	18.11	35.79	39.59
Dunn	25.48	34.15	53.83
Eau Claire	27.85	30.39	52.51
Florence	10.04	14.93	13.05
Fond du Lac	79 36	92.28	119.36
Forest	8.47	16.23	20.85
Grant	47.07	56.14	79.02
Green	71.76	96.36	115.36
Green Lake	56.65	67.56	94.82
Iowa	44.87	62.91	88.44
Iron	9.52	13.95	29.63
Jackson	18.08	21.16	29.06
Jefferson	91.61	100.35	121.41
Juneau	27.14	25.23	28.81
Kenosha	71.24	98.39	129 99
Kewaunee	51.01	72.04	90.38
La Crosse	30.95	38.29	50.40
Lafayette	73.13	85.19	114.53
Langlade	13.63	25.75	27.92
Lincoln	9.92	22.96	23.47
Manitowoc	79.93	90.79	118.31
Marathon	21.00	31.19	42.68
Marinette	14.29	18.61	20.07
Marquette	24.44	28.60	38.71
Milwaukee	239.84	425.55	528.80
Monroe	27.48	35.07	47.54
Oconto	21.02	23.62	27.16
Oneida	8.01	10.52	10.[illegible]7
Outagamie	67.98	83.97	89.03
Ozaukee	98.31	108.86	139.24
Pepin	32.63	34.72	52.14
Pierce	36 65	44.28	65.33
Polk	22.53	27.15	45.79
Portage	23.69	34.41	49.24
Price	9 41	14.06	19.21
Racine	79.96	100.98	131.69
Richland	33.78	45.69	73.42
Rock	77.37	94.23	123.99
Rusk	9.66	14.98	22.79
St. Croix	37.12	44.29	64.92
Sauk	50.68	61.09	82.69
Sawyer	7.75	12.80	14.67
Shawano	28.83	36.83	43.15
Sheboygan	83.37	100.09	131.37
Taylor	15.53	18.08	22.28
Trempealeau	29.75	42.29	52.81
Vernon	33.00	43.53	63 50
Vilas	13 51	11.42	12.03
Walworth	84.76	113.49	133.52
Washburn	7.85	13.86	18.17
Washington	83.08	99.23	114.85
Waukesha	94.16	104.57	125.42
Waupaca	37.02	48.64	62.46
Waushara	31.83	34.51	49.24
Winnebago	79.09	81.50	97.26
Wood	27.76	29.40	39.49
State	$34.79	$44.29	$60.66

Radiator heating makes farm life ideal

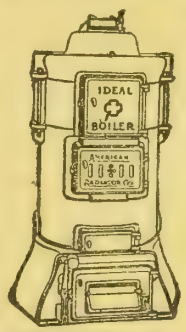
The people who heat their homes with IDEAL Boilers and AMERICAN Radiators prove to themselves and to their friends, that winter in the country can be made most comfortable, enjoyable and profitable.

AMERICAN RADIATORS & IDEAL BOILERS

***You* can have complete comfort in *your* own home, whether it is an *old* or *new* building.**

A basement or cellar is not necessary, as the IDEAL Boiler can be put in side room or lean-to.

It is not necessary to have running water—the IDEAL Boiler uses the same water over and over for years, and the small loss from evaporation is easily refilled with a bucket.



IDEAL Boiler fuel pots mix the air and coal gases as in a modern gas mantle, extracting ALL the heat from the fuel.

Easily put in even in mid-winter without tearing up or disturbing present heating arrangements until ready to put fire in the IDEAL Boiler.

It is not necessary to have special kinds of fuel—IDEAL Boilers will burn almost anything, wood, lignite, screening, slack, soft coal, etc., and best of all—***It is not necessary*** to have a mint of money before you can purchase an IDEAL Boiler and AMERICAN Radiators for your building!

A No. 5-19-W IDEAL Boiler and 450 ft. of 38-in. AMERICAN Radiators, costing the owner $200, were used to heat this farm house. At this price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which vary according to climatic and other conditions.

Send for book "Ideal Heating" (free)

We want you to know why an IDEAL heating outfit will give you most heat at least cost, and why it is the best for years of daily service without repairs or attention. Write today for our free book. You ought to read it.

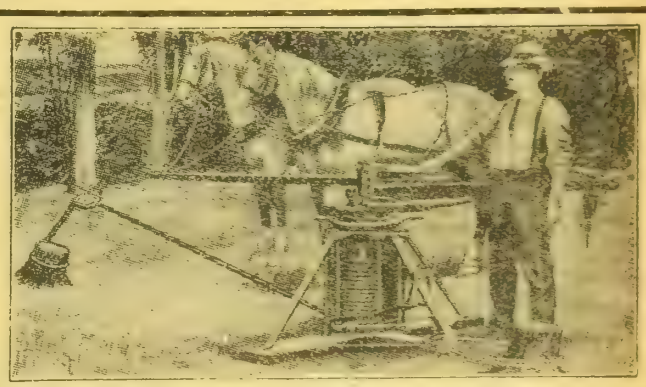
Sold by all dealers
No exclusive agents

AMERICAN RADIATOR COMPANY

Write to Dept. F-39
Chicago

Faultless Stump Puller

At a Special Low Price



The Faultless actually pulls from 50 to 100 percent more stumps at less cost of time and labor than any other stump puller. The cable winds onto the drum at the bottom all the time and the idle coils slide toward the top. This keeps the pull down and in a direct line with the anchor, and increases power. The machine cannot tip. Drum accommodates all of the cable, and it goes on only one layer deep. This prevents wear and relieves the strain on team and machine.

Machine and Cable are Guaranteed

against breakage for one year. Machines in use 15 years and longer are still in service.

Pull Stumps for 10 Days---Free

Clear from 10 to 50 acres. If not then satisfied that the Faultless Stump Puller will do more than we claim, return it to us at our expense.

The superiority of the Faultless is recognized by hundreds of farmers and railroads. It received highest awards at both the World's Fair at St. Louis and the Lewis & Clark Exposition at Portland in competitive demonstrations.

Write for special low price on our complete outfit, and our free book on clearing stump land.

Faultless Stump Puller Company, Dept. W, Cresco, Iowa.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Recharging a Wet Battery.

Please state the ingredients used to recharge a wet battery. How much of each should be used, and how much would be the cost?

Answer.—There are many kinds and sizes of wet batteries, each requiring different materials for recharging, the amount of the materials depending on the size of the cells. Zinc is usually used for one of the poles. When carbon is used for [illegible], the [illegible] of sal am- [illegible]y, or [illegible] double- [illegible] zinc [illegible] sulphate solution is usually used. See your druggist for prices on battery materials, as these prices are changing rapidly.

Underground Wires.

Is it all right to pass current from one building to another through lead-covered cables, in that way doing away with overhead wires? How much and how strong a current can be safely sent through a six-strand Packard low tension cable? I would like to use this cable between walls to supply an overhead lighting plan of several lights.

Answer.—It is all right to transmit current from one building to another underground, using lead-encased cable or enclosing the wires in metal conduit. The wires must be protected from moisture. The cable you mention would be safe for 110 volts, eight amperes. You should not use this cable for wiring your house, however. Use "new code" rubber-covered wire of the size specified by the Underwriters' Rules for the amount of current you wish to transmit. Otherwise the insurance on your house might be void in case of a fire.

Car Hard to Start.

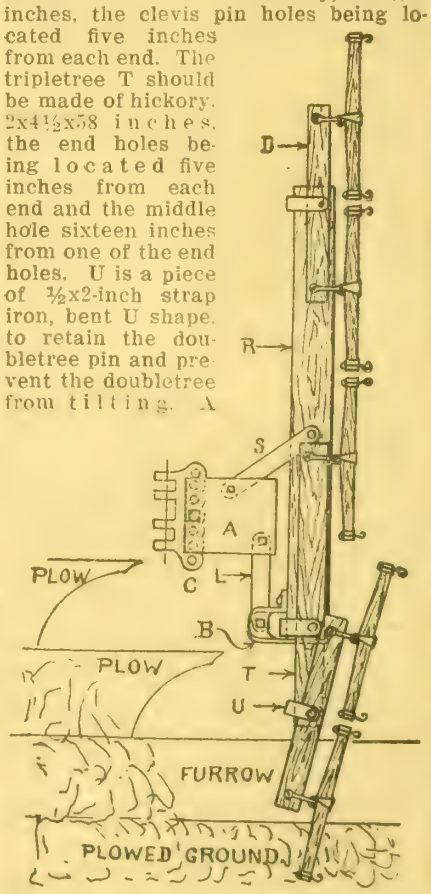
We have a Model 83 B Overland car. It starts hard, but runs nicely after starting. All the factory expert could find wrong with the car was a water leak into the cylinders. He stopped this, and put in new spark plugs; this helped some, but we still have trouble in starting. The car is new and has a good spark. What do you think is the trouble? The car has a "Dixie" high-tension magneto.

Answer.—The trouble is probably not in the magneto. However, you might write to the manufacturers of the magneto and inquire if it would be possible to apply their starter coupling to your machine. This coupling enables the magneto to deliver a very hot spark at starting, and doubtless would improve the starting qualities of your car. It is possible that the expert failed to stop the water leak entirely. This would make the motor hard to start. The fact that your motor starts better when primed shows that the starting mixture is too lean. Therefore, it would be well for you to choke the air supply when starting, either by holding the hand over the air inlet, or by closing the air inlet by means of a butterfly valve.

A Five-Horse Evener For a Gang Plow.

Please publish an illustration showing how to make a five-horse evener for a gang plow, so that four horses will walk on the unplowed ground and one in the furrow. Also give the measurements in inches. I have most of the materials for making one, but do not know just how.

Answer.—The illustration shows such an evener. Ordinary 28-inch singletrees are used. The doubletrees D should be made of hickory, 2x4x42 inches, the clevis pin holes being located five inches from each end. The tripletree T should be made of hickory, 2x4½x58 inches, the end holes being located five inches from each end and the middle hole sixteen inches from one of the end holes. U is a piece of ½x2-inch strap iron, bent U shape, to retain the doubletree pin and prevent the doubletree from tilting. A

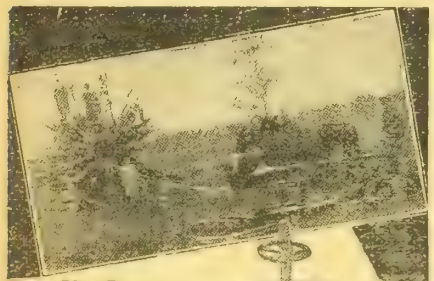


block about one inch thick must be placed between T and the doubletree, so that the clevis pin will clear the middle strap. R is made of hickory, 2x5½x90 inches. The end holes are located five inches from each end, and the other hole 32 inches from the end hole. A represents two pieces of strap iron or boiler plate six inches wide and twelve inches long. One piece is above; the other below the plow clevis. Two iron straps, S—one above and the other below R—are enclosed between the plates, and are free to turn about a five-eighths-inch machine bolt through the plates. Another bolt through the plates supports one end of the strap L, the other being loosely bolted to the bracket, B, on the end of R. The straps may be made of ½x2-inch iron or steel. T must be cut away at the end, so as not to interfere with S.

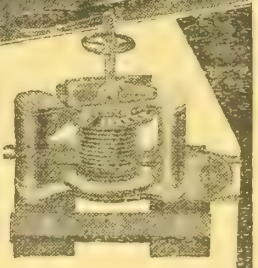
Play in Steering Gear.

How can I take up the play of the steering wheel of a 1916 model Saxon Six?

Answer.—The ball arm may be loose on the gear shaft. This is located just outside the frame under the gear shield. The lost motion can be taken up by tightening the clamp on the upper end of the ball arm. There might be end play in the steering post. This can be taken up by loosening the clamp bolt that holds the column in place on the instrument board and tightening the large hexagon nut on the steering column just above the gear case. If the above adjustments do not remedy the trouble, take up the play between the steering gear and worm. To do this, tighten the gear case cover on the right hand side of the case. Loosen the set screw that holds the case in position and turn the case to the right. Do not turn it far enough to make the steering stiff. It is well to jack up the front wheels while making the adjustments.



Pull Out Stumps With the Famous Hercules!



Triple-Power

Pull an acre or more of stumps a day. Pull any stump in 5 minutes or less. Don't have loafer land when it's so easy and cheap to *pull the stumps out!* Make 1000% profit by using the Hercules. $1281.00 the *first year* on 40 acres! $750.00 every year after. Let us *prove* it.

Low Price and Book Free!

Get the facts. Read our book. Tells what all steel, triple power means. Shows many features of the Hercules. Shows many photos and letters from owners. Postal will do.

HERCULES MFG. COMPANY
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Pull Big Stumps by hand

Clear your stump land cheaply—no digging, no expense for teams and powder. One man with a K can rip out any stump that can be pulled with the best inch steel cable. Works by leverage—same principle as a jack. 100 pounds pull on the lever gives a 48-ton pull on the stump. Made of Krupp steel—guaranteed against breakage. Endorsed by U. S. Government experts.

Showing easy lever operation

HAND POWER K Stump Puller

Write today for special offer and free booklet on Land Clearing.

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More Power
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Power depends on piston rings—so do fuel and oil consumption—so does regular service. Therefore—when you find power falling off, compression weak, gasoline waste, carbon trouble—you should put in a complete set of the Genuine

McQUAY-NORRIS
LEAK-PROOF
PISTON RINGS

Always gas and oil-tight; give more power with less fuel and oil; reduce carbon; cause minimum friction and cylinder wear. Strong, long-wearing; ever-efficient. There are imitations and substitutes. Be sure you get only the Genuine McQuay-Norris LEAK-PROOF Piston Rings.

All garage and repair men can give you immediate service on them. If you have any difficulty getting them, write us. We'll see you are supplied.

Send for Free Booklet

"To Have and to Hold Power"—the standard handbook on gas engine compression. Every farmer who runs an automobile, engine, tractor, etc., ought to have it.

Manufactured by
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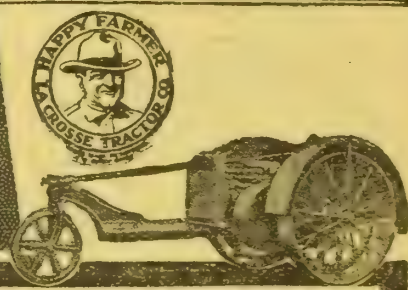
2820 Locust St. St. Louis, Mo.

the Genuine is packed this way

La Crosse Happy Farmer Tractors



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So low in first cost and upkeep that any farmer can afford to buy one or more. Simple in construction—with highest quality materials. Only ⅔ the parts used by other tractors, 88% of weight on two drive wheels.

Write for Catalog La Crosse Happy Farmer Tractors are now doing great work in farmers' fields. Model "A" pulls 2 or 3 plows—1500 lbs. guaranteed drawbar pull—16 h. p. on all belt work—extremely light and simple. Use gasoline or kerosene. Model "B"—12-24 h. p. guaranteed—weighs only 3700 lbs. Many exclusive features. Burns kerosene perfectly—Hyatt Roller Bearings throughout. We have a distributor in your territory for prompt service. Write for catalog. Also get literature on the La Crosse Happy Farmer line of tractor-drawn implements.

MODEL "A" 8-16 H. P. $585.00

LA CROSSE TRACTOR CO., Dept. 17 Minneapolis, Minn.
Live Dealer Agents Wanted

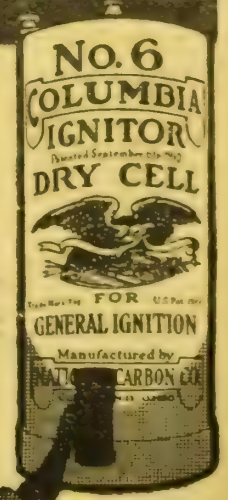
MODEL "B" 12-24 H. P. $735.00

Columbia Batteries

When you want a battery to light a lantern or run an engine, here's the name to remember—"Columbia."

National Carbon Co.
Cleveland, Ohio

Fahnestock spring-clip binding posts, no extra charge.



THE GENUINE SMITH STUMP PULLERS
W. SMITH GRUBBER CO.
CATALOG FREE—DEPT. 48 LA CRESCENT, MINN.

Fruit and Garden

Horseradish Facts.

Did you know that the horseradish industry is assuming respectable proportions in these United States? It really is. The statistics gathered only notice plantations of one acre or more and they foot up to 1,500 acres. If the smaller patches were included in the reckoning it would probably be double that acreage. Horseradish occupies a unique position among soil productions. It is neither a luxury or a necessity, yet it is an appetizing condiment in great demand in the spring of the year. The human system seems to call for it during the change from a winter to a summer diet.

Ground fine and mixed with vinegar, with a little salt and sugar added, it makes a very acceptable garnish for bacon or beefsteak and is welcomed by many as a relish on mashed potato or bread and butter. The peculiar smart-bitter of this root is not found in any other table preparation.

The culture of the root is as easy, to use a familiar simile, "as falling off a log." It is entirely hardy and when once established it will stay by forever.

The usual practice with farmers is to set it in any out-of-the-way place and give it no attention, no culture whatever, except to dig out a few roots as needed. But this is not the way to grow it commercially. It responds to proper care and reasonable culture as well as any other crop.

Select rich and clean land and plow it deeply. It will thrive upon almost all kinds of soil, but we would give the preference to a moist, well-drained loam. Mark off as for corn, with rows four feet apart. Every root or piece of root will develop buds and make a plant, but it is better to select roots of one size, and a root six inches in length is better than a shorter piece. Each piece planted will throw out a bunch of smaller roots at the lower end and these roots will take two or three years to develop size enough to be workable. But the six-inch root planted will be large enough after one good growing season if given proper culture.

It is exactly like any other crop—good soil and good culture pays. The expert horseradish grower gets a good crop the first season. He plants in April and digs in the next November. But even if you prefer to harvest at the end of the second season good care pays, for it results in an increased output.

Many growers are not manufacturers; they do not prepare it for the table, but sell it to those who do so. It is sold by the pound and 3 to 5 cents is considered a good price. Crops are often harvested which give a gross return of $300 to $500 per acre.

After the first digging there will usually be enough roots left to produce a fair second crop, perhaps even a third. But the experienced grower usually prefers to plant each year.

Some growers combine with this the business of selling the prepared article. Indeed, they go together very well, for the winter season is utilized in the preparation.

About all the machinery needed is a proper grinder, which is cheaply made or bought. Bottles or glasses are bought at wholesale and then with a neat printed label you are ready for the market. If one is careful to give a good article and good measure a profitable business is soon established.

While the profits will not be very large, they are sure. And there are but few business enterprises which can be started upon such small capital and with so little risk of failure. In fact, there is no crop so sure to grow, and any person who is gifted with the least ability as a salesman can dispose of his output.

When once your reputation is established and your brand known to consumers your business will gradually extend and may be increased to the limit of your capacity.

Ambitious boys who are willing to work can find in horseradish a way to get a start in the world.

Grow Gladiolus.

If you ask what one flower, adapted to general culture, can be grown with the least expense and the most satisfaction, the prompt answer would be "The gladiolus."

And that means the modern form of this flower, and not the old-fashioned "sword lily" of our grandmother's day. No other flower has been so vastly improved in the last fifty years. In size, in color, in shape, it has progressed beyond all expectation. Its peculiar value is found in the fact that, while in the above particulars it satisfies all tastes, it excels all other blooms, in its lasting quality, as a cut flower.

Almost any shade or combination of colors may be found, and a succession of bloom may be secured by planting early and late varieties. The time required for reaching maturity varies from seventy-five to 120 days, and the season for cut flowers may be much extended by judicious planting.

Any soil, so it be well drained, will grow this flower, but perhaps it has its best development in a rich, friable loam. Do not make the mistake of planting it under trees or in sod. Like all sturdy plants, it is a child of the sun, and it cannot have too much sun if the soil is tilled and watered.

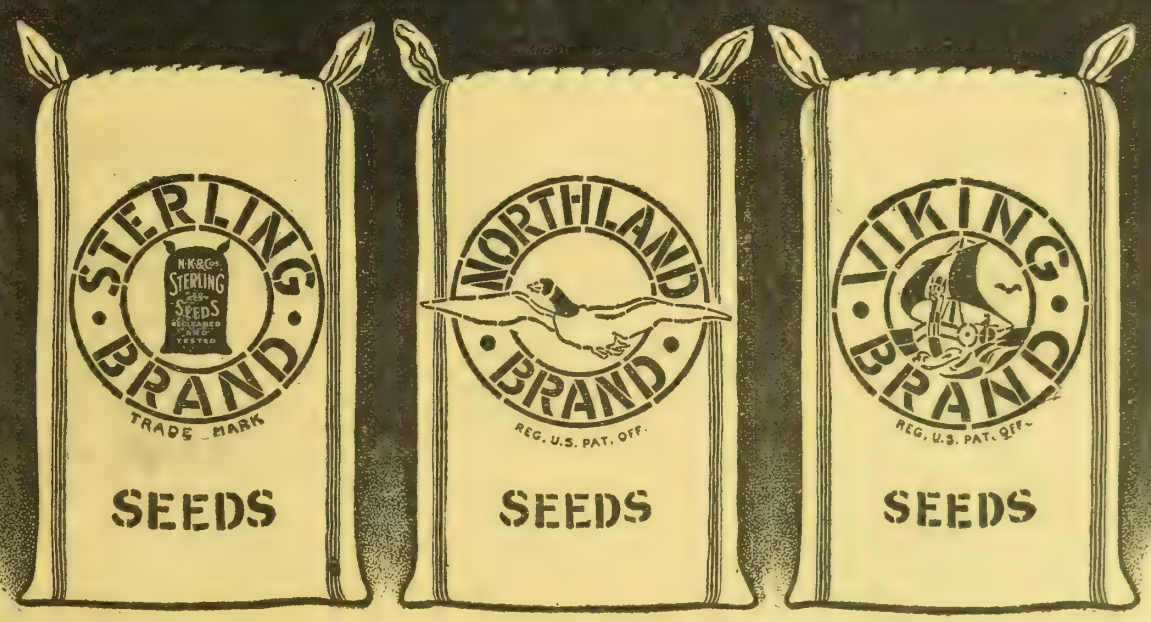
The varieties vary in growth—size at maturity, from two to four feet. When this flower is to be grown in quantities the best way of planting is in rows two feet apart, and the bulbs set from three to six inches apart, according to the size of bulbs. The depth of planting also depends upon the size of bulbs—from three to five inches.

Amateurs often ask what varieties are best? A hard question to answer, because tastes differ. But suppose you have decided to send an order for 100 bulbs; we can easily indicate what would suit us: Twenty of the pink, variegated, with America for leader; twenty of red, variegated, with Mrs. F. King as leader; twenty of yellow, variegated, with Golden King as leader; twenty of the white, variegated, with Chicago for leader; twenty of the blues, browns and blacks—florists' choice.

With such an order as that you will get all possible colors and mixtures of color, and after growing one year you can tell for yourself which please you best. Some you will perhaps find unattractive, and can cut them out at next planting. But the marvelous markings of the reds, pinks and whites will certainly please you.

As to using this flower you will make no mistake if you cut them when the first bud on the stalk begins to open. Do not, in your anxiety for long stems, cut all the leaves from the plant. They should be left to properly ripen the bulbs. Take the flowers to the house and place in water. They will open better and last longer than if left out in the sun. Every forty-eight hours give fresh water and cut off the lower half inch of the stalk. As soon as the individual blooms wither, remove them from the spike. They will continue to flourish until the last bud opens. If you wish to send to your friends, no flower ships so well. Just pack in a box with damp moss about the stems.

When once started in gladiolus growing you will become an enthusiast, and may maintain your plantation and increase it each year without buying more bulbs, for there will be



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It is support of this kind based on *satisfaction* that accounts for our rapidly growing business and for the increasing popularity of the brands shown above.

These Brands stand for integrity, high quality and reliability. When you buy seed look for the STERLING TRADE MARK, the NORTHLAND GOOSE or the VIKING SHIP on the bag.

Northrup, King & Co.'s seeds are sold by dealers in nearly every community of the Northwest. Your merchant can get for you quickly any of our seeds which he may not have in stock, from one packet to a carload.

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The corn for Central and Northern Wisconsin, Minnesota and the Dakotas.

Yield Record, 134 Bushels per Acre in Fond du Lac County. Is revolutionizing farming all through Wisconsin. Hundreds of farmers are now growing splendid crops of the best dent corn where formerly only flint was grown. As early as Minn. No. 13, from which it originated, and yields a third more. Olds' Fancy High Germinating Seed, ears and shelled, $2.00 per bushel and up. Ask for samples.

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Increase your profits by using our potato planter. Opens furrow, drops seed any distance or depth, covers, marks for next row—all automatically. Puts on fertilizer if desired. One man operates and sees seed drop. Made of steel and malleable iron, assuring long service and few repairs.

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a natural increase. Big bulbs, after first frosts, dry out and store in paper sacks, in a dry, warm cellar. There are thousands of farmers' wives who need the ministry of this beautiful flower, and if it is once enjoyed, they will never do without it again. Try a hundred in the coming spring. Five dollars will buy them—pure pleasure and highest enjoyment at a low rate.

Evergreens Contribute to Childhood's Happy Hours.

To the Editor:—I was born and raised right by a big Evergreen forest. Whenever I hear the whispering sound of an Evergreen it sends my memory back to childhood days. I grew up among the trees and learned the names of all the different birds and could tell their names by their songs. I learned their different methods of building and hiding their nests in the Evergreens. I have seen many a hare, fox and deer seek protection of the Evergreens to avoid hunter and hounds.

Then, we boys were safe from the forest master's cane when we got to the Evergreens.

Evergreens grow in the swamp as well as on the stony mountain where no other tree would grow. Where there is an Evergreen there will surely be a bird's nest, and where there is bird life a person will never be lonesome. Let us teach the children to connect the Evergreen with the Saviour tree, the Christmas tree. I think the Evergreen is one of the most splendid trees in existence.

McHenry Co., Ill. R. M. Omann.

Honey Bees Not to Blame.

To the Editor:—I read an article in your paper entitled "Fruit Growers vs. Beekeepers." I raise fruit and keep bees. I used to think the honey bee was the rascal that punctured and caused my grapes to burst open. Last year I had fifty stands in the heart of my vineyard—3,000,000 bees. When my grapes got good and ripe it set into raining on and off for three days. The grapes began to burst open fearfully and not a bee molesting them.

Eight and nine days later the bees began to show up and work on the grapes. The plums burst open on the plum trees so badly that I lost the sale of plums and no bees around. The bean pods began to burst open, covering the ground with beans, and no bees working on them.

I am positive now that the bee will have to be armed with a pegging awl and rip saw before it can do any damage to my grapes. The bee is the best pollinizer for fruit, and the only insect we have to gather the nectar from the flowers and give us that delicious honey which is the best sweet on earth for the human family.

If a bee lights on your ear or nose, let it roost there a few minutes and it will leave you unharmed. If a bee crawls up your shirt sleeve let it out gently. If you are rough about it and the bee stings you, good for you, you deserve it.

I have kept my apiary in my grape vineyard fifteen years and have had an abundance of grapes, plums, apples, cherries, pears, peaches, strawberries, currants, etc. I lay all the blame to the honest honey bee pollinizing the flowers. The bursting open of the grapes, plums and bean pods was caused by the rains and hot weather striking these fruits at the same time when they were ripe.

Chas. R. Riley.

Canadian Field Peas as a Hog Feed.

A few enterprising farmers in North Dakota have found that the Canadian field pea grown as a hog feed is an immensely profitable crop in some parts of the state. Usually the Canadian field pea does not make a satisfactory growth in the heavy soil of the Red River valley, but in most of the soils in the central and western part of the state the Canadian field pea will make a very heavy growth. It may be seeded alone at the rate of two bushels per acre and pastured by hogs when partly grown or it may be allowed to mature and be used as a fattening ration either by allowing the hogs to harvest the crop themselves or by threshing the crop and feeding the peas as part of the grain ration. Usually the crop proves a trifle more successful when one bushel of oats per acre is seeded with the two bushels of peas. The oats will help to support the pea vines and the crop can then be harvested better, either by the hogs or with a binder. If the crop is to be pastured through the summer months grain should be fed

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Armour Fertilizers are GOOD for your land — GOOD for your crops—GOOD for your pocketbook—GOOD for your disposition — a GOOD all 'round investment.

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FREE A pair of Mated Everbearing Strawberry plants, large pkt. of new Cereal Peterita, Sudan Grass and Silk Leaf Poppy seed, all Free for testing. Send 10c for mailing expense, or not, as you please. We offer genuine Progressive Everbearing plants at 50c per doz.; 50c for 50; $1.25 for 100; $2.50 for 250, all postpaid. CATALOG FREE.

The Gardner Nursery Co., Box 435, Osage, Iowa

to the pigs in addition. A field of peas seeded beside a patch of corn that is to be hogged off will add considerable to the ration while the hogs are on the corn. One of the objections to the use of peas as a forage for hogs has been the high price of the seed. It is, therefore, advisable to grow some seed each year rather than to depend upon buying it.—[W. H. Peters, North Dakota Experiment Station.

Watering House Plants.

One of our subscribers writes:

What is the matter with my house plants? They are not thrifty as I could wish. I have been told not to overwater them and I am very careful, but I don't get many flowers and many of the lower leaves turn yellow. My sword fern has not sent up a new leaf for two months.

We greatly fear that you are killing your plants with kindness. Your case is like that of the young mother who was so excessively cautioned not to overfeed the baby that she starved it to death. When friends give you advice about the care of your plants you had better, before you follow their advice, be sure that they are competent to give it.

If you have no insects in your window garden and the other conditions of light, heat and good soil are right, your plants must be suffering from drouth. The amount of water needed depends upon your room, its temperature and the amount of sunlight, for these things determine the rate of evaporation.

You do not state method of watering, but a common and mistaken way is to turn on a few spoonfuls of water daily. Give up that system. Fill with warm water a pail or big pan and set your flower pots in it. It should be full enough, so as to cover the pot and thoroughly saturate the earth and roots. Let it stand for twenty minutes, then take it out and put in another one or two, according to the size of the pots and the water receptacle. Do this once a week and they will need no intermediate watering. There is much talk about ferns being overwatered, but our observation is that they suffer from lack of water as often as from too much. A lady friend of the writer's, who is very successful with ferns, gives water abundantly once a week.

Another thing to notice for success with plants is to have the size of the pots correspond to the needs of the individual plants. Large plants, of course, need more room than small ones. To test their condition, turn the pot over and slip out the ball of earth. If it is found to be one compact mass of roots, it is high time that roomy new quarters were provided. Use pots of twice the previous size. Prepare fresh soil—a mixture of leaf mold and sand—and reset in this after removing as much as possible of the old soil adhering to the roots. Water thoroughly, as described above, and let them stand in the shade for a day or two.

It may be that your plants need some fertilizing material. It depends upon what kinds of plants you are growing, for some do not take kindly to enrichment, while others are gross feeders. Geraniums and chrysanthemums may be fed heavily. The cactus and ferns need no manures, but a dressing of bone dust is beneficial. You can make a good application of manure water for plants which need it by turning water upon a pail of stable refuse. Let it stand overnight and then drain off in the morning. You can judge of the strength of the liquid by the color, and if very strong, reduce to about the shade of strong tea. Then apply and it will make your plants boom.

It is well to remember another requirement of plants—the leaves must be kept clean. They are the lungs of the plant, and if clogged with dust, they cannot perform their office. It is well to cover plants when sweeping and then once every two weeks go over the leaves with a damp sponge. If this is done carefully it will not injure them in the least, but be an immediate benefit. If you have never tried it you will be astonished at the result.

If you act upon some or all of these hints we are very confident that you will have no further complaint about the thrift of your house plants. They will take on new life and reward you with an abundance of fine foliage and fragrant bloom.

Will Show Farm Movies.

"Reel" life on the farms of Wisconsin and other states will be shown in the motion picture section of the annual Farmers' Week program, to be given at the college of agriculture, Madison, during the week of February 5th-10th. Emphasis will, of course, be placed upon the modern improved methods of doing work for the betterment of farm homes, crops and live stock.

Fully 14,000 feet of activity in the field and feed lot, and from the live stock show rings to the cut-over regions of Wisconsin, will be shown. Most of these subjects were filmed especially for Wisconsin farmers. Much valuable demonstration work has been accomplished by these films, as only the most practical subjects have been chosen. The list includes reels on alfalfa culture, grain breeding, fence building, hog cholera control, views of the live stock winners at the Wisconsin State Fair in 1916, a meat-cutting demonstration, and more than 3,000 feet of views taken during the recent land-clearing demonstrations.

The new films prepared by the American Short-horn Breeders' Association, which had their first presentation in Chicago theaters this month, will be shown as a special feature of the Farm Week program. Besides showing the winning animals of this breed at the International Exposition, the pictures include "close-ups" of American judges at the Argentine International Exposition, James Brown, Frank D. Tomson, Robert Ogilvie and Frank W. Harding

Pictures showing the activity of some of the numerous energetic boys' and girls' pig clubs conducted by the federal extension workers in various parts of the country will be loaned to the managers of Farmers' Week by officials of the United States Department of Agriculture. As part of the Swine Week program these films will be especially appropriate.

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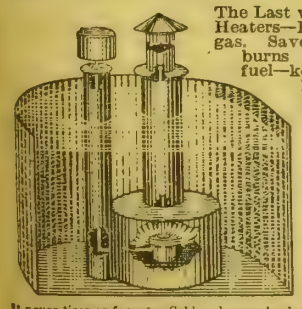

The Last word in Tank Heaters—Burns kerosene gas. Saves money. It burns the cheapest fuel—kerosene, a gallon burns from eight to fourteen hours.

Saves time. It is always ready for operation. Can be generated in five minutes by any eight-year-old boy. Requires no attention after being lighted.

Saves worry, no sparks to burn your buildings. No night firing. The Sunbeam will be on the job in the morning.

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BAIN BROS. MFG. CO., Dept. B, CEDAR RAPIDS, IOWA

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Salzer's Seeds are Northern Grown—vigorous, element-resisting and big crop producers. For 49 years we have been experimenting, testing and improving these pedigreed strains. Today, Salzer's Catalog offers you the highest quality seeds that scientific knowledge and practical methods can produce.

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Salzer's seed corn is thoroughly ripened, dry as bone and of high germination. Give your farm a chance. Plant Salzer's Seed Corn and get more bushels to the acre. Your success depends upon the strain you sow. We have many choice varieties—all hardy Northern Grown, brimful of strong, vigorous seed life. Send for sample and catalog.

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Big paying varieties. Hold continuous records for mammoth yields. Stiff stalks and full, plump heads. Side-step poor crops by sowing Salzer's Seed Oats. Northern Grown stocks and a strain exactly to suit your soil and climate. Good stoolers. When you sow Salzer's oats you begin to realize the possibilities of your farm. Write for sample and catalog.

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Earliest ripening varieties. Silver King has a record of 173 bushels per acre. Finest for malting and feeding—the kind that puts dollars in the bank. Northern Grown, pedigreed strains. Strong straw, well filled, heavy heads. Big crops assured. Heartily approved by Wisconsin and Minnesota Experimental Stations. Send for sample and catalog.

GRASS

Billion Dollar Grass, a Salzer creation, grows 6 to 8 feet tall. The wonder crop for green feed, ensilage, hay and seed. Fine stooler. Our Sudan Grass has produced 7 tons per acre. Stock thrives on it. Two to three cuttings. Many other superior varieties and mixtures. Luxuriant growing Clovers of all kinds. All Northern Grown. Salzer's strains give full returns. Write for samples and catalog.

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Too many farmers do not realize the wonderful opportunity in this miracle crop. Salzer's Northern Grown strains are the heaviest and most vigorous varieties. Three to seven tons per acre. Best feed for stock. Great money-maker. One of Wisconsin's Governors received $2500 in hay from less than 30 acres by sowing Salzer's 20th Century strain. Read about it in our 1917 Catalog. Never be satisfied till you try Salzer's Alfalfa. Send for sample and catalog.

Our 1917 handsome, illustrated, 184-page Catalog also describes all the standard varieties and latest novelties in vegetable and flower seeds. Write for it today. It is FREE.

JOHN A. SALZER SEED CO. Box 123 LACROSSE, WIS.

DAIRY

Waukesha Holstein Men in Annual Meeting.

Holstein breeders of Waukesha county came together for their ninth annual association meeting in Waukesha, January 23d. It was as the committee had planned it to be—a meeting bigger than ever. Holstein enthusiasts to the number of 200 were present both at the meeting and at the banquet and the program following it. Business men from the city of Waukesha and friends from other local associations helped swell the number still more. Both the sun parlor and the spacious dining room of the beautiful Hotel Resthaven were com-

[illegible]

and approved. These reports showed a total of $1,300 and over expended for advertising during the year, resulting in the sale of nearly $30,000 worth of stock. With the new members elected at the meeting the association now has over 150 paid up members. Each member has agreed to try to secure at least one new man during the coming year. A movement to secure for Wisconsin the 1918 meeting of the national association was put under way when the motion was carried to start working towards this through the state association. A delegate selected by the directors is to present this to the state association. A national meeting and sale in Milwaukee would, in the minds of many of the Waukesha breeders be of greatest help to Holstein interests all over the country. This year's meeting, to be held in Worcester, Mass., is bound to suffer because of the long distance.

A resolution favoring the establishment of cow-testing associations without regard to breeds and encouraging such testing associations all over the state passed without a dissenting vote. The association is not in favor of restricting the testing of cows to animals of one breed. The Waukesha association is under a continuous management of nine directors, three new directors being elected each year. The three outgoing directors for this year, H. H. Earle, Stewart Reed and Arthur Rust, were voted to succeed themselves for another term. The business session ended with the election of new members.

Attorney J. K. Lowry, of Waukesha, opened the program with an address of welcome in behalf of the city. He urged one point in particular during his short speech and it met with the approval of those present. His suggestion was for all members to adopt the slogan, "What is good enough for Waukesha is good enough for me." In brief and concise sentences he showed the advantages of working for the community good more than for individual temporary profit. Following this Pres. Charles J. Will spoke a few words on the progress that has been made and some of the problems that are still facing the association. He mentioned the plan of supplying each Holstein herd of Waukesha county with a sire of the thirty-pound class. Some breeders have followed this plan during the last year. He asked the young breeders in particular to be careful in their selection of sires, urging them to follow the practice of consulting older and more experienced men in making purchases of herd headers. He called the attention of the members to the early employment of a county agent, asserting that no county in the state had better opportunities than Waukesha county and in his estimation hiring an expert adviser would do much towards increasing the yield of field crops in the county. The association will in all probability work with other county organizations towards securing a county agent soon.

Dr. J. I. Gibson, of Iowa, was slated for an address, but being unable to come, Mr. A. J. Frame, a local banker, spoke instead. His talk was interesting, as it pertained to the new rural credits act. Some of his statements were much to the disadvantage of the new act, but in his own way he showed clearly the weak points of the system and the conditions under which it might work successfully. He also emphasized the fact that money was never as cheap as it is today. Loans, according to Mr. Frame, can be made for as low as 5 per cent in Waukesha county due to the tremendous wealth of the country.

The feature of the day was the address by Hon. D. D. Aitken, president of the Holstein-Friesian Association of America. Mr. Aitken pointed to the tremendous progress that has been made by the Holstein cow during the last years. He mentioned the advance of records from a niggardly ten pounds per week to the latest of over 50 pounds. He recalled the contempt with which the Holstein was referred to in other years and the steady natural advance of the breed through merits of its own. "How much progress has man made in the same time?" asked Mr. Aitken. "Did we increase our earning capacity as much in the same time? No, the Holstein is so far ahead of us and the procession that we can hardly see her shadow in the distance." The agitation now being carried on by many dairymen for higher prices because of higher feed prices also came in for a scoring by Mr. Aitken. In his estimation, the basis for asking higher prices ought not to be feed prices, but rather food value sold. A quart of milk containing 15 cents' worth of nourishment ought to bring a price somewhat nearer the actual value than at present—not because of feed prices, but because of value contained. He touched briefly on the worth of the dairy cow to the country and his relation to cheap money in a community. From this he led over to the work of the dairy council and the results an advertising campaign, as is being carried on now, is sure to bring with it.

The Flavor of Butter.

The flavor that is "a little off" will creep in during the winter months if ever, for a number of things which may produce it are now present, with which we do not have to contend during the summer while all the troubles except the high temperature are as persistent now as in July.

One of the most prevalent troubles is keeping the cream too long. We are sometimes obliged to do this in order to get a sufficient quantity to churn, for we fancy that in cold weather there is no necessity for slaving over the churning two or three times a week.

Yet butter of the best quality is obtained when the cream is churned more often, not longer than twice a week, though a product of fair quality may be secured from a weekly churning if extra care is taken of the cream during the gathering process.

It must be kept in a well ventilated place or room, free from objectionable odors. If vegetables are kept in the same compartment, see to it that there is no decaying members among them. Cabbage is especially prone to affect the flavor of milk or butter.

It is at this season especially that the sanitary rules for the stable attendant need strict enforcement. When the cows are out on pasture the ordinary farm methods have much less of the objectionable in their make-up.

If you use silage and the barn is not up to date in point of ventilation, never feed the silage until after the milking is done and the milk cared for. It readily absorbs any odor, and the butter will be of inferior quality as a result.

Always scald pails, strainers and separator with as much care as in midsummer. Because the milk does not quickly sour is no reason why vigilance in this direction should be relaxed. The bitter odor is bound to

"JAMES" Sanitary Barn Equipment

enables you to do your present work in half the time—keeps hired help contented—improves cow comfort, therefore increases milk yield—makes sanitation possible about the barn. Why not get acquainted with the equipment that

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The JAMES line includes stalls, stanchions, pens, carriers, watering buckets, horse stable equipment, etc.—all JAMES quality and backed by JAMES service.

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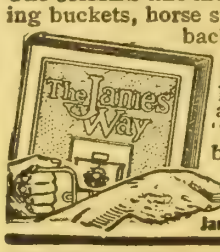

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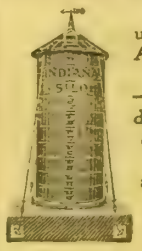

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Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

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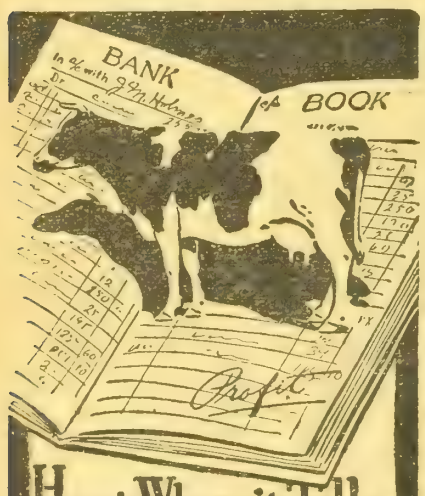

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It isn't a question of sentiment whether or not your cows are in the pink of condition—but it does make a big difference in your bank account. Since you are keeping cows for milk instead of for meat, better see to it that their milk-producing organs are kept working normally.

At the first sign of decreasing milk-flow, look for the cause. Ten to one it is due to some trouble with the digestive or genital organs, and such disorders are best set right by the use of Kow-Kure, a cow medicine backed by twenty years of success. Try Kow-Kure on your poor milkers and watch results. Hundreds of doubting cow owners have been convinced that this old remedy has no equal for the prevention and cure of Abortion, Barrenness, Retained Afterbirth, Milk Fever, Lost Appetite, Scouring, Bunches, etc.

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Write for our free treatise, "The Home Cow Doctor"

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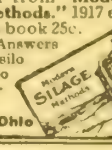

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The Silver Mfg. Co., Sta 312 Salem, Ohio

creep in unless this detail is carefully attended to.

If the butter is hard to come, keep the cream in a warm room for several hours before churning. This is much more satisfactory than putting in hot water to raise the temperature of the cream.

If you still cling to the old dash churn, and it inclines to let the cream spatter upon the floor, pin a paper around the top of the churn, letting the sides project high enough to shut in all the splashes. When packing the butter away, scald all the crocks and pails thoroughly.

One that has had rancid butter in it can seldom be cleaned sufficiently to keep butter well afterwards, unless it be a stone jar; however, if it is necessary to use such vessels, perhaps the best method of sweetening it is to fill it with clay for a short time. This soil has considerable power to draw out objectionable flavors as nothing else can. When packing for winter always use the best of salt and cover with a cloth well sprinkled with salt, and avoid coloring materials.

Strive to keep the cream at the proper temperature before and during the process of churning and you will not have much need of artificial tints, if you have a good butter cow.

More butter is spoiled by being over rather than underworked. Don't churn when you are cooking onions and then be surprised if the butter is "off." If the process is carried on in any part of the kitchen, it is necessary to have the air fresh and free from other odors at the time.

Take heed that the utensils used in working the butter are thoroughly aired and dried after being used each time and before being used again, or put away. In the absence of direct sunlight this is slower and may not be thoroughly done unless special attention is given to it. Good butter can be made in the winter as well as in summer, but it takes careful attention to the details from start to finish.

Allowed Calf Meal to Get Too Old.

One of our subscribers, Mr. E. A. Watts, recently called our attention to the fact that one of his neighbors lost two calves and the local veterinarian made the claim that the deaths were due to the use of Blatchford's Calf Meal. As we considered this a very important matter we have asked the manufacturer of this meal what the probable cause of death would be. Here is his reply:

We may say in the whole course of our business career that we have never had a case where Blatchford's Calf Meal killed any calf. With the quite large business that we do, we have occasional complaints, perhaps one or two each season—not more than that—and in investigating these we find that nine-tenths of the trouble mostly shows itself in diarrhea, which is caused by overfeeding Blatchford's Calf Meal. Calves are very fond of it and the farmer will sometimes overfeed.

Sometimes a dealer will allow his stock to get old, and in such cases weevils appear in it and a good deal of the nutriment of the calf meal is destroyed or eaten by the embryo weevil. In such cases the meal lacks nutriment, and the calf does not do as well upon it as it should and it does not thrive, but we have never had any case of poison.

All the ingredients of which Blatchford's Calf Meal is composed are printed plainly on the bags, and fed either alone or collectively these ingredients are everything that would be beneficial to the calf.

It follows naturally that there is a right and a wrong way to use any food product and it may be well understood that weevils would very quickly impair the feeding value of any product, and, while it may be true, as stated in the above letter, that the meal in that case will lack nutriment and not be poisonous, still it must be remembered that the more indigestible part of the meal will be left and a calf might eat an irrational amount of that material. We feel, however, that no loss will be experienced if this food is fed rationally and kept in a fresh condition.

A Little About Our Dairy.

To the Editor:—We have wasted very little time with hard milkers and kickers. If any such happened in our herd we sent them to the butcher as soon as possible. We take the calf from its dam as soon as convenient, because we have in life had trouble with young calves running with the cows too long. A real good milk cow ought to, and will when properly fed, give an abundance of milk for two calves.

We think it more profitable to have the large share of cows come fresh in the fall; however, butter is usually better flavored if there are fresh cows now and then throughout the entire year. We are milking for this winter and are making butter from twenty cows, nine of which are three years old, six five years old and the balance seven years old. All cows are in good health and giving a good flow of milk. All surplus cows are fattened and sold with the steers. Of course, this is necessary; some cows are changed every few years. We keep them as long as they are profitable, but when they prove unprofitable no time is wasted in disposing of them.

We have used the cream separator for several years and like it well; in fact, would not try to handle so many cows without it. We like it because we can separate the cream from the milk soon after milking and have the milk fresh and warm to feed the young animals. Pigs are very fond of warm milk, and, my, how it makes them grow. We use lots of the milk for our chickens and would not try to handle them without plenty of milk. The separator is supposed to take all the cream from the milk and a good one properly managed will get the most of it, with much more ease and much less trouble than any other method. All the dairy work is done at the barn and a little dairy house near by. We have added improved dairy appliances as we thought we could afford them. Dairying on our farm has its ups and downs, joys and sorrows. Among the joys is the money; of course, the objective point comes first. If there was no money in the business we surely would not have spent our several years working with dairying. Even, however, if the money sometimes seems rather small for the labor expended, the butter money is a fine thing to have. It is a steady income, something to pay everyday expenses of the family.

Like all other work on the farm, there is pressing need of intelligence and ability to make use of it. There is ample room for the student of nature and science to give his powers of research full sway. I think there is pleasure in working among the dumb animals and especially among milk cows. The chief objection to the dairy business by many is that it is confining every day in the year. This objection, however, is not a serious one, for if I make money on my farm I must give it my daily attention. No man can neglect any kind of business and make the money he would by close attention to business, one of the secrets of success in any line of business, whether it be dairying, general farming or anything else.

Perhaps the most trying difficulty in dairying is the help. It is our experience, however, that a good farm hand, although he may have his preference for some kind of work, will do what is required of him and do it well when he is treated right. We have been quite successful in getting help from homes where boys and girls have been accustomed to milking.

Many young people are not taught to milk, however, and this is a great mistake. They should be taught to do such work, as they may have some of their own to do when they shall become grown, and many are looking for such help at all times and at good wages.

Subscriber.

"This is My Choice of Seven Makes,"

1000 in use

says A. J. Hurtig of Ogilvie, Minn.

Please read this letter—

"I am very much pleased with my silo. The material is good, and plenty of it. No trouble to erect same. If farmers intending to build a silo had chance to see your frost-proof, am sure they would not buy any other make regardless of price. **I had a chance to investigate seven different makes before placing my order with you, but it did not take much time for me to decide after I had seen the merits of your frost-proof.**

"Yours truly, A. J. HURTIG, Ogilvie, Minn., Oct. 26, 1916."

36° below—no frozen silage

"I am pleased with my silo," said P. A. E. Hall, R. F. D. No. 1, Bruce, S. D., in a letter Dec. 18, 1916. "It is 36° below this morning, and just a little frost around the edge. Several of my neighbors will build H-L-F Silos this summer."

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The H-L-F is sold direct from factory—*at factory prices.* You save at least $100. Big sales enable us to give carload price on single order. Order now for spring delivery and get FREE ROOF.

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Gentlemen:—You may send me your big H-L-F Silo folder and FREE ROOF offer.

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THE OTTAWA MANUFACTURING CO.,
1191 King Street, OTTAWA, KANSAS.

E-B Farm Tractor

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A four-cylinder, 2-speed, light-weight tractor of great power, suitable for any size farm. Will pull the implements you now have on your farm—gang plows, harrows, mowers, binders, manure spreaders, road drags or graders. Will also operate your ensilage cutter, feed grinder, circular saw, etc. Does more work than horses—costs less and is so simple anyone can run it.

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THE HOME

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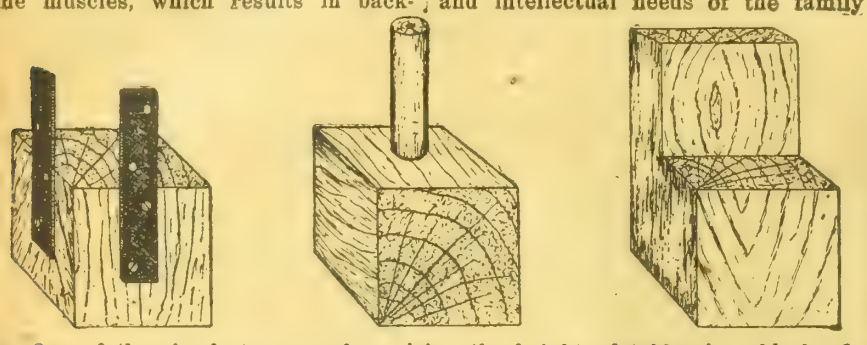
A Cure For Backache.

The farm housewife cannot be too often urged to insist on having her work table, cabinet, stove and all working surfaces in her kitchen the proper height. The farm woman necessarily spends a great part of her working hours in the kitchen and if she is to conserve her strength and health she must have all her equipment as well arranged, convenient and "comfortable" as possible.

[illegible] ight. Ex- [illegible] the most noticeable defect in farm kitchens is the height of these articles. The average woman must stoop slightly to her work, causing a straining of the muscles, which results in backache, round shoulders, and a general tired, worn-out feeling.



One of the simplest means for raising the height of tables is a block of wood with metal strips and screws or nails for fastening to the table leg. Another kind of block is furnished with wooden pin or bolt which is set into the block and also fits into a hole in the table leg. Still another style is the block sawed to fit a corresponding notch in the table leg, and fastended by means of nails.

Four blocks of wood or a piece of gas pipe, and a little time, are all that are necessary to remedy this difficulty. Three different styles of blocks are shown herewith, any of which will prove satisfactory for lengthening the legs of kitchen equipment and bringing it up to the proper height. The thickness of the blocks should be regulated according to the height of the person using the table most. Bricks may be substituted for blocks if more convenient, or the legs of tables and cabinets may be spliced with gas pipe.

As a rule, the working surface should be about thirty-two inches from the floor for a woman of average height (five feet, five inches). Some housewives claim that they work most comfortably at a table on a level with the hips. Each worker should determine for herself at which height she works with the least effort and when the correct height has been determined tables and all working surfaces should be made to conform. This will save many a backache and enable the housewife to maintain an erect, healthful and comfortable position at her kitchen tasks.

"Meat Pudding" Season Is at Hand.

The butchering season calls to mind an old-fashioned recipe for "meat pudding."

All meat not used for sausage, hams, shoulders or side meat may be placed in a kettle to be cooked for this delectable dish. This includes the head, with tongue; the heart, liver and all clean skins after lard has been stripped from them. To these trimmings add water and cook slowly until very tender. Remove bones and largest pieces of meat, cut the meat into small pieces and place back in the kettle. Add water and thicken with corn meal and buckwheat flour, about equal portions. Cook slowly, stirring constantly; season to taste with salt, pepper and sage. When done pour in dripping pans. When firm, slice down. Serve cold or fry like mush.

Efficiency in the Home.

'On the efficiency of the home depends the economic, ethical and spiritual values of the nation," said Miss A. L. Marlatt, director of the course in home economics at the University of Wisconsin, in an address on efficiency in the home before the convention of the Vocational Educational Association of the middle West just held in Chicago.

Efficiency in the home, of course, is dependent on the standards of living and the standards of living are in turn dependent upon the ideals of the housewife, the demands of man, the limitations of income and subjection to fashion or social convention. If the housewife's ideals are constructed on a basis of false reasoning, if she allows her profession of homemaking to be overshadowed by fashion or social convention, her efficiency in the home is necessarily lowered.

The business organization of the home in its relation to the physical and intellectual needs of the family is an important factor in successful homemaking, Miss Marlatt told the convention. To be able to establish a well-managed factory which will provide for the physical needs of the family in the most efficient manner, the housewife should be equipped with a knowledge of the laws of mechanics and the principles of sanitation, economics and nutrition. When parts of her household machinery are out of repair she should be able to thoroughly investigate the trouble and see that the defect is efficiently repaired. The intellectual needs of the family may be provided through better education for parenthood, a discriminating choice of literature, and a knowledge of the best forms of amusement. The spiritual necessities of the home are met only through knowing the laws of psychology, ethics and judgment in training the will.

The working basis for achieving the knowledge necessary to become an efficient housekeeper, according to Miss Marlatt, lies in familiarity with the relative value of expenditure as it is gained by a proper division of the budget, a recognition of limitations due to fatigue, the conservation of energy by the use of labor-saving devices and living with the family rather than slaving for the family.

Hints For the Seamstress.

Sit with both feet on the floor.

See that the light falls over the left shoulder.

Do not allow the sunlight to fall on the work and do not sew in dim light.

Do not pin your work to the table or to your clothing.

Bring the work to your eyes, not your eyes to the work.

Do not bite the thread; it may crack the enamel on your teeth, soil your work, and spread disease germs.

Make all permanent stitches small and even, and have the wrong side, when finished, as neat as possible.

Use a short thread for sewing; it may be as long as the distance from shoulder to shoulder or from finger tip to elbow; basting thread may be longer.

To prevent kinking, thread the needle before breaking the thread from that on the spool.

A knot is used only in basting or when it can be hidden.

Never cut notches in the cloth to correspond to those in the pattern; mark the places where they should be with pins inserted perpendicular to the edge of the cloth.

Wash your hands before beginning to sew.

Always wear a thimble that fits the second finger of the right hand.

Wear a sewing apron.

When you stop sewing, put the needle in the case, fold your work neatly and put it in the sewing bag.

The Need of Good Literature in Rural Homes.

To the Editor:—I wonder how many of us ever think seriously enough about the necessity of having proper literature in the rural home? Almost any subject pertaining to the farm and home is discussed more frequently than this, and it is practically the basis for all improvement, development and progress in general of the community and the home. Clubs, good schools and fine roads are all well enough, but in speaking of them we are speaking of results of former training of minds of those interested through reading, thereby profiting by the experience of others.

Proper literature tends to the development of high ideals and a desire toward the betterment of one's condition as well as that of others.

It is the duty of every farm parent to select judiciously a variety of reading matter for the family. It is regretable to notice the character of the literature to be found in many homes. All of it is read and much of it is selected by the children. Usually it is light reading matter, that which appeals to the mind of the young for the time being, regardless of the effect it has upon the morals. There is often very little that tends to instruct and inspire.

The boys and girls of the rural home need proper literature as a means of instruction as well as a form of diversion. Therefore, great care and thought should be exercised in the selection. A good, reliable newspaper, a few current magazines which are authoritative and practical, a good agricultural magazine and also some historical works—all these are, to my mind, absolutely necessary and essential to the development of the child in the rural home.

True, when the boys and girls become of proper age they are sent to the city schools. But what about the years between when their minds are most susceptible?

I fear too many of us are so busy selecting improved stock for the farm, planning for next year's crop and endeavoring to add more acres to our farms that we forget the pliable minds of our children and neglect to furnish them with the necessary aids to the culture of their hearts and minds.

And what about the mothers and fathers, tired from the routine of farm work and to a certain extent isolated from the association of others? Do not they, too, need the best of literature as an inspiration and an aid to awaken them to the conditions of home and community? Fine schools will be established, clubs organized and good accomplished in every way if the minds of the people are trained in the proper channels by the reading of good literature. Mrs. H. I. Moser.

A Perfect Day.

When you come to the end of a perfect day,
And you sit alone with your thought,
While the chimes ring out with a carol gay,
For the joy that the day has brought,
Do you think what the end of a perfect day
Can mean to a tired heart
When the sun goes down with a flaming ray,
And the dear friends have to part?

Well, this is the end of a perfect day,
Near the end of a journey, too;
But it brings a thought that is big and strong,
With a wish that is kind and true,
For mem'ry has painted this perfect day
With colors that never fade,
And we find at the end of a perfect day
The soul of a friend we've made.

—Bond.
(Requested.)

Recipes.

Codfish Balls.—One pint of codfish, minced fine and scalded; one quart of hot boiled potatoes mashed fine or put through potato ricer. Mix fish and potatoes together, add one-fourth of a cup of butter, about as much cream, a little pepper and two well-beaten eggs. Keep all as hot as possible. Beat together with a fork. Roll lightly in flour and fry like doughnuts in very hot lard and beef drippings, half of each.

Potato Dumplings.—One and one-half cups flour, five teaspoonfuls baking powder, one-half teaspoonful salt, three teaspoonfuls butter, one-half cup riced potato, one egg beaten light, three-fourths cup of milk. Sift together the flour, baking powder and salt; work the butter into the mixture; mix the milk, beaten egg and potato thoroughly and use in stirring the flour mixture to a dough. Turn upon a floured board and knead slightly, roll into a sheet and cut into rounds. Set close together in a buttered steamer and let steam over a kettle of boiling water or meat about fifteen minutes. Do not open the steamer during the cooking, or allow the water to stop boiling.

Tomato Soup.—Put over the fire three quarts of sliced or canned tomatoes, three branches of celery, three cloves, three tablespoonfuls of sugar, three teaspoonfuls of salt, half a bay leaf, three sprigs of parsley, and half a red pepper with an onion and a half, chopped coarse. Let cook twenty minutes, pepper with an onion and a half chopp- then strain through a fine sieve using a pestle to secure as much of the tomato as possible. Melt three tablespoonfuls of butter, into it stir and cook three tablespoonfuls of flour, until bubbling throughout; let chill a few minutes; add a little of the tomato pulp and stir; add more pulp several times, stirring meanwhile, then when smooth and well diluted stir into the hot soup; continue to stir until boiling, when the soup is ready to serve.

Steamed Fig Pudding.—One cup raisins, one cup chopped figs, one cup chopped suet, one cup sweet milk, one cup dark molasses, one teaspoonful soda, two and one-half cups flour, one teaspoonful each cinnamon, nutmeg and ginger. Steam three hours. Serve with hard sauce.

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THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

The Little Red Hen.

Dear Young Folks:—I surely enjoy reading the letters from boys and girls. I read them all alone to myself. I am nine years old and go to school. I have a good time when I am at school and when I am at home, too. I have always liked the story about the little red hen, so I am going to tell it to you.

Once there lived a little red hen in a little red house, and a wolf lived in

LITTLE JACK HANLEY AND HIS DOG

the woods. He knew that the little red hen lived there and one day he went to the house and looked in at the window and saw the little red hen. But he could not get her, so he went home. The next day he went to get her and he hid until she came out. Then he got behind the door and when she came in he caught her and put her in his bag and started home.

On the way he got sleepy, so he lay down by some rocks and went to sleep. The little red hen had her scissors in her pocket and while he was asleep she took them out and cut a hole in the bag big enough so she could get out. Then she filled the bag with rocks and flew home.

When the wolf woke up he started home. His mother was standing by the door and said, "Have you got the little red hen?" "Yes," he said, "and she will make a delicious dinner. When I count three you have the lid off the kettle and I will pour her in." So he counted, "one, two, three," and she had the lid off and he poured the rocks in, and the kettle upset and the water splashed out and scalded the wolf. So the little hen got to live in the little red house. —Marie.

A decision sustaining John J. Dillon, New York, state commissioner of foods and markets, in his order directing dealers to stamp separately each cold storage egg, was handed down by Supreme Court Justice Bijur. The court made permanent, pending trial of the issues involved, a temporary injunction restraining several large dealers from selling unstamped eggs. Justice Bijur held that, unless storage eggs are stamped when they are removed from the original packages, their "identity becomes so lost that, unless the individual egg is marked, all trace of its character is lost."

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Catalog of Fall and Winter Fashions

Send 10c in silver or stamps for our up-to-date 1916 large fall and winter catalog, containing over 400 designs of ladies', misses', and children's patterns, as well as the latest embroidery designs, also a concise and comprehensive article on dressmaking, giving valuable hints to the home dressmaker. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wis.

1978—Children's dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2½ yards of 36-inch material for a 4-year size.

2001—Ladies' house dress, with or without back yoke, and with sleeve in either of two lengths. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅜ yards of 36-inch material for a 36-inch size.

1799—A practical, easily-made apron. The pattern is cut in 3 sizes: Small, medium and large. It requires 4¾ yards of 36-inch material for a medium size.

1764—Boys' middy suit. The blouse is provided with an adjustable shield. The pattern is cut in 5 sizes: 3, 4, 5, 6 and 8 years. It requires 3¾ yards of 27-inch material for a 4-year size.

1790—Ladies' one-piece house gown. The sleeve is in bell shape. The pattern is cut in 3 sizes: Small, medium and large. It requires 7 yards of 36-inch material for a medium size.

1644—Children's rompers, with sleeve in either of two lengths. The pattern is cut in 5 sizes: 1, 2, 3, 4 and 5 years. It requires 3 yards of 27-inch material for a 4-year size.

1999—Ladies' one-piece pajamas. The leg portions may be gathered or fin-

ished with the lower edges unconfined. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 36-inch material for a 38-inch size.

2000—Ladies' dress, with body lining. The pattern is cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 6 yards of 44-inch material for a 36-inch size.

1996—Girls' one-piece dress, with sleeve in wrist or elbow length, and with or without yoke facing. The pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3½ yards of 36-inch material for a 6-year size.

2004—Junior dress, with sleeve in either of two lengths. The pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 5¼ yards of 36-inch material for a 14-year size.

1778—A simple, popular model. The sleeve may be in wrist or elbow length. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4¾ yards of 44-inch material for a 12-year size.

1998—Dress for misses and small women. The pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 6½ yards of 36-inch material for an 18-year size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for February 4, 1917.

Jesus the Savior of the World.

LESSON TEXT—John 3:1-18.

GOLDEN TEXT—For God so loved the world, that he gave his only begotten son, that whosoever believeth in him, should not perish, but have everlasting life.—John 3:16.

This most famous interview in history occurred probably in some room in Jerusalem where Jesus was a guest, a room reached by an outer stairway so that he could receive visitors privately.

I. The Teacher of the Jews (vv. 1, 2). Nicodemus was a member of the sanhedrin (Ch. 7:50). He belonged to the Pharisees who were much devoted to the scriptures and in whose hand the political affairs were largely placed by the Romans. There are several reasons why Nicodemus came to Jesus by night. Prudence dictated secrecy, but that he came at all was encouraging. He was more apt to find Jesus at home in the evening. He had much that he wished to learn, and needed a quiet hour, removed from the crowd. The things that Jesus had done and taught made Nicodemus think that Jesus might be the Messiah. Nicodemus wanted to know how to be blessed or happy.

II. A Teacher From God (vv. 3-8). A great majority of the disciples of Jesus came from the common people (I. Cor. 1:26) yet for all classes he had the same message, "Ye must be born again." The answer of Jesus was according to the condition of the man before him, the deepest need of his soul. Literally, he said, "Most assuredly, except a man (anyone) be born again (anew or from above) he cannot enter the kingdom of heaven." To be born anew means to be born again. It matters not what your parentage may have been. If any man could do without a new birth, Nicodemus was that man. He was moral, religious and sincere. The instrument through which this birth is effective is the word of God (I Peter 1:23; James 1:18; John 15:3) and the author is the Holy Spirit (v. 5; Titus 3:5). Water is a symbol of the word (Eph. 5:26). Literally translated, this passage would read, "Except one be born of water and wind." And as wind "by universal consent refers to one factor in regeneration, the Spirit, so the water manifestly refers to the other element of regeneration, the word." The main contention is that the word is the instrument in the regeneration. Although not expressly mentioned here, it is elsewhere. Nicodemus was a teacher of Israel (v. 10 R. V.) and yet he did not know so fundamental a truth as the new birth, though the Old Testament taught it.

III. The Pupil's Difficulty (vv. 9-13). The works of the flesh as contrasted with the fruits of the Spirit are brought out in the Epistles, yet like Nicodemus, people are asking today, "How can these things be?" Jesus challenges Nicodemus with the words, "Art thou a teacher of Israel and understandest not these things?" What Jesus said to Nicodemus (vv. 11-13) is true of the scriptures now, especially of the New Testament. They testify to the facts which Jesus knew and revealed, he having been in heaven, and come down from heaven for the purpose of making them known. To be born implies that it is the starting point of a new life, that we must grow as a child grows to be a man until it reaches to "a perfect man unto the measure of the stature of the fullness of Christ" (Eph. 4:13).

IV. The Lesson Illustrated (vv. 14, 15, 18). Jesus believed in objective teaching, and he here refers to a memorable event in the early history of the Jews as illustrating his teaching. The journey through the wilderness to the promised land became weary and discouraging, and the Israelites complained bitterly of their hardships, complaining against God and against Moses. Punishment came in the form of fiery serpents, called fiery from the burning, stinging sensation caused by their bite. So intense was the venom of the bites that they became fatal in a few hours. This punishment made the people realize the awful evil of sin. They acknowledged their sin, and prayed for forgiveness. Moses made a brazen serpent, and carried it through the camp so that all could see, and looking became an act of faith, implying repentance and return to obedience and to God. Thus our salvation is literally, "Look and live;" believe and have eternal life; doubt and perish (Mark 16:16; John 3:36).

V. God's Greatest Gift (v. 16). This is probably the most familiar verse known to the Christian world, and has led more souls to salvation than any other in the Bible. In it is revealed the mighty God—"For God;" a mighty motive—"God so loved;" a mighty scope—"God so loved the world;" a mighty sacrifice—"God so loved the world that he gave his only begotten Son;" a mighty escape—"should not perish;" a mighty gift—"eternal life."

This verse is the gospel in a nutshell; the origin and grounds of his salvation.

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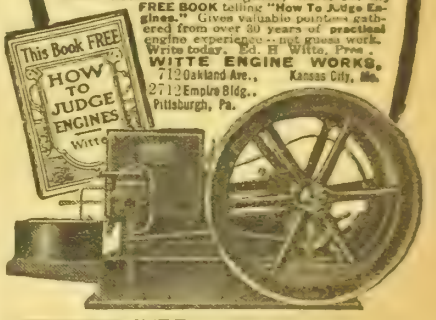

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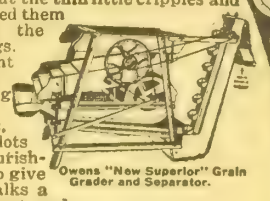

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TOLD IN THE HILLS

By Marah Ellis Ryan

Author of "That Girl Montana," "The Bondwoman," "My Quaker Maid," Etc., Etc.

(Copyright Rand McNally & Co.)

PART IV.---One Squaw Man.

CHAPTER III—Continued.

"Yes." Her eyes were on the floor; she did not see that scrutiny. "And you must get out of here before word comes of those men penned up there. There would be no waiting for trial then; they would shoot you."

"And that is what you came for?"

"Yes;" and she drew a sharp knife—an Indian knife—from her belt under the shawl. With a quick stroke, she severed the knotted cords and they fell from his wrists; then she dropped on her knees, a flash, once, twice, of the blade in the light, and he stooped and raised her.

"You are doing this for me," he said, drawing her to him, "without knowing whether I deserve shooting or not?"

"Don't speak of that part of it!" she burst out. "When I let myself think, feel as if I am going crazy!"—then she stopped short. "And a crazy woman just now would handicap you some. No, Jack, we need all of our wits for tonight—here," and unfastening the belt from under her shawl, she buckled it about him. It contained two loaded revolvers.

"It's the first time I've armed you as I've seen sweethearts or wives do," she said, looking up at him. "It may be the last. I only ask one thing—you will not, unless it is the last means of saving your own life, turn one of these against my friends?"

Even then, the weakness of the man in him came uppermost.

"But if it is to save my own life?"

Her hands went quickly over her eyes, as if to shut out sight or thought.

"Don't ask me—only go—and—take care of yourself!"

He caught the hands from her eyes, kissing her fiercely—exultantly.

"Then I am first to you—nearer than all the rest! My girl, you've proved it tonight, and I'll show you! If you know how to pray, pray for me tonight—for me and the men in that death trap. Do you hear? I am going now. Here is this letter; it will tell you all. If I never come back, tell Prince Charlie he is right at last—that I believe him. He will understand. My girl—mine—it is not an eternal goodby. I will come back if I live, and I will have to live long enough for that! Here, just once, kiss me, my girl—my girl!"

The next instant she was flung from that embrace and fell with a faint scream to the floor.

The guard dashed in, and was dextrously tripped by an unlooked-for figure close to the wall, his gun wrenched from him, and a staggering blow dealt that sent him to his knees.

Clouds had swept over the cold stars, and the sentry could see but dimly the equestrian figure that came clattering down the avenue.

"Hadn't you better wait for company, Miss?" he called, but no answer was given; and in much wonder, he was about to call again, when pistol shots from the shack aroused the camp. He called a halt; that was heeded no more than his question, and he sent a random shot after the flying figure—not for the purpose of hitting the girl, but to impress on her the duty of a sentry and some idea of military rule. Before the last dull thud of hoofs in the snow had ceased to be heard, Roberts had staggered to the door, firing wildly, and calling to stop the prisoner—to stop the horse thief.

There was nothing in the camp to do it with. He was gone—everyone was blaming everybody else for it; but no one thought of blaming the girl, who lay in a dead faint on the floor, where he had flung her, that none might think she had let him go willingly. And Miss Rachel was cared for very tenderly, and a man was sent to the ranch to assure Mrs. Hardy of her safekeeping, waking Mrs. Hardy out of a delicious sleep, and mystifying her completely by the information. The only one about the house who might have helped elucidate happened to be remarkably sound asleep at the time the messenger arrived—an Arrow encased in the quiver of rest.

CHAPTER IV.

Through the Lost Mine.

AN HOUR before day in the Kootenais! Not the musical dawn of that early autumn, when all the woods were a-quiver with the fullness of color and sound; when the birds called to each other of the coming sun, and the little rills of the shady places moistened the sweet fern and spread its fragrance around and about, until one could find no couch so seductive as one on the amber grasses with the rare, all-pervading scents of the virgin soil.

Not any of those seductions solaced or made more bitter the watch of the men who stood hopeless in the snow of that treacherous ravine. Not even a fire dared be lit all the night long, because of those suddenly-murderous natives, who, through knowing the secrets of the cleft earth, held their fates at the mercy of eager bronze hands.

"And one man who knew the country could have prevented this!" groaned Hardy, with a thought of the little wife and Miss Margaret. How would they listen to this story?

"If we had Genesee with us, we should not have been penned up in any such fashion as this," decided Murray, stamping back and forward, as many others were doing, to keep their blood in circulation—for what?

"Hard to tell," chimed in the scout from Idaho. "Don't know as it's any better to be tricked by one's own gang than the hostiles. Genesee, more'n likely, was gettin' ready for this when he run off the stock."

Just then something struck him. The snow made a soft bed, but the assailant had not stopped to consider that, and quick as light his knee was on the fallen man's chest.

"Take it back!" he commanded, with the icy muzzle of a revolver persuading his meaning into the brain of the surprised scout. "That man is no horse thief. Take it back, or I'll save the Indians the trouble of wasting lead on you."

"Well," reasoned the philosopher in the snow, "this ain't the best place I've ever been in for arguin' a point, an' as you have fightin' ideas on the question, an' I haven't any ideas, an' don't care, I'll eat my words for the time bein', and we'll settle the question o' that knock on the head, if the chance is ever given us to settle anything, out o' this gully."

"What's this?" and though only outlines of figures could be distinguished, the voice was the authoritative one of Captain Holt. "Mr. Stuart, I am surprised to find you in this sort of thing, and about that squaw man back in camp. Find something better to waste your strength for. There is no doubt in my mind now of the man's complicity—"

"Stop it!" broke in Stuart curtly; "you can hold what opinion you please of him, but you can't tell me he's a horse thief. A squaw man and adopted Indian he may be and altogether an outlaw in your eyes; but I doubt much your fitness to judge him, and I advise you not to call him a thief until you are able to prove your words, or willing to back them with all we've got left here."

All they had left was their lives, and Stuart's unexpected recklessness and sharp words told them his was ready as a pledge to his speech. None cared, at that stage of the game, to question why. It was no time for quarrels among themselves when each felt that with the daylight might come death.

Afterward, when the tale was told, no man could remember which of them first discovered a form in their midst that had not been with them on their entrance—a breathless, panting figure, that leaned against one of their horses.

"Who is it?" someone asked.

"What is it?"

No one answered—only pressed closer, with fingers on triggers, fear-

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ing treachery. And then the panting figure raised itself from its seat on the horse's neck, rose to a stature not easily mistaken, even in that light, and a familiar, surly voice spoke:

"I don't reckon any of you need be puzzled much to find out; hasn't been such a long time since you saw me."

And despite the wholesale condemnation of the man, there was not a heart that did not grow lighter with the knowledge. They knew or believed, that here was the one man who had the power to save them, if he cared to use it; but would he?

"Jack!"

Someone, at sound of his voice, pushed through the crowd with outstretched hand. It was not refused this time.

"I've come for you," was all Genesee said; then he turned to the others.

"Are you willing to follow me?" he asked, raising his voice a little. "The horses can't go through where I've got to take you; you'll have to leave them."

A voice close to his elbow put in a word of expostulation against the desertion of the horses. Genesee turned on the speaker with an oath.

"You may command in a quiet camp, but we're outside of it now, and I put a little less value on your opinion than on any man's in the gulch. This is a question for every man to answer for himself. You've lost their lives for them if they're kept here till daylight. I'll take them out if they're ready to come."

There was no dissenting voice. Compared with the inglorious death awaiting them in the gulch, the deliverance was a Godsend. They did not just see how it was to be effected; but the strange certainty of hope with which they turned to the man they had left behind as a horse thief was a thing surprising to them all, when they had time to think of it—in the dusk of the morning, they had not.

He appeared among them as if a deliverer had materialized from the snow-laden branches of cedar, or from the close-creeping clouds of the mountain. They had felt themselves touched by a superstitious thrill when he was found in their midst; but they knew that, come as he might, be what he would, they had in him one to whom the mountains were as an open book, as the Indians knew when they tendered him the significant name of Lamonti.

Captain Holt was the only rebel on the horse question; to add to the spoils of the Indians was a bitter thing for him to do.

"It looks as if we were not content with them taking half our stock, but rode up here to leave them the rest," he said, aggressively, to nobody in particular. "I've a notion to leave only the carcasses."

"Not this morning," broke in the scout. "We've no time to wait for work of that sort. Serves you right to lose them, too, for your blunders.

It was no time for argument or military measures for insubordination; and bitter as the statement of inefficiency was, Captain Holt knew there were some grounds for it, and knew that, in the eyes of the men, he was judged from the same standpoint. The blind raid with green scouts did seem, looking back at it, like a headlong piece of folly. How much of folly the whole attack was, they did not as yet realize.

It was not far that Genesee led them through the stunted, gnarled growth up the steep sides of the gulch. Half way to the top there were, in the summer time, green grass and low brush in which the small game could hide; but that rose a sheer wall of rock clear up to where the soil had gathered and the pines taken root.

In the dusk they could see no way of surmounting it; yet, there was no word of demur, not even a question. He was simply their hope, and they followed him.

And their guide felt it. He knew few of them liked him personally, and it made his victory the greater; but even above that was the thought that his freedom was due to the girl who never guessed how he should use it.

He felt, some way, as if he must account to her for every act she had given him the power to perform, as if his life itself belonged to her, and the sweetness of the thought was with him in every step of the night ride, in every plan for the delivery of the men.

At the very foot of the rock wall he stopped and turned to the man next him. It was Hardy.

(To be continued.)

School Consolidation Pro and Con

(Continued from page 10.)

building. Teachers can usually be secured who will do janitor work in the small school, or it can be done by the big boys sometimes without pay and sometimes by the payment of a very small sum. Sanitary supplies at considerable cost will be required for the consolidated school and it is argued these would not be needed where there were a few pupils. Fuel would probably cost more and a building with a large number of pupils in it should have a ventilating system. It would probably be necessary to put in an expensive furnace in the consolidated school and keep a man on the job to fire it. The tendency will be to go into special subjects which will not only require more teachers but higher-priced teachers. Transportation of children is an added cost. Good wagons cost a great deal and sometimes poor ones are used. Then there is the problem of drivers, heating the wagons and reaching the families who will be the greatest distance from the central school. Bad roads will interfere with transportation and drivers will be uncertain and in some cases reckless and careless. Children might often have to walk to the road and wait in bad weather for a belated wagon. Officers of a district, seeing the increased expense of the consolidated school, might provide uncomfortable wagons to save money. Teams sometimes run away and stoves in wagons tip over and these are dangers charged up to the consolidated school project. Many of the children would be much farther from home at the centralized school and this might be unfortunate in case of sickness. And, furthermore, children ought to have as much exercise each day as they get walking back and forth from the district school.

As to land valuations, the question arises whether the consolidated school wouldn't increase values close to the school and lessen them farther away where the district schoolhouse has been abandoned. If a man wants to buy a farm he asks how close it is to church and school. The answer of many farm owners in the consolidated district would require an explanation. Then there are those who are skeptical about taxes being reduced by the centralized school. The very first thing there would be a tax for a new schcolhouse. That is the bugbear which has defeated many a consolidation of school districts. What is to be done with the present school property which will be rendered absolutely useless? And who wants to throw away public property even in the interest of a public improvement? The final argument of the man opposed to consolidation is that those who want a graded or high school should go to the town school and that there are too few in the district who require this training to warrant the change. When the pupil grows up let him go to the high school. There are others who fear that the consolidated school is only a stepping stone to a country high school, and we have seen men who can look far enough ahead to see the expense of a college thrust upon them in the country districts.

These are some of the arguments pro and con on the consolidated school question. It is a good, big topic of interest to every farmer and we are only saying what we hear said about it and what our expert educators of the state hear about it. The state superintendent advises us that there is a law which will permit districts taking the consolidation dose on trial to see whether it really does them any good. A district may discontinue its school for a year and retain its organization. Children of school age may be sent to another district and the tuition paid by the district. The state allows state aid of $150 a year for such a district provided the board arranges to send all the children of school age to another district and also arranges for transportation. The Wisconsin Farmer would be glad to hear from any of its readers who have ideas on the subject of consolidation, for or against.

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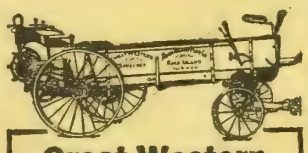

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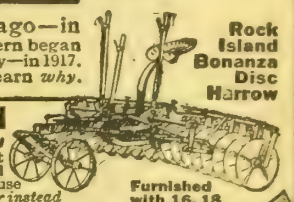

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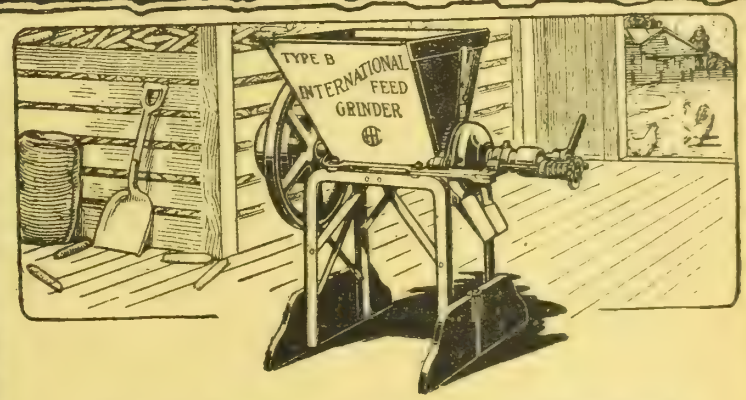

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Quack Grass Problems in Upper Wisconsin.

H. Bluemenstein and son, of Woodruff, Oneida county, had two fields badly infested with quack grass. Each included about six acres. One of these fields was summer fallowed in 1915, the other being planted to potatoes and closely cultivated. At the end of the first season the former was rid of quack grass, while the cultivated field contained small patches impossible to pull because of the growing plants. In 1916 the work was continued with vigor, and the potato field seems now to be wholly free of the troublesome weeds.

[illegible] on a four-acre field which he wished to clean up. As the soil was sandy the quack had become deeply rooted. The field was first summer fallowed until the middle of June, 1915, when it was sown to buckwheat. This year potatoes were planted in the field and but little quack appeared.

F. S. Campbell and Sons, Three Lakes, had a field of about thirty acres which was badly infested with quack. This field was divided into four parts, one of which was summer fallowed; another partially summer fallowed with land sowed to buckwheat; the third was seeded to mammoth clover and the fourth portion was planted to potatoes. On the portion that was summer fallowed the quack was completely eradicated. On the portion sowed to buckwheat but few patches of the quack could be discovered. On the portion seeded with red clover but little benefit resulted. On the portion planted to potatoes, while the quack was hurt, yet small patches infested the whole field. The kerosene spray was used upon patches of quack, also upon patches of Canada thistles, doing but little injury to the quack, although making the eradication of the thistles almost complete. The thistles were out just below the ground and about half a pint of kerosene was applied to the roots. No thistles were seen within six weeks afterward.

Beside the co-operative weed demonstrations in this county, the seed inspection department carried on similar projects in 1916 with farmers in fourteen other counties, serving to drive home the fact that weeds can be eradicated through steady effort, coupled with a little "head work."

"The farmer quite frequently fails to appreciate the tax which he is obliged to pay from the unrestricted growth of weeds," says H. L. Russell, director of the experiment station, in his latest report. "Often they gain a foothold through contaminated seed, as is so frequently the case with wild mustard, or through manure as was observed this season in Oconomowoc where gardens were infested with Canada thistle and perennial sow thistle which came from manure from the Chicago stockyards.

"In the new north the lumberman has sowed the quack grass and thistle far and wide. These have gained a foothold from the hay imported for winter feed of horses. The problem of weed eradication is, therefore, one which is just as pertinent to the settlers in Upper Wisconsin as it is in the older districts in the southern part of the state. General interest in the matter of weeds is rapidly increasing is shown by the fact that this year over 1,200 weed specimens have been identified by Mr. Stone."

These experiments were carried on in connection with the Wisconsin College of Agriculture.

Farm Homemaking in Upper Wisconsin.

To the Editor:—When you read reports of crop destruction through bad weather—drouth, hail and heat—bear in mind that it does not refer to Wisconsin. There is no satisfaction in the fact that the people who went to distant plains refused to take the advise we kindly offered to go to the fertile lands of Upper Wisconsin, but there is satisfaction in the fact that many acted upon that advice and are now owners of fine homes and at this time Upper Wisconsin has the attention of homeseekers almost to the exclusion of those arid plains.

One of the most interesting instances of homemaking that I know of in Upper Wisconsin and one that should appeal to those who would like to own farms is that of John W. Diedrich, near Ladysmith, in Rusk county. I knew him when he came to that place. He had been a carpenter at Oshkosh twenty-five years, during which he accumulated a family, which, with $400 to $500, he brought to what was to be their new home. The eldest of the family was a boy of eighteen years.

The land on which Mr. Diedrich settled was green cut-over land, of which he bought 160 acres. This was fifteen years ago. A log house was rolled up and made comfortable. There was no team or other stock aside from a flock of chickens at the start. It was a case of beginning from the bottom. What has Mr. Diedrich to show for the labor of these years?

I was there last month. From the 160 acres the boy has taken sixty acres and added twenty, from which he has made a splendid eighty-acre farm. The father has the remaining hundred acres and it is as pretty a farm home as you will find in the state. Fifty acres or more is fully improved, much of the remainder being in pasture. The log house has been replaced with an excellent home. A large hiproof barn, with silo and windmill, is a conspicuous feature in the building. Whether the senior's home is actually worth $10,000 or $15,000 I would not attempt to say—probably between the two figures—but he would not part with it for any thinkable amount.

I talked with the family in this happy home. I noted a little gasoline line engine supplied the power the women sometimes have to produce, and through an open door of one of the buildings I noted a "buzz wagon" that doubtless affords comfort and convenience to the family. The cattle were busy, but the pastures were beating them out. This is Upper Wisconsin in 1916. Thousands of others have done as well—many have made greater headway. A. D. Campbell.

Development Conference February 23d-24th.

Not "back to the farm," but "forward to the farm" will be the central idea at Wisconsin's first general land clearing assembly, to be held at Eau Claire February 23d-24th.

All agencies having power or ability to contribute to the development of Wisconsin's vast acreage of cut-over lands suitable for agriculture and stock raising will join in making this first state conference a success. Owing to its success in conducting the special land-clearing demonstrations throughout northern Wisconsin last year the college of agriculture has been asked to take the lead at this conference.

Two phases of the big problem will be touched upon at this meeting—the field or engineering side and the economic and community aspect of cut-over land development. Gov. E. L. Philipp has consented to speak on the subject, "An Empire in the Making."

Several thousand feet of moving pictures, showing farms in the making and taken from Wisconsin's stump land "battle front," will be shown at the conference. Bankers, lumbermen, farmers and state and county officials will be present. Methods of extending credit to new settlers on the cut-over land will be reviewed and discussed with the possibility of improvement where needed. The state press as a strong factor in aiding farm development will also be considered.

The utilization of "what the logger leaves" in the manufacture of by-products will be emphasized, as well as the importance of live stock to the farmer who wants to get results in a relatively short interval from his newly opened land.

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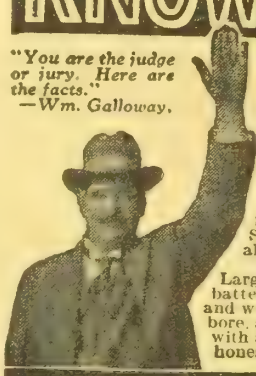

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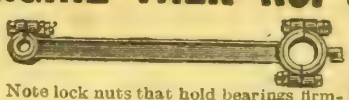

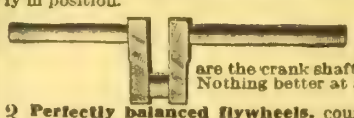

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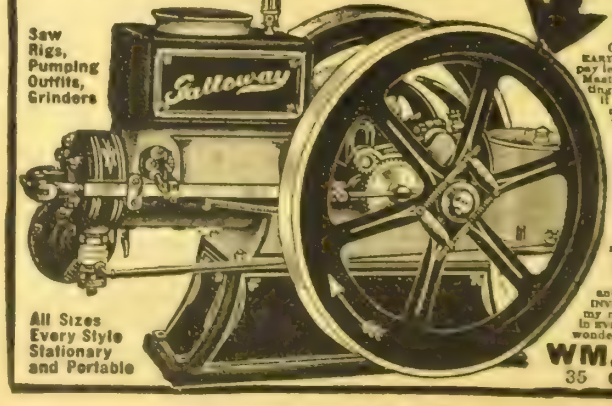

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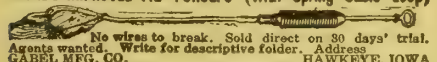

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YOUR CHANCE IS IN CANADA — Rich lands and business opportunities offer you independence; Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; Twenty years to pay; $2,000 loan on improvements, or ready made farms. Loan of live stock; Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock; Good markets, churches, schools, roads, telephones; Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allan Cameron, General Superintendent Land Branch, Canadian Pacific Ry., 82 Ninth-av., Calgary, Alberta.

ARE YOU GOING TO BUY LAND?

IF so, get a copy of our journal first. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25c for one year's subscription or $1.00 for five years. Department F. Farm and Real Estate Journal, Traer, Iowa.

FOR SALE OR RENT Thirty-room brick hotel and bank building. Only hotel in town of 1,500 population; city water, electric lights, etc.; doing good business; owner wishes to retire; might consider some farm land. Geo. Slade, owner, Adrian, Minn.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

SUNNY VIRGINIA! Beautiful, fertile, Canaan Farm. Colonial House. 600 acres. Splendidly improved. Act quickly. Southern Lands. Write Geo. M. Heath, Box 1535-G, Richmond, Va.

TO RENT GOOD 200-A. farm in Southeastern Minn. Easy terms, cash or shares. D. B. Davis, Dodge Center, Minn.

WRITE J. D. S. Hanson, Hart, Mich., for list farms in Co., where biggest crops grow. Fruit, grain, alfalfa, dairying.

GOOD man to take orders, clothes free, big money. Knickerbocker Tailoring Co., Dpt. 594, Chicago.

Ailing Animals.

Substitute For Milk.

Please advise me the ingredients, and amounts used of each, for a good milk substitute to mix with skim milk or water for young calves.

If skim milk is to be used, give in warm skim milk a small amount of corn meal and a tablespoonful of oil meal. If water is to be used, a good calf meal, which you may find advertised, may be a fair substitute for milk.

Stallion Poor Breeder.

I have a large two-year-old stallion, coming three. Last spring I bred ten mares to him and only got two in foal. Is there anything I can do to make him a surer breeder as a three year old? Oats, bran and mixed hay compose his ration.

The poor breeding qualities of your stallion may be due in part to being young. Feed him the best of feed, give plenty of feed and do not try to breed too many mares with him.

Swelling on Ankle.

I have a mare with a swelling just above the front ankle. One veterinarian blistered it and another bound it tightly; neither treatment having any effect. I think the swelling was caused by a sprain from slipping. Is there any way to take the swelling out?

You did not say whether the swelling was soft or hard and how long it had been there. If this swelling is not getting larger and not hurting the animal, we would advise you to just leave it alone.

Sniffles in Pigs.

I have seventy spring shoats and about ten of them have the disease known as sniffles where the nose of the pig usually turns sideways or draws up. The pigs that have sniffles are runty and do not amount to much. I would like to know how to stamp out the disease. If I get rid of the pigs that have it now, would my coming spring pigs be less apt to have it?

But very little headway has been made in eradicating this disease from the herd. About all that can be done is to provide good, clean quarters which are subjected to frequent sprayings with a disinfectant solution. It would be well to keep those affected away from the spring litters.

Bitter Milk.

I have a cow that will freshen on or about April 20th, her fourth calf. She gives bitter milk—not noticeable until after standing twenty-four hours. It is so bitter it cannot be used in cooking. She gives about five quarts daily. We feed six to seven quarts of bran a day in two feedings. She has good hay, eats well and seems in fine condition. We keep barn warm and clean. Shall be very glad if you can tell us what to give her.

It is hard to say just what is the cause of the bitterness of the milk, but it may be from something in the feed which is taken into the system and eliminated through the milk. Gradually change the feed, even the hay supply.

Western Guernsey Breeders' Meeting.

To the Editor:—The annual meeting of the Western Guernsey Breeders' Association will be held at the Park Hotel, Madison, Wisconsin, Friday, February 9, 1917, at 10 o'clock a. m. The program will be as follows:

President's Annual Address—H. W. Griswold, West Salem, Wis.
Reports and election of officers.
Address—Importance of culling and selecting in interest of continued general breed improvement.—J. R. Bent, Oglesby, Ill.
Lunch—$1.00 per plate.

The afternoon addresses by Mr. W. W. Marsh and Hon. W. B. Quarton, both of Iowa, and the discussion following will take up a number of topics and plans for breed promotion in the central West, the field covered by the work of this association. Our meeting at Madison last year was the best that we ever had and with the program for this meeting and present interest in the breed no breeder in this territory can afford to miss this meeting.

This will be during Farmers' Week at the University of Wisconsin, and Thursday is Dairy Day, with a fine program under the auspices of the Wisconsin State Dairymen's Association.

Charles L. Hill, Sec.-Treas.
Rosendale, Wisconsin.

It would take 115 trains of forty cars each to move Wisconsin's yearly supply of pork products.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

HELP WANTED.

WISCONSIN Civil Service. Head Gardener wanted at the Waukesha Industrial School and for other places in the state service. Salary $75 or $55 and complete maintenance. Examination February 10. Address Wisconsin Civil Service Commission, Madison, for application blank.

WANTED—Good, reliable farm hand by the month or year. Good wages. Address, Joseph Scharpf, Rubicon, Wis.

SALESMAN WANTED.

SALESMEN wanted to canvas the farming and threshing trade, soliciting orders for Lubricating Oils, Greases and Paints. Excellent opportunity for right party. Previous experience unnecessary. Address at once The Victor Oil Company, Cleveland, Ohio.

CLOVER SEED FOR SALE.

CLOVER seed. Medium red clover seed, guaranteed free from foul or noxious weeds, @ $9.95 per bu.; new sacks 25c extra. Good, clean timothy seed @ $3.50 per bu. Order now before seed goes higher, from Reuter Bros., Carlos, Minn.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $2,000 to $25,000. 6% with any pre-payment privilege desired. Addressed 206 Washington Bldg., Madison, Wisconsin.

PLYMOUTH ROCKS.

PURE-BRED Barred Rock cockerels. Write for prices. Rockwood Farms, Box 4700, Brookfield, Wisconsin.

DUROCS AND POLANDS.

TWENTY Duroc and Poland China sows, bred. Ten Poland China boars. Holstein bulls ready or service. E. G. Carpenter, Hortonville, Wis

EMPTY FEED BAGS WANTED.

HIGH prices paid for empty feed bags. Write for prices to Springfield Bag and Burlap Co., Springfield, Illinois.

HONEY.

HONEY, Delicious Pure Honey, 30-lb. can, $3.50; 60-lb. can, $6.60; 120 lbs., $12.60. Satisfaction guaranteed. E. B. Rosa, Monroe, Wis.

RHODE ISLAND REDS.

ROSE and Single Comb Dark Reds. Eggs $2.00, $3.00 and $5.00 per 15. Cockerels $2.50, $3.00 and $4.00. Fred Oertel, R. 3, Brighton, Ill.

WHITE FAVEROLLES.

WHITE FAVEROLLES, "4 in 1." Eggs, Beef, Beauty and fine feathers. Circular free. Todays Poultry Plants, Caney, Kansas.

FARM WANTED.

WANTED—Good farm, well located, direct from owner. Give description and price. N. Nuetzel, Box 754, Chicago.

JERSEY BULL.

JERSEY bulls ready for service. Fresh cows and heifers. L. R. Kuney, Adrian, Mich.

POSITION WANTED.

MARRIED man wants job on dairy farm. E. Allen, Bright's Estate, Owen, Wis.

FARM LANDS.

NORTH DAKOTA in all essentials; Soil, climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short—yet government reports show $167,544,000 or $2,253 per average farmer. In last seven years average farmer in North Dakota produced $1,975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

$1,200 WILL handle this dandy 80. In Polk county, Wis., on Soo Line, 60 miles Twin Cities. Loamy clay soil, gently sloping surface to spring creek. Nearly 35 acres in field, 20 more cleared and balance fine hardwood timber. New, hip-roofed frame barn 30x50, 30x30 basement. Attractive frame house 16x24-14x16 and other good buildings. Drilled well, pump, steel windmill. On main road, rural route, only 2 miles creamery and store, 7 miles railroad town over first class roads through well settled country. A remarkable bargain, only $5,200. Get full particulars from Baker D-110, owner, St. Croix Falls, Wis.

BE YOUR OWN BOSS. Get a Farm Home in rich corn and clover belt in Northwestern Wisconsin along new Soo Line, 50 miles St. Paul, Minneapolis, near Duluth, Superior. Landseekers all say: "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Well settled but prices still reasonable. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools. Creameries everywhere. Only 50 miles big markets. Improved or unimproved, $15 per acre and up. Investigate at once. MAP AND LIST FREE. Baker N-110, St. Croix Falls, Wis.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co. 310 Skidmore Bldg., Marinette, Wis.

FOR SALE—3,000-acre stock farm, well equipped for the business; Colonial Home, one mile shipping station Illinois Central Ry., in foothills Mississippi. Price $25.00 acre; terms, third cash, balance 1 to 12 years, six percent. For further particulars see W. T. Pitts, The Land Man 1449-50 Bank of Commerce Building, Memphis, Tenn.

FOR SALE—205-acre, all improved, level farm in west central Wisconsin. Ideal dairy farm. Two miles from good market and high school. Reason for selling—to close an estate. For further information Phone 2301 (Madison), or write T. N. Halvorsen, Dallas, Wis.

THE Earnest Homeseeker is the man I want to hear from. I can save him many dollars on his purchase of a farm. All such please write promptly to Arnold, Land Agent, Rock Island Ry., 153 Wolvin Bldg., Duluth, Minn.

GOOD 40 ONLY $300. No. 1031-M; clay loam soil; ½ somewhat low; balance gently rolling, firewood and small brush; easy to clear; 1½ miles from school; all cash; The Ev. Luth. Colonization Co., Dept. 10, Merrill, Wis.

BLUE Grass Dairy Farms, Northwest Missouri 160 acres, improved, $55 per acre. 120 acres improved, $75 per acre. Many others. Write us what you want. Gill & Ryan, Chillicothe, Mo.

FORTY or eighty acres, fair buildings, clay loam soil, no waste land, close to town. $30 per acre. $200 down, balance long time. Frank M. Doyle, Ladysmith, Wis.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

HAVE two farms for sale on easy terms, or I will rent them to right parties by cash or grain rent. M. A. Peoples, Ladysmith, Wis.

WANTED—Wisconsin farm for 160 acres rich land near Las Vegas, New Mexico. Value $1,680.00. H. A. Snyder, Minooka, Ill.

FOR SALE—80 acres, 2miles from Barron, no buildings, 30 acres cleared, all fenced. Easy terms. Elmer Rockman, Barron, Wis.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur's, Mountain View, Mo.

Canada's Liberal Offer of Wheat Land to Settlers

is open to you—to every farmer or farmer's son who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is much higher but her fertile farm land just as cheap, and in the provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads Are Actually Free to Settlers and Other Land Sold at from $15 to $20 Per Acre

The great demand for Canadian Wheat will keep up the price. Where a farmer can get near $2 for wheat and raise 20 to 45 bushels to the acre he **is bound to make money**—that's what you can expect in Western Canada. Wonderful yields also of **Oats, Barley and Flax. Mixed Farming** in Western Canada is fully as profitable an industry as grain raising.

The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent. Military service is not compulsory in Canada but there is an unusual demand for farm labor to replace the many young men who have volunteered for the war. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

GEORGE A. HALL,
123 Second St., Milwaukee, Wis.
Canadian Gov't Agt.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

FOR SALE A 135-acre farm near Jefferson, Jefferson county, Wis. The farm is ½ mile from condensery, two creameries and railroad station; an elegant place for the cattle business, pure-breds or grades; the dairy center of the world. Priced to sell. E. H. Kiesling, Jefferson, Wisconsin.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

J. C. Hendricks Has the Goods.

THOSE that attended the J. C. Hendricks Poland China sale at Hazel Green, Wis., last winter, know that it was "some show." They were good enough for the critical at that sale and those that will be sold on February 15th are of equal quality and in some respects better than the previous offering. The feature of this sale will be the valuable blood lines represented. The get of fifteen or twenty of the most noted boars of the Poland China breed will be sold on the above date. No matter what line of breeding you have you will have an opportunity to buy [illegible] not related [illegible] ur herd. If [illegible] isement on [illegible] will see the [illegible] any Poland [illegible] ended con- [illegible] more popular breeding? It is practically useless to say anything about the individuality for J. C. doesn't catalog the poor ones. The writer has attended the "big noise" sales in Iowa and, of course, some great Poland Chinas have been sold, yet individually they were on a par with those that J. C. will sell on February 15th. We do not expect Mr. Heudricks to make the average that some of the Iowa sales do, but he has the goods and the breeders and farmers that want the good ones can well afford to attend this sale. The offering has been bred to Smooth Price, a big-type boar with a world of quality that weighed 910 pounds when twenty-three months old. The fact that sows bred to him averaged $90 in the 1916 sales shows what the breeders think of him. Some have been bred to Black Chief, an excellent individual. Northside Wonder is an 800-pound two-year-old that has made good as a sire. J. C. Hendricks has made Poland history. Owned Big Bug, the greatest breeding boar ever owned in the state. He bred the sire of the champion, Mac's Chief. The sire and dam of the 1,100-pound, Black Jumbo. He bred Giant Uhlan, the Dawson boar, the sire of winners in Nebraska, Missouri and Kansas, also the junior champion sow at Omaha. In the next issue we will give the list of some of the noted herd headers that have been produced on the Hendricks farm. Just at this time we want you to get the catalog. It is full of Poland China history that will be of interest to you. If you can't attend send mail bids to T. P. Shreve in care of Mr. Hendricks. Catalogs will be sent on request only. See page 37.—Adv.

Timm Wonder—Chris Kartman—Giant Wonder.

THE above is the combination that will welcome you at Cassville, Wis., Friday, February 16th, the day that Chris Kartman sells forty head of bred Poland Chinas. Mr. Kartman will do everything in his power to make your stay pleasant. He will put up a sale offering that you need not be ashamed to bid on, and, as far as entertainment goes, he'll see to it that you get the best there is in the town. Timm Wonder is the spring boar that appeals to the big-type breeders. When you see this boar you will want one or more of the sows that are bred to him. Giant Wonder is another good one, but of a little different type. Some of he visitors may prefer to have their sows bred to the latter boar. They are both good hogs and you will make no mistake in getting a litter by either one. There is a good sow in the sale sired by Big Orange. Another one of the big sows traces back to old Mouw's Jumbo. Three that trace to Big Bone will appeal to many that attend the sale. In 1 st week's issue we called attention to the get of Monster Big Bone. Pay special attention to the gilts in the sale sired by him. You should arrange to take in the Grant county sale circuit. Some of the greatest sows to be sold this winter can be found in these sales. Start with the combination sale at Lancaster on the 13th. From there go to Ed Hendricks at Hazel Green on the 14th, then on the 15th J. C. Hendricks sells at Hazel Green, and from there the railroad connections are good for the Kartman sale at Cassville on February 16th. Cassville is only a couple of stations up the river from East Dubuque, about half way between the last mentioned town and Prairie du Chien on the Burlington railroad. Write at once for the catalog and please mention The Wisconsin Farmer. Send mail orders to T. P. Shreve in care of Chris Kartman, Cassville, Wis. See page 38.—Adv.

Guernsey Breeders—Attention!

IT IS seldom that a tried sire that has made good in a leading herd is offered for sale, yet sometimes conditions necessitate a change. At this time Fox Bros., Waukesha, Wis., are offering a tried sire that has been used successfully in their good herd, and here is a grand opportunity for some breeder to get a herd bull whose worth is known. The bull for sale is King Talladenn of Chestnut Hill, dropped June 23, 1908. If you will notice the advertisement that appears on page 35 of this issue, you will appreciate his breeding. The sire, Skeezicks, is out of Yeksa Lind, A. R. 650.56. The dam, Talladeen, A. R. 633.50, is by Dan Patch, sire of ten A. R. daughters. This bull has a wonderful pedigree and as an individual he was good enough to win first and grand champion at the Michigan State Fair, and first at La Crosse and West Michigan fairs. You get individuality and breeding in a bull of this caliber. The Guernseys on the farm sired by this bull will convince you that he would prove to be a valuable asset in your herd. If you want some young bull calves—six to eight months old—or if you are interested in the excellent bull mentioned above write Fox Bros., Waukesha, Wis., and please mention The Wisconsin Farmer.—Adv.

Gant's Farm Has Wonderful Duroc Offering.

WE HAVE heard of the Gant Duroc Jerseys for some time, but only recently has it been our pleasure to inspect this herd and the offering that will be sold February 15th. Right now we want to say that Durocs will be sold from the Gant farm on the above date that are second to none that will be sold in Wisconsin this winter. The demand at the present time is for sows with extreme stretch and that is the feature of this offering. The popular breeding at this time is the Cherry Chief strain and Mr. Gant has more of that than any breeder in Wisconsin that will hold a sale this winter. All breeders that make a study of mating know that some cross will "nick" while others will not. Mr. Gant has the right "nick," in crossing the get of the Cherry Chief boar with the get of a son of Illustrator. This gives him a combination of size and quality hard to duplicate. Mr. Gant buys good sows of the most popular blood lines and Wisconsin breeders can well afford to buy some of the Gant Durocs and in that way "tone up" their herds. The feature of the sale will be a yearling sow that is bred to Pathfinder. She is sired by a son of Illustrator out of a daughter of Crimson he by Uneeda Crimson Wonder, said to be the best son of Crimson Wonder Again. Sows bred to Pathfinder so far this winter have averaged over $200. What will a litter by Pathfinder be worth next spring, and this sow has raised two litters so it is safe to say that she will raise a good litter. Buy this sow and her litter will put you on the Duroc map in Wisconsin. The gilts in the sale sired by Gant's Farm Cherry Chief are outstanding in every respect. They will weigh from 350 to 375 pounds, have great arched backs with good feet and pasterns. Mr. Gant has twenty gilts as good as we have seen this year and we have seen the good one in four states. The breeders and farmers of Wisconsin do not appreciate the good Duroc Jersey herds in this state, though they would be missed and the state would be the loser if the owner should stop breeding registered swine. This offering is worthy of your presence. Put the date down as one of the sales that you are going to attend. Remember the date, Thursday, February 15th, at Delavan, Wis. Railroad connection is good from any direction. There is not a "cold" pedigree in the catalog. Get one and if you can't attend send a bid on one of the good gilts or the sow bred to Pathfinder. Please mention The Wisconsin Farmer when writing. See page 34.—Adv.

The Bunker Polled Durhams.

IF YOU want a good Double Standard Polled Durham bull, F. S. Bunker, Kilbourn, Wis., has seven from eight to fourteen months old that will give satisfaction. He has a dark red eleven month old bull that is outstanding and he would make a creditable showing if fitted. His dam is large and is a heavy producer at the pail. Another good one is a thirteen months old roan with plenty of size and quality and bred in the purple. Good enough to head the best registered herds. Bunker has one of the best, if not the best, Polled Durham herds in the Northwest and if you want good cattle write him. See page 34.—Adv.

An Opportunity For Short-horn Admirers.

NO TIME in recent years has there been the demand for the Short-horn that there is at the present time. This has not been caused by a boom of any kind but the supply and demand has made this condition possible. The last census showed that the population of the United States has increased about 33 per cent, beef about 30 per cent, consequently the supply is less than the demand, this alone should be convincing that beef products will be high for years to come. In looking forward we must consider the war, and when that ceases there will be the greatest demand for American meats ever known. Argentine is the only country in the world that has a surplus of beef animals and owing to the prevailing hoof-and-mouth disease in that country, their products will not command the premium that American meats will. All of Europe will want breeding stock, the breeding herds have been depleted to feed the armies. We can see but one answer—buy American breeding stock and beef products. Is the American farmer preparing for the future? Now is the opportune time to produce beef. If you are interested in Short-horns attend the combination sale to be held in Madison, Wis., Thursday, February 15th. Fifty-two head have been consigned to this sale from the leading Short-horn herds of the state. There will be about forty females from yearlings to matured cows and some future show animals are among the lot. Females of the most popular breeding. This will be a grand place to buy a herd bull, as some outstanding individuals have been listed. You will see by the advertisement that appears on page 34 of this issue, that the most prominent breeders of the state have listed cattle. This will be an advertisement for their herd and it behooves them to send the best. A wonderful lot of cattle will be sold and this will be your opportunity. The catalogs are now ready. Get one, study the blood lines and plan now to attend this great event. The cattle will be judged the morning of the sale by C. J. McMaster, a prominent breeder of Illinois. At night there will be a big banquet. Come and enjoy yourself and get enthused over the possibilities of the Short-horn cow. Write to J. L. Tormey, secretary, College of Agriculture, Madison, Wis, for a catalog. Please mention The Wisconsin Farmer.—Adv.

NEXT WEEK'S SALE PROGRAM

Monday, February 5	Chester Whites, Cook-Scheibe-Vaughn, Burlington, Wis.
Tuesday, February 6	Poland Chinas, M. Madson & Sons, Madison, Wis.
	Poland Chinas, P. W. Young, Prosper, Minn.
Wednesday, February 7	Poland Chinas, J. F. Diley, Sec'y, Madison, Wis.
	Duroc Jerseys, John D. Gant, Sec'y, Madison, Wis.
Thursday, February 8	Duroc Jerseys, P. V. Kuhn, Sec'y, Janesville, Wis.

Last Call For Madson & Sons' Sale.

DON'T forget the Madson & Sons, sale of Poland Chinas that will be held at Madison, February 6th. They will sell forty head of yearling sows and spring gilts and it is an offering that any breeder might be proud of. Few sales of the season will contain individuals with more quality, animals of easy-feeding characteristics and they have been bred to big-type boars. Good sows of any breed are in demand—this has been demonstrated at the various sales that have been held this winter. Pork products are high and there is no reason why prices will not remain on a high level and the man that will buy a few good sows at the winter sales will be well repaid. The Madsons are selling a lot of sows and gilts that will be money-makers. The sows that have gone out from this herd in the past have made good—raised good litters and have made money for their buyers, they will do the same thing this year. The fact that Mr. Madson is one of the "old timers" as a Poland China breeder in the state of Wisconsin and enjoys the reputation for honesty and integrity. This fact alone should be very valuable to the man that wishes to make a start with pure-bred swine. As mentioned before, this sale will be held during "Swine Week" and precedes the combination sale to be held in Madison February 7th. Arrange to attend "Swine Week" and the two Poland China sales. If you haven't received your catalog, write for same at once. If you can't possibly attend this sale send buying instructions to H. S. Hoard, field man for The Wisconsin Farmer, who will attend this sale. Remember the date and place. See page 34.—Adv.

Remember the Grant County Sale, February 13th.

BREEDERS and farmers alike should attend the sale of bred Poland Chinas that will be sold by the Grant County Poland China Breeders' Association, at Lancaster, Wis., Tuesday, February 13th. "There is a reason"—the breeders should attend and get acquainted with some of the livest Poland China men in the state, your own business interests will suffer if you are not at this sale. The farmers should atttend, for sows will be sold equal to any that will be listed in the winter sales. We have predicted for some time that good breeding stock would be in demand and the public sales so far this winter bear us out in this prediction. The writer has just returned from a three weeks' trip in Minnesota and Iowa, attending Poland China and Duroc Jersey sales and the good sows are in demand. The farmers and small breeders were the heavy buyers which shows conclusively that they appreciate the value of good breeding stock in the West. Wisconsin needs more and better hogs than Iowa. Wisconsin has Poland Chinas as good as they have in Iowa, but the breeders and farmers of this state have not been educated to appreciate the good breeders that are trying to build up the swine industry in Wisconsin. Again we want to make the statement that now is the time to buy breeding stock. Forty-five head of sows and gilts have been listed for the Grant county sale—every one a good one. There will be gilts sold in this sale, that, if carried along will make a creditable showing at the fairs this fall. They have been bred for March and April farrow to some of the best boars in the state. You will make no mistake if you buy at this sale. Those consigning to this sale are Chas. Flesch. Thos. Holmes, Frank Renalde, Frank Morehouse and Dobson & Eastman—a better bunch of fellows never made a sale. They ask your support and will give you value received. Get a catalog and notice the array of breeding contained therein. T. P. Shreve, field man for The Wisconsin Farmer will gladly handle your buying orders. Write him in care of Burlie Dobson, Lancaster, Wis. Write for the catalog, and please mention The Wisconsin Farmer. See page 35.—Adv.

Cook-Scheibe-Vaughn Sale.

A CHESTER WHITE swine sale will be held next Monday. February 5th, at Burlington, Wis. The sale will be held in the city at Gill's Livery and starts at 2 p. m. There will be forty head of fall and spring gilts sired by Great Wonder 29377 by White Eagle, Chief of Doolittle breeding; Great Scott 31749; Wildwood Prince 2d 32953 by Wildwood Prince, grand champion at Iowa, 1915; Highland John 28113, won second at Minnesota State Fair, he by Highland Chief of Barr breeding; Eagle Chief 28291 by White Eagle Chief; Model Prince 30329, Scherer's noted herd sire; Right Kind 27479 by Elmo Jr., which won four grand championships at Illinois, Peoria, C. A. Andrews breeding. They are bred to Prairie Chief 40303 by Eagle Chief; Perfect Prince 37749 by Model Prince; Guy Comet 40591 by White Prince, out of a daughter of Comet; Post Vaughn 39405 by Post 3d, Harding's noted boar and out of a Una Again dam; Cedar Lawn Chief 40305 by Eagle Chief. Winnings of Perfect Prince, undefeated at five shows including Wisconsin State Fair and Perfect Chief won three firsts. The gilts are the tops of these three good herds that during the past season won forty-seven first, thirty-five second, seventeen third and seven fourth prizes and two sweepstakes and two grand championships in 1916. Make your plans to attend this sale. Out of town buyers will be entertained free of charge at the Burlington Hotel. If you can't possibly be there send mail bids to the auctioneer, C. C. Evans, or field man for The Wisconsin Farmer, H. S. Hoard, in care of Burlington Hotel. Send to W. C. Scheibe for catalogs. When writing kindly mention The Wisconsin Farmer. See page 38.—Adv.

Great Demand For Registered Swine.

FROM January 2d to January 20th, T. P. Shreve, field man for The Wisconsin Farmer attended fourteen sales of registered swine, Duroc Jerseys and Poland Chinas, in Minnesota, Iowa and South Dakota. In all 757 hogs of the two breeds were sold at an average of $77.12. The highest average was $139 and the lowest, $43. We simply mention this to show that the swine business is on a substantial footing and there is a keen demand for well-bred hogs of any breed. Incidentally we might mention that Mr. Shreve purchased nineteen sows in these fourteen sales for breeders that could not attend in person. The Wisconsin Farmer and its field men are doing all they can to stimulate more interest for better swine

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

in Wisconsin. During the next month Mr. Shreve will attend all hog sales to be held in Wisconsin. His services are at your command if you wish to make purchases at any of the coming sales. Write him at Madison, or in care of the breeder holding the sale.—Adv.

Last Call For Hendricks, February 14th.

REMEMBER the day of days will be Wednesday, February 14th, for on that date E. W. Hendricks will sell forty of those great Poland China sows at Hazel Green, Wis. For the benefit of those that are not posted, will say that Hazel Green is about ten miles north of Galena, Ill., on the Galena-Madison division of the Northwestern. We will mention a few of the attractions: Five gilts by Black Jumbo out of Big Maid 2d by Big Bug. Some of the best gilts to be sold this year. Three that will tone up any herd are by Big Oakland out of Half Ton Mollie (sells in sale). Three by the noted Smooth Price out of Big Irene by Repeater. Two by Big Crow Wonder, Crow's Kind-A Wonder breeding. There are two fall yearlings by Black Jumbo out of a Big Henry Ex., dam, that are good ones. Peerless Wonder was by A Wonder, and he is the sire of a couple of yearlings that are out of a Big Bug dam. Remember that Big Bug was perhaps the best sow sire ever owned in Wisconsin. Something attractive is a yearling by Big Martin he by Big Tom, dam by King of Wonders. Smooth Daisy is a spring yearling, a half sister to Smooth Price. If you want a good tried sow, buy King's Lady by King Jumbo. She will weigh right at 850 pounds. When you get to the sale look at the sows in the sale sired by Peerless Wonder. Don't forget that the entire offering is bred to the two boars, Black Jumbo and Model Major 2d. You need not worry about the individuals, they are as good as any breeder has. Get the catalog and you'll get some idea of the offering. This sale follows the combination sale at Lancaster, Wis., and precedes the J. C. Hendricks sale. Attend all sales—every one is a good one. T. P. Shreve will represent The Wisconsin Farmer and mail bids should be sent to him in care of Mr. Hendricks. Notice the advertisement that appears on page 36. Write for a catalog and mention The Wisconsin Farmer.—Adv.

Orion Cherry King, Jr., the Champion.

ORION CHERRY KING breeding is the most popular at the present time, because sons of this boar head the best herds in the country and one of his sons was the grand champion boar at the greatest swine show ever held in the world—the National at Omaha. E. H. Parker & Son, Janesville, Wis., have the only son of Orion Cherry King Jr., the Omaha champion, that we know of in Wisconsin or Minnesota. On February 8th the Parkers will sell twenty yearlings and gilts in the combination Duroc sale to be held in Janesville. The gilts are yearlings are good, they will please you, and, as most of them have been bred to King Orion you will have a valuable litter next spring. Arrange to attend this sale. It follows the association sale at Madison and you should attend both sales. Write the Parkers for a catalog; it contains valuable information. See page 34.—Adv.

Water-Proof Shoes.

A PAIR of work shoes that are really manure and water-proof shoes, that last long and don't leak, is a boon to the farmer. Wilson, the Water-Proof Shoe Maker, 2373 Milwaukee Ave., factory, Chicago, is manufacturing shoes to meet this need. In order to convince the farmer that his shoes will do what is claimed for them Mr. Wilson will send a pair of Hy-D-Rubber-Wood sole shoes without a cent in advance, so that the farmer may inspect them before paying, and if they are not satisfactory may return the shoes at the factory's expense. Read Mr. Wilson's advertisement on page 17 and send the coupon calling for a trial pair of these water-proof shoes. Mention that you read the advertisement in The Wisconsin Farmer.—Adv.

See King Defender at Madison.

KING DEFENDER, the grand champion Duroc Jersey boar of Wisconsin will be on exhibition in Madison during Swine Week. He will no doubt appeal to you as he does to others and you will want a sow or a gilt bred to him. On February 8th the day following the association sale at Madison, John L. Fisher, the owner of King Defender, will sell fifteen head of sows and gilts in the combination Duroc sale to be held in Janesville. Most of these sows are carrying a King Defender litter and it will be no trouble to sell boars or gilts sired by this grand champion next spring. Arrange to attend this sale. Write to John L. Fisher, for a catalog and mention this paper. See page 34.—Adv.

A More Convenient Incubator.

THE "Old Trusty," manufactured by the M. M. Johnson Company, Clay Center, Neb., is an incubator built with a view to reducing the poultry raiser's labor to a minimum. It gives large hatches with so little work that it may be classed as a real work-saver. Read the advertisement on the "Old Trusty" on page 13 and write to the company for a copy of their new book telling how Old Trusty owners make big money making hatches in coldest weather. Mention that you read the advertisement in this paper.—Adv.

First Aid to Live Stock.

SCRATCHES, cuts and wounds may prove serious to your cattle and horses if not properly treated. Corona wool fat compound applied to these wounds has wonderful healing qualities. It does not burn or blister, leaving ugly scars, but heals the wound without a scar. Read the advertisement on page 40 and write to the Corona Manufacturing Company, 44 Corona Block, Kenton, Ohio, for a sample box of this famous healing compound and a copy of the booklet, "How to Treat Wounds, Sores, etc." Mention that you read the advertisement in this paper. See page 40.—Adv.

Live Stock Guide.

THE International Live Stock Guide has recently been issued and a copy has come to our attention. This book contains a large amount of useful information relative to the breeding, feeding and care of horses, dairy and beef cattle, swine, sheep and poultry. The information is gotten up in a convenient form so that anyone may take the common live stock diseases or problems and easily secure the views of well-informed writers upon these subjects. For instance, the introduction of the section devoted to the horses is written by John L. Hervey, Editor of the Horse Review. The first twenty pages of the book are devoted to pointers for horse owners. This book tells a number of things to observe when buying a horse; how to throw a horse; treatment of mare at foaling time; how to cool off a horse; how to keep a horse from pawing; care of the horses' teeth and scores of other important matters in connection with the care of horses. The same general plan is carried out in the section devoted to the dairy cow and to beef, swi e and sheep. The dairy section contains some interesting dairy rations, which may be tried with profit by some of our readers. Also the common diseases of cattle are discussed with recommendations. It would take too much space to explain all that will be found in this book relating to the various divisions of live stock on the farm. This is the book mentioned in the International Live Stock Company's advertisement which appeared last week. We recommend that our readers write to the International Stock Food Company, Department W. F., Minneapolis, Minn., and get this book. The live stock guide also contains a historical sketch of Dan Patch 1:55. Dan Patch died July 11, 1916, and the next afternoon he was followed by his owner, M. W. Savage. In each case heart trouble was the cause of death. Mr. Savage was known all over the world as the owner of the fastest horse in the world. The history of Dan Patch as given in the International Live Stock Guide is very interesting. Please mention The Wisconsin Farmer when you write for a copy of the International Live Stock Guide.—Adv.

The Ironclad Incubator.

AN incubator that has won in two great hatching contests should be worthy of serious consideration by every poultry breeder in need of a new incubator. That is the record of the Ironclad, manufactured by the Ironclad Incubator Company Box 100, Racine, Wis. It is offered to any reader of this paper on thirty days' free trial. The 150-egg size, together with a 150-chick brooder, are offered for only $11, putting them in reach of every farmer. Read the advertisement on page 14 and write the company for a copy of their free catalog explaining the Ironclad incubator. Mention that you saw the advertisement in this paper.—Adv.

Incubator Much Improved.

THE new 1917 model X-Ray incubators and brooders include twenty new improvements which add a great deal to their efficiency. The new features insure greater hatches of sturdier chicks. The price of the new improved incubators and brooders remains the same, so that the farmer who buys one of the new models is getting a real bargain for his money. Read the X-Ray advertisement on page 14 and write the X-Ray Incubator Co., Box 42, Des Moines, Iowa, for a free copy of their 1917 book telling all about these n w improvements. Mention that you read the advertisement in this paper.—Adv.

The Faultless Stump Puller.

THE Faultless stump puller was well named, for it has accomplished some very unusual records. So sure are the manufacturers that this stump puller will give satisfaction that they give ten days' free trial of the stump puller, and guarantee the machine and cable against breakage for one year. Read the advertisement of the Faultless on page 19 and write the manufacturers, the Faulless Stump Puller Company, Dept. W, Cresco, Iowa, for their special low price on complete outfit and free book on clearing stump land. Mention that you saw the advertisement in this paper.—Adv.

A Champion Incubator.

THE world's champion Belle City incubator is manufactured by the Belle City Incubator Co., Box 106, Racine, Wis. The incubator can be obtained for $8.55 and may be obtained for ninety days' trial. Readers of this paper can get a copy of the valuable booklet "Hatching Facts," free by writing to the company. See the advertisement on page 15 and mention that you read it in this paper.—Adv.

Clydesdale Horses.

IT WILL soon be time to think about a stallion for your own use or one to place in the stud. If you favor the "Clyde" don't overlook the Van Etta Clydesdale Stud, Lime Center, Wis. He has some outstanding stallions that are for sale at reasonable prices, quality and show yard winnings considered. Ayrshires of the highest caliber are also raised on this farm. If interested in the above breeds write Jas. Van Etta at the above address. See page 37.—Adv.

More Money From Hogs.

THE hogs that are kept in the best condition will make the most money for their owner. That's what Hog-Tone, made by Avalon Farms Company, 612 Rand McNally Bldg., Chicago, does for them. It is a liquid worm killer and hog conditioner that does wonders in helping hog health. Read about Hog-Tone and what it has accomplished in the Avalon Farms advertisement on page 9 and write the company, or send them the coupon calling for a free sample of Hog-Tone so that you may see for yourself what this treatment may do for your hogs. Mention that you read the advertise. ent in this paper. See page 9.—Adv.

AN interesting feature of the Maule seed book for 1917 is the explanation of the Maule seed tests to insure the germination of all Maule seeds. This practice of testing the seeds and rejecting those which do not measure up means increased crops and larger returns for the farmers. Readers of this paper may obtain a copy of the 1917 Maule seed book, containing 176 pages of illustrations, prices and descriptions, is sent free on request, by William Henry Maule, Inc., 2146 Arch St., Philadelphia, Pa. Tell them you saw the advertisement in this paper.—Adv.

IT will soon be time to be thinking about what garden and flower seeds will be needed this spring. Seeds that are northern grown and, therefore, strong in vitality are best for the Wisconsin farmer. The northern-grown seeds can be obtained from the J. W. Jung Seed Company, Randolph, Wis., whose advertisements are appearing in The Wisconsin Farmer. Any reader of The Wisconsin Farmer can obtain their big free catalog for the asking. When writing for it tell them that you saw the advertisement in The Wisconsin Farmer. See page 22.—Adv.

JOHN H. BEAR & SON, Spring Green, Wis., have a select herd of Shorthorn cattle. They do not have a large herd, but the few they have are good and well cared for and are excellent producers. They offer bulls for sale that are well grown and ready for immediate service and they are sired by good Scotch bulls out of heavy milking dams. We gladly recommend the Bear Short-horns to any prospective buyer. Please mention this paper. See page 34.—Adv.

SALE DATES.

Poland China Swine.

Feb. 13, Grant County Poland China Breeders' Assn., Lancaster, Wis., Burlie Dobson, Secy.
Feb. 14, E. W. Hendricks, Hazel Green, Wis.
Feb. 15, J. C. Hendricks, Hazel Green, Wis.
Feb. 16, Chris Kartman, Cassville, Wis.
Feb. 16, Gerlick & Barker, Mankato, Minn.
Feb. 22, William Smiley & Son, Albany, Wis.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Holstein Cattle.

Jan. 30, Harry Dunbar Dispersion Sale, Elkhorn, Wis.
Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

Short-horn Cattle.

Feb. 15, Wisconsin Short-horn Breeders' Assn., Sale at Madison, J. L. Tormey, Secy.

Duroc Jersey Swine.

Feb. 15, Gant's Farm, Delavan, Wis.
Feb. 26, George W. Pagel, Zumbrota, Minn.

Rock County Holstein Meeting.

The Rock County Holstein breeders met in the city hall in the city of Janesville on the 18th day of January. There were thirty-six breeders in attendance and a permanent organization was formed, constitution and by-laws adopted and officers elected. It was decided to hold another meeting on the 27th day of February, at which time Mr. W. J. Kittle, secretary of the Chicago Milk Producers' Association, will give an address to which all dairymen will be invited. Mr. Kittle will speak on the subject, "Marketing Milk." He is a splendid speaker and we are looking for a very fine meeting.

At the election of officers Mr. H. J. Bemis, of Hanover, Wisconsin, was elected president; Mr. John W. Jones, of Milton Junction, Wisconsin, vice president, and John L. Fisher, of Janesville, Wisconsin, secretary, and Wallace Hoey, Milton Junction, Wisconsin, treasurer.

An executive committee consisting of the president, secretary and treasurer, Mr. W. C. Huginin, of Janesville, and Mr. Harold Ward, of Avalon, was appointed to look after the association business.

The association started out with over thirty members and an active canvass will be started to increase the membership. It is the aim of the association to have one of the very largest county associations in the northwest, and a very large attendance at the next meeting on February 27th.

HAEGER
Drain Your Swamp Land
--and remember that the *best* tile is the *cheapest!* See that the "Diamond H" mark is on the drain tile you buy. It is your protection.
HAEGER QUALITY TILE
has been the standard for 30 years. You buy it *once* for a *life-time;* no expense for repairs or relaying as with ordinary tile. Haeger Drain Tile is strong, straight, well-burned; *guaranteed.* Get it from your dealer or direct from us. We ship anywhere in Wisconsin and Illinois.
Write for Free Booklet telling how to reclaim your swampy land.
HAEGER BRICK & TILE CO.
1 State Bank Bldg
Dundee, Ill.
DRAIN TILE

The FARMERS' LIGHT
has heretofore been kerosene lamps giving 18 candle power of light. City people use Gas or Electricity up to 200 candle power. Now the farmer is offered a superior light in the "Incandescent" Lamp giving 300 candle power. Descriptive circular and prices on request.
AGENTS WANTED.
Farmers' Boys Make $25 to $50
weekly selling this marvelous lamp Everyone a possible customer, send for our offer to agents.
The Lawrence Mfg. Co.
No. 9 So. Clinton St. Chicago, Ill.

Cow-Testing Convention.

The annual convention of Wisconsin cow-testing associations will be held at Madison, February 5th to 8th. The speakers who will give special attention to this subject are Louis Bober, of the Buena Vista association; Secretary Richard F. Adams, of the Stanley association; Geo. L. Moss, of the Waupaca association; F. W. Drage, of the Geneva association; H. F. Brant, East Troy association; F. A. Gaiser, Wrightstown association; F. L. Cuenot, Alta association; C. M. Rydberg, Shawano association; W. K. Anderson, Menomonie association; A. O. Follette, Waukesha association; M. H. Duel, Fond du Lac assoriation; A. R. House, Winnebago association.

Those who attend the meeting of this association will also have an opportunity to hear addresses by H. L. Russell, director of the agricultural experiment station; Math Michels, president of the Wisconsin Dairymen's Association; H. E. Young, of the United States Department of Agriculture; Dr. A. S. Alexander; W. E. Meyer, of Salt Lake City; Joel Winkjer, of the federal department of agriculture; A. J. Glover; C. H. Eckles, of Missouri; A. W. Hopkins, of Madison, and a number of Wisconsin State Experiment Association workers.

Live Stock Recommendations.

At a recent meeting at the Wisconsin Live Stock Breeders' Association, held in Madison, the following resolution was adopted:

Resolved, That the Department of Agricultural Economics of the university be invited to make an investigation of marketing conditions with a view of providing information to the farmers of Wisconsin as to the best methods of fitting, shipping and selling live stock, and that we pledge our efforts to assist in such investigation.

It is expected that this work will be begun at once.

President Broughton appointed a committee consisting of W. L. Houser, Buffalo county; J. P. Riordan, Dodge county; J. W. Martin, Richland county; W. F. Renk, Dane county, and J. C. Robinson, Rock county, to co-operate with other agricultural bodies and organizations in presenting to the members of the legislature some of the urgent needs for the development of Wisconsin's agriculture.

A committee consisting of J. P. Riordan, Dodge county; C. L. Hill, Fond du Lac county; J. W. Martin, Richland county; L. A. Wright, Columbia county, and H. C. Taylor, Rock county, was appointed to make a study of all proposed legislation on the control of bovine tuberculosis and to make definite recommendations to the members.

POLANDS MADSON & SONS' POLANDS

BRED SOW SALE

(During Swine Week.)

Sale held at Drs. West & Wolcott's Veterinary Hospital, 753 East Washington Ave., 5 blocks from east side depots, in

MADISON, WIS.,

TUESDAY, FEB. 6, '17

8 Fall Yearlings and Tried Sows

35 Spring Gilts

The Largest and Best We Ever Offered

THE get of the good boars—Correct I Am, Big Price Again, Triumph, Hidestretcher and others. Bred for March farrow to **Defender**, a great prospect by the noted **Choice Expansion, Big Bone Bob** by the noted **Big Ben** and **Big Buster** by **Big Carver, the sensational winner at Illinois.** Some bred to **Triumph,** our show boar. We sell the QUALITY KIND—with SIZE. An offering that we are proud of. You should attend SWINE WEEK and incidentally this sale. Sale starts as 1 o'clock. Write at once for one of the catalogs. Send bids to H. S. Hoard, Wisconsin Farmer representative. Col. W. H. Cooper, auctioneer.

M. MADSON & SONS **MADISON, WISCONSIN**

Choice Short-horns from Wisconsin's leading herds

Will Be Shown and Sold

THURSDAY, FEBRUARY 15, 1917

In University Stock Pavilion at Madison, Wisconsin

52 HEAD--39 Females, 13 Bulls--52 HEAD

Consignments from the following herds:

Anoka Farms, Waukesha
G. D. Arnold, Galesville
H. B. Drake & Son, Beaver Dam
Griswold Bros., Livingston
Herr Bros. & Reynolds, Lodi
E. E. Jones, Rockland
R. Mauer & Sons, Fox Lake
Chas. Pengilly, Dodgeville
Carpenter & Carpenter, Baraboo
W. J. Bernd, New Richmond
D. H. Grady, Portage
Fox & Gallagher, Oregon
John Howie, Waunakee
Williams Bros., Bangor
H. Padden, New Richmond

It is only natural that these breeders would not consign poor animals—it would be a detriment to their herds. **A choice lot. Plan to attend.**

There will be a **show** at 10 a. m. Judge, C. J. McMaster, Altona, Ill. Carey M. Jones and Theo. Martin, auctioneers. Write for catalog to

J. L. TORMEY, Sec'y

College of Agriculture **Madison, Wisconsin**

TOO LATE TO CLASSIFY.

KING ORION

THE only son of **ORION CHERRY KING JR.**, the Omaha champion, in the Northwest. On February 8th we sell gilts bred to this boar at Janesville. The most popular breeding at this time—you need it. Get a catalog. Mention The Wisconsin Farmer and address

E. H. PARKER & SON **JANESVILLE, WISCONSIN**

INTER-COUNTY HOLSTEIN ASSOCIATION

SELLS cattle on a fair and square basis. We have yet to produce a dissatisfied buyer. Our fall sale was a dandy—satisfied buyer and seller. Our spring sale, April 4th and 5th, promises to eclipse our fall sale. We have some splendid bargains in bulls and females. Francis Darcey, Secy., Watertown, Wis.

KING DEFENDER

THE grand champion Duroc of Wisconsin. Fifteen sows and gilts bred to him will be sold at **JANESVILLE, FEBRUARY 8TH.** The litter will be valuable—own a sow bred to this boar.

JOHN L. FISHER - - - **JANESVILLE, WISCONSIN**

GREEN VIEW STOCK FARM

SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address

John H. Bear & Son **Spring Green, Wis.**

Oak Lawn Farm — Short-horns of Quality

FOR sale at reasonable prices. Six very choice dual purpose Short-horn cows, ages 2 to 6 yrs., all safe in calf to Village Denmark 8th, my herd bull that is today considered one of the best Short-horn bulls in Wis. J. E. Kennedy, Janesville, Wis.

PERCHERON STALLIONS FOR SALE

REGISTERED Percheron stallions for sale. One yearling, dark bay; one four-year-old brown, a good one; one black, blocky, 1800 lbs. All sound and clean, heavy boned, cheap. Julius Schmidt, Wild Rose, Wis.

D. S. Polled Durhams, 7 quits 8 to 14 mos., reds and roans by Red Sultan X 9404-565337. Herd and farmers' bulls. F. Bunker, Kilbourn, Wis.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.

HOMESTEAD COMPANY
Engraving Dept. **Des Moines, Iowa**

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word each insertion.

SHEEP.

VALLEY VIEW STOCK FARM

SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

Geo. A. Philippi, R. 40, Bear Creek, Wis.

HAMPSHIRE SWINE.

HAMPSHIRES

OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each; 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Dane's Model 25929.

DANE STOCK FARM **OSHKOSH, WIS.**

Mulhall's Hampshires

BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, trios and spring gilts. Best of breeding and priced to sell.

TERRY MULHALL **SIOUX CITY, IOWA**

YORKSHIRE SWINE.

FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

GANT'S FARM DUROCS

BRED SOW SALE

DELAVAN, WIS., THURS., FEB. 15, '17

Come and take your pick from 40 head, bred to

PATHFINDER (the mighty.)
KING DEFENDER (Wis. Grand Champion.)
ILLUSTRIOUS PROFESSOR (by Illustrator.)
GANT'S FARM CHERRY CHIEF (by Cherry Chief.)

Gilts out of dams by Orion Chief, Fancy Col., Good Enuff Again, Lee's Defender and The Professor. We promise you an outstanding lot of sows and gilts. Catalogs now ready. Col. Lloyd Seeley, auctioneer. Send mail bids to T. P. Shreve, in my care.

GANT'S FARM **DELAVAN, WIS.**

Services of Expert Live Stock Photographer

Up-to-date live stock breeders are more and more using photographs in advertising their herds. It is the modern way of doing things, and The Wisconsin Farmer is meeting the situation by offering the services of a skilled live stock photographer. Appointments may be made by mail at any time. For estimates of cost and other information write The Wisconsin Farmer.

Lancaster, Wisconsin
Tuesday, February 13, 1917

50 Poland Chinas 50
Sows and Gilts

WE INVITE YOU FOR WE HAVE THE GOODS

Spring gilts that weigh 385---sows at 700 lbs. Not a poor animal in the entire sale.

Big Hadley Big Jumbo and A Wonder Breeding

Guarantee: Every Sow a Breeder or Money Refunded

50 Poland Chinas 50
Noted Families of the Breed

Bred to the best boars money could buy: **Big Ben H.** by Big Ben, **Big Type Jim 2d** by Jim Crow by Crow's Kind, **Big Ben Jr.** by Big Ben, **Sunrise Price** by Smooth Price, **Big Mint** by Jumbo Again, **Big Quality** by Blue Valley Again. **Grant county** is the leader in Poland Chinas. Why not buy at **headquarters?** We want you to see the offering, but if you can't come, send bids to T. P. Shreve. We stand back of his selection. Col. W. H. Cooper, auctioneer. We have a **catalog for you.** Write to

BURLIE DOBSON, Sec'y **LANCASTER, WIS.**

Grant County
Poland China Breeders' Association

SHORT-HORN CATTLE.

USE A SHORT-HORN BULL

ARE you raising beef? A Short-horn bull will give you more scale and bone and more pounds of flesh for a given amount of feed than any other breed. Are you a dairyman? A Short-horn bull with milking ancestry will maintain your milk supply and will sire calves that will be quickly salable at a much higher price than you can hope for from a dairy bred bull. Are you a farmer? The Short-horn is the ideal for your purpose, because it is adapted to all conditions, of quiet temperament, takes on flesh readily, and yields a liberal flow of milk. The Short-horn always works improvement.
AMERICAN SHORT-HORN BREEDERS' ASS'N
13 Dexter Park Ave. **Chicago, Illinois**

SHORT-HORN COWS AND HEIFERS

Fresh or to freshen soon. Priced very reasonable. Write to
WILLIAMS BROS. **BANGOR, WISCONSIN**

100 Short-horns to Select From-100

BULLS and females. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASSN., J. E. Kennedy, Secy. - - JANESVILLE, WIS.**

MILKING SHORT-HORNS

HAVING several choice young bulls from dams giving 10 to 12,000 pounds of milk. I have a well-bred herd and keep records of production. Inspection invited. Address
Harvey H. Little **Evansville, Wisconsin**

FOXHALL STOCK FARM

OUR offering in Scotch Short-horns this year is probably the best we have had to offer our patrons in years. We have several young bulls of serviceable age, high in quality and rich in breeding, and these are priced to sell. Could also spare a few females.
Fox & Gallagher **Oregon, Wisconsin**

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
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SHORT-HORNS Big-type **POLANDS.** Choice bulls, 1 to 15 mos. good breeding. Collynie Victor 387634 in service. Also stretchy boars ready for service and gilts. Fall pigs for sale. **A. Menke & Sons, R. 1, Markesan, Wis.**

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7 Pure-Bred SHORT-HORN BULLS

7 to 17 months old, and a few choice

POLAND CHINA BOARS

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WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
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Bates Milking Short-horns

2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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TWO REDS, eight to nine months old, sired by Milkman, that is out of a 4.4% butter fat cow that gave over 60 lbs. of milk per day. Send for prices and description. Address
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OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
B. W. Little **Janesville, Wis.**

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INDIVIDUAL EXCELLENCE
Buy An A. R. Sire and Champion

OFFER: **King Talladeen of Chestnut Hill 13460,** grand champion Mich. State Fair. Sired 4 A. R. daughters averaging 350 lbs. fat as 2 yr. olds. **Sire: Skeezicks 9979,** 13 A. R. daughters. **Dam: Talladeen 17510,** A. R. 633.50. A tried sire that has been used successfully in our herd. Will be pleased to show his get. Few such **Guernsey bulls** are being offered. **We guarantee him in every respect. Write**
FOX BROTHERS **WAUKESHA, WISCONSIN**

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.
Berkshire Spring Boars and Gilts of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address
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GUERNSEY bull, 1 yr., by son of Glenwood Stranford, that has 16 A.R. dau.; dam's record, 500 lbs. fat. $100. W. A. Lawson, Rosendale, Wis.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

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ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

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HILLSIDE FARM SHORT-HORNS

WE will sell 4 heifers sired by **Prince Cumberland** in the Madison sale February 15, 1917, and they are from good ones in nice breeding condition. **Eben E. Jones, Rockland, Wis.**

FOR SALE--1 SCOTCH SHORT-HORN

HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Sultan. A. J. Wheeler, R. 1, Beaver Dam, Wis.

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D. S. Polled Durhams. An extra good, dark roan bull 11 mos. old and a dark red 10-mo.-old bull. They'll suit. F. S. Bunker, Kilbourn, Wis.

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl,** a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.
W. G. Jamison & Sons **Appleton, Wis.**

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
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READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
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BORN March 17, 1916. Colantwood breeding. Sire, Colonel Waukesha. Dam, Parks's Pet. He is well marked, a good individual and right in every way. Price made right to sell. Address
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A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

BIG POLANDS

BIG POLANDS

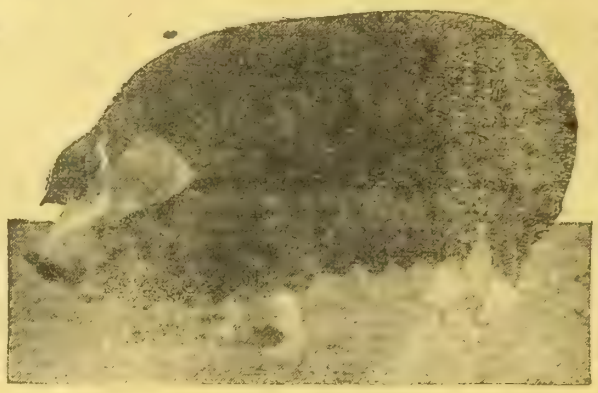
BLACK JUMBO--MODEL MAJOR 2D

E. W. HENDRICKS' POLAND CHINA SOW SALE

Hazel Green, Wisconsin, Wednesday, February 14

40---EVEN BETTER THAN LAST YEAR---40

5 Tried Sows
5 Fall Yearlings
30 Spring Gilts



Bred to 2 Tried Sires

BLACK JUMBO—The largest boar in the state.

MODEL MAJOR 2D—The largest 2 year old in Wis.

BIG AS THE BIGGEST, Smooth as the Smoothest. Those sired by Black Jumbo are bred to Model Major 2d, all others bred to **Black Jumbo.** Boars of proven ability. **Features:** Half Ton Mollie by Big Bug out of the dam of Black Jumbo. **King's Lady** (840 lbs.) by King Jumbo, going back to Big Bug. **Miss Oakland** by Oakland's Equal, dam by Big Henry Ex. Two fall yearlings by **Peerless Wonder** (by A Wonder) dam by Big Bug. One by Big Martin (by Big Tom) dam by King of Wonders. Most of the spring gilts are by **Black Jumbo. No sale of the winter will have bigger or better gilts.** Send mail bids to T. P. Shreve, field man for The Wisconsin Farmer. I'll guarantee his selection. Col. W. B. Duncan, auctioneer. **Write now for catalog and mention The Wisconsin Farmer.**

BIG POLANDS **E. W. HENDRICKS** **HAZEL GREEN, WISCONSIN** BIG POLANDS

DUROC JERSEY SWINE.

BURN BRAE DUROCS---The Good Kind

THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Rox y (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
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PARKER PROLIFIC PORKERS

THIS is the kind we breed and sell. If you want good Durocs, write or come and see them. A splendid lot of gilts bred to King Orion, a son of the world's grand champion. Address
E. H. PARKER & SON - - - JANESVILLE, WISCONSIN

M. STOEHR
VIROQUA - WIS.

DUROC boars all sold out. Ten of my best gilts for sale. Farmers' prices. Write me, mentioning The Wisconsin Farmer.

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailing list.
Dennis Shea **Melvina, Wis.**
(10 miles from Sparta)

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 12th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

BOARS ALL SOLD

REMEMBER my **Duroc Jersey sow sale January 31st**
L. F. ATWATER **BANGOR, WIS.**

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"
We satisfy our customers. Write
Riley Ma tiny & Son **Baraboo, Wis.**
Also an imported Guernsey bull.

DUROC SOW SALE

AT PUBLIC AUCTION ON
FEBRUARY 8TH, JANESVILLE, WIS.

I WILL sell twenty sows and gilts bred to the grand champion boar, King Defender. Write for catalog. Address
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BRED to Cook's Defender for sale. Only a few, order early. Address
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DUROC GILTS

OFFERING gilts bred for March and April farrow. Also bred Jerseys. Write
E. E. WYATT **TOMAH, WIS.**

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

POLAND CHINA SWINE.

POLAND CHINAS
BRED SOWS AND GILTS

Write your wants. Address
R. MEINKING **BANGOR, WISCONSIN**

POLAND CHINA SWINE.

OPPORTUNITY

OFFERING March gilts out of my big sows, bred for March and April farrow. Sired by JIM CROW, the sire of my WINNERS. Bred to JUMBO'S GIANT (3d at Minn.), Mc's BIG BONE and MATCHLESS WONDER (2d, Ia., 1915). Will sell a few sows. The fact that I SOLD 71 SPRING BOARS shows what the people think of my POLANDS. Buy from a winning herd—it adds prestige to yours.
J. D. McDONALD **NORTH BEND, WIS.**
"BIG POLAND CHINAS." Selling 4 sows at Madison.

MARTINY'S BRED SOWS

30 BIG, growthy Poland China March and April gilts, gired by Chief Price and Select Major 2d. 1st prize senior and 1st prize junior yearling boars at the Wisconsin State Fair this fall; and other boars. These sows are bred for April farrow to Golden Gate Giant and Long Black Jumbo, a boar I am going to show next year. If you are looking for something good I can suit you in sows and price.
L. P. MARTINY **CHIPPEWA FALLS, WIS.**

BIG POLANDS

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.
E. W. HENDRICKS
Hazel Green Wis.

FEB. 15
Poland China Brood Sow Sale

40 TOP OF TOPS-WRITE FOR CATALOG
J. C. HENDRICKS
Box F - - Hazel Green, Wis.

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).
Marinette County Asylum - Peshtigo, Wis.

FEBRUARY 22nd
WE SELL 50 POLAND
BRED SOWS
WAIT
WM. SMILEY & SONS **ALBANY, WIS.**

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch **Mt. Ida, Wis.**

BRED POLAND GILTS

OF big-type breeding and bred to **Chief Price** by the champion Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.
P. N. COLLINS **RIVER FALLS, WIS.**
(35 miles southeast of St. Paul)

BIG-TYPE POLANDS

SOWS and gilts bred to SMOOTH KING, a son of Golden Gate King. Order one. Address
CHAS. S. MALTBY **JANESVILLE, WIS.**

BRED GILTS
POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.
OLOF C. OLSON **STRUM, WIS.**

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SOWS SIRED BY 21 NOTED POLAND BOARS

ATTRACTIONS AT

HAZEL GREEN, WIS., THURSDAY, FEB. 15

600 TO 800-POUND SOWS SIRED BY THE NOTED BOARS OF THE POLAND CHINA BREED, NAMELY: BIG BUG, BIG ORANGE, BLACK JUMBO, LONG EXPANDER, MILLER'S SIOUX CHIEF, CHIEF PRICE JR., HIGH WONDER, REPEATER.

Big, Big-Types. Sows weigh 600 to 800 lbs. Gilts that average 400 lbs.

10 Yearlings, 30 Spring Gilts

Do you want variety of breeding? You get it here.

SPRING GILTS THAT WEIGH 400 LBS., SIRED BY NORTH SIDE WONDER, REPEATER, SMOOTH PRICE 2D, BIG BEN, COLUMBUS PAN, ORPHAN BLUE WONDER, KING JOE, GREAT ORPHAN, GIANT WONDER, GIANT NELSON 2D, M'S LONGFELLOW, BIGGEST YET, AND ORANGE BOY.

WHERE CAN YOU BEAT IT?

BRED TO: **Smooth Price,** 910 pounds at twenty-three months old. Sows bred to this boar averaged $90 last year. **Black Chief,** a 700-pound yearling that for length, height, bone and finish is hard to beat. **North Side Wonder,** an 800-pound two-year-old with eleven-inch bone. I'll show you a sale offering with few equals.

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If you want one, write and please mention The Wisconsin Farmer. T. P. Shreve will represent this paper and buy for those who cannot attend and any sow he buys can be returned if not satisfactory. Col. W. B. Duncan, auctioneer. Sale held in pavilion. The catalog is instructive and gives the accurate weight of each sow. Get one.

J. C. HENDRICKS BOX F HAZEL GREEN, WIS.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

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We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

4 Stallions PERCHERONS 2 Mares

WE are offering 6 very high-class Percheron stallions and mares; 1 two-year-old and one yearling stallion out of **Diana 53532** by Phil Sheridan and 1 yearling stallion and a 2 and 3 year old mare out of Karel 33640, a double bred **Baccarat** mare. The two-year-old stallion sired by Imp. Haricot 74108 is particularly good. Send for prices and description.

JOHN KLOEHN FOREST JUNCTION, WISCONSIN

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

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Percherons--Belgians. Imported and home-grown mature stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **FRED CHANDLER, R.7, Charlton, Iowa.**

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IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

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ALDEBARAN FARMS A. R. AYRSHIRES

YEARLING AYRSHIRE BULL ready for service. ¾ white, well grown, good, straight type. Dam has an Advanced Registry record of over 500 pounds of butter in a year. This youngster is backed by rich Advance Registry breeding. His dam, both grandams and both grandsires being Advance Registry animals. Send for pedigree and price. Address

STEPHEN BULL RACINE, WISCONSIN

AYRSHIRE BULLS

THEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ WAUKESHA, WISCONSIN

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A Large and Choice Collection of Stallions, Mares and Colts

for sale at all seasons of the year. Correspondence solicited. Catalog mailed upon application.

H. LEFEBURE & SONS, Fairfax, Iowa

8 miles west of Cedar Rapids

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write

Harry Crandell Cass City, Mich.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.

H. A. DERENTHAL WYKOFF, MINN.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

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Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

Clydesdales and Durocs

Write your wants Address

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Pedigreed Live Stock and Real Estate.

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FARMINGTON, MINN.

THOROUGHLY versed on pedigrees of leading breeds of live stock.

CHESTER WHITE SWINE.

CHESTER WHITES

AM sold out of Aug. farrow pigs, but have Sept. pigs left. Have some nice bred gilts left, not loaded with fat but in fair condition to do the buyer good. **Wm. F. Butts, Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants

WEST SALEM WISCONSIN

Please mention this paper when writing

You Get the Blood of Champions
At Cassville, Wisconsin, Friday, Feb. 16, '17

Poland Chinas

31 Gilts, 5 Fall Sows, 3 Tried Sows

at Wis., Timm Wonder by Fessy's Timm, dam by A Wonder. Omaha grand champion. Bred to Giant Wonder, 2d-prize boar at Wis., Timm Wonder by Fessy's Timm, dam by A Wonder.

Notice the Popular Blood Lines

MOST of the spring gilts are by **Monster Big Bone**, a son of Black Big Bone, the sire of Lone Big Bone, the grand champion at Omaha. Some by **King Joseph**, he by Big Joe, others by **Big Crushader 2d.** One tried sow by **Big Ben**, one by **Big Orange**, one sow by son of **Mouw's Jumbo.**

Bred to Excellent Boars

Timm Wonder is the largest spring boar in the state. Sired by Fessy's Timm, junior champion at Neb., by Big Timm, grand champion at Neb. Dam by A Wonder. **Giant Wonder** was the 2d-prize under-year boar at Wisconsin State Fair, 1916. He combines the blood of Heavy Bone, Chief Price, A Wonder and Giantess. Will show you gilts weighing 400—fall yearlings weighing over 500. **You get individuality and breeding combined.** Cassville is on the Burlington between East Dubuque and Prairie du Chien, in Grant county. If you can't attend, let Shreve buy a sow for you; I'll guarantee his buy. Write at once for one of the catalogs and mention The Wisconsin Farmer. Col. W. H. Cooper, auctioneer. T. P. Shreve, field man. Address

Chris Kartman - - - - Cassville, Wisconsin

This sale follows J. C. Hendricks, Hazel Green. Good connection.

JERSEY CATTLE.

RED OAK STOCK FARM

F. R. CONSTANCE & SONS, Props.

HAVE one yearling Jersey bull and three yearling bull calves for sale. All out of splendid dams and sired by a bull whose dam made 526 lbs. butter on official test under just ordinary farm conditions. We also have a fine fall Duroc boars and gilts for sale. For Dec., 19 cows and heifers of all ages and periods of lactation gave us 618.2 lbs. fat for which we received 44½c per lb. or $275.10. This was at the creamery and this under just ordinary farm conditions.

WAUPACA WISCONSIN

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753,629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.

FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

The Giant Of The Dairy

Grade up with a Jersey Bull! He is half the herd, and the breed determines half the profits. Breed him to your grade cows and bring the herd average near the Jersey average—489 pounds of butter fat per year. Your calves will be beauties. They'll mature quickly into gentle, hardy, vigorous and persistent milkers, long-lived and adapted to any climate. Let us tell you more about them. Send for our book, "The Story of The Jersey." It's free and it's a dandy.

Write for it *now.*

The American Jersey Cattle Club
338 West 23rd Street - New York City

JERSEYS

100 FEMALE in my herd, imported and American bred. Young bulls for sale from advanced Registry dams. I can please you. Write FRED STUBLEY BLACK EARTH, WIS

OAK GROVE JERSEY FARM

Nothing for Sale at Present

Watch This Space for Future Offerings

W. M. KNIGHT EAGLE, WISCONSIN

GOOD JERSEY BULL

BORN October 22, 1916, a good one; straight type, good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.

Ora P. Taylor Elkhorn, Wis.

REGISTERED JERSEY

COWS AND HEIFERS

WITH **register of merit records** or breeding. Both imported and American breds. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**

Ed. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

H. Holt & Son Oconomowoc, Wis.

BURN BRAE JERSEYS

REGISTER of Merit bulls from calves to ready for service. High class and priced to sell

BURN BRAE ROSENDALE, WIS.

THE LAST CALL

IT'S NEXT MONDAY

Cook-Scheibe-Vaughn SALE OF

CHESTER WHITES

at Gill's Livery Barn at 2 P.M. BURLINGTON, WIS.

MONDAY, FEB. 5, 1917

No driving to the sale and comfortable regardless of weather

40 FALL and spring gilts of well known breeding. Good type—well grown and bred to good boars. During the past season our herds have won 47 first, 35 second, 17 third and 7 fourth prizes and two sweepstakes and two grand champions. Buyers from a distance will be entertained free of charge at the Burlington Hotel. Crates furnished free for all animals shipped out. Auctioneer, C. C. Evans; field man, Wisconsin Farmer, H. S. Hoard. Come to the sale. You'll see some good gilts and will treat you right.

COOK BROTHERS, W. C. SCHEIBE, W. W. VAUGHN & SON

GUERNSEY CATTLE.

Like Produces Like!

THEREFORE, buy a Holstein bull calf from a herd in which nearly every cow has an A. R. O. record of 20 to 33 pounds, and in which the **38 yearly records average** 16,619 pounds milk and 709.3 butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four olds and 12 mature cows.

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

SIZE HEALTH **HOLSTEIN BULL CALVES $100 and Up** VIGOR BREEDING

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.

Reuben Klofanda R. 1, Racine, Wis.

HOLSTEIN BULL FOR SALE
Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediat e sale. Address

PINEHURST DAIRY SHEBOYGAN FALLS, WISCONSIN

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - - WAUKESHA, WISCONSIN

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

W. H. S. Rhoda Watertown, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address

B. F. Winckler & Sons Medina, Wis.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

Fred Kohlwey Grafton, Wisconsin

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L. V. Garvens, Brookfield, Wis.

HOLSTEINS

HERD headed by Sir Rigtje Pearl Wit, whose dam made 26.23 lbs. of butter in 7 days as a 3 yr. old. A few males and females from A. R. O. dams. For particulars, address P. J. Liebenstein, R. 19, Adell, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

SPECIAL OFFERING--HOLSTEIN BULL

BULL, dropped Oct. 4, 1915. Well grown, extra good individual and nicely marked. His sire is a son of King Pieter Lyons and out of a daughter of Colantha Champion. The dam of this youngster has a 17 lb. two year old record and should increase this at next freshening. She is a daughter of King Segis Pontiac Polkadot and out of a granddaughter of Pontiac Korndyke. Fourteen nearest dams of bull average over 26 lbs. Price $175.00. Write for pedigree.

EDGEWOOD FARMS, INC. PEWAUKEE, WISCONSIN

A HOLSTEIN BULL

BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.

L. A. KIMBALL LAKE GENEVA, WIS.

DODGE AND JEFFERSON COUNTIES

THE two greatest Holstein counties in Wisco nsin. Holsteins from these two counties have made Wisconsin famous. You can buy the same kind of blood now. Our breeders can now supply you with both males and females of all ages. Writ e Francis Darcey, Watertown, Wisconsin, Secretary, Inter-County Holstein Breeders' Association.

9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address

HUTCHINSON BROTHERS & BURBACH CAMBRIA, WISCONSIN

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves. $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

HOLSTEIN BULL CALVES FOR SALE

BY 32-lb. sires and from A. R. O. dams up to 24 pounds butter in 7 days. Popular breeding. Good individuals. Priced from $100 up. Mention The Wisconsin Farmer and address

TULLOCH & FRIES' HERD - - - GENOA, WISCONSIN

"Where Price and Quality Meet."

RUST BROS.

OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heay producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address

ARTHUR RUST

West Allis Wisconsin

Holstein Bull For Sale

ONE Holstein bull, ready for light service. Born Dec. 31, 1915. His dam has an official record of 14.65 lbs. butter and 365 lbs. milk for 7 days as a 3 yr. old. His sire is a grandson of Hengerveld De Kol that has 116 A. R. O. daughters. This bull is straight and a good individual in every way and good enough to head a choice herd. Nicely marked, ⅞ white. Guaranteed to be sound and right in every way. Price, $100.00.

Mountain Ash Stock Farm, J. B. Cain, Prop. Glenbeulah, Wisconsin

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

GEO. H. GIBSON NASHOTAH, WIS.

Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.

JOHN STEELE OCONOMOWOC, WIS.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

LA BELLE VIEW HOLSTEIN bulls keep moving. I told you so and there is a reason, we never have a yearling. People know good breeding and appreciate low prices. Only two youngsters left and they are dandies, from splendid A. R. O. dams and by a grandson of the famous bull, Sir Ormsby Hengerveld De Kol, that had world record dghts. and granddghts. to his credit. Satisfaction guar. E. E. Rosenkrans, Oconomowoc, Wis.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis.

WALCOWIS FARMS

GIVES you opportunity to get Holstein year. rec. grandson of King of The Pontiacs, born June '16; tuberculin tested, fine animal. Sire: Cornucopia Pontiac Johanna Lad, full bro. to K. P. Manor Kate. 1023.41 lbs. butter, 22,106 lbs. milk, world's yearly record senior 2 yr. old. Dam: Lady Walcowis De Kol. Butter, 7 days at 3½ yrs., 21.67 lbs.; milk, 528.5 at 2 yrs., 13 days.; butter for 7 days, 15.67, for 365 days, 643.91 and 17,110 lbs. milk. For price, pedigree and photo, address

N. Dickinson & Son Lake Geneva, Wis.

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.

SILVER SPRING FARM CO. - EAU CLAIRE, WIS.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers Ixonia, Wisconsin

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb. cow, and out of A. R. O. dams. Write **R. C. Walker, Kilbourn, Wisconsin.**

HILLSIDE STOCK FARM

REGISTERED Holstein cows, heifers and bulls and Chester White swine. Write your wants.

KIRKPATRICK BROS. Reedsburg, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your wants. Address L. C. Underwood. Avoca, Wis.

Red Poll Headquarters

OFFERING two bulls of serviceable age for sale Also a limited number of heifers. Choice individuals. Write **J. W. Salter & Sons, Unity, Wis.**

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

MAPLE LAWN RED POLLS

SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.

L. F. Biglow & Son Brooklyn, Wis.

HEREFORD CATTLE.

HEREFORDS BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.

J. J. F. WINTERS SPARTA, WIS.

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C. G. PHILLIPS
The Wool Fat Man

This Big Sample Box of My Famous Healing Ointment FREE POST-PAID

If you will just fill out and mail me the coupon below, I will send you this big sample box of CORONA WOOL FAT, FREE and POSTPAID. When it comes, try it as thousands of stockmen, farmers and herdsmen have already done — on any case of barbed wire cuts, sore shoulders, sore teats on cows, boils, ulcers, old sores; in fact, flesh wounds of any kind. See for yourself what a valuable preparation CORONA is. I don't ask you to pay me a penny for this sample—not even the postage. I simply want to show you, on your own horses and cows, the surprising results CORONA WOOL FAT will produce, WITHOUT COST to you.

Cracked Hoofs—before and after using Corona Wool Fat.

CORONA WOOL FAT

Before and after a bad case of scratches.

Corona heals barbed wire cuts smoothly.

CORONA WOOL Fat, the Healing Compound with unusual penetrating qualities, is unlike anything you ever tried or used. Don't confuse it with salves or ointments containing grease and blister compounds. CORONA contains no grease. Will quickly penetrate the horse's hoof, which is 60% to 70% water. That's why CORONA WOOL FAT succeeds where others fail. It goes right to the deep inflamed inner tissues, reduces the inflamation, soothes and relieves the trouble. *It will not burn or blister;* causes no pain or suffering.

Heals Galled Shoulders.

I Want to Show You at My Expense

what CORONA will do for quarter cracks, sand cracks, split hoofs, corns, hard and contracted feet, mud fever, scratches, grease heel, sore shoulders, cuts, wounds, boils, caked udders, sore teats, sore neck — in fact, all flesh wounds.

Read This Letter:

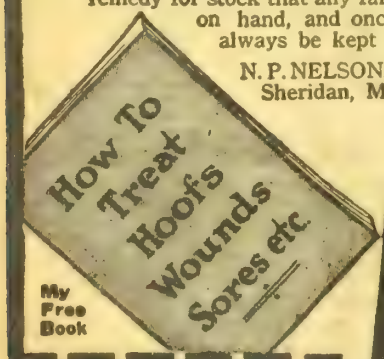
"We have never found anything yet that will do the work like CORONA WOOL FAT, as I have used it for everything it is recommended for and found it to be fully as good if not better than its guarantee. For cow's sore teats it has no equal and for cuts on horses it heals them up so smooth and nice leaving no scars. All around it is the best remedy for stock that any farmer can keep on hand, and once tried will always be kept on hand"

N. P. NELSON, Prop.
Sheridan, Mont.

For Collar Boils and Sore Shoulders.

LET ME PROVE IT TO YOU

That CORONA is the finest "safety first" remedy and one of the most dependable healing agents you can have on your farm. All I ask is that you send the coupon and get the big free sample box and my free book telling all about CORONA WOOL FAT.



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For Sore Teats of Cows

Thousands of Users Agree

that CORONA WOOL FAT is "worth its weight in gold" to any farmer, stockraiser or herdsman. Read this letter:

"I herewith inclose remittance for a No. 2 can CORONA WOOL FAT, as I am just out of this wonderful product. It is splendid for horses' feet, sore shoulders, and I tried it on my own feet for corns and it relieved them. I always keep a supply on hand.

A. M. SHIRK, R. 2, Lewisberg, Pa.

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THE CORONA MFG. CO.,
44 Corona Block, Kenton, Ohio

Dear Sir: — Without obligation send postpaid free trial box of Corona and your book "How to Treat Hoofs, Wounds and Sores."

I keep.....horses.....mules.....cattle

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Ailment intended for.....

Horseshoer's name.....

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Get My Free Sample Box — Send Coupon. No Money

Just fill out and mail coupon today, and I will send you the free sample box of CORONA WOOL FAT and a copy of my valuable new book — all postpaid. There are no strings to my offer—no come-backs—no obligation. It's just a fair, square offer of a liberal sample of Corona, so you can try it and see for yourself that it is something you should have on hand all the time. Write for it today.

C. G. PHILLIPS, MGR. CORONA MFG. CO.
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More Than 90,000 Circ

THE WISCONSIN FARMER

VOL. XLVI. NO. 6. THURSDAY, FEBRUARY 8, 1917. WHOLE NO. 1828

This Is Swine Week in Wisconsin.

AGRICULTURAL Wisconsin has paused this week to give respectful attention to the hog. This is Swine Week at Madison and hundreds of farmers, their wives and children are enjoying the splendid exhibitions and the helpful addresses arranged for them by the great breeders' organizations of the state co-operating with the Wisconsin College of Agriculture in its various departments and the Wisconsin Agricultural Experiment Association.

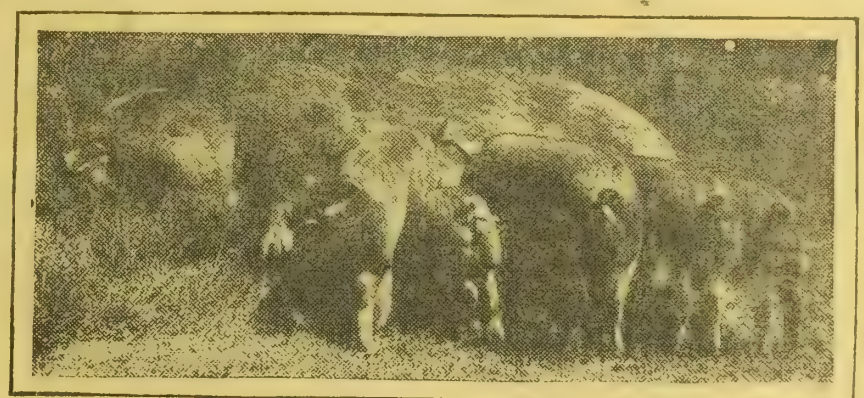
There are two and one-half million head of swine in Wisconsin and room for as many more. Wisconsin may improve her swine wealth in two ways: First, by improving the quality of swine raised in this state; second, by improving the number of swine produced in the state. A reliable authority says that in 1915 Wisconsin sold twenty-five million dollars' worth of hogs at the four chief markets, namely, Chicago, South St. Paul, Milwaukee and La Crosse. The National Swine Breed Associations, representing the Berkshires, Chester Whites, Duroc Jerseys, Poland Chinas and Hampshires, have 500 members in this state and there are more than 1,200 breeders in Wisconsin whose hogs are listed in the official herd books. There is an average of fourteen hogs kept on each farm in the state. It has been figured out that the pork produced in Wisconsin alone in one year would be sufficient to supply the total population of the state for two years and two weeks. This is on the basis of one pound a week per person. According to figures for 1915, Wisconsin produced about 325 million pounds of dressed pork ready for the consumer. One of the experiment station statisticians has figured out that it would require 4,600 cars of thirty-five tons' capacity to move this Wisconsin supply of dressed pork, or if this large shipment of pork were divided up into trains of forty cars each, it would take 115 such trains to transport the meat.

FEW WISCONSIN FARMERS CAN AFFORD TO BE WITHOUT SWINE.

Wisconsin is able to draw on a splendid array of talent for any such program as is arranged for Farmers' Week. Mr. George C. Humphrey, of Madison, so well known in connection with the animal husbandry department at the college of agriculture, is chairman of the Swine Week program. This statement is enough to convince any of our readers that the live stock program for the week will be complete in all of its departments. This includes not only the special attention which will be given to the swine division, but also affects the dairy, beef cattle and horse departments. In a general way all of the live stock breeders' associations of Wisconsin are associated with the Wisconsin Live Stock Breeders' Association, of which Mr. Arthur Broughton, of Albany, is the president. Business sessions of all of the leading breed associations of the state will be held during Swine Week and leading breeders of other states will lend assistance to the growing movement for better live stock in Wisconsin.

One of the important events of Farmers' Week is the recognition service. At this service special honors are conferred on men or women who may have rendered some distinguished service to the state along agricultural lines. There have been twenty-four such honors conferred and seven of these were nonresidents of the state. Our Wisconsin people who have been honored by the College of Agriculture are as follows:

C. P. Goodrich, Fort Atkinson; A. L. Hatch, Sturgeon Bay; George C. Hill, Rosendale; H. A. Briggs, Delavan; W. A. Toole, Baraboo; Alexander Galbraith, Janesville; W. D. Hoard, Fort Atkinson; A. A. Arnold, Galesville; H. W. Griswold, West Salem; Arthur Broughton, Albany; J. H. True, Baraboo; George McKerrow, Pewaukee; A. J. Phillips, West Salem; J. W. Martin, Gotham; Mrs. Adda F. Howie, Elm Grove; S. J. Uhrenholdt, Hayward; C. H. Everett, Racine.



STRONG PIGS ARE RESULT OF PLENTY OF EXERCISE.

The Wisconsin Dairymen's Association, an organization long recognized as an important factor in the development of the dairy industry in this state, has arranged to have charge of one day's program. Upon this day the general subject of discussion is breeding, feeding and testing of dairy cattle for more profitable production. Mr. M. Michels, of Peebles, will have general direction of the exercises of the day. Twenty-five districts in the state having agricultural high schools have arranged to have three men teams present to participate in the boys' live stock judging contests. Another feature of the dairy divison of the week's exercises is the state convention of the newly organized Wisconsin cow-testers' associations. Vital matters of great interest to producers are to be discussed by N. A. Negley, of Madison; H. C. Searles, of Fond du Lac; and R. T. Harris, state supervisor of dairy interests.

Additional meetings arranged for this week call forth the forces in the state which are active along lines of social and home development. The Country Life Conference will discuss the latest thing in rural club work and the ladies who are present will be shown the newest things in cooking and sewing. Special emphasis will be made on the preparation of pork products for the table.

The grain-and-grasses show, held in Madison this week, is the largest display of pure-bred stuff shown anywhere in the country. Wisconsin's lead in the pure-bred grains is well known and the show this year, as arranged at the beginning of the week, was said to be the most representative that the Wisconsin State Experiment Station had yet gathered. All these things and others which it has not been possible to mention particularly add to the good measure served to those who are fortunate enough to be present Swine Week in Madison.

This issue of The Wisconsin Farmer goes to press before the exercises of Swine Week begin. Reports of the more interesting phases of the week's work will be contained in The Wisconsin Farmer issue of February 15th. This issue will also contain reports of the annual business meetings of the various live stock associations which are to be represented on the week's program. Some attention will also be paid to other matters which are considered of importance, and brief reviews will be given of the more practical addresses. This will be arranged in good form for our readers, because we know that only a few of them can be present and enjoy the profitable exercises of the week with us.

NO SLOP UNTIL AFTER FARROWING TIME.

Children as Milkers.

Milking is a man's job, not one for a young boy or girl. Children cannot do this work properly. It is a physical impossibility; they are not strong enough. Besides the actual lack of strength, boys and girls are careless and irresponsible. It always has been so and, undoubtedly, always will be. Children cannot, from the very nature of things, assume responsibility, and for them to be given the great responsibility of milking is asking too much of them. The dairyman who will allow, or compel, his young children to do any considerable part of the milking, is making a serious mistake. He [illegible] to lose money in the long run. [illegible] elf financetent per- [illegible] e milking [illegible] n his children to do this work. A cow should be milked rapidly and thoroughly, and every time just alike, and at the same time proper manipulation of the udder should be given. Milking is a job that will stand very little carelessness, if you want the cows to do their best. If one does not understand the principles of good milking or if he can't or doesn't observe them, he cannot be a success as a milker. Children haven't a proper conception of the importance of milking and they are prone to be careless. A father who is a good milker himself and who has carefully observed that correct milking gives better results, knows well enough that children cannot do this work properly.

It is not out of place to have the boy milk the easy-milking cows, and the girl also may well try her hand, as this teaches them to milk, and no boy or girl should leave the farm without knowing how to milk, even though they never expect to do much of such work. Once the art of milking is learned it likely will never be forgotten. It may be that the cow the boy milks will not do her best, but he must learn this work by actual experience. When he becomes mature enough and has sufficient strength, and last, but not least, when he has sufficient judgment, then the responsibility of milking can be gradually placed upon him. But never should this be done until he has sufficient strength to do job right.

The Value of Manure.

The fertilizing value of the manure from horses is about $20 per animal per year, and from cattle about $25, according to the chemistry section of the Nebraska Experiment Station.

Nearly half of the nitrogen and potassium from farm animals occurs in the liquid excrement. It is, therefore, important that this be saved through use of sufficient straw to absorb it. Manure stored in the open barnyard loses a considerable proportion of its nitrogen through fermentation, and its potassium and other mineral elements through leaching. This loss may be avoided by hauling the manure to the field as fast as it accumulates.

If this is impracticable, it may be stored in a covered shed where animals run over it and so keep it well packed. The greatest loss of fertility occurs when the manure is stored in loose piles.

NEWS OF THE SALE RING

Atwater's Duroc Jersey Sale.

L. F. Atwater, Bangor, Wis., turned the trick when he sold forty-seven bred Duroc Jersey sows at his farm January 30th for an average of $101.60. This is the state record for registered swine of any breed. It was a great sale in every respect. As usual, Mr. Atwater had the worst day of the year, blowing and snowing the entire day, but the breeders had arrived before the storm, and while the crowd was not large, those present were real buyers. Naturally, the top of the sale was the grand champion sow and there was considerable speculation before the sale as to what she would bring. It was a three-handed game between Hugh Irwin (mail bid), of Iowa; Riley Martiny & Son, Baraboo, Wis., and the Albert Lea Breeders' Assn., of Minnesota, up to $300, when it simmered down to Wisconsin against Minnesota and finally the latter succeeded in landing the best sow we have seen enter a sale ring this winter at $410. Dennis Shea made a good buy when he bought No. 11, sired by Prince Illustrator, at $152.50. M. F. Vogt, Worthington, Minn., bought a good fall yearling at $145. Riley Martiny & Son bought several of the best gilts that were sold. Proud Chief Jr. made a great hit with the crowd and the demand was for sows bred to him. Twenty-one head sold for $100 or over, sixteen for $75 or over and ten for $65 or over. The forty-seven head brought $4,782.50, average $101.60. It was a wonderful sale in every respect. I. E Stickelman sold the offering and made many friends by handling the sale in such a high-class manner. We follow with a complete list of the buyers and prices paid:

No. 1, Albert Lea Breeders' Assn., Albert Lea, Minn., $410; 2, Albert Lea Breeders' Assn., $135; 3, B. I. Lein, Red Wing, Minn., $165; 4, Geo. Willsie, Prosper, Minn., $77.50; 5, G. C. Kock, Fairmont, Minn., $105; 6, F. Christianson, Fairmont, Minn., $105; 7, Henry Mitchel, Fennimore, Wis., $70; 8, M. F. Vogt, Worthington, Minn., $145; 9, C. Wilkinson, Fennimore, Wis., $102.50; 10, Albert Lea Breeders' Assn., $115; 11, Dennis Shea, Melvina, Wis., $152.50; 12, Henry Fenska, Rio, Wis., $90; 13, Elmer Napp, Fennimore, Wis., $85; 14, Elmer Napp, $70; 15, Wm. Magge, Fennimore, Wis., $87.50; 16, F. Christianson, $77.50; 17, D. B. Smith, Mission Hill, S. D., $100; 18, Allen Thompson, Galesville, Wis., $67.50; 19, Peter Gunderson, Fennimore, Wis., $82.50; 20, E. A. Herberlein, Fennimore, Wis., $65; 21, Carl Piska, Bangor, Wis., $75; 22, R. E. Morrison, Clinton Falls, Minn., $112.50; 23, Geo. E. Purves, Eyota, Minn., $70; 24, C. A. De Vaul, Inwood, Iowa, $100; 25, Riley Martiny & Son, Baraboo, Wis., $142.50; 26, Geo. D. Sprain & Sons, West Salem, Wis., $105; 27, Geo. Brooks, Sparta, Wis., $105; 28, Geo. E. Purves, $107.50; 29, F. Christianson, $72.50; 30, W. C. Hesselberg, Bangor, Wis., $65; 31, Riley Martiny & Son, $90; 32, Albert Lea Breeders' Assn., $125; 33, Krause Bros., Sumner, Iowa, $85; 34, Wm. Edge, Fennimore, Wis., $77.50; 35, Wm. Edge, $90; 36, Peter Gunderson, $65; 37, Dennis Shea, $95; 38, Geo. Pagel, Zumbrota, Minn., $75; 40, Riley Martiny & Son, $125; 41, H. S. Tillotson, Brooten, Minn., $102.50; 42, H. A. Hein, Paynesville, Minn., $100; 43, Riley Martiny & Son, $100; 44, Elmer Napp, $90; 45, W. C. Hesselberg, $65; 46, H. F Laird, Brooten, Minn., $75; 47, Albert Lea Breeders' Assn., $85.

Dennis Shea's Duroc Jersey Sale.

Dennis Shea held his first sale of Duroc Jersey bred sows at Melvina, Wis., January 29th, the result of which was very satisfactory. For a breeder's first sale he had wonderful support, the breeders of Wisconsin and Minnesota bidding liberally on the good stuff. Mr. Shea had his Durocs in nice condition, with plenty of size and stretch and bred to three good boars. Mr. Roberts, of Black Earth, was a good buyer and bought some excellent foundation sows at this sale worth the money. We follow with a complete list of buyers and prices. The forty head made the satisfactory average of $61.50. Col. I. E. Stickelman, of Iowa, did the selling in a highly commendable manner:

No. 1, Gant's Farm, Delavan, Wis., $70; 2, L. F. Atwater, Bangor, Wis., $55; 3, L. F. Atwater, $67.50; 4, G. B. Murray, St. Charles, Minn., $62.50; 6, Wm. Magee, Fennimore, Wis., $67.50; 7, A. C. Cass, Viroqua, Wis., $60; 8, Geo. Koop, Galesville, Wis., $55; 9, F. B. Roberts, Black Earth, Wis., $56; 10, H. L. Foss, Melvina, Wis., $77.50; 11, Wm. Magee, $70; 12, Theo. Retten, Sparta, Wis., $57.50; 13, Jos. Schlittel, Sparta, Wis., $55; 14, Wm. Spellpflug, Trempealeau, Wis., $60; 15, H. L. Foss, Melvina, Wis., $70; 16, Wm. Spellpflug, $57.50; 17, G. D. Murray, $67.50; 18, Andrew Tollefson, Viroqua, Wis., $67.50; 19, G. D. Murray, $67.50; 20, Andrew Hegge, Westby, Wis., $75; 21, F. B. Roberts, $55; 22, O. G. Leon, Westby, Wis., $60; 23, A. C. Cass, $55; 24, Theo. Jones, Cambria, Wis., $55; 25, Chas. Sturtevant, Melvina, Wis., $67.50; 26, Henry Mitchell, Fennimore, Wis., $57.50; 27, G. D. Murray, $57.50; 28, H. L. Foss, $51; 29, F. B. Crothers, Kilbourn, Wis., $52.50; 30, F. B. Roberts, $52; 31, Theo. Retten, $52.50; 32, Fred Matthes, Viola, Wis., $55; 33, F. B. Roberts, $60; 34, H. L. Foss, $67.50; 35, Martin Erickson, Leon, Wis., $52.50; 36, Geo. Spellpflug, Leon, Wis., $50; 37, M. Christopharson, Leon, Wis., $50; 38, G. D. Murray, $65.

Grimes Bros.-Grueger Duroc Sale.

Messrs. Grimes Bros. and W. G. Grueger sold 40 head of bred Duroc Jersey sows January 29th at West Union, Iowa. While no high average was secured, the owners were highly pleased with the prices, considering local conditions. A number of breeders from that section were present and the most desirable part of the offering sold very satisfactorily. The top of the sale was $100, that amount being paid by W. G. Grueger and she was a bargain at that price. Col. H. S. Allen did the selling in his usual satisfactory manner. Consigned by Grimes Bros. Selling for $40 or over: Extra, W. G Grueger, Hawkeye, Ia., $100; No. 1, C. M. Klingman, Elgin, Ia., $67; 2, W. Van Sickle, West Union, Ia., $46; 3, W. Van Sickle, $49; 4, Ray Darnell, West Union, Ia., $42; 5, Krause Bros., Sumner, Ia., $45; 6, Chas. Heaton, West Union, Ia., $47; 7, Fred Pape, Eldorado, Ia., $43; 8, W. E. Carnell, Ossian, Ia., $46; 10, Chas. Heaton, $45; 24, F. F. Phillips, West Union, Ia., $40; 25, A. Denermuth, West Union, Ia., $40. Total, $1,038; average on 25 head, $41.25. Consigned by W. F. Krueger. Selling for $40 or over: No. 26, J. W. Bower, Hawkeye, Ia., $72; 27, D. M. Browise, West Union, Ia., $87.50; 28, G. D. Grimes, West Union, Ia., $57.50; 29, C. M. Klingman, $56; 30, A. Hanson, Oelwein, Ia., $60; 31, M. Cottle, Fayette, Ia., $60; 32, H. P. Schmidt, West Union, Ia., $59; 34, John Moore, Vandalia, Ia., $55; 35, Frank Patterson, Fayette, Ia., $47; 38, Frank Patterson, $41; 41, C. M. Klingman, $52; 40, W. F. Merfeld, Greene, Ia., $54; 39, H. Chapman, Aurora, Ia., $48; 42, W. Mellens, Fayette, Ia., $44; 43, W. A. Meyer, Castalia, Ia., $42. Total, $948; average on 18 head, $52.66.

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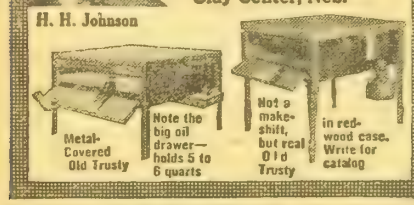

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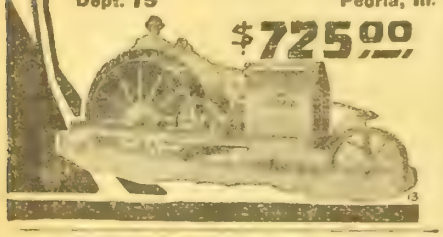

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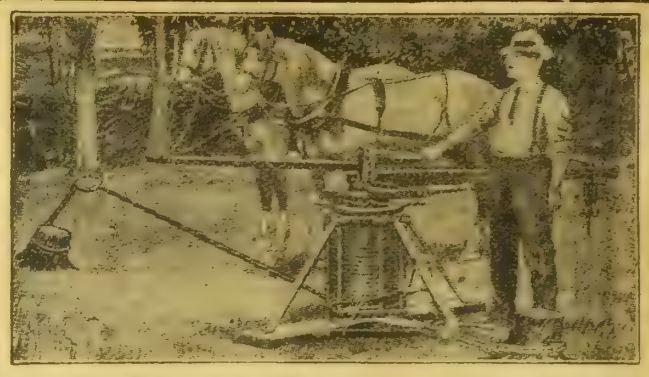

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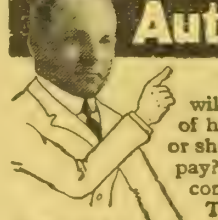

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The Wisconsin Farmer

THURSDAY, FEBRUARY 8, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

THE REAL ARISTOCRATS.

I HAVE been deeply interested in remarks recently made before the students of the Wisconsin College of Agriculture, by President D. D. Aitken, of the Holstein-Friesian Association of America. President Aitken takes the position that farmers will be the aristocrats of the future. While I can thoroughly agree with this progressive Michigan man, who has done so much to advance the interest of a great breed of dairy cattle, I am inclined to believe that he puts the matter a little too much in the future tense. To be sure, the farmers of the country are to be the aristocrats of the future. But are they not already in the aristocratic class? I do not mean aristocratic in the sense of snobbishness, or in that they are able to live a life of ease. To my mind, the truly aristocratic class is the independent class—the class which is engaged in pursuits which form the basis of all real wealth. Taken in this light, we cannot say that the laborer is in the aristocratic class, for he is subject to the beck and call and often the victim of whims, of the man or men who are over him. I do not think we can truly say that the capitalist is in the highest sense an aristocrat. To come nearest to my idea of an aristocrat the capitalist should retire to a good farm and take up that existence of which nature and nature's God are such important parts. Wealth by no means spells independence. Some of our wealthiest men are least independent. Many of them go to bed at night not knowing what the morrow will bring forth. They live in a constant fear that their wealth will be suddenly taken away from them.

As Mr. Aitken has pointed out, the social status of a man a hundred years ago depended upon the land he owned. Whether this situation will return to us in another fifty or 100 years, I cannot say, but I do firmly believe there will never come a time when any class of our citizenship has as good a claim to the title, "aristocrats," as the farmer. Who is more independent than the farmer? Who enjoys better health? Who is so certain of fair profits on his labor, or who is so sure, upon rising in the morning, that his possessions have not lost value during the night? Who can find more enjoyment than the man who aids his Maker in the production of foods for the hungry mouths of the world. It is never necessary for a farmer to grind down some other farmer in order to make a success in his own business. It is not possible to cheat the farmer out of his birthright of sunshine and moisture and soil, and there is no occupation under the shining sun in which the Creator of the world enters so largely in co-operation with the worker as the occupation of farming. I cannot help but feel that President Aitken is on the right track when he says that the farmers of the country will be the real aristocrats of the country in half a century; but, as I have said before, my only suggestion is that Mr. Aitken puts too far away the day when the farmer shall be held by all in the esteem which he deserves.

R. F. D. SERVICE AT THE DOOR.

I am glad to find my readers writing to me in increasing number for advice, information or suggestions on matters which lie close to their hearts. I hold this to be one of the provinces of the publisher of a paper such as The Wisconsin Farmer—to be useful in every possible way to his readers. Nothing gives me greater pleasure than to serve others to the best of my ability.

To illustrate, here is a letter from a subscriber living here in Wisconsin, who wishes to know if there is not some way of getting the mail delivered at the door of his farmhouse, instead of compelling him to walk a quarter or a half mile every little while to get his mail and transact his business with the postman. Inasmuch as it is a question which affects almost every one who enjoys rural mail facilities, I can hardly do better than to print the letter in full, as follows:

My dear Mr. Pierce: Here is one thing we farmers want and need: our mail delivered to our door. We who live from a quarter of a mile to a mile from our mail box have to travel many miles each year. Now, for instance, we want a money order; we go to our box early, the carrier is late, we stand in the road sometimes one to two hours waiting for him. The next time we want to mail some letters; we go to the box and mail our letters, we have not time to wait, but will have to make another trip to get our mail. In farming time we are awful busy and tired and don't always feel like walking two miles after a day's work. Your good paper is always trying to help us farmers and this is one of the things that would help us greatly. I wish you would do what you can for us.

Upon receipt of this letter, I immediately took the matter up with the postoffice department, receiving this reply, giving an explanation of the department's attitude on this subject and on service to farmer patrons generally:

Dear Mr. Pierce: It is an impossibility to have rural route service past the home of every farmer in the country. The rural routes are so arranged that each carrier can serve the greatest number of people in the 24 to 30 miles which he has to travel each day. If there is any rural route where a larger number of patrons can be served by making a change and not adding any additional mileage to the route, the department is always glad to take the matter up and adjust it. Under the recent reorganization of the rural routes throughout the country more than 300,000 additional families are being served without additional expense to the department. Any changes desired on any route should be taken up direct with the Fourth Assistant Postmaster General, Division of Rural Mails, Washington, D. C.

I propose to write to this official to see what can be done in this particular case. I would suggest that others of my readers (who wish their routes changed, so as better to serve them, or to include more families), also write him. It is worth something to know just who is the proper person to see on a matter like this.

I have great faith in the R. F. D. service and its possibilities. It has been a splendid factor here in Wisconsin and throughout the entire Northwest in bringing the country into closer touch with the town and in giving the farmer urban advantages. At the same time, much as has been accomplished, much more remains to be done. I hope and believe the day will come when every farmer will receive mail delivered to his very door. But we must not be selfish; those of us who receive our mail in a box at the crossroads must be content, if the service as thus established permits a neighbor also to receive mail, which he would not receive were the route to be changed so as to bring the carrier to our door. We must be fair in all things. Better that every farmer in Wisconsin should enjoy the benefits of the R. F. D. service, even if the box is a quarter or a half mile from our home, than that only one-half should enjoy the privilege and the rest be obliged to drive clear to town for their mail. Let us take up the individual cases with the proper officials at Washington and strive to secure the greatest good to the greatest number.

THE FARMERS' INCOME TAX.

I WANT to call my Wisconsin readers' attention to the fact that the income tax on net earnings between $3,000 and $20,000 a year will be double this year what it has been for the last two years. The same $1,000 exemption will apply to married men living with their wives.

The workings of the federal income tax are now fairly well known to my readers, for it has been in operation almost two years. Heretofore farmers (as well as city men) whose income exceeded $3,000 a year, if single, or $4,000 if married, were obliged to pay only 1 per cent on the amount of the income in excess of those figures. But the government needs more money, finding an extraordinary condition of affairs existing, due to the war. Congress has repealed the stamp tax (which compelled us to affix stamps to notes, mortgages, telegraph blanks, express receipts, and so on) and has raised the income tax to make up the deficiency.

When the government issued its 1915 crop report in detail (the 1916 one for all the states has not reached me yet) I took the time and trouble to figure out the average earnings per farm, according to these figures. I found that, while the average farm revenue for the United States was $1,692 last year, for the ten states of the grain belt (Wisconsin, Iowa, Illinois, Missouri, Nebraska, North Dakota, South Dakota, Minnesota and Oklahoma) it was $3,040. Four of the ten states exceeded this average quite materially. North Dakota led the list, with an average farm revenue of $4,584; South Dakota came second, with $3,814; Nebraska came third, with $3,777; Iowa came fourth, with $3,498. This means that, on the average, every one of the 74,360 farmers in North Dakota (using the 1910 census figures), the 77,644 farmers in South Dakota, the 129,678 farmers in Nebraska, and the 217,044 farmers in Iowa come under the provisions of the federal income tax, which requires a report to be made on all incomes in excess of $3,000, whether the income-earner is married or not, the exemption to be granted if married, but the report to be made nevertheless.

With the high prices prevailing for dairy and other farm products this year, Wisconsin and two or three other states here in the middle West should get into the $3,000 farm-revenue class, for last year Wisconsin, Kansas, Illinois and Minnesota missed the mark by from $150 to $200 only. I have seen the 1916 government crop report in general, but not in detail. It places the worth of four crops at more than $1,000,000,000 each. It gives the 1916 corn crop a valuation of $573,103,000 more than the 1915 crop; the cotton crop an increase of $475,378,000; the wheat crop an increase of $83,462,000; the hay crop an increase of $95,250,000. The grain belt leading the nation in corn, wheat and hay, the 1916 figures, in detail, should show such an increase as to bring seven or eight of these ten states in the list of those the average farm revenues of which are in excess of $3,000 a year. This is particularly true of Wisconsin, owing to the high prices for butter, cheese and milk.

THE GIFT OF A THANKFUL HEART.

SOME weeks ago I received one of the most touching letters which it was ever my privilege to read. It is the one which I printed on this page as a New Year message to my Wisconsin Farmer readers. You may recall that it came from an immigrant-farmer living in the northern part of Wisconsin. He told me, with rude eloquence, of the troubles through which he and his good wife had passed and of the good fortune which finally dawned when a son was born to them, on Washington's birthday. I remember one portion of his letter, word for word:

We honestly and faithfully prayed the little Christ child to give us courage and strength to try another year and, thank the good Lord, this year it looks a whole lot better.

Whenever I am inclined to be downcast or discouraged (which is not often nowadays, I will admit) I repeat these words to myself. They promise to be an inspiration and a cheer so long as it may be granted me to live.

I find that I am not alone in this respect. Letters come to me almost every day, from persons who have been moved by the story which this Wisconsin farmer told in his simple, yet eloquent, way. One of these letters has touched me almost as much as the original. I think I can sense a homesick note in the letter, for the writer has wandered far from his old Wisconsin home and I doubt not often wishes he were back among us. Here is the letter, as it came to me from Baker Springs, Arkansas, where the writer, Curtis M. Dunbar, has been living for the past three years. You will find it as eloquent (in a natural, unstudied way) as the original letter from the Wisconsin farmer which inspired it:

Dear Mr. Pierce:—I have often thought I would write to you, but keep putting it off. Sometimes when I read letters in your good paper like your New Year's message I think I will write, for that has been my experience almost exactly. For the last three years I lived on an Arkansas homestead and could barely get food for my little family, let alone clothes. And when our baby boy came to bless our home, like the brave Wisconsin farmer, we cried aloud to the Christ child to keep us warm and free from hunger and we named him John, because the Good Book, where I was reading at that time, said "Thou shall call his name John." Then we had four hungry babies from eleven to three years of age and only had corn bread made with water to eat, no clothes and debts staring us in the face from every side. That was two years ago. I now thank the great and divine ruler of all things, for with His help and by reading your helpful and inspiring paper (for next the Good Book I read your paper most), I owe no man, have a good living, some stock, some money and good health in my family.

So thanking you, dear Mr. Pierce, for sending me your paper when all others failed me because I did not have that almighty cart wheel called the dollar. I will close, hoping this won't tire you and hoping you and your good paper live many more years to print and send out such good, wholesome, eye-blinding messages as was your New Year's message.

Can you not comprehend the pleasure which it gives me to receive such letters from men, all over our own state and from other states far away, who tell their stories in such a simple, unaffected, manly manner? Can you not see the love light in this man's eyes, as he looks upon the child, John, given him as a sign that better times were coming soon? Can you not sense all the pride and thankfulness and sympathy which well up in this man's letter? I tell you, my friends, such letters are reward for my feeble efforts at writing far beyond the power of men to measure or compute. I am proud, indeed, to have the friendship of the writers to such an extent that they will bare their hearts and souls so intimately. May I never do or say aught which will lessen this confidence; may I always be guided so as to say and write the right word—this is my constant hope and prayer, as I sit down to write this page of intimate talks with you who do me the honor to read what I write.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

A Big and Busy Year.

Now that the ground hog has seen his shadow throughout most of the grain belt, and has retired for six weeks more of winter, there remains before us a period of time which we cannot use to better advantage than by reading the best and most practical matter obtainable. With this idea in view, we propose to make the forthcoming issues of The Wisconsin Farmer so valuable and entertaining to every member of the farm household that to miss a single number would be a positive loss to all.

The coming year promises to be a big and busy one for the grain-belt farmer. Shall he not do everything possible to enable him to take advantage of every opportunity, to be a better farmer, to reap larger profits, to elevate his living standards, to get more out of life generally? We shall have these ideas in mind as we publish The Wisconsin Farmer throughout the coming year; every number shall be issued with a sincere purpose and aim to bring all these things about. We propose to make 1917 the most useful year this paper has ever known.

While we are doing this, will you do your share by renewing your subscription promptly and by securing as many new subscribers (friends, neighbors and relatives) as possible? Thus co-operating together we shall be enabled to make The Wisconsin Farmer reach our topmost ideals, serve you most usefully and continue the copartnership between us (publisher and reader) which has been mutually pleasant and profitable for so many years.

Does It Pay to Test Your Cows?

The Wisconsin Farmer is in receipt of the following from W. W. Clark, one of the progressive agriculturists of Wood county:

Last week a carload of grades and pure breds were sold from this vicinity to parties from Iowa. One cow belonging to J. C. Kieffer & Sons, of Auburndale, sold for $170. She had made a record the past two years of well over 500 pounds of fat. She also won first in her class at the Central Wisconsin State Fair. Her two-year-old heifer brought $135. Peter Hockstra, of Arpin, received $110 for one grade and Wm. Behling, of Vesper, sold several at good figures. These were all grade cows. These same men from Iowa took back three pure-bred Guernsey calves for which they had paid $350. Everything they bought was tested or was from tested dams. Read this over and figure out for yourself whether it pays to test or not.

The eyes of some of our dairymen have been opened by the good results which have come from cow testing. This is not the first instance where we have heard of dairymen from other states coming into Wisconsin and looking for tested cows. We certainly believe that it is safe to say that the average tested cow showing a good record will sell much better than the average untested cow having no record. Of course, the cow tester does not establish any such facts as are brought out by the registry tests, but he does establish the production qualities of the cow and good dairymen everywhere are looking for high-producing cows to breed to bred-for-production bulls. The stock argument in favor of cow testing is that it shows up the unprofitable cows. The added argument is that it gives us a record upon which to make a good sale on any cow which has proved her worth at the milk pail.

Wisconsin Farm Labor Problem.

H. C. Taylor, secretary of the Wisconsin Brown Swiss Cattle Breeders' Association, has written for the Wisconsin Bankers' Association a bulletin on the farm labor problem. Mr. Taylor, of course, admits that the ideal solution of the farm labor problem is the farm family—a farm just big enough for a good-sized farm family to take care of without hiring any outside help.

The ideal in this regard is about as frequent as the ideal usually is. Of course, there is a long period before all of the children are able to do regular farm work—that is granted that there is to be a good-sized family. And then we have the problem of the children who are old enough and big enough to work moving away about the time they get to be of greatest service. There are many reasons for their going. In some cases they are called by ambitions to get a better education than they can get at their own door. Then there are those who are lured by the city, and this is especially true right now when wages are high and work is plentiful in the industrial centers.

In endeavoring to answer the question how the farm labor situation is to be remedied, Mr. Taylor says:

Obviously there are about three possible answers: (1) Replenish the supply. (2) Make better use of what labor is to be had, by better management, or using more machinery. (3) Reduce the size of the farm, or shift the type of farming to one taking less labor. The first two of these are the most important; the third is the last resort.

How is the labor supply to be replenished. Raising more sons would help greatly, of course. But probably enough sons are being born now if only a few more of them would stay on the land. What can be done to make them stay? Most important of all is to give a good man a chance to rise. It is just because the door of opportunity has seemed to be wider open in the city that so many of the sons have left. It is true even today, however, that the young man on the farm is getting ahead faster than the factory worker, for the simple reason that he is able to save two-thirds or three-fourths of his wages, while the city worker lives from hand to mouth, always only a month or two ahead of starvation. With this chance to save the thrifty farm wage-earner can hope in a few years to become a tenant and in time own a farm. But land has gone sky-high, much higher than wages, and it takes a large pile of money to be even a tenant today, so that too many sons have lost heart or never even started. Now many farmers of today are realizing this and are trying out new kinds of bargains with a good man when they find him. There are many other ways still to be thought out and tried. The farmer who is able to keep a good man until he is ready to become a farmer himself has solved this part of the problem.

Better wages is always a stimulus which is effective in holding men in any employment. The danger is that with rising prices farmers will adhere to customary wage rates until the young men have all gone beyond their reach. The quickest way for a farmer to reconcile himself to higher wages is to note what change has taken place in the prices of his products and then calculate how much he can raise wages without its taking any more milk, pork, or grain than formerly to pay the wages.

A young man, however, is sure to consider other things than his opportunities for advancement and his pay checks. The farm in the past has offered too few of the pleasures of life to farmer helpers.

Better treatment of hired help would also help in many cases. The scarcity of labor has come first on the farm, and the result is that the farm laborer has become independent—he has become independent in many cases b fore he has become intelligent enough to use his independence properly. Nevertheless there are some farmers who seem to have little trouble with losing their hands when they need them most, and the reason usually is that these men are tactful, and above all, respectful of the personalities of their workmen, so that at all times, they have their esteem and hearty co-operation. The right sort of a hired man always wants to take an interest in the farm work, and his employer should give him a chance to learn all he can about farming. The working day has got to be shortened in some way also; but every good farm hand will understand that there will be times when all rules as to hours must be broken.

Still another thing that will keep more men on the farm is year-around employment. Farmers will have to organize their crops and live stock so as to be able to hire a man by the year. No good farm hand wants to loaf all winter, or hunt a job in town.

If a farmer cannot get help in the ways indicated he will have to manage with less help, either by getting more machinery, a milking machine, perhaps—or by raising such crops as he can handle. Planning his crops and his work so that too many things do not have to be tended to all at once will help a great deal. Winter dairying evens out the load of work in many ways.

In the face of another year of scarcity of farm labor Mr. Taylor's review of the situation and his conclusions are interesting.

WISCONSIN FARMER DUROC JERSEY TROPHY.

This loving cup has been offered by The Wisconsin Farmer for the winner of the Duroc Jersey futurity at the Wisconsin State Fair, Milwaukee, 1917. This is the third year in which The Wisconsin Farmer has offered such a trophy and hog men are interested in the contests which result. The Wisconsin Farmer is anxious to do its part in advancing the interests of the various breeds of hogs in this state.

Making Good in Upper Wisconsin.

The Wisconsin Farmer frequently receives communications from its readers and friends relative to some farmer who has made good in Upper Wisconsin. The following statement is from J. J. Heffron, of Stevens Point, Wisconsin, and we believe it will be of interest to those who are keeping tab on agricultural development in this state:

About twelve years ago, I traded Walter Andreweski a forty-acre farm with a new five-room house and barn 24x30 and gave him some tools and machinery, one cow, one horse and a few chickens. I took a mortgage on the forty acres for $625 for five years at 6 per cent. The forty acres was all wild land at that time. Mr. Andreweski gave me a house in Chicago with a mortgage of $800 and I later sold this place for $1,500, so you see he was worth at that time about $700.

Since he has come on to the forty acres he has bought over 300 additional acres of adjoining land. A short time ago he called on me and I asked him how many cattle he had and he told me that he had sold several, but that he expected to winter fifty-one head and in addition twelve horses. A few years ago he sold over $2,000 worth of potatoes from one crop. I asked him what he considered his place worth and he remarked, "$20,000 wouldn't move me now." He said also that he owed a few hundred yet, but that his milk checks and another year's crop would square him with the world. I could name almost 100 similar cases which I have located in the last twenty-five years. I site this only as an example of what can be done by hard work in Upper Wisconsin.

We have no doubt but that Mr. Andreweski and his family have worked hard, but they had a good living and their present wealth represents practically all savings. We leave it to any of our readers whether the Andreweskis would have saved $20,000 in twelve years if they had remained in Chicago. They probably would not have had one-fifth that amount if the entire family had been at work all the time.

A Word About Seed Corn

One of our subscribers recently brought up a question regarding the testing of seed corn. He stated that he had kept his corn in the furnace room all winter and he was in doubt about the necessity of making a thorough test of all this seed. This inquiry attracted the attention of another subscriber who has had some experience along this particular line. He says that the furnace room is a good place to keep seed corn providing it is ventilated, but it is a poor place if there is no ventilation. He has obtained best results by thoroughly drying out his seed corn in the fall, after which it is placed in an outbuilding where it will be kept absolutely dry. In his experience it has never been injured by cold weather, but this subscriber suggests that special pains must be taken in the testing out of corn that has remained all winter in a room heated by a furnace.

We are glad to call this matter to the attention of our readers because there might be instances where too much confidence may be placed in the vitality of corn that has never been exposed to a freezing temperature. It must be remembered that a germ may be injured by heat and moisture just as well as by cold, and if the test of 100 ears shows that the corn is not perfect in vitality, then it will pay, in all probability, and pay well, to make a thorough test of the entire supply so that the weak and dead ears can be discarded.

Feed the Young Bull Liberally.

One of our subscribers calls attention to the fact that he has a young Hereford bull that he wants to fit for the sale ring. This bull now weighs 600 pounds and the owner has on hand plenty of oats, corn, ensilage and timothy hay. The question with him is what ration should be used so as to get the best possible growth, thereby enabling him to bring this bull into the sale ring a little later in fine condition.

These are good foods and many a man could take this bull calf and put on three pounds of gain a day with this combination and at the same time run no risk of injuring him. Ordinarily, however, we would prefer to add a little oil meal to this ration so as to make it a little richer in flesh-forming material. The calf will eat anywhere from two to three pounds of oil meal daily, but he should be worked up to this point gradually. Whole oats are not very palatable, although they make an excellent feed. In feeding a bull we would recommend that they be ground and after that a mixture composed of equal parts oats and corn with a little oil meal added will produce excellent results.

After all is said and done a great

deal must be left to the judgment of the feeder. The bull should run in a box stall or have access to a yard and his habits should be studied closely. See to it that every vestige of his grain ration is promptly eaten up. Just as soon as he begins leaving some in his trough this indicates that the danger point is being reached. If you get his blood heated up by too heavy grain feeding the bull may be foundered and permanently injured. Of course, an experienced man is not apt to encounter that difficulty, but one who has not had considerable experience is apt to meet trouble half way if he attempts to make big gains on a young bull. We would suggest that an attempt be made in this case to buy some clover hay or to exchange a load of timothy for a load of clover. The latter is richer in flesh-forming material and may be fed heavily. It has a slightly laxative effect and when it is used freely there is very little danger of injuring a calf.

A Hurry-up Pasture.

During the next few weeks many inquiries will be received from subscribers who expect to face the problem of pasture shortage next spring. At this time a communication from Mr. L. L. Akin introduces the subject, as he is anxious to obtain as soon as possible in the spring a calf and colt pasture. In this particular case the land is somewhat wet—too wet for the growing of corn or small grain—so that it is the intention to put it into permanent pasture.

In the very necessity of the case it is impossible to obtain good grazing before the month of June. Annual crops must be used because they grow much more quickly than perennials We would advise sowing a mixture of oats and barley, half and half, or oats, barley and wheat in the proportion of one-third each, using about three bushels of seed per acre. Have the seed bed well prepared early in the spring and the crop put in just as soon as possible. If conditions are at all favorable for growth the stock can be turned into a field handled in this way in June, the exact time, of course, calling for the exercise of judgment on the part of the owner. Unless there is considerable growth and it is heavily pastured the crop will be grazed down too closely and for that reason it pays to allow growth of at least six or eight inches before grazing begins

Of course, these annuals will mature naturally some time during the summer months, even though they do not head out and mature in the normal way. Pasturing will delay the ripening process and there may be good grazing through the months of June, July and August. Provision for fall pasturing must be made by sowing some of the grasses early in the spring when the grain is seeded. A mixture of clover and timothy will answer the purpose well, but as this land is somewhat wet we would advise using alsike instead of red clover, and it might be well to add five or six bushels of red top, a grass that is well adapted to wet ground and one that is useful for grazing purposes, but almost worthless for hay.

We have one more suggestion to add, namely, that the sowing of a little fall rye along with the grains mentioned will usually lengthen the pasturing season because fall rye seeded in the spring does not mature until possibly September or October. It will remain green after the spring grains have matured and as long as there is a good growth of any of the grains on the surface the young timothy and clover plants will not be injured by too close grazing.

Sow the Clover Early.

More clover is killed out as the result of the hot, dry weather in July and August than is lost from the failure of the seed to germinate in the spring. Here and there, however, may be found instances almost every season where clover and timothy seed is not given a chance in the spring. These seeds being very small, they must of necessity receive only a light covering and where the surface soil is very dry this covering may not stay moist long enough to insure germination. We simply have the absorption of a certain proportion of water by the seed, and, in turn, the reabsorption of the moisture from the seed back into the soil again. In this way the vitality of the seed is impaired, resulting in either a complete loss or in a partial stand.

Because of the number of instances where failure results because of the dryness of the soil in the spring we are more and more taking to the plan of sowing the seed early. A few hard freezes of the surface soil after sowing will do no harm, because the coating of clover seed is very hard at any rate and the freezing may simply result in bursting the outer shell. In the case of seeding down fall grain, such as winter wheat and rye, one may safely sow the seed during the latter part of February or early in March. In that case, the freezing and thawing of the surface soil will imbed the seed so that it will not be necessary to harrow the soil for the purpose of covering the seed. The old-fashioned plan of sowing on the last snow is a meritorious one because it means that the seed becomes thoroughly soaked and softened so that when conditions favorable for germination arrive sprouting will quickly take place.

Where it is the intention to seed down with spring grain the seeding may be done even before the seed bed is thoroughly prepared. In some cases very good results have been obtained by breaking cornstalks either with a disk or with a stalk cutter and then sowing the grass seed before any disking is done. While possibly in such instances a small proportion of the seed will be covered deeply, still in the long run it will be found that this plan results in a uniform stand. All the work that is done later in preparing the seed bed for the grain means that the clover seed will become thoroughly incorporated with the surface soil, thus favoring in an ideal way the germination of all the seed.

It is true that a little extra labor is involved in this plan and some will object to it on that account, preferring to sow the clover and timothy after the seed bed is prepared. In this case the essential thing is to do some work on the soil after the seeding is done. It will never do to simply use the grass seeder behind the drill if it is not the intention to harrow the soil afterwards. Good results follow the plan of using the seeder in front of the drill because in that case the grass seed is in a way placed between the rows of grain where conditions will be more favorable for growth. A light harrowing after the drill is sometimes advised for fear that the drill covers part of the clover seed too deeply.

Summing the whole matter up it may be said that two things are of vital importance, namely, early sowing in order that there will be plenty of moisture in the surface soil to germinate the seed, and, secondly, a sensible covering if seeding is delayed until tillage operations begin. Do not trust to the rains to cover the seed because too great a part of it will be left bare and seed is too high in price to take any chances in losing part of it.

WISCONSIN FARMER POLAND CHINA TROPHY.

The Wisconsin Farmer offers each year a loving cup in the futurity class for Poland China hogs at the Wisconsin State Fair, Milwaukee. This is a picture of the cup which has been selected this year and which will be won at Milwaukee next September by some good hog breeder of this state. The swine industry in Wisconsin is developing rapidly and The Wisconsin Farmer is glad to have its part in the good work.

Studying the Facial Expression of Animals.

It is very difficult to describe the form of pleasure that many stockmen derive from their association with their charges. There is a form of affection developed in the heart that is closely akin to that engendered by human appeal. Those of our readers who enjoy this intimate association with improved farm animals will find pleasure in the following description of "expression in animals," as it is given by a writer in a recent issue of the London Live Stock Journal:

Except to those intimately acquainted with sheep there is little facial expression, but with animals more associated with the daily life of men there is much of interest. The best focus for a horse is the ground he is about to step upon, and there he can see a stone that might cause him to fall. The expression of his face then is not so "speaking" as that of the dog at short range. Apart from other things the same disability of a long focus applies to cattle and other large animals. The pig is often called stupid for the very opposite reason. His focus is short owing to his environment, and ancestors confined within the narrow limits of a sty with no view beyond. He can be educated into a charming companion, and then develops facial expression, movements of the ears, gestures and attitudes which, taken together, and particularly in dogs, convey the thoughts and wishes of the animal to those at least who love animals and study them.

It is not perhaps the easiest thing in the world to describe expression when one has watched it for a lifetime and desires to do so, but there are certain conformations in horses that can be said to indicate character To the head, of course, we look chiefly, but there are points about bodies and limbs which also indicate capacity; and even with men we are troubled to separate capacity from character. Take, for instance, what is called a Roman nose. How seldom is it associated with anything but an amiable disposition? The massive Shire, with a somewhat arched face from above the level of the eyes to the muzzle, will almost surely combine courage with docility, and so a Roman nose is generally liked in most breeds. We may conveniently consider the opposite shape here—the animal with a depression midway between the eyes and mouth. This feature alone may indicate a dull temperament or disposition to sluggishness if associated with much bone over the eye and coarse lids with a hollow above. Hollows may, however, exist in any horse, young or old. They come to most old horses, but may be present in young ones if one or both parents were old at the time when begotten, and this feature must not be taken alone to be of much significance. If the hollow exists with a heavy brow the depression of the face previously mentioned, plus a bumpy forehead—that is to say a convex skull above the eyes—the animal is very likely to be a sulky and vicious one, or at best of uncertain moods and unreliable.

What are known as pig eyes, small in proportion to the animal and deep set, are associated with meanness and want of courage, perhaps with obstinacy, which may take the form of jibbing rather than the more daring vice of kicking in harness or saddle. The mean-eyed animal, if a kicker at all, is likely to be a cow-kicker, that lets fly with one foot at a passer-by in the stable who has given no greater offense than that of coming "between the wind and his nobility." The bold eye, large in the globe, and with light brows and thin skin and long lashes, is regarded with good will by buyers as likely to have courage combined with good temper, but the prominence must not be too great, or he belongs to the class known as buck-eyed, and with the same disability as humans with that conformation—namely, short sight owing to excessive convexity. Short sight in a horse often causes shying, because the animal comes upon objects he cannot focus in time to know whether they are dangerous or not.

No words of ours need be added to strengthen the appeal which this description makes to breeders. We like the phrase, "charming companion," though in this instance it refers to the lowly hog, and sure enough it is that every man who is a stockman by instinct is able to interpret every gesture and every attitude of the animals under his care. Their welfare depends upon his ability to do this, and there are thousands of breeders in the corn belt who get into the spirit of their business just in this way.

Believes in Liberal Feeding.

While the beginning of the 1917 foaling season is a few weeks distant, we believe it is quite in order to make a suggestion in regard to the handling of a colt. At this time one of our subscribers, Mr. George Lewis, briefly outlines his method of handling colts. In the first place, Mr. Lewis works his draft mares and the colt is kept in the barn whenever the mare is in the harness. The little fellow is fed oats liberally; in fact, all the oats that he will consume during the first year. This builds up a sturdy frame and it means good muscular development, thereby insuring full growth. This subscriber believes that blunders are frequently made in feeding methods simply because grain is fed too sparingly and the mature horse, as a result, is possibly several hundred pounds lighter than he would be if he had been handled differently. He believes in breaking them to harness as two year olds and working them lightly. They will do better in most cases if they are worked, because they are then fed grain and the labor will pay for their keep.

This is good, wholesome doctrine and now that American breeders have settled down to the production of their own pure-bred breeding stock it is of the utmost importance that this lesson of liberal feeding be driven home. It must be remembered that in the main the draft horses of France, Belgium, England and Scotland are not produced by large breeders, but rather by men who have one or two or three mares, but these men understand the fundamental principle involved in raising colts. This is the end to be desired in this country and if we develop the pure-bred draft horse industry it is devoutly to be wished that the bulk of our drafters shall be raised by what might be called the small farmer. A good mare eats no more food than a scrub and in these days of heavy implements there is a real advantage in putting lots of weight into the collar at all kinds of farm work.

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Graduates in Dairy Course.

The annual winter dairy course of twelve weeks came to a successful finish in the graduation of 150 young men who came to the Wisconsin Dairy School for training in the making of butter and dairy products. They came from forty-one different counties in the state and several outside states. There were men there from Illinois, Iowa, Minnesota, Michigan, Oregon, California and New York. In his farewell address, H. L. Russell, dean of the college of agriculture, tried to impress upon the minds of the outgoing class the importance attached to their calling in raising the standards for dairy products throughout the state. By suggestions nad demonstrations these dairy students can become a powerful influence in a community. Dean Russell called the attention of the students to the fact that 3,385 men have graduated since the course was begun in 1890 and that if these graduates had not helped in educating the producer to the value of cleaner and better dairy products Wisconsin today would not be enjoying the reputation of being the leading dairy state. F. H. Farrington, in charge of the course, also addressed the students, urging them to work faithfully for the betterment of dairy conditions. G. H. Benkendorf, secretary of the Wisconsin Dairy School Alumni Association, stated that 90 per cent of the former students of the institution are actively engaged in dairy manufacturing. Eighty per cent of the graduates are employed in Wisconsin as dairymen in some capacity or other.

There is no trouble in placing these men and Mr. Farrington even now sees a shortage of competent creamery help coming on. An extraordinary demand for practical cheese and butter makers added to the great extension of the condensed milk and ice cream trade is responsible for this.

Wisconsin has set an admirable record in holding the interests of the graduates to the subject taught in the course. Hardly a profession that can show more than 50 per cent of graduates actually engaged in the business. Here 3,385 students have lost only 10 per cent of their number. Of the graduates, only 277 came from other states. The registration cards show these 277 to have traveled far to enjoy the excellent course of the institution, the men coming from Canada, Japan, Argentine, Norway, Mexico and South Africa.

You can stand at one end of a row of 50 cows, throw a single lever, and lock them all in their stanchions, or release them—if you use West Bend Swinging Stanchions and Cow Stops. With the same equipment you can release any cow or lock her in separately. It's the greatest idea of the kind ever conceived. With this equipment you can lock in or release, 50 cows in the same time you would individually spend on one cow, with ordinary equipment.

They Can't Get Their Heads In Wrong

The West Bend Automatic Cow Stop prevents the animal putting its head any place but the right one. West Bend Barn Equipment costs no more than the "other kind"—but there is no comparison between them. We manufacture a complete line of barn equipment—stanchions, stalls, pens, litter and feed carriers—all illustrated and described in our book which we will be more than pleased to send you free of charge.

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It shows you the entire West Bend line of sanitary, modern barn equipment—illustrates everything—shows you clearly just *why* so many money-making business farmers are installing West Bend equipment in preference to any other. Get this book now—let it help you plan your barn right. Your free copy is here awaiting your request. Write today—a postal will do.

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the man who said business and pleasure never mix would have known better. Or perhaps he lived too long ago. It's the honey-bee, plus modern methods and the increasing demand for honey that accounts for present-day

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Wherever you are, you can start right in with bees—for business, or pleasure, or both. There's keen enjoyment to be had out in the sunshine, studying their wonderful colony organization. They earn from $2 to $10 per colony, according to locality and care; and one experienced apiarist can handle 500 colonies. Write to us for particulars, and get our

Special Offer to Beginners Or, if you're a going bee-keeper, we want to tell you about our double-walled Buckeye hive in which the bees winter so well, and our gentler, hardier strains of queen bees. For better prices, use the Root clear glass jars, honey-comb cartons, section honey boxes, shipping cases and labels.

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Tendency Always to Lower Rather Than to Increase It.

Two prominent business men were talking things over not long ago. One of them asked the other, "What is the most common delusion in the business world today?" Instantly came the reply, "The idea that advertising adds to the price of goods."

Every now and then some manufacturer has the hardihood to say that he can sell his goods cheaper because he doesn't advertise. Every one who knows the A. B. C. of business knows that this claim is impossible on its face. Yet it sounds plausible and such talk deceives millions of people.

Forget all these sophistries and listen now to the plain commonsense of the matter.

In the production and marketing of goods there are two inevitable costs. One is the manufacturing cost; the other is the selling cost. And no way has ever yet been found by which either of these costs can be eliminated. Mark that.

Whether you buy farm products at a grocery store, or mill products at a dry goods store, or laboratory products at a drug store—whatever you buy at any store, be sure of one thing: The price includes the selling cost. It must, else the manufacturer, the wholesaler, the retailer and the salesman could not live.

And just as surely as there are always two items of cost, the manufacturing and the selling, just so surely are there only two ways in which the price of goods can ever be reduced.

One is by economics in manufacturing cost. The other is by economics in selling cost.

Of course, it isn't easy to cut manufacturing cost without cutting the quality.

But in modern times a way has been found to cut selling cost—and its name is Advertising.

Advertising is like a straight line, the shortest distance between two points—the producer and the consumer. It cuts out the grades, curves and the angles. It makes a drop of ink do the work of a salesman. Bear in mind that goods can never be sold unless there is a demand, and advertising creates this demand in the simplest, most direct and least expensive way. No other sales method can equal it in magnitude of return for a minimum of cost.

And the big returns from advertising also cut down the manufacturing cost—that's another saving. Increased volume of production always means a decrease in the unit cost of production through better and more efficient manufacturing methods.

The Association of National Advertisers has recently been gathering some remarkable facts and figures on this subject. They show how one after another of the big advertisers of the country have been able to reduce the price of their product, or else to improve the quality at no increase in price. It is a significant fact that nationally advertised goods are the only product which, as a class, have not tended to rise in price during the past few years.

Countless causes are working today to force prices up. We all know this by sad experience. Against all these forces one force only is working to keep prices down—and its name is Advertising.

I want ten men in every county right now to accept my special co-operative offer. It will help you obtain a Sheldon Batch Mixer at little or no cost. Let me tell you about it.

You probably need a mixer for concreting on your place—most farmers do. The Sheldon is the ideal mixer for the farm. Light and easily portable, durable, low-priced. You'll find it will prove a mighty good investment. Write for special offer.

You can easily earn $8 to $20 a day with a Sheldon Batch Mixer. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time. Saves labor of 1 to 4 men, according to size of job. Or, if you buy a machine for your own use, you can make many times its cost in a season by renting it to neighbors.

Improve Your Farm

Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer. Will pay for itself on first small job. Beats hand mixing a mile. And it's a lot cheaper too. Takes the backache out of concrete. Makes possible those many small improvements on the farm that you wouldn't do without. Improvements which will add many dollars to the value of your land.

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Tells how to build your own mixer by using the *Free Plans* which we send with our iron parts. Also shows full line of built-up machines. Two styles, hand and power. Will mix 2 1-2 cu-ft. a minute. Keeps 1 to 6 men busy. Chain drive, self-tilting dump, all parts guaranteed. Write today for catalog and special offer. Geo. C. Sheldon, Pres.

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Costs least to put up. Outlasts all others. Stands tight and trim the year 'round. Has one-piece stay wires, wavy strand wires—heavily galvanized. Self-draining, double grip lock. Hogs can't tip it. Wires won't spread. Write for catalog.

FREE TO LANDOWNERS who have not already received a copy—a handy pocket size of Kopp's New Calculator—worth 50c. Tells at a glance correct answer to almost any farm problem. Write for it, also catalog.

KEYSTONE STEEL & WIRE CO.
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Farmers or Farmers' Sons

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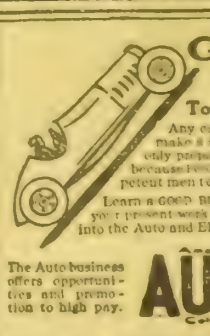
Sell Lange's Extracts, Spices, Toilet Articles, Teas, Coffees, Remedies and Veterinary Specialties, direct from wagon to home. Long-established, well-known big line, fine profits. Steady work in a business all your own. You furnish horse or team, we supply rig on easy terms. Previous experience unnecessary—we train you in salesmanship. Make big money. Our contract lents all others. Exclusive territory near your home. Write us quick.

THE LANGE CO., Dept. 3, DePere, Wis.



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Any capable, ambitious young man can make a success for himself, and if you will only prepare yourself here with GET WORK, because POSITIONS ARE OPEN WAITING for competent men to do Auto and Electric work.

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You learn here by practical work in our large shops. We furnish TOOLS.

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Tells how to learn to mount birds, animals, game-heads and tan skins.

Learn by mail. A necessity for hunters and nature lovers. Quickly learned by men and women. Fascinating. Success guaranteed. Decorate your home and den with splendid art. Make big profits from your spare time. Write today for illustrated book. It'll delight you.

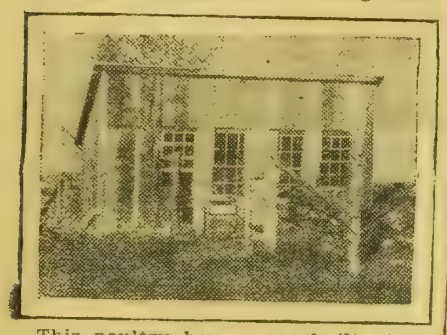
N.W. School of Taxidermy, 4 9 Elwood Blog., Omaha

A Cheap Poultry House.

To the Editor:—It cost only $10 to build this poultry house. Sounds quite reasonable, doesn't it? It was actually accomplished, however, on the farm of A. C. Martin, of Fairchild, Wisconsin. The building is 10x18x10 feet high at the front. It has a two-ply felt roof, cement floor and foundation, and tar paper between double boarded walls.

Numerous tumble-down buildings and board fences were scattered about the farm when it was purchased. These were torn down and replaced by new buildings and wire fences. The old boards were thrown on a pile to be sawed into firewood.

A new chicken house was needed. The present high cost of living made



This poultry house was built at an actual cost of $10, on the farm of A. C. Martin, of Fairchild, Wisconsin.

it especially necessary that the dollars go as far as possible. So the material had to come, largely, from the scrap pile, which indeed did not look very promising at a casual glance.

Many of the boards, however, were perfectly sound with the exception of rotten ends, which were cut off. Thus enough good, sound lumber was obtained to double board and sheath the building. The balance of the boards were sawed, split and ranked away for summer wood and kindling.

No particular frame was used—just a front sill, rafters, and a few pieces of 2x4's between the windows. The boards of the walls, running vertically outside and horizontally on the inside, were well nailed together, making firmly braced walls.

Old window sash, found about the place, and from remodeling the dwelling house, were repaired and used in the poultry house. They made four full windows which give lots of sunlight from the south.

The interior was divided into two parts, a main room and a smaller one

The lumber for the poultry house had to come from the old scrap pile, which did not look very promising.

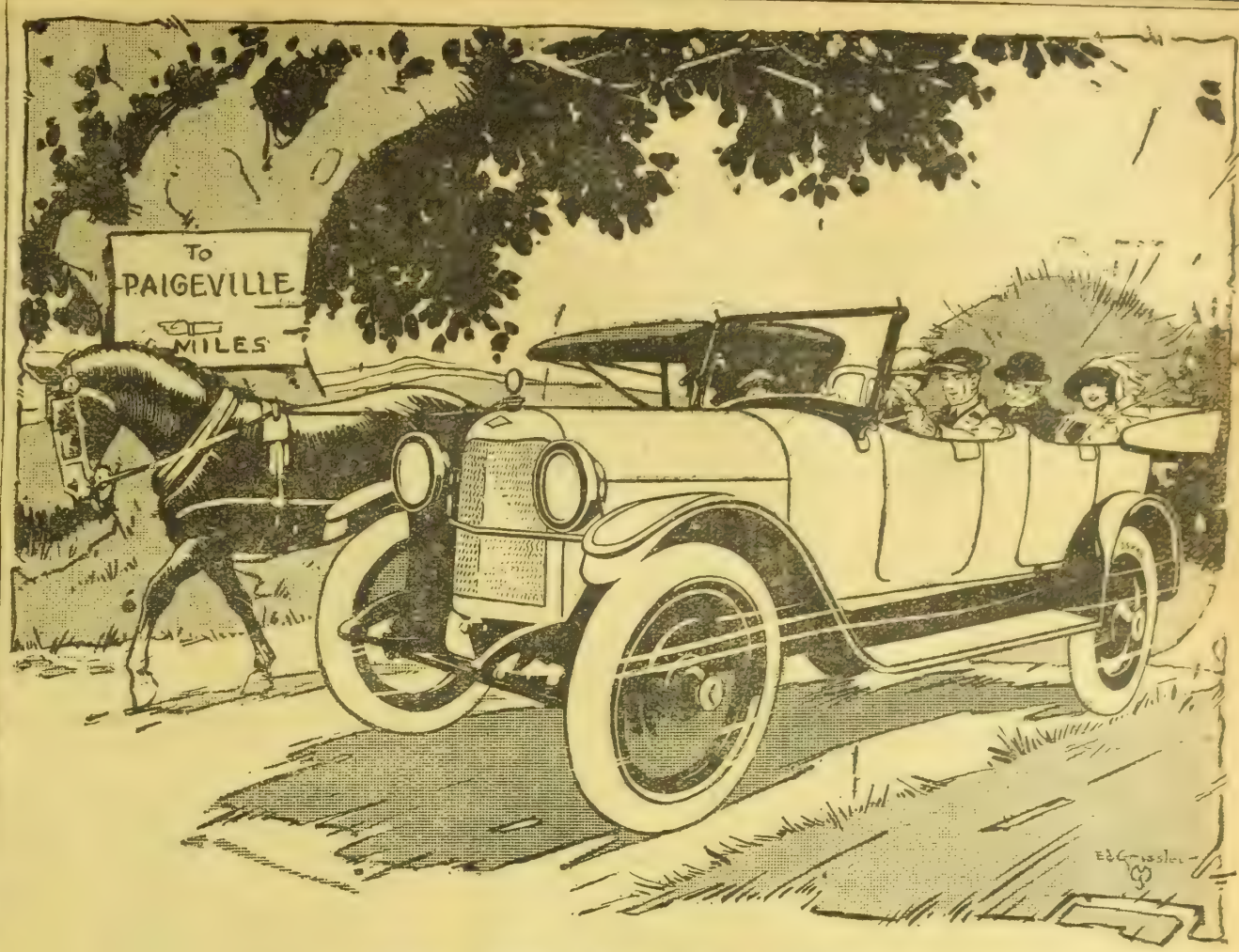
for scratching pen in winter and a hatching pen in the summer. A nearby thicket furnished birch poles for roosts which were hinged at the back that the cleaning of the building might be an easier process.

Cement, roofing and tar paper were the only materials purchased. That made a saving of nearly $50 even on the cheaper grades of lumber. The lumber used was native-sawed white pine, and, while the boards are old, they will last longer than most new lumber one gets these days.

A few wire nests, hot lime sprayed on the walls and roosts, a little sawdust on the floor, and the fowls were introduced to their new quarters; and they don't care how many pictures old Jack Frost paints on the windows.

In appreciation of their change from a dark, damp, dismal hut to this sunshiny parlor they began immediately to color their combs a dark red and cast shyly reminiscent, yet hopeful, glances at the wire nests hung for them. Ere long their hopes were realized.

E. W. Martin.



PAIGE

The Most Beautiful Car in America

PAIGE cars are made in two sizes. There is a seven-passenger, 51-horsepower model which sells for $1495. There is also a five-passenger, 39-horsepower model which sells for $1175.

The "Stratford" model is, of course, considerably larger than the "Linwood." It is well worth the difference in price. But we want to point out at this time that both cars are *Paiges*—blood brothers of the same strain.

So far as a choice between these two motor cars is concerned, it is simply a matter of your individual requirements. If you can advantageously use a large, sumptuous, seven-passenger automobile, by all means invest your money in a Paige "Stratford-51."

On the other hand, if a five-passenger model is ample for your purposes, then, decide on the "Linwood-39."

It is merely a choice between a one karat or a two karat diamond. Both cars are clean cut, flawless gems. In their respective price fields, these two cars represent the *utmost* that you can secure in automobile value.

We are putting the matter before you in this frank way, because we want to be genuinely helpful. We also want to emphasize—just as clearly as we possibly can—that Paige builds only *good* cars—quality cars.

But—above all—make it a point to see the Paige line before you buy *any* car. As a business man, you can't afford to overlook the two greatest dollar-for-dollar values in the entire automobile field. This is a broad, sweeping statement, but you can establish the facts to your entire satisfaction.

Will you make it a special point to see "The Most Beautiful Car in America?"

Stratford "Six-51" 7-passenger - $1495 f. o. b. Detroit
Linwood "Six-39" 5-passenger - $1175 f. o. b. Detroit

PAIGE-DETROIT MOTOR CAR COMPANY
207 Mc Kinstry Avenue, Detroit

Soon Time to Use Fanning Mill.

Wisconsin Farmer Cannot Afford to Plant Poor Seed—By Henry Lunz, of Wisconsin Experiment Station.

HIGH yields are one essential to meet the increased cost of production and star boarders or loafers cannot be tolerated in the granary any longer than in the dairy. Loafers are as common in plant as in animal life, and upon their extermination depends to a large degree our profit. Not only must the seed we sow have good ancestry, but it must be strong and healthy representatives of such parent stock. Small, immature, or diseased seed, no matter how good the ancestry, is of little value for reproduction. It is essential that we fight the battle against adverse weather conditions, disease and insect pests with strong, healthy stock. The weather is beyond our control, insect pests and disease can be controlled only to a certain extent, but we can largely overcome these by selection of good seed stock.

The stockman judges the future production of an animal by personal examination of each individual, and past records of both it and its parentage. In seed selection, examination of each individual is impossible, and thus some mechanical means of separating the poor prospects from the good is necessary.

Mills for separating and cleaning seeds have been in use for many years. Before the advent of the hand-turned mill, farmers used to take advantage of windy days and clean their grain by pouring it from one bucket to another, thus allowing the wind to blow the chaff aside as the grain fell into the lower container.

The modern fanning mill is almost a wizard when it comes to cleaning and separating seeds. The right mill in skilled hands will do seemingly impossible things.

Seed separation depends upon difference in size and difference in weight. Some machines take advantage of one of these principles and others both. According to size seeds are separated by sieves; according to weight by a blast of air that can be regulated to suit the operator. The best mills take advantage of both size and weight and make each separation separately. The mill that most successfully cleans grass and clover seeds allows no wind to strike the sieves. The seeds are first separated according to size and afterward according to weight.

The best sieves are made of some non-rusting material as zinc, in which the holes are made by perforating the plate with a punch. Wire sieves are sure, sooner or later, to spread in places, thus destroying their efficiency.

Advertisers often claim simplicity for their mills, with the statement that anyone can operate them. In many cases it is nearer the truth that any factory can make a fanning mill, but it takes an expert to operate one.

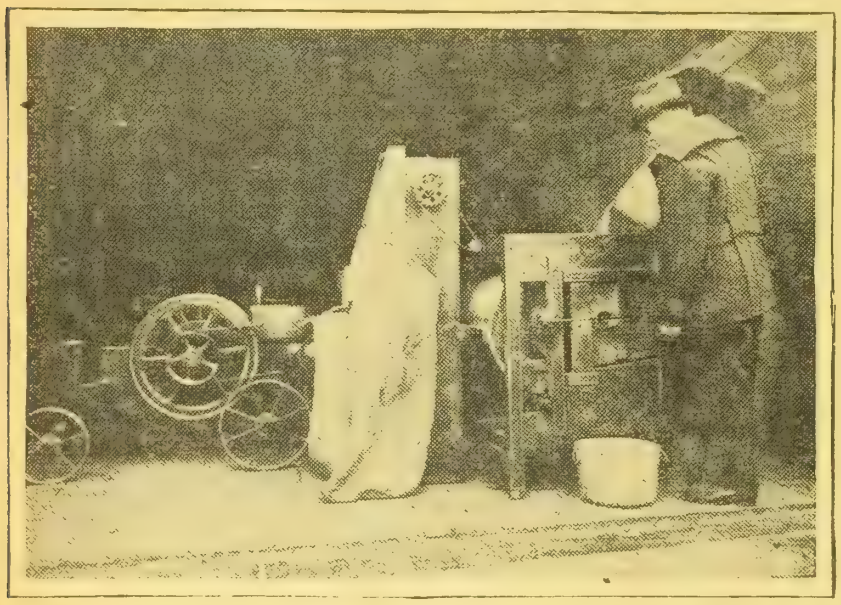
Many mills are too complicated. No mill should divide the original sample into more than two or three grades. It should be well balanced, having as few moving parts as possible. Ease of running and efficiency is increased if the speed of fan can be varied without changing that of sieves, thus bringing blast under more perfect control. Sieves should be of easy access for purposes of removal and cleaning.

The operator should study the mill and directions sent with it by manufacturers. The top sieve should be just large enough to allow the seed that is being cleaned to pass through, and the lower sieve just small enough to keep them from pasing through. After this separation the seed, which is of an even size, drops into the blast, where the light seeds are blown out. The heavy ones drop into a receptacle provided for them. One secret of good separation is uniform speed of the mill, and this is difficult to obtain with hand power. A small gasoline engine saves a backache and enables one man to do the work of two, and do it better.

After separation the good, strong, healthy seeds are available for seeding and being of good weight they contain sufficient nourishment to carry the seedling through until it is able to take care of itself.

Not only are the best seeds available for sowing, but the light and immature lots that contain considerable food value are available for feeding purposes. If these were sown the possibilities are that they would not grow, or fail to produce a new plant.

Get at that mill now and clean your seed grain for next spring's planting. It will pay, and pay big.



POWER MILLS MAINTAIN UNIFORM SPEED AND DO QUICK WORK.

FRESHENING time is the most critical period in the life of a cow or heifer. No injury or sickness has such disastrous results as failure to properly clean. Many cows, especially heifers, retain the afterbirth. If allowed to remain, disease and blood poisoning may follow. If you forcibly remove it, some parts of the afterbirth will remain. These parts decompose and are absorbed by the animal, causing a rapid wasting of flesh and loss of milk. Avoid all danger by using

DR. DAVID ROBERTS'

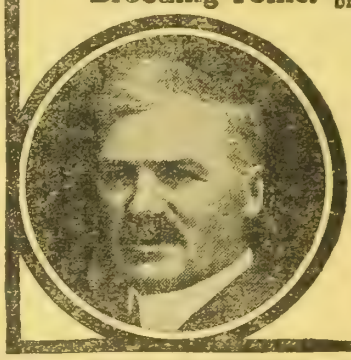
COW CLEANER and ANTISEPTO

Cow Cleaner stimulates the circulation in the blood vessels of the genital organs, causing the afterbirth to ripen and come away of its own weight, leaving the organs in a healthy condition. Cleanse the genital organs with Antisepto—it is cooling, soothing and healing, all of which are essential to health. Keep your cows in a healthy breeding condition. Give them the help they need at this trying time.

Cow Tonic. Aids digestion, increases appetite, tones and keeps animals in condition.

Calf Cholera Remedy. Prevents scours and calf cholera. Avoids stunting. Keeps calves growing.

Breeding Tonic. Acts on the genital organs and puts in condition for breeding. Makes getting with calf more certain.



There is a Roberts' medicine for every animal ailment. Over 500,000 copies of his great book (184 pages), "Practical Home Veterinarian," are already in the hands of live-stock owners. Send $1.00 for your copy today.

Go to your druggist. Buy Dr Roberts' animal medicines and tonics. Nearly 4000 drug stores carry them. Look for and insist on getting the package that bears Dr. Roberts' picture. If your druggist hasn't Roberts' goods, write us direct. Give us his name. We will see you are promptly supplied.

DR. DAVID ROBERTS VETERINARY CO.
950 Wisconsin Ave. Waukesha, Wis.

FREE BOOKLET ON HORSE TRAINING

BREAK your colts, kickers, runaways, etc., with Koepke's controller bridles and avoid accidents. Write for circulars and free booklet on horse training. Address
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Dept. A, Whitehall, Wis.

In and Around Wisconsin

Mr. H. Zimmerman, of the Barron Creamery, Barron, Wisconsin, received $187.20 in cream checks for the month of December last, being the head of the list of patrons. There were twenty-eight in the December list who received over $100.

E. L. Liddle has given up his post at the La Crosse County School of Agriculture and accepted a position in the Milwaukee County School. Mr. Liddle is efficient in handling live stock. He will take the place of John Ooesterhuis, at the Milwaukee County School.

Supt. E. L. Luther, of Farmers' Institutes, has recently sent out copies of the annual bulletin, reviewing the work of the past year. This book contains a great deal of practical information, and is known as Farmers' Institute Bulletin No. 30. There is a limited supply of these bulletins on hand and they may be secured by writing to Mr. Luther.

The Wisconsin Sugar Company has decided to pay $7 per ton for sugar beets contracted now for 1917. This cuts out the proposed bonus plan which provided a contract for $6 per ton next autumn for beets, with better pay in case sugar remained at certain prices or advanced. The new $7-a-ton contract is not based on sugar prices and is made without any reservation. There is little chance of sugar getting cheaper before next autumn, and it is not likely to be cheaper then unless the European war stops. There is said to be a small acreage of beets in the best countries of Europe, but what is more to the point, there is practically no opportunity for shipment; hence, this source of sugar supply is cut off. At the new prices the growers expect to make a good thing out of the sugar beet the coming season and there is a good chance for the acreage to be increased.

Sixteen cows in the Geo. Minshall herd, at Plainview Stock Farm, Walworth county, produced 1,569.92 during the month of December last. The average production of milk for these Holsteins was 1,721 pounds. One cow gave 2,108 pounds of milk, testing 3.9 per cent. Her milk alone averaged the owner $1.50 per day.

About $300,000 worth of stock has been sold in the New Richmond packing plant, known officially as the Inter-County Co-operative Packing Company. There are 2,730 stockholders, and the last $30,000 worth of stock has been sold at $110 for a $100 share. The cost of buildings complete is estimated at $144,000, and the added materials, etc., necessary to put the plant in operation will bring this to $165,000. The plant is erected and will be operated in a very short time, the exact date not having been agreed upon at this writing.

W. C. Johnson, official tester of the Baraboo, Wisconsin, Cow-Testing Association, writes that he is recommending better barn equipment to the members of the association. He advises members of the association that the old wooden stall is an ideal place for breeding insects and for diseases to get a start. Furthermore, chores can be done in about half the time with a modern barn. But the most important thing in Mr. Johnson's judgment is that the modern barn makes the cows more comfortable, and that is next in importance to proper feeding if the best results are to be obtained at the milk pail.

The Klover Klub, of Sauk county, recently held a working "bee," which resulted in getting enough wood hauled and cut to furnish fuel at the town hall for a year or more. There were about a dozen men engaged with teams. Of course, this was not a very wonderful undertaking, but it demonstrates the spirit which exists in the Klover Klub.

Something of an argument has developed in Winnebago county between some of the poultry breeders and citizens of Oshkosh. Mr. M. P. Woodworth contributed an article to the Northwestern, in which he maintained that at present prices of caring for and housing poultry, 50 cent a dozen was cheap for eggs. An Oshkosh citizen replies that eggs may be worth 4 or 5 cents apiece, but that the farmers do not take enough care to sell good eggs at these prices. The average city man will not kick so much on the price of eggs as he will on the quality. As a general proposition, the grocer in town is afraid to guarantee eggs. This means that the farmers will not bring their fresh eggs, or at least that he has not enough confidence in the eggs to make him like to guarantee them. The discussion raises the old question as to quality and price. Strictly first-class eggs will bring a high price today anywhere in the United States. We refer to eggs which may be absolutely guaranteed as fresh. No farmer poultryman who will put up eggs daily will have any trouble in selling them as fast as he can get them. Neither does he need to worry anything about the price.

The Fifty Pound Cow at Last.

Segis Fayne Johanna, a Holstein Cow, Owned by O. Cabana, Jr., of New York, Sets a New Butter Production Record.

THE pure-bred Holstein-Friesian cow, Segis Fayne Johanna 114658, realized the long-cherished hopes of enthusiasts and electrified the dairy world when, under an official seven-day test ending January 8th, she established a new world's record for butter fat production, producing in seven consecutive days 730.8 pounds of milk, containing 50.68 pounds of butter. This remarkable animal has scored a brilliant triumph for the Black-and-White breed.

The pessimist had for years scoffed at the optimist's prophecy that some day a cow would surmount the 50-pound barrier, but with Segis Fayne Johanna's accomplishment what seemed the "almost incredible" has happened.

Segis Fayne Johanna is the property of Oliver Cabana, Jr., proprietor of Pine Grove Farms, Elma Center, N. Y., and was bred by A. A. Cortelyou, of Somerville, N. J., having been purchased by the present owner at a breeders' sale on January 5, 1913. She is eight years old, weighs now about 1,450 pounds, and in color is four-fifths white. Her sire is King Fayne Segis 46767 and her dam is Vikina Johanna 64385.

The new seven-day butter champion, the sixteenth Holstein-Friesian cow to obtain a place in the 40-pound class, is the fifth world's champion to be developed at Pine Grove Farms, so a brief resume of the methods of feeding and care in operation at this noted establishment, particularly those employed in the test of Segis Fayne Johanna, is of extraordinary interest.

The test was made in a roomy, clean, white-enameled stall, under the supervision of representatives of the New York State Agricultural College, at Ithaca, N. Y. She was milked every six hours. From the time she went dry to ten days before freshening the new champion received the customary rations used at Pine Grove Farms, consisting of thirty pounds grain, forty pounds beets and thirty pounds of beet pulp soaked in molasses. She was then fed a test ration of sixteen pounds, increasing gradually to twenty-five pounds, consisting of the following mixture:

200 pounds dried distillers' grains,
100 pounds bran,
100 pounds ground oats,
125 pounds gluten,
100 pounds cottonseed meal,
80 pounds oil meal,
15 pounds table salt,
10 pounds charcoal.

On the third day after freshening she was given sixteen pounds of grain until the sixth day, when two pounds were added, which was systematically increased to thirty-one pounds. Two pounds of cottonseed meal was also provided and, with the following, made up the balance of the ration:

40 pounds ensilage,
100 pounds roots,
32 pounds beet pulp,
12 pounds hay.

Rock salt and plenty of water were accessible to her at all times.

The test began December 28, 1916, and the verification and observation tests began at 4:30 p. m. on January 2d and continued for forty-eight hours. During the period the following supervisors were in charge: Ray Huey, Spencerport, N. Y.; R. V. Callahan, Clyde, N. Y.; S. H. Waldo, Castile, N. Y.; C. F. Mason, Seneca Castle, N. Y.; and F. A. Linzy, Darien Center, N. Y.

A study of the following certified table, giving in detail the milk and fat taken daily from December 28th to January 8th, will prove of interest:

Date		Lbs. milk	Lbs. fat	Lbs. butter
Dec.	28	97.9	5.667	7.083
	29	101.3	6.052	7.565
	30	104.1	5.466	6.832
	31	105.2	5.759	7.198
Jan.	1	104.4	5.743	7.178
	2	105.1	5.785	7.231
	3	104.5	5.776	7.220
	4	110.8	5.698	7.122
	5	107.1	5.361	6.701
	6	108.8	5.494	6.867
	7	108.9	5.338	6.672
	8	109.2	5.737	7.171

The best previous seven-day butter record was 46.772 pounds, established by the pure-bred Holstein cow, Hester Aaltje Korndyke 133222, owned by M. J. Smiley, of Bellefourche, South Dakota.

The flattering success obtained by Mr. Cabana at Pine Grove Farms has naturally brought him into the glare of the limelight. As he expresses it, he went into the breeding of Holstein-Friesian cattle because of the great interest attached to it. He says further: "It means to me the developing of the most useful animal in the world. I find it fascinating to watch the progress and improvements we make through the application of scientific and intelligent breeding methods." Mr. Cabana has long been a prominent citizen of Buffalo, connected with various large business interests. He is an indefatigable worker and, despite his business enterprises which demand so much of his time and energy, he is intimately in touch at all times with the doings at Pine Grove Farms.

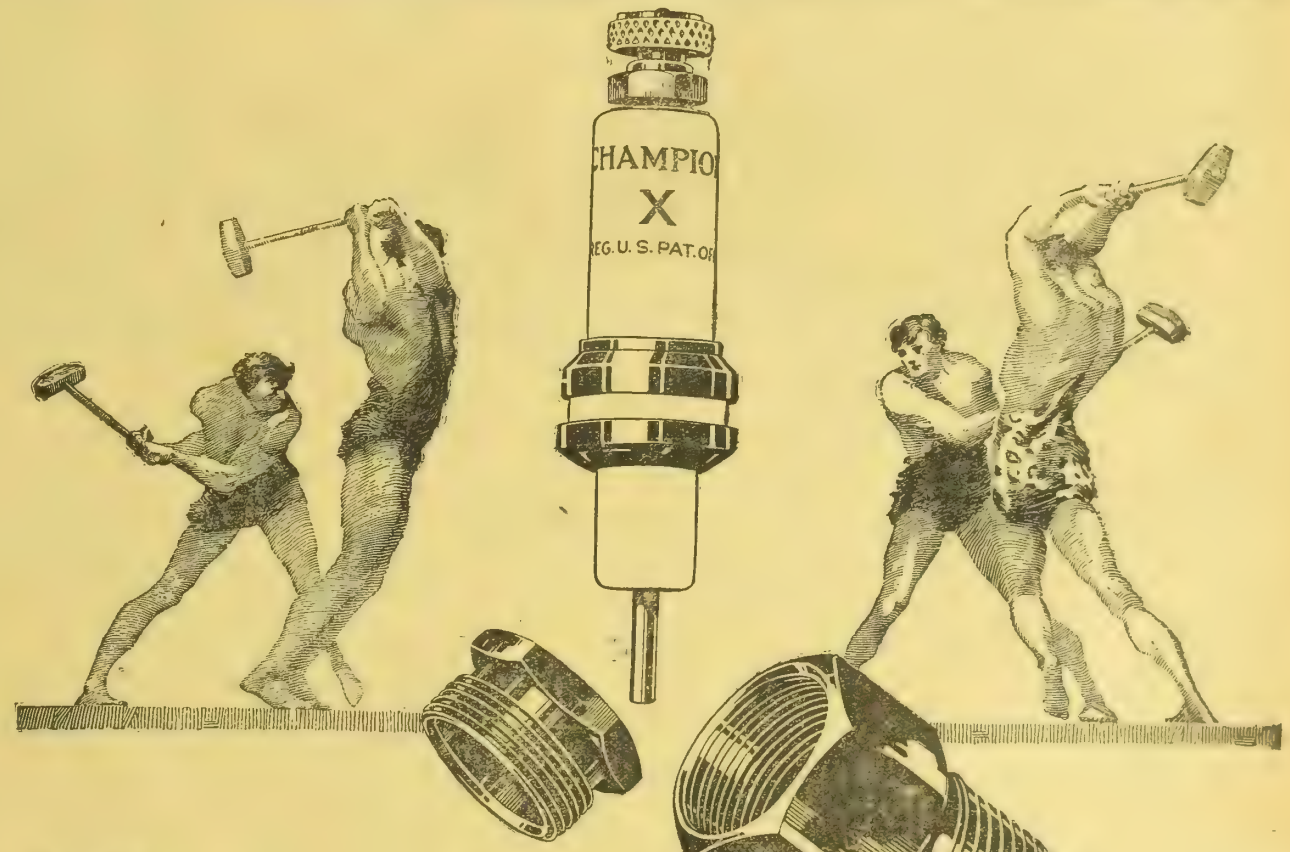
FIRST FIFTY-POUND COW—SEGIS FAYNE JOHANNA, OWNED BY OLIVER CABANA, JR., PINE GROVE FARMS, NEW YORK.

The enthusiasm and unison of progressive spirit existing among the Holstein-Friesian cattle breeders is best expressed in the telegram from the owner of the eclipsed record holder which reads: "Congratulations on the 50-pound cow. Now that the impossible has been accomplished, where is the end?"

Wanted: A Newfoundland or St. Bernard Dog.

A subscriber of The Wisconsin Farmer has written us asking where he might secure a good Newfoundland or St. Bernard dog. If any of our readers know where such a dog may be purchased we would like very much to have them inform us so that we can give the information to our subscriber. We would appreciate hearing from anyone who has dogs to sell of the breeds mentioned or from anyone who knows of owners of these kinds of dogs. Send the information to The Wisconsin Farmer, Madison, Wisconsin.

Probably no other field crop requires lime to such an extent as does alfalfa, and with the exception of rather limited limestone areas, practically all of the soils of the United States east of the ninety-fifth meridian require liming for best development of this crop.



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Dependable Spark Plugs

Champion Spark Plugs are proof against the incessant heavy battering blows of the explosions in your cylinders.

Patented asbestos lined copper gaskets protect both shoulders of the porcelain.

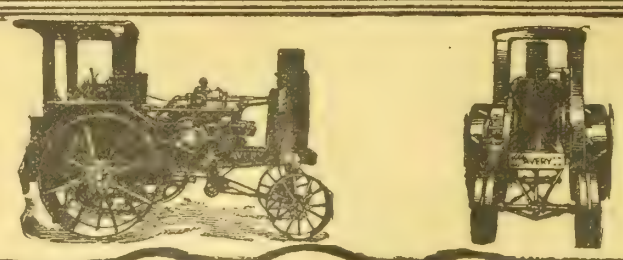
They are absolutely dependable.

They are found as standard factory equipment on 4 out of 5 of the cars built in this country and Canada.

There is a Champion Plug specially designed and built for *every* type of automobile motor, tractor and stationary engine.

Look *on the porcelain* for the name "Champion."

Champion Spark Plug Company
Toledo, Ohio



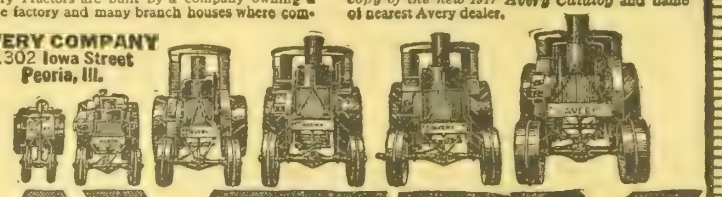
What You DON'T GET in an Avery Tractor

YOUR success with a tractor depends about as much on what you don't get in its construction as on what you do. Here are some things you *don't get* when you buy an Avery: You *don't get* any fuel pump, water pump, fan, sprocket chains, belts, outside lubricator, counterweights on the crankshaft, third crankshaft bearing, second clutch or intermediate gear or shaft. All these trouble-makers were eliminated when the Avery Tractor was designed.

What You DO GET

You *get* a powerful, low-speed, long-lived, special opposed tractor motor—a crankshaft so strong no owner ever broke one—renewable inner cylinder walls, patented sliding frame, two-speed gear, all spur gear transmission, four wheels, double drive. Avery Tractors are built by a company owning a large factory and many branch houses where complete repair stocks and a service force are maintained. The Avery line includes five regular size tractors—8-16, 12-25, 18-36, 25-50 and 40-80 h.p., and special 5-10 h.p. Plows and Threshers in all sizes—and Two-Row Motor Cultivator. *Write for a FREE copy of the new 1917 Avery Catalog* and name of nearest Avery dealer.

AVERY COMPANY
1302 Iowa Street
Peoria, Ill.



AVERY

Tractors and Plows—6 Sizes—Fit Any Size Farm

AUTOMOBILES GIVEN AWAY

$635 OVERLAND
$360 FORD

You can become the owner of one of these automobiles, both 1917 Models, without one cent of cost. If you want a car send us your name asking all about our wonderful plan by which we give automobiles away.

SEND NO MONEY
JUST YOUR NAME

Corn Belt Auto Club
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Midwinter Bargains on Magazine Clubs

Renew Now and Save Money

CLUB NO. 1A.
Today's Magazine ..... $ .50
Metropolitan 1.50
The Wisconsin Farmer 1.00
Regular price per year $3.00
Our Price For All Three **$1.75** You Save $1.25

CLUB NO. 2A.
Pictorial Review $1.50
People's Home Journal ..... .50
The Wisconsin Farmer 1.00
Regular price per year $3.00
Our Price For All Three **$2.15** You Save 85c

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Kansas City Weekly Star ..... $ .25
People's Home Journal ..... .50
The Wisconsin Farmer 1.00
Regular price per year $1.75
Our Price For All Three **$1.10** You Save 65c

CLUB NO. 4A.
Every Week $1.00
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Home Life ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.60
Our Price For All Four **$1.35** You Save $1.25

CLUB NO. 5A.
Kansas City Weekly Star ..... $ .25
McCall's Magazine ..... .50
People's Popular Monthly ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.00
Our Price For All Four **$1.45** You Save 55c

CLUB NO. 6A.
Home Needlework ..... $ .75
Home Life ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.00
Our Price For All Three **$1.45** You Save 55c

CLUB NO. 7A.
Today's Magazine ..... $ .50
People's Home Journal ..... .50
People's Popular Monthly ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.25
Our Price For All Four **$1.45** You Save 80c

CLUB NO. 8A.
Ladies' World $1.00
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Our Price For All Three **$1.55** You Save $1.45

Good For Ten Days Only!

The Wisconsin Farmer one year	Our Price	You Save
With Mother's Magazine, 1 year	$1.75	$ .75
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Report on Cow Testing.

In Portage County.

To the Editor:—The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending January 8, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Ole Borgen					
Black, G. H.	9	11-2	1536	3.9	59.9
Anna Bell, G. G.	11	8-3	1392	4.0	55.7
Twin, G. H.	7	11-1	1398	3.6	50.8
Geo. Larson					
Bessie, G. G.	4	11-15	1095	5.1	58.8
L. L. Loberg					
Nellie, P. G.	7	10-21	990	5.4	53.4
Daisy, P. G.	7	10-10	1038	4.7	48.6
Romanta, P. G.	9	10-10	1062	4.4	46.7
Ella, G. G.	4	8-27	1026	4.4	45.1
Fred Peterson					
Netty, G. H.	8	11-12	1107	4.5	49.8
Glen Starr					
Spot, G. H.	8	11-15	1104	4.4	48.6
Gordon & Johnson					
Nancy, G. G.	8	10-15	933	5.2	48.4
A. A. Peterson					
Betsy, G. G.	8	10-19	840	5.6	47.0

Frank Moss,
Official Tester Amherst and Nelsonville Cow-Testing Association.
Arthur H. Peterson, Secretary.

Pure-bred Holstein Leads.

To the Editor:—The following table gives the names and records of cows in our association which produced forty-five pounds of butter fat or over during the thirty-day period ending January 1, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Frank Diny					
No. 10, G. A.	8	11-18	930	4.9	45.7
Aug. Tamm					
No. 3, G. H.	4	11-1	1152	4.8	55.4
Will Pritzl					
No. 4, G. H.	6	11-6	1245	3.7	46.0
John Seybold					
Dandy, G. H.	6	12-1	1032	4.6	47.4
John Kloehn					
Spottie, G. H.	8	11-2	1572	3.5	55.0
J. Nachers					
Molly, G. H.	5	12-1	1271	3.9	49.5
M. Phillips					
Hendreka, P.B.H.	8	12-1	1590	3.2	[illegible]
Fred Harford					
No. 4, P. B. H.	7	11-12	1875	4.0	75.0
No. 6, P. B. H.	8	11-11	1748	3.8	66.3
Louis Meulemans					
Beauty, G. H.	6	11-1	1354	4.1	55.5
H. Baumgartner					
Fawnie, G.	6	11-1	766	5.9	45.2
Peggy, G.	6	11-12	976	4.8	46.8

F. A. Gaiser,
Official Tester Wrightstown-Greenleaf and Brillion Cow-Testing Association.

Stanley Association.

To the Editor:—We have been doing some work in cow testing in the Stanley Association. In September we had four cows producing forty pounds of butter fat or better and in October six. In October we had 345 cows under test; twenty cows found to be unprofitable, eighteen were sold for dairy cows. I have tested one cow which averaged 9.2 per cent of fat and also averaged 13.7 pounds of milk for three months.

The following table gives the names and records of the cows in the assosiation which have produced forty-five pounds of butter fat or over during the two periods of thirty days each, ending December 31, 1916:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Frank Smalley					
Rosetta, R. H.	5	10-19-16	1620	4.2	68.0
Rosetta, R. H.	5	10-19-16	1770	4.1	72.6
Geo. Weissenberg					
Artie, R. H.	3	11-12-16	1350	4.2	56.7
Albert Keehn					
Dollie, G. H.	5	11-7-16	1107	4.1	45.4
White, G. H.	6	11-19-16	942	5.0	47.1
G. W. Schmidt					
Allie, G. G.	4	11-13-16	969	6.5	63.0
Louis Qualhein					
Nigger, N.	7	11-20-16	1266	3.8	48.1
G. C. Leslie					
Linquist, G.H	9	12-8-16	1290	3.6	46.4

R. F. Adams,
Official Tester Stanley Cow-Testing Association.

In Polk County.

To the Editor:—The following table gives the records of cows in our association which have produced forty-five pounds of butter fat or over for the thirty-one-day period ending January 16, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Jens Jensen					
Violet, G. G.	6	11-16	852	5.3	45.2
C. E. Woodward					
Bonny Belle, N.	6	12-6	1038	4.5	46.7
J. C. Nielsen					
Dolly, G. G.	6	12-6	976	5.7	55.6
Lady, G. S. H.	12	11-30	930	5.0	46.5

Marius Nelson,
Official Tester Bone Lake-Luck Assn.
Leo D. Dunlap, Secretary.

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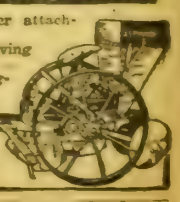

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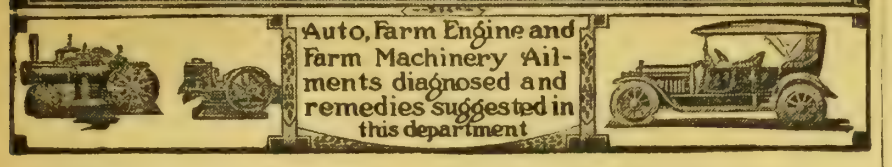
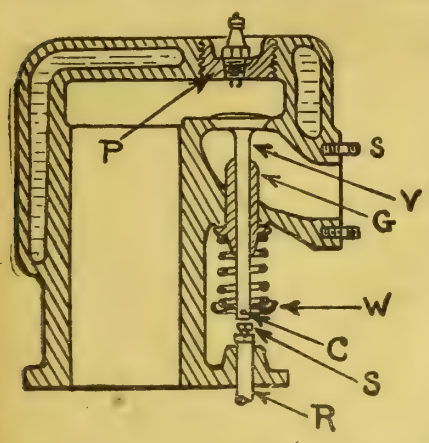


Questions and Answers.

Types of Motor.

What is the poppet valve of a motor? What kind of a motor is the "L" type? What kind is the "T" type? Is there any other type of motor made with four or six cylinders?

Answer.—There are two kinds of valves in use on gasoline motors. The poppet valve is the common kind and is shown in V in the figure. The other kind is the slide valve, one form of which was illustrated in these columns a few weeks ago. The "L" type



of cylinder has both inlet and exhaust valves located on one side of the cylinder. The diagram illustrates a cylinder of this type. The "T" type has the inlet valve on one side of the cylinder and the exhaust valve on the other side. This makes the general outline of the cylinder like a T; hence its name. These two types are classed together as "valve in the side" motors. The other type is the "valve in the head" motors, in which the valves are located above the cylinder.

Grinding Valves and Adjusting Bearings.

I wish to ask a few questions in regard to my Continental motor. How should I proceed to grind the valves? Is it necessary to take the motor all apart to do this? Also please tell me how to take up the bearings. How can one tell when they are tight enough?

Answer.—To grind the valve of any motor the first thing necessary to do is to remove the valves. The majority of motors have a screw plug over the valves, the plug being unscrewed when the valve is being ground. Other motors, like the Ford, have removable cylinder heads. This is true of all valve-in-the-head motors, unless the valve is located in a removable cage. The figure shows a sectional view of the ordinary cylinder through one of the valves. P is the plug over the valve, which must be removed to grind the valve. V is the valve; G is the valve stem guide; W is the valve spring washer; C is the key or split collar that keeps W in place; S is the tappet adjusting screw; and R is the tappet or push rod. To remove the valve it is necessary to pry up on the valve washer, W, and remove the key or collar, C. For doing this a half-inch rod about fifteen inches long with a fork at one end, the fork being the proper size to fit around the valve collar is very handy. A chain and hook is slipped over the rod. To use the tool, insert the hook in the hole over the valve or around the manifold; slip the fork under the washer, W, and pry up. The slot in the fork must be large enough so that the key or split collar will go through it.

Having removed the valve, carefully file off any shoulders worn on the valve seat, using fine file. There are many valve-grinding compounds on the market. A good compound is made from emery flour and oil, mixed to the consistency of thin cream. Rub a little of this compound on the valve seat; insert the valve in the cylinder, and by means of a screw driver in the slot in the head of the valve, turn the valve back and forth about a third of a turn, lifting the valve from its seat every few turns and changing its position occasionally. Be careful not to get any of the emery into the cylinder, as it would ruin the cylinder. A spring inserted under the head of the valve to raise it is a great help.

After grinding about five minutes, remove it and wipe the valve and the valve seat in the cylinder clean. Make many light chalk marks on the seat of the valve, insert it carefully in the cylinder, and rotate it about an eighth of an inch back and forth, using some pressure. If all the chalk marks are rubbed off the seat the valve is perfectly ground. If one or more chalk marks remain across the seat there is a low spot and the grinding should be continued.

Loose bearings may be tightened by removing shims or filing off the face of the bearing cap. If the cap is filed great care must be taken to take off an equal amount of metal all over the face, otherwise the bearing will not fit the shaft correctly. How tight to fit the bearings depends largely on what the bearing is made of. Bronze bearings must fit the shaft rather loosely. Bearings having a bronze back with a babbitt lining should fit the shaft so that there is a slight drag. Babbitt bearings should be fit so that there is a decided drag as the shaft is rotated. New bearings must be adjusted tighter than old ones, as the hammering of the crankshaft compresses the metal of a new bearing more than it compresses the metal of an old one.

When the valve has been ground, clean the valve and cylinder very thoroughly, oil the valve, and replace it in the cylinder. After the collar, C, has been put in place see that there is a distance equal to the thickness of a newspaper between the end of the valve stem and the top of the push rod adjusting screw, as the grinding lets the valve down lower.

Using Coal Oil in Radiator.

How would it do to use coal oil in an auto radiator in place of water? I have heard some people say they have used it with good results in cold weather. Is it dangerous to use a torch to warm up a carburetor and manifold?

Answer.—Low-grade kerosene or coal oil may be used in a radiator on an auto or tractor in the wintertime, but we have always discouraged the idea on account of the danger of fire or explosion. It also soon ruins the radiator hose. If coal oil is used great care should be taken not to bring a flame near it, as an explosion may result. We know of such an explosion occurring even with alcohol in the radiator, the car and garage being a total loss from the fire that resulted. It is dangerous to warm up a carburetor with a torch. A teakettleful of boiling water poured on the carburetor will warm it up without the danger of an explosion.

Generators For Automobiles.

Would you please give the addresses of the firms that make the Delco and the Westinghouse generators for automobiles?

Answer.—The Delco system is made by the Domestic Engineering Co., of Dayton, Ohio. The Westinghouse system is made by the Westinghouse Electric Co., Pittsburgh, Pa.

Lights Burn Out.

I have a Ford car that has been run about 200 miles. During that time it has burned out five headlights. I put in two new bulbs and it burned them out before it had gone a block. Is there something wrong with the magneto? The motor works perfectly. Would bulbs of higher candle power work better?

Answer.—Your magneto is all right; in fact, it is too good! The lights burn out because at high speeds the magneto furnishes a higher voltage than the lights will stand. Obtain bulbs rated two volts higher than you are now using. If this does not stop the trouble use bulbs of still higher voltage. The bulbs should be the same candle power as you are now using.

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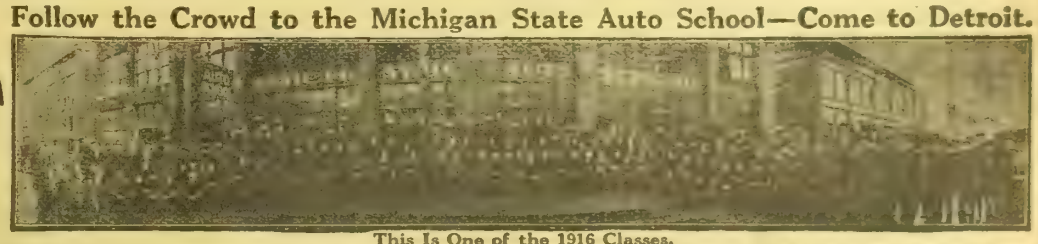

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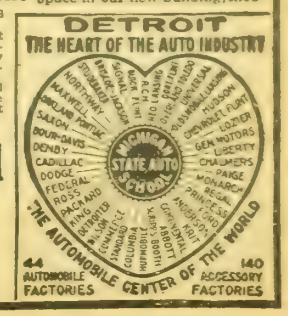

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UPPER WISCONSIN

Starting a New Farm.

To the Editor:—After reading your paper of January 18th in regard to Governor Philipp's message to the legislature on developing Upper Wisconsin lands, would like to say a few words in regard to these lands and starting a new farm. My experience has been this: If you have but small means to begin with it is better to start with two or three cows and add to the herd as you get land cleared. Then you are to no expense to buy feed. You have plenty of range for cattle from May until the last of October, as there is an abundance of clover and pony grasses on all the cutover lands. As to clearing these lands, I will say three men with a two-horse stump puller will clear two acres per week with the aid of dynamite at a cost of $1.25 per acre cash outlay. Our land is covered with birch, oak and maple and is heavy soil, but the lighter lands can be cleared without the use of dynamite. Our acres are covered with an abundance of wild red respberries and blackberries, around the lakes of which there are 1,200 in Vilas county, cranberries abound and blueberries so that any family need not want for fruits. At this point we are 1,650 feet above sea level. It is called the divide, the most healthy spot in the state. Thousands of people visit these lakes each summer, making a good market for milk, butter and vegetables and poultry.

A NEW COTTAGE BUILT NEAR AN UPPER WISCONSIN LAKE.

OATS GROWN ON A. E. MANNING FARM, VILAS COUNTY, WIS.

If I am not asking too much space would like to say a few words more. That is just this: We are three and one-half miles from the deer park, which the state owns and is spending a lot of money on. As I view it, if they would put that money in an experiment farm of 200 or 300 acres in charge of a first-class agriculturist the money would be used for better purposes and help to settle the country.

Vilas Co., Wis. A. E. Manning.

In Oneida County.

To the Editor:—The cutover lands of northern Wisconsin are fast proving to be of inestimable value to farmers interested in the pursuit of the dairy industry. The climate and crop conditions of that section of the state, combined with an abundance of forage, make it an ideal place for dairy farming and there are already a large number of farmers making profitable use of lands that were once considered worthless for farming.

On a recent visit to Oneida county I was greatly surprised by the progress being made in the clearing and improving of cut-over lands.

THE FIRST CLEARING ON THE MANNING FARM IN VILAS COUNTY

The Tamarack Farm, in the town of Sugar Camp, owned by Brown Brothers' Lumber Company and managed by Charles Kugel, will, at the present time, compete with some of our model dairy farms in the southern part of this state and will in a few years excel them.

They have a fine herd of pure-bred Guernsey cattle, among which are several cows producing 400 pounds of butter annually. Cheese factories and creameries are numerous, insuring a ready market for milk and cream.

Corn, contrary to some people's belief, does unusually well in this section of the state. Some of the best corn I ever saw was grown last year on the farm of F. P. Lowney in the same town. There was better corn grown in Oneida county last year than in some of the more southern counties. There was also an unusually heavy yield of clover and alfalfa. Oats, barley, rye and peas are among some of their most successful crops.

Oneida county contributes largely to the state's yield of potatoes and other garden truck, but the pursuit of dairying is fast becoming the leading industry owing to ideal crop and weather conditions and the large tracts of cheap lands available for pasture.

James R. Lowney.
Winnebago Co., Wisconsin.

Guernsey Breeders Meet.

The Rusk County Cattle Breeders' Association held a meeting recently at the village hall in Bruce. Judge D. W. Maloney, of Ladysmith, acted as secretary, and addresses were delivered by County Agent Ingles, of Eau Claire county; County Agent Householder, of Rusk county; W. W. Kinyon, of a large Guernsey herd at Eau Claire, and Mr. Spiers, of Eau Claire, who spoke from the cream buyers' standpoint.

The meeting was followed by a banquet in the evening at Hotel Briggs. W. A. Backburn, of Bruce, acted as toastmaster. The association reelected John Hein, Jr., president, and L. E. McGill, secretary. A number of new names were added to the roll.

Corn Show in La Crosse County.

The annual Farmers' Course and Homemakers' Conference, held at the La Crosse County School of Agriculture and Domestic Economy, January 25th, 26th and 27th, was well attended despite cold weather and roads that were nearly impassable, due to deep snow.

As usual, the La Crosse County Order of the Experiment Association staged a big show of corn, grain and other farm products, this show was made up of over 200 entries. The corn show was particularly good. There were eleven fifty-ear samples, twenty-seven ten-ear samples and thirty single entries. The threshed grains and sheaves were very good.

The exhibit of the work done by the pupils of the rural schools in sewing showed that a great effort is being made in La Crosse county to reach perfection in this line of work. Both teachers of the rural schools and Elizabeth D. Raht, head of the home economics department of the county school should be congratulated for the fine showing made.

Saturday Prof. J. G. Fuller judged the horses shown and the silver cup for best draft mare was won by Jewett Willey, Holmen, on a typey pure-bred Percheron.

Those assisting in the course from the university were Professors G. C. Humphrey, C. J. Galpin, A. L. Stone, W. W. Weir, R. V. Gunn, Miss Elizabeth Kelley and T. L. Bewick.

Otto Wolf, La Crosse, R. 2, won the silver cup offered by The Wisconsin Farmer for the best fifty ears dent corn.

Methods of planting corn by which one or two rows of an early maturing variety alternate with one or two rows of a later maturing variety have given higher yields than either variety planted alone, according to the annual report of the Bureau of Plant Industry. Where there is likely to be a shortage of moisture during certain periods of the growing season, dependence should not be placed in a single variety; under such conditions two or three varieties which differ considerably in length of growing season should be grown.

Resolutions by Wisconsin Veterinarians.

Veterinarians forming the Wisconsin Veterinary Medical Association held their annual three-day session at Madison recently. The meeting was well attended, due in a large measure to the excellent program prepared. Over 130 members, representing almost every county in the state, came and took an active interest in the vital discussions carried on. Tuberculosis and sterility were the chief subjects under discussion. In a paper ably presented by Dr. W. L. Boyd, of the University of Minnesota, the pathology of sterility in contagious abortion was discussed. Other angles of the same disease were brought out in the addresses of F. J. Cole, of the department of experimental breeding at the University of Wisconsin, and by Dr. K. S. Hecrot, Plattville.

Tuberculosis and experiences with the tuberculin test were treated by Doctors Clark and Wright. In the discussion that followed the association adopted the following resolutions, in which are embodied the suggestions of the convention on the part the state shall play in the fight on this disease:

Whereas, It has been shown that tuberculosis exists among cattle to an alarming degree in some sections and that the herds that have been tested from year to year are suffering on account of trade as a result of any reactors being sold from untested herds, and, believing that for the protection of the public, pasteurized milk as an aid in at least partly protecting the public and cattle industry, and, also believing that the destruction of all the reactors at once is in some instances, economic waste and that the usefulness of these animals might be conserved until such time as the owner might find himself in a position to eliminate his tubercular herd and substitute a healthy one;

Therefore, Be it Resolved: 1st That laws be so amended as to permit the use of milk drawn from reacting cows provided that such cows are from time to time examined under the direction of the department of agriculture, and provided that no animal showing any physical symptoms shall be allowed to remain in any herd giving milk for human food. Provided further that the milk from all herds containing reactors shall be disposed of only to some pasteurization plant where a system of pasteurization approved by the dairy and food commission and department of agriculture, has been installed.

Second. That the department of agriculture may compel the pasteurization of all milk delivered at creameries and cheese factories in certain sections of the state whenever deemed necessary by such dpartment.

Third: That the by-products from all creameries and cheese factories must be sterilized before returning to any feeding station or farm

Fourth: That sufficient funds be provided for the department of agriculture to examine all herds in the state, using tuberculin in conjunction with such examination.

Whereas, It is our belief that the present system of compensation for diseased animals works an injustice to the breeder of better stock;

Be it Therefore Resolv'd, That a wider latitude of compensation should be provided, based on the actual market value of the animal, the legislature to determine what part of that value shall be paid by the state.

A clinic, conducted in the infirmary of Doctors West and Wolcott and in charge of Dr. T. H. Ferguson, of Lake Geneva, showed some interesting cases of poll evil, side bone, and other diseased conditions.

The association elected the following officers for the coming year: Herbert Lothe, president; J. D. Lee, Menomonie, vice president; and J. F. Roub, treasurer. Dr. W. A. Wolcott, of Madison, was reelected secretary. The meeting for 1918 is to be held in conjunction with the Minnesota Veterinary Association, in Lake City, Minn., in the third week in July.

Rock County Judging Contest.

To the Editor:—Three Dane county farms were scenes of more than usual interest on January 19th, being visited by a group of twelve boys with their instructors and three agricultural experts acting as judges. These boys were taking part in the Rock County District Stock Judging Contest and were representatives of the Milton, Milton Junction, Janesville and Edgerton high schools.

They had three classes of stock to judge, namely, draft horses, dairy cows and swine, four in each class, with two classes of dairy cows, one Jersey and one Holstein class.

The horses were judged according to their ability to draw heavy loads, the cows according to ability to produce milk and the swine according to ability to produce pork.

The draft horses, two Clydes and two Percherons, and the swine, four Poland Chinas, were found on the farm of Mr. Hepburn, and the Jerseys on the Lawton farm, managed by Loyd Simpson, while the Holsteins belonged to Mr. McGinnity.

The judges of the boys' work were Mr. Charles Emery, of the Emery Stock Farm, of Albion; Mr. Truman Crandall, of Milton, for a number of years in charge of the live stock work in the Illinois State University School of Agriculture, and Mr. Teige, of Stoughton, instructor of agriculture in the Stoughton high school.

The school whose team secured the highest number of points was Milton Junction. This entitles it to represent this Rock county district at the state contest to be held in Madison some time in February. Here it will come in competition with other teams from other districts in the state.

The individual scoring highest in this contest was Paul Wixom, of Milton Junction, but Edmund Overton, of Janesville, was a close second, the difference being only 2.8 points, Wixom having 310.8 and Overton 308.

This series of contests, of which the above is a part, was inaugurated by the agricultural section of the State Teachers' Association in November, 1914.

Last year the Milton high school won in the Rock county district and again in the state contest where eighteen districts were represented.

It is expected that this year, being the second one of these contests, more schools will be represented throughout the state.

The Wisconsin Bankers' Association is co-operating with the teachers in many instances by furnishing the necessary funds to pay the expenses of these contests. In the Rock county district the expense was borne by the Fourth District Bankers' Association.

Rock Co., Wis. Allen B. West.

JOHN DEERE IMPLEMENTS

BETTER FARM IMPLEMENTS AND HOW TO USE THEM

BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

Describes and illustrates Plows for Tractors; Walking and Riding Plows; Disc Plows; Cultivators; Spring Tooth and Spike Tooth Harrows; Disc Harrows; Alfalfa and Beet Tools; Farm and Mountain Wagons; Manure Spreaders; Inside Cup and Portable Grain Elevators; Corn Shellers; Hay Loaders; Stackers; Rakes; Mowers and Side Delivery Rakes; Hay Presses; Kaffir Headers; Grain Drills; Seeders; Grain and Corn Binders.

This book will be sent free to everyone stating what implements he is interested in and asking for Package No. X-64.

JOHN DEERE, MOLINE, ILL.

New Deere Light Draft Gang Plow

For twenty years the New Deere Gang has had the good opinion of enough farmers to make it the one best seller—

And, today, it is the same plow it was twenty years ago; with the usual minor refinements added.

Correct in design, always representing the highest development of the plow-maker's art, the New Deere Gang is a leader, and has been every single year for twenty years.

Go to your John Deere dealer's and look this plow over—you will readily see why it is such a popular plow.

The New Deere Gang is the most widely used plow of its type.

It is light draft, durable and is equipped with John Deere bottoms, known all over the world for superior work, easy scouring and light pulling qualities. It cuts and turns full width of furrow.

A simple, practical foot lift and auxiliary hand lift lever—easy to raise bottoms out of the ground.

John Deere Quick Detachable Shares—great labor and time savers. Share can be taken off easily, only one nut to remove.

John Deere Spreader

The Spreader with the Beater on the Axle

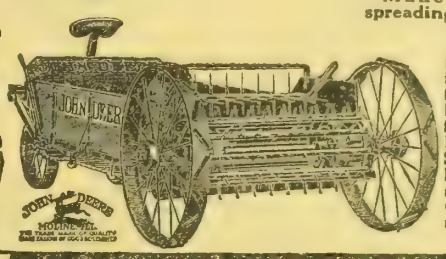
Mounting the beater on the axle simplified the construction, eliminated troublesome parts and made possible a successful low-down spreader with big drive wheels. There are no shafts to get out of line, no chains to cause trouble, and no clutches to adjust. The only spreader with beater and beater drive mounted on axle.

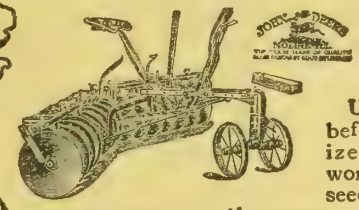
Low down, with big drive wheels out of the way. Easy to load.

Revolving rake, driven by manure moving toward the beater—no bunching of manure. Ball bearing eccentric apron-drive—a new and exclusive driving device.

Makes uniform spreading certain.

Wide spread attachment for spreading seven feet wide can be furnished for the John Deere Spreader. No chains nor gears. Quickly removed.





John Deere Model "B" Disc Harrow

Using a disc harrow before plowing pulverizes surface lumps, works trash into the seed bed and prevents the escape of moisture. Then when the furrow slice is turned, the trash decays rapidly and no large air spaces are left between bottom of furrow and the turned furrow slice. Water in the subsoil can make its way into the seed bed and plant roots can penetrate to deeper soils.

Discing after plowing removes the weeds, and makes the seed bed compact, but not hard. The discs break up lumps of soil.

The Model "B" pulverizes at even depth its entire width.

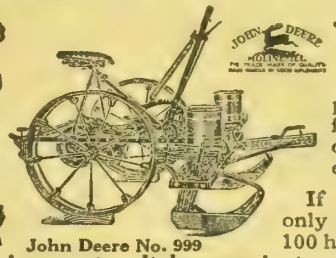
Patented spring pressure third lever—inner ends of gangs can be given light or heavy pressure to disc over ridges or cut out dead furrows without burying the harrow.

Independent gangs. All tendency of gangs to crowd to one side is easily overcome by giving them the proper relative angle.

Flexible—only that part of the Model "B" harrow passing over an obstruction is lifted out of the ground.

Rear section can be furnished to make a double action harrow.

John Deere Corn Planters



Accuracy in a corn planter means uniform drop—number of kernels the same in each and every hill.

If the planter misses only six kernels in every 100 hills, the loss in yield is nearly two bushels per acre.

Accuracy in planting has been the main object in designing John Deere planters. One of the many advantages of using a John Deere planter is that with proper handling it will plant practically 2, 3 or 4 kernels in every hill, as desired.

John Deere No. 999 is accurate. It has the John Deere *Natural Cell Fill, Edge Delivery Seed Plate.* Surface of hopper bottom and openings to seed cells are oblique, or sloping. Kernels move toward and enter the cells in their natural position. They do not have to be tipped on edge.

Merely move foot lever to change number of kernels per hill.

Drilling distances varied, and change hilling to drilling or back to hilling made easily.

JOHN DEERE, MOLINE, ILLINOIS

Law Questions.

Note Obtained By Fraud.

A Subscriber, Thiensville, Wis.—I signed a note for the Industrial Co-operative Union, and the agent said I could have said note cancelled if I wished to do so. He told me that a meeting of the Union would be held in our town every month. No meetings have been held, and said agent is now out of the agency. Where and how can I get said note cancelled?

Answer.—If the note was obtained by fraud you can bring a suit in court to have it cancelled; or, you can refuse to pay it when due, and defeat its collection by proof of such fraud.

Owner Liable For Taxes.

A Subscriber, Walsh, Wis.—A rented his farm in Wisconsin and the live stock thereon to B for cash rent. Nothing was said in the renting contract about taxes. Who is liable for the taxes on said live stock?

Answer.—The owner of property is always liable for the taxes on the same; therefore, in this case A is liable for the taxes on the stock he rented to B.

License to Sell Beef.

A Subscriber, Washburn, Wis.—I am a farmer and live about six miles from the city of Washburn, Wis. Have I a right to butcher cattle that I raise and sell the beef by the quarter or in smaller pieces in the city, without a license?

Answer.—The city may have an ordinance requiring you to obtain a license. You should inquire of the town authorities about it. The state laws do not require a license in such cases, but the city may.

Cleaner Dairies—Healthier Cows

Clean milk commands top prices. But, to produce "Class A" milk, you must have sani ary stables and milk houses.

Natco Hollow Tile walls are the last word in sanitation. Do not hold odors or moisture

Easy to clean and keep clean—no place f r germs to hide. Dead-air spaces keep the stables cool in summer and warm in winter. Natco Barns require practically no repairs—never need painting—are fireproof, age and weather-proof. Build once for all—

Build with Natco Hollow Tile

Unequaled for all farm buildings. We have practical plans of many types. Tell us what you plan to build; we will help you—free.

Natco Imperishable Silo is the perfect silage preserver. Proof against moisture, acids and decay. Strongly reinforced with steel bands laid in mortar. Any mason an erect a Natco. It will enhance the value of your farm.

Write us for our illustrated book, "Natco on the Farm," also ask for Silo Catalog—both free.

National Fire Proofing Company
1123 Fulton Building
Pittsburgh, Pa.
23 Factories
Prompt Shipments
Short Hauls

$7.50 Down *After* 30 Days Free Trial

Think of it!—Only $7.50 if satisfied after trial—then a few monthly payments—and—you keep the Genuine Belgian Melotte—the separator with the wonderful, self-balancing bowl. The Melotte turns so easily it will run 30 minutes after you stop cranking unless you apply brake. *Write for catalog—it explains everything.* Now—read our offer.

Not a Cent in Advance Just ask for a 30-day free trial. Then we ship the Melotte. No salesman calls to bother you. Use the machine in every way. After 30 days, send it back *at our expense* if you wish. Or keep the great Melotte on our rock-bottom offer—$7.50 down and balance in the same monthly payments. Write for free catalog and details.

Save $15.25 No Duty Now The high tariff, which has heretofore kept the great Melotte out of reach of the American farmer has been cut right off. The Imported Belgian Melotte now comes in free of all duty. Extra reduction now of $15.25. We offer you these separators at the rock-bottom, before the war price—the same price charged in Belgium plus only $1.75 water freight. Seize this opportunity. Send for catalog.

Valuable Book Free Write today for "Profitable Dairying" written by Professors Benkendorf and Hatch, the two great, practical dairy scientists. 88 pages; no advertising. Tells how to feed and care for cattle—how to increase dairy profits.

Write Today We'll also send the new Melotte catalog and details of our free trial, no money down, easy payment offer. Write while this offer lasts.

The Melotte Separator
H. B. BABSON, U. S. Manager.
Dept. 4592 19th & California Ave., Chicago

MINNEAPOLIS PANEL SILOS

The silo that adds attractiveness to your farm buildings.

Built of Steel and Wood

Won't collapse when empty, rests uniformly on foundation, no tightening of hoops. Mechanically and structurally correct.

Shiplap, Drop Sided, Paneled Walls means longer life because seams and joints are always dry.

Catalogue and information sent upon request.

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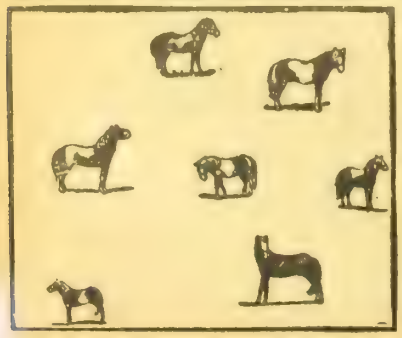
Win An Easter Surprise Package



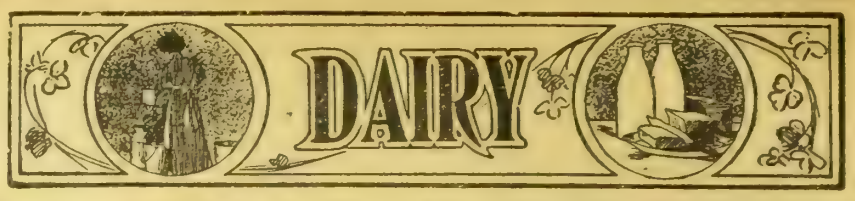
Solve This Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, an Easter surprise package, containing 36 beautiful Easter novelties, seals, cards and stamps. This is one of the most artistic Easter packets put out. All you have to do is enclose four cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland pony.

Fine Pony Given Away

Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Full particulars by return mail in same letter with Easter packet.

THE PONY MAN Dept. 768 Des Moines, Iowa



Business Side of Dairy Farming.

To the Editor:—There are a great number of dairies in Wisconsin which are, when considered on a business basis, putting their owners in debt every year. I cannot understand why dairymen will persist in working with unprofitable cows when it is entirely practical for them to have dairies that will make them $30 or $40 per cow annually after paying for all their feed at market price and $12 to $15 for the labor of caring for them.

I do not advise all dairymen to secure registered herds of any breed. This is all right when one can see his way clear to do so. What every dairyman can do to improve his herd is to test his individual cows and dispose of those that do not come up to a profitable standard. This standard will vary in different localities, depending upon the cost of the feed, labor and value of the products.

I shall not undertake to tell you what breed to select for dairy purposes, but I would advise selecting some one of the dairy breeds, study the subject thoroughly, and then select the breed that you think is best suited to your wants.

In case you have no cows and are intending to buy, get the privilege of testing them before buying. See them milked; weigh the milk. Take a sample and test it, or have it tested, and you can figure out what she is doing in the line of producing butter fat, to which you add 15 per cent to learn how much butter she will produce. This work will require a little time, but it will pay in the end. If you have a dairy farm, test every cow to know what she is doing. Do not go guessing along with this work.

Raise all the heifer calves from the cows that test well enough to be retained in the herd and have them bred to the right bull. These heifers will be more profitable for you their first season when only two years old than will the average cows that you will be able to buy.

Successful dairy farmers should know the good and bad qualities of their individual cows just as well as they know those of the men they employ. It is of just as much importance and is much easier to control, as they do as they please with their cows, but there are times when they cannot as they would like to do with some of the men in their employ. They do not keep a man permanently when they know where they can secure a better one, and yet they go sliding along with a large percentage of their herd unprofitable. Why do they do this? Why can't they appreciate their business and apply business sense to their work? Why not get up to the business standards of their merchants and manufacturers? They are studying all the time how to lessen the cost of doing business and they are succeeding. There is as much room to apply intelligent thought to dairying as to any business in this country.

But you must commence at home to study the cause of such a condition. Do not go to the farther end of the line and kick everyone but yourself because you are not making a profit in your business of dairying, but commence with yourself. The probabilities are that you are the weakest link in the chain. There are in some communities dairy herds that produce per cow from 300 to 400 pounds of butter annually. These herds should be object lessons, as what one dairyman has done another can do. You should not take figures of another when estimating the cost of feeding cows, but should learn from your own work what it costs. This is not a difficult matter; the most difficult part is to bring yourself to realize that it will pay you to do it.

Many dairy farmers have so much to look after that they do not, or think they do not, have time to look after the testing of their cows. In such cases get the boys, the girls or the wife to look after it and I will guarantee that after it is followed a year you will become interested in it, as you will see it pays better than any other work on the farm. The whole family will become interested in it, and it will help them to see the business side of farm work. This work will cause you to think better of your business and will cause the boys to think better of the farm, and some of them will begin to see that there are greater opportunities on the farm than in any other profession.

James R. Lowney.
Winnebago Co., Wis.

The Mystery of Feeding Dairy Cows.

To the Editor:—In a late issue was an article by E. L. Vincent under the above heading, and I was surprised to learn that the farmers in Mr. Vincent's locality were so backward at this late date in making use of the information given in our up-to-date farm papers and the work of our farm institutes as regards the feeding of dairy cows so that there was "not one farmer in a hundred that had an adequate knowledge of how a cow ought to be fed." There may be something in the mystery of it that they don't understand, and it would be well if Mr. Vincent would explain it for the benefit of those who do not know. I don't see how it would benefit the farmers any more to have a personal visitor come and tell them how they should feed their cows than it would to read it in the farm papers or hear it at an institute.

But I have a better opinion of the

2 Lbs. Air

One Pound of Feed and Water

The PROPERLY Balanced Ration

EACH animal in your barn requires the oxygen from two pounds of air to consume one pound of food and water.

Proper ventilation is the only answer to this. And *proper* ventilation is your big problem. Let us answer it for you with a

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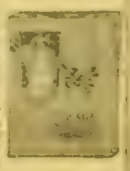
System of Ventilation

Planned for the Building It Goes Into



Don't think that a King System is high priced because it is planned part by part to fit your building. It actually costs less to let us do the planning and supply the material than for you to try to get results in any other way. We have eliminated guess work—we have no costly experiments to make. King results are *guaranteed*.

Get This Book and let us tell you how quickly a King System pays for itself and keeps on earning dividends on your investment year after year. The King Aerators on the roof are the first units of the King System. They can be used with or without the complete system. *Write* for our new book on barn ventilation.

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intelligence of the farmers in general than Mr. Vincent has in regard to their ability in feeding their cows. I think the majority of them are feeding to good advantage such as they have and perhaps many think, like myself, that there is more profit in feeding what they can produce on their own farms than investing in high-priced feeds. We all know that alfalfa or clover hay are better milk producers than marsh or timothy, but all cannot grow alfalfa successfully as the land may be too level, with a hard, tenacious subsoil. We had to feed timothy hay the fore part of the winter for the reason that we failed to seed two years ago (an uncommon thing for us to do) and the old clover killed out. But we have now got down to two-year-old alsike clover and are feeding that. Our day's ration for the cows is as follows. We give each cow about twelve pounds of ensilage three times a day, with four quarts of ground corn and oats on top of each feed. Between meals they get shredded corn fodder and at night all the hay they will eat up. This may not be considered by some a good ration, but it gives us good satisfaction.

In conclusion I would say that, according to the financial returns and the amount of milk received as reported from different creameries through the state, the farmers generally must know how to feed nearly right in order to get such good returns. Wm. McCarthy.

Dairying and Business Methods.

To the Editor:—Every phase of dairying is interwoven with business and principles of business. Successful dairying depends in its final analysis upon the use of the very best business judgment. The very foundation of the work demands business methods. Even in the selection of a breed of cows a man must decide which is to be chosen for the particular market to which he is to cater. In a western community where a city of 10,000 sprang up almost overnight men tried to supply milk to the city by using cows from the beef herds of the range country. The heavy, fleshy cows really produced some milk under liberal feeding. Yet it was not long until the very business aspect of the work forced the milkmen to dispose of the beef cows which they had used and to secure cows of the dairy breeds. They could no more produce milk successfully from beef cows than the engine on the transcontinental line through the city could have moved its long train over a dirt road instead of using heavy steel track. It was business with the railroad to have the best roadbed and track obtainable. It was business that compelled the milkmen to change dairy cows.

In the purchase and use of dairy equipment there is opportunity and demand for the use of a large amount of business sense. The milk room with its separator and washing sink and possibly a sterilizer and with power of some sort, there is a problem in arrangement equal possibly to the problem of planning the power house for the electric light plant in the small town. Dairy farms have taken the lead in the installation of electric lights for the barn and home. There is a double reason for this. The dairy farmer is progressive and early sees the advantage of modern improvements. The business efficiency of the farm calls for a satisfactory lighting system which active dairymen are determined to have.

Progress in improved breeding has advanced rapidly as a result of the careful businesslike methods followed. Each cow has been put on an individual record and it is known to the pound how much butter fat is produced annually. In this way the boarder has been eliminated and the profitable cows have been retained for milking and for replenishing the herd. There is no other line of farm work in which there is such scientific, businesslike methods of improvement. In Wisconsin the average production of cows in the oldest testing association has increased 100 pounds per year. In Denmark they tell us that the average production doubled in ten years. These are the results of efficient business methods. The Babcock tester is to the dairy what the high-salaried efficiency expert is to the large commercial institution.

In dealing with city patrons the dairyman who delivers his milk has a large problem. He must please his patrons and he must be careful of financial difficulties. So seldom dairymen have been found wanting in their ability to take care of undependable customers that it rarely happens that there are any difficulties. People have learned to respect the business ability of their dairyman and treat him accordingly.

Now with foresighted business ideals dairymen have organized a national association and are busily educating people to use more dairy products. It is said that they hope to double the consumption of milk and those products derived from it. The campaign is well and carefully planned and is already bearing fruit. Business methods are common assets of dairying and the business ability as shown by individual dairymen and by the dairy associations is to be heartily commended.

Dairymen are alive to opportunities to improve their knowledge of their business and their conditions. There is no other class of men who attend conventions and institutes in so large a proportion as do dairymen. There is no other class of men that asks and receives so much co-operation from the state agricultural college and the federal department of agriculture. In support of this latter statement we may relate the conditions that prevail in one state. It happens that there are five men employed by the state agricultural college or who represent the department at Washington and who work in co-operation with the college, yet the value of the dairy cows of the state is but little more than one-third the value of the horses and only one man is devoting his time to horse improvement. The dairymen have secured this greater service because they have shown a desire for it. Dairymen are usually found taking the lead in every community enterprise. Their business ability qualifies them for positions of trust and responsibility. At present there is a difference of opinion between dairymen and consumer relative to the actual market value of milk. It is a safe prediction to make that the business ability of dairymen will be able to make a settlement satisfactory to both sides.

H. E. McCartney.

Pasteurized Butter Wins.

Of the nineteen buttermakers whose samples in the January scoring exhibition at the dairy school scored 93 or over, at least twelve pasteurized their raw cream previous to churning.

This shows one distinct point of advantage gained by buttermakers who pasteurize cream, especially in localities where the raw material is received from farms only once or twice a week. Pasteurization is becoming more widely used in Wisconsin creameries for a number of reasons, the most important being the following:

The process makes for more uniform quality of butter, because of a better control of flavor.

Pasteurization helps in the keeping quality of butter. It makes the pure culture starters more effective than when raw, unpasteurized cream is used.

From a sanitary standpoint, alone, pasteurization is of incalculable value, as it safeguards the product.

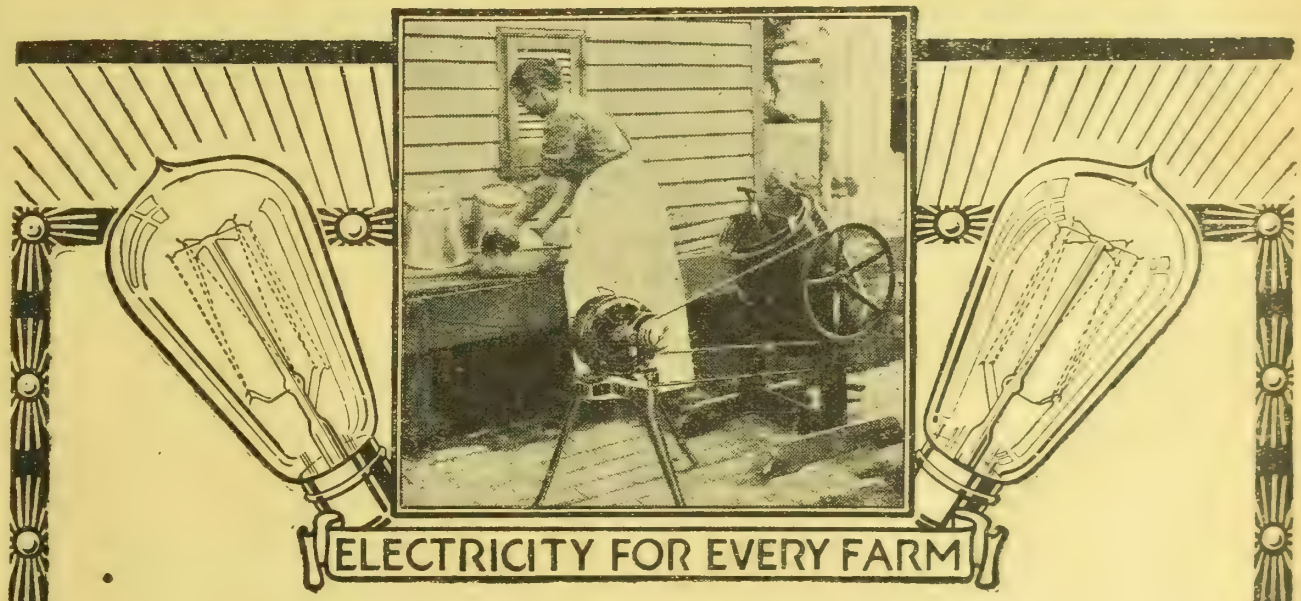
Buttermakers receiving scores of 93 or above on their samples were R. C. Cleaves, Iola; Ernest Soltwedel, Lime Ridge; F. J. Peschke, Fairwater; Henry A. Paul, South Superior; Homer F. Tait, Turtle Lake; Arthur Olson, Oshkosh; M. Hansen, Iron River; B. J. Peterson, Prentice; H. F. Zabel, Wausau; C. J. Bach, Luck; W. A. Moyes, Ironton; F. M. Werner, Waterloo; Newburg Corners Creamery Company, Bangor; Alfred Thorson, Falum; E. O. Feiler, Osseo; John Boehrig, Calvary; A. L. Larson, Nashotah; F. A. Danielson, Grantsburg; O. Christensen, Nelsonville.

Buttermakers from the creameries of Wisconsin helped judge the January exhibits, a practice which will hereafter be the custom. Managers of Wisconsin factories are invited to co-operate with the officials of the dairy school by sending their operators to co-operate in the scoring, thus adding greatly to the event's practical value.

The buttermakers who took part in the scoring this month were C. J. Dodge, Eclipse Creamery, Windsor; Fred Werner, Waterloo; A. C. Marks, Marcus Creamery Company, Muscoda. T. A. Sommerville, representing Hunter, Walton & Company, Chicago, also assitsed in the commercial scoring. A total of eighty-four tubs and packages were scored.

It is practically useless to sow alfalfa on thin soils where the bedrock approaches the surface; on land which is underlain at comparatively shallow depths by hardpan; or in locations where the subsoil is so compact that the roots cannot penetrate it.

DELCO-LIGHT



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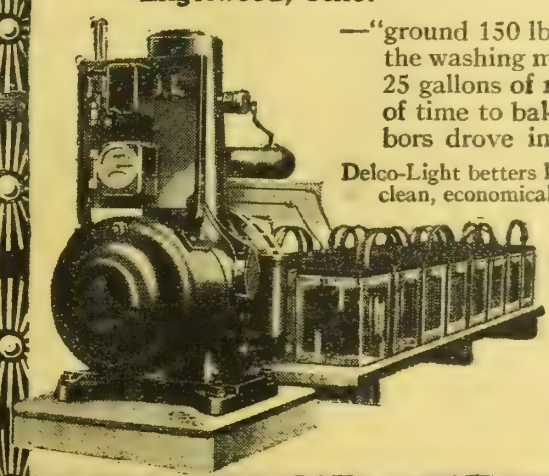
Here is a sample day's work for Delco-Light, on the farm of A. L. Denlinger, near Engelwood, Ohio.



—"ground 150 lbs. of sausage meat—churned 90 lbs. of cream—turned the washing machine and wringer for large family wash—separated 25 gallons of milk. And after all of this work, my wife had plenty of time to bake bread. During the evening, some of the neighbors drove in and we had a pleasant time under Delco-Light."

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NATURE is generally ruthless in her dealings with man and his affairs, and her mandates are often obeyed with passive submission. Her forces are a constant challenge and the individual who wins out in the end must brook opposition to many of her laws. If she does not temper the north wind to the shorn lamb man sometimes steps in and accomplishes this for himself. No more shining example could be given of success in this being attained than is furnished by thousands of instances in the corn belt where the comfort in living conditions on the farm has been enhanced immeasurably by the placing of what might be called "farm windbreaks." Fortunately, the means are easily at hand to accomplish this end because of the supply of hardy, long-lived evergreens. Certainly the cutting edge may be taken off the winter winds in every case where a farm owner is willing to make a small investment of time and capital in the placing of a windbreak. Such a windbreak is needed first and foremost because it adds greatly to the comfort of living for the farm family. This is the first consideration. True it is that in most cases when windbreaks are mentioned reference is made to the effectiveness of the protection which they afford live stock. This is important, but we claim that it is secondary, even though hundreds of dollars are saved annually in feed bills.

It has been demonstrated over and over again that throughout most of the corn belt cattle will make just as large gains in open sheds as can possibly be made in stables, and for the housing of pure-bred animals open sheds are coming into popular favor. Plenty of fresh air contributes to the healthfulness of the herd and this is a factor that is closely associated with human health. Wherever we find a matured windbreak we discover that this matter is carried one step further and that farm animals are being kept in the open most of the winter, which contributes still further to the complete stamping out of diseases that are characteristic of every class of animals. Malignant germs constantly inhabit dark corners, but none can exist in the presence of sunlight. That is why this paper advocates in the strongest possible terms that it can command the placing of more windbreaks so the farm animals can be kept in the open and maintained and carried through the winter at the smallest possible outlay for feed.

In these days no man can afford to use high-priced grain and in turn allow his animals to shift for themselves in the open fields or in exposed yards during periods of severe weather. A week of unfavorable weather may undo all that has been accomplished in a month of liberal feeding, and men who have had extensive experience in handling live stock know right well that enough damage is sometimes done to an exposed herd in a single twenty-four-hour period to offset several weeks of feeding. Heavy losses always occur when winds suddenly change and temperatures drop quickly during the winter where there is bleak exposure to the cruel winter winds. With a windbreak rightly placed the storms can never, as the thief in the night, creep upon the herd unawares, because the right kind of a windbreak will master and temper any kind of a storm.

We have sometimes been asked to place an estimate upon the value of a

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good farm windbreak, but we have hesitated even to guess at what it might be. It is safe to say, however, that in the feeding out of a single carload of steers and a carload of hogs enough saving would be effected in the amount of grain used to pay the original cost of putting out a windbreak. True it is that some winters are more severe than others, but taking the average as they come it could be demonstrated without any "ifs" or "ands" that a good white pine or Norway spruce windbreak would effect this saving.

There is still another consideration that should receive the attention of every farm owner, namely, the effect of a windbreak upon the value of the land itself. We have stated that a windbreak adds greatly to the comfort of living and we have called attention to the saving that it effects in feed bills for live stock. If, in addition, it could be proven that it adds to the value of the land itself, then there should be no further grounds for argument in opposition to it. As a matter of fact, this paper could give scores of instances where individual farms have sold at much higher prices because of the presence of windbreaks than could possibly have been obtained if the buildings on this same farm were fully exposed. To say that it amounts to $1,000 on a quarter section is putting it low and men who have had experience in live stock farming where this kind of protection has been afforded would have no difficulty in proving that even $2,000 would not be an unreasonable addition to the value of a protected farm. Look around and find the farms where foresight was exercised in days gone by and a windbreak planted and you find in almost every instance such farms to be literally beyond price. Those who are farseeing enough to plant a windbreak are not merely doing something that will affect themselves favorably but they are contributing their mite to making farm conditions of their neighborhood more agreeable. Were it not for the groves, the orchards and the protecting windbreaks that we now have we would encounter the terrific gales that spread over the prairie in our boyhood days, and let it be remembered that every tree planted contributes something to warding off the storms that are so much dreaded because of the discomfort they bring and the stock losses that they usually entail.

New Potato Disease.

A potato disease appearing on certain soils and apparently associated with the lack of potash in the commercial fertilizers used was prevalent last summer in various sections of the East. According to specialists of the bureau of plant industry, United States Department of Agriculture, the trouble was largely controlled by the use of stable manure. The disease may be expected to appear again with increased severity during the coming season in many potato-growing sections, from Maine to Virginia, and probably also farther south. It was first noted in scattered fields in 1915. In 1916 it became serious and general over considerable areas. Last year the disease was first observed late in June in Maryland and Virginia, and during the latter part of July in Maine. The affected plants first develop a downward rolling of the leaf margins, accompanied by a peculiar bronzing of the surface, sometimes mistaken for spray injury. Since it occurs on unsprayed as well as on sprayed plants, it cannot be due to the corrosive action of sprays. The foliage gradually turns brown—not yellow—and the plants ripen prematurely. Death of the leaves and sudden collapse of the stems at the ground level follow. The yield, of course, is much reduced.

The disease is found more commonly on fields of early maturing varieties, but is not restricted to them. It also appears first on early planted fields.

What is more striking is the very apparent association of the trouble with certain soil types, at least in Maine, where this relation, as well as other features of the trouble, are being investigated by the department experts in co-operation with the Maine Agricultural Experiment Station.

Soils which originally supported the growth of soft woods, or "mixed-growth lands," developed the diseased condition in its most severe type, while the hardwood ridges showed it least or not at all. The trouble appeared first in the swales or lowlands, where the natural drainage was not so good as on the higher ridge land. When the disease appeared at all on the higher ground, it was of a less severe type.

Annual Meeting Cranberry Growers.

To the Editor:—The thirtieth annual meeting of the Wisconsin State Cranberry Growers' Association was held at Foresters' Hall, Grand Rapids, January 16th. The hall was loaned by the Wood County National Bank. President Searls called the meeting to order and there was a good attendance. He briefly reviewed the methods of culture and gave some very good advice based on forty years' experience. Dr. E. O. Ball, state entomology, was present and took an active part in helping to solve the problems of the future of the experiment station, which will no doubt be left at its present location and continued along its present lines. Mr. O. G. Malde's report on the year's work at the station and general state condition the past season was very complete and valuable, containing many points of great interest. Mrs. S. N. Whittlesey spoke on the lack of a suitable display of cranberries at the Horticultural meeting and caused so much interest among the growers that a splendid exhibit is assured for next year. Mr. C. M. Seeker told the growers that his short experience in helping in the selling end of the business at the Chicago office of the exchange had impressed him with the fact that there should be no effort to cut expenses in sorting and grading the fruit, that he wished every grower could have had his experience, as they would then see the necessity for the utmost care in packing.

Reports from the pumping committees were very encouraging. The sand-pumping experiment at Valley Junction demonstrated that sand could not be spread on vines by this means.

The experiment at Mather for determining whether water could be pumped from the sand below showed that this was entirely practical with a battery of points surrounded with gravel. Dr. Ball was made an honorary member of the association.

After the meeting the officers and directors of the Wood County National Bank, of Grand Rapids, tendered the members a splendid banquet at the Witter Hotel and a theater party afterwards.

The total crop for 1916 in Wisconsin was 37,000 barrels and a full crop is now estimated to be from 60,000 to 75,000 barrels.

J. W. Fitch, Secretary.

Don't Set Trees Too Deep.

The beginner in tree planting usually sets his trees too deep rather than too shallow in the relatively heavy soils of Missouri, J. C. Whitten, of the department of horticulture of the University of Missouri, says:

"Young trees should be selected for planting and they should be set at the same depth at which they stood in the nursery," Mr. Whitten said. "Trees turn to the northeast and grow crooked because of the warm south and southwest winds during the growing season. The tree should be set with the heavier side to the southwest to avoid this.

"The roots should be trimmed, so as not to be cramped, and any ragged wounds taken off. Peach trees should be pruned most severely after planting of any of the orchard fruits. Trim all branches off, leaving a single whip, then shorten the whip to a height of about two and one-half feet. Cherry trees should be less severely trimmed. If well branched the center of the tree should be cut out. The Japanese plum tree should be shaped like the peach. Other plum, apple and pear trees, having only a single whip, should be treated likewise. Older trees may be treated like the cherry with the exception that all branches may be shortened to one-half or one-third of their natural length."

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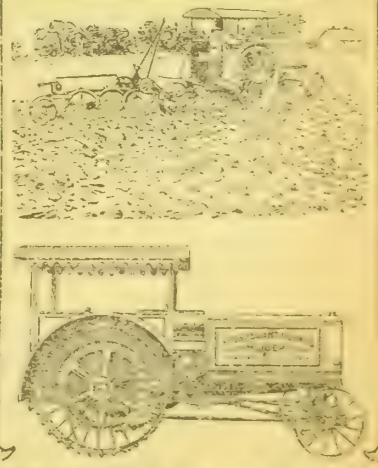

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THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

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PURE-BRED Barred Rock cockerels. Write for prices. Rockwood Farms, Box 4700, Brookfield, Wisconsin.

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REGAL White Wyandotte cockerels for sale, $2, $3, $5 each. L. and R. Porter, Garden Prairie, Illinois.

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HONEY, Delicious Pure Honey, 30-lb. can, $3.50; 60-lb. can, $6.60; 120 lbs., $12.60. Satisfaction guaranteed. E. B. Rosa, Monroe, Wis.

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ROSE and Single Comb Dark Reds. Eggs $2.00, $3.00 and $5.00 per 15. Cockerels $2.50, $3.00 and $4.00. Fred Oertel, R. 3, Brighton, Ill.

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WANTED—Good, reliable farm hand by the month or year. Good wages. Address, Joseph Scharpf, Rubicon, Wis.

PERCHERON.

FOR SALE—One pure-bred Percheron stallion, wt. 2,100 lbs., will sell cheap if taken soon. W. G. Harry, Kansasville, Wis.

TELEGRAPHY.

LEARN TELEGRAPHY. Short hours. Positions guaranteed. Write Signal Dept., Northwestern Telegraph School, Eau Claire, Wis.

DUCKS.

MAMMOTH Pekin ducks, prize-winning strain. Choice birds at $2 to $3 each. Mrs. Jas. Horrigan, Fairfax, Iowa.

JERSEY BULL.

JERSEY bulls ready for service. Fresh cows and heifers. L. R. Kuney, Adrian, Mich.

AVERY TRACTOR.

FIVE-PLOW Avery tractor for sale. C. D. Taylor, Winchester, Illinois.

FARM LANDS.

NORTH DAKOTA in all essentials; Soil, climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short—yet government reports show $167,544,000 or $2,253 per average farmer. In last seven years average farmer in North Dakota produced $1,975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

$1,200 WILL handle this dandy 80. In Polk county, Wis., on Soo Line, 60 miles Twin Cities. Loamy clay soil, gently sloping surface to spring creek. Nearly 35 acres in field, 20 more cleared and balance fine hardwood timber. New, hip-roofed frame barn 30x50, 30x30 basement. Attractive frame house 16x24-14x16 and other good buildings. Drilled well, pump, steel windmill. On main road, rural route, only 2 miles creamery and store, 7 miles railroad town over first class roads through well settled country. A remarkable bargain, only $5,200. Get full particulars from Baker D-110, owner, St. Croix Falls, Wis.

HURRAH! 1917! The banner year, the year when everybody is coming to Minnesota, when Dairy Farmers are going to pick up the choicest of our Aitkin county lands. Don't let others get ahead of you You want the choicest pieces. Come or write for full particulars with illustrated folders. Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg. Duluth, Minn.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

FARMS bought, sold and exchanged. No matter where located I bring buyers and sellers together. If you want to Buy, Sell or Trade any kind of business or property anywhere at any price, write me. Established 1881. Bank references. Address Frank P. Cleveland, Real Estate Expert, 1605 Adams Express Bldg., Chicago.

FOR SALE—205-acre, all improved, level farm in west central Wisconsin. Ideal dairy farm. Two miles from good market and high school. Reason for selling—to close an estate. For further information Phone 2301 (Madison), or write T. N. Halvorsen, Dallas, Wis.

WISCONSIN Civil Service—dairyman to take charge of 100 cows at Boys' Industrial School, Waukesha. Entrance salary $45 and maintenance. No written examination. Address Wisconsin Civil Service, Madison, for application blank.

FOR sale—Yakima Valley property, Grandview Heights, ½ mile depot. Conveniences for poultry; small fruits; orchard. 100 trees bearing. Irrigated. 4-room bungalow, electric lighted. $2,500. C. M. Tupper, Sunnyside, Wash.

120 ACRE farm very reasonable. 40 acres under cultivation; fertile soil; small lake; buildings; 6 miles from town, 1 from school; $3,500; $900 down. The Ev. Luth. Colonization Co., 1030-M, Dept. 10, Merrill, Wis.

BLUE Grass Dairy Farms, Northwest Missouri, 160 acres, improved, $55 per acre. 120 acres, improved, $75 per acre. Many others. Write us what you want. Gill & Ryan, Chillicothe, Mo.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur's, Mountain View, Mo.

A GOOD eighty-acre farm, with or without stock, for sale cheap, if taken soon. A. M, care this paper.

CALIFORNIA farms for sale. Write for list. E. R. Waite, Shawnee, Oklahoma.

CLOVER SEED FOR SALE.

CLOVER seed. Medium red clover seed, guaranteed free from foul or noxious weeds, @ $9.95 per bu.; new sacks 25c extra. Good, clean timothy seed @ $3.50 per bu. Order now before seed goes higher, from Reuter Bros., Carlos, Minn.

Farm For Sale or Rent

A GOOD home on 80-acre farm. Good buildings, good soil, near school and creamery, six miles west of the county seat of Taylor county, Wisconsin. Nearly half cleared, balance easy to clear. Price $6,000.00; $1,500.00 cash, balance on time. Will rent for three or five years.
L. A. KIMBALL LAKE GENEVA, WIS.

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A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Jaquin Valley illus. folders, free. C. L. Seagraves, o Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

FOR SALE A 135-acre farm near Jefferson Jefferson county, Wis. The farm is ½ mile from condensery, two creameries and railroad station; an elegant place for the cattle business, pure-breds or grades; the dairy center of the world. Priced to sell. E. H. Kiesling, Jefferson, Wisconsin.

FOR SALE OR RENT Thirty-room brick hotel and bank building. Only hotel in town of 1,500 population; city water, electric lights, etc.; doing good business; owner wishes to retire; might consider some farm land. Geo. Slade, owner, Adrian, Minn.

YOUR CHANCE IS IN CANADA — Rich lands and business opportunities offer you independence; Farm lands, $11 to $30 acre; irrigated lands, $35 to $50; Twenty years to pay; $2,000 loan on improvements, or ready made farms. Loan of live stock; Taxes average under twenty cents an acre; no taxes on improvements, personal property or live stock; Good markets, churches, schools, roads, telephones; Excellent climate—crops and live stock prove it. Special homeseekers' fare certificates. Write for free booklets. Allan Cameron, General Superintendent Land Branch, Canadian Pacific Ry., 82 Ninth-av., Calgary, Alberta.

YOUR BOYS will soon want a home of their own. Don't send them to the city nor see them start out a farm renter. Send them to Minnesota where with a small capital they can get a start. Maps and literature sent free. Fred D. Sherman, Commissioner of Immigration, Room 200, State Capitol, St. Paul, Minnesota.

WANTED

MARRIED man for general farm work. Will furnish house, milk cow, etc., and pay $45 per month. No boozer or cigarette smoker wanted. H. E. Gullarson, Bode, Iowa.

KULP'S 242-EGG STRAIN ROSE COMB Brown Leghorn chix, 100 $12; 100 eggs $4, 15 $1. Mrs. N. M. Smith, Packwood, Iowa.

TO RENT GOOD 200-A. farm in Southeastern Minn. Easy terms, cash or shares. D. B. Davis, Dodge Center, Minn.

Motion Pictures For the Country Folks.

The bureau of visual instruction, care of the University of Wisconsin, Madison, Wisconsin, is extending the motion picture service to include smaller towns, and in this way the rural districts will get some benefits. Prof. C. D. Lamberton, of Berlin, Wis., had written stating that the country people take greater interest in the films which are sent on the university circuit that the town people. This suggests that eventually this service might be extended to include the country schools, at least those where there is room for the exhibition of such pictures. The films which the university department is sending out include many interesting travel views, historical sketches and glimpses of life in the various industries. No attempt is made to show comedy. There are some films illustrating fiction which is regarded by the educators as classic. Perhaps the most interesting and instructive views are those of travels in our own country and foreign lands.

In Kewaunee County.

Edward Hoefs, official tester of the Kewaunee County Association, reports twelve cows as having produced forty pounds of butter fat or more in January. A grade Holstein, owned by Matt Cherveny, produced 71.2 pounds of fat in thirty days and headed the association list. Ben Weisse had three grade Holsteins which produced better than forty-five pounds in thirty days.

Experience With Belgian Hares.

To the Editor:—I noticed where some subscriber wants to know something about Belgian hares. I have raised Belgian hares for two years and I know something about them.

The male will kill the young ones if they are allowed to run together when they are too young. Of course, when they are about two or three months old they can be left with the male. When my female had young ones she shut the hole partly with ground, leaving only enough space to admit some air, and the male never found out where her young ones were. I have seen cases where the male did not kill the young even when he had a chance, but this happens very seldom. It is much better to let them run loose, as they can eat fresh grass or anything they want and they can also have more exercise, which is something they like. In the winter it is a good thing to have them penned up in a warm place.

If rabbits drink too much water it sometimes causes a kind of sickness, which we boys call "water bellies" and it kills them. They may be fed cabbage, carrots, clover, oats and bread. In winter they like to gnaw on tree branches, nibbling the bark off. Peter Hartmann.

Hold Onto the Lines.

To the Editor:—I always consider the right way to unhitch a team is to hold the lines until the tugs are all unhitched. Keeping the lines in the hand, press the singletree forward, and when the tugs are unhitched, walk around the horse next to you. When I get within reach of the bridle rein I catch it until I get in front of the team; then drop the neckyoke. I believe anyone will find this a safe way, as a great many wagon tongues have a piece of iron on them to keep the neckyoke from slipping off.

In putting up the lines last one can turn the horses' faces to them if they start, whereas if the tongue was up it would serve as a brace and keep one at the horses' heels. You can hold a horse by his head easier than by his tail.

I do not consider myself a first-class horseman. As the only kind of horses I have handled were broncos, or of that blood, I have found that kindness and a steady nerve get better results than anything else. H. B. H.

Want to buy or sell a farm? Make it known by inserting an advertisement in THE FARMERS' MARKET. Six cents a word each insertion.

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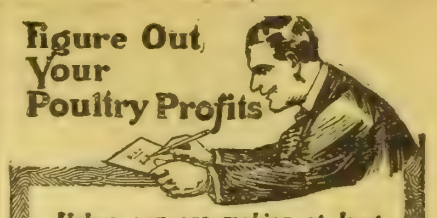

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Model Guaranteed Incubators hold record of 100% hatches three consecutive times. Guaranteed to hatch all fertile eggs. Self-Regulated. Perfect ventilation always. PRICE.... **$10 to $48**

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Dept. 301 Great Northern Railway, St. Paul

10 APPLE TREES 10 3 TO 4 feet $1. Two each Tetofsky, North Star, Talman, Delicious and Snow. By Parcel Post, $1.25. BEAUTIFUL catalog FREE. **Wisconsin Nurseries, Box 50, Union Grove, Wis.**

FOR SALE Clark county land on easy payments. 80 acres 2½ miles northeast of Thorp, Wis., worth $40 an acre, will sell for $16.50, good dairy land. Edmund S. Graf, 1683 Milwaukee, Ave., Chicago, Illinois.

BREEDERS Cheap, all varieties chickens, ducks, geese, turkeys, bantams and guineas. Also incubator eggs. Bare Poultry Co., Box 650, Hampton, Iowa.

WANTED to hear from owner of good farm for sale. Send description and price. Northwestern Business Agency, Minneapolis, Minn.

WRITE J. D. S. Hanson, Hart, Mich., for list farms in Co., where biggest crops grow. Fruit, grain, alfalfa, dairying.

STOP! LISTEN! 40-acre improved valley farm, $950; free list. McGrath, Mountain View, Mo.

When writing to advertisers kindly mention The Wisconsin Farmer.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Producing Eggs in the Winter.

Poultry owners who wish to obtain a satisfactory production of eggs during the fall and early winter should arrange to hatch pullets in March or April. Birds hatched at this time will be well matured in the fall. Furthermore, a greater proportion of them will go broody early in the spring, thus completing the circle necessary for production in the fall.

Pullets hatched in the spring can be induced to lay more abundantly in the winter if they are properly fed, housed and handled. On the average general farm very few eggs are secured at the time when eggs bring the highest prices. It will pay the poultry owner, therefore, to devote a little trouble to providing his birds with the most favorable surroundings for the winter.

The house should be thoroughly cleaned, disinfected and made tight before the cold weather sets in. If the house has a dirt floor it is well to remove three or four inches of dirt from the top and to replace this material with dry gravel or sand. On cement or wooden floors four or five inches of fresh straw or litter may be thrown down after the floor has been cleaned

Ventilation is another important factor to consider. The house should be tight on three sides, but the fourth muslin curtains may be used for from one-third to one-half its extent. In any case, there should be some ventilation in the house, even on the coldest nights. Fowls will stand considerable cold air, provided it is dry, and ventilation will keep the air thoroughly dry in the house. On the other hand, drafts are likely to cause roup and other trouble.

Many farmers, in feeding their birds, overlook the fact that beef scrap or some similar feed is very essential during the winter months if a good supply of eggs is to be obtained. A convenient method of feeding beef scrap is in a mash made of three parts corn meal and one part each of wheat bran, wheat middlings and beef scrap. Skimmed milk or buttermilk may be used in place of the beef scrap, but if the supply is limited some scrap also should be fed.

In experiments conducted by the department it was found that for the first four months pullets fed a ration containing beef scrap produced, on an average, 41.5 eggs, while those fed the same ration without the scrap produced only 18.7. The cost of feeding the latter birds was 2.2 cents higher for every dozen eggs produced than in the case of the pullets fed beef scrap.

The birds should have plenty to eat, but they also should always be eager for each meal. If one-third of the scratch grain furnished them is fed in the morning and two-thirds at night, the birds will take more exercise than if they receive all the grain they desire in the morning. Good scratch mixtures may be made of equal parts by weight of cracked corn, wheat and oats, or of two parts of cracked corn and one part each of wheat and oats.

Breed From Healthy Stock

Birds without health and vitality are worthless as breeders, and if such birds are used for breeding, you will be overtaken by failure and disappointment in a very short time. Breed for health if you wish to have and produce healthy chicks. Feed, house and manage for health if you would keep your stock healthy. The breeding stock is the foundation of your poultry business, the life of your undertaking and the source of the eggs from which you intend to produce chickens, you must have abundant constitutional vigor in the breeding stock to get vitality in the chicks.

Eggs from healthy, sound, well-fed parent stock will hatch strong, sturdy chicks, full of vitality. Chicks from such stock are not subject to chicken ailments and do not become victims of "white diarrhea." Eggs from breeding stock that is out of condition, either from abuse of inbreeding, unsanitary surroundings, improper food, sickness or other causes, will never produce chicks that are worth the trouble it takes to hatch and rear them. When chicks die in the shell, are slow to hatch, or die off in large numbers within ten days after hatching, don't lay the trouble all to faulty incubation; investigate the breeding stock. With good eggs, incubation may be, and often is, at fault; but in many cases the eggs are not good and the breeding stock is all wrong. Errors of incubation may have been the cause, but it is quite possible that the exceptional hatch was simply an indication that nature was trying to provide against extinction, because of lack of constitutional vigor in the breeding stock. Abuse sometimes results in remarkable "provisional fecundity," though the efforts of nature may be futile.

In order to maintain healthy birds free from disease it is essential to keep a careful watch over the flock, and to determine in the beginning any abnormal condition which may appear. A loss of appetite, digestive disorders, as measured by diarrhea, eye or throat trouble, or any suspicious condition should be immediately noted, the trouble determined and immediate measures taken to check its spread. In a normal healthy flock the removal of the cause will usually be sufficient. If, however, the trouble seems infectious and the weather of such a nature that it exaggerates the trouble, as is often the case with roup and eye colds, a method of flock treatment should be practiced to cure it.

If a diagnosis determines the presence of a serious contagious condition, all the infected birds should be immediately removed and the quarters thoroughly disinfected. In such cases it is usually best to kill and burn all affected birds.

Clean birds are those which are free from body parasites. Lice and mites sap the vitality of the bird, lowering its normal resistance to disease and making it more susceptible to infection. Loss of appetite, loss of weight and a material reduction of production is bound to be the result of failure to keep the birds free from these minute organisms. In the case of both lice and mites prevention is much easier than eradication. The body lice are characteristic minute yellow animals which are found under the wings and about the vent in all fowls and are persistent little fellows.

With red mites another different method of prevention and attack must be followed. The mites are blood-sucking insects which reside in the cracks and crevices about the perches and dropping boards in the daytime and at night they flock onto the bodies of the birds while they are on the perches. In the morning, after they have filled up on blood, they return to their hiding places. The most satisfactory method is to spray the perches and roosting quarters with a solution composed of three parts of kerosene to one part of cresol.

$8.55 Buys 140-Egg Size World's Champion Belle City Incubator

The Prize Winning World's Champion Model

Hot-water—Double-walled—Copper Tank—a Thermometer Holder—Deep Nursery—Self-regulating, same as used by Uncle Sam and America's most successful Poultry Raisers.—When ordered with my $4.85 Double-walled, Hot-water 140-chick Brooder—Both cost only $12.50.

90 Days' Trial

I Ship Quick from Kansas City, Minneapolis, Buffalo or Racine

Freight Prepaid East of Rockies Allowed that far to points beyond

Satisfaction Guaranteed — Handiest machines, sure to please—and you can share in my $1000 Cash Prizes

Conditions easy to get biggest prize. Start early—order now—anyway write today for my Big Free Book, "Hatching Facts". It gives short cuts to poultry success. Jim Rohan, Pres.

Belle City Incubator Co., Box 106 Racine, Wis.

Both Machines $10 Freight Paid Only

WINNERS IN BIG HATCHING CONTESTS EVERY YEAR

Think of it! These two UNBEATABLE Wisconsin Machines—both for only $10—freight paid east of Rockies. Guaranteed 10 years and sold on 30 days trial—

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180-Egg Incubator and Brooder both $12.75

WISCONSIN INCUBATOR COMPANY Box 100, Racine, Wis.

Mail Postal— Learn how easily you can get big money-making hatches even in coldest weather with the

Get More Chicken Money

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150 EGG ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery—hot water top heat, copper tanks and boilers, self regulator, Tycos Thermometer, glass in door, set up complete ready for use and many other special advantages fully explained in Free Catalog. Write TODAY or order direct from this advertisement.

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Has double walls, roomy chick tray. Tall strong legs make it convenient.

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WANTED--500 COCKERELS, HENS AND Pullets, in Plymouth Rocks, Rhode Island Reds, Wyandottes, Orpingtons, Leghorns, Brahmas and other varieties. Also want Ducks, Geese, Turkeys and Pigeons. Fully describe what you have, quoting lowest prices. Z. G. McKay, Lyons, Iowa.

WINNEBAGO REDS SINGLE Comb R. I. Reds only. Excellent quality, standard weight cockerels and pullets. High class exhibition and common laying stock. Satisfaction guaranteed or no sale. Winnebago Poultry Yards, R. 23, Omro, Wis.

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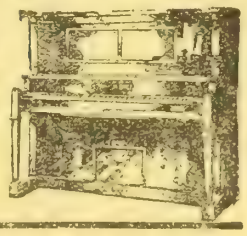

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Crochet Stitches.

One of our readers, M. L. C., asks us for an explanation of the common crochet stitches. Perhaps others, especially beginners in crocheting, will be interested also and we are giving them herewith. It might be a good plan to clip them out and preserve them so that they will always be on hand:

Chain (ch). Make a slip knot on needle, draw thread through this loop. Again draw thread through this second loop and continue till ch is of length required.

Slip Stitch (sl st). Put hook through work at st indicated in directions; draw thread through work and loop on needle at same time.

Double (d). Put hook through work, thread over hook and draw through, making two loops on needle; thread over again and draw through both loops.

Half treble (h t). Thread over needle, hook through work, thread over and draw through, giving three sts on needle, thread over and draw through the three sts at once.

Treble (t). Thread over the needle, hook through work, thread ov r and draw through, giving three sts on needle; thread over, draw through two, over again and draw through remaining two.

Double Treble (d t). Thread over twice, hook through work, thread o er and draw through, giving four sts on needle, * thread over and draw through two; repeat from * twice.

Long Treble (l t). Thread over three times, hook through work, thread over and draw through, giving five sts on needle, thread over and work all off by twos.

Picot (p). A p is formed on a ch by joining the last four sts (or any given number) in a ring by working a d in the fourth st, counting from hook. In making p on d around the edge of motifs, the d is worked in the top of the last d.

Things to Remember.

To make buttonholes in lace place a tiny square of lawn under the lace where you wish the buttonhole and work through it. After completing the buttonhole cut away the lawn.

To avoid tatters when hanging sheets to dry fold the ends together and pin on line instead of hanging from the middle. You will thus avoid frayed corners.

Crochet thread of any of the different shades—blue, pink, yellow, lavender—may be prevented from fading by soaking in strong salt water before being washed.

Time will be saved by mixing up a quantity of sugar and cinnamon and putting it in a spice can on the shelf. It will be handy for sprinkling over cinnamon rolls, coffee cakes, baked apples, bread puddings, etc.

Even extremely severe burns will be instantly relieved by an application of olive or sweet oil mixed with limewater. To prepare, pour a few drops of olive or sweet oil into a saucer and slowly add limewater, beating constantly. Thicken to a paste and add more of each ingredient until the desired amount is obtained.

White sauce thickening may be made in quantity and kept in a covered jar in a cool place and used as needed for soups, sauces and gravies. Work butter and flour together to a dry paste and use in the following proportions for thickening: For thin sauce use one tablespoonful of paste to one cup of liquid; medium sauce, two tablespoonfuls to one cup of liquid; thick sauce, three tablespoonfuls to one cup of liquid.

Recipes.

Chicken Pie.—Boil two fowls until very tender in just enough water to cover well; salt and let cool in the broth. In the morning pull off the meat in neat pieces adding smaller joints whole if desired; lay in a buttered dish and add a few small potato balls and onions of the same size—both cooked. Make a rich gravy of part of the broth, pour over the chicken and vegetables, and cover with a good pastry-crust decorated with a fluted or fancy rim, pastry rose, and strips. The sides of the dish may be lined with pastry if desired. Cut fancy gashes to let out steam. Cook just long enough to brown crust richly.

Potato Souffle.—Two cupfuls mashed potato, one cupful cream, one teaspoonful salt, two eggs, one-eighth teaspoonful paprika. Add cream and seasonings to potato, add beaten egg yolk and lastly fold in the beaten whites and bake until firm.

Escalloped Macaroni and Corn.—One-fourth package macaroni, one pint corn pulp, salt, pepper, one and one-fourth cupfuls milk, two ablespoonfuls butter. Break the macaroni into one-inch lengths and boil in salted water; drain. Season the corn pulp with salt and pepper, add milk and butter, mix this with macaroni, turn into an earthen dish and brown in a quick oven.

American Kisses.—Into the whites of four eggs, beaten very stiff, sprinkle a level pint of granulated sugar, a teaspoonful at a time. Mix but do not beat in. Add a few drops of vanilla, drop on greased paper in tins, and bake in a moderate oven.

Caramel Custard.—Four cupfuls scalded milk, five eggs, one-half teaspoonful salt, one teaspoonful vanilla, one-half cupful sugar. Put sugar in pan, stirring constantly over hot part of range until it becomes a sirup of light brown color. Add gradually to milk, being careful that the milk does not bubble up and go over, as it is likely to do on account of high temperature of the sugar. As soon as the sugar is dissolved in the milk, add mixture gradually to eggs slightly beaten; add salt and flavoring, then strain into buttered mold. Bake as custard. Chill and serve with cream or sauce.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Ginger Entertains the Company.

Dear Young Folks:—I am a reader of the Young Folks' corner and I enjoy it very much. I live on a farm of 200 acres and I love the country.

I drive to town school every day with my older sister who is a junior in high school. I am in the sixth grade. I wonder how many of the young folks intend to go to high school. I do, and I think everyone should.

Now I am going to tell you about my dog, whose name is Ginger. I have taught him many tricks, such as hunting the spool, running after a ball and playing hide and seek. When my friends come to see me he does his tricks and it amuses them very much. Besides my dog I have two cats, Pink and Teddy, and a pet hen named Biddy.

I love music and can play. I also love to read. I have read a great many books, including Miss Alcott's. I think her books are among the best I have ever read. Sometimes my sister tells me stories and then I have a treat. —Mabel.

Wants Some Indoor Games.

Dear Young Folks:—I enjoy reading the Young Folks' page very much and, as it has been a long, long time since I have written, I will write a short letter.

I go to high school in town four miles from my house. My brother and I both drive every day. I like school very much. We have a good professor and we like our studies

Will some of the Young Folks send some of their favorite indoor games to this page? I would like very much to learn some new games and would appreciate it if someone would tell us how to play them.

I send my love to all the Young Folks and hope they will make our page better every week. Blue Eyes.

Sends Another Riddle.

Dear Young Folks:—I enjoy reading your letters very much, so I think I will write to you. I am ten years old and in the fourth grade at school. I have two brothers. One is four years old and the other is one year old.

I haven't been seeing any riddles, so I will send one. What has a tongue and cannot talk; runs and never walks? —Leonard.

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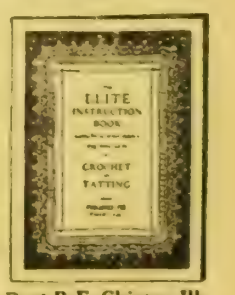

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1987—Ladies' house gown or negligee. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 7 yards of 44-inch material for a 38-inch size.

1617—Junior dress in high or low neck, empire style, with or without bolero, and with two styles of sleeve. The pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 5½ yards of 30-inch material for the dress, and 2 yards for the bolero, for a 14-year size.

1990—Ladies' apron and sleeve protector. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. Size 38 requires 5 yards of 36-inch material for the apron, and ⅜ yard for the sleeve protector.

1791—Ladies' house dress, with long or short sleeve. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

1993—Girl's one-piece dress, with sleeve in either of two lengths. The pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size.

1989—A natty dress for mother's girl. The pattern is cut in 4 sizes: 2,

4, 6 and 8 years. It requires 3 yards of 36-inch material for a 4-year size.

1592—Dress or apron with bloomers for girls. The pattern comprises both and is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires for a 6-year size 3¼ yards of 27-inch material, with 2¼ yards for the bloomers.

1980—Night dress in high or low neck, and with sleeve in either of two lengths, for ladies and misses. It is cut in 3 sizes for misses: 16, 18 and 20 years, and in 6 sizes for ladies: 36, 38, 40, 42, 44 and 46 inches bust measure. It will require 5⅝ yards of 36-inch material for an 18-year size, or 5⅝ yards for a 38-inch size.

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International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for February 11, 1917.

Jesus and the Woman of Samaria.

LESSON TEXT—John 4:5-14, 24, 26.

GOLDEN TEXT—Christ Jesus came into the world to save sinners.—I Tim. 1.15.

This is a lesson of one of the wayside ministries of Jesus. It occurred incidentally while he was on his way to his great preaching and teaching experience at Galilee. It was a by-product of his very busy life, yet it is one of the most famous interviews a d one of the best examples of how to do personal work that is found in the scriptures. The larger part of the first year of Christ's ministry was spent in Judea. Jesus did not baptize, but his disciples did, doubtless for the same reason, though in a less degree, than why Paul refused to baptize converts (I Cor. 1:13-16). All but one of the disciples of Jesus were Galileans and Jesus spent about a year and nine months of his ministry in that place.

I. Jesus Rested (vv. 4-6). To reach Galilee from Judea Jesus "must needs go through Samaria," not that there were not other ways that he might have traveled, but rather that it was worth while to go out of his way in order to bring the water of life to this needful woman. Jacob's well was at a parting of the roadway near to the city of Sychar. Few places in the land save Jerusalem had so much Bible history connected with them (Gen. 12:6; Joshua 8:33; Acts 7:16; I Kings, 12:1, etc.). The well was originally about 100 feet deep and seven and one-half feet in diameter, but it has been filled up with accumulations of rubbish so it is now only about seventy-five feet deep. Christ was wearied in his work, but not of it, and "sat thus" (by) the well; literally, on the low wall built around it. The sixth hour was probably about midday. There is comfort in consideration of the fact that as a man Jesus was willing to meet this woman of bad character.

II. Jesus Holds Conversation (vv. 7-14). Notice the gentle way in which Jesus speaks, and that he began on the ground of their common need. He asks this needed favor that he might confer a greater one, ignoring the prejudice which existed against the Samaritans. Water was the thing uppermost in the woman's mind. She did not grant his simple request, and her reply indicated that racial differences were a very real barrier. They hinder our work even yet. The surprise, perhaps pleasure, that a Jew should ask a favor of her seems to have greatly impressed the woman, and aroused her curiosity. In verse 10 Jesus tells the woman that there are two things she must needs know: (1) the wondrous gift of God, that is the Holy Spirit (Luke 11:13; Acts 2:23-38); (2) the wonderful man who had asked of her "Give me to drink." Had she known these things she would have asked him for the living water. All that was needful was simply to ask. The Holy Spirit is the living water (John 6:63). The woman does not seem to have comprehended what Jesus was trying to teach, yet he was patient, and won her as a convert. He told her that everyone who came to that well would thirst again (v. 13). The world's fountains do not satisfy, fountains of wealth, fame, pleasure or carnal gratification, or even learning. He then tells her of the living water (v. 14) of which the drinker should never thirst, that it would satisfy whosoever drinks, and was to be everlasting (John 7:37-39). The one who receives the Holy Spirit within has a perennial, eternal spring of life, joy and satisfaction springing up within him. Before the woman received the water of which he was speaking there had to come a conviction of sin (vv. 16-19); hence his remark, "Go call thy husband." This was a sharp thrust into her life and heart. She tried to parry the thrust with a technical question, yet he comes back with a great revelation of the nature of God and the worship which God accepts, revealing his Messiahship (vv. 15-26). As is indicated, she does not seem to have comprehended the nature of the request which Jesus had made (v. 15); therefore he began this searching of her life in order to prepare her to receive the water of life which he wanted to bestow. This knowledge of her secret life by a perfect stranger who had never seen her before was an evidence to the woman of spiritual endowment: "Sir I perceive that thou art a prophet." She then entered upon a theological argument (v. 20) which Jesus answered very simply, saying that the worship of the Father is not to be restricted by time or place (v. 21).

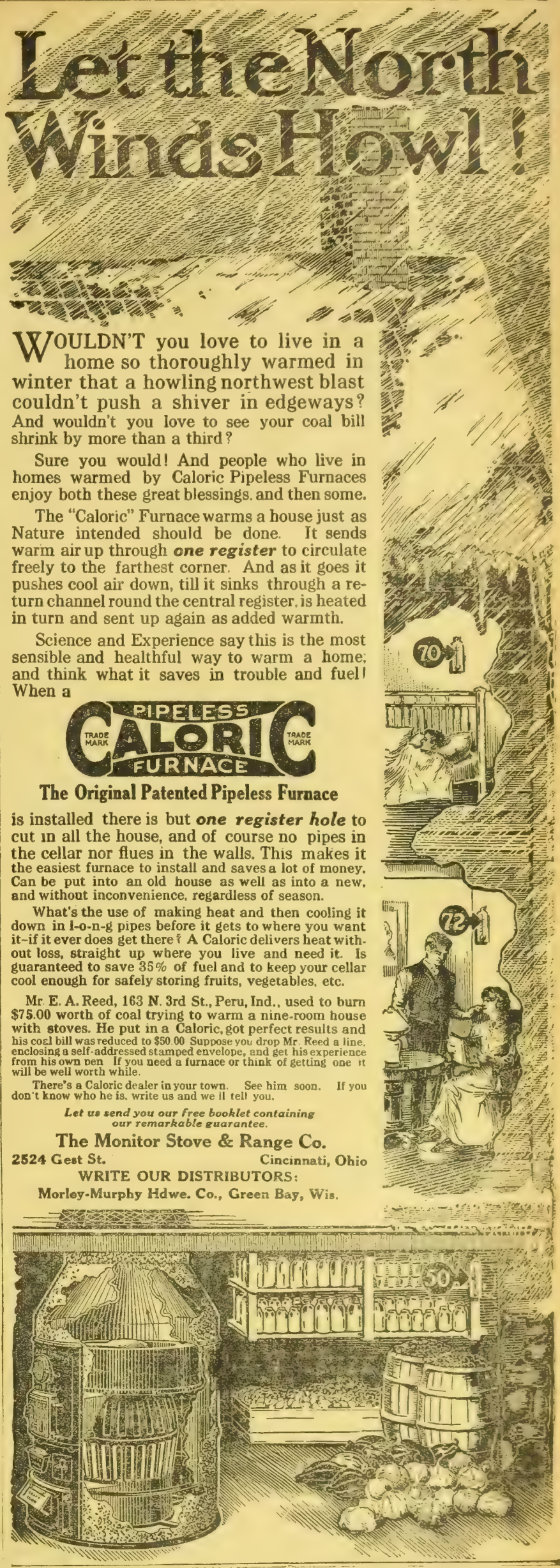
At this point the disciples return and the woman goes into the village.

Jesus, lifting up his eyes to the citizens who were coming out at her invitation, exclaims, "Lift up your eyes and look on the fields, for they are white already to harvest," thereby emphasizing still further the "personal evangelism" thought which is uppermost in this lesson.

She thirsted (v. 14), she received (vv. 25, 26), she became a spring (vv. 28-29) which supplied others (v. 39).

The water of life fully satisfies, and it is a spring (v. 10); it continually satisfies.

Let the North Winds Howl!



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It was within an hour of sailing time. I was on my way home from Europe five years ago. The Mauretania lay beside her Liverpool wharf. Everybody was hurrying to get on, as we were to sail at five o'clock. Suddenly, without warning—without a propeller turning—she commenced to pull away from her moorings. The gang planks creaked--broke loose--and there was quite a commotion as the mighty Mauretania tore loose from her moorings and floated out in the water. It was not a serious accident but it was exciting. In the excitement I met a man leaning over the rail who looked at me and we laughed together. Then we just naturally got acquainted like people do when they are traveling. He was J. J. Berrigan, of Orange, N. J., the famous cream separator expert and inventor. I had never seen him before, but I had heard of him. I told him I was from Waterloo, Iowa, and he said, "You are Galloway." I soon found out that he was the great cream separator expert and a man I was very glad to meet. Naturally we became very well acquainted. He told me what he had done in perfecting cream separator patents and improvements. I told him he was just the man I was glad to get acquainted with. After the Mauretania had been lashed to her wharf again the excitement was over, and we pulled out of Liverpool several hours late--Berrigan and I began to talk cream separator and every day after that we spent several hours together visiting. I told Mr. Berrigan that we were perfecting what I thought was the best cream separator ever produced, and I also told him if he would come to Waterloo and put on the finishing touches, go over the separator, test it, criticize it, find fault with it wherever he could and suggest any possible improvements I would pay him well for his time. In a few days after we landed in New York he did come to Waterloo. He said our separator was one of the finest designs he had ever seen, and with the few recommendations which he made he pronounced it O. K.—good as the best—and better than many of the separators on the market today. Our engineers, designers and separator builders had produced a machine with graceful lines, simplicity of construction, combined all the good features and left out all the faults. Mr. Berrigan commended us on the work and immediately put his stamp of approval upon this machine. That's why I say

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TOLD IN THE HILLS

By Marah Ellis Ryan

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PART IV--One Squaw Man.

CHAPTER IV—Continued.

"It's a case of 'crawl here for a few lengths; pass the word along, and look out for your heads."

The next instant he had vanished under the rock wall—Hardy following him; then a flicker of light shone like a star as a guide for the others, and in five minutes every man of them had wriggled through what seemed but a slit in the solid front.

"A regular cave, by hooky!" said the moral guide from Idaho, as he stood upright at last. His voice echoed strangely. "Hooky; hooky! hooky!" sounded from different points where the shadows deepened, suggesting endless additions to the room where they stood.

Genesee had halted and was splitting up some pine for a torch, using the knife Rachel had cut his bonds with, and showing that the handle was stained with blood, as were the sticks of pine he was handling.

"Look for some more sticks around here, and lend a hand," he said. "We need more than one torch. I burnt up what I had in working through that hole. I've been at it for three hours, I reckon, without knowing, till I got the last stone away, whether I'd be in time or find daylight on the other side."

"And is that what cut your hands?" asked Lieutenant Murray. "Why, they're a sight! For heaven's sake, what have you been doing?"

"I found a 'cave-in' of rock and gravel right at the end of that tunnel," answered Genesee, nodding the way they had just come, and drawing their notice to fresh earth and broken stone thrown to the side. "I had no tools here, nothing but that," and he motioned toward a mallet-like thing of stone. "My tools were moved from the mine over to Scot's Mountain a while back, and as that truck had to be hoisted away, and I hadn't time to invite help, it had to be done with these;" and he held out his hands that were bleeding—a telling witness of his endeavors to reach there in time. And every man of them felt it.

There was an impulsive move forward, and Hardy was the first to hold out his hand. But Genesee stepped back, and leaned against the wall.

"That's all right, Hardy," he said, with something of his old careless smile. "I'm glad you're the first, for the sake of old times; but I reckon it would be playing it pretty low down on a friend to let him take me in on false pretenses. You see I haven't been acquitted of horse stealing yet—about the most low-lived trade a man can turn to, unless it is sheep stealing."

"Oh, shaw!" broke in one of the men, "this clears the horse business so far as I'm concerned, and I can bet on the other boys, too!"

"Can you?" asked Genesee, with a sort of elated, yet conservative, air; "but this isn't your game or the boys' game. I'm playing a lone hand, and not begging either. That torch ready?"

The rebuff kept the others from any advance, if they had thought of making it. Lieutenant Murray had picked up the stone mallet and was examining it by the flickering light; one side was flattened a little, like a tomahawk.

"That's a queer affair," he remarked. "What did you have it made for?"

"Have it made! The chances are that thing was made before Columbus ever managed a sail boat," returned Genesee. "I found a lot of them in here; wedges, too, and such."

"In here?" and the men looked with a new interest at the rocky walls. "What is it?"

"An extension I tumbled into, over a year back, when I was tunneling at a drift the other side of the hill. One day I found that hole there, and minded it this morning, so it came in handy. I reckon this is the original Tamahnous mine of the old tribe. It's been lost over a hundred years. The Kootenais only have a tradition of it."

"A mine--gold?"

"Well, I was digging for a silver

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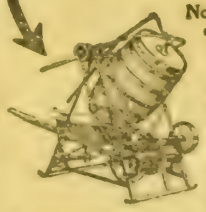

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show when I struck it," answered Genesee; "and, so far as I see, that's what was here, but it's worked out. Didn't do much prospecting in it, as I left the Kootenai hills less than a week after. I just filled up the entry, and allowed it would keep till I got back."

"Does it belong to you?" asked one man, with speculation in his voice.

Genesee laughed. "I reckon so. Tamahnous Peak is mine, and a few feet of grazing land on the east. Nobody grudges it to me up this way. Indians think it's haunted, 'cause all the rocks around it give echoes; and I—"

He ceased speaking abruptly, his eyes on the pile of debris in the corner. Then he lit a fresh torch from the dying one, and gave the word to strike for the outside, following single file, as the hill was pretty well honey-combed, and it was wise to be cautious.

"Because," said their leader, "if any should stray off, we might not have time this day of our Lord to come back and hunt him up."

Before leaving what seemed like the back entrance, he walked over to the corner and picked up the thing that had arrested his attention a minute before, and slipping it in his pocket, walked to the head of the long line of men, several of whom were wounded, but only one less than the number who had left camp. And the one lacking was the man who had fired the first shot and killed the messenger from Grey Eagle—he himself dying from a wound, after the ride into the gulch.

As the scout passed the men, a hand and a pair of gloves were thrust out to him from a group; and turning his torch so that the light would show the giver, he saw it was Stuart.

"Thank you, sir," he said, with more graciousness than most of the men had ever seen in him; I'll take them from you, as my own are damaged some," They were torn to shreds, and the fingers under them worn to the quick.

The echoing steps of the forty men were as if forty hundred were making their way through the mine of the Tamahnous; for no living tribe ever claimed it, even by descent. The hill that contained it had for generations been given by tradition to the witches of evil, who spoke through the rock—a clever scheme of those vanished workers to guard their wealth, or the wealth they hoped to find; but for what use? Neither silver in coin nor vessel can be traced as ever belonging to tribes of the Northern Indians. Yet, that honeycombed peak, with its wide galleries, its many entries, and well-planned rooms, bespoke trained skill in underground quarrying. From some unseen source fresh air shifted through the darkness to them, and the tinkle of dripping water in pools came to their ears, though the pools were shrouded in the darkness that, just beyond the range of the few torches, was intense; and after the long tramp through echoing winds and turns, the misty dawn that was still early seemed dazzling to the eyes, red and haggard from the vigil of the night.

"You will have to get away from here on a double-quick," said Genesee sharply, after a glance at the sky and up the sides of the hill from which they had come. "Once down there in the valley, the fog may hide you till sun-up, and then, again, it mightn't. Just mind that they have horses."

"We are not likely to forget it," was Captain Holt's answer; and then hesitated a moment, looking at Genesee.

"Are you not coming with us?" asked Lieutenant Murray, giving voice to the question in his commander's mind as well as the others.

"Yes, part of the way," said the scout quietly, but with a challenge to detention in the slight pause with which he glanced at the group; "but I have a beast to carry me back, and I'm just tired enough to use it." And disappearing for a minute in the brush, he led out Mowitza, and, mounting her, turned her head toward the terraces of the lower valley.

They passed the isolated cabin that brought back to Stuart the steps of the Tamahnous and along the little lake, all swathed alike in the snow and the mist leaving null all character in the landscape.

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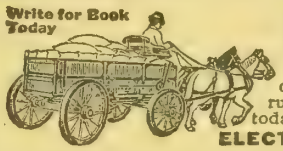

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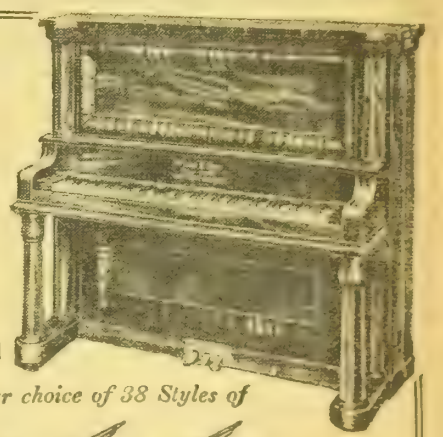

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the men, to whom it was a surprise, looming up so close to them through the cloud curtain.

"That's mine," their guide remarked, and one of them, puzzled, stated it as his belief that Genesee claimed the whole Kootenai territory.

The scout gave up his saddle to a man with a leg wound, but he did not let go the bridle of Mowitza; and so they went on with their guide stalking grimly ahead, ready, they all knew to turn as fiercely against them at a sign of restraint as he had worked for them, if a movement was made to interfere with his further liberty.

The sun rolled up over the purple horizon—a great body of blushes suffusing the mountains; but its chaste entrance had brazened into a very steady stare before it could pierce the veil of the valleys, and pick out the dots of moving blue against the snow on the home trail.

It had been a wonderfully quiet tramp. Most of the thoughts of the party were of the man walking ahead of them, and his nearness made the discussion of his actions awkward. They did not know what to expect of him, and a general curiosity prevailed as to what he would do next.

They learned, when at last the ridge above camp was reached, about the middle of the forenoon. He had been talking some to the man on Mowitza, and when they reached that point he stopped.

"Whereabouts?" he asked; and the man pointed to a place where the snow was colored by soil.

"Over there! I guess the boys buried him."

"Well, you can get down from that saddle now. I reckon you can walk down to camp; if not, they can carry you." Then he turned to the rest.

"There's a body under that snow that I want," he said sententiously. "I'm not in condition for any more digging," and he glanced at his hands. "Are there any men among you that will get it out for me?"

"You bet!" was the unhesitating reply; and without question, hands and knives were turned to the task, the man on horseback watching them attentively.

"May I ask what that is for?" asked Captain Holt; at last, as amiably as he could, in the face of being ignored and affronted at every chance that was given Genesee. He had saved the commander's life; that was an easy thing to do compared with the possibility of hiding his contempt.

He was openly and even unreasonably aggressive—one of the spots in his nature that to a careless eye would appear the natural color of his whole character. He did not answer at once, and Captain Holt spoke again:

"What is the object of digging up that Indian?"

Then Genesee turned in the saddle.

"Just to give you all a little proof of how big a fool a man can be without being a "permanent" in a lunatic asylum."

And then he turned his attention again to the men digging up the loose earth. They had not far to go; small care had been taken to make the grave deep.

"Take care there with your knives," said Genesee as one shoulder was bared to sight. "Lift him out. Here—give him to me."

"What in——"

"Give him to me!" he repeated. "I've given your fool lives back to forty of you, and all I'm asking for it is that Kootenai's dead body."

Stuart stopped and lifted the chill, dark thing, and other hands were quick to help. The frozen soil was brushed like dust from the frozen face, and then, heavy—heavy, it was laid in the arms of the man waiting for it.

He scanned from the young face to the moccasined feet swiftly, and then turned his eyes to the others.

"Where's his blanket?" he demanded; and a man who wore it pushed forward and threw it over the figure.

"Denny took it," he said in extenuation, "and when Denny went under, I took it."

"Yes!" and again his eyes swept the crowd. "Now, I want his rifle, his knife, a snake skin belt, and a necklace of bear's teeth—who's got them?"

"Well, I'll be hanged!" "How's that for second sight?" "It beats glass-eyed fishes!" were some of the sotto-voce remarks exchanged at the enumeration of the things wanted.

"I've no time to waste in waiting," he added. "If they're in this crowd and ain't given up, I'll straighten the account some day, if I have to hunt five years for the trail to them. I'm a-waiting."

His hand was laid on the breast of the dead Indian as he spoke, and something in the touch brought a change to his face. The hand was slipped quickly inside the fringed shirt, and withdrawn clasping a roll of parchment cured in Indian fashion. A bitter oath broke from him as he untied the white sinews of the deer, and glanced at the contents.

"What is it? What is it?" was the question from all sides.

Genesee, in a sort of fury, seemed to hear most clearly that of the, for the hour, displaced commander.

"I'll tell you what it is!" he burst out wrathfully. "It's a message of peace from the Kootenai tribe—an offer of their help against the Blackfeet any time the troops of the United States need them. It is sent by Grey Eagle, the oldest of their war chiefs, and the messenger sent was Grey Eagle's grandson, Snowcap—the future chief of their people. And you have had him shot down like a dog while carrying that message. I wouldn't have blamed them if they had scalped every mother's son of you."

To say that the revelation was impressive, would express the emotions of the men but mildly. Captain Holt was not the only one of them who turned white at the realization of what a provoked uprising of those joint tribes would mean, in the crippled condition of the camp. It would mean a sweeping annihilation of all white blood in their path; the troops would have enough to do to defend themselves, without being able to help the settlers.

"In God's name, Genesee, is this true?" and forgetting all animosity in the overwhelming news, Holt pressed forward, laying his hand on the shoulder of the dead messenger.

"Take it off!" yelled Genesee, looking at the unconscious hand that involuntarily had moved toward him. "Take it off, or I'll cut it off!"

And his fingers closing nervously on the hunting knife emphasized his meaning, and showed how stubborn and sleepless were the man's prejudices.

The hand dropped, and Genesee reached out the document to one of the crestfallen scouts.

"Just read that out loud for the benefit of anyone that can't understand my way of talking," he suggested with ironical bitterness; "and while you are about it, the fellows that stripped this boy will be good enough to ante up with everything they've got of his—and no time to waste about it either."

And Captain Holt, with a new idea of the seriousness of the demand, seconded it, receiving with his own hands the arms and decorations that had been seized by the victorious Denny, and afterward divided among his comrades. Genesee noted that rendering up of trifling spoils with sullen eyes, in which the fury had not abated a particle.

"A healthy crew you are!" he remarked contemptuously; "a nice, clean-handed lot, without grit enough to steal a horse, but plenty of it for robbing a dead boy. I reckon no one of you ever had a boy that age of your own."

Several of them—looking in the dark, dead face—felt uneasy, and forgot for the moment that they were lectured by a horse thief; forgot even how light a thing the life of an Indian was anyway.

"Don't blame the whole squad," said the man who took the articles from the Captain and handed them up to Genesee. "Denny captured them when he made the shot, just as anyone would do, and it's no use cussin' about Denny; he's buried up in that gulch—the Kootenais finished him."

"And saved me the trouble," added the scout significantly.

He was wrapping as well as he could the gay blanket over the rigid form. The necklace was clasped about the throat; but the belt was more awkward to manage, and was thrust into the bosom of Genesee's buck-

(Continued on page 28.)

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Blackleg.

I had blackleg among my calves last fall and lost five out of fifteen of them. I have bought twelve more. Would it be all right to bring them on the place now or should I vaccinate them before bringing them home?

It is best to vaccinate against blackleg if you have had it on your place.

Sore Eyes.

We have a horse that has sore eyes. Sometimes they look all right and at other times a green spot will show in one or the other. Our veterinarian said it was moon blindness. Is there any treatment?

Your veterinarian is probably right as to the cause of the eye trouble in your horse and it is very probable you can do no good by treatment.

Round Worms.

I have two fillies which have white worms. They are four or five inches long, pointed on both ends. Would you please give me a treatment for these?

Your horses are bothered with round worms. Give each one oil of turpentine, three ounces, with oleoresin of aspidium in a pint of linseed oil, or you may give santonin, three to four drams, in oil.

Lice on Horses.

Can you give through your paper a remedy to kill lice on horses? They rub their tails a great deal. Would be very thankful for any advice.

It is rather hard to treat animals successfully for lice in the wintertime unless the quarters are clean. The lice may be destroyed by using a solution composed of sulphuret of potassium, four ounces in one gallon of water, or the skin may be sponged with gasoline. The ordinary dips may be put in solution and used. Give the animal good food and frequent groomings. You might try some good lice powder while the weather is cold.

Abortion.

I have a bunch of cows and am having trouble with them losing their calves before time. I had one cow that lost her calf in August and four that lost their calves since then, two of which lost them in the last few days. I have five more cows that seem all right. I would like to know if this is contagious and if there is any way of preventing it. Will these cows be apt to lose their calves next time?

Your cattle may be affected with contagious abortion. However, we could not state this with certainty. You should segregate those which have and keep them away. Clean up and disinfect your premises. Have your herd examined by a competent veterinarian and get him to co-operate with you in ridding your premises of this trouble.

I have a herd of about thirty cows and heifers. Most of these were bred to an Angus bull last year. Last February I bought a Short-horn bull, five years old. A short while after we got this bull we had a heifer that we bought and which was not bred to our Angus bull lose her calf. It was not near matured. This Short-horn bull bred this heifer before we shipped. Our calves came all right that were by the Angus bull, but six weeks ago those bred to the Short-horn began to lose their calves. Have lost eight or ten up to date and most of the heifers have to be cleaned by a veterinarian. What I want to know is this: Can the rest be treated so they will not abort, and how is this abortion spread by the male, or do the females take it from one another?

It is evident there is abortion of some kind in this herd. It may be of a contagious nature. In answering your first question would say keep your affected animals strictly away from those not affected and clean the premises up thoroughly and disinfect. There is some claim of good results in prevention by the use of abortus bacterius, but these claims are not very well founded. Females cause a spread of the disease by contaminating the litter, walls, etc., from discharges. The male can be treated so he will not spread the disease if his sheath is cleansed before and after serving. This should be done with a 1 or 2 per cent solution of lysol. If you will read the article on contagious abortion in the August 17th number it will enlighten you further.

Feeding Wormy Stock IS LIKE Throwing HIGH PRICED Feed to the Winds

Animals that are full of worms can't thrive. Not only that, but they are liable to contract dangerous disease — infect your entire herd and finally be the means of wiping out all your livestock. Again, feeding worm-sick, worm-infested animals is like throwing high priced feed away.

The worms consume more than your live stock. That's why they won't gain; why they are rough coated, stunted, unprofitable. They need a worm-destroyer and conditioner

THOUSANDS WRITE:—
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"I have fed SAL-VET to four horses, one of which had grown very thin, and was infested with worms. Before I had fed it 60 days, he gained two hundred pounds, on the same feed."
WILLIAM G. WASHBURN, Hopewell Jct., N. Y.

"I had 300 lambs badly infested with stomach worms and considerably run down. Put them on SAL-VET and they made a gain of 40 lbs. per head. I'll never be without SAL-VET." W. S. PATTON, Plattsburg, O.

"I had one pig that did not seem to get any good from its feed and I would have taken $3.00 for it. After feeding it SAL-VET for six weeks I sold it for $11.50."
HARRY BABB, Rt. No. 1, Goshen, Ind.

"All summer I have been feeding SAL-VET to a number of my hogs. I have not lost a single hog, but my neighbors all around here have lost hundreds of their hogs."
W. T. HUCKSTEP, Denison, Iowa
(274)

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Saves your stock from the ravages of blood-sucking, disease-breeding, feed-eating worms

It saves your feed—makes your stock thrifty, healthy, profitable, by ridding them of these pests and letting them get full benefit of their feed. SAL-VET is the medicated salt which has saved thousands of dollars for farmers — not only saved their animals, but saved feed, time and labor, so often wasted on worm-sick stock. You ought to protect yourself against such loss. Let me show you how surely and cheaply you can do it with SAL-VET.

Valuable Live Stock Book FREE

Tell me how many head of stock you have, and the name and address of your dealer and I'll send the book FREE. I'll also tell you where and how you can get enough SAL-VET to feed your stock 60 days and have your money refunded if SAL-VET fails to do all I claim. SAL-VET costs only 2½c a month for each hog and sheep and only 10c a month for each horse, mule or head of cattle. You take no risk whatever. Mail the coupon to me NOW. Address

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Dealers sell SAL-VET at above prices, but in the far West and South they charge a little more — freight charges being more.

NEVER SOLD IN BULK
only in packages of above sizes — never loose or by the pound.

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Send me your FREE BOOK on care of live stock. I have.....hogs.....sheep ..... horses and mules.....cattle.
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Mixture to Put With Slack Coal.

Please tell me a good mixture to feed with slack coal, as coal itself is on the binding order and I would like to know what to feed with it so as to keep the pigs' bowels loose.

Mix wood ash and plenty of salt with the slack coal, and this will help keep the bowels loose.

Killing Canada Thistle.

I have a patch of Canada thistles on my farm and want to know how to destroy these pests. They have now spread over an area of about five acres.

Plow the land early in the spring and keep the surface cultivated so as to prevent the growth of thistles. It may require disking every ten days or two weeks. Keep this up during the spring and summer and sow winter wheat about the middle of September. If the work is thoroughly done it is sometimes practicable to sow cane at the rate of 100 pounds per acre about the middle of July. This makes a smother crop.

Bog Spavin.

I have a two-year-old mule that has a bog spavin on his left hind leg. It is a soft place just in front of the joint. It appeared when he was just a yearling. It seems to grow, but he is not lame. Would caustic balsam remove it, or can I use anything at all that will cure him? Would it do to open it and have it washed out? Any advice will be appreciated.

Since this is a case of long standing we would advise you to apply a cantharides blister two or three times at intervals of two or three weeks. You may never be able to remove this, but you may be able to check the growth. This joint should not be opened under any consideration unless an expert has the superintending of the case.

Indigestion in Pigs.

I have a herd of six Chester White pigs that are sixteen weeks old. I bought them when they were five weeks old and they had not been weaned. At first I had to feed them milk in order to get them used to the trough. Then I changed to ground oats and whey. They came along fine until about four weeks ago, when they commenced to bloat and force out part of their rectum. So I fed them whey and wheat middlings. That seemed to be all right for four weeks until tonight I fed them one pailful of whey and middlings (warm) the same as usual. In a few minutes I heard one of the pigs squealing and it was running and throwing itself and fifteen minutes later it was dead and as tight as a drum. What do you think causes this? What can I do to save the other five?

Your pigs are in all probability subject to attacks of indigestion and this is probably brought about by the feed. Change the feed—give the milk to them feeds of oats if they will eat them.

Laryngitis.

I wish you would tell me what ails my Scotch Collie dog. About five or six weeks ago he began coughing and seemed to gag some. When he runs he wheezes. He is getting worse and eats very little now. He is a year and a half old.

Your dog may have laryngitis. Try the following treatment: Keep the dog warm and dry, free from drafts, but where there is plenty of pure, fresh air. Feed soft food, such as broth or new milk for a few days. Give chlorate of potash in two or three-grain doses on the back part of the tongue two or three times a day.

Spavin.

I have a spavined brood mare and I have been advised not to try to cure the spavin until the mare has colt. My question is: Can I try to cure the spavin promptly without injury to colt? Also would you advise giving her worm powders before the colt arrives, or would it be dangerous to the colt?

It will depend upon the treatment whether or not she should be treated before foaling or not. If blistering is to be resorted to, it is all right, but if firing is resorted to, let her alone till later. If worm powders are mild in action, it is all right to give them, but if drastic in nature do not give them now.

Scabby Condition in Calves.

My calves are dying from some kind of scab which they have had for some months. It starts around the eyes and nose and spreads, the hair coming off. They do not seem to be sick at all, but do not grow or thrive, get poor and then die. The scab resembles ringworm but it is not very sore. Shows a little soreness when it starts, then heals up, but the scab keeps forming and no hair has time to come back.

Your calves may either have ringworm, or may have mange of some description. It is very necessary to find out what the trouble is before treatment is begun. This can only be told with certainty by a careful examination by a competent veterinarian.

Injury to Teat.

I would like to know what I can do with one of my milk cows. A few months ago she torn off just the tip of her hind teat. I washed it and put salve on it and it healed again, but very slowly. I always had to milk her and that kept it sore and made it worse. Then I let her go dry on that teat, but now it is hard and hot and there seems to be something in it all the time which feels like milk. It has grown shut though and will not let the milk through. I am afraid that it will get worse. She is about five months with calf again. Will you please tell me what to do?

Serious trouble may arise from the closure of this teat. First, inflammation seems to be present, and this might be followed by suppuration. You had better have this cow examined by a veterinarian and have treatment advised according to findings before more serious trouble arises.

Chronic Catarrhal Enteritis.

I have a registered Duroc Jersey boar pig that took the scours about a month ago and I am not able to get him right again. Have been giving him boiled sweet milk and shorts for slop and corn and oats for feed, but he does not seem to have much appetite.

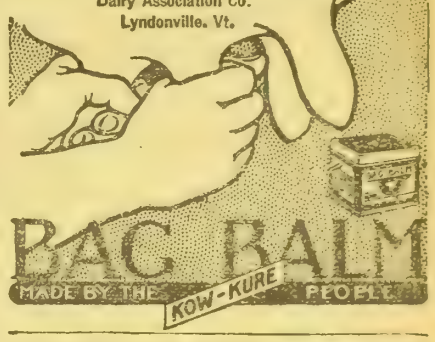
This animal is probably troubled with a chronic catarrhal condition of the bowels. It may persist for weeks. Give less quantity of water. Give moderate amount of easily digested food. If the trouble persists, give from one to two tablespoonfuls of tincture of camphorated opium in warm milk twice daily for two or three days.

Comfort for Cows

Keep the cow's udder free from irritating conditions and the milking will be easier the yield better. Bag Balm is a soothing, penetrating ointment that quickly heals all cuts, chaps, bruises, sore cracked or injured teats. A sure relief for caked bag, and useful in treating bunches and stricture.

Large 50c package, sold by druggists and feed dealers. Ask for free booklet, "Dairy Wrinkles."

Dairy Association Co.
Lyndonville, Vt.



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will reduce them and leave no blemishes. Stops lameness promptly. **Does not blister** or remove the hair, and horse can be worked. $2 a bottle delivered. **Book 6 M free.**

ABSORBINE, JR., for mankind, the antiseptic liniment for Boils, Bruises, Sores, Swellings, Varicose Veins. Allays Pain and Inflammation. Price $1 and $2 a bottle at druggists or delivered. Will tell you more if you write.

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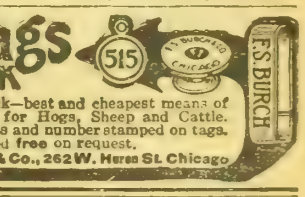


Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 262 W. Huron St. Chicago

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

The Pagel Offering, February 26th.

IT IS always a pleasure to recommend any good herd of hogs and a good breeder back of them. In view of that fact we are glad to recommend and introduce Geo. W. Pagel, of Zumbrota, Minn., to the readers of The Wisconsin Farmer. Pagel will sell 40 Duroc Jersey sows at his farm adjoining Zumbrota, on Monday, February 26th, and he has a sale offering that he need not offer apologies for. Mr. Pagel is a good care taker and he has fed and cared for his Durocs in a way that will prove profitable to the buyer. Most everything in the sale is showing safe in pig to one of the two good boars on the farm. We were very much impressed with the boar, H. C. Wonder. He has an ideal head and ear, a back that is arched and will never go down, stands on the best of feet and has great depth with plenty of length. Many in the sale have been bred to this boar and the Wisconsin breeders will make no mistake if they get a litter by him. He is well bred, being by Big Wonder, the most perfect Duroc Jersey boar that was ever shown at the Iowa State Fair, where he was grand champion. The dam traces two times to the noted Chief's Col There will be sows in the sale out of a daughter of old Marion's Wonder—it is needless to say that they are large. But then get the catalog, it is very descriptive and contains pictures of the boar. Don't forget the date and place. Zumbrota is on the Milwaukee from Wabasha to Faribault and on the Great Western between Rochester and Red Wing. Good connection from any point on the Missippi river. Wisconsin breeders can get to and from this sale the same day. Write at once for the catalog and please mention The Wisconsin Farmer. T. P. Shreve will handle mail bids at the sale. See page 29. —Adv.

Kennedy Makes Valuable Short-horn Additions.

J. E. KENNEDY, Janesville, Wis., continues to improve his herd of Short-horns by buying the best females that money could buy. At the Thos. Stanton Short-horn sale held in Chicago, January 16th and 17th, Mr. Kennedy was a heavy buyer of the better sorts. The fact that he paid an average of $808.50 for ten females is proof that he is only buying the good ones. He also purchased a bull calf out of a daughter of Sultan's Fashion sired by the International champion, Selection, for which he paid $2,000. The dam of this calf sold in the sale for $1,800. Keep an eye on this man, Kennedy, for he will have a herd second to none in Wisconsin, or the Northwest. In view of the fact that Mr. Kennedy desires to have an all Scotch herd of Short-horns and inasmuch as he needs the room for his recent purchases, he will now sell six very choice Scotch topped cows of the dual-purpose caliber. They are safe in calf to Village Denmark 8th, one of the three best bulls in the state. Attractive prices are being made for immediate sale. Wrie at once for further information and please mention The Wisconsin Farmer. See page 28. —Adv.

Purchased Short-horn Bull in New York.

MARQUART BROS., Milton Junction, Wis., progressive breeders of high-class milking Short-horns, have just purchased a bull from H. E. Tener, who has more imported Short-horns than any breeder in the East. The bull is sired by Royal Duke, grand champion bull (milking Short-horn) at the New York State Fair, whose dam and grandam each have a record of over 10,000 pounds of milk in a year. The dam, Rosebud, was a first-prize winner at four of the leading shows in England, weighs 1,670 pounds and has a record of over 8,000 pounds. This young bull will be crossed on daughters of Queenston Duke, Kinsella Lad and Clay Laddie, bulls of Glenside breeding. The Marquarts have an excellent herd of cows. They keep an exact record of each cow and these must come up to a certain standard or she cannot retain a berth in the herd. Their cows have great scale, broad backs and square udders. They have several young bulls for sale. Keep this herd in mind. We will have more to say about them at a later date.—Adv.

Start at Lancaster, Wis.

NEXT week will be the "big week" for Poland China men in Wisconsin, for there will be four sales of bred Poland Chinas. Arrange matters so that you can attend all four sales. Start with the Grant County Association sale which takes place at Lancaster, Tuesday, February 13th. They have a wonderful offering. The day following, February 14th, E. W. Hendricks, sells at Hazel Green, and you should see this offering and the two great boars used in this herd, Black Jumbo and Model Major 2d. J. C. Hendricks also sells at Hazel Green, the day after E. W. and it is useless to say much about Joe's stuff, for he has them as good as grows. Chris Kartman, closes the week at Cassville, Wis., and it will be a "grand finale" for he is selling some great sows and gilts bred to that big spring boar, Timm Wonder, and the second-prize boar at the Wisconsin State Fair. Kartman will have a good offering for you to bid on. Good railroad connections from one sale to the next. T. P. Shreve will represent The Wisconsin Farmer at each of these sales and will handle buying orders for those that cannot attend. Letters or telegrams should be sent to him in care of the men making the sale.—Adv.

Breeding Short-horns Forty-six Years.

THE Kiser Bros., Short-horn herd of Oregon, Wis., is one of the oldest in the state of Wisconsin. Registered cattle have been bred and raised by the above brothers for 46 years without a break. They have seen other herds come and go, have seen men make money and lose money with Short-horns, but the Kiser Brothers have stayed by the Short-horn cow and she has made money for them. They have sold cattle from Virginia to Canada and from coast to coast, and the fact that they have been in business 46 years is indicative of their honesty and integrity. Just at this time they have a few bulls for sale, from six months to a year old. They are sired by Oakland Lad he by Royal George by Hopeful Knight and right here we want to say that they have an excellent breeding bull in Oakland's Lad. His calves are of a uniform type, rich roans in color with even top and bottom lines, masculine heads on the bull calves, and exceptionally good in the hind quarters. Several of the good bulls are out of Young Mary dams with two top crosses of Whitehall Sultan and Ceremonious Archer. Away back in 1870 the Kisers paid $1,000 each for four cows. These cows made good for them and some of the present herd trace back to these $1,000 cows. Some of the good young bulls are of this family. We are glad to recommend the Kiser cattle, for we know that they will sell you bulls that will give satisfaction. Write them for descriptions and mention The Wisconsin Farmer. See page 28.—Adv.

An Economical Incubator.

TWENTY big "success" points are listed by the Des Moines Incubator Co., 380 2d St., Des Moines, Iowa, makers of the Successful incubators and brooders. They have been manufacturing incubators for 22 years with results that justify the name of their product. The Successful is offered to farmers this year at a remarkably low price. If you are thinking of buying a new incubator write the company for their interesting new catalog of Successful incubators and brooders. They will send it free to readers of this paper. When writing be sure to mention this paper.—Adv.

Fox & Gallagher Short-horns.

FOX & GALLAGHER, of Oregon, Wis., have one of the good Short-horn herds of Wisconsin and just at this time they have for sale a number of bulls ready for service. At the present there is great demand for bulls of straight Scotch breeding and the above firm has them for sale. They are rich in breeding and individually good enough to head the best registered herd of Short-horn cows. Write the above firm, they have Short-horns that please. Don't fail to mention this publication. —Adv.

Chester White Bargains.

WM. F. BUTTS, Evansville, Wis., has a good herd of Chester White swine, headed by one of the best boars in the state. His sow herd is big, individually, with good backs. At this time he has some fall pigs for sale, either sex, farrowed in March. He will make you prices for pairs or trios. Also has gilts bred for March and April farrow, not loaded with fat, but in the right condition for future usefulness. If you are interested in Chesters this herd will appeal to you. Write Mr. Butts for further information. See page 29.—Adv.

Short-horns at Madison, February 15th.

THE Short-horn men will have their inning at Madison, Thursday, February 15th, when the members of the Wisconsin Short-horn Breeders' Association will sell 52 head of bulls and females. The catalog is very descriptive and you should have one by this time. If you have not received any write at once to J. L. Tormey, Secretary College of Agriculture, Madison, Wis. There will be some 13 bulls in the sale. Two of this number have been used and are tried sires with a good reputation back of them. The balance of the bull offering are individuals of serviceable age and by the way several show prospects have been consigned. The female end of the sale is above the ordinary. Cows and heifers well along in calf to the service of good bulls. Individually they are good and you will have a chance to get Scotch cattle or Scotch-topped females. By noticing the advertisement that appears on page 28 of this issue you can note the men that have consigned to this sale. These men realize that this will be the opportune place to advertise their herds so naturally they are consigning some of the best things they have. You will not be disappointed if you attend. Sale will take place in the live stock pavilion at the University farm. When writing for catalog don't fail to mention The Wisconsin Farmer. See page 28.—Adv.

Intercounty Holstein Breeders' Association.

EVERY breeder of Holstein cattle is desirous of owning the best animals he can afford. Now, if he can not afford to buy world's record animals, the next best thing is to buy animals of the same bloom lines as the ones that have produced world's records. In this way he stands the best possible chance to get animals of heavy production ability, and many a world's record has been made by animals from unknown herds. In Dodge and Jefferson counties you can today buy at reasonable prices animals that are rich in the blood of former world's record cows. If you are in the market for a herd sire or a few females write to Francis Darcey, secretary of the Intercounty Holstein Breeders' Association, who will be glad to put you in touch with the breeders who are most liable to have the kind of animals which you want. See page 30.—Adv.

Foxhall Short-horns.

THE Foxhall herd of Short-horns is one that is making Short-horn history for Wisconsin. By careful breeding of well selected animals and by good care they have developed a herd good enough to show at the Wisconsin State Fair and the International. The farm is one of the best in southern Wisconsin, and recently it has been added to very materially by the purchase of 225 acres adjoining. In a short time Iowa and Illinois breeders will have a formidable rival in this herd. The offering of young bulls this year is better if possible than ever before. For particulars in regard to breeding, etc., of the bulls offered for sale write to the above address.—Adv.

The Smiley Poland China Offering.

WM. SMILEY & SONS will hold their annual sale of Poland China bred sows at their farm near Albany, Wis., on Washington's Birthday—February 22d. We have often said that the Smileys have a fine reputation throughout the state as breeders. Their Poland Chinas have made good in most instances. Big averages have never been obtained at the Smiley sales, but no breeder of the state ever sold more hog for the money. The sale this year will be made up of tried sows, fall yearlings and spring gilts. Several in the sale are sired by Major Hadley, the great breeding boar that has done so much good in this herd. We have seen some wonderful sows sired by him, and he is also the sire of Major Model 2d, the great boar in the Hendricks herd. Some are sired by Major Miller, sired by Major Hadley, out of a Big Orange dam. Monarch is one of the real good boars doing service on this farm at the present time. He is big and smooth, of the very best blood lines and some of the good gilts in the sale are sired by this boar. The big noise will be gilts and sows bred to a great son of the noted Goldengate King, the dam being Lady Big Bone 2d. This is very popular breeding and Wisconsin breeders can well afford to get some of it. Wisconsin Jumbo 2d is in our estimation the best boar on the Smiley farm—he is big, very smooth, has a wonderful back, good on his feet, a nice neat head and he is siring a nice lot of gilts. Would advise that you get a good sow or gilt sired by this good big-type boar. Just at this time you must get a catalog, and to get same you must write for one, for catalogs will be sent only to those that request one. As you all know a breeders' mailing list gets very stale unless same is checked up every few years and this is the only way to get a line on the "live" breeders. Be sure to get the catalog, it is interesting and instructive. A good way to spend Washington's birthday—attend the Smiley sale. If you can't attend in person, send buying instructions to T. P. Shreve. Please mention The Wisconsin Farmer when writing for catalog. See page 28.—Adv.

Salzer's Seeds.

THE farmer and gardener is beginning to think of his seeds for the spring planting. Much attention is necessary to select the seeds best adapted to local conditions and needs if the best yield is to be expected. John A. Salzer Seed Co., Box 123, La Crosse, Wis., handles a wide variety of sturdy, prolific, northern-grown seeds from which the farmer can certainly select some which are suited to his needs. Besides the field seeds an excellent line of vegetable and flower seeds is handled by the Salzer Company. Read their advertisement on page 16 and write to the company for a copy of their big new catalog, which is given free to readers of this paper on request. Just mention that you read the advertisement in this paper.—Adv.

Wenhams' Herd of Milking Short-horns.

IF YOU were to ask us where to find a herd of pure Bates milking Short-horns we would unhesitatingly direct you to the farm of Geo. Wenham & Sons, Ft Atkinson, Wis. This herd has for years been bred for milk production, using bulls from cows of large milk production and high percentage of butter fat. The most prominent blood lines in this herd are Wild Eyes Duke and Clay Buttercup. These two families have been noted both in England and in America for their milk and butter producing qualities. Breeders of pure Bates Short-horns or breeders who wish to increase the milking ability of their Scotch-topped cattle will do well to visit this herd and buy a herd header. See page 28.—Adv.

Sir Bess Ormsby Mercedes.

THE above is the name of the young bull that is being used in the Olathe Holstein herd, owned by the Silver Spring Farm Co., Eau Claire, Wis. His sire is Sir Pietertje Ormsby Mercedes 37th whose dam and sire's dam have an average record of 36.89 pounds in seven days and 902.01 in 305 days. The dam is Daisy Queen De Kol, the dam of one son with four A. R. O. daughters, and two daughters with three A. R. O. daughters. This is a nicely marked bull and an excellent individual in every respect. At the present time, this firm offers heifer calves out of large producing dams. Notice the advertisement that appears on page 30 of this issue.—Adv.

Good Producing Short-horns.

THE Short-horn cows and heifers that Williams Bros., Bangor, Wis., have for sale are right in every way. They are young, have been well-cared for, have recently freshened or will freshen soon and they can be bought worth the money. Get busy, the boys are on the square. See page 28.—Adv.

That Short-horn Sale at Madison.

WE have just seen the catalog containing the breeding of the Short-horn cows and heifers, as well as bulls that are to be sold at Madison, February 15th. You should have one of these catalogs and get in touch with the class of cattle that will be sold at that time. Some fine cows will be sold,

NEXT WEEK'S SALE PROGRAM

Tuesday, February 13	Poland Chinas, Burlie Dobson, Secretary, Lancaster, Wis.
Wednesday, February 14	Poland Chinas, E W. Hendricks, Hazel Green, Wis.
Thursday, February 15	Poland Chinas, J. C. Hendricks, Hazel Green, Wis. Short-horns, J. L. Tormey, Secretary, Madison, Wis. Duroc Jerseys, Gant's Farm, Delavan, Wis.
Friday, February 16	Poland Chinas, Chris Kartman, Cassville, Wis.

The Wisconsin Farmer "Too Good" An Advertising Medium, Says Breeder.

"YOUR paper is too good to advertise in. Am all sold out of Short-horns. Have only breeding herd left and young calves. Wish you would discontinue my advertisement at this time until next summer. I did not expect to be sold out so soon, but The Wisconsin Farmer did the business. In less than six months sold 44 head of bulls and heifers and every mail brings from one to three letters daily and no stock left now. Henry Wehmhoff, Burlington, Wis."

The Wisconsin Farmer **Madison, Wisconsin**

Guaranteed Weekly Circulation, 90,000.

GANT'S FARM DUROCS

BRED SOW SALE

Delavan, Wis. Thurs., Feb. 15, '17

Come and take your pick from 40 head bred to

PATHFINDER (the mighty.)
KING DEFENDER (Wis. Grand Champion.)
ILLUSTRIOUS PROFESSOR (by Illustrator.)
GANT'S FARM CHERRY CHIEF (by Cherry Chief.)

GILTS out of dams by Orion Chief, Fancy Col., Good Enuff Again, Lee's Defender and The Professor. We promise you an outstanding lot of sows and gilts. Catalogs now ready. Col. Lloyd Seeley, auctioneer. Send mail bids to T. P. Shreve, in my care.

GANT'S FARM **DELAVAN, WIS.**

heifers that will do to show and bulls good enough to head the best herds. Write at once to J. L. Tormey, Madison, Wis., and get one of the catalogs—it's very interesting. Please mention The Wisconsin Farmer.—Adv.

Herr Bros. & Reynolds' Consignment.

ONE of the consignors to the Short-horn sale to be held at Madison, February 15th is the farm of Herr Bros. & Reynolds, of Lodi. In regard to the cattle which they are listing in the Madison sale, there are two nice young cows and well along in calf. These should make good brood cows for anyone in the market for well-bred young cows. The heifer calf is a short age junior and a show heifer in almost any company. The older heifer is a very attractive heifer sired by White Rock, and has recently been bred to Master Ruby. The bull is of the Village Girl family and is sired by Master Ruby. He is a straight good calf in not too high condition. He is a sure breeder.—Adv.

Special Sheep Offering.

THE Valley View Stock Farm, owned by Geo. A. Phillipi, at Bear Creek, Wis., is making a special offering in bred ewes, that is of interest to readers of The Wisconsin Farmer. They are a choice lot of ewes, as Mr. Phillipi is very careful in his selection of breeding stock, as is shown by the winnings of his flocks at the leading fairs in Wisconsin. He is now offering 50 high-class, registered ewes of Delaine, Cheviot, Southdown, Rambouillet and Oxford breeding. These are all bred to prize-winning dams. Mr. Phillipi is also offering 25 head of Angora does, bred to a winner at the Panama Exposition. For further information write to the above address. See page 31.—Adv.

Kimball's Holstein Bull Offering.

THE two young bulls advertised for sale on page 30 by L. A. Kimball, Lake Geneva, Wis., should be investigated by our readers who are in the market for a herd sire. These are both sired by a 31-pound bull. One is out of a 16-pound two year old whose dam made 23.21 pounds butter in seven days. The other is out of a 21.75-pound cow. They are both well grown for their age. One of good, straight, level type and of well-known and proven lines of breeding. For further information in regard to these animals write to the above address.—Adv.

Maurers' Short-horns.

THOSE who have seen the Short-horn herd of Richard Maurer & Sons, Fox Lake, Wis., will agree with us that it is a good one. That the proprietors are discriminating judges of Short-horn type is evidenced by the cows and their offspring that comprise the herd. Animals of proven blood lines and of the best type have been used for years and the result is, breeding stock that are good enough to go into any herd. There is now a surplus of some 20 head of males and females that can be spared and it will be to our readers' advantage to look them over. See their advertisement on page 28.—Adv.

A Tractor Plow.

FARMERS who strive to keep pace with the modern improvements in farming are abandoning the old horse plow for the new tractor plow, such as the Janesville tractor plow, manufactured by the Janesville Machine Co., 41 Center St., Janesville, Wis. This plow is suitable for any soil and can be used behind any tractor. It is the result of the almost sixty years' experience of the Janesville Company in making farm machinery. Valuable information about the Janesville Tractor may be had by writing to the company for a copy of the new book, "Janesville Farm Implements," which will be sent free to readers of this paper on request. Be sure to mention this paper.—Adv.

Red Polls For Sale.

GOOD Red Polls are in demand and Byron R. Curran, Taylor, Wis, has a good herd. At this time he has eight young bulls for sale. They range in age from calves to bulls of serviceable age and are sired by an International winner, Liza Lad 23108. The dam of this herd bull has an A. R. record of 515 pounds of fat. You get individuality and breeding when you buy Red Polls from Curran. Price $75 to $150. A limited number of females will be sold. Get your order in early. Please mention The Wisconsin Farmer when writing. See page 31.—Adv.

A Good Guernsey Bull.

A GOOD Guernsey bull is the only kind that any breeder can afford to use. When you can get as good a one as the imported bull advertised for sale on page 31 by O. R. Frauenheim, Random Lake, Wis., no breeder has any excuse for using a poor one. This bull is from the imported cow, Blanche Flower of Sarnia. She is a daughter of Raymond 60th, that is reported as having more daughters on A. R. test than any other bull of the breed. Send for an extended pedigree and further description of this animal.—Adv.

A Tractor That Does Things.

THE "Big Bull" tractor, made by the Bull Tractor Company, 2756 University Ave, S. E. Minneapolis, Minn., has made some remarkably good records in accomplishing things, earning its title "The Bull with the Pull." Any reader of The Wisconsin Farmer who is interested in the work of the Bull tractor should write the company for literature describing the Bull and telling what it has done for other farmers. They will send free on request a copy of their new book on subsoiling, or a three-months' subscription to the monthly Tractor Bulletin. State which you prefer, and tell them you saw their advertisement in The Wisconsin Farmer.—Adv.

Dane's Hampshires.

THE Dane Stock Farm, Oshkosh, Wis., is continually receiving letters of thanks from buyers to whom they have shipped breeding stock. We are here to say that "there's a reason," for they raise good Hampshires on that farm They are big and blocky with good bone, good heads and right all the way through. The herd sire, Dane's Model, is one of the best we ever saw, and we do not hesitate to recommend this herd to our readers. See advertisement on page 30, as it offers some special attractions.—Adv.

Barn Plans Free.

FARMERS who contemplate building new barns this season will be interested in seeing the book of practical barn plans that has just been published by the Hemlock Manufacturers, Dept. 300, F. R. A. Building, Oshkosh, Wis. These plans are designed to meet a variety of needs. The book will be sent free to any reader of The Wisconsin Farmer who will write for it. Just tell the company that you are a reader of The Wisconsin Farmer and that you would like to have a copy of "Old Faithful" book of barn plans No. 3, and give the name of your local lumber dealer.—Adv.

Tamarack Farm Guernseys.

TWO right good yearling Guernsey bulls are advertised for sale on page 31 by the Tamarack Farms, Dousman, Wis. The youngsters were sired by Dora's Boy of Sunny Valley 24470, whose dam made over 700 pounds of butter in a year. One of these bulls is out of the imported cow, Queen of the Lillies 28547. They are both well grown and of good, straight type. Send for their pedigrees and for further description.—Adv.

The Austin Angus Herd.

DON'T overlook the good herd of Aberdeen Angus cattle owned by R. A. Austin & Son, Lancaster, Wis. We consider this one of the best herds in the Northwest. Individually the herd has few superiors and they represent the most noted families of the breed. The young bulls they have for sale are of serviceable age and are in nice condition for immediate use. Write them for prices and description.—Adv.

Underwood Red Polls.

ONE of the good Red Poll herds in this state is owned by L. C. Underwood, Avoca, Wis., and the young bulls that he has for sale are desirable in every respect. One of the best Red

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

FRANK P. SHEKLETON & SONS **LAWLER, CHICKASAW CO., IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

4 Stallions PERCHERONS 2 Mares

WE are offering 6 very high-class Percheron stallions and mares; 1 two-year-old and one yearling stallion out of **Diana 53532** by Phil Sheridan and 1 yearling stallion and a 2 and 3 year old mare out of Karel 33640, a double bred **Baccarat** mare. The two-year-old stallion sired by Imp. Haricot 74108 is particularly good. Send for prices and description.

JOHN KLOEHN **FOREST JUNCTION, WISCONSIN**

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

A Large and Choice Collection of Stallions, Mares and Colts for sale at all seasons of the year. Correspondence solicited. Catalog mailed upon application.

H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids

W. A. LANG & CO.
Importers and Breeders of
BELGIANS and PERCHERONS

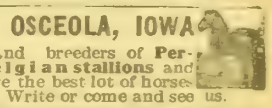
IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars
W. A. LANG & CO. **GREELEY, IOWA**

PERCHERON STALLIONS FOR SALE

REGISTERED Percheron stallions for sale. One yearling, dark bay; one four-year-old brown, a good one; one black, blocky, 1800 lbs. All sound and clean, heavy boned, cheap. Julius Schmidt, Wild Rose, Wis.

Percherons--Belgians. Imp and home-grown 4 and 5 yr. old stallions, ton and heavier, 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

HART BROS., OSCEOLA, IOWA



IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

HOME FRUITS PAY

Make the home lot or acre more valuable—more profitable—by growing more fruit. Investment small—profit and pleasure great. We are actual growers—sell direct from nursery to you—no agents, no commissions, finest quality trees. Every tree, bush or shrub guaranteed to reach you in perfect growing condition. All leading varieties. We want more customers. Our prices get them—Our quality holds them. Exceptional offers to introduce our Northern-grown, near-belt, state-inspected nursery stock. Lowest wholesale prices. Get this

FREE 1917 PLANTING GUIDE
Lists, describes, prices—at wholesale—all leading varieties apples, plums, cherries, grapes, pears, peaches, bush fruits, roses, hardy ornamental shrubs and trees, evergreens and perennials. A berry grower's book! An orchardist's manual! Printed in four colors. More wonderful than our 1916 book. A postal brings it to your home. Don't miss it. Write today.

GALLOWAY BROS. & CO.
Box 32 - Waterloo, Ia.

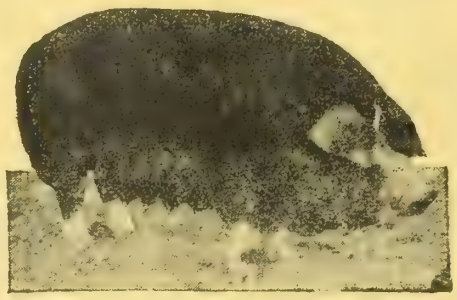
SMILEY & SONS' ANNUAL

POLAND CHINA BRED SOW SALE

AT THE FARM NEAR

Albany, Wis., Thurs., Feb. 22

50 HEAD--5 Tried Sows, 5 Fall Yearlings, 40 Gilts



Sired by **Major Hadley, Major Miller, Monarch** (some boar), **Big Bone Jumbo, Goldengate King** and others of note.

Bred to **Monarch, Major Miller, Smiley's King, Wisconsin Jumbo 2d.**

We have never made exorbitant averages but the sows that we have sold have made good for the buyers and we have satisfied customers. We sell in ordinary flesh and they farrow and raise large litters—don't think the offering is poor, for they are in proper breeding condition. **Sired by and bred to excellent boars.** Blood that old customers can use.

NOTICE: Catalogs sent only on request to those that write for same—do this at once and mention The Wisconsin Farmer. Auctioneer, W. B. Duncan. Send mail bids to T. P. Shreve, field man for The Wisconsin Farmer.

Wm. Smiley & Sons, Albany, Wis.

Choice Short-horns from Wisconsin's leading herds

Will Be Shown and Sold

THURSDAY, FEBRUARY 15, 1917

In University Stock Pavilion

at Madison, Wisconsin

52 HEAD--39 Females, 13 Bulls--52 HEAD

Consignments from the following herds:

Anoka Farms, Waukesha
G. D. Arnold, Galesville
H. B. Drake & Son, Beaver Dam
Griswold Bros., Livingston
Herr Bros. & Reynolds, Lodi
E. E. Jones, Rockland
R. Mauer & Sons, Fox Lake
Chas. Pengilly, Dodgeville
Carpenter & Carpenter, Baraboo
W. J. Bernd, New Richmond
D. H. Grady, Portage
Fox & Gallagher, Oregon
John Howie, Waunakee
Williams Bros., Bangor
H. Padden, New Richmond

It is only natural that these breeders would not consign poor animals—it would be a detriment to their herds. **A choice lot. Plan to attend.**

There will be a show at 10 a. m. Judge, C. J. McMaster, Altona, Ill. Carey M. Jones and Theo. Martin, auctioneers. Write for catalog to

J. L. TORMEY, Sec'y

College of Agriculture **Madison, Wisconsin**

ll bulls in the country heads this od herd of dual-purpose cattle. Write ur wants. See page 31.—Adv.

The Gant Dream Book.

DID you receive one of the Gant dream books if you have not, you should get one at once. They are instructive. Write Gant's Farm, Delavan, Wis., for one of these valuable books at once, then arrange to go to Delavan, February 15th. Do this at once.—Adv.

Tulloch & Fries.

TULLOCH & FRIES, Genoa, Wis., have a fine herd of A. R. O. Holsteins and the bulls that they have for sale at this time are sired by a 32-pound bull and their dams have records up to 24-pounds. If interested write them. See page 30.—Adv.

Herefords.

J. J. F. WINTERS, Sparta, Wis., has a few Hereford bulls for sale. Perhaps you are interested in bulls of this breed, if so go and see the Winters cattle, they might suit you.—Adv.

SALE DATES.

Poland China Swine.

Feb. 22, William Smiley & Son, Albany, Wis.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Holstein Cattle.

Mar. 7, J. A. Forge, Burlington, Wis.
Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.
Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.
May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.
May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.
May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

Duroc Jersey Swine.

Feb. 26, George W. Pagel, Zumbrota, Minn.

TOLD IN THE HILLS

(Continued from page 24.)

skin shirt, the knife in his belt, the rifle swung at his back.

There was something impressively ghastly in those two figures—the live one with the stubbornness of fate, and the stolidity, sitting there, with across his thighs the blanketed, shapeless thing that had held a life; and even the husk seemed a little more horrible with its face hidden than when revealed more frankly; there was something so weirdly suggestive in the motionless outlines.

"No, I don't want that," he said, as the man who read the message was about to hand it back to him; "it belongs to the command, and I may get a dose of cold lead before I could deliver it."

Then he glanced about, signaling Stuart by a motion of his head.

"There's a lady across in the valley there that I treated pretty badly last night," he said, in a tone so natural that all near could hear him, and more than one head was raised in angry question. "She was just good enough to ride over from the ranch to bring a letter to me—hearing I was locked up for a horse thief, and couldn't go after it. Well, as I tell you, I was just mean enough to treat her pretty bad—flung her on the floor when she tried to stop me, and then nabbed the beast she rode to camp on—happened to be my own; but maybe she won't feel so bad if you just tell her what the nag was used for; and maybe that will show her I didn't take the trail for fun."

"That" was one of the gloves he had worn from his hands with his night's work, and there were stains on it darker than those made with earth.

"I'll tell her;" and then an impulsive honesty of feeling made him add: "You need never fear her judgment of you, Jack."

The two looked a moment in each other's eyes, and the older man spoke.

"I've been hard on you," he said deliberately, "mighty hard; all at once I've seen it, and all the time you've been thinking a heap better of me than I deserved. I know it now, but it's about over. I won't stand in your way much longer; wait till I come back—"

"You are coming back? and where are you going?" The questions, a tone louder than they had used, were heard by the others around. Genesee noted the listening look on the faces, and his words were answers to them as much as to the questioner.

(To be continued.)

SHORT-HORN CATTLE.

OAK LAWN FARM--SHORT-HORNS of QUALITY

FOR SALE at reasonable prices. Six very choice, dual purpose Short-horn cows, aged 2 to 6 years, all safe in calf to Village Denmark 8th, my herd bull that is today considered one of the best Short-horn bulls in Wisconsin. Address **J. E. KENNEDY, JANESVILLE, WISCONSIN**

SHORT-HORN COWS AND HEIFERS

Fresh or to freshen soon. Priced very reasonable. Write to **WILLIAMS BROS.** **BANGOR, WISCONSIN**

GREEN VIEW STOCK FARM SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address **John H. Bear & Son** **Spring Green, Wis.**

MILKING SHORT-HORNS

HAVING several choice young bulls from dams giving 10 to 12,000 pounds of milk. I have a well-bred herd and keep records of production. Inspection invited. Address **Harvey H. Little** **Evansville, Wisconsin**

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Mauer & Son, Fox Lake, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address **J. Warren Hoyt** **Rosendale, Wis.**

HILLSIDE FARM SHORT-HORNS

WE will sell 4 heifers sired by **Prince Cumberland** in the Madison sale February 15, 1917, and they are from good ones in nice breeding condition. **Eben E. Jones, Rockland, Wis.**

SULTAN BRED SHORT-HORNS

WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer, **H. B. Drake & Son, Beaver Dam, Wisconsin**

Bates Milking Short-horns

2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable. **Geo. Wenham & Sons, Ft. Atkinson, Wis.**

KISER BROS.

OFFER Short-horn bulls. Ranging from six months to a year old. Continuous breeding for 46 years. Write for description. **KISER BROS.** **OREGON, WIS.**

SHORT-HORNS The get of Rosebud Champion winning 2d at the International; Highland Sultan, winning 3d; Buchan Marshall, he from winners on both sides at same show. Can show you ten cows and 2,400-lb. sires. If you want size and milk come or write **W. J. Bernd, New Richmond, Wisconsin.**

MILKING SHORT-HORN BULLS

TWO REDS, eight to nine months old, sired by Milkman, that is out of a 4.4% butter fat cow that gave over 60 lbs. of milk per day. Send for prices and description. Address **Geo. Smith & Son - Burnett, Wisconsin**

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited. **B. W. Little** **Janesville, Wis.**

SHORT-HORNS Big-type **POLANDS.** Choice bulls, 1 to 15 mos. good breeding. Colly nieVictor 387634 in service. Also strong boars ready for service and gilts. Fall pigs for sale. **A. Menke & Sons, R. 1, Markesan, Wis.**

FOR SALE--1 SCOTCH SHORT-HORN

HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Santa. A. J. Wheeler, R. 1, Beaver Dam, Wis.

PAGEL SELLS

DUROCS AT ZUMBROTA, MINNESOTA, ON MONDAY, FEBRUARY 26, 1917

40 HEAD---BIG ONES WITH QUALITY

The gilts have been well cared for and are in the proper condition for future usefulness. All show to be safe in pig. The sows are large and of the most fashionable breeding.

H. C. WONDER BY BIG WONDER

Most of the offering is bred to the above boar. He is big, has great depth, wonderful feet and pasterns—in fact there are few better boars in Minnesota. Some are bred to Pagel's Defender by Lee's Defender. You have noticed by the sale reports that I have bought good ones—I sell the same kind. You are invited to this, my first sale. Buying instructions should be sent to T. P. Shreve, field man for The Wisconsin Farmer. Col. H. S. Allen, auctioneer. Write at once for my catalog, mentioning The Wisconsin Farmer. Address

GEO. W. PAGEL NEAR ROCHESTER **ZUMBROTA, MINN.**

DUROC JERSEY SWINE.

BURN BRAE DUROCS---The Good Kind

THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Roxy (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
BURN BRAE FARM - - - ROSENDALE, WISCONSIN

YOUR OPPORTUNITY

WE offer a limited number of bred Duroc yearlings and gilts, well grown and safe in pig. Bred to a son of King Royal, he by Royal King and a Defender-Crimson Wonder Again boar.

"BIG DUROCS WITH QUALITY"

We satisfy our customers. Write
Riley Ma tiny & Son Baraboo, Wis.
Also an imported Guernsey bull.

M. STOEHR

VIROQUA - WIS.

DUROC boars all sold out. Ten of my best gilts for sale. Farmers' prices. Write me, mentioning The Wisconsin Farmer.

40 Duroc Sows

HAVE been bred to sons of Pathfinder and King the Col. and will be sold January 30. One of the best offerings ever sold in the state. Send name for mailingilist.
Dennis Shea Melvina, Wis.
(10 miles from Sparta)

PARKERS' Prolific Porkers

OFFERING a few **DUROC** gilts bred for March and April farrow. The big kind with quality. The home of **KING ORION** by Orion Cherry King Jr. We'll ship you a good sow—try us.
E. H. Parker & Son Janesville, Wisconsin

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

FISHER

Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address
JOHN L. FISHER - JANESVILLE, WIS.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC GILTS

OFFERING gilts bred for March and April farrow. Also breed Jerseys. Write
E. E. WYATT TOMAH, WIS.

BOARS ALL SOLD

REMEMBER my **Duroc Jersey sow sale January 31st**
L. F. ATWATER BANGOR, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

30 SPRING GILTS

SIRED by Professor B. and Model Wonder; bred to a son of Orion Cherry King, Jr., for March and April farrow. **All stock shipped subject to approval on ten days' trial.** Burt Farms, Brodhead, Wis.

YORKSHIRE SWINE.

FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

POLAND CHINA SWINE.

OPPORTUNITY

OFFERING March gilts out of my big sows, bred for March and April farrow. Sired by JIM CROW, the sire of my WINNERS. Bred to JUMBO'S GIANT (3d at Minn.), Mo's BIG BONE and MATCHLESS WONDER (2d, Ia., 1915). Will sell a few sows. The fact that I SOLD 71 SPRING BOARS shows what the people think of my POLANDS. Buy from a winning herd—it adds prestige to yours.
J. D. McDONALD NORTH BEND, WIS.
"BIG POLAND CHINAS." Selling 4 sows at Madison.

MARTINY'S BRED SOWS

30 BIG, growthy Poland China March and April gilts, sired by Chief Price and Select Major 2d. 1st prize senior and 1st prize junior yearling boars at the Wisconsin State Fair this fall: and other boars. These sows are bred for April farrow to Golden Gate Giant and Long Black Jumbo, a boar I am going to show next year. If you are looking for something good I can suit you in sows and price.
L. P. MARTINY CHIPPEWA FALLS, WIS.

BRED POLAND GILTS

OF big-type breeding and bred to **Chief Price** by the champion, Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

FEB. 14

IS the day I sell 50 Poland China sows. Many are by Black Jumbo, the largest boar in the state, and they are bred to Model Major 2d, the largest 2-year-old in the state. Get on my mailing list.
E. W. HENDRICKS
Hazel Green Wis.

FEB. 15

Poland China Brood Sow Sale

40 TOP OF TOPS-WRITE FOR CATALOG

J. C. HENDRICKS
Box F - - Hazel Green, Wis.

REGISTERED POLAND CHINAS

A FINE lot of spring boars, also a few spring gilts (on approval). Bred gilts for spring farrow later. (Registered Holsteins).
Marinette County Asylum - Peshtigo, Wis.

FEBRUARY 22nd

WE SELL 50 POLAND
BRED SOWS
WAIT
WM. SMILEY & SONS ALBANY, WIS.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch Mt. Ida, Wis.

POLAND CHINAS

BRED SOWS AND GILTS

Write your wants. Address
R. MEINKING BANGOR, WISCONSIN

When writing to advertisers kindly mention The Wisconsin Farmer.

BIG-TYPE POLANDS

SOWS and gilts bred to SMOOTH KING, a son of Golden Gate King. Order one. Address
CHAS. S. MALTBY JANESVILLE, WIS.

BRED GILTS

POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.
OLOF C. OLSON STRUM, WIS.

CHESTER WHITE SWINE.

BUY NOW and save express. Offering the pick of 300 fall

CHESTER WHITE PIGS

100 CHOICE spring gilts and a few boars. I have a large herd and believe in small profits and quick sales. I'll appreciate your order and will please you. Write
Harry Crandell Cass City, Mich.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.
H. A. DERENTHAL WYKOFF, MINN.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

CHESTER WHITES

AM sold out of Aug. farrow pigs, but have Sept. pigs left. Have some nice bred gilts left, not loaded with fat but in fair condition to do the buyer good. **Wm. F. Butts, Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.
WEST SALEM WISCONSIN

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word each insertion.

Services of Expert Live Stock Photographer

Up-to-date live stock breeders are more and more using photographs in advertising their herds. It is the modern way of doing things, and The Wisconsin Farmer is meeting the situation by offering the services of a skilled live stock photographer. Appointments may be made by mail at any time. For estimates of cost and other information write The Wisconsin Farmer.

HOLSTEIN-FRIESIAN CATTLE.

Like Produces Like!

THEREFORE, buy a Holstein bull calf from a herd in which nearly every cow has an A. R. O. record of 20 to 33 pounds, and in which the **38 yearly records average** 16,619 pounds milk and 709.3 butter, made by 8 junior two year olds, 5 senior two year olds, 7 three year olds, 6 four olds and 12 mature cows.

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

SIZE HEALTH VIGOR BREEDING
HOLSTEIN BULL CALVES $100 and Up

Write PABST STOCK FARM, Dept. 30, Oconomowoc, Wis.

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.
BAIRD BROS. - - - - **WAUKESHA, WISCONSIN**

HOLSTEIN BULL FOR SALE
Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediat e sale. Address
PINEHURST DAIRY SHEBOYGAN FALLS, WISCONSIN

HOLSTEIN BULL CALVES FOR SALE

BY 32-lb. sires and from A. R. O. dams up to 24 pounds butter in 7 days. Popular breeding. Good individuals. Priced from $100 up. Mention The Wisconsin Farmer and address
TULLOCH & FRIES' HERD - - - GENOA, WISCONSIN
"Where Price and Quality Meet."

RUST BROS.

OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heavy producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address

ARTHUR RUST
West Allis Wisconsin

Holstein Bull For Sale

ONE Holstein bull, ready for light service. Born Dec. 31, 1915. His dam has an official record of 14.65 lbs. butter and 365 lbs. milk for 7 days as a 3 yr. old. His sire is a grandson of Hengerveld De Kol that has 116 A. R. O. daughters. This bull is straight and a good individual in every way and good enough to head a choice herd. Nicely marked, ⅞ white. Guaranteed to be sound and right in every way. Price, $100.00.
Mountain Ash Stock Farm, J. B. Cain, Prop. Glenbeulah, Wisconsin

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Three Nearest Dams

of this young bull average

26.45 Lbs. of Butter in 7 Days

being 23.71 (3-yr.-old); 27.67; 27.96. He is sired by **Contest Colantha Crown DeKol** and out of a daughter of **Aaggie Cornucopia Johanna Lad Jr. 6th.** Send for an extended pedigree.
JOHN STEELE OCONOMOWOC, WIS.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. Registered Poland China hogs.
Marinette County Asylum - Peshtigo, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Rohers Lyons, Wis.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address
Dopp Brothers Ixonia, Wisconsin

WALCOWIS FARMS

GIVES you opportunity to get Holstein year. rec. grandson of King of The Pontiacs, born June '16; tuberculin tested, fine animal. Sire: Cornucopia Pontiac Johanna Lad, full bro. to K. P. Manor Kate, 1023.41 lbs. butter, 22,106 lbs. milk, world's yearly record senior 2 yr. old. Dam: Lady Walcowis De Kol. Butter, 7 days at 3½ yrs., 21.67 lbs.; milk, 528.5 at 2 yrs., 13 days.; butter for 7 days, 15.67, for 365 days, 643.91 and 17,110 lbs. milk. For price, pedigree and photo, address
N. Dickinson & Son Lake Geneva, Wis.

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.
SILVER SPRING FARM CO. - EAU CLAIRE, WIS.

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write
W. H. S. Rhoda Watertown, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER, SHEBOYGAN FALLS, WIS.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

A 31.02 POUND BULL FOR SALE

RACINE JOHANNA PIEBE MERCEDES 188460. Born December 8, 1915. Well marked, of excellent conformation and well grown. His dam, **Ella Mercedes of Elm Court,** made **31.02 pounds butter** in seven days; **130.47** in thirty days and **829.78** in a year. She is a big cow weighing over 1,600 pounds; her dam weighs over 1,700. His sire, **Racine Sir Johanna Piebe,** is a show bull. His dam is a show cow and weighs close to 1,600 pounds. In seven days she made 24.49 and 808.82 pounds butter in a year. Send for his complete pedigree and picture. **Large size, good, straight type** and **heavy production ability** have been bred into this bull for generations. Come to our farm and see his dam, grandam and sisters. They are the type you will want in your calves. Am also offering a straight, well-grown heifer, born May 15, 1916, out of Lady Johanna of Elm Court, a half sister to Colantha Piebe of Elm Court; calf is sired by Count of the Pontiacs.
Reuben Klofanda R. 1, Racine, Wis.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

SPECIAL OFFERING--HOLSTEIN BULL

BULL, dropped Oct. 4, 1915. Well grown, extra good individual and nicely marked. His sire is a son of King Pieter Lyons and out of a daughter of Colantha Champion. The dam of this youngster has a 17 lb. two year old record and should increase this at next freshening. She is a daughter of King Segis Pontiac Polkadot and out of a granddaughter of Pontiac Korndyke. Fourteen nearest dams of bull average over 26 lbs. Price $175.00. Write for pedigree.
EDGEWOOD FARMS, INC. PEWAUKEE, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

INTER-COUNTY HOLSTEIN ASSOCIATION

SELLS cattle on a fair and square basis. We have yet to produce a dissatisfied buyer. Our fall sale was a dandy—satisfied buyer and seller. Our spring sale, April 4th and 5th, promises to eclipse our fall sale. We have some splendid bargains in bulls and females. Francis Darcey, Secy., Watertown, Wis.

A HOLSTEIN BULL

BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.
L. A. KIMBALL LAKE GENEVA, WIS.

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9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address
HUTCHINSON BROTHERS & BURBACH CAMBRIA, WISCONSIN

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address
EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address
B. F. Winckler & Sons Medina, Wis.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey Grafton, Wisconsin

LA BELLE VIEW HOLSTEIN bulls keep moving. I told you so and there is a reason, we never have a yearling. People know good breeding and appreciate low prices. Only two youngsters left and they are dandies, from splendid A. R. O. dams and by a grandson of the famous bull, Sir Ormsby Hengerveld De Kol, that had world record dghts. and granddghts. to his credit. Satisfaction guar. E. E. Rosenkrans, Oconomowoc, Wis.

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916, price $100. I. V. Garvens, Brookfield, Wis.

Maplewood HOLSTEINS

OFFERING 6 bulls of serviceable age, sired by **King Fobes Oak DeKol,** ¾ brother to Minnesota's first 36-lb cow, and out of A. R. O. dams. Write **R. C. Walker, Kilbourn, Wisconsin.**

Purebred Registered

HOLSTEIN CATTLE

The undeniable facts that the Holstein-Friesian Association of America is the largest and most prosperous dairy cattle association in America, that its membership is over 7,000 more than the combined memberships of the other dairy cattle associations, and that it increased its membership by 1,260 during the fiscal year ending April 30, 1916, are primarily a fitting testimonial to the superior merits of the purebred Holstein-Friesian cow, that yields more milk for a day, for a year, for a lifetime and for profit than any other cow. There is big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.
The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

HILLSIDE STOCK FARM

REGISTERED Holstein cows, heifers and bulls and Chester White swine. Write your wants.
KIRKPATRICK BROS. Reedsburg, Wis.

HOLSTEINS

HERD headed by Sir Rigtje Pearl Wit, whose dam made 26.23 lbs. of butter in 7 days as a 3 yr. old. A few males and females from A. R. O dams. For particulars, address P. J. Liebenstein, R. 19, Adell, Wisconsin.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

HAMPSHIRE SWINE.

HAMPSHIRES

OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each; 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Dane's Model 25929.
DANE STOCK FARM OSHKOSH, WIS.

Mulhall's Hampshires

BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, fall and spring gilts. Best of breeding and priced to sell.
TERRY MULHALL SIOUX CITY, IOWA

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

HOLSTEIN BULL

BORN February 21, 1916. ¾ white. Good individual, sired by a son of Pontiac Korndyke and out of a daughter of De Colantha Johanna, champion. Price $100. Address
Peter Larson Randolph, Wis.

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

John Bradley
Randolph Wisconsin

A FEW yearling bulls and younger from A. R. O. dams with creditable records. Send for pedigree and price.

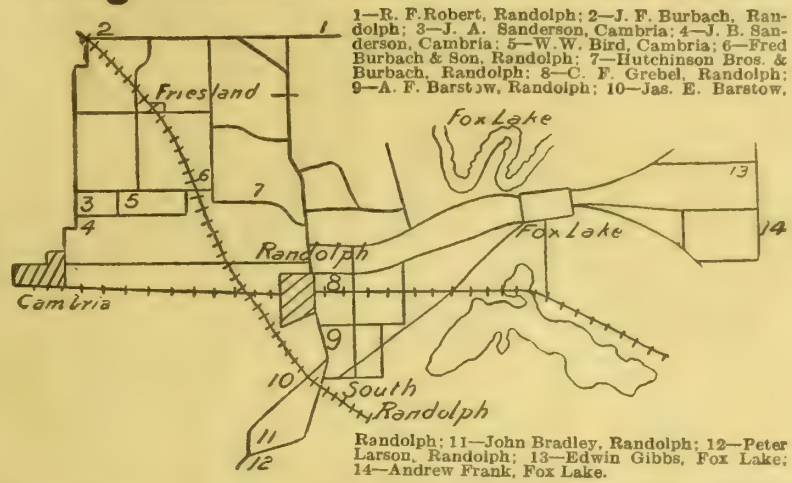
Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address
HUTCHINSON BROTHERS & BURBACH CAMBRIA, WISCONSIN

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Randolph; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

REG. HOLSTEINS

Cattle of choice breeding
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 3[illegible] sire. Will price a few females bred [illegible] bull.
J. B. Sanderson - Cambria, Wisconsin

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

Yearling Holstein Bulls

READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
Andrew Frank - Fox Lake, Wisconsin

Duroc Gilts

BRED to a good son of Tommy Doyle, the $1.500 grand champion for March and April farrow. Their dams are by Col. Defender 2d or Valley G. Priced to sell. Write
W. W. BIRD CAMBRIA, WISCONSIN

GUERNSEY CATTLE.

INDIVIDUAL EXCELLENCE

Buy An A. R. Sire and Champion

OFFER: **King Talladeen of Chestnut Hill 13460,** grand champion Mich. State Fair. Sired 4 A. R. daughters averaging 350 lbs. fat as 2 yr. olds. **Sire: Skeezicks 9979,** 13 A. R. daughters. **Dam: Talladeen 17510,** A. R. 633.50. A tried sire that has been used successfully in our herd. Will be pleased to show his get. Few such **Guernsey bulls** are being offered. **We guarantee him in every respect. Write**
FOX BROTHERS WAUKESHA, WISCONSIN

2 Richly Bred Reg. Guernsey Cows

AND a yearling bull for sale. No. 1—**Imp. Daisy Maid II of the Gree**—has an A. R. record and has 2 A. R. daughters. She is an imported granddaughter of Gov. of the Chene. No. 2—**Tidy's Girl,** a daughter of Raymond of Homestead whose dam gave **13,000 lbs. milk in a year.** Both were bred in May to Gov. Pagenta, a son of Gov. of the Chene. Bull 13 months old, out of Tidy's Girl and sired by Gov. Pagenta.
W. G. Jamison & Sons Appleton, Wis.

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
Frank E. Swan Wauwatosa, Wis.

SONS of the Guernsey bull, KING PIN OF WOODLAND, whose parents and grandparents are Advance Registry animals. The bulls for sale are from A. R. O. cows. Prices $100. Address A. H. Hinman, Allenville, Wisconsin.

GUERNSEY bull, 1 yr., by son of Glenwood Stranford, that has 16 A.R. dau.; dam's record, 500 lbs. fat. $100. W. A. Lawson, Rosendale, Wis.

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.

Berkshire Spring Boars and Gilts
of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address
O. R. FRAUENHEIM, RANDOM LAKE, WIS

REGISTERED GUERNSEYS

DAUGHTERS of Imp. Masher's Sequel and other high-class sires. Bred to bulls of May Rose-Glenwood breeding, to freshen in March. Heifers $100 to $175. Bulls with A. R. backing, all ages. Schmit Bros., Eau Claire, Wisconsin.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

Guernsey Bull For Sale

BORN March 17, 1916, Glenwood breeding. Sire, Colonel Waukesha. Dam, Park's Pet. He is well marked, a good individual and right in every way. Price made right to sell. Address
L. J. Wendt R. 6, Waukesha, Wis.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — **WRITE YOUR WANTS**
Emory C. Meltz GUERNSEYS Appleton, Wis.

FOR SALE FINE high grade Guernsey heifer calves, nicely marked and colored. Arthur Findlay, R. 3, Whitewater, Wis.

AYRSHIRE CATTLE.

ALDEBARAN FARMS

A. R. AYRSHIRES

YEARLING AYRSHIRE BULL ready for service, ¾ white, well grown, good straight type. Dam has an Advanced Registry record of over 500 pounds of butter in a year. This youngster is backed by rich Advance Registry breeding. His dam, both grandams and both grandsires being Advance Registry animals. Send for pedigree and price. Address
STEPHEN BULL RACINE, WISCONSIN

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.
ADAM SEITZ WAUKESHA, WISCONSIN

AYRSHIRES

Can supply your wants if you want
HEIFERS OR BULLS
from A. R. dams. Also breeder of
Clydesdales and Durocs
Write your wants Address
JAS. VAN ETTA LIMA CENTER, WIS.

POLLED DURHAM CATTLE.

POLLED DURHAM CATTLE Registered bulls for sale from 2 to 8 months of age. Address Ph. Lang, West Bend, Wisconsin.

D. S. Polled Durhams, 7 bulls 8 to 14 mos., reds and roans by Red Sultan X 9404-565337. Herd and farmers' bulls. F. Bunker, Kilbourn, Wis.

Please mention this paper when writing

JERSEY CATTLE.

RED OAK STOCK FARM

F. R. CONSTANCE & SONS, Props.

HAVE one yearling Jersey bull and three yearling bull calves for sale. All out of splendid dams and sired by a bull whose dam made 526 lbs. butter on official test under just ordinary farm conditions. We also have a fine fall Duroc boars and gilts for sale. For Dec., 19 cows and heifers of all ages and periods of lactation gave us 618.2 lbs fat for which we received 44½c per lb. or $275.10. This was at the creamery and this under just ordinary farm conditions.
WAUPACA WISCONSIN

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753,629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.
FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

ABERDEEN ANGUS CATTLE.

ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

HEREFORD CATTLE.

HEREFORDS
BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.
J. J. F. WINTERS SPARTA, WIS.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

MAPLE LAWN RED POLLS

SEVERAL well-bred, registered bulls, 2 to 9 months old, for sale at reasonable prices.
L. F. Biglow & Son Brooklyn, Wis.

LIVE STOCK AUCTIONEERS.

ORVAL A. JONES

Auctioneer
14 N. Sacremento Blvd. Chicago, Ill.
Pedigreed Live Stock and Real Estate.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY versed on pedigrees of leading breeds of live stock.

When writing to advertisers kindly mention The Wisconsin Farmer.

OAK GROVE JERSEY FARM

Nothing for Sale at Present
Watch This Space for Future Offerings
W. M. KNIGHT EAGLE, WISCONSIN

GOOD JERSEY BULL

BORN October 22, 1916, a good one; straight type good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
Ora P. Taylor Elkhorn, Wis.

REGISTERED JERSEY COWS AND HEIFERS

WITH **register of merit records** or breeding. Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
Ed. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
H. Holt & Son Oconomowoc, Wis.

BURN BRAE JERSEYS

REGISTER of Merit bulls from calves to ready for service. High class and priced to sell.
BURN BRAE ROSENDALE, WIS.

JERSEYS

100 FEMALE in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write
FRED STUBLEY BLACK EARTH, WIS

SHEEP.

VALLEY VIEW STOCK FARM
SPECIAL OFFERING

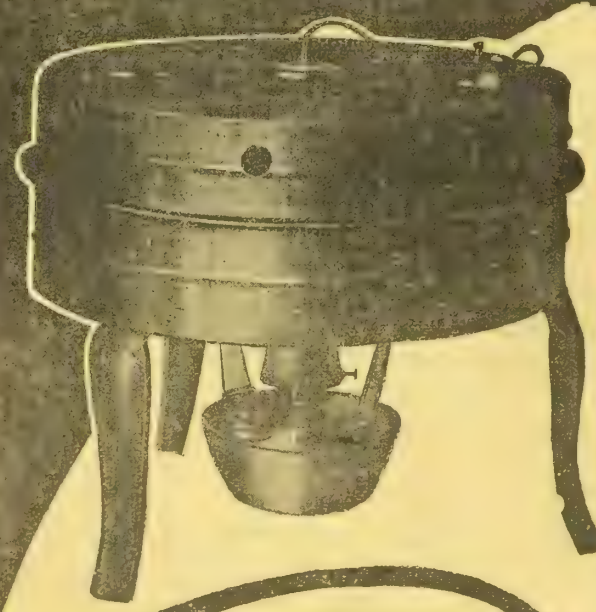
ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.
Geo. A. Philippi, R. 40, Bear Creek, Wis.

Columbus, N. M., Feb. 23, 1916.
Stock Food Co., Milwaukee, Wis.
men: I herewith enclose money the trial I ordered some time ... of your famous Stock Food. I have used all kinds of stock tonic but yours surely caps them all. My horses and cows are doing fine and don't require near the feed. I have been dividing with my neighbors and they all say there is nothing like it. W. I. Hobbs.

Dafoe, Mich., March 14, 1916.
Wilbur Stock Food Co.
Dear Sirs: I have received your stock tonic two months ago today and have fed it as directed and certainly find it as recommended, even better. One of my horses and cows always run down in winter so it took nearly all summer to shed their old hair, but this winter since I fed your tonic they are shedding their hair now and are in fine condition and my poultry has done better this winter than ever. The neighbors are all surprised to see my stock, especially horses. Their hair is so sleek and glossy. I will not be without your tonic if I can get it anywhere. I recommended to all my neighbors and friends what your tonic has done for my stock.
Yours truly,
Onesime Dion.

Feb. 14, 1916.
To Whom It May Concern:
We have used Wilbur's Stock Tonic in dairy herd and we are thoroughly satisfied with results. We find great increase in flesh, cream and flow of milk. Since we began using it, our cows are doing better on less feed. We think it superior to any other tonic.
Yours very truly,
Bell & Tatum.

Feed Your Cattle 60 Days—At My Risk



AND GET ONE OF THESE ALL STEEL 50 EGG INCUBATORS FREE

This all steel Incubator is a first class hatching machine in every way. It's built of best quality steel with double walls and thoroughly insulated top. It is not a toy in any sense of the word. It is compact, and being steel, is absolutely fire-proof and trouble-proof. It is wonderfully simple, easy to operate, requires very little care and attention—and

We Positively Guarantee

the hatching qualities to be equal to those of any incubator on the market.
WILBUR STOCK FOOD COMPANY

I want every reader of this paper to try my Stock Tonic for two whole months at my risk and to pay for making the trial **I will give away to each one** who sends in the coupon below **one of these guaranteed Incubators—Absolutely Free.** I will send the Incubator at once and also a good trial feeding of

WILBUR'S STOCK TONIC

The greatest of all live stock conditioners. It will send you this Stock Tonic with the **distinct understanding** that it is to be used for **two whole months at my risk**—that if at the end of the two months trial feeding the Stock Tonic has not been entirely satisfactory to you **no charge is to be made.** I simply want you to make a two months free trial of my Stock Tonic with the understanding that **if it does not fatten up your live stock—kill the worms—that if it has not paid you to feed it—no charge is to be made.** Then as a special inducement, to repay you for the trouble in making this test, **I will give you—Absolutely Free—one of these all steel Incubators shown above.**

There Is No Secret About This Tonic

It is composed of twelve separate ingredients—plainly printed on every package. These ingredients are acknowledged by veterinarians everywhere to be the **finest tonics, appetizers, digestive aids and worm expellers** known to medical science. Each one has its special purpose. When all these herbs, roots, etc., are mixed with the regular feed they act directly on the digestive organs of the animal. They **create an appetite, help the animal digest the food** and then **turn the food into good, rich flesh and blood.** They **kill the worms, keep the blood clear and tone up the entire system.** This tonic is not a patent medicine. It merely supplies to an animal **what is lacking** in ordinary feed. It is nature's own remedy for all troubles arising from indigestion, overfeeding, etc. That is why it is absolutely sure to put your animals in such perfect condition that you **will be bound to make more money with everyone of them.** I have made and sold this tonic for over thirty years and over a million of the best stockraisers in America are feeding it every day. I have thousands upon thousands of the finest kind of letters from all parts of the country telling me of the wonderful results from feeding it. You would feed it too—if you only knew that it would make money for you. **That's what I want to prove with this trial feeding.** And as a special inducement, just to get you to make this trial—**at my risk—I am going to send you one of these Incubators Absolutely Free.**

It Incubator is Yours—Free

It never costs you a cent. It's yours—**forever**—to keep and use every day—**whether you ever pay for the trial feeding of Tonic or not.** It's a positively guaranteed machine—you will find it one of the neatest, cleanest, handiest and most reliable hatching machines that you ever saw. We know that you will be pleased with it, and remember—it's Free

This is a sincere, straight forward effort to get you to use my tonic. **I am taking all the risk.** I could not print this offer in this paper unless I made good every promise. In addition, I refer you to any bank or commercial agency anywhere. I mean every word I say and you are taking no risk in accepting my offer and sending for this trial feeding with the Incubator free.

SEND NO MONEY. Just find out by actual test on your own stock that **my tonic will make money for you.** I have an Incubator all ready for you if you send that coupon right away. **You can't possibly lose anything**—you have everything to gain. **Isn't it worth a postage stamp? Do it now—at my risk—fill out and mail the coupon to me at once.**

E B Marshall *President.*

WILBUR STOCK FOOD CO., 195 Huron St., Milwaukee, Wis.

61

E. B. MARSHALL, President,
Wilbur Stock Food Co., 195 Huron St., Milwaukee, Wis.
Please send me at once one of your **All Steel 50 Egg Incubators.** Also send me 100 pounds of Wilbur's Stock Tonic. I agree to feed the tonic for two months and if it is what you claim I will send you only $2.00 at the end of the two months test and then $4.00 a month for three months. If it fails and I so report within sixty days **you are to cancel the charge and I will owe you nothing.** You are also to ship me free enough **Wilbur's Poultry Tonic**—your guaranteed egg producer — to offset all freight charges on the shipment. **It is understood that the All Steel Incubator and the pail of Poultry Tonic are to be mine—Absolutely Free—whether I pay for the Stock Tonic or not.**

Name.....R. F. D.....
Post Office.....State.....
Freight Office.....State.....
I own.....cattle.....horses.....hogs.....sheep
.....Poultry. I own.....acres of land. I rent.....acres land. I am.....years of age.

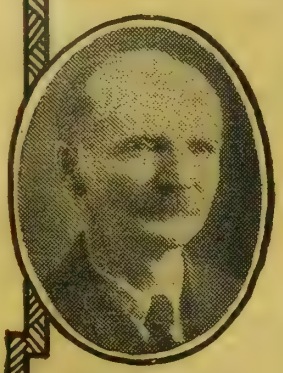
NOTE—This liberal offer only open to responsible farmers or stock raisers over 21 years of age.

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 7. THURSDAY, FEBRUARY 15, 1917. WHOLE NO. 1829

More Hogs For Our Dairy Farms



GEORGE KELLY,

An Iowa county breeder and exhibitor of Berkshire hogs.

L. F. ATWATER,

La Crosse county Duroc breeder who was a leader Swine Week.

THIS was the slogan for Farmers' Week. Wisconsin has so many dairy farms that it would be difficult to greatly increase the number of swine unless these swine might find a place on the same farms where the cows are kept. So the real problem of extending the swine business in the state seems to be in interesting the dairy farmer to raise more hogs. If this cannot be done there would necessarily have to be a lessening of dairy cattle to increase the number of hogs and we found no one attending the Farmers' Week conferences who suggested for a minute that we dispose of a few hundred thousand dairy cattle and put in swine instead. Such is far from the spirit of the greater swine movement in Wisconsin.

That too few farmers have realized the close relationship between the hog and the dairy cow when it comes to farm profits is a sad condition of affairs. The best breeders have been quicker to see the desirability of a cow-hog combination. So frequently we see in the advertising columns a Wisconsin farmer who is raising Guernseys and Berkshires, or Holsteins and Poland Chinas, or milking Shorthorns and Durocs, or some other good combination which could be worked out of these and other desirable breeds of dairy cattle and swine. It is unnecessary to go into a long discussion at this time as to the feeding economies which may be effected on a farm which raises dairy cattle and feeds hogs. The value of skim milk as a food for young pigs is too well known. The chief difficulty seems to be that we have not yet stimulated the interest of our dairymen to the extent that they will get busy in the hog game. The average dairyman knows that it will pay him, under ordinary circumstances, to have brood sows, a well-bred boar, and that when the litters come he has about his best chance at a quick cash crop. The hog has been called the "mortgage lifter," and it is a truthful name, especially on the dairy farm, where the cream check keeps up business on a substantial basis the year around, and the pig money comes in extra to meet such special obligations as interest, taxes and mortgages.

Wisconsin fed pork is in demand at the Milwaukee, Chicago and South St. Paul markets. We were told Farmers' Week that there is practically no preference given to breeds at the market. There is a decided preference for size and condition, but whether a hog is white, or red, or black, or striped, seems to make little difference to the buyer if he meets the other market standards. The 200 to 250-pound pig, free from disease, is best adapted to packing for the better grades of meat. The smaller pig is in demand for export trade, especially to Liverpool. More attention is being paid each year to the health of hogs which arrive at the markets. While the percentage of tuberculosis in hogs is not high, it is higher than it should be, and disease-free hogs are bound to gain a preference. One of the buyers addressing the farmers at the swine week program in Madison last week was asked to state the probable causes of tuberculosis in hogs. He said that dust is one of the most frequent causes. Dust is a great carrier of germs. It is just as likely to carry tuberculosis into the lungs of a hog as it is into the lungs of a human—in fact, more so, as the hog will make no effort to protect himself in the dirtiest kind of dust. So pens and feeding floors should be kept free from dust for the protection of the hogs and for the protection of all other live stock on the farm.

With hogs selling at eleven to twelve cents a pound on the Chicago market, as they did last week, the readers of this paper do not need to be told that there is a profit in animals like these that will use up a large part of the cheap feed on a dairy farm. But all hogs do not sell at such prices. If it pays to raise hogs at all it pays to raise good hogs—hogs true to some

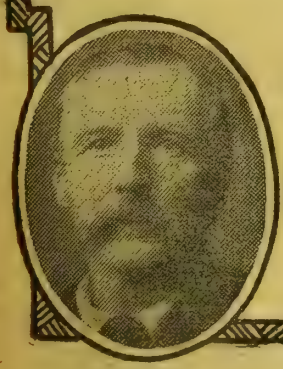
(Concluded on page 26.)

R. L. HILL,

Field secretary of the National Duroc Jersey Association.

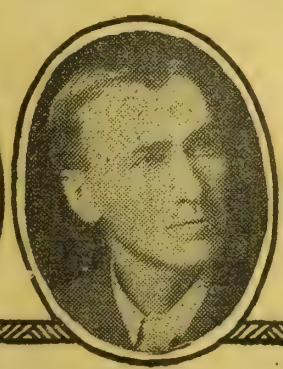
F. F. MOORE,

Secretary of the Chester White Record Association.



J. F. DILEY,

Poland China breeder, who has been director of National Assn.

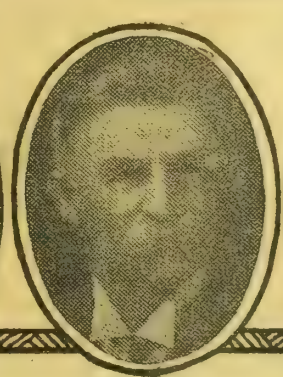


JAMES FISHER,

Crawford county Chester White breeder who spoke Farmers' Week.

JAMES DILLON,

Buffalo county men, swine superintendent, Wisconsin State Fair.



G. B. VAN NORMAN,

Forty years' hog experience in Sauk and Waukesha counties.

M. MADSON,

Well-known Dane county breeder of Poland China hogs.

M. H. O'KEEFE,

For years an efficient officer in Wisconsin Duroc Association.

Anthony Fence

Under stress of action each wire within a considerable radius is brought into play, affording, to an extraordinary degree, the resistance of a flexible wall of steel—due to the perfectly balanced woven fabric, in which each wire is drawn under equal tension with machinery of special design. Thoroughly galvanized.

American Steel Fence Posts last a lifetime. Hold fence secure against all conditions.

Sent Free—Our Book, "How to Build a Fence."
Dealers Everywhere

AMERICAN STEEL & WIRE COMPANY
Chicago New York Pittsburgh Cleveland Denver

Awarded Grand Prize at Panama Pacific International Exposition
The Supreme Award of Merit

He Can't Raise it!

Says the GRANDPA HOG:

"I've just about worn my snout off trying to open this Peerless Gate. Gee, but wouldn't I like to get into that turnip patch across the way! Funny to me how easy those people make it raise."

Peerless SELF-RAISING GATES WITHOUT A RIVAL

raise and swing at the touch of man or child, but the hog can't figure out how it is done—nor can any other animal.

Hogs can't lift or spring this gate and the big heavy frames and close spaced all No. 9 wire filling stands the crowding of larger animals.

Handier than other gates, as it springs up when unlatched and swings over snow, grass, stones and rubbish. No shoveling or digging away from Peerless gates in the winter time. Every part heavily electro-galvanized to prevent rust.

Ask for your copy of our Free Catalogue showing this gate and a hundred styles of Field, Hog, Poultry and Lawn Fences.

THE FAMOUS PEERLESS

Peerless Wire Fence Co.
216 Michigan Street
ADRIAN, MICH.

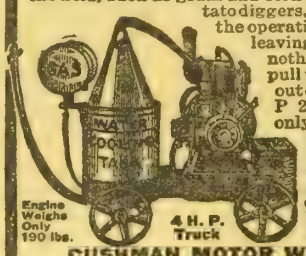
Pick It Up and Walk Off

Did you ever see any other 8 H. P. Engine two men could carry? Cushman engines are the lightest weight farm engines in the world—easy to move around and put to work anywhere. No longer necessary to put up with old-style, back-breaking, heavy weight engines, with their violent explosions and their fast and slow speeds. The Cushman weighs only about one-fifth as much, per horsepower, but with its modern design, accurate balance and Throttle Governor, it runs much more steadily and quietly.

Cushman Light Weight Engines

40 to 60 lbs. Per Horsepower

The 4 H. P. weighs only 190 lbs. Mounted on iron truck, as shown below, it may be pulled around anywhere. Besides doing all other work, it may be attached to moving machines in the field, such as grain and corn binders, potato diggers, etc., driving the operating part and leaving the horses nothing to do but pull the machine out of gear. 8 H. P 2-cyl. weighs only 320 pounds. Sizes up to 20 H. P. Not cheap engines, but cheap in the long run. Book free.



CUSHMAN MOTOR WORKS
655 North 21st Street Lincoln, Nebraska

Make Your Stump Land Yield Big Crops

Clear it with our Climax Stump Puller. Simple, strong—pulls out the largest and toughest stumps at low cost. Automatic ratchet pawl—no springs or traps. Sweep can be quickly adjusted to any length. Low down pull, will not roll or tip under heavy strain. Prices: $16.95 to $65.00 f.o.b. factory, Southern Minnesota. Write for catalog showing this stump puller and many other valuable farm needs. Mailed FREE.

Write House Most Convenient
NEW YORK CHICAGO
KANSAS CITY FT. WORTH, TEX.
PORTLAND, ORE.

Montgomery Ward & Co. DEPT. FA139
Satisfaction Guaranteed or Your Money Back

A ROLLER FEED MILL

WILL GRIND A WAGON LOAD OF FEED FOR 10 CENTS.

THIS is the **Famous Howell Roller Mill** you have heard so much talk about. The new improved mill for the scientific grinding of grain. Old style Burr and Stone Mills are out of date. Thousands of them are being annually replaced by the Famous Howell Roller Mills. Grind twice as fast as the best burr mill made. Does not heat the feed. Grinds Graham and Rye flour as well as feed. Has big capacity. Requires little power. No burrs or stones to wear out. Guaranteed to last a life time. Made in 13 sizes suitable for any size engine. Save one-half your time, gasolene and money by using a Howell Roller Mill. Write for Catalog F-16. We will send it free, together with the **Famous Howell Roller Feed Mill Puzzle.**

R. R. HOWELL & CO., Manufacturers, Minneapolis, Minn.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Position of Piston Ring.

I am overhauling my Ford motor, and I intend to put one "Never Leak" ring on each piston. Kindly advise in which groove I should put the new ring so as to get best results.

Answer.—If you are troubled with oil working up over the rings and causing carbon trouble, put the new ring in the bottom groove. Otherwise we would say to place the ring in the top groove. It should make very little difference. It would be better to use all new rings.

Winding Dynamos.

I wish to make a dynamo from an old magneto armature, one and eleven-sixteenths of an inch in diameter and two and eleven-sixteenths of an inch long. It is wound with No. 20 copper wire, and has twelve slots. What size wire should I use on the field coils? Should the field coils be square or round; and how large should they be?

Answer.—Use No. 32 single cotton covered copper-covered wire for the field coils. Make the cores rectangular, about one-half inch thick and one and one-fourth inches wide. They sho ld be about two inches long.

Diameter of Steam Cylinder.

Please tell me how large a steam cylinder would be required to propel a bicycle with rider. Please give diagram.

Answer.—A cylinder two inches diameter with a four-inch stroke and a boiler pressure of 200 pounds per square inch would give between three and four horse power when running at 500 R. P. M. This should be sufficient. We know of no such machine on the market and, therefore, we are not publishing a sketch. However, the idea might be worked out successfully. The boiler should be made of copper tubing and designed to operate at a pressure of 250 pounds. The general principles of the control of the steam should be the same as for steam automobiles.

Making Gunpowder.

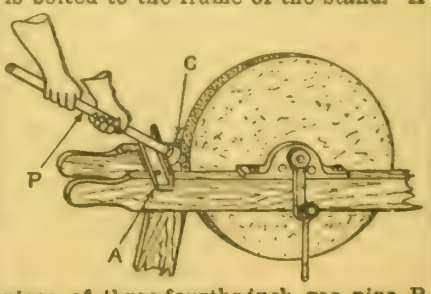
Will you please publish how to make gunpowder?

Answer.—Making gunpowder is a dangerous process and should not be attempted except on a very small scale and with a great deal of caution. Gunpowder is made from a mixture of sulphur, ten parts,; charcoal, fifteen parts; and potassium nitrate, seventy-five parts, the above proportion being by weight. The above ingredients are made into a paste with water and then ground very fine, after which the paste is pressed into cakes and dried. When thoroughly dry the cakes are broken up into grains of the required size and are given a coat of graphite by shaking them in a can containing graphite. No two pieces of metal or material that can cause a spark can be used to grind up the cakes of powder after drying, as the slightest spark may cause an explosion. Explosions have even occurred from the static electricity in the air, the spark coming from a belt or some other object.

Removing Grease From a Grindstone.

Please tell me how to take grease off the face of a grindstone. It has been there some time.

Answer.—The wheel can be washed with gasoline, ammonia or lye water. It can also be scraped off, using the outfit shown in the figure. This outfit is commonly used for truing up grindstones that have worn out of round. A piece of angle iron or strap iron A is bolted to the frame of the stand. A



piece of three-fourths-inch gas pipe P has a collar C fastened to it, either by a set screw or a pin. As the wheel is turned around, the end of the pipe is held against the face of the wheel. The pipe is slowly turned and moved across the face of the grindstone. The collar C bears against the angle iron and serves as a guide.

Replacing Electrolyte.

I have a Western Electric thirty-two-volt lighting plant. It has been in use four years. The plates are all in good condition. When the battery is fully charged, the electrolyte should test 1.205; but now it tests only 1.165. There has never been anything put into the cells but pure water to replace the evaporation. The battery still gives a a good light, but it takes longer to charge it than it used to. What should be done?

Answer.—Your battery needs new electrolyte. Make the electrolyte from pure water and pure sulphuric acid, using enough acid in the water to bring the specific gravity up to 1.350. Pour the acid into the water—not the water into the acid—and stir with a glass rod while pouring. Remove the old electrolyte from the cells after fully charging the battery, taking great care not to disturb the plates or injure them in any way. Wash the sediment out of the cells and off the plates with pure water. Then pour in the new electrolyte and charge the battery at once. Do not allow the plates to dry while changing the electrolyte. If, after charging, the electrolyte tests too high, remove some of it and replace it with pure water.

The Genuine

comes in this package

This sealed parchment container identifies the GENUINE McQuay-Norris LEAK-PROOF Piston Rings. Garage and repair men can give you immediate service. If you have any difficulty getting them, write us. We'll see you are supplied.

FREE BOOKLET "To Have and to Hold Power." You need it.

McQuay-Norris Manufacturing Co.
2820 Locust Street, St. Louis, Mo.

Yours FREE

If you are a land-owner and do not already have a copy of Ropp's New Calculator—write for yours today. This 160-page book (worth 50c) answers almost any question that arises on the farm. We will send it free to landowners only, postpaid, together with a catalog of

SQUARE DEAL FENCE

—the fence that outlasts all others. The Square Deal Lock is self-draining and double grips every stay and strand wire without cutting, breaking or slipping. The one-piece stay wires prevent sagging, bagging or buckling. The wavy strand wires give springiness like...

Write for free book today
Keystone Steel & Wire Co.

FREE

Wonderful Money Saving Fence Book. Over 150 styles. Gates—Steel Posts—Barb Wire 13¼ Per Rod Up

BROWN FENCE 150 Styles

DIRECT FROM FACTORY-FREIGHT PAID
All heavy DOUBLE GALVANIZED WIRES 12½c per rod up. Get free Book and Sample to test.

THE BROWN FENCE & WIRE CO.,
Dept. 35 - - Cleveland, Ohio

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word each insertion.

The Wisconsin Farmer

THURSDAY, FEBRUARY 15, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

A FINE EXAMPLE OF COURAGE AND CHEERFULNESS.

I SOMETIMES think that in many cases the lack of one or more of the five senses is not all loss. It seems as though nature seeks to compensate for what is missing in one respect by increasing the keeness of those which remain. Some of the brightest people I have ever known have lacked sight, hearing or speech. Deafness, blindness and lack of speech, unfortunate as they are, enable one to concentrate the more closely on those things which he can enjoy, with the result that one so afflicted oftentimes acquires a finer appreciation of the best things of life than those of us whose minds are distracted by the things crowding for attention upon our five senses. The very fact that one must overcome obstacles which would seem insurmountable to the normal person, makes them appreciate what they get all the more keenly, just as we always enjoy most those things for which we struggle hardest.

When to interest in and familiarity with the world's great events is added a cheerfulness and buoyancy of spirit, which recognizes no discouragements and makes the best of things as they are, the combination is irresistible, affording an example that is calculated to make the rest of us feel ashamed and almost envious of the unfortunate ones.

Helen Keller is the best-known example of the heights which one may reach, though deaf, dumb and blind. Just the other day I received a letter from one of my Wisconsin Farmer readers which portrayed the same unconquerable spirit. It almost brought tears to my eyes—not because I felt sorry for the writer so much as because its simple story of courage, light-heartedness and peace of mind and soul made me some way feel unworthy of all the gifts nature granted me. It reads as follows:

North Branch, Minnesota, January 27, 1917. Dear Mr. Pierce: Just a few lines to tell you how much I enjoy your fine paper, The Wisconsin Farmer. I always look first for your weekly talk and then for the story. When I tell you I have always been entirely deaf and understand only by lip movements you will understand why I am so fond of a good, clean story. My books, flowers, and fancy work are my dearest friends. I do not take your paper myself, but my son saves it for "mother to read." I am the wife of a Swedish farmer and have had no schooling. In my whole life I was at school but three weeks, having to leave on account of being stricken with total deafness. We live on a 160-acre farm and have had a good year. My husband is going to begin this year right by selling and butchering all of his scrub hogs, and the other day he bought two full blooded Duroc Jersey sows. I have been promised one sow pig out of the coming litter and, as my husband says, may turn out to be a "swine breeder of note." I had to laugh when I read the letter written in reply to the woman whose husband had seventeen head of horses but she had to walk seven miles to see her neighbors. I fully agree with the writer of the letter. If I had a husband so close and small as that I would catch a horse myself and if he said too much I would just go and make a visit until he made up his mind to be half a man, at least. I honestly think that half the husbands are just what a wife helps to make them. I also think that the right kind of a man has more love and respect for the woman who is not afraid to assert her independence. I don't mean that she is to be "boss." That word just stirs up all my "Irish" blood. I am of the opinion that if women would only talk things over when they are first married and have a plan to live by and then stick to it, there would be less domestic trouble. I also think the man has as much right to the family pocketbook as the wife, and as for myself, I am never afraid to ask for as many dollars as I need. With very best wishes for a happy and most prosperous year, I am, very sincerely yours,

MRS. C. E. OBERG.

When you read that letter, my friends, with its cheery philosophy of life, its courageous facing of the duties to be done, its acceptance of what fate has put upon the writer without murmuring or discontent, its atmosphere of interest in and acquaintance with what is going on in the big, rushing, busy world, whose din reaches her brain only indirectly, does it not make you, too, feel both humble and proud? Humble to think of how much more nearly you should live up to your own opportunities, and proud to know that there are such brave, noble women in the world? Does it not make you resolve to play your own part a little more cheerfully, a little more hopefully, a little more bravely, because of the inspiring example of this woman's optimism and pluck? Somehow as I read it I was reminded of those ringing lines of blind Henley, the English poet:

Out of the night that covers me,
Black as the pit from pole to pole,
I thank whatever gods may be,
For my unconquerable soul.

In the fell clutch of circumstance,
I have not winced, nor cried aloud;
Under the bludgeonings of chance,
My head is bloody, but unbowed.

From out this vale of wrath and tears,
Looms but the horror of the shade,
And yet the menace of the years
Finds, and shall find me, unafraid.

It matters not how straight the gate,
How charged with punishment the scroll,
I am the master of my fate,
I am the captain of my soul.

My heart goes out to this generous, patient, deaf reader of The Wisconsin Farmer, not so much in sympathy (for, though she might well receive it, she does not need it), but rather in thankfulness and congratulation. I shall try to make The Wisconsin Farmer just a little more interesting, just a little more helpful, just a little bit better in every respect, because I know of the pleasure she takes in it and I want it to be fully worthy such splendid friends.

LINCOLN'S VIEWS ON FARMING.

LINCOLN'S birthday, occurring this week, recalls to my mind the very notable address on agriculture which he delivered before the Wisconsin State Agricultural Society in 1859. I think we may well spend a few minutes considering what Lincoln had to say then and how equally true and pertinent it is today.

When Lincoln came here to Wisconsin to give his views on farming he had not yet reached the fullness of his stature; he was not yet certain of his niche in the hall of fame; but his breadth of mind and his far-seeing vision were evident in what he said here then, as much as in anything he ever said or did. He began his Wisconsin address by paying a tribute to farming interests, which he held to be above all others, saying:

Farmers, as a class, are neither better nor worse than other people, but their interest is the largest interest. It also follows that that interest is most worthy of all to be cherished and cultivated, and if there be inevitable conflict between that interest and any other, the other should yield.

Are not those words as true today as when Lincoln spoke them, almost sixty years ago? Is not their truth even more generally recognized today than then; that it is the farmer whom the nation must consider before taking any great step, whose interest and welfare are paramount to all others?

But Lincoln did not stop with this tribute to the importance of farming. He went on, most practically, to urge increased production, calling on every Wisconsin farmer to make his acres yield to the utmost. That line of thought having been followed to its logical termination, Lincoln then launched upon an argument in favor of the farm hand and the farm tenant striving to get a place of his own, to be satisfied with a small holding and to work it to the very limit. There is no better presentation possible of the situation as it exists today than is found in Lincoln's words of almost sixty years ago. He said:

The ambition for broad acres leads to poor farming, even with men of energy. I scarcely ever knew a mammoth farm to sustain itself, much less to return a profit from the outlay. I have more than once known a man to spend a respectable fortune upon one, fail, and leave it, and then some man of modest aim get a small fraction of the ground and make a good living upon it. Mammoth farms are like tools or weapons which are too heavy to be handled; ere long they are thrown aside at a great loss.

The prudent, penniless beginner in the world labors for wages a while, saves a surplus with which to buy tools or land for himself, then labors on his own account another while, and at length hires another new beginner to help him. This, say its advocates, is free labor—the just and generous and prosperous system, which opens the way for all, gives hope to all, and energy and progress and improvement of conditions to all. If any continue through life in the condition of the hired laborer, it is not the fault of the system, but because of either a dependent nature which prefers it, or improvidence, folly or singular misfortune.

You will hear the agricultural experts of today arguing along precisely the same lines. We have made great progress in some things; we have increased the yield of our Wisconsin acres as Lincoln urged us to do, but the fundamental principles which underly successful farming and the labor problem remain today the same as they were in Lincoln's time. He who succeeds must labor and save; it is the old, old law and there is no getting around it, save in the most exceptional and isolated cases.

Now that we have Lincoln in our mind, because of his birthday this week, I can hardly do better than to quote another tribute of his to farming, also contained in his Wisconsin address, as follows:

This leads to the further reflection that no other human occupation opens so wide a field for the profitable and agreeable combination of labor with cultivated thought as agriculture. I know nothing so pleasant to the mind as the discovery of anything that is at once new and valuable—nothing that so lightens and sweetens toil as the hopeful pursuit of such discovery. And how vast and varied a field is agriculture for such discovery. Every blade of grass is a study; and to produce two where there was but one is both a profit and pleasure. And not grass alone, but soils, seeds and seasons; hedges, ditches and fencing; draining, drouths and irrigation; plowing, hoeing and harrowing; reaping, mowing and threshing; saving crops, pests of crops, diseases of crops and what will prevent or cure them; implements, utensils and machines, their relative merits and how to improve them; hogs, horses and cattle; sheep, goats and poultry; trees, shrubs, fruits, plants and flowers—the thousand things of which these are specimens—each a world of study within itself.

Was ever a better, finer tribute paid to the farmer and his works than Lincoln uttered when he came here to Wisconsin to give our fathers his views on this important subject?

"AMERICA" IN WISCONSIN SCHOOLS.

I AM delighted to find that a large number of the requests for "America," coming to me from readers of The Wisconsin Farmer, are from those who wish to use them in the public schools. This is splendid. If we can rear our little folks with the proper appreciation of their responsibility to our country, of their debt to "our father's God" and to the pioneers who laid the foundations of our government and our prosperity, we shall have little to fear of the future. That is why I always send the slips containing "America" with so much pleasure to all who wish them for school use.

And how they seem to be appreciated! It certainly does my heart good to read some of the letters of thanks which come to me from Wisconsin readers. For instance, a week or two ago I received a request for copies of "America" to be sent to Mrs. Maude Morey, of Sheridan, Wisconsin. I sent them gladly. A few days later the mail brought me a letter from Mrs. Morey and another from her daughter, Leta Morey. I am going to take the liberty to print them, they are so good. The little girl's shall be first:

Dear Mr. Pierce: My little brother and I received the slips of "America," for which we thank you very much. My little brother is almost eight years old and is in the second grade. I am twelve years old and am in the eighth grade. I have hopes of passing the superintendent's examination next May. We belong to school district No. 2, town of Farmington, Waupaca county. Our teacher's name is Miss Clara Patzer. The school has just purchased a new oil stove, so as to have something warm to go with our lunches. With kindest thoughts,

LETA MOREY.

I certainly appreciate that letter; it is one of the best-written I ever received from so young a correspondent. And here is her mother's letter of thanks:

Dear Mr. Pierce: The slips of "America" received, for which I thank you very much. The children, as well as the teacher, were very much pleased with them. I have been waiting for the school children to send their letter of thanks with mine, but as they have not sent them I thought I would not wait longer. Following are the names of the children receiving the songs: Talford and Alice Gunsten; Alice and Rose Durant; Leta and Emery Morey; Robert, Eva, Viletta and Ruth Rieben; Donald and Harold Faulks; Dorothy and Eva Durant; Calvin Hanawalt; Carl Larsen; Irving, Inga and Hjalmer Jensen; Lucile and Harold Shepard; Dorothy Smith; John, Marie and Lizzie Koch; Willie, Marcella, Everett and Effie Winkler; Willie and Floy Anderson; Clarence, Edwin and Harold Snyder. There were far more than enough for the scholars, so I sent two of them to grand nephews, John and Tom Hansen, of Waupaca, and one to a little niece, Helen Morey, of Waupaca. Thanking you again for your kindness to the children, I am, yours for friendship,

MRS. MAUDE MOREY.

It certainly well repays any little effort I was put to, in sending these slips of "America," to receive such good letters as these. And remember, all who ask will receive the song slips, without a cent of expense to them.

While I am on this subject, here is still another school letter, from Dorothy A. Delaney, a teacher, living in the same town as Mrs. Morey, Sheridan, Wisconsin. Miss Delaney writes:

Dear Mr. Pierce: Your offer was just brought to my desk. If you still have the extra copies of "America" to send out, I would be glad to get them for community singing during the National Week of Song. We will appreciate this very much.

Patriotic public-spiritedness promises to be very high in and around Sheridan. I hope all will join in the words of the grand, old hymn with unaccustomed vigor and thankfulness, now that the war clouds hover dark on the horizon. "My Country, 'Tis of Thee," what better sentiment could we have in our minds and hearts nowadays?

James M. Pierce

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The Wisconsin Farmer Madison, Wis.

Wisconsin Pasteurization Law.

Pasteurization of all Wisconsin milk will be urged by Dairy and Food Commissioner Weigle in the near future. An investigation of the entire milk situation in the state now under way and which is to be completed in May will disclose conditions regarding every step in the production of milk from the cow to the consumer. Cleanliness of barns, utensils, methods of handling milk before and after it reaches the dealers, butter fat contents and solids in the milk form the chief object of the investigation. Mr. Weigle is dissatisfied with the inspection work as it has been carried on in the smaller cities. "Towns with a population of 5,000 usually have doctors for inspectors. They can't give their time to the work and attend to their own business. The position of city health officer in most cities is one without pay, and, of course, the physician has to make a living. They can't give the time to analyze milk, inspect barns and watch the process of the milk from the cow to the consumer."

Compulsory pasteurization would, in the mind of the commissioner, do away with the danger from disease-spreading germs which he believes are present in certain classes of milk. He takes particular exception to the one and two-cow milk producer. "The great danger in the milk situation comes from the one and two-cow man, for the reason that a person gets the full strength of the disease-spreading germs from the milk of the small producer, whereas the milk of the big herd is not so harmful, because the power of the germ has been lessened by being diluted." With this in mind Commissioner Weigle is having a bill to be introduced in the legislature suggesting a central milk plant in every county in the state and in cities of sufficient size to support one. He would have the law compel all milk to be pasteurized at these plants.

The News of the World.

Now that the war clouds hover over the nation, it is highly important that every one should keep close track of national and international developments. Because of this, we have resumed the publication of our department in The Wisconsin Farmer, known as Current Events. The news of the world will be given herein, regularly, week after week, without bias or prejudice and with the strictest adherence to the facts. We feel confident that the resumption of this department will be welcomed by our readers, hundreds of whom have written to inquire in regard to it. Only the fact of the paper shortage compelled us to omit this important department for a few weeks. It becomes a regular feature of The Wisconsin Farmer again with this issue.

We urge upon all our readers, who wish to keep posted on developments in the world as they occur, as well as to secure the most practical advice and information on farming, that they attend to their subscription renewal immediately, without a day's delay. We shall keep you posted on world happenings, and it is important that you do not miss a single issue of this paper while the present crisis continues or throughout all the coming year. Send in your subscription renewal today, without delay, and induce as many neighbors and friends as you can to subscribe. We are confident that The Wisconsin Farmer will fill every need of every member of the farm household throughout the coming year. May we count on your hearty support as we set about what promises to be the busiest, biggest and most useful year of all the many The Wisconsin Farmer has been published?

Man Testing Associations.

The steady increase in popularity of the cow testing associations in the state of Wisconsin is in no small way responsible for the tremendous increase from year to year of the state's dairy production. From ten associations with a mere handful of cows in 1909 to fifty-eight such associations with a membership of 1,768 farmers and 27,724 cows in 1916 is a gain that is more than ordinary. Other associations have been formed, but are not on the records as yet, lacking testers and the final preparations which will put them on a permanent basis. The sessions of the officers and testers of these organizations during the Farmers' Week at Madison showed clearly that satisfaction and endorsement of the plan for the work to spread over the entire districts of dairying in the state is unanimous. From the addresses and informal talks by testers and members it was evident that the problems confronting them had not all been solved, but the solutions did not seem out of reach as in former days when the work was on more or less of an uncertain basis. The Wisconsin Dairymen's Association, sponsor for all movements that have tended toward a betterment for dairymen during the last forty-five years, is behind the work and where communities feel inclined to give only half-hearted support the association steps in and tries—and usually succeeds—in convincing the faltering ones that there is real benefit for the farmer in belonging to a testing association. The work of the Wisconsin Dairymen's Association in this one respect is of inestimable value to the state.

N. A. Negley, in charge of the testing work for the entire state, argues that the association ought really to be called a "man testing association," as the results really determine whether a man can sell the feed that has been given a cow to yield a profit or loss, whether the $30 worth of feed that the cow has consumed can be sold in the form of milk or cream at $15 or $45. The testing will tell the owner just where he is standing on the matter of profit. Some men do not want to join an association of this kind because they are afraid their cows are no good. To find out what cows are no good is the real purpose of the entire undertaking and the man who is afraid to look the facts squarely in the face is the one that is no good. The dumb beast ought not to be to blame for the mistake of the man in keeping and supporting such an animal. The man has the power to change these conditions and not the cow. Thus the men in charge of the testing work in the state, though they are highly pleased with the way the work is progressing, realize, nevertheless, that it is only a beginning and the big licks have yet to be handed out. Mr. Negley is in a fair position to judge what is lacking because of his extensive travels through the state and he estimates that there are fully 500,000 cows in Wisconsin, the leading dairy state of America, that can be classed as unprofitable. Surely, Wisconsin's lead would be everlastingly assured if these cows could all be made to produce even $1 each of profit in a year. There is a possibility of this if the men can be interested and awakened to their losses. The better dairymen are confident this can be done and through the Wisconsin Dairymen's Association are pushing the work as fast as they can. The plan has been fostered by The Wisconsin Farmer since its inception and through publicity and encouraging articles we have endeavored to help the good work along. We intend to do all we can in the future to make Wisconsin permanently the leader of dairying in the United States and the world.

Good Prices For Milk.

Mr. Frank Mellorn, cheesemaker, Buck Creek Factory, has sent us a sample statement for November, 1916. This statement shows 36,609 pounds of milk received in November and 4,557 pounds of cheese made. The average price received per pound of cheese was 24.83 cents and the average price per hundred pounds of milk, 2.86 plus. The average price per pound of butter fat was 64¾ cents and the average test of all milk received was 4.419. For the past nine months, ending February 1, 1917, this factory has paid an average of $1.87 per hundred for milk. This is an exceptionally good statement and indicates that the farmers of the Buck Creek Cheese Factory are receiving good treatment.

The "Favorite" of the Stables.

One of our subscribers calls attention to an instance where partiality was shown by a certain stockman to one individual animal while at the same time other animals that had more to do with the income of the family were ruthlessly neglected. His communication follows:

I have often noticed that on many farms there is a vast amount of partiality used with the stock in the stables during winter. To illustrate, a little incident that came under my observation. I was visiting and at the time the mercury stood below zero. It was bitter cold, and so different from weather at my home that I was well satisfied to sit in the comfortable sitting room and chat with friends. But I was to have a taste of the cold, for one morning uncle came in and said he wished I would go out with him and see his fine horse before I went away. So thinking that there was no time like the present, I gathered my wraps and went with him to the barn. As we entered the stable and I saw the noble animal, I did not wonder he was proud of him and, as to his surroundings, I have seen many a family whose home could not boast the comfort that was plainly visible in his roomy box stall. And how glad I felt that he was so sheltered from the cold.

But, during the day I noticed something else that was far from giving me pleasure. In a field a short ways from the barn was a straw stack near which were several head of cattle huddled closely together, striving to find shelter from the piercing wind.

As I thought of Black Beauty in his comfortable quarters, petted and caressed, I could but ask myself—why this difference? Now, this is not the case with all farmers, but it is too often seen; and it is not thus with the farmer alone, for in some of the larger dairies it is plain to be seen that the treatment bestowed upon the cow and the horse is vastly different.

The horse is kept in the cleanest possible condition and great care is exercised in arranging his bedding so that he may not be contaminated with filth. Then, after these precautions the comb and brush are brought into action, an attendant giving him the full benefit of their use.

But do they use these tools as liberally on the cattle as they should?

Now, if farmers would only consider the matter it seems to me they would admit that cleanliness is more important for the cow than for the horse, as her product—milk—is a substance very susceptible to odors, and if she is allowed to become filthy, it is liable to pass into the milk.

Yet I have heard men laugh at the idea of currying a cow, when they would work carefully for an hour, or more sometimes, if necessary to thoroughly clean a horse.

By giving her the extra care an increase in quantity of milk is received—its quality is improved and consequently a better price is received for butter and milk.

It is impossible for any milling process to make good flour out of poor wheat, and it is just as impossible to make good butter out of impure, filthy milk. I say give the horse this good care, but no better than the cow. Give them equal chances in the stable, and do not be partial to either. And the windy side of a straw stack or barbed wire fence is not good quarters for cattle or horses.

We believe that this is an exceptional case, and yet the instance contains an important truth. Those who are engaged in dairying in a half-hearted way do not realize the importance of distributing a little of their partiality among the individuals in the dairy herd. It is pure short-sightedness to allow the dairy cow to battle with the elements of winter, because in that case the feed she consumes and the labor involved in her care is practically wasted, because her products are seldom worth more than the cost of the maintenance ration. It would be most commendable if the affection, which is often lavished on a favorite horse, could be broadened out and be made to include every animal on the farm. Indeed, the difference between a successful and an unsuccessful stockman is simply this, that the former has a real affection for all his animals and handles them accordingly, while the latter has no special liking for the animals under his care and, therefore, shows no zeal in their care and management.

The Care of Seed Grain.

It is not a difficult matter to find certain farms producing a fifty and sixty-bushel per acre yield of small grain when farms of a similar nature not more than a mile or two away are producing about half this yield. There are several factors to which this difference in yield may be attributed, among which the manner of preparing the seed bed in the spring is of considerable importance. A large yield cannot be expected where the seed bed is not prepared with considerable care and the seed uniformly covered.

Then, there is the matter of grading the seed. It has been demonstrated over and over again at some of the stations that a given variety of grain may be kept from "running out" if it is carefully graded every year, so that the large, plump, heavy grains only are sown. One of the Canadian stations has been able to increase the yielding ability of certain varieties through a period of twenty-five years by the simple process of grading. On the other hand, it is well known that the average variety tends to run out, thereby creating the necessity for our educational institutions to constantly work improvements, either as the result of crossing, or selection. The time spent in running seed grain through the fanning mill will bring as large returns as any task that is performed during the whole year. In the case of oats, wheat and barley one can well afford to put the grain through the mill two or three times in order that all light kernels may be blown out and the small grain sifted out. When this is done it means that the grade of grain will run much more uniformly through a drill or broadcast seeder, and growth will be much more uniform right from the start than can possibly be the case where everything is sown just as it comes from the threshing machine.

Another important factor having to do with the maximum yield is that of eliminating the smut. Sometimes the yield is cut down as much as 10 or 15 per cent by this fungous pest, and yet it is entirely practicable to eliminate it altogether. Treatment for smut is a simple operation, but it should be deferred to such a time when the grain cannot be frozen after treatment.

The formula for the smut treatment involves the use of one pound of formalin to forty gallons of water. Place the oats on a floor and thoroughly wet them with this mixture. It will be necessary to shovel over the grain two or three times, taking special pains to see that every particle is made thoroughly wet. When this end has been attained, shovel the grain into a steep pile and then cover with horse blankets or gunny sacks for a period of two or three hours. Sometimes the grain is left in that condition overnight, and this may be done without any injurious results. Ten or twelve hours is as long as it should be left in this condition, after which hasten drying as rapidly as possible by frequently shoveling over the pile.

If there is room, scatter the grain so that it is not deeper than six inches on the floor, and even then it should be turned over every hour until most of the moisture has disappeared. Above all else, do not put moist grain in sacks, as it is apt to heat and the germ will be injured. If, for any reason, treatment is delayed until seeding time the grain may be sown when it is still moist, but the drill or seeder will have to be opened a little wider than would be the case if one were using dry grain.

Wisconsin's Experiences in Winterkilling.

Sec. L. F. Graber, of Madison, had a very encouraging report to make to the fifth annual section of the Wisconsin Alfalfa Order, held Farmers' Week. He predicts that within ten years Wisconsin will have 500,000 acres of alfalfa. This will come true according to Mr. Graber, because we need the feed. First-grade alfalfa hay has been costing Wisconsin farmers $20 to $25 a ton this year. Mr. Graber says we should raise most of our own alfalfa. He says the climate and soil conditions are right and that we might as well keep our alfalfa hay money at home. An effort will be made to increase the acreage of alfalfa to 70,000 the coming year.

Notwithstanding losses of winterkilling last year, the alfalfa association members were not discouraged. They understand that clover, winter wheat and rye also suffered. Mr. Graber, in his annual report, said that he received 322 reports from members in the spring of 1916 on the condition of their alfalfa fields seeded in 1914. Ninety-eight per cent of these growers had excellent stands in the fall of 1915. Fifty per cent had their good stands of 1915 ruined by winterkilling. Twenty-one per cent reported partial winterkilling and 29 per cent no winterkilling. In view of these facts, Mr. Graber strongly recommends a careful study by the individual growers of the causes of winterkilling. He says not to get the idea that cold weather necessarily brings on winterkilling. On the contrary, open winter weather with little snow to protect the plants and alternate freezing and thawing, especially on flat land without sufficient slope is responsible for the most serious winterkilling. If water accumulates and ice sheets form, the plants beneath are apt to be smothered out. We quote from Mr. Graber's annual report:

I am told that Mr. H. C. Davis, of Omro, Wisconsin, had a level field of alfalfa which was covered last spring with sheets of ice. It happened that a disk was left at one end of the field and it seems that Mr. Davis pulled the disk across the ice-bound field. In doing so the frozen crust was broken up considerably where the disk had been drawn. Late in the spring Mr. Davis was surprised to observe that the only part of his field which was not killed out was this one strip where he happened to have disked the ice. What is the explanation? The only one your secretary has to offer is that the accidental disking opened up the ice and provided entrance of air to the plants beneath. On the experiment station farm the ice sheets killed out the lower ends of some plots except along a narrow ridge which was just elevated or high enough not to be covered by the ice. Here the plants had air and were not smothered as was the case on either side of the ridge where the ice sheet extended.

All fall cutting (after September 5th) was disastrous last year to many good stands of alfalfa. Mr. Graber believes in "the 8-inch rule," which means that alfalfa should have at least eight inches growth before freezing weather in the fall. He points out that this means the last cutting should be made early enough so that the succeeding growth will reach a height of eight inches before the first severe frosts. He also says that in the southern part of Wisconsin seeding later than the first part of August is dangerous. Seeding this late is only successful when rainfall and favorable soil and weather conditions result in eight inches of growth before freezing occurs.

Seed of the hardiest known varieties should be used to prevent winterkilling. In June, 1914, Mr. Graber seeded sixteen separate plots of various strains of alfalfa coming from Kansas, Nebraska, Montana and the Dakotas. Excellent stands were obtained in 1915. A growth of 11 inches occurred before freezing in the winter of 1915 and 1916. Only four of these plots came through in good shape and the remaining twelve winterkilled from 41 to 78 per cent. In the several Dakota and Montana plots an average of 55 per cent of the plants were killed and these plots yielded only 3,842 pounds of cured hay an acre in two cuttings. Two plots sown with Kansas and Nebraska-grown seed winterkilled 52 per cent and yielded in two cuttings 4,470 pounds of cured hay an acre. They were even slightly better than the more northern-grown strains in this particular test. The four banner plots were seeded with seed of the variegated kinds of alfalfa—two with Grimm and two with Baltic. The average winterkilling for these four plots was only 27 per cent, and because the remaining plants spread out so rapidly and so early in the spring, this injury was not noticeable. They yielded an average of 6,045 pounds of cured hay an acre in two cuttings—a ton more than the common kinds, which had been seeded under identically the same conditions.

Grimm, Baltic and Cossack are recommended by Mr. Graber as the hardiest varieties and best adapted for farms where there has been trouble with winterkilling. The alfalfa order will aid in the co-operative purchase of such seed, for the benefit of its members and in addition will test out such seed. Last year the association distributed 100 five-pound samples of Grimm alfalfa seed and this year they expect to start at least 500 tests on the same variety. There is at present a membership of about 1,000 in the association.

The Wisconsin Alfalfa Order has been doing splendid missionary work, not the least important branch of which has been its endeavor to straighten out the troubles of farmers who are inexperienced with alfalfa.

Wisconsin Gas Engine and Tractor School.

The Engine and Tractor School was not one of the widely advertised happenings during Wisconsin's Farmers' Week, but the attendance was big enough to tax the force of instructors working under the direction of Prof. F. M. White to its full capacity. The short period of one week is barely enough to give the beginner all the points about engines, but for the men with a working knowledge of tractors and engines the time spent at the short course is most profitable. There were more than fifty men at the agricultural engineering building during the week, who had had farm experience and attended the course to have the knotty problems of engine ills made clear. The course as outlined is designed for the beginner as well as the man who has machinery troubles. Perfect knowledge can only follow when the essentials have been mastered. Thus the beginner can take the same course as is given, but he cannot draw the same lessons from the teaching as the man who has been over the ground before. Most of the men in attendance this year were not beginners. They were men that had used engines on their farms as a means of saving labor and it was with the idea of increasing their producing power that they took this work. They were on the job bright and early on the first day of the course. Whereas the usual student of the short course comes on Monday, these men for the greater part left their homes on Saturday and Sunday, so that they could be there from the very first. The interest of the men is a clear indication of the advance of farm power and the recognition accorded the engine as a labor saver.

The course took up the different types of engines in use, their advantages and disadvantages, the operation and care of the engines and the proper way of testing them. Wiring systems were studied, valves and carburetors discussed and studied and ignition problems explained. The various types of motors in tractors were taken up and each given a thorough tryout in the laboratory. Every subject was first thoroughly discussed in the classroom and then taken up in the laboratory. The hundreds of questions asked during these periods would fill a book. The instruction is given for the purpose of solving the many questions that arise under similar circumstances on the farm, so each question was answered with the cheerfulness that characterizes Wisconsin's great college of agriculture. The success that this course has attained on sheer merit is indication enough that the next season will see an attendance that will force the staff of Mr. White to move into larger and more roomy quarters in order to give better laboratory facilities.

Naturally the keenest interest was in tractors, and if there is anyone who imagines Wisconsin farmers are not interested in this new form of farm power, they should have been with Mr. White, his workers and visitors Farmers' Week. They would certainly have gotten a new conception of the value of the agricultural engineering division of the "Ag." school.

Live Stock Associations Elect.

Officers for the ensuing year were elected by members of the Wisconsin Live Stock Breeders' Association at their annual meeting held during Tuesday's program of Farmers' Week.

The officers chosen were: Arthur Broughton, Albany, president; J. P. Riordan, Mayville, vice president; L. F. Atwater, Bangor, treasurer; A. W. Hopkins, Madison, secretary; Raymond Baker, Madison, assistant secretary; W. L. Houser, Mondovi; J. C. Robinson, Evansville; F. E. Fox, Waukesha, executive committee.

The Wisconsin Sheep Breeders' Association elected Arthur Broughton, Albany, president; S. E. Crall, Evansville, vice president; W. F. Renk, Sun Prairie, secretary, and G. Phillippi, Bear Creek, treasurer.

Other state breed clubs whose officers for the year have been electd this week follow:

Wisconsin Aberdeen Angus Breeders' Association—Parke Gelbach, Lancaster, president; H. J. Pettinger, Oconto, vice president; J. G. Fuller, Madison, secretary-treasurer.

Wisconsin Red Polled Cattle Club—L. B. Ahlers, West Bend, president; B. R. Curran, Taylor, vice president; L. C. Underwood, Avoca, secretary-treasurer.

Wisconsin Hampshire Breeders' Association—H. A. Bush, Fond du Lac, president; A. L. Damon, Richland Center; first vice president; James Clemmens, Kanesville, second vice president; W. W. Meacham, Downing, secretary-treasurer; E. E. Cowles, Elkhorn; T. C. Wilsie, Brandon, directors.

Wisconsin Chester White Breeders' Association—James Fisher, Eastman, president; W. M. Butts, Evansville, vice president; A. H. Kuhlman, Madison, secretary-treasurer; W. F. Belda, De Forest; Bruce Westcott, Barton; H. Hoesley, Monticello, directors.

Wisconsin Berkshire Breeders' Association—H. C. Taylor, Beloit, president; George Kelley, Mineral Point, vice president; W. A. Freehoff, Waukesha, secretary-treasurer; George Clark, Janesville; G. H. Whitmore, Lyons; A. P. Cortte, Lomira; W. D. Becker, Ft. Atkinson, directors.

Wisconsin Horse Breeders' Association—W. K. Caldwell, Morrisonville, president; J. G. Boyd, Milwaukee, vice president; J. G. Fuller, Madison, secretary-treasurer; J. P. Riordan, Mayville; C. E. Cole, Marshall; James Van Etta, Lima Center, directors.

Poland China Breeders' Association—Robert Smiley, Albany, president; J. D. McDonald, North Bend, vice president; Burley Dobson, Lancaster, secretary-treasurer.

Ayrshire Breeders' Association—James Van Etta, Lima Center, president; Adam Seitz, Waukesha, vice president; A. J. McNab, Black River Falls, secretary-treasurer; T. C. Hill, Brookfield; Stephen Bull, Dr. David Roberts, Waukesha, executive committee.

Jersey Breeders' Association—F. F. Showers, Delavan, president; W. H. Clark, Rice Lake, vice president; E. E. Wyatt, Tomah, secretary-treasurer.

Brown Swiss Breeders' Association—Ira Inman, Beloit, president; H. C. Taylor, Madison, secretary-treasurer; Joseph Allen, Delavan, vice president; H. W. Ayers, Honey Creek, member of executive committee.

Medals For Wisconsin Farmers.

The following is a complete list of the gold, silver and bronze medals awarded to Wisconsin farmers, members of the Wisconsin Agricultural Experiment Association, at the Panama-Pacific Exposition last year:

GOLD MEDALS.

Agricultural Exhibit—Wisconsin Agricultural Experiment Association, Madison, Wis.

Corn—J. E. Brunker, Ridgeway, Wis.; J. R. Thorpe, Travera, Wis.; H. C. Brueckner, Jefferson, Wis.; C. S. Ristow, Black River Falls, Wis.; A. A. Austin, Janesville, Wis.

Alfalfa—Swartz Bros., Cornfalfa Farms, Waukesha, Wis.

Tobacco Exhibit—W. I. Pomeroy Co., Edgerton, Wis.; Theo Oberson, Westby, Wis.

Wheat—Hieron Block, Burlington, Wis.

Cranberries—Wisconsin Sales Co., Grand Rapids, Wis.

Seeds—H. R. West, Ripon, Wis.

SILVER MEDALS.

Corn—R. T. Bohl, Beaver Dam, Wis.; E. E. Clingman, Reedsburg, Wis.; Jno. Dettwiler, Monroe, Wis.; O. A. Haney, Lone Rock, Wis.; O. J. Hocketsweiler, Alma Center, Wis.; H. S. Hintz, Oakfield, Wis.; Chas. H. Howitt, Randolph, Wis.; A. C. Ellickson, Arlington, Wis.; Joe Haus Jefferson, Wis.; George H. Leonard, Jefferson, Wis.; Wm. Leonard, Jefferson, Wis.; Frank Joos, Alma Center, Wis.; Arthur Popp, Jefferson, Wis.; Robert Rodwell, Baraboo, Wis.; R. B. Thorpe, Monroe, Wis.; J. Van Loon, La Crosse, Wis.; Jippa Weillinga, Midway, Wis.

Oats—Alfred Kline, Lomira, Wis.; Peter Dengel, La Crosse, Wis.; Noyes Raessler, Beloit, Wis.

Rye—M. H. Zachar, Racine, Wis.; Lloyd Hubbard, Evansville, Wis.; Lewis Groth, Cedarburg, Wis.

Wheat—J. L. Krause, Beaver Dam, Wis.

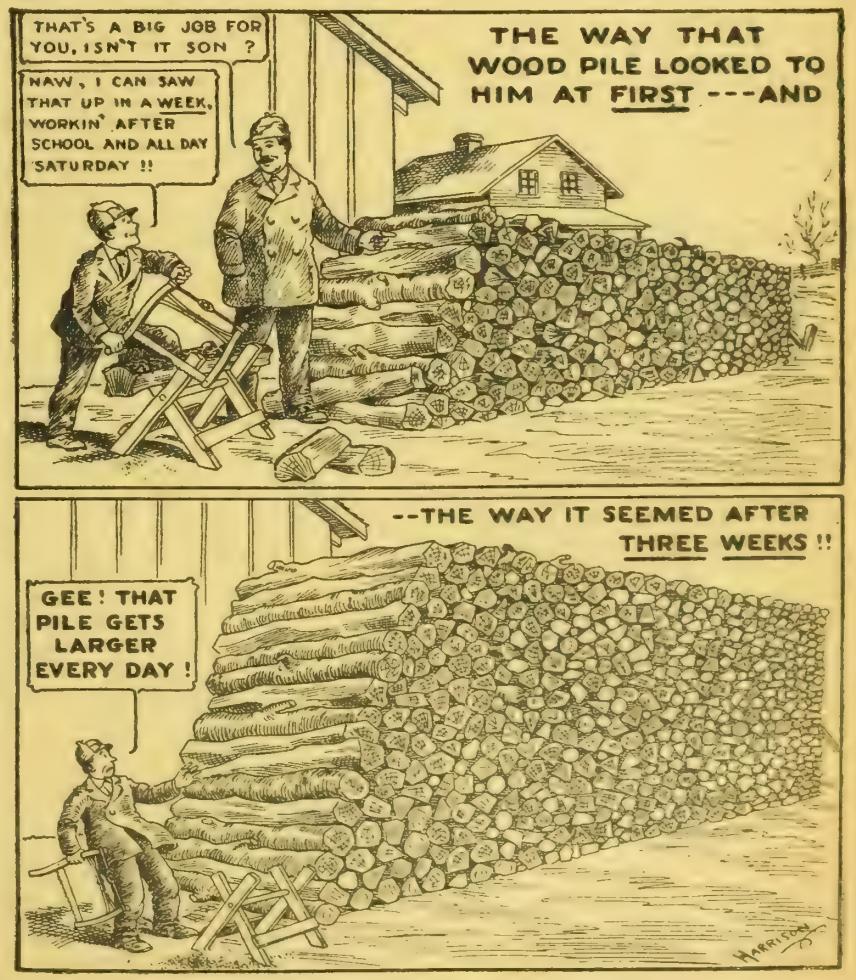
Soy Beans (2)—Robert Ward, Ft. Atkinson, Wis.; Theo. Ward, Ft. Atkinson, Wis.

Soy Beans—M. C. Gorsege, Haven, Wis.

Field Beans—Peter Kneeland, Windsor, Wis.

Ginseng—J. H. Koehler, Wausau, Wis.

(Continued on page 20.)



A BOY'S CHARACTERISTIC ATTACK.

Swap Experiences Swine Week.

Allied Live Stock Associations Join With College of Agriculture in Starting the "Spring Drive" For More and Better Hogs in Wisconsin.

SNOW storms interfered with train service in Wisconsin the early part of Farmers' Week and the attendance at Madison was less on the opening days than was expected. Beginning with Wednesday and for the remaining days of the week there was a splendid attendance, representative of live stock and general farming interests throughout the entire state. There was no "soft pedal" on any of the usual activities of Farmers' Week, but special emphasis was laid upon the possibilities of swine raising in this state. Through the co-operation of some of the best breeders of the state and the animal husbandry department of the college of agriculture it was possible to arrange a very creditable exhibit of swine. This was made doubly emphatic in its lesson to the visitors by reason of the presence of several scrub hogs in the pens at the swine pavilion. It was easily possible for the visitors to compare the scrub hog with the well-bred animal. It was also possible to compare the prices which a scrub hog will bring on the market with the prices which the well-bred hog will bring. One of the most interesting features of the exhibit was the classification of hogs as they are rated at the market, showing such animals as are listed as heavy, mixed and butchers, light, etc. The aim of those who arranged the exhibit and also the swine products was to educate the farmer as to what the market demands, and this aim was accomplished with marked success. The exhibit at the stock pavilion also included a variety of pork products and by-products, showing that it is literally true that every part of the hog sold on the market is used up "except the squeal." Various methods for preparing pork products for the table were also aptly illustrated by appetizing dishes prepared under the direction of the domestic science department.

Those who visited Madison Swine Week got a new conception of the possibilities of hog raising from the breeders' standpoint. This has been the greatest season that the hog breeders of Wisconsin have ever known. Something like fifteen important hog sales have been held and prices have been better than in any previous year. Representatives of Poland China and Duroc Jersey breeds consigned some very excellent animals to sales which were held Wednesday afternoon and evening. At these sales almost $8,000 worth of good stuff was disposed of. This certainly indicates a desire on the part of Wisconsin farmers to get good foundation stock. The average

W. L. CARLYLE, OKLAHOMA.

Dean of Oklahoma Agricultural School who renewed old acquaintances at Madison last week.

for the two sales, in which almost 100 individuals were sold, was around $80—the top was $175. We expect the educational campaign carried on throughout Swine Week will be a wonderful stimulus to the swine industry of this state.

A. M. Laird, of Crawford county, has been raising pure-bred hogs for a number of years and has only recently retired from the business. He related at Madison an experience which will be of interest: A few miles from his place last summer a farmer raised eighty scrub pigs from twenty scrub sows that had been mated to a scrub sire. These pigs were farrowed in April and May. Late in October they weighed an average of sixty pounds and were sold at $6.60 per hundredweight. Of course, this is a discouraging side of the swine picture. Mr. Laird referred to another man a few miles from his place who had a herd of pure-bred Chester White hogs "of that low-down, heavy-boned, stretchy variety." Mr. Laird did not undertake to say just how much these pigs weighed in October, but it was probably two or three times sixty pounds each. The pigs were sold at fancy prices. They came from the James Fisher farm and most Wisconsin hog

A. H. WILKINSON, BAYFIELD,

Tells some interesting facts about making a dairyman in northern Wisconsin.

men know that means they were good pigs. Mr. Laird said the farmers who raise pigs must consider that time is an important element. Where applied to pork production it is capital and the farmer who takes too much time in producing a 250-pound hog is going to lose money. It takes some brains to grow a 250-pound hog in six to eight months, but many of the breeders of Wisconsin are doing it and, as Mr. Laird aptly puts it, the secret of the mystery is simply this: "Good foundation stock plus care and feed and brains."

Mr. L. P. Martiny, of Chippewa county, in his address recommended a liberal use of pastures to develop size in hogs. He rates the relative value of pastures as follows: First, alfalfa; second, clover; third, rape; fourth, June grass. He also says that white peas, rye, oats and sorghum may be used to good advantage. The early June grass pasture is his favorite, but this soon becomes tough and he likes to have a nice field of young clover or alfalfa to provide good rape pasture. Mr. Martiny recommends sowing two or three lots at intervals for two or three weeks and in about three weeks or so these pastures will be ready to turn in, and the pastures may be alternated all season, giving a good supply of feed up until early winter. On the Martiny farm, where about 100 pigs are raised for breeding stock, a regular rotation, including pastures, has been worked out. This provides a fresh pasture each year and the pigs are kept away from old yards which are sure to become more or less infected with worms. Mr. Martiny has a low-down wagon and a horse which he uses for carrying feed and water to the hogs at one trip. Mr. Martiny regards shade as very important for hogs. A grove or wood lot or brush lot offers the best kind of shade. He advises by all means to arrange hoghouses and pastures so that hogs may have access to wood or brush lots and especially so if there is running water in connection.

Thirty years ago James Fisher, of Eastman, Wisconsin, began breeding and advertising hogs. He has been a consistent user of advertising, always believing that it was not enough to raise good stock, but that he must let other people know about it. Furthermore, he has gotten away from the old idea that to increase business one must assassinate his competitor and he believes in the new doctrine of co-operation with other hog breeders who have stock to sell. Mr. Fisher told the swine breeders at Madison that they must not expect advertising to bring many direct sales. The advertising brings the customer and the breeder makes the sales. For this reason it is very important to handle carefully all inquiries and to handle

M. D. MUNN, ST. PAUL,

President of the National Dairy Council and a leader in dairy improvement work.

them promptly. Mr. Fisher says that any man who asserts that he cannot find time to answer his letters has no business to spend money advertising. Letters, in his judgment, should be answered to fit each individual inquiry. Before advertising in a farm paper, Mr. Fisher assures himself of the circulation and advertising value of the medium and he looks over a publication to see whether it carries fraudulent advertising. He says that it is his experience that he cannot get best results from a publication which has distrust put into its readers by a parade of fraudulent advertisements. Furthermore, Mr. Fisher advises advertising consistently and regularly. The men we meet daily we know and have confidence in, providing they are worthy of confidence. The advertisement which appears regularly establishes acquaintanceship between the advertiser and the customer and Mr. Fisher says that the advertisement which stays in the paper year in and year out gets the most business. He remarks that when you hear a man say advertising doesn't pay, it is usually because he has had little experience or got "cold feet" early in the game and quit. The advertiser who stops advertising is soon dead to the world. There is no business built up by advertising which will ever be big enough to be its own advertisement and continue to grow after the advertising ceases. Of course, Mr. Fisher believes that the breeder should advertise truthfully; that he should not advertise beyond his ability to supply the demand created, and that he should supply stock which will continue to be a good advertiseemnt to his business. It is Mr. Fisher's idea that the successful hog breeder should improve his offerings every year and that he should price his hogs fairly, but not at boom prices.

G. B. Van Norman, of the Union Stockyards, Chicago, was raising and buying hogs in Sauk county fifty years ago. At that time Wisconsin hogs were not known by breeds, but were designated as black and white, spotted, or sandy and white. Dressed hogs could be shipped only during the winter and the country had to depend largely upon barreled pork and cured hog products. While hogs sold high during the war of the rebellion, in which Mr. Van Norman had a part as a Wisconsin soldier, they brought only $2.50 to $3 per hundredweight several years later until the refrigerator and world-wide system of distribution began to play such an important part in the market. As to market breed preferences, Mr. Van Norman says there are none. One of the biggest buyers expressed this as follows: "We don't care what the color of the hog is or what his breeding is so long as he is well matured. In the packing industry we prefer hogs averaging from 200 to 250 pounds in weight, that is for general packing purposes we like a few lighter hogs which are lean and in very healthy condition, but weighing about 180 pounds. These are used for English meats and are shipped to Canada and from there exported to Liverpool and London."

Mr. Van Norman out of his years of rich experience as a hog raiser gave some interesting suggestions, most of which have developed from his experiences on his farms at Elgin, Illinois, and Mukwanago, Waukesha county, Wisconsin. He says breeders should be careful to have their hog pens properly ventilated. Many breeders get careless and let their hogs sleep in damp bedding and the animals sweat and get heated and when they come out catch cold, and this is often followed by a cough which may be a sign of tuberculosis. On his Elgin farm Mr. Van Norman had individual hoghouses for brood sows and a cement floor for feeding corn. He insisted that no dust be allowed in his hoghouses. He visited the farm once a week and if he found dust it was ordered cleaned out at once and the floor sprinkled with creosote dip. While his hogs were treated as hogs on many dairy farms, running before the cattle, they had well-ventilated houses in which to sleep. Every twelve feet of the hoghouse had a nice window in it. The hogs were not allowed to lie upon the horse manure piles and were kept bedded in nice shape in winter. The hogs were given plenty of exercise and nice alfalfa feed in which to run and plenty of

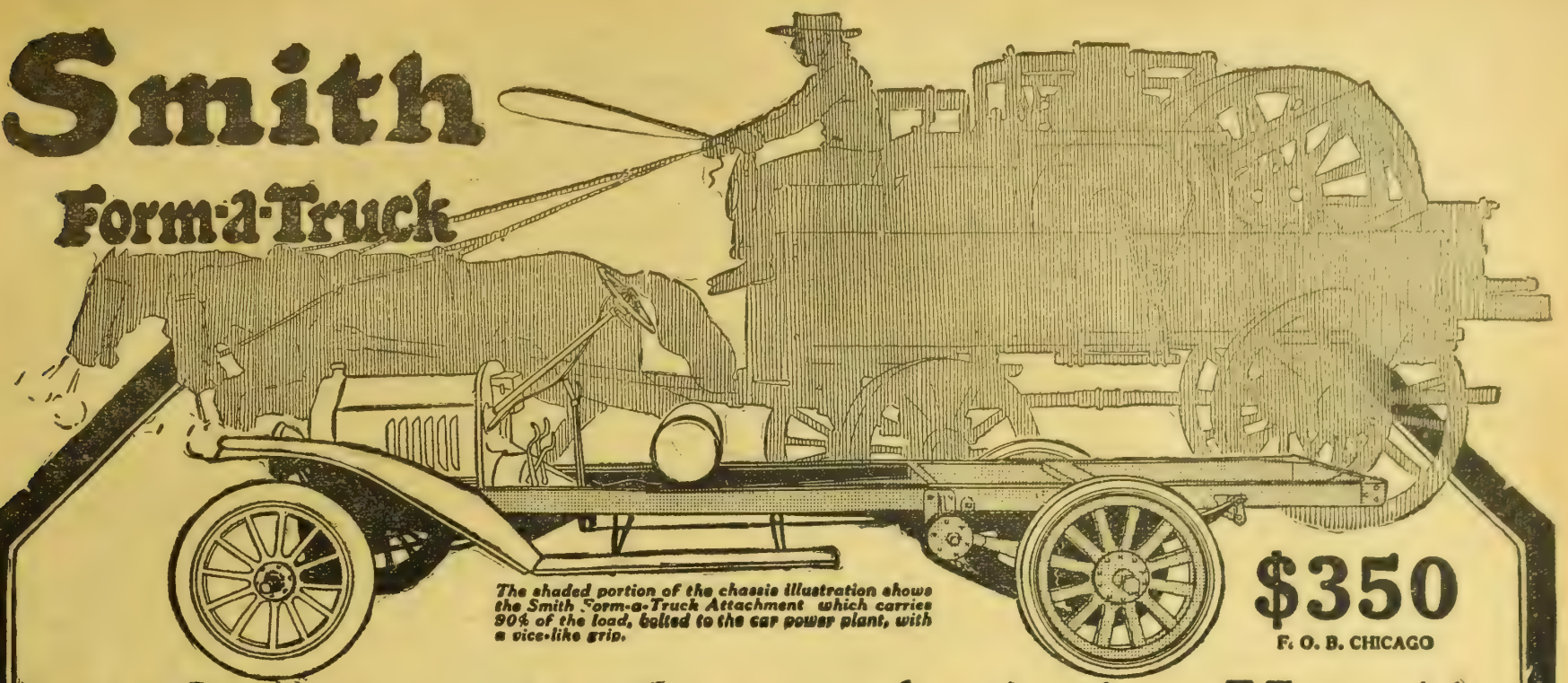
W. C. COFFEY, ILLINOIS.

In charge of sheep department at Illinois, and a judge of good sheep

rape in the cornfields and when ready to fatten were turned in on fifteen or twenty acres of corn to hog down. Aside from dust Mr. Van Norman says

(Concluded on page 26.)

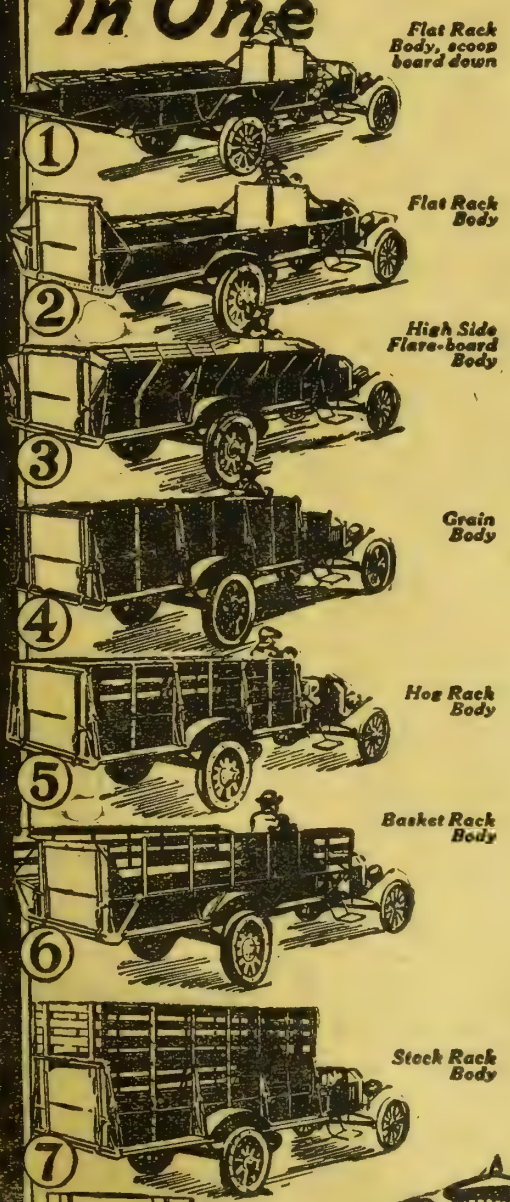
Smith Form-a-Truck



The shaded portion of the chassis illustration shows the Smith Form-a-Truck Attachment which carries 90% of the load, bolted to the car power plant, with a vice-like grip.

$350
F. O. B. CHICAGO

Eight Bodies in One



It Sounded the Knell of Horses *in all* Farm Hauling

HUNDREDS upon hundreds of up-to-date farmers, who figure time in dollars and cents, have made tremendous savings with Smith Form-a-Truck. It is taking the place of horses for hauling milk and farm products to town. It is doing heavy service work of all kinds about the farm.

With their Smith Form-a-Trucks they are carrying loads that are impossible for horses—*twice* the load of any team. And they are doing the work in *half* the time. Think what this means in time and money.

Idle Horses Cost Money—Idle Trucks Cost Nothing

Agricultural experts state that farm horses work but 1000 hours a year—100 days of 10 hours each. Over *two-thirds* of the year they are eating their heads off. They need stabling. They need veterinary attention. They need the attention of your hired help. And you get 100 days work for this 365 days of expense and attention. Think of it.

Your Form-a-Truck costs you nothing when it is idle. It requires feed (gasoline) *only when it is working.* So you save the expense of horses during 265 days of idleness. And it does your work far cheaper than horses.

Yet this remarkably efficient, money saving Smith Form-a-Truck which does the work of *two* teams at *half* the expense costs no more than a *single* team. Think of it!

You are replacing old fashioned farming methods with modern labor-saving, time-saving machinery in other branches of your farm work. The time has now come to discard the old-fashioned expensive methods of hauling. Put a Smith Form-a-Truck on your farm now.

The Smith Form-a-Truck combines with any Ford, Maxwell, Dodge, Buick, or Overland Car, to make a fully guaranteed one-ton truck. 9,652 users in every line of business in the country are now saving money with the Smith Form-a-Truck. Hundreds upon hundreds of farmers have made tremendous savings. You, too, can do what these farmers have done.

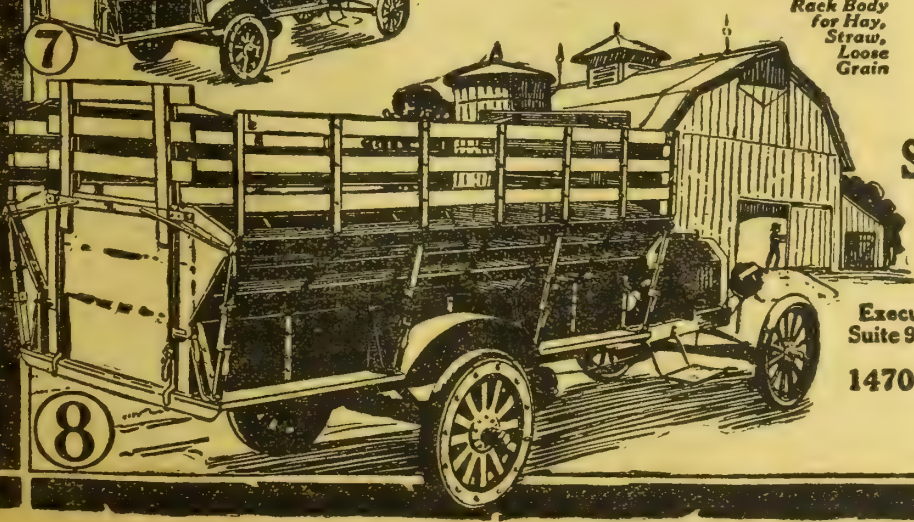
The Famous Eight-in-One Farm Body

Every possible use for a truck on the farm is covered in the new collapsible farm body—an exclusive feature of Smith Form-a-Truck. Pull the lever and you get any one of eight combinations of farm bodies—Stock Rack body—Hay Rack—Basket Rack—Hog Rack—Grain—Flat Rack—High Flare board—flet back—swoop board down. Change from one type to another in an instant—without a single tool.

Send for Free Book

Send for our big illustrated farm booklet. It will show you just how you can begin to put money in the bank that you have hitherto been putting into feed for horses.

Get your copy of "Deliver the Goods" a booklet crammed with valuable trucking information.



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Manufacturers of Smith Form-a-Trucks

Executive Offices and Salesroom, Suite 995 Smith Form-a-Truck Bldg.

1470 S. Michigan Boulevard
Chicago

CUT THIS OUT! MAIL IT TODAY!

Smith Motor Truck Corporation
Suite 995, 1470 Michigan Ave., Chicago, Ill.

Gentlemen:—Without obligation on my part, please send me full details of your farm attachment and the new convertible body for farm use. I am interested in how the Smith Form-a-Truck can save me money and give me better service than I am getting with horses

Name .....

Town..... *County*.....

State..... *Number acres owned*.....

Rust Proof Steel
CHIEF
Sunshine Windows

FOR HOG HOUSES AND ALL FARM BUILDINGS

The right windows for your farm buildings. Made of permanent material—heavy galvanized steel. Embody all the new improvements that mean service and satisfaction. Pay for themselves over and over in saving repairs and replacements. Don't rot out or rust out—cannot warp, shrink or swell. Last a lifetime for satisfactory service.

500,000 NOW IN USE

Wm. Lindsay, Helena, Mont. "Sunshine Windows save pigs."

S. O. Kolsto, Newhall, Ia. "They are right."

Chief Sunshine Windows are found in every community. Look for the man who makes a big success of hog raising — he'll be a Chief Sunshine Window enthusiast and will attribute his success to the fact that his winter pigs had sunshine in their pens and plenty of it. On request we will send you pictures of the finest hog houses in this country—all Chief equipped. We'll show you sample letters from thousands of users.

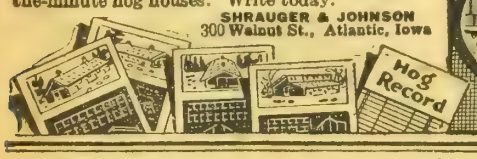
GIVE YOUR PIGS A CHANCE

It's the Winter pigs that make the money and Winter pigs need sunshine—it makes them healthy, strong, quick-growing. Equip your hog house with the famous Chief Sunshine Windows—give the pigs a chance. Most popular—most satisfactory windows you can buy. Rust and rot-proof. Cannot leak. Need no paint—no repairs. Nothing to wear out. Worth 3 times as much as wooden windows—cost no more.

FREE To Hog Raisers--New Swine Record and Four Blue Prints of Modern Hog Houses

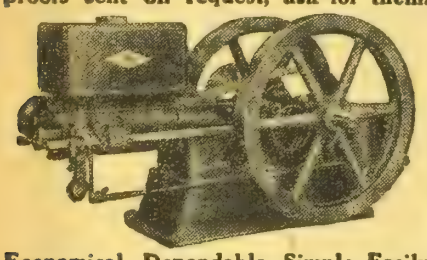
Our gift to you—no strings attached. We'll send you absolutely free our Swine Record System so that you can keep absolute track of your herd day by day. A wonderful help to any hog raiser. We'll also send you our portfolio of 4 complete blue prints for constructing modern, up-to-the-minute hog houses. Write today.

SHRAUGER & JOHNSON
300 Walnut St., Atlantic, Iowa



TYPE "W" INGECO Throttling Governor
KEROSENE ENGINES
1¾ to 15 H. P. Other Sizes Up to 160 H. P.

Best in quality, lowest in price. These are the facts, briefly expressed. Detailed proofs sent on request; ask for them.



Economical, Dependable, Simple, Easily Understood. Readily started all kinds of weather. Operates successfully on ordinary Kerosene.

Send for free catalog and prices and where one of these engines may be seen.

Worthington Pump & Machinery Corp.
Gas Engine Plant, 176 Holthoff Pl., Cudahy, Wis.,

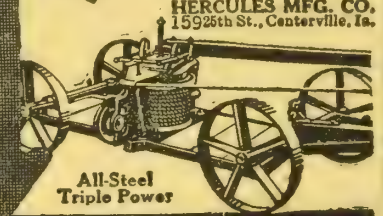
Pull the Stumps

Clear land slick, clean and fast at low cost. Big money clearing land for others. The Hercules big Free Book contains boiled down experience of 25 years of land clearing Stumps pulled at three cents to five cents each.

Hercules Portable
Unlimited Guarantee

Solid steel bed plate, broad steel wheels. The marvel of the age. Get our special low introductory offer on this new machine that we can cover with an unlimited guarantee.

Write today
HERCULES MFG. CO.
1592 5th St., Centerville, Ia.

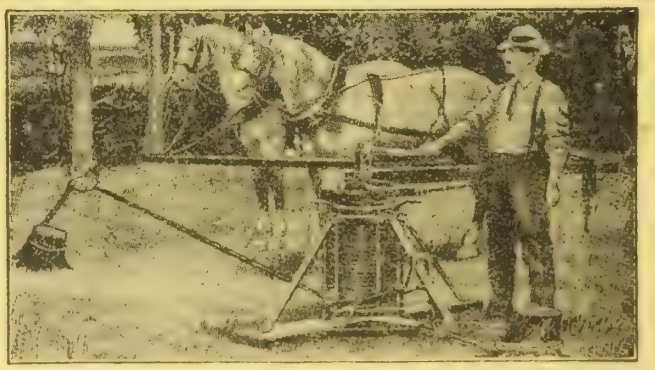


All-Steel Triple Power

Get Hercules Big Book FREE

Faultless Stump Puller

At a Special Low Price



The Faultless actually pulls from 50 to 100 percent more stumps at less cost of time and labor than any other stump puller. The cable winds onto the drum at the bottom all the time and the idle coils slide toward the top. This keeps the pull down and in a direct line with the anchor, and increases power. The machine cannot tip. Drum accommodates all of the cable, and it goes on only one layer deep. This prevents wear and relieves the strain on team and machine.

Machine and Cable are Guaranteed

against breakage for one year. Machines in use 15 years and longer are still in service.

Pull Stumps for 10 Days---Free

Clear from 10 to 50 acres. If not then satisfied that the Faultless Stump Puller will do more than we claim, return it to us at our expense.

The superiority of the Faultless is recognized by hundreds of farmers and railroads. It received highest awards at both the World's Fair at St. Louis and the Lewis & Clark Exposition at Portland in competitive demonstrations.

Write for special low price on our complete outfit, and our free book on clearing stump land.

Faultless Stump Puller Company, Dept. W, Cresco, Iowa.

CURRENT EVENTS

WAR between the United States and Germany hinges upon the commission of some overt act on the part of the latter. Whether the sinking of the liner, California, will constitute this act had not been officially determined at the close of the week. The California is the first large liner (she was en route from New York to Glasgow, with 200 passengers on board) to be sunk by Germany since the Arabia was sunk, some months ago. Most of the passengers of the California seem to have been saved, but it is charged that the boat was torpedoed without warning. President Wilson simply awaits the commission of some act, which he believes to be an unfriendly one and which he believes will arouse the whole nation, to go before congress and secure a declaration of war, with the necessary permission to him to take whatever further steps his judgment dictates. The situation becomes more critical day by day, for Germany has resumed its undersea activity on a large scale, merchant vessels going down at the rate of 25,000 to 30,000 tons a day, at which rate the complete blockade of Great Britain would soon be effected. President Wilson is attempting to prepare for war, while at the same time doing nothing to give Germany open affront and make the situation more critical. This was the condition of affairs at the close of the week, with any moment likely to precipitate open hostilities.

PRESIDENT WILSON'S severance of diplomatic relations with Germany was formally approved by the United States senate by a vote of seventy-eight to five. Those who opposed the move were Senators LaFollette, of Wisconsin; Grona, of North Dakota, Works, of California; Kirby, of Arkansas, and Vardaman, of Mississippi. The first three are republicans, the last two democrats. Five hours of debate preceded the vote, but the only active opposition came from the five senators who stood out against the resolution when the roll was called. The ranking republican leaders joined the democrats in declaring their wholehearted support of the president. After reciting the causes which led up to the break the resolution concluded: "Whereas, Notwithstanding this severance of diplomatic intercourse, the president has expressed his desire to avoid conflict with the imperial German government, and, Whereas, The president declared in his said address that if in his judgment an occasion should arise for further action in the premises to preserve the rights of the American government he would submit the matter to the congress and ask the authority of congress to use such measures as he might deem necessary for protection of American seamen and people in the prosecution of their peaceful and legitimate errands on the high seas. Therefore, Be it Resolved, by the senate, That the senate approves the action taken by the president, as set forth in his address delivered before congress as stated above."

SWEEPING provisions for commandeering vessels and other shipping facilities in case of war or threatened war are contained in a bill introduced in congress and backed by a request from the administration that it be pressed to immediate passage. The president would be authorized to take over "in time of war or any proclaimed emergency, a vessel owned by any citizen of the United States or a corporation formed in the United States; any vessel building in the United States; any vessel registered under the American flag; any vessel purchased, leased or chartered by the federal shipping board; or any other instrumentality of water commerce, within the country, including docks, warehouses and other facilities." A provision is attached specifically prohibiting sale of American vessels to foreigners or their transfer to foreign flags in times of emergency.

EVERY effort is being made by the Germans to disable as many as possible of the steamships which they have voluntarily interned in American ports. The principal liners of the German companies have been laid up in New York and Boston harbors ever since the war broke out, but now that there is a possibility of the United States seizing these vessels, the Germans have removed valves and plates and otherwise tampered with the machinery so as to make it impossible for them to be operated. Should war between the United States and Germany eventuate, the United States would seize and use these ships, reserving the payment to the owners until after the war was ended. The Germans are doing everything possible to prevent their own vessels being used against themselves.

CONGRESS passed the immigration bill, providing a literacy qualification over the veto of President Wilson, notwithstanding the eleventh hour warning that Japan had again protested against the language of the Asiatic clause. The literacy test excludes from the United States all aliens over sixteen years of age, physically capable of reading, who cannot read the English language or some other language or dialect. Any admissible alien, however, or any citizen of the United States, may bring in or send for his father or grandfather over fifty-five years of age; his wife, mother, grandmother or unmarried or widowed daughter, if otherwise admissible, regardless of whether such relatives can read. This same literacy test had been vetoed by President Cleveland, President Taft and President Wilson a couple of years ago. Only thirty vetoes have been overridden in the history of the United States, and but four of them within the past thirty-five years.

A COLD wave made heavy inroads on the winter fruit and vegetable crop in the southern producing belt during the past week. The citrus fields as far south as middle Florida were severely damaged and the year's production of tomatoes and potatoes virtually wiped out. Vegetation in Louisiana also suffered heavily. Messages from Florida growers state that in seventeen years no such crop damage has been wrought in the Florida fields. They declare that all vegetation to the southern tip of the penisula has been frozen. These dispatches indicate that much of the state's cabbage, celery and lettuce crops will be saved, however.

THERE is little likelihood of any of the other neutral nations joining with the United States in the protest against Germany's unrestricted use of the submarine. Switzerland has already announced that it does not care to join with President Wilson in his program. Spain is busily engaged in getting upon a war footing, but there is not much probability that it will take definite action in the near future. Some of the northern countries neighboring on Germany have been greatly incensed at the high-handed manner in which their shipping has been destroyed or been interfered with, but they are not in a position to take summary action. Germany points to the plight of Roumania as an example of what may be expected by any small country which might join forces with the allies against it. The refusal of the other neutral nations to join with them does not in any manner influence the president's policy, as he believes in taking whatever steps may be necessary to protect American shipping rights.

CONGRESS is busily engaged taking the necessary preliminary steps to put the United States on a war basis. The annual naval bill has been hurried to completion, additional appropriations totaling $15,000,000 being added. Of this amount $5,000,000 is for ammunition for merchants' auxiliaries fleet and $2,000,000 for anti-aircraft guns to defend naval stations. While this has been in progress the regular annual army appropriation measure has been seriously considered. This bill carries a total of $247,000,000; among the largest items for new equipment being $8,000,000 for aviation and $5,500,000 for automatic guns for the army and national guard. In both respects the United States has lagged behind foreign nations.

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Facts About Bull Associations.

How They Are Organized and Conducted and the Benefits Which Are Derived From Such Co-operative Effort.

BULL associations are closely related to cow-testing work and have been accompanied by so much success in Denmark that several years ago the United State Department of Agriculture took the work in hand the same as cow-testing work, and is now sending special agents through the country, advising the formation of such associations and educating the people to the advantages that such organizations carry with them. At the recent Farmers' Week at the university, Joel Winkjer, of the United States Department of Agriculture, gave an interesting talk on the different phases of the work, and, though most of us had an idea what the work and object of the work was, not very many of us felt that the plan was feasible in the better centers of dairying. However, after listening to Mr. Winkjer's detailed explanation of the entire plan it seems highly probable that such an association will in the future be quite popular throughout the country. A handicap in America is to some extent the comparatively wide range that such an association will comprise in many instances due to the larger sized farms here than in older countries. But this can be overcome by a little planning and some sacrifices to convenience.

The object of a bull association, according to the United States Department of Agriculture, is the improvement of herds by the ownership, use and exchange of high-class sires. The difficulty in running a bull association successfully is in the fact that there is nothing tangible about it as in the case of other assocaitions. In the cow-testing association the tester is the man that gives the organization the solidity which is necessary for success. He makes his rounds each month and the members have nothing to worry over after he has been employed and shows that he can take care of his work. In the bull association, however, the interest of the members must keep the plan alive and the proper officers must be at the head of the organization to make the venture a benefit. Each member of the association must be convinced that in this plan the majority rule must be adhered to, or ruin will follow. The slightest show of selfish interest will make the results doubtful, as there can be but one main issue—the systematic improvement of the herds.

When a number of farmers club together for this purpose, they must first decide on the breed that is to be raised by them. The number of farmers that wish to form the different "blocks" is the next point. Often two men wish to have a bull for their exclusive use, and these can form one block, or perhaps ten or more wish to go together and constitute a block. The number of cows for each is then determined and either a pro rata charge is made, or the money is assessed on the number of cows in the different herds. Each bull is assigned to a group or block for a period of two years, at which time he is transferred to the next block and the rotation completed, depending on the number of blocks in the community.

An association of this kind in the main has, for an advantage, the greater buying power of combined funds. Where the individual farmer can probably afford but $100 for a sire, and the herd on his place is by far not large enough to give the bull a full season of usefulness, and twenty farmers are in the same position, it requires only a few minutes' figuring to be convinced that pooling the funds will give all a greater capital to work with. For this money they can buy fewer, but better, bulls to do the work, according to the division that can also readily be worked out on the basis of the sire's capacity. Every two or five or ten farmers can form a "block" and use the bull of known ancestry and high-producing powers for a period of two years when he is shifted to another block, and this process continued until the circuit is completed. A deterring factor in most cases has been the fear of transmission of disease through the use of the sires on different herds, but that is a problem which is really a benefit in disguise. The very fact that the fear is there will help to make farmers clean up their herds and rid themselves of the diseased animals, because of the danger of infecting other animals. The risk attendant in the purchase is not so great as in the case of the individual buyer. All members have a word in the kind of sire that is to be bought and greater care if anything will be exercised in this case than in the purchase of individuals. Also the individual purchaser takes chances when he is buying animals, but no one would quit the dairying game because of an unfortunate purchase. An association is better situated than the individual to stand the loss of a bull, as in most cases the assessment on each man is less than if he were to pay for an inferior bull. There is merit in the plan and Wisconsin farmers that have seen the value of cow-testing work and the benefits of organization there ought not to be slow in giving this plan serious consideration.

"Wipe Out" the Worms That are "Wiping Out" Your Hogs!

Thousands of Farmers Have Accepted This Offer!

Read Their Enthusiastic Letters

Hog-Tone Makes Litters Thrifty

"I enclose you herewith a photograph of my 86 head of AVALON FARMS HOG-TONE hogs which Mr. P. S. Richey, feeding expert of the Purdue University College Experiment Station says is the best bunch of hogs of the size which he has seen in Indiana this year. The mothers of these hogs were all treated with AVALON FARMS HOG-TONE during pregnancy and these hogs have been regularly treated with AVALON FARMS HOG-TONE since weaning. Thirteen sows farrowed 182 pigs the latter part of last March. I lost some from cold; sold some and butchered some, but have 86 hogs left now (Jan. 12, 1917). These were weighed on January 6th and averag d 286 pounds at about 7½ months of age. There is not to exceed 10 pounds difference between the heaviest and the lightest one. I treat all my hogs with AVALON FARMS HOG-TONE regularly."
H. M. Gieseking, Arcola, Ind.

First Bottle Hog-Tone Made Me $100

"I had a bunch of hogs, 30 head in all, and they got sick. I thought they had the cholera, as two of them died and there was cholera all around me. I got a bottle of your Hog-Tone and they got better. My first bottle of Hog-Tone made me one hundred dollars ($100.00) as it saved more than that many dollars' worth of hogs for me."
H. O. Michael, R. No. 2, Markle, Ind.

Well Pleased With Hog-Tone

"I have fed 54 hogs your Hog-Tone and it shows good results, so I feel well pleased with Hog-Tone."
Albert Wagner, Hooper, Nebr.

5 Weeks' Treatment Produced Wonderful Gain

"I didn't have much faith in HOG-TONE when it first arrived. But it is different from others—the others being in powdered form. HOG-TONE being a liquid form, is so easily fed in the swill that you obtain the desired results. I took a couple of shoats that did not seem to be doing well from a larger bunch of hogs and began by feeding them some of your HOG-TONE, and in about five weeks' time you would not have believed they were the same hogs. They grew so rapidly and made such fast gains that now I have them back with the other hogs and when feeding time comes they are the biggest scrappers in the bunch. Thanks to you for your bottle of HOG-TONE."
Perry Stratton, Berkshire Breeder, Momence, Ill.

Saved Hogs Stricken With Cholera Symptoms

"I had a bunch of seven hogs. They took sick and two died. Three of them would not not eat at all. After the first dose of Hog-Tone they commenced to improve and continued to do so. I thought these hogs had the cholera, as they acted like it and the neighbors had it all around me and their hogs died. My hogs never missed a feed after feeding Hog-Tone and they made good hogs. I will not be without Hog-Tone from this time on, as I cannot afford to take chances for what Hog-Tone costs."
Guy Hoopingarner, R. No. 1, Uniondale, Ind.

60 Days' Treatment Absolutely Satisfactory

"I received the sixty days' treatment of AVALON FARMS HOG-TONE some time ago and find it to be absolutely satisfactory in every way." Max Schultz, Irondale, Mo.

Wonderful Improvement in 60 Days

"I have been treating my hogs with HOG-TONE for sixty days and see wonderful improvements in their condition. I am satisfied that it is showing me 400 per cent profits." Herman G. Behrens, Palmer, Ia.

Hog-Tone Saved 5 Hogs

"Some time ago I had 14 head of hogs that would not fatten. I could not get them to gain any. I selected out 9 that the shippers would buy and sold them and kept the 5 that were in such bad shape that they would not buy them. Shortly after one of my neighbors advised me to try your HOG-TONE. I purchased a bottle at the drug store and began to feed it. They began to show results as soon as they got the second dose and I never had hogs do better than they did. They fed out and made fine stuff and I butchered them for my meat. I never saw nicer meat and they were absolutely clean, no worms of any kind to be found. I can recommend HOG-TONE to anybody for it did the work for me. It makes them eat and they get the benefit from what they eat." B. F. Conrad
R. F. D. No. 12, Columbia City, Ind.

THIS means exactly what it says. I don't want you to send me a penny of money. Keep it in your pocket. Simply mail the coupon to me. I will ship you one big $1.00 bottle containing a full quart (32 ounces) of Hog-Tone for each eight hogs in your herd—the day the coupon below, filled in, reaches this office. That will be sufficient to treat **all** your hogs 60 days or more, according to size. This will mean just 12½ cents per hog for **all** the treatment, and that treatment is **guaranteed** by me to free your hogs of **all** worms—to enable them to put on more weight from the same feed—to fill them with strength and vitality to resist disease attacks.

Accept this offer at once! Don't let worms threaten the health—the lives of your hogs one day longer. Worms are eating away your hog profits. It is useless to deny that. The U. S. Dept. of Agriculture declares: "Nearly every hog is infested with worms." "More hogs may be lost from worms this year than from hog cholera, and many cases of apparent cholera are only worms," says Bulletin No. 470 of South Dakota State College.

AVALON FARMS HOG-TONE

The *Liquid* Worm Killer and Hog Conditioner To Treat All Your Hogs for 60 Days—FREE—At My Risk!

Avalon Farms Hog-Tone is a highly concentrated liquid medicine for hogs only. It contains important medical ingredients, which are liquids and which cannot be combined in medicated salts, stock foods or condition powders of any kind. Avalon Farms Hog-Tone is safe. It is very easy to treat your hogs with Avalon Farms Hog-Tone. It is easily mixed with any kind of slops, with the drinking water or dampened feed. It is only given every third day for the first six weeks and after that only once a week. 100 PER CENT STRONG.

Hog-Tone cleans out every kind of worms that infest hogs—malignant Thorn Head Worms—Stomach Worms—Liver Worms—Lung and Bronchial Worms. By doing so, it gives protection to your hogs from easily contracting Cholera, Rheumatism, Scours, Thumps, caused by worms and Indigestion, Enteritis, and other diseases. A simply wonderful tonic and conditioner—**gives hogs voracious appetites**, aids digestion, helps them thrive, grow and put on fast increases of flesh. **Splendid for pregnant sows—it is absolutely safe and assures sturdier, healthier litters.**

Keep Your Money in Your Pocket! Simply Send Me the Coupon!

Simply tell me how many head of hogs you have—write down your name and address and mail to me. I will immediately ship you enough Avalon Farms Hog-Tone to treat your hogs for 60 days! You simply pay the transportation charges. Treat your hogs according to directions. If at the end of the treatment you are not completely satisfied—simply return the labels to me and you don't owe me a cent.

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W. O. Gandy, President
622 Rand-McNally Bldg.
CHICAGO, ILL.

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W. O. Gandy, President, Avalon Farms Co., 622 Rand McNally Bldg., Chicago, Ill.

There _____ hogs. Ship me immediately enough AVALON FARMS HOG-TONE to treat them for 60 days. I am to pay nothing now except transportation charges. I agree to report results to you at end of 60 days and pay for the Hog-Tone at that time if it has done all that you claim. If it does not, I will return the labels to you and you agree to cancel the charge.

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$21.95—60 DAYS FREE TRIAL NEW LOW 1917 PRICES--only $21.95 now for a long time guaranteed gasoline engine. Proportionately low prices on Lifetime Guaranteed "Faultless" hopper cooled 1 3-4, 2 3-4, 4 1-2, 6, 8, 12 and up to 50 H. P. Engines. No better engines. Powerful, strong, simple. Easy to run. Don't buy until you write for our great special Free Gasoline Engine Catalog and read our wonder 60 DAY FREE TRIAL WITHOUT MONEY to us in advance offer. Buy from headquarters.

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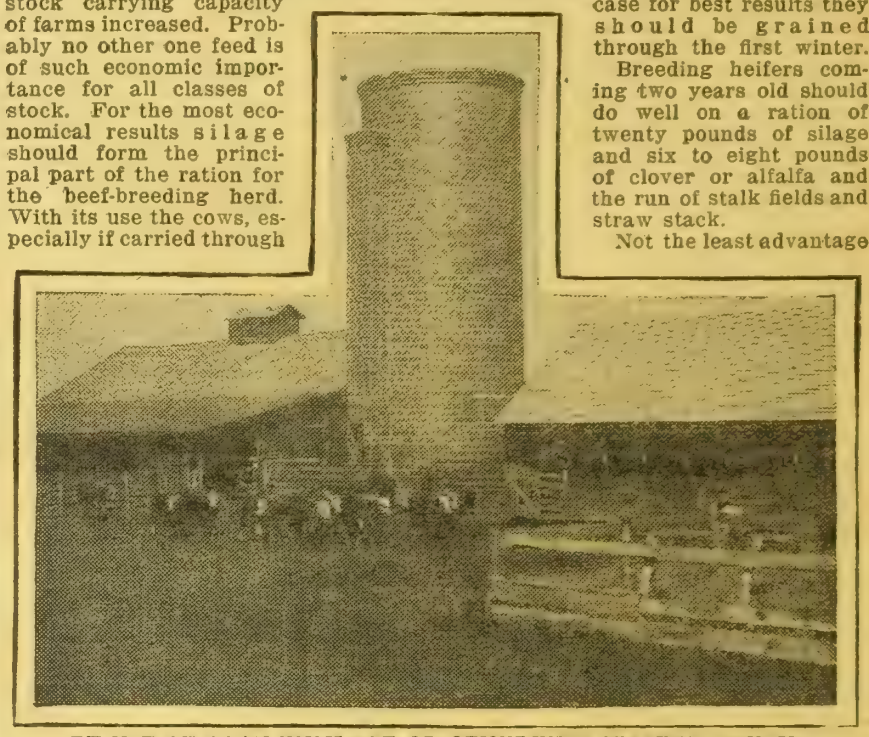
1091

SILAGE IN FARM RATIONS.

Iowa Station Obtains Good Results From a Ration Short on Grain and Long on Ensilage.

CORN-BELT farmers and feeders are becoming more and more interested in the possibilities of silage feeding. It is with the hope that more men may be influenced to include a silo in their farm equipment that this circular is published.

Stock feeding, because of the high price of land and grains, is becoming more than ever a matter of utilizing roughages. The experience of feeders and the result of experiments conducted by the Iowa Agricultural Experiment Station show that by the use of corn silage, an otherwise wasted roughage, larger gains are produced, cost of feed bills reduced and the stock carrying capacity of farms increased. Probably no other one feed is of such economic importance for all classes of stock. For the most economical results silage should form the principal part of the ration for the beef-breeding herd. With its use the cows, especially if carried through the winter dry, can be fed practically as cheap during the winter as during the summer months.



BY USE OF CORN ENSILAGE OR OTHERWISE WASTED ROUGHAGE, COST OF FEED BILLS IS REDUCED.

For dry cows a ration of about thirty pounds of ensilage, four to five pounds of legume hay and the run of a straw stack and stalk fields will not only carry them through the winter in good condition but keep them gaining consistently. Many breeders substitute one to one and one-half pounds of cottonseed meal or other protein supplement per head daily for the clover or alfalfa hay, while a few have reported good results without the use of either a supplement or legume hay. In the majority of cases, however, it will prove profitable to add protein to the silage and straw ration.

If cows are suckling calves, grain should be added to the ration of silage and clover or alfalfa for best results A few pounds of corn and one to one and one-half pounds of cottonseed meal or oil meal makes a good ration for such cows.

Breeders have reported that by the use of silage the cost of wintering cows has been cut down one-third to one-half. Results at Walnut Ridge Farm, 1913-1914, showed a food cost, including summer pasture, of less than $27 per cow.

Uniformly good results have been obtained by a limited use of silage in the ration of the breeding bull. The succulence and palatability of the feed supplies that which is generally most lacking in his ration during the larger part of the year. The amount of grain used will depend entirely on the condition of the bull, the amount of exercise received, and the nature of the roughage fed with the silage.

After weaning the ration for beef calves will depend largely on whether they are to be kept for the breeding herd or finished as baby beef. For the breeding herd they should be fed a ration containing a generous amount of alfalfa or clover hay or other protein supplement. If intended for baby beef production the ration may contain a greater proportion of corn. In either case for best results they should be grained through the first winter.

Breeding heifers coming two years old should do well on a ration of twenty pounds of silage and six to eight pounds of clover or alfalfa and the run of stalk fields and straw stack.

Not the least advantage of silage lies in the fact that as a summer feed for both the breeding herd and young cattle it forms an excellent supplement to the failing pastures during "fly time" and eliminates the usual loss of thrift and weight during this period.

The chief value of silage in the fattening ration lies in the fact that the ration is not only cheapened but it helps produce larger gains. Cattle attain a higher finish in the same feeding period by its use and ordinarily outsell the cattle fed on a dry ration.

Using a familiar expression of one Iowa feeder: "The silage feeder can buy steers higher, sell them lower and still make more money than the man who does not have a silo."

FOR MOST ECONOMICAL RESULTS SILAGE SHOULD FORM THE PRINCIPAL PART OF THE RATION FOR THE BREEDING HERD.

Silage is without a peer as a roughage for use in short feeding. Compared with alfalfa and clover, cheaper gains are produced with silage. The silage cattle make higher gains and the fact that they outsell the cattle from other lots testifies to their superior finish.

Results seem to indicate that a small amount of dry roughage, such as a couple of pounds of legume hay, oat straw or corn stover, is a valuable addition to a ration of silage, corn and supplement.

For a longer feeding period it has proven advisable to limit the silage ration and increase the grain feed

somewhat toward the end of the feeding period. The great advantage of silage in starting cattle is that it can be used freely with little danger of "throwing cattle off feed." The old feeding adage, "Make your feed a little better than your cattle," applies to the use of silage as with other methods of feeding.

The amount of corn to feed with silage has been a question that has been worked out but little heretofore, although there has been a great deal of discussion regarding the percentage of corn that could be used most profitably.

In a 120-day feeding trial with 1,000-pound cattle recently completed by the Iowa Agricultural Experiment Station five rations were used. One lot received seventeen pounds of corn daily along with thirty-one pounds of ensilage, two pounds of oil meal and about two pounds of alfalfa. These steers made an average daily gain of 2.98 pounds and this was made at a cost of $9.49 per 100 pounds. Another lot received only twelve pounds of corn daily and forty pounds of ensilage, together with the same amount of oil meal and alfalfa fed the first lot. These gained 2.8 pounds per head daily and the increase was made at a cost of $9.13 per hundred. A third lot received only 8.6 pounds of corn daily, but their ensilage was increased to fifty-one pounds and in addition they were fed the same amount of oil meal and alfalfa as was consumed by the other lots. Strange as it may seem, these steers made an average daily gain of 3.02 pounds and this was made at a cost of $7.67 per 100 pounds. Even when their corn was cut down to 4.3 pounds daily, this being fed in conjunction with fifty-four pounds of ensilage, two pounds of oil meal and about two pounds of alfalfa, the gains still ran over two and one-half pounds per head daily, the exact gain being 2.56 pounds. The cost of making gains on this lot was $7.45 per 100 pounds.

At the close of the experiment the steers were valued by an expert and it was found that the difference between the lots was very slight. The steers fed at the rate of seventeen pounds of corn daily were valued at $8.25 per hundred, while the steers fed only twelve pounds of corn daily were valued at $8.83 per hundred. The steers fed 8.6 pounds of corn daily were valued at $8.70 per 100 pounds and those that received the small ration of 4.3 pounds daily per head were valued at $8.85 per 100 pounds.

Improving Farm Butter.

The adoption of more careful methods of handling milk and cream and improved practices in the making of farm butter will reduce rather than increase the trouble incident to home production of this food, say dairy specialists of the U. S. Department of Agriculture, and will result in a superior product which can be sold more easily and for a better price than the average farm butter. Last year about 30,000,000 pounds of butter, much of which originated on the farm, was washed or renovated because it was of such poor quality that it could not be profitably offered on the regular butter markets.

Cream alone should be churned. It may be skimmed as soon as it rises, or may be separated by a mechanical separator. The latter plan is the more efficient, and, though requiring a considerable initial outlay, often will be profitable. The cream should be set aside in a clean place by separate milkings. A temperature of 50 degrees Fahrenheit, or lower, should be maintained until from twelve to eighteen hours before churning time, when the various batches should be stirred together well and brought to a temperature of about 70 degrees Fahrenheit by placing the container in a bucket of warm water. One of the first acts of the farm housewife, who decides to adopt improved methods, should be to purchase a dairy thermometer. Temperatures play an important part in the development of flavors in butter, and always should be determined with fair accuracy. After the cream is mixed it should be kept at approximately 70 degrees Fahrenheit until just before churning time, when it should be reduced to about 58 degrees Fahrenheit where this is possible (or to such temperature not above 65 degrees Fahrenheit as to complete the operation of churning within twenty-five or thirty minutes).

The barrel type has been found by dairy specialists to be one of the most satisfactory churns. The dasher or plunger type requires a somewhat greater expenditure of labor. Earthenware churns are especially undesirable unless perfectly glazed, since, if pores are exposed, they absorb milk and cream which later decay. Churns with mechanical devices inside them are difficult to clean and sometimes injure the body of the butter.

The churn should be scalded preparatory to churning, but should be cooled with water before the cream is placed inside. The cream should be poured in through a coarse strainer. Every few minutes during the early part of the churning, gas should be allowed to escape from the churn. If the temperature is right the churning should require about twenty-five or thirty minutes. The process is completed when the granules of butter are about the size of large wheat kernels. The buttermilk should then be drained off and the butter granules repeatedly washed with cold water while still in the churn. The washings should be continued until all milk is removed. Under no circumstances should working be depended on to remove surplus milk.

When the butter is free from all milk it should be taken from the churn with a paddle and placed on a worker. The hands should never touch the butter, both on account of sanitary reasons and because the body warmth may melt the fat. The working should be done carefully, to avoid making the butter greasy. Before the butter is worked, fine salt should be added at the rate of about an ounce per pound of fat.

The butter should be prepared for market in a rectangular mold, since, when in this shape, the product is more easily wrapped and handled and is more pleasing to customers. Regular parchment butter-wrapping paper should be used around the prints, as ordinary waxed paper tears easily and sticks to the butter. The placing of the wrapped prints in pasteboard boxes is a desirable final step, as it protects the package, gives it a better appearance, and permits the use of the maker's name or trade-mark as an advertisement.

After the butter-making operations are completed, the churn should be rinsed carefully with warm water. It should then be scrubbed with hot water, cleansing powder and a fiber brush, and finally should be scalded and set in a clean, sunny place to drain and dry.

Purchase in the United States of refrigerating equipment to the value of $30,000,000, to conserve and develop, along economic lines, the fresh beef and dairy industry of Russia, has been authorized by the Russian-American Conservation and Industrial Stock Company, backed by the Russian government.

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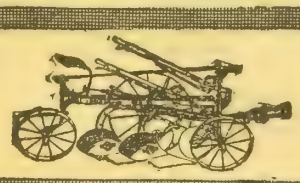

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This is the plow of which Thad. E. Mendenhall, Fairbury, Nebr., writes: "I got 10 bushels more corn per acre on land plowed with 'CTX' gang plow than I got on the same kind of land, right side by side, plowed with other make of plow." One reason for this increased yield is that the "CTX" bottom turns the furrow slice clear over and lays it absolutely flat on the subsoil. No air spaces here to choke off the subsoil moisture.

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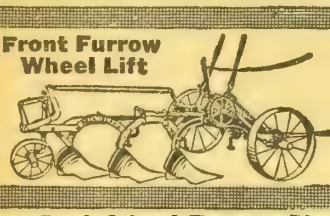

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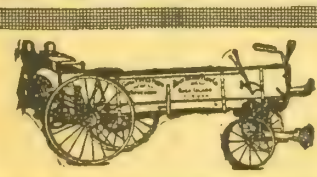

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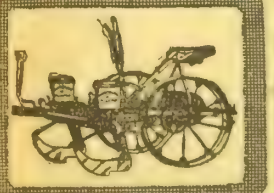

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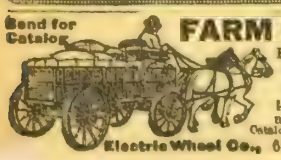

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Recognition For Badger Farmers

The Wisconsin College of Agriculture Gives Special Honors to Three of the State's Well-Known Leaders in Agricultural Lines.

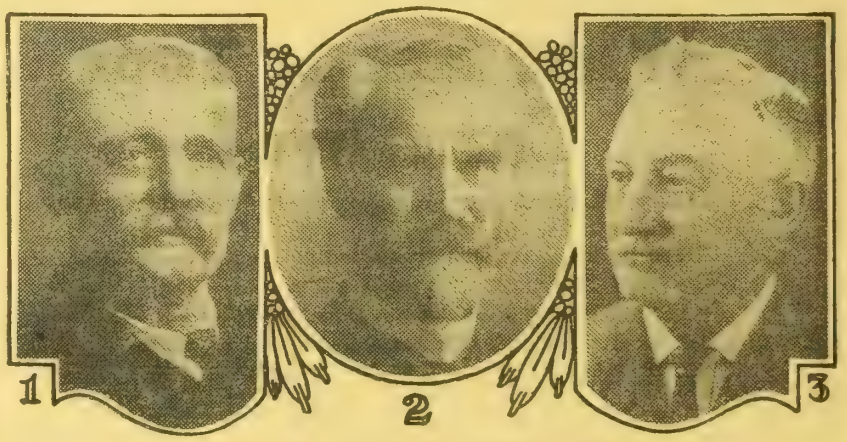
THE three Badger farmers chosen by the Wisconsin College of Agriculture for special recognition this year are John Quincy Emery, Albion, Dane county; Henry Krumrey, Plymouth, Sheboygan county; Joseph Gordon, Mineral Point, Iowa county.

These three men are already quite well known to readers of The Wisconsin Farmer. Mr. Emery served twelve years and two and a half months as Wisconsin dairy and food commissioner, and in that time commanded a position in this line of work second to no dairyman in the country. He was appointed to this position in 1902 by Senator (at that time governor) LaFollette, and was reappointed by LaFollette, Davidson and McGovern for six consecutive terms. In 1908 he was named president of the National Association of State Dairy and Food Commissioners. Mr. Emery is a Badger pioneer, having been brought to this state when a child and settled in Dane county, near Stoughton, when Wisconsin was only a territory. The old homestead was built up on government land. Emery received a common school education in the schools of early days, and graduated from Albion academy and later from Normal, in 1866, with degree of Ph. B. His early work was as an educator. He was county superintendent of the eastern part of Dane county, later was county superintendent of Wood county, and then principal of the Fort Atkinson High School from 1873 to 1889. He was president of the Wisconsin State Teachers' Association one year, and three years a member of the educational board to give examination for state certificates. In 1882 he received an honorary degree from Beloit College, and in 1893 he retired from teaching to his 244-acre farm near Albion, Dane county. In 1894 Mr. Emery was elected state superintendent of public instruction and in 1896 he was re-elected. Mr. Emery has served as a member of the University Board of Regents, the Board of Regents for state normal schools, the Wisconsin Free Library Commission, the Wisconsin Geological Survey, and in other important agricultural and educational positions. He was one of the charter members of the Wisconsin Live Stock Breeders' Association. He first recommended the addition of agricultural, manual training and domestic science courses in the public schools. He was also a consistent worker for the Wisconsin College of Agriculture, aiding in many ways in securing adequate appropriations for carrying on the work of the college and the dairy school. In the twelve years that Mr. Emery was dairy and food commissioner he did a great amount of work for better legislation for the dairy farmer, and his share in making Wisconsin the first dairy state was by no means a small one. Mr. Emery not only urged better farming in Wisconsin, but practiced it on his farm near Albion. He erected the first silo in a neighborhood which now has few barns without the silo close by. He practiced crop rotation, used all the farm manures to good advantage, and raised pure-bred Jersey cattle. He was popular with the creamery and cheese men of the state, because he was a harmonizer and settled almost everything "out of court."

Henry Krumrey's main claim to state-wide recognition is his connection with the largest co-operative cheese-marketing enterprise in the entire country. Mr. Krumrey has enjoyed honors as a public servant, having represented his district in both branches of the legislature and served as state chairman of his party. But he performed his most conspicuous service when he inaugurated a fight against the cheese boards, and led Sheboygan county farmers in an enterprise through which they handle their own marketing problems. A man with less initiative would never have been able to accomplish what Mr. Krumrey did. It is not necessary for The Wisconsin Farmer to describe again the operation of the Sheboygan County Cheese Federation plant, which was treated at some length in these columns only a few weeks ago. Like Emery, Mr. Krumrey is one of the old-timers of Wisconsin. He was born in the town of Plymouth, Sheboygan county, in a log cabin, in 1852, and he still resides in the same town. He was the son of Carl Krumrey, German refugee of the revolution of 1848. The father settled in Sheboygan county in 1849. The son took charge of this farm in 1872, and he has the distinction of having lived on the same farm for sixty-four years. This farm all but twenty acres was sold last March.

It was fitting that the college of agriculture recognized Joe Gordon, so well known as a producer and judge of good hogs. In 1896 he raised the champion hog of America, a Poland China boar, and this victory at the International satisfied a life-long ambition. Joe Gordon used to say, "I would rather raise the champion hog of America than be president of the United States." Not only as a breeder did Mr. Gordon attain prominence, but he was for many years counted one of the very best judges of show hogs in the entire country. He was seldom criticized as a judge. He had the happy faculty of satisfying the losers as well as the winners, and this was due to the f ct that those who entered the ring understood perfectly well that Joe Gordon knew his business and conducted his judging absolutely on the square.

The three men named make conspicuous additions to the honor roll of the Wisconsin College of Agriculture and there was general satisfaction Farmers' Week because of the selections which ad been made.



RECEIVE HONORS FARMERS' WEEK

1—Joseph Gordon, Iowa county; 2—J. Q. Emery, Dane county; 3—Henry Krumrey, Sheboygan county.

The charter list of the Oneida County Grange Federal Farm Loan Association was closed January 27th at Rhinelander with twenty-three members applying for $35,300 in loans and the following directors were elected: C. B. Howe, Emil Hack, O. H. McLaughlin, Ed Wauple, Thomas Leith, W. P. Jewell and Peter Christianson. The officers are: President, C. B. Howe; vice president, O. H. McLaughlin; secretary and treasurer, John F. Wilde. Charter has been applied for from the federal land bank at St. Paul. This is believed to be the first Wisconsin application under the new federal farm loan law.

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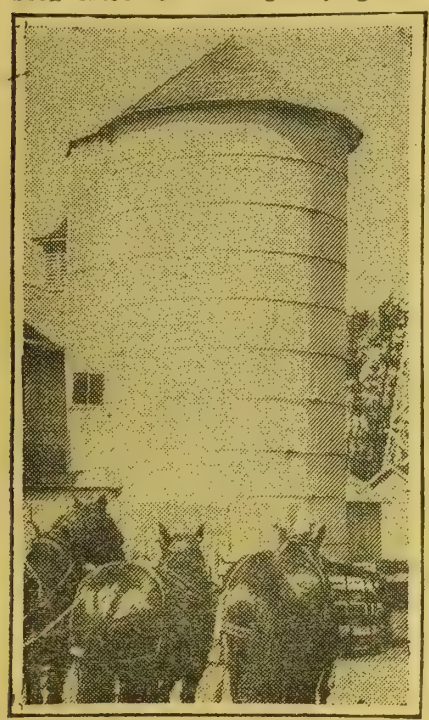
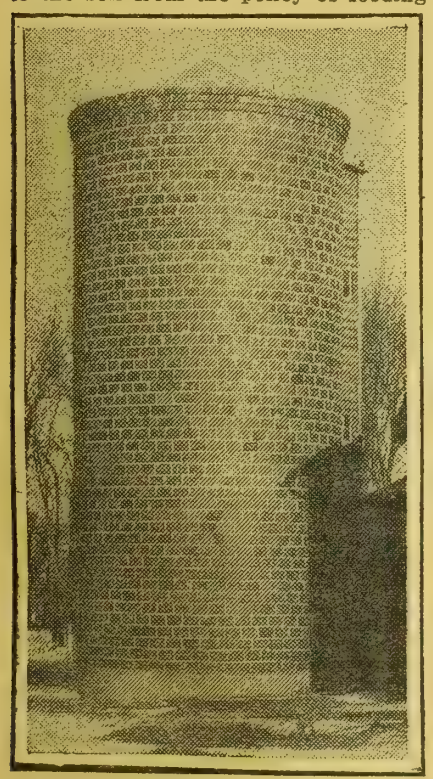
Experiments Prove That Ensilage Has Cut Down Feeding Costs and Kept Animals in Prime Condition.

WHEN figures climb up into the millions they generally become confusing, save only in those instances when we are trying to arrive at comparisons. When we are told, for example, that there are 24,000,000 beef and dairy cattle in the ten grain-belt states, this statement is more or less bewildering. On the other hand, when we find that all the dairy and beef cattle outside of the ten grain-belt states only amount to 37,000,000 head we then begin to realize what an important part the central West plays in the production of beef and dairy products. The total number of beef and dairy cattle has been increased at a gratifying rate



A POPULAR TYPE OF SILO IN THE GRAIN BELT.

during the last few years, and there are today something like 2,000,000 head more in the United States than there were a year ago. We are apparently finding out that the handling of live stock is a basic industry intimately associated with the maintenance of the soil for crop production. True it is that the benefit that comes to the soil from the policy of feeding



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grain and roughage is secondary and interest in live stock husbandry cannot be maintained unless the industry, as a whole, shows a profit. To this end the methods we employ in the feeding of our dairy and beef herds have much to do with the status of the whole industry.

In this connection we may turn with much hope to the available records that have been made in feeding methods since the introduction of the silo, which has meant the use of products that have been largely wasted in the past. The conversion of the stalks and leaves of the corn crop into a palatable form of roughage to use during the winter months has proven to be a great boon to those engaged in dairying, as well as those who carry on beef production. Where accurate records have been kept, in the instance of a beef herd during winter months, it has been found that a grade herd comprised of approximately 100 animals was carried through the winter of 1913-1914 at an average daily cost of 7.89 cents per head. In this case each animal consumed daily thirteen and one-half pounds of ensilage, four pounds of alfalfa hay and five and three-fourths pounds of clover and timothy hay. In addition, a small allowance was made for the cornstalks used during the winter months, and for grazing in the meadow. With this ration the cost of carrying an animal from November 21st to April 6th was $10.73. This data has been secured from the Iowa Agricultural College, and corroborative evidence has been obtained by the Iowa Beef Producers' Association. During the winter of 1914-1915 the same herd was carried at a cost of 6.3 cents daily per head, and in that case each animal consumed sixteen and one-half pounds of ensilage, five pounds of alfalfa hay and, in addition, allowance was made for the pasturing of cornstalks and meadow. The total cost from November 22d to April 20th was $9.44 per animal. The following year, from November 21, 1915, to May 16, 1916, the daily cost of maintaining this herd was 7.11 cents and in this case twelve pounds of ensilage, seven pounds of alfalfa hay and three and three-fourths pounds of old timothy hay was fed daily. They also had access to cornstalks and to an old pasture. The average for the third winter was 7.10 cents per day, amounting, on the average, to $10.89 per animal. In arriving at these results corn silage was esti-

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See the New Mitchell Junior With Hundreds of Mitchell Extras

Now we invite you to see Mitchell Junior. A somewhat smaller Mitchell—a $310 lower price than the 7-passenger Mitchell. But with generous size and ample power for a 5-passenger car. And with all the exclusive Mitchell attractions, due to John W. Bate.

Another step in Mitchell efficiency appears in the new Mitchell Junior. We urge you to come and see it.

A 7-passenger car, to have ample power and ample room, can't be smaller than the $1460 Mitchell, which has won for itself one of the envied places in the motor world. But 40 horsepower is enough for a 5-passenger car. And a 120-inch wheelbase gives room enough—more than most cars give.

So the Mitchell factory this year also brings out Mitchell Junior. Not a new type—simply a size reduction. So a man who buys a Mitchell can get the size he wants.

Thousands of these new cars have been run for months, on every sort of road. And they have proved themselves as perfect as the 7-passenger Mitchell car itself.

See the New Extras

In both Mitchell models there are hundreds of extra features. They give you at least 20 per cent extra value over any other car in this class.

These extras—most of them exclusive to Mitchells—are paid for by factory savings. They are the result of efficiency methods, applied by John W. Bate.

This great efficiency engineer built and equipped this whole plant. Every method and machine is adapted to producing this car economically. These methods have cut our factory cost in two. Nowhere else is a car of this class built anywhere near so low.

You will be amazed to see how many extras these new-day methods pay for.

Double-Strong Parts

One result is the Mitchell standard of 100 per cent over-strength. That is, every vital part is twice as strong as need be.

The Mitchell standard used to be 50 per cent over-strength. That itself was extreme. The Mitchell car has always been a marvel of endurance.

But, in the past two years, we have doubled this standard to give you a lifetime car. That fact is announced for the first time in the models now on show.

Over 440 parts are built of toughened steel. All parts which get a major strain are built of Chrome-Vanadium, and built oversize. We pay for steels in the Mitchell as high as 15 cents per pound.

31 Unique Features

There are also 31 extra features in Mitchells. That is, features which nearly all cars omit. Things like a power tire pump, reversible headlights, ball-bearing steering gear and never-broken springs.

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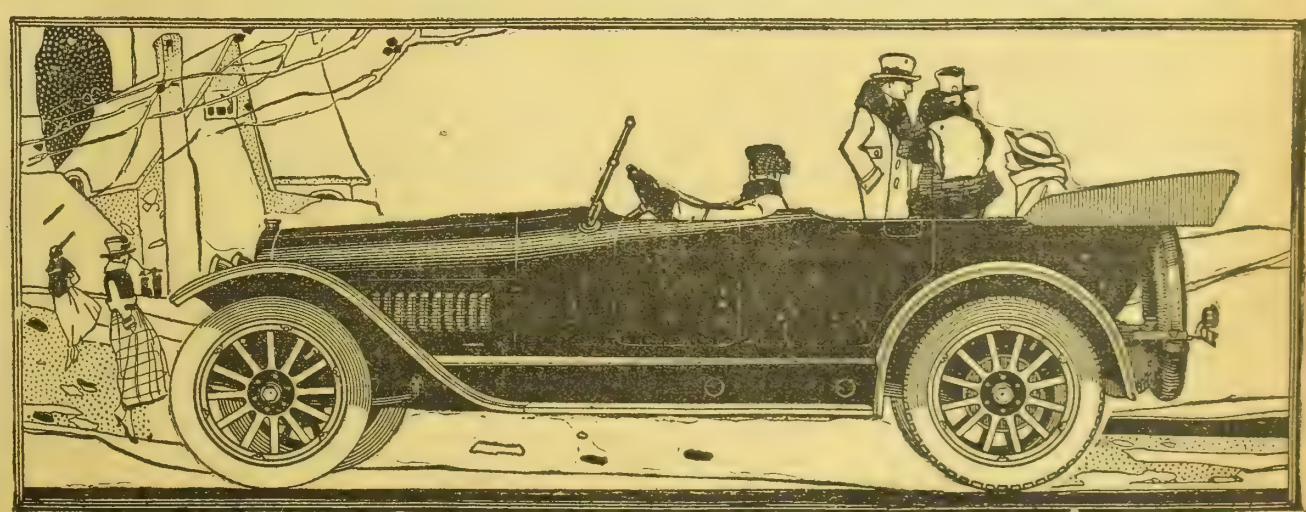

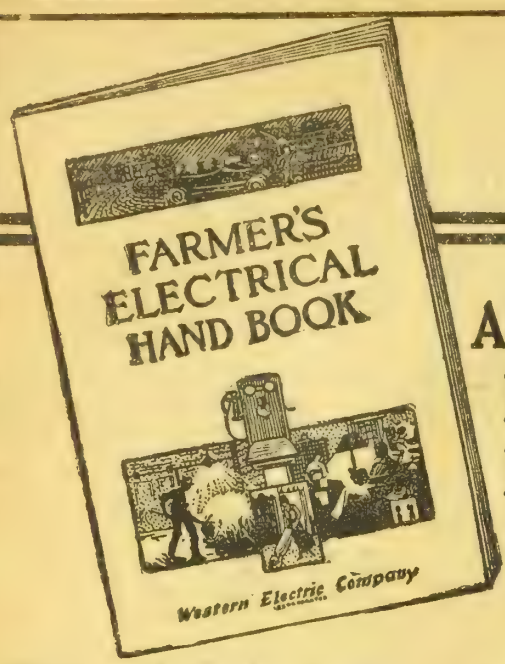

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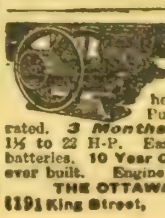

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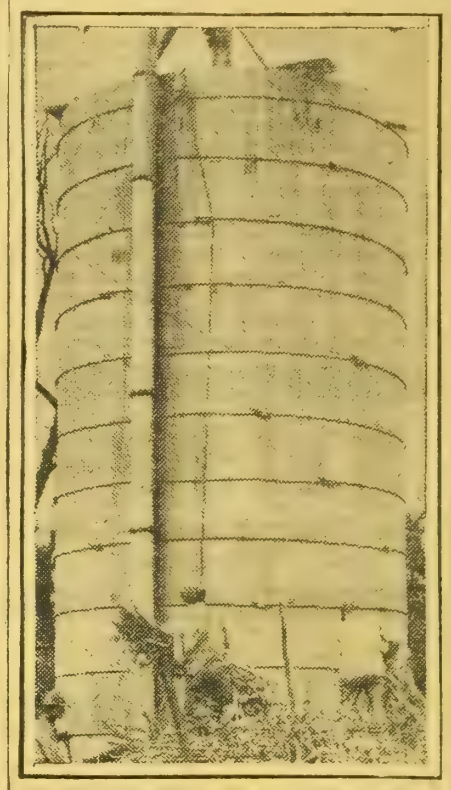
mated at $4 per ton and alfalfa hay at $10 per ton.

Turning now to a comparison between the cost of a ration containing ensilage and one that does not, we find



CORN SILAGE CUTS DOWN FEED COSTS.

in the records of the Iowa Beef Producers' Association where seventeen pounds of ensilage was fed daily to each animal along with three and one-half pounds of clover hay and ten pounds of oat straw, the cost daily per animal was 7.49 cents, whereas similar animals fed fifteen pounds of clover hay and three pounds of corn were carried through the winter at a daily cost of 11.28 cents per head. The former gained 1.07 pounds per head daily, while the latter made a gain of practically one-half pound daily per head. It cost $7 more in this case to carry an animal from November 1st to May 1st on a dry ration than it did when ensilage was fed. Every instance investigated by the Beef Producers' Association revealed the fact that, in wintering a beef herd, ensilage lowered the daily cost and increased the gains. This means that those who have silos and who handle their herd in a sensible way are no longer following the policy of wintering the beef herd at an out-and-out loss. Young heifers and steers can be made to gain approximately a pound a day with practically no grain when they are fed a liberal ration of good ensilage in conjunction with alfalfa and clover hay. Animals so handled go on the grass in the spring in the best of condition, and as they have not been burned out with corn during the winter months, they will make much better use of grass without grain than will be the case if the other policy is pursued.

Then there is the matter of healthfulness of the herds, which unquestionably is an important matter. Ensilage means summer conditions during the winter months, and the succulent feed it supplies means rapid growth of young animals, and, furthermore, it means that breeding animals are maintained in a condition that is much more natural than would be the case where considerable grain is fed to keep the animals in good flesh.

Sensible Feeding of Ensilage.

Allowance Must Be Made For the Needs of Each Particular Animal in the Herd When Ensilage Is Fed—By Raymond Fritz.

FEEDING ensilage to dairy cows requires more judgment, I think, than feeding beef cattle. At first dairy cows are stall fed, while beef cattle are mostly fed in a lot out of a feed bunk. You read many methods of feeding—so many pounds of ensilage, so many pounds of hay and corn stover. This is all right, but who has a herd of milk cows that will all eat alike of one feed? Some cows like more silage than others, while others leave the silage and wait for clover hay and corn stover or let the silage be doped with the grain ration before they start to eat. My experience is not to get the idea that each cow must eat a certain number of pounds of ensilage and if she doesn't there is something the matter with her. The better way is to watch which cow eats readily and give her an extra tip. Also watch the cow that waits for the grain ration, for she has just as good an appetite as the one that eats readily, but she has been overfed and doesn't like the taste. Feed her lightly until she is back on feed again. If she doesn't consume a larger amount, don't feed any more than what is cleaned up, and leave her looking for more. She really don't want any more, but has a craving for it and if given more will just nose around in it and let it alone. This cow needs to be fed a little heavier grain ration than the other and will respond to the milk pail if given.

Here are a few don'ts about ensilage: Don't feed frozen ensilage. A cow can thaw it out, but you can thaw it cheaper. Keep the outside edge lower than the middle. Take all frozen ensilage and use it as a cover for the next time feeding. Use from one-half, then the other, throwing the frozen from one side to the other, and use as a cover when you have enough taken off.

Don't feed too much ensilage, that is, so much that they let it lie or refuse to eat anything else. Make them clean it up. It is easier for you to let the cow clean out the feed box than to do it yourself after she has had as much as she wants. Such a method is very wasteful.

Don't overfeed because your silo catalog says thirty or forty pounds of silage a day, for the cows won't eat it and clover hay and a grain ration. Experience is the best teacher. A person could write until he could not see and the other fellow could read until he went to sleep and wake up the next morning and go on feeding the same wasteful and unprofitable way if he did not watch each cow and see that she cleaned up her feed properly.

SILOS USUALLY GO HAND IN HAND WITH PROSPERITY.

Don't feed too little—that is more unprofitable than the other way.

Mr. Alfred Wenz, of Aberdeen, South Dakota, in an address Farmers' Week said that he had been using Golden Glow corn both in the crib and silo for several years. He said that Golden Glow is used quite extensively in the southern part of Dakota. Mr. Wenz complimented the workers in the Wisconsin Experiment Association for their co-operative efforts in breeding such a good corn in this state. As fast as Wisconsin can develop something choice in the seed grade line, he says, the people of Dakota and other western states want to get hold of it.

Cow Testers in Annual Convention

Men Who Are Keeping Records on Over 25,000 Dairy Cows in This State Meet and Talk Show During Farmers' Week.

WHAT cow-testing associations can and cannot do, what the associations have done and what they consider best to do in the coming year was thoroughly discussed during the meeting of the testers, officers and members Farmers' Week. There is no longer a question as to the success that accompanies the formation of testing associations. The big question is in regard to the best methods to be used to get the most out of organizations now in existence and constantly being formed. For this reason the program this year included many and varied subjects, all, however, closely related to the main issue—making Wisconsin's dairy production more profitable.

Co-operative feed buying came in for a good deal of attention and some interesting results were mentioned. Members of the various associations, realizing the value of proper feed in the success of the dairy end of farming, are not slow to see the advantages of the co-operative purchases of such feed. In all cases the plan has resulted in saving the members considerable money and assured them of getting the proper feeds necessary for high production. Where the local dealer has not been willing to do this buying for the members in carload lots the testers have found legitimate means of overcoming this difficulty.

Herd record books and the right way of working up data for these was treated at length, the testers taking great interest in the details of the systems advised. Annual reports and the use of the association ledgers were discussed in the same way, all present joining in the discussion with an interest that pointed towards solid knowledge of the work and an enthusiasm that goes a long way towards making a success and failure of any undertaking.

C. E. Lee, assistant dairy and food commissioner of Wisconsin, gave an excellent talk on clean dairy products. He went into considerable detail regarding the work of his department in keeping up the standard of the state's dairy products. He also gave the testers some good advise in the way and manner in which they can assist the department in getting after the unscrupulous producer, both on the farm and in the factory. According to Mr. Lee, an increase is always possible even after the limit seems to have been reached by a section. As evidence he quoted the figures for Barron county, where in 1909 the total value of dairy products was figured in round numbers as $600,000 and people in general believed this county had reached the limit in production. Results, however, show that the limit has not been reached even now, though the production for 1916 was conservatively estimated as $1,100,000. This, in the opinion of Mr. Lee, shows that the interest for the coming year will be even greater than during the period just finished. But the farmers must be shown that better methods bring these results or otherwise the farmer cannot be blamed for not entering all such associations without considerable misgivings. Mr. Lee urged particularly the following points as essential in the production of better dairy products: Good floors in the barn, plenty of space in the barn, light, ventilation and separate milk houses. Most of these things are required by law, but the prosecutions have been few because the officials realize that conditions cannot be changed without educating the dairymen to the provisions of the law.

"Feeding the Dairy Cow" was the subject that called forth a variety of opinions and a lively discussion from those that heard the talks on the subject by G. C. Humphrey and E. B. Hart, of the college of agriculture. Recent experiments in nutrition point towards revolutions in the ration theories that have prevailed until now. The work being done by these men covers a period of nearly ten years and is far from being completed. Professor Hart in summing up gives the definition of a balanced or complete ration as one that contains five essentials: Energy, proteins, ash, vitamines (growth-producing substances), mechanical features and little or no toxic substances. The different effects of rations of corn alone and wheat alone and the mixture of the two similar variations of other feeds in the rations is astounding. Judging the worth of a ration by its effect on the offspring, there is good proof that rations have still something of the mysterious about them.

Bull associations are closely related to the cow-testing association, and this fact being recognized by the United States Department of Agriculture, special men have been engaged in organizing bull clubs for the betterment of dairy stock throughout the United States. An interesting talk on this work was given by Joel Winkjer, of the United States Department of Agriculture. He went to considerable length in explaining the details that go to making an organization of this kind successful. As an illustration of the benefit possible through such associations he referred to an association located at Rolla, Iowa, where five good bulls under this plan took the place of nine inferior ones. The average price of the nine inferior ones was $81 a head, while the price of the five good ones was $240 each. Thus by co-operation the members were enabled to have the services of a first-class pure-bred sire whose dams were known to be the profit-making kind. Before the forming of the association everybody there had a bull, but no one had a bull that was of any real value to the owner. By dividing a certain number of good bulls among the members better calves and higher producing cows were obtained at an outlay of less money than was paid for the inferior sires.

N. A. Negley, who has charge of the cow-testing work in the state, brought out some good points in his address, "Increasing Production Through Cow-Testing Associations." He is alive to the needs of the work which is at present still in its infancy. But the advantages already apparent he mentioned with the conviction that once the full benefit of testing is realized all of Wisconsin's dairymen will want to have testing done either by associations or in some other form with the idea of finding out the profit each cow is making. According to Mr. Negley, the best judges of cows are deceived quite frequently as to the possibilities of an animal. He mentioned several cases where farmers wanted to sell heifers, but because the buyers did not offer a satisfactory price the animals were kept and included in the testing work the following season. As a result, the heifer that was to have been sold for $40 and went begging was found to have produced in the first six months of her lactation period a profit above feed of $52.96. Without a proper record of this heifer's work she might have been misjudged from the very beginning and sold for beef before the owner had realized her worth. The value of co-operative buying was also emphasized and the savings effected by wholesale buying proved by actual cases. Letters testifying the satisfaction with which farmers now talk of the associations were quoted. The greater knowledge of feedstuffs and the results of intelligent feeding as compared to the old methods of feeding were clearly evident from the letters.

As the work of the associations is so important the state which is the ultimate gainer from this work ought to support the work in financial and other ways so that at least half of Wisconsin's 1,800,000 cows can be put under test and the unprofitable producers culled out.

Scotland is suffering from too many deer. Hundreds of herds of deer are descending on farms and devouring the crops. Farmers and land agents reported these conditions at a recent meeting of the Scottish Chamber of Agriculture and demanded amendments to the game laws so that more deer could be shot and the food supplies increased. Nine million of Scotland's 19,000,000 acres are officially described as "mountain and heath grazing land." Of this more than 2,000,000 acres are deer forest proper, and on much of the rest deer compete with sheep and cattle for the pasture. One of the biggest sheep farmers in Scotland declared a nation less inured by tradition to the dominance of the great land owning families would long ago have demanded that deer be confined to the poor lands, and the better lands be used for crops and pasture.

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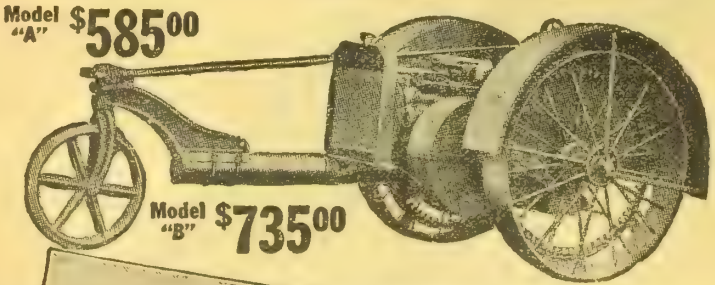

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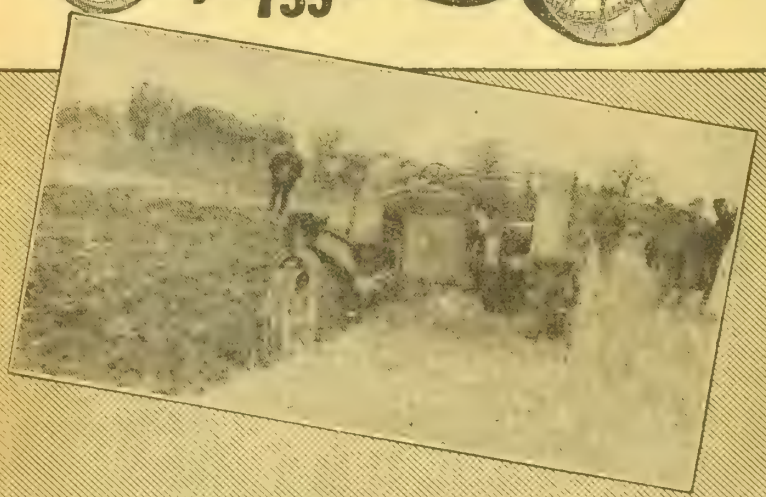

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Six Years' Ensilage Experience.

Good Results From Liberal Feeding, Fed in Accordance With the Out-of-Doors Plan—By J. W. Whitmer, Palo Alto County Iowa.

FROM experience I have learned a few things about feeding ensilage, but there are a great many more things I want to know. What I don't know but want to know will be the predominating feature of this article.

When we built our barn in 1904 a silo was an unthought-of proposition, so when we built the silo in 1910 we found that out-of-doors feeding was the most practical under the circumstances. This arrangement has been entirely satisfactory to us thus far, as very few winter days are so severe as to make outside feeding objectionable.

We feed ensilage both before and after milking, before in the evening and after in the morning. Tainted milk is an unknown thing to us. We believe it to be the result of ensilage odors in the barn at milking time.

We have, as a rule, about forty head of cattle, twelve milk cows and the rest young stock. Everything is fed twice a day, the cows being fed from twenty to thirty pounds daily, while the young stuff receives somewhat less. I have fed our cattle so much in one day that they would not clean it up. Judging by the amount they ate, I am of the opinion that there is no danger of overfeeding as long as plenty of hay and fodder or straw is supplied.

The cows receive, in addition to the ensilage and hay, one and one-half pounds of ground oats and rye and one pound of cottonseed meal, and enough sweet corn fodder so that from four to six pounds of corn is furnished to each cow. The rest of the cattle are wintered on ensilage, hay and what remains of the fodder after the cows have finished. We do not fatten cattle for market, but dispose of what we have to sell to near-by feeders.

Here is a hint that may help someone. Take a potato fork along to the silo and use it to dig the ensilage loose from the edges in cold weather. Keep the ensilage a little low around the outside and it will freeze less. For summer feeding, when ensilage spoils easily, we use a garden rake to get a uniform amount from the entire surface.

Now here are a few of the things I want to know. Will cane planted with corn make a good mixture for the silo? Does a ton of cane ensilage have as great an amount of feeding value as a ton of corn ensilage, supposing the water content to be the same in each case? Is it practical to plant soy beans with corn for the silo? Can a corn binder harvest a crop of that kind without choking down a great deal?

I would be glad to hear from anyone who can inform me regarding these matters.

A HOLLOW TILE SILO THAT WILL HOLD 350 TONS.

Nothing Mysterious About Fertilizers.

By R. J. H. DeLoach

In this day and time, while so much is being said on fertilizers, it is a good idea for us to pause and study the meaning of the word "fertilizers." Dr. Tait Butler of Memphis, Tennessee, one of the editors of Progressive Farmer, has recently given us some good information on this subject, and we take pleasure in passing it along to our readers.

Commercial fertilizers are any materials sold on the market, or that enter into commerce, which contain nitrogen, phosphorus or potassium, any one, two or all of them, in a form suitable for feeding the crops.

Such materials, or commercial fertilizers, may contain only one of these plant foods, such as nitrate of soda, which supplies only nitrogen; acid phosphate, which supplies only phosphorus; or muriate of potash, which supplies only potassium. Or a material may supply two plant foods, like fish scrap, tankage, etc., which supply nitrogen and phosphorus, or nitrate of potash, which supplies nitrogen and potassium. Then, again, many materials supply all three plant foods, such as cottonseed meal and the so-called ready-mixed complete fertilizers.

There is much yet unknown about fertilizers, soil fertility and plant growth, but there are no secrets or secret methods known by one manufacturer or by one class of people which are not known by others. No mysterious combinations or proportions will produce the marvelous results claimed by some. The man who claims any mysterious or unusual effects for any fertilizer mixture, and offers a formula for sale, is a good man to leave alone. If he is not a fraud, he is at least ignorant of fertilizers.

Badger Pure-Bred Grain Show 1917.

J. R. Thorpe, Tavera, Wins Sweepstakes on Corn--Grain Show Was the Best Exhibit of Pure-Bred Seeds the State Has Seen.

CORN and the small grains were not represented in record numbers at the sixteenth annual grain show, held during Farmers' Week at the university, but the quality of the exhibits was far superior to anything ever exhibited at Wisconsin before. Prof. R. A. Moore, of the college of agriculture, who has had charge of the shows during the last ten years or more and who is directly responsible for a great many of the improved strains of grain in the state, gave it as his opinion that there never was as much quality shown at any show in the world as at the present one. Several years ago Wisconsin competed aganist the world at Columbia, Missouri, and won 75 per cent of the prizes with an exhibit not nearly the equal of this one. At that show thirty-six states, among which were the leading ones of this country, and several foreign countries were represented, but their best efforts were not of enough importance to give Wisconsin the least trouble.

The sweepstakes in the class for Silver King corn went to J. R. Thorpe, of Tavera, and it can be said to his credit that his ten-ear sample that turned the trick was about the most perfect lot of Silver King ears ever brought to any show. The big points that all breeders have been striving for in the improvement of Silver King were embodied in the selections shown by him. He also won the blue ribbon in the fifty-ear class for Silver King. Several other prizes came to him in the various classes, but the outstanding exhibit was the ten-ear sample of Silver King.

In the sheaf grain and grasses exhibit one part of the room was taken up with the unsuccessful entries of rye, wheat, barley, and the various clovers and alfalfa. Splendid specimens of Wisconsin's crops they were, but others were so much superior that the prizes were reserved for them. Wisconsin has done special work in the breeding of special strains of rye. This work began seventeen years ago and followed with extra zeal by the experiment station has shown conclusively the importance of careful selection and breeding for quality strains. It was with considerable pride, therefore, that Professor Moore pointed to the blue-ribboned sheaf and called attention to the weight and the development of the heads. According to Mr. Moore the average acre yield for the United States is in the neighborhood of twenty-two bushels, while this strain produces forty-six bushels to the acre. When one considers that little or no credit belongs to better methods of farming and the entire gain in production is the result of intelligent and unceasing effort on the part of a few men, this becomes the more wonderful. Professor Moore has directed this work and can be justly proud of the lead the improved strains of rye will enjoy in the future. If all grains could be made to produce double of their present amount, it would go a long ways toward solving the world's food problem.

In the small-grain department, samples of excellent wheat, oats, barley and rye were shown. Plump kernels and even color throughout made the exhibit an especially uniform one. There was close competition in the various classes, but the exhibitors were quick to see the superiority of the winners in most instances. An excellent representation of field peas and clover seeds was likewise there, and also timothy and alfalfa seed. The entire exhibit of small grains was of an extremely high grade and left no doubt in the mind of the visitor that Wisconsin will some day give the other states as hard a run to catch up with her in field crops as she is now showing them in dairying. When Professor Moore was asked about the acre yield of corn during last year he smiled, as he admitted that Iowa had surpassed Wisconsin in this respect by a small margin, but he ventured to say that the coming year Iowa would be left out of the running. When Wisconsin passes anyone she stays ahead, according to Mr. Moore, and the efforts that will be put forth during the coming season by Wisconsin farmers to lead the nation in production of corn per acre will not be without results. During the last years the Wisconsin farmers have sold to Iowa farmers more than $80,000 worth of seed corn. That is a lot of corn to buy for a large-producing state like Iowa.

The first award is each class of the show was as follows:

Ten Ears Silver King (Wisconsin No. 7) Corn, North Section—1st W. G. Jamison & Sons, Appleton.

Ten Ears Yellow Dent (Wisconsin No. 8) Corn, North Section—1st A. C. Feifarek, Peshtigo.

Ten Ears Golden Glow (Wisconsin No. 12) Corn, North Section—1st J. A. Hass, Ellison Bay.

Ten Ears Wisconsin No. 25 Corn, North Section—1st C. A. Correll, Crivitz.

Ten Ears Silver King (Wisconsin No. 7) Corn, South Section—1st Theron Thorpe, Travera.

Ten Ears Early Yellow Dent (Wisconsin No. 8) Corn, South Section—1st John Van Loon, La Crosse.

Ten Ears Golden Glow (Wisconsin No. 12) Corn, South Section—1st J. E. Brunker, Ridgeway.

Ten Ears Clark's Yellow Dent (Wisconsin No. 1) Corn, any part of state—1st Theron Thorpe, Tavera.

Ten Ears Murdock (Wisconsin No. 13) Corn, any part of state—1st Leo Brueckner, Jefferson.

Ten Ears 8-Rowed Red, Yellow or Smut-Nose Flint, any part of state—1st A. O. Popp, Jefferson.

Ten Ears 8-Rowed White Flint, any part of state—1st Anton Bohl, Beaver Dam.

Ten Ears Pop Corn, any part of state—1st Wm. Moos, Onalaska.

Single Ear Dent Corn, any part of state—1st Wm. Willinger, Galesville.

Fifty Ears Silver King (Wisconsin No. 7) Corn any part of state—1st J. R. Thorpe, Tavera.

Fifty Ears Golden Glow (Wisconsin No. 12) Corn any part of state—1st H. C. Brueckner, Jefferson.

Peck of Wisconsin Pedigree or Oderbrucker Barley—1st Anton G. Holzschich, South Kaukana.

Peck Two-Row Barley—1st H. T. Draheim, Gotham.

Peck Wisconsin Pedigree No. 1 Oats—1st Wm. Moos, Onalaska.

Peck Pedigree No. 5 or Swedish Select Oats (Wisconsin No. 4)—1st Chris Michelson, Hazelhurst.

Peck Sixty-Day or Kherson Oats—1st H. T. Draheim, Gotham.

Peck Any Other Variety of Oats—1st H. E. Krueger, Beaver Dam.

Peck Winter Wheat—1st Wm. H. Basse, West Allis.

Peck Spring Wheat—1st H. T. Draheim, Gotham.

Peck Wisconsin Pedigree Winter Rye—1st Ed Whitmore Wausau.

Peck Medium Red Clover Seed—1st Fay Bros., New Richmond.

Peck Mammoth Clover Seed—1st W. A. Graham, Fennimore.

Peck Alsike Clover Seed—1st Otto Wolf, La Crosse.

Peck Timothy Seed—1st A. N. Kelly, Mineral Point.

Peck Silver Hull Buckwheat—1st H. E. Krueger, Beaver Dam.

Peck Japanese Buckwheat—1st H. T. Draheim, Gotham.

Peck Black Soy Beans—1st Albert Dettman, Peshtigo.

Peck Yellow Soy Beans—1st A. O. Popp, Jefferson.

Peck Smooth or Wrinkled Peas—1st Herman Schoeneck, Enterprise.

Peck Green or Yellow Field Peas—1st Herman Schoeneck, Enterprise.

Sheaf Pedigree or Oderbrucker Barley—1st H. T. Draheim, Gotham.

Sheaf Two-Row Barley—1st H. T. Draheim, Gotham.

Sheaf Pedigree No. 1 Oats—1st Peter Dengel, La Crosse.

Sheaf Swedish Select or Any Other Variety Oats—1st Otto Wolf, La Crosse.

Sheaf Winter Wheat—1st Noyes Raessler, Beloit.

Sheaf Spring Wheat—1st J. L. Krause, Beaver Dam.

Sheaf Pedigree Rye—1st Ed Zum Brunnen, Monroe.

Bundle of Alfalfa—1st Swartz Bros., Waukesha.

Best Exhibit of Three Cuttings of Alfalfa—1st P. A. Paulson, Hudson.

Bundle of Red Clover—1st H. T. Draheim, Gotham.

Bundle of Alsike Clover—1st H. T. Draheim, Gotham.

Bundle of Timothy—1st H. T. Draheim, Gotham.

Bundle of Sudan Grass—1st H. T. Draheim, Gotham.

Bundle of Soy Beans—1st J. L. Krause, Beaver Dam.

HONORARY CLASSES.

Ten Ears Wisconsin No. 1 Clark's Yellow Dent—1st J. R. Thorpe, Tavera.

Ten Ears Wisconsin No. 7 Silver King Corn—1st J. R. Thorpe, Tavera.

Ten Ears Wisconsin No. 8 Early Yellow Dent Corn—1st Wm. Schwandt, New Richmond.

Ten Ears Wisconsin No. 12 Golden Glow Corn—1st J. R. Thorpe, Tavera.

Ten Ears Any Variety Eight-Rowed Flint Corn—1st Chas. Hewitt, Randolph.

Peck Pedigree or Oderbrucker Barley—1st Anton Bohl, Beaver Dam.

Peck Pedigree No. 1 Oats—1st H. T. Draheim, Gotham.

Peck Pedigree No. 5 or Swedish Select Oats—1st H. T. Draheim, Gotham.

Peck Winter Wheat—1st N. Raessler, Beloit.

Peck Spring Wheat—1st H. E. Krueger, Beaver Dam.

Peck Pedigree Rye—1st N. Raessler, Beloit.

SWEEPSTAKES CLASS.

Best Peck Spring Wheat—1st H. E. Krueger, Beaver Dam.

Best Peck Pedigree Rye—1st Ed Whitmore, Wausau.

Best Peck Wisconsin Pedigree No. 1 Oats—1st H. T. Draheim, Gotham.

Best Peck Wisconsin Pedigree No. 5 Oats—1st Chris. Michelson, Hazelhurst.

Best Peck Wisconsin Pedigree Barley—1st Anton C. Holzschich, South Kaukauna.

Best Ten Ears Silver King Corn of Entire Show—1st J. R. Thorpe, Tavera.

Best Ten Ears Yellow Dent Corn of Entire Show—1st Leo Brueckner, Jefferson.

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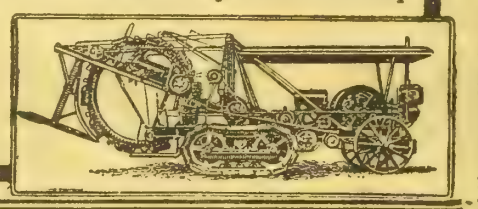

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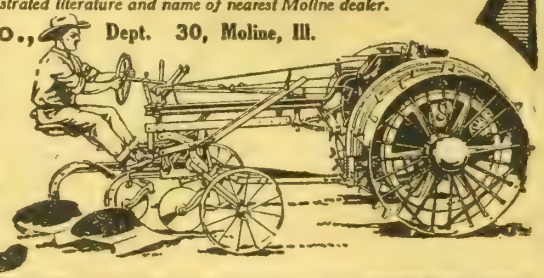

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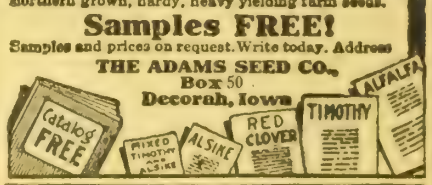

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Fruits and Garden

Manuring the Orchard.

If our fruit trees are to be continued in thrift and health fertilizers must be applied to the soil. It is easy to understand that a few years of root growth will exhaust the soil elements which are used not only to produce fruit but to continue the growth of trunk and branches.

There is nothing better to feed the trees than barnyard compost. And the finished product is not meant, but the coarse material. The winter is the proper time to apply this stimulant for several reasons. The material is more abundant then than in summer and labor is more plentiful and cheaper than at any other season. Also you get the manure in a place where it will do the most good possible when the spring rains arrive, for the leaching will be carried down to the roots just as growth begins, to the great and immediate help of the trees.

A proper dressing for the orchard, just the right quantity, will depend upon the age of the trees and their condition. If trees are large and have been neglected they will require more than in the case of young trees which have had attention. To begin at the beginning, young trees lately set in rich soil need no manure, but after eight or ten years, when they begin to produce and there is an evident decline in vitality, feeding should begin. The decline will be manifested by a slower growth and a poorer quality of fruit. At this stage perhaps two wheelbarrow loads will be sufficient for the first application. And this should not be piled up close about the tree, but be spread out upon a space as large as the top of the tree. It is not necessary to dig this manure into the soil. I leave it on the surface, well and evenly spread, so that it will retard weed growth and conserve moisture.

One great cause of the failure of our orchard trees is drouth and protection from this enemy should be kept in view in all our orchard work.

At the next stage of the trees' existence, they having attained the size of a stovepipe, double the quantity of manure should be given. But at the third stage, when trees have about reached maturity as big, perhaps, as a man's body, real starvation will have begun, especially if they have suffered from previous neglect.

It will be needful to watch the behavior of the orchard in its different periods of growth and apply fertilizers as required. The amounts stated for the various stages are not to be yearly applications. Once in three years is sufficient, or, if the soil is naturally poor, once in two years.

But when this system of feeding the trees has been adopted do not fall into the error of thinking that all needed care has been taken to secure good crops. The feeding must be coordinated with intelligent pruning and spraying. Neither one alone will secure the reward which you desire, but all together will bring results, the rejuvenation of your trees and the production of good-sized, well-colored fruit, free from fungoid and insect troubles and in quantities beyond your most sanguine expectations.

Onions and Cabbage.

The following communication has been received from a reader:

I live in the suburbs of a town of 7,000 people, where there seems to be always a good market for vegetables I have regular employment, but my two boys are stout and willing to work, and I want to set them to gardening. I can rent two acres of land close by, and I want to know which is best for me to grow—onions or cabbage. I don't want to scatter too much, and after planting one acre to potatoes, will take the rest for some one crop. Which would you advise?

We could give safer advice if you had stated the nature of your soil and its condition, whether very weedy or reasonably clean. Your chances for success depend quite a little upon that. If the soil is rich, but very foul, cabbage is the better risk because more easily cultivated than onions and requiring far less hand labor. In either event, whichever you decide to plant, start with a good application of manure. Of course, if it is actually new land the manure will not be needed, but it is not likely to be new land in your location.

Moderately low, moist land is better for either crop you name than high, dry land, but even if the soil is of the high-and-dry order we would not hesitate to plant either cabbage or onions if it is well enriched.

In considering the problem of vegetable growing the next thing after the soil question is settled is to take up the matter of comparative labor and its cost. And from the very nature of the crop onions will need twice the labor to bring to perfection that is needed for cabbage. The importance of that fact may be seen by assuming that an acre of cabbage will need thirty days' labor at $2 per day. Then the $60 more needed to secure the onion crop has quite an important bearing upon the question of final profit. The extra work is required because onions are low growing and must be weeded until they come to perfection, while the cabbage crop soon gets large enough to shade the ground and so prevent the growth of weeds. Also the cabbage may be planted three feet apart, giving plenty of room for culture with a horse, while the onions must be so close in the row that not even a hoe can be used and the rows so close that a small hand cultivator must be your dependence.

In the case of either crop a severe drouth would be so injurious as to shorten the yield, but perhaps the onions are a little more liable to injury from that cause than cabbage.

A fair average yield for onions may be placed at 30 bushels and for cabbage, say, 3,000 head. In the case of either crop you may possibly get a greater yield, but you are more likely to secure less than more.

These crops share in this advantage—they have poor keeping qualities. They are not standard crops like corn and wheat, which will keep from year to year, but are perishable and must be consumed within the twelvemonth.

In normal years, with average prices, the onion crop will sell for the most money, but the difference will not be so great after deducting the greater cost extra for growing. As a rule, the price of onions is more steady and has fewer fluctuations than that of cabbage. This is because in good seasons cabbage is so easily grown that a surplus is inevitable and sometimes it goes begging at a half cent per pound. Then again, owing to drouth, there is a real scarcity and the price mounts to 7 and 8 cents. In such times it is better to have cabbage to sell than onions. On the whole, if you are willing to give the labor and expense needed to secure a good crop we think you will do better with the onions. However, do not leave it all to the boys. An old head to manage and make sure that the right thing is done at the right time is needed.

Some Details of Potato Growing.

To the Editor:—I will give you my method of raising potatoes. My soil is heavy, sandy loam and I always try to have clover to plow under six or seven inches deep in the fall. In the spring if I have barnyard or stable manure to put on I spread it thin, then disk it in until there is a fine seed bed five or six inches deep, then smooth with a spring-tooth harrow.

The potatoes are first treated in a solution of formaldehyde and dried before planting. It is better if the potatoes are left to sprout before planting. I have been using formaldehyde, but this year I am going to try a solution of corrosive sublimate. I think that will be better, as it is stronger.

I use a two-man planter and plant

from May 20th to June 1st, and sometimes plant the Triumphs as late as June 15th, making the rows three feet apart and planting twenty inches apart in the rows.

Ten days or two weeks after planting I go over the field with a spike-tooth harrow, and again when the vines are pushing through the ground. Sometimes I go over the field with the harrow when the vines are three or four inches high, if the ground needs it.

After the rows show I cultivate three or four times, about a week apart, according to the weather. The first time run the cultivator close to the rows, but after that work a little farther away from the rows each time so as not to injure the roots, but I do not hill them. I also go over the field with a hoe and get out any weeds that may be in the rows, as weeds must be kept out if one wants a crop of potatoes.

When the potato bugs come I spray with Paris green and Bordeaux mixture together. Then in ten days or two weeks I spray again with Bordeaux mixture alone if there are no bugs. Spray all together about three times.

The past season was a poor one for potatoes, but the high price has helped to make up for it. Eric Mickelson.

Marinette Co., Wisconsin.

Concerning the Care of Bees.

Marathon County Farmer Says Bees Pay Well—Wisconsin a Good State for Bees and the Industry Is Growing Rapidly.

IT PAYS to "potter around" with bees. A farmer in Marathon county who knows how to handle bees profitably says in a letter to the state experiment station:

During the past five years my bees have paid at the rate of $5 an hour for the time I spent with them.

A combination of highly desirable conditions make Wisconsin exceptionally favorable as a region in which to maintain bees for profit. Coupled with the natural advantages of a long season of honey flow with nectar available from many kinds of plants, there are good markets and a constant demand for honey.

L. V. France, of Madison, son of N. E. France, Platteville, presents some interesting data relative to the growth of bee keeping in Wisconsin and its prospects for improvement. Mr. France has had early training in bee keeping on his father's well-known honey farm.

Mr. France divides the state into six sections, according to the present conditions in honey production. These differences are largely caused by factors of soil, climate and flora. These regions resolve themselves into the southern, the eastern, the northern, the Pierce, the Buffalo and the central sandy area. In the central region bee keeping is not as widely practiced, owing to the lack of favorable conditions. In the north scarcity of settlement and development are naturally the chief reason for the absence of bees on a large scale. Conditions are not unfavorable, however, and in time the industry in the north will probably advance rapidly.

White and alsike clover take first place in the list of plants that furnish nectar to the honey bee in Wisconsin. Walworth county is said to be the most ideal portion of the state in this respect, as clover begins to bloom there during the last week in May or early in June under ordinary conditions. The area represented by Brown and Kewaunee counties, where clover blooms, is often retarded by cold, damp weather. This year, as a whole, has not been normal from the standpoint of the beekeeper, because of the heavy rains and continued cloudy skies.

Sweet clover bloomed profusely in many places this year, and especially along country roads and in railroad embankments. Bees obtained much nectar from sweet clover as a result; in fact, depending upon it in a larger sense than usual. Basswood, willow, buckwheat, golden rod and asters are other sources of sweets for the insect confectioners. Earlier in the summer dandelion and fruit blossoms help to put the bees in good working trim for the clover "flow" or honey harvest.

In commenting upon the strains of Wisconsin bees, Mr. France says that hybrids of Italian and the common stock are prevalent, with a preponderance of the Italian. Few pure-bred Italian bees are kept here at present. The 1910 census gives 95,638 colonies of bees in Wisconsin, outside of the cities.

By far the larger number of beekeepers in Wisconsin belong to the "fifty-colony" class, and these men devote but a small share of their time to the care of the honey producers and know far less than they might about the profits that are possible with a little more study. At present there are not more than a dozen beekeepers with colonies exceeding 400 in number. Lack of proper information, and, sad but true, real ignorance and carelessness are the cause of great annual losses in the state apiaries.

Foul brood, winter loss and spring dwindle are the three fateful foes of bees in Wisconsin. To these may be attributed the heaviest share of the loss in the industry.

As an example of the destructive work of foul brood in some parts of the state Mr. France in his thesis points out that in Clark county fifteen years ago there were 1,000 colonies of bees to where there are but ten at present. On nearly every farm there were from fifty to 250 colonies, while at present five to thirty are the rule. This applies especially to the town of Greenwood. In Richland county some time ago foul brood swept away an entire apiary of 120 colonies in a short period.

Foul brood is a disease caused by bacteria. As it is likely to be carried from hive to hive by the bees themselves, its presence is particularly menacing. The feeding of one weak colony at the expense of a second stronger colony, a common practice in beekeeping, is, therefore, rendered dangerous and impracticable. Nine counties where the presence of foul brood is not established, but where its presence is suspected are Jefferson, Milwaukee, Ozaukee, Washington, Dodge, Sheboygan, Calumet, Manitowoc and Brown.

Successful wintering of bees in a state like Wisconsin presents some difficulties even as complex as those of fighting diseases. In the severe winter of 1892-93 it is estimated that 70 per cent of Badger bees were killed. The winter loss of 1911-12 was 30 per cent, that of 1912-13 about 10 per cent and for 1913-14 slightly above 8 per cent. Experienced beekeepers lower their annual losses from cold weather to approximately 5 per cent in this state, but only by dint of great care and attention to manifold details of the business little appreciated by the layman or amateur.

Spring loss or "spring dwindle" is a term applied to the number of colonies that die from the time of removal from the cellar to the opening of the clover blossom season. Honey robbing, cold weather and bad management all help to make the annual spring losses to bee colonies about 5 per cent. For 1914 the spring loss was 7.5 per cent.

Practical field suggestions as to ways in which state aid through the university and the legislature can be made to encourage the bee industry in Wisconsin were solicited from scores of practical beekeepers by Mr. France while preparing his thesis. A few of the representative hints to "the men at the helm" follow:

Investigations, experiments, selling queens at reasonable prices and finding better markets for Wisconsin honey.—Dane county.

By sending out a traveling adviser among the beekeepers, and by prohibiting the spraying of fruit trees during blossom time.—Dodge county.

By developing successful plans for wintering in this region. By publishing the experiences of beekeepers in different localities.—Douglas county.

By sending good literature to all beekeepers in the state on the care and management of bees.—Fond du Lac county.

Keep down the bee diseases and advocate less but better managed apiaries.—Iowa county.

Better appropriation and more inspectors.—Outagamie county.

To know bee diseases and the value of good honey and its uses.—Richland county.

By study of flowers adapted to honey production.—Sauk county.

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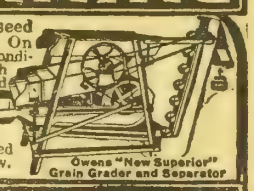

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Average dockage on Minnesota wheat is nineteen ounces per bushel. Every fifty bushels you lose a bushel—which could be prevented by grading. Send for booklets.

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Remodel the granary into a modern elevator or build a new one altogether. We furnish you plans free. Write us your wants as to capacity, etc. A modern warehouse saves you money, time and labor in handling the crop. The one important building on your farm.

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GOOD AS CAN BE GROWN
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

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Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

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FREE A pair of Mated Everbearing Strawberry plants, large pkt. of new Cereal Feterita, Sudan Grass and Silk Leaf Poppy seed, all Free for Testing. Send 10c for mailing expense, or not, as you please. We offer genuine Progressive Everbearing plants at 50c per doz.; 90c for 50; $1.75 for 100; $5.00 for 826, all postpaid. CATALOG FREE.

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APPLES! APPLES!

No Landowner in This Country Can Afford to Pass This Special Introductory Apple Offer. I Have Cut Prices to the "Quick" so That All Can Plant an Orchard This Spring and Raise Their Own Apples. *15c Each For Large No. 1 Trees.*

HERE IS MY SPECIAL OFFER

For the next 30 days we will accept cash orders for any varieties listed below at 15c each for good, strong, 3-year-old, 5 to 7 ft. apple trees, fully guaranteed in accordance with the usual Galloway policy. Look over the list! A complete assortment of the best hardy apples, both for the home and market orchard. But you will note we are offering only a limited quantity of each variety. Don't delay your order. Terms: Net cash. f. o. b. Waterloo, Iowa. (Orders for less than 10 assorted trees not accepted.)

Quantity	Variety	Season	Quantity	Variety	Season
120	Alexander	Fall	210	Northern Spy	Winter
400	Ben Davis	Winter	765	Pewaukee	Winter
550	Baldwin	Winter	580	Red Bethgheimer	Fall
160	Bailey Sweet	Fall	70	Rome Beauty	Winter
280	Duchess	Fall	250	Summer Queen	Summer
75	Early Harvest	Summer	150	Tulpehocken	Winter
105	Fall Pippin	Fall	400	20 oz. Pippin	Winter
850	Grimes Golden	Fall	635	Wagener	Winter
310	Hubbardston	Winter	185	Winesap	Winter
810	King	Late Fall	355	Wolfe River	Winter
710	Malinda	Fall	95	Western Beauty	Summer
635	McIntosh	Winter	205	Wealthy	Fall
575	Malden Blush	Fall	800	York Imperial	Winter
210	M. B. Twig	Winter	250	Yellow Trans.	Summer
375	N. W. Greening	Winter	270	Yellow Bellefower	Early Winter

How many shall we reserve for you? Remember these trees are strictly first-class in every way—kind you would pay 40c or 50c for to any tree agent. Cut out this advertisement and mail it with your order today!

GALLOWAY BROS. & CO., NURSERYMEN, BOX 32A WATERLOO, IOWA

Wisconsin Ag. Department Report

Review of Activities in Our Wisconsin Department of Agriculture For the First Biennial Period Under Secretary C. P. Norgord.

CITIZENS of the Badger state, especially live stock breeders, agriculturists and horticulturists will be impressed with the first biennial report of the Wisconsin Department of Agriculture, soon to be circulated. The report of C. P. Norgord, commissioner of agriculture, sets forth the following facts, among others:

Insect diseases cause an annual loss in Wisconsin of $25,000,000.

Bovine tuberculosis causes a loss of $25,000,000 annually in the United States, and decimates the human family.

San Jose scale caused a loss of $10,000,000 in California alone in one year.

The Gypsy moth caused a loss of $1,000,000 in eastern states in a single year.

The foot-and-mouth disease caused a loss of $140,000 in Wisconsin and in other states a loss of millions of dollars.

The bee and honey industry is ever threatened by American and European foul brood.

While we cannot be held responsible for insect and animal diseases now in Wisconsin, we are now responsible for an effective war against them. If they gain, we are to blame and by "we" I mean those charged with police and control work, and those who furnish the funds with which to carry on police and control work.

The report is especially strong with reference to bovine tuberculosis, and in this connection the accredited herd plan is carefully set forth as one effective means of ridding the state of bovine tuberculosis. Fifty herds are now listed in this class and 250 more are about to be added.

The commissioner calls attention to the fact that bovine tuberculosis must be stamped out, for the reason that science proves that it is communicated to the human race; that the market for high-grade dairy cattle must be maintained in Wisconsin; also, that the dairy industry cannot continue to progress if bovine tuberculosis is allowed to thrive.

The report of Dr. C. H. Eliason, state veterinarian, goes more into detail in dealing with animal diseases, and follows the lines of the commissioner's report.

Both the commissioner of agriculture and the state veterinarian are of the opinion that one effective way of awakening the state to the dangers and effect of animal diseases is that of acquainting people of the state with the facts concerning diseases which have gained footholds.

The division of entomology report shows the purpose and value of nursery and orchard inspection, pests found, surveys of cities and orchards for San Jose scale, status of white pine blister rust, recently discovered in Wisconsin, and the many other lines of its work, including apiary inspection.

The report goes into much detail with reference to ravages of the San Jose scale and the cottony maple scale, and sets forth the discovery of a new orchid weevil. It also calls attention to the poplar weevil becoming very serious in nurseries, and discusses a possible immune variety of poplar.

The report of the division of immigration will be of great interest to the thousands who are interested in settling the 10,000,000 acres of new lands in northern Wisconsin and in getting the right kind of settlers for these new lands.

One new method of reaching prospective settlers used by this division during the present winter was that of operating a special train, called the "Northern Wisconsin Products Special," in co-operation with the Chicago & Northwestern Railroad Company, through Minnesota, Iowa and Wisconsin. The excellent effect of thus bringing products of this new region right before prospective settlers are set forth.

Detailed statements of the finances of the state fairs of 1915 and 1916 are presented, together with an outline of the policy of the department in conducting the fair.

Unlike past reports of state fairs, the reports of the two fairs named are devoted chiefly to setting forth the shortcomings of the state fair, and to a statement of what is being done in overcoming shortcomings.

The report shows that, while necessary provision is made for features of entertainment, every effort is being made to strengthen the fair proper and make it stronger each year as a source of education and inspiration.

The report also shows that, while Wisconsin's fair ranks with any in quality, it is conducted at far less cost than other state fairs in the same class.

The division of crop statistics presents very important figures concerning crops and the live stock industries. These figures are sent to the division by an army of over 1,000 crop reporters, and are the most reliable figures obtainable on crop conditions in Wisconsin.

Among the important figures presented are the following: Acreage, production, yield and value of principal crops; number, average value and total value of live stock; number of silos.

These figures are the most complete ever issued by the state. Formerly the staff of crop reporters numbered scarcely 300.

Medals For Wisconsin Farmers.

(Continued from page 5.)

Clover (2)—Arthur Ochsner, Plain, Wis.

Clover Hay—F. J. Lindley, Fox Lake, Wis.; Stanley Sebion, Westby, Wis.

Alsike Clover Seed—Schmidt Bros., Foxboro, Wis.

Alfalfa—P. A. Paulson, Hudson, Wis.

Extension Charts—L. F. Graber, Madison, Wis., Wisconsin College of Agriculture.

Statistical Charts—L. F. Graber, Madison, Wis., Wisconsin Agricultural Experiment Association.

Picture—C. J. Berg, Tigerton, Wis.

Collective Grain—Herman Draheim, Gotham, Wis.

BRONZE MEDALS.

Corn—E. L. Benedict, Beloit, Wis.; R. E. Freehoff, Coon Valley, Wis.; Fred Grebe, Fox Lake, Wis.; Chas. Getchman, North Freedom, Wis.; A. N. Kelley, Mineral Point, Wis.; Wm. Schwandt, Deer Park, Wis.; Wm. Wichern, Baraboo, Wis.

Timothy—L. Hanson, Eleva, Wis.

Alsike Clover Seed—P. A. Hemmey, Humbird, Wis.

Red Clover—J. W. Jung, Randolph Wis.

Red Clover Hay—Walter Steinhoff, Platteville, Wis.

Rye—W. C. Katel, Kewaunee, Wis.

Seeds—Wm. Leonard, Jefferson, Wis.; L. Teweles & Co., Milwaukee, Wis.

Oats—Wm. Moss, Onalaska, Wis.; E. C. Pommerening, Oshkosh, Wis.; A. G. Russell, Janesville, Wis.

Barley—Herman Schoeneck, Enterprise, Wis.

Field Peas—Jno. Carlson, Westboro, Wis.

Alfalfa—Enoch Haus, Rochester, Wis.

Corn—Albert Wichern, Baraboo, Wis.

HONORABLE MENTION.

Clover—Jas. Koltes, Dane, Wis.

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CHOICE, new sorts, with every order. Package "JACK ROSE," earliest TOMATO, free, with beautiful illustrated Catalogue. Everything for the Garden. Fresh, northern seeds, strong vitality. Flower seeds true to name. LOW DIRECT PRICES on everything Farm seeds. Write promptly for FREE SEEDS and Catalogue, enclosing 2c stamp for postage.

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R. F. D._____ State_____

Dairying and Community Prosperity.

The communities in which dairying has long been established are always prosperous. Homes are large and comfortable. The families are happy and industrious. Schools are up to date. The proportion of boys and girls attending high school and college is large. Roads are improved and are well kept. On every hand is there evidence of success, contentment and prosperity.

An outstanding reason for community prosperity is the fact that dairying makes the individual farmer prosperous. A group or collection of farmers who are individually prosperous naturally make up a prosperous community. Dairying is intensive and gives large returns per unit of land. A farm of eighty or 160 acres of land will support a family in a more creditable manner than will be the case with ordinary methods. Dairying has come when people have been forced into more intensive practices by higher-priced land or crowded conditions. Just now we may see dairying rapidly establishing itself upon the high-priced land of the East, in the central states or upon the irrigated areas in the West.

Dairying is an economical form of agriculture and economy and thrift are handmaidens of prosperity. It retains upon the farm the larger portion of the fertility of the crop and thus the productiveness of the fields is kept up without recourse to expensive commercial fertilizers. Dairy farms are invariably highly productive because the fertility is returned and because a plentiful supply of humus is supplied to the soil. Dairy farming is economical in that it utilizes practically all the land. Parts that are unsuited to the plow can in nearly all cases be turned to pasture. Rough feed produced on the farm is taken care of in such a way that it helps to swell the farm profits. The fields of dry cornstalks have been put into the silo to be taken out during the winter in the form of rich, succulent silage which will aid the high-producing cows in turning out a milk flow that will help to increase the bank account or make payment on the newly purchased addition to the farm or to add improvement of some sort.

Dairying is economical and again profitable because it utilizes labor throughout the year. On dairy farms there is no period of several months of idleness as occurred under pioneer methods. In this is a strong tendency to increase the profits. Dairying enables a farmer to intensify his business and to take his sons into partnership. There is a sufficient income from dairying to largely offset the desire of the dairyman's sons to go to the city. Oftentimes the fancy of the young man on an American farm inclines toward the production of pure-bred live stock. It is safe to say that there is no better opportunity with pure-bred stock today than there is with any of the popular dairy breeds. One man has said that "Dairying is evidence of dollars and sense." His attempt at wit may be somewhat crude, yet there is truth in his statement. Dairying is an evidence of prosperity and those communities in which dairying is well established are prosperous.

Reducing the High Cost of Dairying.

Dairying calls for a large expenditure in money, feed and brains. In these times when practically everything has reached unheard-of prices and when the "High Cost of Living" is one of the chief problems before the American people, it is natural that dairymen should be interested keenly in so far as their business is particularly concerned. They are, indeed, interested. They have held conventions and conferences, they have organized unions and they have declared strikes. Doubtless all these have helped, yet, in spite of all these things, there remains much that may be done on the individual farm which will, in a measure, large or small, help to relieve the seriousness of the situation and to put the business upon a more profitable basis.

Naturally the matter of feeding is the first problem to be attacked when we would reduce the expense connected with the business whether to feed grain or not, and if grain is to be fed, how much are the pertinent questions. Dairymen of long experience testify almost without exception that they have suffered disastrous results from attempting such practice. It is a well-known fact that, in localities where it has not been the practice to feed grain, winter dairying amounts to almost nothing. In a study made in the state of Indiana when high prices of feed first appeared not one out-and-out dairyman could be found who would consider for a minute that it would be advisable to try to carry the cows through the winter without grain. True enough his expense would be less, but he would expect his income to be cut even in greater proportion. Some men bought early and saved thereby. Others bought in quantities. In one country the farm bureau purchased commercial feeds at $9 per ton less than the current retail price. In another state the farm bureau made a saving of more than $5 per ton on bran.

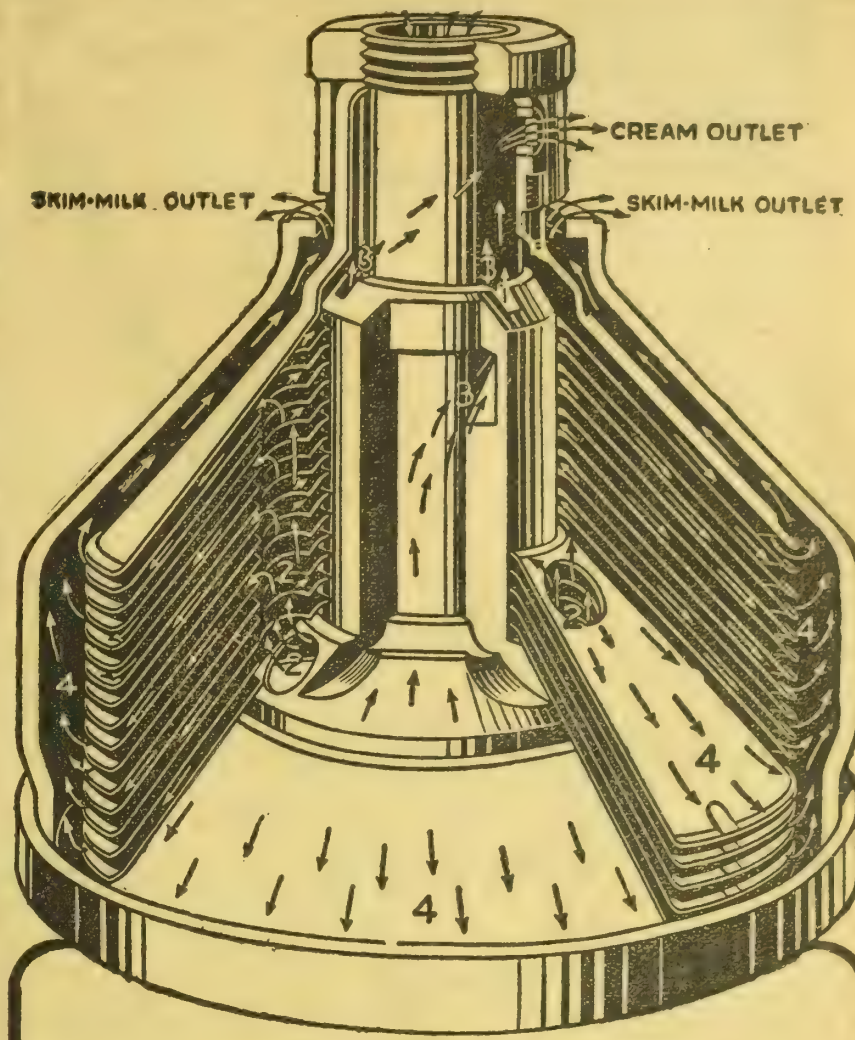
Naturally quality of feed receives more attention. Alfalfa has come to the forefront more strongly than ever before. With its appetizing and nutritious characteristics, especially when combined with silage, the best of results can be secured with a minimum allowance of grain per cow. There is a herd of cows in Wisconsin that makes an average of over 400 pounds of butter fat per cow. Included in the herd are a number of two-year-old heifers. Those cows eat during the winter only six to eight pounds of grain per day along with alfalfa and silage. Near Lincoln, Nebraska, is a herd of splendid little Jerseys, the average production of which is also above 400 pounds. The cows of this herd eat scarcely more grain than do those of the Wisconsin herd. They, too, have alfalfa and silage in abundance. For a long time there have been established standards for feeding grain to dairy cows which are approximately that a Jersey should have one pound of mixed grain for each three pounds of milk produced and that a Holstein should be fed one pound of grain for each four pounds of milk. It is advisable, then, to feed as lightly of grain as may be done without impairing the vitality of the cow or the milk flow.

Alfalfa helps to reduce the high cost of dairying in that it ordinarily outyields any other forage crop. One farmer and dairyman in a corn-belt state has related his experience as having harvested twenty-eight tons of alfalfa of an equivalent area of clover which only yielded eleven tons. It is a splendid roughage for dry cows and for growing dairying. It is one of the strong pillars of efficient and economical dairying.

The silo is more in favor than ever before. This is caused by the fact that it has been forced upon farmers and dairymen more strongly than ever before that economical feeding and profitable dairying are not possible without the use of the silo. Experiment station tests have always been very favorable to the silo showing that cows fed silage produced milk at a much lower cost than those not fed silage. A showing made upon farms in a certain section of Minnesota has cinched the proposition so far as figures can convince anyone. It was found that farmers who have silos made a profit of $11 per head more than their neighbors, who did not have silos. We must, therefore, grant that the silo must have an important place in keeping down the cost of dairying.

Upon the dairy cow, herself, must we place our greatest scrutiny. With prices of everything so enormously high, no one can afford to keep a boarder in his herd. Yet there undoubtedly are boarders in every herd upon which a careful test is not being kept. The use of the Babcock tester in herds has been a great blow to the high cost of production in the dairy. In Wisconsin in one testing association the average yearly production has increased 100 pounds of butter fat since the work was started, and the amount of feed is but little more. In herds it has been found that one-fourth or one-half of the cows are not paying their way. It is only good business to eliminate those unprofitable cows and to retain the ones that do pay their way and more.

We must plan for the future. In doing this we must, every one of us, if we are to beat the monster, "The High Cost of Dairying," breed for better cows and ones that will produce more economically. The Babcock



Here is the heart of

THE NEW DE LAVAL CREAM SEPARATOR

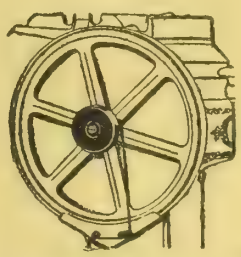
THIS is the new self-centering De Laval bowl with detached spindle, that is creating such a sensation in the dairy world.

This new De Laval bowl, with patented tangential tubular milk passages and patented removable milk conveyor, makes possible in a bowl of given size and weight, operated at a given speed, greater skimming efficiency and capacity than has ever before been attained in any other cream separator bowl.

These are big advantages that you can secure only in the De Laval.

But aside from the big advantages of greater capacity and closer skimming, there are many other important improvements in the New De Laval.

All discs are now interchangeable and are unnumbered. There are fewer discs. On account of greater simplicity of bowl construction, the New De Laval is easier to wash and, capacity considered, is still easier to run than before. High grade construction and design, together with perfect automatic lubrication, are a guarantee that the splendid De Laval record for durability will be maintained in the new style machine.



Every New De Laval is now equipped with a Bell Speed-Indicator, the "Warning Signal" which insures proper speed and uniform cream.

If you are trying to get along without a cream separator or with a half-worn-out or unreliable machine, why not get a NEW De Laval NOW and stop your cream waste? You don't need to count the cost, because the De Laval will soon pay for itself.

There is a De Laval agent near you who will be glad to explain all the improvements and advantages of the NEW De Laval, and who will set and start a machine for you on your farm and let you try it for yourself.

Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for any desired information.

New Catalog will be mailed upon request

THE DE LAVAL SEPARATOR CO.

165 Broadway, New York 29 E. Madison St., Chicago

50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

"Short Measure-eh?"

A cow can not *tell* you when she is sick, but her milk yield is a very accurate indication of her condition. The fact is, thousands of cows are allowed to remain unprofitable or below their reasonable standard of productiveness through their owner's failure to act on the hint of the milk pail. Don't pass it off by simply calling her a "backward cow"—correct the trouble and reap the extra profit.

Kow-Kure is a medicine for cows that are "off color." It is in no sense a food, but it promptly acts on the digestive organs and enables the cow to thrive on her natural food. Its great curative powers act on the genital organs where many cow ailments originate. The success of Kow-Kure is positive in the prevention and cure of Abortion, Barrenness, Retained Afterbirth, Milk Fever, Scouring, Lost Appetite, Bunches and other common ills.

You can buy Kow-Kure from feed dealers and druggists, in 50c. and $1.00 packages.

DAIRY ASSOCIATION CO.
Lyndonville, Vt.

Write for free book "The Home Cow Doctor"

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AN UNFAILING SIGN

Cleaner Milk—More Milk

THERE'S a copy of this book for you if you will simply tell us when you expect to build, remodel or equip a barn, and for how many cows. It contains nearly thirty plank frame construction blue prints—also valuable advice on barn sites, drainage, ventilation, arrangement, lighting, etc. Written by W. D. James and his expert assistants in barn planning and equipment building.

"JAMES" Sanitary Barn Equipment

"James" is the sterling mark of barn equipment—and costs no more than ordinary kinds. Stalls, Stanchions, Pens, Carriers, Ventilators, Horse Stable Equipment, Bull-Staff, Trucks, Watering Buckets—all are completely described in the book. *You* can afford James equipment. Ask about our Step-by-Step plan of equipping. *Start right* toward bigger barn profits, less labor, bigger milk production. Write today.

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Will Solve Your Silo Problems

They're built to meet the exacting farmers' needs and are the best in design, material and workmanship—combining every desirable feature a silo should have and embodying the "know how" acquired through more than twenty years experience in silo building.

Glazed Tile Silos

This construction is fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Requires no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

Wood Stave Silos

Your choice of four time-defying woods. The Kalamazoo is the only factory where this outfit is manufactured complete from the raw material to the finished product. Our silos are quickly and easily erected by inexperienced home labor.

All Kalamazoo Silos are made with Galvanized Steel Door Frames, continuous doors, forming safe ladder entire height of silo.

Write today for our free descriptive booklet, and early sales plan.

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GLAZED TILE SILO

FIRST COST ONLY COST

A Monument to a Man's Good Judgement—A

B. V. T. SILO

It is the most necessary, most permanent, best looking improvement you can build on your farm. It will preserve your silage in the best of condition year after year. When you want to sell your farm it will be a big inducement to the buyer.

Built of Tile Made From Finest Clay in the World

Our Brazil fire clay makes the hardest, most durable and non-porous vitrified tile in the world. Used exclusively in B. V. T. Silos. These tile will not crack or chip off. Absolutely impervious to moisture and air. It is weather-proof, frost resisting, enduring. Triple air spaces and interlocking mortar joints insure an air-tight silo. Much of value in free Silo Book!

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Brazil, Ind.

tester enables us to cull our cows and permits us to retain for breeding purposes as well as for use in the dairy those cows that can show a profitable record. Here we have the old adage, "Survival of the Fittest," applied with business principles. The bull must be looked to for a large part in the improvement of the dairy herd and its consequent efficient production. It is plain and reasonable that bulls of pure breeding from high-producing strains will beget offspring superior in the dairy to those of nondescript breeding or from families of low average production. The following tells of the merit of pure-bred, grade and scrub bulls as it was found upon several hundred Illinois farms. "Figures won't lie," is a saying familiar to all of us. These figures tell an important truth. It was found that on farms where pure-bred bulls were in service that the farmer had as his labor income $1,102, the farmer who kept a grade bull could boast of a labor income of $734, which the one with a scrub bull had only $243. The labor income is the amount left after interest has been allowed upon all money invested and for depreciation and after all operating expenses have been paid. These figures enable any dairyman or farmer to decide for himself the class to which he will belong. It is safe to say that most of us will decide for the pure-bred bulls and the large labor income. It is plain if we are to meet the high cost of dairying face to face, and if we are to fight it with the determination with which European armies are opposing each other we must discard the grade or scrub bull just as the modern soldier has discarded the fighting methods of 100 years ago.

In barn management there is a chance for improvement and an opportunity to reduce the cost of production. Some men do the work with twenty-five or thirty cows as handily as others succeed with fifteen. Doubtless rearrangements can be made, which will reduce the amount of work required and thus increase the efficiency. Sometimes some equipment can be purchased that will pay interest on the investment and in time more than pay for itself as well. Barns constitute a big factor in the high cost of dairying. The open shed for shelter with a clean, sanitary milking room is much cheaper in its first cost and a great deal less expensive in its upkeep than are the large, beautiful barns which are chiefly useful as ornaments to millionaires' country homes.

"It is not good that man should live alone," is a scriptural injunction. "It is not good for dairymen to live alone." Dairymen who attend institutes, short courses, who are members of farm clubs are invariably better dairymen and have better bank accounts. Dairying calls for brain more strongly than muscle.

Making Gilt-Edged Butter.

To the Editor:—Many things are to be considered in making gilt-edged, first-class butter that will bring the highest price on the market. In the first place, we should have good butter-making cows; a part of the herd should at least be Jerseys. This breed will give the butter that fine yellow color and the butter will be more firm and solid. A part of the herd, however, can be Holsteins, Durhams or any of the other milk breeds, as desired. The cows should have good clover, timothy or blue grass pasture, or, better still, if we have it, is an alfalfa field, and not be compelled to run in the woods to shift for themselves. If they are treated in this latter way we cannot expect the best results. Good, clean, fresh water is essential when wanted and they should not be compelled to drink from stagnant pools which are infested with all kinds of microbes which will contaminate the milk. Milk cows should also have some ground feed in summer as well as in winter. This can be corn and oats or a little wheat bran is good, and aside from these a daily ration of some kind of roots will be found a great help to them. The milk cow deserves and is entitled to grain the year round as well as the work horse and should be treated as well, for it pays well, as she is surely working every day. No day passes without her giving a pail of milk and just that sure she must work to produce it; therefore, she should receive the treatment of a work animal.

Butter always retails at the present time in our towns from 20 to 30 cents per pound and even higher sometimes. I have been keeping some dairy cows a good many years and I know of no better feed than good pasture during summer with some grain and shredded fodder and clover hay during winter where there is no silo, but silage is by far the cheapest and best for winter feeding.

Cows with a good, warm barn and fed on silage will do nearly as well in winter as in summer on good pasture. The stables, however, should be clean at all times, for this is one of the essentials in making good, first-class butter.

The milk at all times should be kept in a sanitary condition and we can also make better butter and more of it by having a cream separator; in fact, I should not attempt the keeping of a great many cows without one. Churn as often as is necessary to keep the cream from getting old and too sour.

The butter should be made in pound prints arranged in a tasty manner by the use of a little ice in the summer. The butter can be so arranged at all times and will be a source of pride and pleasure as well as profit to the producer and will be sought after by those who want a first-class article of food.

Subscriber.

Tax on Oleomargarine.

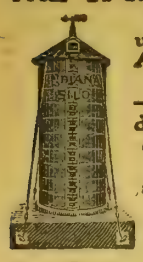
To the Editor:—There has appeared in the press of late a number of articles clamoring for the removal of the tax on oleomargarine. From reading these articles I would naturally suppose that they were written by parties who were not informed as to the object of placing a tax on oleomargarine, or by parties who were directly interested in the oleomargarine business.

The tax on oleomargarine was placed on the same by congress for the purpose of protecting the consuming public from fraud and deception in the purchasing of butter or oleomargarine. The present law in the United States places a tax of 10 cents a pound on oleomargarine when it is colored to imitate butter. It is taxed only a fourth of a cent a pound when it is put up and sold in its natural color, which is white or very light yellow. This fourth of a cent a pound tax was placed on oleomargarine so as to bring it under the Internal Revenue Department, as they have police facilities for enforcing the law and protecting the public against fraud.

The dairymen have no desire to place any tax on oleomargarine if it can be sold to the public for what it is. If the tax were removed entirely oleomargarine would be placed under the bureau of chemistry, and as they have no jurisdiction over oleomargarine until it becomes interstate traffic, the chance for fraud would be very great. In addition to this, that department does not have the police facilities for enforcing the law against a product like oleomargarine.

Every country where oleomargarine is sold or manufactured has certain restrictive measures controlling its sale and manufacture. Fraud and deception seem to have followed in the wake of this product. France, where the product originated during the Franco-Prussian war, has had to amend its law twice to protect the public against fraud in the sale of oleomargarine. The laws in many of the European countries are different from ours from the fact that they do not place a direct tax on oleomargarine, but they do prohibit it from being colored yellow in imitation of butter, and they also require that it must be sold in separate stores where butter cannot be handled. Heavy penalties are assessed for violation of the law. If such a law were possible under our form of government the tax would not be necessary. Germany, France and Belgium require oleomargarine to be sold in separate stores. Germany and France prohibit the coloring of the product in imitation of butter. More oleomargarine is sold per capita in Denmark than in any other country, and they prohibit the coloring in imitation of butter, but permit it to be sold in the regular stores, the same as we do in our co-

THE INDIANA SILO



Fifty thousand are now in use on the finest farms in America.

If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

Let us send you our proposition—to contract now for your silo and deliver it later.

We still have openings for a limited number of farmer agents.

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Special 36-page chapter from famous 264-page book "Modern Silage Methods." Write for copy. Get up-to-the-minute helpful suggestions free. Also get our free catalog on Silver's "Ohio" Silo Fillers. 1917 revised edition of "Modern Silage Methods" 25c, covers entire silage subject—every type of silo—how to build, 41 crops used, feeding, 8-page index. 56 illustrations. Write now.

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Lansing Vitrified Tile
The Quality Silo

Reinforced with twisted steel, stronger, more durable walls, "ship-lap" joint blocks, uniform color—smoother, better looking mortar lines, continuous doorway—easy-climbing ladder. First cost—only cost. The quality construction in vitrified tile.
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Also get our offer on Climax Silage Fillers and Bidwell Threshers.

TABER LINED SILO

Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.

The latest improved Silo. A woodstave Silo; choice of lumber. Entire Silo creosoted. Special paint for outside. Acid-Proof Lining for coating inside after erection. The finest door and door frame on the market.
Special Galvanized Steel Octagon Roof—best manufactured.
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TABER LUMBER CO., KEOKUK, IA.
ESTABLISHED 1865
AGENTS WANTED IMMEDIATELY.

GALVANIZED HOLLOW WALL CYPRESS LINED SILO $63.00 AND UP

Most practical silo, non-freezing, non-molding. Steel protects from wind, rain, heat, cold, fire, vermin, wood lining, hollow walls and tarred felt insure perfect ensilage to outer edge. Strong, durable Galvanized ladder and air-tight, hinged doors. Built in sections, add more as stock increases.

"Silo Facts in a Nut Shell"

sent FREE to any address. Tells faults and advantages of ALL KINDS of silos. Is text book on silos and stock-raising. Shows how to save price of silo first year. Send for it TODAY. It's FREE.

KRETCHMER MFG. COMPANY
313 Eleventh Ave. Council Bluffs, Ia.

Rider AGENTS Wanted

1917 Model

in each town to ride and show a new 1917 model "RANGER" bicycle. Write for our *special offer* on a sample to introduce.
DELIVERED FREE on approval and 30 days' trial. Send for big free catalog and particulars of *most marvelous offer* ever made on a bicycle. You will be astonished at our *new prices* and *remarkable terms*.
44 STYLES, sizes and colors in Ranger bicycles. Most complete line in America. Other guaranteed models $14.75, $15.75 and $17.75. A few good second-hand bicycles taken in trade $3 to $8 to clear.
Tires, lamps, wheels, sundries, parts and all bicycle supplies *at half usual prices*. Do not buy until you get our catalog and offers. *Write Now.*
MEAD CYCLE CO., DEPT. B184, CHICAGO

25 CENTS CALF RENNETS

We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address
THE MARSCHALL DAIRY LABORATORY
Madison, Wis.

try. It is sold, however, in a different styled package, the package being oblong in shape.

Some of the European countries prohibit the mixing of butter with margarine in the manufacture of oleomargarine. Others restrict the percentage of butter that can be used. Writers of late have been giving the impression to the public that the manufacturers of oleomargarine are paying 10 cents a pound tax on the same. The late report put out by the internal revenue shows that over 97¾ per cent of the oleomargarine in this country last year only paid a fourth of a cent a pound tax.

The first law in this country placing a tax on oleomargarine was passed in 1886, during President Cleveland's administration. This law placed a 2-cent tax on oleomargarine and permitted it to be colored in imitation of butter. During the time that this law was in effect the fraudulent sale of oleomargarine for butter became appalling. The mixing of butter and oleomargarine was practiced quite extensively. Thus the consuming public had no protection against fraud.

There was more oleomargarine manufactured last year than ever before in the history of the industry in this country. There were manufactured 152,509,912 pounds, according to the report of the Internal Revenue Department just published. Of this amount 2,587,689 pounds were exported, and consequently were relieved from paying the tax. Seven hundred and forty-eight thousand five hundred and thirty-one pounds were withdrawn free for use of the government during the fiscal year ending June 30, 1916.

During the same year there were manufactured 145,760,973 pounds of uncolored oleomargarine, which paid a tax of only ¼ cent, as against 138,241,907 pounds the previous year.

Of the enormous amount of oleomargarine produced during the fiscal year only 3,403,287 pounds were taxed at 10 cents a pound, or a little less than 2¼ per cent of the total make.

I will admit that the present law is not perfect. It permits oleomargarine manufacturers to use the cheaper fats, such as intestinal fats and vegetable oil, milk, cream or butter, in making their product. They are only taxed ¼ cent a pound on the same when sold in its natural color. There is no limit as to the amount of water that may be incorporated in oleomargarine. In addition to this, such terms as Butterine, Jersey Brand, Holstein Brand, Guernsey Brand and other such names indicate that it is made from milk. On the other hand, if the creamery man incorporates the smallest fraction of a per cent of foreign fats in connection with his butter he is required to pay a tax of 10 cents a pound and a license of $600 a year, and to brand it adulterated butter. There should be a line of demarcation between these products that would prohibit the mixing of butter and oleomargarine, unless same was branded adulterated butter. This would prevent oleomargarine from masquerading as butter. G. L. McKay.

Walworth County Farmers at Madison

County Agricultural Agent, L. L. Oldham, of Walworth county, headed a delegation which visited Madison Swine Week, and got a great deal of good out of the programs. Among those in the delegation were the following: Mr. and Mrs. E. W. Taylor, Mr. and Mrs. George Taylor, Mr. and Mrs. Linn Phelps, Mr. and Mrs. Fred Bromley, Mr. and Mrs. Alfred Anderson, Floyd Ewing, Ralph Duffan, Mrs. Anna Lawson, Edward Bromley, Rowe Bros., Howard Chafin, F. A. Bloodgood, Sam Foster, Chas. Fountaine, Jas. Mason, E. W. Davis, Jason Roe, E. E. Cowles, Alfred Holt, Gerry Barker, Albert Ledger, P. J. Wetter, John Gant, D. E. LaBar, W. H. Calkins, Heck Bros., Whitemore Bros., O. P. Coates, George Lasch, F. F. Showers, H. D. Dunbar, J. H. Murphy, Mr. and Mrs. L. L. Oldham, Cook Bros., H. W. Ayer, J. H. Travis, Mr. and Mrs. Frank Clapper, H. Westphal, Mrs. Edgar Buzzell, John Wall, Wayne Sawyer, Louis Houston, Marvin Sawyer, Vincent O'Connor, Ori Beek, Joseph Potter, E. W. Fiske, Wm. Thayer, Mr. and Mrs. Albert Ledger, Jr., J. T. Hackett.

Water For the Cows in Winter.

If water and fresh air cost something for our animals they would be used to a better advantage. Hens require water to lay eggs. Cows no less require an abundance of water to give milk. To be convinced, it is only necessary to read the analysis of a pound of milk or an egg.

That the water must be "good and pure" goes without saying, but that one thing has been harped upon so long as to become tiresome. Going a trifle deeper into the question, do our cows get water at all through zero weather? An accusation of this kind would, of course, cause any self-respecting farmer to become indignant, and with some reason, because no one would permit an animal to suffer for water if only from a humanitarian standpoint.

They "get water," but from where? In all too many cases it is from a tank where a hole has been cut through ice twelve inches thick, out in the open, where the cold wind is blowing, causing her to get yet another hump in her already crooked back. Other animals often refuse to drink as much water as necessary under this kind of condition, but cows just simply cannot drink; their teeth cause them pain, and the result is that they do without.

It is with a good deal of amusement that we read about giving our cows "fresh cold water" if we would prosper. The fresh may be all right, but we have seen cows leave a tank of such in hot weather and snatch the really warm water flowing from a heated pipe, in preference. Cows are built this way, and by observance it is possible to learn what is better for them.

Few are the cases where water is "piped to the stalls," on the general farm, where the dairy cow is a side line. Few are the times we can follow the advice of the ones who have modern improvements to the letter; but certain it is that in the main we can profit by each and every experiment. The point is that the cow needs water at least 20 degrees above freezing, or warmer, and how to get it on the average farm.

Senora Daisy DeKol

Upham Cows: Winfred Pollac Pet, Marjorie Spofford and Senora Belle Korndyke

Senora Daisy DeKol
No. 58816
Milked 7 Years
with
HINMAN MILKERS

Seventeen years old and averaging 40 lbs. milk daily.

Owned by Mr B. and L. D. Upham
Georgetown, N. Y.

The Uphams have been enthusiastic users of the HINMAN MILKERS for 7 years. They are now using them for their Official Tests and many fine records are being made with the help of the HINMAN. That the HINMAN does not injure cows in any way, is proved by this long, satisfactory service.

HINMAN MILKERS

WILL Surely Increase Your Dairy Profits. So simple a boy can milk 18 to 25 cows an hour. The Uphams, for example, used Hinman Milkers for seven years day after day. Saved one hired man a year in their dairy. Six months' use paid for the machine. One year meant a profit of initial cost of the machine. **Multiply this profit by seven** and you will realize the **wonderful saving** possible for dairymen who use HINMAN MILKER. Their herd of 26 cows averaged $123.71 each last year. The simplicity of the HINMAN is responsible for its long daily use without trouble.

No complicated pulsating mechanism—no air pipe lines—no vacuum tanks. Its simplicity also means low first cost and low upkeep cost.

Get Our Big Illustrated Catalog FREE

and learn more about the operation and construction of this simple, practical milking machine. Means more profit for you if you milk only 10 cows. Catalog gives many interesting records of famous cows made when milked with HINMAN MILKERS.

Ask about Electric Auto Milker, operates on ½ H. P. motor

Simple Single Unit

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SERVICE DEALERS EVERYWHERE

9 years' success
HINMAN The Valve-Chamber MILKER
Built by Practical Dairymen

GET Your Cream Separator NOW!

ONLY $2 DOWN A Year to Pay

on This Easy Self-Earning Plan

You won't feel the cost at all. The machine itself will save its own cost and more before you pay. We ship any size separator you need direct from our factory and give you a whole year to pay our low price of only $24 and up. Read what Alfred Geatches, No. Jackson, O., says: "We are getting more than twice the cream we were before. The separator is very easy to clean and runs very easy." Why not get a lifetime guaranteed New Butterfly separator for your farm and let it earn its own cost by what it saves?

(31) NEW BUTTERFLY $24 and up

Cream Separators have these exclusive high grade features—frictionless pivot ball bearings bathed in oil, self-draining bowl, self-draining milk tank, easy cleaning one piece aluminum skimming device, closed drip proof bottom, light running cut steel gears, oil bathed. Guaranteed highest skimming efficiency and durability. We give

30 Days FREE Trial — Lifetime Guarantee

against all defects in material and workmanship. We ship you the size machine you need, let you use it for 30 days. Then if pleased you can make the rest of the small monthly payments out of the extra cream profits the separator saves and makes for you. If you are not pleased just ship the machine back at our expense and we will refund what you paid. You take no risk. Write for FREE Catalog now.

ALBAUGH-DOVER CO., 2158 Marshall Boulevard, CHICAGO
Also Manufacturers of Albaugh Dover "Square Turn" Farm Tractors

More than 100,000 New Butterfly Separators now in use

20 Exclusive Improvements as compared with 15 last year! And at no raise in price! X-Ray Gas-Arrestor—ingenious device that prevents lamp fumes entering egg chamber; X-Ray Nursery Tray, new feature that assures sanitation—protects little chicks; X-Ray Egg Tester, most perfect, handy tester ever conceived; New Handy Height; New 1917 Quick Cooling Egg Tray.

X-Ray Incubator

The Famous One Gallon Oil One Filling Hatcher

Fill the tank, light the lamp, and you are through. Duplex Central Heating Plant — directly underneath furnishes natural, moist Mother-Hen heat. X-Ray Automatic Trip regulates the flame — no cold corners — no overheated sides. Express Prepaid to Practically All Points.

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Learn About the 1917 X-Ray Brooders, Too!

Biggest Hatches Strongest Chicks

That's what you will get with my Hatching Outfit—and I can prove it. The whole story is in my big Book "Hatching Facts" in colors—sent Free, write for it. It gives short cuts to Poultry Success—what to do and how to do it. Start one of these wonderful Prize Winning Incubators making money for you.

Over 524,000 Satisfied Users

$8.55 Buys 140 Egg Size World's Champion Belle City Incubator

Hot-water—Double-walled—Copper Tank—Self-Regulating. The Prize Winning World's Champion Model—same as used by Uncle Sam—leading Agr'l Colleges—America's most Successful Poultry Raisers. When ordered with my $4.85 World Famous Hot-water Double-walled 140-chick Brooder, both cost only $12.50.

Freight Prepaid East of Rockies Allowed that far to points beyond

Satisfaction Guaranteed

You can also share in my—**$1000 Cash Prizes** to customers—conditions easy to get Biggest Prize, order now—the earlier you start, the better your chance to share in the Gold—anyway write today for my big Free Book. Jim Rohan, Pres.

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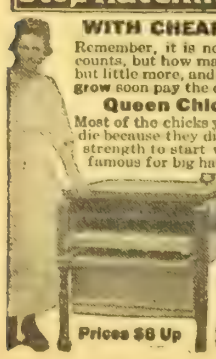
Stop Hatching Weak Chicks

WITH CHEAP INCUBATORS

Remember, it is not how many you hatch that counts, but how many you raise. A Queen costs but little more, and the extra chicks that live and grow soon pay the difference.

Queen Chicks Live and Grow

Most of the chicks you lose in the first two weeks die because they did not have proper vitality or strength to start with. Queen Incubators are famous for big hatches of strong healthy chicks that live and grow. The American Poultry Journal wrote us: "During the many years you have been advertising Queen Incubators in our paper we have not, to the best of our recollection, received a single complaint from one of your customers." Catalog free



Prices $8 Up

Queen Incubator Co. 1175 N. 14th St. Lincoln, Nebr.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Better Results From Hatching Pullet Eggs.

To the Editor:—I see in your valuable paper that it is stated one should not breed from pullets and cockerels. I would say that this is surely a mistake, for I have been breeding both ways and I get better results from my pullets. I used four hens to a cock and set the eggs, and out of fifteen I got eight chicks, and they did not do well. Then I set fifteen pullet eggs and got twelve chicks, so you see young stock does better.

I raise the Buff Rock and Black Minorcas. Of course, I only have a backyard flock. I am a painter by trade, but I find my chickens are the bread of life. I do all my hatching in the months of January, February and March while I am idle, and my chicks are large and do fine by the time spring and hot weather comes on. My pullets start to lay then by September and are laying all winter when eggs are top price. Of course, I tend to my flocks to the top notch. I feed them good grain and mashes and meat scraps and warm water at all times. I keep them clean and warm. I go to my chicken house and sit down and look them all over for lice or any ailment. I never have sick chickens or bowel trouble, which so many are complaining about. If they would keep them out of trees and dirty, filthy places and look after their sleeping houses as I do, or as they do their own rooms, the chicken business would pay big. I am in a position to see hundreds of chicken houses and their care and it is surely a fright. Take good care of the fowls, pick the best for breeding and let the culls go. For lice I have found nothing that is equal to lard and coal oil rubbed in the feathers and around the vent.

I set my incubator and run it at 102 for a week and a half and then I run it up to 103, and I have the best of hatches. The day before they hatch I take a flannel rag, wring it out of warm water, and place it over the eggs for about five or ten minutes. This loosens up the egg shell. I always keep about 50 or 55 per cent moisture in the incubator.

I never feed my chicks until they are forty-eight hours old. Then I boil some water and let it get cool and let them have that to drink. It kills all diarrhea germs and bowel trouble. If you give them cold water it upsets the little chick's bowels.

Some so-called chicken raisers claim they have the best in the land, and when you get some of their eggs and they do not turn out well they tell you the eggs were tampered with en route to you, or someone has bothered them during incubation. Chicken raising for the good of your customers means for you to keep the best and send the best. Don't advertise the best and send the poorest stock. Put out just what you advertise, and when you ship let them be as good as you would expect yourself. Don't say your hens are bred to lay, for we all know hens won't lay unless they are well cared for both night and day, have clean feed, warm housing and are free from lice and mites. With all this you can just bet the hens will do their part. I know from experience.

Geo. H. Copeland.

A Beginner in Poultry.

To the Editor:—I would like to have some advice from some of your readers on poultry raising for the market. I am a young man just starting in the business and I only have a small farm of about twenty acres cleared. I figure on raising young chicks for the butcher this summer and figure on buying a good incubator and brooder. Do you think that I can make it pay by putting most of my time at it? How old must they be before they will be ready to market? If I give them the proper feeds and care can I set the incubator two or three times during the early summer? How many ought I to raise to make it pay me a fair bunch of money during the summer? Give me all the information you can, so it will help me in starting. You see my farm is not big enough to keep many cows, as I have to pasture half of it and the more cows I keep the more pasture I need, so I figure on keeping about three cows and raising chickens.

John Waldburzer.

Feeding Ducklings.

Ducklings do not need feed until they are from twenty-four to thirty-six hours old, after which they may be fed five times daily on a mixture of equal parts, by measure, of rolled oats and bread crumbs, with 3 per cent of sharp sand mixed in the feed. About the third day this feed is changed to equal parts bread, rolled oats, bran and corn meal; then after the seventh day to three parts of bran, one part each of low-grade wheat flour and of corn meal, 10 per cent of green feed and 5 per cent of beef scrap, with about 3 per cent of sand or grit in all of the rations.

Feed four times daily after the seventh day until the ducklings are two or three weeks old, when they need be fed only three times daily. After the ducklings are a week old the grit or sand may be fed either in the mash or in a hopper, but the common practice is to feed grit in all duck rations. Beef scrap is not usually fed until the ducks are a week old, when about 5 per cent is added to the ration, which amount is gradually increased to 15 per cent by the end of the third week. Gradually increase the proportion of corn meal and decrease the bran until the ration becomes the fattening ration given below for those ducklings which are to be marketed. Those to be saved for breeding should be given the duckling ration with the increased beef scrap (15 per cent), but not fed fattening ration. They should also be given a good range where grass and running water are available; if confined to bare yards considerable green feed and vegetables should be fed.

The ducklings to be marketed should be fattened for two weeks before killing on a ration made of three parts, by weight, of corn meal, two parts of low-grade flour or middlings, one part of bran, one-half part of beef scrap, with 3 per cent grit and 10 per cent green feed. Feed this mash three times daily, or use a mash of three parts corn meal, one part low-grade wheat flour, one part bran, 5 per cent beef scrap and 3 per cent oyster shell, with the green feed and grit added. The green feed is sometimes left out of the ration during the last seven days of fattening, as it tends to color the meat and may produce a slightly flabby rather than a firm flesh; however, it is easier to keep the ducklings in good feeding condition on a mash containing green feed. Boiled fish may replace the beef scrap, but should be fed up to within two weeks before they are killed, as it may give a fishy taste to their flesh. A considerable quantity of boiled fish is also fed in the mash to laying ducks in sections where the duck farms border on the water and where fish is available at a very small cost. This fish aids

Wisconsin Wins In Big Hatching Contests Every Year

Why Pay More

For only $10 you can get these two prize winning machines, delivered, freight paid east of the Rockies. You take no risk—money back if not satisfied. You can order direct from this ad. Ask the publisher about us.

Both Machines Freight Paid For Only $10

We also furnish 180 Egg Incubator and 180 Chick Brooder both for only..$12

Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on **30 Days' FREE Trial**

MONEY BACK IF NOT SATISFIED

10-YEAR GUARANTEE

Wisconsins have hot water heat, double walls, double glass doors, copper tanks and boilers, self-regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1916 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.

WISCONSIN INCUBATOR COMPANY, Box 100 Racine, Wis.

Let Us Make One Hatch—On Trial

J. S. GILCREST, Pres., Life Member American Poultry Association

YOU SUPPLY THE EGGS—I'LL SEND THE INCUBATOR

And you can send it back and get your money if it does not prove that you can raise the *most chicks any time in any weather* with

"SUCCESSFUL" INCUBATORS & BROODERS

Backed by 22 years' experience. Cabinet made and scientifically ventilated. Hot water heating plant.

Write for Catalog—ask about poultry and eggs, too—and "Successful" Grain Sprouters.

Famous little booklet, "Proper Care and Feeding of Chicks, Ducks and Turkeys." 10 cents. Big catalog is FREE.

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$7.50 and Up

Poultry Lessons Free

Lice-Proof Nests

WRITE QUICK for Catalog and **SPECIAL OFFER**

Nests won't cost you 1c. Your hens will pay for them in More Eggs

You will get 20 to 50 per cent more eggs with **KNUDSON Galvanized Steel Lice Proof Nests**

These wonderful sanitary nests last a lifetime. Satisfaction—Unlimited Guarantee.

The illustration shows our leader—6 Nest Set.

Cost Less Than Wood Nests. Don't Wait. Make Big Money on Poultry. Write Knudson Mfg. Co., Box 15, St. Joseph, Mo.

RESULTS

A CHICK FROM EVERY HATCHABLE EGG STRONG, HEALTHY, ROBUST CHICKS THAT LIVE! MAKES POULTRY BUSINESS PAY—MATCHES NEAREST OF ALL THE NATURAL PROCESS OF THE SETTING HEN.

THE SECRET OF PROGRESSIVE BIG HATCHING RECORDS

BUILT OF GENUINE CALIFORNIA REDWOOD. Egg chambers surrounded with special insulator having hundreds of air cells, guard against temperature change. Corrugated copper hot-water heater, automatic ventilation and regulation. No dry, hot blasts to kill chicks in shell. Machines complete. Money back guarantee if not satisfied. Big Free Book explains all Special deals.

Progressive Incubator Co. Box 129 Racine, Wis.

$9.85 FOR BOTH

$7.25 Save Money—get a bigger bargain than ever on the **MANKATO Incubator** while our stock lasts. Same quality—same price—redwood case—pure copper tank—hot air and water heat. Write today.

MANKATO INCUBATOR CO. Box 768 Mankato, Minn.

Mail a Postal

Ironclad TRADE MARK **WINS In 2 Biggest HATCHING CONTESTS Ever Held**

Mrs. C. F. Merrick, Lockney, Tex., with her Ironclad Incubator wins in the Mo. Valley Farmer and Nebr. Farm Journal Big Hatching Contest. She placed 148 eggs in the incubator and hatched 148 strong chicks. Think of that. You can now get these famous winners, made of Calif. Redwood.

150 Egg Incubator Chick Brooder } BOTH FOR $11.00

If ordered together. 30 days trial, 10-year Guarantee. Order direct from this advertisement—money back if not satisfactory. Incubator is covered with galvanized iron, triple walls, copper tank, nursery egg tester. Set up ready to run. The Brooder is roomy and well made. Send for free catalogue. **Freight Paid East of Rockies**

Made of Redwood covered with galvanized iron.

150 Chick Brooder

Ironclad Incubator Co. Box 113 Racine, Wis. (3)

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Just a straight business offer which will help you get a Rayo at little or no cost to you. No soliciting or canvassing. When you send for our new Rayo Catalog we will tell you all about it. Chuck full of incubator and poultry raising facts. Get your *free* copy now. Get started on the road to bigger profits.

RAYO Center Heated INCUBATORS

Give Bigger Hatches At Less Cost

Only 1 gallon of oil, 1 filling of tank to a hatch. Saves time, money, labor. Double panel glass top makes it easier to cool eggs, easier to air and clean, easier to operate. Automatic heat control, special moisture and ventilation features. Get *free* catalog and special offer. RAYO INC. CO., U.D. Sta. 6298, Omaha, Neb.

140 Egg Neubert Incubator $7.25

The Pioneer Hatcher of Quality made by Neubert's of 23 years' experience. None better at any price. Double wooden walls, dead space, redwood, hot water copper tank, self regulator, safety lamp, high nursery. Most simple and durable; set up ready to use. Money back guarantee. Brooders $2.50 up. Big catalog free. Write to-day.

260 Egg ONLY $12.00

F. A. Neubert Incubator Factory, Mankato, Minn.

FOY'S BIG BOOK FREE

POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs. FRANK FOY, Box 82, CLINTON, IOWA

POULTRY AND PET STOCK.

WANTED--500 COCKERELS, HENS

AND Pullets, in Plymouth Rocks, Rhode Island Reds, Wyandottes, Orpingtons, Leghorns, Brahmas and other varieties. Also want Ducks, Geese, Turkeys and Pigeons. Fully describe what you have, quoting lowest prices. Z. G. McKay, Lyons, Iowa.

WINNEBAGO REDS

SINGLE Comb R. I. Reds only. Excellent quality, standard weight cockerels and pullets. High class exhibition and common laying stock. Satisfaction guaranteed or no sale. Winnebago Poultry Yards, R. 23, Omro, Wis.

DAY-OLD CHICKS

of quality guaranteed to 1,500 miles. Eggs for Hatching at low prices. Bar. Rocks, S. C. W. Leghorns, S. C. and R. C. Reds, W. Wyandottes, Buff and W. Orpingtons. Chicklet catalog free. GOSHEN POULTRY FARMS. R-45 Goshen, Indiana

50 Best Paying Varieties Hardy Northern raised Chickens, Ducks, Geese and Turkeys. Pure-bred heaviest laying strains. Fowls, Eggs, Incubators, all at low prices. Large new Poultry Book and Breeders' Complete Guide Free. W. A. WEBER, Box 11, Mankato, Minn.

62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 23 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 807, Mankato, Minn.

50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks, Guineas. Catalog two cents. Theodore Franz, Box 104, Mankato, Minn.

64 BREEDS Valuable New Poultry Book Free—108 pages. Fine pure-bred chickens, ducks, geese and turkeys. Choice, hardy, Northern raised. Fowls, eggs and incubators at low prices. America's greatest poultry farm 24th year in business. Write today for Free Book. R. F. NEUBERT CO., Box 806, Mankato, Minn.

57 Varieties Chickens, Ducks, Geese and Turkeys Prize-winning, pure-bred, hardy, northern raised. Fowls, eggs and incubators; low prices. Most successful farm; 18th year. Large, fine catalog free. LARKIN & HERZBERG, Box 30, MANKATO, MINN.

"ARISTOCRAT" Silver Wyandotees. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

2949 COCKERELS, hens and pullets, 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

S. C. BUFF ORPINGTONS

World's Greatest Egg Producers. Eggs or Chicks. Cir. Free. Will Schadt, Box 1061 Goshen, Indiana.

SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O.C. Olson, R. 2, Strum, Wis.

WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cock'ls. Mrs. J. F. Bloom, R. 1, Stillwater, Minn.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box 8, Janesville, Minn.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information. HOMESTEAD COMPANY Engraving Dept. Des Moines, Iowa

materially in reducing the cost of feeding.

Green ducks are marketed at from eight to twelve weeks of age, according to their condition and weight. Two or 3 per cent of oyster shell is recommended in most fattening rations, but bone ash, ground or cracked bone, or bone meal would appear to be better mineral feeds to add to these mixtures. If milk is available at profitable feeding prices the rations recommended for crate-fattened chickens would give good results in fattening ducklings, producing a well-bleached, milk-fed green duck. Celery seed is also used in fattening ducklings, as it is said to flavor the flesh.—[Bulletin.

American Eggs to England.

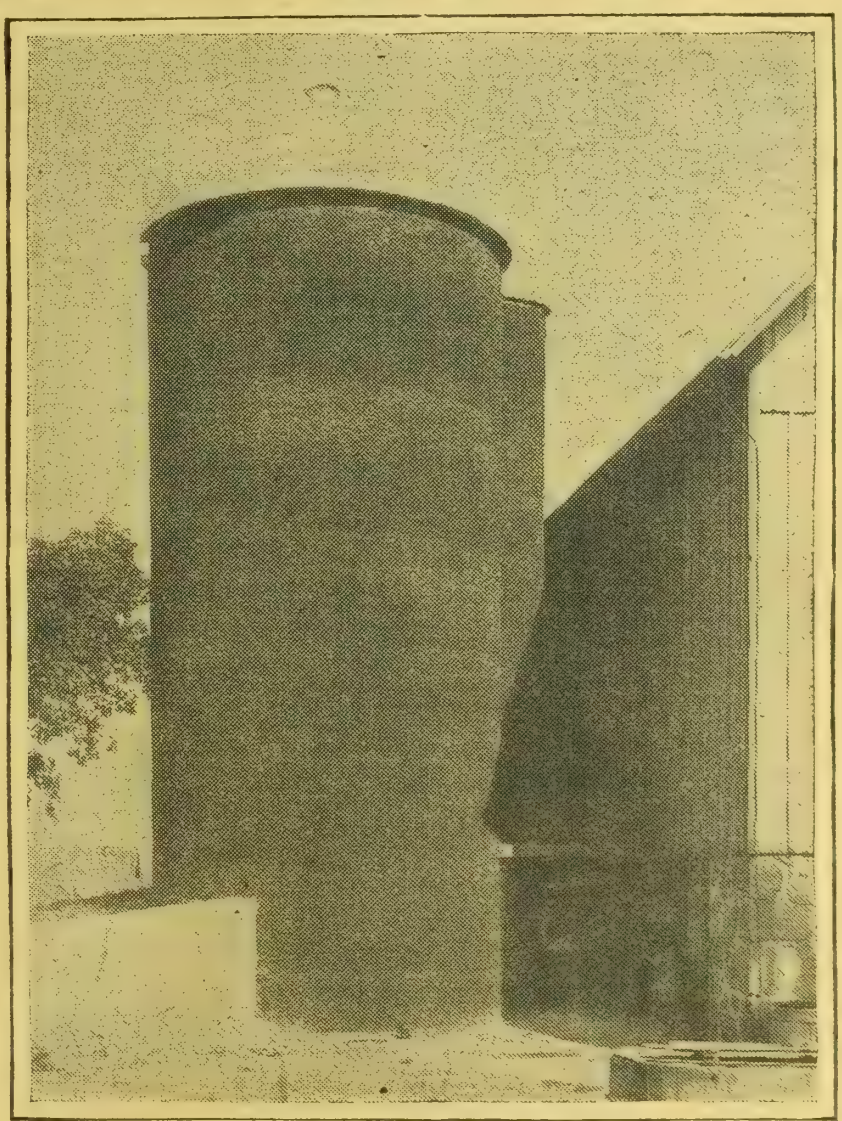
It seems that American egg speculators, cheated of large profits at home because of the egg boycotts by restaurants and housewives, have turned to England and are getting their dreamed-of profits there. The New York Times' London correspondent recently reported the arrival of a cargo of nearly 15,000,000 eggs from America and said the imported eggs caused a marked drop in egg prices in the English metropolis.

Egg prices in London had been $1.14 for the choicest variety down to 90 cents for the common sort. The American eggs sent the prices down to $1.08 for the best and 60 to 70 cents for the others. Another huge egg cargo is said to be on the way from America. The American eggs mostly sold for about 60 cents.

The London egg market consumes about 20,000,000 eggs daily. Of this amount about 12,000,000 a week is sent over from Canada, some come from Egypt, but the most are produced at home. Hitherto American eggs have appeared only at very infrequent intervals on the English markets.

State Land Opening.

The state of Texas will put on for sale to the public several thousand acres of school land at $2 an acre, 5 cents an acre cash and balance in 40 years' time at 3 per cent interest. Information regarding sale will be furnished by writing Investor Pub. Co., San Antonio, Texas.—Adv.



A SILO MAY BE ORNAMENTAL.

This picture of a cement silo taken on the Fred Fiedler farm in Oconomowoc, Wisconsin, shows that a silo may be ornamental as well as useful. This silo has been pebble-dashed and surmounted with an ornamental dome effect. It will be noted that the silo is also protected by a lightning rod. This silo complete as it stands cost the owner $235. The size is 12x40. It will be noticed that the price is very reasonable and probably considerably less than the silo could be reproduced for on the average farm. This is due to the low cost of labor and the fact that good sand and gravel were obtained on the farm where the silo was built.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER **MADISON, WISCONSIN**

POTATOES.

POTATO Growers in Vilas County raise seed potatoes for Texas trade. Prices guaranteed for 1917 crop. Potato farms on easy terms. Sanborn Company, Dept. P, Eagle River, Wis.

CERTIFIED Rural New Yorkers and Green Mts. for sale. Prices and quality right. Also Noroton Beauties (Early). Amounts limited. S. J. Uhrenholdt, Hayward, Wis.

HOLSTEIN CALVES.

REGISTERED Holstein calves, fine fellows with world's record backing. $45 express prepaid in Wisconsin. 80% white. Chas. Hampke, Manitowoc, Wisconsin.

HELP WANTED.

WANTED—Good man to work on dairy farm; good wages and good home; no booze fighters wanted. State experience and references. E. N. Harris, Mineral Point, Wisconsin.

SHARPLES MILKER.

MILKER, two unit Sharples, nearly new; first check $150.00 gets it. French Brothers, Shipman, Illinois.

TELEGRAPHY.

LEARN TELEGRAPHY. Short hours. Positions guaranteed. Write Signal Dept., Northwestern Telegraph School, Eau Claire, Wis.

HONEY.

HONEY, Delicious Pure Honey, 30-lb. can, $3.50; 60-lb. can, $6.60; 120 lbs., $12.60. Satisfaction guaranteed. E. B. Rosa, Monroe, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

FARM LANDS.

NORTH DAKOTA in all essentials; Soil, climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short—yet government reports show $167,544,000 or $2,253 per average farmer. In last seven years average farmer in North Dakota produced $1,975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

IT'S a question of time, as to whether you get a choice piece of our dairy and clover lands, for they are going fast. Aitkin county is the mecca of the homeseeker who wants a choice location, rich land, abundant grasses, and markets near. The best of it is, these lands have not been boomed in price. That is why, if you act quickly, your farm will cost but little. Write Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minnesota.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

120 ACRE farm very reasonable. 40 acres under cultivation; fertile soil; small lake; buildings; 6 miles from town, 1 from school; $3,500; $900 down. The Ev. Luth. Colonization Co., 1030-M, Dept. 10, Merrill, Wis.

FOR SALE—205-acre, all improved, level farm in west central Wisconsin. Ideal dairy farm. Two miles from good market and high school. Reason for selling—to close an estate. For further information Phone 2301 (Madison), or write T. N. Halvorsen, Dallas, Wis.

LAKESHORE dairy farm, only $1,100. 39 acres, clay loam soil, frame house 12x26, log stable 16x16, chicken house. 1 mile store and creamery, 3 miles large inland town, 6½ miles railroad. A snap. Baker H-110, St. Croix Falls, Wisconsin.

READ this! Would you sell your farm if you got your price? No agents' commissions. No middle-man to take big profits. You can do it. Particulars free. Address Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—80-acre farm, 3½ miles from town, near school and cheese factory; 40 acres cleared, 20 acres plowed; fair buildings; price $4,400. Joe Dyre, R. 4, Greenwood, Wisconsin.

EIGHTY acres sugar maple, clay loam land with house, barn and clearing. $25 per acre, small payment down. Frank M. Doyle, Ladysmith, Wisconsin.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

A GOOD eighty-acre farm, with or without stock, for sale cheap, if taken soon. A. M, care this paper.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

SALESMAN WANTED.

SALESMEN wanted to canvas the farming and threshing trade, soliciting orders for Lubricating Oils, Greases and Paints. Excellent opportunity for right party. Previous experience unnecessary. Address at once The Victor Oil Company, Cleveland, Ohio.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wis.

POULTRY, ETC.

WRITE FOR LOW PRICE on best thoroughbred poultry and pigeons, eggs and baby chix, turkeys, ducks, geese, incubators, brooders and poultry supplies. Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

SINGLE Comb White, Rose Comb Buff Leghorn males. White Runner ducks. 7 shows 1917, 78 ribbons, 2 silver cups. Satisfaction guaranteed. Dwight Philpot, Sun Prairie, Wis.

SILVER Laced Wyandottes; prize winners. Vigorous, farm-raised birds. Choice cockerels, $2 each; well laced yearling hens, $1.50; pullets, $2. Minnie Patterson, St. Charles, Minnesota.

S. C. Buff Leghorns, blue ribbon winners, eggs and chicks. Write for mating list. Lake Shore Poultry Farm, Box B, Cedar Grove, Wis.

ROSE and Single Comb Dark Reds. Eggs $2.00, $3.00 and $5.00 per 15. Cockerels $2.50, $3.00 and $4.00. Fred Oertel, R. 3, Brighton, Ill.

BELDA'S Barred Rock cockerels $2 each. 18 fine show cockerels $5 each. Pullet breeders $3 each. Wm. Belda, De Forest, Wisconsin.

PARTRIDGE Wyandotte cockerels; bred from winners at Madison and Chicago; eggs in season. W. W. Day, Janesville, Wisconsin.

SINGLE Comb Ancona hatching eggs fifteen cents on the dollar; circular free. H. MacKenzie, Sheboygan Falls, Wisconsin.

REGAL White Wyandotte cockerels for sale, $2, $3, $5 each. L. and R. Porter, Garden Prairie, Illinois.

FOR SALE—Bay team, gelding and mare, weight 3,200 lbs. David Arnold, Milton Jct., Wisconsin.

ADVERTISEMENT.

FARM VALUES AND RAILROADS

Transportation Problem Must be Solved Nationally in Order to Assure Agricultural Prosperity.

THE greatest industry of the United States is farming. Next to that comes transportation.

Efficient transportation is essential to the continued welfare and business progress of the nation. To the farmer it means wider markets and better prices for his crops.

Speaking for 90% of the railroad mileage of the country we invite your co-operation in the solution of the railroad problem to that end.

Make Regulation Efficient

There is no question that public regulation of transportation has come to stay. The railroads accept it. They ask only that such regulation be made efficient. They ask that the functions properly subject to public supervision—incorporation, the issuance of securities, the making of rates—be placed under the direction of a single responsible national body such as the Interstate Commerce Commission, with regional sub-commissions, in order that regulation may be kept close to the people. They ask that such regulation be so administered as to permit the railroads to earn a living return, to attract new capital and to make the improvements and extensions necessary to enable them to serve the American people fairly and efficiently.

In the Federal Reserve and Rural Credit Banking Systems the operation of regional divisions under Federal supervision is well illustrated. The railroads seek a similar solution of their problem.

Commerce is Nation Wide

The farmer wants free trade among the states.

Commerce in farm products is not confined to state lines. It is nation wide. Its regulation should also be national. The fundamental state right is the right of each state to be protected against discriminations by other states such as exist today. Every barrier that a state erects to the free movement of commerce across its borders limits the farmer's market, makes it easier for speculators to control products and depress prices and tends to increase the cost of what the farmer has to buy.

The railroads cannot serve 49 masters—48 states and the nation—and serve efficiently. The present system of multiple and conflicting regulation is wasteful and destructive.

In the interest of all, regulation should be in behalf of all the states. We invite discussion of this question and shall be glad to answer questions and to supply information on request.

This is the first of several brief talks on this subject.

RAILWAY EXECUTIVES' ADVISORY COMMITTEE

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More Hogs For Our Dairy Farms.

(Continued from page 1)

distinctive breed type and the offspring of bred-for-production sires. The most profitable hog is the hog which will grow in the shortest time on reasonable feeding, to a weight of 250 pounds, and be ready for market. This is agreed by all swine men. The representatives of the several breeds make their claims on this subject, but the fact remains that good breeders are making a success with all of the several standard types, such as the Poland China, Duroc, Berkshire, Hampshire, Chester White, Yorkshire, etc. The selection of a breed is something like the selection of a breed for a dairy herd. There are advantages in all, and some men will do best with one breed and some with another. But the dairyman-farmer, who wants his pigs to fatten quick enough to bring the best profits, should steer very clear of the scrub hog. He is just as bad as the scrub ow, which has been relegated to the block by our cow-testing associations. Some of our dairy farmers have said to themselves that they are raising hogs for market only and that the pure bred is not necessary. A little experience in trying to put live weight on some of the scrub pigs we have seen ought to open a man's eyes on this subject. It pays to have good stock. It is not necessary to have National Swine Show winners to raise good pork, but good blood will tell in hogs raised only for the market.

The hog does not require so much attention as other kinds of live stock which might be raised on a dairy farm. As labor is a problem to be reckoned with in these days, the fact that Mr. Hog will do a whole lot toward entertaining and caring for himself is well worthy of attention. Besure to give him plenty of opportunity for exercise.

There is a conspicuous revival in the swine industry in this state. From every part of the state we find a greater interest in hogs. We should have 5,000,000 hogs in Wisconsin—twice as many as there are today. Breeders have had the best season on hogs that they have ever known in this state. At one of our big sales the average was $101 per animal sold, and we understand this is the highest average maintained at a large hog sale in this state. It will not be surprising if this average is laid in the shade before very long. Good breeding stock is in demand and will be even more in demand. The hog business of Wisconsin in the next five years will not be confined to the southern and western counties. It will reach farther over into dairyland. It will penetrate the new counties of the North, where they have demonstrated that mature corn can be grown and plenty of other hog feed added to the skimmed milk from the dairy barns. The future of the hog business in this state is very bright, indeed, and The Wisconsin Farmer would like to see all of its dairymen readers give the matter careful study and get in on the good profits which are going to be made in our state in this division of live stock.

Swap Experiences Swine Week.

(Continued from page 6.)

that hogs undoubtedly contract tuberculosis from drinking milk that has not been sterilized.

Co-operation with one's neighbors offers the greatest opportunity for the small breeder to dispose of his surplus hogs, or other stock, according to E. T. Robbins, county agricultural agent of Tazewell county, Illinois. Mr. Robbins considers the county the best unit for such co-operation. In Tazewell county, Illinois, they have a Percheron association organized in July, 1913, and this association has disposed of all surplus Percherons owned by 650 members. Even young breeders who had no acquaintance outside of their neighborhood were able to dispose through the association of all their surplus Percherons. In Mr. Robbins' judgment, an organization can advertise more effectively than an individual and it may undertake an advertising expenditure which would be prohibitive to the individual. Furthermore, fifty men can offer fifty times as much stock and a much better selection for buyers. Knowing that they will be able to dispose of their stock, members of such co-operative enterprises have no hesitancy about increasing the number of live stock on their farms.

The Wisconsin Live Stock Breeders' Association held several very important meetings Farmers' Week. This association is distinct and separate from the various breed associations. In fact, it is kind of a congress of all of the individual breed associations. One matter of considerable importance which came up this year was the question of engaging a representative of live stock and agricultural interests to appear before the Wisconsin legislature. A great many bills are constantly coming up in the general assembly in which farmers and live stock breeders have special interest. The live stock breeders' association have and other associations have forwarded resolutions to the officers of the general assembly relating to various matters. It seems that it is easily possible for these resolutions to be read once and then "pigeon-holed." Furthermore, it often appears that members of the general assembly would like to have further information on subjects which are brought up of interest to farmers. It seems to be important that the farmers of the state have a representative who can supply this information and who will do it in a way to make it most effective. Mr. Geo. McKerrow has been named a special representative to present matters of importance to members of the general assembly either in their committee rooms or personally. Some expense will be created by this new move. Representatives of several farmers' associations are organized in what is to be called a legislative council and some arrangements will be made for bearing the expense. Mr. McKerrow is one of the experienced farmers and stockmen of the state, well acquainted with the needs of the farmers and of the live stock industry, and, furthermore, he has the confidence of those who are sending him to appear before the general assembly. A number of the state agricultural organizations received state aid, but none of the money appropriated as state aid will be used to pay Mr. McKerrow's expenses. This matter will be met from a special fund to which farmers will be asked to contribute.

A Good Creamery Report.

The annual report of the West Salem, Wisconsin, creamery shows total receipts for the year $279,942.22. The West Salem Co-operative Creamery Company has 378 shareholders, and an average of 365 patrons. Patrons were paid $231,364.20 for cream during the year 1916. Other items of interest in the annual statement of this, one of the most successful co-operative creameries in the country, follows:

Butter sold in La Crosse....$	2,215.72
Local cash butter sales.....	8,844.38
Butter sold to patrons.....	6,871.22
Cash for butter shipped.....	247,105.18
Cash for buttermilk.....	1,252.78
Paid patrons in butter, etc..	7,898.10
Paid patrons interest and stock acc't	1,024.40
Paid cream haulers.....	10,900.65
Paid creamery help.....	4,009.00
Paid managers and officers..	1,131.00
Paid for fuel	2,013.00
Paid for packages.....	4,609.56
Paid for salt.....	577.40
Paid for general supplies....	1,530.78
Paid for improvements and repairs	1,027.88
Paid taxes	404.50
Paid street improvement....	172.80
Paid insurance	142.14
Paid telephone and telegraph	31.94
Paid postage and revenue...	28.46
Paid stationary and printing	54.80
Paid transportation and convention expenses	64.48
Paid freight, express and drayage	138.20
Paid National Dairy Union..	50.00
Paid instructors' salary	409.79
Paid other items not classified	95.72
Balance on hand Jan. 1 1917.	12,263.52
Pounds of cream received 2,673,761	
Pounds of butter fat received 660,131	
Pounds of butter made 820,924	
Average overrun.... .243	
Aver. test of cream .247	
Average cost of gathering 100 lbs. cream	.41
Average cost of gathering 100 lbs. butter fat.....	1.65
Average price paid at farm per 100 lbs. butter fat....	36.40
Monthly average price paid.	38.75
Net average price received per 100 lbs. butter.....	32.52

Canadian Farmers Profit From Wheat

The war's devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and wheat near $2 a bushel offers great profits to the farmer. Canada's invitation is therefore especially attractive. She wants settlers to make money and happy, prosperous homes for themselves by helping her raise immense wheat crops.

You can get a Homestead of 160 acres FREE and other lands at remarkably low prices. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to acre. Wonderful crops also of **Oats, Barley and Flax. Mixed farming** as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent.

Military service is not compulsory in Canada, but there is an extra demand for farm labor to replace the many young men who have volunteered for the war. The Government is urging farmers to put extra acreage into grain. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Canada, or

Geo. A. Hall,
123 2d St., Milwaukee, Wis. Canadian Gov't Agt.

Farm For Sale or Rent

A GOOD home on 80-acre farm. Good buildings, good soil, near school and creamery, six miles west of the county seat of Taylor county, Wisconsin. Nearly half cleared, balance easy to clear. Price $6,000.00; $1,500.00 cash, balance on time. Will rent for three or five years.
L. A. KIMBALL LAKE GENEVA, WIS.

Would $150 MONTHLY as General Agent for $150,000 corporation and a **Ford Auto** of your own, introducing Stock and Poultry remedies, Dips, Disinfectants and Sanitary Products, interest you? Then address **Royoleum Co-Operative Mfg. Co., Dpt. K-31, Monticello, Ind.**

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Jaquin Valley illus. folders, free. C. L. Seagraves, o Ind. Com'r, A.T. & S.F. Ry., 1959 Ry. Ex., Chicago.

JUST OUT—Our new land list of 50 choice farm bargains in Central Wisconsin. We want every prospective land buyer to send for this big, new, free list together with panoramic views of this country. Write today. Graham's Land Office, Marshfield, Wisconsin.

ALFALFA SEED ALSO Red Clover, Sweet Clover, Alsike, Timothy, Brome Grass, Blue Grass, Cane, Millet, Kaffir Corn, etc., etc. At Campbell's Seed House, Dept. C., Seward, Nebraska.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

HIGHLY improved 320-acre farm near Wildrose, N. D., bargain. Some excellent unimp. quarters on new R. R. west of Wildrose, south of Crosby; write for list. O. Ellevold, 818 18th St., Minneapolis.

WANTED TO HEAR FROM OWNER OF farm for sale or exchange. Address Kubat Realty Company, Chippewa Falls, Wisconsin.

MONTANA 640-acre homesteads, new towns, business opportunities. Send 25c for maps and information. U. S. Comm., Outlook, Mont.

FARM WANTED. Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

FOR RENT—Fine equipped dairy farm with twenty cows, for term of years. Address E. A. Summers, Summerdale, Alabama.

WRITE J. D. S. Hanson, Hart, Mich., for list farms in Co., where biggest crops grow. Fruit, grain, alfalfa, dairying.

STOP! LISTEN! 40-acre improved valley farm, $950; free list. McGrath, Mountain View, Mo.

Guernsey Breeders to Be Active.

Western Guernsey Breeders at Madison Take Up Plans to Give Greater Scope to Work of Breeders in This Territory.

THE Guernsey breeders of Wisconsin and adjoining states forming the Western Guernsey Breeders' Association, were scored severely by several of the members during the annual meeting at Madison, February 9th, for their inactivity in the spreading of Guernsey gospel. The outgoing president, H. D. Griswold, started the ball rolling by a speech and discussion on methods of selling animals. This speech lead to the subject of publicity and a lengthy debate followed the outcome of which was that the association is going to canvass the territory with a plan of assessments that would be fair to all and give the association a fund to employ a field man who will work exclusively through this part of the country for the furtherance of Guernsey interests. There was a considerable amount of money subscribed on the spot and no trouble is anticipated in securing the balance. This is not to be an appropriation for advertising, but a fund for getting into personal contact with prospective buyers.

W. W. Marsh, of Waterloo, Iowa, was the chief speaker of the meeting. He made a few points that aroused considerable interest and gave his listeners more than one pleasant thrill by his masterful picture of the possibilities of the Guernsey breeder to reap fame and fortune by intelligent and careful breeding. Breeding for type and beauty will make the Guernsey famous in years to come. According to Mr. Marsh, the fame of Bates and Cruickshank, of Short-horn renown, will be the lot of the man who can stamp his herd with a type that "fills the eye" of the buyer. The man that can do this has not been found, but he ventured to predict that animals will be sold within the next five years that will frequently pass the $10,000 mark. Mr. Marsh took time to explain what he thought to be a deficiency in the present system of records. Where now a cow or heifer makes a phenomenal record and no restriction is placed on the manner in which this has affected the condition of the animal for future breeding purposes. Mr. Marsh suggests that the present system be supplemented by the English system which provides that the cow must be safely in calf five months after the record is begun and drop a strong and healthy calf within a set time after completing the test. That, in the opinion of Mr. Marsh, would be a health certificate of the first class and insure against contagious abortion being disseminated by unscrupulous dealers. The breeders would not be forced to make this test, but such breeders that would could ask and would receive a larger price for their cattle because of the security it would give the buyer. There would, therefore, be two records, one of the old A. R. system and the additional one of the English system, printed in larger or smaller type immediately below. The association did not adopt this as yet, but a resolution was passed to the effect that the present system having caused some dissatisfaction the national association should take the matter up and see whether any improvement of the system is possible.

J. R. Bent, of Ogelsby, Illinois, read an interesting paper on culling and improving the herd. It is the opinion of Mr. Bent that many breeders sell a bull too soon. Often it is impossible again to obtain the services of the bull so sold should his offspring prove to be of value. In the culling process many breeders are afraid of the waste. Mr. Bent pointed out that the breeder of vines and shrubbery did not consider the parts of the tree that he cut away as a loss, but rather as a necessary practice in the improvement of the whole stock. There should not develop within the breed, as has been the case with other cattle, separate breeds. Whenever a great record is made the small breeder should not despair, but draw a lesson from the work of the other man. The dealer without a conscience came in for a good scoring, but a distinction was made in favor of the honest dealer.

At the Wisconsin Agricultural College some exceedingly interesting data were compiled with the herd of Guernsey cows regarding the casein content of the milk of Guernsey cows. James B. Robertson, now with the Burnside Guernsey herd, summarized the work as follows:

The average per cent of casein produced by the university Guernsey herd for a six months' period was 2.831 per cent.

The average production of cheese of the ten Guernsey cows of the university herd for a period of six months with animals in all stages of lactation and varying ages was 416.58 pounds of cheese. Six cows in three months, forty days after calving, produced an average of 263.9 pounds.

Direct determination of both casein and fat is necessary to determine the ability of any one cow to produce products.

Charles L. Hill, Rosendale, spoke in part on the responsibility of the breeder as follows: "My own experience for the last sixteen years has shown it possible for a herd to be kept absolutely free from tuberculosis, and the breeder who will not do this should not be allowed to do business in Wisconsin or any other state."

Officers elected for next year are: President, J. R. Bent, Ogelsby, Illinois; vice presidents, Gavin McKerrow, Pewaukee; F. K. Babson, Chicago; W. B. Quarton, Algona, Iowa; secretary-treasurer, C. L. Hill, Rosendale, Wisconsin; members of executive committee, Lloyd Rundell, Roberts, Wisconsin; Dr. L. A. Wright, Columbus, Wisconsin.

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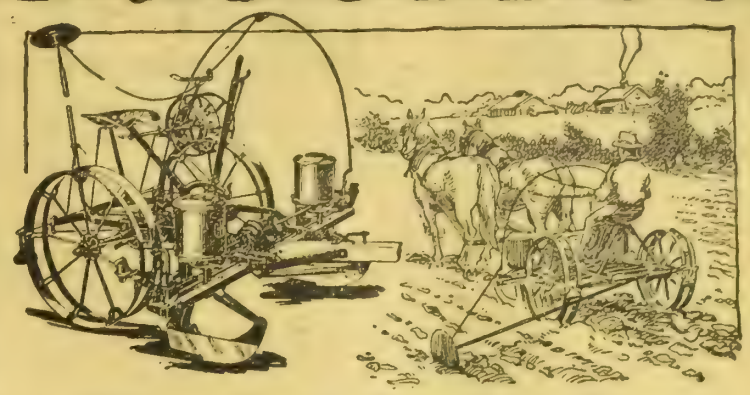
Wisconsin Horse Breeders' Meeting.

To the Editor:—I am glad to report that the horse breeders' association held a very successful meeting at the college of agriculture on February 7th. The meeting was attended by a large number of farmers and students and interesting addresses were given by W. L. Carlyle, dean of the agricultural college, Stillwater, Oklahoma, who spoke on factors essential to more successful and efficient production of draft horses and urging in particular that efforts be extended to interest the young men on the farms in better classes of live stock and more efficient methods in order that their interests may remain with agriculture and that better living in the country be established. He pointed out where country life was the most ideal and people were most successful it was in connection with live stock production.

The meeting was also addressed by Mr. E. T. Robbins, county representative of Tazewell county, Illinois. He has been successful in working in the horse-breeding center. He told of the achievements of the Tazewell County Percheron Breeders' Association in the way of producing and selling pure-bred and grade Percherons. He pointed out the essentials necessary to the production of high-class draft horses. The importance of feeding them during their growth and bringing them into an attractive condition for market.

The association went on record approving the present regulation of the Wisconsin stallion law. They also voted to continue futurity prizes at the Wisconsin State Fair. This has been a most successful venture of the association in stimulating the breeders to bring out high-class yearlings for public exhibition. The association will hold a horse show in the stock pavilion of the agricultural college on March 13, 1917. J. G. Fuller.

Assoc. Prof. of Animal Husbandry, Wisconsin College of Agriculture.



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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Delicious Baked Ham.

To the Editor:—In a recent issue I noticed an inquiry about how to cook a ham, and will try to answer "Eloise."

Select a small ham, wash and trim. Place it in a large kettle on the stove, covering with cold water. Bring slowly to a boil. Season with salt and pepper. A little mustard and cloves, onion or garlic may be added if desired. After bringing to a boil pull the kettle back on the stove and boil slowly until the ham is tender. Let stand in the liquor until cold, then remove to covered roaster, taking off skin and surplus fat. Place liquor in roaster and cover ham with a stiff batter made of flour and water, being very careful to keep the shape of the ham. Roast until very tender. A dressing of stale bread may be made, or brown gravy is delicious to serve with the pork.

I hope this will be of help to someone, because I get so much enjoyment from the home department. I only wish more of the farmers' wives would write. Let us each do our share to make the home department interesting. Mrs. R. L. G.

Canning Hominy.

To the Editor:—Can any of the readers of this department give me a recipe for canning homemade hominy? I make it with soda and would very much like to can some for summer use, and I thought the best way to get a good recipe was to ask our home department readers.

When eggs are scarce try this cake recipe. One-half cup of carrots boiled until tender and rubbed through sieve. Blend one cup of sugar and one-third cup of shortening. Add one scant cup of milk alternately with two cups of flour, with which has been sifted one teaspoonful each cream of tartar and salt and one-half teaspoonful of soda. Flavor with one-half teaspoonful lemon extract. Bake carefully, as this cake burns easily. A Reader.

The Home Meat Supply.

To the Editor:—I have read in your paper so many different ways of taking care of meat, especially beef, that I would like to tell you of our way of doing this, and also of canning meat, which I think much easier than those of which I have read.

We generally kill our beef in the morning and get it into the house before it freezes. Then cut it into pieces ready for cooking and leave until the animal heat is all out. We then take a dishpan with salt in it and salt the pieces pretty well, shaking off all the loose salt. When this is done we pack it in a tight barrel, cover with a lid and put where it will freeze, and as long as it lasts the meat is good and fresh.

In canning beef, if I am cooking beef for dinner, I fill my kettle or roaster full and cook with plenty of water. Then I cut it in pieces that will go into a glass jar, filling it to within about two inches of the top. Then fill with hot broth and seal. The fat will come to the top and leave the broth below, and this helps to keep it. I can ribs and backbones the same way, leaving out the bones. Sausage, tenderloin and steak I fry with plenty of fat, and when done pack the meat in glass jars, pour boiling water into the hot fat, fill the jars and seal. I have used this method of canning meat for a good many years and the meat is always good and fresh. Mrs. M.

THE YOUNG FOLKS.

When Lincoln Was a Boy.

Dear Young Folks:—I have read the Young Folks' letters many times and enjoy them very much. You know what a great man Lincoln was. He was a great fellow to read books. When he was a boy if any of the neighbors had a book he was sure to borrow it. One of the neighbors had a book about Washington, and Lincoln walked three miles to borrow it and read it on the way home. He thought it was a very interesting book and he thought he might as well be a great man too. He read the book until midnight, then crawled up the ladder to the loft where he slept. He took the book with him and stuck it between two logs.

When he awoke in the morning he heard rain falling on the roof. He took the book and was going to read it, but it was wet. He went down the ladder, built a fire and dried the leaves. Then he took it back to the neighbor and said, "I am sorry the book is spoiled. How can I make it right with you?" And the neighbor said, "You may work for me three days and the book will be yours." So Lincoln pulled weeds and did other things to earn the book and he read it over many times and became a great man. —Carl.

He Went a Fishing.

Dear Young Folks:—I am going to tell you what happened to me when I was fishing at Haymeadow river. First I baited my hook, then threw it in the river. I put my pole on two crotches and went after some wood with three other boys When we came back one boy had a chub on his hook, the other two boys each had a sucker and I had a trout. But to my surprise he fell back in the water. The oldest boy of the three laughed at me and said that if he had that trout on his hook he wouldn't let it go. One day after that he lost two trout.

When it was getting dark we built a fire and the fish began to bite. When we stepped in our boat I slipped and fell into the water and got wet. The other boys pulled me out and we rowed home very fast. —Martin.

Loves Her Pets.

Dear Young Folks:—My mother died when I was seven months old and I have lived with my grandparents ever since. They are very good to me. They gave me a calf and I just love it because it is so good and gentle.

I have three pet rabbits and when I go out to feed them they stand up on their hind feet with their little hands turned down. I have a dog, too, and his name is Max. He will go after the cows. He is nine years old.

Someone has been asking for some recipes, so I will give one for cake. One cup of sugar, one egg, one cup of sweet milk, two teaspoonf ls of baking powder, one and one-half cups of flour, two tablespoonfuls of melted butter. —Pernie.

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WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

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1735—Men's negligee or outing shirt, with sleeve in either of two lengths and collar rolled high or low. The pattern is cut in 7 sizes: 38, 40, 42, 44, 46, 48 and 50 inches breast measure, neck measure in sizes, 15, 15½, 16, 16½, 17, 17½ and 18. It requires 3½ yards of 36-inch material for a 17-inch neck size.

1984—Ladies' house dress, with sleeve in either of two lengths. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¾ yards of 36-inch material for a 36-inch size.

1789—Ladies' negligee or dressing sack. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3⅝ yards of 44-inch material for a 36-inch size.

1604—Ladies' apron with or without belt. The pattern is cut in 3 sizes: Small, medium and large. It requires 4⅞ yards of 36-inch material for a medium size.

1675—Girls' dress in surplice style, with two styles of sleeve. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3⅛ yards of 44-inch material for an 8-year size.

Waist 1994-Skirt 1981—A charming

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frock for afternoon wear or calling. Waist pattern 1994 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1931 in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 8¾ yards of double width material for a 36-inch size, for the entire dress. Two separate patterns 10 cents for each pattern.

1991—Girls' dress in overblouse style, with guimpe. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 1¾ yards of 36-inch material for the guimpe and 3½ yards for the dress, for a 12-year size.

1985—Ladies combination corset cover and drawers. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 3¼ yards of 36-inch material for a 38-inch size.

Blouse 1982-Skirt 1992—A good suit for sport and school. The patterns are cut in 3 sizes: 16, 18 and 20 years. The skirt requires 3½ yards of 36-inch material for a 16-year size. The blouse

requires 3¼ yards. Two separate patterns 10 cents for each pattern.

2002—Boys' Russian suit, with or without revers, collar and shield. The pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 3¾ yards of 36-inch material for a 4-year size.

1997—Children's dress, with sleeve in either of two lengths. The pattern is cut in 5 sizes: 6 months, 1, 2, 3 and 4 years. It requires 2½ yards of 36-inch material for a 2-year size.

1689—Ladies dress, with sleeve in either of two lengths. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 44-inch material for a 3 -inch size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for February 18, 1917.

Jesus Heals Nobleman's Son.

LESSON TEXT—John 4:43-54.

GOLDEN TEXT—As thou hast believed, so be it done unto thee.—Matt. 8:13.

This event occurred a few days after that of last Sunday's lesson It was Jesus' second miracle in Cana. John the Baptist is still preaching, and Jesus is closing the first year of his ministry and beginning his work in Galilee. Teachers should bring a vivid picture of Galilee to their classes, as that was one of the important fields to which our Master devoted much of his time. (For description see some good Bible distionary.) The people of that land were more wordly, less bound by conventionalities, and more accessible to the teachings which Jesus brought than those of Judea.

I. Supplication (Testing) vv. 43-49. Jesus left the revival at Samaria (vv. 39-44) and returned to Galilee. His own people of Nazareth refused to accept him "for a prophet hath no honor in his own country." It was in Galilee that he had his great victories. Here he was welcome (v. 45) because they had known the things that he did at Jerusalem, the report of which was brought back by those who had visited the feast (John 2:14-17). In Cana (Ch. 2:11) one came to him who was a king's officer, one who was used to command, and whose great personal need overcame any prejudice (Matt. 9:18; Luke 7:2). God uses afflictions oftentimes to drive us to him, and the most effective way to induce men to come to Jesus is to bring them to recognize their need which he alone can supply. The lad was "at the point of death," hence the father's journey of twenty miles from Capernaum to Cana, seeking help. We have here the weakness of faith indicated in verse forty-eight, in that the man would not believe except he should see signs and wonders. We have also the earnestness of the man in verse 49. "Sir, come down ere my child die." Man's extremity is ever God's opportunity. Not only extreme cases of sickness can be brought to him, but extreme cases of sin as well (I Tim. 1:15; Heb. 7:25). He can heal not only those who are "at the point of death" but those who are already dead (Eph. 2:1). The child was dying, the father had not strength to wait to see wonders, but he could and did trust Jesus to heal his son.

II. Surrender (Trusting) vv. 50-51. When the soldier took Jesus at his word, he surrendered his previous conception, and accepted the word of God; literally acting upon his belief. He went his way because he believed. He did not ask Jesus again to go to Capernaum. We must not confuse this kind of faith, however, with his having accepted Jesus as Savior. He accepted Jesus only as healer.

III. Satisfaction (Triumph) (vv. 52-54). The father's faith rose to the need for "he believed the word that Jesus spake." That word did not seem at all probable, but it was enough. The word of Jesus who is, himself, the truth, is a sure and more reasonable ground of faith than any amount of speculation. This father's walk from Cana to Capernaum was a walk of faith. He had nothing but a bare promise to support him, yet on his return he found his son living (v. 52). On this word of Jesus he, himself, believed, and his whole house.

IV. Suggestions (1) The living, personal presence of Christ is not needful. It was a wise provision of God's economy that Christ should have returned to heaven.

(2) Acts are the true indications of our faith. God's written revelation and the revelation of his son, the Living Word, and the witness of the experience of God's saints are sufficient facts upon which to base faith.

(3) Faith is progressive. Notice the growth from verses 48 to 50 and 53. At first the man believed in Jesus' power; then he believed in Jesus' word, and believed in Jesus, himself; then he reaches the highest point in that he does not believe alone, for his whole house believed with him.

(4) Faith is the source of all Christian gifts and graces. We have an advantage over these Galileans of nearly nineteen centuries of what Christ has wrought among the peoples of the earth among those who have believed on him.

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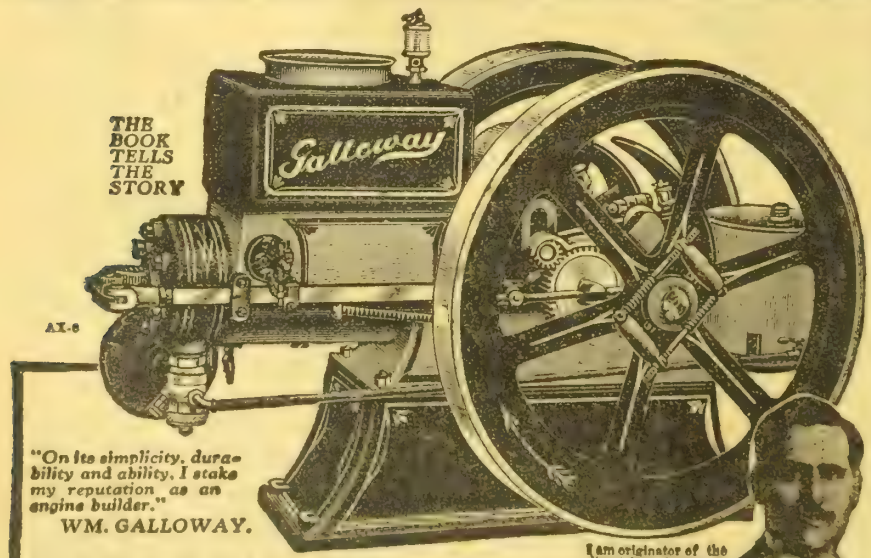

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TOLD IN THE HILLS

By Marah Ellis Ryan

Author of "That Girl Montana," "The Boatswoman," "My Quaker Maid," Etc., Etc.

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PART IV--One Squaw Man.

CHAPTER IV—Continued.

"I'm going to take the trail for the Kootenai village, if any white man is let reach it, or patch up the infernal blunder that's been made, I can do it with him," and his hand lay on the breast of the shrouded thing before him.

"If I get out of it alive, I'll be back to meet the Major; if I don't—and this time his significant glance was turned unmistakably to the blue coats and their leader—"and if I don't, you'd better pack your carcasses out of this Kootenai valley."

So, with a curse for them on his lips, and the dogged determination to save them in his heart, he nodded to Hardy, clasped the hand of Stuart, and turning Mowitza's head, started with that horrible burden back over the trail that would take a day and a night to cover.

The men were grateful for the bravery that had saved their lives, but burned under the brutal taunts that had spared nothing of their feelings. His execrable temper had belittled his own generosity.

He was a squaw man, but they had listened in silence and ashamed, when he had presumed to censure them. He was a horse thief, yet the men who believed it watched, with few words, the figure disappear slowly along the trail, with no thought of checking him.

CHAPTER V.
His Wife's Letter.

IN THE bosom of Rachel's family strange thoughts had been aroused by that story of Genesee's escape. They were wonderfully sparing of their comments in her presence; for, when the story came to her of what he had done when he left her, she laughed.

"Yet he is a horse thief," she said, in that tone of appreciation that expresses praise, "and he sent me his glove? Well, I am glad he had the grace to be sorry for scattering me over the floor like that. And we owe it to him that we see you here alive again? We can appreciate his bravery, even say prayers for him, if the man would only keep out of sight, but we couldn't ask him to a dinner party, supposing we gave dinner parties, could we, Tillie?"

And Tillie, who had impulsively said, "God bless him!" from the shelter of her husband's arms, collapsed, conscience-stricken and tearful.

"You have a horrid way, Rachel, of making people feel badly," she said, in the midst of her thankfulness and remorse; "but wait until I see him again—I will let him know how much we can appreciate such courage as that. Just wait until he comes back!"

"Yes," said the girl, with all the irony gone from her voice, only the dreariness remaining, "I'm waiting."

The words started Tillie to crying; for, in the recesses of her own bosom, another secret of Genesee's generosity was hidden for prudential motives—the fact that it was he who had sent the guide for Rachel that terrible night of the snow. And Tillie was not a good keeper of secrets—even this thoroughly-wise one was hard to retain, in her gladness at having her husband back!

"The man seems a sort of shepherd of everything that gets astray in these hills," said Lieutenant Murray, who was kindly disposed toward all creation because of an emotional, unsoldier-like welcome that had been given him by the little non-commissioned officer in petticoats. "He first led us out of that corral in the hills and brought us back where we belonged, and then dug up that dead Indian and started to take him where he belonged. I tell you there was a sort of—of sublimity in the man as he sat there with that horrible load he was to carry; that is, there would have been if he hadn't 'cussed' so much."

"Does he swear?" queried Fred.

"Does he? My child, you would have a finely-trained imagination if you could conceive the variety of expressions by which he can consign a citizen to the winter resort from which all good citizens keep free. His profanity, they say, is only equaled by his immorality. But, ah—what a soldier he would make! He is the sort of a man that men would walk right up to cannon with—even if they detested him personally."

"And a man needs no fine attributes or high morality to wield that sort of influence, does he?" asked Rachel, and walked deliberately away before any reply could be made.

But she was no more confident than they of his unimpeachable worth. There was the horse thieving still unexplained; he had not even denied it to her. And she came to the conclusion that she herself was sadly lacking the material for orthodox womanhood, since the more proof she had of his faults, the more solidly she took her position for his defense. It had in it something of the same blind stubbornness that governed his likes and dislikes, and that very similarity might have accounted for the sort of understanding that had so long existed between them. And she had more than the horse stealing to puzzle over. She had that letter he had thrust in her hand and told her to read; such a pleading letter, filled with the heart sickness of a lonely woman. She took it out and re-read it that time when she walked away from their comments; and reading over the lines, and trying to read between them, she was sorely puzzled:

Dear Jack: I wrote you of my illness weeks ago, but the letter must have been lost, or else your answer for I have not heard a word from you, and I have wanted it more than I can tell you. I am better, and our little Jack has taken such good care of me. He is so helpful, so gentle; and do you know, dear, he grows to look more like you every day. Does that seem strange? He does not resemble me in the least. You will think me very exacting, I suppose, when I tell you that such a child, and such a home as you have given me, does not suffice for my content. I know you will think me ungrateful, but I must speak of it to you. I wrote you before, but no answer has come. If I get none to this, I will go to find you—if I am strong enough. If I am not, I shall send Jack. He is so manly and strong, I know he could go. I will know then, at least, if you are living. I feel as if I am confessing a fault to you when I tell you I have heard from him at last—and more, that I was glad to hear!

Jack—dear Jack—he has never forgotten. He is free now; would marry me yet if it were possible. Write to me—tell me if it can ever be. I know how weak you will think me. Perhaps my late ill health has made me more so; but I am hungry for the sound of the dear voice, and I am so alone since your father died. You will never come back; and you know, Jack, how loneliness always was so dreadful to me—even our boy is not enough. He does not understand. Come back, or write to me. Let my boy know his father, or else show me how to be patient; this silence is so terrible to Your Wife.

Jack, what a mockery that word looks—yet I am grateful.

This was the letter he had told her to read and give to Stuart; if he never returned; but she gave it to no one. She mentioned it to no one, only waited to see if he ever came back, and with each reading of that other woman's longings, there grew stronger in her the determination that his life belonged to the writer of that letter and her child—her boy, who looked like him. Surely there was a home and an affection that should cure him of this wild, semi-civilized life he was leading. She was slipping away that almighty need he had shown of herself. She grimly determined that all remembrance of it must be put aside; it was such an unheard-of, reasonless sort of an attraction anyway, and if she really had any influence over him, it should be used to make him answer that letter as it should be answered, and straighten out the strange puzzles in it. All this she determined she would tell him—when he got back.

(To be continued.)

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Ailing Animals.

Injured Teat.

Would like to have you tell me what to do for my cow. She cut one of her teats on barbed wire and it healed up but left a hole and now the milk runs out alone from this hole.

Your cow is troubled with a fistulas tract in her teat. The only way to remedy this is for your veterinarian to operate on this when the cow is dry, but the best thing is to fatten and sell her.

Paralysis.

One of my hogs is weak in his hind legs so that he cannot stand on them. He weighs about 200 pounds and he eats and drinks well. I feed him corn three times a day and oil meal and tankage and salt mixed twice a week, and he gets all he wants to drink. I would be very glad to get some information as to what may be the matter with him and what to do for it.

This trouble probably comes from feeding heavily of food rich in fat. Change feed gradually to oats and do not feed such rich slops and the trouble may disappear.

Abortion.

Can you tell me what to do for cows that have their calves before time?

Some headway may be made in combating this disease if one is diligent in his efforts. The disinfectant method, which has so often been referred to in these columns, has proven most beneficial. The local veterinarian should be called to start you out right in this line of treatment. Those animals that have not aborted should be removed from lots and pastures where affected ones are. All aborted material should be burned and the premises thoroughly disinfected. The bull should be subjected to a sheath disinfection both before and after serving a cow of such a herd. One must put in some time and real, earnest labor if he wishes returns for his trouble. The use of a vaccine is claimed by some to get results as a preventive.

Warts on Calves.

Can you tell me what to do for warts on calves?

You do not state the nature of warts present, hence it would be hard to prescribe. If they are just common warts try the use of castor oil, this to be applied directly to the wart. They may also be cut off with sharp scissors, or even caustic can be applied, but this should be applied by one familiar with it.

Leucorrhea.

I have an old mare that has never, to my knowledge, had a colt. I bred her several times, but she fails to catch. Now she is discharging a whitish substance, as much as a pint a day. She eats well and in every way seems to be all right.

The mare probably never will breed. She is troubled with a chronic trouble no doubt. Treatment should consist of the use of tonics (as sulphate of iron, three drams daily on feed) and washing out the womb and vagina with a solution composed of lysol, two teaspoonfuls; tannic acid, one-half dram; water, one quart. This may be repeated two or three times a day.

Injured Carpus (Knee).

I have an eight-year-old mare that ran away, fell and cut one front knee joint to the bone. I washed it and dressed it and it didn't heal for about six weeks. I used liniments and different remedies. It formed pus and ran. It is healed now, but she is lame and around the joint it is swollen quite large and seems as solid as a bone, and is sore. Can you tell me what to do for it?

The periostium covering the bone has probably been injured in this region, causing an excessive growth of bone. Blister the affected parts with some good veterinary blistering agent and repeat in two or three weeks. This may take away the soreness, but probably part of the enlargement will always remain.

Infection From Kick.

We have a horse that was kicked about the first of October in the knee of the hind leg. At first there was just a small hole that you could scarcely see, and then it began to swell. A veterinarian cut it open and made another hole right under the first one. A great deal of matter came out. Now it is swollen up higher and three holes sprang open, so now there are five holes in the leg. If we force water in any of the holes it will run out all five. We clean it with creolin and matter still comes out. Could you tell us what to do? Could we use carbolic acid, and how?

The knee is the stifle joint in a horse. It is probable that the injury was of such a nature that it caused quite an infection, which has become metastatic in nature. You did not say whether the animal was much lame or not. Clean the parts well and inject tincture of iodine in the parts. Repeat in two or three days. Yes, you can use carbolic acid, but do not use stronger than 2 per cent solution.

Cough and Thumps in Pigs.

Please tell me what ails my September pigs weighing about seventy-five pounds each. They seem to have a bad cough and I have been unable to stop it. They look well and eat well, but they cough so hard that they get thumpy. I lost one some time ago and one got well. Now two more have the thumps. I am feeding only a little corn and good rich slop of oil meal and chop feed. I use a feed cooker to take the chill off the slop but do not warm it. They have good sleeping quarters, have dry bedding every day or every other day, and are separated into lots of ten or twelve at night so they do not pile up to speak of. Please tell me what I can do for those with the thumps and also those with the cough.

It would be hard to say what is causing the cough in the pigs, as there are so many causes for cough. However, the cause of the thumpy condition is probably indigestion. Cut down on your rich slops and feed some oats for a while, and the thumps will probably cease.

Exostosis Below Knee.

I have a young driving mare that has a little lump on her front leg just below the knee. It isn't very big and seems to be as hard as the bone itself. It does not hurt her any and I do not know what could cause it. I have been driving her single some, but very little. Could you tell me if it is anything serious?

This is probably a bony growth brought about through some inflammation. If it does not injure the animal we would advise you to leave it alone.

Stricture.

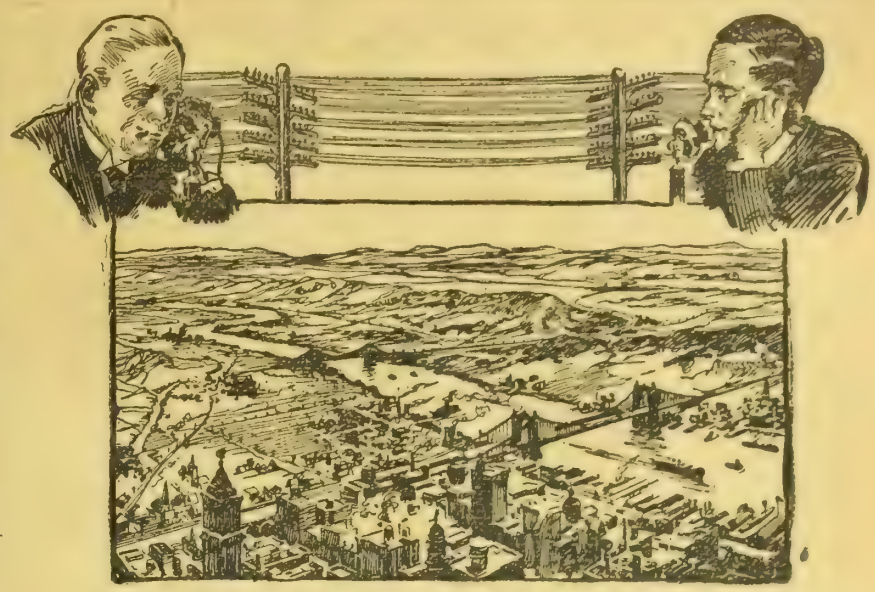
Could you tell me the cause and give me a cure for the following ailment in my cow which has come on since she was fresh? She has one teat where the milk does not flow readily. I must squeeze the milk from the bag into the teat before milking it. Last year she occasionally gave bloody milk.

This teat is probably strictured to some extent. As to treatment, you might get some results from the use of a milk tube. The tube should be thoroughly sterilized with boiling water before using and you should be careful not to injure the teat when inserting the tube.

Persistent Sore From Injury.

When our pony was thirteen months old we tied a bell on his halter. He ran in the pasture with this bell and after about two months we noticed there was a sore under the bell. We took off the bell and the sore started to heal up. Whenever anything touches the sore he starts to scratch it again so that it does not get very much better, but rather worse.

Such sores are sometimes troublesome to heal. Try the application once daily of tincture of iodine to the sore. Do this for a few days and keep the animal from rubbing the sore. If it does not heal then you had better consult a veterinarian.



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Benefits From Soil Examination.

Farmers of Rock County Well Pleased With Work of W. W. Weir, of Wisconsin Station—By Allen B. West.

SOME of the Rock county farmers have taken advantage of the offer of the Wisconsin College of Agriculture and had their soils tested in the State Soils Laboratory. They have derived such benefit from it that they are recommending other farmers to take advantage of the same offer. If five farmers in the same town make application for a soil survey, a man will be sent to the farms to take samples. These samples will be sent to the laboratory at Madison and each farmer will, when the list has been made, receive a report and with it a letter, advising what the soil needs and how to build it up. The cost to each farm where five unite in the town is $3. Where a man is sent to one farm alone the cost is $5.

Below is given a copy of a report for a farm in the vicinity of Janesville, given here because it is believed it will be helpful to other farmers. The report is made by W. W. Weir, of the Wisconsin station:

Topography of Farm—Generally rolling.
Drainage—Generally good.
Type of Farming—Dairying.

Soil Samples Collected.

Two samples of soil were collected from this farm. No. 1 (light colored silt loam) was taken from the north grain field. This sample represents the higher land which has long been cropped. Sample No. 2 (black silt loam) was collected from a cornfield on the flat. This sample represents the alluvial soil deposited by streams in years gone by. Both of these samples were analyzed as indicated in results below:

Sample No. 1, Nitrogen, 0.07 per cent; phosphorus, 0.06 per cent; potassium, 0; acid.

Sample No. 2, nitrogen, 0.28 per cent; phosphorus, 0.08 per cent; potassium, 0; strongly acid.

Analysis and examinations interpreted.

General Remarks.

This report is written from the standpoint of the future improvement of the soil examined. The recommendations herein given point out the method of improvement and give the outline whereby the fertility of the soil may be maintained and improved in the future. Recommendations, therefore, given in this report are not for one year only, but for the future. The three most important elements that farm crops require for their best growth and development are nitrogen, phosphorus and potassium.

Without nitrogen plants will not grow. Nitrogen is considered the most important plant food element and is required by all crops in producing growth.

The next important element is phosphorus. In the average soil, the supply of this very important plant food material is not large, and for this reason attention should always be given to the maintenance of this soil constituent. It is that element which is used by all plants, especially in the development of grains and seeds.

Potassium is the third element very essential for all crops. Soils of the character as is represented by these two samples usually contain an inexhaustible supply, and for this reason, these samples were not examined for potassium. The test for acidity tells whether or not the soil is in need of lime.

Discussion of Analysis—Sample No. 1.

The soil represented by this sample is very typical of long-cropped fields in southern Wisconsin. Originally these soils contained a good supply of all the plant food elements including lime. In other words, the soil was then balanced concerning its fertility and contained large amounts of easily soluble plant food material. For this reason crops grown on these lands in the early days were exceptionally good. The grain raised there grew on long straw, which stood up until it was cut. Now, after many years of cropping it is very evident from the results produced that there is something wrong—there is something gone out of these soils which the crops need. This particular soil shows a lack of nitrogen. Seven-hundredths of 1 per cent is to be considered a very small amount of this element. As a rule highly productive soils of this character contain on an average about twenty-five-hundredths of 1 per cent. Thus we see, as far as the nitrogen of this soil is concerned it may be considered hungry for nitrogen and humus.

The fact that this soil is rather light colored indicates low humus content, and since the humus is low the nitrogen also is low. This condition can be best corrected through the use of clover. The plowing under of a good clover sod (and now and then a clover crop) will go a long way in improving this soil as regards the nitrogen and humus supply. It would be well to throw this particular field into a three-year rotation, such as corn, grain, clover, so that clover sod and a second growth of clover may be plowed under at least once in three years.

In order to succeed best with clover it is necessary that this soil should be limed. The acidity present will do a great deal of harm, in that it will prevent the maximum growth of clover, and also will produce "unsanitary" conditions which will hinder maximum production of grain and corn. A two-ton application of pulverized limestone per acre is recommended—this to be thoroughly mixed with the soil when it is applied. It would be a good plan to apply the lime to the corn land, so as to double the lime to destroy the acidity before clover is seeded.

The phosphorus supply as indicated by six-hundredths of 1 per cent may be considered a fairly good supply or reserve from the standpoint of potential fertility, but so long as the soil remains acid and the nitrogen and humus supply is so very low, this phosphorus supply is in a more or less "tied up" condition. It is reasonable to believe, therefore, that crops suffer for the want of available or soluble phosphorus to produce maximum crops. The potassium content was not determined since soils such as are found on this farm contain sufficient amounts of this element. When other conditions in the soil are favorable, such as concerning acidity and the nitrogen and humus supply, the potassium supply generally takes care of itself.

Recommendations for Improving This Soil.

The first step to be considered in the improvement of this soil is liming. This will destroy the acidity and put the soil in better condition to grow clover. When this is accomplished, the next step in its improvement concerns the phosphorus supply. For the first few years, especially soluble phosphate such as is contained in acid phosphate, should be used at the rate of at least 500 pounds per acre for corn and about 300 pounds for grain. When applied to corn it may be mixed with the manure. The applications recommended here are not sufficient to increase the phosphorus supply of the soil, but rather to help the crops in getting the phosphorus they require. In this way, the draft upon the phosphorus reserve of the soil is lessened and in turn there will be created in the soil a greater supply of available phosphorus. The average phosphorus content of fertile soils of this character is approximately one-tenth of 1 per cent. It is not necessary to increase the phosphorus content of the soil up to that per cent before you can realize maximum growth. The recommendations herein given will provide for an immediate supply, and if this practice is continued little difficulty will be experienced in crop productions on account of lack of phosphorus.

The lime and phosphorus applications will greatly promote the growth of clover. This in turn will produce better sod and deeper roots and more second growth. Thus after these treatments are made, and, as three-year rotation is practiced, a great deal more humus in the form of roots and so on will be plowed under. Continue this for some time and good results will be secured. Farmers who have practiced similar methods as outlined herein have been well compensated for all their trouble.

Sample No. 2.

The soil represented by this sample has a good nitrogen reserve and a very good phosphorus content. The potassium content is to be considered good also.

The weak point concerning this soil is its high degree of acidity. As an initial application, at least two tons of finely ground limestone should be applied per acre. Since this soil is so strongly acid, the benefits derived from the application of lime will not be very great for the first few years after application. It will take some time for the lime to act and to correct this acid condition which has been the result of many years of leaching. The immediate effect of liming will manifest itself in the clover crop and indirectly in other crops such as grain and corn.

It is important to remember that this soil requires the addition of humus in the form of clover sod in order to maintain a high producing power. Even though this soil does contain a high nitrogen content it does not mean that no attention whatever should be given to this element. Organic matter, such as clover sod which can easily rot in the soil, is what this soil will need above anything else to maintain its fertility. The application of lime will greatly benefit the clover grown on this land.

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NEWS OF THE SALE RING

Dunbar Holstein Dispersion.

The dispersion sale of the Holstein herd of Harry Dunbar, held Tuesday, January 30th, at Elkhorn, Wis., was another demonstration that there is a big demand for registered Holsteins of the right kind. The sale was held on the farm and a large crowd attended. It is estimated that there were more than 500 people present. Bidding was brisk. James McKone, of Green Bay, Wis., paid the top price at the sale when he took No. 14 at $800. He bought eight head of females and one bull, paying good prices for them all. Mr. Fred Southcott, manager of the Gustav Pabst Farm at Dousman, Wis., was present and took four exceptionally good animals. A. P. Kaye, Walworth, Wis., one of Wisconsin's leading breeders purchased two females at $500 and $475, respectively. It was a right good sale throughout and young breeders should feel encouraged by the success which Mr. Dunbar has achieved.

FEMALES.

3. James McKone, Green Bay, Wis. $200
4. W. J. Jenkinson, Monroe, Wis. 150
5. Jas. McKone 300
6. W. J. Jenkinson 155
7. Jas. McKone 305
7½. W. J. Jenkinson 125
8. A. P. Kaye, Walworth, Wis. 500
9. A. P. Kaye 475
10. Jas. McKone 580
11. Cook Bros., Burlington, Wis. 470
12. Jas. McKone 425
13. M. Westphal, Elkhorn, Wis. 400
14. Jas. McKone 800
15. W. H. Latta, Clinton, Wis. 400
17. Jas. McKone 350
17½. M. Westphal 100
18. Gustave Pabst, Oconomowoc, Wis. 625
18½. Gustave Pabst 160
19. L. W. Swan, Elkhorn, Wis. 310
20. W. G. Fisher, De Forest, Wis. 275
22. Merton Matteson, Walworth, Wis. 185
23. J. S. Roe, Elkhorn, Wis. 245
24. M. C. Bartholomen, Lodi, Wis. 250
25. M. C. Bartholomen 300
26. M. C. Bartholomen 150
27. W. H. Latta 125
28. F. B. Green, Evansville, Wis. 180
29. Gustave Pabst 400
30. W. J. Jenkinson 180
31. W. G. Fisher 180
32. W. J. Jenkinson 200
33. Elmer R. Blackmer, Beloit, Wis. 150
34. Jas. McKone 300
35. W. J. Jenkinson 180
36. M. C. Bartholomen 185
37. Earl Pierce, Elkhorn, Wis. 200
38. W. J. Jenkinson 180
39. Marion A. Loomis, Kansasville, Wis. 180

BULLS.

2. W. J. Jenkinson 270
16. W. H. Latta 170
21. Jas. McKone 310
25½. Chas. W. H. Smith, Delavan, Wis. 75
24½. Alex Murphy, Elkhorn, Wis. 50
40. W. G. Fisher 150
41. Henry Williand, Beloit, Wis. 135
42. P. J. Weter, Hebron, Ill. 100
43. R. G. Lannon, Delavan, Wis. 125
44. A. P. Kaye 170

SUMMARY.

38 females..$10,875; average....$286.18
10 bulls .... 1,555; average.... 155.50
48 head .... 12,420; average.... 258.95

Swine Sale At Madison.

The first sale of registered swine held at Madison was a grand success in every respect and those that had the sales in charge are to be congratulated on the efficient manner in which the sales were conducted. The Duroc men had the stage in the afternoon and a throng of people were in the pavilion to see the show—some were spectators, of course, but we are glad to know that they showed enough interest in better swine and what the breeders of the state are doing for the hog industry in Wisconsin. The breeders are to be congratulated on the good hogs they consigned to this sale.

THE DUROCS.

Lloyd Seely opened the Duroc sale in a very fitting manner and made many friends among the breeders by his high-class salesmanship. The top of the sale was an Atwater entry, same going to Riley Martiny & Son at $175. Some wonderful sows and gilts were sold, well grown and well bred and there was no lack of bidding when the best ones entered the ring. It was a great lesson to the beginner and showed conclusively that the good sows are the best to buy, for their produce commands the top prices. While the Durocs were being sold the Poland men attended to the hogs that were being sold and in this manner the Duroc men had an opportunity to buy if they so desired. While the Polands were being sold the Duroc men handled the sale. The two breed associations worked hand in hand, a very fitting manner. The average on the Durocs was a few cents less than $80. As mentioned above, all connected with the sale were very well satisfied with the outcome, yet no sows sold at an exorbitant price, it was a clean sale in every respect.

No. 1, M. F. O'Keefe, Waunakee, Wis., $60; 2, F. P. Lonsdale, Ft. Atkinson, Wis., $50; Sub. for No. 3, Ludwig Larson, Bangor, Wis., $47.50; 4, Geo. Morse, Genoa, Wis., $50; 5, G. W. Ash, Roberts, Wis., $50; 6, H. E. Braatz, Brandon, Wis. $52.50; 7, E. E. Butterbrodt, Beaver Dam, Wis., $120; 8, W. G. Barthoff, Burlington, Wis., $155; 9, W. A. Webb, Poynette, Wis., $75; 10, A. H. Miller, Waupun, Wis., $70; 11, C. F. Lally, Oregon, Wis., $60; 12, C. F. Lally, $67.50; 13, Riley Martiny & Son, Baraboo, Wis., $175; 14, Geo. Sprain & Son, West Salem, Wis., $95; 15, Joe O. O'Brien, Madison, Wis., $75; 16, Ralph Wheeler, De Forest, Wis., $60; 17, J. B. Wilkinson, Waupun, Wis., $40; 18, C. F. Lally, $70; 20, M. O'Keefe, $90; 21, Mercer Bros., Spring Green, Wis., $50; 22, C. F. Lally, $80; 23, August Jerke, Blue Mounds, Wis., $77.50; 24, G. W. Beck, Bloom City, Wis., $72.50; 25, F. W. Rodgers, Beaver Dam, Wis., $105; 26, Ludwig Larson, $90; 27, F. W. Rodgers, $95; 28, E. G. Kreuger, Ixonia, Wis., $82.50; 29, A. H. Miller, $62.50; 30, A. L. Gabler, Highland, Wis., $40; 31, F. G. Crothers, Kilbourn, Wis., $42.50; 32, Lawrence Weimers, Rochester, Wis., $55; 33, H. E. Brandon, Brandon, Wis., $65; 34, John Fisher, Janesville, Wis., $77.50; 35, Allic Knudson, Brodhead, Wis., $130; 36, H. E. Braatz, $102.50; 37, Herman Schoen, Manawa, Wis., $105; 38, Ed Bruins, Fairwater, Wis., $80; 39, Lawrence Weimers, $65; 40, Herman Schoen, $80; 43, C. F. Lally, $62.50; 44, W. F. Wrenk, Sun Prairie, Wis., $45; 45, F. R. Constance, Waupun, Wis., $112.50; 46, W. C. Jenkins, Bangor, Wis., $67.50; 47, C. A. Peterson, Rosendale, Wis., $140 ;48, J. W. Thomas, West Bend, Wis., $112.50; 50, E. Bartholomew, Fennimore, Wis., $65; 51, C. W. Carnes, Mazomanie, Wis., $82.50. Summary: 47 head sold for $3,717.50; average, $79.75.

THE POLANDS.

There was an even larger crowd in attendance at the night sale than there was in the afternoon. Some very timely remarks were made before the opening of the sale by Professors Tormey and Fuller and Messrs. Ray Davis and L. P. Martiny. Ira Cottingham opened the Poland sale and worked hard for the success of the sale. The Poland breeders had their offering in excellent condition and many sows were sold that cannot be duplicated at the prices they brought. The top of the Polands was an aged sow from the McDonald herd—a large, smooth sow purchased by Wm. Smiley & Son at $162.50 and she was a good buy at that figure. The top gilt also came from the McDonald herd and went to W. W. Quackenbush at $140. The Poland breeders were well organized and showed great team work and co-operation. The Polands made an average of $81. We are glad to call your attention to the two sale averages—only $1 difference in the two sales. You can judge for yourself which breed is the best for your surroundings.

No. 1, W. W. Quackenbush, Melrose, Wis., $125; 2, R. G. Williams, Cambria, Wis., $55; 3, Columbia Co. Asylum, Wyocena, Wis., $65; 4, A. Nuseman, Warren, Ill., $72.50; 7, W. W. Quackenbush, $115; 8, W. W. Quackenbush, $87.50; 9, E. G. Elvehjee, McFarland, Wis., $85; 10, Sam Sinder, Lancaster, Wis., $96; 11, Joe Stern, Hillside, Wis., $65; 13, Fred Buckner, Spring Green, Wis., $85; 12, R. Meinking, Bangor, Wis., $90; 14, H. F. Haeger, Hortonville, Wis., $55; 15, M. H. McDonell, Waupun, Wis., $97.50; 16, C. E. Browntree, Burlington, Wis., $72.50; 17, Sub., R. G. Williams, $57.50; 18, Dobson & Eastman, Lancaster, Wis., $52.50; 19, W. M. Swanton, Homewood, Ill., $70; 20, Chas. Browntree, $60; 21, E. J. Storer, Madison, Wis., $80; 22, A. Bentley, Beloit, Wis., $67.50; 23, L. Webber, Dane, Wis., $62.50; 24, R. F. Brunker, Ridgeway Wis., $70; -5, Dobson & Eastman, $72.50; 26, R. G. Williams, $85; 27, W. W. Quackenbush, $112.50; 28, Smiley & Son, Albany, Wis., $110.00; 29, Sub. E. M. Robbins, Cambria, Wis., $70; 30, E. Bolls, Waunakee, Wis., $62.50; 31, J. D. Little, Janesville, Wis., $52.50; 32, Jas. Derivan, Fox Lake, Wis., $67.50; 33, P. Doyle, Portage, Wis., $77.50; 34, Sub., A. Bergem, De Forest, Wis., $90; 35, J. H. Peterson, Kilbourn, Wis., $60; 36, L. P. Martin., Chippewa Falls, Wis., $100; 37, Smiley & Son $100; 38, L. P. Martiny, $95; 39, Dr. G. H. Staumard, $87.50; 40, W. W. Quackenbush, $140; 41, Dobson & Eastman, $132.50; 42, Smiley & Son, $162.50; 43, Jas. Derivan, $60; 44, Art Anderson, Morrisonville, Wis., $92.50; 45, R. G. Williams, $62.50; 46, J. H. Peterson, $60; 47, A. W. Cole, Lodi, Wis., $52.50; 48, O. Onsrud, Stoughton, Wis., $55; 49, J. H. Peterson, $75; 50, A. Bergem, De Forest, Wis., $60. Summary: 48 head sold for $3,881; average $80.85.

Madson's Poland China Sale.

There was a large crowd of people at the Poland China sale of M. Madson & Sons, Madison, Tuesday, February 6th. The animals were in fine condition and were a credit to this progressive firm. It was evident that many of those present were waiting for the offering at the consignment sale to be held the day following. The tops in the sale were picked up at good prices and were quickly sold. Most of the choice animals started at $50 and above. The top animal, Lady Price, brought $97.50 and went to F. Rasmussen, Neenah, Wis., who also took several of the other good ones. There was a marked demand for gilts due to farrow early and those due to farrow late in April were discounted heavily, which is an evidence that it was the breeders who were bidding. A detailed report is given below:

No. 1, F. Rassmussen, Neenah, Wis., $55; 2, Frank Roelke, Dane, Wis., $42.50; 3, F. Rassmussen, $97.50; 4, R. W. Nieman, Appleton, Wis., $62.50; 6, Martin Haugen, Stoughton, Wis., $37.50; 7, Lee Eastman, Lancaster, Wis., $55; 8, Wm. Black, Dallas, Wis., $60; 9, Louis Weber, Dane, Wis., $40; 10, Louis Weber, $42.50; 11, Wm. M. Richards, Lodi, Wis. $40; 12, Ed Schoenberg, Rosswell, Wis., $47.50; 13, P. S. Arthur, Cottage Grove, Wis., $37.50; 14, L. Lemon, Madison, Wis., $40; 15, 16, John Beal, Madison, Wis., $35; 17, Wm. Black, $60; 18, A. F. Gafhe, Jefferson, Wis., $37.50; 19, Ed Richardson, Madison, Wis., $40; 21, Chas. O'Neill, Bridgeport, Wis., $47.50; 24, Dr. A. S. Alexander, Madison, Wis., $40; 25, A. F. Gafhe, $37.50; 26, L. Lemon, $40; 27, E. J. Elvelhjim, McFarland, Wis., $45; 28, John Slater, Madison, Wis., $50; 29, G. A. White, Marshall, Wis., $47.50; 30, R. Martin, $47.50; 31, John Slater, $45; 32, A. W. Cole Lodi, Wis., $72.50; 33, Louis Jewellin & Son, Waterloo, Wis., $57.50; 34, R. M. Hudson, Mazomanie, Wis., $65; 35, M. H. McDowell, Waupun, Wis., $57.50; 36, John Beal, $35; 37, Mandt Bros., Madison, Wis., $32.50; 38, Carl Bargang, Watertown, Wis., $52.50; 39, J. E. Showers, Cottage Grove, Wis., $40; 40, John Beal, $35; 41, John Beal, $40; 42, E. E. Richardson, Madison, Wis., $45; 42, J. Crandston, Beloit, Wis., $35. Summary: 39 head sold for $1,812.50; average $46.50.

Cook-Scheibe-Vaughn Chester White Sale.

The Cook-Scheibe-Vaughn Chester White sale held February 5th at Burlington, Wis., although not a record maker, can be considered very good. Weather conditions were very unfavorable. The day preceding witnessed one of the worst blizzards ever had in Wisconsin. Trains were discontinued on many of the lines from the north on main lines and practically all branch lines were out of commission. Owing to these facts the crowd was not what it would have been otherwise. As the following report shows the majority of the animals were sold in the vicinity of Burlington, although a few were sold to breeders in the southern part of the state.

CONSIGNMENT OF COOK BROS.

No. 1, Andrew Van Halen, Burlington, Wis., $31; 2, H. Newell, Burlington, Wis., $33; 3, Geo. Beck, Burlington, Wis., $31; 4, Ed Subrod, Burlington, Wis., $35; 5, Wm. Fisher, De Forest, $30; 6, A. A. Gehrand, Waterford, Wis., $41; 7, Truman Davis, Delavan, Wis., $51; 8, J. C. Jensen, Franksville, Wis., $34; 9, E. B. Adams & Sons, Racine, Wis., $40; 10, Walworth County Farm, Elkhorn, Wis., $37.

CONSIGNMENT OF W. W. VAUGHN & SON.

No. 11, J. C. Jensen, $44; 13, (Sub.) A. Crane, Burlington, Wis., $45; 14, Walworth County Farm, $41; 15, A. Crane, $31; 16, A. Crane, $30; 17, A. Crane, $28; 18, A. Crane, $28; 19, A. Crane; 20, John Peterson, Union Grove, Wis., $26; 21 A. Crane, $20.

CONSIGNMENT OF W. C. SCHEIBE.

No. 23, J. C. Christian, Burlington, Wis., $42; 24, A. F. Klaehn, Burlington, Wis., $33; 25, Ernst Scheibe, Burlington, Wis., $41; 26, Joe Yanny, Burlington, Wis., $42; 27, Geo. Beck, Burlington, Wis., $33; 28, John Conrad, Hales Corners, Wis., $38; 29, Julius Scheibe, $34; 30, L. J. Cummingham, Burlington, Wis., $34; 31, Julius Scheibe, $37; 32, Julius Scheibe, $36; 33, Ernest Scheibe, Elkhorn, Wis., $44; 34, Bruce Westcott, Barton, Wis., $40; 35, Carl Hickcox, Spring Green, Wis., $66; 36, R. T. Wiswall, Spring Prairie, Wis., $57.50; 37, Sheldon Burch, Winnebago, Ill., $58; 38, Walworth County Farm, $37.50; 39, W. E. Wagner, Ft. Atkinson, Wis., $34; 40, Ernst Scheibe, $59; 41, Walter George, Evansville, Wis., $60. Summary: 39 head sold for $1,506; average $38.61.

The Thompson Holstein Sale.

The dispersion sale of Holsteins held at Argyle, Wis., January 30th by T. A. Thompson was very satisfactory, everything taken into consideration. The day was clear, but cold and the sale being held out of doors wasn't conducive to high prices or spirited bidding. While the cows did not bring high prices, the young animals, especially the young bulls brought good prices, considering the breeding and records back of them. No work had been done on the cattle up to the day before the sale, so the buyers purchased them with their "working clothes" on. E. C. Eells, Winslow, Ill., did the selling and G. H. Truckell, of the Holstein Sales Co., Elgin, Ill., was the manager and in the box. The total of the sale was $4,385—top $227.50.

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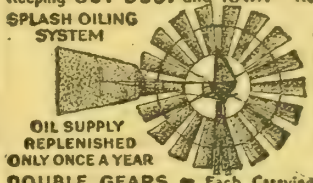

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Club Department, Wisconsin Farmer, Madison, Wis.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Dispersion of the Bell Croft Holsteins.

A HOLSTEIN sale worthy of your attention will be held at Burlington, Wis., Wednesday, March 7th, at which time J. A. Forge will sell his entire herd of 48 pure-bred Holstein cattle. One of the attractions will be Portage Pauline King 73779, a fine son of the noted King Walker (55 A. R. O. daughters' whose dam and grandam average over 30 pounds in seven days. Dam of bull is Portage Paul 2d, 31.17 pounds, seven days. There will be many features in the sale. Eleven daughters sired by a 31-pound sire. Four daughters and 13 granddaughters of the noted King Walker. Six daughters of Jewel Paul 16th whose dam is a daughter of Sir Johanna De Kol, 67 A. R. O. daughters and a sister to Johanna De Kol Van Beers 40.07. Five daughters of other good sires, including two granddaughters of Pietertje Hengerveld Count De Kol, 99 A. R. O. daughters. Two daughters of Portage Pauline Paul 2d. This is only a few of the good record cows that will be sold, space does not permit us to feature each one individually. We simply mention that few sales of the season will contain cows better individually or with more desirable A. R. O. backing. Every cow in the herd, of milking age, has an A. R. O. record, but two. These records have been made by Mr. Forge under ordinary farm conditions. The cows are large, of a uniform type and with wonderful udder development. Ever thing free from tuberculosis and a 60-day retest guarantee will go with every animal sold. Make arrangements now to attend this sale, you will not be disappointed with the offering. The catalogs are now ready. Notice the advertisement in this issue and write at once for a catalog. Please mention The Wisconsin Farmer.—Adv.

Thirty-three-Pound Blood.

EDGEWOOD FARMS, INC., Pewaukee, Wis., are now offering for the first time, bull calves from their junior herd sire, Pabst Pontiac Hengerveld De Kol. This bull is a grand individual, seemingly made to order. He weighed 1,500 pounds when he was two years old, has a strong masculine head, back as straight as a line, broad hips, rump long, wide and square. He has a long barrel and well sprung ribs. He is a strong, vigorous fellow and growing better, if possible, right along. He is sired by King Pontiac Champion, that is sired by King of the Pontiacs, and out of Maid Mutual De Kol, 31.30 pounds. His dam is Edith De Kol Burke Hengerveld, the highest record daughter of De Kol 2d Butter Boy 3d. She has one record of 31.16 pounds in seven days, and has a yearly record of 845.10 pounds butter and 20,105.10 pounds milk. She has since made a seven-day record of 33.858 pounds butter and 644.1 pounds milk, testing 4.21 per cent. She has a daughter that is the dam of a 31-pound three year old. She has proven herself to be a producer and a cow whose offspring make good. Pabst Pontiac Hengerveld De Kol comes of breeding that entitles him to the place he holds, namely as head of one of the good herds of Waukesha county. He is at the head of a herd that will be given every opportunity to make good and all of his heifer calves will be retained and tested. He is sure to be heard from. Write Edgewood Farms for prices and pedigree of his calves before the price goes up. See page 35.—Adv.

Storage Battery Care.

MOTORISTS agree that the battery is a vital part of a car. A dead battery means a dead car. Electricity is the car's spark of life—it starts the engine, it furnishes the impulse for every stroke and at night it lights the lamps. A strong, full flow of electricity requires a good battery, that gets careful attention. If you are a car owner or driver you will want to know the best way to care for the battery in order to get the most efficient service from it. An excellent source of information along this line are the Battery Health Books issued by the Willard Storage Battery Co., Cleveland, Ohio, makers of storage batteries that are used by more than four-fifths of all motor car builders. Read their advertisement on page 11. You may also be interested in the Willard Hydrometer, mentioned in the advertisement, which is used to find the condition of a battery's charge. It will be sent postpaid upon receipt of a dollar bill.—Adv.

Hampshire Breeders—Attention!

THE opportunity for Wisconsin Hampshire breeders to get some new blood will present itself in the dispersion sale to be made by F. O. Tanner, Brownsdale, Minn., Friday, February 23d. Mr. Tanner has been breeding Hampshires for the past ten years and those that have been following this breed are aware of the fact that animals from this herd have been consistent winners at the Minnesota State Fair for several years past. Last year the grand champion sow was owned and shown by Mr. Tanner and, by the way, she and several of her produce will be sold in this sale. Broow sows that have made good will sell. Herd boars of cho' e breeding will be closed out at this time. Mr. Tanner has made money with the Hampshires and others can do the same. Circumstances have made this move necessary and inasmuch as he has rented the farm all the hogs will be sold on the above date at Brownsdale. The catalog will give you the desired information. This breed is somewhat new to many Wisconsin farmers. Write for the catalog, get interested in better swine and, if possible, attend the sale. In writing please mention The Wisconsin Farmer. See page 35.—Adv.

Remember the Smiley Poland Sale.

THIS is the last opportunity we have to call your attention to that good Poland China sale to be held at Albany, Wis. Febrcary 22d. The Smileys have the goods this year and you will be pleased with the hogs they are selling. The sows and gilts are in nice condition, have the length and size so desirable at the present time and they are bred to good boars that will please the most critical. One of the good things in the sale is a daughter of Major Miller out of a Hadley Girl dam. The Hadley Girl strain has proven to be the most valuable strain that the Smiley's have ever owned. A daughter of Big Bone Jumbo will be one of the attractions in the sale. No doubt the two gilts sired by Goldengate King will be the attractions of the sale, for this breeding is very popular at this time. They were farrowed March 9, 1916, and are out of Big Maria by Dorr's Black Model, both are bred for a March litter to Major Miller. The Smileys have used good herd boars in the past and they have good boars in the herd at the present time. Remember Monarch, Major Miller, Wisconsin Jumbo 2d, Smiley's King, they are boars that will appeal to you if you want the big kind that have quality. The catalog gives you the desired information and you will notice that they are selling the best lot of gilts they ever cataloged for a sale. This firm is deserving of your support for they have the hogs that will justify your presence. Write Wm. Smiley & Sons, Albany, Wis., for one of the catalogs and in so doing please mention The Wisconsin Farmer. Don't forget the date and place. "Bob" Smiley is one of the live wires back of the Poland Chinas in Wisconsin and he invites you to attend their sale. If you can't attend in person, send instructions to T. P. Shreve. See page 27.—Adv.

Farmers Advised to Buy Silos Now.

INDICATIONS point to the "early bird getting the worm" in the silo business this season. The scarcity and unprecedented high prices of materials is seriously hampering silo manufacturers, and will probably limit production so that many orders will be unfilled. In any case silo prices are due for a rise—manufacturers are being forced to that to avoid actual loss. There is no prospect for any immediate change in conditions controlling the market and deliveries of materials—situation is more likely to become worse than better. So well known a firm of silo makers as the Des Moines Silo & Mfg. Co., Des Moines, Iowa, are stating in their advertisement that they have on hand material for only a limited number of the popular Des Moines silos and that they are unable to offer any assurance of ability to fill orders after material now on hand has been made up. They will fill orders as received while material lasts, and farmers desiring a Des Moines silo are urged to put in their orders at once. Ordering now has two advantages—it enables the buyer to be sure of getting a silo and also of getting it without having to pay the almost certain advance in price that is coming. With feed at the present prices, no farmer who raises stock can afford to be without a silo and ordering now will prove a worth while economy.—Adv.

Last Call For Pagel's Duroc Sow Sale.

A MAN that buys good sows generally has that kind to sell and such will be the condition of things at Geo. W. Pagel's, Zumbrota, Minn., February 26th. If you have been following the sale reports you have noticed that Mr. Pagel has topped a few of the most prominent sales. He has been doing this for several years consequently his herd of breeding sows are good. He has two very choice sows of the noted Golden Model breeding. Daughters of these sows are in the sale bred to H. C. Wonder. A yearling granddaughter of Col. Gano is the right sort and her dam is by Golden Model 32[illegible]. Th cross has made good wherever used and being bred to a Crimson Wonder boar will give you a litter that will combine the noted blood lines of the breed. There will be about twenty-three gilts in the sale that will appeal to you and the yearlings and tried sows are good in every respect. This is Mr. Pagel's first sale and he does not expect the high average that some of the older breeders get, yet he has a sale offering equal to many. If you are wise you'll buy at this sale and save money. Don't worry about them not being good enough. We said at the beginning of the sale season that the best sales to be held in Minnesota would be advertised in The Wisconsin Farmer. This is one of the offerings. Get a catalog, look it over carefully and attend if possible. If you can't get away send your buying instructions to T. P. Shreve in care of Geo. W. Pagel. Remember the date and place. See page 38.—Adv.

Better Farm Implements.

THE above is the title of a beautifully illustrated book published by Deere & Company, of Moline, Ill. It is comprised of 156 pages and the whole volume is devoted to the description and care of the various classes of farm implements. Special attention is given in this volume to the operation and adjustment of farm tools. It must be admitted that profitable crop production depends very largely upon the thoroughness with which the soil is tended, and upon the skill used in handling the crop after it is produced. There is a knack in handling plows, harrows, cultivators mowers, corn planters, binders, drills, and, indeed, an innumerable class of implements, all of which are described and illustrated in this book. Haying and harvesting tools of every description are included, as well as stationary and portable elevators. It goes without saying that those of our readers who are now using John Deere machinery will be anxious to obtain this book, and we are equally sure that those who have never had experience with John Deere implements will be greatly interested in a perusal of this volume. It will be sent free upon application to Deere & Company, Moline, Ill.—Adv.

Crandell's Noted Chester Herd.

WISCONSIN Chester White breeders that are in need of some new blood to supply their old customers should write to Harry T. Crandell, Cass City, Mich., for his illustrated catalog and price list. Mr. Crandell has one of the best and largest herds in the North, headed by four of the greatest show and breeding boars to be found in one herd. Schoolmaster, the $800 sire is a boar of great scale and has proven his worth as a sire. Crandell's Wonder was the first-prize senior yearling boar at the International, Indiana, Wisconsin and Illinois State Fairs, and grand champion at the Ohio State Fair. Gilts are being offered sired by and bred to this good boar. Others are by Abo 2d and Callaway Ed. If you don't want to buy bred gilts Mr. Crandell can supply your wants in fall pigs, either sex. Write your wants and in so doing please mention The Wisconsin Farmer. See page 38.—Adv.

I. E. Stickelman, Auctioneer.

I. E. STICKELMAN, Clarinda, Iowa, has the distinction of being the first auctioneer that sold registered swine at an average of $100 or over, in the state of Wisconsin. He officiated at the L. F. Atwater sale at Bangor, January 31st, where he obtained $101.60 average for 47 head of Duroc Jersey bred sows. Colonel Stickelman is a good talker and knows the hog business from start to finish, for he maintained one of the good herds in Iowa until his auction work grew to such an extent that it was necessary to close out his hogs. Some auctioneers tire their audience with long-drawn-out talks that do not appeal to a crowd sitting in a cold building. When Mr. Stickelman makes a statement it has weight. When selling a sale he gets the confidence of the men in attendance, which is a material help to the success of a sale. We have known Mr Stickelman for several years, have worked with him on many sales in Iowa and the West, and we do not hesitate to recommend him to swine breeders that contemplate making public sales. If you expect to make a sale next winter, now is the time to set your date and engage your auctioneer. By attending to this early you can command a better date than if you wait until later in the season when the desirable dates have been given to other breeders. Write I. E. Stickelman, Clarinda, Iowa. See page 38.—Adv.

Buy Duroc Bred Sows.

THOSE that read the report of the L. F. Atwater Duroc sow sale noticed that Riley Martiny & Son, of Baraboo, Wis., bid on and bought the best stuff in the sale. In reading sale reports you can get valuable information if you will notice what breeders buy the good ones. When you hear of a breeder topping a sale or buying the best you can rest assured that he has a good herd at home. The man that buys the cheap ones generally has that caliber to offer his patrons. We realize that all breeders can't buy the tops, there wouldn't be enough to go around, but it's a great deal better to buy one good one than three or four inferior sows. We predict that Riley Martiny & Son will have one of the good herds of Duroc Jerseys in the state. They have now a good herd of brood sows and are adding good ones to their herd from time to time. At the present time they are offering some very choice fall sows and spring gilts, bred to farrow in March and April and bred to two excellent, big, well-bred boars. We have predicted 12-cent pork for some time, at this writing—February 5th—hogs sold on the Chicago market for $12.40, what will they be worth next summer? Now is the time to buy a good brood sow or two, and the above breeders have them for sale. Write them at once and in so doing please mention The Wisconsin Farmer. See page 38.—Adv.

$50,000 For Short-horn Prizes.

THE American Short-horn Breeders' Association appeals in a substantial way to Short-horn breeders everywhere to participate in the prize contests at fairs and shows throughout the country. It is a large amount of money that has been set apart by the Association for prizes and it is so widely distributed and applied to so many classes that Short-horn breeders everywhere are encouraged to respond. Certainly no year in the history of the Short-horn breed witnessed such a broad expansion as the year just closed and all indications point to a still greater achievement in the matter of furthering the popularity of the Short-horn during the present year. The inclination in all sections to replenish the cattle stock and obtain a better class of seed for the purpose, insures a growing demand for a good while to come. Apparently the day of the cheap sire has bone by. See page 36.—Adv.

Offers Free Incubator.

IN ORDER to introduce their stock food to the farmers who have not tried it the Wilbur Stock Food Co., 195 Huron St., Milwaukee, Wis., are giving a guaranteed fifty-egg steel incubator with a two months' trial order of stock tonic. The Wilbur stock tonic has given excellent results as an appetizer and conditioner, fattening them and preparing them for higher prices on the market. The Wilbur Stock Food Co. is anxious that every reader of this paper should take advantage of their generous offer and send for the trial order of stock tonic and the steel incubator. Mention that you saw the advertisement in this paper.—Adv.

Fine Hybrid Plums.

HYBRID plums that are unusually hardy and produce paying crops the second season after planting have been produced by Professor Hansen, of the South Dakota Agricultural College and are sold by the Gurney Seed and

Wisconsin Farmer Advertisement "Sure Pays Dividends."

"My business connections through The Wisconsin Farmer have proven all right and an advertisement with you sure pays dividends. Have succeeded in disposing of all my stock. Art G. Hoskins, Dodgeville, Wisconsin."

The Wisconsin Farmer **Madison, Wis.**

Guaranteed Weekly Circulation, 90,000.
In Wisconsin, 78,640.

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4016 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

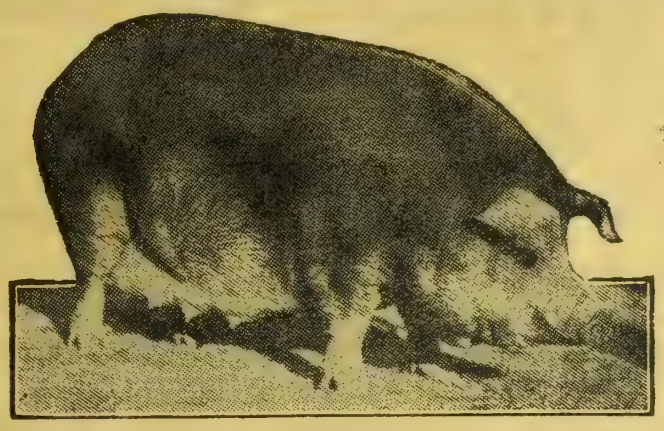
Willsie's Big Col. and Chief Defender

DUROC JERSEY SOW SALE

PROSPER, MINN., WED., FEB. 21

35 Spring Gilts, 5 Tried Sows

Sired by Big Col. by King The Col. Chief Defender by Defender. Bred to Chief Defender, Burk by Burke's Good Enough and Top Col. King by American Top Col.



AM selling a good, useful lot of spring gilts and yearlings. They are not overly fat, but in nice condition to insure satisfactory litters. Five choice gilts by BIG COL. out of a CHIEF DEFENDER dam. One choice gilt out of a daughter of the grand champion, CRIMSON KING. Two gilts by BIG COL. out of a daughter of GOLDEN COL. The sows that I sell are big and smooth. There will be good buys made in this sale. Good railroad connections from any point in Wisconsin. If you can't attend, send buying orders to T. P. Shreve, field man for THE WISCONSIN FARMER. I extend a personal invitation to attend my sale. Col. Don Cunningham, Wayne, Neb., auctioneer. Write for a catalog and mention THE WISCONSIN FARMER.

GEO. H. WILLSIE **PROSPER, MINN.**

DISPERSION SALE OF

HAMPSHIRES

BROWNSDALE, MINNESOTA, FEBRUARY 23, 1917

49 HEAD, including the grand champion sow at Minnesota, 1916, and thirty-three other sows and gilts. My herd boars sell, one yearling out of the grand champion sow. A show herd in every respect. Write for catalog. Address

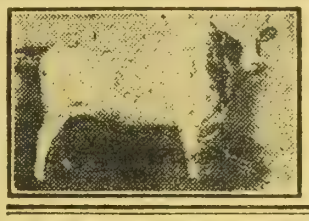
F. O. TANNER **BROWNSDALE, MINN.**

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ **WAUKESHA, WISCONSIN**



REGISTERED

AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL **RACINE, WISCONSIN**

AYRSHIRES

Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

Clydesdales and Durocs

Write your wants Address

AS. VAN ETTA **LIMA CENTER, WIS.**

Please mention this paper when writing

HEREFORD CATTLE.

HEREFORDS

BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.

J. J. F. WINTERS **SPARTA, WIS.**

TOO LATE TO CLASSIFY.

A COMBINATION OF SIZE, IDEAL TYPE AND PERSISTENT PRODUCTION

A 31.02-POUND bull, that comes from a long line of cows of large size, ideal type, heavy-production ability, which are persistent. **Racine Johanna Plebe Mercedes 188460.** Born December 8, 1915. His dam, **Ella Mercedes of Elm Court, made 31.02 pounds of butter in seven days;** 130.47 pounds butter in 28 days (an average of 32.69 pounds butter per week for four weeks); 829.78 pounds butter in a year. She weighs over 1,600 pounds. **His sire's dam** made 27.70 pounds butter in seven days; 808.82 pounds butter in a year and weighs close to 1,600 pounds. His dam's dam, sisters and his parents' sisters are big cows of good type and heavy producers. Come to our farm and see them—and see the kind of cows his daughters will develop into. Am also offering a straight and well-grown yearling heifer out of Lady Johanna of Elm Court and sired by Count of the Pontiacs.

RUEBEN KLOFANDA **RACINE, WISCONSIN**

Holstein Bull Calves For Sale

BULLS and heifers advertised in the last issue have been sold. We are now offering for the first time some splendid bull calves up to seven months of age sired by our herd bull, that is a son of a 33-pound cow. These calves are nicely marked, well grown and good individuals. Let us send you pedigrees of them. Mention The Wisconsin Farmer when writing. Address

EDGEWOOD FARMS, INC. **PEWAUKEE, WISCONSIN**

100 Short-horns to Select From-100

BULLS AND FEMALES. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASS'N., J. E. Kennedy, Sec'y - - - JANESVILLE, WISCONSIN**

Nursery Co., 140 Gurney Square, Yankton, S. D. These plums are delicious and are proving very popular. The Gurney Seed Company is making a special bargain offer of 10 varieties of hybrid plum trees, four to five feet high and includes with these a dwarf apple tree and 25 everbearing strawberry plants. Write the company for one of their fine new catalogs and ask them about this special offer. Tell them you read about it in The Wisconsin Farmer.—Adv.

Building Materials at Wholesale.

HOMEBUILDERS will find it well worth their time to read the advertisement on page 40 of the Gordon-Van Tine Co., 6179 Gordon St., Davenport, Iowa. It contains some valuable suggestions on house construction and tells how anything needed for building may be purchased at wholesale prices, thus making a great saving to the purchaser. The company has just issued a home plan book which will be sent free to readers of this paper. They have valuable books on barns, garages, lumber and roofing materials also. Persons interested can obtain these books by filling in the coupon attached to the advertisement and mailing it to the company.—Adv.

Make Money in Contract Ditching.

AN opportunity to make big money in underdraining land is open to men who own Buckeye traction ditchers. Every county has areas where underdrainage is necessary, and almost every farm has wet fields that would produce more when drained. If you want to make from $15 to $20 a day clear profit, consider an investment in a Buckeye ditcher. Full information is given in the free "Book of Facts," issued by The Buckeye Traction Ditcher Co., 1715 Crystal Ave., Findlay, Ohio. See the advertisement on page 24 and write for the book today, mentioning The Wisconsin Farmer.—Adv.

Profit in Silver Fox Raising.

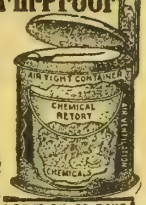
RAISING silver foxes is profitable. This is the opinion of Fromm Bros., Hamburg, Wis., who recently sold three of them for $425, $350 and $300 respectively. They were raised on the Fromm Bros.' ranch and were purchased by Maas & Steffen Inc., 305 Main St., St. Louis. Maas & Steffen are dealers in furs of all kinds and trappers and fur growers should get their price lists. —Adv.

Farm Hauling Made Cheaper and Easier.

THE Smith Form-a-Truck, which combines with any Ford, Maxwell, Dodge, Buick or Overland car to make a one-ton truck, is gaining prominence rapidly in farm hauling. Hundreds of farmers are already using them and find tremendous saving in hauling costs. They displace horses, doing the horses' work in much less time, and are more economical to keep. They need fuel and care only when working. If you have not investigated this boon to farmers, do so at once. The new free booklet, "Deliver the Goods," will give the information you want. Send for it to the Smith Motor Truck Corporation, Suite 995, 1470 Michigan Ave., Chicago, Ill., mentioning The Wisconsin Farmer when writing them. See page 7.—Adv.

Comfort Indoor Closet

Odorless Sanitary Germ-Proof



Every home without sewerage needs one. Most convenient, meritorious home necessity in a century. A boon to sick people. Can be placed anywhere in house.

Abolish Outdoor Closet

Put a warm Comfort Toilet in your home, a guarantee of healthy, sanitary conditions. Germ-life killed by chemicals in retort. Emptied once a month—no trouble. Needs no other attention. Boards of Health endorse it. Write now for literature, prices, etc. Agents Wanted—Exclusive territory.

SENT ON 30 DAYS FREE Trial

COMFORT CHEMICAL CLOSET CO., 142 Factories Bldg. TOLEDO, OHIO

Can't Raise It.

THE Peerless gate cannot be raised by any hog or horse or bull on the farm. They can't get over it or under it, yet it is so simple that the ten-year-old girl on the farm easily operates it. Peerless fencing and Peerless gates are designed to put an end to roaming on the part of farm animals. A novel series of advertisements showing the experience of different animals with the Peerless gates and fencing is now running in this paper. See this week's advertisement on page 2 and write the Peerless Wire Fence Co., 216 Michigan Street, Adrian, Mich., for a copy of their big free fence and gate book. Tell them you saw the advertisement in The Homestead.—Adv.

SALE DATES.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

Percherons.

Mar. 21, Dispersion sale of the Lewis Lewellen & Sons, Waterloo, and Louis P. Sutter, Delavan, Wis., Percheron studs. Sale at state fair grounds, Milwaukee. Jas. G. Boyd, Mgr., 426 Sycamore St., Milwaukee, Wis.

Duroc Jersey Swine.

Feb. 26, George W. Pagel, Zumbrota, Minn.

Poland China Swine.

Feb. 22, William Smiley & Son, Albany, Wis.

SALE DATES.

Holstein Cattle.

Mar. 7, J. A. Forge, Burlington, Wis.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address

James Derivan **Fox Lake, Wisconsin**

SHORT-HORNS--BIG-TYPE POLANDS

CHOICE bulls, one 15 months, sired by Collynie Victor 387634. Stretchy September pigs, either sex, from large litters. Write. A. Menke & Sons, R. 1, Markesan, Wis.

STALLIONS FOR SALE Three registered Percheron stallions coming two, three and eight years old. Address JOHN HAIGH, JR. PICKETT, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM WULFF, Grafton, Wisconsin.

SHORTHORNS BOTH sexes, for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

HAMPSHIRES for sale. 25 bred sows, fall boars and gilts. L. C. Wilsie, Brandon, Wis.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

A. P. CORTTE **LOMIRA, WISCONSIN**

SALE DATES.

Holstein-Friesian Cattle.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

Achievements in Concrete Construction.

By Supplying Two Important Factors, Namely, Heat and Moisture, Building Operations May Be Carried on in Winter.

MORE working days on the farm is the announced result of late development in concrete construction. Methods have been found and proved whereby concreting may be done during cold weather by adhering closely to known requirements in mixing, placing and protecting concrete when temperatures are low.

This achievement in concrete construction opens the way to greater profits on the farm providing, as it does, for the profitable use of days that heretofore have been idle ones.

Concreting in wintertime "cuts both ways" for the farmer in giving him an opportunity to do work in winter that will save time and money in the summer by reason of the elimination of repair expense attained through concrete construction on foundations, fences, watering tanks, troughs, manure pits, cisterns, etc.

Where building material other than concrete has been used it is subject to decay and there is always repairing to be done. A definite program should be laid out at the beginning of cold weather for making such repairs. With the careful application of known requirements necessary to concreting in the wintertime, the farmer can make concrete fence posts, concrete block, concrete watering troughs and tanks and lay barn and other interior concrete floors. The making of concrete block during winter is a common practice. When spring opens and the farmer of necessity must give his time to crop planting, and if a supply of concrete blocks is on hand, he can employ a mason to lay the hog house, chicken house or barn foundation while he goes on with his farm work.

Cold, as is generally known, delays the hardening of concrete. The effect of cold weather in the manufacture of this artificial stone becomes noticeable when temperatures fall below 50 degrees Fahrenheit and becomes more apparent as the cold increases. On the other hand, heat hastens the hardening of concrete; therefore, the requirements necessary to successful concrete work in cold weather are warmth and moisture. Concreting in cold weather simply means the creation of these two conditions—warmth and moisture. That problem, as before stated, has been successfully solved, but in its solution it has been found that strict adherence must be given to all requirements necessary to good concreting, and that it must be remembered that sand and pebbles or broken stone used must be free from frost or lumps of frozen material; that if these materials contain frost or frozen lumps they must be thawed out before using. Mixing water should always be heated.

Although adding common salt to mixing water will prevent freezing of concrete that has not hardened, there is a limit to the quantity of salt which may be added if the final strength of the concrete is not to be affected. Salt simply lowers the freezing point of the mixing water; it does not supply what is most needed—heat and warmth. It delays, instead of hastens, the hardening of the concrete.

Sand and pebbles or broken stone and mixing water must be heated so that the concrete when placed shall have a temperature of from 75 to 80 degrees. Some sands are injured by too much heat. The same applies to certain varieties of pebbles and broken stone. A temperature not exceeding 150 degrees Fahrenheit will generally prove most satisfactory.

Concrete must be deposited immediately after mixing so that none of the heat will be lost before placing in the forms.

Metal forms and re-enforcing should be warmed before placing the concrete. Be careful to remove ice and snow and frozen concrete remaining on the forms from preceding work. Forms can be warmed by turning a jet of steam against them or by wetting with hot water.

Even though materials have been heated and the concrete placed immediately after mixing, it will lose much of its heat if not protected from low temperatures. Therefore, to protect the concrete immediately after placing, use canvas covering, sheating, housing in the work, or hay or straw. In addition to these means small oil or coke-burning stoves or salamanders may be used in enclosed structures.

Temperature which may not be low enough to freeze the concrete may, nevertheless, delay its hardening for a considerable time. Do not expect concrete placed when the temperature is low and remains low for some time afterward, to be safe for use as soon as though placed during warmer weather. If concreting is unavoidably delayed or interrupted the work should be covered until concreting is again begun. Cover and protect any sections of the work as soon as completed. In severe cold weather continue this protection for at least five days. Forms must not be removed from the concrete work too early. This applies to any concrete work, regardless of season, but is particularly important with work done during cold weather.

Remember that frozen concrete sometimes very closely resembles concrete that has thoroughly hardened. When frozen concrete is struck with a hammer it will often ring like properly hardened concrete. Before removing forms examine the work carefully to see whether it has hardened or is simply frozen. To determine this, remove one board from some section of a form, pour hot water on the concrete or turn the flame of a plumber's blow torch or a jet of steam under pressure against the concrete. If frozen the heat will soften the concrete by thawing the water contained in it.

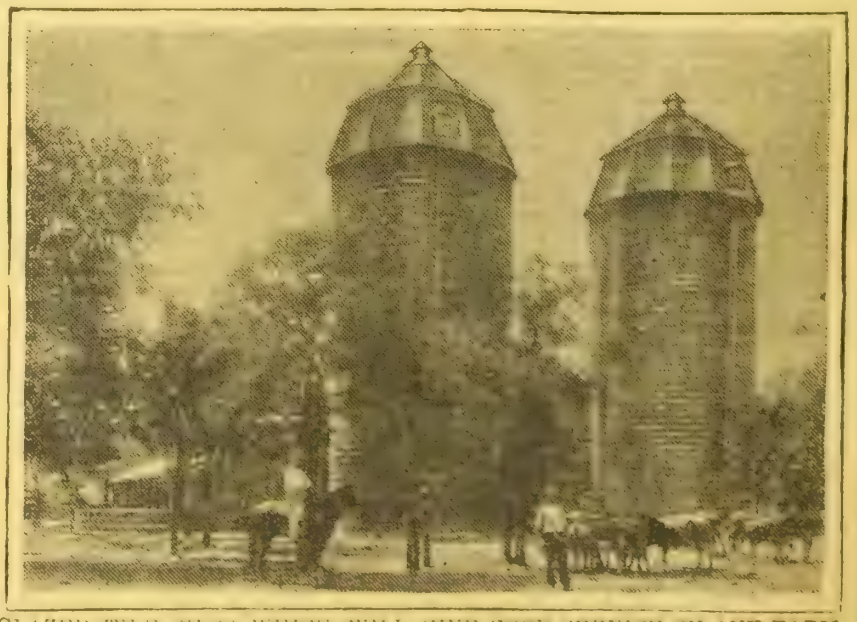
Feather Pulling.

Feather pulling or eating may not be so bad as egg eating, but it is annoying and is a habit with which most poultry keepers have more or less trouble. During the fall and winter, when birds are not getting sufficient exercise and are crowded into small houses, this habit is most likely to develop.

Such habits as egg and feather eating are usually the fault of the owner. When birds are not overcrowded in large flocks, and are forced to work all day for all the feed they get, it is seldom that either habit appears. As a rule, a feather-eating bird is a poor layer, and the quicker you can rid your flock of such a pest the better. One feather eater in a flock will cause no end of trouble, and in a few weeks will make all the birds show unsightly bare backs.

To stamp out the habit, get rid of the hen that is causing the trouble, supply the flock with plenty of animal matter, such as meat and green cut bone, make the birds exercise after all the food they get.

As a treatment, apply an oitment of some bitter mixture—quinine or aloes mixed with lard will do the work. A solution made by boiling tobacco in water will be found satisfactory. The feather-eating bird will quit after one or two of these bitter doses. Of course, such treatment is for birds that are valuable for breeding purposes. I should advise you to dispose of all ordinary birds that develop the habit.



GLAZED TILE SILOS WHICH WILL GIVE GOOD SERVICE ON ANY FARM.

MARCH 7, 1917
AT BURLINGTON, WIS.
Absolute Dispersion of Bell Croft Herd
48 PURE-BRED
HOLSTEINS

SERVICE bulls and bull calves—King Walker and Johanna blood. Eleven daughters of thirty-one-pound sires. Four daughters and thirteen granddaughters of King Walker. Two daughters of a thirty-one-pound dam. Every cow of milking age but two have A. R. O. records from eighteen to twenty-seven pounds. I sell Portage Pauline King 73779, a 31.17-pound son of the great King Walker. All records made by myself under ordinary farm conditions. Free from tuberculosis and a 60 retest guarantee goes with each animal. A safe place to buy. Catalogs now ready. Address

J. A. FORGE BURLINGTON, WIS.
On the Milwaukee and Soo R. R. and Electric from Milwaukee.

SHORT-HORN CATTLE.

$50,000 IN SHORT-HORN PRIZES
This Association has appropriated for 1917 approximately $50,000 for prizes at state fairs, interstate fairs, live stock shows, state and interstate association shows and sales from New England to the Pacific coast and from Canada to the Gulf.
Pick your show things now and begin preparation for these contests, that you may claim a share of the prize money.
1916 was the biggest Short-horn year in the history of the breed and 1917 bids fair to far exceed it.
AMERICAN SHORT-HORN BREEDERS' ASS'N., 13 Dexter Park Ave., Chicago, Illinois

OAK LAWN FARM--SHORT-HORNS of QUALITY
FOR SALE at reasonable prices. Six very choice, dual purpose Short-horn cows, aged 2 to 6 years, all safe in calf to Village Denmark 8th, my herd bull that is today considered one of the best Short-horn bulls in Wisconsin. Address J. E. KENNEDY, JANESVILLE, WISCONSIN

SHORT-HORN COWS AND HEIFERS
Fresh or to freshen soon. Priced very reasonable. Write to
WILLIAMS BROS. BANGOR, WISCONSIN

GREEN VIEW STOCK FARM
SHORTHORNS
OF serviceable age. Not a poor one offered. Guaranteed breeders. Address
John H. Bear & Son Spring Green, Wis.

Bates SHORT-HORNS
OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
B. W. Little Janesville, Wis.

HILLSIDE FARM SHORT-HORNS
WE will sell 4 heifers sired by Prince Cumberland in the Madison sale February 15, 1917, and they are from good ones in nice breeding condition. Eben E. Jones, Rockland, Wis.

MILKING
SHORT-HORNS
HAVING several choice young bulls from dams giving 10 to 12,000 pounds of milk. I have a well-bred herd and keep records of production. Inspection invited. Address
Harvey H. Little Evansville, Wisconsin

SULTAN BRED SHORT-HORNS
WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
H. B. Drake & Son. Beaver Dam, Wisconsin

Bates Milking Short-horns
2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of heavy-milking—high-testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

Good Short-horns
FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

THE GREAT WORLD'S FAIR HERDS
40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

KISER BROS.
OFFER Short-horn bulls. Roans from six months to a year old. Continuous breeding for 46 years. Write for description.
KISER BROS. OREGON, WIS.

MILKING SHORT-HORN BULLS
TWO REDS, eight to nine months old, sired by Milkman, that is out of a 4.4% butter fat cow that gave over 60 lbs. of milk per day. Send for prices and description. Address
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KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS
YOUNG buls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

SHORT-HORNS Big-type POLANDS. Choice buls, 1 to 15 mos. good breeding. Collynie Victor 38 7634 in service. A few stretchy boars ready for service and gilts. Fall pigs for sale. A. Menke & Sons, R. 1, Markesan, Wis.

FOR SALE--1 SCOTCH SHORT-HORN
HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Sultan.
A. J. Wheeler, R. 1, Beaver Dam, Wis.

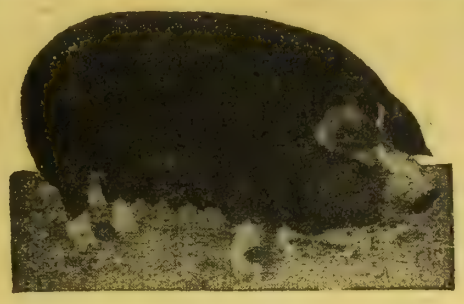
SMILEY & SONS' ANNUAL

POLAND CHINA BRED SOW SALE

AT THE FARM NEAR

Albany, Wis., Thurs., Feb. 22

50 HEAD--5 Tried Sows, 5 Fall Yearlings, 40 Gilts



Sired by Major Hadley, Major Miller, Monarch (some boar), **Big Bone Jumbo, Goldengate King** and others of note.

Bred to Monarch, Major Miller, Smiley's King, Wisconsin Jumbo 2d.

We have never made exorbitant averages but the sows that we have sold have made good for the buyers and we have satisfied customers. We sell in ordinary flesh and they farrow and raise large litters—don't think the offering is poor, for they are in proper breeding condition. **Sired by and bred to excellent boars.** Blood that old customers can use.

NOTICE: Catalogs sent only on request to those that write for same—do this at once and mention The Wisconsin Farmer. Auctioneer, W. B. Duncan. Send mail bids to T. P. Shreve, field man for The Wisconsin Farmer.

Wm. Smiley & Sons, Albany, Wis.

JERSEY CATTLE.

RED OAK STOCK FARM

F. R. CONSTANCE & SONS, Props.

HAVE one yearling Jersey bull and three yearling bull calves for sale. All out of splendid dams and sired by a bull whose dam made 526 lbs. butter on official test under just ordinary farm conditions. We also have a fine fall Duroc boars and gilts for sale. For Dec., 19 cows and heifers of all ages and periods of lactation gave us 618.2 lbs. fat for which we received 44½c per lb. or $275.10. This was at the creamery and this under just ordinary farm conditions.

WAUPACA **WISCONSIN**

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753.629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.

FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

Dairymen! —The Truth

You may be prejudiced against the Jersey because you don't know her. Look her up. She's the *Money Cow.*

Get This Book—a history of the breed and full of very interesting tests and facts. It proves conclusively that for pure dairy type, economy of production, richness of milk, long life and adaptability to feeds and climates—all these combined—she stands way above them all. This book "About Jersey Cattle" is free. Get your copy now. You'll find it mighty good reading.

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Nothing for Sale at Present

Watch This Space for Future Offerings

W. M. KNIGHT **EAGLE, WISCONSIN**

BURN BRAE JERSEYS

REGISTER of Merit bulls from calves to ready for service. High class and priced to sell.

BURN BRAE **ROSENDALE, WIS.**

REGISTERED JERSEY

COWS AND HEIFERS

WITH **register of merit records** or breeding. Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**

Ed. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . **JERSEYS**

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

H. Holt & Son **Oconomowoc, Wis.**

GOOD JERSEY BULL

BORN October 22, 1916, a good one; straight type good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.

Ora P. Taylor **Elkhorn, Wis.**

JERSEYS

100 FEMALE in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write

FRED STUBLEY BLACK EARTH, WIS

POLLED DURHAM CATTLE.

POLLED DURHAM CATTLE Registered bulls for sale from 2 to 8 months of age. Address Ph. Lang, West Bend, Wisconsin.

D. S. Polled Durhams, 7 quills 8 to 14 mos., reds and roans by Red Sultan X 9404-565337. Herd and farmers' bulls. F. Bunker, Kilbourn, Wis.

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PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

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We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

4 Stallions PERCHERONS 2 Mares

WE are offering 6 very high-class Percheron stallions and mares; 1 two-year-old and one yearling stallion out of **Diana 53532** by Phil Sheridan and 1 yearling stallion and a 2 and 3 year old mare out of Karel 33640, a double bred **Baccarat** mare. The two-year-old stallion sired by Imp. Haricot 74108 is particularly good. Send for prices and description.

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PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

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A Large and Choice Collection of Stallions, Mares and Colts

for sale at all seasons of the year. Correspondence solicited. Catalog mailed upon application.

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Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

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PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Charlton, Ia.**

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IMPORTERS and breeders of **Percheron and Belgian stallions and mares.** We have the best lot of horses ever in our barns. Write or come and see us.

GUERNSEY CATTLE.

INDIVIDUAL EXCELLENCE

Buy An A. R. Sire and Champion

OFFER: **King Talladeen of Chestnut Hill 13460,** grand champion Mich. State Fair. Sired 4 A. R. daughters averaging 350 lbs. fat as 2 yr. olds. **Sire: Skeezicks 9079,** 13 A. R. daughters. **Dam: Talladeen 17510,** A. R. 633.50. A tried sire that has been used successfully in our herd. Will be pleased to show his get. Few such **Guernsey bulls** are being offered. **We guarantee him in every respect. Write**

FOX BROTHERS **WAUKESHA, WISCONSIN**

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.

Berkshire Spring Boars and Gilts

of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address

O. R. FRAUENHEIM, RANDOM LAKE, WIS

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address

Frank E. Swan **Wauwatosa, Wis.**

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.

W. G. Jamison & Sons, Appleton, Wisconsin

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

Guernsey Bull For Sale

BORN March 17, 1916, Glenwood breeding. Sire, Colonel Waukesha. Dam, Park's Pet. He is well marked, a good individual and right in every way. Price made right to sell. Address

L. J. Wendt **R. 6, Waukesha, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

GUERNSEY bull, 1 yr., by son of Glenwood Stranford, that has 16 A.R. dau.; dam's record, 500 lbs. fat. $100. W. A. Lawson, Rosendale, Wis.

TWO YEARLING

GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

REGISTERED GUERNSEYS

DAUGHTERS of Imp. Masher's Sequel and other high-class sires. Bred to bulls of May Rose-Glenwood breeding, to freshen in March. Heifers $100 to $175. Bulls with A. R. backing, all ages. Schmit Bros., Eau Claire, Wisconsin.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

FOR SALE FINE high grade Guernsey heifer calves, nicely marked and colored. Arthur Findlay, R. 3, Whitewater, Wis.

ABERDEEN ANGUS CATTLE.

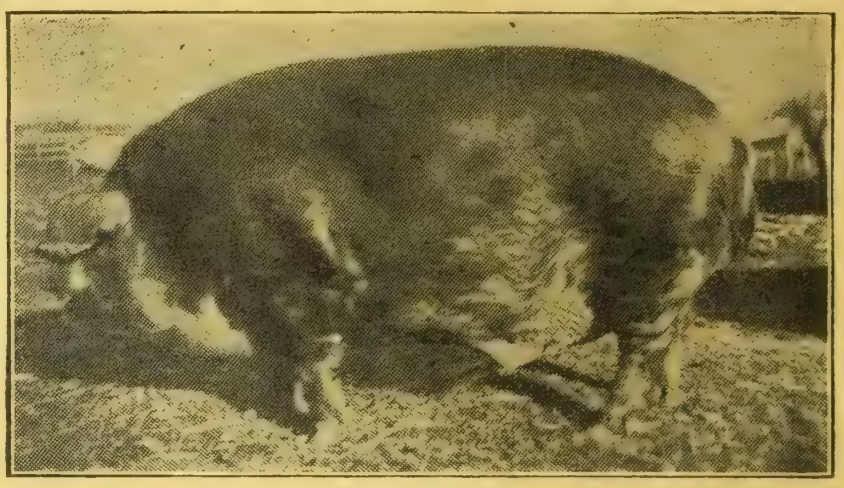
ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

Want to buy or sell a farm? Make it known by inserting an advertisement in THE FARMERS' MARKET. Six cents a word each insertion.

PAGEL SELLS DUROCS AT ZUMBROTA, MINNESOTA, ON MONDAY, FEBRUARY 26, 1917

40 Head--Big Ones With Quality



THE gilts have been well cared for and are in proper condition for future usefulness. All show to be safe in pig. The sows are large and of the most fashionable breeding. **H. C. Wonder** by **Big Wonder.** Most of the offering is bred to this boar. He is big, has great depth, wonderful feet and pasterns—in fact there are few better boars in Minnesota. Some are bred to Pagel's Defender by Lee's Defender. You have noticed by the sale reports that I have bought good ones—I sell the same kind. You are invited to this, my first sale. Buying instructions should be sent to T. P. Shreve, field man for The Wisconsin Farmer. Col. H. S. Allen, auctioneer. Write at once for my catalog, mentioning The Wisconsin Farmer. Address

Geo. W. Pagel, Zumbrota, Minn.
NEAR ROCHESTER

DUROC JERSEY SWINE.

BURN BRAE DUROCS---The Good Kind

THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Rox y (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
BURN BRAE FARM - - - ROSENDALE, WISCONSIN

MARTINY

WE have some excellent DUROC gilts and sows for sale. Big and smooth and bred for March and April farrow. Order now.
RILEY MARTINY & SON, BARABOO, WIS.

FISHER

Has a few Duroc gilts bred to the grand champion
KING DEFENDER
Order before they are all sold. Address
JOHN L. FISHER - JANESVILLE, WIS.

PARKERS' Prolific Porkers

OFFERING a few **DUROC** gilts bred for March and April farrow. The big kind with quality. The home of **KING ORION** by Orion Cherry King Jr. We'll ship you a good sow—try us.
E. H. Parker & Son Janesville, Wisconsin

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

DUROC GILTS

A FEW good ones left, safe in pig for April farrow. **M. STOEHR, VIROQUA, WIS.**

ATWATER

A FEW good Duroc gilts for sale. Order early.
L. F. Atwater, Bangor, Wisconsin.

DENNIS SHEA

DUROC GILTS bred for April farrow, to sons of King the Col. and Pathfinder. Write
DENNIS SHEA MELVINA, WIS.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC GILTS

OFFERING gilts bred for March and April farrow. Also breed Jerseys. Write
E. E. WYATT TOMAH, WIS.

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons. West Salem, Wis.

CHESTER WHITE SWINE.

BRED GILTS---FALL PIGS CHESTER WHITES

SIRED by or bred to **Schoolmaster, Abo 2d, Crandell's Wonder** and **Callaway Ed,** four great breeding and show boars. Write for illustrated catalog and price list.
HARRY T. CRANDELL, CASS CITY, MICH.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.
H. A. DERENTHAL WYKOFF, MINN.

IF YOU WANT
CHESTER WHITES
write W. F. Miller, West Salem, Wisconsin.

CHESTER WHITES

AM sold out of Aug. farrow pigs, but have Sept. pigs left. Have some nice bred gilts left, not loaded with fat but in fair condition to do the buyer good. **Wm. F. Butts, Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.
WEST SALEM WISCONSIN

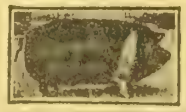
HAMPSHIRE SWINE.

HAMPSHIRES
OR "BELTED" SWINE

MUST reduce swine at once. Have two spring boars left that I retained to cross on gilts, now for sale at $25 each. 3 July males at $15 each; September pairs at $20 the pair if taken before January 1st. Part of them are sired by my heavy-boned, blocky boar, Dane's Model 25929.
DANE STOCK FARM OSHKOSH, WIS.

Mulhall's Hampshires

BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, trios and spring gilts. Best of breeding and priced to sell.
TERRY MULHALL SIOUX CITY, IOWA



HAMPSHIRES

OR "Belted" swine. Spring gilts and boars all sold. Can only book future orders.
Dane Stock Farm Oshkosh, Wis.

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14 N. Sacremento Blvd. Chicago, Ill.
Pedigreed Live Stock and Real Estate.

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9 YOUNG HOLSTEIN BULLS FOR SALE 9

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BEAUTY PIETERTJE PRINCE

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VOL. XLVI. NO. 8. THURSDAY, FEBRUARY 22 1917. WHOLE NO. 1830

Out of the Old Barn---Into the New.

SELDOM have we been able to get hold of a barn picture which illustrates so forcibly as does the view shown herewith, the difference between modern barn construction and that of an earlier day. This picture was taken on the P. F. Coggins farm near Blooming Prairie, Minn. The new barn shown is just ready for occupancy.

Attention of our readers is called to the old barn, which appears in the foreground of one of the illustrations shown herewith. This barn was built many years ago—so many that we found it impossible to find anyone who could give the exact date. It is interesting to note some of the things that our ancestors had not yet learned regarding barn construction. In the first place, we call attention to the windows in the old barn. They are few and far between and the old-timer who erected this structure certainly had little knowledge of the value of light. Just imagine how many dark corners there must be in this old barn, and we all know that it is in the dark corners that the disease germs find the base for operations. Our readers will not fail to notice the character of the foundation in the old barn. This barn was built long before people realized the value of cement in barn construction. Hence the old-fashioned rough stone foundation. It will be noted that many of the stones have fallen out. While stones make a good foundation material for barns, they must be held solidly together by the use of good cement. By far the better way is to build them up as they are shown in the new barn. The old barn has the old plank flooring, except in corners where there is no flooring at all. The only windows for light and air in the old barn are those shown on the top of each end gable. The old barn structure was built without much thought for ventilation, although the cupola idea was installed. There was no system as to how much fresh air was needed to keep the atmosphere inside pure and clean. We doubt if the original builder of this barn had any idea how much heat a cow or a horse throws off inside of a barn or how often the air in the barn should be changed in order to preserve the health and strength of the animals inside. These matters have been taken into consideration very carefully in the construction of the new barn. This new structure has a modern ventilating system constructed along scientific lines and guaranteed to keep up a constant circulation of fresh air inside the building even when the structure is filled to capacity with cattle or horses. The square openings, eight in number on one side, and shown near the base of the new barn, are intakes for fresh air. The number and size of these have been figured out on a scientific basis and this same statement applies to the number and size of four air flues which carry the impure air out of the building as the fresh air intakes bring in the fresh air. Most of the fresh air in the old structure came through broken windows, open doors or holes in the side walls or foundation. In the new structure doors and windows are kept closed and the system of ventilation has been so figured out that just enough pure, fresh air will be brought in from the outside, and the foul air inside will be removed just fast enough. The King aerators, three in number, are a great ornament to the new barn, but that is not their main purpose. They form a part of the ventilating system, assisting in the removal of the foul air and in keeping up a good circulation of air in the building. When this barn was built the owner decided to get expert advice on the ventilating system and not trust this important work to men who had never had any experience along that line. In this decision he was wise.

THIS IS THE NEW BARN—WELL-LIGHTED AND VENTILATED AND ALL MODERN CONVENIENCES.

The fact is that the owner of this barn has made progress along the line of all of his work on the place. He has a better grade of live stock than he had when he built the old barn. His live stock is worth more money and hence he can well afford to take better care of it. He has made something of a study of the feeding of live stock and on this account he has two splendid new silos attached to his new barn. It will also be interesting to our readers to know that the old barn shown in this picture when it was erected was considered a modern type and looked upon as one of the best barns in the

(Concluded on page 15)

PROGRESS IN BARN CONSTRUCTION IN A QUARTER OF A CENTURY.

CURRENT EVENTS

ACTUAL hostilities between the United States and Germany had not broken out up to the first of the week, although the situation was hourly becoming more critical. The steady accumulation of violations of American rights by Germany made it possible that President Wilson would go before congress to ask authority for further protecting lives and property, without waiting for a serious disaster which might shock the country. The president has no wish or intention to rush this country into war, but he has made up his mind that international law and the rights of neutrals on the high seas must be protected. Daily there come reports of Americans being subjected to great danger, because of the submarine activity in European waters. Americans are serving as sailors, hostlers and otherwise on vessels which are being sunk and one American vessel was destroyed by an Austrian submarine last week, although it was clearly identified as a neutral ship. While only approximately 10 per cent of American commerce with Europe is carried on American ships, the sailings of vessels of other nationalities in many instances have either been cancelled or postponed, and, therefore, the result of the ruthless submarine campaign in time will result in far-reaching disturbance of the industrial life of the United States. Preparations by the government for any eventuality still are going forward without interruption. Much importance is attached to the work of the council of national defense, which is holding daily sessions to learn at first hand from Americans of experience what provisions must be made to co-ordinate American resources. The situation may change almost any minute, everything depending on the length to which Germany will go in her attempt to effectually blockade the British isles and shut off their food and munitions supplies.

ARMED Mexicans, believed to have been Villa bandits, crossed the international boundary line again last week and took prisoner three Mormons, a number of Mexican ranch hands and live stock. Up to the first of this week the band had not been apprehended, although it was reported that airmen belonging to the United States army were in pursuit. The United States troops are being withdrawn from Mexico, where they have been on the trail of Villa for several months past, and the state troops are being sent home from the border, the situation having been less critical for the last two or three months. With characteristic cunning, Villa seems to have timed his new raid for the best possible moment. So far as has been learned no one was killed in the raid, the bandits contenting themselves with taking prisoners. More trouble along the border is inevitable, unless Carranza succeeds in getting a tighter rein on the situation.

THE United States has flatly rejected Germany's offer to discuss differences between the two nations while the ruthless submarine campaign is in progress. In a note to the Swiss minister, who presented the German proposal, Secretary Lansing said the United States does not feel it can enter into any discussion with the German government concerning the policy of submarine warfare against neutrals which it is now pursuing unless the German government renews its assurance of May 4th (the Sussex note) and acts upon the assurances. In view of the fact that the United States has taken the most vigorous course possible short of war to denounce the ruthless submarine warfare, officials regard the German proposal to negotiate while the campaign is in progress as utterly insincere. From the first the move has been looked upon and resented as a piece of propaganda designed to befog the issue and put the United States into a false position of belligerency.

APPROVAL for a $400,000 appropriation will be asked of President Wilson by the federal trade commission and the department of agriculture for the food price investigation they are about to start at his direction. The inquiry will be begun as soon as the money is available and a plan of organization is worked out. It will go deeply into charges of price manipulation and restraint of trade in violation of the antitrust laws. At least six months will be required, it was said, before any sort of a report can be made and a year is the estimate of the period necessary for a complete inquiry into the underlying causes of advancing food costs. Already the department of agriculture has gathered a mass of detail concerning production, distribution and consumption of foodstuffs. Here its powers have ended and the trade commission, possessing inquisitorial functions, will take up the burden of the work. The trade commission's aim will be to cover every side of the food situation. Its observations will include the work of the farmer, the packer, the commission dealer, the wholesaler and the retailer. Experts will go into every detail of food production, distribution and consumption.

THE American commission for relief in Belgium has officially notified the German authorities that the Americans will withdraw from participation in the relief work in Belgium and northern France. This step was taken in reply to an order from the German authorities that Americans must withdraw from the provinces of Belgium and northern France, leaving only a few of their representatives, headed by Brand Whitlock, American minister to Belgium, in Brussels. The commission instructed Director W. C. Gregory to inform the German authorities that as the Americans could no longer carry out their responsibilities and undertakings to other interested governments and fulfill their duties toward the peoples of Belgium and northern France, the Americans would officially withdraw from the relief work.

A TREASURY deficit of $333,400,000 at the end of the next fiscal year is forecast in a report submitted by the senate finance committee of congress, recommending that the administration revenue bill be amended to authorize a bond issue of $195,256,000 instead of $100,000,000, and that the authorization for certificates of indebtedness be made $500,000,000 instead of $300,000,000. The recommendation for increase is based on revised trade estimates submitted to congress since the bill passed the house, placing the federal government's expenditures for the fiscal year, 1918, at $1,400,000,000. The committee estimates that to meet this total and provide a working balance, the amount which must be raised by bonds and new revenue legislation is $434,400,000.

THE largest naval appropriation bill in the country's history was passed last week by the lower house of congress and sent to the senate, where a subcommittee immediately was appointed to hasten its consideration. It carries more than $368,000,000, provides for the second installment of the great three-year building program adopted last year, and includes administration amendments authorizing the government to commandeer private ship yards and munitions plants in time of national peril and to purchase the basic patents of aircraft. The vote on the bill was 353 to twenty-three, eighteen democrats, headed by Majority Leader Kitchin, four republicans and one socialist voting against it.

Jacket the School Stove.

A campaign to improve the facilities for heating, ventilating, lighting and sanitation in rural schools is being made by the United States Department of Education and the various state universities. In speeches, letters and bulletins the agents of the government are waging ceaseless war against the conditions which breed disease and dwarf the minds of children, says the Kansas City Star.

Dr. M. P. Ravenel, of the University of Missouri, said recently: "The difficulty is not so much to furnish enough heat as to furnish with warmth an adequate supply of fresh air.

"Children are cooped up within fairly tight rooms for five or six hours a day at a period when they are growing and need every advantage for the development of their minds and bodies. One great and common fault in schools is the uneven distribution of heat. The children near the red hot stove are too hot, while those a little farther away are too cold.

"With heat it is necessary to furnish an abundant supply of fresh air, since, in breathing, the air becomes rapidly poisoned with our own excretions, and loses its life-giving properties. The advantages of fresh air are readily seen in the so-called open-air schools, which were devised and put into operation for children suffering from tuberculosis.

"The average country school is necessarily heated by stoves. The red hot stove which burns coal gives off injurious gases to the room. In such a stove there is little or no provision for carrying out the used and foul air. This can be corrected by any competent sheet iron worker by covering the stove with what we call a 'jacket,' which is a shield of metal set around the stove. Within the jacket there should be a hole in the floor connecting with a flue on the side of the house through which fresh air is constantly admitted.

"It is necessary, also, to furnish an abundance of moisture. The more we heat air the greater its capacity for moisture, and although the outside air may be moist enough to be comfortable, when we heat it by means of our stoves it becomes too dry for comfort. This is hard to remedy, but can be helped by having a broad pan of water on the stove constantly evaporating and giving moisture to the room.

"Care should be taken not to overheat the schoolroom. If some children are cold, it is better for them to wear their wraps than to overheat all the rest in the schoolroom."

Lightens Kitchen Work.

IT IS difficult to imagine how much the kitchen work may be lightened until you have tried a Hoosier cabinet. It is so compactly and conveniently arranged that the housewife may sit down restfully at her work and find all necessary tools and equipment within easy reach. It has places for 400 articles within arms reach, and contains 40 labor-saving devices. Think what that means to the farm wife. It is a better aid than a servant, and its neat, attractive appearance is a constant source of delight. Send to the manufacturers, the Hoosier Mfg. Company, 124 Van Buren St., New Castle, Ind., for a copy of their latest book, "Hoosier Kitchen Cabinets," and particulars of their generous freight-paid, money-back offer. Tell them you read about Hoosier cabinets in this paper.—Adv.

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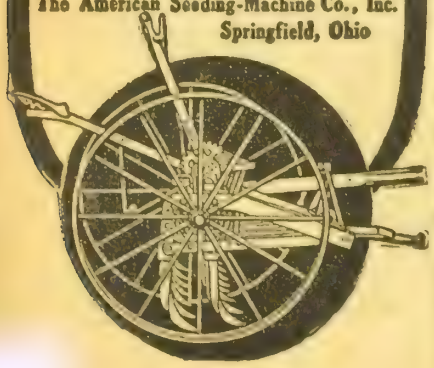

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Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*.—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out*.—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township.—JOHN ROSE, Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*.—D. M. BAUBAKER, Freeport, Ill.

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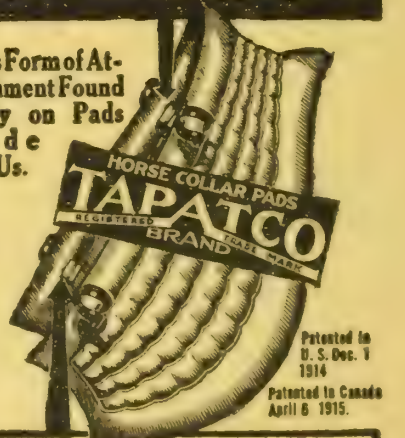

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The Wisconsin Farmer

THURSDAY, FEBRUARY 22, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

FEBRUARY AND AUGUST IN WISCONSIN.

OF ALL the months of the year in this ideal Wisconsin climate, the two most trying—if, indeed, I may refer to our climate at all as trying—are February and August. When winter starts early and hangs on late, as it has in Wisconsin this year, it is in February that we begin to weary of the long cold spell and hope for the first touch of spring. Not for years have we had so much snow in portions of Wisconsin, and the final days of February this year find us, at least in many parts of the state, with the great snowbanks still piled high. Our country roads have been blockaded, and it has been a great season for the old-fashioned sled; and let me say right here that I have never found a more enjoyable mode of travel (provided the distance is not too far, of course,) than the old farm sled, or the cutter, with a spanking good team plunging along through the drifts of snow.

For a few weeks we stand up nobly and console ourselves that severe winters bring us a crop of ice; that the blanket of snow is a warm covering for the winter wheat; that science has told us that the rigors of winter produce a favorable chemical action on the soil, and that cold kills germs and promotes better health for man and beast. But I have seen many hard winters, and I know that in a state like Wisconsin the winter hangs on heavily, and before February is over we are praying for spring and warm rains and sunshine. And yet how easily we chafe under the reverse conditions. July may be hot, but we smile and say it is great for haying and for the growing corn. How many of us can get "knee deep into August" and feel the blistering heat of dog days without looking forward with pleasurable anticipation to the frost?

My friends, the months of February and August are to me the test months of the year, and they teach us a lesson of the quality of endurance necessary to lead a successful life. In my own life I have encountered Februarys and Augusts when cares and burdens have hung on almost to the breaking point. I have learned, through the successive years, that February is followed soon by the balmy days of spring, and that out from under its burdens of snow and ice the world blooms again each year more beautiful and more productive than ever. When I swelter through August, working as do my farmer friends, until the sweat rolls off my brow, I am encouraged by the thoughts of autumn, the wonderful rest time and harvest time that amply repays for all the heat and toil.

I have read that nature compensates, and I know that for all toil and suffering there is a sure reward and consolation. Life's Februarys and Augusts are the darkest hours before a glorious dawn. The good book promises that, "if we suffer, we shall also reign." Some of my readers have come to that age when even life is dragging along slowly toward what we know must be the end. Take heart if cares are heavy. February and August never have dragged out longer than we have been able to bear. It is my gospel that we should take our doses of cold and heat philosophically. February may be made pleasant and profitable for each and every one of my Wisconsin Farmer readers by proper planning for spring work on the farm. Even in August we may take comfort in the works we have wrought, and the harvest ahead for ourselves and our fellows. Bear up bravely, even through trials that seem to never end. "Every cloud has its silver lining." If in Wisconsin we are on the lookout for the first robin, we may forget about the final assault of winter in February. Keep an eye open in August for the red ears in the corn, and forget how many times it has been 100 degrees in the shade.

FARM-LOAN BANKS READY SOON.

I AM advised by a member of the Federal Farm Loan Board that the twelve land banks (the one for Wisconsin and adjoining states will be located at St. Paul) will be organized by the first of March. My informant adds, officially:

Shortly thereafter, these banks will be ready to issue charters to applying farm-loan associations and then proceed with the business of lending money on first mortgages secured by farm land.

This should make it possible for Wisconsin farmers, who have done the preliminary work of organizing associations and securing their necessary legal articles, to borrow money on their farm land by the time cropping operations open in earnest in the spring. I regret that there should have been a little delay, for I have been confidently expecting the banks to be open and ready for business by this time, but it is hard and slow work inaugurating a new system as extensive and as far-reaching as this one, by which farmer borrowers are to be enabled to borrow money at a low rate of interest and for a long period of years. As to the rate of interest, that is not yet decided. I still believe that it will be about 5½ per cent, to start with, and possibly as low as 5 per cent later on. Understand, there is no commission in addition to this and but little expense for abstract and other legal papers, if the borrowers, who form the necessary loan association, will co-operate and have one abstracter and lawyer draw up the papers for all.

The new banks will open with $9,000,000 capital, which means $750,000 each for the twelve. This seems small when we stop to consider that already the farms of Wisconsin are mortgaged for $146,815,313 (the last available census figures), but we must bear in mind that the bank's working capital will be constantly replenished. Every farmer-borrower will subscribe for 5 per cent of his loan and bonds will be issued, over and over again, as soon as the capital bids fair to be exhausted, so that the loaning fund will be practically inexhaustible. The bonds will be good investments, too, so I look for no difficulty along this line of having sufficient money to meet the needs of every farmer in Wisconsin and this part of the country who wishes to take advantage of the new law.

WISCONSIN'S DAIRY SUPREMACY.

A FEW weeks ago one of the leading dairymen of the Southwest came to Wisconsin to investigate conditions here. He was amazed at what he found and returned home, singing the praises of Wisconsin loudly and often. He is as enthusiastic a booster for this wonderful state of ours, its achievements and its possibilities, as ever came into our midst, and went away to spread the glad tidings of our permanent prosperity.

Because I believe it is a good thing, every little while, to see ourselves as others see us and to reflect on the success which we are achieving, I am going to reprint a portion of this man's enthusiastic praise, as I find it set forth in the paper printed in his home town, in the Southwest. Here is what he has to say of our leadership:

I was pleased and amazed at the wealth of the dairy regions in Wisconsin. More cheese is manufactured in Wisconsin than in all the other states in the Union. Twenty-five per cent of the butter is manufactured there. Chicago obtains a large part of its milk supply from Wisconsin and its condensed milk is sold around the world.

At Marshfield, Wis., a little city of only six thousand inhabitants, there was marketed four million dollars' worth of cheese alone last year. Wisconsin sells 189 million dollars' worth of what is known as American cheese annually. Add to that the butter, condensed milk and the fresh milk supplied to Chicago and other cities and you gain some idea of the profits that pour into the pockets of the Wisconsin farmers every year.

Wisconsin produces 37 per cent of the green peas consumed in the United States. The peas are taken from the vines, canned and sold, while the vines and hulls are put into silos to feed the dairy cattle. Some of those fellows up there would grow wealthy on what is wasted on the average Missouri or Kansas farm. They grow the finest timothy and clover in the world, and they are learning that they can grow alfalfa successfully. They also have developed an early corn that they can grow there for grain and silage.

This man found our fair state to be a land literally flowing with milk and money. He is going to do either one of two things: Practice Wisconsin methods in the place where he lives, or move here among us and join the prosperous procession. In either event, he will be doing a good work. While we want Wisconsin to hold its agricultural and dairying pre-eminence, we are also interested in the welfare of our brothers, and anything which we can show them, which will benefit their lot, will be shown gladly. On the other hand, we want and need open-minded men here in Wisconsin, to keep alive the enthusiasm which we have put into our farming work and which is such a big factor in our success.

I have yet to hear of any man who investigated dairying in Wisconsin and was not enthusiastic to the point of exuberance. I hope we can, and will, maintain the leadership we have won so notably. At the same time, we must welcome the stranger and point out to him the way to success, the way which leads through the feed lot and the dairy. In this way we shall serve doubly, producing abundantly ourselves and teaching others how to go and do likewise.

A STORY OF UPPER WISCONSIN SUCCESS.

A COUPLE of weeks ago I printed, in the editorial columns of The Wisconsin Farmer, a letter from Mr. J. J. Heffron, of Stevens Point, setting forth the splendid success achieved by a farmer in his section of our state, who, in twelve years, had seen his capital of $700 increase to well-nigh $20,000. Since printing the letter I have read it over several times, for it interests me in many ways. First, it is a story of signal success here in Wisconsin, where I believe better opportunities exist today than anywhere else in all the country; second, it is reminiscent of my own early struggles in a land in many respects like that of which Mr. Heffron writes. I hope you will pardon me if I print his letter again and use it as a little text for some personal remarks. Mr. Heffron writes:

About twelve years ago, I traded Walter Andreweski a forty-acre farm with a new five-room house and barn 24x30 and gave him some tools and machinery, one cow, one horse and a few chickens. I took a mortgage on the forty acres for $265 for five years at 6 per cent. The forty acres was all wild land at that time. Mr. Andreweski gave me a house in Chicago with a mortgage of $800 and I later sold this place for $1,500, so you see he was worth at that time about $700.

Since he has come on to the forty acres he has bought over 300 additional acres of adjoining land. A short time ago he called on me and I asked him how many cattle he had and he told me that he had sold several, but that he expected to winter fifty-one head and in addition twelve horses. A few years ago he sold over $2,000 worth of potatoes from one crop. I asked him what he considered his place worth and he remarked, "Twenty thousand dollars wouldn't move me now." He said also that he owed a few hundred yet, but that his milk checks and another year's crop would square him with the world. I could name almost 100 similar cases which I have located in the last twenty-five years. I cite this only as an example of what can be done by hard work in upper Wisconsin.

Here is a story of success which makes my heart thrill with pride for the man who achieved so much, and for the Badger state, in which such things are possible. To come to wild land, to grub a foothold in the virgin soil, to bring dormant acres into crop-bearing, and to see one's handiwork blessed and made bounteously profitable beyond the fondest dreams, until the original capital is multiplied thirtyfold—all this in only twelve years! Is not this a story of success so full of inspiration to us all as to deserve not merely one printing, but many printings, so that all may know of it? I honor Mr. Andreweski, and some day I am going up to Stevens Point and have the pleasure of meeting him, face to face, and telling him so.

Mr. Heffron's letter has caused the years to roll away and my own youth to stand forth, clear in my mind's eye, as nothing else has revealed it to me in a long time. When I was a lad I worked amid conditions greatly akin to those Mr. Andreweski struggled with in the early days of his settlement here in Wisconsin. He came to wild land and grubbed a foothold amid the stumps. Let me tell him that the very first money I ever earned in my life was earned by grubbing with a mattock between the roots of black walnut stumps on my father's farm in Wyandot county, Ohio, so that wheat might be sowed in these precious spots and the family's food supply increased for the coming year. This county, where I lived and worked as a boy, was named for the Wyandot Indians, who had come, by various migratory stages, from Canada, down through Michigan to Ohio, where the government had established a reservation for them, so that I knew what it was to have Indian neighbors, just as the settlers of certain parts of Upper Wisconsin know what it is today. I believe Mr. Andreweski and I would find much in common to talk about, if we were to meet. I have done my full day's work, in wild land, many and many a time, long years ago. It takes a story such as this man's to bring it all back to me, most vividly.

I hope to print many more stories like this in The Wisconsin Farmer, as the weeks pass. I like them immensely; they are so inspirational and encouraging. I wish my readers would write to me in such a vein, telling how they have worked and won their way in the world. We can be of inestimable value and cheer to one another if we will talk frankly and freely together, telling the story of our trials and our triumphs, our sorrows and our successes. Shall we do this, every little while, here in this "family circle," where all have an equal voice and where each is gladly heard?

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Plans For Wisconsin Farm Homes.

Attention is paid in this issue of The Wisconsin Farmer to the farm home and several plans approved by Wisconsin women are reproduced on page 10. In addition our readers will find illustrations of a number of modern farmhouses taken especially for their guidance and illustrating some of the modern methods of construction.

The Wisconsin Farmer recommends better farm homes as a good investment. By this we do not mean that immediately upon receipt of this issue every reader should forget everything else and start out to plan a farm mansion. That would be just as foolish as it would be for the average dairyman to undertake to equip his farm with the same sort of buildings as may be found on the farms owned by millionaires and run for pleasure and personal satisfaction without regard to profit. It is just as necessary to use sense in planning and building a farmhouse as it is in planning and erecting a dairy barn or a granary or a horse barn or any other building which is a part of the invested capital on the farm. We do not recommend that a farmer spend more on his farm home than his business and the state of his finances will justify.

But it is right to call attention to the fact that many have not given the farm home the consideration which its importance in the farm economy deserves. There are many farmers who have lifted the mortgage and stocked up their place and erected big barns and put in many other improvements, who have paid very little attention to the farmhouse which houses the most important partners in the general scheme of running a farm. At the institutes we have so often heard the remark from a pioneer farmer who has made a big success: "I owe most of my success to my wife." Now if we really mean that remark why not pay a little more attention to the place in which the wife has to live, the building in which she carries on that part of her work which is so essential to the success of the farm.

There are thousands of farms in Wisconsin which ought to have better home buildings. Some of them should have new homes. In some cases the old house should be built over, modernized, equipped so that the wife and daughters will find their work easier and more comfortable.

We do not by any manner of means maintain that a house should be built solely to please the wife, though we believe that her views and her ideas should have the most weight when it comes to making decisions as to the kind of a house, the size, the equipment, conveniences, etc. The man who works all day in the fields or with his live stock needs a good home in which he may enjoy the hours indoors and in which he may get the largest possible returns out of his rest periods. To this end the farm home should be planned so that the farmer has his office or den and so that the boys and the hired men are taken care of properly.

There are several main objects to be taken into consideration in building a farm home. A matter of importance is location. A place high and dry should be selected and exposure should be to the east or south if possible. Have plenty of windows for light and ventilation. Plan the house so as to save as many steps as possible. No one would think of putting the dining room in one corner and the kitchen far removed in another corner. Neither would we think of having the men folks come directly into the sitting room from their work in the fields. No one wants a house so arranged that all the family and guests have to go through one of the bedrooms to get to the common bathroom. These are commonplace illustrations which suggest the value of working to some plan and making a careful study of the needs of the farm and its workers before deciding just what kind of a house to build. The plans which we give in this issue may help some of our readers along these and other lines. The pictures which are shown may offer a suggestion which will help someone.

Above all things we suggest that the modern home should be well supplied with porches and screens. There should not only be plenty of light in the daytime but thought should be given to the matter of good, clear light at night. Most cases of poor eyesight at an early age are chargeable to poor reading lamps. Heating a house is a matter of great importance and the winter which we have just gone through will suggest to our minds that this should not be overlooked. The modern home has plumbing and running water. These things may be included if the old house is to be remodeled.

Our suggestion is that time and study be spent on these subjects before the final decision is reached as to just what to build or just how. A house will usually cost a little more than is figured on in the first place, but that's true of any building. When you do build, build right and avoid repairs and changes which you would otherwise have to make too soon. And remember that money properly spent on the farmhouse is not money thrown away. It will add greatly to the value of your farm if you should have to sell.

Wisconsin Banker-Farmer Conference.

The second banker-farmer excursion to the college of agriculture at Madison will occur March 13th. The tentative program for the Banker-Farmer Conference, March 13th and 14th, has been arranged. Pres. J. R. Wheeler, of the Wisconsin Bankers' Association, will deliver the opening address. Dr. A. S. Alexander will speak on live stock farming and G. C. Humphrey will give some pointers on how to get the most out of the dairy herd. Other addresses, including the following: "Controlling Oats Smut, Potato Scab and Other Plant Diseases," by R. E. Vaugh; "Making the Farm Pay," by D. H. Otis; "The Banker-Farmer as an Unbeatable Combination," by Dean H. L. Russell; "Agricultural Teamwork in Wisconsin," by L. F. Graber; "Hog Cholera and Its Control," by F. B. Hadley; "Testing of Soils," by W. J. Geib; "Alfalfa For More Wisconsin Farmers," by R. A. Moore. On Tuesday evening, March 13th, Madison's annual horse show will be held in the live stock pavilion. All of the live stock herds owned by the Wisconsin College of Agriculture will be on parade.

Messrs. H. J. Maxwell, of Princeton, and B. M. Smith, of North Lake, are the special committee representing the Wisconsin Bankers' Association in charge of the Banker-Farmer Conference. The agricultural committee of the Wisconsin Bankers' Association includes G. W. Dudley, chairman, West Salem; H. J. Maxwell, Princeton; L. A. McAlpine, R. M. Orchard, Muscoda; B. M. Smith, North Lake; J. M. Smith, Shell Lake, and W. A. Von Berg, Mosinee. This committee has recently completed arrangements for a new set of monthly bulletins for 1917. The February number on "How to Get Started With Alfalfa," by L. F. Graber, having already been distributed. Other bulletins and their authors are as follows:

March—Washing Made Easier, by Miss A. L. Marlatt.
April—Vegetable Garden, by J. R. Hepler.
May—Prevent Weeds From Seeding, by A. L. Stone.
June—Wisconsin's Best Crop—The Child, by Miss A. L. Daniels.
July—Flytime and Milk Production, by R. T. Harris.
August—Sanitation in Stables, Pens and Pastures, by F. B. Hadley.
September—The Right Sire and How to Manage Him, by D. S. Bullock.
October—How the Short Course Helps, by D. H. Otis.

The first annual banker-farmer meeting was held March 28 and 29, 1916. It attracted a large crowd, but there should be twice as many present this year. The meetings are worth while.

Wisconsin Legislature.

Several bills now up before the legislature will be watched with interest by Wisconsin farmers during the coming week. Both are designed to lessen the danger from infectious diseases and prevent their spread from farm to farm. Milk is the best carrier of germs, as milk has all the proper conditions necessary for the successful growth of bacteria—heat, moisture and food. It is in the milk, therefore, that these germs thrive, and through the distribution of creamery and cheese factory by-products that diseases are spread from one farm to another. In the usual cheese factory or creamery the whey and skim milk are returned to the farmers who use this milk for feeding calves and pigs. If the herd of one of the factory patrons is diseased and the milk accepted by the factory, the germs from such milk will be distributed through the whole vat of skim milk or whey and unintentionally be the cause of numerous infections of other herds. The bill now under consideration will compel the factory to safeguard against this by pasteurizing these by-products before their distribution to the patrons.

As a measure of compensation in the case of diseased herds, the bill provides for the establishment of quarantined herds under supervision of inspectors from the State Live Stock Sanitary Board and recommends the disposal of the product of infected herds by legitimate means, thus preventing the financial losses which heretofore accompanied the quarantining of a herd. Provision is also made for safeguarding the health of communities in infected and quarantined areas. Veterinarians and farmers are held responsible for a report on diseases immediately following their discovery. As a measure for the establishment of these regulations in all strictness, the state department of agriculture is empowered to assume full charge of the affairs in a community and through its agent the live stock sanitary board adopt such measures which will most speedily bring about a return to normal conditions.

A bill providing for the appraisement of animals on a uniform basis has been introduced by two different legislators, but includes the same essential points. In brief the diseased animals would be appraised by a state inspector and paid for on the basis of 50 per cent of the estimated valuation. No matter whether there were lesions, no lesions or lesions by the hundred, the inspection would pay no heed to this. The animal condemned would simply be appraised and paid for by the state on the above basis. The maximum value that can be placed on any animal, according to this bill, is $250. Certain provisions are attached to a payment for condemned stock. For instance, no payment will be made unless the herd having such animal or animals is cleaned up altogether and all cattle tested. The owner must furthermore agree to test his herd in the future. The idea behind these requirements is that the state pays for progress and ought not to pay the man that refuses to clean up his herd and safeguard it in the future. It also aims to protect the state from being forced to pay out sums for diseased animals to the same farmer at each discovery of a new case that might have been avoided if all infected animals had previously been removed.

Both bills have the backing of Commissioner of Agriculture Norgord.

The Horse With Itchy Legs.

This is a very common trouble among heavy horses working in mud and wet, and, of course, specially prevalent in winter. The irritation may be due to "mange," or "grease," and all this aggravated by the character of work done, and the system of management pursued.

The subjects are generally hairy-legged horses, and there is often a disposition to clip the heels of such animals. This should not be done, although there is no harm, in facilitating cleaning by plucking out some of the hair by means of the finger and thumb dipped in powdered rosin.

The legs should not be clipped, however, since the hair serves a useful purpose in protecting the skin against the irritation of wet dirt, and they should not be washed on a return from work. There would be no harm come from washing, if it were thoroughly carried out, and the legs rubbed dry, which is a slow and laborious business, particularly in winter and the early spring months. What generally happens is that the washing, sometimes limited to driving the horse through a pond, is prefunctorially carried out, the dirt being washed into the skin instead of off the hair, while the legs are left wet, chilling the skin of a part remote from the center of circulation, because the attendants have not time, even if they had the inclination, to rub them dry. When the horse comes in wet and muddy, the best plan is to remove the thick of it with the scraper, such as saddlers sell for the purpose, and which is much preferable to the scraper made out of a rusty piece of barrel hooping, and to put on flannel bandages.

When the limbs are dry, brush out the remainder of the dirt with a brush and a coarse wisp of straw. To allay the irritation apply, when clean, a lotion of acetate of lead and sulphate of zinc, of each half ounce, rainwater one and one-half pints. Heavy horses with itchy legs are a nuisance. They make night hideous with their stamping and scraping, batter the stable to pieces, break their shoes, injure their legs and feet, and getting no rest at night, do not work efficiently during the day.

The Rustling Sow Is Most Profitable.

No man can afford to carry a sow through the winter if she is only to raise three or four pigs in the spring. The cost of her keep, charged up against so small a litter, means that the young pigs cost too much as feeding propositions. The entire herd ought to raise an average of six or even seven pigs per sow. While it is true that the prolificacy of the strain that one is handling is an important factor, still it is a well-known fact that there are enough pigs farrowed every spring and the trouble is that too many are lost before they are twenty-four hours old.

In this whole business there are just two principles upon which one must depend for his success. In the first place, the sows ought to be fed something besides corn during the last half of the gestation period at least. Sometimes a mixture of small grain, such as oats and barley and corn, will bring a bunch of sows through in good shape without using any of the high-priced concentrates. These grains are expensive now and, therefore, one can well afford to use either oil meal or tankage. They may be used sparingly and with gratifying results. One pound of tankage to twelve or fifteen pounds of corn will contribute immensely to the building up of the sow and her litter, and where oil meal is used one pound of this product to eight or ten pounds of corn will produce excellent results. The theory of using these products is simply this, that they contain the elements absolutely essential to growth and if they are not fed in liberal quantity, or some substitute containing similar ingredients, one need not look forward to having his sows farrow strong litters.

The other factor that is of the utmost importance is that of exercise. Keep the sows on the rustle. Some

breeders even go so far as to say that they can use a corn ration without any supplementary feed and yet have strong litters if they compel the sows to spend most of their daylight hours in the open. Whether this is true or not, it is important to remember that exercise is absolutely essential.

Successful swine men may not need this advice, but we venture to say that there are tens of thousands of renters and young men who are beginning farming in the corn belt who would profit very largely during the coming year if they would accept our counsel in regard to the importance of exercise. One need not have expensive quarters for his brood sows and young pigs, because excellent success is often attended by the use of the so-called individual house. Turn the sows out into a pasture every day during the winter and compel them to stay away from the yards and sheds, and if anything like a sensible plan of feeding is followed you may absolutely assure yourself in advance that you will save an average of anywhere from six to eight pigs per sow. The fat, lazy herd will not make this record, but active, vigorous sows and gilts will do it every time.

The pig that is strong at birth is not going to be downed easily by damp weather, nor is he going to succumb quickly to the cold. He comes into the world as a fighter and he is prepared right from the start to take care of himself if given half a chance. When you see a weak litter scrambling around the pen without showing the slightest disposition to take nourishment you may depend upon it that it is not their fault, nor is it the fault of the sow, but it is the fault of the caretaker who has failed either to feed properly or to exercise rationally. If there is no milk for the little fellows when they arrive nature puts that fact into their heads, thus saving them the trouble of investigating for themselves, and one by one they drop out, while the owner dolefully maintains that he had "bad luck," whereas it was not luck at all, but bad management.

Spreading Straw on the Land.

The day is not far distant when it will be considered just as practicable by the majority of farmers to spread straw on the land as it is to apply farmyard manure by means of the spreader. Machines to perform this task have been brought to a state of marvelous perfection so that the straw is spread evenly and the work is done quickly. Mr. Chester Maring, of Dickinson county, Kansas, has had some experience in spreading straw on his land. He has tried it out with winter wheat and finds that it prevents winterkilling, and, furthermore, a coating of straw he has discovered tends to keep the moisture in the land so that the crop grows vigorously in the spring. Mr. Maring says that he has many times observed clouds of soil rising from a wheat field with no straw mulch, whereas in a mulched field not a particle of dust was flying in the air. He has found that the spreading of a light coating of straw on the surface will greatly increase the yield of potatoes compared with a similar area where no straw is used.

Mr. Henry Sprau, of McLean county, Illinois, is also enthusiastic over the practice of spreading straw on the land. He points out that in the past thousands of straw stacks have been burned in his neighborhood in order to get them out of the way, but now the straw is being spread upon the land and the practice is bringing larger crops. He calls attention to the fact that sandy soils are made more compact, while heavy ground is loosened up by an application of straw. The spreading of straw on the surface of a clover field has prevented winter killing and the yield of corn has been greatly increased where the practice has been followed of putting straw on the surface in the fall and plowing it under in the spring.

Mr. W. T. Squires, of Vermilion county, Illinois, has had considerable experience in using straw as a mulch. He finds that it adds humus to the land, which, in turn, liberates plant food. Very good success has been obtained from spreading it over fields of small grain, as it helps to conserve moisture and checks weed growth. He considers that a good straw-spreading machine is a money-maker and, in his opinion, no farmer should be without one.

Mr. T. H. Behrends, of Logan county, Illinois, expresses the belief that straw is worth $5 a load if it is put back on the land in the proper manner. He believes that on one twenty-eight-acre wheat field an application of straw increased the value of the returns from that field at least $100. This, of course, makes no allowance for the benefit that resulted to the soil in after years. Certainly all the humus and all the fertility contained in straw would not be dissipated in the one year, but corn or other crops would be increased for several years as a result of the application.

We could go on quoting from others who have used straw spreaders, but we do not believe that it is necessary at this time. In many localities it is now regarded as almost a criminal offense to burn straw because our soil is hungering for the very ingredients that are supplied by this product. The old idea that material had to be rotted before being applied to the land no longer holds. Indeed, it is much better for the rotting process to go on right in the soil, because in that case there is no waste during the decomposition period. The soil quickly seizes the ingredients as they are liberated and they are made ready for the use of crops by chemical activity.

A Big Crop Year.

The approach of another crop season, with the prospects for bumper yields better than they have ever been before in the history of the grain belt, makes it imperative that every farmer should take advantage of every opportunity to increase his efficiency and to insure every acre yielding to its utmost. The Wisconsin Farmer will be edited this year with this purpose pre-eminent. The paper will be filled with the most practical articles obtainable by men who are practicing what they preach and who know by daily experience the problems which beset the many readers of this paper. We shall endeavor to make The Wisconsin Farmer of such practical utility to every member of the farm household that to miss a single issue will be a most serious loss.

This being the case, we take this means to urgently recommend that all readers whose subscriptions have recently expired, or which expire in the near future, renew without delay so as to insure their receiving every number. Not only this but we earnestly hope that all our present readers will see to it that their friends and neighbors are made acquainted with the merits of this paper and thereby will be induced to become members of our large circulation family.

Our advice is this: Renew your subscription today, without delay, and see to it that as many of your friends and neighbors subscribe as are possible.

Amount of Hay For the Work Horse.

One of our subscribers, Mr. A. F. Saxton, asks for information about the amount of hay to feed daily to a horse weighing from 1,200 to 1,300 pounds. Reference is made to the amount needed when the horse is doing regular field work involving plowing, disking, harrowing and seeding.

In answering an inquiry of this kind it must be conceded in the first place that considerable variation is allowed. A horse weighing 1,200 pounds will need approximately thirty pounds of provender daily when at heavy work, that is, thirty pounds of hay and grain. The grain part of the ration may vary anywhere from one-third to two-thirds, or, in other words, from ten pounds to twenty pounds daily. Naturally, where hay is cheap and grain is dear one would want to feed as much hay as possible, but from the standpoint of accomplishment in the field this kind of economy may be carried too far. If, for example, you undertake to feed twenty pounds of hay and ten pounds of grain daily to a work horse during the spring months you would find this ration to be too bulky and the horse would fall in flesh. On the other hand, turn it around and feed twenty pounds of grain and ten pounds of hay daily and the work horse fed in this way ought to stand rather severe labor every day and yet maintain his flesh.

As a general rule, it may be said that the country horse is allowed to consume a much larger quantity of roughage than the city horse and no man can be criticized for using up his cheap roughage and saving his grain. In his work entitled "Management and Breeding of Horses," M. W. Harper gives a number of rations that have been used with good results. For a 1,400-pound horse nine pounds of oats, nine pounds of corn and eighteen pounds of mixed hay daily answered the purpose well. In another instance horses weighing 1,220 pounds were fed eight pounds of oats, six pounds of corn, two pounds of bran and ten pounds of hay daily. Then, again, horses weighing 1,230 pounds were fed eight pounds of corn, seven pounds of bran and ten pounds of hay daily and the outcome was satisfactory. In the case of horses weighing as high as 1,600 pounds a good ration was nine pounds of oats, nine pounds of corn and twenty-four pounds of hay. Another instance is cited where 1,600-pound horses were fed twenty-three pounds of oats daily and twelve pounds of hay. A horse weighing 1,000 pounds doing moderate driving maintained his flesh on eight pounds of oats and ten pounds of timothy hay daily. It was also found that good results were obtained from feeding a 1,000-pound horse doing moderate driving four pounds of oats, four pounds of corn and ten pounds of timothy hay daily. The same horse, doing heavy driving, had his grain ration increased to fourteen pounds daily and was fed the same amount of hay.

These are rations that have been tried out and they have given good results so that they may safely be used by those who are interested in compounding a ration that is reasonably economical and yet one that contains plenty of energy to maintain the work horse while he is at strenuous labor.

WHILE FATE TREMBLES IN THE BALANCE,

Voices of the Past Speak Words of Encouragement and Sympathy.

Getting Pasture in a Hurry.

A Nebraska subscriber asks for information in regard to the plan that should be followed in establishing a quick pasture. He writes:

Can you advise me through the columns of your paper as to the best method of obtaining a quick pasture for the following summer? I have about ten acres of thin upland which it is my intention to take into the pasture. This land was in corn last year. The soil is a mixture of clay and sand. I would like to sow some grass which would make a permanent pasture. Blue grass has been tried on the same kind of soil, but with poor success, as the soil seems to dry out too quickly for the grass to make a start. Would it be advisable to sow a mixture of clover and timothy and oats and then turn stock in say the latter part of June? In this manner the other pasture could be given a rest. What mixture would you advise sowing and what time would be best to sow?

There is only one way to obtain a quick pasture and that end is attained by sowing crops that germinate quickly and make a rapid growth after germination. These conditions are met by the cereals, either oats, barley or wheat. A mixture of one and one-half bushels of oats and the same amount of barley per acre ought to give good results. Wheat is a later maturing crop and sometimes it is advisable to sow a peck less of oats and also a peck less of barley and add two pecks of spring wheat. It must be borne in mind that all these crops mature normally whether they are pastured or not, and the purpose in adding wheat is to extend the grazing season a little longer.

If it is the intention to make a permanent pasture out of this field, the plan of sowing four quarts of timothy and four quarts of clover seed per acre may be followed. Sow as early in the spring as possible, because a considerable part of this seed is hard and a few frosts after seeding will aid rather than retard germination. As blue grass does not do well under this subscriber's conditions it is altogether likely that a western grass would have to be used for permanence and in that case the experiment station at Lincoln should be consulted, because that institution has made a close study of grasses that are adapted to different parts of the state. Those who are facing the same problem as this subscriber and who live in localities where blue grass does well cannot do better than sow along with timothy and clover anywhere from five to ten pounds of blue grass seed. It will not show up much the first year, and even the second year it might be destroyed, but after the clover dies out it will gradually take possession and finally even timothy will have to give way to it.

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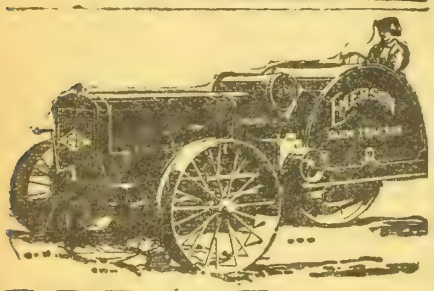

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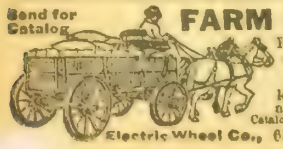

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The Farmers' Open Forum

WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

Tractor on a Dairy Farm.

To the Editor:—Our farm is a dairy farm and we farm intensely. We only have 160 acres, but some of this land we raise two crops on, so you might say we are working nearly 200 acres.

Four years ago I allowed some experimental work on my farm. We had been looking for a light tractor that would not pack the ground and at the same time heavy enough to do away with our heavy horses and an extra man. After seeing many tried out and watching experimental work at different stations we purchased the 8-16 tractor, which any level-headed man can operate, but must remember to use lubricating oil.

This tractor is doing the work of seven horses and two men. It pulls three fourteen-inch plows and a two-section drag. For oats we do not plow deep, but our land we are plowing eight to nine inches, turning over a bottom that has never been worked before. Where disking is required we use a tandem disk which does the work of two ordinary disks that would require four horses each. All plow manufacturers have their plows equipped with the "one-man lift."

In plowing we have found that it is to our advantage to have oblong fields. I have laid out mine in forty and fifty-acre fields. We have divided this in three lands, leaving about a rod all the way around. This we plow as a fourth land. This enables us to lift the plows and have room to turn and go back on next land. Then when we have finished we plow the fourth land from inside, leaving our home stretch up the fence line and out the gate. We never turn on the plowed ground, though we are using extension rims. This particular tractor weighs no more than four large horses.

Were it a larger farm we would recommend the use of two such plowing outfits, for the reason that when you go beyond this size it requires two men, one for the engine and one to handle the plow. The weight is much greater and I think it more economical to run two outfits.

We are plowing three-fourths of an acre an hour. The cost of lubricating oil and kerosene at the present market is about 17 cents per running hour. The advantage of the engine over horse power is that, whereas it is slower, there is no resting on the corners or on a hot, muggy day, laying off for a long nooning. We find at the close of a day that the engine has accomplished much more than the seven horses were doing on our gang and sulky plows.

When hay is ready to cut most farmers are busy cultivating corn. We take our horses off long enough to cut down the hay and later to roll it in windrows. Then we use our tractor for pulling the wagon with loader attached. The hay comes up steadily. One man, by hustling, will load the load. In this way one loads on an enormous load. We use a second wagon in the same way, then when the team comes up from the cornfield it takes in one load while the tractor takes in the other one, thus giving a team for drawing up the hay.

We have a short binder pole which we use on our grain binder for cutting oats. This is slower than three horses, but as we run right through the noon hour and up in the evening, it is doing the work of two three-horse teams.

We use this engine for filling our silos and put up some 300 tons. We cut what corn there is left standing with our corn binder with the short pole attached. It also knocks down all corn stubble and makes a smooth plowing. We also use this engine for shredding the balance of our stalks.

After that about the only use we have for it during the winter is as power for grinding feed.

In regard to horses, we must have a team to use on the spreader and cultivator. From this team of Percheron mares we try to raise one or two colts each year and generally are breaking a team which is used as second team in cultivating. It is still profitable for farmers to raise good horses.

If there is any other question we could enlighten you on we would be glad to do so, for I know it is the coming power for all farmers.

Edward Salmon.

Method of Handling Soil For Potatoes.

To the Editor:—I have been experimenting with potatoes from common seed which I grew on town lots for a number of years. I now have a good standard seed potato, Green Mountains. I took first place at the county exhibit and might have taken a place at the state potato show, but the county representative let them freeze in transporting them to town. I also took second place at the county fair, without sorting, at field run. I have enough seed of these potatoes to plant five acres next year.

I am going to plant them on clover land which I turned over in July last year, the clover being about one and one-half feet high. Next spring, after manuring it, I am going to plow it back so as to get the fertilizer on top, and just before planting will drag it thoroughly with a spring-tooth drag. I don't believe in a disk because it packs the soil underneath and closes the pores of the ground so the warmth cannot come up. I have found that by cultivating just before I expected a frost it wouldn't freeze so easily as where it was disked. I believe in keeping my fields in rotation so as to raise one crop of potatoes, followed by one crop of oats seeded down to clover to stand for two years. I don't know much about farming, but through experiment I raised 800 bushels of potatoes from three acres on a field similar to this.

I would like to know what you think of my method of raising potatoes and would like to know if any of your readers can tell me how I could improve on it. I am going to plant about twenty acres of potatoes next year, but will have to use different seed. Last year I did field sorting for my potato seed. I used 30 cents' worth of Paris green last year. Aug. Dreger.

How I Acquired a Good Habit.

To the Editor:—Many years ago when I was a young boy of fifteen I was given the job of taking several crates of poultry to the city some fourteen miles distant. On the day previous to the excursion I remarked to my father that the double harness was getting rather old and unsafe to be used on the lively young team which we at that time possessed.

We had never given the harness any care other than to tie it up with binder twine in case parts of it gave out and I frequently feared that the whole rigging might some day collapse and give the horses their liberty.

My father was not at all impressed by this condition, however, for no accident had ever happened to him and my suggestion that a new harness be purchased was laughed to scorn.

Mother accompanied me on the drive to town and in spite of my misgivings the giddy team showed no inclination to test the strength of the old trappings in which they were incased. Having delivered the poultry, we began the homeward journey, the road leading past a race track which was in full view to the passers-by. Races were in progress that day and my mother, knowing my love for this diversion, proposed that we stop and watch.

I readily agreed and we remained until heavy western clouds told of an approaching storm, and, heeding the warning, we drove on. Lightning flashed and a terrible peal of thunder rent the air. The horses, frightened by the crash, ran very fast and I, in my effort to restrain them, pulled with all my strength on the lines. The tug was too much for the old harness and one line broke in my grasp. I was left with one line, a team which was now actually running away, and my screaming mother at my side.

To the right of the road rose a high bank; to the left a deep gully, and, though but a few moments elapsed in this position, I had plenty of time to regret that it was the right line which had broken. As I began to appreciate the awful consequences which would result to my delicate mother if the team should pull the wagon into that deep ditch on the left, I resolved to take a desperate chance. I crouched as far forward as the wagon box permitted and made a leap for the back of one of the galloping horses. Safe! I reached the upper part of the reins, which were close to the necks of the steeds, again pulled, and in a minute or two succeeded in stopping the team.

I repaired the broken line and we managed to reach home without further accident. When we related our narrow escape to father he replied not a word, but the next morning when I was taking the milk to a near-by village he said: "Stop in at the shop and get a new harness."

Since I have had charge of my own horses I have always borne in mind that early experience, but I have not always found it necessary to purchase everything new even to be safe with a brisk team.

Instead I try to keep the harness and every strap in it well repaired the year around. Further than this, during the months of February and March a thorough oiling is given all the leather parts and if there is any sewing or other work necessary it is done at this time.

I have found that by this treatment the horses have sound and safe harness ready for spring work when it arrives and besides tending to eliminate the danger of runaways it in the end is economical because I do not have to buy new rigging so frequently.

Waukesha Co., Wis. Subscriber.

Married or Single Man Which?

To the Editor:—I think farming is getting harder all the time in spite of the fact that farm implements are being improved. Wages have not only increased enormously but the right kind of help has become exceedingly scarce. I farm 260 acres of land and sometimes I am left entirely alone, so that you can understand that I have to hustle, especially when I tell you that we raise about 100 acres of corn every year and have the farm well stocked. I don't mind work, but I am not in love with drudgery and that is what it is getting to be, I fear. I have always been getting along with single men, taking these right into my home and making them members of the family. I have sometimes thought of building an extra house and trying out the plan of keeping one good married man all the year round. It would lessen the work in the home and possibly help of this kind would be a little steadier. I would like to see this matter discussed in The Homestead and I would particularly like to hear from those who have tried the plan of building an extra house and employing a married man. Subscriber.

Law Questions.

Lost Steer—Owner the Loser.

A Subscriber, Spencer, S. D.—A had a public sale of stock on his farm. His neighbor B brought two steers to the sale and had them sold. C bought them, and gave his check for the price on the day of sale. When C went after the steers the next day after the sale, one of them was gone, and was never found. Who is the loser?

Answer.—When C bought the steers and paid for them on the day of sale he became the owner of them—the title to them passing at once—hence, he is the loser of the steer that cannot be found.

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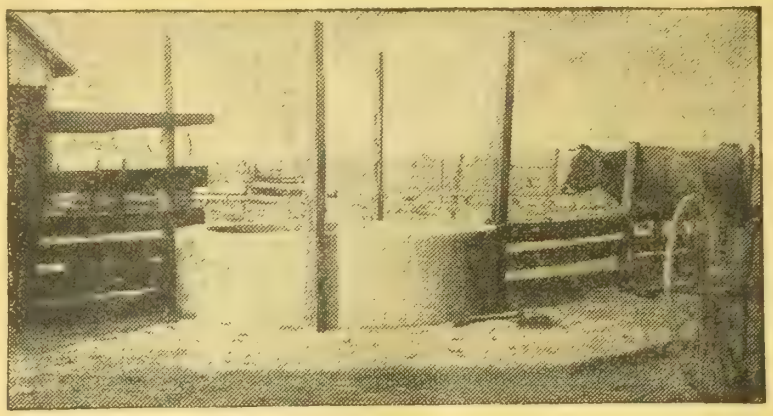

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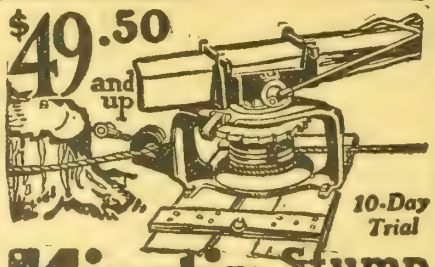

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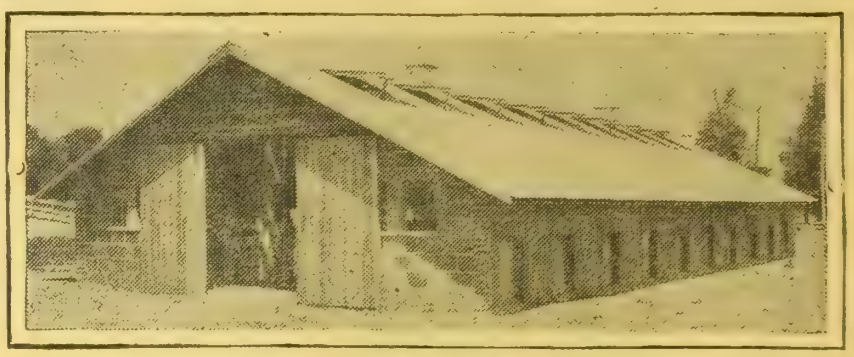
Sensible Housing For Hogs.

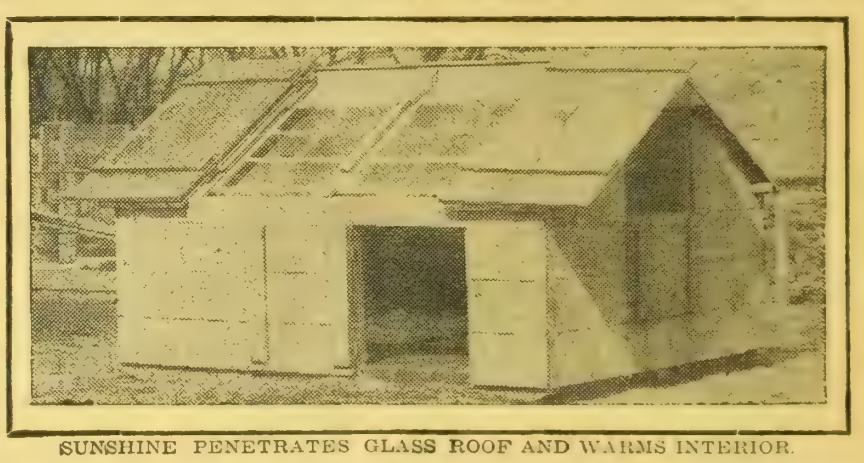
Ventilation and Sunshine Are Important Matters to Be Taken Into Consideration in the Erection of a Suitable Hog House.

HIS LORDSHIP, the hog, occupies at present almost the spotlight center of the stage. If he has been the "mortgage lifter" in the past when prices ranged from 3 to 6 cents a pound on foot, what shall we say now when values are running from 8 to 12 cents a pound? He is not only rooting the mortgage off the farm at breakneck pace but he is making it possible for his owner to enjoy the luxuries of life in a manner never before known. It is not uncommon to find instances where one litter of pigs sold for $300 before they were ten months old. These figures are simply astounding, and there is no immediate prospect of a serious slump in values. Under the circumstances it would be unadulterated shortsightedness on the part of any man to neglect his hogs during these piping times. The Wisconsin Farmer has given a good deal of attention this winter to the care and management of hogs, including methods of feeding, but at this time a word is in order in regard to methods of housing.

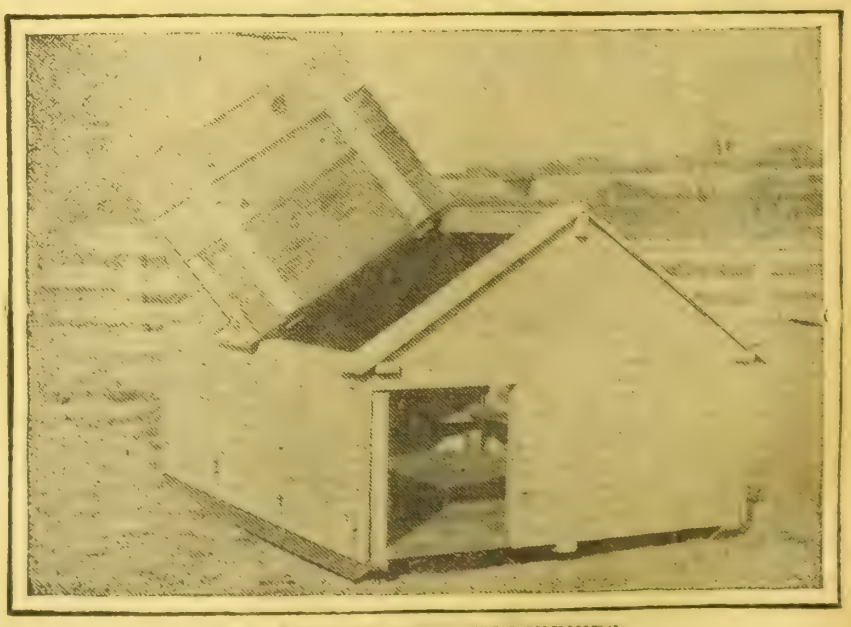
There is a wide range to choose from because some breeders are having exceedingly good success with the so-called individual house, costing anywhere from $15 to $25, while others are loud in their praise of the central plant surrounded by suitable pens and yards. To the latter type belongs the so-called Iowa community sunlit hog house, which has been originated and developed at the Iowa Experiment Station. As indicated in the illustration, the walls of this house are made of hollow tile, which means that advantage is taken of a dead air space within the wall, than which there is no better means of keeping out the cold. This house is designed to extend from north to south, so that from sunrise to sunset the warm rays of the sun are shining into the pens, a series of windows being placed in the roof for this purpose. It will be noticed in the illustration that there are two ventilators placed on the top, a most important feature of hog house construction. In the building of any hog house provision must be made to carry off the moist air which emanates from the pens and it is claimed for the hollow tile house that the amount of moisture in the interior is reduced to the minimum. It is impossible to overemphasize the importance of plenty of direct sunlight. The sun is the great germ destroyer and every swine breeder has scores of times observed little pigs snuggle themselves together in order to catch a ray of sunlight. It may be built any desired size, but a very convenient size is one twenty-two feet wide by thirty-two feet long. This will allow for ten pens, five on each side, 6x8 in size, and there will be a six-foot alley through the center. By dropping out one pen a feed bin can be placed in one corner. In the construction of a house of this type it generally pays to put in a concrete floor right in the beginning. Then you have a permanent structure that



THE SO-CALLED SUNLIT COMMUNITY HOG HOUSE.



SUNSHINE PENETRATES GLASS ROOF AND WARMS INTERIOR.



A 4x8 HOUSE BUILT ON RUNNERS.

is easily kept clean and disinfected. By the sensible use of bedding little pigs will do well on this kind of a floor and in any event little expense is involved in putting down a temporary, movable wooden floor. This might be needed at times when the weather is damp and there is but little sunshine.

Turning to an entirely different kind of hog house, we find types that are inexpensive and yet at the same time they answer well the needs of those who are not in a position to make the outlay for a permanent hog house. Generally these houses are 6x8 in dimensions and they are built on 4x4 runners. In some instances glass is placed in the roof, while in other cases a hinged door answers the purpose well. The use of the movable house makes it possible to use pastures rather more conveniently than where there is a central hog house. With one of these houses it is possible to place the sow and her litter in a small pasture and the pigs raised without the annoyance of having one litter rob another. Those who have used this system are able to raise a much more uniform bunch of pigs than where all sows run together. By placing the houses on new ground from time to time there is not the same danger from infection as there is with a central house, though it must be said of the latter that where concrete is used for the floors it is not expensive to disinfect. Another argument in favor of the individual hog house is that such a house is quiet at farrowing time and one sow can be placed in her own little dwelling so that she will not be disturbed by other members of the herd. Then it is entirely practicable where a considerable number of hogs are raised for market purposes to place the small houses in a row and in that case they make a good windbreak with a little straw or manure banking, and they furnish ideal sleeping quarters for fattening hogs. By opening the roof door part way good ventilation is obtained and there is not the same danger of piling up as there is where a large number of hogs are allowed to run together in one shed.

The Wisconsin Farmer is of the opinion that many individuals on rented farms who are not furnished suitable equipment in the form of a central hog house would be able to get excellent results by building a few of these movable types of hog houses. The cost is not excessive and if it is not convenient to move them at the expiration of the lease they generally sell to a neighbor for all the material cost in the first place. We have seen many instances where 100 and even 200 hogs were raised every year when there was no central plant whatever, but the hogs taken care of during the entire year by these movable types of houses.

Boys' Stock Judging Contest.

Wood County Agricultural School was declared the winner of the second annual Wisconsin Boys' Stock Judging Contest, which came to a close at Madison, February 10th, the last day of Farmers' Week. Nearly 125 schools took part in the preliminary elimination contests which were held during the last two months. Twenty-five of these sent teams to Madison to represent them in the finals which lasted two days. The Wood county school from Grand Rapids won by the small margin of 4.6 points. The total score made by the three boys, Carl Olson, Harvey Ward and Albert Anderson, representing the school was 1,454.2. They were coached by W. W. Clark, their principal.

Chippewa Falls was second with a score of 1,449.8 points. W. C. Christensen coached the team composed of Rex Carew, Clarence Reed and Truman Woodruff.

Third place was won by Frederic high school. George Larson, George Claude and Earl Fahland made a good showing with 1,442.2 points to their credit.

Fourth place went to Markesan high school. Alan Densmore, Erwin Eckert and Robert Boerner composed the Markesan team.

Individual judging honors went to Robert Shannon, of Ellsworth high school. He made 518.2 points out of a possible 600. Foster Claflin, Mondovi high school, was second with 516.6 points and was closely followed by Harvey Ward, of Grand Rapids, whose score was 515.8. Erwin Herrewig, Wonewoc, with 496.8, and Robert Boerner, Markesan, with 492.8 points, were other high men.

The final contest at Madison each year is the climax of the local judging done in the twenty-five agricultural districts of the state. The winner of each district sends a team to the college during Farmers' Week where the best team is selected by a two days' contest in judging beef and dairy cattle, horses and swine. The best men the college has to offer give out the decisions in each event. This year A. C. Oosterhuis passed on the work in dairy cattle, J. L. Tormey on the beef judging, J. G. Fuller in the horse judging and A. H. Kuhlman on the swine judging. T. L. Bewick had charge of the entire work. The actual placing of the animals is counted as 60 per cent of the work and the oral reasons of each boy for such placing forms the balance. The schools included in the finals were Waldo, Prairie du Sac, Milton Junction, Livingston, Markesan, Chippewa Falls, Patch Grove, Pewaukee, Belmont, Peshtigo, Stoughton, Mondovi, Marshall, Wonewoc, Frederic, Athens, Grand Rapids, Wood County School of Agriculture, of Grand Rapids; Cashton, Bayfield, Ellsworth, Rio, Wabeno, Walworth, Boscobel and the Marathon County School of Agriculture at Wausau.

Last year's contest was won by the Milton high school, with Athens high in second place. Under the auspices of the Wisconsin Live Stock Breeders' Association the agricultural extension department of the college and the state board of education these contests have become an annual feature of Farmers' Week and they help in a large way to make the local contests of the separate districts more interesting, as the pupils realize that the winning of a local contest gives them a chance to go to the state college for a final tussel to decide state honors under the able judgment of the state's biggest men in this work.

A Farm Gas Plant.

To the Editor:—I am writing you in regard to our gas plant which was installed December, 1915, by one of the dealers of Mauston, Wisconsin. I am glad to say that so far this plant has proved to be very satisfacotry. It has given us a safe, mellow light, free from odor or noise, without much trouble or expense after the original cost of installing it. We have run over a year without any expense, except for gas and three new mantles. We have five lights and a flatiron in the house and hope to soon have lights in the barn, and also to use the gas to run a motor for pumping water, operating separator, washing machine and many other such things about the farm. This gas can also be used for cooking, heating water, etc. The gas comes in liquid form in large iron bottles. The bottle is placed in a cabinet and the gas passes from a bottle into an expansion tank and from there is forced through pipes wherever wanted. The gas plants come in three sizes and we have the medium size.

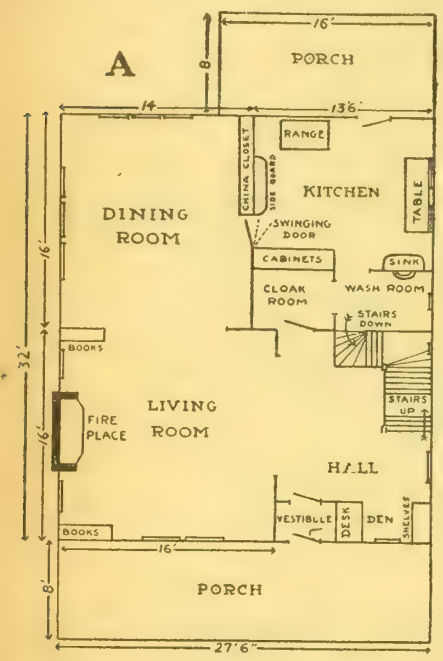
If any of your readers would be interested in knowing more about gas plants for farms, would be pleased to give any information which I can.

Mauston, Wis. Albert Lange.

PLANS FOR FARM HOMES.

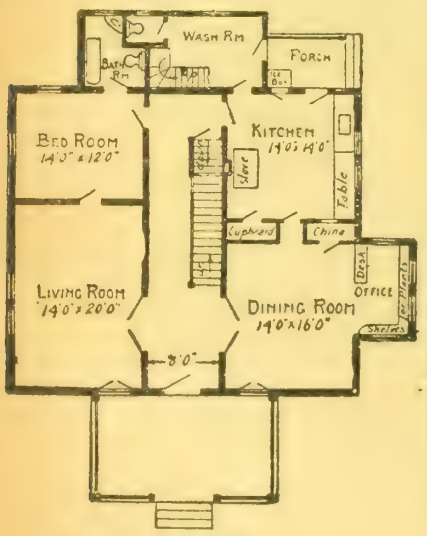
What Wisconsin Women Have Given as Their Opinions Concerning Best Arrangements of Rooms in Up-to-date Modern Farmhouse.

THERE is something fascinating connected with the planning of the farmhouse. Farm women find a keen enjoyment in telling their ideas of a model farmhouse and the conveniences it should contain. On a great many farms this talking and planning has been about as far as house building has gone, but the day of the better farm home is here. Even the farm folks, who have limits as to their income no longer hesitate when it comes to making an investment in a better farmhouse. The farm woman is justified in insisting upon her rights in this respect. The



Plan A—Fire place, large living room and hall, with den or office.

farmer of today does not follow on foot behind the wabbly corn cultivator. No, indeed, he rides. He rides when he sows as well as when he reaps. His work has been immeasurably lightened by modern farm machinery, but why not extend the benefits of modern conveniences to the house as well as the barns and fields? On many farms the women folks still carry water from the pump outside of the house. Rain or shine, hot weather or cold, in all seasons alike, every drop of water must be carried into



FIRST FLOOR PLAN

Plan C—Suggested by a Wisconsin farm woman.

the house, just as it was done hundreds, and even thousands, of years ago. A famous writer once said woman's household duties began with the discovery of fire. Her first work was to tend to the fire on the hearth. In too many instances she is still doing it.

In an effort to obtain the ideas of the women of Wisconsin as to the best arrangement of a house for farm conditions, the college of agriculture recently sent out a set of questions to a number of leading farm women in the state, and twenty-five of these answered in detail the questions asked and most of them submitted rough sketches of their idea of a model home. The summary of these answers is interesting.

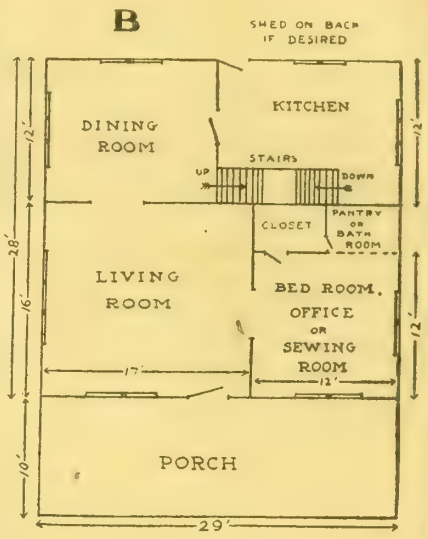
Twenty-two wanted a two-story house rather than a one and one-half-story structure.

Nineteen preferred a bathroom on the second floor.

Nearly all were agreed on a wash room at the rear of the building, where the farmer and the hired help could wash before entering the kitchen. Nearly all agreed that concrete would be the best floor for this room.

In the matter of heating the house, there was a wider range of choice. Eleven wanted hot water, eight hot air, and four wanted steam heating. Two did not make any choice.

About half were in favor of a toilet



Plan B—Provides for office room on the first floor.

on the ground floor, while the others did not consider this essential.

Seventeen wanted electric lighting. The balance preferred gas or lamps.

All were in favor of a sewage disposal system.

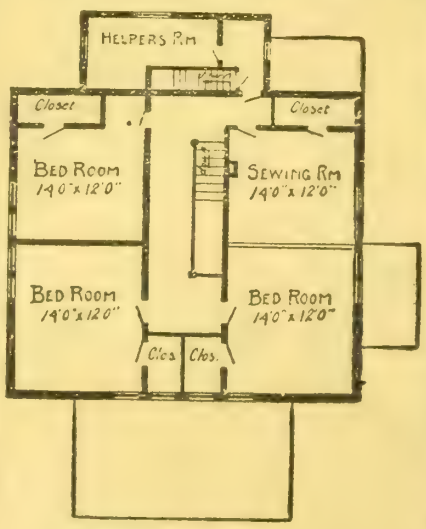
All but two wanted a screened living porch.

All but five wanted the dining room separate.

Fifteen expressed themselves in favor of a built-in bookcase.

All but two wanted a built-in china closet.

All but one favored built-in cup-



SECOND FLOOR PLAN

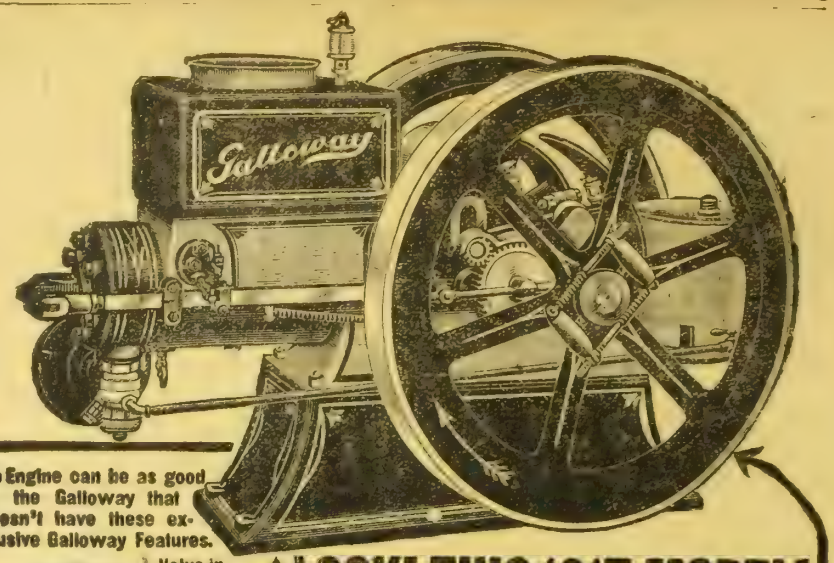
Plan C—This woman prefers bath room down stairs.

boards. Eight wanted a pantry in addition.

In the dimension of the kitchens, the most of the women preferred a kitchen 12x14. The other estimates varied from 12x15 and 16 to sizes of 10x10 and 10x16.

Twelve were in favor of a sleeping porch. Ten were opposed to the idea and three did not express themselves. Twenty asked for the laundry in the basement, four wanted it in the kitchen, and only one preferred the rear porch or a separate room with the wash room.

On this page are given some of the plans submitted. Plan A is the ground floor plan submitted by a woman in Trempeleau county. The first floor would include a living room, a dining room, a kitchen, a den or office and a wash room. The hall is perhaps too spacious, and by a little rearranging of the size of the rooms an extra room on the ground floor could be made possible. This woman believes that for the farm the bathroom should be on the second floor. Upstairs would be four bedrooms with roomy closets in each. She believes heat the most essential of conveniences, running water next in importance and sewage disposal following that. She believes that a lighting system is not quite so essential, but if the farmer can afford it he should by all means install this convenience. For such equipment as will give satisfaction in heating—either furnace, hot water or steam, an expense of $250, is to her



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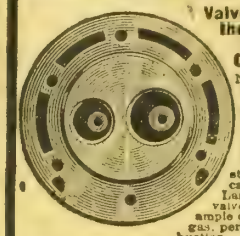

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Arch-of-Strength Cylinder Head
Positively cannot blow off. Held by steel studs—nuts perfectly seated, insuring the greatest possible strength in a cylinder head. Absolutely gas tight joint with end of cylinder. This type of cylinder head provides nearly double amount of water space found on other styles.

Sure-Fire Make and Break Igniter
Webster oscillating magneto makes blue-hot spark. Needs no batteries. Absolutely sure fire. Weather does not affect it. Eliminates all ignition troubles. Thousands in continual operation for years without replacing igniter points. Gives least trouble from soot or carbon of any type igniter we ever used. You will get results and satisfaction in using this type on your engine at any time of year, winter or summer.

Economy Carburetor
Worth $15 more on any engine, costs nothing extra on the Galloway. Cuts down fuel bills. Simple, positive air valve adjustment—regulated at will—easy starting in any weather. Mixes perfect fuel charge. Makes gasoline most perfect fuel. Has special cold weather valve which makes easy starting in cold weather. Also gets great power from small amount of gasoline. A great saver of high-priced fuel. Our own invention. Used on all Masterpiece engines. The logical carburetor for you to have on your engine, making it cheaper and better than kerosene.

One-piece Cylinder and Base
on all Galloway engines from 4 to 16 h. p. insures perfect alignment of cylinder, piston, connecting rod, crank shaft and flywheels. Absolute uniformity of wear. Only scientific and successful method of construction for large, heavy duty, heavy weight engines. Two-piece cylinders and frames cannot be kept in line.

LOOK! THIS 1917 MODEL!

Go over it point by point, feature by feature, compare it side by side with any other make of engine of the same rated horse power or the same bore and stroke! You will decide that no better engine is built. For years and years I have told you to compare the Galloway engines with other engines! That's why I have prepared my new 1917 special proposition. I want a Galloway Masterpiece 1917 model gas, kerosene or distillate engine in every township in every state between now and June 1st, and my **new 1917 prices** and selling plans will get them.

QUICK SHIPMENT **LOW PRICES** **HIGH QUALITY**

SIX 1917 SELLING PLANS --CASH OR TIME

No matter which way you want to buy I have a plan that will suit you—Cash, Bank Deposit, Half Cash—Half Note, All Note, Installment, and No Money Down, to responsible people. Galloway's guarantee is absolute satisfaction or your money back, and he pays the freight both ways. Remember my

$25,000 LEGAL BANK BOND ABSOLUTELY PROTECTS

you and every one of my prospective customers and proves my willingness to have every claim and statement I make fully investigated. I want you to try a Galloway engine on your farm—in your own shop. That's why I have prepared my new 1917 special proposition. I want a Galloway Masterpiece 1917 model gas, kerosene or distillate engine in every township in every state between now and June 1st, and my **new 1917 prices** and selling plans will get them.

NOTE 1917 IMPROVEMENTS

Adjustable bearings, no lost motion, develops way above rated horse power. Economy carburetor, worth $15 more on any engine, costs nothing extra on the Galloway—cuts down fuel bills. Large valves in head, exactly like highest class automobile motors, perfect scavenging, admits perfect combustible mixture. Double ball governor. Large, heavy flywheels. Big bore, long stroke, heavy weight, perfect balance, smooth running. Perfect lubrication, winter or summer. Webster magneto (extra) supplies blue-hot spark. Make and break igniter, never misses fire. Easy started, no cranking, needs no batteries. Cylinder and water pot frost proof. Galloway engines honestly rated, scientifically, accurately and handsomely built. Our description the truth. Shipments made from Waterloo, Council Bluffs, Kansas City, St. Paul, Chicago, whichever is nearest you.

GET THIS 1917 BOOK ABOUT ENGINES

I want you to have this new book about the famous Galloway Masterpiece engines. It tells you how to pick out, size up and judge an engine. Gives you engine secrets and facts. Tells why to insist on heavy weight, large bore, long stroke and low speed—why light weight, high speeded engines are not to be compared with Masterpiece engines and why you are asked four profits for some engines no better. Tells why we sell direct from factory to farm or shop at wholesale. How to install an engine and hook up machinery. How Galloway engines are built. How to lay out and build a cheap, efficient power house. Why our prices on high class stationary and portable engines and saw rigs are so low considering quality. The truth about engines is all set down in black and white. This book is a guide to saving money on every farm. That's why I want you to get it. If you expect to buy an engine I'll pay the postage and be glad to send the book. Ask today. A postal will do. Address me as below.

WM. GALLOWAY, Pres.,
THE WM. GALLOWAY COMPANY
35 Galloway Station Engine Manufacturing Specialists Waterloo, Iowa

FISH

FRESH, FROZEN, SMOKED, SALTED
Send For Price List
Johnson-Schiller Co. GREEN BAY, WIS. Box 186
Mention this paper when writing

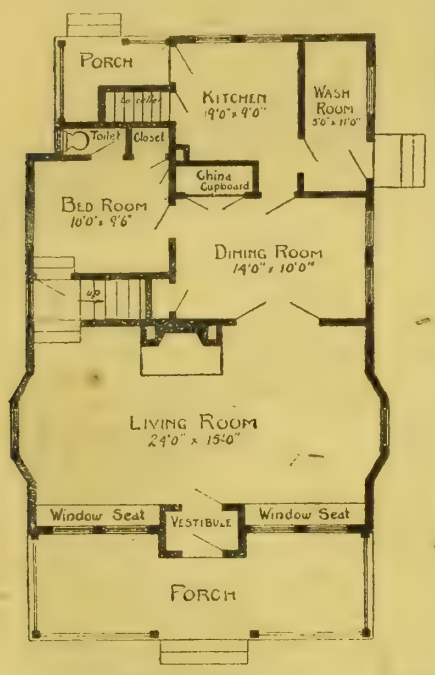
Our Winter Production of
Fresh Frozen FISH

WILL start as soon as cold weather sets in. Your name and address on a postal will bring our price-list.
Wisconsin Fishing Co., Dep. C. Green Bay, Wis.

Gabel's So E.Z. Forcep with Spring Cable Loop
NO WIRES TO BREAK
FREE 30 DAYS TRIAL
AGENTS WANTED
Price $1.50
GABEL MFG. CO., HAWKEYE, IA.

mind, well warranted. She wants cupboards in the kitchen, china closets in the dining room and a laundry in the basement.

Plan B shows what a women in Fond du Lac county thinks a farmhouse should include. She wants a spacious sitting room, but no vestibule or hallway. A separate dining room leading off from this and opening direct into the kitchen. From the kitchen she plans the bathroom, which would necessitate a trip across the kitchen for the farmer and his help at every meal hour. This might prove more of a bother than a help, as this meal hour is the busiest time for the housewife. A bedroom opening off the sitting room could also be used as the farm office or as a sewing room. She is in favor of all modern con-

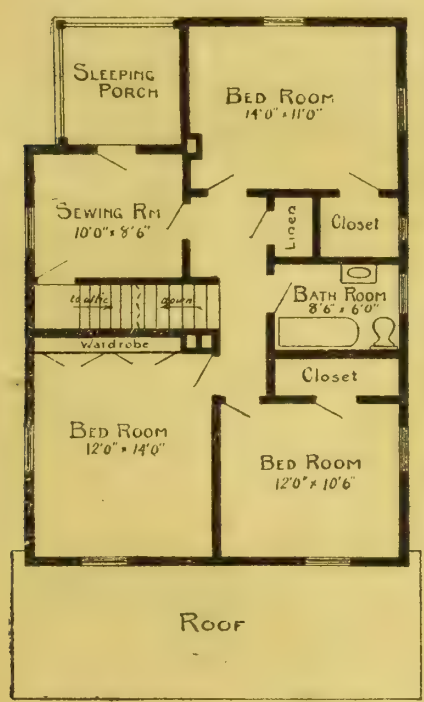


First Floor Plan

Plan E—Large living room and porch and bed room on first floor.

veniences, believing that, although not all are equally essential, most of them are within reach of almost every farmer, who can in fact better enjoy these conveniences than the city man. She considers running water of first importance with a proper system of sewage disposal second and heating is given third place in her judgment. Lighting is also an important item. Sleeping porches are just as beneficial on the farm as in the city, in the opinion of this woman.

In plan C the designer has avoided



Second Floor Plan

Plan E—Sleeping porch, sewing room and three bed rooms up stairs.

some of the mistakes of her associates, the outstanding features here being the wash room, the office and the helpers' room. The wash room here shown does away with the interference caused by the men folks when they are forced to go through the kitchen before each meal for the washing utensils. The back stairs leading to the hired man's room above enables the hired man to go to his room late at night without disturbing the family. The hallway, running the length of the house, keeps the kitchen private, as the dining room and all the other rooms can better be reached through it. An office is provided for on the first floor where the farmer can keep records and books and conduct his correspondence. The sewing room on the second floor is another convenience, as the work does not have to be completely laid away every time other duties of the housewife demand her attention. The difference between this and the other two plans is that the combined features, as contained in the last plan, make it distinctive, while in the others one or more of these are missing.

These plans have not been presented here with the idea that they include all points that go to make a model home. No person need agree with his neighbor on everything and the plans here represented are just samples of the ones that are now being received by the college authorities in answer to requests to a number of women for their opinions concerning the ideal home. There are slight mistakes in the above plans which ought to be avoided.

The interest these women have shown, however, is a splendid example of the change that Wisconsin farm homes are undergoing, and it will not be long before the conveniences for the wife will be considered on a par with the needs of the farmer.

Plan E: This plan, designed by a Rock county woman, has quite a few points of merit; the wash room for the farmer and his help, the spacious living room, the toilet and bathroom on the second floor, and the sleeping porch, which can accommodate part of the family when visitors come. The objections to this plan are almost as many as the advantages. However, comparing the location of the toilet and the wash room on the first floor and the location of the bathroom on the second, it is evident that there is bound to be a waste of material in plumbing. Horizontal plumbing should be avoided as much as possible and expenses cut down by having all piping as nearly vertical as possible. The toilet downstairs is not accessible except through the bedroom—another awkward feature. The bedroom downstairs can be turned into an office, but even so, there would be the disadvantage of being forced to pass through the dining room in order to get to it. In this, as in the other plans, you will have noticed that no one included a parlor in the sketch. That is because the parlor is nowadays rightly considered a useless institution and as having no place in the farm home.

Milk producers in the vicinity of Stoughton, Wisconsin, have organized and affiliated themselves with the Northwestern Milk Producers' Association, of Chicago. A delegate has been chosen to the Chicago federation.

THE NORTHWESTERN MUTUAL LIFE INSURANCE CO. MILWAUKEE, WIS.

GEO. C. MARKHAM, President

To the Public:

The 59th Annual Report of the President to the Trustees and other Policyholders of the Company shows the following transactions for the year 1916:

Death Claims Paid		**$15,515,133.26**
Endowments Paid		**4,839,065.81**
Dividends of Surplus Paid		**13,151,403.51**
Surrender Values Paid		**8,691,297.05**
Annuities		**245,188.64**
TOTAL PAYMENTS TO POLICYHOLDERS	**$42,442,088.27**	
Addition to Assets	**19,453,108.09**	
Grand Total for Benefit of Policyholders	**$61,895,196.36**	
New Insurance Paid For		**$153,272,632.00**

Total Insurance in Force, $1,505,464,984

FINANCIAL CONDITION JANUARY 1, 1917:

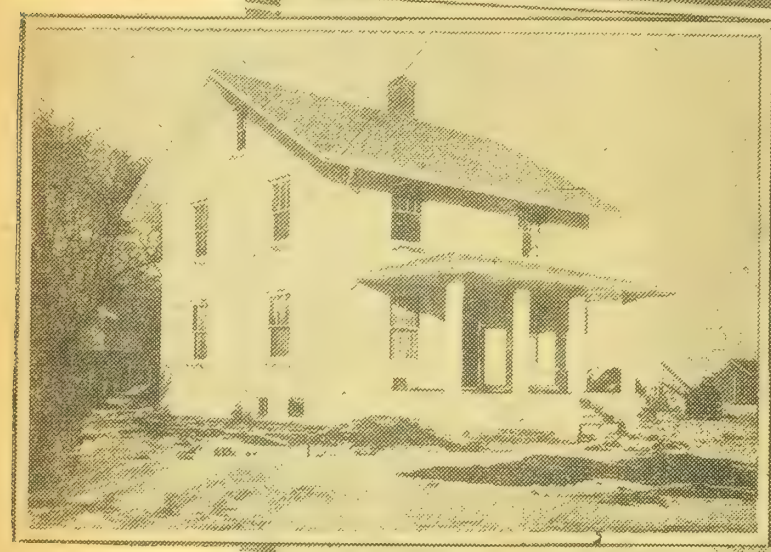
ASSETS		LIABILITIES	
Loans on Mortgages	$194,146,609.30	Legal Reserves	$328,977,009.00
Bonds (Market Value)	93,136,383.00	Present value of not due Installments	5,898,959.40
Loans on Policies	55,177,841.29	Claims, Taxes, Dividends Due, etc.	3,686,244.33
Real Estate	4,099,093.60	Annual Dividends of Surplus, Payable 1917	12,282,107.00
Cash	3,167,866.67	For Deferred Dividends	1,635,879.68
Miscellaneous	13,356,424.28	Contingency Reserve	10,604,018.73
Total	$363,084,218.14	Total	$363,084,218.14

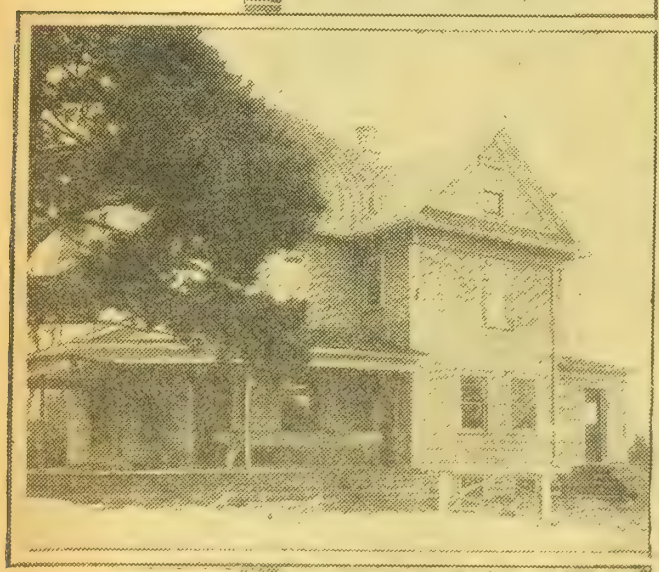
Substantial increases over 1915 are shown in Death Claims, Endowments and Dividends paid, and in the item "Addition to Assets," thereby making a decided increase in "Grand Total for Benefit of Policyholders" * * * The new insurance paid for in 1916 was the largest in the history of the Company * * * Policy loans fell off appreciably and the amount of surrendered policies decreased materially, indicating a realization by policyholders of the real purpose of their insurance * * * There is still abundant room for growth. The gains of 1916 merely indicate future possibilities * * * A conservative forecast for the Northwestern warrants the conclusion that its liberal and flexible contracts, at lowest net cost, will insure its constant progress * * * The above figures are worthy of careful consideration.

Geo. C. Markham
President.

SHAKSHESKY & McMILLEN, General Agents,
Commercial Natl. Bank Bldg.
Madison, Wisconsin.
Phone 884-885.

Good Farm Homes Worth While





Running Successful Colt Show.

How It Was Done at Bloomington, Wisconsin—By M. F. Woodhouse Before Wisconsin Horse Breeders' Association.

AS A MATTER of fact, the success of our colt show was the result of co-operation—mixing. Ours is a stock-raising country. We have no factories except butter and cheese factories—and the business man and the farmer are interdependent and get together more freely than they do in larger places. The farmer boy weds the belle of the village and the business man's son plows corn for the farmer in vacation and astonishes his employer by marrying his daughter later on. You must not come to our town and say anything bad about anybody, for in all likelihood you may be talking to the slandered party's cousin or his brother-in-law. Under these conditions it is easy for us to get together and push. We have a large community club, composed of farmers and business men and when the colt show was suggested we got the club members together, talked the thing over, listened to suggestions—told stories, smoked, and altogether passed an extremely enjoyable evening—and came away with a firm resolve to boost the show and make it a winner. About ten days before the date set for it we sent out 600 strong letters to farmers in the tributary territory, emphasizing the importance of raising good horses, urging the entry of colts and inviting all to attend the show. The night before the show the Community Club held a reception, banquet and smoker at the Jones Tavern in honor of Meesrs. Houser and Baker, representing the Wisconsin Live Stock Breeders' Association. There were about fifty farmers and business men present at this function and I do not remember ever to have passed a more enjoyable evening. We found our distinguished guests congenial spirits and after the banquet we indulged in a round table discussion of the horse, which included his helpful promotion of the courtship of forty to fifty years ago as compared to the dare-devil exploits of those attempted in the automobiles and Fords of today—more often resulting in funerals than in weddings. Mr. Houser and the president of our club, Mr. Kitto, both of whom wear scars of honorable years, eloquently upheld the old-style, while the secretary of the club, who is a young man and an undertaker, insisted upon the superiority of modern methods. The good dinner, good cigars and good stories may not have helped any, but we are morally certain they didn't hurt any either.

About noon the next day the colts began to arrive. Horsemen of the village had provided ample stable room for them and the spirit of hospitality was everywhere in evidence. We have a good brass band and about 2 o'clock in the afternoon they made their appearance in full uniform, in honor of our guests, and patriotically did their full part in adding to the day's pleasure. The village was crowded with visitors—there were about twenty-five colts entered and many good farmers present said it was the best lot of colts they had ever seen together. Mr. Houser's judging gave excellent satisfaction and at the conclusion of the event we formed a parade—Mr. Houser and Mr. Baker in an open carriage, drawn by a span of fine Percheron mares—the band next, then the colts. It was an impressive spectacle and the hand clapping and cheers that marked the passage of the colts shows that the horse has not been supplanted by the auto in the affection of the people.

Our stallion men rose to the occasion handsomely. McKevitt Brothers, Tom McNamara, Harry Tornowske, Ora Jeidy, Charles Degenhardt, Harry Harville, Will Davis, Ed Govier, who own good horses, realized early in the game that their efforts for "more and better live stock" were appreciated and they all worked untiringly for the show. And when it was over victors and vanquished accepted victory and defeat without boasting or grumbling.

There is no division of opinion among our folks as to the value of a well-conducted colt show and we hope to have a better and larger one next year.

In closing I wish to state that Bloomington is a little village of 600 population, ten miles from a railroad. It has maintained a good fair for over fifty years. It has the faculty of sinking personal differences and uniting for the common good and this united effort is our Aladdin's lamp, bringing to us all the gratifications of success.

Milwaukee County Grain Show.

To the Editor:—Farm crops and poultry exhibits conducted by the Milwaukee County Experiment Association were held at the county agricultural school at Wauwatosa, January 12th and 13th. There was a good attendance in spite of the rather severe weather.

The afternoon of the 12th was taken up by talks by extension workers of the university. "The Value of the Milwaukee County Soil Survey" was discussed by Prof. W. J. Geig; "The Health of the Community" by Miss Elizabeth Kelley; "Poultry Diseases, Their Prevention and Cure" by J. B. Hayes, and "Wisconsin at the Panama Exposition" by Mrs. Adda F. Howie.

Saturday noon the members of the experiment association, their families and friends banqueted at the school dormitory. After dinner talks by E. S. Robbins, president of the Milwaukee County Milk and Cream Shippers' Association, and Mr. Perry, of the school faculty, were much enjoyed. The remainder of the afternoon was devoted to a business meeting of the experiment association.

The farm products exhibit, open to members of the association, showed plainly that the community can boast of some excellent farmers. The quality was high class and the liberal prizes offered made competition interesting.

The poultry show was, like last year, a great success. Practically all standard varieties were among the several hundred entries. Many of the birds having been winners at larger shows this winter gave unusual quality to the exhibit. The birds were scored by Mr. J. B. Hayes, of the University of Wisconsin.

Certainly much credit is due Prof. F. J. Sievers, superintendent of school, for his efforts in this home extension work. J. H. Dance.

Milwaukee Co., Wisconsin.

Every motor car rider has experienced the discomfort of dust in the eyes, and also from the effects of cold winds. A suggestion has been made that these discomforts may be greatly alleviated by applying castor oil along the eyelashes. This, it is claimed, will catch most of the dust before it can enter the eye, and also it protects the eyes from the chilling effects of the wind," says the Scientific American.

The Fond du Lac County Fish and Game Protective Association has declared itself in favor of a law aiming at the extermination of the common house cat in Wisconsin as the slayer of thousands of song birds and insect-eating birds annually. The state association has recommended such a law.

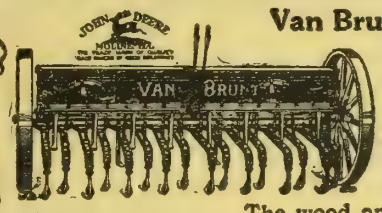
JOHN DEERE IMPLEMENTS

BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

Describes and illustrates Plows for Tractors; Walking and Riding Plows; Disc Plows; Cultivators; Spring Tooth and Spike Tooth Harrows; Disc Harrows; Alfalfa and Beet Tools; Farm and Mountain Wagons; Manure Spreaders; Inside Cup and Portable Grain Elevators; Corn Shellers; Hay Loaders; Stackers; Rakes; Mowers and Side Delivery Rakes; Hay Presses; Kaffir Headers; Grain Drills; Seeders; Grain and Corn Binders.

This book will be sent free to everyone stating what implements he is interested in and asking for Package No. X-64.

JOHN DEERE, MOLINE, ILL.



Van Brunt Broadcast Seeder and Cultivator

This is the oldest type of Van Brunt seeding machines.

The Van Brunt Broadcast Seeder and Cultivator handles any small grain.

Van Brunt adjustable gate force feed—even sowing always certain.

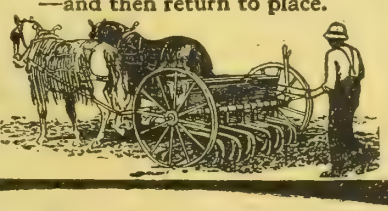
Independent tooth bars.

Teeth are soft-centered steel, tempered and guaranteed to scour. They are bolted in place and are reversible to double the wearing period. They can be adjusted to cultivate deep or shallow. Spring-trip is adjustable.

Sizes—12, 14, 16, 18, 22 and 24 bars, 6 inches apart.

The wood and iron construction has been replaced by steel and malleable iron. The famous Van Brunt adjustable gate force feed scatters every kind of small grain evenly on the soil without bunching, and the seed is covered by the cultivator teeth.

The tooth bars are equipped with spring-trip teeth. When the teeth strike an obstruction they spring back—are pulled over it—and then return to place.



John Deere Plows for Light Tractors

So far as quality of John Deere Plows for Light Tractors is concerned they are built for the farmer who realizes that it is business judgment to buy a high-grade tractor plow. Don't forget that a tractor plow is not an everyday purchase.

John Deere Plows for Light Tractors are noted for their high-grade work in the field—the real test of tractor plow value.

Before you make your purchase, be sure to see John Deere Plows for Light Tractors. A careful purchase means permanent saving.

High and Level Lift. Two, three and four bottoms.

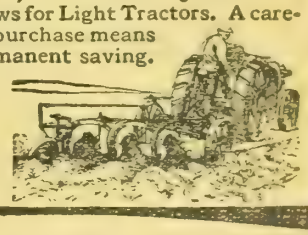
High and level lift means level plows out of the ground, no cutting of ridges when crossing or turning on plowed ground.

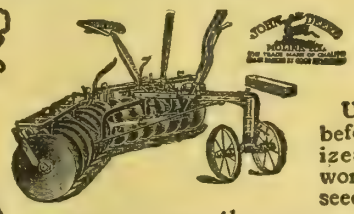
Steady running furrow wheel—does not drag or bind against furrow wall.

Stiff hitch—plow can be backed.

John Deere bottoms, the standard for over 78 years. There is a John Deere bottom for every kind of soil.

Equipped with John Deere Quick Detachable Shares—great labor and time savers.





John Deere Model "B" Disc Harrow

Using a disc harrow before plowing pulverizes surface lumps; works trash into the seed bed and prevents the escape of moisture. Then when the furrow slice is turned, the trash decays rapidly and no large air spaces are left between bottom of furrow and the turned furrow slice. Water in the subsoil can make its way into the seed bed and plant roots can penetrate to deeper soils.

Discing after plowing removes the weeds, and makes the seed bed compact, but not hard. The discs break up lumps of soil.

The Model "B" pulverizes at even depth its entire width.

Patented spring pressure third lever—inner ends of gangs can be given light or heavy pressure to disc over ridges or cut out dead furrows without burying the harrow.

Independent gangs. All tendency of gangs to crowd to one side is easily overcome by giving them the proper relative angle.

Flexible—only that part of the Model "B" harrow passing over an obstruction is lifted out of the ground.

Rear section can be furnished to make a double action harrow.

Your Home Town Dealer

There is a big advantage in buying implements of your home-town dealer.

He gladly "backs up" the implements he sells, and he is on the ground to see that they make good. He makes his home in your locality—the place his goods are sold.

He handles a line of high-grade implements—and you can see before you buy. In the busy season, when work is pressing, he can furnish repairs promptly for the goods he sells.

If, by chance, he hasn't in stock just exactly the style of implement you want, he can give you quick service in getting it to you.

John Deere factory warehouses with immense storage rooms have been established in various sections of the country. Every John Deere dealer is conveniently located to one of these houses.

This, really, gives you two supplies of implements—the stock carried by your home-town dealer and that of the factory warehouse.

JOHN DEERE, MOLINE, ILLINOIS

GOOD SEEDS

TEN OF THE FINEST VEGETABLES

FOR 25c We will mail one large packet each of the following vegetables in a coupon envelope good when returned, for 25c worth of seeds on 75c order, thus getting the 10 packets Free: Bradley's Earliest Radish, crisp and brittle; Extra Early Egyptian Turnip Beet, smooth; Bradley's Earliest of All Lettuce, crisp; Bradley's Improved Early Jersey Wakefield Cabbage; Bradley's Earliest of All Blood Red Tomato; Extra Early Adams Sweet Corn; Earliest of All Bradley's Perfection Long White Spine Cucumber; Bradley's Mammoth Yellow Prizetaker Onion; New York Imp. Spineless Egg Plant; Improved Mammoth Ruby King Sweet Pepper.

25c buys all the above and we will send one large pkt. "SPENCER SWEET PEAS," a mixture of 10 varieties, carefully hand-mixed, worth 15c.

BIG ILLUSTRATED CATALOG FREE!

ILLINOIS SEED AND NURSERY CO., 233 Main St. Makanda, Illinois

Onions

Our Northern Grown, tested Onion Seeds produce BIG. Salzer's Prizetaker yielded 1800 bu. per acre. Our pedigreed strains are unexcelled for flavor, size and keeping qualities.

FOR 10c Big Pkg. Onion Seeds, Big Pkg. Cabbage Seeds, Big Handsome Catolog

Miracle records in early maturity, uniformity and productiveness.

New 184-page catalog brimful of valuable information on everything for the farm and garden—field crops, vegetables, flowers.

Today is the time to send your dime. Do it NOW.

JOHN A. SALZER SEED CO. Box 123, La Crosse, Wis.

SEEDS

"PURITY BRANDS"

have always been the highest qualities obtainable each year. Hundreds of farmers will not buy any other. All seeds sold on absolute guarantee of purity and germination--being subject to your test and inspection and money refunded if not better than we represent. Timothy, Clovers, Alfalfa, Mixed Timothy and Alsike, Blue Grass, Millets, Seed Corn, Seed Oats, Seed Flax, Seed Grains, etc. Samples and prices free on request. THE ADAMS SEED COMPANY, Box 50 DECORAH, IOWA.

Samples FREE

Ask about our 1000-Club whereby members get seeds at wholesale.

SEEDS

Fresh, Reliable, Pure Guaranteed to Please

Every Gardener and Planter should test Our Northern Grown Seeds.

SPECIAL OFFER

FOR 10c We will mail postpaid our FAMOUS COLLECTION

1 pkg. 60 Day Tomato	20c
1 pkg. Princess Radish	10c
1 pkg. Self-Growing Celery	20c
1 pkg. Early Arrow-head Cabbage	15c
1 pkg. Fullerton Market Lettuce	10c
Also 12 Varieties Choice Flower Seeds	25c
	$1.00

Write today! Send 10 cents to help pay postage and packing and receive the above "Famous Collection" and our New Instructive Garden Guide.

Great Northern Seed Co. 307 Rose St. Rockford, Illinois

GOOD SEEDS

GOOD AS CAN BE GROWN
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

10 APPLE TREES 10

2 TO 4 feet $1. Two each Tetofsky North Star, Talman, Delicious and Snow. By Parcel Post, $1.25. BEAUTIFUL catalog FREE. **Wisconsin Nurseries, Box 50, Union Grove, Wis.**

ALFALFA SEED ALSO Red Clover, Sweet Clover, Alsike, Timothy, Brome Grass, Blue Grass, Cane, Millet, Kaffir Corn, etc., etc. At Campbell's Seed House, Dept. C., Seward, Nebraska.

HORTICULTURAL TOPICS

THIS department is conducted by an experienced horticulturist. All questions relating to horticulture will be answered if of sufficient general interest to warrant a reply in this department. Communications and inquiries upon horticultural topics should be addressed to this office.

Winter Work in Grapes.

A large part of the work which is essential for good results in grape growing may be done in winter—in fact, is best done in winter. Reference is made to the pruning—a matter of the very first importance. This work is sometimes done in early spring, but it is far better for the vines to do it when the sap is down.

The mistake usually made by the amateur grower is to leave too much wood. It is hard for him to rise to the heroic mood of cutting out two-thirds or three-fourths of the wood. It is hard for him to believe that nature in her extravagance will overdo her preparations, as to grow four times as much vine as she can use to advantage for fruit production. But such is the plain fact.

How and when to remove this superflous growth is always the problem. When the vines are young—say two years old—pruning is always simple. At the end of the second season's growth leave two main stems from the root, and two lateral branches from each root cane.

The amount of cutting at this stage depends upon how vigorous the vines are—and there will be a great difference in this respect, not only in vines, but in vines of the same variety.

If the laterals are long, shorten them into three feet. At all events, do not leave more wood than is needed to cover a three-wire trellis, giving each vine branch eight or ten inches of room.

After this trimming is complete—say in November—lay them down, upon the ground and cover with a few inches of earth. It would do to cover with straw or manure—but for the danger that mice will work in it and gnaw the vines.

But the serious problem in grape trimming is met when you take up the case of old, neglected vines, which are from four to ten years old. Of course, they should never have been left to get into that condition, but there they are—a great mass of wood—enough to break down any trellis. They will, in this condition, produce a little inferior fruit, but the result is pitiful when compared with what might have been. In such cases it is often best to adopt the renewal system. That is, to cut away the entire growth and let new shoots start up from the base of vine. This means, passing over one summer without hope of fruit. But it is better to do this, for by getting a right start you will get in coming years four times the grapes you can hope for in the unpruned condition.

The spring after the vine is cut off, you will be likely to get a great mass of new shoots. You should go over them in June and pinch away all but three or four of the stronger. Then, in November, cut out the weaker, leaving two or three of the best. These will likely be ten feet long or more. Cut back so that they just reach to the top of a four-wire trellis. The next spring start your lateral branches just as though the vines were young, and they will be in shape to produce heavy crops of fine, big bunches. The rule for vigorous growers like the Concord and Worden is to cut the new wood back to three buds. But with slow growers it is advisable to leave more wood.

If such vines are old, but still have had some attention in the past, such wholesale cutting may not be needed. But remove all but two main shoots, and if there are new ones near the roots save them by all means, removing an old stem to make room for them. Then cut the side branches according to the rule, the two or three laterals are sufficient, and follow up trimming by the three-bud rule. If the stems are so long that the new wood is too far out, so that the trellis will hardly hold it, take the half renewel system of cutting out half the old—leaving only one main stem, and getting new root shoots.

The following year cut the rest of the old wood. You will thus have no interruption in the crop, but secure some fruit each season. All of this cutting and trimming may be done any time in winter, but it is best to do it before February.

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We have a large stock of all the above fruits, and all standard varieties of Strawberries, Raspberries, Blackberries, and all other small fruit plants, fruit trees, nut trees, budded varieties and everything for the fruit orchard or garden. Satisfaction guaranteed and prompt shipments.

ILLINOIS SEED & NURSERY CO., 233 MAIN ST., MAKANDA, ILLINOIS

Desirable Varieties of Evergreens For Windbreaks.

To the Editor:—Since the windbreak serves its most useful service in winter, trees of the evergreen type are most useful.

Generally the planter is in a hurry to get results. He can secure this feature as well as permanence by combining the quick growing and long-lived species.

Of the quick-growing kinds the Norway spruce and the Scotch pine are widely used in the corn belt. The Norway spruce is one of the easiest of evergreens to transplant. It possesses a spreading root system and a compact growth of branches.

Closely related to it is the white spruce. It is a smaller tree and the foliage is of a more silvery cast.

The Black Hills spruce is a variation of the white which is a native of the Black Hills country. It is hardier than other spruces and hence especially valuable in severe situations.

The Scotch pine is another quick grower. In this respect it excels the Norway spruce, but does not form as good a screen on account of its open growth. It is readily distinguished by the orange-colored bark on the upper portion of the trunk and branches.

For permanent effects the Austrian pine deserves special mention. In many ways it is the white oak of the evergreens. It is a slow grower, but a stayer. It possesses a main tap root instead of a spreading root system and hence is more difficult to transplant.

Under favorable conditions the white pine reaches the largest size of all the evergreens and lives to a ripe old age. It is more sensitive than those named and in severe locations may fail. When used it should be placed on the lea side. In this way it can be sheltered until well established.

The red cedar possesses many desirable qualities, but has the disadvantage of harboring the cedar apple fungus. Another stage of this fungus causes the apple rust. Often the apple trees adjoining a cedar row are completely defoliated and the fruit fails to mature. A. T. Ervin.

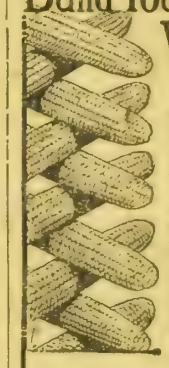
Method of Sowing Clover.

To the Editor:—For the benefit of others I will give my method of growing clover. I have no trouble getting it started, but of late years it has been so hot and dry after grain was cut that it would be killed in that way.

When we are getting the seed bed ready for small grain we prepare the ground well. Then we sow the grain and in the spring when the weather is warm enough so the clover will not kill by freezing we sow the seed when the nights are darkest in April, and did so this last year, putting one bushel of clover seed to about seven acres of ground. The weather being favorable, the yield was good and we cut twenty-eight big loads of hay from this ground and in the fall threshed two bushels of seed per acre. We sowed the seed among rye last year, but I think wheat or oats would be just as good. O. J. Saums.

According to government reports, live stock on American farms is worth 11 per cent more than it was a year ago—another good reason for raising more stock.

Build Your Bank Account With CORN



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FREE A pair of Mated Everbearing Strawberry plants, large pkt. of new Cereal Feterita, Sudan Grass and Silk Leaf Poppy seed, all Free for Testing. Send 10c for mailing expense, or not, as you please. We offer genuine Everbearing plants at 50c per doz.; 90c for 50; $1.75 for 100; $6.50 for 500, all postpaid. CATALOG FREE.

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Cow-Testing Reports.

Roberts and Little Falls Association.

To the Editor:—There were fifty-four cows in our association which produced forty pounds of butter fat or over during the month ending January 31st. J. L. Chapman's herd had the highest herd average, producing 38.6 pounds of fat per cow. The average cow production of the association was 673 pounds of milk and 26.13 pounds of fat. There were 334 cows tested in June.

The following table gives the names and records of the cows in the association which have produced forty-five pounds of butter fat or over for the thirty-one-day period ending January 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Alton Bros.					
Stub, G. H....	5	12-15-16	1469	4.3	63.2
W. N. Benedict					
Jersey, G. J...	6	11-12-16	1054	4.6	48.5
M. R. Pritchett					
Reddie, G. G.		10-30-16	1119	5.2	58.2
J. L. Chapman					
Johanna, G. H.	2	11-24-16	1857	3.6	66.8
Martha, G. H..	5	12-2-16	1959	3.1	60.7
Clover, G. H...	4	9-3-16	1324	3.7	49.0
Bird, G. H....	4	11-14-16	2204	3.3	72.7
Belle 3d, R. H.	3	10-24-16	1600	3.3	52.8
Belle 1st, R.H.	8	12-26-16	2390	2.3	55.0
W. A. Chapman					
Johanna, G. H.	5	12-29-16	1547	3.7	57.2
Nancy, G. H...	5	12-6-16	1277	3.6	46.0
Wm. Fillbach					
No. 3, G. H...		12-25-16	1333	4.0	53.3
No. 8, G. H....		11-15-16	1333	3.4	45.3
Glen Batten					
Fannie, G. G..	9	10-31-16	1159	39.	45.2
J. E. Rundell					
No. 00, G. H...	9	12-20-16	1100	4.2	46.2
F. D. Ash					
Guernsey, G. J.	2	12-20-16	992	5.0	49.6
Spot, G. J.....	3	10-10-16	742	5.7	45.3
Geo. Graham					
Madam X.,G.G.	3	12-4-16	1330	4.1	54.5
Lady Ella,G.G.	4	12-1-16	1073	4.2	45.1
Wm. Lamb					
Nell, G. J.....	7	1-3-17	1330	3.[illegible]	46.5
Annie, G. J...	4	12-14-16	1324	4.2	55.6
Beauty, G. J...	2	11-16-16	973	5.8	56.4
Babe, G. J....	7	11-13-16	980	4.6	45.1
W. W. Wilcox					
Nellie, G. H...		1-11-17	1314	4.0	52.6
Molly, N.		12-22-16	1116	5.0	55.8
Whitie, N. ...	7	11-27-16	1038	4.7	48.9
D. E. Flower					
Salma, R. H...	4	1-5-17	1472	3.5	51.5
Hattie, R. H..	5	1-18-17	1547	3.8	58.8
Fobes, R. H...	4	1-23-17	1169	4.6	54.0
Lady, R. H....	4	12-14-16	1665	2.9	48.3
De Gal, R. H..	5	1-3-17	1327	3.7	49.1
Bananza, R. H.	3	1-5-17	150	3.6	54.0

C. G. Carlson, Tester.
J. M. May, Secretary.
River Falls & Roberts Cow-Testing Association.

Stanley Co-operative Association.

To the Editor:—The following table gives the names and records of the cows in the association which have produced more than forty-five pounds of butter fat during the period of thirty days, ending January 28, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Geo. Mason					
Bessie, G. H...	9	12-28-16	1017	4.5	45.8
Frank H. Schmidt					
Bessie, G. H...	3	1-28-17	981	4.6	45.1
G. C. Leslie					
Bridget, G. H..	6	12-23-16	1017	4.5	45.8
Albert Keehn					
White, G. H...	6	11-19-16	1110	4.1	45.5
John Birkholz					
Rosie, G. H...	4	1-3-17	1107	4.3	47.6
Geo. Schunk					
Fairy, G. H...	3	12-5-16	1071	4.4	47.1
Frank Smalley					
Aldine, R. H...	3	1-22-17	1416	4.1	58.1
Rosetta, R. H.	5	10-19-16	1596	3.9	62.2
William Cotter					
Flora, N.....	9	1-10-17	924	5.7	52.7
G. W. Schmidt					
Gretel, G. G...	6	1-5-17	984	4.6	45.3

R. F. Adams, Official Tester.
Frank Smalley, Secretary.

In Shawano County.

To the Editor:—The Stratford Co-operative Cow-Testing Association has just completed six months of its second year's work and the results are very successful. During the past six months 2,117 cows were tested out of which thirty-seven were sentenced to the stockyards by the tester. By virtue of the cow-testing association work a better live stock movement is evident. Thirteen head of pure breds were purchased of which six were sires—one to replace a scrub bull; fifty-seven pure-bred Holsteins and the other two were pure-bred Guernseys. For the month of January, 1917, a pure-bred Guernsey owned by Wm. Schneider stands at the head of the list with a total production of 1,284.2 pounds of milk, or 59.1 pounds of fat. Nineteen cows in the association produced over thirty pounds of fat during the month. The highest herd average was that of Mrs. J. Hein. Fifteen cows in this herd produced an average of 27.72 pounds of fat.

The following table gives the names and records of the cows in the association which have produced forty-five pounds of butter fat or over for a period of thirty days ending January 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Wm. Schneider					
No. 1, R. G...	9	12-12-16	1284.2	4.6	59.1
No. 2, R. G. .	6	12-12-16	1040.2	4.7	48.9
Gay Bros.					
No. 7 Trix, G. H.	5	12-5-16	1070.0	5.0	52.5
Fenwood Stock Farm					
No. 6 G. H...	5	12-17-16	1142.7	4.0	45.7
Mrs. G. Hein					
No. 13 Bell, G. H.	6	10-23-16	1051.5	4.5	47.3
M. McCoy					
Beauty, G.G.	5	12-3-16	794.0	6.0	47.6
Wm. Lenz					
No. 2 Mullie, N.		12-1-16	961.6	4.9	47.1

Harry A. Johnson Official Tester.
James L. Chrouser, Secretary.

Grade Holstein Leads.

To the Editor:—The following table gives the names and records of cows in the Wrightstown-Greenleaf-Brillion Cow-Testing Association which produced more than forty-five pounds of butter fat during the thirty-day period ending January 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Herman Horn					
No. 8, N.....	3	12-12-16	917	5.2	47.6
Aug. Tamm					
No. 3, G. H...	4	12-1-16	1282	4.0	51.3
William Pritzl					
No. 4, G. H....	4	11-16-16	1284	3.5	45.0
John Seybold					
Elizabeth,G.H.	7	12-27-16	1257	4.7	68.5
Rainbow, P. B. H.....	5	12-28-16	1668	3.5	58.4
Beach, P. B. H.	4	12-10-16	1438	3.4	48.8
Daisy, G. G...	7	12-17-16	1528	3.4	52.0
Dandy, G. H..	6	12-1-16	1001	5.0	50.0
Dorothy, G. G.	6	12-6-16	1227	3.5	45.0
Frank Kloehn					
Daisy, G. H...	8	1-4-17	1550	3.9	60.4
Sunbeam, G.H.	4	12-25-16	1271	3.8	48.3
Aaggie, P.B.H.	10	1-4-17	1596	3.3	52.5
Blossom,P.B.H.	3	12-26-16	1457	3.6	52.4
Betsy, P. B. H.	4	12-25-16	1468	3.[illegible]	49.9
John Kloehn					
Beauty, P.B.H.	6	12-6-16	1202	3.8	45.6
Spottie, G. H.	8	11-2-16	1457	3.5	52.0
T. Nachers					
Peggy, G. H..	6	12-25-16	1351	4.0	54.0
Belle, G. H...	4	1-1-17	1233	4.6	56.6
Fred Harford					
No. 4, P. B. H.	9	11-12-16	1007	4.5	45.3
No. 6, P. B. H.	6	11-11-16	1460	3.3	48.1
M. Phillips					
Hendrika, P. B. H.....	7	12-12-16	1525	3.6	55.9
And. Meulemans					
Korndyke, P. B. H.....	6	12-13-16	1416	3.5	49.5
Jennie, G. H..	5	12-20-16	1216	4.0	48.6
H. Baumgartner					
Sukie, G. G...	5	12-2[illegible]-16	1122	4.6	51.6
Daisy, G. G...	6	12-11-16	1103	4.9	54.0
Fred Tess					
No. 1, N.....	8	12-13-16	1200	3.8	45.6
No. 2, G. G....	4	12-23-16	992	6.0	59.4

F. A. Gaiser, Official Tester.
M. Phillips, Secretary.

Out of the Old Barn---Into the New.

(Continued from page 1.)

country. This certainly illustrates very forcibly the progress which we are making along the line of barn building. The average farmer today would not consider that he was getting much if he would have a new barn built along the same lines as the old one shown in the illustration. The difference in the heights of the barns will be noted. The new barn resting on a foundation only slightly larger than that of the old, has much greater capacity in every department, especially for the storage of hay and grain. The new barn is equipped with modern stanchions for the cattle and litter carrier system, etc. Our readers may easily imagine how much more comfort the farm animals will have in the new barn and how much easier it will be to care for them.

Northern-Grown Seeds Are Popular.

ALL varieites of seeds have their champions, but from numerous reports those grown in our northern states are taking the lead. In some sections the opinion seems to be that northern-grown seeds are for use in the North only. This erroneous idea is, however, becoming less apparent every year. The exponents of northern-grown seeds make some sweeping claims and they have a large following not only in adjacent territories, but in many parts of the country where the climate and soil conditions are much varied. This does not mean, of course, that all seeds from the North country are necessarily of high quality. The same years of experience, careful cultivating, testing and experimenting are required to produce seeds that will give the highest percentage of germination—varieties with pedigrees, so to speak. Many reasons are given for this superiority of nothern-grown seeds, but the facts most important to the planters are that they have proven the superiority by large yields and quality production. One of the most widely known and oldest firm selling northern-grown seeds is the John A. Salzer Seed Company, Box 123, La Crosse, Wis. This company issues an annual free catalog that holds much valuable information for those interested in northern-grown seeds. See page 14.—Adv.

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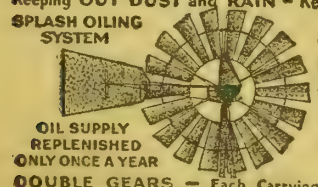
With INCLOSED MOTOR
Keeping OUT DUST and RAIN - Keeping IN OIL



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DOUBLE GEARS — Each Carrying Half the Load
Every feature desirable in a windmill in the AUTO-OILED AERMOTOR
Write AERMOTOR CO. 2500 12TH ST. CHICAGO

I MET HIM ON THIS VERY SHIP!

It was within an hour of sailing time. I was on my way home from Europe five years ago. The Mauretania lay beside her Liverpool wharf. Everybody was hurrying to get on, as we were to sail at five o'clock. Suddenly, without warning—without a propeller turning—she commenced to pull away from her moorings. The gang planks creaked—broke loose—and there was quite a commotion as the mighty Mauretania tore loose from her moorings and floated out into the water. In the excitement I met a man who was leaning over the rail who looked at me and we laughed together. Then we just naturally got acquainted like people do when they are traveling. He was J. J. Berrigan of Orange, New Jersey, the famous cream separator expert and inventor. I had never seen him before but I had heard of him. I told him I was from Waterloo, Iowa, and he said, "You are Galloway." I soon found out he was the great cream separator expert and a man I was glad to meet. Naturally

WE BECAME WELL ACQUAINTED

He told me what he had done in perfecting cream separator patents and improvements. I told him he was just the man I was glad to get acquainted with. After the Mauretania had been lashed to her wharf again, the excitement was over, and we pulled out of Liverpool several hours late—Berrigan and I began to talk cream separator, and every day after that we spent several hours together visiting. I told Mr. Berrigan that we were perfecting what I thought was the best cream separator ever produced, and I also told him if he would come to Waterloo and put on the finishing touches, go over the separator, test it, criticize it, find fault with it wherever he could, and suggest any possible improvements, I would pay him well for his time. In a few days after we landed in New York he did come to Waterloo. He said our separator was one of the finest designs he had ever seen, and with the few recommendations which he made, he pronounced it O. K.—good as the best—and better than many of the separators on the market today. Our engineers, designers and separator builders had produced a machine with graceful lines, simplicity of construction, combined all the good features and left out all the faults. Mr. Berrigan commended us on the work and immediately put his stamp of approval upon this machine. That's why I say

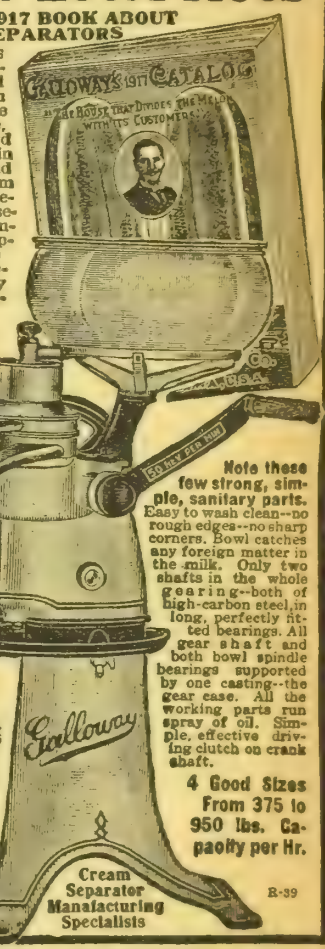
"Read this little story. It was my turning point as a manufacturer of cream separators."—Wm. Galloway.

WE PERFECTED THIS SEPARATOR

before we offered it on the market. We put out in the hands of farmers and dairymen enough of these separators to know that they would stand up under any test, whether operated and used in the kitchen, the milk house, the creamery or elsewhere, used two or more times per day, every day, week after week, month after month. **I just want you to try it.** If you like it, buy it. If you don't, send it back. **We pay freight both ways.** If the New Galloway Sanitary Separator is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is, I could not afford to make this **ninety day trial** offer and I could not afford to guarantee it for **ten years.**

Get My New LowPrices

AND READ MY 1917 BOOK ABOUT CREAM SEPARATORS



It tells of how we took four years to design and perfect this separator, to build into it every good cream separator feature and retain its beautiful proportions. How we did not build it down to a price, but built it up to a high standard in our own factories right here in Waterloo. It tells how we build Galloway Sanitary Separators from the ground up. How they are designed and many other separator secrets and facts. A meaty, exact, concise, truthful book about cream separators, gasoline engines, manure spreaders, tractors and other implements we manufacture. Why, by selling direct, I can make a machine as good or better than any high priced separator sold through other systems. These are a few of the reasons why I want you to get this book. It tells the whole story. It tells the truth. It tells the facts. Ask for it today. A postal gets it. Don't delay. A reading will save you dollars in buying.

Indisputable Proof!

Have operated several different kinds of separators. Galloway Sanitary skims as close and runs lighter than any. J. E. Ricketts, Paddensburg, Mo.

We know it skims close. It paid for itself. Wm. S. Brower, Farnum, Idaho. It is easier running and more easily cleaned than others. We made a saving of $23. I wouldn't exchange it for any high priced separator. E. F. Louthan, Carthage, Mo. Your No. 9 separates perfectly at rate of 800 lbs. per hour. (Only guaranteed for 750 lbs.) S. S. Brockway, Greenville, Pa.

Note these few strong, simple, sanitary parts. Easy to wash clean--no rough edges--no sharp corners. Bowl catches any foreign matter in the milk. Only two shafts in the whole gearing--both of high-carbon steel, in long, perfectly fitted bearings. All gear shaft and both bowl spindle bearings supported by one casting--the gear case. All the working parts run spray of oil. Simple, effective driving clutch on crank shaft.

Try a Galloway Sanitary Cream Separator In Your Dairy for Ninety Days.

Stand it side by side with cheaper machines and you will see the difference in material and workmanship, design and skimming qualities. Stand it beside the highest priced machines, test them together for months! Higher priced machines will not run any easier or skim any closer and cannot be more perfectly sanitary or better built. We want you to be the judge—we will take your decision as final. Separators shipped from Waterloo, Council Bluffs, Kansas City, St. Paul, or Chicago, whichever is nearest to you.

4 Good Sizes From 375 to 950 lbs. Capacity per Hr.

Wm. Galloway, President
WM. GALLOWAY, COMPANY
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Cream Separator Manufacturing Specialists

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400 Per Bu. Northern-grown, hardy, productive, cheapest and best pasture and hay crop. Clovers, Timothy, Alfalfa, Seed Corn. 1917 catalog and seed samples free. Northern-grown, hardy, pure seeds are cheapest because they make big, clean crops. All seeds guaranteed. Ask about our 1,000 Club whereby members get seeds at Wholesale.
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GOOD SEEDS IDA county Yellow Dent, White King, Silver King seed corn. Bonanza, Victory, White Kherson or Iowa 103 Oats, Oderbrucker Barley. Best dependable varieties. Buy direct from grower and save money. Superior quality, reasonable prices. . My seeds win the blue ribbons and silver cup at the shows. Catalog free. Square Deal Seed Farm, Allen Joslin, Prop., R. 3, Holstein, Iowa.

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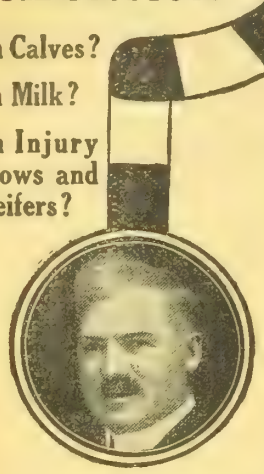
What Are Your Losses Through ABORTION

—in Calves?

—in Milk?

—in Injury to Cows and Heifers?



Here's Evidence that COW ABORTION Can Be Driven Out of a Herd

It covers nearly twenty years and fully bears out Dr. Roberts' claim that you, at very small cost, can wipe out this profit-stealing disease *if you will do as Dr. Roberts tells you to do.* Read these letters carefully.

1898 "My herd of twenty-two cows was afflicted with Infectious Abortion in 1898. After losing a number of calves I began treating them with DR. ROBERTS' ANTI-ABORTION TREATMENT. I feel that they were permanently cured, for I have not lost any calves since that time, five years ago."—(J. A. Griswold, Duplainville, Wis.) "My herd of cows, eleven in number, was troubled with Infectious Abortion. I tried various remedies, without any relief; then I began treating my herd with ROBERTS' ANTI-ABORTION. I had ten live, strong, healthy calves come that year and have not lost a calf since that time—over three years ago."—(Sworn statement of Herman Shirley, deceased, Waukesha, Wis.)

What is lost on ONE good calf would pay for the complete treatment for an average herd.

1902 "My herd of twenty-two cows being afflicted with Abortion in 1902, I decided to try DR. ROBERTS' ANTI-ABORTION TREATMENT, which I did with results satisfactory, and I believe if used according to directions is a sure cure every time."—(I. Vandeburg, Kingston, Ill.)

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If your herd is afflicted with Contagious Abortion, and is free from tuberculosis, you can, with the Dr. Roberts treatment, clean up your herd and wipe out abortion. All Abortion Treatments are shipped direct from our laboratories at Waukesha.

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Send for 36-page birdseye on handling silage—a chapter from "Modern Silage Methods." 1917 edition of this book 25c. 264 pages. Answers all silage or silo questions. Ohio Silo Filler Catalog FREE.

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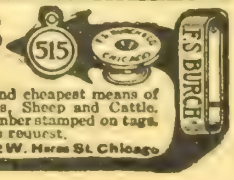


Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 262 W. Huron St. Chicago

Individuality of Cows.

All cows are not by any means the same. There is the difference between gain and loss and then there is the inconceivable yield with its proportionate profit. There is the 28,000-pound cow with her extraordinary profit, the 2,000-pound cow with her loss and there is the 8,000-pound cow with her fair gain to her owner. Where is the difference? The poor or profitless cow is a cow, to be sure, but let us be thankful that this kind is growing fewer and fewer. On the other hand, take the cow with the ability to give 10,000 to 12,000 pounds of milk in a year and we have a cow that is a paying proposition and of a standard that is within the reach of every progressive dairyman.

Assume that we have a cow of the required "milk power." We must now learn the peculiarities of this machine as we would the peculiarities of any other one equally intricate and comply with them if we are to secure the best results. If gluten feed does not appeal to her appetite we should try some other feed, as dried distillers' grains, etc. We might have to feed her salt every day (as we should), or we might have to give her water before her grain or perhaps she would relish her grain sprinkled over her silage. Straw will often be eaten to good advantage if some molasses is mixed with water and poured over it. It always pays to encourage a cow, to "baby" her. It is she that is making the milk and she has complete control over it.

There is no doubt but that the propensity to give large quantities of milk is transmissible. There is no doubt but that the power to make and give milk can be increased and strengthened if the propensity be present. In athletics a good runner improves with training. In racing a horse must needs be trained to improve the gait and to increase the speed. A race horse is also fed and cared for that it may be speedy. Why, then, cannot a cow by proper feeding, training and care be made to do that for which she was born? And if this or any other characteristic is developed in the dam it stands to reason that she will the more likely transmit it to her offspring.

Individuality in a cow is evidenced by superior development in all her parts and the reappearance of these traits in her offspring. The prepotent animal imprints his individuality on his offspring with unmistakable exactness. Moreover the individuality of the owner is shown in the cows of his herd. If we see a herd that is well cared for and all of whose members bear resemblance to each other we conclude at once that the owner has an ideal cow in mind and that he is trying to build up his herd to a certain type.

Often we find a herd in which there is an old cow of superior merit and along with her we find perhaps three or four, or even more, all having the same characteristic. The old one is the dam, grandam, great-grandam, etc., of these and her characteristics have been handed down to her offspring. If one has an animal of noteworthy qualities it will pay him to keep her and attempt to get more like her from her. A herd that as a whole shows a herd individuality is one to be proud of if it is of a high grade.

The Freshening Period.

To the Editor:—"Conditions Determine the Freshening Period." The above was the heading of an article I read in a recent issue and it certainly was a true statement. I live in Marinette county, Wisconsin, right in the heart of a new dairy country. R. L. Pon, dairy husbandman, certainly knew what he was talking about when he said, "June is the worst of all times for a cow to come fresh." The weather will have begun to get hot, the flies will be bad, and the farmers will be too busy to give the cows the attention they deserve. It is the worst time of the whole year to raise a calf, and you have the greatest amount of cream and butter fat when it is cheapest. I have lived in Oklahoma, Illinois, Missouri and Wisconsin, and this is equally true of each of these states.

The little calf coming in June comes when the flies are bad and the mosquitoes, too. It is difficult to keep the feeding utensils sweet and clean. The calf is two months old before it is ready to eat much grass and by that time August is well along and the grass in the pasture is not so tender. The calf will not be very energetic about eating and will not keep fat unless other feed is given it. Then through the winter months it will be too young to do very well altogether on dry feed, and the cows will be falling off in their milk and not giving enough for the calves. All winter your calf will be eating expensive feed and very small returns will be visable.

From June 1st until October 1st is usually the time when butter fat brings the lowest price. If the cows freshen in October or November the price of butter fat is reaching its highest mark when the cows are doing their best work. Thus you see late fall or early winter freshening cows give best returns. Then the calves can be fed on fresh, warm milk till spring, with a little ground oats and good alfalfa or clover hay. In the spring turn them out on the fresh, tender pasture and watch them grow. When they are a year old they will be equally as good as the June calves are at a year old.

In June when the corn is to be plowed and the garden tended, the harvest and the hay coming on and the shipment of hogs for the June market, the farmer is very busy. The farmer's wife, too, has her chickens to care for and the canning season is on. June is a very busy time.

Farmers do not always have a family of children who ought to be attending school. There are more than twenty-five families of new settlers here in our district and almost every family is trying to build up a good dairy herd. More than half these families have no children of school age. Some, like my husband and myself, are trying this work alone, our own children having all gone to homes of their own.

We like our cows to freshen in the fall or early winter, for that is the time to harvest the cream checks, and the bossy calf won't know the difference, for she will have her warm milk in the barn all winter.

I am sorry about the boy's cold feet, and I am a little afraid he has cold feet yet. I hope he will plant carrots and beets in place of pumpkins and avoid the seed proposition. They make better yields per acre and are excellent for milk cows. That is what we raise here.

You see conditions determine that the freshening period for dairy cows should be in the late fall or early winter months. Mrs. Lucy L. Ferguson.

Marinette Co., Wisconsin.

Dealing With Frozen Cow's Teats.

To the Editor:—In treating frozen cow's teats the first thing to do is to spread on cream of camphor very often until the milk duct commences to close. Then apply a small bandage. But the bandage must not be applied while the camphor is used, or it will blister. Sanolin ointment is the best in this case. The bandage and ointment must be renewed at every milking. The bandage must be kept on the teat until entirely healed. The thing to remember is that the cure is effected by preventing a scab forming on the wound, and the little bandage, if properly applied, will do it. Miss G. Gjermundsen.

Dane Co., Wisconsin.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word each insertion.

Feeding Young Dairy Calves

Feeding the calf should begin before it is born, says Farmers' Bulletin 777, Feeding and Management of Dairy Calves and Young Dairy Stock, recently issued by the U. S. Department of Agriculture. Poorly nourished cows give birth to weak, puny calves which are hard to raise. Cows which have an abundance of palatable and succulent feed and are in good body flesh and healthy, thrifty condition at calving time are more likely to produce well-developed, strong and sturdy calves, which will respond normally to proper feed and care.

The calf should always receive its mother's milk at first, as the colostrum, or first milk, stimulates the calf's stomach and other digestive organs to action. Most dairymen prefer to keep the calf with the cow for about forty-eight hours immediately after birth. It may be best to allow a weak calf, or one that does not gain strength readily, to remain a longer time, but it is sometimes difficult to teach the calf to drink after sucking the cow for a time, and serious trouble may result from its failure to obtain food.

Successful raising of calves requires absolute cleanliness. Calf pens should always be kept clean and be supplied with plenty of dry bedding. Discarded feed should be removed from the feed boxes, which should be thoroughly brushed and cleaned each day. All milk fed should be fresh and clean, which is true also of other feeds. Milk pails should be scalded thoroughly with boiling water, or sterilized with steam if possible.

Milk from cows having a communicable disease, as tuberculosis, should be pasteurized (heated to 145° F. and held at that temperature for thirty minutes) before it is fed to calves. Separated milk from a creamery also should be pasteurized, because it is practically impossible to know that such milk is free from infection.

Better results are obtained by feeding young calves three times a day, with the periods between feeding as nearly equal as possible. When fed in this way the calf does not overload its stomach, and the digestion of the feed is more evenly distributed throughout the twenty-four hours. Regularity in feeding is important. When calves are fed but twice a day, the feeding should be as nearly as possible twelve hours apart.

At birth a fifty-pound calf should have about eight pounds of whole milk a day, while a 100-pound one should have about twelve pounds. For the first four days milk from the dam should be fed, then that from any of the other cows in the herds, preferably not from any that are nearly dry. Milk containing not more than 4 per cent butter fat is considered best.

At the beginning of the third week either skim or separated milk may be substituted for whole milk at the rate of one pound a day. The daily ration may be increased from two to four pounds, depending upon the vigor of the calf. When the calf does not drink eagerly what is offered, the quantity should be cut down. The ration at the end of the third week usually should be approximately one-half whole and one-half separated milk. During the fourth week the change should be continued until, by the end of the week, only separated milk is fed, unless the calf is very delicate. With especially vigorous calves the change to separated milk can be made about a week earlier. The quantity fed can be increased gradually from eighteen to twenty pounds a day.

Six months is probably a good average age at which to wean calves from milk. The age depends upon the cost of the milk in relation to the value of the calf, its breed, size, vigor, etc. The season of the year and the other feeds available also must be considered. When the best of hay, silage and a good variety of grains are available, or when good, succulent pasturage can be provided, the calf can be weaned earlier; also the stronger and more vigorous the calf the earlier it can be weaned. On the other hand, the more valuable the calf the more expense the owner is warranted in developing it, and the later it will probably be weaned. If skim or separated milk is plentiful, calves may be fed profitably until eight or ten months old.

When the calf is in its second week it should begin to receive grain, and when one month old it should eat about half a pound a day. After this time the quantity of grain may be gradually increased, feeding all that the calf will eat until three pounds a day is reached, probably during the third month. Grain fed to supplement separated milk should never be mixed with the milk. It is questionable whether the preparation of grain in any way, such as soaking or boiling, is available under most circumstances.

Wheat bran is eaten readily by young calves. Corn has an excellent physiological effect and to a great extent may take the place of fat removed from skim or separated milk. Experiments tend to show that corn fed to calves should be cracked rather than finely ground. Ground oats are good in grain mixtures when available, but in many cases cost much more per unit of feed than corn and bran. The following grain mixtures are recommended in the bulletin:

(1) Three parts cracked corn and one part wheat bran.
(2) Three parts cracked corn, one part wheat bran, and one part ground oats.
(3) Three parts cracked corn, one part wheat bran, one part ground oats and one part linseed meal.
(4) Five parts cracked corn, one part wheat bran, one part ground oats and one part blood meal.
(5) Oats, ground.

Clover hay, alfalfa hay, or the most palatable roughage available, should be given the calf after the second week. Alfalfa is liable to cause scours, and should be fed sparingly at first and increased only after the calf gets accustomed to it. At first, hay should be furnished only a handful at a time and be placed so that it cannot be soiled. For the first six months, at least, the calf should receive all the roughage of good quality that it will eat up clean. When the calf has access to good pasture during the first six months, it need not receive other roughage. It is not advisable, however, to have the calf under two months of age on pasture in the early spring.

Wisconsin Ayrshire Meeting.

To the Editor:—The annual meeting of the Wisconsin Breeders' Association was held in connection with the Wisconsin Farmers' Week at Madison, Wisconsin, February 8th.

J. A. Watson, field man for the national association, was the speaker and delivered an illustrated talk on the Ayrshire and its future. He illustrated the old and modern type of Ayrshire cattle by means of lantern slides which brought out the strong features of the Ayrshire breed, namely, constitution, capacity, conformation, production.

Wisconsin is rapidly developing as an Ayrshire state, there being now 200 breeders within the state.

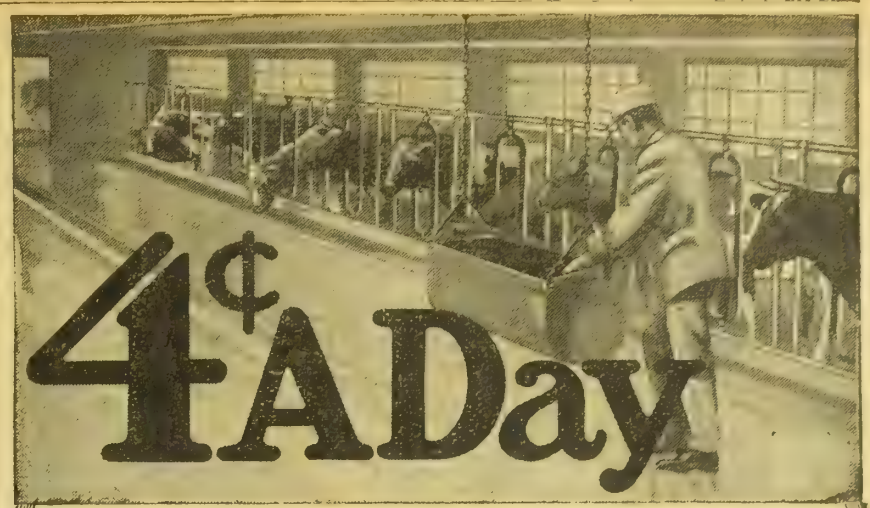
James Van Etta, of Lima, Wisconsin, was appointed president for the coming year and A. J. McNab, of Whitewater, was appointed secretary and treasurer. C. M. Winslow.

Ensilage Not Wet Enough.

To the Editor:—I think I can answer the question asked by Walter D. Krahm, who wanted to know the cause of green, moldy spots in his silo. I had the same thing in my silo once and it was caused from not being wet enough when the silo was filled. It did not have moisture enough to overcome the heat and dried out in spots and burned. I fed mine to the cattle and they ate it all right and I got no bad results therefrom.

I have had a silo for several years. I filled ten silos this year or last fall, rather. I cannot praise the silo too much, as it is the best paying proposition on the farm for the money invested. I would not think of farming without a silo. Most people do not put in water enough when filling. If the corn is not green I advocate plenty of water. J. W. Shields.

Tom Dale, of Amherst, recently took a load of potatoes to town and sold them to the co-operative society, receiving a check for $304. This is certainly some receipts for a load of potatoes. The price paid was $1.52 per bushel. Even that is cheap compared to what potatoes retail at in the cities. On the 15th of February potatoes were selling at $3 per bushel or higher in a number of grain-belt cities.



To Protect them from Tuberculosis

WHAT farmer wouldn't give 4 cents a day for one year to protect his stock from this dangerous disease for all time? This small sum for each animal in the barn quickly pays the cost of a King System of Ventilation. And no one can suggest better protection from tuberculosis than fresh air. Write for our new book on barn ventilation and let us tell you about the service back of the

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It costs less money to install a King System than to try to get the same results in any other way. We have eliminated guess work from planning the system—and we are equipped to supply the material for the system at lowest cost. In other words, we can give you more for your money and in addition *guarantee* the results after it is installed.

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You can install a King System in any barn, new or old. The King Aerators are the first units of the system. They can be installed with or without the complete system. Write for our new book on barn ventilation.

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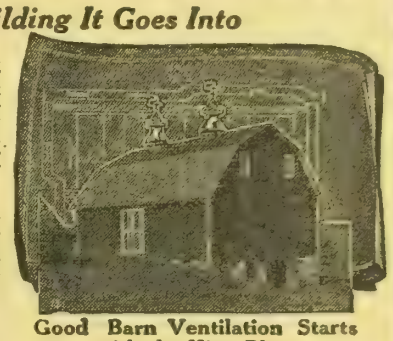
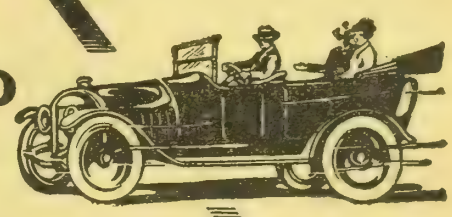


Good Barn Ventilation Starts with the King Plan.

Let the Silo Buy the Auto



If your problem is to decide between the silo and the auto, better get the silo first. The silo will help to buy the auto; but you can never make the auto buy the silo.

A Natco glazed hollow tile silo will add 40% to the value of your corn crop. Results—bigger cream or milk checks and reduced feed bills. Build a

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"The Silo That Lasts for Generations"

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Natco Silo Wall: Note *perforated* shell providing firm anchorage for mortar joints

Send for our Silo Catalog—also our book, "Natco on the Farm," describing all kinds of farm buildings built with Natco Hollow Tile. Tell us what you're going to build. We have many farm building plans to submit, and will help you solve your building problems, free. Write today.

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A Natco Silo and a Natco Hollow Tile Barn mean permanent prosperity

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WANTED—PURE BRED POULTRY AND EGGS

FOR hatching in large lots. Will buy cockerels, hens and pullets in many varieties. Whole flocks bought, also pigeons. Describe what you have, quality and lowest price.
Z. G. McKay **Clinton, Iowa**

HATCHING EGGS

FROM standard bred laying stock $1.50 per 15 or $7.50 per 100 eggs, and $2.50 per 15 or $10 per 100 eggs. Our flock is bred from high-class exhibition stock. Winnebago Poultry Yards, R. 23, Omro, Wis., A. J. Schoerb, Manager.

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CHIPPEWA Hardy Nothern. Twenty-seven cockerels for sale from $2 to $25. Free mating list 1917 completed. Chippewa Orpington Farm, A. L. McDonald & Son, Office 722 Superior St., Chippewa Falls, Wisconsin.

WRITE FOR LOW PRICE on best thoroughbred poultry and pigeons, eggs and baby chix, turkeys, ducks, geese, incubators, brooders and poultry supplies. Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

64 BREEDS Fine, pure-bred Chickens, Ducks, Geese and Turkeys. Fowls, Eggs, Incubators at low prices; catalog free. **R. F. Neubert Co.,** Box 806, **Mankato, Minn.**

"ARISTOCRAT" Silver Wyandottes. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

58 BREEDS Fine Pure-bred Chickens, Ducks, Geese, Turkeys, Guineas, at low prices. America's Finest Poultry Farm. 8000 Prizes. Large Catalogue 4 cents.
A. A. ZIEMER, Box 15 AUSTIN, MINNESOTA

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

BREEDERS Cheap, all varieties chickens, ducks, geese, turkeys, bantams and guineas. Also incubator eggs. Bare Poultry Co., Box 650, Hampton, Iowa.

2949 COCKERELS, hens and pullets, 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book

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WHITE and Barred Rocks from prize-winning stock. Yearling hens and males. Early pullets and cock'ls. Mrs. J. F. Bloom, R. 1, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

SINGLE Comb Rhode Island Red cockerels scoring 94. Husky fellows weighing 8 pounds. Address A. Poltl, Hartford, Wisconsin.

NEWS OF THE SALE RING

Grant County Poland China Sale.

Peculiar conditions sometimes surround an auction sale, that cannot be accounted for. This was true at Lancaster, Wis., when an offering of Polands were sold far below their value. The best 15 gilts that we have seen enter a sale ring were sold at about half their value. The local farmers were in attendance, but did not give the hogs the support they were entitled to. Grant county is one of the best agricultural counties in the state and there are some good cattle and hogs in the county and with the exception of a few, the breeders are "dead ones." The Poland men have tried to stimulate more interest in better swine, but they can't get results without the co-operation of the better farmers of that county. We know that the breeders took less money for many of the gilts than they could have received at private sale. This was a sacrifice on their part. The combination sale at Madison, averaged $81.50, the combination sale at Lancaster averaged $57.50 and the hogs in Grant county had the best offering, but the men at Madison know hogs and appreciate their value. Those that made selections at Lancaster will sure make money. Breeders of Grant county wake up and take advantage of the opportunity that is before you. It's up to you to put your county on the map. We follow with a complete list of buyers and prices:

No. 1, Bryant Bros., Hazel Green, Wis., $87.50; 2, Lee Eastman, Lancaster, Wis., $52.50; 3, Frank Renalde, Lancaster, Wis., $55; 4, H. Vesperman, Lancaster, Wis., $40; 5, E. Rice, Platteville, Wis., $47.50; 6, L. Wilkinson, Lancaster, Wis., $42.50; 7, A. G. Peterson, Lancaster, Wis., $50; 8, A. L. Gray, Mt. Hope, Wis., $62.50; 10, Geo. Flesch, Lancaster, Wis., $47.50; 11, C. Shanley, Lancaster, Wis., $45; 12, Hauk Bros., Cassville, Wis., $47.50; 13, C. Shanley, $55; 14, Frank Morehouse, Lancaster, Wis., $67.50; 15, Guy Walker, Lancaster, Wis., $67.50; 16, I. Vesterman, Lancaster, Wis., $57.50; 17, Frank Bidwell, Lancaster, Wis., $70; 19, M. F. Walker, Lancaster, Wis., $52.50; 20, A. Woepkin, Lancaster, Wis., $57.50; 23, Albert Henry, Lancaster, Wis., $70; 24, I. Vesperman, $47.50; 25, Hauk Bros., $60; 26, A. Woepkin, $42.50; 27, Hauk Bros., $55; 28, P. W. Young, Prosper, Minn., $62.50; 29, I. Vesperman, $57.50; 30, Chris Kartman, Cassville, Wis., $70; 32, E. Rice, $52.50; 33, Fred Bendorpf, Lancaster, Wis., $52.50; 34, I. Vesperman, $52.50; 35, Thos. Holmes, Lancaster, Wis., $60; 36, Lee Eastman, $55; 37, Ben Goke, Platteville, Wis., $47.50; 38, J. C. Mathews, Marion, Wis., $57.50; 39, Guy Walker, $60; 40, Frank Renalde, $57.50; 41, Chas. Flesch, Mt. Ida, Wis., $62.50; 42, E. Cairns, Mt. Hope, Wis., $67.50; 43, L. Highland, Union Center, Wis., $42.50; 44, Ben Gole, $52.50; 45, T. C. Everett, Columbus, Wis., $60.

E. W. Hendricks' Poland China Sale.

The second Poland China sow sale of E. W. Hendricks, was a success in every respect. The day was a little disagreeable, but the breeders and local farmers were "on the job" to buy the good ones. The neighbors of Hendricks appreciate what they are producing and were contending bidders on the best sows. As usual Ed had the offering in fine condition. The demand was for sows sired by Black Jumbo and bred to Model Major 2d. It was a nice, clean sale in every respect and was one of the good sales of the season. The average of $84.50 was considered very satisfactory in view of the fact that many of the sows were bred too late for the breeders. We follow with a complete list of buyers and prices: No. 2, T. R. Loeper, Rosedale, Wis., $97.50; 3, A. H. Hendricks, Hazel Green, Wis., $90; 4, Chas. Harris, Georgetown, Wis., $75; 5, B. McNulty, Cobb, Wis., $85; 6, J. C. Bumgardner, Stockton, Ill., $67.50; 7, L. N. Bunt, Platteville, Wis., $82.50; 8, A. H. Hendricks, $62.50; 9, J. H. Kreger, Lost Nation, Ia., $60; 11, Peter Meloy, Townsend, Mont., $110; 12, D. Danks, Stoughton, Wis., $100; 13, Thos. C. Johnson, Reynolds, Ill., $100; 14, Olaf C. Olson, Strum, Wis., $90; 15, T. R. Loeper, $137.50; 16, J. D. McDonald, North Bend, Wis., $65; 17, D. Danks, $155; 18, J. C. Hendricks, Hazel Green, Wis.,

(Concluded on page 20.)

BARRED Plymouth Rocks and eggs. Farm raised; bred for beauty and utility. Cockerels $3 to $7; pullets $2 to $4. Double mating, state if dark, light, or medium birds are wanted. Carter's Plymouth Rock Farm, Jonesdale, Wis.

LAND OFFERINGS along the Kansas City Southern Railway, now ready for distribution, contains lists of improved and unimproved lands for sale at all stations in Missouri, Arkansas, Oklahoma, Louisiana and Texas together with reliable information concerning the towns, cities, agricultural and mineral resources near which the lands are located. Write for a copy to Immigration Bureau, 306 K. C. S. Building, Kansas City, Missouri.

FOR SALE A 135-acre farm near Jefferson Jefferson county, Wis. The farm is ½ mile from condensery, two creameries and railroad station; an elegant place for the cattle business, pure-breds or grades; the dairy center of the world. Priced to sell. E. H. Kiesling, Jefferson, Wisconsin.

ONEIDA COUNTY, WISCONSIN
LAND OF LOVELY LAKES
4,000 acres to choose from, none over 5 miles to railway station. Write now to W. W. Thayer, McNaughton, Wisconsin.

WANTED TO HEAR FROM OWNER OF farm for sale or exchange. Address Kubat Realty Company, Chippewa Falls, Wisconsin.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER **MADISON, WISCONSIN**

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

HOLSTEIN CALVES.

REGISTERED Holstein calves, fine fellows with world's record backing. $45 express prepaid in Wisconsin. 80% white. Chas. Hampke, Manitowoc, Wisconsin.

FINE pure-bred Holstein bull calves for sale; write for pedigrees. French Brothers, Shipman, Illinois.

SALESMAN WANTED.

SALESMEN wanted to canvas the farming and threshing trade, soliciting orders for Lubricating Oils, Greases and Paints. Excellent opportunity for right party. Previous experience unnecessary. Address at once The Victor Oil Company, Cleveland, Ohio.

PAINTS.

STOP buying high-priced paints. Smith Bros.' refined Fish-Oil mixed with any desired coloring, produces a paint that will outwear all others. Better and cheaper than linseed oil; 60 cents per gallon. Write today for particulars, etc. Smith Bros., Port Washington, Wis.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

POTATOES.

POTATO Growers in Vilas County raise seed potatoes for Texas trade. Prices guaranteed for 1917 crop. Potato farms on easy terms. Sanborn Company, Dept. P, Eagle River, Wis.

HONEY.

HONEY, Delicious Pure Honey, 30-lb. can, $3.50; 60-lb. can, $6.60; 120 lbs., $12.60. Satisfaction guaranteed. E. B. Rosa, Monroe, Wis.

POULTRY, ETC.

SINGLE Comb White, Rose Comb Buff Leghorn males, White Runner ducks. 7 shows 1917, 78 ribbons, 2 silver cups. Satisfaction guaranteed. Dwight Philpot, Sun Prairie, Wis.

SILVER Laced Wyandottes; prize winners. Vigorous, farm-raised birds. Choice cockerels, $2 each; well laced yearling hens, $1.50; pullets, $2. Minnie Patterson, St. Charles, Minnesota.

S. C. Buff Leghorns, blue ribbon winners, eggs and chicks. Write for mating list. Lake Shore Poultry Farm, Box B, Cedar Grove, Wis.

BELDA'S Barred Rock cockerels $2 each. 18 fine show cockerels $5 each. Pullet breeders $3 each. Wm. Belda, De Forest, Wisconsin.

BIRKHIMER'S Buff Orpingtons, type and quality eggs $2.50 per setting. Ed Birkhimer, Shenandoah, Iowa.

SEEDS.

GROWING fifty strains of Alfalfa on our farms. We have secured from the West two strains of seed personally inspected that will satisfy all who wish to grow alfalfa. Samples. Swartz Bros., Cornfalfa Farms, Waukesha, Wisconsin.

100% STRONG, germinating, rack-dried, Early Seed Corn. Grimm Alfalfa and Pure Grass Seeds. Write. Beckman's Seed Farm, Cokato, Minn.

FIRE dried Silver King and Golden Glow seed corn for sale. Peck Bros., Spring Green, Wis.

TRAPPER POISON.

TRAPPER POISON. Goes' Liquid Poison Capsules kill foxes, wolves, coyotes on spot. Eleventh season in use. Free circulars. Edmund Goes, Station C, Milwaukee, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

Please mention this paper when writing

FARM LANDS.

NORTH DAKOTA in all essentials; Soil, climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short—yet government reports show $167,544,000 or $2,253 per average farmer. In last seven years average farmer in North Dakota produced $1,975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

FARM of eighty acres, good buildings, ¼ mile to school, 1½ miles to creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, 6 miles west of Medford, Taylor county, Wisconsin, county seat. $6,000, will take in exchange to the extent of $3,000 first-class city property. Will rent three years at $325 per year. L. A. Kimball, Lake Geneva, Wisconsin.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

160 ACRES, all improved, level farm in western Wisconsin. Sandy loam soil. A good dairy farm. Four miles from market and high school. Good roads. Must sell by April 1st. Price right and on easy terms. For further information write M. Shumway, Trempealeau, Trempealeau county, Wisconsin.

DAIRY products are high. They will never be cheap again. Get into the dairy business. Locate on the Clover lands of Aitkin County. Make your selection soon. Get a choice piece. Buy of our Company direct. Get low prices and easy terms. Write Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

80 ACRE snap. 40 acres under cultivation, clay loam soil, gently rolling, orchard, buildings, town 3½ miles, school ½ mile. Price $2,700, $700 cash. The Ev. Luth. Colonization Co., 1029-M, Dept. 10, Merrill, Wis.

ONE hundred twenty acre farm one-fourth mile from Ladysmith, Wisconsin, sixty acres under cultivation. Loam clay soil. Price $6,000, $2,000 cash. Balance on easy terms. Manning & Swaim, Ladysmith, Wisconsin.

280 ACRES land, Langlade County, Wisconsin; good buildings, water power, saw mill, timber to pay for farm; will accept small farm, part payment. Owner, C. A. Kelley, Browntown, Wisconsin.

UPPER WISCONSIN—40-80 acre tracts, well located. Small buildings, clearings $20-$30 acre. Terms ¼ down, balance easy. Wisconsin has no crop failures. R. J. Russell, La Crosse, Wis.

SELL your farm direct and keep the big agents' commissions. No listing. No land men to deal with. You can do it. Particulars free. Address Chas. Renich, G-2, Woodstock, Illinois.

EIGHTY acres sugar maple, clay loam land with house, barn and clearing. $25 per acre, small payment down. Frank M. Doyle, Ladysmith, Wisconsin.

A CHOICE 200-acre farm in Waukesha Co.; good soil and buildings. For full particulars write G. W. Adams, 330 Caswell Block, Milwaukee, Wisconsin.

FARM of 30 acres, one mile west of Appleton, Wis.; good location and buildings, with or without personal property. E. Fairbanks, Route 2, Appleton, Wis.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

FOR SALE—Hundred eighteen acres clay subsoil in Juneau county. Stock and machinery included. Otto Tessmer, Camp Douglas, Wis.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur, Mountain View, Mo.

GOOD fifty acre farm for sale cheap if taken soon. "S" care this paper.

HELP WANTED.

WANTED—Energetic young man familiar with all branches of farming in this section. University student preferred. Small farm near town. A, care of Wisconsin Farmer.

MAN to work on farm by month, must be good hand with horses. Good wages. Write B. L. Weittenhiller, Livingston, Wisconsin.

INDUSTRIOUS man and wife without children for work on farm—family of three. J. E. Spencer, St. Charles, Minnesota.

HAMPSHIRE BOARS, SOWS, GILTS.

HAMPSHIRES for sale. 25 bred sows, fall boars and gilts. L. C. Wilsie, Brandon, Wis.

Farm For Sale or Rent

A GOOD home on 80-acre farm. Good buildings, good soil, near school and creamery, six miles west of the county seat of Taylor county, Wisconsin. Nearly half cleared, balance easy to clear. Price $6,000.00; $1,500.00 cash, balance on time. Will rent for three or five years.
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WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

MONTANA 640-acre homesteads, new towns, business opportunities. Send 25c for maps and information. U. S. Comm., Outlook, Mont.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus folders, free. C. L. Seagraves, Ind. Com'r, A.T. & S.F. Ry., 1959 Ry. Ex., Chicago.

FOR SALE OR RENT Thirty-room brick hotel and bank building. Only hotel in town of 1,500 population, city water, electric lights, etc., doing good business; owner wishes to retire; might consider some farm land. Geo. Slade, Adrian, Minn.

50 CHOICE farm bargains in Central Wisconsin. Select your home there where farmers are making money in the dairy business. Send for free list, map and panoramic views of the country. Graham's Land Office, Marshfield, Wis.

WRITE J. D. S. Hanson, Hart, Mich., for list farms in Co., where biggest crops grow. Fruit, grain, alfalfa, dairying.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Getting Started in Show Class.

To the Editor:—After having bred mongrels for a number of years, I decided to invest in thoroughbred poultry. In the spring of 1908 I bought from a local breeder of S. C. Rhode Island Reds five pullets and one cockerel, four months of age, paying $8 for the six birds. These grew to maturity and the following season I bred and raised from them about fifty youngsters. In the fall of 1909, having developed a greater interest in poultry, I decided to visit a poultry show so that I might figure out how my birds compared with those on exhibition, and it did not take me long to discover that my birds were culls when compared with those I saw at the show. The following March, 1910, I sold nearly all the birds that I had on hand for $24 and bought from a good, honest Red breeder a $5 setting of eggs. From the chicks I hatched from these eggs I raised two cockerels and four pullets and the following fall I wanted to exhibit the birds at the local show, but I did not. My nerve failed me, I think. Anyway I had the courage to ask two breeders who had bred and exhibited birds for a number of years to come down and take a look at these six birds. After looking them over they were quite excited about one of the cockerels, paying him all kinds of compliments and said that a bird of his class would cost a good many dollars from any of the big breeders. I have never been able to tell those men what they did for me, but of this I am sure, they instilled more enthusiasm in me over the birds than in anything I have ever known.

In January, 1911, out of the six birds I had on hand I discarded one cockerel and one of the pullets on account of white ear lobes, and bred from the best cockerel and three pullets. I made a close study of my birds and the eggs laid by them and soon learned to distinguish the eggs laid by these three pullets and set them separately. When the chicks from these eggs hatched I toe marked them, that I might make no mistake in selecting the next year's breeders. From the four birds I hatched and reared 100 youngsters and I fed the chicks chick foods and a corn meal mash and quite a few beef scraps. I never saw chicks grow better or develop more uniformly. By fall, having watched their gradual development of beauty in form and feather, through the summer, I had gotten my nerve worked up to the point of entering them for exhibition at the fall show. A month and one-half before this time I picked out seven birds that I intended for exhibition and these I put in training coops and started to get them trained and in condition. I weighed every bird and those under weight I put on a fattening diet, also gave them a lesson every day in posing. Some of them took to posing like ducks to water—others were a little wild at first, but before long I had them all so they would pose nicely. There was one cockerel in particular that was an extraordinary good one, except that he was a half pound under the standard weight and his comb was undeveloped. This bird I kept on a special diet and gave him the best of care. This bird weighed eight pounds when I put him in the show room and won first in a class of twelve cockerels. These birds went into the show room in tip-top shape and in a class that was the largest in the show, six exhibitors, three from our local town and three from the state at large, making an entry of sixty-four S. C. Reds, I won as follows: First cockerel; first hen; first, second, third and fourth pullet and first hen. I also won $5 for best hen in show. I also won two silver cups and a number of other specials. The two judges who judged our show claimed that my first pullet was as good as they ever saw and Judge Hackett, who was visiting our show and who had judged shows such as Chicago and many other shows, said this pullet was good enough to win in most any show that he ever judged. However, for a beginner, I think I did wonderfully well and am perfectly satisfied. In summing up I would say that I attribute my success first to buying eggs of thoroughbred stock, second to the excellent points and reminders which I received from the poultry magazines, and, third, from attending strictly to little details of the business. My birds never fail to bring home ribbons for me and I can say I have as good a flock throughout as anyone in the state. After one gets a good start he does not often keep buying birds, as many a big breeder does today. I must say one thing, in dealing with your customers treat them as you would want them to treat you. If there are any questions I can answer for a beginner on the subject of Rhode Island Reds, I would be glad to answer them. L. McCarter.

Outagamie Co., Wisconsin.

"The meat value of the quail is inconsiderable—negligible—when compared to the services these birds render to the farm," a bird expert of the University of Oklahoma says. "They prey upon 145 different kinds of destructive insects and consume no less than 129 varieties of noxious weed seeds. They stay on the job twelve months in the year and labor continually when weather conditions permit. I do not believe that the landowners should permit a multitude of so-called sportsmen to destroy this powerful ally of the farmer."

A New Industry.

DURING last year over 1,000,000 automobiles were put into actual service and approximately 4,000,000 of them are operating every day. This enormouse increase in number of machines has led to the establishment of automobile schools here and there, where young men are trained to know everything from A to Z about automobiles. At the Michigan State Auto School, one of the best in existence today, the course takes from ten to twelve weeks for the average student and the cost is very reasonable. This school has proved a great success, both for students and factory owners, because it enables them to get men for their employ who are thoroughly trained and can handle any automobile proposition. Special attention is paid to electrical equipment outfits at the Michigan School because the large per cent of automobile difficulties are in some part of the electrical equipment. The Michigan State Auto School is located in Detroit. It has an enrollment of from 700 to 1,000 men, all of whom receive personal instruction.—Adv.

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Send Johnson your name and get the bedrock facts on making profits with chickens. Learn how Johnson started 700,000 people the simplest and easiest way with
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Big production makes low price. And Johnson pays freight. Quick shipment—safe arrival guaranteed. Write at once for new book whether you start now or not. Address
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JUST STOP A MINUTE AND THINK THIS OVER
Doesn't a windmill give back more for the money than any other farm machine? Doesn't it supply a most necessary element to life? Doesn't it work unceasingly, untiringly? Doesn't it require little or no attention? Why not buy a
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with double gears, big oil boxes and a world-wide reputation.
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SAMSON WIND MILLS, STOVER'S GOOD ENGINES, MAGNETOS, ALFALFA AND ENSILAGE CUTTERS, WOOD SAW FRAMES, WASHING MACHINES, PUMP JACKS, HAND GRINDERS, FIRE PLACE FIXTURES AND HARDWARE SPECIALTIES.

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The Pioneer Hatcher of Quality made by Neubert's of 23 years' experience. None better at any price. Double wooden walls, dead air space, redwood, hot water copper tank, self regulator safety lamp, high nursery. Most simple and durable; set up ready to use. Money back guarantee. Brooders $2.50 up. Big catalog free. Write to-day.
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260 Egg ONLY $12.00

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62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 23 years exp. Large fine Annual Poultry Book and Catalog FREE.
F. A. NEUBERT, Box 607, Mankato, Minn.

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Hardy Northern raised Chickens, Ducks, Geese and Turkeys. Pure-bred heaviest laying strains. Fowls, Eggs, Incubators, all at low prices. Large new Poultry Book and Breeders' Complete Guide Free.
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50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents.
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Wins in the Two BIGGEST HATCHING Contests Ever Held
Why take chances with untried machines when for only $11 we guarantee to deliver safely, all freight charges paid (East of Rockies), BOTH of these big prize winning machines fully equipped, set up ready for use? Why not own an IRONCLAD—the incubator that has for two years in succession won the greatest hatching contest ever held? In the last contest conducted by Missouri Valley Farmer and Nebraska Farm Journal, 2,000 Machines were entered including practically every make, style and price. With the Ironclad—the same machine we offer with Brooder freight, paid for only $11, Mrs. C. F. Merrick, Lockney, Texas, hatched 148 chicks from 148 eggs in the last contest.

150 EGG ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of.
Galvanized Iron, Asbestos, Redwood, Insulated Board
10-Year Guarantee
Both for $11 Freight Paid East of Rockies
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Money Back if not Satisfied
MADE OF CALIFORNIA REDWOOD
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Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery—hot water top heat, copper tanks and boilers, self regulator, Tycos Thermometer, glass in door, set up complete ready for use and many other special advantages fully explained in Free Catalog. Write TODAY or order direct from this advertisement.
IRONCLAD INCUBATOR COMPANY, Box 113, Racine, Wis.

Wisconsin Wins In Big Hatching Contests Every Year
Why Pay More
For only $10 you can get these two prize winning machines, delivered, freight paid east of the Rockies. You take no risk—money back if not satisfied. You can order direct from this ad. Ask the publisher about us.

Both Machines Freight Paid For Only $10
180 Egg Incubator and 180 Chick Brooder both for only $12.75
Made of California Redwood
Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on 30 Days' FREE Trial
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Wisconsins have hot water heat, double walls, air space between double glass doors, copper tanks and boilers, self regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1917 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.
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$8.55 Buys 140-Egg Size World's Champion Belle City Incubator
The Prize Winning World's Champion Model
Hot-water—Double-walled—Copper Tank—a Thermometer Holder—Deep Nursery—Self-regulating, same as used by Uncle Sam and America's most successful Poultry Raisers.—When ordered with my $4.85 Double-walled, Hot-water 140-chick Brooder—Both cost only $12.50.
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Conditions easy to get biggest prize. Start early—order now—anyway write today for my Big Free Book, "Hatching Facts". It gives short cuts to poultry success. Jim Rohan, Pres.
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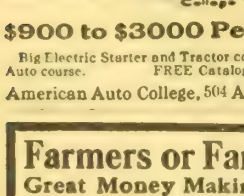

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News of the Sale Ring.

(Continued from page 18.)

$92.50; 19, J. C. Bumgardner, $70; 20, Birkett Bros., Cobb, Wis., $70; 21, Birkett Bros., $75; 23, Thos. C. Johnson, $112.50; 24, J. C. Bumgardner, $75; 25, J. C. Bumgardner, $65; 26, J. C. Bumgardner, $77.50; 27, Birkett Bros., $85; 28, W. L. Ackerman, Glen Haven, Wis., $85; 29, L. C. Runde, Hazel Green, Wis., $65; 31, Frank Renalde, Lancaster, Wis., $102.50; 32, L. N. Bunt, $57.50; 33, Ben Felderman, Bellview, Ia., $85; 34, Fred Sutter, Fountain City, Wis., $65; 35, H. Menster, Cascade, Ia., $70; 36, W. Shino, Potosi, Wis., $75. Summary: 36 head brought $2,705; average $84.50.

J. C. Hendricks' Poland China Sale.

J. C. Hendricks held his second sale of Poland China sows February 15th, resulting in an average of $88.50 on the 42 head sold. It was a grand sale in every respect. Joe gave the buyers a good lot of sows to bid on and they spent their money freely. The sows were not overdone in any way, but were in nice sale condition and there is no reason why they should not go on and do well for their buyers. Henry Kettler was a buyer of some of the good gilts. J. D. McDonald made what we think the best buy of the sale when he bought No. 11, an outstanding yearling at $100. The yearlings and tried sows did not bring their real worth. Mr. Hendricks is to be congratulated on his ability to produce an offering that can again break the state record for Poland China sold at auction. We follow with a complete report: No. 1, T. R. Loeper, Rosedale, Wis., $95; 2, Fred Sutter, Fountain City, Wis., $65; 3, J. D. McDonald, North Bend, Wis., $107.50; 4, J. D. McDonald, $87.50; 5, Bryant Bros., Hazel Green, Wis., $72.50; 6, J. F. Cahill, Lamont, Ia., $92.50; 7, Jas. Derivan, Fox Lake, Wis., $80; 9, C. C. Irwin, Maquoketa, Ia., $102.50; 10, Henry Kettler, Platteville, Wis., $70; 11, J. D. McDonald, $100; 12, P. J. Ramleau, Decorah, Ia., $115; 13, Jas. Dows, Lena, Ill., $85; 14, Thos. Willie, Cuba City, Wis., $85; 15, W. F. Ackerman, Glen Haven, Wis., $67.50; 16, W. Anudrews, Hazel Green, Wis., $80; 17, Gerben & Pearsoll, Alexis, Ill., $80; 18, Patterson Bros., Cascade, Ia., $70; 19, Wm. Martin, Cascade, Ia., $80; 20, H. Mensker, Cascade, Ia., $85; 21, Dale Rundell, Livingston, Wis., $102.50; 22, F. L. Smith, Dubuque, Ia., $67.50; 23, Fred Glanville, Montfort, Wis., $90; 24, Henry Kettler, $65; 25, Cook & Cook, Independence, Ia., $120; 26, Henry Kettler, $75; 27, Thos. Willie, $85; 28, Henry Kettler, $90; 29, J. M. Nesbit, Aledo, Ill., $100; 30, D. Danks, Stoughton, Wis., $160; 31, H. Johnston, Cuba City, Wis., $90; 32, Loes Bros., Cascade, Ia., $75; 33, Loes Bros., $95; 34, B. McNulty, Cobb, Wis., $65; 35, Fred Glanville, $102.50; 36, J. C. Kramer, Livingston, Wis., $82.50; 37, Olaf C. Olson, Strum, Wis., $77.50; 38, Loes Bros., $65; 39, Wm. Hoadley, Platteville, Wis., $90; 40, E. B. Eastwood, South Wayne, Wis., $87.50; 41, Henry Kettler, $87.50; 42, Wm. Hoadley, $75; 43, R. J. Broner, Cresca, Ia., $150. Summary: 42 head sold for $3,717.50; average $88.50.

P. W. Young's Poland China Sale.

The best Poland China sale in the north this winter was made by P. W. Young, Prosper, Minnesota, when he sold 41 head of bred sows at an average of $98.14. This was another demonstration of what good boars will do for a breeder. It is generally conceded that Mr. Young has three of the best herd boars in existence and the breeders stamped their approval when they bid so liberally on their produce. Young's Big Joe is the latest attraction and sows bred to him were in greatest demand. He is a great young boar and those having litters by him this spring will be fortunate. Sows bred to him averaged $107. Master's Giant sows bred to Orange Wonder averaged $95. This was a postponed sale and even then the trains from the south and west were still blocked, which interfered with the sale. Had the roads been good and the weather more pleasant we feel certain that the average would have been over the $100 mark. Over 175 people were fed at noon and some 400 attended the sale. H. O. Tellier made many friends by the manner in which he conducted this good sale. We follow with a complete list of buyers and prices:

No. 1, Wm. Wrigley, Lake Geneva, Wis., $275; 3, Harry E. Ruffridge, Greene, Iowa, $130; 4, Taylor Graham, Prosper, Minn., $130; 5, A. J. Anderson, Houston, Minn., $130; 6, W. T. Wiger, Mabel, Minn., $105; 7, Byron Willford, Canton, Minn., $90; 8, Joseph Thompson, Mabel Minn., $77.50; 9, P. T. Ramlo, Decorah, Iowa, $90; 10, Martin Walhus, Mabel, Minn., $100; 11, W. W. Quackenbush, Melrose, Wis., $110; 12, Oscar Gallentine, Farnhamville, Iowa, $145; 13, E. G. Stensland, Mabel, Minn., $110; 15, P. A. Wold, Newhouse, Minn., $80; 16, C F. Gummert, Renville, Minn., $100; 17, Conrad Ryan, Canton, Minn., $75; 18, J. J. Taylor, Lime Springs, Iowa, $90; 19, P. T. Ramlo, $110; 20, Andrew Elstad, Whalen, Minn., $76; 21, Wm. Poppe, Caledonia, Minn., $85; 22, M. W. Ahern, Lanesboro, Minn., $100; 23, W. P. Donald, Prosper, Minn., $100; 24, John Fitting, Houston, Minn., $88; 25, Leon Tompkins, Byron, Minn., $86; 26, N. Richert, Mabel, Minn., $68; 27, C. S. Flesch, Fennimore, Wis., $75; 28, W. T. Wiger, $68; 29, Joseph Thompson, $51; 30, E. W. Hendricks, Hazel Green, Wis., $102; 31, Alfred Magnus, Ridgeway, Ia., $84; 32, Albert Van Wychen, Faribault, Minn., $88; 33, J. M. Glazier, St. James, Minn., $135; 35, R. G. Sandager, Calmar, Iowa, $71; 36, O. K. Romberg, Calmar, Iowa, $95; 37, P T. Ramlo, $106; 38, Wm. Poppe, Caledonia, Minn., $90; 39, Ed Rossez, Faribault, Minn., $85; 40, Alfred Magnus, $86; 41, Tulloch & Freis, Genoa, Wis., $75; 43, A. H. Bergsrud, Spring Grove, Minn., $65; 44, O. J. Arneson, Spring Grove, Minn., $110.

Kartman's Poland China Sale.

Chris. Kartman sold 35 head of cataloged Poland China sows and a few extras at Cassville, Wis., February 16th. There was a large crowd in attendance, many local farmers, of course, at the same time a dozen or more breeders were present. Mr. Kartman had a nice lot of qualitied stuff, but they had not been pushed enough to command high prices. Several good spring gilts and some fall yearlings were sold at good prices. Mr. Boughton, of Bayfield, Wis., bought a good yearling daughter of Big Orange for $80 that was a good buy. R. Meinking, Bangor, bought the top gilt at $72.50—she was the outstanding gilt of the sale. Frank Renalde bought an April gilt for $55 that was one of the bargains of the sale. It is a centainty that the buyers will make money on the cows purchased in this sale. W. H. Cooper sold the offering in an efficient manner. We follow with a list of those selling for $35 and over:

No. 1, L. Okey, Cassville, Wis., $45; 2, S. L. Boughton, Bayfield, Wis., $80; 3, A. H. Patch, Bloomington, Wis., $45; 4, Hauk Bros., Cassville, Wis., $65; 5, Deimer Bros., Cassville, Wis., $57.50; 6, Wm. Hauk, Cassville, Wis., $67.50; 7, Mat Pins, Turkey River, Ia., $52.50; 8, F. Kolker, Turkey River, Ia., $40; 10, S. L. Boughton, $65; 11, R. Meinking, Bangor, Wis., $72.50; 12, S. L. Boughton, $55; 13, Thos. Rech, Cassville, Wis., $40; 14, A. Udelhofen, Cassville, Wis., $36; 17, E. C. Caverly, Toulon, Ill., $50; 18, Jas. Perrin, $37.50; 20, John Becker, Turkey River, Ia., $40; 21, J. J. Ryan, Glen Haven, Wis., $40; 22, Mat Pins, $52.50; 24, Geo. F. Harris, Bagley, Wis., $40; 26, Frank Renalde, Lancaster, Wis., $55; 27, Jas. Perrin, Potosi, Wis., $37.50; 28, A. Udelhofen, $35; 29, Frank Kolter, $35; 31, Mat Pins, $42.50; 34, Wm. Zenz, Potosi, Wis., $42.50; 35, Wm. Zenz, $47.50; 36, Neimer Bros., $40; 37, A. Udelhofen, $35; 38, Thos. Baldwin, Elgin, Ia., $37.50; 39, Max Kischbaum, Cassville, Wis., $40; 25, J. J. Ryan, $38; 33, A. Udelhofen, $36; 23, A. Udelhofen, $36. Total $1,617; average $46.20.

With Our Advertisers.

140 Holsteins Sell at Monroe March 6th and 7th.

ONE of the Holstein events of the season will be a dispersion sale of 140 head of Holstein cattle at Monroe, Green county, Wis., March 6th and 7th. Daughters of some of the most noted bulls of the breed are included in this sale, for instance a real choice daughter of King Segis; daughters of King of the Pontiacs, Aaggie Kornucopia Johanna Lad, De Kol's 2d Butter Boy 3d. These are safe in calf to a 33-pound or a 37-pound bull. There will be 20 daughters of Mutual Fobes Piebe, full brother to the 34.69 junior four year old, Bessie Fobes Jessie Homestead; 20 daughters of King Pieter Pontiac Korndyke, he out of a daughter of Dutchland Sir Pontiac Rag Apple, full brother to the first 37-pound cow. There will be fifteen daughters of Johanna McKinley Copia, whose two nearest dams average over 33 pounds. He is a grandson of King Segis, that in turn is a grandsire of Segis Fayne Johanna, the only cow that ever produced 50 pounds of butter in seven days. They are bred to a son of Vale Mercedes Lady 37.46 pounds of butter in seven days; 110 pounds milk in one day. After reading this short description you can at once appreciate the wonderful breeding wrapped up in this herd of cattle, and, as the animals individually are consistent with their breeding you will make no mistake attending this sale. It is generally conceded that the opportune time and place to buy Holsteins is at a dispersion sale. Here is your opportunity. Remember the date and place and write to Mrs. Mary Legler, executrix of the Legler Estate Herd, or to Holstein Sales Company, Elgin, Ill., for one of the illustrated catalogs. All cattle have been tubercular tested by Wisconsin veterinarians. See page 28.—Adv.

Hereford Opportunity.

WE HAVE just located a Hereford herd in Wisconsin that is in keeping with the good herds of the country. This herd is owned by Walter Bros., Chippewa Falls, Wisconsin, and is made up of a herd of breeding cows that would appeal to anyone interested in this breed of beef cattle. Few Hereford bulls are being offered for sale at the present time and here is an opportunity for a prospective buyer to buy a bull of serviceable age bred along the most popular lines known to the breed. One outstanding two-year-old bull is for sale and two senior yearlings. The yearlings are sired by Beau Gomez 2d, he by Beau Gomez, and those posted are acquainted with the fact that the last mentioned bull sold for about $4,000 and was the sire of many show yard winners. We are glad to recommend these bulls and we feel confident that they will be satisfactory. Write at once for further description, as mentioned above good Hereford bulls are in demand and these will not be on the market long. Please mention this publication. See page 28.—Adv.

McDonald Leads Again.

J. D. McDONALD, the popular Poland China breeder of North Bend, Wis., again demonstrated the fact that he breeds "sale toppers," for an entry from the McDonald herd topped the association sale at Madison, February 7th. J. D. is offering some wonderful gilts at this time and if you need a few good Polands let him describe what he has and the boars that they are bred to. Better Poland Chinas than those owned by McDonald are scarce. Don't forget to mention The Wisconsin Farmer when writing for information. See page 29. —Adv.

Kerosene or Gasoline?

THE attention now given to kerosene engines for farm use is increasing every day by readers of this paper, because of the high price of gasoline. It is seen that the original cost of an engine is not the only expense to consider, but that the cost of the fuel to run the engine is one of the most important outlets when considering farm power of any nature. As fuel, kerosene has the advantage over practically every other fuel for a farm engine. Some years have been required to perfect an engine which would successfully use kerosene, but a number of our readers are using kerosene engines and pronounce them a success. The Ottawa Manufacturing, 1191 King St., Ottawa, Kan., have given the kerosene proposition a thorough try-out for several years, with the result that they are now selling a kerosene engine which they claim is entirely satisfactory. Their literature will explain the features of their engine in detail and give you all other information necessary regarding their line of engines which range in size from two to 22 horse power. Write to the Ottawa Manufacturing Company, 1191 King St., Ottawa, Kansas, if at all interested in a kerosene engine. See page 6.—Adv.

Jerseys at Auction.

ON March 7th at Werley, Wis., R. G. Ketterer will sell about 30 head of Jerseys. Twenty-four are well bred and registered cows and heifers, fresh or will freshen soon. There will be two bulls sold, one tried sire and one yearling. Four high-grade cows will also be sold. Mr. Ketterer is not going to a great deal of expense in making this sale and consequently he does not expect to receive high prices from breeders. No doubt you can buy Jerseys worth the money in this sale. If you are interested write the owner for his sale list. See page 28.—Adv.

The spire of an old English church has been twisted into almost spiral form by unequal contraction and expansion of lead and wood in its construction.

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TOLD IN THE HILLS

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PART IV--One Squaw Man.

CHAPTER VI.

On the Heights.

WHILE they commented, and wondered, and praised, and found fault with him, the day drifted into darkness, the darkness into a dreary dawn; and through all changes of the hours the outlaw stalked, with sometimes his ghastly companion bound to the saddle, and then again he would remount, holding Snowcap in his arms—but seldom halting, never wavering; and Mowitza, who seemed more than ever a familiar spirit, forged ahead as if ignoring the fact of hunger and scanty herbage to be found, her sturdy persistence suggesting a realization of her own importance.

A broad trail was left for them, one showing that the detachment of braves and the horses of the troops had returned under forced march to bear the news to their village—and such news!

The man's dark face hardened and more than one of those expressive maledictions broke from him as he thought over it. All his sympathies were with them. For five years they had been as brethren to him; never had any act of treachery touched him through them. To their people he was not Genesee the outcast, the immoral, the suspected. He was Lamonti—of the mountains—like their own blood.

He was held wise in their councils, and his advice had weight.

He could have ruled their chief, and so their nation, had he been ambitious for such control.

He was their adopted son, and had never presumed on their liking, though he knew there was little in their slender power that would not have been his had he desired it.

Now, he knew he would be held their enemy. His influence had encouraged the sending of that message and the offered braves to the commander of the troops. Would they grant him a hearing now or would they shoot him down, as the soldier had shot Snowcap, with his message undelivered?

Those questions, and the retrospection back of them, were with him as he went upward into the mountains to the north.

Another night was falling slowly, and the jewels of the far skies one by one slipped from their ether casket, and shone with impressive serenity on the crusted snow. Along the last ridge Mowitza bore for the last time her double burden. There was but a slope to descend, a sheltered cove to reach, and Snowcap would be given back to his kindred.

The glittering surface of the white carpet warmed into reflected lights as the moon, a soft-footed, immature virgin, stole after the stars and let her gleams be wooed and enmeshed in the receptive arms of the whispering pine. Not a sound broke through the peace of the heights. In their sublime isolation, they lift souls as well as bodies above the commonplace, and the rider, the stubborn keeper of so many of their secrets, threw back his head with a strange smile in his eyes as the last summit was reached—and reached in the light of peace. Was it an omen of good? He thought of that girl back in the valley who was willing to share this life of the hills with him. All things beautiful made him think of her, and the moon-kissed night was grand, up there above where men lived. He thought of her superb faith, not in what he was, but in what her woman's instinct told her it was possible for him to be. What a universe of loves in human hearts revolves about those unseen, unproven substances!

He thought of the time when she had lain in his arms as Snowcap was lying, and he had carried her over the hills in the moonlight. He was bitterly cold, but through the icy air there came the thrill and flush of that long-past temptation. He wondered what she would say when they told her how he had used his freedom. The conviction of her approval again gave that strange smile of elation to his eyes; and the cold and hunger were ignored, and his fatigue fell from him. And with the tenderness that one gives to a sleeping child, he adjusted with his wounded hands the blanket that slipped from the dead boy, raising one of the rigid arms the better to shroud it in the gay colors.

Then the peace of the heights was broken by a sharp report; the whiteness of the moonlight was crossed by the quick, red flash of death and Mowitza stopped still in her tracks, while her master, with that dead thing clasped in his arms, lunged forward on her neck.

CHAPTER VII.

A Rebel.

WITHIN the confines of Camp Kootenai there was a ripple of rejoicing. At last, after four days lost because of the snow, Major Dreyer had arrived, pushing on with all possible haste after meeting the runner—and, to the bewilderment of all, he rode into camp on one of the horses stolen almost a week ago.

"No mystery about it—only a little luck," he said in explanation. "I found him at Holland's as I came up. A white man belonging to the Blackfeet rode him in there several nights ago. The white man got drunk, picked a row, and got his pay for it. They gave him grave-room down there, and in the morning discovered that the beast had our brand, so gave him up to us as we came through."

Needless to say that this account was listened to with unusual interest. A man belonging to the Blackfeet! That proved Genesee's theory of which he had spoken to Captain Holt—the theory that was so thoroughly discredited.

When word was brought that the Major's party had been sighted from the south, Fred and Rachel could hardly wait for the saddles to be thrown on the horses.

Tillie caught the fever of impatience, and rode down beside Hardy. Stuart was not about. The days since Genesee's departure he had put in almost entirely with the scouts stationed to note any approach from the north; he was waiting for that coming Kalitan, for the first time since Genesee's flight, came into camp. The man who had seemed the friend of his friend was again in command; and he showed his appreciation of the difference by presenting himself in person beside Rachel, to whom he had allied himself in a way that was curious to the rest, and was so devotionally serious to himself.

"Then, perhaps it was not that Genesee who stole the horses, after all," broke in Fred, as her father told the story.

(To be continued.)

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Barley	3,168.00	Rye	2,419.20
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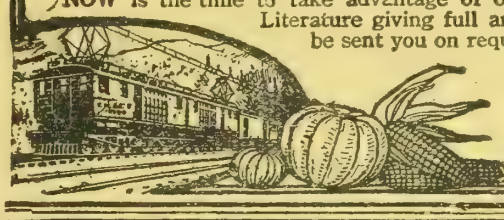

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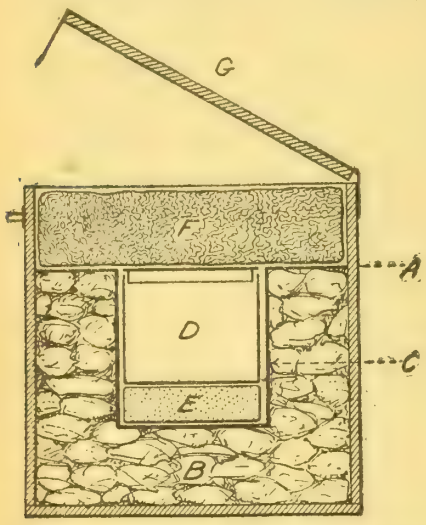
THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Satisfactory Homemade Cooker

The advantages of a fireless cooker are numerous. It saves fuel, saves time, allows the housewife to prepare her meal and leave it without danger of overcooking, makes it easier to utilize cheaper cuts of meat, and during the summer months eliminates much heat from the kitchen.

There are a great many excellent fireless cookers on the market, but if one does not care to go to this expense a very satisfactory one may be made at home. The outside container may be a tightly built wooden box, an old trunk, a small barrel, a large butter or lard firkin of tin, or a large galvanized-iron bucket with close-fitting cover. The well-built box of convenient size is perhaps the most satisfactory.



Longitudinal section through fireless cooker, showing details of the construction: A, Outside container (wooden box, old trunk, etc.) B, Packing or insulating material (crumpled papers, cinders, etc.). C, Metal lining of nest. D, Cooking kettle. E, Soapstone plate, or other source of heat. F, Pad of excelsior for covering top. G, Hinged cover of outside container.

If a box is to be used its size will depend on the size of the cooking kettle to be used in it and on whether there are to be one or two compartments. It must be large enough to allow for at least four inches of packing material all around the "nest" in which the cooking kettle is to be placed. For the sake of cleanliness and convenience the nest should be lined with metal and should be a trifle larger than the cooking utensil. If an extra source of heat, such as a hot brick or plate, is to be used, a metallic lining for the nest is imperative. For this purpose a galvanized iron or other metal bucket may be used, or, better still, a tinsmith can make a lining of galvanized iron or zinc which can be provided with a rim to cover the packing material. In case no hot stone or plate is to be used in the cooker the lining can be made of strong cardboard.

Homemade fireless cooker, showing packing and cooking vessel.

For the packing and insulating material a variety of substances are suggested by the home economics office of the department of agriculture. Asbestos and mineral wool, according to these experts, are good and have the additional advantage that they do not burn. Ground cork (such as is used in packing Malaga grapes), hay, excelsior, Spanish moss, wool and crumpled paper may also be used satisfactorily. Of the inexpensive materials that can be obtained easily, crumpled paper is probably the most satisfactory, since it is clean and odorless and, if properly packed, will hold the heat better than some of the others. To pack the container with paper, crush single sheets of newspaper between the hands. Pack a layer at least four inches deep over the bottom of the outside container, tramping it in or pounding it in with a heavy stick of wood. Stand the container for the cooking vessel, or the lining for the nest, in the center of this layer and pack more crushed papers about it as solidly as possible. If other packing, such as excelsior, hay or cork dust, is used, it should be packed in a similar way. Where an extra source of heat is to be used it is much safer to pack the fireless cooker with some noninflammable material, such as asbestos or mineral wool. A cheap and easily obtained substitute are the small cinders sifted from coal ashes, preferably those from soft coal, which may be obtained at the boiler house of any mill. The cinders from hard coal burned in the kitchen range will do, however. Experiments with this material made by home economics specialists of the department showed that it is very nearly as satisfactory as crumpled paper as a packing material. If a fireproof packing material is not used a heavy pad of asbestos paper should be put at the bottom of the metal nest and a sheet or two of asbestos paper should be placed between the lining of the nest and the packing material. Whatever packing material is used, it should come to the top of the container for the kettle and the box should lack about four inches of being full. A cushion or pad must be provided to fill completely the space between the top of the packing and the cover of the box after the hot kettles are put in place. This should be made of some goods, such as denim, and stuffed with cotton, crumpled paper or excelsior. Hay may be used, but will be found more or less odorous.

The kettles used for cooking should be durable and free from seams or crevices, which are hard to clean. They should have perpendicular sides and the covers should be as flat as possible and provided with a deep rim shutting well down into the kettle to retain the steam. It is possible to buy kettles made especially for use in fireless cookers; these are provided with covers which can be clamped on tightly. The size of the kettle should be determined by the quantity of food to be cooked. Small amounts of food cannot be cooked satisfactorily in large kettles, and it is, therefore, an advantage to have a cooker with compartments of two or more different sizes. Kettles holding about six quarts are of convenient size for general use. Tinned-iron kettles should not be used in a fireless cooker, for, although cheap, they are very apt to rust from the confined moisture. Enameled-ware kettles are satisfactory, especially if the covers are of the same material. Aluminum vessels may be purchased in shapes which make them especially well adapted for use in fireless cookers, and, like enameled ware, they do not rust.

Instructions on how to use the homemade cooker will be given in next week's issue.

The Place of Eggs in the Diet.

Because of the peculiar food value of eggs, their relative freedom from waste, and the ease with which they may be prepared, their use as meat substitutes, at least, is often desirable, even when a consideration of their price alone would not so indicate. This is stated in a recently published professional paper of the office of home economics of the U. S. Department of Agriculture, Department Bulletin 471. It is pointed out, however, that while this is true of eggs served as one of the principal dishes of a meal, it often is not true of eggs used in cakes, puddings, and other desserts along with meats. It is in the latter use of eggs that the housewife, who wishes to economize, can try especially to curtail consumption. A fact which makes this latter practice easier is that with the present availability of baking powders, cornstarch, gelatine, etc., the use of eggs to impart lightness or to thicken liquids is not now essential as it was in the past.

The principal food element furnished by eggs is protein, the nitrogenous tissue-building element whose presence in considerable proportions also gives meats, fish, milk, cheese, etc., their special food value. Eggs can, therefore, be substituted in the diet for the latter foods without materially altering the proportion of protein consumed. In addition to protein, eggs also furnish fat and a number of valuable mineral elements, including sulphur, phosphorus, iron, calcium and magnesium, in an easily assimilable form, and are believed also to be rich in certain essential vitalizing elements called vitamins.

Like milk and unlike meats, eggs do not contain substances convertible in the body into uric acid. Their shells constitute the only waste materials. Ninety-seven per cent of the portion eaten—a high proportion compared to other foods—is digested. No extended cooking is necessary for eggs and there is, therefore, a saving of time, labor and fuel in their preparation when they are compared with many other foods.

Though wholesome when fresh and clean, eggs may be decidedly unwholesome when old or dirty. The housewife should be careful, therefore, to choose eggs which are as clean and fresh as possible. Similarly, the producer of eggs should keep nests clean and sanitary and should collect eggs frequently. It is also well to insure the production of eggs with good keeping qualities by producing only infertile eggs after the hatching season.

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All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Be Kind to Old People.

Dear Young Folks:—I am sending a story to the editor and if it is printed I hope you will enjoy reading it.

Once upon a time there lived an old woman who was very lame and had to use a cane to go about with. She lived all alone in a poor shattered house in a large city.

There was just one little boy in that part of the city where she lived who would help her at all. In the evening after school he would go to her house and chop wood for her and carry enough into the house for the next day. Then in the morning, before school, when it had snowed during the night, he would shovel the walks and do everything he could for her.

All the other boys of his age would make fun of him and want him to go coasting or skating with them. But he would say, "Mother has taught me this motto, 'Be kind to the old people'."

When this boy grew up he was the

most respected young man in the city and he never forgot the motto which his mother taught him when he was a boy. —Evelyn.

Two Pet Cats.

Dear Young Folks:—I am thirteen years old and go to Shell Bark school. I will write about my cats. I have two pet Maltese cats. Their names are Tom and Molly. Tom is the larger cat and he likes to follow me around. Molly will not go without an invitation. These cats came from our neighbor's one day and have stayed ever since. They were very wild when they came, but are tame now. The way Tom became tame was by papa milking in his mouth. Tom had been at our place a week before Molly came.

Tom is a very playful cat and he is always looking for fun. When we play with him he grabs at our hands with his paw. He does not try to hurt anyone. In the summer time he goes out in the pastures and catches ground squirrels. He brings them into the yard and plays with them. He throws them into the air and catches them as they come down. He worries them until they die, and then eats them for his dinner. One hot day he was taking a ground squirrel to a shade tree to eat it, so when he got enough he could go to sleep. In the winter time he likes to play in the snow. Sometimes when I go skating he goes along. He gets in front of me and I fall down. One day when I was coasting he got on my back and I took him for a ride. One time I hit a rock and that scared him so he won't coast any more. Tom also likes to catch sparrows. He will not kill chickens.

Molly is not like Tom. She does not play with things she catches, but gives them to her kittens. I think Molly and Tom are good cats. —Wayne.

Our Fashion Department.

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER Madison, Wis.

1614—Children's set comprising a yoke dress with sleeve in wrist or elbow length, a slip and one-piece drawers. The pattern comprising all styles illustrated, is cut in 4 sizes: 1, 2, 4 and 5 years. The dress requires 2½ yards, the slip 2 yards and the drawers ¾ yard of 36-inch material for a 2-year size.

1977—A smart and practical apron model. The pattern is cut in 4 sizes:

34, 38, 42 and 46 inches bust measure. It requires 7¼ yards of 36-inch material for a 38-inch size.

1596—Ladies' home or morning dress. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6⅜ yards of 36-inch material for a 30-inch size.

1767—A stylish dress for the little miss. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 4⅛ yards of 36-inch material for an 8-year size.

1983—A popular style for the growing girl. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4 yards of 44-inch material for a 12-year size.

1975—Ladies' dressing or house sack. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3½ yards of 44-inch material for a 36-inch size.

1986—Girls' guimpe dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 1½ yards of 27-inch material for an 8-year size, for the guimpe, and 3¼ yards for the dress.

1328—Ladies' shirt waist, with convertible collar. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. In size 36 the pattern will require 2⅜ yards of 44-inch material.

Waist 1979-Skirt 1995—A splendid dress for business and general wear. The waist 1979 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt 1995 in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 7⅛ yards of 36-inch material for a 36-inch size. Two separate patterns, 10 cents for each pattern.

1872—Dress for misses and small women. The pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 6¾ yards of 36-inch material for a 16-year size.

2003—Ladies' dress. The closing is in coat style. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6¾ yards of 36-inch material for a 36-inch size.

1728—A new and practical ladies' yoke petticoat. The pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅝ yards of 36-inch material for a 24-inch size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for February 25, 1917.

Jesus at Pool of Bethesda.

LESSON TEXT—John 5:1-15.

GOLDEN TEXT—It was Jesus which had made him whole.—John 5:15.

Following the events of last Sunday's lesson, Jesus went to Jerusalem to attend the feast (v. 1). He went up according to the requirements of the Jewish law (Ex. 34:23; see Gal. 4:4), but he was not satisfied with the conventional fulfilling of the duties for that occasion, nor was he occupied with social and commercial functions, but in "going about doing good." The feast was an occasion of joy and mirth on every hand, but in the midst of it is this great need so graphically pictured in this lesson. How true this is to our daily experience. Teachers should appeal to the imagination of their scholars and describe as vividly as possible this pool. Let them depict a room, on the floor of which is a pool; in one corner of the room a stairway leading up to the ceiling; surrounding the room, at the top of the wall a broad walk; on the wall, looking down toward the floor and the pool is "a multitude of them that were blind, halt and withered." These were the wretched ones who sought the pool, and evidently Jesus sought the most wretched of this company.

I. Jesus went where there was need (v. 6). In the midst of this company Jesus "saw" this man lie. He had been there often (v. 7), and his case seemed to be beyond all hope, but there is nothing too hard for God (Gen. 18:14; Jer. 32:17).

II. Jesus throws the responsibility upon the man (v. 6). Jesus had eyes not only to see need, but he also saw God's and his own personal power to relieve the need. The question is, what do we see as we journey through life?

III. Jesus was moved with compassion (Matt. 14:14). He always has that feeling when he looks upon suffering and the misfortunes of men (Heb. 13:8; 4:15-16; Isa. 63:9). Jesus does not do for the man what the man can do for himself; so he makes his first appeal to the man's desire, and, through his desire, to the man's will, "Wilt thou be made whole?" The fact that he has been a long time in his predicament, or the fact that a sinner has been a long time in an evil state is no reason for supposing that Jesus will not take interest in him or that he cannot save and help and heal him (Matt. 9:21; Luke 8:43; Acts 3:2). His question throws the whole matter upon the will of the man. Jesus is willing and able; the only question is, are we willing?

IV. Jesus commands the impossible. The man thought the only way he could be made whole was through the efficiency of the waters in this pool, but Jesus, by speaking a word, had the power that would heal him (Ps. 107:20); so today it is the power of the word of Christ that can save all who believe on him (Rom. 1:16). All we have to do to live is to hear and believe (John 5:24). With the command of Christ, "Rise, take up thy bed," was enabling power. The cure was not only complete, but it was instantaneous (Acts 3:7, 8).

V. He worked a complete cure. He was made whole even according to the question which Jesus had asked at the outset. The man at once began to use this Christ-given strength by taking up his bed, and doing exactly as he was commanded (II Tim. 3:12). Jesus likes these hard cases, those of "long standing" (v. 5). He also likes those that are the results of sin, for that was his work in the world (v. 14; Matt. 1:21).

Summary: (1) Jesus cures the sick, not by what he does to them, but what he does in them.

(2) Christianity is the gospel for the body as well as for souls of men.

(3) The gospel of Jesus is the beginning of a new life for every man who accepts it.

(4) Sickness and trouble are frequently the instruments of God's providence, bringing men to realize their sins and their need.

(5) No matter how great the progress of modern medicine or the skill of physicians, there is always the need of the Great Physician.

The Minnesota state game and fish commissioner, Carlos Avery, is asking organizations of game protectionists, farmers, citizens in general, bird clubs and all others who have the good of the state at heart, to help care for the birds who are in danger of starvation in cold weather. He also asks for reports from clubs or from individuals on the success of work for the birds, and for information as to methods used.

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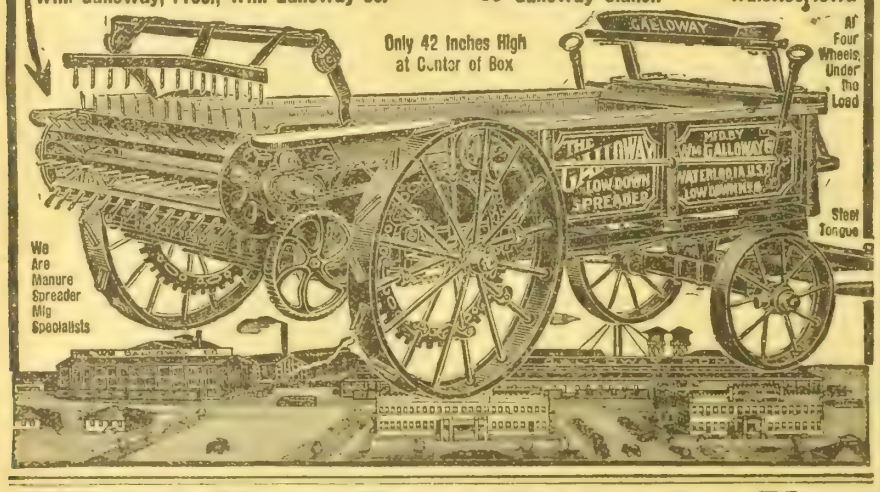
Wm. Galloway, Pres., Wm. Galloway Co. 39 Galloway Station **Waterloo, Iowa**



1500 Free Pony Votes for You

Here is your chance to get 1500 free pony votes and join the Popular Pony Club. The 1500 free votes will not cost you a cent. All you have to do is to send me your name and address.

I have given more than forty ponies to members of the Popular Pony Club, Every boy and girl who has received one is delighted.

You Can Win a Pony Too

This is Your Chance. If you will send me your name and address I will send you the **1500 Free Pony Votes** and tell you all about the Popular Pony Club and how you can be a pony winner.

The President, Popular Pony Club,
625 Popular Bldg. Des Moines, Iowa

In and Around Wisconsin

The Cut-Over Land Conference is to be held at Eau Claire, Friday and Saturday, February 23d and 24th. The purpose of this conference is to formulate a constructive program for the immediate development of cut-over lands in Upper Wisconsin. There will be speakers present representing the Wisconsin College of Agriculture, the Wisconsin Advancement Association, the companies which own cut-over lands, the railroads, bankers, the press and the state department of agriculture.

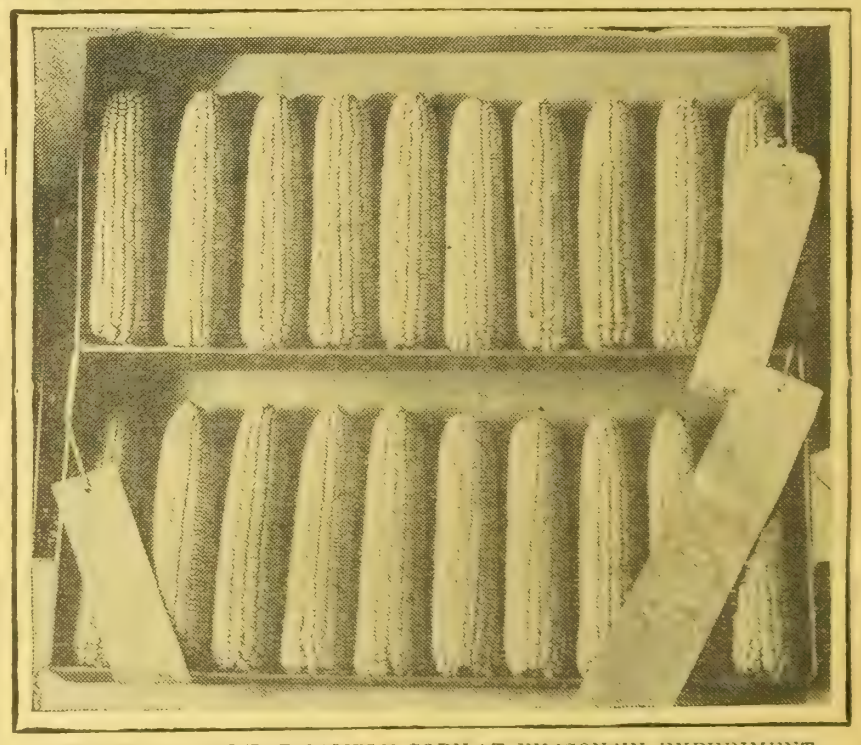
The January report of the Stanley Cow-Testing Association shows 236 cows tested and three unprofitable cows sold for beef. Two pure-bred sires were added to the association herds and also two pure-bred Brown Swiss cows. Mr. R. F. Adams, the tester, is planning to re-organize and encourage the association in the near future. Mr. Adams states that he will have charge of a large herd of cows the coming year and that the first bit of equipment which goes into his barn will be a milk scale and a milk sheet.

The women of Monroe, Wisconsin, have been talking of a boycott on potatoes. The hope is that such a boycott would result in lowering the price of potatoes. There seems to be little hope of lowering the price of "spuds." Some have had the opinion that when storage potatoes were let loose there would be a drop in price. Unfortunately, however, the crop was light last year in most of the potato-growing centers. Kansas, Missouri and Iowa have been calling on Wisconsin for potatoes, and we have been in the habit of distributing almost exclusively at Chicago. If Wisconsin had 50,000,000 bushels of good potatoes now they could be sold at a good, round price.

The question has arisen as to whether it will pay to put in many potatoes next year. To this question there seems to be but one answer, and that in the affirmative. When the market goes high on any product, it is not likely to go back with a sudden drop. People have become used to paying high prices for potatoes, and the prices this year cut in two in the middle would make tremendous profits for Wisconsin growers if they could have a big crop next year. There will not be much of an increase in potato growing in the South so long as cotton is so high. Cotton is easier to raise than potatoes and the southerner likes the cotton crop best. In Kansas, the Dakotas, Iowa and Minnesota there will probably not be a very marked increase in potato acreage. Minnesota may be the exception. But wheat is high and so is corn and so is beef and so are hogs, and there is no particular incentive for the other grain-belt farmers to grow potatoes which, to be profitable, require more care and attention than the majority of field crops. So we think it safe to say that potatoes will be a good crop to grow in 1917, and we do not look for a drop in price to such an extent as to impair good, fair profits.

A bill has been drafted to present to the legislature, providing for the establishment of a state marketing department with a superintendent in charge at $6,000 per year salary. Similar bills are now before the Minnesota and North Dakota legislatures. The purpose is to make an exhaustive study of farm marketing, and to aid the farmer in the most economical methods of distribution of his products. It is proposed to start out this marketing bureau with $100,000 capital, and that the bureau shall return this advanced capital to the state as soon as it begins to earn revenues.

Two good creamery reports come to The Wisconsin Farmer from Pierce county, Wisconsin. The Lawton Co-operative Butter and Cheese Company, for the year ending December 31, 1916, gathered 1,878,179 pounds of cream, which produced 470,450.92 pounds of butter fat from which 569,751.5 pounds of butter were made. The company received $178,464.52 from all sources. The Ellsworth Creamery Company received 1,419,225 pounds of cream and 37,581 pounds of milk, which produced 349,967.53 pounds of butter fat, and made 424,697.25 pounds of butter. The receipts of this company for the year were $130,022.60.



CHAMPION TEN-EAR SAMPLE CORN AT WISCONSIN EXPERIMENT STATION 1917 GRAIN SHOW.

Some good results have come to pass in Door county as a result of the Farmers' Week program at Sturgeon Bay. A county potato growers' association has been organized, with Benjamin Jelinek, of Sturgeon Bay, secretary. The drainage district in two towns, including an area of about 1,000 acres has been partially organized under the direction of E. R. Jones, of the college of agriculture. Two banks in Door county will start distributing milk sheets free to farmers. There were about 1,400 farmers registered for the men's sections Farmers' Week, and in addition to this there were a large number of women interested in the Home Makers' Short Course.

Driver Agents Wanted

Ride in a Bush Car. Pay for it out of your commissions on sales, my agents are making money. Shipments are prompt. Bush Cars guaranteed or money back.

Five-Pass., 30 H. P. 32x3½ tires

Write at once for my 48-page catalog and all particulars. Address J. H. Bush, Pres. Dept. 2811

Electric Starting 114-in. Wheelbase

BUSH MOTOR COMPANY, Bush Temple, Chicago, Illinois

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments Diagnosed and Remedies Suggested in this Department.

Questions and Answers.

Charging a Storage Battery.

Please give an outline of a storage battery charging device, using 220-volt alternating current and a bank of lamps for resistance. How many and what size lamps should be used for one battery? How many lamps for a number of batteries in the circuit? Can an ordinary dry cell ammeter be connected in the circuit to ascertain the number of amperes flowing? Can a rectifier or motor be used to make A. C. current to D. C. current? What size and type of motor should be used? Is a fuse required with this outfit?

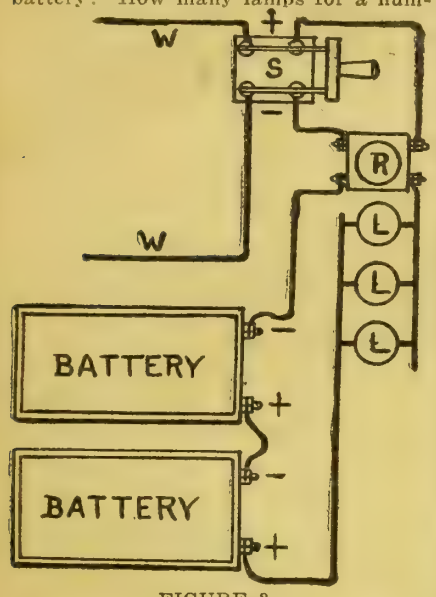


FIGURE 2.

Answer.—What is known as "rotary converter" may be used to change an alternating current to a direct current. A rotary converter is really a combined motor and generator, the motor being A. C. and the generator being D. C., both windings being on the same machine, the armature having slip rings at the A. C. end and a commutator at the D. C. end. This machine can be wound so as to change a 220-volt A. C. current to a D. C. current of any desired voltage less than 550. If you were to use current in large quantities, this would be the best outfit, as a bank of lamps would not be required. The power consumed in lighting a bank of lamps is wasted; this does not amount to much, however, when a battery is charged only occasionally.

Figure 2 shows the wiring for charging two batteries from an A. C. circuit, using a bank of lamps for resistance. WW are the wires from the main line to the charging switch S. R is the rectifier; LLL are the lights. The main-line wires should be fused at the main cut-out switch near the point where the wires enter the building; also at the branch blocks where the line to the charging switch is taken off. The voltage of the lamps should be the same as the voltage of the line unless several batteries are connected in series, in which case lamps of less voltage would be required, depending upon the combined resistance of the batteries. The higher the candle power of the lights, the fewer the lights required. Enough lights should be used to give a battery a complete charge in about ten hours. On a 110-volt circuit, eight 32-candle-power lights may be used to charge a 60-ampere-hour battery. A less number could be used, but a longer time would be required to do the charging.

An ordinary dry cell ammeter cannot be used.

Upper Michigan Potato Yield

Verner Felt and Cleo Farm, who reside near Marquette, Michigan, in what is known as the clover land country, are called the champion potato growers of Michigan. By using improved methods these boys and eight others made remarkable records in the yields of potatoes in 1916. The average yield of potatoes per acre for the highest ten in the Michigan potato contest, representing sixty-eight clubs, was 287.2 bushels.

The following is the list of the ten boys who had the highest yields:

	Bushel
Verner Felt, National Mine, Marquette county	402.6
Matie Franz, Loretto, Dickinson county	332.0
Clyde Mantta, Tapiola, Houghton county	301.0
Richard Grangood, Tapiola, Houghton county	286.6
Cleo Farm, National Mine, Marquette county	277.1
Bernard Nelson, National Mine, Marquette county	270.9

VERNET FELT, CHAMPION POTATO GROWER.

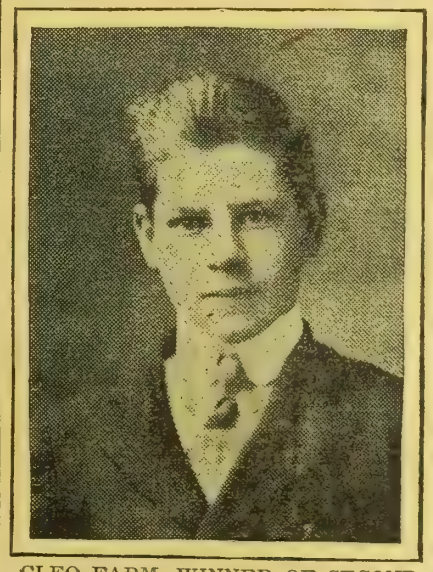
Weikko Lukkarinen, Palmer, Marquette county	258.0
Howard La France, Hersey, Osceola county	252.0
William Skog, Metropolitan, Dickinson county	250.0
Joseph Dziedzie, Loretto, Dickinson county	240.0

The average yield per acre for the highest ten is 287.02.

Although young Felt, who is but sixteen years old, also secured the largest profit for his work, yet this was not the case with the others, owing to difference in operation cost and in the kind of potatoes grown. An arbitrary scale was adopted in which all market potatoes were computed at $1.25 per bushel; all cull potatoes at 30 cents per bushel and seed potatoes at $2 per bushel.

On this basis the ten highest in profits were:

Verner Felt, National Mine, Marquette county	$503.30
Frank Van Elsacker, Northland, Marquette county	372.14
Richard Grangood, Tapiola, Houghton county	361.40
Bernard Nelson, National Mine, Marquette county	276.27
William Skog, Metropolitan, Dickinson county	251.80
Howard La France, Hersey, Osceola county	241.10
Julia Issacson, Metropolitan, Dickinson county	233.76



CLEO FARM, WINNER OF SECOND PRIZE.

Irene Parent, Loretto, Dickinson county	231.10
Matie Franz, Loretto, Dickinson county	220.90
Kenneth Stevens, Northland, Marquette county	207.70

The average profit per member for the ten highest was $289.96 per acre.

But these boys who were aroused to a contest and high pitch of enthusiasm were not the only ones who had good potato yields in the clover land last year. Joseph Borbot, a new settler, raised 2,400 bushels on ten acres of land. Chas. Gogran, residing on one of the older farms of Upper Michigan, raised 1,500 bushels from seven acres and the Morgan-Cedar Lumber Company raised 4,051 bushels on thirteen acres.

The clover land country had no drouth last year, as did some other potato-growing sections of the middle West.

ENDURANCE

THE hinges on the barn of the old homestead were hand-hammered by the blacksmith. The iron was slowly and carefully made and was free from most of the chemical impurities that cause rust. That is why those old iron hinges lasted to see many doors come and go.

"ARMCO" IRON CORRUGATED CULVERTS

like grandfather's barn door hinges, are made of iron so pure that they resist rust. They will outlast many ordinary metal culverts and, like the old hinges, will endure after the men who place them have passed away.

"Armco" Iron Culverts mean true economy in road building and upkeep; they represent prudence in the use of public funds. The trade-mark on every section is a pledge of "value received".

For full information on "Armco" Iron Culverts, Flumes, Sheets, Roofing, and Formed Products, write the manufacturer in your vicinity, or

ARMCO IRON CULVERT AND FLUME MFRS. ASSOCIATION
Cincinnati, Ohio

Your Next SILO

Before you build it, send for illustrated description of this new and improved storm proof construction. Seven five-eighths inch steel anchor rods (not cables) hold silo securely braced solid as a rock. The new improved Beaver Silo is made of selected coast fir, strong and close grained. Double angle irons forming inner hoops held tight to outer hoops by hook bolts, so that entire silo stands firmly anchored against any possible shock or stress. Compensating lugs with coiled steel springs allow for swelling or shrinking. Thousands in use in Wisconsin.

Tear out this advertisement write your name and address on the margin, and mail to us for illustrated description, also valuable tables which tell you how big a silo you need for your stock and acreage.

Reliable agents wanted.

BEAVER SILO & BOX MFG. CO., Inc.
417 High St. Beaver Dam, Wis.

DITCHES and Terraces
Also grade roads, build dykes, levees with
Martin Farm Ditcher and Grader
Works in any soil. Makes V-shaped ditch or cleans ditches up to 4 feet deep. Does labor of 100 men. All Steel. Reversible. Adjustable. Write for free book and our proposition.
Owensboro Ditcher & Grader Co. Inc. Box 224 Owensboro, Ky.

PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for four free books: inventions wanted, etc. I market your invention without charge. Richard B. Owen, 37 Owen Bldg., Washington, D. C.

FARM SEEDS
Better than any you ever bought. Guaranteed absolutely highest germination and purity. Subject to test—money back if not satisfied.
Seed Corn Prize Winner at Ames College exhibit, also first on largest yield per acre with 133 and 116 bu. to acre. Every ear tested before shipped. Also choice lot of famous Ames College 103 Oats, Alfalfa, Rape, Millet, Clover and other farm seeds.
ZELLER
Master Seed Grower
That's what they call me because on my farms I raise only the finest quality farm seeds. Try my kind. Raise bumper crops. Write for my Free Catalog before you buy. It's different—makes seed buying safe. No disappointments. Write
ZELLER SEED CO.
402 McKinley St., Jefferson, Iowa

When writing to advertisers kindly mention The Wisconsin Farmer.

UPPER WISCONSIN

New Settlers.

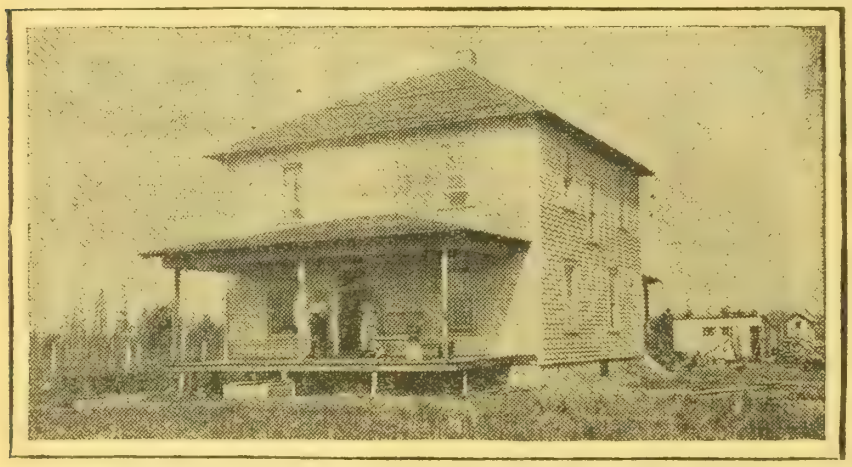
To the Editor:—The first new settler came from Illinois in the spring of 1913 and settled at Cedarville, Marinette county, Wisconsin.

Cedarville at that time was only a switch where logs were loaded onto the main line of the C. M. & St. P. Railroad, running from Chicago to Calumet, Michigan.

The first settler's family lived in some logging camps during the first summer. His farm was cut-over land and had to be cleared ready for the plow. Some land was cultivated the first year, potatoes, corn, millet and buckwheat being planted. An excellent garden was raised and many cans of vegetables put up for winter use. More than 200 quarts of wild fruit were canned. There are quantities of wild strawberries, raspberries, blackberries, blueberries and gooseberries growing here.

THE FIRST SETTLER'S FAMILY FIRST LIVED HERE.

In the fall the new home was built and the family moved into it in November. In September two more families came. One more new house was built; the other family occupied the logging camps.



THE FIRST SETTLER IS NOW ENJOYING A NEW HOME.

These three families had a royal good time that first winter, even though it was six miles to the postoffice and several miles to any other neighbors.

In 1914 half a dozen more families came. Land was cleared and farming began in earnest. A Sunday school was started, a schoolhouse and a potato warehouse were built, more new homes were erected. On the Fourth of July there was quite a celebration, with sixty persons present. At Christmas time of that year all the new settlers had a dinner at the schoolhouse. The population of Cedarville then numbered forty-four and they all sat down at the table at one time like one big family.

The Cedarville Improvement Society was organized on Christmas day. This society has proved the best feature of our new settlement to hold the people together and keep them interested in their work and foster friendship.

There is a program at each meeting of the society. We have debaters to decide which is more profitable, the dairy cow or the old hen; which is the best to grow, alfalfa or clover, sugar beets or cucumbers; which is the best dairy cow, the Holstein or the Jersey; then we edit a society paper and some of the contributions have been printed in the local papers. We have music, speaking, dialogues, tableaux, mock trials and many other features. Sometimes we have a good speaker come from some agricultural school or experiment station and talk to us of the breeding of better dairy cows, the conservation of soil, crop rotation, pedigreed grains or some phase of the life of a dairy farmer.

In the spring of 1915 we were granted a postoffice. A store was started and we had a waiting station for those who desired to ride on the train. We named our streets. The fine macadamized state road running through Cedarville is "State street." "Illinois avenue" has five Illinois farmers living on it. "Wisconsin Boulevard" runs past the depot and the postoffice. Then "Maple Row," which has no maples on it, but the row is there and the maples may come later.

Our farms, too, are named, which gives each farmer a feeling of pride. We have a fine neighborhood of refined people.

We have an excellent union Sunday school. There is preaching services every Lord's day, and the young folks have a live, working Christian Enreavor Society. There is no lack of social life, no stagnation for the farmer's wife here.

Our community now numbers twenty-five families and more coming in the spring.

We have hundreds of acres of land in cultivation. We raise oats, corn, wheat, buckwheat, soy beans, rye, millet, barley, field peas, alsike, timothy and clover. The greatest of these is clover, for this is the home of the dairy cow and she has come to stay.

We raise everything for a balanced ration and a good dairy herd is the ambition of every farmer here.

There is a co-operative cattle buyers' association in this county that buys registered and high-grade Holstein and Guernsey cattle for the farmer who has no ready means with which to purchase good dairy cows and from three to five years are given him in which to make his payments. In this way "Bossy" pays her own bills. A carload of these Holstein cattle were brought to Cedarville for distribution.

Hundreds of tons of hay has been stacked here.

The clear, cold, spring-fed trout streams furnish a never-failing supply of drinking water and the abundance of forage crops that can be raised here will make of us a great dairy community in the greatest dairy state in the world, and some day we can say, "We came to this new country and took this job and we stuck. We took the chance others wouldn't and now they are calling it luck."

Mrs. Lucy L. Ferguson.

AND THE GREATEST OF THESE IS CLOVER.

ADVERTISEMENT.

One Partner Collects HIS Profits Before the Goods are Sold

THAT partner is the United States Government.

The business is the Brewing Industry.

The Government takes no chances—runs no risks—has no capital employed—no investment in plants or raw materials—yet it collects by far the *biggest part* of the profit *in advance.*

Before a barrel of beer can be sold $1.50 of the price must go into the Government Treasury. The Brewers must furnish the capital and the effort—run the business—take *all* the chances—and be satisfied with a much smaller profit than the big partner, the Government, gets.

Yet, should the big partner decide to quit the business the smaller partners would get *nothing.* The statutes of the states do not grant to those engaged in the Brewing Industry the right of *compensation.*

Is not that a fundamental defect in our laws? If American principles are grounded on fairness and equality, are we not entitled to the same right that *you* are?

If the people have the legal right to demand compensation when their property or business is damaged by legislation should not we at least be granted the right to have our case tried before a jury?

Why discriminate?

Why not lift a helping hand to correct injustice?

The Brewers of Wisconsin.

POUNDER'S IDEAL BOG SHOE enables horses to work land where they could not travel without them. No special shoeing necessary. Only perfect bog shoe in use, for proof of which write for testimonials of users. Address C. H. POUNDER Ft. Atkinson, Wis.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Prichard's Percherons.

ANY doubt as to whether the American breeder can produce as good Percheron horses as are developed in France will be dissipated by a visit to the farm of W. E. Prichard & Sons, Ottawa, Ill., where as strong a lot of horses will be found as can be shown in any country. The senior member of the firm has been a prominent factor in the development of the draft horse industry for half a century and the two junior members are practical horsemen in everything that the term implies. While this firm has made importations on many occasions, it is in the breeding and development of the American drafter that they have scored their greatest successes. The writer has been familiar with the operations at the Prichard establishment for two decades and long ago realized that the last word in draft horses was represented in the animals they produced. A recent visit revealed one of the best lots of colts ever seen at the Prichard institution. For character, quality, compactness, good heads, strong backs, clean hocks, good feet and abundant bone they are strictly a top lot. The Prichard Percherons are developed under natural conditions. Nothing but honest, progressive, methods are in vogue at this breeding farm and the result is a class of animals that are amply able to speak for themselves. Many noted prize winners have been bred, raised and developed by Prichard & Sons and stallions of their rearing have made enviable reputations in the stud all over the country. If you want a young Percheron stallion that is right in every way and one that comes from an honorable and reliable breeding firm, it will pay you to investigate what W. E. Phichard & Son, Ottawa, Ill., have to offer. Their advertisement appears on page 29.—Adv.

The Noted Little Short-horns.

WE are always pleased to hear from Harvey H. Little, Evansville, Wis., who has one of the greatest herds of Milking Short-horns in the Northwest. His letter is as follows: "In reply to yours of the 23d of January will say that our stock has wintered well so far and never looked better at this time of the year. I have had 21 calves dropped since November 3d and all but one that died are doing fine and my cows never looked better, several gave from 1,200 to 1,500 pounds of milk in January. Just at this time we have five bulls that are choice individuals and out of the best cows in my herd. They are of serviceable age and if you know any one that wants a herd bull you can honestly recommend one of these. The calves out of Bonnie Scotchman heifers and sired by Maud's Knight are very promising. They show beef form and their dams are milking well. The dam of Maud's Knight was Roan Maud by a son of Rose of Glenside. She was first in class A at the International, 1913. I look forward to some great things from this bull. He is good individually and his milk inheritance cannot be beaten. Call on me when you get a little time." Mr. Little has the goods and any prospective buyer will do well to get in touch with him. See page 30.—Adv.

McKevitt Angus Offers.

THE McKevitt Bros., Bloomington and Bridgeport, Wis., are again before the public offering Aberdeen Angus bulls for sale. It is needless to say much about this firm, for they are known to be owners of one of the best Angus herds in the state. Just at this time they have seven young bulls for sale, five of which are old enough for service Most of them are sired by a Pride bull that heads their good herd. The bulls for sale represent the Pride, Erica and Miss Copeland families. For those that want a young sire that has been tried, we want to refer you to the three-year-old bull that the McKevitts have for sale. Papaw 183789 is sired by Protine 138373 and out of Pride McHenry 91st 138405. He is a double Pride and right in every way and for no fault is he being offered. The price asked is far below his value. Write at once if you are interested in Angus cattle. No matter what kind of cattle you have, a cross with an Angus bull will generally tone up the herd. The McKevitts have the goods and we gladly recommend them. Please mention The Wisconsin Farmer when writing.—Adv.

The Lefebure Belgian Emporium.

H. LEFEBURE & SONS, Fairfax, Ia., have issued their 29th annual catalog which is filled with attractive illustrations of the barns and horses to be found on their breeding establishment. This catalog gives much information that will be of interest to any man who owns either pure-bred or grade Belgians. This stud has produced scores of prominent winners at the leading state fairs of this country, as well as the International Expositions held in recent years. At the Panama-Pacific Exposition held in San Francisco, 1915, this firm was awarded the premier championship as exhibitor and breeder of Belgian draft horses. On the several farms included in this great breeding establishment will be found around 150 head of imported and American bred Belgian stallions and mares and it is well worth the time and expenditure of any one who enjoys seeing good bred horses to visit this plant and see the methods employed in breeding and rearing prize-winning Belgians. Mr. Lefebure owns more pure-bred Belgian mares than any man in America and is producing a high-class lot of Belgians that are a credit to his ability as a breeder. At all times this firm has on hand imported and American-bred stallions and mares of any age that are offered for sale at prices as low as is consistent with the quality of the horses. See page 29 and when writing kindly mention this paper.—Adv.

Great Percheron Dispersion.

ONE of the greatest sales of Percheron horses ever made in Wisconsin will be held Wednesday, March 21st, at the state fair grounds, Milwaukee, Wis. This sale will be the dispersion of two of Wisconsin's best Percheron studs, viz., that of Louis Lewellin & Sons Waterloo, Wis., and of Louis P. Sutter, Delavan, Wis. The stud of Lewellin & Sons needs no introduction to Percheron breeders or farmers in Wisconsin. These men are discriminating judges of Percheron type and the heavy winnings of their stud at the leading fairs in Wisconsin, including the state fair is evidence of their ability as judges, and as breeders. In 1915 and 1916 they won championship on stallions and mares in Wisconsin bred and owned division. In 1915 they also won first and second on stallion foals, championship on mares in the open class. In 1916 first on stallion and four mares bred by exhibitor, first on best three mares owned by exhibitor, first and second on get of sire, and many other prizes. All of these prize-winning stallions and mares will be included in this sale offering. This is a rare opportunity for breeders and farmers to get some proven breeding stock. The offering in the stud of L. P. Sutter is one of unusual merit. These stallions and mares were personally selected in the famous Percheron horse breeding districts of France and imported by Mr. Sutter in 1914, just before the outbreak of the European war, for use in his own private stud at Delavan, Wis. The stallions are the big ton kind with tremendoes bone and substance. They are coming four and five years of age. The mares are a nice lot of drafty animals, only two over five years of age the balance being under four. The colts in the sale will show the kind that these mares produce. This sale offers one of the few opportunities that there will be to obtain imported Percheron stock, as there is very little of it now or is likely to be in the near future, on the American market. Send for a catalog to James G. Boyd, 426 Sycamore St., Milwaukee, Wis., manager of the sale. See advertisement on page 28.—Adv.

Don't Forget This Holstein Dispersion.

THIS is the last opportunity we will have to call your attention to the dispersion of the Bell Croft Farm Holsteins which takes place at Burlington, Wis., Wednesday, March 7th. These cattle are owned by J. A. Forge of the above town and in view of the fact that he has rented his farm it has made this move necessary. Mr. Forge is a constructive breeder. Every sow on the place but the four foundation matrons have been raised by Mr. Forge. All females of milking age but two have substantial A. R. O. records made on Bell Croft Farm under ordinary conditions. The offering will be made up of 48 head which will include young service bulls and bull calves and cows and heifers. The cows are large, of a very uniform type, with large well-formed udders and are excellent producers. Had they been otherwise they would not have been retained in the herd. A son of the great sire, King Walker, will be sold. Few such bulls are being offered at this time and the opportunity is now before you to buy a herd bull that has produced A. R. O. daughters and comes from A. R. O. ancestors. We do not hesitate to recomment this herd, for no matter how far you travel to attend this sale, you will not be disappointed with the cattle to be sold. Burlington is in southeastern Wisconsin on the C., M. & St. P. and Soo lines, also on the electric from Milwaukee. The best of shipping facilities. The catalog is very descriptive of the cattle to be sold and you should have one if you are at all interested in cattle of this popular breed. Remember the date and place. Write at once for a catalog and please mention The Wisconsin Farmer. See page 31.—Adv.

This Man Advertises in The Wisconsin Farmer and Sells His Live Stock

"Enclosed you will find check in payment for advertising for our sale. We are pleased to state that The Wisconsin Farmer was one of our best advertising mediums, and that we are indebted for the good service rendered. W. V. Gousseff, County Agricultural Agent, Owatonna, Minn."

The Wisconsin Farmer, Madison, Wisconsin

Guaranteed Weekly Circulation, 90,000.

Circulation in Wisconsin, 76,769.

It Stops Them All.

THE farmer who uses Peerless fence and Peerless gates finds he has no need for worry over escaped stock. The gates are so firm and the fencing so secure that his widest bull can't get over or through it, and his most inquisitive pig can't get under. Yet the gates are easily operated by even the little daughter of the family. Peerless fencing and Peerless gates stand the wear and tear of years of service in all sorts of weather. They are reasonable in price too. If you have not seen the interesting series of advertisements of Peerless fence and gates it will be worth your while to look them up in our columns or better still write the Peerless Wire Fence Company for their big, free fence and gate book. Address them at 216 Michigan street, Adrian, Mich. And be sure to mention that you read about Peerless fence and gates in The Wisconsin Farmer.—Adv.

Well-Bred Holstein Bull.

THE chief factor in making a herd of cattle good producers starts in many years before they are born. In other words a cow must have an ability for large production in her make-up or feeding will not develop it. The young bull advertised for sale on page 30 by the Upland Farms, Walworth Wis., has had heavy production blood intensified for generations. It is reasonable to judge, therefore, that his daughters will be cows of good production ability. His sire is by Sir Korndyke Pontiac Artis, a 31-pound bull with two 30-pound daughters and 24 others from 20 to 29.76 pounds butter in seven days. His sire's dam is a 27.14-pound daughter of Sir Veeman Hengerveld, that has 76 A. R. O. daughter, nine with records over 30 pounds and 42 others with records over 20 pounds. The dam of the young bull for sale is a 13.12-pound daughter of Mooie Fayne Vernon, a good son of Mooie Fayne De Kol the 35.55-pound bull, that has three daughters with records over bull carries heavy production blood which is bound to prove equally productive in the next generation. This bull is well grown—well marked, being three-fourths white, the black spots being solid and he is of good type. He was born January 5, 1916, so is ready for immediate service. Send for his extended pedigree. When writing mention this paper.—Adv.

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

Shekleton's Draft Stallions.

FRANK SHEKLETON & SONS, Lawler, Iowa, well-known importers and breeders of Belgians and Percherons, write as follows: "During the past two weeks, we have had a good lot of buyers here, and our sales for the new year have been very satisfactory. Buyers are pleased with the high-class stallions that we have to offer and so far we have not had a man leave our farms without finding the kind of a stallion that he was looking for. Buyers who have been in several different barns this winter tell us that our stallions are among the best that they have seen. Our two year olds have especially been praised, on account of their large size and bone. We recently weighed one of our black two-year-old colts. He weighed 2,110 pounds and will not be three years old until next spring. We have a large number of two-year-old stallions to offer, many of them weighing now over a ton. Ten of those colts have been selected for herd heading purposes and have the best breeding obtainable. We wish to get in touch with parties who have full blood mares and are looking for a young stallion for a herd header. We are offering some exceptional Belgian stallions from two to six years old at very reasonable prices." See page 29 and write for prices, mentioning this paper.—Adv.

Don't Forget Pagel's Duroc Sale February 26th.

WE know that several farmers and breeders have been trying to buy bred Duroc Jersey sows at the various sales without much luck and there will be one more opportunity for you to buy sows of this breed in this territory. The last sale of registered swine to be advertised in The Wisconsin Farmer will be that of Geo. W. Pagel which will be held at Zumbrota, Minn., Monday, February 26th. Though this is the last sale of the season it is by no means the least important, in fact it is a sale that we are glad to recommend. The tried sows that will sell are big, they have quality, carry the best blood lines and are bred to good boars. The gilts are out of the big sows that you will see sale day that are being retained in the breeding herd. Many of the sows and gilts are bred to H. C. Wonder an outstanding boar with a world of quality. If we should be asked to name the best five boars in Wisconsin and Minnesota, H. C. Wonder would be included in the list. He pleases us and he will you. Try to attend this sale or be represented.—Adv.

Martiny Poland Chinas.

L. P. MARTINY, Chippewa Falls, Wis., is one of the "wheel horses" of the Poland China Association in this state. He is a natural born stockman and knows how to produce the good ones, Whether it be Guernseys, Poland Chinas or Percherons. Most men can raise a few good animals of one breed, but when a man can raise good ones of three breeds he is considered a constructive breeder. Martiny now offers bred gilts for sale. They have been bred to good, big-type boars to farrow in March and April. The Martiny Polands are known in Wisconsin wherever Polands are raised. If you are going to buy a Percheron stallion let Mr. Martiny describe the horses he has for sale. The writer has seen these stallions and we are glad to say that they are good enough to stand in any breeding locality, and the price asked is consistent with the breeding and quality that they possess. Make your wants known and mention this publication. See page [illegible] —Adv.

P. N. Collins' Poland Chinas.

P. N. COLLINS, River Falls, Wis., writes: "Buy me a good sow at some of the Poland China sales you have in Wisconsin—you know that I can't use a poor sow in my herd, so be careful. Am having excellent sales, have seven spring gilts to ship in Minnesota and Wisconsin on February 15th. As it looks at present I will not have enough gilts to supply the trade. The young boars are growing fine. Chief Price is as good as ever and the boar you bought for me sired by Black Jumbo will be as big as his sire. The breeders that visit my farm want a gilt or sow bred to one of these boars, they make the hit. My Short-horns have wintered fine and will have some good young things to sell later." Write Mr. Collins if you are interested in Polands or Short-horns, he'll give you a square deal. See page 29.—Adv.

Pulls Stumps With Ease.

A STUMP puller that can easily be moved and handled by one man is a great asset on the farm. Such a stump puller is the Kirstin, made by the A. J. Kirstin Company, 5546 Luddington St., Escanaba, Mich. It combines strength and durability with light weight, and works rapidly, clearing over an acre from one anchor. The Kirstin means a great saving in cost of clearing land, both because the original cost of the stump puller is small, and because it is handled by one man without the aid of horses. It is offered to Homestead readers on a ten-day trial offer and is backed by a 15-year guarantee. Write for their profit-sharing plan and

A Great Sale of Percheron Horses

Wednesday, March 21, 1917, at the State Fair Grounds, Milwaukee, Wis.

Complete Dispersion of Two Great Percheron Studs---60 Head

Comprising the Studs of Louis Lewellin and Sons, Waterloo, Wis., Lewis P. Sutter, Delavan, Wis.

SALE CALLED AT 10 O'CLOCK A. M.

THE L. P. SUTTER OFFERING

CONSISTS of a high-class lot of **imported stallions** and mares. These horses were personally selected in the famous Percheron horse breeding districts of France and imported by Mr. Sutter in 1914 for his own private stud purposes at Delavan, Wisconsin. **The stallions** are coming four and five. They are the **big, ton kind** with **tremendous bone** and **substance. The mares** are coming four, and under. Only two over five. They include a nice lot of big, drafty animals. The colts in the sale will show the kind they are capable of producing. It's an exceptional opportunity to buy **imported** Percheron stock, very little of which is now on the American market. **By all means come and look them over on sale day.** You will find something to suit your wants. Don't miss the sale.

THE LEWELLIN & SONS OFFERING

THIS offering consists of a grandly bred lot of **home bred** stallions and mares, the result of **years** of careful selection and mating at the Lewellin Percheron studs at Waterloo, Wisconsin. Also two grand **imported** mares. This offering requires no introduction to the Wisconsin horse breeding public. Its frequent appearance and **successes** at the **Wisconsin State Fair** have made it well known to every horseman in the state. In 1915 and 1916 it won the **Wisconsin bred and owned championship** on stallions, and also on mares; and in 1915 the **championship on mares** in the open to the world classes. Besides these, it has won many first and second prizes both in singles and groups. All of these prize-winning mares, stallions and colts are included in this sale offering. They are proven quality and regular producing stock.

Auctioneer, Joe Walker **Lunch Served at the Grounds** **For Catalogs Address**

JAMES G. BOYD, Mgr., 426 Sycamore St., Milwaukee, Wisconsin

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.

WALTER BROS. CHIPPEWA FALLS, WIS.

TOO LATE TO CLASSIFY.

McKEVITT'S ANGUS BULLS

WE offer well grown, well bred bulls of **serviceable age.** Will sell PAPAW 183789, a double Pride, three years old. Bulls guaranteed. Mention The Wisconsin Farmer and address

McKEVITT BROS. - - - BLOOMINGTON, WISCONSIN

AUCTION
Werley, WIS.
MARCH 7, 1917

24 REGISTERED JERSEYS! Two bulls of serviceable age. Four high grades. Tuberculin tested and guaranteed. Attend this sale.

R. G. KETTERER Owner **E. A. HEBERLEIN** Auctioneer

---

big free book "The Gold in Your Stump Land." It will be sent free if you mention that you saw the advertisement in this paper. See page 8.—Adv.

IF you want a right choice Percheron or Belgian stallion or mare, it will pay you to visit the barns of Hart Bros., Osceola, Iowa. They have a grand good lot of stallions and mares on hand, and they would like to show them to you. They can please you and fill your order if you are looking for a good stallion or mare. Kindly mention this paper when writing them. See page 29.—Adv.

SALE DATES.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

May 17, Birch & Thompson, Lake Geneva, Wis.

Percherons.

Mar. 21, Dispersion sale of the Lewis Lewellen & Sons, Waterloo, and Louis P. Sutter, Delavan, Wis., Percheron studs. Sale at state fair grounds, Milwaukee. Jas. G. Boyd, Mgr., 426 Sycamore St., Milwaukee, Wis.

Duroc Jersey Swine.

Feb. 26, George W. Pagel, Zumbrota, Minn.

Holstein Cattle.

Mar. 7, J. A. Forge, Burlington, Wis.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

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30 DUROC JERSEY BRED GILTS

OF Illustrator, Golded Model and Ohio Chief breeding. Long-bodied, heavy-boned, easy-feeding kind, bred to a son of King the Colonel and a son of J. C.'s Illustrator, 1st prize winner Minnesota State Fair, 1916. Address

M. J. DOWD LANSING, MINN.

HOLSTEIN BULLS

2 TO 9 months old, mostly white, sired by Plainview Sir Johanna Fayne Tilith, whose dam made 24.6 lbs. butter in seven days. All fine individuals and low priced for quick sale. Address **Wm. Buddenhagen & Son, Neillsville, Wis.**

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Addrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

A. P. CORTTE LOMIRA, WISCONSIN

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

LIVE STOCK AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY versed on pedigrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

I. E. STICKELMAN

CLARINDA, IOWA

I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

SALE DATES.

Holstein-Friesian Cattle.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

MRS. MARY LEGLER, Executrix

Will Disperse the LEGLER ESTATE HERD of

140 HOLSTEINS 140

Monroe, Green County, Wis.

MARCH 6TH AND 7TH

A DAUGHTER of **King Segis.** Something real choice. **Daughters of** King of the Pontiacs, Aaggie Cornucopia Johanna Lad, Pearl of the Dairy's Joe De Kol, Johanna Rue Sarcastic Lad, Judge Beets Segis, King Lyons Nudine, Sir Armyn De Kol Posch, Sir Vale Daisy De Kol Paul, De Kol 2d's Butter Boy 3d, Mutual Pietertje Paul and Sir Lilith Posch. In calf to 33-lb. or 37-lb. bulls. **Twenty** daughters of Mutual Fobes Piebe, full brother to Bessie Fobes Jessie Homestead 34.96 lbs. as a junior four year old, world's record when made. **Twenty** daughters of **King Pieter Pontiac Korndyke,** a son of King Pieter and a 26-lb. daughter of Dutchland Sir Pontiac Rag Apple, full brother to the first 37-lb. cow. **Fifteen** daughters of **Johanna McKinley Copia,** whose two nearest dams average over 33 lbs. in seven days' work. Some of the cows are heavy in calf by him. He is a grandson of King Segis, that is grandsire of Segis Fayne Johanna, the only cow that ever produced 50 lbs. of butter in seven days and of the senior and junior world's champion four years olds. **Bred to a** son of Belle Mercedes Lady, 37.46 lbs.; 110 lbs. milk in a day; header of the 1914 prize list. Some good young bulls that should head high-class herds. **Tuberculin Tested** by Wisconsin veterinarians. Send for catalog to

MRS. MARY LEGLER, Executrix MONROE, WIS.
OR
HOLSTEIN SALES CO., Compilers ELGIN, ILL.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ WAUKESHA, WISCONSIN

REGISTERED AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL RACINE, WISCONSIN

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

SALE DATES.

Poland China Swine.

Feb 22, William Smiley & Son, Albany, Wis.

AYRSHIRES

Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

Clydesdales and Durocs

Write your wants Address

AS. VAN ETTA LIMA CENTER, WIS.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE have never offered to our trade a more superior lot of Percheron and Belgian stallions, in both imported and American bred stock, than we can now show. Our imported horses are young and thoroughly acclimated, many of them having made seasons in 1915 and 1916 and are tried and tested sires. Our American bred horses were selected from the best breeders in America and are out of noted sires and dams and are horses of great quality in every respect. We have especially selected ten black and dark gray 2 and 3 year old Percheron stallions weighing 10 tons. These are all outstanding horses and should be purchased by those who need a sire for full-blooded mares. Among them is Coco, 1st prize 2 year old and reserve champion at the Wis. State Fair. This colt is black in color and weighs a ton. To the early buyer we offer one of the greatest collections of ton stallions to be seen in any importing barn this winter. We have no old, worn out, picked over stallions on hand. Let us know your wants, or better still, come and spend a day or two. A hearty welcome awaits you. Send 25 cents in stamps for large horse hanger, which shows the picture of a number of stallions now on hand, our main farm and sales stable and our firm's picture. Will sell several of our choice Iowa farms on easy terms.

FRANK P. SHEKLETON & SONS — **LAWLER, CHICKASAW CO., IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

W. E. PRICHARD & SONS
OTTAWA, ILL.

PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

LEFEBURES' BELGIANS

A Large and Choice Collection of Stallions, Mares and Colts

for sale at all seasons of the year. Correspondence solicited. Catalog mailed upon application.

H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Charlton, Ia.**

HART BROS., OSCEOLA, IOWA

IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

Please mention this paper when writing

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

W. A. LANG & CO.
Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars
W. A. LANG & CO. — **GREELEY, IOWA**

STALLIONS FOR SALE Three registered Percheron stallions coming two, three and eight years old. Address
JOHN HAIGH, JR. — PICKETT, Wis.

GUERNSEY CATTLE.

INDIVIDUAL EXCELLENCE

Buy An A. R. Sire and Champion

OFFER: **King Talladeen of Chestnut Hill 13460,** grand champion Mich. State Fair. Sired 4 A. R. daughters averaging 350 lbs. fat as 2 yr. olds. **Sire: Skeezicks 9979,** 13 A. R. daughters. **Dam: Talladeen 17510,** A. R. 633.50. A tried sire that has been used successfully in our herd. Will be pleased to show his get. Few such **Guernsey bulls** are being offered. **We guarantee him in every respect. Write**

FOX BROTHERS — **WAUKESHA, WISCONSIN**

TWO YEARLING
GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. — **Fred Southcott, Mgr.**

IMPORTED GUERNSEY BULL

(Imported in dam,) 18 months of age. Dam, Blanche Flow of Sarnia, gave 35 pounds of milk with first calf. She is a daughter of Raymond 60, that has more daughters on A. R. test than any other bull of the breed. Sire, Flower Boy of the Cloture 3377 P.S. This young bull is a show animal and well marked. Send for complete pedigree.

Berkshire Spring Boars and Gilts of Premier and Masterpiece breeding, good type, well grown and in thrifty condition. Address
O. R. FRAUENHEIM, RANDOM LAKE, WIS

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
Frank E. Swan — **Wauwatosa, Wis.**

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick — **Greenville, Wis.**

Guernsey Bull For Sale

BORN March 17, 1916, Glenwood breeding. Sire, Colonel Waukesha. Dam, Park's Pet. He is well marked, a good individual and right in every way. Price made right to sell. Address
L. J. Wendt — **R. 6, Waukesha, Wis.**

A FEW WELL-BRED YOUNG BULLS — *the Harlem Farm* — **WRITE YOUR WANTS**
Emory C. Meltz — **GUERNSEYS** — **Appleton, Wis.**

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

GUERNSEY bull, 1 yr., by son of Glenwood Stranford, that has 16 A.R. dau.; dam's record, 500 lbs. fat. $100. W. A. Lawson, Rosendale, Wis.

ABERDEEN ANGUS CATTLE.

ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited. R. A. Austin & Son, Lancaster, Wis.

CHOICE Angus bulls and heifers representing some of the good families of the breed at very attractive prices, ages from 12 to 20 months. Write or call on Orville H. Kettler, Platteville, Wis.

SHEEP.

VALLEY VIEW STOCK FARM
SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.
Geo. A. Philippi, R. 40, Bear Creek, Wis.

MULE-FOOT SWINE.

200 IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hampshire sheep. Chas. D. Thompson, Letts, Ind.

YORKSHIRE SWINE.

FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

When writing to advertisers please mention The Wisconsin Farmer.

DUROC JERSEY SWINE.

BURN BRAE DUROCS---The Good Kind

THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Rox y (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
BURN BRAE FARM - - - **ROSENDALE, WISCONSIN**

MARTINY

WE have some excellent DUROC gilts and sows for sale. Big and smooth and bred for March and April farrow. Order now.

RILEY MARTINY & SON, BARABOO, WIS.

FISHER

Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address
JOHN L. FISHER - **JANESVILLE, WIS.**

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

DUROC GILTS

OFFERING gilts bred for March and April farrow. Also breed Jerseys. Write
E. E. WYATT - **TOMAH, WIS.**

Our DUROCS Are in Demand

BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col. and Grand Model 21st. Address
Geo. D. Sprain & Sons, West Salem, Wis.

PARKERS' Prolific Porkers

OFFERING a few **DUROC** gilts bred for March and April farrow. The big kind with quality. The home of **KING ORION** by Orion Cherry King Jr. We'll ship you a good sow—try us.
E. H. Parker & Son - **Janesville, Wisconsin**

Fancy Bred Durocs

20 EXTRA good spring and fall gilts from 225 to 400 pounds, sired by the 1,000-lb. Valley G. and Col.'s Defender 2d, and bred to Taxpayer Orion, sired by a litter brother to the world's fair champion, Taxpayer 13th, dam by Joe Orion 2d, a champion at Chicago International. (Boars all sold.) Registered males and females. Priced reasonable.
ALLIC S. KNUDSON, R. 5, Brodhead, Wis.

DUROC GILTS

A FEW good ones left, safe in pig for April farrow. **M. STOEHR, VIROQUA, WIS.**

ATWATER

A FEW good Duroc gilts for sale. Order early.
L. F. Atwater, Bangor, Wisconsin.

DENNIS SHEA

DUROC GILTS bred for April farrow, to sons of King the Col. and Pathfinder. Write
DENNIS SHEA — **MELVINA, WIS.**

POLAND CHINA SWINE.

BIG, EASY-FEEDING POLANDS

OFFER you gilts with size and quality guaranteed with pig, for March and April farrow. You'll be pleased. Write
R. MEINKING — **BANGOR, WIS.**

McDONALD
POLAND CHINAS

OFFERING BRED GILTS--THE BEST ARE CHEAPEST
J. D. McDONALD — **NORTH BEND, WIS.**

MARTINY'S BRED SOWS

30 BIG, growthy Poland China March and April gilts, gired by Chief Price and Select Major 2d. 1st prize senior and 1st prize junior yearling boars at the Wisconsin State Fair this fall; and other boars. These sows are bred for April farrow to Golden Gate Giant and Long Black Jumbo, a boar I am going to show next year. If you are looking for something good I can suit you in sows and price.
L. P. MARTINY — **CHIPPEWA FALLS, WIS.**

SMILEY'S KIND

BRED Poland China gilts. Offer choice gilts bred to one of four tried sires. Guaranteed in every respect. Mail orders a specialty.
WM. SMILEY & SONS — **ALBANY, WISCONSIN**

BIG POLANDS

POLAND GILTS

AT private sale—good ones, bred to my big boars.
E. W. HENDRICKS
Hazel Green — **Wis.**

BRED GILTS
POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.
OLOF C. OLSON — **STRUM, WIS.**

REGISTERED POLAND CHINAS

SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins).
Marinette County Asylum — **Peshtigo, Wis.**

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch — **Mt. Ida, Wis.**

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address
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OF big-type breeding and bred to **Chief Price** by the champion, Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.
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BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, trios and spring gilts. Best of breeding and priced to sell.
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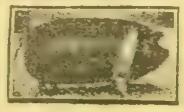

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A FINE bunch of heifers, granddaughters of Pontiac Korndyke. For further information, prices and pedigrees address
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FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price
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9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address
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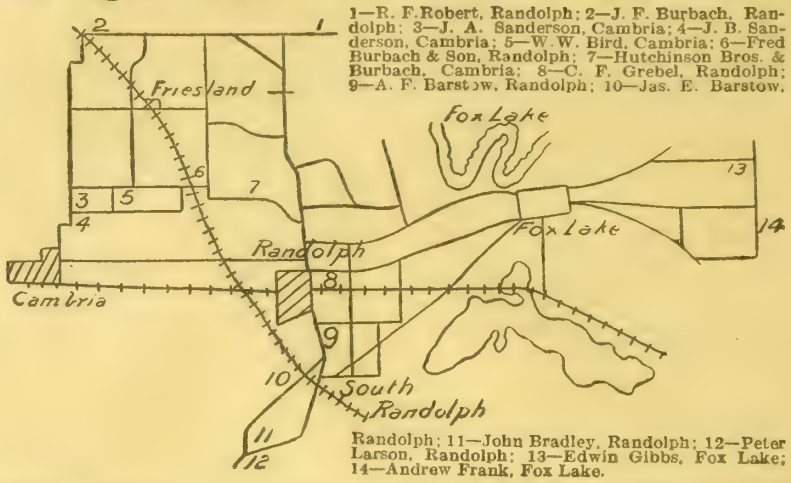

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AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
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IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
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READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
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BRED to a good son of Tommy Doyle, the $1,500 grand champion, for March and April farrow. Their dams are by Col. Defender 2d or Valley G. Priced to sell. Write
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100 Short-horns to Select From-100

BULLS AND FEMALES. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASS'N., J. E. Kennedy, Sec'y - - - JANESVILLE, WISCONSIN**

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OF serviceable age. Not a poor one offered. Guaranteed breeders. Address
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HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Sultan. A. J. Wheeler, R. 1, Beaver Dam, Wis.

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WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
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2 YEARLING bulls ready for service from heavy-milking dams and backed by generations of **heavy-milking—high-testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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6 SHORT-HORN BULL CALVES 6

9 MONTHS old, roan, red and white, sired by Milkman. Six heifer calves same ages as bulls.
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YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
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SHORTHORNS BOTH sexes, for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

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RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

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A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

RED Polled cattle for sale, both sex and different ages; also Poland China hogs; prices right. Cloverbelt Stock Farm, Hamburg, Wis.

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HEREFORDS BULLS FOR SALE

OF serviceable age. Pasture raise and not pampered. Well bred individuals. A few good calves. Come and see them before you buy.
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A Well-Bred Yearling

HOLSTEIN BULL—ready for immediate service. Born January 5, 1916. His sire is by **Sir Korndyke Pontiac Artis,** a 31 pound sire with two 30 pound daughters. Sire's dam a 27.14 pound daughter of **Sir Veeman Hengerveld,** that has nine 30 pound daughters. Dam of bull for sale is a 13.12 pound two year old by a good son of **Mooie Fayne De Kol,** that has three daughters with records over 31 pounds. Bull for sale is well grown, of good type, well marked and ¾ white. Send for extended pedigree and price.
UPLAND FARMS, E. E. Ayer, Prop., J. H. Travis, Manager, **WALWORTH, WISCONSIN**

Purebred Registered HOLSTEIN CATTLE

The scope of its labors and the numerous details involved in the administration of the affairs of the Holstein-Friesian Association are best comprehended by a consideration of the fact that, during the fiscal year ending April 30, 1916, $158,994.50 was received by the secretary's office for the registration of pedigrees and for transfers. This volume of business required 46,760 entries in the cash books, and the issuance of 142,120 certificates, and this prodigious labor is demanded for the conduct of but one department of the greatest dairy cattle breeders' association in the world.

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IF YOU are looking for heavy-producing high-grade Holstein cows and heifers, call and see our large herd or write for particulars.
Grandview Stock Farm, Oconomowoc, Wis.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).
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POLLED DURHAM CATTLE Registered bulls for sale from 2 to 8 months of age. Address Ph. Lang, West Bend, Wisconsin.

D. S. Polled Durhams. 7 bulls 8 to 14 mos., reds and roans by Red Sultan X 9404-565337. Herd and farmers' bulls. F. Bunker, Kilbourn, Wis.

JERSEY CATTLE.

RED OAK STOCK FARM

F. R. CONSTANCE & SONS, Props.

HAVE one yearling Jersey bull and three yearling bull calves for sale. All out of splendid dams and sired by a bull whose dam made 526 lbs. butter on official test under just ordinary farm conditions. We also have a fine fall Duroc boars and gilts for sale. For Dec., 19 cows and heifers of all ages and periods of lactation gave us 618.2 lbs. fat for which we received 44½c per lb. or $275.10. This was at the creamery and this under just ordinary farm conditions.
WAUPACA WISCONSIN

Fewacres Farm's Jerseys

ARE heavy producers. Irene's Cherry 285828, a senior two year old, just completed a world's record of 12,571.6 pounds milk and 753.629 pounds butter fat. Write us about our young bulls for sale. Pedigrees and further description on request.
FEWACRES FARM - - - WAUWATOSA, WIS.
FRED D. UNDERWOOD, Prop. A. M. SERSTED, Supt. Cattle

GOOD JERSEY BULL

BORN October 22, 1916, a good one; straight type, good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
Ora P. Taylor Elkhorn, Wis.

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
H. Holt & Son Oconomowoc, Wis.

BURN BRAE JERSEYS

REGISTER of Merit bulls from calves to ready for service. High class and priced to sell.
BURN BRAE ROSENDALE, WIS.

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Nothing for Sale at Present

Watch This Space for Future Offerings

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WITH **register of merit records** or breeding. Both imported and American bred. **2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
Ed. Bruins - - Fairwater, Wisconsin

JERSEYS

100 FEMALE in my herd, imported and American bred. Young bulls for sale from **Advanced Registry dams.** I can please you. Write
FRED STUBLEY BLACK EARTH, WIS

HOLSTEIN-FRIESIAN CATTLE.

HOLSTEIN BULL CALVES

WITH

BREEDING, CONFORMATION, HEALTH *and* VIGOR

Out of high record A. R. O. cows. Senior sire, King Pontiac Champion by King of the Pontiacs, and out of a 31-pound dam. Now has over 45 A. R. O. daughters. Junior sire—

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

Pabst Stock Farm, Dept. 30, Oconomowoc, Wis.

A COMBINATION OF SIZE, IDEAL TYPE AND PERSISTENT PRODUCTION

A 31.02-POUND bull, that comes from a long line of cows of large size, ideal type, heavy-production ability, which are persistent. **Racine Johanna Piebe Mercedes 188460.** Born December 8, 1915. His dam, **Ella Mercedes of Elm Court, made 31.02 pounds of butter in seven days;** 130.47 pounds butter in 28 days (an average of 32.69 pounds butter per week for four weeks); 829.78 pounds butter in a year. She weighs over 1,600 pounds. **His sire's dam** made 27.70 pounds butter in seven days; **808.82** pounds butter in a year and weighs close to 1,600 pounds. His dam's dam, sisters and his parents' sisters are big cows of good type and heavy producers. Come to our farm and see them—and see the kind of cows his daughters will develop into. Am also offering a straight and well-grown yearling heifer out of Lady Johanna of Elm Court and sired by Count of the Pontiacs.

RUEBEN KLOFANDA **RACINE, WISCONSIN**

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS **R. R. 11** **FRANKSVILLE, WIS.**

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

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REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM **FT. ATKINSON, WISCONSIN**

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HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

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TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address

B. F. Winckler & Sons **Medina, Wis.**

AT LA BELLE VIEW FARM

WE are slaughtering pure-bred Holstein bulls from A. R. O. dams. It seems too bad, but that's right when we drop Duchess of Ormsby bulls at such low prices as we have been selling them. If you want some of these youngsters sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world) at prices too low to print, write E. E. Rosenkrans, Oconomowoc, Wis.

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

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REGISTERED Holstein cows, heifers and bulls and Chester White swine. Write your wants.

KIRKPATRICK BROS. **Reedsburg, Wis.**

2 REGISTERED Holstein heifer calves, $75 each, extra high grades $20, express paid; reg. bulls, all ages. Coldspring Farm, Whitewater, Wis.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

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ONE Holstein bull, ready for light service. Born Dec. 31, 1915. His dam has an official record of 14.65 lbs. butter and 365 lbs. milk for 7 days as a 3 yr. old. His sire is a grandson of Hengerveld De Kol that has 116 A. R. O. daughters. This bull is straight and a good individual in every way and good enough to head a choice herd. Nicely marked, ⅔ white. Guaranteed to be sound and right in every way. Price, $100.00.

Mountain Ash Stock Farm, J. B. Cain, Prop. Glenbeulah, Wisconsin

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

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HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L. V. Garvens, Brookfield, Wis.

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Absolute Dispersion of Bell Croft Herd

48 PURE-BRED HOLSTEINS

SERVICE bulls and bull calves—King Walker and Johanna blood. Eleven daughters of thirty-one-pound sires. Four daughters and thirteen granddaughters of **King Walker.** Two daughters of a thirty-one-pound dam. Every cow of milking age but two have A. R. O. records from eighteen to twenty-seven pounds. I sell **Portage Pauline King 73779,** a 31.17-pound son of the great **King Walker.** All records made by myself under ordinary farm conditions. Free from tuberculosis and a 60 retest guarantee goes with each animal. A safe place to buy. Catalogs now ready. Address

J. A. FORGE **BURLINGTON, WIS.**

On the Milwaukee and Soo R. R. and Electric from Milwaukee.

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - **WAUKESHA, WISCONSIN**

HOLSTEIN BULL FOR SALE

Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediate sale. Address

PINEHURST DAIRY **SHEBOYGAN FALLS, WISCONSIN**

Holstein Bull Calves For Sale

BULLS and heifers advertised in the last issue have been sold. We are now offering for the first time some splendid bull calves up to seven months of age sired by our herd bull, that is a son of a 33-pound cow. These calves are nicely marked, well grown and good individuals. Let us send you pedigrees of them. Mention The Wisconsin Farmer when writing. Address

EDGEWOOD FARMS, INC. **PEWAUKEE, WISCONSIN**

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

TULLOCH & FRIES' HERD **GENOA, WIS.**

A HOLSTEIN BULL

BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.

L. A. KIMBALL **LAKE GENEVA, WIS.**

INTER-COUNTY HOLSTEIN ASSOCIATION

SELLS cattle on a fair and square basis. We have yet to produce a dissatisfied buyer. Our fall sale was a dandy—satisfied buyer and seller. Our spring sale, April 4th and 5th, promises to eclipse our fall sale. We have some splendid bargains in bulls and females. Francis Darcey, Secy., Watertown, Wis.

RUST BROS.

OFFER the richly bred Holstein-Friesian bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for immediate service. His dam, Ida Lotta Hengerveld, at three and one-half years of age made 21.34 pounds of butter in 7 days, 31 days after calving. She comes from a long line of heavy producing ancestors, the records of her three nearest dams averaging 27.20 pounds of butter in 7 days. She not only has inherited this heavy producing ability, but also transmits it. The sire of the bull for sale is Daisy Johanna 5th, 1st prize two year old at the Wisconsin State Fair in 1915. He is out of a dam having two A. R. O. daughters. Address

ARTHUR RUST

West Allis **Wisconsin**

WALCOWIS FARMS

GIVES you opportunity to get Holstein year. rec. grandson of King of The Pontiacs, born June '16; tuberculin tested, fine animal. Sire: Cornucopia Pontiac Johanna Lad, full bro. to K. P. Manor Kate, 1023.41 lbs. butter, 22,106 lbs. milk, world's yearly record senior 2 yr. old. Dam: Lady Walcowis De Kol. Butter, 7 days at 3½ yrs., 21.67 lbs.; milk, 528.5 at 2 yrs., 13 days.; butter for 7 days, 15.67, for 365 days, 643.91 and 17,110 lbs. milk. For price, pedigree and photo, address

N. Dickinson & Son **Lake Geneva, Wis.**

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers **Ixonia, Wisconsin**

OLATHE-HOLSTEINS

STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.

SILVER SPRING FARM CO. - **EAU CLAIRE, WIS.**

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons **Elgin, Illinois**

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

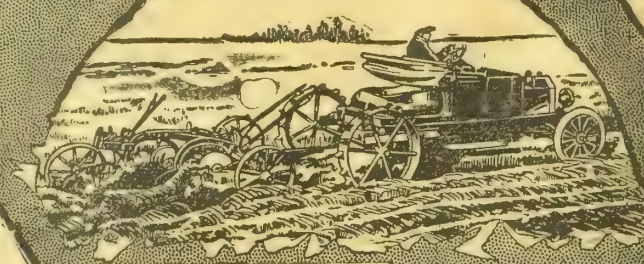
Lawrence Robers **Lyons, Wis.**

$195 Converts Your Ford into a Guaranteed Powerful Staude Mak-a-Tractor

Drive It 24 Hours a Day If You Need It; It Will Always Do the Work

The Staude Mak-a-Tractor is the most economical, most efficient, most remarkable farm implement you can buy. It gives you four horse working ability at one horse cost, and it costs nothing when it is not running. It is a proved success all over the country. Tested under all conditions of farm work by owners who say it is the most wonderful implement they have ever used. It has hauled 9,200 pounds of wheat up into a farm elevator on high gear—pulled a 40 x 60 Minneapolis thresher, the largest size made and weighing 10,000 pounds, in a stubble field on high gear—moved a 25-ton story and a half house on trucks over dirt roads.

It is always ready, day and night. In the hot harvest weather when horses drop dead in the harness, it will do its work continuously 24 hours a day. Use your Ford headlights for night work. Anyone who can drive a Ford can drive Staude Mak-a-Tractor.



Breaking virgin sod, 7 in. deep with 2 bottom, 28 in. gang. (Reproduction from moving picture film.)

20 Minutes to Install

Mak-a-Tractor attachment clamps on a Ford with four bolts. No holes to bore. Rear wheels replaced with driving pinions—integral with brake drum. To change back to touring car, merely loosen and roll back Mak-a-Tractor axle and wheels—replace driving pinions with Ford wheels.

Mak-a-Tractor frame removable in five minutes. Can be left on car—scarcely noticeable—weighs but 50 lbs.—does not affect appearance or interfere with spring action.

11 Fords in 1

Greatest draw-bar pull for weight ever built. Greater strength in every unit of construction in proportion to work and weight required than any other tractor. Gear reduction (in Mak-a-Tractor itself) increases Ford power eleven-fold—reduces speed proportionately.

No Strain on Engine

Staude roller pinions integral with brake drum replace rear wheels of Ford. Mesh into semi-steel gears on tractor wheels. Power applied near outside rim of tractor wheels—no torsional strain on hub or spokes. Mak-a-Tractor is back of Ford axle—exclusive construction. Driving pinions push the tractor wheels down—no power wasted. Ford does no pulling. Mak-a-Tractor necessarily pushes car ahead of it, since all moving power must come from contact of rear wheels with the ground. With Mak-a-Tractor attachment **Ford starts on high and runs on high all the time**, proving conclusively that there is no strain. Motor speed is never more than the low speed of 1,000 revolutions per minute in low. Same speed as when touring car is making 20 miles an hour—safe, economical speed for motor.

Patented Force Feed Oiler

Wonderful patented Force Feed Oiling system to motor bearings—same as high-priced cars. Installed in a few minutes. Possibility of burned-out bearings—scored pistons—lubrication difficulties eliminated both from touring car and tractor.

Self-Cleaning Gears (Patent Applied for)

Gears in the Staude Mak-a-Tractor wheels are self-cleaning, an exclusive feature of great value. It saves in wear—prevents breakage of gear teeth. Gravel, stones, dirt of all kinds are automatically removed from the gear teeth. The Staude Mak-a-Tractor runs as quietly and smoothly as a motor car.

Staude Concave Creepers

18 Special Staude Concave Creepers are furnished for each wheel. These may be bolted through the tractor wheel rim when equipped. The concave cutting edges dig into soft soil or sand and give maximum pulling capacity. Special feature. Ordinary, flat-edged creepers ride over the soil—waste motor power by making the engine "pull up hill."

Staude Ford Radiator—Extra Large

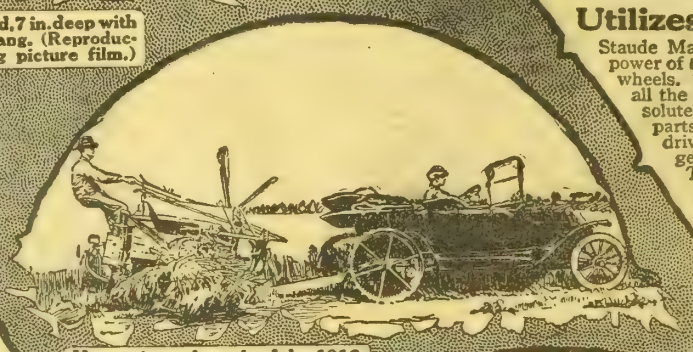
Driving at slow speeds a motor heats up much faster than at high speeds—a smaller volume of air passes through the radiator. A tractor operates at slow speeds. So we provide a special Staude Ford Radiator—cellular type—six times more efficient than Ford. It should be left on the car permanently—it's the best Ford Radiator ever built. And it is a guarantee of perfect cooling both for tractor and touring car.

Cold Rolled Steel Axle

The Special Staude rear axle is 2 inches in diameter, made of cold rolled steel. Tractor wheels run on roller bearings. All the pulling is done by the Staude Mak-a-Tractor attachment itself. No extra load is put on the car chassis. The hitch is on the rear axle where it should be and may be moved from one side to the other without interfering with the steering or causing side draft. The hitch is 38 inches wide, giving a broad range of positions to meet every hauling requirement.

Special Fifth Wheel Job 2½ to 5 Miles Per Hour

Special Fifth Wheel attachment for receiving ordinary farm wagon bolster and reach furnished at slight additional cost. Gives perfect tractor construction for hauling heavy loads. Special pinions give speed ranging from 2 1-2 to 5 miles per hour.



Harvesting wheat in July 1916. (Reproduced from actual photograph.)

Utilizes Tremendous Power of Ford Engine

Staude Mak-a-Tractor utilizes the wonderful power of the Ford engine to turn two tractor wheels. The tractor attachment, itself, does all the actual pulling work. There is absolutely no unusual strain on the working parts of the Ford. The Ford rear axle drive shafts merely turn the pinion gears of the Staude Mak-a-Tractor. These gears mesh with the tractor wheel bull gears and turn the wheels under.

We positively guarantee that any Ford in good condition used with a Staude Mak-a-Tractor will start and run continuously on high gear and will do the work of four horses. Sixteen years of square dealing is behind this guarantee. Ask your banker.

Staude Mak-a-Tractor gear reduction reduces the speed of the Ford eleven times and gives an eleven-times increase in pulling power. This is the reason for the wonderful working ability of the Staude Mak-a-Tractor. It gives greater actual pulling power for the weight than any other farm implement ever built.

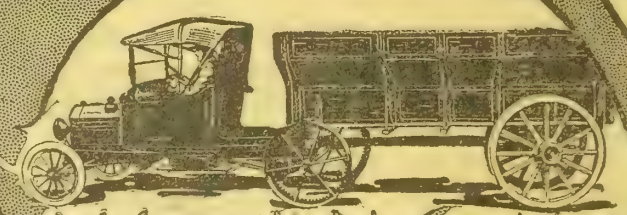
The Staude Mak-a-Tractor does not strain any part of the Ford, regardless of working conditions.

First—It uses less than half the Ford power.

Second—Motor speed is never over 1,000 R. P. M., equivalent to twenty miles an hour as a touring car.

Third—It starts on high gear—cannot strain the differential.

Fourth—Staude Mak-a-Tractor carries the rear of the Ford and end pushes the Ford ahead.



Hauling 125 bushels farm wagon, using fifth-wheel attachment.

Wonderful Cooling System—Remarkable Oiling System Included

Every service detail has been carefully worked out. The wonderful Staude Ford Radiator, furnished as regular equipment, has six times the cooling efficiency of the Ford Radiator. Leave this on permanently. It guarantees perfect cooling for touring car and tractor both. We wouldn't think of selling you our Tractor attachment without this increased cooling capacity. Without it no tractor attachment can give satisfactory results. The new force feed oiling system, also regular equipment, gives positive feed to all motor bearings through a side gauge on the dash.

With this wonderful cooling system, this remarkable oiling system and a motor speed which never exceeds 1,000 R.P.M. under the hardest work, the Ford motor used with Staude Mak-a-Tractor is more serviceable, more efficient, more durable even than when it is used in the Ford touring car at no increased cost.

Use Any Ford You Can Get

If you have no Ford, get a cheap second-hand one. Clamp Staude Mak-a-Tractor on in twenty minutes, get the lowest farm power in the world and the most efficient tractor you can buy. And save the cost of your Ford and your Staude Mak-a-Tractor in the first month you use it.

This Wonderful Book Free

Get our wonderful farm book, "Reaping a Golden Harvest." It's a real, scientific, carefully edited explanation of how farmers are opening the way to bigger crops, bigger earnings, greater savings and vastly improved land by using Staude Mak-a-Tractor. It is jammed full of information that means real money to you. And we will send it to you FREE. Fill out the Coupon.

Send Coupon NOW Only 20,000 Staude Mak-a-Tractors will be built this year. There will not be near enough to supply all farmers. Ask at once to avoid being disappointed. Only those who order first can be favored. Send the Coupon NOW—QUICK. Read the startling big Book. See what the Staude Mak-a-Tractor is doing for others—what it will do for you. Then see your local dealer and arrange for a demonstration on your own farm. But mail the Coupon NOW.

References: Your own banker or any bank in St. Paul or Minneapolis.

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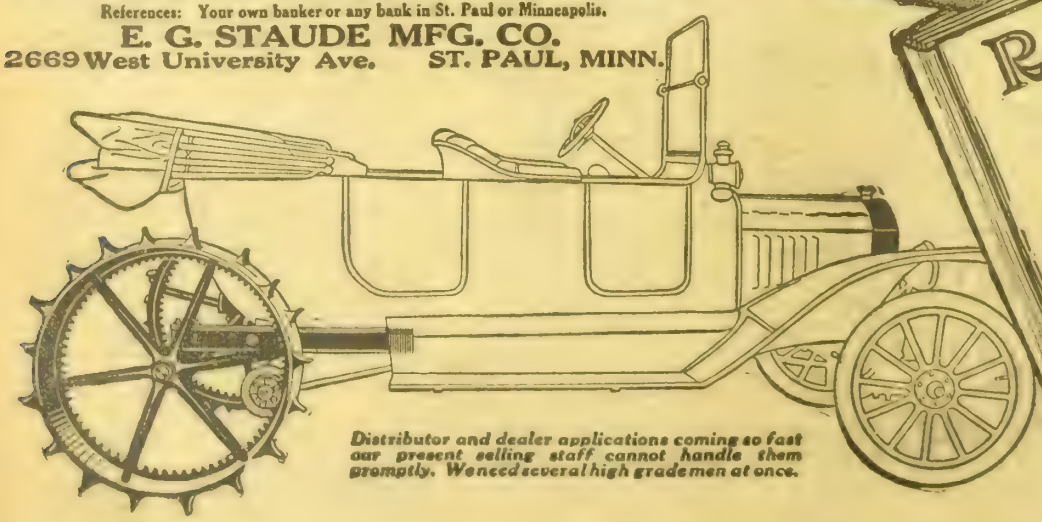

Distributor and dealer applications coming so fast our present selling staff cannot handle them promptly. We need several high grade men at once.

E. G. STAUDE MFG. CO.,
2669 West University Ave., St. Paul, Minn.

Please send me FREE your Big Illustrated Book "Reaping a Golden Harvest," which shows how farmers are making piles of money with Staude Mak-a-Tractor. I would also like to see the Staude Mak-a-Tractor demonstrated on my farm. This does not obligate me in any way.

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City.....

State..... *R.F.D.*.....

My Automobile Dealer's Name is .....

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More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 9. THURSDAY, MARCH 1 1917. WHOLE NO. 1331

Making Apples Pay Every Year.

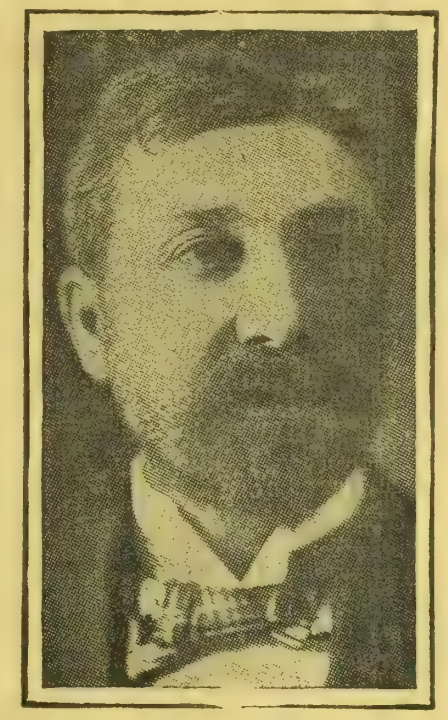
MR. G. H. TOWNSEND, of Richland Center, does not make any improbable claims as to production on his apple farm in Richland county, but his yields show that his trees have been working in the years when other orchards were enjoying a rest.

Growing apples in the favorable seasons only is no special accomplishment. Neither is it a profitable practice. The profit in apples—or any other fruit for that matter—is during the off seasons. If a person is successful, therefore, in the unfavorable years, he does not need to worry over the next season's expenses. Idle land is an expense and many orchards are idle every other season.

In 1912 the apple production of Richland county was 25,000 barrels, of which amount his place produced 2,200 barrels. In that year apples were plentiful and cheap, but not so in the following year. In 1913 the entire yield of the county's apple trees was 2,000 barrels. Of this amount the Vista Ridge Fruit Farm—as he calls his place—produced 750 barrels. That is one-third of the entire crop of the county. In 1916 he again had a large crop—1,600 barrels—while other farms showed a very low yield. In speaking of his success, Mr. Townsend said that too many people do not realize that it requires three years to grow an apple. Commencing with the first year that the trees are able to bear fruit, the tree must grow branch wood, or, as it is termed, "new" wood. Then the following year come the fruit spurs, and the third year the apples. This process is continuous when conditions are right. When they are unfavorable to the development of any one of these, the crop in the following season is small, or there is no crop at all. The failure to recognize this is the reason why many orchards bear only once every three years and in some cases fail to grow any crop at all.

The new wood is encouraged by moisture. An apple soil must not be too heavy or too sandy. Too much moisture hinders the action of the soil bacteria, that transform the simple chemical elements into available elements for the plant. Moisture keeps out the air and plants do not root deeply in wet soil. The growth or development of a tree is often interfered with during a season, just because there is too much moisture for the tree. If, on the other hand, moisture is not sufficient, three things may happen: Should the tree be bearing much fruit, there will be but little growth of "new wood" and only few, or no fruit spurs, will develop—the apples may not mature or drop before maturity, the tree may kill from the lack of moisture, or may winterkill by freezing dry. The best soil is, therefore, one that will contain water in the right amounts. Such a soil is a clayey loam, containing some gravel. Richland county is well provided with such soil. Being a continuation of the Baraboo range of hills and ridges, it has an altitude of 300 to 500 feet above the level of the lower Wisconsin river, and between each range of ridges is a large creek, carrying off the surplus of the water from the hillside. The valleys operate as catch basins for the cold air of late spring and the early autumn frosts.

Mr. Townsend does considerable spraying, starting early in the season and continuing until August.



G. H. TOWNSEND, RICHLAND COUNTY, WIS., APPLE GROWER.

The trees are examined before the buds open, and in case any scab is discovered, a mixture of one gallon of lime sulphur to eight gallons of water is sprayed on. If the trees are clean, the first spraying is not done until the petals are falling, the solution used in this case being considerably weaker—one to forty. From then on the trees are kept covered with a light coat of the one-to-forty solution—applications being made after each rain. As a rule, a dry April means that the scab will put in its appearance late in the season, and a wet April is indication that the scab will show up sooner. Protecting the tree from parasites means that the proper development of the foliage will take place. When the foliage cannot develop fully, or when the tree suffers from defoliation before the season is over, the fruit buds—the second stage of apple growth—also suffer, and this, according to Mr. Townsend, is the reason why so many orchards do not bear more regularly.

In varieties grown on Vista Ridge Fruit Farm, the Duchess and Wealthies and the Northwestern Greenings lead. The Jonathan and Winter Banana have also made good yields. The McMahan is a Richland county product and is well represented in the orchard. Growing so many varieties is not the best policy, but Mr. Townsend bought this orchard of mature trees, and, though he is not excusing the mistake of his predecessor, he is trying to make the best of the situation. He treats each variety according to the needs and gets exceptional results and makes all the profit that is possible under the conditions.

Mr. Townsend is strongly in favor of efficiency methods in the orcharding business. He does all he can to assist his help in making the work less cumbersome. For this reason he also devised a ladder that could be used during the harvesting of the crop, to meet the loss of time adjusting ladders to uneven ground, and to prevent pickers from knocking down apples putting ladders up into the trees. The ladder has adjustable legs, pivoted to clips, that are pivoted to a band link which swings up and down, and also slides back and forth on a cross rod between the sides of the ladder.

The general plan of the link, clips and mounting is shown in the accompanying drawing. The adjustable legs may be spread as widely at the bottom as desired to brace the ladder, and are held by passing through a link pivoted to a cross bar attached to the base of the ladder. The band link on the cross rod swings, so that when the ladder is lifted, the legs drop enough to loosen the legs in the links on the cross bar, when the ladder is set on the adjustable legs and raised to a vertical position, the legs automatically adjust themselves by pushing the bank link on the cross rod enough to shorten the leg on the high side and let the leg down on the low side, so that the ladder automatically adjusts itself to level ground, bumps, holes or side hill and locks by sliding the leg holders down the adjustable legs.

For short ladders—ten or twelve feet—a third leg is added. It contributes to safety and saves its cost in time and fruit in a few days' use.

Mr. Townsend has not always been in the orchard business. He is by profession a lawyer, but, having found many features in this occupation that were not to his liking, he decided to go back to the work of his forefathers, who were fruit growers in Ohio. About four years ago he took over the present farm, and found there an orchard of some forty acres, growing twenty different varieties of apples. The farm consists of about 100 acres in all. Mr. Townsend does not try to run more than the orchard part, and is slowly developing the rest of the

RICHLAND COUNTY ORCHARD READY FOR THE PICKERS.

Thousands of Satisfied Users

Testify to the efficiency and economy of the Caloric Pipeless Furnace. We've a book of letters written by people who once struggled to keep warm with stoves or old-fashioned heating systems and who finally installed the one-register Caloric. The satisfaction these letters express is absolutely convincing. Here is one that is typical of many:

"I have a large three-story, eleven-room house and can show 72 degrees in third story rooms before 7 A. M. The Caloric produces more heat from less coal than any other kind." MAHLON FRETZ, Sellersville, Pa.

This is concrete, direct-to-the-point evidence. It establishes the

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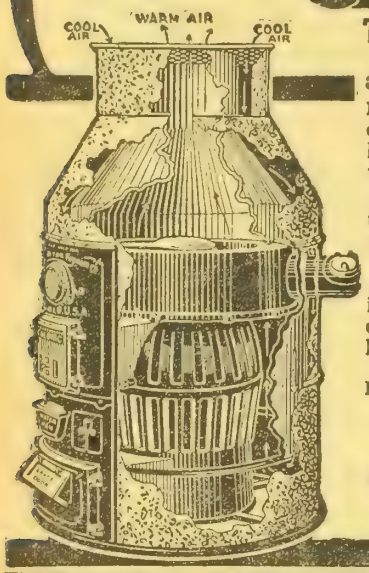
The Original Patented Pipeless Furnace



as the most sensible and economical furnace built. Why not install one in your own home, add to your comfort, lessen your labor and cut your fuel cost? This can be done without inconvenience at any time.

The Caloric heats from *one register*, so there is only one register hole to cut. Saves 35% of fuel because its heat is direct, and because a patented triple casing prevents radiation into the cellar. There is no furnace in the world so easily installed as the Caloric or so absolutely satisfactory. The original pipeless furnace is backed by a broad guarantee.

There is a Caloric dealer in your town—see him soon. If you do not know who he is, write us and we will tell you.

Let us send you a free booklet containing our remarkable guarantee.

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Sharpen themselves when run together empty; also self-aligning and **silent running.** Grinds all grain and forage crops, including alfalfa and kafir corn with stalk. One set plates grinds **1000 to 3000 bushels.** Ten days' free trial. Book free.

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OTTAWA LATEST DESIGN

Durable, Powerful, Reliable, Massive. Built to last; to do hard, heavy work. Uses Cheapest Fuel. Pull ¼ to ½ horse-power more than rated. ***3 Months Trial. Easy Terms.*** Sizes 1½ to 22 H-P. Easy to start. No Cranking. No batteries. **10 Year Guarantee.** Most practical engine ever built. Engine book free. A Postal brings it.

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You need not take our word that Scotch Knocker Horse Collars *do* cure and *do* prevent galled necks, sore shoulders, all usual horse collar troubles. You need not take our word that any

Scotch Knocker

outlasts two ordinary horse collars—that it's made of genuine bark tanned leather—that throat is stuffed with long rye straw, reinforced by three thicknesses of heavy leather—that face is stuffed with elastic sweat-and-rain-proof buckwheat hulls. We can prove it all! And to *your* profit! Write for proof!

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For Proof Booklet—FREE.

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fitting a horse with a Scotch Knocker Collar you will find same goes back where it belongs. There should not be any more space between the horse's neck and throat of the collar than will allow your four fingers when laid flat on inside of throat of collar to pass through freely.

You Are Protected by an Iron-Clad Guarantee

—a guarantee by which we assure ourselves that you *will* positively be pleased with Scotch Knocker Collars—a guarantee that enables your local dealer to protect you to the limit.

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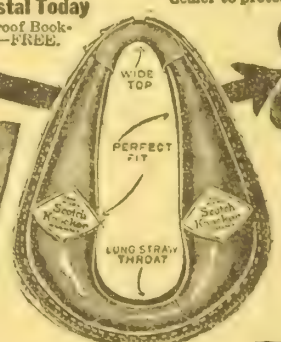
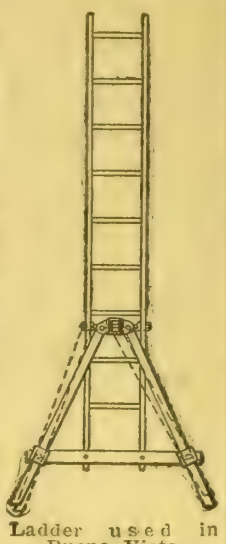


Before **After**

Photograph to left shows a six-year-old horse, sound in every way except shoulder trouble, sold by H. Wychgram, R. F. D. Winona, Minn., June 8, to Pat Minck, for $40.00. A Scotch Knocker (Perfect Fit) Horse Collar cured this horse in ninety days, as you can see by photograph to the right. Was worked every day on a dray.
(Signed) PAT MINCK, Owner of City Dray and Transfer Line.

land for nursery purposes. About twenty acres are in small fruit. Last year he set out 3,000 vines, which he hopes to develop into a profitable undertaking. Some experimental work is being done in developing successful new strains of plums. Professor Hanson, of South Dakota, had considerable success with crossing the native plum and sand cherries, and Mr. Townsend is further developing these. Another cross which is very promising is the apricot cross with the native plum. This was first successfully done by Mr. Burbank, of California, and strains from his production are now being planted in many parts of the United States.



Ladder used in Buena Vista orchards.

At the exhibits at our state and some of the county fairs, Mr. Townsend has won his share of the prizes. He is also connected with the State Horticultural Society of Wisconsin, and a similar body in the state of Minnesota.

Novel Prize For Winning Boy Judge.

Shropshire interests in eight states of America will gain some young boosters by the plan which has been determined upon by the association at its last meeting. Wisconsin is one of the states which has this opportunity. The boys' judging contest held in connection with the Wisconsin State Fair will have as an additional honor to be won this year the prize of one share in the American Shropshire Registry Association valued at $100. In order to obtain this the boy must be first in the judging of Shropshire sheep. Only boys who have never judged sheep at fairs and similar contests will be allowed to enter. Arthur Broughton, president of the Live Stock Breeders' Association of Wisconsin, is also an executive officer of this sheep organization and he is enthusiastic over the plan. The Shropshire association is one of the largest organizations in existence. With the price that sheep have brought during the last years and the profits that have been realized by the men who have foresight to go into the breeding and feeding game during this time this ought to prove one of the most popular prizes ever offered. The same offer is made for the state fairs of Illinois, Indiana, Iowa, Michigan, Minnesota, New York and Ohio.

Sheep and lambs raised and fed on Wisconsin farms are sharing, to a great extent, in many of the record deals on what is now called the "animated market" at the Union Stockyards, Chicago, history-making quotations being of daily occurrence.

Here are a few specimen deals made recently by Wisconsin stockmen on the Chicago market, obtained through data furnished by the Wisconsin Live Stock Breeders' Association:

One lot of prime fed western lambs were sold by Clark and Baker, of Waterloo, for $11.60. Reporters state that these lambs were "in a class by themselves."

Syver Hollan, of Iowa county, disposed of seven native ewes last Thursday, at an average weight of 158 pounds, for which $11 a hundred was paid. At the time, this quotation topped the market, and is said to be 25 cents in advance of any previous record of ewes handled through one of the yard's oldest commission houses.

The only lambs to sell for more than $14.50 in the history of the sheep trade up to a few days ago, were shipped in by Onalka Pickle & Canning Company, of La Crosse county. There were 216 head in the lot, averaging eighty-one pounds, and going down at $14.55.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Big Steady Income in your own business

Sound and Safe
Pleasant and Permanent
Capital and Experience not required

McConnon & Co. want men for these Wisconsin Counties

Trempealeau	*Monroe*	*Walworth*
Lincoln	*Dodge*	*Wood*
Waupaca	*Dane*	*Marinette*
Green Lake	*Lafayette*	*Chippewa*

LIVE, energetic men can become independent and prosperous as McConnon Dealers. Business is their own—exclusive territory—full protection and liberal contract. No capital required to start—complete stock of goods furnished on credit—thorough instructions given how to sell.

McConnon & Company is one of the largest, best known and most strongly established firms in its line. McConnon's products are used in thousands of farm homes and are recognized as one of the most reliable lines of farm and household necessities, toilet goods, veterinary remedies, first aid and cooking supplies, that farmers can buy. Highest quality, widest variety and remarkably low prices.

The McConnon System of merchandising is generally conceded to be superior to any other system of its kind. McConnon Dealers get full benefit of the extensive advertising of McConnon's Products and profit by the capital, experience and large, well-established McConnon business.

Write at once for full information. *State which county you want.*

McConnon & Co.
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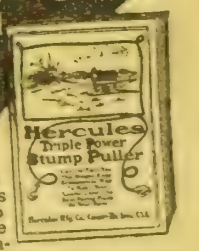
Pull Stumps

Clear Land the Easy Way—Get This Book



More Hercules Stump Pullers in use than all others combined. Reason—They make big money for owners. No stump too big. No land clearing job too tough. Man and horse clear an acre a day. Pull stumps at three cents to five cents each.

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GET THE BOOK—New Triple Power Portable Puller at **special low price** to first buyers. 30 days free **trial.** Unlimited Guarantee. Get the story. Send for free book.

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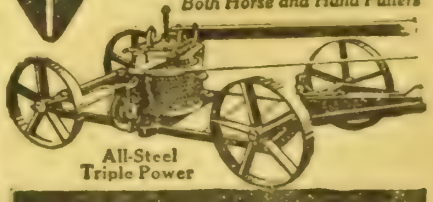
Both Horse and Hand Pullers



All-Steel Triple Power

Don't Wear a Truss

BROOKS' APPLIANCE the modern scientific invention, the wonderful new discovery that relieves rupture will be sent on trial. No obnoxious spring or pads. Has automatic Air Cushions. Holds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. **Sent on trial to prove it.** Protected by U. S. patents. Catalogue and measure blanks mailed free. Send name and address today

C. E. BROOKS, 339 State Street, Marshall, Mich.

The Wisconsin Farmer

THURSDAY, MARCH 1, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

WISCONSIN'S OPPORTUNITY IN THE GREAT NORTHWEST.

I WAS very much interested by the address of Mr. F. R. Crane, director of the agricultural extension department of the Great Northern Railroad, before the Wisconsin Farmers' Course at Madison, on February 8th, in which he showed the splendid market for Wisconsin dairy and beef stock which exists in such northwestern states as North Dakota and Montana.

That these states are not so far advanced in the development of the live stock industry as our own state, of course, goes without saying. They are comparatively new states, with all the ambition and energy of youth, looking to such older, more developed states as Wisconsin for help and guidance. We not only owe a duty to them to serve them as best we may in developing their agricultural resources, which, though vast and rich, have hardly been scratched on the surface as yet, but we will find this policy a most enlightened form of selfishness, which will pay us good returns in dollars and cents.

Just as Wisconsin looked to eastern states and the older countries across the sea for the start of its magnificent herds, so the people of the Northwest look to us for breeding stock with which to grade up their cattle and hogs. That Wisconsin has already left its imprint indelibly on the agricultural industry of the Northwest is shown by the increasing number of pure-bred cattle and hogs which are being shipped yearly from this state to North Dakota and Montana by the carloads; of splendid grains, originated by our farmers, which have gone into these states during the last half dozen years, and by the annual visits of delegations of farmers from these states to our agricultural college, where they have received the inspiration which comes from contact with the life of this splendid institution and have left the freshened outlook which comes from becoming acquainted with men and conditions in other states.

Mr. Crane sounded a timely word of warning when he said that Wisconsin stockmen should not try to palm off their discards on northwestern buyers, for such a policy will surely react and kill the goose which would otherwise lay many a golden egg for this state. Good business as well as good morals, which are more often the same than we sometimes realize, would condemn any such short-sighted policy. Wisconsin has a reputation of having the finest herds of any state in the Union, and it is up to you and me, my friends, to maintain that reputation in all its glory, that not a single act of ours may tarnish the name which she has won through merit.

The Northwest is calling us to "Come over into Macedonia and help her." Will we not respond? In these days of struggle and competition for foreign markets, will we neglect the opportunity close at hand, that is knocking at our doors, not once, but continuously? I am sure that every Wisconsin reader of this paper will be glad to pass along, to the farmers of the Northwest, the benefits which in an earlier day we received from older communities; that you will take joy in doing your part in the upbuilding of a substantial farming prosperity in those states commensurate with our own; and that you will heed Mr. Crane's worthy appeal and sound advice, when he said, "The Northwest needs your assistance; it needs your surplus stock. We cannot use your discards, but we are willing to pay top prices for top stuff." Surely there is an opportunity for service, both to others and ourselves, that will appeal to the best in all of us.

TIME IMPORTANT TO WISCONSIN FARMERS.

I AM impressed by a remark of one of our Wisconsin speakers during Farmers' Week. He said: "Time is the only form of wealth which is parcelled out equally to all." I believe my friend who quoted this remark credited it to some French writer. Up to the time, the quotation had escaped me. But how true it is? Can anyone tell me who has a corner on time? Can anything or anyone, save the grim reaper himself, rob us of that precious capital we call time? What would money or health or prestige or fame, or any form of earthly wealth be worth to any of us, my friends, without time? Everything we do, everything we say, takes time.

I cannot but feel that the conservation of time is especially important to farmers, such as we have in our beloved state of Wisconsin. This is not a "one-idea" or "one-crop" state. I can see some reason for the farmer in the wheat belt, with his "eggs all in one basket," taking a little time off while nature does the biggest part of the work. But such a condition fortunately does not exist in Wisconsin, and the element of time enters more closely into profits and happiness in a state where we must be up and doing all the day—and, I must admit it—sometimes into the night. When a man must be up at four o'clock to begin milking the cows, I feel sure he knows pretty well that time is worth something. And these cows must, of course, be milked again in the evening, and here we improve more of our time. Neither can we expect to let all of the time between milkings go to waste. The daylight hours must be improved, most of them by work, some of them by recreation and study.

Shall we not all do our level best to earn good dividends on the wonderfully precious asset, time? I have heard so many sermons against waste of money and talent. Why not more sermons against the waste of time? If we give up our money we expect to earn interest. We look out very carefully to see to it that money does earn interest, and that we collect regularly. Do you keep such books on time, my friends? Did you, my friend and reader, ever sit down with pen or pencil and figure how many days or hours you have at your disposal during the coming season for crops, and how you can employ this time most profitably?

I must advise that to conserve time, planning is necessary. Doing every chore on the farm by hand is wasting time. Walking back and forth from markets is wasting time. Carrying wheat to the mill on your back is wasting time. Forcing the wife to carry water from the well is possibly saving a little money, but it is wasting time. It will not be long until we realize that milking cows by hand, or plowing in the old way with nothing but horse power, is wasting time. Putting fat on a hog or a steer is profitable, provided we don't take too much time doing it. So, a careful study of best rations may be saving a lot of time.

Time is as much, or more, an important element of success in farming than in any other occupation. Delay planting or sowing too long and the crop is ruined. Things must be done in time—on time—as we usually say it. I exhort every reader of The Wisconsin Farmer to take an invoice of his time. The time you lose is worse than bad debts. You can't even put lost time into judgment and hope to collect at some future day. Even though you may be young and feel you have a lot of time to your credit, you cannot afford to waste a minute of it.

Please understand, my friends, that improving your time doesn't mean drudgery. The right amount of pleasure is life's lubricant. It always saves time to keep the machinery well oiled and in perfect working condition. Your greatest asset, and mine, for 1917 is time. Whatever we do, let's make every lick count.

COUNTRY CHURCH PROBLEM IN WISCONSIN.

ONE of our Wisconsin rural problems is to keep the country church alive. Shall I tell you a story I heard recently about a country church which was kept alive for thirty years, and which is still enlarging its usefulness and helping to send better young men and young women out into the world?

The setting of this story, my friends, is back in Ohio, and the time of its beginning was soon after the war between the North and the South. In those days the country down along the Scioto river in southern Ohio was in pretty poor shape. Farmers scarcely ever saw a dollar, much less could call a piece of real money their own. The flower of young manhood had been spent in the war. Some of it had been blotted out forever. Many men wore the old blue uniforms, ostensibly to show their loyalty, but quite as often because they had no other clothes. Crops were raised on the farms, but they could not be exchanged for money. Wheat was still cut and gathered with the cradle, and taken in a sack thrown across the family horse and carried to the mill, where there was a long wait for it to be ground into flour. Money was scarcer than Christians among the Zulus. Crops were traded at the country store for sugar, salt, coffee, tobacco, calico and denim. About the only difference between the Sunday-go-to-meetin' toilet and the everyday clothes was an extra douse of water from the spring or a little added rubbing with soft soap. The good folks about whom I write lived twelve miles from the nearest village—twelve miles as the crow flies, but if you or I had to make it over the hills and through the valleys these days in a lumber wagon with a work team as the motive power we would think it was a hundred. I well remember the teams in those days were not like the splendid blooded horses we have in Wisconsin today. Down in the hills of southern Ohio in the late '60's a horse was a horse and a cow was a cow, and no one knew much about pedigrees or blood lines.

It was a good Christian mother, rearing a family of twelve children, away back in the hills of Pike county, Ohio, who decided one day that they must have a church. Fighting to get enough for her brood to eat and wear, this woman did not forget that the soul as well as the body needs attention. She persuaded her husband to deed four acres off the corner of the farm for church property. A cemetery was platted, stake-and-rider fence built about the grounds, and then a call was sent out for a church-raisin' bee. I know you have all heard of a barn-raisin'. Well, this was just the same sort of a job except that the building to be erected was a church. Most of the folks who came to this church building bee were relatives of the good woman who was back of the movement. She was the architect, the boss carpenter, and the decorator. Out from somewhere in hidden socks or pantry shelves, came enough money to buy a pulpit, which was brought up on the boat from Cincinnati, and carried overland, a day's journey in a lumber wagon. This same woman, heroine of our story, rode twenty miles to the county seat to secure the services of a preacher. In those days one never heard of ministers, or pastors. Men who preached the word of God were preachers. The church for thirty years never had a choir. It was this same good woman who took the tuning fork every Sunday, and reading a couple of lines at a time from the only hymn book available, led the singing. The preacher could come only once a quarter, for many years, but this woman director arranged for Sabbath-school every Sunday. She did the teaching herself and the youngster who didn't master his portion of the catechism went to the meeting house with fear and trembling. But he went just the same. Families came to church from far and near, often man and wife and the children (sometimes one or two babies would have to be carried) walking across the hills or over the rough roads. The hitching racks were always lined with teams, rain or shine. Sometimes a baby died and the preacher could not be gotten hold of. There were no telephones or automobiles in those days. But the babies were always buried with religious ceremonies whether a preacher could be found or not. This saintly woman would sing one of the great old tunes of church history over the bier; she would lead the sorrowing ones to the grave; she would place her arms around the bereaved mother and call upon God to sustain them both. My friends, this woman had no license to preach, neither did she claim any special gift from heaven, but her great, wonderful soul communed with the angels and she ministered as best she could.

And what do we find as the result of the efforts of this one woman? The good which followed her example is incalculable. Many ministers went out from this country church which never had a home or a foreign missionary society. The one grog shop along Camp Creek was closed for want of patronage. Children and grandchildren grew up under the benign influence of this country church, and the woman who had started it all was the leader until she could no longer "rise and take her part." I think it is in the Psalms where this significant verse appears:

> There shall be an handful of corn in the earth, planted on the top of the mountain, but the fruits thereof shall shake like Lebanon.

Shall we not see the lesson of this story as it applies to our Wisconsin rural church? Where we find men or women who will make sufficient sacrifice we will find country churches. Country churches, regardless of all the sociologists may say concerning them, are built and sustained on individual devotion. Does not the verse from the Psalms, which I have quoted, teach us that we need not be discouraged with small beginnings? What more insignificant beginning could we imagine than a handful of corn, and what less of promise than this handful of corn planted in the thin, rocky soil on the top of the mountain? And yet the "fruits thereof shake like Lebanon." I often tire of statistics and theories about the country church and say to myself that country churches will not die when there are good souls, devoted to their religion, who do not intend to let the churches die.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

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The Wisconsin Farmer Madison, Wis.

Value of Wisconsin Crops Per Acre.

The final statistics on the value of crops in 1916 present some figures which are very encouraging to Wisconsin farmers.

Take, for example, the value of corn per acre produced in several important corn states. In Wisconsin corn produced was worth $32.40 per acre. While Iowa produced several times as much corn as Wisconsin, the value of corn per acre was only $28.47. This means that every acre put into corn in Wisconsin was worth $4 more on the average than the average acre put in corn in Iowa. In Indiana the average value of corn per acre was only $25.46 and in Minnesota the average was exactly the same. In Illinois, another great corn state, the value of corn per acre was $25.20.

The following statistics are taken from the recent report of the United States Department of Agriculture covering the 1916 crop season:

BARLEY.	
Wisconsin	$30.60
Illinois	26.88
Iowa	26.26
Indiana	18.63
Minnesota	15.58
FLAXSEED.	
Wisconsin	$26.16
Iowa	22.80
Minnesota	19.80
60,000 silos on Wisconsin farms in 1916.	
WHEAT.	
Wisconsin	$27.59
Iowa	25.42
Indiana	19.43
Illinois	18.26
Minnesota	12.06
RYE.	
Wisconsin	$19.28
Iowa	19.21
Indiana	17.70
Minnesota	17.70
Illinois	17.51
Wisconsin leads in number of dairy cattle. Number January 1. 1916.	
Wisconsin	1,675,000
Iowa	1,391,000
Minnesota	1,210,000
Illinois	1,047,000
Indiana	672,000

The encouraging thing about this report is that the Wisconsin farmer may feel that he is reasonably sure of good profits. Of ccurse, we farm a little more carefully in Wisconsin than the average man in Illinois or Iowa does. We make use of natural fertilizers and in some instances good use has been made of commercial fertilizers. Wisconsin farms have been noted for years for good yields. It is because of this high production that our seeds are in demand in other states.

A Contest For Wisconsin Farm Women.

Continuing along the lines of its repeated efforts to serve the people of this great state, the Wisconsin College of Agriculture has recently been making some investigation of the needs of the Wisconsin farm home. What has been called a Wisconsin farm home competition has been fostered by the college and this competition has been in charge of a committee consisting of Arthur Peabody, state architect; Xenophon Caverno, president of the Kewaunee Utilities Company; John Williams, a well-known Waukesha county farmer; Mrs. Nellie Kedzie Jones, of Auburndale, Wood county, and Mrs. Adda F. Howie, of Waukesha. This committee recently awarded first and fourth prizes to Homer Keissling, Boston, Mass; second and fifth prizes to Robert Schmitz, Milwaukee, and third to Allan D. Conover, Madison. In commenting upon the designs submitted, the committee reported that, while they believe the competition will result in substantially improving the farm architecture of the state, the plans were really for country estate homes rather than for modern farm homes. On account of this fact the plans are not altogether practical for general use, especially for the average farm in Wisconsin.

However, this work has been an entering wedge toward the development of the very important feature of farm life. There is no question but what we are going to have better farm homes. The college of agriculture now proposes that a state-wide contest be held open to competition among the farm women. From this they hope to get some very practical ideas and The Wisconsin Farmer desires to give its most enthusiastic endorsement to such a plan. The details of this contest will be made known later and our readers will be fully advised. The Hemlock Hardwood Association, representing one of the great industries of our state, has agreed to furnish the necessary lumber to erect whatever shall be chosen as the model farm home. This same association has also agreed to furnish $50 to be used in cash prizes divided upon the basis of $25 for the first, $10 for the second and $5 for the third. A cash prize of $1 each will be given to the next ten plans which are judged meritorious.

The Wisconsin Farmer hopes that the farmers and farm women who read this paper will have given this matter some thought and that a very large number of them will take part in the contest as proposed. Certainly a great deal of good will result from this interchange of ideas concerning the farm home.

Wisconsin Short-horns in Demand.

A total of forty-nine animals averaging $232.50 were sold to buyers from fifteen counties in Wisconsin and two other states, Alabama and Tennessee, at a consignment sale of registered Short-horn cattle held at the college of agriculture February 15th. This sale was held under the auspices of the Wisconsin Short-horn Breeders' Association and a more complete report giving the price which each animal brought and the buyer will be found in the sale department of this issue.

In connection with the sale animals were entered in competition for prizes offered by the American Short-horn Breeders' Association. The secretary of this association, Mr. Frank W. Harding, of Waukesha, was present and gave a short talk on the progress of the Short-horn breed and Wisconsin's position in the production of beef.

There were sixteen consignors to the sale and all of these exhibited in the show for prizes. C. J. McMaster, of Altoona, Illinois, acted as judge of the show. The auctioneers were Carey M. Jones and Theodore Martin, well known in the live stock world.

The annual meeting of the Wisconsin Short-horn Breeders' Association was held in connection with the event, E. F. Jones, Rockland, and John L. Tormey, Madison, being re-elected president and secretary respectively. The association has a growing membership throughout the state and four county associations, those of Rock, Buffalo, Grant and Sauk, claim affiliation with it.

A feature of the banquet which followed the regular meeting was the presentation of the association silver trophy to Alvin Morley, Baraboo, winner of the Wisconsin Live Stock Breeders' Association boys' baby beef contest in 1916, and whose steer also won high honors at the International Live Stock Exposition, Chicago.

According to the official count, there are now 650 stockmen in Wisconsin who own pure-bred Short-horn cows and heifers, which virtually means that there are equally as many pure-bred herds started on Badger farms. Many other farmers possess pure-bred Short-horn bulls and are using them to grade up their stock to better standards.

The Short-horn business in Wisconsin is enjoying a healthy growth and the coming year promises to see even a greater demand for good breeding stock.

Attend to Your Subscription.

With another season's farming activities about to start, we wish once more to urge upon all readers of The Wisconsin Farmer that they attend to the important matter of their subscription to this paper before they become too busy. With every prospect indicating a year of increased acreage and increased production in the territory which this paper serves, we believe there is not a single farmer now upon our subscription lists who can afford to miss a single issue of this paper. That being the case, it is highly important that renewals be sent in promptly. Do not bother to obtain a money order or draft, but merely mail us your personal check without delay.

If every present subscriber will appoint himself a committee of one to see that some friend or neighbor likewise takes The Wisconsin Farmer he will not only be doing a favor to the friend or neighbor but also to ourselves, and will be the means of enlarging our subscription lists so as to make it possible for us to put all our plans for a bigger and better paper into operation this year. Renew your own subscription, secure at least one new subscriber if possible, and attend to either or both of these matters without delay.

Allowing Small Pigs Access to Tankage.

The so-called cafeteria system of feeding hogs embodies the principle of allowing the animal to balance its own ration. Excellent results have been obtained at several of the experiment stations following this plan and because of this many swine breeders are now using the system. The use of tankage has been freely advised not only for fattening hogs but even for young pigs, but a subscriber brings up the question at this time as to the advisability of allowing young pigs to have access to tankage in a self-feeder. This subscriber writes:

I would like to hear through The Wisconsin Farmer from those who have had actual experience in letting little pigs run to tankage in a self-feeder. Now I always feed tankage, but it is the general impression among the farmers here that it is too rich for little pigs and so I never let a pig have access to it until I think he will weigh about fifty pounds. I see, however, where a farmer claims to have let them run to tankage and would like to hear from him and others at what age is best to allow them all they will eat of it.

If the tankage is of good quality there need be little fear of young pigs gorging themselves or consuming it in an extravagant quantity. True it is that the growing pig needs considerable flesh-forming material and the little fellow will eat a much larger proportion of tankage along with corn than he will later in life. The one advantage of the self-feeding system is that a pig's requirements change from day to day and, therefore, it is impossible to compound a ration that will absolutely meet his specific needs. On the other hand, those who have had the most experience with this plan of feeding say that the pig will supplement his corn with just enough tankage to supply flesh-forming constituents and any attempt to compel him to use tankage in larger quantity will be immediately frustrated. This has been tried over and over again at the Iowa station and it has been found that the pig will separate even corn meal from the tankage in order to satisfy the natural appetite.

The plan of letting pigs have access to both corn and tankage from the very beginning until they are ready for market has been found to result in quicker gains and in cheaper gains than can be made by any other plan of feeding. If any of our readers have in their feeding operations experienced any trouble whatever when they have adopted this plan of feeding we would be glad, indeed, to hear from them.

Blue Grass Establishes Itself Slowly.

Where short rotations are practiced little attention can be given to such an important crop as blue grass. If, for example, we plant corn this year on a given field and oats next year along with timothy and clover, this to be followed by a meadow the third year and pasture the fourth, we are then ready to turn over this sod and prepare for another corn crop. This means a four-year rotation. By producing two crops of corn in succession we stretch it out to five years, but any such short rotation as this gives no opportunity for considering blue grass.

Within the last few days several communications have been received by this paper relating to the establishment of a blue grass pasture, and in one case it was stated specifically that it was not the intention to leave the field in grass more than three or at the outside four years. Under such circumstances we would not recommend the sowing of blue grass, as much better results will be obtained by simply sticking to clover and timothy.

Those who want to get a permanent pasture and who have in mind leaving it down for a series of years face an entirely different proposition and in such cases blue grass is one of the first crops to be considered. Those who have had no experience in undertaking to get a stand must be patient because it will be two or possibly three years before the grass becomes established. In the meantime something must be used so that good hay or pasture will be furnished and we are, therefore, face to face with the necessity of using the old-fashioned mixture of red clover, timothy and blue grass, these to be seeded along with an early variety of oats or, what is still better, with barley.

The thorough preparation of the soil in the spring is a good beginning because this means that the seed can be sown evenly and covered uniformly. Stalk ground should at least be double disked and so much the better if it can be harrowed twice before the seed is sown. An excellent plan is to sow the oats or barley at the rate of six or seven pecks per acre with a drill to which the grass seeder is attached so that a covering of the seed is brought about there and then by the operation of the drill. This plan throws the small seed between the spouts of the drill and, while some of it may be covered rather deeply, this difficulty can be overcome by going once over the surface with the harrow after sowing. Those who are not in position to use a drill will get good results by sowing the seed on a well-prepared seed bed and harrowing afterwards once or possibly twice. The disking in of seed is somewhat practiced, but in too many cases part of the seed will be covered very deeply and some of it may not germinate. Under ordinary conditions the harrow will afford sufficient covering.

An important item to be considered is the amount of seed to sow and here we run into a proposition upon which men differ widely. Exceedingly good results will be obtained by sowing, say four quarts of clover seed, four quarts of timothy seed and from eight to ten pounds of blue grass seed. From this mixture there will be a good, heavy clover meadow the first year with a slight mixture of timothy. The second year it will be possibly a half-and-half meadow, and, of course, blue grass ought to be showing up in good shape, but it will comprise only a small proportion of the hay crop. After the second year it will be found that the clover will disappear and the fight then will be on between timothy and blue grass, the latter finally taking possession because for conditions in this section it is the most persistant and, fortunately, the most useful of all our grazing crops.

The thing that we desire to emphasize especially is that patience must be exercised where an attempt is made to obtain a blue grass pasture. Fertilization will help and a top dressing of farmyard manure the second year after establishing the mix-

ture will be found to be very effective in stimulating the growth of blue grass.

Better Attention to the Corn Crop.

In the following communication an Indiana subscriber, Mr. W. A. Graham, calls attention to the importance of planting only such an area of corn as can be given good attention:

It is a fact that we are generally growing too light a yield of corn to the acre. Some have by better farming shown that it is possible to greatly increase the average yield of corn. As it has been done, others can do the same; and it should be done generally if that valuable farm crop is going to be profitable on our now high-priced land.

General conditions of farming and stock growing have changed so much and land is so much more valuable something must be done to try to secure greater yields of corn or else we cannot afford to grow it. I am aware of at least two great errors in corn growing that are quite universal. They are planting too many acres for the amount of help on the farms, and naturally, following this error, poor cultivation results. Better reduce the acreage than to carelessly cultivate the crop.

I do not call to mind anything that has so fully proved what the average soils of this state are capable of like that which has been demonstrated by the premium contests made in the one and five-acre plots of ground devoted to corn growing. These contests have proven what can be done, and they have been great educational factors for better farming. We take it that if one man or a set of men can accomplish great things by pursuing certain courses in corn growing, the same is possible for all similarly situated.

For instance, if one can by better fertilizers, employing higher grade seed, planting a better way, and then giving intensive, clean cultivation, get double the yield on similar soils to what a neighbor gets he is well worth imitating. We all know that rich, well-drained soil, seed that has been bred to high perfection, properly and timely planted, and then given thorough, clean cultivation, is bound, if the season is good to result in extra large yields of corn. Then why carelessly butcher in too great an acreage of corn on unmanured soil and follow this by careless cultivation? It is a losing proposition to anyone, and I write this to awaken better interest on the part of careless farmers, of which there still remain entirely too many.

Sod land (and the heavier the sod the better) is the kind to plant in corn. Therefore, a well-defined system of crop rotation where there is clover for two or three years followed by corn and the corn by some kind of small grain is what farmers should establish on their land. But, however, good the soil, use the best of seed and employ the best of clean and thorough cultivation.

It is unquestionably true that the central West could produce as much corn as is now being produced on a much smaller area if greater pains were taken in the handling of the crop. Much of our corn-belt land is getting more filthy all the time, becoming, as it were, fairly choked with annual weeds, and the only remedy for it is to cultivate more efficiently and more effectively. Our first mistake is generally made by allowing the weeds to get a start on the corn, and this, of course, is due to the fact that in many cases the last part of the crop is being planted at the very time that the first crop of weeds on the early planting should be destroyed. The secret of a clean cornfield is embodied in the principle that weeds must be destroyed literally before they become firmly rooted.

The English Sparrow as a Pest.

Much evidence has accumulated which goes to prove that the English sparrow is a nuisance, the bird being much more harmful than beneficial, judging from the character of its food. A recent bulletin published by the national department of agriculture contains evidence against the sparrow to bring about its conviction, and ways and means of its destruction are formulated in detail.

The sparrow is cunning, destructive and filthy, and it is only regarded as a useful bird in certain parts of the West where it destroys the alfalfa weevil. The examination of the contents of the stomach of sparrows in a large number of instances shows that it destroys beneficial insects, and, while it consumes weed seeds, on the other hand it also destroys grain. It is claimed that a flock of fifty sparrows requires daily the equivalent of a quart of wheat, so that it can be understood that the millions of sparrows even in a single state bring about a large annual loss. In addition, the sparrow attacks all kinds of fruits and it even destroys buds and flowers of cultivated trees.

But there is still another characteristic which the sparrow possesses that is of greater importance. Reference is made to its effect on reducing the number of useful and attractive native birds, including blue birds, house wrens, purple martins and tree swallows. The egg of these useful birds are destroyed and the young are frequently killed by the sparrows usurping their nesting places. Its enmity to the robin, the wren and many other birds causes them to desert certain localities and it, therefore, displaces insect-destroying birds, leaving in their place noisy, filthy little pests. All the evidence obtainable is against the sparrow and it is the opinion of the department of agriculture that every possible effort should be put forth to bring about the rapid destruction of this pest. This, it is claimed, can most effectively be done by destroying their nests at intervals of ten or twelve days throughout the breeding season. One case is cited where 20,000 eggs were destroyed in a single town of 4,000 inhabitants. A considerable number can be destroyed by providing birdhouses placed at a height of about ten feet, the birds to be captured and nest destroyed after dark. The plan of distributing a number of nest boxes in the orchard and among shade trees and outbuildings will greatly facilitate the movement of extermination. The shotgun is also effective in keeping down the numbers. Whatever method is used, preference should be given to those that exterminate rather than to those that simply cause the birds to move from one locality to another.

Farmers' Bulletin No. 493 outlines a number of systems of trapping sparrows and it might be worth while for our readers to send to the department of agriculture, Washington, D. C., for this bulletin. A good, live boy ought to be able to do away with a great many sparrows in one season and, while they multiply at an enormous rate, there is no question but what their numbers could be materially reduced in a few seasons by trapping and shooting.

THE FARMERS' WIRELESS,
A New Message of Peace on Earth, Good Will to Men.

Things Learned From Testing Seed Corn.

While the great bulk of the corn that will be used for seed this year is in good condition, it is nevertheless true that here and there losses will occur because men have taken too much for granted. It is doubtful if any man is justified in planting his corn without first making some sort of a test of its vitality. One of our subscribers, Mr. W. L. Haisley, makes a few suggestions in the following communication:

One season's work with a good seed corn tester will usually far more than repay the owner in the useful knowledge gained from observation of its results. Those grains of corn we plant in the tester usually bring to light a number of facts of which we were hitherto ignorant concerning the best type of ears to select for seed. A few little discoveries along this line at the right time will save many worthless or missing hills and make for a better quality of the yield. It does not take many bushels of corn to pay for a very elaborate tester and oftentimes a home made tester is fully as productive of good results as a very costly one.

Everyone realizes the importance of having hard, well-matured corn for planting of strong vitality, but we sometimes shell a few ears for planting of which we are rather doubtful. Seed ears are, of course, scarce and hard to find and it seems as though a few rather doubtful ears may not matter so much, as they have clear strong germs. In all probability if these ears were put to the test before planting their deficiencies would be so clearly defined that they would be discarded on the spot.

Last spring we got out some of the hardest, best-looking corn we had and started the tester in March. The germs were bright and clear, but the grains were still a trifle damp, as the corn had not been fire dried. That first lot did not test better than one ear to eleven that would sprout five grains out of five. These same ears were again tested after being fire dried for a week and tested 99 per cent good.

Yet out of the same ears that tested good on the second trial we discarded a number that otherwise would have gone through the planter. These ears were of rather good appearance and the germs were strong, yet the grains were somewhat chaffy. In sprouting the husk that had shriveled on drying began to stretch and became tough and leathery to a certain extent. These jackets refused to liberate the germs in many cases and these sprouts curled around inside in a vain attempt to penetrate the prisons. If planted in the open field they would have behaved in the same way and produced weak stalks at the best. This starchy grained corn that is too pinched on the ends will invariably do this thing because enough of the vegetable or corn oil is not present to soften the husk at sprouting. Only the plump, hard grains with a medium dent have enough of this oil and should be selected for this reason if for no other.

We can hardly agree with the conclusion reached by this subscriber regarding the sprouting characteristics of his chaffy corn. It is a fact that has been demonstrated over and over again that corn may be picked in the early dough stage, thoroughly dried out, and yet it will show strong germination test. Many excellent farmers have followed the practice of picking their corn so early that it shrivels and yet year after year they have a good stand of corn. The trouble in this case we believe was due to the fact that the germ had been more or less injured and it lacked the strength to push itself through the coating of the seed. In any event the discovery of this seed furnished a strong argument in favor of some sort of a testing plan. We doubt if there is a single case in the whole central West where men would be justified in putting out their acreage of corn without first making a test of at least 100 ears to ascertain the vitality of their seed. If seed from the entire 100 ears seems to be strong, then no further testing will be necessary, but if even part of it is weak then it will pay well to go through the whole supply so that the weak and dead ears may be discarded.

Marketing Farm Products.

Never in the history of this country has there been so much said and written about the farmer's need of a more economical and equitable system of marketing his products than is the case today. There is more than an academic interest in marketing. The nation as a whole is beginning to realize that there is something wrong when the consumer has to pay $1 for that which the producer is paid only 35 cents. The consumer is paying too much and the producer is getting too little. There is too much waste and efforts are being put forward to eliminate the waste.

John J. Dillon, New York state commissioner of foods and markets, has been giving considerable attention to our system of marketing farm products and presents the following direct scheme for getting the products of the farm into the hands of the consumer in a recent issue of American Review of Reviews:

The remedy for this condition is a direct, efficient, and economic system of distribution from the farm direct to the consumer through a terminal wholesale market system and the retail store. The plan of the New York State Department of Foods and Markets is to establish assembling rooms for food at the railroad in the local producing centers throughout the state. The producers under this system would organize into co-operative associations and they would own the market or assembling room. They would bring their products to this local packing house, as it comes from the tree or the ground, and an employe in charge of the packing house would grade and pack the produce, and, if located in a village or city, would supply the local needs and ship the balance in carload lots straight to a terminal wholesale market in the city. The food would be received in this terminal market by an auctioneer or salesman licensed by the state and operating under the supervision of the state, who would cause an inspection of the goods, make an open sale, and keep an open record of the receipt of the goods, of its condition, of its weight, of its price, and of the person who bought it. The sales would be made in quantities to accommodate the city retailer so that he could buy his supply direct from the agent of the producer, and, of course, the housewife would be supplied daily from the retail stores.

These suggestions are worthy of careful consideration. That they could be put in operation for the larger cities admits of no doubt if the proper co-operation from the producer could be secured. Note that provision for the retention of the retailer is made; that is as it should be. The legitimate retailer renders a valuable service and cannot be dispensed with, but the wholesale speculator is eliminated. Mr. Dillon believes that if such a system were put in force from 25 to 30 per cent of the cost of distribution would be saved. By dividing this between the producer and the consumer the former would be able to obtain a fair price for his products, while a considerable saving would also be effected for the latter. It is estimated that under a plan of this kind consumers in New York City alone would save annually from $150,000,000 to $200,000,000, while the producers who supply the New York market would be paid similar sums over and above what they now obtain. Going one step farther and applying this method to the whole country, the effect it would have upon national prosperity would be almost beyond computation.

It is evident that to put such a system into effect will be beset with many difficulties; it would, of course, be fought by the speculators who fatten upon the toil of the masses for which they render no valuable service.

Existing farmers' co-operative associations should study Mr. Dillon's plan, especially that portion of it relating to standardization of products at home. So long as farmers persist in not standardizing their products they will never make any progress toward a direct marketing system.

The Farmers' Open Forum
WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

Ensilage From Grass to Grass.

To the Editor:—I will give you my experience about feeding ensilage sensibly. No fast and exact rule can be given that will suit all conditions. The item of most importance and to be kept uppermost in the mind in feeding ensilage is to commence feeding when the pasture season draws to a close and make it last till the cows are turned on pasture again the following spring. The farmer that has a small herd and plenty of ensilage till grass comes has no problem to deal with. The cheapest and best ration he can feed is all the ensilage the cows will eat without waste, supplemented with a grain ration to correspond with the amount of milk produced by each individual cow. I always feed some hay once a day and I think all will admit that cows do better if some dry feed, such as hay, straw or fodder, is fed, even if ensilage is fed heavily.

It should be remembered that silage is deficient in protein and feeds like cottonseed meal up to two or possibly three pounds per day per head of grown cows should be added for best results. Dry cows do fine and are in good shape in the spring when fed forty to fifty pounds of ensilage, two pounds of cottonseed meal and some straw or fodder daily. Cows that are milking heavily must be fed one pound of a good grain ration to every four pounds of milk produced daily for best results. Farmers are not all fortunate enough to have enough silage to feed as much as the cattle will clean up from early fall till grass comes again. I am in this class and I think a good many others are also. In this case a little judgment is needed. I always figure on having enough ensilage to feed until April 20th. My silo is 12x26 with a capacity of about fifty tons. The herd will run from twelve to eighteen head. The least amount I feed is twenty pounds daily. If the pasture is very short in the fall, like last fall, I commence feeding as soon as the silo is filled. That way it saves the waste on top and it is more economical than feeding green corn in pasture as the cattle will not eat the large stalks. It also saves time in feeding, as it does not take nearly so long to feed out of the silo as it does out of the field.

In my experience I have found that far better results are obtained by dividing the silage ration, so as to be able to feed it for five months at least, even if a small amount has to be fed daily than to feed heavily as long as it lasts and then feed dry feeds alone. This general rule will apply to the average farmer and small dairyman.

I never feed beef cattle, so I could not say how to feed them, but if there is a better way to feed silage to the average farm herd and small dairy herd, then I would like to know it. The system outlined above has given good results, but if I can do better I am willing to learn. F. L. Gregor.

Believes in Cow Testing.

To the Editor:—I, for one, can truthfully say that the cow-testing association has been a great benefit to me.

The first year I tested I was milking thirty-seven cows and heifers which were as good as any in the association. By keeping the best I had and buying the best I could get I now have a herd I am proud of. My herd this year is not as large as last, but even with the high cost of feed is making me a larger profit than the previous year.

Mr. Thrall's pure-bred Guernsey which won blue ribbon at the Ripon Mid-winter Fair.

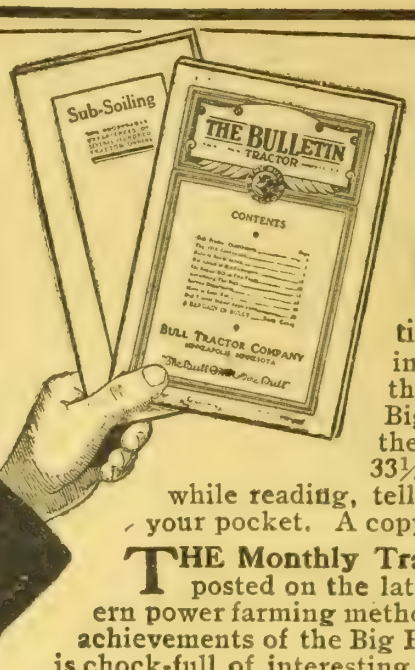
I now have twenty-one cows in the test. For the month of January they produced 17,085 pounds of milk testing 4.64 and 792.4 pounds of butter fat. One of these twenty-one is a registered Guernsey heifer which I bought last summer and paid a big price for. She proved to be one of the most promising cows. I showed her at the mid-winter fair at Ripon last month and she took the blue ribbon under very strong competition.

I went to Waukesha and bought one of the best sires I could get. I had owned a full-blood sire for some time, but being encouraged by the way my cows were producing I wanted one with still better breeding.

I now have a herd of about sixty Guernseys, of which five are registered Guernseys, four females and one sire. The rest are high-grade Guernseys.

I have not brought about these good fortunes wholly by my own initiative. I owe many thanks to A. R. House, our official tester, who took a great interest in his work and whose interest has been an incentive to keep high-grade stock and better producers in our association. J. W. Thrall.

Winnebago Co., Wisconsin.



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is the most popular tractor in the world today—because of its many unique features—the subsoiling feature of the long spade lugs on the drive wheel which runs in the bottom of the furrow ("the best way of subsoiling known up to the present time," uses no extra power and charges nothing for its work) its low fuel and upkeep cost—its ability to work fast and continuously for many hours, day and night, without overheating, its self-steering device, its simplicity, accessibility and sturdiness.

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Here's the little tractor with a big 1916 record. Its great performance in field and on belt has won hosts of friends—selling fast for 1917 use. Honestly built of high-grade materials—simple design and highest efficiency.

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Low in price—low in upkeep. Two models. Model "A" 8-16 h.p.—$585. Gasoline or kerosene. Pulls 2 or 3 plows. Model "B" 12-24 h. p.—$735—our wonderful new kerosene burner. Same type tractor as Model "A," economizing weight for pull. Unbreakable cast steel frame. Twin cylinder motor—overhead valves—perfect combustion—mechanically oiled. Hyatt Roller Bearings throughout.

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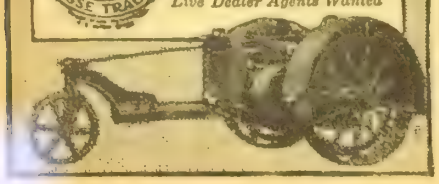
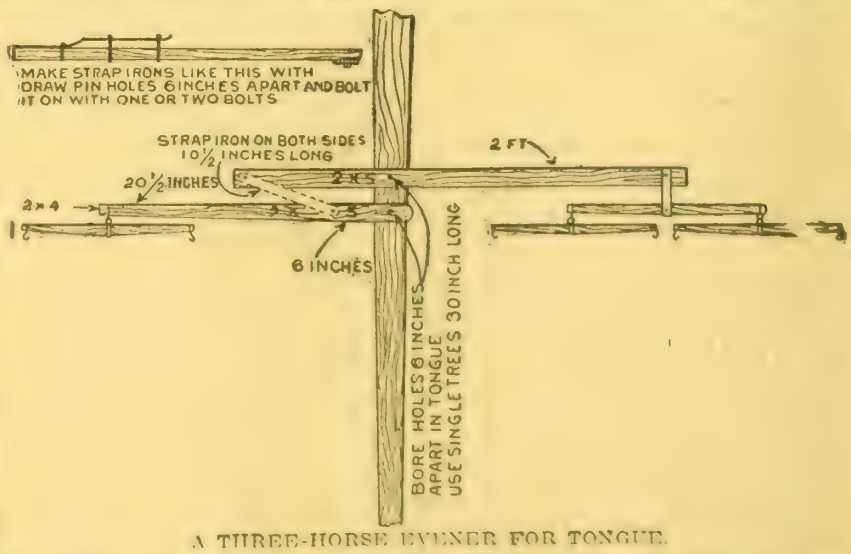


The Tongue Three-Horse Hitch.

Practical Plan That Has Worked Out Very Well When Tested With Weights and Scales—By W. H. Boomer.

ONE of your subscribers recently asked about a practical three-horse evener to be used on a tongue. I am enclosing a sketch which has been found to work out in a practical way. This has been thoroughly tested with scales and balances and the draft for every horse has been found to be the same. It is not necessary to go into any lengthy explanation because the lettering on the drawing gives full instructions about making these eveners. It is simply a question of getting your holes bored right. This evener can be used on wagons, manure spreaders, binders and, indeed, on any tongued implement. There are many tasks to be performed on the farm that are too heavy for a pair of horses and yet too light to require a four-horse hitch, and in these cases three horses may be used to great advantage.



A THREE-HORSE EVENER FOR TONGUE.

Columbia Batteries

Phones, bells and lanterns no less than autos, engines, tractors—keep going long and strong with Columbias.

No. 6 COLUMBIA IGNITOR DRY CELL
FOR GENERAL IGNITION
Manufactured by NATIONAL CARBON CO. CLEVELAND, OHIO

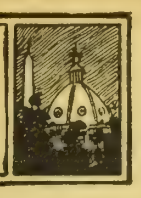
National Carbon Co. Cleveland, Ohio

Fahnestock spring-clip binding posts, no extra charge.

SEED CORN

GOLDEN Glow (Wis. No. 12) 98% germinated, 99 9-10% pure. Absolutely guaranteed. A limited amount for sale.
RILEY MARTINY & SON., Baraboo, Wis.

CURRENT EVENTS



ABSOLUTE prohibition legislation took its longest stride forward in the nation's history last week when the lower house of congress, after a heated debate, approved by a four to one majority a senate measure which would raise an ironclad barrier against importation of liquors into prohibition states. It is expected that President Wilson will approve the measure, so that it will shortly become a law. The provision is regarded as the most far-reaching that could be enacted by the federal government, and, as sweeping as would be possible under any method short of a national prohibition amendment. It would cut off entirely liquor importations, amounting now to millions of dollars annually into the large number of states which have forbidden manufacture or sale, but have permitted importation for personal use. Of the twenty-two states which will be prohibition territory on July 1st, only eight have forbidden importation of intoxicants for personal use. The fourteen around which the provision would erect a non-importation barrier are: Alabama, Colorado, Georgia, Iowa, Maine, Mississippi, Nebraska, South Dakota, North Carolina, Oklahoma North Dakota, Virginia and West Virginia. Most of these have set no limitation on the amount that can be brought in for individual use. The law would absolutely prohibit the shipment of liquor into all these states, regardless of any question of state rights or personal privilege. The law may be amended so as to extend the time for its going into effect until October 1st, in order to give brewers and distillers a chance to get rid of their surplus stock. But this appears to be the only loophole of relief open to them at the present time.

MAJOR-GENERAL FREDERICK Funston, commander of the southern department of the United States army, died suddenly in a hotel at San Antonio, Texas, aged fifty-one years. He was one of the notable and picturesque military figures of the day and was looked to for still greater achievements in the years to come. It was Funston who captured Aguinaldo, practically single-handed, during the Philippine campaign, having entered the service, at the outbreak of the Spanish-American war, as colonel of the Twentieth Kansas. Later on, when the troops were sent to Vera Cruz, Mexico, on order of President Wilson, General Funston was in command. He was in charge of the troops which went down into Mexico again six months ago in the pursuit of Villa. Funston's first experience on the firing line came in Cuba, where he commanded General Gomez's artillery with remarkable results. After engaging in twenty-two battles and being wounded three times, he resigned his command because fifty guerrillas who had aided the Spaniards were executed against his wishes. Captured by Spaniards on his way to Havana, he escaped death by swallowing a letter to the president of Cuba which would have proved his identity. While a colonel of the famous Twentieth Kansas volunteer infantry in the Philippine war, Funston performed feats of bravery that brought him the title of brigadier general. His capture of Aguinaldo and his fording of the Rio Grande at Columpit under fire featured his work.

THE situation in regard to possible war between the United States and Germany remained unchanged at the beginning of the present week. No overt act has been committed by Germany which was serious enough to warrant an actual declaration of war or even the arming of merchant vessels, in the opinion of President Wilson. Several ships, with Americans in the crew, had been sunk by German submarines, but practically all were warned and the crew given time to escape, so that there was no loss of life. A break between the United States and Austria now likely, inasmuch as Austrian submarines have been quite active of late, Austria poining with Germany in the submarine warfare against international shipping. Ambassador Gerard, formerly stationed at Berlin, reached Spain in safety and is probably on his way to the United States by this time. Ambassador von Bernstorff, formerly stationed at Washington, reached Halifax in safety and is probably nearing a European port by this time, safe passport having been granted to him by the allied enemies of Germany. The situation remains critical, with the United States making haste to get upon a war footing and to put the navy (which would have to bear the brunt of the early fighting, at least) in good trim.

THE most serious freight car shortage in many years is now in existence, due to the submarine policy of Germany, which ties up shipping and makes it impossible for freight cars to unload at the docks. President Griffin, of the Chicago Board of Trade, has advised the Interstate Commerce Commission that the grain trade of his section is in a desperate way. Forty million bushels of grain are held up in local elevators, 7,000,000 bushels additional are in cars some of which should have been shipped three months ago. He said food product factories in Chicago in many cases are running only 25 per cent of capacity because they cannot ship their products out and that one of the biggest corn products factories in the world may have to close down entirely if conditions are not remedied. "The holding up of grain and grain products is what, largely, is sending food prices soaring in the east and entailing demonstrations such as that made by women in New York City," Mr. Griffin said.

THE Earl of Derby, British secretary of state for war, expressed the opinion that the critical period of the war would occur in the next few months. "I would be a false friend," he said, "if I did not warn the country that the war is going to be long continued and a struggle even more bitter than in the past. It can only be won by everyone doing his utmost. The three things most vital are money, men and munitions. Money and munitions are being supplied in large quantities. Men we want and must have. The nation will have to make greater sacrifices in the way of giving its manhood to fight its battles. You will not win the war by saying you have won it. I believe we are going to see the critical period of the war in the next few months. We must face it with courage. I confidently predict it will be a successful six months for us, but at the same time I do not think it will be a walk over."

COINCIDENT with the reopening of the American embassy in Mexico, the big army of national guardsmen that was concentrated on the border on account of bandit activities will be in process of dissolution. Orders were issued by the war department last week to begin the immediate demobilization of all the guard units remaining in border camps, and it is expected that the last troop train will be on its way north by March 7th. General Pershing still will have on the border nearly 50,000 troops, all of the regular army, disposed along the line from Brownsville to Yuma, Ariz., on plans worked out by the general staff. The command includes all of the troops who were in Mexico under General Pershing. General Pershing will remain at El Paso. Secretary Baker said that the withdrawal of the state troops is in no way connected with the crisis with Germany, but carries out a policy determined on long ago by the administration.

NEWS print paper manufacturers, facing criminal prosecution in United States courts for alleged combination in restraint of trade, proposed to the federal trade commission that it fix a resonable price for the output of the principal plants of the United States and Canada. The commission announced it had the proposal under consideration and would reply immediately. It is generally believed the answer will be an acceptance. The action of the manufacturers gives a signal victory to American newspaper publishers, who, in the face of advancing paper prices, have seen nothing ahead but ruin for many of their number. If the proposal is accepted, officials say it will mark an expansion of the functions of the government, which, in arbitrating the differences between two industries, opens up a wide field of possibilities for the future.

THE effect on the export trade from Boston, Philadelphia, Baltimore and New York of Germany's proclamation of unrestricted submarine warfare is revealed in figures made public by the American Railway Association, which is co-operating with the interstate commerce commission to relieve the car shortage situation. The statistics show that from February 1st to February 14th, the grain delivered to vessels at the four ports amounted to approximately only 8,000,000 bushels. This compares with 29,000,000 bushels in January and 58,000,000 in December. The deliveries have been regulated, the association says, to correspond with the vessel capacity.

The Only Car

That Does Those Things Is

Hudson Super-Six

The Super-Six is the only car that ever went 1819 miles in 24 hours.

It is the only car that ever went from San Francisco to New York and back in 10 days and 21 hours. In that one round trip it twice broke the ocean-to-ocean record.

At Pike's Peak, a Super-Six Special defeated 20 great rivals, all specially built for hill climbing. It made the best time in the world's greatest hill-climb.

It holds all the speed records for stock touring cars, and the records for quick acceleration.

Note What That Means

You say you don't want a racing car. We know you don't. You will never, perhaps, use half the power or speed of the Super-Six.

But mark that this motor is a small, light, simple Six. We have added no size or cylinders. We have taken a light Six and, by this invention, increased its efficiency 80 per cent. And solely by reducing friction, which destroys the motor and wastes its power.

We Did Just This

The Six-type motor had great limitations. Despite all perfections, much vibration still remained. And vibration causes friction.

Some engineers, including the Hudson, were testing Eights and Twelves. They felt that twin-type motors might solve the friction problem. The trend was away from Sixes.

Then Hudson engineers brought out this Super-Six invention. It is a Hudson invention, patented by Hudson. In this new-type Six they obtained all the efficiency and endurance sought for in the multi-cylinder type and they did this without adding cylinders, complications or weight.

All in Endurance

All the Super-Six records—for speed, hill-climbing and long-distance—were won by this motor's endurance. They mean that motor wear and friction are reduced to almost nothing.

By excelling in these feats, it proved that this motor will outlast any other type.

That is what you want above everything else. You want less wasted power, less wear, less friction. That means, of course, supreme performance. But it also means supreme economy.

What You Can't Afford

Some men will say, "I can't afford a superb car like the Hudson."

But you can. All this beauty, luxury and superlative performance will cost you less than many a car without them.

The Super-Six invention, in all probability, doubles the life of a motor. It saves the power which was wasted in friction. And this year we add a new gasoline saver which saves a great deal more.

No other fine car gives such value as the Hudson. No other car has a motor which compares with this. A higher-quality car is impossible. Yet note how far the Hudson undersells many cars that it out-performs.

Go see and prove this car. It is now the largest-selling car above $1200. And the saving shows in the Hudson price.

Phaeton, 7-passenger, $1650
Cabriolet, 3-passenger, 1950
Touring Sedan . . . $2175
Limousine 2925
(All prices f. o. b. Detroit)
Town Car $2925
Town Car Landaulet . 3025
Limousine Landaulet . 3025

HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN

Making the Potato Patch Pay.

Spraying and What It Means Toward Better Potato Yields—A Few Experiences of Our Successful Wisconsin Potato Growers During the Past Season.

Showing That Spraying Pays.

To the Editor:—I consider the special seed plot for potatoes the very best method of preventing varietal mixture; also preventing diseases and bringing about a higher state of productiveness.

To start with, I select about two or three bushels of the most perfect type and desirable size, with smooth skin, free from any disease. These potatoes are given the "Formaldhyde treatment" and cut in large pieces. The round potatoes, such as Green Mountains and Rural New Yorkers, are quartered, while the long potatoes, Burbanks, I cut in four, five or six pieces.

I plant these on the potato land I have, and take much pains with them in regard to cutting out plants that are diseased or not thrifty. In the fall I dig this plot by hand and select a few bushels of the very best hills for my seed plot next year. The rest of the desirable potatoes of this plot are used as seed for the main crop the next year. By following this up for a few years, it will surprise anyone who has not tried it, for excellent results are sure to be obtained.

This spring I bought a high-pressure, two-horse potato sprayer and sprayed three times with Bordeaux mixture, at the rate of 100 gallons per acre each time. I made the mixture 8-8-100; that is, eight pounds of lime, eight pounds of blue vitriol and 100 gallons of water. My sprayer had a spray boom for four rows, with two nozzles to each row. These nozzles are the "Tiger Strainer" nozzles and the best I have ever seen. I sprayed my field under a pressure of 125 pounds, going up the field, then turning and coming down on the same rows. This way I go over an acre twice. Although we had no blight this year, the fields that were not sprayed suffered from sun scald. I left a check in my field, so as to be able to see how much good the Bordeaux mixture did. At harvest time I got the following results on my seed plot:

	Bushels saleable
Sprayed Rurals, yield	151
Unsprayed Rurals, yield	67
Sprayed Burbanks, yield	146
Unsprayed Burbanks, yield	55
Sprayed Green Mountains, yield	100
Unsprayed Green Mountains yield	47

As was stated, in the seed plot, my sprayed Burbank yielded 146 bushels marketable potatoes to the acre. In my adjoining field of Burbanks (see not hill selected) the sprayed yielded eighty-eight bushels per acre, and unsprayed twenty-five bushels.

This shows very plainly that it pays to hill select and spray with Bordeaux mixture.

I am enclosing three pictures of my sprayer in action. One of my Burbanks in seed plot and one of my Burbanks in main field (in sacks).

Karl T. Hazelberg.
Barron Co., Wisconsin.

Results of spraying—patch at left, not sprayed, yielded fifty-five bushels marketable potatoes. Patch at right, sprayed, yielded 146 bushels marketable potatoes.

Two-horse spraying rig on the Hazelberg Farm, Barron county, Wisconsin.

Another place where spraying paid. Patch at left, not sprayed, yielded twenty-five bushels marketable potatoes. Patch at right, sprayed, yielded eighty-eight bushels of marketable potatoes.

Pile of genuine Rural New Yorkers on Gust Kringle Farm, Barron county, Wis.

In Sawyer County.

To the Editor:—In regard to potato raising, I consider myself only a beginner. If I have had any success it is partly due to practical knowledge of handling the soil, for which I can thank my father, who is a gardener and nurseryman; secondly, to farmers' institutes and last to the study of methods used by successful growers in my neighborhood, where I have lived four years now.

Starting in on cut-over land four years ago my plan was, and still is, to clear and break land and plant to cultivated crop the first year, grain with clover seed the second year; clover hay the third and then the fourth year it will be in good condition for potatoes again.

On new breaking I drag with a spring-tooth harrow and light drag about eight times before planting and two or three times after planting. I cultivate five or six times and hoe them once. I can't work my land too much. If I have time I work it more. I raise from eighty to 125 bushels to the acre

Last spring I turned under my clover seed in June when clover had a good start—dragged it three times with a light drag planted to cultivate both ways. The heavy rains packed the ground soil. I put the spring-tooth harrow on very light and just when the potatoes started sprouting I dragged two times with the light drag. As soon as I could see the rows I started the cultivator which I used five or six times and went through them once with the hoe which was easy. I dug out 200 bushels to the acre last fall.

I select my seed in the field when I dig, smooth, clean, even-sized (not too large) marketable potatoes. With proper selection and rotation of crops with clover to turn under, the danger of scab is practically nil. We are not afflicted with scab around Seeley. I have not treated any potatoes yet, but will treat them for scurf in the spring, as I have very little of that and wish to eliminate it altogether.

I have had no experience with late blights yet and I may be neglecting by not using Bordeaux spraying. I used three pounds of Paris green, dry, to combat bugs last summer, the worst I have seen.

Gunnar Mosbeek, Fairview Farm.
Sawyer Co., Wisconsin.

Good Work of Potato Association

To the Editor:—In March, 1916, we formed the Cedar Lake Potato Growers' Association with the hope of benefiting growers in our locality. We

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THE CORONA MFG. CO., 44 Corona Block, KENTON, OHIO

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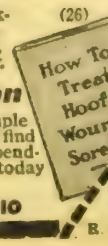

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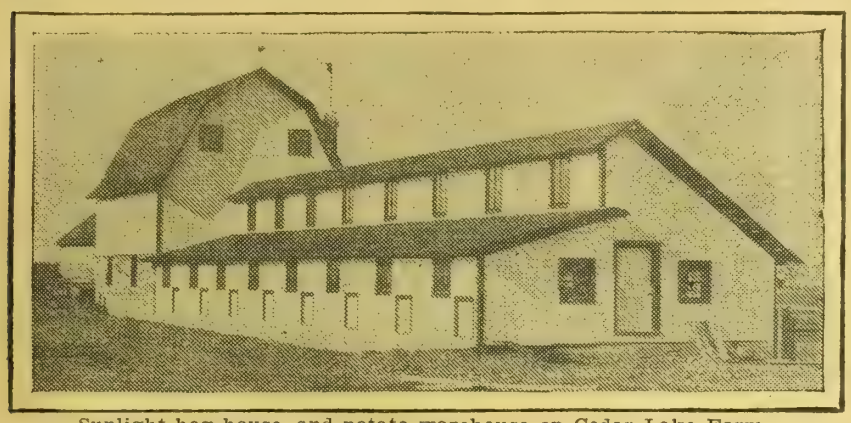
felt that it would be useless to try to induce other farmers to improve their potato-growing methods unless we could show them through our organization, that better stock meant a better price because we would be able to enter a better market with a superior product. Most of the members secured certified potato seed to begin with at $1.25 a bushel. This saved a good deal of work pulling out mixed stock in the field. All seed was treated for scurf and scab with a solution of formaldehyde, one pint to thirty gallons of water, and the seed remained in this solution for three hours. For vine diseases, such as early blight and late blight, we used Bordeaux mixture 4-4 to 50, meaning four pounds of blue vitriol, four pounds of fresh lime and fifty gallons of water to the mixture. We used this treatment three times during the growing season with excellent results. The vines were in a healthy condition when frost came late in September. With the first two applications of Bordeaux we used four pounds of arsenate of lead to fifty gallons of Bordeaux for the bugs and with very satisfactory results. We found this a great deal less expensive than Paris green. A few of our members sold their stock from the fields at $1.25 per bushel, but we are being offered about $2 a bushel now for nearly all of the stock in our cellar. However, we haven't much to sell, as the results secured this season have caused a great many farmers, both members of our association and outsiders, to become interested in our work and we will use most of the good seed stock here at home. We expect to supply our home demands before trying to sell outside.

Member of Cedar Lake Assn.
Barron Co., Wisconsin.



Sunlight hog house, and potato warehouse on Cedar Lake Farm, Barron county, Wisconsin.

Increasing Potato Yields.

To the Editor:—To prevent disease and varietal mixtures in my potatoes, I practice hill selection of seed and believe it will be a great factor in improving our potatoes and increasing the yield. I select enough high-producing hills to plant about one-half acre. This patch is planted in checks thirty inches each way. Seed is cut quite coarse and planted by hand about four inches deep. This patch is given the same care during the growing season as the main crop. In the fall it is dug by hand and enough seed selected for the next year's seed plot. In hill selecting I look for large, healthy-looking vines, and if it has more than an average number of healthy-looking potatoes of fair size and fairly true to type it is taken for seed. The balance of the crop from the seed plot is used for seed for the main field. I have also treated my seed with formalin for scurf and scab. I do this about two weeks before planting, as this treatment will kill the sprouts that have started. After treating I leave the potatoes in a shed, where there is free circulation of air to dry them quickly, and it gives them a chance to start a thick, tough sprout before the seed is cut. I go through my field while the vines are in blossom and any mixture is pulled out to control the bugs. I use Paris green and apply it with a dry powder blower while the vines are small. Later on, when the vines are larger, I use a liquid sprayer. I spray with the Bordeaux mixture, whether there appears to be danger of late blight or not, using four pounds blue vitriol and four pounds lime to fifty gallons of water. If there are any bugs, I add about three pounds powdered arsenate of lead to fifty gallons of this mixture. This will cover about one acre.

Good soil and good culture are just as important as good seed. I generally have clover sod for potatoes, covering it with a light coat of manure, taking it right from the barn during the winter and spreading it on the field. I plow in the spring about seven or eight inches deep. I like to have a good growth of grass to turn under, as that makes conditions unfavorable for the development of scab. I work the ground thoroughly with the disk harrow and aim to plant from the 25th of May to the 1st of June, planting about three to four inches deep. I get in about fifteen bushels of seed per acre, planting in rows three feet apart and twelve or thirteen inches apart in the row. Just before the potatoes come up I give it a deep cultivation and then cross drag with the smoothing harrow. I give it a good cultivating every week or so, until the vines are too large to get through. About this time they are hilled up. I dig with a four-horse digger and put the potatoes in piles in the field until digging is done, when they are hauled into the cellar.

I grow Rural New Yorker and Burbank potatoes under the state certification plan, and sell nearly all of them for seed. My potatoes in 1916 yielded 175 bushels per acre in spite of the dry weather.

I exhibited potatoes at the Barron County Fair, winning second on Burbank and Rural New Yorker. At the Northern Wisconsin State Fair I won third on Rurals, and at the Wisconsin Potato Growers' Show, at Eau Claire, I won first on Burbank.

Potatoes helped build this home and buy this car on Gust Kringle Farm, Barron county, Wisconsin.

I am enclosing a few pictures of my field and farm which you may use, if they are good enough and you see fit.

Gust Kringle.
Barron Co., Wisconsin.

Growing First-Prize Rurals.

To the Editor:—I am giving, for the benefit of Wisconsin Farmer readers, a few of the methods I use in growing potatoes.

We raise Certified Rural New Yorker potatoes, after growing several of the standard varieties, we found the Rurals were better adapted for our heavy soil, also more disease resisting, growing smoother, and truer to type, than any variety we have grown.

The potatoes are planted on clover sod, or new land plowed deep in the fall, and thoroughly pulverized in the spring to get a good seed bed and kill the weeds before planting. We use no commercial fertilizers.

In treating our potato seed we have used both corrosive sublimate and formaldehyde for scurf and scab, but the corrosive sublimate has always given us better results. Wooden barrels are used for holding the solution and the potatoes are put in sacks, and then placed in the barrels to soak.

We allow the potatoes to soak one and one-half hours, one and three-fourths hours and two hours, and only use the solution for three dippings. When the potatoes are taken out they are placed upon boards above the barrels to drain.

Then we spread the potatoes out upon the floor in the feed rooms of our hog house, where they are left two or three weeks in the sunlight to warm up and sprout. The seed is cut large, care being used to break off as few sprouts as possible, and leave as much of the seed end on each piece as we can.

We try to get our potatoes planted before the 1st of June. It requires about twenty bushels per acre where the seed is cut large; potatoes are cultivated deep the first time and very shallow the rest of the season.

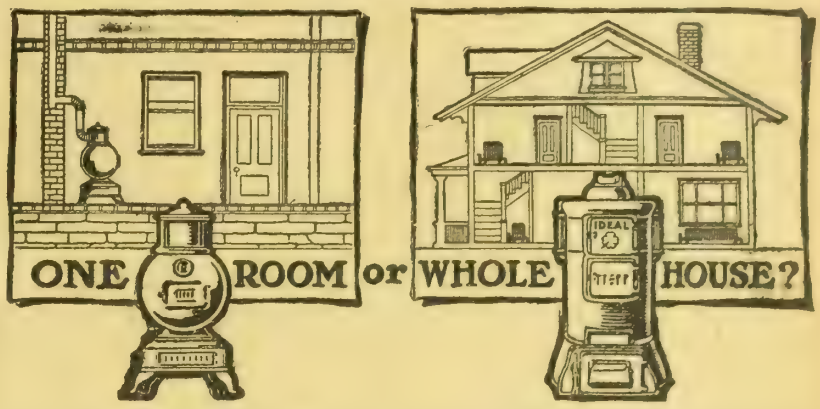
At the last cultivation the potatoes are hilled slightly, and we have always obtained better results by not using a potato hiller. Bordeaux mixture for spraying is used several times during the season to prevent blight.

Most of the potatoes are dug with a fork, and all the good type, smooth potatoes are selected from the field for seed purposes. Our Rurals yielded 200 bushels per acre this year under very unfavorable weather conditions.

We took first prize on our Rurals at the Barron County Potato Show, first at the Northern Wisconsin State Fair, and first at the State Potato Show, at Eau Claire. Through the efforts of our county agent, R. L. Cuff, Barron county is producing large quantities of certified seed potatoes.

E. H. Thompson.
Mgr. Cedar Lake Farms.
Barron Co., Wisconsin.

Do you want to heat-



You have fussed and shivered long enough—trying to heat your house with old fashioned methods which yield little comfort with great labor and many disappointments. Why not make your whole house just like June, even in below-zero weather? An IDEAL heating outfit will do this for you and will last as long as the building stands and never need repair or overhauling.

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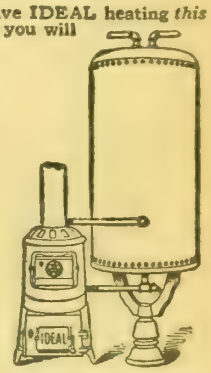
The lasting heat that costs the least

It is wise even to increase your borrowing at the bank in order to have IDEAL heating *this winter* for the comfort and savings that IDEAL heating will give you will make you more money than the bank interest you may pay.

AMERICAN Radiators and IDEAL Boilers change any house into a *home.*

A No. A30 IDEAL Boiler and 262 ft. of 38-in. AMERICAN Radiators, costing the owner $210, were used to heat this farm house, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which vary according to climatic and other conditions. The IDEAL outfit is the *only* feature of the house which is never worth *less* than you paid for it.



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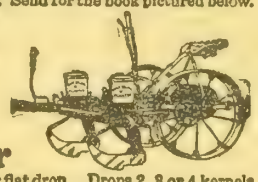

Accurate edge or flat drop. Drops 2, 3 or 4 kernels to the hill, as you wish. Change drop instantly without stopping team or leaving your seat. Original, *successful* Convertible Drop allows you to use edge or flat drop plates. Either hill or drill drop—valves cannot double drop. Time saving Friction Reel. Tip-over Hopper, so you can change plates without emptying hopper. Fertilizer and Cow-Pea Attachments can be furnished.

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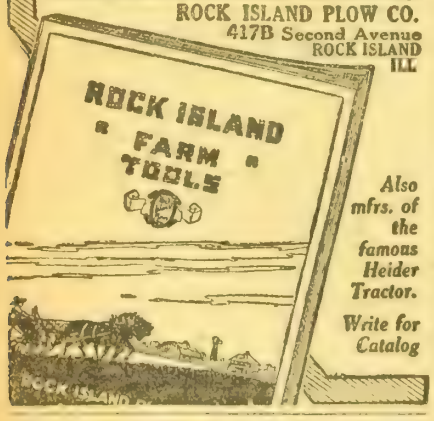

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Cost and Cure of Wormy Apples.

Results of Wisconsin Experiments as Told by H. F. Wilson, of the College of Agriculture Horticultural Staff.

THE codling moth is probably the most serious pest of apples known. It is world-wide in its distribution and may be expected to occur wherever apples are grown. This insect passes the winter as full-grown larvae under pieces of bark on the trunks of apple, hawthorne and pear trees. Along in May the larvae change into a new form known as the pupal or resting stage, transforming again in late May or early June into small ash-gray moths which lay a number of milk-white oval and flat eggs on the leaves and fruit. These eggs hatch in from a week to ten days and the young larvae immediately make their way into the fruit where they continue to feed and develop, forming a complete life cycle in about five weeks. A second generation of moths or adults appear the last of July and first of August and these again lay eggs which produce by fall the full-grown larvae for the next spring's crop of adults. When full fed these larvae leave the fruit and make their way to the tree trunks where they find their way under a piece of bark, construct a silken cocoon to protect themselves from the weather and enemies and remain there until the following spring. The injury of this pest is twofold in extent.

About 70 per cent of the larvae of the first generation make their way into the fruit through the calyx end and, although no injury may appear from the outside until the larvae emerges, the presence of the "worms" inside the fruit is indicated by a mass of frass and droppings pushed out through the entrance opening. The other 30 per cent of the larvae enter the fruit from the sides and make very conspicuous burrows that are later supplemented by very large emergence holes which the larvae make just before leaving the apple. The second injury and oftentimes the more serious is caused by the young larvae making very small entrance holes just in under the skin of the apple and then leaving without going deeper. Such injury is generally grouped under "stings," and, occurring on fruit which is almost mature, causes the grower no little loss because one or two stings on a single fruit is sufficient to reduce the market value. These stings often occur on mature fruit and cannot be noticed until the fruit is picked. The grower may, therefore, frequently be much chagrined to find that a very fine appearing apple crop is considerably reduced in value by these injuries when the fruit is being packed. Coming at this time the results are often very discouraging and causes a feeling of distrust in the mind of the grower as to the value of remedial treatments. However, all of this injury can be prevented if the proper sprays are used and applied at the correct time.

The lesser apple worm is an insect closely related to the codling moth both in its life history and the nature of the injury which it does. In fact, the work of this insect is so much like that of the codling moth that in many cases, unless the insects themselves are present, the injury cannot be separated. However, when one becomes familiar with the work of these two insects it is not difficult to separate them at the first glance. The larva of the codling moth when mature is much larger than that of the lesser apple worm and is white both above and below with a slight pinkish tinge. In the younger stage the pinkish tinge is absent from the codling moth larva. The larva of the lesser apple worm is pinkish or reddish in color and no white appeared in the specimens we have found, although whitish larvae of this insect has been reported from other sections of the United States. The moths appear in the spring and the eggs are laid about the same time as those of the codling moth. We have not been able to see the eggs of the lesser apple worm, but they are said to appear considerably like those of the codling moth, but only about half as large. There is considerable difference in the appearance of the frass produced by these two insects. The larvae of the codling moth produce a loosely woven mass of coarse particles pushed from the burrow without any indication of their being held except by contact with other particles. The frass produced by the lesser apple worm is of a finer nature and the particles are more closely woven together as if to form a protective covering over the opening of the burrow. As in the case of the codling moth, the larvae of the lesser apple worm shows a preference for the calyx end of the apple, but it seldom, if ever, makes its tunnel into the center of the fruit. The feeding burrow being made close to the surface of the apple and extending as a blotch around the original place of entrance in some cases. In this way the calyx will be completely eaten away. The injury is more conspicuous and appears more extensive since it is on the surface of the fruit. Like the codling moth, there are two generations a year, one in late May and early June and a second in the last of July or first of August. The treatment used for the codling moth seems to be effective for its control.

Fortunately for the man who is specializing in apples, all these insects may be controlled with a certain definite system of sprays applied at more or less definite periods. These periods correspond to the time when the spraying is done for the codling moth and apple diseases, so that if careful work in spraying is done no grower need suffer any considerable loss from these pests singly or collectively. Three applications of spray are usually necessary and in some seasons a fourth. First spray in the spring just after the petals have fallen and before the calyx lobes close, using arsenate of lead, three pounds to fifty gallons of water. Make the second application, using the same spray, ten days later. Where apple scab is prevalent fungicides may be added to both of these sprays. A third application should be made from the 25th of July to the 1st of August, varying with the season and the different regions of the state. If the codling moths appear abundant in the early summer and the season is long and warm a fourth spray should be made about September 1st to prevent "stings" made by young larvae appearing in late September. Such a condition existed in the season of 1916 and a fourth application of arsenate of lead would have more than paid for the cost of application in the amount of fruit saved. In combating the plum curculio it has been noticed that clean farming to reduce winter shelter and open pruning to let in the sun will help to a considerable extent in keeping down this pest. Also thorough cultivation in the fall or spring will benefit in destroying the pupae in the soil. All early droppings known to be infested with curculios should be gathered and destroyed.

Law Questions.

Unoccupied Land—No Fence Required.

A Subscriber, Excelsior, Wis.—I own a tract of land in Wisconsin, that is not under cultivation, and not occupied. Does the law require me to build half of the partition fence between my land and adjoining lands?

Answer.—It does not.

Insurance—False Pretenses.

A Subscriber, Watertown, Wis.—Some time ago A applied for an insurance policy. The insurance agent who took A's application made A sign a paper which the agent said would make the policy take effect the same day it was received at the home office. Seven days later the agent delivered the policy to A, who then paid the premium and got his receipt. Thirty days after A received a letter from a bank demanding that he pay his note, which A refused to do, as he had witnesses to prove that he had never done any business with said bank. Then the agent paid the note and afterwards A found that the paper he had signed was a bankable note. (1) Can A have the agent prosecuted by law? (2) Can an insurance agent insure a minor without the consent of his parents or guardian? (3) How long is a promissory note good in Wisconsin without having it renewed?

Answer.—(1) You can have the insurance agent prosecuted for obtaning your signature to the note by false pretenses. (2) A minor cannot make a binding contract for insurance. (3) Six years after it is due.

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In and Around Wisconsin

At a special election the citizens of Pouk county will vote on a proposed $400,000 bond issue for the improvement of roads.

The Janesville Fair will be held August 14th, 15th, 16th and 17th, somewhat earlier than usual. One added feature of the fair this year will be two night shows.

Articles of incorporation have been filed for the Cornell Co-operative Creamery, of Cornell, Chippewa county. The company is incorporated for $5,000 divided in 500 shares of $10 each.

The Rusk Creamery, in Dunn county, in 1916 paid an average of 35 cents per pound for butter fat. Receipts for the creamery for the year were $131,315.28. The association has about 200 members.

At the recent ninth annual meeting of the Northwestern Buttermakers' Association in Eau Claire officers were elected as follows: President, R. G. Bennett, Chippewa Falls; vice president, Lloyd Winter, Eau Claire; secretary-treasurer, Robert Carswell, St. Paul; directors, H. O. Strezinsky, Menomonie; Fred Haas, Eau Claire; G. Hammer, Colfax.

Joseph W. Entringer, of Kewaunee county, writes that it will be necessary for cheesemakers to advance their prices for manufacturing cheese. New laws compel the cheesemakers to conduct and operate their factories along lines which cost more money than in former years. A cheese and buttermaker has to pay a license. He is compelled to adopt sanitary measures which are more or less expensive. He is obliged to invest more money in his plant. All material, such as boxes, bandages, rennet, color, etc., cost more money. A good many cheesemakers are asking for an advance of ½ cent a pound and in quite a number of instances have received an advance of ¾ cent a pound. Mr. Entringer says that farmers ought to agree to these advances, as they are receiving much higher prices for their milk because of the high prices of cheese.

The business for the Mauston Creamery for 1916 amounted to $160,000. During the past year this creamery paid 2 cents above Elgin butter price for cash cream. At the regular monthly pay days the creamery paid stockholders 3½ cents above Elgin. Thus the receipts for butter fat for the year are 2½ cents to 3½ cents higher per pound to regular patrons who drew their pay semi-monthly than to those who sold for cash at 2 cents above the Elgin market. The average paid to stockholders last year for butter fat was 39½ cents.

The annual summer meeting of the Waukesha County Guernsey Breeders' Association will be held some time in June at the Geo. McKerrow & Sons' Company farm near the village of Pewaukee. The McKerrow farm has a herd of about 125 Guernseys and also other fine live stock, including some of the best sheep in the country. The invitation has been extended to the Western Guernsey Breeders' Association to hold its meeting at the McKerrow farm at the same time. As a result of the agitation at the recent winter meeting of the Waukesha County Guernsey Breeders' Association a cow-testing association is being organized.

The Downsville, Dunn county, co-operative creamery in 1916 paid patrons for butter fat $232,387.12. This creamery received 2,199,832 pounds of cream, which netted 653,359 pounds of butter fat and made 790,040¾ pounds of butter. The average test of cream was 29.69. The per cent of overrun was 20.91. The price paid for butter fat was 35½ cents. The increase in receipts over the previous year was $20,575.15.

The sixty-eighth annual Elkhorn Fair will be held September 18th, 19th, 20th and 21st. Thomas O'Keefe, of Elkhorn, will be superintendent of the horse department; Paul Gavin, of Linn, superintendent of the cattle department; F. S. Teetshorn, of Richmond, superintendent of the swine department; Percy Cowles, Elkhorn, superintendent of the poultry department, and O. L. Shearer, East Troy, superintendent of agricultural hall.

Farmers of La Crosse county are particularly well pleased with the showing which the La Crosse county division of the Wisconsin Experiment Association made at the recent grain show in Madison. The following is a list of the La Crosse county winners at the state show:

John Bendel, Stoddard—Third on ten ears Wisconsin No. 7 corn; fourth on fifty ears Wisconsin No. 7 corn.

Peter Dengel, La Crosse—First, sheaf No. 1 oats; second, Sudan grass; third, sheaf barley; fifth, peck barley.

Alfred Gilster, La Crosse—Third, ten ears pop corn.

William Moos, Onalaska—First, peck pedigreed oats; first, three cuts alfalfa; first, ten ears pop corn; third, peck spring wheat; third, peck pedigree barley; third, bundle red clover; fourth, peck winter wheat; fourth, bundle timothy; fourth, sheaf winter wheat; fourth, sheaf spring wheat; fifth, bundle alfalfa.

Edward Peters, La Crosse—First, sheaf of rye; second, sheaf pedigree No. 5 oats; second, peck pedigree No. 1 oats; fourth, peck pedigree No. 5 oats; fourth, sheaf barley; fifth, sheaf spring wheat.

Harry Pralle, La Crosse—Fifth, sheaf rye; fifth, peck winter wheat; fifth peck oats.

F. J. Staples, Onalaska—Fourth, ten ears pop corn.

John Van Loon, La Crosse—First ten ears No. 8 corn; second, Sudan grass; second, ten ears Golden Glow corn.

Jippa Wielinga, Midway—Second, ten ears Golden Glow corn; third, fifty ears Golden Glow corn.

Garrett Westerhouse, Onalaska—Third, soy beans.

Otto Wolf, La Crosse—First, peck alsike clover seed; first, sheaf rye; second, ten ears Wisconsin No. 7 corn; second, sheaf rye; third, fifty ears Wisconsin No. 7 corn; third, ten ears Golden Glow corn; fourth, sheaf alsike clover; fifth, single ear of corn; fifth, sheaf oats No. 1.

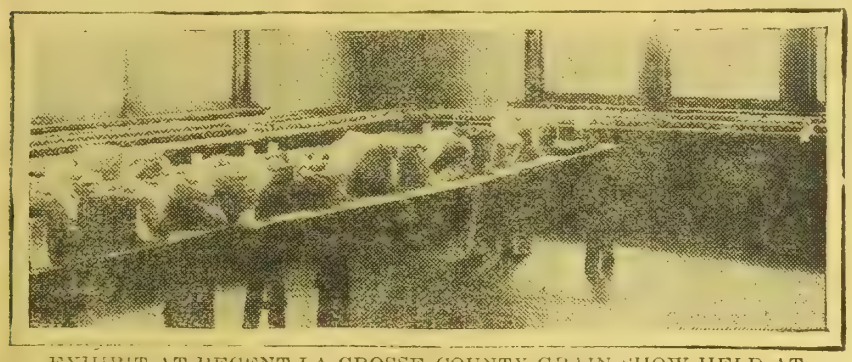


EXHIBIT AT RECENT LA CROSSE COUNTY GRAIN SHOW HELD AT ONALASKA, WIS.

EXPOSITION WINNERS.

Five La Crosse county farmers won agricultural prizes at the Panama-Pacific Exposition. These men were awarded the medals won at a meeting held in Agricultural Hall Friday evening, February 8th. The following were honored:

Jippa Wielinga, Midway—Silver medal on corn.

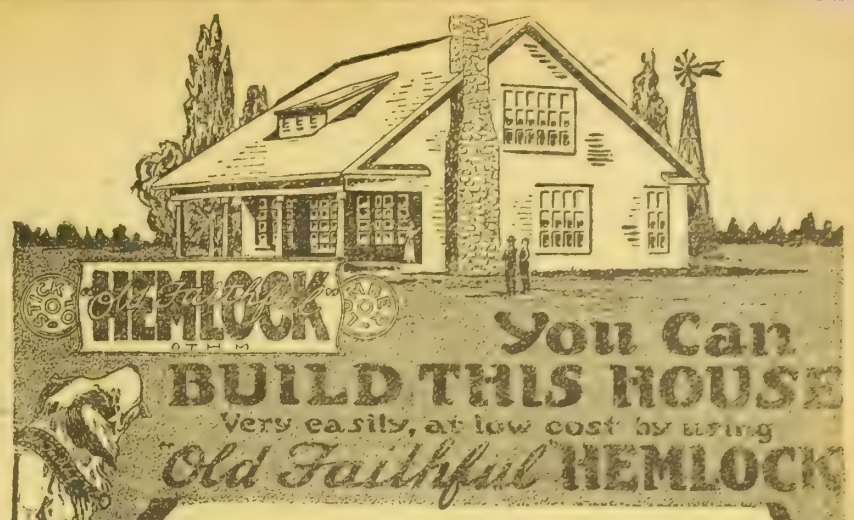
John Van Loon, La Crosse—Silver medal on corn.

Peter Dengel, La Crosse—Silver medal on oats.

R. E. Freehoff, Coon Valley—Silver medal on corn.

Wm. Moos, Onalaska—Bronze medal on oats.

Ask your neighbor to subscribe for The Wisconsin Farmer.



HEMLOCK is out for service—before you build as well as during the long life of your Hemlock house. It is "Old Faithful" from beginning to—we were going to say "end," but that's too far off. Hemlock buildings generations old are in good condition and use today.

The home illustrated is one out of several (some for town, some for country) for which we will gladly supply specifications and working

PLANS FREE—Send for Book No. 1

Book No. 1 (Farm houses) and Book No. 2 (Town houses) contain small plans, pictures and descriptions of houses which will make the farmer's heart glad. Send for both if you want to. Each book contains a coupon good for complete FREE PLANS and specifications when presented to your local lumber dealer. You're welcome. Send dealer's name when writing.

The Hemlock Manufacturers
(of Wisconsin and Northern Michigan)
Offices, 300 F.R.A. Building, Oshkosh, Wisconsin

We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your **LOCAL LUMBER DEALER.**

Moline Power Lift Gang

Operated Direct From the Tractor By One Man

A combination Two-Three and Three-Four bottom plow for light tractors. Easily changed from one form to the other.

Can be hitched to any style tractor—hitch is semi-rigid, so that plows may be backed even when in the deepest furrow.

By Pulling a Single Cable

driver raises or lowers plows while in operation—from extreme depth to clear out of the ground—or a little at a time in difficult plowing, to prevent stalling of motor.

Rear wheel locks automatically for plowing or backing, casters for turning or transporting.

Equipped with Moline Quick attachable shares.

See the Moline Power Lift Gang at your dealer's, or write us for free illustrated literature.

THE MOLINE LINE INCLUDES
Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Loaders, Hay Rakes, Lime Lowers, Listers, Manure Spreaders, Mowers, Plows (chilled and steel), Rippers, Scales, Seeders, Stalk Cutters, Tractors, Farm Trucks, Vehicles, Wagons.

Moline Plow Co.,
Dept. 30, Moline, Ill.

GET MY PRICES

BEFORE YOU BUY BE sure and get my prices! Before buying a gasoline engine (manure spreader, cream separator or tractor) of any make, or kind, or price, please ask for and read Galloway's 1917 catalog—the biggest, most important book and greatest money-saver for my customers I ever put out! Get my proposition to you and compare it with all others; then be your own judge! We are actual manufacturers and sell direct to you from our factory. We specialize on the lines we offer. We were first to offer engines, separators, spreaders direct from the factory at one small profit. We have made the manufacturing and selling of these lines a life business. You can't afford to buy a gasoline engine or any of the other Galloway lines until you first get our prices and our proposition. Get my price before you buy! Cash or time.

HERE'S THE REAL PROOF!

I can't give it praise enough. I had a 6 h. p. Galloway engine belted to my 16 in. corn mill and it does the work, where an 8 h.p. of another make did not. M. P. SHOEMAKE, DEFEATED, TENN.

My 6 h.p. Galloway was 6 yrs. old this fall. Works perfectly—good for 15 yrs. yet. HAROLD W. BARNES, DELPHI, IND.

It has not cost me one cent for repairs. Am now buying a 2 1-4 h. p. engine and washing machine for the home. Consider the Galloway simplest engine made. ADOLPH DRINOVSKY, TRAER, IA.

I found the 16 h. p. Galloway simplest, most powerful, best governed engine I ever saw and $[illegible] cheaper. HENRY WENHAM, MILTON, WIS.

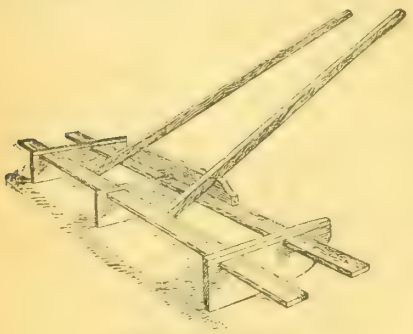
THE WM. GALLOWAY CO., 35 Galloway Station, **Waterloo, Iowa**

A Plan For the Farm Garden.

How Large Shall the Garden Be and What Should Be Put in It—Pointers of Value at This Time of the Year.

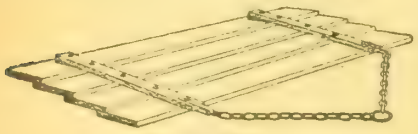
THE farm garden is worthy of more consideration than it receives on most farms. There was a time when it was considered essential to a family in the country to have a patch of ground where the wife could go for her vegetables for cooking and canning purposes. Farmers then were more isolated and did not depend on outside products. It was quite common then that the garden received the care it deserved. But with specialization towards the raising of certain crops for definite purposes, the garden came to be regarded as a bother, and, as a consequence, receives only the most half-hearted care on most farms. Men, as a rule, do not like to work with garden tools. They would rather drive a team and do the work with farm machinery. They figure that a garden cannot pay for the work that is put into it when all the work has to be done by hand labor. In this they are right and the way out of the trouble, therefore, is to plan the garden, so that a maximum amount of the work can be done by the usual farm implements.

As the garden is to be a help to the wife and she will have to use the products as they mature and are needed on the table, it should be located near the



SLED MARKER.

kitchen. To save time in the preparation of the seed bed and in the cultivation of the crops, it is best to lay it out in long rows. A rectangle is the best shape to work with. An area 100x200 feet will answer ordinary purposes. The rows in no case should be closer than three feet apart, and in the case of rhubarb, radishes, tomatoes and sweet corn, four feet is better. There should be about fifteen hills of rhubarb, forty hills of asparagus and some winter onions, all of these being placed in the same row. Radishes, leaf lettuce and head lettuce could be put in row No. 2 about the last of April. In row No. 3 use early turnips, onion sets, spinach, Swiss chard and parsley. Carrots and parsnips could be put in row No. 4, while beets and rutabagas could be seeded in row No. 5. The entire length of row No. 6 should be put in Globe Danver onions, these being seeded about the first of May. The next two rows should be put in peas, using about four varieties, such as Early Alaska, Mott's Excelsior, Gradus and Telephone. Another two rows should be used for beans and



PLANKER.

about four varieties planted. Two rows will be devoted to cabbage, one to tomatoes and two rows to sweet corn, using about four varieties. It will require about twenty-five hills of cucumbers, ten hills of summer squash, fifteen hills of Hubbard squash and twenty hills of muskmelon. Then there will be about four rows of early potatoes and eight rows of late potatoes.

Not all hand labor will be eliminated, but the worst of it will. The frequent use of the cultivator will prevent weeds from gaining the upperhand in the garden and as is so frequently the case, completely covering up the crops. The use of the seed drill is not advisable, as in most cases only a part of the row is devoted to one crop. With such crops as onions, beets, carrots, parsley and parsnips, it is a good plan to sow a little radish seed to mark the rows, so they can be cultivated with other crops before they come through the ground.

There is little danger of applying too much manure to a garden soil. The best time for the application of the manure is in the spring. If the ground was plowed in the fall, which is the best time to do it, the manure is disked in and the ground worked with a spike-tooth harrow and smoothed with the planker. The part of the garden that is not seeded at once ought to be cultivated as often as possible to keep the weeds from getting a start.

In laying out the rows for planting a sled marker, will give excellent service, as three rows can be marked at the same time. If the rows are not all to be planted at the same time, little effort has been wasted.

The selection and testing of the seed are held by some to be as important here as in the field. A test of the seeds can readily be made by counting out twenty-five to 100 seeds and placing these between moist blotters for germination. At least 75 per cent of the seeds ought to show vitality in a representative sample. A little more seed can be sown where the germination was weak and thinning out practiced later on. Radishes, lettuce and early beets can be thinned as the space is needed after they are established, but all other crops must be thinned as soon as possible, so that the good ones do not become stunted through the crowding in the row.

Vegetables in the diet mean better health in the family and a cheaper living on the farm. Best of all, the garden gives the housewife an opportunity to add variety to the meals. The problem of supplying a family with variety in the 365 days of the year is a perplexing one, and no greater help can be given a woman than a good garden to draw on. It is quite possible that the men folks do not realize the multitude of dishes that are prepared from the garden crops. The farm woman is justified in claiming the assistance of the farmer in making the garden a profitable institution. Proper planning of the garden is the first step towards this end.

Apple Trees 2-year-old $6.00 per 100
HANSEN Hybrid Plums, 2 year, 25c. Everbearing Strawberries, $1.75 per 100 Evergreen Seedlings, $1.25 per 100. Send for catalog full of bargains. **Mankato Nursery, Mankato, Minn.**

SPREAD NOW! HARVEST BIGGER CROPS THIS FALL!

A new 1917 model Galloway Spreader used to get the manure crop out on the land between now and planting time means bigger crops this fall. Prices were never better. The producer is having his inning! Now is the time to get that big manure pile out on the land because every load spread means cash in the bank next fall for farm improvements, pleasures or other things you want. Get your manure crop out on land where you plan to grow corn next year—top dress the winter wheat—get it on the soil where you are going to sow oats! Top dress the meadows—the alfalfa, the clover! Every manure pile is a pile of gold! A spreader used steadily for one to two weeks means that it has paid for itself because its use represents money at harvest time that you otherwise would not get. Quit spreading by hand—using old broken down spreaders, when you can buy the best spreader on earth—the Galloway new 1917 model Low Down No. 8—and still save $25 to $50 by buying direct from factory to farm! I mean every word of it! You can own the best spreader built and save from $25 to $50 over prices usually paid for spreaders not as good—not as down to date in design—as light in draft—made of as fine materials, nor covered by the eleven Galloway spreader patents found exclusively on the Galloway. These features and many others make the Galloway 1917 Models No. 8, No. 1A and No. 5.

WORTH $50 MORE THAN ANY OTHER SPREADER

New steel beater and wide-spreading V-rake pulverizes and tears the manure to shreds—worth $15 more on any spreader; my positive, invincible, irresistible, patented roller feed—the secret of our light draft (exactly the same principle as moving a house on rollers) worth $25 extra on any spreader (exclusive feature on the Galloway), patented automatic stop, uniform clean-out push-board, worth $10 extra on any spreader (exclusive on the Galloway), new everlasting pressed steel, unbreakable tongue, worth $5 more on any spreader; all these valuable features cost you nothing extra when you buy the Galloway at my new SPECIAL 1917 PRICE.

Remember I sell on terms to suit you—Cash, Bank Deposit, Half Cash Half Note, All Note, Installment Plan or one year to pay—and I sell direct at less than wholesale from factory to farm at actual cost of material, actual cost of labor and only one small profit based on the tremendous output of my great chain of factories here at Waterloo. I am a manufacturer—not a jobber or dealer. I give you thirty days' field trial and any Galloway spreader is returnable to us within one year if you are not perfectly satisfied. Try this spreader at our risk without obligating yourself in any way. Buy a Galloway DIRECT FROM GALLOWAY.

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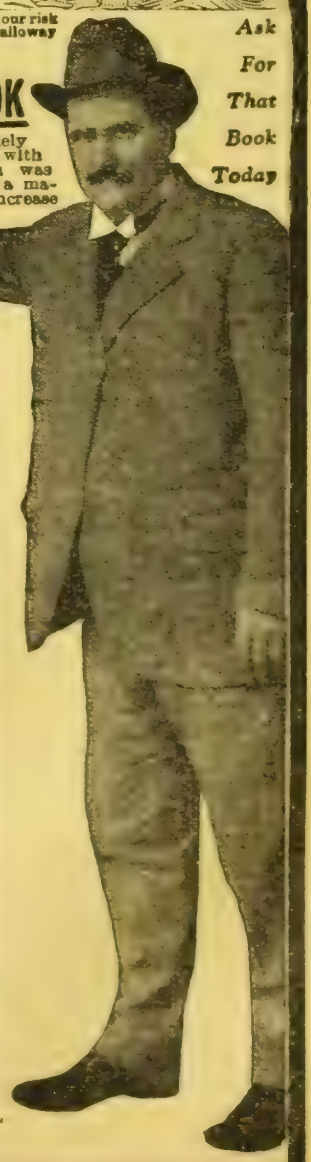
It is a big book of 280 pages. A postal gets it. Handsomely printed in many colors. It tells how to handle manure with the least labor. How a run-out, unproductive farm was turned into a goldmine crop producer. How to build a manure pit to preserve fertility. How to increase your corn crop from 15 to 25 bu. per acre. How a Galloway Spreader will pay for itself in one year by increasing crop profits and leave money to put in the bank besides. How I save you $25 to $50 on a spreader. How with the 10-pound steel and malleable mechanism we accomplish the same results as others do with 400 pounds of brittle gray iron. How a Galloway Spreader handles easier with two horses than other spreaders with three and often four horses.

S-32



Ask For That Book Today

NOTE THESE 1917 SPREADER IMPROVEMENTS

Built stronger and better than ever! Beater bolts are 1-16 in. larger, with lock nuts. Beater bar bolts increased in size and strength. Beater teeth longer and stronger than ever, which means they now tear the toughest manure finer than ever and spread it easier. Heavier bolts hold the beater bars in the beater head. Rear shaft increased in strength—higher carbon steel used. Additional bolts strengthen (beyond actual necessity) the beater bracket. Larger drive sprockets, which means lighter draft than ever. Fifth wheel castings larger and increased in strength—makes spreader box easier in turning. Rear conveyor shaft now made of No. 40 carbon steel. All steel tongue. Double chain drive direct from rear wheels. All metal parts thoroughly coated with asphaltum weatherproof paint. Adjustable from 4 to 24 loads per acre. Spreader box better finished and painted. Galloway wide-spreading V-rake on every machine. **Don't buy a spreader of any make or kind until you have tried a genuine Galloway 1917 model No. 5, No. 1A or No. 8** at our risk without obligating yourself in any way. This spreader should **not** be compared or confused with low priced spreaders that do not have the special exclusive patented features and genuine merit (backed up by tens of thousands of Galloway spreader users) that are found on the Galloway. Beware of cheap, absolutely worthless imitations of the genuine Galloway—at any price! Buy a Galloway direct from Galloway at Waterloo and you will be safe. Spreaders are shipped from Waterloo, St. Paul, Kansas City, Chicago or Council Bluffs—whichever is nearest your station.

"I built my reputation as a manufacturer on good manure spreaders."—WM. GALLOWAY.

UNDENIABLE PROOF!

I saved $29 by ordering a Galloway. I know it is a better spreader than I could have bought here for $125.—Geo. A. Kralik, Okla. City, Okla.

I consider it equal to a prominent machine sold for $140. One neighbor who has used both says he would rather have the Galloway.—W. O. Crascraft, Eckley, Colorado.

There are six Galloway spreaders in my neighborhood. They tried my spreader first. All are more than pleased. Have had no repairs in seven years.—Edw. Semmelroth, Tekonsha, Mich.

I saved $39. Believe I got a better spreader than was offered me here for $135.—A. T. Miller, Orella, Nebraska.

Two small horses handle it easily. Never saw another make I would exchange my Galloway No. 8 for.—B. K. Shaffer, Davey, Nebraska.

It is as good a spreader as money can buy. I kept $35.43 in my pocket. 1,850-lb. teams pulls it easily.—W. H. Adams, Pound, Wisconsin.

WM. GALLOWAY, PRES., WM. GALLOWAY CO. Manure Spreader Mfg. Specialists 39 Galloway Station **WATERLOO, IOWA**

Cut-Over Land Conference.

Wisconsin Leaders Discuss the Best Methods to Bring the State's Fertile Lands Most Speedily Under Cultivation.

FOR a number of years we have heard about the agricultural possibilities of Upper Wisconsin. That there are millions of available tillable acres of fertile land in the cut-over regions has been constantly drilled into our ears. No one doubts that a rich empire is to be established there some time. Within the last year interested forces have tried to get down to something practical which will hasten the settlement of this rich country. The Cut-Over Land Conference held at Eau Claire, February 23d-24th was a crystallization of the thought and energy brought out in the last year's endeavors.

In brief the conference decided by resolution that it is advisable to speedily accomplish the following:

First, That the state legislature should appropriate the sum of $37,000.00 for two years to pay for more land-clearing demonstration work, such as was conducted in 1916 under the personal supervision of Carl D. Livingston of the engineering division of the Wisconsin College of Agriculture.

Second, That the legislature should take means to encourage the scope of work done by our immigration department and to direct attention toward Wisconsin settlers who are now looking toward less favorable countries.

Third, A law should be passed requiring filing of chattel mortgages with the county recorder of deeds. The purpose of this is to make a chattel mortgage a standard negotiable paper.

Fourth, That the Wisconsin College of Agriculture should be encouraged in its splendid work in upper Wisconsin and provided with sufficient state funds to encourage the scope of this work.

Fifth, That a similar cut-over land conference should be held at some future date to further foster the work started at this conference.

Sixth, That community work in land clearing should be encouraged to the extent of arranging for contracting outfits to pull stumps and carload shipments of dynamite with resultant lowering of prices on explosives.

Seventh, That the bankers of the cut-over section be urged to devise plans for loaning money for land clearing and extending the splendid work which they have already done along this line.

Eighth, That the attention of the federal government shall be called by the proper Wisconsin state authorities to the possibilities of reclaiming lands in upper Wisconsin by modern clearing methods.

Readers of The Wisconsin Farmer are familiar with most of the matters which were discussed at the Eau Claire conference. It is unnecessary for us to say anything further about the land-clearing demonstrations, except that they are to be continued starting probably May 1st or June 1st, under the direction of Mr. Livingston. The first year's work was made possible by the co-operation of several stump puller and powder companies who donated the use of their machines and experts. It is planned to take over this phase of the work and conduct it under the supervision of the Wisconsin College of Agriculture.

The conference listened to interesting discussions relative to the best and cheapest methods of clearing land. The decision was that both stump pullers and dynamite should be used. In the demonstrations the past year it developed that 20 per cent dynamite may often be used to as good or better advantage than 40 or 60 per cent dynamite and at less expense. The Wisconsin Advancement Association has done a splendid work in arranging for carload shipments of dynamite. About 100 carloads have been shipped into Upper Wisconsin in the past few months at a saving of about 3 cents or more per pound. Eighty bankers have been interested in this matter and a number of retail hardware dealers have agreed to handle the explosives for a small profit just large enough to cover the costs of deliveries. Bankers are also helping to get the stump pullers at low prices and in many cases aiding the settler with funds to help him clear up the land. The work which has been done in the past year will probably increase clearing in Wisconsin four or five times to what it has been in any previous year. The combination method of clearing, including the use of stump pullers and also dynamite and stump pilers, accomplishes clearing in the quickest possible time and at the least expense. Where stumps are pulled by machines dynamite is needed to loosen the earth which comes up with the stump.

Financing the settler is the big problem in Upper Wisconsin. Some land companies which have the capital are planning to put partially cleared farms on the market. In Rusk county banks have arranged to loan settlers enough money to pay for each acre of land cleared, the money being available as soon as the clearing is done. This work is likely to be extended into other communities. Another important work is to help the settler to get live stock and bankers are practically a unit in their willingness to loan on cows purchased. Twenty-five bankers of the northern part of the state and twenty-five bankers of the southern part of the state are preparing to organize a cattle loan company. This will be similar to the Wisconsin Farm Mortgage Company. One trouble in Upper Wisconsin is that many of the small banks do not have sufficient capital to make needed loans. It is for this reason that they hope to standardize the cow paper as mortgages are standardized, so that this paper may be sold outside and bring new money into the country. The Wisconsin Farm Mortgage Securities Company has brought more than $3,500,000 into Upper Wisconsin in the last two and one-half years. It is very encouraging to know that the bankers regard the cow paper as good paper and that this paper can be floated in large sums.

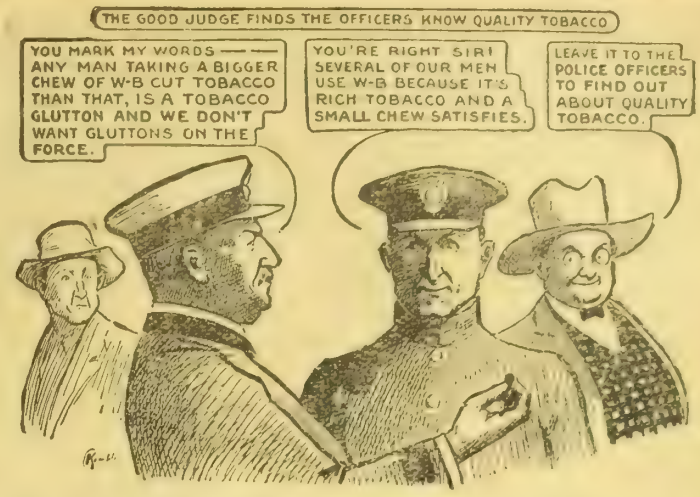
One banker, Mr. J. M. Smith, of Shell Lake, has brought $500,000 into his community from the outside in the last ten years.

A large number of bankers assembled at the Eau Claire conference were asked by Dean Harry L. Russell the pointed question whether or not they have ever lost any money on dairy cow paper. Not a single banker had ever lost a cent on such a loan. This, however, could not be said on beef cattle paper in Upper Wisconsin. While some successes have been made in beef cattle, farmers have brought in steers and fed them on clover and lost money on their sale in the fall. While the animals fattened, they did not hold up in shipment to market and there is some doubt as to the advisability of using the cut-over lands for strictly grazing purposes for beef cattle. The key to success seems to be the dairy cow.

Landowners, railroads, state authorities, manufacturers of stump pullers and dynamite, representatives of the college of agriculture, Upper Wisconsin citizens and representatives of the daily press and farm papers joined in the Eau Claire conference. The Wisconsin Advancement Association has formed a conspicuous part in this work. The Wisconsin Farmer will have more to say later relative to this conference and its effect. Governor Emanuel L. Philipp was a conspicuous figure at the conference. The governor's remarks on "An Empire in the Making" were inspiring. We were impressed by the brief address of C. T. Bundy, of Eau Claire, an attorney. He said that under the Wisconsin state law, if all cut-over lands were swamps the state has the necessary legal machinery to drain them for agricultural purposes. But there is no law which will permit the state to expend any money to clear land.

The speakers at the conference were as follows:

A. J. Edminster, Holcombe; Howard Weiss, Director United States Forest Products Laboratory, Madison; A. J. Keith, Eau Claire; C. D. Livingston, College of Agriculture of University of Wisconsin; W. G. Bissell, President Wisconsin Advancement Association; Governor Emanuel L. Philipp; B. G. Packer, Director of Immigration, State Department of Agriculture; W. H. Killen, Land Commissioner of the "Soo" Line; F. S. McCabe, Industrial Commissioner of the Omaha Line; Ford J. Allen, General Dairy Agent of the North Western R. R.; J. L. Sturtevant, Editor Wausau Record-Herald; W. A. Blackburn, Bruce, President Rusk County Bankers' Association; W. E. Briggs, vice president Northwestern National Bank, Minneapolis; J. H. Daggett, Manager bond department, Marshall and Ilsley Bank, Milwaukee; James T. Barber, Eau Claire; J. M. Smith, Shell Lake; E. L. Ainsworth, Chippewa Falls; W. H. Webb, Superior; C. T. Bundy, Eau Claire; John M. Whitehead, Janesville; E. P. Arpin, Grand Rapids; Miles Riley, Madison; J. R. Wheeler, Columbus, president Wisconsin Bankers' Association; H. A. Moehlenpah, Clinton; Ralph F. Skidmore, Marinette; A. W. Sanborn, Ashland; F. A. Aust, College of Agriculture.



YOU notice a fine regard for appearance among the officers from Roundsmen to Captain—that's one reason they are so keen for W-B CUT Chewing. The pass-word among these gentlemanly fellows is "If you won't take a little chew don't take any." No need to disfigure the face, when a nibble of *rich* tobacco gives *more satisfaction* than a wad of ordinary stuff—also less grinding and spitting. Take a tip from the officer on W-B.

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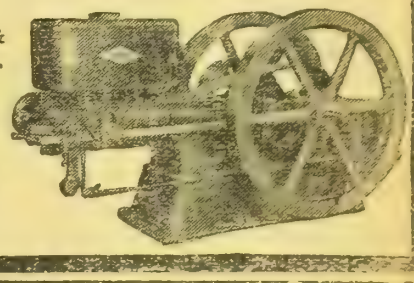

Jefferson County Guernsey Meeting.

The Jefferson County Guernsey Breeders' Association held its fifth annual banquet on February 16, 1917, in the Methodist church at Ft. Atkinson, Wisconsin. One hundred and forty breeders and friends were present, some coming many miles to attend. After the dinner the guests went to the parlors where an interesting and instructive program was given. After several pieces of excellent music and interesting readings the speaker of the day, Mr. C. L. Burlingham, gave an inspiring address on "Dairy Interests."

In this address Mr. Burlingham told the breeders of the important place the dairy industry holds among other industries and urged for better, more productive herds and for greater economy in the production of dairy products. He explained how the Babcock test and the use of high-class pure-bred bulls were the quickest means of improving the dairy herds. He then urged the selling of the poor producing cows to the butcher and not to outsiders. He pleaded for a high-class business policy in disposing of stock. In closing Mr. Burlingham showed the value of co-operation in the dairy business, citing many possibilities for the future of the Jefferson County Guernsey Breeders' Association.

After the address an enthusiastic business session was held, at which the board of directors was elated. The newly elected board then elected the following officers for the coming year: W. J. Heid, president; E. H. Lewis, vice president, and H. A. Main, secretary-treasurer.

It was voted to tax each member according to the size of his herd to raise money for the purpose of hiring the secretary to act as field man. He is to assist in organizing cow-testing associations, calf clubs and to help the members co-operate for the general advancement of the association.

Brown Swiss Cattle Interests.

To the Editor:—The Brown Swiss cattle interests of the state have made excellent progress during the past year. There are now more than 150 breeders of Brown Swiss cattle in the state. During the past year sixty-five Brown Swiss cows were tested for advanced registry and sixty-three of them qualified. This is said to be an unusual record. There is no question but that the Brown Swiss cow has come to Wisconsin to stay, and to hold a place with the other dairy breeds of this state. The fast that the Swiss cattle were developed in a climate similar to that of Wisconsin makes them unusually well fitted for the country.

H. C. Taylor,
Secretary Brown Swiss Cattle Club of Wisconsin.

E-B Disc Harrow
ALWAYS FITS THE GROUND

The quick-acting lever lets you instantly level the cut whether in hard or soft ground. Saves time. Leaves the ground in fine shape. Low hitch and Emerson improved hardwood bearings reduce the pull on the horses. Dust proof bearings. All styles of disc and spike toothharrows. Write for catalog. Look for the trade mark. It's our pledge and your guide to quality.

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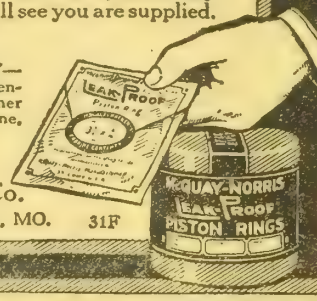

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Sawing With Engine—Regulating Its Speed.

I have a two and one-half horsepower gas engine. I would like to know if this engine is large enough to drive a circular saw; and if so, how large a saw will it drive? The engine cannot be speeded up or slowed down while running because the governor is fastened on the flywheel. Is there any way to control this engine while running?

Answer.—Your engine is large enough to pull a 20-inch saw. To regulate the speed of your engine while running, arrange a stop to stop the control rod that regulates the fuel supply. This stop should be arranged so that when a collar on the control rod is against the stop, the engine will run at a certain speed. Disconnect the governor entirely, and change the speed by adjusting the stop. Or arrange a control like the throttle control of an automobile.

A Jump Spark Wiring Diagram.

I would like to ask the Farm Mechanics Department a question about a four-horse-power Olds gas engine.

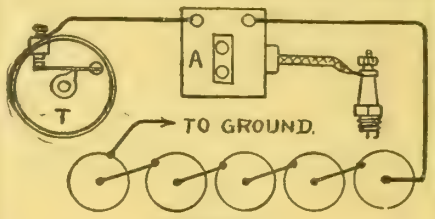

FIGURE 1.

The engine has a make-and-break system on at present, but I would like to change it to a jump spark system. Please publish a wiring diagram.

Answer.—Figure 1 is a wiring diagram for the ordinary jump spark system. In order for you to use this system on your engine, it would be necessary for you to install a timer for the spark. Any device that would close and open an electric circuit at the proper time would be sufficient.

Another Tractor Hitch.

I saw in your paper where a man is asking for a tractor hitch to pull two disk harrows, side by side. During the past season I had some experience in using the hitch you illustrated, and will say that it did not work well for me. The trouble was that I could not turn at the ends of the field. I am sending you a sketch of a hitch that did work satisfactorily. The chains, C C, are

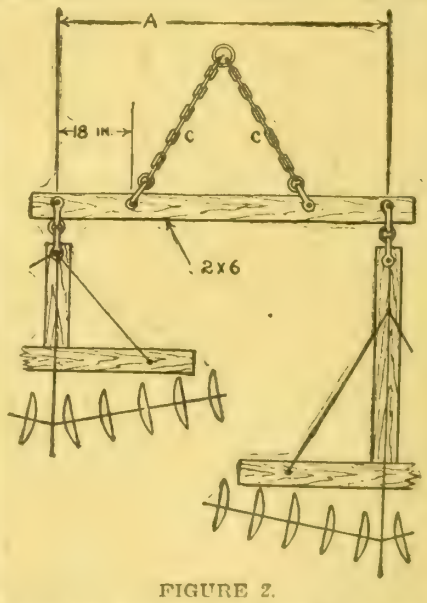

FIGURE 2.

three and one-half feet long. For seven-foot disks, make the distance, A, seven feet. Make A eight feet for eight-foot disks.

At the ends, do not try to make a short turn. When practical, start around the outside of the field. You will then have only a half turn to make at the corners. This is more satisfactory than to make a complete turn at the end of the field. I spent a half day getting a hitch that would work and a half day loss for a man with two disks and a tractor means considerable in a busy time.

Answer.—We are always glad to hear from our readers who have some ideas of their own obtained by experience. We are publishing the sketch in Figure 2. The above explanation is so clear that we have nothing to add. It would be well for our readers to try this hitch, especially where there is trouble in turning.

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National Dairy Show, 1917.

To the Editor:—The National Dairy Show of 1917 will be held in Ohio, at Columbus, October 18th to 27th inclusive, and will be larger and more intensely valuable and interesting than ever before. It will be held on the state fair grounds of Ohio, within the city limits of Columbus.

The Ohio legislature has just appropriated $200,000 for immediate construction of a most usefully appointed coliseum that the knowledge of man can conceive. This coliseum will be opened and dedicated to its work for agriculture by the National Dairy Show.

The central location of Columbus to the largest dairy section of the United States insures a greater exhibit of dairy cows than has ever been assembled, and the accessibility of Columbus for the dairy industry as a whole brings out the largest industrial exhibit any dairy show has ever housed.

There will be a display of motor trucks and tractors greater than ever assembled at any show, and a great pleasure motor car exhibit, for the reason that the people who furnish the greatest market of today for trucks, tractors and pleasure cars are of the dairy world.

There will be, in addition, a magnificent utility horse show, as well as an evening horse show, as Columbus is in the center of things for the work and pleasure horse.

Columbus has an equipment of buildings, grounds and hotels to make of this show one of the most remarkable show yard events of America, and it is so easy of access by the people of the wonderful agricultural territory represented by Ohio, Michigan, Kentucky, Indiana and Pennsylvania, and is the gateway between the Southwest and the East, making a trip to the show possible with less resistance than to any other place in America from the West, Northwest, South and Southwest, and there will be a half million people flock to this great show as the "agricultural mecca" of the year.

Dairy cattle men, whether showing on any of the fair circuits of the year or not, cannot afford to overlook bringing out their cattle to this show. It will afford a lifetime opportunity for comparison of cattle and making the acquaintance of men from all over America.

It offers a rare chance for dairymen to advance the cause of dairying in the great agricultural territory of central United States. This alone should call for lovers of the dairy cow and dealers in dairy supplies to rally as never before.

The horse men will meet more real farmers searching for their needs at this show than at any other fair or show of the year, and the motor and tractor people will meet and talk to more prospective buyers than will attend all other fairs and shows combined. The basis for these assured statements is that this is the one great fair and show of the year that is devoted exclusively and entirely to dairy educational purposes. The exhibitors do not have to compete with large city attractions and the useless distractions of the average fair. Nothing but the real purpose of presenting to the people of the country those things that are essential to their well-being is considered in making up this great show; hence the people come.

Remember the date—October 18th to 27th—Columbus, Ohio, and plan your year's work accordingly.

W. E. Skinner,
General Manager National Dairy Show Association.

Calf Losses.

To the Editor:—"I should be afraid to go to that man's herd to buy a calf."

That is what I heard a certain man say, in speaking of a herd of pure-bred stock, and the reason he gave for not wanting to buy of that farmer or to have any friend of his buy, was that the cows of the herd in question were apt to lose their calves from abortion. It is pretty evident that the man who has that reputation, and in whose dairy the facts warrant that reputation, must be a heavy loser, not only in the number of calves he might have otherwise to sell or to keep but in the estimation of his neighbors, who suspected that their friend's stock was subject to this disease.

What can we do to prevent this particular kind of loss among our calves? There is a kind of abortion which is not contagious, but which comes from injuries of one kind or another. The best we can do in such a case is to do our best to ward off harm. Icy yards have much to do in such cases.

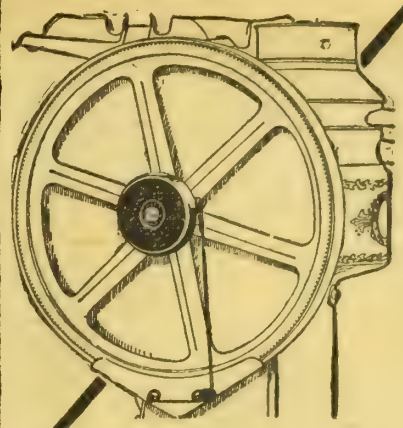
But where the disease is without doubt contagious, more radical treatment is necessary. In the first place, it is best to send for some good veterinarian. He will no doubt say we must clean up, and that is good advice. Every particle of straw, chaff or other bedding that has been around an aborting cow ought to be taken up and burned. All animal matter, even to the blood which may be found on floor or siding should be washed off with a good disinfectant and the water put where nothing will ever come in contact with it. For this purpose we may use antiseptics and follow with lime.

The cows which are affected ought to be taken out of the herd and stabled by themselves. This in itself is one of the best ways of insuring other stock from the appearance of abortion. Particular pains must be taken to see that no stock is brought on the farm which is affected, or which has come from a stable where they have had the trouble. It is well to bear in mind that young cows are peculiarly subject to the disease.

The reproductive organs of the animal affected must be carefully washed with a good disinfectant, but this ought to be applied as well as prepared under the direction of a man who knows his business. It will not do to take chances in such an important matter.

But the best cure is prevention. If we are all the time on our guard we are not apt to have trouble this way. No bull which is suspected of having been inoculated with this disease ought to be used. No cow should be brought from a diseased dairy. No remains of diseased matter should be tolerated in one's stable a minute longer than is necessary. Even contact of the genital organs with woodwork that has abortion germs on it may transfer the disease.

The man who has this trouble



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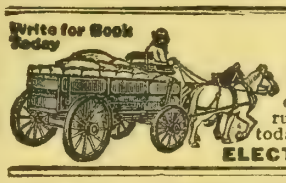

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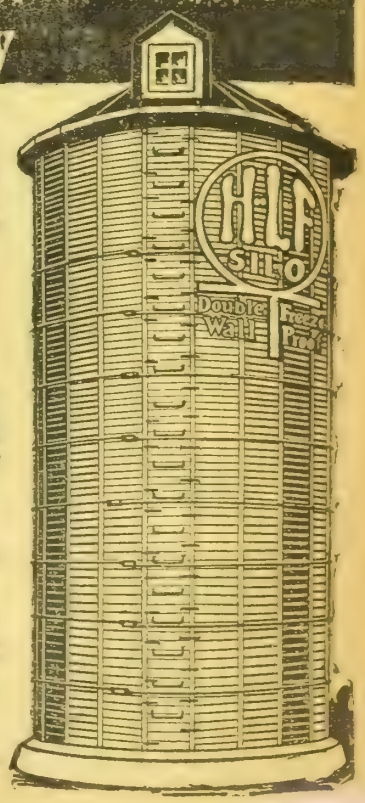

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ought not to try to "get along" hoping it will disappear. Make it disappear! That is the only safe way. And then work hard to keep clear of it.

Subscriber.

Cow-Testing Reports.

Reedsburg Association.

To the Editor:—In January forty-seven cows in our association produced forty pounds of butter fat and sixteen of these produced over forty-five pounds. at the end of ten months' work our association is now about ready to reorganize into two associations. It appears that the increased interest which our members take in their cows and in the dairy business is more than sufficient to offset the dues of $1.25 per year per cow. One of our members tells me that his increased interest has resulted in 33 1-3 per cent addition to his cream checks. Last year his cattle stood out in the cold an average of five hours per day. Now they are out twenty minutes a day. It is such matters as these that increase the size of the cream checks. The following table gives the names and records of the cows in the association which have produced forty-five pounds of butter fat or over for the thirty-day period ending February 6, 1917.

Owner, name and breed	Age	When fresh	Pounds milk	Pounds of fat	Per cent B. fat
Wm. Von der Ohe					
No. 3, G. H.....	5	Nov.	1479	4.1	60.6
No. 5, G. H.....	6	Oct.	1230	4.1	50.4
No. 10, G. H.....	4	Oct.	1440	3.4	49.0
No. 13, G. H.....	4	Nov.	1369	3.4	45.9
No. 9, G. H.....	4	Oct.	1290	3.5	45.2
Wm. Hahn					
Josie, G. H.....	7	Nov.	1284	4.4	56.5
Beauty, G. G.	7	Sept.	1329	3.6	47.8
Kirkpatrick Bros.					
Jennie, R. H.....	6	Dec.	1227	4.6	56.4
Duwertigie, R. H.	5	Dec.	1122	4.6	51.6
Ed W. Rusch					
Rose, R. H.....	6	Dec.	1599	3.4	54.4
Frank Groat					
Mollie, G. G.....	3	Dec.	966	5.6	54.1
Pepper, G. G.....	6	Oct.	1041	4.5	46.9
James Carroll					
No. 24, G. H.....	4	Oct.	1260	3.8	47.9
No. 23, G. H.....	4	Nov.	1200	3.8	45.6
J. J. Marshall					
Bell, G. H.....	6	Nov.	1428	3.3	47.1
Fred Hilmer					
No. 6, G. J.....	11	Dec.	969	4.8	46.5

Alvin W. Wardas,
Official Tester, Reedsburg Cow-Testing Association.

Cow Testing Is Gaining.

To the Editor:—In spite of the cold and stormy weather, the Baraboo Cow-Testing Association is steadily gaining in the number of high producing cows which is due wholly to the good feed and constant care these cows are getting. They are not turned out these cold days, like some cows you see throughout the country, but are kept in warm barns, where lots of light and ventilation is present. Neither do they get ice cold water to drink. They get the chill taken out of it and will drink more, as milk is 85 per cent water it is necessary they drink lots of good, pure water at the right temperature, in order to produce a large flow of milk.

Last month there were ninety-seven cows that gave thirty pounds; thirty-nine over forty pounds, and fourteen over 50 pounds of butter fat. Martiny & Son had the best cow, giving seventy-eight pounds; also the highest herd average, being 48.1 pounds of butter fat for twelve cows. Ed McGilvra had the highest average herd test of 670. He had one registered Jersey heifer twenty-one months old making 39.7 pounds of butter fat in one month. Her cost of feed was $6.80, leaving a profit of $10.49 for that month.

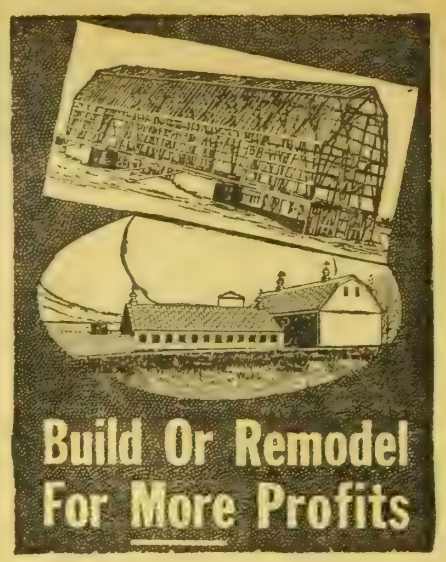
The following table gives the names and records of the cows in the association which have produced fifty pounds of butter fat or over for the thirty-day period ending January 31st:

Owner, name and breed	Age	Lbs. milk	Per cent fat	Lbs. B. fat
Martiny & Son				
No. 11, R. G.....	13	1624	4.8	78.0
No. 16, R. G.....	12	1262	5.6	70.7
No. 9, G. J.....	13	1370	5.0	68.5
No. 15, R. G.....	12	1128	5.5	62.0
No. 16, R. G.....	12	1122	5.5	61.7
No. 4, R. G.....	14	1349	4.1	55.3
C. Copener				
Alga, R. G.....	7	995	6.6	65.7
Leona, R. G.....	6	1023	5.1	52.2
H. Winke				
Lillie, R. G.....	9	1377	4.6	63.3
L. R. Siebecker				
Old Maiden, G...	7	977	6.3	61.6
Ed Egerer				
Bessie, G. G.....	9	1497	3.9	58.4
L. M. Wickem				
Zella, R. G.....	7	1113	4.9	54.5
No. 22, G. G.....	7	1310	3.8	49.4
Roy Camles				
No. 4, R. J.....	8	970	5.3	51.4
R. Coblugh				
No. 9, G. H.....	8	1088	4.7	51.1

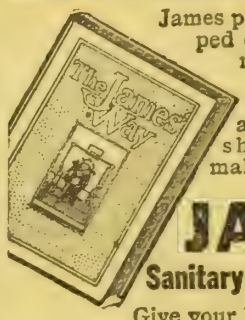
W. C. Johnson,
Official Tester Baraboo, Wis., Assn.

Outsiders Want Tested Cows.

To the Editor:—Seventy-two cows in the Waupaca and Butternut Ridge Cow-Testing Association had forty pounds of fat to their credit for the month ending January 30th. Thirty-seven of these produced over forty-five pounds of fat. There were 358 tested showing that about one-fifth reached the forty-pound mark. The banner cow for the month was a grade Jersey owned by E. O. Frihart. She produced 1,187 pounds of 5.7 per cent milk, making a total of



Build Or Remodel For More Profits



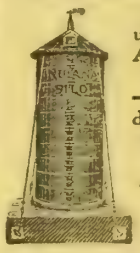
James planned and equipped dairy barns mean more milk and less work. Make your dairy barn an efficient work shop and profit maker. Install

JAMES
Sanitary Barn Equipment

Give your herd contentment and comfort and they'll give you more milk. James equipment is the practical profit-maker that thousands of America's dairymen use. Tell us when you intend to build or remodel and for how many cows — we will send you the big "Jamesway" Book Free.

James Manufacturing Co.
EE63 Cane Street, Ft. Atkinson, Wis. Elmira, N. Y.
P. R. ZIEGLER CO., Boston, Mass. DE LAVAL SEPARATOR CO., San Francisco and Seattle

THE INDIANA SILO



Fifty thousand are now in use on the finest farms in America.

If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

Let us send you our proposition—to contract now for your silo and deliver it later.

We still have openings for a limited number of farmer agents.

INDIANA SILO CO.
618 Union Building, ANDERSON, INDIANA
618 Silo Bldg., KANSAS CITY, MO.
618 Indiana Building DES MOINES, IOWA
618 Live Stock Exch. Bldg., FT. WORTH, TEXAS

Lansing Vitrified Tile Silo

Get the "SHIP-LAP" Joint

The quality construction in vitrified tile. End of each block overlaps onto the next. Make a stronger silo wall with less mortar line exposed. Smoother wall inside—better looking outside. Reinforced with twisted steel—continuous doorway—big ladder rungs. Hip roof gives extra footage in height.

Write for Catalog and Prices

J. M. PRESTON CO., Dept. 333, Lansing, Mich.
Also get our offer on Comet Saw Fillers and Bidwell Threshers

Ear Tags FOR STOCK

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.

F. S. Burch & Co., 262 W. Harrison St. Chicago

POUNDER'S CORN KING HARROW for all work. Result of 81 years' forge and field tests; self cleaning; does 2 to 3 times work of others; 150,000 users say best ever for stony land, prairie land, wet rice land, dust mulching arid land. *Ask any user. Satisfaction guaranteed.* If your dealer hasn't them write for catalog and price to Dept. C. H. POUNDER, Station 13, Ft. Atkinson, Wis.

67.7 pounds of fat. This is a cow which Mr. Frihart bought for $65 a year ago and she is producing for him double the amount of butter fat which she produced for her former owner. Records which are being made in our association are attracting buyers from other states. Recently the department of agriculture of Oklahoma wrote asking for prices on Holstein cattle with association records. Prices were given and sixty-two cows, yearlings and two year olds were sold and these same people wanted two cars more of yearling heifers, but were unable to supply them in Waupaca county. We are anxious to have every dairyman with ten cows in this county to belong to a cow-testing association, so that we may be able to grade up the stock of this county to a high standard. As soon as we do this, we will have no trouble in disposing of surplus. We believe that belonging to a cow-testing association and having cows with records is an investment and not an expense to the dairy farmer.

The following table gives the names and records of cows in the association which produced more than forty-five pounds of butter fat during the thirty-day period ending January 30, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	
Fred T. Jorgenson					
Caroline, G. H.	10	12-19-16	1575	3.2	50.4
F. R. Constance					
Gold Mine, G.J.	3	12-17-16	1150	5.4	62.1
Anne, G. J.	4	12-7-16	1156	4.1	47.4
Rosabelle, R.J.	8	10-25-16	660	7.4	48.8
E. F. Schroeder					
Charlotte, G.J.	4	11-20-16	859	5.5	47.2
E. O. Frihart					
Daisy, G. H.	5	11-5-16	1792	3.7	66.3
Daisy II, G. J.	10	10-20-16	1187	5.7	67.7
Brownie, G. G.	6	3-28-16	710	6.5	46.1
Dorothy, G. H.	3	11-26-16	1618	3.9	63.1
E. A. Tunks					
Pet, G. J.	9	11-15-16	862	5.5	47.4
Sponk, G. J.	3	12-4-16	862	5.7	49.1
Herman Becker					
Spot, G. J.	8	11-29-16	1001	5.5	55.1
Nigger, G. J.	10	10-14-16	861	5.4	46.5
Fatty, G. J.	9	11-12-16	753	6.0	45.2
Blackie, G. J.	8	10-11-16	1228	3.7	45.4
Guy Anderson					
Pearl, R. G.	6	10-1-16	837	6.0	50.2
Frank Bauer					
Bertha, G. H.	3	12-27-16	1581	3.8	60.1
Bessie, N.	5	11-24-16	1410	3.6	50.8
Jessie, N.	4	11-10-16	1308	3.8	49.7
Eva, N.	6	10-28-16	13[illegible]	3.5	45.7
W. J. House					
Hariett, G. H.	5	1-2-17	1085	4.5	48.8
H. C. Frihart					
Cherrie, G. J.	5	11-15-16	840	5.4	45.4
Baxter, G. J.	7	12-27-16	1057	4.5	47.6
Jno. C. Backes					
Rockin, G. G.	6	12-27-16	995	4.6	45.8
Theo. A. Bauer					
Murnie, G. G.	5	12-25-16	1025	5.8	60.0
Ira Farley					
Belle, G. H.	5	10-25-16	1612	2.8	45.1
Brownie, G.H.	11	9-19-16	1069	4.8	51.3
Jessie, G. H.	7	11-4-16	1556	3.7	57.6
Daisy, G. H.	5	1-2-11	1503	3.4	51.1
Emma, G. H.	3	12-17-16	1872	2.8	52.4
Wm. Kneip					
Bockes Gray, N.	9	10-30-16	1367	3.9	53.3
Wm. Rossey					
Dandy, G. G.	6	10-26-16	1029	4.9	50.4
Susie, G. G.	2	12-23-16	1293	4.3	55.6
M. E. Lewis					
Harriet, G. G.	8	1-8-17	1162	5.3	61.6
Art Glocke					
Cherry, G. G.	4	12-30-16	1454	3.9	56.7
Peterson & Miller					
Golden Lily, R. G.	9	6-7-16	731	6.3	46.1
Jno. Hanson					
Edith, N.	5	10-28-16	1082	4.3	46.5

Geo. L. Moss, Official Tester.
Wm. Kneip, Secretary.

In Winnebago County.

To the Editor:—We had fifty-nine cows in the Winnebago County Association in January which produced forty pounds of butter fat or better. Mr. Chas. Ruelke's herd had the highest average, being 40.8 pounds. The following table gives the names and records of the cows in the association which have produced forty-five pounds of butter fat or over for the thirty-day period ending January 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
J. W. Thrall					
Margurette of Ripon, G. G.	8	11-15-16	1234	3.9	48.1
Newels Beauty, G. J.	10	10-12-16	825	5.9	48.7
Violet, G. G.	4	11-26-16	1166	4.5	52.5
Dorothy of Libetry Prairie, G. G.	5	12-18-16	1020	5.4	55.1
G. E. Washburn					
Rose 2d, P.B.J.	9	5-8-16	1150	6.4	73.6
Emma, P.B. J.	7	8-17-16	725	6.2	45.0
Black Patsy, P. B. J.	9	12-6-16	1138	4.7	53.5
Lynda, P. B. J.	5	10-11-16	1001	5.[illegible]	53.1
Frank Brooks					
Eve, G. D.	6	10-24-16	1163	4.7	54.7
Mary, G. D.	6	1-21-17	1004	5.3	53.2
Josephine, G.H.	8	11-5-16	1101	4.1	45.1
Joe Lanning					
No. 6 G. D.	7	12-28-16	1161	4.4	51.1
Charley Ruelke					
Annie, G. G.	6	11-5-16	890	5.8	51.6
Primrose, G.G.	7	12-5-16	1256	4.7	59.0
Dolly, G. G.	8	12-23-16	1221	4.6	56.2
Edna, G. G.	7	1-10-17	1550	3.5	51.2
T. A. Farrow					
Bess, G. G.	9	11-28-16	902	5.6	50.5
Dorcas, G. G.	10	12-24-16	986	4.8	47.3
W. E. Haase					
Porter's June, G. G.	8	12-16-16	1240	4.4	54.6
Winnifred, G.J.	5	1-18-17	1026	4.5	46.2
H. R. Mosely					
Lillie, G. G.	3	1-18-17	1011	4.9	54.1
Daisy, G. G.	9	10-31-16	1008	5.1	51.4
G. W. Searles					
Hazel, G. J.		11-7-16	924	6.0	55.4
Marjorie, G.G.		11-4-16	1147	4.5	51.6
Jennie, G. G.		11-22-16	1156	4.8	55.5
Una, G. J.		10-23-16	1178	5.3	62.4
Charley Brooks					
Jane, G. G.	5	12-15-16	1092	4.2	45.9
W. P. Bussey					
No. 7, G. D.	9	11-12-16	1190	3.8	45.2
No. 8, G. D.	9	11-11-16	1296	4.2	54.4
N. A. Rasmussen					
Rosanna, P.B.G.	6	12-13-16	1135	4.6	52.2
Ed G. Race					
Ormy, P. B. H.	10	1-29-17	1931	3.1	59.9
Pearlie, G. H.	5	1-2-17	1944	2.6	50.5

A. R. House,
Official Tester Winnebago Cow-Testing Association.

Using the Hare For Food.

To the Editor:—I have always been a lover of pet stock and I saw an article in your paper recently by Mr. Hartmann on Belgian hares which hit me in a tender spot. Along in 1890 or 1891 I began raising the little pink-eyed white rabbits, and a few years later gave them up for the Belgians—not the Rufus Red, fine, rangy fellows that we have now, but a pretty nice pet, and great for eating. Talk about your spring fries, chicken isn't in it with a Belgian hare about three and a half or four months old, and why more people do not raise them for meat I do not understand. Take it in villages and small towns where a person has a small lot, they could keep a pair which with average luck would produce $80 or $100 of the finest kind of meat at very little cost.

As for food, nice, bright hay of any kind will do, but I prefer alfalfa or clover with oats, caring for them the same as you would sheep when on dry feed in the wintertime. They do well with carrots, sugar beets and mangles as green feed, but above all do not feed them cabbage or lettuce unless you want pot belly, which will soon turn into bowel trouble and then sure death.

I kept water before mine continually, also salt. Keep the hutches well cleaned at all times and so avoid sore hocks. Also keep them off the ground. A hutch 2½-2½x4 feet long makes a nice size for the does, 2½x2½x3 feet for the bucks. Have them made tight on two ends, the top, bottom and back so no draft can get to them. They cannot stand a draft or the heat, but will stand all kinds of cold. I have one doe that kindled in that cold snap this winter when it was 20 and 22 degrees, and I never had a doe do better or raise a finer litter.

The does and bucks should be separated when two or two and a half months old, never left longer than three months or there will be trouble. Never put young bucks and old ones together, for they will fight all the time.

When feeding to finish off for market I feed some corn and carrots every other day. M. M. Lanphere.
Rock Co., Wisconsin.

Use A Wood Tire Hollow Wall Silo

Cannot Sag, Blow Down or Rot.

Cures and preserves silage perfectly. Prevents freezing of silage. Easy to construct. A real farm building, permanent and rigid. No hoops to get loose. No guy wires. No staves to shrink or swell, but a smooth, double wall from base to roof, the inner wall being of *California Redwood*.

Guaranteed for 20 Years

"But Lasts a Lifetime" WOOD TIRE — AIR SPACE — INNER WALL — OUTER WALL

The patented wood "tire" is built up of inch boards, and shipped in sections. The boards overlap in step formation at both ends. When nailed together, these sections form a ring of unusual strength. The silo frame forms its own scaffolding.

Send for our folder which shows how the Wood Tire Silo is built, and also what owners think of them. A postal brings it. Write today.

Agents Wanted in unassigned territory.

WOOD TIRE SILO CO. 4
7 Clark Street
Sheboygan Falls, Wisconsin

LEADER Churns in 2 Minutes

New scientific principle. A few easy turns of the crank brings the butter. A child can operate it. Easy to clean. Sanitary.

30 Days' FREE TRIAL

Don't send a cent until the 30 days are up. If you are not satisfied then, send it back. We'll pay return express charges.

Order From This Ad

Just place a check in square before size you want. Sign your name and address on the margin—tear out ad and mail to us today. We ship churn Free for 30 days trial. Send no money.

You cannot equal these prices anywhere

☐ 3 Gal. $4.25 Churns 1 1-2 Gal. ☐ 6 Gal. $4.75 Churns 3 Gal. ☐ 8 Gal. $5.25 Churns 4 Gal.

Why pay more? Money cannot buy greater churn value. You pay express charges. Send today sure.
NOVELTY MFG. CO., Box 516, Abingdon, Ill.
World's Largest Exclusive Churn Manufacturers

Buy CAPACITY when you buy a Separator

Capacity to skim milk is what you are paying out good money for when you buy a separator—not just so much iron and steel.

If you pay $66.00 for a separator which will skim 600 pounds of milk an hour, you are paying for that skimming 11 cents a pound.

If you pay $75.00 for a 450-pound machine, you are paying over 16 cents a pound for identically the same thing.

That isn't good business—is it? That excess of 5 cents on every pound runs into big money in the course of a year.

Compare capacities when you buy a separator

Buy on this basis and you'll buy a Viking because the Viking gives you positively the greatest capacity for every dollar you pay. Capacities and prices of other standard separators prove it.

The Viking skims down to three one-hundredths of one per cent or better—mostly better. It is without doubt the closest skimming separator offered today; does better work; lasts longer; saves you money on the first cost—saves on repairs; and gives you the most for your money.

You should know more about the Viking

No dairy farmer should invest a penny in any separator until he finds out all about the Viking, the popular separator built by the Swedish Separator Company—factory in Sweden, and American offices in Chicago. Large supplies of spare parts on hand.

FREE BOOK

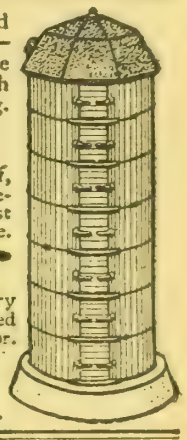
Morley-Murphy Hdw. Co., Green Bay, Wis.

SWEDISH SEPARATOR CO.
Dept. D 515 S. FIFTH AVE. CHICAGO

KALAMAZOO SILOS

Will Solve Your Silo Problems

They're built to meet the exacting farmers' needs and are the best in design, material and workmanship—combining every desirable feature a silo should have and embodying the "know how" acquired through more than twenty years experience in silo building.



Glazed Tile Silos

This construction is fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Requires no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

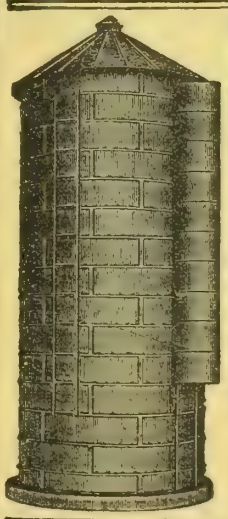
Wood Stave Silos

Your choice of four time-defying woods. The Kalamazoo is the only factory where this outfit is manufactured complete from the raw material to the finished product. Our silos are quickly and easily erected by inexperienced home labor.

All Kalamazoo Silos are made with Galvanized Steel Door Frames, continuous doors, forming safe ladder entire height of silo.

Write today for our free descriptive booklet, and early sales plan.

KALAMAZOO TANK & SILO COMPANY, Dept. 107 Kalamazoo, Mich.



ROSS METAL In-de-str-uct-o SILO

The Silo that fills a long felt want. Results obtained from the use of a Metal Silo are far beyond expectation. Silage contains by far a larger percentage of food value, more uniform preservation, taste and color, naturally far more productive in results. The Most Permanent Silo because it

Can't Blow Down, Buckle, Twist or Collapse

Resists fire to the fullest extent and is storm proof. No skilled labor required to erect it. Can be increased in height at any time. Special IN-DE-STR-UCT-O Metal is warranted not to be effected by acid in silage or climatic conditions. The users of Metal Silos are our references. Our Testimonial and Construction Catalog is worth asking for, especially to those who desire to erect a Silo from the standpoint of permancy and 99% food value preservation. Agents wanted who are able to produce results.

THE E. W. ROSS CO. Box 354 Springfield, Ohio
Est. 1850-67 Years Experience
We also make Ross Wood Silos and Ross Silo Fillers

25 CENTS CALF RENNETS

We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address THE MARSCHALL DAIRY LABORATORY Madison, Wis.

Biggest Hatches Strongest Chicks

That's what you will get with my Hatching Outfit—and I can prove it. The whole story is in my big Book "Hatching Facts" in colors—sent Free, write for it. It gives short cuts to Poultry Success—what to do and how to do it. Start one of these wonderful Prize Winning Incubators making money for you.

Over 524,000 Satisfied Users

$8.55 Buys 140 Egg Size World's Champion Belle City Incubator

Hot-water—Double-walled—Copper Tank—Self-Regulating. The Prize Winning World's Champion Model—same as used by Uncle Sam—leading Agr'l Colleges—America's most Successful Poultry Raisers. When ordered with my **$4.85** World Famous Hot-water Double-walled 140-chick Brooder, both cost only **$12.50.**

Freight Prepaid East of Rockies Allowed that far to points beyond

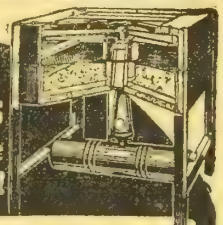
Satisfaction Guaranteed

You can also share in my—**$1000 Cash Prizes** to customers—conditions easy to get Biggest Prize, order now—the earlier you start, the better your chance to share in the Gold—anyway write today for my big Free Book. Jim Rohan, Pres.

90 Days' Trial I ship quick from Buffalo, Kansas City, Minneapolis or Racine

Belle City Incubator Co., Box 106 Racine, Wis.

5 New Features That Assure Bigger Hatches!



FIFTEEN new improvements last year! Twenty new improvements in the 1917 X-Ray! Beyond all question the most scientifically *sure* hatching machine ever perfected. In addition to the fact that the X-Ray uses only one gallon oil (one filling) the entire hatch—has the X-Ray Automatic Trip that regulates flame and prevents both cold corners and overheated sides, and all the famous 15 features of the 1916 model, the 1917

X-RAY INCUBATOR

has the new X-Ray Egg Tester, the new X-Ray Nursery Tray, the new X-Ray Gas Arrestor, the New Quick Cooling Egg Tray *and* the new Handy Heighth design at *no increase in price!*

We Prepay Express to practically all points, too. Post yourself on all the reasons *why* X-Ray Incubators and Brooders *will* increase your poultry profits! Write tonight for Free 1917 Catalog 43.

X-Ray Incubator Co. Box 43 Des Moines, Iowa

Write for FREE BOOK

Ironclad TRADE MARK **WINS In 2 Biggest HATCHING CONTESTS Ever Held**

Mrs. C. F. Merrick, Lockney, Tex., with her Ironclad Incubator wins in the Mo. Valley Farmer and Nebr. Farm Journal Big Hatching Contest. She placed 148 eggs in the incubator and hatched 148 strong chicks. Think of that. You can now get those famous winners, made of Calif. Redwood.

150 Egg Incubator Chick Brooder } BOTH FOR $11.00

If ordered together. 30 days trial. 10-year Guarantee. Order direct from this advertisement—money back if not satisfactory. Incubator is covered with galvanized iron, triple walls, copper tank, nursery egg tester. Set up ready to run. The Brooder is roomy and well made. Send for free catalogue.

Freight Paid East of Rockies

Made of Redwood covered with galvanized iron.

150 Chick Brooder

Ironclad Incubator Co. Box 113 Racine, Wis. (3)

Did You Have "Good Luck" With Your Chicks?

"Luck" with chicks starts with the incubator. If it is properly heated, **properly regulated,** and properly ventilated, your chicks will start off with vitality. They won't come out of the shell **half dead.** So many people trust their eggs to a cheap machine, forgetting that it is not only how many you hatch that counts, but how many **live and grow.**

Start Your Chicks With a Queen Constitution

The Queen has a reputation for hatching **strong, healthy chicks.** It is built of genuine Redwood—very scarce in these days of cheap substitutes. Redwood does not absorb odors from the hatching eggs. Cheaper woods, and pasteboard lining in iron and tin machines, retain the odors to weaken and kill the hatching chicks.

Queen incubators are not cheap, but they are built to **hatch big hatches of chicks that live.** Book sent free.

Queen Incubator Co., 1175 N. 14th St., Lincoln, Nebr.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Hatching Chicks Early.

The advantage of hatching chicks early is that it gives a longer hatching season and thereby enables the poultry keeper to raise a larger number of chicks. On farms, where the hens alone are used for incubating purposes, this may mean almost doubling the number of fowls raised each season.

Many poultry raisers do not hatch chicks in February or March for fear of losing them on account of cold weather. This is a grave mistake.

If early hatched chicks have a good mother hen to brood them and a coop protected from the raw winds, there is no more danger of losing chicks at that time than there is later on. Low temperature is not half as dangerous to the health of chicks as drafts, dampness and lack of fresh air. A bracing cool air is invigorating and healthful, while dampness and a lack of fresh air causes sickness and death. Every season more chicks are killed by confining them too closely than by plenty of fresh air, even when the temperature is below freezing.

If poultry raisers use hens only for hatching purposes and they are able to get hens to set any time during February or March, they should hardly hesitate to raise early chicks for fear of losses from cold.

Getting an early start in this manner extends the hatching period at least two months at an invigorating time of the year. No chicks, as a rule, thrive better or make more rapid gains than early hatched ones. If poultry keeping is profitable on a utility basis, then a large increase in the number of chickens raised each season will increase in capital for outlay on more land, buildings, coops or other accessories of poultry keeping.

This gain in profits may come from two sources, either from the sale of the young cockerels as broilers, or from the sale of the pullets for egg production. The question as to the pullets must be solved by the individual poultry raiser. If more pullets should be raised as a result of early hatching than the poultry raiser requires for his own purposes, the surplus pullets can always be profitably sold for fall and winter egg production. As a rule, therefore, pullets may be regarded as more profitable than hens and they should only be sold in case the capacity of the poultry house demands that some shall be sold to avoid the danger of overcrowding. In that case, if they are of a recognized standard bred and of a good laying strain, early-hatched pullets command a much better price than later hatched pullets, because of their prospective value for the production of eggs in fall and winter.

Another item of raising early chicks is to secure eggs in the fall and early part of the winter. This is the recognized period of lowest supply. Strictly fresh eggs are scarcer in the fall than at any other time of the year. The reasons are that most hens are molting and pullets have not begun to lay.

There are, therefore, great advantages in hatching chicks early not only as a means of solving the problem of egg production in the fall, but also adding to the poultry keeper's income. Early hatched chicks require only a little more care than later hatched chicks, but the results in eggs and income during the fall months, when egg prices are always high, make the extra attention well worth while on the part of the poultry keeper.

The Price to Ask For Eggs or Chicks.

Many poultry keepers are usually somewhat puzzled as to what is a fair price for eggs for hatching and baby chicks. Of course, this will depend on the quality of your breeding stock. If your stock does not have sufficient quality to make the eggs worth a fair price it would be better not to sell them for hatching. Many use the eggs from all their hens, making no special mating or selection. In such flocks there are always some poor layers, and this would be unfair to the purchaser.

The eggs which come from such stock are of little value. They are the same as the owner sells for market eggs and are worth very little more than market price. There may be some good birds in the flock and they may all be pure blood, but the buyer will have to hatch and grow so many to get a few good birds that it would be a losing game to the buyer. The buyer had better pay more for fewer eggs and save the labor of hatching and growing worthless stock.

Then we must bear in mind that only about half the eggs the hens lay are fit for hatching. Taking these out reduces the value of the market eggs. The market value of eggs during the early hatching season runs from 30 to 45 cents per dozen, while during the latter part of the hatching season they drop as low as 25 cents. This brings the cost of hatching eggs from 40 to 80 cents per dozen. The price of eggs per setting from good, mated stock should bring from $2 to $5, according to quality. One should avoid the two extremes of asking too low or too high a price. Of course, breeders with wide reputations ask $10 to $25 per sitting

Wisconsin Wins In Big Hatching Contests Every Year

Why Pay More

For only $10 you can get these two prize winning machines, delivered, freight paid east of the Rockies. You take no risk—money back if not satisfied. You can order direct from this ad. Ask the publisher about us.

Both Machines Freight Paid For Only $10

180 Egg Incubator and 180 Chick Brooder both for only $12.75

Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on **30 Days' FREE Trial**

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10-YEAR GUARANTEE

Wisconsins have hot water heat, double walls, air space between double glass doors, copper tanks and boilers, self regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1917 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.

WISCONSIN INCUBATOR COMPANY, Box 100 Racine, Wis.

HAEGER

Drain Tile That Is Strictly Guaranteed

HAEGER DRAIN TILE is good enough to GUARANTEE—*and we do it!* If any piece of HAEGER TILE proves defective, we will replace it at our own expense. This is the strongest guarantee ever made on drain tile, and gives you fullest possible protection.

"Haeger" Means Highest Quality

See that the "Diamond H" mark is on the tile you buy. HAEGER QUALITY TILE has been the standard for 30 years. It is strong, straight, well-burned; lasts a life-time. Get it from your Dealer or direct from us.

WRITE FOR FREE BOOKLET

Tells all about how to add $30 to $50 per acre to the value of your swamp land and just how to drain it properly. Write for this Free Booklet today. Address—

HAEGER BRICK & TILE CO. No. 1 State Bank Bldg., Dundee, Ill.

FREE SEND FOR THIS BOOK

RESULTS

A CHICK FROM EVERY HATCHABLE EGG. STRONG, HEALTHY, ROBUST CHICKS THAT LIVE! MAKES POULTRY BUSINESS PAY.. MATCHES NEAREST OF ALL THE NATURAL PROCESS OF THE SETTING HEN.

THE SECRET OF PROGRESSIVE BIG HATCHING RECORDS

BUILT OF GENUINE CALIFORNIA REDWOOD. Egg chambers surrounded with special insulator having hundreds of air cells, guard against temperature change. Corrugated copper hot-water heater, automatic ventilation and regulation. No dry, hot blasts to kill chicks in shell. Machines complete. Money back guarantee if not satisfied. Big Free Book explains all Special deals.

Progressive Incubator Co. Box 128 Racine, Wis.

$9.85 FOR BOTH

50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents.

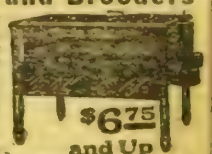
Theodore Franz, Box 104, Mankato, Minn.

My Best Offer in 21 Years

Write Today for this offer which gives you the oldest and best known incubator at a rock bottom price. Get my guaranty which insures you a *sure success* and *big profits* this year with

"Successful" Incubators and Brooders

Backed by 21 years of successes—and the strongest guaranty ever written. Twenty big points for success. Write today for catalog.



$6.75 and Up

Poultry Lessons FREE to every buyer of a "Successful" Incubator or Brooder. A complete course—well worth $25—insures success—tells how to save on feed—get top-notch prices, etc.

Feed Sprouted Grain—Get More Eggs—with *"Successful" Grain Sprouters*—built in all-steel sections—repeated. Changes 1 bushel oats into 3 bushels fresh, green egg-making feed. Makes hens lay in winter. Send for free descriptive circular and low prices.

Write for Catalog of "Successful" Incubators and Brooders. Enclose 2c if you also want "Proper Care and Feeding of Chicks, Ducks and Turkeys." Incubator catalog is FREE—Write today.

J. S. GILCREST, *President*

DES MOINES INCUBATOR CO. 3802d St., Des Moines, Ia.

140 Egg Neubert Incubator $7.25

The **Pioneer Hatcher of Quality** made by Neubert's of 25 years' experience. None better at any price. Double wooden walls, dead air space, red wood, hot water copper tank, self regulator, safety lamp, high nursery. Most simple and durable, set up ready to use. Money back guarantee. Brooders $2.50 up. Big catalog Free. Write today.

F. A. Neubert Incubator Factory, Mankato, Minn.

62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls eggs, at low prices. America's Pioneer Poultry Farm, 25 years exp. Large fine Annual Poultry Book and Catalog 10c.

F. A. NEUBERT, Box 607, Mankato, Minn.

DAY-OLD CHICKS

of quality guaranteed to 1,000 miles. Eggs for Hatching at low prices. Bar. Rocks, S. C. W. Leghorns, S. C. and R. C. Reds, W. Wyandottes, Buff and W. Orpingtons. Booklet catalog free.

GOSHEN POULTRY FARMS. R-45 Goshen, Indiana

FOY'S BIG BOOK FREE

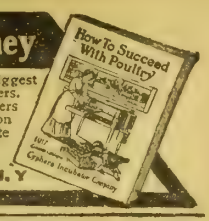
POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs.

FRANK FOY, Box 22 CLINTON, IOWA

Chicken Money

1917 is going to be the biggest year known for poultry raisers. Start right—Get the Cyphers Book—A mine of information which shows the way. Write for free copy.

Cyphers Incubator Co. Dept. 44 Buffalo, N. Y



For Sale

124 acre farm, 60 acres under plow, 1 mile from Neillsville, Wisconsin, with 2 story house, 26x40 and basement barn, 36x64. Price $12,000. Inquire of Ferdinand Gorzelitz, Neillsville, Wisconsin, R. F. D. No. 3.

62 ACRES, 10 ACRES TIMBER

BALANCE fields and pasture, rich, clay loam. 4-room house, basement barn 40x60, tubular well, best water; Apple orchard, farm tools. On good road, R. F. D., telephone. Near big market. Price $1600, half cash. Send for free photos, and description. **A. L. Wilkins, R. 1., Union, N. Y.**

FREE GOVERNMENT LANDS—Our official 112 page book "Vacant Government Lands" lists and describes every acre in every county in U. S. Tells location, place to apply, how secured FREE. 1917 Diagrams and Tables, new laws, lists, etc. Price 25 cents postpaid. WEBB PUBLISHING CO., (Dept. 98) St. Paul, Minn.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves. Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

FOR SALE A 135-acre farm near Jefferson Jefferson county, Wis. The farm is ½ mile from condensery, two creameries and railroad station; an elegant place for the cattle business, pure-breds or grades; the dairy center of the world. Priced to sell. E. H. Kiesling, Jefferson, Wisconsin.

ONEIDA COUNTY, WISCONSIN
LAND OF LOVELY LAKES
4,000 acres to choose from, none over 5 miles to railway station. Write now to W. W. Thayer, McNaughton, Wisconsin.

FARM where farming pays! In Central Wisconsin. The great dairy district. Good soil, low prices and easy terms. Send for free list, map and panoramic views of this country. Graham's Land Office, Marshfield, Wisconsin.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

MONTANA 640-acre homesteads, new towns, business opportunities. Send 25c for maps and information. U. S. Comm., Outlook, Mont.

WANTED TO HEAR FROM OWNER OF farm for sale or exchange. Address Kubat Realty Company, Chippewa Falls, Wisconsin.

FARM WANTED. Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

POULTRY AND PET STOCK.

WANTED—PURE BRED POULTRY AND EGGS

FOR hatching in large lots. Will buy cockerels, hens and pullets in many varieties. Whole flocks bought, also pigeons. Describe what you have, quality and lowest price.
Z. G. McKay Clinton, Iowa

HATCHING EGGS

FROM standard bred laying stock $1.50 per 15 or $7.50 per 100 eggs, and $2.50 per 15 or $10 per 100 eggs. Our flock is bred from high-class exhibition stock. Winnebago Poultry Yards, R. 23, Omro, Wis., A. J. Schoerb, Manager.

SINGLE COMB WHITE ORPINGTON

CHIPPEWA Hardy Nothern. Twenty-seven cockerels for sale from $2 to $25. Free mating list 1917 completed. Chippewa Orpington Farm, A. L. McDonald & Son, Office 722 Superior St., Chippewa Falls, Wisconsin.

BARRED Plymouth Rocks and eggs. Farm raised; bred for beauty and utility. Cockerels $3 to $7; pullets $2 to $4. Double mating, state if dark, light, or medium birds are wanted. Carter's Plymouth Rock Farm, Jonesdale, Wis.

WRITE FOR LOW PRICE on best thoroughbred poultry and pigeons, eggs and baby chix, turkeys, ducks, geese, incubators, brooders and poultry supplies. Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

"ARISTOCRAT" Silver Wyandottes. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

2940 COCKERELS, hens and pullets, 49 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

S. C. BUFF ORPINGTONS

World's Greatest Egg Producers. Eggs or Chicks. Cir. Free. Will Schadt, Box 1061 Goshen, Indiana.

64 BREEDS Fine, pure-bred Chickens, Ducks, Geese and Turkeys. Fowls, Eggs, Incubators at low prices; catalog **free.** **R. F. Neubert Co.,** Box 804, **Mankato, Minn.**

SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O. C. Olson, R. 2, Strum, Wis.

ROCKS—Pure-bred White and Barred. Day-old Chicks, hatching eggs. Early hatched cockerels reasonable. Mrs. J. F. Bloom, Route 1, Stillwater, Minn

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box 8, Janesville, Minn.

ROSE Comb Brown Leghorns, baby chicks, eggs. Cockerels of quality Write for particulars. Mrs. Herman Sandvig, Spring Valley, Wis.

SINGLE Comb Rhode Island Red cockerels scoring 94. Husky fellows weighing 8 pounds. Address A. Poltl, Hartford, Wisconsin.

of eggs, but the average person cannot.

Chicks are usually worth twice the price of eggs.

The Hatching Season.

To the Editor:—The hatching season is getting near. I will give you my way of hatching chicks. I am a breeder of Single Comb White Leghorns. They hatch almost every old way, but I am a great believer in the old hen. I think the chicks will mature quicker and will be stronger birds. I hatch all my fancy stock with hens, for show purposes. My farm flock I hatch with incubators. I have a thirty-six-acre poultry farm and I raise White Leghorns and no other. They are the egg machines and for fancy and show purposes there is nothing better. I am getting eggs all winter, when eggs are 50 cents a dozen. I have good luck with the machines. I fill the machines with eggs and run it for three days at 120 degrees. Do not touch the eggs. Then turn the eggs up to the eighteenth day twice a day. After the first week I run it up to 103. The eighteenth day I take a pie tin full of hot water, put it under the egg tray and leave it there until the eggs start pipping. Then take it out. It will soften the shell. I have fine luck this way. Do not open the machine any more than necessary. When the chicks are all hatched have the brooder not less than 90 degrees on the floor of the brooder. Don't feed for thirty-six to forty-eight hours. At first feed a little hard-boiled egg, grit and water. Have water lukewarm. In a day or so give plenty of fresh buttermilk. Buttermilk will prevent bowel trouble. Be sure to have brooder warm enough or they will have white diarrhea in your flock. I have had experience with brooders. Feed lots of green food, such as lettuce and dandelion, and keep the brooder clean. Spray every day and put clean litter in and you will raise some nice, healthy chicks. Head lice on chicks have got to be watched. I have found that lard will keep them off for a day or so, but Licene keeps them off for good. For lice on old birds I have been using Licene, and I have had no lice on my birds. For mites I paint the roosts once a week with kerosene and a little crude carbolic acid and I clean the dropping boards at least once a week.

If these directions are followed you will have nice, healthy chicks and get eggs when the price is the highest.

E. F. Pomplin.

Fond du Lac Co., Wisconsin.

Nitroglycerine vs. Ammonia

The word "nitroglycerine" has so thoroughly permeated American thought about explosives that most farmers are prone to believe that for blasting there are no other powders made, or at least that no others equal the nitroglycerine powders in effectiveness and strength. The idea is in serious error, especially at this time, when the war has sent the price of all explosives skyward.

Nitroglycerine dynamites and powders are reliable and strong, but they are violent in action and tend to shatter to dust any material close to the charge without reaching out very far from the charge. Another material much used as an explosive base of late years is ammonium nitrate, and powders made from it have an entirely different action from nitroglycerine powders. Where the latter shatter the former crack; where the latter tear and pulverize the former lift and split.

In soil the action of ammonia powders is to break and crumble it for long distances underground. Under stumps the ammonia powder tends to yank out roots from deep under the ground and to split the tops into several pieces. It does not create such large cavities in the ground as the other type of explosive, nor tear off the roots too near the surface. For these reasons ammonia powders today are better explosives for soil and stump blasting than nitroglycerine explosives.

For boulder blasting, on the other hand, you want the shattering effect, and nitroglycerine powder has more of it than ammonia powder, but in practice a high percentage ammonia powder is found to break boulders with entire satisfaction.

There is another reason why ammonia explosives are preferable for farm blasting. The price of nitroglycerine has gone so high that the development and improvement of blasting explosives lately have nearly all been confined to the ammonia types and the result is a special "farm powder" that is greatly superior to old forms of dynamite. It is safer owing to its being less sensitive. It seldom requires thawing, owing to its chemical nature. It has all of the lifting and cracking action for which ammonia powders are famous instead of the shattering action of high percentage nitroglycerine dynamites.

As a practical illustration of the work of the two types of farm blasting explosives the making of a ditch can be taken. If the ground is full of water it can be blasted by the transmitted detonation system of loading, provided straight nitroglycerine powder of 50 per cent or greater strength is used. But the same ditch also can be blasted with 20 per cent ammonia powder, using the electric system of firing and loading, and the cost of the latter way of making the ditch will run from 10 per cent to 40 per cent less than when nitroglycerine powder is used.

The Minnesota state game and fish commissioner, Carlos Avery, is asking organizations of game protectionists, farmers, citizens in general, bird clubs and all others who have the good of the state at heart, to help care for the birds who are in danger of starvation in cold weather. He also asks for reports from clubs or from individuals on the success of work for the birds, and for information as to methods used.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

POULTRY, ETC.

PURE bred White Orpingtons, both combs; both combs White Leghorns. Houdan. White, Columbian, Silverlaced Wyandotte cockerels; Silverlaced hens; Fawn and White Runner Drakes, $1.50 each. **Richard Wegner, Ladysmith, Wis.**

SINGLE Comb White, Rose Comb Buff Leghorn males, White Runner ducks. 7 shows 1917, 78 ribbons, 2 silver cups. Satisfaction guaranteed. Dwight Philpot, Sun Prairie, Wis.

HATCHING eggs, choice pen White Orpingtons. Sold $37.50 eggs January, 90 hens. Eggs $1.50, 15; $8, 100. Edw. Lohrenz, Hortonville, Wisconsin.

S. C. Buff Leghorns, blue ribbon winners, eggs and chicks. Write for mating list. Lake Shore Poultry Farm, Box B, Cedar Grove, Wis.

BELDA'S Barred Rock cockerels $2 each. 18 fine show cockerels $5 each. Pullet breeders $3 each. Wm. Belda, De Forest, Wisconsin.

BUFF Orpingtons, Free mating list. Wonderful Chicago and Milwaukee champions, Edwin Bemis, Fond du Lac, Wis.

TOULOUSE Geese. Unrelated Trios, $6.50. Each $2.50. Ira Coil, Canby, Minn.

PURE-Bred White Rocks. Address "Kremers," Whitehall, Wisconsin.

SEEDS.

OATS 118½ bushels per acre. Don't kick about the roads and weather. They are never too bad to figure how to make extra dollars from your next year's crop. Something new. Extra Kherson and Wis. Number One oats, barley, wheat, clover. Write today for circular with prices. Grown by world's sweepstakes grower. Henry Krueger, Beaver Dam, Wis.

100% STRONG, germinating, rack-dried, Early Seed Corn. Grimm Alfalfa and Pure Grass Seeds. Write. Beckman's Seed Farm, Cokato, Minn.

STRAWBERRY plants. 250 best 3 varieties $1. $3.50 per 1000. Fresh plants by P. Post. C. R. Tuttle, Baraboo, Wis.

FIRE dried Silver King and Golden Glow seed corn for sale. Peck Bros., Spring Green, Wis.

POTATOES.

POTATO Growers in Vilas County raise seed potatoes for Texas trade. Prices guaranteed for 1917 crop. Potato farms on easy terms. Sanborn Company, Dept. P, Eagle River, Wis.

HELP WANTED.

WANTED—Energetic young man familiar with all branches of farming in this section. University student preferred. Small farm near town. A, care of Wisconsin Farmer.

TRAPPER POISON.

TRAPPER POISON. Goes' Liquid Poison Capsules kill foxes, wolves, coyotes on spot. Eleventh season in use. Free circulars. Edmund Goes, Station C, Milwaukee, Wis.

HAMPSHIRE BOARS, SOWS, GILTS.

HAMPSHIRES for sale. 25 bred sows, fall boars and gilts. L. C. Wilsie, Brandon, Wis.

FARM LANDS.

NORTH Dakota in all essentials—soil climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short, yet government reports show $167,544,000 or $2,253 per average farmer. In last 7 years average farmer in North Dakota produced $4975 worth of crops, in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, immigration agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

THE rich grassed lands of Aitkin county present the best opportunity in the country today. People are recognizing this fact. That is why they are coming so fast. These lands don't cost one-half what other lands no better, or better situated, cost, and besides, you buy from our company, the terms are easy and we help you in many ways to get a start. Write for information and maps. Arnold, land agent, Rock Island Railway, 153 Wolvin Bldg, Duluth, Minn.

MR. Renter, Investor, Laborer—Will sell Sec. 3, 9, 11, 13, 15 & 25, town 12 W., R. 31 E. Rosebud county, Mont., for $4.50 per acre. Easy terms. Good, productive land. Wheat, Oats, Alfalfa, Barley, Potatoes. All vegetables grow to perfection. One crop pays for land and gives you good bank account. 12 mi. from town on main line of M. W. & St. P. An opportunity like this seldom if ever appears. Direct owner, a farmer, at Box 45, Mt. Hope, Wis.

FARM of eighty acres, good buildings, ¾ mile to school, 1½ miles to creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, 6 miles west of Medford, Taylor county, Wisconsin, county seat. $6,000, will take in exchange to the extent of $3,000 first-class city property. Will rent three years at $325 per year. L. A. Kimball, Lake Geneva, Wisconsin.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

DON'T buy Wisconsin Land till you have seen ours. We own 20,000 acres choice clay loam, hardwood lands on the Omaha & Soo roads. Close to towns, schools and churches. R. F. D. and telephone lines. Near, beautiful lakes and streams. Lowest prices—Easiest terms. Agents wanted. Upper Wisconsin Land Company, Ladysmith, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

80 ACRE snap. 40 acres under cultivation, clay loam soil, gently rolling, orchard, buildings, town 3½ miles, school ½ mile. Price $2,700, $700 cash. The Ev. Luth. Colonization Co., 1029-M, Dept. 10, Merrill, Wis.

ONE hundred twenty acre farm one-fourth mile from Ladysmith, Wisconsin, sixty acres under cultivation. Loam clay soil. Price $6,000, $2,000 cash. Balance on easy terms. Manning & Swaim, Ladysmith, Wisconsin.

WHY pay big commissions to land agents? Sell your farm direct. No middle-man. Your own price. You can do it. Particulars free. Address Chas. Renich, G-2, Woodstock, Illinois.

354-ACRE stock-grain farm, Pierce county, 30 miles St. Paul. Large, modern house, tenant house, good buildings. $100 per acre. F. D. Bailey, Prescott, Wis.

EIGHTY acres sugar maple, clay loam land with house, barn and clearing. $25 per acre, small payment down. Frank M. Doyle, Ladysmith, Wisconsin.

40, 80 and 120 acre improved farms for sale. Well located with or without stock and machinery. Must sell. Address owner. L. B. 165, Greenwood, Wis.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur's, Mountain View, Mo.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

PAINTS.

STOP buying high-priced paints. Smith Bros.' refined Fish-Oil mixed with any desired coloring, produces a paint that will outwear all others. Better and cheaper than linseed oil. 60 cents per gallon. Write today for particulars, etc. Smith Bros., Port Washington, Wis.

GOVERNMENT POSITIONS OPEN.

THOUSANDS men and women, 18 or over, Wanted everywhere, for U. S. Government Life jobs. $75.00 month. Steady work. Short hours. Rapid advancement. Common education sufficient. Write immediaiy for free list of positions now easily obtainable. Franklin Institute, Dep't A176, Rochester N. Y.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. [illegible] with privilege of paying $100 or more at any ti[illegible]. Address 206 Washington Bldg., Madison, Wisconsin.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

Turn The Granary Into A Model Elevator
Save Labor and Money
PLANS FREE

REBUILD THE GRANARY

into a model elevator at a slight cost for best results. Get our plans FREE; remember, NO CHARGE. We are glad to aid you. Also complete plans for new modern elevator suitable for a small farm free for asking. Take advantage of this.

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Take Out Every Wild Oat—No Matter How Badly Mixed—With

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They are the most complete and successful line of Grain and Seed Mills ever put on the market. They will take out every weed seed and impurity, and grade your grain for the market. They will positively rid your wheat of **cockle, wild pea, buckwheat** and **mustard.** They chaff and clean wheat, corn, oats, rye, barley, beans, timothy, clover, millet, flax, alfalfa, and all other kinds of grain and seed. The Owens is the absolutely reliable machine for northwestern crops.

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Give your land a chance to produce a real crop. Clean and grade your seed and be sure you are planting just what you want to harvest—not weed seeds. Also be sure you plant plump, live, vigorous kernels. You are not running an experiment farm or a hospital. C. F. Chase, Assistant Professor, Agricultural Engineering, North Dakota Agricultural College says that:

Northwestern grains are infested with mustard, wild oats, kingheads and other weeds, and a grain cleaner would solve the problem. The Wisconsin Agriculturist says: "Grain of high quality cannot be produced from mixed seed. Unless the very best kind of seed is used, the results will be indifferent and unsatisfactory. The best investment a farmer can make is to buy a good fanning mill. Such a mill will more than pay for itself in one season."

Send for the free Owens Book and get the details of our Special 1917 offer.

J. L. OWENS COMPANY, 1127 DARTMOUTH STREET, MINNEAPOLIS, MINN.

WARNING On account of the drouth last season, much of the grain is weak and undeveloped. Don't plant poor, undersized seed and cut your crop in half. Grade everything, and plant only strong well developed kernels that will grow. The farmer who does this will pay for his Owens Mill several times over in next season's crops.

IOWA'S GREATEST EARLY OATS! A special offer on Iowa No. 103 Seed Oats. Experiments made everywhere in the corn belt and by plot tests at Experimental Stations prove it outyields other varieties from 5 to 25 bushels per acre and has been proven the right oats for the corn belt. Ours from the original Ames stock. 10,000 bushels stock ready for quick shipment. 1 bushel lots $1.25 per bushel, 5 bushel lots $1.20, 10 bushel lots and up $1.10. Order early before stock is exhausted. Demand enormous. Order direct from this ad or write for particulars. Also other kinds of oats, field and garden seeds

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BIG MONEY awaits the producer of early Potatoes. Secure the best and **most productive** seed stock obtainable and be prepared to **cash in** when the time comes. **Our new catalog** describes all the choicest and earliest varieties, grown from treated seed.

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GOOD SEEDS

TEN OF THE FINEST VEGETABLES

FOR 25c We will mail one large packet each of the following vegetables in a coupon envelope good when returned, for 25c worth of seeds on 75c order, thus getting the 10 packets Free: Bradley's Earliest Radish, crisp and brittle; Extra Early Egyptian Turnip Beet, smooth; Bradley's Earliest of All Lettuce, crisp; Bradley's Improved Early Jersey Wakefield Cabbage; Bradley's Earliest of All Blood Red Tomato; Extra Early Adams Sweet Corn; Earliest of All Bradley's Perfection Long White Spine Cucumber; Bradley's Mammoth Yellow Prizetaker Onion; New York Imp. Spineless Egg Plant; Improved Mammoth Ruby King Sweet Pepper.

25c buys all the above and we will send one large pkt. "SPENCER SWEET PEAS," a mixture of 10 varieties, carefully hand-mixed, worth 15c.

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introduced by us three years ago is now acknowledged to be the greatest new garden annual. It is a success everywhere, plants growing 2 to 3 feet, a pyramid of color, its many branches bearing great balls of wool-like substance and most intense crimson scarlet.

Flowers develop in June and none fade before frost, ever brilliant and showy beyond belief. Seed per pkt. 10 cts., 3 for 25 cts.

New Mastodon Pansies. For immense size, wonderful colors and vigor they are marvels. Seed 10 cts. per pkt., 3 for 25 cts.

Everblooming Sweet William, a startling novelty, blooming in 60 days from seed, continuing all the season, and every season being hardy. Flowers large, colors exquisite—pkt. 10 cts.

These 3 great Novelties, with two more (5) for only 20 cts. See Catalog for colored plates, culture, etc.

Our Big Catalog of Flower and Veg. Seeds, Bulbs, Plants and rare new fruits free. We are the largest growers in the world of Gladiolus, Cannas, Dahlias, Lilies, Iris, etc.

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Cabbage

Salzer's Lightning ripens in 60 days. Giant Flat Dutch measures 12 to 14 in. diam. All varieties. Northern grown, tested stock. Biggest producers in the world.

FOR 10c Big Pkg. Cabbage Seeds, Big Pkg. Onion Seeds, Big Handsome Catalog

Miracle records in early maturity, uniformity and productiveness.

New 184-page catalog brimful of valuable information on everything for the farm and garden—field crops, vegetables, flowers.

Today is the time to send your dime. Do it NOW.

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THE EVERBEARING STRAWBERRIES

fruits from early summer till Nov. Send today for price list and pamphlet of instructions—62 years experience.

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Alsike Clover and Timothy mixed. Fully 1-3 alsike, a big bargain. Greatest hay and pasture combination grown. Write for **Free Sample** and 100 page catalog and circulars describing this wonderful grass mixture. Beats anything you can sow and ridiculously cheap. We handle only best tested recleaned seed guaranteed. Write before advance.

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To sell or buy our Guaranteed Nursery Stock.
To the Salesman: Steady job, good pay. Write us.
To the Buyers: Send for free colored circular.
The Coe Converse & Edwards Co., Wisconsin's Largest Nursery, Fort Atkinson., Wisconsin.

Farm and Garden

To Treat Cabbage Seed.

Many Wisconsin gardeners and truck growers intend to treat their cabbage seed with formalin solution this season as a means of checking serious damage to their crops from black rot and black leg diseases.

The disinfection of cabbage seed is equally as important as seed treatment for grain smut and potato scab, a common practice on many Wisconsin farms, and known to give big returns on the time and money so invested.

Directions for the use of formalin or formaldehyde in the treatment of cabbage seed have been prepared by R. E. Vaughan, plant disease specialist, college of agriculture, University of Wisconsin.

"Take one ounce of the strong (40 per cent) solution and mix in two gallons of water in any ordinary tub or pail. Then take the seed to be treated and put it loosely in a cloth sack which should be tied up and placed in the diluted solution of formalin for twenty minutes. The seed should be stirred around in the solution so as to make sure that all the seeds are entirely wet.

"When the twenty minutes are over rinse the seed in clear water to remove the formaldehyde and dry at once by spreading on clean papers, canvas or floor. After drying the seed is ready to be put in the seeder or when thoroughly dry can be stored for future use."

Mr. Vaughan gives these few cautions:

"Don't freeze the wet seed.

"Don't return the treated seed to the original packages, because of danger of re-infection.

"Don't leave the seed in the solution more than twenty minutes.

"Don't make the solution too strong, as overtreatment injures the vitality of the seed.

"Don't forget that seed treatment cannot eliminate the diseases which may come from infected soil, neighboring fields, or from farm machinery, tramping feet or insects."

That Hotbed.

The last of February means that the preliminary garden work cannot long be delayed. In fact, it has already begun a few degrees south. For the main crop of hotbed plants allow six weeks from the time seed is planted to have them ready for the open ground. If it is safe to set tomato and cabbage in the field May 1st, then your hotbeds should receive the seed March 15th.

If you begin operations March 1st you will have ample time to excavate, haul manure, prepare frames and sash, put on the dirt, settle it and get the heat started. It usually takes from two to four days for the beds to heat up after sash are placed.

It pays to be careful in the preparation of the bed. Fresh horse manure is needed and it should be taken from stables where plenty of bedding has been used; half of the material should be straw or hay. Use no coarse weeds or stalks.

Do not use manure piles which are smoking, for that means that they have already been heated and will never give heat again. This is an important point, and many an amateur has been disappointed by a cold hotbed because he was not careful to get perfectly fresh manure. You can tell when manure has lost its usefulness for the hotbed by its appearance, for if it has been through a dry heat it will have a white, moldy appearance. If it has been through a wet heat it will blacken.

Usually if manure is gathered from the open it will be wet enough to heat up, for a certain amount of moisture is needed. But if it is taken from under cover it is often too dry to heat and retain heat. Turn the hose on the dry material, but do it before placing in the beds. If in the bed excavation it is likely to get too wet. Pile it in some place where the surplus water can drain off and in a few days it will be ready for use.

Practice varies a good deal at this

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20 DAYS FROM SEED TO TABLE—that is the record of Maule's "Just So" Radish—crisp, tender and sweet. Send 10c. today for enough "Just So" Radish Seed to make a big planting.

Maule's seeds are your best insurance against a poor garden, because Maule's seeds are tested for vigor and growing power.

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Send now for this 176 page catalog full of gardening information ***Free***

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Made to build New Business. A trial will make you our permanent customer.

PRIZE COLLECTION Radish, 17 Varieties, worth 15c; Lettuce, 12 Kinds, worth 15c; Tomatoes, 11 the finest, worth 20c; Turnip, 7 splendid, worth 10c; Onion, 8 best varieties, worth 15c; 10 Spring Flowering Bulbs, worth 25c—65 varieties in all; worth $1.00.

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to cover postage and packing and receive this valuable collection of seeds postpaid, together with my big instructive, beautiful Seed and Plant Book, tells all about Buckbee's "Full of Life" Seeds, Plants, etc.

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Our "PURITY BRANDS" of Red Clover, Timothy, Alfalfa, Alsike, Mixed-Timothy-and-Alsike and other farm seeds are the highest quality sold in Iowa. We are the largest handlers of Timothy seed west of Chicago. We have the best equipped cleaning plant and give personal attention to the production of pure, northern grown, hardy, heavy yielding farm seeds.

Samples FREE!

Samples and prices on request. Write today. Address

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GOOD AS CAN BE GROWN
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

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The Earliest

Tomato

Jack Rose is the earliest smooth red tomato grown. Package sent, with our beautiful new catalog, for a 2c stamp to pay postage. If you want the very **best** FARM, GARDEN and FLOWER SEEDS you must plant **JUNG'S QUALITY SEEDS.** We give lots of New Sorts **Free** with every order. Send today for our **Bargain Catalog.**

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The best ever offered. The sensation at Ames Corn Show. Produced 100 bu. to acre in 1914. 1st prize again this year. Only 6,000 lbs. to sell. Selected from 1,000 lbs. Properly dried, carefully tested and guaranteed. Several elaborate varieties. Get Free catalog today. Read about the wonderful corn. Order early. Get best selection for bumper crops.

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FREE A pair of Mated Everbearing Strawberry plants, large pkt. of new Cereal Petunia, Sudan Grass and Silk Leaf Poppy seed, all Free for Testing. Send 10c for mailing expense, or not, as you please. We offer genuine Progressive Everbearing plants at 50c per doz.; 90c for 50; $1.75 for 100; $5.00 for 225, all postpaid. CATALOG FREE.

The Gardner Nursery Co., Box 435, Osage, Iowa

point, for some fork over and mix the manure several times before putting it in the beds. This secures a more even heat, but the need of it depends much upon the condition. When dry, or frozen, or very coarse, it needs more mixing than when fine and of an even texture.

When putting the manure in the bed tramp it well. If packed solid it will retain the heat far better than if placed loosely. Also the amount of heat will be proportioned to the depth of the bed. A depth of manure from twelve to eighteen inches after it is packed will make a bed which will last six weeks. If you are growing something which only needs heat for two weeks, say a crop of radishes, six inches of manure will do.

Do not make the mistake of using cow manure as a mixture, for there is no latent heat in it.

This writer once hired a man to haul horse manure and he mixed in a lot of cow stable litter, saying, "That's richer and much better for you." He had to be informed that he wasn't hired to boss the job, but to do as he was told.

Use plenty of dirt over the manure, for a shallow seed bed makes poor plants. The soil should be rich, but with an admixture of one-quarter sand. Half good garden soil, then the sand, and then as much well-rotted compost is about right. Let the depth of this over the hot manure be never less than four inches. Some advise six inches, but we have excellent results with four inches evenly placed.

The location of your hotbeds is an important consideration. Land sloping toward the sun is good, but if your land is level you can make the beds sloping. Do this so as to get the full power of the sun's heat. Then locate them so that they will have shelter from the cold north and west winds. Barns, or other buildings, high fences, or even a hedge will be a great help.

Reduce Expenses of Living With a Garden.

To the Editor:—Considering the amount of money many farmers have paid out the past year for high-priced foods, and with prices gradually going higher, it is the writer's humble opinion that by raising a good garden this season the expenses of living would be reduced to such an extent that many persons would open their eyes in amazement. The quantity of vegetables that a really good garden can afford the year round is astonishing.

By a really good garden we mean one that will furnish the family with an abundance of vegetables all through the growing season from the earliest hotbed lettuce, radishes, etc., to the winter's supply of late-grown cabbage, potatoes, turnips, etc. A small bed of asparagus and rhubarb would furnish a family with many appetizing dishes so early in spring that no garden should go without these, and a bed of each when once started will last for years. Rhubarb, asparagus and such vegetables as tomatoes, corn, beets, peas and beans may be canned to last until new ones come in again.

I clean my garden plot off in the fall and destroy many harmful insects by gathering and burning the bean vines, etc. During the winter I put all the chicken manure saved during the summer upon the garden, besides covering the ground liberally with stable manure, which is plowed under as early in the spring as the weather will permit (which is usually the first of March), but rebreak at the time of planting.

Beginning in February I sow in a hotbed such seeds as lettuce, radish, early cabbage, tomato and sweet pepper. In four or five weeks I am eating tender, crisp lettuce and radishes, while the other named plants are making a good growth and are ready to set in the open as soon as the danger of freezing is past. I plant peas and onion sets out in the open as early as March, as these are not injured by cold or dampness. I raise all kinds of early and late vegetables. I plant all my garden in long, straight rows. This way much of the cultivation is done with the horse and plow, which is a saving of labor as well as being an advantage to the growing plants, especially during a dry season.

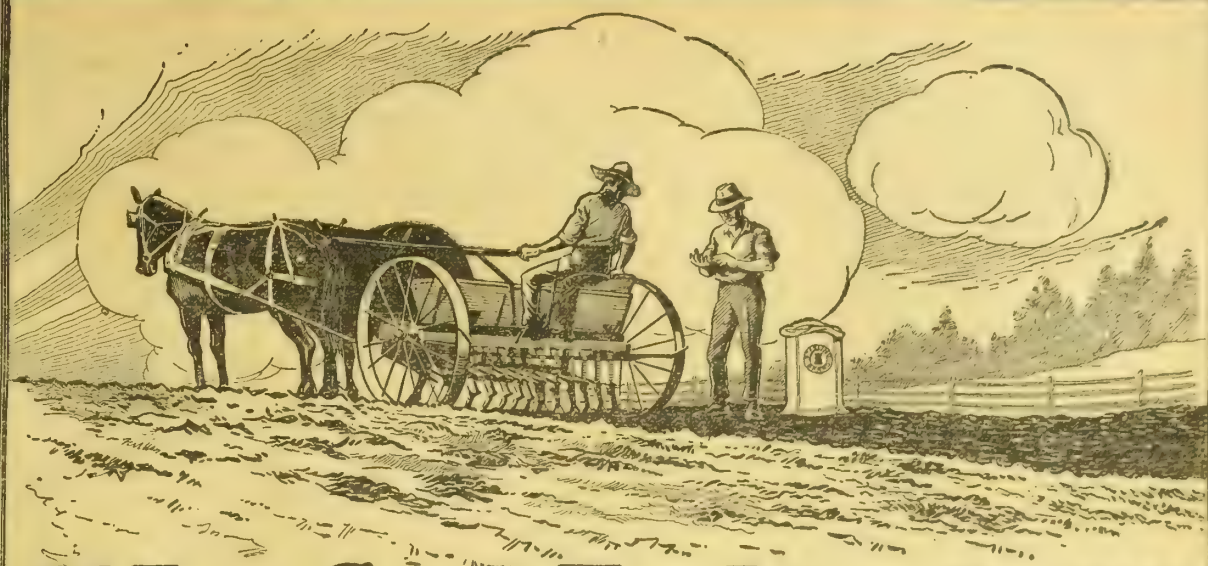
I begin gardening in earnest about the second week in April, as at this time the ground begins warming up, making it safe to plant such seeds as beans, cucumbers, beets, sweet corn, etc. Another sowing of cabbage and tomato seed is made for late in the open at this time. The early cabbage, tomatoes and sweet peppers started in the hotbed are now set out, making room for the sweet potatoes which are bedded soon in the same hotbed which started the above-named plants. I raise bunch and pole beans, also bunch limas and butter beans, making a succession of plantings of the bunch sorts all through the growing season. I also plant sweet corn at intervals of two weeks until August and keep the table supplied with juicy roasting ears until frost.

I can a sufficient amount of sweet corn, tomatoes, beans, peas, rhubarb and asparagus to supply all needs during the winter and early spring. Besides, I make kraut, put up cucumber and mixed pickles of all kinds. No one who has had such an experience as mine in growing a fine garden for their summer and winter needs will dare say that it does not pay. Try it this spring and prove to your own satisfaction that a garden will pay for itself ten times over.

In order to have a good garden select the richest spot of ground upon the farm (if near the house so much the better). Make it still richer by applying chicken and barnyard manure. If such manure is not available use commercial fertilizer. You cannot make the garden spot too rich. Break the ground with a two-horse plow as early in spring as possible. Harrow and work the soil until you have a deep, mellow seed bed. Plant tested seeds (I always save the most of my own seeds and know just what I am planting), which means to order them early and test them yourself. Do your planting carefully and when the plants are up keep them free from weeds by frequent cultivation. Work early and late and you will be convinced that you have scored at least one point in helping to reduce the high cost of living. S. E. M.

One day last week a Missouri farmer came into a Kansas City bank and said he wished to pay off a $10,000 mortgage loan on his 160 acres. The loan was made just two years ago when the farmer bought the land, paying $21,000 for it. He had made enough out of three crops of wheat to pay the mortgage. He held his crops of 1914, 1915 and 1916 until recently, when he sold them at $1.75 a bushel. He had been a tenant on the land before purchasing it.

Ask your neighbor to subscribe for The Wisconsin Farmer.



What Seed For *Your* Drill?

YOUR PROFITS at harvest time will depend largely on the seed that goes into your drill or seeder this spring. At present high values it will take only a moderate part of the yield to pay for growing the crop. The rest is clear gain.

The difference in cost between unidentified seed of unknown quality and Northrup, King & Co.'s recleaned, tested seed is only a few cents per acre. Yet, a few more bushels of grain or a load or two more of hay per acre will make a big difference in your net returns from the crop.

Decide now to sow the seeds which have proved reliable—seeds which have produced money-making crops for over 30 years. They are sold by merchants in nearly every community of the Northwest. Ask your dealer for

NORTHRUP, KING & CO.'S SEEDS

NORTHRUP, KING & CO., MINNEAPOLIS, MINN.

ALSYKE AND TIMOTHY $4.00 Per Bu.

Northern-grown, hardy, productive, cheapest and best pasture and hay crop. Clovers, Timothy, Alfalfa, Seed Corn. 1917 catalog and seed samples free. Northern-grown, hardy, pure seeds are cheapest because they make big, clean crops. All seeds guaranteed. Ask about our 1,000 Club whereby members get seeds at Wholesale.
THE ADAMS SEED COMPANY, Box 50, Decorah, Iowa

ALFALFA

Prof. Hansen's Wondertul Cossack Alfalfa

IS a big, vigorous strong rooted variety, well adapted for the most rigorous climates. Realizing the great wealth producing qualities of an Alfalfa hardy enough to withstand the rigors of the Northern Winters, the Department of Agriculture of the United States Government selected the most capable man in this country to explore Northern China, Siberia and Asiatic Russia to secure these seeds. As a result of four different trips, enduring the most severe hardships, Prof. N. E. Hansen brought to this country the Cossack Alfalfa.

PROF. HANSEN'S COSSACK ALFALFA

I have tested it, tried it out under the most adverse circumstances, and can therefore strongly recommend the Cossack Alfalfa Seed to you. You sow your field once and for 30 years all you need to do is to harvest your crop and pocket your returns. I am making you a special offer of 10 lbs. Genuine Cossack for $15.00, and with every order I will present you with one-half bushel New Iowa 103 White Kherson Oats. Reserve your 10 lbs. at once. I will ship it at any time you specify, but order now.

For further information, send for my big 1917 100-page Catalog—it's FREE. Gurney Free Service Booklets also contain valuable information. Specify the kind you want.

Gurney Seed and Nursery Co.
140 Gurney Square,
Yankton, S. D.

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ALFALFA SEED ALSO Red Clover, Sweet Clover, Alsike, Timothy, Brome Grass, Blue Grass, Cane, Millet, Kaffir Corn, etc., etc. At Campbell's Seed House. Dept. C., Seward, Nebraska.

Do You Realize

That Improperly Painted Walls Are Disease Breeders?

Health Commissioner Emerson of New York City declares that a large percentage of tuberculosis might be eliminated if walls, ceilings and floors were properly painted with paint that would stand frequent hot water scrubbing. Many disease epidemics, he adds, might be checked if walls were kept in a sanitary condition.

HICKORY

"99" Wall Finish

is ready to help you. Ready to make your home more beautiful and to protect it. HICKORY "99" is finest finish for walls and ceilings you ever saw. Dull toned and washable. Costs less than wall paper. More sanitary—easier to apply and it lasts and keeps bright for years. Ready to use—anyone can apply it. Use HICKORY Floor Varnish. The finest, most lasting floor varnish made. Will not mar nor turn white. Hot or cold water can't harm it. Guaranteed. Money-back guarantee backs HICKORY "99" and HICKORY Floor Varnish. New goods or money back. Write for color card and name of the dealer in your town.

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HONORBILT WORK SHOES

Ask your dealer for Mayer Shoes. Look for the trade-mark on sole.

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Write at once for large illustrated catalog showing *complete line* of bicycles, tires and supplies, and particulars of *most marvelous offer* ever made on a bicycle. You will be astonished at our low prices and *remarkable terms*.

RIDER AGENTS Wanted —Boys, make money taking orders for Bicycles, Tires and Sundries from our big catalog. Do Business *direct* with the leading bicycle house in America. Do not buy until you know what we can do.

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Ask now! This beautiful 96-page four-color book describes 1917 varieties vegetables and flowers; handsomely illustrated; beautiful theme gardens, flower and vegetable gardens, landscaping, shrubbery, orchards, farms. A dictionary on gardening! Flower lover's delight! Berry grower's book! An orchard's last manual! Most wonderful gardening guide catalog ever published. Better than our famous 1916 book, don't miss it. Ask today. A postal gets it.

Gallowey Bros. & Co., Dept. 25 Waterloo, Ia.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

How to Use the Fireless Cooker.

Obviously the fireless cooker must be used with intelligence to obtain the best results. It is best suited to those foods which require boiling, steaming or long, slow cooking in a moist heat. Foods cannot be fried in it, pies cannot be baked successfully in the ordinary fireless cooker, nor can any cooking be done which requires a high, dry heat for browning. Meats, however, may be partially roasted in the oven and finished in the cooker, or may be begun in the cooker and finished in the oven with much the same results as if they were roasted in the oven entirely. The classes of food best adapted to the cooker are cereals, soups, meats, vegetables, dried fruits, steamed breads and puddings.

When different foods are cooked together in the fireless cooker they must be such as require the same amount of cooking, since the cooker cannot be opened to take out food without allowing the escape of a large amount of heat and making it necessary to reheat the contents. It would not do to put foods which need about one and one-half hours to cook into the cooker with a piece of meat which would stay several hours.

The size of the container used in cooking with the fireless cooker should be governed according to the amount of food to be cooked. Small quantities of food cannot be cooked satisfactorily in a large kettle in the fireless cooker. If a large kettle must be used better results will be obtained if some other material which holds heat fairly well is used to fill up the empty space. This may be accomplished in several ways. One is to put the small quantity of food to be cooked into a smaller, tightly closed, kettle, fill the large kettle with boiling water and put the small kettle into it, standing it on an inverted bowl or some other suitable support. This boiling water will take up and hold the heat better than air would. Several smaller dishes (if tightly covered) may be placed in the kettle surrounded by boiling water. Baking powder or other tins often are found useful for this purpose. Another way is to place one food in a basin which just fits into the top of a large kettle and to let some other material, some vegetable, perhaps, cook in the water in the bottom of the kettle. Two or more flat, shallow kettles placed one on top of the other so as to fill the cooker enable one to cook small amounts of different foods successfully. Such kettles, made especially for use in fireless cookers, may be purchased

The time which each kind of food should stay in the cooker depends both on the nature of the food and on the temperature at which it remains inside the cooker, and before recipes for use with the fireless cooker can be prepared one must have some means of knowing how temperatures are preserved in it. In experiments made in the office of home economics a six-quart kettle was filled with boiling water and put into the cooker, the packing of which happened to be newspaper. The temperature of the water, which was 212 degrees Fahrenheit when put into the cooker, was found to be 172 degrees Fahrenheit after four hours had elapsed and 155 degrees Fahrenheit after eight hours had elapsed. This shows the advisability of the common custom of allowing food to remain undisturbed in the cooker for at least six or eight hours, or in some cases overnight. If a soapstone, hot brick or other extra source of heat is used, less time will be required. Materials which are denser than water (sugar sirup as used in cooking dried fruit), and, therefore, can be heated to a higher degree, will keep up the temperature longer when put into the cooker. Thus the density of the food material, as well as the amount and the length of time that the apparatus retains the heat, must be taken into consideration in determining how long different materials must be cooked in the cooker.

The recipes for dishes to be prepared in the fireless cooker differ somewhat from those for foods cooked in the ordinary way, chiefly in the amount of water or other liquids called for. Less liquid should be put into the food to be prepared in an ordinary fireless cooker, since there is no chance for water to evaporate. The cook must be guided largely by experience in deciding how long the food should be heated before being put into the cooker and how long it should be allowed to remain there.

Sample of work exhibited at our Country Life and Homemakers' Conferences. All this work was done by school children, either in the grades or the high school.

Salting Down Frozen Fish.

One of our subscribers sends the following inquiry to the Home department:

Can anyone tell me if frozen fish can be successfully salted down for use during the summer? I would like very

FORTUNES MADE BY AUTO EXPERTS

START NOW AND REAP THE HARVEST

Become an auto expert at the Milwaukee Motor School in six weeks time. A practical course where you learn by doing. Supervision by expert, high-salaried men who explain the principles to you and show you how to do the work. Here at the

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is a large commercial repair shop where cars of all makes are repaired and overhauled. Ignition systems, starting systems, carburetor adjustments taught. Vulcanizing shop also — everything needed to turn out well trained men, experts in their line. Positions open—we receive calls continually for good men. New catalog on request—write for it today.

Mr Wm Arbeiger
He has turned out more auto experts than any other one man in the west.

Milwaukee Motor School
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Big Money in Running Water

Let us start you in a business that will make you from $15 to $50 a day when farm work is slack. Other men have done it for years with an

Improved Powers Combined Well Boring and Drilling Machine

One Man One Team

Same rig bores through any soil at rate of 100 ft. in 10 hours, and drills through rock. One team haula and operates machine. Engine power if wanted. Easy to operate—no experts needed.

Small investment; easy terms. Make machine pay for itself in a few weeks work.

There is a big demand for wells to water stock and for irrigation.

Write for free illustrated circulars showing different styles.

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MORE MONEY

for tenant more money for owner, in our Active Fertilizers.

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much to know if this can be done and, if so, by what method.

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Recipes.

Bacon and Scrambled Rice.—Eight slices bacon, two cups boiled rice, four eggs. Fry bacon carefully so that it shall be crisp and attractive. Arrange the slices around the edge of a platter. Leave half the fat from the bacon in the frying pan and add two cupfuls of boiled rice (all the grain separate), into which eggs have been stirred. Fold the rice in the bacon fat until egg is set, then heap it in the center of the platter.

English Pork Pie.—Two pounds lean fresh pork, four eggs hard cooked, two small onions, one level teaspoonful salt, one-fourth teaspoonful pepper, one-half teaspoonful ground nutmeg, plain pastry rolled rather thick. Stew pork slowly about forty minutes in salted water or stock to cover, let cool in liquid, then take out and cut into cubes. Put meat in deep baking dish and cover sliced eggs. Strain liquor, add other seasonings, thicken with flour (if liked) in proportion of one tablespoonful to one cupful of liquid, and pour into pie. Cover with pastry, perforated for escape of steam, and bake twenty minutes. or until brown.

THE YOUNG FOLKS.

The Twins.

Their names were Fanny and Fred, and they were two of the most mischievous children that ever lived in the state of Michigan.

Fanny and Fred were playing in the garden. Their mother had left them there while she went away to the neighbors, and had said, when going, "Don't go out of the garden. I will not be gone long." Fanny and Fred both said they would stay in the garden and kept their word until Fred said, "Let's go and get some flowers; there are lots over in the big fields."

So the twins climbed over the stone fence and went hurrying down the road toward the country. After they had been walking along the road for half on hour Fanny said to Fred, "I am getting so tired." Fred stopped then and said, "Well, you stay right here and I will go and get the flowers," and then he went on while Fanny sat down on the trunk of a tree.

The sun was setting behind a row of poplars and Fred had not yet returned. Fanny was getting restless. She started down the road. Everything went well until she came to the crossroads. She could not tell which road they had come and so she turned into the one she thought was the right one.

Now we must go back and see what Fred is doing. When Fred came back to the place where he had left Fanny and found her gone he did not know what to do. He looked this way and that, but could not see her, so at last, being a brave lad, he started down the road to find her. He walked and walked. It kept getting darker and darker, and yet he didn't see anyone or anything that he knew.

Now, while the children were wandering about, their parents were getting more and more excited. When their mother had returned that afternoon she supposed the children had gone over to some of the neighbors to play, as they often did, and she had sat on the porch sewing until five o'clock, when she went to the neighbors to get the children. When she found that they were not there she became alarmed. When her husband came home she told him about the children and he at once set out to find and bring them home. After searching until dark, he returned to see if the children had come home yet, but when he got there he found that they were not at home. He again set out, this time taking the country road, for he had circled the town.

Meanwhile Fanny had come to the end of the lane, for it was not a road into while she had turned. At the end there was a cheery little house with a light showing out of the windows. She walked up to the door and knocked, because she knew that she was lost by this time. A busy little woman came to the door and was very much surprised to see a little girl there.

"Well! Well! Who are you and what do you want?"

"Please, ma'am, I am lost. Could I stay here till my papa comes and gets me?"

"Well! Well! Come in then and I will see what to do for you."

As Fred was walking down the road he saw a light. It moved toward him and he hastily hid in the bushes beside the road, because he thought it was a tramp. He stayed hid until the man had passed and then he walked on.

During this time Fanny had been making herself at home in the house at the end of the lane, playing with the little girl there while Mrs. Brown got the supper. After the dishes were cleared away Mrs. Brown asked Fanny where she lived. She said, "I live at Greendale." So Mr. Brown hitched the horses to the buggy and they all got in and set out for Greendale.

Just as they reached the crossroads they met a man with a lantern and he asked them if they had seen anything of a little girl and boy. They said that a girl had come to their house and she had said that her home was in Greendale and at that moment Fanny jumped up and said, "Papa, papa, papa!" Mr. Brown asked Mr. Smith to get in and ride. They went on for a half mile, when they overtook a boy walking along the road. It was Fred and he was taken into the buggy and soon went to sleep.

When they reached home Mr. Smith jumped out and thanked Mr. Brown for being so kind to him and his children. Then he carried the sleeping children into the house.

Mrs. Smith was so glad to see her girl and boy that she forgot to scold.

—Selma.

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1671—Ladies' middy blouse with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 44-inch material for a 36-inch size.

1614—Children's set, comprising a yoke dress with sleeve in wrist or elbow length, a slip and one-piece drawers. Pattern, comprising all styles illustrated, is cut in 4 sizes. 1, 2, 4 and 5 years. The dress requires 2½ yards,

the slip 2 yards, and the drawers ¾ yard of 36-inch material, for a 2-year size.

2023—Girls' guimpe with sleeve in either of two lengths, and with neck high, or in "V" square, or round outline. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 12 years requires 1⅞ yards of 36-inch material.

1822—Ladies' house or porch dress. Pattern is cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

2017—Juniors' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 4½ yards of 44-inch material for a 14-year size.

2012—Girl's one-piece yoke dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¾ yards of 36-inch material for an 8-year size.

1754—Ladies' envelope chemise. Pattern is cut in 3 sizes: Small, medium and large. It requires 3¼ yards of 36-inch material for a medium size.

2009—A comfortable and an attractive lounging robe. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 6⅝ yards of 44-inch material for a 34-inch size.

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1843—A smart and pretty frock for mother's young miss. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 3¼ yards of 44-inch material for a 10-year size.

1742—Girls' jumper dress, with guimpe having long or short sleeve. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 1¾ yards of 27-inch material for the guimpe, and 2⅝ yards of 36-inch material for the dress, for an 8-year size.

2034—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8 yards of 36-inch material for a 36-inch size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for March 4, 1917.

Jesus Feeds Five Thousand.

LESSON TEXT—John 6:1-14.

GOLDEN TEXT—Give us this day our daily bread.—Matt. 6:11.

This parable marks the high level of the year of our Lord's popularity. It is such an important miracle as to be the only one recorded in all four gospels. Be sure to use a good harmony. The returning twelve (Matt. 11:1) are taken by their master to a desert place that they might find rest (Mk. 6:31) and that he might comfort their hearts over the death of John the Baptist (Matt. 14: 1-12). The multitude would not grant them the right use of their leisure, but flocked to this retreat in the desert. They followed that they might listen to his gracious words, and perhaps behoid some new wonder (v. 2). Carlisle said he saw in England "forty millions, mostly fools." Jesus saw the multitude, and was moved, not with sarcasm, but with compassion which took a tangible form of service. Mark tells us (6:34) that Jesus was first of all teaching the multitude. It is better to teach a man how to help himself than to help the man. We should not be surprised at Phillip's slowness of faith. Moses in a like manner was one nonplussed as to how to feed the multitude in the wilderness. (Num. 11:21-23.). It is not so much how great the need nor how little we progress; rather, is th + little given over to God? Andrew, who had revealed Jesus unto Peter, discovers as though in desperation a boy whose mother had thoughtfully provided him with a lunch, consisting of five barley biscuits and two small herring (v. 9) at least that much remained. This is a great commentary upon the tide of interest at this time, that the boy should not have eaten his entire lunch, for the boy's hunger is proverbial. It seems as though Jesus emphasizes the helplessness of the disciples in order that he may show his power. His command "Give ye them" (Mk. 6:37) teaches us that we are to give such as we have, and not look to others nor to do our charity by proxy (Prov. 11:24-25). Again the Savior asks his disciples as though he would teach them the resources of his kingdom. Give what you have, and he will bless and increase it to the supplying of the needs of a multitude. The secret of success was when he took up the loaves, and, "looking up," God also saw that day and blessed it. We need to observe the systematic procedure. The people are seated or reclining upon the ground in ranks or in companies, the master blessing and breaking the boy's cakes, giving to the disciples. God works miracles through human agencies only. The result of this systematic procedure was that they were all satisfied, "filled" (v. 12). Luke adds that "all did eat" (Lk. 9:17). Not alone, however, was there divine order and lavishness, but there were economy and thrift as well, for Jesus gave careful direction as to the fragments. The lavishness is shown by the fact that the baskets into which the fragments were gathered were each probably large enough in which to sleep. This conservation process was a stinging rebuke to the improvident orientals and to present-day prodigals of that wonderful bounty with which God has blessed our land. God gives to us that we may use for others. Joy dies unless it is shared. Jesus is the living bread (John 6:48), and will satisfy hunger and life even as bread generates in the human body heat, vitality and power; so he would still feed the hungry soul of mankind.

Summary: (1) The hope of the world's salvation is in the wonderful power of God in multiplying the little we give to him in the way of service.

(2) If we bring no gift, how can God bless man? Compare this boy's service with the service of the little maid in Naaman's household.

(3) Conservation of the fragments, using well or wasting the fragments of time, of opportunity, etc, makes all the difference between success and failure.

(4) Let nothing be lost. The refuse of petroleum is today worth more than the oil product.

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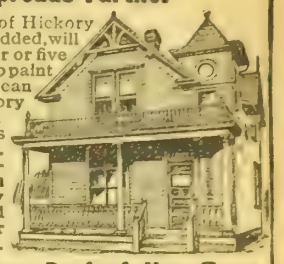

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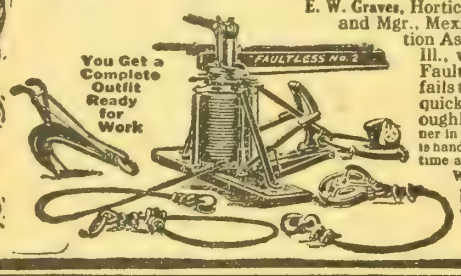

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TOLD IN THE HILLS

By Marah Ellis Ryan

Author of "That Girl Montana," "The Boadwoman," "My Quaker Maid," Etc., Etc.

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PART IV--One Squaw Man.

CHAPTER VII—Continued.

"Genesee!—nonsense!" said the Major brusquely. "We must look into that affair at once," and he glanced at the Captain; "but if that man's a horse thief, I've made a big mistake—and I won't believe it until I have proof."

As yet there had been no attempt at any investigation of affairs, only an informal welcoming group, and Fred, anxious to tell a story that she thought astonishing, recounted breathlessly the saving of the men by way of the mine, and of the gloves and the hands worn in that night's work, and last, of the digging up of that body and carrying it away to the mountains.

Her father, at first inclined to check her voluble recital that would come to him in a more official form, refrained, as the practical array of facts showing through her admiration summed themselves up in a mass that echoed his convictions.

"And that is the man suspected of stealing a few horses? Goodness mercy! what proof have you that will weigh against courage like that?"

"Major, he scarcely denied it," said the Captain, in extenuation of their suspicions. "He swore the Kootenais did not do it, and that's all he would say. He was absent all the afternoon and all the night of the thievery, and refused to give any account whatever of his absence, even when I tried to impress him with the seriousness of the situation. The man's reputation, added to his suspicious absence, left me but one thing to do—I put him under guard."

"That does look strange," agreed the Major, with a troubled face; "refused—"

He was interrupted by a sound from Rachel, who had not spoken after the conversation turned to Genesee. She came forward with a low cry, trembling and passionate, doubt and hope blending in her face.

"Did you say the night the horses were stolen?" she demanded. All looked at her wonderingly, and Kalitan instinctively slid a little nearer.

"Yes, it was in the night," answered the Captain, "about two o'clock; but you surely knew about it?"

"I? I knew nothing," she burst out furiously; "they lied to me—all of you. You told me it was in the morning. How dared you—how dared you do it?"

The Major laid a restraining hand on her arm; he could feel that she was trembling violently. She had kept so contemptuously cool through all those days of doubt, but she was cool no longer; her face was white, but it looked a white fury.

"What matter about the hour, Miss Rachel?" asked the commander; and she shook off his hand and stepped back beside Kalitan, as if putting herself where Genesee had put himself—with the Indians

"Because I could have told where Jack Genesee was that night, if they had not deceived me. He was with me."

Tillie gave a little cry of wonder and contrition. She saw it all now.

"But—but you said it was a Kootenai who brought you home," she protested feebly; "you told us Lamonti."

"He is a Kootenai by adoption, and he is called Lamonti," said the girl defiantly; "and the night those horses were run off, he was with me from an hour after sundown until four o'clock in the morning."

That bold statement had a damaging ring to it—unnecessarily so; and the group about her, and the officers and men back of them, looked at her curiously.

"Then, since you can tell this much in his favor, can you tell why he himself refused to answer so simple a question?" asked Major Dreyer kindly.

That staggered her for a moment, as she put her hand up in a helpless way over her eyes, thinking—thinking fast. She realized now what it meant, the silence that was for her sake—the silence that was not broken even to her. And a mighty remorse arose for her doubt—the doubt she had let him see; yet he had not spoken! She raised her eyes and met the curious glances of the men, and that decided her. They were the men who had from the first condemned him—been jealous of the commander's trust.

"Yes, I think I can tell you that, too," she said frankly. "The man is my friend. I was lost in the snow that night; he found me, and it took us all night to get home. He knows how these people think of him;" and her eyes spared none. "They have made him feel that he is an outcast among them. They have made him feel that a friendship or companionship with him is a discredit to any woman—oh, I know! They think so now, in spite of what he has done for them. He knows that. He is very generous, and wanted, I suppose, to spare me; and I—I was vile enough to doubt him," she burst out. "Even when I brought him his horse, I half believed the lies about him, and he knew it, and never said a word—not one word."

"When you brought him his horse?" asked the Major, looking at her keenly, though not unkindly.

Her remorse found a new vent in the bravado with which she looked at them all and laughed.

"Yes," she said defiantly, as if there was a certain comfort in braving their displeasure, and proving her rebellion to their laws; "yes, I brought him his horse—not by accident either! I brought him brandy and provisions; I brought him revolvers and ammunition. I helped him to escape, and I cut the bonds your guards had fastened him with. Now, what are you going to do about it?"

Tillie gasped with horror. She did not quite know whether they would shoot her as a traitor, or only imprison her; but she knew military law could be a very dreadful thing, and her fears were extravagant.

As for Miss Fred, her eyes were sparkling. With the quick deductions of her kind, she reasoned that, without the escape that night, the men would have died in that trap in the hills, and a certain delicious meeting and its consequences—of which she was waiting to tell the Major—would never have been hers. Her feelings were very frankly expressed, as she stepped across to the self-isolated rebel and kissed her.

"You're a darling—and a plucky girl," she said warmly; "and you never looked so pretty in your life."

The defiant face did not relax, even at that intelligence. Her eyes were on the commander, her judge. And he was looking with decided interest at her.

"Yours is a very grave offense, Miss Rachel," he said, with deliberation that struck added terrors to Tillie's heart. "The penalty of contriving the escape of prisoners is one I do not like to mention to you; but since the man in this case was innocent, and I take your evidence in proof—well, that might be some extenuation of the act."

"I didn't know he was innocent when I helped him," she broke in; "I thought the horses were stolen after he left me."

"That makes it more serious, certainly;" but his eyes were not at all serious. "And since you seem determined to allow nothing in extenuation of your own actions, I can only say that—that I value very highly the forty men whose lives were saved to us by that escape; and when I see Mr. Genesee. I will thank him in the warmest way at my command;" and he held out his hand to the very erect, very defiant rebel.

She could scarcely believe it when she heard the words of praise about her; when one man after another of that rescued crowd came forward to shake hands with her—and Hardy almost lifted her off her feet to kiss her. "By George! I'm proud of you, Rachel," he said impulsively. "You are plucky enough to—to be Genesee himself."

(Continued next week.)

Ask your neighbor to subscribe for The Wisconsin Farmer.

UPPER WISCONSIN

Barron Creamery Report.

We are pleased to give our readers some interesting facts from the annual report of the Barron Creamery Company, Barron, Wisconsin. The report has just been sent to us by W. A. Arndt, manager and treasurer.

In 1916 this creamery received 4,184,905 pounds of cream, which with an average test produced 1,154,491 pounds of butter. This creamery sold in 1916 1,398,820 pounds of butter. It paid an average price of 36.15 cents for butter fat at the farm and received an average of 31.25 cents per pound for butter. The percentage of overrun was 21.1. The cost of making 100 pounds of butter, including cost of hauling cream, was $2.09. The average number of patrons is 821 and the present number of stockholders 456. This co-operative company in 1916 received for butter $445,180.13. Of this amount $417,447.16 was paid to patrons for butter fat.

The Barron creamery was organized in 1902 and made 70,000 pounds of butter that year. This butter was sold for $14,953.55 and the patrons received $13,383.90. The company's business has increased every year. In fifteen years this company has made 10,500,000 pounds of butter and sold the same for $2,861,397.01. Of this sum the patrons received $2,623,147.55 for butter fat. The Barron creamery is the largest in Wisconsin and the record which it has made in fifteen years is an enviable one.

Colonization Company.

A new colonization company has been organized, to be known as the Wisconsin Colonizaiton Company, of Eau Claire. Among the incorporators are A. J. Keith, Ben F. Faast, and E. G. Keuhl. This company has purchased 50,000 acres of land in Sawyer county and plans to colonize and help develop the country. The company expects to build many miles of road at its own expense, and to furnish ready-made farms rather than cut-over timber land. It is expected to furnish an opportunity for many people of small means to get started in Upper Wisconsin.

Langlade County Jersey Breeders.

To the Editor:—Langlade county Jersey breeders held a small but enthusiastic meeting at the office of County Representative Swoboda on Thursday afternoon. It was purely a business meeting, the principal thing up for consideration being the election of officers.

Blaine Stewart was re-elected president; Ralph Lyons was elected vice president; P. Gillette, secretary; Chas. Schotte, treasurer, and J. T. Oppedal, director.

It was voted to hold a summer meeting at the home of Blaine Stewart on Friday, June 15th. It was further voted to make a list of the pure-bred registered sires owned in the county, same to be kept on file by the secretary.

Informal discussion centered about the importance of cow testing. So eloquent and enthusiastic did this become at times that the impression to the passers-by in the corridors of the court house must have been much like a runaway phonograph with a Cal Stewart record. From the excited mingling of phrases such expressions as the following stood out: "Farm without testing? Why, man, I don't see how a farmer can do it!" "I don't care how much a man thinks he knows about dairying, testing will convince him that he has a lot to learn." "The best judge on earth can't pick his highest producers unless he weighs and tests." "I didn't find my Jerseys on the road," I told a man that wanted to buy a calf from me for $5. He didn't get it, either. That calf as a heifer produced almost 400 pounds of butter in a year. How is a man going to spot the good ones unless he belongs to a testing association?" "I tell you this testing has convinced me of the importance of good feeding." "You're right, it's a good thing. I'm in it first, last and all the time."

The above and other statements equally forcible in support of testing were not made by one man. It was a regular "Kaffel Klatsch" of endorsement, everyone talking at once. Had the crowd been a bunch of Methodists not a one but what would have said "Amen" to the above.

It was the sentiment that the Langlade County Cow-Testing Association had done more to boost the interests of the breed in northern Wisconsin than any other one thing. Two years in succession a Jersey cow had headed the list. F. G. Swoboda.

County Agricultural Agent.

Marinette County Grain Show.

Recently the annual grain show of the Marinette County Experiment Association was held at the county agricultural school. Prof. R. A. Moore, of the University of Wisconsin, was present to judge the exhibit.

A good idea of what the new lands of Upper Wisconsin are able to show in grain farming can be gathered from a letter written by Professor Moore under date of January 14th to Professor Morton, of the Marinette county school, when Mr. Moore had returned to Madison after judging at the grain show at Marinette.

The letter follows:

I arrived safely home yesterday. I was very much pleased with your meeting. The decided change in the quality of your grains is something to be especially commended. I remember a few years ago when I judged at your school we had nothing but scrub grains from start to finish. You did not have a single exhibit this year but what was high enough in class to put into most any sort of a grain show. I am glad you are getting along so nicely with the good work, and it is certainly encouraging to see Marinette county develop as rapidly as it has.

Last winter Professor Delwiche, of the Wisconsin Experiment Association, spoke at the grain show at Marinette, and he stated at that time that he thought Marinette county would become the source of supply for pure-bred grains for the entire upper part of the state of Wisconsin. He said the soil, climate and geological conditions were exceptionally good for the raising of seed corn in Marinette county, and the progress which was being made indicated to him that there was a big future for the pedigree seed grain business in the upper eastern part of Wisconsin.

Howard I. Wood.

Marinette Co., Wisconsin.

With Wisconsin County Agents.

Ashland County.—The county agent is planning a vigorous campaign for tuberculin testing and is aiding farmers to secure high-yielding seed corn and other grain.

Barron County.—In assisting with the farmers' week at Prairie Farm the county representative gave a hog cholera demonstration and made blood tests for contagious abortion. A live stock shippers' association, the third in the county, has been formed at Barron. One association has shipped out twenty-six cars of live stock during the last four months.

Burnett County.—Ninety-eight animals have been tested for tuberculosis by the county agent and he reports no reactors. The surveying of a section of land for a drainage project, milk testing and conferences with farmers who are planning to build silos next summer are other services that the agricultural representative has rendered his neighbors.

Douglas County.—Valuable assistance has been given by the agent to the milk producers' association, in which more than 3,000 cows are now listed.

Eau Claire County.—The county representative has been of service to the farmers of his county in marketing their live stock.

Forest County.—At a recent farmers' meeting at Armstrong Creek the county representative took orders for thirty-one bushels of seed potatoes, and he is planning to distribute a peck to about thirty boys and girls in the spring, thus getting the younger generation to start with pure-bred stock. Plans are also being made for a co-operative creamery and cheese factory at Laona. Among other things, the representative has shown a road crew how to use a blasting machine for ditching, vaccinated three hogs for cholera, and worked on a poultry house contest which has recently been started by a woman's club.

Langlade County.—Co-operation is flourishing in this county. A very successful community institute was recently held in co-operation with the local school. Treatment for oat smut was discussed and a great deal of interest was manifested. Several boys have signed up to enter a beef-raising contest in the spring.

Lincoln County.—The county representative has spent a large portion of his time in teaching agriculture in the local teachers' training schools.

Oneida County.—"We are doing all we can to get agriculture established in every school in the county," says the agricultural representative. "I have arranged to visit several schools and help the teacher work out a definite agricultural teaching plan." He has also tested the milk of several herds of dairy cows, assisted in selecting seed corn and seed potatoes and grading potatoes for the boys' and girls' clubs.

Polk County.—There were thirty-one young men enrolled in the short course which was held at Luck. The county representative spent practically all of his time teaching them, and reports that the attendance was almost ideal. The boys have tested several herds of cows for tuberculosis and swine for hog cholera. A co-operative creamery has also been organized.

Portage County.—The short course in agriculture given by the county representative was well attended, some of the students coming from a distance of sixteen miles. The calf, corn and potato clubs, in this county are flourishing and the members of them taking a great interest in the plans of this season's work.

Price County.—The county representative recently placed eight new farm account books in one week. The representative reports that those who received books at the beginning of last year kept them in good shape. He has created quite an interest in weighing and testing the milk of individual cows. He has also assisted in the registration of pure-bred calves, selecting seed potatoes, making out herd records and inspecting several barns with a view to improvement.

Rusk County.—"The importation of five high-grade cows and three pure-bred Guernsey bulls was the important work of the month," says the representative. "The bulls were placed in communities where they will be of great value in grading up the native stock."

Sawyer County.—The range of the county representative's assistance to farmers has been very wide. He assisted at two farmers' institutes, planned balanced rations for dairy cows, doctored sick cows, and looked up seed grains and potatoes for farmers.

Taylor County.—Six silos have been purchased in this community as a result of a farmers' meeting held last fall. The county representative has assisted several farmers in the selection of pure-bred cows and helped a teacher select a Babcock tester. He reports that the farm account books collected from farmers were in better condition this year than ever before and all the farmers have again signed up for books for the coming year.

Vilas County.—A large amount of the county representative's time has been spent in holding farmers' meetings. These have been very successful throughout the county. He has also dehorned cattle of seven different herds, and worked on the secretary's report of the Vilas County Agricultural Society.

Walworth County.—The county representative has analyzed several samples of soil for acidity and is now making preliminary arrangements for a city beautifying campaign during the early spring. The home of the new La Grange Community Club, which has been recently organized by the county representative, is now being built. During the winter cattle buyers and sellers have been brought together by the representative, with the result that several carloads of cattle have been shipped out.

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Armour Fertilizers are GOOD for your land — GOOD for your crops—GOOD for your pocketbook—GOOD for your disposition — a GOOD all 'round investment.

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ADVERTISEMENT.

Would You Take Anything Forcefully Without Paying for It?

DO YOU believe in confiscation by legislation? Or are you among that vast majority of fair-minded men who believe that any one who is deprived of business or property by an act of the voters should be *compensated* for his loss?

There can be no middle ground on this proposition. If one class is entitled to compensation, all classes are. If you have the right to demand reparation or *compensation* for damage done to you, your neighbor has the same right.

If the city government condemned part of your property for widening a street, you would *demand* and would be granted fair and just *compensation.*

If you owned a herd of cattle that were diseased and therefore condemned and destroyed by State or Government authorities, you would be granted honest *compensation.*

If you are a working man employed by others, the Workingmen's Compensation Act assures you just and rightful *compensation.*

Can you, then, in fairness, honesty and justice, fail to concede to all others, without discrimination, the same rights of *compensation* that you enjoy?

Should not the industry that pays the heaviest percentage of taxes—an industry that has been fostered by the Government since the beginning—enjoy the same rights within the law that *you* enjoy?

The more you study *compensation* in all its phases the more you will concede that it is the only fair means of making good that which is injured by National, State or Municipal legislation.

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BRAVE THE WIND AND STORM in the best wet weather togs ever invented

TOWER'S FISH BRAND

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Our 80th year.

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$9.90 FOR 375-LB SIZE. OTHER SIZES IN PROPORTION

WM. GALLOWAY COMPANY

Dept 33 Waterloo, Iowa

Please mention this paper when writing

VETERINARY

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Stud Not Sure.

Would like to know if there is anything to feed a stud horse to make him sure.

The first question is, why isn't he sure, and then advise treatment. The cause should be found and then remedied. Give plenty of exercise, good food, good grooming, and if he then fails some aphrodisiac may be given, but this should not be given until some good veterinarian is consulted.

Failure to Breed.

I have a cow that fails to get with calf. She has been served four different times. She is an extra good cow, young and in good condition. Can you tell me what to do for her?

As there are so many reasons for a cow not conceiving we could not say with any degree of certainty just what is causing this trouble without giving the animal a physical examination. This can best be done by your local veterinarian. The cause of the trouble will have to be found before the trouble can be corrected.

Lice on Calves.

I have thirteen spring calves that have lice. They eat well but are very thin in flesh. Is there anything I could do for them to get rid of the lice? If so, please let me know.

Cattle infested with lice should be dipped in the spring and again in the fall, using a coal-tar solution or tobacco dip. If only a few cattle are to be treated, the dip may be applied with a brush or cloth, or with a small spray pump, or a mixture of kerosene one-half pint and tar one pound may be smeared on the body. This treatment should not be restored to in winter. Good feed and good grooming are essential in these cases. A good louse powder sprinkled in the hair may be of some benefit.

Stomatitis.

I have a coming three-year-old heifer that was fresh in October and gave about three gallons of milk per day until a short time ago. Then she began to fail on her milk and to slobber like a horse on white clover. Her under jaw is swollen and her tongue is broken out with a rash. She has some kind of sore mouth. I have been swabbing it out with a wash of alum, borax and a few drops of carbolic acid. She has fallen off in flesh and has a very poor appetite. She has access to plenty of good water, oats straw, stalks, and I give her clover hay and silage and would give oats and bran, but she will not eat them. What is the matter with this cow and what will help her?

It is very probable your animal is troubled with inflammation of the mucous membrane of the mouth. This may or may not be of an infectious nature. We would prescribe treatment for you, but for fear this may be of an infectious nature we would advise you to have a veterinarian who is competent examine this cow and see if the cause of the malady can be ascertained.

Abortion

I bought six head of cows last winter from two different herds. One of each lot dropped a calf about the seventh month that was fully developed, but small in size. Later in the season a Jersey heifer dropped a calf about the sixth or seventh month. Do you suppose these cows are affected with contagious abortion? The Jersey comes in heat regularly and several of the cows I bought as well as those in my own herd have come in heat with more or less regularity every six weeks or so. Some say that vaccination is a good preventive. I understand this must be done four times. Now what I want to know is when to start. All the cows in my herd seem to be in calf but two head. I should like to know if cows should be vaccinated soon after being bred, before breeding, or when. Would also like to know what treatment, if any, I could give the bull so I may use him another year.

Most generally cows are treated by use of bacterin during pregnancy, but may be treated at other times. The method and time of administration should depend upon the bacterin used. This information may be obtained from the one you have to administer the bacterin.

Water For Cattle in Cold Weather.

I would like to know how long cattle can exist without water when the mercury ranges from 1 to 15 degrees below zero.

No authentic data can be found on this subject, because no such experiment has ever been tried. Cattle should have access to water not less than three times a day, and so much the better if they can run to it at will.

Consult a Veterinarian.

Will you kindly advise me through the paper what I can do for my cows? I have a herd of eleven cows and five of them have aborted. The first cow had three weeks before she should freshen and her calf is alive and in good health. Would you advise me to raise this calf? The second cow had another month's time, the third and fourth cows about six weeks, and the fifth cow was to freshen in May. There are several more that act the same or seem to look the same.

It is possible there is contagious abortion in your herd. We would advise you to have some competent veterinarian look the situation over, and if he advises treatment he may start you out on the right kind of treatment and you may be able to continue. In the meantime, remove the non-infected ones from the infected ones, clean and disinfect the premises thoroughly, and be sure to burn any and all aborted matter. We would raise those calves which seem strong and all right.

Farm Sanitation

Will Increase Your Profits by Keeping Live Stock and Poultry Healthy.

Kreso Dip No. 1

Easy to Use. Efficient. Economical. Kills Sheep Ticks, Lice, Mites and Fleas. Helps Heal Cuts, Scratches and Skin Diseases.

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Free Booklet on Horse Training

BREAK your colts, kickers, runaways, etc., with Koepke's controller bridles and avoid accidents. Write for circulars and free booklet on horse training. Address

F. L. KOEPKE, Dept. A, Whitehall, Wis.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Great Percheron Dispersion.

EVERY farmer and breeder of Percheron horses should make his plans to attend the sale of Percheron horses at the state fair grounds, Milwaukee, on Wednesday, March 21st. This sale will comprise one of the best offerings of Percherons ever made in Wisconsin as two of Wisconsin's best studs will be dispersed, viz., those of Louis Lewellin & Sons, Waterloo, Wis., and Louis P. Sutter, Delavan, Wis. The latter stud consists of some 20 head of imported stallions and mares, which were personally selected in the famous Percheron horse breeding districts of France and were imported by Mr. Sutter in 1914 just before the outbreak of the European war. This was probably one of the last importations made from France. The stallions are the big ton type with tremendous bone and substance. They are coming four and five years of age, and offer a rare opportunity to our readers to buy a young imported stallion. Mares are a nice lot of drafty animals, only two being over five years of age and the balance being under four. We urge our readers not to miss this sale, as it is one of the few opportunities to obtain Percheron stock as there is very little of it now in the United States or is there likely to be in the near future. The stud of Lewellin & Son is well known to the readers of The Wisconsin Farmer through the winnings which this stud has made at the Wisconsin state fairs and other leading fairs in the state. In 1915 and 1916 they won champion on stallions and mares in Wisconsin bred and owned by exhibitor division. In 1915 they also won first and second on stallion foals, championship on mares in the open class and in 1916 won first on stallion and four mares bred by exhibitor; first on best three mares owned by exhibitor, first and second on get of sire, as well as many other prizes. All of these prize-winning stallions and mares will be included in this offering. Catalogs showing breeding, etc., are now ready and may be obtained from James G. Boyd, 426 Sycamore St., Milwaukee, Wis. When writing for catalog kindly mention that you saw their advertisement in The Wisconsin Farmer.—Adv.

New Seed Book and Garden Guide.

SEED planting time is near, and right now dependable information about the selection and handling of garden and field seeds is worth money. It means greater success and more profits later. Therefore, the announcement on page 22 by Galloway Bros. & Co., of their new 1917 Seed Book and Garden Guide is timely and of general interest. This elaborate 96-page book, illustrated in colors, is more than a catalog; it is a reference book for all plant growers. It describes practically all useful plants, their culture and requirements and the planting of the seed. Flowers, trees, shrubs, foliage and berry bushes and farm crops are included in it. The book is really a hand book of information for the farmer, gardener, orchardist, berry grower and landscape man. If you are interested in any of these lines, you should have this book for careful reference. Copies are just off the press. Get yours at once by sending to Galloway Bros. & Company, Waterloo, Iowa, and mentioning this paper when doing so.—Adv.

Lefebure's Belgians.

IN a recent communication from H. Lefebure & Sons, Fairfax, Iowa, they have the following to say: "Our sales for the first part of February have been good and among them were a large roan stallion to F. H. Cornelius, Bagley, Iowa; a stylish roan two year old to M. G. Lovitt, Stronghurst, Ill.; a six year-old stallion to Wesley Novotney, North Liberty, Iowa, and a six-year-old chestnut stallion to Richard Edwards, Whiting, Iowa. Although we have had numerous sales so far this season, yet we are still crowded for room, having no empty stalls in our ten large barns. Every stallion in our barns from three to six years old weighs over a ton and our two year olds weigh from 1,700 to 2,000 pounds. We have them in any color. We offer matched spans of mares in any color and from yearlings to aged mares, several of which weigh a ton. See page 31 and write for illustrated catalog, mentioning The Wisconsin Farmer.—Adv.

P. W. Young's Fall Boars.

WHILE attending the Willsie Duroc sale we stopped in to see that good Poland herd owned by P. W. Young, Prosper, Minn. He has about a dozen fall boars that are herd-boar prospects and these are being priced for quick sale at a very reasonable figure. Here is a good chance to get in on the ground floor. Buy a boar now and grow him out to suit yourself. They are sired by his 1,000-pound Orange Wonder out of a dam by Master's Giant, in our estimation the best sow sire in Minnesota. This cross has made good and the fall boars Mr. Young has for sale are equal to any we have seen. These will not last long, so send in your order early. Please mention The Wisconsin Farmer.—Adv.

Percheron and Belgian Stallions.

IF ANY reader of this paper is looking for a good Percheron or Belgian stallion or mare, they should call and see Hart Bros., Osceola, Iowa. These boys have a splendid lot of horses on hand, and they can fill your order to your satisfaction. It will pay you to see their horses. When writing them kindly mention this paper. See page 31. —Adv.

Galloway's Free Book.

A VALUABLE book for the household is announced on page 12 of this issue by the William Galloway Company, Waterloo, Iowa. It is the new 1917 General Catalog and Buyers' Guide which this company has just received from the printer. Every home should have a copy of this book which is crammed full of information on the big Galloway line of farm implements and supplies, automobile accessories, household goods, etc. Thirty pages, with complete descriptions and illustrations, are devoted to farm engines alone, 20 pages to the famous Galloway cream separators, 15 pages to Galloway manure spreaders and in addition there are big sections on furniture, clothing, shoes, drugs, toilet preparations and scores of other articles. Some space is given to the methods and policy of the Galloway Co. This book contains 270 pages, beautifully illustrated with four color pictures. To readers of this paper it will be sent free on request to the company whose address is given above. Write for a copy at once. —Adv.

Wyatt Jerseys.

WITH this issue of The Wisconsin Farmer, E. E. Wyatt, Tomah, Wis., changes his advertisement from Duroc Jersey swine to Jersey cattle. The percentage of his calf crop the past year has been heifers and for that reason he will have a few cows and heifers to sell. They come from register of merit backing and his milking herd are producers. Mr. Wyatt writes, that even though feed is high, according to the testing association his cows are giving him $2 for every $1 worth of feed consumed. Harbinger Chief has recently been purchased for service in this herd. He is sired by the well-known Dixon's Harbinger out of a dam with a 656-pound fat record. This bull will be bred to daughters of Maiden's Varsity King. Mr. Wyatt can supply you with one cow or heifer or with a carload. Most of the heifers offered are of his own breeding. Write him for further information.—Adv.

Salter Red Polls.

IF YOU want Red Polled cattle, write J. W. Salter & Sons, Unity, Wis. Just at this time they offer eight bull calves from three to six months of age. For those that do not need a bull for heavy service at once, these light weights should appeal, for the express rate would be low and you can grow out the bull to your liking. If you want a few open or bred heifers the Salters have a limited number that they will sell. We gladly recommend this firm. Look up their advertisement on page 29 of this issue.—Adv.

Buy Seed Corn Now.

YOU will soon begin to buy your seed corn and a great deal of care should be taken in making the proper selection. Buy the corn most suitable to your location and conditions. If you want Golden Glow, Wisconsin No. 7, Riley Martiny & Son, Baraboo, Wis., have a limited number of bushels for sale. It is guaranteed in every respect and we gladly recommend this firm. Notice their advertisement on page 6.—Adv.

SALE DATES.

Holstein Cattle.

Mar. 7, J. A. Forge, Burlington, Wis.
Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.
Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.
May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.
May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

Holstein-Friesian Cattle.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

Raise High Priced Wheat on Fertile Canadian Soil

Canada extends to you a hearty invitation to settle on her **FREE Homestead lands of 160 acres each** or secure some of the low priced lands in **Manitoba, Saskatchewan and Alberta.** This year **wheat is higher** but **Canadian land just as cheap,** so the opportunity is more attractive than ever. Canada wants you to help **feed the world** by tilling some of her fertile soil **—land similar to that** which during many years **has averaged 20 to 45 bushels of wheat to the acre.** Think of the **money you can make** with wheat around **$2 a bushel** and land so easy to get. Wonderful yields also of **Oats, Barley and Flax. Mixed farming** in Western Canada is **as profitable an industry as grain growing.**

The Government this year is asking farmers to put increased acreage into grain. Military service is not compulsory in Canada but there is a great demand for farm labor to replace the many young men who have volunteered for service. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

GEO. A. HALL,
123 2d St., Milwaukee, Wis.
Canadian Government Agent.

SALE DATES.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.
May 17, Birch & Thompson, Lake Geneva, Wis.

Percherons.

Mar. 21, Dispersion sale of the Lewis Lewellen & Sons, Waterloo, and Louis P. Sutter, Delavan, Wis., Percheron studs. Sale at state fair grounds, Milwaukee. Jas. G. Boyd, Mgr., 426 Sycamore St., Milwaukee, Wis.

NEWS OF THE SALE RING

Wisconsin Short-horn Breeders' Sale

The sale of Short-horns held at Madison under the auspices of the Wisconsin Short-horn Breeders' Association, was a decided success in every way. There was nothing sensational, but the feature of the sale was the noticeable interest manifested by the farmers and breeders of Wisconsin in the Short-horn cow. Over 500 people were present during the sale and anyone that saw this gathering could not help but be impressed with the fact that beef cattle, and especially the Short-horns, are "coming back" in Wisconsin. This was the first time that a show was held previous to the actual selling of the cattle and this was a decided advantage and stimulated a great deal of interest and discussion. G. D. Arnold had the first-prize aged bull and Carpenter & Carpenter won first on bull calf which was later made champion bull and sold for $500. G. D. Arnold also had first-prize aged cow and Chas. Pengilly first on heifer calf and champion female of the show. Seventy-five breeders attended the banquet which took place the evening preceding the sale and same was enjoyed by everyone present. The sale was well managed and its success is due to the excellent work done by the association's secretary, Prof. J. L. Tormey. Carey M. Jones did the selling. We follow with a complete list of animals sold.

FEMALES.

Lady Hope 4th, Aug., 1909; J. E. Kennedy, Janesville, Wis. $475
Knight's Violet 2d, Jan., 1910; Herr Bros. & Reynolds, Lodi, Wis. 260
Clara Belle, June, 1906; A. Gilbert, Poynette, Wis. 200
Strawberry 5th, Nov., 1915; F. I. Derby, York, Ala. 300
Broadhooks Queen, July, 1915; F. I. Derby 575
Cumberland Rose, Mar., 1916; Univ. of Wisconsin 230
Juvenile Cumberland, Dec., 1915; F. I. Derby 155
Crystal Cumberland, Mar., 1915; A. Gilbert 195
Melba Cumberland, Aug., 1915; Herr Bros. & Reynolds 165
Myra Cumberland 2d, July, 1913; Univ. of Wisconsin 225
Circe 10th, Oct., 1915; F. I. Derby 245
Happy's Pride, Sept., 1914; F. I. Derby 160
Belle, Sept., 1913, F. I. Derby 305
Flarabeau, June, 1913; A. J. Bardness, Janesville, Wis. 175
Rock's Leaflet 2d, Dec., 1915; F. I. Derby 105
Autumn Rose, Oct., 1915; Chas. Rogers, Union Center, Wis. 215
White Favorite, Oct., 1915; F. I. Derby 140
Marion Queen 2d, Aug., 1915; J. M. Blatz & Son, Dodgeville, Wis. 310
Belle Cecilia 5th, Mar., 1916; A. R. Jones, Dodgeville, Wis. 240
Royal Vanity 2d, July, 1913; A. R. Jones 195
Beauty, Aug., 1914; L. W. Loy & Son, Livingston, Wis. 210
Merry Ecton 12th, Jan., 1911; F. I. Derby 400
White Rose, April, 1915; Anoka Farms, Waukesha, Wis. 425
Red Rose, April, 1916; A. R. Jones 210
Roan Girl, Jan., 1915; Gilbert Amadon, Brooklyn, Wis. 100
Whimple's Gem, Jan. 17, 1916; F. I. Derby 125
Stamford Countess 12th, Sept., 1915; Chas. Rogers 135
Golddust Starlight, Feb., 1910; L. W. Loy & Son 215
Sunflower, April, 1911; F. A. Hadden, Janesville, Wis. 170
Beulah, June, 1910; F. A. Hadden 245
Roan Beauty, March, 1915; Boynton Bros., Janesville, Wis. 145
Miss Santa, Dec., 1914; Gilbert Amadon 120
Tulip, Dec. 1914; Arthur Lewis, Poynette, Wis. 145
Badger Girl, Nov., 1911; Ed Guernier, Barton, Wis. 170
Red Lady, Jan., 1909; J. E. Carncross, Lodi, Wis. 185
Lucy 3d, Jan., 1912; R. M. Smith, Elroy, Wis. 195
Daisy, May, 1912; Ed Guernier 125
Lady Filigree 3d, June, 1912; John L. Lones, Rockland, Wis. 245

BULLS.

Dale's Clipper 2d, Nov., 1915; W. D. Connell, Menomonee Falls, Wis. 325
Clifton Monarch, Feb., 1915; Dr. P. R. Fox, Madison, Wis. 225
Waverly's Knight, Jan., 1916; A. G. Strand, Rice Lake, Wis. 285
Village Master, Nov., 1915; Wm. McLeasch, Merriman, Wis. 310
Superlative, Jan., 1912; F. I. Derby 305
Village Favorite, Aug., 1915; L. M. Stevens, Platteville, Wis. 165
Star Cumberland, April, 1912; Schwartz Bros., Wauzeka, Wis. 260
Collynie Dale 2d, Aug., 1916; John Notsetter, Darfield, Wis. 135
Collynie Mine 4th, May, 1916; A. Gilbert 110
Collynie Cullen, Sept., 1915; Jas. Watters, Mineral Point, Wis. 500
Collynie Mine 3d, Chas. Rogers 500

SUMMARY.

38 females..$ 8.435; average....$221.97

Field Men for The Wisconsin Farmer.

H. S. Hoard, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

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12 bulls .... 3,255; average.... 271.25
50 head .... 11,690; average.... 233.80

The Janesville Duroc Sale.

Everything considered the sale of Duroc Jerseys made by John L. Fisher, February 8th, was the best of the season so far. This was the first sale of this breed ever held at Janesville, and the outcome of the sale was questionable, however, breeders and farmers were present to bid on the gilts bred to the Wisconsin champion, King Defender, and the son of the Omaha champion, Orion Cherry King Jr. Many of the gilts were of late farrow and did not have the necessary growth, but the buyers wanted hogs and they clamored over each other to get to bid on them. The top of the sale was a choice three-year-old sow, consigned by Fisher. She is an excellent brood sow and being bred to the grand champion boar, she was a good buy for F. H. Arnold at $155. Gant's Farm bought the good brood sow, A.'s Model at $145. She has proven her worth as a brood sow on the Fisher farm. The top of the gilts was an extra, driven in after the cataloged stuff had been sold. She brought $112.50 and went to the Edgewater Stock Farm. The top gilts came from the Parker farm. We feel confident that 30 more gilts would have been sold at this sale. Lloyd Seely sold the offering in a creditable manner. We follow with a complete list of the sale.

CONSIGNED BY E. H. PARKER & SON.

No. 1, C. J. Damerow, Beloit, Wis., $102.50; 2, Gant's Farm, Delavan, Wis., $100; 3, Ceylon Court Farm, Lake Geneva, Wis., $102.50; 4, Clarence George, Evansville, Wis., $92.50; 5, Dennis Shea, Melvina, Wis., $95; 6, Wallace Ransom, Avalon, Wis., $67.50; 7, G. B. VanNorman, Mukwanago, Wis., $85; 8, Ed Glawe, Winnebago, Ill., $100; 9, Dennis Shea, Melvina, Wis., $82.50; 10, G. B. VanNorman, $80; 11, W. B. Merriam, Delavan, Wis., $80; 12, W. C. Scofield, Edgerton, Wis., $72.50; 13, Jas. Oxtoby, Spring Grove, Ill., $70; 14, Wm. Thomas, Ridgeway, Wis., $90; 15, R. C. Church, Elkhorn, Wis., $70. Twenty head sold for $1,810 average $90.50. Five extras figured in this average.

CONSIGNED BY JOHN L. FISHER.

No. 16, Gant's Farm, Delavan, W ., $145; 18, A. A. Butterbrodt, Burnett, Wis., $57.50; 19, F. H. Arnold, Janesville, Wis., $155; 21, J. C. Bolger, Waterloo, Wis., $65; 22, W. T. Walker, Cherryvale, Kan., $50; 23, W. T. Walker, $50; 24, B. W. Little, Janesville, Wis., $95; 25, W. T. Walker, $60; 26, H. A. Haried, Edgerton, Wis., $57.50; 27, R. S. Brodt, Rockton, Wis., $57.50; 28, E. E. Carpenter, Brodhead, Wis., $55; 29, Aug. Johnson, Cleveland, Wis., $62.50; 30, W. B. Merriam, Delavan, Wis., $65; 31, Aug. Johnson, $52.50; 32, Webb Bros., Poynette, Wis., $55; 33, W. F. Wick, Watertown, Wis., $60; 34, H. Arndt, Koshkonong, is., $57.50; 35, W. W. Goodrich, Ft. Atkinson, Wis., $52.50; 36, B. W. Little, $55. Nineteen head sold for $1,307.50; average $68.81.

CONSIGNED BY F. H. ARNOLD.

No. 37, Frank Willnitz, Janesville, Wis., $65; 38, W. F. Wick, $62.50; 39, E. Shepardson, Beloit, Wis., $62.50. Three head sold for $190; average $63.

Smiley's Poland China Sale.

William Smiley & Son Poland China sow sale was held at Albany, February 22d. The day was ideal and there was a large attendance of breeders and farmers. The offering was not overdone, but they sold a lot of sows and gilts that will do well for their purchasers. The top of the sale was No. 10, a fall yearling of big-type breeding and went to Frank Rouden at $110. A pair of Goldengate King gilts sold for $97.50 apiece to E. W. Scott, Belleville, Wis. They were a good buy at this figure. The fact that an average of $69.65 was made is evidence that the breeders and farmers appreciate the Smiley Polands. We list those selling for $55 and over: No. 3, E. W. Scott, Belleville, Wis., $97.50; 4, E. W. Scott, $97.50; 5, M. Marty, Monticello, Wis., $57.50; 7, W. Becker, Durand, Ill., $82.50; 8, C. Horn, New Auburn, Wis., $82.50; 10, Frank Rouden, Fielden, Ill., $110; 11, G. P. Prapp, Monticello, Wis., $60; 12, M. Marty, $77.50; 13, James Derivan, Fox Lake, Wis., $75; 14, George Madden, Fox Lake, Wis., $67.50; 15, L. Reese, Brooklyn, Wis., $77.50; 17, D. H. Whitmore Evansville, Wis., $65; 20, James Derivan, $77.50; 21, Charles Ludtke, Lyons, Wis., $77.50; 22, Paul Paulson, Lynxville, Wis., $65; 23, O. A. Scott, Belleville, $67.50; 26, Ben Osvenn, Broadhead, Wis., $60; 29, Chas. Popanz, Albany, Wis., $57.50; 31, J. H. McBride & Son, Milton, Wis., $57.50; 34, E. W. Scott, $57.50; 38, M. Marty, $62.50; 39, E. E. Jones, Rockland, Wis., $67.50; 41, E. W. Scott, $60; 44, Charles O'Neil, Bridgeport, Wis., $55; 45, Charles Popanz, $60; 43, O. A. Scott, $60; 48, Charles Popanz, $55.

The Gant Duroc Jersey Sale.

A very successful Duroc sale was held at the John D. Gant farm, Delavan, Wis., February 15th. Mr. Gant is the busy secretary of the Wisconsin Duroc Jersey Breeders' Association and he is doing his best to improve the quality of breeding stock on Wisconsin farms. It will be noticed that the stock sold not only brought a fair price, but was well distributed, and this indicates a lively interest among breeders of this state in Duroc Jersey hogs. It was a bona fide sale in every way with no bidding in. The following is the sale record showing the purchaser and price of each animal offered:

No. 1, Ceylon Court Farm, Lake Geneva, Wis., $285; 2, Roy Church, Elkhorn, Wis., $125; 5, J. L. Fisher, Janesville, Wis., $77.50; 6, Ceylon Court Farm, $77.50; 15, M. H. O'Keefe, Waunakee, Wis., $75; 9, Thos. James, Delavan, Wis., $67.50; 11, Fred Vaughn, Lyons, Wis., $67.50; 4, H. E. Braatz, Brandon, Wis., $65; 14, R. H. Sturtevant, Delavan, Wis., $62.50; 25, H. Isham, Springfield, Wis., $62.50; 23, Phillips Bros., Delavan, Wis., $62.50; 27, McCanna Stock Farm, Burlington, Wis., $60; 3, R. C. Church, Elkhorn, Wis., $60; 24, J. L. Fisher, $60; 23, A. A. Lisher, Durand, Ill., $60; 20, M. V. Holloway, Millard, Wis., $60; 31, Mike Duggan, Delavan, Wis., $60; 32, F. R. Constance, Waupaca, Wis., $60; 28, J. J. McCann, Janesville, Wis., $57.50; 26, W. C. Dillon, Round Lake, Ill., $57.50; 21, J. L. Fisher, $57.50; 16, F. R. Constance, Waupaca, Wis., $57.50; 30, Wm. Baumbach, Elkhorn, Wis., $57.50; 17, E. M. Cavanaugh, Delavan, Wis., $57.50; 22, J. J. Hamshire, Marshal, Wis., $55; 29, M. Duggan, Delavan, Wis., $52.50; 7, Wm. Vorpahl, Delavan, Wis., $52.50; 36, Jas. Oxtoby, Spring Grove, Ill., $52.50; 10, Upland Farm, Walworth, Wis., $52.50; 12, Jas. Oxtoby, Spring Grove, Ill., $47.50; 19, F. Finley & Sons, Elkhorn, Wis., $47.50; 3, Tilden Farms, Delavan, Wis., $42.50; 37, E. E. Ayer, Walworth, Wis., $37.50; 34, E. J. Giess, Prairie View, Ill., $40; 18, E. J. Giess, $37.50; 13, J. F. Stahl, Deerfield, Ill., $37.50; 39, F. R. Constance, $25; 33, Fred Vaughn, $35; 35, W. H. Aldritch, Burlington, Wis., $40. Summary: 39 head including fall pigs sold for $2,502; average $64.50.

Willsie's Duroc Jersey Sale.

Geo. H. Willsie has been unfortunate this year in trying to sell his bred Duroc Jersey sows. He was to have sold February 2d, but on that date the trains were tied up and it was necessary to postpone the sale. He then decided to sell February 21st, and the morning of the sale a blizzard started and interfered with the sale again. A handful of breeders and farmers weathered the storm and gave Mr. Willsie what support they could with a result that 37 gilts were sold at an average of $54. A good offering was sold—well grown and in nice condition and those that made selections in this sale will have done a good day's work. E. Burmeister, Harmony, Wis., secured the bargain of the sale when he bought a tried sow sired by Chief Defender for $100. John Kramer, of Lanesboro, bought a good daughter of Big Col. at $75 and Bunte Bros., Cuba City, Wis., bought a litter sister at $72.50. Everything taken into consideration it was a good sale, although the hogs sold would have justified a $25 a head higher average. We list those selling for $45 and over:

No. 1, E. Burmeister, Harmony, Minn., $100; 1½, Roy Miller, Prosper, Minn., $77.50; 2, N. Richert, Prosper, Minn., $70; 3, O. Brenseth, Prosper, Minn., $45; 4, Celley, Bros., DeSoto, Wis., $50; 6, John Kramer, Lanesboro, Minn., $55; 7, O. R. Farrar, Albert Lea Minn., $55; 8, R. Custer, Prosper, Minn., $45; 9, Ed Patterson, Jr., Bloomington, Wis., $70; 11, R. Custer, $46; 13, T. F. Deibold, Preston, Minn., $47.50; 15, O. R. Farrar, $52.50; 16, Brenseth, $45; 17, G. Milne, Canton, Minn., $65; 18, H. Pooler, Prosper, Minn., $45; 19, M. Branderck, Prosper, Minn., $45; 21, T. F. Deibold, $50; 23, O. R. Farrar, $57.50; 25, M. O. Kjos, Peterson, Minn., $45; 26, Roy Miller, $45; 27, M. O. Kjos, $60; 28, E. Burmeister, $52.50; 30, Ed Patterson, Jr., $67.50; 31, Bunte Bros., Cuba City, Wis., $72.50; 33, John Kramer, $75; 34, Roy Miller, $70; 35, Roy Horsfall, Bloomington, Wis., $55. Summary: 37 head sold for $1,986.50; average $54.

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My three machines save price of an **AUTO** each 5 years. I am the inventor and maker. My **"SURE-STAND"** Alfalfa and Clover Press Drill seeds in **CORNFIELD** at last cultivation. **ONLY FIVE POUNDS** to the acre needed. **SAVES ONE-HALF SEED** and all the (Corn) Nurse Crop. My **"KLEEN KORN" BLIND PLOWING ATTACHMENT** for Corn Planters, blind plow the corn as fast as planted. No more weeds or baked soil—Absolutely clean corn hills. My **"BEST YET"** Light Self-cleaning **"REVOLVING TOOTH"** Corn Harrow is the **LAST WORD** in corn tools. I have farmed 50 years. I needed these tools, but they were not made. Postal brings Catalogue, necessary pre-seeding instructions and "Alfalfa and Corn Hints," worth many dollars.

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Factory to Farmer

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Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, a beautiful panel picture, "The Popular Girl," printed in many colors. This is a wonderful picture. All you have to do is enclose four cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland pony.

Fine Pony Given Away

Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Write me today.

THE PONY MAN Dept. 608 Des Moines, Iowa

Overhauling the Automobile.

Any Person With a Little Mechanical Ability Can Do the Work and Save Garage Charges---By Henry Hatch.

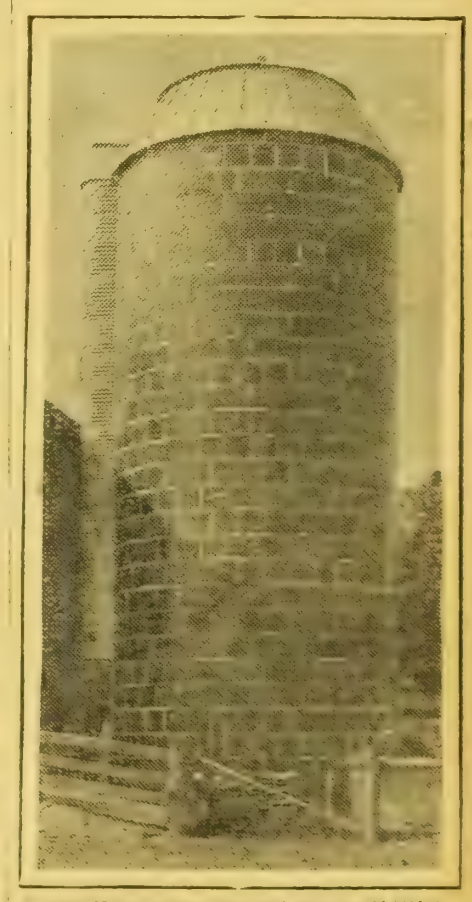
IF THE roads will permit it at all the car of today is used all through the winter and is not carefully housed up at the first coming of cold, as was the car of seven or eight years ago. The present car is mechanically more perfect that the earlier models, getting more power out of a lower grade of gas, even in extremely cold weather, than was possible a few years ago, so cold weather no longer stops traveling by car if the conditions of the roads will permit it. A richer mixture of gas is required in cold weather, however, and this has a tendency to carbonize the engine and after a winter of use the car is more in need of an overhauling than it usually is after a long summer of use.

The farmer of natural mechanical ability can do this work as well himself as it can be done in an expensive garage, only, of course, he cannot do it as quickly. The first warm days of spring, when work cannot be carried on in the fields, is a good time to get about this work. Unless new bearings or extensive repairs are required it is about a two-day job to grind the valves of the engine, scrape out the carbon and otherwise put the car in good running trim. Many garages are now equipped to burn out the carbon with acetylene-oxygen burners, but this work should be done by a very experienced man or too much heat may be used and the cylinder walls warped. Some car owners object to having this done, even by the most experienced, while others say it is a better way of getting rid of the carbon than any other, as it burns it out closer than it can possibly be scraped out, and it is not necessary to take the engine down to do it. Taking the engine down, however, is no great job and it can be done and put back together again without trouble by any farmer of natural mechanical ability. With the engine apart it is an easy matter to scrape out the carbon and the valves of most makes of cars can be reached handier for grinding after the engine is down, although when only the valves need grinding we never take the engine down just for that purpose alone. If the carbon is not particularly bad the most of it can also be scraped out by the use of a set of curved scrapers without taking the engine down. These scrapers can be bought for less than $1 for a set of three and are so shaped that by use of all almost every part of the combustion chamber and cylinder head can be reached.

After cleaning out the carbon and grinding the valves the next move is to drain out all oil from the crankcase and all grease from the transmission and differential gear cases. Fill the crankcase with about two-thirds as much coal oil as it takes lubricating oil to fill it and run the motor about a moment with this in at a moderate speed; drain this out and refill with fresh lubricating oil. The old oil can be allowed to settle and a larger part of it will do for farm machinery oil, but do not use it again in the motor. The coal oil used can be saved and comes to a good use about the poultry house as a disinfectant and a killer of mites and other insects.

After all grease that will drain from the gear cases is out replace the drain plugs and fill with coal oil and run the car a distance of twenty to thirty rods with the coal oil in. The motion of the gears uses the oil as a wash and tends to liquify all old grease so it drains out with the oil, as well as moving from all recesses all particles of metal that may have worn from the bearings. This coal oil may also be saved and used for the same purposes as that used in the crankcase, while the old grease comes in handy with which to paint moldboards and shovels to prevent rusting. Refill all gear cases with new grease or with a heavy grade of gear oil if the cases are tight enough to hold it.

With this overhauling any with a trial run to test for leaks about the engine, should any develop because of not getting gaskets about the valve caps or exhaust or intake manifolds seated tight, the car should then be in shape for a summer run, with a minimum of trouble and a maximum of power for the gas used. Use nothing but a good grade of lubricating oil at all times, a grade suited to your motor and one that you find by experience leaves the least deposit of carbon. Good oil is a great help in producing power.



A VERY SATISFACTORY SILO ON THE FRANK KRAUSE FARM, BROOHEAD, WISCONSIN.

The Wisconsin Banker-Farmer Conference will be held at Madison March 13th and 14th. The annual horse show will be held Tuesday evening, March 13th. The program this year is filled with numbers which will be of interest to farmers of the state and thousands should be sufficiently interested to attend. Special trains will be run from a number of points. The Wisconsin Farmer urges those of its readers who can do so to attend this conference and share in its benefits.

NEXT WEEK'S SALE PROGRAM

Tuesday, March 6 — Holstein-Friesians, Mrs. Mary Legler, Executrix, Monroe, Wis.

Wednesday, March 7 — Holstein-Friesians, Mrs. Mary Legler, Executrix, Monroe, Wis.
Holstein-Friesians, J. A. Forge, Burlington, Wis.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14 000 lbs. milk 725 lbs butter Seven years' record 80,000 lbs. milk averaging 700 lbs butter per year. Sired by imported Oliver Twist. of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.
ADAM SEITZ **WAUKESHA, WISCONSIN**

REGISTERED

AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.
STEPHEN BULL **RACINE, WISCONSIN**

AUCTION

Werley, WIS.

MARCH 7, 1917

24 REGISTERED JERSEYS.' Two bulls of serviceable age. Four high grades. Tuberculin tested and guaranteed. Attend this sale.
R. G. KETTERER Owner **E. A. HEBERLEIN** Auctioneer

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address
A. P. CORTTE **LOMIRA, WISCONSIN**

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A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello, Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

AYRSHIRES

Can supply your wants if you want
HEIFERS OR BULLS
from A. R. dams. Also breeder of
Clydesdales and Durocs
Write your wants Address
AS. VAN ETTA **LIMA CENTER, WIS.**

HAMPSHIRE SWINE.

Mulhall's Hampshires

BIG-BONED, smooth, yearling and spring boars, open or bred tried sows, trios and spring gilts. Best of breeding and priced to sell.
TERRY MULHALL **SIOUX CITY, IOWA**

HAMPSHIRES

OR "Belted" swine. Spring gilts and boars all sold. Can only book future orders.
Dane Stock Farm Oshkosh, Wis.

SHEEP.

VALLEY VIEW STOCK FARM

SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.
Geo. A. Philippi, R. 40, Bear Creek, Wis.

TOO LATE TO CLASSIFY.

GROW YOUR HERD BOAR

BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early. **P. W. Young, Prosper, Minn.**

Registered Holstein-Friesian

BULL and heifer calves for sale, sired by Burtondale Aaggie Korndyke 144746, the 25.48-lb. sire. Both grandams with records over 30 pounds butter. All the stock is out of well-bred and heavy-producing dams. Write or come and see a producing herd. **Henry W. Breher, Box 20, Sheboygan Falls, Wisconsin.**

Holsteins

FOR sale—Well-bred young heifers from tested dams, bred to our herd sire, Butter Boy Mink Pontiac 133161, also young bulls from tested dams, 2 ready for service. priced reasonable.
Cedar Lawn Stock Farm, Cook Bros.
Burlington **Wisconsin**

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
J. W. SALTER & SONS - UNITY, WIS.

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

The large British and Scottish co-operative trading societies have combined and bought in Saskatchewan, Canada, more than 10,000 acres of land, already in cultivation. The products of this estate will supply with wheat the co-operative flour mills of Manchester, Glasgow, Newcastle, Bristol and London during the year. The societies have also made important land purchases in India and Ceylon.

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BUY a bull ready for service at your own price. Born Feb. 25, 1916. 27½ lb. sire, and 22 lb. dam. Great grandson on both sides is Homestead, Jr., De Kol. More dark than white. Make reasonable offer. Write for service rate on our Holstein herd bull, Beach Rag Apple Korndyke 86101, 87½% same blood as Rag Apple Korndyke 8th.
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FRED STUBLEY BLACK EARTH, WIS

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COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
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FOX BROTHERS **WAUKESHA, WISCONSIN**

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GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
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Gustav Pabst, Prop. Fred Southcott, Mgr.

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Korndyke Segis Johanna, whose two nearest dams average over 30 pounds.

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A COMBINATION OF SIZE, IDEAL TYPE AND PERSISTENT PRODUCTION

A 31.02-POUND bull, that comes from a long line of cows of large size, ideal type, heavy-production ability, which are persistent. **Racine Johanna Piebe Mercedes 188460.** Born December 8, 1915. His dam, **Ella Mercedes of Elm Court, made 31.02 pounds of butter in seven days;** 130.47 pounds butter in 28 days (an average of 32.69 pounds butter per week for four weeks); 829.78 pounds butter in a year. She weighs over 1,600 pounds. **His sire's dam** made 27.70 pounds butter in seven days; **808.82** pounds butter in a year and weighs close to 1,600 pounds. His dam's dam, sisters and his parents' sisters are big cows of good type and heavy producers. Come to our farm and see them—and see the kind of cows his daughters will develop into. Am also offering a straight and well-grown yearling heifer out of Lady Johanna of Elm Court and sired by Count of the Pontiacs.

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ONE Holstein bull, ready for light service. Born Dec. 31, 1915. His dam has an official record of 14.65 lbs. butter and 365 lbs. milk for 7 days as a 3 yr. old. His sire is a grandson of Hengerveld De Kol that has 116 A. R. O. daughters. This bull is straight and a good individual in every way and good enough to head a choice herd. Nicely marked, ⅞ white. Guaranteed to be sound and right in every way. Price, $100.00.

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READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

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FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L. V. Garvens, Brookfield, Wis.

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GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

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Ready For Service

BORN January 1, 1916, sired by a proven son of King Segis De Kol Korndyke, sire of the first 40-lb. heifer and brother to the sire of the $50,000 bull and the $35,000 bull. Records of his dam and two nearest dams of his sire average butter, 7 days, 29.44 pounds. He is a good individual, a trifle more black than white. Priced right for immediate sale. Address

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HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

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BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.

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GIVES you opportunity to get Holstein year. rec. grandson of King of The Pontiacs, born June '16; tuberculin tested, fine animal. Sire; Cornucopia Pontiac Johanna Lad, full bro. to K. P. Manor Kate. 1023.41 lbs. butter, 22,106 lbs. milk, world's yearly record senior 2 yr. old. Dam: Lady Walcowis De Kol. Butter, 7 days at 3½ yrs., 21.67 lbs.; milk, 528.5 at 2 yrs., 13 days.; butter for 7 days, 15.67, for 365 days, 643.91 and 17,110 lbs. milk. For price, pedigree and photo, address

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A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull,

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers Ixonia, Wisconsin

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STAND FOR BEAUTY-PRODUCTION

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REGISTERED HOLSTEIN BULL

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FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

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RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

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1916 was the biggest Short-horn year in the history of the breed and 1917 bids fair to far exceed it.

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100 Short-horns to Select From-100

BULLS AND FEMALES. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASS'N., J. E. Kennedy, Sec'y - - - JANESVILLE, WISCONSIN**

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HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Sultan. A. J. Wheeler, R. 1, Beaver Dam, Wis.

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THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Rox y (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address

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A FEW good Duroc gilts for sale. Order early.

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CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

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AM sold out of Aug. farrow pigs, but have Sept. pigs left. Have some nice bred gilts left, not loaded with fat but in fair condition to do the buyer good. **Wm. F. Butts, Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

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FOR sale—Thoroughbred young Yorkshire hogs and Oxford sheep. Write Ingvoldstad Lumber Co., 707 Central Ave., N. E. Minneapolis, Minn.

"HOG-TONE Made My Sick Sow Gain 40 Pounds!"

That's What Wm. T. Peterson Declares! He Accepted My Free 60 Days' Treatment Offer! Why Don't YOU Take Advantage of It? Today!

THIS successful hog raiser, Mr. Wm T. Peterson, of Kibbie, Mich., writes: "Enclosed find $2.00 in payment for two bottles of **Hog-Tone**. It did my brood sow a lot of good. She was as thin as a rail and would not eat. I fed her **Hog-Tone** three times and she was eating all I gave her. She gained 40 pounds in the last 60 days. All the pigs are doing well also."

Hundreds of the subscribers of this splendid farm paper have grasped this offer.

J. H. Miller, Spencer, Ohio, writes: "Avalon Farms **Hog-Tone** has done my hogs much good. One gilt was very stiff and lame from some cause. I concluded it was from worms and ordered **Hog-Tone.** She is very much better and improving all the time. I gave the **Hog-Tone** to 8 shoats and they have made *wonderful* growth considering that they have the cold weather to contend with."

Elmer Vornkahl, hog raiser of Farmington, Iowa, writes: "About 6 weeks ago I ordered **Hog-Tone** on trial. It has done *all* that you claim for it. I have been giving it to 9 small shoats, which when I weaned them, were not looking a bit good. They look nice now and have ferocious appetites."

S. Hollinger, Brunswick, Neb., hog raiser, writes: "About a month ago I received two bottles of your Avalon Farms **Hog-Tone** on trial. I commenced treating our brood sows, 11 in number and the result has been *very* good. After treating them with **Hog-Tone** for a while, we made a *two-weeks' test* between the 11 sows and about the same number of fat hogs of same breed. The fat hogs got about *twice* the amount of corn that the sows were getting and the fat hogs made an average gain of 15 lbs. in 12 days, while the 11 sows made an average gain of 16 lbs. in 13 days. I am sending you an order today for three more bottles as we have another lot of hogs we are starting to treat."

We have stacks and stacks of just such letters here in our files. They come in to us every day from every section of the Corn Belt. And every one of them tells the fine results—the big profits that farmers reap as a result of grasping this Free 60 Days' Treatment Offer.

Try 60 Days' Treatment of AVALON FARMS HOG-TONE

The Liquid Worm Killer and Hog Conditioner For ALL Your Hogs—FREE—At My Risk!

Don't you want to fatten your hogs faster, cheaper, too? Then send the coupon. I will ship you one big $1.00 bottle containing a full quart, 32 ounces, of **Hog-Tone** for each eight hogs in your herd, the day the coupon below, filled in, reaches this office. Sufficient to treat *all* your hogs 60 days or more, according to size—to free your hogs of worms—to enable them to put on more weight from the same feed—to fill them with strength and vitality to resist disease attacks.

Avalon Farms Hog-Tone is a highly concentrated liquid medicine for hogs only. Contains important liquid medical ingredients, which cannot be combined in medicated salts, stock foods or condition powders of any kind. Easily mixed with any kind of slops, drinking water or dampened feed. **100 per cent strong. Hog-Tone** cleans out worms that infest hogs—malignant Thorn Head Worms—Stomach Worms—Liver Worms—Lung and Bronchial Worms. Gives protection to hogs from easily contracting Cholera, Rheumatism, Scours, Thumps caused by worms, and Indigestion, Enteritis and other diseases. A simply wonderful tonic and conditioner; gives hogs voracious appetites, aids digestion, helps them thrive, grow and put on fast increases of flesh. **Splendid for pregnant sows—assures sturdier, healthier litters.**

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Simply tell us how many head of hogs you have—write down your name and address and mail to me. We will immediately ship you enough Avalon Farms Hog-Tone to treat your hogs for 60 days! You simply pay the transportation charges. Treat your hogs according to directions. If at the end of the treatment you are not completely satisfied—simply return the labels to us and you don't owe us a cent.

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I have..... hogs. Ship me immediately enough Avalon Farms Hog-Tone to treat them for 60 days. I am to pay nothing now except transportation charges. I agree to report results to you at the end of 60 days, and pay for the Hog-Tone at that time if it has done all that you claim. If it does not I will return the labels and you agree to cancel charge.

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R. R. No.....State.....

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THE WISCONSIN FARMER

VOL. XLVI. NO. 10. THURSDAY, MARC WHOLE NO. 1832

Reading Room of the U of I Urbana Ill.

A Modern Badger Farm Home.

WHEN Henry Haberman, of Monroe, Wis., was just a boy going to school and helping on his father's farm in Jefferson township he was often quite disgusted with the endless amount of work he had to do around the house during his spare hours. There was water to carry and wood to bring in and ashes to take out. The stoves needed constant attention, and on the colder days the pumps were usually frozen tight. So he made up his mind that if he ever got to be the owner of a farm he would have for himself and his family such conveniences as are common in the city. That was a long while ago.

NEW HOME OF HENRY HABERMAN, NEAR MONROE, GREEN COUNTY, WIS.

Mr. Haberman is now the owner of a 200-acre farm in Green cou ty, and he has the conveniences he wished for while he was young. His idea in getting these labor and life savers was to show that the farm need not be without them as long as its owners can afford them. When Mr. Haberman bought the farm, some seventeen years ago, the old house was standing on the same spot the new one is now on. He planned from the first to remodel it and have a comfortable home. But he did not believe that he should do so before the farm had yielded him enough to warrant it. So he waited. About five years ago a new horse barn was needed, and it was built on the principle of doing things well, if at all. It took a great share of the profits of the first years. Before this time Mr. Haberman had bought Holsteins, notwithstanding the fact that neighbors for miles around had shaken their heads dubiously at such a purchase. Incidentally, it may be mentioned that Green county is now one of the greatest Holstein centers in the country. These cow purchases by Mr. Haberman cost him still more money.

THE OLD HOME ON THE HABERMAN FARM WAS GOOD, BUT IT WAS NOT GOOD ENOUGH FOR THIS PROSPEROUS FARMER.

Finally, in 1914, it was decided to erect a new home. While the old house was still in good condition it was not well suited for any practical scheme of remodeling. All that was saved of the old house was one of the wings, which was cut off and moved to one side and is now doing good service as a garage for the seven-passenger family car. That these folks have really made some success in farming may be believed when it is told that the family automobile is one of the most expensive types manufactured, costing nearly $4,000. The new house was completed in 1915, and we may well imagine the satisfaction and comfort which Mr. Haberman and family have had out of this model farm home. The new house embodies everything that Mr. Haberman, as a boy, hoped some day to have in his home. The house, like most all important things in our lives, is a result of an ambition which really started when Mr. Haberman, as a boy, was attending to the chores on his parents' farm. This boy, of course, was not afraid of work. In those days farm boys were used to hard work, but he was smart enough to see that a good many conveniences could be introduced which would make work less of a drudgery. The furnace at the Haberman home is of the modern type and requires attention only two or three times a day. The ashes do not have to be carried out often. There is no wood or coal to carry. Both these are stored in the cellar near the furnace. Water is available for washing and drinking purposes on every floor of the new Haberman home. Furthermore, it can be had hot or cold. The bathroom of this house is on the second floor and it certainly beats the old-time method of taking a "tub" in the kitchen. This house is supplied with two toilets—one upstairs and one down—and it is unnecessary to explain to people, who have always lived on the farm, what this convenience means. Every room in the house has electric lights. This not only adds to the brightness of the home surroundings, but eliminates the danger of fire. There are five children in the Haberman household, ranging from six to twelve years age. Even the youngest of these children may handle the lights without any danger, such as was always feared from the old-style kerosene lamps. When the parents go away to church, or to town to trade, they are not in constant fear that there may be a lamp explosion. The children are left in comparative safety in charge of the oldest girl. A four-horse-power engine charges the batteries for this lighting system and fills the pressure tank, which forces the water system through the pipes. There

KING SEGIS PIETER, HERD BULL ON HABERMAN FARM. HIS DAM WAS A TWENTY-SIX-POUND COW AT THREE YEARS OLD.

THE BIG PORCH COMES IN HANDY AT THRESHING TIME.

A NEW DAIRY BARN FINISHED LAST FALL AND NOT YET PAINTED.

is no dirt or any special inconvenience connected with the running of this engine. It is simply a case of a pull on the belt and "away she goes." On Monday morning, when the average farm housewife prepares for a day of washing, the entire work is completed in the Haberman household in about three hours. While the engine is turning the washing machine it is developing electricity, and at the same time filling the pressure tank. Four hours per week is all the work the engine needs to do to furnish the power and pressure.

The same consistent, clear mindedness and thoughtfulness which considered these conveniences worthy of this farm home were on the job arranging all parts of the house. Every room and closet was built to be an aid to the housewife. In the ground plan of the house the washroom was the most important point considered next to the kitchen. A door leads from the outside into the cellar stairway. At the head of this stairway is the washroom where the men may clean up before going into the dining room. The kitchen has two built-in cupboards which contain all the necessities of life conveniently arranged on shelves above and below the good-sized working tables. One of these cupboards is next to the stove and the other next to the sink. These two large cupboards make a pantry unnecessary. The spacious dining room has a built-in china closet which has room enough for several sets of chinaware and cut glass. Next to it is the sitting room, well lighted with four large windows. In the corner is a talking machine of the latest model, and by simply lifting the cover and turning the lever, the members of the Haberman family and their guests may have the best music of the day while they eat. From the dining room a door opens upon the hall. At the left of the hallway another door opens into the downstairs bedroom. The downstairs toilet is located underneath the stairway ascending to the second floor.

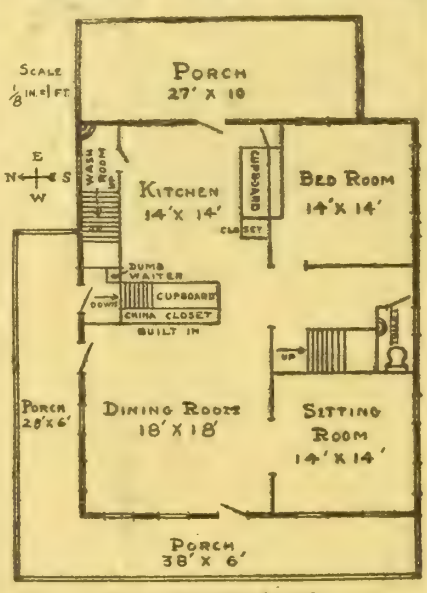
There is a central hall at the top of the stairs and five rooms and bath on the second floor. The attic furnishes two small, but very comfortable, rooms. At the end of the hall on the second floor a door opens upon a large sleeping porch.

The space underneath the porch has been used as a cold storage room. It has four stone walls and a cement ceiling and floor and is, therefore, cold enough in the winter time to allow freezing. Mrs. Haberman puts the freshly butchered meat into this room and allows the cold weather to do the rest until she is ready to use it. A warm spell does not thaw the meat out quickly in this storage room.

The laundry in the basement is roomy enough so that clothes may be dried inside. This house is supplied with a clothes chute from upstairs and this chute empties into a basket in the laundry. In one corner of the laundry is a stove on which the boiling is done. This stove is used also in the butchering season. Another room in the cellar is used for a store room. In it can be stored enough potatoes and canned goods to last through the winter and early spring season. A dumb waiter does service between the kitchen and the store room and eliminates the carrying of jars and foodstuffs up and down the stairs.

It is not strange that Mrs. Haberman sees no reason why people should want to live in the city. She has all the conveniences possible in any city home and she has the freedom of country life, which our city people are seldom able to enjoy.

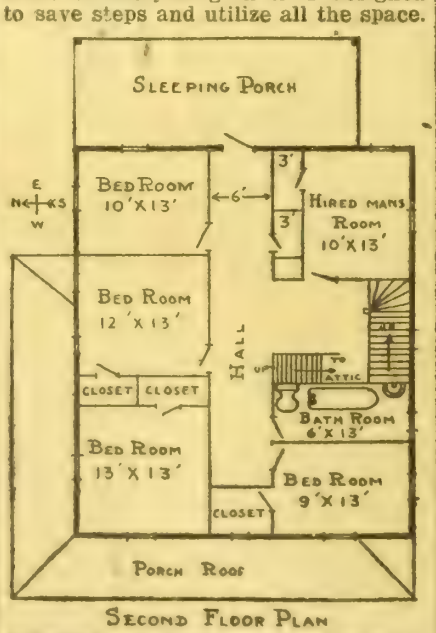
The farm is stocked with sixty head



FIRST FLOOR PLAN

HABERMAN FARM HOME IN GREEN COUNTY, WIS.

of pure-bred Holsteins and the milk is hauled daily to the condensery at Monroe. A new dairy barn 20x38x118 was completed last year. The arrangement of everything in it is designed to save steps and utilize all the space.



SECOND FLOOR PLAN

PLENTY OF BED ROOMS, CLOSET AND A BIG SLEEPING PORCH.

There are stanchions for seventy head of cattle besides the calf pens and box stalls. Each cow has fresh water in individual drinking cups. Track service carries the litter away and feed to any place where it may be needed. An extension track leads to the milk house. The milk carrier holds three cans at one time and the cans may be cooled without taking them off the carrier.

The loft above the cow barn has room for an enormous tonnage of hay. Chutes which lead from the grain bins at each side of the barn help to lessen the labor in feeding. The first silo built many years ago will soon have a mate of equal height. Silage is regarded as essential on this farm where so many cows are milked. The day is past when the usefulness of the silo is questioned in the dairy country.

Light and ventilation were taken into consideration in the construction of the dairy barn. There are enough windows to permit the sun free access into every nook and corner, and three aerators on the roof take care of the foul air from the stables.

The horse barn, built some five years ago, is 20x42x48 feet, has room for sixteen horses and, in addition, accommodates 2,000 bushels of grain and about ninety tons of rough feed in the loft. A trough in the center of the drive permits the washing of the horses in the barn.

Mr. Haberman believes that in building anything the chief object should be to make use of every foot of the floor space. In every case practical things should be considered. The health of the animals must not be neglected and Mr. Haberman is convinced that sanitation of a building is important, as it greatly decreases the chances for disease. One must build in a practical way and then do his share by cleaning out the manure and dust. Mr. Haberman has been township treasurer for a number of years and is also a director in the local milk producers' association. He considers the building of his home and its modern features the biggest and best thing he has ever done. When the Housewives' Club mets at Mrs. Haberman's, there is plenty of room, plenty of warmth and plenty of light.

Cotton Seed Meal Supplies Protein at Half the Cost of Grain!

Grain is too valuable to feed. At present prices, protein in oats costs 24c per lb. In corn it costs 26c per lb. In middlings 13c, and in bran 15c. But cotton seed meal supplies digestible protein for 6c per lb.—less than half the cost of other feeds. The manure from stock fed cotton seed meal is worth $38.63 at present fertilizer prices. You get 80c worth of fertilizer with each dollar's worth of feed.

At average fertilizer prices the manure is worth $25 per ton as compared with $7 for manure from oats and $6 for manure from corn.

$1,172 More Profit From 40 Cows

Experiments at the Georgia School of Agriculture showed $1,172.80 more profit per year on butter from 40 cows by using cotton seed meal and silage instead of silage, hay and mixed concentrates. Dr A. M. Soule, President of the College, says: "The owner would almost double his profit by using cotton seed meal and silage as compared with using a minimized ration of silage with hay ad libitum and a generous ration of mixed concentrates."

Saves $88 Worth of Corn and Hay

"At average prices on each ton of cotton seed meal fed, the farmer saved $55.44 worth of corn and clover hay." At present prices each ton saves $88.64. FREE—Our book of formulas for feeding cotton seed meal sent free upon request. Write nearest office.

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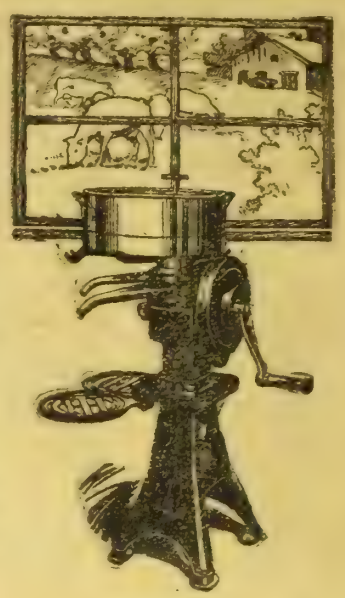
Greatest—most productive—most profitable variety. Grown by the originator, Mr. Goddard, on his own farm in this county and personally selected by him. Finest quality—absolute purity guaranteed. Sworn statement protects you. Only a limited quantity of this seed for sale—shipped crated in the ear. Order now, before supply is exhausted. Big new 1917 Catalog, complete information, free. Write ADAMS SEED COMPANY, Box 50, DECORAH, IOWA.

FARM WITH DYNAMITE

and accomplish more work in removing stumps, rocks, also planting trees, digging ditches, etc., than twenty men. It's effective, safe and easily used; guaranteed Standard Brand; shipped DIRECT from Mill in this state, lowest prices. No salesmen. Established over 30 years. Write for full particulars. BRUNS POWDER CO. TERRE HAUTE, INDIANA.

Get All the Cream



YOU cannot expect to get all the profit from your cows unless you have a separator that skims clean. Why don't you make up your mind here and now to buy a **Primrose or Lily cream separator?** Then if your checks are not big enough, you will know that the trouble is with the cows, not with the separator

The president of the Iowa Federation of Cow Testing Associations says that of the machines in use in his association, and they are many, the **Primrose** skims closest. It leaves less than one-hundredth of one per cent of the cream in the milk. The **Lily** skims just as close. Neither one wastes any cream. With prices of everything as high as they are now, to waste cream is little short of a crime.

Yes, you can buy separators for less money. You can also pay more. But you cannot buy a closer skimming machine, one that runs easier, or one that will skim clean for a longer time. Do not delay. The longer you put off buying a **Primrose or Lily cream separator**, the more you lose. Get one of these machines, and your separator troubles will disappear as if by magic. Drop us a card for catalogues and full information.

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BURNED LIME FOR SOILS

Use Burned Lime and Get Quick Returns

The net gain from use of lime once during the five year period was $13.00 per acre, according to Experiment Station, Wooster, Ohio. Two-thirds of the soils of Wisconsin are acid uplands as well as lowlands. (Report of Wisconsin Agricultural College.)

New York, Pennsylvania, Ohio, Virginia and Maryland use millions of barrels of burned **LUMP** lime for soils and get big returns.

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Makes land clearing easy. Pulls stumps up to 8 ft. dia. 156 h.p. single, double, triple and quadruple power. A real one-man puller. Tell us size stumps you have to pull. Write for free trial—guarantee, catalogue No. E and special introductory prices.

La Plant-Choate Mfg. Co.
957 Fostlach St., Cedar Rapids, Ia.

Personal Service for You! R. E. Choate, our land-clearing expert will write you on the best way to handle stumps. Put your stump problems up to him. Be sure, write today.

The Wisconsin Farmer

THURSDAY, MARCH 8, 1917

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BY THE PUBLISHER

WISCONSIN AND POTATO GROWING.

SO MANY of my Wisconsin readers write me and mention their work in growing potatoes that I have come to be intensely interested in the tuber and the progress which our state is making in its culture. I was interested recently in an article which told of the introduction of potatoes into parts of Ireland, from North Carolina, not much more than 100 years ago. Of course, it had always occurred to me that the potato was grown in Ireland long before it was grown in America, and I doubt if many of my readers look upon the potato as an American product. It was not much more than a century ago that potatoes were not considered good food. Food was not in those days considered in the light of its value for certain vegetable and mineral properties. In the days when colonies were being planted on this continent, potatoes were regarded largely as a food for live stock, and people did not put them on the table when they could get what was considered more palatable food. I have read that Washington and his army at Valley Forge used a good many potatoes in their fare, but, as I now understand it, this was a sort of last resort, as one would go to roots and herbs for foods if forced to. The potato is a native of the tropics, having been discovered by Spaniards and not by Murphys, and carried from Chili and Peru to Spain in the early part of the sixteenth century. The original settlers at Jamestown and Plymouth did not bring over any potatoes, though potatoes were later imported to New England from Ireland. Historical sketches which I have been able to find regarding the potato seem to conflict, but I am led to believe that Spaniards first brought potatoes to this country and that they may have sent them to England and Ireland about the same time, and also to Germany. But it was quite a significant fact to me, in reading about the potato, to find that at one time there was quite a shipment of seed potatoes from North Carolina, by sailing vessel, to Ireland, though I could not say positively that this was the first time that "spuds" were shipped to the Emerald Isle. Probably it was not.

I need not tell my readers what a wonderful development the potato has had as a food product in the last century and a half. Potatoes are a great staple food for both rich and poor. It was said of King Edward VII, of England, that his favorite dish was a baked potato. Can we imagine any staple food which may be prepared in so many different ways as the potato? "Boiled with the jackets on" was, of course, the beginning of potato cookery, and this method is still a favorite, for the reason that none of the food value is lost in preparation. Potatoes at $1 a bushel, or less, give great energy for the amount invested, but, of course, potatoes have been expensive this year, and in New York they have sold as high as $5 a bushel. When they reach such prices, corn, rice and bread will provide greater energy per amount invested, than potatoes, and it is not strange that, for the first time in our history, the lowly "spud" has been missing on many American tables. I scarcely expect to see such a situation arise again. We are not likely again to have a combination of poor potato weather such as we had last year, small production of other food crops and such a tremendous export demand. In our own state I believe growers learned enough about potato growing in a dry season last year, that they would be able to accomplish greater production in another year, even though the conditions might be unfavorable.

Potatoes consist largely of starch, are great producers, are easy to transport, easily prepared for the table, and may be easily transformed by the cooks into a delicacy. Hence, we need have no fear of boycotts on potatoes, even if the price is high. It behooves every Wisconsin farmer to plant as many good potatoes this year as he can properly care for. I strongly urge careful attention to the selection of good seed, careful cultivation, and attention to the various controls of potato diseases. The potato bug and the blights, which cost our farmers hundreds of thousands of dollars every year, can be gotten rid of by spraying. Potatoes of the right weight, clean and free from scab, and free from rots in the center, are always marketable at a good price. In Wisconsin we are particularly interested in the potato, which has proved a boon to the settler, because it is the ideal first crop for the land. Let us give attention to the potato this season and raise a crop which will bring millions of dollars into our state and help solve the food problem for the nation. There is a very small surplus of potatoes in this country, or in the world for that matter, at this time. The indications are that prices will be good the coming year. I am not a prophet on the markets; neither do I pretend to be able to say about what potatoes will sell for next fall; but it is my judgment that they will bring a good, fair price, even though the production is greatly increased. Hence, I hope to see Wisconsin get into the potato game with a vim in 1917.

A TRIBUTE TO THE COW.

WISCONSIN leading the entire nation in the number and value of its dairy cattle, and dairying having reached the summit of efficiency here in our state, I believe all will be interested in a tribute to the cow which appears in a recent legal decision. The eminent judge, who was to decide the case being tried before him, declared that the cow is God's greatest material gift to man. Here is his opinion, just as it is to be found in the official court records:

The court is of the opinion that the cow is God's greatest material gift to man, closely seconded, it is true, by that of the hen. The cow is very closely associated with all human health and happiness. The ancient Buddhist, the Egyptian, the Hebrew, the European, and now we Americans, have kept and loved our cows always.

The food that needs no preparation, no cooking, but which lends itself to every branch of the culinary art—milk, cream, butter, cheese and a hundred good things into which they can be made—the cow contributes to man, reserving for herself only barely enough to keep her wonderful system in working condition. The hand of the ruthless and bloody butcher can be stayed and the awful necessity, perhaps crime, of killing living things that we ourselves may live, is met by the cow and hen. The cow is, in truth, a moral factor, and in certain of the great religions of the world she has been worshiped as divine.

We who live in the state which produces dairy products to the value of $125,000,000 a year have good reason to endorse the tribute to the cow as one of our greatest "material gifts," perhaps, in fact, our very greatest. I heartily commend the statement of the dairy expert who recently said: "Five good milk-producing cows on every farm around a town would be better factories to build up a community than those with tall stacks pointing to the skies. The cow never strikes; it puts in full time and it always gives more than it takes from the land." We are prone to forget, now and then, the great credit due the cow for our wonderful prosperity here in the Badger state. We have fertile land; we have an industrious people; but, above all, we have splendid herds, being bred up and built up to a higher standard of efficiency year by year, until Wisconsin is the envy of all the nation. God's greatest material gift to man—the cow—deserves all the good things that eminent jurists and Wisconsin farmers can say of her.

FARM LOAN BANKS READY BY APRIL 1ST.

I AM in receipt of advices from Washington to the effect that the federal farm-loan bank, which is to serve Wisconsin, Minnesota and North Dakota, and which is to be located at St. Paul, will be ready for business by about April 1st. There has been a regretable delay in opening this bank, and the eleven others which the new law provides, as the first of March is the time when most farmers desire to make, or to renew, their loans. Those who have already attended to such preliminaries as forming their associations and adopting their articles may perhaps be able to wait a fortnight longer, in view of the fact that by so doing they will be able to secure their money without the payment of any commission or bonus and for a longer time than they can secure it from private parties. I would be very glad, indeed, if farmers, who have formed associations, will write to me, giving their experiences and will tell me just what they think of the new law as its workings develop from week to week. We can all learn a great deal by thus counseling together.

My advices from Washington are to the effect that the farm-loan board has arranged for placing the first issue of forthcoming farm-loan bonds, with a syndicate of bankers at New York and elsewhere, at a rate of 4½ per cent. The rate to farmer-borrowers cannot be more than 1 per cent in excess of the rate of interest which the bonds bear. It will, therefore, in all probability, cost farmers between 5 and 5½ per cent to get their money from the government through these new banks. From the number of applications from farmers wanting loans, officials estimate that as high as $50,000,000 in bonds may be issued within the first year.

THE TRACTOR IN PEACE AND WAR.

IT IS a long way from the fertile wheat fields of the Northwest, feeding the world, to the devastated battlefields of Europe, where millions of lives have been uselessly sacrificed, yet there is a connection between the two in which every Wisconsin farmer is, or should be, interested. That connection is the tractor.

I believe I am conservative when I assert that the American tractor will play a more important part in restoring agricultural and industrial conditions in Europe, once the war is over (hasten the day!), than anything else. The manufacturer who recently declared that "the farm tractor, doing the work of several men, is going to prove the same benefit to warring Europe that the reaper did to the United States during the civil war," spoke the truth. With hundreds of thousands of men losing their arms, their hands and their legs, the problem devolves upon Europe of giving them useful employment and maintaining the man supply for necessary production. The tractor solves the problem.

I am advised that no less than 150 farm tractors have already been prepared for shipment from one grain-belt city to France, while 810 more are shortly to be sent from Minneapolis. These tractors were originally intended for the wheat fields of Minnesota, Wisconsin and the Dakotas, but they are being diverted, instead, to the fields of France, Russia and Austria-Hungary, in order that the decreased man supply may be made more efficient and the wheat fields of these war-ridden countries be put into the most productive condition possible, with a minimum of labor expenditure. The French government, so I am advised, has already appropriated money to help any farmer who will buy and use a tractor, the government paying half the original cost of the machine. Naturally, these foreign countries look to America, for this is the land of the tractor's birth, of its greatest usefulness and of its most complete development.

I confidently expect 1917 to be the greatest year the tractor has ever known. The series of tractor shows held in Madison and other grain-belt cities last year quickened interest among the farmers of this section as never before. And now comes the immense demand from war-stricken Europe. I have seen photographs of European soldiers who have lost their arms and hands and who have been equipped with steel rods and hooks, fastened to the stubs of their arms at the shoulders. By means of these devices the men can hold and use a rake or a hoe, and so perform a useful day's labor. There must be hundreds of thousands of such crippled men in Europe. There are equally large numbers of those who have lost their legs. These men must be kept busy and productive; with training, they can operate a tractor. Horses are scarce and dear in Europe; again the tractor solves the problem. Is it to be wondered at that machines, which were intended to make Minnesota, Wisconsin and Dakota wheat fields produce more, should be diverted to fields in Europe which will not produce at all unless these tractors are secured?

The world is full of extremes and contradictions; that which is one man's meat is another man's poison. The tractor which was intended to produce the wheat to feed the world has been distorted and disguised, until today it is the "tank" which the British soldiers send against the Germans, with its invincible caterpillar tread, to clamber over trenches, shell craters and barbed-wire entanglements. From production, the tractor has been diverted to destruction. Yet, there is another scene about to be set—a scene of crippled European soldiers plowing fields with American tractors and seeding them to wheat, fields which have been terribly harrowed with shot and shell for the past thirty months, drenched with human blood and fertilized with dead men's bones. It is a scene which paraphrases, "In the midst of life we are in death," and makes it read: "In the midst of death we are in life." Surely, I add, the ways of providence are inscrutable, and we are but mere blind mortals, after all.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

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The Wisconsin Farmer Madison, Wis.

For Wisconsin Women.

In this issue special attention is paid to matters which we believe will be of great interest to our women readers. Certainly every woman who reads this issue will want to read all about the Haberman farm home in Green county, the article starting on page 1, and when she has read it she should urge her husband to read it. This successful Wisconsin farmer-dairyman has developed one of the good farm plants of the state. It is not a place heralded far and near as a fine example of what a millionaire can do with his riches. It is a place built from the ground up with the revenues of the farm—a farm which has been well farmed and which has made good profits, and a place where the head of the house and his good wife have been sensible enough to get some personal comforts out of the profits which the farm has made.

In this issue will also be found some pointers on what the state of Wisconsin is undertaking to do for its farm women. This work, in our judgment, has not been given sufficient encouragement, but it is growing and is an important business of the commonwealth. The farmers' institute is no longer exclusively for the farmer and the hired hand. There are institutes and demonstrations for women, and it has been discovered, as might have been expected, that the farm women are just as much interested in improving the methods of their work as the men are.

This has been a year of good profits on Wisconsin farms notwithstanding the increased cost of feeds and implements and everything which the farmer has to buy. The farmer has not rolled in wealth as some of our city cousins seem to think, but he has done well in the past year and the prospects are good for another profitable season ahead. In the coming season, and in all the years in the future, we hope to see the rights and comforts of the farm women and the children always given serious consideration. It doesn't seem necessary to say that the wife and daughters are very important in the farm life. But at times it does seem necessary to insist that they have their rights. We are sure that there are no better farm women anywhere in the world than in Wisconsin and we are anxious to do our part to help them.

Value of Wisconsin Dairying.

According to figures recently compiled by the Wisconsin Dairy and Food Commission, dairy products of this state reached a total of more than $110,000,000 in 1915. The total pounds of dairy products produced and the revenues from the same are shown in the table which appears on this page. These are about the most reliable figures which have been issued since the census of 1909. The figures on farm-made butter given in this table are taken from the census report of 1909, the other figures having been gathered from operators of butter and cheese factories and condenseries and are believed to be fairly accurate.

The value of milk produced other than that furnished cheese and butter factories and condenseries was estimated as the amount used for family consumption by the total population of the state, which population is taken as 2,500,350 (figures reported by the United States Census Bureau, July 1, 1916). In estimating this amount, one pint per capita per day was used and the milk valued at 1½ cents per pint.

In obtaining the estimate for the value of milk and cream shipped to Chicago, St. Paul, Minneapolis, Dubuque and other points, the figures given in the report for 1909 were increased 18 per cent, being the per cent of increase in factory butter production for that period.

Skim milk was valued at one-half as much per hundred pounds as shelled corn is per bushel, and the value of whey at one-half of skim milk. The value of shelled corn was placed at 73 cents per bushel.

Now that the dairy products of the state have passed the $100,000,000 mark, Wisconsin will begin looking toward new figures. Everyone realizes that we are by no means near the limit of possible dairy production in Wisconsin. An increase to $200,000,000 worth of dairy products within the next few years is by no means outside the range of possibility. This may be accomplished by the extension of dairy business into our own newer counties and by closer attention to it in the older sections.

The Dairy Industry of Wisconsin Is Making Progress

Official figures by the Wisconsin Food and Dairy Commission on the value of dairy products produced in this state in the year 1915:

	Pounds	Received for or valued at
Cheese produced in factories	234,929,037	$32,835,922.53
Other cheese factory products sold		636,328.16
Cheese produced on farms	1,433,702	90,118.00
Butter produced in factories	124,636,071	34,744,744 51
Other butter factory products sold		1,307,079.27
Farm-made butter	7,952,480	1,750,948.00
Products of milk condenseries	396,607,532	9,138,520.79
Milk produced other than that furnished cheese and butter factories or condenseries		13,689,416.25
Estimated value of milk and cream shipped to Chicago, St. Paul, Minneapolis, Dubuque and other points outside of Wisconsin		3,062,100.00
Skim milk		8,973,797.11
Whey		3,382,978.13
Estimated value of milk and cream, not otherwise reported, used in the manufacture of ice cream		630,000.00
Total		$110,242,382.75

Value of Manure Spreader

By spreading four tons of manure on land once every four years much larger returns will be obtained from the fertilization than by applying twice that amount once in eight years. This looks reasonable to most any farmer even though he has never made actual comparisons. However, looks are sometimes deceiving and it is not safe to make such statements unless one has direct evidence to back them up. A good many tests of this matter have been made by various experiment stations both in this country and Europe tending to show that frequent light dressings of manure yield larger total returns than infrequent heavy applications. Thus as an average a seventeen years' test at the Ohio Experiment Station at Wooster, eight tons of manure per acre applied to corn in a three-year rotation of corn, wheat and clover has produced twenty-five bushels more corn than land receiving no treatment. Four tons of manure to the acre on both corn and wheat in a five-year rotation of corn, oats, wheat, clover and timothy has produced an increase of 14.3 bushels of corn, as an average of twenty years. Eight tons of manure on the same crops in the same rotation has increased the corn yield only 23.8 bushels during this period. In other words, doubling the amount of manure has increased the corn yield only 66 per cent.

In any soil, in some more than in others, there is always some loss of fertility from leaching and fermentation and the greater the surplus of available or soluble plant food in a soil at one time the greater the loss from the causes mentioned. It is because of this fact that the manure spreader is so valuable. With it one can apply manure at the rate of six tons per acre as easily as twelve tons. It is a practical impossibility to apply manure to a soil so evenly and thinly by hand as by means of a spreader. Were there no other advantages in the use of a spreader than this one it alone would be enough to amply justify its existence. There are, of course, many other reasons why it pays to own a spreader. It is a labor and time-saving machine. It is impossible to find a hired man who will take the pains to spread manure evenly by hand. He usually leaves it in big lumps and thus fertilizes some spots so heavily that the manure is actually a detriment in the most heavily covered patches the first year after its application when it should be of the greatest service. Not until the excess fertility has leached out of the heavily covered spots are good results obtained.

A manure spreader will pay for itself in a short time. It should be used on every live stock farm. Men with small farms should co-operate with their neighbors and buy a spreader in partnership. While owning a spreader in partnership is not so satisfactory as exclusive ownership, it is nevertheless better than depending upon hand spreading.

A Notable Year Ahead.

With the war cloud lowering ominously over this country, and with such an international crisis imminent as has not been known for several decades, it is highly important that every man and woman, whether they reside in city, town or country, keep posted on developments of the day. Because of this fact The Wisconsin Farmer will devote special attention, in its editorial columns for the next few months, to an unprejudiced and accurate account of the week's happenings as they affect our national welfare and particularly as they affect the interest and prosperity of the farmers of this section. This being the situation, we believe that not a single member of the large circulation family of The Wisconsin Farmer can afford to miss a single issue of this paper in the coming year. We, therefore, earnestly urge that every subscriber see to it without delay that his name is continued upon our circulation lists for the coming year, at least. Those whose subscriptions will shortly expire should write to us and send us their personal check, without delay. If they will also call the attention of their friends and neighbors to the fact that The Wisconsin Farmer is the most thorough, practical, entertaining and instructive farm weekly published in this section today and will ask them likewise to subscribe, we shall be enabled to make this paper bigger, more entertaining and more valuable to every member of the farm household during 1917 and the coming years than ever before. We must have the co-operation of our subscribers, and to this end we urge that they attend to the important matter of their subscription without any delay whatever.

Use Millet as Nurse Crop.

The question of handling a thin meadow is a subject that has attracted the attention of several of our readers. In the following communication Mr. A. L. Foote recommends the practice of using millet as a nurse crop along with the grass seed. He writes:

I notice advice is wanted about adding to thin meadow. I have some of the same and I shall sow more seed and millet as soon as I think the millet will grow well, then harrow lightly with teeth slanting back so as not to disturb the grass already there. The millet can be covered a good deal easier than oats and millet and clover and timothy will make good hay. Cut just before the seed is ripe and that will leave the field smooth and in good shape for hay the next year and it is but little work.

It must be remembered that millet is a warm weather crop and, therefore, it cannot be seeded very early in the spring. It will do quite well, however, if sown about the time the soil is warm enough for corn planting. It is a rapid grower and it will be much better to have a hay crop composed of millet, timothy and clover than a mixture of weeds, timothy and clover, which is bound to be the case wherever a thin meadow is not supplemented in some way.

Wisconsin Holstein Meeting.

On page 13 of this issue will be found a report of the annual meeting of the Wisconsin Holstein Breeders' Association, held this year at Manitowoc. The meeting was a decided success and proves the splendid advancement which has been made in organization of the Holstein interests of the state. Of course, there is a great deal yet to do. With 270 members it is plain to be seen that the association has yet to secure for its roll a very large number of good breeders before it can be said to be representative of the "black and white" interests in the state. But no one expects to get all this work done at once, and the men who have been faithful while the association membership has been light, will certainly be pleased to note the progress which has been made and will regard this progress as prophetic of still greater advancement in the future. We are glad to see the Holstein breeders going after the national meeting in 1918. It indicates that they are alive to the benefit of these great national gatherings of breeders. Wisconsin should by all means have the 1918 meeting, and the breeders from states far and near need have no fear that Milwaukee and Wisconsin Holstein interests will give them a cordial and enthusiastic reception. It is apparent that the Wisconsin Holstein Breeders' Association is coming in for bigger things in the future, and all Holstein breeders of the state will be sure to profit by this activity.

Tuberculosis Among Hogs

Statistics show that 9 per cent of all the hogs slaughtered in 1916 in houses having government inspection were infected with tuberculosis in some degree. In some sections 25 per cent of the hogs are affected with tuberculosis, judging from receipts at slaughterhouses. Hogs coming from dairy districts are usually found to be infected with tuberculosis to a greater extent than those from beef-producing sections. This is due to the fact that hogs may contract tuberculosis from milk of tuberculous cows. Unless buttermilk and skim milk from creameries and separator stations are pasteurized before they are taken back to the farms, these institutions frequently become distributors of tuberculosis.

One or two herds of tuberculous cattle, for example, may contaminate all the by-products of a creamery and thus distribute the disease germs throughout the entire neighborhood in which they are distributed. It is unsafe to feed unpasteurized creamery buttermilk or skim milk to hogs because it is almost certain to carry germs of tuberculosis. Heating such milk to 170 degrees Fahrenheit for one minute will destroy the germs of tuberculosis. The same thing will be accomplished by heating it to 145 degrees for forty minutes.

If you are in doubt as to whether your hogs are infected with tuberculosis or not, you can easily test them by what is known by the intradermal test. This test is described in Farmers' Bulletin 781, which can be secured free of cost from the department of agriculture, Washington, D. C. This bulletin treats the subject of tuberculosis in hogs very fully and should be in the hands of every hog producer who wants to understand how it can be eradicated from any herd in a very short time.

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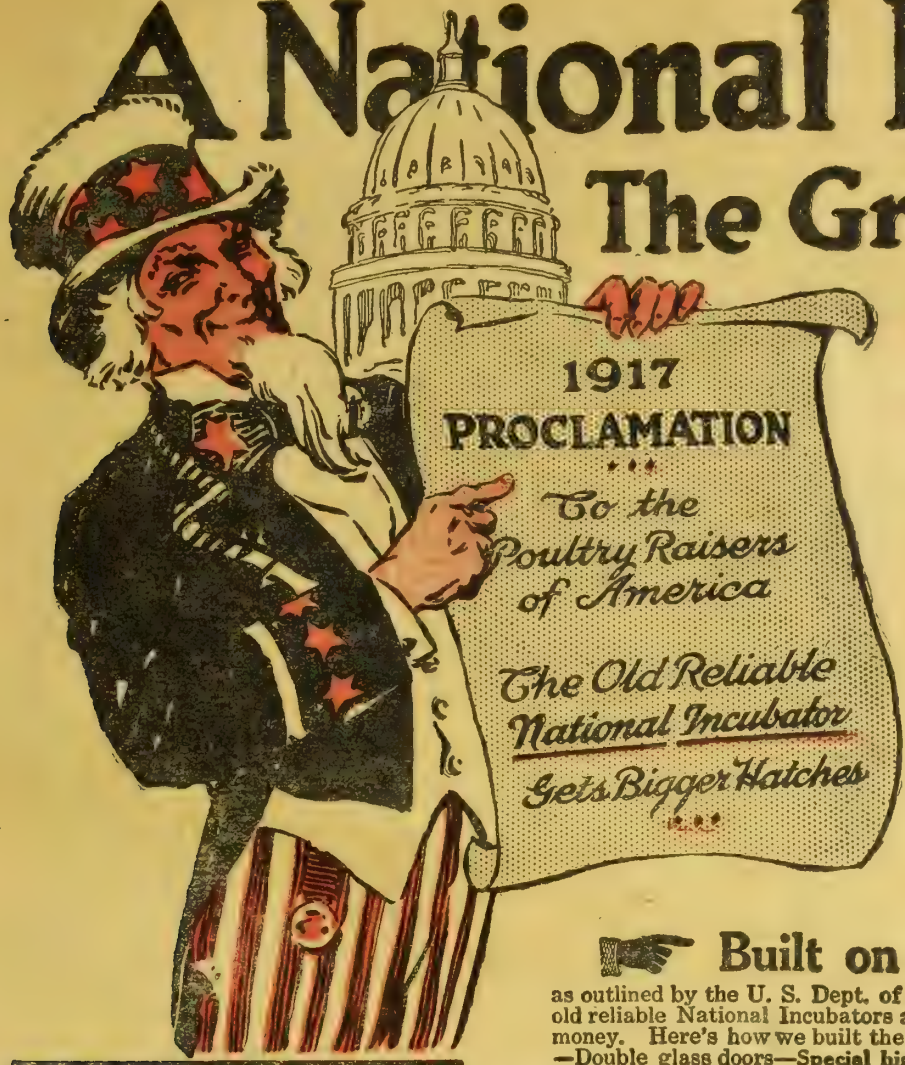

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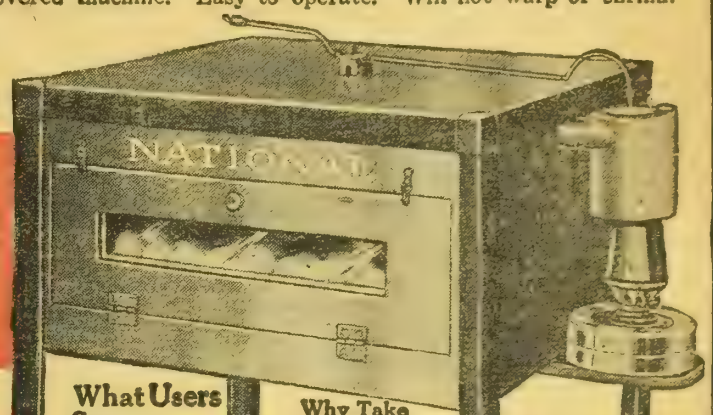

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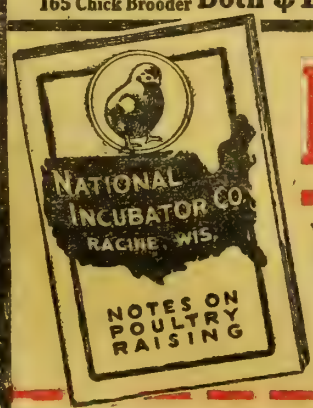

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WASHING MADE EASIER

Running Water and Power Machinery in the Laundry Will Take the Blue Out of Monday—By A. L. Marlatt.

THE farmer has to solve his labor problem through the use of more power machinery, by reducing the size of the farm, or by increasing the employment of farm labor. In somewhat the same way, one of the heaviest "beast-of-burden" labors of the farm home may be solved either by sending the washing out to a laundry, which may be run in co-operation with a creamery, or through the introduction into the home of power washing machinery—a possibility in a very large proportion of farm homes. With the power machinery, there should be running water in the laundry room as well as in the kitchen, so that what is so often provided for the stock at the barn may be provided for the woman who works in the home.

THE LITTLE MOTOR RUNS BOTH THE MACHINE AND THE WRINGER, AND THUS THE HARDEST PART OF THE WORK IS LIFTED FROM THE SHOULDERS OF THE HOUSEWIFE

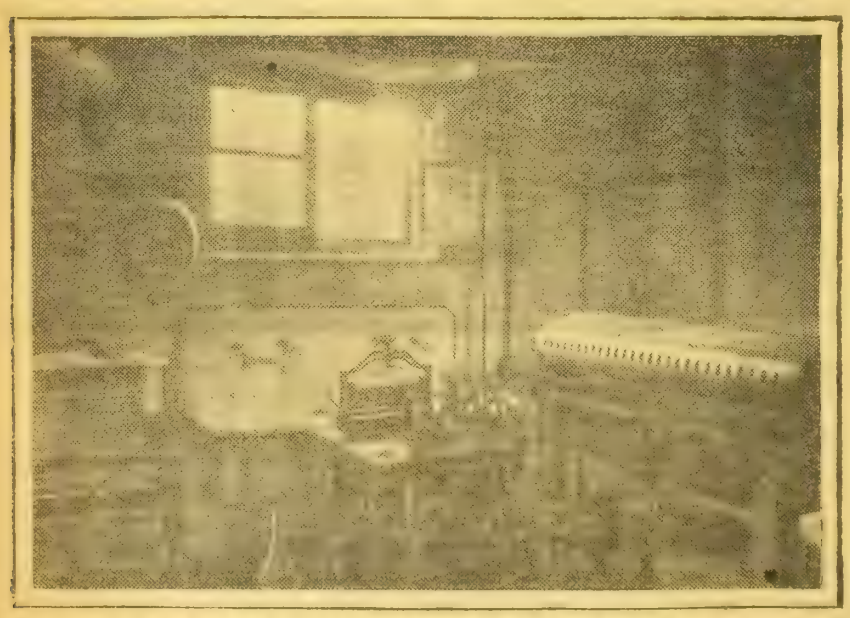
Piping from the cistern to the pump in the kitchen will at least do away with a part of the labor required in carrying water for all purposes.

"The getting of the water from the source of supply to the point of application requires," we are told by good authority, "more manual labor than any other item of housekeeping. The water for the kitchen has to be lifted from the well, carried to the kitchen, poured out of the kettle into the dishpan, and from the dishpan out of doors. This makes six times the water is handled; and a bucket of water, containing two gallons, with the containing vessel will weigh twenty pounds. When this is handled six times, the total lifting is 120 pounds. The cooking of three meals a day on a meager allowance of water will necessitate ten buckets, which will make for cooking alone 1,200 pounds of lifting per day. When to this is added the water necessary for bathing, scrubbing, and the weekly wash, it will easily bring the lift per day up to a ton; and the lifting of a ton a day will take the elasticity out of a woman's step, the bloom out of her cheek, and the enjoyment out of her soul."

But this is not the most serious part of the difficulty. Studies made by the United States Census Bureau have shown that the infant mortality among workers in textile mills is not so great as among the women who live at home, and do their own work, which includes carrying water from the well to the house, doing washing, and emptying heavy tubs of water. If this one weekly burden could be relieved, the records of our own state board of health would not show that a larger percentage of babies die in the first month of life in the country than in the city.

The first remedy is running water in the house. This can be secured through the use of a force pump, either run by windmill power, by gasoline engine, or by hand power. Pumping is not such hard work as lifting.

The second, the use of a washing machine, which will do away with much of the mechanical work in washing.



WITH RUNNING WATER, STATIONARY TUBS AND POWER MACHINERY, WASH DAY IS NO LONGER TO BE DREADED

The third, tubs that may be emptied without lifting the water, will ease the strain on tired backs.

Any washing machine is better than none. The best types are those which remove dirt from the clothing by sucking the water back and forth through the stationary clothing. There are machines on the market which clean the clothing by mechanically moving the clothing through the water. These, while good, are not so desirable from a mechanical point of view, although they are often cheaper in the first cost.

To empty the water from the tubs—even the ordinary galvanized tub—six feet of hose may be used as a siphon to drain water into a trap in the floor which connects with a tile leadin out to a lower level beyond the immediate yard of the house. If this tile is put below the freezing line and used only as a drain for the laundry water, it will lighten the labor in the farm home tremendously.

A water barrel may be used in even the most inexpensive farmhouse. A few minutes at the force pump will supply sufficient water to supply the needs of the house for the day. The expense of the force pump and piping from the cistern to the house may be as low as $25 for pump, pipe, sink, barrel, and necessary brackets and faucets.

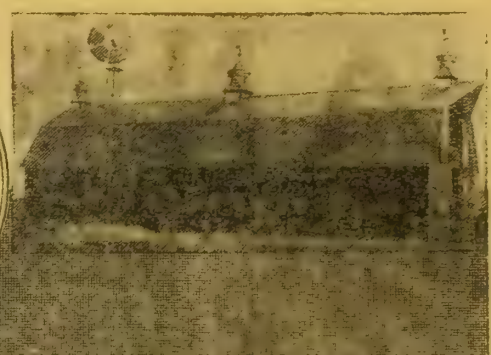
To use the rubber tube as a siphon, close one end of the tube with pressure, fill with water and close the other end, pressing with the fingers. Without removing pressure, insert one end in tub, always keeping below surface of the water, and extend the other end toward trap in floor. The moment the pressure is removed, the water will siphon through the tube from the tub into the trap.

Drying the clothes in very cold weather is always a serious problem from the standpoint of the clothing and from the standpoint of the woman's health. Going from a hot, very moist room into the freezing air out of doors is often the beginning of ill health. The use of a room in the house in which the clothes may be dried is not always either advisable or available. The balcony drier, an attachment to the tail of the porch, may not be ideal, but it will at least remove some of the bad conditions.

If there is an enclosed porch, the use of the pulley clothesline extending out into the yard may allow the worker to stand in the enclosure while hanging out the clothes.

Better yet, a wall-armed drier may be fastened to the walls of the porch, so that the clothing may dry in an enclosed space, but where sunshine can fall upon it.

Ask your neighbor to subscribe for The Wisconsin Farmer.



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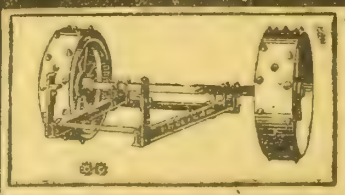

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Agriculture in Rural Schools.

[Editor's Note.—The following paper was read by F. J. Sievers, superintendent of the Milwaukee County School of Agriculture, before a farmers' week audience at Madison last month. Mr. Sievers brings up points in connection with our schools which are well worthy of careful consideration.]

We know that our farmer today is not only much more prosperous than he was years ago, but he is also happier and more prosperous than any other artisan. In spite of all this evidence, we find that the boys and girls are still continuing to leave the farm to enter fields where the opportunities are not nearly as gratifying. Let any young man, who has left the farm and has been successful in a city occupation (and these farm boys are nearly all successful) just stop for a moment and analyze the situation and he will find, I am sure, that it was the ambition of practically every energetic boy or girl of his age to leave the farm at the time when he left it. It takes this same person less than eight or ten years of city life to help him decide that he made a wrong move.

If this is the case, is it not conclusive evidence that there is something wrong with the rural educational system that is supposed to instruct our country boys and girls, and does it in such a way that a discount is placed on the most profitable occupation that these individuals can enter into; in other words, that they do not learn to know their opportunities until after they have left school and have been taught them by their own experiences.

It seems to me that our secondary educational institutions, and here I am referring particularly to the rural district schools and the high schools, deserve consideration criticism for not making a stronger attempt to educate the people in their community to fill their best place in the commercial world. In other words, if we know, as we should, (if government statistics are worthy of consideration), that there is a shortage of agricultural workers to such an extent that it becomes a national problem, is it not the business of our secondary educational institutions to solve this problem by pointing out these opportunities to the younger generation instead of hammering away on some antiquated course of study just because it permits itself to be easily followed by our educators.

Some of the factors that have been instrumental in bringing about this unbalanced condition of society, where we have too large a population in our city and too low a population in our rural communities, are as follows:

First—A successful teacher, be he either man or woman, will impress his own standards so decidedly upon the class that that standard becomes the standard of every one of the pupils. At the present time very few of our country school teachers, and this applies to the high school teachers as well, are products of the rural communities and, therefore, are not in sympathy with agricultural work. On the contrary they are not only out of sympathy with the leading industrial occupation in this country, but they have many times chosen a professional future for themselves which will take them away from anything that is closely allied to agriculture. This has a direct effect on the individual pupil in that he or she soon decides that an occupation that does not permit the wearing of a linen collar every day in the week, as well as on Sundays, is not dignified enough for the pupil's consideration.

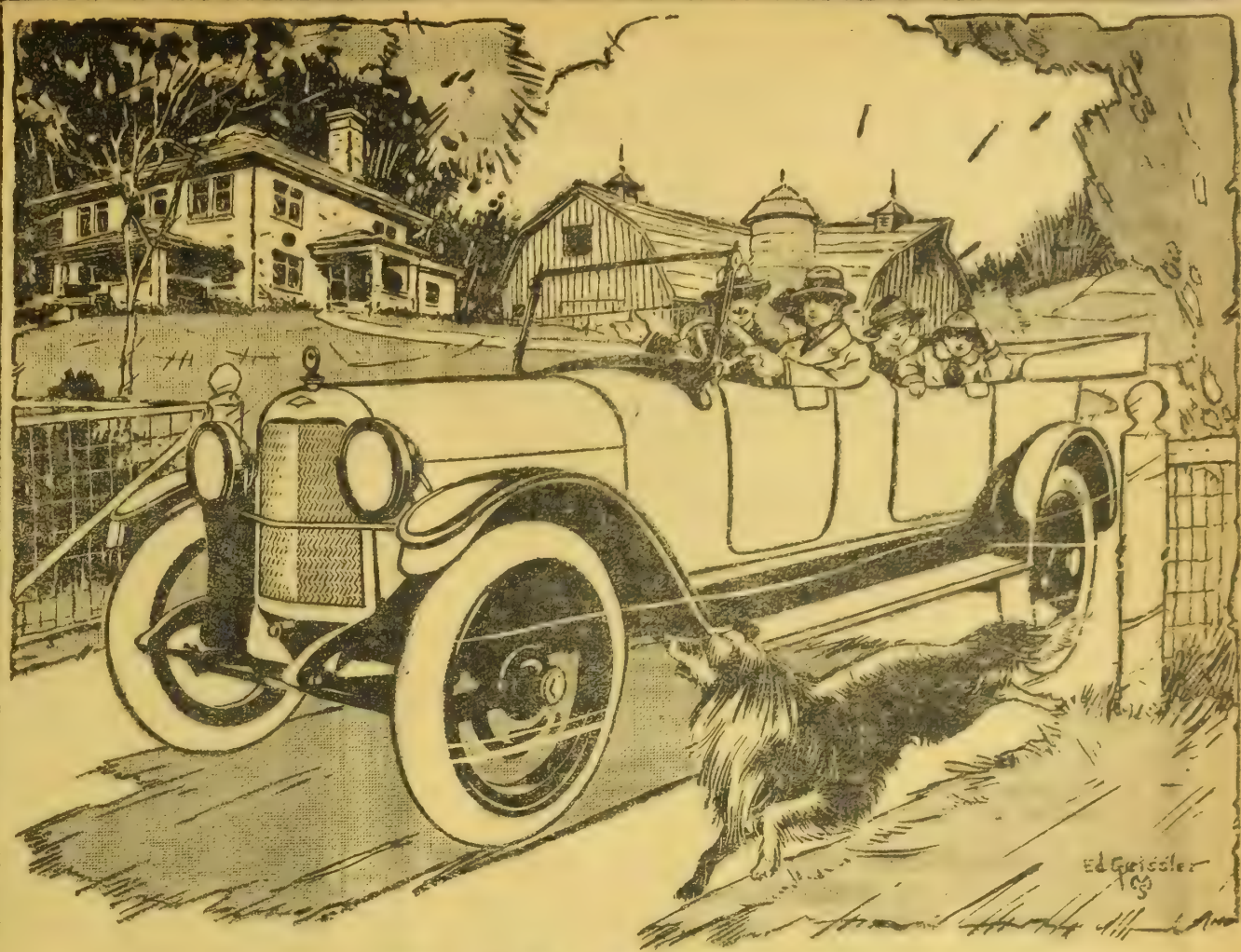
Second—The course of study in our rural secondary schools is such that very little emphasis is placed on agriculture. Instead of making it the center around which all other subjects should revolve, it is oftentimes made a side issue. First for the reason that it is a practical subject and, therefore, is hard to teach, and second, because the teacher is many times very poorly informed on the subject and naturally takes the course of least resistance, which is in the direction of subjects with which he is more conversant and which allow themselves to be woven into the daily routine with the least inconvenience.

In conclusion, let me say that our agricultural work in the secondary schools has lost out in several places, viz.:

It has been presented in a lukewarm fashion, just because it was required.

It has been presented by individuals who could not show up the practical phase of the work advantageously, even if they had so desired.

Wisconsin yields more corn per acre than any other Mississippi valley state.



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Power, Beauty and Dependability

FEW of us have the need or desire for a racing car. We are quite content to let the "other fellow" take his chances at 70 miles an hour—while we spin along comfortably and safely with the speedometer needle registering 25 or 30.

But *every* man wants Power in his automobile—and particularly the farmer.

It is good to sit behind a motor which responds eagerly—buoyantly—to the slightest touch of the throttle.

It is good to know that you need only "step on" the accelerator—and the steepest hills will flatten out like smooth boulevards.

It is good to realize that you command a vast store of reserve power which will easily take you through the heaviest sand roads "on high."

It is good to know that your automobile is a staunch, sturdy, dependable helpmate—not a treacherous weakling that will lay down when the real work begins.

In a word, it is good to own just such a car as the five-passenger Paige Linwood "Six-39." This car is a thoroughbred—every inch of it.

It is just as handsome as an automobile could possibly be, and easily capable of doing 60 miles per hour if you desire to travel that fast. But—first and last—it is made for work—*consistent* work—*day in and day out work.*

Remember, Paige owners don't have to make apologies or "offer excuses." Their cars are out of commission at one time only—when they are locked up in the garage at night.

And—best of all—you can readily establish these facts for yourself.

All that you need to do is get in touch with the nearest Paige dealer.

Let him *prove* his case. Let him introduce you to men who have invested their money in Paige cars. Listen to their experience—ask for their honest opinions.

Then, you will know whether Paige cars are reliable under all circumstances.

Then you will know whether Paige cars are economical to maintain.

Then you will know whether Paige is the type of car that *you* have been looking for.

Do this—while the Dealer can still make immediate deliveries.

Linwood "Six-39" 5-passenger	- -	$1175 f. o. b. Detroit
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How Old was The Old Oaken Bucket?

THE "iron-bound" bucket that hung in the well was covered with moss but the hoops were always tight and the bale was always secure. Time left its impress on the wood and on the metal but *rust* did not eat through the iron although the bucket was subjected to the severest of exposures. The iron was *pure* iron and pure iron resists rust.

"ARMCO" IRON CORRUGATED CULVERTS

By chemical analysis these are purer iron than were the hoops of the old oaken bucket. Under similar conditions "Armco" Iron should outlast even the old-fashioned iron. Under highways and railroads all over the country, "Armco" Iron Culverts give service like that of the old oaken bucket. They are the only metal culverts that can be counted on to outlast the generation that installs them.

For full information on "Armco" Iron Culverts, Flumes, Sheets, Roofing, and Formed Products, write the manufacturer in your vicinity, or

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MARLEY 2½ inches
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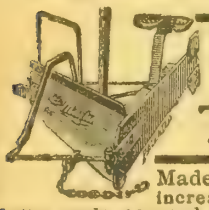

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Keeping OUT DUST and RAIN - Keeping IN OIL!

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Constantly Flooding Every Bearing With Oil, Makes It Pump In The Lightest Breeze And Prevents Wear

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DOUBLE GEARS — Each Carrying Half the Load
Every feature desirable in a windmill in the AUTO-OILED AERMOTOR

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MAN to wear fine suit, act as agent. Big pay, easy work. Banner Tailoring Co., Dpt. 534, Chicago.

A Wisconsin Short-horn Success.

Methods of Breeding and Types of Animals Which Have Brought Wisconsin Firm to Forefront in Short-horn World.

SHORT-HORN breeders in Wisconsin have since the early days taken an active interest in the development of the state as a home for breeding stock. The first herds started many years ago are in a large part still in existence. Younger men are carrying on the work of their fathers and by intelligent culling and selection keeping up the high mark set by the early breeders.

A well-established firm in the state is that of Herr Bros. & Reynolds, consisting of the brothers, Charles and George Herr, and Wallace and Ralph Reynolds. Their farms are located near Lodi in Columbia county. The partnership is a most interesting one. Under the system each man owns and breeds his cattle separately. All advertising and showing, however, is done in the name of the firm and all members must share equally in the expense. And now comes the peculiar part of the partnership. When an animal is sold the entire price belongs to the member from whose herd it came. The buyer might have become interested through reading the advertisement paid for by all members, but the sale is strictly between the purchaser and the man from whose herd the animal was selected. He might come to Wallace or Ralph Reynolds to look over their cattle. Before he decides on a purchase he is shown the herds of the others so that his choice is made only after all herds have been visited. One would imagine that hard feeling would crop out sooner or later under an arrangement of this kind, but there is not one case on record. Each of the four men have the utmost confidence in their ability to breed stock that will sell and in the honesty of the others.

MASTER RUBY, ONE OF THE HERR BROS. & REYNOLDS HERD SIRES.

There is some uniformity in the breeding work followed on the different farms. On the day the writer visited the place of Ralph Reynolds we saw in the feed lot a number of high-priced imported heifers recently purchased on the Canadian markets. On one side of the barn three heifers of beautiful type were chewing their cud, two of the Jassamine and Broadhooks families and the third Imp. Snowdrop. They alone represented an investment of nearly $3,000. Close to them were several good-sized, straight heifers of Wimple, Lavender, Clara, Mayflower and Matchless breeding, all bought this winter. The total investment for additional breeding stock represented in that one lot must have been very close to $10,000. This stock will be resold at cost price to be used on the different farms. This will result in a strengthening of the lines of breeding in the individual herds. Ralph Reynolds, who conducts most of the firm's business, is always on the lookout for likely heifers. The other members by no means leave the work of selecting the new stuff entirely to him, however. Each is in close touch with transactions in the Short-horn world and nothing is in the way of any one if he wishes to invest in an animal of his liking.

A. R. Reynolds was the first breeder of Short-horns in his community, but he soon managed to interest his two brothers-in-law to go into the Short-horn business with him. That was the beginning of the firm of Herr Bros. & Reynolds. As Ralph, the oldest son, grew to manhood the father took him in as a partner. When Wallace, the second son, finished his course at the Iowa Agricultural College the father retired and gave him his share of the partnership. Wallace finished his schooling with high honors, being rated one of the best cattle judges the college ever turned out. He was on the team that won first honors at the Kansas City Royal Show in 1913, and he had the honor of being the best individual judge in the contest. At the International at Chicago during the same year he placed high again in individual judging, though not first. His schooling did not wean him away from the Short-horn. On the contrary, it strengthened his faith in this great breed. His efforts so far indicate that he will follow the cattle game with the same success that his father had. At the recent International he showed under the firm's name the prize baby beef steer which won first in the Short-horn steer calf class and was reserve champion Short-horn of the show. His herd consists of about forty-five head, for the most part made up of such families as the Averne, Missie,

CUMBERLAND LASS, FIRST-PRIZE JUNIOR YEARLING, JUNIOR AND GRAND CHAMPION, WISCONSIN STATE FAIR.

Duchess of Gloster and Wedding Gift. About twenty cows form the foundation herd, but this number is to be increased during the coming year.

Ralph Reynolds has a farm adjoining the old homestead occupied by Wallace. They live close enough so that they can call to each other in case the telephone is out of order. Ralph has a farm of 180 acres and in the main both follow the same system of cropping. All the feed is used on the farm and marketed through the cattle. A rotation of corn, oats, clover and alfalfa is giving excellent satisfaction. There are fifty head of Short-horns on Ralph's place, including some of the best-known families of the breed. The herd is headed by Master Ruby, who has besides the many show-ring honors the better recommendation of his healthy and strong calves. He is only four years old and not fully developed in all respects. He has all the requirements of a herd header. His strongest points are his size and the level way in which he carries out over the rump and his extraordinary depth of chest and body. His calves have been in on the money wherever they have been exhibited. This bull is also used by Wallace on his cows. The families in this herd consists of Bruce Mayflower, Wimple, Clara, Lavender and some Matchless blood with a strong strain of Sultan running through the entire herd. In the early days the bull, Royal Sultan, was used on all the herds and a little later his son, Golden Sultan, was also used on most of the cows, so that there is a strong trace of Sultan blood in the foundation stock of all the herds. Answering inquiries, handling the advertising and doing a good part of the show work when the season is on keeps Ralph on the jump. But he keeps a cheerful disposition in spite of the large amount of detail work that falls to his lot and it is a pretty sure thing that when he has done a job that it has been done in the right way.

ROYAL CHOICE, FIRST-PRIZE JUNIOR YEARLING AT IOWA AND MINNESOTA, 1914. SOLD TO AMERICAN SHORT-HORN BREEDERS' ASSOCIATION FOR EXPORT TO ARGENTINE.

The Herr brothers, George and Charles, are cattlemen from the ground up. They had their first experiences with range stuff, but soon saw the advantages in breeding pure-bred cattle for sale. George Herr has on his farm of 280 acres sixty head of excellent Short-horns. Much of this stock is out of cows bred to White Rock, a son of Whitehall Sultan. Charles Herr has a little larger farm than his brother, but keeps about the same number of cattle. His herd is largely sired by Cumberland's Ideal, now no longer on the farm. At the present time Village Valentine, a son of Villager, heads the herd. Both George and Charles are beginning to use a son of Master Ruby out of a Violet cow. This bull, called Ruby's Knight, clearly shows his breeding in that he possesses the strong points of his sire—size, length, straightness over the rump and strength of back and constitution. With the excellent blood in these herds, such as the Victoria, Barmpton Leaf, Queen Marion, Golden Venus, Wimple and Clara, future products from these two establishments ought to attract considerable attention on the Short-horn market.

QUEEN AVERNE, FIRSE-PRIZE TWO YEAR OLD AND SENIOR CHAMPION AT WISCONSIN STATE FAIR.

The following is a summary of the winnings at the Wisconsin State Fairs during the last three years:

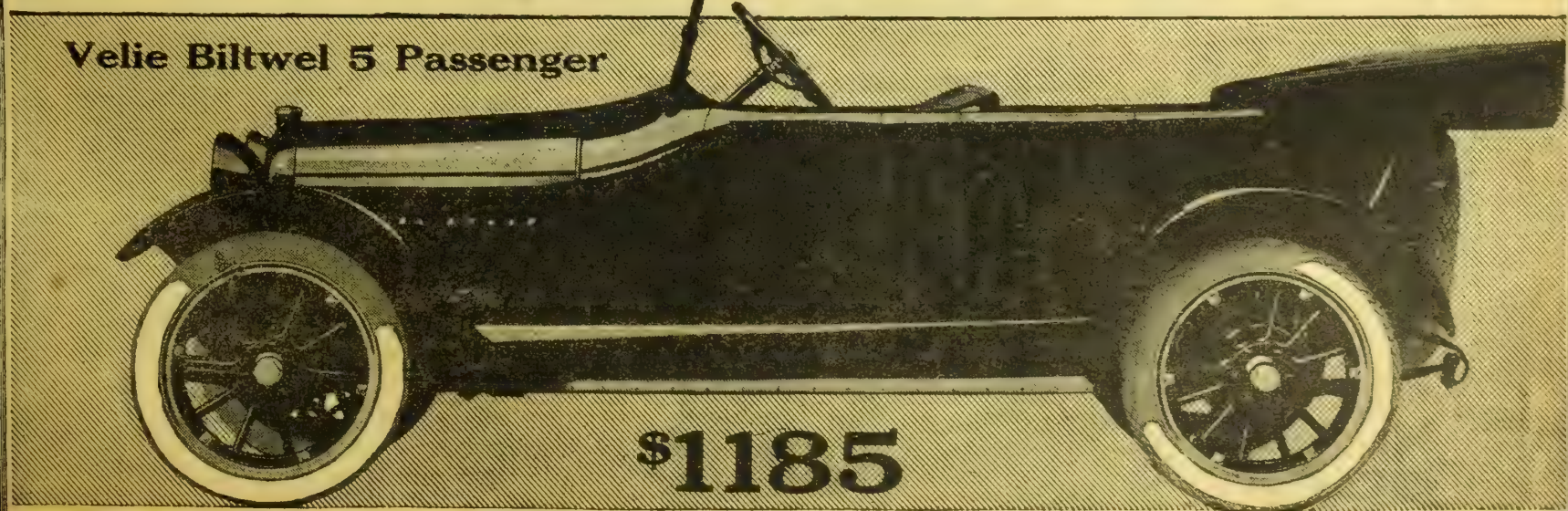
Wisconsin State Fair, 1914.—Aged bull, 2d on Golden Sultan; junior yearling bull, 1st and 2d on Master Ruby and Royal Choice; senior bull calf, 3d on Combination; junior bull calf, 2d on Double Sultan; senior yearling, 2d and 3d on Sultan's Beauty, junior yearling heifer, 1st on Queen Averne; senior heifer calf, 1st and 2d on Marion Queen and Miss Holly; junior heifer calf, 2d on Cumberland Lass; junior and grand champion bull, Master Ruby 446601; junior champion heifer on Queen Averne; 2d aged herd; 1st young herd; 2d calf herd; 1st on get of sire on get of Golden Sultan.

Wisconsin State Fair, 1915—Two-year-old bull, 1st on Master Ruby, 2d Royal Choice; junior yearling, 2d; senior bull calf, 2d on White Robin; junior bull calf, 3d on Royal Victor; aged cow, 1st on Woodland Holly; two-year-old heifer, 1st on Queen Averne; senior yearling heifer, 5th on Miss Holly; junior yearling heifer, 1st on Cumberland Lass; junior heifer calf, 4th on Duchess Last; senior and grand champion bull, Master Ruby; senior champion cow, Queen Averne; junior and grand champion female, Cumberland Lass; 1st on aged herd; 3d on young herd; 3d on calf herd; 3d on get of sire; 1st on produce of dam.

Wisconsin State Fair, 1916.—Junior yearling bull, 1st on Royal Choice 2d; senior bull calf, 3d on Ruby's Knight; junior bull calf, 6th on Royal Ruby; senior yearling heifer, 2d on Lady Holly; junior yearling heifer, 1st on Duchess Last; senior heifer calf, 4th, 5th, 6th and 7th on Goldie's Ruby, Rare Gift, Ruby's Garland and Village Princess 7th; junior heifer calf, 5th and 6th on Sadie and Lancaster Maid 2d; 1st on young herd; 2d on calf herd; 2d on get of sire; 1st on produce of dam; junior champion heifer on Duchess Last. Only young stock shown in 1916.

"I went to find the finest light six regardless of price," said the man back from the big shows, "and this was the combination of values for me: *Extra* room, deep-tufted *genuine* leather upholstery, the power and flexibility of a *specially built* Continental six motor, Timken axles front and rear, multiple disc clutch, automatic ignition, push button starter, everything in and on in the form of equipment." That car is the Velie. Eight body styles. See them at your dealer's. Catalog on request.

Velie Motors Corporation, 118 Velie Place, Moline, Ill.



Cow-Testing Reports.

Some Official Records.

To the Editor:—Hutchinson Bros. & Eurbach made a twenty-five-pound three-year-old official record in February. Henry Dolan made one twenty-two-pound and one twenty-pound record, three years, and Hurelle & Wheeler made a seventeen-pound two-year-old record and one seventeen-pound three-year-old record.

We are going to try to have a farmers' institute for Columbus next winter.

In the month ending February 12th we had fifty-eight forty-pound cows on our list and twenty fifty-pound cows which is the best record ever made here. The following had herd averages of over thirty pounds for the month: Alex Westfall, 32.9 pounds; C. S. Steinbach, 37.7 pounds, Wm. Breyer, 31.7 pounds, Peter Larson, 39.6 pounds; J. E. Barstow, 31.9 pounds; A. F. Barstow, 33.9 pounds; Hutchinson Bros & Eurbach, 35.8 pounds.

Eight inferior cows were sold from our association herds this month. The forty-five-pound list for the month ending February 12th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
John H. Waterworth, Jr.					
Polly, G. H.....	8	11-10	957	4.7	45.0
Hurelle & Wheeler					
Tiny, P. B. H...	3	12-27	1542	3.84	59.2
Julius Heyden					
No. 32, G. H....		12-28	1224	3.9	47.7
Henry Westphal					
Spotty II, G. H.	4	12-27	1542	3.6	55.5
C. G. Steinbach					
Lady Houtg,G.H	8	1-15	1313	4.46	58.6
Queen, G. H....	6	9-16	1383	3.5	48.4
Buttermaid, G.H.	5	12-24	1302	4.9	63.8
Henry Dolan					
Victoria, P.B. H.	3	1-15	1288	3.56	45.9
Bessie, P. B. H..	3	12-31	1428	3.32	47.4
Spofford, P.B. H.	3	12-2	1653	3.13	51.7
August Soldner					
Johanna, P. B. H..		12-10	1347	3.5	47.1
Wm. Breyer					
No. 3, G. G.....	9	12-25	1071	4.2	45.0
No. 5, G. G.....	9	12-6	1038	4.8	49.8
George Reminger					
Spotted Red,G.D.	9	11-7	1035	4.4	45.5
No. 1, G. D.....	8	11-7	978	5.1	49.9
Old Red, G. D...	9	11-21	1132	4.4	49.8
John Bradley					
Lilith 2d, P.B.H.	2	12-22	1287	3.72	47.9
Alangelsche, P. B. H.....	3	1-20	1207	3.83	46.2
Peter Larson					
Piebe, P. B. H...	9	1-12	1410	3.4	47.9
Johanna 2d, P. B. H.....	5	1-9	1142	4.0	45.7
J. E. Barstow					
Old Beauty, P. B. H.....	6	1-8	1488	4.1	61.0
Pet, P. B. H.....		12-15	1332	3.6	48.0
Dummie, G. H..	5	10-30	1278	4.0	51.1
Nellie, G. H.....	9	11-14	1311	3.9	52.3
Buzzle, G. H....	6	11-19	1074	4.4	47.3
A. F. Barstow					
De Kol, P. B. H.	6	12-5	1506	3.7	55.7
Maud 2d, P.B. H.	8	10-17	1357	3.6	48.9
Sapphire, P.B.H.	7	10-18	1408	3.2	45.0
Hutchinson Bros. & Eurbach					
Aaggy Ormsby Beets of Bonnie Meade, P. B. H.....	3	1-5	1564	3.5	54.8
Aaggie Clothilde of Bonnie Meade, P. B. H.	4	12-21	1859	3.7	68.8
Pride Aaggie Johanna De Kol, P. B. H.....	6	12-31	1834	3.7	67.9
Columbiana Johanna De Kol Mes 2d, P. B. H.....	4	12-27	1674	3.4	56.9
Canary Wit Bonnie Meade 4th, P. B. H.....	4	12-9	1392	3.6	50.1
Jessie Belle Empress Ormsby, P. B. H.....	3	12-27	1723	3.1	53.4
Canary Wit of Bonnie Meade 5th, P. B. H.....	3	12-17	1462	3.5	51.2
Canary Aaggie De Kol of Bonny Meade, P. B. H.....	4	12-19	1724	3.9	67.2
Wm. Meyers					
Cora, G. J.....	9	10-7	924	5.6	51.7
Molly, G. J.....	9	11-10	903	5.7	51.5
Hannah, G. J...	9	12-1	963	5.3	51.0
S. W. Pierce					
No. 25, G. H.....		11-29	1346	3.6	48.5

C. F. Wehrwein,
Official Tester, Columbus Cow-Testing Association.

Bone Lake-Luck Cow-Testing Association.

To the Editor:—Our report of forty-five-pound list for month ending February 16th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
C. E. Woodward					
Bonny Belle, N.	6	12-4	1038	4.4	45.7
J. C. Nielsen					
Dolly, G. G.....	6	12-6	820	5.7	46.7
T. A. Jaspersen					
Flosy, G. H.....	6	12-17	1333	3.4	45.3

Marius Nielsen, Official Tester.

Mishicot Cow-Testing Association

To the Editor:—Our list of cows producing forty-five pounds of butter fat and better for the month ending January 31st is as follows:

Owner, name and breed	Age	When fresh	pounds milk	Per cent of fat	Pounds B. fat
Wm. H. Spencer					
Saloff, G. H..	6	12-23-16	1425	4.5	64.12
Dally, N. ...	2	12-27-16	1092	4.4	48.05
Chas. Hessel					
No. 19, G. H..	7	1-12-17	1644	3.5	57.54
Chas. Johannes					
De Kol Mutual					
Pauline Romenger, H. ...	4	12-10-16	1722	3.3	56.82
Nellie, G. H.	4	9-18-16	1197	3.8	45.48
Walter Zander					
Topsie, G R.P.	8	1-12-17	1194	4.5	53.73
Molly, N. ...	6	11-5-16	1104	4.2	46.37
Oscar Samz					
Gahling, N...	8	12-2-16	1095	4.9	53.65
Robert Hessel					
No. 2, G. H...	6	1-5-17	1113	4.8	53.42
Henry W. Schmidt					
Frieda, N ...	4	12-26-16	1212	4.3	52.11
Ed Palzer					
Whitey, G.H.	6	1-3-17	1065	4.6	48.99
Fred Kappelmann					
Molly, N.....	6	11-5-16	1987	4.9	48.36
Peter Fliegel					
No. 2, N.	5	12-8-16	1232	3.8	46.85
Albert E. Brown					
Bessie, G. G..	11	12-28-16	1050	4.3	45.15

E. H. Meinke,
Official Tester Mishicot Association, Manitowoc county.

Geneva Cow-Testing Association.

To the Editor:—The following is the forty-five-pound list for the month ending January 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
A. G Palmer & Sons					
Fall, R. H....	6	12-26-16	1556	4.5	70.0
Daisy, R. H...	6	12-2-16	1838	3.7	68.0
Queen M., R.H.	3	12-27-16	141	4.6	65.0
Beauty, R. H.	9	11-27-16	2058	3.0	61.7
Johanna, R.H	2	12-24-16	1411	4.2	59.3
Lorina, R. H..	4	12-22-16	1531	3.8	58.3
Mary, G. H...	5	11-23-16	1876	3.1	58.2
W. Gem, R. H.	3	11-22-16	1953	2.9	56.6
Netherland.					
R. H.	3	1-6-17	1307	4.1	53.6
Breeze, R. H..	3	11-23-16	1584	3.2	50.7
W. E. Palmer					
Fall B., R. H..	4	11-28-16	1683	3.8	64.0
Queen, R. H...	4	11-12-16	1931	3.2	61.8
Frank Webster					
Nig, G. H.....	6	12-21-16	1262	4.7	59.3
Ora P. Taylor					
Queen, R. J...	6	10-22-16	983	5.4	53.1
Erma, R. J...	4	11-6-16	846	6.0	50.8
Dark, G. J....	5	11-13-16	986	4.6	45.4
Chas. Topping					
Maggie, G. H..	5	11-27-16	1454	3.5	50.9
Polly Ann,G.H.	6	10-31-16	1318	3.5	46.1
Dunwiddie & Sons					
Jersey, G. J...	6	1-4-17	986	5.0	49.3
Floyd Ames					
Wonder, G. H.	3	12-19-16	1280	3.8	48.6
Leo D. Dunlap					
Dott, G. J....	5	11-16-16	929	5.0	46.5
Norton & Randall					
Ruby, G. H...	3	12-26-16	1162	4.0	46.5
Dallas Davis					
Hartog, R. H.	7	10-1-16	1345	3.4	45.7
Wm. Rouse					
Yvonne, G. H.	7	11-23-16	1326	3.4	45.1

F. W. Drake Official, Tester.
Leo D. Dunlap, Secretary.

Good Work in Taylor County.

To the Editor:—I believe that Taylor county may well be proud of its third month's work in cow testing. In January two pure-bred Guernsey sires were bought. Bessie, a grade Holstein cow, owned by Henry Suter produced 66.1 pounds of butter fat from 1,537.6 pounds of milk, testing 4.3 per cent. The list of forty-five-pound cows or better for the month ending February 15th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Henry Suter					
Bessie, G. H...	5	Dec.	1537.6	4.3	66.1
Frank Halopka					
Lady, G. H....		Dec.	1523.9	4.1	62.47
Rudolph Baehler					
No. 4, G. H....	8	Nov.	1529.0	3.7	56.5
No. 7, G. H.....	6	Nov.	1285.8	4.0	51.4
John Gamper					
Heilo Rue Bernning, R. H.....	8	Dec.	1556.0	3.4	54.4
Mrs. Mat Hientz & Sons					
B. B. No. 5....		Nov.	897.7	5 9	53.00
Schuster No. 3, G. G.	5	Dec.	921.1	5.4	49.7
Charles Pitzke					
Julia, R. H....		Oct.	1500.0	3.4	51.00
Sam Suter					
Sterney, G. H..	4	Jan.	1292.4	3.8	49.1
Molly, G. H....	4	Dec.	1358.5	3.6	48.9
Bessie, G. H. ..		Nov.	1357.4	3.6	48.8
Jersey, G. H...	8	Nov.	1064.2	4.4	46.8

A. T. Zeddies, Official Tester Medford Cow-Testing Association
W. R. Brecke, Secretary.

Sparta-Tomah Association.

To the Editor:—For the thirty days ending February 14th, nineteen cows in our association produced forty pounds of butter fat or over. Several fell just on the forty-pound mark. Several cows which had produced some thirty odd pounds in the month of January graduated to the forty-pound list. We believe the scales and Babcock tester are the best guide for seller and buyer of dairy cows. Our forty-five-pound list or over for the thirty days ending February 14, 1917, is as follows:

Owner and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
R. B. Robertsen					
Guern.	6	12-20-16	914	5.4	49.3
Guern.	6	12-18-16	961	6.1	58.6
J. W. Leverich					
Gr. Hol.	7	11-20-16	887	5.3	47.0
Gr. Hol.	8	12-18-16	1302	4.3	56.0
Gr. Hol.	7	12-22-16	1426	4.0	57.0
Geo. Jordan					
Gr. Guern.....	6	1-12-17	1041	4.3	44.7
Jacob Poss					
Hols.	8	2-13-17	1562	4.6	71.8
Gr. Hol.	7	12-16-16	1416	3.2	45.3
Frank Selback					
Gr. Hol.	9	1-6-17	1333	3.6	48.0
W. J. Brennan					
Gr Hol.	6	12-25-16	1196	3.7	44.2
E. E. Wyatt					
Jersey	4	1-30-17	1085	4.3	46.6

Jacob Poss had the highest producing cow, a pure-bred Holstein. She gave 1,562 pounds of 4.6 per cent test milk and made 71.8 pounds butter fat. Mr. Poss' herd also averaged the highest with 1,168 pounds milk and 43.5 pounds butter fat with seven cows. No. 11, a grade Holstein of J. W. Leverich made 43.6 pounds fat in the sixth month of her lactation period.

C. P. Chrysler, Official Tester.
W. J. Brennan, Secretary-Treasurer.

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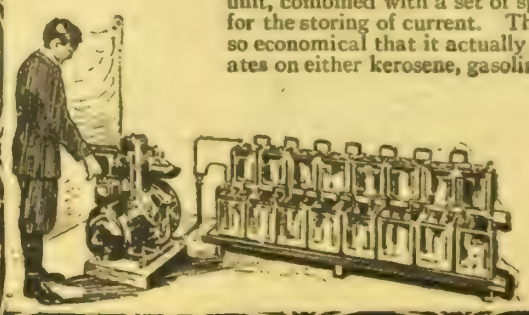

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CURRENT EVENTS

THAT Germany, in planning unrestricted submarine warfare and counting its consequences, proposed an alliance with Mexico and Japan to make war on the United States, if this country should not remain neutral, was disclosed last week. The newspaper story to this effect, setting forth diplomatic correspondence, was verified the day after its publication by President Wilson and Secretary of State Lansing. The disclosure made the biggest sensation of recent years in official Washington, and throughout the nation generally, and chrystallized public sentiment until congress promptly gave the president the support which he has long asked, but which has heretofore been denied him. According to the disclosures, Japan, through Mexico mediation was to be urged to abandon her allies and join in the attack on the United States. Mexico's reward was to receive general financial support from Germany, reconquer Texas, New Mexico and Arizona—lost provinces—and share in the victorious peace terms Germany contemplated. Details were left to German Minister von Eckhardt, in Mexico City, who by instructions signed by German Foreign Minister Zimmerman, at Berlin, January 19, 1917, was directed to propose the alliance with Mexico to General Carranza, and suggest that Mexico seek to bring Japan into the plot. These instructions were transmitted to von Eckhardt through Count von Bernstorff, former German ambassador here, now on his way to Germany under a safe conduct obtained from his enemies by the country against which he was plotting war. Germany pictured to Mexico, by broad intimation, England and the entente allies defeated; Germany and her allies triumphant and in world domination by the instrumentality of unrestricted warfare. The Japanese ambassador to the United States immediately declared that his government had not been a party to the plot. That Mexico was interested, however, is almost a foregone conclusion. Germany was playing the diplomatic game shrewdly, but the publication of the correspondence has nipped the plot in the bud, although it makes the situation between the United States and Germany much more critical and serious, being almost a declaration of war, so contrary is it to all policies of international friendship and custom

THE Cunard liner, Laconia, which sailed from New York to Liverpool week before last with twenty-six Americans aboard, was torpedoed by a German submarine when near the end of her voyage. Ten American lives were lost. Two Chicago women, mother and daughter, died from exposure in the life boats after the sinking ship was left; while eight American members of the crew lost their lives in the disaster The Laconia belonged to the same British company as the Lusitania, which was sunk earlier in the war with heavy loss of life. The sinking of the Laconia, apparently without warning, looms up as the most serious disregard of American rights and international law since the present ruthless German submarine campaign began. The afternoon that the news came of the disaster President Wilson went before congress to ask authority to arm American merchant vessels and to use the forces of the United States to protect American ships and American lives on the high seas. The Laconia was evidently torpedoed twice, sinking within forty-five minutes after the first one struck her. Good order was maintained, but several of the life boats were swamped shortly after leaving the sinking ship and many of those who were saved suffered severely from exposure, while all lost practically all their effects. Much official and diplomatic mail went down with the liner, making the matter even more serious in a diplomatic and international way.

ON THE day after the liner Laconia was sunk, with the loss of ten American lives, President Wilson went before congress and asked for authority to place the United States in a state of "armed neutrality" to resist the German submarine menace. Continued invasion of the plain rights of neutrals on the high seas, further sacrifices of American lives and ships and the intolerable blockade of American commerce—almost, in fact, as effectual as if the country were at war—were held by the president to have taken the place of the dreaded "overt act" upon which he had promised to wait. When the details of the Laconia's sinking were afterwards received it was semi-officially stated that the "overt act" had indeed occurred. President Wilson realized that the situation was a grave one and congress heard him with solemnity. In the course of his address the president said: "It would be foolish to deny that the situation is fraught with the gravest possibilities and dangers. No thoughtful man can fail to see that the necessity for definite action may come at any time, if we are, in fact, and not in word merely, to defend our elementary rights as a neutral nation." He went on to ask permission "to supply our merchant ships with defensive arms, should that become necessary, and with the means of using them, and to employ any other instrumentalities or methods that may be necessary and adequate to protect our ships and our people in their legitimate and peaceful pursuits on the seas." The pacificists immediately announced that this demand meant war and that they would oppose it to the best of their abilities, Wm. J. Bryan telegraphing from Florida that he would go to Washington at once and fight the president's request.

BY THE decisive vote of 403 to thirteen, the lower house of congress last week passed a bill authorizing President Wilson to arm American merchant vessels in order to protect them on the high seas and to issue $100,000,000 worth of bonds for "the purpose of insuring vessels, their freight, passage moneys and cargoes against loss or damage by the present risks of war." Party lines were swept away at the last and only thirteen congressmen voted against the bill, nine republicans, three democrats and one socialist, as follows: Republicans: Benedict, of California; Carey, of Wisconsin; Cooper, of Wisconsin; Davis, of Minnesota; Helgesen, of North Dakota; Lindbergh, of Minnesota; Nelson, of Wisconsin; Stafford, of Wisconsin; Wilson, of Illinois. Democrats: Decker, of Missouri; Shackleford, of Missouri; Sherwood, of Ohio. Socialist, London, of New York. The bill, as adopted, does not suit the president, inasmuch as it cuts out the use of "other instrumentalities," which he requested in his message to congress. A bill in the senate provides for this and it is the one which the president and his supporters are backing. After weeks of delay and dilatory tactics congress settled down to business in the closing hours in a determined and patriotic manner, showing that the president has a united public sentiment behind him.

MERCHANT shipping aggregating 4,357,500 tons, belonging to entente and neutral nations has been destroyed or condemned as prizes by the central powers since the beginning of the war, it was officially announced in Berlin last week. Apparently this total covers a period up to the end of January, 1917, only, as no figures for February are given. The official statement reads: "During January last, 170 merchant ships of hostile powers with a total of 336,000 gross tons were destroyed as a result of the war measures of the central powers. Of them ninety-one vessels with an aggregate of 245,500 gross tons were British. Besides these fifty-eight neutral merchant ships, totaling 103,500 gross tons, were sunk on account of carrying contraband for the enemy The total loss in shipping for the month was 228 vessels with a total of 439,500 gross tons."

FEDERAL relief in the food situation was proposed in congress by Senator Borah, of Idaho, who introduced a resolution to appropriate $6,000,000 to be expended by the president in aiding local authorities to furnish food and clothing to persons now actually suffering. The resolution also would provide for an investigation of rising prices, their cause and methods of marketing and distributing necessities with a view to bettering these conditions and to determine whether the anti-trust laws have been violated. Continued improvement in the car shortage and congestion at eastern railroad yards was reported last week to the interstate commerce commission and the car service committee of the American Railway association. Continuation of mild weather in the East, it was said, would free thousands of cars now wedged in crowded yards.

A STEADY decrease since 1885 in the proportion of convicts in the United States employed in miscellaneous work under lease and contract and a marked increase in the proportion employed for the benefit of the state on highways and other public works are shown in statistics just published by the office of public roads and rural engineering of the United States Department of Agriculture. The most satisfactory use of the system, in the opinion of the department's road specialists, is under state rather than county administration. Since 1885, the report shows, the percentage of convicts in a large number of representative institutions working under the public account, state use, and public works and ways systems, has increased from 33 to 86 per cent, while the proportion engaged in road work alone has increased from 1.3 per cent to nearly 13 per cent. Convicts should not be indiscriminately put to work on roads, it is pointed out. Only those who are physically fit for the work should be employed. It may be even desirable and practicable in many instances to reserve assignment to the open-air work as a reward for good behavior.

The skillful dairyman does not follow the plan of feeding all his cows alike, but, on the other hand, he aims to apportion the grain in accordance with the amount of milk produced. A cow that yields thirty pounds of milk a day on a good ration ought to have ten pounds of grain daily. If she produces only twenty pounds of milk, six or seven pounds of grain is all that she can make use of economically.

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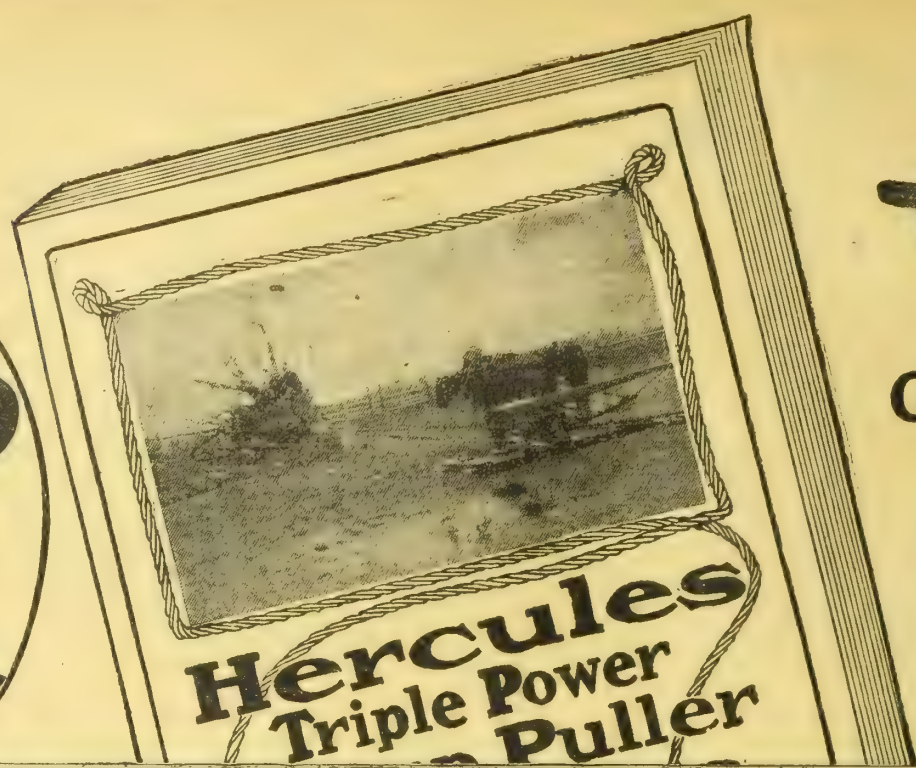

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Wisconsin Holstein Breeders Meet

Most Enthusiastic Session in Twenty-five Years Was Held Last Week at Manitowoc—Membership of the Association Is Growing.

THERE was more spirit behind the meeting of the Wisconsin State Holstein-Friesian Breeders' Association, held at Monroe February 28th and March 1st, than ever before in the twenty-five years of the existence of this body. The two days were chock-full of discussions for development and action during the coming year. Compared with preceding years the association is doing exceptionally well. Last year the total memberships numbered fifty-two. This year it is 270.

R. J. Shaefer, of Appleton, president of the association, in his annual address referred to the possibilities of the breeders with the Holstein. Records now on the books show that seventeen Holsteins have yielded over forty pounds of butter in seven days and twenty-four cows of this breed have surpassed the 1,200-pound butter mark in 365 days. The efficiency of the breed is not centered in a few individuals, but is in the pedigree and breeding of most of them. The problem is for the owner to develop these powers of production by intelligent feeding. He asked the members present to work for the interest of the state association and declared the showing made by the Wisconsin breeders at the last national meeting at Detroit was not representative of the strength of the breed in the state. Only twenty-nine members were present at the Detroit meeting, holding only 390 proxies. This year a campaign for a full showing will be made and when the delegate is sent to Massachusetts in June to the national meeting he will have a number of proxies more nearly like the membership total. Wisconsin is second in the number of Holsteins per state and has a total of over 3,000 owners of registered Holsteins. More than 1,250 are members of the national association.

During the business meeting there was one question of special importance and that was to secure the 1918 meeting of the national body, the Holstein-Friesian Association of America, for Wisconsin. The city of Milwaukee could offer excellent accommodations for such a gathering and a strong bid will be made by the delegate appointed by the state association to secure the privilege of being host of America's largest cattle association. Furthermore, Wisconsin wants a representative in the council of the national association and a strong effort will be made to land a place for one of her big men on the board of directors. All these plans require the support of every Holstein man in the state before there can be any talk of accomplishing them. The meeting pledged itself to go after this support and make Wisconsin leader of all other states. An opportunity is granted men not strictly owners of Holstein cattle to become members of the association by a change made in the constitution. Formerly only the owners could belong while under the amended laws the herdsmen and others who have much to do with Holsteins and Holstein interests can apply for membership. The constitution was also changed to provide for nine directors instead of three. The time of meeting under the adopted amendments is moved forward to the second Wednesday and Thursday in January. The idea here was to have the meeting early enough so that matters that might come up before the legislature could be threshed out previous to the meeting of the lawmakers and the matters of interest to Holstein breeders could be properly taken care of. After much debate a resolution was finally passed favoring the adoption of the 305-day test with the provision attached that no test shall be recognized unless the cow has been in calf for five months of the test and has delivered a healthy calf in fourteen months from the time of starting.

W. E. Skinner, Dr. O. H. Eliason and J. B. Newman brought out some vital points in their respective talks. Mr. Skinner is secretary of the National Dairy Council and has probably more data on hand concerning the combined dairy interests than anyone else. He led off by saying that the dairy industry is the most unorganized industry in the United States. Though the start has been made at a harmonious working for the good of all instead of the good of the individual, there is still too much inclination to make money by hurting the other man's business. As an example he quoted the case of the milk producers in a large city where recently the price was raised. With the announcement of the increase in the daily press went an interview with one of the officials of the producers saying that the dealers were to blame for the high prices and defending the association. He was ruining the confidence of the people in milk by saying this and hurting his own business. In line with this is what Mr. Skinner called negative advertising where one dealer tries to show the superiority of his product by calling the other man's product not prepared in the way the first dealer handles it an unsafe and unclean product. These things hurt the whole dairy industry. The Underwood amendment cutting the tax of 10 cents per pound for colored oleomargarine down to 2 cents was defeated through the timely protests of the dairy council. National advertising that is now being run by the council is bringing remarkable results. The funds for this campaign were collected by subscription from all the bodies interested in dairying and dairy products and by individual donations. For a furthering of the plans of the council much more will be necessary and the plan explained by Mr. Skinner of taxing all breeders on the basis of animals owned was favorably voted on by the Wisconsin Holstein men at the conclusion of the address. Fred Pabst, of Oconomowoc, gave Mr. Skinner a check for $1,000 toward keeping the good work going.

Dr. O. H. Eliason, state veterinarian of Wisconsin, gave one of the most sensible talks we have heard from a state veterinarian for a long while. He spoke on the relation of the state live stock sanitary board to the breeder. The doctor was raised on a farm and knows the sacrifices most breeders have to make before they can point with pride to their herd. He knows what it means to have all this wiped out by the tuberculin test. He is, therefore, not in favor of ruthless slaughter and it is largely through his influence that there is now a bill before the legislature which would make it possible for a breeder to utilize in part at least infected animals for the breeding of a new herd. This bill was discussed in The Wisconsin Farmer of February 22d.

J. B. Newman, of the extension service of the Holstein-Friesian Association of America, gave the purposes and the work the national body is doing in behalf of the Holstein. Out of 150 carloads of cattle recently placed into southern Illinois through the cooperation of the bankers of that state 148 were Holsteins. Requests for animals in the newer sections of the Southwest where dairying is just taking hold all go to show that the demand for the Holstein cow is forever on the increase. He referred to the Holstein as the "Wonder Cow." He urged very strongly the establishment of accredited herds where all animals have safely passed the tests and are regularly tested by competent veterinarians. The big market will be for the men or the district that can guarantee every animal on their place as free from disease without first testing.

At the election of officers the following men were re-elected: President, A. R. Shaefer, Appleton; secretary, C. J. Schroeder, Racine; treasurer, F. J. Bristol, Oakfield. For vice president Sid Bird, of South Byron, was elected.

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First, cost of the trees is not excessive. Four or five dollars will pay for a dozen good, first-class trees of the best northern sorts. Do not be persuaded to buy the sweet cherries in this northern latitude. They have invariably proved unprofitable for general purposes. The trees are poor bearers and of short life with us.

In the poultry yard this fruit furnishes just the shade which the fowls need; and they need for food the bugs and worms which pester the cherry. The curculio beetle—one of the worst insect pests—hibernates in some surface shelter and crawls up the trees to deposit eggs in the warm May days. Then the sharp-eyed chickens get in their useful work. They beat the swallows by swallowing the beetles.

The cherry is adapted to all soils which have a heavy clay subsoil. Loose, sandy soils do not suit them, and when planted on such soils they are so unhappy that they speedily commit suicide.

When the cherry and the Leghorn or the Plymouth Rock cohabit, no spraying is required for the trees, and less feed will be needed for the chicks. They will not only eat all the worms and bugs, but they will cheerfully gather all fruit which comes in their way along dependent branches. If the grower should be too busy, or too indolent to pick the fruit left in the top of the trees, the fact need not worry you, for the birds of the air will quickly remove it. The robins are specially fond of this fruit, and will often saucily assert his rights in defiance of arbitrary man.

If you are short of room, fifteen feet apart will accommodate the cherry for many years. The trees do not need as much pruning as most other fruit trees, being rather conservative in their manner of growth. Trim when young to give the top a symmetrical shape. Cultivation also is needed when the trees are small, for a thrifty, early growth means early fruitfulness and long life.

An Old Strawberry Question.

The following communication has been received from a subscriber:

Am planning to set out my first strawberry bed. I have got three or four catalogs and find that the plants will cost me from 50 cents to $1 for a hundred. And then I have to pay the express. But I have a friend who has berries and they have done well for four years, and they are big ones. She tells me I can come there and dig all the plants I want for nothing. My husband says they won't be first class, but I don't see why. What do you think?

We think that this subscriber's husband is entirely right in thinking that plants from the old bed will not be first class. The requirements for a good strawberry plant are that it should be grown from runners sent out the previous season. It should be of good size, vigorous and have long, white roots. Such plants only grow in soil which is well cultivated. An old bed which has been in fruit for three or four years is not likely to have such plants. In fact, it is very certain not to have them.

If you can find plants there which are strong, thrifty and have white roots they might answer your purpose. But you will find that the most of the plants which you dig there will be two years or more old. Age will be shown by the hard, black and wirey roots. All such plants are worthless from the fact that they will not grow again. Transplanting is fatal to them, as they have very little vitality.

If you use such plants you will surely have only disappointment for your labor.

But if you can find a neighbor who set out a bed last spring and now has a matted row of young plants of 1916 growth, those plants will be valuable and it will be just as well for you to buy of him as to send to some distant grower, always supposing that your neighbor has a good variety.

Generally speaking, it is a poor plan to try to save money at this point. It will pay to get a good article to start with. And the purchase price will not be money thrown away, because if you get a valuable variety and succeed in growing a large number of plants you can sell to some of your neighbors the following spring. Dollars well spent come back and bring their friends with them.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 18.

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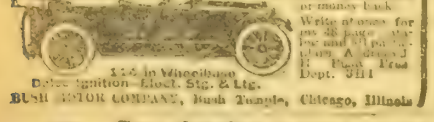

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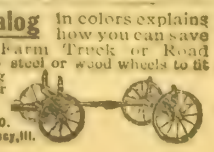

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Fond du Lac Farmers' Meeting.

Farm Management Contestants and Members of Breeders' Associations Hold Meet With Experiment Order.

THE Fond du Lac County Order of the Wisconsin Agricultural Experiment Association held their tenth annual meeting in connection with Jersey, Guernsey and Holstein breeders' associations at Fond du Lac on February 22d 23d.

Prof. E R. Jones, of the college, gave a talk on drainage. He commented on the advantage of drainage in improving land and increasing crops. Low land and marsh land is of enough importance in this state to warrant a special study and the college authorities have done considerable work on the question of farm and marsh drainage. By combination of the tile system with the open ditch outlet these lands can be made to yield profitable crops under proper management. Draining only part of the farm at first is the best way of getting at the successful solution of this problem according to Professor Jones. Especial attention was called to having ditches and tiles not at the proper level and causing an unsatisfactory flow of water. The question of draining land higher than the adjoining property was then taken up and discussed quite in detail. There is considerable damage possible to the low land by improper systems. The tile system works in a different manner than the ordinary outlet ditch in that it enables an area to absorb the excess water similar to a sponge and releases it for the lowlands in a gradual manner, instead of all at once. The open ditch method and its proper construction were given some consideration and Professor Jones advised giving the sides the proper slope to prevent caving in and filling up of the ditch, which would seriously affect the usefulness of the ditch. Mr. Jones also took up the laws that pertain to the installation of drainage systems on marsh lands.

Prof. R. A. Moore gave an address on the rotation of crops. Less than a generation ago, according to Professor Moore, the one-crop system was fast depleting the nourishment of the Wisconsin farm soils. Tracing the development of rotating crops from that day on to this he showed that the benefit had been as predicted. He took up in his discussion two-year, three-year, four-year and five-year rotations. The objections to the two year plan are that clover and oats or barley alternated do not allow for enough time to elapse before the clover must be turned under again. The three-year plan of clover, small grains and corn is more satisfactory and also the four-year plan where corn is planted on sod land the first year followed by small grain and then seeded down to clover, which would be the crop of the third year, followed by timothy. In the five-year plan which provides pasture for stock the rotation would be corn, small grain, clover, mixed hay, which should be allowed to be pastured in the final year of the rotation. Potatoes and root crops could be substituted for corn or any part of the corn acreage.

The announcement of the completion of the farm management records and the return of the books which had been kept by thirty farmers of Fond du Lac county was made by Professor Otis in his talk on "Farm Records." The interest here centered around the comparisons of the standard cost system as applied in determining the actual cost on the individual farm operations. This, however, is described in detail in another issue.—Professor Otis urged the farmers to work in closer harmony with the bankers, as the banker can profitably be made a partner of any farm establishment. Under the system of cost accounting it is easily possible to show on which operation the farmer has profited and on which he has not. With the figures to prove the success of any one line of endeavor the farmer can reason with the banker in a more businesslike way and he will have less trouble in inducing the banker to loan money for operations which have in the past proved to be profitable. Where 10 and 12 per cent is made on an investment it is plain that a larger investment would insure larger profits.

The meeting on Friday included talks by Prof. J. L. Tormey, who spoke on "Feeds" and feeding of live stock. Professor Tormey pointed out some interesting facts in connection with high cost of feed. On comparison with four rations which had been computed some four years ago it was found that the same rations today would not run much over 4 cents per pound more. Prices four years ago were evidently also very high, as the cost of the rations today was figured on the prices prevailing on the local market this month. Professor Tormey advocated buying such feeds as would give the protein and carbohydrate requirements at the lowest possible cost.

In the afternoon the meeting of the breed associations were held and in the Jersey association no new elections were made because of the absence of a considerable number of the members. The Holstein association elected S. H. Bird, of South Farm, president; Carl Brugger, of Fond du Lac, secretary, and Clarence Corcoran, of Fond du Lac, treasurer. The Guernsey breeders elected B. F. Sheridan, of Fond du Lac, president; George I. Berne, of Oakfield, vice president, and F. M. Ingalls, of Fond du Lac, treasurer. The Guernsey breeders elected as an executive committee for the county association the following men: Matt Michels, A. W Hargrave, B. F. Sheridan, F. M. Ingalls. The Guernsey breeders presented Mr. Ingalls with a gold watch as an appreciation of the efforts in behalf of the Guernsey and better dairying.

Charles L. Hill, of Rosendale, spoke to the members on herd production and pointed to the essentials of increasing the yield from dairy cows.

On each day a banquet was served to the members and friends of the association at the Elving Hotel, where ideas were exchanged and good fellowship promoted.

Album of the 1916 International.

A profusely illustrated cloth-bound history of the 1916 International Exposition will be ready for delivery in the near future, according to a statement recently made by B. H. Heide, manager of that great exposition. A nominal price of 50 cents per volume has been fixed, though this is considerably below the actual cost. It has been thought wise to preserve the great 1916 show in this way in order that stockmen who are interested in the improvement of farm animals may come into possession of the record in permanent form. Those who are interested should apply to B. H. Heide, manager International Exposition, Union Stockyards, Chicago, for a copy.

Successful swine breeders invariably feed their sows liberally before farrowing time. It is well to cut down a little the last day, but it is a great mistake to feed lightly for a week or two in advance of farrowing time and then to start in and feed heavily soon after farrowing. This is sure to cause the young pigs to scour and if the weather is cool there will likely be a heavy loss.

There are almost 60,000 silos in Wisconsin. One farmer in three living on a farm twenty acres or larger has a silo.

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BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

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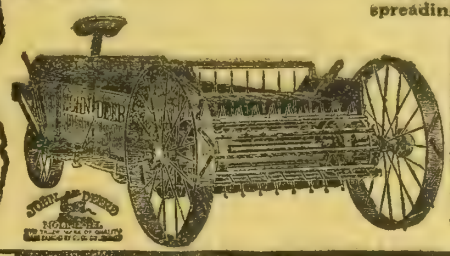
John Deere Spreader

The Spreader with the Beater on the Axle

Mounting the beater on the axle simplified the construction, eliminated troublesome parts and made possible a successful low-down spreader with big drive wheels. There are no shafts to get out of line, no chains to cause trouble, and no clutches to adjust. The only spreader with beater and beater drive mounted on axle.

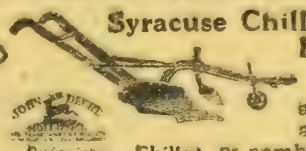
Low down, with big drive wheels out of the way. Easy to load.

Revolving rake, driven by manure moving toward the beater—no bunching of manure. Ball bearing eccentric apron drive—a new and exclusive driving device. Makes uniform spreading certain.



Wide spread attachment for spreading seven feet wide can be furnished for the John Deere Spreader. No chains nor gears. Quickly removed.

Syracuse Chilled Plows—General Purpose Series



Syracuse Plows have an enviable field record among farmers in chilled or combination plow territory.

Syracuse Chilled Plows—General Purpose Series are unsurpassed for use in hard, dry ground, gravelly soils or stony fields where plows ordinarily will not stay in the ground—unusually well balanced.

Long moldboard of good turn and scouring qualities.

Detachable chilled iron, keen edge shin piece. Cutting edge of moldboard can be renewed easily, quickly, and at small expense. Not necessary to renew entire moldboard each time.

Right and left hand styles.

Here is a feature that is appreciated by the man who buys a Syracuse Plow. Extras ordered will be duplicates of the original parts. Bolt holes will be in the right place. Every part will fit. In fact all necessary parts that go into a Syracuse Plow could be ordered as repairs and when received built into a complete plow. Extra parts are exact duplicates—no trouble results.

Remember, Syracuse quality is uniform.

New Deere Light Draft Gang Plow

For twenty years the New Deere Gang has had the good opinion of enough farmers to make it the one best seller—

And, today, it is the same plow it was twenty years ago, with the usual minor refinements added.

Correct in design, always representing the highest development of the plow-maker's art; the New Deere Gang is a leader; and has been every single year for twenty years.

Go to your John Deere dealer's and look this plow over—you will readily see why it is such a popular plow.

The New Deere Gang is the most widely used plow of its type.

It is light draft, durable and is equipped with John Deere bottoms, known all over the world for superior work, easy scouring and light pulling qualities. It cuts and turns full width of furrow.

A simple, practical foot lift and auxiliary hand lift lever—easy to raise bottoms out of the ground.

John Deere Quick Detachable Shares—great labor and time savers. Share can be taken off easily, only one nut to remove.

John Deere Model "B" Disc Harrow

Using a disc harrow before plowing pulverizes surface lumps; works trash into the seed bed and prevents the escape of moisture. Then when the furrow slice is turned, the trash decays rapidly and no large air spaces are left between bottom of furrow and the turned furrow slice. Water in the subsoil can make its way into the seed bed and plant roots can penetrate to deeper soils.

Discing after plowing removes the weeds, and makes the seed bed compact, but not hard. The discs break up lumps of soil.

The Model "B" pulverizes at even depth its entire width.

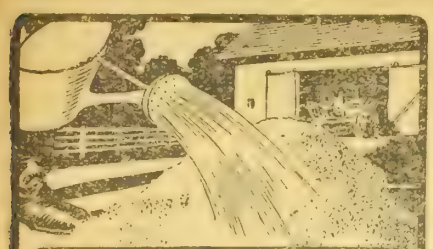
Patented spring pressure third lever—inner ends of gangs can be given light or heavy pressure to disc over ridges or cut out dead furrows without burying the harrow.

Independent gangs. All tendency of gangs to crowd to one side is easily overcome by giving them the proper relative angle.

Flexible—only that part of the Model "B" harrow passing over an obstruction is lifted out of the ground.

Rear section can be furnished to make a double action harrow.

JOHN DEERE, MOLINE, ILLINOIS



Treat All Seeds

—take no chances. Anyone can apply Formaldehyde. It is endorsed by the U. S. Dept. of Agriculture as *the* standard treatment for seed grain smuts, potato scab and black-leg.

FORMALDEHYDE
The Farmer's Friend

To insure a full yield you must destroy all forms of smuts, rust and fungus growth. Our Formaldehyde sold by your dealer for 35 cents treats 40 bushels of seed. New hand book just issued — *free.*

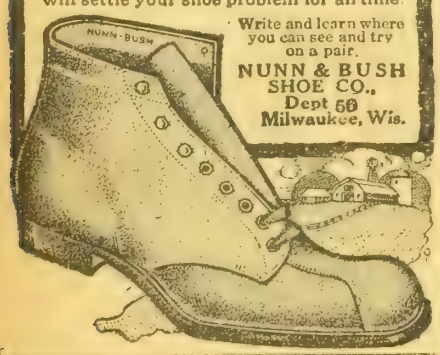
PERTH AMBOY CHEMICAL WORKS
100 William Street New York

"FARM-WEAR" SHOES for FARM WEAR

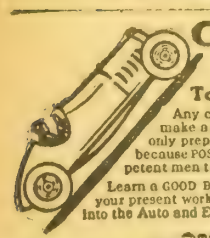
"BETTER LOOKS AND MORE MILEAGE"

Question: "What rots shoe leather?"
Answer: "Uric Acid."
Q.: "What causes Uric Acid?"
A.: "Sweaty feet and barnyard service."
But Uric Acid can't harm Farm-Wear Shoes because the leather is double tanned. This makes the shoes wear twice as long as ordinary shoes. Also Farm-Wear Shoes are made especially for farm service. They are better looking and better fitting than other work shoes. Farm-Wear Shoes for men and boys, 6 in., 8 in., 12 in. and 16 in. high, will settle your shoe problem for all time.

NUNN MILWAUKEE SHOES BUSH



Write and learn where you can see and try on a pair.
NUNN & BUSH SHOE CO., Dept 56 Milwaukee, Wis.



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To learn the Auto business.

Any capable, ambitious young man can make a success for himself, and if you will only prepare yourself YOU WILL GET WORK, because POSITIONS ARE OPEN, WAITING for competent men to do Auto and Electric work.

Learn a GOOD BUSINESS. Are you dissatisfied with your present work? Thousands of new men will go into the Auto and Electric Starter business within the coming year. YOU CAN, TOO. Do you want to?

The Auto business offers opportunities and promotion to high pay.

American AUTO College

You learn here by practical work in our large shops. We furnish TOOLS.

$900 to $3000 Per Year Salary or Business Profits

Big Electric Starter and Tractor course Free now with regular Auto course. FREE Catalog Now.

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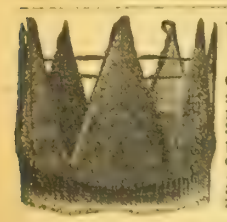
IF so, get a copy of our journal first. It has lands, city property and stocks of goods advertised in its columns from nearly every state so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25c for one year's subscription or $1.00 for five years. Department F. Farm and Real Estate Journal, Traer, Iowa



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Helps For Farm Women.

Some Facts Concerning the Work Which Wisconsin Is Attempting to Do For Women of the Farms of This Great State.

CLASS OF FARM WOMEN LISTENING TO LECTURE ON DIETETICS

THE farm women of Wisconsin have not been neglected in the program of education and assistance that our great state laid out for the advancement of agriculture and embodied in the great institution, the college of agriculture. The women have the same opportunity of learning how to bring their labor to a larger stage of productive ness by modern methods as the men have. Courses and institutes for women parallel those for men. Like for the men and their field operations there are divisions of education for the women covering every phase of the household activities. For the men the departments have been builded and planned according to the increasing interest. For the women a similar interest in the future will also obtain still bigger and ever more efficient forces of instruction.

The responsibility and the development of farm education has been wisely concentrated in the department of home economics. Under the care of Miss Abby L. Marlatt, the director, each course of instruction is given the closest attention. Miss Marlatt is constantly striving—and succeeding—to bring the women of the farm to a greater realization of their importance and usefulness as homemakers. It should be the privilege of the wife to enjoy the best of everything in the way of labor-saving appliances. Unceasing effort is put forth in the home economics laboratories to discover the better things in cookery and sewing. New methods in house decorations and efficient means of household management are tried out by this department. Every angle of housework is under constant study in order that the results can some day be given to the women of the farm for the lessening of their labors and the preservation of their health.

The courses of education for women in the home economics work are divided into credit and non-credit courses. The first refers to regular school work and corresponds to the four-year courses in agriculture. The courses available are open only to students with high school credits and are attended by girls from both the farm and the city.

The non-credit courses are the short courses for the women and they constitute the big thing in home improvement. Results from these courses are direct. They include all subjects vital to the housewife.

Each year a woman's short course is held at Madison during Farmers' Week. A survey of the program shows that in the short period of instruction is crowded a wealth of information for the improvement of the home. Each morning the day is begun with a round-table discussion. The subject on the first might be the baby's health, the next short cuts in serving and so on, covering the most important subjects. Then follow the lectures on household management, on home decorations, child welfare, on planning meals. Demonstrations of new methods accompany each subject. Thus the women can obtain the fundamentals of a great variety of new practices and adapt the new method to their conditions when they return home.

The facilities for instruction include two food laboratories, two applied chemistry laboratories, one dietetic kitchen with a practice kitchen and dining room adjoining, one weaving laboratory, a textile laboratory, a dressmaking laboratory, a house architecture and home decoration laboratory, and one applied arts laboratory. Besides these there is a practice cottage which contains the modern ideas in household arrangement. It contains a living room, library, dining room, kitchen, laundry, three bedrooms and a bath. This cottage is not a model farmhouse, but includes in the main the features that ought to be possible in a majority of farm homes. The kitchen in this cottage is 10x9 feet and designed for the needs of a family of four. It is extremely practical. Its size does not make it hot or uncomfortable, as ventilation

(Continued on page 28)

A GREAT MANY STEPS MAY BE SAVED BY A KITCHEN ARRANGED LIKE THIS.

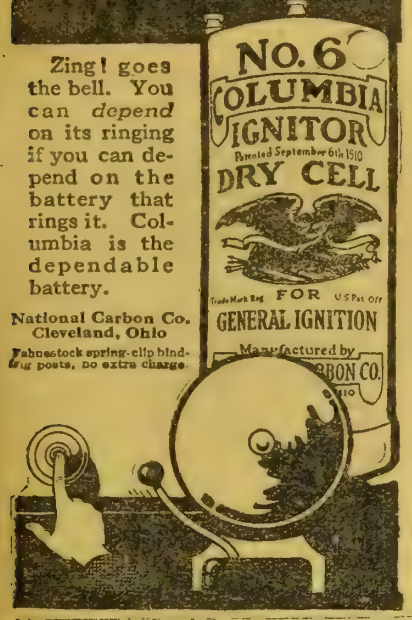
GROUP OF FARM WOMEN IN UNIVERSITY LABORATORY AT MADISON.

Columbia Batteries

Zing! goes the bell. You can *depend* on its ringing if you can depend on the battery that rings it. Columbia is the dependable battery.

National Carbon Co. Cleveland, Ohio

Fahnestock spring-clip binding posts, no extra charge.



Drill Seed at Even Depth Bigger Crops

E-B patented extension spring pressure plants grain at uniform depth. Closed delivery opener deposits it in bottom of furrow. E-B patented feed cup prevents grain bunching or cracking. Dust proof disc bearings. Write for catalog and ask dealer to show you the E-B Drill.
Look for the E-B trade mark on the implements you buy. It's our pledge of quality and your guide to to more profitable farming.

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Please send me free literature on articles checked:

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Costs least to put up. Outlasts all others. Stands tight and trim the year 'round. Has one-piece stay wires, wavy strand wires—heavily galvanized. Self-draining, double grip lock. Hogs can't lift it. Wires won't spread. Write for catalog.

FREE TO LANDOWNERS who have not already received a copy—a handy pocket size of Ropp's New Calculator—worth 50c. Tells at a glance correct answer to almost any farm problem. Write for it, also catalog.

KEYSTONE STEEL & WIRE CO.
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Wonderful Money Saving Fence Book. Over 150 Styles. Gates-Steel Posts-Barb Wire 13½ Per Rod Up

DIRECT FROM FACTORY-FREIGHT PAID

All heavy DOUBLE GALVANIZED WIRES. 13c per rod up. Get free Book and Sample to test.

THE BROWN FENCE & WIRE CO., Dept. 35 - - Cleveland, Ohio

Do Your Own Concrete Work Cheaply and Easily

No more mixing by hand.

The BARREL MIXER enables you to tackle every job, big or little, as you think of it and do it without calling in expensive outside help.

WRITE FOR FULL PARTICULARS

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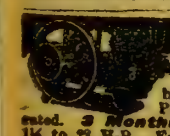

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THE OTTAWA MANUFACTURING CO., 1191 King Street, OTTAWA, KANSAS.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments Diagnosed and Remedies Suggested in this Department.

Questions and Answers.

The Five-Horse Evener.

In your issue of February 1st you give an illustration of a five-horse evener that I desire to make. You did not give the length of the pieces of strap iron marked S and L. Does the long way of the boiler plate A go parallel with the plow?

Answer.—The length of these straps will depend upon the arrangement of your plow. We suggest that you make all three straps about twenty inches long, drilling the holes one inch from each end. Straps SS will have to be bent so as to form a fork to straddle the doubletree, R. The long way of the plate should be parallel with the plow, that is, the clevis is on the narrow end of the plate. The plate should be about three-eights of an inch thick.

Molding Brass.

What process is necessary to mold brass, and what heat is necessary to melt it? Can brass be formed on the anvil the same as other metals?

Answer.—Brass is usually melted in a clay crucible in a special furnace, although it is possible to heat the crucible in an ordinary blacksmith's forge. It melts at a temperature between 1,700 and 1,900 degrees Fahrenheit, the melting temperature depending upon the composition of the alloy. Brass cannot be worked on the anvil, as it is more brittle when hot than when cold. To form brass it is necessary to make a pattern the shape of the desired part, mold it in a box of sand and pour the molten brass into the mold. Your book dealer can supply you with books on molding and pattern making; also on casting brasses and bronzes.

Igniter Trouble.

I have a two-horse-power gas engine with make-and-break ignition. It will not spark at the points, although I have a good battery of eight cells, and a coil that throws a good spark when I snap the wires. What is the cause, and how can I fix it?

Answer.—Your trouble may be due to a poor connection or a loose wire. Corroded or worn-out contact points would cause the same trouble. Examine the wiring, scrape it bright and see that it is firmly clamped at each binding post. Be sure that none of the wires are broken. See that the insulation around the insulated terminal of the igniter is clean and in good condition. If the contact points of the igniter are worn out send to the factory for new ones. If they are not badly worn scrape them bright, file them with a fine file to a good fit and see that they work properly without sticking. Test the wires at the switch to make sure that the current reaches the igniter. The switch might be defective.

Testing a Boiler—Soldering Aluminum.

Can you tell me what is the proper way to test a traction engine boiler? On one engine here, they filled it with cold water and then connected a force pump to it and pumped it up to a pressure of 100 pounds. The steam pressure carried was 130 pounds. Was the test sufficient? Please also tell me how to solder aluminum.

Answer.—While the boiler is empty go over it with a hammer, tapping it and noticing the sound. Thin places in the plates may often be located in this manner. If this test does not show any weak places, fill the boiler nearly full of cold water and build a light fire in it, preferably of wood, and heat the water until it is warm, but not boiling hot. Withdraw the fire and go over the boiler with a straightedge, noting where the plates are flat and where and how much they are bulged. Then attach a force pump to the boiler and pump in enough water to raise the pressure about one-fifth higher than the working pressure. If your working pressure is about 125 pounds the boiler should be tested at 150 pounds. Too great a pressure should not be used, as it will strain the plates. While the boiler is under pressure go over the plates again with a straightedge and see whether the pressure produces any serious bulges. Also look for defective stay bolts

A special solder must be used for soldering aluminum. Ordinary solder will not work. Aluminum solder is an aluminum alloy. It may usually be purchased at a garage. The edges to be soldered should be heated to the melting point, and, while slightly melted, rubbed with a file or piece of steel until "tinned," keeping the flame of the blow torch playing on the parts to retain the heat during the tinning process. Have ready some of the aluminum solder, melted just enough to be mushy, and apply it to the tinned edges of the parts to be soldered, the edges being kept at almost the melting point. A case knife is a handy tool for applying the solder and smoothing it. Considerable skill is necessary for successful aluminum soldering, but if you follow the above instructions carefully you will soon learn to make a good job.

Heider
Made and Sold by
Rock Island Plow Co.

Save Money With This All Purpose Farm Tractor

Heider friction transmission means fewer gears, which means less trouble, easier operation and lower cost of upkeep. Tested by 9 years actual field work.

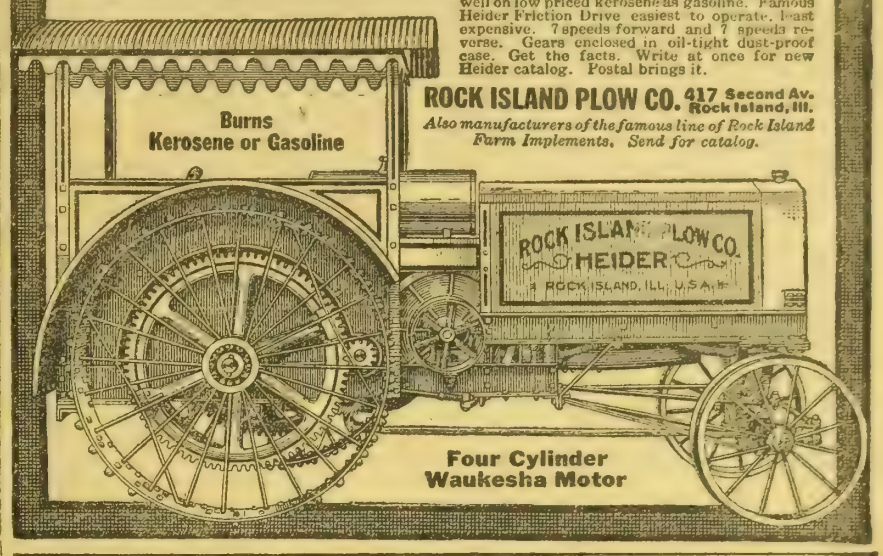
"The Heider I bought in March, 1911, has been in use winter and summer ever since. It is in good working order today. Does all kinds of farm work."—*William Korrect.*

We have hundreds of letters from Heider owners. They all prove beyond question that the Heider is the **Most Profitable Investment on Any Farm.**

Heider Model C 12-20 for medium or large farms, and Heider Model D 9-16 for smaller farms mean *ample* power for your harvest and tillage tools, and *economical* power for your stationary machinery—down even to the cream separator. Runs just as well on low priced kerosene as gasoline. Famous Heider Friction Drive easiest to operate, least expensive. 7 speeds forward and 7 speeds reverse. Gears enclosed in oil-tight dust-proof case. Get the facts. Write at once for new Heider catalog. Postal brings it.

ROCK ISLAND PLOW CO. 417 Second Av. Rock Island, Ill.

Also manufacturers of the famous line of Rock Island Farm Implements. Send for catalog.



ONE FRIEND TELLS ANOTHER WHY W-B CUT TOBACCO IS BEST AND CHEAPEST

HERE'S something curious about W-B CUT Chewing—it takes less out of your pocket and puts a better chew into your mouth. No big plug sagging your pocket, no big wad sagging your cheek. Half as much of this *rich* tobocco goes twice as far as ordinary plug. W-B saves your *silver* and gives you a silver-lining feeling of happiness all over. You can't help from telling your friends about W-B.

Made by WEYMAN-BRUTON COMPANY, 50 Union Square, New York City

GET MY PRICES

BEFORE YOU BUY BE sure and get my prices! Before you buy a manure spreader (gasoline engine, cream separator or tractor) of any make, or kind, or price, first get Galloway's 1917 catalog—the biggest, most important book and greatest money-saver for my customers I ever put out! Get my proposition to you and compare it with all others; then be your own judge! We are actual manufacturers and sell direct to you from our factory. We specialize on the lines we offer. We were first to offer manure spreaders, engines, separators direct from the factory at one small profit. We have made the manufacturing and selling of these lines a life business. You can't afford to buy a manure spreader or any of the other Galloway lines until you first get our prices and our proposition. Get my prices before you buy!

UNDENIABLE PROOF!

I saved $29 by ordering a Galloway. I know it is a better spreader than I could have bought here for $125.
Geo. A. Kralik, Okla City, Oklo.

I consider it equal to a prominent machine sold for $140. One neighbor who has used both says he would rather have the Galloway. W. O. Crecraft, Eckley, Colo.

I saved $39. Believe I got a better spreader than was offered me here for $135.
A T Miller, Orella, Neb.

It is as good a spreader as money can buy. I kept $85.43 in my own pocket. A team that weighs 1,850 lbs. pulls it easily.
W. H. Adams, Pound, Wis.

THE WM. GALLOWAY CO., 80 Galloway Sta., Waterloo, Iowa

Go South BEFORE SPRING

Go now, before Spring work begins, and visit the

Highlands of Louisiana

where the whole district is rapidly settling up with good farmers from the Northern states—where Winter is Springtime and the planting season is weeks ahead of the land of snow and ice. A trip now will open your eyes; it will show you the possibilities of a country where the climate is **with** you instead of **against** you.

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Write today for this book, *"Where Soil and Climate Are Never Idle"*, with information about low excursion rates from **your** town, and a map of Louisiana in full colors. A postal card will bring them all—MAIL IT.

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THE HIGHLANDS OF WEST LOUISIANA

ALONG the **Kansas City Southern Railway** are fertile and very cheap. They are well suited for general farming, stock raising and commercial truck growing. Rainfall, 40 to 50 inches, good pasturage, quick transportation to market, magnificent climate. Write for our new West Louisiana, East Texas and Gulf Coast Book. Immigration Bureau, K. C. S. Bldg., Kansas City, Mo.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T. & S.F. Ry., 1959 Ry. Ex., Chicago.

Attention, Farm Renter!

WHY pay high rent for expensive land when you can own a farm in Minnesota? Good land at from $8 to $125 per acre. Write today for free literature. Fred D. Sherman, Com. of Immigration, Room 200, State Capitol, St. Paul, Minn.

WINNEBAGO Co. farm home for sale. Well kept 40 acres, 1 mi. Omro, 9 mi. Oshkosh (interurban service), 8-room house, barn, silo, well, spring, team, wagons, sleighs, buggies, 7 cows, cream separator, farm tools, etc. All for $6,500 if taken before April 1. Part cash, part terms. Mrs. Florence Dane (owner), 653 Main St., Oshkosh, Wis.

FOR SALE—80 acres unimproved land about two miles from Prentice, Wis. Rich clay loam soil; land easily cleared. Small creek runs through part of land. A bargain at $1,300, with only $500 cash, balance on easy terms. For full information address H. S., 873 Buffum St., Milwaukee, Wisconsin.

FREE GOVERNMENT LANDS—Our official 112-page book "Vacant Government Lands" lists and describes every acre in every county in U. S. Tells location, place to apply, how secured FREE. 1917 Diagrams and Tables new laws, lists, etc. Price 25 cents postpaid. WEBB PUBLISHING CO., Dept 98, St. Paul, Minn.

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BALANCE fields and pasture, rich, clay loam, 4-room house, basement barn 40x60, tubular well, best water. Apple orchard, farm tools. On good road, R. F. D., telephone. Near big market. Price $1600, half cash. Send for free photos and description. **A. L. Wilkins, R. 1., Union, N. Y.**

FOR SALE A 135-acre farm near Jefferson, Jefferson county, Wis. The farm is ½ mile from condensery, two creameries and railroad station, an elegant place for the castle business, pure breds or grades, the dairy center of the world. Priced to sell. E. H. Kiesling, Jefferson, Wisconsin.

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LAND OF LOVELY LAKES
4,000 acres to choose from, none over 5 miles to railway station. Write now to W. W. Thayer, McNaughton, Wisconsin.

MONEY-MAKING FARMS—Central Wisconsin. The world's greatest dairy district. Good lands, low prices, easy terms. Send for free list, map and panoramic view of this country. Graham's Land Office, Marshfield, Wisconsin.

WANTED TO HEAR FROM OWNER OF farm for sale or exchange. Address Kubat Realty Company, Chippewa Falls, Wisconsin.

STOP! LISTEN! 80-acre improved farm, $850; terms; [illegible], McGrath, Mountain View, Mo.

In And Around Wisconsin.

At the recent annual convention of the Milk Producers' Association, held in the La Salle Hotel, Chicago, resolutions were adopted along the following lines:

That a trademark be adopted which would identify the products of members of the association.

Opposing any mixture, such as "butterine," and permitting it to be sold as butter, and also opposing the reduction of the tax on oleomargarine.

Reaffirming former resolutions opposing the tuberculin test.

That the members of the association will not sell or deliver milk to any company or station which receives milk from non-members of the association.

The Wisconsin Farmer is advised that there were thirty-five or forty people present at the recent hemp meeting at Waterloo. Mr. A. H. Wright, of the Wisconsin College of Agriculture, agronomy division, gave a talk and presented Mr. A. M. Sheley, of Chicago, who made a proposition to contract for acreage, agreeing to buy all the hemp stalks, and in this manner relieve the farmers of the uncertainty of getting machinery to break hemp. While a number of farmers were interested, they regarded the raising of hemp as something of an experiment. Mr. Sheley wanted 300 acres contracted for to warrant the building of a breaking plant. Those who attended the meeting did not sign up for sufficient acreage, but it is believed that about 250 acres will be pledged. Mr. Sheley agreed to furnish seed at $6.50 per bushel, to be paid for when the hemp is delivered. The farmer is to furnish the land, plant and grow the crop, ret it, and deliver it to central stacks, and receive payment upon delivery. Mr. Sheley offered $15 per ton for the stalks on delivery. The price, according to Mr. Wright, is a little low, but was the best proposition which could be secured, and it provided an opportunity for farmers who desired to try the experiment of hemp raising.

A change of some importance has been made in the state fair premium list on grains and potatoes. The new list has recently been sent out to interested farmers by E. L. Luther, superintendent of farmers' institutes in this state. It includes good prizes for Rural New Yorker and Green Mountain potatoes, being a total of $78 in cash for these varieties alone. Wisconsin pedigree oats No. 1 and No. 5 carry five prizes amounting to $30, and Wisconsin pedigree rye and barley each carry eight prizes, the total value of which is $72. A total of $332 is offered in sixty different premiums on corn, including fourteen different varieties. All are some recognized type grown in this state and favorable for conditions in this state. All corn entries in the fifty-ear lot, of which there are eight varieties listed, must be selected from the 1916 crop. The revision of the premium lists on grains and potatoes is a result of the efforts of Secretary of Agriculture Norgord, to hook up the work of the agricultural department and the state fair with that of the college of agriculture. In the past the college of agriculture experimenters have been urging certain varieties for which no premium was offered at the state fair. This has not been true on corn for some years, but it has been true on some of the other grains and potatoes.

The Banker-Farmer Conference, to be held at Madison March 13th-14th, offers a program complete and interesting. Mr. J. R. Wheeler, of Columbus, president of the Wisconsin Bankers' Association, will be chairman of the meeting to be held at the stock pavilion Tuesday morning, March 13th. Dr. A. S. Alexander, J. G. Fuller and R. E. Vaughn will be the speakers at this session. There will be a box luncheon at 12:30. The afternoon session will be held in the main hall at the agricultural college, and H. J. Maxwell, of Princeton, a member of the agricultural committee of the Wisconsin Bankers' Association, will preside. This session will be devoted to discussion of alfalfa, hog cholera and general live stock topics, and the speakers will be R. A. Moore, L. F. Graber, F. D. Hadley and others. Admission tickets will be provided in the evening to Madison's annual show at the live stock pavilion. Mr. Geo. D. Bartlett, of Milwaukee, secretary of the Wisconsin Bankers' Association, will preside at the morning session, Wednesday, March 14th. The speakers will be Dean H. L. Russell, D. H. Otis, W. J. Geib, C. G. Humphrey and others. On Wednesday afternoon the delegates to this conference will take a trip through the state buildings at Madison. Any delegate who desires information on any particular topic will have an opportunity to confer with some department which will undertake to meet his requirements.

Wisconsin winters prevent leaching of the fertility of the land and render available a greater amount of plant food than in soil not subject to freezing.

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THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

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FIRST prize pen of White Wyandottes at Missouri National Egg Laying Contest, 1915-16. Hatching eggs for sale. Frances Mansfield, 173 North Indiana Ave., Kokomo, Ind.

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PURE-Bred White Rocks. Address "Kremers," Whitehall, Wisconsin.

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FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

WISCONSIN Civil Service Commission. Greenhouse man. Open to citizens of Wisconsin over 25 years of age, with at least one year's good experience. Entrance salary $65.00 per month. Address, Wisconsin Civil Service Commission, Madison, Wisconsin.

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OATS 115½ bushels per acre. Don't look about the roads and weather. They are never too bad to figure how to make extra dollars from your next year's crop. Something new. Extra Kherson and Wis. Number One oats, barley, wheat, clover. Write today for circular with prices. Grown by world's sweepstakes grower. Henry Krueger, Beaver Dam, Wis.

FOR SALE—State inspected, recleaned, Wis. Ped. barley, $1.50 per bu. Purity 96, germination 96. Wis. Ped. oats No. 1, 80c per bu. Purity 99.2, germination 93. Member Wis. Exp. Association. E. H. Mowrie, Loyal, Wis.

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WANTED—Reliable, experienced, intelligent married man for farm; good milker; no boozer or cigarette smoker need apply. Man experienced in feeding stock preferred. Must have A No. 1 references and record must show has not been shifting about from place to place. Must have your own furniture. Wages $60.00 per month. Write to Wallace Bros. Stock Farm, Lakewood, Wis.

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MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage, 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

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FARM LANDS.

NORTH Dakota in all essentials—soil climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short, yet government reports show $167,544,000 or $2,255 per average farmer. In last 7 years average farmer in North Dakota produced $1975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to pay. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, immigration agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

GET a farm home in rich corn and clover belt of Northwestern Wisconsin along new Soo Line, 50 miles St. Paul-Minneapolis. Landseekers all say: "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools. Creameries everywhere. $15 per acre and up. Map and list free. Bak 1 N-110, St. Croix Falls Wis.

FARMS bought, sold and exchanged. No matter where located I bring buyers and sellers together. If you want to Buy, Sell or Trade any kind of business or property anywhere at any price, write me. Established 1881. Bank references. Address Frank P. Cleveland, Real Estate Expert, 1605 Adams Express Bldg., Chicago.

MR. Renter, Investor, Laborer—Will sell Sec. 9, 11, 13, 15 & 25, town 12 N., R. 31 E. Rosebud county, Mont., to $15 per acre. Easy terms. Good, productive land. Wheat, Oats, Alfalfa, Barley, Potatoes. Sugar beets grow to perfection. One crop pays for land and gives you good bank account. 12 miles town on main line of M. W. & St. P. An opportunity like this seldom if ever appears. Direct owner, a farmer. P. Box 45, Mt. Hope, Wis.

FARM of eighty acres, good buildings, ¼ mile to school, 1½ miles to creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, 5 miles west of Medford, Taylor county, Wisconsin, county seat. $6,000, will take in exchange to the extent of $3,000 first-class city property. Will rent three years at $225 per year. L. A. Kimball, Lake Geneva, Wisconsin.

DON'T buy a foot of land in Minnesota, or anywhere else, till you have seen Aitkin county. No section can equal it for Dairy Land. Our Company sells directly to you at low prices and on easy terms. Our Literature is FREE. Send name and address today. ARNOLD, Land Agent, Rock Island Railway, 163 Wolvin Bldg., Duluth, Minn.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

FORTY acre farm for sale cheap, located close to town and school. Has fair buildings, about 3 acres cleared. Choice clay loam, hardwood soil. Considerable green hardwood, salable timber. Price $25 per acre. Very easy terms. A. C. Thompson, Ladysmith, Wisconsin.

GROWING fifty strains of Alfalfa on our farms. We have secured from the West two strains of seed personally inspected that will satisfy all who wish to grow alfalfa. Samples. Swartz Bros. Cornfalfa Farms, Waukesha, Wisconsin.

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UPPER WISCONSIN Clover Belt Farms grow rich 40-80 acre farms. Mile station. Good roads, schools, churches. $20-$40 acre, down; balance easy. R. J. Russell, La Crosse, Wisconsin.

SELL your farm direct and keep the big agent's commissions. No listing. No land model to deal with. You can do it. Particulars Free. Address Chas. Roesch, G. 2, Woodstock, Illinois.

WISCONSIN—65 farms, 15,000 acres, with land, Carp, dairy, clover belt. Counties Barron, Polk, Rusk, Taylor. Lowest prices. List free. L. Rivard, Turtle Lake, Wis.

354 ACRE stock or grain farm, Pierce county, 30 miles St. Paul. Large modern house, tenant house, good buildings. $100 per acre. F. D. Bailey, Prescott, Wis.

FOR SALE or exchange for well land in southwestern Nebraska, five acre farm of 760 acres, 2½ miles from town. West Allis (Perdon), Pittsville, Wisconsin.

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POTATO Growers in Vilas County raise potatoes for Texas trade. Prices guaranteed for 1917 crop. Potato farms, easy terms. Southern Company, Dept. P, Lac du Flambeau, Wis.

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Conditions easy to get biggest prize. Start early—order now. With this wonderful hatching outfit and my complete guide book for setting up and operating, you are sure of success. And with it comes my Big Catalog, "Hatching Facts", or I will send this book Free for the asking. Write me today. Jim Rohan, Pres.

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Incubators, $10 to $48. 100% hatches three consecutive times. Coal-Burning Hover, $15 International Sanitary Hover (Oil-Burning) $10.00. Model Machines Have All Latest Improvements. FREE BOOK tells all about them and gives profit-making advice of experts.
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A CHICK FROM EVERY HATCHABLE EGG. STRONG, HEALTHY, ROBUST CHICKS THAT LIVE! MAKES POULTRY BUSINESS PAY.. MATCHES NEAREST OF ALL THE NATURAL PROCESS OF THE SETTING HEN.
THE SECRET OF PROGRESSIVE BIG HATCHING RECORDS
BUILT OF GENUINE CALIFORNIA REDWOOD. Egg chambers surrounded with special insulator having hundreds of air cells, guard against temperature change. Corrugated copper hot-water heater, automatic ventilation and regulation. No dry, hot blasts to kill chicks in shell. Machines complete. Money back guarantee if not satisfied. Big Free Book explains all Special deals.
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62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 22 years exp. Large fine Annual Poultry Book and Catalog FREE. F. A. NEUBERT, Box 607, Mankato, Minn.

50 Varieties, Chickens, Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents. Theodore Franz, Box 104, Mankato, Minn.

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of quality guaranteed to 1,500 miles. Eggs for Hatching at low prices. Bar. Rocks, S. C. W. Leghorns, S. C. and R. C. Reds, W. Wyandottes, Buff and W. Orpingtons. Chicklet catalog free. GOSHEN POULTRY FARMS. R-45 Goshen, Indiana

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When writing to advertisers kindly mention The Wisconsin Farmer.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Breeding Buff Plymouth Rocks.

The following communication has been received from one of our subscribers, Mrs. L. W. Kreischer:

I am a regular reader of The Wisconsin Farmer and read the article entitled "A Few Don'ts and Whys of Mating." I am very much interested in the poultry business and advertise through the columns of The Wisconsin Farmer. I raise the pure-bred Buff Plymouth Rocks and am trying to get them as near standard as possible. Some of my birds are entirely buff and some have smoky tail feathers. How can I overcome this defect? I want to breed pure buff in color. I wish to know how to mate them so as to produce an even buff color throughout, with no mealy or smoky feathers. I had a few last year that had some mealy feathers. Now if I mate a cockerel of good, even buff color that has no smoky tail feathers with hens of good color, but which have some smoky tail feathers, will the chickens of this mating be pure buff or will they have smoky tail feathers?

Would it be desirable to mate the dark buff pullet with the light buff cockerel? Also, the light buff pullet with the deeper buff cockerel? Would the chickens of such matings be of the right good buff color? Or would it be more desirable to mate light color with light, and dark with dark? Will be pleased to receive any information you can give me on matings.

If I should mate a cockerel of good color (buff) but of rather small bone with large hens, would the chickens be large bone or would they be of light bone like their sire?

These remarks will apply to all buff varieties. We note that you have considerable trouble in keeping bronze or smoky tails from showing up too frequently. This is the most noticeable defect that breeders of buff varieties have to contend with, and naturally it is one that is somewhat hard to overcome. Our experience has been that it is very hard to get very much improvement from breeding from birds that have smoky or blackish tails. Our advice would be to select as many females from the flock as possible that show the least smokiness in tail and are of a good, even buff in all sections (not dark) and mate these with males that are perfectly free from the bronze tails, and of a nice, even shade of color throughout. Keep this mating in a nice, large yard and use their eggs only for hatching. If the males are yearling cock birds it would be all the better. If possible, it is always better to mate pullets with a good, vigorous cock bird. It is likely that females that have smoky tails, even though mated with a male that is clean, would produce a large percentage of chicks with the same defect.

You should mate the dark pullets you speak of with a light-colored cock bird that is of even shade. The light buff pullets should not be mated with any but a rich golden buff male. The correct shade of buff is a light golden, so take care not to mate dark, as that influences the smoky tails.

Regarding the mating of the good-colored cockerel which has light bone, will say that he should be mated with hens that are very large and heavy boned, and it is our opinion that the larger percentage of the chicks will be reasonably heavy boned, being so influenced by the stronger of their parents, the hen.

We occasionally see buffs with some white in their tails. Always throw them out of the flock, as it is even harder to overcome than smokiness.

You will realize that it is hard to advise how to mate without seeing or having an accurate description of the birds to be mated. However, much improvement can be made by taking care not to breed from birds that are seriously deficient in any section. Careful selection of the breeders is not to be slighted.

The Implement Blue Book Free.

THE Midland Publishing Co., St. Louis, Mo., has left over a few copies of the 1916 Implement Blue Book, one of which it offers to mail free of charge to any subscriber of this paper who will send 25 cents to pay the packing, postage, etc. The book has nearly 500 royal octavo pages and contains complete classified descriptive lists of all farming implements, tractors, tractor plows, vehicles, wagons, and kindred goods made in the United States, with names and addresses of manufacturers. —Adv.

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Wins in the Two BIGGEST HATCHING Contests Ever Held
Why take chances with untried machines when for only $11 we guarantee to deliver safely, all freight charges paid (East of Rockies), BOTH of these big prize winning machines fully equipped, set up ready for use? Why not own an IRONCLAD — the incubator that has for two years in succession won the greatest hatching contest ever held? In the last contest conducted by Missouri Valley Farmer and Nebraska Farm Journal, 2,000 Machines were entered including practically every make, style and price. With the Ironclad — the same machine we offer with Brooder freight, paid for only $11, Mrs. C. F. Merrick, Lockney, Texas, hatched 148 chicks from 148 eggs in the last contest.
30 Days Free Trial
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150 EGG ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color — you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery — hot water top heat, copper tanks and boilers, self regulator, Tycos Thermometer, glass in door, set up complete ready for use and many other special advantages fully explained in Free Catalog. Write TODAY or order direct from this advertisement.
Galvanized Iron. Asbestos Redwood Insulated Board 10-Year Guarantee
Both for $11 Freight Paid East of Rockies
MADE OF CALIFORNIA REDWOOD
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Why Pay More
For only $10 you can get these two prize winning machines, delivered, freight paid east of the Rockies. You take no risk — money back if not satisfied. You can order direct from this ad. Ask the publisher about us.
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180 Egg Incubator and 180 Chick Brooder both for only $12.75
Made of California Redwood
Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on 30 Days' FREE Trial
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Wisconsins have hot water heat, double walls, air space between double glass doors, copper tanks and boilers, self regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1917 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.
WISCONSIN INCUBATOR COMPANY, Box 100 Racine, Wis.

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CARNEAUX PIGEON BARGAIN
YOUR opportunity to get large, full-blooded, squab-breeders at a bargain. Price $2.25 per pair. Guaranteed mated and banded. Cash with order, or will ship C. O. D. Address
LAWRENCE EISENACH NEENAH, WISCONSIN

S. C. WHITE LEGHORNS
RANGE raised, bred especially for eggs; hatching eggs from 2-yr.-old hens $2 for 15; $6 for 50; $10 for 100. 200 or more $9 per 100. Day-old chicks, $6 for 25; $11 for 50; $17 for 100; 200 or more, $15 per hundred. Order early, first come first served. Green Wood Poultry & Egg Farm, R. 5, West Allis, Wisconsin.

WANTED—PURE BRED POULTRY AND EGGS
FOR hatching in large lots. Will buy cockerels, hens and pullets in many varieties. Whole flocks bought, also pigeons. Describe what you have, quality and lowest price. Z. G. McKay Clinton, Iowa

HATCHING EGGS
FROM standard bred laying stock $1.50 per 15 or $7.50 per 100 eggs, and $2.50 per 15 or $10 per 100 eggs. Our flock is bred from high-class exhibition stock. Winnebago Poultry Yards, R. 23, Omro, Wis., A. J. Schloerb, Manager.

SINGLE COMB WHITE ORPINGTON
CHIPPEWA Hardy Nothern. Twenty-seven cockerels for sale from $2 to $25. Free mating list 1917 completed. Chippewa Orpington Farm, A. L. McDonald & Son, Office 722 Superior St., Chippewa Falls, Wisconsin.

64 BREEDS Fine, pure-bred Chickens Ducks, Geese and Turkeys. Fowls, Eggs, Incubators at low prices; catalog free. R. F. Neubert Co., Box 804, Mankato, Minn.

58 BREEDS Fine Pure-bred Chickens, Ducks, Geese, Turkeys, Guineas, at low prices. America's Finest Poultry Farm. 8000 Prizes. Large Catalogue 4 cents. A. A. ZIEMER, Box 15 AUSTIN, MINNESOTA

MONTANA—Cheap lands. Easy terms. Literature, maps, etc. Joe W. Fulmer, Immigrat'n Agt. C. M. & St. P. Ry. Co., Harlowton, Mont.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

BARRED Plymouth Rocks and eggs. Farm raised; bred for beauty and utility. Cockerels $3 to $7; pullets $2 to $4. Double mating, state if dark, light, or medium birds are wanted. Carter's Plymouth Rock Farm, Jonesdale, Wis.

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FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R.E.Daly Poultry Farm, Necedah, Wis.

ARISTOCRAT Silver Wyandottes. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C.White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns. $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

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World's Greatest Egg Producers. Eggs or Chicks. Cir. Free. Will Schadt, Box 1061 Goshen, Indiana.

KULP'S 242-EGG STRAIN ROSE COMB
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HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

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SOME extra large, choice, heavy-boned Mammoth Bronze turkey toms and hens. Stock for sale, prices reasonable. O.C Olson, R.2, Strum, Wis.

ROCKS—Pure-bred White and Barred. Day-old Chicks, hatching eggs. Early hatched cockerels reasonable. Mrs. J.F. Bloom, Route 1, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box F, Lancaster, Missouri.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

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THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Planning and Equipping the Farm Home.

Building, decorating and equipping a home calls for a deal of planning, foresight and ingenuity. Knowledge of how to use the available materials and how to handle the supply of money to obtain the maximum of comfort, beauty and convenience is the main factor. Many an old farmhouse has been "done over" along strictly modern lines at an expenditure of only a fraction of what a new one would cost, but it takes thought and time.

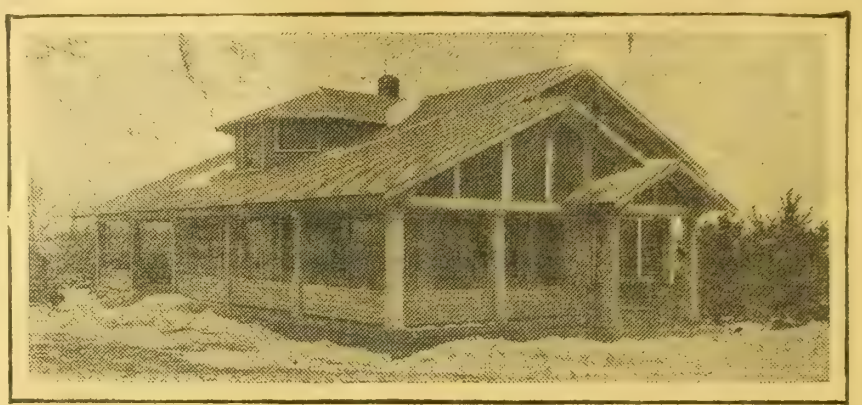
Whether it is to be a new house or a remodeled old one, the housewife should do her share of the planning, for this is her workshop, and who knows better than she the arrangement that will suit her best? What man would permit another totally unfamiliar with his business operations to map out his work for him, build his shop and supply his tools without consulting him?

The home should be as beautiful, as sanitary, as time and labor-saving as is possible to make it. A sunny, airy, well-arranged house will furnish the basis for a true home. Don't sacrifice a window for wall space—furniture can always be made to fit a room, if not one kind then another, and if the room is right then the furniture that fits it will be right also. If a door can be cut to save steps, put the door in; rarely will it mar the appearance of the room. Of course, there must be system in the planning of a new house or the making over of an old one. Things done in a haphazard manner will not bring satisfaction, but sensible changes may oftentimes be made, thereby adding to the comfort of living.

Once the house itself has been made to conform to one's needs, the furnishing and decorating is the next step, and to the home lover this is a joy. The selection of paper or other wall decorations, the making and hanging of curtains and draperies, the choosing of carpets and rugs, the arranging of pictures and furniture only means the working out of one's ideals in homemaking. Harmony, convenience and comfort are the essentials. The ideal home is the home where each room, through color, decoration and furnishings, exerts a peaceful, restful influence on the occupants.

Furniture should be chosen with due regard to the environment in which it is placed. For instance, one might choose a beautiful piece of furniture and yet place it in unsuitable surroundings. Furniture, first of all, should be strong and comfortable and serve a distinct purpose. That which is placed in a room solely as an ornament is not only in bad taste, but adds to the labor of caring for the house as well. If a woman tries sincerely to arrange her house according to this idea of adaptation to use, she need not worry about its being "pretty." She may not be rich enough to have expensive things, but if she uses harmonious colors for her walls, floors and upholstery, and chooses furniture for its good design and comfort rather than for its ornamentation, her house can hardly fail to be restful and attractive. This does not mean there should be no ornamentation, for it is just as easy to carry the idea of simplicity too far as it is to overdecorate a room. For example, a chair is not necessarily beautiful, comfortable, or easy to take care of merely because it is made up of straight lines. On the contrary, such severely plain furniture is often both awkward looking and uncomfortable. Too many useless ornaments in a room undoubtedly give it an overcrowded, restless look, and have a further disadvantage in making unnecessary work in cleaning. On the other hand, no ornaments at all would make it seem bare and unfriendly. The sensible woman steers between the two extremes and uses a few ornaments, chosen because they are useful things in especially beautiful form, or because they represent the artistic interests of the family, or have the intangible, but none the less real, value of personal association.

Not the least of all this planning should be done in the kitchen. Here, surely, if anywhere, the housewife should take charge. None know better than she the soul-trying effects of a badly arranged, poorly equipped kitchen. Let this room be well lighted and well ventilated, the walls a light and cheerful shade, the curtains sheer and dainty. And don't have the kitchen too big. Some of the most convenient and up-to-date kitchens are small 8x10 and 10x12 affairs, and the space is utilized in such a way that not an unnecessary step is taken. Leave the separate pantry out of your calculations. They are work makers. They necessitate running back and forth between work table and supplies. A kitchen cabinet takes the place of the pantry today. Here you can store all your supplies—flour, sugar, spices, cereals; here is cupboard room for bowls and pans; here are drawers for small utensils such as spoons, knives, tea towels, etc.; here is your molding board; in fact, everything is at hand, so that all the tiresome running to and fro is eliminated.



The bungalow type of house is coming into favor with the farm women who are endeavoring to minimize their household duties.

It is only a step in this well-arranged kitchen from sink to cabinet or stove (which is on the side of the room opposite the sink and not shown in the picture). Plenty of light is furnished by wide windows above the work shelf, and inlaid linoleum on the floor makes scrubbing easy.

Running water is taken for granted nowadays in the farm kitchen. Have a drainboard on each side of the sink, so that dish washing is made easy. And don't forget a high kitchen stool, a fireless cooker, a wheel tray, an oil or gasoline stove. If there is space for built-in cupboards and broom closets they will never come amiss. Cover the floor with linoleum (it is so easy to clean) or leave it plain hard wood. Put as much convenience and comfort in the kitchen as possible. A little extra expense in labor-saving equipment will pay so handsomely in the end.

Uses For Coarse-Ground Wheat.

To the Editor:—I was surely surprised to see in a report from the home economics experts of the department of agriculture that they have just learned (as I have known for several years) about using coarse, home-ground wheat for breakfast food, etc.

Away back in December, 1915, I gave a recipe for making buckwheat pancakes and also said that coarse-ground wheat was the best substitute for buckwheat that we had ever found, but I did not say that the wheat did not need raising overnight as the buckwheat did. Just mix up the wheat (after sifting in a fine corn-meal sieve) in sour milk, putting in half as much fine wheat flour as you have of the coarse. Then put in a proper amount of soda and stir well and bake. For breakfast food use the same coarse-ground wheat the same as for the pancakes, only do not use any fine flour in this case. Sift the same as for the pancakes with a fine corn-meal sieve or a coarse flour sieve. Boil some water in a low, flat kettle, the amount depending on the size of the family, and stir in the wheat. Keep stirring and boiling about fifteen minutes. Prepare it just as you would corn meal mush to eat with milk or with butter and sugar, and your breakfast food is ready to serve to yourselves or the president of the United States. Served with sugar and cream it is equal to any you can buy.

The same coarse wheat with one third fine flour makes fair graham gems, but remember to sift it well to take out the coarse bran.

Most any community has a mill that will grind it, and most any good feed mill that grinds feed for stock will grind it, and if a bushel of corn is run through first it will be clean, too. Any good, plump, clean wheat the same as you would use for flour for bread is all right for pancakes, breakfast food or graham gems and is just as clean without washing or grinding in a coffee mill. A. L. Foote.

Black Spots on Hominy Objectionable.

To the Editor:—I have always been a silent reader of your paper and have had some very good helps from it. I am so interested that I cannot read in silence any longer.

The butchering lesson in your paper this winter was very useful and well worth a year's subscription to anybody not knowing how to care for meat. I have used recipes something the same and I know they are good, because I never could keep meat perfectly until I used them. I have kept your recipes, so I can use them for the spring butchering, as we have a large family of ten and expect to kill four or five hogs. I have canned fifty-three quarts of beef, and this is such a nice way to care for the summer beef, as we like it better than fresh beef.

Well, I got so interested in this

meat question I nearly forgot the question I was going to ask you to put in the paper for me. We like hominy so well, and I have a time getting the black ends to leave the kernels. I wish some of the readers could tell me how they make nice, white hominy, and how they get rid of the black ends.

I also wish someone would send a good soap recipe, as I will have lots of soap to make this spring. I would like to know how homemade soap can be kept white, if it can be done at all. Mine is just as white as can be when I make it, but when it is dried it always turns a dark color. Will sulphur whiten the soap and clothes or not? If any one has used it, can they tell me how much to use? I never have used it, but I have seen recipes where sulphur was one of the ingredients. Mrs. S. Freimuth.

Cauliflower Pickles.

To the Editor:—Will someone kindly tell me how to make plain and mixed cauliflower pickles without oil? We do not like those in oil and I can find no recipe for them the other way, although I have had homemade ones without oil years ago before I ever expected to be where I could raise my own pickling stuff.

Will someone also tell me how to make sweet spiced cucumber pickles? I want to have my recipes ready for the pickling season. Mrs. M. C.

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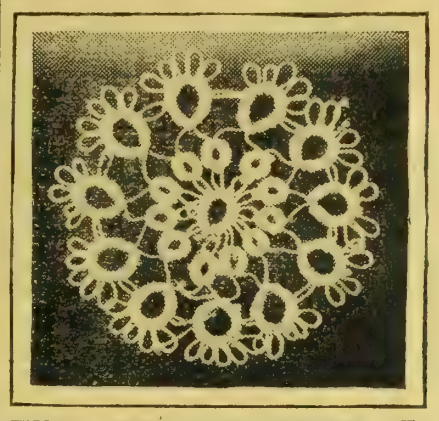
Tatted Wheel For Doily.

This single-thread wheel makes the prettiest of doilies, or, if made of No. 15 thread, three or four wheels may be joined together and set in on a linen table runner, using half wheels for the ends.

The center is twelve picots, separated by 2 d. s., close and tie securely. Large wheel of 6 d. s., 1 p., 3 d. s., 5 p. with 2 d. s. between; 3 d. s., 1 p., 6 d. s., close. Leave short thread and make small ring of 6 d. s., close; leave short thread and make large ring as before, joining at first picot; leave short thread and make ring 6 d s., join to 2d p. of center ring, 6 d. s., and close. Proceed until you have twelve large and twelve small rings around the center one; tie securely and cut threads.



WHEEL FOR TABLE RUNNER, PILLOW TOP, DOILIES, ETC.

Hulled Corn With Soda.

To the Editor:—In answer to a request from one of our number for hulled corn with soda I am sending my recipe. Cover the shelled corn with hot water and let it stand overnight. In the morning drain this water off, cover again with warm water and put on the stove. For each quart of corn add one tablespoonful of soda and boil until the hulls come off readily. Then wash in clear water, rubbing off the hulls with the hands or a whisk broom. When as clean as you can get it, put it on the stove in cold water and let come to a boil. Let boil a few minutes, then drain. Repeat this until the soda taste is gone. Then boil until very tender, adding salt. When done the water should be about boiled away, leaving a jellylike substance when cold, but care should be exercised not to scorch, as that would spoil it. Dollie Merrill.

Quilting Patterns.

To the Editor:—I wonder if some of the readers can give us any new quilting patterns? I have several quilts I wish to quilt this spring and do not want the same pattern for all. I have the diamond pattern, but no others. If someone could send in some diagrams it might help a number of those who are going to do quilting this spring. A Reader.

Recipes.

Delicious Winter Pudding.—One cupful suet, one cupful molasses, one cupful cold water, three cupfuls flour one cupful currants, one teaspoonful cinnamon, one-half teaspoonful each cloves, allspice and salt, one teaspoonful soda. Mix the dry ingredients together, add currants and suet. Then add molasses and cold water mixed together. Poul in a buttered mold and steam two hours. If steamed in custard cups, the time required will be thirty minutes. Serve with sauce made as follows. Two tablespoonfuls flour, one-half cupful sugar, one cupful water, one teaspoonful vanilla and one tablespoonful butter. Mix flour and sugar, add water and butter and let cook until it thickens. Then add vanilla.

Crown Roast of Lamb.—Select parts from two loins containing the ribs; scrape flesh from bone between ribs, as far as the lean meat and trim off the back bone. Roll meat into a circle to form a crown, sewing ends together. The butcher will prepare this when meat is purchased, if asked to. Trim ends of bones even and bind each bone with a thin piece of fat salt pork, or cover them with buttered paper. For small roast allow about fifty minutes for roasting. Remove covers from bones before serving and cover with paper caps, if desired. Fll the center of roast with mashed potatoes or peas. Be sure ribs are separated at points, before roasting, so they may be easily served.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

A New Game.

Dear Young Folks:—I am an interested reader of the Young Folks' page so I thought I would do my best in writing a letter. I am a girl twelve years old. I live on a farm of 360 acres.

Blue Eyes wanted to learn some new games, so I will tell her one we play. We call it "Fairy Godmother." One player is the fairy godmother and she has a number of parcels. Another is a gnome who is blindfolded and has a cane. All who are playing form in a circle. The gnome and the fairy godmother are inside the circle. The circle marches around until the gnome knocks the floor with his cane. Then the fairy godmother points to somebody and that one walks up to take a parcel and says, "Thank you." If the gnome can guess who it was that said "Thank you" he cannot keep the parcel. The game goes on in this way as long as you wish to play it. —Edith.

Went to Stock Show.

Dear Young Folks:—As I have always enjoyed your letters I think I should write to you.

When my father shipped two loads of cattle and one load of hogs to Chicago this winter he took me along to see the live stock show. We reached there Wednesday noon at 12:30. We had lunch, and say, but I was hungry. We first went to see our cattle sold and then went to see the show. It surely was great. We thought our steers were good, but they were nothing like the show cattle. The champion was a college steer from California. Now I am feeding a steer and if it ever gets as good as that one you will hear from me again. —Cecil.

A Santa Claus.

Dear Young Folks:—One day I was visiting at my uncle's. They had a little kitten that had strayed there some days before. At night they put the kitten out of door and during the night it climbed up on the roof of the house and came down the chimney.

My uncle put the fuel in the stove in the evening, ready to light the next morning. When he started to light the fire he thought he heard a noise in the firebox. It sounded like a kitten. So he dropped his match and looked into the firebox, and, sure enough, there was the kitten. They gave it the name of Santa Claus because it came down the chimney just before Christmas. —Melva.

Answers Leonard's Riddle.

Dear Young Folks:—I am a girl nine years old. I live in the country about six miles from town. I have one brother five years old. We go to school every day. We have about a mile to go. We have nine little calves and my brother and I enjoy feeding and playing with them. I am going to have a garden next spring and plant vegetables in it. I can make pies and cakes.

The answer to Leonard's riddle is a wagon, because it has a tongue but cannot talk, and it runs but cannot walk. —Helma.

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1639—A dainty dress for party or best wear. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 6 requires 3⅛ yards of 44-inch material, with 1⅜ yards of 27-inch material for the bolero and collar.

2029—A pretty night dress in "slip on" style. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust

measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. A medium size will require 6 yards of 36-inch material.

2007—Girls' one-piece dress, with sleeve in wrist or elbow length. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¾ yards of 36-inch material for a 6-year size.

2013—Ladies apron dress—Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches

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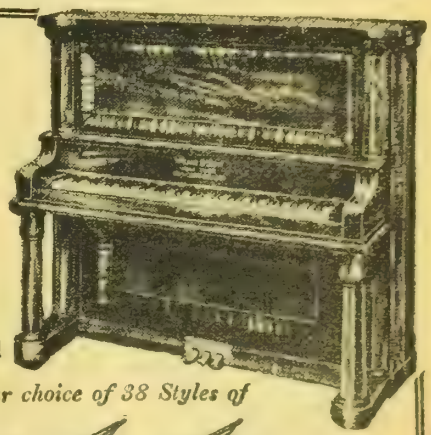

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bust measure. It requires 5 yards of 36-inch material for a 34-inch size.

2011—Children's dress, with sleeve in either of two styles. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2¼ yards of 36-inch material for a 3-year size.

1720—A smart, but simple dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 will require 6 yards of 44-inch material.

1748—Ladies' dressing sack. Pattern is cut in 3 sizes: Small, medium and large. It requires 3⅝ yards of 36-inch material for a medium size.

Waist 2008-Skirt 2010—A smart and serviceable dress. Waist 2008 and skirt 2010 are both cut in 3 sizes: 16, 18 and 20 years. It will require 6¾ yards of 36-inch material to make skirt and waist of one material in a 16-year size. Two separate patterns, 10 cents for each pattern.

1829—A smart frock for mother's girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¾ yards of 36-inch material for an 8-year size.

1774—A smart, but simple gown. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42, and 44 inches bust measure. It requires 7¼ yards of 36-inch material for a 36-inch size.

Waist 2035-Skirt 2020—A gown with new style features. Waist pattern 2035 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt pattern 2020 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 4 yards of 44-inch material for a 24-inch size, for the skirt. The waist requires 2½ yards of 44-inch material for a 36-inch size. Two separate patterns, 10 cents for each pattern.

1710—A neat apron for work or play. Pattern is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires 2¼ yards of 36-inch material for a 6-year size.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Jesus the Bread of Life.

LESSON TEXT—John 6:24-37.

GOLDEN TEXT—Jesus said unto them, I am the bread of life.—John 6:35.

Following the feeding of the 5,000, Jesus saw the design of the multitude (v. 15), and separated himself unto prayer. Following that communion, the disciples went over the sea toward the City of Capernaum (v. 17), but in his supernatural power he followed them, walking upon the water (v. 19). Midway he entered their ship, and immediately they reached the land toward which they had been striving (v. 21; Mk. 6:48-49). The next day (John 6:22) the people who at this period were following him in such great multitudes, took steps to reach him. Finding that he was not at their side of the lake, they took boats and came to Capernaum, "seeking for Jesus" (v. 24). We read that the common people heard him gladly. These people wanted the comradeship of Jesus, and the longest bread line in the world today is that of hungry-hearted men. The question is, are we willing to give them the loaves of comfort?

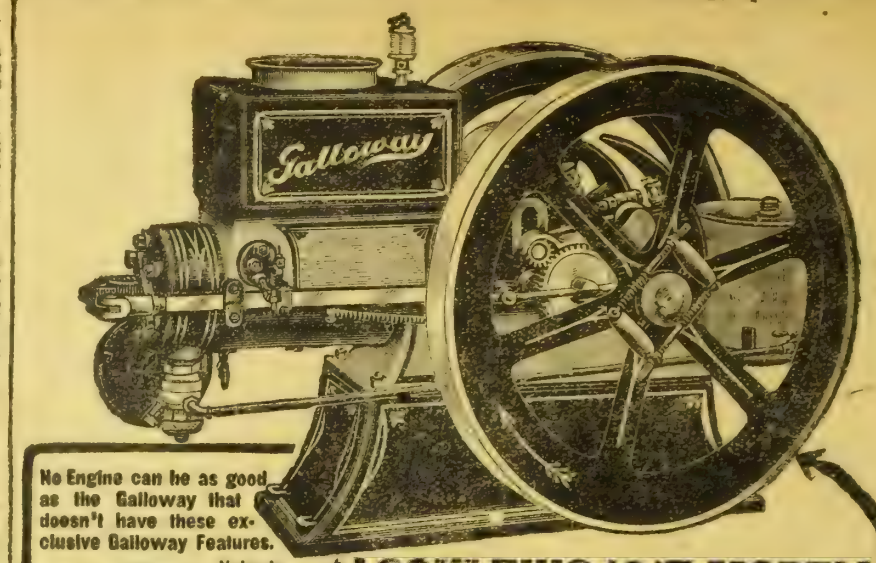
I. Bread Which Perisheth (vv. 23-24.) "If you think you will always get the loaves and fishes simply because you have followed the Lord, you have handed yourself a goldbrick."—Dr. Griffin Bull. Most of us will go further for victuals than we will for a vision. When the people found Jesus (v. 25) they rather reprimanded him for leaving them, when the fact of the matter was that he was not beholden to them in any sense whatsoever. It looks very well for these people to be "seeking Jesus," but they were seeking the wrong thing (v. 26). It was not really Jesus himself they wanted, but the loaves and the fishes. It was not the "sign" as indicating his divine character that drew them, but simply the wonder as indicated by the fact that they expected a constant supply of bread, nor did they see in that bread the sign but only the bread.

Salvation is the free gift of God apart from works. Nevertheless he commands the exercise of will. "This is the work of God that ye believe on him whom he hath sent" (v. 29). This is not inconsistent with I Cor. 12:3, l. c., "No man can say that Jesus is the Lord, but by the Holy Ghost." Like the two blades of a pair of shears, the executive act of my will in believing on Jesus is met by the regenerating energy of God's spirit making me a son of his.

The Jews demanded a sign as a condition of believing on him, when he, himself, was the greatest of all signs (v. 36). They sought to enforce their demands by reference to Moses and the manna, but Jesus showed them that the manna was a type of "the (true) bread of God." The characteristics of this bread are: (1) It comes down from heaven; (2) It giveth life unto the world. Jesus' hearers did not understand what he meant, and exclaimed: "Evermore give us this bread." Jesus was trying to impress upon his hearers the same diligence in heavenly matters as in the pursuit of earthly meals.

III. The Everlasting Bread (vv. 35-37). Misunderstanding his teaching (v. 34) Jesus said unto them plainly: "I am the bread of life," meaning that he is the true bread of God. He is not only the giver of the bread of life, but he, himself, is the Bread of Life. As bread will satisfy the needs of the physical body, giving strength, vitality and energy, so he will supply the needs of the soul. He will satisfy the deep hunger and longing which is the evidence of need, and he will also satisfy the thirst, which is the more intense desire, the spiritual craving of the soul. Jesus ministers to the never-failing strength of all who come to him and who believe on him. Coming to him is seeking help and blessing from him. Believing on him is an absolute abandonment of self to him. This multitude had actually seen the living bread (v. 36), yet they believed not because they were so occupied with the material and unreal things of this world.

The old struggle with dry cornstalks will soon be on again and the question comes up whether these should be raked up and burned or plowed under. One should hesitate about burning them because the land needs the vegetable matter which results from their decomposition. If the surface is given a good disking with a sharp disk and the work is done crosswise of the way that the stalks are harrowed down this will generally make them fine enough so that they will plow under and not give much trouble during cultivation. It would be a good thing if all land were plowed an inch or two deeper, because, among other things, that would put the stalks down where they belong.



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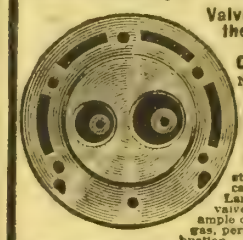

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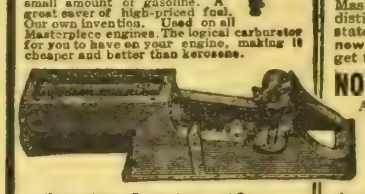

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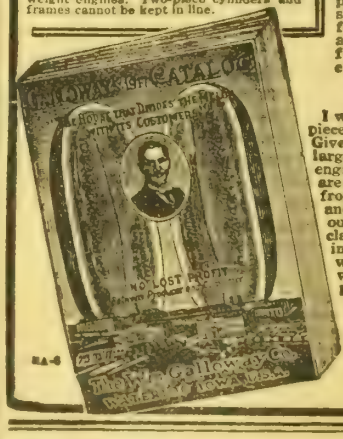

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PART IV--One Squaw Man.

CHAPTER VII—Continued.

The praise seemed a very little thing to her. Her bravado was over; she felt as if she must cry if they did not leave her alone. Of what use were words, if he should never come back--never know that he was cleared of suspicion? If they had so many kind words now, why had they not found some for him when he needed them? She did not know the uncompromising surliness that made him so difficult of approach to many people, especially any who showed their own feeling of superiority, as most of them did, to a squaw man.

She heard that term from the Major, a moment after he had shaken hands with her. He had asked what were the other suspicions mentioned against Genesee; she could not hear the answer—they had moved a little apart from her—but she could hear the impatience with which he broke in on their speech.

"A squaw man!—well, what if he is?" he asked, with a serene indifference to the social side of the question. "What difference does it make whether the man's wife has been red, or white, or black, so long as she suited him? There are two classes of squaw men, as there are of other men on the frontier—the renegades and the usual percentage of honest and dishonest citizens. You've all apparently been willing to understand only the renegades. I've been along the border for thirty years, and some of the bravest white men I've ever seen had Indian wives. Some of the men whose assistance in Indian wars has been invaluable to us are ranchmen whose children are half-breeds, and who have taught their squaws housework and English at the same time, and made them a credit to any nation. There's a heap of uncalled-for prejudice against a certain class of those men; and, so far as I've noticed, the sneak who abandons his wife and children back in the state, or borrows the wife of someone else to make the trip out here with, is the specimen that is first to curl his lip at the squaw man. That girl over there strikes me as showing more common sense than the whole community; she gave him the valuation of a man."

The Major's blood was up. It was seldom that he made so long a speech; but the question was one agianst which he had clashed often, and to find the old prejudice was so strong a factor in the disorganizing of an outpost was enraging.

"And do you realize what that man did when he took that trail north?" he demanded impressively. "He knew that he carried his life in his hand as surely as he carried that body. And he went up there to play it against big odds for the sake of a lot of people who had a contemptible contempt for him."

"And cursed us soundly while he did it," added one of the men, in an aside; but the Major overheard it.

"Yes, that's like him, too," he agreed. "But, if any of you can show me so great a courage and conscientiousness in a more refined citizen, I'm waiting to see it."

Then there was the quick fall of hoofs outside the shack, hurried questions and brief answers. One of the scouts from the north ridge rushed in and reported to Major Dreyer.

"A gang o' hostiles are in sight—not many; they've got our horses. Think they carry a flag o' truce, but couldn't spot it for sure. They're not a fighten' gang, anyway, fur they're comen' slow and carryen' somethen'."

"A flag of truce? That means peace. Thank God!" said Tillie, fervently.

"And Genesee," added the Major.

As for Rachel, her heart seemed in her throat. She tried to speak, to rush out and learn their message, but she could not move. An awful presentiment bound her. "Carrying something!"

CHAPTER VIII.

"When the Sun Goeth Down."
"Opitsah!—Klahowya."

THEY brought him—his dark, sad-faced brothers—bearing him on a bed of elastic poles and the skins of beasts; and walking through the lines of blue-coats as if not seeing them, they laid him on the floor of the shack, and grouped themselves clannishly in one corner, near his head. Stuart knelt with trembling hands to examine the cruel wound in the throat, and turned away, shaking his head. He could not speak. There was a slow, inward hemorrhage. He was bleeding to death.

"Determination has kept him alive," decided the Major, when the spokesman of the Kootenais told of the shot on the mountain, and how they had to carry him, with Snowcap in his arms, to the wigwam of Grey Eagle; of the council through which he kept up, and then told them he would live until he reached camp—he was so sure of it! For the body of Snowcap he had asked the horses left in the gulch, and was given them—and much more, because of the sorrow of their nation. He did not try to speak at first, only looked about, drinking in the strange kindness in all the faces; then he reached out his hand toward Rachel.

"Opitsah!" he whispered, with that smile of triumph in his eyes. "I told you I'd live—till I got back to you;" and then his eyes turned to the Major. "I got a stand-off on the hostilities—till your return—inside my coat—I wrote it." He ceased, gasping, while they drew out the "talking paper" with the mark of Grey Eagle at the foot, and on it also were their murderous stains.

"You—treat with them now," he continued, "but be careful. Don't shirk promises. They're easy managed now—like a lot of children, just because they shot me—when I was carrying Snowcap home. But they'll get over—that, and then—be careful. They were ready for the warpath—when I got there."

He saw Captain Holt not far from him, and through the pallor of his face a faint flush crept.

"Well, I've come back for my trial," he scowled, with something of his old defiance; and the Major knelt down and took his hand.

"That's all over, Genesee," he said gently. "It was a big mistake. There is not a soul here with anything but gratitude and admiration for you. It was your own fault you were suspected; Miss Rachel has explained. Why did you not?"

He did not answer—only looked at her, and seemed gathering his strength for some final effort.

"I want someone—to write."

He was still holding Rachel's hand. She had not said a word; only her eyes seemed to tell him enough.

Stuart came forward. "Will I do, Jack?"

Jack nodded, and more than one was astonished at the signs of grief in Stuart's face. Rachel was past speculation.

"This lady here," said Genesee, motioning to her, "has done a heap for me—more than she knows—I reckon—and I want—to square things."

Rachel attempted to speak; but he raised his hand.

"Don't," he whispered. "Let me say it—tillikum." Then he turned to Stuart. "There's a bit of ground up in the hills; it's mine, and I want her to have it—it's Tamahnous Hill—and the old mine—write it."

She thought of that other woman, and tried to protest. Again he saw it, and pressed her hand for silence.

"I want her to have it—for she likes these hills, and—she's been mighty good to me. No one will interfere—with her claim—I reckon."

"No one shall interfere," said Stuart, toward whom he looked. Genesee smiled.

"That's right—that's all right. She won't be afraid of the—witches. And she'll tell you where I want to go—she knows." His voice was growing fainter; they could see he was almost done with the Kootenai valley.

"In my pocket is something—from the mine," he said, looking at Rachel; "it will show you—and there's another will in the bank—at Holland's—it is—for Annie."

Stuart guided his hand for the signature to the paper. Stuart wrote his own, and Hardy followed, his eyes opening in wonder at something written there.

A slight rustle in the group at the door drew the Major's attention, and a young face coming forward made him turn to Stuart.

"I had altogether forgotten that I brought someone from Holland's for you—a boy sent there to find J. S. Stuart. I knew it must be C. S. Stuart, though, and brought him along."

A dark-faced little fellow, with a sturdy, bright look, walked forward at the commander's motion; but his wondering gaze was on the man lying there with such an eager look in his eyes.

"This is Mr. Stuart," said the Major, and then turned to Genesee.

The Stuart's face was white as the wounded man's as the boy looked up at him, frankly.

"I'm—I'm Jack," he said; "and mamma sent a letter."

The letter was held out, and the boy's plucky mouth trembled a little at the lack of welcome; not even a handshake, and he was such a little fellow—about ten. But Stuart looked like a man who sees a ghost. He took the letter, after a pause that seemed very long to the people who watched his strange manner. Then he looked at the envelope, took the boy by the arm, and thrusting the Major blindly aside, he knelt by Genesee.

"This is for you, Jack," he said, motioning the others back by a gesture—all but Rachel—that handclasp was so strong! "and your namesake has brought it."

"Read it," and he motioned Rachel to take it; "read me Annie's letter."

She read it in a low tone—a repetition of that other plea that Jack had left with her, and its finale the same longing request that her boy should at last be let know his father. Stuart was in tears when she finished.

"Jack," he said, "ten years is a long time; "I've suffered every hour of them. Give me the boy; let me know you are agreed at last. Give Annie back to me!"

Jack raised his hand to the bewildered boy, who took it reverently.

"You are Annie's boy?" he whispered; "kiss me for her—tell her—" And then his eyes sought Stuart's—"I held them in pawn for you. I reckon you're earnest enough now—to redeem them. What was that verse about—giving back the pledge when—the sun goes down? You read it. Mother used to read it—little mother! She will be glad, I reckon—she—"

Stuart was sobbing outright, with his arms about the boy. Rachel, with the letter in her hand, was as puzzled as those who had drawn out of hearing. Only the Indians stood close and impassive. Jack, meeting her eyes, smiled. (To be continued.)

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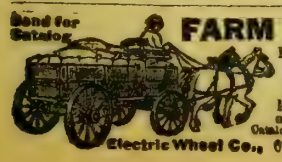
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Ailing Animals.

Caked Udder.

Please tell me the best remedy for a cow with caked udder. She was fresh about three months ago and the swelling was all gone, but now she is swollen again.

Apply camphorated oil to the affected parts once or twice daily. See that the cow has a good bed at night so the udder can rest easy. If the trouble persists then give three times daily the following: Fluid extract of phytolacca, two drams, and nitrate of potash, one dram. Give this as drench.

Affected Eyes.

I have a ten-year-old mare that is bothered with her eyes. In the summer time she is all right and we cannot see that her eyes bother her at all, but in winter she gets spells in her eyes. Can you tell me what causes this? I had her examined by a veterinarian last winter and he gave me something to put in her eyes, but it did not help and this winter she has those same spells again.

From the limited description you have given of the case it would be hard to say what the trouble can be. We would not care to prescribe unless a better description was given.

Scrotal Fistula.

I had a colt castrated last spring and afterward it got a sort of fungous growth about the size of a man's fist. We had a veterinarian remove the bunch, which nearly took the life of the colt. He is now looking fine, but has still a little opening from which matter runs at times. Can you tell me what to do for it?

The first condition was that of schirrhus cord. It may be that the operator did not get quite all the diseased tissue the first time, as it is sometimes difficult. About the only way out of the difficulty is another operation.

Poor Quality of Milk.

We have a Jersey cow that calved November 20th. For five weeks her milk was all that could be desired. Then we noticed a decided falling off in the quality of the milk, but the quantity is as before. She will leave hay to chew cobs and pick over the manure from the horse barn. Have been feeding corn and mixed clover and timothy hay. She seems to be in good health though a little thin. She has no cough. Would appreciate any help you can give us, as we never had anything like it before.

This trouble may be because of the cow neglecting her better feed for poorer feed. This animal seems to crave something in the cobs and manure. Give her some bran and chops and a small amount of salt each day and see if she doesn't improve.

Rheumatism.

I have ten head of Poland China gilts. I was feeding them all the good alfalfa hay they wanted in a rack, a little slop (about one pound of bran and one to one and a half pounds of meat meal) in the morning and about three or four good ears of corn at night. They were all bred in December. Three weeks ago one of them was seriously lame in the left fore quarter. I removed her to a separate lot. Her bowels were in excellent condition, her nose moist and she ate with a good appetite and has continued in the same way ever since. After she had been lame in the left fore quarter for about ten days she got better and then the trouble changed to the right fore quarter and the left seems all right. She comes out at feed time, but lies in the nest quite a bit. The lame shoulder seems to hurt her when she is moving around and she goes on three feet. I believe this is a case of rheumatism, although I have never seen it in hogs before. These gilts are all pure breds and were given the double treatment for cholera before they were weaned. This gilt has been bred about five weeks now and I believe is with pig. What do you think ails her and what should be done to aid her to get well?

Provide good quarters and administer some laxative and also laxative food. Give one-half dram doses of salicylate of soda in slop every four hours for a short time. The outcome of the disease is uncertain and if the animals are in butcher condition they should be disposed of several days after the cessation of the symptoms of an attack.

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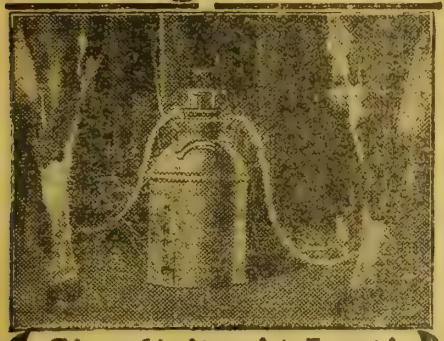


Simplicity At Last!

Milks like the farmer milks—natural, easy motion.

The **Shippert Valveless Milking Machine** does the work safely and does it right. Very small gas engine runs everything, easier to install, less to take care of, easier to run and more sanitary than any other. Milks faster—cleaner; direct into the can. Those old objections to milking machines now eliminated. Just takes the milk out so easily—*for it's valveless!*

Write
for My Personal Letter

Now the time has come for every progressive farmer to investigate. You have been waiting for the milking machine that works like nature. Write for my personal letter explaining everything. No obligation. *I am making a very, VERY special introductory offer just now.*

Warren A. Shippert, Box C, Dixon, Illinois

Bad-Tempered and Why?

Cows are sensitive animals and form habits easily. Many a good cow has become "mean", through some irritating udder sore left to heal itself. Save the cows' disposition and serious danger by using Bag Balm, the great healing ointment, at the first sign of caked bag, inflammation, chafing, sore, chapped or injured teats. A great antiseptic healer for any scratch, bruise or cut.

Sold in generous 50c packages by feed dealers and druggists. Write for useful free booklet, "DAIRY WRINKLES."

DAIRY ASSOCIATION CO., Lyndonville, Vermont

BAG BALM

MADE BY THE COW-KURE PEOPLE

TABER LINED SILO

Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.

The latest improved Silo. A woodstave Silo; choice of lumber. Entire Silo creosoted. Special paint for outside. Acid-Proof Lining for coating inside after erection. The finest door and door frame on the market.

Special Galvanized Steel Octagon Roof—best manufactured.

Write Dept. D for Catalogue

Manufactured by

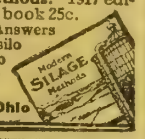
TABER LUMBER CO., KEOKUK, IA.

ESTABLISHED 1855

AGENTS WANTED IMMEDIATELY.

"How To Feed Silage" FREE

Send for 36-page birds-eye on handling silage—a chapter from "Modern Silage Methods." 1917 edition of this book 25c. 284 pages. Answers all silage or silo questions. Ohio Silo Filler Catalog FREE.



The Silver Mfg. Co., Box 312 Salem, Ohio

25 CENTS CALF RENNETS

We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address THE MARSCHALL DAIRY LABORATORY Madison, Wis.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information. HOMESTEAD COMPANY Engraving Dept. Des Moines, Iowa

OUR DAIRY DEPARTMENT

ALL communications relating to dairy matters should be addressed to this office. Inquiries of general interest regarding dairy management and production will be promptly answered.

Care of the Heifer at Calving Time.

To the Editor:—The first parturition is a critical period with the heifer because at this time she may be easily spoiled. Some of the worst kickers I have ever known have been made so by being handled in a wrong manner during the first lactation. I have broken a good many heifers to milk and have never spoiled any of them. The person who does the milking at this time should have infinite patience and forbearance. He knows the heifer is pretty sure to kick when he goes to milk her and he must not permit the fact of the kicking to excite him in the least. I have always followed the practice of standing by her side trying to milk her with one hand and caress her with the other. The milk is a secondary consideration and it does not matter if it goes onto the ground. The chief point is to accustom the heifer to being milked.

When the heifer sees that her kicking does no good she will little by little give it up. But the milker generally gets several kicks before this stage is reached. His compensation comes afterwards in having a cow that never kicks. As I have never failed to attain that end I have great faith in the process.

Those who have had experience in handling dairy cows know that until about the fourth week after calving the cow does not come to her highest and best flow of milk. During these first few weeks of the lactation period I do not give her all she will eat and a part of the ration is of a laxative nature. I usually place her on full feed at the end of a month at which time the flow of milk is generally at its best.

The heifer, however, with her first calf may not come to her fullest and best flow until the fifth or sixth week after calving, owing to the fact that bringing forth young for the first time is a more severe physical strain than later in life, hence a longer time for recovery from the weakness caused by gestation will be required. For this reason the heifer coming fresh should be fed more carefully than older animals at the same period. When the heifer has reached the point of giving her fullest flow of milk I feed her with the idea of keeping her milk flow up through the dry time of summer and well toward the time when she will drop the second calf.

The pasture in which the heifer is kept should have good fences. This will prevent her from learning breachiness. A cow kept in a pasture that is poorly fenced will acquire the habit of getting out much more quickly than when kept under proper conditions.

Subscriber.

How to Skim the Milk.

Experience has shown that in general practice the churning of whole milk results in butter of a poorer quality and in greater losses of butter fat in the buttermilk than if cream is churned, says the South Carolina College of Agriculture. It is, therefore, best to skim the milk and churn the cream.

The best way to skim the milk is by means of a separator. A farmer who has only two or three cows, but no separator, may put the milk into deep, narrow cans (shotgun cans) and set them in cold water, and when the cream rises it can be removed with a shallow spoon.

Where this system is used it usually takes about twelve to eighteen hours for all the cream to rise. Care should be taken to keep the milk cold, in order to make the cream rise rapidly.

The old method of setting the milk in shallow pans should not be used, as the cream does not rise so completely as when set in deep cans in cold water; furthermore, the quality of the cream is not so good and there are more vessels to wash and care for.

Waukesha, Rock, Jefferson, Dodge and several others of the old and established counties of Wisconsin are considering the county agent plan.

SAFEGUARD your stock, tools, hay and grain. The farmer needs fire protection even more than the city dweller. Most of the great "skyscrapers" of America are fireproofed with Natco Hollow Tile. Fireproof your farm the same way. Natco Barns need practically no repairs—age and weather-proof. The Hollow Tile walls do not hold moisture or odors. Dead-air spaces prevent sudden changes in temperature. And the cost—but a trifle more than frame construction. You will soon save the difference in reduced insurance, coal and repair bills.

Build with Natco Hollow Tile

Corn cribs, milk houses, garages, poultry houses, etc., may be made fireproof and permanent with Natco Hollow Tile.

Send for our new book "Natco on the Farm." Fully illustrated from photographs. Tell us what you plan to build. We have many farm building plans to submit and will help you—*free.*

Natco Imperishable Silo is the ideal silage preserver. The glazed hollow tile walls are moisture and acid-proof and fire-resisting. Stoutly reinforced with steel bands laid in mortar. No hoops to tighten. Any mason can erect a Natco. Fully guaranteed. Truly, "The Silo that Lasts for Generations."

Write *today* for our book, "Natco on the Farm," also ask for Silo Catalog.

National Fire Proofing Company

1123 Fulton Bldg., Pittsburgh, Pa.

23 Factories
Prompt Shipments

Natco Silo Wall: Note perforated shell, providing firm anchorage for mortar joints.

A Better, Quicker Locking Device

Far better—far quicker—yet you pay no more for West Bend Automatic Stanchions equipped with this wonderful locking-releasing lever than you pay for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from 2 to 50 West Bend Automatic Swinging Stanchions. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set guide the cow into the stanchion. Think of the time and labor this will save you—think of the risk it avoids. You certainly want this valuable new exclusive West Bend feature in *your* barn.

West Bend BARN EQUIPMENT

Write today for free catalog showing entire West Bend line of sanitary, modern barn equipment including Steel and Wood Automatic Stanchions, Feed and Litter Carriers, Watering Systems, etc. You can't afford to spend a dollar for barn equipment before you get this book. Write today.

WEST BEND BARN EQUIPMENT CO., 276 So. Water St., West Bend, Wis.

MINNEAPOLIS PANEL SILOS

The silo that adds attractiveness to your farm buildings.

Built of Steel and Wood

Won't collapse when empty, rests uniformly on foundation, no tightening of hoops. Mechanically and structurally correct.

Shiplap, Drop Sided, Paneled Walls means longer life because seams and joints are always dry.

Catalogue and information sent upon request.

PUFFER-HUBBARD MFG. COMPANY

3205 26th St. MINNEAPOLIS, MINN.

Simple Single Unit — Built by Practical Dairymen

"Success for 9 Years"

You can't afford to accept a milker that has done less than HINMAN MILKERS

Milked 140,000,000 cows the last eight years. Milks valuable registered cows throughout this country and the world. Over 24,000 sold—more than all other milking machines combined. So simple that a boy can milk eighteen to twenty-five cows an hour. This simplicity also means low first cost and low upkeep cost.

No complicated pulsating mechanism—no air pipe lines—no vacuum tanks.

Simple combination of pump, vacuum in valve chamber and natural action teat cups—no upward squeeze.

Write for Big FREE Catalog if you milk ten cows or more.

HINMAN MILKING MACHINE CO., 62-72 Elizabeth St., Oneida, N. Y.

Service Dealers Everywhere. Write For Name of One Near You.

HINMAN MILKER

ADVERTISEMENT.

WHAT EVERY FARMER WANTS

Cheap and Efficient Transportation His Great Need--How It Can Best Be Assured

THE present situation of the railroads presents two alternatives, efficient federal regulation or federal ownership.

The experience of other countries proves conclusively that government ownership of railroads is more costly and less efficient than the system of private ownership in this country. The railroads of the United States have the lowest freight rates, the smallest capitalization per mile, the highest operating efficiency and pay the highest wages of any railroads in the world.

High Rates on Government Roads

The charge for hauling a ton of freight one mile on the government owned roads of various countries and on the privately owned roads of the United States is shown in the following table.

	Average Freight rate per ton mile
Germany (Gov't Railways)	1.24 cent
France "	1.30 cent
Australia	
New South Wales "	1.59 cent
South Australia "	1.75 cent
Switzerland "	2.63 cent
Canada (Private ownership)	.76 cent
United States "	.73 cent

No railway system under government ownership can show a record for cheapness and service approaching that of American Railroads under private ownership. What the railroad situation needs is the adoption of a system of national regulation that will encourage initiative and investment and enable the carriers to meet the growing requirements of American business.

Keep Railroads Out of Politics and Politics Out of the Railroads

It is to the interest of the railroads and the interest of the whole country that the railroads keep out of politics and that politics be kept out of their management.

Government ownership under our political system would make the control of the railroads a partisan issue at every election. It would bring political and economic disaster.

No man in the country stands to lose more by the adoption of a political system of railroad management than the farmer. None will profit more from efficient national regulation that will do away with the present conflicts and waste of local control and enable the railroads to make the extensions and improvements necessary to keep pace with the business progress of the nation.

We invite discussion of this question and shall be glad to answer questions and to supply information on request.

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Financing the Legislative Representative.

In connection with our report of Farmers' Week, The Wisconsin Farmer mentioned the fact that Mr. Geo. McKerrow, of Waukesha county, had been named by several agricultural and live stock organizations to represent them before the Wisconsin legislature. The appointment of Mr. McKerrow and the work which comes under his direction was first discussed in the meeting of the Wisconsin Live Stock Breeders' Association, held early in February, and it was unanimously agreed at this meeting that some person, sufficiently posted on state affairs, should be in readiness during the session of the general assembly to provide such information as the legislators require concerning bills of interest to farmers.

Of course, it costs money to keep a man at Madison during the session of the legislature. While a number of the societies receive state aid, they could not expect to use any of the funds received from the state to aid them in getting more funds from the state. Hence, it was the decision of the members of the Wisconsin Live Stock Breeders' Association and other organizations interested in this work that the needed funds might be received by popular subscription, and an appeal be made to the farmer who feels that it is right and proper to have a representative of his interests constantly on hand during the legislative session. Interests not half so important as farming have representatives before the legislature. Within the past few days the Wisconsin Live Stock Breeders' Association has received the following subscriptions:

M. B. Goff, Door county, $4.50; J. B. Ahlers, Washington county, $5; L. A. Wright, Columbia county, $3; Wm. F. Renk, Dane county, $10; James Fisher, Crawford county, $5; August H. Vogel, Waukesha county, $10; J. W. Gehl, Washington county, $1; Charles L. Hill, Fond du Lac county, $5; J. W. & H. A. Martin, Richland county, $10; D. W. Emerson, Ashland county, $5; W. H. Houser, Buffalo county, $5, and Arthur Broughton, Rock county, $10.

Others are invited to send in their subscriptions in any amount they may see fit. These should be sent to the Wisconsin Live Stock Breeders' Association, Madison, Wisconsin. They will be properly credited and due accounting made.

Duroc Jersey Interests Flourish.

Sec. J. R. Pfander, of the National Duroc Jersey Record Association, calls attention to the fact that there were 1,532 pedigrees recorded in January and ninety-six new members were received. All reports indicate that breeders are getting better prices for their breeding stock than ever before. The association is planning on rather an elaborate program for 1917. Last year it conducted fourteen futurity shows and this year it is the intention to put on three different kinds of futurity shows, namely, the national at Omaha, state futurities and district futurities. Any breeder is eligible for the national, one state futurity and one district futurity.

State futurities carrying classifications of $400 each will be promoted at the California State Fair, Illinois State Fair, Iowa State Fair, Topeka, Kansas, Louisiana State Fair, Minnesota State Fair, Missouri State Fair, Montana State Fair, Nebraska State Fair, Oklahoma State Fair, Oregon State Fair, South Dakota State Fair, Texas State Fair and Wisconsin State Fair.

District futurities, carrying classifications of $200 each, will be promoted at the Colorado State Fair, Boise, Idaho; Caldwell, Idaho; Hutchinson, Kansas; New Orleans, Louisiana; Columbia, Missouri; Grand Forks, N. D.; Childress, Texas; Utah State Fair; Burlington, Iowa; Cascade International; North Yakima, Wash.; Malvern, Iowa; Mt. Pleasant, Iowa; Peoria, Illinois; Sioux City, Iowa; Janesville, Wisconsin; La Crosse, Wisconsin, and Owatonna, Minn.

Full information about these futurities may be obtained by writing J. R. Pfander, office of National Duroc Jersey Record Association, Peoria, Illinois.

Ask your neighbor to subscribe for The Wisconsin Farmer.

ADVERTISEMENT.

A Supreme Court Judge's Opinion on Compensation

SPEAKING before the Yale Law School in 1891, Justice Brewer of the United States Supreme Court, said:

"I am here to say to you in no spirit of obnoxious or unpleasant criticism of any tribunal or judge, that the demands of absolute and eternal justice forbid that any private property, legally acquired and legally held, should be spoliated or destroyed in the interests of public health, morals or welfare, without compensation"

It is conceded that the United States Supreme Court is composed of the ablest judicial minds of America, therefore we believe that Justice Brewer's opinion is a safe guide to follow in determining what is fair, right and just.

Surely what is fair for *one* is fair for *all*.

If one class or many classes are entitled to *compensation* when damaging legislation becomes law, are not all classes, equally within the law, entitled to protection under the principle of *compensation?*

When any ordinary business partnership is dissolved, the law requires a fair and equitable division of the assets. Inasmuch as the United States Government, our State Government and *your* Local Government receive taxes and license fees (profits) through the Brewing Industry, should not just *compensation* be made if this partnership relation is annulled?

Can one partner give up or abandon the business—destroy its value, its income producing power—without making a fair and honest settlement with the other partner?

The State compensates for diseased cattle destroyed by order of the State.

The City compensates for private property taken over for public use.

The Town, City or County compensates anyone who may be injured (deprived of his income-producing ability) on the public highway through neglect or carelessness of highway officials or employes.

Compensation prevails *practically* everywhere—with all individuals—with all industries, *except one;* that one exception is brewing and allied industries

Why this discrimination?

Can you explain it?

Should not the industries that pay the heaviest taxes have as much *right* under the law as those that pay the smallest taxes?

Property is property. Mine is as good as yours. The law that protects *your* property should give *mine* equal protection.

The Brewers of Wisconsin

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Chesney Farm Guernseys.

THE Chesney Farm Guernsey herd at Lake Villa, Ill., owned by O. W. Lehmann, is one which is fast making Guernsey history. It is almost a Wisconsin herd, being only five miles across the line in Illinois, and, therefore, is of interest to Wisconsin breeders. The herd consists of some 115 head of imported and home-bred animals. Semi-official testing is continually being carried on. There are already 26 A. R. O. cows in the herd, and eight now on test with four more ready to go on test in the very near future. The buildings are models of convenience and sanitation. A new test barn is now being erected with 14 steel pens. They are equipped with feed racks, water buckets and wood block floors. At the present time they are advertising on page — eight registered cows and one bull for sale. Three of these cows were imported, one is from an imported sire and dam and the other four are home-bred cows. Two of the imported cows are due to freshen soon. One of the imported cows is a daughter of Imp. Gov. of the Chene 2d. These cows are all bred to the good herd bulls on the farm, viz.: Pinecrest King France, Dairymaid's Stanford of Pinehurst, or Peerless of Midlothian. The last-named bull is also for sale. He was sired by George Washington of Fairfield Farm 10866, a son of Imp. King of the May. The dam of George Washington of Fairfield Farm was Imp. Hayes Richesse 2d, that has an A. R. O. record of 10,630 pounds of milk and 642.43 pounds of butter fat in a year. The dam of the bull for sale is a daughter of Pretor 9346, that has 13 A. R. daughters, several of which have records over 600 pounds fat. Send for pedigrees and information in regard to these cows, and this bull, if you are in need of high-class breeding stock. See page 29.—Adv.

Dispersion Sale Linscott Jerseys.

R. J. LINSCOTT, Holton, Kan., will disperse his herd of register of merit Jersey cattle at public auction, June 5th. The Linscott herd consists of over 100 head, including about 70 cows and heifers in milk or springing, also 30 head of young heifers and 10 bulls, including the herd bulls, all of which go in the sale. The bulls in use include Jacoba Irene's Premier (his dam, Jacoba Irene, 1,191 pounds butter, one year; 2,927 pounds and three calves, 37 months). Another bull in use is Gamboa's Knight, son of the unequaled Gamboge's Knight and out of a register of merit granddaughter of Flying Fox. Back of these sires, the bulls which have been in service in the Linscott herd include Flora's Golden Fern, son of Golden Fern Lad (31 tested daughters and 29 sons, sire of R. O. M.); Eminent's Coronet by Eminent 2d, sold for $10,000, sire of 88 tested daughters and 28 sons, sires of R. O. M. cows; Imp. Oakland's Sulta, pize bull in Island of Jersey and America, first sire of register of merit in Kansas; Tommie Tormentor, St. Lambert of Idylwild and others. With the herd bulls, Jacoba's Irene Premier and Gamboa's Knight, together with the 30 cows bred to these bulls and young things sired by such bulls, breeders who attend this sale will have the opportunity to purchase the blood of the world's champion butter cows close up. The catalog of historical pedigrees will be sent any address upon application to R. J. Linscott, Holton, Kan.—Adv.

Percheron Dispersion.

THE dispersion of two of Wisconsin's best studs of Percheron horses will take place at the Wisconsin State Fair ground at Milwaukee, on Wednesday, March 21st. These two studs are that of Louis Lewellin & Son, Waterloo, and Sutter, Delavan, Wis. The former stud needs no introduction to Wisconsin breeders as it has been one of the heaviest winners at the Wisconsin State Fair for several years past. All of the prize-winning stallions and mares will be included in this sale, as well as their offspring. The Sutter stud is composed entirely of imported stallions and mares, and their offspring, and is one of the few opportunities that breeders will have to secure imported stock. Every farmer and breeder should make it a point to attend this sale and supply himself with seed for his future "pulling power." Catalogs giving a complete description of these horses are now ready and may be obtained from J. A. Boyd, Milwaukee, Wis. When writing for catalogs kindly mention that you saw their advertisement on page 28 of The Wisconsin Farmer.—Adv.

Herefords at St. Paul March 23d.

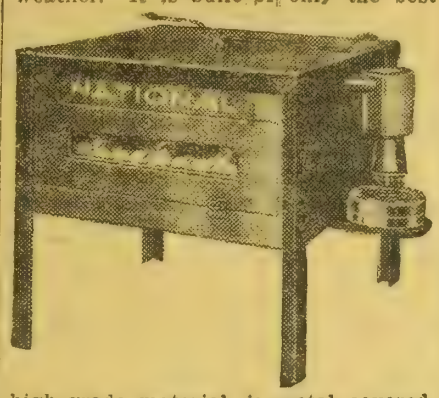
ATTEND the Hereford sale at South St. Paul, Friday, March 23d. This is under the auspices of the Minnesota Hereford Breeders' Association and some good cattle have been listed. There will be 53 bulls (see advertisement) and 34 females. Seven bulls are by Standard 13th, three by Prince Rupert 58d, two by Jerome Fairfax, and one by King Fairfax. All are of the very best breeding. They have been tuberculin tested and every animal is guaranteed to be a breeder. You should get a catalog and attend. Write for one to J. S. Montgomery, sale manager, University Farm, St. Paul, Minn. Please mention The Wisconsin Farmer.—Adv.

Wiegands' Jersey Bull.

B. & K. T. WIEGAND, Cleveland, Wis., are offering a fine yearling Jersey bull at a very reasonable price. The bull is a splendid individual with the best of conformation, and is a sure breeder. He is a son of Wisconsin's champion three-year-old Jersey. See the advertisement on page 28 and write the Wiegands for further particulars.—Adv.

National Incubators Built on Government Specifications.

THE National incubator is built on specifications as outlined by the United States Department of Agriculture, in Farmers' Bulletin No. 236. This incubator has been on the market for many years, and has stood the strongest tests in every state in the Union. Many owners of this incubator praise it because of its hatching ability in variable weather. It is built of only the best



high-grade material, is metal covered, and equipped with a special high-grade rolled copper tank, and is especially set up ready to operate. One of the leading features of the National is its exceptional lamp, which produces a steady blaze, without smoke or fume. The National is offered for sale on forty days' trial, which shows the exceptional confidence the manufacturer has in the machine. You are thus allowed to secure your first hatch during the trial period. This is an unusual offer. Their advertisement appears in this issue on page 5. We call the special attention of all our readers interested in poultry to this exceptional machine, which costs only $10, and is shipped freight prepaid. Their big new poultry book will be sent you free if you will simply address the National Incubator Company, Box 504, Racine, Wis.—Adv.

Dr. Truman Brophy's Guernseys.

WISCONSIN Guernsey breeders are familiar with the name of Dr. Truman Brophy, who owns Ingleside Farm, at Edison Park, near Chicago. His herd of Guernseys was established in 1904 and for the past 13 years has been one of the best and most progressive herds in the middle West. Great care has been taken in the selection of breeding stock, both for ideal type and heavy production ability. By careful mating and good care a herd of extraordinary ability and type has been developed. Official testing has been conducted from the time the herd was established, and a large number of very creditable records have been and are being made. Wisconsin's leading breeders are familiar with the lines of breeding, the conformation and the production ability of the animals in this herd, and have purchased herd sires. Among the Wisconsin herd sires from Ingleside Farm are Fox Bros., Geo. W. Brown, and Fruit Bros., three of the largest breeders in Waukesha county. On page 29 Dr. Brophy is advertising an exceptionally good bull for sale in Miriam's King of Ingleside 34140. He is a double bred King of the May, as both his sire and dam were sired by sons of Imp. King of the May. His dam May King's Miriam of Ingleside has an A. R. record of 444.76 pounds of fat (in class E.) This bull comes from a long line of heavy producing cows on both sides of his pedigree. His five nearest dams average 10,812.46 pounds of milk and 580.28 pounds of butter fat in a year and eight dams close up average 645 pounds fat in a year. In his pedigree we find such names as Imp. King of the May, Dolly Bloom, Rutilas Sheet Anchor, Imp. Hayes Richesse 2d and others equally noted. Send for the extended pedigree of this well-bred bull, as he is being priced very reasonably. When writing kindly mention The Wisconsin Farmer.—Adv.

Shekletons' Draft Stallions For Sale.

FRANK P. SHEKLETON & SONS, Lawler, Iowa, well-known importers, breeders and exhibitors of Percherons and Belgians, write as follows: "Within the last ten days we sold to Morris Dwyer, Wadena, Iowa, a dark gray two-year-old Percheron stallion. Mr. Dwyer purchased this horse to head his band of pure-bred mares. E. A. Krusemark, Welcome, Minn., purchased a four-year-old dark gray Percheron stallion weighing a ton. Bray & Jackson, Grinnell, Iowa, purchased a five-year-old imported Belgian stallion weighing 2,100 pounds. This horse was of our last importation and is an outstanding good one. Max Kreigel, Kilbourn, Wis., selected a five-year-old imported sorrel Belgian stallion weighing a ton. T. G. Mosher, Elkton, S. D., purchased a four-year-old Clydesdale stallion. White & Day, La Crosse, Wis., selected a very fine four-year-old black Percheron stallion weighing a ton. Hugh Jones, Eddyville, Iowa, selected a dark gray four-year-old Percheron stallion weighing over a ton to head his band of mares. A six-year-old Percheron and a good Belgian stallion were sold to James Harding, of St. Paul, Minn. We have in our barns a large number of big two-year-old ton stallions, some of them weighing up to 2,100 pounds, and some extra good matured stallions weighing up to 2,400 pounds each. We are making very reasonable prices on our stallions at present. We have a number of stallions that have been in service a few years ranging in age from six to ten years and weighing up to 2,200 pounds each on which we are making very attractive prices. Our stallion business has been very active up to the present time and we look for a heavy business during the spring months." See page 28 and write for prices, kindly mentioning this paper.—Adv.

Thompson's Mule-Foot Hogs.

CHARLES D. THOMPSON, the breeder of Mule-Foot hogs at Letts, Ind., reports that he has recently made shipments to 14 different states, and is preparing a shipment of 12 head for Central America. The Thompson Mule-Foots are sired by or bred to champion boars, are cholera immune, and will be priced worth the money. Mr. Thompson also breeds Hereford cattle, and if you are interested in Herefords or Mule-Foots write him your wants. See page 31.—Adv.

Adam Lorenz Holsteins.

WHEN we first saw the Holstein herd of Adam Lorenz, Sheboygan Falls, Wisconsin, a few years ago, we were convinced that he had a herd of heavy-production ability. Our convictions of that time were verified last winter by the advanced registry records which were made by individuals in this herd. Sixteen cows were put into the advance registry and all with creditable records. Among these records were those of Parthenea Jolie Clothilde De Kol, that as a three years old gave 560.5 pounds of milk (an average of 80 pounds a day) and made 2,664 pounds of butter. This will be recognized as a wonderful record. Another cow made over 28 pounds in an older class and several others made records well over 20 pounds. At the present time Mr. Lorenz has a bull calf 10 months old for sale, out of the 26.64-pound three year old. He also has four other young bulls from seven to ten months old and eight yearling heifers for sale. These were sired by Sir Parthenea Champion, an outstanding bull of excellent conformation, large size and choice breeding. This bull is also being offered for sale, as Mr. Lorenz has a great many of his daughters in his herd. He is a son of Piebe Champion and is out of Pinehurst Grace, that made an A. R. O. record of approximately 24 pounds of butter in

FOR SALE AT A BARGAIN—A fine driving mare 8 years old, weight about 1,000 pounds. Colt 9 months old, a natural born pacer. This colt is perfect and is from fast stock. Cutter, buggy, cart, harness, etc., will go with this outfit. (Answer) in care of Wisconsin Farmer.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivalcer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address
A. P. CORTTE LOMIRA, WISCONSIN

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

The Farmer's Concrete Mixer
SHELDON Batch Mixer Price $11.50 Up

The Sheldon was designed especially for the farm. Highly praised by users. Farmers everywhere call it the ideal mixer. Used today all over the United States. A big success. Small enough to be easily moved—big enough to keep 6 men busy. Low in price. Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer.

Read What These Sheldon Owners Say

I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home.—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and likeit very much.—DANA WRIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*.—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out*.—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township.—JOHN ROSE Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*.—D. M. BAUPARER, Freeport, Ill.

FREE PLANS

Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

Make Big Money at Concreting

If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $8 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

Write For Our New FREE Catalog

Shows our full line of mixers which are sold direct to you on strong guarantee. *Thirty days trial* privilege. No other like it. Patented. Two styles, hand and power. Mixes 2 1-2 cubic feet at a batch. One man can operate it, but it will keep 2, 3, 4, 5 or 6 men busy. Continuous chain drive. Tilting dump. Easily and quickly moved. All parts guaranteed. Does work equal to $400 mixers. Be sure to get the catalog. Write today.

My New Special Offer

I want to tell you about my co-operative plan by which you can get my time-tried, thoroughly proven Sheldon Batch Concrete Mixer at little or no cost to you. I want ten men in every county to accept my special co-operative offer right now. Are you going to be one of the ten? Write and say: "Send me special offer."

The Sheldon will pay for itself on first small jobs. Takes the back-ache out of concrete. Makes possible those many small improvements that add so much to the value of your land.

SHELDON MANUFACTURING COMPANY, Box 5703 Neiawka, Neb.

STOP FEEDING $1.00 CORN TO WORMS

If you SAW thieves robbing you of wagon loads of your $1.00 corn, you'd stop them quick! But, right now UNSEEN thieves—thousands of them—are not only stealing your feed, but imperiling the very lives of your animals. I refer to the feed-eating, blood-sucking, disease-breeding worms. I'll show you how to rid your animals of these expensive pests; how to STOP the feed loss and have thrifty, healthy, profitable live stock. I'll show you how to do it with

The Great Worm Destroyer SALVET The Great Live Stock Conditioner

My new book tells everything. Fill out and mail the coupon and I'll send the book FREE. I'll tell you also where and how you can get enough SAL-VET to feed your stock 60 days and have your money refunded if it fails to do all I claim. Mail the coupon now. Address

SIDNEY R. FEIL, President
THE FEIL MFG. CO., Chemists, Dept. 137 Cleveland, Ohio

PRICES
10 lb. pkg. $0.75
20 lb. pkg. 1.25
40 lb. pkg. 2.25
100 lb. pkg. 5.00
200 lb. pkg. 9.00
500 lb. pkg. 13.00
Bulles 21.12
Dealers sell SAL-VET at above prices, but in the far West and South they charge a little more, because freight charges are more.

(276)

THE FEIL MFG. COMPANY
Dept. 137-3-S-17 CLEVELAND, OHIO
Send me your FREE BOOK on care of live stock. I have.....hogs.....sheep .....horses and mules.....cattle.
Name.....
P. O.....
Shipping Sta..... State.....
My Dealer's Name .....
His Post Office is.....

A Great Sale of Percheron Horses

Complete Dispersion of Two Great Percheron Studs

Wednesday, March 21, 1917, at the State Fair Grounds, Milwaukee, Wis.

60 Head Comprising the Studs of Louis Lewellin and Sons, Waterloo, Wisconsin, Lewis P. Sutter, Delavan, Wisconsin

THE L. P. SUTTER OFFERING

CONSISTS of a high-class lot of imported stallions and mares. These horses were personally selected in the famous Percheron horse breeding districts of France and imported by Mr. Sutter in 1914 for his own private stud purposes at Delavan, Wisconsin. The stallions are coming four and five. They are the big, ton kind with tremendous bone and substance. The mares are coming four, and under. Only two over five. They include a nice lot of big, drafty animals. The colts in the sale will show the kind they are capable of producing. It's an exceptional opportunity to buy imported Percheron stock, very little of which is now on the American market. By all means come and look them over on sale day. You will find something to suit your wants. Don't miss the sale.

THE LEWELLIN & SONS' OFFERING

THIS offering consists of a grandly bred lot of home bred stallions and mares, the result of years of careful selection and mating at the Lewellin Percheron studs at Waterloo, Wisconsin. Also two grand imported mares. This offering requires no introduction to the Wisconsin horse breeding public. Its frequent appearance and successes at the Wisconsin State Fair have made it well known to every horseman in the state. In 1915 and 1916 it won the Wisconsin bred and owned championship on stallions, and also on mares; and in 1915 the championship on mares in the open to the world classes. Besides these, it has won many first and second prizes both in singles and groups. All of these prize-winning mares, stallions and colts are included in this sale offering. They are proven quality and regular producing stock.

For Catalogs Address **JAS. G. BOYD, Manager, 426 Sycamore St., Milwaukee, Wisconsin**

Sale called at 10 o'clock A. M. **Lunch served on the grounds** **Auctioneer, Joe Walker**

TOO LATE TO CLASSIFY.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R .O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ **SHEBOYGAN FALLS, WISCONSIN**

seven days. This herd is a good one and our readers who want either male or female breeding stock will make no mistake in buying here. See their advertisement on this page.—Adv.

Yearling Jersey Bull

A SON of Wisconsin's champion 3-year-old Jersey, with 707 pounds or 85% butter in a year. A fine, solid-color individual. For details write

P. B. & K. T. Wiegand **Cleveland, Wis.**

SALE DATES.

Holstein Cattle.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

May 17, Birch & Thompson, Lake Geneva, Wis.

Percherons.

Mar. 21, Dispersion sale of the Lewis Lewellen & Sons, Waterloo, and Louis P. Sutter, Delavan, Wis., Percheron studs. Sale at state fair grounds, Milwaukee. Jas. G. Boyd, Mgr., 426 Sycamore St., Milwaukee, Wis.

Helps For Farm Women.

(Continued from page 16.)

has taken care of that. In actual tests it has been found that the person doing the cooking walks less than a mile a week during the preparation of the twenty-one full meals for four persons. The whole secret lies in its arrangement. From the picture it is evident that with the stove on the right hand and the sink on the opposite side, with a table in front containing the spices and with the cereals and flavors on the shelves above, all running to and fro between pantry and kitchen table, between stove and sink, is almost eliminated. The sink is adjusted to the height of the worker in that the bottom of the sink can be touched without stooping. This eliminates the backaches incident to working where constant bending is necessary.

In the basement the laundry is located, fitted out with the labor-saving devices. An electric motor drives the washing machine, a reversible ringer and the mangle. The double stationary tubs allow for plenty of water with which to give the clothes adequate rinsing. An electric iron and a free swinging, adjustable ironing board complete the equipment. Having a laundry in the basement, though desirable, is not practical on most farms because of insufficient drainage.

In the arrangement of the rooms the decorations are chosen according to the principles taught in the classroom. Simplicity is the keynote. There is no overcrowding of the walls or floors. The furniture, while good, is not out of tune with the general plan.

Upstairs are the three bedrooms. This arrangement, likewise, is of the simplest and in accordance with the conditions likely to be found in a household of moderate means only.

This cottage is used by the four-year students in dietetics and household management and each week a group of four girls must plan and serve for a family of four persons three meals a day at a cost of 35 cents per person per day. With no fuel, lighting, water or rent charged, the cost for raw materials amounts to $500 per year.

In the homemakers' schools or home economics short course the program is similar to the work described in connection with the week's course given during Farmers' Week. In order to arrange for such schools and a force of extension workers a list of from seventy-five to 100 signatures must be submitted. The hall where the school is to be held must be arranged for and paid for by the signers and the incidental expenses vouchsafed. There is no charge for the expenses and services of the extension people. At the conclusion of the schools housewives' clubs are encouraged and the essentials of a successful continuation of the home studies are outlined. The club study consists of four main topics --food, clothing, shelter and child welfare. Each topic is divided into subjects as follows:

Outline for Study.—Food: This includes bread, cake, meat—meat substitute—custard, vegetables—starchy, vegetables—succulent.

Clothing: This includes practical house dresses, little touches that make a gown dressy, care of clothing and removal of spots and stains.

Shelter: This includes ice boxes and ice box substitutes, planning a convenient kitchen, methods of putting in running water, devices for the laundry, sleeping porches and table service.

Child Welfare: This includes care of infants, general care and training of children—hygiene of the mouth, nose, throat and skin; colds and their dangers, care of skin, fresh air, care of contagious diseases, need of exercise and play and children's school lunches.

The topics are taken up in rotation so that one subject of each topic has been studied after every four meetings. The clubs have proved their worth in more ways than one.

There are, furthermore, the girls'

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

MR. STALLION BUYER

WE still have on hand a large number of two coming three Percheron stallions, those colts now weigh up to 2,110 pounds, and if you are looking for an outstanding good one to head your herd of mares you should write and get prices on those colts. Our three-year-old and aged Percheron stallions are the best lot w ever had on hand. They weigh up to 2,300 pounds. In Belgians we offer a very strong lot from one to six years old. Among them is Bizarrie, a five-year-old sorrel chestnut stallion weighing 2,300 pounds. This stallion is as good as money can buy and fit to go any place. He must be seen to be appreciated. We have on hand a number of stallions from six to ten years old that have made seasons. Those horses weigh up to 2,100 pounds, and we will sell them very reasonable. We have a horse for every purse and know we can save you money. We want to buy 50 head of one coming two Percheron and Belgian stallions. Write us what you have. Send 25 cents in stamps for large horse hanger. Address

FRANK P. SHEKLETON & SONS **LAWLER, CHICKASAW COUNTY, IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

PERCHERON STALLIONS and MARES

WE are offering an extra good selection of horses, priced worth the money. We can suit you in quality, price and terms. Write your wants or come and see us.

S. METZ & SONS **HOMEWOOD, ILL.**

W. A. LANG & CO.
Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home bred stallions from weanlings up to 6-yr.-olds. Write for particulars

W. A. LANG & CO. **GREELEY, IOWA**

HART BROS., OSCEOLA, IOWA

IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Addrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. one black five year old, weight 1 pounds, and second-prize aged stal at North Wisconsin State Fair. Th horses are in the harness every

L. P. MARTINY, Chippewa Falls,

W. E. PRICHARD & SON
OTTAWA, ILL.

PERCHERON

GROWN on grass; big, sound, you reasonable in price. If you want a see US before you buy.

LEFEBURES' BELGI

A Large and Choice Co of Stallions, Mares an

for sale at all seasons of th Correspondence solicited. log mailed upon applica

H. LEFEBURE & SONS, Fairfax
8 miles west of Cedar Rap

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10. 1915, a wells marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by son of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs fat His five nearest dams average 10,812 46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.
DR. TRUMAN BROPHY CHICAGO, ILLINOIS
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS WAUKESHA, WISCONSIN

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.
CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop J. GRIMSHAW Mgr.

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
Frank E. Swan Wauwatosa, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A H Hinman, Allenville, Wis.

FOR SALE FINE high grade Guernsey heifer calves, nicely marked and colored. Arthur Findlay, R. 3, Whitewater, Wis.

ABERDEEN ANGUS CATTLE.

McKEVITT'S ANGUS BULLS

WE offer well grown, well bred bulls of **serviceable age.** Will sell PAPAW 183789, a double Pride, three years old. Bulls guaranteed Mention The Wisconsin Farmer and address
McKEVITT BROS. - - - BLOOMINGTON, WISCONSIN

CHOICE ANGUS BULLS

AND heifers representing some of the good families of the breed at very attractive prices; ages from 2 to 20 months. Write or call on
Orville H. Kettler Platteville, Wis.

ANGUS

CHOICE bulls of the fashionable families 10 to 15 months old. Thick, sappy, rugged fellows that are guaranteed in every way. Your business solicited R A Austin & Son Lancaster, Wis

CHOICE Angus bulls and heifers representing some of the good families of the breed at very attractive prices ages from 12 to 20 months Write or call on Orville H Kettler, Platteville Wis

canning club and the mothers' clubs. The canning clubs are well known in the state. They have for their object the encouragement of canning for home consumption such products as the farm offers in excess of the summer needs. Vegetables are healthy and when made from the farm surplus decidedly cheaper than boughten goods. There are sixteen canning clubs now in existence and the number will be increased in the coming year.

The correspondence courses of the university extension division are spreading the light of better farm life for the women. These teach all of the subjects of the regular college home economics course by mail for a small fee necessary to cover expenses. They comprise the family dietary, the child's health, canning and preserving foods, household management, studies for the prospective mother, household management, dressmaking and designing and home furnishing and decoration.

Connected with the university extension division is the package library. This library accommodates by mail and express requests for any agricultural information desired. They gather the necessary references and place it at the disposal of the farmer and his wife. Each package contains the best material available in pamphlets, selected magazine articles, clippings, typewritten excerpts from books and government bulletins. An endless stream of incoming and outgoing packages keep the forces here employed working overtime. In one month nearly a thousand such packages were sent out. Before any package can be shipped all the information on any one subject must be gotten together. One cannot well imagine the many books and magazines that must be read before all the information has been compiled unless one tries it.

Besides all these branches of education there is still the private information service. Requests come in by the hundreds every month to the members of the department for help on many different subjects. But the department has been built up of people who love to work for the betterment of everything in and about the home and they are glad to be able to do more all the time than their regular program calls for. Miss Marlatt spends much of her extra time in assisting people in planning farmhouses or remodeling old homes.

POLAND CHINA SWINE.

BIG, EASY-FEEDING POLANDS

OFFER you gilts with size and quality guaranteed with pig. for March and April farrow. You'll be pleased Write
R. MEINKING BANGOR, WIS.

McDONALD

POLAND CHINAS

OFFERING BRED GILTS--THE BEST ARE CHEAPEST
J. D. McDONALD NORTH BEND, WIS.

GROW YOUR HERD BOAR

BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder dam by Master's Giant, the cross that has made good. Only saved a few tops Order early. P. W Young, Prosper, Minn.

BRED POLAND GILTS

OF big-type breeding and bred to **Chief Price** by the champion, Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over A few young bulls. R C R I RED cockerels. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northside Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT

Address
J. C. HENDRICKS, Box F., Hazel Green, Wis.

BIG POLANDS

POLAND GILTS

AT private sale—good ones, bred to my big boars
E. W. HENDRICKS
Hazel Green Wis.

BRED GILTS POLAND CHINAS

BRED for March and April farrow Short-horn bulls from a heavy milking family
OLOF C. OLSON STRUM, WIS.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.
C. S. Flesch Mt. Ida, Wis.

REGISTERED POLAND CHINAS

SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins).
Marinette County Asylum Peshtigo, Wis

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION Prices right Address
James Derivan Fox Lake, Wisconsin

SHORT-HORN CATTLE.

100 Short-horns to Select From-100

BULLS AND FEMALES. One or a carload. Write now. ROCK COUNTY SHORT-HORN BREEDERS' ASS'N. J. E. Kennedy, Sec'y - - - JANESVILLE, WISCONSIN

OAK LAWN FARM--SHORT-HORNS of QUALITY

FOR SALE at reasonable prices Six very choice, dual purpose Short-horn cows aged 2 to 6 years, all safe in calf to Village Denmark 8th, my herd bull that is today considered one of the best Short-horn bulls in Wisconsin Address J. E. KENNEDY, JANESVILLE, WISCONSIN

GREEN VIEW STOCK FARM

SHORTHORNS

OF serviceable age Not a poor one offered Guaranteed breeders Address
John H. Bear & Son Spring Green, Wis.

SULTAN BRED SHORT-HORNS

WE can offer a few yearling, 2-year-old heifers and young cows and yearling bulls, mostly of Sultan breeding. They were sired by BROADHOOKS' PRINCE, VICTOR FASHION and ROYAL CORONET'S BEST. Their dams represent the best imported and American strains. Prices right. We have been breeding for over 25 years. Address, mentioning Wisconsin Farmer,
H. B. Drake & Son, Beaver Dam, Wisconsin

LITTLE

SHORT-HORNS

FEW CHOICE BULLS of serviceable age, and it so happens that they are out of the best cows in our herds We satisfy our customers Write
HARVEY H. LITTLE EVANSVILLE, WIS.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families Prices reasonable
Geo. Wenham & Sons, Ft. Atkinson, Wis.

KISER BROS.

OFFER Short-horn bulls. Roans from six months to a year old. Continuous breeding for 46 years Write for description.
KISER BROS. OREGON, WIS.

Milking Short-horn Heifers

AND bull calves 3 months old. Roan, red and white All sired by **Milkman** whose dam gave over 60 lbs milk per day Prices right
GEO. SMITH & SON. - Burnett, Wis.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie Herd established 40 years. Correspondence invited
G. W. Little Janesville, Wis.

SHORT-HORNS--BIG-TYPE POLANDS

CHOICE bulls, one 15 months sired by Collynie Victor 387634 Stretchy September pigs, either sex, from large litters. Write. A. Menke & Sons, R 1 Markesan Wis.

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you Address Eben E Jones, Rockland, La Crosse county, Wisconsin

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

FOR SALE -- 1 SCOTCH SHORT-HORN

HERD bull, 2 yrs., 8 mos. old; also 4 bull calves, 1 by this bull and 3 by a son of White Sultan. A J Wheeler, R. 1, Beaver Dam, Wis.

SHORTHORNS

BOTH sexes, for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

SHORT-HORNS

OF either sex, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers A large herd. Write
W. J. Bernd New Richmond, Wis.

HOLSTEIN-FRIESIAN CATTLE.

Korndyke Segis Johanna, whose two nearest dams average over 39 pounds.

For Particulars Pertaining

Holstein Bull Calves of Merit

Address

Pabst Stock Farm, Dept. 30, Oconomowoc, Wis.

A COMBINATION OF SIZE, IDEAL TYPE AND PERSISTENT PRODUCTION

A 31.02-POUND bull, that comes from a long line of cows of large size, ideal type, heavy-production ability, which are persistent. **Racine Johanna Piebe Mercedes 188460.** Born December 8, 1915. His dam, **Ella Mercedes of Elm Court, made 31.02 pounds of butter in seven days;** 130.47 pounds butter in 28 days (an average of 32.69 pounds butter per week for four weeks); 829.78 pounds butter in a year. She weighs over 1,600 pounds. **His sire's dam** made 27.70 **pounds butter in seven days; 808.82** pounds butter in a year and weighs close to 1,600 pounds. His dam's dam, sisters and his parents' sisters are big cows of good type and heavy producers. Come to our farm and see them—and see the kind of cows his daughters will develop into. Am also offering a straight and well-grown yearling heifer out of Lady Johanna of Elm Court and sired by Count of the Pontiacs.

RUEBEN KLOFANDA **RACINE, WISCONSIN**

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS **R. R. 11** **FRANKSVILLE, WIS.**

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM **FT. ATKINSON, WISCONSIN**

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt **Oxford, Wisconsin**

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address

B. F. Winckler & Sons **Medina, Wis.**

AT LA BELLE VIEW FARM

WE are slaughtering pure-bred Holstein bulls from A. R. O. dams. It seems too bad, but that's right when we drop Duchess Ormsby bulls at such low prices as we have been selling them. If you want some of these youngsters sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world) at prices too low to print, write E. E. Rosenkrans, Oconomowoc, Wis.

HIGH-GRADE Holstein heifer calves, 15-16 pure from farg.-producing dams and by an A. R. O. sire whose two nearest dams average 24 lbs. butter in 7 days, 2 to 3 weeks old. When shipped guaranteed to please we will ship no culls. Stock well marked. $18 crated. Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis

Hillside Stock Farm

5 REG. Holstein cows and 2 heifers 24-lb bull 16 mos. old 7/8 white, faultless individual, also noted Pontiac herd sire.

Kirkpatrick Bros. **Reedsburg, Wis.**

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers **Lyons, Wis.**

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld at 3½ years made 21.34 lbs. of butter in 7 days 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O. daughters. Arthur Rust, West Allis, Wis.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

W. H. S. Rhoda **Watertown, Wis.**

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs and sired by the richly bred bull Julip Segis Korndyke 80640 born April 27, 1916 price $100. I. V. Garvens Brookfield, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons **Elgin, Illinois**

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Lyndell and King De Kol Lyons. (Registered Poland China hogs.

Marinette County Asylum - Peshtigo, Wis.

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HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

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A Well-Bred Yearling

HOLSTEIN BULL—ready for immediate service. Born January 5, 1916. His sire is by **Sir Korndyke Pontiac Artis,** a 31 pound sire with two 30 pound daughters. Sire's dam a 27.14 pound daughter of **Sir Veeman Hengerveld,** that has nine 30 pound daughters. Dam of bull for sale is a 13.12 pound two year old by a good son of **Mooie Fayne De Kol,** that has three daughters with records over 31 pounds. Bull for sale is well grown, of good type, well marked and ¾ white. Send for extended pedigree and price.

UPLAND FARMS, E. E. Ayer, Prop., J. H. Travis, Manager, **WALWORTH, WISCONSIN**

Holstein Bull Calves For Sale

BULLS and heifers advertised in the last issue have been sold. We are now offering for the first time some splendid bull calves up to seven months of age sired by our herd bull, that is a son of a 33-pound cow. These calves are nicely marked, well grown and good individuals. Let us send you pedigrees of them. Mention The Wisconsin Farmer when writing. Address

EDGEWOOD FARMS, INC. **PEWAUKEE, WISCONSIN**

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

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A HOLSTEIN BULL

BUY a 31 lb. sire, ready for service, nicely marked. Dam a 16 lb. cow at 24 months, her dam 23.21 lbs. at 4 years, her dam an 18 lb. at 4 years, a full line of official breeding. This young bull is a large, strong, fine individual, ready for heavy service. Price $200.00. Another bull ready for service, nicely marked, dam a 21.75 lb. cow. Price $150.00.

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SELLS cattle on a fair and square basis. We have yet to produce a dissatisfied buyer. Our fall sale was a dandy—satisfied buyer and seller. Our spring sale, April 4th and 5th, promises to eclipse our fall sale. We have some splendid bargains in bulls and females. Francis Darcey, Secy., Watertown, Wis.

WALCOWIS FARMS

GIVES you opportunity to get Holstein year rec grandson of King of The Pontiacs, born June 16, tuberculin tested, fine animal. Sire Cornucopia Pontiac Johanna Lad, full bro. to K P Manor Kate, 1023.41 lbs. butter, 22,196 lbs. milk, world's yearly record senior 2 yr. old. Dam, Lady Walcowis De Kol. Butter, 7 days at 3½ yrs., 21.67 lbs. milk, 528.5 at 2 yrs., 13 days, butter for 7 days, 15.67, for 365 days, 643.91 and 17,110 lbs. milk. For price, pedigree and photo, address

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YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

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STAND FOR BEAUTY-PRODUCTION

FOR SALE HEIFER calves, sired by Korndyke Hengerveld Artis 8th 87309 (5 A. R. O. daughters). These heifers are out of large producing dams, their average production for the past year was 9,120 lbs. of milk and they were dry an average of nearly 3 months each. Three of the dams are 2 yr. olds with first calf. Four of heifer's dams have A. R. O. records. Ages, two months to one year. Price, $85.00 to $125.00.

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Holsteins

FOR sale—Well-bred young heifers from tested dams, bred to our herd sire, Butter Boy Mink Pontiac 133161, also young bulls from tested dams, 2 ready for service priced reasonable

Cedar Lawn Stock Farm, Cook Bros.
Burlington **Wisconsin**

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BUY a bull ready for service at your own price. Born Feb 25, 1916. 27½ lb sire, and 22 lb. dam. Great grandson on both sides is Homestead, Jr. De Kol. More dark than white. Make reasonable offer. Write for service rate on our Holstein herd bull, Beach Rag Apple Korndyke 86101. 87½% same blood as Rag Apple Korndyke 8th

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MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address

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AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

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REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

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HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Teckterman Jr., Monroe, Wisconsin.

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HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

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RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers

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RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

RED Polled cattle for sale, both sex and different ages, also Poland China hogs, prices right. Cloverbelt Stock Farm, Hamburg, Wis.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard, Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa

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POLLED DURHAM CATTLE Registered bulls for sale from 2 to 8 months of age. Address Ph. Lang, West Bend, Wisconsin.

SHEEP.

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SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes, not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

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SIRED by a son of Pontiac Korndyke and out of granddaughters of Colantha Johanna Lad. They are good, straight fellows. Priced for quick sale. If you appreciate this kind of breeding, write
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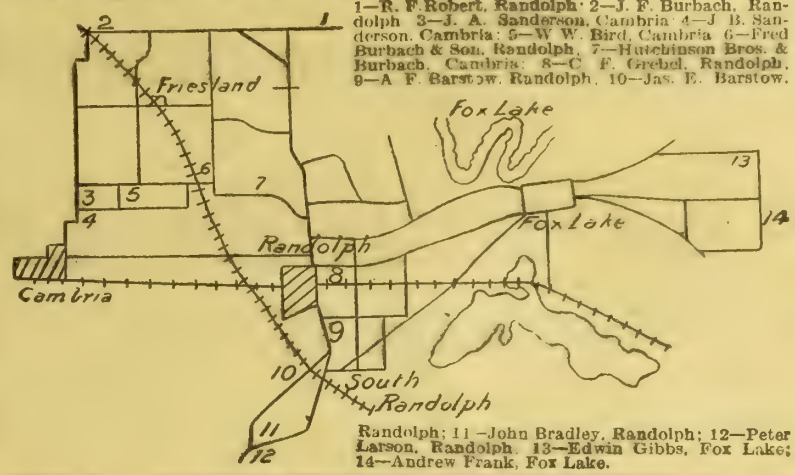
Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

9 YOUNG HOLSTEIN BULLS FOR SALE 9

Sired by King Pabst Pontiac Hengerveld 129297. Would sell them right. Address
HUTCHINSON BROTHERS & BURBACH CAMBRIA, WISCONSIN

Portage Prairie Holstein Breeders' Ass'n



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Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams
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Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
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Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
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FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
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FOR HIGH-GRADE OR REGISTERED HOLSTEINS

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READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
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BRED to a good son of Tommy Doyle, the $1,500 grand champion, for March and April farrow. Their dams are by Col. Defender 2d or Valley G. Priced to sell. Write
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JERSEY CATTLE.

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F. R. CONSTANCE & SONS, Props.

HAVE one yearling Jersey bull and three yearling bull calves for sale. All out of splendid dams and sired by a bull whose dam made 526 lbs. butter on official test under just ordinary farm conditions. We also have a fine fall Duroc boars and gilts for sale. For Dec., 19 cows and heifers of all ages and periods of lactation gave us 618.2 lbs. fat for which we received 44½c per lb. or $275.10 This was at the creamery and this under just ordinary farm conditions.
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Jersey Bull

DROPPED July 9, 1916; solid fawn color; good size; breeding "Eminent." Write for pedigree. Price reasonable.
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WITH **register of merit records** or breeding. **Both imported and American bred. 2 yearling bulls ready for service** from dams having records over 500 pounds butter in a year. Send for pedigrees. **Prices reasonable.**
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REGISTER of Merit bulls from calves to ready for service. High class and priced to sell
BURN BRAE ROSENDALE, WIS.

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REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.
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BORN October 22, 1916, a good one; straight type good spring of rib; sire of Golden Fern breeding, dam a granddaughter of Eminent; she and her sisters are heavy producers, eleven of them in my herd averaged close to 350 lbs. of fat last year. Send for pedigree, price right.
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COWS and heifers register of merit breeding One or a carload. I am a breeder, not a dealer.
E. E. WYATT - - - TOMAH, WIS.

JERSEYS

100 FEMALES in my herd, imported and American bred. Young bulls for sale from Advanced Registry dams. I can please you. Write
FRED STUBLEY BLACK EARTH, WIS

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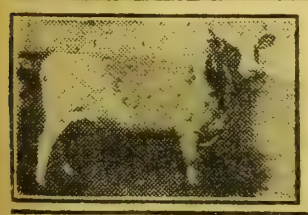
AYRSHIRE BULLS

HEN choice A. R. O. bred bulls from A. R. O dams and sires Ages from six months to yearlings. Sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old butter 425 lbs., full sister to ex. world's champion two year old record 15,000 milk 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.
ADAM SEITZ WAUKESHA, WISCONSIN



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Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

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Write your wants Address
A. S. VAN ETTA LIMA CENTER, WIS.

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SOUTH ST. PAUL, MINNESOTA, FRIDAY, MARCH 23, '17

53 BULLS, 34 females, 8 mature bulls, 32 young bulls ready for service, 13 yearlings. Females in calf or have calf at foot. Write for catalog to

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ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.
WALTER BROS. CHIPPEWA FALLS, WIS.

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THE spring gilts bred to Crimson Lad, a son of Van's Crimson and Roxy (Vanderhydes). We are also using a son of Burn Brae Orion, a pig with the best bone and feet we have ever seen. Address
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Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address
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OF Illustrator, Golded Model and Ohio Chief breeding. Long-bodied, heavy-boned, easy-feeding kind, bred to a son of King the Colonel and a son of J. C.'s Illustrator. 1st prize winner Minnesota State Fair, 1916. Address
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BOARS all sold. Offer a limited number of gilts. Place your order early. Herd headed by Royal Top Col and Grand Model 21st Address
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BREDgilts all sold. Fall pigs for sale Booking orders for spring pigs Few bushels seed corn
Riley Martiny & Son Baraboo, Wis.

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A FEW good Duroc gilts for sale Order early.
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OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.
Dennis Shea Melvina, Wis.

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BRED to Cook's Defender for sale. Only a few, order early. Address
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BRED GILTS---FALL PIGS

CHESTER WHITES

SIRED by or bred to **Schoolmaster, Abo 2d, Crandell's Wonder** and **Callaway Ed,** four great breeding and show boars. Write for illustrated catalog and price list
HARRY T. CRANDELL, CASS CITY, MICH.

CHESTER WHITE FALL PIGS

HAVE a fine lot of fall pigs, sired by CHAMPIONS. The best lot we ever raised, they'll please you.
H. A. DERENTHAL WYKOFF, MINN.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Ray Streak. Write
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BREEDER of **Chester Whites. Let me know your wants.**
WEST SALEM WISCONSIN

$1150 F. o. b. Racine
Mitchell Junior — a 40 h. p. Six
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Because of What John W. Bate Has Done

Hundreds of Extras

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This entire plant, covering 45 acres, was built and equipped to secure it. Now our new body plant completes it. We urge you to learn where these tremendous savings show in extra value.

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Part of this saving pays for 100 per cent over-strength. Our margin of safety used to be 50 per cent. It has now been doubled.

Steering parts, gears, axles, etc., are made oversize. Our rear springs are built so that, in two years, not a single spring has broken.

Over 440 parts are built of toughened steel. Parts which get a major strain are built of Chrome-Vanadium. The steel in Mitchells costs us up to 15 cents per pound. And we do not skimp on weight.

The result is safety, freedom from repairs and troubles. And a car which probably will serve men for a lifetime. Time will prove, we believe, that this double strength is worth half the price of the car.

$4,000,000 in Extras

There are 31 extra features in Mitchells, most of them exclusive. On this year's output these extras cost us about $4,000,000.

They are things like a power tire pump, an easy control, a ball-bearing steering gear, engine primer on the dashboard, a light in the tonneau, a locked compartment, etc

Every one is a wanted feature. Yet they are impossible, at a modest price, without Mitchell factory efficiency.

Extras in Luxury

The Mitchell has long been considered by experts one of the handsomest cars on the street. The output is largely sold in metropolitan centers.

Yet this year we have added 24 per cent to the cost of finish, upholstery and trimming. We are giving you heat-fixed finish, extra-grade leather, and scores of new dainty touches.

TWO SIZES

Mitchell —a roomy, 7-passenger Six, with 127-inch wheelbase. A high-speed, economical, 48-horsepower motor. Disappearing extra seats and 31 extra features included.
Price $1460, f. o. b. Racine

Mitchell Junior —a 5-passenger Six on similar lines, with 120-inch wheelbase. A 40-horsepower motor—¼-inch smaller bore than larger Mitchell.
Price $1150, f. o. b. Racine

Also all styles of enclosed and convertible bodies. Also demountable tops.

All this results from another economy. We now occupy our new body plant. All Mitchell bodies, open and closed, are built here now, under Bate efficiency methods. And this added luxury clearly shows the result.

What So Important?

What else is so important?

Extra values like these, without extra price, come only through efficiency. Under other methods, all these values are wasted in the shop.

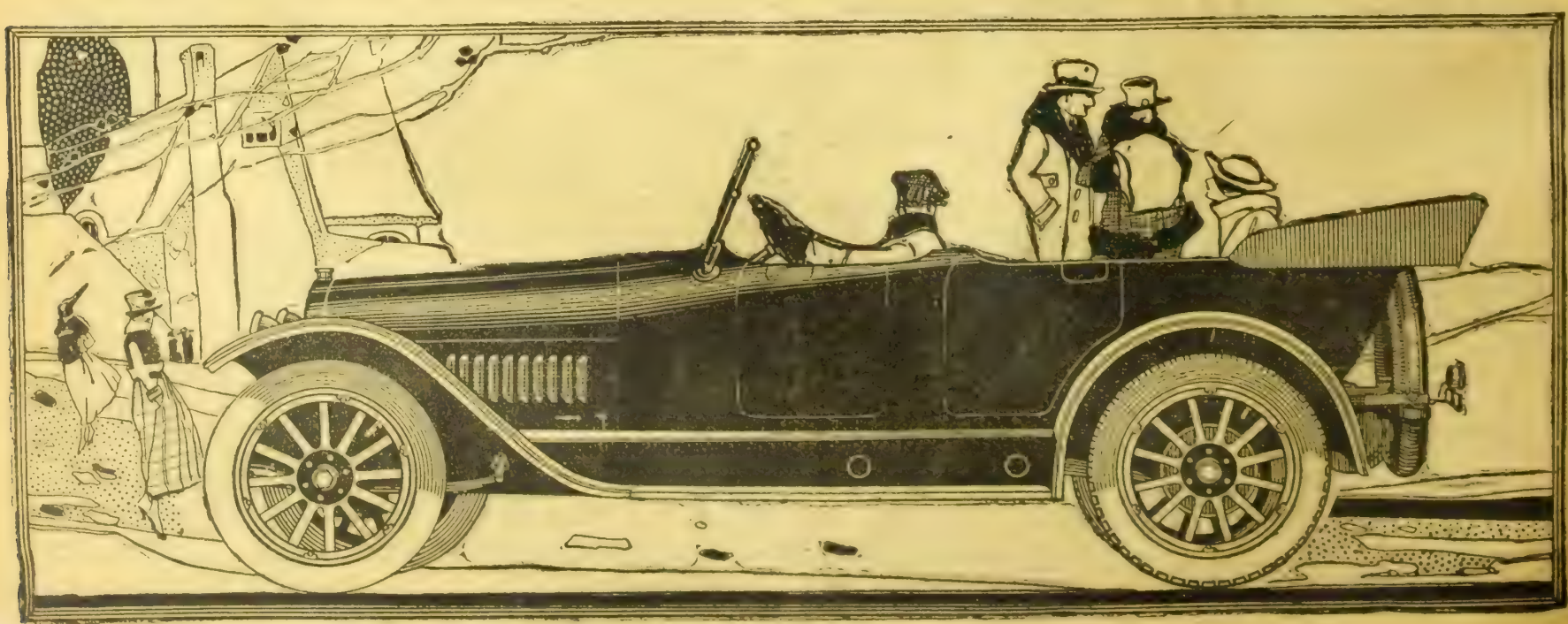
Mitchell stands unique among fine cars in respect to efficiency. For a dozen years John W. Bate has worked here to attain it. Go to your Mitchell dealer and see the results. Compare it with cars built otherwise. If you can, take an engineer with you, and we will abide by his verdict.

$1150 Mitchell Junior

Note that this year's line includes two sizes—the Mitchell and the Mitchell Junior. But the Mitchell Junior—for five passengers—is still powerful and roomy.

This is also for efficiency. So the man who wants a 5-passenger car need not pay for more power or more room than he needs.

MITCHELL MOTORS COMPANY, Inc.
Racine, Wis., U. S. A.



More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 11. THURSDAY, MARCH 15 1917. WHOLE NO. 1833

Reading Room of A. Urbana Ill.

Ten Years' Success With Guernseys.

WHEREVER Guernsey breeders thrive the name of Fox Bros., of Waukesha, Wis., is known. The brothers, Frank and Al, have only been in the business ten years, but in this short period they have built up a herd which has both show-ring and production records to its credit. It is a wonderful demonstration of what energy and intelligence can accomplish. Located about a mile from the city of Waukesha in the county of the same name, the 300 acres of the farm are an excellent location for the establishment of a dairy herd. The Fox Bros. realized this when they took over the interest of S. A. Fox, their father, quite a few years ago. Frank runs the half nearest the city and Al the 150 acres on the other end. It was only natural that at first they should continue in the way of Fox, Senior, and milk cows which had no especial breeding and of whose profit-producing powers they had no conception. An experiment with a grade cow, however, soon showed them the advantage of breeding for a special type of dairy animal. As a consequence a visit to the National Dairy Show at Chicago was made in 1907 and four cows of the Guernsey breed purchased. These cows gave such splendid results during the year 1907 to 1908 that there remained no doubt in the minds of the brothers of the superiority of pure-bred dairy cattle over scrub and grade cows. Several carloads of Guernseys were therefore imported from the east in the following year and these with the first cows and some other purchases formed the foundation of what is known as the Fox Bros. Guernsey herd.

F. E. FOX.

A. W. FOX.

The boys realized at an early date that advertising through proper channels was a sound investment. They used both the farm papers and the show ring to good advantage. The show ring has given them honors and has taught them to believe more firmly than ever in breeding for a proper type of animals. There have been won by animals shown by them more than 500 prizes with no prize lower than fourth place. They have carried away championship after championship at all the leading fairs of the Mississippi valley. Thirty-eight animals have won first prizes and championships and seventy others have collected ribbons from fourth place and up. The brothers have not shown their stock since 1914, but show points are still kept in mind in their breeding operations. Some of the best records on their farm are being made by heifers out of cows that have won premier honors at the fairs. The regular herd consists of 150 head of cattle, though at times this number is exceeded. Four cows have done especially well on the farm and back to these cows trace a great number of the animals now in the herd. One of these was Selma Pinehurst 2d, a cow of larger size, with exceptional dairy type and temperament. She was first-prize cow at the Wisconsin State Fair and at the National Dairy Show in the junior and senior inheritance class in 1913. She has made two advance register records, one at the age of two years, with 430 pounds of butter fat and 7,078 pounds of milk; the other at the age of five years, when she made nearly 500 pounds of butter fat and 8,728.9 pounds of milk. She was sired by Glenwood Boy of Haddon, out of Selma Pinehurst.

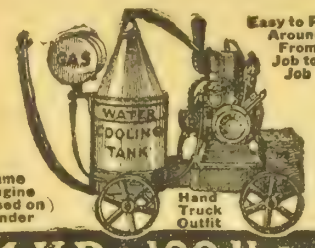
Another cow that has an exceptional record in the herd is Essie Jeweler. This cow was first in 1913 in every class but one and was senior and grand champion female in the aged class at four of the seven fairs where she was shown. She was also in the first-prize aged herd at Wisconsin in 1910. Her breeding record is as exceptional as her show-ring record. She produced twelve heifer calves and only one bull calf in fourteen years. A granddaughter of this cow is showing exceptional powers of production. She began a test in October, 1916, and has averaged about two pounds of fat daily and shows every indication of keeping up this record. This would make make her total better than 600 pounds of fat for the season.

The herd was until lately headed by King Talladeen of Chestnut Hill. He was bought when he was only a few weeks old and used extensively in the herd. He took first prize as a yearling bull at the Minnesota and Wisconsin state fairs in 1909 and has won no less than twenty other ribbons in the open classes in the years that followed. He was sired by Skeezicks, that has ten advanced registry daughters and brought at one time a price of $1,000. He was out of the cow, Talladeen, that has a record of 11,907 pounds of milk and 635.2 pounds of butter fat and several tested daughters with large records.

Another one of the herd bulls is Benton's May King of Ingleside, that is a grandson of Imperial King of the May, whose dam has a record of 632 pounds of fat and 12,024 pounds of milk. She in turn is a dam of Dolly Bloom, with 16,507 pounds of milk and 816 pounds of fat. Dolly Bloom is the mother of Dolly Dimple, the famous heifer whose record as a two year old of 705 pounds of fat and 14,009 pounds of milk has been surpassed only by Cherry of Edgewater. On the dam's side this herd sire has Benton's Lady with 13,305.1 pounds

(Concluded on page 8.)

First-prize young herd at the 1914 National Show. These cows were all caught in the quarantine and passed through the crisis successfully. They are all on the farm of F. E. Fox. The third one in the line is Dairymaid of Waukesha, one of the best cows ever produced on the place.



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Besides doing all farm and household jobs, this 4 H. P. Cushman may be lifted from truck and hung on rear of binder during harvest to save a team. In wet weather it saves the crop.

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Built for farmers who need an engine to do many jobs in many places instead of one job in one place. Throttle Governed, with Schebler Carburetor. Run very quietly and steadily—not with violent explosions and fast and slow speeds like old-style heavy-weights. Engine Book free.

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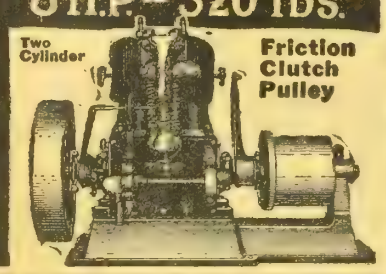
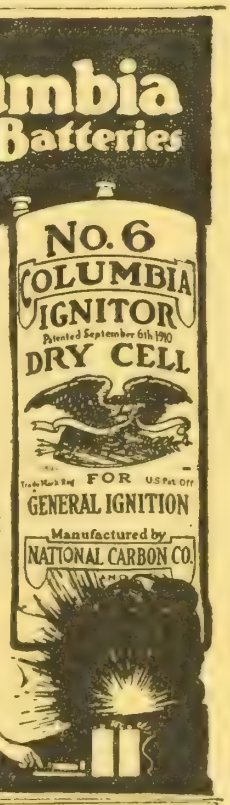


Columbia Batteries



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FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments Diagnosed and Remedies Suggested in this Department.

Questions and Answers.

Sal Ammoniac Solution.

How can one make the sal ammoniac solution for a wet battery as you suggested in your issue of January 25th? What parts do you mix? Would this kind of a battery do to run a gas engine with? How many would it take to run a six-horse engine so as to last? What is the difference between connecting in parallel and in multiple series?

Answer.—The solution is made by dissolving sal ammoniac in water. An exact proportion is not required. A good solution may be made by dissolving as much sal ammoniac as possible in a pint of water and then add three pints of water. If the dry cells are not too badly worn out six cells in this solution should be sufficient to operate an engine for some time. The outside pasteboard cover must be removed from the cells and several small holes punched in the zinc can so that the solution can soak into the inside of the cells. The cells should be placed in glass jars containing enough of the solution to come up within an inch of the top of the cells.

Six cells in parallel, when new, will produce a current of 1.5 volts and deliver a continuous current of 2.1 amperes. The same cells if connected in series would deliver a continuous current of .35 amperes at nine volts. Connected in series-multiple, two in a series, the continuous amperage would be about 1.05 amperes and the voltage three volts. Connected in series-multiple, three in a series, the continuous amperage would be about .7 and the voltage four and one-half volts. When cells are connected in series the carbon of one is connected to the zinc of the next. When connected in multiple all the carbon terminals are connected to one wire and all the zincs to the other. Series-multiple is a combination of the two.

Changing Two-Cylinder Engine.

I have a two-cylinder Rambler auto engine. I would like to know whether I can make a one-cylinder engine out of it. It has the flywheel on the side. Would I have to balance it on one side?

Answer.—You would have a better balanced engine if you leave both cylinders just as they are, closing up the intake of the cylinder you do not wish to use. A single cylinder engine cannot be balanced as perfectly as a two-cylinder engine. If you disconnect one cylinder you will need to rebalance the flywheel, making the side opposite the crank heavy enough to balance the action of the piston and connecting rod. The amount of weight that should be added would have to be found by experiment. This can best be done by drilling and tapping some holes in the side of the flywheel rim and fastening washers to the rim by cap screws.

Four-Cylinder Magneto on Single-Cylinder Engine.

Can a Splitdorf high-tension magneto be installed on an Olds gasoline engine having jump spark ignition?

Answer.—It can. Connect the magneto to the engine by gears or a chain so that the magneto armature runs at crankshaft speed. It must be connected so that the breaker contact points open just after the end of the compression stroke. With the engine in that position, remove the distributor cover of the magneto and note the position of the distributor brush. Connect the high-tension terminal with which the distributor brush is in contact to the spark plug. Ground the other three high-tension terminals on the engine frame.

Ascending and Descending Hills.

I have a new Ford car and it is not equipped with any batteries. In descending hills, is it not a good method to push the clutch pedal into neutral at the same time with the brake pedal? If so, should the spark and throttle levers be fully retarded? As soon as I have descended the hill, could I not let the clutch pedal back into high again when releasing the brake pedal without stalling the car? In ascending the hills, how far should the spark lever be advanced on low gear?

Answer.—The following instructions for driving down hill are given by the Ford Company:

In driving down long, steep hills the speed of the car may be checked by allowing the engine to run against compression, rather than by using the transmission brake. Throw off the switch and close the throttle. If this does not slow down the car sufficiently, throw the clutch into low speed. Upon reaching the bottom of the incline throw on the switch again and open the throttle. If the throttle is left open while descending the hill the fresh gas is apt to work back through the exhaust pipe and cause an explosion in the muffler when the switch is thrown on. Using the engine as a brake should not be attempted until the driver becomes familiar with the car, however.

In ascending a hill place the spark lever in such a position that the engine has the greatest power. This can only be found by experiment.

Carbon Prevention—Gasoline Economy.

What is the best preparation to put into an automobile engine to prevent carbon from forming? What make of car of the same horse power uses the least gasoline per mile?

Answer.—The best carbon preventive is a good set of piston rings and a proper regulation of the oil supply. Carbon is usually caused by the oil working up past the rings. This may be due to poor rings; too high an oil level in the crankcase, where the splash system is used, or too much pressure and poor-fitting bearings where forced feed is used. Carbon may also be due to too rich a gasoline mixture. In any case, an ounce of prevention is worth a pound of cure. There are some compounds on the market that claim to prevent carbon if used with the gasoline, but we have never tried them.

It would be impossible to say which car has the best fuel economy on account of the different weights and horse powers of the cars. Much depends upon the adjustment of the carburetor, the timing of the spark and the judgment used by the driver in controlling his spark and throttle.

Ask your neighbor to subscribe for The Wisconsin Farmer.

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Knives start instantly—can't clog.

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High wheels, exposed driving pawls and ratchets, long wearing, easy running gears, automatic spring draft, correct balance and easy riding are features you'll appreciate.

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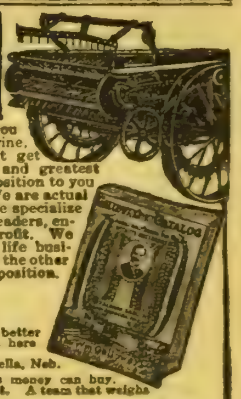


BEFORE YOU BUY BE sure and get my prices! Before you buy a manure spreader (gasoline engine, cream separator or tractor) of any make, or kind, or price, first get Galloway's 1917 catalog—the biggest, most important book and greatest money-saver for my customers I ever put out! Get my proposition to you and compare it with all others; then be your own judge! We are actual manufacturers and sell direct to you from our factory. We specialize on the lines we offer. We were first to offer manure spreaders, engines, separators direct from the factory at one small profit. We have made the manufacturing and selling of these lines a life business. You can't afford to buy a manure spreader or any of the other Galloway lines until you first get our prices and our proposition. Get my prices before you buy!

UNDENIABLE PROOF!

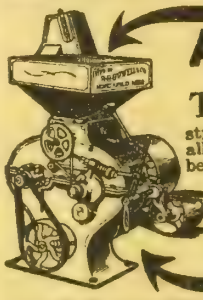
I saved $29 by ordering a Galloway. I know it is a better spreader than I could have bought here for $125. Geo. A. Kralik, Okla. City, Okla.

I consider it equal to a prominent machine sold for $140. One neighbor who has used both says he would rather have the Galloway. W. C. Cracraft, Eckley, Colo.

I saved $39. Believe I got a better spreader than was offered me here for $135. A. T. Miller, Orella, Neb.

It is as good a spreader as money can buy. I kept $35.43 in my own pocket. A team that weighs 1,850 lbs. pulls it easily. W. H. Adams, Pound, Wis.

THE WM. GALLOWAY CO., 80 Galloway Sta., Waterloo, Iowa



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The Wisconsin Farmer

THURSDAY, MARCH 15, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

A NONPARTISAN WISCONSIN FARMERS' ORGANIZATION.

AS I READ the call issued recently by the stockholders of the Farmers' Co-operative Packing Company for a meeting of Wisconsin farmers at Marshfield on March 22d, for the purpose of organizing a nonpartisan political league, I was reminded at once of what Abraham Lincoln said to an audience of Wisconsin farmers in 1859. Referring to the importance of good government to the farmers of such an agricultural state as this, he said:

> Farmers as a class are neither better nor worse than other people, but their interest is the largest interest. It also follows that that interest is the most worthy of all to be cherished and cultivated and if there be inevitable conflict between that interest and any other, the other should yield.

It was one of the evidences of Lincoln's greatness that the sentiments which he uttered were true, not only for his own day and generation, but for all time to come, because they were based on fundamental principles and eternal verities which do not change. And in nothing did he speak more truly than in the words given above.

In a state like Wisconsin, where agricultural interests are paramount and 57 per cent of the population is listed by the federal census as rural in character, the farmers should always exert themselves along political, though never along narrow, partisan lines. They are the largest stockholders in the largest business institution in the Badger state, which is the state government itself, and it is directly to their advantage to exercise the influence and power which they possess by co-operating in a spirit of harmony for the common cause.

From a purely dollars-and-cents standpoint it will pay them, because it is just as important in arriving at a balance on the right side of the ledger at the end of the year, that the public funds, to which they are the largest contributors, be handled economically, honestly and efficiently, as that their acres be made to produce a little more and their live stock earn them a little larger profits. But there is a matter involved over and beyond that of dollars and cents, and that is the question of public morals and the example which the public servants set to the rising generation of Wisconsin farm boys.

The heart of any agricultural community is sound on public matters which it once grasps. The farmers of Wisconsin are capable of solving the questions of public policy along right lines, and they have the patriotism to do so. All that is needed is to arouse their interest, to give them the information, and when they once grasp the equities of any proposition, they will hold on like grim death and fight it out along those lines, if it takes all summer and all winter, too.

That is why I rejoice at this movement to arouse greater interest and activity among the farmers of this state along nonpartisan lines. Lack of organization among the farmers for the promotion of unified action is always the main reliance of those whose aims and efforts are opposed to the vast agricultural interests of this and other grain-belt states. The powers that prey on the farmer's divisions and prejudices never sleep, and it takes some great issue, like the granger movement of the seventies, to arouse the farmers to a realization of their influence in bringing about good government.

Nor is this present movement confined to Wisconsin. It is sweeping across the grain-belt states with all the fervor of a religious revival and upsetting old political alignments, as it ushers in a new order of things. In North Dakota it has completely smashed an old and corrupt political machine by electing the farmers' nonpartisan candidate for governor, and other state officers, controlling the legislature and writing its views into the state platform. The farmers of North Dakota are in the saddle and they will not be easily replaced. The movement spread from North Dakota to Minnesota, and there it is causing much fear and trembling in the seats of the mighty, as the politicians contemplate the future. In Iowa a similar organization of embattled farmers played a big part in the last state campaign, electing many officials and having great influence on party policies. Now, Wisconsin is beginning to feel the stirrings of this farmer's nonpartisan political movement, and the end is not yet.

The Wisconsin Farmer believes that the thoughts and hopes of Wisconsin farmers should be centered in the gathering at Marshfield on March 22d, and that just as many as possible should plan to be present and join in the discussions and the actions of the meeting. There is no state in the Union where the farmers are better organized for social and economic advancement than Wisconsin, and it is fitting that they should also be united for political progress, along nonpartisan lines. The experience of neighboring states demonstrates that in the idea is sufficient political dynamite to rock the Badger state from one end to the other, and to compel any interest which comes into inevitable conflict with the farmers' interest to yield, even as the martyred president advised a Wisconsin agricultural gathering over half a century ago.

A BRIGHT OUTLOOK FOR WISCONSIN FARMERS.

SELDOM have we, in Wisconsin, passed through a more severe winter than the one just closing. Not only have extremely low temperatures frequently prevailed, but there has been an unusually large amount of snow, the fall ranging from twelve to fifty inches at times. Several of the storms have been among the worst on record, recalling the historic winter of 1863-4 and the New Year's Day blizzard of 1864, which is still regarded as the worst day within the memory of the oldest Wisconsin inhabitant.

But far from being the proverbial ill wind that blows nobody good, the severity of the winter just passed has in some respects been a decided blessing, lending hope and encouragement for the coming season. It is an old adage that "a good crop follows a hard winter." Whether or not there is any scientific connection between the winter's cold and the summer's crops I do not know, but it is certain that a season of abundant snowfall is of great benefit. Snow is a good protection for grains and grasses against winterkilling; from it spring moisture is obtained that means early grass; it also contains some ammonia that is of value in adding nitrogen to the soil.

All that it is necessary for us to do here in Wisconsin is to put ourselves in position to take advantage of present conditions and to make the most of what a bountiful nature has done for us. Making hay while the sun shines is a policy that commends itself to every far-sighted business man, and I advise my readers to bend all their physical and mental energies to making the most of this year of grace 1917. It should be a year of heavy crop production, of mortgage clearing, of better stock raising, and of more intensive farming. Wisconsin has set a high mark in former years to aim at, but 1917 should, and I confidently believe will, be the very best of them all. Nature has done her part this winter. Let us, each one of us, do ours until another winter rolls around.

WOULD NOT BE WITHOUT WISCONSIN FARMER.

ONE of the valued subscribers of The Wisconsin Farmer is Albert W. Komis, of Clark county, who has written to me as follows:

> Dear Mr. Pierce:—I am sending in my renewal, in response to your offer. I would not be without The Wisconsin Farmer at any price. I am renting a farm of 120 acres at present, with twenty milk cows on the farm and farm machinery. I furnish the horses. The winter with us here in Clark county has been very cold. Stock is doing fine, notwithstanding the cold weather. Feed is plentiful. Butter sells for thirty-nine cents a pound; cheese, twenty-two cents; eggs, thirty-two cents a dozen, and I have received $2.86 per 100 pounds for my milk, this price being paid to me by the J. Nuetrish Cheese Factory.

Who said anything about a hard winter up-state this year? Of course, it has been cold at times, and there have been some heavy snows. Train service has been good, except during a couple of storms, and factories have been able to ship away their butter and cheese and get the cash. What would the farmers of a few years ago think of $2.86 per hundred pounds for whole milk? I am especially glad to note Mr. Komis contradicts some reports about scarcity of feed. There is plenty of feed in his neighborhood, he says, and I am inclined to believe that it will be a pretty rare day, indeed, when good old Clark county is unable to furnish plenty of feed for her dairy cattle. I have seen some pretty good corn produced in Clark county and am convinced that corn can profitably be raised there.

Here's hoping the heavy snows of the past winter will help put Mr. Komis' soil, and that of his neighbors in Clark county, in good shape for a wonderful harvest in 1917. The soil and dairy cattle in Clark county ought to produce a big pile of money at present prices for agricultural and dairy products.

THE LOYALTY OF WISCONSIN'S ADOPTED SONS.

THESE are moments of great national stress. We confront a crisis the far-reaching magnitude and importance of which few among us realize. Its shadow hangs low over the farms of our fair state of Wisconsin fully as much as over the factories of New England or the mines of the Rocky mountains. At such a time we are all Americans, no matter what our geographical location, no matter what our individual situation.

One thing impresses me above all else in the situation as it exists today. That one thing is just this: The true-blue patriotism of the people from across the seas who have come to Wisconsin, Minnesota and the Dakotas to become real Americans. There is no wavering among them. They have been through the melting pot and have come forth refined gold. They went in as Germans, Austrians, Scandinavians, all manner of nationalities; they came out one people: Americans. Among them are men and women of widely varying walks in life. Some till their little handful of acres in a meager manner, being like the immigrant-farmer in northern Wisconsin, whose letter I gave you for a New Year's message, who, instead of riding in an automobile, is well content with his wooden wheelbarrow. Others see their far-flung acres stretching clear to the horizon and the golden wheat billowing, around harvest time, like a veritable sea of gold. But no matter what their financial or social standing, all unite in being one thing: Honest, loyal, patriotic Americans.

This thought has come to me a great many times lately as I have read the hundreds of letters from subscribers which pour into the office of The Wisconsin Farmer every week. I decided to pass it on to you when I read the following letter from one of my subscribers, Mr. Albert Enzmann, of Ray, Minnesota, secretary of the Ray Farmers' Club. Here is a letter which makes us, who are native born, thrill with pride for the men and women who have come from across the seas to stand shoulder to shoulder with us in our present national crisis. Mr. Enzmann writes me as follows:

> My dear Mr. Pierce: Enclosed herewith find my check for another year's subscription to The Wisconsin Farmer. I wouldn't think of being without your paper for twice the amount you ask for it.
>
> Having been born and raised in Germany I have naturally sympathized with that country during this terrible war, and it made my heart ache when I read some of the editorials of the daily newspapers and farm magazines in their efforts to prejudice their readers against Germany. It was then I noticed with satisfaction that The Wisconsin Farmer was the only true neutral publication which came to my eyes, not excepting the German papers, of which I read several. In spite of the fact that I didn't approve of the action of our government in the beginning of the war, to allow the exportation of arms and ammunition to the belligerents, I am ashamed now of my action in not supporting Mr. Wilson for re-election last fall. I am further ashamed of the fact that I attributed the president's actions to selfish reasons only, which I now know to be far from the truth. There is no man whom I would rather see at the head of this nation today than Mr. Wilson, as I know if he cannot prevent war with Germany honorably no one can.
>
> I have perhaps more reason to be thankful to this country for what it has done for me than the average emigrant, as I landed here from one of the interned auxiliary cruisers, when she was making regular peaceful trips across the ocean, with 67 cents in my pockets. But should the president decide that the rupture cannot be prevented, I don't think there will be a citizen of German blood disloyal to the Stars and Stripes. Yours very truly,
>
> ALBERT ENZMANN.

Is there not an example set here for all of us by this transplanted farmer, who is now neither German nor German-American, but all American? I am not asking you to be for any man or against him, for any policy or against it. I am simply asking that you be a true-blue American and give to your country the full measure of your patriotic loyalty. This full measure need not consist in carrying a musket—I pray God it may never be this. It may consist merely in making your fields yield abundantly and your herds multiply prolifically, so that the world may be fed and clothed. But wherever duty calls any of us, in such a crisis as this today, may we all face it with as shining a face, as loyal a heart and as unconquerable a spirit as this Wisconsin Farmer reader, who was German, but is now American.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer — Madison, Wis.

Wisconsin Feeding Problems.

With the present high cost of feed and no prospect of turning the cows onto pasture for two months at least, Wisconsin dairymen are facing a difficult feeding problem. Cutting down the quantity of feed is not practical, since the greatest profit is made by feeding cows up to their maximum capacity. It reqiures from 40 to 60 per cent of the feed a cow can consume to keep her alive, and that which is over this amount is available for production. Thus it is poor economy to provide a maintenance ration and not furnish the additional feed which she can turn into milk at a profit. The best practice is to allow the cows all the feed they will clean up without gaining in weight.

The heaviest milk production takes place when cows are on grass and the winter feeding problem is largely a matter of getting a combination of feeds to take the place of grass. Succulent feed has a beneficial effect on the digestion of the animal and for this reason silage or root crops, such as mangel-wurzels or carrots, should form an important part of the winter ration. It is a common practice among dairymen to allow the cows all of this feed that they will clean up, which is usually about twenty-five or thirty pounds per head daily, depending, of course, upon the amount of other feeds in the ration. Since silage and root crops are comparatively inexpensive, a liberal feeding of them seems advisable at this time.

Clover and alfalfa are probably the best roughages for cows, because they furnish a liberal supply of nitrogenous material necessary to keep up a good flow of milk. Cowpea hay is also good, but timothy is not so desirable because it is low in nitrogen. No fixed rule can be laid down as to which of these feeds is best to use because conditions vary so much with regard to cost and available supply. Most dairymen will feed whatever dry roughage they have on hand, because it is usually more economical to do so than to buy something else. Since roughage can be grown at less cost than grain it is good feeding practice to include an abundance of it in the ration. In some cases, however, the cost of shipping and handling bulky feed when it has to be purchased makes a relatively larger use of grain more profitable.

With regard to the amount of grain to feed, some dairymen make it a practice to feed one pound of grain daily for every pound of butter fat produced per week. The idea is to allow as much grain as the cow will convert into milk. Another method is to feed one pound of grain per day for every three or four pounds of milk produced.

In this state wheat bran, oats and corn are among the more commonly used concentrates. Cottonseed meal is a good supplement to corn because of its high percentage of nitrogen, but considering both the cost and the effect on the cows, it is not advisable to feed more than three or four pounds of this material per day. The kind of grain on hand and the cost of each kind on the market will determine that which can be fed most profitably, but care must be taken to see that the total ration has sufficient nitrogenous material in proportion to its starch and fat or oil content. If a good supply of clover or alfalfa hay is included in the ration, there is apt to be little trouble in this respect.

Good care and stabling of the cows, plenty of salt and fresh water of the right temperature and regularity in feeding are also factors in milk production that cannot be overlooked at this time when every effort is being made to keep profits above the high cost of feeding.

Wisconsin Farm Names.

The Wisconsin Farmer is in receipt of a letter from Harry Setz, Jefferson county, Wisconsin, asking for suggestions for farm names. Inasmuch as spring and summer improvements will soon begin and many of our readers will want to take advantage of the new law to adopt farm names, we have decided to republish a list which was given in The Wisconsin Farmer about two years ago. The following is the list:

FARMS WHICH OVERLOOK LAKES VALLEYS, STREAMS, ETC.	
Lakeview Farm	Grandview Farm
Valley View Farm	River View Farm
Brook View Farm	Overlook Farm
Village View Farm	Riverdale Farm
Lake Overlook Farm	LaBelle Lake View Farm
Lakeside Farm	White Birch View Farm
Greenview Farm	Hillview Farm
City View Farm	Pleasant Hill Farm
Maple Grove View Farm	Cedar View Farm
Elmhill Farm	Brookside Farm
Fairview Farm	Brook Farm
FARMS DISTINGUISHED BY GROVES, LOCATED ON HILLS, ETC.	
Airy Knoll Farm	Hill Croft Farm
Springdale Farm	The Alps Farm
Elmgrove Farm	Prairie View Farm
Burr Oaks Farm	Maple Wood Farm
Sunny Slope Farm	Wildwood Farm
Rocky Ridge Farm	Chicken Ridge Farm
Maple Lane Farm	Elmwood Farm
Pleasant Point Farm	Lone Oak Farm
Royal Oaks Farm	The Maples
Oak Grove Farm	Pleasant Knoll Farm
Honeywood Farm	Long View Farm
Hillside Farm	Rockhill Farm
Hillcrest Farm	Upland Farm
Point Breeze Farm	Oak Lodge Farm
FARMS WHICH SPECIALIZE	
Shamrock Holstein Farm	Long View Fruit Farm
Ivycrest Stock Farm	Roadside Stock Farm
Happy Home Chicken Farm	Jones' Percheron Farm
Rose Lawn Poultry Farm	Homewood Jersey Farm
Wayside Produce Farm	Fairview Guernsey Farm
Duroc Jersey Farm	Greenview Stock Farm
Cloverleaf Stock Farm	Meadow Lawn Dairy Farm
Happy Hollow Stock Farm	Spring Hurst Swine Farm
Oak Grove Horse Farm	Ideal Dairy Farm
GENERAL FARM NAMES	
Elderberry Park Farm	Homeland Farm
The Everglades Farm	Cedar Lodge Farm
Home View Farm	Rosendale Farm
Park Farm	Fair Acres Farm
Pinehurst Farm	Honeysuckle Park Farm
Bellemont Farm	Cloverdale Farm
Pleasant View Farm	Plain View Farm
Prosperity Farm	Edgewood Farm
Evergreen Heights	Daisy Farm
One Mile Farm	Clover Nook Farm
Fairview Farm	Clover Heights Farm
Pilsen Farm	Quietdale Farm
Allswell Farm	Sweet Brier Farm
Golden Prairie Farm	Waveland Farm

The Wisconsin Farmer will be glad to receive any other suggestions for farm names. Perhaps some of our readers will be able to write us a letter about their farm name and how they happened to select it. In nearly every case there is some sort of an interesting story behind the selection of a farm name.

In Walworth County.

The LaGrange Community Club, of Walworth county, recently entertained the baby beef institute conducted by Mr. W. L. Houser through the coöperation of the Wisconsin Live Stock Breeders' Association. It was a very practical meeting at which important points to be considered in the selection of baby beef were fully discussed. Mr. John Taylor exhibited three calves which were used by the speaker in his demonstrations. These calves were of three distinct types—one of them a splendid baby beef individual, one a splendid typical Short-horn with heavier frame than the other and a good example of the best kind of a two-year-old feeder. The third was an example of a typical dairy steer and carried the points and appearance that made him such. The crowd was quick to note this and received a lasting impression from the demonstration. At the evening program Mr. L. L. Oldham, Walworth county agent, gave an instructive address on alfalfa inoculation and liming.

The baby beef institute is the second big thing which has been arranged this year by the Community Club of LaGrange. On January 27th a public demonstration and post-mortem on tuberculosis in a dairy animal and its relation to the tuberculin test was given by Dr. Eliason, chief of the state veterinary department.

These activities speak well of the possibilities of a community club and its relations to its neighborhood. Particularly is this true when one considers that the LaGrange Club was organized but a short time ago, November 23, 1916.

Walworth county, under the able guidance of the county superintendent of schools and the county agricultural agent, is fast assuming the leadership in the state for community clubs. Fifteen such clubs are now numbered. Among those in the county holding regular monthly meetings four of them conduct their meetings in club houses of their own, erected at an expense of from $5,000 to $8,000. Two others are contemplating building in the spring, the remainder hold their meetings in town halls and the larger of their school buildings. The atmosphere in the county is thoroughly charged with subjects such as "Better live stock," "Better grains," Pay attention to your fertility," "Ventilate and save veterinarian bills," etc. Old and young alike are interested and this is evidenced by the fact that this county led the attendance of the counties of the state with the single exception of Dane county at the 1917 Farmers' Week. A party of some seventy made up the delegation which wore the purple ribbon carrying the aluminum letters as an advertisement for their county and an endorsement of the community club idea.

Using Small Potatoes For Seed.

With present high prices of potatoes the question of seed stock is in many instances a most important one. Undoubtedly many of our readers are in the same position as is one of our subscribers, who asks the following questions:

What do you think of planting small potatoes that were culled from the sale stock last fall? The tubers I have on hand range in size from that of a hen's egg to considerably smaller. Last spring I planted large tubers, so what I now have came from good stock. On account of high prices I don't like to buy a lot of expensive seed. I have enough large tubers to plant two acres from which I can select seed for next year, but I want to plant ten acres more and have enough small tubers for that. While I would not approve of planting cull potatoes every year, I would be glad to have your opinion of using the small ones this year.

In a year like this with potatoes selling at $3.20 a bushel, the retail price here, we would not hesitate to use small or cull tubers for seed if we had them, but, of course, it would be unwise to follow such a practice from year to year. A number of tests might be cited to show that the yield from cull tubers is usually smaller than that from medium size tubers of the same kind. Some years ago, for example, the South Dakota Experiment Station tested out this matter quite thoroughly with the following results: Early Ohio potatoes planted with pieces from tubers averaging about two ounces each yielded 119 bushels per acre, while the same variety planted with pieces from tubers averaging six ounces produced 126 bushels per acre. In the case of Carmen No. 3, plots planted with pieces from tubers weighing two ounces yielded 103 bushels, while the same variety planted with pieces from eight-ounce tubers yielded 108 bushels per acre. Thus the general average was six bushels per acre in favor of the large tubers. In another experiment at the same station, small tubers averaged 174 bushels; medium tubers, 271 bushels; and large tubers, 298 bushels per acre.

Seed potatoes are seldom selected as they should be. Selection should begin in the field during the summer months while the potatoes are growing. One should go through the patch and place a stake by the most vigorous plants before they ripen and while one can examine them carefully. At digging time one should then select the most productive hills of those staked during the growing season and preserve them for seed. This method of selection, carried on for a number of years, has shown a remarkable increase in yielding capacity, especially for the first two years.

One reason why it is not a good plan to select the small tubers for seed is because the weakest hills invariably produce the greatest number of small tubers. In other words, a given number of small potatoes represents a greater number of weak hills than the same weight of potato in the larger sizes. There is always a remarkable difference in the production of individual hills of potatoes in a given field. Sometimes this variation is due to soil conditions, but very often it seems to be due to inheritance. This means that a small tuber from a very productive hill is more desirable for seed purposes than a large one from an unproductive hill.

Renew Before It Is Too Late.

With active farming operations for another season now almost upon us, it behooves every reader to see that he is assured of weekly visits from The Wisconsin Farmer throughout the entire year. The important matter of renewing subscriptions should be attended to before cropping operations make time for letter-writing next to impossible.

We wish to urge upon all our readers that they send in their renewals promptly, so as to insure themselves receiving every copy of The Wisconsin Farmer for the entire year. We wish, moreover, that before the spring work takes up all their time they take a few minutes to inquire among their neighbors as to whether or not they, too, are receiving and reading this paper. If not, a little boost for The Wisconsin Farmer will be a favor to the neighbor and to ourselves and will be the means of making our already large subscription family still larger.

We propose to make The Wisconsin Farmer more practical, entertaining and valuable this year than ever before. Will you do your share by attending to your subscription renewal promptly and securing the subscriptions of as many of your friends and neighbors as you possibly can?

Long-Term Leases Needed

That there is a tenant problem in this country is an admitted fact by everyone who understands the situation. Tenancy is steadily increasing. The 1910 census shows that 37 per cent of the farms in the United States are operated by tenants, 1 per cent by managers and 62 per cent by owners. Tenant farms, however, average smaller in size than the others. In other words, when speaking of acres instead of farms we find that 26 per cent of the land is operated by tenants, 6 per cent by managers and 68 per cent by owners.

It would unquestionably be better for society if all land could be operated by owners, but so long as land has as great a speculative value as it has had in recent years this seems practically impossible. Under our one-year lease system the tendency is for the tenant to mine instead of conserve the fertility of our soils and for that reason it is a bad one. That tenant farms have been losing fertility is not the fault of the tenants, but of the landowners. The reason why tenants are not soil builders is because there is no incentive for them to improve the soil they till or even maintain its present fertility. This is due to the one-year lease system.

A tenant system of land tenure is not necessarily a bad one so far as the conservation of soil is concerned. Of this we have ample proof. Nine-tenths of the land in England is operated by tenants and the fertility of the land has been increasing during the past fifty years. This shows that tenants, as a class, are just as good farmers as landowners, provided there is an incentive for them to become soil builders. Long-time leases prevail in England. A man may lease a farm for ten, fifteen or ninety-nine years. The lease, however, stipulates how the land shall be handled with reference to soil fertility, how often certain fields shall be fertilized and to what extent. Furthermore, if at the end of the lease the farm has been improved—if more fertilizer has been applied than the lease called for—the

tenant obtains a rebate for the value of the extra fertility he has left in the soil.

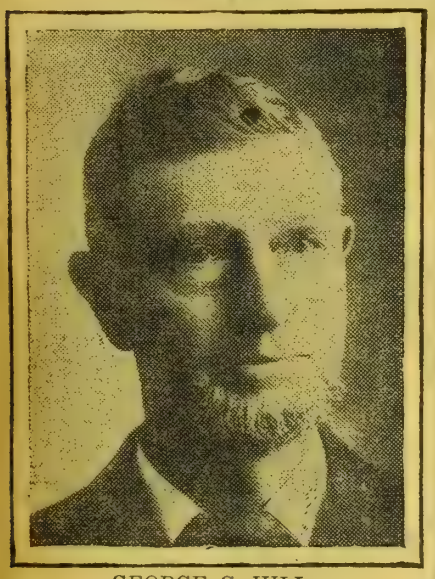
Such leases encourages the tenant to raise live stock, and it is under this system that English live stock farming has surpassed that of all other countries in the world. This is not intended as a defense of the English system of land tenure, but rather a statement of the facts as they exist in that county. In our opinion they prove that it is up to the landlords in this country to change the present short-term leases and then demand that their land be tilled according to some approved plan that has for its purpose the retention of the soil fertility.

The tenant question is of much greater importance than most people realize and should be given immediate attention. The acre yield of our crops is diminishing and if that continues our civilization cannot last.

Death of Pioneer Wisconsin Farmer.

In the death of George Cook Hill, who died on February 27th, Wisconsin has lost one of its pioneer farmers and builders. He was the kind of man that made Wisconsin great in farming and education.

He was born on a Connecticut farm in 1837. Reared in a Christian home and working on his father's farm he had the simple but healthy ideas formed in his mind, which he later so splendidly developed. He attended district school, but never enjoyed any education higher than this. In 1853 the family moved to Wisconsin, settling in Rosendale, Fond du Lac county. The next year Mr. Hill, at the age of seventeen years, had acquired forty acres upon which he started farming for himself. The high ideals which his outdoor life had given him he followed out on this farm. He early went into improved live stock breeding and was always a ready worker for the elevation of the country's social life. Realizing his need of education he did some private studying with the village minister during the winter months. For twenty-



GEORGE C. HILL.
Pioneer Wisconsin farmer who died recently in Fond du Lac county.

five years he was an active worker in the Rosendale Farmers' Club, which he founded in 1860. He served as officer for this club and through his industry made it of more than local significance. In 1890 he started the Rosendale Guernsey herd in partnership with his son, Charles L. Hill.

For fifteen years Mr. Hill worked for the Wisconsin Farmers' Institute and his speeches and heart-to-heart talks are still remembered by the farmers throughout the state. Ever modest and unassuming, he nevertheless spoke with a conviction that comes from an honest desire to help. Throughout his entire life the model farm and the farm home with comfort was uppermost in his mind. In the sixty-four years he spent on Brook Farm, as he called his place, he has realized in a large part the early ideals to which he adhered unto the last. Nor were his efforts unrecognized. In 1910 the college of agriculture gave him the special recognition which has only been awarded to a limited number of the great men in our state.

Good Lettuce in May.

Good, early lettuce may be had in any quantity, and very early, if one has the "know how," and gives attention. It is not advised to use hotbeds for this crop, for the heat, with the necessary moisture, cause decay; the plants will, many of them, damp off and rot. Still, you must start them earlier than is possible in open ground, and to do that take the cold-frame plan. This is simply a rich patch of garden soil with a frame about to hold a hotbed sash. It should have a slope toward the noonday sun. Then you should bank up the frame as protection against late freezes, and have mats or blankets ready to cover on cold nights. These cold frames, for the latitude of forty-two to forty-four, should be gotten ready in March.

The soil should be rich, but light with a mixture of humus and sand. Sow the seed thinly and cover about one-fourth inch, pressing the soil down firmly. Water daily with a fine sprinkler. If the sun shines hot, you must, of course, give ventilation in the middle of the day. By this method you can have good, strong plants ready as soon as it will do to plant out of doors. The plants will be about two inches tall. Well hardened, stocky plants of that size will stand some frost with no injury. But, of course, continued heavy freezing will destroy them.

Sort the plants, using only the best for field setting. Don't crowd them, for, remember the rule: All plants need room if you desire good development. Let the rows be not closer than sixteen inches, and plants in the row some six inches apart. If you wish to force growth after transplanting, use liquid manure. If you do this and have a rich, porous soil to start with, you will get a vigorous, succulent growth. When short of glass for your cold frames, muslin makes an excellent substitute. By this method of work you may have lettuce heads six inches over in May, good to eat and good to sell.

Summer prices for milk were discussed by representatives of the locals of the Milk Producers' Association in the Chicago district at a conference held in Chicago February 2d. The following schedule of prices was submitted: April, $2.40 per 100 pounds; May, $2 per 100 pounds; June, $1.60 per 100 pounds; July, $2.12 per 100 pounds; August, $2.30 per 100 pounds; September, $2.30 per 100 pounds. Nearly all of the 214 locals in the association were represented. The advance proposed, it was stated, is due to the increased price of feeds.

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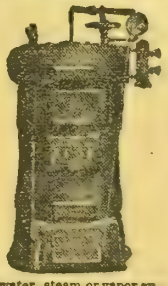

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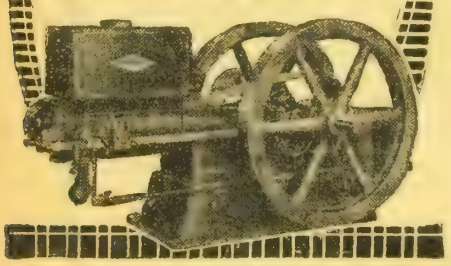

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The Farmers' Open Forum

WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

The Conrath Homemade Stump Piler.

To the Editor:—Up in the north woods of Wisconsin two brothers, Frank and Charlie Conrath, began clearing some logged-off land. The big white pine stumps that studded the land after the underbrush was cleared they found to be their real problem. With dynamite and pullers the stumps could be gotten out of the ground, but what then to do with them was the question. The big, charred chunks and roots could be piled and burned, but how? Necessity became the mother of invention and the Conrath homemade piler resulted.

Any farmer can build one of these pilers. The woods will furnish the timber and any blacksmith or hardware merchant the blocks, iron fittings, etc. And Messrs. Conrath say their idea is free to all.

THE CONRATH STUMP PILER IN ACTION.

The illustration gives an idea how to build the piler, and materials will cost $25 to $30. The construction is shown and is very clear, except the detail showing how the boom is pivoted on the crossbeam. At the center of the crossbeam an iron plate one-fourth inch by four inches by twelve inches with a one and one-fourth inch hole drilled in the center is fitted. Just below the holes in the iron a two-inch hole is bored in the crossbeam.

The end of the boom is cut at an angle to accommodate raising and lowering the boom. Around this end is then strapped the one-fourth inch by four inches by twenty-four inches strap of iron drilled in the center with one and one-eighth inch hole and fitted with the one-inch by six-inch bolt with the head between the end of the boom and the strap.

The boom is then set on the crossbeam, the bolt fitting in the iron plate so that the boom will swing around to the right or left.

The "trip" shown in the illustration is very simple and can be made by any blacksmith. When the stump is ready to be dropped the driver releases the trip, the cable runs back, lowering the stump exactly where the boom tender desires.

While it is possible to pile large stumps with this piler, it is not good practice. Stumps should be broken up with dynamite into smaller pieces that will burn more readily, making a hotter fire, insuring complete destruction. Alfred Mathewson.

Dane Co., Wisconsin.

Axle Grease For Warts.

To the Editor:—Some time ago I saw a question asked about warts on calves and what to do to cure them. Now, if I am correct, these are not properly warts, although they look very much like them. They appear around the eyes and on the nose first, but if not cared for they will spread all over the body, greatly to the detriment of the calves. Also, they are infectious, and, all in all, they are a great nuisance.

Now, if these warts or ringworms are treated as follows they will disappear in short order. Catch the animal and daub on thick any axle grease. Rub it well in and let them go for three or four days. Then take a cob and rub off the whole wart. If it does not all come off, put on more axle grease and repeat. This will surely fix them. Sometimes it takes three or four applications, but it never fails to cure. D. B. Harmon.

Law Questions.

Drainage Across Another's Land.

A Subscriber, Westfield, Wis.—My neighbor and I own adjoining farms in Wisconsin. There is a low, soft marsh on my land with a ditch leading from it towards my neighbor's land. There is a marsh on my neighbor's land with a ditch running from it about twenty rods from the division line between our farms. Last spring I offered to construct a ditch from my marsh and empty it into his ditch at my own expense, but he refused to allow me to do so, and now the surface water from my marsh overflows on my neighbor's lands, which is nearer to a stream than my land. There is a good fall from my land to said stream. (1) How can I ditch from my marsh and get an outlet? (2) How near the line can I outlet such a ditch?

Answer.—(1) You cannot outlet your ditch so near the line that the water will flow upon your neighbor's land and injure it. If you do so you will be liable to him for damages. Your only way to get an outlet to the stream across your neighbor's land is to petition the circuit or county court for a right of way, and if the same is granted, pay to him the amount of damages fixed by the court.

Qualification of Town Board.

Mr. Frank Stoker, Elroy, Wis.—Have the supervisors of any town in Wisconsin any right or authority to go outside of their town to qualify after being elected, and if they do so, would they constitute a lawful town board?

Answer.—They can qualify outside of the town, that is, take the oath of office and have same filed with the town clerk and this would not prevent them from constituting a lawful board.

Auto Accident Caused by Dog.

A Subscriber, Beaver Dam, Wis.—About two months ago, a party of three were traveling on the public road to Beaver Dam, in a Ford car, at a speed of twelve miles an hour, and while passing a one-horse rig near a farmer's house, the farmer's dog ran out in front of the car and was struck by the left front wheel which caused the car to tip over completely and severely hurt two of the occupants, and shook up the other one. The owner of the dog took no notice of the accident and offered no aid until assistance came from two miles away and then he offered help, but he claims that the dog is not to blame for the accident. Is the owner of the dog liable for damages?

Answer.—This is a doubtful case. If the dog was in the habit of running out when vehicles were passing and the owner knew of this habit he would be liable for damages, otherwise he would not be liable. Damage for such injuries must always be based on negligence.

Boundary Line—Lawful Fence.

A Wisconsin Subscriber.—I own land bordering on a lake in Wisconsin. My boundary line was surveyed up to high-water mark along the lake. Some people claim that the government owns six feet of ground along the lake shore. (1) Is this correct, and do people have a right to travel along the lake shore? (2) What is a lawful line fence in Wisconsin?

Answer.—(1) The government does not own six feet of ground along the lake shore. People have no right to travel over private property along the lake shore. Your land extends to high-water mark. (2) A fence made of strong woven wire, the strands to be of not less than No. 12 wire, cross wires or meshes to be not less than No. 16 wire; if cross wires are used, they are to be not more than twelve inches apart, and if meshes they are not to exceed eight inches square, the height to be not less than twenty-six inches, with three barbed wires at the top, the top wire being not less than fifty inches from the ground, attached to posts not more than sixteen feet apart, is a lawful fence in Wisconsin. There are seven other kinds of fences which are lawful, but the description of them is too long to be published in these columns. See laws of Wisconsin 1909, page 473, section 1390-a, for full description.

The HICKORY Dealer Says:

"Get the Hickory Horse Collar. Prevents shoulder troubles. Permits sore shoulders to heal rapidly while the horse goes right on working. The Hickory is designed to fit and places the draft where it should be. *Can't sag, roll, move up or down or pinch.* Made of the best bark-tanned, soft, pliable leather, stuffed with long rye straw, which will not rot, and faced with dampness-repelling, soft, pliable *buckwheat hulls.* No pads necessary."

HICKORY Kelley-How-Thomson Co. Duluth Minnesota

Guaranteed Collars and Harness

may be had in your town from the Hickory Dealer. You'll know his store by the Hickory Sign. Look him up and get acquainted with Hickory Guaranteed Goods—new goods or money back in every case of dissatisfaction. Hickory tools, hardware, paints, varnishes, cutlery and stoves carry the same rigid guarantee.

78,000 Hickory Collars Now in Use
Send for the free books.

Kelley-How-Thomson Co., Duluth, Minn.

Outlasts Two Ordinary Collars

Scotch Knocker Horse Collars are made of genuine *bark tanned*, seven-ounce *leather*. The throat is reinforced with three extra heavy leather layers. Not an inch of *chemically tanned* leather is used. *Scotch Knockers are guaranteed.* They are shaped to set perfectly—to fit every bone, every muscle of the horse's neck, and are stuffed with *hand flailed long* rye straw so they keep their shape. Facing is all buckwheat hulls; soft, elastic, unaffected by sweat or rain. So perfect in construction and fit that they cure sores on neck and shoulders and *prevent* their coming again.

Write for book giving prices and more facts.

Minnesota Harness Factory, Inc.
105 2d St. W., Winona, Minn.

Scotch Knocker Cloth Faced Horse Collars

CURRENT EVENTS

NOTWITHSTANDING the fact that congress adjourned without passing the bill authorizing the president to arm American merchant ships so as to protect them from unrestricted submarine warfare by Germany and Austria, President Wilson has been informed by Secretary of State Lansing and Attorney-General Gregory that he has the power to arm ships as he desires or finds necessary under the rapidly-changing circumstances. Whether the president will act immediately in accordance with this opinion or will wait to call a special session of congress to pass a resolution similar to that killed by a filibuster during the last session has not been revealed. It is taken for granted in all quarters that before July 1st President Wilson will summon an extra session of congress. The only question open now is whether it will be called immediately.

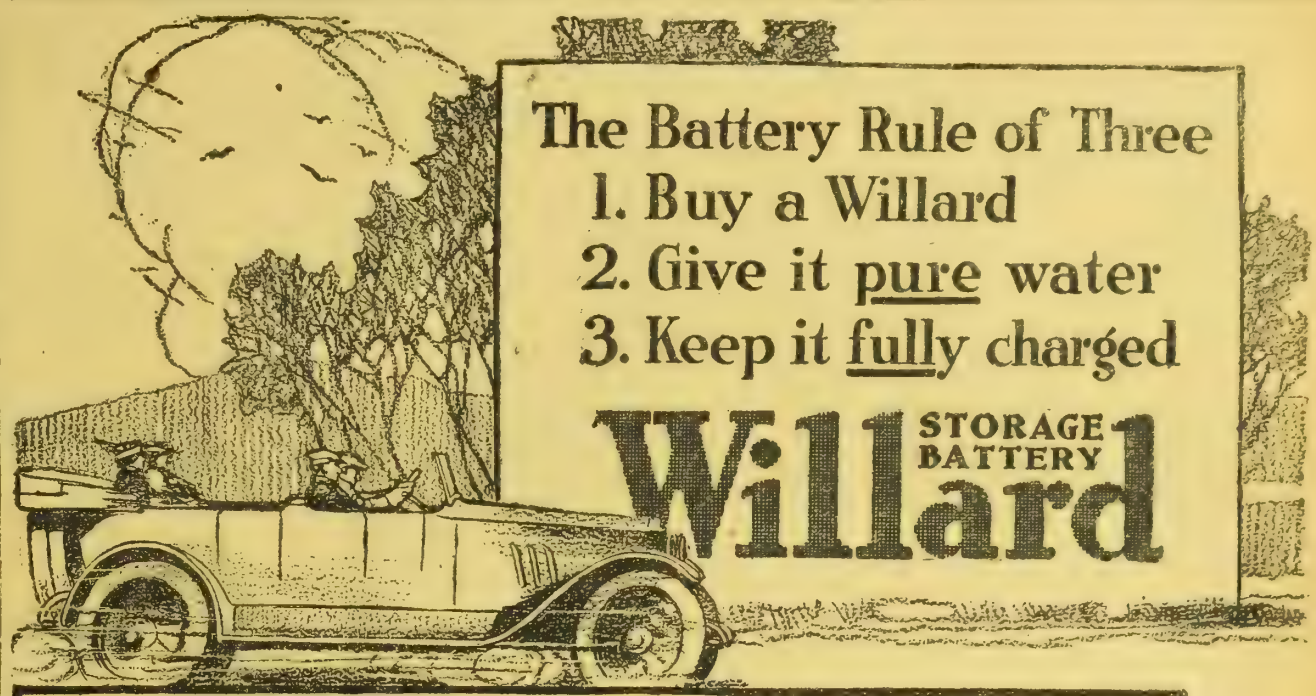
AS a result of the filibuster in the closing hours of the recent congress, by which the armed neutrality bill desired by President Wilson was talked to death, the United States senate, after more than 100 years of unrestricted debate privileges, has put power in the hands of two-thirds of its members in the future to limit discussion and to say when a vote shall be taken on a pending measure. The bill thus limiting debate was passed by the senate by a vote of seventy-six to three, the negative votes being cast by grain-belt senators: LaFollette, of Wisconsin; Gronna, of North Dakota, and Sherman, of Illinois. The exact use of the rule will not be apparent until it is enforced, but it probably cannot be successfully used to prevent the spectacular one-man filibusters by which senators have talked bills pending in the closing hours of a session to a legislative grave. Such filibusters probably cannot be prevented, unless they are foreseen, but an organized affair which must be planned two days or more ahead of a session's end, can be disposed of easily. Heretofore the limit of debate in the senate has been the physical endurance of the senators, but henceforth, on vote of two-thirds of the members, these long-talking debates can be brought to an end.

COUNT ZEPPELIN, inventor of the dirigible balloons which bear his name, died in Germany last week, at the age of seventy-nine years. He had been working for the mastery of the air since he was eighteen. It was the American civil war, in which he participated, that gave Zeppelin his ambition. He saw from the limited use of captive balloons in that war what an advantage an army would have with control of the air, enabling it to observe and follow all the enemy's movements and to drop explosives upon defensive positions from directly overhead. It was not until 1898, however, when the count was sixty years old, that he achieved his first flight of three and three-quarters miles, the longest ever made at that time. On July 2, 1900, he astonished the world with a flight of twenty minutes over the surface of Lake Constance. Following his first success Zeppelin passed through year after year of disappointment. He built in succession five ships. Each gave him a brief triumph—and a long interval of depression. All were destroyed by fire or storm or accident. Being some 400 feet in length and constructed of material that was very expensive they soon bankrupted their inventor. The German government and public stepped in, however, and made it possible for Zeppelin to continue, until the final success crowned his efforts and the dirigible balloon of immense proportions became an assured fact. During the first two years of the war the German flying navy was able to attack English and Scotch towns with impunity, but within the last eight months or so the British have destroyed five or six of the invaders and now seem better able to defend themselves. But the Zeppelin has been the only weapon by which the central powers have been able to touch British property on shore or attack Englishmen in their homes.

ENTERING upon his second term as president, Woodrow Wilson delivered an address notable mainly as a delineation of his Americanism and his ideas on war and peace. In the course of this address the president outlined the following American platform: "These, therefore, are the things we shall stand for, whether in war or in peace. That all nations are equally interested in the peace of the world and in the political stability of free peoples and equally responsible for their maintenance. That the essential principle of peace is mutual equality of nations in all matters of right or privilege. That peace cannot securely or justly rest upon an armed balance of power. That governments derive all their just powers from the consent of the governed and that no other power should be supported by the common thought. That the seas should be equally free and safe for the use of all peoples under rules set up by common agreement and consent and that so far as practicable they should be accessible to all upon equal terms. That national armaments should be limited to the necessities of national order and domestic safety. That the community of interests and of power upon which peace must henceforth depend imposes upon each nation the duty of seeing to it that all influences proceeding from its own citizens meant to encourage or assist revolution in other states should be sternly and effectually suppressed and prevented." The president was sworn into office, for the second time by Chief Justice White. After his inaugural address he reviewed a large and brilliant parade, in which the military dominated. The inaugural ball was dispensed with, as was done four years ago when President Wilson first took his high office. The inauguration was made notable this year by reason of the fight between the president and the twelve senators who had filibustered the "armed neutrality" bill to death the day before the inauguration, the president characterizing these twelve senators (most of them from the grain belt) as a "little group of wilful men representing no opinion but their own" who "have rendered the great government of the United States helpless and contemptible."

AUSTRIA has joined (in a rather half-hearted manner, to be sure) with Germany in unrestricted submarine warfare and the attempted defense thereof. The American ambassador to Austria has been handed the Austrian government's reply to the American note inquiring as to the position of the dual monarchy on this important subject. The reply declares that neutrals are responsible for losses they suffer by entering territory where warlike operations are taking place. After a lengthy discussion of the British blockade, which it declares is illegal, the Austrian reply continues: "The principle that neutrals should enjoy in war times the advantages of the freedom of the seas refers only to neutral vessels and not to neutral persons aboard enemy vessels." It goes on to contend that belligerents are entitled to decide for themselves what measures should be taken against an enemy in sea traffic and concludes: "In such cases neutrals have no other legitimate interests and, therefore, no other legal claim than that a belligerent inform them in time of a prohibition directed to an enemy, so that they can avoid entrusting their lives and their goods to enemy vessels." In official circles in Washington it is held that the Austrian reply holds out little, if any, hope that a break between the United States and Austria can be avoided. The United States always has contended, and still contends in the present crisis, that neutrals aboard enemy merchant ships are entitled to safety. Germany and Austria take a directly opposite stand and on this rock the three countries seem likely to shatter their friendly relations.

AS a direct result of the German blockade decree of January 31st, which also closed to neutral shipping the British ports of Kirkwall and Falmouth, fifty-three steamers of American, Swedish, Danish, Dutch and Norwegian registry have been prevented from sailing from the port of New York or having sailed, now are tied up for an indefinite time at Halifax for examination. According to figures, these ships, had they sailed as scheduled, would have taken approximately 296,000 tons of cargo. Fourteen would have carried passengers and United States mail. The heaviest sufferer has been Holland. Agents reported that twenty-five vessels that would have sailed under conditions prevailing prior to February 1st, are tied up in New York, or have been detained at Halifax. Ten freight ships of neutral nations also are held in New York for orders.



Why Rule No. 1 Comes First

There's no use in spending good money on a battery that won't respond to proper care.

But how can you tell a good battery from a poor one—they all *look* much alike on the outside.

Do what you would do if you were planning to buy a new piece of farm machinery, ask those who have tried it out and *know*.

Four-fifths of all car builders agree on Willard Batteries as the best they can put into their cars. The other fifth are divided among all other makes of batteries.

With such a showing no car-owner need hesitate.

Rule No. 2 Prevents Battery Thirst

These two simple rules are the biggest part of battery care. Observance of them means long life and good health for your battery.

Keep the liquid up to the top of the plates by adding pure water (preferably distilled) every week in summer, every two weeks in winter.

Rule No. 3 Prevents Battery Starving

To know when you need to charge your battery you must test it regularly with a hydrometer. It is a wonderful preventive of battery trouble. If you don't own one, we'll be glad to ship a Willard Hydrometer, with instructions for use, postpaid on receipt of a dollar bill. Address Willard Storage Battery Company, Cleveland, Ohio.

Free Booklets Tell All About Your Battery

Write us for a set of the Battery Health Books telling all about your battery and how to get the most out of it, sent free on request to our Cleveland address.

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Cleveland, Ohio

Ask your car dealer about the expert service given by over 850 Willard Service Stations.

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Madison
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Mitchell
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Moon
Murray

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Overland
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Stephens
Sterling
Studebaker
Stutz
Sun

Thomas

Union

Velie

Westcott
Wills-Knight
Winton

Zimmerman

Ten Years' Success With Guernseys.

(Continued from page 1.)

of milk and 690.69 pounds of fat. He has the size and the depth that go to made up a strong sire. His use will result in a continuance of a policy of raising vigorous calves that are a big point in favor of Fox Bros.

Several of the cows have produced creditable records under difficulties. Bridget Sequel, a mature cow, recently finished a record of 11,293 pounds of milk and 562.63 pounds of fat. Under unfavorable conditions she finished strong with better than one pound of fat per day after twelve months of milking.

Maid of Richmond produced in 230 days 400 pounds of fat and 8,000 pounds of milk. She was imported in dam and is of Raymond de Prehl breeding. At the Illinois State Fair she won the three-day butter test in 1913.

Thelma Glenwood 2d, champion at the Illinois State Fair in 1913, has a record of 680 pounds of fat and 14,752 pounds of milk. She is the dam of Snippy Glenwood, which cow at the age of two years made 510 pounds of fat and 10,549 pounds of milk.

Rosalind of Waukesha, half sister to King Talladeen of Chester Hill, has a record of 8,760 pounds of milk and 408 pounds of fat as a two year old. She was sired by Skeezicks, one of the famous bulls of the Guernsey breed.

Shopgirl of Haddon produced at the age of two years 9,307 pounds of milk and 340 pounds of fat. She is sired by imperial Spotswood Sequel, which has fourteen A. R. daughters to his credit. Her half sister made 13,582 pounds of milk and 787 pounds of fat as a four year old. Shopgirl at the age of five years made 11,820 pounds of milk and 631 pounds of fat.

The Fox Brothers have a special method in caring for their bulls. They keep their animals in a healthy and vigorous condition by making them work and exercise. They hitch and harness them to a vehicle the same as a horse and thus keep the bull gentle and trained to obey besides keeping him in better breeding condition. The Fox Brothers do not pasture their cows in spite of the large amount of land on the farm. The animals are let out of the barn on nice days for several hours each day and allowed to exercise. All of the acres on the farm, however, are used for the production of feed for the herd. The manure from the stable has proved to be a fertilizer second to none, as the yield has increased generally since barn feeding was started. Oats very frequently reached the eighty-bushel mark. Rye averaging in Wisconsin around twenty bushels to the acre produces on the Fox farm better than fifty bushels. Alfalfa and clover are grown in abundance for roughage. Such barley as is sown is usually sown as a nurse crop with alfalfa at the rate of one bushel per acre. Besides placing the young alfalfa on even terms with the world, the crop will yield thirty-five bushels of barley for the season. All the corn that is raised on the place practically finds its way into the four silos that are on the farm. All of the animals receive silage the year around together with mangles, which are chopped and mixed with the grain feed. The feed of each cow is weighed out separately each day. Though this is troublesome, as it requires a considerable part of one man's time each day, it is in the estimation of the owners nevertheless a profitable practice. Both men think that a cow in order to yield properly must be handled and fed as an individual and they attribute no small part of their success in the show ring and in production to the individual care they have given each animal in their barns.

Under the care of these two men the business has assumed considerable proportions. About seventy-five head of cattle are sold from the farm each year. Hardly a day goes by but that letters and inquiries do not have to be answered. The herds are still tested regularly and with the breeding records stenographic help is a necessity.

The Fox Brothers have been active in advancing the interests of the Guernsey breed throughout the state and as members and as officers of the Waukesha County Guernsey Breeders' Association their efforts have been highly successful. Waukesha county has a live organization and throughout the United States the county is known as the Guernsey capital of America.

In the herd of Fox Brothers and in the success which has accompanied their operation the young breeders of any pure-bred strain of animals can find a lesson. Thrift and the spirit of sticking to a resolve and giving each enterprise a thorough trial will always result in final and complete satisfaction.

Dairymaid of Waukesha, now milking since the 16th of October and averaging two pounds fat daily since the start of the test. She is a granddaughter of the famous Essie Jeweler, in her day grand champion cow at all the fairs of the middle West.

Like Wisconsin Cattle.

E. G. Bennett, dairy commissioner of Missouri, heading a delegation of farmers from his state, is visiting several of the leading live stock centers of Wisconsin in search of dairy animals. The delegation has been commissioned to buy between seventeen and eighteen carloads of grade Guernsey and Holstein cows and heifers as well as a car-lot shipment of pure-bred sires.

Representatives of the college of agriculture and the Wisconsin Live Stock Breeders' Association have placed them in communication with officials in districts where cattle of the breeds, ages and character desired are for sale.

La Crosse Happy Farmer Tractor

MODEL A
8-16 horse power
$585.00

MODEL B
12-24 horse power
$735.00

F. O. B. FACTORY, AT LA CROSSE, WIS.

Any Farmer Can Afford One—

Even the tenant farmer can buy and use one of these models profitably. Cut the cost of feeding idle horses. Speed up spring work—get crops started *on time*. One La Crosse Happy Farmer Tractor can do the work of 6 to 8 horses, and do the work better.

Two models, built with highest quality materials—simple construction—only two-thirds the parts used in other tractors. Model "A"—8-16 h. p.—guaranteed to pull 2 plows—Model "B"—12-24 h. p.—will pull 3 plows under practically any conditions. Either model will do your belt work. La Crosse Happy Farmer Tractor-Drawn Implements for all farm work. Write for Catalog.

Model B is strictly a kerosene burner; equipped with Hyatt Roller Bearings. Twin Cylinder Motor. Really a sensational value at a low price.

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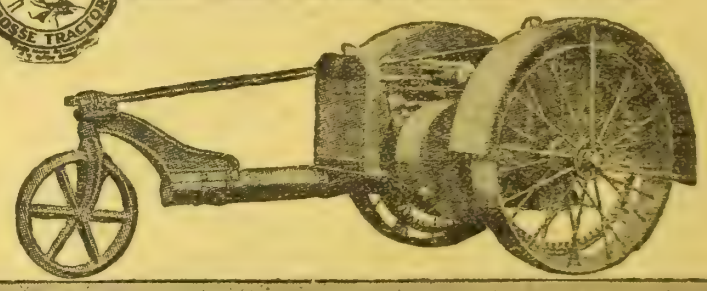
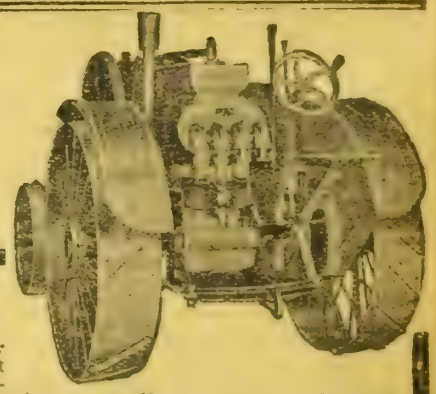
Dept. 17 Minneapolis, Minn.
We have a Distributor in your vicinity for prompt service.



The Tractor To Buy



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YOU want a tractor that not only gives you dependable traction, but belt power for your silo filling, threshing, etc. The Eagle is an all-round engine, as well as tractor. Has the famous two-cylinder engine with valve-in-head motor. The outgrowth of years' experience in motor and tractor manufacturing. Runs as well on **kerosene** as gasoline. Ideal for medium-sized farms. Simple in construction; all parts easily accessible. Easy to operate. 8-16 H. P.; 12-22 H. P.; 16-30 H. P. Sold under an absolute guarantee. For complete details send for our descriptive catalog today.

EAGLE MFG. CO. 640 Winnebago St., APPLETON, WIS.

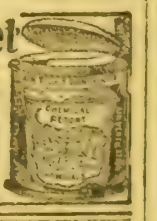
A real furnace. Exactly same construction as the old, reliable *Mueller* line, but without pipes or flues. Ideal for old or new homes and buildings with small or partial cellars. Saves 35% in fuel; burns hard or soft coal, coke or wood. Heats whole house comfortably, dependably, cleanly and economically *from one register*

Made of solid cast iron, has triple jacket, substantial firepot and radiator, best type grate. Designed right, built right; 60 years of experience and the *Mueller Guarantee* behind it.

Tear out this ad, write your name and address on margin and mail to us for valuable free book on pipeless heating and name of nearest Mueller dealer.

L. J. Mueller Furnace Co., 204 Reed Street Milwaukee, Wis.
Makers of all kinds of Heating Systems since 1857

Comfort Indoor Closet



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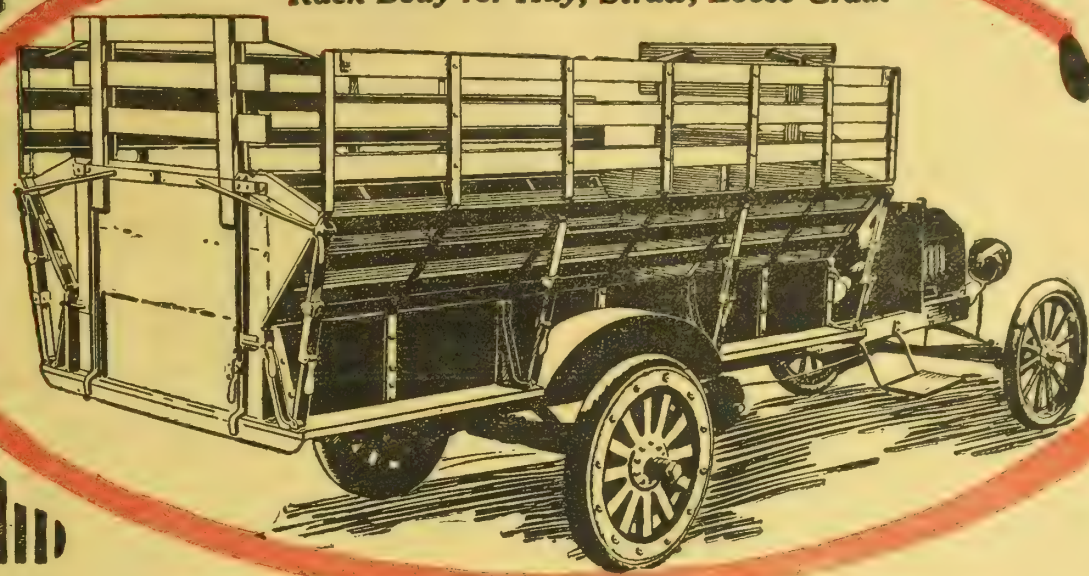
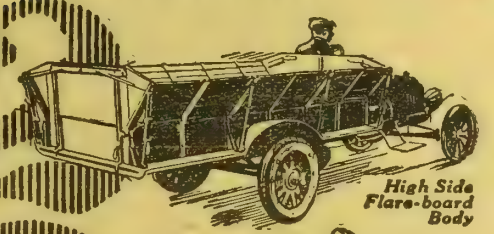
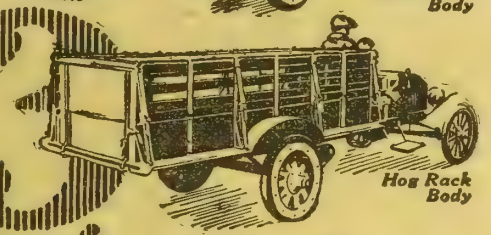
F. O. B. CHICAGO

Rack Body for Hay, Straw, Loose Grain

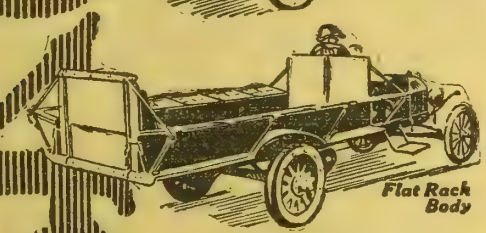




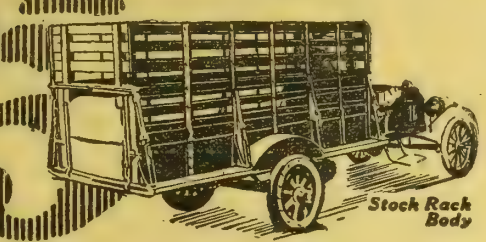
High Side Flare-board Body



Hog Rack Body

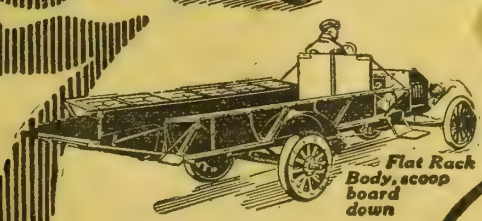


Flat Rack Body

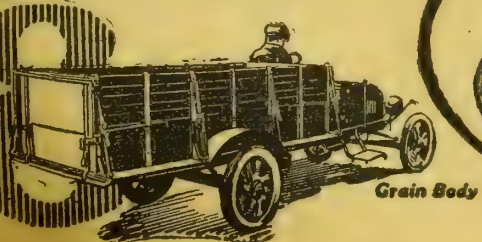


Stock Rack Body

Basket Rack Body



Flat Rack Body, scoop board down



Grain Body

4 Times the Work at Same Cost

In all heavy farm hauling this is what users of Smith Form-a-Truck are doing. Hauling twice the load three times as far—saving feed charges, veterinary bills and farm labor — and doing its work in all kinds of weather at the lowest cost for hauling that has ever been reached.

Keep Horses for Farm Work Only

Use your horses for plowing, seeding and harvesting. But not for hauling. You delay farm work—lose time and money.

Let Smith Form-a-Truck carry your manure — hay — fertilizer and do all other hauling on the farm. It will do the work of four teams. *And at half the cost!*

Use the Smith Form-a-Truck for hauling milk, grain and other farm products to town. It will haul as much as two teams. *And in half the time!* That alone will save two to three hours' time for two drivers. In a year it amounts to 1200 hours—120 days—$240 pay. And it gives you the use of those four horses for farm work.

20 More Acres

Your Smith Form-a-Truck is as good as 20 acres of land to you. Government figures show that in a single year four horses eat all the feed that can be grown on 20 acres of land. Smith Form-a-Truck will save that. 20 acres of land for $350! Think of it!

Unbeatable for Dairy Farm

All over the country dairy farmers are replacing expensive horses with economical Smith Form-a-Trucks. It will haul 2,000 pounds of milk ten miles and return with the empty cans in less than 2 hours. And the total cost for the round trip is but $1.50 — gasoline, oil, tires and everything. Think of it! Two teams and two drivers would require a half a day for this work.

And in every other line of farm hauling Smith Form-a-Truck is showing equal economy.

Travels Anywhere

Smith Form-a-Truck will travel anywhere horses will go—through mud, sand, snow. No hill is too steep.

Famous 8-in-1 Convertible Farm Body

Change to any one of eight types of bodies is made instantly with the famous 8-in-1 farm body. No tools required. Merely pull the lever. This is an exclusive Smith Form-a-Truck feature.

Amazing Strength Smith Form-a-Truck combines with any Ford, Maxwell, Overland, Dodge Brothers, Buick or Chevrolet to make a fully guaranteed one ton truck. When the chassis of these cars is telescoped on the Smith Form-a-Truck frame, the wonderful strength of these cars is reinforced. A double construction feature is provided — the strongest construction known to engineering.

And the rear axles of these cars merely become jackshafts for the chain drive. The strong, sturdy Smith Form-a-Truck axle carries 90% of the load.

Unequalled Economy Note these wonderful records of Smith Form-a-Trucks in daily use on hundreds and hundreds of farms. 12 to 15 miles on a gallon of gasoline—6,000 to 8,000 miles on a set of tires — 12 to 18 miles per hour. The first Smith Form-a-Truck ever built is still in daily service. It has traveled over 20,000 miles. And total repair cost has been less than $8.00.

Send Coupon Now Every day's delay in putting the Smith Form-a-Truck on your farm costs you hard earned money. Send for the big FREE Book *today*.

Write your name on the coupon *Now*. Never mind pen and ink. A pencil will do. But mail it at once.

Smith Motor Truck Corporation
Manufacturers of Smith Form-a-Trucks
Executive Offices and Salesroom — Suite 995 — Smith Form-a-Truck Building
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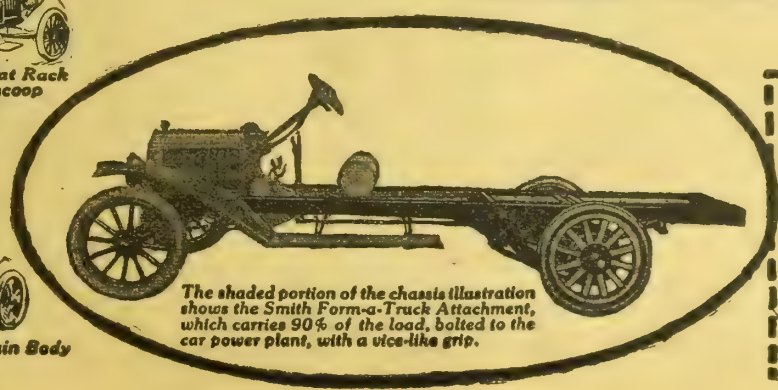

The shaded portion of the chassis illustration shows the Smith Form-a-Truck Attachment, which carries 90% of the load, bolted to the car power plant, with a vice-like grip.

CUT THIS OUT! MAIL IT TODAY!

Smith Motor Truck Corporation,
Suite 995, 1470 Michigan Ave., Chicago, Ill.

Gentlemen:—Without obligation on my part please send me big FREE book and full details of your farm attachment and the new convertible body for farm use. I am interested in how the Smith Form-a-Truck can save me money and give me better service than I am getting with horses.

Name.....

Town.....County.....

State.....Number acres owned.....

UPPER WISCONSIN

How a Wisconsin Farm Girl Got a Piano.

[Editor's Note.—The following very interesting letter was submitted in the boys' and girls' club contest work in Oneida county, Wis., and we are indebted to County Agricultural Representative W. D. Juday, for a copy. The letter not only gives some good pointers on what a bright farm girl can do if she tried, but also speaks some important truths concerning the raising of potatoes.]

I am a farmer girl thirteen years old, living in Oneida county, Wisconsin. In the year 1916, a few days before Thanksgiving, a letter came from my cousin in a near-by town asking my brother and me to come over Thanksgiving Day and spend a few days with her.

Thanksgiving morning I got up at half past four and we were taken to a small town nine miles from Three Lakes so we might catch the eight o'clock train. About noon we reached our destination.

My cousin had a piano, and, as I was eager to play on any piano, I spent most of my time playing. At home I had only an organ, and when I played on pianos the keys seemed to press very hard, but this piano was very easy to play and sounded well.

After reaching home I began to talk of nothing but pianos. I was continually teasing my father to buy me a piano and one day he said, "Florence, you may raise potatoes and buy your own piano. I will give you twenty bushels of the only certified Triumph seed in the state of Wisconsin and the best acre on the farm to grow them on." I thought my father was saying it in fun, for he had always said the house was too small for a piano. My mother saw that if I was going to play much I would need a piano to encourage me, so I readily accepted my father's offer.

We soaked the seed in a formaldehyde solution of one pint formalin to thirty gallons of water. The seed was hand cut by my father and myself and planted May 18, 1916.

My father says most growers cut the seed pieces too small and do not use enough seed.

We planted in three-foot rows with a two-horse, two-man planter, set on a sixteen and one-half inch drop, planting one seed piece at each drop. All two and three-ounce seed was planted whole. The larger seed was cut in two or three pieces, always cutting through lengthwise, from seed end to stem end, so as to get some of the strong seed end on each piece. My father says the seed end is the business end of the potato. We planted on about a seven-inch spring plowing of an alfalfa, clover and June grass sod which was pastured the previous season. The winter before pasturing the land was heavily coated with stable manure. We also used 600 pounds of 3-8-1 commercial fertilizer. The fertilizer was dropped in the rows at planting.

The potatoes came up in about three weeks and grew very rapidly. When they were coming up they were dragged with a spike-tooth drag and we hand hoed most of them once and some of them twice. I did as much of this work as I could.

My father and brothers cultivated them four times with a one-horse, seven-tooth, spring-tooth walking cultivator. I rode the horse and guided him so they could give all of their attention to the cultivator.

They were also hilled up by a shovel plowing twice. We have too much rain here to permit level culture. I exchanged work with my father and brothers by riding horse for them to cultivate their eleven acres.

They were sprayed twice with ready-prepared Bordeaux, to which we added Paris green at the rate of two pounds to 100 gallons of water. My father uses a two-horse, six-row sprayer, but, as my field was too small, I hired a man to spray with our three-gallon knapsack sprayer, going over each row twice at one spraying. I frequently used dry arsenate of lead in a hand blow gun whenever I saw any scattered bugs.

Late in July the vines covered the ground and looked fine giving promise of a large crop.

On July 3d our local banker, who has a 3,000-acre farm, saw my field and proposed to buy them on contract for fall delivery. With my father I closed the contract at $1 per bushel and received $100 at signing of same. My mother taught me how to do business at the bank when I deposited the money and opened a checking account in my own name. In the contract we reserved the right to select what snow stock we wished for our own use. My father also had to have the entire acre hand dug and personally hill selected the entire crop for special seed stock.

We dug the potatoes late in September.

The total yield was 336 bushels. We delivered on the contract 302 bushels, for which I received the total of $302 and also had seven and one-half bushels of show stock. The twenty-six and one-half bushels of small potatoes and culls were fed to our cows.

I exhibited at our Oneida County Fair and won the first premium of $10. At the Wisconsin State Fair I won first premium of $7 and the blue ribbon. I won third at the Oneida County Potato Show, the premium being a good fountain pen, and the Wisconsin State Show also I won first in the general class of Triumphs, which was $5 and the blue ribbon, and the same in the children's class. This exhibit had to be twenty-five potatoes picked out by the exhibitor without any help.

I sold three bushels of show stock at $3.50 per bushel, making total receipts of $352.50. I paid out for fertilizer $9 and for Bordeaux $7. Having exchanged work with my father and brothers, I only paid $33.44 for hired help at digging.

Professor Wirtley, from the Bermuda Islands, who came with the potato inspectors, said that my field was the finest field of Triumphs he had seen in his travels.

I have my piano and music bench and still have several dollars in the bank to help pay expenses when I go to a conservatory of music. If you will come to our farm next summer when the potatoes are in bloom I will play for you on my piano.

Appreciate Value of Good Sires.

Langlade county farmers are more and more coming to appreciate the value of high-class sires. Since the first of the year three high-class dairy sires have been purchased from breeders in the southern part of the state, also as many registered Short-horns of milking strain. In addition to the above, three farmers purchased registered Guernseys in the county since the first of the year. A number of others are now in the market for good young sires and are making effort to get something to their liking. The better sire spirit is in the air and farmers who not long since were satisfied with a grade are now on the lookout for pure breds.

"No use talking," declared one farmer recently, "if a man wants to make headway toward getting a good herd he must have something better than a grade bull."

Among the Langlade county farmers who recently purchased pure breds are the following: Guernseys—Anton Follstad, Elcho; Head & Jackson, Antigo; Matt Wachal, Ackley; Louis Heimler, Peck; Jerseys—Chas. Parsons, Polar; Blaine Stewart, Antigo; Holsteins—Chas. Stengl, Ackley, and Chas. Nelson & Son, Ackley; Short-horns—Malcolm Hutchinson, Geo. Carlson, Henry Buboltz, Bryant; Dan O'Brian, George Gallenberg, Antigo.

Putting up Frozen Fish.

To the Editor:—I have seen that one of our Wisconsin Farmer sisters asks if anyone can tell her whether frozen fish can be put up in salt for the summer. I will give you my experience in this line and I have had good success. Take a little hardwood barrel or stone jar. Take out the insides of the fish, leaving on the scales and cutting off the heads. The fish may be cut in pieces if they are too big. Do not put in any water—let the brine come on itself. Soak the fish in fresh water before using. I also take the fish and take out the insides, soak them in the strongest salt water for a few hours or sometimes overnight in water not too strong with salt, then I hang them up so the water drains off and smoke them for three or four hours in a home-made smokehouse. They are fine. Pack them in an ice box and keep in a dry place. I have smoked fish all summer this way.

Oneida Co., Wis. Red Wing.

Currant bushes are poor neighbors for white pine trees, as the currant bush catches the fungus which causes white pine blister rust.

Get Our Special Offer on the Faultless Stump Puller

We want to put a Faultless Stump Puller to work in your field, under your own direction. Put it to any hard-work test you like for 30 days—clear from 10 to 50 acres.

It Must Satisfy You

If the Faultless does not do the work to your entire satisfaction, return it to us and we will refund the purchase price and pay the return freight.

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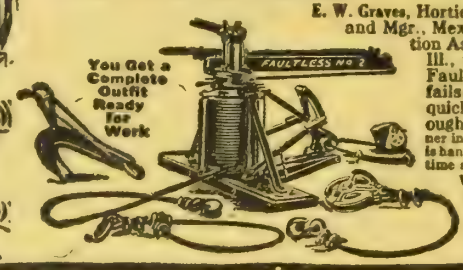
20 Years a Record Breaker for Work

Skidmore Land Co., Marinette, Wis., write: "We feel indebted to you because we own thousands of acres of unimproved land and your Faultless Stump Puller has solved the problem of putting this land under cultivation."

E. W. Graves, Horticultural Supt. and Mgr., Mexican Plantation Assn., Chicago, Ill., writes: "The Faultless never fails to do the work quickly and thoroughly. The manner in which the cable is handled saves much time and labor.



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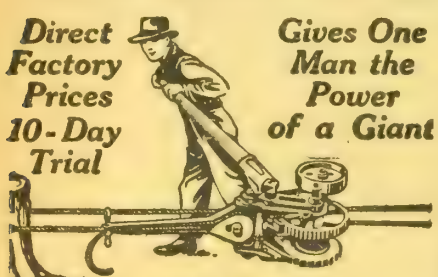

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This powerful all steel One Man Stump Puller yanks out any stump easily and quickly—no horses necessary. Clears an acre from one anchor. Patented cable take up does away with winding up slack cable. Three speeds—when stump loosens increase the speed and save time. Tremendous power gained by leverage principle. Works in any position. Easily moved on its big broad wheels. Can be reversed under strain.

Sold on 15 year guarantee, flaw or no flaw. Used by the KIRSTIN METHOD we guarantee a saving of 10% to 50% over any other way of clearing land for the plow. Ten-day trial on your stump land. You can make

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In and Around Wisconsin

Kilnford Bell 3d, the famous champion Ayrshire cow owned by Adam Seitz, Waukesha county, Wisconsin, died recently at Mr. Seitz' Spring City Ayrshire Stock Farm. Kilnford Bell 3d was imported by Adam Seitz. She was the mainstay of the Seitz Ayrshire herd for many years and has probably traveled more miles and been exhibited at more fairs than any other animal of any breed. A winner wherever shown, she invited competition from other breeds and in 1913 and 1914 after winning first and grand championship Ayrshire at the National Dairy Show, she competed with the champions of the Jersey, Guernsey, Holstein and Brown Swiss breeds and was awarded the Valentine Trophy, valued at $500, symbolic of the world's championship of all dairy breeds. The winning of such an honor for two consecutive years is proof in itself of her greatness. An animal of outstanding merit, she has graced the arena of every state fair of any consequence and also the International, National, Dairy Cattle Congress and southwestern dairy shows. First and grand championships were awarded her wherever shown. She was active, alert and walked off briskly, truly an aristocrat of the bluest blood. Her record in Scotland as a two year old was 12,000 pounds of milk in nine months, testing 4.4 per cent, and as a mature cow 13,565 pounds of milk and 625 pounds of butter in ten months. Show ring enthusiasts will miss the great Ayrshire cow in 1917 and breeders of dairy cattle the world over will continue to refer to Kilnford Bell 3d when emphasizing dairy type.

The Pabst Stock Farm, Oconomowoc, Wisconsin, has recently sold to Mr. Luther W. Smith, Manteno, Illinois, bull calf No. 165, Pabst Maplecrest De Kol King, born May 24, 1916. This calf is by Maplecrest King De Kol, by whom they have a large number of heifers which they will test in the near future and he is the bull that was recently sold to Mr. Joy Morton to head his herd on his farm. Maplecrest King De Kol is by Friend Hengerveld De Kol Butterboy, the sire of numerous 1,200-pound cows, and the young bull is out of Pabst Forgetmenot, with a three-year-old record of 22.48 pounds of butter, by Pabst De Freule Pontiac, a young son of the senior sire, King Pontiac Champion and out of a twenty-nine-pound cow. The second dam of this young bull is Edith De Kol Burke Hengerveld, with a record of 33.86 pounds. Pabst Forgetmenot is a large, growthy heifer and we are positive that she has capacity to equal the record of her dam. This youngster is a wonderful individual and Mr. Smith ought to show good results by having selected this young bull for his herd.

The North Sharon Creamery Company, Walworth county, has discontinued the making of butter and it is manufacturing cheese exclusively. This factory at one time cared for 35,000 pounds of milk per day, but recently has been receiving only about 2,500 pounds, due to the competition from the condensery. For the month of February the North Sharon factory paid $1.43 per 100 pounds for milk, while the American Milk Company at its Sharon plant paid $2 per 100 pounds for 3.5 per cent milk. A creamery at Slade's Corners, also in Walworth county, which has been in operation for twenty-seven years, closed because of lack of patronage. In spite of the high price of butter, condenseries seem to be able to pay more for milk than the creameries can pay. Owing to this condition a number of creameries have changed to cheese factories and others which come in close competition with condenseries are being forced to close.

William F. Renk, secretary of the Wisconsin Sheep Breeders' Association, has been selected by the Shropshire breeders as judge of all Shropshires at the 1917 International. Mr. Renk's appointment is a good one, as there is hardly a man who has been so consistently successful with sheep as Mr. Renk, and, both in the ring and in the feed lot, he has shown that he is a sheepman who knows the game from all angles. For years he has added to the reputation of the state by his many championship entries in the sheep classes at the leading fairs of the middle West. His alternate will be J. C. Duncan, of Lewiston, N. Y.

Meetings have been arranged in several counties in Wisconsin for reports on farm management. Dunn county farmers will meet at Menominie, March 9th. Other dates announced include Jefferson county, Jefferson, on March 15th-16th; St. Croix county, at Roberts, March 19th; Polk county, at Osceola, March 20th; Barron county, meetings at Barron, Chetek and Rice Lake on March 21st, 22d and 23d respectively; Douglas county at Superior, March 24th; Oneida county, at Rhinelander, March 26th; Taylor county, at Medford, March 28th.

The Sauk County Holstein Breeders' Association recently held its meeting at Reedsburg with about forty present. Professor Gunn, of Madison, talked on farm management and better dairying. The following officers were elected for the ensuing year: President, L. E. Stone, Prairie du Sac; vice president, E. H. Koenecke, Reedsburg; secretary and treasurer, Orrie Kirkpatrick, Reedsburg. Directors: Frank Powell, Ed Rusch, Reedsburg, and John Alexander, Baraboo. The annual June picnic will be held at the L. E. Stone farm near Prairie du Sac.

W. H. Jones, proprietor of Oak Grove Stock Farm, east of Juneau, Dodge county, Wisconsin, recently sold three pure-bred Holstein cows to A. B. Spooner, prominent Holstein dealer of California. Mr. Jones' sale included Clothilda Canary Homestead, Lady Canary Pontiac and Canary Girl Pontiac, all bred to Canary Pontiac Butter Boy 166112. The price was $250 per head. Another well-known Dodge county herd from which selections were made by Mr. Spooner is that of Meadow Brook Farm, in the town of Clyman, owned by O. E. Sette, the purchase here including six head of young stock. These Holsteins are of advanced registry breeding. In the lot were two young bulls, Sir Mutual Fayne, whose dam has a butter record of 20.6 pounds in seven days and a record for three years of eighty pounds of milk per day, and Sir Fayne Duchess, whose dam gave 589 pounds of milk and 23.8 pounds of butter in seven days.

More than 1,000 people attended the sixth annual farmers' course at Rochester, Racine county, the last week in February. This course was supervised by Prof. C. E. Fawcett and there was a fine exhibit of grain by members of the Racine County Agricultural Experiment Association. This is one of the most successful farmers' meetings ever held in southwestern Wisconsin.

The Wisconsin Historical Society has gathered some information relative to the "hop craze" which swept over Wisconsin between 1860 and 1870. In 1861 the best Wisconsin grades of hops sold on the New York market at 15 to 25 cents per pound. In 1865 they had advanced to 50 and 65 cents per pound and in 1867 some sold as high as 70 cents per pound. Sauk county farmers are said to have realized from $800 to $825 per acre by raising hops. One farmer is reported to have sold a portion of fifteen-sixteenths of an acre for $1,600. The big crops of hops in Wisconsin, however, lasted for only a few years on account of the inroads made by the louse. In addition to this the New York market was glutted and the hop business soon passed out of existence.

The introduction of tractors is bound to result in stimulating interest in tile drainage. The tractor does not work well on wet ground, but it is very effective when the soil is in good condition. A subscriber to this paper purchased a small tractor last year and his sixteen-year-old son plowed 300 acres with it. Most of this plowing was done when the soil was too dry to be worked by horses. He feels that he practically paid for the tractor last year.

SOW STERLING SEEDS for BETTER GARDEN CROPS

IMPROVING the yield and quality of your garden crops is important this year. Beans and many other food products are worth more now than at any time during the last quarter century. Yet you can raise a large portion of your family's food in your own garden and keep your table bountifully supplied with all kinds of delicious fresh vegetables at very slight cost.

Greatest success in gardening is attained only by sowing reliable seeds. Northrup, King & Co.'s garden seeds have been bred and selected for trueness to type, superior quality and heavy yield. They are carefully tested for germination and are especially adapted to sowing in the Northwest.

That's why it will pay you to be particular this year in asking your dealer for

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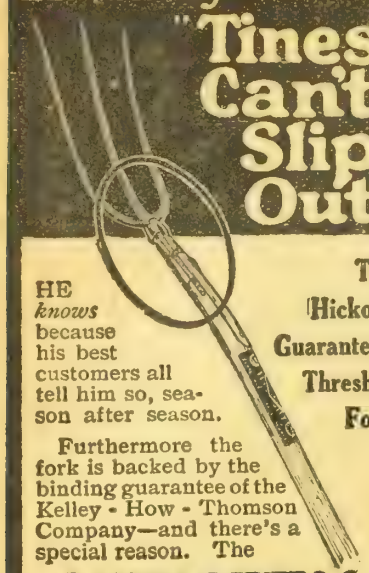

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Thresher Fork has tines forged in one solid piece with tang that runs up into handle where it is riveted solid with handle and straps. Shrinkage can't loosen tines—no danger of dropping into thresher.

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Studying Farm Management.

Pointers on This Important Division of Farming, as Outlined by D. H. Otis, of the Wisconsin College of Agriculture.

THERE is a story in each of the farm management reports which Dean Otis, of the farm management department of the college of agriculture, is returning to the farmers that have kept accurate records of their farm operations during the last year. The work has found new recruits in all of the counties where it is now being carried on. In 1915 there were 365 records kept. In 1916 this number increased to 450. This year will probably see still more farmers computing the cost of their farm operations down to the last cent.

The value of Dean Otis' work lies in the fact that through these records each farmer can compare his results with the average results from all the records for the year. Exact figures are available through the accurate system which is employed.

At the recent meeting of the Fond du Lac County Order of the Wisconsin Experiment Association the reports for Fond du Lac county were distributed. The results are given in Table 1. On the left hand the reader will notice the blank column under the heading "Your Farm." Those who have kept this record have in their copies this column filled in with the results from their farms. Thus they can compare very closely what the average was and whether they were above or below in any of their operations. The reason for success or failure can then be traced to the profitable or unprofitable enterprise. It is a fact that without books few can tell where the profits or losses of the year's business come from.

TABLE 1—EFFICIENCY FACTORS, FOND DU LAC COUNTY, 1916.

	Your farm	County average 1916, 21 farms	County average past 5 years 91 farms
Labor income		$ 1,207	$ 1,282
Size of business:			
1. Size of farm		130	
2. Total investment		$27,016	$22,030
3. Operating capital		7,834	7,853
4. Investment in cattle		4,161	
5. Number of cows		20	20
6. Farm receipts*		5,021	4,918
7. Farm expenses*		2,402	
Diversity of business:			
1. Dairy products		1,688	1,679
2. All live stock			
A. Sales		2,400	2,102
B. Inventory		367	
3. Crops			
A. Sales		630	736
B. Inventory		66	
4. Miscellaneous		254	323
Quality of business:			
1. Dairy receipts per cow		85	85
2. Live stock receipts per cow		82	

*Permanent improvements and live stock purchases are not included.

In Table 2 are given the standard or average crop costs as they have been computed by Dean Otis by careful and extensive averaging of all the records available. In Table 3 the application of the method of using standard costs to determine actual costs on an individual farm is given. Taking the standard cost of barley from Table 2 plus the rent of the land (6 per cent of the value of land to cover interest and taxes) we would have with $100 land the charge of $52 for raising four acres of barley. Thus all the enterprises of the farm can be computed and the total for column C would give us the standard cost—what it would cost according to the figures of all farmers. Now the actual cost is known at the end of each year, as the total for the farm operations has been kept track of during the year. This total ($3,963) in column D is, however, lower than the standard cost. Dividing one by the other the per cent of accuracy is established. In this case the table gives it as 95.7 per cent normal. Taking this per cent of our individual items in column C we get the correct cost to us of each enterprise. Thus instead of the standard cost of $52 for four acres of barley the cost is only 95.7 per cent or $50. We know what the yield and the price received for barley was so we have column E complete. Subtract the $50 from the $131 income and we have the profit we made on our barley. To find the profit per acre the number of acres are divided into the profit. In this case the four acres of barley bringing a profit of $81 would credit each acre with a profit of $20.50.

Table 2a gives the cost of the cattle for one year. These are figured on the basis of units. A mature cow or steer classes as one unit. All other smaller animals are figured a unit when they equal the expense of keeping a general-purpose cow.

With each enterprise thus analyzed there can be no better proof for the banker than the figures when the farmer wishes to make a loan for additional cattle or hogs. The farmer can also tell where he is not making money and be more careful in his investments in that particular direction next year.

Dean Otis has worked for many years to devise a system of accurate bookkeeping for the farm that would be simple enough to allow for quick and accurate entries. He accomplished this about two years ago. For this book the farmer pays cost price and can keep in it the entire farm transactions for the year. At the end of the year he can send this book to the farm management department and have the totals figured if he does not care to do this himself. An analytical study will be made of his accounts as outlined above so that the real value of the accounting is accomplished.

TABLE 3—SAMPLE APPLICATION OF METHOD OF USING STANDARD COSTS TO DETERMINE ACTUAL COSTS ON AN INDIVIDUAL FARM

A	B	C	D	E	F	G
Crop or class of live stock	Acres or units	Standard costs	Actual cost computed	Income	Profit computed	Profit per acre or unit computed
Barley	4	52	50	131	81	$20.50
Oats	17	204	195	327	132	7.76
Alfalfa	17	204	195	525	330	19.41
Clover	12	108	103	350	247	20.58
Clover and timothy	20	160	153	420	267	13.35
Silage	17	374	358	472	114	6.70
Pasture	54¼	163	156	156		
Cattle	26¾	2,675	2,560	3,658	1,098	41.05
Hogs	2.7	202	193	107	—86	—31.84
Total		$4,142	$3,963	$6,146	$2,183	

Actual expenses, $3,963, divided by standard expenses $4,142, equal 95.7 per cent of normal.

A cost accounting system is as necessary on the farm as in a city business. Men with not half the investment a farm represents will go to much trouble to find out just where the profits are made and where the business is not doing them much good. There is no reason why the farm should not be given the same consideration.

TABLE 2—STANDARD OR AVERAGE CROP COSTS PER ACRE.

Grains:	
Barley—Rent* plus	$10
Corn— " "	15
Oats— " "	9
Peas— " "	13
Rye— " "	7
Wheat— " "	9
Roots and Roughage:	
Clover— Rent* plus	$ 7
Alfalfa— " "	10
Mixed hay— " "	5
Potatoes— " "	27
Silage (corn)— " "	19
Tobacco— " "	58

Pasture—Rent only.
*Rent—Six per cent on value of land, to cover interest and taxes.

TABLE 2A.—STANDARD OR AVERAGE LIVE STOCK COSTS PER ANIMAL UNIT.

Cattle (1 cow, 2 heifers or 2 calves=animal unit)	
General dairymen	$ 75
Pure-bred dairymen	100
Market milk producers (special)	125
Sheep (7 sheep or 14 lambs=animal unit)	75
Hogs (1,500 pounds=animal unit)	75
Poultry (100 hens=animal unit)	75

SUMMARY OF RESULTS FOR FOND DU LAC COUNTY FOR THE PAST FIVE YEARS.

TABLE I—RELATION OF CROP AREA TO LABOR INCOME.

Group	Crop acres	Labor income	No. of records
1	Below 40	$ 984	3
2	40 to 100	1,218	32
3	Over 100	1,743	30

TABLE II—RELATION OF OPERATING CAPITAL TO LABOR INCOME.

Group	% operating capital	Labor income	No. of records
1	Below 20%	$ 936	23
2	20 to 30%	1,088	9
3	Over 30%	2,480	16

TABLE III—RELATION OF INCOME FROM DAIRY PRODUCTS TO LABOR INCOME

Group	Income from dairy products	Labor income	No. of records
1	Below 1,500	$ 766	51
2	1,500 to 2,000	1,403	11
3	2,000 to 2,500	1,946	11
4	Over 2,500	2,328	17

TABLE IV—RELATION OF NUMBER OF COWS TO LABOR INCOME.

Group	No. of cows	Labor income	No. of records
1	Below 15	$ 895	34
2	15 to 25	1,057	39
3	Over 25	2,001	14

TABLE V—RELATION OF MILK RECEIPTS PER COW TO LABOR INCOME.

Group	Dairy rec'ts per cow	Labor income	No. of records
1	Below 80	$ 750	50
2	80 to 100	1,310	25
3	Over 100	1,951	19

TABLE VI—RELATION OF LIVE STOCK RECEIPTS PER COW TO

Group	Live stock rec'ts per cow	Labor income	no. of records
1	Below 30	$ 767	19
2	30 to 50	1,156	15
3	Over 50	1,479	35

The summary of results over a longer period of time is always of more value than short-time averages. The first results of the farm management department have not in any way been weakened by the averages for the past five years. Above are given some of the interesting figures which the work in Fond du Lac county brought out. It is plain after the records have been looked over that some forms of enterprises cannot be considered profitable. Small acreage is not always, but quite frequently only, profitable to a very limited degree.

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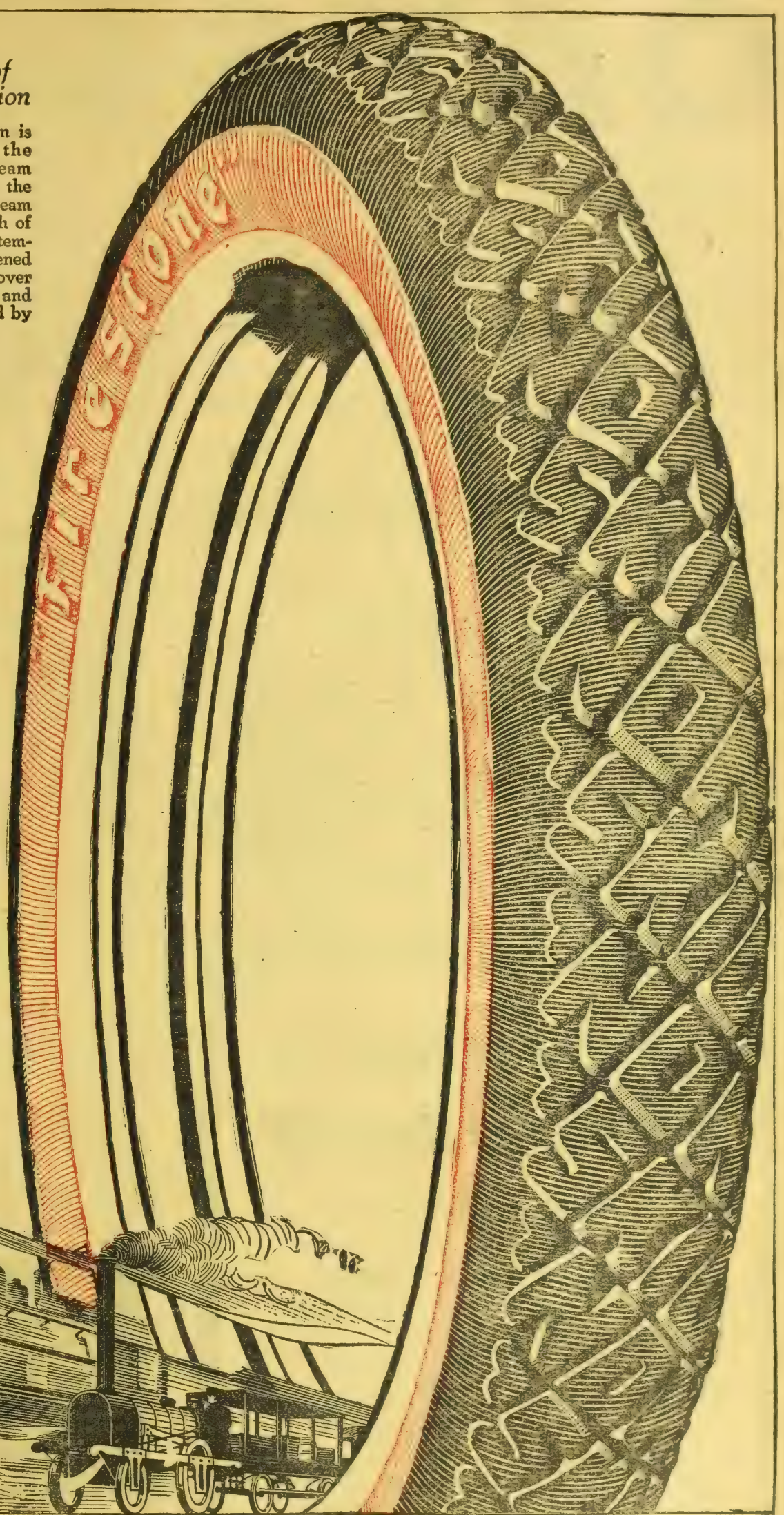

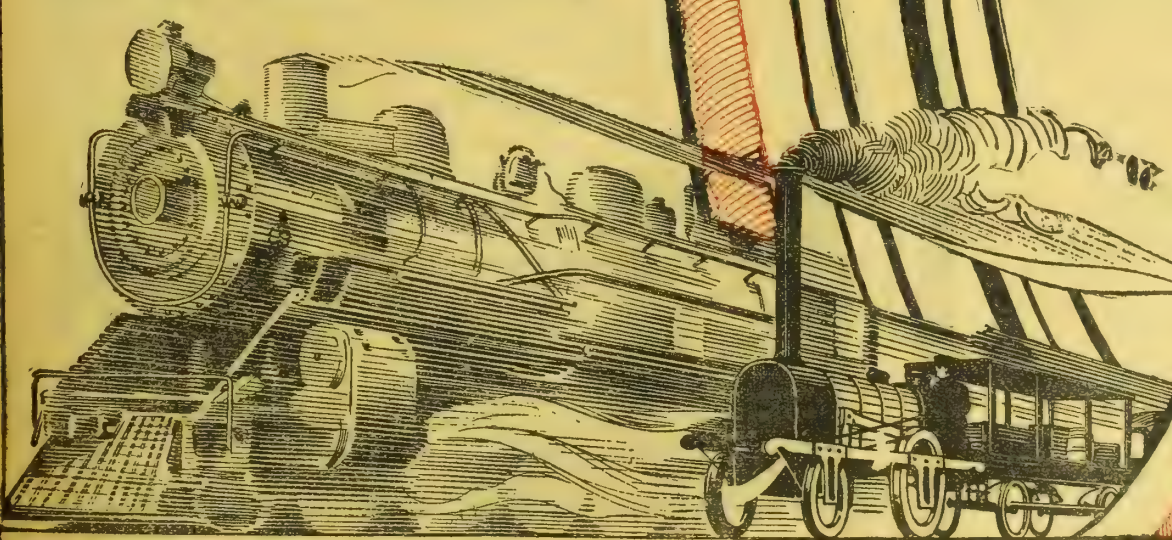

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I can't give it praise enough. I had a 6 h. p. Galloway engine belted to my 16 in. corn mill and it does the work, where an 8 h.p. of another make did not. M. P. SHOEMAKE, DEFEATED, TENN.

It has not cost me one cent for repairs. Am now buying a 2 1-4 h. p. engine and washing machine for the home. Consider the Galloway simplest engine made. ADOLPH DRINOVSKY, TRAER, IA.

My 6 h.p. Galloway was 5 yrs. old this fall. Works perfectly—good for 15 yrs. yet. HAROLD W. BARNES, DELPHI, IND.

I found the 16 h. p. Galloway simplest, most powerful, best governed engine I ever saw and $225 cheaper. HENRY WENHAM, MILTON, WIS.

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Fruit and Garden

It Pays to Spray the Orchard

No Principle in Horicultural Practice Is More Firmly Established Than That Sensible Spraying Improves Fruit.

SPRAYING is necessary if good fruit is to be expected. Many growers think they spray when in fact they only start the operation or only half execute it. Know the pest! Know what to use! Know when to use it! Apply it thoroughly! If these injunctions are followed successful spraying is assured.

Owing to the limited time at their disposal, many growers do not have the opportunity to inform themselves concerning these requisites. Because of the fact that the pests which commonly attack fruits to a serious extent are comparatively few in number, spraying operations can be largely confined to more or less definite times. The materials to be used and the time of their application form what is popularly known as a "spraying program." Even with the spraying program the grower must study his conditions in order to apply it most successfully.

In giving a program for spraying common fruits it must be clearly understood that there are certain pests which are not controlled by the application of the materials recommended. Certain pests demand special treatment.

Common pests of the apple are codling moth, aphis, curculio, scale insects, apple scab and fire blight.

Fire blight is first noted by the leaves at the tips of the branches turning a reddish brown. This discoloration extends downward along the branches as the season advances. A close examination will reveal a blackened, shrunken and frequently shriveled appearance of the bark. When peeled off the inner portions will be found to be discolored. This brown discoloration will often be found to extend beyond a point where the bark shows any sign of the disease on the outside. It may also appear as sunken or "cankered" areas on the trunk or larger branches.

The disease is most prevalent on rapidly growing trees, although there are varietal differences as to resistance to attack. There is no spray for the control of fire blight. Cut out the infected twigs six to eight inches below any sign of the disease and burn. Cut cankered areas back to healthy bark. Disinfect the wound with corrosive sublimate or formalin and treat as for wounds in pruning. It is best to disinfect the knife after removing the infected part by dipping it in strong formalin or corrosive sublimate. The latter is a deadly poison requiring care in handling it. The other pests may be successfully controlled by spraying, accompanied by orchard sanitation.

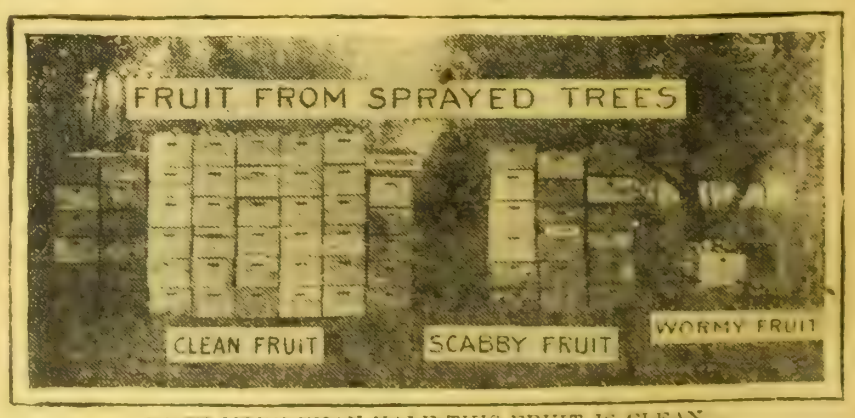
If trees are seriously infected with scale insects spray with lime sulphur shortly before growth starts. To make a fifty-gallon barrel of material for this spray use from five to five and one-half gallons of commercial lime sulphur to which is added enough water to make a barrel of material.

If plant lice were prevalent the past season spray with 40 per cent nicotine sulphate (Black Leaf-40), one part to 1,000 parts of water (one pint to 125 gallons of water) to which should be added three pounds of soap in solution. Apply just after buds begin to show green.

The regular annual spraying of the apple will consist of four applications: (1) spray with a fungicide and arsenate of lead when blossoms show pink (add nicotine sulphate if plant lice are present); (2) spray with (1) from three to five days after most of the petals have fallen; (3) spray with (1) about ten days to two weeks later; (4) spray with (1) on late varieties about June 20th to 30th, depending on location and whether season is relatively early or late. In seasons favorable for the development of fungous diseases an additional application should be made between the third and fourth.

Either lime sulphur or Bordeaux mixture may be used as a fungicide. Bordeaux is probably preferable for all applications except the second and

A SORRY LOOKING MESS OF FRUIT FROM UNSPRAYED TREES.



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Daisy Shields absolutely prevent clods from falling on the hills--enable you to plow small corn one-fourth faster. Clods are thrown AWAY from the row--fine dirt passes through shields and covers up weeds. No time and labor lost uncovering corn—no hills injured. You can plow corn "first time over" as fast as the horses will walk.

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These shields will fit YOUR cultivator, regardless of what make or model it is, and will satisfy you. More than 100,000 are in use. Write for folder and complete information. SEND YOUR DEALER'S NAME. We will arrange to ship a pair for your inspection and approval at once. Don't buy until you see them.

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BALANCE fields and pasture, rich, clay loam. 4-room house, basement barn 40x60, tubular well, best water; Apple orchard, farm tools. On good road, R. F. D., telephone. Near big market. Price $1600, half cash. Send for free photos, and description. **A.L. Wilkins, R.1., Union, N.Y.**

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3 TO 4 feet $1. Two each Tetofsky North Star, Talman, Delicious and Snow. By Parcel Post, $1.25. BEAUTIFUL catalog FREE. **Wisconsin Nurseries, Box 50, Union Grove, Wis.**

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GOLDEN Glow (Wis. No. 12) 98% germinated, 99 9-10% pure. Absolutely guaranteed. A limited amount for sale.

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FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck, Spring Green, Wis.

third. Used at that time, it is likely to cause russeting of the fruit.

Lime sulphur should be applied at the rate of one and one-half gallons of commercial lime sulphur to fifty gallons of water. Bordeaux mixture can be made after any one of a number of formulae. The 4-4-50 formula is as satisfactory as any.

There are a number of formulae for preparing Bordeaux mixture. The following method has given good results in work carried on by the Wisconsin station:

Blue vitriol (copper sulphate)	8 pounds
Lime	8 pounds
Water	100 gallons

Dissolve the blue vitriol in a barrel and dilute to fifty gallons. Slake the lime, being careful to avoid "drowning" or "burning." When thoroughly slaked dilute to fifty gallons. Dip from the two barrels and pour together through a gunny sack or other strainer into the spray tank or barrel.

Where a large number of trees are to be sprayed it will be found best to prepare a large quantity of the material at one time. This can be done providing they are not mixed until ready for using. These stock solutions may be prepared as follows:

To make the stock solution of blue vitriol suspend forty pounds of blue vitriol in a burlap sack in forty gallons of water. Hang it well up from the bottom of the barrel. In about five hours the crystals will be dissolved. One gallon of stock solution equals one pound of vitriol. Do not allow this solution to stand in tin or iron receptacles. Keep the barrel tightly covered to avoid losses by evaporation. Mark the height of the liquid in the barrel if it is to be left standing for a time before using. The material should be brought to this point before using by adding water.

For the stock solution of lime slake forty pounds of lime. Add about two pailfuls of water at first, and then allow lime to heat well before stirring. When hot add more water slowly as it is absorbed and still thoroughly. The hot lime improves by standing about one hour if stirred frequently. Add water to make forty gallons. One gallon of stock equals one pound of lime.

These stock solutions can be kept for considerable periods and Bordeaux made as desired. To prepare 100 gallons of Bordeaux, stir the stock solution thoroughly, measure eight gallons of blue vitriol stock solution into a fifty-gallon barrel and fill with water. Measure eight gallons of lime stock solution into another barrel and fill with water. Stir both thoroughly. Strain equal amounts of each solution at the same time through a gunny sack or strainer into a third barrel, two men pouring, or run the mixture through a trough or spout into the spray tank.—[Wisconsin Bulletin.

La-Crosse County Guernsey Meeting.

The La Crosse County Guernsey Breeders' Association held their annual meeting at West Salem March 7th. About fifty breeders were in attendance and a banquet was served at one o'clock which was enjoyed by all. La Crosse county is one of the foremost in this state as headquarters for cattle of the above breed and all that is needed is a little more co-operation on the part of the members to give it a national reputation. This was a get-together meeting and to formulate plans for a publicity campaign. A summer picnic will be held perhaps in June and a novel feature is being arranged for that time. The day will be devoted to Guernsey cattle and will be called "Guernsey Day." Breeders have promised to furnish individuals and a show will be held and the cattle will be judged by a competent breeder who will also give a talk on the Guernsey cow and her various points. This will indeed be an educational feature and the committee in charge is to be congratulated on their original idea. S. L. Dudley, West Salem, was elected president; H. M. Bonsack, Onalaska, treasurer, and T. H. Campion, Onalaska, secretary. Prof. G. C. Humphrey, Madison, gave an excellent talk on "Reasons for Community Breeding." He brought out many facts of vital interest to pure-bred breeders and dairymen. It was a very successful meeting in every respect. All those in attendance took active part in the discussions and we believe that the La Crosse county Guernsey breeders are going to be in a position to do things in the very near future.

Europe's many tongues and consequent misunderstandings

The Fruits of Understanding

Throughout the vast area of this country prevails a common tongue. The whole of Europe hardly exceeds our territory, yet Europe has more than a score of nationalities and many different languages.

In the United States the telephone, as exemplified by Bell System, renders a matchless service in its mastery of distance and in encouraging the use of a universal language. This accomplishment is in spite of the great influx of population from every country in the world.

In Europe the independent countries, separated by barriers of language, and lacking efficient telephone service, suffer from inadequate facilities for inter-communication.

We now talk from the Atlantic Coast to the Pacific, and eliminate more than three thousand miles. In Europe, contending with a babel of voices and unrelated telephone systems, a bare quarter of that distance has been bridged with difficulty.

The ideal of the Bell System has been day by day to extend its service in the interest of all telephone users. Its efforts have resulted in providing the facilities to unite cities and rural districts in true American democracy.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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One Policy *One System* *Universal Service*

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Reduce Your Living Expenses--Easy to Grow--Very Productive--Promote Good Health, Happiness and Prosperity

AMBROSIA—The earliest and best blackberry; large, sweet and very delicious.
KING OF CLIFFS—Best of black raspberries; bears all summer and fall.
EVERBEARING TREE—Largest, best and the most productive of the red raspberries.
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PERFECTION and DIPLOMA—Best of all currants; sure croppers and reliable.

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We will send one strong vine each of the above berries for $1. Post prepaid; regular price $1.65.

We have a large stock of all the above fruits, and all standard varieties of Strawberries, Raspberries, Blackberries, and all other small fruit plants, fruit trees, nut trees, budded varieties and everything for the fruit orchard or garden. Satisfaction guaranteed and prompt shipments.

ILLINOIS SEED & NURSERY CO., 233 MAIN ST., MAKANDA, ILLINOIS

Some Good Hogs.

To the Editor:—I shipped a load of sixty-nine head of eleven-months-old hogs of my own raising to Chicago last week. They sold at $12.50, which netted me $2,260.19.

The above hogs were run on clover pasture during the fall, with very little corn, were put on full feed December 1st and fed for sixty-nine days, making an average gain of one and one-half pounds per day. During the sixty-nine days they were fed 760 bushels of corn and made a gain of 7,141 pounds, realizing a little over $1.11 per bushel for the corn fed during the fattening period. These hogs averaged at home 277 pounds.

J. E. McCann.

STRAWBERRY Catalog Free

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fruits from early summer till Nov. Send today for price list and pamphlet of instructions—62 years experience.

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Potatoes should never be stored unless they are examined to show whether they are infested. Infested tubers should not be stored unless they are fumigated.

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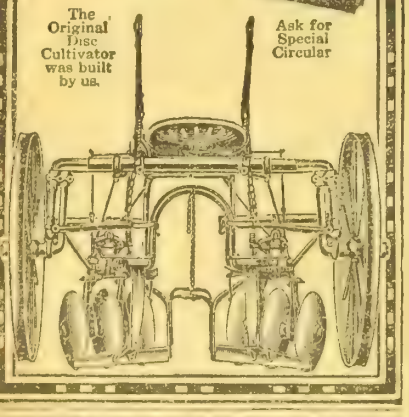

Electric Light and Power on Farm.

Modern System Today Has Dissipated Gloom Around the Farm Home.—By P. J. McKee.

THE picture with this article shows what is apparently just an ordinary farm, a nice house and lawn and good barn, and yet to one who pays a visit to this farm and keeps his eyes open, there is a considerable difference between it and the average farm. This is principally on account of the fact that they modernized this farm by putting in electric light and power. The farm is six or seven miles away from the nearest town or city, so that there is no electric line running through the country, and the nearest interurban line is about four miles away, but out in one corner of the woodshed, off in a little room by itself, there is a little machine that generates enough current to light up every room and hallway in the farm house and all of the barns and other outbuildings on the place. This little machine consists of a single-cylinder engine and an electric generator, all combined in one compact unit. Besides this machine, there is a storage battery sitting on shelves along the wall and by means of this it is possible to have electric light and power at any time of the day or night, whether the engine is running or not.

THIS FARM HOME ILLUMINATED BY HOMEMADE ELECTRICITY.

One would not think that a little plant like this could turn out electricity in the same way as the great, big power houses in the cities, but this one does. It turns out as much and more current than they can use on this farm, and it is just as reliable as service from the city power house. The little engine is run two or three times a week and each time it runs the battery is charged up full. Kerosene is used as fuel, which brings the cost of the electric current down to just about the same price as you pay in the city.

There are forty-two lights in the house and barn. The fixtures are all of the best design and the lamps are good, strong ones. In addition to this they have what are called three-way switches, by means of which a light can be turned on or off from two different places. For instance, when one wants to go upstairs at night, he pushes a switch at the foot of the stairs and the light is turned on in the upper hall. If he wants to turn that light off after he gets upstairs, there is a switch in the upper hall which he can use. The chandelier in the hallway downstairs can be turned on in the same way from the second floor, and this is a very good thing at night. As everyone knows, plenty of light is one of the best protections the house can have.

Lights are placed in the barn wherever they can be used, and they have eliminated the danger of coal oil lanterns entirely. Out in the barn it is not only a question of having the conveniences of electric light, but one of considerable time saved in the work. The owner of this farm tells me that it only takes him half as long to do his chores under the electric light as it used to take him with coal oil lantern, and this fact in itself is one which makes the electric plant well worth considering to every farmer.

In addition to the inside lights on this farm, there are two outside fixtures which serve to light all the barnyard and ground. One of them is so placed that it lights up the back of the farmhouse, part of the barnyard, and even the driveway out to the road in front of the house. The other one is on one side of the barn and serves to light up that half of the barnyard. The owner tells me that he gets as much satisfaction out of these lights, which he only uses for a few minutes at a time and doesn't use every day, as out of almost any of the lights on the place.

In addition to lighting, the current from this little plant is used to run electric fans, a vacuum sweeper, a churn, washing machine and several other light power appliances.

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Fox River Valley Breeders Meet.

Holstein Association Has Seventy Present This Year and Adds Many New Members.—By E. O. Mueller, Sec'y.

THE Fox River Valley Holstein Breeders' Association held its seventh annual meeting February 24, 1917, at the city hall, Neenah, Wisconsin. Last year there were not more than ten or fifteen present for such an important association. But at this meeting there were seventy members present and quite a number joined the association, which shows that interest is growing. The morning meeting was given to routine business and officers were elected as follows: President, Edward G. Race, Omro; secretary-treasurer, Edward O. Mueller, Appleton; executive committee, Fred Ziegler, Appleton; Louis Sorensen, Larsen; Frank Puth, Appleton; Geo. Schaefer, Appleton; committee on resolutions, Frank Puth, Appleton; C. B. Ballard, Appleton; F. W. Plamann, Appleton; F. A. Ziegler, Appleton; A. Calder, Allenville.

The secretary read a letter received from the Wisconsin Department of Agriculture submitting a plan for the establishment of accredited tuberculin-tested herds. Following a short discussion the letter was referred to the committee on resolutions.

The secretary read another letter received from the Wisconsin Live Stock Breeders' Association calling its attention to the urgent need of a representative to represent the live stock breeders and farmers of this state at the present session of the legislature. Also stating that at a recent meeting of all the breeders' associations it was decided to send Geo. McKerrow to the legislature and asked for a contribution from the association to help defray the expenses of the representative. The letter was referred to the committee on resolutions. Following this the convention adjourned to the Valley Inn, where a fine dinner was served. The members of the association were guests of the business men of the city. Hon. S. A. Cook, Neenah, Wisconsin, was chosen to preside.

Mr. Cook was an ideal toastmaster. He told many good stories during the introduction of the various speakers.

R. J. Schaefer, the retiring president of the association, was called on to respond to the words of welcome. He stated that the business men of the county were present to thank the business men of the city for making it possible for them to have such a fine place to meet and for furnishing them the banquet they were enjoying. Mr. Schaefer declared that the city and country people are too far apart. There should be a greater co-operation. The city needs the farmers and the farmers need the city. The city should not be afraid to ask the country brothers to assist them in promoting anything good for the community, nor should the farmer fear to join his interests with the city. He extended a cordial invitation to the city people to visit the farms of the Holstein breeders at any time of the year and assured them that they would be sure of a drink of good Holstein milk.

Following the feast the convention was again called to order by the president and the committee on resolutions reported as follows:

To the Fox River Valley Holstein Breeders' Association. Gentlemen, your committee on resolutions beg leave to submit the following relative to the communication read by the secretary.

First.—Be it resolved by the Fox River Valley Holstein Breeders' Association in annual meeting assembled, that we approve of the plan of the department of agriculture relative to the testing of cattle for tuberculosis. We believe it is a forward step in the right direction and should be taken advantage of by everyone interested in protecting and improving the herds of the county and state.

Second.—Be it further resolved, that in behalf of the interest of the live stock breeders and farmers of this state and association we are interested in having every important matter represented in the present session of the Wisconsin legislature, and be it further resolved, that the secretary and treasurer of this association be authorized to subscribe its share toward defraying the expense of Geo. McKerrow as such representative.

Third.—Be it further resolved, that a vote of thanks be tendered the business men of Neenah, Wis., for the splendid entertainment and good fellowship shown this association.

Respectfully nominated.

Frank Puth
C. B. Ballard
F. W. Plamann
F. A. Ziegler
A. Calder

Following the banquet Mr. Geo. F. Comings, of Eau Claire, Wisconsin, delivered an address on "The Advantages of Co-operative Breeders' Organizations." He strongly advised cow-testing associations because the buyers of pure-bred and grade cattle at the present time are demanding stock that has been tested for butter production and also stock which is out of tested stock. With the increasing demand for clean cattle free from tuberculosis he advised that the breeders co-operate with the department of agriculture in getting a reliable man to tuberculin test their herds, thereby insuring their herds free from disease and putting Wisconsin on the map as a clean state.

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Plans For Raising Calves.

Probably the best way for the dairyman to maintain and build up his herd is to raise his heifer calves. If his foundation cows are good producers and if he uses a tested sire he can be reasonably sure that the heifer calves will be good producers. But with the fast advance in prices of land and farm products, the expense of raising the calves is increasing. When the young were allowed to suckle their dams no such conditions existed, but this practice is no longer economical.

L. W. Wing, Jr., of the Missouri College of Agriculture, outlined two general plans for reducing the cost of producing calves, in a lecture during Farmers' Week at the University of Missouri this year. Where cream is sold he suggested that the calves be fed whole milk for the first two or three weeks and then gradually changed to skim milk. The whole milk should not be fed, even to the largest calf, in excess of three quarts, or about six pounds, at a feed twice a day. The small calf, such as a Jersey, does not need more than two quarts at a feed. When larger amounts are given, scours are apt to result. After the calf has been changed to skim milk the amount may be increased gradually to fourteen or sixteen pounds a day. Such feeding should be supplemented with grain, preferably ground corn or a mixture of three parts of corn and one part of oats by weight. Calves should be allowed to nibble hay as soon as they begin to eat grain. Timothy or mixed hay should be fed during the first two or three months. Then some legume, alfalfa, clover, or cowpea hay, may be given.

The farmers who sell whole milk have another problem. Experience has taught that the only method of replenishing a herd and advancing production is to raise the heifer calves. The plan in general use at present is to feed a minimum amount of milk along with grain, or to give the calf a good start and take the milk away after about two months, and then put the calf on a grain ration.

Many attempts have been made to find milk substitutes. Oil meal, blood flour and wheat middlings or flour have made up the major portion of most of them. Those which have proved most successful have contained a small portion of powdered skim milk. When they are fed, whole milk is given for about the first month and the calves are gradually changed to the calf meal. This is fed as a gruel which has been previously heated to 145 degrees F. for one-half hour and cooled to about 90 degrees F. at feeding time. The amount fed depends upon the size of the calf, but should not be in excess of one and one-fourth pounds per feed twice a day. One should have had experience in raising calves before trying this method. Such feeds enable a man selling milk at a high price at retail or wholesale to raise his calves more cheaply than he could by feeding fresh milk.

Dealing With Ugly Cows.

To the Editor:—We do have to face problems of ugly cows at times. Just as there are men who are hard to get along with, so there are cows that by reason of their naturally nervous temperament or because of some past ill treatment have become difficult to manage. The question what to do with these cows is pretty serious sometimes. They may be good cows for the dairy, long and deep milkers and giving milk that is rich, but they are kickers or have the habit of fighting other cows in the yard or are addicted to some other bad habit.

In the past I have done my share of fretting over such cows. They are provoking, no doubt about that. They have a bad effect on the other cows in the herd, just as a peevish child will keep the rest of the little ones in a state of turmoil.

The temptation always is to be harsh with these wayward cows, to punish them, often cruelly. Farm animals have to suffer a great deal from their masters or from hired help. But the passing of the years has impressed a few things very forcibly on my mind. One of them is that it never pays to get mad and whip or otherwise abuse an ugly cow. She will only be the worse for it and meet your force with her force, and it resolves itself into a pitched battle for the mastery. No man ever enters such a struggle that he does not come out of it a worse man that he began. All the bad elements of his nature get the ascendancy and if he conquers the cow he has defeated himself, which is the worst of it all.

Then, too, it is rarely necessary to be harsh with the worst of cows. If we let them know from the start that we are friends and not enemies they will be, in time. It takes patience to do this. Some men never ought to be given an ugly cow to milk or handle in any way. They are so apt to lose their temper and scold or yell or strike the cow that happens to cross their will that it is simply throwing oil on fire to allow them to touch such an animal. Give her to the most quiet, even-tempered man in the stable.

In almost every case it will be found that the bad cow has been made so by something she has had to contend with. It may be her teats are tender and the milker does not keep his nails trimmed down. It may be long hairs are permitted to grow about the teats. These get pulled by the hands of the milker and they do not

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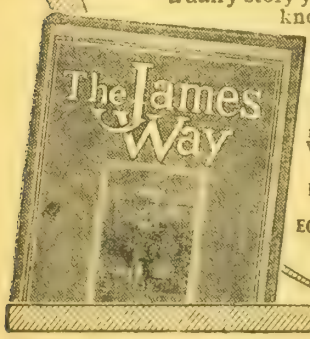

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Let us start you in a business that will make you from $15 to $50 a day when farm work is slack. Other men have done it for years with an
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Improved Powers Combined Well Boring and Drilling Machine
Same rig bores through any soil at rate of 100 ft. in 10 hours, and drills through rock. One team hauls and operates machine. Engine power if wanted. Easy to operate—no experts needed.
Small investment; easy terms. Make machine pay for itself in a few weeks work.
There is a big demand for wells to water stock and for irrigation.
Write for free illustrated circular showing different styles.
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make the cow feel very comfortable. It may be the milker pinches the teats too hard when they are swollen with milk. Or something comes in contact with the body of the cow somewhere that does not feel right, and she resents it in the only way she can. So it always pays to find out if we can what makes the cow cross and to remove that cause so far as we can. Often by taking a cow out of the place she has occupied in the stable and putting her in a new and roomy stall, with a new and kind milker, she will in a little while become a new cow in her manners.

But if we cannot by any of these means gain the confidence and so the mastery of our cows, we might better let them go. Life is too short and peace of mind worth too much to be sacrificed in battling with any farm animal. F. L. V.

Milking Machines Save Time and Labor

In producing the mechanical milker inventive genius has again come to the farmer's aid and solved one of his most serious problems. Scarcity of efficient labor has long been a menace on farms where milk cows are kept and the drudgery of hand milking has discouraged many in the dairy business. But the milking machine is marking a new era for the dairy farmer and his work is being made more profitable and pleasant.

Among the most important benefits from the milking machine is a marked saving of time from their use. The federal department of agriculture has found that in large dairy herds of more than fifty cows it requires nearly seven minutes per cow to milk by hand, while only four and one-fourth minutes are required to milk by machine. In smaller herds of fifteen cows or less it requires seven minutes to milk by hand and a fraction less than five minutes to milk by machine. Although the saving is less for the small herd, it may still be valuable in relieving a considerable amount of labor during the busy season that could be put to other urgent work. It was found that with herds where three men were formerly required to do the milking, two men could do it with a machine. This means the saving of the wages of one man, since in ordinary dairy farming two men can raise the crops and otherwise provide for the same number of cows that it requires three men to milk.

When wages of hired labor are considered the cost per year of hand milking varies from about $10.45 per cow in herds of fifteen or less to about $10.90 per cow in herds of fifty or more. For machine milking the cost is $11.75 per cow in small herds and $7.35 per cow in large herds. This shows a big saving by the machine in the large herds. However, it does not indicate that machines are unprofitable in small herds, since a man may be kept primarily to do the milking when his services are not really needed otherwise, and by installing a milking machine he could be dropped and his entire wages saved. When all factors are considered the milking machine is found to save from $2.65 to $8.35 per cow per year.

In addition to this saving of time and money the mechanical milker removes a great deal of drudgery from the farm dairy, which is no small item in its favor, and the success which it has met with already indicates that it will soon come into extensive use, especially in dairying regions.

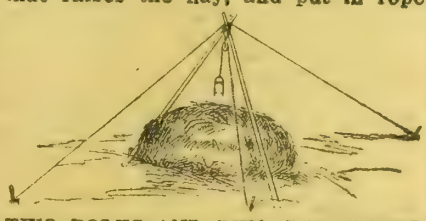
Uses Kerosene Tank Heater.

To the Editor:—In regard to inquiry about a gasoline tank heater, I have used a coal oil heater all this winter with very good success. It requires no attention whatever and is free from danger of fire. When I use it steadily I use only a gallon of oil every thirty hours except in very severe weather and then it burns twenty-four hours easily.

The tank I use it in is a very large one, sixteen feet long, seven and a half feet wide and two feet deep. I have not been troubled with ice in any way and the stock drink much more water and keep in better condition than they have any previous winter. John A. Lynch.

Uses a Two-Pole System.

To the Editor:—In answer to Mr. A. C. Stockdale's inquiry about stacking hay with poles, I use two poles about forty feet long. I first set two good posts about 140 feet apart. Then I take guy rope 175 feet long, find center and give same a double half-hitch around top of poles. Then take a chain three feet long, put through crotch of poles to hold pulley in place that raises the hay, and put in rope



TWO POLES AND TWO GUY WIRES.

on fork. Spread poles thirty feet at bottom. There should be holes dug about one foot deep to set the poles in to prevent them slipping on being raised. I use a jin pole fourteen feet long. Tie one end of guy rope to post. Use block and tackle to raise with. When the poles are raised, give the guy ropes slack enough to swing hay full length of stack. Set post about eight feet from hay pole to right. This is to chain pulley to. Subscriber.

Ask your neighbor to subscribe for The Wisconsin Farmer.

THE INDIANA SILO

Fifty thousand are now in use on the finest farms in America.

If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

Let us send you our proposition—to contract now for your silo and deliver it later.

We still have openings for a limited number of farmer agents.

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NEW DE LAVAL
AND OTHER
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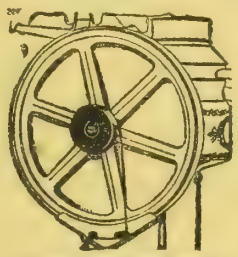
YOU can *see the difference* between a NEW DE LAVAL and any other cream separator right away.

And five minutes spent in comparing the bowl construction, the size, material and finish of all the working parts, the manner of oiling, the tinware and the frames, will surely convince you of the superiority of De Laval construction and workmanship.

Then if you go a step farther and turn the cranks of the two machines side by side for fifteen minutes, running milk or water through the bowl, you will see still more difference.



Every New De Laval is now equipped with a Bell Speed-Indicator, the "Warning Signal" which insures proper speed and uniform cream.

Speed Indicators can be furnished for use on old style De Laval machines at a cost of $3.00 each.

And if you will run the two machines side by side in practical use, as any De Laval agent will be glad to have you do—the De Laval one day and the other machine the next—for a couple of weeks, you will see still greater difference in the work of the two machines.

There is a De Laval agent near you who will be glad to explain all the improvements and advantages of the NEW De Laval, and who will set and start a machine for you on your farm and let you *prove the difference* for yourself.

Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for any desired information.

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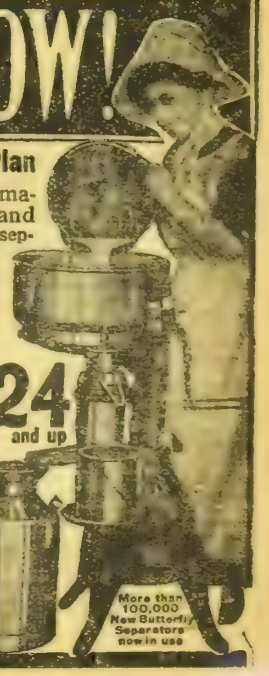

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Cream Separators have these exclusive high grade features—frictionless pivot ball bearings bathed in oil, self-draining bowl, self-draining milk tank, easy cleaning one piece aluminum skimming device, closed drip proof bottom, light running cut steel gears, oil bathed. Guaranteed highest skimming efficiency and durability. We give

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Also Manufacturers of Albaugh Dover "Square Turn" Farm Tractors

More than 100,000 New Butterfly Separators now in use

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

SEEDS.

OATS 118½ bushels per acre. Don't kick about the roads and weather. They are never too bad to figure how to make extra dollars from your next year's crop. Something new. Extra Kherson and Wis. Number One oats, barley, wheat, clover. Write today for circular with prices. Grown by world's sweepstakes grower. Henry Krueger, Beaver Dam, Wis.

FOR SALE—State inspected, recleaned, Wis. Ped. barley, $1.50 per bu. Purity 96, germination 96. Wis. Ped. oats No. 1, 80c per bu. Purity 99.2, germination 93. Member Wis. Exp. Association. E. H. Mowrie, Loyal, Wis.

GUARANTEED Seeds. Eighth season. Golden Glow corn, Early and heavy yielder. Choice Timothy, Alfalfa, Red, Alsike and Mammoth Clovers. Circular and samples on request. Henry Michels, R. 3, Malone, Wis.

WISCONSIN grown, high germinating, Early Yellow Dent and Golden Glow seed corn. Arthur O. Popp, Jefferson, Wisconsin.

BLACK Hill Alfalfa Seed for sale. My own grown. Write at once for prices. A. J. Messner, Farmingdale, South Dakota.

POULTRY, ETC.

MEN—WOMEN. Want an income? Read New Ideas in Feathers. It's creating a sensation. New and original methods for turning quick dollars with poultry products. Amazing stunts you never heard of your back yard will do. G. Joas, Chippewa Falls, Wisconsin.

HATCHING EGGS! From Ferris 230-egg strain S. C. White Leghorns. Pen mated. Not utility stuff. 15 eggs $2.00; 30 eggs $3.50; 50 eggs $5.50; 100 eggs $10.00. George Dietzler, Box 903, Shawano, Wisconsin.

CHILCOTE strain S. C. Brown Leghorns; chicks $9 per 100, $80 per 1000; eggs $4 per 100, $35 per 1,000. Best winter layers. Candee hatched; 30,000 capacity. Frank Chilcote, Washington, Ia.

RHODE Island Whites, first prize winners at St. Paul and Bismark shows. Unequaled layers, have cockerels and eggs. Send for circular. J. H. Movius, Lidgerwood, N. D.

EGGS and stock for sale, with score cards. White Rocks, White Orpingtons and S. C. Reds. Eggs $1.50 to $3 for 15. J. P. Runkel, Arcadia, Wisconsin.

HATCHING eggs, choice pen White Orpingtons. Sold $37.50 eggs January, 90 hens. Eggs $1.50, 15; $8, 100. Edw. Lohrenz, Hortonville, Wisconsin.

SNOWFLAKE White Wyandottes, bred for eggs, free range, healthy, established fifteen years, best blood, circular. Daniel Bryan, Portland, Indiana.

ROSE Comb Brown Leghorns, baby chicks, eggs. Cockerels of quality Write for particulars. Mrs. Herman Sandvig, Spring Valley, Wis.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

POULTRY, fruit, truck, dairy—beautiful Perkiomen Valley, near Philadelphia. Catalog. W. Stevens, Perkasie, Pa.

BUFF Orpingtons, Free mating list. Wonderful Chicago and Milwaukee champions. Edwin Bemis, Fond du Lac, Wis.

S. C. W. LEGHORNS—Heavy layers, and prize winners. Mating list free. O. J. Hellum, Menomonie, Wisconsin.

HATCHING eggs for sale, from Imperial Ringlet Barred Rocks. 15 for $2. O. Nesdahl, Shevlin, Minn.

WHITE Plymouth Rocks. Hatching eggs, write for mating list. A. F. Polzl, Hartford, Wisconsin.

CHOICEST White Wyandotte Settings, $2.50 postpaid. Elmcroft, 5-89, Ft. Atkinson, Wis.

DARK Cornish since 1896; stock and eggs, also Houdan eggs. L. Madsen, Gardner, Illinois.

SINGLE Comb Buff Orpingtons exclusively. Eggs $2 sitting. Geo. Spelbing, Newton, Ill.

PURE-Bred White Rocks. Address "Kremers," Whitehall, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

PURE-bred Holsteins for sale. Bull calves 2 to 6 months old; average state test 3.86. High producing dams. Lakeside Farm, A. Zimmerschied, 66 Wis., Oshkosh, Wis.

POSITION WANTED.

MIDDLE aged lady desires place on farm as housekeeper. References exchanged. Shaff, 1st Apartment, 6456 Union Ave., Chicago.

PERCHERON.

FOR SALE or exchange, 2000-lb. registered Percheron stallion, six years old. A. Urch West Concord, Wisconsin.

HELP WANTED.

WANTED reliable and experienced farm hand 8 months or year. Mechanical milker used. State age, weight, wages in first letter. No boozer. Ramond Lepien, Hartford, Wis.

MAN wanted for general farm work. State wages, age and weight in first letter. Address Holmes Bros., R. 2, Livingston, Wis.

EXPERIENCED farm hand wanted. Clinton Berry, Kilbourn, Wisconsin.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

ENVELOPES PRINTED.

100 ENVELOPES, neatly printed, 40c; 300, $1; 500, $1.50, prepaid. Samples free. Andrew Christianson, Manhattan, Ill.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

NEWCOMB CARPET LOOM.

FOR sale—One Newcomb Rag Carpet Loom. Mrs. M. Fetrow, Rosalia, Kansas.

FARM LANDS.

NORTH Dakota in all essentials—soil climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short, yet government reports show $167,544,000 or $2,253 per average farmer. In last 7 years average farmer in North Dakota produced $1975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, immigration agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

YOU can read ads all day and no where can you find such a chance as our company offers you, such rich soil, abundance of nutritious grasses, with just enough timber and water, with prices so low, terms so easy, and locations so favorable as our Aitkin county dairy lands afford. Look on the maps. See where Aitkin county is, in Minnesota's great dairy district where clover grows everywhere. Send address for literature today. Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

GET a farm home in rich corn and clover belt of Northwestern Wisconsin along new Soo Line, 50 miles St. Paul-Minneapolis. Landseekers all say: "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools. Creameries everywhere. $15 per acre and up. Map and list free. Baker N-110, St. Croix Falls, Wis.

FARM of eighty acres, good buildings, ¼ mile to school, 1½ miles to creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, 6 miles west of Medford, Taylor county, Wisconsin, county seat. $6,000, will take in exchange to the extent of $3,000 first-class city property. Will rent three years at $325 per year. L. A. Kimball, Lake Geneva, Wisconsin.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

EIGHTY-ACRE FARM for sale cheap. Close to town and school. Fair buildings and about 3 acres cleared. Choice Clay loam soil. Considerable green hardwood timber which will go a long way toward paying for the farm. Price $25 per acre. Very easy terms. Address Box "J," Ladysmith, Wisconsin.

FOR SALE—80 acres unimproved land about two miles from Prentice, Wis. Rich clay loam soil; land easily cleared. Small creek runs through part of land. A bargain at $1,300, with only $500 cash, balance on easy terms. For full information address H. S., 873 Buffum St., Milwaukee, Wisconsin.

40 ACRES cheap. 5 acres cleared; balance firewood; nearly level; clay loam soil; log buildings, creek; 2½ miles to cheese factory; $550.00, cash $200.00; Ev. Luth. Colonization Co., 1028-M, Dept. 10, Merrill, Wis.

READ THIS!—Would you sell your farm, if you got your price? No agents' commissions. No middle-man to take big profits. You can do it. Particulars free. Address Charles Renich, G-2, Woodstock, Illinois.

A 40-acre farm for sale; 30 acres under plow; sold reasonable. 4 miles from town, 1½ miles to school and to cheese factory. All stock in 4 miles east of Clintonville. F. K., R. 4, Clintonville, Wisconsin.

TWO farms for sale, easy terms, on main road; telephone, R. F. D., etc.; good buildings; will rent one to right party. Henry Wilson, Ladysmith, Wisconsin.

FOR SALE or exchange for wild land in southwestern Nebraska, live stock farm of 760 acres 2½ miles from town. Write Albert Ferdon, Pittsville, Wisconsin.

MICHIGAN FARMS—Dairy, fruit, grain, poultry and vegetable farms. Good soil. Reasonable prices. Write for catalog. Weersing, Holland, Michigan.

HIGHLY improved farms, St. Croix county, Wis. 40 miles Twin Cities. Write for list. Wm. McNamara, New Richmond, Wis.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur's, Mountain View, Mo.

FOR SALE—Two choice improved 800-acre farms. A. M. Grosvenor, (Owner) Casselton, North Dakota.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

GOVERNMENT POSITIONS OPEN.

THOUSANDS men and women, 18 or over, Wanted everywhere, for U. S. Government Life jobs. $75.00 month. Steady work. Short hours. Rapid advancement. Common education sufficient. Write immediaty for free list of positions now easily obtainable. Franklin Institute, Dep't A176, Rochester N. Y.

PAINTS.

STOP buying high-priced paints. Smith Bros.' refined Fish-Oil mixed with any desired coloring, produces a paint that will outwear all others. Better and cheaper than linseed oil; 60 cents per gallon. Write today for particulars, etc. Smith Bros., Port Washington, Wis.

Potato Growers Meet.

The Cedar Lake, Barron County Potato Growers' Association held its annual meeting Friday, February 17th, at the Mikana town hall. The association enjoyed the presence of Prof. J. G. Milward, of Madison, and also his illustrated lecture. This association has a poet and he presented the following at the annual banquet:

Barron county is on the map,
In spite of every handicap;
It raises potatoes smooth and white,
That look to the judges just about right.

In Barron county in the fall,
They harvest spuds that beat them all.
When R. L. Cuff and his good wife
Go after potatoes with their left and right,
Barron county gets into the limelight.

A. T. Johnson has taught us a lesson
With his true Green Mountain type;
And modern methods, beyond a question,
Of raising potatoes are all right.

Gust Kringle is a potato grower
With a mighty good reputation,
Of raising Burbanks' long and smooth,
That can meet every qualification.

Then we have Ed Kringle,
With his Rurals, smooth and white,
Which are always in the money
At the big shows, every time.

E. H. Thompson raises Rurals
That are round and smooth and white,
Which won fist at every exhibition,
No matter how keen the competition.

The Cedar Lake Potato Growers' Association,
Of only one year's duration,
Should view their success with high elation,
For they have an enviable reputation
Of selling spuds throughout the nation.
—Potato Growers' Poet.

The association listened to speeches by M. Kringle, A. T. Johnson, E. H. Thompson, Gust Kringle, C. Markwald, E. Freeze and the county agent, Mr. R. L. Cuff.

The Cedar Lake association claims to have won more prizes during the past year than any other potato growers' association in Wisconsin. This association has done a great deal toward improving the quality of potatoes in Barron county.

SAVE YOUR CHICKS

WE CAN help you. Send us the names and addresses of (10) poultry friends and receive our revised 32-page book on "White Diarrhoea the Greatest Foe to Chick Life." This book makes Poultry Profits possible. Gives care and feeding of chicks and turkeys, how to prevent cnicks from dying in the shell, also cause and guaranteed cure for bowel trouble. Above book free. Postpaid for the names. Write today.
THE F. K. REMEDY COMPANY
701 Second Street Arkansas City, Kansas

In Your Own Interest

ask your horseshoer to use "The Capewell" nail. Say to the man who cares for your horses. "Capewell nails—nothing else."
You'll find it pays. All shoers can afford to use Capewell nails, so don't hesitate to ask.
It is not cheapest regardless of quality but the best nail in the world at a fair price.
THIS CHECKED HEAD OUR TRADE MARK

OREGON & CALIFORNIA RAILROAD CO. grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectiona map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for San Joaquin Valley illus. folders, free. C. L. Seagraves. Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

WINNEBAGO Co. farm home for sale. Well kept 40 acres, 1 mi. Omro, 9 mi. Oshkosh (Interurban service), 8-room house, barn, silo, well, spring, team, wagons, sleighs, buggies, 7 cows, cream separator, farm tools, etc. All for $6,500 if taken before April 1. Part cash, part terms. Mrs. Florence Dane (owner), 653 Main St., Oshkosh, Wis.

FREE GOVERNMENT LANDS—Our official 112-page book "Vacant Government Lands" lists and describes every acre in every county in U. S. Tells ocation, place to apply, how secured FREE. 1917 Diagrams and Tables, new laws, lists, etc. Price 25 cents postpaid. WEBB PUBLISHING CO., (Dept. 98), St. Paul, Minn.

FOR SALE OR TRADE—For good Wisconsin improved farm—a first-class garage completely stocked and fully equipped. Also two cars. Lease runs five years more. In town of 3,500 in rich farming sect on. Must leave on account of health. S. T. Hutchinson, Lake Geneva, Wisconsin.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. D. F. Bush, Minneapolis, Minnesota.

MONTANA—Cheap lands. Easy terms. Literature, maps, etc. Joe W. Fulmer, Immigrat'n Agt. C. M. & St. P. Ry. Co., Harlowton, Mont.

FARM WANTED. Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippewa Falls, Wis.

REDUCE LIVING EXPENSE WITH A "SURE-CROP" GARDEN

Make the Back Yard Supply Your Vegetables

SPEND 50c Get Our Ideal Vegetable Collection SAVE $50.00

17 Large Packets High Test Garden Seeds 1 packet each of—

Beans, Wax	Cabbage	Lettuce
Peas, Early	Carrots	Melon
Corn, Sweet	Cucumber	Onion
Beets, Early	Kohlrabi	Parsley
Radish	Spinach	Tomatoes
Turnips	Marjoram	

Also large packet of Choice Flower Seeds—all postpaid 50c

Our New Illustrated Seed Book explains the pleasure and profit of gardening.

Send for Free Copy at Once

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104 First Avenue, Faribault, Minn.

Free Booklet on Horse Training

BREAK your colts, kickers, runaways, etc., with Koepke's controller bridles and avoid accidents. Write for circulars and free booklet on horse training.
F. L. KOEPKE, Dept. A, Whitehall, Wis.

POULTRY AND PET STOCK.

SINGLE COMB WHITE ORPINGTON

CHIPPEWA Hardy Nothern. Twenty-seven cockerels for sale from $2 to $25. Free mating list 1917 completed. Chippewa Orpington Farm, A. L. McDonald & Son, Office 722 Superior St., Chippewa Falls, Wisconsin.

HATCHING EGGS

FROM standard bred laying stock $1.50 per 15 or $7.50 per 100 eggs, and $2.50 per 15 or $10 per 100 eggs. Our flock is bred from high-class exhibition stock. Winnebago Poultry Yards, R. 23, Omro, Wis., A. J. Schloerb, Manager.

WANTED—PURE BRED POULTRY AND EGGS

FOR hatching in large lots. Will buy cockerels, hens and pullets in many varieties. Whole flocks bought, also pigeons. Describe what you have, quality and lowest price.
Z. G. McKay Clinton, Iowa

50 Varieties, Chickens. Bronze, White Holland, Bourbon Red turkeys; Toulouse, Embden, African, China geese; Pekin, Rouen, Indian Runner, Muscovy ducks. Guineas. Catalog two cents.
Theodore Franz, Box 104, Mankato, Minn.

DAY-OLD CHICKS

of quality guaranteed to 1,500 miles. Eggs for Hatching at low prices. Bar. Rocks, S. C. W. Leghorns, S. C. and R. C. Reds, W. Wyandottes, Buff and W. Orpingtons. Chicklet catalog free.
GOSHEN POULTRY FARMS. R-45 Goshen, Indiana

62 BREEDS, Pure-bred Chickens, Ducks, Geese, Turkeys. Hardy northern raised, vigorous, beautiful. Fowls, eggs, at low prices. America's Pioneer Poultry Farm; 23 years exp. Large fine Annual Poultry Book and Catalog FREE.
F. A. NEUBERT, Box 607, Mankato, Minn.

BARRED Plymouth Rocks and eggs. Farm raised; bred for beauty and utility. Cockerels $3 to $7; pullets $2 to $4. Double mating state if dark, light, or medium birds are wanted. Carter's Plymouth Rock Farm, Jonesdale, Wis.

RHODE ISLAND RED HATCHING EGGS!

FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R. E. Daly Poultry Farm, Necedah, Wis.

64 BREEDS Fine, pure-bred Chickens. Ducks, Geese and Turkeys. Fowls, Eggs, Incubators at low prices; catalog free.
R. F. Neubert Co., Box 804, Mankato, Minn.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

"ARISTOCRAT" Silver Wyandottes. Now is your chance. Cocks, ckls., hens, pullets. Mercantile business demands my time. Must sell entire flock. Frank Faha, Jr., Box 620, Dyersville, Ia.

S. C. BUFF ORPINGTONS

World's Greatest Egg Producers. Eggs or Chicks. Ctr. Free. Will Schadt, Box 1061 Goshen, Indiana.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

2949 COCKERELS, hens and pullets, 19 varieties chickens, geese and ducks. Eggs in season. Aye Bros., Blair, Neb., Box 1. Free book.

ROCKS—Pure-bred White and Barred Day-old Chicks, hatching eggs. Early hatched cockerels reasonable. Mrs. J. F. Bloom Route 1, Stillwater, Minn.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Packing Eggs For Hatching.

To the Editor:—Someone asked about packing eggs for shipping and I want to tell about an advertiser of whom I bought 200 Red eggs. He had corrugated carriers like an egg case. The eggs were wrapped in paper and placed on end promiscuously. They were clean and looked fresh, but shook like rotten eggs. However, I set them. There were 157 without even a sign of fertility. They were packed on the large end and the contents shaken through the air chamber.

He replaced the 200 at half price. I asked for them to be packed little end down or in a basket on the side, but he paid no attention and in the first layer sixteen out of twenty-five were packed on the large end and shook. I just returned the whole shipment to him.

I may not know much, but eggs will not hatch after the air chamber has been broken or pierced. I use baskets and plenty of excelsior and wrap each egg separately and lay it on the side. Sometimes a small order is packed in a box of bran. I, for one, would rather pay for three baskets of well-packed eggs than have so many spoiled by packing closely on end. Then, too, it all goes by weight, not by piece. Ship by express, parcel post is too jarry yet for hatching eggs.

I hope this idea will help the lady with the duck eggs. Fannie Daun.

Brooding and Feeding Baby Chicks.

Millions of baby chicks will die this season because of wrong methods and mistakes made in brooding and feeding. Eggs are higher and chicks will be scarcer and higher than in most preceding years. It behooves every poultry raiser to use such methods as will insure the lowest per cent of mortality and the quickest growth.

Brooder stoves of many kinds are upon the market. The coal-burning brooder stoves are the kind with which we have had greatest success, and are those which seem to be giving most general satisfaction in the hands of most poultrymen. We know of some who use two of these stoves of small size in one room. Then, if one stove goes out the other will protect the chicks and prevent chilling.

Most of these stoves have a capacity of from 150 to 500 chicks. Some can hover as many as 750 chicks. We prefer to use about 300 to 500 chicks with one stove. We build a house 10x20 feet, 12x24 feet, or 14x28 feet. The house has a partition in the center with a runway on the chicks and a swinging door for the attendant. The stove is placed on one side of the partition and the cool room is used for feeding and exercise. It is necessary to have a cool room, so the chicks can get away from the heat. This is one of the secrets of successful brooding.

The house for these brooder stoves is built just as we would build any laying or breeding house. We would not build a special brooder house which we could use only three or four months during the year and then let it remain idle for the remainder of the time. Every poultryman should endeavor to have as little idle equipment as possible. We build these houses of the dimensions mentioned above. We locate them where the chicks can have plenty of range after they grow up. As soon as they are old enough to do without heat, we simply remove the brooder stove and put in temporary roosts. The chicks remain right in this house until the next fall or winter, when it comes time to cull them and to select the choicest for the laying and breeding pens. A flock of pullets is usually wintered in these houses. Nests can be put in temporarily until the houses are needed again for the next season.

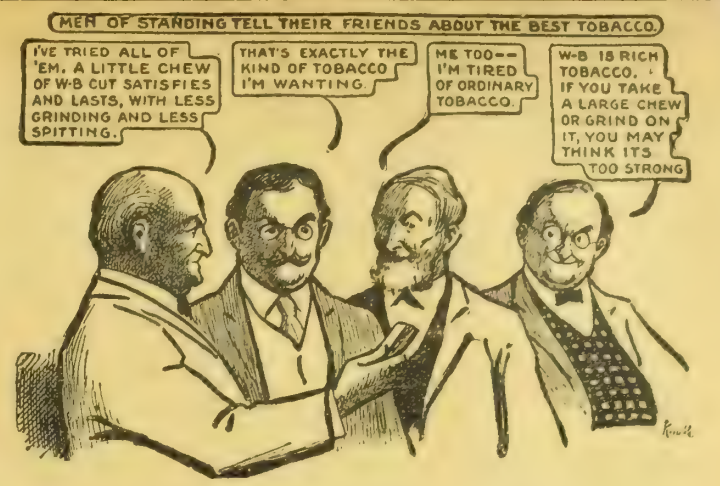
By handling the chicks in this way you avoid handling them so often; they are accustomed to their quarters and you do not check their growth by moving. Furthermore, you are getting the benefit of your equipment throughout the year. It is easier and better to move the stove to another house than it is to have the chicks and have the house vacant.

Tack cloth over the ventilators and make the house comfortable, and provide for ventilation near the floor, but avoid drafts. Be certain to provide for one cool room. If the chicks have a tendency to cannabilism and pick at one another's toes, paint the window panes with a bluish or whitish frosting. You want light in your brooder house, but not the direct rays of the sun. Keep the chicks busy and active. Put some fresh earth on the floor in one corner of the room. If they show signs of developing the habit of picking at one another, grind some lean meat and mix equal parts of bran, shorts, corn meal and ground meat with a little water, just to moisten it a trifle. After it is mixed, run it through a sausage mill or meat grinder and then feed it to the chicks each day. The frosted windows will do most to prevent cannabilism. You will not be troubled with the chicks piling up and crowding at night in a room where you use these brooder stoves, if your room is kept warm enough.

Don't feed the chicks until about forty-eight hours after they are hatched and dry. One of the first things should be sour milk or buttermilk and coarse sand. Cover the floor of the brooder with clover chaff or fine-cut straw. Don't have this too deep. For the first two or three days feed a mixture of two-thirds rolled oats, one-third wheat bran, mixed with hard-boiled eggs and a little powdered charcoal and fine bone meal. Feed a little about five times a day for the first three days. Then begin to give two meals a day of commercial chick feed. The first mixture is fed morning, noon and night, and the chick feed between meals. As they become older, gradually eliminate the rolled oats until you use only the chick feed, and keep before them a dry mash mixed in the following proportions:

Wheat bran	10 lbs.
Shorts	5 lbs.
Corn meal	5 lbs.
Ground oats	2.5 lbs.
Fine charcoal	2 oz.
Fine salt	2 oz.

If you cannot secure sour milk, buttermilk, or milkoline, then mix two pounds of dry beef scraps with the above. If you use any form of milk, keep it before them at all times, or at least the first half of the day. They need some green food. Use clippings from sprouted oats, or cut up some onions occasionally. The above methods have proved simple and successful.—[T. E. Quisenberry, Leavenworth county, Kansas.



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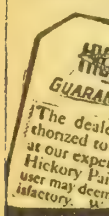

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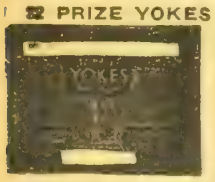

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

"Common Cold" a Serious Disease.

The common cold, the most prevalent illness in the United States, is really a disease group included under one name. Our universal familiarity with this condition has bred a contempt which hides its seriousness, yet when the sum total of the ravages committed by common colds is made, it becomes evident that instead of being a group of trivial affections, common colds must be classed as serious diseases and for this reason the United States Public Health Service has issued information on the prevention and care of this widespread disorder.

The phrase "common colds," like "charity," covers a multitude of sanitary sins, and, curiously enough, the name has been applied to a group of affections which far from depending absolutely on cold are frequently the direct result of living in close, overheated surroundings having a lower relative humidity than the dryest desert known to man.

The word "cold" means an acute infection of the lining membranes of the nose, tonsils, throat and larger bronchial tubes. The process may be even more extensive and amount to a general infection of the entire body. All of the breathing apparatus excepting the smaller terminal portions in the lungs may be involved, and, as a matter of fact, the disease may, and often does, spread to these, thus producing pneumonia. In this connection it may be pointed out that pneumonia kills more people in the United States than any other disease excepting tuberculosis and heart disease. Many pneumonias begin as a common cold. Colds do not produce tuberculosis, yet unfortunately what is considered as a cold may be in reality the first symptoms of the white plague.

The causes of colds are multiform and not entirely understood. In every case, however, they are dependent upon the growth and activity of living germs which are always received from other people. It is true that almost everybody harbors disease organisms in the mouth and nose, and that these under favorable conditions will produce a cold in their host. But these germs in every case were received from some other person. In other words, colds are infectious. It used to be thought that sitting in a draft or a prolonged stay in the swimming pool would produce a cold. This is erroneous, but the chilling of the body which the draft produces and the weakening of the vital forces caused by too long a swim, lower the powers of resistance and permit germs which have hitherto been harmless to their host, to produce their disastrous effects.

It is not necessary to describe a cold. Everybody is familiar with it in all its variations, from the simple, ordinary coryza, which is a polite running at the nose, to the sore throat, the aching chest, fever and generally "knocked out" feeling. The cough, the sneeze, the headache and the varying degrees of inefficiency which a cold produces are, alas, only too well known. Common colds occur in epidemics and are distinctly contagious. They sweep through an entire household, an entire city, an entire state, attacking the young, the adolescent, the middle aged, and frequently carrying off the aged, the weak and the debilitated. Schools, factories, stores are suddenly crippled by epidemics of this sort and the complications and serious disorders following the disease add to the great economic loss produced in this way. Infection of the cavities beneath the cheeks and brows, ear derangements, chronic lung infections, rheumatism, heart disorders, kidney impairment and depressed vitality may all follow in the train of this widespread infection.

To prevent a cold it is necessary first of all to keep the body resistance at a high point of efficiency. This means that the body machinery should be kept in good order at all times. Good, wholesome food in proper amount, plenty of sleep, the careful attendance to the voiding of the body wastes, the taking of regular exercise in the open air, keeping the body clean, keeping the mouth and nose clean, the avoidance of hot, stuffy, dusty rooms, the avoidance of exposure to sudden changes of temperature, the prevention of the chilling of the body, either by cold or wet, are all protective measures. It should be borne in mind, however, that even robust persons may contract colds from people who have them.

The germs of colds leave the body in the secretions of the mouth and nose. They enter the body through the same route. Thus a careless sneezer and the person who does not cover his mouth and nose when he coughs are breeders of these infections. The little living bodies which cause colds are so small that a million could rest on the head of a pin. When a person coughs or sneezes a fine spray carrying with it untold numbers of these germs is spread into the surrounding atmosphere to a distance of several feet and may be easily taken into the mouth and nose with the respired air. More direct contact, such as by kissing, the common drinking cup, the common roller towel, by pipes, toys, pencils, fingers, food and other things which have been contaminated by the mouth and nose secretions of a person having a cold may also carry the disease.

It is an obligation on the part of persons having colds to see to it that they do not spread these colds to somebody else. The person who neglects to cover his nose and mouth when he sneezes and coughs, the careless spitter, the person who permits his germ-laden discharges to contaminate things which are going to be handled by other people, is a menace to the community. If such a person uses public swimming pools, if he is not amenable to reason and persists in distributing his infection, he should be avoided as a spreader of pestilence.

A good deal has been said about hardening people so that they will not contract colds. There is an element of danger in this, since to expose a weak person to the rigors of cold baths and cold drafts is apt to lower resistance, thus favoring the very condition which it is desired to avoid. At the same time, it should not be forgotten that the Arctic explorer does not ordinarily have colds so long as he stays out in the open, and that it is not the engineer and fireman in the cold, drafty cab who have colds, but those who ride in the close, dusty, overheated coaches behind. When all is said, it must be admitted that dusty, unventilated rooms perhaps play the greatest role in producing colds.

Since colds are a serious condition, they should be treated as such. A great many people think that they have an infallible remedy for breaking up a cold. This may be harmless in itself, but usually it is not and consists of a combination of harmful drugs and alcohol, the latter usually preponderating. The sufferer takes these preparations in large quantities and if he is strong enough he may survive them and eventually get the best of his cold. Self-medication or medication by untrained persons is always dangerous. It is especially dangerous to those having colds and should always be scrupulously avoided. As a rule, much time, inconvenience and suffering will be obviated by consulting an intelligent physician promptly. If this is not practicable a brisk saline may be taken and the patient put to bed. This gives his body an opportunity to regain its vitality and at the same time isolates him from other people. The sick room should be well ventilated and the windows so opened as to keep the air moving freely. It is also wise to moisten the air a little bit by putting a pan of water on the radiator or over the register or on the stove. The handkerchiefs and bedding used by the patient should be sterilized by boiling. Kissing, and the use of drinking cups and towels, etc., in common with other members of the household, should be forbidden, it being borne in mind constantly that colds are infectious and readily spread from one person to another.

Storing Lemons For Summer Use.

To the Editor:—I enjoy reading The Wisconsin Farmer very much, not only the home department but the whole paper. Now I am coming for advice. Could someone tell me how to store lemons for the summer? I generally buy a good supply while they are cheap and sometimes they dry or get too soft, and I thought perhaps some of the home department readers would have a better way of caring for them than I have. Mrs. L. W. H.

Salting Frozen Fish.

To the Editor:—I saw in the home department an inquiry about salting down fish. This is the way I used to salt mine and it always proved satisfactory.

First I put the frozen fish into a vessel of cold water and let it thaw until it drops the ice. Then clean the fish, but do not wash it. It is then ready for salting. Coarse barrel salt is best.

J. Krogh,

Recipes.

Cheese Straws.—One cupful flour, five tablespoonfuls lard, one-fourth teaspoonful salt, one-fourth cupful water. Mix as for pie crust and roll out thin. Sprinkle half with grated cheese; place the other half over this and press them together. Repeat two or three times, then cut into strips about half an inch wide and three inches long. Bake in a hot oven until crisp and brown.

Eggless Chocolate Cake.—Two squares chocolate, one cupful sugar, one tablespoonful melted shortening, one teaspoonful soda, one cupful milk, one and one-half cupfuls flour, one teaspoonful vanilla, one-third teaspoonful salt. Dissolve the soda in a half cupful of milk. Grate the chocolate and melt it in the remainder of the milk. Mix together the sugar and shortening, add vanilla, salt, the soda dissolved in the milk, and the flour; beat thoroughly. Then beat in the milk, still hot, in which the chocolate has been melted. Bake in a loaf about fifty minutes in a moderate oven.

Cherry Pudding.—Two cupfuls stale cake crumbs, one quart milk, one and one-half cupfuls canned red cherries, one-half cupful sugar. Soak the crumbs in the milk for thirty minutes and then add the sugar and the cherries, which should be well drained. If the cake is not well flavored, add a few drops of vanilla, or almond extract. Turn into a buttered baking dish and bake about an hour in a moderate oven. Serve hot with hard sauce, containing a little of the cherry juice.

Cabbage au Gratin.—Two cupfuls chopped boiled cabbage (seasoned lightly with salt and pepper), one tablespoonful flour, one tablespoonful butter, one-half cupful buttered crumbs, one cupful milk, few grains of pepper, one-half teaspoonful salt, one-fourth cupful grated cheese. Put the chopped cabbage into a buttered baking dish; pour over this white sauce made as follows:

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Melt the butter, add flour and seasoning, and blend well. Add the milk gradually, stirring constantly, and cook until the mixture becomes thick. Cover with buttered crumbs and grated cheese and bake until brown.

Fish Cutlets.—Cut fish into slices, remove bones; dry, sprinkle with flour; fry in deep boiling fat until golden color. Serve very hot.

Our Fashion Department.

All Patterns 10 Cents Each

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER Madison, Wis.

2033—A simple play dress, with lower edge arranged for romper style. Pattern is cut in 4 sizes: 1, 2, 3 and 4 years. Size 4 will require 2⅜ yards of 36-inch material.

1751—A charming spring frock. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires 4 yards of 44-inch material for the dress with ruffles, and 3 yards without ruffles, for a 14-year size.

2006—Ladies' house dress, with reversible closing, with or without chemisette, and sleeve in wrist or elbow length. Pattern is cut in 7 seven sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7⅛ yards of 36-inch material for a 36-inch size.

1773—A smart party or best dress, with sleeve in wrist or elbow length. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires, with double skirt, 4⅛ yards of 44-inch material for an 8-year size; with single skirt, it requires 3⅜ yards.

2022—A practical ladies' apron. The pattern is cut in 4 sizes: Small, for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires for a medium size 4⅜ yards of 36-inch material.

1697—Ladies' dress with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅛ yards of 44-inch material for a 36-inch size.

1862—A comfortable style. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 3⅛ yards of 36-inch material for the waist, and 2⅞ yards for the skirt, for a 16-year size.

Waist 1770-Skirt 1769—A picturesque model. Waist pattern 1770 is cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. Skirt pattern 1769 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 7¾

yards of 36-inch material for a medium size, without folds. Two separate patterns, 10 cents for each pattern.

1820—A most attractive house or home dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 36, 40, 42 and 44 inches bust measure. It requires 7¼ yards of 36-inch material for a 36-inch size.

2028—A smart shirt waist with sleeve in either of two lengths. Pattern is cut in 7 sizes; 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¾ yards of 44-inch material for a 36-inch size.

2019—Girls' one-piece yoke dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 4⅜ yards of 36-inch material for a 6-year size.

2027—Ladies' skirt with yoke facing (in raised waistline). Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. Size 24 will require 4¼ yards of 44-inch material.

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THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

The Lonesome Princess.

Dear Young Folks:—I enjoy reading your letters very much. I am sending a story for our page.

Once upon a time there lived a little princess. She lived in a castle at the top of a very high mountain. The little princess had everything she wished for, but she was very lonesome because there was nobody to play with. The old nurse who took care of her was very good and kind, but, of course, she didn't know how to play.

One morning the little princess was looking out of the window when far below on the road that wound up to the castle gate she saw two children, a boy and a girl. They were the first children she had ever seen, for everyone else in the big castle was grown up. She leaned far out of the window and waved her hand. The children didn't see her so she got a big lace shawl and waved that. Then they saw her.

"Come on up," called the princess. "Come and play with me."

For fear they could not hear, she beckoned first with one hand, then with both hands until she was sure they understood. They acted as if they wanted to come, but the little girl seemed afraid. The little boy told the little girl not to be afraid and they started up the road to the castle hand in hand.

When the princess saw them coming she hurried down to show them the way, and she brought them upstairs to her big playroom where there were lots and lots of the most beautiful toys—so many that the princess herself didn't know how many. There were more than a hundred dolls and trunks full of dolls' clothes, and a whole village of doll houses and regiments of tin soldiers and a stableful of rocking horses, and so many other things I can't remember them all. —Erma.

Happy.

Dear Young Folks:—I have written to you before, but I guess there was not room for my letter. I am ten years old and I go to Shellbark school.

I thought perhaps some of you would like to know about my canary bird. His name is Happy and I think he was well named. His cage hangs just opposite the telephone and when we are talking over it he sings so that we must put something over the cage or shake our hand at him.

We feed him a bit of hard-boiled egg sometimes. He has seed also and plenty of water has to be kept in the cage. Sometimes we give him fruit, such as apple. In the summer we let him out of the cage for a while to flutter around. He cannot fly very well. He is a very good singer and I think we would miss him very much if he were gone. —Opal.

A Pet Bantam.

Dear Young Folks:—I have seen several letters about pet bantams so I will tell about my bantam hen. She was very tame. She laid and wanted to sit in an old heating stove.

A neighbor gave me two goose eggs, but one had some lard on it when she gave it to me, so I knew it wouldn't hatch. I set it anyway, for the bantam couldn't sit on one very well. In four weeks she hatched out a fine, big gosling, of which she was very proud. She took good care of it and it grew very fast. It wasn't long until the gosling was larger than the bantam. She ran with it until it was a grown goose and we ate it for Thanksgiving dinner. —Sister.

A New Riddle.

Dear Young Folks:—I surely do love to read the letters from the boys and girls and wish there were a lot more.

I am going to school. I am in the sixth grade and will pass to the seventh this year. I have two miles to go to school. We have a good time playing basketball. Our teacher's name is Mr. Patterson. He sure is a good teacher and so is his wife. There are about sixty enrolled in our school.

I have brown hair and black eyes. I am thirteen years of age and I weigh 130 pounds.

I am sending you a riddle. When was milk the highest? Can you guess it? —Annie.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for March 18, 1917.

Jesus Saves From Sin.

LESSON TEXT—John 8:12, 31-37, 56-58 (Read entire chapter).

GOLDEN TEXT—If the Son, therefore, shall make you free, ye shall be free indeed.—John 8:36.

Teachers should sketch rapidly in a chronological way the events in the life of our Lord. (See any good harmony) and show that this lesson belongs to the period of the Galilean ministry of Jesus when he had gone up to Jerusalem to attend the feast of the tabernacle (John 7:1-52). Let us be sure to load our guns with temperance ammunition, be familiar with facts, take careful aim, concentrate all we have to say upon one definite aim, and then pull the trigger e. g. be sure to shoot a temperance charge and make a temperance application.

I. The Slavery to Sin. Jesus' previous references to water (Chs. 4 and 7) and to bread (ch. 6) were occasioned by outward occurrences; so with this reference to light. In the treasury (v. 20) near to Jesus as he spake were two colossal, golden lamp stands around which when lighted the people gathered with rejoicing. Amid the blaze of this illumination, Jesus exclaims: "I am the light of the world." What is more beneficent than light as it reveals, cheers and brings life, health and happiness to mankind? Without light there is no vision. Without Jesus there is no spiritual wisdom. Without light we know not whither we are going. Without Jesus we grope in the darkness. Every ray of light, of truth, of holiness and love comes from him, for God is light, and in him is no darkness at all (I John 1:15). Some think that these words were occasioned by the onlookers, seeing what Jesus had written in the sand (vv. 1-11). The first step in the slavery of sin is blindness; the second is habit; and the third is that of absolute slavery (Prov. 5:22). Jesus was the incarnation of the light of God. We cannot conceive of Jesus making such an assertion as this, and being merely a good man.

II. The Possibility of Freedom (vv. 31-36). These words were spoken to 'those which had believed on him," and as the result they were to know the truth, and the truth should make them free. Knowledge and liberty come from a continuance (abiding) in the word of God (John 14:15; 16:12-13). Many men reject Jesus Christ because they claim they wish to have their liberty, and by so doing they lose their liberty. A disciple is a learner; Jesus is the teacher; the entrance examination to the school of Christ are the simple and necessary condition of believing or accepting him as Lord and teacher. The scholars are all the disciples who continue under his instruction. The object of the schooling is to make perfect men. "unto the measure of the stature of the fulness of Christ" (Eph. 4:22; Col. 4:12). Christ's school is not only in the church and in the Sunday school and young people's society, but it is everywhere, in the home, in the office, at work and play; wherever one is trying truly to live according to Christ's will, he is in his school, and that school is open both day and night; there are no vacations and no recesses. The textbook is the Book of books. We need not argue as to the necessity of sin, but realize the fact that all are under sin (Rom, 5.12), but being under sin does not necessitate our abiding there, nor is sin necessary to our being. This freedom here is from sin and the love of sin and the curse and penalty of sin and the bondage and corroding care of sin. It is also mental freedom, freedom for Christian activity. A knowledge of the English Bible is a liberal education, and brings true liberty to those who are thus educated. As contrasted to that we have the slavery of sin (vv. 34, 36). The drunkard is a slave because he is restrained from doing what he knows he ought to do. He cannot even do wrong freely for his conscience constantly upbraids him. He is a slave because he is compelled to bear the consequences of sin against his will. The way of escape (v. 36) is through the son: "If the son, therefore, shall make you free, ye shall be free indeed."

III. The Authority (vv. 56, 58). The Jews took exception to the words of Jesus (33-55). When did Abraham see Jesus? Read the 18th and 19th chapters of Genesis, and we find that one of the three who visited Abraham was different from the other two, and remained behind while two went on to Sodom. The one who remained was the Lord Jesus, Jehovah appearing in human form before his later incarnation as Jesus of Nazareth.

"I Am" is the name of Jehovah. Jesus here takes that name to himself. There was a time when Abraham came to be or was (v. 58), but there was no time when our Lord ever came to be for he is the eternal "I Am." Being thus one with God, he has the power to set men free.

We have in this chapter the picture which Jesus draws of the character of the devil as the enemy of mankind under two aspects: First, he is a murderer (v. 44).

No war has slain what intemperance (one of his favorite instruments) has slaim. Second, he is a liar

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I MET HIM ON THIS VERY SHIP!

It was within an hour of sailing time. I was on my way home from Europe five years ago. The Mauretania lay beside her Liverpool wharf. Everybody was hurrying to get on, as we were to sail at five o'clock. Suddenly, without warning—without a propeller turning—she commenced to pull away from her moorings. The gang planks creaked—broke loose—and there was quite a commotion as the mighty Mauretania tore loose from her moorings and floated out into the water. In the excitement I met a man who was leaning over the rail who looked at me and we laughed together. Then we just naturally got acquainted like people do when they are traveling. He was J. J. Berrigan of Orange, New Jersey, the famous cream separator expert and inventor. I had never seen him before but I had heard of him. I told him I was from Waterloo, Iowa, and he said, "You are Galloway." I soon found out he was the great cream separator expert and a man I was glad to meet. Naturally

WE BECAME WELL ACQUAINTED

He told me what he had done in perfecting cream separator patents and improvements. I told him he was just the man I was glad to get acquainted with. After the Mauretania had been lashed to her wharf again, the excitement was over, and we pulled out of Liverpool several hours late—Berrigan and I began to talk cream separator, and every day after that we spent several hours together visiting. I told Mr. Berrigan that we were perfecting what I thought was the best cream separator ever produced, and I also told him if he would come to Waterloo and put on the finishing touches, go over the separator, test it, criticize it, find fault with it wherever he could, and suggest any possible improvements, I would pay him well for his time. In a few days after we landed in New York he did come to Waterloo. He said our separator was one of the finest designs he had ever seen, and with the few recommendations which he made, he pronounced it O. K.—good as the best—and better than many of the separators on the market today. Our engineers, designers and separator builders had produced a machine with graceful lines, simplicity of construction, combined all the good features and left out all the faults. Mr. Berrigan commended us on the work and immediately put his stamp of approval upon this machine. That's why I say

WE PERFECTED THIS SEPARATOR

before we offered it on the market. We put out in the hands of farmers and dairymen enough of these separators to know that they would stand up under any test, whether operated and used in the kitchen, the milk house, the creamery or elsewhere, used two or more times per day, every day, week after week, month after month. **I just want you to try it.** If you like it, buy it. If you don't, send it back. **We pay freight both ways.** If the New Galloway Sanitary Separator is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is, I could not afford to make this **ninety day trial** offer and I could not afford to guarantee it for **ten years.**

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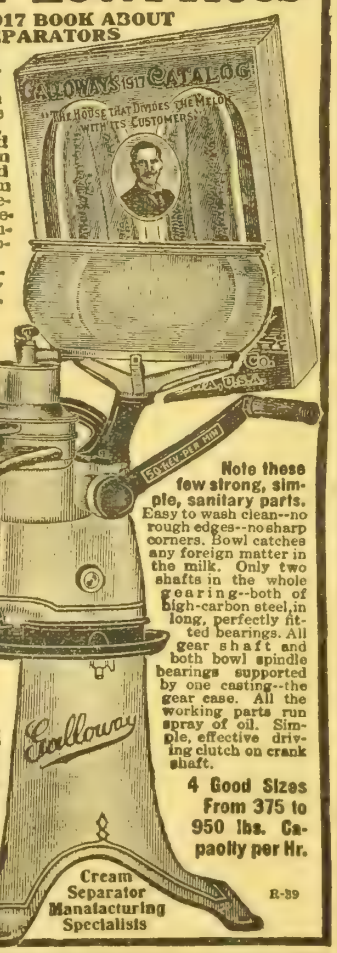

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We know it skims close. It paid for itself. Wm. S. Brower, Farnum, Idaho. It is easier running and more easily cleaned than others. We made a saving of $23. I wouldn't exchange it for any high priced separator. E. F. Louthan, Carthage, Mo.

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TOLD IN THE HILLS

By Marah Ellis Ryan

Author of "That Girl Montana," "The Bondwoman," "My Quaker Maid," Etc., Etc.

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PART IV.---One Squaw Man.

CHAPTER VIII—Continued.

"You know now—all about—them—and Annie. That was why I tried—to keep away from you—you know now."

But she did not know.

"You took his wife from him?" she said, in a maze of conflicting revelations; and Jack looked at Stuart, as she added, "and who were you?"

"He is my brother!" said Stuart, in answer to that look of Jack's. "He would not let me say it before—not for years. But he is my brother!"

The words were loud enough for all to hear, and there was a low chorus of surprise among the group. All concealment was about over for Genesee—even the concealment of death.

Then Stuart looked across at Rachel. He heard that speech, "You took his wife from him;" and he asked no leave of Jack to speak now.

"Don't think that of him," he said steadily. "You have been the only one who has, blindfolded, judged him aright. Don't fail him now. He is worth all the belief you had in him. The story I read you that night was true. His was the manhood you admired in it; mine, the one you condemned. As I look back on our lives now, his seems to me one immense sacrifice—and no compensations—one terrible isolation; and now—now everything comes too late!"

"He is—sorry," whispered Genesee, "and talks wild—but—you know now?"

"Yes," and the girl's face had something of the solemn elation of his own. "Yes, I know now."

"And you—will live in the hills—maybe?—not so very far away from—me. In my pocket—is something—from the mine—Davy will tell you. Be good to—my Kootenais; they think—a heap of you, Kalitan!"

The Arrow came forward, and shook reverently the hand of the man who had been master to him. The eyes roved about the room, as if in search of others unseen. Rachel guessed what was wanted, and motioned to the Indians.

"Come; your brother wants you," she said. And as they grouped about him and her, they barred out the soldiers and civilians—the white brother and child—barred out all from him save his friends of the mountains and the wild places—the haunts of exiles. And the girl, as one by one they touched her hand at his request, and circled her with their dark forms, seemed to belong to them, too.

"When the—snow melts—the flowers are on that ledge," he whispered with his eyes closed, "and the birds—not echoes—the echoes are in the mine—don't be—afraid. I'll go along—and Mowitza."

He was silent for so long that she stooped and whispered to him of prayer. He opened his eyes and smiled at her.

"Give me—your good wishes—and kiss me, and I'll—risk hell," was the characteristic answer given so low that she had to watch closely the lips she kissed.

"And you've kissed me—again! Who said—no compensation?—they—don't know; we know—and the moonlight, and—yes—mother knows; she thought, at last—I was not—all bad; not all—little mother! And now—don't be afraid; I won't go—far—klahowya, my girl—my girl!"

Then one indian from the circle unslung his rifle from his shoulder and shattered it with one blow of an ax that lay by the fire. The useless thing was laid beside what had been Genesee. And the owner, shrouding his head in his blanket, sat apart from the rest. It was he of the bear claws; the sworn friend of Lamonti, and the man who had shot him.

* * * * * *

At sunset he was laid to rest in the little plateau on Scot's Mountain that faces the west. He was borne there by the Indians, who buried in his grave the tomahawk they had resurrected for the whites of Camp Kootenai. Mowitza, rebelliously impatient, was led riderless by Kalitan. All military honors were paid him who had received no honors in life, the rites ending by that volley of sound that seals the grave of a soldier.

Then the palefaces turned again to the South, the dark faces took the trail to the North, and the sun with a last flickering blaze flooded the snow with crimson and died behind the western peaks they had watched light up one morning.

CHAPTER IX.

"Rashell of Lamonti."

THE echoes are no longer silent in Tamahnous Peak. The witchcraft of silver has killed the old superstition. The "something" in Genesee's pocket had been a specimen that warranted investigation. The lost tribe had left enough ore there through the darkness of generation to make mining a thing profitable. Above those terraces of unknown origin there is a dwelling house now, built of that same bewitched stone in which the echoes sleep; and often there is gathered under its roof a strange household.

The words of Genesee, "Be good to my Kootenais!" have so far been remembered by the girl who during the last year of his life filled his thoughts so greatly. His friends are her friends and medley as the lot would appear to others, they are welcome to her. They have helped her solve the problem of what use she could make of her life. Her relatives have given up in despair trying to alter her unheard-of manner of living. The idea is prevalent among them that Rachel's mind, on some subjects, is really queer—she was always so erratic! They speak to her of the loneliness of those heights, and she laughs at them. She is never lonely. She had his word that he would not go far. With her lives old Davy MacDougall, who helps her much in the mining matters, and Kalitan is never far off. He is her shadow now, as he once was Genesee's. Indian women do the work of her home. A school is there for any who care to learn, and in the lodges of the Kootenais she is never forgotten.

It seemed strange that he who had so few friends in his life should win her so many by his death. The Indians speak of him now with a sort of awe, as their white brother whose counsels were so wise, whose courage was so great; he who forced from the spirits the secret of the lost mine. He has drifted into tradition as some wonderful creature who was among them for a while, disappearing at times, but always coming back at a time of their need.

To Rachel they turn as to something which they must guard—for he said so. She is to them always "Rashell of Lamonti"—of the mountains.

From the East and South come friends sometimes—letters and faces of people who knew him; Miss Fred, and her husband, and the Major, who is a stanch friend and admirer of the eccentric girl who was once a rebel in his camp; and in reminiscences the roughness of his Kootenai chief of scouts is swathed in the gray veil of the past—only the lightning flashes of courage are photographed in the veteran's memory.

The Stuart and his wife and boy come there sometimes in the summer; and the girl and little Jack, who are very fond of each other, ride over the places where the other Jack Stuart rode—nameless for so long.

As for Prince Charlie, his natural affection for children amounts to adoration of the boy. Rachel wonders sometimes if the ideal his remorse has fostered for so long was filled at last by the girl whom he had left a delicately tinted apple-blossom and found a delicate type of the invalid, whose ill-health never exceeds fashionable indisposition. If not, no word or sign from him shows it. The pretty, ideal phases of domestic love and life that he used to write of, are not so ready to his pen as they once were through

his dreams and remorse. Much changed for him are those northern hills, but they still have a fascination for him and he writes of them a good deal.

"It is the witchcraft of the place, or else it is you, Rachel," he said, once. "Both help me. When life grows old and stale in civilization, I come up here and straightway am young again. I can understand now how you helped Jack."

His wife—a pretty little woman with a gently appealing air—never really understands Rachel, though she and Tillie are great friends; but, despite Tillie's praise, Annie never can discover what there is in the girl for "Charlie and all the other men to like so much—and even poor, dear Jack, who must have been in love with her to leave her silver mine." To Annie she seems rather clever, but with so little affection! and not even sympathetic, as most girls are. She heard of Rachel's pluck and bravery; but that is so near to boldness!—as heroes are to adventurers; and Annie is a very prim little woman herself. She quotes "my husband" a good deal, and rates his work with the first writers of the age.

The work has grown earnest; the lessons of Rachel's prophecy have crept into it. He has in so many ways justified them—achieved more than he hoped; but he never will write anything more fascinating than the changeless youth in his own eyes, or the serious tenderness of his own mouth when he smiles.

"Prince Charlie is a rare, fine lad," old Davy remarked at the end of an autumn, as he and Rachel watched their visitors out of sight down the valley; "a man fine enough to be brother to Genesee, an' I ne'er was wearied o' him till I hearkened to that timorous fine lady o' his lilting him into the chorus o' every song she sung. By her tellin' she's the first o' the wives that's ever had a husband."

"But she is not a fine lady at all," contradicted Rachel; "and she's a very affectionate, very good little woman. You are set against her because of that story of long ago—and that is hardly fair, Davy MacDougall."

"Well, then, I am not, lass. It's little call I have to judge children, but I own I'm ower cranky when I think o' the waste o' a man's life for a bit pigeon like that—an' a man like my son was! The prize was no' worth the candle that give light to it. A man's life is a big thing to throw away, lass, an' I see nothing in that bit o' daintiness to warrant it. To me it's a woeful waste."

The girl walked on beside him through the fresh, sweet air of the morning that was filled with crisp kisses—the kisses that warn the wild things of the Frost King's coming. She was separated so slightly from the wild things herself that she was growing to understand them in a new spirit—through a sympathy touched less by curiosity than of old. She thought of that man, who slept across on Scot's Mountain, in sight of Tamahnous Peak; how he had understood them!—not through the head, but the heart. Through some reflected light of feeling she had lived those last days of his life at a height above her former level. She had seen in the social outlaw who loved her a soul that, womanlike, she placed above where she knelt. Perhaps it had been the uncivilized heroism, perhaps the unselfish, deliberate sacrifice, appealing to a hero-worshipper. Something finer in nature than she had ever been touched by in a more civilized life—had come to her through him in those last days—not through the man as men knew him, and not through the love he had borne her—but through the spirit she thought she saw there.

It may have been in part an illusion—women have so many—but it was strong in her. It raised up her life to touch the thing she had placed on the heights, and something of the elation that had come to him through that last sacrifice filled her, and forbade her return into the narrowed valleys of existence.

His wasted life! It had been given at last to the wild places he loved. It had left its mark on the humanity of them, and the mark had not been a mean one. The girl, thinking of what it had done for her, wondered often if the other lives of the valley that winter could live on without carrying indelible coloring from grateful, remorse emotions born there. She did not realize how transient emotions are in some people; and then she had grown to idealize him so greatly. She fancied herself surely one of many, while really she was one alone.

"Yes, lass—a woeful waste," repeated the old man; and her thoughts wandered back to their starting place.

"No!" she answered with the sturdy certainty of faith. "The prodigality there was not wastefulness, and was not without a method—not a method of his own, but that something beyond us we call God or Fate. The lives he lived or died for may seem of mighty little consequence individually, but what is, is more than likely to be right, Davy MacDougall, even if we can't see it from our point of view." Then, after a little, she added, "He is not the first lion that has died to feed dogs—there was that man of Nazareth."

Davy MacDougall stopped, looking at her with fond, aged eyes than shone perplexedly from under his shaggy brows.

"You're a rare, strange lass, Rachel Hardy," he said at last, "an' long as I've known ye, I'm not ower certain that I knew ye at all. The lad used to be a bit like that at times, but when I see ye last at the night, I'm ne'er right certain what I'll find ye in the mornin'."

"You'll never find me far from that, at any rate," and she motioned up the "Hill of the Witches," and on a sunny level above them Mowitza and Kalitan were waiting.

"Then, lass, ye'll ne'er tak' leave o' the Kootenai hills?"

"I think not. I should smother now in the life those people are going to," and she nodded after the departing guests who were going back to the world. Then her eyes turned from the mists of the valleys to the whispering peace of cedars that guard Scot's Mountain.

"No, Davy, I'll never leave the hills."

Kloshe Kah-Kwa.

(The End)

Minnesota Poland China Breeders' Association.

To the Editor:—At a meeting called following the Gerlich-Barker banquet at Mankato, Minn., on February 16, 1917, the formation of the Minnesota State Poland China Breeders' Association was effected. A large percentage of the Poland China breeders of the state were present and a very enthusiastic meeting was held. The association was formed with the idea of bettering Poland China conditions in the state in every way possible and to assist in making the Poland China hog the most popular hog in the state and the country.

The following officers were elected for the coming year: J. M. Glazier, St. James, Minn., president; E. S. Barker, Mankato, Minn., vice president; P. W. Young, Prosper, Minn., secretary-treasurer.

The executive committee is composed of the above-named officers.

The membership fee was placed at $1 and all Minnesota breeders are urged to become members. Membership fee to be sent to the secretary.

Mr. Ray Davis, field secretary of the American Poland China Record Association, was present and outlined the conditions governing the futurity for 1917. Sufficient names were received to guarantee Minnesota's futurity.

A meeting of the executive committee was held following the organization meeting.

P. W. Young, Sec.-Treas.
Prosper, Minnesota.

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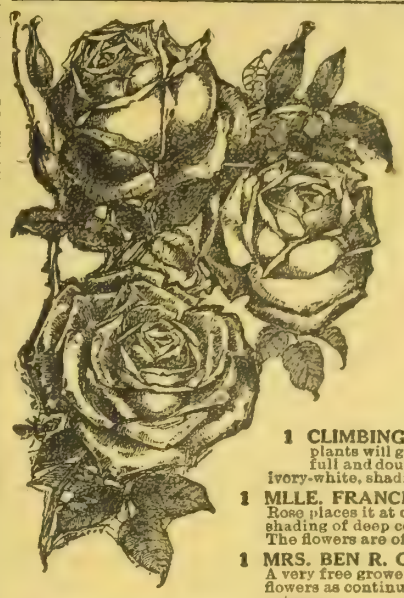

6 Fine, Hardy Rose Plants Free

To introduce our popular home magazine, THE PEOPLE'S HOME JOURNAL, into thousands of homes where it is not already taken, we offer for a limited period only, **absolutely free** for a year's subscription at 50 cents (the regular price), a Set of Six Fine, Everblooming Hardy Roses, all choice varieties, as follows:

1 WHITE COCHET. A grand Rose, snow-white, sometimes faintly tinged with the faint suggestion of pale blush. Magnificent forms of buds and flowers, marvelously beautiful in their perfection. The flowers are large and double. Of more than ordinary value in open ground.

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1 CLIMBING CLOTHILDE SOUPERT. In a single season small plants will grow fifteen to twenty-five feet. These roses are large, round, full and double, and deliciously sweet. The color effect is magnificent—ivory-white, shading toward the center to a silvery rose. A profuse bloomer.

1 MLLE. FRANCESCA KRUGER. The striking color of this handsome Rose places it at once at the front as a bud producer in the open air. In its shading of deep coppery-yellow it stands unique and distinct from all others. The flowers are of good size and very symmetrical.

1 MRS. BEN R. CANT. A fine garden variety of even shade of deep rose. A very free grower, in fact it is one of the strongest growing Roses known. Its flowers as continuously and freely as a China Rose, and is especially fine in autumn.

1 QUEEN OF BEDDERS. This is without any doubt the very best of red Roses for bedding. The flowers are of large size and of a fiery scarlet, a color seldom seen in Roses. A bed of this Rose produces a mass of red equal to a bed of Geraniums.

The six rose plants described above are grown by one of the largest and most reputable rose growers in the United States. They are not cheap, common roses, but well-known standard varieties. We send strong, healthy, well-rooted, 1-year-old plants, warranted true to name and color. They are carefully protected in the packing, and are shipped, prepaid, from the greenhouses where they are grown, directly to our subscribers, thus receiving but one handling, and are guaranteed to reach their destination in good order.

THE PEOPLE'S HOME JOURNAL

has been published for over thirty years, and goes regularly every month into over nine hundred thousand homes, where it has reached the very hearts of its readers. Its widespread popularity is no accident—it is the natural outcome of a policy consistently adhered to from its very beginning over a third of a century ago. The publishers believe, and the success of the magazine has proven it, that the great majority of people read magazines for **both** pleasure and profit. In other words, while THE PEOPLE'S HOME JOURNAL maintains a number of excellent departments for the housewife, each conducted by an expert in her line, the publishers believe that for the greater part of her reading the busy housewife wants to get away from the practical side of life with its oftimes perplexing problems that demand her care and attention for ten to twelve hours of the day, and wants recreation, entertainment, inspiration for mind and body—wants to read bright, cheerful, optimistic, wholesome refreshing stories and articles dealing with the emotions of life. Such is THE PEOPLE'S HOME JOURNAL, edited for all members of the family—in fact, it is a member of the family in over 900,000 homes—conceded to be the most indispensable publication in the magazine field to-day, catering to the tastes and needs of every American household.

OUR SPECIAL OFFER—To any one who will send us 50 cents in payment for a subscription to THE PEOPLE'S HOME JOURNAL before May 31st, we will send the Magazine for one year, and in addition will send **free** the full Set of Six fine Rose Plants above described, both fully prepaid.

Our offer is remarkably liberal, and every one who is fond of flowers should take advantage of this unusual opportunity to secure a fine collection of choice rose plants absolutely without cost. Address all orders:

F. M. LUPTON, Publisher, Dept. W, 76-88 Lafayette Street, New York City

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In the event that none of the above combinations suit you, write us just what publications you want and we will be pleased to quote you a special rate. Direct all orders and inquiries to the

Club Department, Wisconsin Farmer, Madison, Wis.

Blacklegoids

NO DOSE TO MEASURE.
NO LIQUID TO SPILL.
NO STRING TO ROT.

BLACKLEGOIDS are small pills. Each pill is an accurate dose of blackleg vaccine.

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BROOKS' APPLIANCE the modern scientific invention, the wonderful new discovery that relieves rupture will be sent on trial. No obnoxious spring or pads. Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. **Sent on trial to prove it.** Protected by U. S. patents. Catalogue and measure blanks mailed free. Send name and address today

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a big knee like this, but your horse may have a bunch or bruise on his ankle, hock, stifle, knee or throat.

ABSORBINE
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W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

Rider Agents Wanted

Everywhere to ride and exhibit the new **Ranger "Motorbike"** completely equipped with electric light and horn, carrier, stand, tool tank, coaster-brake, mud guards and anti-skid tires. **Choice of 44 other styles,** colors and sizes in the famous **"Ranger"** line of bicycles.

DELIVERED FREE on approval and **30 DAYS TRIAL.** Send for big **free** catalog and particulars of our *Factory-direct-to-Rider* marvelous offers and terms.

TIRES Lamps, Horns, Wheels, Sundries, and parts for all bicycles—at half usual prices.

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ENGRAVING Halftones made from photos or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 20.

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Scours in Calves.

Will you please tell me what is the best home remedy for scours in calves?

If the calves are troubled with white scours at birth there is very little that can be done. If the trouble comes on shortly after birth the first thing to do is to cut down on the quantity of milk if the calf has been having a liberal supply, and then give a physic of one to two ounces of castor oil. Follow this with the following: Fluid extract of rhubarb, three drams; magnesium carbonate, three drams; paregoric, six drams; and sirup enough to make six ounces. Give a tablespoonful in a small amount of water to each calf two or three times daily.

Loss in Calves.

Last spring my calves went wrong. They would get down and could not get up. They seemed as if they could not use their legs. They would lie and chew their cuds, eat grain and hay, and drank well. The third one came down and could not even hold its head up. It lived nine days and died. Th. other two got so they could get up in about two weeks, but they did not do well this summer. These calves were from three weeks to three months old. They were sucking the cows and were fat. I was feeding them oats, corn, oil meal and timothy and clover hay. They were turned out in a. lot in the daytime. The first of last December another calf four months old was taken sick and died in a week and another one the other day. What can I do for them? These calves were all vaccinated for blackleg, some of them as long as six weeks before they were sick. They seemd to be all right until I would find them down.

From the line of symptoms given it would be hard to make a diagnosis. You should have had your veterinarian make an autopsy of one or more of the dead or dying animals and he might have been able to find from appearances of body organs what was causing the trouble. We would advise you to do this in case you have any more go this way.

Gid.

A few days ago one of my ewes did not come to the feed trough with the rest. I drove her up and she started to eat and I thought no more about her until in the evening when I gave them their water. She wouldn't drink and seemed to have a fever. The next morning she was off by herself and would neither eat nor drink. She held her head very high and would draw it in toward her body and wink her eyes real fast and her head seemed to tremble. The following morning she could not get up and when helped up she would not stand very long. I thought she was bound up, as her droppings seemed dry, so I gave her a physic of salts and raw linseed oil. Now she holds her head down when helped up and is continually walking in a circle, going to the right. She will drink now and eat oats and bran if it is placed in her mouth, also hay. Now I have another ewe going the same way. They keep chewing all the time and in the early stages they run a greenish colored water from the mouth. Both of these ewes are due to lamb February 23d. Have had a rack full of clover and timothy hay mixed all winter, plenty of salt and water, also oats and a stock food. They seem to want to press their heads against the barn or fence when they stand and will push real hard. Any information you can give will be highly appreciated.

The above symptoms are often noted in the condition known as gid. This is caused by the cystic stage of the Taenis Coenurus, being located in the cranial cavity. The disease may terminate at the stage of excitement, owing to the death of the embryo of the parasite causing the trouble. The outcome, however, is very unfavorable, even if treated in the early stages. When first noticed, cold applications to the head and the administration of a good physic are indicated to alleviate the symptoms produced by the inflammation. Trepanning may be resorted to, but this should be done by a veterinarian, and even then the results may not be satisfactory.

ADVERTISEMENT.

A California Opinion on Compensation

SOME years ago the Los Angeles, California, Chamber of Commerce in a signed resolution made this brief statement:

> *"The confiscation of the property of the vineyardists and brewers without proper* ***compensation*** *is dishonest and* ***wrong*** *and would be a blot upon the history of California for all time to come."*

Would not confiscation *without compensation* equally besmirch the history of Wisconsin?

Our State has won fame the world over for its progressive laws—for its initiative in protecting the public welfare. Shall we, at this stage, hesitate to take the step that will correct a glaring injustice?

Today the law protects *you* in the matter of *compensation* if your property or business is damaged by adverse legislation; it does not protect the Brewing Industry. Why? Doesn't it seem that something has been overlooked and should be made right without delay?

* * * * * *

The Brewing Industry does not ask exception or favoritism; it does ask the protection, the justice, the rights that *you* enjoy. Your property, your business cannot be confiscated or destroyed without *compensation;* the law provides for that. Should not the Brewing Industry—the largest tax-payer in the State—be accorded equal justice?

This plea is made not in the interests of the property owners of the Brewing Industry alone, but for consideration of the welfare of

Fifteen thousand persons directly employed in the Brewing Industry—

Twenty-eight thousand persons employed in the retail trade—

Thousands of farmers who produce the raw materials that enter into brewery products.

Should not these many thousands of loyal Wisconsin tax-payers and home-owners be entitled to justice and fair play? They are *your partners* because they have helped pay the taxes and have helped to build up the state that *you* call home—that gives *you* protection. They are *your partners* because you are represented by your Government and your Government has derived a large share of its income (taxes) from the Brewing Industry.

* * * * * *

If one partner quits, the other partner should be *compensated.*

Compensation is fair for one and fair for all.

Compensation now protects *some*—let the law be so amended that *compensation* will protect *all.*

The Brewers of Wisconsin

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

The Stephenson Dispersion.

EVERY Holstein breeder who is a reader of this paper and every farmer who has ambitions to be a breeder of Holstein dairy cattle will be interested in the Stephenson Farm dispersion sale to be held at Lake Mills, Wis., April 6th and 7th. In this sale 175 head of stock, comprising one of Wisconsin's celebrated Holstein herds will be offered. There are a choice lot of daughters of Admiral Walker Prilly 72923, senior herd sire, including 25 tested daughters of which 18 have yearly records. Some idea of the production of these cows may be obtained from the advertisement which appears on page — of this issue. In this sale will be offered 40 sons and daughters of King Walker Pietertje Segis 127857, whose first 13 dams averaged 30.7 pounds. This bull is a grandson of King Segis, whose granddaughter, Segis Fayne Johanna, holds the world's record for production of butter under seven-day test. Other granddaughters which have made phenomenal records are Fancher Farm Maxie with 46.84 pounds, and Mabel Segis Korndyke with 40.32 pounds. This sale will be held in the barns of the Lake Mills Holstein Breeders' Consignment Sale Company and will be under their management. Mr. F. H. Everson is the manager in charge. He has managed some of the most successful Holstein sales ever held in Wisconsin and has a record for integrity to his credit. Catalogs for this sale may be obtained now by addressing F. H. Everson, Lake Mills, Wis. Every reader of this paper should have one of these catalogs in order to look over more carefully the offerings which are to be made in this great sale. Please mention The Wisconsin Farmer in your letter asking for catalog.—Adv.

Bunker Hill Farm Offering.

MR. F. S. BUNKER, proprietor of the Bunker Hill Farm, near Kilbourn, Wis., recently sold to S. J. Griggsby, of Illinois, the Short-horn heifer, American Duchess 96th. This heifer was out of Closs Girl 5th which gave over 10,000 pounds of milk in 1916. This same cow gave over 9,000 pounds of milk in 1915 and about the same in 1914. Mr. Bunker advises us that he has for sale three superior Polled Durham bulls, two dark roan and one dark red from 11 to 14 months of age, described as well grown and fit to head the better class of registered herds. The red is an outstanding show bull if fitted. These people also have two reds with star, farmer bulls, nicely Polled and nine months old, which will be sold cheap to make room. They are all by the greate Red Sultan X9404 and out of some of Mr. Bunker's best cows. Mr. Bunker has more cattle than pasture and will be willing to dispose of some of his Polled Durham females if taken soon. All of the animals in this herd are tuberculin tested and not a single calf has been lost in two years, which is pretty good proof of a healthy condition. In writing to Mr. Bunker about any of this stock be sure to mention The Wisconsin Farmer. —Adv.

Pabst Stock Farm.

F. A. CHAPIN & SONS, of Cheney, Minn., just purchased a son of the junior herd sire, Korndyke Segis Johanna. The cross of this bull on the daughters of King Pontiac Champion is bringing great results. They have a number of other youngsters out of high-record dams having this combination breeding that are worthy of careful inspection. Mr. A. B. Spooner, Jr., of San Luis Obispo, Cal., purchased seven bulls, most of which were the King Pontiac Champion-Korndyke Segis Johanna cross. During the past few weeks the Pabst Stock Farm sales have been from California to New Jersey and Minnesota to Georgia. See page 31.—Adv.

"Sold Out."

SO Geo. D. Sprain & Sons, West Salem, Wis., write. They have had a good year and much of their success has been due to the fact that they have good herd boars. They have a herd of big Duroc brood sows and we predict that Fred will have some great spring pigs to offer later. Keep their herd boars in mind. Royal Top Col. by Putt's Top Col., Grand Model 21st by the noted Grand Model and a son of Prince Illustrator, out of a Col. Gano dam. Spring pigs will be shipped later but get your order in early and get the pick. When writing please mention this paper.—Adv.

More Pleasure From Your Ford.

FORD drivers who use the irreversible worm steering gear made by the E. H. Sprague Manufacturing Co., Omaha, Neb., find much of the shock and strain of driving removed. The steering gear absorbs the vibration and makes driving a much pleasanter and easier task. It is also a safeguard against turning turtle or going into the curb. Our readers who are interested in knowing more about this convenient and inexpensive attachment may have it by writing Department 14, E. H. Sprague Manufacturing Company, Omaha, Neb.—Adv.

Bred Gilts For Sale.

H. A. DERENTHAL, Wykoff, Minn., raises Chester Whites by the hundreds, consequently he generally has something to sell. He has some very fine bred gilts for sale that will farrow in March or April and they are bred to those good boars doing service in this herd. This Chester herd is rightly named when called the Champion Herd of the Northwest. He has the good kind priced within reason. Now is the time to buy, but order early, for the good ones that can be bought are going to be scarce. Mention this paper.—Adv.

Quirin and Miller & Brown Joint Sale of Percherons.

THE well-known breeding firms of C. P. Quirin and Miller & Brown, Marcus, Iowa, have joined forces and will hold a joint sale of Percherons in the sale pavilion in the horse barns at Sioux City, Tuesday, March 27th. They have listed 40 head, half mares and half stallions. It is an offering of very choice animals throughout. These two studs have been headed by as good stallions as the breed affords. Until recently the Miller & Brown stud was headed by the great Calypso, a stallion too well known to require any remarks as no stallion has sired more prize winners. Mr. Quirin has now at the head of his stud the International champion, Barnum, which stallion is assisted by the state fair champion, Konfluent. Mares by Barnum have been bred to Konfluent. Kerchious is now standing at the head of Miller & Brown's stud and about half of the mares have been bred to him. This stallion has likewise been a blue ribbon winner at state and Interstate fairs. Here is an unusual opportunity to secure high-class mares, several of them of unusual size, many well-matched pairs of both blacks and grays. The stallion end is also very high class, including a number of ton stallions that have been prize winners at Huron and at Sioux City. There are big, heavy-boned, vigorous, flash-going stallions that should give the purchaser the very best service on the stand. It is doubtful is a better opportunity will be had for the purchase of good Percherons at public auction during the season. The time for buying a stallion is right at hand. No time is to be lost in running around the country looking at many different bunches. Here you can come and select a good horse and buy him at your own price. Remember that these gentlemen live at Marcus, at which place you should address them for copy of the catalog, but the sale will be held in Sioux City, Iowa, thus giving every man an opportunity to reach the sale. Mention The Wisconsin Farmer in writing for catalog.—Adv.

Percheron Dispersion.

THIS is the last call to the dispersion sale of Percheron horses to be held Wednesday, March 21, 1917, at the state fair grounds, Milwaukee, Wis. Breeders all over the entire middle West recognize the high class of Percherons bred by Lewis Lewellin & Sons, Waterloo, Wis. The winnings of this stud at the Wisconsin State Fair and other fairs in the state have compelled the attention of breeders everywhere to their superior merit. The stud of Louis P. Sutter, Delavan, Wis., is of equal merit. When speaking to Mr. Fred Southcott, manager of Gustave Pabst Farm, with regard to this stud he said: "I judged this lot of horses soon after they were imported, at the Elkhorn Fair. They are as fine a lot of horses as I ever saw. They carry especially heavy bone and are of excellent conformation." You will be safe in taking Mr. Southcott's word, as he is a judge of unusual ability. Catalogs showing breeding and description may be obtained by writing James G. Boyd, sales manager, 426 South Sycamore St., Milwaukee. When writing kindly mention that you saw their advertisement on page 29 of The Wisconsin Farmer.—Adv.

Gilts All Sold.

DURING the past two weeks we have received several letters from our swine advertisers advising that they were sold out of bred gilts. J. D. McDonald writes that he has sold 45 Poland China gilts at an average of $67. All he has to offer now is fall boars and sows, that weighed up to 200 pounds February 23d, and there are show prospects among the lot. They are sired by his good herd boars and out of matured dams. Mac has reserved 29 sows for his own use and with all due respects to the other good herds of the state we believe that he has retained 29 of the best sows we have seen. They have been bred to the good boars, Matchless Wonder, Crow's Progress and Jumbo Giant. Orders for spring boars are now being booked to be shipped at three months of age. J. D. McDonald has the goods, write him at North Bend, Wis.—Adv.

Some Good Fall Pigs.

R. MEINKING, Bangor, Wis., has some of the largest fall pigs that we have seen, up to date. Several of them will weigh 200 pounds or over. He has one litter of 11 that are outstanding and there are two boars in this litter that look like show prospects. Anyone wanting real choice Poland China fall pigs should write Mr. Meinking. Please mention The Wisconsin Farmer.—Adv.

Write Constance.

YOU can't buy any bred sows of F. R. Constance & Sons, Waupaca, Wis., but they have some fall Durocs, boars and sows, that are really choice. They weigh 160 pounds or over, are stretchy and have worlds of quality. Attractive prices will be made for pairs and trios. We gladly recommend these breeders to prospective buyers.—Adv.

Bacon's Jerseys.

FARMERS and breeders will find it worth while to investigate and attend the sale of Jerseys to be held by C. W. Bacon, Burke, Wis., March 29th. Mr. Bacon will offer a fine lot of Jerseys, splendid serviceable animals, the kind the farmer wants. See his advertisement on page 30 and write at once for further information.—Adv.

Write Martiny & Son.

RILEY MARTINY & SON, Baraboo, Wis., write that they can spare no more bred gilts. Now they offer boars and sows of fall farrow and they are right in every way. If you want a boar out of some of those good sows, send in your order now. They have some good ones. They also have seed corn for sale. Write.—Adv.

Metz & Sons' Percherons.

AN attractive lot of Percheron stallions and mares are for sale by S. Metz & Sons, Homewood, Ill., whose advertisement appears on page 29. These horses are all good, young ages, well bred and well made and will be sold worth the money. Write them your wants or go and see what they have to offer.—Adv.

Crow's Progress For Sale.

J. D. McDONALD, North Bend, Wis., has some great sows on his farm sired by Crow's Progress. Inasmuch as he has three crops by him, he has decided to sell him. Here is a tried boar and he should go to a good herd. The first check for $100 gets him. Write at once.—Adv.

IN a letter received from the Upland farms, Walworth, Wis., they write as follows: "Enclosed you will find another pedigree for a change in my advertisement. This is a very fine bull, nice, straight back, well-sprung ribs with a good barrel. In fact, he is a nice individual—most all white. Will weigh 1,000 pounds or more. This is the best bull I have, but I have him offered at $125. Yours truly, J. H. Travis."—Adv.

SALE DATES.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

DISPERSION SALE

OF THE STEPHENSON FARM HERD OF

HOLSTEINS

OF KENOSHA, AT

LAKE MILLS, WIS., APRIL 6-7

175 HEAD

One of Wisconsin's Best Herds

175 HEAD

60 DAUGHTERS of Admiral Walker Prilly, 72923, Sr. herd sire, who has 25 tested daughters, of which 18 have yearly records. 26 daughters, 11 granddaughters and 10 yearling bulls from these year-record cows. Cows with records up to 29.98 lbs.; 2 daughters of a 32.68 lb. cow; four 20-lb. Jr., 2 year olds. Forty sons and daughters of King Walker Pietertje Segis, 127857, Jr. herd sire, whose first 13 dams average 30.07 lbs. He is a **grandson of King Segis,** whose granddaughters, Segis Fayne Johanna with 50.68 lbs., Fancher Farm Maxie with 46.84 lbs. and Mabel Segis Korndyke with 40.32 lbs., have placed him in the limelight above all other bulls. A sale well worth attending. It will be held in the barns of the Lake Mills Holstein Breeders' Consignment Sale Co., and under their management. Auctioneers Haeger, Kelley and Mack; S. T. Wood in the box. Write for catalog to

F. H. Everson, Mgr. Lake Mills, Wis.

ABERDEEN ANGUS CATTLE.

McKEVITT'S ANGUS BULLS

WE offer well grown, well bred bulls of **serviceable age.** Will sell PAPAW 183789, a double Pride, three years old. Bulls guaranteed. Mention The Wisconsin Farmer and address

McKEVITT BROS. BLOOMINGTON, WISCONSIN

CHOICE ANGUS BULLS

AND heifers representing some of the good families of the breed at very attractive prices; ages from 12 to 20 months. Write or call on

Orville H. Kettler Platteville, Wis.

TOO LATE TO CLASSIFY.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

GEO. H. GIBSON NASHOTAH, WIS.

FOR SALE AT A BARGAIN—A fine driving mare 8 years old, weight about 1,000 pounds. Colt 9 months old, a natural born pacer. This colt is perfect and is from fast stock. Cutter, buggy, cart, harness, etc., will go with this outfit. (Answer) in care of Wisconsin Farmer.

SALE DATES.

Holstein Cattle.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 6-7, Dispersion of the Stephenson Farm Herd of Holsteins, Lake Mills, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

May 17, Birch & Thompson, Lake Geneva, Wis.

Percherons.

Mar. 21, Dispersion sale of the Lewis Lewellen & Sons, Waterloo, and Louis P. Sutter, Delavan, Wis., Percheron studs. Sale at state fair grounds, Milwaukee. Jas. G. Boyd, Mgr., 426 Sycamore St., Milwaukee, Wis.

Mar. 27, C. P. Quirin and Miller & Brown, Marcus, Iowa. (Sale at Sioux City, Iowa.

QUIRIN AND MILLER & BROWN
JOINT SALE OF
PRIZE PERCHERONS
FROM MARCUS, IOWA, SALE IN THE SALE PAVILION AT
SIOUX CITY, IOWA, TUESDAY, MARCH 27

THESE two studs have been headed by the greatest stallions of the breed, viz.: CALYPSO, many times a champion and sire of champions, until recently headed the Miller & Brown stud, while the International champion BARNUM, and the State Fair champion KONFLUENT, now head the Quirin stud. Several sons and daughters of the champion BARNUM are included. The mares by him are bred to KONFLUENT. About half of the offering of mares are bred to the first prize winner, KERCHIOUS. Only a few yearling fillies. Developed mares have great size and are the rugged sort that make dependable producers. Several well-matched pairs, both blacks and grays. ONE OF THE GREATEST OFFERINGS OF PERCHERONS TO BE SOLD THIS SEASON.

Stallions are from 2-year-olds to 6-year-olds, mostly blacks and grays; several ton stallions that have been prize winners at state fairs. This sale offers an excellent opportunity for the selection of big, rugged, vigorous, heavy-boned stallions that should give most excellent results on the stand. 20 stallions—good ones. P. McGuire, auctioneer. Catalog sent upon request. Remember the sale will be held in Sioux City, Iowa, but for catalog address either

C. P. QUIRIN or MILLER & BROWN
MARCUS :: :: :: IOWA

News of the Sale Ring.

Forge Dispersion Sale.

The dispersion sale of Mr. Forge's herd of pure-bred Holsteins at Burlington, Wis., March 7, 1917, clearly demonstrated the demand for pure-bred Holstein cattle of merit. All the cows in the herd but two had A. R. O. records and most of them were in calf to a 31-pound sire. Forty-eight head, or the entire number sold, averaged $285. Thirty-three females averaged $333.87 and 15 bulls averaged $189.06. The young bulls sold especially well. However, the senior herd sire did not bring within several hundred dollars of the price for which he should have sold. Rust Bros., of West Allis, took advantage of this bargain. The cow, Portage Pietertje Walker with a 20-pound two-year-old record, sired by King Walker and out of the 31-pound cow, Portage Pauline Paul 2d, was the sensation of the sale. Fred Southcut, who was buying for Gustave Pabst, after a lively brush with E. J. Steely, of Waterloo, Iowa, bought the cow at $1,150 and topped the sale. Mr. Steely was a good bidder on the best animals of the sale and bought several cows that hsould be a credit to the state from which he came. Nathan Dickinson & Son took advantage of one of the best bargains of the sale by buying Maud Pietertje Walker for $550. Crites Bros. were the strongest local buyers and seized their opportunity to get the right kind of animals with which to start their herd. The following is a list of prices:

FEMALES.

Sadie Hengerveld, May, 1905; F. B. Wicks, Salem, Wis.	$240
Aaggie Clothilde Bawn 5th, Dec., 1905; George Ela, Rockston, Wis.	205
No. 5, Dec., 1916; E. J. Steely, Waterloo, Ia.	150
Aaggie Pietertje Walker, Jan., 1911; Crites Bros., Honey Creek, Wis.	300
Bell Croft Aaggie De Kol, Feb., 1913; Crites Bros.	300
No. 49 (twin sister of above) Crites Bros.	185
Bell Croft Johanna Aaggie, March, 1915; Crites Bros.	275
Bell Croft Aaggie Pauline Walker, March, 1914; Crites Bros.	200
No. 10, Nov., 1916; Henry Stevens, Minneiska, Minn.	150
Bell Croft Aaggie Wayne, Feb., 1915; E. J. Steely	380
Aaggie Pietertje Walker 2d, Feb., 1914; Crites Bros.	255
Aaggie Pietertje Walker 3d, March, 1915; Crites Bros.	225
Bell Croft Johanna Walker, Dec., 1913; Wm. Buck, Burlington, Wis.	300
Bell Croft Johanna Walker 2d, Jan., 1916; J. P. Eckart, Burlington, Wis.	165
Colantha Koningen De Kol Tirania, Aug., 1905; John Kempen, Sr., Waterford, Wis.	280
Colantha Pietertje Walker, Feb., 1911; E. J. Steely	775
Bell Croft Pauline Colantha, Oct., 1914; Harry Kring, South Bend, Wis.	400
No. 21½; Louis Bros., Lake Beulah, Wis.	115
Clothilde Blanch Rauwerd, May, 1906; Fred I. Cox, Jr., Omro, Wis.	225
Clothilde Blanche Rauwerd 2d, Feb., 1912; Crites Bros.	415
Bell Croft Blanch Walker, Feb 1916; James H. Fallon, Burlington, Wis.	225
Clothilde Blanch Rauwerd 4th, Nov., 1914; G. A. Miller & Son, Antioch, Wis.	320
Lady Mona Netherland, Nov., 1903; Wm. Roberts, Burlington, Wis.	200
Lady Mona Netherland 5th, Oct., 1916, Henry Stevens	215
Bell Croft Netherland Lady, Dec., 1915; G. R. White, Antioch, Wis.	250
Portage Pietertje Walker, Dec., 1910; Gustave Pabst, Oconomowac, Wis.	1,150
No. 34, Nov., 1916; Henry Stevens.	190
Portage Pauline Paul Queen, Jan., 1913; E. J. Steely	700
No. 37, Aug., 1916; G. R. White	245
Gracie Inka Korndyke, April, 1908; Wm. O'Leary, Honey Creek, Wis.	310
Maud Pietertje Walker, Fe., 1911; Nathan Dickinson & Son, Geneva, Wis.	550
Bell Croft Maud De Kol, Dec., 1912; F. B. Wicks, Salem, Wis.	230
Maud Pietertje Walker 2d, Feb., 1914; F. B. Wicks	250
Maud Pietertje Walker Lass, Feb., 1915; Crites Bros.	500

BULLS.

Portage Pauline King, Dec., 1909; Pabst Bros.	375
King Netherland Champion, Sept., 1914; John Kempen, Sr.	300
No. 18, Nov., 1916; Greinir Bros., Burlington, Wis.	160
No. 23, June, 1916; John Kerkhoff, Bassett, Wis.	160
Portage Walker Netherland King, Nov., 1915; Frank Roderick, Clarno, Wis.	215
No. 32, Dec., 1917; John Park, Lake Beulah, Wis.	110
Bell Croft King Portage, Nov., 1915; Ed Hess, Spring Prairie, Wis.	155
Bell Croft Sir Walker Korndyke, Jan., 1916; C. J. McCulley, Reedsville, Wis.	160
No. 41, Nov., 1916; W. A. Spartz, Union Grove, Wis.	235
King Portage Pietertje Walker, Feb., 1915; Frank Koehnpe, Burlington, Wis.	200
Count Portage De Kol Walker, Nov 1915; Walton Kallas, Omro, Wis.	200
Duke Portage De Kol Walker, Nov., 1915; Anthlyn Rick, Plain, Wis.	260

SUMMARY.

33 females averaged	$333.87
15 bulls averaged	189.06
48 head averaged	285.00

Potatoes should never be left lying in the fields or exposed to the moth overnight.

CHESTER WHITE SWINE.

DERENTHAL
CHESTER WHITES

THE champion herd of the northwest. Offer gilts and sows guaranteed safe in pig. Order at once. Address

EAST SIDE STOCK FARM

H. A. Derenthal, Manager — Wykoff, Minnesota

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Callaway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

IF YOU WANT
CHESTER WHITES
write W. F. Miller, West Salem, Wisconsin.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Ray Streak. Write

Wm. T. Butts — Evansville, Wis.

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants

WEST SALEM — WISCONSIN

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HAWTHORN FARM
STALLIONS and MARES
of proved worth as producers; big, massive, clean-cut, clean-legged, long-lived—the get of our undefeated grand prize winner, Westside Chieftain 315 and

Other Famous Suffolks
both home-bred and imported. Everything from yearling colts to mature sires and dams. All registered. Shire horses, Shropshire and Hampshire sheep, Duroc-Jerseys, the Hackney horses and ponies. For catalogue, descriptions and other details, Address Box. E

HAWTHORN FARM, Lake County, ILLINOIS

A Great Sale of Percheron Horses

Complete Dispersion of Two Great Percheron Studs

Wednesday, March 21, 1917, at the State Fair Grounds, Milwaukee, Wis.

60 Head Comprising the Studs of Louis Lewellin and Sons, Waterloo, Wisconsin, Lewis P. Sutter, Delavan, Wisconsin

THE L. P. SUTTER OFFERING

CONSISTS of a high-class lot of imported stallions and mares. These horses were personally selected in the famous Percheron horse breeding districts of France and imported by Mr. Sutter in 1914 for his own private stud purposes at Delavan, Wisconsin. **The stallions** are coming four and five. They are the **big, ton kind** with **tremendous bone** and **substance. The mares** are coming four, and under. Only two over five. They include a nice lot of big, drafty animals. The colts in the sale will show the kind they are capable of producing. It's an exceptional opportunity to buy **imported** Percheron stock, very little of which is now on the American market. **By all means come and look them over on sale day.** You will find something to suit your wants. Don't miss the sale.

THE LEWELLIN & SONS' OFFERING

THIS offering consists of a grandly bred lot of home bred stallions and mares, the result of years of careful selection and mating at the Lewellin Percheron studs at Waterloo, Wisconsin. Also two grand **imported** mares. This offering requires no introduction to the Wisconsin horse breeding public. Its frequent appearance and **successes** at the **Wisconsin State Fair** have made it well known to every horseman in the state. In 1915 and 1916 it won the **Wisconsin bred and owned championship** on stallions, and also on mares; and in 1915 the **championship on mares** in the open to the world classes. Besides these, it has won many first and second prizes both in singles and groups. All of these prize-winning mares, stallions and colts are included in this sale offering. They are proven quality and regular producing stock.

For Catalogs Address **JAS. C. BOYD, Manager, 426 Sycamore St., Milwaukee, Wisconsin**

Sale called at 10 o'clock A. M. **Lunch served on the grounds** **Auctioneer, Joe Walker**

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

MR. STALLION BUYER

WE still have on hand a large number of two coming three Percheron stallions, those colts now weigh up to 2,110 pounds, and if you are looking for an outstanding good one to head your herd of mares you should write and get prices on those colts. Our three-year-old and aged Percheron stallions are the best lot w ever had on hand. They weigh up to 2,300 pounds. In Belgians we offer a very strong lot from one to six years old. Among them is Bizarrie, a five-year-old sorrel chestnut stallion weighing 2,300 pounds. This stallion is as good as money can buy and fit to go any place. He must be seen to be appreciated. We have on hand a number of stallions from six to ten years old that have made seasons. Those horses weigh up to 2,100 pounds, and we will sell them very reasonable. We have a horse for every purse and know we can save you money. We want to buy 50 head of one coming two Percheron and Belgian stallions. Write us what you have. Send 25 cents in stamps for large horse hanger. Address

FRANK P. SHEKLETON & SONS - LAWLER, CHICKASAW COUNTY, IOWA

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

PERCHERON STALLIONS and MARES

WE are offering an extra good selection of horses, priced worth the money. We can suit you in quality, price and terms. Write your wants or come and see us.

S. METZ & SONS **HOMEWOOD, ILL.**

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

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CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

A. P. CORTTE **LOMIRA, WISCONSIN**

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A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

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GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

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Importers and Breeders of

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IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

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Largest Collection on Earth

150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

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IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Addrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

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BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early. **P. W. Young, Prosper, Minn.**

BRED POLAND GILTS

OF big-type breeding and bred to **Chief Price** by the champion, Big Price, and to a son of the noted **Black Jumbo.** The price is reasonable. Also SHORT-HORN heifers, yearlings and over. A few young bulls. R. C. R. I. RED cockerels. I'll try to please you. Write.

P. N. COLLINS **RIVER FALLS, WIS.**
(35 miles southeast of St. Paul)

BRED GILTS
POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.

OLOF C. OLSON **STRUM, WIS.**

10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northsiae Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT

Address
J. C. HENDRICKS, Box F., Hazel Green, Wis.

McDonald

OFFERS Poland fall boars and sows out of matured dams and sired by Crow's Progress, Jim Crow and Mc's King. Some show prospects. Booking orders for spring boars to be shipped at three months. Write

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SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins).

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POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address

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GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

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SOME very choice fall pigs—absolutely right. Order one. Address

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POLAND GILTS

AT private sale—good ones, bred to my big boars.

E. W. HENDRICKS
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Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address

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30 DUROC JERSEY BRED GILTS

OF Illustrator, Golded Model and Ohio Chief breeding. Long-bodied, heavy-boned, easy-feeding kind, bred to a son of King the Colonel and a son of J. C.'s Illustrator, 1st prize winner Minnesota State Fair, 1916. Address

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OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.

Dennis Shea **Melvina, Wis.**

SOLD OUT

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SOWS ALL SOLD

OFFER fall Durocs, both sexes. Book orders for spring boars. A few bushels of seed corn. write at once. Address

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THEY are dandies, with stretch and quality. Our guarantee with each pig. Address

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ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.

WALTER BROS. CHIPPEWA FALLS, WIS.

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a wells marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by son of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.

DR. TRUMAN BROPHY **CHICAGO, ILLINOIS**
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY **SHEBOYGAN FALLS, WIS.**

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS **WAUKESHA, WISCONSIN**

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS **LAKE VILLA, ILL.**
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

REGISTERED GUERNSEY BULL for sale, none better, 22 mo. old. W. H. Francis, Clear Lake, Wis.

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address

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FOR SALE

GRADE Guernseys. 2 milking, 3 springers. 14 yearlings, 7 are bred. 8 fall calves. Price $1,400. 1 registered bull one year old at $100.

E. H. Klesling **Jefferson, Wis.**

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS

Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.

W. G. Jamison & Sons, Appleton, Wisconsin

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ **WAUKESHA, WISCONSIN**

REGISTERED AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL **RACINE, WISCONSIN**

AYRSHIRES

Can supply your wants if you want

HEIFERS OR BULLS

from A. R. dams. Also breeder of

Clydesdales and Durocs

Write your wants Address

A. S. VAN ETTA **LIMA CENTER, WIS.**

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SHEEP.

VALLEY VIEW STOCK FARM
SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ewes are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

Geo. A. Philippi, R. 40, Bear Creek, Wis.

Please mention this paper when writing

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$50,000 IN SHORT-HORN PRIZES

This Association has appropriated for 1917 approximately $50,000 for prizes at state fairs, interstate fairs, live stock shows, state and interstate association shows and sales from New England to the Pacific coast and from Canada to the Gulf.

Pick your show things now and begin preparation for these contests, that you may claim a share of the prize money.

1916 was the biggest Short-horn year in the history of the breed and 1917 bids fair to far exceed it.

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100 Short-horns to Select From-100

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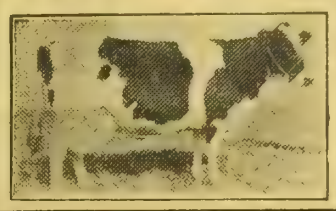

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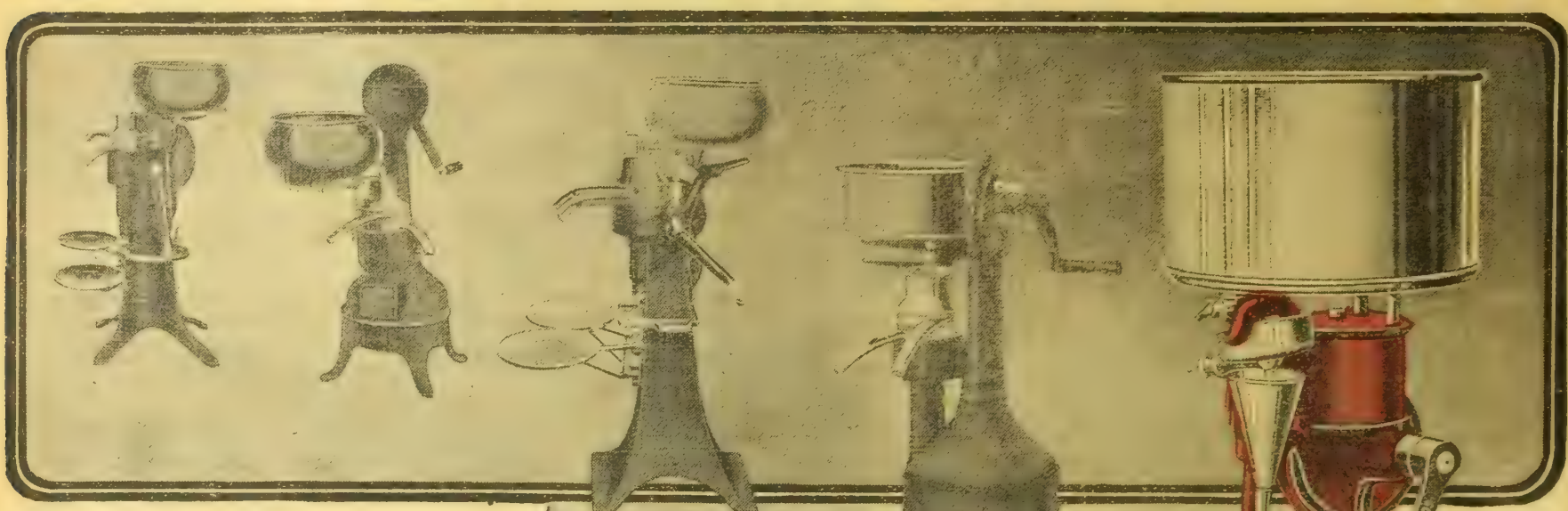

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Spring Work on Badger Farms.

By PETER C. SWARTZ,
President Wisconsin Alfalfa Order

THERE are many things which we tillers of the soil should attend to at once. I am not going to try to give advice to others which I am not trying to work out myself on Cornfalfa Farms. Let us spend a few minutes thinking of some of the things which ought to be done in the springtime. This season's spring work is already here and before we know it, it will be past. Can we say that all our manure is hauled out and spread, all our seed corn is thoroughly cleansed and graded and tested for germination? Going a step back of this we might even ask whether all of us have our seed grains purchased yet, or whether we took the proper precautions through the winter to care for our seed. How about our seed corn and in what condition are the seed potatoes? Do we need any repairs for our machinery? If so, are we going to let it go until the last day just before we need the machinery and when mechanics are so busy that it takes a long time for them to get a job out? Have we made an invoice of our machinery to see whether we need anything new? If we do need a machine or two, how much time have we spent looking the matter up and investigating the merits of the various makes? How about our fencing? Is it all in good shape or will we find it necessary some day to quit the fields in order to do some fence repairing, which must be done to keep our live stock on the farm? Is our harness all oiled up and repaired and ready for use, and have we been getting our horses in shape for their work? I believe that we should have colic and gall cures always on hand ready for use when we need them. Furthermore, the proper preparation should be made to take care of the new-born lambs, colts, pigs, chickens, etc. These babies are all dandies when born and we should spend some time and thought in planning to keep them so.

On a great many farms in Wisconsin the home folks have been talking for some time about some new improvements. Why not have these things all planned out now so that they will not occupy our attention when the real outdoor spring and summer business comes on us with a rush? Now is the time when all these things should be done and then we can say, "Our seed grains are waiting for the soil," and when the soil is ready we will give the seeds a bath of about ten minutes in a solution of one pint of formalin to forty gallons of water. Nothing pays better than to put "clean clothes" on our seed grains before they enter the soil. How many of us can say at sowing and planting time that we have properly washed the clothes of our seed grains and made ready for their reception in the moist, warm soil? You may be assured that if you do not adopt protective methods against smut, the thresher will know it when he comes around in the late summer or fall, and we will be the losers if we fail to properly take care of our seeds now. Smut means a loss in bushels to the threshermen and, furthermore, it means a still greater loss to the man who has invested his money in land and his time in the growing of grain. Sooner or later it all "comes out in the wash" just what we have been doing.

HORSES READY FOR WORK ON CORNFALFA FARMS, WAUKESHA COUNTY, WISCONSIN.

We do a great deal of talking about seed corn. By seed corn we mean corn which will grow plants, strong, sturdy plants. Let's test our seed corn now and make a much larger profit by fattening the chickens with that which is unfit for seed. Many of us who have not artificially dried the seed will find a sufficient quantity to fatten the hogs if the weak and dead ears are culled out and fed. Let us always remember that the place for such ears is in the stomachs of stock and not in the soils. This is true and there are no "ifs nor ands" about it. Make someone responsible now to take care of this situation. It may be yourself or the hired man, or mother or boy or girl who goes to school and ropes the teacher into the game, but be sure to get the seed corn testing knot well tied on some one so that there will be no forgetting it.

This same trouble arises with our seed potatoes. We should get some "clean clothes" put on these, too, but if the seed is run out, mixed, filled with diseases, etc., the cooking kettle is its proper place and not the soil. Make a change this year and get certified seed.

I have mentioned the matter of repairs for machinery. It is a very important thing to look over all the farm machinery and order all the repairs needed early. It is remarkable how slow freight and express may be sometimes when we farmers are in a terrible hurry. It is certainly unlucky for us if we must go out in the field or fence corners and shovel out or dig out our machines to look them over for repairs. That however, happens with some of us and such a sight should furnish an impetus for improvement in the year 1917. This ought to lead to sheds for the housing of farm machinery.

I have said something about fencing. Certainly it is a thing we should all pay more attention to before it is too late. When it is too late fencing costs a great deal more money than a good legal fence ought to cost. Furthermore, we all know that poor fences start neighborhood quarrels, damage suits, law suits and result in our stock being cut up. Poor fences cause trouble and untold damage to grain and corn crops, and when you sift many of these cases down it is all too often due to the lack of only one fence post. The writer knows these things from experience and I have had visions of places where fence posts have been needed on Cornfalfa Farms. I know whereof I speak when I say it is really worth while to give the fences serious consideration in the early spring of the year.

In conclusion, I want to say a few words about the care of the horse. The horse is our power to do many different things for us and we should always have this power ready to command. I have found that there is one thing especially which many of us fail to look after and which is the main cause of many ailments of which the horse becomes a victim. This particular thing which I have in mind is the horse's teeth.

(Concluded on page 11.)

BIG SMALL GRAIN CROPS CAN ONLY BE PRODUCED WHEN GOOD SEED IS USED.

CURRENT EVENTS

AFTER a three-day revolution, the czar of Russia abdicated last week and his younger brother Grand Duke Michael, was proclaimed regent to rule in his stead. The revolution was not unexpected, but the abdication of the czar was unexpected. The revolution was brought about by the fact that the czar and the government has been more or less under German influence for many years past and the people revolted in the interests of a national spirit. The czarina is a German princess and most of the czar's advisers are either German or pro-German Russians. There has been much talk for more than a year past that Russia might conclude a separate peace with Germany, deserting her allies. There has been talk, within the last few weeks, of an alliance between Russia, Germany and Japan. The czar was in the field when the revolution took place, but his orders adjourning the duma (the Russian congress) precipitated the revolution. The people revolted, practically without plan or leadership, according to the early reports, and one by one the regiments of troops went over to them, so that seldom, if ever, in history has so far-reaching a revolution been effected with so little bloodshed. The revolution is looked upon in England and France as a great blow to the Teutonic cause, as Russia will now be all Russian and will cease to have a strong pro-German leadership. The czar had ruled for twenty-one years, but was conceded to be weak and inefficient.

RELATIONS between the United States and Germany continued practically unchanged last week, despite the fact that a German submarine destroyed an American ship, the Algonquin, bound for England with food supplies. The Algonquin was of American registry and flew the stars and stripes, but it was fired upon several times and at the last the submarine sent men to the hold of the American vessel to fire dynamite and hurry the work of destruction. None of the sailors lost their lives. The United States is hurrying the work of arming its merchant ships for just such an attack. President Wilson holds that little, or nothing, more can be done at present; inasmuch as he has severed diplomatic relations with Germany and is arming merchant vessels against that country, two acts which are but little short of an actual declaration of war. With a nation-wide railroad strike imminent, further tying up traffic and complicating matters, and with the German situation continuing so critical, the burden of the president is indeed heavy these days.

PRESIDENT WILSON has called congress to convene, in special session, on April 16th. This action was made necessary because of the failure of the last congress to pass several appropriation bills and to put through legislation which the country urgently demands. It is stated that were congress not to meet and appropriate money, several branches of the government would be absolutely without funds and the West Point military academy would have to close its doors within the next two or three months. The new congress promises to be fairly evenly divided politically. The senate is democratic, but by a reduced majority. The complexion of the house is still in doubt, the democrats and the republicans having about an equal number of members, with a half dozen progressives, socialists and prohibitionists holding the balance of power. Champ Clark, of Missouri, will be the democratic candidate for speaker, and James Mann, of Illinois, the republican, so the grain belt is sure to dominate, whichever party wins. Congress may be in session all summer, much depending on how serious the relations with Germany become as the weeks pass. Appropriation bills which failed to pass the recent congress included the army, sundry civil, general deficiency and military academy bulls carrying more than $500,000,000. General legislation urged by the president included an act to supplement the Adamson railway law, enlargement of the interstate commerce commission, conservation law, including a general dam and water power bills; the Webb bill to legalize joint foreign selling agencies, and a land-leasing bill.

PRESIDENT WILSON has ordered the arming of American merchant ships against Germany's unrestricted submarine warfare, notwithstanding the fact that congress adjourned a fortnight ago without having given him express authority so to do. The president was advised by his secretary of state and attorney general that this was within his power, so he took the necessary action to place guns and gunners aboard merchant ships bound for the submarine zone which Germany has outlined around England and along the coast of Europe. The state department's views of defensive armament, under the conditions, are that the mere appearance of a German submarine or its periscope near an American armed vessel would entitle the vessel to take all measures of protection on the presumption that the submarine's purpose was hostile. This was based on Germany's announcement that her submarines would attack without warning any belligerent or neutral merchantman encountered within the barred zone. When the vessels sail under the policy of armed neutrality they will do so with the full backing of the administration—expressed in the form of war risk insurance and naval guns and gunners. It has been made clear that in the background will be the entire resources of the United States—ready for action should Germany attack an American ship in violation of the warning of the American government.

DANGER of a nation-wide railroad strike, which would tie up practically all the traffic of the country, became imminent again last week. The four great railroad brotherhoods, representing the important branches of railroading, were practically unanimous for a strike unless the railroads at once granted their employes an eight-hour working day. This is virtually what the Adamson law would give if put in force. The original program of the men, the refusal of which resulted in the call last September of the strike, which was averted by the passage of the Adamson act included an eight-hour basic day, with time and a half for overtime. The Adamson law is now before the supreme court, with no time announced when a decision as to its constitutionality will be made public. The union heads admit they are hastening their plans either to obtain a settlement or to strike because they believe war with Germany "now seems probable." They contemplate accomplishing their purpose with or without force, before the opening of hostilities, when they would be obligated by their pledge to the president to cease any obstruction of transportation embarrassing to the national defense. They charge the railroads with playing for delay of settlement until war breaks out and ties the hands of the unions.

THAT Colombia should be paid $25,000,000 because of the secession of Panama, with the tacit consent if not the actual connivance of the United States, is the contention of President Wilson and various congressional supporters who are backing a bill to this effect. The senate foreign relations committee has reported in favor of the bill, but it is being bitterly opposed by the republicans, led by Senator Lodge, of Massachusetts, and Senator Borah, of Idaho. The bill as now before the senate differs from the one originally introduced, by reason of two important amendments. The first amendment contains an expression of regret from both the United States and Colombia over the friction which has existed between the two countries ever since the revolution of 1903, when the republic of Panama was created. As presented to the senate the treaty contained an apology from the United States to Colombia. The second amendment provides that nothing in the treaty shall be construed as casting any shadow of doubt on the title of the United States to the Panama canal. There is great difference of opinion as to whether President Roosevelt performed a great and statesmanlike act when he assisted Panama to gain its freedom and the canal to be built, under American domination, or whether Colombia was, indeed, despoiled of territory and the canal rights. The question is being threshed out, along partisan lines, in the senate.

CHINA is the only nation which has followed the lead of the United States and severed relations with Germany as a result of the unrestricted submarine warfare. The Chinese senate decided upon this action, last week, by a vote of 152 to thirty-seven. Similar action had already been taken by the lower house, so the government was authorized to hand the German minister his passports. There is no intimation that China is prepared as yet actually to join in the war against Germany, although diplomatic circles at Washington confirm Pekin dispatches saying the allies, led by Japan, are urging the Pekin government to declare war and exchange her large supplies of iron and other war materials for permission to increase her customs duties and postponement of her Boxer indemnities. China already has signified her intention of following the lead of the United States and it has been regarded as probable here that she would hold to that course.

ORGANIZED labor in America, through its representatives in conferences at Washington, offered its services to the country in every field of activity if, despite all endeavors and hopes, the United States should be drawn into war. The action was taken by unanimous vote of more than 150 delegates from national and international trade unions affiliated with the American Federation of Labor and five unaffiliated organizations, including the great railroad brotherhoods. In all about 3,000,000 American workers were represented in the conference called to determine and announce the part to be claimed by labor in the national preparedness plans.

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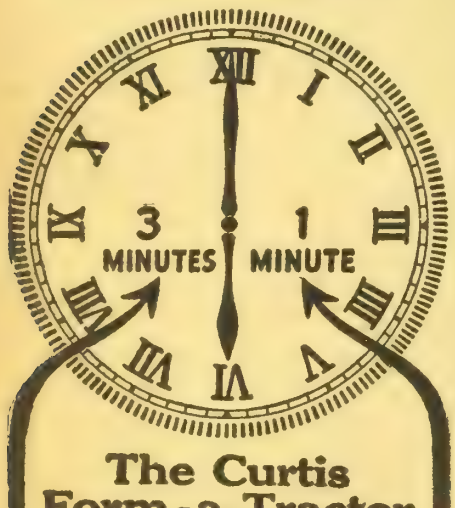

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The Wisconsin Farmer

THURSDAY, MARCH 22, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

WISCONSIN'S ADVANTAGE IN MARKETING.

I HAVE often said that there is no state in the Union which enjoys greater natural advantages of soil, climate, location, etc., than Wisconsin, and this fact was brought home to me with added force as I read Governor Philipp's speech, delivered at Eau Claire not long ago. In it he pointed out convincingly the strategic position which Wisconsin occupies with reference to the great markets of the Middle West.

Of course, all of us know, in a general way, that Wisconsin's shipping points are relatively close to Chicago, Minneapolis and Duluth, and that cheap water transportation is available for much of our farm produce, but we do not stop to analyze the real significance of these facts, as Governor Philipp has done. He has been, and still is, for that matter, a farmer, in addition to having his other large interests, and he knows the importance of cheap transportation to the farmer.

As an evidence of Wisconsin's advantage on the Chicago market, Governor Philipp pointed out in his speech that it costs $344 to ship a car of dairy products from Miles City, Montana, to Chicago, while from Marshfield, Wisconsin, to Chicago the cost is less than one-fifth as much, or $66. A car of sheep, whose freight from Montana points to Chicago is around $66, costs but $24 from central Wisconsin points, while a carload of cattle costs $117 as compared with only $38 from these respective locations to the great Chicago stock market.

But not only is there this tremendous advantage for Wisconsin farmers in rates, but also in the time necessary for the journey. For example, it takes six days to bring a carload of freight from Miles City, Montana, to Chicago, whereas from Spooner, Wisconsin, two days is sufficient for the trip. From a great many points in this state live stock that is shipped to Chicago today can be in the great stockyards there tomorrow morning. Every live stock raiser knows the advantage of quick trips and the extra money which it brings because of the animal's good condition. There is only a very limited area in the United States that enjoys such good opportunities in this respect as Wisconsin, and it is an advantage that is worth many thousands of dollars to the live stock shippers of the Badger state every year.

I am anxious that these facts be known, because it seems to me they have a very important bearing on the future development of the state, and especially of Upper Wisconsin. It is only additional evidence that there are better opportunities for building up new farms in this state than in distant states, far removed from the great central markets, which have attracted so many settlers that Upper Wisconsin should have received, both to its own and their advantage. Governor Philipp is right when he says that proximity to markets is one of the great factors in agricultural success and that Wisconsin is especially favored in this respect. It is a fact that I wish might be given wider publicity.

GIVING WISCONSIN FARMERS A VOICE.

THE farmers' institute, held at Delavan, Wisconsin, recently, proved that there really is something new under the sun, by including a feature on their program which I should have liked to hear. One evening of the meeting was devoted to talks by farmers on "The Needs of Delavan as We See Them."

I do not want to be misunderstood when I say that it has often seemed to me that we have too much of this thing of town folks telling the farmer what he ought to do, and too little opportunity for the farmer to express himself regarding the duties and obligations of the town dweller. Take almost any program, gotten up for the enlightenment or entertainment of the farmer by any community, and you will find speeches by secretaries of commercial clubs, by so-called "boosters," "organizers," "promoters," and the like, largely to the exclusion of the farmers' views.

Now, let me repeat that I do not want to be misunderstood in this matter, for no one appreciates more than I do the efforts which are being made to help the farmer by the town residents of Wisconsin, but I merely want to call attention to the fact that there are possibilities of service both ways. The farmer does not wear his feelings on his sleeve, nor go around with a chip on his shoulder, looking for an opportunity to take offense; but I think he must feel slighted at times, when he listens to half a dozen speeches by men whose connection with farming is confined to the fact that the prosperity of their business depends on the farmer's success, while the farmer has no representation on the program. Of course, such things are largely unintentional, but they represent an indifferent state of mind toward the farmer and his views that needs correcting.

I certainly would be the last to desire to create friction and jealousy between town and country. There is no real ground for such feeling. In the broader sense their interests are identical. Our farmers are running business enterprises today in which more capital is invested than in the average town business. The average farmer has a large amount of property on which to pay taxes, and, as a general proposition, he does not object to paying reasonable taxes where he gets value received, and he has a voice as to how the money is spent.

I have no sympathy whatever with the idea that the farmer is a "mossback" or "tightwad," and that it is necessary for his own good to force him into something or other to which he is opposed. There is no class of people, in my judgment, with whom the business affairs of the country can be more safely trusted than with the farmer. Excepting for the patriotic sacrifices of the men who till the soil, this country would never have been established nor preserved in an inseparable union. The farmers of the world today are a greater factor in making history than the fighters in the trenches or the sailors on dreadnaughts. Without the food which the farmers are producing, even 42-centimeter guns would lose their power and submarines their terror.

I believe that in many Wisconsin counties there is being developed a splendid spirit of coöperation between country and town, to the advantage of both. The county agricultural agent is a great help along this line. While there may be some prejudices against him in the beginning, when he once demonstrates that he really wants to work with and for the farmers along the best lines, he becomes a strong factor in the community and a bond of good fellowship between town and country.

So I congratulate the good people of Delavan and Walworth county on this evidence which they have afforded of the new spirit of harmonious action between the residents of town and country, by inviting the farmers to express their views on their mutual needs. I venture to say that what was said will prove of just as great benefit to Delavan as the balance of the program proved to the farmers. The average farmer makes no pretense at being an orator, but oratory is cheap compared with hard common sense, which has come as a result of experience, hard work and honest living; and that is exactly what the farmers of Wisconsin have to contribute to the solution of the mutual problems of country and town in our state. It is my hope that the example of the farmers' institute, at Delavan, may be followed elsewhere in this state, and the farmers be given a chance to make their contribution to the discussions of town as well as of country problems.

A FIREPLACE FOR THE WISCONSIN FARM HOME.

I HAVE noticed with pleasure the increasing interest which is being taken in improving Wisconsin farm homes, and I have been especially attracted by the plans for such homes which have been submitted to the experiment station, to which my attention has been directed.

It is a far cry from the humble Ohio home, where I spent the happy years of boyhood, to the modern farm homes of Wisconsin, and I am glad, indeed, that it is so, and that our sons and daughters are not obliged to endure the hardships which we older ones had to go through (though not realizing at the time that they were hardships) in the grain-belt farm homes of half a century ago.

I am glad that many farmers of today can substitute the convenient, modern bathtub for the old wooden tub; that they can have the luxury of hot and cold running water, instead of the old-fashioned pump by the back door, and that their homes are heated and lighted by hygienic systems, which add greatly to the attractiveness and comfort of the home and help to keep the young people contented in the family circle. I am attracted by the built-in bookcases, filled with the great literary classics of all time, which grace so many Wisconsin farm homes, though I well remember when I was a boy that the family Bible, Pilgrim's Progress, a weekly paper, and an occasional religious publication constituted our entire stock of reading matter. I repeat that I rejoice in all these evidences of good taste and prosperity, such as grace many Wisconsin farm homes of today, and I am anxious to encourage them where I can.

But there is one thing which, almost more than all others, I hope my readers will keep in mind as they come to plan new homes, and that is a fireplace. For some reason or other I just can't think of a real cheery, comfortable farm home without a big, open fireplace in the living room. I am not talking about the little new-fangled grates, such as are crowded into city apartments for lack of space; but I mean a great, big, open fireplace, large enough to take a log that will burn all day or all night—a fireplace with a capacious hearth and old-fashioned andirons. I cannot think of anything more conducive to comfort and happiness than the genial warmth and hospitable glow of such a big wood fire as it can provide on winter nights.

How I loved, in my boyhood, to hear the flames go crackling up the big-throated chimney, and to watch for the live coals which would occasionally pop out on the hearth, to the great danger of the rag carpet unless quickly gathered up! And then there were the evenings when we popped corn or parched field corn, or thawed apples over the glowing embers. I wonder how many of my readers have memories as tender as mine of the old-fashioned hearth fire.

Of course, such a fire is not adequate for heating purposes in a large home, nor is its heat even. I well remember nights when our family circle was enlarged by visits from neighbors, so that I was forced to get back from the fire into the second row, and I still recall vividly how cold it was there. So, I would not think of letting the fireplace take the place of the modern heating system, but I would have it for its sociability. Let us install practical and healthful heating plants and then add the cheeriness of the old-time fireplace. Here in Wisconsin we have plenty of good timber yet to burn, without having to ship in the back-logs, as they do in the prairie states, so that a fireplace is an economical, as well as an enjoyable, luxury.

If the parents are planning the new house, put in the fireplace as an added attraction for keeping the children at home nights, and if the young folks are doing the planning, let them add the fireplace for the sake of father and mother, who will enjoy it and in whose minds it will awaken tender memories of other days.

If the fireplaces of the old farm homes could speak, what stories they could tell of those who have sat and gazed into their dying embers. If the burning logs had the power to discern thoughts, they would have buried in their burning hearts many a tale of happiness and woe, of plenty and want, of strength and weariness, but, most of all, tales of final victory over nature and domestic happiness and contentment. Some of the greatest thoughts of mankind, some of the finest emotions of womanhood, have been inspired by the soothing and cheering atmosphere of the open grate fire. Shall we not retain this time-honored domestic institution in our Wisconsin farm homes as a source of comfort and inspiration for the younger generation?

A PATRIOTIC WISCONSIN WOMAN.

WITH the war clouds hovering ominously over our fair land, it is good, indeed, to find such patriotic sentiments so eloquently uttered as those which a good friend of The Wisconsin Farmer, May Gabriel, of Rice Lake, Wis., sends to me, as follows:

Dear Mr. Pierce: My sister and I received the slips of "America" you sent to my address. We were very much pleased to receive them and wish to thank you for them heartily. Our hopes are that this beautiful and noble song of "America," also that of "The Star Spangled Banner," may be sung as long as human tongues shall sing, that our country at peace may dwell, and that our Old Glory in the gentle breeze may wave, "o'er the land of the free, the home of the brave," for all eternity.

Shall we not all join in a hearty "Amen" to this? Are these not inspiring thoughts, splendidly expressed? It gives me the greatest pleasure imaginable to find among my correspondents so many noble women in whose breasts the fires of patriotism burn high. Our land is safe against invasion, against adversity, against any wrong or danger, so long as God is on our side and our women lead us into right paths and counsel us wisely.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

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The Wisconsin Farmer Madison, Wis.

Study of Wisconsin Farm Management Records.

The extent of good accomplishment by the teaching of agriculture and the education of our boys and girls in high schools and in the agricultural college is very well demonstrated by the records of Dean Otis, of the farm management department. For a good many years Mr. Otis has worked untiringly on the results which are now available regarding profits made on Wisconsin farms. The farm management work is gaining in popularity among the farmers of the state. Bigger classes are being formed in each of the communities where the work is now in progress. From the first, however, the averages from all farms have tended to show that bigger profits are made on such farms where the owner has taken advantage of the schools at his disposal. Herewith is a record of 825 farms in Wisconsin compiled very conscientiously and selected with the utmost care in order to avoid all unrepresentative averages. The record shows that of 478 farms where the owner has received only the common school education the labor income, that is, profit after all expenses plus interest are paid, is $632. For farmers who have had in addition a short course in agriculture the labor income is $739. Of 155 farmers who have had high school education the labor income is $893, and of the college men, in which average eighty-four farms were considered, the labor income is $1,056. Peculiarly the records show that beside making a larger labor income those with additional education have more invested in the house and conveniences about the house. Bath equipment, lighting system, furnace heat and autos are more common on such farms. As such people have more money invested in these conveniences they live better.

Not all education is beneficial. Not every farmer boy that goes to high school and college benefits himself or his farm by such education. There are exceptions to every rule. The result of the averages of Dean Otis, however, are an indication that, other things being equal, the man with a better knowledge of agriculture and the man better versed in business methods is more likely to make the most of his opportunities. It is getting harder to make the showing our forefathers did, who gained large fortunes through the increase in the price of land. Money that is being made today and that will be made in the future must come from the crops grown on the farm and fed to the live stock and marketed through cattle and hogs. While land prices will not go down, their increase will not be as rapid. Bigger profits from crops ne- [illegible] more economical marketing. [illegible] peration today must be [illegible] of thought and [illegible] can in a [illegible] the short courses [illegible] at the agricultural college. The time is soon at hand where a decision will have to be made as to whether the son is to stay at home or go to school. Figure now with giving him the opportunity which was not available many years ago. The boy will need his education in the years to come and if it is not given to him now it might be easily too late then. The figures below are worthy of more than a passing glance:

DOES EDUCATION PAY ON THE FARM?
(825 Wisconsin Farmers)

Education	Common School (478)	Short Course (108)	High School (155)	College (84)
Labor income	$ 632	$ 739	$ 893	$1,056
Residence (house) ...	1,764	1,837	1,939	2,558
Bath equipm't	21.9%	24.1%	27.2%	48.5%
Lighting system	17.0%	22.1%	20.5%	48.0%
Furnace heat	22.1%	29.7%	30.0%	47.0%
Auto	20.0%	23.6%	25.4%	29.1%

These figures are presented for the reason that we want to see all farm boys and girls have their best chance.

Advertising Wisconsin Farm Products.

Our attention has been called to a three-column advertisement of the Iowa County Order of the Wisconsin Experiment Association. This advertisement appears in the Dodgeville, Wisconsin, paper and is rather a unique departure from the regular work of the county associations. About sixty farmers are represented in the advertisement and they have listed their offerings of live stock, seed, poultry, etc. The offerings are placed in alphabetical order. It is interesting to note that one-third or more of the farmers who are included in this advertisement have selected names for their farms. Here are some of the names:

Spruce Lawn Farm	White Rock Hill Farm
Prairie Grove Farm	Maple Shade Stock Farm
Belleview Stock Farm	White Oak Stock Farm
Mount Pleasant Farm	Brookside Farm
Garrison Grove Stock Farm	Meadow View Farm
Sunny Brook Farm	Crystal Spring Farm
Big Spring Farm	Pine Knob Stock Farm
Ridgewood Farm	Glen Ellyn Farm
Carter's Poultry Farm	Oak Hill Farm
Willow Lane Stock Farm	Bunker Hill Stock Farm
Enterprise Farm	Roachdale Farm
Cottage Grove Farm	Evergreen Farm
Mount Hope Stock Farm	Rama Farm
Green Lawn Stock Farm	Pleasant View Stock Farm
Southern Slope Farm	

Every year the farmer is beginning to learn clearly the value of advertising. Those farmers of the Iowa county association who have surplus to sell to their neighbors have done well to club together and advertise their stuff in the local paper. We have no doubt this experiment association advertisement will be thoroughly read by the farmers of the county and that it will produce business for the members named.

There are extra profits in farming for the men who are willing to put in extra pains with their crops and raise good seed. There is not only a market for such seed in your own neighborhood but there is a larger market in the state at large and even outside of the state. The Wisconsin Farmer reaches 90,000 farm homes in Wisconsin and the contiguous territory in the states adjoining Wisconsin. If a farmer has sufficient seed or stock to sell it will pay him to advertise outside of his own county, and those who are making the most money are not only taking advantage of the opportunities for advertising offered by their home papers, but are endeavoring to enlarge their business by using a farm paper like The Wisconsin Farmer.

Advertising is a simple and economical method of finding buyers. Members of the Iowa County Experiment Association could find other means of advertising in their county, but we believe they have chosen the best and most economical method, in using their county paper. Each farmer might issue a circular, showing what he has to sell, and send this circular through the mails to every farmer in the county. The postage alone would cost many times what the advertisement in the local paper costs, and there would be the added cost of circulars, addressing, lists of names, etc. So, that the farmer with a few bushels of seed grain to sell can scarcely afford the circular method of advertising. He might put up billboards on several of the most conspicuous cross-road corners in the county, but by the time fifty or sixty farmers put up such boards, space would be at a premium. The cost for such advertising would be prohibitive, as the painting alone of a billboard would cost many times what an advertisement in the local paper, or even an advertisement in The Wisconsin Farmer would cost.

The farm name, we believe, is an economical form of advertising, and every man who owns his place should pick out an appropriate name, and have this name displayed conspicuously on a sign which can be seen from the road. It is effective advertising to hang out a sign such as "Seed Oats For Sale," or "Young Chicks For Sale," or other appropriate wording, especially if the farm is located on a well-traveled road. If the farm is on a road traveled to some extent by tourists, business may often be secured by a sign such as "Honey For Sale," or "Apples For Sale," or any wording which fits the case.

Experience has shown that advertising, properly done, will bring results. Look around you everywhere—the biggest business enterprises have been built up on advertising. The biggest live stock businesses in Wisconsin have ben built up by advertising. The farmers who have sold most seeds or most poultry have advertised. It is the cheapest and surest way to success.

WHERE PRODUCER AND CONSUMER BOTH LOSE.
Three Good Reasons for the High Cost of Living.

Wisconsin Legislature.

A bill introduced in the legislature adds to the powers of nursery inspection by the department of agriculture. All nurserymen, dealers or all other persons residing outside of the state and desiring to solicit orders for nursery stock for Wisconsin, must have a plainly attached label on the outside of the package or box which contains such nursery stock certifying that such nursery stock has been duly inspected. The bill gives the department of agriculture the power to stop shipment of any stock by any common carrier when the provisions of the bill have not been satisfied.

A bill introduced in the assembly provides for $7,500 for 1917 and 1918 for the discovery and eradication of the white pine blister rust until such a time when this evil has been eradicated. The white pine blister rust has done great damage in the forests of the east, but has comparatively weak footing in our Wisconsin forests. A step in the right direction at the proper time will save the state millions.

In order to aid the reclamation of the cut-over land, a bill has been introduced which makes it possible for fifteen owners of land in counties to file with the county clerk a petition requesting aid in obtaining funds for reclaiming land by drainage or removing from it stumps and any other objects which might prevent the efficient use of the land for agricultural purposes. The bill would give the county board power to direct a claim to the reclamation board for an investigation of the case and if necessary obtain for the petitioners the funds asked. No loan of less than $100 or more than $3,000 can under this bill be granted to any one person. All loans are payable in whole or in part at any time within a term of thirty years.

A number of bills now up before the legislature define the powers of the department of agriculture in a way which would make the department of agriculture the important factor in controlling disease in animals and in nursery stock. The duties of experimentation and education would not be classed under the department of agriculture, but remain with the college. There will be no duplication in this direction. Under the present system the weakness lies in the fact that the college men cannot well apply the police powers which any controlling power must exercise in order to have anything on a fair and equal basis. The stallion registration and examination of feeds and fertilizers will also come under the department of agriculture. The department can by this arrangement thus prepare for eventualities as in the outbreak of diseases among cattle or swine. They can mobilize forces in times like the present and have deputies, veterinarians, ready at an instant's notice to take such steps as are necessary in safeguarding herds of the state. These men would have the power to enforce their suggestions through the aid of the state and county officials. It would in many ways be superior to the present system where the duties of teaching allow for only a limited time for field work and either one or the other must be slighted in times of great trouble.

A Regular Feature.

With more important public questions confronting the nation today than at any time since the civil war, we believe that no farm paper in the United States has a more interesting, valuable or inspirational feature than the page of views which the publisher of The Wisconsin Farmer, Mr. James M. Pierce, writes every week. This page has been a regular feature of this paper for the past three years and will continue to be a regular feature throughout all of the coming year.

Readers of The Wisconsin Farmer, who have grown accustomed to reading Mr. Pierce's views on the important questions of the day (as they affect nation, state, family and individual) will be glad, indeed, to hear that The Wisconsin Farmer guarantees this to be a regular weekly feature. Subscribers who do not wish

to miss a single issue or a single article of Mr. Pierce's should see to the important matter of their subscription renewal without delay. If you will send a check for your next year's subscription, and will secure at least one new subscriber to The Wisconsin Farmer, we shall be enabled to put our plans for a still better paper into working operation without delay, and the many good features of The Wisconsin Farmer will be continued and added to, as the weeks pass. Attend to your subscription renewal without delay; secure at least one new subscriber and see to it that neither yourself, your relatives or your friends miss a single copy of The Wisconsin Farmer throughout the coming year.

Demand For Wisconsin Cattle.

With a pure-bred sire at the head of each, fifteen carloads of Holsteins and two of Guernsey heifers, grade and pure bred, started south from Wisconsin last week for Missouri. Mr. E. J. Bennett, dairy commissioner of Missouri, was commissioned to purchase these cattle by the farmers and bankers of his state for the use in starting calf clubs among the boys and girls of the "show me" state. Under the plan the children have a calf one year and at the end of the season hold a sale. This greatly encourages young people to develop a liking for the dairy game and by the use of pure-bred sires upon grade animals satisfaction from breeding pure-bred stock is assured. The northern sections and even the Ozarks of Missouri are being populated with better dairy cattle. Wisconsin was selected as the best state to get first-class heifer calves for such work. In a way this is a loss to Wisconsin to have the heifer calves going out of the state, as there is much room for development of our many general-purpose farms into greater dairy-producing centers. The cattle were gathered up through the efforts of the Wisconsin Live Stock Breeders' Association, agricultural extension department and through county representatives. The demand for pure-bred and high-grade cattle from Wisconsin is getting larger each year. Overproduction seems a far-away impossibility from present indications. Breeding for better stock will pay handsomely during the next ten years. The great Southwest has not begun to stock its plains with first-class cattle, which it must find in the great dairy states of the central West, of which Wisconsin is the leader.

A Badger Farmer Makes a Few Inquiries.

The Wisconsin Farmer is in receipt of the following questions from R. G. Stirn, Cochrane, Wisconsin, breeder of thoroughbred Poland Chinas and pedigreed Jerseys:

What are the qualifications of a county agent?
What is the salary of a county agent? Are good ones hard to get?
Who pays their salary—those who want the county agent or all the taxpayers in the county?
What are the main objections or main benefits of having a county agent?
Wouldn't farm papers like The Wisconsin Farmer, if properly read and followed, be as good as a county agent?

In answer to the first question a county agent should be a man who has had practical experience in farming and in addition he should have enough of the qualifications of a student and teacher to enable him to interpret and impart to others the results of experiments and research work conducted by the various agencies now endeavoring to promote better agriculture.

County agents receive from $2,000 to $5,000 per year, depending upon their experience. If they prove valuable to the county the salary is usually raised some every year.

Good county agents are hard to secure for the reason that it is difficult to get men who properly combine practical knowledge and scientific knowledge.

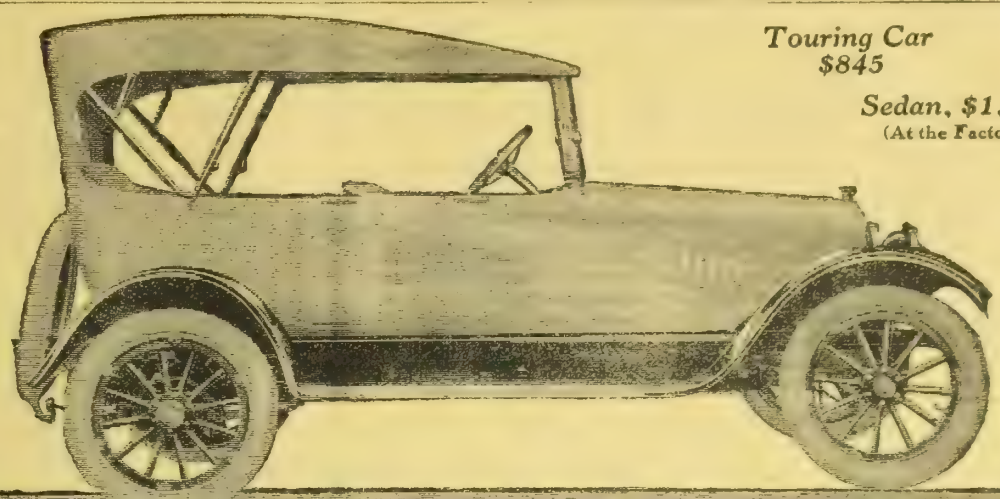
The government will pay $1,200 per year toward a county agent. The balance in Wisconsin may be paid by the county or by private subscriptions from farmers or business men. The state offers a limited appropriation for this work and supervises the work in counties where any state aid is given. Confer with E. H. Luther, superintendent of county agents, Madison, Wisconsin.

The chief objections which have been raised against the county agent system are the expenses and the difficulty in getting good men. Some counties have been slow to adopt the system and in some instances farmers have bitterly opposed it. However, in most instances where the county-agent system has been adopted and where a good man has been secured the people have favored it after having given it a trial.

We appreciate your implied good words concerning The Wisconsin Farmer. There is so much that might be done to make farming more profitable that The Wisconsin Farmer cannot claim to have a corner on every agency which might be employed. We believe that good farm papers have been largely responsible for bettering of farm conditions and for increasing farm profits. There is scarcely a week goes by when we do not send out sample copies to county agents who have seen some practical article in The Wisconsin Farmer and who desire that farmers in their county read this article and profit by it. County agents use farm papers as a source of information. They also use state and government bulletins. The real advantage of the county agent is that he may bring to the attention of farmers any number of important facts and experiences which the farmers might otherwise miss.

It is our belief that a good county agent in any county is worth many times what he costs.

Our best breeders of beef cattle are paying more attention to the milking qualities of their cows today than ever before, as it is well known that good beef form and fair dairy production go hand in hand. A little sanity is needed by some of those who emphasize the dual-purpose quality because the tendency is to simply make another breed of dairy cattle by carrying the development of the dairy characteristics too far. At the last International Exposition all the aged cows in the Short-horn class had calves by their sides and it was a glorious sight to see the big, lusty fellows in the ring.



Touring Car $845 *Roadster $845*

Sedan, $1,275
(At the Factory)

The DIXIE Flyer

EACH year sees an increasing number of automobile buyers who seek not only *Performance* in their car but *Comfort* and *Convenience*.

You, for example, enjoy leaning back against the cushions of your car and delight in feeling them give comfortably under you when you strike a "thank you ma'am" or bit of unimproved road.

You want springs that will absorb the jar and not make you bump the tonneau top. Whether over rough roads or along the boulevard, a Dixie Flyer is an easy rider.

Similarly, with every other feature, there is a point at which satisfactory car comfort and reasonable price come closest together.

That point is the *ideal* we build into every Dixie Flyer.

How convincingly we have attained that goal is shown by a most satisfactory increase in sales each season—secured, not by spending hundreds of thousands in advertising, but by word of mouth from satisfied owners to their friends.

See the Dixie Flyer at your nearest dealers. Drive it—feel its instantly responsive power, its quick pick-up and get-away into speed, its smooth riding comfort, and you will understand more readily why this is so.

Our new illustrated catalog describes this matchless car in detail. You may have a copy for the asking.

When Wu Ting Fang, former Chinese Minister to the United States, took his first ride in the New York subway, he watched with oriental interest, the crowds as they rushed out of one train, crossed the platform and crowded into another.

"What are they doing?" asked the observant Mr. Wu.

"Changing from the local to the express," said his informant.

"Why?"

"Because the express gets them down town two or three minutes sooner," was the reply.

"*But what,*" insisted the practical Wu, "*are they going to do with those two or three minutes?*"

"Pick-up" and excessive speed are popular claims made for cars nowadays. There are some cars which will pick up, to say, 45 miles in two or three seconds less than the Dixie Flyer; but unless you are trying to break the law or to get away from the police *what are you going to do with those two or three seconds?*

The Dixie Flyer has all the speed of "pick-up" and "get-away" necessary to satisfy any law-abiding, high-speed-loving driver, and enough of smartness, style and quiet elegance to drive in any company.

DIXIE MOTOR CAR CO. INCORPORATED — DIXIE FLYER — LOUISVILLE, KY.

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MINNEAPOLIS, MINN. R. & L. Motor Car Sales Co.
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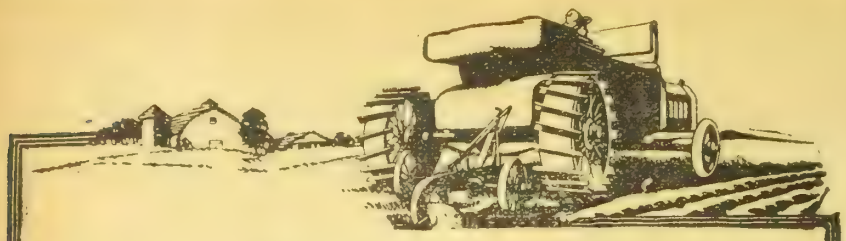
DIXIE MOTOR CAR COMPANY INCORPORATED LOUISVILLE, KY.

At the Factory $845



More Work Quicker—Better Work Cheaper

For your Spring farm work, you want a light, dependable tractor for YOUR use. A tractor designed, developed and produced for work on the average American farm—YOUR farm.

The close coupled feature of the TRACFORD is among its strongest points. By reason of the location of the dead axle in advance of the Ford axle and draw bar, the TRACFORD is the only Ford plowing attachment which is able to utilize the weight of the driver and all of the car forward of the axle to produce traction. That is why the TRACFORD has so much draw bar pull. LOOK INTO THIS!

That is the idea back of the great tractor development of the year—the new

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"The Tractor Universal"

$125 F.O.B. Detroit

The TRACFORD is a perfected, tested, and *proven* tractor attachment for the standard Ford car. Readily attached by anyone to the Ford frame, the TRACFORD gives you tractor performance with all the economy, efficiency, and dependable service of the Ford chassis.

With a TRACFORD, you can do your Spring work *quicker, cheaper, better* than it has ever been done in the past with three horses.

Let us put you in touch with the TRACFORD dealer in your community

"The Tracford Catechism" answers every technical and practical question you may want to ask. Send for it.

Standard-Detroit Tractor Co.
1515 Fort Street, West, Detroit, Mich.

Mail this Coupon TODAY

Please send me at once "The Tracford Catechism" and also refer me to the nearest Tracford dealer.

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E-B CULTIVATOR

No levers—control it with your feet. Quick adjustment of the wheels balances your weight whether heavy or light—easy control of gangs—easy on the horses' necks. Telescope axles—broad concave tires—long distance magazine wheel boxes. We make all types of cultivators to suit all soil conditions. Send for cultivator catalog. Look for the E-B trade mark on the implements you buy. It's our pledge and your guide to quality.

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HOOKS MADE TO STAY ON LONGER

Our new patented staple and felt reinforcing device gives a *larger, firmer hold* than is possible by any other form of attachment--hence hooks do not pull off easily. This adds to life of pad. This form of attachment is

Found Only on Pads Made by Us

Ask your dealer for free Tapatco booklet. Shows pads in colors and contains valuable horse remedies. If he hasn't it, ask him to write us direct.

The American Pad & Textile Co., Greenfield, O.

Canadian Branch: Chatham, Ontario

20,000 Miles From Tires-Guaranteed

HIGHWAY TIRE PROTECTORS

Do away with punctures, blowouts, cuts, bruises. Prolong life of tires. We absolutely guarantee any standard rubber tire to wear 20,000 miles if Highway Tire Protectors are used.

Prevent skidding; keep tires cool, smooth, dry. Tightening links insure correct adjustment. May be put on and taken [illegible] tires. Steel studs grip the road, give [illegible] power. Reduce gas consumption [illegible] in five (5) minutes.

[illegible] Highway Tire Protec- [illegible] tire bills.

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BUKOLT MFG. [illegible] St., Stevens Point, Wis.

Do Your Own Concrete Work Cheaply and Easily

No more mixing by hand.

The **BARREL MIXER** enables you to tackle every job, big or little, as you think of it and do it without calling in expensive outside help.

WRITE FOR FULL PARTICULARS

THE BARREL MIXER CO., Dept. B, Madison, Wis.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.

HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

Crate-Feeding Poultry For Market

Pertinent Remarks on Selection of Stock and Feeding.---By F. E. Mussehl, of the Wisconsin Experiment Station.

THE quality of market poultry can be much improved and the weight considerably increased by proper feeding for a few days before marketing. A hundred pounds of poultry sells for more than a hundred pounds of any other kind of live stock commonly used for meat production. Three hundred and fifty pounds of the right kind of mash feed, moistened with buttermilk or skim milk and fed in the right way to the right kind of feeding stock, will produce a hundred pounds of poultry meat.

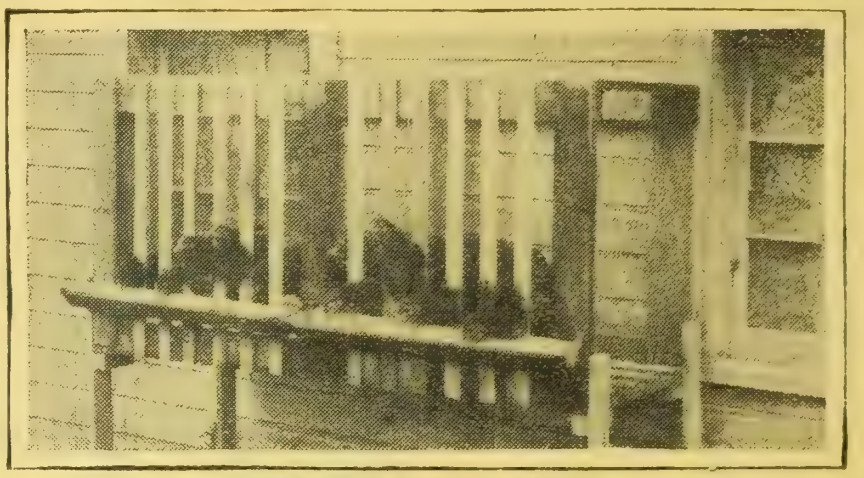
Growing the frame is the most expensive part of poultry raising, but finishing the birds by special feeding for a short time before marketing is highly profitable. A gain of 35 per cent over the original weight for fifteen days' feeding is not unusual with the right kind of feeding stock. The improvement in quality as well as the increase in quantity cannot be overemphasized. Prime milk-fed broilers and springs are a rare delicacy and need only be tried to be fully appreciated. The flesh of a properly fattened market fowl is more palatable and digestible than that of a lean fowl, because the fat of the former takes the place of the water in the tissues of the latter. When the flesh of the fattened fowl is roasted the fat melts and softens the tissues, while in the lean bird the water evaporates and leaves the flesh dry and hard.

Fattening may occur at any age, but young, growing stock uses its feed for both growth and fattening and so will make greater gains per pound of feed given than fully matured stock. The highest percentage gains can be secured with young stock about broiler size, weighing from one and one-half to two and one-half pounds each, although springs weighing from two and one-half to four and one-half pounds can also be very profitably fattened, and hens will make good gains for a shorter feeding period. Vigor and vitality of the feeding stock is as important in poultry feeding as in other live stock feeding and the most vigorous birds in the crate will get the most feed and make greater gains than their more timid neighbors. Crate feeding is really a kind of force feeding, for the birds cram themselves with unusually large amounts of a very palatable feed. Unless the birds are endowed with good vigor and vitality they will not be able to digest and assimilate large amounts of feed in a short time and will consequently make smaller and more expensive gains. An observation of the relative gains of two birds in a crate, one of the weak, crow-headed type and another of the strong, bold and vigorous type, will convince anyone that the matter of vigor is of great importance for profitable feeding. In fact, vigorous stock should be the first consideration in the selection of birds for the breeding pens, the laying flocks or the feeding crate.

One of the problems in fattening is to keep the birds quiet, thus conserving the energy otherwise expended in moving about. For this reason the birds should be confined to a crate or battery. A very satisfactory feeding crate may be easily made of two-inch by two-inch lumber for a frame, two-inch mesh poultry netting for the top, back and ends, and lath for the front and bottom. A crate for ten springs or eight hens should be about twenty-four inches deep, thirty-six inches long and sixteen inches high. The lath for the bottom should be placed about one and one-half inches apart so that the droppings will fall through to the ground below. A lath bottom is preferred to a wire bottom because the birds can stand on it more comfortably. The front of the crate should be made of lath placed about two inches apart so that the birds can eat the buttermilk-moistened mash from a trough placed along the front. A V-shaped trough may be made of half-inch lumber. The feeding crate should be placed in an open shed during warm weather, but during cold weather it will be more profitable to put the crate or battery in a room in which the temperature is above freezing most of the time. This crate may be used as a broody hen coop when it is not being used for crate feeding.

When rather large numbers of birds are to be fattened and where space is an important consideration, as it is with grocers, market and produce men who wish to fatten stock for their own trade, the regulation type of portable feeding battery as used in most commercial feeding stations may well be used.

The ration for feeding stock should



HOMEMADE FEEDING CRATE.
Satisfactory crate for confining birds during the fattening period.

A POOR FEEDER.
Long, crow-headed birds do not make satisfactory gains in the feeding crate.

A GOOD FEEDER.
This bird made a gain of 40 per cent in fifteen days' feeding. The bright eye, strong beak, and well-proportioned head are indications of great vigor.

consist altogether of mash feed moistened to a mortarlike consistency with buttermilk, or if buttermilk is not available, with skim milk. A very satisfactory ration may be made as follows:

Sixty per cent finely ground corn meal.
Forty per cent red dog flour.

If red dog flour is not easily available, a good grade of white middlings may be used. Another good ration may be made of:

Fifty per cent finely-ground corn meal.
Thirty per cent oatmeal or sifted ground oats.
Twenty per cent middlings.

Moistening the ration with buttermilk to a mortarlike consistency results in a very palatable and highly digestible feed. The proteins of milk are known to be particularly efficient for growing chickens. Approximately two pounds of buttermilk will be needed for each pound of dry feed to give it the right consistency. During the warm weather the feed should be mixed somewhat thinner than during cooler weather.

Care should be taken not to overfeed the first two days. The first few feeds should be rather light, gradually increasing until on the third day and after the birds may be given all they will eat in twenty minutes, morning, noon and night. Any surplus feed should be taken out of the trough at the end of each feeding period so the birds will be "up and coming" for the next feed. The skillful feeder soon learns to stop feeding just before the birds have had the last mouthful which they desire.

The feeding period is usually ten to fifteen days. Old stock rarely makes profitable gains after ten days, but good, vigorous young stock will make profitable gains up to the fifteenth day of feeding.

While the suggestions in this circular have been made particularly for the poultry producer who wishes to finish his surplus stock for home use or for a special local market, still it is not out of place to suggest that there are many communities in this state which offer splendid opportunities for the starting of a commercial milk-feeding plant, particularly those communities where buttermilk is readily obtainable as a creamery by-product. The fact that so much market stock leaves the producer in any unfinished condition has led to the development of a specialized milk-feeding industry in many communities in the middle West. In these milk-feeding plants the stock is not only properly fattened but is also dressed, graded and packed, usually in a most creditable manner. The milk-feeding establishment is one of the few lines of the poultry industry in which intensive factory methods have been successfully employed. The success of the milk-feeding plants is partly due to the fact that the managers have learned the lessons of cleanliness, sanitation and ventilation better than the average poultryman and farmer. Most of the feeding stations are well lighted, splendidly ventilated and constructed so that they can be thoroughly cleaned and disinfected at regular intervals.

Grocers and market operators, too, who dress out the stock which they retail will find that the improvement in quality effected by milk feeding will make their stock more popular, while the profit due to increased weight is not to be overlooked. Creamery managers can make very profitable use of the buttermilk which is available as a by-product by operating a small milk-feeding plant in connection with their creamery. By crate feeding a saving of space, equipment, labor and feed is made over any other method of fattening. The rapid development of this branch of the poultry industry in some sections of the middle West is proof of the profits which are possible if good business judgment is exercised.

Use Straw For Growing Potatoes.

To the Editor:—I have tested the merits of old straw in growing Irish potatoes in two ways, and find it valuable. It is hardly practical to employ straw for extended crops, because it would take too much of it. But for small areas or a family patch of potatoes anyone having some straw can very profitably employ it.

The first plan of using straw is as follows: Plow, harrow and mellow the ground when spring opens. Furrow it out lightly in rows a foot and a half apart. Cut the seed to one eye and drop one piece in a place and one foot from each other. Cover only a couple of inches deep. Then immediately cover the whole surface with four or five inches of straw. The straw keeps the ground moist, keeps down all weeds and the crop requires no cultivation. When the Colorado bugs start their ravages, spray with Paris green lightly as often as necessary. Large, splendid potatoes are grown and are easily dug as soon as the tops die down.

The second plan of using straw for potato growing is to employ it as a mulch between the rows as soon as the cultivation ceases. Any old or even half-rotted straw is all right. Spread it from three to five inches thick around the hills and between the rows. The advantages are the moisture is conserved and no weeds or grass can grow.

The first plan is especially good for the early potatoes; the second is all right for either the early or the late crop. Both, I find, on a small scale, are splendid for growing large, fine potatoes. W. A. G.

One of our subscribers who went to the expense of having a beautiful sign painted, giving the name of his farm, complains that this sign was completely demolished by mischievous youths. So far as he knows he does not have an enemy in his neighborhood. He cannot understand why boys cannot be taught to respect the value of all property. In this he is right. It is a commendable thing to name the farm and especially so to work out the matter in detail and have a sign suspended so that every passerby may be impressed with what might be called the personality of the farm. This paper denounces in the strongest possible terms at its command this form of hoodlumism.

Ask your neighbor to subscribe for The Wisconsin Farmer.

$1150 F. o. b. Racine
Mitchell Junior—a 40 h. p. Six
120-inch Wheelbase

Mitchell SIXES

$1460 F. o. b. Racine
7-Passenger—48 Horsepower
127-inch Wheelbase

Now an $1150 Six

Much Like the Larger Mitchell

John W. Bate believes that efficiency requires two sizes in Mitchells.

A seven-passenger car, to be roomy, must measure 127 inches from hub to hub. And 48 horsepower is the proper power.

But a 5-passenger car will be just as roomy with a 120-inch wheelbase. And a 40-horsepower motor gives it power enough.

So, to meet both conditions, we this year build a Mitchell and a Mitchell Junior. You don't need to pay for room or power not wanted.

Every Penny Counts

The Mitchell advantages lie in making every penny count. John W. Bate, the great efficiency expert, has spent years here to attain that.

He designed this whole 45-acre plant to build Mitchell cars economically. He equipped it with thousands of special machines. Every part is built here at the lowest factory cost. On this year's output his methods will save us at least $4,000,000.

There is no other factory like this building high-grade cars.

Hundreds of Extras

You see the result in hundreds of extras—all paid for by factory savings.

There are 31 features—like a power tire pump—which are practically unique to the Mitchell.

We have doubled our margins of safety. This year every vital part has 100 per cent overstrength.

Over 440 parts are built of toughened steel. Many parts are oversize. Many are built of costly Chrome-Vanadium.

In luxury and beauty the Mitchell excels any other car in its class. The finish coats are fixed by heat, to give a deep, enduring lustre. A rare-grade leather is employed. This year we have added 24 per cent to the cost of these items alone.

See What Men Miss

See what men miss who buy cars without these extra features. See the 31 attractions, most of which are found in Mitchells only. See what luxurious bodies we can give you at these prices, because of our own body plant.

Then consider the value of this double-strength. It means a lifetime car.

See what it means in the Bate cantilever springs. In two years of use, on thousands of cars, not one of these springs has broken.

Those are the reasons why men are choosing Mitchells in such an ever-increasing way. This year our output is increased 2½ times over. Men don't want to miss these extras.

If you don't know the nearest Mitchell dealer, ask us for his name.

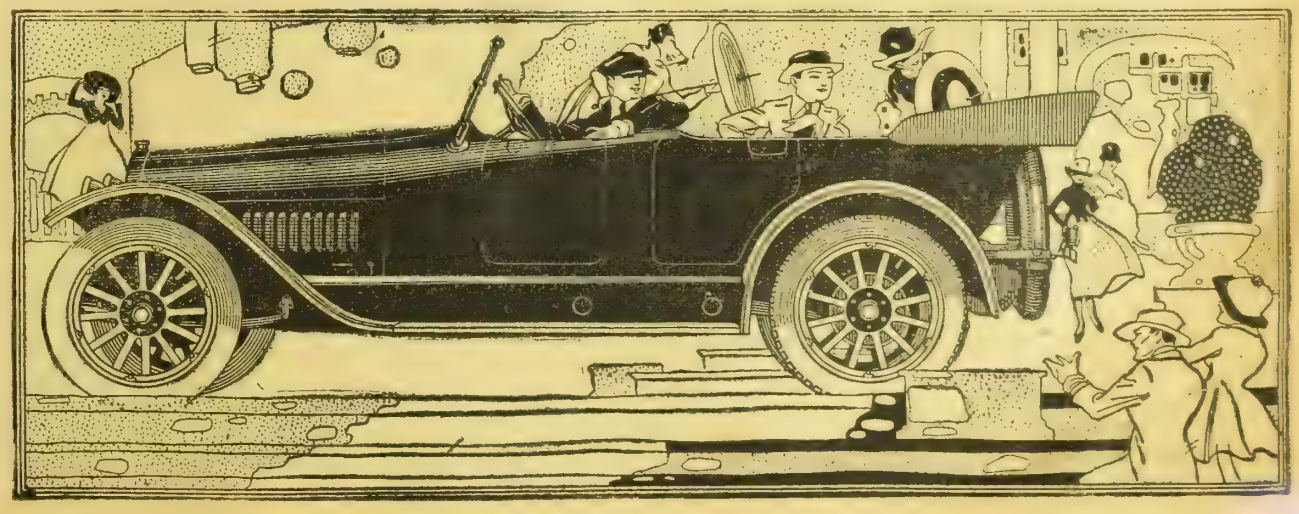
MITCHELL MOTORS COMPANY, Inc.
Racine, Wis., U. S. A.

TWO SIZES

Mitchell—a roomy, 7-passenger Six, with 127-inch wheelbase. A high-speed, economical, 48-horsepower motor. Disappearing extra seats and 31 extra features included.
Price $1460, f. o. b. Racine

Mitchell Junior—a 5-passenger Six on similar lines, with 120-inch wheelbase. A 40-horsepower motor—¼-inch smaller bore than larger Mitchell.
Price $1150, f. o. b. Racine

Also all styles of enclosed and convertible bodies. Also demountable tops.



THESE TWO FREE BOOKS MEAN BIGGER CROP PROFITS FOR YOU!

My Famous Book "A Streak of Gold" and Galloway's 1917 Catalog

Ask For Them Today! A Postal Gets Both!

SAVE $25 TO $50 ON A MANURE SPREADER

My book "A Streak of Gold" tells how to get the most out of the manure crop with the least labor. My 1917 catalog tells how a run-out unproductive farm was turned into a gold mine crop producer. How to increase your corn crop from 15 to 25 bu. per acre. How a Galloway spreader will pay for itself in one year by increasing crop profits and leave money to put in the bank besides! How and why I save you $25 to $50 on a spreader by selling direct.

TURN THE MANURE CROP INTO CASH AT HARVEST!

Do it with a Galloway 1917 model No. 8 spreader. Spreading now means bigger crops this fall!

Prices never better! The producer is having his inning! Now is the time to get that big manure pile OUT ON THE LAND because every load means CASH IN THE BANK next fall for farm improvements, pleasures or other things you want. Get your manure crop out on the corn land--top dress the winter wheat! Get it on the soil where you are going to sow oats! Top dress the meadows--the alfalfa--the clover! A Galloway spreader used steadily for one or two weeks means that it will PAY FOR ITSELF because its use represents MONEY AT HARVEST time you otherwise would not get. Quit spreading by hand or using out of date spreaders when you can buy the best spreader on earth--the Galloway 1917 model Low Down No. 8 No. 5, or No. 1A and SAVE FROM $25 TO $50 over prices usually paid for spreaders not as good--not as down to date in design--not as light in draft--made of as fine materials, nor covered by the eleven Galloway spreader patents found exclusively on the Galloway.

GALLOWAY'S NO. 8 LOW DOWN SPREADER

Is the crowning achievement of my spreader manufacturing career! Now built stronger than ever. The new Galloway wide-spreading V-shaped rake on every machine. DO NOT CONFUSE Galloway spreaders with low priced machines that do not have the special EXCLUSIVE PATENTED FEATURES and genuine merit (backed up by tens of thousands of Galloway spreader users). Beware of cheap, absolutely worthless imitations of the genuine Galloway at any price. DON'T BUY A SPREADER OF ANY MAKE OR KIND until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk WITHOUT OBLIGATING YOURSELF in any way!

30 DAYS' FIELD TRIAL

Test Galloway spreaders on your own farm in your own way and take your own time! They are returnable to us within one year if they do not come up to every claim we make for them! I will pay freight both ways. A Galloway spreader must sell itself to you. You are the judge. Spreaders shipped from Waterloo, St. Paul, Kansas City, Chicago or Council Bluffs—whichever is nearest your station, more convenient to you.

BACKED BY A $25,000 BOND

I have deposited in the Black Hawk National Bank of Waterloo a legally executed $25,000 bond to guarantee that I will live up to every agreement and STAND BEHIND EVERY CLAIM I make for Galloway manure spreaders, cream separators, gasoline engines, etc. You have nothing to lose and everything to gain when you deal with Galloway. I manufacture these spreaders in my own great chain of factories right here in Waterloo. Come and see me any time. You are welcome and I will be glad to show you how Galloway divides the melon and ships direct from factory to farm.

8-31

WORTH $50 MORE THAN ANY OTHER SPREADER

Remember this spreader is low down—only 42 in. high to center of box. Easy to load. Lightest draft spreader of its capacity built. Two horses handle Galloway spreaders anywhere. The Galloway wide-spreading V-rake, worth $15 extra on any spreader—costs you nothing extra on the Galloway. The invincible, irresistible, patented roller feed—an exclusive Galloway feature—the secret of its light draft, alone worth $25 extra on any spreader—exclusive again on the Galloway—costs you nothing extra. Patented Automatic stop, Uniform Clean Out Push-Board—worth $10 extra on any spreader—exclusive on the Galloway—costs you nothing extra. These are only a few of the special features you will find on the Galloway which are protected by Galloway patents. Don't buy a spreader of any make or kind until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk without obligating yourself in any way. Try it in your field for thirty days and return to me within one year if not perfectly satisfactory. Remember we manufacture in our own factories and sell direct from factory to farm.

Notice These Exclusive Features

(A) Angle steel endless apron running over solid bottom. Adjustable from 6 to 24 loads per acre. (B) Our patented automatic stop, uniform clean out push-board--worth $10 extra on any spreader. Exclusive on the Galloway--costs you nothing extra.

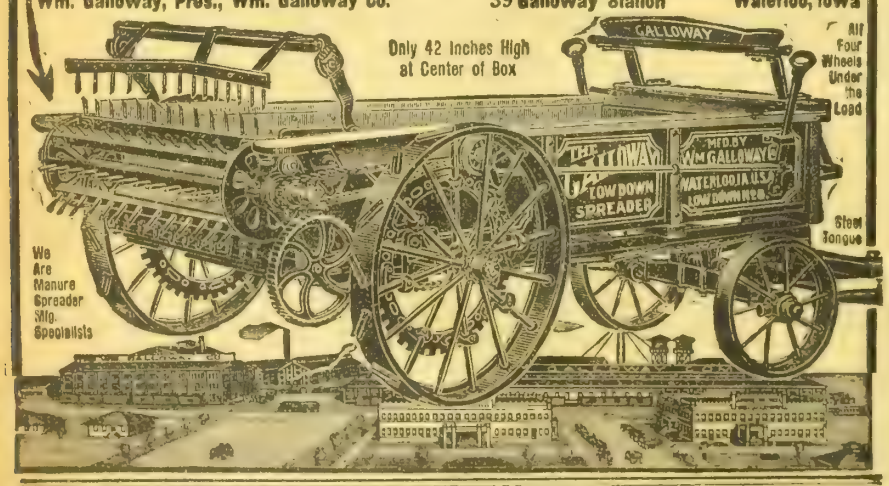
(C) Feed lever. Adjustable to any number of loads per acre. Convenient, handy--above the load.

(D) Gear lever. Throws both sides of beater into gear simultaneously. Sprockets on both rear wheels. Remember double chain drive. No twisted beater, broken beater shafts. Gearing equipped with differential. Power continuously applied to beater shaft.

Read about these and other Galloway exclusive spreader features in my new big 1917 book.

INDISPUTABLE PROOF: I saved $29 by ordering a Galloway. I know it is a better spreader than I could have bought here for $125.--Geo. A. Krallik, Okla. City, Okla. I consider it equal to a prominent machine sold for $140. One neighbor who has used both says he would rather have the Galloway.--W. O. Cracraft Eckley, Colorado. There are six Galloway spreaders in my neighborhood. They tried my spreader first. All are more than pleased. Have had no repairs in seven years.--Edw. Semmelroth, Tekonsha, Mich. I saved $39. Believe I got a better spreader than was offered me here for $135.--A. T. Miller, Orella, Nebraska.

Wm. Galloway, Pres., Wm. Galloway Co. 39 Galloway Station Waterloo, Iowa



Get My New Concrete Mixer Offer

I want ten men in every county right now to accept my special co-operative offer. It will help you obtain a Sheldon Batch Mixer at little or no cost. Let me tell you about it.

You probably need a mixer for concreting on your place—most farmers do. The Sheldon is the ideal mixer for the farm. Light and easily portable, durable, low-priced. You'll find it will prove a mighty good investment. Write for special offer.

Sheldon Batch Mixers $11.50 Up

MAKE BIG MONEY Concreting In Your Section.

Can earn $8 to $20 a day with a Sheldon Batch Mixer. Our [illegible] now. The jobs go to the man with a Sheldon Mixer every [illegible], according to size of job. Or, if you buy a machine for [illegible] many times its cost in a season by renting it to neighbors.

For Farm [illegible] troughs, floors, [illegible] out of concrete. Batch Mixer. Will [illegible] small jobs. Beats hand mixing a mile. And it's a lot cheaper too. Takes the backache out of concrete. Makes possible those many small improvements on the farm that you wouldn't do without. Improvements which will add many dollars to the value of your land.

Get My FREE Catalog Tells how to build your own mixer by using the Free Plans which we send with our iron parts. Also shows full line of built-up machines. Two styles, hand and power. Will mix 2 1/2 cu. ft. a minute. Keeps 1 to 6 men busy. Chain drive, self tilting dump, all parts guaranteed. Write today for catalog and special offer. Geo. C. Sheldon, Pres.

SHELDON MANUFACTURING CO., Box 6000, Nebawka, Neb.

Build Your Own Concrete Mixer—FREE PLANS

Good Pointers For Farmers.

A Great Many Important Facts Brought Out by the Banker-Farmer Conference Which Was Held at Madison Last Week

"THE Unbeatable Combination," the farmer and banker combination, lived up to its reputation at the meeting March 13th and 14th at Madison. This was the second excursion under the direction of the Wisconsin Bankers' Association and, though the attendance was only slightly larger than last year, the 600 delegates used every minute of the two-day convention to learn about each other and each other's business. Extremely heavy snowfall caused many who had signed to come to change their plans at the last minute. Many of the delegates went to considerable trouble to reach Madison in time. Mosinee sent seventy-five men and picked up along its route other delegates from the Wisconsin river valley. North Lake sent a special train with ninety men on board. The speakers on the program were of the best and their talks to the point. There was no wearying of the hearers by extended addresses, as each speaker kept strictly to the vital point of his subject.

A feature of the convention was the horse show given on the evening of the first day. Some of Wisconsin's finest horses were on exhibition here and any admirer of horseflesh could not help but enjoy the perfect examples shown in the various classes. There were roadsters and carriage horses and heavy harness horses, single drivers; heavy harness horses, four-in-hand, saddle horses of three and five gaits and light and heavy drafters. An outstanding exhibit was that of the Pabst Stock Farm, of Oconomowoc, which entered in the heavy harness horse classes and the three-gaited and high-jumping classes.

The performance opened with an exhibit from the college herds of Ayrshires, Guernseys, Jerseys and Holsteins and breeding herds of Angus and Short-horn cattle. Then followed the review and judging of the various classes of horses.

On the first day the morning was taken up by addresses and discussions on the horse and the control and eradication of oat smut, potato scab and other plant diseases. In the afternoon illustrated lectures on alfalfa and live stock were given. J. R. Wheeler, president of the Wisconsin Bankers' Association, opened the morning session by a short address on the purpose of the meeting. Mr. Wheeler stated that a big object was to learn the concrete purpose of things that are being taught at the university in agriculture. Thousands of dollars of the taxpayers' money is being spent each year, according to Mr. Wheeler, and it ought to be of interest to farmers to know how the best use can be made of the institution at their disposal. He encouraged a closer relationship between the farmers and the bankers, as he saw no reason why the farmer should feel the least hesitancy in going to the banker with his troubles. While Mr. Wheeler does not believe that the present high prices will prevail, prosperity is nevertheless going to continue. By getting ready for a readjustment of prices it will be possible to produce at less cost greater yields. When five acres can be made to produce the same number of bushels or the same tonnage as twenty-five we will have effected something in this direction.

Dr. Alexander followed this by a talk and demonstration on the points of the horse. The doctor opened up by saying that the horse will continue to be of use in spite of all advances agriculture can make in power farming. Beauty in a horse, he says, is synonymous with utility. The beautiful horse is the one that is sound and useful. When a horse has big, sound, well-textured feet and is low set, blocky and powerful it is useful and, therefore, a beautiful animal. With the horse it is possible to breed for standard types. This can be done only by keeping out the scrub and unpopular breeds through stallion regulation. Wisconsin today has 1,814 pure-bred stallions registered. There are 922 grade stallions used in the state and 317 mongrel or scrub stallions. The pure-bred stallion can only beget the grade stallion. The grade can only beget the scrub and the scrub can only beget scrubs. Discouraging the poor sire is a big step towards improvement. The Percheron seems to be the popular breed in our state. More than 1,000 stallions of this breed are registered of the 1,814 pure breds on the books. Doctor Alexander referred to the district of LaPerche, in France, and the home of the Clydesdale, in Scotland, as two splendid examples of district breeding. Fifteen to twenty years of rigid inspection in one community and breeding for one type of animal would make such a community famous for its horses throughout the United States. A record return of $175,000 is known from one sire of Clydesdales. The doctor took a shot at the guarantee system in this country. Over in Scotland many men are willing to travel great distances and pay $100 for a service with no guarantee of even a foal. The pure bred or any other stallion cannot be expected to guarantee a foal to stand and suck. Feed and proper care will do more to bring this about and is of more importance than commonly supposed. Over 25 per cent of colts die shortly after birth through navel infection. Feeding the foal is also vital. In France equal parts of oats and bran are at the disposal of the colt from early youth. The Wisconsin stallion law has been very satisfactory, and where 68 per cent of all stallions were scrubs when the law went into effect, more than 52 per cent are now pure bred. Twenty-two states have copied the Wisconsin law. The college showed some excellent examples of Percheron and Clydesdale, the good points of each being demonstrated by Prof. J. G. Fuller.

The control of oat smut and potato scab and other plant diseases was explained by Prof. R. E. Vaughn. Oat smut is an old topic to Wisconsin farmers, and very few farmers do not use the formaldehyde treatment for their seed oats. One pint or one pound of this mixture to thirty gallons of water is the mixture advised. A machine that has been invented which turns the oats through the solution into a sack ready for seeding was also shown. Potato scab and black scurf of potatoes have been warned against in a recent bulletin by the college. Formaldehyde again plays an important part. Soaking the potatoes for two hours in the solution will guarantee the scab eradication. For the scurf, four ounces of corrosive sublimate dissolved in hot water and added to nine gallons of water will form a proper mixture for effective treatment. Cabbage seed is also benefited by a formaldehyde treatment to prevent black rot and black leg diseases. One ounce of the formaldehyde to two gallons of water is the mixture in which the cabbage seed is soaked for twenty minutes and then dried on paper. Ten to fifteen pounds of seed can easily be treated with this amount. White pine blister rust, for which the legislature has considered a bill, and various other diseases of common plants were likewise mentioned.

During the noon hour a luncheon was provided for the delegates in the stock pavilion, following which the college barns and herds were thrown open to the visitors. The afternoon session was presided over by H. J. Maxwell, of Princeton, a member of the Bankers' Agricultural Committee. Professor Moore, in his interesting way, gave an excellent talk on the progress alfalfa has made in the state and the opportunities for this crop in Wisconsin's agriculture. A three-reel picture of the alfalfa plant from its seeding to feeding was shown and explained by Prof. L. A. Graber, better known as "Alfalfa" Graber, who directed the filming. The pictures were taken on the farms of Ex-Governor Hoard and the Swartz Bros.' Cornfalfa Farms, in Waukesha county. During this lecture the value of alfalfa was shown in a definite manner by comparing it with timothy, clover and Brome grass. Respective yields, as shown by experiments of each crop for one acre, have run as follows: Alfalfa, 5.4 tons; timothy, 2.5 tons; clover, 2.5 tons; brome grass, 1.33

tons. The difference in yield is greatly to the advantage of alfalfa, but is insignificant to the advantage in protein content held by alfalfa. One acre of alfalfa contains 1,996 pounds of protein, against 224 pounds of timothy, 661 pounds for clover, and 158 for brome grass. This would make alfalfa equal to twelve acres of brome grass in protein content, and nine acres of timothy. Besides this, alfalfa has a more beneficial effect on the soil than the other crops. The picture brought out the benefits of the proper time of seeding. Early June and as late as July 15th will bring good results with alfalfa, while later seeding dates are uncertain. Only where the alfalfa is established should it be sown with a nurse crop of one bushel of barley per acre, or with oats. The oats should be cut for hay.

In the discussions that followed the talk and pictures on alfalfa, great interest was evinced by both farmers and bankers. Five or six men would be asking questions at one time, and every question had a well-founded purpose. The advance of alfalfa will be rapid in the next few years. Eighteen years ago there were not eighteen acres of alfalfa in the state. Today there are 50,000. But there are still too many farms growing timothy, according to Mr. Moore. More than 700,000 acres of Wisconsin land is still devoted to this comparatively unprofitable crop each year.

Following the lecture on alfalfa, a picture was shown which has been fathered by the Wisconsin Live Stock Breeders' Association and shows the process of beef production from "pasture to plate." Other pictures showing cuts of meat and the production of ham and its preparation in the packing house were likewise shown.

In the evening the horse show in the stock pavilion was attended by delegates and students. Nearly 2,000 visitors were present. The university band furnished an excellent musical program during the entire evening. Wisconsin is fortunate in having a stock pavilion which can accommodate nearly 3,000 people and still leave room for exhibition purposes. The heavy harness horses, shown by Mr. Pabst and driven by him in pairs and four-in-hand, made the biggest hit with the crowd, as did also the jumping performances in which Mr. Pabst further demonstrated his horsemanship.

One Wednesday morning the opening remarks were made by J. B. Bartlett, secretary of the bankers' association, who touched on the advantages of a closer coöperation. Mr. Bartlett stated that much of the money that has in years past been loaned to fruit men of the West by Wisconsin bankers would be a better and more helpful investment if loaned to the farmers of Wisconsin. He urged that the farmer go to the banker for his cash rather than sell unfinished cattle and hogs.

Dean Russell, of the agricultural college, changed his topic of "The Unbeatable Combination" to "The Opportunity of the Farmer at the Present Time." Population and consumption have been growing apace during the last decade or so, according to Dean Russell. An increase of over 33 per cent has been reported in population, while production has been unable to keep up. James J. Hill, who said that in twenty years America will go to bed hungry unless her agriculture be improved, was quoted by the speaker in support of his argument for greater production. The farm has a responsibility, and this is to increase the yield so that the world can be fed at less cost. Present indications are not promising. Australia and Argentine have harvested their wheat crops for this year and the latter country has barely enough for its own use. With average production, America will have nothing left for export during 1917. We would have had none in 1916 had it not been for our bumper crop in the previous year. Shortage of wheat here in America will mean that we will have to bid against foreign nations for the use of this wheat, and the result will be high prices. Spring wheat can help to increase our supply. Pedigreed seed has proved its ability to produce three times as much per acre as ordinary seed. The solution lies in greater yields for the same acreage.

Professor Otis gave an interesting talk on "Making the Farm Pay." He brought out the influence of operating capital and number of cows, influence of the live stock returns for dairy products per cow and the diversity of and quality of the business done and the relation of each of the foregoing points to bigger profits in farming. Interesting questions were asked at all points of his address by bankers and farmers. At one point the question came up whether those having done record work in regard to their operations were satisfied with the plan and whether they considered it too much work. Burton M. Smith, banker, of North Lake, who has encouraged the idea in his community and incidentally brought down ninety farmers with him from his district, asked his men to testify. Five or six immediately pronounced the system as entirely satisfactory and of the greatest help of locating the unprofitable ventures of the year.

Farm soils and their testing came in for a short talk by W. J. Geib, of the soil-testing department. The litmus and lime-water test for acidity in soils and the importance of phosphorus, nitrogen and organic matter in the soil were pointed out. The legislature, in appropriating funds for the establishment of this department, has made it possible for farmers to have their soils tested at a reasonable cost, and the department will make such recommendation of the treatment of the soil as are apparent from such test. Nearly all crops take considerable phosphorus out of the soil in a three years' rotation, causing shortage of this plant food. The correction for this can only be made by application of manure and fertilizer.

A demonstration on how to get the most out of the dairy herd was conducted by G. C. Humphrey, with the splendid types of dairy animals.

JOHN DEERE IMPLEMENTS

BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

Describes and illustrates Plows for Tractors; Walking and Riding Plows; Disc Plows; Cultivators; Spring Tooth and Spike Tooth Harrows; Disc Harrows; Alfalfa and Beet Tools; Farm and Mountain Wagons; Manure Spreaders; Inside Cup and Portable Grain Elevators; Corn Shellers; Hay Loaders; Stackers; Rakes; Mowers and Side Delivery Rakes; Hay Presses; Kaffir Headers; Grain Drills; Seeders; Grain and Corn Binders.

This book will be sent free to everyone stating what implements he is interested in and asking for Package No. X-64.

JOHN DEERE, MOLINE, ILL.

The John Deere-Dain System Rake

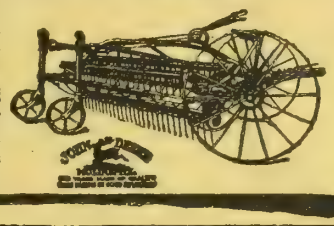
Here is what you do with the Dain System Rake:

Follow the mower closely, rake while leaves are still active and place hay upon clean stubble.

Make straight windrows, and no dumping of rake is required. There is no bunching of hay in turning corners.

Put the hay in medium size windrows, with the bulk of the leaves inside and the majority of stems outside.

The windrows will be loose in the center for the free circulation of air. The hay retains its color and nutrition.



The John Deere-Dain System is the rake employed with the Dain System of Air-Curing Hay.

Reel raised or lowered, rake thrown in or out of gear and angle of teeth changed by means of convenient levers.

Ample capacity. The inclined frame grows higher where the windrow becomes larger—an exclusive Dain feature.

John Deere Plows

For seventy-nine years the John Deere organization has specialized in making high-grade plows. John Deere Plows are noted the world over for their high quality material, workmanship and their ability to do the best kind of work.

The policy of turning out the best has paid the John Deere Company. The John Deere factory makes more steel plows than any other organization in the world.

The name "John Deere" on a plow is an assurance of highest quality material and satisfactory service. It means real plow value.

The John Deere General Purpose Plow is especially adapted for farmers who rotate their crops or practice diversified farming and have tame sod as well as stubble or old ground to plow.

Moldboard has a long, slow turn which pulverizes the soil to best advantage.

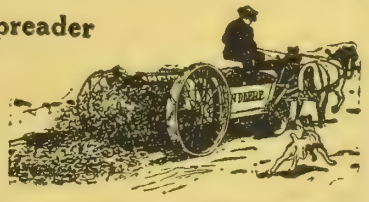
In sod, it does not break up the furrow slice but laps the furrow sufficiently to bury green vegetation in loose soil, preventing further growth and hastening decay.

John Deere Plows are made in styles to meet all conditions, no matter what they are.

Look for the name "John Deere" when you buy.

John Deere Spreader

The Spreader with the Beater on the Axle

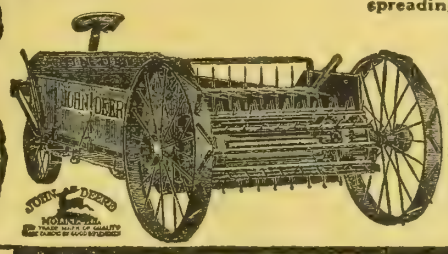


Mounting the beater on the axle simplified the construction, eliminated troublesome parts and made possible a successful low-down spreader with big drive wheels. There are no shafts to get out of line, no chains to cause trouble, and no clutches to adjust. The only spreader with beater and beater drive mounted on axle.

Low down, with big drive wheels out of the way. Easy to load.

Revolving rake, driven by manure moving toward the beater—no bunching of manure. Ball bearing eccentric apron-drive—a new and exclusive driving device.

Makes uniform spreading certain.



Wide spread attachment for spreading seven feet wide can be furnished for the John Deere Spreader. No chains nor gears. Quickly removed.

John Deere Factories

Every implement bearing the John Deere trade mark is made in a John Deere factory.

To insure the best in every class of implements there is a special John Deere factory for making each class. John Deere Plows are made in a plow factory; their hay-tools in a hay-tool factory; their planters in a planter factory.

Every tool in the John Deere line is made in a factory organized and equipped to make such tools.

All John Deere factories are in communication with each other. Each has the benefit and experience of all.

When it comes to purchasing raw material; John Deere factories as a unit, represent an enormous buying power. This is an advantage to purchasers of John Deere implements.

Don't forget that each John Deere factory is a leader in its field—that every implement it turns out is worthy of the name, "John Deere."

JOHN DEERE, MOLINE, ILLINOIS

EAGLE ENSILAGE CUTTER

The Anti-Clog Machine

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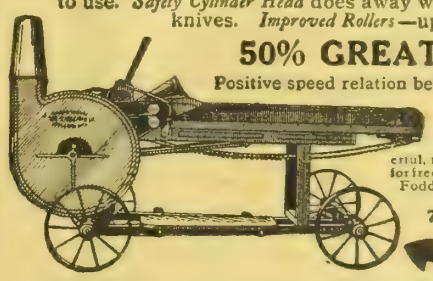

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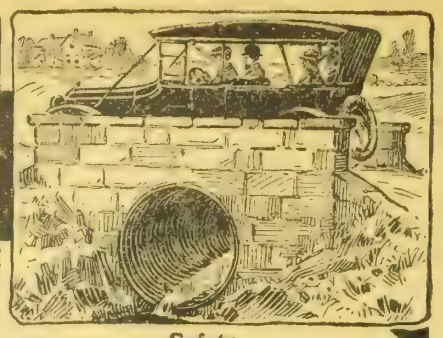

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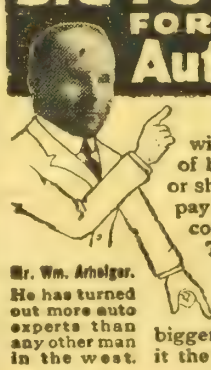

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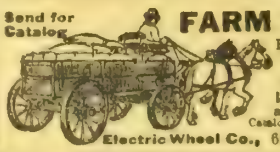

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Questions and Answers.

A Frozen Radiator.

As I froze up the radiator of my Ford car this winter, I would like to know if you know of any way to stop the leaks in the tubes. There are about thirty tubes cracked, the cracks being from two to four inches long. The garage men tell me that the cracks cannot be soldered, as it is impossible to get at them. I have tried filling the cracks with shellac, but it melts as soon as the radiator gets hot. I have tried plaster Paris, but it does not seem to harden. I would be very much pleased if you can help me out.

Answer.—Considerable skill is necessary to repair a leaky radiator, and local garage men, as a rule, are not much experienced in that line. A small soldering iron must be used; also a small blow torch that will throw a small, narrow flame. The parts to be soldered must be freed from all rust and dirt, so that the solder will stick. After scraping the surface bright, wash it with soldering fluid, warm it with the torch just below the melting point of solder, and apply the solder with the small soldering iron. Your garage man should be able to supply you with some radiator compound that might help stop the leaks if the cracks are not too wide. There are several brands of this compound on the market, and some of them are said to be quite effective.

Motor Hard to Start.

I have a 1913 Model T Ford car that has given me a great deal of trouble in starting the past season. I have a J. & B. master vibrator on it. I have taken it to the garage several times, but they have never done anything to it that helped it. I have put on new wiring from the timer to the coils and new plugs, but they do not seem to help it any. Have also tried batteries on it. Are the coils weak, or could there be a faulty connection somewhere in the magneto? After it has started, it will run fine, and throttle down with both gas and spark levers retarded. Will it injure a Ford motor to set the timing back a notch? Will it make any difference in starting?

Answer.—Your trouble is most likely to be located in the timer—the "commutator." The parts may be worn so that the roller does not make good contact, or the poor contact may be caused by heavy or gummy oil. Clean the parts thoroughly; replace any defective parts, and oil with a light oil that does not gum easily.

It will not injure the motor to set the timing back a notch, but this would probably make the motor harder to start and might cause some loss of power. Setting the spark to occur earlier would probably improve the starting, but might cause the motor to kick back when cranked slowly.

"Spark Gaps."

What is the use of a "spark gap" on a spark plug? Does a gap enable a plug to deliver a hotter spark and make starting easier? Will the plug use more current with the gap, there being only one contact point, while with the gap there are three contact points with a faint spark at each? If I use a twin Indian motor for a small car, could I run it with a vibrating coil instead of the present coil?

Answer.—It is questionable whether a "spark gap" is any benefit. It makes starting more difficult and requires more energy from the battery. It may make some improvement in the ignition of motors having trouble with carbon and oil fouling the plugs. If your magneto has been operating with a non-vibrating coil, it would not be advisable, and probably not possible, to use a vibrating coil with it. The current from such a magneto flows for a very short time only, so that the vibrator has not time to operate.

Charging a Storage Battery.

Some time ago in your paper I saw the question asked how to replace the electrolyte in a storage battery. The answer was to mix the acid and water, and charge the battery before and after pouring in the new solution. I would like to know how to charge the battery.

Answer.—The battery must be charged before the old solution is removed. It is charged by passing an electric current through it, the same as any storage battery. After the new solution has been added, the battery should be given another charge at once. The plates must not be allowed to dry while the electrolyte is being changed.

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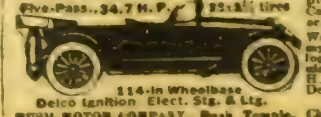

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Fruits and Garden

Grow Raspberries For Family Use.

To the Editor:—It was once great times when we hunted for wild raspberries. Never very plentiful—the only places where they grew were along neglected fence rows and in the borders of the woodlands. It was perhaps their scarcity during those years that made us so appreciate them as a splendid wild fruit. Had they been as plentiful as the wild blackberry that grew everywhere they would not have held so high a place in our estimation.

People have always been slow to learn of advantages, and while it would have been the easiest matter in the world to have grown raspberries in our gardens or fruit lots, we never thought once of doing such a thing. Totally blind to our possibilities, we hunted far and near for the wild berries, and, liking them so well, we are satisfied now we always ate as many as we carried home in our small tin pails.

It was toward the close of the war of the rebellion that my brother and I, in one of the southern counties of Indiana, conceived the idea of setting out a raspberry patch in the home garden. Early in the springtime, with basket, spade, and a large corn knife, to cut away the upper portions of the long arching canes, we directed our steps to the wild raspberry plantations we knew of along the fence rows out on the farm. Having good luck with the first trip, we made a couple of others and succeeded in securing enough of strong, healthy roots to set a large patch. We guessed at everything we did, for we had no idea much about either setting out the roots or tending them to grow the fruit. There were no books or writing on the subject, but our success was very good.

The summer following the one we first set out the roots, we had a fine crop of berries. After that it was always easy sailing when we wanted to grow raspberries. Then we set the roots from the wild native sorts. Now, larger and better fruit is had by getting our vines from the regular nurseries. There are several good varieties—all good—and we advise all, who have no raspberries growing in their gardens or fruit lots, to prepare some ground and set out a liberal patch this spring.

Set the roots as they come from the nursery in rows five feet apart. Allow the hills to be three feet from each other. Keep the ground clean and loose the first season. Three strong suckers may be allowed to grow up from the roots the first year. Tie them to a stout stake, but top them to about three or four feet from the ground. Such young canes will bear a fine crop the second summer.

At this age of the raspberry plantation, adopt a new way of managing the young canes that spring up from the old roots. Allow only two canes to grow from each root. Top them at thirty inches in height. Top all alike. Then allow all the side branches or laterals to grow at will all summer. The next spring before the vines begin to put out leaves, cut each lateral off from the main canes to a length of from four to eight inches. All the old and dead canes and the former stakes are to be removed. The new canes need no support.

Treated in this way, there is a great profusion of bloom and each hill becomes loaded with fruit—a great deal more than can be had from the long rainbow vines, which result if the right kind of pruning is neglected.

W. A. G.

Lazy Vegetables

There is a difference. Some vegetables start growth at the drop of the hat, and never slow down until maturity. Others come dawdling along. The seed will be a week behind in germination, the growth slow, and the crop coming in behind time. Take the egg plant, and the mango pepper, which you plant at the same time the cabbage and tomato seed goes in. The latter will be up and thriving, but there is no sign of the first. You conclude that the seed must have been poor. But you give them a few days longer, on the bare chance of some delay. Then, as you take a hoe to stir the soil to use that space for something else, you find the lagard plants just poking their heads through the soil.

Their cousinly relationship is further shown by the fact that their taste for fertilizers is exactly similar. What's sauce for goose is sauce for gander. Well-rotted compost pleases them, and they respond lazily, but surely. If you are in the mood to deal generously, furnish them liquid manure, and dig in bone meal about the plants.

Spring Work on Badger Farms.

(Continued from page 1.)

Ailment after ailment of horses may be traced directly back to the teeth as the cause. Now what is the remedy? Examine his mouth and you will be surprised sometimes to find a tooth nearly an inch longer than the next. Have this tooth cut off at once and the edges filed down. Sometimes where the teeth are very badly out of shape it takes a skilled veterinarian to trim them up. Every horse should have a float rasp rubbed up and down his teeth to take the sharp edges off and this should be done three or four times a year. If you do not have one of these float rasps, order one and the sooner you get it the better. Many houses carry these and when you use them see how quickly you will become an expert in handling them on your horses' teeth and find out how much easier it is to keep your horses in the pink of condition.

These are just a few suggestions which come to my mind. I have not time to dwell on the care of the new born things on the farm. But good luck is sure to come to us all in 1917 if such suggestions as I have made herein will become an appetite with us and we will swallow them. They will aid our digestion in solving some of the unlucky things that might overtake us. What I mean is that we should not only think about these things but do them.

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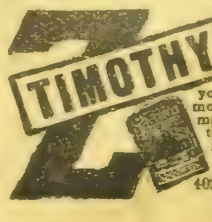

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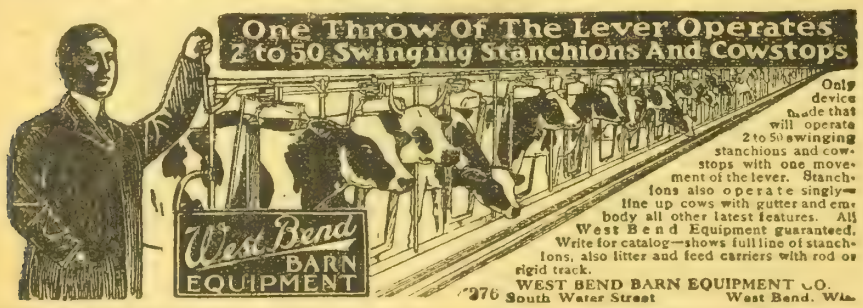

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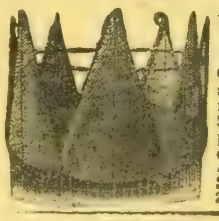

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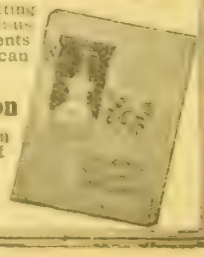

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La Crosse County Guernsey Breeders Meet.

The La Crosse County Guernsey Breeders' Association held its annual meeting and banquet Wednesday, March 7th, at the Hotel May, West Salem. It was the largest and most enthusiastic group of Guernsey breeders ever assembled in the county.

S. L. Dudley, president of the association, opened the program with a short address in which he spoke of the work of the association, the need of better bulls and the necessity of cow testing to determine which are the continually profitable animals.

Prof. T. H. Campion, secretary, related the experiences of the officers in planning to put more life into the organization. A survey of the Guernsey resources of the county had been taken and there were found to be over 130 pure-bred sires in use in the county. The executive board is engaged in trying to bring these Guernsey men into coöperation. There are plenty of inquiries coming to the secretary for stock, but without knowing just where it is and what is for sale makes it difficult to answer buyers who ask whether large lots can be purchased in this county. Last year cards were mailed to members asking them to report what they had, what was for sale and whether they desired to buy or trade anything for their own use. The response was not encouraging. Members were urged to report fully this year so that the secretary might have all the facts at hand when answering possible buyers.

The subject of raising the annual dues to $1 was brought up and passed upon favorably.

The old officers, S. L. Dudley, president; T. H. Campion, secretary; H. M. Bonsack, treasurer; W. D. Sandman, H. D. Lovejoy and Otto Wolfe, members of the executive board, were reelected.

Prof. G. C. Humphrey, of the University of Wisconsin School of Agriculture, was present and delivered an interesting talk. He advocated more intensive methods, wider dissemination of information regarding the value of the breed, the upholding of the tuberculin test and closer scrutiny of the operations of buyers.

The association seems in the mood to carry on aggressively new plans for putting La Crosse county Guernseys on the map. A summer picnic will be held in June with judging contest for both men and boys. A boys' calf-judging contest will also be held and the prize will be a high-class Guernsey bull calf. Sherman Dudley says it won't be a $50 animal, either.

The Waupaca-Portage Holstein Breeders' Meeting.

Resolved to be first in the clean-up movement and to keep their section of the state free from tuberculosis, the Waupaca-Portage Holstein breeders, at their annual meeting at Waupaca on March 3d, passed a resolution by unanimous vote approving the enactment of a law requiring the testing of every dairy animal in Wisconsin for tuberculosis. The resolution further urged the members of the legislature from the counties of Waupaca and Portage to use every legal means to help pass such a measure during the present session of the legislature. George C. Murray was especially active in securing this resolution. The association is extremely anxious for the passage of a tuberculin law and indications are that if there is any fight on such a bill, it will not be from these two counties. Of better than thirty carloads of cattle shipped from this district recently only three individuals were found to be reactors. Naturally the association is proud of its clean record and will do its utmost to keep tuberculosis out of the herds of Waupaca and Portage counties.

The chief speaker of the meeting was John B. Irwin, of Minneapolis, owner of the famous Duchess Skylark Ormsby. Mr. Irwin pointed to the record of this cow in support of his assertion that the largest producers are also the most economical producers. This cow is credited with making better than 1,500 pounds of butter during one year and her record of feed cost and profit shows a net profit of something like $70 more than any other record cow. Mr. Irwin urged better study of the individual cow and greater care in the selection of such feed in order to obtain the best results.

During the noon hours the members of the association met at Hotel Delavan, where an informal lunch was served and experiences reviewed.

The association is up to the 100 mark at the present time and will grow considerably during the coming year. The officers for the coming year elected at the meeting were W. P. Kissinger, Waupaca, president; F. E. Paronto, Maniwa, vice president; Arthur Ritchie, Royalton, secretary.

Transplanting Cows.

To the Editor:—It is a pretty delicate process at best to take a cow from the place to which she has become "wonted" through the experience of years, perhaps, and place her in the midst of new surroundings. I have seen cows that never did quite overcome the process, but were not quite as good as they were before. So it becomes a matter of no small importance how we do this kind of work that sometimes seems to be necessary.

In general, it may be said that the younger the cow the less she takes the change to heart. The calf or the young heifer does not seem to mind it many days. Older cows are more slow to adapt themselves to the surroundings of the new home. But even with young stock there usually must come certain "fightings without and fears within" before matters are fully adjusted. The new heifer must fight for her place in the herd.

The best way seems to me to be to keep the old fighters out of the way for a few days, until the newcomer gets her bearings and understands more perfectly what her position in the herd is to be. Most herds have one or more of these cranky cows that seem to consider it their duty to lick out every new member of the cow family. By stabling these a little while a general rough and tumble may be avoided. By the time the fighter is released the new cow will most likely be going about her business so quietly that little attention will be paid to her by the belligerent boss of the herd.

In another way care needs to be taken to make the coming of a new cow as comfortable as possible. The master may be particularly devoted to her interests. She will appreciate it if we rub her down and groom her carefully, talking with her and providing her with choice bits of food. This side of the cow's nature is not cultivated as much as it should be. Cows that are made much of, to which we speak and which we caress and pet, are very apt to use the food we give them to better advantage than those that are homesick and in fear all the time that they are going to be hurt. That means more milk and better milk. I am not particularly of a sentimental nature when it comes to these matters, but I have found out by many years of experience that kindness does have a distinct money value.

Then, too, no dog should be permitted to worry the new cow. I once sold a cow to a neighbor a mile away. We did not at that time keep any dog. The neighbor did. One day we found the cow we sold back home. It proved that she had had some controversy with a dog and concluded that that was no place for her. She scaled every fence and took a bee line for home.

Finally, the transplanted cow should have as nearly as possible such treatment in the new home as she had in the old. When we buy the new cow we may find out how she has been fed and otherwise cared for and then by

following somewhat in the old channels we may very speedily get the full service of the animal, and that is worth while. Even a few days of trouble will make a difference in this season's profits. E. L. V.

Cow Testing Reports.

River Falls and Roberts Association.

To the Editor:—There were 325 cows tested in the River Falls and Roberts Association during the month of February and fifty-two produced forty pounds of butter fat or more. The following table gives the names and records of the cows in the association which have produced more than forty-five pounds of butter fat during the period of thirty-one days, ending March 4, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Alton Bros.					
Stub, G. H....	5	12-15-16	1206	4.3	51.9
J. L. Chapman					
Johanna, G. H.	2	11-24-16	1575	3.6	56.7
Martha, G. H..	5	12-2-16	1572	3.2	50.3
Bell 1, R. H...	8	12-26-16	2111	2.5	52.8
Bell 2, R. H...	4	1-18-17	2130	3.0	63.9
Bell 3, R. H...	3	10-24-16	1423	3.5	49.8
Bird, G. H....	4	11-14-16	2176	3.3	71.8
S. E. Batten					
No. 12, G. H...	6	1-17-17	1624	3.8	61.7
W. A. Chapman					
Johanna, G. H.	5	12-29-16	1237	3.7	45.8
Glen Batten					
Marie, G. G...	7	2-1-17	1395	4.4	61.4
Saddie, G. G..	8	1-27-17	1107	4.2	46.5
Fanny, G. G...	9	10-31-16	1259	3.9	49.1
Geo. Graham					
Madame X.G.G.	3	12-4-16	955	4.8	45.8
L. W. Ash					
Long Leg No. 2, G. J.	3	1-25-17	1169	4.5	52.6
J. E. Rundell					
No. 39, R. G...	6	11-22-16	1237	3.8	47.0
Wm. Lamb					
Nell, G. J....	7	1-3-17	1265	3.8	48.1
Anton Nelson					
Martha, R. H.	6	2-14-17	1317	3.7	48.7
W. W. Wilcox					
Whitie, N. ...	7	11-27-16	961	4.8	46.1
Nellie, G. H....		1-11-17	1379	3.5	48.3
D. E. Flower					
Star, R. H....	4	12-25-16	1779	3.3	58.7
Salma, R. H...	4	1-5-17	1826	3.2	58.4
Hattie, R. H..	5	1-18-17	1727	3.2	55.3
Fobes, R. H...	4	1-23-17	1975	3.2	63.2
Pietertje, R.H.	2	2-27-17	1234	4.5	55.5
Lady, R. H....	4	12-14-16	1776	2.9	51.5
DeGal, R. H...	5	1-3-17	1466	3.7	54.2
Bananza, R.H.	3	1-5-17	1717	3.2	54.9
Maud, G. H...	4	12-19-16	1410	3.5	49.3

The highest average butter fat production was 45.48 pounds. Herd owned by D. E. Flower. There were 325 cows tested with average butter fat production of 27.85 pounds.

C. G. Carlson, Tester.
J. M. May, Secretary.

The Chilton Association.

To the Editor:—During the month ending ending February 13, 327 cows were under test, and sixty-six produced over forty pounds of butter fat. A pure-bred Holstein, owned by John Salm, carried off the honors for the month with seventy-six pounds of fat to her credit. The tester in this association found some trouble with calf scours and recommended a simple remedy composed of three parts Salol, and one part Bismuth nitrate. The dose is a teaspoonful on the tongue of the calf followed by a cup of warm milk. In extreme cases repeat the dose every two or three hours. Any druggist can fill the prescription. The forty-five pound list for the month ending February 13th is as follows:

Owner and breed	Age	When fresh	Lbs. milk	Per cent fat	Lbs. B. fat
Louis McGrath					
P. B. Guern.	6	12-4	1054	5.1	53.75
Gr. Guern...	8	12-31	1116	5.5	61.38
Gr. Guern..	5	12-7	1240	5.0	62.00
Gr. Guern..	8	6-4	822	6.0	49.32
Julius Bowe					
Gr. Dur. ...	10	12-22	1350	3.6	48.60
Gr. Hol. ...	4	12-17	1641	3.0	49.23
Gr. Dur.....	9	11-23	1380	3.6	49.68
Gr. Hol.....	4	12-23	1602	3.2	51.26
Gr. Hol.....	6	12-16	1500	3.2	48.00
Frank Sontag					
Gr. Hol. ...	7	12-15	1353	3.6	48.71
John Salm					
P. B. Hol...	6	12-22	2238	3.4	76.09
P. B. Hol...	2	10-20	1440	3.6	51.84
Gr. Hol.....	2	10-15	1335	3.4	45.39
Gr. Hol.....	12	10-26	1425	3.4	48.45
Gr. Jersey..	12	12-16	1350	3.6	48.60
Gr. Hol.....	5	12-30	1752	3.9	68.33
Gr. Hol. ...	2	10-28	1200	4.5	54.00
Jos. Weninger					
P. B. Hol...	2	9-17	1020	4.5	45.90
John Schomer					
Gr. Hol. ...	5	12-3	1470	4.3	63.21
Gr. Hol.....	4	11-20	1200	4.2	50.40
Gr. Hol. ...	4	11-5	1020	4.6	46.92
Gr. Dur. ...	3	12-4	885	5.2	46.02
Gr. Hol. ...	2	1-6	1080	4.4	47.52
Hertel Bros.					
Gr. Jersey..	8	12-20	1185	4.0	47.40
John P. Koehler					
Gr. Guern..	3	10-4	810	5.8	46.98
Gr. Guern...	3	10-8	810	6.2	50.22
Gr. Guern...	5	11-3	990	4.6	45.54
Gr. Guern...	5	10-8	846	5.4	45.68
Gr. Guern...	2	11-23	870	5.4	46.98
Gr. Guern...	6	1-11	1275	4.5	57.37
Gr. Guern...	6	1-14	1020	5.6	57.12
Joseph Koehler					
Gr. Dur.....	5	1-12	1095	4.5	49.27
Gr. Hol.....	7	10-25	1275	3.9	[illegible].72
Gr. Hol....	8	1-9	1290	3.8	49.02
Gr. Guern...	5	11-12	1005	5.0	50.25

Subscriber, Calumet Co., Wis.

Stratford Co-operative Association.

To the Editor:—During the past month 295 cows were under test in our association. Sixteen produced more than forty pounds of butter fat. A pure-bred Guernsey, owned by William Schneider, carried off the honors, producing 1,180.7 pounds of 4.8 per cent milk, or 56.7 pounds of fat. Jake Spindler's herd produced an average of 924 pounds of 3.92 per cent milk or 36.72 of fat. The forty-five-pound list for February is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Wm. Schneider					
Royal Caslette, R. G.	9	12-12-16	1180.7	4.8	56.7
Mrs. G. Hein					
No. 10, Rose, R. H.	6	12-11-16	1443.4	3.7	53.5
Jake Spindler					
No. 7, Nell,N.	9	12-27-16	1326.8	3.9	51.7
Chas. Wix					
No. 5, G. H..	6	1-5-17	1252.1	3.8	47.6
Chrouser Bros.					
Kora Beets 2d, R. H.	5	11-15-17	1077.7	4.4	47.4
Ketterhenry Bros.					
No. 12, Cherry, G. G.	5	12-29-16	1030.3	4.4	45.3
Chas. Doll					
No. 14, Daisy, G. G.	8	12-16-16	806.3	5.6	45.2

Harry A. Johnson, Official Tester.
James L. Chrouser, Secretary.
Stratford Association, Marathon county, Wis.

Kewaunee Association.

To the Editor:—The forty-five-pound list of the Kewaunee Cow-Testing Association for the month ending January 30, 1917, is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Matt Mleziva					
No. 10, N.....	8	12-29-16	1194	4.6	54.9
Jennie, H.....	5	11-26-16	1345	3.4	45.7
Aug. Tesch					
Brindle 1st.G.H.	6	12-1-16	1328	3.7	49.1
Nellie, G. H...	4	12-15-16	1186	4.4	52.2
Anton Olson					
Ferry, G. G..	8	11-3-16	979	4.8	47.0
Maude, G. G..	13	10-9-16	1088	4.2	45.7
Chas. Olson					
Topsy, G. J...	8	12-26-16	1118	4.6	51.4
Molly, G. J...	4	1-1-17	953	5.0	47.6
James N. Wishka					
Julia, H.	6	10-10-16	1348	3.4	45.8
R. Glandt					
Spot, G. J....	6	10-19-16	1016	4.6	46.7
Wm. Knehl					
No, 3, G. H....	5	12-10-16	1240	4.0	49.6
No. 4, G. H....	9	12-10-16	1109	4.1	45.5
H. Kassner & Son					
No. 10, G. H...	5	12-12-16	1206	4.2	50.6
Matt Cheveny					
Betty, G. H...	6	11-11-16	1608	4.4	70.8
J. P. Duerst					
No. 4, G. G....	8	12-11-16	890	5.0	47.5

Edward Hoeft, Official Tester.
Geo. Erickson, Secretary.

In Dunn County.

To the Editor:—The forty-five-pound list of the Dunn County Cow-Testing

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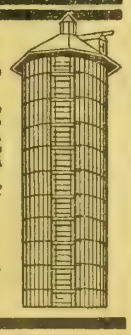

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Association No. 2 for the month of February is as follows:

Owner, name and breed	Lbs. milk	Per cent fat	Lbs. B. fat
Roach Bros.			
Black, Guern.	1116	5.4	60.2
Lilly, Guern.	975	4.8	46.8
F. J. Hones			
No. 45, Guern.	963	5.2	50.0
No. 7, R. Guern.	1020	4.6	46.9
Martin Simonson			
Rose, Hol.	1254	3.8	47.6
Coolidge & Jensen			
No. 49, Guern.	822	5.6	46.0
Henry Weber			
Snowball, Dur.	1044	4.4	45.9

M. Y. Graham, Official Tester.

Rice Lake and Cedar Lake.

To the Editor:—The forty-five-pound list of the Rice Lake and Cedar Lake Cow-testing Association for the month of January was as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent fat	Lbs. B. fat
Cedar Lake Farms					
No. 16, G. G.	4	Dec.	1473.5	3.9	57.45
Will Thalke					
Beauty, G. H.	8	Dec.	1460.1	3.6	52.56
Edward Kringle					
Sarah, G. H.	6	Dec.	1525.2	3.7	56.43
A. M. Chrislaw					
Maid Wickfield Duchess Gem. P. B. H.	6	Dec.	1583.9	3.4	53.85
W. M. Cockerill					
Princess of Brill P. B. G.	3	Dec.	916.7	5.3	48.58
Raspberry, G.J.	7	Dec.	1058.3	4.3	45.51
Frank Thomas					
Butter Cup, G. S. H.	5	Dec.	973.4	4.8	46.72
Lone Pine Farm					
Imp. Parson's Red Rose, P. B. G.	9		922.4	5.8	51.48
Delight of Lone Pine, P. B. G.	4	Nov.	1261.3	5.3	66.85
Surprise of Lone Pine, P. B. G.	5	Dec.	1221.5	5.2	63.52

Fred J. Waldemar, Official Tester.

The Cows Which Make Money.

To the Editor:—There were 506 cows under test at the end of the year in the Alto Cow-Testing Association. Two hundred and seventy cows made monthly records of forty to forty-five pounds of butter fat; 138 made month record of forty-five to fifty pounds of butter fat; seventy-one cows made monthly records of fifty to fifty-five pounds butter fat; thirty-five cows made records of fifty-five to sixty-five pounds of butter fat; twelve cows made monthly records of sixty to sixty-five pounds of butter fat; four made monthly records of sixty-five to seventy pounds butter fat and two exceeded seventy pounds of butter fat for a given month. The following table shows the record for the year of the thre best cows in the association and also of the poorest cow:

No.	Milk	Test	Fat	Value	Feed	Profit
1	9273	5.3	491.5	$176.94	$49.57	$127.37
2	9545	4.76	354.9	159.16	42.18	116.98
3	9036	4.9	445.4	157.74	44.67	113.07
Poorest cow						
	3749	3.93	147.4	51.32	34.13	17.19

It will be noted that it takes 720 of the poor cows to make as much profit as the three best cows made. This year's work closed with fifty-nine cows showing 300 pounds of butter fat or over and a goodly number showing 400 pounds or over. F. L. Cuenot.

Official Tester Fond du Lac county, Wis.

In Door County.

To the Editor:—The following table gives the the names and records of the cows in the Door County Cow-Testing Association which have produced more than 45 pounds of butter fat during the period of thirty days ending February 28, 1917:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent fat	Lbs. B. fat
Alfred Blonde					
Mollie, G. H.	6	12-18-16	1423	4.1	58.34
Lester Birningham					
Daisy, G. G.	4	1-10-17	837	6.2	51.89
Pat Hogan					
Dollie, G. H.	7	12-2-16	1262	4.0	59.48
L. H. Klenke					
No. 8, G. B. S.	6	1-5-17	1120	4.4	49.28
Reddie, G.B.S.	8	1-10-17	930	5.2	48.36
Henry Newville					
Lottie, G. H.	4	12-15-16	1332	3.6	47.95

George Thull, Official Tester.
Frank Starr, Secretary.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Serious Chick Diseases.

That traces of the true, virulent form of white diarrhea of chicks, caused by bacterial infection, have been found in Wisconsin, is the statement of authorities at the college of agriculture, University of Wisconsin, following careful laboratory blood tests.

"This disease is prevalent in some parts of the East, but as yet is not common in Wisconsin," is the statement of station authorities. "Wisconsin farmers and poultrymen should be exceedingly careful when they buy female stock and eggs from dealers in the East, as infected hens may transmit the disease through the eggs to the chicks hatched from them. Infected chicks will transmit the disease in turn to others in the flock."

Although doubts may be settled once and for all by submitting blood samples to the state experiment station laboratory for analysis, the integrity of the dealer who sells eggs and breeding stock is the main reliance of the buyer in this matter, seems the common opinion. As special directions must be followed in taking blood samples from hens for this purpose, persons who contemplate taking this extra precaution should write to the college of agriculture at Madison for detailed information.

The contagious form of white diarrhea threatens to be highly prevalent this season. Many chicks are killed annually by it. The adult females, even though they apparently recover from the disease, still harbor the infection in their bodies and carry it over from year to year, thus endangering the health of the entire flock.

Two Classes of Poultry People.

To the Editor:—That there is more to the poultry business than most people concede is responsible for ninety-five out of every hundred who engaged in it making a failure.

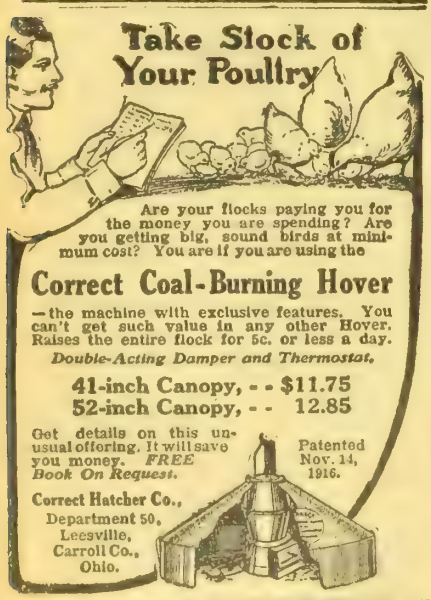
The people of the United States pay annually nearly $1,000,000,000 for table eggs and poultry. The 95 per cent who are making the failures entirely disregard this enormous demand. They strive to prod_ce the $100 cockerel and pullet, which seldom materialize, and by doing so they sacrifice stamina, vigor and egg production.

We have two classes of breeders, but termed "fancier," the other "poultryman." The sole object of the first named is to win ribbons. Inbreeding will bring the quickest and best results, but what has he lost? Stamina, vigor and egg production. On the other hand, the poultryman's object is to produce the best specimens and increase egg production.

It is generally known that success in any undertaking demands time, systematic labor, plans for the future and love for one's work. This is especially true in the poultry business.

Just a few years back "chickens" were just "chickens," and the system the farmers followed was to swap roosters with a neighbor. This poor policy did not warrant expensive improvements or expenditures in time and money. Eggs at 8 cents a dozen and poultry at 6 and 9 cents a pound presented small incentive to better the product. Prices at that time for friers and broilers were very low and markets were not of the best. To sell baby chicks would have been considered foolhardy, and as far as fancy eggs for hatching were concerned —well, everybody had them. We have watched the gradual evolution of the hen with admiration.

Always we have been lovers of good poultry and now own a creditable flock of 800 select hens. For eight years we have worked almost exclusively with S. C. W. Leghorns, but we also carry a line of bred-to-lay S. C. R. Reds, Buff Orpingtons and Barred Rocks, to which we are devoting more of our time. Today everything pertaining to the poultry production is worked out on a strictly scientific economic basis. For us



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With INCLOSED MOTOR
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Constantly Flooding Every Bearing With Oil, Makes It Pump In The Lightest Breeze And Prevents Wear.
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Clean milk commands top prices. But, to produce "Class A" milk, you must have sanitary stables and milk houses.
Natco Hollow Tile walls are the last word in sanitation. Do not hold odors or moisture.
Easy to clean and keep clean—no place for germs to hide. Dead-air spaces keep the stables cool in summer and warm in winter. Natco Barns require practically no repairs—never need painting—are fireproof, age and weather-proof. Build once for all—
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Prompt Shipments
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Wins in the Two BIGGEST HATCHING Contests Ever Held
Why take chances with untried machines when for only $11 we guarantee to deliver safely, all freight charges paid (East of Rockies), BOTH of these big prize winning machines fully equipped, set up ready for use? Why not own an IRONCLAD — the incubator that has for two years in succession won the greatest hatching contest ever held? In the last contest conducted by Missouri Valley Farmer and Nebraska Farm Journal, 2,000 Machines were entered including practically every make, style and price. With the Ironclad — the same machine we offer with Brooder freight, paid for only $11, Mrs. C. F. Merrick, Lockney, Texas, hatched 148 chicks from 148 eggs in the last contest.
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Money Back if not Satisfied
150 EGG ironclads are not covered with cheap, thin metal and painted like some do, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't class this galvanized iron covered, dependable hatcher with cheaply constructed machines—and don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering, galvanized iron legs, large egg tray, extra deep chick nursery — hot water top heat, copper tanks and boilers, self regulator, Tycos Thermometer, glass in door, set up complete ready for use and many other special advantages fully explained in Free Catalog. Write TODAY or order direct from this advertisement.
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90 Days' Trial
Belle City Incubator Co., Box 106 Racine, Wis.

poultry culture is a hobby with possibilities second to none.

In breeding for results, no matter what breed, one must not only look to his breeders for the season's results, but must go back several generations. Have the great grandfathers of your flock had roup, tuberculosis or white diarrhea? These troubles will surely show up if your parent stock has been so affected.

Cleanliness must be pesistently enforced in every department, and if combined with intelligent mating one will reap a full harvest of fine, healthy chickens.

For several years we have made a specialty of shipping baby chicks, and in order to get the best results we have devoted much study to producing the largest number of chicks from the least number of eggs. We figure on having our breeders in the pink of condition for their long grind. A well-balanced ration with green foods, such as alfalfa, cabbage and potatoes, and an abundance of water will keep them so. We do not use force feeds for our breeders, as experiments have shown us that forcing for production during breeding season is the best way to get infertile eggs, weak germs and sickly chickens. We have found by experience that eggs laid on dropping boards have but one chance in five of producing a chick. It seems that the chemical action of the droppings on the shell destroys its composition and lessens the chance of chick production.

We place more emphasis on the breeding stock and care of eggs to be incubated than on the method of incubation. A few pointers in condensed form: Stock should be full blooded and bred to lay. Breeding birds should be hens and bred to superior males with egg records back of them. These should be kept in perfect health, which means fertile eggs and strong chicks. Take great care that eggs, which are kept for hatching, do not get chilled. Use only uniform eggs, not too large or too small, and do not use those that are over one week old—the fresher the better. Ever-Laying Egg Farm.

Better Success With Incubators Than With Hens.

To the Editor:—I have only used an incubator two seasons and a brooder one, but I had better success with them than with hens, a larger percentage of incubator eggs hatching strong, healthy chicks free from vermin. It only takes a few minutes night and morning to take care of an incubator, and how much easier it is in rainy weather than it is to care for sitting hens.

I use a hard coal brooder, and I would not go back to the old way again. I put 300 chicks in a brooder and only lost one of them the first month, and they were such a little bit of work to take care of. At first I was so afraid the fire would not burn all night and the chicks would chill, but I found there was no more danger than of a good clock stopping. I filled the fountains with water, fed dry oat meal and filled the stove with hard coal, emptied the ashes, and that was all I had to do till it was feeding time again. I do not think it required an hour's work to take care of 300 chicks a day. But it is different taking care of hens with chicks. Just when they should be keeping them warm they are dancing around trying to get out and tramping and killing the chicks in the meantime.

I often hear farm women say, "I never could learn to run an incubator, and chicks die in a brooder." I think if a woman can learn how to make good bread she can learn how to operate an incubator, and there is nothing to learn about a hard coal brooder except to make a fire. It is self-regulating. I have no interest in incubators and brooders, but write this to help farm women raise more poultry at a greater profit and much less work. Mrs. McNally.

A Few Don'ts and Whys For Mating.

To the Editor:—I read an article some time ago in one of our farm weeklies, written, perhaps, by some would-be poultryman who appeared to hold the idea that any pure-bred chicken was good enough for the farm as long as it was vigorous and prolific as a layer. He did not appear to think breeding for color improvements was a necessity or helped any, for he said the average farm flock caretaker did not appreciate it enough to pay for the trouble it caused the grower to produce that color. I am afraid this man was prejudiced to standard colors because he lacked in skill to produce birds that suited him or maybe they suited him and did not suit a man who knew the standard requirements of a pure-bred bird.

It is my idea that the farm pure-bred flock should be bred for color improvements as strongly as for any other reason. Of course, if one is skillfull enough to breed for laying improvements that is another great thing. However, this should not offset color, and it is an easy matter to keep one's flock uniform if a little care is taken in that direction.

Now for a few dont's and whys that will aid you in color improvement. In White Rocks or Wyandottes don't breed from a male or female that has more than one-third the surface of ear lobe white, for this is a disqualification. Don't breed from a bird that has any black feathers, and care should be taken that they are as free as possible from ticking or peppering. Brassiness in hackle and saddle is a defect. The whiter the bird the better. Both Rocks and Wyandottes should have good, clean, yellow legs. Don't breed from a bird with stubs of feathers on legs or between toes. This is another disqualification.

In White Orpingtons look out for the same color defects as in Rocks or Wyandottes. However, their leg color should be pink or white and free from stubs. Yellow legs is a disqualification.

In all varieties of Buffs it is not advisable to use birds as breeders that have black tails. The preferred Buff is a bird that is a shade lighter than gold and carries the same color throughout, and under color does not want to be white. A mealy Buff is not desirable.

In Barred Rocks don't breed from a brass-colored male with understruck barring, or one that has any black feathers. A Barred Rock should be barred, and from the quill to tip of feather. Barring on feathers in primaries and secondaries of wings should run as near straight as possible. Birds with legs other than yellow are not good to breed from.

In the future I will write on the Partridge, Silver Laced, Golden Laced and black varieties. If anyone has any questions they wish to ask re-

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Wisconsin Incubators have long proved their wonderful hatching qualities. Competing with every make known, they won in the five big annual National Hatching Contests. Think of it. Five consecutive victories. That certainly proves you can't make a mistake. Shipped on 30 Days' FREE Trial

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Wisconsins have hot water heat, double walls, air space between double glass doors, copper tanks and boilers, self regulating. Nursery under egg tray. Made of finest, select, clear CALIFORNIA REDWOOD, not pine, paper or other flimsy material. Incubator finished in natural color—not painted to cover up cheap, shoddy material. Incubator and Brooder shipped complete with thermometers, egg tester, lamps, everything but the oil. This is the best outfit you can buy. If you don't find it satisfactory after 30 days' trial, send it back. Don't buy until you get our new 1917 catalog, fully describing this prize winning outfit. WRITE FOR IT TODAY. You can't make a mistake in buying a Wisconsin. On the market 15 years.

WISCONSIN INCUBATOR COMPANY, Box 100 Racine, Wis.

garding breeding to overcome defects I will gladly answer. Address the editor. Poultry Judge.

[We hope that our readers will feel free to comment on the remarks of Poultry Judge. Is he right about these matters or are his views "off" color?—Editor.]

The Hard Coal Brooder.

To the Editor:—Since writing about incubators and brooders in a recent issue I have had so many letters asking about the hard coal brooder that I would like to answer most of them in a general way.

The hard coal brooder will burn any kind of fuel, but to be self-regulating it must have hard coal, then there is no danger of fire. The brooder room should be about ten feet square. It is hard to put chicks of different ages in the same brooder. I divided the room in two, leaving half the brooder in each room. I used screen, as it lets the heat through and there is no danger of fire. Then I had a door on each side of the room opening into a small yard. I had about 200 chicks in each bunch until the youngest of them were three or four weeks old, then let them all together.

One need not cool the brooder room by letting the chicks out. Make a frame for the door and tack on cloth, leaving a very small opening for the chicks. The chicks will go back to the stove when they begin to get chilly, and on rainy days they can be left in the house. They are so contented all the time handled in this way.

Mrs. McNally.

The Amount of Mixed Grain For Poultry.

One of our subscribers says that he has 300 Brown Leghorn hens and he has on hand a plentiful supply of corn, oats, bran and meat scraps. He also has some alfalfa hay and desires information in regard to the amount of each that he should use.

In addition to the grain feed, we would suggest to mix some wheat along with your corn and oats. Providing wheat was used you would not need the quantity as required of corn or oats at this season of the year.

Although at the present price of wheat many poultry raisers are entirely doing away with the use of wheat, and are cutting down the cost of feeds by feeding more green feeds, such as sprouted oats. Green food is especially valuable in feeding for winter eggs. Succulent greens should be fed as religiously as grains during the winter months. Not only do they promote health and higher efficiency of the egg-making organs, but they save on the grain bills.

Give your flocks enough to eat of enough different grains, after an allowance of a maximum of various green foods, sprouted oats, steamed alfalfa or clover, because of their cheapness, and the ration is then properly balanced. Your alfalfa hay will nicely answer this purpose as green feed, providing it is heavy and not too coarse.

As to the amount to feed, a visit to the henhouse after the birds have gone to roost and an examination of the crops will indicate the correct amount has been fed. Approximately twice as much grain should be fed at night as in the morning. In the morning feed half a handful to each bird; at night double this amount.

A good grain mixture would consist of 100 pounds cracked corn, fifty pounds oats, and fifty pounds wheat. In addition to 100 pounds bran, add fifty pounds corn meal, fifty pounds wheat middlings and fifty pounds meat scraps. This, together with the above grain mixture and steamed alfalfa, gives you a variety of feeds that should give you a good egg yield during the winter.

A Cat With a Record.

To the Editor:—Humphrey is just a large Maltese cat with expressive eyes and lots of cat sense. If he were a chicken he would be called a capon and I suppose that fact accounts for some of his good habits. He is eight years old and a worker in every sense of the word.

Let me tell you of some of his accomplishments. He drove the rats from our farm and when gray squirrels were taking our neighbors' chickens he caught and brought to the house thirteen of the pests. In 1915 he brought my sister, who owns him, twenty-two pocket gophers. In 1916 he broke his own record and brought the number up to an even two dozen. In our county there is a bounty of 10 cents for every gopher. So Humphrey, by catching gophers, paid the taxes on our dog.

During all this time he caught two pigeons, one young bluejay, and sparrows too numerous to mention. I was sorry about the pigeons, but I think the sparrows multiply so rapidly that there is no danger of their tribe becoming extinct.

After reading this much of Humphrey's history I think you will agree with me when I say he is worth while not only in the poultry yard but even in the hay field. He is a cat, yes, but worth his weight in gold.

L. E. Payne.

Use Soap and Water in Incubators.

To the Editor:—I have wanted to write a warning to incubator users for a year. Last year a writer said to disinfect the incubator with a good, strong dip and run it open to air for two days before resetting. So I did. I had had two good hatches just cleaning before with good soap and hot water—had good 90 per cent hatches. The next two were for my sister and mother and this article had just been read, so I disinfected with a good dip such as I spray the henhouse with (about one part to fifty), ran the incubators open for two days and then filled them with clean, fresh eggs. I thought I gave it extra care, but the dip was so smelly that I was worried. Well, there were fourteen chicks out of 234 eggs. So I say "don't dip"—use soap and water. Fannie Daun.

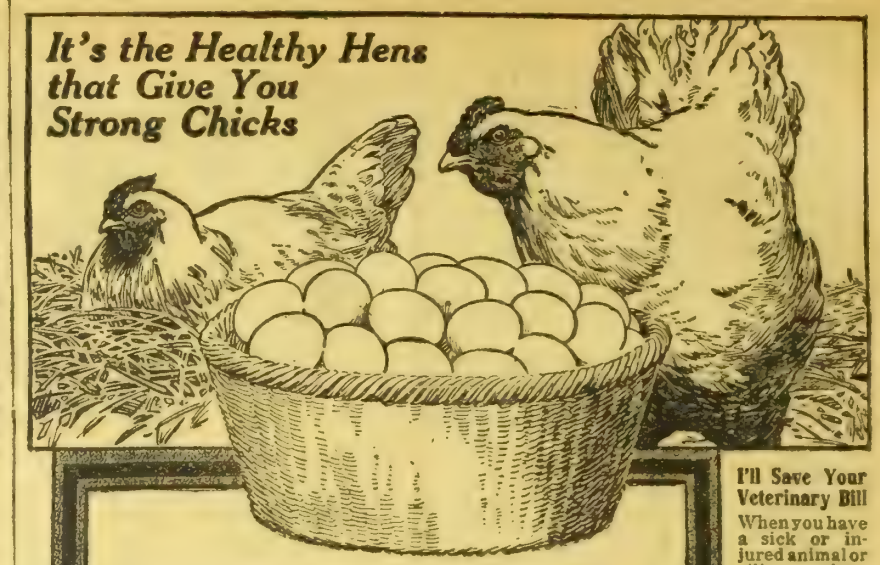
The Hens to Hatch From.

To the Editor:—I see some of your readers are giving their experience as to what age hens are best to save eggs from for hatching. Let me give you the results of a test I made.

I took twelve hens ten to twelve months old. Their coop had been rather cold, so they had not laid much during the winter, but they were in fine condition. I put with them a first-class two-year-old cock that had been shut away from the flock during his first year. I used the eggs for our own hatching and sold many of them and I do not think there was a setting in which there was over one egg lost and several reported a chick for every egg. My customers came back for more eggs, saying they never saw such strong, vigorous chicks.

M. B. K.

It's the Healthy Hens that Give You Strong Chicks



Now that mating time has arrived, it's up to you to see that your poultry get a tonic and internal antiseptics to make them vigorous and free from disease. *Therefore, feed Pan-a-ce-a.*

In that condition your hens will lay better, you will get more healthy, fertile eggs and the chicks will stand a better show of reaching maturity. *Therefore, feed Pan-a-ce-a.*

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It's a Tonic—Not a Stimulant

And, before the hatches come, I want to warn against gapes, leg weakness and indigestion, for these ailments are responsible for half the baby-chick losses. *Therefore, feed Pan-a-ce-a*—it will save you these losses.

My Guarantee

So sure am I that Dr. Hess Poultry Pan-a-ce-a will help make your poultry healthy, help make your hens lay and your chicks grow, that I have told my dealer in your town to supply you on condition that if Pan-a-ce-a does not do as I claim, return the empty package and get your money back.

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Conditions all animals, gives health, good digestion, keeps them toned up. Prepares horses for spring work and cows for heavy milking. 25-lb. pail, $2.00; 100-lb. drum, $6.50. Smaller packages as low as 50c (except in Canada and the far West and the South).

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Kills lice on poultry and farm stock. Sprinkle in dust bath and about roosts, nests and houses. Dust into hair of animals. Destroys bugs on cucumber vines, cabbage worms, slugs on roses, etc. Comes in handy sifting-top cans, 1 lb., 25c; 3 lbs., 60c (except in Canada). Fully guaranteed.

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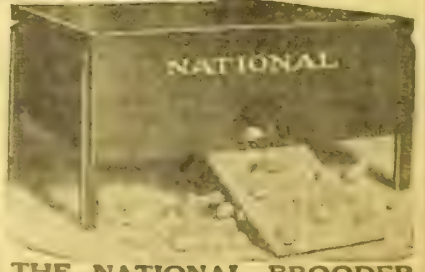

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No matter what others say—the real value of any incubator is its hatching value. Read these letters carefully:

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"I have one of your incubators and think there is nothing like it. They are all you claim them to be."—*Mrs. John Barth, Ruffs, S. D.*

"I got 96 chicks out of 100 eggs and am well satisfied. You certainly will sell lots of machines here next year."—*Fay Holcomb, Bancroft, Michigan.*

"Send me one 165 egg incubator as soon as possible. My other one is O. K."—*Harry Moff, Clarksburg, W. Va.*

"I am well pleased with your incubators. My neighbors say they will have a National next year."—*Monroe Olson, Racine, Missouri.*

"I do better with the National than any other incubator. I hatched chickens all winter long here."—*Geo. Sherman, Jonesboro, Ark.*

"I have been running two other kinds alongside the National but they have not done anywhere near as well. Next year I expect to buy more incubators and shall get the good old National."—*E. Merrit, Chester, Vermont.*

"I am a girl 15 years of age. As my father had a great deal of work this spring I took the work of tending the incubator upon myself. It was a pleasure to attend to it. Your incubators are so easy to operate that a child of nine or ten could do the work."—*Anna Krause, Little Falls, Minn.*

"I am well pleased with your incubator. I put up against another machine and beat it so and I am using the other for a brooder. I will want a half a dozen more for spring hatching. I have passed the machine to the fair right and I have a neighbor who would like to get one or two."—*R. C. Wrightman, Brighton, N. Y.*

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WE CAN help you. Send us the names and addresses of (10) poultry friends and receive our revised 32-page book on "White Diarrhoea the Greatest Foe to Chick Life." This book makes Poultry Profits possible. Gives care and feeding of chicks and turkeys, how to prevent chicks from dying in the shell, also cause and guaranteed cure for bowel trouble. Above book **free.** Postpaid for the names. Write today.

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BALANCE fields and pasture, rich, clay loam. 4-room house, basement barn 40x60, tubular well, best water; Apple orchard, farm tools. On good road, R. F. D., telephone. Near big market. Price $1600, half cash. Send for free photos, and description. **A.L.Wilkins, R.1., Union, N.Y.**

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FROM the best of stock that will produce large, vigorous birds of the highest class. Satisfaction guaranteed. Order direct from this ad. Eggs, $2 per 15, $3 per 30, $4 per 45, $8 per 100.
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WRITE FOR LOW PRICE on best thoroughbred poultry and pigeons, eggs and baby chix, turkeys, ducks, geese, incubators, brooders and poultry supplies. Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

EGGS FOR SALE from prize-winning "Quality Strain" Single Comb Buff Orpingtons. Silver cup best display Iowa State Show. Heavy layers. $2, $3 and $5 per 15. Address Snyder Bros., Letts, Iowa.

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FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R.E.Daly Poultry Farm, Necedah, Wis.

58 BREEDS Fine Pure-bred Chickens, Ducks, Geese, Turkeys, Guineas, at low prices. America's Finest Poultry Farm. 3000 Prizes. Large Catalogue 4 cents.
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HATCHING EGGS; prize-winning S.C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C.White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

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THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

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WANTED—Good reliable farm hand by the month or year. No boozer need apply. Good wages. Address Robert Godfrey, R. 30, Glenbeulah, Wisconsin.

MAN wanted for general farm work. State wages, age and weight in first letter. Address Holmes Bros., R. 2, Livingston, Wis.

WANTED—Good, steady, honest young farm hand; no boozer. Inquire of Arthur Troeller, R. 2, Rubicon, Wisconsin.

PERCHERON STALLIONS.

BLACK PERCHERON STALLION, 4 years old, bargain. Also August Chester White boars, priced right. John Simon, Campbellsport, Wisconsin.

ONE imported Percheron stallion, color black, and sound, for sale cheap. V. J. Stanek, Bloom City, Wisconsin.

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ONE 12 h. p. United Engine Co.'s gasoline engine with friction clutch pulley, $275. Two 9 h. p. Lambert Portable Engines with clutch pulleys and Webster magneto, all new and up to date, fully guaranteed. Will be sold cheap as we are going out of this line. John Dorsch & Sons, 209 Wells St., Milwaukee, Wis.

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FOR SALE—Registered Guernsey cows, heifers and bulls; also a few grade cows. Satisfaction guaranteed. Address Clovernook Farm, Whitefish Bay, Wisconsin.

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100 ENVELOPES, neatly printed, 40c; 300, $1; 500, $1.50, prepaid. Samples free. Andrew Christianson, Manhattan, Ill.

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COWS' tail holders, post paid: 10 for $1.00; sample 12c. F. C. Gieseker, Elmwood, Wis.

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SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

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THE demand for farm labor in Canada is great. As an inducement to secure the necessary help at once, Canada will give **one hundred and sixty acres of land free as a homestead** and allow the time of the farm laborer, who has filed on the land to apply as residence duties, the same as if he actually had lived on it. Another special concession is the reduction of one year in the time to complete duties. Two years instead of three as heretofore, but only to men working on the farms at least six months in 1917. This appeal for farm help is in no way connected with enlistment for military service, but solely to increase agricultural output. A wonderful opportunity to secure a farm and draw good wages at the same time. Information as to low railway rates may be had on application to

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Canadian Government Agent

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Investigate the Profits Made in Wenatchee North Country. This year's fruit crops amazing. Alfalfa—corn—a great stock-raising country. Small tracts mean big profits. You can buy on easy terms. Be sure to read Wenatchee North Country Booklet. Either or both books about Washington's garden spots mailed on request. Write me personally.

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Dept. 285 Great Northern Railway, St. Paul

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ROSE Comb Brown Leghorns, baby chicks, eggs. Cockerels of quality Write for particulars. Mrs. Herman Sandvig, Spring Valley, Wis.

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PURE-Bred White Rocks. Address "Kremers," Whitehall, Wisconsin.

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STRAWBERRY PLANT. Progressive Everbearers, genuine Rockhill strain, will bear this season from July till November. Guaranteed fresh dug, strong, healthy plants. Deal direct. Order now and get started now in the best everbearers. Price 30c per dozen, $1.50 per hundred, postpaid. Fruit Supply Ranch, Lock Box 195, Baraboo, Wisconsin.

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GUARANTEED Seeds. Eighth season. Golden Glow corn, Early and heavy yielder. Choice Timothy, Alfalfa, Red, Alsike and Mammoth Clovers. Circular and samples on request. Henry Michels, R. 3, Malone, Wis.

SEED CORN—Wis. No. 7, Minn. No. 13, Rustlers and 85-day corn. Germination 100%. Genuine Grimm and Northern Alfalfa. John Henderson, R. 1, Cokato, Minn.

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FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck, Spring Green, Wis.

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FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

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THOUSANDS men and women, 18 or over, Wanted everywhere, for U. S. Government Life jobs. $75.00 month. Steady work. Short hours. Rapid advancement. Common education sufficient. Write immedialy for free list of positions now easily obtainable. Franklin Institute, Dep't A176, Rochester N. Y.

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MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

PURE-bred Holsteins for sale. Bull calves 2 to 6 months old; average state test 3.86. High producing dams. Lakeside Farm, A. Zimmerschied, 66 Wis., Oshkosh, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

SILO FORMS.

FOR sale—Two sets of concrete silo forms with chute. Harold Janke, Fredonia, Wis.

FARM LANDS.

NORTH Dakota in all essentials—soil climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short, yet government reports show $167,544,000 or $2,253 per average farmer. In last 7 years average farmer in North Dakota produced $1975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, immigration agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

ALFALFA LAND in the garden spot of South Dakota. Four cuttings yearly; wheat yields 40 bushels, other crops in proportion. 320 acres beautiful land, four miles from good railroad town; 50 acres in cultivation; good water, fair buildings; survey of proposed irrigation ditch crosses highest corner. Owner south for health and $20 per acre takes it for quick sale. Also choice relinquishments and other bargains. Square Deal Land Co., Farmingdale, S. D.

80 ACRE farm for sale or exchange. Good buildings, near school and creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, located six miles west of Medford, Taylor county, Wisconsin. Will consider in exchange $3,500 of first-class city property, balance $3,000 on time at five per cent, or will rent for cash to good party. L. A. Kimball, Lake Geneva, Wisconsin.

GET a farm home in rich corn and clover belt of Northwestern Wisconsin along new Soo Line, 50 miles St. Paul-Minneapolis. Landseekers all say: "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools. Creameries everywhere. $15 per acre and up. Map and list free. Baker N-110, St. Croix Falls, Wis.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

DON'T buy Wisconsin Land till you have seen ours. We own 20,000 acres choice clay loam, hardwood lands on the Omaha & Soo roads. Close to towns, schools and churches. R. F. D. and telephone lines. Near, beautiful lakes and streams. Lowest prices—Easiest terms. Agents wanted. Upper Wisconsin Land Company, Ladysmith, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

YOU'LL be old some day. Are you looking ahead? You will want a Bank Account then. The sure way to provide for this is to secure an Aitkin County Dairy Farm. It will cost little, if you act right away. Write for maps and facts Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

FOR SALE OR TRADE—For good Wisconsin improved farm—a first-class garage completely stocked and fully equipped. Also two cars. Lease runs five years more. In town of 3,500 in rich farming section. Must leave on account of health. S. T. Hutchinson, Lake Geneva, Wisconsin.

PRODUCTIVE LANDS. Crop payment or easy terms—along the Northern Pacific Ry., in Minnesota, North Dakota, Montana, Idaho, Washington and Oregon. Free literature. Say what state interests you. L. J. Bricker, 44 Northern Pacific Ry., St. Paul, Minn.

FOR SALE—320 acres in Perkins county, South Dakota. Five room frame house, large frame barn, good well and wind mill. 160 acres fenced and sixty acres under cultivation. Land nearly level and all tillable. Price $15.00 per acre. John Berdahl, Bison, So. Dakota.

A SNAP with personal property for immediate possession. Nearly perfect forty acre farm, level, clay loam, all cleared, 1½ mile Centuria, Polk Co., Wis. $4,340 takes everything. About $1,500 down. Baker C-110, St. Croix Falls, Wis.

FOR SALE—Several improved farms in drained corn and wheat belt of South East Missouri, ranging in price from $75.00 to $150.00 per acre, on good terms. Address Ira S. Rice, Essex, Stoddard Co., Missouri.

SELL your farm direct and keep the big agents' commissions. No listing. No land men to deal with. You can do it. Particulars free. Address Chas. Renich, G-2, Woodstock, Illinois.

WISCONSIN—65 farms, 15,000 acres, wild land, Corn, dairy, clover belt. Counties, Barron, Polk. Easy terms. Lowest prices. List free. L. Rivard, Turtle Lake, Wis.

TWO farms for sale, easy terms, on main road; telephone, R. F. D., etc.; good buildings; will rent one to right party. Henry Wilson, Ladysmith, Wisconsin.

HIGHLY improved farms, St. Croix county, Wis. 40 miles Twin Cities. Write for list. Wm. McNamara, New Richmond, Wis.

SUNNY south, free views 160 valley farm, fruit, spring, $2,500. Terms. Arthur's, Mountain View, Mo.

FOR SALE—Two choice improved 800-acre farms. A. M. Grosvenor, (Owner) Casselton, North Dakota.

640 ACRE Montana homesteads, new law. Circular free. Bureau 46, Boulder, Montana.

LOCATION WANTED.

MR. FARMER—If you have a good location to build a cheese factory I will build. Write to E. A. Huebner, Shawano, Wisconsin.

HINMAN MILKER.

ONE 4 unit Hinman milking machine in good condition for sale cheap. V. J. Stanek, Bloom City, Wisconsin.

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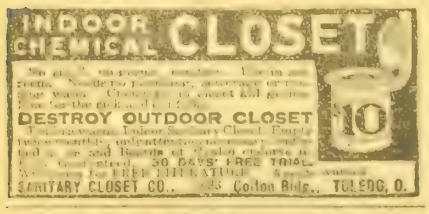

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Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Department, Wisconsin Farmer, Madison, Wis.

To Soften Hard Water.

We have a letter from one of our subscribers, Mrs. Loose, who says:

Can you please let us know what will make hard water soft for laundry purposes? We have had no rain water and the snow is dirty and hard to melt. Some of our neighbors are in the same circumstances and would be glad to know how to soften the water. I read a recipe somewhere using lime, soda and borax, but I have forgotten the proportions.

Softening solutions may be made of washing soda, lye or borax, and any one of them is good. The soda solution is made by dissolving one pound of washing soda in one quart of boiling water. The advantage of this solution is that a large quantity may be made and bottled and kept on hand. It is a good cleansing agent. Use two tablespoonfuls of this solution for each gallon of water.

Lye may be used in the proportion of one-fourth teaspoonful to each gallon of water. Dissolve the lye in a cup of water before adding to the water.

The borax solution should always be used to soften the water in which wool is to be washed. For each gallon of water use one teaspoonful of borax dissolved in one cup of water.

Of course, there is a great deal of difference in water, and these amounts should be varied in accordance with the water. If iron occurs in the water it will cause the clothing to have a yellow tinge. To get rid of the iron, add washing soda to the water, let it stand for five or six days, then draw off the top and the remainder is ready to use. Organic matter, such as decomposing vegetable or animal matter, may be removed by adding one tablespoonful of a mixture of two parts borax and one part alum for each gallon of water.

Rules For Salad Making.

In early days the salad consisted merely of a dish of green herbs or vegetables served with a single dressing of vinegar and condiments, but the American salad of today is a mixture of meat, fish, poultry, fruit, or vegetables, and the methods of combining are so numerous that they are limited only by the ingenuity of the cook. However, there are a few rules to which all salads should conform:

The materials used must be fresh, clean, dry, cool and crisp.

They should be cut in symmetrical shapes or in small, irregular bits. Fruits and vegetables are usually cut in cubes or slices, while meat and fish are shredded, chopped, or cut in small pieces.

Meats and some cooked vegetables are marinated before they are put into salad. This means that they are mixed with some of the oil and acid and allowed to stand in the ice box for some time that they may absorb the flavor.

The green vegetables used for garnish should be arranged just before serving. All green salads should be combined at last moment before serving, and then should be tossed together (not mixed) with a dressing so perfectly blended that it is neither oily nor acid.

Perhaps the most delicious and wholesome dressing is the mayonnaise, for which the following recipe has been found most successful:

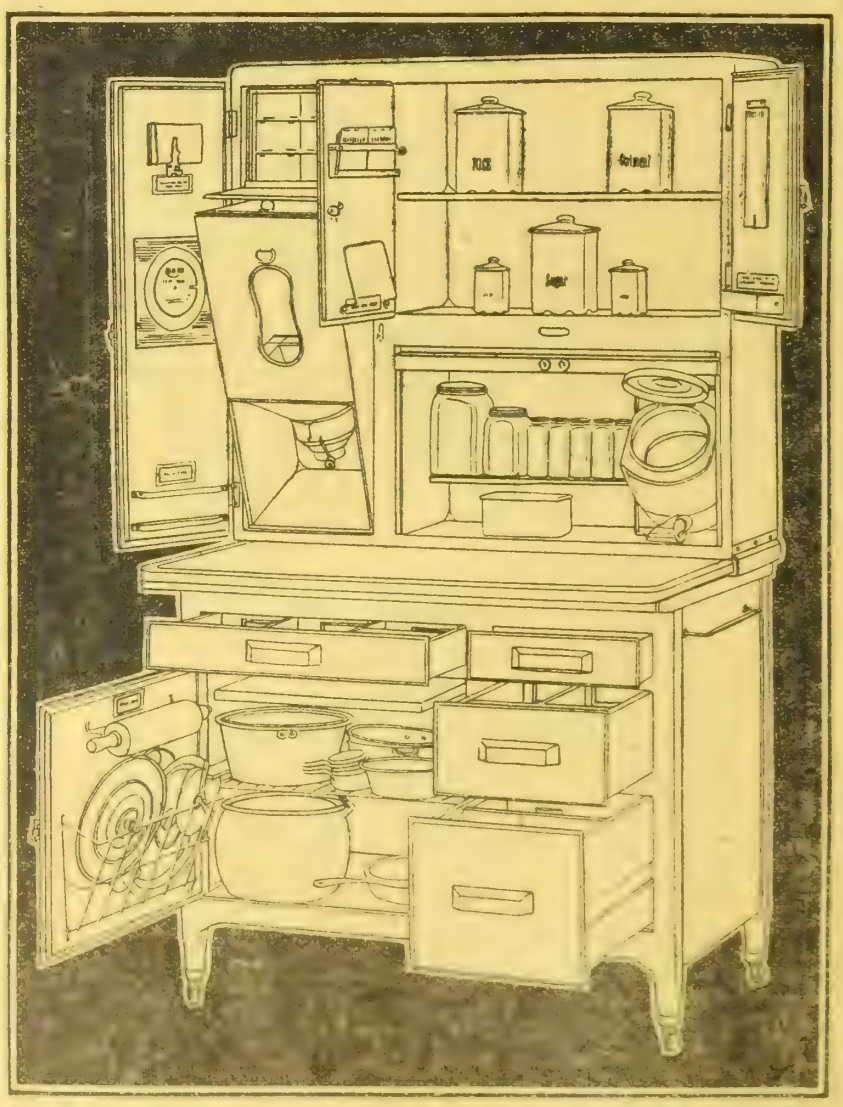
One teaspoon of salt, one-half teaspoon of mustard, one-eighth teaspoon of cayenne, one tablespoon of sugar, one tablespoon of lemon juice, one tablespoon of vinegar, one egg yolk, one cup of olive oil or cooking oil.

Put the egg yolk into a cold bowl, add the seasonings and mix until smooth, then add the oil, one drop at a time, stirring constantly. As it thickens, thin with a few drops of vinegar and lemon juice. Continue this until all of the vinegar and oil have been added. A half cup of thick cream or stiffly beaten egg white may be folded in just before serving. If the dressing curdles in making, add the curdle mixture slowly to a fresh yolk. Keep the dressing in a cold place until ready to serve.

Any good brand of cottonseed oil may be used in place of olive oil. It is less expensive and many people find its flavor more acceptable. An excellent dressing can be made by mixing one-third cup of olive oil and two-thirds cup of Wesson oil.—Carrie Swift.

The Housewife's First Aid.

THE kitchen that was planned with a shortage of built-in cupboard room may be made convenient by installing a good kitchen cabinet. Such a cabinet combines pantry, work table and utensil closet, working materials being within easy reach and properly used only occasionally, but for the general work of the kitchen it cannot take the place of a cabinet. No woman who has ever done her work with the aid of a kitchen cabinet would think of doing without it unless she could have its equivalent



prompt. The up-to-date cabinets contain flour bin and sugar receptacle in addition to cupboard space for pots and pans, spices, salt, cereals and, in fact, everything used in preparing a meal, [illegible] for various dishes for various meals and ample table room for the preparation of food. The woman who is short of cabinet room or who must make unnecessary trips from pantry to work table when preparing a meal should place a kitchen cabinet the next convenience to be installed in her home.

The pantry, where there is no basement storeroom, may be used for storing fruit and for such utensils as are in cupboards, drawers, stoves, [illegible] as a permanent part of the [illegible] farm women who are [illegible] spend a great deal of her time in the kitchen is always on the alert for ways and means of lessening her labors and reducing the number of steps she is obliged to take each day. For her the kitchen cabinet helps solve the problem, and if she adds to this a high stool so that she may sit at many of her tasks she will find that meals are prepared quicker and easier so that time and energy are saved and she will not so much dread the never-ending round of cooking and dishwashing.

Wants Advice on Canning Peas.

To the Editor:—I am a young farm woman and this is my third year farming with my husband. I want to get the advice of some more experienced housekeepers.

The land where we live is new and peas grow wonderfully well. Last year some of the pods were from four to five inches long. We always have good crops. Now, I would like to ask some of the readers how to can peas so as to have them for winter use. I have asked some of my friends, but they do not know how. They told me that they canned some sweet corn, but the jars bursted and the corn spoiled in a short time. They think the peas would do the same thing. Won't someone who has had experience tell me how I can can peas? Can I use Mason jars, or will they keep better in some other kind of jar? I know lots of people do can them, and if I could have the advice of someone who has had experience with them I would try it myself this year.

Mrs. J. S.

Strong Brine For Fish.

To the Editor:—I am sending you our method of salting fish. We usually salt down about fifteen gallons for summer use. The fish can be used either frozen or not frozen. Clean them and salt well, leaving the salt on for twenty-four to thirty-six hours. Then wash the fish, put them in a stone jar or a wooden keg and pour a strong brine over them. I have kept fish this way until the 17th of July, and the last was just as good as when it was put down.

When using the fish, take them out of the brine, wash them and soak in separated milk. That will make them nice and brown when they are fried.

A Friend.

Long Experience Salting Fish.

To the Editor:—I saw a letter asking if frozen fish could be salted for

Last Chance

These great combination offers will not be made after April 25. Magazine prices are going up every day on account of the vast increase in the cost of paper. Send your order today without fail.

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Woman's World.....1 yr.
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summer use. The first question is: "Has this party his own fish, or will he buy frozen stock?" It is a waste of time to salt fish for summer use unless you have the right kind of stock. If you have good, fresh, frozen herring, they will be all right to salt.

Use fifteen pounds of salt to 100 pounds of fish. Before salting them, clean and wash thoroughly. After washing, lay the fish on something to drain; then salt them by rolling each fish in the salt. Be sure to use fully the amount of salt stated. After salting, make a strong brine to cover them, and be sure that they are all covered well.

Forty Years in the Fish Game.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for March 25, 1917.

Jesus the Way, Truth and Life.

(Review.)

SCRIPTURE LESSON—Read John 14:1-14.

GOLDEN TEXT—Jesus saith unto him, I am the way, the truth, and the life, no man cometh unto the father, but by me.—John 14:6.

The purpose of John's gospel is revealed in John 20:31. It was to prove that Jesus is the Christ, the Son of God, and to prove it in such a way that men might believe it in their hearts, and thus obtain, through that belief, eternal life in his name. Therefore, the best method of review for the lessons of the past quarter would be to go over the lessons one by one, and find out how it is that this great truth, which brings life to men, is illustrated in each of the several lessons. The object of such a review should be to make Jesus as real to us as if we were with him and his disciples, and could realize that the Word is now dwelling among us, full of grace and truth, giving daily of his fulness and "grace for grace." (Ch. 1:14-16.) Jesus is "the way," the way to heaven, the way to all that is highest and best on earth, the way of life, the way to the Father, the goal of all human aspirations, the way out of all human darkness and sin. The way to holiness and to God. Jesus is also the truth, the revealed truth about God. He revealed the forgiveness of God for the sins of men, the right way of living. Jesus is the life, the source of life, the life itself, the true life here on earth, and the eternal life which is to abide forever.

Lesson I. Jesus, the Life and Light of Men. This is the central truth of the gospel. Note the preëxistence of Jesus Christ as the eternal Word, "In the beginning with God." Then again we see it as plainly showing forth or declaring him to be God. We see him also as the Creator of all things.

Lesson II. John the Baptist. This is a lesson of John's testimony to Jesus as the Son of God; also that Jesus was the Lamb of God, eternal, preëxistent, the One who was baptized by the Holy Ghost, showing us the real nature of Jesus as the Word of God. Describe who and what he was and did that made him the perfect Savior.

Lesson III. The First Disciples of Jesus. Andrew and Philip discovered the Messiah of whom Moses and the prophets did write, and revealed him unto Nathaniel, who discovered in Jesus the Son of God and the King of Israel. Relate how Jesus found these disciples, their names and their characteristics, and why each one was especially fitted for his particular work.

Lesson IV. His Father's House. Jesus, manifesting himself as the Son of God, the Father, was the Ruler of God's house, and drove from it those who defiled it by making that house a house of merchandise.

Lesson V. The Savior of the World. Jesus, as the only begotten Son of God, can give eternal life to those who believe on him. Describe the character of Nicodemus, what it means to be born again, and what is meant by being born of water and of the spirit.

Lesson VI. The Woman of Samaria. Jesus declared himself to this woman as the Christ, and also as the giver of eternal life; therefore, he was God. Referring to the last lesson, emphasize what Jesus meant by his reference to Moses and the brazen serpent, and bring out the fact that the water of which he speaks is the gift of everlasting life.

Lesson VII. The Nobleman's Son. Jesus made his glory to be seen a second time in Cana of Galilee by healing sickness although not present at the bedside of the sick one. Healing and faith are copartners.

Lesson VIII. The Pool of Bethesda. Again Jesus manifests his power by healing by his bare word the man who had been infirm thirty and eight years, and who was utterly helpless and hopeless. Bring out how the man showed his faith. Explain why Jesus should say to him: "Sin no more lest a worse thing befall thee."

Lesson IX. Five Thousand Fed. Divine power multiplying the loaves and fishes, and divine prudence in assembling the fragments reveals the unquestionable, creative act of the power of Jesus Christ as perhaps none other of his miracles. Emphasize the part which the boy played in coöperating with Christ.

Lesson X. The Bread of Life. Jesus is the Bread of Life as well as the giver of everlasting life. He is the Bread of Life which cometh down from heaven, and the one going to whom we shall never hunger nor thirst.

Lesson XI. Jesus Saves From Sin. Jesus, the Light of the World, has power to set men free from sin, and "whom the Son shall make free is free in-

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—the farmer needs good help in the fields. His wife needs good help in the kitchen. Her important duty is to make the best bakings. Her most important helper is Baking Powder.

If she tries Calumet she'll stick to it. Its dependability and uniform quality means good-bye to bake-day failures.

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER Madison, Wis.

1708—A very desirable and popular apron model. The back is finished with a belt. Pattern is cut in 3 sizes: Small, medium and large. It requires 4½ yards of 36-inch material for a medium size.

Waist 2026-Skirt 2025—A splendid style for business and home wear. Waist pattern 2026 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 36-inch material for a 38-inch size. Skirt pattern 2025 cut in 7 sizes: 22, 24, 26,, 28, 30, 32 and 34 inches waist measure. It requires 5⅜ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

1836—A smart style for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 6½ yards of 44-inch material for an 18-year size.

1690—A dainty spring frock. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8½ yards of 44-inch material for a 36-inch size.

2015—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 5 sizes 6, 8, 10, 12 and 14 years. It requires 4¼ yards of 44-inch material for a 10-year size.

2032—Boys' Blouse. Pattern is cut in 5 sizes: 8, 10, 12, 14 and 16 years. It requires 2⅜ yards of 36-inch material for a 10-year size.

2031—Girls' dress with Bertha trimming, and sleeve in either of two lengths. Pattern is cut in 5 sizes: 4, 6, 8, 10, and 12 years. It requires 4½ yards of 36-inch material for a 10-year size.

2024—Ladies' house dress with sleeve in wrist of elbow length. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

1732—Ladies' shirt waist, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 2¼ yards of 36-inch material for a 36-inch size.

1830—A smart frock for mother's girl. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 5½ yards of 44-inch material for a 12-year size.

1831—Middy suit for juniors. Pattern is cut in 3 sizes: 12, 14 and 16 years. It

requires 5¼ yards of 44-inch material for a 14-year size.

1737—Skirt for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 3 yards of 44-inch material for an 18-year size.

Throughout the rural districts of Wisconsin we hear expressions of loyalty to the United States in the international crisis which is upon us. Wisconsin may always be depended upon to support the Union.

ADVERTISEMENT.

Does a Majority Opinion Justify Confiscation?

SOME people do not care for tea or coffee. Some are violently opposed to them as beverages. But, millions *do* use tea and coffee daily. Suppose opinion *against* coffee and tea should become greater than opinion in *favor of* tea and coffee. Would the majority against tea and coffee have the right to take away or destroy the value of the stores, the roasting establishments, the packing plants and other property belonging to the tea and coffee industry?

Not without Compensation.

* * * * * *

Thousands of men do not use tobacco—do not care for it. Some are so radical as to consider the use of tobacco almost a crime. But millions *do* use and enjoy tobacco. Suppose opinion should be reversed. Would the multitude *against* tobacco be justified in taking away or destroying the value of the property belonging to those who use and enjoy tobacco?

Not without Compensation.

* * * * * *

A large number of people do not believe in the use of medicine of any kind. Yet thousands of kinds of medicines *are used* daily by the world's untold millions. Suppose the anti-drug faction should become stronger in numbers than those in favor of the use of medicines. Would those *opposed* to medicines have the right to confiscate or destroy the value of the drug stores and other property belonging to those who have faith in medical preparations?

Not without Compensation.

* * * * * *

Certain classes of people, generally known as vegetarians, are opposed to the eating of meat. By far the greater proportion of the world's population *does* eat meat and enjoy its benefits. But, suppose the majority opinion should be *against* the use of meat. Would the oppositionists have any moral or legal right to take away or *destroy* the retail markets, packing establishments and other property owned by those engaged in the meat industry? *Not without Compensation.*

* * * * * *

Some people are opposed to the use of pork as a food, others object to oysters; still others oppose the use of this or that or the other thing. Suppose the *minority* opinion in any specific case became *majority* opinion. Would the majority have the right to take away the business or destroy the property of the minority? No! A thousand times NO! *Not without Compensation.*

* * * * * *

The law may take away or destroy that which exists in *violation* of law; but the law cannot *rightfully* destroy that which exists within the law, has been fostered by the law, and has contributed an enormous percentage of taxes to support the government and the law.

Not without Compensation.

The Brewers of Wisconsin

Duroc Futurity at County Fair.

The National Duroc Jersey Record Association has inaugurated the policy of establishing a futurity class at district fairs. A case in point is the Mills County Agricultural Society which holds its annual fair at Melbourne, Iowa. This year the record association has agreed to contribute $150 in cash, to be paid to exhibitors in the under six months pig class, the fair association being required to contribute $50, thus making a purse of $200. There is this stipulation that ten breeders must nominate their herds and pay an entry fee of $5 each. Mr. G. H. White, of Melbourne, Iowa, is secretary of this fair and in a recent communication he states that there were 150 pure-bred Durocs at the fair last year and it is the hope to greatly enlarge the number. An attempt will be made also to hold futurity classes for the Chester Whites, the Hampshires and the Polands. Those who are interested in any of these breeds should establish communication with Mr. White in view of encouraging him and the society in the splendid work which they have undertaken.

Uses Four Poles For Stack.

To the Editor:—I will tell you what I think of placing poles for a stack. I think four poles is best. I would advise four-pole cable outfit. Poles should not be less than thirty-two feet long and 5x5 thick. For extra long stacks 6x6 maybe would be better.

For cable I would use wire hoisting rope three-fourths inch and galvanized. This cable is quite expensive, but will never break. Common cable, which many use, can be had for half the price. This cable is made of seven wires and is quite stiff and can't stand the bending like the other.

The distance between the end poles can be from fifty to seventy-five feet or longer. This depends on how much hay the farmer has. The cable running from top of poles to anchor post should be sixty feet long on both ends. For small stacks fifty feet will do. The cable should be all in one piece. You will have to use a cable carrier. I judge that an outfit like this can be had for $30. If this outfit is set up right it will work like a hay fork in the barn. If a man wants to stack his hay around the yard this is the outfit. I have used one for the last five years and it has never given us any trouble. Otto Kroeger.

Farm Tenant and Crops.

To the Editor:—I have just been reading the article in your splendid paper entitled "Share Rent Fair For Both Parties," which I think is right. Mr. Wingert's plan is a good one, only rent is not as high here as it is in Iowa. However, I do not agree with you in your statement that the landowner should have the privilege of determining the character of the rotation unless the tenant is inexperienced in farming, as the tenant does all the work and bears all the expenses of all grain crops. I think he should have the privilege of determining the character of rotation because he knows what crops are the most profitable for him, and if he wants any land seeded down he usually knows where the land needs it most. My landlord is going to seed down some land this spring and he is letting me use my judgment as to the land that is to be seeded. I am a renter and have been on this farm three years and have it for the coming year. I give one-third of all crops delivered at the nearest elevator, and cash rent for pasture and hay. A Subscriber.

McCook Co., South Dakota.

The failure of many grain companies is threatened because of car famine. It is feared that at least 6,000,000 bushels of corn stored in Chicago will germinate and swell unless it can be moved in the immediate future. So serious has the situation become that some shipping firms loaded cars last week in defiance of the Interstate Commerce Commission's orders. Most of the firms are under contract to deliver grain to the eastern markets and they cannot collect unless such deliveries are made. Hence they are facing bankruptcy in the near future.

ADVERTISEMENT.

BETTER PRICES BROADER MARKETS

Part Played in Problem by Transportation--National Treatment for a National Enterprise.

IN every part of the country the farmers are turning their attention to questions relating to the handling of their products after they leave the farm. Transportation is a part of this problem. The cost of reaching their markets and the ability to reach them promptly at the right time are important factors in determining the returns from their crops.

Low Freight Rates

Fortunately the American farmer has at his command the lowest freight rates in the world. It costs no more to move a load of wheat 500 miles by rail than it does to haul it five miles from farm to station by team. A ton of farm produce of any kind can travel almost twice as far for the same charge on American railroads as on the government-owned roads of other lands.

The cheapness of transportation is not the whole issue. To meet the needs of the farmer transportation facilities must be ample. There must be plenty of tracks and cars and locomotives and sufficient terminals.

Billion a Year Needed

The railroads are anxious to provide means to take care of all the business they can obtain. But a vast outlay of money is required. A billion and a quarter dollars a year for the next ten years or more must go into railroads to provide the necessary transportation facilities.

During the past few years it has become more and more difficult to obtain even in part, the money required for this purpose. This has been due partly to the poor promise of a satisfactory return on the investment; partly to the uncertainty created by numerous and conflicting regulations.

Regulate For All the People

Nobody seriously proposes that the public regulation of railroads shall be weakened. Certainly the railroads themselves do not. But it is a reasonable proposal that the regulation of this great national business should be handled by national agencies, on national lines, in the interest of all the people, and not by local agencies to serve local or sectional ends.

Regulation at cross purposes by 49 masters—48 states and the federal government—now imposes upon the railroads an annual burden of many millions of dollars of wasteful expense, from which the public derives no benefit. It is of primary importance to the farmer to cut down this waste in order that his products may be moved to market at the least expense and with the greatest possible expedition.

The farmer's interest demands free trade among the states.

RAILWAY EXECUTIVES' ADVISORY COMMITTEE

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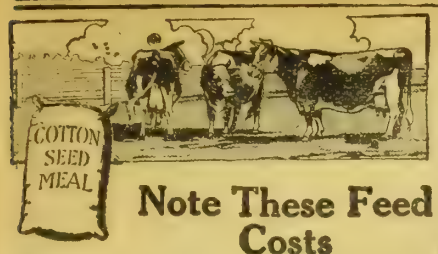


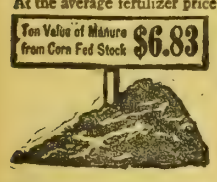
Note These Feed Costs

Wheat—oats—bran mean nothing, except as a means to an end. What is really needed is protein, fat and carbohydrates. In your silage and hay you have an abundant supply of fat and carbohydrates, but these crops are lacking in protein. Protein must be bought, or you must feed your valuable grain. You cannot afford to feed grain at present prices. You cannot afford to use grain concentrates. For each pound of protein today costs as follows—in corn 26c—in oats 24c—in bran 15c—in middlings 13c—in cotton seed meal 6c. Cotton seed meal supplies protein at half the cost of other feeds.

Note These Manure Values

Cotton seed meal is often used as a fertilizer. It is rich in Nitrogen, Phosphoric Acid and Potash. At present fertilizer prices it is worth $48 per ton. Feed it and 80 per cent of this fertilizing value is retained in the manure. The manure is actually worth $38 per ton today. (22)

At the average fertilizer price the manure is worth $25 per ton, as compared with $7 per ton from oat-fed stock and $6 from stock fed on corn.



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VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Probably Cholera.

I have about seventy-five head of hogs. About the latter part of November one of the shoats died in the feed lot. I had a veterinarian examine this hog and he did not find anything, but thought it died from bloat. About a month later another hog was found dead in the hog house. The rest were all well for a few days and then suddenly stopped eating. I called the veterinarian and this time he said it was pneumonia, but the hogs did not cough any. We tried them on medicine for a few days, but they would not take it at all. About three days later we vaccinated by the single treatment. At that time about twelve head had died. We vaccinated sixty head and thirty-six of them died. Some of them seemed to hold out for two weeks or so, some having diarrhea and some not, all were weak in the hind quarters. They cough some now and breathe hard and drink lots of water. I would like to know if it would be all right to keep any that get well.

Your hogs may have had some pneumonia, but a pretty safe guess is that most of them had cholera. Of course, you would be very apt to lose a great many of them if they were sick even if you did vaccinate. It will be all right to use any of the sows that pull through the trouble all right.

Ringworm.

I have thirty-one head of calves that are six months old. They have a white scab all over them, mostly around the nose. I also have thirteen cows the same way. Could you tell me what to do for this trouble?

Your cattle are probably troubled with ringworm. It usually takes six weeks to three months to effect a cure, but a cure can usually be brought about with a persistent line of treatment. The hard crusts should be softened with soft soap and lard, equal parts. In case of an extensive eruption creolin oil (1 to 20) is most suitable. Leave the oil on from two to four days and then remove the softened scabs with fomentations. After the hard scabs have been removed an ointment such as salicylic ointment or ointments of tar, creosote (1 to 10). In mild cases daily painting with tincture of iodine slightly diluted with alcohol is good. During treatment endeavor to prevent animals from rubbing. Keep stables clean.

Abortion.

Please tell me how to get rid of abortion in cattle. Is it catching by dogs carrying a piece of the affected flesh or bone into the yard where cattle are allowed to run with the rest of the herd?

Abortion is best abolished by the disinfectant route. Remove those affected from those not affected. Burn all dead calves and discharges from those affected. Clean and disinfect quarters. Get some good veterinarian to help you start on the disinfecting and to teach you how to use antiseptics in flushing out vaginas of those affected. Clean and disinfect the sheath of the male before and after service. It is bad for dogs to carry portions of calves dead through abortion of mother. It should not be allowed. Do not let those affected run with those not affected.

I am having trouble with my cows losing their calves when they are about three or four months old. I am feeding them wild hay, oats straw and corn fodder. Do you think the feed has anything to do with it? What treatment can I give them to stop it?

We take it from your letter that abortion is present in your herd. That being so, it is either infectious or noninfectious. We would advise you to have a veterinarian examine your herd and also the water and food supply. If he thinks it infectious we would advise you to dispose of your herd, not to neighbors but on the market, or else start the disinfectant treatment, and you should be started off with this by a veterinarian. Keep those that have aborted from those that have not. Clean and disinfect premises.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Break up the stumps with Farm Powder

A *pulled* stump is hard to handle. Getting rid of it is just as big a job as the pulling. *Blast* it out and you can carry it away like firewood. "Most stump pulling machines are too expensive and unwieldy," says U. S. Farmers' Bulletin No. 150. Use

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THE SAFEST EXPLOSIVE
The Original Farm Powder

and save money, time and labor. Punch a hole under the stump, load, fire, and the job is *done!* The shattered roots come out free of earth, the soil is loosened for yards around—ideal for crops.

Atlas Farm Powder is made especially for farm use. It is the cheapest farm hand for blasting stumps and boulders, digging ditches and many other kinds of work. Sold by dealers near you.

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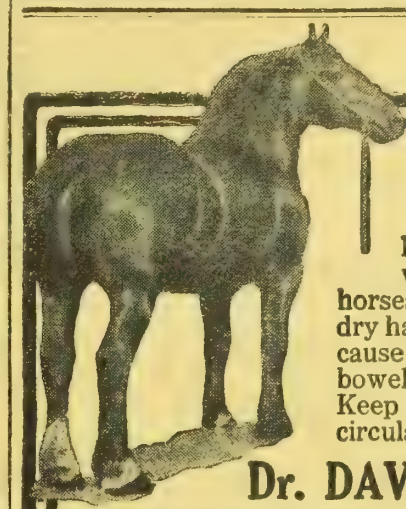


On Dry Feed

Nature takes care of the horse when he is on grass. But your horses are stabled and fed dry feed—dry hay, oats, corn, chop feed. That's the cause of constipation and stoppage of bowels—mighty serious horse troubles. Keep the bowels regular, the blood circulating, the digestion good by using

Dr. DAVID ROBERTS' PHYSIC BALL and HORSE TONIC

They make *grass conditions* for horses. One Physic Ball equals a month of grass. Kidney, blood and liver are all kept in order by Horse Tonic. Your horses will not have shaggy coats, stocky legs, worms or be hide bound.

Colic Drench a great colic medicine—should be in every stable. Stimulates the paralyzed bowels, prevents distention, does away with wind colic.

Fever Paste approved medicine for Distemper, Fevers, Colds. Acts upon the inflamed membranes of the throat and overcomes germs of disease.

Special Sample Offer
STOKVIGOR, 10c

Enough to feed a horse or a cow two weeks. Aids digestion, tones the system, makes animals grow and develop better. Send 10c for Special Sample Package and test on your own stock. Don't fail—don't wait. Enclose dime or stamps.

Go to your own druggist for Dr. Roberts' Live Stock Prescriptions. If not there, send us his name and we will see you are supplied. Nearly 4000 dealers in U. S. Send 25c for Dr. Roberts' 184-page "Practical Home Veterinarian," treating all diseases of all live stock. Address

Dr. David Roberts Veterinary Co.
910 Wisconsin Avenue Waukesha, Wis.

ALSYKE $4.00 Per Bu.
AND TIMOTHY

Northern-grown, hardy, productive, cheapest and best pasture and hay crop. Plump, solid, strong germination. NOT SCREENINGS. Clovers, Timothy, Alfalfa, Seed Corn. 1917 catalog and seed samples free. Northern-grown, hardy, pure seeds are cheapest because they make big, clean crops. All seeds guaranteed. Ask about our 1,000 Club whereby members get seeds at wholesale.
THE ADAMS SEED COMPANY, Box 50, Decorah, Iowa

Free Booklet on Horse Training
BREAK your colts, kickers, runaways, etc., with Koepke's controller bridles and avoid accidents. Write for circulars and free booklet on horse training.
F. L. KOEPKE, Dept. A, Whitehall, Wis.

Read the Advertisements in the Farmers' Market—See Page 17.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Pay Streak and Wm. F. Butts.

WM. T. BUTTS, Evansville, Wis., has the distinction of being one of the best Chester White breeders in the state, and he has gained this reputation by buying good Chesters and giving them the proper care. His herd was established some eight years ago and some new blood has been added each year. The following boars have been represented in this herd: Modeler, Lewis R., St. Elmo, Chief Keokuk, Wonder, Col. Kent, White Rock and Perfection King. At the present time Pay Streak is the big noise in this herd. He was second-prize junior yearling boar at Milwaukee last year and is a good individual in every respect. We never saw a boar with better feet. He is sired by the noted Hinshaw and out of a daughter of Callaway's Choice. Mr. Butts has just purchased a fall (1916) boar that we like very much. He has extreme length, excellent feet and pasterns, a good head and ear, nice spring of rib and with proper care we believe he will be big at maturity. His breeding is most popular, being sired by Izzy O. K. Wonder, grand champion at Kansas and Nebraska, first at Des Moines and second at Omaha. His dam is Juanita O. K. Again, the dam of the Satre boar, Combination Defender, for which $1,000 has been refused. Keep your eye on this young boar, for if he continues to do well he will make a wonderful showing at the fair this fall. Mr. Butts will have some fine pigs to ship at weaning time and if you are going to want one, a pair or a trio you had better get your order in early. His advertisement appears in this issue. See page 24.—Adv.

Strong-Germinating Alfalfa Seed.

ALFALFA is a money-making crop for the northern farmer. Three crops of splendid hay can be cut each season, and a failure seldom occurs when the right seed is used. This matter of seed, however, is of utmost importance, because poor, weak seed, containing noxious weeds will not produce good alfalfa. Olds alfalfa seed is a brand that may be depended upon to produce strong, sturdy plants; It possesses strong germinating power according to actual tests and is free from all weed seed. There are seven stocks of Olds alfalfa: Fancy Montana, Fancy Dakota, Fancy Idaho, Fancy Nebraska, Fancy Nevada, Fancy Kansas and Genuine Grimm alfalfa. Samples of seed from these stocks and records of tests will be sent free to readers of this paper. In addition Olds' 1917 seed book will be sent free on request. It contains 96 pages of illustrations and descriptions of all kinds of farm, garden and flower seeds. See page 11 and write for samples and seed book today, addressing L. L. Olds Seed Company, Drawer 7, Madison, Wis. See page 11.—Adv.

Do You Want Short-horns?

IF YOU are interested in Short-horns, Scotch, Scotch-topped or straight Bates cattle, you can find them in Rock county, Wis., and for information you should write to J. E. Kennedy, secretary, Rock County Short-horn Breeders' Association, Janesville. Rock county is full of good Short-horn cattle, in fact we believe there are more registered Short-horns in Rock county than in any other county in the state. Prospective buyers can find what they want in this county, for they will have a large number to select from. Write Mr. Kennedy your wants and he will tell you how many cattle can be had at this time. Please mention The Wisconsin Farmer. See page 25.—Adv.

Breeding Short-horns Forty-six Years.

A MAN that can stay in the cattle business 46 years must be on the square or he would be put out of business. Kiser Bros., Oregon, Wis., have been breeding Short-horn cattle continually for 46 years. They are known wherever Short-horns are talked in this state and at this time it is wasted energy for us to say anything about these gentlemen other than to advise that they have on hand a nice lot of young bulls. We recently saw these bulls and we fell confident that they will please you. If interested write, mentioning this paper. See page 25.—Adv.

Some Classy Holsteins.

JUST at this time Kirkpatrick Bros., Reedsburg, Wis., are offering some cows and heifers and an outstanding bull. The cows and heifers are well bred and are safe in calf to a Pontiac bull, one of the best of the strain in the state. The bull is a 24-pound, 16 months old fellow that is absolutely right in every way and suitable to head a high-class herd of cattle. Write the above firm. They'll treat you right. See page 27.—Adv.

Orion Col. S.

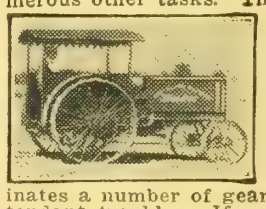
GET acquainted with the above title, for it is the name of a Duroc Jersey boar that will be heard from. He is owned by W. C. Jenkins, Bangor, Wis., and is a big-type boar in every respect. His sire, Col. S. Jr., is the noted Johnson boar, one of the best that ever did service in Ohio. His dam, Opal Orion, is a big, deep sow and a wonderful breeding matron. She is by that great sow sire, Orion Chief. Mr. Jenkins hopes to have about 75 spring pigs sired by Orion Col. S. and they will be from good dams. Keep your eye on this big boar—he is one of the best in the state.—Adv.

Important Holstein Dispersion.

ON April 6th and 7th, the entire Stephenson Farm herd of Holsteins will be dispersed at Lake Mills, Wis. This offering is of such merit and has made such records that this sale should attract the best of breeders from all parts of the United States. There will be 11 cows with over 800-pound records and they are all young and in their prime. Of the 175 head to be sold, only 30 are over five years of age. Included are 116 descendants of Admiral Prilly 72923, the senior herd sire that has 25 tested daughters. Of these, 11 average over 800 pounds for the year. There are 40 sons and daughters fo King Walker Pietertje Segis 127857, the junior herd sire, whose first 13 dams average 30.07 pounds. He is a grandson of King Segis. Over half of the cows will be well along in calf to this great bull. Those contemplating the purchase of Holsteins should send for a catalog and study the breeding and records of this herd. The cattle to be sold are backed up by a line of ancestors with excellent records and anyone who buys a bull or some females in this sale need have no fear of their producing or breeding ability. See page 26 and write for catalog, mentioning The Wisconsin Farmer.—Adv.

Solve the Power Problem With a Heider.

FOR the farmer who has a power problem to solve the Heider tractor will prove a profitable investment. It is an all-purpose engine, capable of pulling a plow, running a thresher or feed grinder, hauling loads and doing numerous other tasks. The Heider is especially economical to operate and will run with entire satisfaction on either kerosene or gasoline. The famous Heider friction transmission eliminates a number of gears and their attendant troubles. If you are going to be in the market for a tractor, get the Heider catalog and look it over carefully. It will give you some valuable suggestions about tractor buying. Write for it at once to the Rock Island Plow Co., Rock Island, Ill., and mention this paper in order to get a prompt reply.—Adv.



E.-B. Cultivators and Other Farm Tools.

THE E.-B. cultivator is known to do absolutely satisfactory work and is very easy to operate. An important feature is the foot control which does away with levers. The gangs are very easily managed and there is little strain on horses' necks. Quick adjustment of the wheels balances the weight of the operator, whether he is heavy or light. Other important features of the E.-B. cultivator are telescope axles, broad, concave wheel tires and long distance magazine wheel boxes. This tool is made in different types to suit every kind of soil. If you will need a cultivator don't fail to learn about this one. Get a catalog now, while you are thinking of it—all you need to do is to fill in the coupon in the advertisement on page 6 and mail to the Emerson-Brantingham Implement Co. (Inc.) 37 W. Iron St., Rockford, Ill. If you are interested in other farm implements also, make a check beside their names on the coupon.—Adv.

Fisher Adds More Good Blood.

WE have just been advised that John L. Fisher, Janesville, Wis., has purchased a daughter of the noted Thos. Johnson boar, Col. High Chief. She is a well-bred sow, being out of a granddaughter of The Professor and Volunteer and her sire is by High Chief by the one and only Ohio Chief. She is bred to the International champion, Oakland Orion Cherry King. Mr. Fisher has also purchased a daughter of The Professor one of the best sons of Ohio Chief and she is bred to Cherry Chief's Wonder, the sire of the $1,500 champion, Tommy Doyle. Fisher will have some litters to make a noise about a little later, other than those sired by his own grand champion boar, King Defender. He is offering a King the Col. boar out of a litter sister to Lee's Defender—if interested write. Keep this herd in mind. See page 24.—Adv.

Serviceable, Attractive Silos.

MINNEAPOLIS panel silos are serviceable and economical, yet they will add attractiveness and beauty to any farm. They are built of steel and wood in such a way that there is absolutely no danger of their collapsing or blowing down. The shiplap, drop-sided, paneled walls have dry seams and joints always, which mean long life and freedom from rot and deterioration. Send for catalog of this valuable silo, addressing the Puffer-Hubbard Mfg. Co., 3205 26th St., Minneapolis, Minn. See page 13.—Adv.

Jones' Short-horns.

EBEN E. JONES, Rockland, Wis., breeds Scotch and Scotch-topped Short-horn cattle and if you want bulls or females that are right it will pay you to write him for further particulars. He has had good bulls doing service in his herd and the young stuff that he has for sale are characteristic of the breed. Mention this publication when writing. See page 25.—Adv.

Northern-Grown Seeds Are Popular.

THE hardy, northern-grown seeds of the John A. Salzer Seed Co., Box 123, La Crosse, Wis., are popular all over the country, because they are known to produce strong, healthy plants. This company has specialized in adapting seeds to suit different conditions and has won an enviable reputation in this work. Their big 1917 catalog tells of their seeds and is brimful of other agricultural information besides. It is a valuable book and one that every gardener, farmer or orchardist should have. It will be sent free on request, together with any samples of field seed that you are interested in. Send for this catalog at once, using the address given above. The advertisement appeared in last week's issue on page 14.—Adv.

Land Clearing Made Easy and Profitable.

THE Kirstin stump puller will prove an excellent investment for the farmer who has stump land on his farm. This land is usually very rich in plant food and will produce abundant crops if properly cleared. The Kirstin stump puller provides means of clearing such land at a small cost. It is a one-man outfit, requires no horses and works quickly and easily. The A. J. Kirstin Company, 6549 Ludington St., Escanaba, Mich., have issued a book called, "The Gold in Your Stump Land," which explains the Kirstin method and if you are interested in this subject you should send for this book without deday. The advertisement appeared on page 10 of last week's issue.—Adv.

The Substantial Beaver Silo.

THE success of the silo has been proved beyond doubt. It is practically an essential to profitable stock feeding. But the question is what kind to buy. On this question the advertisement of Beaver silos on page 13 will give some valuable suggestions. Beaver silos are sturdy and reliable; thousands of them have stood up under the severest storms which visit Wisconsin. All bracing is sound and secure, solid as a rock. There is no danger from swelling, shrinkage or collapsing. Write for illustrated description of this silo and also valuable table telling the size of silo to build for your number of live stock and size of farm. Address Beaver Silo & Mfg. Co., 417 High St., Beaver Dam, Wis.—Adv.

Angus Association Spring Bull Sale.

THE annual spring bull sale under the management of the American Aberdeen Angus Breeders' Association will be held this year at St. Joseph, Mo., April 24th; Omaha, Neb., April 25th; Sioux City, Iowa, April, 26th; East St. Louis, Ill., May 1st, and Chicago, Ill., May 2d. For these sales there has been listed in the neighborhood of 300 bulls, all in good shape, all tuberculin tested and all coming from reliable herds. A few females will be offered in some of the sales. Full particulars regarding these big sales will appear in later issues. Applications for catalogs should be filed with Sec. Charles Gray, 817 Exchange avenue, Chicago, Ill. Kindly mention this paper when you write.—Adv.

Short-horns That Are Good.

W. J. BERND, New Richmond, Wis., has a big herd of good Short-horn cattle. Not only is the herd large in numbers, but they are large individually, in fact we believe that Mr. Bernd has some of the largest cows owned by any one man, in the state. While they are big, they are not rough or leggy and they are excellent milkers. Good bulls, of prize-winning caliber head the herd and if you should make a trip to see this herd you will not be disappointed. New Richmond is just a short way from the twin cities and the shipping facilities are the very best. Write the owner for a description of his good cattle. See page 25.—Adv.

Free Subscription to Tractor News.

A FREE subscription to the Chicago Tractor News will be given to readers of this paper who are interested in power farming. Here is an opportunity to keep posted on the latest improvements and developments of this coming line. The information this publication contains will be valuable to any farmer. See the advertisement on page 2 of the Curtis Form-a-Tractor Company, 1001 Straus Building, Chicago, Ill., which explains the proposition. It will cost you nothing but the time required to fill in the coupon and mail it to the company. Send for your subscription today.—Adv.

Tulloch & Fries Have the Goods.

HAVE you written to Tulloch & Fries, Genoa, Wis., about those bulls they have for sale? If you want cheap bulls you can't do business with the above firm, but if you want to buy bulls on the basis of "where price and quality meet," they have the goods. The bulls they have for sale are by 32-pound sires and out of A. R. O. dams, but then you can't appreciate this herd unless you have seen them. Genoa is near La Crosse on the C., B. & Q. Take a trip and see one of the very best herds in western Wisconsin. If you want bulls that have a future write Tulloch & Fries. See page 27.—Adv.

Children Are Winning Ponies.

EVERY boy or girl has a chance to win a free pony. The famous Pony King is going to give away five beautiful Shetland ponies soon and every child who joins the Pony Club will have an equal chance with all the rest to win one of these ponies. Already 445 ponies have been given away to 445 boys and girls all over the United States. The picture here shows Victor Harris, of Ashland county, Wis., and his pony, "Jay," which was given to him by the Pony King not long ago. "Jay" is a very beautiful pony and one that has learned a number of tricks including shaking hands. He is one of the 445 ponies that were given away free to children of the Pony Club. It is very easy to join this club; any child can do so by writing his name on the coupon in the lower part of the advertisement on page 28 and mailing it to the Pony King. Parents can help their childen do this and thus give them a chance at the Pony King's generous offer. Every child should have a pony; ponies are inexpensive to keep and afford a great deal of pleasure. Children grow strong and healthy playing with them or driving about the country, and there is no harm or danger in the gentle Shetlands that the Pony King gives away. They are a continuous source of pleasure and enjoyment. Harold A. Pierce, Waushara county, Wis., sent his name to the Pony King and received a fine pony named "Sportsman." The pony has been taught to do 21 tricks, including rolling over, telling how old he is, standing on his hind feet and shaking hands. Harold claims he wouldn't be without his pony for anything. Cecelia Garot, of Kewaunee county, Wis., also received a pony from the Pony King. She wrote to the Pony King that she was delighted with her pony and that the people who came to see it declared that it was the sweetest little pony they had ever seen. Cecelia's pony is named "Crescent," and she says he is so gentle he will eat sugar right out of her hand. Many other boys and girls have won ponies from the Pony King. Among them are Victor Harris, of Ashland county, Wis.; Sheldon Adams and Alfred Hokenstad, of Dane county, and Pearl Kerr and Lawrence Fox, of Grant county. These children all know that the Pony King will do what he says. Children in families who read this paper have an especially good chance to win a pony if they send in their names at once, and any child or parent can learn all about the wonderful Pony King by writing to him, addressing the letter to the Pony King, 307 Webb Building, St. Paul, Minn., and asking for the free Pony Picture Circular. The circular has beautiful colored pictures of ponies on the Pony King's farm and it shows the Pony King playing with the children who live near him and come often to visit him and ride the ponies. It contains pictures of the five beautiful Shetland ponies that the Pony King is now ready to give away and tells all about them. They are gentle ponies and any child can have a wonderful lot of pleasure and enjoyment with one. Now is the time to join the pony club and be ready to win one of these fine ponies. The Pony King is a big-hearted, generous man and every child should write to him for this picture circular. Perhaps the quickest way is to fill in the coupon in the advertisement on the back page of this paper and mail to the Pony King at once.—Adv.

Cheap Wind Power on the Farm.

LET the wind pump your water for nothing." This is the suggestion made on page 10 by the Stover Manufacturing Co., 218 Samson Ave., Freeport, Ill. Wind power is indeed cheap and a good mill works untiringly and with very little attention. If you have to pump water, a windmill will save you labor and expense, providing it is the right kind of a mill. The Samson mill is the right kind, for it is dependable and efficient. The company named above will be glad to furnish you full

information on this windmill which is already used by farmers all over the country. Write for information today, and if you are interested in other farm machines also, state this fact in your letter.—Adv.

How Much is Your Stump Land Worth?

A SERIES of investigations has shown the stump land of America, if it were cleared and ready for cultivation, to be worth more than the average farmer's best paying land. But stump land in its loafer state is worth practically nothing as far as actual profits are concerned and in fact is a direct loss to its owner. Wasted energy is what some land experts call this loafer stump land and it's a good, true expression, too. When a man realizes the amount of good virgin soil going to waste year after year. Soil that should be working and bringing in dollars and cents. It is plain enough to see why loafer stump land is called "wasted energy." It is really a shame that progressive American farmers will permit virgin soil to loaf and especially in these high-priced times. Statistics back us when we say that your loafer stump land is the best virgin soil you have. It doesn't need fertilizer, because for years this soil has been accumulating leaf mold and decaying vegetation of all kinds. It is literally a gold mine. In this time of high food prices American farmers must utilize every bit of ground. If you have a stump patch clear it for cultivation, for crops and profits. Let high prices build your bank account. Put every acre you own to work and don't for one minute allow fertile soil to loaf because stumps make it impossible to cultivate. Pull out the stumps and get them out now. Your state agricultural station will gladly furnish you with any advice you may desire and if you wish the Hercules Mfg. Co., of Centerville, Iowa, manufacturers of the Hercules triple power stump puller, will gladly supply you with land-clearing information. You know there is wasted land lying in that stump pasture. Land that will pay you the biggest profits for years. Why let it stand idle every year, when you can clear it easily and in a short time? Get busy now and have it ready for this year's planting. See page 10.—Adv.

A Reliable Incubator.

THE National metal-covered incubator has made a lasting reputation for honest value and dependable service in the poultry world. A well-built, metal-covered machine of 165-egg capacity that has proven in past years to be a dependable hatcher in all kinds of weather. The National is built in but the one size, as the manufacturer has found it to be the popular size and the size that can be run most economically on the farm. Our readers are offered a 40 days' trial period which allows time for one hatch. It is a moderate-priced incubator selling for but $10 and the freight is prepaid. By writing to the National Incubator Company, Box 506, Racine, Wis., you may receive more details about this incubator also their 1917 book, "Notes On Poultry Raising," which contains much advice of value to all poultry raisers. See page 16.—Adv.

Big Hatches From the Ironclad Incubator.

THERE is money in operating an incubator like the Ironclad. It gets a high percentage of strong, sturdy chicks that will make good spring frys or broilers. The Ironclad incubator of 150-egg capacity is absolutely reliable, stanch and firm in every principle of construction; the insulation is of the highest type and the heating apparatus is thoroughly tested and adjusted. Full information is contained in the free catalog of the Ironclad Incubator Company, Box 113, Racine, Wis., but to save time you can order direct from the advertisement on page 14. Send in your order today.—Adv.

"Standard" Plumbing Fixtures.

ANYONE who intends to build or remodel his home, should get the new books of the Standard Sanitary Mfg. Co., Dept. 207, Pittsburg, Pa. They describe carefully the style and price of a wide variety of plumbing fixtures for the bathroom, kitchen and laundry. Standard fixtures are known by the green and gold label bearing the word "Standard." These fixtures will make a valuable and beautiful addition to your home. See the advertisement on page 18 and write for the book now. —Adv.

SALE DATES.

Holstein Cattle.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 6-7, Dispersion of the Stephenson Farm Herd of Holsteins, Lake Mills, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Get My Price—FIRST

Freight Prepaid—30 Days' Free Trial

I want to quote you a price that will cause you to sit right up and take notice on the grandest, best plow that ever turned a furrow. I can do it because we are the *actual manufacturers*, and sell *direct to you*. We don't have traveling salesmen—don't sell to jobbers or dealers. You save those expenses and profits when you order direct from our factory. But that isn't all. You get a *better plow*. I say to you that the

MONMOUTH SULKY OR GANG PLOW

will prove easier for you to handle, easier on your horses and will do your work better than any plow you can buy, regardless of price. It's positively the only plow that actually carries the beams **on top** of the frame. No pressure on bottom of furrow—no friction. Single Ball and Horse Lift; and "Point First" action.

ALL SOLD DIRECT FROM FACTORY

FREIGHT PREPAID, SO YOU KNOW EXACTLY WHAT YOUR PLOW IS GOING TO COST YOU

I'll give you a chance to prove every statement I make, and we'll pay the "damages"—freight *both* ways—if we "fall down" in a single assertion. I want to tell you all about these plows and our other implements—Cultivators, Disc and Spike Tooth Harrows, Grain Drills, Mowers, Rakes, Farm Gates and other farm tools—all sold at factory prices. Satisfaction guaranteed. Just write a postal for our complete catalog. It's free. Write to me, **The Plow Man**, with

Get My Free Book

Lightest Draft Plow Made

Monmouth Plow Factory, 117 So. Main St. Monmouth, Ill.

SALE DATES.

Hereford Cattle.

Mar. 24, Minn. Hereford Breeders' Assn., South St. Paul, Minn.

May 17, Birch & Thompson, Lake Geneva, Wis.

Percherons.

Mar. 27, C. P. Quirin and Miller & Brown, Marcus, Iowa. (Sale at Sioux City, Iowa.

George Pagel's Duroc Sale.

Another successful Duroc Jersey sow sale was made by George W. Pagel at Zumbrota, Minn., February 26th. Thirty-six head were sold at an average of $63.57 and considering the fact that many of them were of late farrow and bred late, Mr. Pagel was very well satisfied with the outcome of his sale The top of this sale was a gilt that went to J. L. Schilling, Onalaska, Wis., at $110, and she was a good buy at that figure. Mr. Pagel's herd boar, H. C. Wonder, made a decided hit with the breeders in attendance and, as the pigs by this boar begin to show up we believe that he will be more appreciated. H. S. Allen sold the offering with his usual ability. We follow with the complete sale report: No. 1, J. L. Schilling, Onalaska, Wis., $107.50; 2, G. W. Hazelton, Racine, Minn., $67.50; 3, W. J. Otte, Randolph, Minn., $75; 4, Geo. Wolf, Goodhue, Minn., $62.50; 5, G. W. Hazelton, $75; 6, Herman Nibbe, Zumbro Falls, Minn., $65; 7, Herman Nibbe, $67.50; 8, W. J. Dack, Stanton, Minn., $65; 9, E. R. Emery, Stanton, Minn., $70; 10, C. E. Overby, Wanamingo, Minn., $75; 11, W. G. Holets, Wykoff, Minn., $50; 12, W. E. Peterson, Zumbrota, Minn., $70; 13, W. G. Holets, $85; 14, J. L. Schilling, $110; 15, Ed Patterson, Jr., Bridgeport, Wis., $67.50; 16, Young Bros., Mindoro, Wis., $65; 17, G. A. Benrud, Bellechester, Minn., $60; 18, Geo. E. Purver, Eyota, Minn., $55; 19, B. W. Whitney, Stanton, Minn., $52.50; 20, Geo. B. Johnson, Goodhue, Minn., $52.50; 21, E. R. Emery, $52.50; 22, Chas. Trutman, Hager City, Wis., $50; 23, C. P. Fisher, Owatonna, Minn., $50; 24, O. F. Henkel, Kenyon, Minn., $50; 25, Berg Bros., Welch, Minn., $60; 26, W. J. Dack, $55; 29, J. L. Gossard, Kasson, Minn., $62.50; 30, Geo. E. Purves, $55; 31, Cusick & Randal, Spring Valley, Minn., $55; 32, W. G. Holets, $55; 33, W. G. Holets, $57.50; 34, David McKegg, Stanton, Minn., $52.50; 35, F. S Vanderhyde, West Concord, Minn., $65; 40, Reuter Bros., Cannon Falls, Minn., $52.50; C. W. E. Peterson, $45. Total $2,270; average, $63.57.

SALESMEN

Active men to sell stock in Wisconsin, of an established Automobile Company. Liberal commission paid. Will stand the closest investigation. Write or call 932 First National Bank Building, Milwaukee.

SHIP YOUR HIDES AND WOOL

to us for highest market prices. Write for latest price list and shipping tags.

WESTERN FUR & HIDE CO.
144 W. Kinzie St. Chicago, Illinois

FOR SALE AT A BARGAIN—A fine driving mare 8 years old, weight about 1,000 pounds. Colt 9 months old, a natural born pacer. This colt is perfect and is from fast stock. Cutter, buggy, cart, harness, etc., will go with this outfit. (Answer) in care of Wisconsin Farmer.

Union Stockyards, Chicago, Ill, March 17th.—The last fortnight has seen but a scant 80,000 cattle at Chicago and the lightest around-the-circle supply this year to date. Neither car shortage nor bullishness on the part of owners is responsible for the small marketing. The fact that beef scarcity confronts the nation and that beef cost, already high, must be marked up to meet advancing cost of cattle on foot. Within the past two weeks advances ranging from 75c@$1.25 have been shown on the bulk of the beef steers and some cattle are $1.50 higher than the "low spot" in February. Shortage is not to be disputed. It has shown up in somewhat acute form even earlier than forcasters expected. Premature marketing has been the rule all winter, making a bare spot logical. Heavy cattle sold up to $12.65 and a load of prime bullocks would have been eligible to a bid of $12.75. A $13 transaction cannot be long deferred. Packers are getting few decent dressed beef steers under $10.75. Cattle worth around $9.60 late in February went over at $10.85. Low hard pressed killers are for beef to fill contracts was indicated by a clamor for light trash at $7@8.

So many factors enter into the equation that forecasts at this high level of prices are impossible. The labor outlook is unpromising and high prices always arrest consumption. Educating the consumer to a new scale of retail prices at frequent intervals is difficult. The week's advance means another rise and further restricting of con mption. Present cattle values would be impossible but for scarcity, but there is no sign of relief, every possible supply source having been drained. Prices may not go much higher, but there will be no cheap cattle.

After touching a new high spot in trade history late last week, with a $15.10 top and $14.94 general average on Saturday, the hog market had a moderate and not illogical reaction the first half of this week, Wednesday's trade being 25@40c under Saturday. On Thursday and Friday, however, the market did a comeback stunt, the threatened railroad strike being a factor. The loss of the fore part of the week was regained, Friday producing a $15.10 top and a $14.92 average. Deficiency of tonnage, owing to the high cost of corn, is a factor not to be ignored in the hog trade. A load of 300-pound hogs at any western market is rare and eastern growers have adopted the policy of cashing at light weights—a logical one, as they are fearful of overstaying a good market and adverse to feeding dollar corn. There will be a fair run of hogs right along, but few in trade believe that receipts will be heavy enough to materially depress values.

Lambs are selling 10@20c lower than the high time last week late, but show 10@15c advances, in the main, from this week's bottom levels and appear to be headed higher. The wool market continues to advance and a 40 to 60-day period of light receipts of sheep and lambs lies just ahead. That prime lambs in the fleece will realize $ i this side of May is not improbable. Sheep and good yearlings are 10@25c higher than a week ago and at new record levels. In view of current high prices the following bit of sheep history is of interest. A number of sheep boiling plants, in which sheep carcasses were boiled down, principally for the tallow, were located at different points in Ohio in 1850. Two such plants locat d at Bellefontaine, Logan county, killed about 16,000 head annually, while at Cleveland several establishments slaughtered 16,000 head each. One report gives the following products returned from each sheep; tallow, eight pounds at 6¼c, 50 cents; two venison hams, seven pounds, at 4 cents, 28 cents; and pelt 75 cents, a total of $1.53. The tallow sold for considerably more than mutton.

Fat cattle values are mostly 25@50c higher than a week ago and at the highest altitude on record. The advance has put all really decent beef steers above the $10.75 line and much of the crop of fat steers this week has sold at $11@12.25. The $12.25@12.65 kinds of good to choice fat bullocks with an effective corn crib cross have had good action, steers at $12.50 being a kind selling two weeks back at $11.75. From $10.50 down only warmed-up light steers are to be found, the $10 grade being merely in fleshy feeder condition and under that line only cattle are now available that normally would be feeders and go back to the country without serious contention by killers. Everything with a pinch of beef on its ribs, wearing a hide and capable of bleeding, has been taken this week by killers, who made raids on the accumulation in yard traders' hands, taking even the $7 canner kind. This indicated that contracts are unfilled and that the time limit is in operation. Both quality and condition here this week have been the poorest in market history, steers dressing 55 to 56 per cent showing up in profusion. Difficulty in getting corn is putting cattle on the cars in many localities and the high price of trash is sending it to market.

Butcher cattle have advanced along with steers, most she stock being 25@40c higher than a week ago, bulls 10@25c up. In the canner trade only occasional hard shells are selling below $5.50, bulk of the fair to good canner cows making $5.75@6.15, while common to medium cutters sell at $6.25@6.60 and a good, strong, long-haired cutter kind upward to $7. Butcher cows selling below $7.40 are an ordinary light or dairy grade, $7.50@8.50 taking fair to good fat kinds and choice corn-feds going upward from $9. Prime heavy Kosher cows had value on up to $10.25 and better, a few having reached $10.75 in the mid-week session, but such are novelties in current marketings. Only trashy light heifer stuff went at $6.50 and under, killers getting few heifers of decent butcher quality below $7.65, while $8.50@9.25 was readily forthcoming for a medium to strictly good corny kind, choice, well-turned fat heifers going up to $10 and above and something of prime class having a quotable value to $11 and even higher.

Demand for stock and feeding cattle is slack, but strong killer call for anything that would bleed has forced stocker stuff up 10@15c and good weight feeders to 15@25c higher levels. Few country men have feed enough on hand to carry cattle through until grass and most of them balk at paying prevailing record prices for thin cattle on top of the high feed bill. Most of the medium to good stock and feeding steers are selling at $8@9, choice feeders up to $9.35@9.50 and even higher.

Hog receipts around the market circle showed some increase the first half of this week, the high prices prevailing at last week's closing prompting activity on the part of country shippers. The market declined 25@40c in three days from the high spot last Saturday, but the loss was recovered on Thursday and Friday. The advance carried the top back to $15.10, or 75c higher than Monday, March 5th, low day last week. Bulk of the supply here yesterday sold at $14.80@15. A good class of mixed packing sold at $14.70@14.85, with some common lights down around $14.25 and good pigs largely at $12.25@12.50. Late in the day bids of $15.10 were refused for choice butcher hogs.

More liberal receipts of lambs early this week, with the supply carrying a heavy movement direct to packers from western markets caused declines of 25c and more from the high spot late last week, but trade conditions have improved since on lessened receipts and stronger dressed mutton markets down East and at week-end prices are within 10@20c of a week ago and headed upward. Some bare spots are expected in the supply during the next thirty days and that choice handy-weight lambs will reach $16 is well within the range of possibilities. At present $14.85 is taking the best and the bulk of the medium to good lambs, running largely to 82@88-pound averages, is selling at $14.35@14.75. There is good demand for fleshy lambs for shearing purposes, Ohio, Wisconsin and Michigan shearers having taken out a number of loads this week at $14.25@14.50, higher prices than such stuff ever before sold on country account. Sheep and yearlings continue to form a meager quota of the arrival and are unevenly 10@25c higher than last week. New price records were hung up, choice light Colorado-Mexican yearlings reaching $14, a few prime native ewes $12.25 and choice fed western ewes $12.10. A lot of medium to good Mexican and western ewes sold during the week at $11@11.50 and $12@12.65 was paid for good to choice matured wethers. Supplies of shorn stock are increasing in seasonable manner and good to choice fresh shorn lambs sold at $11.50@12.15, the $11.50@11.75 stuff carrying considerable weight. Shorn yearlings, strong weights, sold up to $11 and shorn fed western wethers at $10.50. A lighter supply is expected from now on and with Easter demand approaching, higher prices, especially for light lambs, are probable.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

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WE still have on hand a large number of two coming three Percheron stallions, those colts now weigh up to 2,110 pounds, and if you are looking for an outstanding good one to head your herd of mares you should write and get prices on those colts. Our three-year-old and aged Percheron stallions are the best lot we ever had on hand. They weigh up to 2,300 pounds. In Belgians we offer a very strong lot from one to six years old. Among them is Bizarre, a five-year-old sorrel chestnut stallion weighing 2,300 pounds. This stallion is as good as money can buy and fit to go any place. He must be seen to be appreciated. We have on hand a number of stallions from six to ten years old that have made seasons. Those horses weigh up to 2,100 pounds, and we will sell them very reasonable. We have a horse for every purse and know we can save you money. We want to buy 50 head of one coming two Percheron and Belgian stallions. Write us what you have. Send 25 cents in stamps for large horse hanger. Address

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We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R. R., making direct connections for Lawler.

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WE are offering an extra good selection of horses, priced worth the money. We can suit you in quality, price and terms. Write your wants or come and see us.

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First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

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GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

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Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

W. A. LANG & CO. **GREELEY, IOWA**

LEFEBURES' BELGIANS

Largest Collection on Earth

150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

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8 miles west of Cedar Rapids

If in Cedar Rapids, phone us for hourly Interurban service

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Addrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

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AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

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OF all ages for sale. Pedigrees and prices gladly given upon request.

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Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.

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(35 miles southeast of St. Paul)

Silver Springs Farm Company.

WE would like to refer you to the Silver Springs Farm Co., Eau Claire, Wis., if you wish to buy a few real choice heifers. They have an excellent herd of Holsteins and we know that you will be pleased with your buy if you patronize this firm. It is useless to say more—their breeding is the very best and the individuals are consistent with the breeding. Write about the heifer calves before they are all sold.—Adv.

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CAN'T you use a few good Aberdeen Angus heifers or a bull of serviceable age. If you can, write to Orville H. Kettler, Platteville, Wis. The heifers are young and are of good breeding and the young bulls are of serviceable age and will give satisfaction. The advertisement appears on page 25 of this issue. Write the owner at once for prices and description.—Adv.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address

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A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write. O. R. Frauenheim, Random Lake, Wisconsin.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

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GROW YOUR HERD BOAR

BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early.

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BRED GILTS
POLAND CHINAS

BRED for March and April farrow. Short-horn bulls from a heavy milking family.

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Good ones. Sired by Smooth Price, Northside Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT

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OFFERS Poland fall boars and sows out of matured dams and sired by Crow's Progress, Jim Crow and Mc's King. Some show prospects. Booking orders for spring boars to be shipped at three months. Write

J. D. McDonald **North Bend, Wis.**

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POLAND GILTS

AT private sale—good ones, bred to my big boars.

E. W. HENDRICKS
Hazel Green Wis

POLANDS

SOME very choice fall pigs—absolutely right. Order one. Address

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BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address

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ARE in demand. I can spare no more. Thank you.

C. S. Flesch **Mt. Ida, Wis.**

DUROC JERSEY SWINE.

FISHER

Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address

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OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.

Dennis Shea **Melvina, Wis.**

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address

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SOWS ALL SOLD

OFFER fall Durocs, both sexes. Book orders for spring boars. A few bushels of seed corn. Write at once. Address

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ATWATER

HAS no Durocs to sell until May. Will book your order.

L. F. Atwater **Bangor, Wis.**

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THEY are dandies, with stretch and quality. Our guarantee with each pig. Address

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BRED to Cook's Defender for sale. Only a few, order early. Address

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CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

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OFFERS for sale bull calf, dropped Feb. 5, 1917. Solid color, black tongue and switch. Sired by a son of Noble of Oakland 95700. Dam has a R. of M. record of 594 lbs. 10 oz. butter as a two year old. Write for particulars or come and see him. Address

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REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

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A SON of Wisconsin's champion 3-year-old Jersey, with 707 pounds or 85% butter in a year. A fine, solid-color individual. For details write

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COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.

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1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Callaway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Ray Streak. Write

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Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

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IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

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Bulls for sale of various ages.
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A FINE bunch of heifers, granddaughters of Pontiac Korndyke. For further information, prices and pedigrees address
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WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
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FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
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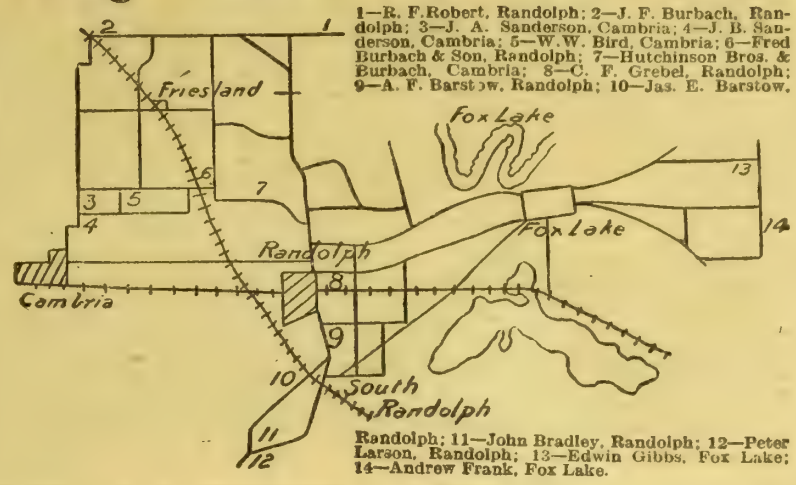
Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Cambria; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Bulls Bulls

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AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

REG. HOLSTEINS

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J. A. Sanderson - Cambria, Wisconsin

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HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
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FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
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READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
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BRED to a good son of Tommy Doyle, the $1,500 grand champion, for March and April farrow. Their dams are by Col. Defender 2d or Valley G. Priced to sell. Write
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ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.
WALTER BROS CHIPPEWA FALLS, WIS.

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100 Short-horns to Select From-100

BULLS AND FEMALES. One or a carload. Write now. **ROCK COUNTY SHORT-HORN BREEDERS' ASS'N., J. E. Kennedy, Sec'y - - - JANESVILLE, WISCONSIN**

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FOR SALE at reasonable prices. Six very choice, dual purpose Short-horn cows, aged 2 to 6 years, all safe in calf to Village Denmark 8th, my herd bull that is today considered one of the best Short-horn bulls in Wisconsin. Address
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OF serviceable age. Not a poor one offered. Guaranteed breeders. Address
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FEW CHOICE BULLS of serviceable age, and it so happens that they are out of the best cows in our herds. We satisfy our customers. Write
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YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
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A FEW choice gilts bred for March and April farrow. Bulls, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
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AND bull calves 3 months old. Roan, red and white. All sired by **Milkman** whose dam gave over 60 lbs. milk per day. Prices right.
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OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
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IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

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CHOICE bulls, one 15 months, sired by Collynie Victor 387634. Stretchy September pigs, either sex, from large litters. Write. A. Menke & Sons, R. 1, Mackesan, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

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YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
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KISER BROS.

OFFER Short-horn bulls. Roans from six months to a year old. Continuous breeding for 46 years. Write for description.
KISER BROS. OREGON, WIS.

SHORT-HORNS

OF either sex, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. Bernd New Richmond, Wis.

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40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

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FOR sale—10, 11 and 13 months old. Sired by a son of White Sultan and from good milking dams. A. J. Wheeler, R. 1, Beaver Dam, Wis.

SHORTHORNS

BOTH sexes for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

WE have some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

ABERDEEN ANGUS CATTLE.

CHOICE ANGUS BULLS

AND heifers representing some of the good families of the breed at very attractive prices; ages from 12 to 20 months. Write or call on
Orville H. Kettler Platteville, Wis.

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a wells marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by son of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.
DR. TRUMAN BROPHY CHICAGO, ILLINOIS
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS WAUKESHA, WISCONSIN

Guernsey Heifers For Sale.

SEVEN extra-fine grade Guernsey heifers, choice individuals and out of good producing dams. Also pure-bred bulls with good A. R. backing
H. N. Longley Dousman, Wis.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

FOR SALE

GRADE Guernseys. 2 milking, 3 springers. 14 yearlings, 7 are bred. 8 fall calves. Price $1,400. 1 registered bull one year old at $100.
E. H. Kiesling Jefferson, Wis.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
J. W. SALTER & SONS - UNITY, WIS.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

RED Polled cattle for sale, both sex and different ages; also Poland China hogs; prices right. Cloverbelt Stock Farm, Hamburg, Wis.

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

FOR SALE—My Guernsey herd bull, Billy of Paradise Spring City 21162. Born Oct. 15, 1911. My reason for selling him is that I have so many of his daughters. He is a sure breeder and gentle as a calf. I also have a few young bulls sired by him out of A. R. cows and cows now on test. Come and see them. Will make the price right. Address
Frank E. Swan Wauwatosa, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

ELEVEN 800-POUND COWS

(ALL TO BE SOLD IN THE SALE)

Pearl of Dairy's Perfection (862.59 lbs., 5 years); Netherland Bessie Johanna De Kol (909.60 lbs., 5 years); Princess Cornucopia Manon Wayne (847.65 lbs., 4 years); Springbrook Cuna Korndyke (834.55 lbs.); Cladye Wayne (833.50 lbs.); Flosmere Corinne De Kol (816.38 lbs.); Sterling Pearl Columbia (8[illegible] lbs.); Victoria Segis Johanna (734.47 lbs.); Altoona of Fernwood 2d (844.02 lbs.); Rhoda May Korndyke (819 lbs., 4 years); Gertrude Wayne Colantha Kayne (7[illegible] lbs.).

ADMIRAL WALKER PRILLY (72923)
Senior herd sire. Dam has 4 A. R. O. records above 30 lbs.

PEARL OF THE DAIRY'S PERFECTION (127648)
22.98 lbs., 7 days, at 3 years. 862.59 lbs. in a year at 5 years.

NETHERLAND BESSIE JOHANNA DE KOL (145264)
25.39 lbs., 7 days, and 909.60 lbs. in a year at 5 years.

A. W. P. SEGIS JOHANNA
On test. A daughter of Victoria Segis Johanna, 709 lbs.

Absolute Dispersion

Of the Stephenson Farm

Herd of Holsteins

of Kenosha, at

Lake Mills, Wisconsin
April 6 and 7, 1917

WILL be a notable sale, for the cattle are choice, well-bred individuals with A. R. O. records and A. R. O. backing. And they have been kept free from tuberculosis for eleven years.

In this herd of 175 head only 30 are over 5 years old and only 10 are over 7 years old.

116 Descendants of Admiral Prilly 72923

Senior Herd Sire, that has 25 tested daughters, all as Junior 2's and Junior 3's.

60 of his daughters, 18 of which have yearly records.

11 of these average over 800 lbs. for the year.

26 daughters, 11 granddaughters and 10 yearling sons of these year-record cows.

Cows with records up to 29.98 lbs.; 2 daughters of a 32-68-lb. cow; a 29.41-lb. 3-year-old; four 20-lb. junior 2-year-olds; 2 daughters and 2 granddaughters of the King of the Black and Whites; 4 granddaughters of Admiral Walker Prilly, sired by Spring Farm King Agatha Pontiac, the 36.90-lb. half-brother to Mabel Segis Korndyke, and 2 daughters and 2 granddaughters of the highest year-record 4-year-old in the State of Wisconsin.

40 Sons and Daughters of King Walker Pietertje Segis 127857, Jr. Herd Sire

whose first thirteen dams average 30.07 lbs. and which is a grandson of King Segis. Over half the cows in the sale in calf to this bull.

Sale will be held in the barns of the Lake Mills Holstein Breeders' Consignment Sale Co., and under their management.

Write for catalog to

F. H. Everson, Mgr.

Lake Mills Wisconsin

Auctioneers: Hager, Kelley and Mack. S. T. Wood in the Box.

KING WALKER PIETERTJE SEGIS (127857)
Junior herd sire. Thirteen nearest dams average 30.07 lbs.

ZENA'S PRIDE
29.98 lbs., 7 days. She and 2 daughters by A. W. P. are in the sale.

ADMIRAL WALKER PRILLY CANARY MERCEDES
17.30 lbs. at just 2 years. 644.35 lbs. in a year.

DAUGHTERS OF THE TWO HERD SIRES
There are 21 daughters and 10 granddaughters of yearly record cows.

HOLSTEIN-FRIESIAN CATTLE.

Over 200 Head **HOLSTEINS** Over 200 Head

RAISED in open sheds. Insures health, vitality and constitution. We are breeders. All animals sound in health and so guaranteed. You want the robust kind, full of vim and vitality. Our stock is that kind. You want the best blood lines. Send for pedigrees of bull calves. They will prove our assertion, that the breeding is second to none. Our herd is large. Over 140 freshening this season. Gives you opportunity to select from a large number. Our thirty-eight yearly records average 16,619 pounds of milk and 709.3 pounds of butter made by eight junior two year olds, five senior two year olds, seven three years olds, six four year olds and twelve mature cows. We have the kind with splendid udders that make good at the pail.

KORNDYKE SEGIS JOHANNA,
our junior sire.

Sire: Johanna McKinley Segis, forty-pound son of King Segis.
Dam: Pontiac Lady Korndyke 38.03; highest record daughter of Pontiac Korndyke. Average thirty-nine pounds.

Write your wants. We can please you.

PABST STOCK FARM, Dept. 30, OCONOMOWOC, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R .O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves. $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born May 25, 1916. An outstanding individual, dark in color and tuberculin tested. Cornucopia Pontiac Johanna Lad 48355, his sire, is a full brother to K. P. Manor Kate, world's yearly record senior 2 year old. His dam is a 15-lb. 2 year old of Pontiac and Colantha breeding. His 7 nearest dams all have good A. R. O. records. Write now for reasonable price, pedigree and photo.

N. Dickinson & Son Lake Geneva, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O.daughters. Arthur Rust, West Allis, Wis.

A RICHLY BRED ORMSBY

YEARLING Holstein bull, born January 28, 1916. His dam is a half sister to the sire of Ormsby Jane Segis Aaggie, the world champion 90-day cow. His sire is a son of the 32-lb. bull.

BEAUTY PIETERTJE PRINCE

and from a sister to **Pietertje Maid Ormsby,** the former world's record cow. Send for pedigree of this fine bull. Price right. Address

Dopp Brothers Ixonia, Wisconsin

HOLSTEIN BULL FOR SALE

BUY a bull ready for service at your own price. Born Feb. 25, 1916. 27½ lb. sire, and 22 lb. dam. Great grandson on both sides is Homestead, Jr., De Kol. More dark than white. Make reasonable offer. Write for service rate on our Holstein herd bull, Beach Rag Apple Korndyke 86101, 87½% same blood as Rag Aople Korndyke 8th.

Alpha Valley Stock Farm Oregon, Wis.

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L.V.Garvens, Brookfield, Wis.

HOLSTEINS

AT your service. Beach Rag Apple Korndyke 86101. He carries 75% the blood of Pontiac Korndyke and 87½% the same as Rag Apple Korndyke 8th, sire of the only 30-lb. two year old. Write for low service rates.

Alfa Valley Stock Farm Oregon, Wis.

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman Jr., Monroe, Wisconsin.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

ONE Holstein bull calf for sale, born Feb. 12, 1917. His dam has a record of 433 lbs. milk for 7 days. D. Smies, Cedar Grove, Wis.

OLATHE HOLSTEINS BRED FOR BEAUTY AND PRODUCTION

FOR SALE—Ruby Withoorn De Kol 110262, born Dec. 29, 1907. This cow has produced a calf every year since she was 2 years old and from 8,000 to 10,000 lbs. of milk yearly. Bred Dec. 24, 1916, to our herd sire, Sir Bess Ormsby Mercedes 184275, whose dam's and sire's dam's records for 365 days average 20,574.9 lbs. milk, 958.3 butter, 3.72% fat. Guarantee her with calf and sound. Color mostly black. Price $150. Silver Spring Farm Co., Geo. H. Comings, Pres. and Manager, Eau Claire, Wisconsin.

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

Holsteins

FOR sale—Well-bred young heifers from tested dams, bred to our herd sire, Butter Boy Mink Pontiac 133161, also young bulls from tested dams, 2 ready for service, priced reasonable.

Cedar Lawn Stock Farm, Cook Bros.
Burlington Wisconsin

TWO SONS OF THE 27.56-POUND BULL

Sir Johanna De Colantha De Kol

THESE bulls are good individuals, well marked, more white than black, well grown. They are both from A. R. O. daughters of the bull, Oakhurst Milk and Butter King. Price reasonable. Send for extended pedigrees. Address

B. F. Winckler & Sons Medina, Wis.

30-POUND YEARLING HOLSTEIN BULL

READY for service for sale; also a yearling bull from a 23-pound dam. Younger bulls from dams with records up to 30 pounds. Prices from $85 up, depending on breeding and age. When you want a herd header write

W. H. S. Rhoda Watertown, Wis.

HIGH-GRADE Holstein heifer calves, 15-16 pure, from large-producing dams and by an A. R. O. sire whose two nearest dams average 24 lbs. butter in 7 days, 2 to 3 weeks old. When shipped guaranteed to please we will ship no cullh Stock well marked. $18 crated. Mountain Ass. Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

Hillside Stock Farm

5 REG. Holstein cows and 2 heifers; 24-lb. bull 16 mos. old, 7-8 white, faultless individual; also noted Pontiac herd sire.

Kirkpatrick Bros. Reedsburg, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis.

HIGH GRADE HOLSTEIN HEIFER CALVES

31-32 pure, $18 crated. W. Watt, Grimms, Wis.

HOLSTEIN-FRIESIAN CATTLE.

FOND DU LAC COUNTY HOLSTEIN BREEDERS' SALE

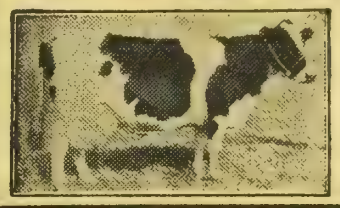
Thursday and Friday, April 26-27

at Fond du Lac, Wisconsin

150 HEAD of Pure-bred Holsteins, from the best herds in the county. Seventy-five milk cows with records up to 26 pounds, seven days, and bred to the best bulls of the breed, for winter cows. Twenty-five heifers bred. Twenty-five heifer calves and 25 bulls ready for service from dams with records up to 28.30 pounds butter in seven days.

S. H. BIRD, Sale Manager SOUTH BYRON, WIS.

See the Dam Before Buying a Herd Bull



WE are now offering for sale a Holstein bull calf, born Nov. 8, 1916, out of Colantha Piebe of Elm Court (103267) with 27.7 lbs. in 7 days and 808.82 lbs. in a year; also the dam of a 25-lb. 4 year old and junior champion at the Wis. State Fair. The sire of this calf is the 30-lb. prize winner, Sir Beets Cornucopia Netherland. Will also price for quick sale a son of the 31.02-lb. cow, Ella Mercedes of Elm Court (89908) and sired by North Star Parthenea Sir Beets, a 30-lb. bull.

REUBEN KLOFANDA
Racine Stock Farms R. 1, Racine, Wis.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

HEAD YOUR HERD WITH A WINNER

GET INDIVIDUALITY, WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - WAUKESHA, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

TULLOCH & FRIES' HERD GENOA, WIS.

Purebred Registered

HOLSTEIN CATTLE

Twenty million dairy cows in the United States, and five million of that number unprofitable! Surely one great public benefactor is the dairyman who by changing bad cows for good, seeks to produce two quarts of milk in place of one produced before. This progressive type of farmer, all over the continent, is either grading up his common cows with a purebred Holstein bull, or he has already installed the profitable purebred registered Holstein cows in his barns. He is adding to the wealth of the nation and to himself as well. Slowly, but surely, proper understanding will eliminate the unprofitable dairy cow.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

HURRY!!!

This One Will go in a Hurry

HOLSTEIN bull calf R 76. Dropped Aug. 28, 1916. Sired by our 33.858-lb. herd bull and out of a 13.958-lb. two year old, record made six months after calving. Her dam has a record of 24 lbs. Calf's two nearest dams average 23.908 lbs. and his six nearest dams average 24.74 lbs. in seven days. He is light in color and a beauty. **PRICE $150.**

EDGEWOOD FARMS, INC.
Pewaukee Wisconsin

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

Fred Kohlwey Grafton, Wisconsin

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. One bull ready for service. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

AT LA BELLE VIEW FARM

WE are slaughtering pure-bred Holstein bulls from A. R. O. dams. It seems too bad, but that's right when we drop Duchess Ormsby bulls at such low prices as we have been selling them. If you want some of these youngsters sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world) at prices too low to print, write E. E. Rosenkrans, Oconomowoc, Wis.

Registered Holstein Calves

FROM Pontiac Rue, 23.88-lb. sire, and A. R. O. dams, 14.68 to 17.45 lbs. 7 days, $125 to $175 each. Chas. Hampke, Manitowoc, Wisconsin.

SHEEP.

VALLEY VIEW STOCK FARM

SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These ees are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

Geo. A. Philippi, R. 40, Bear Creek, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

Who Want's a Pony?

I am the Pony King of America. I give Ponies away to Boys and Girls. I have given away 445 Shetland Ponies to 445 Boys and Girls—all over the United States.

Now I am going to Give Away Five more Ponies—beautiful, silky, long-haired playful Shetland Ponies—five of the finest Shetland Ponies I could find. I picked them out myself.

I am going to Give them Away to Boys and Girls and I want every family that takes this paper to stand an equal chance.

If you are a Boy or Girl send me your name right away. If you are the Father or Mother of a Boy or Girl, send in your Child's name. I will enter the name in my big Free-for-All Pony Club that starts right away.

No matter where you live, no matter how young, every child will stand the same good chance to get a Pony, with Buggy, Harness, Saddle, Bridle and Blanket. Be sure to send in your name right now.

"Crescent," a beautiful little pony, was given to Cecelia Garot of Kewaunee Co., Wisconsin. Cecelia sent in her name just like 444 other children who have received free ponies from the Pony King. Cecelia writes: "My little Shetland pony "Crescent" got here Wednesday and I was so happy I could hardly wait to see him. So many people came to see him and they thought he was the sweetest little pony they ever saw. Some people said I would not get a pony, but I knew The Pony King would do all he said. I am sending you my picture showing myself and my friend and my sister shaking hands with "Crescent." He just loves soda pop and eats sugar right out of my hand."

Harold A. Pierce of Waushara Co., Wisc., sent in his name and The Pony King sent him a nice pony named "Sportsman." Harold writes that "Sportsman" can now do 21 tricks, including telling how old he is rolling over, standing on his hind feet and shaking hands. The Pony King also sent ponies to Victor Harris of Ashland Co., Sheldon Adams and Alfred Hokenstad of Dane Co., Pearl Kerr and Lawrence Fox of Grant Co., Keith Walker of Juneau Co., and Roy Podewells of Rock Co.

Pony Pictures Free

I want to send a **colored Pony Picture Circular free** to every Boy and Girl that sends in his or her name. It gives the names and shows the pictures of the five Ponies I am giving away, out on the farm where they live, with children riding them. It shows one of the ponies hitched to the beautiful Buggy I am going to give away, with six children taking a ride. It shows a picture of The Pony King out on the Pony Farm, talking to 15 children who live near the farm and who come over to ride the Ponies. It shows a picture of Harold Kutzler and "Rob Roy", the Pony I gave him. It shows a picture of Frank McKissak and "Wuzzy", the Pony I gave him. It also tells all about the five beautiful Shetland Ponies I am now going to give away and how to win one. Every boy and girl should get this Pony Picture Circular. I will send it free to every child who sends in his or her name.

Children Be sure to take this chance to get a Pony. Don't wait. Write your name and address in the corner below, cut it out and send it to me. I will then send you the Colored Pony Picture Circular free and you will have an equal chance to get one of the Real Live Ponies I am going to give away soon. You stand just the same chance as any other child and it doesn't cost you a cent. Get your pencil and write your name now.

Parents Please show this free offer to your child and send in the coupon. You will be interested in the Pony Circular I send and your child will enjoy it. He or she stands the same good chance as any other child to win one of the five Shetland ponies I am giving away, no matter where you live. Remember, I am giving Five Ponies at one time—not just one—so you see there are five chances to win one. Send in your child's name.

THE PONY KING, 307 Webb Bldg., St. Paul, Minn.

WRITE YOUR NAME HERE AND SEND IT TO ME

THE PONY KING, 307 Webb Bldg., St. Paul, Minn.

Please send me the **Free Pony Pictures** and enter my name in your **Pony Club** so I will have the same chance. I want one of the ponies you are giving away.

My name is_____

P. O._____ Age_____

State_____ R.F.D._____

Here is one of the Ponies, with Buggy and Harness, that I give away. Wouldn't you like to own an outfit like this? Couldn't you have a lot of fun driving around the country? If you want a Pony for your very own, the first thing to do is to send me your name.

I Send Outfits Like This

I also Pay Freight Charges

More Than

THE WISCONSIN FARMER

VOL. XLVI. NO. 13. THURSDAY, MARCH 29, 1917. WHOLE NO. 1835

Reading Room
Urbana Ill.

Getting a Fair Price For Milk.

Green County Farmers Decide They Shall Have Some Say As to the Value of Milk They Produce.

MORE than 150 farmers in the vicinity of Monroe, Green county, Wisconsin, recently came to the conclusion that they have some rights when it comes to saying how much the milk produced on their farms is worth. These farmers, known as milk producers, are not unlike thousands of others in southern Wisconsin and northern Illinois, who, for a great many years, have quietly submitted to the dictates of others when it came to saying what farm products were worth. If one of these farmers had a cow for sale and was offered $100 for her, he would say: "No, that cow is worth $150 and I will not take a cent less for her." If the prospective buyer failed to meet the farmer's views as to the value of the animal, the cow would not change hands. The same situation existed with reference to the farmer's land. He fixed his own valuation on the land, and if anyone came along and said, "Here's $100 an acre for your farm; take it and give me a deed," the farmer would laugh at him. But when it came to selling milk, a product of the farm, a product in which the farmer had an investment of both capital and labor, he submitted to outsiders fixing the price. The particular company of farmers referred to in this article produces milk for one of the big condenseries. A number of these condenseries are located in the milk districts of Wisconsin and Illinois. Under the old system the managers of the condenseries asked their milk producers every six months to make an estimate of the amount of milk they would produce in a six months' period. On the first day of each month the buyers of milk handed out a card, showing the prices which would be paid for milk for thirty days. If the farmer did not like the price he took it anyway. For a long time the farmers failed to understand that they had some rights in saying what milk was worth. An effort was made in Green county about six years ago to organize the farmers. This effort was followed by small advances in the prices paid for milk, the advances being voluntary on the part of the buyer. Having thus gained a little, the farmers failed to see the need of continued organization and their association broke up. Up to two years ago these farmers had always supplied their milk on a monthly basis. No one had a very adequate idea just what the price would be. In the spring of 1915 the condenseries started out on the basis of $1.30 per hundred pounds for 3 per cent milk with 3 cents added for each 1/10 point over 3 per cent up to 4.2 per cent. This scale was graduated down until June it was as low as 89 cents for 3 per cent milk. In the spring of 1916 the buyers started on the same basis of $1.30 per hundred, except that they raised the three lowest grades, 3 per cent, 3.1 per cent, and 3.2 per cent milk, to $1.39 per hundred pounds. There was no raise at all on the better grades, the rate being the same as in 1915. In April, 1916, the Chicago Milk Producers' strike had resulted in an average of 22 cents raise in the Chicago district and the buyers voluntarily gave a raise of 20 cents in the Monroe district. This was on a six months' contract, and the milk producers were quite well satisfied until they discovered that the buyers had cut off the advance which had been made, bringing the 3 per cent, 3.1 per cent, and 3.2 per cent milk up to $1.39 per hundred pounds. This really established the 20-cent raise on the basis of 3.3 per cent milk. Under the old price the producer of 3 per cent milk had been getting $1.39 per hundred and with a 20-cent raise would have gotten $1.59. But as the buyer had cut off his 9-cent raise previously given, under the new contract for April, 1916, the producer of 3 per cent milk got an advance of only 11 cents instead of 20 cents. Instead of receiving $1.59 for 100 pounds of milk which he expected on the 20-cent raise he received $1.41. The producer of 3.1 per cent milk was treated on the same basis and instead of receiving $1.59 per hundred for milk he received $1.44. Figuring on this same basis the producer of 3.2 per cent milk, instead of receiving $1.59, as he expected under the 20-cent raise, received only $1.47. For the six months' period, beginning April 1, 1916, the buyers paid an average of $1.55 for 3.5 per cent milk, except for a 5-cent cut in July and August.

FARMERS DELIVERING MILK AT THE CONDENSERY, MONROE, WIS.

On the 14th day of September, 1916, the producers for the Monroe condensery decided to organize and 145 out of 165 were included in the original charter list. Several meetings were held and on the 28th of September, 1916, word was sent to the superintendent of the condensery that the producers expected an average rate of $2 per hundred pounds for 3.5 per cent milk, beginning October 1st and ending April 1, 1917. They further expected 3 cents for every 1/10 point over 3.5 per cent test and agreed to 3 cents cut for each 1/10 point below 3.5 per cent test. Under this proposition 3.2 per cent milk would bring $1.91 per hundred pounds; 3.3 per cent would bring $1.94 per hundred pounds. The average run of milk furnished to this condensery tests below 3.5 per cent, probably about 3.2 per cent or 3.3 per cent. The 145 farmers who agreed to stand together in this matter were prepared for any eventualities. They resolved that they would skim their milk if they could not get from the condensery what they believed to be a reasonable price. Representatives of creameries were conferred with, and while they insisted that they were not trying to compete with the condensery or to interfere with its supply, they were ready to take over the farmers' cream if the farmers and the condensery were unable to agree. Representatives of the milk producers conferred with the local dealers and found that they could have all the separators they wanted on the grounds in twenty-four hours. As a result of this activity and activity along similar lines in other milk-producing districts, the condenseries of the Wisconsin and Illinois fields met the farmers' prices. A new schedule was adopted two weeks ago both by the buyers and producers and this schedule averages $2.12 per hundred pounds for 3.5 per cent milk for the six months' period, beginning April 1, 1917, and ending September 30, 1917. The schedule of prices for milk for the months named will be as follows: April, $2.40; May, $2; June, $1.60; July, $2.12; August, $2.30; September, $2.30. Under this schedule the condensery agrees to accept all of the milk which the members of the association will produce. Formerly there was some trouble along this line. Sometimes the milk producers placed too low an estimate on the amount of milk they would have in a six months' period and it was not infrequent that farmers, having produced more than their estimate, were obliged to take their milk back to the farm, having no market at all.

The April, 1917, milk price of $2.40 for 3.5 per cent milk is the highest contract price ever given in Wisconsin. It amounts to 5 cents per quart to the farmer, there being forty-eight quarts in 100 pounds of milk.

There are many reasons why farmers should have more for their milk now than in previous years. Feed is considerably higher. Ground feed, which sold in 1915 at $25 a a ton in Monroe is now $38 to $40 per ton. These same feeds last year sold around $35 a ton. Alfalfa hay has been selling at sales in Green county this year for $20 to $22.50 per ton and baled alfalfa hay at the town of Monroe now is worth $22 per ton and up. Even a year ago a considerable amount of good alfalfa hay was sold for $16 a ton. Oil meal now selling at $50 a ton was sold last year at $36 per ton, although some of the producers are still using this product on a long-time contract at $39 to $40 per ton. The price of labor on the farm has almost doubled in the last few years. The price of all equipment is up and the price of all merchandise which the farmer must buy is increased.

However, the main thing which has been gained at Monroe and in the other milk-producing districts is recognition of the fact that for years milk has been produced and sold at too low a price. Considering its food value, it has been worth more than the farmers have gotten out of it and the readjustment is largely a case of the farmer getting his share. That the farmer did not get his share on milk sold for the past few years as low as 89 cents per hundred pounds is now generally conceded.

The writer had a visit a few days ago with Mr. F. D. Jeffery, president of the Monroe association, and Mr. W. A. Brown, secretary. Mr. Jeffery advises us that his association is not endeavoring to get anything more than is just.

(Continued on page 14)

more, ever since merchant vessels were German submarines in one day, with the loss of several American lives. It is also expected that he will ask congress to give him authority to further protect American lives and property on the high seas, even to the extent of sending battleships and troops abroad to join with the allies against Germany, if necessary. Already there are rumors that Germany may declare war on the United States before congress can take this action; also that Germany will ask some neutral nation to mediate the differences between the two countries, in the meantime not stopping the ruthless submarine warfare which is occasioning all the trouble. The situation is extremely tense, with new developments arising every day. Last week still another American ship, the Algonquin, carrying a cargo of oil from Philadelphia to Amsterdam, was torpedoed without warning, still further widening the breach between the two nations. There is a rumor that Theodore Roosevelt is already forming a force of 100,000 Americans to go abroad and fight Germany. It is probable that many idle reports will be circulated because of the critical situation. As yet there have been no actual hostilities other than the sinking of the American ships, but there is no question but that the situation becomes worse day by day, with war more imminent than ever before.

THE abdication of Czar Nicholas of Russia was not only for himself, but also for his son, the young heir apparent. It was quickly followed by the abdication of the czar's brother, Grand Duke Michael, successor to the throne. The Russian congress (the Duma) arranged for a provisional government in charge of twelve men. The best of order has been maintained while this unsettled state of affairs was in progress. United States Ambassador Francis sent a cablegram to the state department at Washington, during the week in which he said: "The last week has seen the most astonishing revolution. Two hundred million people who have lived under absolute monarchy for ... on condition ... a constitutional assembly of the people so wish and who will exercise power under authority of government framed by that assembly." There is considerable possibility of a republican form of government being established which will make virtually a United States of Russia, somewhat similar to the United States of America. Only one thing is positive as yet and that is that the day of absolute monarchy is over in Russia.

MANY prominent business and professional men attended a meeting of the Union League Club in New York City last week and issued an emphatic warning that the United States is unprepared for war with any first-class powers. Chas. E. Hughes, republican candidate for president, presided over the meeting, while spirited addresses were made by Ex-President Roosevelt and Robert Bacon, former ambassador to France. A report was issued showing the unprepared state of the nation as follows: "If we go to war with Germany our only real protection will be the ships of the French and British navies, and our own navy, which is undermanned. We have no coast defenses which could prevent the landing of troops on our shores. We have no defense which would prevent the complete and immediate capture of our coast cities and ammunition factories in the coast states of New Jersey and Connecticut, as well as every one of our navy yards. The facility with which a hostile power could land troops on our shores has been repeatedly and authoritatively stated. Our regular organization lacks many things which are vitally essential in modern war. We lack machine guns of all types. We lack grenades and bombs. We are without trench mortars, and the modern types of heavy mobile artillery such as are in general use in Europe. We are short of reserve rifles and all field artillery. We have not a field gun for volunteers. Our supplies of reserve ammunition are ridiculously small." Colonel Roosevelt insistently urged action, charging Germany with murder and stating that the United States is hiding at present in safety behind an English fleet.

NAVAL preparations for war were marked by increased activity last week. No actual war steps were taken by either the war or navy departments, but there were many indications that preliminary plans have been worked out for rapid remobilization for both services if the call comes. The navy's task is simple. Its problems are those of material rather than personnel. At most little more than 100,000 men would be required for manning every available ship or scouting craft. They could be obtained almost overnight by mobilization of the naval militia and the various sections of the naval reserves supplemented with volunteers. Only highly trained officers would be lacking. The army's problem is just the reverse. It is men that will be needed and no definite step toward securing a great force for training can be taken until congress expresses its will. Full equipment can be obtained long before the men are ready to use it.

THE United States Supreme Court has declared constitutional the Adamson eight-hour law, the passage of which by congress last September averted the threatened railroad strike. The decision not only averted the strike which had been called again for last week, but it is expected to have a far-reaching effect, holding as it does that congress is clothed with all the power necessary to keep open the channels of interstate commerce. The immediate effect of the decision will be to fix a permanent eight-hour basic day in computing wage scales on interstate railways, for which a nationwide strike twice has been threatened and to give, effective from January 1st of this year, increases in wages to trainmen of about 25 per cent at a cost to the railways estimated at from $40,000,000 to $50,000,000 a year. The wage increase sustained dates back to January 1st, when the Adamson act was made effective. The strike was called off just in time to avert a walk-out on eastern railroads and to seriously cripple transportation all over the country.

DAVID LLOYD GEORGE, British premier, has telegraphed to the Russian premier saying he believed the revolution in Russia was the greatest service the Russians had yet rendered to the allied cause, and that it was a sure promise that the Russian military autocracy, the only barrier to peace, would soon be overthrown. "It is with sentiments of the most profound satisfaction that the peoples of Great Britain and the British dominions have learned that their great ally, Russia, now stands with the nations which base their institutions upon responsible government," he said. "Much as we appreciate the loyal and steadfast coöperation which we have received from the late emperor and the armies of Russia during the last two and one-half years, yet I believe that the revolution whereby the Russian people have based their destinies on a sure foundation of freedom is the greatest service which they have yet made to the cause for which the allied countries have been fighting since August, 1914."

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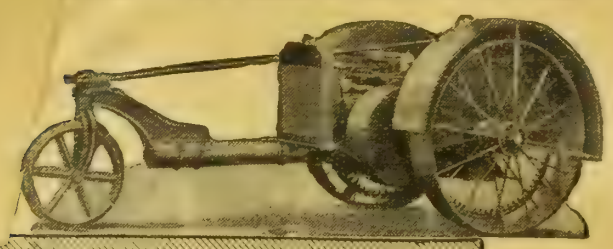

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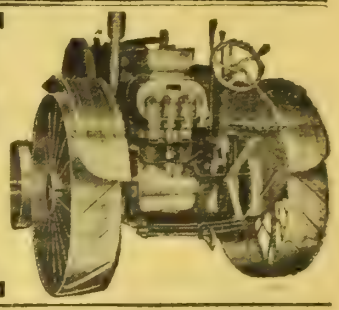

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Deere & Co. are said to have practically perfected a motor cultivator, unique in principle and design, and which, in addition to cultivating corn and other row crops, will do substantially all of the farm work ordinarily done by a team, and in addition furnish belt power for driving farm machinery, just as an ordinary stationary engine of from six to eight horse power would do.

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The Wisconsin Fa

THURSDAY, MARCH 29, 1917.

FAMILY CIRCLE TA

BY THE PUBLISHER

FIVE PER CENT LOANS FOR WISCONSIN.

I AM glad to be able to announce this week that the Federal Farm Loan Board has officially set the rate of interest for loans made through the new banks at 5 per cent. The bonds which will be issued to raise a constantly replenishing fund will bear 4½ per cent. The board feels that it can administer the law on a margin of ½ per cent, although the law allows it 1 per cent if necessary.

Let me show just what this interest rate will mean to the farmers of Wisconsin. The present farm-mortgage indebtedness of our state is $206,681,000; the farm loan board has investigated and finds that the average interest rate, on farm mortgages here in Wisconsin, is 5.8 per cent. A saving of eight-tenths of 1 per cent means a saving to the farmer-borrowers of Wisconsin, at the present volume of mortgage indebtedness, of $1,653,448 a year in interest. But the saving will be even larger, for the reduction in the interest rate will undoubtedly result in an increase in the mortgage debt. Men can borrow on easier terms and they will enlarge their mortgages in order to buy new land, pay off the debt on the old land, install more stock or machinery, build better farm homes, and so on. The new law, were it to apply to all our mortgage indebtedness or result in private loaners meeting the government's rate, would mean a saving to Wisconsin alone of $2,000,000 a year.

I am in receipt of official advices in regard to the early opening of these federal land banks and the attractiveness of the mortgage bonds for those farmers (and town folks as well) who desire to invest under the new law rather than to borrow. I will pass these advices on to you, for I am confident almost all of my readers are interested in this subject:

The board was enabled to attain this low rate by reason of the proved attractiveness of farm loan bonds as an investment. Applications from private investors, from bond brokers, bankers, holders of trust funds, and others have given the board ample assurance that these bonds will be absorbed in large quantities at 4½ per cent. The bonds are exempt from all form of taxation; each dollar's worth of bonds represents a mortgage against $2 worth of land, and this mortgage is guaranteed by a farm loan association. The bonds issued by each of the twelve federal land banks are endorsed by all of the other eleven banks. The bonds are engraved by the United States Government Bureau of Engraving and Printing and are protected against counterfeiting by the United States secret service. Applications which have already been received by the farm loan board indicate that they will be one of the most attractive securities ever placed upon the market. It is expected that in order to finance the farm loan associations already organized it will be necessary to sell $100,000,000 worth of these bonds within a year.

The presidents of the twelve federal land banks have been in session in Washington for several days with members of the farm loan board. They have returned to their respective banks to put them into actual operation. The full subscriptions to the capital stock of the twelve banks has been placed at the disposal of the banks. This amounts to $750,000 for each bank. The appraisers who will pass upon land values will be named shortly, and the banks will then give immediate consideration to the thousands of applications from farm loan associations.

This flat rate of 5 per cent will apply all over the United States. In Florida the average rate has been 9.6 per cent, in Montana 10 per cent, and in New Mexico 10.5. The government will loan money to farmers in these states at just one-half the interest rate they have been obliged to pay heretofore. The new law will benefit them more than it will the farmers of Wisconsin and the grain belt, but it should work to the benefit of farmers all over the country, if it is properly administered and lives up to the expectations of its authors.

THE RESPONSIBILITY OF THE WISCONSIN FARMER.

I AM in receipt of a letter from Mr. A. R. Lawton, a prosperous dairy farmer of Viola, Wisconsin, which pleases me immensely and which opens the way for the discussion of a subject which has been upon my mind very much lately. That subject is the responsibility which the editorship of a paper like The Wisconsin Farmer entails. Let me quote a portion of Mr. Lawton's letter first and then add my views, briefly:

I like The Wisconsin Farmer very well, indeed. I appreciate your conscientious efforts to lead the thoughts of the farmers in right lines. Your opportunities for good are limited only by your health and your ability to grasp and grapple with the scores of serious problems that are continually confronting the farmer today. It is painfully evident many of our prominent editors and leaders are not really conversant with the desires of the masses. I am convinced that you are.

I will give you a list of our reading material, which you may criticize, if you choose. We take and read regularly The Wisconsin Farmer, the Ladies' Home Journal, the Ladies' World, the National Geographic Magazine, Swine World, Black and White Record, Holstein-Friesian Registry, Pearson's, LaFollette's, Green's Fruit Grower, Hoard's Dairyman, Milwaukee Journal, four town and county papers, two religious papers, three lodge papers and the bulletins of the Wisconsin State Agricultural College and the National Department of Agriculture. It takes practice to get through all these, and others, besides working about sixteen hours a day, but we do it and all profit as a result.

First, let me congratulate Mr. Lawton upon his splendid list of publications; he has something for every member of the farm household. I could hardly improve upon the list. If my good friend and his family cull the best that is to be found in all these publications, they keep abreast of current opinion and public thought, are good farmers, good citizens, good patriots and good men and women.

Now, the idea I have long had in my mind and which Mr. Lawton's letter causes me to speak about is just this: The immense responsibility of the editor and publisher of a paper such as The Wisconsin Farmer. Did you ever stop to realize that the man who writes editorials in a paper like The Wisconsin Farmer talks to a bigger audience regularly than any public speaker who ever lived? The two public men who draw the largest audiences nowadays are unquestionably "Billy" Sunday and Wm. J. Bryan. The former speaks to perhaps 50,000 to 75,000 people a week; 100,000 in the larger cities; the latter speaks to perhaps 25,000 a week. Yet, here I am writing editorials of advice and instruction to a subscription family, on The Wisconsin Farmer, of 90,000 a week. The average household in the United States contains five persons; each copy of the average publication is read by five people. Figuring at this ratio, here I am talking to 450,000 men, women and children every week of the year. But The Wisconsin Farmer is not the only farm paper I have the honor to own, edit and publish. I have two others, the combined weekly circulation of which is 290,000 copies, which means another audience for me of 1,450,000 people weekly. All told, my writings in my three papers go, on an average, to almost 2,000,000 people weekly.

Think what this means; think of the responsibility of choosing subjects for discussion that will interest all these people, and expressing ideas in words which will benefit all the number and not bring harm or doubt to a single mind. It is an immense responsibility, before which I would stand appalled were it not for one thing: The good words, the kindly comment, the friendly inspiration of the men and women who read The Wisconsin Farmer, and my two other papers, and write to me every little while, encouraging me to continue the good work, just as Mr. Lawton did.

The editor and publisher who tries to live up to the full measure of his responsibility and opportunity has a man's job ahead of him, believe me. I am striving, with might and main, to fill the job. Can I count on having your help? Farmers of Wisconsin, will you assist me? If I am right and sound in my theories, and you like what I write, will you tell me so? If I write that which is unsound or debasing, will you criticize me, as one friend counsels and criticizes another, hoping to do him good? Let me hear from you on any subject in which you or any member of your family is interested. Give me topics to write on, that you care to hear my views on. By thus counseling together, we can make The Wisconsin Farmer an ideal farm-home journal, in every sense of the word. I will do the best I can; will you do your share?

ABUSING MAN'S BEST FRIEND IN WISCONSIN.

I WANT to print a letter which I have just received from a subscriber at Spring Green, Wisconsin, who, for good and sufficient reasons, does not wish his name and address published. The letter brings up the very interesting subject of the proper care of animals. Wisconsin being the leading dairying state of the Union (in the number and value of dairy cattle and in the manufacture of cheese) the question, so far as it refers to the manner in which at least one Wisconsin farmer treats his cows, is important. Let me print the letter before I go any further:

Dear Mr. Pierce: I have been a subscriber to The Wisconsin Farmer for about three years and have often read articles on the treatment of farm animals. There is a farmer not over one-half mile from me that shows unbounded partiality to his own team; they can do just about as they please and very, very seldom get punished. This team will not obey commands in the barn, or in the harness, unless the driver keeps repeating them. To be brief, they obey about one order out of seven.

With his milk cows he is altogether different. Let a cow "loo" for her calf or bawl a few times and he goes at her with a six-tine manure fork. If a cow, after being let out of the stanchions, lingers a moment in the barn he lets a yell at her that can be heard plainly to my place. When a cow does not step around as lively as he thinks she ought to, she gets an application of the fork, shovel or milk stool. A cow dare not make one false move or let one "loo" escape her without being punished; but he can talk to his horses even better sometimes than he speaks to his wife. This man always preaches "The more quietly a man works around horses, the better the horses will work." He does not seem to think he should treat his cows in the same manner. He seldom speaks quietly while working around the calves. Mr. Pierce, what do you think of such a man?

I think that man is very unwise, very foolish, very much to be criticized and condemned. Reading this letter there came to me the lines of the poet:

He prayeth well, who loveth well
Both man and bird and beast.
He prayeth best, who loveth best
All things both great and small;
For the dear God who loveth us
He made and loveth all.

I fear that man, who abuses animals as he does, is not measuring up to the test imposed by the poet, a test in which I believe thoroughly. There is something wrong deep down in the heart of the man who is not kind and considerate to those who are weaker than he is, who are dependent upon him, for whose care he is responsible.

Moreover, it is extremely shortsighted for this farmer, or any other, to treat his cattle thus, for no animal is more responsive to kindness than the cow. From a dollar-and cents standpoint—if from no other—this man should certainly change his ways. Housing our dairy cows ideally, feeding them properly and treating them kindly will so increase their output as to enlarge our returns and our prosperity materially. Kindness pays financially, as well as in the satisfaction which it gives us to know that a duty and a responsibility have been lived up to fully.

I would be glad to have letters sent to me on this subject, setting forth the opinions and experiences of my Wisconsin readers. It is a subject which I believe we can discuss together with the greatest pleasure and profit. Will you write to me upon it?

A FREE EMPLOYMENT AGENCY.

I WOULD like very much, indeed, to make The Wisconsin Farmer a medium through which the manless job and the jobless man could be brought together. In other words, I propose to do what I can to see that the farmer who needs a hand finds one without delay, and that the farm hand who is seeking a new location finds one without loss of time. To this end, I make the offer herewith to print every little while, the names and addresses of farm hands looking for employment and farmers needing men, so that those who read this paper from week to week shall be able to make it a regular employment agency, the services of which are to be had without cost by all subscribers.

I print herewith, this week, the names and addresses of a number of men who have written to me recently saying they desired farm employment. Farmers who are in need of help would do well to correspond with these men. Here is the list:

Louis Kuschel, Box 324, Hermann, Mo.	A. W. Fletcher, R. R. 1, Gallatin, Mo.	E. E. Bevier, 138 S. Adella St., Ottumwa, Iowa.
E. G. Jacobson, Home City, Kan.	Edwin A. Claxton, Sumner, Iowa	S. E. Hining, Floris, Iowa.
H. A. Lemons, 1320 West 4th St. Joplin, Mo.	Erwin H. Borchert, R. D. 33, Box 90, Campbellsport, Wis.	Joseph Binder, 3001 Main St. Kansas City, Mo.

Remember, this service is free to all. If you are looking for a man to help you work the farm this year write me and I will print your name and address in an early issue. If you are working on a farm and wish to change, or if you are now in the city and wish to get back to the farm, write me and I will print your name and address in an early issue. There is a manless job somewhere for every jobless man; it is my task to bring the two together.

A NAME FOR EVERY WISCONSIN FARM.

EVERY little while we print lists of appropriate farm names here in The Wisconsin Farmer. Such a list was published only a week or two ago and contained many names which reveal the owners' pride in the farms which they have built up to their present state of prosperous productiveness with such loving care and efficiency. I hope my readers will continue to send me sugges-

...ed ... place was ...ather in the fall of ... and his seventeen-year-old sister came here in July of that year and located, on December 15th, in the town of Springvale, Columbia county. In the fall my father shot his first deer, which was a buck, within a few rods of his log shanty, and from that day to this the place has been called Buck Hill. A piece of one of the buck horns is made into a handle for a cane which no money would buy as long as I live.

Here is a Wisconsin farm which has borne the same name for seventy years, a name which the present owner has registered and thereby secured exclusive rights to in his part of the country. Think what a world of pleasure he gets out of this, what a memory of his father it brings up, what a monument to one of our Wisconsin pioneers this farm of Buck Hill is

The High Cost of Selling.

The instance has been called to my attention of a Quincy, Illinois, farmer who placed a note in a barrel of apples grown, packed and shipped by him, stating that he had received $2.50 for the barrel and asking the purchaser to write and say what price he was obliged to pay. Now, it turns out, the retailer who bought the barrel paid $6.50 therefor, or $4 more than the farmer-grower received, while just how much the "ultimate consumer" was forced to pay there is no record.

Within the past few weeks I have received a number of letters citing similar cases. The most interesting of these letters informs me that apple growers in and around Bethany, Missouri, sold their products to a dealer in Kansas City, at harvest time, for 9 cents a bushel. These apples were stored for several months and are now being sold out of the Bethany boxes, in the Bethany stores, for $2.75 a bushel. The storage cost is said to have been in the neighborhood of 60 cents a bushel, leaving a nice, tidy profit of over $2 a bushel for the men who stand between the producer and the consumer. This same letter tells me of farmers around Concordia, Missouri, who sold their potatoes, at harvest time, for $1 a bushel and are now buying them back for $2.25 a bushel for seed. The letter does not give the information, but I add it, that potatoes have recently sold right here in Wisconsin, in our larger cities, for $3.50 and even more a bushel. Nor is the farmer the one who is reaping the benefit of these abnormally high prices.

We hear a great deal nowadays about the "high cost of living;" I want to call your attention, for just a minute, to the "high cost of selling." I cannot do better, in this connection, than to reprint a little story which I found in one of our large daily newspapers just a day or two ago. It is as follows:

I spent a couple of hours the other day in a shoe factory.

"These," said the head of the firm, pointing to a dainty pair of shoes, "we sell wholesale at $10."

"What does the customer pay for them in a store?" I inquired.

"Sometimes not less than $20," he replied.

So it appears to cost as much to sell a shoe as to make a shoe.

The farmer who raised the calf that yielded the skin, the butcher who removed the hide, the tanner who converted it into leather, the railroad which hauled it 2,000 miles and the factory which carefully made the leather into a shoe, together split fifty-fifty with the exclusive shop which retails it to your wife.

There is something altogether wrong with a scheme of economics which permits the producer (the farmer who grew the potatoes and apples, the stockman who raised the pork and beef) to receive the small end of the purse which his products bring. In the case of the Quincy apples the producer received only one-third of the ultimate price; in the case of the Bethany apples the producer received only one-thirtieth. Certainly there is as much art, hard work, risk and enterprise manifest in cultivating an orchard, pruning the trees, spraying, protecting with smudge pots against frost and bringing the crop through to maturity, as there is in loading a box upon a freight car, unloading it and storing it away in a dark cellar for a few months. It is high time the farmers of America—and particularly right here in Wisconsin—were paying more attention to the highly important factor of marketing.

We are rapidly reaching the top-notch of our productiveness; we cannot continue to break our acreage-yield records indefinitely. Some day we shall have put the last acre of waste land into cultivation. The future profits and prosperity of the farmer depend upon his mastering the art of marketing as thoroughly as the art of producing. Some day the farmer will say what price he will sell his produce for, where he will sell it, when and in what quantities. That day he will be master of the economic and financial situation, and never before that day, no matter how productive his fields and his herds become.

Rescue the Country Church.

I have seen the statement made (and never contradicted, so far as I know) that within the last few years no less than 5,000 country churches have been abandoned in Wisconsin, Illinois, Iowa, Missouri and Kansas. If this is true, the problem of the country church is one of the most serious before the nation today.

I discussed this question a little bit in The Wisconsin Farmer a few weeks ago, telling the story of a devoted "mother in Israel" back in Ohio, in the early days, who, in the face of almost every conceivable hardship, succeeded in establishing and maintaining a church on four acres of farm land set apart by her husband for this purpose. I believed the story was inspiring, and many of my readers seem to have found it so, for approving letters are coming to me in large number. I am going to print one of these letters; it is characteristic of many. It was written to me by Mr. W. H. Fray, a subscriber, and is as follows:

Dear Mr. Pierce:—I had not thought of writing to you, but after reading your editorial on "Country Church Problem" I just had to write. I want to express my appreciation of that splendid article. The description of triumphant faith, of love, of sacrifice and of service is truly great. Long may you live to send out such uplifting words, expressive of the possibilities of the Christian life, to your readers.

My friends, a letter like this is recompense for many hours of hard work, for many pages of "views" such as mine. I thank Mr. Fray from the bottom of my heart for giving me this helpful commendation; I shall endeavor to be a better thinker, a better writer, a better doer, because of his faith in me and his kindly, friendly words.

In the meantime, what can you and I do to save and to revivify the country church? I have seen it stated that President Waters, of the Kansas State Agricultural College, lays the blame for the dying country church upon the automobile and kindred conveniences in this fashion:

The advent of the motor car, the building of better roads, the general prosperity of the farmer and the attendant luxuries of a nice team of trotters and a carriage to take the place of the old lumber wagon or of the spring wagon as the family carry-all, and the improvement in education, in ideals and desires are the elements that have brought about this change and are causing the abandonment of thousands of country churches.

Is the indictment well founded? Are the motor car and the fine team of trotters responsible for the doors of thousands of country churches being nailed up and the windows being broken out? Or, does the blame lie with ourselves, our restlessness, our discontent, our lack of the faith of our fathers? Let me have your ideas on this subject; we could not do better than to rescue the country church from extinction, if, indeed, the danger is as great as many claim it is.

James M. Pierce

THE WISCONSIN FARMER

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BY JAMES M. PIERCE

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The Wisconsin Farmer — Madison, Wis.

Wisconsin Milk Profits.

The Wisconsin Farmer is indebted to Mr. George R. Moss, official tester for the Waupaca and Butternut Ridge Cow-Testing Association, of Waupaca county, for figures which should be highly interesting to dairymen-farmer readers. In this era of high-priced feeds the question naturally arises whether it pays to buy feed for cows. Mr. Moss encounters this query almost daily. In a communication sent us by Mr. Moss he recounts the experience of Mr. Wm. Rossey, of Weyauwega. Two years ago, according to Mr. Moss, Rossey decided after some misgivings to become a member of the cow-testing association. Only a short time ago Mr. Moss visited the Rossey home and he writes as follows:

We got to talking about the money made with cows. He has seven two-year-old heifers and three mature cows, and in 1916 he delivered to the condensery 67,155 pounds of milk testing 4.53 per cent, bringing him a total of $1,279.41 also feed cost of $646.52, leaving him a net profit of $632.89. These are not the cow tester's figures, but actual amount that was delivered to the factory. Mr. Rossey says it certainly pays to use the Babcock tester and milk scales, and that is what has helped him to show large checks. Mr. Rossey's ration is corn silage, clover hay, bran, corn meal, ground oats, brewers' grains, ajax. This ration supplies the cow with enough nutriment to produce milk and butter fats and for her own maintenance.

Some farmers will say they are not going to put a lot of high-priced feed into their cows, and perhaps just feed bran, which would cost $30 per ton and this above ration would cost $38. Yet the higher-priced ration is the cheapest for dairy cows. If dairymen refuse to feed their cows a complete ration it would be well to sell them, as no man can afford to board a cow. If we are in the dairy business, let's make it a business. When we go to buy feeds, let's keep our eyes open to see the analysis of the different feeds. Keep records of the feed the cow consumes and the milk and butter fat she produces, and fall in line with Mr. Rossey and receive checks like he does and know how he gets it. An average of $127.94 per year from each cow with an average feed cost of $64.65 per cow, leaving a net profit of $63.29 or almost $2 for $1 expended for feed. Isn't this a good investment? Does it pay to feed? Ask yourselves the question.

State of milk delivered by Wm. Rossey:

Month	Lbs.	Test	Rate	Total
January	4574	4.4	$1.92	$ 88.04
February	5446	4.3	1.82	99.49
March	7388	4.4	1.85	137.22
April	7166	4.4	1.70	122.18
May	7811	4.5	1.63	127.40
June	7159	4.5	1.51	108.67
July	5885	4.5	1.63	95.98
August	4881	4.6	1.84	89.81
September	3726	4.8	1.98	73.77
October	3943	4.8	2.22	87.53
November	4032	4.8	2.40	96.77
December	4032	4.8	2.93	152.55
Total	67155	4.53	$1.95	$127.41

This is only one of many instances which might be given to prove that it really does pay to feed the dairy cow even at the present prices of feed. Of course, feeding and the care of the cow must be given some study.

If War Should Come.

President Wilson has called congress to meet in extraordinary session on April 2d. One of the first things to be done will be to declare (in all probability) that a state of war exists between the United States and Germany. The coming session of congress promises to be historic.

The Wisconsin Farmer proposes to report the happenings of the nation and world, without prejudice, in its department known as Current Events. Farmers who wish to find out, in a few words, what is going on in the nation and world cannot afford to miss this weekly review of the news. If war should come the weekly news review will be of more importance than ever.

Those whose subscriptions to The Wisconsin Farmer have recently expired, and those whose subscriptions will shortly expire, should lose no time in renewing, so as to keep abreast of current happenings, as well as to have the host of practical farm advice and information which every issue of The Wisconsin Farmer contains. So take our advice, renew your subscriptions promptly and secure as many new subscribers for us as you can. We shall report the news of the world impartially and continue to make The Wisconsin Farmer the most practical and dependable farm paper published.

Wisconsin Legislature.

A bill introduced into the assembly by the committee on agriculture is a measure providing for an appropriation to the department of agriculture for the control of tuberculosis. The purpose of this, as has been outlined by that department, is to make a survey of certain sections of the state with a view of finding out the true conditions with regard to bovine tuberculosis. It is proposed to coöperate with the people of the section undertaken and have all cattle examined in a given section or county with a view of segregating all tubercular cattle. Besides the value of finding out the true conditions there will also be considerable advantage to the section so tested out, because it will be evident that it will be desirable for the buyer of cattle to buy in a section where he may be quite sure that all the cattle for sale will be from reasonably clean herds. The department is not contemplating the condemnation and destruction of the cattle as heretofore, except when insisted upon by the owner. It is planned that with a little coöperation on the part of the owners of the cattle that most of the reacting animals may be segregated and by pasturing the products we may be able to make them useful to the owners and assist them in getting a clean herd to be raised on the pasteurized products; by the same means also make it possible for the owner to secure the normal income from these animals which is obtained from the regular herd.

An Honor For Wisconsin Man.

Ben F. Faast, of Eau Claire, has been appointed vice president of the farm loan bank located at St. Paul Minnesota. Mr. Faast is one of the big men who have helped to develop the northern section of the state. As a land man his interests might be attributed to selfish motives by some, but those who know Mr. Faast will testify that his interest in the settling of these lands has always been of the genuine kind. He is ever on the lookout for men that will be an asset and not a liability to the fertile acres of the North.

Mr. Faast has a considerable knowledge of banking, especially as it affects northern and northeastern Wisconsin. He was at one time a clerk in a bank in Eau Claire. As the work seemed to furnish for him then only a limited field for advancement he decided to take a course at the Wisconsin College of Agriculture. On graduating in the two-year course he returned to Eau Claire and organized the Faast Land Company and later was active in forming similar organizations in Eau Claire and Rusk counties. He has been probably more than any other one man responsible for the development in Rusk county the past seven or eight years. He is president of the Conrath State Bank, an institution which has worked out very novel and successful methods of loaning money to farmers. This bank

is the first bank, so far as we know, which worked out a plan to loan money to farmers who wanted to clear stumps off their lands. The bank, and other institutions in which Mr. Faast has been interested, has also done considerable work along the line of loaning money for dairy cattle. Mr. Faast was also associated in the organization of the first farm loan bank in Wisconsin, under the present law, operated under the Wisconsin banking department. This, we believe, was the first practical effort in the country to get cheaper money for the farmer, on long time, and on an amortization system which would permit repayment of both principle and interest in semi-annual payments. Having had all this banking experience, and being preëminently an agriculturist and developer of lands, Mr. Faast is regarded as an ideal man for the position on officiary of the federal farm loan bank at St. Paul. Mr. Faast is at present a member of the university board of regents. He was formerly secretary of the Wisconsin Potato Growers' Association.

Has Extra House on Farm For Help.

Those who know something about the difficulties of getting satisfactory farm help and those who are familiar with the problems that come up in the home pertaining to the rooming and boarding of same will be interested in the following communication from one of our subscribers:

I have farmed for the last twelve years. On my 225-acre farm I have two houses, one for myself and one for my help, a married man. I give him $35 a month, wood to use the year around, one-half gallon of milk a day, garden spot, potato patch and $1 a cow a month for as many cows as he and his wife can milk.

When I first started to farm for myself I bought this 225 acres of land, running into debt for the whole farm. There was but one house on it. I went to work and built another for a married man and I have hired a married man in this way ever since. Now I am out of debt and have built one barn 45x50 feet and another 36x54, a silo 14x38, a hog house 5x42 feet with a feeding floor in front, and a shed 16x70 feet for my cows to run under when turned out, also a wood shed 14x28 feet. I own fifty head of cattle, seven head of horses, fifteen brood sows, five fall shoats. I now have twenty-four fresh cows and my man and his wife are milking most of them. I find this the best method of hiring help.

There is much to commend a plan of this kind because the wages are to some extent regulated by the amount of labor performed. If twenty-four cows are kept continuously in milk and these are milked by the hired man and his family this will mean the addition of $24 a month to the earnings. An industrious family will desire to add to the farm revenue as much as possible and this works to the interest of the farm owner, because if he is running his dairy at all carefully the more cows he handles the more profit will he realize from them. We are glad, indeed, to give this subscriber's plan, as it may contain a suggestion that will aid others who have to face difficulties in connection with the hired help problem.

Wisconsin Soils and Tobacco.

James Johnson, of the Wisconsin Agricultural Experiment Station, says that the tobacco plant will grow in practically any fairly fertile soil in the world. It is not true that only certain sections are adaptable to the raising of tobacco notwithstanding the fact that tobacco is usually grown in communities and is not a general farm crop. The growing of tobacco in limited areas is due more to the marketing and storage conditions than to the soil or climatic conditions. Mr. Johnson points out the fact that different climates produce different qualities of tobacco. In his discussion of the relation of soil to the growing of tobacco Mr. Johnson says the following:

The type of soil upon which tobacco is grown, exercises a relatively marked influence upon the development of tobacco sections. Tobacco is grown on a commercial scale upon a great variety of soils. But as in the case of climate, different soils produce different qualities of leaf, and are adapted for different varieties of tobacco which are used for different purposes. Some of the tobacco soils of Kentucky, Virginia, or those of Connecticut and Wisconsin, differ more markedly than their climate, and determine to a large extent the adaptability of these states for the prduction of certain types of tobacco.

The problem of selecting the best soil is, however, of great local importance. In fact it is a subject which must be carefully considered on each farm since frequently only a small part of the farm is suitable for tobacco culture. In Wisconsin the soils used for tobacco growing range from light, sandy loams to fairly heavy silt loams and black prairie soils, resulting in a corresponding difference in yield and quality of the crop. The tobacco sections in Wisconsin are principally in the southern and western portions, particularly in Dane, Rock, Columbia, Vernon, and Crawford counties, extending commercially as far north as Chippewa and Barron counties. But for the restrictions of the market, the industry would probably be taken up commercially in other sections of the state.

By the physical condition of the soil is meant the relative percentages of sand, silt, clay and organic matter or humus present in the soil. It has been shown that a fairly definite relation exists between the physical character of the soil and the character of tobacco produced. Soils containing a large proportion of clay tend to produce a thick and heavy type of tobacco, which usually cures out dark in color. On the other hand, light, sandy soils tend to produce a thin leaf, curing out with a light color and with less "gum" and more elasticity. The water-holding capacity of the soil is markedly influenced by the size of the soil particles and the content of vegetable matter and humus, and this in turn influences the character of tobacco produced. Manures, fertilizers and cultivation may also change the physical character of the soil in such a way as to influence quality in addition to their direct action as plant food.

Another important phase of the physical character of the soil is the mechanical condition or tilth. The tilth of the soil has a marked influence on the yield and quality, and it is a good plan for a grower to select a soil of good physical character, no only for its direct influence on the tobacco, but from the standpoint of the ease with which it is brought into and kept in good tilth. The maintenance of a high content of vegetable matter in a soil is an important consideration in most soils.

The chemical condition of the soil, or the amount of available plant food it contains, is influenced by its natural productiveness, the amount of fertilizer applied, and the amount of plant food which has been removed. In Wisconsin it has been the practice to select for tobacco culture only soils which are naturally the most fertile. Oak openings and deep black prairie loams have been the tobacco soils of the past. The "new breakings," especially, have been noted for the high quality tobacco produced. The decreased yield may correctly be attributed in part to a loss of fertility by constant removal of elements through cropping. Tobacco does not, however, as is popularly believed, remove directly on the average a much greater value of fertility than the average farm crop. Tobacco requires, however, a larger amount of fertility in the soil to produce a good leaf on account of its short period of growth, and more of this fertility is wasted through washing, leaching and weathering than in the case of the ordinary agricultural crops, requiring longer periods of growth. From the fertility standpoint, the grower should select a soil naturally productive, and maintain its productiveness by proper and economical fertilization, at the same time using all possible means to check the natural waste of the fertilizing elements. In general it is the best policy to grow the tobacco crop on the lighter soils of the farm even if it requires a greater effort to bring them to a sufficient state of fertility.

We have no doubt that the tobacco interests in Wisconsin could be extended with profit and that tobacco would prove a good cash crop for many of our farmers who now depend upon marketing all of their crop or nearly all of it through live stock. Those of our readers who are in any way interested in the growing of tobacco and who are thinking of going into this industry should confer with Mr. Johnson, care Wisconsin Experiment Station, Madison, Wisconsin, and ask him for a copy of Bulletin 277. This bulletin is just recently off the press.

John Norton Ames.

John Norton Ames died at Oregon, Wisconsin, March 2, 1917, aged ninety-four years. Mr. Ames was a native of New York, having embarked for the West in 1845 from Utica via the Erie canal, which in those days was the main artery of transportation. The journey to Racine, Wisconsin, which was made by boat, took nine days. It is now made in about nineteen hours.

The deceased was father of W. L. Ames, of Fairview Farm, near Oregon, Dane county, Wisconsin. The elder Ames was a pioneer farmer in this section. The late J. N. Ames' father, David H. Ames, was a veteran of the War of 1812 and lived to be over 101 years of age. The father of David H. Ames, Nathaniel Ames, who died in 1863, aged 102 years and four months, was the last surviving Revolutionary veteran residing in Wisconsin at the time of his death. "It is one of our greatest disappointments," writes W. L. Ames, of Oregon, "that we might not have cared for father to the age which his father and grandfather reached."

The Oregon Observer, referring to the death of J. M. Ames, says: "He was one of the oldest pages of local human history."

The same paper refers to the many changes which have occurred during the lifetime of this man who lived to be almost a century old. Mr. Ames had seen the time when it took weeks, even months, to bring news across the Atlantic which is now snapped almost instantly by cable; he had come down from the days of 25-cent letter postage to rural free delivery; the courier by horse to the telephone, telegraph and wireless; the ox cart to the palatial railway train, automobile and aeroplane; the flail to the modern swing stacker and steam-driven separator; the straw stack and log barn shelter to the modern inspected barn; 12-cent butter and 5-cent-per-dozen eggs and $4-per-ton bran to the prices of today; from the occasional monthly newspaper to the daily delivered to his door; from one story book a year to moving pictures changed nightly; from the old box stove to the fireless cooker; from the broom and dust pan to the vacuum cleaner; from the fiddle and accordion to the Victrola and the phonograph; from war by musket and sword to the rapid-fire gun; from farming for just enough to eat and wear to farming for profits and the comforts of the modern homes.

Mr. Ames was well acquainted with Madison when it was covered with brush. He led a clean and exemplary life; he was aggressive and willing to fight for what he thought was right. His record as a citizen, farmer and homebuilder merits for him a prominent niche in the history of Wisconsin.

Preventable Colt Losses.

Young colt losses seem to go in waves as if the whole matter were under the influence of climatic conditions. We have known cases where half the colts in a given community have been lost and yet possibly the following season there would practically be no losses. There are a few fundamental principles that should be understood by every mare owner. These are kept well in mind by the old-timer who has succeeded in the business, but the beginner is the individual who generally bears the burden of these losses. Recently the North Dakota Experiment Station has undertaken the dissemination of information having to do with the prevention of losses among colts.

According to the teachings of this station, the early troubles of the foal are apt to be navel ill, constipation and scours. Navel ill seems to be caused by germs that get into the body through the navel cord at birth. To guard against it have the colt dropped in a clean stall or in a pasture. Then the navel cord should be cut off about two inches from the body if it has not already been broken that close or closer, a string dipped in a mild disinfectant tied about the end of the cord and the cord painted over with a mixture composed of one part of the tincture of iodine and three parts of glycerine once a day till it dries off. The udder should be rinsed off with a weak disinfectant, too, before the colt is allowed to suck.

The first milk or colostrum is laxative and usually cleans the digestive tract within six to eight hours. If the bowels do not move a laxative as two ounces of castor oil can be given and a couple of ounces of warm water with a little glycerine injected into the rectum. It is hard to determine what causes scours or diarrhea in each individual case, but the common causes are changes in the composition of the mare's milk due to nervousness, overwork or changes in feed, allowing the colt to gorge itself from the full udder of a mare that has become quite warm from overwork and from filth in the food.

When the colt is four weeks old it will begin to eat a little grain; whole oats are the best. The colt should have a chance to nurse every two or three hours until it is about three months old. This is also for the good of the mare, as her udder will fill up in about three hours. not nurse or the there is danger t come damaged a lessened that the for the colt. If c fed dilute it with ter and two leve sugar to each quart should nurse un old, when it ca any setback. Gr without it a goo sult. The valuable that have been so much in demand this country are fed grain from the time they are old enough to eat till mature.

Discarding the Slop Bucket.

Farm labor is higher than ever this year, and it is by no means plentiful. Wages in many cases have more than doubled in the last ten years, and one result of this is that many a landowner is trying to get through without employing any extra help, excepting possibly by the day during the busy season. There is, therefore, more scheming to cut out useless forms of labor than at any time in the past, and any suggestion that will save steps will be quickly acted upon this year.

It begins to look now as if the time devoted to lugging the slop pail around the yards and feed lots is wasted time. While the average hog devours slop with marvelous zest, we are not correct in our assumption that he makes better use of the slop than he will of dry food. If this is the case, it is high time the swine breeder should be impressed by the fact that he can handle a bunch of hogs, when these are carried on dry feed, and expend on them just about one-tenth of the labor that will be required if most of the ration is fed in the form of slop.

Those who have used self-feeders have reduced the labor of caring for hogs to the minimum. Instead of laboriously feeding twice a day, the self-feeder is given attention possibly once or twice a week and the hogs themselves determine the quantity they will eat and the character of the ration if they have access to a variety. They will make cheaper gains in this way than if they are given ever so much attention and fed in accordance with an old-fashioned plan. Not only that, but they will make more rapid gains. Presumably this is due to the fact that they balance their own ration more accurately than can be done in any other way, and they digest the dry grain better than they do the slop. When grain is fed in a dry condition more time is spent in mastication and the starches are unquestionably partly digested before they reach the stomach. On the other hand, when wet feeds are used they are largely "bolted," resulting in at least part of the nutrients escaping digestion.

We hope that thousands of our readers will pass up the slop pail during the busy season this spring. Give the hogs a chance to feed themselves, and if a self-feeder cannot be used try them out on dry grain and water. You will have just as big pigs next fall, and in the meantime think of how many weary steps will be saved.

Need of More Horses.

"If the United States needed horses for military purposes it would be almost impossible to supply that need," John F. Ryan, head of a Canadian national bureau of breeders, said recently. His statement is based upon long experience and much investigation. He has interviewed and had business dealings with the inspectors of almost every belligerent nation. The excessive call upon the stock of horses in this country has very nearly depleted it. "My estimate is that the United States has shipped to France and England alone about 1,850,000 horses from October 8, 1914, to February 1, 1917," Mr. Ryan continued. "In addition to this Italy has taken about 160,000 and the Greeks about 30,000. In April of last year there were no real cavalry horses available in America. In the beginning it was possible to get several thousand in Kentucky; today it would be possible to get hardly a carload. The same holds true in other states."

a Success With Sheep.

ane County, Wisconsin, Has Splendid Knowledge and His Methods Have Brought Him High Honors.

the most impor- nsin's live stock t that is not the eep. That they with profit and than is nec- ding has con-

of Sun Prairie, who has and raising pure-bred sheep ly twenty years with a great d success. The mainstay of his floc are Shropshires and Hampshires. Besides being a breeder of sheep, Mr. Renk is a showman, and his prize rams, ewes and wethers have won hundreds of ribbons for him and cash money amounting to more than $10,000. To be in on the money so consistently, one must have the real type in the classes that are shown. Mr. Renk has most excellent herds of both the Hampshire and Shropshire breeds. In order to build up his herd he has been a frequent visitor to England, where he followed the shows from May until July, and at the conclusion of the season collected his herds from a great number of perfect specimens.

There are about 130 Shropshires ewes and rams on his farm at the present time. One lot of Shropshire rams, which he expects to show during the coming fair season, carry the excellent qualities of the breed in a superior manner. They are the attractive quality kind. Their fleece is of the dense, elastic sort, of good length, with a light cherry-colored skin underneath. They are well set up in the shoulders, which fit over the chest in the smooth approved manner. The shoulders are deep and wide. There is no dip behind the shoulders, the back being straight, with the loins well covered. It is in the head that they show their type particularly, however. There is one ram there that will be hard to beat wherever he is entered, as he has the masculine appearance and well-covered, woolly head, oined perfectly to the shoulders. Both s and rams show singularly well- far apart, particularly strong The flock has been a ambing this season, as onsiderable number ns on the show cir- the youngsters are do well.

The wintered in warm barns an s, with an opening toward the south, where they find plenty of exercise in the yards during the winter and in the field until late in the fall. The entire flock was out as late as December during the last year harvesting the rape crop from the cornfields. Mr. Renk sows his rape at the last cultivation of the corn. His method is perhaps as good

WM. F. RENK, SUN PRAIRIE, WIS.
Secretary of the Wisconsin Sheep Breeders' Association and one of the best sheep breeders in the state.

a one as can be advised. He hangs four ordinary syrup pails which have perforated bottoms along the front bar of the two-row cultivator and starts away. At the shaking of the machine these buckets leak out their seed along the rows and the cultivator covers them with a light covering of soil. During the time that the machine is not in motion the seed does not drop.

The Renks have been in the sheep business ever since the father took the farm as a homestead twenty years ago. It was not until 1900, however, that the pure-bred breeding of sheep was begun. Since that time rams from the Shropshire flock, and since 1907 from the Hampshire flock, have been sent to all parts of the United States. The Hampshires lend themselves especially well to crossing with western ewes, and the sales to our western states have been many and large. The demand greatly exceeds the supply the year around.

Mr. Renk does not believe in keeping too big a flock, as he has had some experience in this. There is more danger from disease and losses of various kinds when the flock is large than if it is small, and better attention can be paid to each individual. So when his brother, who had previously been in partnership with him, moved to Idaho several years ago he decided to split his farm in half and on the 220 acres remaining breed fewer sheep with greater care. His success has been accordingly.

Each year quite a number of western sheep are fed on the farm during the winter and sold over the scales as soon as they have put on enough flesh to make this profitable. This year there have been about 700 sheep sold from the farm in this way and with present prices for mutton they have proved a good investment. Besides these, Mr. Renk handles about 200 head of breeding stuff each year. Since the war, importations have stopped, but previous to this frequent purchases of fifty to 300 sheep were made and resold to breeders all over the United States.

The many championships which have come to Mr. Renk in the show ring have been the result of careful breeding and constant attention in choosing breeding stock. Though not all have been firsts, a great majority of them have been in the money, totaling, as before mentioned, better than $10,000.

Mr. Renk feels that most farmers could raise a few sheep very profitably. His lifelong experience with sheep has shown him that a small flock can be profitably kept on nearly every Wisconsin farm. With a flock of twenty-five sheep, little labor and attention is necessary, except at certain times. For northern Wisconsin sheep are especially adapted. The clovers and brush growing on the land not yet cleared in these sections form excellent pastures for the sheep. Clearing the land in this manner is economical besides being profitable. Mr. Renk is not onesided about his advice in starting a man out. While he prefers the Shropshire and Hampshire breed, any mutton breed is a good one to start with. But the importance of a pure-bred ram at the head of these flocks must be observed. A grade or scrub ram, even though he be a fair individual, cannot transmit his qualities to his offspring as well as a pure-bred ram, because the pure bred has generations of good breeding behind him and the ability to transmit these.

Sheep can take care of themselves during the summer, as they are mostly on pasture. Some work is required in the winter for the proper feeding of the flock. Most farmers feed their sheep too little. The appearance of the sheep cannot easily be judged at a glance, as the wool hides the exact condition. If the flock goes into winter quarters in a thrifty condition they are more likely to come out well in their lambing period. Good clover or alfalfa hay with some corn fodder is a good enough feed for the sheep until about a month before lambing begins. The grain during the last month enables the ewes to have an abundance of milk when the lambs arrive.

Mr. Renk does not believe in any elaborate housing for sheep, but he is emphatic in advising a shelter that has no drafts and is warm and clean. All his sheds and buildings are so cou-

(Continued on page 22.)

ONE OF MR. RENK'S PRIZE-WINNING HAMPSHIRES. THIS RAM TOOK FIRST AT MINNESOTA IN 1915 AND THIRD AT WISCONSIN, IN 1916

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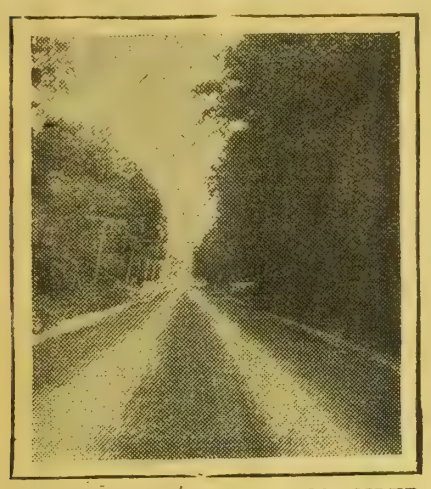
Funds Available For Roads.

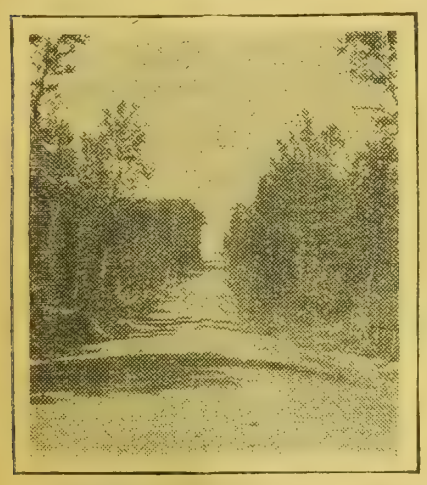
More than $9,000,000 to Be Expended in 1917 Independent of That Voted in Bonds by Several Counties of the State.

THERE will be approximately $9,000,000 spent on Wisconsin roads this year. Of this sum over $4,000,000 in round figures will be expended under the highway commission and $931,000 will be state aid. At the spring elections



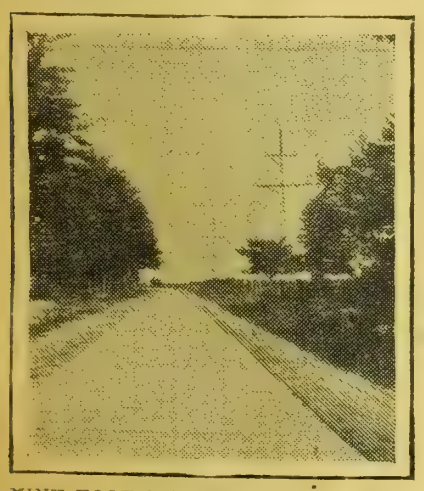
FIFTEEN-FOOT MACADAM OILED ROAD, WAUKESHA COUNTY.

four counties will vote on bond issues. It is proposed to issue bonds to the extent of $500,000 in Richland county, $400,000 in Polk county, $300,000 in Shawano county. There are other counties which are interested in the matter of issuing bonds for road improvement. These include Dane, Washington, Eau Claire, Green and Walworth. On account of proposed changes in the state laws these counties have deferred voting on proposed



A BEAUTIFUL ROAD IN PRICE COUNTY

bond issues and it is not improbable that some of them and perhaps all of them will vote on bonds for roads at a special election about September 1st. In addition to these bonds there is available in Wisconsin July 1st $385,000 federal aid. This money is contingent upon the state appropriating a like amount and at this time it seems



NINE-FOOT CONCRETE ROAD, FOUR-FOOT SHOULDER, WOOD COUNTY.

very probable that the legislature will take advantage of the opportunity, thus adding almost $800,000 more for road work. The $4,000,000 to be expended under the direction of the highway commission will be spent on what is known as the state road system. It is a condition of the federal funds which are to be available that this money is to be spent on what we commonly call the trunk line system connecting the cities and villages. There will be raised about $5,000,000 this year which is spent independent of the highway commission under the supervision of road superintendents, there being from fifty to 250 of these superintendents in each county and in some counties as high as 300 or 400. There is a bill before the present legislature, the purpose of which is to put all of the road work in each county under one superintendent so that such work may be uniform. At the present time county roads outside of what is called the state or trunk line system are built according to the numerous ideas of the superintendents. There is nothing in the law to keep one superintendent from building a nine-foot road and the one in the next community from building a sixteen-foot road. Some good results, however, have been obtained where superintendents work in harmony and where they take the time and pains to make study of the problem of building roads. In a number of counties the superintendents have had county conventions where they aim to arrive at the best and most economical methods for road work. In

NINE-FOOT LIME STONE MACADAM ROAD IN FOND DU LAC COUNTY.

addition to this road superintendents have secured a great deal of valuable information from road workers acting under the state highway commission. The state highway commission has endeavored to make its roads good samples for the road superintendents to adopt. There are approximately 76,000 miles of road in the state and new mileage is being added, especially in the northern counties. This new mileage may be part of the state system or it may not be.

At present the state aid fund (which with the automobile road fund amounts to $931,000) is allotted on the basis of valuation. On this basis the county of Milwaukee, notwithstanding the fact that it has fewer miles of road than many other counties, gets about one-fifth of the state-aid fund. The federal funds available after July 1st, in the event the state meets the government requirements, are to be apportioned on a different basis. In handing out this money to the counties to be expended on trunk lines, area, road mileage and valuation are all to be taken into consideration on an equal basis. On this basis Milwaukee county would receive 6.75 per cent of the federal road money. There are about 61,000 miles of road in the state which are cared for and improved under the direction of road superintendents.

In the year 1918 there will be about

(Concluded on page 21.)

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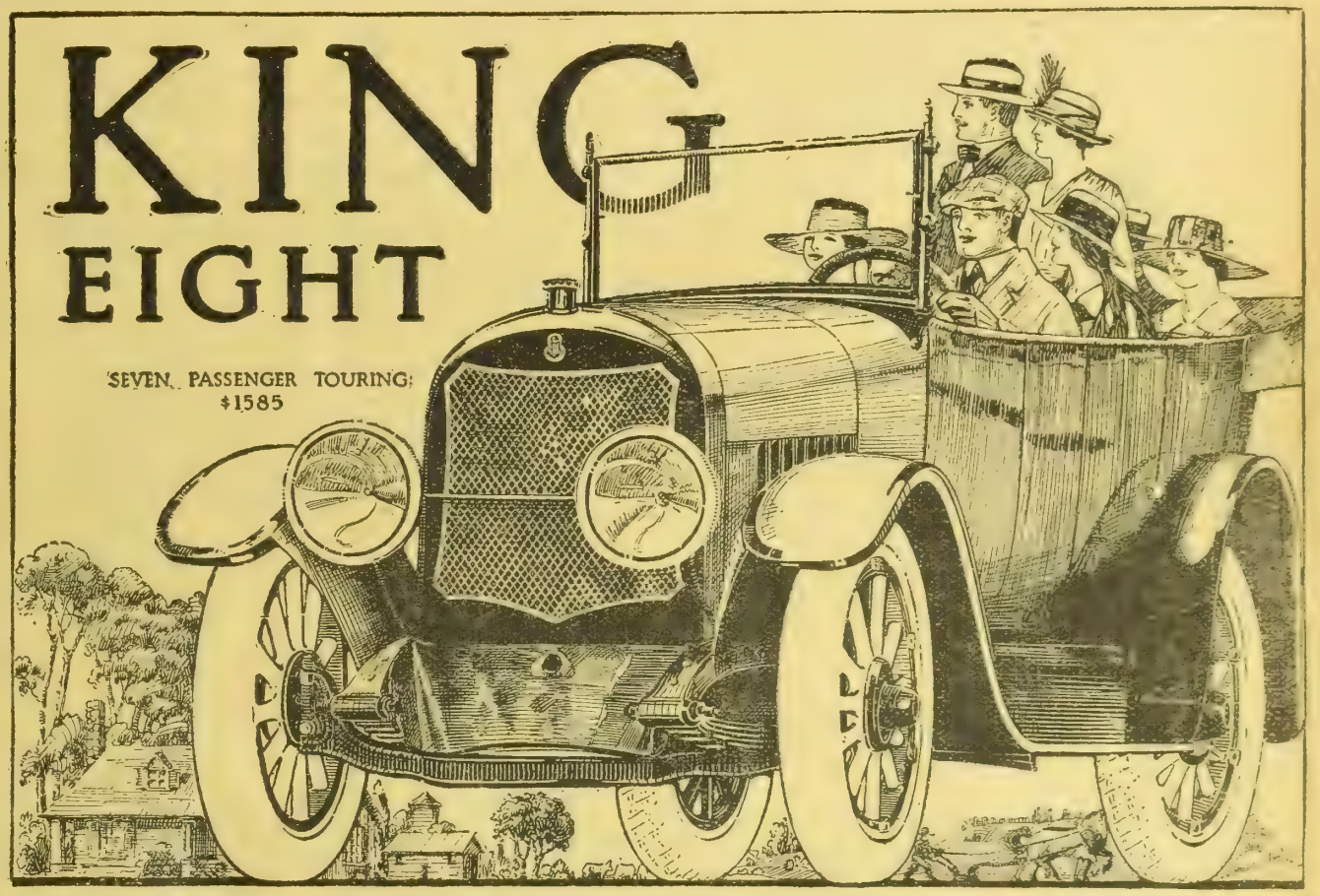

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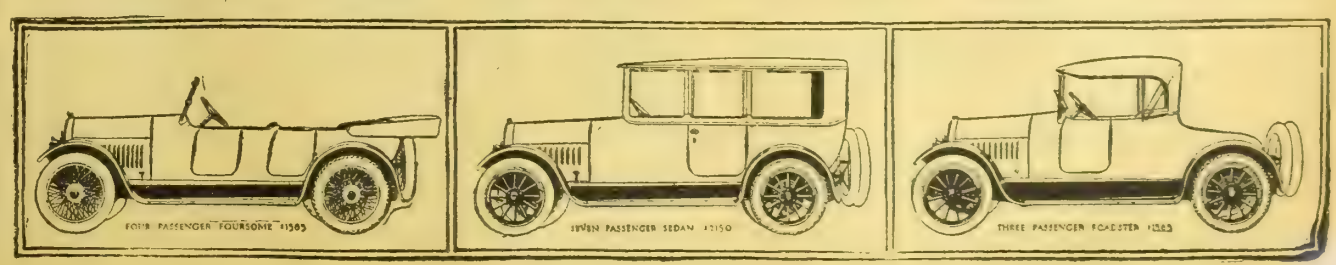

Thoroughness in Spraying.

In no undertaking is it more necessary that you do well, whatever you do, than in spraying. The points of weakness in this work which lead to failure are three. The chemcials are not rightly mixed, the time of application is not carefully chosen, and the implements used not sufficient for a good job.

Whatever formula you may be following in mixing the spray liquids, be exact in the quantity, and be sure that your chemicals are fresh. It is best for the small orchardist to get from the drug store the needed material, all ready for the mixing with water. It will cost more than to get the ingredients and dissolve at home, but you are safer with the prepared sprays. Leading fruit men testify that they have the best success with a mixture of lime sulphur and arsenate of lead. You may buy these all ready for the dilution, with full instructions on the package.

Plan for not less than three applications during the season. The first should be given before the bloom opens. When the buds are well developed, enough so that the pink begins to show through the green in the most forward specimens, give the dose. Do it promptly. Let nothing make you delay it. Should there chance to be very warm days just then, growth is very rapid. Also bug work is expeditious, and two days' delay may work untold injury. Sometimes rainy weather comes at just the time you should do this work. Better be a little ahead of bad weather, even if the buds have not quite reached the stage named above, than a little too late. Be guided by common sense, for weather conditions must always be considered. The rules name the best time—come as near to that as possible—and it is better to be earlier than later.

The second spraying will come about two weeks later, or just after the petals fall; the time will depend upon the character of the season. Hot and dry weather will shorten the interval between the first and second spraying, and cool, wet weather will lengthen it. But, when about four-fifths of the petals have fallen, and only the later buds of the clusters show color, repeat the spraying. At this time the fruit will be set. The little apple will be standing straight up on its stem. It happens that the weak point of the fruit, where the larva of the codling moth usually eats its way into the apple, is right at the calyx end. If, at this time, the poison spray is sent up into the tree top, it will fall directly on this upright calyx end, just the place where it is needed to destroy the enemy.

In a very few days the weight of the young fruit will bend the cluster stem, and the calyx end will point earthward, and in that condition the poison cannot be lodged where needed. From this fact comes the necessity of doing the second spraying without delay. Doing it at the right time makes all the difference between a good crop and a poor crop. If the application is timely, you may save three-fourths of your crop, but if put on after the position of the fruit is reversed, you will do well if you save a third of it.

Give the third spraying about three weeks later. This is expected to catch the later hatch of the apple worms, and also the lime surphur will clean up the scab spoors, which will be developing at that time. These are the three most important applications, but it is well to give still another about mid-July. There will be a second brood of the codling moth at this time, and while not so numerous as the first, it is capable of much mischief.

The third point which must not be neglected is applying the poison in the right way. There must be pressure enough to make a very fine spray and to throw it above the tree, so that the mist falls straight downward. The whole tree should be dampened to the point of saturation.

If your pump is too small, and the hose too short to reach the tree top, you can use an extension rod to get your mist well above the tree top. A barrel pump may be placed on a high platform wagon and driven between the rows, and this, for the small orchardist, is a great help in getting the right range. Whatever you attempt in spraying, make this resolve—to do it carefully, timely and thoroughly.

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Under the title, "The Breeding of Animals," there has recently come from the press an exceedingly valuable book written by Prof. F. B. Mumford, director of the Missouri Experiment Station. To begin with, few institutions have done better work than the Missouri station along scientific lines relating to live stock. An inumerable number of problems have been investigated by that station and most of the experimentation has been done under the direct or indirect supervision of Professor Mumford. In this way he has become fitted in a special degree to prepare just such a book as this. The volume fills an important need and, while its pages are well adapted to classroom purposes, they are equally well suited to stockmen's requirements. Some conception of the character of this book may be obtained by a perusal of the chapter titles which are: The Cell, Reproduction, The Breeding Season, Gestation and Lactation, Fertility, Sterility, Heredity, Inheritance of Acquired Characters, Heredity and Sex, Variation, Inbreeding, Crossbreeding, Development, The Practice of Breeding.

This volume sells for $1.75 and arrangements have been made with the publishers whereby it may be supplied to readers of The Wisconsin Farmer at this price.

If your neighborhood has not enjoyed the social benefits of a good farmers' club the past winter season see to it that a club is organized before the winter of 1917-18. A great deal of good has been accomplished by Wisconsin farmers' clubs during the season just closed.

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A Few Pointers On Gardening.

Handling of Soils and Fertilizers.---How to Prepare the Soil. ---By J. G. Moore, of the Wisconsin Experiment Station.

WHILE practically all types of soil may be used for gardening, the garden soil should, if best results are to be attained, possess certain characteristics. The first consideration is the texture. The terms commonly used to denote the desired texture are fine and loose. By looseness we do not mean that the soil particles are far apart, but that they are not cemented together in large masses commonly called "clods." A soil may be too loose to be best adapted to gardening, but there is much greater danger in its not being sufficiently loose. Sandy soils or sandy loams are quite likely to possess these desired characteristics, while they are quite likely to be absent in clays or clay loams which have not been properly handled.

If a soil is lumpy and it is difficult or impossible to secure fineness of particles by the usual tillage methods, the soil should be "modified." By this we mean merely treating the soil so that its particles will form less readily into larger masses. There are a number of methods of treating heavy soils to assist in bringing about the desired looseness. On some soils this may be accomplished by increasing the organic (vegetable) content of the soil or by the addition of lime, while on others, sanding or the use of ashes may be necessary. Lime used alone will only accomplish the desired result when the compacting of the soil is comparatively slight, although it will help to correct the unfavorable condition on soils in which compacting is bad. Use ten to twelve pounds of stone lime per square rod. Put in small piles in the garden and cover with moist soil. Allow it to slake, mix with soil and distribute. Then work it into the soil.

Organic matter is an important factor in correcting this condition in all heavy soils and, while it will not in all cases do away with the trouble, it should be the first method to be used in the modifying process. Many of our garden soils are hard and compact and give poor results because we have neglected the organic content.

The common method of increasing the organic content of the soil is by putting on manure, preferably well-rotted manure, and thoroughly incorporating it into the soil. Where manure is not available, rotted lawn clippings or leaves may be used. Tops of plants grown in the garden, if not diseased, also help to keep up the supply, if worked into the soil. Another method is by using green manurial crops. Oats, barley, buckwheat, turnips, field peas or other crops which kill with frost may be sown after the early garden crops are removed or between the rows of late crops and then worked into the soil the following spring.

While a garden soil should not be water-logged, it is essential that it hold enough water for the needs of the crops. The two essentials for good water holding capacity are a fine soil and a large amount of decaying organic matter. Therefore, if we look after the texture of the soil properly we will provide for its retention of a goodly moisture supply.

The demands of vegetable crops upon the soil, when the garden is cropped to its fullest capacity, are very heavy. There is usually little danger in getting the garden soil too fertile, but it is possible to injure the plants and at times the crop by the application of excessive amounts of certain forms of plant food supplying materials. The fertility of the garden soil is most often maintained by the use of stable manure. Horse manure is most commonly used, but all other kinds may be used, if available. Hen manure is much prized as a garden fertilizer, but as it has a very high content of certain plant foods it should be used more sparingly than the coarser manures.

The coarser manures are more desirable when well rotted, but may be used in the fresh condition, if proper care is exercised in working them into the soil. The finer manures and fine, well-rotted manures are frequently used as top dressing. If fresh horse or cow manure is used it is advisable to incorporate it into the soil in the fall. This permits of some decay before planting time and there is less liability to unfavorable effects upon the availability of soil moisture. While it is possible to use substitutes for manure, it is scarcely advisable if it is possible to obtain manure because it is a desirable method of adding organic matter as well as increasing fertility.

Commercial fertilizers may be used as substitutes for manures for supplying plant food. In the main, they are less satisfactory and may frequently be injurious. Nitrate of soda is probably the most often used, although it is the commercial fertilizers most likely to produce injurious results. Some of the precautions in its use are: Do not apply too heavily. Three-fourths to one and one-half pounds per square rod is a fairly liberal application. Exercise care not to leave any of the chemical on the foliage, as it will cause burning. If a large amount is to be used it is best to apply it in two lots. Nitrate of soda may also be applied dissolved in water. One ounce to one gallon is the usual strength used. The plant food supplied by nitrate of soda is nitrogen. It may also be supplied by applying dried blood or sulphate of ammonia. One and one-half to two pounds per square rod is an average application. They are less readily available than nitrate of soda and their use is advised in place of nitrate of soda except when the chief aim is to give the crop a quick start. On some soils it may be desirable to apply a fertilizer carrying phosphorus. Acid phosphate or ground bone are valuable for the purpose. Two to two and one-half pounds per square rod should be sufficient in most soils. Usually it is not necessary to supply potassium to a home garden soil. Large amounts of potassium are detrimental to certain crops and, therefore, there should be good evidence of its deficiency before using it.

The first thing to take into account when considering the preparation of the soil is whether it is desirable to increase fertility, add organic matter, or modify the soil. If any of these are to be accomplished the material should be distributed before tillage begins. It should be spread evenly and if coarse should be well broken up.

The second consideration is the disposition of the corrective material and the breaking up of the soil. Plowing will be advisable on the larger tracts, but spading will have to be resorted to on the average city garden. Plow or spade deep, unless an unfavorable subsoil comes close to the surface. Even with this condition it is well to work in a little of the subsoil each season and gradually deepen the surface soil.

In spading, the spading fork is preferable to an ordinary spade, as it breaks up the soil better. Pulverize the soil as you spade by striking the inverted spadeful with the tines of the fork. Work in the manure or corrective material thoroughly. At times spading twice may be desirable.

When breaking up a sod or when early vegetables are desired on the heavier soils the breaking up process should be done in the fall. In other cases plowing or spading may be done in either fall or spring. Avoid working the soil when wet, especially if it is clay or clay loam.

The third consideration is the establishment of the seed bed. This means pulverizing and leveling the soil. The harrow and disk, on the larger gardens, the rake and hoe for the small gardens, are the chief tools used in this operation. Work and rework the soil until there are few, if any, lumps or clods left. If these are broken down with difficulty, moisten or leave until after a rain. The ideal condition which is desired is a surface soil which is nearly dustlike.

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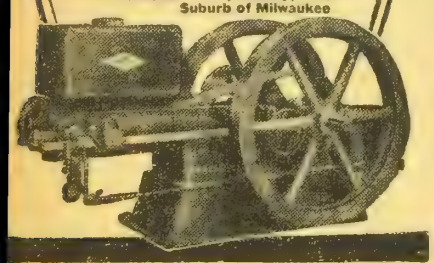

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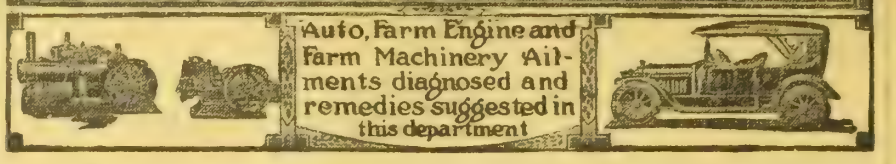

Questions and Answers.

Auto Engine Fuels.

What would be the effect of adding spirits of ether to the gasoline for an auto? What would be the effect if the ether were added to kerosene in a kerosene engine? Will half gasoline and half kerosene make a good fuel for an automobile engine? How would this mixture work if either were added to it? What would you think would make a cheap fuel for an auto?

Answer.—Spirits of ether increases the power and makes the motor start easily. It is sometimes used to start a motor which is too cold to start on gasoline. It is dangerous, however, and its use is not advisable. Serious explosions have occurred from its use. Kerosene and gasoline mixed does not make a successful fuel for auto engines. We know of no reliable fuel mixture for automobiles that is cheaper than gasoline.

Disks Will Not Cut In.

I have a ten-foot Osborne disk, purchased in 1915. The disks are sixteen inches diameter. For some unaccountable reason they fail to cut into the ground as they should; no matter at what angle they are set, or how much weight is put on it. Sharpening the disks has no noticeable effect. I believe the disks are too much dished. Would it help to have them cut down in size? What would you suggest?

Answer.—A small disk cuts into the ground easier than a large one. If set at the proper angle, the more the dish the easier for the disk to cut in. The disks should be well scoured on the concave side and the bearings well lubricated so that the disks turn freely. The disks may be scoured with emery cloth, or with a wet, soft brick and water. If power is available a wheel made of canvas with emery glued to the rim may be used on an emery wheel stand. This kind of a wheel puts a nice polish on a disk very rapidly.

New Piston Rings.

Would one of the new type of piston rings on a piston help the compression much, or should all the rings be the same kind? How large an electric motor would be required to replace a two-horse-power gasoline engine? Would this motor run off a 110-volt direct current, or would a 220-volt current be required?

Answer.—One new ring if properly fitted to the cylinder should improve the compression considerably, but it would be better to replace all the worn-out rings, especially if you are having carbon trouble. A one-horse-power electric motor should handle the load of a two-horse-power gas engine, as the electric motor has a much more even pull. The electric motor also has capacity for carrying overload for some time, the limit being the time required for the motor to heat up dangerously. A motor will work very successfully on a 110-volt circuit if designed for that voltage. Order a motor for the same voltage as the current on the power line.

Electric Lights on a Ford Car.

I intend to install electric dash and tail lights on my 1915 Model Ford car. By installing the two lights in series, the dash light will act as a tell-tale on the tail light. I enclose sketch of the wiring. Please tell me if it is practical. Will the addition of two two-candle-power lights have an appreciable effect on the efficiency of the headlights? Do you know of any appliance that will make the headlights of a Ford car brighter at low engine speed by automatically switching all the current to the left headlight, or otherwise?

Answer.—Your sketch of the wiring has been misplaced. The wiring is very simple. Run a wire from your switch to the dash light; from the dash light to the tail light, and from the tail light to the frame of the car. Since the lights are connected in series, the lights will have to be of the same candle power. Their voltage should be the same as the voltage of the headlights.

You are overloading your magneto by running so many lights from it, but if the magnets and the insulation are in good condition you might be able to do so for some time without serious injury to your machine. There have been voltage regulators made for Ford lights, but we are not sure that they are on the market at the present time. The principle of these regulators is that of a fly ball governor; the governor shifting an arm of a rheostat so as to cut down the amount of current supplied the lights at high engine speeds. The apparatus could also be made to work as you suggest; switching all the current to one light when the engine slows down.

Copper Tube Boilers.

In a recent issue, mention was made of a steam boiler made of copper tubing. Will you please publish a diagram of such a boiler?

Answer.—A boiler of this type usually has a tubular shell like an ordinary vertical boiler or feed water heater. The inside construction is quite different, however. The water is contained in a series of copper tubes wound into coils above the firebox. The tubes are arranged so that the water is admitted at one end and the steam comes out at the other; or both ends of the tubes may be fastened in a header at the top or side, and the tubes filled with water all the time. Copper transmits heat very readily, and the tubes give a large heating surface; therefore, a boiler of this type heats up very readily. It is the common type of boiler for fire engines and automobiles.

Raising Water by Hydraulic Ram.

My house is located where it is almost impossible to get a good well. It is on top of a hill. About eighty rods from the house I have a dam that covers four or five acres with water. The dam is about fifty feet lower than the house. An inch and a quarter pipe runs through the dam at the bottom. Could I use a hydraulic ram to force the water up the hill into a cistern near the house? There is always five to eight feet of water above the pipe in dam. If this could be used, how much water would be put into the cistern in twenty-four hours? What size of pipe should be used for the discharge, and how deep should it be buried?

Answer.—You should be able to use a hydraulic ram successfully under the above conditions. If possible, place the ram ten or twelve feet lower than the water level in the dam. The supply pipe from the dam to the ram should be about forty feet long. The ram will lift about one-tenth of the water running into it. If the supply pipe is one and one-fourth inches, the discharge pipe should be one-half inch. This outfit should force 500 gallons into the cistern in twenty-four hours. If you use a two-inch supply pipe the discharge pipe should be three-fourths inch. This outfit should force 1,000 gallons into the cistern every twenty-four hours. The discharge pipe should be buried three to four feet deep to protect it from the frost.

Auto Storage Batteries.

How long is the average life of an auto storage battery? How should they be handled to keep them in good shape? If they are dead, how much are they worth for junk?

Answer.—The average life of an auto storage battery is about two years. Their scrap value is not very much, being equal to the value of the scrap lead, copper and rubber. Keep the battery well charged. Occasionally add enough distilled water or clear rainwater to the cells to keep the electrolyte one-half inch over the plates. When the battery is fully charged the electrolyte should test not much less than 1.200. An instrument known as a syringe hydrometer is used to make this test. When the electrolyte tests too low, add enough pure sulphuric acid to make it test about 1.24 when the battery is fully charged. When mixing, always pour the acid into the water slowly. Never pour the water into the acid, as an explosion might result.

Charge the battery at least once a month, even if the battery is not in use. Do not either charge or discharge the battery faster than the rate specified by the manufacturer, as rapid charge or discharge injures the battery.

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Disking Instead of Plowing.

Ideal Seed Bed May be Prepared Without Turning Soil Over in Slices.---By J. N. Shirley.

I WOULD like to make a suggestion that farmers break part of their corn ground, or any other ground, this spring with a common three or four-horse disk. I "suggest" rather than advise because I know farmers will not take my advice unless it suits them and possibly they may try a suggestion out of mere curiosity. But whether they try it or not I will give my experience.

I will try to stick to my text for a while, at least, but I don't know where I will be pretty soon because I am like the Irishman that was running from a train and saw a switch ahead of him and remarked, "If Oi can make the siding, Oi'm safe." I already see several "sidings" ahead and I may not run on the main track past any of them.

Several years ago we bought an old, run-down-at-the-heel (and toes) clay farm in Hendricks county, Indiana, and, as I failed to rent it, we moved onto this farm late in April. Of course, I wanted to sow some alfalfa on this farm and the neighbors told me that the field I wanted to sow it on had been in corn five years in succession. The standing cornstalks were not oversize by any means, and, as it was late and I had plenty to do on this old "heelless" farm, I concluded to try disking this twelve-acre field of cornstalks, and I did so without breaking, raking or burning any of them. I soon had a splendid seed bed prepared by double disking each way a few times to keep from ridging the ground. I sowed the seed twenty pounds to the acre, set the disks nearly straight and disked the seed in. I had fine success on this old, cold clay land (which I had inoculated with soil from an old field on another farm) and in ditching this farm eighteen months afterward I found alfalfa roots four feet in the hard clay subsoil.

I also used the disk to sow alfalfa on about fifteen acres of oats stubble that same summer. Will say I found the disking (riding, you know) much easier and faster than walking after a breaking plow, and I know it was easier on the team than to stumble over clods and to step into holes in plowed ground. Besides, I conserved the moisture better than I could have done by turning over slabs of that hard clay ground with air spaces under and between them, to say nothing of cornstalks turned under to stop capillary attraction even after I had finally succeeded in pulverizing the clods made by plowing. By disking I had no clods and no cornstalks either. Neither did I have a failure of alfalfa, which I surely would have had had I plowed that field in May and sowed it at once as I did after disking it.

Now, I don't even disk ground to sow alfalfa. I let Jack Frost "work over" a field that was cultivated in corn, oats, potatoes or tomatoes, and I sow, now, only about one-third of twenty pounds of seed per acre on "honey-combed" ground in January, February or March, and Jack Frost covers the seed for me, free of charge.

Here is another suggestion—but don't take it if you would rather "plow your ground deep" and then "work it down solid" again like it was before you plowed it (as I did for twelve or fifteen years). Remember this is not advice—only my experience. I know this is contrary to all the alfalfa instructions I have ever read, and I read everything about alfalfa that I can find, but we used to kill men with the old muzzle-loading musket and don't do it any more because we have a better way. We use repeaters, so excuse me if I repeat.

Last spring I disked my corn ground altogether, did not even use a spike-tooth harrow in preparing the ground, and I never had a better seed bed. The ground seemed spongy all season and of good heart. The disk lifts the soil and lets the air in instead of turning over chunks or slabs as a plow does, and the pulverizing is done thoroughly as you go, a little deeper each time you cross and recross the field. No trash is turned under to shut off the rain from below that is absolutely necessary in case of drouths that we sometimes have. Last May I disked a heavy coat of strawy manure and mixed it with the soil until it gave no trouble in cultivating the corn with a harrow or weeder. In fact, I did not intend to use any other cultivator in this corn. I meant to harrow it twice and then go over it about three times a week with a weeder. I have two of these weeders. I can go over ten acres of corn in five hours with the two weeders, thus preventing weeds, provided it doesn't rain and keep me out of the field till the weeds get a start. Prevention is better than cure and I like to prevent weeds by using the weeder. And the plow (cultivator) does much nicer work when it is preceded by the weeder. But here I am on the Irishman's siding again.

Will suggest that farmers try the disk and see how much better and cheaper it words and how much easier and faster it is for teams or tractors than to use a plow to make clods to pulverize after it rains, sooner or later.

SOON PREPARED A GOOD SEED BED BY DOUBLE DISKING EACH WAY.

A report for the year 1916 upon the business of Colfax, Wisconsin, creamery shows an increase of about $15,000. During the year, 974,299 pounds of cream were purchased and the creamery produced 292,247 pounds of butter. The average price paid for butter fat was the highest in the history of the business, being 39½ cents per pound. The amount paid patrons was $83,169.25. The average net price received for butter was 34.4 cents and the average net price for butter fat, 36.7 cents. The officers of the creamery are: President, W. J. Matthews; vice president, G. W. Paul; treasurer, O. N. Am le; director, M. O. Larson; secretary and manager, G. A. Harsh.

Wisconsin's way of spreading reliable information on the better methods of cut-over land development by means of demonstration trains is being adopted by the Spokane Chamber of Commerce, the Washington State College and the University of Idaho, in a joint project to be operated over the Great Northern Railroad in April.

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It is better for the family to keep a little heat going *all* through your home during these chill and damp spring days. Raw, wet weather is dangerous to health. *IDEAL heating keeps whole house warm and dry!* Only a small fire in the IDEAL Boiler is necessary to make *every room* as balmy as June.

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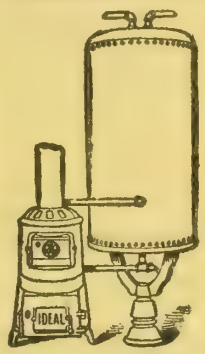

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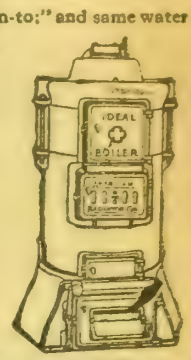

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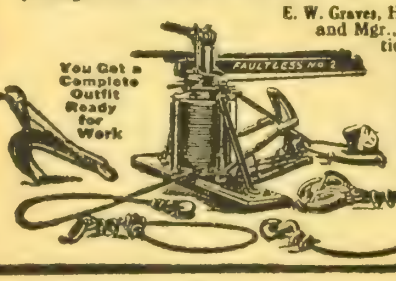
Not merely a catalog. Contains a great fund of information on every phase of land clearing. Finely illustrated in colors. Write for it today. Postpaid—free—no obligations.



Write for special low price and trial offer.

Faultless Stump Puller Co.
Dept. W Cresco, Iowa.

Orders Followed These Inquiries.

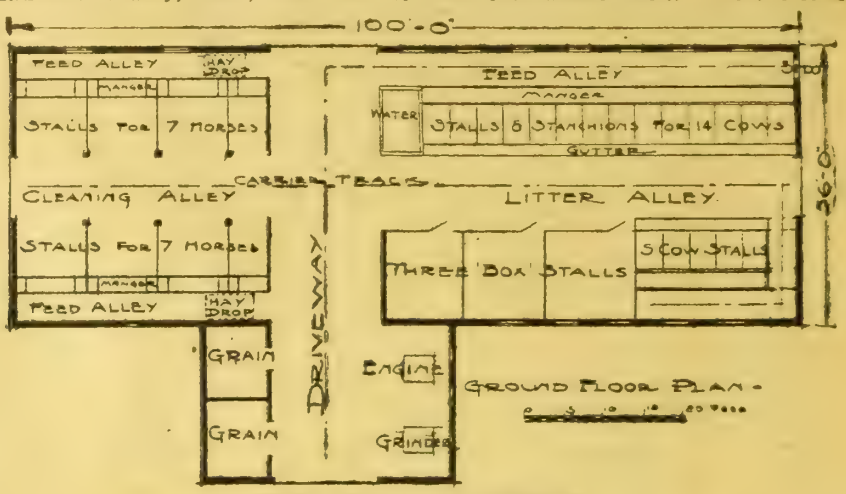
"Have had lots of inquiries from my advertising carried with you and will use your paper again when in need of more advertising."—W. A. Lawson, Rosendale, Wisconsin.

THE WISCONSIN FARMER MADISON, WIS.
Guaranteed Weekly Circulation, 90,000.
Circulation in Wisconsin, 78,640.

A Good Combination Barn.

Affords Abundant Room for an Average Sized Dairy Herd and Seven Teams of Horses.

STALLS for nineteen dairy cattle, three large box stalls, for fourteen work horses, two grain bins and a grinder room and storage space for 100 tons of loose hay is the capacity of the Hamilton county, Iowa, barn that is shown here. The main part of the barn is thirty-six feet in width. It is 100 feet long and the addition is 20x32 feet. The eaves are eighteen feet from the ground. The floors and the footings are of concrete and the balance of the structure is of frame built on a very economical plank frame design which was gotten up by the owner. It is a plank-framed barn without the troublesome crossbeams. It is possible to drive through the long way of the building if desired. The wide driveway across the barn is fourteen feet and high enough so that hay loads can drive in here and be hoisted to the mow. The stock all face the outside walls. The silo is located at the end of the feeding alley. The gas engine grinds the feed in the grinder room as well as does other small jobs here which is used as a farm shop.



FLOOR PLAN OF BASEMENT.

The barn is a large one and too large for every farm, but for a barn of the large type it is well and conveniently arranged. An estimate of the cost is $3,600; but this will not meet every farm's conditions.

A COMBINATION BARN WITH CAPACITY FOR 100 TONS OF HAY.

The Jug-Shaped Water Tank.

To the Editor:—I noticed in a recent issue of your paper a description of how to construct a large cement stock tank. While I think cement is all right for small watering tanks and troughs (and doubtless a few large tanks when properly reënforced and foundation put down below frost line), yet I find quite a large per cent, from some cause, eventually crack, especially if not finished the day they are started.

I had a storage tank made the past year that is much stronger than an all-cement one, and cost but little, if any, more. I made a circular excavation six feet deep by eleven in diameter on the comb of a gently sloping ridge near a drilled well. After establishing the inlet and outlet pipes, one of the latter near the bottom, the excavation was walled up even with the top of the ground with good clay brick, laid in cement mortar, one part cement to three of sand. Then we started drawing in an inch all around with each course of brick, at the same time keeping the outside wall plastered with mortar.

On reaching a height of fourteen feet from foundation we had a space left at top two feet in diameter. Then we gave the inside wall two coats of cement, finishing up at bottom with a two-inch concrete floor. This completed our "jug," excepting the stopper, which I made of inch timber, boring a small hole in the center to admit wire to connect float with windmill regulator.

Then I banked up dirt around the tank to within two feet of the top. This required a little more dirt than what was left from the excavation.

There are a few commendable features about a tank like this. First, by going a good depth you secure a solid foundation, also insuring a comparatively warm supply of water in winter and cool in summer. Second, being located on high ground, the water may be piped to several lots or pastures, and in many instances supply the water system for the dwelling. Lastly, it may be made practicaly vermin and dirt-proof.

The cost is about as follows:

2,500 bricks at $13 per 1,000 (at lumber yard)	$32.50
24 sacks cement at 50 cents per sack (at lumber yard)	12.00
Mason five days at $3 per day	15.00
Tender for mason at $2 per day	10.00
	$69.50

This does not include sand I got from a near-by creek for the hauling, nor hauling the other materials and handling the dirt. Joseph Warren.

Makers of limburger cheese in New York and Wisconsin are having a hard time this year. This is due to the scarcity of rennet extract. One factory in New York which formerly sold rennet at 75 cents to $1.25 per gallon is now unable to fill orders at $10 per gallon. In addition to this there is a scarcity of wrapping paper for limburger cheese. Most of this wrapping paper has formerly been imported from Germany. In Jefferson county, New York, there is talk of closing up several of the limburger cheese factories and this same situation is likely to affect Wisconsin.

UPPER WISCONSIN

Oats For Upper Wisconsin.

To the Editor:—We have been making tests with oats at some of our stations at Superior with the leading varieties of oats available at the time these tests were carried on from 1907 to 1911 inclusive; at Ashland from 1911 to the present time; at Spooner from 1911 to date; at Marshfield from 1912 to date. Our tests have had for their objects the following:

First—To find the best high-yielding variety of oats available.
Second—To discover oats most resistant to lodging.
Third—Oats resistant to rust.

We have found that lodging is most troublesome on the loam soils of central Wisconsin and most of our work at the Marshfield station is devoted to a solution of this problem. In the northern section, including the clay belt along Lake Superior, we have found the Wisconsin Pedigreed No. 5 and Wisconsin Pedigreed No. 4 (Early Gothland) as shown to be among the best varieties. Another variety with which we have had good success is the White Jewel. A hard-yielding variety which we have just recently bred at the Ashland station is a pure line strain of Irish Victor, known as Ashland Pedigree 1289. Among the most successful coöperators in producing No. 5 and Pedigree 1289 are A. G. Searing, R. F. D. No. 2, Ashland; E. C. Stevens, Washburn; Schmidt Brothers, Foxboro; Erick Brodin, Benoit, Wisconsin. We understand that Supt. Otto Drews, of the Manitowoc County Asylum, has had very excellent results with Pedigree No. 4. For the sandy section tributary to Spooner I am inclined to think that Wisconsin Pedigree No. 5 is one of the best to sow. At least our tests at Spooner have shown this variety very good and a consistent yielder. At Marshfield we have had the best results in our station experimenting with Pedigree No. 4 (Early Gothland) so far as yield and resistance to lodging are concerned and we have also had good results with a pure line strain of the White Jewel. The latter is not available for distribution this year, but is going in increased plots this season.

E. J. Delwiche,
Associate agronomist, college of agriculture, Madison Wisconsin.

Upper Wisconsin Notes.

Oneida county has the first farm loan association with $46,000 subscribed and twenty-two farmers represented.

The Hillsdale Shipping Association, Barron county, handled about $27,000 worth of live stock the past five months.

Following a talk at a county institute recently at Amherst, thirty-one farmers signed an agreement to have their herds tested for tuberculosis.

Nineteen farmers in price county have agreed to keep accurate farm records in 1917 and twenty-two have recently started to weigh milk from each cow and keep an accurate record of the same.

Marinette County Farm.

To the Editor:—The Marinette, Wisconsin, County Farm is one of the few institutions of its kind in the entire country which is run on a paying basis.

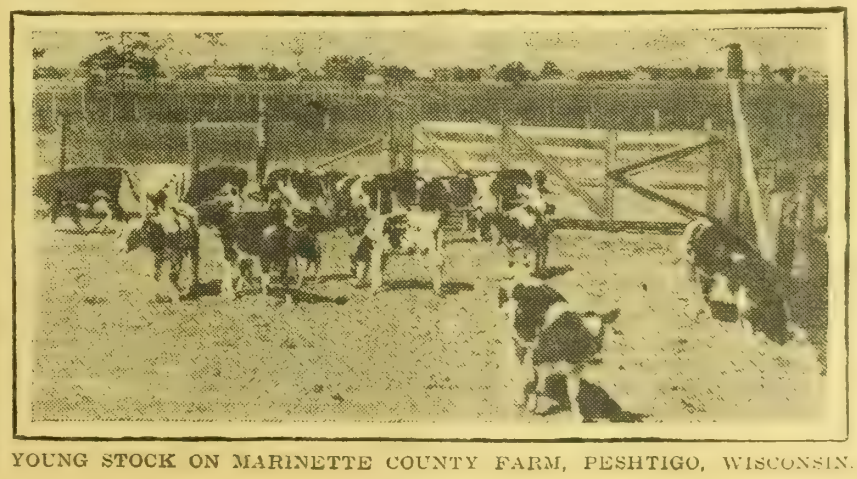
Here 220 insane persons are cared for and about forty poor people provided for. In addition to these expenses $2,000 was returned to the Marinette county treasury last year.

This farm has been made a paying institution through the raising of registered Holstein cattle and pure-bred Poland China hogs. The milking herd consists of fifty-five pure-bred cows. The farm is equipped with a complete creamery. The cream is manufactured into butter and the surplus is marketed. Cattle and hogs from this farm have been sold to many other counties and states. This shows the success of the live stock business in Upper Wisconsin. There have been many improvements on this farm in the last year. The main barn burned down a year ago and a new barn was built. Much new machinery and equipment have been bought.

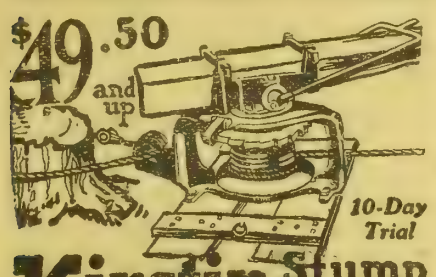
It is interesting to note the wide scope of work carried on. The women do the sewing and fruit canning. They have made almost ninety rugs. They have done fancy work that has been sold and a Victrola was added to the women's department. Officers from various other states and counties have visited the Marinette County Asylum to study the methods used to develop this self-sustaining institution.

Mrs. Lucy L. Ferguson.
Marinette Co., Wisconsin.

POLAND CHINA HOGS, COUNTY FARM, PESHTIGO, WISCONSIN.



YOUNG STOCK ON MARINETTE COUNTY FARM, PESHTIGO, WISCONSIN.



Kirstin Stump Puller

This KIRSTIN Horse Power Puller, used by the KIRSTIN METHOD, is the cheapest and fastest way known for clearing land ready for the plow. We will guarantee you a saving of 10% to 50% over any other method. Over 40,000 in use. All steel construction combines great strength and light weight. Clears two acres from one anchor. Easily moved. Can be used with single, double, and triple power as needed. Will pull any size stump. Guaranteed fifteen years, flaw or no flaw.

Automatic take-up for making quick hitches. Foot for foot of cable, KIRSTIN covers more ground than any other machine. Easy on horses and man. Ten-day trial in your stump field.

Now—today—quick—write for our special Profit Sharing Plan to early buyers and our big Free Book—"*The Gold in Your Stump Land.*"

A. J. KIRSTIN COMPANY
5550 Ludington St. Escanaba, Mich.
Largest makers in the world of Stump Pullers—both One Man and Horse Power.
1714

Pull Big Stumps by hand

Clear your stump land cheaply—no digging, no expense for teams and powder. One man with a K can rip out any stump that can be pulled with the best inch steel cable. Works by leverage—same principle as a jack. 100 pounds pull on the lever gives a 48-ton pull on the stump. Made of Krupp steel—guaranteed against breakage. Endorsed by U. S. Government experts.

Showing easy lever operation

HAND POWER K Stump Puller

Write today for special offer and free booklet on Land Clearing.

Walter J. Fitzpatrick
Box B
182 Fifth Street
San Francisco
California

SEED CORN

Don't take chances on your corn crop. Don't plant seed grown south of you. Soft corn is worthless. Our pure, tested, northern-grown, hardy varieties make big crops of ripe corn. For 30 years we have sold the genuine Goddard's Silver King, grown, selected and tested by the originator here in this county. It outyields all other varieties in Nor. Iowa and So. Minn. Other splendid varieties. **Catalog free.** Write today. Ask about our "1,000 Club"—members get seeds at wholesale.
THE ADAMS SEED COMPANY
Box 50 Decorah, Iowa

In And Around Wisconsin.

A request has been received through the Wisconsin Live Stock Breeders' Association from farmers of Lee county, Virginia, who want to purchase 250 to 500 pure-bred Hampshire ewes. They desire breeding of either the 1916 or early 1917 crop.

A report from Buffalo county, Wisconsin, shows fifty days during the past winter when the thermometer was zero or lower. There were fifteen in December, fifteen in January, seventeen in February and three in March up to the eighth day. There have been colder winters in Wisconsin, but few where there was so much continuous cold. The first sixteen days in January, 1912, were all below-zero days, the coldest in Buffalo county being 45 degrees below. However, though 1911-1912 was a very severe winter there were five less days when the temperature was below the zero mark. The coldest day this winter was 36 degrees below zero. In March, 1912, there were nine days when the temperature was below zero, and on two mornings the little bulb in the thermometers went down to 18 below, which was exceptionally cold for March. Two of the below-zero days in March this year were 24 and 30 degrees below, respectively.

The question of whether or not flax is hard on land has been investigated to some extent by J. W. Ince, of the North Dakota Experiment Association. He states that a ten-bushel crop of flax will remove as much plant food from the soil as a 20-bushel crop of wheat. When flax is grown on the same land for several years in succession the crop grows smaller each year and it may entirely cease to yield after several years. This, Mr. Ince says, is due to a disease known as flax wilt, which increases each year and is responsible for flax running down quickly. This, of course, has nothing to do with the amount of plant food that it removes. It has been found that when flax has not been grown oftener than once in every five or six years it does well. By this time the flax disease has died out. Professor Bolley, of the North Dakota station, has developed a wilt-resistant flax. However, it is not advisable to grow flax oftener than once in five years.

Grant county, Wisconsin, has the distinction of being the Poland China headquarters of the state, that is, there are more good herds of the breed in this county than in any other county in the state. Realizing that something must be done to hold up the reputation of their breed, the Duroc Jersey men of Grant county got busy and during the past two months some fifteen or twenty of the best sows that money could buy were brought into this county. These men did not do as many others have done, try to buy where they could get the cheapest; instead, they tried to get the best, the cost being the second consideration. For instance, at one Wisconsin sale ten pure-bred sows were purchased by men from one town, Fennimore. These cost, on the average, about $85 per head. E. H. Heberlein, the leading auctioneer in that territory, has been preaching pure-bred swine for the past two years, and it was through his efforts that this good seed stock was scattered in the vicinity of Fennimore. The following men have purchased registered Duroc Jerseys during the past sale season: Wm. Magee, Wm. Edge, Elmer Knapp, E. A. Heberlein, Peter Gunderson, Henry Mitchell, Cornelius Peterson and Mr. Bartholomew, all of Fennimore; McKevitt Bros., Jacob Erwin, Ed Patterson, Ja., and Roy Horsfall, of Bloomington, and Runte Bros., of Cuba City. A move is on foot now to form a county association and with this excellent start we can see no reason why the venture should not prove very successful.

Getting a Fair Price For Milk.

(Continued from page 1.)

The association is organized simply to enable the farmer to secure his rights as he sees them. Mr. Jeffery says that other forces making profit out of milk are organized and that the farmers have done the same solely for the purpose of securing a fair price for their product and, furthermore, that any investigation covering the costs of producing milk and showing the profits made from the sale of milk will prove that in years past the farmers have had the short end of the stick. Mr. Jeffery says that no statement of the Monroe situation would be complete without giving due credit to the condensery company for voluntary advances which it has made. In January, 1917, the company gave a 5-cent raise above the contract price. In February, 1917, it gave a 10-cent raise above the contract price. In March, 1917, it gave a 15-cent raise above the contract price. These raises amounted to a 5-cent raise, covering the six months' period of the contract from October 1, 1916, to April 1, 1917. The generosity of the company in this regard was greatly appreciated and the raises, as stated, were voluntary on the part of the company. The average price per hundred pounds of 3.5 per cent milk for the period beginning April 1, 1917, and ending September 30, 1917, is $2.12, or 7 cents more per hundred pounds than the average actually received for the previous six months' period. The condensery at Monroe receives 90,000 to 100,000 pounds of milk per day and the receipts have been as high as 148,000 pounds. The best of feeling at this time seems to prevail between the farmers and the managers of the company.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

ENVELOPES PRINTED.

100 ENVELOPES, your name and address printed on corner, 60c; 250, $1; 500, $1.75; 1,000, $2.75; prepaid. Let us know your printing wants. Bulletin Press, Baldwin, Wisconsin.

100 ENVELOPES, neatly printed, 40c; 300, $1; 500, $1.50, prepaid. Samples free. Andrew Christianson, Manhattan, Ill.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

STOCK FOOD FORMULAS.

TO YOU, MR. FARMER, I offer ten reliable stock and poultry food formulas for ten cents. L. W. Neely, Reg. Druggist, Brown Valley, Minnesota.

TELEGRAPHY.

YOUNG MEN! Learn telegraphy. Railroads want operators. Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

LOCATION WANTED.

MR. FARMER—If you know a good location to build a cheese factory I will build. Write to E. A. Huebner, Shawano, Wisconsin.

HOLSTEIN HEIFERS.

HIGH GRADE Holstein heifers, 12 to 14 months old. Pure bred bulls. John Gates, Ft. Atkinson, Wisconsin.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

SHORT-HORN BULLS.

FOR SALE—Two Short-horn bulls, yearlings, Sultan breeding. Otho Doll, Dodgeville, Wis.

DAIRY RANCH

1480 ACRES, 5½ miles from Roundup and a large coal mining camp and another small town, aggregating 5,000 people. Seven-room log house in good shape. Barn for 30 head of stock. Springs. Running water. All fenced. 80 acres broken. This is a first-class chance for dairy farm. Price $15 per acre. Good terms.

SWANSON & REID, ROUNDUP, MONTANA

POULTRY AND PET STOCK.

HATCHING EGGS, pure-bred Houdan, both white and S. C.; Buff and Black Orpingtons; Silver Laced and White Columbian Wyandottes; both White and Rose Comb Brown Leghorns; Runner ducks; Sitting $1.00; by parcel post, $1, 15. Richard Wegner, Ladysmith, Wisconsin.

HATCHING EGGS! From Ferris 230-egg strain S. C. White Leghorns. Pen mated. Not utility stuff. 15 eggs $2.00; 30 eggs $3.50; 50 eggs $5.50; 100 eggs $10.00. George Dietzler, Box 903, Shawano, Wisconsin.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

SINGLE Comb White Leghorns; Combination heavy laying strain and prize winners; pens headed with large snow white males; mating list free. O. J. Hellum, Menomonie, Wisconsin.

SINGLE COMB WHITE LEGHORN baby chicks, $10 hundred; eggs, dollar 15, from fine, large, vigorous, farm raised winter layers. Cushman Poultry Ranch, Reedsburg, Wisconsin.

RHODE Island Whites, first prize winners at St. Paul and Bismarck shows. Unequaled layers, have cockerels and eggs. Send for circular. J. H. Movius, Lidgerwood, N. D.

WYCKOFF—260 Egg Strain Single Comb White Leghorns; eggs: $1.00, 15; $5.00, 100; 95% fertility guaranteed. Brookwood Poultry Farm, Cary Station, Illinois.

16 PRIZES, Iowa State Poultry Show. Silver Wyandottes, Barred Rocks and Black Polish. Breeding birds and eggs for sale. Wm. Neiers, Box F, Cascade, Iowa.

EGGS and stock for sale, with score cards. White Rocks, White Orpingtons and S. C. Reds. Eggs $1.50 to $3 for 15. J. P. Runkel, Arcadia, Wisconsin.

CHOICE S. C. Red eggs, $3.00 per fifteen; winners ten years; good matings, $1.50, or $5.00 per 100. Wm. Wichern, Baraboo, Wisconsin.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

FOR SALE—Black Minorcas, R. C. Reds, Plymouth Rocks, White Leghorns; both sexes, $2 each. John Simon, Campbellsport, Wis.

ROSE Comb Brown Leghorns, baby chicks, eggs. Cockerels of quality. Write for particulars. Mrs. Herman Sandvig, Spring Valley, Wis.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

BLUE Leghorns, the coming breed. Eggs for hatching $3 and $5 per 15. Geo. Joas, Chippewa Falls, Wisconsin.

TARBOX Silver Laced Wyandotte day-old chicks, fifteen cents each. W. Rhodes, Box 4, Dakota, Illinois.

SCOTTISH TERRIERS. Great rat, watch, pet, stay home little dog. Price list 5c. S. Harr, Riverside, Iowa.

BOURBON Red turkeys and White Indian Runner ducks. Mrs. Katy Gregory, Agency, Missouri.

FOR sale—Mammoth Bronze and black turkey toms. Willis Hadler, Blenker, Wis.

TAME WHITE RABBITS; beautiful pets, $2 per pair. E. Harr, Riverside, Iowa.

PURE-Bred White Rocks. Address "Kremers', Whitehall, Wisconsin.

SEEDS.

GUARANTEED Seeds. Eighth season. Golden Glow corn, Early and heavy yielder. Choice Timothy, Alfalfa, Red, Alsike and Mammoth Clovers. Circular and samples on request. Henry Michels, R. 3, Malone, Wis.

SEED CORN—Wis. No. 7, Minn. No. 13, Rustlers and 85-day corn. Germination 100%. Genuine Grimm and Northern Alfalfa. John Henderson, R. 1, Cokato, Minn.

WISCONSIN grown, high germinating, Early Yellow Dent and Golden Glow seed corn. Arthur O. Popp, Jefferson, Wisconsin.

STRAWBERRY plants. 250 best 3 varieties $1. $3.50 per 1,000. Fresh plants by P. Post. C. R. Tuttle, Baraboo, Wisconsin.

GOLDEN Glow seed corn, fire dried; write for circular; satisfaction guaranteed. Burg Bros., Peebles, Wisconsin.

FOR SALE—Golden Glow and Improved Flint corn. Bennett Bros., Fairview Farm, Waterford, Wisconsin.

BLACK HILLS ALFALFA SEED: $6 per bu. For sample send stamp to Brookside Farm, Buffalogap, S. D.

FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck, Spring Green, Wis.

HELP WANTED.

WANTED at once good reliable man and wife without children to work on small farm near Toledo, Ohio. Neat, new, five-room bungalow furnished. Man must understand gardening and be able to keep farm clean and in No. 1 condition. Woman to do housework for owner and family. Splendid chance for right party. Address William H. Moor, 935 Grand Ave., Toledo, Ohio.

GOVERNMENT POSITIONS OPEN.

THOUSANDS men and women, 18 or over, Wanted everywhere for U. S. Government Life jobs $75.00 month. Steady work. Short hours. Rapid advancement. Common education sufficient. Write immediately for free list of positions now easily obtainable. Franklin Institute, Dep't A176, Rochester N. Y.

ENGINE FOR SALE.

ONE 12 h. p. United Engine Co.'s gasoline engine with friction clutch pulley, $275. Two 9 h. p. Lambert Portable Engines with clutch pulleys and Webster magneto, all new and up to date, fully guaranteed. Will be sold cheap as we are going out of this line. John Dorsch & Sons, 209 Wells St., Milwaukee, Wis.

TAIL HOLDERS.

COWS' tail holders, post paid: 10 for $1.00; sample 12c. F. C. Gieseker, Elmwood, Wis.

FARM LANDS.

NORTH Dakota in all essentials—soil climate, crops, people, is a second Iowa. Because of heat, wet and rust the 1916 grain crop of North Dakota was short, yet government reports show $167,544,000 or $2,253 per average farmer. In last 7 years average farmer in North Dakota produced $1975 worth of crops; in South Dakota, $1,639; Iowa, $1,631; Illinois, $1,437; Minnesota, $1,396; Wisconsin, $901. Now is time to get North Dakota land, while price is low. No commission to us. Great opportunities open. Write for our direct dealing plan, booklets, maps, etc. J. S. Murphy, immigration agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

OREGON & CALIFORNIA RAILROAD CO. grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

GET a farm home in rich corn and clover belt of Northwestern Wisconsin along new Soo Line, 50 miles St. Paul-Minneapolis. Landseekers all say: "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools, Creameries everywhere. $15 per acre and up. Map and list free. Baker N-110, St. Croix Falls, Wis.

80 ACRE farm for sale or exchange. Good buildings, near school and creamery, about 30 acres under plow, 10 more ready, balance easily cleared, and good pasture, located six miles west of Medford, Taylor county, Wisconsin. Will consider in exchange $3,500 of first-class city property, balance $3,000 on time at five per cent. or will rent for cash to good party. L. A. Kimball, Lake Geneva, Wisconsin.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

HERE IS YOUR CHANCE—Get a home. $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

120 ACRES, 60 clear, 20 pasture, 40 good wood, good frame buildings, school-house adjoining land, cheese-factory ¾ mile; 6 miles to Wausau, 2½ miles to Kelly Station. With all stock, crops and machinery, will sacrifice at $7,500.00; $2,000 cash, balance on easy terms. Wm. Albrecht, Jr., Wausau, Wisconsin.

FORTY acre farm for sale cheap, located close to town and school. Has fair buildings. About 3 acres cleared. Choice clay loam, hardwood soil. Considerable green hardwood, salable timber. Price $25 per acre. Very easy terms. A. C. Thompson, Ladysmith, Wisconsin.

FOR SALE—320 acres in Perkins county, South Dakota. Five room frame house, large frame barn, good well and wind mill. 160 acres fenced and sixty acres under cultivation. Land nearly level and all tillable. Price $15.00 per acre. John Berdahl, Bison, So. Dakota.

60 ACRE SNAP—40 acres cleared; balance pasture; nearly level; clay loam soil; new house; 2 barns; town 3½ miles, school ¼ mile; $3,000, cash $1,000. The E. L. C. Co., 122-M, Dept. 10, Merrill, Wisconsin.

UPPER WISCONSIN—40 80-acre tracts, well located. Small buildings, clearings, $20-$30 acre. Terms, ¼ down, balance easy. Wisconsin has no crop failures. R. J. Russell, La Crosse, Wis.

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THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

The Amount of Mixed Grain For Poultry.

One of our subscribers says that he has 300 Brown Leghorn hens and he has on hand a plentiful supply of corn, oats, bran and meat scraps. He also has some alfalfa hay and desires information in regard to the amount of each that he should use.

In addition to the grain feed, we would suggest to mix some wheat along with your corn and oats. Providing wheat was used you would not need the quantity as required of corn or oats at this season of the year.

Although at the present price of wheat many poultry raisers are entirely doing away with the use of wheat, and are cutting down the cost of feeds by feeding more green feeds, such as sprouted oats. Green food is especially valuable in feeding for winter eggs. Succulent greens should be fed as religiously as grains during the winter months. Not only do they promote health and higher efficiency of the egg-making organs, but they save on the grain bills.

Give your flocks enough to eat of enough different grains, after an allowance of a maximum of various green foods, sprouted oats, steamed alfalfa or clover, because of their cheapness, and the ration is then properly balanced. Your alfalfa hay will nicely answer this purpose as green feed, providing it is heavy and not too coarse.

As to the amount to feed, a visit to the henhouse after the birds have gone to roost and an examination of the crops will indicate the correct amount has been fed. Approximately twice as much grain should be fed at night as in the morning. In the morning feed half a handful to each bird; at night double this amount.

A good grain mixture would consist of 100 pounds cracked corn, fifty pounds oats, and fifty pounds wheat. In addition to 100 pounds bran, add fifty pounds corn meal, fifty pounds wheat middlings and fifty pounds meat scraps. This, together with the above grain mixture and steamed alfalfa, gives you a variety of feeds that should give you a good egg yield during the winter.

A Few Chicken Ailments.

To the Editor:—One evening in passing along the outside of my chicken house I heard one of my hens breathing as though she had the asthma. I went into the house, located the hen, took her to the dwelling house, told my wife to take about as much sulphate of iron as she could place on a nickel and fold a small piece of paper as though she was going to roll a cigarette. We then placed one end of the paper down the hen's throat with the powder in it, then blew into the end and by so doing it sent the powder down where I wanted it placed. It was a simple treatment, but it did the work and the next morning she was as well as ever. I have used that remedy several times since and it has never failed to stop the hard breathing and I have told others of the remedy and I have never known it to fail. I do not know what caused the hard breathing, but I do know that it was difficult for the hen to breathe and the treatment was a success.

Going light is a disease that resembles what is known as liver trouble. The birds become quite light, almost as light as feathers and the comb becomes pale at first, then turns dark, the hens drink a great deal and eat but little. In such cases, feed more food containing protein, as this seems to help some, and in addition to this give the affected bird one teaspoonful of muriate ammonia in each pint of drinking water and keep all other water from it. I have not had much experience with fowls going light, but those that I have had were troubled with enlarged livers, as I discovered by opening the birds at the time of death. It is a disease that is difficult to treat successfully unless taken in time.

Cholera is a disease that soon takes the whole flock unless taken in time and even then it is a dreadful thing, but bowel trouble is not always cholera and many that think that they have cholera in their flocks have nothing but a bad case of bowel trouble which is often caused by the manner of feeding. Do not feed too much scraps or cut fresh bone, as they have a tendency to loosen the bowels, and if you should have bowel trouble place bran and corn meal, equal parts, dry, before them and let them have that for a time, as it will help in the matter a great deal.

Roup is one of the most deadly of all the diseases that chickens are heir to and is difficult to eradicate from a flock when it has once got hold of it. The first symptoms are sneezing and a slight running at the nostrils. Unless checked the discharge, which has a very offensive odor, thickens and fills up the nostrils, the head and the face become swollen, air bubbles show in the eyes, the comb turns black and in a few days the bird dies unless relieved. This disease is very contagious and the moment that a person finds a case in his flock he should remove it immediately and begin treatment of it, although I believe that the best treatment that can be given is the hatchet. There are many roup remedies on the market, but some seem to do no good. Every poultryman should keep a remedy on hand and the following is as good as any if used as soon as it is thought that roup is in the flock and it is a good thing to use as a preventive also. Dissolve two ounces of permanganate of potash in six pints of water. Completely submerge the fowl's head in this solution and hold it there as long as the fowl can stand it without choking to death. Repeat mornings and evenings. Next dilute some of the same solution, making the water of a red color, and give them this to drink. To be more exact about this solution, it is made by taking the solution recommended for the dipping above and dilute with four times its measure of water. I once treated a bad case of roup, so bad that I had to remove the cheesy substance in the mouth with a piece of cloth on the end of a stick, and then used a little sulphate of iron powdered on the place from which I had removed the cheesy substance.

James Lawrey.

Many Farmers Snow Bound

A company of 200 men, women and children, including many who had been attending the Banker-Farmer Conference in Madison, were snowbound at Grand Rapids, Wisconsin, en route home. The Wisconsin Farmer has been asked by members of the party of farmers to express their appreciation of the attention which was paid them by the people of Grand Rapids. Grand Rapids women prepared breakfasts for the women and children who were held up for three days by the storm. The Elks Lodge, Merchants' and Manufacturers' Association and the Women's Federation spent a good deal of time and money helping to take care of the stranded party. On one evening a big supper was served free in the Elks club rooms, the building and service being a compliment on the part of the lodge and the "eats" the well-received offering from the merchants' association. The farmers who enjoyed this hospitality, which they say they will not soon forget, were from the Tomahawk, Merrill and Mosinee neighborhoods.

Ask your neighbor to subscribe for The Wisconsin Farmer.

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Many interested persons have asked just how my Silver Black Fox Ranch was able to pay 40% Cash Dividends, and the answer is, "because my foxes were not bred from wild stock, (foxes from the wild do not usually breed true to color) but from RANCH-BRED Stock of the HIGHEST QUALITY—producing the choicest and most valuable furs in the world."

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BUILT OF GENUINE CALIFORNIA REDWOOD. Egg chambers surrounded with special insulator having hundreds of air cells, guard against temperature change. Corrugated copper hot-water heater, automatic ventilation and regulation. No dry, hot blasts to kill chicks in shell. Machines complete. Money back guarantee if not satisfied. Big Free Book explains all Special deals.

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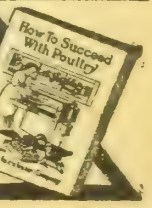

Cost of Producing Milk.

Just before the rapid upward trend in feed prices began the federal department of agriculture made an investigation of the cost on producing milk on four dairy farms in the states of Wisconsin, Michigan, Pennsylvania and North Carolina. While the figures used may be a little low as compared with present prices, nevertheless the work brings out several phases of the milk production problem which are finding a practical application at this time. Each farm was typical of the region in which it was located and represented the dairy practices as carried on by the better class of farmers in that territory. The Wisconsin farm provided more pasture than any of the others, which accounts to a considerable extent for its lower feed cost per cow, and on the Michigan farm, which has a high feed cost, the cows were stall fed practically all the year around. The herds varied in size from twenty to fifty cows.

The most important item in every case was feed cost. It equaled approximately 50 per cent of the total cost of milk production on the farms where the cows were pastured during the summer months with little or no grain. On the Michigan farm, however, where a grain ration was fed throughout the year, it was nearly 60 per cent of the total cost. The actual figures on yearly feed cost per cow were $49.23 on the Wisconsin farm, $71.77 on the Michigan farm, $53.77 on the Pennsylvania farm and $68.06 on the North Carolina farm. On each farm the concentrates were supplied in a mixture which varied in price from $20 to $30 a ton, according to local conditions, and which was made up of corn, bran, oil meal, cottonseed meal, gluten meal, dried beet pulp and ground beans, the combination and kind of feeds used being different for the different farms and for different years. Clover, alfalfa and mixed hay made up the bulk of the dry roughage used, except on the North Carolina farm, where home-grown hay made of peanut vines, soy beans, cowpeas, mixed grasses and clover, was fed. In Wisconsin, Pennsylvania and North Carolina alfalfa hay was worth about $12.75 a ton, mixed and cloved hay $8.50 and corn stover, which was used to some extent, $3. On the Michigan farm these prices were about one-fourth higher.

The next largest item of cost was labor. Practically one-fourth of the cost per cow was chargeable to man and horse labor. It included the time required to care for and milk the cows, handle the milk and market the product. It was found that the necessary man labor varied from 170 to 260 hours per cow per year, and the horse labor from twenty to sixty hours. This item varies widely according to the number of cows kept and the work entailed in marketing the product. The maximum labor cost was on the North Carolina farm, where the herd was the smallest and the distance from market greatest, and the lowest labor cost was on the Pennsylvania farm, where a milking machine was introduced during the period that the records were being kept. The machine reduced the amount of man labor more than one-fifth.

The other factors in the cost of producing milk were building charge, equipment charge, use of bull, interest on investment, decrease in value of cows and miscellaneous items, such as veterinary fees, registration fees, ice and upkeep of farm. Collectively these items make up from one-fourth to one-sixth of the total cost of production.

By adding together all the charges which have been mentioned the total cost of keep per cow for one year was found to be about $102 on the Wisconsin farm, $125 on the Michigan farm, $103 on the Pennsylvania farm and $128 on the North Carolina farm. These figures, however, do not represent the cost of milk produced, because there are several credits other than milk, such as value of manure, calves, hides, etc., that must be subtracted from these figures before the net cost of production per cow can be found. When this was done and the result divided by the number of gallons of milk per cow per year the average cost of producing a gallon of milk was determined. For the Wisconsin farm this cost was 13.1 cents a gallon, for the Michigan farm 13.7 cents, for the Pennsylvania farm 15.4 cents and for the North Carolina farm 18.6.

The milk production per cow was much greater on the Michigan farm than on the Pennsylvania farm, which accounts for the fact that its cost per gallon of milk was less, although the yearly cost per cow was considerably higher. This phase of the problem, having to do with the individual efficiency of the cow, is one of the most important to consider in cutting down cost of production. In the investigation the records of individual cows on all four farms were grouped into several classes according to productive capacity and the results showed clearly that the cost of producing 100 pounds of milk was less with the higher producing cows. For instance, 100 pounds of milk from cows averaging 3,000 pounds yearly or less cost on the average $1.87, while the same amount from cows producing from 3,000 to 4,000 pounds yearly cost $1.36. This unit cost gradually decreases as the yearly production of the cows increases. A significant fact in this connection is that the difference in the cost of producing 100 pounds of milk is much greater between scrub cows and medium good producers than between good producers and very high producers.

A summary of the investigation indicates that the greatest factors in the cost of producing milk are feed, labor and the individual efficiency of the cows. This seems to be the opinion of many dairymen at the present time and many are finding that they can reduce their costs of production by substituting silage and other inexpensive feeds for more expensive ones, by saving labor with machines for milking and motor trucks for ma-

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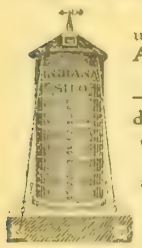

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Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

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The Wood Tire Hollow Wall Silo is *patented*. It is *different*, and every farmer who is considering buying a silo should make a full investigation of the claims we make for it.

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No hoops or guy wires are used, yet only one has ever blown down, and that in a cyclone of unusual violence.

Its simplicity; the ease with which it is put up; the excellent quality of the silage; the freedom from frost; the absence of mouldy silage; the elimination of shrinking, swelling and decay; its long life—these are things that are important.

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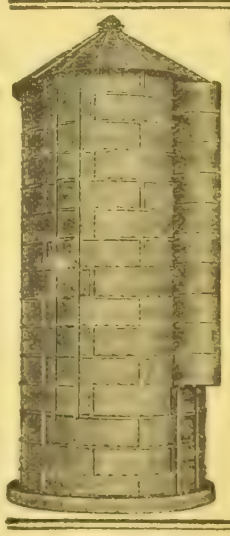

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Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 14.

keting the product and by culling out the low-producing cows to increase the average production of the herd.

Beginning With Pure-Bred Dairy Cattle.

To the Editor:—Success with pure-bred dairy cattle depends on the charcter of the man more than on any other factor. Men of no capital, but with energy, perseverance, ideals and judgment have made some of the most notable successes with pure breds. The man who has grade dairy cattle, whose herd does not show a steady increase in production from year to year probably will not attain very great success with a pure-bred herd. If he can first prove his ability that way he will likely make a bigger success with pure breds. No doubt, in choosing a breed, one will be chosen for which the beginner has taken a fancy, or one that he thinks will best supply his needs. Of the dairy breeds, except for breed type and difference in size, all are practically of the same conformation, but each has characteristics peculiarly its own.

In selecting the foundation of a herd of pure breds it is very important to make sure that the animals are not diseased in any way. See that any stock already on the farm are free of disease and that the new stock do not bring disease. Such maladies as tuberculosis and abortion are very hard to detect by the inexperienced and very difficult to get rid of.

Nothing appeals to the average beginner like success in the show ring; therefore, in making his first purchases he wants animals sired by some bull that has won fame there, without ever trying to find out if that bull has any daughters that are good producers, or whether he is from heavy-producing ancestry. Of course, in order to win in the show ring the bull must approach closely to the ideal dairy form, and he may even be a successful sire of show stock, but it is the scales and Babcock test that decide whether or not he is a sire of stock upon which it is desirable to build a profitably dairy herd.

A question that arises in the mind of the beginner is, "What age of animals should I buy?" It is generally understood that it takes a good deal of money to buy the best cows in a herd that are already giving milk. Those of limited means very seldom begin that way. Calves or yearlings seem the best way in the opinion of many. Others prefer two year olds safely in calf, and if I were starting with pure breds, that is the way I would begin. The first cost is very little more than for calves or yearlings, one is getting two for the price of one, his profits come sooner, and very often the sire of the calf will be a better animal than most beginners are likely to have at the head of their herd. If one buys from a breeder who is doing considerable testing, the animals he gets are sure to be made more valuable as a result of the records made by the near relatives.

I would try to select true to a certain fixed type with good-shaped, well-balanced udders, not appearing fleshy, and be sure that the animals show plenty of constitution. I would not buy upon looks alone, for the breeding is just as important, if not more so, than the type, although I believe that in the long run production is bound to follow type, and that type and production can be combined in the same animal. The pedigree should show good records not only in the first and second generations, but as far back as it is possible to trace them.

With the females selected, I would try to get a bull of the same line of breeding, so that his blood would nick in well with them. I would get the best sire I could buy, paying particular attention to the breeding, as it is the sire who has the greatest influence on the next generation, and if he is better than the females, the resulting progeny will be better than their dams. If I didn't feel capable of selecting such a sire myself, and had no one to do it for me, I would write to some old, reliable breeder, giving him the line of breeding of my females and ask him to select a bull for me, either from his own herd, or from some other. I believe that an old proven sire, when available, will give surer results than depending on what a young one will turn out to be.

W. H. O.

Building a Milk House.

To the Editor:—Every dairyman ought to have a good milk house. The following is a description of a convenient milk house which we recently built on our farm. It meets every need and is less expensive than most buildings of this kind. Beginning, a concrete wall was made six inches thick and eighteen inches high above the ground, the size of the building being 12x12 feet. Planed 2x4 studdings seven feet long were set up four feet apart (to accommodate doors and windows) along the wall. No sills were used. On these 2x4-inch studs 1x4-inch strips were nailed, standing flush with the outside of the foundation wall. On top of these studs 2x4 pieces were nailed for plates for the roof to rest on. The space between the studs was lathed, nailing to the one-inch projection on each side of the studs. A piece of board was temporarily put up at the middle of these laths to prevent springing.

On the outside of the studding at the bottom a board was nailed, the nails projecting enough to be easily drawn. The one-inch space between the board and lath was then filled with concrete. Add more outside boards, going up to the plate with the work. In case of one man working when two sides are up, the first lot of temporary outside and inside boards can be removed and used on the following sections. When the four walls are up and all the temporary boards removed, nail on the outside of the studding 1x6-inch boards to be painted white. On the lath inside plaster with good fiber plaster.

At one end of our house, three feet from the ground outside, one edge of a flat stone 3x6 feet was built into the wall for a loading platform. Concrete can be used in place of this stone. The door over the stone or concrete must reach above the plate in the gable a foot or more to make it high enough for an entrance. Roof boards and rafters are planed and covered with good ready-prepared roofing. The gables also are covered with the same, which is allowed to drop one inch below the plates to cover that joint.

A concrete water tank, to hold ten shipping milk cans, is in a corner at the side of the loading door. It is one foot above the floor and deep enough to immerse the cans to the neck. The waste water runs to a concrete tank in the barnyard for the stock. The floor and steps to the loading door are made of concrete. A well of good water is by the side of the cooling tank. A raised platform is built at the other end of the room to support a gasoline engine which is used for pumping. Hardwood timber was imbedded in this concrete platform, so that the engine could be bolted down firmly. There are two windows, one being on the line of the engine pulley, and quite low to accommodate the belt for doing outside work with the engine. A pit to allow a set of scales to be set on a level with the floor is made. There is also an entrance door on the level. This house is built under two large trees, the shade of which is very helpful in warm weather. Subscriber.

SHORT-HORN FUTURITIES.

Fifteen Moneys Offered at the Leading Fairs.

No more popular classification in the live stock shows has been made than that of the futurity classes, admitting junior and senior bull and heifer calves, made by the American Short-horn Breeders' Association at a number of the leading fairs and shows. At four of these shows, the Iowa State Fair, Des Moines; the Ohio State Fair, Columbus; the American Royal, Kansas City; the International, Chicago, the Short-horn association has appropriated for the futurity classes alone a total of $7,000. In the junior and senior bull and heifer calf classes at the Iowa and Ohio state fairs fifteen moneys are offered in the futurity stakes. The first, second, third and fourth winners each draw $25; the fifth, sixth, seventh and eighth winners each $20; the remainder $10 each.

At the American Royal and the International the first winner draws $65 with a slight decrease down the line, the twentieth winner receiving $20.

It should be understood that these prizes are in addition to the appropriations offered in the regular classifications for Short-horns at these shows. The appropriations made by the association for 1917 at the various fairs and shows aggregate $50,000. The purpose of these futurity appropriations, and this purpose is suggested in the number of prizes offered, is to encourage as many breeders as possible to exhibit their calves at these important shows—a substantial means of advertising. In order that the small breeder may have an equal chance with the larger breeders and experienced show men, the rules do not admit of substitution after the entries have been made. The distribution of the prizes at the larger shows is an encouragement to breeders to participate. At the last International, for instance, the prize winners represented twenty different states and Canada.

As was announced through the press recently, entries for the senior futurity classes closed March 1st; the junior futurity entries close May 1st. Entry blanks and full instructions for nominations or entries may be had by addressing the association office, 13 Dexter Park Ave., Chicago.

It is not far from the snow-covered and frozen grounds of early March to the spring rains and the first appearance of the April flowers. We will soon have to be up and doing in Wisconsin for the 1917 crop, and we should make it the biggest and best crop that the state has ever produced.

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THE first practical continuous cream separator, the De Laval has easily maintained its original success and leadership for nearly forty years. Step by step, year after year, by one improvement after another, the De Laval has led in every single step of cream separator development and improvement.

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The New 1917 De Laval

And now, in the De Laval machines for 1917, a number of new and still further improvements have been made, which make the De Laval machines of today much better in many respects than they have ever been before.

Their capacities are greater per dollar of cost; they skim cleaner under the more difficult conditions of separator use; they are equipped with the most improved speed regulator, thus insuring the proper speed necessary for complete separation; they are even better lubricated, and the bowl construction is even more sanitary than ever.

In other words, superior as the De Laval machines have always been to all would-be competitors and utilizers of abandoned De Laval features, the De Laval machines of 1917 are improved and superior in every way to all previous types and models of De Laval construction.

All these improvements and new features are described and explained in the new 1917 De Laval catalog now ready for mailing, but some of them are difficult to describe and make fully understood by words.

Be Sure to See a New De Laval

The new De Laval machines themselves best explain their new and superior features, and their use does this more completely and convincingly than even an examination of them. Every local agent is glad to afford opportunity for examination, and better still, for home test of a new De Laval machine.

But the demand for the new machines is a month ahead of the possible supply under the present difficult conditions of manufacture and freight distribution. More De Laval machines by half have been made in 1917 than ever before, but the De Laval Works is now ten thousand machines behind actual orders, and the demand is ever increasing.

Hence, the importance of securing a machine quickly if your local dealer happens to have one, and of ordering well ahead if he does not. And likewise, the importance of waiting patiently a little for a machine if need be.

A new De Laval catalog will be gladly sent on request, and if you don't know your nearest local agent, please simply address the nearest De Laval main office as below.

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JEVNE COFFEE CO. (Est 1881) Coffee Specialists Dept. 16, 2855-57 W. Madison St., CHICAGO.

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Department, Wisconsin Farmer, Madison, Wis.

Polishing the Furniture.

The cleaning and polishing of furniture isn't an easy task. It requires a lot of "elbow grease" and it may look a bit discouraging if the varnished surfaces show scratches and bruises. But with care even these may be overcome.

If the wood is bruised, moisten the part with warm water, double a piece of heavy brown paper five or six times, moisten it thoroughly with warm water, and lay it over the bruise. Place a moderately hot iron on the paper until the moisture is evaporated, being very careful not to expose the wood to the direct heat of the iron. If, when the moisture has disappeared from the paper, the bruise has not disappeared, repeat the operation. Two or three applications will raise the bruise level with the surface, after which the polish may be restored by the usual polishing process. Dampen a soft sponge in clean, cold water and wash the surface to be polished. Then wipe it clean with a soft, damp chamois skin, wiping only in one direction. The chamois skin should be thoroughly wet with clean water and then wrung as dry as possible.

A mixture composed of equal parts of boiled linseed oil and turpentine is excellent for removing white marks or other discolorations and defacements. Apply with a soft cloth until the color is restored to the varnish. Then rub with a clean, soft cloth until all the oil has disappeared. This will remove the bluish white coating which collects on highly polished surfaces.

Another good cleaning and polishing agent is a mixture composed of equal parts of vinegar, turpentine and sweet oil. Moisten a soft cloth with this and rub until the wood is perfectly clean. Then rub with a clean, dry, soft cloth until it is dry. Be sure to get all the mixture off, otherwise it will become gummy and the surface will be dull.

A good grade of floor wax is sometimes used to polish furniture. Scratches and bruises may be removed in this way.

Polish should not be used on dull-finished furniture. Simply go over this with a soft chamois wrung out of water as dry as possible.

In the case of leather upholstery, remember that more leather wears out from dry rot than from use. Wash the leather thoroughly with a mixture of one pint of sweet milk and one pint of tepid water, dry with a clean, soft cloth and rub to a polish. A good bath with soap and water will do it no harm. If the leather is gone over in this way two or three times a year it will remain in fine condition.

Springtime School Lunches.

Here are some suggestions which help solve the difficult problem of planning school lunches at this time of the year:

Lunch 1.—A bread-and-butter sandwich, two cottage cheese sandwiches, a cup of prune whip, nut and raisin cookies, graham crackers and two apples.

Lunch 2.—A boiled ham sandwich, one plain bread-and-butter sandwich, one jelly sandwich, one orange, one glass of milk, and some nut and raisin cookies.

Lunch 3.—A whole-wheat bread-and-butter sandwich, two sandwiches containing nuts cooked, dressing or lettuce, as available, one cup of baked custard and two apples.

Breakfast leftovers hastily thrown into a dinner pail do not make good school lunches. The eggs, milk, fruit and vegetables—fresh or canned, as the case may be—which may be had so easily in the country will furnish good, healthful lunches if properly prepared. Such a diet will do more for the average youngster than all the "spring tonic" on the market.

The Normal Baby.

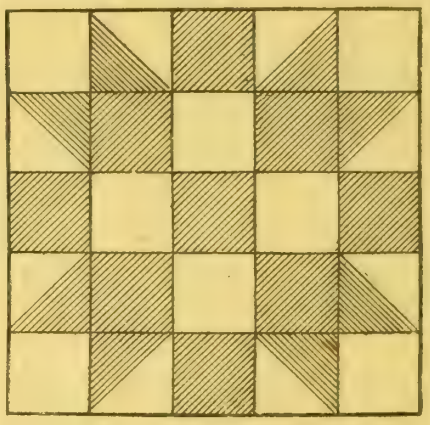
An average healthy baby weighs from seven to seven and one-half pounds at birth; fifteen pounds at five or six months, and twenty-one pounds at twelve months. In other words, the baby doubles its weight in six months and trebles it in twelve months.

The normal baby measures from twenty to twenty-one inches in length at birth, twenty-five to twenty-six inches at six months and twenty-eight or twenty-nine inches at twelve months.

The average weekly gain in weight is about four ounces. More rapid gains are made the first six months than in the second six months.

A Letter From the Coast.

To the Editor:—I have just been looking through a copy of your paper and to say that it makes me genuinely homesick is puting it mildly. Not that I am a native of your state; but I was born and raised in another of the good states where a blooded animal is recognized at a glance, and pure-bred poultry always holds a prominent place—the grand old Pine Tree state. "Looks just like the East!" exclaimed one of the girls as she came in from high school and glanced at the open page on my lap. "And I expect they know a thing or two about raising stock back there and perhaps they know what a boy could do to make a living after he gets his agricultural course," said the boy of fifteen.



AN ATTRACTIVE QUILT BLOCK.
The shaded portion to be made of dark material and the white portion of light.

So, we went through that little paper, page by page. I'm going to ask them if they know anything of the big Asiatic breeds of hens, Buff Cochins, Langshans and white and dark Brahmas," said another high school girlie. She is a great lover of poultry and, like the writer, her mother, prefers the big Biddies that give the fine carcasses and big red eggs. So, I expect the poultry department will hear from her.

I would like to add my mite of helpfulness to the Home Department, and then I'll "beat it," as the youngsters would say. Mrs. E. L. G. gives a fine recipe for baking ham. Here is my method of boiling ham:

Select a medium-sized ham. See that it is not too lean, for the cooked meat will be too dry. Wash clean in very hot water (I scrub with a clean, stiff brush), wipe dry and rub all over with flour. Then put into a pan large enough to hold it easily, slip into a very hot oven with an inch of hot water in the bottom of the pan to keep from burning only. Brown thoroughly, then turn, dust other side (which will be wet) with flour, and brown that thoroughly also. Then remove from oven, place in a pot deep enough to cover closely and fill nearly full of boiling water, cover tightly and boil steadily until the meat can be easily pierced with a steel fork. Browning well before boiling keeps all the juice and fine flavor in the meat, and, verily, it is a dish fit for the gods.

Some other time I will send a few other New England recipes.

I am greatly interested in rescue and prison work and I wish others who are interested along this line would write to our column. California Sister.

Makes Twenty Quarts of Hominy Every Two Weeks.

To the Editor:—As a reader wishes to know how to make hominy so that the black ends will come off will say that I think I can tell her how to make it, as we make from fifteen to twenty quarts every two weeks for the store.

Take a gallon of shelled corn and put in a kettle with a bucketful of cold water and a good, heaping tablespoonful of lye (any kind will do). Set over a good fire and keep boiling hard. Stir if the corn is inclined to settle to the bottom. As soon as the ends are soft and push off easily, drain off the lye and put cold water on the corn and wash until it is clean. If there are a few black ends hanging on they will come off while it is being boiled again in plenty of water. Boil until the grains are swelled and quite soft. Mrs. Emma Daringer.

Lightning Cake.

To the Editor:—I like Mrs. M. C.'s idea of preparedness in having our pickling and other recipes ready before we want to use them. Here is a recipe for "Lightning" cake. One cupful sugar, two cupfuls flour, two teaspoonfuls baking powder, pinch of salt, all sifted together. Measure one-fourth cupful butter, add one egg to this, then fill the cup with sweet milk and stir into the dry ingredients. Bake in gem pans or a loaf.

A good way to use paper flour sacks is to make a cover for your kitchen table, to use under the oil cloth. You will find that the oil cloth will last much longer. Open up the sacks and sew them together on the machine, using a long stitch and making a lap seam. Mrs. O. P.

Dried Hominy.

To the Editor:—Not long ago a member of the Home department asked for a recipe to can hominy. We think we have a better method, so I thought I would write and send it. We make our lye by saving wood ashes from the cook stove. We pour water over them and boil, then let settle and strain. Heat the lye and pour the corn in. When the skin comes off, wash through several waters and let stand in water over night. Then drain all the water off and put in a sack and dry, turning frequently to keep from souring. We find it easy to dry hanging over the register, but any place that is warm will do.

Mrs. J. D. Peeler.

Pickled Cauliflower.

To the Editor:—The way I pickle cauliflower is to wash it well and boil in salt water until tender. Then have heated some vinegar with a few spices of all kinds and sugar enough to make a little sweet. Fill the jars with the cauliflower and cover with the vinegar while hot. L. A. S.

Recipes.

Potato With Onion Puree.—Press hot boiled potatoes through a ricer, add salt, pepper, cream, butter and one or two hot, cooked onions pressed through a sieve. Mix all together thoroughly and put in ramekins or a baking dish. Brush over the top of the potato with butter and let bake until browned slightly.

Grapejuice Sponge.—Soften one-fourth package of gelatine in one-fourth cup of cold water and dissolve in a cup of hot grapejuice. Add two-thirds of a cup of sugar, a half cup of cold grapejuice and the juice of half a lemon. Stir over ice water until the mixture begins to thicken. Beat the whites of three eggs until very light, then gradually beat the grapejuice mixture into them. Continue to beat until it is quite firm, then put in a mold a spoonful at a time.

Molasses Hermits.—Beat one-third a cup of butter to a cream; gradually beat in half a cup of sugar, then two-thirds a cup of molasses, strained flour; add one whole egg and the yolk of a second, beaten light, half a cup of mo-

lasses and two cups of sifted flour again sifted with one-fourth a teaspoonful, each, of salt, soda, mace and ground cloves and half a teaspoonful, each, of ginger and cinnamon. Mix to a dough; knead slightly, roll into a sheet, cut into rounds and set a little distance apart in buttered tins; dredge with granulated sugar and bake until well browned below and above.

Prune and Pineapple Jam.—Three pounds of prunes, two cupfuls of canned chopped pineapple, two cupfuls of granulated sugar, one teaspoonful of salt, two cupfuls of water. Soak the prunes in water overnight after washing them. Then bring to a boil quickly and cook until tender. Mash through a colander and add to the water in which they have been cooked. Add the salt sugar and pineapple and simmer slowly for one hour, stirring quite often. Pour into sterilized glasses and cover with paraffin.

Stuffed Steak.—Two pounds round steak, one cup cracker or bread crumbs, one tablespoon salt, one-third cup butter, one-third cup boiling water, one-sixteenth tablespoon sage. Melt butter in boiling water, add seasoning to the crumbs, then add the liquid gradually until crumbs are lightly moistened. Trim and wipe meat. Spread over the stuffing roll, skewer or sow into shape, place in baking pan and baste often with one-fourth cup fat melted in one-half cup boiling water.

Cheese and Rice.—Cover the bottom of a baking dish with a layer of well-cooked rice, add a layer of chopped sweet peppers, another layer of rice and cover the whole with milk or cooked tomatoes. Bake slowly for three-quarters of an hour, then cover with a pound of grated cheese and bake for fifteen minutes longer. Serve hot.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Some Indoor Games.

Dear Young Folks:—I enjoy reading your letters very much. I have written to you before, but I never saw my letter, so I am going to try again. I live on a 200-acre farm. I am thirteen years old and finished common school last year. I have three pet calves and a pet horse.

I am going to tell Blue Eyes how to play some of my favorite indoor games. As many can play this game as want to. Take a bowl of beans and let each player dip his hand in the bowl (with his hand out flat) bringing it out with as many beans as possible on the back. Whoever has the most beans on the back of his hand is given some little prize, not expensive, but something funny to make the game interesting.

Another game is to stretch a sheet over a door and cut a hole in the middle, having half the players on each side. Have those on one side put their hands through the hole, one player at a time, and those on the other side guess whose hand it is. The one who guesses the greatest number correctly gets a prize.

Another game is this. There has to be an even number of players and on each player some letter is pinned. One person asks another some question, the first word of which begins with his letter, and the one who is asked the question must answer with a sentence in which the first word begins with his letter. This game is a great lot of fun. —Another Blue Eyes.

Writes Her Autobiography.

Dear Young Folks:—I am going to write my autobiography and hope it will interest you.

In the year 1907 on the 24th of March I was born. I must have been a good little girl, for that is the way I am now. They had a great time finding a name good enough for me, but after a few days they called me Wenona Gwendolyn Hummer.

When I was three years old my little sister came. She was born on the same date I was. She was named Evelyn Beatrice Hummer. We two always have a big time together on our birthday. Mamma always makes us a big birthday cake and we have a little celebration of our own.

I started to Hazel Glen school when I was six years old. I did not like to go to school very well at first. I guess the reason was that I had to go all alone.

In 1914 we went to a Fourth of July celebration. I was just old enough to know what it meant and I certainly enjoyed myself. I never will forget how the fireworks looked.

On the 7th of May, 1916, I went with my grandpa and grandma to see the Mississippi river. It was shortly after the spring rains and the river was very high. In some places along the river people had to move out of their homes. It was a very long journey and I was very tired when I got home.

I am now in the fourth grade and hope to be promoted this spring. My teacher's name is Margaret Kessler and I like her very much. Wenona.

Seen a Robin Yet?

Dear Young Folks:—I am a girl eight years old. I live on a farm. I have two sisters. We like the farm very much. We have four calves. My sister and I go to school together. We have a mile to walk.

Have any of you seen a robin yet? I have not. I like to hear them sing but I haven't heard any yet this spring.

Say, Annie, I know the answer to your riddle. Milk was highest when the cow jumped over the moon.
—Another Annie.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for April 1, 1917.

Jesus Gives Sight to Blind.

LESSON TEXT—John 9:1-11, 35-38. (Read entire chapter.)

GOLDEN TEXT—I am the light of the world.—John 9:5.

This, another of the signs which Jesus performed, is recorded only by John. It probably occurred in October, six months before the crucifixion, while Jesus was attending the feast of the tabernacles. There are six other cases of blindness recorded as having been cured. Look them up.

I. The Case (vv. 1-4). It was absolutely hopeless. No human skill could touch it, but Jesus "passed by," and that changed everything. What men cannot do Jesus can. Jesus is passing today, and we may expect things quite as wonderful to happen (John 14:12). This blind man illustrates the unsaved sinner (I Cor. 2:14). He never had seen. He was beyond human help (v. 32). He had doubtless given up all hope of seeing. He was without sympathy, suspected and despised (vv. 2, 34). Poor—he was a beggar. He is also a type of the nation of Israel (Rev. 3:17). We must not attempt to explain all sickness (v. 3). God frequently uses it for the advancement of his kingdom (John 11:4). Jesus not only passed by but he "saw." The feeling of the crowd was that of curiosity and contempt. His feeling was that of compassion (vv. 2, 4 and 6). Sickness sometimes manifests God's sustaining grace (II Cor. 12:8-10). It is doubtless true that a large percentage of sickness is the direct result of sin (John 5:14; Mk. 2:5; Acts 12:23), some, of course, indirectly (Job 23:14-30).

II. The Cure (vv. 4-11). The word "must" in verse four is a strong one. The time for us to do our work is "now." This word "must" carries with it the idea of a divine imperative, and the resason for that imperativeness is the approaching "night." Night is coming fast, when no man can work. Notice the works we are to do are not our own, but "the works of him that sent me." Compare carefully verses two and four, and see that Jesus considered delivering the man from evil far more important than speculating about the origin of his complaint. Too much time is spent in investigation. Let us have more of action. The means used in this cure were clay and spittle. The miracle was performed in plain view of all who might see. The man did not ask Jesus to help him, but Jesus had gone where he was (v. 5). His words, "Go wash" were a test of the man's faith (II Kings 5:10-14), and his part in the transaction was a testimony that it was Christ who worked the cure. The use of the material means in this ceremony made the man more willing to go and wash. It gave him something to do, and doing is always an end to faith. Siloam means "sent' and was a type of Jesus himself (v. 4; John 10:36; Rom. 8:3; Gal. 4:4). If we wish to receive sight for our blind eyes, we should go to him and bathe (John 8:12).

III. The Controversy (v.12 to end of chapter). This controversy gave opportunity for testimony, as we have already seen, first of all upon the part of the man whose testimony was progressive. At first he merely spoke of the fact. He was not acquainted with Jesus, for he calls him "The man called Jesus." Later on he is moved to call him a "prophet." He is a prophet (v. 17), and later still he recognizes him as "The Son of God" (vv. 35-38). This controversy established beyond question the fact of the cure. It brought out the deity of Christ (v. 33). The man was excommunicated, but for that matter he was already outside because of his physical infirmity, but, be-+ of all, he became truly Christ's disciple.

IV. Comments. This lesson with its vivid contrasts of belief and unbelief gives us a wonderful opportunity to urge upon pupils a decision to live the Christian life. Has Christ opened the eyes of our scholars to the love of God, to the awfulness of sin, to the need of a Savior, our divine Leader and Brother? Urge them, in the class and out, to be as outspoken and courageous for Christ as was this man who had never before perhaps seen or heard of Jesus, and whose gratitude at once called forth this wonderful confession.

Being cast out by the rules of the synagogue brought this man into closer and deeper fellowship and communion with Jesus.

He had believed far enough to obey his bidding, and had thus been healed. Now he is brought to a great sav-

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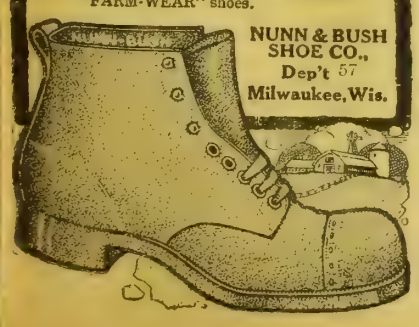
NUNN BUSH MILWAUKEE SHOES

Also, they are well made of solid leather, sightly and feel as nice as they look—6 in., 8 in., 12 in. and 16 in. high.

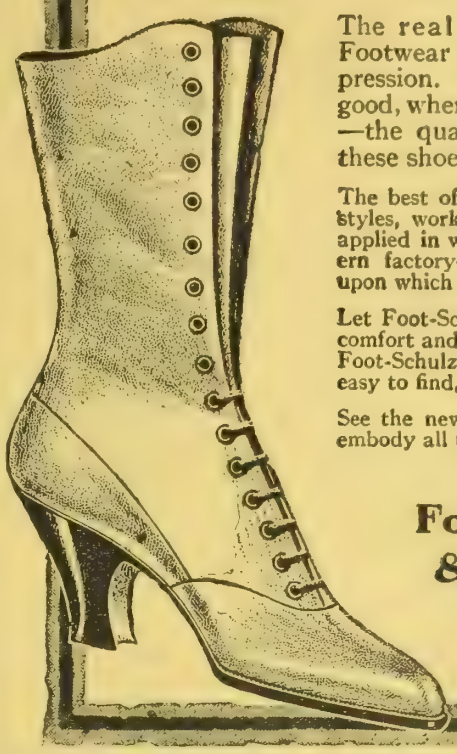
Tell us the name of your dealer and we will arrange for you to try on a pair of "FARM-WEAR" shoes.



NUNN & BUSH SHOE CO., Dep't 57 Milwaukee, Wis.

Foot Schulze & Co. Saint Paul — THIS MARK ON THE SOLE DENOTES QUALITY

The Quality of Foot-Schulze Footwear Tells



The real worth in Foot-Schulze Footwear backs up the first impression. When it's new it looks good, when it's old it still looks good—the quality that we build into these shoes *tells*.

The best of materials, carefully selected styles, workmanship of the highest skill applied in wonderfully convenient, modern factory—these are the foundations upon which Foot-Schulze Quality is built.

Let Foot-Schulze Footwear add to your comfort and your satisfaction. Find the Foot-Schulze dealer in *your* town. He's easy to find, and a good man to know.

See the new Foot-Schulze styles. They embody all the most popular features.

Foot-Schulze & Company

Saint Paul

Some Big Bargains in Magazine Clubs

Renew Now and Save Money

CLUB NO. 1A.
Today's Housewife ..... $ .50
Metropolitan 2.00
The Wisconsin Farmer 1.00
Regular price per year $3.50
Our Price For All Three **$2.00** You Save $1.50

CLUB NO. 2A.
Pictorial Review $1.50
People's Home Journal ..... .50
The Wisconsin Farmer 1.00
Regular price per year $3.00
Our Price For All Three **$2.15** You Save 85c

CLUB NO. 3A.
Kansas City Weekly Star ..... $ .25
People's Home Journal ..... .50
The Wisconsin Farmer 1.00
Regular price per year $1.75
Our Price For All Three **$1.10** You Save 65c

CLUB NO. 4A.
Every Week $1.00
Woman's World ..... .35
Home Life ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.60
Our Price For All Four **$1.35** You Save $1.25

CLUB NO. 5A.
Kansas City Weekly Star ..... $ .25
McCall's Magazine ..... .50
People's Popular Monthly ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.00
Our Price For All Four **$1.45** You Save 55c

CLUB NO. 6A.
Home Needlework ..... $ .75
Home Life ..... .25
The Wisconsin Farmer 1.00
Regular price per year $2.00
Our Price For All Three **$1.45** You Save 55c

CLUB NO. 7A.
Today's Housewife ..... $ .50
People's Home Journal ..... .50
People's Popular Monthly ..... .25
The Wisconsin Farmer 1.00
Regular price per year $225
Our Price For All Four **$1.45** You Save 80c

CLUB NO. 8A.
Modern Priscilla $1.00
Boys' Magazine 1.00
The Wisconsin Farmer 1.00
Regular price per year $3.00
Our Price For All Three **$1.60** You Save $.140

Good For Ten Days Only!

The Wisconsin Farmer one year

	Our Price	You Save
With Mother's Magazine, 1 year	$1.75	$ .75
With Woman's Home Companion, 1 year	1.75	.75
With American Magazine, 1 year	1.75	.75
With Modern Priscilla, 1 year	1.50	.50
With Every Week, 1 year	1.25	.75
With Everybody's, 1 year	1.90	.60
With Delineator, 1 year	1.90	.60
With Hearst's Magazine, 1 year	2.15	.85
With Review of Reviews, 1 year	3.00	1.00
With Metropolitan, 1 year	2.00	1.00
With Musician, 1 year	1.85	.65
With Sunset, 1 year	1.65	.85
With Boy's Magazine, 1 year	1.50	.50
With Pictorial Review, 1 year	2.00	.50

SPECIAL CLUB NO. 9A.
McCall's Magazine ..... $ .50
1 McCall's Pattern (free)
Today's Magazine ..... .50
1 May Manton Pattern (free)
People's Home Journal ..... .50
The Wisconsin Farmer 1.00
Regular price per year $2.50
Our Price For All Four **$1.60** You Save 90c
(You select any McCall's or May Manton Patterns from the first issue you receive of McCall's or Today's.)

In the event that none of the above combinations suit you, write us just what publications you want and we will be pleased to quote you a special rate. Direct all orders and inquiries to the

Club Department, Wisconsin Farmer, Madison, Wis.

ing, transforming faith, viz., that Jesus is the Son of God.

Do we take advantage of our privilege of confession?

Before Christ came there were no hospitals.

He is the inspiration of all charitable institutions, but healing of the body is of secondary importance; the healing of the soil is primary. "Whereas I was blind, now I see."

Start with what you know—your own experience—and he will reveal himself according to your developing and progressive needs.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wisconsin.

2018—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2014—Overblouse dress for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 2 yards of 36-inch material for the guimpe, and 8⅝ yards for the dress, for a 16-year size.

1628—Ladies corset cover and drawers. The patterns for these two desirable models is cut in 3 sizes: Small, medium and large. It requires 3½ yards for a medium size, in 36-inch material.

1788—A comfortable morning dress. Pattern is cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44 inch material for a 36-inch size.

1864—Girls' dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 3½ yards of 44-inch material for a 12-year size.

1795—A practical and easily developed outfit. Pattern includes all three garments. It is cut in 5 sizes: 2, 3, 4, 5 and 6 years. It requires ⅞ yard for the drawers, 1½ yards for the underskirt, and 2⅛ yards for the dress, of 36-inch material for a 4-year size.

Waist 1648-Skirt 1656—A splendid style for business or afternoon wear. Waist 1648 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1656 in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 7⅞ yards of 36-inch material for a medium size. Two separate patterns, 10 cents for each pattern.

2030—Boys' blouse suit, with or without shield and yoke facing, and with sleeve in either of two lengths. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2½ yards of 44-inch material for a 3-year size.

2021—Ladies' sport blouse, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36,, 38, 40, 42 and 44 inches bust measure. It requires 3½ yards of 36-inch material for a 36-inch size.

Blouse and cap 1780-Petticoat 1728—A smart Breakfast costume. Pattern of the blouse which includes the cap, is cut in 3 sizes: Small, medium and large. It requires 3⅜ yards of 36-inch material for the sack and ⅞ yard for the cap, for a medium size. Skirt 1728 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅝ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2036—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7¼ yards of 36-inch material for a 36-inch size.

1692—Ladies' Shirt waist, with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3½ yards of 27-inch material for a 36-inch size.

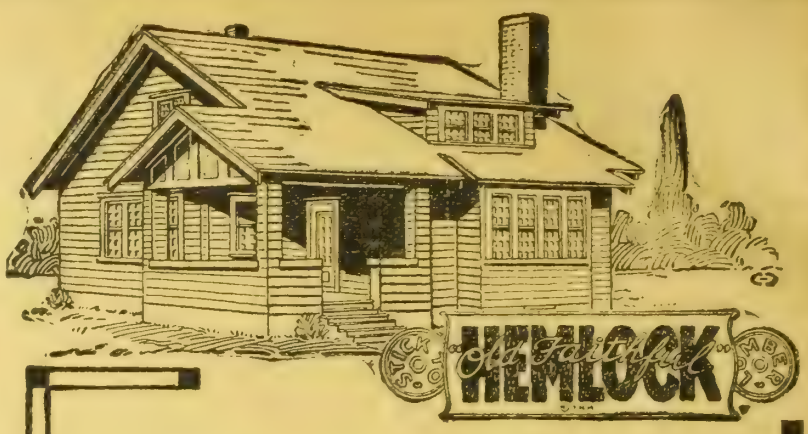
Ottawa Latest Design Kerosene Engine.

A FREE engine book, describing the Ottawa latest design kerosene engines, will be sent to any reader of this paper who is wanting a farm engine. The Ottawa engines are durable, powerful and reliable, built to last and do hard work. The company's ten-year guarantee stands back of them and a three months' trial will be allowed before purchasing. Write today for the engine book and full particulars about the Ottawa. Address The Ottawa Manufacturing Co., 1191 King St., Ottawa, Kan. See page 10.—Adv.

Concrete Work Done Cheaply.

YOUR concrete work can be done cheaply and easily with a barrel mixer. It saves a great deal of labor and eliminates several workmen. You can do the job yourself at the time when you want it done, without waiting on outside help and paying high wages. Full particulars about the barrel mixer will be sent upon request to the Barrel Mixer Co., Dept. E, Madison, Wis. Write today, mentioning this paper in your letter.—Adv.

Sprinkle your shoes inside with a generous quantity of talcum powder. You will find this the greatest relief to the burning and smarting caused by the drawing of new leather.



PLANS FREE

for this and other "Old Faithful" Hemlock houses, barns and other buildings from a hen coop upward.

We want you to see for yourself that the great lumber stand-by of the American farmer is "Old Faithful" HEMLOCK Lumber (INVESTIGATE IT FOR YOUR OWN ECONOMY)

TO GET THE FREE PLANS

SIT DOWN and write us for the "Old Faithful" HEMLOCK Booklet (just out) which shows pictures of garages as well as farm houses, town houses, barns, and other farm buildings for which we furnish free plans drawn by well-known architects, and include complete specifications and all practical details. If you are handy with tools you can build from them yourself. The book contains a COUPON GOOD FOR ANY TWO SETS OF PLANS FREE when presented to YOUR LOCAL LUMBER DEALER. He has the plans or can get them from us for you. We'll be glad to give you any advice or information we can. Just write and be sure to give your lumber dealer's name.

THE HEMLOCK MANUFACTURERS
(of Wisconsin and Northern Michigan)
Offices: 300 F. R. A. BUILDING Oshkosh, Wisconsin

If your lumber dealer cannot supply plans, we will send them direct for 50c for garage or outbuilding, $1.00 for house or barn.

BOVEE'S PIPELESS FURNACES
Bovee's Central Heating Furnaces
Bovee's Regular Piped Furnaces
At Manufacturer's Prices
Save 40% of Cost
Save one-third of your fuel

GET the benefit of our 21 years' experience in manufacturing and installing furnaces. Get our positive guarantee (and it's good). Get our free three-colored catalogue. Address
BOVEE FURNACE WORKS
204 W. 8th Street Waterloo, Iowa.

SOLDIER BOY POSTCARDS FOR YOU

SOLVE THIS PUZZLE

4		7
	7	3
6	4	

Here is the "Missing Number Puzzle" which will make you think. What numbers placed in the vacant squares will make a total of fifteen for each column when added either up and down or across?

Is It Easy? If you fill in the missing figures and send us your name and address, we will send you as a prize, **a packet of six beautiful Soldier Boy Postcards. These cards are printed in many colors and show our gallant army boys in action.** All you have to do is to enclose four cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate of entry in our grand contest for a $2[illegible] Saxon Auto

Saxon Car Given Away

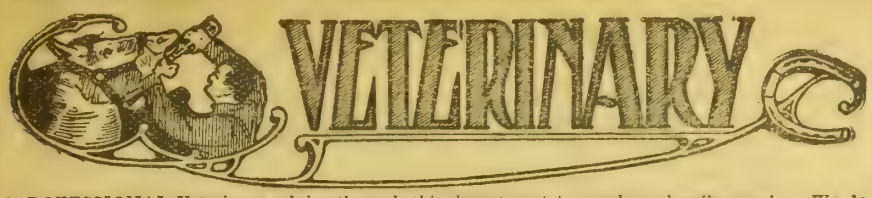
Remember the Saxon car will absolutely be given away at the close of the grand contest. In case of a tie, a Saxon car will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars free.

POPULAR CO., 210 Popular Bldg., Des Moines, Iowa

Don't Wear a Truss

BROOKS' APPLIANCE the modern scientific invention the wonderful new discovery that relieves rupture will be sent on trial. No obnoxious springs or pads. Has no oil nor Air Cushions. Holds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. **Sent on trial to prove it.** Protected by U. S. patents. Catalogue and measure blanks mailed free. Send name and address today

C. E. BROOKS, 339 State Street, Marshall, Mich.



PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Chronic Inflammation of the Knee.

I have a five-year-old gelding that is lame in its left front leg. There is a bunch on each side about the size of a man's fist. This is at the knee and just below it. Sometimes this horse is very lame and at other times he is not. I think the membrane over the muscle is broken and it is the muscle that makes the bunch. I would like to know how to cure it.

This is a chronic condition and may not be overcome. However, some good may come from blistering or firing, but this should be done by a man familiar with the work.

Infection Ano-Vulvitis.

I have about twenty-five head of cattle and twelve of them have become sore behind. I thought the hogs had chewed them, but later found that they swelled up on one side and then got sore. The sores smell very badly and the cattle do not do any good. Can you tell me what is the cause of this and what I can do for it?

This is an infectious trouble and is seen in both sexes at times. The best results in these cases have come from cleansing the parts and curetting away all necrotic or dead tissue and then applying tincture of iodine to the parts. This work should be done by a veterinarian. The stables should also be cleaned and disinfected.

Abortion in Cows.

I have a herd of eleven cows. Six of them lost their calves last year. I sold the bull and bought a young bull to breed the cows to. Some of the cows should calve in March. Would it be advisable to sell the cows and bull for beef and buy others?

You might sell these cows for beef and then thoroughly disinfect the premises before introducing new stock onto the place, or if your cows are valuable you might keep them, as the disease runs its course in about three years, and you could then raise calves from these cows. Of course,

Cow Lice.

This winter my cattle have lice or something that is dark in color like a bedbug and about one-tenth the size of a bedbug. Some people say they are crabs. They are full of blood and anything the cattle rub themselves on is smeared with blood on account of smashing these crabs. I have tried several remedies, but they have failed. The cattle are in good condition.

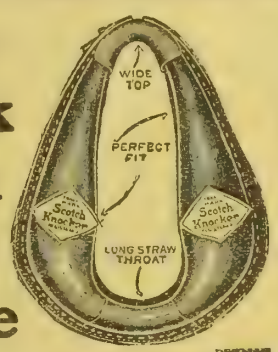
Your cattle are infested with the large cow louse. The application of some good louse powder is the best treatment during cold weather, but in warm weather scrubbing with a 2 or 3 per cent creolin solution may get rid of the lice. Even a kerosene-soapsuds mixture is good and inexpensive to use in warm weather.

Mange.

My horses are bothered with a skin disease. They have had it about a month. Their skin looks scurfy and there is not a bit of dust in it. I have some medicine I got from a veterinarian and am feeding them stock food and have sprayed them, but it does not seem to do any good.

This may be some form of mange. If there are any scabs they should be removed by use of soapsuds and, if necessary, followed with a thorough application of one and one-half ounces of tobacco and water, two pints, prepared by boiling. This may be applied more than once and should always be repeated after fifteen days. All harness and stable utensils should be thoroughly disinfected and the walls sprayed with whitewash. In applying the treatment be careful not to cause the animals to contract a cold.

More Work From Your Horse



YOU can't expect good work from your horse when his shoulders and neck are hurting under an ill fitting collar.

Scotch Knocker Horse Collars, by their perfect fit, *prevent*—even *cure*—Galled Necks, Sore Shoulders. They are built to conform to every bone, every muscle—to work *with* your horse and assist.

Made of *real* seven-ounce *bark*-tanned leather. Stuffed with hand-flailed, long rye straw. Faced with soft sweat-and-rain-proof buckwheat hulls. Triple reinforced at throat Write for *free* book.

Minnesota Harness Factory, Inc.
105 2nd St. West, Winona, Minn.

Scotch Knocker Leather Collar

Half a Cow—

Half a cow means half a profit—really a loss, because a poor producer costs as much to keep as a good milker. If you have a cow that is below par, chances are some vital organ is impaired and she needs treatment.

Kow-Kure is the one cow medicine that quickly tones up the digestive and genital organs and puts a backward cow on her feet. Try Kow-Kure on your most doubtful cow. It is especially effective for the prevention or cure of Abortion, Barrenness, Retained Afterbirth, Milk Fever, Lost Appetite, Scouring, Bunches, etc.

Sold by feed dealers and druggists, in 50c and $1.00 packages. Write for free book, "The Home Cow Doctor."

DAIRY ASSOCIATION CO., Lyndonville, Vt.

Funds Available for Roads.

(Continued from page 7.)

thirty counties operating under what is known as the county unit plan.

The present state aid law was enacted by the legislature in 1911 and the highway commission was appointed and commenced work in August, 1911. In five years, including the work of 1916, there has been built under the direction of the state highway commission 2,559.32 miles of hard-surfaced roads, 212.6 miles of temporarily surfaced roads and 2,358.86 miles of graded and drained roads. This makes a total of 4,846.19 miles. Under the same supervision there have been 2,819 state aid and county aid bridges. The 4,846.19 miles of road under the three classes as stated have cost the state $14,631,824.81. The average cost of state-aid road construction during the five-year period has been $3,019 per mile. This includes the cost of construction in Milwaukee county. There were 4,713.48 miles constructed outside of Milwaukee county at an expense of $12,252,888.37, making an average cost of road construction per mile, outside of Milwaukee county, $2,599. The cost of state supervision of this work, including also the cost of supervision on bridges and county and town road and bridge work, was 2.03 per cent, or a total of $371,189.49. This cost not only included that of supervision of work, but also of preparation of plans for road and bridge construction up to September 1, 1915.

We are told by the members of the highway commission that it is rather difficult to arrive at the average cost of various kinds of road construction in Wisconsin. However, the following statements give something of an idea on this subject:

	Per mile
Grading, draining, and culverts only	$ 1,300
Waterbound macadam road, 9 feet wide	4,200
Waterbound macadam road, 16 feet wide	6,700
Crushed gravel macadam, 9 feet wide	3,300
Crushed gravel macadam, 16 feet wide	5,000
*Concrete road, 9 feet wide	8,000
*Concrete road, 16 feet wide	13,000
*Concrete road, 18 feet wide	14,500
*Brick road, 9 feet wide	11,500
*Brick road, 16 feet wide	19,000
Brick road, 18 feet wide	21,000

*Four-foot shoulders on each side add about $1,000 per mile if of gravel; about $1,500 per mile if of crushed stone.

We have said that out of 76,000 miles of road about 20,000 miles are included on the system of prospective state highways in all of the counties. The highway commission, however, makes this statement: "Of this system probably 15,000 are of sufficient importance to justify state and county aid in their improvement." Of course, there are a great many farmers interested in the 61,000 miles of road not included in the proposed system of state highways, these roads now being maintained by the towns. The commission in its annual report estimates that these roads may be put in condition so that they can be maintained at a reasonable cost. To do this it is estimated that an expenditure of $150 per mile for grading is necessary and this would mean $24,400,000 needed for reconstructing town roads. The commissioners also estimate that these roads could be maintained after they were put in good condition by dragging and road machinery work at the proper times at an annual cost of $40 per mile, or $2,440,000. As an argument in favor of permanent roads as rapidly as they can be built, the commissioners say that about $80,000,000 will be expended in the next eight or ten years, and in this same time 61,000 miles of our town roads will be very little impended in the next eight or ten years,

SANITATION

IS THE RELIABLE METHOD FOR PREVENTING

FOOT AND MOUTH DISEASE

HOG CHOLERA

AND OTHER CONTAGIOUS DISEASES.

You can make all live-stock quarters sanitary by using

KRESO DIP No. 1

The Standardized, Reliable Dip and Disinfectant.

KRESO DIP No. 1 has been used at the large state fairs in the United States for the last ten years to prevent the spread of contagious disease. It has done it, and KRESO DIP No. 1 will do the same for you on the farm.

KRESO DIP No. 1 is reliable. It is easy to use. It is inexpensive.

FOR SALE BY ALL DRUGGISTS.

We will send you free a booklet on the treatment of mange, eczema or pitch mange, arthritis, sore mouth, etc.

We will send you free a booklet on how to build a hog wallow, which will keep hogs clean and healthy.

We will send you free a booklet on how to protect your hogs from lice and parasites and disease.

Write for them.

PARKE, DAVIS & CO.

Dept. Animal Industry. DETROIT, MICH.

Free Booklet on Horse Training

BREAK your colts, kickers, runaways, etc., with Koepke's controller bridles and avoid accidents. Write for circulars and free booklet on horse training.

F. L. KOEPKE, Dept. A, Whitehall, Wis.

A Ventiplex Housing FREE for Two Labels

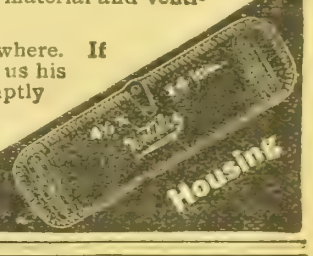
Read the Particulars

In order to introduce the **Ventiplex Collar Pads** to more horse owners, we shall give away absolutely free a **Ventiplex Housing** to all who send us two full labels from Ventiplex Collar Pads and five cents in stamps to pay cost of mailing. Size of housing 4½ x 14 inches.

Ventiplex Pads and Housing are made of special material and ventilated—curative, cooling, sanitary.

Ventiplex Collar Pads are sold by dealers everywhere. If your dealer does not carry them send us his name and we will see that you are promptly supplied. We make the famous Burlington Stay-on Stable Blankets.

Burlington Blanket Co.
Dept. 10, Burlington, Wisconsin



Farm Hands Wanted

Western Canada Farmers Require 50,000 American Farm Laborers AT ONCE

Urgent demand sent out for farm help by the Government of Canada. Good wages. Steady employment. Low railway fares. Pleasant surroundings. Comfortable homes. No Compulsory Military Service. Farm hands from the United States are absolutely guaranteed against Conscription. This advertisement is to secure farm help to replace Canadian farmers who have enlisted for the war.

A splendid opportunity for the young man to investigate Western Canada's agricultural offerings, and to do so at no expense.

Only those accustomed to farming need apply.

For particulars as to railway rates and districts where labor is required, or other information regarding Western Canada, apply to

Geo. A. Hall, 123 W. 2d St. Milwaukee, Wis.

Authorized Canadian Government Agent

Last Chance

These great combination offers will not be made after April 25. Magazine prices are going up every day on account of the vast increase in the cost of paper. Send your order today without fail.

Coupon Saves You 25c

The coupon at the bottom of this advertisement is good for 25 cents on any one of the splendid combinations in this offer if used by **April 25.** This is an extra bargain for you and means the saving of an extra 25 cents if you send by April 25th. Only one coupon accepted on each combination.

The McCall pattern offered with certain combinations much be selected from the first number of McCall's Magazine you receive. When you send your order for the free pattern to the McCall Company enclose 2-cent stamp for postage.

Make Your Choice and Send Today

This is your last opportunity to save good money on your entire year's reading. Make your choice now.

Combination A

McCall's Magazine.....1 yr.
Choice of any McCall Pattern.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Woman's World.....1 yr.
All only .35
$1.10 Cash and 25c Coupon if you send by April 25th.

Combination B

McCall's Magazine.....1 yr.
Choice of any McCall Pattern.
People's Popular Monthly.....1 yr.
Kansas City Weekly Star.....1 yr.
Woman's World.....1 yr.
Plain and Fancy Needlework.1 yr.
All only $1.35
$1.10 Cash and 25c Coupon if you send by April 25th.

Combination C

American Woman.....1 yr.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Plain and Fancy Needlework.1 yr.
Woman's World.....1 yr.
All only $1.15
90c Cash and 25c Coupon if you send by April 25th.

Combination D

Kansas City Weekly Star.....1 yr.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Missouri Valley Farmer.....1 yr.
All only $1.00
75c Cash and 25c Coupon if you send by April 25th.

Send all Orders to
People's Popular Monthly
Des Moines, Iowa

USE THIS COUPON

25c This Coupon Good for 25c if Used Before April 25th **25c**

People's Popular Monthly,
Dept. H., Des Moines, Iowa.

Gentlemen —I send $..... and this 25c coupon for which send me the publications in combination..... one year each.

Name .....

Street or Route.....

Town .....

State .....

OUR LEGAL DEPARTMENT

THIS department is edited by a practicing lawyer who has had years of experience at the bar. He will give accurate and reliable answers to all legal questions when they are of sufficient importance to be of practical interest to any considerable number of our readers. Subscribers who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delayingprinted answers, those to whom it is important to receive an immediate reply by mail should remit $1.00, addressed as above.

Law Questions.

Carrying Revolver.

A Subscriber, Spring Green, Wis.—Is it lawful in Wisconsin, for a person to carry a revolver to defend himself or herself against dogs and other animals, and if not what is the penalty?

Answer.—It is not lawful. The panalty for a violation of the law is imprisonment in jail not more than six months or a fine not exceeding $100.

Naturalization.

A Subscriber, Hartford, Wis.—Parents with their children came from a foreign country to the United States. The father took out his first naturalization papers, but never got his final papers. When the children become of age, after being in the United States more than five years, they took out their first naturalization papers. When can they get their final papers and be admitted as citizens of the United States?

Answer.—At any time after two years from the date of their first papers and not later than seven years after date of first papers.

Contract Must be Written.

Mr. Victor Trawicke, Dolonia, Wis.—Two years ago I asked my neighbor who owns adjoining land to sell me an eighth of an acre, so I could dig a ditch on it to drain my farm. He said he would do so later, but that I could go ahead and dig the ditch, which I did. Now he allows his cattle to run over the ditch and they do it great damage, and he refuses to sell me the piece of ground. How can I compel him to sell it to me?

Answer.—You cannot compel your neighbor to sell you the land. An agreement to sell land must be in writing, otherwise it cannot be enforced by law.

Strawberry Plants—Damages.

A Subscriber, Seymour, Wis.—Last spring A bought expensive strawberry plants from a nursery company, and the company guaranteed the plants to grow, and agreed to replace the same if they did not grow. Only about half of the plants grew. A wrote to the company to replace what failed to grow, but received no answer. Can A compel the company by law to replace the plants?

Answer.—He cannot, but if the company does not replace the plants A can sue it for damages and recover a judgment for the same. It is most likely, however, that the expense of a lawsuit would be more than the plants are worth.

Inheritance in Wisconsin.

A Subscriber, South Milwaukee, Wis.—My father made a will several years ago, providing that all his heirs should share and share alike in the property he should own at the time of his death. He has since died. My brother died leaving no heirs. There were some debts against my father's estate and my brother's wife signed a deed in order that we might get rid of said debts. Is she now entitled to a share in my father's estate the same as any other heir?

Answer.—If your brother died before your father's death your brother's widow would not get any of your father's property, but if your brother died after your father's death your brother's widow would get her husband's share of the property.

Cropper's Rights.

I. E. B., Sioux Falls, S. D.—A rented a quarter section of unfenced land to B for three years, B to fence said land with materials furnished by A, which was done. B pastured the land the first year. At the beginning of the second year, C rented from B some hay land in said quarter section, and paid B the rent agreed on. B cut his hay and put it in five stacks on the land—single stacks, not in a group. There are no cross fences on the quarter section. B told C that he expected to pasture the land this winter, and that said stacks would need to be fenced, as B would turn in stock as soon as corn was out. B waited two weeks after corn was out, and then turned in his stock to pasture. Then C demanded that B should fence said stacks. Can C compel B to fence the stacks?

Answer.—C cannot compel B, by law, to fence the stacks. If C rented the hay land for the hay crop of that one season only, it was C's business to take his hay off the place when the hay was harvested. In such a case C was a mere cropper.

Estray Cattle—Damages.

A Wisconsin Subscriber.—When cattle are running at large, and do damage to my premises can I shut them up and hold them till the amount of damages is paid, and what steps must I take to get damages in such a case, and also pay for keeping the cattle?

Answer.—If you find the cattle on your premises, you can shut them up, and you must then notify the owner of them of your charges for the damage they have done, and ask him to pay the same, and take them away. If he fails to do so, you must have them appraised by a justice of the peace. Within one year thereafter the owner of the cattle may take them by paying your claim for damages and care of the cattle, and if you and he cannot agree upon the amount, you must apply to a justice of the peace to settle the same, and he will hear witnesses on the matter, and fix the amount to be paid. At the end of a year, if owner don't pay, the cattle can be sold by the sheriff or a constable at public auction, and your claim paid, together with one-half of the balance of what they bring, the other half being paid to the town treasurer.

ADVERTISEMENT.

Compensation Means Payment for Actual Loss Only

IN any consideration of the principle of Compensation as applied to the Brewing Industry or any of its allied branches, do not allow your view to fall into the perspective of total loss. Under the system of compensation, the state would not pay a total loss unless a total loss is sustained.

The physical valuation is only an offset against the actual loss. Whatever value remains in the re-adjustment to some other pursuit is not compensated.

Payment is made only for the actual loss sustained. And this applies to other branches of the business, the distiller, wholesaler, retailer, as well as the brewer.

And in addition to this, the public should not let its mind rest on the three or four large breweries when considering the Compensation issue. Rather survey the hundred and more small establishments throughout the state.

Here and there, if you will travel over Wisconsin, you will find the little country brewery. Its owners are leaders in the community—leaders in everything of a civic, educational, charitable or social nature.

The owners may be father and son, the young man following the sire in the traditional business of the family. The days of toil of possibly three generations, the entire savings of them all, in fact, the family's "all" rests in this little brewery.

To wipe out their entire business and support certainly cannot be done honorably, even by the state, without Compensation to those who sustain the loss. They have been permitted and encouraged to put the labor and effort of a lifetime into the business and surely are entitled to a square deal.

A survey of other branches of the industry from the manufacturer down to the retail dispenser, will reveal many like cases.

It would be both unfair and unjust to deny hundreds of these families Compensation.

The Brewers of Wisconsin

Cow-Testing Reports.

Waupaca and Butternut Ridge.

To the Editor:—Seventy-one cows out of 350 tested in the Waupaca and Butternut Ridge Cow-Testing Association, during the month ending February 20th, produced forty pounds of butter fat or over. The blue ribbon cow, a grade Guernsey owned by Herman Becker, produced 1,038 pounds of 6.2 per cent milk, making 64.4 pounds of butter fat. The Ira Farley herd of eleven Holsteins produced an average of 1,254 pounds of milk, netting 46.9 pounds of butter fat. Following is the forty-five-pound list for the month ending February 20th:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
C. C. Boyce					
Mollie, G. H...	4	1-20-17	1233	4.5	55.5
Petrair, G. H.	6	1-21-17	15.60	3.4	53.0
F. T. Jorgensen					
Caroline, G. H.	10	12-11-16	1560	2.9	45.2
F. R. Constance					
Grey, G. J.....	4	12-7-16	780	6.0	46.8
E. F. Schroeder					
Charlotte, G.J.	4	11-20-16	1092	4.6	50.2
E. O. Frihart					
Dorthey, G. H.	3	11-26-16	1398	3.8	53.1
Herman Becker					
Spot, G. J.....	8	11-29-16	900	6.0	54.0
Bell, G. J.....	7	1-16-17	1080	5.6	60.5
Silvy, G. J....	8	1-4-17	1038	6.2	64.4
Guy Anderson					
Pauline, G. G.	8	1-12-17	1374	4.1	56.3
Josephine, G.G.	9	1-1-17	1252	3.4	45.7
Pearl, R. G....	6	10-1-16	792	6.0	47.5
John Jensen					
Rose, N.	9	12-16-16	1197	4.2	50.3
W. J. House					
Daisy, G. H...	4	1-25-17	1170	4.9	57.3
H. C. Frihart					
Baxter, G. J..	7	12-27-16	939	4.9	46.0
Mather Bros.					
Scat, N.	4	2-7-17	1023	5.0	51.1
C. Rasmusson					
Fannie, G. J...	7	12-3-16	1010	4.6	46.5
May, G. J.....	4	2-9-17	981	5.9	57.9
Nellie Bly, R.J.	3	12-23-16	787	6.7	52.7
John C. Cackes					
Bessie, G. G...	4	12-14-16	1080	4.3	46.4
Spot, G. G.....	6	10-3-16	939	4.8	45.1
Rocksie, G. G.	6	12-17-16	924	4.9	45.3
Ira Farley					
Bellie, G. H...	5	10-25-16	1593	3.5	55.8
Brownie, N. ..	11	9-19-16	966	5.1	49.3
Bessie, G. H...	7	1-20-17	1326	4.1	58.5
Jewel, G. H...	6	12-17-16	1311	3.6	47.2
Jessie, G. H...	7	11-14-16	1458	3.4	49.6
Daisy, G. H...	5	1-2-17	1608	3.2	51.5
Eva, G. H.....	3	2-8-17	1443	4.2	60.6
Wm. Kniep					
Backes Grey, N.	9	12-20-16	1571	4.2	53.4
Princess, N...	10	2-9-17	1110	4.2	46.6
Maud, N.....	3	2-6-17	1224	4.2	51.4
Fred Dunbar					
Shadow, G. H.	3	2-2-17	1329	3.8	50.5
Brindle, N....	8	2-2-17	1143	4.7	53.7
Rosie, G. H...	2	1-21-17	1394	3.4	46.7
Wm. Rossey					
Susie, G. G....	2	12-23-16	1269	4.2	53.3
Peterson & Miller					
Golden Lady, R. G.	9	6-7-16	620	8.0	49.6
M. E. Lewis					
Harriet, G. G..	8	1-8-17	1155	5.3	61.2
Art Glocke					
Cherrie, G. G..	4	12-30-16	1197	3.8	45.5
John Hansen					
Edith, N.	5	10-28-16	1107	4.1	45.4
Pat Cahill					
No. 17, G. H.	7	11-22-16	1389.7	4.5	62.5
No. 18, G. H.	3	1-12-17	1307.6	3.8	49.7
No. 1, G. H..	6	11-24-16	1291.4	3.8	49.1
No. 14, G. H.	7	12-24-16	1456.3	3.6	52.4
No. 25, G. H.	8	11-13-16	1374.5	3.4	46.7
M. H. O'Connell & Sons					
No. 4, G. H..	9	1-10-17	1517.0	4.5	68.3
No. 9, G. H..	2	2-1-17	1286.0	3.5	45.0
No. 13, G. H.	4	2-1-17	1296.0	4.4	57.2
No. 20, G. H.	3	1-4-17	1313.0	3.5	46.0
Geo. Thompson Longfield,					
R. H.	9	1-21-17	1794.3	3.8	68.1

George Moss, Official Tester.

Work Out Economical Ration.

To the Editor:—In February we had fifty-two cows which made the forty-pound list and twenty-seven which made forty-five pounds of butter fat or over. The best cow for the month was a registered Holstein owned by Torris Geraldson, of Manitowoc. She produced in twenty-seven days 1,714.3 pounds of milk testing 4.0 and making 68.6 pounds of fat. Owing to the extreme high cost of feeds this winter many cows have bene kept from doing their best. With oats, barley, gluten, wheat bran and oil meal so high in price many of our members have been selling their barley and buying barley sprouts and corn. Barley sprouts are selling here at $24 a ton and wheat bran at $39 per ton. By making a mixture of ground oats, ground corn, wheat bran oil meal and barley sprouts we have been able to get a good ration at a greatly reduced cost, and have also had fairly good results. We are reorganizing two associations here in the place of the Manitowoc County Association No. 1. Our forty-five-pound list for February follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Adolph Otto					
Jewel, R. H..	5	1-31-17	1464.0	3.6	52.7
Lady 3, R.H.	2	10-20-16	1596.0	3.0	47.9
Torris Geraldson					
Martha, R.H.	4	1-30-17	1714.3	4.0	68.6
Pauline, R.H.	4	1-16-17	1476.0	4.0	59.0
Canary, R.H.	4	2-6-17	1276.8	5.3	67.7
Labriga, R.H.	3	1-31-17	1281.0	4.3	55.1
Pinery, R. H	2	1-24-17	1248.0	3.7	46.2
Walter Behm					
Flora, G. G..	7	12-22-16	1046.5	5.0	52.3
Bossy, G. G.	7	12-3-16	1054.5	4.4	46.4
Lady, G. G...	6	1-1-17	1181.5	4.3	50.8
Oscar Peterson					
Rosa, G. G...	4	1-18-17	1149.0	4.0	46.0
Nels Johnston					
Empsie, R.H.	8	12-25-16	1453.9	3.5	50.9
Lady, G. H..	6	1-31-17	1496.5	3.6	53.9
Pauline, G.H.	4	1-2-17	990.3	4.6	45.5
Beauty, G.H.	4	1-31-17	1381.9	3.3	45.6
Chas Achenbach					
Jessie, G. H.	4	11-12-16	1316.0	3.9	51.3
Ella, G. H...	2	1-[illegible]0-17	1027.0	4.4	45.2
Fred Lick					
No. 3, P. B. H.	4	1-17-17	2065	3.8	78.5
Frank Kloehn					
Aaggie, P.B. H.	7	2-1-17	1566	3.3	51.6
Nellie, G. H...	9	1-25-17	1335	3.5	57.2
John Saybold					
Forest Lily, P. B. H.....	6	1-13-17	1752	3.0	52.6
Cherryvale, P. B. H.....	9	1-25-17	2004	3.2	64.1
Rainbow, P. B. H.....	4	12-10-16	1563	3.8	59.4
Sunbeam, G.H.	4	1-24-17	1944	3.0	58.3
Beach, P.B. H.	3	12-10-16	1779	3.0	53.4
Daisy, G. H...	8	12-17-16	1854	3.2	59.3
Elizabeth, G.H.	8	12-27-16	1527	3.8	58.0
Dorothy, G. H.	7	1-6-17	2004	3.8	76.2
Otto Stickert					
Ann, G. G.....	6	1-19-17	1457	5.4	78.5
Fannie, G. G.	10	2-2-17	1550	5.2	80.6
Aug. Huebues					
Blossom, G. G.	6	1-19-17	966	5.3	51.2
Hatchet, G. H.	8	2-11-17	1590	3.4	54.0
Fred Harford					
No. 1, P. B. H.	5	2-16-17	1854	3.2	59.3
No. 11, P. B. H.	6	2-20-17	1452	4.4	63.8
No. 14, P. B. H.	6	2-15-17	1710	3.4	58.1
No. 22, P. B. H.	2	2-15-17	1083	4.9	53.0
John Kloehn					
Daisy, G. H...	3	2-15-17	1191	4.6	54.7
Spottie, G. H..	7	11-2-16	1509	3.5	52.8
Bossie, G. H..	7	1-13-17	2013	3.1	62.4
Beauty, P.B. H.	8	1-6-17	1683	3.0	50.5
H. Baumgartner					
Thistle, G.-G..	5	2-9-17	984	5.3	52.1
Blossom, G. G.	7	2-15-17	1218	5.0	60.9
M. Philips Hendreka, P. B. H.....	8	12-1-17	1524	3.5	53.3

F. A. Gaiser, Official Tester.
M. Philips, Secretary.

Where Watchful Waiting Failed.

To the Editor:—Those dairymen who watched and waited last year, while the wise ones were laying in their winter's supply of feed, at summer prices, are now returning a large slice of their milk checks to their feed dealer each month, while the wise ones, with the help of the advance in the price of their products are receiving big returns for their wisdom.

Considering the low quality of roughage harvested last year, and the high price of concentrates this winter, some exceptionally good records were made during the past month. Our leading herd, with an average production of 49.6 pounds butter fat is a convincing example of what good feeding and careful attention will do towards building the bank account. With an average feed cost of $11 per head, this herd returned a net profit of over $16 per cow.

The following table gives the names and records of the cows in the association which have produced more than fifty pounds of butter fat during the thirty-day period ending March 15, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Fred Lick					
No. 3, P. B. H.	4	1-17-17	2065	3.8	78.5
Frank Kloehn					
Aaggie, P.B. H.	7	2-1-17	1566	3.3	51.6
Nellie, G. H...	9	1-25-17	1335	3.5	57.2
John Saybold					
Forest Lily, P. B. H.....	6	1-13-17	1752	3.0	52.6
Cherryvale, P. B. H.....	9	1-25-17	2004	3.2	64.1
Rainbow, P. B. H.....	4	12-10-16	1563	3.8	59.4
Sunbeam, G.H.	4	1-24-17	1944	3.0	58.3
Beach, P.B. H.	3	12-10-16	1779	3.0	53.4
Daisy, G. H...	8	12-17-16	1854	3.2	59.3
Elizabeth, G.H.	8	12-27-16	1527	3.8	58.0
Dorothy, G. H.	7	1-6-17	2004	3.8	76.2
Otto Stickert					
Ann, G. G.....	6	1-19-17	1457	5.4	78.5
Fannie, G. G.	10	2-2-17	1550	5.2	80.6
Aug. Huebues					
Blossom, G. G.	6	1-19-17	966	5.3	51.2
Hatchet, G. H.	8	2-11-17	1590	3.4	54.0
Fred Harford					
No. 1, P. B. H.	5	2-16-17	1854	3.2	59.3
No. 11, P. B. H.	6	2-20-17	1452	4.4	63.8
No. 14, P. B. H.	6	2-15-17	1710	3.4	58.1
No. 22, P. B. H.	2	2-15-17	1083	4.9	53.0
John Kloehn					
Daisy, G. H...	3	2-15-17	1191	4.6	54.7
Spottie, G. H..	7	11-2-16	1509	3.5	52.8
Bossie, G. H..	7	1-13-17	2013	3.1	62.4
Beauty, P.B. H.	8	1-6-17	1683	3.0	50.5
H. Baumgartner					
Thistle, G.-G..	5	2-9-17	984	5.3	52.1
Blossom, G. G.	7	2-15-17	1218	5.0	60.9
M. Philips Hendreka, P. B. H.....	8	12-1-17	1524	3.5	53.3

F. A. Gaiser, Official Tester.
M. Philips, Secretary.

Alto Cow-Testing Association.

To the Editor:—The following is our forty-five-pound cow list for February:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
J. H. Kastein					
No. 3, G. J....	6	12-31-16	1092	4.4	48.0
No. 6, G. J....	4	12-24-16	1009	4.3	45.5
Ed Bruins					
No. 2, P. B. J.	2	12-1-16	849	5.4	45.8
No. 20, B. P. J.	9	10-14-16	801	6.1	48.9
No. 23, P. B. J.	7	11-7-16	843	9.4	79.2
No. 24, P. B. J.	8	12-19-16	1050	5.3	55.7
C. Bruins					
No. 3, G. D...	15	2-7-17	1056	4.7	49.6
H. Loomans					
No. 4, G. G....	9	1-1-16	843	5.4	45.5
No. 17, G. G...	10	1-10-17	954	4.8	45.8
B. B. Vossekuil					
No. 6, G. J....	7	2-1-17	1171	4.5	52.7
No. 10, G. J...	5	1-22-17	1200	4.1	49.2
R. Kastein					
No. 4, G. J....	9	12-31-16	1596	4.1	65.4
No. 10, G. J...	10	1-25-17	1404	4.0	56.2
J. W. Stelsel					
No. 2, G. J.....	3	1-28-17	789	6.0	47.3
Mrs. Theo. Kastein					
No. 2, G. J....	7	1-10-17	1110	4.9	54.4
Albert Rens					
No. 6, G. H....	6	11-16	1140	4.2	47.9
L. B. Redeher					
No. 3, G. J....	7	1-2-17	1[illegible]	3.8	51.9
Jake Kamphuis					
No. 9, G. D....	7	2-6-17	1038	5.0	51.9
No. 10, G. H...	7	1-5-17	1302	3.9	50.8
B. Kastein					
No. 1, G. G....	8	2-8-17	981	5.2	51.0
No. 2, G. J....	7	12-28-16	927	5.4	50.1
No. 6, G. J....	10	12-11-16	975	5.3	51.7
No. 15, G. J...	6	1-15-17	1002	4.9	49.1
F. W. Whittemore					
No. 3, G. G....	9	12-10-16	999	5.0	50.0
No. 5, G. G...	9	1-20-17	1056	4.5	47.5
No. 13, G. G...	3	2-21-17	792	6.4	50.7

Best cow for month was a pure-bred Jersey owned by Ed Bruins. She produced 843 pounds milk, 9.4 test, 72.2 pounds butter fat.

F. L. Cuenot, Tester.
d Bruins, Secretary.

50 New Varieties of Potatoes

can easily be grown from one Package of my genuine **Hybridized Potato Seeds.** Every hill will bring a different variety of Potatoes. There will be a multitude of colors, sizes and shapes.

ALL Valuable New POTATOES are produced from just such seed. One may make your fortune. Here is your chance of a lifetime to get the rarest and most wonderful of seeds. Order at once. Tell your friends, for all will want them.

Package with full directions only **15c**

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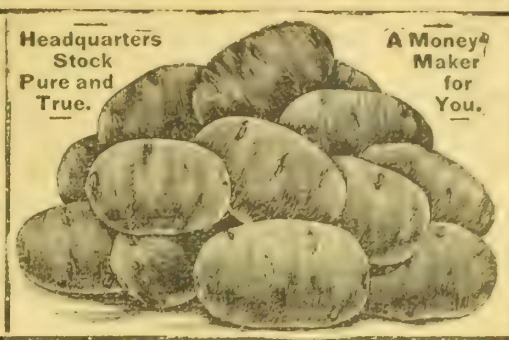

A. B. COOK (Potato Seed Specialist) **HYDE PARK, N. Y.**

Ketterer's Jersey Sale.

R. G. Ketterer's dispersal sale of Jersey cattle held at Werley, Wis., on Wednesday, March 7th, attracted a fair crowd in spite of the extremely bad weather, and fair prices were obtained. Colonel Heberlein was auctioneer and J. R. Villemonte clerk. Following is a complete list of the buyers and the prices paid:

1.	Herd bull, Chas. Smethurst, Eastman	$105.00
2.	Yearling bull, H. C. Vesperman	62.00
3.	Cow, Theo. Wehrle	180.00
4.	Cow, Chas. Maughn	77.50
5.	Cow, Chas. Maughn	110.00
6.	Cow, Chas. Maughn	107.50
7.	Cow, W. C. Edge	100.00
8.	Cow, Chas. Maughn	110.00
9.	Yearling coming 2, I. A. Vesperman	70.00
10.	Yearling, Chas. Maughn	62.50
11.	Jas. Huff	79.00
12.	Yearling, Chas Maughn	57.50
13.	Yearling I. A. Vesperman	70.00
14.	Yearling, Jas. Huff	73.00
15.	Yearling, Chas. Maughn	57.50
16.	Calf coming 1 year old, Will Noone	36.00
17.	Calf, Will Noone	36.00
18.	Calf, Theo. Wehrle	40.00
20.	Calf, R. Mathews, Platteville	31.00
21.	Calf, Will Noone	36.00
22.	Calf, Theo. Wehrle	40.00
23.	Calf, Will Noone	36.00
24.	Will Noone	62.50
25.	Calf, 4 months old, Milo Hill, Tomah	45.00
26.	Cow, Jas. Huff	122.00
27.	Grade cow, John Deisler	110.00
28.	Grade cow, W. C. Edge	110.00
29.	Grade cow, Jas. Huff	117.50

Stephenson Dispersion Sale.

THE fact that this herd represents the labor and intelligence throughout a long period of time, of Mr. James Torrey, manager, one of the ablest Holstein breeders of the state of Wisconsin, that there are included in the offering 11 800-pound cows, that Admiral Walker Prilly has 65 daughters in the sale, that King Walker Pietertje Segis, the junior herd sire, whose 13 nearest dams average 30.07 pounds, is bred to over half the cows to be sold, and that the herd is known to be free from tuberculosis should attract every Holstein enthusiast from a wide radius of country to Lake Mills, April 6th and 7th, where the grand herd is to be dispersed. One hundred and seventy-five head, representing so much of King Segis blood as well as other popular families of the breed, and so much semiofficial yearly and short-period tests presents an opportunity to Holstein buyers wishing foundation stock, that in all probability has never been equaled before in the central West. There are three bulls out of 800-pound cows, one out of a 720-pound junior three year old, two from 26-pound dams, one from a 27½-pound dam and three out of 20-pound junior two year olds. Among the heifers there are four from 20-pound junior two year olds and 21 daughters and 10 granddaughters of semiofficial yearly record cows. See advertisement on page 24.—Adv.

Making Success With Sheep.

(Continued from page 6.)

structed that they have an opening towards the south and plenty of bedding available for the sheep. His success can, in a small way, be duplicated on most of Wisconsin's farms where sheep are not now being raised.

Mr. Renk is active in many organizations in his county and in the state. He is vice president of the Hampshire Breeders' Association of America, secretary of the Wisconsin Sheep Breeders' Association, an officer in the South Bristol Community Club, and vice president of the Farmers' and Merchants' Bank, of Sun Prairie. As Mr. Renk is also interested in tobacco growing, he decided long ago that the tobacco growers of his district need not be at the mercy of the buyers. He was, therefore, instrumental in organizing the Atlas Tobacco Company, of which he is president. The men belonging to this organization are mostly farmers like himself. Each year previous to the organizing of this company the buyers had the farmers somewhat at their mercy when the harvest was in. In order to assure better prices and fair treatment especially regarding dockage the organization has bought a warehouse or storehouse. Here they store their crops when prices are low until such time when better markets are open to them. The investment for each member was a small one. During the time that this storehouse is not in use it is rented at a fair figure to local tobacco dealers who are anxious to get the space.

Keep a lump of kitchen salt in the sink. It will dissolve slowly and keep the pipe clean and the sink fresh and wholesome.

E-B Farm Tractor

Model L—12-20 Horse Power

A four-cylinder, 2-speed, light-weight tractor of great power, suitable for any size farm. Will pull the implements you now have on your farm—gang plows, harrows, mowers, binders, manure spreaders, road drags or graders. Will also operate your ensilage cutter, feed grinder, circular saw, etc. Does more work than horses—costs less and is so simple anyone can run it.

Emerson-Brantingham Implement Co. (Inc.)
37 W. Iron Street, Rockford, Illinois

Please send free literature on articles checked:

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[ ] Hay Tools [ ] Listers [ ] Gas Engines [ ] Wagons [ ] Buggies [ ] Auto Trailers [ ] Potato Machinery
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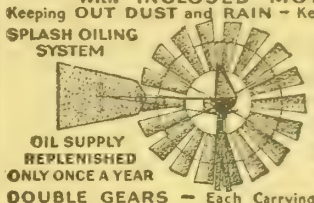
Address _____

SELF-OILING WINDMILL
With INCLOSED MOTOR
Keeping OUT DUST and RAIN – Keeping IN OIL!



DOUBLE GEARS — Each Carrying Half the Load
Every feature desirable in a windmill in the AUTO-OILED AERMOTOR
WRITE AERMOTOR CO. 2500 12TH ST., CHICAGO

5% FARM LOANS 5%

LONG TIME OPTIONAL PAYMENTS
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A. G. HARRIS - DIXON, ILLINOIS

LIVE STOCK AUCTIONEERS.

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AUCTIONEER
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THOROUGHLY versed on pedigrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering.** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

I. E. STICKELMAN
CLARINDA, IOWA
I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Pleasant View Herd of Brown Swiss Cattle.

WHILE visiting the Pleasant View herd, Honey Creek, Wis., a few days ago the attention of a Wisconsin Farmer representative was called to the splendid official records that were finished the first of January. This noted show herd is one that is known throughout the United States for the constructive breeding which it represents. Mr. Ayers has attained the distinction of breeding animals that represent the highest type the breed has yet produced. The calves and young stock were in thrifty condition and special mention should be made of four two-year-old heifers that were as near alike in type as two peas. We have never had an opportunity of seeing four animals of this age in one herd before that so nearly represented the ideal conformation. The following is a list of the records already referred to: Flora Duwire (4105) 16,538.1 pounds milk, 649.42 pounds fat, 3.9 per cent average test. Azure (3760), 14,236.6 pounds milk, 531.94 pounds fat, 3.76 per cent average test. Molly P. (2856), 15 years of age, 10 months in calf and soon due to freshen, 13,564.4 pounds milk, 512.79 pounds fat, 3.83 per cent average test. Miss Cuma (3011), 11,962.2 pounds milk, 545.2 pounds fat, 4.62 per cent average test. Spright (5508), 10,552.8 pounds milk, 693.29 pounds fat, 3.93 per cent average test.—Adv.

High-Grade Dairy Cows.

PERHAPS one of the greatest opportunities to purchase high-grade dairy cattle that has been offered the public for some time comes with the announcement that the Edgewood Farms, Pewaukee, Wis., have discontinued the production of certified milk and are going to devote all their energies toward the development of a herd of high-class registered Holsteins. Their grade herd numbers 134 head consisting of Holsteins, Guernseys and others. This herd has been under federal inspection for a number of years and is free from all disease and in the best possible condition. These cattle are in different stages of lactation and can be seen in their every day working condition. This herd has been carefully selected and handled under the most approved sanitary conditions. There are no old, worn-out cows in the herd, it is a herd of workers and from their records it would seem that some of them were working overtime. Anyone in the market for such cattle should lose no time in getting in touch with Edgewood Farms, at Pewaukee, Wis. See their advertisement on page 27.—Adv.

Here is a Bargain.

SOMEONE wanting a Holstein cow that is a producer in every sense of the word should be interested in the following. The Silver Spring Farm Co., Eau Claire, Wis., has been advertising heifer calves for sale, but their surplus is now sold and they are offering for sale, one of their good cows, namely, Ruby Withoorn De Kol 110262, born December 29, 1907. She has produced a calf every year since she was two years old and has given from 8,000 to 10,000 pounds of milk (by weight) yearly. She was bred December 24, 1916, to their herd sire, Sir Bess Ormsby Mercedes 184275, whose dam and sire's dam records for 365 days average 20,574 pounds milk, 958.3 pounds butter. This cow is guaranteed safe in calf and sound and the price is only $150. Such a cow is cheap at that figure and you can feel safe in sending your check for her with shipping directions. Kindly mention The Wisconsin Farmer.—Adv.

Fifty Registered Short-horn Herds.

WHEN buying Short-horns or any other breed of cattle, there is an advantage in buying where you have the greatest selection. We feel safe in saying that there are more herds of registered Short-horns in Rock county, than in any other county in the state of Wisconsin, and if you want bulls or females, this county Short-horn association can fit you out. The best herds of milking Short-horns in the Northwest are in Rock county, a herd of Scotch Short-horns second to none in the state is in Rock county and there are many herds of Scotch-topped cattle, so prospective buyers need have no fear but what they can find cattle to their liking in the above county. For further information, write J. E. Kennedy, secretary, Janesville, Wis.—Adv.

Gustav Pabst Purchased Two Noted Sires For Pure-Bred Holstein and Guernsey Herds.

FRED SOUTHCOTT, manager, reports that they have purchased a King Korndyke Sadie Vale bull out of Ruth Pontiac Veeman Korndyke, a 29.42-pound daughter of Sir Korndyke Pontiac Artis, and a May Rose bull sired by Longwater Hambro and out of a 711.7-pound dam with a sister having 717 pounds fat. Sons of King Korndyke Sadie Vale are indeed rarely offered for sale and it is a decided advantage for the Holstein interests of Wisconsin to have this animal in the state.—Adv.

Offer on Incubator and Brooder.

GET your new incubator for the spring hatch. The time is at hand. The incubator is 130-egg capacity and the brooder will hold 130 chicks. They are both made of the finest, select California redwood and finished in natural color. The price includes thermometers, egg tester, lamps and everything complete ready set up. Read the advertisement on page 15 and order direct from the Wisconsin Incubator Company, Box 100, Racine, Wis. Their beautiful incubator and brooder catalog will be sent to anyone on request.—Adv.

Canada's Bonus to Farm Laborers.

CANADA today, with the great demand that is made upon it for foodstuffs, finds itself almost in the throes of a labor famine. A novel means of solving the problem has been evolved by the Canadian government at Ottawa on February 28th, when it was decided to practically bonus every farm hand going to Canada, by giving him an 160 acres free as a homestead. Western Canada has been a big producer of grain and it is estimated that there is a shortage of over 30,000 men, necessary to produce an average crop in 1917. This shortage has been caused by so many young men having left the farms to go to war and it is essential to make an unprecedented offer of this kind to fill their places on the land at once. As explained by an official of the Canadian government, Canada's need for farm laborers is intense and exceptional inducements are being offered to get the needed farm workers at once. A farm hand will make his entry for one of the 160-acre farms and satisfy the government that he is working for a farmer, and the time thus employed will apply as residence on the land filed for, just the same as if he was actually living on it.—Adv.

Well-Made Horse Collars.

TAPATCO horse collar pads are made with a patented staple and felt reënforcing device which gives a large, firm hold on the collar, so that the hooks practically never pull off. A great deal of the collar trouble, such as sore necks and blisters, may be avoided by proper knowledge and care and a good collar. Facts on this subject are clearly set forth in the Tapatco booklet, which includes colored plates of Tapatco collars and valuable information on horse remedies. Ask your dealer for this book or write direct to The American Pad & Textile Co., Greenfield, Ohio, makers of Tapatco collars.—Adv.

The Long-Lived, Taber-Lined Silo.

THE Taber lined silo is a non-shrinkable, long-lived, wood stave silo of choice lumber and careful finish. It is creosoted throughout, and the outside is painted with a special protective paint for protection from the weather. The inside is coated with an acid-proof lining after the silo has been erected. An elegant door and door frame and a special galvanized steel octagon roof are parts of the equipment. If you want a silo, don't fail to get a catalog of the Taber Lumber Co., Keokuk, Iowa, manufacturers of the Taber silo. Send for it now, while you are thinking of it.—Adv.

Morley's Short-horn Bulls.

THE R. A. Morley Company, Baraboo, Wis., is offering for sale a splendid lot of red, white and roan Short-horn bulls. Their herd was established in 1878, and has made many excellent showings both for beef and milk. The present herd bull is Golden Light 300410, a fine animal with an extra good record. Among the bulls offered for sale are two splendid young ones old enough for service, and many younger ones of great promise. Prices are reasonable. See their advertisement on page 26 and write them for further particulars.—Adv.

Ditching and Grading Made Easey.

THE Martin farm ditcher and grader will dig ditches to a depth of four feet, make terraces, build dykes and levees and grade roads at a small cost and a great saving of labor. The Martin is all steel, and is reversible and adjustable to all conditions. If you have any of this work to do, send at once for the free book and special poposition of the Owensboro Ditcher and Grader Co., Box 613, Owensboro, Ky.—Adv.

Strawberry Plants.

NO fruit is more delicious or more appreciated than the luscious strawberry. The Everbearing, in particular, is especially popular with farm folks and the folks who have a town lot big enough for a garden patch. J. L. Todd & Co., R. F. D. No. 3, Des Moines, Iowa, are offering 200 of these splendid strawberry plants, postpaid at a rate that should tempt every reader of this paper. Send them your order. Tell them you saw the advertisement in this paper.—Adv.

Cushion Shoes For the Farmer.

THE popularity of Mayer Honorbilt cushion shoes is due to the comfort and satisfaction which they bring to the wearer. On page 18 will be found a picture of a Mayer shoe showing some of the details of its construction. These shoes are worthy of investigation by every farmer. Write to the F. Mayer Boot & Shoe Co., Milwaukee, Wis., asking about these shoes and the name of nearest dealer. Then be sure and see the dealer when you are ready to make your next purchase.—Adv.

The New 1917 DeLaval.

THE new 1917 De Laval cream separator surpasses all former models. Recent improvements and new features have been added, so that it skims cleaner and under more difficult conditions than ever before. Better lubrication, surer speed control and more sanitary bowl construction result from the improvements. The capacities of De Laval machines are now much greater per dollar of cost than formerly as a result of greater economy in construction and larger volume of sales. If interested in securing a new cream separator, you should ask the nearest De Laval agent to demonstrate the 1917 machine for you. You will be glad to know about it, and if you don't know the dealer, write direct to the De Laval Separator Co., 29 E. Madison St., Chicago, Ill., and ask for full information about their separators See the dealer or write at once, because the demand for the De Laval at this season is very heavy. See advertisement on page 17.—Adv.

Protect Your Valuable Papers and Books.

A MOMENT'S reflection will convince practically every farmer of the great value of a safe place in which to keep his notes, receipts, mortgages, deeds and valuable books. A good, fire-proof, thief-proof safe conveniently at hand is just the thing for this purpose. At sometime or other they may protect the work of a lifetime, and their price is nominal. Victor fireproof safes are made in different sizes, running from $30 to $90 in price. It will pay every farmer to send today for the circular which describes and prices the different Victor safes. See page 6 and write to John Meunier Co., Dept. A, Milwaukee, Wis.—Adv.

New Methods Reduce Cost of Land Clearing.

RECENT land clearing tests made by the University of Wisconsin have shown that certain methods may be employed which will greatly reduce the cost of preparing land for the plow. Both hand and power stump pullers were used in the test and also DuPont Red Cross Farm Powder. It was found that the powder did excellent work in blasting out stumps and that one of the cheapest ways to clear land is to use this powder in connection with a good stump puller. Another feature brought out was that properly placed charges fired with a blasting machine reduce the amount and cost of the dynamite required. Every farmer who has stump land that he wants to make productive should write at once for the Land Clearing Bulletin No. 35, issued by the E. I. du Pont de Nemours & Co., Wilmington, Del. This bulletin is an excellent treatise on the subject. See advertisement on page 12.—Adv.

Valuable Book For Progressive Farmers.

THE new 74-page book, "Better Farming," issued by the Atlas Powder Company, Wilmington, Del., should be in the hands of every farmer who is interested in producing larger and better crops at less cost. It tells of methods of loosening the soil, making it more friable and mellow; it tells how to plant trees at small cost; it shows how stumps and boulders may be blasted out and the land prepared for profitable cultivation; and it takes up other subjects such as ditching, subsoiling, etc. Write and get your copy today. Send a postal card or fill in the coupon in the advertisement on page 13 and mail at once to the company named above.—Adv.

Building Plans Free.

COMPLETE plans for building a house, barn, or any other farm building down to a hen coop can be obtained free from the Hemlock Manufacturers,

REMEMBER THE DATE

APRIL 6 AND 7

The Dispersal of the Stephenson Farm Herd of

HOLSTEINS

of Kenosha, Wisconsin, at

LAKE MILLS, WISCONSIN

Is Going to be One of the Most Notable of the Spring Sales

THE cattle are A No. 1, in every way—fine individuals, well bred. with A. R. O. records and backing. They are on the Accredited List and can thus enter any state. A wonderful opportunity for the beginner to get started right and for the old breeder to improve his herd.

SOME OF THE GOOD THINGS IN THE SALE

Cows with records up to 29.98 lbs.; two daughters of a 32.68 lb. cow; a 29.41 lb. 3 year old; four 20-lb. Jr. two year olds; 2 daughters and 2 granddaughters of the King of the Black and Whites; 2 daughters and 2 granddaughters of the highest record 4 year old in the state of Wisconsin, Pauline Wayne 3d, of White House fame, with 24.80 lbs.; 60 daughters of Admiral Walker Prilly, 18 of which have yearly records and 11 average over 800 lbs. for the year; 10 yearling sons of these year-record cows, and 40 sons and daughters of King Walker Pietertje Segis, whose first thirteen dams average 30.07 lbs., and who is a grandson of King Segis. Catalogs ready and sent upon request to

F. H. Everson, Sales Mgr., Lake Mills, Wis.

ABERDEEN ANGUS CATTLE.

CHOICE ANGUS BULLS

AND heifers representing some of the good families of the breed at very attractive prices; ages from 12 to 20 months. Write or call on

Orville H. Kettler **Platteville, Wis.**

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 401 Bee Bldg., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

300 F. R. A. Bldg., Oshkosh, Wis. All that is necessary is to write to the company for their "Old Faithful" hemlock booklet, which shows pictures of the buildings for which plans are furnished. The book contains a coupon which is good for any two sets of plans, if presented to your local lumber dealer. When writing to the company give your lumber dealer's name and they will furnish you with valuable information with regard to your building work. Don't delay, but write at once. See page 20.—Adv.

Holsteins at Tomah Indian School.

THE United States Indian service at the Tomah, Wis., school is doing some interesting work with Holstein cattle. They purchased in 1902 ten registered Holstein heifers, all with calf, and they were very careful in the selection of their sires to head the herd. Their first sire was Johanna Rue Sarcastic Lad 34990 by Sarcastic Lad 23971 and out of Johanna Rue 42167. The next sire was Hengerveld De Kol 3d 61931 by Judge Hengerveld De Kol 43964 and out of Baryl Wayne Sadie Vale 95833. This bull was a grandson of Hengerveld De Kol and is a half-sister to Duchess Hengerveld Korndyke, that made a record of 1,129.22 pounds of butter at three and one-half years. The present sire is Sir Ormsby Johanna De Kol 37689 and he is strong in the Ormsby breeding. They have as yet done no A. R. O. work, but have always kept close record of their milk and butter production and have disposed of all the old cows and those that were small producers, with the result that they now have a splendid young herd of good producing cows. They are getting some of their heifers ready for test. The entire herd at the present time consists of about 70 head. They have a large stable 108 feet long and 52 feet wide, a modern barn with cement floors, steel stanchions, calf pens and box stalls. They have in this barn three rows of stanchions which will hold 81 cows, besides six box stalls and a calf pen. The dairyman in charge has regularly detailed to him about eight boys for the care of the herd. The gutter is connected with a sewer system which enters into a cistern about 100 feet from the barn and which is alongside an enclosed manure pit. The liquid manure is used in the fields in liquid form or is pumped from the cistern into the manure pit onto the litter that is taken from the barns. All the produce is consumed by the Government Boarding School, and they make both butter and cheese. The station has over 40 acres in alfalfa for haying. Mr. L. M. Compton, superintendent, called at the Pabst Stock Farm, Oconomowoc, the other day and selected for the next herd sire, Pabst Johanna Pontiac, by King Pontiac Champion and out of Duchess Johanna of Delafield with a record of 27.3 lbs. of butter and 606.9 lbs. of milk. She also has a yearly record of 829 lbs. of butter and over 18,000 lbs. of milk. The second dam has a yearly record of 889 lbs. of butter and over 20,000 lbs. of milk. Mr. Compton was very careful in his selection and secured a young animal about three-quarters white, nicely marked, and a splendid individual.—Adv.

Making Milking Easy.

THE number of dairymen who have their milking done by hand is becoming smaller each year. Tried and proven milking machines, such as Mehring's milker, manufactured by W. M. Mehring, Keymar, Maryland, now do the work. Mehring milkers will milk two cows at once, twenty cows per hour, which means a great time and labor saver to the dairyman. They are simple to operate and inexpensive to buy. Read the illustrated advertisement on page 16 and write Mr. Mehring for further particulars about his milker. Tell him you saw the advertisement in The Wisconsin Farmer.—Adv.

Farmers Need Good Shoes.

THE comfort and satisfaction of substantial, well-fitting footwear is hard to over-estimate. Farm folks, especially, who are on their feet a great deal, should have the best shoes obtainable for their money. Investigate the high quality of Foot-Schulze Shoes. Write at once to Foot-Schulze & Company, St. Paul, Minn., for the name of nearest dealer and then see him when you buy your next shoes. Read the advertisement on page 19 and attend to the matter of writing today. Kindly mention The Wisconsin Farmer in your letter.—Adv.

Kerosene Engine Booklet Free.

A VALUABLE booklet on kerosene engines may be obtained by writing to the Worthington Pump & Machinery Corporation, 176 Holthoff Place, Cudahy, Wis. Practically all farm sizes of engines are explained and their mechanism described. The farmer who is wanting practical advice on the purchase of an engine for his farm work, as for instance, running a feed grinder, corn sheller, electric lighting plant or cream separator, should send for this booklet. It is free. Mention The Wisconsin Farmer. See advertisement on page 10 and write today.—Adv.

MUCKLESTON BROTHERS, Waukesha, Wis., have broken the state milk record for seven days with Cornucopia Johanna Clothilde (105862). Her seven, fourteen and thirty-day records are as follows: Seven days, 747.2 pounds milk, 27.28 pounds butter; 14 days, 1,450.8 pounds milg and 52.37 pounds butter; 30 days, 2,910.5 pounds milk and 105 pounds butter. Her sire, Aaggie Cornucopia Johanna Lad (32554) has four daughters that produced over 700 pounds in seven days and has 102 A. R. O. daughters according to the last blue book. Muckleston Bros. have completed six other very creditable A. R. O. records this year and will soon start five more on test. Their junior herd sire is Pabst Blackberry Korndyke, a $1,625, 31-pound son of Korndyke Segis Johanna.—Adv.

SALE DATES.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Holstein Cattle.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.
Apr. 6-7, Dispersion of the Stephenson Farm Herd of Holsteins, Lake Mills, Wis.
Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.
May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.
May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.
May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.
May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 17, Birch & Thompson, Lake Geneva, Wis.

Kill as many flies as possible when they appear in spring. These first flies are the parents of the millions of germ-laden flies that will make life miserable throughout summer. One fly killed early in the spring is equal to millions killed in August or September.

TOO LATE TO CLASSIFY.

Complete Herd of Holsteins for Sale

WHEN at the early April sales visit Junction View Farm, seven-minute walk from the Watertown Junction. Thirteen females of Jones breeding tracing directly to the 50-pound cow. One yearling bull from a 23-pound dam, she with three 30-pound sisters and sired by a 34.95-pound bull. Don't miss this opportunity.

S. E. JONES of S. B. Jones & Son Co.
810 N. 4th St. Watertown, Wis.

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. Anderson Whitewater, Wis.

DUROC JERSEY SWINE.

FISHER

Has a few Duroc gilts bred to the grand champion
KING DEFENDER
Order before they are all sold. Address
JOHN L. FISHER · JANESVILLE, WIS.

SHEA

OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.
Dennis Shea Melvina, Wis.

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address
Geo. D. Sprain & Sons West Salem, Wis.

ATWATER

HAS no Durocs to sell until May. Will book your order.
L. F. Atwater Bangor, Wis.

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address
F. R. Constance & Sons Waupaca, Wis.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

POLAND CHINA SWINE.

10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northside Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT
Address
J. C. HENDRICKS, Box F., Hazel Green, Wis.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

MR. STALLION BUYER

WE still have on hand a large number of two coming three Percheron stallions, those colts now weigh up to 2,110 pounds, and if you are looking for an outstanding good one to head your herd of mares you should write and get prices on those colts. Our three-year-old and aged Percheron stallions are the best lot we ever had on hand. They weigh up to 2,300 pounds. In Belgians we offer a very strong lot from one to six years old. Among them is Bizarrie, a five-year-old sorrel chestnut stallion weighing 2,300 pounds. This stallion is as good as money can buy and fit to go any place. He must be seen to be appreciated. We have on hand a number of stallions from six to ten years old that have made seasons. Those horses weigh up to 2,100 pounds, and we will sell them very reasonable. We have a horse for every purse and know we can save you money. We want to buy 50 head of one coming two Percheron and Belgian stallions. Write us what you have. Send 25 cents in stamps for large horse hanger. Address
FRANK P. SHEKLETON & SONS LAWLER, CHICKASAW COUNTY, IOWA
We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R.R., making direct connections for Lawler.

HOMEWOOD STOCK FARM
PERCHERON STALLIONS AND MARES IMPORTED and HOME BRED

GOOD, big, ton stallions and mares with plenty of quality, bone and the best of legs and feet. If you want a real draft stallion or mare come and see our stock or write for particulars. Most reasonable prices, terms and guarantee.
S. METZ & SON - - - - - HOMEWOOD, ILLINOIS
Have a choice lot of Hereford and Short-horn bulls for sale at reasonale prices.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.
L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

Largest Collection on Earth
150 Belgian Stallions and Mares 150
Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.
H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids
If in Cedar Rapids, phone us for hourly Interurban service

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

STALLION FOR SALE—A pure-bred, imported Belgian stallion, weight 2,000 pounds, dark bay, a heavy-boned, drafty horse and used to being in the harness. Address Karl A. Hansen, Box 16, Sand Creek, Wisconsin.

REGISTERED Percheron stallion for sale. Well bred, of high individual merit and good condition. Write or call and see him. Addrew Gehring, 1294 Lawrence St., Appleton, Wisconsin.

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of proved worth as producers; big, massive, clean-cut, clean-legged, long-lived—the get of our undefeated grand prize winner, **Westside Chieftain 315** and
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both home-bred and imported. Everything from yearling colts to mature sires and dams. All registered. Shire horses, too; Shropshire and Dorset sheep; Duroc-Jersey swine; Hackney horses and ponies. For catalogues, descriptions and other details,
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GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

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Importers and Breeders of
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IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars
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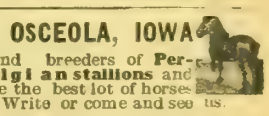

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GROW YOUR HERD BOAR
BUY
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SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early.
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BRED for March and April farrow. Short-horn bulls from a heavy milking family.
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BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address
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ARE in demand. I can spare no more. Thank you.
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POLAND GILTS

AT private sale—good ones, bred to my big boars.
E. W. HENDRICKS
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SOME very choice fall pigs—absolutely right. Order one. Address
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SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins)
Marinette County Asylum Peshtigo, Wis.

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.

WALTER BROS. CHIPPEWA FALLS, WIS.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ **WAUKESHA, WISCONSIN**

REGISTERED AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL **RACINE, WISCONSIN**

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.

DR. TRUMAN BROPHY **CHICAGO, ILLINOIS**

Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY **CHEBOYGAN FALLS, WIS.**

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS **WAUKESHA, WISCONSIN**

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

FOR SALE

GRADE Guernseys. 2 milking, 3 springers. 14 yearlings, 7 are bred. 8 fall calves. Price $1,400. 1 registered bull one year old at $100.

E. H. Kiesling **Jefferson, Wis.**

A FEW WELL-BRED YOUNG BULLS — The Haviem Farm — WRITE YOUR WANTS

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.

W. G. Jamison & Sons, Appleton, Wisconsin

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.

J. W. SALTER & SONS - UNITY, WIS.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

RED Polled cattle for sale, both sex and different ages; also Poland China hogs; prices right. Cloverbelt Stock Farm, Hamburg, Wis.

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS **LAKE VILLA, ILL.**
O. W. LEHMANN, Prop. **J. GRIMSHAW, Mgr.**

TWO YEARLING GUERNSEY BULLS

BOTH sired by the richly bred bull, **Doras Boy of Sunny Valley 24470,** whose dam made over 700 pounds of fat in a year. No. 1—Born September 15, 1917. Dam, Michelle 37644. No. 2—Born December 25, 1915. Dam, Imp. Queen of the Lillies 28547. Both well grown and well marked. Priced right.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

RILEY MARTINY & SON

BARABOO, WIS.

TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

POLLED DURHAM CATTLE.

POLLED DURHAM CATTLE Registered bulls for sale from 2 to 8 months of age. Address Ph. Lang, West Bend Wisconsin.

Please mention this paper when writing

SHORT-HORN CATTLE.

$50,000 IN SHORT-HORN PRIZES

This Association has appropriated for 1917 approximately $50,000 for prizes at state fairs, interstate fairs, live stock shows, state and interstate association shows and sales from New England to the Pacific coast and from Canada to the Gulf.

Pick your show things now and begin preparation for these contests, that you may claim a share of the prize money.

1916 was the biggest Short-horn year in the history of the breed and 1917 bids fair to far exceed it.

AMERICAN SHORT-HORN BREEDERS' ASS'N., 13 Dexter Park Ave., Chicago, Illinois

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write

J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, **Janesville, Wisconsin**

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address

J. E. KENNEDY **JANESVILLE, WISCONSIN**

GREEN VIEW STOCK FARM SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address

John H. Bear & Son **Spring Green, Wis.**

LITTLE SHORT-HORNS

FEW CHOICE BULLS of serviceable age, and it so happens that they are out of the best cows in our herds We satisfy our customers. Write

HARVEY H. LITTLE EVANSVILLE, WIS.

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.

Geo. Wenham & Sons, Ft. Atkinson, Wis.

POLAND CHINAS---SHORT-HORNS

A FEW choice gilts bred for March and April farrow. Bulls, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

H. B. Drake & Son, Beaver Dam, Wisconsin

THREE SHORT-HORN BULLS

FOR sale—10, 11 and 13 months old. Sired by a son of White Sultan and from good milking dams. A. J. Wheeler, R. 1, Beaver Dam, Wis.

SHORT-HORN BULLS

Red, white and roans. For particulars address

R. A. Morley Co. **Baraboo, Wisconsin**

WE have some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address

J. Warren Hoyt **Rosendale, Wis.**

KISER BROS.

OFFER Short-horn bulls. Roans from six months to a year old. Continuous breeding for 46 years. Write for description.

KISER BROS. **OREGON, WIS.**

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.

P. N. COLLINS **RIVER FALLS, WIS.**
(35 miles southeast of St. Paul)

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.

B. W. Little **Janesville, Wis.**

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

SHORT-HORNS--BIG-TYPE POLANDS

CHOICE bulls, one 15 months, sired by Collynie Victor 387634. Stretchy September pigs, either sex, from large litters. Write. A. Menke & Sons, R. 1, Mackesan, Wis.

SHORTHORNS BOTH sexes for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

CHESTER WHITE SWINE.

CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

H. A. DERENTHAL, Manager, EAST SIDE STOCK FARM, WYKOFF, MINN.

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

WEST SALEM **WISCONSIN**

JERSEY CATTLE.

OAK GROVE JERSEY FARM

OFFERS for sale bull calf, dropped Feb. 5, 1917. Solid color, black tongue and switch. Sired by a son of Noble of Oakland 95700. Dam has a R. of M. record of 594 lbs. 10 oz. butter as a two year old. Write for particulars or come and see him. Address

W. M. Knight **Eagle, Wis.**

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

H. Holt & Son **Oconomowoc, Wis.**

Yearling Jersey Bull

A SON of Wisconsin's champion 3-year-old Jersey, with 707 pounds or 85% butter in a year. A fine, solid-color individual. For details write

P. B. & K. T. Wiegand **Cleveland, Wis.**

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT - - - TOMAH, WIS.

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Callaway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

IF YOU WANT

CHESTER WHITES

write W. F. Miller, West Salem, Wisconsin.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write

Wm. T. Butts **Evansville, Wis.**

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reason able prices on singles, pairs or trios. Address

A. P. CORTTE **LOMIRA, WISCONSIN**

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Brechtner, Chariton, Iowa.

HOLSTEIN-FRIESIAN CATTLE.

Korndyke Segis Johanna, whose two nearest dams average over 30 pounds.

Holstein Bull Calves

The "Pabst Quality Kind"

Write us

PABST STOCK FARM

Dept. 30 Oconomowoc, Wis.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

HEAD YOUR HERD WITH A W INNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. WAUKESHA, WISCONSIN

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

FOUR REG. HOLSTEIN BULLS FOR SALE

TWO of them old enough for service. Sired by the 29-lb. bull, Fairmont Pietje Ormsby, whose dam is a sister to the 41-lb. cow, Sadie Vale Concordia 4th. Fine individuals and price reasonable. **L. Lindauer, Kaukauna, Wis.**

HIGH-GRADE HOLSTEIN

Cows and Heifers

BRED to our herd sire, Butter Boy Mink Pontiac 133161, due to freshen in fall. Also young registered bulls from A. R. O. dams. Priced reasonable. For particulars write

COOK BROS. BURLINGTON, WIS.

AT LA BELLE VIEW FARM

WE are slaughtering pure-bred Holstein bulls from A. R. O. dams. It seems too bad, but that's right when we drop Duchess Ormsby bulls at such low prices as we have been selling them. If you want some of these youngsters sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world) at prices too low to print, write E. E. Rosenkrans, Oconomowoc, Wis.

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L. V. Garvens, Brookfield, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

Registered Holstein Calves

FROM Pontiac Rue, 23.88-lb. sire, and A. R. O. dams, 14.68 to 17.45 lbs. 7 days, $125 to $175 each. Chas. Hampke, Manitowoc, Wisconsin.

ONE Holstein bull calf for sale, born Feb. 12, 1917. His dam has a record of 433 lbs. milk for 7 days. D. Smies, Cedar Grove, Wis.

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born May 25, 1916. An outstanding individual, dark in color and tuberculin tested. Cornucopia Pontiac Johanna Lad 48355, his sire, is a full brother to K. P. Manor Kate, world's yearly record senior 2 year old. His dam is a 15-lb. 2 year old of Pontiac and Colantha breeding. His 7 nearest dams all have good A. R. O. records. Write now for reasonable price, pedigree and photo.

N. Dickinson & Son Lake Geneva, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O. daughters. Arthur Rust, West Allis, Wis.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

HOLSTEINS

AT your service. Beach Rag Apple Korndyke 86101. He carries 75% the blood of Pontiac Korndyke and 87½% the same as Rag Apple Korndyke 8th, sire of the only 30-lb. two year old. Write for low service rates.

Alfa Valley Stock Farm Oregon, Wis.

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman, Jr., Monroe, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

FOND DU LAC COUNTY HOLSTEIN BREEDERS' SALE

Thursday and Friday, April 26-27

at Fond du Lac, Wisconsin

150 HEAD of Pure-bred Holsteins, from the best herds in the county. Seventy-five milk cows with records up to 26 pounds, seven days, and bred to the best bulls of the breed, for winter cows. Twenty-five heifers bred. Twenty-five heifer calves and 25 bulls ready for service from dams with records up to 28.30 pounds butter in seven days.

S. H. BIRD, Sale Manager SOUTH BYRON, WIS.

See the Dam Before Buying a Herd Bull

WE are now offering for sale a Holstein bull calf, born Nov. 8, 1916, out of Colantha Piebe of Elm Court (103267) with 27.7 lbs. in 7 days and 808.82 lbs. in a year; also the dam of a 25-lb. 4 year old and junior champion at the Wis. State Fair. The sire of this calf is the 30-lb. bull, North Star Parthenea Star Beets, that is a son of the famous prize winner, Sir Beets Cornucopia Netherland. Will also price for quick sale another son born Feb. 24, 1917, of the 31.02-lb. cow, Ella Mercedes of Elm Court (89908), sired by North Star Parthenea Sir Beets, a 30-lb. bull.

Reuben Klofanda, Racine Stock farms, R. 1, Racine, Wis.

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

TULLOCH & FRIES' HERD GENOA, WIS.

SELLING OUT!!!

WE are going to discontinue the production of certified milk and devote all of our time to the development of a high-class herd of registered Holsteins. We are offering at private sale any number of our entire high-grade herd of 134 head. These consist of high-producing Holsteins, Guernseys and others, many fresh and springers. Our herd has been regularly tuberculin tested and is and always has been absolutely free from contagious abortion.

EDGEWOOD FARMS, INC.

PEWAUKEE WISCONSIN

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

B. F. Winckler & Sons Medina, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

Dopp Brothers Ixonia, Wisconsin

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

W. H. S. Rhoda, 610 3d St., Watertown, Wis.

HIGH-GRADE Holstein heifer calves, 15-16 pure, from large-producing dams and by an A. R. O. sire whose two nearest dams average 24 lbs. butter in 7 days, 2 to 3 weeks old. When shipped guaranteed to please we will ship no culls. Stock well marked. $18 crated. Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

Hillside Stock Farm

5 REG. Holstein cows and 2 heifers; 24-lb. bull 16 mos. old, 7-8 white, faultless individual; also noted Pontiac herd sire.

Kirkpatrick Bros. Reedsburg, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis.

HILLVALE PAUL ORMSBY

REPRESENTS a rare combination of Ormsby breeding. His sire, Paul Ormsby, is a half-brother of Ormsby Jane Segis Aaggie and his dam, Lady Ormsby 2d, 22.35 lbs., is a half-sister of Duchess Skylark Ormsby and Pietertie Maid Ormsby. Our herd is on the accredited list. Send for extended pedigree. Address

H. E. Reddelien Oconomowoc, Wisconsin

RIVERVALE FARM

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HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

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AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

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REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

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A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

HIGH GRADE HOLSTEIN HEIFER CALVES

31-32 pure, $18 crated. W. Watt, Grimms, Wis

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

SHEEP.

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SPECIAL OFFERING

ON account of recent changes in our farm management I have decided to offer for sale 50 head of high-class, pure-bred ewes not heretofore offered, in the following breeds: Delaine, Cheviot, Southdown, Rambouillet and Oxford. These sheep are all bred to high-class imported and prize-winning rams. I am also offering 25 head of pure-bred Angora does bred to winner at the Panama Exposition.

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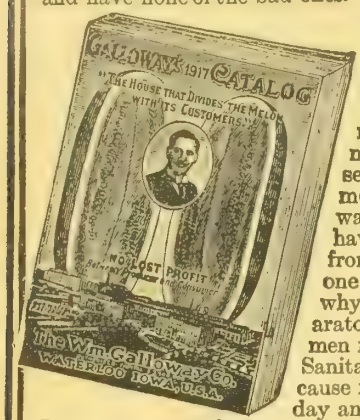
MULE-FOOT SWINE.

IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

Why I know SEPARATORS

Because my first job on the farm was to teach the new-born calves to drink skim milk out of a pail by putting my fingers into the milk and then into the calf's mouth, and in this way coaxing them to drink out of the pail. My next job was to milk cows. I teased my father to learn to milk, and after I learned he would not let me stop. Then later on the cream separator came out and my next job was to turn the crank—some hard job in the early days. Then I started in to work for an implement dealer who sold separators. I became better acquainted with separators, because I had to study every separator made in order to meet competition. I learned all their good points and all their bad points. Then I started out on the road selling goods to dealers, and became still better acquainted with separators and finally commenced to sell separators that I had manufactured for me, but they did not suit me. By this time I discovered that to get a separator that was perfect—one that suited me—that contained all the good points and none of the bad ones, I would have to build one myself, and I resolved to do it. When I made this resolution I made up my mind that when my separator did come out it would be the peer of them all, head and shoulders above every other make in every feature and it would embody all of the good points of every separator and have none of the bad ones.



The Galloway SANITARY BUILT BY EXPERTS

I hired, and still have, some of the foremost cream separator designers and engineers in the United States. Men and money were no object to accomplish the right results. We bought for experimental purposes almost every make of cream separator. I had studied separators all my life from the practical, experimental, and manufacturing standpoint, and I wanted the best of all and the faults of none. I am a farmer. I have two herds of dairy cattle and operate a milk route in Waterloo from my farm on the old Cedar Falls road, and have always had one or more cream separators in use two or three times per day. That's why the story of the building of the 1917 Galloway Sanitary Cream Separator is almost the story of my life. As I said before, I spared neither men nor money to perfect this separator. The result is the New Galloway Sanitary which is sweeping the trade of the country by leaps and bounds, because it is making good in the hands of the users. Our factories are running day and night to supply the demand. The reason I know separators is because I have taken all the steps necessary to produce a perfect machine. This knowledge took me a lifetime to get and it is all built into the New 1917 Galloway Sanitary.

FOR 375 LB. SIZE

$39.90

OTHER SIZES AT EQUALLY LOW PRICES

Study this separator. Nothing freakish about it—just the plainest kind of cream separator common sense. All parts as nearly smooth as they can be made. All working parts run in spray of oil. Cream shelf drops out of the way when not in use. Only two shafts, both set in long, perfectly fitted bearings. All gear shafts and both bowl spindle bearings are supported by one casting — this means perfect alignment, little wear and easy running. No sharp corners or raw edges in the bowl to break up the globules of butter fat. Separating discs entirely separate from each other. Every drop of milk subjected to full skimming force of the bowl. Milk so distributed in the bowl that every disc gets its share to skim—no more, no less. No flooding in the top of the bowl, no conflicting currents in the bottom. That is the big reason why so few discs in the New Galloway Sanitary skim so much milk. Skimming capacity not guessed at but guaranteed, and not overrated to make the price seem lower. These and many other equally important features make the New Galloway Sanitary Separator the choice of wise and discriminating farmers and dairymen who want the best and will be satisfied with nothing less. It is completely, accurately, truthfully described in my new 1917 catalog which tells how we build Galloway Sanitary Separators from the ground up. Just try this separator. If you like it, buy it. If you don't, send it back. We pay freight both ways. If the New Galloway Sanitary is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is I could not afford to make this ninety-day (180 milkings) trial offer, and I could not afford to guarantee it for ten years, nor have every sale backed by a $25,000 legal bank bond. Ask for my new 1917 book before you buy a separator of any make or kind at any price.

TRAVEL 20,000 MILES! SEE THEM ALL!

Look over every factory in the United States and all of the foreign countries, you won't find its superior at any price. We make it in Waterloo from the finest materials on the best automatic machinery by skilled workmen in tremendous quantities, all parts alike, interchangeable and standardized, and sell it direct from our factories to you at wholesale! We make this separator so good in our factories that I will send it anywhere in the United States without an expert to any experienced or inexperienced user for a 90-day trial at my risk, to test against any make or any kind that even sells for twice as much, and will let the user be the sole judge, because it's the most modern, the most sanitary, the most scientific, the cleanest skimming, the most beautiful in design of any separator made today, and I have seen them all. All I ask you to do is to stand it up and try it side by side with any other make under the same conditions—test it for close skimming, easy operating, easy cleaning, and true rated capacity; then size it up for mechanical perfection, workmanship and material, beauty and design! I will leave it entirely to you to be the judge, which is the best, after you have compared it with any machine of any make, kind or at any price. Its skimming capacity is not guessed at, but guaranteed, and not overrated to make the price seem lower. You will find it is not built down to a price but up to a high standard.

"The crowning achievement of my manufacturing career."

MY 1917 BOOK ABOUT SEPARATORS FREE! WRITE TODAY!

I want you to have it—a big 280-page book, handsomely printed, (which also describes and illustrates our other farm implements). It tells the story of how we took years to design and perfect this 1917 model Galloway Sanitary Cream Separator—to build into it every good cream separator feature. How we build Galloway Separators from the ground up; how they are designed, and many other separator secrets and facts. We perfected this separator before we offered it on the market. We put out in the hands of farmers and dairymen enough of these separators to know that they would stand up under any test whether operated and used in the kitchen, the milk house, the creamery or elsewhere, used two or more times per day, week after week and month after month. How it is as good in the parts you cannot see as in the ones you do see. You do not actually buy it until after you try it. If you find it is not as good as we say it is, send it back after trying it 90 days. It is positively separator perfection at last! Expert designers and engineers worked on it for three years after we were sure it was right and they are still at it. If any part can be simplified they will find a way to do it. If the manufacturing cost can be reduced our efficiency experts will do it, and you will get the benefit not only in high quality but in good service and low price. It combines in the simplest, the most practical and most effective way the best of the old and the best of the new ideas in separator building! That's why I say it is the crowning achievement of my separator manufacturing career! Ask for my 1917 book today. Address

ACTUAL PROOF

"I like it better than one I paid $100 for." John Schrader, Corey, Pa.

"I have used three other makes. Yours beats them all. Costs a third less, skims closer and runs lighter." A. Andrews, Clinton, Okla.

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Have operated several different kinds of separators. Galloway Sanitary skims as close and runs lighter than any. J. E. Ricketts, Paddensburg, Mo.

We know it skims close. It paid for itself. Wm. S. Brewer, Parma, Idaho.

It is easier running and more easily cleaned than others. We made a saving of $23. I wouldn't exchange it for any high priced separator.
E. F. Loutham, Carthage, Mo.

Your No. 2 separates perfectly at rate of 800 lbs. per hour. (Only guaranteed for 750 lbs.)
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Jewel Walker Gerben of Cedarside 214089, one of the heaviest milking Holstein cows in the Galloway-Measer herd. Winner of Grand Champion at the Iowa State Fair 1916, Senior Champion Southwest Dairy Show and Missouri State Fair 1916. Other prominent winnings elsewhere. Bulls for sale. Address me personally.

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VOL. XLVI. NO. 14. THURSDAY, APRIL 5, 1917. WHOLE NO. 1836

THE HOG ROUTE TO PROFITS.

John L. Fisher, of Green Cove Farm, Rock County, Wis., Gives Hogs the Chief Credit for Doubling Value of His Place in Ten Years.

MORE than doubling the value of a farm within a period of less than ten years requires good management and a close application of business principles on the part of the owner. Still this is the very thing John L. Fisher has accomplished on his farm near Janesville, Rock county, Wisconsin. His chief form of revenue has been the hog. Mr. Fisher is an admirer of the Duroc Jersey hog and his success shows that his choice was a good one. By intelligent management the land which could not find a buyer at $60.00 per acre now cannot be bought at $140.00, and the hogs furnished the capital for its stocking and improving.

Ten years ago "Green Cove" farm was considerably the worse after having lived through a twelve-year period of litigation, during which time the renters had cropped the acres for all they were worth. The first year under the hands of Mr. Fisher eight bushels of oats were the grand yield for each ecre. In five years the crop had been increased so that the production was fifty-six bushels per acre, and then Mr. Fisher started to count his profits via the hog route. He gave $100 for two pure-bred sows and a pure-bred boar to an Illinois breeder. This was a large investment for a beginner. However, the next season fourteen nice pigs were the result. Of these he sold six boars at $20 each, slaughtered one, traded another and still had a small herd left. The six gilts that remained more than paid for additional stock for the farm by their litters.

Mr. Fisher has always sold the scrubs over the scales without much ado, but his breeding stock has gone into the hands of farmers in all parts of Wisconsin and outside states. His most distant customer is Peter Shaughnessy, of Nome, Alaska. Peter reports that the sow sold him two years ago has farrowed a nice litter of ten pigs, which are now promising to establish the Duroc more firmly in Alaska. One of the early purchases of Mr. Fisher was A's Model, a litter mate of Lee's Defender, the famous show boar. This hog raised four litters out of which five boars sold for $100 each, the rest of the litters around $1,000, and the sow itself at the age of four years, sold for $145 at the recent Madison sale. That ought to prove the value of pure-bred breeding.

King Defender, grand champion boar at Wisconsin State Fair, 1916. At 2 years, 4 months, 23 days, weighed 1,010 pounds. Note depth of boar and excellent bone. An active animal standing well on his feet, considering age and size.

There is nothing elaborate about the establishment at "Green Cove." The buildings are of the ordinary kind because Mr. Fisher did not have any too much money at the beginning. The tobacco sheds which formed the only buildings on the farm when he acquired it were torn down and the best lumber used in the construction of a hog barn and general barn. Mr. Fisher took good care to have the framework of these buildings made of good wood, but sidings and floors were constructed with what lumber was available. The hoghouse is 48x25, giving room for twelve pens, 8x10 feet, with an alley way. A row of windows in the roof supplies abundant light and sunshine for the pens. A stove in the alley way keeps the house warm during the months when farrowing is going on. There are twenty-five brood sows and twenty fall pigs in the herd at the present time. Ten litters have already been farrowed, averaging better than six healthy youngsters each. As soon as the pigs have passed through their first three or four weeks of nursing they are removed to the individual A-shaped houses, where with a thick bedding of straw and a warm house, the sow is able to take care of her litter in good shape. This makes room for the other sows, giving them the advantages of the warm pen during farrowing time.

There are five herd boars on the place, the most noted of which, however, being the grand champion boar, King Defender. He is a credit to the breed and was awarded first prize, senior championship and grand championship at the Wisconsin State Fair in 1916. He is a big-type boar, with the long stretchy characteristics that breeders look for. In width and depth of body and in the size of bone and the manner in which he stands on his feet he cannot easily be surpassed. He weighs around 1,150 pounds when thoroughly fitted. His get show all the characteristics of their sire and more than one prize will come to them at the fairs for 1917. Mr. Fisher is a great believer in the showring as a means of giving the breeder the proper type that he should strive to breed into the hogs. It took five years for Mr. Fisher to land a championship, but in all these years he never felt discouraged with his efforts. Each year he went home with a better idea of what the real type of Duroc should include and in King Defender

(Concluded on page 9.)

THE YOUNG STUFF IN FISHER'S HOLSTEIN HERD IS BEGINNING TO SHOW THE CAREFUL WORK MR. FISHER IS DOING TO GET GOOD BREEDERS AND PRODUCERS.

Harrow Buying Made Easy

HARROWS that do the best work and last longest cost so little that there is no economy in buying any but the best. A post card will bring you complete information about International Harvester disk, spring-tooth and peg-tooth harrows. Write the card now and mail it as soon as you can.

In the line there are bumpe disks with rigid frames, fourwear bearings and gangs that are level at every cutting angle. Also disk harrows with independent gangs that can be used for side hill work and for filling dead furrows as well as on level fields. For wet, cloddy fields we have spring-tooth harrows with teeth that cannot work loose and that can be set to any desired cutting depth. Our smoothing harrows have square teeth that cannot twist, and stiffening bars that keep all the teeth at the same cutting angle regardless of extra strain put on any single tooth. Riding attachments and other special features can be furnished for all spring and peg-tooth harrows. We have also a complete line of one and two-horse cultivators.

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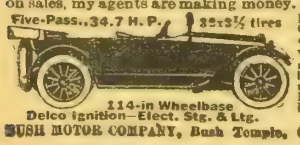

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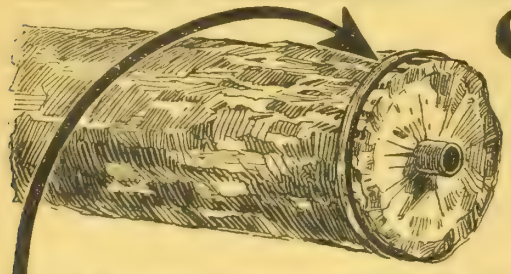


94 Years in the ground and unharmed by Rust! —

IN 1823 the City of Cincinnati laid water mains made of oak logs with the centers bored out. To prevent the logs from checking, hand-made iron bands were placed tightly around their ends like the hoops on a barrel. Now after more than ninety years, these are being dug out. The bands are still in good condition because they were made out of iron that was practically *pure*.

"ARMCO" IRON CORRUGATED CULVERTS

are made of iron that is even purer than those old bands. "Armco" Iron is *never less than* 98.84 per cent pure iron while analysis shows that in both cases scarcely more than a trace of either Manganese or Copper can be found; and all their impurities taken together make barely one-sixth of one per cent.

This is why "Armco" Iron Culverts resist rust and give long and economical service. They represent enduring value for the taxpayer's money. Insist on having the longest lived culverts in your highways. The "Armco" Trade-Mark on every section is your guarantee.

For full information on "Armco" Iron Culverts, Flumes, Sheets, Roofing and Formed Products, write the manufacturer in your vicinity, or

Armco Iron Culvert and Flume Mfrs. Association
CINCINNATI, OHIO

CURRENT EVENTS

CONGRESS met in extraordinary session, on the call of President Wilson, Monday of this week. The principal matter to be taken up is the situation existing between this country and Germany. President Wilson holds that a practical state of war has been in existence ever since Germany sank three American merchant vessels, now over a fortnight ago, and left the crews to get along as best they could, several American lives being lost as a result. It is expected that his message will be brief and to the point and will call upon congress to provide him with men, munitions and money to uphold American dignity and protect American lives and property on the high seas. Congress will probably be in session for some weeks, dependent largely upon international events. The president cannot declare war, this being the right of congress alone, hence the necessity of having the body in session at this critical time. The speakership of the lower house was still in doubt at the beginning of the week. Both republicans and democrats had 214 votes, while 218 were needed to nominate. The balance of power is held by five independent members; socialists, progressives and prohibitionists. Champ Clark, of Missouri, is the democratic candidate and James Mann, of Missouri, the republican. Clark claimed to have enough votes, but the result was still in doubt when congress assembled.

THE French and British were successful in pushing the German lines back last week in the terrific fighting which is going on in northern France. The gains were small, but already within the last few weeks over one-tenth of the territory which the Germans have held ever since their dash toward Paris, two years ago, has been won back by the allies. In some places the German lines have been forced back from three to five miles, while in others the gains have been slighter. The allies are not winning without immense loss of life, while in many cases the Germans are voluntarily relinquishing their positions. The general impression seems to be, however, that the allies are gaining slightly. Whether the Germans have some big, new offensive which they need men for has not yet been disclosed.

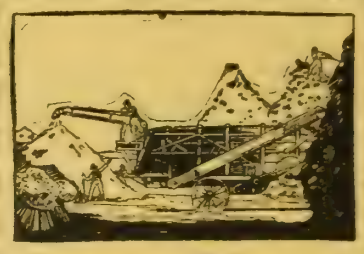
PRESIDENT WILSON took what steps he could, last week, to put the nation on a war footing. By executive order he directed that the navy be recruited without delay to full authorized war strength of 87,000 enlisted men. Taken in connection with emergency naval construction already ordered, this means that the president has exercised the full limit of his legal powers as commander in chief to prepare the navy for war. For the army, the president directed that two new military departments be created in the Atlantic coast region. This order means that the task of organizing whatever army congress may authorize will be divided among six departmental commanders instead of four in the interests of speed and efficiency in mobilization. The third step was to assume as a national duty the task of protecting American industries from domestic disorders in the event of hostilities. For this purpose eleven full infantry regiments, two separate battalions and one separate company of the national guard were called back into the federal service to act as national police in important districts.

RUSSIAN factory workmen have reversed the usual order and prevented a strike threatened by the "bosses," who have been deposed or had had their authority curtailed as the result of the new liberty and equality. In a certain munitions factory the disgruntled administration seeing their old berths slipping from their grasp, decided to declare the factory on strike, but the workmen, inspired by the appeals of the new government for their support, refused to walk out. On the contrary, they insisted that the foremen directing the engineers should begin work with them at daybreak and put in an equal number of hours. "Every hour is precious," declared the spokesman of the workers. "We must work to support our comrades at the front. Every man who goes on strike will be treated as a traitor and we will not guarantee his safety."

THE farmers of America are appealed to by Secretary Houston to join in agricultural preparedness measures so that the country may not be handicapped by food shortage in meeting the international crisis. Elimination of waste, conservation of surplus and attainment of maximum crop returns were outlined as imperative steps for strengthening agricultural resources. "Both for economic and patriotic reasons," the secretary said in a formal statement, "the American farmer should strive this year for the highest standard of efficiency in the production and conservation of food."

READING matter for a literacy test for aliens under the new immigration law will be taken from the Bible, the department of labor announced. Passages will be selected in more than 10 languages and dialects. "This is not because the Bible is considered a sacred book by many people," said the department's announcement, "but because it is now the only book in virtually every tongue. Translation of the Bible was done with the object of putting it in such simple and idiomatic expressions in the various foreign languages as would make it possible for the common people to grasp the meaning readily and thoroughly."

TWO HUNDRED farmers, bankers, members of the Omaha grain exchange, soil experts and representatives of the University of Nebraska, at a meeting at Omaha last week, appointed a committee to secure and furnish at once to farmers sufficient wheat to reseed damaged winter wheat fields in the state. Reports from winter wheat sections indicate 75 per cent of winter wheat fields in the southern half of Nebraska has been damaged by drouth to such an extent that the farmers were plowing up the wheat, and unable to secure seed, sowing the fields to oats and barley. Arrangements were made with railways for prompt shipment to Nebraska of wheat from Minnesota and other places where seed wheat is available. The wheat will be sold to farmers at cost, which is said to be $2.50 per bushel. E. T. Westborough was instructed to go to Minneapolis as a representative of the Omaha grain exchange and to make necessary purchases of wheat.



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YOUNG MAN—21 years or over, with some farming experience preferred. To take charge of a profitable retail business in your county. Good reference required. If interested, samples on request.

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The Wisconsin Farmer

THURSDAY, APRIL 5, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

A WISCONSIN PRODIGAL'S RETURN.

WHEN the train from Milwaukee drew up at the depot in a small Wisconsin town the other day, a pine box containing a plain, cheap coffin was lifted from the express car, and a few curious ones gathered around it to read the inscription which the label bore. The name of "the man who was," which was written on it, was an unfamiliar one to the younger onlookers, and it is omitted here, along with the name of the town, out of regard for the feelings of others. But there was one among those who read, in whose mind it awakened memories of many years ago, when a young man, filled with the ambitions and vigor of youth, had set out from that same station to seek his fortune in the great, rushing, roaring city.

He had been born and had grown to manhood on a Wisconsin farm. His father and mother had come there years before, and by dint of hard work and thrift had acquired a competency with which to give their children an education and to start them out on an easier path than they themselves had trod. The father had purchased lands adjoining his Wisconsin homestead, until he had nearly a section which he had planned to share with his son. The aged mother and he had looked forward to the boy settling down beside them and carrying on the profitable and ennobling labor of tilling the earth and making it bring forth and bud, that it might give seed to the sower and bread to the eater. Around his pleasant boyhood home were all the advantages of the day, amid an atmosphere of peace and quiet and wholesome pleasure.

But the lure of the city lights, which reach out for leagues into the darkness, calling the human moths to come and attend the singeing school, had attracted him; the chances for sudden fortune and the mad whirl of the excitement had gone to his brain, like strong drink, so that he had become dissatisfied with what he regarded as a monotonous existence on the farm. So, as the poet put it:

His spirit leaped within him,
To be gone before him then,
Underneath the lights he looked at,
In among the throngs of men.

It was with an aching heart that his mother bade him good-by, while the father saw him go with anxiety and doubts as to what would become of him, amid the temptations and pitfalls of the city. But both knew the uselessness of trying to hold him to the simpler things of life after the fever for a change had gotten into his veins. His young friends somewhat enviously bade him godspeed as he boarded the train and longed for the larger opportunities which he would find in the metropolis.

Then the city swallowed him up and in time he was forgotten, save to the few that held him dearest. At first his weekly letters were filled with hope and encouragement; then they became less frequent and their tone one of cynicism, and, finally, they stopped altogether. His father and mother carried a dull ache at the heart in silence, and the neighbors quit inquiring for him. His younger friends grew to manhood and womanhood, married and settled down on the farms of the community to live out a prosperous existence of comfort and happiness.

Then the city gave him back—not the fulfillment of the visions which he had dreamed when he turned his steps towards it, but a mere shell of a man, broken on the wheel of life; a wreck, crushed by the pitiless grind and struggle of the city; a derelict tossing about with the jetsam and flotsam of life's troubled sea. At an age when he should have been doing his best work on the family acres, with an old age of peace and contentment ahead, and his children around him, he was an old man, worn out with the griefs and struggles, the desolation and the loneliness, the temptations and the sins of city life.

So the few, who still remembered and cared, bore his remains over the hill to the little cemetery by the church and laid him at peace at last, after life's fitful fever, by the bodies of the father and mother whose pride he had once been and whom he had sent to their graves in sorrow—as pathetic and tragic a figure as ever enacted out its little part in this drama we call life.

Every now and then the city gives back its prodigal sons to the country which produced them, and usually it is the same old story. Not till the express car gives up its sad freight do we remember, and then the memories are those which burn. What the city takes and what the city gives back is always different. Sometimes, but not often, it returns a native son who has fought its battles and returned a conqueror, but usually it returns one who has gone down in the fierce struggle for existence, marred and scarred by the blows under which it has crumbled.

I hope that my young Wisconsin readers, who have been thrilled and stirred by the examples of those who have achieved fame and fortune amid the city wilderness of stone and iron, will remember the story of the man who returned in the plain coffin to his Wisconsin home the other day, and realize that his is the rule and the other the exception. Death will seek us out amid the calm peace of Wisconsin's daisy-starred meadows just as surely as amid the clash and confusion of the crowded city streets. It will come inevitably, whether we are among old friends on the farms which we have tilled and improved, or whether we are living in a back-hall bedroom of a city flat, unknown to the man or woman who lives through the wall. But surely it is far sweeter in the last hours, before we, too, go to join the silent majority, to face the future lying on the bed which has been ours for a lifetime with loving friends gathered about, looking out over the feed-lot and the meadow to where the corn and wheat are perhaps rustling in the breeze, and hearing for the last time the lowing of the cattle for which we have cared. Surely, as the twilight of life deepens, we can then close our eyes in peace, feeling that we have fought a good fight, and saying with the apostle, Paul: "Oh, Death, where is thy sting? Oh, Grave, where is thy victory?" Far better than if the Great Reaper found us amid the heart loneliness of the city, which gives so little and demands so much.

HIGH PRAISE FROM A WISCONSIN FARMER.

I CANNOT refrain from printing a cheering, inspiring letter recently received from one of my valued subscriber friends, Mr. C. Koenig, of Logansville, Wisconsin. I have frequently spoken of the great pleasure which I derive from opening the mail and reading the letters from subscribers. Can you wonder at this pleasure, when the day's mail brings me a letter such as this one?

Dear Mr. Pierce:—I noticed some time ago that you would send copies of America to those desirous of having same. Will you please send me a number of same to be used in our home, our school, and our farmers' club meetings?

I have been a subscriber to The Wisconsin Farmer for a number of years, and also a number of other farm journals. Am weeding out the poor ones and ere long they will all be discontinued (the poor ones). But The Wisconsin Farmer is being considered as one of the family and will stay with us as long as it is God's will. If there was only the first page of your paper, and all the other left out, I would consider it worth its price over and over again and wish it would be read in every family. There is just one item that we are all missing very much, Mr. Pierce, and that is Current Events. I am at a loss to understand why you should have same discontinued. I imagine it was on account of the war. With best wishes, I am, very truly yours, C. KOENIG.

A letter like that makes any man—editor, farmer, merchant or manufacturer—take fresh heart and put renewed vigor in his work. It is my ambition to make The Wisconsin Farmer the most practical, dependable and interesting farm weekly in the United States. I know I shall succeed if men like Mr. Koenig continue to write me such splendid letters.

I am glad to be able to assure Mr. Koenig, and all the other members of the family circle, that the Current Events department has been permanently restored. The news of the world is being told therein impartially, week by week, by a skilled observer of happenings. By reading that one department, I believe it is possible to keep quite well posted on the war, on national politics and on the big events of the world.

With the help of the loyal, inspiring friends who write to me so frequently and so encouragingly, I am hopeful that 1917 will prove to be the biggest, busiest and most useful year The Wisconsin Farmer has ever known.

WISCONSIN LOSES A GREAT MAN.

WISCONSIN lost one of her great and good men when A. J. Philips, of West Salem, passed away, a few days ago, at a hospital in La Crosse. It is less than a month since I received a good long letter from Mr. Philips, written in his own hand, a complimentary copy of his well-known book, "Queen Vashti," and a splendid photograph. You would never think, to look at the excellently written letter, every stroke perfect, that the writer was eighty-three years old. He was an eloquent tribute to the health-preserving faculties of country life. For almost seventy years he had been part and parcel of the life of the Badger state and in his death we lose a splendid leader, an inspiring neighbor, a cheering friend and a wonderfully good man.

I had intended to print Mr. Philips' last letters to me in their entirety, but death makes parts of them too sacred for the public print now. I can only hint at the friendly feeling he had for The Wisconsin Farmer by stating that he prefaced the next-to-his-last letter by saying: "I take great interest in your Family Circle Talks. They are so practical and instructive. I began reading The Wisconsin Farmer, the first of any farm paper in this state, some fifty-five years ago and in former years contributed in my weak way some articles for its columns." That his heart still beat tenderly for all dumb brutes was shown by the fact that, in his eighty-third year, he wrote and sent to me, less than a month ago, the following article on the proper care of horses. I hope every reader of The Wisconsin Farmer will read what Mr. Philips had to say and be guided by it; it is sound advice given by a man who knew what he was talking about and who talked straight from the shoulder. Mr. Philips wrote:

I received my first lessons in the breeding and care of the horse in the summer of 1848, when I was a boy of fifteen in Lancaster county, Pennsylvania, from a German farmer whose eldest son was just my age and we were chums for several months. This farmer kept six brood mares to do the farm work and a team of six fine geldings that teamed it on the road constantly. The old gentleman saw I loved horses and colts and he took great pains to tell us boys things he said would be useful to us. One thing in particular he told me was, "My boy, if you ever raise any colts always feed them well by beginning before they are born by feeding their mothers well on good feed." His plan was to feed ground feed of corn, oats and rye with a little bran and a little salt in it at night, mixed with cut hay or rye straw and wet just enough to make the feed stick to the hay or straw. He said he did this for two reasons; first, it saved one-third of the feed, and it was healthier for the animals, as it distended or enlarged their small stomachs and made them colic proof. The fine appearance of his horses and colts convinced me that he knew what he was talking about, so that when I began keeping and raising horses in 1856 I hired a blacksmith to make me a knife out of an old scythe and I made a cutting machine which I used until I could buy an improved one. After I built a silo I bought a new cutter which I used until I quit farming, then I bought a small one to cut the feed for one horse. This one I still own, making sixty years I have owned a feed cutter. I have owned over a hundred different horses and raised sixty colts and I am telling a fact when I say that I never had a horse that I raised and fed in this way that ever had the colic. This is a fact worth knowing. Were I farming again I would do the same for two reasons, the economy and the health of the horse. It is some work, I know, but it pays. When I had three teams at work on the farm I would prepare the feed and have it in the troughs for them to eat as soon as they came to the barn—it made no difference if they were warm. I write this because it is valuable information, especially to beginners. A grade Percheron I raised in this way I sold at four years old in La Crosse where he worked for sixteen years on the pavements and never was sick or missed a meal during the time.

This way of feeding is practiced in the large stables of New York and Philadelphia where from one to three or four thousand horses are kept, and I claim if it pays them it will pay the farmer to feed the same way, and it will pay teamsters also, especially when feed is so expensive.

In a later letter he added: "My principal thought, as humane agent, is to see that our work horses are not allowed to stand too long in front of our saloons, after they have done a hard day's work in cold weather."

There stood revealed the kindly, tender, sympathizing heart of the man who wrote "Queen Vashti," the autobiography of a Guernsey cow, a book entitled to rank alongside "Black Beauty." I shall always be proud of the fact that in the last days of his life Mr. Philips sent me a copy of his famous book. His generosity was manifest when he said, in this note, to me: "I give away many copies to poor boys and to boys that do something useful."

With the hand of death nearing him, he still yearned to do what he could for those weaker than himself, to help the deserving along the pathway to recognition. Mr. Philips was a great and good man; his writings as well as his deeds prove that. We do well to pause, at the beginning of a new season of farming activities, to honor a man who was such a large factor in making Wisconsin

great as a state and first in so many branches of farming.

Reading Maketh a Full Man.

We, whose hair is silvered, and who are rapidly approaching the threescore-and-ten years of the prophets, look back longingly sometimes to the period when we were just attaining manhood and womanhood. There is a sadness about the words, "when we were twenty-one," and yet there should not be, for all life is full of gladness, opportunity and usefulness if we will only do our share and keep our hearts and spirits young.

I was attracted, the other evening, by an article in one of our best weekly magazines (Collier's) bearing the title, "If I Were Twenty-one Again." I read the article with a great deal of interest. I wish I could reproduce it in its entirety, but that is impossible. However, a small portion of it deals so closely with a subject of interest and importance to us all, I cannot refrain from reprinting it. The subject is that of good reading. The writer of the Collier's article goes on to advise the young folks to read—good books and papers, in the main—but read all the time, the best available, no matter what it is. Let me quote his words:

Were I twenty-one again, I should do a great deal of reading. I believe in reading. I don't recall having ever read anything that didn't do me some good. I wish I had read more when I was younger.

If I were twenty-one again I should read many books. I should read the standard novels to get a good way of expressing my thoughts. I should study the great philosophers, but with the temper of an iconoclast. The study of philosophy is a wonderful stimulus to the intellect, but must be undertaken with a mind alert to fallacy. Then there are books which present actualities in statistical form and couple such statistics with authoritative explanatory comment. I refer to the various government reports on various subjects that engage the interest of the man who wishes to be well informed. Our government wastes thousands of dollars printing these reports, which need not be wasted if only our young men would read.

Read! I cannot too strongly recommend good reading. Six hours each week of serious reading is not much, but it may mean the difference between a $20,000-a-year executive and a $25 clerk. Read! Learn to think with—and against—the deep thinkers of the world!

Let me commend every word of the above; let me urge upon all my friends, here in the family circle, that they read as much as possible. The government reports, which the Collier's writer mentions, include many splendid pamphlets on agricultural and home economic topics; get them (they are free) and read them. Patronize the traveling libraries which Wisconsin maintains today. Subscribe to good newspapers and magazines and use them constantly and thoroughly. Buy or borrow good books and read them from cover to cover, the old-time classics and the present-day productions as well. I would like to see the center table in every farm home in Wisconsin covered with newspapers, farm journals, magazines and books; the reading lamp surrounded every night by the entire farm household.

If I were twenty-one again I, too, would read more. Will not those of you who are at that wonderful period take the advice of a man three times your age and read all you can, to the end that you may think clearer, act wiser and be better in every way? "Reading maketh a full man."

A Golden Flood of Wealth

I will admit that large figures have a way of confusing the mind rather than conveying the desired idea, sometimes. We become appalled at the magnitude of the sum or the amount mentioned, thinking in hundreds or thousands, while our informant talks glibly of millions or billions. Yet, even admitting this, I cannot refrain from giving you some stupendous figures which I compiled myself within the last week.

A few weeks ago a friend of this paper wrote and asked me if I could tell him just how much money was on deposit in the state and savings banks of the nation. He seemed to take it for granted that we either knew everything in this office or could find it out. By thus flattering us, I determined I would answer the question, even if it did entail quite a bit of work. So I lost no time in writing letters to the banking department of each of the forty-eight states. The replies are before me as I write. Just offhand, make a guess on the amount of money in these banks, exclusive of the national banks. I have an idea you will miss it by several billion dollars.

My friends, the prosperity of this country of ours is so widespread and at such high tide that we have today in our state and savings banks and our trust concerns (omitting, remember, all the national banks) just exactly $15,544,619,846.05. Think of that! Fifteen and one-half billion dollars on deposit in the banks which the common people patronize (many of them because they do not believe their accounts are large enough to justify them in going to a national bank) and in rural communities where no national banks are in existence. It is perfectly astounding. And not the least remarkable part of it all is that the amount on deposit in this class of banks today is over two billion dollars more than it was one year ago. In other words, thanks to our unsurpassed prosperity and to our growing spirit of thrift, we have saved two billion dollars more in the last year than we did in the year previous.

Here in Wisconsin, conservative bankers estimate that fully 75 per cent of the money in this class of banks is farmers' money. That estimate would be too high in states where manufacturing or mining is the chief industry, rather than farming. But let us assume that, the nation over, one-half of this money belongs to farmers. Here we have seven and three-quarters billion dollars saved from the tilling of the soil, an average of over $1,250 for each of the six million farms of the nation. From whatever point of view we look at it, it is truly astounding.

The fact is, we are experiencing a prosperity, the like of which was never known in this country before, and it is not due to the feverish activity of war stocks nor to the frenzied manufacturing of war munitions in the East. I know this, because one-fourth of the two-billion-dollar increase in deposits in the state and savings banks in the last year has been right here in the grain belt, where we are untroubled by wars or the rumors of wars. Prosperity is being passed around these days as never before, and the farmer is the man who is responsible for this condition of affairs and who is largely profiting thereby. If we can make our fields and our herds produce as abundantly and as profitably in 1917 as we did in 1916, we shall see a golden flood of good times, prosperity and plenty pouring across this broad land of ours.

Pass the Sassafras Tea.

This is the time of the year when, as you drive in to almost any town to do your trading, you notice the drug store windows full of a brown bark. It is the bark of the sassafras root, or "sassafrax," as they call it in some places. There may be some who like the tea which the good wife makes from this bark at this time of the year, but I confess I am not one of them.

Sassafras tea may, or may not, be useful in thinning down the blood. This is still a matter of dispute, and doubtless will be to the end of time. That we need some tonic at this season of the year, there is no denying. March and early April are the "blue Monday" of the year, and anything which will make our blood run smoother and take the lag out of our footsteps is well worth trying, even though it be as distasteful (to me at least) as sassafras tea. I have heard of people who actually claimed to like the decoction which the good wife makes from this bark, but for the most part the majority of the folks I know agree with the humorist who said:

Father always liked sassafras tea—that is, he always liked for us to take it. Every spring he would catch us, hold both our hands, and proceed to thin our blood. If you would listen to father you'd think our blood was as thick as sausage, and that we'd never see May flowers unless he held our nose twice a day and poured sassafras tea into us.

The man who wrote this was doubtless exaggerating for the sake of the laugh which he hoped to arouse, but I cannot but think there is a good deal of sense in his humor after all.

James M. Pierce

THE WISCONSIN FARMER

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The Wisconsin Farmer Madison, Wis.

In Green County, Wisconsin.

The Wisconsin Farmer had something to say last week relative to the prices now being paid for milk to farmers in Green ocunty, who supply the condensery. The April price of $2.40 per hundred pounds amounts to 5 cents per quart and is the best price which the farmers of Green county, who supply whole milk to the condensery, have ever received. Of course, the great bulk of milk in Green county is supplied to cheese factories, and those who have been disposing of their product in this way have been getting unusually high prices for a year past. At some of the limburger factories as high as an average of $3 per hundred pounds has been paid to patrons. This high price has been due to the high price of cheese, the cheese factory being run coöperatively and on such a basis that a farmer gets his share of the high prices of the factory product. While cheese is not so high as it was a few months ago, the profits are still quite satisfactory. Green county is also getting into the pure-bred dairy cattle business, and it is reported to us that about 175 head have been shipped from the Monroe station since the 1st of January. There were ten Holstein calves going out by express to Kansas on the day the writer was in Monroe. These were shipped by Fred Boss and their destination was Harveyville, Kansas. An old-timer standing on the station platform remarked: "I hate to see these youngsters going out of Green county. We need more such stock at home." But the farmers of Green county have learned the value of grading up their herds by introducing good sires.

The banks of the town of Monroe have nearly $3,000,000 of money on deposit and 75 per cent or 80 per cent of this money belongs to farmers. We are glad to see the honest, hard-working farmers of Green county doing so well.

Many New Meadows Winterkilled.

Those who paid $15 and $16 a bushel for clover seed last spring and now find that the crop is entirely winterkilled have some reason to feel discouraged in their efforts to maintain the fertility of the soil. We naturally look upon clover as the one crop in the rotation that brings virtue to the land and the policy of growing small grain and corn continuously is nothing more nor less than a policy of robbery. However, this year the winterkilling may constitute a blessing in disguise, because in all probability the world will be clamoring much more loudly for grain this fall and winter than it will for hay. The loss of the new meadows can partially be made up by the sensible handling of the corn crop this fall, involving either the conversion of part of it into ensilage or curing more than the usual amount in the shock.

Then it must be remembered that the investment in seed last year is not a total loss because a great many clover fields made considerable growth last fall and the root development unquestionably meant a little addition to the fertility supply. Possibly in many cases the crop increase this year due to the growth of clover will more than cover the cost of seed and the labor involved in putting it in. In some instances the seed bed for corn will be prepared by disking the surface, but this plan is only practicable where the soil is rather light, or, in other words, composed very largely of sand. If the texture of the soil is rather close, begin the preparation of the seed bed by plowing. A deep furrow is not necessary in the spring, because it brings up just a little too much inert material.

After plowing it will pay to put considerable work on the surface, particularly so if time enough intervenes between plowing and planting to germinate a crop of weeds. This will be the case where the plowing is done early in the spring and double disking of the soil will be quite in order. At this time when the farmers of the central West are being urged to produce maximum crops to relieve the world's distress, no form of work will pay better than that which involves plenty of harrowing and the free disking of the soil. It brings the seed bed into condition so that plant food is rapidly liberated and it does the crop good right from the start.

It must be kept in mind that where there was a fair growth of clover last fall such a soil this spring will be a little bit warmer than old land and one can afford to delay planting until the old ground is in. Every man who is undertaking to grow corn on sod knows that it grows more rapidly than on old ground and this in the main is due to the rapid decay of vegetation which tends to warm the soil and hustle the crop.

Drainage and Settlers.

Drainage, like land clearing, is a problem in Wisconsin that concerns a very large number of settlers. Thousands of acres of marsh lands which will be productive when properly drained are being sold and where land has not been tiled before the sale the settler is immediately confronted with this job before he can successfully work it. Drainage, unlike land clearing, is not an individual proposition. The farmer cannot drain his wet lands unless he has the outlet and this requires the formation of drainage districts and the building of outlet ditches across other lands.

The problem which interests us mostly, as it affects the settler, is that of thorough drainage when he buys the land. This matter came up for discussion at the meeting of the Wisconsin Drainage Association and it was generally agreed that the problem would remain unsolved until every acre in a drainage district has been given perfect drainage. This means that the land is ready for cultivation, every acre of it, and not that a great outlet ditch has been run through the center, with no tiling of individual lands in the district to make it productive.

The new settler goes onto his land in a drainage district, as a rule, with a mortgage on the land. Then he is obligated to pay the assessment costs against his land for the formation of the drainage district and the building of the outlet ditches and the necessary open laterals. The problem remains to drain the land he owns into this ditch and this requires tiling. The outlets are provided, but up to this time his land is as wet as it ever was. It must be tiled so that the water may be discharged into the outlets and it is this part of the operation for which he has no funds and for which he cannot borrow funds, as his land is already mortgaged and he has arranged the district bonds.

Mr. W. D. Coddington, of Plover, has been among those who favored legislative action requiring that in such districts every acre be drained when the district is organized. This means provide drainage to all the lands in addition to building the outlet ditches and assess the cost of this tiling to the total cost. Under this plan the settler would pay it all in yearly installments; he would have his land drained when he took it and he could take ad-

vantage of the district drainage plan for which he is helping to pay.

No drainage meeting seems complete without a discussion of the assessments of damages and, especially, benefits. This leads to many advocating a law by the legislature requiring that every acre in every drainage district be provided with perfect drainage and that no district might be organized on any other basis. This would undoubtedly do away with much of the disagreements that now arise over assessment of benefits, as it appears an impossibility to reduce to a mathematical certainty the assessment of benefits. In this way the owner of a forty away from an outlet ditch would be provided with the same drainage as the owner of a forty abutting this ditch and in the end it would mean the complete drainage of every acre in a drainage district, which is now the exception rather than the rule in Wisconsin.

Disinfecting Seed Potatoes.

In a special bulletin issued by Mr. R. E. Vaughn, of the Wisconsin Experiment Station, the subject, "Why and How to Disinfect Seed Potatoes," is taken up.

The first section of this question as to why seed should be disinfected is handled by Mr. Vaughn as follows:

Common scab and black scurf (rhizoctonia) injure the appearance and reduce the market value of Wisconsin potatoes. This is especially true where they are to be used for seed.

Blackleg also causes considerable loss in some fields. Farmers frequently do not recognize these troubles and fail to understand the discrimination against their seed.

Scab is the name given to the rough, corky spots on the surface of the tubers. It is caused by a fungus that lives in the spots and once it is introduced may live for several years in the soil.

Black scurf is sometimes spoken of as the "dirt that won't wash off." It is also caused by a fungus.

Blackleg causes a rot at the base of the stem and sometimes on the tubers. It is caused by bacteria.

Seed disinfection prevents loss from blackleg and is the best remedy for scab and black scurf. Disinfected seed should be planted on clean soil. Rotation of crops is also of benefit.

Having given us ample proof that disinfection of seed is advisable, Mr. Vaughn proceeds to tell us how it should be done:

Either corrosive sublimate or formalin may be used to disinfect the seed. Both may be obtained from any drug store. Corrosive sublimate is the better. Before commencing to treat the potatoes, pour some water over them or soak them in a tank of water in order to soften the black scurf and remove the dirt which if present weakens the solutions. Treat seed before it is cut.

The corrosive sublimate solution is made by dissolving four ounces of the powder in about a gallon of boiling water, then diluting to thirty gallons. Treat as many potatoes at one time as the solution will cover, about five bushels. Leave the first lot in the solution one and one-half hours, the second lot one and three-fourths hours, and the third lot two hours. After three treatments the solution is weakened so that it is not very effective. After treatment rinse off the solution with clean water and dry the potatoes at once. Then place them in clean crates and hold under normal light and temperature conditions until growth starts before planting. This aids germination and insures a good stand.

If formalin (formaldehyde 40 per cent) is to be used, take one pint or pound and mix in thirty gallons of water. Soak as much seed as this will cover for two hours. The solution may be used for three or four lots of potatoes.

There may be a great many who have already disinfected their potato seed, as this treatment may be given any time after the seed is dug up to two or three weeks before planting. After treatment the seed potatoes should be kept in clean crates to prevent further lodgment of disease of any kind. Mr. Vaughn says: "Be cautious when using corrosive sublimate, as it is a deadly poison and it must be kept away from the young children and all the farm stock, as the solution is colorless, tasteless, and has no odor. There is danger of it being mistaken for water. Corrosive sublimate corrodes metals rapidly and must be made up in barrels, tubs, wood or cement tanks. The hot water for dissolving the powder can be conveniently placed in glass fruit jars, stone jugs, or crocks. Avoid overtreatment, either by too strong a solution or too long a time, as it may kill the eyes and prevent germination. Potatoes should not be used for food after this treatment. After formalin treatment they may be safely fed to stock if thoroughly washed.

An Appeal to Farmers.

The farmers of America have been appealed to by Secretary Houston, of the United States Department of Agriculture, to join in agricultural preparedness measures so that the country may not be handicapped by food shortage in its efforts to meet the international crisis. Eliminating of waste, conservation of surplus and attainment of maximum crop returns are outlined by the secretary as imperative steps for strengthening agricultural resources.

The Wisconsin Farmer stands pledged to further this movement in every possible way, not only during the coming year but throughout all the future. Regardless of our views on the war and of the necessity or the uselessness of the United States entering therein, it is our duty to make our fields and our herds yield to their utmost. We propose to make The Wisconsin Farmer so practical, dependable, interesting, informative and authentic, during the coming year and the years which shall immediately follow, that it will stand second to none as a factor in bringing about what the eminent secretary of agriculture now pleads for.

May we count on the coöperation of every subscriber in this widespread, far-reaching campaign? Will all those whose subscriptions recently expired, or whose subscriptions will shortly expire, do their part in the campaign by renewing without delay? Will they secure at least one new subscriber so that our already large subscription family may become still larger? By thus working together we shall make farming yield still greater returns here in the grain belt and the farmer come still nearer to the ultimate goal of the maximum of production at the minimum of exertion and expense. We will do our share, will you do yours?

Utterly Fails in Handling Sheep.

In the following communication an Illinois subscriber outlines two experiences that have come under his observation dealing with the question of handling sheep. He writes:

My first observations of a sheep failure occurred when I was about eighteen years old. I worked for a man who did things on a large scale. He had a big farm and always planned to do big things and start in big with everything he launched. He spent most of his time in town talking politics, and left the work to be done by hired hands.

One day when at a sale he had an opportunity to buy a flock of sheep at a fairly low price. Although he had never had any experience with sheep, he purchased seventy-five head and brought them home. It was in the fall that he purchased the flock and by spring he had less than fifty in all, including his lamb crop. His losses were due to two things. First, he started in with too big a flock and without experience. Second, he was not interested in the sheep, or at least did not give them as much attention as he should have done. They got away, somehow, every day or two. He scarcely ever went among them, and perhaps would not at all, had he not been called when trouble came.

In contrast with this bit of experience is the case of another man who began his work with sheep as a shepherd on the farm of a practical farmer. This farmer told me one day how it happened that he engaged the man to care for his little flock, which, though small, was gradually increasing.

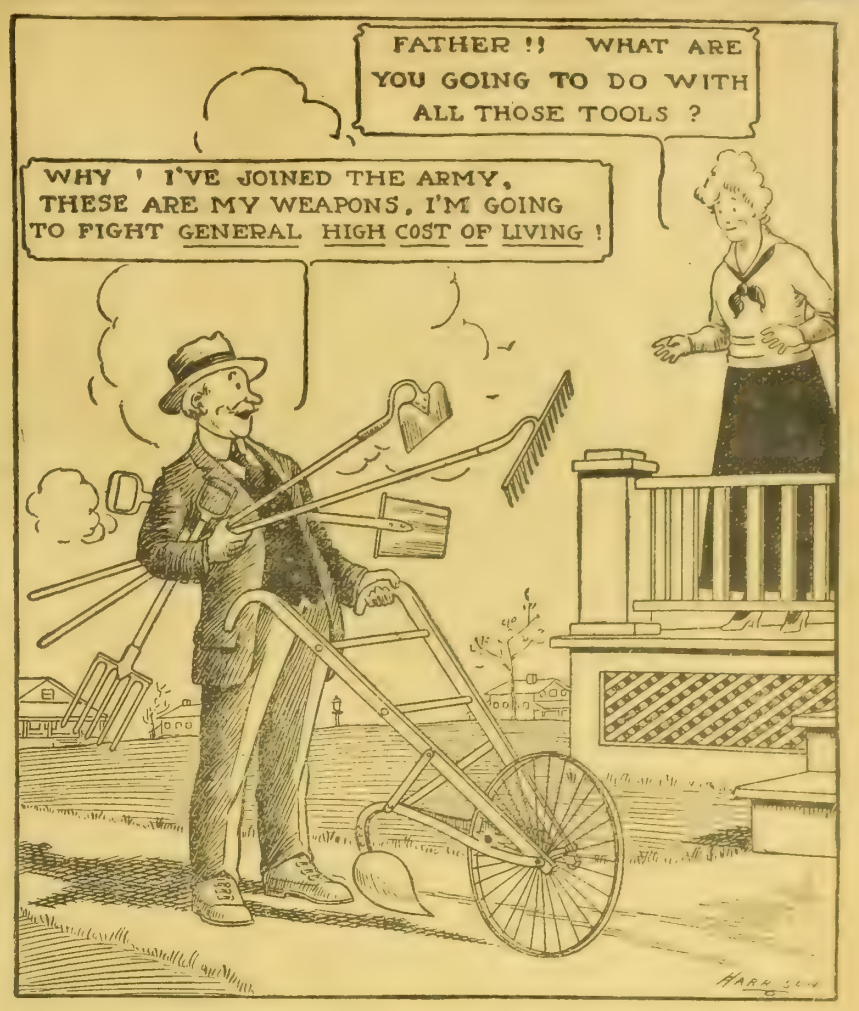
"I was leaning over the fence one day," he relates, "when this man came along. He told me he was out of a job and needed something to do. He was willing to do anything, any kind of honorable work. I didn't need a shepherd very much then, because we only had a few sheep, but he seemed willing to work cheap, so I told him he might come next day and I would see how he could handle the sheep barn. He knew absolutely nothing about sheep; in fact, he had not had any experience with live stock, but he took an interest from the start. He really loved the animals, and the more he worked with them the more he seemed to love them. He seemed just as much interested in providing for them as he was in providing for his own wants, and the sheep never lacked for attention after he took charge of the little flock."

The method of caring for the sheep, he, of course, soon learned, under the careful supervision of the practical farmer, and from that time on his success has been, according to his own statement, entirely due to the fact that he spent most of his time with the sheep themselves and tried to put himself in the place of the sheep, in recognizing their wants and needs.

At lambing time he actually lives with them in the sheep barn. He has a room where he can sleep when the sheep do not require his attention, but his ears are attuned to the sheep language, and the least little sound from the sheep pens that means trouble awakens him at once. This man has become a master shepherd. The result is that the flock has become very profitable indeed, and in addition to this, many of the sheep take prizes at most every place they are shown.

Thus the key to successful sheep husbandry can easily be seen. Which is constant care and watchfulness. Watching them as individuals and giving them the care that they need for growth and development.

In spite of the fact that sheep, well cared for, will pay as large, if not larger, profits as any other farm animal, the number of sheep per capita of our population has been gradually lessened. Possibly this is largely due to the fact that sheep have been too frequently cared for in a manner similar to that described by this subscriber in the first instance. To succeed with sheep a man must l e his flock and he must not consider it a hardship to occupy the shepherd's room during the critical season of the year. Unless one makes up his mind in advance that he will give just this kind of attention to his flock he had better keep out of the business, although prospects never were so bright for large profits in the handling of sheep as they are bound to be during the next few years.



THE BEST KIND OF PREPAREDNESS.

High Prices in the Feeding Problem.

In this issue of The Wisconsin Farmer we publish several letters from men who have been making something of a study of the dairy ration under the unusually high feed prices which have prevailed during the past season. We hope that the situation next winter will at least be helped out by good crops this summer and that in another winter we may not be embarrassed by the shortage of feed even though the prices may be high. However, the experiences which are given in the letters herein referred to are likely to be of value to our readers. We hope to present more of these letters in another issue. The first great advantage to be obtained from cow testing is the discovery of those animals which are not earning a profit. Another valuable work done by the cow tester is to gather information relative to production under the several systems of feeding which may have been adopted by members of his association. In general, it may be said that in the past season the quality of roughage has been deficient and in addition to this the quantity has been insufficient for the demands. However, one of our writers this week says that the feeding troubles of the past winter have really been a blessing in disguise and that for the first time in the history of his neighborhood dairymen have made a careful study of the value of feeds and in some instances increased profits have been noted notwithstanding the increased cost in feed.

Farmers Meet at Superior.

A meeting of more than passing importance to the development of Wisconsin agriculturally was held last week in Superior, for the purpose of forming a permanent inter-county association. There were about 200 farmers, fruit growers, sheep men, stock raisers, dairymen and poultrymen present. The railroad lines touching the north shore counties were represented. Commercial clubs of the cities sent delegates and in addition there were a number of bankers and several county agricultural agents.

The association went on record in favor of the bill now before the legislature to appropriate $37,500 to be used in investigating and demonstrating land clearing. This is the work in charge of Mr. Carl Livingston, of the engineering division, college of agriculture. The association also favored a bill now before the legislature providing for filing of chattel mortgages with the county register of deeds and the abolishment of the present system of filing such mortgages with the municipal clerk. The purpose of this bill is to standardize chattel mortgages and make them available as security for bringing outside money into Upper Wisconsin.

Much of the discussion was along the same line as that at the land clearing conference at Eau Claire. There is a determined effort on the part of prominent men in Upper Wisconsin to secure the speedy development of this country. The matter has been talked about for years and the general hope is that this talk may now be crystallized into action.

Carl D. Livingston, of the engineering department, college of agriculture, recently spent a week in Rusk county teaching the short course boys how to pull stumps.

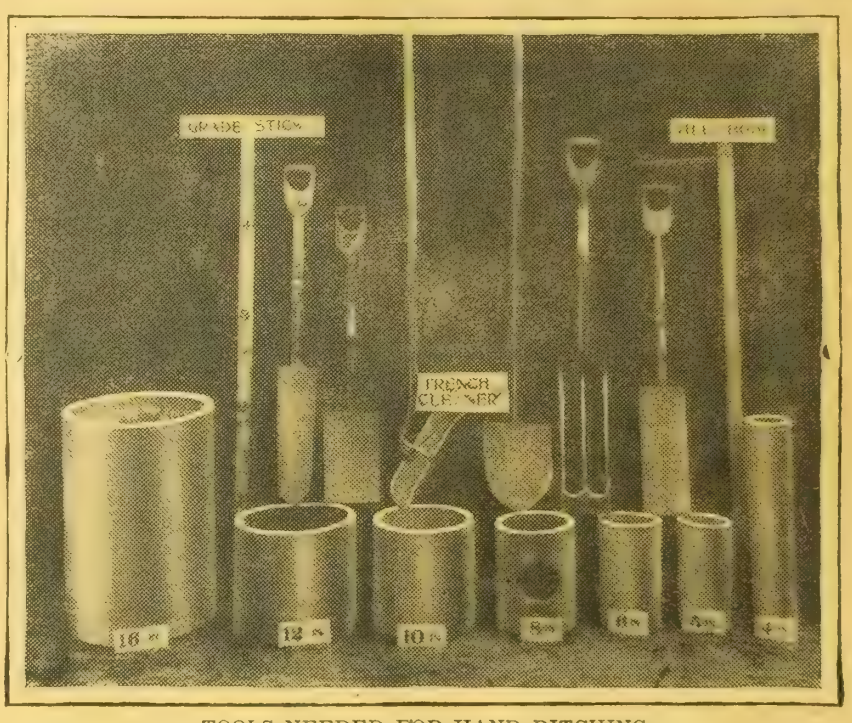
Rusk county is to have a cow-testing association, about half enough cows having already been pledged to Mr. Householder, the county agricultural agent.

WEALTH IN BADGER MARSHES.

FROM CAT-TAILS TO CORN FIELDS—AND GOOD TILE DRAINAGE DID IT.

WISCONSIN'S million acres of undrained land came in for expert discussion at the third annual convention of the Wisconsin State Drainage Association held at Madison on March 27th to 29th. It is safe to say that from the papers delivered at this meeting on the various phases of drainage of marsh land this end of Wisconsin's agricultural resources has been hardly touched upon. The work that has been done, however, is a good indication of the immensity of profits that these marshes can deliver.

Aside from the scientific discussions dealing with the problems of engineering and pertaining for the greater part to the materials and methods to be used in the successful carrying on of the work the program also included one session where the results that have been attained on various farms in the state were discussed. Wednesday afternoon was given over to the growing of crops on peat. Carl Foll, of Deerfield, Dane county, gave his experiences on a 180-acre farm with which he found himself possessed some years back. The land at that time could not be given away, much less sold. Today after proper draining a price of $200 would not induce Mr. Foll to let loose of even one acre. There were on the farm originally fifty acres of upland soil, leaving a balance of 130 acres that could not be used for any purposes whatsoever. When Mr. Foll found that he could not sell the farm he determined to make the best of what he then considered a bad situation and began experimenting with peat. On a side hill he dug several pits which he filled with peat and here his first demonstration of the value of peat for growing crops took place. He later drained an acre and planted it to corn and from the results at once recognized the possibility of making his entire farm arable. He at first used the open ditch method and later followed it by laying tile according to the needs of each portion of the land. In order to have a better understanding of how to handle the soil he sent his son to the short course at Madison. The value of this short course cannot be overemphasized, for it was the making of that farm. Since that time ten acres have been drained each year until most of the land is now yielding from sixty to seventy bushels of corn per acre. An average investment of $25 on each acre made the farm profitable.



TOOLS NEEDED FOR HAND DITCHING.

Matt Vea, of Stoughton, Dane county, gave his experiences with an eighty-acre field which has been reclaimed through the use of proper methods of tiling. The marsh on this land has been pastured during dry seasons for years, but cattle often became mired. The depth of the peat and muck ranged from three to ten feet. At a cost of approximately $25 per acre thirty acres of this eighty have been turned into profitable fields, yielding in the year 1911 2,760 bushels of shelled corn, which the owner sold for seed at a price of $2.25 per bushel. Forty acres more of the same kind of land are now being drained. The last season fifteen tons of sugar beets were harvested on each acre.

Prof. E. R. Jones took the place of E. C. Witte, of Sprague, Juneau county, who was unable to attend. Professor Jones quoted from letters of farmers of Wood county showing the results that have been accomplished through drainage in that section. E. C. Witte bought a half section in the Little Yellow Drainage District in 1913. The land was practically all marsh. The first season there were no results owing to the fact that the drainage ditches were planned too small. However, this was corrected in the following year and by a system of tiling the land has been yielding an average of forty-five bushels of oats per acre during the last three years, some of the acres just newly broken yielding as high as seventy-five bushels. Barley generally runs from thirty to forty bushels per acre, while potatoes do very well. For three years onions have also been grown with great success, averaging around 600 bushels per acre and increasing in yield each year. Anton Brost, also of Wood county, moved to his farm in 1895. Owing to the dry season for years previous to 1895 the land did not show much moisture during that first year. However, water gradually accumulated until it became too wet for farming. Shallow ditches proved of no help at all. Until 1908, when the first drainage ditches were dug in that district according to engineering principles, the farm produced virtually nothing. From then on the land improved in yield, producing on the better sections at the rate of 700 bushels of onions to the acre. Celery pronounced equal to the famous Kalamazoo celery has been grown successfully for the city markets for a number of years. Last year one-fifth of an acre produced somewhat better than three tons of marketable cabbage, the bigger heads weighing around twenty pounds. Six acres of potatoes in 1911 yielded over 1,200 bushels, of which $800 worth were sold, leaving enough for seed and home use. Clover and tame hay does exceptionally well, growing as high as five feet and yielding up to three tons per acre. None of the crops received any commercial fertilizer, the land being supplied only with a liberal amount of stable manure. Work on the drained lands can be begun from a week to ten days earlier than on the uplands. Though the farm has been cropped continuously, yields are steadily increasing instead of decreasing.

The management of peat and muck soil in southern Wisconsin was discussed by W. W. Weir, of the Southern Wisconsin Farm Extension Service. Mr. Weir showed the possibility of making the marsh land productive. He argued that no owner should begin to crop a peat area unless he has definitely decided upon the course he is to follow in handling this land. He urged the farmer to avail himself of the bulletins of the experiment station and the experts of the soils laboratory at the college of agriculture. The college is glad to send a man to look over any land in question and to make a full report with recommendation concerning the land. This service is available to all residents of the state for a nominal fee. The best time to plow the marsh is during the summer. This will decompose the tough sod. However, work generally interferes at this time, so it is usually done in the spring or fall. Buckwheat and flax are recommended on the tougher unpastured sod as first-year crops, while corn will do on any sort of drained marsh in the first year. No lime should be used, as the low lands are usually not acid. The use of proper fertilizers combined with crop rotation containing clover and timothy is a safe and wise rule to follow. Mr. Wier asserts that enough information is at hand concerning southern Wisconsin marsh soils to make every acre produce a crop the same as on the uplands.

Tiling deep peat was discussed by O. R. Zeasman, also of the college of agriculture. He stated that of the million undrained deep peat acres in Wisconsin one-half million acres have no outlet and are waiting for supplementary drainage. The other half million acres require ditches to give the supplementary drains a proper outlet. Mr. Zeasman called attention

(Concluded on page 9.)

Laying Tile by Hand—Experimental Work Under E. R. Jones at Wisconsin Station.

A Reservoir Not a Drain. A Ditch With No Outlet as Good as No Ditch At All.

Growing of Young Percherons.

Something Besides Good Breeding is Essential if a Fair Degree of Success is Attained—By A. D. Prichard, La Salle County, Ill.

THERE is an old saying to the effect that "eternal vigilance is the price of liberty," and this saying, with the change of only one word, applies very pointedly to the business of growing good young Percherons: "Eternal vigilance is the price of success." To work on the supposition that good breeding alone is bound to make a colt good without assistance from other sources is to place one's feet in the straight and short path to failure. Close and constant attention to the needs of the growing colt is absolutely necessary. Some of the more important points to observe I will note below.

The process of development must begin with the mare before the colt is foaled. A brood mare that is in poor physical condition is very apt to give birth to a colt that will be handicapped from the start. Mares in foal should be given sufficient feed to keep them in rugged health and strong heart, but should not be made overfat. At foaling time they should be provided with rations that will produce milk, oats, bran and clover hay being best for the purpose. Occasionally it happens that at foaling a mare has a surplus of milk and in that event the feeding of milk-producing rations should be postponed for a week or two until the colt begins to take more milk. It is well to have mares on grass before foaling, as this has a tendency to cool the blood and keep the bowels in perfect condition.

Colts should be run on grass and should be taught to eat oats and bran, preferably crushed oats, before being weaned. When this method is followed the foal will receive no setback when weaned, but will go right on growing without the loss of a single pound. From weaning time on the youngsters should be given all the feed they will clean up three times a day and should be run on good pasture. It is very desirable to have a barn or other good shelter in the pasture which they can occupy during the heat of the day or in stormy weather. From this time on there is one principal thing to do, keep feeding the youngsters winter and summer, day in and day out, month in and month out, all they will clean up. It is taken for granted that the breeder will look after the health of his stock and keep close tab on their general physical condition.

It is a fact that many American farmers have failed in the work of breeding and developing really high-class Percheron stallions, and practically all such failures are traceable to the lack of proper feeding. To offset this it is also a fact that many American farmers have made conspicuous successes in the breeding of Percherons, and without exception these men are good feeders. It is difficult to understand why some farmers consider it absolutely essential to feed cattle and hogs well to develop outstanding individuals, yet believe that they can produce high-class draft horses on a starvation diet. This serious mistake is often due to the fact that men sometimes consider good feeding of horses simply a means of laying on fat. They say, "When this colt is a four year old I will fatten him and he will be a good one." Not so, brother; the time to do your feeding is during the first three years of a horse's life. That is the period of development and if it is allowed to pass without your making a serious attempt to grow your colt, the animal is sure to be permanently stunted. He will never reach the full flush of size and quality as he would have done had he been well carried along. Do not forget that feeding is not simply a means of putting on fat; feeding grows frame and bone and accentuates good qualities which rich blood lines entitle a horse to have.

One more point which should be given careful attention along with the feeding question is the matter of exercise. The young stallions in the picture which illustrates this article have been running in pasture almost continually since the day they were foaled. Of course, they are taken up during severe winter weather, but the greater part of their time is spent in the open. Every young stallion should have the same opportunity of running in paddock or pasture, for the exercise which he takes develops lung and heart power and develops him in wind and limb. The romp and play in the fresh air and sunshine is almost as essential as the full feed box. Wonders would be accomplished in American draft horse breeding if farmers would fully realize that good breeding, good feeding and abundant exercise are all absolutely necessary to the full and complete development of good Percheron stallions.

Brown County Agricultural Agent.

Elmer A. Carncross, newly appointed agricultural agent for Brown county, Wisconsin, began his labors April 1st. Brown county has 3,600 farms, of which 1,460 contain between fifty and 100 acres.

About 90 per cent of the land area is in farms, and about 65 per cent of this is improved land. Live stock, corn, oats, barley and hay are considered the most important farm products. Detailed analyses and conclusions on the soil resources of Brown county have been made by the State Soils Survey in a preliminary report issued at the college of agriculture.

Brown county is the nineteenth Wisconsin county to annex a farm adviser to its list of regular officials. The other counties which have followed suit since Oneida county began the work in 1912 are Barron, Eau Claire, Price, Langlade, Taylor, Lincoln, Vilas, Forest, Polk, Douglas, Walworth, Ashland, Sawyer, Portage, Rusk, Burnett and Bayfield. Throughout the year these men, either in office consultations, correspondence, or in demonstrations, farm visits, or community meetings, are steadily working in cooperation with farmers for the prosperity of the county units which they serve.

$1150 F. o. b. Racine
Mitchell Junior—a 40-h. p. Six 120-inch Wheelbase

Mitchell SIXES

$1460 F. o. b. Racine
7-Passenger—48 Horsepower 127-inch Wheelbase

Twice as Strong
To Give You a Lifetime Car

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In the past three years, John W. Bate has doubled our margins of safety. Now every important part—by test—has 100 per cent over-strength.

Over 440 parts are built of toughened steel. All safety parts are oversize. Parts which get a major strain are built of Chrome-Vanadium.

Gears are tested for 50,000 pounds per tooth. The springs we use—Bate cantilevers—have never yet been broken.

Several Bate-built Mitchells have already run over 200,000 miles. So it is quite unlikely that a man will live to wear a Mitchell out.

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That over-strength, in our opinion, is the chief Mitchell extra. But there are many others.

There are 31 features in the Mitchell which nearly all cars omit. Things like a power tire pump, a dashboard engine primer, ball-bearing steering gear, etc.

And this year's cars have 24 per cent added luxury—all paid for by savings in our new body plant. The Mitchell is now the luxury car of its class.

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All these extras come free in Mitchell cars. They are paid for by factory savings.

John W. Bate has spent millions of dollars in building and equipping this model plant. It covers 45 acres. The one aim has been to build this one type of car economically.

His methods save us on this year's output at least $4,000,000. And all that saving goes into extra values.

The result is extra features, extra beauty, extra strength. Cars built in other ways can't give them.

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Note that Mitchell Junior, with 120-inch wheelbase, sells for $1150, f. o. b. Racine. You never saw such value in a fine car. Even this smaller car has nearly all our extras.

Go see these new models. See what these extras mean. You will not then want a car without them. If you don't know the nearest Mitchell dealer, ask us for his name.

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Mitchell a roomy, 7-passenger Six, with 127-inch wheelbase and a highly developed 48-horsepower motor.
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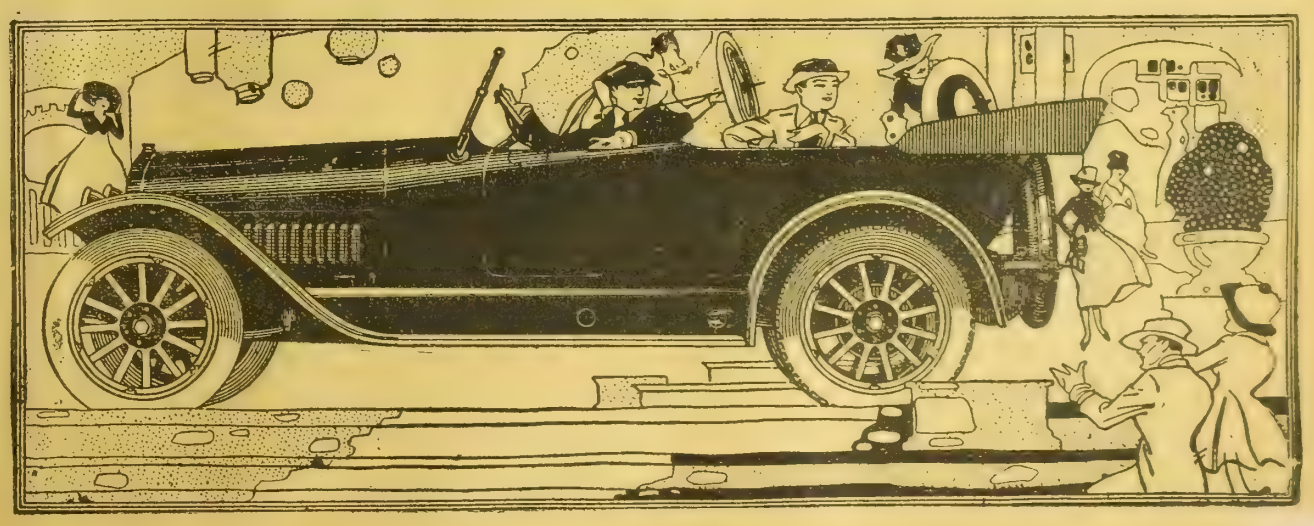


In and Around Wisconsin.

Pauline Parthena, a world's champion Holstein cow, owned by R. J. Schaefer, of Outagamie county, died recently. A post mortem showed that a darning needle had pierced the heart. Mr. Schaefer refused any amount for the cow, as she was invaluable for breeding purposes. She was thirteen years of age and won every prize for which she had been entered for some years.

Milk producers in the neighborhood of Footville, Rock county, have effected an organization. James Murphy is the president and Fred Bemis secretary. There were about 200 farmers present at the meeting called to organize and about 100 joined the association on the charter roll. There has been no trouble relative to the prices at Footville, as the condensery has been paying Chicago association milk prices.

Three hundred farmers, milk producers, of Evansville and vicinity, met recently to organize an association. Members of the Janesville and Footville organizations were present to help the movement along. There were sixty some signers to the association roll at the first meeting. Robert Spencer was chosen president, Ed Hyne, vice president; J. H. Campbell, secretary, and V. C. Holmes, treasurer. The association will ally itself with the Chicago Milk Producers' Association.

The stockholders of the Inter-County Coöperative Packing Company, of New Richmond, who reside in the vicinity of Colfax met recently and organized a live stock shipping association. Meetings are to be held on the first Saturday of each month, alternating between the Bank of Colfax and People's State Bank at Colfax. The officers of the new association are: President, John E. Prince, of Bloomer; secretary, W. J. Mathews, of Colfax; directors, J. B. Madison, J. E. Corey and Henry E. Larson.

Mr. A. W. Kalbus, crop statistician for the Wisconsin Department of Agriculture, predicts a good potato yield in Wisconsin this season. The price of seed is high and this may discourage some from putting in large acreage, but, on the other hand, there will be a largely increased number of smaller patches, especially near the market centers. The winter has been favorable for potatoes. The soil last fall had a reasonable amount of moisture, and in the potato districts there has been a heavy snowfall, which will provide plenty of moisture, even though there is a shortage of rain this spring.

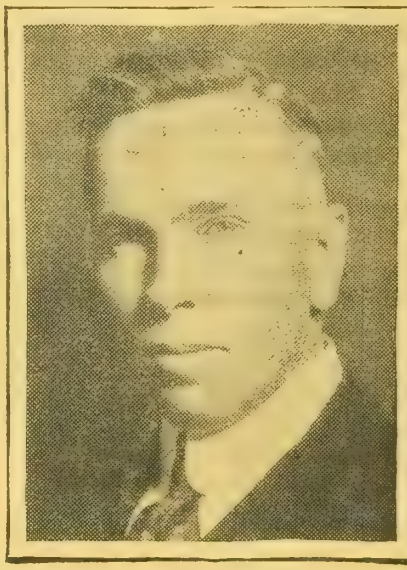
Mr. John H. Rich, chairman of the ninth federal reserve bank, has issued a statement to farmers of Wisconsin, Minnesota and the Dakotas. He calls attention to European shortage of wheat and to the fact that Russian supplies are tied up and further that Argentina, which produced 175,000,000 bushels of wheat in 1916 now claims almost a complete crop failure in 1917. The states of Minnesota, North and South Dakota and Montana have about 96,000,000 acres of farm lands and more than one-third of this is unimproved and unused. In common with others who have made a study of the present agricultural situation, Mr. Rich sees the urgent necessity of this year. He calls special attention to the fact that wheat and potatoes are needed. Wisconsin and Minnesota ordinarily produce about 30,000,000 bushels each of potatoes and this supply should be increased if it is at all possible. The present time is the golden opportunity for farmers of this district, according to Mr. Rich.

Walworth county has recently formed the Walworth Federation of Clubs, which includes in its membership the women's clubs, the literary societies, farmers' clubs, the boys' and girls' clubs and the city organizations of the county. In addition to four officers the club has a board of directors which consists of the representatives of each organization on the basis of one director for each ten members. This body will have charge of the next country life conference and arrange for a picnic to be held each summer. The officers elected for the coming year are: George Stoneall, Linn, president; J. J. Cook, Lyons, vice president; Helen Martin, Elkhorn, secretary; R. R. Schwartz, Troy Lake, treasurer.

Short-Course Graduates.

There were 103 graduates of the Wisconsin College of Agriculture short course this year. The closing exercises were held March 22d. The names and home address of the graduates are as follows:

Armodt, Clarence.....Viroqua, Wis.
Arends, A. H.....Cleveland, Wis.
Baker, R. O.....Maiden Rock, Wis.
Bartell, R. G.....Thiensville, Wis.
Bartleson, L.....Pine River, Wis.
Berglund, W. A.....Pecatonica, Ill.
Bille, J. W.....Luck, Wis.
Bingham, M. A.....Milton, Wis.
Bosher, R.....Strum, Wis.
Boyden, P. W.....Madison, Wis.
Brehm, V. F.....Sheboygan, Wis.
Briggs, R. B.....Evanston, Ill.
Brown, L. H.....Edgemont, S. D.
Bussey, E. W.....Tabor, S. D.
Buzzehl, H. L.....Markesan, Wis.
Cairns, F. E.....Mazomanie, Wis.
Carey, H. T.....Argyle, Wis.
Carr, F. N.....Strong's Prairie, Wis.
Chapman, A. A.....Tunnell City, Wis.
Clarke, P. H.....Milton Junction, Wis.
Clausing, E. L.....Grafton, Wis.
Clausing, H. F.....Grafton, Wis.
Clingan, C. W.....Olney, Ill.
Eager, R. D.....Hancock, Wis.
Emery, R. J.....Oconomowoc, Wis.
Engelhardt, G. C.....Osceola, Wis.
Englestad, F. J.....Cambridge, Wis.
Everett, L. E.....Chicago, Ill.
Fuller, Stanley.....Hartland, Wis.
Fuller, J. G.....Madjson, Wis.
Gates, R. D.....Fontana, Wis.
Glaeser, F. W.....Richton, Ill.
Gordon, L. W.....Nelsonville, Wis.
Green, C. E.....Olney, Ill.
Hanson, H. L.....Rice Lake, Wis.
Harness, W. G.....Neenah, Wis.
Harting, F. P.....Chicago, Ill.
Hass, A. L.....Merrill, Wis.
Hess, G. S.....Franksville, Wis.
Hoelz, C. P.....Rockfield, Wis.
Holzschuh, A. C....So. Kaukauna, Wis.
Hume, R.....Endeavor, Wis.



C. A. CARNCROSS,
Brown county, Wis., agricultural representative.

Jacklin, Leon P.....Waupaca, Wis.
Janz, Jacob.....West Bend, Wis.
Jarr, T. A.....Manitowoc, Wis.
Johnson, W. N.....Cushing, Wis.
Jones, Glen.....Merrimac, Wis.
Karsk, A. F.....Pecatonica, Ill.
Kauth, J. A.....So. Germantown, Wis.
Kelly, M. T.....Chippewa Falls, Wis.
Kelsey, F. B.....Delavan, Wis.
Klement, Lesie.....Ft. Atkinson, Wis.
Kollock, H. O.....Bancroft, Wis.
Korfmacher, C.....Cottage Grove, Wis.
Lawrenz, H. L.....Reedsburg, Wis.
Leach, L. L.....Wautoma, Wis.
Lester, C. T.....Trevor, Wis.
Lichtenwalner, A. H.....Monroe, Wis.
Ludlam, J. E.....Hewlitt, L. I., N. Y.
Lurvey, C. P.....Dousman, Wis.
Mantz, M. M.....Richfield, Wis.
McIlraith, H. R.....Medford, Wis.
McKay, J. A.....Franklin, Tenn.
McManus, W. B.....Oregon, Wis.
McWethy, F. O.....Dixon, Ill.
Meagher, G. D.....Chippewa Falls, Wis.
Melster, Arthur.....Cambridge, Wis.
Mertes, J. F.....South Fange, Wis.
Miller, H. E.....Janesville, Wis.
Molter, Herbert.....Marshfield, Wis.
Moths, A. C.....Fredonia, Wis.
Nelson, Newell.....Whitehall, Wis.
Northey, Royal.....Palmyra, Wis.
Ohnstad, O. C.....Menomonie, Wis.
O'Neill, T. H.....Kilbourn, Wis.
Orth, Walter R.....Eau Claire, Wis.
Otto, A. H.....Oconomowoc, Wis.
Palmbach, G. A.....Appleton, Wis.
Paulson, Blaine G.....Taylor, Wis.
Pelk, C. J.....Chilton, Wis.
Petersen, C. T.....North Lake, Wis.
Ramsey, John S.....Peshtigo, Wis.
Reager, H. B.....Primghar, Iowa
Reid, G. R.....Independence, Wis.
Reinertson, R. M.....Valders, Wis.
Rudh, R. A.....Madison, Wis.
Schilstra, J. R...Pleasant Prairie, Wis.
Schlawin, W. W.....Cochrane, Wis.
Schmidt, E. C.....Wrightstown, Wis
Schroeder, L.....Camp Douglas, Wis
Schuster, Wm.....Oconomowoc, Wis.
Stearns, A. C.....Weyauwega, Wis.
Stichtman, H. C.....New London, Wis.
Stury, Anton.....Elkhorn, Wis.
Tomsis, W. J.....Arpin, Wis
Trueb, W. R.....Spring Green, Wis.
Voltz, Fred.....Clear Lake, Wis.
Welch, J. M.....Spooner, Wis.
White, Helen H.....Chicago, Ill.
Wilcox, C. R.....Balsam Lake, Wis.
Wild, E. J.....Elmwood, Wis.
Witte, F. H.....Cottage Grove, Wis.
Wood, W. C.....Albany, Wis.

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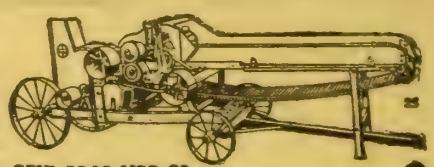

GEHL BROS. MFG. CO.
103 South Water St., West Bend, Wisconsin

QUALITY LIME

GROUND AND KILN-DRIED

—3 GRADES—

SWEETENS SOILS, HIGHEST ANALYSIS. Quickest acting and less waste of any Lime offered. One application doubles crops many years.

A 36-page book, giving much information, free of charge. Samples and prices on application.

FARGO & HALLADAY, Lake Mills, Wis.

SEED CORN $2.75 PER BUSHEL, SACKS FREE

Hand picked; high-test; true-to-name. Red'e Yellow Dent; Silver Mine; Gold Mine; Leaming; White-cap. Also Wis. White Dent; Minn. 13; Pride of North; Minn. King; etc.; best for latitude of Central and Southern Iowa. Big catalog and samples FREE. Prices of other varieties for latitude of Nor. Iowa and Can. Minn. on request. Ask about "1,000 Club," members get seed at wholesale. THE ADAMS SEED CO., Box 10 DECORAH, IOWA

SUPERINTENDENT for large commercial certified dairy farm (200 head) with delivery routes. Near New York City. Problems of growth new land, drainage, building construction, besides scientific understanding of modern dairy and creamery methods; require education, experience, large organizing ability. Salary large. Replies must give sufficient details to show above qualifications or will not be considered. Tyler & Tyler, 30 Church Street, New York City.

SEED POTATOES

EARLY Ohio seed potatoes; large size, very smooth, uniform in size and shape, free from scab, good yielders; price $2.75 per bu. Order soon; satisfaction guaranteed.
J. F. C. Finnell Hamburg, Iowa

SEED CORN

GOLDEN Glow (Wis. No. 12) 98½ germinated, 99 9-10% pure. Absolutely guaranteed. A limited amount for sale.
RILEY MARTINY & SON, Baraboo, Wis.

POOR MAN'S CHANCE. $5.00 down, $5.00 monthly, buys 40 acres productive land; near town, some timber, price $200.00; $10.00 monthly buys 80 acres. Box 126-H, Carthage, Missouri.

SELF-OILING WINDMILL
With INCLOSED MOTOR
Keeping OUT DUST and RAIN — Keeping IN OIL

Constantly Flooding Every Bearing With Oil, Makes It Pumping The Lightest Breeze And Prevents Wear

DOUBLE GEARS — Each Carrying Half the Load
Every feature desirable in a windmill in the AUTO-OILED AERMOTOR
Gasoline Engines — Pumps — Tanks
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North Dakota Lands

NORTH DAKOTA is essentially an agricultural state. In past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley—never below third; never below seventh in rye or oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write **at once for plan** direct dealing. J. S. Murphy, Immigration Soo Line Railway, 1269 Soo Bldg., Minneapolis, Minn.

THE HOG ROUTE TO PROFITS

(Continued from page 1.)

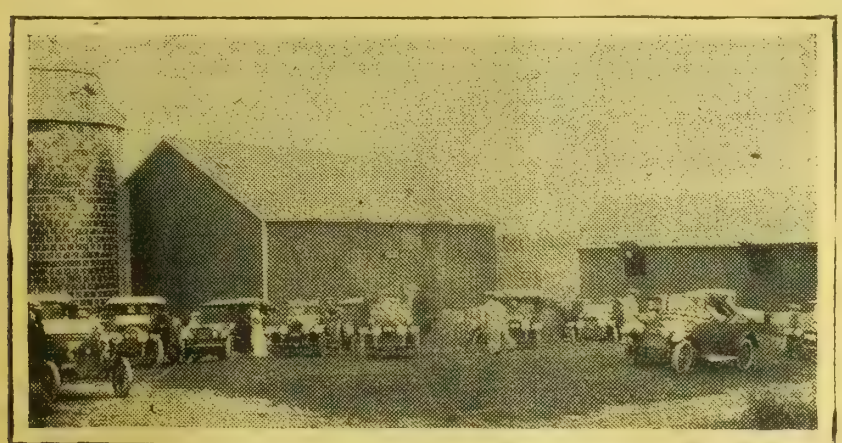
he has finally succeeded in embodying the points that go to make a perfect specimen.

The entire herd of Mr. Fisher show the same careful selection and breeding. Each of the sows has the stretch, the width and the depth of the typical Duroc. They are sired by some of the most famous boars of the breed. Blood of Volunteer, Defender, Illustrator, Big Wonder, and many other noted animals is combined in them. The healthy litters further attest to the care that has been shown in the mating.

SHIPPING FOUNDATION HERD OF DUROCS FROM FISHER FARM TO FAMOUS HERSHEY FARM, HERSHEY, PA.

Mr. Fisher has not lost sight of the value of dairying in connection with the hog business. While his revenue has been chiefly derived from hogs, he realized early in the game that hogs without cows cannot be a success. The first purchase of cows was an assortment of scrubs and grades. But a pure-bred sire was placed at the head of the herd in the second year and with careful elimination and weeding the original herd of sixteen scrub cows has now been increased to seventy-one head of pure-bred and high-grade Holsteins. Five years ago five young females were purchased from a Wisconsin breeder for $1,200. These included strains from the families of Pontiac, DeKol and Pauline. Each year a few pure breds were added, which, together with the offspring from the first females, formed the present herd. There are still some grades on the place, but a few years will see these sold and a pure-bred herd of Holsteins reigning supreme.

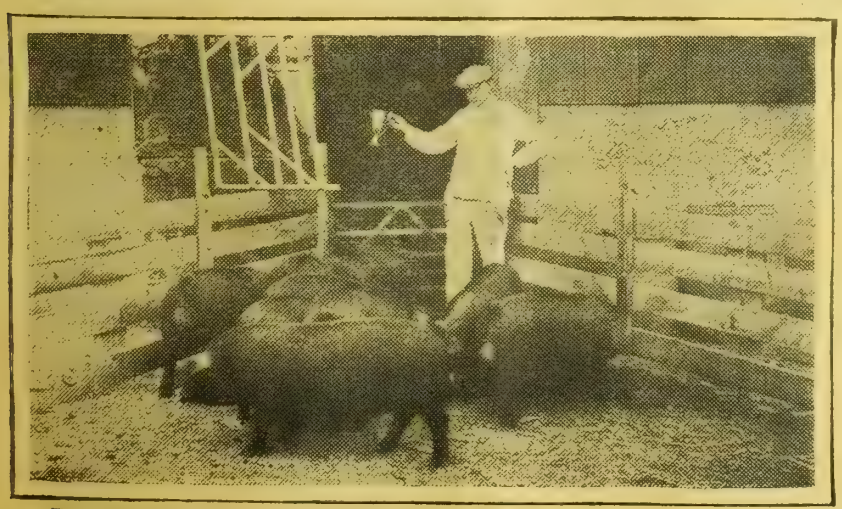
The improvement of the land after its serious handicap of twelve years was quite a problem. Tobacco cropping had so completely exhausted the soil fertility on this farm that the acre yield for oats was less than ten bushels. So, Mr. Fisher decided to build up the worst fields in a special way. He sowed the first year rye, which he allowed to grow to a considerable height and then plowed it under. The next season he disked and dragged the field at frequent intervals to rid it of all the weeds. In the fall he again sowed rye. This he harvested in the following year, plowed the field and prepared it for clover. His friends told him that it was a shame to throw away clover on such ground, as they were sure no crop could be raised. However, he sowed three quarts of Mammoth clover each way and added a half bushel of barley as a nurse crop. The barley gave a fair yield and the first cutting of clover was also harvested. The second cutting was plowed under and the field was now in shape for other crops.



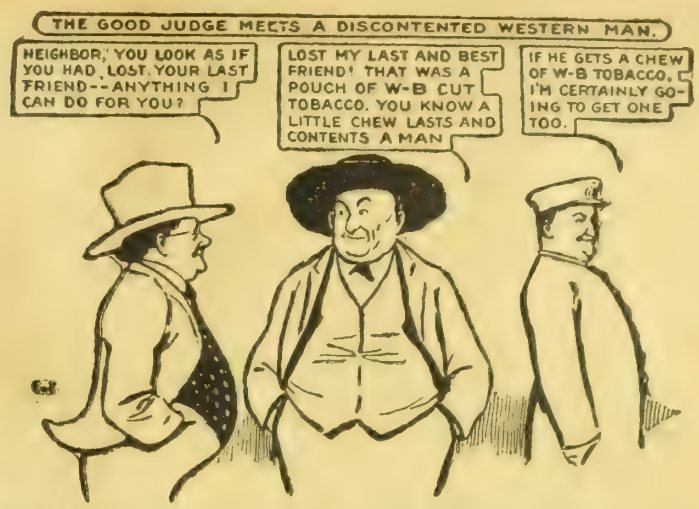
PARTY OF WISCONSIN FARMERS, ON FARM MANAGEMENT TOUR IN AUTOS STOP AT JOHN L. FISHER FARM.

Three acres of the best land were prepared during the next season for alfalfa. A rye crop, which was harvested early in the year, was followed with a good application of manure and the field plowed in the fall. In the spring, after thorough disking, sweet clover soil was broadcasted over the field to inoculate it. The seed bed was further prepared for the alfalfa by occasional harrowing. In the first week of June the alfalfa was planted with a half bushel of barley. Ten pounds of seed were drilled each way. The field lasted six years, during which time three cuttings were harvested on the average each year, with a yield of from three to five tons per acre. Mr. Fisher now has fifteen acres in alfalfa which follow in the regular scheme of rotation of corn, oats, clover and alfalfa.

Mr. Fisher is a worker and takes an active interest in all divisions. He is the secretary of the Rock County Holstein Breeders' Association and a director in the Milk Producers' Association, which he helped to start. He helped to bring about the sale held at Madison this year which proved highly satisfactory. He is chairman of the futurity committee for the 1917 state fair and a director in the State Duroc Association.



Ten pigs from one sow; total weight 1,641 pounds. This litter won cup at Rock County, Wisconsin, Fair, 1916, and was in the money at the state fair. This litter out of Chief's Col. Duchess.



WHO is there that's got the heart to refuse a man a little chew from his pouch of W-B CUT Chewing—especially if he's a gentlemanly fellow who would appreciate rich tobacco? Once a man gets used to real tobacco, it goes mighty hard with him to swing back to the ordinary over sweetened kind. W-B has cut in two the amount he tucks away in his cheek.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

IRON AGE GARDEN TOOLS

Answer the farmer's big questions: How can I have a good garden with least expense? How can the wife have plenty of fresh vegetables for the home table with least labor?

IRON AGE Combined Hill and Drill Seeder solves the garden labor problem. Takes the place of many tools—stored in small space. Sows, covers, cultivates, weeds, ridges, etc., better than old-time tools. A woman, boy or girl can push it and do a day's hand-work in 60 minutes. 38 combinations, $8.25 to $15.00. Write for booklet.

Bateman M'f'g Co., Box 470 Grenloch, N. J.

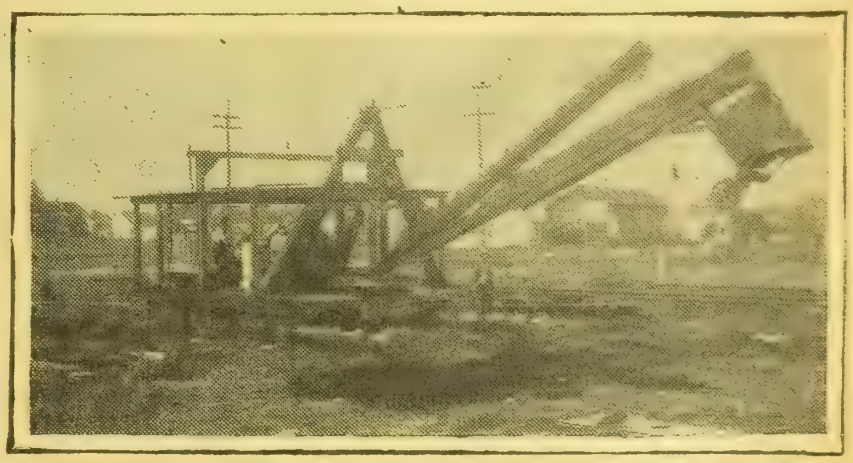
Lindsay Bros., General Agts. Milwaukee, Wis

An Oneida county farmer who raised prize-winning Swedish Select oats last last year sold 1,800 bushels at 70 cents a bushel for seed. Feed oats at the same time were selling at 55 cents a bushel. Many farmers in Oneida county who were among the prize winners at the recent grain show at Madison, have been able to sell oats for seed at $1 per bushel. This shows that it pays to raise the best and also that exhibiting grain as well as live stock on the farm will tend to increase the values.

Wealth In Badger Marshes.

(Continued from page 6.)

to the fact that tile has been laid in peat successfully in the state. This is contrary to many predictions made years ago, but it shows that new methods often succeed where old methods fall down. Wherever possible tile should be laid deep enough so that the peat will be thoroughly drained and the system at the same time be permanent. Permanency means economy. From four to five feet is the depth advised wherever the outlet permits this.



A BIG LAND DREDGE JUST ARRIVED AND "WALKING" TO WORK A MILE AWAY.

Prof. E. R. Jones, of the college, gave a technical talk on the necessity of standards in drain tile. He quoted in his support the results of the leading experiment stations.

The difference between concrete and clay tile was discussed by E. H. Haeger, of Illinois, and H. A. LeRoy, of Chicago. Other papers read at the convention were of a scientific nature and dealt with the various materials used and the methods followed in drainage work. The Wisconsin Drainage Association consists of about 100 members, with the following officers: President, B. M. Vaughn, of Grand Rapids; vice president, A. P. Nelson, of Racine; secretary, E. R. Jones, Madison, and treasurer, A. C. Willard.

Healthy Vegetables

The U. S. Dept. of Agriculture recommends that you rid your seeds and soil of infection before planting, with the greatest known disinfectant—

FORMALDEHYDE
The Farmer's Friend

It prevents potato scab and black-leg that attacks beets and other vegetables. It guards against onion rot and onion smut and smudge, cucumber root rot. It prevents mould in celery, lettuce, parsnips and other covered seeds when applied to the beds before planting. One pint bottle of our Formaldehyde costs 35 cents. Big scientific book with full directions sent free upon request.

PERTH AMBOY CHEMICAL WORKS
100 WILLIAM STREET NEW YORK 12

Fertilize Spring Crops Increase Yields, Improve Quality, Hasten Maturity, Maintain Fertility

Plan your 1917 work so as to get the most money from every acre. Lower costs per bushel for plowing, seeding, interest and labor result when crops are well-fed. *Fertilizers will pay on your spring crops.* Higher prices for farm products make profits from using fertilizer larger than ever before.

Send for our free Crop Bulletins
Ask us your fertility questions.

Soil Improvement Committee
of the **National Fertilizer Association**
Postal Telegraph Bldg. Chicago — Dept. 102 — Munsey Bldg. Baltimore

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MORE MONEY

for tenant more money for owner, in our Active Fertilizers.

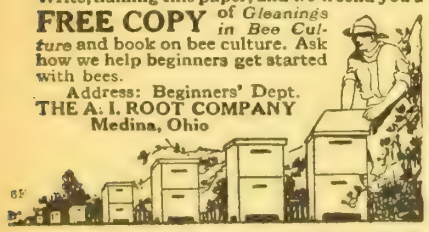
Just ask nearest office for booklet. **Agents wanted.**

The AMERICAN AGRICULTURAL CHEMICAL COMPANY
New York, Baltimore, Buffalo, Philadelphia, Boston, Detroit, Cincinnati, Cleveland, etc.

Be a Bee-Keeper

Good fun—good money. Where you live doesn't matter—how much or how little space you have available for hives doesn't matter. Simple—and takes very little to make a start. Write, naming this paper, and we'll send you a **FREE COPY** of *Gleanings in Bee Culture* and book on bee culture. Ask how we help beginners get started with bees.

Address: Beginners' Dept.
THE A. I. ROOT COMPANY
Medina, Ohio



SEED CORN
Goddard's Silver King

Greatest—most productive—most profitable variety. Grown by the originator, Mr. Goddard, on his own farm in this county and personally selected by him. Finest quality—absolute purity guaranteed. Sworn statement protects you. Only a limited quantity of this seed for sale—shipped crated in the ear. Order now, before supply is exhausted. Big new 1917 Catalog, complete information, free. Write
ADAMS SEED COMPANY, Box 70 DECORAH, IOWA.

Apple Trees (4 to 6 Feet)

Hardy Northern Grown. None Better
Kellogg's Hardy Trees are backed by 63 Years In The Nursery Business
$10 Per 100

Send today for our 1917 illustrated Catalog of trees, vines, ornamental shrubs and Small Fruit Plants.

Kellogg's Nursery BOX 224, JANESVILLE, WIS.

200 Strawberry Plants Post Paid $1.25

25 Everbearing, 75 Dunlap and 50 each of two other choice varieties with our book of instructions how to plant and grow them. J. L. Todd & Co., R. 3, Des Moines, Iowa.

Fruits and Garden

Control of Insects and Diseases.

Tried and Proved Formulas and Suggestions Worked Out by the Wisconsin State Horticultural Society.

FOR biting insects, such as the tent caterpillar, canker worm, potato beetle, apple worm (codling moth) curculio, spray the foliage with a poison. For the potato beetle use Paris green.

Paris Green—Formula: Paris green, 1 to 2 lbs.; fresh (unslaked) lime, 1 lb.; water, 200 gallons.

Paris green is heavier than water and the mixture must be kept in constant motion during spraying operations to prevent settling.

Never buy Paris green or other insecticides in bulk; always demand the original package with the manufacturer's guarantee of purity.

Paris green, if used on growing plants greatly in excess of the above formula, may injure the foliage. The addition of the lime overcomes the caustic properties and renders it safe under all conditions.

Dry Paris green may be used pure if applied in small quantities with plaster of Paris or finely slaked lime as a carrier. Different "dry powder guns" have been invented for this purpose.

While Paris green, if pure, is a valuable insecticide, it has been displaced in orchard spraying by arsenate of lead.

Arsenate of Lead (A poison for biting insects)—Formula 1: Arsenate of lead—paste, 2 to 3 lbs.; water, 50 gallons. Formula 2: Arsenate of lead—dry or powdered, 1½ to 2 lbs.; water 50 gallons.

Arsenate of lead may be used in any reasonable quantity without danger of injury to foliage.

It remains in suspension longer than Paris green.

It adheres better to foliage.

It may be used for any purpose for which Paris green is employed in liquid sprays.

White Hellebore—(For biting insects.) Powdered white hellebore is commonly employed to destroy currant and cabbage worms and on fruits and vegetables where more poisonous substances cannot be used with safety.

Hellebore—Formula: White hellebore, 1 oz.; water 2 to 3 gallons.

It may also be used dry either alone or mixed with flour, land plaster, soot, etc.

White hellebore is scarcely poisonous to the higher animals and may be used freely on fruits and vegetables when these are at any stage of maturity.

In addition to the above various poisons are employed such as Scheele's green, London purple, slugshot, arsenate of lime, arsenate of soda, etc., but the fruit grower will do well to pin his faith to arsenate of lead for the control of biting insects.

Sucking Insects—Sucking insects, such as apple aphis, plum aphis, oyster shell scale and San Jose scale do not consume either bark or foliage, but suck the sap of the plant. These insects cannot, therefore, be destroyed by spraying poison on the bark or foliage. We must attack the insect itself. Spray the insects, not the leaves or bark. For this purpose use either kerosene emulsion, a nicotine solution, or lime sulphur solution.

Kerosene Emulsion—Use only to destroy sucking insects. It must be applied to the insects and cannot be used as a preventive.

Formula for Stock Solution—Dissolve one-half pound hard soap in one gallon of boiling water. While hot add two gallons of kerosene. Churn the mixture violently while hot for five to ten minutes or until it assumes a creamy consistency.

Dilution for spraying.—Before spraying add ten gallons of water to each gallon of stock solution, thus reducing it to 6 per cent of oil, which can be safely used on all plants.

Lime Sulphur—(For Sucking Insects.) While kerosene emulsion is effective for soft-bodied plant lice, it is not sufficiently caustic to destroy the armored scale insects, such as San Jose and oyster shell scales. For this purpose a combination of lime and sulphur is used. While lime-sulphur may be made at home by boiling together lime and sulphur, it is a disagreeable job and, owing to the high magnesium content of most Wisconsin lime, the home-made product is not apt to be as good as commercial lime-sulphur. Very good lime-sulphur solution may now be purchased in any quantity from a half pint package to a barrel.

Formula—For San Jose and oyster shell scales apply the following strength to dormant trees only:

Lime sulphur, 1 part; water, 8 parts.

Lime-sulphur at this dilution must not be used on growing plants.

Arsenate of lead may be combined with lime-sulhpur.

Nicotine Solutions.—A decoction of tobacco made by steeping, not boiling, tobacco stems or leaves in water in a covered vessel is an efficient remedy for plant lice. One gallon of boiling water may be poured over a pound of tobacco stems and allowed to stand overnight. This decoction may be used without dilution, but will be effective if diluted with one or two parts of water and will be more efficient if used with soapsuds.

For orchard spraying use one of the numerous nicotine compounds offered for sale, but do not pay more than $10.50 a gallon and this price should procure a 40 per cent nicotine solution. Look for the manufacturer's guarantee or statement of ingredients.

Remedies for the Control of Plant Diseases—Bordeaux Mixture. The control of fungous diseases is accomplished by the use of some form of copper salts, usually copper sulphate, known also as blue stone, blue vitriol, etc.

Copper sulphate in combination with fresh lime forms the standard and well-known fungicide, Bordeaux mixture.

Various formulas are quoted, but the following is now accepted as safe and reliable:

Copper sulphate, 4 lbs.; fresh lime, 5 lbs.; water, 50 gallons.

In general terms, the copper sulphate should be dissolved in one-half of the water, the lime slaked in the remainder and the two solutions poured together. This results in a chemical action giving rise to a new substance preserving the fungicidal properties of the copper sulphate and if properly made will not injure foliage.

Bordeaux mixture is used as a preventive of apple scab, asparagus rust, mildew on grapes, roses and other plants, potato blight and rot, shot-hole fungus on plum and cherry and other fungous diseases.

The two ingredients of Bordeaux mixture may be kept separate in solution without deterioration, but they rapidly lose their value after mixing. Mix only as much Bordeaux as you will use in any one day.

Helpful hints for making a barrel of Bordeaux mixture:

1. Have on hand three barrels and two pails (wood fiber or galvanized iron).

2. Twenty-five gallons of water in each of the barrels.

3. Dissolve four pounds of copper sulphate in one barrel by suspending in a coarse burlap as near the surface of the water as possible; in this way it will dissolve in a short time, while if allowed to settle to the bottom it would require several hours to dissolve.

4. Place the lime in a pail and slake by adding water slowly until a paste is formed. (The lime for Bordeaux mixture should be slaked exactly as for building purposes.)

5. Pour this lime paste into the second barrel and stir thoroughly.

6. Add the required amount of arsenate of lead to the lime water.

7. Now pour into a third (empty) barrel first a pailful of the copper sulphate solution, then a pailful of the lime water, or better, let two persons work at the job, pouring together.

8. The resultant mixture should be of an intense blue color. If any tinge of green appears it is not good Bordeaux mixture.

9. The lime water should be strained to remove the coarse particles which serve to clog the nozzles in spraying.

10. Sufficient lime must be used to combine with all of the sulphate or harm will result. The formula given above provides an excess, but such excess is preferable to a slight deficiency. Use all of the lime water.

There are three things to avoid in making Bordeaux mixture:

1. Do not use iron or steel vessels for the sulphate or Bordeaux. Not only will these be corroded, but the chemical action resulting from continued contact may injuriously affect the mixture. Tinned or galvanized pails are safe if new or if the tin or zinc coating is intact.

2. Do not dissolve the sulphate and lime each in two to four gallons of water and then mix the concentrated solutions; curdling will result and after dilution difficulty will be experienced in keeping the Bordeaux in suspension.

3. Do not fail to stir the ingredients while mixing and the resultant mixture when spraying.

If more than one barrel of Bordeaux is required much time may be saved by using stock solutions.

Dissolve fifty pounds, for example, of copper sulphate in fifty gallons of water by suspending in a coarse sack as advised above; slake fifty pounds of lime in another vessel and dilute to fifty gallons; four gallons from the sulphate solution and five gallons from the lime solution will then contain the requisite amount of ingredients for one barrel of Bordeaux.

Such stock solutions may be kept indefinitely if covered, otherwise the evaporation of water from the sulphate solution would result in a more concentrated mixture and the lime would deteriorate. The lime may be covered with water.

This method of using stock solutions is now employed in all extensive spraying operations. In cases where large quantities of spray material is used elevated tanks are employed from which the solution is drawn directly into the spray barrel or tank.

Potassium Sulphide.—For checking the spread of certain surface feeding fungi, as gooseberry mildew, grape mildew, rose mildew and many of the fungi which cause "damping" of young plants in the seed bed, potassium sulphide may be used to excellent advantage.

Potassium sulphide, 4 ounces; water, 10 gallons.

The solution must be used as soon as made, as it quickly loses its strength.

Any unusual portion of the potassium sulphide should be kept in a tightly corked bottle to prevent loss of strength.

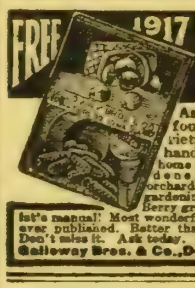
Combining Insecticides and Fungicides.—Arsenate of lead may be safely combined with Bordeaux mixture. In fact, in orchard spraying operations it has come to be a common practice to add arsenate of lead to Bordeaux at every application. By this means biting insects and fungi are controlled at a single operation. No other fact is more important than this in spraying.

When using arsenate of lead with Bordeaux always add the arsenate to the lime water, instead of pouring it into the combined copper sulphate and lime; this is important.

SPRAY

The simplest, most efficient and lowest priced spray pump on the market. No suction; no packing to wear out. Use in bucket, keg or barrel.
—FOR DISINFECTING—with any kind of liquid, whitewash, etc., as well as for spraying trees, shrubs and plants. No sediment can settle in pump; can not clog. The price is low. Write for details or ask your dealer.
Peoria Hydraulic Pump Co.
Peoria, Dept. 5 Illinois

FREE 1917 PLANTING GUIDE AND PURE SEEDBOOK



Ask now! This beautiful 96-page four-color book describes 1917 varieties vegetables and flowers; handsomely illustrated; beautiful home grounds, flower and vegetable gardens, landscaping, shrubbery, orchards, farms. A dictionary on gardening! Flower lover's delight! Berry grower's book! An orchard-ist's manual! Most wonderful gardening guide catalog ever published. Better than our famous 1916 book. Don't miss it. Ask today. A postal gets it.
Galloway Bros. & Co., Dept. 35 Waterloo, Ia.

WISCONSIN FARMER subscribers are invited most cordially to submit their problems to this department. Names will not be mentioned, but all inquiries should be signed. The value of this department to our readers largely depends upon their own zeal in submitting questions or inquiries that are closely or remotely related to farm or home affairs.

Questions and Answers.

A Quick Pasture.

I expect to raise pigs from seven sows this spring and I am going to be short of pasture. Have a three-acre field that I can use and I want to know what to seed it with so as to get the best results.

With this limited pasture area no crop will be equal to rape. It should be seeded at the rate of six or seven pounds per acre, using the Dwarf Essex variety. Sow just as soon in the spring as the soil is warmed up enough to sow grain. Do not turn the hogs in until the plants are eight or ten inches high and after that the crop will furnish good pasture through the summer, early fall and late fall months.

The Hog House Floor.

I am going to build a hog house this summer and I would like to know what is the best kind of flooring to use, plank or cement. Naturally, of course, the cement floor will be much more permanent, but I understand there are objections to it when it is used in a hog house.

In a central hog house, where one expects to keep hogs year after year, the concrete floor should be given preference to all other types. Other flooring rots out quickly, it is not so easily cleaned, and it is not so sanitary. The one objection to concrete is that it is cold, but at farrowing time it is a simple matter to throw down a little platform in each pen so that the pigs can be kept off the cold floor for a few days.

Destroying Sow Thistle.

I would like to know how to destroy sow thistle. Is it as hard to get rid of as quack grass, and would it be advisable to plant corn when you are killing it out or would it be better to use small grain?

There are two varieties of sow thistle, one being an annual, depending upon its seed for propagation, while the other is a perennial and lives year after year. The former may be killed out by keeping it from going to seed, while the latter must be destroyed by frequent cultivation. Begin early in the spring and keep the plants from forming leaves until about the first of July, and then millet or cane seed may be seeded thickly. These crops will, in all probability, smother out thistles.

Owner Liable For Stallion Injuring Employe.

I would like to ask if the owner of a stallion in Iowa is compelled by the workmen's compesation act to insure the man he employs to take care of this stallion. During the spring the stallion is moved about from place to place.

While the statute referred to excludes farm or other laborers engaged in agricultural pursuits, the handling of a stallion by an employe could not be considered under that classification. The owner of the stallion would be placed in the same position as the owner of a threshing machine used in threshing grain for others for hire. This is not an agricultural pursuit and the owner of the machine should protect himself by taking out liability insurance just as should the owner of a stallion.

Horse Gorging Grain.

I have a Percheron stallion that wastes about one-third of his grain by simply nosing it out of the box and filling his mouth so full that a considerable part of it is scattered in the stall. I would like to know what means I could take to break him of that habit.

Place several rocks in his feed box. In that case the horse will have to work his nose down in between the rocks and he will not be able to get as big a mouthful as would otherwise be the case. In most instances this plan will correct the habit. Another method would be to feed him in a closed box and let the grain trickle down through a small hole into a second box so that the horse will have access only to a small quantity of the grain at any one time.

Test the Seed Corn.

My seed corn was picked early last fall and I hung it up for a time on wires strung across the corncrib. A month later I put this corn in an upper room in my house and it seems to have kept in good condition. Do you think it would be worth while to test it?

This corn ought to germinate 100 per cent because it has been kept under ideal conditions. It will require but a small expenditure of time to test out, say fifty ears. If six kernels from this number of ears show up strong in the test it will not be necessary to go any further in the matter of testing.

Plowing For Oats.

I have twenty-five acres of cornstalk ground and the stalks were pastured all winter. I am going to sow oats on this field this spring and would like to know if it would pay me to plow the ground or will just as good results be obtained by prepairing the seed bed with the disk?

Under ordinary circumstances a good seed bed can be prepared on cornstalk ground with the disk. Usually a double disking and two harrowings are sufficient to make a good seed bed. The objection to plowing in the spring is that it makes the soil too loose and under certain conditions the crop is apt to lodge.

Hog Lighter Than Claimed.

I purchased a pure-bred hog recently and the seller made a general statement in his first letter that his gilts would weigh 250 pounds. I ordered one of these gilts and while I haven't a scale I do not believe that this sow will weigh more than 200 pounds. Two of my neighbors have seen her and they estimate her at 190 pounds. Of course I have kept the sow several weeks now and do not expect that the seller will take her back, but do you think I got a square deal?

This gilt should have been weighed before being taken away from the express or freight office and if she was found to weigh only 190 pounds when the seller claims she would weigh 250 it is a straight case of misrepresentation. Where the buyer has it specified that he has the privilege of inspecting the sow and returning her if she does not come up to her description then she should be promptly returned. If this is not the case negotiations should be entered into at once for her return. Reliable breeders will not overestimate the weight of a gilt as much as was the case in this instance.

Alfalfa With a Nurse Crop.

A year ago last spring I sowed alfalfa with oats and there seemed to be a good stand, but it turned out to be only about one-third of a stand, so I plowed it up and put the ground in corn. I would like to know what you think about sowing alfalfa again this spring. Would it be all right to use early oats as a nurse crop along with the alfalfa and cut the oats for hay?

On the whole alfalfa will give better results when seeded without a nurse crop than with one. It would be a good plan to put in early oats and cut them for hay so that the ground can be plowed during the summer and a good seed bed for alfalfa prepared. After plowing do considerable harrowing and pulverizing so as to bring the seed bed into good condition and sow alfalfa some time between the 10th and 25th of August. If the land is not sour a good stand should result.

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BOOK FREE 156 page reference book—tells all about a complete line of farm implements and how to adjust and use many of them. A practical encyclopedia of farm implements. Worth dollars.

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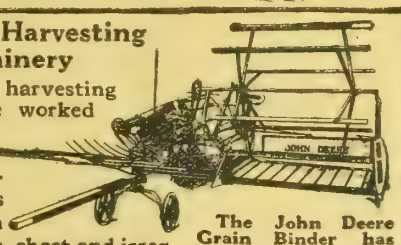

The John Deere Grain Binder has wide and high bull wheel—great power.

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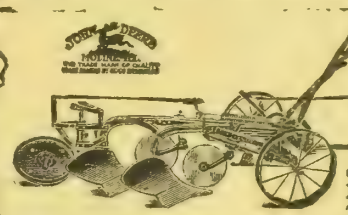
John Deere Plows for Light Tractors



So far as quality of John Deere Plows for Light Tractors is concerned they are built for the farmer who realizes that it is business judgment to buy a high-grade tractor plow. Don't forget that a tractor plow is not an everyday purchase.

John Deere Plows for Light Tractors are noted for their high-grade work in the field—the real test of tractor plow value.

Before you make your purchase, be sure to see John Deere Plows for Light Tractors. A careful purchase means permanent saving.

High and Level Lift. Two, three and four bottoms.

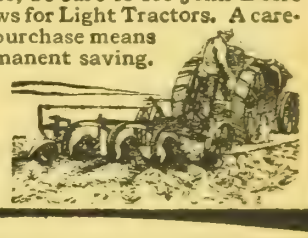
High and level lift means level plows out of the ground, no cutting of ridges when crossing or turning on plowed ground.

Steady running furrow wheel—does not drag or bind against furrow wall.

Stiff hitch—plow can be backed.

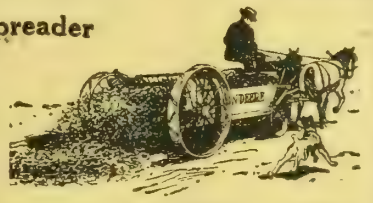
John Deere bottoms, the standard for over 78 years. There is a John Deere bottom for every kind of soil.

Equipped with John Deere Quick Detachable Shares—great labor and time savers.



John Deere Spreader

The Spreader with the Beater on the Axle



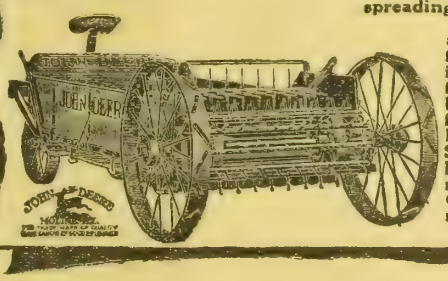
Mounting the beater on the axle simplified the construction, eliminated troublesome parts and made possible a successful low-down spreader with big drive wheels. There are no shafts to get out of line, no chains to cause trouble, and no clutches to adjust. The only spreader with beater and beater drive mounted on axle.

Low down, with big drive wheels out of the way. Easy to load.

Revolving rake, driven by manure moving toward the beater—no bunching of manure. Ball bearing eccentric apron-drive—a new and exclusive driving device.

Makes uniform spreading certain.

Widespread attachment for spreading seven feet wide can be furnished for the John Deere Spreader. No chains nor gears. Quickly removed.



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To designate and brand their goods, "Deere & Company," use the "leaping deer" trade mark. It is the best known implement trade mark in the world.

The reason that it is so well known is because of the high quality of the implements themselves.

Prestige in farm implements is obtained solely through the superior merits of the goods.

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Look for the John Deere trade mark when you buy.

JOHN DEERE, MOLINE, ILLINOIS

UPPER WISCONSIN

In Ashland County.

To the Editor:—I have been a reader of your paper for some time, and I notice an Upper Wisconsin department in it, but see nothing from this section, namely, Ashland and Bayfield counties. Thinking it might be of interest to your readers, I will try and give you a few facts concerning this place.

I came here twelve years ago from northern Illinois and bought a section of land eight miles from this city. At that time there were no roads nearer than five miles and only about fifteen settlers in the township. Today our township has about ninety families, with good roads, and the contract let to build eight miles of crushed stone roads at a cost of $36,000 this summer; telephones, daily mail, cream route, a township high school costing $30,000. Don't you think we are entitled to be heard from?

Now there must be a cause for these things. What is it? A soil and climate conditions that can't be beat anywhere, coupled with the energy and industry of our people. Where a few years ago the only cattle that could be seen were a few mean scrubs today you can find nice herds of Guernsey and Holstein cattle, many of them as good as can be found in the state. This condition has been brought about largely by our banks and the Ashland dairy plan.

Our climatic conditions are the best. Do you know that along the south shore of Lake Superior we have a longer growing season than northern Illinois or southern Wisconsin? During August and September when the country south of us is dried up and the farmer is compelled to feed his stock our pastures are at their best. We never know a failure of grass. All small grains yield well here, especially winter grains, wheat yielding thirty to forty bushels and more to the acre. Flint corn will ripen here and the Dent varieties will get to a stage for good silage. Clover yields from two to four tons per acre. Fruit of nearly all kinds cannot be beat anywhere. Potatoes and all vegetables do fine here.

If time and space would allow I could tell you of many enormous yields. The clearing of our stump lands is no longer the hard task it once was. Under improved methods and with improved machinery it is done much more quickly and at a much less cost. The Wisconsin Advancement Association has been a great factor in this work. Our country here is especially adapted to the raising of sheep and will be heard from along these lines. We have at present several flocks ranging from 500 to 1,000 head with numerous small flocks, and are raising lambs weighing seventy-five to eighty-five pounds at five to six months old.

In conclusion, I want to say that I am not a land agent or speculator, but if any good, industrious man wants to better his condition, if he will come up here we shall take pleasure in showing him this country, where any man can by thrift and industry own a farm, which is almost impossible among the high-priced lands of Illinois and the other settled states.

Frank Catlin.

More Pure-Bred Sires Needed.

To the Editor:—A pure-bred sire census has been taken of Langlade county. It shows that out of 1,450 farmers 127 have pure-bred sires at the head of their herds. Of this number 107 are Holsteins, Guernseys or Jerseys and the remaining twenty Short-horns, Red Polled, Aberdeen Angus and Hereford. There are seventy-three Holstein pure-bred sires, twenty-seven Jerseys and ten Short-horns. This census shows that the number of pure-bred sires is entirely too small, as it takes in only 8.4 per cent of the farmers. Even if the pure-bred sires shown are used in addition on one other farm than the place where they are owned only about 15 per cent of the farmers of the county could be considered progressive live stock breeders. Inasmuch as the scrub, "the measly, ornery scrub," as a man recently put it, is the biggest tax on our county, we disike very much to think that there are still farmers in Langlade county who are satisfied to use that class of sires. A pure, bred-for-production sire is worth more, not because he is pure bred, registered and high priced, or has a high-sounding name, but because he has the ability given him by generations of careful selection and mating to produce offspring of equal or greater excellence. The information relative to the pure-bred sires in Langlade county was furnished by the rural teachers.

F. G. Swoboda.

Langlade Co., Wisconsin.

Sweet Clover.

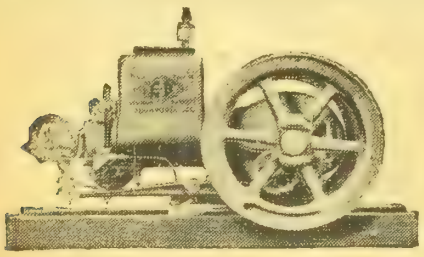
When the stand of sweet clover is thick there is danger of seriously injuring the second growth by cutting it either too low or too late, according to W. M. Budlong. The new shoots spring from the live branches on the side of the stalks that have not been smothered out by the dense growth of the foliage above.

Sweet clover does not bloat stock and hence it is especially desirable as a pasture plant.

Mr. Budlong calls attention to the fact that in chemical composition and feeding value it is almost a balanced ration in itself and it is not surprising that all kinds of stock do well on it.

When sweet clover is sown in small grain in the spring it can be pastured with about two head of stock to the acre from September 1st to November 15th. In the spring of the second year it will support three or four head of steers an acre from the latter part of April until July 1st and sometimes even later.

In his experience with sweet clover Mr. Budlong finds that it should be pastured closely to keep the stalks from growing rank and woody. He says that steers of about 1,000 pounds will gain nearly three pounds daily on sweet clover.



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An Appeal For Patriotism

On account of the high cost of feed and the unprecedented high price of meats, many farmers, either from necessity or shortsightedness, are stripping their farms of meat-producing animals.

Small pigs, underfinished calves and even brood animals are going to the slaughter house by the millions.

This, if continued, will create an appalling condition. The meat supply of the world is rapidly diminishing and the burden of taking care of the future rests with the American farmer.

And in view of the conditions that confront the nation, we, as American citizens, appeal to the patriotism of the American farmer to prepare for the greatest meat shortage the world has ever known.

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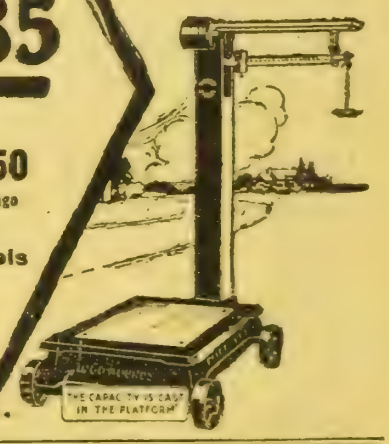

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What Our Dairymen Are Feeding.

A Few Interesting Chapters From the Note-books of Men Who Are Testing Dairy Cows and Urging Greater Production.

[Editor's Note.—The Wisconsin Farmer has been receiving some very interesting letters from cow testers, giving some important light on feeding under the conditions which have existed the past winter and spring. Below we give a few of these letters.]

Leguminous Roughage Needed.

To the Editor:—This certainly has been a winter of feed shortage in this section, especially of good roughage. The clover crop was almost an entire failure, while the corn ensiled last fall was not sufficiently matured to make a good quality of ensilage.

To meet this shortage, most of my members ordered high protein feeds last summer. While these helped to balance up the rations, results were not what could be desired. After comparing records taken from herds where alfalfa and clover hay were used, and herds which received timothy, I do not believe that any mixture of concentrates will produce maximum results unless some kind of leguminous roughage is fed.

From farm-grown feeds I would suggest the following as being an economical ration for my section:

Ensilage	30-40 lbs.
Clover or alfalfa	15-25 lbs.
*Oats	200 lbs.
*Corn	100 lbs.

*One pound to every 4-5 pounds milk.

I could not suggest an economical ration where feeds are not home grown, as the prices of these vary too much from month to month.

I have kept an account of all feeds bought by my members this year. The amount is as follows:

	Tons	Price
Ajax flakes	26	$33.00-$48.00
Oil meal	4	39.00- 50.00
Bran	18	22.00- 36.00
Middlings	6	24.00- 35.00
Unicorn dairy ration	32	34.00- 48.00
Dewey's dried grains	7	38.00- 43.00
Beet pulp (dried)	8	24.00- 28.00
Cottonseed meal	2	42.00- 48.00
Alfalfa hay	16	18.00- 23.00

The Unicorn proved to be the most economical, but I do not credit this so much to its nutritive value, but more to the wide variety of feeds it contains.

If we testers can only teach half of our members the value of economical feeding, we can put many dollars in their pockets. Most of my members get The Wisconsin Farmer.

F. A. Gaiser,

Official Tester, Wrightstown, Greenleaf and Brillion Association, Brown county, Wisconsin.

Feed Shortage a Blessing.

To the Editor:—Shortage of feeds of all sorts has proved a blessing in disguise to us. We have learned to concentrate our thoughts on the subject of rations. Our strong ally is the cow tester. Weighing of milk and study of feeds has resulted in increased production, and in some instances at even less cost. A wholesome interest has been aroused in dairy cattle and dairy products. Each cow has been proved to be a lesson in herself in quantity and quality of feed. Previously we supplied the dealers with clover hay and grain, but today it is the reverse case. They have not been prepared to sell us the variety of feeds we need. Good clover hay was not on the market and alfalfa hay was delayed in shipment until the middle of winter. Our timothy hay and straw lacked protein, which, of course, is most needed in a ration designed to produce milk. Our official tester suggested we buy oil meal to supply the protein, and with our home-grown oats and barley balanced a ration one to four using fifty pounds of oil meal, 100 pounds of ground oats, 100 pounds of ground barley, and 200 pounds of bran. Later on, when the alfalfa came on and our barley bin was empty, the testers requested the dealers to introduce gluten and mixed feeds. As fed by a good many of our dairymen, this ration was twenty-five pounds of oil meal, 100 pounds of gluten, 200 pounds of Unicorn, 200 pounds of ground oats and corn, and 200 pounds of bran, or one to four. You will notice that this ration in conjunction with alfalfa provides the cows with a greater amount of protein than the first ration. The cows receive all the hay they can consume. Silage being scarce, was limited to about twenty pounds daily. When there was no more silage we bought beet pulp, which, when soaked in water, makes a very good substitute for silage as a succulent food. Each cow gets about two pounds daily. We have no set rules in feeding grains, but on an average each cow receives about one pound of feed to four pounds of milk. With one eye on the appetite, another on the condition of the cow's bowels, and the other, figuratively speaking, keeping account at the milk pail, we add or subtract oil meal or some other high protein feed as seems to be needed. Really, two eyes are scarcely enough to accomplish the business of dairying successfully. Drinking cups, I believe, pay for themselves two or three times over every year. A small allowance of salt is also fed in the grain. The rations may have been limited to the cheapest grains, but variety is a necessity in feeds. You may be surprised at the quantity and price of grains which we feed, but our milk checks are showing beyond a doubt that this expenditure is a good investment.

Royal Klofanda,
D. V. M., Brillion, Wis.

Feed Quality in Roughage.

To the Editor:—Members of the Sparta-Tomah Cow-Testing Association have been feeding 40 per cent to 80 per cent mill feeds and prepared rations the past winter. Among the most satisfactory feeds which we have purchased are dried brewer's grains, corn, distiller's grains, gluten and wheat bran. These feeds were purchased in carload lots before the prices soared last fall. They were bought on the basis of protein, cost, palatability and bulk. Oats are the most popular farm feed at present. Where we have found it necessary to purchase roughage, alfalfa has paid good returns, even at present prices, by cutting down grain bills and stimulating the milk production. Feed little grain to good cows and watch your losses. Good roughage is the foundation of any economical dairy ration, and all cows demand a certain quantity of roughage. I believe in supplying quantity with quality and lowering your grain bills. Give us more silos and quality in the roughage and supplement farm pastures by seeding more acres than usual for the next legume hay crop. This is a tonic for the soil, and the cows stinted on usual short pastures require more grain when stable feeding begins. Join a cow-testing association and increase your dairy profits.

C. P. Chrysler, Official Tester.

Reports from Janesville, Rock county, indicate that the manufacture of Greek cheese by the Leaf River Creamery Company has been a success. This company is reported to be raising its capital stock from $50,000 to $150,000 and planning to double its capacity. Several prominent Greeks in Chicago have affiliated themselves with this company. There are now nine men employed and it is expected to increase this to twenty-five as soon as more milk can be secured. This company now exports about a ton of cheese per day from the Rock county plant. While some months ago farmers in the vicinity of Janesville were trying to find a market for their milk, the situation now seems to be reversed and the cheese-factory is making efforts to get more producers of milk. This factory has been paying the Chicago association scale for milk.

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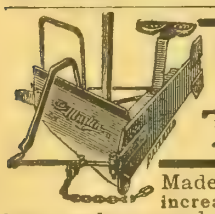

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Made easy—Bigger crops, increased farm values and better roads assured with

THE Martin O.D.&Co.

Farm Ditcher Terracer and Road Grader

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All-Steel—Adjustable—Reversible—No wheels, levers or cogs to get out of fix. Cuts and cleans ditches to 4 feet—grades roads—builds terraces, dykes and levees. Prevents crop failures, reclaims abandoned land. Needed on every farm. Write for free booklet and introductory offer.

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Everywhere to ride and exhibit the new **Ranger "Motorbike"** completely equipped with electric light and horn, carrier, stand, tool tank, coaster-brake, mud guards and anti-skid tires. **Choice of 44 other styles,** colors and sizes in the famous **"Ranger"** line of bicycles.

DELIVERED FREE on approval and **30 DAYS TRIAL.** Send for big **free** catalog and particulars of our *Factory-direct-to-Rider* marvelous offers and terms.

TIRES Lamps, Horns, Wheels, Sundries, and parts for all bicycles—at half usual prices.

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KEROSENE ENGINES
OTTAWA LATEST DESIGN

Durable, Powerful, Reliable, Massive. Built to last; to do hard, heavy work. Uses Cheapest Fuel. Pull ¼ to ½ horse-power more than rated. *3 Months Trial. Easy Terms.* Sizes 1½ to 22 H-P. Easy to start. No Cranking. No batteries. **10 Year Guarantee.** Most practical engine ever built. Engine book free. A Postal brings it.

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AUTO EXPERTS WANTED

Everywhere. Big wages. Great demand. Learn Auto Mechanics in this the best equipped school. Also Steam and Gas Engineering. Be sure to write for catalog. Address

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Austin - Minnesota

PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for four free books: inventions wanted, etc. I market your invention without charge. Richard B. Owen, 37 Owen Bldg., Washington, D. C.

FARM MECHANICS

AUTO, Farm Engine and Farm Machinery Ailments Diagnosed and Remedies Suggested in this Department.

Lubrication.

Proper lubrication is vitally necessary for the successful operation of all machinery, whether in the large factory or on the farm. It is estimated that one-half of all the repairs and breakdowns in the average shop is caused by lack of oil or dirty oil. Doubtless the same average would hold for farm machinery. The average man utterly fails to realize the importance of correct and thorough lubrication. When the bearings of his machine wear out he blames the manufacturer or some other cause; a more frequent use of the oil can might have doubled the life of the machine.

It should be remembered that every joint where one piece moves on another should be lubricated. The amount and kind of lubricant depend upon the conditions. The usual trouble is the lack of lubricant, but trouble may be caused by dirty, gritty oil. It is not a good policy to poke a steel chip or a grain of sand into an oil hole with the end of the oil can spout. That is just what is done time and again, however. Instead of cleaning out the oil holes of the machine before oiling the gum and grit that has accumulated in the hole since the last oiling is pushed further into the hole by the end of the oil can spout. Sooner or later the grit enters the bearing and sticks it or wears it out rapidly.

The old rule for sufficient lubrication was to "pour the oil into the hole until it runs over, and then pour on a little." That was not a bad rule twenty years ago, when there were but few grades of lubricants and high-speed machinery was in its infancy. Now it is necessary to use more judgment, as too much may be as bad as too little; while in other cases a great excess may be advisable. For instance, too much oil in the crankcase of an automobile motor is sure to cause smoke and carbon trouble. Too much oil on the bearings of a magneto will often cause serious trouble, as the excess oil works out of the bearings and causes short circuits. On the other hand, the bearings of the magneto should not be neglected, even though they require only a few drops of oil every thousand miles. Even a watch, to be durable, should be oiled once a year.

The manufacturer and consumer have discovered that certain kinds of oil work best with certain machinery. Gas engines require an oil that cannot be charred easily by heat. Therefore, a mineral oil must be used, as oils containing animal fat char easily. Oils containing considerable animal fat are more suitable for oiling the slide valve of a steam engine, as they are easily converted into a vapor and carried over by the steam into the steam chest; the heat of the steam not being sufficient to char the oil. The transmission gears of an automobile require a thick, heavy oil that will stick to the gears so that centrifugal force cannot throw it off. However, it must run enough so that it will settle to the bottom of the case, where the gears can pick it up. Yellow transmission grease is often used, similar to vaseline. While this grease has fair lubricating properties, in cold weather the gears cut grooves in it, as it does not run. The gears may, therefore, become dry with a bank of grease on each side of them. For this reason, a grease stringy, like molasses is sticky and stringy, is to be preferred.

For oiling the outside bearings of an engine or other machine, a good grade of gas engine oil works well, but a cheaper grade of oil having less heat-resisting qualities often works equally well. This oil is commonly called "machine oil." A good test for either gas engine or machine oil is to squeeze it between the fingers. It should not be easily squeezed out between the thumb and finger, and have a greasy appearance and feeling.

When pipe threads, bolt threads, etc., are cut with dies, an oil known as lard oil should be used on the dies and on the metal being cut. This makes a smooth thread and also makes the die cut easier.

Soap makes a good lubricant for wood where it is protected from the weather. Graphite, a black, shiny substance similar to charcoal, but having a greasy feeling, is a much used lubricant. It is often used in steam cylinders. Mixed with oil or tallow it is a good lubricant for sprocket chains. It is often used with transmission grease. Wood bushings treated with graphite are used to some extent as an "oil-less" bearing, no other lubricant being required.

There are many grades and brands of gas engine oil recommended for automobile engines. An old engine requires a thicker oil than a new one, and some types of engines require a thicker oil than others. A good oil is not easily thinned by heat, although heat tends to thin any oil. The large oil dealers have charts showing what grade of oil is best suited to every make and model of car.

Gas engines having the splash system of lubrication do not work as successfully burning kerosene as engines having a forced feed oiling system with the oil fed a few drops at a time from an oiler. Some unburned kerosene is sure to work down into the crankcase. This thins the oil in the crankcase, making it unfit to lubricate.

Questions and Answers.

Hitching Two Binders Behind a Tractor.

Please show how to hitch two binders behind a tractor so as to get best results.

Answer.—You should write direct to the manufacturer of the binders you intend to use. A rather complicated appliance is required and it varies with the different types of binders. The company that made your binder can probably supply you with the necessary attachments cheaper than you could make them.

Buying Chain.

I have a car equipped with a compressed air starter. The air pump is run by a silent chain. Can you tell me from whom I can buy the chain? The company that makes the car wants about three prices for the chain.

Answer.—It is hard to purchase this type of chain in small quantities, as much of it is used on war machines and the supply is scarce. You might consult your hardware dealer, but we doubt that you could obtain it much more reasonable than from the auto company. Labor and material are very high at present.

Uses Too Much Gasoline.

I have a 1912 E. M. F. touring car that is bothering me. It pulls well

Power Depends on Piston Rings

Your best guarantee of power is a set of

McQUAY-NORRIS LEAK-PROOF PISTON RINGS

—the Genuine

So carefully made, so exactly adjusted they stop compression leakage and get every ounce of energy out of the gasoline; keep down surplus oil and reduce carbon. So strong and enduringly elastic they will outlast all other piston rings.

Get the Genuine. All garage and repair men can give you immediate service on them. If you have any difficulty getting them, write us. We'll see you are supplied.

Book on Compression—Free

"To Have and to Hold Power"—the standard handbook on gas engine compression. Every farmer who runs an automobile, engine, tractor, etc., ought to have it.

Manufactured by

McQuay-Norris Manufacturing Company
2820 Locust Street, ST. LOUIS, MO.

Portable Power For Your Farm AT ONE-SIXTH COST

Put your Ford to work grinding corn, pumping water, running elevator, sawing wood, dozens of other jobs requiring power, on your farm or your neighbor's. Power as reliable as your Ford engine; power that you can move anywhere on the farm in five minutes.

Schluter AUTO BELT ATTACHMENT ON OR OFF IN 15 SECONDS

No matter if you already own a gas engine a Schluter for your Ford will earn its way prove handy around the farm, and especially in case of break down of other engines.

The Schluter Auto Belt Attachment costs only $22.50, (less than 1-6 cost of 6 or 8 h. p. gas engine) and with the Ford engine gives you most reliable and cheapest power possible. Takes less gasoline. No changes in car. With our crank socket just hook on the Schluter and start to work. Attached in less than minute's time without screws, bolts or nuts. No wear on car. Nothing runs but engine.

A proven success and sold with our five day free trial money back guarantee. Order direct from this ad or send today for our big Free Circular.

E. F. Elmberg Co., 52 Main St., Parkersburg, Ia.

COUNTY AGENTS WANTED: Best Ford power attachment on the market and costs the least. Write today for special proposition.

"The biggest little thing on the farm"

JUST STOP A MINUTE AND THINK THIS OVER

Doesn't a windmill give back more for the money than any other farm machine? Doesn't it supply a most necessary element to life? Doesn't it work unceasingly, enduringly? Doesn't it require little or no attention? Why not buy a

SAMSON WIND MILL

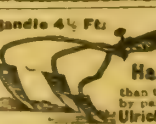
with double gears, big oil boxes and a world-wide reputation.

"Let the Wind Pump Your Water for Nothing"

Stover Manufacturing & Engine Co.
218 SAMSON AVENUE, FREEPORT, ILL.

SAMSON WIND MILLS, STOVER'S GOOD ENGINES, MAGNETOS, ALFALFA AND ENSILAGE CUTTERS, WOOD SAW FRAMES, WASHING MACHINES, PUMP JACKS, HAND GRINDERS, FIRE PLACE FIXTURES AND HARDWARE SPECIALTIES.

Handle 4½ Ft.



A 12 Year Old Boy or Girl can do more and better work with this

Handy Cultivator and Weeder

than three men with common hoes. Price $1.75 by parcel post prepaid. AGENTS WANTED.

Ulrich Mfg. Co. 28 River St. Rock Falls, Ill.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 16.

when it speeds up. It has good compression. It has been driven about 5,000 miles. It has made about 3,000 miles since the vales were ground. The spark plugs are clean, and the spark is timed right. I have always driven the car myself, and have taken good care of it. It used to make fifteen to twenty miles per gallon of gasoline, but now it will not make over six on a gallon. We took the carburetor to a garage, but they said that there is nothing wrong with it. The cylinders were cleaned and the magneto repaired without results.

Answer.—Examine the gasoline tank and the gasoline line for leaks. Since your car runs well a leak is the most probable cause of the trouble. A late spark or a faulty carburetor adjustment would also cause an excessive use of gasoline. It mightt be that the carburetor is flooding and the gasoline running out at the bottom, due to a defective float or dirt under the float valve. If the exhaust is sooty you are using too much gasoline and the carburetor should be adjusted for less gas.

Oil Cups Fill With Gasoline.

I have an International two-horse-power vertical gasoline engine. After running a while, the oil cup fills with gasoline. Have tried different oil cups, but they all do the same. The engine did not do this when new.

Answer.—In the first place, your engine is getting too much gasoline. Cut down the supply as low as possible without the engine losing power. In the second place, the rings are probably somewhat worn, allowing the gasoline to run down past them. The compression in the crankcase then forces the gasoline into the grease cup. A cup with an air-tight cover would probably work all right.

Hydrogen and Oxygen.

If water is decomposed into oxygen and hydrogen by electricity, can electricity be produced in any way by the two gases? What is the difference between hydrogen and carbonic acid gas?

Answer.—We know of no way of producing electricity directly by means of either oxygen or hydrogen, either singly or in combination with each other. When mixed in the proportion of two volumes of hydrogen to one volume of oxygen, the two gases combine if ignited by a spark; water being formed by the combination. The combination causes a violent explosion. Hydrogen is an elementary gas, that is, it cannot be separated into other gases. It is the lightest gas and is, therefore, taken as a standard for measuring other gases. It is colorless, odorless and invisible. Carbonic acid gas is a combination of one part of carbon and two parts of oxygen. It is also invisible, but is a comparatively heavy gas. When wood burns the carbon of the wood combines with the oxygen of the air and carbonic gas is formed. It is similar to the "fire damp" which is often found in old wells. It sinks to the bottom of the well because it is heavier than air. A man will smother to death if lowered into a well containing this gas. A light will not burn in this gas; therefore, it is best to lower a lantern into a well before a man goes down into it. If the lantern goes out the well is not safe.

Making a Magnet Charger.

How is a home-made magnet charger made; using a bar of iron in the shape of a large horseshoe with the ends brought together to correspond with the magnets? How many turns of wire should be on the bar, and how connected? Should any resistance be added; or an ammeter? How can a weak magnet be detected, and how can I know when a magnet is fully charged? Can this outfit be connected up with the battery charging outfit, and can both be used at one time?

Answer.—Make the bar about fourteen inches long. The bar should be at least as wide as the magnet bars and about twice as thick. It should be made of soft annealed wrought iron. For use with a six-volt storage battery wind about one and one-half pounds of single cotton-covered copper wire on each leg of the iron core; winding the coils right hand on one leg and left hand on the other. The coils may be wound from one continuous wire, the ends of the wire forming the terminals to attach to the battery when charging a magnet. There should be not less than 800 turns on the above magnet, which is calculated as having a cross-sectional area of one square inch. No resistance would be required with the above coils unless the voltage of the charging current is over twenty-four volts. If connected a very short time it might stand a higher voltage. The danger is from heating the wires hot enough to injure the insulation.

The magnets of a magneto should be strong enough to attract a bunch of iron keys held within a distance of one inch by a chain six inches long. Of course, this is not a very accurate test, but it will usually answer all requirements. As a rule, it is best to let the magnets alone, as one not familiar with them may demagnetize instead of magnetize them. The magnets must be magnetized in the proper direction and the magnetism retained by a soft iron keeper until they are slipped over the pole pieces of the magneto. It only takes an instant to charge a magnet. You could do so while charging your battery or when your generator is not running; in either case connecting the terminals of the charged coils to the terminals of the storage battery.

Making a Tractor.

I have a forty-horse-power Maxwell car. I would like to convert the same into a farm tractor. Would it be practicable? How many times should the speed be reduced? How should the rear wheels be fixed? Please give all the information necessary. Could it be used as a tractor and changed to a truck? How should the speed be reduced?

Answer.—We have always tried to discourage the idea of the home-made tractor; nevertheless some farmers have built fairly successful machines. A good tractor is hard to design and build; even with the resources of an expert engineering force and a good machine shop with every facility for obtaining or making the necessary parts. The farmer without the necessary tools and materials has a poor chance of success. Of course, a large part of the tractor may be made by a blacksmith and there are several companies that sell differentials and wheels. Many parts may be obtained from old tractors, so the problem is not entirely hopeless for the ingenious farmer.

The following points may be of assistance to you:

A tractor will seldom pull much more than half its own weight.

The speed of the tractor when plowing should not exceed three miles per hour. About five miles per hour is as fast as the tractor should travel on ordinary roads. A higher speed will soon rack the machine to pieces.

Allow six to ten engine horse power for each fourteen-inch bottom you wish to pull. For tractor service an auto engine should not be run at a speed much greater than 1,000 R. P. M.

Several systems of gearing for tractors have been published in these columns during the last year. You might be able to mount your engine and transmission lengthwise of the tractor frame and drive a large bevel gear on the differential by a small bevel pinion on the end of the propellor shaft of the auto, thereby obtaining the necessary speed reduction.

The lord mayor of Liverpool's offer to find experienced Chinamen for farm work arises from the fact that a good many Chinese arrive at Liverpool from various vessels and are willing to accept employment on the land, says a London newspaper. The lord mayor expresses the opinion that at least some farmers in the district are not averse. A number of leading farmers in the Liverpool district, however, expressed disfavor with the lord mayor's proposal for the employment of Chinese on the land. They admit being short handed, but preferred thus to remain rather than employ Chinese.

Dead cattle are lying everywhere and hundreds are in danger of starving in the territory north of the Great Salt Lake in Utah. Many of the ranchers in that district are without a pound of hay and have very little of any other kind of feed. The retail price of hay has reached the record mark of $40 a ton.

Come to Detroit The Automobile Center and LEARN THE AUTOMOBILE BUSINESS

33,000 sq. ft. of additional floor space

DETROIT trained men get preference and get jobs quickly. No other city can give what Detroit offers. Think what it means to learn in the Michigan State Auto School. Factories endorse our school, glad to employ our graduates or offer them territory in which to sell cars and start garages. Unlimited opportunities. 71% of Automobiles are made in Detroit. You're right in the Heart of the Auto Industry. Men are needed everywhere as testers, repair men, chauffeurs, garage men, and salesmen. Hundreds of our graduates start in business for themselves.

Earn $75 to $300 a Month

We teach you to handle any auto proposition. You graduate in from ten to twelve weeks. Our equipment is new, up-to-the-minute, and complete. No old, obsolete motors, chasses or electrical equipment used. Students actually build cars from start to finish, getting factory training in assembling, block-testing, road-testing, everything. Special complete course in Oxy-Acetylene brazing, welding and cutting, separate from regular course. Learn to time motors, rebore cylinders, adjust carburetors, magnetos, valves and bearings, quickly and accurately. Six-cylinder Lozier, Chalmers "6," Detroiter "6," Overland, and 8-cylinder King are used for road instruction. We have a new Chalmers "6-30" chassis with 3400-r. p. m. motor, the latest thing out. Also

Willys-Knight 1917 chassis
Studebaker "6" 1917 chassis
Hudson Super-Six 1917 chassis
Cole "8" 1917 chassis
Detroit Electric 1917 chassis
Saxon "6" 1917 chassis
Maxwell 1917 chassis
Oldsmobile "8" 1917 chassis
Briscoe 1917 chassis
Winton "6" chassis
G. M. C. Truck

All completely equipped for students to work on. We have more than 20 motors in our block-test department—2 cyl., 4 cyl., 6 cyl., 8 cyl. and 12 cyl. Our electrical department is complete, having every standard starting, lighting, and ignition system, including Delco System as used in Buick, Hudson, and Packard Twin "6."

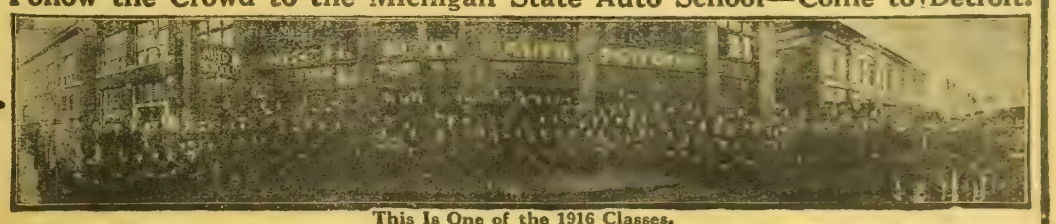
Detroit Is the Place to Learn---Start Any Time

There are 44 auto factories in Detroit and vicinity and 140 accessories and parts factories. Our students have the privilege of going through any or all of them. We now operate Westinghouse, Auto-Lite and Bijur Service Stations. This has added thousands of dollars' worth of equipment and makes our electrical department unequalled. Students get actual experience in handling all kinds of electrical auto equipment and taking care of trouble. We have just installed a Sprague Electric Dynamometer for block-testing purposes for students' use. Ours is the only Auto school having this equipment. Auto factories need Dynamometer men constantly. Factories and garages are paying big salaries to men who know how to handle electrical equipment quickly and properly. Detroit is the automobile center. You get practical instruction. School open all the year. Enter classes any time, any day. Three classes daily, morning, afternoon, evening. All instructors are members of the Society of Automobile Engineers (S. A. E.). There is a great demand for Michigan State Auto School students. Auto factories write and phone for men constantly.

Money Back Guarantee

We guarantee to qualify you in a short time for a position as chaffeur, repair man, tester, demonstrator, auto electrician, garage man or automobile dealer, paying from $75 to $300 monthly or refund your money. We have constantly more requests for Michigan State Auto School Graduates than we can supply.

Follow the Crowd to the Michigan State Auto School—Come to Detroit.



This Is One of the 1916 Classes.

Additional Building and Equipment

Thousands of dollars' worth of new equipment, plenty of room for students to work, at 687-89-91 Woodward Ave., in addition to our building at 11-19 Selden Ave. Our school has grown by leaps and bounds, students come from all over the world. We are constantly adding new equipment. Our electrical department is thorough and complete.

Factory Co-Operation We have completed arrangements with the Auto factories to put them in touch with men who intend going into business for themselves. Men who know the auto business from A to Z are in biggest demand. Remember, the price of course is based on giving full value. Graduates in the complete auto course are competent to handle farm tractors.

Auto Factories Endorse Our School

The Leading Automobile factories in Detroit, as well as in other cities, endorse our school. They have been watching our school and graduates for years and are satisfied. They are putting their latest model, complete chasses in our school for our students to work on. They are employing our graduates in their factories and service stations and assisting them in opening garages and salesrooms. They allow our students to go through their factories. They need trained, competent men and are asking for more of our graduates constantly.

The Michigan State Auto School in Detroit, Michigan, the heart of the Auto Industry, is endorsed by the Leading Auto Factories and receiving their hearty co-operation. What better endorsement could you ask?

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Michigan State Auto School,
1404 Auto Bldg., 11-19 Selden Ave., 687-89-91 Woodward Ave.,
Detroit, Michigan, U. S. A.
Gentlemen: Send me absolutely FREE "Auto School News" and New Catalog or better still you can expect me about . .
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Fill in the coupon; get full particulars, "Auto School News" and New Catalog. All absolutely free. Or better still, jump on the train, as hundreds have done, and come to the "Heart of the Automobile Industry," and learn right. We have no branches. Write or come direct to this school.

Michigan State Auto School

The Old Reliable School. A. G. Zeller, President

1404 Auto Bldg. 687-89-91 Woodward Ave. 11-19 Selden Ave

DETROIT, MICHIGAN, U. S. A.

News of the Sale Ring.

Marshall's Holstein Sale.

Geo. Marshall's dispersion sale of registered Holsteins at Darien, Wis., March 20th, more than came up to the expectations of the management. Much credit is due Mr. John G. Voss, sales manager, for the excellent manner in which the sale was conducted. Mr. Voss by reason of his wide experience in raising Holsteins and vast knowledge of Holstein pedigrees is qualified to give a splendid account of himself in the box. One of the reasons these cattle brought such good prices was that Mr. Voss presented so clearly and forcibly the merits of the animals as they were lead into the ring. There were 49 head sold, including much young stock. Leaving out three small calves, 46 head average $276; 17 head sold for $300 or above; 12 for $400 or above; seven for $500 or above, and $650 was the highest price paid for any animal sold. This sale taught two lessons to the close observer. In the first place it demonstrated the wisdom of properly caring for a herd and giving it an opportunity to do its best and in the second place it showed the mistake of using a sire that is inferior to the herd in which he is used. If these splendid foundation cows had been bred to a 30-pound sire that was capable of throwing good individuals the young stock would in all probability have sold for a third more money. The mature cows were the drawing cards of the sale and Mr. Marshall was certainly well repaid for the high state of production he had them in the day of the sale. Mr. John Kempkin, of Burlington, was the heaviest buyer and purchased seven head in all. Five of this number averaged $502. Mr. Ray Beers, of Honey Creek, was the second largest buyer and purchased three of the good ones which averaged $550. The following is a list of sales:

FEMALES.

Anna Baker De Kol, Nov., 1909; Ray Beers, Honey Creek, Wis. $600
No. 2½, Oct., 191½; Homer Smith, Delavan, Wis. 230
Maggie De Kol Johanna, Oct., 1914; Vea & Hildebrandt, Stoughton, Wis. 210
No. 3½, Nov., 1916; Homer Smith.. 105
Florence Baker De Kol, Oct., 1910; Robert Minshall, Elkhorn, Wis.. 310
No. 4½, Nov., 1916; Robert Minshall 60
No. 4½, Nov., 1916; T. N. Latimer, Genoa, Wis. 25
Carrie Rosalind, June, 1913; H. D. Gile, Sharon, Wis. 400
Flossie De Kol Rosalind, Oct., 1914; H. H. Smith, Delavan, Wis..... 300
Flora De Kol Rosalind, Oct., 1914; Merton Mattison, Darien, Wis.... 155
Baker Mercedes Wit, Dec., 1907; Ray Beers 450
No. 9½; Frank E. Ellingson, Capron, Ill. 165
Omega Mercedes Johanna, Jan., 1915; E. A. Steinbacher, Swanson, Mich. 300
Jane Mercedes Rosalind, Oct., 1912; R. G. Salisbury, Clinton, Wis..... 205
No. 12½, Nov., 1916; Eugene Stulsser, Richfield, Wis..... 100
Baker Mercedes Wit, Jan., 1911; Ray Beers 600
Lady Mercedes Rosalind, Oct., 1914; Neal McGean, Elkhorn, Wis..... 215
Lady Mercedes Rosalind Homestead, March, 1916; Neil McGean 155
Porcelein Mercedes Thinca, Feb., 1908; John Kempkin, Burlington, Wis. 205
Dora Mercedes Johanna, Oct., 1914; Walter Nichols, Walworth, Wis. 125
No. 17½, Oct., 1916; N. Dickinson & Son, Lake Geneva, Wis..... 100
Dollie Mercedes Johanna, Oct., 1914; John Kempkin 175
Porcelein Mercedes Thinca, Dec., 1909; John Kempkin 425
Mercedes Thinca Rosalind, July, 1912; E. A. Steinbacher 600
Freda Rosalind, Nov., 1914; E. A. Steinbacher 280
Runda Baker 2d, April, 1908; John Kempkin 400
Sally Baker Rosalind, Sept., 1911; C. A. Shephard, Franklin Park, Ill. 250
No. 23½, Sept., 1916; August McGavin, Milwaukee, Wis. 125
Rosalind Johanna Homestead, Sept., 1915; N. Dickinson & Son, Lake Geneva, Wis. 235
Jennie Baker Rosalind, Dec., 1914; Vea & Hildebrandt 300
Dexa Baker De Kol, Aug., 1910; C. L. Smith, Carey Station, Ill. 505
Queen Rosalind De Kol, Jan., 1913; John Kempkin 650
Extra; Robert Minshall 170
Queen Johanna Rosalind De Kol, Aug., 1915; Ray Beers 350
Grace Baker Rosalind, Nev., 1911; John Kempkin 505
No. 29½, Jan., 1917; Dickinson & Son 215
Angeline Calamity Burke, Oct., 1910; John Kempkin 530
Lillian Knoll View De Kol, June, 1910; J. Vernon, Walworth, Wis. 200
No. 31½, Oct., 1916; Geo. Peterson, Nashotah, Wis. 155
Angeline Aaggie Homestead, Oct., 1915; N. Dickinson & Son..... 230
No. 34, Feb., 1916; J. P. Eckhert, Burlington, Wis. 135
Butter Girl Pontiac Korndyke, Jan., 1914; Neil McGean 405

BULLS.

Beauty Walker Pietertje King 4th, Jan., 1915; F. W. Fuches, Thorpe, Wis. 225
No. 5½, Nov., 1916; E. A. Peters, Sharon, Wis. 85
Sir Johanna Rosalind De Kol, April, 1916; Adam Koch, Harvard, Ill... 110
No. 13½, Oct., 1916; Chris Haug, Capron, Ill. 105
No. 26½, Nov., 1916; Tulloch & Fries, Genoa, Wis. 125
No. 33, April, 1916; Tulloch & Fries 150
Sir Korndyke Rag Apple De Kol, Feb., 1916; Homer Smith 200

SUMMARY.

42 females..$11,885; average....$282.95
7 bulls .... 1,000; average.... 142.85
49 head .... 12,885; average.... 262.95

Percheron Dispersion Sale.

Louis P. Sutter and Lewis Lewellin & Sons' dispersal sale March 21st at the Wisconsin State Fair grounds was well attended and brought buyers from Ontario, Canada, Illinois, Indiana, North Dakota, Minnesota and Wisconsin. The good animals of the sale sold well, while some of the young stock that was somewhat in the rough did not bring especially good prices. There were 59 head sold which brought a total of $20,985, or an averaged of $355.67 per head. Mr. Sutter's big stallion, Marmot (106188) 105825, topped the sale by bringing $1,240. He is a good, straight forward mover possessing an excellent set of legs and feet and has sufficient weight to make him the right type of a draft sire. Lewellin & Sons' mare, Pearl (71150), topped the prices paid for mares by bringing $1,175. She is a show mare, having much quality in addition to being one of the best bred mares in the state of Wisconsin. Mr. E. E. Randall, of Hustisford, is her present owner. It is fortunate for the state that animals of such quality are not allowed to leave its borders. The sale in general was considered very successful, which in no small degree was due to the sale manager, James G. Boyd and Col. Joe Walker and C. E. Donovan. The following is a list of sales:

FEMALES.

Pearl, May, 1910; E. F. Randall, Hustisford, Wis. $1,175
Priscilla, April, 1905; Reynold A. Schmitt, Sun Prairie, Wis..... 425
Valentine, Feb., 1915; F. G. Beiseker, Tissinden, N. D. 400
Helena, Mar., 1907; E. E. Randall.. 755
Grenade, April, 1905; E. E. Randall 475
Nante, March, 1913; Babson Bros., Chicago, Ill. 510
Neptune, April, 1913; F. G. Beiseker 325
Nature, April, 1913; Babson Bros... 440
Narquoise, May, 1913; Babson Bros. 335
Nedde, April, 1912; S. F. Guttenstein, Milwaukee, Wis. 395
Grace, Hay, 1910; John Whalen, Madison, Wis. 485
Kyreille, May, 1911; J. W. Peterson, Litchfield, Minn. 245
Ella, April, 1911; Jacob Allamaras, New Rockford, N. D..... 280
Korene, March, 1904; S. F. Guttenstein 80
Bell, May, 1912; Fred Stegler, Calhoun, Wis. 275
Nitouche, April, 1913; S. F. Guttenstein 430
Nasarde, March, 1913; S. F. Guttenstein 500
Nepe, March, 1913; S. F. Guttenstein 630
Idole, April, 1908; S. F. Guttenstein 300
Phyllis, June, 1912; Babson Bros.... 500
Pansy, May, 1911; S. F. Guttenstein 250
Easter, March, 1913; E. E. Randall 295
Glory, April, 1915; F. G. Breiseker.. 400
Illegalite, Feb., 1908; S. F. Guttenstein 440
Tiquette, March, 1914; Fred W. Stubley, Black Earth, Wis..... 300
Fanfan, May, 1914; Thomas Posvers, Astico, Wis. 225
Mabelle, April, 1915; E. G. Bright, Terry, Ont., Can. 245

oncluded on page 24.)

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER MADISON, WISCONSIN

KODAK FINISHING.

LET experts finish what your Kodak began. Offer good until June 1, 1917. We finish one roll (only) six exposure film any size, furnish six select prints for 25c with order. Better pictures from each exposure. Fewer failures from roll or money cheerfully refunded. T. V. Moreau Co., 620 Nicollet Ave., Minneapolis, Minnesota.

GOVERNMENT POSITIONS.

MEN AND WOMEN, 18 or over, wanted for U. S. Government life jobs; $75.00 to $150.00 month; steady work; short hours; rapid advancement; common education sufficient; write immediately for free list of positions now easily obtainable. Franklin Institute, Dept. B176, Rochchester, N. Y.

PRINTING.

GIVE your farm a name and let us print it on your letterheads and envelopes. Be up to date. 100 for 40c, 300 for $1, 500 for $1.50, post paid. Address S. Anderson, Route 8, Green Bay, Wisconsin.

100 ENVELOPES, neatly printed, 40c; 300, $1; 500, $1.50, prepaid. Samples free. Andrew Christianson, Manhattan, Ill.

AUTO FOR SALE OR TRADE.

FOR SALE OR TRADE—1916 Reo automobile in good condition; will sell reasonably or trade for registered Short-horns. Write E. J. Stanek, Dilly, Vernon County, Wisconsin.

HELP WANTED.

WANTED—Reliable young single man for general farm work; no booze or cigarettes; state wages and experience in first letter. Fred Hasey, Rio, Wisconsin.

HOLSTEIN BULL.

FOR SALE—Registered Holstein bull, age two; best papers. Jackson Bell, Oxford, Wis.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

POULTRY AND PET STOCK.

STRONG healthy baby chicks, or eggs for hatching; White Wyandottes, S. C. Rhode Island Reds; trap nested the year round; big values in pullets and cockerels from high record hens; mated pens; come and see these birds, or write for prices and records. Pine Lake Poultry Farm, Dept. 2, Hartland, Wis.

PRESERVE YOUR EGGS with the Fleming egg preserver; costs but 2c per doz. A $1.00 jar will preserve 100 doz. eggs. Keeps eggs as fresh and sweet as the day they were laid. Recommended by all leading universities. Try a jar today. Agents wanted. P. O. Box 222, Madison, Wisconsin.

BARRED Plymouth Rocks and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, Matthews, R. 24, Ind.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

HATCHING EGGS! S. C. White Leghorns; heavy layers and prize winners; 15 eggs $1.50; 30, $2.75; 50, $4.50; 100, $8.00. Marathon Poultry Yards, Geo. Syler, Marathon, Wisconsin.

SINGLE COMB WHITE LEGHORN baby chicks, $10 hundred; eggs, dollar 15, from fine, large, vigorous, farm raised winter layers. Cushman Poultry Ranch, Reedsburg, Wisconsin.

WHITE Wyandottes. Regals direct. 200-egg hens, nine years of ribbons; first, fourth cockerel St. Louis, '16. Major matings $1.50, 15. Ezra Phillips, Ewing, Illinois.

WYCKOFF—260 Egg Strain Single Comb White Leghorns; eggs: $1.00, 15; $5.00, 100; 95% fertility guaranteed. Brookwood Poultry Farm, Cary Station, Illinois.

16 PRIZES, Iowa State Poultry Show. Silver Wyandottes, Barred Rocks and Black Polish. Breeding birds and eggs for sale. Wm. Neiers, Box F, Cascade, Iowa.

CHOICE S. C. Red eggs, $3.00 per fifteen; winners ten years; good matings, $1.50, or $5.00 per 100. Wm. Wichern, Baraboo, Wisconsin.

BARRED Rock eggs, E. B. Thompson Ringlets; $1.75 per 15, prepaid; also a few choice cockerels. David Thoreson, Baldwin, Wisconsin.

FOR SALE—Black Minorcas, R. C. Reds, Plymouth Rocks, White Leghorns; both sexes, $2 each. John Simon, Campbellsport, Wis.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

WHITE POULTRY—Extra quality. Hatching eggs. Circular free. Elmhurst Poultry Farm, Princeton, Illinois.

SCOTTISH TERRIERS. Great rat, watch, pet, stay home little dog. Price list 5c. S. Harr, Riverside, Iowa.

HOUNDS. Extra well bred Fox, Wolf, Coon, Skunk hound pups. Anton Schiller Calvary, Wisconsin.

TAME WHITE RABBITS; beautiful pets. $2 per pair. E. Harr, Riverside, Iowa.

PURE-Bred White Rocks. Address "Kremers", Whitehall, Wisconsin.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

SEEDS.

GUARANTEED Seeds. Eighth season. Golden Glow corn, Early and heavy yielder. Choice Timothy, Alfalfa, Red, Alsike and Mammoth Clovers. Circular and samples on request. Henry Michels, R. 3, Malone, Wis.

WHOLESALE prices; Cuthbert Raspberry $5. 1,000; Eldorado Blackberry $7.50 1,000; this ad will not appear again. George Balden, Capac, Michigan.

GOLDEN Glow seed corn, fire dried; write for circular; satisfaction guaranteed. Burg Bros., Peebles, Wisconsin.

BLACK HILLS ALFALFA SEED; $6 per bu For sample send stamp to Brookside Farm, Buffalogap, S. D.

FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck, Spring Green, Wis.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

REGISTERED GUERNSEYS.

FOR SALE—Registered Guernsey cows, heifers and bulls; also a few grade cows. Satisfaction guaranteed. Address Clovernook Farm, Whitefish Bay, Wisconsin.

HOLSTEIN HEIFERS.

HIGH GRADE Holstein heifers, 12 to 14 months old. Pure bred bulls. John Gates, Ft. Atkinson, Wisconsin

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

HAMPSHIRE SWINE.

HAMPSHIRES for sale. 25 bred sows, fall boars and gilts. L. C. Wilsie, Brandon, Wis

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In past five years it ranked first in production of wheat twice; twice it was second and once third; always first in production of spring wheat; also flax, equalling production of all other states. Once it was first in barley—never below third; never below seventh in rye or oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. Murphy, Immigration Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minnesota.

OREGON & CALIFORNIA RAILROAD CO. grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

RUSK COUNTY LANDS! In the great potato-growing district of Northern Wisconsin, offer great opportunities for industrious farmers. We want people, looking for homes, in this ideal, partly timbered district, to write us so that we can tell them why it is to their interest to buy their lands of us. Send name and address today. Flambeau River Lumber Co., Owners, Station D, Ladysmith, Wisconsin.

THINK of your children! They will need land. They will soon be out for themselves. Aitkin County offers the best possible opportunities. Good dairy land direct from our Company can be bought cheaply and on easy terms, now. Why not send today for our interesting illustrated literature? It's free. Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

120 ACRES, 60 clear, 20 pasture, 40 good wood, good frame buildings, school-house adjoining land, cheese-factory ¾ mile; 6 miles to Wausau, 2½ miles to Kelly Station. With all stock, crops and machinery, will sacrifice at $7,500.00; $2,000 cash, balance on easy terms. Wm. Albrecht, Jr., Wausau, Wisconsin.

EIGHTY-ACRE FARM for sale cheap. Close to town and school. Fair buildings and about 3 acres cleared. Choice Clay loam soil. Considerable green hardwood timber which will go a long way toward paying for the farm. Price $25 per acre. Very easy terms. Address Box "J," Ladysmith, Wisconsin.

40 ACRES FOR SALE—Good buildings and soil; good road; 8 miles Milwaukee and 3 Menomonee Falls; $7,000 if taken at once, $4,000 cash, balance mortgage. Write Charles Paslrig, R. 17, Box 104, Menomonee Falls, Wisconsin.

NEARLY level 80, only ½ mile town; 20 acres field, balance good pasture, fenced; small set buildings; dandy place at right price, only $3,200, $500 down; nice dairy, chicken and truck farm. C. M. Melberg, Lewis, Polk Co., Wisconsin.

92 ACRE FARM, $2,300; 50 acres cleared; balance pasture; nearly level; clay loam soil; new house; 2 barns; town 3½ miles, school ¼ mile; $3,000, cash $1,000; The E. L. C. Co., 122-M, Dept. 10, Merrill, Wisconsin.

60 ACRE SNAP—40 acres cleared; balance pasture; nearly level; clay loam soil; new house; 2 barns; town 3½ miles, school ¼ mile; $3,000, cash $1,000; The E. L. C. Co., 122-M, Dept. 10, Merrill, Wisconsin.

HIGH class dairy farms, partly improved farms, and choice unimproved cut over hardwood land in wonderful Central Wisconsin. Pictorial bulletin free. Adam Paulus, Marshfield, Wis.

MARATHON COUNTY, Wisconsin, improved farms $25.00 per acre and up. Unimproved farms $15.00 per acre and up. Free list and map. Wm. Albrecht, Jr., Wausau, Wisconsin.

80 ACRES, Barron county, 71 acres free from stumps, balance is brushed, good soil fine water. Price $6,800. Jacob Gabriel, Owner, R. 3, Box 35, Rice Lake, Wisconsin.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. Address D. F. Bush, Minneapolis, Minnesota.

118 ACRE dairy farm, St. Croix County, clay loam soil. Good buildings, silo, 2 miles from Soo Station. Box 29, R. 3, Glenwood City, Wisconsin.

FOR SALE—Excellent dairy farm, 82 acres, finest soil, good buildings; cheap for quick sale. M. R. Smith, Box 21, R. 2, Downing, Wisconsin.

IDEAL stock farm, 100 acres; easy terms. Old age, can't handle it, got to sell, half price adjoining land. Ole Norquist, Stockholm, Wis.

WANTED—Farmers to buy improved and unimproved farms on easy terms. Richland Co., N. D. Dvorak, Wyndmere, N. D.

HAVE two farms for rent, might sell or trade one for town property. M. A. Peoples, Ladysmith, Wisconsin.

PERCHERON STALLIONS.

BLACK PERCHERON STALLION, 4 years old, bargain. Also August Chester White boars, priced right. John Simon, Campbellsport, Wisconsin.

TELEGRAPHY.

YOUNG MEN! Learn telegraphy. Railroads want operators. Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

SHORT-HORN BULLS.

FOR SALE—Two Short-horn bulls, yearlings, Sultan breeding. Otho Doll, Dodgeville, Wis.

TAIL HOLDERS.

COWS' tail holders, post paid; 10 for $1.00; sample 12c. F. C. Gieseker, Elmwood, Wis.

Queen Brooders

Save the Chicks

They help you raise the little chicks in **all kinds of weather** with safety and success. Perfect protection, day and night, indoors and outdoors, any time of year. Constructed of seasoned hardwood, with mortised corners bound with galvanized iron and painted two coats. Heater keeps just the right temperature and ventilating system provides plenty of **fresh warm air** without drafts. Made with two floors. Under heating drum floor is cut away and galvanized pan used which may be filled with earth or sand, and removed easily for cleaning. Upper floor divided into **brooding room and sun parlor.**

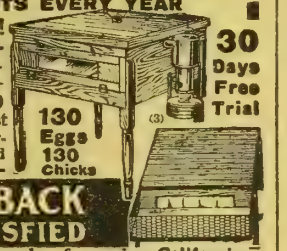
Queen BrooderStove is the only stove that has draft to increase the fire and check draft operated together by the regulator. Ask for complete Incubator and Brooder Catalog showing sizes and prices. We can ship quickly.

QUEEN INCUBATOR CO.
1175 N. 14th St. Lincoln, Nebraska

Both Machines Freight Paid $10 Only

WINNERS IN BIG HATCHING CONTESTS EVERY YEAR

Think of it! These two UNBEATABLE Wisconsin Machines—both for only $10—freight paid east of Rockies. Guaranteed 10 years and sold on 30 days trial—



30 Days Free Trial

130 Eggs 130 Chicks

MONEY BACK IF NOT SATISFIED

Wisconsins are made of genuine California Redwood. Incubators have double walls, air space between, double glass doors, copper tanks, self-regulating. Shipped complete with thermometers, egg tester, lamps, etc., ready to run. **Biggest incubator bargain of the year.** Send for our new 1917 catalog fully describing this outfit. A postal brings it by return mail.

180-Egg Incubator and Brooder both $12.75
WISCONSIN INCUBATOR COMPANY
Box 100, Racine, Wis.

Come Farm in MINNESOTA

Send for 36 page illustrated Northern Minnesota Bulletin. Tells about the wonderful opportunity—literally millions of fertile acres of virgin cut-over land waiting for cultivation. Watered by thousands of lakes; unexcelled for dairying, cattle and hog-raising. Wonderful crops of corn and clover. And the cost is small. Upwards of $25 per acre on easy payments.

Write Now for FREE Bulletin

giving full information regarding money-making farms along the Great Northern Railway in Northern Minnesota. Actual facts and figures about how farms here double and treble in value. Write for booklet. Address

GREAT NORTHERN RAILWAY

E. C. LEEDY, Gen. Immigration Agt.
Dept. 292 Great Northern Railway, St. Paul

That's the boast of the

Absolutely Dependable

CORRECT Coal-Burning Hover

BUILT ON a correct, patented principle—and built RIGHT. You can depend on it to raise your flocks, to reduce chick mortality, and give you big, sound birds. Costs only 2c. to 5c. a day to run. *PRICES, f. o. b. Factory,*

41-Inch CANOPY, **$11.75** 52-Inch CANOPY, **$12.85**

BACKED BY OUR GUARANTEE

Before you buy an inferior machine, write for FREE literature describing the Correct.

CORRECT HATCHER CO., Dept. 50
Leesville, Carroll Co., O.

Government Protected by Patents

$8.55 World's Champion Buys Belle City Incubator

140 Egg Size Prize Winning Model—Hot-water—Double-walled—Copper Tank—Thermometer Holder—Deep Nursery—Self-regulating. When ordered with **$4.85** Hot-water **140** chick Brooder, both cost only **$12.50.**

Freight Prepaid East of Rockies

Satisfaction Guaranteed

Over 524,000 Satisfied Users

Save time—Order Now—Share in my

$1,000 Cash Prizes

Conditions easy to get biggest Prize—Free Book "Hatching Facts" tells all—Gives short cuts to Poultry Success—Write for it today. Jim Rohan, Pres.

'90 Days' Trial

Belle City Incubator Co., Box 106 Racine, Wis.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Conquering Incubator Troubles.

To the Editor:—There is one rule in most all incubator instruction books that an operator will do well to violate, and that is, where he is told that when everything is adjusted perfectly and running properly, to trust to the incubator.

Don't do it. Stay and watch, or drop in every spare minute to look 'round if you want "good luck," for every make of incubator has some peculiarity that tells in the operating, and it is only by close watching that the operator has a chance to learn how to bolster up the weak points, or get the most out of the strong ones.

I have heard a little story of a chicken king, because of his extra success in hatching and rearing chicks. One day a stranger came to him and offered a good bunch of cash if he would tell him the secret of his success in hatching.

The great king was just a plain farmer, and he smiled, a little sadly, for he hated to disappoint the man who had come to him.

"I'm sorry I can't take the cash, stranger, but I don't happen to have any secret. I don't do anything that you couldn't, and I don't know anything that you couldn't find out the same as I did—by working and watching.

"When I start my incubators, I consider that running them is my business, and I attend to them the same as I would to any other business. I just go and live with them and learn all I can about what they are doing."

The stranger was greatly disappointed, but it is possible that the great king's advice was worth the great bunch of cash, after all—for, most all the faults and troubles with incubators can be overcome by close watching—closest attention to the business of running them.

Neither should the operator forget that an important part of this business is to run the machine smoothly according to the instructions, so long as the instructions are sensible. There are three points in the instructions that should be followed out very closely. Follow the directions for ventilation.

Place the thermometer where the manufacturer says. Follow the instructions for temperature.

My last season's experience bears on the last two points. I was running three different makes of machines, each at a little different degree of temperature, one at 102, another at 103, and the third at 104. All gave good hatches.

The difference was mainly due to location of the thermometers, and did not indicate an actual difference in temperature of the eggs. I never trust to just one thermometer—usually having one to each tray, and an extra one or two to try occasionally.

The worst trouble I ever had with a machine was one of the kind that places the thermometer directly on the eggs. The difficulty arrives when the chicks commence to hatch. They always knocked the thermometer over and from then on I was never certain whether the latter part of the hatch was being cooked or frozen.

My main source of anxiety was the regulator, which responded more readily to moist heat than to dry. The result was that the ventilator was thrown wide open, and it let out the moisture and heat that meant life to the hatching chicks, and in rushed the cold air that was sure to kill them speedily.

My greatest difficulty was that I was without a thermometer as well as a dependable regulator. I took the little chicks already hatched as a guide to the temperature in place of the thermometer they had displaced. I used the ones that were well dried and resting quietly on the top of the trays well toward the back as a guide. Chicks in the nursery drawer would not have answered my purpose, as I might have waited until those below were too hot or cold, and the chicks just hatching would have died in the shell from one or the other extremes. I watched the chicks that were quietly resting on the trays, and when they commenced to pant badly and yell very loudly, I turned my lamp flame a little lower. I needed no further evidence to tell me that the egg chamber was getting too hot.

When I saw that the chicks were long in drying off, and when they started their hover song, I knew that it was getting too cold, and then turned the lamp a little higher.

I had a most trying experience, but by "living" with my machine during the hatch, I snatched a partial victory when failure had seemed certain.

The second time I operated that incubator I had another thermometer suspended where the chickens could not displace it, and by keeping a record of the variation between the two thermometers during the hatch, I was able to get along nicely when the chicks commenced to hatch since my records were a safe guide as to the proper temperature at which to keep the upper thermometer. Thus I was successful in overcoming troubles.

Subscriber.

Ayrshire Advanced Registry Records

To the Editor:—The summary of the Ayrshire Advanced Registry Records for the quarter ending March 15, 1917, have just been announced.

For the quarter 102 animals of all classes qualified as against 114 in the previous quarter. The results show a gratifying increase both in milk and butter fat production. The 102 total entries averaged 10,587 pounds of milk, 420.87 pounds butter fat, test 3.98 per cent, an average increase of 742 pounds milk and 20.44 pounds butter fat over the average of the previous quarter.

Herewith is appended a summarized statement of the entries by classes:

SUMMARY ADVANCED REGISTRY RECORDS.
Recorded December 15 to March 15, 1917.

	Lbs. milk	Lbs. fat	Per cent test
39 entries, mature class	12,429	484.85	3.91
12 entries, senior four-year-old class	10,576	417.29	3.94
4 entries, junior four-year-old class	12,059	489.14	4.06
11 entries, senior three-year-old class	10,084	423.81	4.20
8 entries, junior three-year-old class	9,753	391.05	4.01
13 entries, senior two-year-old class	8,202	342.36	4.18
15 entries, junior two-year-old class	8,295	320.98	3.87
Total, 102 entries av.	10,587	420.87	3.98

HOW I SAVE LITTLE CHICKS

Dear Sir: I used to lose about two-thirds of my chicks every year with bowel trouble, until I sent a 50c money order to the Hammer Remedy Co., P-1, Des Moines, Iowa, Box 502 (formerly of Lamoni, Iowa) for a box of Inomal Little Chick Remedy (100 tablets) and since using it haven't lost a chick. Mrs. R. Clements, Neenah, Wis.—Adv.

10 APPLE TREES 10

2 TO 4 feet $1. Two each Tetofsky North Star, Talman, Delicious and Snow. By Parcel Post, $1.25. BEAUTIFUL catalog FREE. **Wisconsin Nurseries, Box 50, Union Grove, Wis.**

FOR SALE—Pedigree Barley No. 5; Pedigree Oats No. 1 and No. 5; also Timothy seed. H. P. West, Ripon, Wisconsin.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippewa Falls, Wis.

SAVE YOUR CHICKS—FREE.

Send two names to The Wight Co., 48 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save 40 chicks from White Diarrhea.—Adv

Canada Offers 160 Acres Land Free to Farm Hands

Bonus of Western Canada Land to Men Who Assist in Maintaining Needed Grain Production

The demand for farm labor in Canada is so great that as an inducement to secure at once the necessary help required, Canada will **give one hundred and sixty acres of land free as a homestead** and allow the farm laborer, who files on land, to apply the time he is working for other farmers as residence duties the same as if he had lived on the land he had applied for. This offer made only to men working on Canadian farms for at least 6 months during 1917, thus reducing the necessity of actual residence to 2 years instead of 3 years, as under usual conditions. This appeal for farm help is in no way connected with enlistment for military service, but solely to secure farm laborers to increase agricultural output. A wonderful opportunity to earn good wages while securing a farm. Canadian Government will pay all fare over one-cent per mile from St. Paul and Duluth to Canadian destination. Information as to low railway rates, etc., may be had on application to

GEORGE A. HALL
Canadian Government Agent
123 Second St. Milwaukee, Wis.

DAIRY RANCH

1480 ACRES, 5½ miles from Roundup and a large coal mining camp and another small town, aggregating 5,000 people. Seven-room log house in good shape. Barn for 30 head of stock. Springs. Running water. All fenced. 80 acres broken. This is a first-class chance for dairy farm. Price $15 per acre. Good terms.

SWANSON & REID, ROUNDUP, MONTANA

POULTRY AND PET STOCK.

Holstein Chickens

DON'T discourage prospective buyers of your stock by letting them see a lot of scrub chickens in your yard. If you believe in the Holstein Cow, send for my booklet on Black Minorcas, the Holsteins of the Chicken World.

R. C. O'HEARN, R. 1, MELROSE, WIS.

S. C. WHITE LEGHORNS

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Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Department, Wisconsin Farmer, Madison, Wis.

Ground Cherries.

To the Editor:—Last year a certain lady asked about ground cherries. I overlooked it at the time, but the other day in looking through the old papers I came across it. As a new spring is on the way I thought I would give my ideas of ground cherries.

In March or April (the sooner the better, as ground cherries are slow to germinate) take a box and fill with rich soil and plant your seeds. Place the box in the sunlight and water freely. A small 5-cent package of seed is sufficient to give a person a start. About the fifth or sixth week they will begin to appear and as soon as danger from frost is over they may be transplanted in the garden.

Although ground cherries will grow most anywhere, I always prefer a south slope, as they ripen sooner. Be it remembered, right here, that ground cherries are biennial and will come up by themselves the second year, so if you plant them in some permanent place you will have them the second year also.

They do not require much work. They should be planted like tomatoes and the weeds kept down. They are fast growers when once started and soon the plants will be covered with little berries. When ripe they are yellow.

We always eat the early cherries for sauces, pies, and also sell lots of them at 10 cents a quart. Late in the fall I can them. They should be gathered before a frost and put in some warm room and then they may be canned at leisure.

There are many ways of canning them, but I prefer the following method. Take one and one-half cups of water to every quart of cherries. Put the sugar (the amount depending on how sweet you want the cherries) into the water and let it come to a boil, then put the cherries in and two or three small pieces of lemon and let all boil a few minutes. Be careful not to let it boil too long. While boiling hot put in fruit jars and seal. Some like to can ground cherries with oranges or pineapples and still others mix them with sweet apples, half and half. In that case the lemon is left out. Another nice way is to put one teaspoonful of vanilla in the cherries provided you have not mixed any other fruit with them. This will give them a delicate flavor.

No matter how you fix them remember that ground cherries contain lots of acid and, therefore, everything must be clean, hot, and rubbers and covers must be new, or you might wake up some morning to find your preserves on the ceiling of the cellar. You would be in the same fix as one of my neighbors who came over one day and told me that during the night she dreamed of a German submarine battering the sides of an American ship. In the morning when she went down in the cellar to get some cream for breakfast she found eight quarts of ground cherries all stuck tight to the ceiling. You can imagine the rest—the cleaning and the scrubbing. She claims that she hasn't found two of her jar covers to this day. I wouldn't be a bit surprised if they landed in the Atlantic ocean.

I have had lots of experience canning vegetables and fruit and would be more than glad to give my advice to anyone who will write to our department for what they want. N. N.

Woman Serves Uncle Sam Thirteen Years.

There are 264 women rural mail carriers in the United States, but Uncle Sam has made a new ruling that no more women shall be employed in the service. This is quite right, says Mrs. Hettie Rankin, of Bates City, Mo., because riding a mail route is too hard for a woman. And Mrs. Rankin knows, for she has traveled a twenty-five-mile route for thirteen years.

Mrs. Rankin entered the service not because she was looking for an easy job, but, according to her own statement, because she had loved ones dependent upon her, and steady work and sure pay were absolutely necessary. She was used to hard work, having made her own living from the time she was thirteen years old, so she was not in the least dismayed at the prospect of serving eighty-four boxes every day. Faithfully she has performed her work. In thirteen years' service she has only twice missed making her route, once when the bridges were washed away by a storm and once again when snow so blockaded the roads that it was impossible to get through. She estimates that she has traveled 103,200 miles and she handles an average of 7,284 pieces of mail a month. Moreover, Mrs. Rankin uses a buggy and two horses, and for years she cared for her horses herself.

With all the hard work, however, Mrs. Rankin is satisfied and happy. Before she took up the work she

Mrs. Hettie Rankin, who has carried mail over a twenty-five-mile rural route for thirteen years.

nursed for $1.50 a week, and the $33 a month at which she started her new work seemed like a fortune. Now she is making $100 a month and has an annual vacation of fifteen days on pay.

"But," says Mrs. Rankin, "any woman who has twenty acres of land stocked with cows, hogs and chickens could make that much, and have more time to herself." Mrs. Rankin has made a success, but she lays it all to the fact that she has practiced economy and stuck to business, and, according to her views, the independent life of the woman who earns her own living on a few acres of ground is more desirable. It is determination to stick to business that wins, no matter what the business is.

Cauliflower Pickles.

To the Editor:—Someone asked for a recipe for cauliflower pickles and sweet pickles and I am sending you these as well as a recipe for dill pickles.

For the cauliflower pickles take equal parts of small onions, cauliflower and small cucumbers that have been in salt water three or four days. Clean them all thoroughly and put in weak salt water overnight. In the morning put them on the stove in clean water and boil four minutes. Drain off this water, cover with vinegar. Use one pint of sugar to a gallon of vinegar. Drop in a few small red peppers and, if desired, use a little mustard. Let boil up well before pouring over the pickles.

For sweet pickles put your pickles in a stone jar, pour over them a brine that will carry an egg, cover with grape leaves and let stand three or four days. Then take them out of the brine and soak overnight. Boil vinegar, one pint of sugar to a half gallon of vinegar, or more if you like them very sweet. Brown sugar is best. Heat the pickles, but do not boil them. Can hot. They will keep for years.

Dill pickles are made by putting in a stone jar a layer of pickles, say a gallon or so, then dill and grape leaves. Continue in this way until the jar is full. Make a brine, using a pint of salt to three gallons of pickles. Clean rain water is best for this brine. Put a weight over the pickles and set away for three weeks. These may be put in vinegar also.

Mrs. Augusta Leber.

Hard White Soap.

To the Editor:—One of the readers asked how to make hard white soap, and I am glad to tell her how I make it. To every five pounds of all kinds of drippings add one can of lye and one gallon of rain water. Let this boil slowly for three hours. Then add more water and as much salt as you have used lye. Let simmer and when the salt is all dissolved remove from the fire. Add two pails of water and let it stand until the next morning, then cut out in bars. If the soap is not clean, boil it over with an equal amount of water, one can of lye and the same amount of salt. After this is done the soap will be very nice.

Mrs. F. K.

Varnished Linoleum.

To the Editor:—I have been wanting to varnish my inlaid linoleum for some time, as I find it hard to clean, because the dirt seems to work into it. Someone has told me never to varnish inlaid linoleum, as the oil in the varnish separates the small inlaid pieces. I would like to hear from some of the readers who have had experience.

Reader.

Canned Hominy.

To the Editor:—I have had good luck canning hominy and I will give you my recipe for the lady who was asking about this. I prepare the hominy in the usual way, cook it until it is done and then seal it hot just the same as fruit. It keeps nicely and takes the place of potatoes when they are scarce. Mrs. J. M. Thompson.

Recipes.

Baked Lima Beans.—One pound of Lima beans, one-fourth pound of bacon, two tablespoonfuls of molasses, one tablespoonful of salt, one-fourth teaspoonful of pepper. Wash and soak the beans overnight. In the morning put them on in plenty of water and boil until tender; then drain and put in a baking dish with salt, pepper, molasses, and bacon which has been cut into thin strips and laid over the top; add enough water to come to the top of the beans. Bake in a moderate oven for from thirty to forty minutes, or until they are brown.

Raisin Pie.—One cupful of seeded raisins, one cupful of water, two tablespoonfuls of cornstarch, four tablespoonfuls of sugar, one-half teaspoonful of salt. Wash the raisins, add cold water, bring slowly to a boil, add the sugar, salt and the cornstarch, which has been mixed with a little cold water; boil for three minutes; pour into a pie tin, lined with crust, while hot, cover with crust and brush the top with cold milk.

Beef Liver With Onions.—One and one-half pounds of beef liver, six onions, salt and pepper, bacon fat. Slice the liver thin. Remove the skin and veins from the liver, then dust with flour, salt and pepper. Slice the onions thin and fry till soft in the bacon fat. Remove the onions and fry the liver rapidly in the fat. When brown on one side turn, put the onions on top and finish cooking. Remove to a hot platter, add a little water to the drippings in the pan to make a gravy, and pour it over the liver.

Apples Stuffed With Rice.—Six red apples, one cupful of rice cooked in milk, one-third cupful of sugar, one teaspoonful of cinnamon. Core the apples and fill the centers with the rice

mixed with the sugar and cinnamon. Put in a pan, add a little water and bake the apples as usual. Serve hot with cream.

Oatmeal Muffins.—One cupful of warm oatmeal, four tablespoonfuls of butter, one-fourth cupful of sugar, one cupful of flour, four teaspoonfuls of baking powder, one teaspoonful of salt, one egg beaten light, about one-half cupful of milk. Melt the butter in the oatmeal, sift together the sugar, flour, baking powder and salt; add the oatmeal, the egg and milk and mix together very thoroughly. Bake in a hot, well-buttered, iron muffin pan about twenty-five minutes.

Our Fashion Department.

All Patterns 10 Cents Each

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER Madison, Wis.

Waist 1873-Skirt 1877—A fashionable gown. Waist pattern 1873 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1877 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It will require 8⅛ yards of 36-inch material to make this costume for a medium size. Two separate patterns, 10 cents for each pattern.

2048—Ladies' camisole. Pattern is cut in 7 sizes: 34 36, 38, 40 42, 44 and 46 inches bust measure. It requires 1⅜ yards of 36-inch material for a 38-inch size.

2042—A new "cover all" apron. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires 5½ yards of 36-inch material for a medium size.

1614—Children's set, comprising a yoke dress, a slip and one-piece drawers. Pattern comprising all styles illustrated, is cut in 4 sizes: 1, 2, 4 and 5 years. The dress requires 2½ yards, the slip 2 yards, and the drawers ¾ yard of 36-inch material, for a 2-year size.

1726—A splendid model for house or porch wear. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

2055—A smart, attractive dress for

the growing girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3⅝ yards of 44-inch material for an 8-year size.

1880—Boy's suit. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 2⅛ yards of 36-inch material for the blouse and 1 yard of 44-inch material for the trousers for the 8-year size.

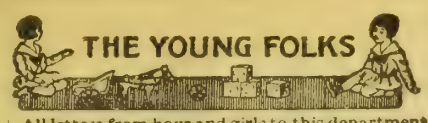
2064—A smart dress for mother's girl. The pattern is cut in 4 sizes: 4, 6, 8, and 10 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2065—Ladies' skirt in raised waistline. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅜ yards of 44-inch material for a 24-inch size.

Waist 2047-Skirt 2043—Ladies' costume. Waist 2047 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3⅛ yards of 36-inch material for a 36-inch size. Skirt 2043 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 3 yards of 44-inch material for the foundation skirt and 2⅝ yards for the tunic, for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2040—Dress for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5½ yards of 44-inch material for an 18-year size.

1893—Ladies' shirt waist. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2⅜ yards of 36-inch material for a 36-inch size.



All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Sam's Last Visit to a Melon Patch.

Dear Young Folks:—I would like to join your circle because I like to read your letters and stories. I have written an original story and hope you will enjoy it.

It was a beautiful evening in August. The moon shone brightly. In the shadow of some trees lay two boys.

"The other boys sure are slow about coming," said Tom to Sam.

"Just listen a minute. I declare I believe I hear them coming now," said Sam. And, sure enough, he did. It was not long until two other boys appeared.

"Seemed to me like you never would come," said Tom. There was a high board fence between the boys and a fine melon patch.

"Now we are all here and let's go," said Tom, and at once three of the boys started, but Sam hesitated. Finally, through the efforts of the other boys coaxing him he was persuaded to go. They had no difficulty in getting over the fence.

They were laughing and eating melons to their hearts' content when all at once the owner of the patch said, "Sic 'em, Rex, sic 'em." And a large dog came running toward the boys, showing his teeth. Such a time as they had getting over the fence. All the boys got over safely except Sam. The dog was right after him and he couldn't get over. At last he got to the top of the fence, but he caught the leg of his trousers on a nail and down he slipped to the ground again, tearing his trousers. But that wasn't the worst of it. The dog was still there and he kept pouncing on Sam until he was worn out. Then the owner saw that Sam was a neighbor boy and he called his dog off and let Sam go.

Such a time as the boys had talking and laughing about their adventure the next day. But Sam took it all seriously and made up his mind that would be his last visit to a melon patch.

—Lillian.

Has Fun With Don and Topsy.

Dear Young Folks:—I like to read your letters fine. I am a boy ten years old and I am in the sixth grade. I have three brothers and one sister. I have a pet dog and pony and I have lots of fun with them. The dog's name is Don and the pony's name is Topsy.

We had a week's vacation and my brother and I killed twenty-eight rabbits.

I did have a pet pig, but sold it and got $10 for it. I put the money in the bank. I am going to get two settings of turkey eggs and mamma is going to raise them.

We have Sunday school, grange and parent-teachers' association at our school. The parent-teachers' association is going to have a big program in a little while.

I will tell Blue Eyes how to play "I spy." A boy or girl takes a spool and while the rest hide their faces he or she hides the spool. The one who finds the spool first says "I spy." Wait until all the rest find it and then the one who saw it first hides it the next time.

—Cecil.

Boots Plays Hide-and-Seek.

Dear Young Folks:—I am a little girl seven years old. We had lots of snow this winter and I coasted a great deal of the time. Some nights when the moon was bright my mother went out with me and we surely had fun.

I have a dog named Boots. There was one lonesome little bird that wintered here and Boots and birdie played hide-and-seek and both seemed to enjoy it.

—Helen.

International Sunday School Lesson.

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for April 8, 1917.

Jesus Raised Lazarus From the Dead—Easter Lesson.

LESSON TEXT—John 11:17-27, 43, 44. (Read 17 to 44.)

GOLDEN TEXT—Jesus said unto her, I am the resurrection, and the life.—John 11:25.

This lesson occurred about two months before the crucifixion, Jesus being in Bethabara at the time of this call (See John 10:40; 1:28). There are four recorded cases of resurrection from the dead: Jairus' daughter (Matt. 9), the son of the widow of Nain (Luke 7), Lazarus, and also Jesus after his crucifixion (John 20).

I. The Lesson of Unbelief. Bethany, the home of Lazarus, is on the southeastern slop of Mt. Olivet, two miles from Jerusalem. Christ and his disciples were on the east side of the Jordan, having been driven there by the hostility of the Jews (John 10:31). He purposely delays his stay in that place that this event might give an opportunity for the manifestation of his wonder-working power. This delay was in face of his supernatural knowledge that Lazarus' sickness had been fatal, for he said plainly to his disciples, "Lazarus is dead." Philosophers have often called death a sleep, but always one from which there was no awakening; hence the skepticism of these sisters is not surprising. (1) They limited the power of Jesus to his person—"If thou hadst been here." (2) They also limited his power to a certain place, 'If thou hadst been here" (v. 21).

II. The Lesson of Pain. The suffering of these sisters produced sacrifice and self-devotion. Suffering brings blessing to others. It is also a means of self-culture. Suffering drives us to the Christ, and reveals to us the unrealized side of Christ's character (v. 25). Jesus is often never more kind than when he seems to be least kind. In the midst of her skepticism and pain Jesus gave Martha a new and glorious thought about the resurrection. "I am the resurrection and the life." If we desire that, all we have to do is to get Jesus himself (I John 5:12). Resurrection has to do with the body, and life has to do with the spirit (John 17:3.) All will ultimately experience resurrection, but only those who believe on him receive life (John 3:36). There is a resurrection of life and there is a resurrection of damnation. (John 5:29). Martha answered "Yea, Lord, I believe that thou art the Christ, the Son of God." It is all-important that we should really believe that (John 20:31; I John 5:1-5).

III. The Lesson of Love. Love always manifests itself in deeds. Martha secretly and quickly arose and left the wailing friends to go and meet the waiting Master. "The Master is come." He still comes, and calls to us, and, if, like Martha, we spring up gladly to meet him, he will fill our lives with blessing and joy. Jesus came to these sisters individually (vv. 21, 28). He had entered the danger zone in order to be there (v. 8), and it was Thomas, the doubter, who wanted to accompany him (v. 16). "Jesus wept," not with the wailing of professional mourners, but with the silent, grief-stricken sister.

IV. The Lesson of Power. Jesus had let natural causes work to their fullest extent. Coming to the tomb, Jesus said (v. 39), "Take ye away the stone." It was four days after the death of Lazarus before he came forth. Jesus was soon to die and rise in three days after his entombment. The stone had to be removed from the tomb of Lazarus; it rolled itself away from the tomb of Christ. The restrictions which Christ placed upon his exercise of power, viz., that he allowed Lazarus to die, to be buried, and his body to reach the point of putrefaction, and not to come forth until Jesus himself, in his body, was present at the tomb, emphasizes the lesson of the restraint of power for the glory of God. Out of such extreme circumstances of seeming impossibility God manifested his glory (Rom. 8:28).

Browning has given us a wonderfully imaginative picture of his renewed life on earth:

And oft the man's soul springs into his face
As if he saw again and heard again
His sage that bade him rise,
And he did rise.

The effect of the miracle was twofold. Many who were present believed on Jesus, others did not.

Some went to the Pharisees to relate what they had seen, only to meet with rebuff.

The remainder of the chapter is occupied with the plotting of the Pharisees against Jesus, and from this grave there stretches the shadow of a cross upon the path of Jesus.

This miracle ranks next to Christ's own resurrection as a demonstration of immortality.

Are we on resurrection ground? Has the stone been rolled away?

The resurrection of Lazarus proves that our earthly existence is only temporary, that our real existence is eternal.

Beautiful Picture for You

Solve This Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, a beautiful panel picture, "The Popular Girl," printed in many colors. This is a wonderful picture. All you have to do is enclose four cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland pony.

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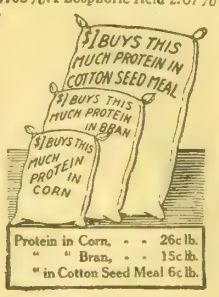

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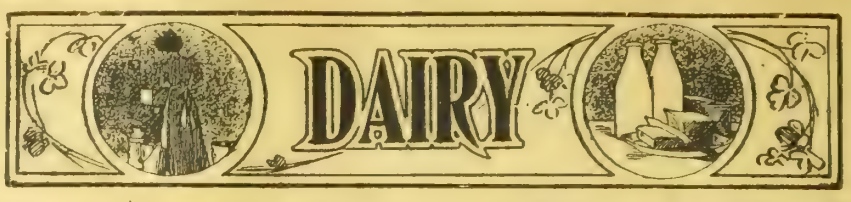


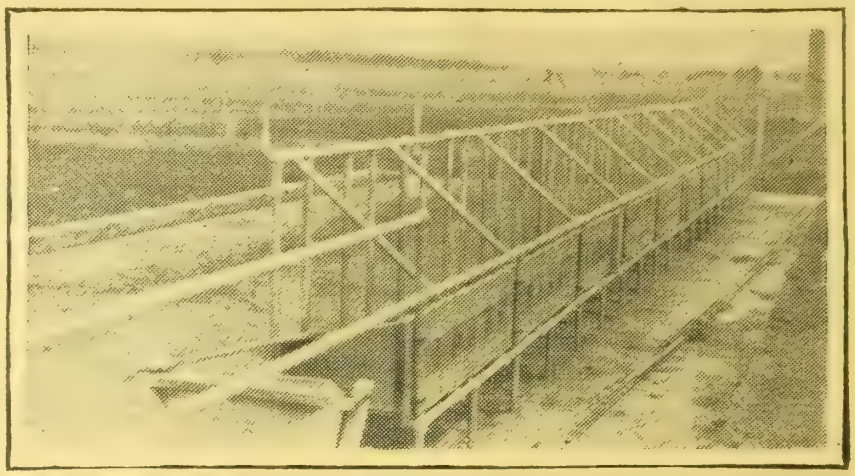
Success in Raising Young Stuff.

Attention Which Is Given the Calf in the First Year of Its Life Is a Matter of Greatest Importance.

As THE main value of a dairy cow lies in her ability to raise calves and produce milk, the attention that is given the calf during the first year of its life is necessarily of importance. The more calves one can bring to cowhood without loss through death or stunting through early diseases the bigger the profits from the dairy establishment. Hardly a farm, however, can show a clean record in raising calves. There is always a certain percentage of the calves that is seriously hindered in their development through sickness of some kind or other which quite frequently leads to death. On the Milford Meadow Stock Farm, where Holsteins are in favor, an exceptionally good record has been maintained during the last two years in the rearing of young stuff. Out of 119 calves born on the place since September, 1915, only one calf has died from sickness of any kind. More than that, in all that time not one calf has had even the slightest touch of bowel trouble. There have been no cases of scours or even a trace of temperature in any of the animals during all this time. The one calf that was lost died when it was six days old from pneumonia. That is the only case in two years.

The Milford Meadow Stock Farm, located a few miles out of Lake Mills, was started by Dr. Henry B. Faville in 1910. The systematic plan of breeding that was being carried on with Holstein cattle was threatened when the owner suddenly died last year. However, Emmonds Blaine, of Chicago, has purchased the 600-acre farm and announced that the work so splendidly planned will be carried on along the same lines. The former manager, Mr. Harry Faville, has been retained and Holstein breeders in general are pleased with the favorable turn of events. Mr. Blaine has the genuine enthusiasm that goes with success and in Harry Faville he has the type of man who can be depended upon to do things right.

There is now a herd of 150 head of young stuff on the place ranging from a day to two years of age. The success in the care of these animals cannot be attributed wholly to luck. There is considerable good management behind it. The time to start the care of the calf, according to Mr. Faville, is while it is still in the cow. At the Milford farms the cows are usually dry for two months before calving and all possible care is taken from that time on to feed the cow in such a way that her physical condition will be the best at calving time. She is fed on alfalfa hay, clover and silage, together with oil meal, bran and crushed oats as a conditioning ration. The calf is not allowed to stay with the mother longer than twelve hours. The reason for this is that the calf will do better and the cow likewise will feel the loss of the calf less when separation takes place early. The calf is fed on whole milk during the first two weeks at the rate of about three pounds three times a day. After two weeks the time of feeding is changed to two times a day and the ration increased up to twelve pounds until the calf is six weeks old. From the very beginning the calf has access to choice clover and alfalaf hay and a mixture of six parts of bran, six of hominy, six of crushed oats and one-half part oil meal. It is surprising the way the calf will begin to eat at the age of two to six weeks. The more hay and grain the calf eats the less chance there is for stomach trouble, especially when the change from whole milk is made. At Milford Farms the change is made at the age of six weeks, consuming in all two weeks. The whole milk is gradually displaced until finally the calf receives a full ration of separated milk. This period of feeding is the time where the greatest danger to the calf's health presents itself. Variations in temperature, irregularity in feeding and carelessness in measuring the amounts fed are the greatest factors to bring about stomach troubles. All these things are avoided at the Milford Farms by careful and close attention to details. The temperature of the milk fed to the calf need not necessarily be 90 or 100 degrees, but it must be the same temperature from day to day. The milk must reach the calf as soon as possible after milking in the case of whole milk, or after separating in case of skim milk. There is no necessity of using a thermometer in order to obtain the right temperature if one can be sure that care is exercised in this particular direction. The calves are fed skim milk until they are nine months old, the ration being increased to a maximum of twenty pounds per day when they are six to seven months old. By that time they have learned to eat hay, grain and silage and the change is not noticed so much.



PERMANENT FEEDING RACK CONSTRUCTED OF IRON PIPE, WITH CONCRETE FLOOR SIXTEEN FEET WIDE.

Beginning in May and until late in the fall all the young stuff over three months of age are kept in open-air sheds which are at the far end of two lots of one and one-half acres each. These lots have at the end nearest the barn a feeding rack constructed of iron pipe. The construction of these racks is the result of considerable thought on the part of Mr. Faville. They are permanent stanchions that will last for years without needing any attention or repairs. A concrete floor extends back for sixteen feet, giving the calves a dry place in all sorts of weather. Forty calves are kept in each lot, the older stuff being separated as much as possible from the younger stock. The sheds open out towards the east. Thus the calves get the morning sun and because the sheds are at the other end of the lot they must take exercise in order to obtain their feed.

In winter all the stock is kept in the barns, but they are turned out, depending upon the weather, from fifteen minutes to three hours each day. The barns are well ventilated on the King principle of ventilation. Every precaution is taken for its sanitation. The pails from which the calves receive their milk are daily washed and scalded with the same care that the milk pails receive. The calf barn is sixteen by seventy feet, built with two wings, with each calf pen so constructed that it can be thoroughly disinfected and cleaned out without moving any of the other calves out of the barn. A separate section for the cows about to calve which forms the center of the cow barn is similarly con- two wings 38x50 and 30x120 feet where the young stock and the cows are kept.

The entire herd of eighty cows now in milk or about to freshen is in excellent condition and have besides their breed points and milking ability the point of good ancestry and individuality behind them.

The sires at the head of the herd play an important part in the production of good healthy calves. The senior herd sire is Canary Homestead Oak De Kol, who traces back to Jesse Fobes Bessie Homestead, with a seven-day record of 34.96 pounds of butter. She is by Fobes Tritomia Mutual De Kol and a granddaughter of Homestead De Kol. The junior herd sire is Canary Fobes Bessie Homestead, who is a grandson of Homestead Jr. De Kol on the dam's side and of Jesse Fobes Bessie Homestead on the sire's side. Her breeding was just explained in

SHED OPEN TO THE SOUTH FURNISHES GOOD SHELTER FOR CALVES

EAGLE

Anti-Clog Ensilage Cutter

Eagle Cutters are known for their great strength and power, yet they are the very acme of *simplicity*. You start, stop and reverse the Eagle Cutter instantly—all with the same lever. Positively safe for any one to use. *Safety Cylinder Head* does away with the possibility of damage to knives. *Improved Rollers*—upper one grooved, lower one spiked, give 50% greater feeding power. Positive speed relation between cutting head and fan makes the Eagle absolutely *anti-clogging*. These and other special features make it the safest, most powerful, most economical ensilage cutter you can buy.

Send today for free booklet showing all sizes of Ensilage, Feed and Fodder Cutters.

Ask for the Eagle Tractor Book.

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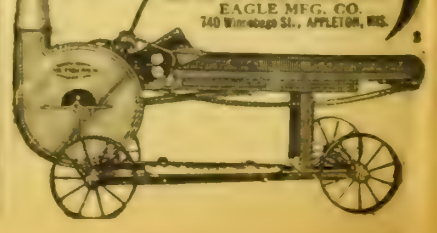

connection with the senior herd sire. In order to follow out this system of line breeding to a better advantage a new bull is soon to be added who is Sir Pietertje Ormsby Mercedes 36th by Sir Pietertje Ormsby Mercedes, who is out of Aggie Wayne Peep. Sir Pietertje Ormsby Mercedes is the herd sire of E. C. Schroeder's herd of Minnesota and is out of Pietertje Maid Ormsby. This cow displaces Jesse Fobes Bessie Homestead, who had a record of 34.96 pounds of butter in seven days. Sir Pietertje Ormsby Again was sired by the bull Jack Mercedes, whose sire was Mercedes Mechtilde Pietertje. His dam was Mercedes Julips Pietertje, the dam of the sire of King Segis, one of the most noted bulls of the Holstein breed who has sired some of the record cows of the world. There are about twenty-five females of this line of breeding on the Milford Meadows Stock Farm that are thus very closely related to the cows that have records of forty to fifty pounds of butter per week. Great results can, therefore, be expected when this breeding is carried farther during the coming year.

Among the cows that have been doing exceptionally well on the Milford Farms is Ormsby De Kol Tiffany, granddaughter of Lillith Pauline De Kol Count and Duchess Ormsby De Kol Butter King. She has a record of 34.55 pounds of butter in seven days.

Another cow that has done quite well is Monona Josephine, who is a granddaughter of Dutchland Sir Pontiac Rag Apple, tracing back to Hengerveld De Kol.

Marianetta Butter Girl has a record of 2,958 pounds of butter in seven days as a nine year old. She had had no care previously in her life, but breeding stood her in good stead. Her sire is Pontiac Butter Boy. She is a granddaughter of Marianetta Weg.

Johanna Fayne Homestead, a daughter of Homestead Junior De Kol, has lately finished a record of 29.17 pounds of butter in seven days. She is out of the cow Johanna Fayne Rue, who has a record of 31.31 pounds of butter in seven days.

There are in the herd from these cows two daughters of Johanna Fayne Homestead, two daughters of August Wit Mercedes, three daughters of Monona Josephine and one daughter of Marianetta Butter Girl.

With this system of line breeding the care of the calves becomes doubly essential, as the value of each calf is greatly increased as the sires and dams become more valuable. But on any farm if the calf is worth raising it is worth raising well and many a calf might have been greatly helped or even saved during the first weeks and months of its life by attention at the proper time.

CALVES TURNED OUT EVERY WINTER DAY—LENGTH OF TIME DEPENDING UPON CONDITION OF WEATHER.

Cow-Testing Reports.

Winnebago County Cow-Testing Association.

To the Editor:—A report for the month ending March 2d, shows the second largest list of forty-five-pound cows of any month in the past year of the association's work. The forty-five pound list is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Ed G. Race					
Ormy, P. B. H.			1734	3.0	52.0
No. 2, P. B. H.			1710	3.5	59.9
No. 11, G. H...			1965	3.7	72.7
No. 20, G. H...			2100	2.6	54.6
No. 22, G. J...			1365	3.6	49.1
No. 25, P.B. H.			1440	3.7	53.3
No. 10, P.B. H.			1353	3.9	52.8
Frank Brooks					
Eve G, G. D...	6	10-24-16	1128	4.8	54.1
Mary, G. D....	6	1-21-17	1002	4.9	49.1
W. E. Haase					
Freda, G. J...	7	2-7-17	1263	4.5	56.8
Porter's June, G. G.	8	12-16-16	1083	4.2	45.5
Winneconnie, G. J.	4	1-18-17	936	5.0	46.8
W. P. Bussey					
No. 2, G. D....	5	1-16-17	990	5.0	49.5
N. A. Rasmussen					
Rosanna,P.B.G.	6	12-13-16	1086	4.6	50.0
T. A. Farron					
Bess, G. G....	9	11-28-16	756	6.1	46.1
H. R. Mosely					
Perl, G. G....	3	1-6-17	701	7.4	51.9
Rosie, G. G....	4	2-6-17	1017	4.6	46.8
Lillie, G. G....	3	1-8-17	996	4.9	48.8
J. W. Thrall					
Jane, G. G....	3	1-25-17	894	5.2	46.0
Dorothy of the Prairie, G. G.	5	12-18-16	960	4.9	47.2
Dolly Bloom, G. G.	6	2-8-17	1737	4.5	78.2
M. A. Ralph					
No. 3, G. D....			1203	4.7	56.5
No. 4, G. D....			1152	4.8	55.3
No. 7, G. D....			975	5.1	49.7
No. 10, G. D...			882	4.8	42.2
G. E. Washburn					
Black Patsy, P. B. J.....	9	12-6-16	768	6.6	50.7
Rose 2, P.B. J.	9	5-8-16	876	5.7	49.9
Hoppie, G. J..	9	1-5-17	981	4.6	45.1
Charley Ruelkey					
Annie, G. G...	6	11-5-16	1233	4.8	59.2
Dolly, G. G...	8	11-23-16	1185	5.4	64.0
Edna, G. G...	7	1-10-17	1506	3.3	49.7

A. R. House, Official Tester.
L. E. Bronson, Secretary.

Columbus Association.

To the Editor:—There were forty-four, forty-pound cows in our association this month. Hutchinson Brothers & Burbach got over 700 pounds of milk daily from eighteen cows. R. F. Kalbhorst fed a better grain ration this month and increased milk 2,774 pounds. He increased his profit 24.63, notwithstanding the fact that he milked one cow less. E. R. Kastin salted his cows the day before testing last month. The average test went down from 3.91 to 3.24. This month it went back to 3.81 again. Henry Dolan had the best herd average of 38.6 pounds. Sixteen unprofitable cows have been sold. The following is the forty-five-pound list for month ending March 12th:

Owner, name and breed	Age	When fresh	Pounds milk	Pounds of fat	Pounds B. fat
Henry Westphal					
White L., G. H.	3	2-3	1509.0	3.21	48.4
Henry Dolan					
Victoria,P.B.H.	3	1-15	1684.5	3.34	56.3
Erma, P. B. H.	3	1-22	1634.8	3.3	53.9
Spofford,P.B.H.	3	12-2	1685.2	3.08	51.9
August Soldner					
Queen, P. B. H.	5	2-10	1467.0	3.1	45.4
Nance, G. H...	4	12-13	1248.0	4.7	58.7
John Senheim					
Jessie, G. H...	5	2-14	1252.0	4.1	51.4
John Bradley					
Courtland Nancy, P. B. H.....	7	1-5	1179.0	3.7	46.6
J. E. Barstow					
Blackie, G. H..	8	3-1	978.0	5.0	48.9
A. F. Barstow					
De Kol, P.B. H.	6	12-5	1309.1	3.4	46.5
Maud 2d,P.B.H.	9	10-17	1198.8	4.0	48.0
Hutchinson Bros. & Burbach					
Billy Empress Columbiana Ormsby, P. B. H.....	6	1-29	1734.8	3.8	65.9
Pride Columbiana Johanna De Kol, P. B. H.....13		12-12	1437.6	3.4	48.9
Pride Aaggie Johanna De Kol, P. B. H.....	6	12-31	1000.9	3.2	51.3
Canary Aaggie De Kol of Bonnie Meade, P. B. H.....	4	12-19	1357.1	3.7	50.2

C. F. Wihrwein,
Official Tester, Columbus Association.

France and her allies and neutral countries this year must economize or replace with other cereals from 34 to 38 per cent of their requirements of wheat, according to estimates.

Before you build it, send for illustrated description of this new and improved storm proof construction. Seven five-eighths inch steel anchor rods (not cables) hold silo securely braced solid as a rock. The new improved Beaver Silo is made of selected coast fir, strong and close grained. Double angle irons forming inner hoops held tight to outer hoops by hook bolts, so that entire silo stands firmly anchored against any possible shock or stress. Compensating lugs with coiled steel springs allow for swelling or shrinking. Thousands in use in Wisconsin.

Tear out this advertisement write your name and address on the margin, and mail to us for illustrated description, also valuable tables which tell you how big a silo you need for your stock and acreage.

Reliable agents wanted.

BEAVER SILO & BOX MFG. CO., Inc.
417 High St. Beaver Dam, Wis.

Outwitting the Frost King

When the snow lies deep on meadow and pasture, the farseeing dairyman rejoices in his trusty Natco Silo. Sweet, juicy and free from mold, the silage holds the cows to full milk flow and puts flesh on the steers and fattening lambs. Your corn crop will go 40% farther when preserved in a

Natco Imperishable Silo
"The Silo that Lasts for Generations"

Built of glazed hollow tile impervious to air and moisture, and frost-resisting. It's the silo that needs no repairs—no painting—has no hoops to tighten. Strongly reinforced and *fully guaranteed*. Simple in design; only two shapes of tile used; any mason can erect a Natco. Will increase the value of your farm.

Send for our Silo catalog and our book, "Natco on the Farm,"—both free. Tell us what you intend to build. We have valuable building plans —free. Write today.

National Fire Proofing Company
1123 Fulton Bldg., Pittsburgh, Pa.
23 Factories
Prompt Shipments
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How to Erect A Wood Tire Silo

Bolt tire to concrete base. Set the 2x4 spacers on lower tire and toe-nail. Place second tire on spacers and toe-nail. Repeat until framework is done. Nail on outer covering of spruce—then inner lining of California redwood.

You then have a **storm-proof, frost-proof, mould-proof** silo without hoops or guy wires—one that will not swell, shrink or decay—a different, *patented* silo that gives you the best possible service and at a reasonable cost. Write for our FREE silo folder and learn more about its construction and advantages.

WOOD TIRE SILO CO. 7 Clark Street Sheboygan Falls, Wis.

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IRON AGE
Farm, Garden and Orchard Tools
Answer the farmers' big questions, How can I grow crops with less expense? How can I save in planting potatoes? How make high priced seed go farthest? The
IRON AGE Potato Planter
solves the labor problem and makes the best use of high priced seed. Means $5 to $50 extra profit per acre. Every seed piece in its place and only one. Saves 1 to 2 bushels seed per acre. Uniform depth; even spacing. We make a full line of potato machinery. Send for booklet today.

No Misses
No Doubles
Bateman M'f'g Co., Box 47B Grenloch, N. J.
Lindsay Bros., General Agents, Milwaukee, Wis

Only $2 Down
One Year to Pay!
$24 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.
ALBAUGH-DOVER CO. (12)
2158 Marshall Blvd. CHICAGO
100,000 now in use

25 CENTS CALF RENNETS We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address THE MARSCHALL DAIRY LABORATORY Madison, Wis.

Last Chance

These great combination offers will not be made after April 25. Magazine prices are going up every day on account of the vast increase in the cost of paper. Send your order today without fail.

Coupon Saves You 25c

The coupon at the bottom of this advertisement is good for 25 cents on any one of the splendid combinations in this offer if used by **April 25.** This is an extra bargain for you and means the saving of an extra 25 cents if you send by April 25th. Only one coupon accepted on each combination.

The McCall pattern offered with certain combinations much be selected from the first number of McCall's Magazine you receive. When you send your order for the free pattern to the McCall Company enclose 2-cent stamp for postage.

Make Your Choice and Send Today

This is your last opportunity to save good money on your entire year's reading. Make your choice now.

Combination A

McCall's Magazine.....1 yr.
Choice of any McCall Pattern.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Woman's World.....1 yr.
All only .35
$1.10 Cash and 25c Coupon if you send by April 25th.

Combination B

McCall's Magazine.....1 yr.
Choice of any McCall Pattern.
People's Popular Monthly.....1 yr.
Kansas City Weekly Star.....1 yr.
Woman's World.....1 yr.
Plain and Fancy Needlework.1 yr.
ll only $1.35
$1.10 Cash and 25c Coupon if you send by April 25th.

Combination C

American Woman.....1 yr.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Plain and Fancy Needlework.1 yr.
Woman's World.....1 yr.
All only $1.15
90c Cash and 25c Coupon if you send by April 25th.

Combination D

Kansas City Weekly Star.....1 yr.
People's Popular Monthly.....1 yr.
Farm and Home.....1 yr.
Missouri Valley Farmer.....1 yr.
All only $1.00
75c Cash and 25c Coupon if you send by April 25th.

Send all Orders to
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Des Moines, Iowa

USE THIS COUPON

25c This Coupon Good for 25c if Used Before April 25th **25c**

People's Popular Monthly,
Dept. H., Des Moines, Iowa.

Gentlemen —I send $..... and this 25c coupon for which send me the publications in combination..... one year each.

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When writing to advertisers kindly mention The Wisconsin Farmer.

Win Laundry Prize.

The River Falls Coöperative Laundry has been awarded the special $300 prize offered by former Dean W. A. Henry for the community which would successfully operate for one year a town and country laundry. This offer was made at the fourth Wisconsin Country Life Conference. Two members of the college of agriculture staff, Mr. C. J. Galpin, secretary of the Wisconsin Country Life Conference, and T. H. Farrington, head of the dairy school, had visited the laundry. The other members chosen to decide the prize were Miss A. L. Marlott, director of home economics at the college of agriculture; D. O. Mahoney, Viroqua, president of the Wisconsin Society of Equity, and A. L. King, Omro, master of the state ring. The River Falls Coöperative Laundry run in connection with the River Falls Coöperative Creamery has been discussed previously at some length in The Wisconsin Farmer. This company has a capital stock of $25,220 divided among 243 stockholders on the coöperative plan. Eighty-six of these stockholders reside on farms and thirty-seven are retired farmers living in River Falls. The laundry has an equipment of $3,229 and turned out $8,755 worth of work in 1916 for 1,090 patrons. The net record in 1916 was $493 or 9 per cent on the capital stock.

Common Sense Must Govern in Handling "Help."

To the Editor:—Observing in The Wisconsin Farmer of recent issue an article, "Married or Single, Which?" and noticing an extract from a letter of some person who had written you, complaining somewhat of his "hired man," the writer saying his hired man or men wanted to "eat at the table with them" or make use of the bathroom that belonged to the family and wanted to go out to entertainments with the family, would say that the writer has overlooked entirely the practice of "democracy."

One man owns a piece of ground and another man furnishes the labor that cultivates the ground. Why, therefore, should one of them assume an aristocratic air and the other be relegated to the place of a "menial?"

I call to mind the practice of one of the best farms in Iowa in 1857 where the men employed helped the owner cultivate the land and ate at the table with the owner of this magnificent farm and his family and enjoyed the same bath pool, namely, the "old swimming hole" that everyone did.

The young men we then employed worked without limitation of hours, and I have known them to get up and arouse the boys at midnight to go and cover a half-completed wheat stack with hay, to protect it from the threatening rain. Our relations were that of man and man, democracy in its simplicity and purity, without any artificial notions of superiority or foolish ideas of exclusiveness between those who were engaged jointly in cultivating a piece of ground and producing crops thereon.

Some of the present-day trouble between employer and employe is the result of a false notion of superiority of the man who owns the ground held under human laws or the tools, the invention of human ingenuity, and the man who furnishes the labor to cultivate the one or operate the other.

Let common sense rule a democracy and determine the practice and the owner of acres will not have occasion to complain of his labor service, whether performed by "married or single men." H. B. Kelly.

Culverts That Last

CULVERTS that will stand the wear of years without rusting out are of utmost importance in ditching, drainage and highway building. The Armco iron corrugated culverts, being constructed of iron that is practically pure have stood the test for more than 90 years. Why the Armco culverts resist rust and give long and economical service is explained in literature which will be sent free to every Wisconsin farmer who is interested. They represent enduring value for the taxpayers' money. Read the advertisement on page 2 and write the Armco Iron Culvert and Flume Manufacturers' Association, Cincinnati, Ohio for full information. Mention that you saw their advertisement in The Wisconsin Farmer.—Adv.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Your Best Cow May Die!

from milk fever. Attacks heaviest milkers—50 to 60% succumb quickly. Yet the **new air treatment saves nineteen out of every twenty** cases. With the Pilling "Easy to Use" Milk Fever Outfit you can give instant treatment —no dangerous wait for veterinarian.

PILLING *Easy to use* **CATTLE INSTRUMENTS**

Best made, last longest. Backed by 100 years of service.

Write today for our 48-page book showing treatment for milk fever, bloat, garget, hard milkers, etc. Shows and prices all needed instruments.

Case No. 2 contains $3.50 milk fever outfit and 8 other "Easy to Use" Cattle Instruments. $17.85 VALUE FOR $12

G. P. PILLING & SON CO.
2318 Arch Street Philadelphia

ADVERTISEMENT.

Many Prohibitionists Favor Compensation

AMONG the strongest advocates of *Compensation* for brewing interests are many of the leading prohibition workers themselves.

Many leaders in the "dry" movement have publicly urged payment for the property destroyed or damaged by legislation as the quickest, surest and fairest way to secure their aims.

Ministers, writers, lecturers and workers in the cause of prohibition have urged *Compensation.* Prohibition papers and journals have advocated it. A large part of the rank and file among the "drys" favor it.

Hundreds of quotations could be given but here is one of unusual interest: D. Clarence Gibbony, president of the Law and Order League of Philadelphia in the *Outlook*, July 4, 1914, says:

> *"The only effective plan, it seems to me, by which we can permanently get rid of the liquor business is for (Pennsylvania) to pass a Prohibition amendment to the Constitution—appropriate a sum of money sufficiently large to meet the requirements—provide for the appointment of some sort of commission with authority to appraise all liquor establishments at their actual value, and in some such manner compensate for some part of the actual cash loss following the dissolution of the partnership (with the Government), thereby enabling them to engage in some other business. I cannot understand how any good citizen, if he comprehends the facts, can approve of a partnership which gives both partners part of the profits, but charges one of the partners with all of the losses at the time of dissolution. This is neither just nor equitable. So, therefore, it cannot be the right way out."*

The proposed Wisconsin Compensation Bill does not provide a Commission; it merely gives the right to sue for *Compensation* and have the case decided by a jury. The community pays the loss to its own industry.

If you believe in fairness, justice and equal rights for all, you *must believe in Compensation.*

The Brewers of Wisconsin

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Lefebures' Belgians.

H. LEFEBURE & SONS, of Fairfax, Iowa, report very active sales in Belgian horses, having recently sold to Chas. Louis, Osage, Iowa, Bruno, a blocky blue roan yearling stallion; to A. B. Friesen, of Mountain Lake, Minn., a ton five-year-old imported Belgian stallion; to J. Ones & Co., of Tolley, N. D., a four-year-old chestnut stallion; to Holdgrafer, of Haverhill, Iowa, Neron de Kerkon an eight-year-old ton imported sorrel stallion; to A. Riddell, of Spokane, Wash., three head of stallions, a four-year-old ton sorrel, a three-year old brown and a two-year-old black. To Conrad Richards, of Brownsville, Minn., a good six-year-old imported sorrel stallion; to Robert Moorhead & Co., of Wabasso, Minn., Royal Jent, a ton bay four year old, and to J. C. Forsythe, of Ipava, Ill., a black four-year-old mare in foal. We still have a barn full of imported and American Belgian stallions of breeding age and with the quality and size desired and can also spare another 20 Belgian mares and fillies. H. Lefebure & Sons are the proprietors of undoubtedly the largest Belgian horse breeding establishment on earth. It consists of six entire farms, all adjoining, each containing a complete set of farm buildings and covering an area of 1,000 acres of Iowa's best soil. Their herd, contains several champion and reserve champion stallions and mares and for the past 25 years they have been winning a large portion of the prizes at the leading American shows. They were decorated the premier champion exhibitor of Belgians at the St. Louis World's Fair and again at the Panama-Pacific World's Fair in 1915. This stud includes about 150 head of the most highly bred stallions and mares to be found anywhere, many of which trace to Indigene du Fosteau; Reve d'Or; Brind d'Or, Mont d'Or, Ideal du Fosteau, and Nickel, all of which are among the best sires of the Belgian breed of horses. The Lefebures are pioneers in this business; the 29 years of importing and breeding Belgians have witnessed the building up of a firm that cannot be excelled for positive guarantee and upright dealings. At the present time they have on hand over 50 mares to foal this spring with which they will assist other careful breeders in showing the world that America can be supreme in draft horse production. Their 25 colts foaled in 1915, weighing from 1,100 to 1,300 pounds, their 40 head of one and two-year-old stallions weighing from 1,600 to 2,000 pounds and their selection of ton aged stallions are ample proof of their worthiness to the distinctions won by their exhibit at the big shows. Anyone wanting a stallion of merit, or one or more teams or mares in foal cannot do better than visit their farms and spend a day looking through the several large barns thereon. A revelation in American-bred Belgian horses. Their 1917 catalog can be had for the asking. Please mention this paper when writing them. See page 25.—Adv.

Durocs You'll Hear About.

AT the Madison Duroc Jersey sale, Clarence George, Evansville, Wis., entered two of the best gilts that were sold. This was the first time his Durocs had ever come before the public and many were surprised to know that there was a good herd at Evansville. We recently visited the George farm and found him with some good sows and litters. He has a couple of choice Valley G. sows and those posted will remember that Valley G. was a litter brother to the noted, Illustrator. These sows are raising good litters. Another one of the good ones traces back to the Iowa champion, Freed's Col. She has a nice litter of nine. A good fall sow is by Crimson Wonder, he by Crimson Lad. Mr. George has recently purchased some valuable sows, among them being a daughter of King Royal, he by Royal King and she is bred to King Orion—this should be a good litter. The herd boar is Golden Defender, a Defender-Golden Model 2d bred boar and one of the good boars of the state. He has just turned two years old. Besides the above boar, there will be a few litters by Taxpayer, he being by a son of old Defender and out of a Valley G. dam. Mr. George is a good caretaker and at the proper time he will offer you spring boars and gilts that have been well grown and cared for. He hasn't anything to sell at this time, but we want you to keep this herd in mind. He will book your order for a good spring boar to be shipped at three months of age. His advertisement appears on page 25 of this issue.—Adv.

W. T. Harris to Judge Durocs at Milwaukee.

AT THE meeting of the Duroc Jersey Breeders' Association held during "Swine Week" Mr. W. T. Harris, Morganfield, Ky., was recommended for judge of Duroc Jerseys at the Wisconsin State Fair, 1917, and Mr. Dillon to be retained as superintendent of swine at this fair. We are in receipt of a letter from Mr. Norgord, commissioner, advising that arrangements have been made with Mr. Harris to act as judge and Mr. Dillon has been retained as superintendent. We are sure that this will meet with approval from all the showmen, as Mr. Harris gave excellent satisfaction last year. No fair has a better or more competent superintendent of swine than Mr. Dillon and all swine exhibitors will be pleased to learn that his services are to be retained.—Adv.

Of Interest to Poland China Breeders.

L. P. MARTINY, Chippewa Falls, Wis., has a two-year-old boar that will make the showmen of the state sit up and take notice if he fits him for the fairs this fall. Mr. Martiny has kept this boar under cover since last summer and no one knew there was such a boar in the state. In asking Mr. Martiny why he did this we were advised that he wanted to see what his pigs looked like before he made much noise about him, but at this time his pigs are outstanding in every respect, so it's time to start the "fireworks." Many breeders of the state are of the opinion that Mr. Martiny has the medium type Poland Chinas, but they are wrong. It is true that he has had, but now he has a herd of big-type sows of the very best breeding. We will have more to say about his sow herd later—just now it is the herd boar. His name is Big Bone Wonder, farrowed March 3, 1915. Sire, Perfect Wonder by Big Wonder 2d by Big Wonder. All Poland men have heard of Fred Seivers' herd, of Iowa, considered the greatest herd in America. His herd is noted for its wonderful sows and they are of Big Wonder breeding, so this boar is of the same breeding as the Seivers sows. In the first place this boar is big, weighing right at 800 pounds. We have never seen a better head or ear on a big-type boar. He has an arched back and a spring of rib like a Hereford cow. We feel safe in saying he has an 11-inch bone and his feet and pastern could not be better. This is the best boar we ever saw on the Martiny farm and Mr. Martiny says he is the best boar he ever owned. To make a long story short, "he is some boar" and you had better order a boar or gilt to be shipped later.—Adv.

Some Good Chester White Boars.

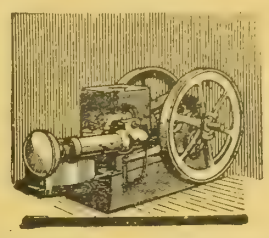
NOW is the time to buy your fall boar. You no doubt will have a few sows to breed for fall litters, and the service will not hurt the boar. Then you will have a chance through the summer to grow him out to your own satisfaction. As a rule there is not the usual number of fall boars in the country this spring, for owing to the high price of feed the breeders did not carry many over. The East Side Stock Farm, H. A. Derenthal, manager, Wykoff, Minn., has a number of fall boars of different ages for sale at reasonable figures. He needs the room for the spring crop and for that reason the fall pigs are being priced below their value. They are sired by Ignatz, the junior champion at Minnesota in 1915, and Callaway's Kind, first at Minnesota and grand champion at La Crosse. These boars are well bred and excellent individuals. Mr. Derenthal is also booking orders for spring pigs to be shipped at three months of age. We can see no reason why hogs will not be high for another year and the man that buys early will profit by it. Write the above firm for particulars and please mention this publication.—Adv.

Low Prices on Furnaces.

YOUR home may be kept warm, pleasant and congenial by a Bovee's Pipeless Furnace, and the cost of installation is small. Twenty-one years' experience in manufacturing and installing furnaces have given the Bovee Furnace Works, 202 W. 8th St., Waterloo, Iowa, the knowledge and ability to provide you with an entirely satisfactory heating plant at manufacturers' prices. In addition to pipeless furnaces they manufacture central heating furnaces and regular piped furnaces. If you want any kind of a heating system, send to the company for their beautiful three-colored catalog, explaining the different Bovee systems. This catalog is free; write for it today.—Adv.

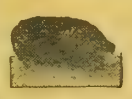
Proved Kerosene Engine.

THE time has come when you can put common kerosene oil into an engine tank, much like filling a lamp, and have the kerosene run the engine about as easily as it gives off light from an ordinary house lamp. "Today," said Ed H. Witte, president of the Witte Engine Works, 2717 Oakland Ave., Kansas City, Mo., "we sell four kerosene engines to every six gasoline engines. Within a few years a gasoline engine will be more unusual on the market than the kerosene engine is now. In our 30 years of engine building, we have aimed to keep in the forefront in our line. Our kerosene engine is no exception, in our record. I had it designed and proved out, and we have been selling liberal numbers of them—for years before any of the present-day, so-called kerosene engines came onto the market. Recently we put in a good deal of new, special factory equipment, which enables us to build kerosene engines to much better advantage. We are now pricing them lower than most gasoline engines. We sell direct to user, under a most binding five-year guarantee covering fuel consumption, as well as reliability of operation, and durability of construction. Doing the same work with engines of the same rated horse power, the Witte four-cycle kerosene engines require no more kerosene than other engines require of gasoline, and, as against two-cycle engines, the Witte four-cycle requires a third less fuel, and is more certain of continuous operation under full load." Anyone interested can, by writing Witte, at his address given above, get by return mail complete description and illustration of his engine together with comparisons of value of it, as against other types and styles of engines.—Adv.



Witte kerosene engine, burns kerosene, gasoline, distillate, naphtha, tops or any other like fuels, delivering practically the same horse power per gallon from each.

Wisconsin Farmer Brought Sales.



"The Wisconsin Farmer brought me many inquiries and many sales."—Charles S. Flesch, Mt. Ida, Wisconsin.

THE WISCONSIN FARMER, MADISON, WISCONSIN.
Guaranteed Weekly Circulation, 90,000.
Circulation in Wisconsin, 76,769.

From Grades to Pure Breds.

MR. N. J. JACQUE, Port Washington, Wis., has had a very good herd of grade Holsteins for years, but recently decided to dispose of these and go into pure-bred cattle. He called at the Fred Pabst Farm, Oconomowoc, Wis., the other day and selected a young bull, Pontiac Korndyke Johanna Segis, sired by Korndyke Segis Johanna, whose two dams average over 38 pounds. The dam of this bull is a daughter of King Pontiac Champion, their senior herd sire. This heifer is out of Duchess Johanna of Delafield with a record of over 27 pounds, and her dam in turn has a record of over 29 pounds. Mr. Pabst expects to test the dam when she next freshens and has hopes she will do honor to her dam and grandam. Mr. Jacque was very particular as to individuality and the bull he selected was an animal with straight top line, plenty of substance and of masculine appearance. We believe he will not regret making this selection for his herd sire.—Adv.

Shekletons' Stallions.

FRANK P. SHEKLETON & SONS, well-known draft horse men, Lawler, Iowa, write as follows: "Our advertisement in your paper has produced for us this season more business than ever before. We are receiving many inquiries every day through it and we attribute many of our best sales to your paper. We have sold within the past ten days to John Breitbock, of Peosta, Iowa, a good black and a dark gray Percheron stallion to go on the stand this year. Herman Luther, of Nelson, Wis., selected one of our good two-year-old Percheron stallions, weighing nearly a ton. Richter Bros., of Red Wing, Minn., visited our barns and selected a very fine black Percheron stallion. To J. B. Timmermann, of Sibley, Iowa, we sold the black two-year-old Percheron stallion, Larry. This colt weighed 2,150 pounds the day he purchased him. Mr. Timmermann will use this colt on his herd of pure-bred mares. Holly M., a grandson of Pink goes to M. R. Hinckley, of Hoven, S. D. Mr. Hinckley has a large ranch and will use this colt on his own mares. Mr. Hinckley owns 100 head of high-grade Percheron mares and believes that this heavy, thick colt will make a fine cross on his light-boned mares. Theo. Rake, of Algona, Iowa, selected a dark gray three-year-old Percheron stallion weighing over a ton, and to Joe Husting, of Waucoma, Iowa, we sold a very fine two-year-old black Percheron stallion. Messrs. Cary & Days, of Mitchell, S. D., purchased a very find four-year-old Belgian stallion to put on their ranch. Andrew Ust of Elkton, S. D., selected a four-year-old Clyde stallion. While we have sold many fine stallions this winter we still have to offer some of our very best two-year-old Percherons. These colts are bred in the purple, and the man that is looking for a Percheron stallion at the right price should write and get prices of these colts. We still have our five-year-old imported Belgian stallion, Bizzarrie, weighing 2,300 pounds. This horse is an outstanding a good one in every respect, and should be doing service in some good stud this season. We have a number of stallions from six to ten years old that we have taken in on trades that we are offering at a sacrifice." See page 25 and write for prices, mentioning this paper.—Adv.

A Fast-Working Engine-Driven Sprayer.

HOW would you like to spray 10 rows of potatoes at a time? You can do it with this powerful engine-driven sprayer and maintain plenty of pressure—200 pounds or more. A four and one-half horse-power, air-cooled engine, furnishes ample power. Being detachable, it may also be used for running the grain binder and potato digger, likewise for sawing wood and other chores around the farm. Then, too, a few minutes' work with the wrench will convert this fast-working field sprayer into a practical orchard outfit. This is made possible by a special orchard attachment. This feature will be especially appreciated by those farmers who have fruit trees to spray, but whose orchards are not extensive enough to warrant the purchase of a power outfit for orchard use only. Every farmer should send for the free booklet of the Bateman Mfg. Co., Box 74B, Grenloch, N. J., which fully describes this labor-saving sprayer. It also tells of the profit earning potato planters and other garden and orchard machinery which this company manufactures. Write for the booklet today.—Adv.

Jenkins Buys Profitable Sultan.

WE have just been advised by Kiser Bros., Oregon, Wis., that they have just sold one of their herd bulls to W. C. Jenkins, the well-known Duroc Jersey man, of Bangor, Wis. The bull, Profitable Sultan, is a roan sired by White Rock, he by Whitehall Sultan. The dam, Oakland Profitable, was by Duke Marigold, he by Prime Minister. The seven top sires in this bull's pedigree were bred by Amos Cruickhsank. This bull is a proven sire, as the calves on the Kiser farm show and Mr. Jenkins was fortunate in getting such a good Short-horn bull.—Adv.

Exceptional Opportunity to Buy Sweet Clover, Alfalfa and Grass Seeds.

THE A. A. Berry Seed Co., of Clarinda, Iowa, announce that they have in stock considerable quantities of the finest grass seeds—particularly the common clovers, alfalfa and sweet clover. They will gladly send their new catalog and complete information in regard to grass seeds—also field, garden and flower seeds—to anyone requesting it. Address them at Clarinda, Iowa, Box 934, if interested.—Adv.

James Derivan Polands.

JAMES DERIVAN, of Fox Lake, Wis., is well known to the Poland China fraternity of this state. Just at this time he is offering fall boars and gilts—farrowed in August. They have been well cared for and have plenty

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

of size for their age and they are sired by two good boars. If you will write Mr. Derivan he will gladly describe what he has for sale and you will find the pigs just as represented.—Adv.

The Hog's Health.

IN Dr. Gilbert Hess' valuable book on the uses of dip and disinfectant on the farm, the following appears in relation to hogs: "Dr. Hess dip and disinfectant is a most valuable vermin and germ killer and should be freely used by all hog raisers about the hog houses as a general disinfectant. There is no animal more filthy, when confined, than a hog, and there is scarcely any place where disinfecting is more necessary than in a hog pen. A hog being small in size, it is much more practical to dip than the larger animals. Frequently dipping is certainly a very important thing to do, because it prevents disease and keeps hogs in a healthy, growing condition. A very good idea where hogs wallow in water is to occasionally add some of Dr. Hess dip and disinfectant so that it would be probably about one to 70 solution. No hog can be fed with profit if kept in a place contaminated with vermin and disease germs, no matter how nutritious or plentiful the food may be." An excellent practice, strongly advocated by Dr. Hess, is to have a specially constructed hog wallow. In this he is turning to good account the hog's natural disposition. He says, "It is natural for a hog to wallow." He would, therefore, provide a wallow in the feed lot or close to the feeding trough, which he would keep filled with water, and would add Dr. Hess dip and disinfectant occasionally. The object to be accomplished is, therefore; first, to clean the hog; second, to purify the air; third, to destroy disease germs. He explains that hogs will be constantly passing back and forth from the wallow to the feed trough, and that "while the dip will kill the lice and clean the skin, the drip will destroy the germs of disease and the worms that pollute the ground." Dr. Hess, dip and disinfectant is a standardized preparation and is guaranteed to be uniform in quality whether bought in gallon cans or by the barrel, and whether it is secured in Texas, California, Kansas, Maine or Florida.—Adv.

A Great Hereford Herd.

WE recently had the pleasure of inspecting one of the good Hereford herds of the state. There are only three herds of this breed in the state of any size and this is one of them, owned by Walter Brothers, Chippewa Falls, Wis. The breeding herd comprises 20 head of cows of the most popular breeding, Anxiety blood predominating. The important feature is that the cattle are properly cared for. The owners do not expect them to find shelter and feed around the straw stack, but they are cared for as valuable cattle should be. The heifers are by Beau Gomez 2d, a son of the noted Beau Gomez. There are a few by a son of Columbus Regent, the noted show bull. Just at this time they have a few bulls for sale. One was dropped in September, 1915, and he is all bull. Another one was a year old in November and is good enough to head a herd of registered cows. They also have some younger bulls, well bred and well grown. These bulls are right in every respect and we are glad to recommend them to anyone wanting Herefords. A young bull was recently purchased from the Robinson herd for service in this herd. He is sired by the well-known Maple Lad 33d by Bonnie Brae 8th and his dam is also by Bonnie Brae 8th, making him a line bred Bonnie Brae bull. He will be shown at the fairs this fall and should make a creditable showing. Keep this herd in mind, it will be heard from and if you want bulls this is the place to go. Mention The Wisconsin Farmer when writing for particulars.—Adv.

Poland China Futurity Assured.

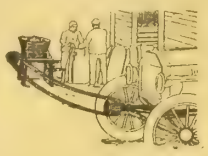
DUE to the efforts of the secretary of the Wisconsin Poland China Breeders' Association, Burley Dobson, we are glad to report that the necessary nominations—20—have been received for the Poland China futurity to be held at the Wisconsin State Fair this fall. The following breeders have nominated their herds: James Derivan, Fox Lake; J. H. Peterson, Kilbourn; J. D. McDonald, North Bend; W. H. Esterly, Whitewater; Wm. Smiley & Sons, Albany; L. P. Martiny, Chippewa Falls; O. C. Olson, Strum; R. Meinking, Bangor; N. Kintz & Son, Berlin; C. S. Maltby, Janesville; John Sutter & Son, Fountain City; Heck Bros., Lyons; A. Neeseman & Son, Warren, and J. F. Diley, Rush Lake. Grant county leads with number of entries from one county, namely: C. S. Flesch, Mt. Ida; F. A. Morehouse, Lancaster; Bryant Bros., Hazel Green; J. C. Hendricks, Hazel Green; E. W. Hendricks, Hazel Green; W. F. Ackerman, Glen Haven, and Dobson & Eastman, Lancaster. We have been advised that Wisconsin was the first state to fill.—Adv.

Crandell's Wonder-Schoolmaster.

WE have just had a letter from Harry T. Crandell, Cass City, Mich., written March 17th advising that he has about 100 Chester White sows and gilts for sale due to farrow the fore part of April. Mr. Crandell raises Chesters by the hundreds, hence this number to sell at this time. They are out of the dams and sisters of his great show herd and are bred to Crandell's Wonder, grand champion Ohio State Fair, 1916, Allen Junior, champion Wisconsin State Fair, 1914, Schoolmaster, champion Chicago, 1916, Callaway Edd, grand champion Missouri State Fair, 1916, and School Boy, junior champion at Wisconsin and Chicago, 1916. He also has a nice lot of fall pigs, either sex. Here is a chance to get some Chester White sows, bred in the purple. Mr. Crandell will ship on approval and guarantee satisfaction and all stock sold is registered free of charge. No one could ask for a fairer proposition. Write for further description and please mention The Wisconsin Farmer.—Adv.

Fords Now Used as Portable Gas Engines.

WHAT will probably prove one of the most useful attachments ever made for the Ford is the Schluter auto belt attachment, which can be connected with a car in less than a minute's time.



The Schluter gives the farmer with a Ford car a gas engine, that is portable, guaranteed eight horse-power capacity, and retails for only $22.50, which is about one-sixth the price of an eight-horse-power portable gas engine. The Schluter is put out by the E. F. Elmberg Company, 52 Main Street, Parkersburg, Iowa, who sell it on a five-day trial, money-back guarantee. You can order direct from the advertisement on page 14 or if you want to investigate the proposition further write to the company for their big free circular which tells all about the handy Schluter attachment.—Adv.

Chester White Breeders' Attention.

FOR the benefit of those that were not present at the annual meeting of the Chester White Breeders' Association of Wisconsin, held at Madison during "Swine Week," we will say that it was decided to hold an association sale of Chester White sows at Madison during Farmers' Week next winter. The two association sales held, during the past winter by the Duroc Jersey and Poland China Associations were a grand success in every respect and there is no reason why the Chester White men of the state cannot have just as good sales if they'll coöperate and prepare in advance. The next two or three months will be the time to pick out the gilts that you intend to put in that sale. Don't sell all your good ones and send what you have left to the Madison sale, but pick out your best for that sale. This will be the opportune time to boost your breed, so plan accordingly.—Adv.

"Auto School News" and Free Catalog.

WITH the marvelous increase in number of automobiles used each year the demand for experts to fill profitable positions as testers, repair men, chauffeurs, garage men and salesmen has increased much more rapidly than the supply. The Michigan State Auto School, 1404 Auto Building, 11-19 Selden Ave., 687-89-91 Woodward Ave., Detroit, Mich, is doing much to meet this demand by training thousands of young men to handle all sorts of automobile propositions. They have a large building and equipment. A magazine "Auto School News" that tells about what the school and its graduates are doing, will be sent free, together with a new catalog, to any Wisconsin farmer who is interested. Read the advertisement on page 15 and write to the Michigan State Auto School for your copies. You will find them worth reading.—Adv.

Jones' Holsteins Stand Test.

LETTERS to S. E. Jones, Watertown, Wis., breeder of Holstein cattle, prove that the Jones cattle have lived up to the guarantee of physical perfection and good breeding. L. Heckner, Lincoln, Neb., who purchased a herd of 14 head for a partnership of which he was a member writes that the herd developed wonderfully well and that when a dispersion sale was necessary, the Jones stock averaged $345 a head. The eastern manager of the Carnation Stock Farms, in remitting the balance for a herd that was purchased under the Jones guarantee that they would pass the tuberculin test 90 days after the sale, expressed much pleasure at the result, as the entire herd had passed the test satisfactorily. Mr. Jones is advertising his Holsteins on this page. Read his advertisement and write him about your needs, mentioning this paper.—Adv.

Ventiplex Harness Pads.

IN order to introduce their products to the farmers) the Burlington Blanket Co., Dept. 10, Burlington, Wis., are offering to anyone, who will send them two labels from Ventiplex collar pads, a Ventiplex housing, for protecting the back and shoulders of the horse from chafing and rubbing of the harness saddle. The only cost is 5 cents to pay the cost of mailing. Ventiplex pads and housing are made of especial material, well ventilated, cool and sanitary. If you have never used the Ventiplex, why not give them a trial at the next opportunity? They will please you. Write direct to the company in case your dealer does not carry them, mentioning his name.—Adv.

Gormley Bros., Jefferson, Wisconsin.

THE Elmside herd of Holsteins has been producing some very creditable records the past several years. Mary Segis Beets was the Wisconsin Champion junior two year old for 1915 and 1916. This year she has come back and made 28 pounds as a junior three year old. King Beets Lyons, the present herd sire, have been in service for some time and is by King Lyons and out of the 32.6-pound cow, Segis Beets Girl. The three nearest dams of this bull average 30.62 pounds and the six nearest dams average 31.8. Gormley Brothers are consigning a 27-pound cow, a 26-pound bull, sired by King Beets Lyons and two other A. R. O. cows to the Lake Mills consignment sale.—Adv.

W. J. HEID, Ft. Atkinson, Wis., who has one of the best herds of purebred Guernseys in Jefferson county, is doing some good work with a number of cows now on test and has his herd in fine condition. Easterelius Hazel produced 69 pounds fat in December and Georins Hazel and Glorig of Lake Bluff, 80 pounds and 74 pounds, resepectively, for the month of January. Mr. Heid has a two year old that produced 48 pounds fat in one month, Trenores Glenwood. Trixy's George of Sunnyside, that was shown by Fox Brothers in 1913, has been recently purchased from Earl Roberts, and now stands at the head of Mr. Heid's herd.—Adv.

JOHN D. HETTS, Fort Atkinson, Wis., has recently sold a show bull sired by Juliana King Repeater to Alfred Sipple, Menomonie, Wis. The three nearest dams of the calf sold have some official yearly records that average 1,054 pounds butter. All of these records were world's records when made. Mr. Hetts has a number of cows about ready to go on test.—Adv.

150 HEAD PURE-BRED HOLSTEINS

Fond du Lac County Holstein Association Sale on the Fair Grounds at

FOND DU LAC, WIS.

APRIL 26 AND 27, '17

THIS is strictly a breeders sale, by the oldest breeders in the county who will stand back of their cattle, guaranteeing them breeders, free from abortion, and furnishing them with a certificate for tuberculin test supervised and signed by the State Veterinary, who will be at the sale to furnish bill of health to those outside of state. There will be no by-bidding or bidding in, every animal to be sold. These cattle are consigned by the nation-wide known breeders, such as W. J. Gillett & Sons, F. J. Bristol & Sons Co., S. C. Stanchfield, W. H. Steiner, S. M. Randall, Fletcher Bros., Tompkins Wright, S. H. Bird, W. P. Kissinger and others. Our offer consists of 100 head in milk, or to freshen, bred to high record bulls. Thirty heifers and heifer calves and 20 bulls ready for service with records up to 28.30 butter in 7 days. Auctioneers, Kelley, Haeger and Mack. Wood in box. Catalogs ready after April 15th.

S. H. BIRD, Sale Mgr., South Byron, Wis.

SALE DATES.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Holstein Cattle.

Apr. 4-5, Intercounty Holstein Breeders' Assn. F. Darcey, Mgr., Watertown, Wis.

Apr. 6-7, Dispersion of the Stephenson Farm Herd of Holsteins, Lake Mills, Wis.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 17, Birch & Thompson, Lake Geneva, Wis.

News of the Sale Ring.

(Continued from page 16)

Jollie Marie, April, 1916; S. F. Guttenstein [illegible]
Eva, May, 1916; Jacob Allamaras [illegible]
Princess, June, 1915; E. Fish, Janesville, Wis. 200
Prim, May, 1916; E. Fish [illegible]
Karrie, July, 1915; Jacob Allamaras [illegible]
Quez, April, 1915; Jacob Allamaras 170
Gertie, April, 1914; Jacob Allamaras 170
Ellene, April, 1916; Nick Power [illegible]
Patience, June, 1916; Nick Powers. [illegible]

STALLIONS.

Mark, May, 1911; O. B. Marshall, McFarlane, Wis. [illegible]
Nemours, May, 1913; L. E. Gulick, Waterford, Wis. [illegible]
Bonus, April, 1911; E. E. Randall [illegible]
Papkie, July, 1914; S. F. Guttenstein [illegible]
Noirot, March, 1913; Durham Bros., Waukesha, Wis. 750
Kent, May, 1914; W. F. Miller, West Salem, Wis. [illegible]
Marmot, April, 1912; Goddard Breeding Est., Martinsville, Wis. [illegible]
Mack, April, 1909; Goddard Breeding Est. [illegible]
Glen, May, 1914; Babson Bros. 500
Brilliant, May, 1913; E. G. Bright [illegible]
Idlewild, May, 1913; J. Allamaras [illegible]
Corondo, March, 1914; E. G. Bright [illegible]
Karman, June, 1915; J. G. Johnson, Waterloo, Wis. [illegible]
Pedro, April, 1915; H. F. McNutt, Oxford, Wis. 150
Gordon, March, 1915; J. Allamaras [illegible]
Roland, May, 1915; S. F. Guttenstein [illegible]
Pioneer, May, 1914; Nick Astico, Astico, Wis. [illegible]
Grandie, May, 1915; J. W. Peterson [illegible]
Lustrious, July, 1915; E. G. Bright [illegible]
Black Jack, May, 1916; H. W. Hannen, DePere, Wis. [illegible]
Keyser, May, 1916; H. W. Hannen [illegible]
Tamarack, April, 1916; Goddard Breeding Est. 90
Guardsmen, May, 1916; S. F. Guttenstein 100

TOO LATE TO CLASSIFY.

Fewacres Farm

JERSEYS

FIRST four cows in our herd to complete authenticated year's test in our herd average over 716 lbs. butter. When in need of a herd bull write us. We have them at farmers' prices.

A. M. Sersted, Supt., Wauwatosa, Wisconsin

Registered HOLSTEIN-FRIESIAN

BULL and heifer calves for sale, sired by Burtondale Aaggie Korndyke 144746, the 25 lb. sire. Both grandams with records over 30 pounds butter. All the stock is out of well-bred and heavy-producing dams. Write or come and see a producing herd. **Henry W. Breher, Box 20, Sheboygan Falls, Wisconsin.**

HOLSTEIN HEIFER CALVES

HIGH-GRADE Holstein heifer calves, and in position to furnish single or car load shipments of selected well-marked calves at $18.00 to $20.00 a head. Also pure-bred bull calves. Send cash with order. Address S. E. Jones, Watertown, Wisconsin.

ROCKS—Pure-bred White and Barred. Day-old Chicks, hatching eggs. Early hatched cockerels reasonable. Mrs. J. F. Bloom, Route 1, Stillwater, Minn.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

MR. STALLION BUYER

WE still have on hand a large number of two coming three Percheron stallions, those colts now weigh up to 2,110 pounds, and if you are looking for an outstanding good one to head your herd of mares you should write and get prices on those colts. Our three-year-old and aged Percheron stallions are the best lot we ever had on hand. They weigh up to 2,300 pounds. In Belgians we offer a very strong lot from one to six years old. Among them is Bizarrie, a five-year-old sorrel chestnut stallion weighing 2,300 pounds. This stallion is as good as money can buy and fit to go any place. He must be seen to be appreciated. We have on hand a number of stallions from six to ten years old that have made seasons. Those horses weigh up to 2,100 pounds, and we will sell them very reasonable. We have a horse for every purse and know we can save you money. We want to buy 50 head of one coming two Percheron and Belgian stallions. Write us what you have. Send 25 cents in stamps for large horse hanger. Address

FRANK P. SHEKLETON & SONS — **LAWLER, CHICKASAW COUNTY, IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R.R., making direct connections for Lawler.

HOMEWOOD STOCK FARM

PERCHERON STALLIONS AND MARES IMPORTED and HOME BRED

GOOD, big, ton stallions and mares with plenty of quality, bone and the best of legs and feet. If you want a real draft stallion or mare come and see our stock or write for particulars. Most reasonable prices, terms and guarantee.

S. METZ & SON - - - - - HOMEWOOD, ILLINOIS

Have a choice lot of Hereford and Short-horn bulls for sale at reasonale prices.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

Largest Collection on Earth

150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

H. LEFEBURE & SONS, Fairfax, Iowa

8 miles west of Cedar Rapids

If in Cedar Rapids, phone us for hourly Interurban service

STALLION FOR SALE—A pure-bred, imported Belgian stallion, weight 2,000 pounds, dark bay, a heavy-boned, drafty horse and used to being in the harness. Address Karl A. Hansen, Box 16, Sand Creek, Wisconsin.

CLYDESDALE registered stallion, Royal Wilson, offered for sale. Rightly built, fine style, age 6. Jno. J. Wescott, Monroe, Wisconsin.

W. E. PRICHARD & SONS
OTTAWA, ILL.

PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

W. A. LANG & CO.
Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

W. A. LANG & CO. GREELEY, IOWA

STALLION FOR SALE

PURE-BRED French Draft, weighs about 1,900 lbs., 8 years old, color sorrel with white hind feet, Silver mane and tail, light points. Reason for selling, haven't the time to travel him. Price cheap, considering quality. Terms liberal; time if necessary. Kriwanek Bros. Co., Denmark, Wis.

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices. **Fred Chandler, R. 7, Chariton, Ia.**

HART BROS., OSCEOLA, IOWA

IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

POLAND CHINA SWINE.

GROW YOUR HERD BOAR

BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early. **P. W. Young, Prosper, Minn.**

BIG POLANDS

Black Jumbo
AND
Model Major 2d

Order your spring pigs now. Address

E. W. HENDRICKS
Hazel Green, Wisconsin

Durocs by Orion Col. S.

THOSE that are going to be in the market for Duroc Jerseys during the coming months should bear in mind the W. C. Jenkins herd at Bangor, Wis., the home of the big-type boar, Orion Col. S. We recently described this boar in these columns and we will not go into detail about him at this time other than to say that he is one of the few real good, big-type boars in the state of Wisconsin. Breeders of the state can use this breeding to good advantage, for it is comparatively new here. This boar is sired by Col. S. Jr., a noted boar of Ohio for which $2,500 was paid and he is out of Opal Orion by the great sow sire, Orion Chief. Mr. Jenkins has a fine lot of spring pigs coming on and they will be sold at weaning time. Keep this herd in mind and if you are going to want a herd boar it would be well to speak ahead for one of the pigs sired by Orion Col. S. Notice the advertisement that appears in this issue.—Adv.

10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northside Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT

Address
J. C. HENDRICKS, Box F., Hazel Green, Wis.

POLANDS

SOME very choice fall pigs—absolutely right. Order one. Address

R. Meinking — **Bangor, Wis.**

REGISTERED POLAND CHINAS

SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins)

Marinette County Asylum — **Peshtigo, Wis.**

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address

James Derivan — **Fox Lake, Wisconsin**

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

C. S. Flesch — **Mt. Ida, Wis.**

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.

WALTER BROS. CHIPPEWA FALLS, WIS.

AYRSHIRE CATTLE.

AYRSHIRE BULLS

TEN choice A. R. O. bred bulls from A. R. O. dams and sires. Ages from six months to yearlings, sired by Penshurst Kaiser. Dam's record as two year old 10,800 and as three year old 11,000 lbs. milk. Grandam's record 14,000 lbs. milk, 725 lbs butter. Seven years' record 80,000 lbs. milk, averaging 700 lbs. butter per year. Sired by imported Oliver Twist, of Peter Pan breeding. Dam's record 10,000 lbs. milk as two year old, butter 425 lbs., full sister to ex. world's champion two year old, record 15,000 milk, 652 butter. Another full sister making over 20,000 lbs. milk this season. Also a few by Gay Cavalier. A few females of all ages for sale. Write for pedigrees and price.

ADAM SEITZ — **WAUKESHA, WISCONSIN**

REGISTERED

AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL — **RACINE, WISCONSIN**

CHESTER WHITE SWINE.

CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

H. A. DERENTHAL, Manager, EAST SIDE STOCK FARM, WYKOFF, MINN.

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Callaway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write

Wm. T. Butts — **Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants.

WEST SALEM — **WISCONSIN**

DUROC JERSEY SWINE.

FISHER

Has a few Duroc gilts bred to the grand champion

KING DEFENDER

Order before they are all sold. Address

JOHN L. FISHER - JANESVILLE, WIS.

CLARENCE GEORGE

OF EVANSVILLE, WISCONSIN

IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR, out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write

W. C. Jenkins — **Bangor, Wisconsin**

SHEA

OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.

Dennis Shea — **Melvina, Wis.**

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address

Geo. D. Sprain & Sons — **West Salem, Wis.**

ATWATER

HAS no Durocs to sell until May. Will book your order.

L. F. Atwater — **Bangor, Wis.**

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address

F. R. Constance & Sons — **Waupaca, Wis.**

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address

Emmett Cook & Son, Richland Center, Wis.

JERSEY CATTLE.

The Giant Of The Dairy

Grade up with a Jersey Bull! He is half the herd, and the breed determines half the profits. Breed him to your grade cows and bring the herd average near the Jersey average—489 pounds of butter fat per year. Your calves will be beauties. They'll mature quickly into gentle, hardy, vigorous and persistent milkers, long-lived and adapted to any climate. Let us tell you more about them. Send for our book, "The Story of The Jersey." It's free and it's a dandy.

Write for it *now.*

The American Jersey Cattle Club
338 West 23rd Street • New York City

OAK GROVE JERSEY FARM

OFFERS for sale bull calf, dropped Feb. 5, 1917. Solid color, black tongue and switch. Sired by a son of Noble of Oakland 95700. Dam has a R. of M. record of 594 lbs. 10 oz. butter as a two year old. Write for particulars or come and see him. Address

W. M. Knight — **Eagle, Wis.**

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 18 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

H. Holt & Son — **Oconomowoc, Wis.**

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT - - - TOMAH, WIS.

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

FOR SALE

A FINE bunch of heifers, granddaughters of Pontiac Korndyke. For further information, prices and pedigrees address
PETER LARSON RANDOLPH, WIS.

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

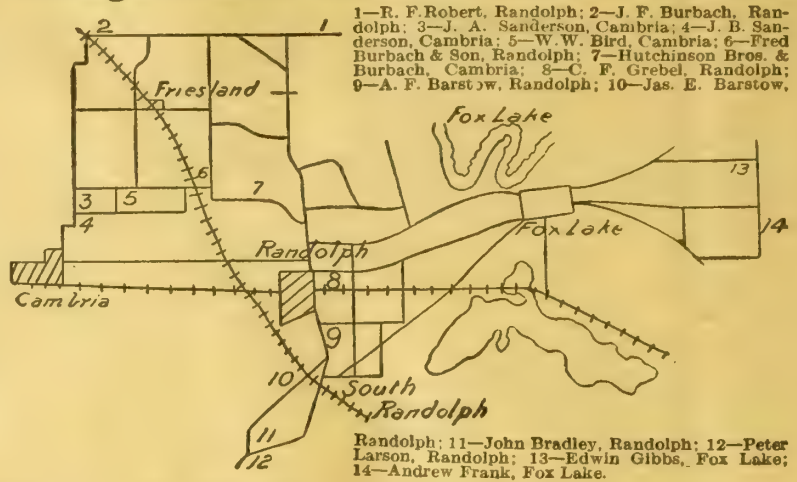
Young Bulls

SOON ready for service sired by Johanna Pontiac Korndyke Imperial, a son of Pontiac Kornkyke, 11 30-lb. daughters. Also a few bull calves sired by Sir Veeman Segis Hengerveld Burke, a son of Sir Veeman Hengerveld, 13 30-lb. daughters. For further description write
JOHN BRADLEY RANDOLPH, WIS.

Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Cambria; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

REG. HOLSTEINS

Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
J. B. Sanderson - Cambria, Wisconsin

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

Yearling Holstein Bulls

READY for service and younger, sired by the richly bred bull **Wisconsin Star Champion 110275,** whose dam made 28.70 pounds butter as a five year old. These bulls are from good producing cows and are well developed and well marked. Prices right.
Andrew Frank - Fox Lake, Wisconsin

Duroc Gilts

BRED to a good son of Tommy Doyle, the $1,500 grand champion, for March and April farrow. Their dams are by Col. Defender 2d or Valley G. Priced to sell. Write
W. W. BIRD CAMBRIA, WISCONSIN

SHORT-HORN CATTLE.

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, Janesville, Wisconsin

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
J. E. KENNEDY JANESVILLE, WISCONSIN

LITTLE SHORT-HORNS

FEW CHOICE BULLS of serviceable age, and it so happens that they are out of the best cows in our herds. We satisfy our customers. Write
HARVEY H. LITTLE EVANSVILLE, WIS.

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

SHORT-HORNS

OF either sex, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. Bernd New Richmond, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

KISER BROS.

OFFER Short-horn bulls. Roans from six months to a year old. Continuous breeding for 46 years. Write for description.
KISER BROS. OREGON, WIS.

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
B. W. Little Janesville, Wis.

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

SHORT-HORNS--BIG-TYPE POLANDS

CHOICE bulls, one 15 months, sired by Collynie Victor 387634. Stretchy September pigs, either sex, from large litters. Write. A. Menke & Sons, R. 1, Mackesan, Wis.

SHORTHORNS BOTH sexes for sale, including a good roan Scotch two-year-old bull. Write us. Williams Bros., Bangor, Wis.

GREEN VIEW STOCK FARM SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address
John H. Bear & Son Spring Green, Wis.

POLAND CHINAS---SHORT-HORNS

A FEW choice gilts bred for March and April farrow. Bulls, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. Drake & Son, Beaver Dam, Wisconsin

THREE SHORT-HORN BULLS

FOR sale—10, 11 and 13 months old. Sired by a son of White Sultan and from good milking dams. A. J. Wheeler, R. 1, Beaver Dam, Wis.

SHORT-HORN BULLS

Red, white and roans. For particulars address
R. A. Morley Co. Baraboo, Wisconsin

REGISTERED Short-horn bulls of serviceable age, also some pure-bred calves, for sale. Prices right. Address John Fitzgerald, Grimms, Wisconsin.

WE have some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
J. W. SALTER & SONS - UNITY, WIS.

RED Polled bulls. Eight choice bulls from calves to yearlings, all sired by a first prize International bull, Liza Lad 23108. His dam has A. R. record, av. 515 lbs. fat. Price $75 to $150. Also a few females. Byron R. Curran, Taylor, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

RED Polled cattle for sale, both sex and different ages; also Poland China hogs; prices right. Cloverbelt Stock Farm, Hamburg, Wis.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reason able prices on singles, pairs or trios. Address
A. P. CORTTE LOMIRA, WISCONSIN

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.
DR. TRUMAN BROPHY CHICAGO, ILLINOIS
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS WAUKESHA, WISCONSIN

ONE 3-YEAR-OLD GUERNSEY BULL

DAM, Oakwood Maid Eagle, with 448 pounds fat and sired by Golden Lad of Fern Ravine. Price $200. Also calves from 2 to 6 months old, mostly all dams imported and sired by different sires. Prices $50 to $100.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

FOR SALE

GRADE Guernseys, 2 milking, 3 springers, 14 yearlings, 7 are bred, 8 fall calves. Price $1,400. 1 registered bull one year old at $100.
E. H. Kiesling Jefferson, Wis.

Guernsey Heifers For Sale.

SEVEN extra-fine grade Guernsey heifers, choice individuals and out of good producing dams. Also pure-bred bulls with good A. R. backing.
H. N. Longley Dousman, Wis.

LIVE STOCK AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY versed on pedigrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd. Chicago Illinois. Carey M. Jones Pres.

I. E. STICKELMAN

CLARINDA, IOWA
I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

See page 16. Read The Farmers' Market advertisements. There may be a bargain there for you.

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

RILEY MARTINY & SON

BARABOO, WIS.
TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

A FEW WELL-BRED YOUNG BULLS — Haven Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

HOLSTEIN-FRIESIAN CATTLE.

Korndyke Segis Johanna, whose tw nearest dams average over 39 pounds.

Holstein Bull Calves

The "Pabst Quality Kind"

Write us

PABST STOCK FARM

Dept. 30 Oconomowoc, Wis.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

HOLSTEINS AND GUERNSEYS

REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves, $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM FT. ATKINSON, WISCONSIN

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address

A. M. Anderson Whitewater, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the do uble bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

Dopp Brothers Ixonia, Wisconsin

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born May 25, 1916. An outstanding individual, dark in color and tuberculin tested. Cornucopia Pontiac Johanna Lad 48355, his sire, is a full brother to K. P. Manor Kate, world's yearly record senior 2 year old. His dam is a 15-lb. 2 year old of Pontiac and Colantha breeding. His 7 nearest dams all have good A. R. O. records. Write now for reasonable price, pedigree and photo.

N. Dickinson & Son Lake Geneva, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O.daughters. Arthur Rust, West Allis, Wis.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman, Jr., Monroe, Wisconsin.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

SELLING OUT!!!

WE are going to discontinue the production of certified milk and devote all of our time to the development of a high-class herd of registered Holsteins. We are offering at private sale any number of our entire high-grade herd of 134 head. These consist of high-producing Holsteins, Guernseys and others, many fresh and springers. Our herd has been regularly tuberculin tested and is and always has been absolutely free from contagious abortion.

EDGEWOOD FARMS, INC.

PEWAUKEE WISCONSIN

HIGH-GRADE HOLSTEIN

Cows and Heifers

BRED to our herd sire, Butter Boy Mink Pontiac 133161, due to freshen in fall. Also young registered bulls from A. R. O. dams. Priced reasonable. For particulars write

COOK BROS. BURLINGTON, WIS.

HILLVALE PAUL ORMSBY

REPRESENTS a rare combination of Ormsby breeding. His sire, Paul Ormsby, is a half-brother of Ormsby Jane Segis Aaggie and his dam, Lady Ormsby 2d, 22.35 lbs., is a half-sister of Duchess Skylark Ormsby and Pietertie Maid Ormsby. Our herd is on the accredited list. Send for extended pedigree. Address

H. E. Reddelien Oconomowoc, Wisconsin

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

Fred Kohlwey Grafton, Wisconsin

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L.V.Garvens, Brookfield, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

PURE-BRED

DISPERSION SALE

C. J. NEHRLING'S HERD

45 HEAD 45

ONE of the best small herds in the state, representing the most popular blood lines of this, the greatest breed of dairy cattle. Splendid young cows and heifers, the money-making kind. All over six months tuberculin tested. Sale to commence at 12, noon at Clovermead Stock Farm.

Sale Managed by LIVERPOOL SALE & PEDIGREE CO., Inc., LIVERPOOL, N. Y.

PLYMOUTH, WIS., MAY 1, 1917

HOLSTEINS

HOLSTEIN-FRIESIAN CATTLE.

See the Dam Before Buying a Herd Bull

WE are now offering for sale a Holstein bull calf, born Nov. 8, 1916, out of Colantha Piebe of Elm Court (103267) with 27.7 lbs. in 7 days and 808.82 lbs. in a year; also the dam of a 25-lb. 4 year old and junior champion at the Wis. State Fair. The sire of this calf is the 30-lb. bull, North Star Parthenea Star Beets, that is a son of the famous prize winner, Sir Beets Cornucopia Netherland. Will also price for quick sale another son born Feb. 24, 1917, of the 31.02-lb. cow, Ella Mercedes of Elm Court (89908), sired by North Star Parthenea Sir Beets, a 30-lb. bull.

Reuben Klofanda, Racine Stock farms, R. 1, Racine, Wis.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

HEAD YOUR HERD WITH A W INNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - WAUKESHA, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

TULLOCH & FRIES' HERD GENOA, WIS.

Purebred Registered

HOLSTEIN CATTLE

Tilly Alcartra, a purebred Holstein-Friesian, is the most wonderful cow in the world. In 365 consecutive days she produced 30,451.4 pounds of milk or about 15 tons. In two years she produced 60,728 pounds of milk. She holds the world's milk record for one, two, three and four years. Holstein cows hold all world's records for milk and butterfat production, but the claim of the Holstein breed to the title of the "most profitable dairy breed" is not based on individual tests. It is the great uniformity of high productiveness of Holstein cows everywhere that makes them the greatest money-makers for dairymen, the world over. There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America

F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

B. F. Winckler & Sons Medina, Wis.

AT LA BELLE VIEW FARM

WE got our start sawing wood, but now we are breeders of pure-bred Holsteins of quality. If you wish to keep from sawing wood for a living, buy a young Holstein bull from the Ormsby family sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world). Our prices are low. E. E. Rosenkrans, Oconomowoc, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis

HIGH GRADE HOLSTEIN HEIFER CALVES

31-32 pure, $18 crated. W. Watt, Grimms, Wis

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

W. H. S. Rhoda, 610 3d St., Watertown, Wis.

HIGH-GRADE Holstein heifer calves, 15-16 pure, from large-producing dams and by an A. R. O. sire whose two nearest dams average 24 lbs. butter in 7 days, 2 to 3 weeks old. When shipped guaranteed to please we will ship no culls. Stock well marked. $18 crated. Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

Hillside Stock Farm

5 REG. Holstein cows and 2 heifers; 24-lb. bull 16 mos. old, 7-8 white, faultless individual also noted Pontiac herd sire.

Kirkpatrick Bros. Reedsburg, Wis.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

HAMPSHIRE SWINE.

HAMPSHIRES

OR Belted swine have 10 March farrowed spring pigs for May 1st delivery males and females unrelated. Dane Stock Farm Oshkosh, Wis

MULE-FOOT SWINE.

IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

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"The best separator I know how to build." —Wm. Galloway.

Four New Sizes—Skimming Capacities 375, 500, 750 and 950 lbs. per hour

Get my new 1917 Wholesale Prices

SEND FOR ONE TODAY-IT'S FREE

Find out how I am dividing the melon by making better farm implements in greater quantities and selling them at the lowest possible prices. My prices on the highest quality Cream Separators, Gasoline Engines, Manure Spreaders, Tractors, etc., that I manufacture in my own chain of factories right here in Waterloo include only the cost of raw material, the skilled labor that is required to produce them and one small profit, based on enormous volume. I sell these goods direct to you---from FACTORY TO FARM. My motto is NO LOST PROFIT BETWEEN PRODUCER AND CONSUMER. Galloway prices have NOT advanced more than to take care of the increased cost of first class materials and the expert labor it takes to turn out high-class gasoline engines, cream separators, manure spreaders and tractors. I was the first manufacturer to offer a high-grade gasoline engine direct to you at one small profit. I built the first high quality spreader and sold it direct at a reasonable price. I was the first bona fide manufacturer of high-class cream separators to build and sell direct to you on the farm, cream separators as good or better than you have been paying fancy prices for. The whole story about the growth of the Galloway Institution, the policies and selling plans on which we sell high-class goods, the growth of the great chain of Galloway factories, the story of the MILLIONS OF DOLLARS OF SAVING I have made directly and indirectly for the farmers of America is told in Galloway's 1917 catalog. To get this book, to read it, to study it means an opportunity for you to save one-third to one-half on everything you need and it will prove that I AM STILL DIVIDING THE MELON WITH MY FRIENDS AND CUSTOMERS. Ask for this book today. Read the advertisement below. Please state what you are interested in buying and I will send the book free by the first mail. And I can safely promise that if you will get it, read it carefully and then order from its profusely illustrated pages you will buy better goods at less money than ever before. And, remember, that I back each sale with my $25,000 bank bond guarantee. Every sale must be satisfactory

NEW 1917 SANITARY CREAM SEPARATOR

is NOT EXCELLED in skimming ability, in beauty of design, in the fine material which goes into building, in workmanship, finish or the lasting satisfaction that it will give every user, by any cream separator on the American market. Remember, that we took four years to design and perfect this separator--to build into it every good cream separator feature.

It has not been built down to a price as many separators have been, but instead has been built up to a high standard IN OUR OWN FACTORIES right here in Waterloo. Don't get fooled on separators only assembled by so-called manufacturers and priced at figures you positively know a satisfactory sanitary cream separator cannot be built for. Stand the Galloway side by side with cheaper machines and YOU WILL SEE THE DIFFERENCE in material, workmanship, down-to-date design and skimming qualities. Stand it beside the highest priced machine--test them side by side for months and you will see that higher-priced machines will not run any easier or skim any closer, cannot be more perfectly sanitary, nor better built.

TRY IT 180 MILKINGS ON YOUR OWN FARM!

Note its few strong, simple, sanitary parts. See how easy to wash and clean--no sharp corners. How! catches any foreign matter in the milk while skimming. Only two shafts in the whole gearing, both of high-carbon steel, in long, perfectly fitted bearings. You will find all gear shaft and both bowl-spindle bearings supported by one casting--the gear case. This means perfect alignment, little wear and easy running. All working parts run in a SPRAY OF OIL. Note that the cream shelf drops when not in use--that it forms a vise to hold the bowl while handling.

I just want you to try this separator. If you like it, buy it. IF YOU DON'T, SEND IT BACK. We pay freight BOTH WAYS. If the new Galloway Sanitary is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is I could not afford to make this 90-day (180 milkings) trial offer, and could not afford to GUARANTEE IT TEN YEARS, nor make

EVERY SALE BACKED BY A $25,000 BOND

Ask for Galloway's 1917 catalog today. I want you to have this book. It tells how we build Galloway Sanitary Separators from the ground up. How they are designed, and the story of how we perfected this wonderful cream separator. It gives many separator secrets and facts. Chock full of dairy wisdom. Why by selling direct I can make a machine as good or better than many high-priced separators sold through the three and four profit system and sell it for much less.

MY BOOK IS FREE TO YOU

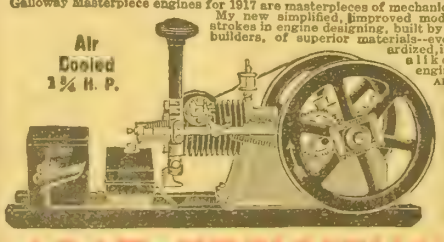
It tells the whole story. It tells the facts. It will settle the separator question for you. ASK FOR IT TODAY and mention cream separators.

MASTERPIECE ENGINES FOR 1917 INCLUDE EVERY SIZE-STYLE

No matter whether you want a stationary pumping engine, a 4 h. p. portable engine to move about, a 6, 9 or 12 h. p. saw rig, a horse portable 16 h. p. mogul engine for the biggest, toughest jobs--I BUILD THEM in my own factories right HERE IN WATERLOO and sell them DIRECT TO YOU at the actual cost of material and labor and one small profit which is based on tremendous output. I want you to try a Galloway engine on your own farm or in your own shop and see for yourself how scientifically they are designed, how wonderfully built, machined and finished. If you pay more you are PAYING TO MUCH. If you pay less for an engine than for a Galloway Masterpiece you COULD NOT POSSIBLY be getting as good an engine. I want a Galloway Masterpiece 1917 model gasoline, kerosene or distillate engine in every township between now and July 1st, and my 1917 special prices and proposition will put them there. Ask for Galloway's 1917 catalog today.

HERE ARE THE 1917 IMPROVEMENTS!

Galloway Masterpiece engines for 1917 are masterpieces of mechanical construction. My new simplified, improved models are master strokes in engine designing, built by master engine builders, of superior materials--every part standardized, interchangeable, alike. All Galloway engines develop WAY ABOVE RATED H. P. Bearings adjustable. Economy carburetor, worth $15 more on any engine--costs nothing extra on the Galloway--cuts down fuel bills. Valves in the head, exactly like highest-class automobile motors. Double ball governor, never sticks, regulates speed perfectly. Large, heavy flywheels. Large bore, long stroke, heavy weight, perfect balance. Galloway engines will not rack and tear themselves to pieces like high speed, light weight engines. Perfect lubrication, winter or summer. Magneto (extra) supplies blue-hot spark. Make and break Galloway igniter, never misses fire. EASY TO START--no cranking, needs no batteries. Cylinder and water pot frost-proof. Compare the 1917 Masterpiece engine size for size, bore, stroke, weight and low speed (which means easy running and long satisfactory engine life) then be your own judge. My



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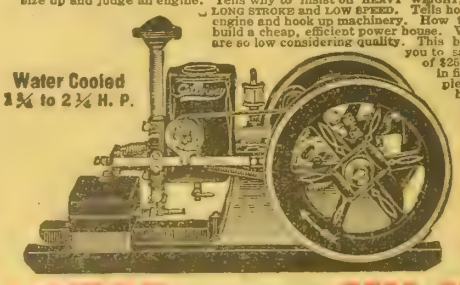

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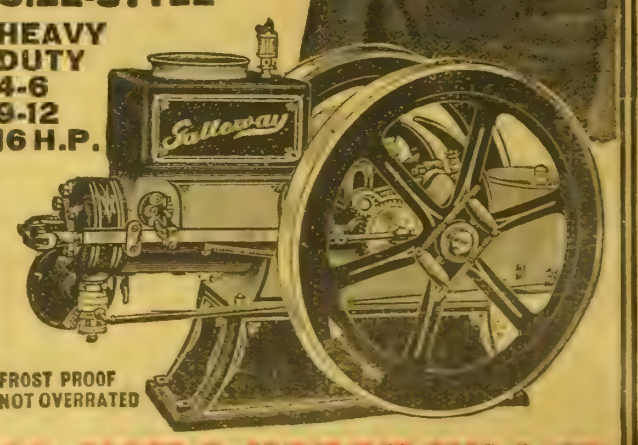

HEAVY DUTY 4-6 9-12 16 H.P.

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1917 EFFICIENCY TRACTOR

Users call it the wonder of all farm tractors. It is unlike other tractors for we have eliminated unnecessary friction and built it along automobile lines. How far and how easily could you go in your automobile if it had an axle like your farm wagon or your mower? The Galloway Efficiency tractor is built with **anti-friction bearings.** Twenty-one sets of Hyatt roller and ball bearings--which save engine power for the draw bar and the pulley--where power is really needed. By actual dynamometer test the Galloway tractor only takes 13 1-2% of the motor's power to drive the tractor unloaded. On many tractors it takes from 30 to 60% of the engine power to propel themselves.

A ONE-MAN TRACTOR—OTHERS ASK $500 MORE!

This new tractor has a four cylinder, valve in the head, modern motor, water cooled; **all working parts protected.** 12 h. p. on the draw bar and 20 h. p. on the pulley guaranteed. Turns short. Weighs 5,200 lbs. Transmission a unit with the motor. We have **exclusive manufacturing rights** on this patented transmission. Will pull three 14-in. bottoms 8 to 9 in. deep in clover or timothy sod. Will do any portable engine job--sawing, silo filling, corn shelling, shredding, handles a 28-in. grain separator, any kind feed grinder, a pumping or irrigation plant. **Double chain drive.** Engine runs in tight oil-bath case. Rear wheels 58 in. high. Famous Pierce governor on the motor—engine never races. **Only two levers control it.** Complete description of this wonderful farm tractor in my new 1917 book.

Le Mars, Iowa, November 15, 1915.

Wm. Galloway Co., Waterloo, Iowa.

Gentlemen:—

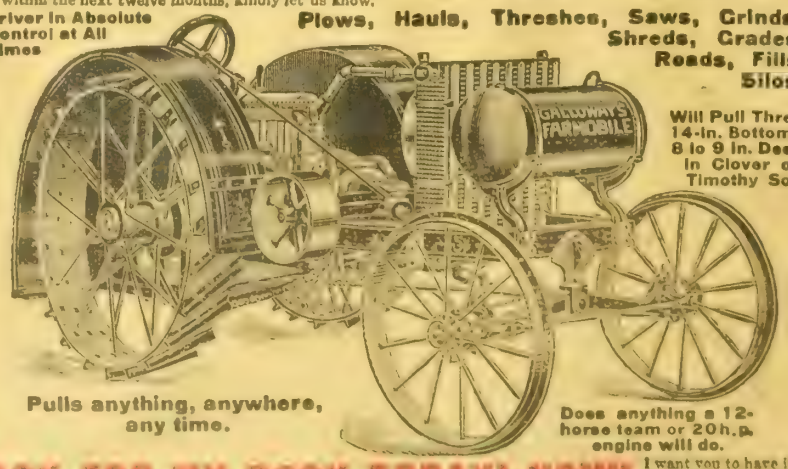
I have tried it out in every way and it is right up and coming. I have run an ensilage cutter with it, filling a silo 16x32 ft. two-thirds full in 4 1-2 hours and it was play for it. I have plowed in all kinds of soil, stubble, backsetting and clover sod and wild prairie sod. I can pull the three plows 6 inches deep in the prairie sod and do it with ease. I know it has power enough to pull four plows in stubble. It is very economical on gas and oil. After the demonstration here three different parties here told me it did better work than at the Fremont plowing match.

GEO. R. STEELE.

My new catalog illustrates and describes this tractor in full. Ask for it today. If you are going to buy a tractor within the next twelve months, kindly let us know.

Driver in Absolute Control at All Times

Plows, Hauls, Threshes, Saws, Grinds, Shreds, Grades Roads, Fills Silos



Will Pull Three 14-in. Bottoms 8 to 9 in. Deep in Clover or Timothy Sod

Pulls anything, anywhere, any time.

Does anything a 12-horse team or 20 h.p. engine will do.

MY No. 8 IS NOT A HORSE KILLER

But is the lightest draft, best built, low down spreader in the world, with all four wheels under the load. It is worth more to you **in the field in actual use** than any other spreader. First—it is low down—only 42 in. high to center of box. Two horses handle it anywhere. The Galloway wide spreading V-rake — **worth $15 extra** on any spreader, costs you nothing extra on the Galloway. The invincible irresistible patented roller feed—an exclusive Galloway feature—the secret of its light draft—**alone worth $25** on any spreader, costs you nothing extra. Patented automatic stop, uniform clean-out push board—**worth $10 extra** on any spreader, costs you nothing extra, exclusive on the Galloway.

SHORT TURN—WHEELS UNDER LOAD —STEEL BEATER!

These are **only a few** of the special features you will find on the Galloway spreader, all of which are protected by Galloway patents. Don't buy a spreader of any make or kind until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk, **without obligating yourself** in any way. Give my spreader THIRTY DAYS' ACTUAL FIELD TRIAL and return to me within one year if not perfectly satisfactory. Could anything be more fair? Could you want a better offer?

My 1917 spreader improvements include beater bolts 1-16 in. larger with lock nuts. Beater bar bolts increased in size and strength. Beater teeth longer and stronger than ever--tear the toughest manure finer than ever and spread it easier. Rear shaft increased in strength--higher carbon steel used. Larger drive sprockets, which mean lighter draft than ever. Fifth wheel castings larger and stronger--makes spreader box steadier in turning. Rear conveyor shaft now made of 40 carbon steel. All steel tongue. All metal parts thoroughly coated with asphaltum weather-proof paint. Spreader box better finished and painted. No other spreader compares with it.

ASK FOR MY 1917 CATALOG. It tells all about manure spreaders--how to increase your corn crop. How to increase small grain crops by the judicious use of manure. How to handle manure with the least labor. How a Galloway spreader will pay for itself in one year by increasing crop profits. How we save you money on a high class, light draft spreader and **still give you a better spreader than the old-fashioned, cumbersome three and four-horse machine.** How a run-out, unproductive farm was turned into a gold mine crop producer. Why I built a manure pit on my own dairy farm to save all fertility. Ask for this book today and if interested in spreaders please say so.

Gear lever throws both both sides of beater in gear simultaneously.

Adjustable Feed Lever—Convenient, Accessible.

All-steel V-shape rake Patent roller feed

Angle steel endless apron. Double chain drive.

Steel Tongue

From 4 to 24 Loads Per Acre

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I want you to have it. All I ask you to do is tell me what you are interested in—what you expect to buy—what you need on your farm, whether one, two, or all of the above lines that we manufacture. A postal card will do. Make it a letter if you like. I know I can save you money if you will get this book before you buy. It will show you that I am still dividing the melon here in Waterloo. Remember we ship engines, spreaders, separators from our transfer houses in Council Bluffs, St. Paul, Chicago, Kansas City and from the factories here in Waterloo. Also remember that we WANT YOU TO COME AND SEE US any time you can. The latch-string is always out at the Galloway Agricultural Club—a building that we put up to take care of our friends and customers when they come to see us. Thousands visit our offices, club building, display and sample rooms and factories every year. Why not come and see us yourself?

WM. GALLOWAY, President, WM. GALLOWAY COMPANY, Farm Implement Manufacturing Specialists **37 Galloway Sta., WATERLOO, IOWA**

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THE WISCONSIN FARMER

Reading Room of A
Univ. of Illinois
Urbana, Ill.

VOL. XLVI. NO. 15. THURSDAY, APRIL 12, 1917. WHOLE NO. 1837

A Show Herd Which Produces.

Seitz' Ayrshires Not Only Beautiful to the Eye But Also Show Profits at the Milk Pail.

AYRSHIRES have by many people been considered the typical cow for eastern, far western and northern conditions and many great herds are located in these sections. The claims made by our Canadian brothers to the north and by the breeders on either coast of the United States received a severe setback by the showing Wisconsin made at the last National Dairy Show at Springfield, Mass. Here the Adam Seitz herd proved their superior breeding in nearly every class shown.

Mr. Seitz started with Ayrshires in 1903, shortly after moving to Waukesha county from another part of the state. According to Mr. Seitz his purchase of a farm near the city of Waukesha is the best move he has ever made in his life. As he had some experience with pure-bred cattle and hogs previous to his purchase of Ayrshires his mistakes have been few and far between. The first animals which he purchased came from the East, but the selection showed such good judgment that they were shown at Illinois and Wisconsin in 1903, where the seven animals won eight prizes. This was the beginning of Mr. Seitz' showing. His efforts have been accompanied with exceptional success.

The Seitz farm consists of 240 acres. About 100 Ayrshires form the breeding herd. Among the herd are some of the finest blood that the Ayrshire breed can boast. Heading the herd is Bargennoch Gay Cavalier, a bull imported from Scotland in 1907. He has a long string of victories in the show ring to his credit, beginning with the Alaska-Yukon Exposition at Seattle in 1909, where he was senior champion. He was first prize senior and grand champion at Iowa, Minnesota, Wisconsin and Illinois for four successive years, 1910 to 1914, first prize senior and grand championship bull at North Dakota, Iowa, Minnesota and Wisconsin and at the Iowa Dairy Cattle Congress and the National Dairy Show at Chicago in 1912 and 1913. In the four years from 1912 to 1916, inclusive, the Seitz herd has won over 750 first prizes, championships and grand championships, twelve silver cups and some thirty diplomas of merit. In the same four years the get of Bargennoch Gay Cavalier stood undefeated in the face of some lively competition.

At the National Dairy Show were the best herds from Quebec, Vermont, New York, New Hampshire, Maryland, New Jersey and Massachusetts. The Wisconsin herd, however, took most of the prizes and their owner, Mr. Seitz, of Waukesha, was awarded the trophy as the premier breeder of Ayrshires.

The herd is not expected to sell upon its merit in the show ring alone, as Mr. Seitz is a firm believer in testing. He has made every cow give an account of her worth by the milk scales and the test since he has started in the dairy work. Several good records have been made on the Seitz farm which can be directly traced to the blood that is combined in the sires and dams of the cows through good ancestry. One of the most noted of the Seitz Ayrshires has been the cow, Imp. Kilnford Bell 3d, which was imported from Scotland. She was a winner at the state fairs wherever she was shown and her preeminence was further established when she was awarded the silver cup for grand champion cow over all dairy breeds at the National Dairy Show in 1913 and 1914. She won the three-day butter fat test over all breeds in 1913 at the Illinois State Fair. The production record of this cow that has traveled more than any other cow in her many tours for showing purposes and has to her credit probably a larger number of prizes than any animal of any breed, is in spite of the handicap of the road work, the creditable amount of 13,565 pounds of milk and 615 pounds of butter as a five year old. Her death a few weeks ago is a keen loss to the breed and the owner. She has produced a great number of first-class heifers and bulls, now in the Seitz herd.

According to Mr. Seitz irregularity in feeding and lack of attention are the causes of many disorders that breeders have to contend with in a herd of pure-bred cattle. It pays to watch a cow the year around in order to have a definite idea of what each animal is in need of so that proper attention can be given each individual at the right time. "I watch an animal all the time from feeding them in the morning to turning them out in the pasture and milking them at night. The cow wants her feed at the same hour each day and though it is often disputed, there is no doubt in my mind that irregularity will affect a cow's production very noticeably." Too many men consider the cow from the wrong standpoint. Because a person can be driven to work or will work in spite of changes in diet and irregularity of diet, it is not said that a cow will act in the same way. A cow must be coaxed. She must be treated fairly in order to induce her to produce her best.

Mr. Seitz has interested his boys in farming and in the raising of pure-bred Ayrshires. Each of the six boys has certain animals to take care of and definite work which they are responsible for. They are not asked to do impossible things, but according to his age each is entrusted with a certain amount of responsibility. As a reward for his work each has a share or owns in full certain animals, the sales of which have netted tidy sums on various occasions. This helps to hold their attention to details and under the able guidance of Mr. Seitz with his many years of experience in breeding and showing, the fine points of the game are taught them. Why an animal will not be worth as much as another and the reason for a smaller demand for certain kinds of cattle can easily be tra

(Concluded on page 8.)

FIRST-PRIZE GET OF SIRE, NATIONAL DAIRY SHOW, 1916.

FIRST-PRIZE YOUNG HERD AT NATIONAL DAIRY SHOW, 1916.

FIRST-PRIZE ASSEMBLE HERD, TWELVE HEAD, 1

CURRENT EVENTS

con-
ena-
were
...tion; Gronna, of
...ota; Norris, of Nebraska;
Stone, of Missouri; Lane, of Oregon, and
Vardaman, of Mississippi. The first
three are republicans, the last three
democrats. The principal speech against
the war resolution was delivered by
Senator LaFollette, who said the United
States has not the confidence of the
other American republics because of its
war policies. He predicted that our
entrance in this war would not shorten
the conflict "but will vastly extend it
by drawing in other nations." It is
idle, he declared, to talk of a war on
the German government and not on the
German people. He was answered,
bitterly, by Senator Williams, of Mis-
sissippi, who said: "The speech of the
Wisconsin senator would better have
become Herr von Bethmann-Hollweg
than an American senator. In fact he
has gone further than Herr von Beth-
mann-Hollweg would ever have gone.
Bethmann-Hollweg said the use of the
submarine could be justified only on
the ground of necessity, the senator
from Wisconsin puts it on the same
footing as Great Britain's interference
with our commerce. I fully expected
the senator from Wisconsin before he
took his seat to defend the invasion of
Belgium, the most barbarous act ever
committed. I heard from him a speech
that was pro-German, pro-Goth, pro-
Vandal, and which was anti-president,
anti-congress and anti-American."
Aside from this tilt, the resolution went
through the senate with but little ex-
citement, the feeling being one of
solemnity rather than of enthusiasm.

THE war resolution was passed by the lower house of congress by a vote of 373 to fifty, the opposition developing unexpected strength in the last hours of the debate. Representative Kitchin, the democratic leader of the house, led the opposition, declaring: "Too grave is the responsibility for any one to permit another to stand sponsor for my conscience. My conscience and judgment, after mature thought and fervent prayer for rightful guidance, has pointed out clearly the path of my duty, and I have made up my mind to walk in it, if I go barefooted and alone." Representatives Mann and Cannon and other republican leaders spoke in favor of the resolution. Both houses having passed the resolution it was signed by Vice President Marshall and Speaker Clark and hurried over to the White House for the president's signature.

CHAMP CLARK of Missouri, was re-elected speaker of the lower house of congress last week, over James R. Mann, of Illinois, by a vote of 217 to 205, so that he will preside over the deliberations of that body at this extra session, as he has done at the last two regular sessions. The house lost little time in getting down to work. Four big appropriation bills which failed in
ng hours of the
sed by the house
t day. The bills
s of more than
e: Army, $240,-
138,241,000; gen-
000, and military
No changes were
made in the measures as they passed the house at the last session. Numerous emergency amendments will be added in the senate and the final bills will be drafted in conference in the interest of speed. Tentative plans now being discussed are to pass a special deficiency bill similar to one carrying $50,000,000, which was passed prior to the Spanish-American war, to be used in any emergency which may arise in the various departments.

HERBERT C. HOOVER, the former Iowan who has been in charge of the Belgian relief work for the past two years, has sent a cablegram to President Wilson, in which he says: "For two and one-half years we have been obliged to remain silent witnesses of the character of the forces dominating this war, but we are now at liberty to say that, although we break with great regret our association with many German individuals who have given sympathetic support to our work, yet your message enunciates our conviction, born of our intimate experience and contact, that there is no hope for democracy or liberalism and consequently for the real peace and safety of our country, unless the system which brought the world into this unfathomable misery can be stamped out once for all." The members of the commission have left Belgium, because of the war situation, but relief funds are still being collected and the work will ...ued as best it can at a distance.

...ns of the war depart-
...g an army number-
...is necessary, "to
...of the German
...ed in Presi-
...form of a
...aff and
...re-
...o

plan and the military reasons for the need to train the number of men the bill will produce. This is believed to be not less than 2,000,000 to be trained within two years.

BARON DEVONPORT, British food controller, has ordered that, beginning April 15th in English hotels, restaurants, boarding houses and clubs there shall be one meatless day weekly. The controller has also ordered that no potatoes or food containing potatoes shall be allowed, except on meatless days, and on Friday. The order imposes restrictions on the quantities of meat, sugar and bread at meals served in hotels, restaurants, boarding houses, and clubs. The scale for meat is for breakfast, two ounces; luncheon, five ounces, and dinner five ounces. The bread restrictions call for two ounces at all these meals. Baron Devenport in ...plaining the order, said he expected ...ult in a saving of 65 per cent of ...ow consumed, 53 per cent of ...3 per cent of sugar. He ...vinally intended to order ...ys, but feared this would lead to an increase in bread consumption.

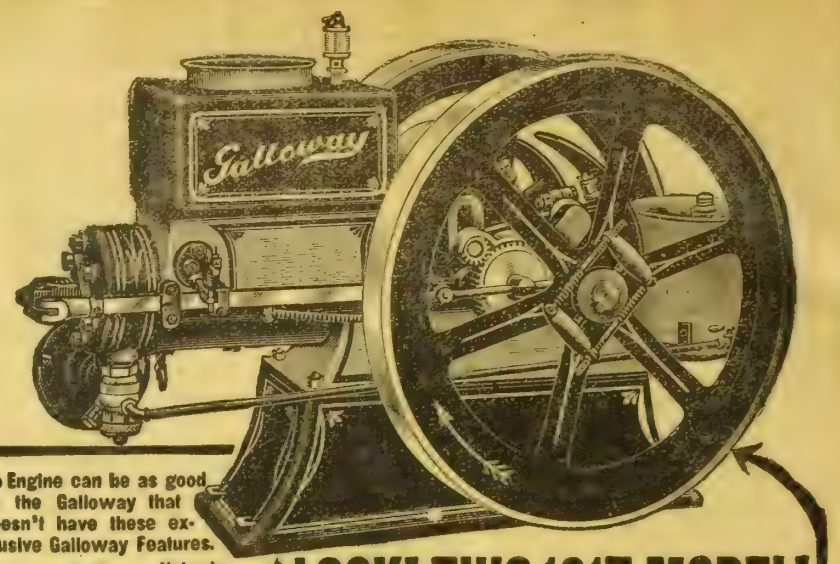
BRITISH naval circles would welcome Brazil as an ally, considering her the most important neutral after America for the entente cause. Her adhesion to the allies would provide excellent harbors for operations in South American waters, where German raiders have more opportunity than anywhere else to interfere with food supplies for Europe. At present the allied warships have to contend with the difficulties of coaling at sea. Cuba is also considered important as affording submarine bases. According to information in London Germans are flocking to Mexico from South America, having taken with them considerable quantities of arms and ammunition.

Do Not Put Up With Power That ...

...and in hand with inefficient farm power apparatus. Soil scratched with light plowing that reduces production, crops lost with poor threshing that wastes the yield, soon eat up the saving made in the purchase of a cheap and light farm engine. The farm engine should be a good one, capable of doing work that will bring returns in proportion to its cost. No better engines can be found than those that bear the Nichols & Shepard name as members of the

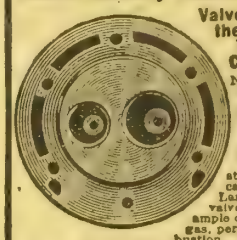
Red River ...pecial Line

...tractors there are five ...fteen variants, 13-40 to ...burning any kind of ...l or straw. In Oil- ...sizes are built, developing ...nothing



No Engine can be as good as the Galloway that doesn't have these exclusive Galloway Features.

Valve in the Head Type Cylinder



Note large exhaust valve. Engine head perfectly water cooled. Valve stems also, can't warp. Large intake valve, means ample charge of gas, perfect combustion. No fuel waste. Automobile-ground valves insure perfect compression.

Arch-of-Strength Cylinder Head

Positively cannot blow off. Held by steel studs--nuts perfectly seated, insuring the greatest possible strength in a cylinder head. Absolutely gas tight joint with end of cylinder. This type of cylinder head provides nearly double amount of water space found on other styles.

Sure-Fire Make and Break Igniter

Webster oscillating magneto makes blue-hot spark. Needs no batteries. Absolutely sure fire. Weather does not affect it. Eliminates all ignition troubles. Thousands in continual operation for years without replacing igniter points. Gives least trouble from soot or carbon of any type igniter we ever used. You will get results and satisfaction in using this type on your engine at any time of year, winter or summer.

Economy Carburetor

Worth $15 more on any engine, costs nothing extra on the Galloway. Cuts down fuel bills. Simple, positive air valve adjustment--regulated at will--easy starting in any weather. Mixes perfect fuel charge. Makes gasoline most perfect fuel. Has special cold weather valve which makes easy starting in cold weather. Also gets great power from small amount of gasoline. A great saver of high-priced fuel. Our own invention. Used on all Masterpiece engines. The logical carburetor for you to have on your engine, making it cheaper and better than kerosene.

One-piece Cylinder and Base

on all Galloway engines from 4 to 16 h. p. insures perfect alignment of cylinder, piston, connecting rod, crank shaft and flywheels. Absolute uniformity of wear. Only scientific and successful method of construction for large, heavy duty, heavy weight engines. Two-piece cylinders and frames cannot be kept in line.

BA-6

LOOK! THIS 1917 MODEL!

Go over it point by side with any horse power or the that no better engine have told you to compare the Galloway engines with other engines! That's what my customers have done and that's why the annual sales of Galloway engines run up into the thousands upon thousands. For hard, tough jobs, for year in and year out satisfaction they have no equal at higher or lower prices. If you pay less for an engine than a Galloway Masterpiece you could not possibly be getting as good an engine. If you pay more it would only be paying too much. Large bore, long stroke, simple design, heavy weight, mechanical perfection in their building make them power masters in their field. No matter what size or style engine you want I build them here in Waterloo in my own great chain of factories to fill every need. My 1¼, 2½, 4 h.p. and other sizes are just as scientifically designed, built, machined and finished as my mogul engines from 1 to 16 h.p.

by point, feature by feature, compare it side other make of engine of the same rated same bore and stroke! You will decide gine is built. For years and years t

QUICK SHIPMENT

LOW PRICES

HIGH QUALITY

SIX 1917 SELLING PLANS --CASH OR TIME

No matter which way you want to buy I have a plan that will suit you—Cash, Bank Deposit, Half Cash—Half Note, All Note, Installment, and No Money Down, to responsible people. Galloway's guarantee is absolute satisfaction or your money back, and he pays the freight both ways. Remember my

$25,000 LEGAL BANK BOND ABSOLUTELY PROTECTS

you and every one of my prospective customers and proves my willingness to have every claim and statement I make fully investigated. I want you to try a Galloway engine on your farm—in your own shop. That's why I have prepared my new 1917 special proposition. I want a Galloway Masterpiece 1917 model gas, kerosene or distillate engine in every township in every state between now and June 1st, and my **new 1917 prices** and selling plans will get them.

NOTE 1917 IMPROVEMENTS

Adjustable bearings, no lost motion, develops way above rated horse power. Economy carburetor, worth $15 more on any engine, costs nothing extra on the Galloway—cuts down fuel bills. Large valves in head, exactly like highest class automobile motors, perfect scavenging, admits perfect combustible mixture. Double ball governor. Large, heavy flywheels. Big bore, long stroke, heavy weight, perfect balance, smooth running. Perfect lubrication, winter or summer. Webster magneto (extra) supplies blue-hot spark. Make and break igniter, never misses fire. Easy started, no cranking, needs no batteries. Cylinder and water pot frost proof. Galloway engines honestly rated, scientifically, accurately and handsomely built. Our description the truth. Shipments made from Waterloo, Council Bluffs, Kansas City, St. Paul, Chicago, whichever is nearest you.

GET THIS 1917 BOOK ABOUT ENGINES

I want you to have this new book about the famous Galloway Masterpiece engines. It tells you how to pick out, size up and judge an engine. Gives you engine secrets and facts. Tells why to insist on heavy weight, large bore, long stroke and low speed—why light weight, high speeded engines are not to be compared with Masterpiece engines and why you are asked four profits for some engines no better. Tells why we sell direct from factory to farm or shop at wholesale. How to install an engine and hook up machinery. How Galloway engines are built. How to lay out and build a cheap, efficient power house. Why our prices on high class stationary and portable engines and saw rigs are so low considering quality. The truth about engines is all set down in black and white. This book is a guide to saving money on every farm. That's why I want you to get it. If you expect to buy an engine I'll pay the postage and be glad to send the book. Ask today. A postal will do. Address me as below.

WM. GALLOWAY, Pres.,

THE WM. GALLOWAY COMPANY

35 Galloway Station Engine Manufacturing Specialists Waterloo, Iowa

10 APPLE TREES 10

2 TO 4 feet $1. Two each Tetofsky North Star, 2 Talman, Delicious and Snow. By Parcel Post, $1.25. BEAUTIFUL catalog FREE. **Wisconsin Nurseries, Box 50, Union Grove, Wis.**

The Wisconsin Farmer

THURSDAY, APRIL 12, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

THE SUPREMACY OF NORTHERN WISCONSIN.

NOTHING gives me greater pleasure and satisfaction than to have readers of The Wisconsin Farmer consult me on matters in which they are interested and ask my advice on subjects which lie close to their hearts. I always answer to the best of my ability, giving whatever facts I can secure and detailing my personal experiences and observations at such length as the occasion seems to demand. By this means I come in closer touch with my readers, learn what they are thinking about and widen the sphere of my own usefulness and interest.

One of the letters which has come to The Wisconsin Farmer office within the last two weeks in which I was most interested was the following, from a resident of Iowa who is desirous of moving here among us and casting his fortunes with the good old Badger state. I quote the letter exactly as it came to me:

Office of the Royal Lumber Company, Charles N. Wells, Local Manager, Ayrshire, Iowa, March 28, 1917. Dear Mr. Pierce: I spent my life until nineteen years of age upon an orchard and dairy farm in the state of Maine. From my twenty-second to my thirty-first year I managed alone a 500-acre Maine farm. I studied scientific farming through four winter courses of six weeks each, but circumstances, or rather a malignant case of catarrh, drove me into the dry sections of Oklahoma where there were no orchards and no dairies. I have never lost my love for domestic animals, although I have been in mercantile positions until I am now forty-seven years old. I have $7,000 to $8,000 and contemplate a trip to Marinette or Oconto county, Wisconsin, for the purpose of buying some stump land to make into my future home. I am in good health, married, but have no children. I am receiving a salary at the present time of $1,200 per year. Would you consider it safe for me to change occupations? Would you suggest anything in favor of or against my selection of the new lands of Wisconsin? I have never been in debt and do not intend to start the practice now. Respectfully yours,

CHAS. N. WELLS.

I assure you, I answered this letter with the greatest pleasure, giving the matter most careful consideration. Northern Wisconsin wants settlers such as Mr. Wells discloses himself to be, in his letter; men with enough capital to start them and keep them going until the newly-cleared lands become productive, men with farming experience and with business knowledge sufficient to enable them to master the marketing problems and the other matters upon which our agricultural success depends almost as much as upon production itself. I thought over Mr. Wells' letter for two or three days, then I sent him the following reply:

Office of The Wisconsin Farmer, April 3, 1917. Dear Mr. Wells: I have delayed replying to yours of the 28th for a few days in order to give the subject matter my most careful consideration. I proprose to back up my individual opinion with certain facts and figures which I believe you will find valuable.

To begin with, I do not believe you will make any mistake whatever in investing in northern Wisconsin and moving there—even from old, established Iowa—to take up your new home. There is no other body of land, in my opinion, in the entire United States, which offers equal opportunities today, in the way of present income from the cultivation thereof and future increase in land values as the country becomes more fully developed. There are twenty-five counties in northern Wisconsin which have more or less of the cut-over lands. The area of tillable land, as yet uncleared, in these counties, approximates 10,000,000 acres. This is sufficient to make 100,000 farms, each 100 acres in extent, if the land were all cleared and put under cultivation. I am confident the day is coming—and not far distant—when this will have been achieved. The men, therefore, who get in on the ground floor and who aid in the development of this wonderfully rich country are the men who will prosper the most.

I have made a personal investigation of northern Wisconsin and I find the soil to be divided into two classes: The sandy soils and the clay soils. Both are very productive, the latter particularly so for grains and grasses, the former for potatoes and all root crops. A deficiency of rainfall has never been known in this section, so that Nature has abundantly and perennially blessed it. The land lies well, is generally rolling and when cleared of timber and stumps will be found to resemble very closely the Iowa prairies with which you are already personally familiar.

The question of a market is most important, when land is being purchased. Did you know that more than 10,000,000 people live within a night's ride of Upper Wisconsin? For markets this section looks to such cities as Chicago, Milwaukee, Minneapolis, St. Paul, Duluth and Superior. Freight shipments from Upper Wisconsin, in many cases, reach the market the following morning, while in no case is the journey longer than two days. There is also a decided advantage for this section in the matter of freight rates. I need only call your attention to the fact that it costs $344 to ship a carload of dairy products from Montana to Chicago, while the same car can be shipped from Marshfield to Chicago for only $66. These things must be carefully considered when weighing the advantages of northern Wisconsin against those of new lands elsewhere.

It is my honest, earnest opinion that there is no similarly fertile area, as yet unclaimed, of equal extent, so close to market, available at such reasonable prices, for the man who is not afraid to work, with a certainty of profit as a reward of his labors. With your agricultural training you should be able to make a decided success.

Trusting that this answers your questions and assuring you that I shall be only too glad to assist you in any way possible, I remain,

Sincerely your friend,

JAMES M. PIERCE.

I have not heard from Mr. Wells since sending him this letter, but I confidently believe he will make the Wisconsin investment and will soon be one of us, working with might and main to realize the immense possibilities with which northern Wisconsin teems, more than any other section of the country, in my honest opinion. With greater opportunities in farming today than ever before, with the products of our Wisconsin farms being in greater demand and bringing higher prices today than ever before, we cannot do a better service to our state and our country than to exploit the advantages of Wisconsin and add skilled, ambitious, industrious farmers to those by whose labors Wisconsin has already become so rich and great. I am a booster for northern Wisconsin, heart and soul, and shall be well rewarded, indeed, if, by my humble efforts, I can add to the number of determined men and women who are bringing these fertile cut-over lands under cultivation and adding millions of dollars annually to our already immense crop values.

AN ADVOCATE OF THE OLD MAN.

AN ADVOCATE of a new hired hand comes among us this week. He champions neither the young unmarried man, dreaming of his lady love as he goes about his chores or toils in the cornfield under the burning sun, nor the married man with his family to keep him home nights and make him more or less of a permanent fixture on the farm. His entry in the farm hand "free-for-all" is the "old man who cares not to ever marry." I do not know whether he limits his entry to bachelors or will admit widowers, but in any event it is evident that what he wants is a man too old for love's young dream to keep awake at nights. My friends, allow me to introduce Mr. W. S. Napier, of Cane Hill, Ark., who writes me in this manner:

Dear Mr. Pierce: I always read your page of views the very first thing when your good paper comes. The subjects you discuss are of concern to us all and you treat them splendidly.

I have a lease on a fine, large farm for five years. The lease is satisfactory both to myself and to the landowner. Now, as to hired help. Give me the married man or an old man who does not care to ever marry. My present help is an old gentleman who has a house to himself on the farm, but who eats with me. For his comfort and pastime I gave him a sow and pigs and my wife gave him twenty hens. He has a horse and buggy free to use when he wishes, but he rarely goes any place. But when picnics or reunions come around I tell him and my son they must go, and in the future they must go to the county fairs, too. My advice is this: Look out for the old man and give him a place.

I welcome the new feature which this letter brings to our discussion. There is many a good day's work left in many an old man; why not give him a chance, as Mr. Napier suggests? If any others of my readers have had experience with elderly men I would appreciate it if they would write and share their views with us here, before we close the subject.

And now, another champion of the single man, who has the better of it in the discussion so far. The writer modestly asks me to suppress his name, but I will state that he lives in Walworth county, Wisconsin, and is well known as a good, practical farmer. He writes as follows:

Dear Mr. Pierce: I worked out about two-thirds of my time from ten years old to twenty-nine, so you see if everyone felt as the man who wrote you about single help I would have been out of work a good deal. I say, treat the man who is working for you as one of your own. Tell him to use the bathroom every night if he wants to. Most men will use it six nights out of the week from June to the last of September. And if you do not have a bathtub, let them use that old washtub of mother's. I must say the washtub is good, and I have never seen a man yet but who will use the washtub or bathtub once a week if he is a man.

When I was working out those nineteen years everybody treated me as one of their own and I tried to pay them back. Give that young man that Sunday evening off. Let him have a horse to ride, or your team and buggy. He will appreciate your kindness. That is the highest wages he gets. Treat him as though he is white, then if you are called away on Sunday ask your single man to stay and look after your stock. What will he say? "Yes, sure, I will do it." The last few years I have been hiring help, but as yet I have not had the pleasure of using a married man. Single men suit me, with their Sundays off.

I am immensely pleased by the fact that so many of the men who are writing me on this subject were once hired hands themselves. They have graduated into the renting and owning class of farmers. This is the agricultural advancement; first, the farm hand; second, the renter; last, the owner farming on his own land. I wish I could find out just what proportion of landowning farmers once worked out, by the day or month, for others. It seems to me the government could not include a more interesting subject for its next census returns. I imagine the figures would be found astonishingly large.

I am intensely interested in this subject and I believe most of my readers are, too. Perhaps the main reason I am so interested is because I served my turn as a farm hand myself. I was only fourteen years of age, when, my father having gone to serve his country in the civil war, I worked out as a hired hand for five months, at the princely wage of $5 a month. That was back in Ohio, where my boyhood was spent. I well recall that of the $25 which I earned during the five months I was thus engaged, I carried $12.50 back to my mother, who found it a veritable godsend in her arduous task of making both ends meet during those trying financial times, my father having lost his life during the siege of Vicksburg. Later on, when I was twenty-one and had come out to the grain belt to seek my fortune, I worked out again, for several months, receiving 75 cents a day. I know how the hired man feels on most subjects. I sympathize with him deeply and honor him highly. I can assure my Walworth county, Wisconsin, friend that that old washtub of mother's, the bottom slippery from many a week's suds, has often sufficed me for a bath, and a good one, too. It is just this fact that almost every letter brings to my mind some experience of my own which makes my correspondence so intensely interesting to me.

So, I say, let the letters continue to come; they will always find a welcome reading and I shall publish as many of them as I possibly can, so that you may all enjoy them with me.

DO WE WANT WAR?

I AM in receipt of a letter from a good "mother in Israel," living near Hollandale, Wis., which offers me the most fitting text I could ask for a declaration of my views on the war situation. Some of these views I have outlined, from time to time, in the past. It seems to me fitting now, however, to gather them together in a complete statement of personal convictions in the present crisis. First, let me give you the letter, exactly as it came to me, simply suppressing the name of the writer, as requested by her:

Dear Mr. Pierce: I can't see why Senator LaFollette gets so many knockings these days. I think his influence to keep us out of war ought to be a great honor to the state of Wisconsin. What benefit would war with Germany be to the people of the United States? Thousands of men would be killed and more crippled for life.

If America were to honorably try to avoid war American citizens and American ships would not enter the war zone. I think it is a disgrace to this country to send arms, munitions and explosives to the warring nations. It shows neither neutrality nor patriotism. Militarism, capitalism and all the patriots who know they can profit by its continuance are crying for war.

I have in my mind a business man in Chicago (my daughter was his stenographer). When the first news was out about the trouble with Mexico, in the spring of 1914, he was rejoicing over the prospects of war. The first thing every morning he went to the recruiting headquarters to find out how war was progressing. This man never cared what war with Mexico would cost the United States in lives and money; his wish for war was because it would make his business prosper. *He is a pension agent.*

Some people picture war "as a line of troops advancing with lances flying and bands playing, and perhaps a wounded soldier with a white bandage across the brow," but let me quote a portion of a letter I received some time ago from a brother who is an employe on one of the main railroads of Switzerland. Here is what he wrote:

"When we see trainloads of families, so poorly clad, so starved and pitiful looking, fleeing from their warring country, it brings tears to our eyes. Still sadder to look at and talk to are the crowds of wounded soldiers as I saw them every day last winter. When we see twenty men together with only six arms and thirty men together having only ten legs it makes us pray out loud, 'God save us from war.'"

I don't know if you are a friend of LaFollette or not, but just the same it gets me angry the way other papers have criticized the few senators who tried their best to prevent war, calling Senator LaFollette names that any publisher ought to be ashamed to print.

Whether I am "a friend of LaFollette or not," in this connection, is really a secondary matter; but I have no hesitancy in assuring my correspondent that I am a friend of the senator. This personal friendship is of long standing. When I bought The

(Concluded on page 5)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Clean-up and Paint-up Time.

Spring time is a clean-up time everywhere and the farmer should not neglect to do his part. If the women folks are consulted there is not a shadow of doubt that a good many jobs of papering, cleaning, painting, etc., are not only wanted but really needed. It may not be practical to do all of the work needed—at least not until after seeding is done.

The use of good paints for the protection of farm buildings is a matter of more than passing importance. The buyer of paint this season must expect to have to pay a little more money for these materials. It will scarcely be possible to get good barn paint as cheap as we did a few years ago. Paints are made of minerals and oils and no materials have been more influenced in price by the war than these. We do not say that paint should be used regardless of price, but we do insist that good paint, properly put on the exterior of farm buildings is sufficient protection to warrant even a greater expenditure than we have been accustomed to in former years.

New buildings should have a good prime coat, chiefly oil for filler, and at least two coats of paint. Three coats would afford sufficient protection to warrant the additional cost [illegible] buildings should have two coats of [illegible]. It is usually best to paint in [illegible] early spring, the latter part of April and the month of May being regarded as the painting season. Painting, however, in this climate may be done satisfactorily until the middle of June unless the season is unusually dry and dusty. When the bugs and flies and gnats come on in the hotter weather they will, with the dust, make painting an unpleasant, and, in many cases, an unsatisfactory job.

While the usual rule is to give old buildings, which have been previously painted, two coats, we have known very satisfactory jobs with one coat, where the old paint was not too old or cracked. In putting on one coat it is best to change the color or shade as little as possible. A decided [illegible] in color will make more than [illegible] necessary to cover. In all [illegible] where there are new boards [illegible] boards should have a primer and sufficient paint to make as many coats as the older boards on the same job have had.

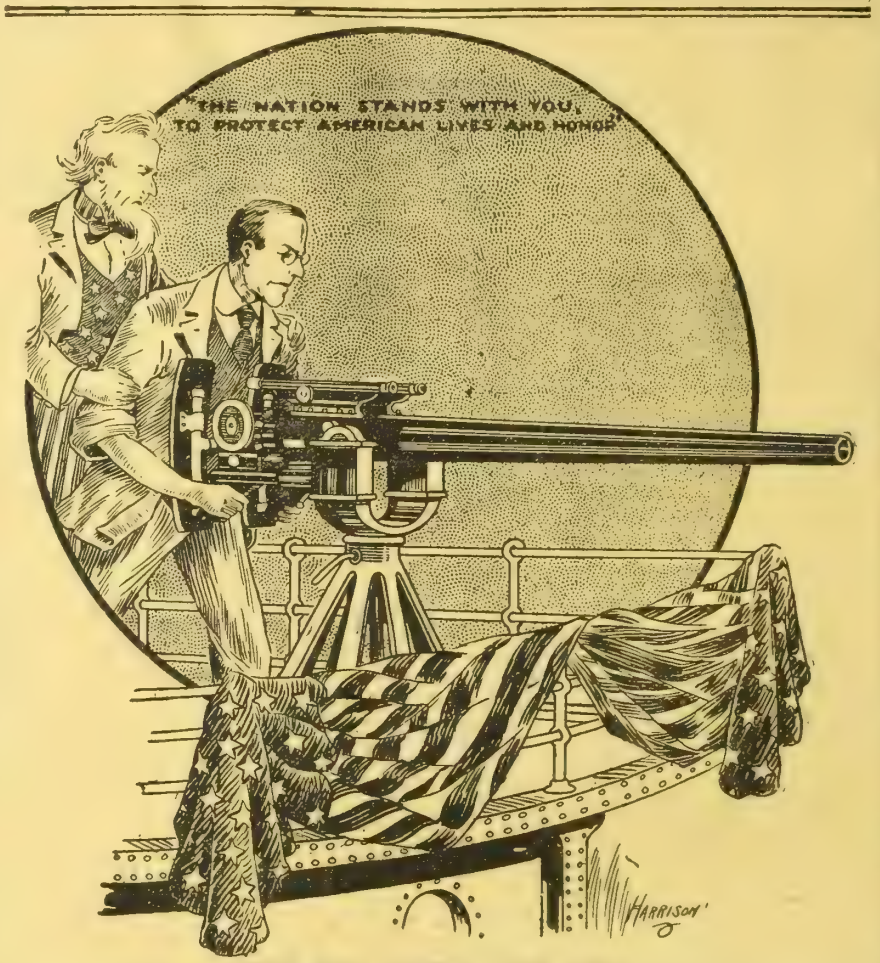
Lead and zinc are chief elements of paint, and most makers of pure paints are glad to divulge to the buyer the chief ingredients in the paints they offer. Any reliable dealer will explain the difference between pure paints and paints which are made out of cheap and inferior materials. As the dealer wants the farmer to get a good job he is usually anxious to sell the best paint, even though his profit may be greater on other brands.

Prepared paints, in these days, are so well mixed and proportioned that farmers can do a great deal of their own painting—a thing which they hesitated to do when they were obliged to mix the paints as well as spread them. Paints and varnishes for indoor work are especially serviceable. If the women folks want floors painted, don't worry if a good painter is not at hand—get a good brush and a can or two of reliable floor paint and do the work yourself.

The writer has had considerable experience with wall paints and for bedrooms, kitchens and hallways they are very serviceable. Especially is this true in the kitchen. Some wall paints may be put on over the old wallpaper, but this is taking some risk, as there are few wallpaper jobs which are skin tight after two or three years of wear. Once one starts to peel off the paper it is better to take it off clean. Having painted his own kitchen for several consecutive years, the writer knows that a job of that kind will please. Walls thus painted with good wall paints may be washed. In our own home we take a wet rag on a stick and use it over the kitchen walls once every two or three weeks just like we use a mop on the floor.

Cleaning up about the farm is not complete even when the wallpapering is done and the buildings painted inside and out. The fence around the house should be given attention and all the old grass and brush cleaned off the yard and burned. Give the fence a coat or two of fresh paint or whitewash. It will improve the appearance of the place 50 per cent and more. See that the gates all hang straight and look out for the porch steps. We do not know of anything that looks more slovenly than sagging porch steps. It is the easiest thing in the world for the steps to get awry, as they usually have only a few bricks for foundation, and nothing more than the freeze and thaw will cause these to get out of line.

Cleaning up and painting up, and making the many needed repairs about the house and barn, don't take much time once a person gets at it and they are worth a lot in comfort and personal satisfaction. Everyone feels happier and the neighbors all like you better if your place is kept sweet and clean. If it should happen that the neighbors haven't done their share set them a good example. Someone always has to lead in these good works.



THE MEN BEHIND THE GUN.

War Is Declared.

The United States has formally declared war on the imperial German government. By a decisive vote, both houses of congress have taken action. The next few weeks and months will be filled with big events and history will be made rapidly.

The farmers of the grain belt need a weekly paper which will give them the news of America and of the world promptly and impartially. The Wisconsin Farmer does this. The Current Events department, the editorial pages and the Family Circle Talks department conducted by Mr. Pierce will discuss the happenings of the week impartially and fearlessly, always from the standpoint of the farmer. There was never a time when it was more important that every subscriber see that his subscription is renewed promptly and that he secure as many new readers for The Wisconsin Farmer as possible.

If your subscription has recently expired or will shortly expire, send in your renewal promptly, so as not to miss a single issue, for historic happenings are occurring every day and it is the duty of every loyal American to keep well posted. Besides, The Wisconsin Farmer will continue to be the most practical and dependable farm paper published. Renew promptly and avoid missing a single number of your favorite farm paper.

Another Wisconsin Milk Strike.

On April 1st the farmers in the vicinity of Stoughton, Dane county, Wisconsin, through the officers of the Milk Producers' Association, notified the Wisconsin Farmers' Dairy Produce Company that they must have a higher price for their milk. The farmers demanded $2.40 per hundred pounds for 3.5 per cent milk for April. This is the Chicago Association price now paid by the condensery at Monroe. For several days many farmers turned back with their milk, aggregating, all told, a good many tons. The average receipts of the Wisconsin Dairy Produce Company plant were about 30,000 pounds daily. There are about 300 farmers on the membership roll of the Stoughton Milk Producers' Association. At the time this is written no settlement of the strike had been reached. A few members seemed disinclined at first to join the strike, but they were approached Sunday, April 1st, by delegates of the association, who stopped them on their way to town and asked them not to deliver their milk. There have been no serious disturbances as yet as a result of the strike.

The Wisconsin Produce Company is the outgrowth of the Robert G. Morey and A. J. Olson creameries. In the fall of 1916, Mr. Olson died and the Wisconsin Produce Company bought his and the Morey plant. Mr. Morey is said to be still interested in the Wisconsin Produce Company and the balance of the stock of the company is owned by Armour & Company, of Chicago. The company has been pasteurizing milk and shipping it to retailers in Chicago. The officers of the Wisconsin Produce Company claim they have been losing money up to the present time. One of their plants is being converted into a condensery and when this is done they expect to offer farmers an advance in price of milk. As evidence of their good faith, the Wisconsin Produce Company has offered the use of its building to the farmers with the suggestion that the farmers carry on the business if they think they can make a better profit on milk. Officials of the Milk Producers' Association, however, were not inclined to accept this offer on the grounds that it was only a temporary arrangement designed to discourage the milk producers. There is some talk to the effect that the Wisconsin Produce Company has been anxious to close down for April and May and open again in June when the Chicago scale of milk prices is down as low as $1.60 per hundred pounds.

It will be interesting to follow the Stoughton case. In the event the farmers do not get their demands they will probably organize and put up a cheese factory or make some other arrangements for selling or separating their milk. There would seem to be nothing in the conditions at Stoughton which ought to prevent farmers in that neighborhood from getting as good a price for their milk as farmers in other Wisconsin neighborhoods are getting.

Urges Universal Interest in Agriculture.

Pres. H. J. Waters, of the Kansas State Agricultural College, was the chief speaker at the Wisconsin College of Agriculture short course graduation exercises. He says that we fall into an error when we assume that the people of today are the first who have had to meet the problem of the high cost of living. Who can remember a time when there was plenty of food for everyone at a low cost and plenty of money with which to buy? The situation is that there are too few producers. States like Wisconsin, Minnesota and Michigan, with vast areas of undeveloped land, may do a great deal to correct this condition. But, as President Waters states, we deal with the matter of more farmers and greater production as though it were a problem for the farmers. As a matter of fact it is not in particular up to the farmer to hustle around and get a lot more farmers to go into the business. More producers and greater production would be of greater value to the buyers than to the farmers who have crops to sell. Reasoning along this line President Waters shows that buyers of farm products should be interested in conditions under which the farmers have to live. The problem of keeping people on the farms is as old as the problem of the high cost of living. We send people through the country idealizing country life or at least trying to do it and then we fail in very many instances towards accomplishing a great deal which will bring us anywhere near the ideals we set up. Mr. Waters says we look upon the instruction of agriculture in the schools as being for the benefit of the farmers' children on the theory that farmers' children will become farmers and he says we might just as reasonably teach blacksmithing and banking on the theory that all blacksmiths' children will become blacksmiths and all bankers' children will become bankers. It is a free country and children when they grow up will have the undenied right of selecting their own occupation. Agriculture should be taught in the schools on the theory that it broadens the vision of all children whether they live in town or in the country. It is a mistaken idea that children in the city should have the right to select their occupation, but that children in the country should be denied this right and should be expected to always live on the farm.

We believe with President Waters that the truth about both the city and the country should be taught in both the city and the country schools. Fur-

Family Circle Talks
By the Publisher.

(Continued from page 3.)

Wisconsin Farmer, on January 1, 1893, more than twenty-four years ago, Senator LaFollette drew up the transfer papers. The acquaintanceship thus begun long ago ripened into friendship. I admire the senator and respect him for the positiveness of his views and the integrity of his public and private life.

But, aside from all questions of personal friendship, I believe this is a time when we owe a debt of gratitude to Senator LaFollette, of our own state; Senator Gronna, of North Dakota; Senator Clapp, of Minnesota; Senator Norris, of Nebraska; Senators Cummins and Kenyon, of Iowa (notice how they all come from the grain belt), and the other men who attempted to stand between this country and horrible, barbaric, destructive war.

I have always been opposed to the shipment of munitions abroad, either to the allies or to Germany and its aids. I have believed these shipments should be stopped at once. Why should our great industrial institutions, our millions of peaceful workingmen, be turned over to the manufacture of that which slaughters human life, without a single thought of the right or wrong trembling in the balance? Can we call ourselves neutral in spirit when we help one side with cannon and powder, shrapnel and shell, and help the other not a bit? Is there not a humanity at stake in our attitude far greater than any principle at stake in the war itself? I cannot make my stand on this matter too plain or emphatic.

But, ask some, would you likewise shut off the exportation of food supplies? Most assuredly, I would not. Munitions destroy life; food supplies sustain life. Munitions slaughter men; food supplies keep alive women and children who would otherwise perish as horribly as the soldiers who fall on the battlefield. It is America's duty to feed the world, whether it be at peace or at war; we must continue that duty or fall abashed before the wrath of Him who made us the greatest nation in the world and who out of His abundant kindness has blessed us beyond our just desserts.

Surely, this is a time to try the souls of men and women. Let us meet it without flinching. Let us be patriots always, partisans not at all at such a time; let us be humanitarians and Americans always, sinking personal prejudices so far below the surface they will never dare to reappear until the last war cloud shall have disappeared from a horizon touched into golden splendor by the wings of the Angel of Peace.

Have I made myself plain? I hope so. I hate war. I honor the men who braved popular disfavor by seeking to keep us from war. I would stop the munition shipments abroad at once. I would do everything possible to bring about peace, a peace which should not be dispelled for hundreds of years, if ever; a peace founded on the brotherhood of man, eternal, uplifting, ennobling.

Since the above article was written war has become what the diplomatists call "an accomplished fact." The American congress, following the lead of the president and his cabinet, have solemnly declared by an overwhelming majority, that a state of war has for some time existed between the United States and Germany. It tears my heart to read this news, but in this, the darkest hour of our nation's history since the storm of civil war broke upon us, I feel that we should all acquiesce in the action of those whom we have chosen for leaders. Therefore I take my stand firmly by the side of our president. I am compelled to recognize the fact that those who are directing our ship of state through troubled seas are, without question, moved by sentiments as high as mine; they are just as patriotic, and they doubtless have information, on which to base their judgment, which is denied the rest of us. In any event, to criticize them further would be only to embarrass those whose weight of care and responsibility is heavy enough already. It matters not to me now whether I have agreed with them in all things. I believe in my heart that President Wilson has sought with all his power to avert this terrible calamity, and now that he has chosen the path, which he feels has been forced upon us, I can but follow him loyally to the end, no matter where it leads. If I were to do otherwise I would feel that I were a traitor to my country, and that I can never be, so long as there is life in me. When our country has passed through the valley of the shadow into which the hand of stern destiny seems to have led us, I shall renew my efforts to combat the war spirit and militarism and to establish the peace of righteousness. But until that time comes I shall stand by our president, our flag and our country. God helping me, I cannot do otherwise. I am sure that nowhere in all these United States will be found a more loyal body of citizens than my Wisconsin readers, no matter what their personal opinions may have been formerly. Now that it is a condition and not a theory that confronts us, I feel that their patriotism can be relied upon just as strongly as my own. It is a heavy burden which we are all called upon to bear, and my fondest hope is that the Providence which we must believe guides the destinies of men (unless we are to sink into hopeless despair) will direct us all, so that out of the fiery furnace of war somehow good may come in the end and the millennium of peace on earth and good will among men of every nationality may be hastened. It is in the hope that America's part may eventually promote the brotherhood of all mankind that I find my greatest resignation in thus bowing to the inevitable.

James M. Pierce

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thermore, it is necessary to see to it that country people are offered as good social, school and church facilities as any other class of people, and above all, as Mr. Waters insists, agricultural education should be general. There should be a universal interest created in agriculture. We quote from President Waters' address:

The city children ought to understand that though the farmer has undertaken the most important task of any man, that of providing the world with its food, clothing, and the raw materials for its industries, he never has had and probably never will have much to say regarding the conditions under which he will discharge that task and these children should understand that the way in which society determines these conditions will in turn determine the standing and progress of both city and country. City children should appreciate the limitations of farm production and realize that conditions which they impose that are not to the best interests of the country people will not in the end be for their own best interest. They should early learn that no civilization has withstood the effect of the decay of its rural people.

The American farmer is a business man and not a mere laborer. He has invested in land equipment, and working capital an average of approximately $8,000, an investment such as fairly classes him with the business man of the town. He is entitled, therefore, to an income comparable with that of the average business man, an income which will enable him to support his family as well as to enable him to pay as much toward the support of the school, the church, roads, and the cultures of life as do the proprietors of grocery stores, drug shops, meat markets, and of other business enterprises requiring no larger investment and no greater intelligence.

If society cannot pay the price for food which will yield to the farmer a fair income, it is time society was looking into its ways of living and doing business with a view to affecting such economies as will make this possible.

President Waters does not mean that the people shall protect and help the farmer without the farmer making some effort to do something for himself. He says the farmer needs to develop great enterprises of his own and to create in agriculture great honors and bestow them upon the most worthy of his class. In too many instances the farmers themselves do not have the proper respect for their position in the world. The laborers of the country have dignified their craft by pulling together in organizations and gaining their rights by united action. The farmer should come to the point where he realizes his importance and take advantage of his opportunities.

Farmers and breeders of Marathon county have organized the Agricultural Stock Breeders' Association. It is proposed to make this association fill the same needs in the rural districts which are filled by the advancement association in the city of Wausau. Mr. H. G. Flieth was elected president and R. A. Humphrey secretary and treasurer.

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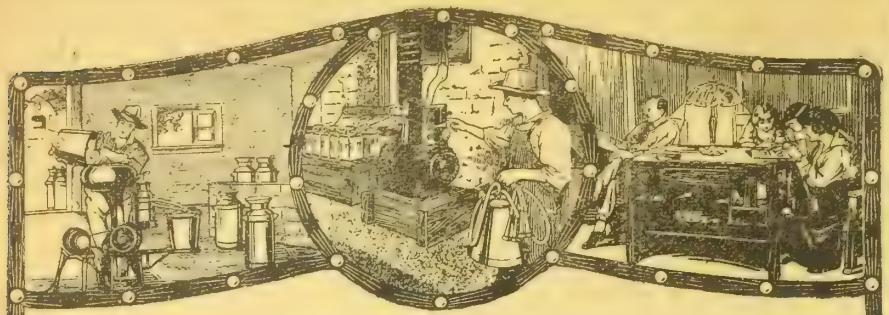

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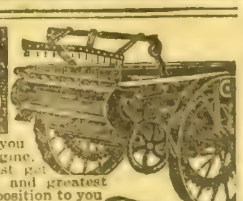

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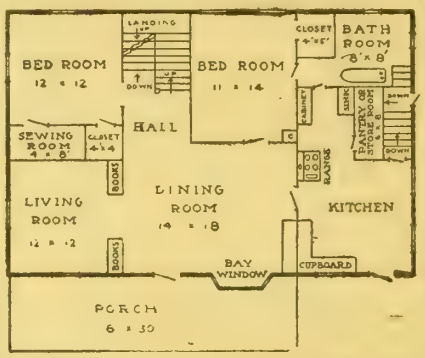
The Farmers' Open Forum

WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

Plans For Farm Home.

To the Editor:—As you have published several house plans, although I have had no special request, I am sending a plan which it seems to me would be just about what I would want in the line of a farm home. Both the stairway from the dining room and kitchen go down to a landing which has an outside door, also a stairs leading to the basement. The basement contains furnace, vegetable cellar and laundry, wherever drainage will permit. The landing leading to the kitchen may also have a stairs leading



HOUSE PLAN SUGGESTED BY MRS. RUSSELL.

to the bathroom, so that the bathroom may be entered without passing through the kitchen as desired. Washing facilities for men are designed to be on the concrete porch by the kitchen for summer use. The kitchen will be large enough that the family may use it for dining purposes during summer weather and in the spring and fall when our men folks cannot avoid bringing in quite a quantity of dirt. There is an eight-foot porch across the living and dining rooms, and the dining room is lighted by a bay window and a glass door looking toward the south. The pantry or store room is lighted from the landing. I am sending you a plan of the ground floor. The upstairs is to contain four bedrooms with closet and hall. If any of your readers have any criticisms or suggestions to make regarding this plan, would be pleased to have them answered through The Wisconsin Farmer. Mrs. R. E. Russell.

Ashland Co., Wisconsin.

Wisconsin Potato Industry of Recent Origin.

To the Editor:—The potato industry of Wisconsin, the most widely known potato-producing state in the Union, which now averages approximately 32,000,000 bushels annually, is of comparatively recent origin, for in 1876, or only forty-one years ago, the first carload was shipped from this state. From 1870 until 1875 Waupaca county, now the center of the potato belt, produced more tubers than were needed for local consumption, so that in 1876 six full carloads were purchased by two Waupaca merchants and shipped to points outside the state. The following year nearly thirty carloads were shipped from Waupaca, and since that time the industry has grown rapidly until the city of Waupaca alone has shipped as many as 2,200 carloads in one season.

In the early days "Early Rose" and "Peach Blow" varieties were the favorites in central Wisconsin, but they were followed in general favor by the "Peerless" and "Hebron." The "Burbank" was later found to be a greater yielder than any of these, so it rapidly grew in favor, but was later superseded by the Rural New Yorker, a round potato of great favor on the market. The acreage of this variety now equals all others in this state in the matter of total yield, and is grown almost exclusively in the central potato belt, although isolated fields of other varieties as the "Early Rose," "Early Ohio" and "Burbank" are found.

The greatest crop in this state was grown in 1914, when about 36,000,000 bushels were harvested, over one-fourth of this amount coming from the three central counties, Waushara, Waupaca and Portage. During the past decade the newly developed upper counties have come to realize the benefits resulting from potato growing and with the help of their agricultural representatives have set out to overtake the older potato-growing counties. Judging from the number of prizes won at state and national potato shows by the northern farmers, the experienced potato growers of central Wisconsin must put forth renewed effort or be relegated to a secondary position. If the northern counties once succeed in gaining a reputation for better quality tubers they will not rest until they have also displaced the older, central counties in the matter of quantity also.

There is only one way in which the potato crop can be improved and that is by planting better seed, combined with better care; as potato growers all over the state are working for these essentials, we may rest assured that, no matter which county may eventually be classed as the potato county, the quality of potatoes throughout the state will be greatly improved. D. R. Burnham.

Experience With Varieties of Oats

To the Editor:—We have in Wisconsin, as nearly everybody knows, a number of varieties of oats developed by the agricultural department of the University of Wisconsin. Besides experimenting on their farm at Madison they have plots for experimental purposes in different parts of the state. We have a tract of land set aside for this purpose and have seeded this with different grains for this purpose.

Oats being one of the crops we are most interested in we paid most attention to this grain in order to find the variety best suited for our farm.

It is understood that a variety of oats for our particular farm, which is in a rich state of fertility and rather low land, however well drained by tiling, may not be the best variety for other farms where the conditions are different, hence this fact seems to be self-evident that every farmer must try out one of the different varieties himself in order to find the one most productive on his farm, but may learn to some extent by the experiences of others if interested enough to find out.

We seeded Wisconsin pedigreed seeds, numbers 1 to 8 inclusive, for several years and found number 1, 4 and 5 most satisfactory. In order of production No. 4 was first, No. 5 second and No. 1 third. We finally eliminated No. 1 and 5 and now seed No. 4 only.

The reason No. 4 produces better on our farm is because of its ability to stand up where No. 1 will lodge. It has a strong stem and seems to be a disease-resisting variety.

We wish to state, however, that we have seen No. 1 oats seeded in this vicinity on higher land and believe that that is the best oats for such land because it produces remarkably well and is a far better oats for commercial purposes than either 4 or 5 on account of its having a thin hull.

From our tests and observations we have reasons to believe that every farmer will find one of these varieties suitable for his farm.

No. 1 for highlands, No. 4 for lowlands and No. 5 for either highland or lowland. Otto Drews.

Supt. Manitowoc County Farm.

Beat it with a FISH BRAND REFLEX SLICKER $3.50

Keeps out all the wet

DEALERS EVERYWHERE

Waterproofs, Absolute, are Marked thus— TOWER'S FISH BRAND

A. J. TOWER CO. BOSTON

The Short-Horn in America.

The April 1st number of The Short-horn in America, the quarterly publication issued by the American Short-horn Breeders' Association, is now being mailed. So great has been the call for this beautiful and instructive publication since the first number a year ago that the April 1st edition was increased to 30,000.

Judging from the character of the matter and the illustrations, the April 1st number must be regarded as the most useful one yet issued, though they have all been of a high order—a distinct compliment to the Short-horn interests.

The best-known Short-horn authorities are contributors to this publication and all phases of the interesting business of breeding, growing, showing and marketing Short-horns is ably discussed by men of intelligent experience and observation. The animal husbandry department of numerous agricultural colleges and experiment stations make use of The Short-horn in America for text-book purposes.

We recommend all who are interested in acquiring further knowledge of the Short-horn and its relation to live stock improvement to address the American Short-horn Breeders' Association, 13 Dexter Park Ave., Chicago, for this entertaining and instructive magazine. It is free for the asking.

Dairy Records.

To the Editor:—The following data, the champion cows of the respective breeds for the years indicated, will be of interest to your readers:

AYRSHIRE.

	Pounds fat
1911—Netherhall Brownie 9th	820.91
1912—Auchenbrain Brown Kate 4th	917.60
1913—Auchenbrain Brown Kate 4th	917.60
1914—Garclaugh Spottie	816.25
1915—Garclaugh May Mischief	894.91
1916—Jean Armour 3d	859.65

BROWN SWISS.

1912—Merry Merney No. 3379	628.86
1913—College Bravura 2d No. 2577	798.16
1914—Rosalind B. No. 3905	727.64
1915—Esther B. No. 3842	779.97
1916—Flora Duwire No. 4105	649.42

GUERNSEY.

1907—Dolly Bloom 1277, A. R. Reëntry 40	836.21
1908—Modena 11779, A. R. Reëntry 67	728.46
1909—Dolly Dimple 19144, A. R. Reëntry 628	906.89
1910—Dairymaid of Pinehurst 24656, A. R. Reëntry 843	860.26
1911—Dolly Dimple 19144, A. R. Reëntry 628	876.34
1912—Spotswood Daisy Pearl 17696, A. R. Reëntry 790	957.38
1913—Azucena's Pride 2d 24957, A. R. Reëntry 1469	855.70
1914—May Rilma 22761, A. R. Reëntry 1726	1073.41
1915—Murne Cowan 19597, A. R. Reëntry 1906	1098.18
1916—Langwater Hope 27946, A. R. Reëntry 1978	1003.17

HOLSTEIN.

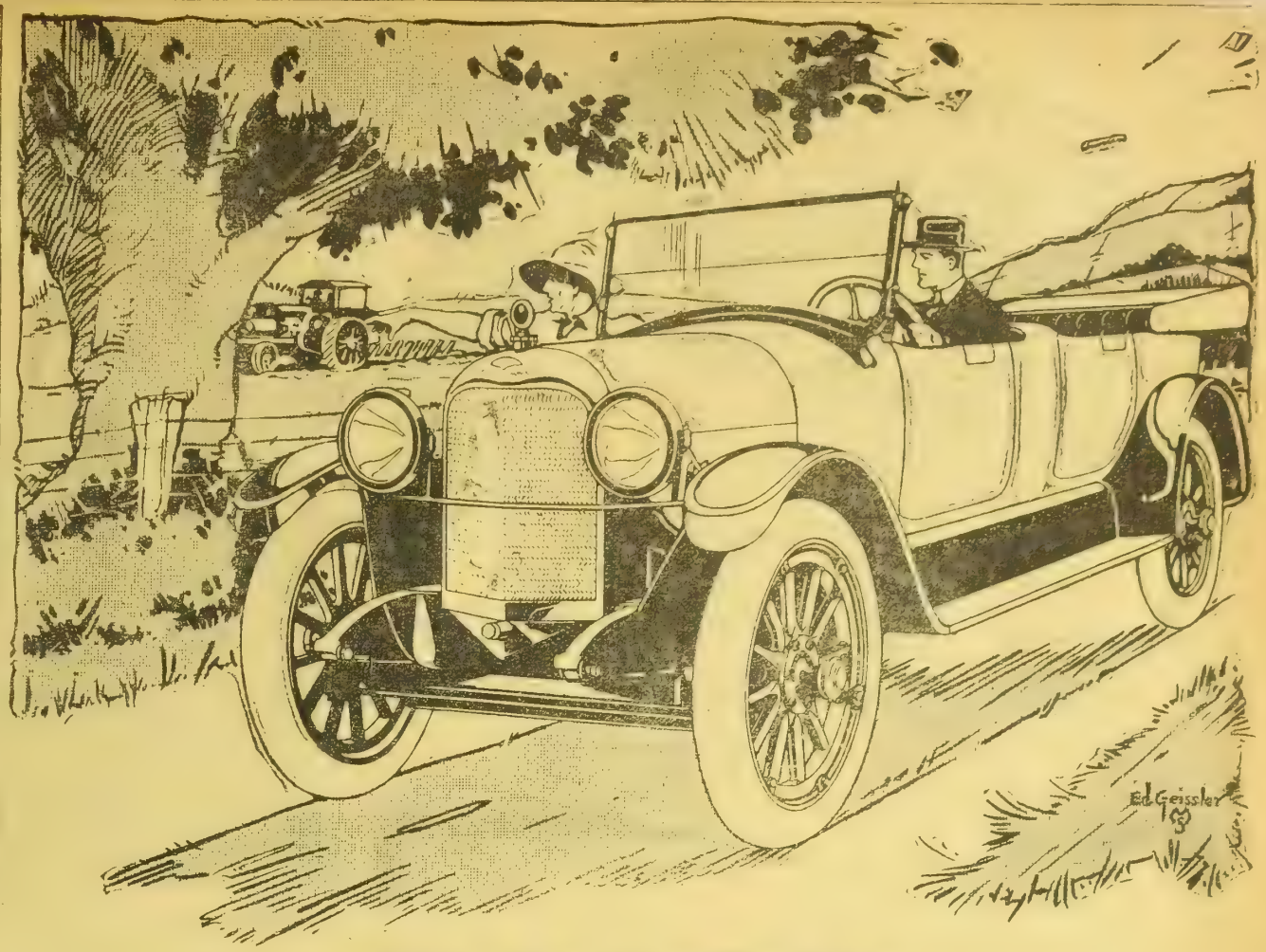
May 1, 1907 to April 30, 1908. Colantha 4th's Johanna 48577	988.26
April 30, 1908 to May 1, 1909. Ava Colanthus Piebe 61971	475.505
May 1, 1909, to April 30, 1910. Pontiac Artis 61114	861.527
April 30, 1910, to May 1, 1911. Lunde Korndyke 75838	872.73
May 1, 1911, to April 30, 1912. Banostine Belle De Kol 90441	1058.34
April 30, 1912, to May 1, 1913. Creamelle Vale 73357	924.68
May 1, 1913, to April 30, 1914. Lothian Maggie De Kol 90209	990.80
April 30, 1914, to May 1, 1915. Finderne Holingen Fayne 144551	1116.05
May 1, 1915, to April 30, 191 . Duchess Skylark / Ormsby 124514	1206.09

JERSEY.

1907—Olive Dunn 188832	671.8
1908—Adelaide of Beechlands 168699	849.6
1909—Jacoba Irene 146443	952.9
1910—Sophie 19th of Hood Farm 189748	854.8
1911—Angela of Bleak House 233250	740.7
1912—Sophie 19th of Hood Farm 189748	931.9
1913—Eminent's Bess 209719	962.8
1914—Sophie 19th of Hood Farm 189748	999.1
1915—Dosoris Park Lily 233783	957.43

R. Baker,
Assistant Secretary, Wisconsin Live Stock Breeders' Association.

Although dairying is predominant in Wisconsin, beef cattle men are rapidly taking their "place in the sun." According to the official government estimate, the total number of cattle other than dairy cows in Wisconsin in Janaury, 1917, was 1,340,000, valued at about $40,000,000. While a part of this total represents bulls and immature stock of the dairy type, the larger per cent of the figures can be credited to cattle destined for beef purposes.



PAIGE

The Most Beautiful Car in America

The Final Test of Quality

IT IS a matter of record in fifteen of the principal cities that Paige used cars bring a higher price—proportionate to first cost—than any other American automobiles.

And here, after all is said and done, is the final test of quality.

A used car has been "through the mill." Its motor and all of its working parts have been subjected to constant strain.

Its "finish" has been knocked off—*if it will come off at all.*

Its gears, its rear axle and its transmission have endured the punishment of day-in and day-out pounding. All of its weakness is plainly evident—and likewise its *strength.*

The used car either stands before you a broken down, dispirited "has been"—or a strong, robust champion of many battles—ready and eager for all the service that man can give it.

That, we repeat, is the final test of quality.

And in this test the Paige stands supreme. *After fifteen, twenty-five, thirty-five thousand miles of service, there is still enough GOODNESS left in a Paige to command the record price in used car markets.*

Frankly, now, is there anything that we could tell you about our product that would be more convincing? Could you have any better guarantee that a Paige is all that we claim it to be—all that you could possibly expect it to be?

As to the selection of a model, this is simply a matter of your own personal requirements.

In our line there are two seven-passenger cars, a five-passenger car and two roadsters. You, alone, can make a choice, but please remember that you can't make a *mistake.* For all of these models are Paiges—blood brothers of the same strain. That is the really important thing

But don't lose any time. See your Paige Dealer today. Let him give you the kind of demonstration that will definitely settle your automobile problem, and place your order while we can still promise early deliveries.

Linwood "Six-39" 5-passenger	$1175 f. o. b. Detroit
Fairfield "Six-46" 7-passenger	$1375 f. o. b. Detroit
Stratford "Six-51" 7-passenger	$1495 f. o. b. Detroit
Brooklands "Six-51" 2 and 4-passenger	$1695 f. o. b. Detroit
Dartmoor "Six-39" 2 or 3-passenger Roadster	$1175 f. o. b. Detroit

Complete Line of Enclosed Cars

PAIGE-DETROIT MOTOR CAR COMPANY
207 McKinstry Avenue, Detroit, Michigan

Expert Heating Engineers will Tell You - Free - What Type of Heating System will be Best for Your Home

L. J. MUELLER FURNACE CO.,
204 Reed Street, Milwaukee, Wis.

Gentlemen:

I intend to { build a new house / remodel my house / install a heating system } this spring or summer. I will have_____rooms to heat, _____downstairs and_____ upstairs. There are_____outside doors and_____windows. Please send me your floor plan charts on which I can indicate arrangement and dimensions of rooms. I am now heating my house with_____. I have been considering a { warm air / hot water / steam / pipeless } system.

It is understood that sending in this coupon does not obligate me in any way.

Name_____

Postoffice_____

State_____

NO one but a heating expert who combines scientific knowledge with practical experience can determine with absolute accuracy whether warm air, hot water, steam, vapor or a pipeless furnace will heat your house most satisfactorily and economically.

The selection of the type of heating system best adapted for your house means all the difference between comfort, convenience, health, and discomfort, trouble and heavy expense. There is no necessity of your taking a chance. Just what type of system will be best adapted for your conditions can be determined without any possibility of a mistake. All you have to do is to give our heating engineers the required information. Without putting you under the slightest obligation to us, they will tell you what system is going to give you the best service. Their advice will be entirely unprejudiced. They have no interest in recommending any one type of heating system, because we make all types—warm air, hot water, steam, vapor and pipeless furnaces.

MUELLER HEATING SYSTEMS

Determining which type is best is merely a matter of figuring the number of cubic feet it is necessary to heat, taking into consideration exposure, location, glass surface, construction, ventilation and other important factors. Only the heating expert can do this with accuracy.

Every one of the 119,000 Mueller Heating Systems in use is giving perfect satisfaction, because each is of the type and size exactly suited to the house or building in which it is installed. For more than 60 years we have been manufacturing heating systems. The benefit of all we have learned in all those years is at your disposal.

All you have to do is to clip the coupon, fill it out and mail it in. This will not obligate you in any way. You will get just exactly what this advertisement offers you—the advice of unprejudiced experts, who will tell you with absolute certainty what type of heating will be best suited to your house—how large a heater you will need, where to place it in your basement.

You need have no hesitation about mailing the coupon. It will take you only a moment—clip and mail it now, before you forget it.

An efficient warm air heating system costs less to install than a steam or hot water system. It provides heat quicker than any other system and is easy to regulate. With it you can keep your rooms comfortable even in the coldest weather.

Hot water, steam or vapor systems are recommended where the size and number of rooms to be heated and other conditions make their use most economical and desirable. The correct design and superior construction of Mueller Heating Systems have made them standard throughout the United States.

The Mueller Pipeless Furnace has exactly same construction as the old reliable Mueller line, but without pipes or flues. Ideal for installing in old or new houses and buildings with small or partial cellars. Will heat whole house comfortably, dependably, cleanly and economically from one register. Saves 30 per cent in fuel.

Makers of Heating Systems of all Kinds since 1857

L. J. MUELLER FURNACE CO.
204 REED ST., MILWAUKEE, WIS.

A Show Herd Which Produces.

(Continued from page 1.)

by the experienced breeder. Learning these things at first hand will develop in the boys a fund of knowledge superior to that of many an older man.

About 120 acres of the farm are under cultivation, the balance being used for pasture and wood lot. About thirty acres are put into corn for ensilage each year. The rotation followed is alfalfa, clover, corn, oats or barley and some timothy. The manure from the barn is hauled to the field as it is produced and the fertility of the soil kept nearly stable through this. About every three years or better each acre has been treated to a heavy application of manure. The cows receive grain the year around and each cow has the individual attention that is necessary for success.

The cream from the farm is sold to Chicago at a fancy price and the skimmed milk kept for the feeding of calves and a few hogs.

The Ayrshire is by far the youngest of our dairy breeds, but she has perfection of dairy type and the possibilities for her usefulness to the dairy world are unlimited. Testing and feeding of individuals for production has not been carried on with her in the same large measure as has been the case with our other dairy breeds. Future breeders will no doubt soon enter this phase with the same spirit that they have shown in the breeding of a perfect type of dairy animal. The next few years will undoubtedly show some creditable records made.

The Ayrshires on the Seitz farm have in their favor the points that go to make up a high-producing animal. The cows are of the type that are known as the grand big cows with large udders, good-sized teats and large and spreading milk veins. In the frame work they show exceptional points as to depth and width through the chest and length of body and width across the hips. The beauty of the Ayrshire emphasized by the small, bony head, the broad muzzle, the large, full eyes and the upright gracefully curving horns is present in a superior way in the Seitz animals. The cows have plenty of width between the ribs showing their capacity for handling large amounts of feed. The ability of the Ayrshire to consume large amounts of coarser food is a great point in her favor. She will milk rather persistently on almost any kind of roughage, but with her, as with any other cow, the yield is dependent upon the amount of nourishment she can gain from her feed.

In the Seitz herd the beautiful and the useful have been combined in a manner that "fills the eye." Incidentally the Seitz cows have also filled the pocketbook and in this case the Ayrshire has well earned her title of "perfect cow," the name by which she is known throughout the Ayrshire world. She has certainly made good on this Wisconsin farm.

CAVALIER ROSEBERRY, JUNIOR CHAMPION NATIONAL DAIRY SHOW, 1916.

BARGENOCH GAY CAVALIER, CHAMPION AYRSHIRE BULL, MINNESOTA, 1911.

Big Interest In Hog Raising.

REMARKABLE as the increased interest in hog raising has been during the past few years in Wisconsin, greater progress is promised. This will be due to better skill in breeding and managing, as well as in improving systems of marketing. According to the last official census there were fourteen hogs on every Wisconsin farm. In 1916 Wisconsin farms produced about 2,060,000 head of swine, valued conservatively at more than $29,000,000. To increase the pork output in this state, partly through better breeding, which enables farmers to get younger animals in prime market shape and generally advance the quality and demand for this kind of meat, the recent state swine conference at the college of agriculture was held.

Among many of the startling facts which showed Wisconsin's place as a contributor to the national pork barrel, these especially interesting ones were emphasized at these sessions:

The five principal pork-producing counties are Dane, Grant, Green, Rock, La Fayette and Walworth. National swine breed associations have more than 500 active members in the state, while at least 1,200 owners of Wisconsin hogs have their animals registered in official herd books.

It Proved Itself

The Greatest Car That's Built

Men ask why we race the Super-Six. Why we win so many records in hill-climbs and endurance. They say they don't want racers, and don't care for super-power.

Of course you don't. But you want to know which car excels when you buy a car to keep. And the only way to compare cars is through maximum performance.

The Super-Six is a light Six. In size and looks there are many Sixes like it.

But a Hudson invention—patented—added 80 per cent to this motor's efficiency. On that account, the Super-Six has won all the worth-while records. In a hundred tests it has out-performed all types of rival motors. So today it stands unquestioned as the greatest motor built.

It holds the speed records for stock cars. It holds the chief endurance records. It won the world's greatest hill-climb.

It did that because friction is almost ended in the Super-Six. Friction is what limits performance. It wastes the power, and wears the motor parts.

By minimizing friction the Super-Six invention has almost doubled endurance. And that is what you want in a car.

In Hudsons Only

The Super-Six motor is found in Hudsons only. It has made the Hudson the largest-selling fine car in the world.

The Hudson Super-Six comes in body styles which mark the very pinnacle of luxury. It comes this year with a new gasoline saver. With a patent carburetor, self-adjusting to every engine speed.

The Hudson Super-Six now stands supreme. It probably always will. Prove these facts before you buy, else you will have regrets.

HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN

Phaeton, 7-passenger	*$1650*
Cabriolet, 3-passenger	*1950*
Touring Sedan	*2175*
Limousine	*2925*
Limousine Landaulet	*3025*
Town Car	*2925*
Town Car Landaulet	*3025*

(All prices f o b Detroit)

Hudson Super-Six

FEDERAL DOUBLE CABLE BASE TIRES

The quality proof of a tire is in its service. And country driving is the supreme test.

Federal Tires are built with an exceptionally tough tread, which not only yields long service but gives greatest traction.

They are safe tires, too. For in the base are built four heavy steel cables of exceptional tensile strength. These cables hold the tire securely to the rim under all conditions. Yet it slips off easily when required.

Made in white Rugged and black Traffik tread and sold by leading dealers everywhere.

(1) **The Federal Rubber Company of Illinois**

Factories, Cudahy, Wis.

Manufacturers of Federal Automobile Tires, Tubes and Sundries; Motorcycle, Bicycle and Carriage Tires; Rubber Heels, Fibre Soles, Horse Shoe Pads, Rubber Matting and Mechanical Rubber Goods.

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START NOW AND REAP THE HARVEST

Become an auto expert at the Milwaukee Motor School in six weeks time. A practical course where you learn by doing. Supervision by expert, high-salaried men who explain the principles to you and show you how to do the work. Here at the

MILWAUKEE MOTOR SCHOOL

is a large commercial repair shop where cars of all makes are repaired and overhauled. Ignition systems, starting systems, carburetor adjustments taught. Vulcanizing shop also — everything needed to turn out well trained men, experts in their line. Positions open—we receive calls continually for good men. New catalog on request—write for it today.

Mr Wm Arheiger

He has turned out more auto experts than any other one man in the west.

Milwaukee Motor School
227 Seventh St.,
Milwaukee,
Wis.

ELECTRIC LIGHT *for* YOUR FARM

YOU can have brilliant light in your home, your barns and buildings — do away with matches, lanterns, lamps and fire danger. Ingeco Electric Lighting Systems are inexpensive to install and operate, simple, compact and reliable. Require little attention — give clear, steady light without flicker.

Tear out this ad, write your name and address on margin and mail to us for interesting booklet.

WORTHINGTON PUMP AND MACHINERY CORPORATION
176 Holthoff Place Cudahy, Wis.
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INGECO LIGHTING PLANTS

Saving the Hay Crop

Flying Dutchman One-Man Hay Loader

picks up lightest swath or heavy windrows without adjustment. Yielding deck prevents clogging; no trouble-making cams, drums, chains, sprockets, rope or gear wheels. All steel frame; light draft.

THE MOLINE LINE

Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Loaders, Hay Rakes, Lime Sowers, Listers, Manure Spreaders, Mowers, Plows (chilled and steel), Reapers, Scales, Seeders, Stalk Cutters, Tractors, Farm Trucks, Vehicles, Wagons.

Moline Cylinder Rake and Tedder is easily adjusted for either hay or beans. Cylinder raised or lowered without driver leaving seat. Teeth may be set at any angle. Both wheels supply power. Built almost entirely of steel. Quickly changed from a rake to a tedder.

Ask your Moline dealer about these Hay Tools or write us for illustrate literature.

Moline Plow Co.,
Dept. 30 MOLINE, ILL.

FARM MECHANICS

AUTO, Farm Engine and Farm Machinery Ailments Diagnosed and Remedies Suggested in this Department.

Questions and Answers.

Operating Horn From Magneto.

Do you think that the magneto of my 1915 Ford car is strong enough to blow a vibrating horn that I am now operating with six dry cells? If so, please tell me how to wire it.

Answer.—Your magneto should operate the horn successfully. From the magneto terminal on the coil box run a wire to the horn; from the horn run a wire to the push button; and then run a wire from the push button to the frame of the car.

Clutch Slips.

I have a 1912 Ford car that does not seem to have much power when it comes to climbing a hill. It runs fine on level ground. It has good compression, and will go twenty miles on a gallon of gasoline. Is it possible that the clutch is slipping, or what is the trouble?

Answer.—The clutch is probably slipping. Adjust the screws in the clutch fingers in equally a half turn or more. If the clutch is badly worn it would be best to get a set of new clutch disks.

Moth Balls in Gasoline.

I enclose a clipping, from a farm magazine, recommending the use of twelve moth balls in fifteen gallons of gasoline. Can you give any light on the subject in your Farm Mechanics Department? Of what good are the moth balls, and what does the good come from?

Answer.—Moth balls are said to considerably increase the power of gasoline. They make the fuel more volatile. A few years ago a compound called "Zoline" was discovered. It was made principally of moth balls and water. It worked fairly well in auto engines, but has not come into use.

Pumping Water.

I am sending you a plan of a water system that has failed to give satisfaction. I cannot understand why it should not work. It is run by a pump jack without a pump head. The jack is fastened to the plunger. More water flows out of the top than out of the two pipes that lead to the supply tank. It is eighteen inches from the top to the two pipes. All the pipes are one and one-fourth inches. What is the trouble?

Answer.—This outfit is illustrated in Figure 1. R is the pump rod to which the jack is fastened. Water in

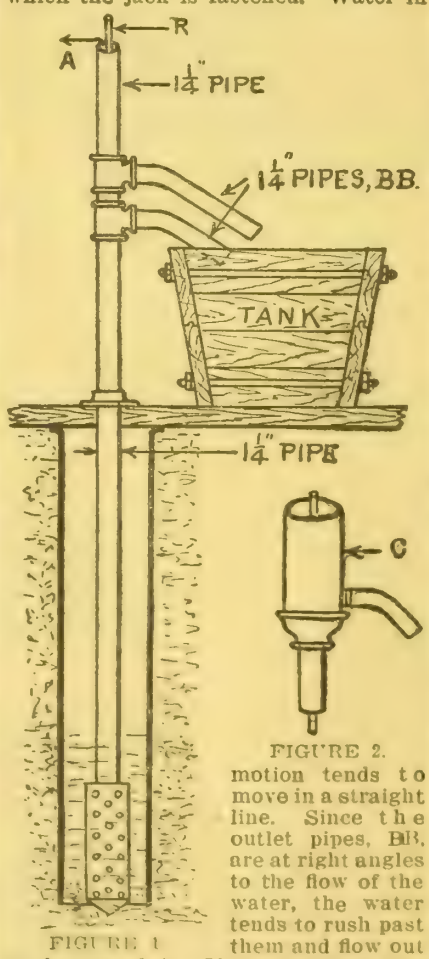

FIGURE 1 FIGURE 2.

motion tends to move in a straight line. Since the outlet pipes, BB, are at right angles to the flow of the water, the water tends to rush past them and flow out at the top of A. The way out of this difficulty is to make the capacity of the pipe above the outlet pipes somewhat greater than the capacity of the pump cylinder. Or the upper part of the pipe may be arranged as shown in Figure 2. The reservoir above the outlet pipes will then fill during the pumping stroke; as soon as the idle stroke begins the water will begin to run down and out at the outlet pipes.

Columbia Batteries

As with your motorboat, so with your tractor, auto or stationary engine—for dependability use Columbias.

National Carbon Co.
Cleveland, Ohio

Fahnestock spring-clip binding posts, no extra charge.

No. 6 COLUMBIA IGNITOR DRY CELL
FOR GENERAL IGNITION
Manufactured by NATIONAL CARBON CO. CLEVELAND, OHIO

20,000 Miles From Tires-Guaranteed

HIGHWAY TIRE PROTECTORS

Do away with punctures, blowouts, cuts, bruises. Prolong life of tires. We absolutely guarantee any standard rubber tire to wear 20,000 miles if Highway Tire Protectors are used.

Prevent skidding; keep tires cool, smooth, dry. Tightening links insure correct adjustment. May be put on and taken off without deflating tires. Steel studs grip the road, give tremendous traction power. Reduce gas consumption. Damaged sections can be replaced in five (5) minutes.

Save your tires, and tire expense. Highway Tire Protectors cost little compared to saving in tire bills.

Write for descriptive circular and Free Trial Offer. See for yourself. Prove our statements.

BUKOLT MFG. CO., 51 Second St., Stevens Point, Wis.

IRON AGE

Farm, Garden and Orchard Tools

Answer the farmers' big questions. How can I grow crops with less expense? How can I save in planting potatoes? How make high priced seed go farthest? The

IRON AGE Potato Planter

solves the labor problem and makes the best use of high priced seed. Means $5 to $50 extra profit per acre. Every seed piece in its place and only one. Saves 1 to 2 bushels seed per acre. Uniform depth; even spacing. We make a full line of potato machinery. Send for booklet today.

No Misses
No Doubles

Bateman M'f'g Co., Box 471 Grenloch, N. J.

Lindsay Bros., General Agents, Milwaukee, Wis

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OTTAWA LATEST DESIGN

Durable, Powerful, Reliable, Massive. Built to last; to do hard, heavy work. Uses Cheapest Fuel. Pull ½ to ½ horse-power more than rated. *3 Months Trial. Easy Terms.* Sizes 1½ to 22 H-P. Easy to start. No Cranking. No batteries. **10 Year Guarantee.** Most practical engine ever built. Engine book free. A Postal brings it.

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PATENTS Watson E. Coleman, Patent Lawyer, Washington, D.C. Advice and books free. Rates reasonable. Highest references. Best services.

What Our Dairymen Are Feeding.

A Few Interesting Chapters From the Note-books of Men Who Are Testing Dairy Cows and Urging Greater Production.

[Editor's Note.—The Wisconsin Farmer has been receiving some very interesting letters from cow testers, giving some important light on feeding under the conditions which have existed the past winter and spring. Below we give a few of these letters.]

Dairy Rations.

To the Editor:—There has not been very much difficulty in obtaining feed in this section until now. All the different kinds of feeds were, of course, not to be had, and to that extent the rations fed to dairy cows had to be suited to the feeds to be had. Large quantities of feed, mainly bran, brewers' grains, gluten feed, oil meal, dairy feed, mill screenings, malt sprouts, distillers' grains, hominy and different kinds of other commercially mixed feeds were bought. The rations were always calculated according to the feeds on hand and the prices of the feeds that had to be bought to supplement the feeds on hand.

I always calculate a ration with the object of securing the greatest net profit and still feed a balanced ration. It is impossible to say which is the best ration, because the circumstances vary so greatly among any number of farms. But the following is an economical ration under an abundance of farm-grown feeds: Ground oats, twenty-five pounds; ground corn, twenty-five pounds; bran (wheat), twenty pounds; gluten feed, distillers' grains, malt sprouts or brewers' grains, twenty pounds; oil meal, ten pounds. Also this one: Bran (wheat), forty pounds; ground oats, thirty pounds; ground corn, twenty pounds; oil meal, ten pounds. When considerable feed has to be bought, the following would make a good ration: Wheat bran, thirty pounds; brewers' grains, or distillers' grains; gluten feed, malt sprouts, thirty pounds; ground oats, twenty pounds; ground corn, fifteen pounds; oil meal, five pounds. The more farm-grown feeds in the ration the cheaper it is generally, unless under unusual conditions, when feeds that have to be bought are cheap and farm-grown feeds high.

Right now the feeds that have to be bought are especially high, and unless there is a great insufficiency of farm-grown feeds, I am not advising the purchase of any feeds, because bran, for instance is $38 to $40 here now, and milk went down from $2.40-$2.50 to $1.80-$1.90. In my estimation, a man would make more money feeding only farm-grown feeds rather than pay such high prices, if the farm feed is on hand. For instance, I recently advised men not to buy bran, but to feed two-thirds oats and one-third corn, because he had enough of them.

Every year there is around here a shortage of pea silage for those who depend upon raising canning peas entirely for their succulent feed. This year the shortage is more acute, because the canning companies keep more to feed their sheep. One man's milk dropped 25.4 pounds in one month after the silage was gone.

I have also found farmers are not making any more money in this year of high prices, due to the high prices, than in previous years, because in three months last fall, feed that had to be bought advanced 50 per cent and butter only 38 per cent. By now feed has advanced 100 per cent and butter only 62 per cent.

C. F. Wehrwein,
Official Tester, Columbia Cow-Testing Association.

Depend on Grains.

To the Editor:—Central Wisconsin dairymen have probably suffered more than some others because of the lack of farm feeds. We are obliged to depend more on grains because of a poorer grade of roughage. Feeds in this vicinity during the past winter have been purchased largely through equity societies. Bran, gluten, corn, with some hominy and oil meal have been most extensively purchased. When farm feeds are plentiful, corn, oats, and oftentimes some barley, supplemented with bran and oil meal, or both, would be considered an economical ration here. A ration of bran, gluten and hominy, fed in equal parts, with variations to allow for the introduction of roughage, is fed extensively, and some dairymen feed some of the well-known prepared feeds, and with very good results. However, some of these feeds result in an increased cost of production, especially in years when we have plenty of farm feeds.

J. Williams,
Tester, Wood County Association.

Buy High Protein Feeds.

To the Editor:—Quite a number of our members bought their feed at low prices last fall. Of course, more would have done so had they had any idea that feeds would reach the present high prices. It is safe to say that the majority will stock up with feed this next year in the early fall.

I personally do not believe that a well-balanced ration can be had from farm feeds unless a large amount of alfalfa can be raised and as yet alfalfa has not been very successfully grown here. We always figure, when buying feeds, to get those with high protein, as the farm feeds contain such a large amount of carbohydrates and fats. I find that the first and most important thing is to get the ration balanced. This means a purchase of such high protein feeds as dried grains, gluten feed, bran or oil meal. This winter the range of prices on all these feeds has been high, especially on bran. Bran in a ration lightens the feed and is a splendid conditioner, say one part of bran to three or four parts of other feeds. Otherwise I do not find bran to be a great milk producer, especially if the ration is built around it. We have the farmers' elevator here and other dealers also ship in feed in car lots, the farmers getting the feed direct from the car. The farmer can save money on his feed bill in this way and at the same time the dealer can make a small profit. In spite of the high cost of feeds the members of our association are feeding as heavy as usual and, though the profits may be a little smaller, the cows will make up for it next summer when they get on grass. Most of our members believe that a cow should make a profit on the costlier food, and if she doesn't they do not believe she is worth saving for the cheaper feeding time. I see The Wisconsin Farmer a good deal at the homes of members. F. L. Cuenot.
Official tester, Alto Ass'n, Fond du Lac county, Wisconsin.

Less Grain Less Milk.

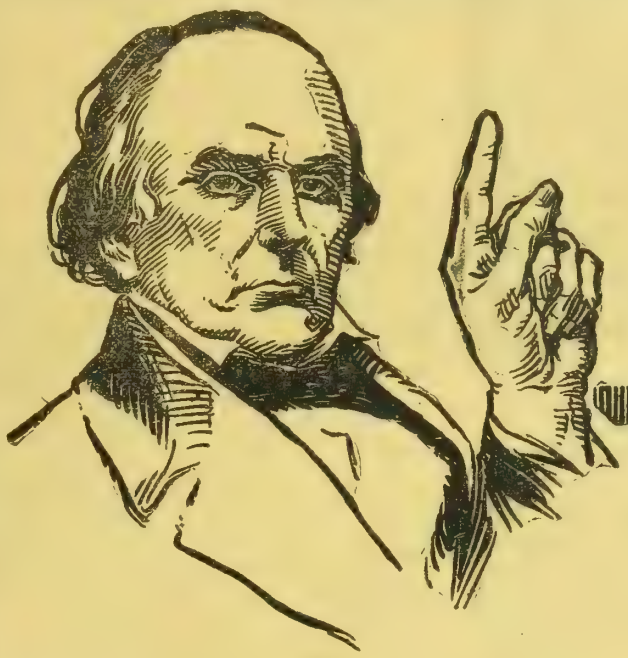
To the Editor:—In previous years bran and some oil meal were about the only commercial feeds purchased in this section and only a few of our best dairymen used the oil meal. This year there was a great scarcity of clover and alfalfa hay and protein feeds were in demand to keep up the milk flow. Several of the farmers bought a supply of distillers' dried grains and bran early, and with the addition of oil meal and farm grains they were able to mix a good diry ration at a cost of about $1.50 per hundredweight. Such a ration consisting of ground corn-and-cob meal, ground oats, dry distillers' grains, bran and oil meal gave good results when the proportions were varied to suit the class of roughage on the farm.

Other farmers in our territory have unfortunately neglected the purchase of feeds until the sky-rocket prices came on us. Then we found by analyzing the different feeds that the feeds of high protein content were the cheapest source of protein and accordingly such feeds were recommended, but fed on a lower proportion to the pounds of milk produced. A few farmers quit grain feeding entirely and, of course, their cows responded quickly by a corresponding decrease in milk production. R. N. Root.
Official tester, Westby, Vernon county, Cow-Testing Ass'n.

Oil Meal as Conditioner.

To the Editor:—I am glad to say that farmers around Eagle Point and Bloomer, Chippewa county, have been supplied with plenty of hay and silage of good quality. To supplement these feeds we have used some oats and a little corn. I advise farmers in our cow-testing association to get together and buy some dried brewers' grains. We bought three or four carloads through the local dealers in October at $24 to $25 per ton and a carload of bran was also purchased at that time for $24 per ton. Our average grain ration is composed of forty pounds of bran, forty pounds of dried brewers' grain and twenty pounds of ground oats. Some oil meal has been fed to individual cows which were especially heavy milkers and had begun to run down in condition. All who tried this

(Concluded on page 19.)



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(Daniel Webster)

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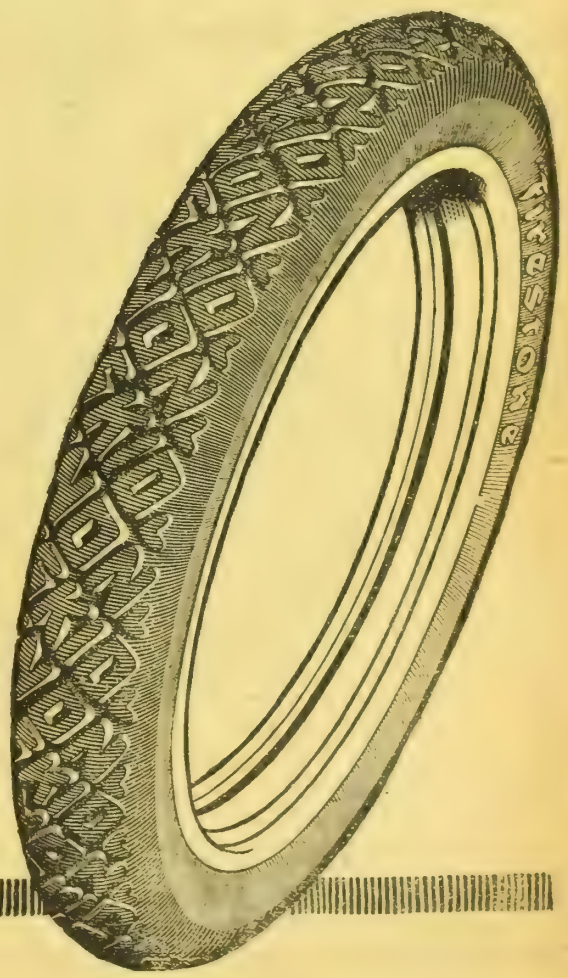

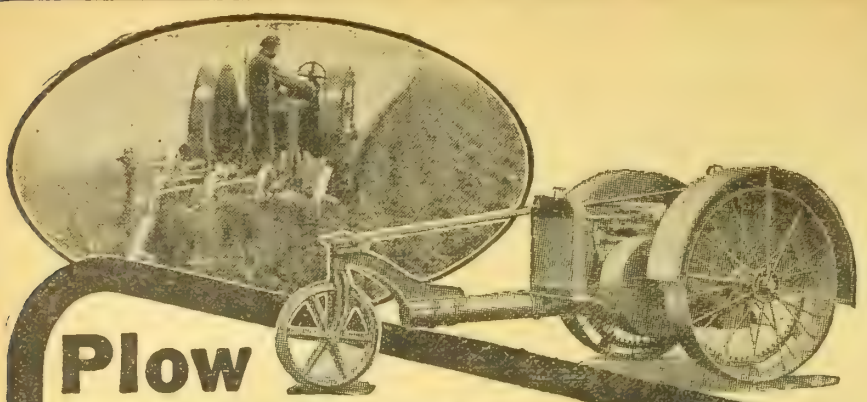

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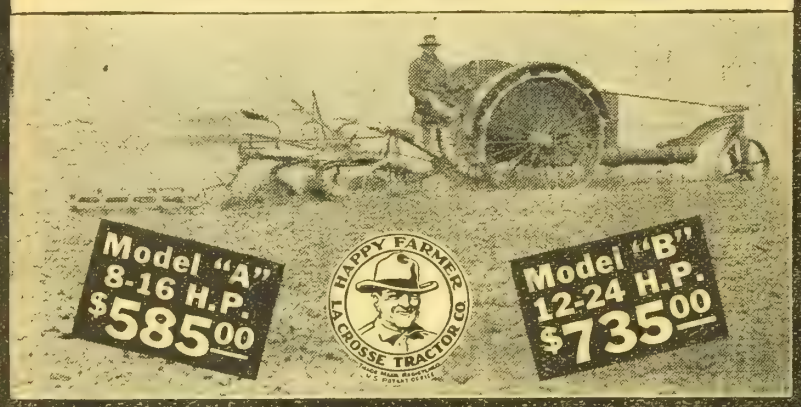
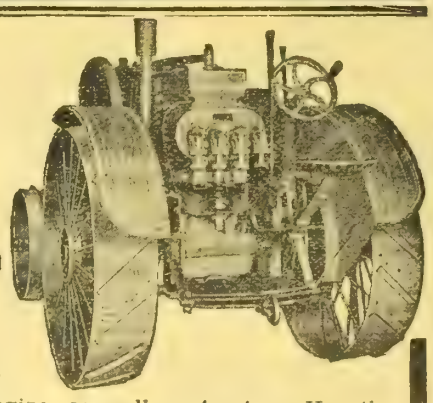


The Tractor To Buy



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A splendid opportunity for the young man to investigate Western Canada's agricultural offerings, and to do so at no expense.
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Hereford Steers Make Good Gains

Experiment at Iowa Station With Self-Feeder—Gains Made on Corn and Corn Ensilage With Addition of Oil Meal and Alfalfa.

A MOST interesting and instructive experiment in cattle feeding was started at the Iowa Experiment Station last November. It involved the feeding out of five groups of Hereford steers that averaged approximately 950 pounds when the experiment started. On March 21st these steers had been on feed 120 days and the event was celebrated by the assembling of some 300 stockmen, who spent the day inspecting these cattle and studying the manner in which they were fed. This investigational work is under the supervision of Profs. W. H. Pew and John M. Evvard. These men have, for a number of years, been carrying on extensive scientific experimental work relating to feeding problems. The questions they have already put to farm animals have elicited instructive replies, and if the feeding principles that have been worked out by these scientists could be put into practice on the farms of the central West, it would unquestionably increase stockmen's profits millions of dollars.

In the particular experiment under consideration at the present time one group of steers were fed shelled corn in a self-feeder. In other words, they had corn before them all the time. In addition, they received a full feed of corn ensilage twice daily along with two and one-half pounds of linseed oil meal and two pounds of alfalfa hay per head daily. What did they do with this feed? They made an average daily gain of 3.50 pounds. While not rolling fat, they were pronounced by Messrs. Cross and Stevens, of Chicago, to be within 40 to 50 cents per hundred pounds of the top of the market. On the average these steers consumed 14.8 pounds of corn daily and 34.4 pounds of corn silage. It required practically thirty days to get them on full feed and at the end of 120 days they were eating eighteen pounds of corn per head daily and twenty-five pounds of ensilage. For every hundred pounds of gain made by these steers they required 424 pounds of shelled corn, seventy-one pounds of oil meal, 980 pounds of ensilage and thirty-seven pounds of alfalfa hay. Exclusive of the value of the pork made by the hogs in this lot, each hundred pounds of increase cost $11.98, computing corn at 90 cents a bushel, oil meal at $46 a ton, corn silage at $6.50 a ton, and alfalfa hay at $18 a ton. The steers were bought at $7.25 a hundred and were valued at $11.68 per hundred at Ames after being fed 120 days. After deducting the estimated cost of marketing and crediting the gains on hogs following the steers, there was a profit of $46 per head. To break even, so as to cover simply the cost of feed, these steers would have to have sold at $8.30 per hundred pounds. You will see that the large profit per steer is due to the fact that there is a big spread between buying and selling price.

A similar group of steers were full fed twice daily on exactly the same feeds used in the group that was self-fed. These steers made an average daily gain of 3.17 pounds as against 3.50 pounds in the self-fed lot. They consumed an average of 13.4 pounds of corn, 2.5 pounds of oil meal, 34.1 pounds of ensilage, and 1.3 pounds of alfalfa hay daily. They had practically the same amount of shelled corn as the self-fed lot and their gains cost, without crediting the hogs with food picked up, $12.45 per hundred pounds as against $11.98 in the self-fed lot. They were rated by Cross and Stevens at $11.70 per hundred pounds, whereas the self-fed lot were given a rating of $11.68. After crediting the gains on the hogs and deducting the shipping expenses, each steer in this lot showed a profit of $43.43 as the result of his 120-day feed. This was $2.67 per head less than the self-fed lot, although the steers weighed the same in the beginning.

The third group of steers was carried for 120 days on a half ration of corn, together with the same amount of oil meal and alfalfa hay as the other lots. These were allowed all the ensilage they would consume. Although these steers only received 6.7 pounds of corn daily on the average, they made a gain of 2.83 pounds for the entire feeding period. The ensilage consumed by this lot ran up to an average of 44.9 pounds per head daily. For each hundred pounds of gain these steers consumed 236 pounds of corn, eighty-eight pounds of oil meal, 1,585 pounds of corn ensilage and forty-five pounds of alfalfa hay. Their value was placed at $11.55 per hundred pounds and the profit per head, after deducting all marketing expenses and crediting them with the gains made on hogs, was $45.18. The gains on these steers at current market prices for feed cost $11.39 per 100 pounds.

The record made by the fourth group of steers will surprise experienced feeders. They only received an average of 3.3 pounds of corn daily, 2.5 pounds of oil meal, 50.7 pounds of ensilage and 1.3 pounds of alfalfa hay, but their gains from this ration show an average of 2.81 pounds per day. It required only 119 pounds of corn, eighty-nine pounds of oil meal, 1,806 pounds of silage and forty-six pounds of alfalfa hay to make 100 pounds of gain on these steers. The cost of this feed was $10.25 per 100 pounds of gain. Here we have gains made at the lowest cost of any of the groups. Their

Group number	I	II	III	IV	V
Average final weight	1,365	1,328	1,292	1,290	1,359
Average daily gain	3.50	3.17	2.83	2.81	3.46
Average daily feed:					
Shelled corn	14.8	13.4	6.7	3.3	18.1
Linseed oil meal	2.5	2.5	2.5	2.5	2.5
Corn silage	34.3	34.1	44.9	50.7	....
Alfalfa hay	1.3	1.3	1.3	1.3	10.4
Feed required, 100 pounds gain:					
Shelled corn	424	421	236	119	523
Linseed oil meal	71	79	88	89	72
Corn silage	980	1,076	1,585	1,806	....
Alfalfa hay	37	41	45	46	301
Rock salt	1	1	1	1	1
Cost of feeds, 100 pounds gain, excluding hogs	$11.98	$12.45	$11.39	$10.25	$12.77
Feed saved per 100 pounds gain on steers by hogs:					
Shelled corn	42	28	19	6	30
Meat meal tankage	4.4	3.4	4.1	3.2	3.6
Net cost of 100 pounds gain on steers:					
Crediting feed saved by hogs	$11.15	$11.88	$10.93	$10.04	$12.63
Crediting hog gains at $12	10.68	11.36	10.30	9.52	11.53
Necessary selling price, steers per 100 pounds to break even:					
Excluding hogs	8.70	8.74	8.34	8.03	8.94
Crediting feed saved by hogs	8.45	8.58	8.22	7.98	8.71
Crediting hog gains at $12	8.30	8.43	8.05	7.84	8.56
Selling price estimated at Ames, steers per 100 pounds*	11.68	11.70	11.55	11.48	11.63
Profits per steer:					
Excluding hogs	40.53	39.29	41.47	44.40	36.49
Crediting feed saved by hogs	43.99	41.46	43.02	45.12	39.60
Crediting hog gains at $12	46.00	43.43	45.18	46.87	41.66

Prices of feeds: Shelled corn, 90 cents; linseed oil meal, $46; corn silage $6.50; alfalfa hay, $18; rock salt, $1 per hundredweight.

*Chicago value minus 70 cents for shipping.

Group I.—Shelled corn self-fed, corn silage full-fed twice daily, linseed oil meal two and one-half pounds, and alfalfa practically two pounds per head daily.

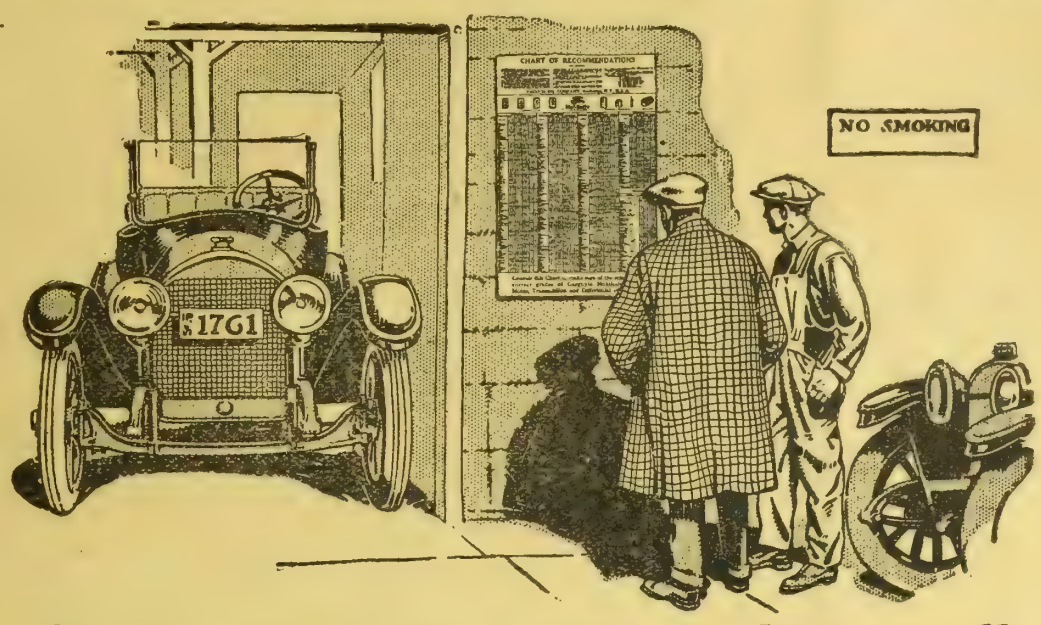
Group II.—Shelled corn hand full-fed twice daily, otherwise the same as Group I.

Group III.—The same as Group II excepting that they receive one-half as much corn.

Group IV.—The same as Group II excepting that they receive one-fourth as much corn.

Group V.—The same as Group II excepting that the silage is entirely replaced with alfalfa hay.

Make this Chart your guide



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Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A", "Arc" means Gargoyle Mobiloil "Arctic", etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

Model of	1917		1916		1915		1914		1913	
CARS	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc.
" (8 cyl)			A	A	A	A				
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod 33-34-35)					A	Arc				
American Six	Arc	Arc								
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" (8 cyl)	A	A	A	A						
Auburn (4 cyl)			A	Arc	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
Avery			A	A	A	A	A	A	A	A
" (Mod. 5 & C 1 ton)			Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc.
Cadillac							Arc	Arc	Arc	Arc.
" (8 cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc.
" (Mod 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chase (air)			B	B	B	B	B	B	B	B
Chase (water)	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" (8 cyl)	A	A	A	A	A	A				
Cunningham					Arc	Arc	Arc	Arc	A	A
" (8 cyl)	A	A	A	A						
Daniels (8 cyl)	A	A	A	A						
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc.
" (Mod C	A	Arc	A	Arc	A	Arc	A	A		
Delaunay-Belleville					B	A	B	A	B	A
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc.
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
H. A. L.	A	A	A	A						
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
" (12 cyl)	A	A	A	A						
Hollier (8 cyl)			A	A	A	A				
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc.
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
I.H.C. (air)					B	A	B	A	B	A
I.H.C. (water) (2 cycle)			A	A	A	A	A	A	A	A
I.H.C. (water) (4 cycle)			A	Arc						
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
Jackson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc.
Jackson (8 cyl)	A	A	A	A						
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (Chesterfield)			A	Arc	A	Arc				
" Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc.
Jordan	Arc	Arc								
Kearns			E	E	E	E				
" Com'l	A	Arc	A	Arc	A	Arc				
Kelly Springfield	A	A	A	A	A	A	A	A	Arc	Arc.
King					A	Arc	A	A	A	E
" (8 cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
" " Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc.
" " (Mod. 48)			A	A	A	A	A	A		
Knox			B	A	B	A	B	A	B	A
" (Mod. 35)	A	A	A	A	A	A				
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Liberty (Detroit)	Arc	Arc								
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" " (Mod. M)	A	Arc	A	Arc						
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc.
Marion Handley	Arc	Arc								
" " (Mod 6-40)	A	Arc								
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc.
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Mercer	A	A	A	A	A	Arc	A	Arc	A	Arc.
" (22-70)					Arc	Arc				
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc.
Mitchell (8 cyl)			A	A						
Moline									A	Arc.
" Knight	A	A	A	A	A	A	A	A		
Moon (4 cyl)					Arc	Arc	A	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Murray (8 cyl)	A	A								
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Owen Magnetic	A	Arc	A	Arc	A	Arc				
Packard					A	Arc	A	Arc	Arc	Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36 & 38)	A	Arc	A	Arc	A	Arc				
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc.
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Pullman	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	Arc	Arc				
Renault			A	Arc	A	Arc	A	Arc	A	Arc.
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Richmond	Arc	Arc	Arc	Arc	A	Arc	A	Arc	Arc	Arc.
Riker	E	E								
Saxon	E	E	E	E	E	E	E	E		
Scripps-Booth (air)							B	A		
" " (water)	A	Arc	A	Arc	E	E				
" " (8 cyl)	A	A	A	A						
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.
Simplex	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc.
Standard (8 cyl)	A	A	A	A	A	A				
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" " (8 cyl)	A	A	B	A						
Sterling (Wisconsin)	A	Arc	A	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc.
Stutz	A	A	A	A	A	A	A	A	Arc	Arc.
Velie (4 cyl)					A	Arc	A	Arc	A	Arc.
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Vim	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc.
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Willys-Knight	A	A	B	A	B	A	A	A		
Willys Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc.

Electric Vehicles—For motor bearings and enclosed chains use Gargoyle Mobiloil "A" the year 'round. For open chains and differential, use Gargoyle Mobiloil "C" the year 'round. ***Exception***—For *winter lubrication* of pleasure cars use Gargoyle Mobiloil "Arctic" for worm drive and Gargoyle Mobiloil "A" for bevel gear drive.

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- [ ] Tree Planting
- [ ] Ditch Digging
- [ ] Road Building

WF-53

Name _____

Address _____

selling price was $11.48 and the profit per steer was $46.87. This is the largest net profit of any of the groups.

In another lot of steers the silage was cut out altogether and alfalfa hay substituted. The steers were fed the same amount of oil meal as the other lots and they consumed an average of 18.1 pounds of corn daily and, in addition, 10.4 pounds of alfalfa hay. It required in this case 523 pounds of corn to make 100 pounds of gain, seventy-two pounds of oil meal and 301 pounds of alfalfa hay. At current market prices it cost $12.77 for 100 pounds of gain. This is the highest cost of any of the lots. The steers were valued at $11.63 per 100 pounds, being just a little lower in finish than the full-fed silage steers. The profit on these steers was $41.66 per head.

Four hogs followed each group of eight steers and in determining the cost of making 100 pounds of gain in each group credit should be given for the gains made by the hogs or at least for that part of the gains that was made on feed-lot waste. This is a factor of considerable importance when the present price of pork is taken into account. For example, gains on the self-fed steers that cost $11.98 per 100 pounds were reduced to $10.68 after crediting the steers with the value of their waste when marketed in the form of pork. The steers fed a full corn ration by hand cost $12.45 per 100 pounds, but this was reduced to $11.36 after credited with the hog gains made on their waste. As the corn ration is reduced the gains made by hogs are naturally less because we find that the group fed a half corn ration cost $11.39 per 100 pounds and this was reduced to $10.30 when they were credited with the profits from the hogs. In the case of the steers fed only one-fourth of a corn ration the gains on hogs amounted to very little. The cost of 100 pounds in the case of these steers was $10.25 and even after they were credited with the gains on hogs the cost was still $9.52. In the alfalfa-fed steers the cost of 100 pounds of gain without the hogs was $12.77, but crediting them with the gains on the hogs reduced the cost to $11.53.

The ensilage fed to the various groups of steers was made from corn yielding forty-five bushels per acre or nine tons of ensilage per acre. This would mean that each ton of ensilage contained five bushels of ear corn. The steers in all the lots had the run of a small yard and they had access to an open shed. They received no attention that could not be given on any ordinary farm. The results given above are embodied in the table on page 12.

SOME GOOD BOOKS.

Something For the Poultry Breeder, Stockman and Gardener.

More and more the successful producer is looking for information that is obtained outside of his own experience, and this being the case, we are pleased to call attention to a few interesting and instructive volumes that have just come from the press. One, entitled "Judging Farm Animals," is by Charles S. Plumb and is an illustrated work comprising nearly 600 pages. It deals with all classes of live stock excepting poultry, and the text is illuminated in such a way so that it is most readable, and the information it contains is not smothered with technicalities. This volume sells for $2.25 and it should be in the library of every stockman, particularly in those cases where there are boys and younger men who are eager to learn.

A second volume is entitled "Poultry Breeding and Management." It is by James Dryden, head of poultry husbandry at the Oregon Agricultural College. This also is an illustrated work and it deals with every imaginable phase of poultry husbandry. Special attention is given to the question of rations for the different classes of poultry, so that even a beginner could take this volume and attain a fair degree of success right from the beginning by following its teachings. Packing and marketing of eggs and fowls, the judging of fowls as well as house construction, feeding for eggs, the care of chicks, poultry diseases and scores of other topics are treated in this volume in an explicit manner. This book sells for $1.60.

A third book that has just come from the press was written by Bliss S. Brown, professor of hoticulture in the University of Maine. The title is "Modern Fruit Growing." All classes of fruits are dealt with, and ways and means of marketing through the various selling agencies are outlined in detail in this volume. The question of fruit storage is also taken up and a full description of storage plants given in detail. Fruit packing is also included, as well as packages for fruit and the preparation of all fruit products for market. An outline is given of fruit shows and their function dwelt upon at considerable length. The volume sells for $1.25.

Still another volume is worthy of special attention. The title is "Semi-Centennial History of the Patrons of Husbandry," written by Thomas Clark Atkeson, master of the West Virginia State Grange and past overseer of the National Grange. The title of this book gives a clear idea of the substance of it. It is written in a most interesting style, and it will make a splendid addition to the library of all persons who are members of the grange or who are interested in matters of that kind. The volume sells for $1.50.

The Wisconsin Farmer has made arrangements by which any of these volumes can be promptly supplied to its readers upon receipt of the price mentioned.

No Profit in Stumps.

If the stumps occupy fields already in cultivation they should come out—the quicker the better—for it costs real money every year to let them stand there. The fact that this money never gets in and out of the pocketbook or the bank does not change the matter of its loss. It would have been there if the stumps had not eaten it up.

Figures in various bulletins issued by state and United States agricultural departments indicate that the time required to blow out the average stump is twelve minutes. Half an hour a day, therefore, will clean up a lot of stumps in the course of a month and one man can accomplish a surprising amount of land clearing between now and the period of heavy work in the spring. All he needs is a crowbar and sledge, a broom stick, a cap crimper and a supply of explosives. It will be better, though, if he has an electric blasting machine to fire the charges, because it will enable him to save both work and money.

If the clearing involves the removal of many stumps from a piece of cut-over land and it is desired to keep the actual money outlay as low as possible the best plan is to crack each stump and loosen the roots with comparatively light charges of powder and then to pull the pieces with the team. Two horses nearly always can remove any roots left after a blast. Such a method takes more time and much more labor than to make a complete job of each stump with powder as you go.

The powder to use—and this is important, because it helps wonderfully to keep the cost down and to get the roots out deeply—is not a high percentage nitroglycerine dynamite but what is known as farm powder, which is an explosive made especially for removing stumps and blasting soil. It will take the stumps out without breaking off the roots near the top, will leave smaller holes in the ground, is safer, and costs only about two-thirds as much as the old type of dynamite.

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Answer the farmer's big questions: How can I have a good garden with least expense? How can the wife have plenty of fresh vegetables for the home table with least labor?

IRON AGE Combined Hill and Drill Seeder solves the garden labor problem. Takes the place of many tools—stored in small space. Sows covers, cultivates, weeds, ridges, etc., better than old-time methods. A woman, boy or girl can push it and do a day's hand-work in [illegible] minutes. [illegible] combinations $[illegible] to $[illegible]. Write for booklet.

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Influence of Ration and Age.

Missouri Station Conducts Experiment to Determine Outcome of Feeding Methods and Date of First Calving.

EXPERIENCED dairymen differ widely in their opinions with regard to the influence of the ration fed during the growing period and the age of first calving on the development of dairy cows. Some favor feeding heifer calves liberally in order to stimulate growth and constitutional vigor, while others prefer moderate feeding with considerable quantities of roughage in order to produce refinement and dairy conformation. With regard to age of calving, some dairymen believe that late calving is better, since it permits the cow to develop greater size and stronger constitution, while others advocate early calving because it seems to promote dairy type and temperament, which they consider more desirable than size.

This difference of opinion at once raises the question of whether it is possible to follow any plan of feeding or care of dairy heifers which will tend to develop them to their greatest capacity for milk production. In an effort to answer this question, Prof. C. H. Eckles has conducted an extensive experiment with pure-bred animals from the Missouri Experiment Station herd and the results obtained indicate in a general way the extent to which such a plan of feeding and management may be followed.

In the experiment both the ration and the age of first calving were found to affect appreciably the size of the mature animal. Heavy feeding, which included a liberal supply of grain, caused the animals to grow more rapidly and mature earlier. The light-fed calves never attained the size of the heavy fed ones, although their growth continued later in life in order to compensate to some extent for the slower rate at which they developed. Heavy feeding stimulated growth of skeleton first and then increase in body tissue and fat. No growth of skeleton was noticed in the Jerseys after the first four years and in the Holsteins and Ayrshires after five years, but increase in weight continued longer, in some cases up to six or seven years. When a comparison of the heavy-fed and light-fed groups was made, it was evident that a liberal ration, including some concentrates, is necessary to promote the full growth of the animal.

Early calving was found to check growth to such an extent that the heifers which calved at less than two years of age could be separated from the others by their difference in size. This smaller size of the early calving heifers was not due to gestation to any considerable extent, but to the demands of milk production. After lactation began, abundant feeding was practiced, but the heifers were not able to digest sufficient feed to provide for maximum growth and milk production both. However, no increase in size was gained by delaying calving later than the third year.

The group of smallest cows consisted of those which calved early and also were maintained on a scant ration. While few breeders prefer small cows, many of them favor medium-sized cows rather than large ones and it is an unsettled question whether it is more economical to develop dairy cows to their full size or not. This much may be said, however: Many of the very high milk production records were made by large cows, and experience shows that large cows are desirable because they have the capacity to consume large quantities of feed that may be used for milk production, but this characteristic must be associated with a strong stimulation to produce milk before any advantage is gained.

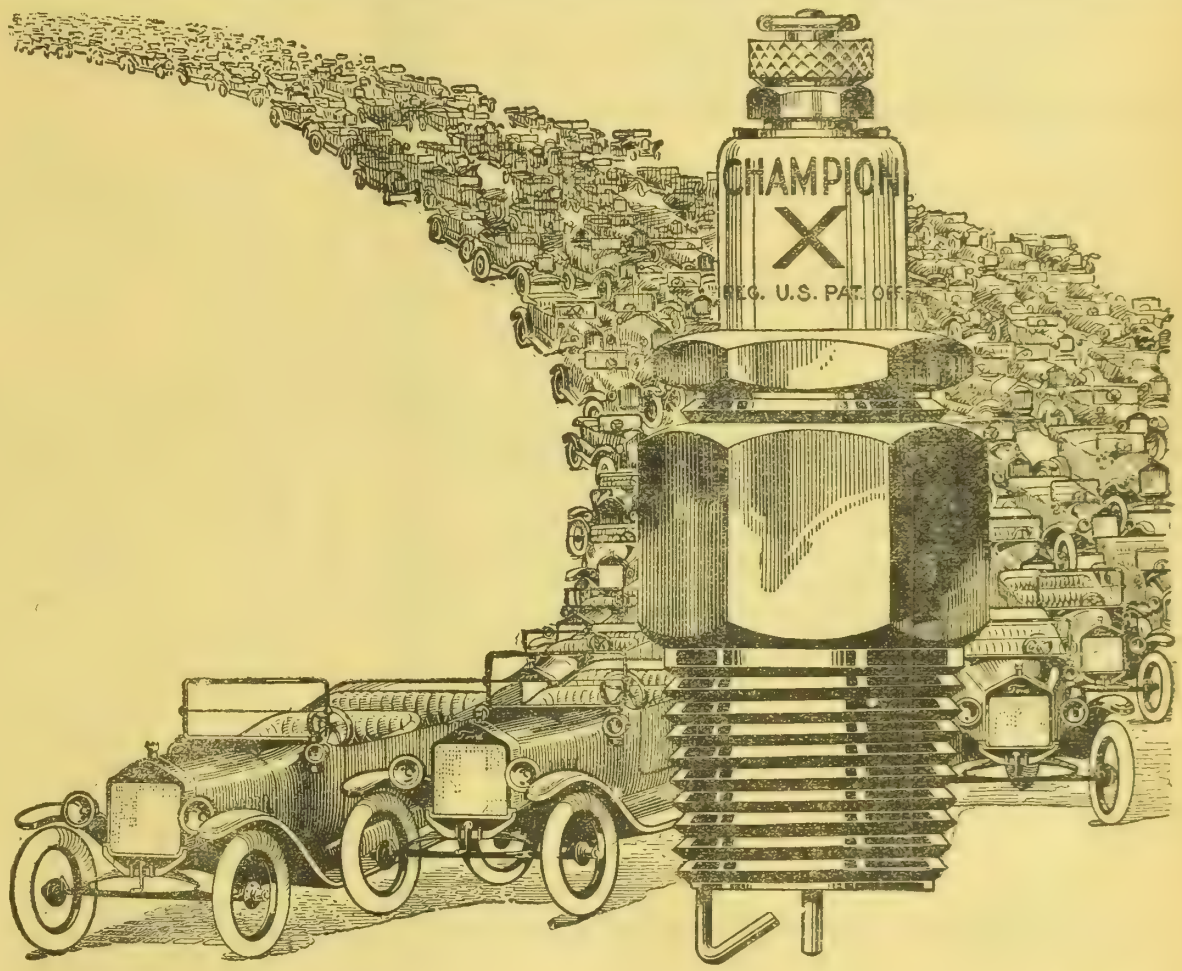
Although heavy feeding promoted large size, it also seemed to have a detrimental effect on the milking functions. This was attributed to the large amount of grain in the ration and was easily noticeable in the Jerseys and to a lesser extent in the Holsteins and Ayrshires. The animals on light feed averaged higher in the production of butter fat, but it must be remembered that the ration for the calves on heavy feed was unusually heavy in order to make the experimental difference as marked as possible. In ordinary feeding practice there is little danger of feeding growing calves so liberally that it would be a detriment later to their milking qualities. After a careful consideration of the breeding of the animals used in the experiment, the conclusion was reached that heredity was a much more powerful factor in influencing the milking qualities than the ration fed during the growing period of the animal.

Age of calving influenced the capacity for milk production to some extent. The highest production was found in the group of cows which were well matured before the lactation period began, and the lowest producers were cows which dropped their first calf before they were twenty months old. The most favorable age for first calving was from twenty-five to twenty-eight months for Jerseys or Guernseys and a little later than this for Holsteins and Ayrshires. Early calving puts the cows in the producing class as soon as possible and must be considered from the economic standpoint, but, after all, the most important thing is maximum production over a period of years, and it is quite probable that a well matured cow will soon overtake in total production the cow whose development was arrested by too early calving. It must be added, however, that very late calving, that is, after three years of age, has no advantage.

The results of the experiment indicate that rate of growth, maturity and size of cow are influenced by the ration supplied during the growing period and also by the age of first calving, while the milking functions are influenced by age of first calving, but only slightly by the ration. As far as milk production is concerned, neither of these factors is as important as heredity. However, to develop the capacity of milk production to its fullest extent, it may be advisable in most cases to provide a liberal ration during the growing period and to delay calving until the animal is sufficiently mature, which is usually between the ages of two and two and one-half years.

Dynamite in Car Lots.

Great interest is being manifested in central and northern Wisconsin in the purchase of dynamite in carload lots and probably Wisconsin will use more explosives this season than ever before in the history of the state. The price of explosives has been rather high, but Mr. Livingston, the state's chief land dealer, has shown the farmers that they do not need to use the highest per cent dynamite in blowing stumps and that as low as 20 per cent dynamite is perfectly good for splitting stumps which have been pulled. The banks are coöperating in the purchase of carload shipments of dynamite, and this work has now extended to include almost 100 Wisconsin communities. The Wisconsin Farmer made some mention of this work in connection with the report of the Eau Claire Land Clearing Conference. Local bankers are urged by the Wisconsin Advancement Association to get behind this plan of furnishing dynamite at lower cost. Explosives may be secured in car lots at almost half the cost of small purchases. The dealers who have been handling explosives have, with one or two exceptions, been glad to waive their profit and to handle the car shipments at cost. Thus the Wisconsin Advancement Association starts the ball rolling by originating the idea. The bankers do their part by advancing the money. The dealer helps by handling the shipments at cost and the farmers and settlers get the benefit. But in the end the farmer will not alone be benefited. Every acre of land cleared will be productive. From his added profit the farmer or settler will buy more goods of the local dealer. He will soon have enough money to pay off his debts and begin making deposits in the bank. Land will all increase in value in Wisconsin when more of the state is cleared and is devoted to profitable farming or dairying, so that the contributors of the Wisconsin Advancement Association will in the end also benefit by the movement which is now on.



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COLANTHA BELLE BOY DUTCHESS (139113)
By Dutchland Colantha Belle Boy (21 A. R. O. daughters) and out of Jewel Dutchess 4th, 30.55 lbs. Watch Steiner's consignment for cows bred to this bull. W. H. Steiner, Brownsville, Wis.

a—HENGERVELD MODEL AAGGIE GRACE (97478) 24.57 lbs., 3 A. R. O. daughters. b—DUTCHESS AAGGIE GRACE (133778), 26.05 lbs., 2 A. R. O. daughters. Two foundation cows in Sid Bird's herd, South Byron, Wis.

CHAMPION JOHANNA DE PAULINE (94988)
A grandson of Colantha 4th's Johanna. Eighteen of his daughters will be in the sale. Consigned by Henry L. Weber and H. W. Bennett, Oakfield, Wis.

This Sale Presents a great opportunity to buy at your own price the best breeding of the oldest and best breeders in the state, representing such families as the Korndyke, King Segis, Johanna, Homestead Jr. De Kol, Canary Paul Fobes Homestead, Model family and others. There are

100 Cows and Heifers

bred to such bulls as Sir Johanna Rag Apple De Kol, 37.09 lbs. butter in 7 days; **Sir Pietertje Ormsby Mercedes 38th, 34.59 lbs. butter; Mercedes 38th;** Sir Johanna De Kol 39th, 32 lbs.; Colantha Belle Boy Duchess, 30 lbs.; Bluebird Canary Butter Boy, 28.30 lbs.; **Adventure Lad, a son of Spring Farm King Pontiac 6th, 26.57 lbs.;** Colantha Johanna Champion 4th, 26.48 lbs.; Ponderosa Pietertje Ormsby, three dams average 32 lbs., 1,000 one year; S. F. Lyons' Cornucopia 2d, 31 lbs. There will be sons and daughters of these bulls.

W. J. Gillette & Sons are consigning 2 daughters of 30-lb. cows. **F. J. Bristol consigns 44 cows and heifers bred to a son of Spring Farm King Pontiac 6th.** His dam, Johanna Korndyke Butter Girl, has a record at 3 years of 26.57 lbs. She will be sold and will also be tested again before the sale.

W. H. Steiner consigns a 21-lb. 3-year-old bred to his 30-lb. sire. He also sells a bull from a 26-lb. dam, 800 lbs. butter one year.

W. P. Kissinger consigns a 20 and an 18-lb. daughter of a 25-lb. cow. Also a 20-lb. daughter of a 25-lb. cow.

S. H. Bird consigns a heifer from an 18-lb. daughter of Homestead Jr. De Kol, 2 from granddaughters of his, also a bull from Pauline Aaggie Grace, 28.30 lbs. butter 7 days, 768 lbs. one year.

S. C. Stanchfield consigns an 18-lb. daughter of a 27-lb. cow.

S. T. White consigns granddaughters of Homestead Jr. De Kol and Mooie Ormsby Count. These are just a sample of the good things we will sell. Catalog ready April 15th. Aucts., Kelly, Haeger & Mack. S. T. Wood in box.

S. H. Bird, *Sale Manager* **South Byron, Wis.**

HENRY L. WEBER AND H. W. BENNETT, OAKFIELD.

ARE consigning 18 daughters of Colantha Champion de Pauline (94988), that was sired by the noted bull, **Colantha Johanna Champion,** that is by Sir Fayne Concordia and out of **Colantha 4th's Johanna,** Wisconsin's most famous dairy cow. The dam of Colantha Champion de Pauline is Johanna Pauline 4th, that produced 91.5 lbs. milk in one day, 25.5 lbs. butter in 7 days and 731.25 lbs. butter in a year. These heifers are splendid individuals, well grown and are from heavy producing cows, which is practically a guarantee that they will be profitable animals to buy.

SID BIRD, SOUTH BYRON.

WE ARE offering some young stock from our herd that are descendants of our foundation cows that have produced a line of offspring noted for their **size, individuality and ability to produce consistently at the pail.**

G. C. STANCHFIELD, FON DU LAC.

IS CONSIGNING 8 cows and heifers bred to **Colantha Johanna Champion 4th (113134).** Record of dam and sire's dam is 30.80 lbs. 7 days and 1,022.25 lbs. 365 days. The consignment includes an 18-lb. daughter of a 27-lb. cow and a yearling bull from a 23-lb. dam and sired by Colantha Johanna Champion 4th.

W. J. GILLETTE & SONS, ROSENDALE.

ARE consigning 4 daughters of **King Peter Lyons (94224),** whose 6 nearest dams average 31.75 lbs. One of these is a 19.35-lb. junior two-year-old out of a 30-lb. cow and another is a 16-lb. daughter of a 30 lb. cow. These cows are bred to **Sir Pietertje Ormsby Mercedes 38th (110161),** whose dam and sire's dam average 35.07 lbs. They are also consigning a 26-lb. son of Sir Pietertje Ormsby Mercedes 38th.

W. H. STEINER, BROWNSVILLE,

IS CONSIGNING 12 head, including 2 bull calves. One of them is out of practically a 26-lb. cow and sired by the **30.55-lb. bull, Colantha Belle Boy Dutchess,** whose likeness is shown in the advertisement. The cows and heifers in the consignment are bred to this 30-lb. bull and constitute a chance for breeding a full sister to Sterling Aaggie Grace.

OLSTEIN SALE

WISCONSIN
26-27

Fifty Head of King Segis and Pontiac Korndyke

red Holsteins

ent Mr. Bristol's Offering. It Is Doubtful if Any Herd in erica Contains as Much Blood of These Two Noted Sires s the One From Which This Consignment Comes.

IE consignment includes 35 head of cows, mostly two and three-year-olds, nine yearling heifers and six bull calves. Practically all the females are bred to **ADVENTURE LAD**), sired by **SPRING FARM KING PONTIAC 6TH**, whose rs are making a big showing and whose dam, Tweede De ss (83182), has a 34.39-lb. record. Spring Farm King Pon- is by Spring Farm Pontiac (66664), that is out of Tweede Lady (83166), 37.45 lbs. **ADVENTURE LAD** is out of **NA KORNDYKE BUTTER GIRL (157802)**, that has s. as a junior two-year-old, 26.57 lbs. as a three-year-old and on test—a splendid prospect for 35 lbs. She is by Johanna ke De Kol (45577), that has a 30-lb. daughter and has the on of being a grandson of Belle Korndyke and Johanna r. **JOHANNA KORNDYKE BUTTER GIRL**, as shown ut, has superior dairy conformation and is out of Crescent Butter Girl, a full sister to the great show cow, **CRESCENT Y BUTTER MAID**, that is not only recognized as one oted show cows of the breed, but also has a 29-lb. junior ar-old record. **JOHANNA KORNDYKE BUTTER GIRL, ISTINGUISHED DAM OF ADVENTURE LAD, WILL BE INCLUDED IN MR. BRISTOL'S CONSIGNMENT.**

consignment likewise includes 15 daughters of **JOHANNA UR LYONS (113137)**. A careful study of his pedigree the fact that he is a direct descendant of the animals which t the acme of Gillette's and Moyer's breeding. People fa- ith Holstein pedigrees recognize the fact that these are two reatest Holstein herds of today—herds which have accom- great things for the breed.

e are also three daughters of **LADY REKA MOOIE**, an- mous show cow; four daughters of Korndyke Hengerveld 22-lb. sister of **JOHANNA KORNDYKE BUTTER** hree nice daughters of De Colantha Champion 8th, a grand- Colantha Johanna Champion; one daughter of **UNEEDA YKE ABIGAIL BOY**, a 33-lb. bull, and a nice six-year- R. O. cow.

more spectacular in breeding are the three sons and three rs of **KING SEGIS PONTIAC POLKADOT**, a full broth- eeding to the $50,000 bull. One of these daughters is out ghter of **KING OF THE PONTIACS** and one of the sons a splendid A. R. O. daughter of **JOHANNA McKINLEY**

seldom that the public has an opportunity to purchase so oice breeding from one consignment and it is questionable le this spring will offer as good an opportunity to purchase s foundation stock as this one.

Bristol : Oakfield, Wis.

JOHANNA KORNDYKE BUTTER GIRL (157802)
20.04 lbs. Jr. 2, 26.57 lbs. at 3 years. Now on test and a good prospect for 35 lbs. Dam of Adventure Lad (165686). She is consigned by F. J. Bristol, Oakfield, Wis.

UNEEDA KORNDYKE DELLA (187913)
Five years old, good individual. She has 4 daughters in the herd consigned by F. J. Bristol, Oakfield, Wis.

ADVENTURE LAD (165686)
Sired by Spring Farm King Pontiac 6th, whose dam, Tweeda De Kol Lass (81382), has 34.39 lbs. Out of Johanna Korndyke Butter Girl (157802) and bred to practically all the females in our consignment. F. J. Bristol, Oakfield, Wis.

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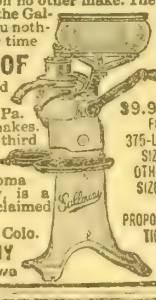

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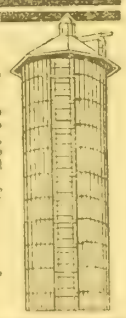

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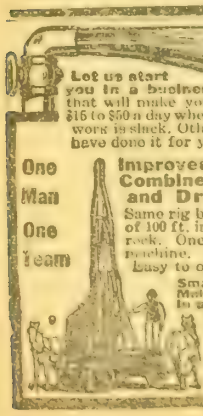

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Small investment; easy terms. Make machine pay for itself in a few weeks' work.

There is a big demand for wells to water stock and for irrigation.

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Lisle Manufacturing Co.
Box 902 Clarinda, Iowa

Preparing the Cow For Her Year's Work.

According to a bulletin recently published by the dairy department of the Iowa Agricultural College, the proper time to begin feeding a cow for milk production is six to eight weeks prior to freshening. She should have at least this length of time to rest and prepare for the next lactation period. The feeds given at this time should meet the following requirements: Rest and cool out the digestive tract, supply nourishment for the growth of the fetus or unborn calf, and build up the flesh and strength of the cow herself.

For the cows that are to freshen during the summer or early fall it is a good plan to have a small pasture set aside so that they may have abundance of pasture grass and not be molested by the other cows. In addition to this, a few pounds of ground oats and in some cases a small quantity of bran will be sufficient. Cows that are to freshen during the winter should receive from twenty to twenty-five pounds of corn silage, all the clover or alfalfa hay they desire and a grain mixture of three parts ground oats, two parts bran and one part oil meal. The amount of grain per day is to be governed by the individual animal. Animals thin in flesh may be given a small quantity of corn, but should not be crowded, but rather fleshed up gradually. Timothy hay and cottonseed meal are not desirable, as they are rather constipating, while laxative feeds are needed at this time. Too large a quantity of corn is likely to have a bad effect upon the system. It is well to reduce the ration slightly just prior to calving, as by so doing the danger of milk fever and after-calving troubles is decreased to some extent.

A few days before calving put the cow in a clean, disinfected, well-bedded box stall. If her bowels are not moving freely, a dose of three-fourths to one pound of epsom salts or one quart of raw linseed oil will prove very beneficial. A grain ration of two parts bran and one part oil meal is very good at this time.

For a few days after calving the cow's drinking water should be lukewarm. In addition to alfalfa or clover hay and a small quantity of silage, she should be fed bran mashes or a small allowance of bran, oil meal and ground oats. If the cow does not pass the afterbirth promptly and the man in charge does not understand the anatomy of the reproductive organs, a competent veterinarian should be called; that should be done also when the cow has difficulty in calving.

If the cow has been properly cared for the first three days she may then be placed on dry and more solid food. The manner in which she is fed during the next thirty days determines largely the character of the work she will do during her lactation period. Experienced feeders of beef cattle realize that thirty days are required to get steers on full feed, and likewise the dairy cow needs to be given thirty days. Without doubt parturition weakens the digestive apparatus and heavy feeding soon after calving is liable to be followed by indigestion, bloat or impaction. During the first thirty days after parturition the maternal instinct is at its highest pitch and during this time, if properly cared for, the cow can be brought to her greatest possible milk flow.

To do this the feeds must be suited to the individual cow's needs. Beginning on the fourth day with five pounds of grain daily, the ration should be increased slowly—say at the rate of one-half pound each alternate day. This rate of increase is rapid enough, for the cow will respond as well to a half pound increase as she will to a pound. This increase may continue just as long as the cow continues to increase profitably in her milk flow. When she ceases to respond, then the feed should be lessened in the same gradual manner for a few days and it will, as a rule, be noted that the cow will further increase in milk flow. The feed given on the day she begins to decline in milk practically determines the amount of grain she should receive. Much less than this amount will not compel her best work and any additional feed will be worse than wasted.

Good Hand Milking.

To the Editor:—Success in dairying depends a good deal upon proper milking. Careless milkers never produce record-breaking cows. The cows under their care will be more likely to degenerate in milk-producing capacity. If we look at it in this way we will know why rough, careless and irregular milkers are always a detriment to the development of a heavy milk-producing herd.

The udder of the cow should be considered as a delicate piece of machinery and handled accordingly. No roughness and no half operations are allowable. There is only one way to succeed in milking in so far as the operation of milking is concerned, only one natural way to get the full yield of milk with ease and without tending to damage the future usefulness of the cow.

The milk cannot be forced out of the udder into the teat until the muscle at the top of the teat where it joins the udder is pressed. As soon as this muscle is pressed the teat fills with milk. Now that the milk is in the teat it remains to force it through the orifice and into the pail and is best performed by placing the fingers about three-fourths of the way around the teat, pressure being used with the ends of the fingers against the palm of the hand. In this way the milk duct is better manipulated than if the fingers encircled the whole of the teat. The whole operation of milking should be carried out by the wrist downward, by the action of the fingers and hand, the arm is never brought into play by good milkers.

Some milkers, in an endeavor to make milking easier, practice "wet milking." In this operation the fingers are usually dipped in milk and the teats kept continually wet during the milking process. Such an unclean habit as this cannot be too strongly condemned. It is only a habit and, although it usually does make milking come easier, dairymen who lay claim to clean barns, clean cows and clean milkers never admit this method of milking in their herds. Dry hand milking should always be insisted upon. Hard milking cows can usually be improved by good milkers who milk with dry hands, while heifers and young cows can be spoiled for future milking by continually practicing wet hand milking.

In my opinion the milker who milks at a medium speed is better than a faster or slower milker. My experience goes to prove to me that the cows thus milked give milk for a longer time than those milked faster or slower and all the strippings are always obtained. Cows that are regularly milked by a fast milker invariably have a lot of strippings which means that at times when the milker is in a particular hurry the cows are not milked "clean" and this is a loss to the owner and injurious to the milk-producing functions of the cow. Of course, the slow milker does not stand much chance, but for choice I would rather have my cows milked by a slow milker than by a fast one. One drawback with the slow milker is that when someone else has to milk the cows, if the new milker should happen to be faster the cows do not appreciate him and, therefore, do not "let down" their milk so well.

It is very important that regularity be practiced in milking. The cows should be milked at as near the same time every morning and evening as possible. The hour at which the milking is done in the morning is the hour at which it should be done in the evening. One of the best ways to cause a cow to decrease in her milk yield is to do the milking at irregular periods. Subscriber.

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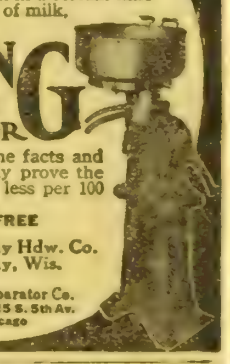

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25 CENTS CALF RENNETS

We pay 25c each for salted rennets from milk-fed calves. Write for price-list. The MARSCHALL DAIRY LABORATORY Madison, Wis.

Methods Employed For Raising Calves.

The method employed in raising dairy cows at the Wisconsin station during the past four years has been satisfactory. It may not coincide with the equally successful methods employed with other dairymen, but it is one which can be recommended.

It is aimed to give the cows of the herd the best care as regards feed, shelter and handling. Six weeks prior to calving, cows are carefully dried off in order to give them a rest from producing milk, which is to be recommended in all cases. During this time the grain ration is continued by feeding two to four pounds of oats and bran or two pounds of bran and one pound of oil meal, the amount depending upon the condition of the cow. It has been observed that this practice gives strength and vigor to the cow and to the calf she produces. The first two to four days the calf is allowed to run with the cow, after which it receives three to five pounds of its own mother's milk three times per day until four weeks old. In some instances if the young calf is small and inclined to be weak a smaller amount at a feed four times per day is fed. After the calf is ten days or two weeks old it usually noses about and will pick up hay or grain. It will sometimes pick up coarse butts of fodder or silage corncobs and swallow them, which is very sure to bring on a case of indigestion and sometimes serious difficulty. One should be careful to see that in the feed or bedding there is nothing of this character to cause the difficulty.

During the fifth week the milk is gradually changed to skim milk. The amount is not increased until about the eighth week, when the calf can be fed eight pounds twice per day. A small amount of grain and dried clover or alfalfa is placed before the calf ater it is ten days to two weeks old, the grain is fed immediately after the calf has taken milk. The feeding pails, stable and calves are kept as clean as possible and plenty of pure air is provided. The calves are kept on a cement floor over which are laid boards to keep calves off cold cement. The stable should be kept warm.

A small amount of corn silage is fed after the calf is a month or six weeks old. During the first summer the calves are fed regularly in the barn and turned out for exercise in shady paddocks or during nights only.

What Our Dairymen Are Feeding.

(Continued from page 11.)

method of feeding report satisfactory results. Many who did not buy enough feed in the fall, paid as high as $38 per ton for dried brewers' grains and bran in the month of March. As spring came on dried brewers' grains were not obtainable and the ration was changed to bran, twenty pounds; oats, twenty pounds, and sixty pounds of R. K. D. feed and used with fair results. Succotash composed of wheat and oats have given good results when fed as follows: Fifty pounds dried brewers' grains, fifty pounds succotash. Another good grain ration is thirty pounds succotash, fifty pounds dried brewers' grains and twenty pounds bran. My experience is that it is best for farmers to club together in the fall and buy their feed in car lots either through the local dealer or coöperative stores. This should be done even if it is necessary to borrow money to do it. The cow tester is in a position from his experience to advise the best feed, prices and analysis of feeds considered. Dried brewers' grains we found to be about the best, considering the protein content, at the prices prevailing last fall. When a number of farmers belong to the equity association they quite frequently consult the cow testers relative to feeds which they ought to buy. Personally I think it is advisable to compose a grain ration in this section with the addition of some mill feeds. I think that is the way to get the best results. Some high protein feed is absolutely necessary. Of course, good silage and good clover hay lessen the amount of grain necessary to produce a satisfactory ration. We have found that good shredded corn fodder is better than timothy hay. Clover hay cured in the cock after wilting for one week and then hauled into the barn gave the best results next to second crop clover hay. We also found a small amount of oat straw was relished by a great many cows, this giving a variety to the ration. I believe the number of cows the farmer should keep should be determined to some extent by the amount of hay and silage he can raise because as a general proposition one-half or more of his grain ration must be purchased. R. A. Boyd.

Chippewa Co., Wisconsin.

Grain-fed Cow Best Summer Producer.

To the Editor:—The farmers around River Falls and Roberts were obliged to make some changes in their feeding this winter and spring due to snowstorms which blocked trains and also to the fact that there was a shortage of feed on hand. Some of our herds were obliged to go with very little feed part of the time. I am well aware that some believe it does not pay to feed grain to the cows at the present price of feed, but it is my judgment, considering the present price of butter fat, that they cannot afford to take it away from the cow. It may be true that a cow which is not producing very great quantities of milk would not pay much of a profit on grain feed, but the cow producing a fairly good quantity will surely pay out, as you cannot count on all of the profit in the wintertime. A grain-fed cow will produce considerably more in the summertime than one which has had no grain during the winter months. C. G. Carlson.

Official Tester River Falls and Roberts Association.

Cow Testing Reports.

Westby Association.

To the Editor:—This association had twenty-eight cows in the forty-pound list during the twenty-eight days of February. Eight of these gave over forty-five pounds of butter fat. A pure-bred Holstein owned by the Vernon County Farm produced 63.7 pounds of fat. During the month she made a seven-day A. R. O. record of 24.29 pounds of butter. The second best record for February 52.6 pounds of butter fat, was made by a registered Holstein heifer, three years old, owned by C. O. Olson, of Westby. The forty-five-pound list for February follows:

Owner and breed	Age	When fresh	Lbs. milk	Lbs. B. fat
J. T. Anderson				
Gr. Guern.....	7	2-1-17	946	49.2
M. Dahlen				
Gr. Guern.....	8	1-15-17	875	45.6
Gr. Guern.....	6	12-23-16	776	45.1
A. Lee				
Native	6	1-20-17	938	48.7
C. O. Olson				
R. Hol.	3	12-26-16	1509	52.6
Vernon Co. Alms Farm				
R. Hol.	4	1-22-17	1593	63.7
H. Buchanan				
R. Jersey	5		782	49.3
F. Johnson				
Gr. Guern.....	7	1-20-17	945	49.1

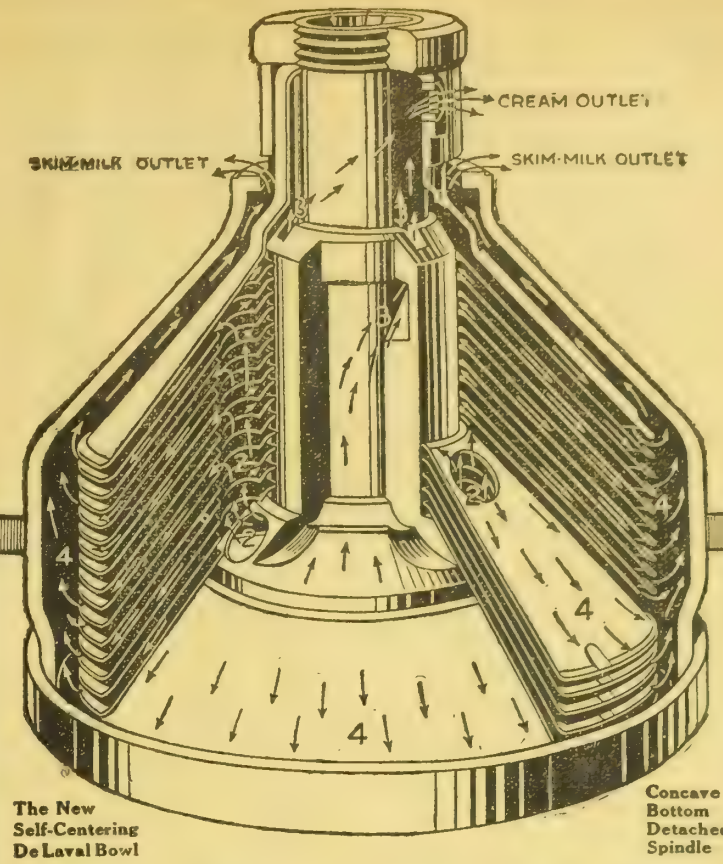
Ross N. Root,
Official Tester Westby Association.

Alban and New Hope Association

To the Editor:—We have succeeded in weeding out ten more unprofitable cows in the month just past. One member has bought a pure-bred bull. A grade Guernsey, nine years old, took the banner with 1,299 pounds of milk and 71.5 pounds of butter fat. The J. P. Madsen herd of ten Guernseys, again wins the herd honors with an average of 805 pounds of milk and 36.2 pounds of butter fat in thirty days. Mr. Madsen received $162.79 for his product, paid $67.10 for feed, netting $95.69. The following is our forty-six-pound list for the thirty-day period ending February 10th:

Owner and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
G. J. Olstad					
Gr. Hol.	6	10-18-16	1208	4.2	50.7
Native	5	11-28-16	1386	3.3	45.7
C. E. Ericksen					
Gr. Guern. ...	3	12-23-16	1141	5.2	59.3
Native	3	1-1-17	915	5.3	48.5
O. A. Colrud					
Gr. Hol.	4	12-13-16	1240	4.1	50.8
Anton Brekke					
Gr. Hol.	2	1-4-17	1271	3.9	49.6
Norman Dahlen					
Gr. Guern. ...	3	11-1-16	973	5.5	53.5
Gr. Guern. ...	5	11-4-16	1200	5.0	60.0
J. P. Madsen					
Gr. Guern. ...	5	11-27-16	911	5.2	47.4
E. O. Hellum					
Gr. Guern. ...	10	11-17-16	1132	5.8	65.7
Native	6	1-14-17	1053	4.8	50.5
John Mork					
Native	4	1-18-17	1054	4.3	45.3
M. J. Wrolstad					
Gr. Guern. ...	9	1-10-17	1299	5.5	71.5
Gr. Guern ...	3	11-16-16	1028	5.8	59.6
Gr. Guern. ...	3	10-26-16	1043	5.2	54.2
Gr. Guern. ...	7	11-19-16	905	5.1	46.2
Gr. Guern. ...	5	1-1-17	961	5.2	50.0
C. O. Wogsland					
Gr. Guern. ...	8	12-16-16	827	5.8	48.0
Gr. Guern. ...	7	11-20-16	921	5.0	46.1

M. E. Smith,
Official Tester Alban and New Hope Association.



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The construction of the New De Laval keeps it in a class by itself.

It outlasts and outwears all other makes by far, and can be run with much less cost for repairs.

The world-wide De Laval organization, with agents and representatives in almost every locality where cows are milked, ready to serve you, insures that the buyer of a De Laval will get quick and valuable service when he needs it.

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The New De Laval has greater capacity than the 1916 style, is simpler in construction, has fewer and interchangeable discs, is easier to wash, and the skimming efficiency is even greater.

Each New De Laval is equipped with a Bell Speed Indicator.

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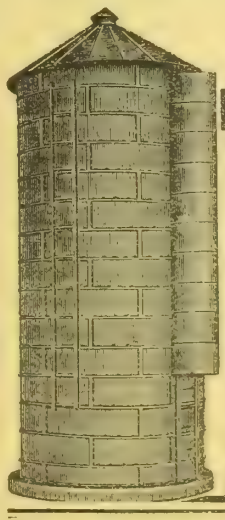

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Resists fire to the fullest extent and is storm proof. No skilled labor required to erect it. Can be increased in height any time.

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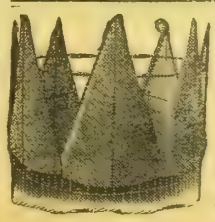

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Skims clean at any Speed
SEPARATOR
THE SHARPLES SEPARATOR CO. West Chester, Pa.

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SINGLE Comb White Leghorns. Sweepstake winners. Every egg tested before shipped. Heavy layers. Circular free. Incubator eggs from high egg producers $8.75 per 100. O. J. Hellum, Menomonie, Wisconsin.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

HATCHING EGGS! S. C. White Leghorns; heavy layers and prize winners; 15 eggs $1.50; 30, $2.75; 50, $4.50; 100, $8.00. Marathon Poultry Yards, Geo. Syler, Marathon, Wisconsin.

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WHITE Orpingtons hatched from Mrs. Harnly's best pens that produced her famous Pan-American Winners. Eggs $3.00; utility $1.50. Wm. D. Mann, Highland Park, Illinois.

16 PRIZES, Iowa State Poultry Show. Silver Wyandottes, Barred Rocks and Black Polish. Breeding birds and eggs for sale. Wm. Neiers, Box F, Cascade, Iowa.

LISTEN—Silver Spangled Hamburger hatching eggs for sale, very pretty, and heavy layers; $2.00 per setting, $9.00 per 100. H. Kallies, Zachow, Wisconsin.

SINGLE Comb Buff Leghorn eggs from heavy laying, solid buff stock. Settings $1.00; 100 eggs $5.00. Arthur Worthington, R. 7, Manitowoc, Wisconsin.

WHITE Rock hatching eggs; Halbach and Fishel strains; prepaid 15 for $1.50; 50, $4.00; 100, $7.50. Roy Richards, Lodi, Wis.

CHOICE S. C. Red eggs, $3.00 per fifteen; winners ten years; good matings, $1.50, or $5.00 per 100. Wm. Wichern, Baraboo, Wisconsin.

FOR SALE—Black Minorcas, R. C. Reds, Plymouth Rocks, White Leghorns; both sexes, $2 each. John Simon, Campbellsport, Wis.

WHITE Plymouth Rocks; eggs for hatching; seven grand matings; write for mating list. A. F. Poltl, Hartford, Wisconsin.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

BARRED ROCKS—Utility eggs: 15, $1.50; 100, $6.00. Mrs. Chas. Liegenthaler, R. 1, Lynxville, Wisconsin.

SCOTTISH TERRIERS. Great rat, watch, pet, stay home little dog. Price list 5c. S. Harr, Riverside, Iowa.

FERRIS heavy laying strain White Leghorns. Eggs $5.00 per 100. Harry D. Dunbar, Elkhorn, Wisconsin.

ENGLISH Penciled Indian Runners. White eggs $1.50. Wm. D. Mann, Highland Park, Illinois.

SILVER Wyandotte setting eggs for sale; fertility guaranteed. John Lannon, Decorah, Ia.

TAME WHITE RABBITS; beautiful pets, $2 per pair. E. Harr, Riverside, Iowa.

PURE-Bred White Rocks. Address "Kremers", Whitehall, Wisconsin.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

AUTO FOR SALE OR TRADE.

FOR SALE OR TRADE—1916 Reo automobile in good condition; will sell reasonably or trade for registered Short-horns. Write E. J. Stanek, Dilly, Vernon County, Wisconsin.

TELEGRAPHY.

YOUNG MEN! Learn telegraphy. Railroads want operators. Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

FARM LANDS.

FOR SALE—One of Wisconsin's best highly improved farms. If you want one made to order don't think you could improve on it. 229 acres all in one body. 180 acres under plow. 20 acres woodland with underbrush removed, balance pasture. All of his can be plowed as this pasture has no stumps or underbrush. No waste land. All heavy, clay loam soil, same as the best in southern Wisconsin. Lays fairly level, just enough slope to give the same good drainage. Nice 9 room house, lawn, grove, large basement barn 36x84, cement floor, gas and windmill water system. Other buildings. 4½ miles from Ry. town and seven miles from county seat, city of 3,500. Fine neighborhood. Corn, cattle, hogs main crop. Price $110 per acre, easy terms, worth more. Ry. fare refunded if not found as advertised. Write H. C. Inenfeldt, owner, Menomonie, Wis.

NORTH DAKOTA is essentially an agricultural state. In past five years it ranked first in production of wheat twice; twice it was second and once third; always first in production of spring wheat; also flax, equalling production of all other states. Once it was first in barley—never below third; never below seventh in rye or oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. Murphy, Immigration Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minnesota.

OREGON & CALIFORNIA RAILROAD CO. grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

THIS LAND HUNGER, so evident now, is going to result in practically taking the most of our available dairy lands in Aitkin County, therefore, this is a warning to you, if you intend to get any of it, you should act without delay. For the first step, send your name and address so that we can forward out illustrated literature showing what others are doing and what you can do, if you will. Write Arnold, Land Agent, Rock Island Railway, 153 Wolvin Bldg., Duluth, Minn.

STRICTLY First-class Land. 92 acres richest black silt and clay, largely level surface, with improvements, at only $35 per acre. The kind of land that produces big, hard maples. Only 4 miles town over gravelled boulevard, 1 to school, near lake. Send for description of improvements and further particulars. Baker, B-110, St. Croix Falls, Wisconsin.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription, FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T. & S.F. Ry., 1959 Ry. Ex., Chicago.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You'll deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

120 ACRES, 60 clear, 20 pasture, 40 good wood, good frame buildings; school-house adjoining land, cheese-factory ¾ mile; 6 miles to Wausau, 2½ miles to Kelly Station. With all stock, crops and machinery, will sacrifice at $7,500.00; $2,000 cash, balance on easy terms. Wm. Albrecht, Jr., Wausau, Wisconsin.

A TRUCK FARM BARGAIN of 9½ acres in city of 10,000 inhabitants; good buildings; a money maker; death of owner necessitates sale; $3,300; $1,600 cash; The E. L. C. Co., 121-M, Dept. 10, Merrill, Wisconsin.

UPPER WISCONSIN—Clover belt—Farmers grow rich. 40-80 acre tracts. Mile station. Good roads, schools, churches. $20-$30 acre. ¼ down, balance easy. R. J. Russell, La Crosse, Wisconsin.

EIGHTY acres sugar maple, clay loam land with buildings. $30 per acre. Very easy terms. Close to towns. No waste land. Write F. M. Doyle, Immigration Agent, Ladysmith, Wisconsin.

HIGH class dairy farms, partly improved farms, and choice unimproved cut over hardwood land in wonderful Central Wisconsin. Pictorial bulletin free. Adam Paulus, Marshfield, Wis.

MARATHON COUNTY, Wisconsin, improved farms $25.00 per acre and up. Unimproved farms $15.00 per acre and up. Free list and map. Wm. Albrecht, Jr., Wausau, Wisconsin.

80 ACRES, Barron county, 71 acres free from stumps, balance is brushed, good soil fine water. Price $6,800. Jacob Gabriel, Owner, R. 3, Box 35, Rice Lake, Wisconsin.

92 ACRE FARM, $2,300; 50 acres cleared; balance pasture; gently rolling; clay loam soil; house and barn; station 1 mile, school ¼ mile; cash $1,000. The E. L. C. Co., 123-M, Dept. 10, Merrill, Wisconsin.

HAVE two farms for rent; might sell or trade one for town property. M. A. Peoples, Ladysmith, Wisconsin.

A 62-ACRE farm, well improved, for sale; write for particulars. Lawrence Guenthner, Antigo, Wisconsin.

MARATHON County Farms for sale. Bargains. Geo. Ruger, Cashier State Bank, Marathon, Wisconsin.

640 ACRE Montana Homesteads—New law. Circular free. Bureau 46, Boulder, Montana.

TAIL HOLDERS.

COWS' tail holders, post paid; sample 12c, 5 or more 10c each. F. C. Gieseker, Elmwood, Wis.

"Beef farming" requires comparatively little labor, or expensive equipment. It is without doubt one of the best ways to utilize to the fullest extent Wisconsin's large areas of rough and broken lands, which otherwise would be barren and useless for supplying humanity with food at this critical time.

Canada Offers 160 Acres Land Free to Farm Hands

Bonus of Western Canada Land to Men Who Assist in Maintaining Needed Grain Production

The demand for farm labor in Canada is so great that as an inducement to secure at once the necessary help required, Canada will **give one hundred and sixty acres of land free as a homestead** and allow the farm laborer, who files on land, to apply the time he is working for other farmers as residence duties the same as if he had lived on the land he had applied for. This offer made onl yto men working on Canadian farms for at least 6 months during 1917, thus reducing the necessity of actual residence to 2 years instead of 3 years, as under usual conditions. This appeal for farm help is no way connected with enlistment for military service, but solely to secure farm laborers to increase agricultural output. A wonderful opportunity to earn good wages while securing a farm. Canadian Government will pay all far over one-cent per mile from St. Paul and Duluth to Canadian destination. Information as to low railway rates, etc., may be had on application to

GEORGE A. HALL
Canadian Government Agent
123 Second St. Milwaukee, Wis.

80 ACRE IMPROVED FARM

THREE miles from Coleman, Marinette County, Wisconsin. 65 acres under plow, balance pasture. Good live creek runs through the 80. Fair house and barn; new tile silo. Price only $9,000.00 with lots of personal property. This is a big snap. One-half cash, balance on time. G. W. Ristau Land Co., Dept. A, Kaukauna, Wis.

POOR MAN'S CHANCE—$5 down, $5 monthly, buys 40 acres, grain, fruit, poultry land; near town. Price $200; $10 monthly buys 80 acres. Address Box 425-H, Carthage, Missouri.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippewa Falls, Wis.

SEEDS.

FEW Rockhill Strain Progressive Strawberries, best everbearers, guaranteed with proper care to fruit this season abundantly. $1.50 per hundred postpaid, 30c per doz. Fruit Supply Ranch, Box 195, Baraboo, Wisconsin.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

STRAWBERRY plants, 250 best 3 varieties $1, $3.50 per 1,000. Fresh plants by parcel post. C. R. Tuttle, Baraboo, Wisconsin.

FOR SALE—Pedigree Barley No. 5; Pedigree Oats No. 1 and No. 5; also Timothy seed H. P. West, Ripon, Wisconsin.

BLACK HILLS ALFALFA SEED; $6 per bu. For sample send stamp to Brookside Farm, Buffalogap, S. D.

GOLDEN Glow seed corn, fire dried; write for circular; satisfaction guaranteed. Burg Bros., Peebles, Wisconsin.

FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck Spring Green, Wis

PRINTING.

GIVE your farm a name and let us print it on your letterheads and envelopes. Be up to date. 100 for 40c, 300 for $1, 500 for $1.50, post paid. Address S. Anderson, Route 8, Green Bay, Wisconsin.

100 ENVELOPES, neatly printed, 40c; 300, $1; 500, $1.50, prepaid. Samples free. Andrew Christianson, Manhattan, Ill.

GOVERNMENT POSITIONS.

MEN AND WOMEN, 18 or over, wanted for U. S. Government life jobs; $75.00 to $150.00 month; steady work; short hours; rapid advancement; common education sufficient; write immediately for free list of positions now easily obtainable. Franklin Institute, Dept. B176, Rochchester, N. Y.

HELP WANTED.

WANTED—Reliable young single man for general farm work; no booze or cigarettes; state wages and experience in first letter. Fred Hasey, Rio, Wisconsin.

PERCHERON STALLIONS.

BLACK PERCHERON STALLION, 4 years old, bargain. Also August Chester White boars, priced right. John Simon, Campbellsport, Wisconsin.

SHORT-HORN BULLS.

FOR SALE—One reg. Short-horn bull; wt. 1,150; red, 1½ yrs., price $130.00. Cherry Grove Stock Farm, Oregon, Illinois.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

HAMPSHIRE SWINE.

HAMPSHIRES for sale. 25 bred sows, fall boars and gilts. L. C. Wilsie, Brandon, Wis

There's Money in Honey

Most of us know something about this honey-money and most of us appreciate the value of bees to the orchardist; but what so many of us *don't* know is the positive enjoyment to be gotten out of bee-keeping; the simplicity of it, and how very little it takes to make the right kind of a start. Write for

SPECIAL OFFER TO BEGINNERS Where you live doesn't matter—how much or how little space you have available for hives doesn't matter—nothing new even about pounds of delicious, ready-selling honey from small backyards.

If you already have the bees working for you, you'll be interested in the advantages of the

Root Double-Walled Buckeye Hives Keep the bees warm in the winter—no matter what the outside temperature.

Send for
COMPLETE DESCRIPTIVE CATALOG
of Root bees and bee-keeper supplies—tools, clear glass jars, honey-comb cartons, section honey boxes and shipping cases, etc.

THE A. I. ROOT CO.
Medina, Ohio

Buy Your **COFFEE** WHOLESALE IN 5-LB LOTS
Get the BEST and SAVE 10 cts per pound.
WE PAY POST, EXPRESS or FREIGHT
IF YOU LOVE GOOD COFFEE SEND FOR PRICE LIST
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Holstein Chickens

DON'T discourage prospective buyers of your stock by letting them see a lot of scrub chickens in your yard. If you believe in the Holstein Cow, send for my booklet on Black Minorcas, the Holsteins of the Chicken World.
R. C. O'HEARN, R. 1, MELROSE, WIS.

S. C. WHITE LEGHORNS

RANGE raised, bred especially for eggs; hatching eggs from 2-yr.-old hens: $2 for 15; $6 for 50; $10 for 100; 200 or more $9 per 100. Day-old chicks, $6 for 25; $11 for 50; $17 for 100; 200 or more, $15 per hundred. Order early; first come first served. Green-Wood Poultry & Egg Farm, R. 5, West Allis, Wisconsin.

White Plymouth Rock Eggs for Hatching

FROM the best of stock that will produce large, vigorous birds of the highest class. Satisfaction guaranteed. Order direct from this ad. Eggs, $2 per 15, $3 per 30, $4 per 45, $8 per 100.
Chas. L. Berry Iowa City, Iowa

WANTED TO BUY

TOULOUSE geese eggs, turkey eggs, Golden Wyandotte eggs, and other varieties; also pure-bred poultry of all varieties.
Z. G. McKay Lyons, Iowa

HATCHING EGGS

S. C. RHODE Island Reds: from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

FOY'S BIG BOOK FREE

POULTRY AND SQUABS FOR PROFIT. An encyclopedia of poultry information. Written by a man who knows. Leading varieties of poultry and pigeons in natural colors. Low prices on fowls and eggs. FRANK FOY, Box 82 CLINTON, IOWA

BARRED Plymouth Rocks and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, Matthews, R. 24, Ind.

WHITE PLYMOUTH ROCKS

HALBACH strn.; eggs for hatching: $1.50, 15; $3, 30; $7, 100. Satisfaction guaranteed order from this ad. Jno. H. Berry & Sons, R. 6, Ia. City, Ia.

RHODE ISLAND RED HATCHING EGGS!
FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R. E. Daly Poultry Farm, Necedah, Wis.

KULP'S 242-EGG STRAIN ROSE COMB

BROWN Leghorn chix, 100, $12; 100 eggs $4, 15, $1. Mrs. N. M. Smith, Packwood, Iowa.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S. C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS: prize-winning S.C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. reds, prize-winner, all leading shows. Eggs 1.50, 15; 8. 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

PURE R. C. Rhode Island Red chickens; reliable eggs for hatching, $1.25 for 15, $5.00 per 100. Fred M. Smith, R. 7, Elkhorn, Wisconsin.

EGGS—BABY CHICKS 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

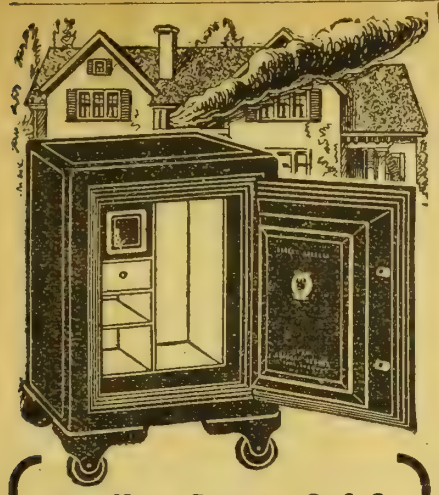
ROCKS—Pure-bred White and Barred. Day-old Chicks, hatching eggs. Early hatched cockerels reasonable. Mrs J F Bloom, Route 1, Stillwater, Minn.

BARRED Rock eggs, E. B. Thompson Ringlets; $1.75 per 15, prepaid; also a few choice cockerels. David Thorson, Baldwin, Wisconsin.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box 8, Janesville, Minn.

R. C. REDS, Partridge Rocks, eggs $1.50 per 15; choice pen of each for sale. Address W. E. Rice, Delavan, Wisconsin.



Are Your Papers Safe?

Fire may wipe out your life work by destroying your valuable records, books, papers. Do you realize how vitally important a fire-proof safe is to every farmer? It's fool-hardy to be without one.

VICTOR FIRE PROOF SAFES

will bring your papers, valuables, safely through any fire. Instances on record where they have survived the worst fires—kept their contents unharmed—when other safes did not. Made with every fire-proof, burglar-proof feature. Last a lifetime. A Victor Fife-Proof Safe for $30. Larger sizes up to $90.

Send for circular showing, describing Victor Fire-Proof Safes.

John Meunier Gun Co.
Dept. A, 272 Water Street
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Queen Brooders

Save the Chicks

They help you raise the little chicks in **all kinds of weather** with safety and success. Perfect protection, day and night, indoors and outdoors, any time of year. Constructed of seasoned hardwood, with mortised corners bound with galvanized iron and painted two coats. Heater keeps just the right temperature and ventilating system provides plenty of **fresh warm air** without drafts. Made with two floors. Under heating drum floor is cut away and galvanized pan used which may be filled with earth or sand, and removed easily for cleaning. Upper floor divided into **brooding room and sun parlor.**

Queen Brooder Stove

is the only stove that has draft to increase the fire and check draft operated together by the regulator. Ask for complete Incubator and Brooder Catalog showing sizes and prices. We can ship quickly.

QUEEN INCUBATOR CO.
1175 N. 14th St. Lincoln, Nebraska

$8.55 Buys World's Champion Belle City Incubator

140 Egg Size Prize Winning Model—Hot-water—Double-walled—Copper Tank—Thermometer Holder—Deep Nursery—Self-regulating. When ordered with **$4.85** Hot-water **140** chick Brooder, both cost only **$12.50.**

Freight Prepaid East of Rockies

Satisfaction Guaranteed

Over 524,000 Satisfied Users

Save time—Order Now—Share in my **$1,000 Cash Prizes**

Conditions easy to get biggest Prize—Free Book "Hatching Facts" tells all—Gives short cuts to Poultry Success—Write for it today. Jim Rohan, Pres.

90 Days' Trial

Belle City Incubator Co., Box 106 Racine, Wis.

RAT & LICE PROOF COOP

Here's the coop you poultry keepers have prayed for. Saves your chicks from vermin and weather. The perfection

APSA Galvanized STEEL BROOD COOP

at BARGAIN PRICES now cheaper than wooden ones. AM. POULTRY SERVICE ASS'N, Box 146 Kansas City, Mo.

Write for illustrated Folder Special Prices FREE

Both Machines Made of California Redwood

130 Egg Incubator and Brooder Both for $10

If Ordered Together. Freight paid east of Rockies. Hot water copper tanks, double walls, dead air space, double glass doors, all set up complete, or 180 Egg Incubator and Brooder $12.75. FREE Catalogue describing them. Send for it TODAY or order direct. (2)

Wisconsin Incubator Co., Box 100 Racine, Wis.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Lippincott Talks Brooding.

Some simple suggestions on brooding chicks have been obtained from W. A. Lippincott, head of the poultry department of the Kansas State Agricultural College, who at present is taking special work at the College of Agriculture, University of Wisconsin.

"The best brooder made cannot hatch strong chicks from puny stock. Be sure of vigor, or do not attempt to hatch.

"Where vigor is present, incubator-hatched chicks are better than hen-hatched chicks for artificial rearing. Further, they are not usually handicapped with lice.

"The first four weeks in a chick's life are the most critical. One should not be in a hurry to take chicks from the incubator. Leave them alone until they show signs of being hungry.

"After the brooder is well regulated, attend to bedding the hover. Do not use sand, chopped straw, or chaff, which may be eaten by the chicks. Clogged digestive tracts often result in heavy losses. Bed the hover with alfalfa leaves, alfalfa meal, or bran. It may seem expensive, but it is a 'safety first' precaution.

"Don't let the hover bedding get foul or sour. Change it often, using soft straw after the first few days.

"By far the most essential thing to watch in feeding brooder chicks is the sweetness of the feed. Musty or moldy grain, kept long at high bin temperatures, is dangerous. Pick up a handful of the feed and smell it thoroughly—bury the nose in it.

"The old hen, that keeps chicks on the move, feeding them a little at a time, here and there, should offer a good example. Wise poultrymen feed little, and often, to afford exercise and keep up keen and healthy appetites in the brood.

"Feed five times a day during the critical period. Mashes should be fed dry and cracked grain may be scattered in the litter. There is no best ration for chick feeding.

"With all rations, whatever they are, plenty of sour milk or buttermilk should be included. Milk is the one most important chick feed.

Poultry Association Officers

The Wisconsin Poultry Breeders' Association, in a recent vote by mail, elected the following officers: President, George W. Hackett, North Freedom; vice president, J. G. Halpin, Madison; second vice president, E. L. Bemis, Fond du Lac; secretary-treasurer, Hyliger De Windt, Oconomowoc; members of executive committee, H. W. Halbach, Waterford; T. J. Berto, Watertown, and W. H. Lambs, Waupaca, tied with E. G. Roberts, Fort Atkinson, for the third place.

Question For Poultry Raisers.

To the Editor:—I have been reading with interest what The Wisconsin Farmer has to say about poultry and especially on disease among chickens, but I have not yet heard of anyone with the same complaint in their flock as I have had in my flock this past year and I have not been able to find a remedy for them as yet, even though I have been trying different remedies, and so I come to The Wisconsin Farmer or some of its readers for advice and I hope to get help.

My chickens don't all act alike. Some stand around or sit around on the roosts acting stupid and lifeless. Their heads do not look really pale; neither do they get very light in weight, although they do not eat much and the first thing we know they are dead. Now I know it isn't cholera or liver trouble, for I have seen chickens with that trouble. And then another trouble is that they get lame. As much as I can see the lameness is in the legs. It seems to start in one leg first, then after while it is in both legs and they get so lame they can hardly walk and the lameness continues to get worse all the time. Yet they seem to eat well and they will sometimes linger on that way for weeks before they die. Can you tell me what the trouble is with both of these ailments and also a remedy for them? I have a nice, dry henhouse and keep it clean and give them a variety of feed and plenty of clean water. They always have oyster shells to eat and poultry charcoal; in fact, I give them the best of care. Yet they do not do as well in laying as they should, considering the number of hens that I have. Now if you can give me any advice as to what I can do for diseases of this kind I certainly would appreciate it and if need be you can publish the question in The Wisconsin Farmer. I only hope I can find a remedy for them soon and will be glad to have any of your readers answer me through the columns of this paper. Mrs. John Grunewald.

Walworth Co., Wisconsin.

SAVE YOUR CHICKS—FREE.

Write the Wight Company, 43 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save 40 chicks from White Diarrhea.—Adv.

Coal Will Keep But Low Prices Will Not

Buy Your Coal Now

Save $2 to $4 on Every Ton

TECUMSEH Coal customers proved that it paid to buy coal early. The high prices of 1916 found them prepared. Early coal buying saved them big money. Don't wait till the snow flies and pay the high prices. Every ton of Tecumseh Coal you buy *now* saves you dollars and protects you from higher prices that are *sure* to come.

Tecumseh is mined in Indiana from that famous number five vein which is reported to produce the *finest* soft coal mined in the Middle West.

Tecumseh Coal

$2.50 Per Ton During April

During April only **Tecumseh will sell for $2.50 per ton in carload lots, F.O.B. mines**

Think of it! *Guaranteed weight* and *guaranteed quality coal* at less than half what you've been paying. Every pound of Tecumseh Coal is absolutely guaranteed to produce 13,400 B. T. U.'s with only 9% ash and 9% moisture. That means more heat, less waste and a lower cost per ton. Tecumseh is pure coal, clinkerless, free burning and the kind that will hold fire over night. Don't you think Tecumseh deserves your investigation?

Thousands Testify to Tecumseh Quality

November 17, 1916
Every individual is more than pleased with the quality of your coal and all declare that the Tecumseh Coal will be the only coal used in the future. Kindly quote me prices on a quick shipment of another car.
Signed (Name and Address furnished on request)

December 1, 1916
Tecumseh Coal is equal to coal for which I have paid $7.00 a ton. It is too bad that I didn't buy ten cars instead of one, but nevertheless it taught me a lesson. Next year I will have all coal shipped during the summer. Signed (Name and Address on request)

Don't Buy a Carload

If a carload is too much for you we'll show you how to buy what you need at our low mine prices. Just tell us to explain the famous Tecumseh Coal Club Plan. It has been a wonderful help to hundreds of families.

"The Man Who Did" explains the coal situation and what it means to every coal user. It tells why it will pay you to buy Tecumseh Coal *early* and the money you can actually save. Send for your copy today.

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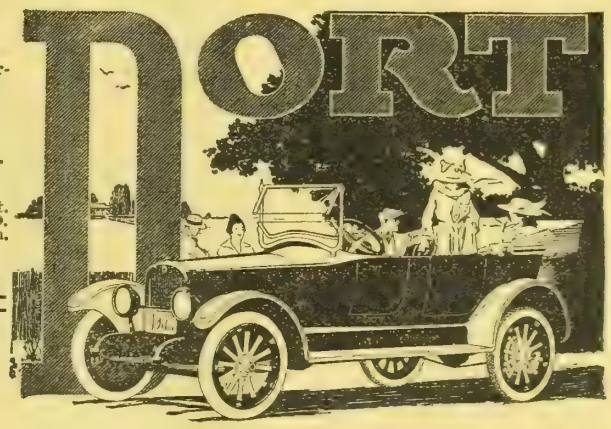

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This Dort slogan is honestly descriptive of the thorough, quality construction of the Dort car.

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

On Living Alone.

Being alone is looked upon by some people as the greatest of calamities and any associate is snatched by them in order to prevent solitude. It seems to me a strange attitude, for I cannot help but feel that solitude and association get together to help round out one individual. An occasional period when one can be by himself gives the only opportunity of checking up his relation with the world. Someone has said that the person who can find the reasons for things in his life—the correct reasons—is the one who finds success. Without a moment to oneself, the reason for this gain and that loss are passed over without a thought, unless an outside influence should chance to force them into prominence. —[Eleanor Craig.

Starch From Small Potatoes.

When the potatoes are sorted over on the farm there are always several bushels of small ones. These small potatoes, even the very tiniest, need not go to waste. When they are sorted out, wash them thoroughly with a vegetable brush. Then grate them without removing the skins, or run them through a meat grinder. Pour clear water over the gratings and let them stand for a few hours. Remove the peelings and other foreign substances from the top. Then add more clear water and allow it to stand overnight, so the starch granules will settle to the bottom. The next morning scrape off the dark part of the starch again, strain it through a cheesecloth bag and allow the water to evaporate from it. This starch may be used in making cornstarch puddings, for the thickening of salad dressing, in milk dishes such as custards and ice creams, and also in pudding sauces. It is not much trouble to make the starch. A bushel of potatoes makes a quart and a half of starch and there is no expense to the preparation.

About Whipping Cream.

Richness, age and cold are essential in whipping cream. By richness is meant 30 to 40 per cent cream; by age, at least twenty-four hours old—better, thirty-six; cold does not have to be explained, but it is important. If cream refuses to "whip" and gets frothy, two drops of lemon juice added will relieve the difficulty. It makes the fat more viscous, which gives it the power to become distended with air. It has the same effect as the lactic acid, which develops in cream upon standing. A very little lemon juice is sufficient, two or three drops to a cupful of cream, or half a teaspoonful to a quart. This slight amount will not flavor the cream nor tend to sour it. There will be no more trouble with frothiness, and a "whipped" cream will soon result.

Coat Lemons With Paraffin.

To the Editor:—In reply to the lady who wishes to know how to keep lemons will say that I have kept them for months by turning a glass jelly cup over them and not disturbing until needed. I have read that they could be kept all summer by giving them a thin coat of paraffin wax and keeping in a cool place. I intend to try that myself. Mrs. B. W. H.

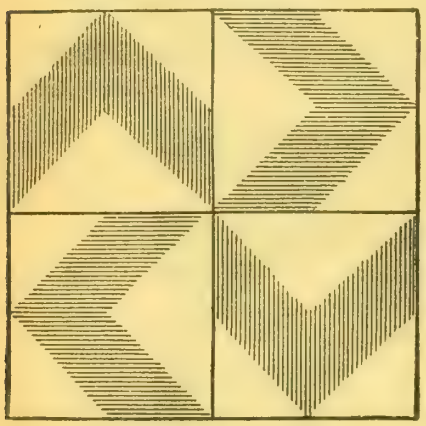
Sixteen Years' Experience Canning Vegetables.

To the Editor:—I saw in a recent issue where someone would like a recipe for canning peas. I have a recipe I have used for sixteen years with good success. I have never had any spoil.

The first important point is to sterilize your jars. Pick the peas in the morning and get them ready for canning. I prefer young peas, not too hard. Do not let them set overnight, but can while fresh. Put the peas in the jars and fill brimming full with cold water. Add half a teaspoonful of salt to each jar. Pack the jars in a boiler with a board in the bottom. Place the jars side by side. Fill the boiler with cold water so it will come half way up the jars. Sterilize two and one-half hours, counting from the time the water begins to boil. If the water boils away, add more, boiling hot. Do not screw the caps on tightly while boiling; tighten when taken out of the boiler. Keep in a dark, cool cellar. I have canned all fresh vegetables this way. I let the jars stand on the cap overnight to be sure they are sealed perfectly.

Mrs. E. J. Lee.

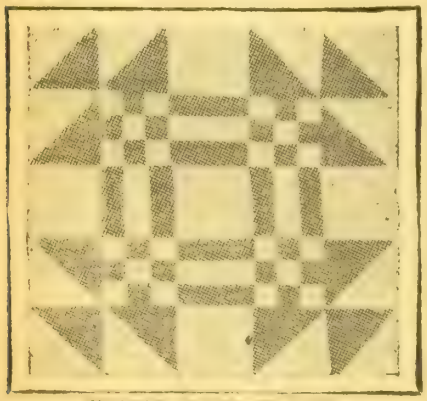
Some New Quilt Blocks.



STAR PATTERN.

Two attractive quilt blocks and a quilting pattern. Either of these blocks pieced of blue, yellow, pink or any col-

or to match the decoration of a particular room, on a white ground, would be dainty.



YOUNG MAN'S FANCY.

THE YOUNG FOLKS.

Belongs to Little Mothers' Club.

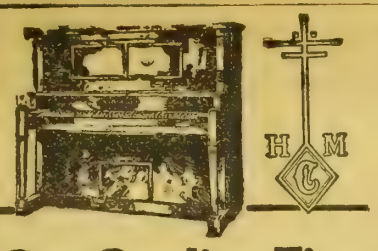
Dear Young Folks:—When the paper comes I always look for the Young Folks' corner. I am twelve years old. I can do tatting and crocheting. I go to school every day. The girls in the school have a club that we call the little mothers' club. We meet every two weeks. Every Friday after school the girls sew. We are making a quilt and are sewing blocks together by hand. The blocks are blue and white. They make a pretty pattern. We are going to sell chances on it and are going to spend the money we get for it on things for our playground at school.

—Emma.

Enjoys Open-Air Concert.

Dear Young Folks:—This is my first letter to the Young Folks' page. I always enjoy reading the letters, so

TEAR OUT THIS OFFER AND WRITE TODAY, PLEASE



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When writing to advertisers kindly The Wisconsin Farmer.

thought I would write and tell you about our pets.

I am thirteen years old, am four feet nine and one-half inches tall and weigh ninety pounds. I have two brothers and four sisters. My oldest brother is sixteen years old and helps papa with the farm work and chores. We live a mile and a half from school. We all go to school except the baby and she is too young. We live on a farm of 220 acres, four miles from town.

My papa has a big automobile and on Saturday nights during the summer our band in town gives open-air concerts on the streets and we all go to hear them. There are from 100 to 150 automobiles every night that the weather is good.

We have a little pup three months old. His name is Rover. We have lots of fun playing with him when we come from school. We have a little colt and twin calves and they are very playful. —Florence.

Pet Pigeon Flew Away.

Dear Young Folks:—I want to join your fun if I may. I have two brothers and five sisters. The youngest in our family is a month old. I go to school at Stringtown. I am in the fifth grade. We drive our old horse, Bill, to the carriage and take our neighbors with us. There is a big load. My oldest brother goes to high school. We live on a farm and my father owns 196 acres of land. It is very nice to live on a farm.

We have a pet dog that is a very nice playmate. His name is Teddy. He jumps before us when we try to run from him. Once we had a pet pigeon for about four months. Then it found its playmate and flew away, but it was very tame when we did have it, for when we came with wheat in our hands it would coo and fly down on our arm and eat. Sometimes when we ran out it came and rested on our shoulder. We have a pet bantam now. She lays an egg nearly every day in spring and summertime. —Irvin.

Wisconsin Seed Special.

The seed and home power special train which started a state-wide trip via the Soo Line and the Chicago, Milwaukee and St. Paul Railroads, March 24th, ended its tour at Waukesha April 7th. At all points in the itinerary the special train was met by large audiences of interested farmers. This special train was made possible by the fortunate combination between the Wisconsin Bankers' Association and the Wisconsin College of Agriculture. The coöperative spirit shown by the railway lines is also to be highly commended. Bankers at the cities and villages where the special was scheduled to stop helped things along by advertising in advance and helping to get an interested audience. The Wisconsin Order of the Experiment Station furnished the samples of grains and grasses, the same being a part of the exhibits at the recent state grain show at Madison.

Prof. R. A. Moore, of the college of agriculture, is well pleased with the showing made. He attributes a great part of the success of the tour to the difference in the methods used now and in practice several years ago. The old idea of coming to a town and meeting with a crowd of farmers for thirty minutes or so and then running on to the next town was bound to be unsatisfactory. Ten years ago Mr. Moore asserts this was tried by the college, but with less success than the present trip. Farmers want to see something when such a tour has been advertised and this train more than accomplishes this. In one car was the exhibit of grains, and here Professor Moore and his staff held out, giving the people short talks on rotation, seed treatment and selection and alfalfa pointers. In another car Professor White, with a competent equipment of labor-saving devices, electric light plant and a model septic tank arrangement practical for farm purposes talked unceasingly to eager groups of men, many of whom have heretofore thought such improvements too costly or complicated for their means. For 1-10 cent per hour per light, according to Professor White, this lighting plant in the car will operate. That means that for the cost of 1 cent per hour a family can have all the privileges of better light in the home. At Stevens Point over 1,600 people passed through the cars and listened to the lectures. It was the same way at Portage, Hancock and all the other towns along the line. Every minute of the time of the lecturers was taken up during their stay at a city, as the questions kept coming as long as the train stayed in a town. The trip will undoubtedly be repeated next year, probably over another road, and through a different section of the state.

More Sheep and Fewer Dogs.

A Slogan for Wisconsin Farmers Suggested by One of Our Sheep Raisers—Prices of Sheep Are Still Soaring High.

Sheep breeders are having their innings because mutton and wool are scarce and high in price. Breeders of pure-bred flocks have orders that must remain unfilled, while breeders of grade sheep are by no means able to satisfy the demand. In the following communication Mr. George M. McKerrow gives some interesting sheep history, particularly on that phase of it referring to the value of both grades and pure breds. Mr. McKerrow writes:

What is to be the future of the sheep business? Only a few weeks ago grade ewes sold at a Wisconsin auction sale for $30 per head. Wisconsin fed lambs have sold on the Chicago market for $15 and over per hundredweight, and I had thought these were record prices. While attending a sale of pure-bred sheep in Canada on March 27th, the prices realized for the good ones ranged from $35 to $168, buyers being present from the provinces of Alberta, Saskatchewan and Ontario, and from the states of Iowa, New York and Wisconsin. The sensation came when a bunch of grade, long-wooled ewes sold to local farmers at $30 to $34 a head. When I remarked to Professor Day, of the Ontario Agricultural College, that I thought this a sensational price for grade ewes, he remarked in turn that a number of good grades had sold during the winter at farm auctions at $25 to $35 per head. Henry Arkell told me of a dozen choice grade Oxford ewes which had been sold in his neighborhood in pairs at farm auction at $70 to $90 per pair. Every good ewe should be kept on the farm. No one should be tempted to slaughter ewes even for the high prices which now prevail for mutton. Wisconsin farms need more sheep, and no line of live stock breeding offers better inducements at this time than sheep husbandry. The world is short of sheep and wool, and without doubt good prices will continue to prevail for many years to come. More sheep and fewer dogs should be the slogan of Wisconsin farmers.

There are few farms in Wisconsin that would not be benefited by the presence of a flock of sheep, and the sensational prices referred to by Mr. McKerrow ought to accomplish the important purpose of stimulating interest in the sheep industry. While values will not always remain on their present high level, the time will never come when a flock of sheep, sensibly cared for, will not pay handsome profits. Men may wrangle over the existence of the dual-purpose function as applied to cattle. The existence of the real dual-purpose cow is denied by those who believe in the doctrine of specialization, but when we come to the discussion of sheep all the controversy is over. Where we have hundreds of flocks of sheep in Wisconsin we should have thousands, converting the good foodstuffs of our state, as well as the waste, into the products for which the world is clamoring, namely, wool and mutton. We hope that Wisconsin Farmer readers will absorb the real significance of Mr. McKerrow's letter and be led to the conclusion that a flock of sheep will pay handsomely.

The Colfax Produce Company, of Colfax, Wisconsin, is now engaged in the mercantile business, having erected a new building at the cost of $9,000. This company has 167 stockholders, chiefly farmers residing in the vicinity of Colfax. About $24,000 worth of stock has been subscribed. The company was organized in 1912 carrying on a general produce business and specializing in potatoes. It has a complete stock of $40,000 with the following officers: President, O. A. Amble; manager and treasurer, C. E. Leggen; secretary, Matt S. Olson.

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The close coupled feature of the TRACFORD is among its strongest points. By reason of the location of the dead axle in advance of the Ford axle and draw bar, the TRACFORD is the only Ford plowing attachment which is able to utilize the weight of the driver and all of the car forward of the axle to produce traction. That is why the TRACFORD has so much draw bar pull.

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Works only on high gear—does not overheat. A 9 to 1 gear reduction enables you to plow on high gear without motor racing. A special cooling device—a valuable addition to any Ford—is included.

Simple—dependable—powerful—the TRACFORD will do any work anywhere that can be successfully handled by three good horses.

There is a TRACFORD dealer in your district who can give you as convincing a demonstration as you may require. Write us at once and let us put you in touch with him.

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Where Breeding Is a Fine Art.

Korndyke and King Segis Blood Predominates on the F. J Bristol Farm in Fond du Lac County--Breeding Experiences.

MR. F. J. BRISTOL, of Oakfield, Fond du Lac county, did not start out as a farmer, but twenty years of effort in breeding premier Holstein stock have firmly established the name of the F. J. Bristol & Sons' Company in the Holstein world. Mr. Bristol was originally in the mercantile business, following the lead of his father, who was a creamery man and a buyer of cheese and butter. Although Mr. Bristol liked the work, and fared fairly well at it, he became interested in a farm close to Oakfield about twenty-five years ago, and from that time on his interest in farming increased until his commercial career died an early death when the vision of Holstein prosperity came to him. At that time the Holstein that could command a price of better than $100 was scarce and so it happened that the first six animals were purchased for about $300. The sale of the first bull calf brought the stupendous sum of $15. However, their price increased with each succeeding year. The second lot netted $25 a head, the next $40 each, and so on, until today there is no limit at which an animal will sell, providing its breeding and individuality warrant extraordinary prices. The first big sale which showed him the value of testing and breeding was a bull calf which sold at $250 on the strength of a twenty-pound, seven-day record made by the dam. That was a world's record at the time for a two year old. It was also the beginning of Mr. Bristol's continued efforts towards the breeding of stock that would carry with it production and ability to reproduce.

The first cows of the herd were descendant from the cow of the Korndyke, the foundation cow of the Korndyke family. The breeding of the last twenty years has run strongly along these blood lines and some extremely well-bred stuff has been produced in the herd. There are now about 200 head of cattle on the place, of which eighty cows are milking. Cows are tested for seven-day and thirty-day records by official testers and their yearly production computed from semi-monthly private tests and daily weighing of each yield of milk.

The young stock on the place receive grain until they are a year and a half old. If they are born in winter they are fed in the lot during the first summer and pass their second summer on silage and pasture rations. Heifers usually freshen at about twenty-seven months of age. The cows get a light grain feed the year around according to yield. Each cow is well prepared, however, before freshening and fed with such feeds as will put her in condition for calving. The calf is not allowed to stay with the cow for more than twelve hours, or until it has had one good feed from the mother. It is kept on a ration of approximately six pounds of whole milk for four weeks, when the ration is gradually changed to skim milk, on which it is fed until eight months of age. A light grain ration and clover and mixed hay is fed from the very beginning.

The farm contains in all about 500 acres, on which the grain and roughage for the herd are produced. A three-year rotation of barley, corn and clover is practiced. The barley is sold from the place and from its proceeds concentrates are purchased. Enough roughage to feed the herd and allow for the sale of a considerable portion is produced each year. The surplus in hay last year amounted to better than $1,000.

The breeding work that has been carried on at the farm has all been along definite lines. Korndyke and King Segis blood is predominant in all the animals. The senior herd sire at present is Adventure Lad, who is by Spring Farm King Pontiac 6th, whose

Johanna Korndyke Butter Girl (157802), 20.04 pounds butter—Two years three months, twenty-nine days. 340.2 pounds milk, 4.71 per cent average test. 26.57 pounds butter—three years, nine months, twenty-nine days. 526.5 pounds milk, 4.04 per cent average test. Sire, Johanna Korndyke De Kol (45577). Dam, Crescent Beauty Butter Girl.

Village Side Stock Farm, Fond du Lac county, Wisconsin, owned by F. J. Bristol & Sons.

Adventure Lad (165686). Sire, Spring Farm King Pontiac 6th. Dam, Johanna Korndyke Butter Girl. Sire is out of Diveede De Kol Lass (83182). 34.39 pounds, and by Spring Farm King Pontiac (66664).

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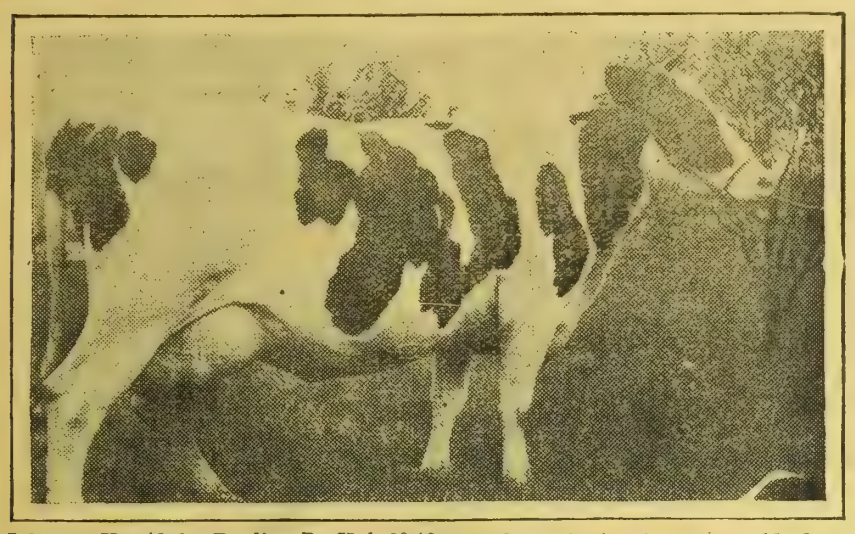
dam has a seven-day record of thirty-seven pounds of butter. Spring Farm King Pontiac 6th is by Spring Farm Pontiac, he by King of the Pontiacs, that has sired 186 A. R. O. daughters, including the famous K. P. Pontiac Lass, with a record of 44.18 pounds of butter in seven days. On the dam side, Adventure Lad stands well also. He is out of Johanna Korndyke Butter Girl, with a three-year-old record of 26.57 pounds of butter in seven days. His grandam is Crescent Beauty Butter Girl, a full sister to Crescent Beauty Butter Maid, who, as a junior three-year-old, made 29.04 pounds of butter in seven days. Adventure Lad also traces back to Belle Korndyke and Johanna Bonheur, both noted cows.

The junior sire is Uneeda Polkadot Korndyke, who is by King Segis Pontiac Polkadot and out of the same cow as Adventure Lad. King Segis Pontiac Polkadot is a full brother in blood to King Segis Pontiac Alcartra, the $50,000 sire. His grandam, Pontiac Clothilde De Kol 2d, held the world's record for a time with a record of 37.21 pounds of butter in seven days and his dam held the senior three-year-old record of 30.87 pounds of butter in seven days. The combination proved the making of the Alcartra bull. Few breeders even know that Mr. Bristol at one time owned the famous sire. The way this came about was that Mr. Bristol had gone east to purchase a bull of just this breeding for a herd sire from the men who were prominent in breeding Korndyke and Segis stock at that time. Finding nothing to his liking he made the breeder an offer of $1,000 for an unborn calf along the lines of breeding which he desired. The agreement was made and Mr. Bristol the next year found himself the owner of the Alcartra bull. Realizing that the bull was one of the most sought-after sires of the breed, owing to the record just finished by his dam and grandam, he made an agreement with the breeder to place him on sale, providing that he could get a calf of similar breeding from the owners, and that he receive half of the sale price of the bull he purchased. The calf sold for better than $10,000 and later on brought the unprecedented price of $50,000.



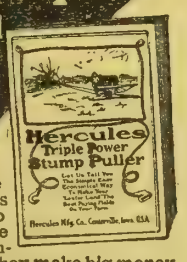
Johanna Korndyke Pauline De Kol, 22.13 pounds at junior two year old. Over seventy pounds milk a day.

The buildings on the Bristol place are roomy and well lighted and ventilated. Besides three large barns for cows and young stock, a new barn has recently been completed. It is 46x60 feet and has been built especially for accommodating the test cows and those on unofficial yearly test. A complete carrier system connects all barns with the milk house and makes the feeding and cleaning out of the barns easy. There are six silos on the farm, several built of concrete, and the rest of wood, but each doing excellent service.

Connected with the barn by a passageway is the power plant and milk house. The power plant furnishes power for the separator and charges the batteries for the electric light system which has been installed in all the buildings on the place. The light is furnished for a cheaper rate from this private plant than can be secured by the people of the village of Oakfield, which gets its power for its lights from the city of Fond du Lac. The engine also serves to fill the pressure tanks which carry water to every part of the farm and the modern farmhouse and tenant's house. Besides his electric light plant Mr. Bristol also has gasoline gas in the house which he uses for cooking purposes and can use for lighting purposes if he desires.

The cows on the Bristol place have yielded large returns each year in milk besides the calves, an average profit of $130 and over. Accurate records kept from year to year have shown Mr. Bristol where the mistakes have been made and where the profits in his operations have come from and through persistent efforts the increase in the latter have made his farm one of the most efficiently managed places that are breeding Holsteins in Wisconsin.

Pull Stumps
Clear Land the Easy Way—
Get This Book

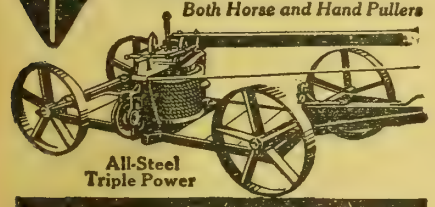


More Hercules Stump Pullers in use than all others combined. Reason—They make big money for owners. No stump too big. No land clearing job too tough. Man and horse clear an acre a day. Pull stumps at three cents to five cents each.

Hercules Portable
Unlimited Guarantee

GET THE BOOK—New Triple Power Portable Puller at special low price to first buyers. 30 days free trial. Unlimited Guarantee. Get the story. Send for free book.

HERCULES MFG. CO.
159 25th Street, Centerville, Iowa
Both Horse and Hand Pullers



All-Steel Triple Power

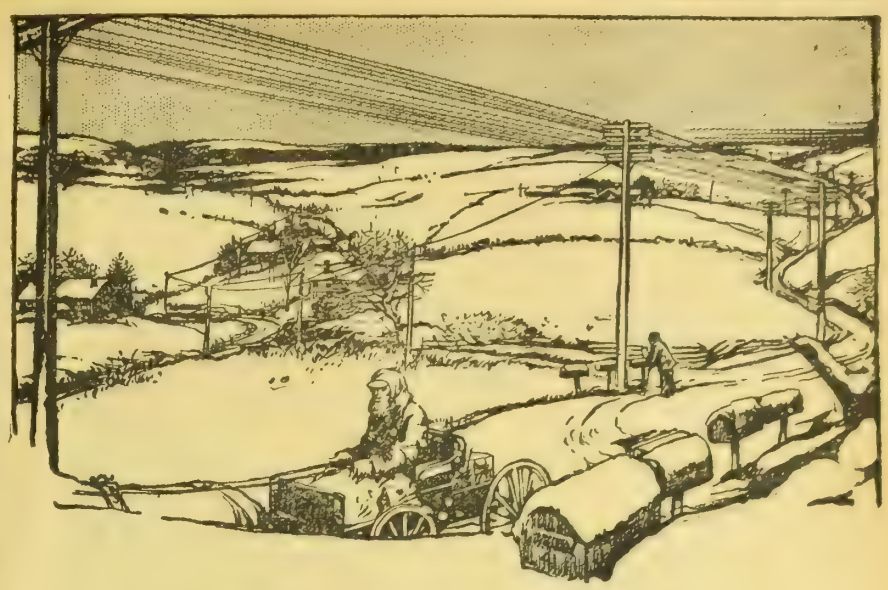
MUELLER
Pipeless Furnace
Reliability

A real furnace. Exactly same construction as the old, reliable *Mueller* line, but without pipes or flues. Ideal for old or new homes and buildings with small or partial cellars. Saves 35% in fuel; burns hard or soft coal, coke or wood. Heats whole house comfortably, dependably, cleanly and economically *from one register.*

Made of solid cast iron, has triple jacket, substantial firepot and radiator, best type grate. Designed right, built right; 60 years of experience and the *Mueller Guarantee* behind it.

Tear out this ad, write your name and address on margin and mail to us for valuable free book on pipeless heating and name of nearest Mueller dealer

L. J. Mueller Furnace Co., 204 Reed Street Milwaukee, Wis.
Makers of all kinds of Heating Systems since 1857



Standards of Service

In rural communities clusters of mail delivery boxes at the crossroads evidence Uncle Sam's postal service. Here the neighbors trudge from their homes—perhaps a few yards, perhaps a quarter mile or so—for their mail.

Comprehensive as is the government postal system, still the service rendered by its mail carriers is necessarily restricted, as the country dweller knows.

Long before rural delivery was established the Bell System began to link up the farmhouse with the neighboring towns and villages. One-fourth of the 10,000,000 telephones in the Bell System are rural. They reach more places than there are post offices. Along the highways and private lanes the telephone poles lead straight up to the farmer's door.

He need not stir from the cheerful hearth ablaze in winter, nor grope along dark roads at night for friendly news or aid in time of trouble. Right in the heart of his home is his telephone. It is the American farmer's key to the outside world, and in no other country is it found.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy *One System* *Universal Service*

THERE is something mighty democratic about rich, sappy tobacco. Now that men have W-B CUT Chewing, a good tobacco, to lend each other, it cements friendship. Common-sense about tobacco is getting mighty general now—no one wants the over sweetened kind when he can get rich tobacco shredded and lightly salted to bring out the good tobacco taste.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

SEED CORN

GOLDEN Glow (Wis. No. 12) 98½ germinated, 99 9-10½ pure. Absolutely guaranteed. A limited amount for sale.
RILEY MARTINY & SON, Baraboo, Wis.

200 Strawberry Plants Postpaid $1.25

25 EVERBEARING, 75 DUNLAP and 50 each of two other choice varieties with our book of instructions how to plant and grow them.
J. L. TODD & COMPANY
Route 3 Des Moines, Iowa

Don't Dread Bad Weather **Be Prepared For It**

Reg. U. S. Pat. Off.

A Coat for Rough-Weather Duties

PROVIDE yourself with a Raynster for your rough-weather duties and you'll find it a mighty comfort scores of times. Raynsters for men, women and children are made in varied fabrics, sizes and colors. Every coat bears the honor mark of a great company shown above.

This is your guarantee of quality, of long wear. Our special process of vulcanizing to make the surface coats waterproof means a literal baking of rubber and cloth together into one piece. Each seam is carefully sealed and inspected. Your Raynster will keep its shape and remain soft and pliable, no matter what style or weight you select. There are heavy and light weight, double and single texture Raynsters —rubber surface, cravenette and dressy styles. Also auto coats. If your dealer cannot supply you with a Raynster, write to the address below and we will tell you where it can be obtained. Ask for interesting booklet, showing many styles of Raynsters for work and for dress.

United States Rubber Company

Clothing Division New York

Raynster

Reg. U. S. Pat. Off.

BOVEE'S PIPELESS FURNACES

Bovee's Central Heating Furnaces
Bovee's Regular Piped Furnaces

At Manufacturer's Prices
Save 40% of Cost
Save one-third of your fuel

GET the benefit of our 21 years' experience in manufacturing and installing furnaces. Get our positive guarantee (and it's good). Get our free three-colored catalogue. Address

BOVEE FURNACE WORKS
204 W. 8th Street Waterloo, Iowa.

STOP FEEDING $1.00 CORN TO WORMS

I'll Show You How — Send the Coupon Today

If you SAW thieves robbing you of wagon loads of your $1.00 corn, you'd stop them quick! But, right now, UNSEEN thieves—thousands of them—are not only stealing your feed, but imperiling the very lives of your animals. I refer to the feed-eating, blood-sucking, disease-breeding worms. I'll show you how to rid your animals of these expensive pests; how to STOP the feed loss and have thrifty, healthy, profitable live stock. I'll show you how to do it with

PRICES

10 lb. pkg.	$ .75
20 lb. pkg.	1.25
40 lb. pkg.	2.25
100 lb. pkg.	5.00
200 lb. pkg.	9.00
300 lb. pkg.	13.00
500 lbs.	21.12

Dealers sell SAL-VET at above prices, but in the far West and South they charge a little more because freight charges are more. Never Sold in Bulk, only in packages of above sizes — never loose or by the pound.

The Great Worm Destroyer **SAL-VET** The Great Live Stock Conditioner

My new book tells everything. Fill out and mail the coupon and I'll send the book FREE. I'll tell you also where and how you can get enough SAL-VET to feed your stock 60 days and have your money refunded if it fails to do all I claim. Mail the coupon NOW. Address

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Send me your FREE BOOK on care of live stock. I have hogs.....sheep.....horses and mules.....cattle.
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Lessons in Farm Management.

Facts Brought Out in Rock County Where Great Interest Is Being Taken in Subject of Farm Management---By Allen B. West.

THE round-up of the Rock County Farm Management Contest occurred on March 29th, at Janesville, at a meeting arranged by the Farm Improvement Association, of Rock county, under whose auspices the contest has been conducted in coöperation with the University of Wisconsin. Rock county and a portion of Waukesha county are doing unique work in that they are bearing the expenses of the contest by forming associations, the fees of which help to pay the expense, the work in these counties being so great that it cannot be handled by the University force.

The farm contest work in Rock county began in 1913, when three farms entered the contest. This year fifty-four farms were on the list, and, in spite of unfavorable weather conditions, the figures showed great advance over those of the preceding years. The average income of these fifty-four farms, after deducting 5 per cent interest on the investment for the year 1916, was $804, and the average income on the best three farms was $3,636.

Part of the meeting was devoted to a study of the figures, to learn wherein the best three farms had the advantage over the average for the county, and the following facts were brought out:

First—They had a larger investment of capital, the three having an average of forty more acres of land.

Second—A larger income from crops, one average being $692 and the other $2,172.

These sums were found by adding the sums received from sales and the value of the increase as shown by the inventory.

Third—A slightly larger income from dairy products, one averaging $1,320, the other $1,596.

Fourth—Income from live stock, one averaging $1,613 and the other $3,857.

The farm expenses were naturally greater on the larger farms.

The figures on the dairy receipts showed that it was not the dairy to which these farms were indebted for their profits, and suggested that improvement might well be made in the future in the quality of cows kept, for in the case of the average farm the receipts per cow just about balanced her expense of keeping. On the three best farms their receipts only were about $10 in advance of the others.

The Janesville Machine Company offered the prizes, which were awarded as follows:

First prize—H. C. Yale, Milton Junction, Janesville corn planter.

Second prize—W. E. Scofield, Edgerton, Janesville disk harrow.

Third prize—Noyes Raessler, Beloit, riding weeder with grass seed attachment.

Fourth prize—Horace Pease, Edgerton, Janesville cultivator.

Fifth prize—Fred Gaarder, Orfordville, Janesville walking plow.

Professor Otis, in discussing the lessons taught by the contest, showed a series of charts, giving the results on two farms of about the same size, with similar market conditions and about the same amount of pure-bred stock of the same breed.

On one of these farms the income, aftering paying 5 per cent interest on the investment, was, in round numbers, $4,000; on the other it was $800. The crop receipts showed that the farm with the smallest income had the best crops. There was about the same amount invested in live stock in each case and the money received from live stock products indicated that both farms had stock that produced well. The great difference was found in the receipts from the sale of live stock and from the inventory of increase in stock. Analyzing the cause for this difference, it was found that the man with the smallest income had spent $11 in advertising; the other had spent $245.

The lesson was plain. A farmer must apply business principles if he wishes to make money commensurate with his investment. The man who made $4,000 belonged to a cow-testing association. He sold his cows on their records, and his bulls on the records of their dams. He showed at fairs and used printer's ink for advertising, as any live business man does.

Another set of figures showed how a man with a good farm, raising good crops, lost out because he fed his crops to poor cows, that did not give him the returns that were secured on other farms where the crops were not so good, but the stock was better.

Inspiring addresses were given by Mr. H. M. Jones and his wife, Mrs. Nellie Kedzie Jones. Mr. Jones discussed rural community development, and his advice was along the line of the lesson from the two pure-bred stock farms.

Farmers must get together in business enterprises if they wish success. Cow-testing associations, breeders' clubs and community advertising are important factors in community development. For many years farmers have been shipping milk to the city and taking what the dealers give them. Now, as the results of organization, the farmers instead of the milk dealers are settling the price.

The matter of the community should be, "All for each and each for all."

Mrs. Jones' topic was, "Dividing the Dollar," and was a discussion of the division of the family income, with especial emphasis on the provision for the higher life, books, music, religion, education—the things that make living worth while.

The following men were elected as the executive committee of the improvement association for the coming year: K. Overton, W. E. Scofield, M. S. Kellogg, W. J. Dougan and E. P. Coon.

PROTECT YOUR CATTLE WITH Blacklegoids

NO DOSE TO MEASURE.
NO LIQUID TO SPILL.
NO STRING TO ROT.

BLACKLEGOIDS are small pills. Each pill is an accurate dose of blackleg vaccine.

BLACKLEGOIDS are easily administered—simply inject them under the skin with a vaccine injector.

TAKE NO CHANCES.

Don't wait until your calves become infected. This means certain loss—there is no *cure* for blackleg. Vaccinate now—before the deadly disease shows itself.

THE COST IS SMALL.

BLACKLEGOIDS are economical. The expense is trifling compared with the loss you are liable to sustain if you do not use them.

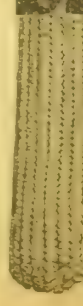
ORDER THROUGH YOUR VETERINARIAN OR DRUGGIST.

Write for free booklets on Blackleg, with full information about Blacklegoids.

PARKE, DAVIS & CO.

Dept. Animal Industry. DETROIT, MICH.

SEED CORN



Don't take chances on your corn crop. Don't plant seed grown south of you. Soft corn is worthless. Our pure, tested, northern-grown, hardy varieties make big crops of ripe corn. For 30 years we have sold the genuine Goddard's Silver King, grown, selected and tested by the originator here in this county. It outyields all other varieties in Nor. Iowa and So. Minn. Other splendid varieties. **Catalog free.** Write today. Ask about our "1,000 Club" —a million ears of seed at wholesale.

THE ADAMS SEED COMPANY
Box 50 Decorah, Iowa

Guaranteed

TO BREED TRUE TO COLOR and with A FIXED QUALITY of FUR

EVERY one of my Class A Silver Black Foxes is of a breed that will produce pelts absolutely guaranteed to be true to color and with a fixed quality of fur. If you want to be a financial success

Raise Silver Black Foxes From My Guaranteed Stock

either individually or with others by forming a Fox Company. My Silver Black Fox Ranch, here at Reedsburg, Wis., paid 40% cash dividends at the close of the first year.

The average yearly cost of feeding a pair of Silver Black Foxes is only $20.00.

A single Silver Black Fox Pelt has brought as high as $3,000.

Collins' Complete Information and Service includes our advice and the assistance of an experienced fox man from the time you start erecting your fox pens until you have realized a handsome profit on your investment.

If possible, come to Reedsburg and learn more of the Fox business. In the meantime, get my FREE book, "THE SILVER BLACK FOX INDUSTRY," just completed, which fully describes every detail of this pleasant and most profitable industry.

COLLINS, The Fox Man
REEDSBURG WISCONSIN

CLIP AND MAIL

COLLINS, The Fox Man, 205 South Park St., REEDSBURG WISCONSIN
Please send me FREE OF CHARGE, your book, "THE SILVER BLACK FOX INDUSTRY," which explains this wonderful industry in detail.

Name.....R.F.D.....

P.O.....State.....

KENDALL'S SPAVIN TREATMENT

A

Known for 40 Years as Kendall's Spavin Cure

A New Name But the Same Old Reliable Remedy

FARMERS and horsemen everywhere will be glad to know that this change is in the *name only*—that there is no change whatever in the famous old-time formula that has rendered such remarkable service in horse ailments—Bone Spavin, Ringbone, Splint, Curb, Sprains and Lameness—by the counter-irritant method.

Whether you get Kendall's under the old label or the new, the quality and efficiency is the *same* old reliable—with a 40-year-old reputation.

Get it of your druggist—$1.00 per bottle—six for $5.00—and ask for book "Treatise on the Horse"—or write

DR. B. J. KENDALL CO.
Enosburg Falls, Vt.

SPEED IN SILO FILLING

Extra large throat. Cutter head with four knives. Unusual capacity. Self-feeding. Can't clog—automatic governor makes it impossible.

Smooth, steady action. Safe, strong, simple; a quality machine. Write for illustrated literature.

Rosenthal Corn Husker Co.
BOX 15
MILWAUKEE, WIS.

In and Around Wisconsin.

Dairymen at Superior, Wisconsin, have decided to withdraw the usual "summer prices" on milk and maintain the "winter prices" through this season. This amounts to a substantial advance in milk prices for the producers, who claim they must have more money in order to make a profit on their investment in cows, feeding costs and labor necessary.

The Kewaunee County Buttermakers', Cheesemakers' and Dairymen's Association held their annual meeting at Kewaunee a short time ago. Legislative bills of interest to the association members and sanitary methods of handling milk and milk products were the subjects discussed. The officers elected for the ensuing year are: A. W. Teske, president; Matt Koller, vice president; L. J. Blahnik, secretary, and Ben Stinhorst, treasurer.

The Neillsville Dairy Association has recently been organized by milk producers in the region of Neillsville, Clark county. All milk producers are eligible to membership upon payment of a fee of 25 cents. Although one object of the association is to secure favorable prices for milk, it is also interested in promoting all phases of the dairy industry. The following officers were elected: Wm. Naedler, president; Geo. E. Crothers, vice president; E. A. Viergutz, secretary, and Frank Greeler, treasurer.

A consignment of Wisconsin-fed western lambs sold at the high price of $15.25 just recently in Chicago. There were 120 animals in the lot and their average weight was eighty-six pounds. Originally the lambs came from Montana, but they were purchased by the college of agriculture at Madison and fed on the university farm there. Several other instances of record prices for Wisconsin-fed lambs have occurred recently which indicate the growing importance of the Badger state in the sheep-feeding industry.

Encouraged by the promise of continuing high prices for their crop, Wisconsin tobacco growers are preparing to plant a considerably larger acreage this spring, according to a statement of the agricultural experiment station, at Madison. The Wisconsin tobacco crop is grown principally in Dane, Rock, Vernon, Crawford, Columbia, Monroe, Chippewa, Jefferson, Richmond and Trempealeau counties. More than 500 acres are devoted to the crop in each of these counties and there are many other counties of the state that are engaged in the commercial production of tobacco, although to a smaller extent.

Rapid strides are being made in the work of organizing live stock shipping associations in the territory surrounding New Richmond, St. Croix county, where a farmers' packing plant is located. Already associations have been formed in nineteen towns and Mr. Moore, manager of the plant, hopes to have the work entirely finished in a short time. It is reported that live stock have been coming into the plant regularly and in good numbers since the break in cold weather, and a large daily kill from now on is anticipated. Since the farmers have shown such enthusiasm in the work, the officers of the plant are predicting a bright and prosperous future.

The high cow in the testing associations of the state for February was a grade Holstein, belonging to Elmer Christianson, a member of the Winchester association, Winnebago county. This cow produced 109.4 pounds of fat. A herd of ten cows like this would return $500 for the butter fat alone. The Troy and East Troy association, Walworth county, had ninety cows of the forty-pound class, taking the state record in this division. In the month of February the Waupaca association bought two cars of feed, the Alto association bought two cars, the Winchester association bought three cars and the East Fond du Lac association one car. There is an increased interest in the purchase of cows which have been under test in associations and have shown good records. Feeding is the big problem for the official tester to work out, and some interesting facts have been learned as shown by letters now being published in The Wisconsin Farmer. Some of the high records made for the month of February are shown below:

Grade Holstein owned by Albert Rhoda, Troy and East Troy Association, 75.9 pounds of butter fat.

Jersey owned by Ed Bruins, Alto, Fond du Lac County Association, 79.2 pounds of butter fat.

Grade Guernsey owned by J. W. Thrall, Winnebago County Association, 78.2 pounds of butter fat.

Grade Guernsey owned by Louis McGrath, Chilton Association, 71.9 pounds of butter fat.

Holstein owned by A. P. Kaye, Linn, Walworth County Association, 92.2 pounds of butter fat.

Grade Holstein owned by J. L. Chapman, River Falls and Roberts Association, 71.8 pounds of butter fat.

Grade Holstein owned by Hugo Libke, New Holstein Association, 73.4 pounds of butter fat.

Grade Guernsey owned by M. J. Wrolstad, Alban and New Hope Association, 71.5 pounds of butter fat.

Grade Holstein owned by Frank Smalley Stanley Association, 99.7 pounds of butter fat.

The above embraces those in the state having a record of seventy pounds of butter fat or better.

ADVERTISEMENT.

$6,434,327,214.07

ACCORDING to the Commissioner of Internal Revenue, U. S. Treasury Department, the above figure represents the sum of money paid in cash to the United States Government in internal revenue receipts from 1862 to 1916, inclusive, by the manufacturers of malt and distilled liquors.

It is an uncomprehendable sum. It is beyond the grasp of the human mind.

But every penny was paid in advance of the sale of the manufactured goods and the revenue went toward the support of the various departments of the Federal Government.

Surely no person can deny that this industry has paid liberally in dividends to our government.

But large as this sum is, it is small compared with the amount that all branches of the industry have paid during these same years in local and State license fees.

It is impossible to secure the exact figures of this sum as is the case with the U. S. revenue receipts, but authorities estimate that the amount is double and perhaps three times as great.

It yields to each licensing community a large part of its total revenues and if the sum could be ascertained it would be staggering.

In addition to these, are the local and state taxes. Brewing, distilling plants and property used in the retail sale of the products are all assessed high, and much of this value, and consequently much of the tax accruing, would be lost in case of the destruction of the industry.

Paying so generously through all these years and encouraged to thrive and develop and pay more; forced to exert every energy to meet the conditions imposed and to earn the fixed dividends which the government demanded; developing and building from its own share of the profits **only**, *does it now seem one tithe more than a fair deal to give* **Compensation** *in the event of utter destruction of the entire business?*

Think *that* over!

The Brewers of Wisconsin

AUTO EXPERTS WANTED

Everywhere. Big wages. Great demand. Learn Auto Mechanics in this the best equipped school. Also Steam and Gas Engineering. Be sure to write for catalog. Address

ENGINEERING COLLEGE
Austin - Minnesota

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Holstein Sale at Coon Valley.

RUNDAHL BROS. will close out their herd of grade Holstein cattle at their farm near Coon Valley, Wis., Thursday, April 26th. The offering will consist of 57 head, most of which are females and none over seven years old. Of this number 24 are in milk and five heifers are due in the near future. There will be a few good yearling heifers. The Rundahl Brothers own considerable land, but like many others they cannot get competent help, so they have decided to sell off their dairy cattle. Registered bulls have always been used and the cows are bred to a good, registered bull of good breeding—see advertisement on page 29. The cows gave as high as 43 pounds butter fat in January. All but three have been bred and raised by the Rundahls, so you will have a chance to buy cows that have made good for them. The cows have been tested and can be shipped out of the state if so desired. If you want to get some grade Holsteins on a small investment, attend this sale. Coon Valley can be reached from Sparta or La Crosse, returning after the sale. If you are interested write Rundahl Bros., Coon Valley, Wis., for further description and sale list. Remember the date, April 26th.—Adv.

Walter George Chester Whites.

WE have just located another Chester White herd that can be classed among the best in the state—owned by Walter George, Evansville, Wis. Evansville can be called the Chester White headquarters of the state, there being three good herds in that vicinity. Mr. George has a good herd boar called Rainy Day. He is a yearling with more streech than the average Chester and he has good back and feet, and with proper care should make a creditable showing this fall. He is by Callaway's Favorite, he by the noted champion, Wyckoff Lad. His dam is by Callaway's Combination. Mr. George has a good, big sow that he purchased in New York, being by Oriskany Boy 22833, he by Ohio Boy 21419. This is a fine sow and has a nice litter by Rainy Day. Another good sow is rich in Chief Select breeding. One of the best litters on the farm is by Perfect Prince, that good boar owned by Wm. Schiebe. This breeder has a nice lot of spring pigs coming on, and, as he is a good caretaker he will have a nice lot to offer prospective buyers a little later. Get your order in now. Mention this paper. —Adv.

Make Valuable Purchases.

MR. E. SWAN, of Wauwatosa, has recently purchased the bull calf, Pabst Hengerveld Pontiac, from the Pabst Stock Farm, Oconomowoc, Wis. This calf is royally bred, being sired by King Pontiac Champion, with about 50 A. R. O. daughters to his credit and out of Pabst Hengerveld de Freule, with a record of 30.38 pounds in seven days. Mr. Swan, in his selection, adhered strongly to the Korndyke strain through the Pontiac family, and, as King Pontiac Champion is one of the best sons of King of the Pontiacs, he is building his future on the line-breeding theory, in which he can make no mistake. The Pabst Stock Farm has also sold to Mr. Milton P. Jarnigan, representing the Georgia State College of Agriculture, Athens, Ga., a young bull calved April 29, 1916, by King Pontiac Champion and out of Lulu Hartog De Kol, with a butter record of 28.55 pounds of fat. Mr. Jarnigan has bought from the Pabst Stock Farm before. This calf is an extra good individual and will help to bring more buyers to this part of the country.—Adv

The Stubley Jerseys.

WHEN it comes to Jerseys, Fred Stubley, Black Earth, Wis., is one of the good breeders in the business. He certainly has a working herd, for at the time we were there he was milking 50 cows. Just at this time Mr. Stubley will sell a few heifers, bred and open. They are sired by Double Time Varsity King out of the noted Double Time cow and they are bred to a son of Golden Maid's Viscount, he by the widely-known Golden Maid's Prince. If you want a bull Mr. Stubley can supply your wants by shipping you a good one by a good sire and out of a high-producing dam. The cows in this herd are of the best imported and American breeding and many of them have A. R. records. Notice the advertisement that appears in this issue and write him for particulars.—Adv.

Louie Reese Polands.

LOUIE L. REESE is a Poland China breeder living near Brooklyn, Wis., and unless we miss our guess, he is a "comer" as a Poland breeder. He has at the head of his herd a good two-year old sired by the noted Iowa boar, King of All. He is big and smooth and is siring a nice lot of big-type Poland Chinas. Two gilts by him sold in the Madison sale for $100 each going to Messrs. Smiley and Martiny respectively. Mr. Reese has some good, big sows of A Wonder, Big Orange and Long Bob breeding and they are raising some nice litters. Keep this herd in mind for future reference.—Adv.

McDonald's Poland Chinas.

ON March 16th we received a letter from J. D. McDonald, North Bend, Wis., advising that he was having excellent success with his Poland China pigs. At that time he had 116 pigs with nine sows yet to farrow. Miss Price 4th, one of his fine show sows, farrowed and is raising nine fine pigs. Mack has some fine fall boars for sale, well fed and well grown, boars that will do to show, and they are priced to sell. It would be well for you to get your order in early for a spring pig. Write your wants and please mention this publication.—Adv.

Fond du Lac Holstein Sale.

OUR reader will not fail to see the Fond du Lac county Holstein sale advertisement which occupies pages 16 and 17 in the center of this issue. Good old Fond du Lac county with her splendid and conscientious breeders and her great wealth of finely-bred, high-producing Holstein cattle is putting on a sale at Fond du Lac, April 26th and 27th, which may well command the earnest attention of the successful dairymen of this state. It is unnecessary for us to repeat in this field note any detailed description of the offerings which are described in detail in the advertisement above referred to. The consignors are men of splendid reputation in their county and in the state of Wisconsin and men whose success in breeding Holstein cattle has caused their names to be carried far beyond the confines of this state. We will have more to say concerning this sale in our next issue. Catalogs for the sale will be ready April 15th and we suggest that our readers sit down at once and write Mr. S. H. Bird, sale manager, South Byron, Wis., and ask him for a copy. Please be sure to mention The Wisconsin Farmer in your letter.—Adv.

Hawthorn Farm Suffolks.

THE largest collection of registered Suffolk horses in this country is to be found on Hawthorn Farm, Lake county, Ill. Both imported and home-bred animals are to be seen there in abundance. Fifty odd breeding mares are kept in the stud, and this sturdy English horse can be seen in all his strength and vigor. The Suffolk is a valuable horse, one whose merit is not known to many of our American farmers. They have sufficient size, are tireless workers, very docile and all good solid color. They are adapted to all soil and climatic conditions, and are a sure enough draft horse. A handsome catalog of the Hawthorn Suffolks, as well as giving information regarding other breeds of live stock raised on this big breeding farm, will be sent to any address upon application if you write Hawthorn Farm, as per the advertise Hawthorn Farm, as per the advertisement on page 29. Kindly mention this paper when you write.—Adv

Good Profits in Drilling Wells.

MEN who take up the business of making wells for watering stock or for irrigation make a good income, usually from $15 to $50 a day. Many farmers bore or drill wells during that part of the year when farm work is slack. The most important thing is a good outfit. It may be run either by horses or by engine power, depending on which is most convenient. Small investment and easy terms make the outfit pay for itself in a surprisingly short time. Those who are interested are requested to write to the Lisle Manufacturing Company, Box 902, Clarinda, Iowa, for their free illustrated circular showing the different styles of machines which they put out. See advertisement on page 18.—Adv.

Free Construction Catalog For Silo

THE farmer who is planning to erect a silo should investigate the In-de-str-uct-o metal silos, which are designed to withstand all wind, storms and rain and preserve the ensilage in the most careful manner possible. The construction catalog of the E. W. Ross Co., Box 354, Springfield, Ohio, explains this silo in detail and should be in the hands of every prospective silo builder. See the advertisement on page 19 and write for the catalog today. Possibly you know several farmers who want silos. If so write to the Ross Company for their terms to agents. There is a big opportunity in handling the In-de-str-uct-o metal silos and it will pay you to learn of the proposition. —Adv.

Ship Stock to Washington.

ON March 22d, H. B. Drake & Son, of Beaver Dam, Wis., shipped a carload of Short-horn cattle to Hershberger & Steel, Oroville, Wash. The shipment consisted of three yearling bulls, and the balance were cows and heifers. The shipment consisted of three yearling bulls, and the balance were cows and heifers. The shipment is intended for the foundation of a fine herd to be built up in the far West. Last fall the same Wisconsin firm sold a carload of good ones to Lewis F. Crawford, Sentinel Butte, N. D. This was the second load H. B. Drake & Son had sold to Mr. Crawford.—Adv.

Free Book on Choosing a Piano.

A PIANO in the farm home provides an opportunity for the children to learn to play and furnishes recreatioin for young and old alike. By careful selection, an instrument may be secured for the home at a very reasonable cost. In order to assist those who are interested in choosing a piano, the Hobart M. Cable Co., 253 Cable St., La Porte, Ind., have issued a book on this subject. All music lovers, whether accomplished pianist or beginner, will find valuable information in this book. Get a copy for your household at once by writing to the company named above. See page 23.—Adv.

Short-horn Heifers For Sale.

DON'T overlook this opportunity if you want Short-horn heifers. Females of this breed that can be bought are scarce and it will pay you to write P. U. Collins, River Falls, Wis., for a description and price of the heifers that he has for sale. They will not be on the market long, so get busy. Please mention The Wisconsin Farmer. Adv.

Steam and Gas Tractors For All Purposes.

THE Red River Special line of steam and gas tractors have an enviable reputation for doing all kinds of farm work in the most satisfactory way. Nichols & Shepard Co., Battle Creek, Mich., are makers of these engines and they have been in business continuously since 1848, so that their knowledge of engine construction is based on long experience. Farmers who are interested in farm engines should write to this company for their free literature, which includes their catalog and a paper that gives the opinions of farmers with regard to the use of tractors and engines on the farm. See the advertisement on page 2 and write today. —Adv.

Get Your New Silo Now.

IN the advertisement on page 18 the Indiana Silo Company, 618 Union Building, Anderson, Ind., is making the suggestion to farmers to buy or contract for a silo now if they will want one in the near future because there is all probability that the increase in price of materials will soon make them much more expensive. That company has a proposition whereby a silo may be contracted for now and delivered whenever it is wanted. It would be well for those interested to write to the company for this proposition. Anyone who would like to have the agency of these silos in his territory should alos write to the company at once, as there are still some openings which offer excellent opportunities.—Adv.

Buy Percherons.

IF you wan't a black or a gray Percheron stallion, L. P. Martiny, Chippewa Falls, Wis., has them. The gray is a three year old with great scale, a stallion that should make 2,200 pounds and right in every respect. A good top and middle, very heavy bone and a good sire. The black is a horse full of quality and one with an outcome, though not so drafty as the gray horse. Now is the time to buy your stallion for service this spring and these horses will please you. Mr. Martiny has been doing light work with these horses so they are hardened and have not been pampered for sale. Write for further description, and if interested go see them. See page 29.—Adv.

E. H. Parker & Son Buy More Short-horns.

WE have just been advised by Kiser Bros., Oregon, Wis., that they have sold to E. H. Parker & Son, noted Duroc breeders, of Janesville, eight yearling heifers. We saw these heifers a short time ago and they are a likely lot, five rich roans and two reds and Messrs. Parker are fortunate in getting this lot. This will give the Parkers a herd of about 20 females, as they purchased a number of good heifers a few months ago.—Adv.

Book of Facts on the Viking.

THOSE who are looking for an efficient cream separator will find it well worth their time to get the free book of the Viking cream separator and read it over carefully. This separator is advertised on page 18 of this issue by the Morley-Murphy Hdw. Co., of Green Bay, Wis. It is noted for its large capacity per dollar invested in it and for its speed and ease in skimming. The book contains facts and figures on this matter which will prove very interesting to you. Send for it at once.—Adv.

Own an Ensilage Cutter.

THE farmer who has his own ensilage cutter can fill his silo when the proper time comes without waiting for his neighbors or some traveling crew to do it for him. This is a tremendous advantage at times and it will pay him to consider getting a good cutter. The big catalog of the Jos. Dick Mfg. Co., Box 211, Canton, Ohio, will help him a great deal in this matter. It explains the principles involved in building different kinds and sizes of silo fillers and cutters and describes the "Blizzard" outfit in detail. The advertisement is on page 18 and the catalog will be sent free to anyone on request.—Adv.

Free Service of Heating Experts.

READERS of The Wisconsin Famer have an opportunity at this time to secure the advice of heating experts on the problem of heating their homes in the most satisfactory manner. The L. J. Mueller Furnace Co., 204 Reed St., Milwaukee, Wis., who have manufactured heating systems and studied heating problems since 1857, will give without charge the service of their experts to anyone who will write them in response to their advertisement on page 8. Mail your request to the company on a postal card or in a letter. There is no obligation in this matter and the advice they may be able to give will pay for the trouble many times over. Take advantage of this liberal offer today.—Adv.

Carpenter & Carpenter Buy Canadian Cattle.

WE have just had a letter from Floyd Carpenter, junior member of the Short-horn firm at Baraboo, Wis., Carpenter & Carpenter, advising that he has just returned from Ontario, Canada, where he purchased a number of choice Scotch cows and heifers to add to their herd at Baraboo. This firm has one of the good herds in the state and with this valuable addition their Short-horns will command a preëminent position.—Adv.

Strawberry Plants.

STRAWBERRY lovers will find the offer of 200 fine strawberry plants for $1.25 by J. L. Todd & Co., R. F. D. No. 3, Des Moines, Iowa, an especially tempting one. The lot includes 25 of the delicious Everbearing strawberries, 75 Dunlap, and 50 each of two other choice varieties. A practical book of instructions on planting and growing strawberries is given with each order. Send in your order. See page 25.—Adv.

HENRY ANTHES, Fort Atkinson, Wis., has a herd of pure-bred Holsteins which is known from coast to coast from the fact that he has owned some of the most popular animals of the breed. Mr. Anthes formerly owned Johanna McKinley Segis, a bull that now stands at the head of the Carnation Stock Farms herd. Mr. Anthes is consigning two heifers sired by a 33-pound bull, out of the best daughter of Johanna McKinley Segis, to the Lake Mills consignment sale, May 8th and 9th. Uneeda Korndyke Abigail Boy

---The Efficiency of a Cow as a Milk Producing Machine is Mostly a Matter of Inheritance---
Prof. C. H. Eckles

HERE IS THE BULL THAT WILL GIVE RESULTS

PABST'S JOHANNA AAGGIE

Sire, KORNDYKE SEGIS JOHANNA, whose two nearest dams gave 38 pounds. Dam at 4½ years, 25.22 pounds butter, 493.9 milk, 4.09 per cent; 365 days at 3 years, 808.7 milk, 18,824.1. By King Pontiac Champion (53418).

Bulls From $150.00 Up. Write for Particulars.

PABST STOCK FARM
(Breeders, Not Dealers)
Box W, Oconomowoc Waukesha County
WISCONSIN

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON NASHOTAH, WIS.

TOO LATE TO CLASSIFY.

JERSEYS.
HEIFERS AND BULLS
SIRED by Double Time Varsity King and a son Golden Maid's Viscount. We are milking 50 cows. Fred Stubley, Black Earth, Wis.

RAINY DAY
BY Callaway's Favorite, one of the good Chester White boars of the state. Booking orders now.
WALTER GEORGE EVANSVILLE, WIS.

GOOD VIEW STOCK FARM
SHORT-HORN BULLS — Two ready for service. From good milking dams.
J. M. SWEENEY & SONS, Edgerton, Wis.

CLOSING OUT SALE OF HOLSTEIN COWS AND HEIFERS

57 Head---High Grades. 24 in Milk, None Over 7 Years

COON VALLEY, WIS., THURSDAY, APRIL 26

WE HAVE always used registered sires and these **Holsteins** are well graded up and are nicely marked. They are good producers and have made us money, but we can't get competent help and must sell the cattle. Many of the females are by **Jessie Fobes Mercedes 8th** by Jessie Fobes Mercedes and are safe in calf to **Eli Sir Calamity 141702**, tracing to Aaggie Cornucopia Johanna Lad. Some of the cows gave 1,100 lbs. of milk and 43 lbs. of butter fat in January.

These Cattle Have Been Tested

Coon Valley is between La Crosse and Viroqua on the **Southeastern.** Leave La Crosse in the morning, returning in the afternoon after the sale. There will be some good buys in this sale. Auctioneer, A. Hoveland. Write for further information and sale list to

RUNDAHL BROS. **COON VALLEY, WIS.**

(102287) is the 33-pound bull now at the head of the Anthes herd. He is a particularly fine individual and is siring heifers of exceptional quality.—Adv.

SALE DATES.

Holstein Cattle.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.
May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.
May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.
May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.
May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

GUERNSEY CATTLE.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

Our Farm Help Column

The Wisconsin Farmer realizes the seriousness of the farm-help problem in the grain-belt states. In an effort to help our readers, this paper will publish for a limited time names and addresses of those who are in need of farm help, and also names and addresses of those who want jobs on farms. Will our readers who desire help please be as explicit as possible in their letters as to the kind of a man they need, whether for general all-round farm work, dairying, grain farming, live stock, and whether single or married man is wanted? Our readers will kindly conduct correspondence direct, using the addresses below in which they may be interested. Names will be published only once.

FARM HELP WANTED.

L. J. Nowotny, Elberon, Iowa, general farm work, single man, salary $40.
Watson A. White, Peshtigo, Wis., general farm work.
O. L. Johnson, Oregon, Wis., Route 2, man and wife (no children) wanted.
G. J. Stodala, Coleman, Wis., single man, salary $38.50.
T. F. Carmody, Mt. Hope, Wis., general farm work.
R. J. Romkema, R. F. D. 2, Sheldon, Iowa, general farm work.
Ernest N. Ganser, R. R. 1, Lodi, Wis.
F. Darl, R. 3, Sta. C. Box 353, Milwaukee, Wis. One single man and one married man, both dairymen.
Roy Gross, Taylor, Wis.
J. Roy Gordon, R. R. 2, Mineral Point, Wis.
T. A. Hubbard, Wellington, Kan. Grain and stock farm.
Howard M. Drake, Dombey, Okla.
John H. Stockdale, R. R. 1, Mineral Point, Wis.
A. E. Wright, R. R. 2 Hampton, Iowa.

FARM JOBS WANTED.

Paul Clements, R. F. D. 1, Box 28, Hutsonville, Ill.
Edward J. Engel, Summerdale, Ala.

HORSES.

STALLION FOR SALE

PURE-BRED French Draft, weighs about 1,900 lbs., 8 years old, color sorrel with white hind feet, Silver mane and tail, light points. Reason for selling, haven't the time to travel him. Price cheap, considering quality. Terms liberal; time if necessary. Kriwanek Bros. Co., Denmark, Wis.

DUROC JERSEY SWINE.

Duroc Spring Pigs

HAVE over one hundred good ones sired by the grand champion

KING DEFENDER

Let me book your order now. Address
JOHN L. FISHER JANESVILLE, WIS.

CLARENCE GEORGE
OF EVANSVILLE, WISCONSIN

IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. Jenkins Bangor, Wisconsin

SHEA

OFFERS fall boars and gilts; latter will be bred for fall litters. Order Durocs early.
Dennis Shea Melvina, Wis.

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address
Geo. D. Sprain & Sons West Salem, Wis.

ATWATER

HAS no Durocs to sell until May. Will book your order.
L. F. Atwater Bangor, Wis.

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address
F. R. Constance & Sons Waupaca, Wis.

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address
Emmett Cook & Son, Richland Center, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR
Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
J. W. SALTER & SONS - UNITY, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE OFFER

TO STALLION MEN who are looking for a good stallion to put on the stand a lot of stallions that will please the most critical. Our two-year-old black and dark gray Percherons weigh now up to 2,100, with the bone and conformation to carry their weight. Our Belgians are big and the right type. We now offer Bizzarrie, our 2,350 five-year-old imported herd header. This horse is the best we ever owned. A great stallion for someone. We now offer ten head of stallions from six to ten years old at sacrifice prices, as we won't carry any aged stallions over. We also offer one five-year-old imported Shire stallion for less money than he could be bought in Europe. Wanted to buy 50 head of big drafty stallions, one coming twos. Write us what you have. Send 25c in stamps for large horse hanger. All horses at big discounts till sold out.
FRANK P. SHEKLETON & SONS LAWLER, CHICKASAW COUNTY, IOWA
We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R.R., making direct connections for Lawler.

HOMEWOOD STOCK FARM

PERCHERON STALLIONS AND MARES IMPORTED and HOME BRED

GOOD, big, ton stallions and mares with plenty of quality, bone and the best of legs and feet. If you want a real draft stallion or mare come and see our stock or write for particulars. Most reasonable prices, terms and guarantee.
S. METZ & SON - - - - - HOMEWOOD, ILLINOIS
Have a choice lot of Hereford and Short-horn bulls for sale at reasonale prices.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.
L. P. MARTINY, Chippewa Falls, Wis.

HAWTHORN FARM

STALLIONS and MARES

of proved worth as producers; big, massive, clean-cut, clean-legged, long-lived—the get of our undefeated grand prize winner, **Westside Chieftain 315** and

Other Famous Suffolks

both home-bred and imported. Everything from yearling colts to mature sires and dams. All registered. Shire horses, too; Shropshire and Dorset sheep; Duroc-Jersey swine; Hackney horses and ponies. For catalogues, descriptions and other details,
Address Box. 3E
HAWTHORN FARM, Lake County, ILLINOIS

LEFEBURES' BELGIANS

Largest Collection on Earth
150 Belgian Stallions and Mares 150
Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.
H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids
If in Cedar Rapids, phone us for hourly Interurban service

HART BROS., OSCEOLA, IOWA

IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices.
Fred Chandler, R. 7, Charlton, Ia.

W. E. PRICHARD & SONS
OTTAWA, ILL.

PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

W. A. LANG & CO.
Importers and Breeders of
BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars
W. A. LANG & CO. GREELEY, IOWA

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.

DR. TRUMAN BROPHY **CHICAGO, ILLINOIS**
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY **SHEBOYGAN FALLS, WIS.**

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS **WAUKESHA, WISCONSIN**

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

ONE 3-YEAR-OLD GUERNSEY BULL

DAM, Oakwood Maid Eagle, with 448 pounds fat and sired by Golden Lad of Fern Ravine. Price $200. Also calves from 2 to 6 months old, mostly all dams imported and sired by different sires. Prices $50 to $100.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

FOR SALE

GRADE Guernseys. 2 milking, 3 springers. 14 yearlings, 7 are bred. 8 fall calves. Price $1,400. 1 registered bull one year old at $100.

E. H. Klesling **Jefferson, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS

Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.

W. G. Jamison & Sons, Appleton, Wisconsin

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

RILEY MARTINY & SON

BARABOO, WIS.

TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

Please mention this paper when writing

POLAND CHINA SWINE.

GROW YOUR HERD BOAR

BUY

POLAND CHINA FALL BOARS NOW

SIRE—Orange Wonder, dam by Master's Giant, the cross that has made good. Only saved a few tops. Order early.

P. W. Young, Prosper, Minn.

McDONALD POLANDS

A FEW fall boars. Spring pigs coming fine. Book your order now. Address

J. D. McDonald **North Bend, Wisconsin**

BIG POLANDS

Black Jumbo AND Model Major 2d

Order your spring pigs now. Address

E. W. HENDRICKS
Hazel Green, Wisconsin

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reason able prices on singles, pairs or trios. Address

A. P. CORTTE **LOMIRA, WISCONSIN**

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northsiue Wonder and Black Chief, out of 800 lb. sows.

PRICES RIGHT

Address
J. C. HENDRICKS, Box F., Hazel Green, Wis.

LIVE STOCK AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY versed on pedigrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

I. E. STICKELMAN

CLARINDA, IOWA

I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

POLANDS

SOME very choice fall pigs—absolutely right. Order one. Address

R. Meinking **Bangor, Wis.**

REGISTERED POLAND CHINAS

SPRING boars and early bred gilts all sold. Ask about gilts to farrow late, also August and September pigs, male and female. (Registered Holsteins.

Marinette County Asylum **Peshtigo, Wis.**

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address

James Derivan **Fox Lake, Wisconsin**

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanloy's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

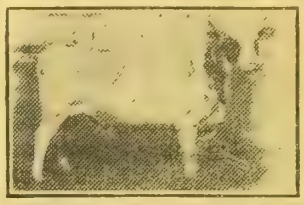
C. S. Flesch **Mt. Ida, Wis.**

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, sired by **Beau Gomez 2d,** he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.

WALTER BROS. **CHIPPEWA FALLS, WIS.**

AYRSHIRE CATTLE.



REGISTERED AYRSHIRES

OF all ages for sale. Pedigrees and prices gladly given upon request.

STEPHEN BULL **RACINE, WISCONSIN**

SHORT-HORN CATTLE.

Short-horn Futurities

$7,000 is offered at the Iowa and Ohio State Fairs, the American Royal and the International as Short-horn futurity prizes in the senior bull and heifer calf classes. Junior entries will close June 1st. Senior entries closed March 1st. **$50,000** is offered in Short-horn prizes for 1917. For entry blanks and information address

American Short-horn Breeders' Association, 13 Dexter Park Ave., Chicago, Ill.

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write

J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, **Janesville, Wisconsin**

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address

J. E. KENNEDY **JANESVILLE, WISCONSIN**

LITTLE SHORT-HORNS

FEW CHOICE BULLS of serviceable age, and it so happens that they are out of the best cows in our herds. We satisfy our customers. Write

HARVEY H. LITTLE **EVANSVILLE, WIS.**

GREEN VIEW STOCK FARM SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address

John H. Bear & Son **Spring Green, Wis.**

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.

Geo. Wenham & Sons, Ft. Atkinson, Wis.

SHORT-HORNS

BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

H. B. Drake & Son, Beaver Dam, Wisconsin

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

THREE SHORT-HORN BULLS

FOR sale—10, 11 and 13 months old. Sired by a son of White Sultan and from good milking dams. A. J. Wheeler, R. 1, Beaver Dam, Wis.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG buls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address

J. Warren Hoyt **Rosendale, Wis.**

SHORT-HORN BULLS

Red, white and roans. For particulars address

R. A. Morley Co. **Baraboo, Wisconsin**

REGISTERED Short-horn bulls of serviceable age, also some pure-bred calves, for sale. Prices right. Address John Fitzgerald, Grimms, Wisconsin.

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.

P. N. COLLINS **RIVER FALLS, WIS.**
(35 miles southeast of St. Paul)

SHORT-HORNS Both sexes and good individuals. Address Williams Bros., Bangor Wisconsin.

WE have some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

HAMPSHIRE SWINE.

HAMPSHIRES

OR "Belted" swine, have 40 March farrowed spring pigs for May 1st delivery, males and females unrelated.

Dane Stock Farm Oshkosh, Wis.

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.

B. W. Little **Janesville, Wis.**

MULE-FOOT SWINE.

IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

When writing to advertisers kindly mention The Wisconsin Farmer.

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

CHESTER WHITE SWINE.

CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

H. A. DERENTHAL, Manager, EAST SIDE STOCK FARM, WYKOFF, MINN.

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present, but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916. Crandell-wonder, grand champion Ohio State Fair; Calloway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abe 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write

Wm. T. Butts **Evansville, Wis.**

Adolph Nuttleman

BREEDER of Chester Whites. Let me know your wants

WEST SALEM **WISCONSIN**

HOLSTEIN-FRIESIAN CATTLE.

MILFORD MEADOWS STOCK FARM

LAKE MILLS, WISCONSIN

EMMONS BLAINE - - - - PROPRIETOR

REGISTERED HOLSTEINS

DISPERSION

PURE BRED HOLSTEINS

The Herd of C. J. NEHRLING Is to Be Sold

MAY 1, 1917, at PLYMOUTH, WIS.

50 Head including 14 choice daughters of Sir Johanna Colantha Gladi, who is from one of the good daughters of Pontiac Korndyke and sired by a son of Colantha Johanna Lad and Pontiac Gladi (32 lbs. at 4 years).

Daughters also of Pledge Spofford Calamity Paul, Butter Boy Johanna De Kol, Count Segis Bellewood, Artis Walker De Kol, Annette Hillside Pietje, etc.

Good business cattle. All over 6 months of age tuberculin tested.

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LIVERPOOL SALE AND PEDIGREE COMPANY, Incorporated

LIVERPOOL, N. Y.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ **SHEBOYGAN FALLS, WISCONSIN**

HEAD YOUR HERD WITH A W INNER

GET INDIVIDUALITY WITH BREEDING. Would you like to head your herd with a brother to the junior champion Holstein bull at the Minnesota State Fair, 1916, or the junior champion bull at the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of that blood that won for us the Premier Breedership at the Southwestern Dairy Show and the Waterloo Dairy Cattle Congress, 1916? DO YOU want some of the blood that enabled us to win the Wisconsin Farm Management Contest, 1915? DO YOU want to breed individuality and production into your herd? If so, NOW is your chance. We offer some 20 choice young bulls from 1 to 15 months old bred in these lines. They are sired by our senior herd sire, Bairdland Segis Sir Prize, and out of daughters of Sir Urmagel Burke, a 31-lb. bull, with a 35-lb. sister. These daughters are making from 18 to 25 lbs. as 3 and 4 year olds. WHAT would one of these youngsters be worth to you? Write us your wants or come and see them. Herd tuberculin tested. Each animal guaranteed to be a breeder.

BAIRD BROS. - - - - **WAUKESHA, WISCONSIN**

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REGISTERED and high grade cows and heifers—service bulls. Carload or less. High grade calves, $18.00 each crated. Write us. We have what you want. Address

EDGEWATER STOCK FARM **FT. ATKINSON, WISCONSIN**

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address

A. M. Anderson **Whitewater, Wis.**

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

Dopp Brothers **Ixonia, Wisconsin**

WALCOWIS FARMS

OFFER grandson of King of the Pontiacs, born May 25, 1916. An outstanding individual, dark in color and tuberculin tested. Cornucopia Pontiac Johanna Lad 48355, his sire, is a full brother to K. P. Manor Kate, world's yearly record senior 2 year old. His dam is a 15-lb. 2 year old of Pontiac and Colantha breeding. His 7 nearest dams all have good A. R. O. records. Write now for reasonable price, pedigree and photo.

N. Dickinson & Son **Lake Geneva, Wis.**

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O.daughters. Arthur Rust, West Allis, Wis.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address

C. F. DINEEN, CEDARBURG, WISCONSIN

AT LA BELLE VIEW FARM

WE got our start sawing wood, but now we are breeders of pure-bred Holsteins of quality. If you wish to keep from sawing wood for a living, buy a young Holstein bull from the Ormsby family sired by a first cousin to Duchess Skylark Ormsby (dairy queen of the world). Our prices are low. E. E. Rosenkrans, Oconomowoc, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons **Elgin, Illinois**

HOLSTEIN

BULL calves, sired by Johanna Bonheur Pieter 113138, whose 14 nearest dams average over 27 pounds butter in 7 days, out of dams with 7 day and yearly records. C. Tochterman, Jr., Monroe, Wisconsin.

SELLING OUT!!!

WE are going to discontinue the production of certified milk and devote all of our time to the development of a high-class herd of registered Holsteins. We are offering at private sale any number of our entire high-grade herd of 134 head. These consist of high-producing Holsteins, Guernseys and others, many fresh and springers. Our herd has been regularly tuberculin tested and is and always has been absolutely free from contagious abortion.

EDGEWOOD FARMS, INC.

PEWAUKEE WISCONSIN

HIGH-GRADE HOLSTEIN

Cows and Heifers

BRED to our herd sire, Butter Boy Mink Pontiac 133161, due to freshen in fall. Also young registered bulls from A. R. O. dams. Priced reasonable. For particulars write

COOK BROS. **BURLINGTON, WIS.**

HILLVALE PAUL ORMSBY

REPRESENTS a rare combination of Ormsby breeding. His sire, Paul Ormsby, is a half-brother of Ormsby Jane Segis Aaggie and his dam, Lady Ormsby 2d, 22.35 lbs., is a half-sister of Duchess Skylark Ormsby and Pietertie Maid Ormsby. Our herd is on the accredited list. Send for extended pedigree. Address

H. E. Reddellen **Oconomowoc, Wisconsin**

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address

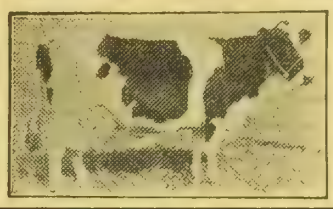
Fred Kohlwey **Grafton, Wisconsin**

HOLSTEIN BULL FOR SALE

FROM a 13.88 lb. 2-yr.-old granddaughter of King of The Pontiacs, and sired by the richly bred bull, Julip Segis Korndyke 80640; born April 27, 1916; price $100. L. V. Garvens, Brookfield, Wis.

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

See the Dam Before Buying a Herd Bull



WE are now offering for sale a Holstein bull calf, born Nov. 8, 1916, out of Colantha Piebe of Elm Court (103267) with 27.7 lbs. in 7 days and 808.82 lbs. in a year; also the dam of a 25-lb. 4 year old and junior champion at the Wis. State Fair. The sire of this calf is the 30-lb. bull, North Star Parthenea Star Beets, that is a son of the famous prize winner, Sir Beets Cornucopia Netherland. Will also price for quick sale another son born Feb. 24, 1917, of the 31.02-lb. cow, Ella Mercedes of Elm Court (89908), sired by North Star Parthenea Sir Beets, a 30-lb. bull.

Reuben Klofanda, Racine Stock farms, R. 1, Racine, Wis.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS **R. R. 11** **FRANKSVILLE, WIS.**

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.

Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.

TULLOCH & FRIES' HERD **GENOA, WIS.**

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

B. F. Winckler & Sons **Medina, Wis.**

HOLSTEIN BULL FOR SALE

HOLSTEIN BULL, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

HOLSTEIN HEIFER CALVES

HIGH-GRADE Holstein heifer calves; am in position to furnish single or car load shipments of selected well-marked calves at $18.00 to $20.00 a head. Also pure-bred bull calves. Send cash with order. Address S. E. Jones, Watertown, Wisconsin.

REGISTERED HOLSTEINS

A NICE lot of young bulls closely approaching serviceable age. Can spare a few females. Sires, University Johanna Excell and King DeKol Lyons. (Registered Poland China hogs).

Marinette County Asylum - Peshtigo, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers **Lyons, Wis**

JERSEY CATTLE.

OAK GROVE JERSEY FARM

OFFERS for sale bull calf, dropped Feb. 5, 1917. Solid color, black tongue and switch. Sired by a son of Noble of Oakland 95700. Dam has a R. of M. record of 594 lbs. 10 oz. butter as a two year old. Write for particulars or come and see him. Address

W. M. Knight **Eagle, Wis.**

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. Bruins - - Fairwater, Wisconsin

ELMDALE FARM . . . JERSEYS

REGISTERED bulls ranging in age from 9 to 15 months, sired by Inez Rosarie's Oxford, from heavy producing cows of choice type and breeding. Send for pedigrees, description and price.

H. Holt & Son **Oconomowoc, Wis.**

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit—breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT - - - TOMAH, WIS.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt **Oxford, Wisconsin**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER, SHEBOYGAN FALLS, WIS.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

W. H. S. Rhoda, 610 3d St., Watertown, Wis.

Hillside Stock Farm

5 REG. Holstein cows and 2 heifers; 24-lb. bull 16 mos. old, 7-8 white, faultless individual; also noted Pontiac herd sire.

Kirkpatrick Bros. **Reedsburg, Wis.**

STATEMENT OF THE OWNERSHIP,

management, circulation, etc., required by the act of congress of August 24, 1912, of The Wisconsin Farmer, published weekly at Des Moines, Iowa, for April 2, 1917.

State of Iowa, County of Polk, ss.

Before me, a Notary Public, in and for the state and county aforesaid, personally appeared A. W. Wickham, who, having been duly sworn according to law, deposes and says that he is the Assistant Business Manager of The Wisconsin Farmer, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—James M. Pierce, Des Moines, Iowa.
Editor—James Atkinson, Des Moines, Iowa.
Managing Editor—James Atkinson, Des Moines, Iowa.
Business Manager—James M. Pierce, Des Moines, Iowa.
Assist. Bus. Mgr.—J. W. Wickham, Des Moines, Iowa.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

The Wisconsin Farmer Pub. Co.
James M. Pierce, Des Moines, Iowa.
Dante M. Pierce, Des Moines, Iowa.
Frank Dunning, Bedford, Iowa.
J. L. Parrish, Des Moines, Iowa.
R. L. Parrish, Des Moines, Iowa.
B. N. Waller, Des Moines, Iowa.
J. H. Mather, Chicago, Ill.
R. S. Bibb, Kansas City, Mo.
A. T. Cole, Kansas City, Mo.
J. C. Loehr, Lone Tree, Iowa.
F. S. Dunshee, Des Moines, Iowa.
I. M. Duffield, Des Moines, Iowa.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

Bankers Life Ass'n, Des Moines, Iowa.
Louisa Bird Hyde Estate, Des Moines, Iowa.
Equitable Life Ins. Co., Des Moines, Iowa.

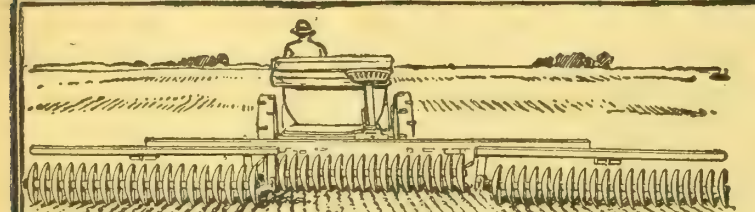
J. W. WICKHAM,
Assist. Bus. Mgr.

Sworn to and subscribed before me this 2d day of April, 1917.

M. M. LOWMAN,
(My commission expires July 4, 1918.)
(Seal.)

make a guaranteed powerful

Staude Mak-a-Tractor



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5th wheel attachment which received bolster and reach of ordinary farm wagon

Staude Mak-a-Tractor pulling 10,000-pound Minneapolis Threshing Machine

Pulling binder in heavy oats with Staude Mak-a-Tractor

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GUARANTEED four-horse working ability in any farm work. Demonstrated twice the daily plowing ability of four horses—seven acres a day against three and a half to four acres with big, strong horses. Equally superior efficiency in all other work. Use it twenty-four hours a day if you want your farm work done quickly. No fear of dead horses in hottest weather. No expensive cost for feed, veterinary or stabling.

The wonderful ability of your Ford converted into money saving, profit earning work without injury to your car for pleasure driving — and with actual cash savings up to 50% over the cost of doing the work with horses.

Sell Your Horses

Put all your farm work on the basis of mechanical efficiency. Do your plowing, listing, discing, drilling, harvesting with Staude Mak-a-Tractor. It takes the output of five acres to support one horse—twenty acres to support four horses. Turn these wasted twenty acres into cash in the bank. And get bigger yields from your entire farm by doing your farm work with Staude Mak-a-Tractor.

A Guaranty of Service

The special Staude tractor radiator, six times as efficient as the Ford radiator—and the patented force feed oiler furnished with every Staude Mak-a-Tractor guarantee real service.

We would not think of selling you our attachment without these big features—no tractor attachment can operate satisfactorily without them.

With them you get perfect tractor operation and a wonderfully improved Ford.

20 Minutes Makes the Change

It takes only 20 minutes to change your Ford touring car or runabout to a tractor—the same time to change back—less time than it takes to hitch up four horses. And for every two teams of four horses you can use one Staude Mak-a-Tractor. This is a real saving—in time, in actual money. Anyone who can drive a Ford can drive a Staude Mak-a-Tractor. Get one for your farm now.

Built for Work

Staude Mak-a-Tractor is built for the hardest work. The driving power is applied to keep all strain off the Ford and get the utmost working ability. The hitch is extra wide to get the pull where you want it without side draft.

The working parts are built of the finest materials—to last under all kinds of work.

Do not be content with half-way measures. Staude Mak-a-Tractor is owner-proved, time-tried, for your benefit.

Order Today, Start Low Costs Now

Plan to do your Spring work this year with Staude Mak-a-Tractor. Save real money from today on. We are prepared to ship your Staude Mak-a-Tractor as soon as we get your order—as soon as you can get in touch with our nearest dealer. If you do not know his name, write to us—we will send him to see you at once.

But don't lose the money that you can save by doing what 22,000 farmers have already done—by buying Staude Mak-a-Tractor.

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THE WISCONSIN FARMER

VOL. XLVI. NO. 16. THURSDAY, APRIL 19, 1917. WHOLE NO. 1838

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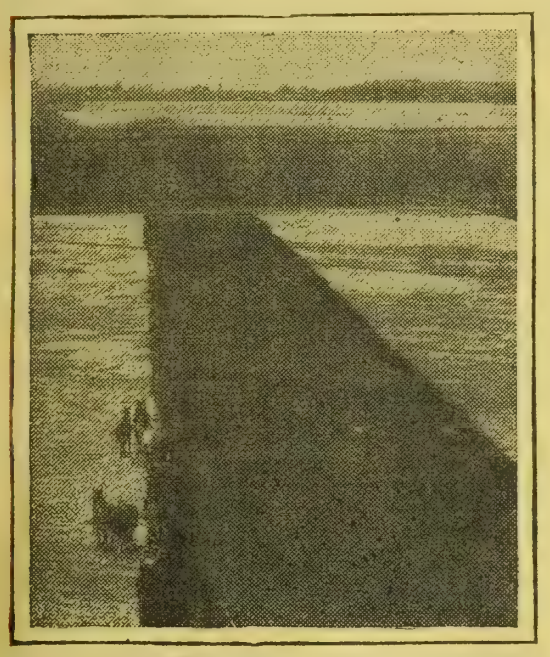
Ad

THE SEED BED FOR CORN.

More Can Be Accomplished by the Use of Tillage Implements Before Planting Than Afterwards With the Cultivators.

WISCONSIN farmers are preparing to do their full part in augmenting the world's food supply this year. There will be a large acreage of small grain seeded and every effort should be made to raise a bumper crop of corn because where conditions are favorable a greater weight of grain can be raised from an acre of corn than from any of



GOOD WORK WITH THE PLOW WILL HELP.

the cereals. Satisfactory prices are already absolutely assured and no obstacle should be allowed to stand in the way of planting a large acreage. Where acclimated varieties are used an enormous quantity of merchantable corn can be produced in Wisconsin and, in addition to the grain, there will be an abundant supply of fodder, a product that can always be utilized to splendid advantage by dairymen as well as beef producers.

At the present time we are face to face with the problem of preparing the seed bed for the corn crop, and in discussing this matter we are well aware of the fact that circumstances and conditions will alter the plans of any man. However, there are a few fundamental principles that we can well afford to roll over in our minds, because the character of the seed bed has so much to do with crop yield. Unless the seed bed is right, there will be a big struggle all season, and even then the yield is apt to be disappointing, because of the sturdiness of weed growth. While early plowing ordinarily is to be preferred, there is no need of theorizing on a matter of this kind, because where much corn is produced on a given farm, some of the plowing is done early and some of it is not. Where it is possible to put on an extra team and get the soil turned, there is then an immediate chance for weeds to grow. In this connection attention should be called to the importance of getting the seed bed into shape just as soon as possible after plowing. Where the soil is at all friable, this can be done with a harrow, and where the seed bed is right, weeds will make the best start. Then comes the work of destruction with the disk or with any surface-cutting implement. While we greatly admire the efficiency of the harrow as an implement to get the soil into shape, it will not do the work satisfactorily when once weeds become well rooted. It is necessary to be more heroic and to use heavier implements, so that everything is uprooted.

Sometimes, in the rush to get soil plowed early, old stalk ground is not worked down on the surface before plowing, but this is a mistake. A good disking means that the furrow slice will make connection with the lower soil in much better shape, so that water will move to the rootlets more quickly from beneath. This is particularly important in the case of stiff soils, and it is not unusual to find that the practice of disking an old cornstalk field will increase the yield anywhere from ten to fifteen bushels per acre as compared with the other plan of plowing the soil, while the winter-created crust has been unmolested. We are accustomed to think of a

THE HARROW WISELY USED IS AN EFFECTIVE IMPLEMENT.

mulch on the surface, but it is a fine thing, also, to have a mulch under the furrow. In the end no more labor is involved in bringing the seed bed into good condition for the simple reason that a soil that has been well disked before being plowed will work up into good shape much more quickly than one that has not been disked.

The question involving the depth of plowing presents itself to every man as he drives into the field for the first time. Here again the character of the soil is a modifying factor. On clays and clay loams it is a mistake to go down too deeply in the spring, because that means the bringing of much inert material to the surface and growth on such a soil will not be as active as it will be where friable, weathered soil surrounds the surface roots. A five or six-inch furrow on these types of soil is plenty deep enough. Moreover, with the acreage that will be put in this year, there is not horse power enough to handle it properly, if we undertake to send the plows in seven or eight inches. Where one individual proposes to handle fifty or sixty acres of corn, he will find it entirely impracticable to plow a deep furrow, excepting in those cases where the work is done with a tractor. Where the soil is sandy, plowing deeply does not require so much horse power, and there is no objection to burying the trash to considerable depth. The air penetrates such a soil more freely in any event, and there is in this instance a real advantage in having a fairly deep seed bed.

When the plowing has been done, and the harrow freely used to get the seed bed into condition for weed growth, the early plowed soils will have to be disked and in this connection attention should be called to the fact that there is a right and a wrong way to disk a mellow soil. Above all else, it should not be ridged, and this can be avoided by double disking, lapping half each time across the field. If single disking will do the work, and the chief aim is to go over the ground quickly, then the harrow should follow the disk immediately. We have found that where single disking is practiced, and the soil becomes baked afterwards, it is then absolutely impossible to work out the furrows made by the disk. If the ground is immediately harrowed crosswise, however, this leaves the surface soil in fairly good condition and, of course, the practice of single disking saves considerable labor at a time when covering the ground is the most important matter of all.

It is scarcely necessary to emphasize the importance of using the harrow freely just before planting, assuming, of course, that no weeds have yet started. Our best farmers invariably emphasize the importance of this implement. We have in mind one individual who has been

THE PLANTER SHOULD BE FOLLOWED BY THE CULTIVATOR IF THE GROUND IS WEEDY—BLIND PLOWING.

exceedingly successful as a corn grower and who believes that every time he harrows his seed bed previous to planting, he increases the yield anywhere from two to five bushels per acre. It firms the soil and possibly has something to

(Concluded on page 7.)

CURRENT EVENTS

THE war situation remained practically unchanged during the past week. Congress was hastening preparations to put the United States on a war basis, particularly as regards men, munitions and money. Both houses of congress seemed favorable to a bond issuance of $5,000,000,000, to be divided between the necessary war expenses of this nation and a loan to the European powers which are fighting Germany. It was announced that a great international war council would be held in Washington within a fortnight or so, England sending a delegation headed by Arthur J. Balfour, former premier and now minister of foreign affairs, the French delegation headed by M. Viviani, now minister of justice, formerly premier. The English delegation will include Admiral de Chair, of the British navy; General Bridges, of the army, and the governor of the Bank of England. It is assumed that owing to the difficulties in passage and the probable delay, the interests of other allied governments will be confided to their resident ambassadors. Beyond the statement that the object of the commission is to discuss general questions of policy connected with the war no information was given at the state department. It was made clear, however, that in no way will the United States government depart from the traditional policy of avoiding anything in the nature of political alliances, though, of course, that does not exclude full and intimate military and naval coöperation in the prosecution of the war. Up to the close of the week there had been no actual hostilities between the United States and Germany, although German submarines were reported as being in American waters, in both the Atlantic and the Pacific oceans.

BRITISH victories in the western front, in Europe, in what is coming to be known as the battle of the Arras, were marked during the past week. The big British push succeeded in recapturing a long line of trenches from the Germans and between 10,000 and 15,000 prisoners, besides innumerable cannon. The Canadians, in particular, covered themselves with glory, taking one of the most strongly fortified German positions, which was the key to an important section of the battle country. The British tanks, or armored tractors, were again in use and were highly successful. Even the cavalry got into the fight in the open, the Germans being pushed back such a distance that twelve miles of trenches were taken in a single day. It was said everywhere along the attacking line that the Germans appeared to have been taken by surprise, and only in a few instances did they put up a strong fight. One reason for this was that they had been fairly dazed by the British artillery fire of the preceding ten days.

A BOND issue by the United States government of $5,000,000,000 has been practically agreed upon by the financial leaders of congress. Of this amount $2,000,000,000 will be loaned the European countries at war with Germany (England, France, Russia and Italy) without interest or any charges. Bonds of a similar amount issued by these foreign countries will be taken as security and the funds thus available will be applied to the purchase of arms and munitions to help the allies in the field. The loan will be America's immediate contribution to the allied cause, with the promise of other bountiful contributions of money, munitions and foodstuffs to come as needed. The forthcoming bond issue, it was authoritatively said, will be placed before the public as quickly as possible in denominations down to $100, possibly to $25, will bear "a reasonable interest rate," and the entire army of America investors—banks, corporations and individuals, will be afforded an opportunity to subscribe. Treasury department and federal reserve board officials believe that a $5,000,0000,000 bond issue can be absorbed without difficulty by American investors and it is likely that this will be the first sum offered.

BRAZIL and Cuba have followed the lead of the United States and are now formally at war with Germany. Cuba was the first of the Latin-American countries to range herself alongside the United States. About the same time the president of the little republic of Panama, signed a proclamation committing that country unreservedly to the assistance of the United States in the defense of the canal. The proclamation declared: "Our indisputable duty in this hour of history is of a common ally, whose interests and existence, as well, are linked indissolubly with the United States. As the situation creates dangers for our country, it is the duty of the Panama people to coöperate with all the energies and resources they can command for the protection of the canal and to safeguard national territory." Brazil was led to take action against Germany by reason of the sinking of the Brazilian steamer, Parana, by a German submarine. Forty-six German ships are interned in Brazilian ports and these will doubtless be seized as has already been done with the German ships interned in American ports. Active support of the United States by at least two of the five Central American republics and possibly by four, would not be surprising. Official reports that Estrada Cabrera, president of Guatemala, is contemplating seriously a break with Germany have been received. So long as Mexico's course is indefinite unusual interest is attached to the position of the Central American governments, especially Guatemala, controlling the southern frontier of Mexico.

NO STRIKES or labor disputes of any kind during the war is the program of the labor committee of the council of national defense, headed by Samuel Gompers, president of the American Federation of Labor. In a report unanimously adopted by the council it is declared that "the defense and safety of the nation must be the first consideration of all patriotic citizens." It is proposed that whenever emergencies arise requiring a change of standards, such changes should be made only after investigation and approval by the council of national defense. Since the labor committee membership includes both leaders of organized labor and representatives of influential employers, its action is interpreted as giving the United States promise of complete freedom from industrial disputes such as hampered England early in the war. Even when there was danger recently of a protracted railroad strike, the union men declared their willingness to defer matters if war should arise and the nation should find itself helpless as a result of the proposed strike. A wave of patriotism is sweeping across the country such as has not been seen for several decades.

ALIGNING itself once more with Germany, Austria severed diplomatic relations with the United States last week, the American officials being given their passports by the Austrian government and the Austrian officials being given theirs by the United States government. Immediately the treasury department in this country ordered the seizure of all Austrian merchant ships in American harbors. The Austrian crews were taken off and sent to immigration stations and American guards put on board. The measure was explained as purely one of precaution, but it is realized that it may be interpreted by Austria as an act of war. In a similar situation after the break with Germany, no ships were seized until a state of war actually had been declared.

THE anti-German allies are well supplied with munitions and men for their immediate needs, the administration has learned, and, therefore, the immediate assistance to be rendered by the American government will consist in sending bread, meat and money, and in providing ships to convey food supplies to Europe. The placing of an embargo by Argentina on some forms of foodstuffs has lessened the supply for the remainder of the world, and expected shortages in the United States have impressed the administration with the necessity of doing everything possible to increase the output of live stock and necessary grains.

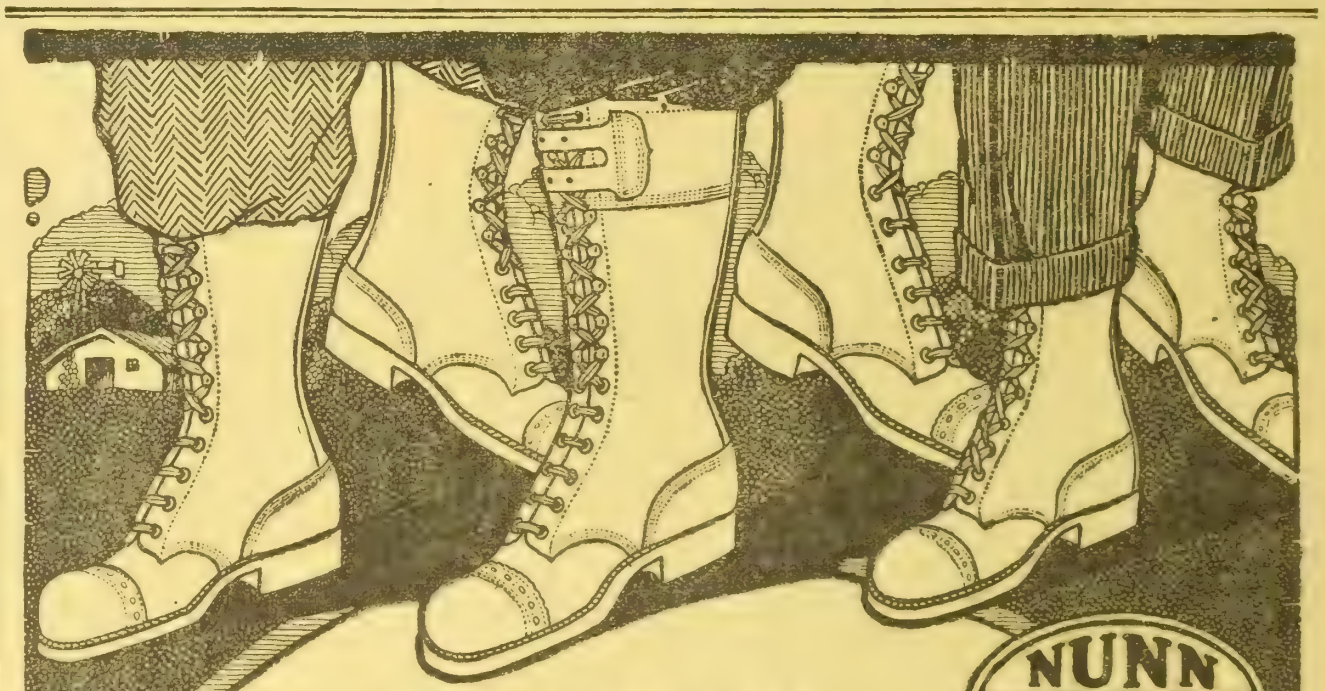
A HISTORY OF THE PERCHERON HORSE.

Six Hundred Pages of Text and Two Hundred Illustrations.

There has just come from the press under the above title a volume that will be of special interest to draft horse breeders, notably to those who are breeding Percherons. The authors, Mr. A. H. Sanders and Wayne Dinsmore, secretary of the Percheron Society of America, have succeeded admirably in putting between the covers of one volume the important facts of Percheron horse history. Mr. John Ashton, a continental authority on Percheron horse history, has aided in the preparation of this volume, securing as he did in France all available documents that would tend to throw light on the early origin and development of the modern draft horse type. The cordial coöperation of the French government was also obtained and permission was given to photograph valuable historical manuscripts. Many documents were discovered that have been entirely overlooked in the past by those who have undertaken to write Percheron history. Indisputable evidence appears in this volume proving that for practically a hundred years France has coöperated cordially and effectively in the improvement and development of Percherons. Since the middle ages special emphasis has been placed by the farmers and breeders of the province of Perche on the development of a horse that combines speed with ability to move heavy loads.

This volume contains a detailed history of the Percheron in the United States and Canada, reference being made to all those who have had an important part in the development of the breed in the past as well as those who are advancing its interests at the present time. This volume is beautifully illustrated and it should find a place on the library shelves of every lover of draft horses. It sells for $2 and The Wisconsin Farmer will be pleased to wait upon those who are interested in the matter.

If in doubt regarding the condition of your soil have it analyzed. Write to the soils department, college of agriculture, Madison, Wisconsin.



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The Wisconsin Farmer

THURSDAY, APRIL 19, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

SOME THOUGHTS FOR WISCONSIN FARMERS.

I REALIZE, of course, that present conditions are abnormal so far as the prices for farm products are concerned, but I am also confident that even after the war is over prices for foodstuffs will not again sink to their former level. I am reminded in this connection of a remark of the late James J. Hill's that seems prophetic. He said, a few years ago: "Inside of twenty years America will go to bed hungry unless greater attention is paid to agriculture."

Even if we were not in the midst of the greatest war of history, with its consequent withdrawal of millions of hands from the plow, food production for 1917 would still fail to keep pace with the world's increasing population.

This is due to several causes. In America it has become a fad to say that this is because farm life has not been made sufficiently attractive to hold the young folks. But I am inclined to take this statement with several grains of salt in these days of automobiles, rural mail delivery, telephones, and all the other comforts and conveniences of farm life. It is true that farming is hard work, early and late, the year round, but it pays well. The hardships of pioneering are things of the past, and so I believe that there is a lot more theory than fact in this uproar about the young folks being driven from the farm home by its unattractiveness. It has been my experience that the young folks who leave the farm in nine cases out of ten go to a much less attractive existence than that of the old home, and I believe they are coming to appreciate this fact.

While there is unquestionably much to be said for the effort to keep boys and girls on the farm, I do not believe it is going to be as great a problem in the future as in the past, and that it is to be reached more by changes in our school system, which has educated young people away from the farm instead of back to it, rather than by preaching exclusively the gospel of greater attractiveness for the farm home.

The truth is that the question of increased agricultural production in this country has resolved itself largely into a problem of more intensified farming, which means either fewer acres better cultivated, or a larger labor supply. It used to be that the opening up of new lands took care of increased production, and I can easily remember when there were almost millions of acres of virgin soil put under cultivation each year. But with the passing of the old frontier, with its new lands and high promises, that time is gone. It is now largely a question of greater yields on the lands that are under cultivation.

It is true that we will be able to increase dairy products in Wisconsin somewhat by putting our northern cut-over lands under the plow, but outside of that the problem is one of better feeding and more scientific methods. Wisconsin has raised little wheat for twenty-five years. In 1916, Wisconsin farmers sowed 100,000 acres of winter wheat and had about 107,000 acres in spring wheat. This year, owing to prevailing high prices, the acreage will probably be increased, but the fact is that, while we are furnishing the butter, someone else must furnish the bread.

It is a fair question as to whether Wisconsin is raising as much corn and wheat as she should, and perhaps there are many who wish they had put in winter wheat last fall, but in this state, as well as elsewhere, the question of grain production is largely one of more bushels to the acre. The same principle applies to live stock and other foodstuffs, which are decreasing while the hungry mouths of the world go on increasing in spite of wars.

I am afraid too many farmers are farming in a haphazard way. They are working hard, but hard work will not do it all. Many of them could accomplish better results with less work if there were more planning, more study of the conditions and needs of the soil, the stock and the growing crops —in a word, more efficient business management.

My friends, our opportunities have been enhanced by war, but the success of farming in the Wisconsin of the future does not depend on war, thank heaven! I do not expect to see the time when farm prices in normal times will descend to the low level of former years, or when good, careful, practical farming in Wisconsin will fail to yield splendid profits. Is it not then our duty, as well as our privilege, not only to do our part to help meet the food shortage of the world, due to temporary conditions, but to farm right along, year in and year out, with an eye single to increased yields per acre, greater returns from our live stock investments and such increase in our farm values as is sure to result to the farmer who keeps his place up in the very best of shape? I think so and I am sure that every one of you who will stop to consider the matter will agree heartily with me.

THE NEW SPIRIT OF WISCONSIN BANKERS.

THE contrast between the Wisconsin banker of a quarter of a century ago and the banker of today has been brought forcibly to my attention by the recent address of Mr. George D. Bartlett, secretary of the Wisconsin Bankers' Association, at the banker-farmer conference in Madison. Most of us know of Mr. Bartlett today as a prominent figure in Milwaukee's financial circles, but it was not many years ago that he was a banker in the town of Stanley, Chippewa county. The breadth of vision which he acquired at his desk there has been his most valuable asset in his larger work of directing the activities of the state association and of leading the bankers of the state into a better appreciation of the agricultural and live stock possibilities of Wisconsin.

It is certainly one of the most encouraging signs of the times for agricultural Wisconsin to see the changed attitude of the country banker towards his farmer constituents. Well do I recall the feeling of dread and awe with which we used to approach the country banker of a quarter of a century ago for a loan. Going to the dentist was a pleasant task compared with walking up to the country banker and asking for $100 for sixty or ninety days. And, as I recall it, the average country banker of those days did not make the ordeal any easier by his attitude, for he made his loans with somewhat the air of a king granting a favor to one of his humblest subjects.

But all that is changed and today the Wisconsin banker and farmer are more like joint partners in a business, each dependent on the coöperation of the other for his fullest measure of success. The different relationship was brought home to me when I read a poster, sent broadcast throughout the state recently, one paragraph of which read:

> Ask your banker for money. Wisconsin banks stand ready to loan, at fair rates, money needed for live stock, for new silos, to clear or drain land, or for other productive purposes.

I also see, from time to time, such encouraging advertisements in Wisconsin local papers as, "We solicit the accounts of farmers" and "When in town make our bank your home," etc., all of which are signs that the world moves and we are living in an age of new business relations and a new spirit of mutual dependence.

I do not want to be understood as poking fun at the old, conservative banker. He lived in a different age, amid different conditions, and if he has changed it has been in no small part, because the Wisconsin farmer has also changed and is a more dependable customer. It was the part of the earlier bankers to build up and conserve the financial resources of this state, to establish sound credits and to teach safe business methods when there was much temptation to wild-catting. They did this work so well that today no Wisconsin farmer has to worry about getting money if he has a "productive" proposition.

The secret of getting money in Wisconsin is whether or not one can make it earn more money. There are plenty of funds lying in Wisconsin banks for the farmers who can show that they know how to farm, that they are willing to work and can make their investment pay good returns on the money loaned them. The country banker welcomes such customers and is glad to know that their number is increasing yearly. Bankers have come to a realization of the fact that their business can be just as profitably and just as safely enlarged through agricultural as through industrial channels. It is well, both for the banker and the farmer, that this is true, for both are dependent on it for making the most of their opportunities. Only recently I heard a banker at Monroe say that ninety-nine out of a hundred farmers in his neighborhood could borrow from $100 to $1,000 on their personal notes without security. When farmers are regarded in this way by their banker friends, borrowing money becomes merely an incident in the day's work.

I am delighted that Wisconsin is producing so many bankers of the new school, such as Mr. Bartlett, to whose address I referred above. I feel that these men are patriotic and public-spirited in their desire to help advance the agricultural interests of the Badger state. I have read many of the bulletins which they have sent out to the farmers of Wisconsin and I believe that they will accomplish a great deal of good. I hope that my readers will secure these monthly banker's bulletins and read them carefully, for they contain the best in current agricultural thought and expression. Those who read them cannot fail to profit, and they will form only one more link in the tie that binds the farmers and bankers of Wisconsin so closely together for mutual advantages.

WISCONSIN FARMERS ARE BUSINESS MEN.

NOTHING makes me more provoked than to have somebody speak of a Wisconsin farmer and a Wisconsin business man as being two entirely different types of men, having nothing in common. They ignore the fact altogether that to buy land at $100 to $250 an acre, pay $500 for a good "lord of the herd," and invest in other things in proportion and then make the investment pay reasonable returns, takes just as much business sagacity as any other line of commercial activity in our state. I am glad, indeed, that the day has come when the Wisconsin farmer is a business man and the Wisconsin business man takes an active interest in farming.

I wonder if those people, who set the farmer over against the business man as an altogether different kind of human being, ever stopped to think, or ever knew to begin with, that three of the greatest business men this country has produced were farmers. I refer to the late Marshall Field, "the world's greatest dry goods merchant;" John G. Shedd, now the head of Marshall Field & Co., and Frank W. Woolworth, "the world's greatest retail merchant." I am indebted to a series of articles in Leslie's Weekly for some interesting facts, showing how the farm has produced America's greatest business men.

Both Marshall Field and his successor, John G. Shedd, started out in life as farm boys, going from the farm to a counter in a country store. Today the store which the first established, and which the second now manages, does a business of over $100,000,000 a year, employs some 20,000 people and serves as many as 300,000 customers in a single day. If farm life were so inimical to the business instinct, would we find two farm products making the world's greatest retail store such a notable success? I think not.

The career of Frank W. Woolworth, the proprietor of 1,000 5 and 10-cent stores in the United States and Canada, is a magnificent object lesson for young men. Let me quote the introduction to the article descriptive of him in last week's Leslie's:

> A barefooted American farm lad made up his mind that he would rather work behind a counter than behind the plow. He was so green and gawky and awkward, so palpably a "hayseed" that, try as he might, no merchant would engage him at any wage. But the boy had such determination and doggedness that he agreed to serve for nothing, living meanwhile on his painfully earned capital of $50. So complete a failure did he prove at selling goods that in his next job his small pay was reduced instead of increased. But, though he agreed with his boss that he was a misfit as a salesman, he did not give in. He stuck. Today he is the largest retail merchant in the world.

Later on in the article Leslie's quotes Mr. Woolworth himself, on his early days, as follows:

> I was born on a farm at Rodman, New York, but we moved to Great Bend, New York, when I was seven years old. We were so poor that I never knew what it was to have an overcoat in that terribly cold climate, I never knew how to skate because I hadn't the money to buy skates. One pair of cowhide boots lasted a year, or rather six months, for the other six months I went barefooted. My parents and theirs, for I don't know how far back, were Methodists, and I was brought up under the strictest discipline. I attended school in the winter and worked all summer. There isn't a thing on the farm that I haven't done. Often while I was sweating in the hayfield, I could hear the boys near by playing baseball, but the only chance I ever had of playing ball was during the recess at school in winter.

I am pleased to be able to set forth these facts here in this page of mine in The Wisconsin Farmer. There is undoubtedly many a boy on our Wisconsin farms today who has the same business instinct and sagacity that Marshall Field had and Frank Woolworth has. They need encouragement. Far be it from me to say a word which would lure any boy from the farm, where his father has trod the furrows before him. But the boy who has the commercial instinct and sagacity developed to an unusual degree, and who yearns for a chance to demonstrate these talents in a store or a factory rather than in the marketing of farm products, should be allowed to follow his natural bent. At the same time, I believe the day is already here when business sense and acumen can be used to every bit as

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

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The Wisconsin Farmer Madison, Wis.

Wisconsin Farmers Win Another Milk War.

The Dane county farmers residing in the vicinity of Stoughton and furnishing milk for the Wisconsin Dairy Products Company were notified on Wednesday, April 11th, that their demand for the Chicago scale had been granted. This means $2.40 per hundredweight for April, $2 per hundredweight for May, $1.60 per hundredweight for June, $2.12 per hundredweight for July and $2.30 per hundredweight for August and September. This is an average of $2.12 per hundredweight for the six months' period and is the highest average ever paid for milk in this territory. It is 5 cents higher per hundredweight than the Chicago district scale for the preceding six months and considerably higher prices paid to those outside of the organized milk producers' association. In most cases the companies which handle condensed milk are getting the added price out of the consumer. The condenseries are everywhere advancing their prices. The rule which has heretofore been adhered to to lower milk prices in May and June will not be effective in many states this summer. Already distributors of milk have announced in several states that they will maintain winter prices throughout the summer. There is a suspicion that they intended to do this anyway and hence the farmers are justified in getting their share of the advance. The justification of the farmers, however, is on a much broader basis than this. It has cost and will continue to cost the farmer a great deal more money to produce milk and hence he is entitled to higher prices. It has been hinted that the advanced price may curtail consumption. However, the food value of milk is so great and so well understood and the demand for food at this time is so heavy that we do not look for any failure on the part of consumers to take up all the milk which will be offered even at the new prices.

The Duty of the Hour.

The war in Europe hinges today, as never before, on agricultural production. The nations which can produce the most foodstuffs will undoubtedly win the titanic struggle. All the authorities, both of the national government and of the various state colleges of agriculture, are urging American farmers to exert themselves to the utmost, in order that America may do its share toward feeding and clothing the world.

In this crisis, the patriotic American farmer will make every acre yield to its utmost. Never was there a time when it was more important tnat every farmer should read a thoroughly practical and dependable farm weekly. We believe The Wisconsin Farmer measures up to every requirement. We, therefore, urge upon all our readers that they attend to the important matter of subscription, renewing without delay if their subscription has recently expired or will shortly expire. We hope also that every reader of The Wisconsin Farmer will induce at least one friend or neighbor to begin taking the paper, to the end that the practical teachings in this paper may reach a still larger number of farmers and agricultural production be still further enhanced.

Renew your subscription today and secure at least one new subscriber for The Wisconsin Farmer. This is the patriotic duty of the hour.

Quitting School to Sow Wheat.

There has been some talk of the young men quitting school to go to war. H. E. Pierce, of Pierce county, Wisconsin, is quitting the Wisconsin College of Agriculture because of the war, but he is not intending to join the ranks of the soldiers. On the contrary, he expects to return to the home farm and sow eighty acres of spring wheat. Here is what Mr. Pierce says about it:

Providing I can get the right seed and the soil is in shape to work well, there will be at least eighty acres of our home farm sown to hard spring wheat this season.

We can dispense with a maximum amount of land for pasture and hay, this year, as our supply is large enough to accommodate all the stock we carry. Last year was especially good from the hay production standpoint, so we can afford to put all our energies into raising food crops. Spring wheat and corn will both be planted, but as labor is a big problem the former crop will take the preference.

There is not much talk, but a good deal of promise of action, in these remarks by a Pierce county, Wisconsin, boy. A few more such boys and we would produce enough spring wheat this year to help out at least a little. This young man will doubtless profit more by his decision than he would by remaining through the spring months in the classroom.

Hints For Wisconsin Dairymen.

The Wisconsin Dairymen's Association, through its field men, H. C. Searles and Noel Negley, has issued a "Ten Commandments" for members of Wisconsin cow-testing associations. Here they are:

1. Screw up every separator to skim a cream testing 35 per cent and save more skim milk for the chickens, calves and pigs.
2. Urge members of your cow-testing association to feed each cow as an individual and give them all better care. It will save feed and make more milk.
3. Urge your members not to start pasturing too heavily. Give the grass a chance, even though feed is high.
4. Encourage keeping as many cows as possible. If the herd must be reduced because of feed shortage, "can" the least efficient. She will serve humanity better as a "canner" than a "milker."
5. Use your spare time to help your members in their work. Many sections cannot get labor at any price.
6. Urge members who grow tobacco as a side line to grow corn or other food crops. They take less labor and are good for man and beast.
7. Save manure and get it on the land now. It will make larger crops this year and next.
8. Advocate better and tested seed, and better preparation of the seed bed. It is late, but not too late to test seed corn. You can test corn as well as cows—do both.
9. Advise every member to plant enough crops for his herd the coming year. Feed will be high, and each farm should support itself, if possible.
10. Branch out. Be a leader in your section. If you do not know, find out. You have a splendid opportunity to serve. Remember seventy other testers in Wisconsin are leading food producing regiments.

Pretty good hints, we must all admit. Will we try to live up to them?

Wisconsin Legislature.

The Wisconsin legislature has passed an act known as "Assembly File No. 627," establishing a state council of defense. Members of this council are to include one representative of manufacturing interests, one representative of labor, one representative of the farmers, one representative of the bankers, one woman who shall represent the Red Cross, a physician, one representative of the railroads, one trained engineer, an adjutant general, and two citizens at large. The governor is given the power to remove any member at any time and fill the vacancy, and it is intended that this Wisconsin council shall coöperate with the national council of defense and carry out in the state of Wisconsin such plans as shall be mutually agreed upon. It is also intended to coöperate with defense bodies in other adjoining states. One section of the law reads as follows:

When in the opinion of the council a serious scarcity of food, fuel, or other articles of common necessity exists or threatens by reason of actual war in which the country is engaged, or when in the opinion of the council unreasonable or excessive profits are being made through the manufacture or supply of necessities for common defense or public welfare, in time of actual war, the council shall advise the governor and he shall call a special session of the legislature to make provision for necessary supplies of food, fuel, and other articles of common necessity to be controlled by the state in quantities sufficient to prevent distress among the people, and to prevent and prohibit unreasonable or excessive profits through the manufacture or supply of necessities for common defense or public welfare.

This council has full authority to make investigations, subpoena witnesses, go over account books and files of companies and individuals, and in case of refusal of anyone to accede to the requests of the council the person who refuses may be called before the district court for punishment.

All departments of the state are expected to coöperate with the council of defense. All information secured by the council is confidential unless made public by the governor, and a heavy fine may be imposed upon anyone who gives out any of the secrets of the council.

A GOOD PARTNERSHIP AGREEMENT.

Field Peas For Wisconsin.

Prof. R. A. Moore calls attention to the availability of the canned field pea, grown quite generally through the northern part of the United States, as a human food crop. This pea is especially noted for its protein content, and it is suggested, in the light of the country's needs, that these peas should be grown more extensively, especially on the clay or low soils of Upper Wisconsin. Mr. Moore says there is no use attempting to grow peas on light sandy soils or heavy muck soils. Mr. Moore is of the opinion that peas will maintain a good price at least for several years, as they may be shipped dry with ease and are in large demand for soups. Mr. Moore writes that the Scotch and the Green are two of the very best field peas to grow. Of the yellow variety, the Marrowfat and common yellow rank among the very best. The Prussian Blue is also recommended. Peas carry from 18 to 20 per cent protein, of which 16 per cent is digestible. This with the valuable carbohydrates makes the pea an excellent human food. Professor Moore makes the following suggestions for the growth of peas:

1. Slightly sloping land is better than the level field.
2. Disk as soon as the ground will work well in the spring. A grain drill is the best piece of machinery to use for putting in peas.
3. Sow peas at the rate of 2 to 2½ bushels per acre.
4. Cover thoroughly. Peas can be seeded to the depth of from 2 to 4 inches.
5. It is often a good plan to run a mower over the ground after putting in the crop. A fine tooth harrow should always be run over the loamy soils after rolling. Remove stones, roots and other obstructions so that a harvester can be used.
6. Harvest with a mower with a simple pea harvester attachment. After cutting, peas should remain until thoroughly dried and then they should be loaded into large racks and hauled to the barns or stacked preparatory to threshing.
7. The peas should be cut before they are too ripe—just when the pods have turned brown and some of the pods are yet partially green.

The pea crop will usually average twenty to twenty-five bushels per acre. Field peas can be grown in southern Wisconsin, but are more susceptible to diseases and insects than in the Upper Wisconsin counties. The field pea belongs to that great family of nitrogen-gatherers known as legumes.

A drop of more than 100,000,000 pounds in the stocks of frozen and cured meats in the United States, compared with last year's store, was indicated in the department of agriculture's monthly report. Total stocks of those provisions April 1st were almost 900,000,000 pounds. Increases over last year were reported in the holdings of frozen beef, cured beef and dry salt pork, but the heavy decreases in supplies came in frozen pork, sweet pickled pork, lard and frozen lamb and mutton. In March dry salt pork stocks decreased 16.9 per cent, sweet pickled pork 3.4, frozen lamb and mutton 5.2, frozen beef 13.7 and cured beef 16.8. Frozen pork supplies increased 6 per cent and lard 22.6. Stocks of those provisions reported April 1st were: Frozen beef, 139,529,215 pounds; cured beef, 30,365,487; frozen pork, 62,721,468; dry salt pork, 218,551,175; sweet pickled pork, 326,917,806; lard, 60,691,012, and frozen lamb and mutton, 4,937,131.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

good advantage on the farm as in the store or office. The farmer in Wisconsin who succeeds is, of necessity, a business man. I believe that firmly. There is no longer a line of cleavage (if, indeed, there ever was one) between the man in the furrow and the feed lot and the man behind the counter and the cashier's wicket. Business is business, whether it finds its vent on a Wisconsin farm or in the city of Milwaukee.

SUMMING UP THE FARM-LOAN LAW.

I FIND that many of my readers write to me, asking the most elemental questions in regard to the new federal farm-loan law, notwithstanding the fact that I have outlined its workings, in detail, in a dozen or more articles within the last few months. Now that the banks are about ready to commence business, perhaps it might not be amiss if I summed up some of the more important information for the benefit of those of my readers who may have missed some of my earlier articles, or have forgotten the salient facts therein set forth.

One of my most recent inquiries came from Mr. W. S. Hill, vice president of the Hill Steamboat Line, of Kenosha, Wisconsin. My reply to him may be of interest to those who are not thoroughly posted on these new banks. Those who have read all my former articles will find this merely a review of the facts already given, but the letters of inquiry continue so numerous, I believe it will be time and space well spent to print my reply to Mr. Hill, as follows:

The country has been divided into twelve districts with a federal land bank located in each district. Wisconsin has been placed in the same district with Minnesota, North Dakota and Michigan, and the bank for these states has been located at St. Paul. Mr. Benjamin F. Faast, of Eau Claire, Wis., is vice president of this St. Paul bank. If you would write to Mr. Faast I have no doubt but that he would give you much interesting and valuable information.

The rate of interest has been fixed by the federal farm loan board at 5 per cent. There will be no additional charge for commission or bonus whatever. The loans are to be made exclusively on farm lands. Loans will be made up to 50 per cent of the appraised value of the land, plus 20 per cent of the appraised value of the permanent improvements thereon. The loans will range from $100 to $10,000 in size and will run from five to forty years. They must run at least five years, although they can be paid off in whole or in multiple of $25 on any interest-paying date after five years have elapsed. The loans will be paid off on what is known as the amortization plan, which means that a small amount will be paid on the principal annually when the interest is paid. I have seen it stated that if 1 per cent of the principal were paid with the interest every year the loan would pay itself off in thirty-three years. This means that were you to pay 6 per cent on your loan instead of 5 per cent the mortgage would never come due, but would wipe itself out automatically at the end of thirty-three years.

The money which the government will loan on these farm lands is to be raised by private subscription to the twelve banks and by the issuance of farm loan bonds bearing 4½ per cent.

It is necessary if you propose to secure a loan that you join with at least nine other farmers to form a national farm loan association. You must then buy stock in your local land bank to the amount of 5 per cent of the loan which you desire. The necessary blanks and papers are now ready for issuance by the government and there should be but little delay in getting the loan once you have entered the local association. I would suggest that you ask for Circular No. 2 issued by the farm loan board, entitled "How Farmers May Form a National Farm Loan Association."

I need only add that the three other federal land banks located in the grain belt are at Omaha (serving Iowa, Nebraska, Wyoming and North Dakota), St. Louis (serving Missouri, Illinois and Arkansas), and Wichita (serving Oklahoma, Kansas, Colorado and New Mexico). Letters addressed to the president or secretary of these banks should bring prompt information. Loans should be negotiated without undue delay, now that the banks are located, the officials named and the bonds almost ready for issuance.

James M. Pierce

A Proclamation by Governor Philipp.

GOV. EMANUEL L. PHILIPP, under date of April 13, 1917, issued a proclamation to the people of Wisconsin calling upon every citizen to do his full share to support the president of the United States in the present crisis. The governor says that whatever may have been our opinions as to the necessity or advisability of engaging in war, such opinions must now be a thing of the past. After reviewing the situation regarding the shortage in food supply, Governor Philipp says:

I urge every farmer in the state of Wisconsin who has suitable land, to plant enough wheat to produce the flour necessary for his own use, and a surplus if possible. I urge that he plant sufficient acreage of corn and, if possible, increase his herd of swine, to produce pork for the market. I particularly urge that the acreage of potatoes be increased. Every farmer should plant enough of this vegetable for his own use, and wherever the soil is suitable he should make his potato field as large as he is able to cultivate.

I urge our farmers, as a matter of patriotic duty, to cultivate every foot of their soil; none of it is too poor to raise something. White navy beans and buckwheat will be in demand—in fact, anything that is food for man or beast will be a contribution to the pressing needs of our country.

Our farmers should require no greater inducement than the present high prices of all farm produce to encourage them in the cultivation of every foot of tillable soil. The fact that no large stocks of food will this year be carried over is in itself an assurance that the price of farm produce will be high for another year, even if peace were immediately declared.

It is reported that in some sections there exists a shortage of seed, particularly potatoes. The department of agriculture of the state of Wisconsin stands ready to act as a clearing house in the matter of seed supply, and all who have a surplus of seed of any kind should so advise Mr. C. P. Norgord, commissioner of agriculture, Madison, Wisconsin; and all who are short of seed of any kind should address the same official, who stands ready with his department to coöperate with the farmers of the state to the fullest extent in the matter of securing suitable seeds to plant the crop.

In order that we may conserve labor for agriculture and the necessary industries I recommend that public work, so far as it is possible, be deferred until such a time as labor shall not be so urgently needed for these purposes as it is at present.

I wish to again impress upon the people of this state that the food situation is so serious that we will commit a moral wrong against our government if we in any way unnecessarily interfere with the production and successful harvesting of our agricultural products.

I ask that all bankers, business men, farmers, societies, agricultural associations, labor organizations and, so far as possible, the schools of the state, interest themselves in the matter of increasing our agricultural products.

I urge that the bankers of the state give aid in the form of loans, in reasonable sums, to farmers who may need assistance either in the purchase of seed or in the cultivation of crops.

I recommend to the people of the cities, towns and villages that they plant liberal crops of vegetables on the vacant property, in order that they may supply themselves and thereby be protected against high prices of such commodities.

I also recommend that the citizens practice all reasonable economy in the conservation of food, bearing in mind that under present conditions food wasted is food taken from someone who needs it.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Wisconsin to be affixed. Done at the Capitol in the City of Madison this thirteenth day of April, A. D. nineteen hundred and seventeen.

Emanuel L. Philipp,
Governor of Wisconsin.

The governor's proclamation is in line with similar admonitions coming from the president of the United States and from the Federal Department of Agriculture. A most practical suggestion is that offering the services of the Wisconsin Department of Agriculture in the matter of procuring seed. We have no doubt this same department through its agencies will make every possible effort to help solve the farm-help problem. In a number of cities, young men are being let out of high schools and colleges a month or six weeks earlier, in order that they may work in the fields. In such cases they are allowed full credit to the end of the term in case their work is up to the standard at the time they are released.

The Wisconsin Farmer has always hoped that war would be avoided. The publisher and his associates have hated to think that it would have to be necessary for us to become involved in the European conflict, but we approve the action of the governor, now that war is declared. Furthermore, we urge our readers to pay due attention to the proclamation of the governor. There is probably no state in the Union where the average farmer knows so well how to make every acre yield to its utmost as Wisconsin. Our people are thrifty people and know how to get out of the land all that there is in it. We urge special attention to the governor's proclamation, to the end that the year 1917 may see Wisconsin produce its largest crop of food staples.

Hurry-Up Call for Spring Wheat.

THE Wisconsin Experiment Station, the avenue through which our state agricultural workers express themselves, has issued an emergency call for more spring wheat in Wisconsin. Their appeal is based on the fact that a world shortage in wheat is inevitable. South America has just harvested less than half of a wheat crop. Argentina, the greatest wheat-producing country of South America, has declared an embargo on wheat because she needs all of her supply at home. There is no doubt that wheat will bring a high price the coming fall. The only thing which might happen to keep the price down would be a declaration of peace and great wheat crops throughout the wheat-growing sections of Europe. Neither of these is anticipated at this time. The emergency call is issued to Wisconsin farmers for the reason that it is one of the few sections of the country where there is still time to sow spring wheat. Many thousands of acres of winter wheat in Kansas and Nebraska will be plowed up because of winter-killing. Wisconsin is asked to make up for the general world wheat shortage by sowing every acre of spring wheat possible. In a very large portion of the state spring wheat may be sowed and raised to advantage. The eastern and northwestern portions of the state are best adapted to spring wheat. Any good loam soil should raise a good wheat crop this year. The ground is well supplied with moisture. Light and sandy soils are not very desirable for wheat. The seed may be secured from local dealers throughout Wisconsin or from the large seed firms. The Marquis, Fife and Blue Stem varieties are recommended. These are standard and are carried by most of the seed houses. Spring wheat should be sown just as quickly as possible. Sow it on fall-plowed land if you have it. Sow one and a half bushels to the acre. The properly prepared seed bed should have a dust mulch on top which will warm the soil and prevent the evaporation of the moisture. Working with the disk, spring-tooth harrow or cultivator, followed by a smoothing harrow, is usually sufficient to put the seed bed in good shape.

Because of the lateness of this emergency call, the word must be passed around just as rapidly as possible. To accomplish this the Wisconsin station has been able to enlist the support of many important agencies. The most unusual form of coöperation, along this line, was the offer of the telephone companies to send word to thousands of farmers through their operators. This work may be just a sentence or two of reminder, but it will serve to arouse an interest in the subject of more wheat and more crops generally. The Wisconsin Advancement Association, the Wisconsin Real Estate Exchange, the Wisconsin Bankers' Association, the Wisconsin Press Association, and the Wisconsin daily league of newspapers, together with all the organizations connected up with the Wisconsin College of Agriculture, are carrying out the message for bigger crops this year, and the emergency call for more wheat will be a part of the message. Billboards are to be used in the rural districts, and moving picture houses in the small towns will call attention to the need of greater production in every line in this state in the year 1917. Whether the late call for more wheat will have a great deal of effect or not is a matter of some question, as most farmers have doubtless already decided what they will put in their fields.

It is the duty of every farmer in Wisconsin to produce as much of the foodstuffs as possible this year. We think it is scarcely necessary to emphasize this matter, as most Wisconsin producers are keen to take advantage of the opportunity presented. There is small probability of an overproduction of any of the staple articles of food. From events as they are now transpiring there appears to be small probability of much reduction in prices of staple foods for another year at least. Wisconsin was at one time second in the production of wheat. The emergency call for spring wheat this year does not mean that other crops must be neglected. Corn, oats, barley, rye, potatoes, sugar beets and tobacco are also of great importance. Let there be no idle land. By using good seed and good culture methods let us get as much as possible out of every acre seeded. We can be patriotic and still stay on the farm.

President Wilson Appeals for United Nation.

Supreme Test Has Come and Every Man, Woman and Child Must Have a Share in the Conflict.

MY FELLOW Countrymen: The entrance of our beloved country into the grim and terrible war for democracy and human rights which has shaken the world, creates so many problems of national life and action which call for immediate consideration and settlement that I hope you will permit me to address to you a few words of earnest counsel and appeal with regard to them.

We are rapidly putting our navy upon an effective war footing and are about to create and equip a great army, but these are the simplest parts of the great task to which we have addressed ourselves.

There is not a single selfish element, so far as I can see, in the cause we are fighting for. We are fighting for what we believe and wish to be the rights of mankind and for the future peace and security of the world.

To do this great thing worthily and successfully, we must devote ourselves to the service without regard to profit or material advantage and with an energy and intelligence that will rise to the level of the enterprise itself. We must realize to the full how great the task is and how many things, how many kinds and elements of capacity and service and self-sacrifice it involves.

These, then, are the things we must do and do well, besides fighting—the things without which mere fighting would be fruitless:

We must supply abundant food for ourselves and for our armies and our seamen not only, but also for a large part of the nations with whom we have now made common cause, in whose support and by whose sides we shall be fighting.

We must supply ships by the hundreds out of our shipyards to carry to the other side of the sea, submarines or no submarines, what will every day be needed there, and abundant materials out of our fields and our mines and our factories with which not only to clothe and equip our own forces on land and sea but also to clothe and support our people for whom the gallant fellows under arms can no longer work; to help clothe and equip the armies with which we are coöperating in Europe, and to keep the looms and manufactories there in raw material; coal to keep the fires going in ships at sea and in the furnaces of hundreds of factories across the sea; steel out of which to make arms and ammunition, both here and there; rails for wornout railways back of the fighting fronts; locomotives and rolling stocks to take the place of those every day going to pieces; mules, horses, cattle for labor and for military service; everything with which the people of England and France and Italy and Russia have usually supplied themselves, but cannot now afford the men, the materials or the machinery to make.

It is evident to every thinking man that our industries, in farms, in shipyards, in the mines, in the factories, must be made more prolific and more efficient than ever and that they must be more economically managed and better adapted to the particular requirements of our task than they have been; and what I want to say is that the men and the women who devote their thought and energy to these things will be serving the country and conducting the fight for peace and freedom just as truly and just as effectively as the men on the battlefield or in the trenches.

The industrial forces of the country, men and women alike, will be a great national, a great international service army—a notable and honored host engaged in the service of the nation and the world, the efficient friends and saviours of free men everywhere.

Thousands, nay, hundreds of thousands of men otherwise liable to military service will of right and necessity be excused from that service and assigned to the fundamental, sustaining work of the fields and factories and mines, and they will be as much part of the great patriotic forces of the nation as the men under fire.

I take the liberty, therefore, of addressing this word to the farmers of the country, and to all who work on the farms:

The supreme need of our own nation and of the nations with which we are coöperating is an abundance of supplies, and especially of foodstuffs. The importance of an adequate food supply, especially for the present year, is superlative. Without abundant food, alike for the armies and the peoples now at war, the whole great enterprise upon which we have embarked will break down and fail.

The world's food reserves are low. Not only during the present emergency but for some time after peace shall have come both our own people and a large proportion of the people of Europe must rely on the harvests in America.

Upon the farmers of this country, therefore, in large measure, rests the fate of the nations May the nation not count upon them to omit no step that will increase the production of their land, or that will bring about the most effectual coöperation in the sale and distribution of their food products? The time is short. It is of the most imperative importance that everything possible be done and done immediately to make sure of large harvests.

I call upon young men and old alike and upon the able-bodied boys of the land to accept and act upon this duty—to turn in hosts to the farms and make certain that no pains and no labor is lacking in this great war.

I particularly appeal to the farmers of the South to plant abundant foodstuffs as well as cotton. They can show their patriotism in no better or more convincing way than by resisting the great temptation of the present price of cotton and helping, upon a great scale, to feed the nation and the peoples everywhere who are fighting for their liberties and for our own. The variety of their crops will be the visible measure of their comprehension of their national duty.

The government of the United States and the governments of the several states stand ready to coöperate. They will do everything possible to assist farmers in securing an adequate supply of seed, an adequate force of laborers when they are most needed at harvest time, and the means of expediting shipments of fertilizers and farm machinery, as well as of the crops themselves when harvested. The course of trade shall be as unhampered as it is possible to make it, and there shall be no unwarranted manipulation of the nation's food supply by those who handle it on its way to the consumer. This is our opportunity to demonstrate the efficiency of the great democracy and we shall not fall short of it.

This let me say to the middlemen of every sort, whether they are handling our foodstuffs or our raw materials of manufacture, or the products of our mills and factories. The eyes of the country will be especially upon you.

This is your opportunity of signal service, efficient and disinterested. The country expects you, as it expects all others, to forego unusual profits, to organize and expedite shipments of supplies of every kind, but especially of food, with an eye to the service you are rendering and in the spirit of those who enlist in the ranks, for their people, not for themselves, I shall confidently expect you to deserve and win the confidence of the people of every sort and station.

To the men who run the railways of the country, whether they be managers or operative employes, let me say that the railways are the arteries of the nation's life and that upon them rests the immense responsibility of seeing to it that these arteries suffer no obstruction of any kind, no inefficiency or slackened power.

To the merchant let me suggest the thought of small profit and quick service, and to the ship builder the thought that the life of the war depends upon him. The food and the war supplies must be carried across the seas, no matter how many ships are sent to the bottom. The places of those that go down must be supplied, and supplied at once.

To the miner let me say that he stands where the farmer does; the work of the world awaits on him. If he slackens or fails, armies and statesmen are helpless. He also is enlisted in the great service army. The manufacturer does not need to be told, I hope, that the nation looks to him to speed and perfect every process; and I want only to remind his employes that their service is absolutely indispensable and is counted on by every man who loves the country and its liberties.

Let me suggest, also, every one who seeds and cultivates a garden helps and helps greatly to solve the problem of the feeding of the nations; and that every housewife who practices strict economy puts herself in the ranks of those who serve the nation. This is the time for America to correct her unpardonable fault of wastefulness and extravagance.

Let every man and every woman assume the duty of careful, provident use and expenditure as a public duty, as a dictate of patriotism, which no one can now expect ever to be excused or forgiven for ignoring.

In the hope that this statement of the needs of the world in this hour of supreme crisis may stimulate those to whom it comes and remind all who need reminder of the solemn duties of a time such as the world has never seen before, I beg that all editors and publishers everywhere will give as prominent publication and as wide circulation as possible to this appeal.

I venture to suggest also to all advertising agencies that they would perhaps render a very substantial and timely service to the country if they would give it widespread repetition. And I hope that clergymen will not think the theme of it an unworthy or inappropriate subject of comment and homily from their pulpits.

The supreme test of the nation has come. We must all speak, act and serve together! Woodrow Wilson.

In and Around Wisconsin

A MOVEMENT has been started at Boyceville by the local union of the American Society of Equity, to build a warehouse for the farmers in the surrounding territory. The community is very much interested in the project and if it is carried out, the farmers should be greatly benefited, since it will provide accommodations which are badly needed in the handling of their products.

THE Burlington milk club of the milk producers' association, now claims the distinction of being the largest local club in the organization. The Waterford-Rochester local club recently voted to consolidate with the Burlington, which makes a combined membership of about 450. The new schedule of prices which will be received during the summer in the territory of this organization averages $2.12 per hundred for milk testing 3.5 per cent.

THE prospect for an increased acreage planted in tobacco this year in the region of Chippewa Falls, Chippewa county, has induced the Hussey Leaf Tobacco Company, of Chicago to plan on building an addition to their local plant in that territory. The outlook is for a business which will practically double that of last year. Farmers in Chippewa county are realizing that there is a good profit in tobacco growing, and are increasing the acreage.

A BRANCH pickling station may be erected at Colfax, Dunn county, in the near future, if the farmers of the surrounding territory will contract to plant a sufficient acreage to furnish the crop. A representative of the Reid-Murdock Co. was at Colfax recently to learn whether or not the community would be interested in the project. About 100 acres tributary to Colfax would be the area needed to supply the station, the individual contracts running from one-half acre to five acres each.

FARMERS near Hayward, Sawyer county, are planning to organize a live stock and produce shipping association, with a view of reducing marketing costs and getting more satisfactory prices for farm products. Such associations are becoming more numerous in Wisconsin and with efficient management have brought important benefits to the farmers. The Hayward organization will be managed by a board of directors and such officers as are needed and an experienced man will be selected to represent its interests in the marketing, listing and shipping of live stock.

THE cow-testing association of Langlade county held an enthusiastic meeting recently and elected the following officers: P. W. Krier, president; Gus Schroeder, vice president; Adam Guenthner, treasurer, and F. G. Swoboda, secretary. John Reckinger was hired as tester for the present year. A discussion of feeding problems was taken up at the meeting with considerable interest. The advantage of a variety in the dairy ration and the saving in buying winter feed in summer and early fall were among the principal points brought out.

A LIVELY interest is being shown this year in the use of "home-grown" seed in Wisconsin, according to officials of the state seed inspection service. Farmers are taking care to clean and grade the seed which they have for sale and on the whole the quality of their product is excellent. There is a large stock in the farmers' hands and it is gratifying to note that the number of transactions direct from producer to consumer is rapidly increasing. The supply of grass and small grain seeds will probably be sufficient for the demand, but peas and beans are apt to be scarce because many were tempted to sell their supply at the high prices which ruled during the past winter.

Upper Wisconsin

TO the Editor:—I have raised Lincoln and Wisconsin No. 1 pedigree oats on clay loam soil and have been very successful with both varieties. I find the Wisconsin No. 1 oats straw stands up best with the rank growth which is made on this soil. Oderbrucker barley is also very successful on this soil.

J. S. Findlayson.

Douglas county, Wis.

TO the Editor:—In the second week of March we held twelve potato meetings in Burnett county. Mr. R. L. Cuff, county agent of Barron county, was with me at five of these meetings. Potato growers' associations were organized at Swiss, Danbury and Webster. In every community we tried to impress upon the farmers the need and advantages of standardizing potatoes in their community. Even though prices for seed stock are high several farmers are starting with a bushel of good, certified seed to be used for a seed plot. We took up the importance of treating seed potatoes, spraying for insects and diseases, the importance of good sprayers, methods of cutting up potatoes, and, in fact, most all the points in connection with the improving of the potato crop. Even though immediate results may not be obtained, such meetings are bound to have a bearing upon the general improvement of the country. Everything that can be said of live stock improvement can be said of potato improvement. Have a standard variety in your community; one that is adapted to your soil. Use the best seed obtainable by selection and then give them good care. By doing this a market will come to you for all your potatoes. Your buyer will give you a premium for your crop if the whole community has the one brand of potatoes. The potato industry has been the principal crop in our county for quite a few years. Owing to the fact that the farmers are not pulling together prices are not always satisfactory. These meetings were held for the purpose of stimulating more interest and getting farmers to raise one standard variety. G. M. Briggs.

County Agent Burnett county, Wis.

THE potato institutes which finished their course on March 31st, at Crandon, have been especially successful this year. The commercial agencies of all the counties where meetings were held coöperated with farm institute officers and with the State Potato Growers' Association in a manner that insured a satisfactory turnout at every meeting. The itinerary of the institutes included Shawano, Oconto, Amberg, Gillette, Mountain, Laona and Crandon. The choice of these cities was made because of their importance as points for shipping and sections where potato interests are coming in for bigger development. Marinette county formed a potato growers' association, with W. E. Morton for its secretary. Forest county formed another association at Crandon, with John Swinehart as secretary, and Shawano formed another, with Merton Moore as secretary. At every one of the institutes the attendance was especially good, a fine interest manifesting itself among the growers. A practical program was carried out at each point. Prof. J. G. Milward, of the college at Madison, had charge of the work. Talks were given on handling the seed stock, seed storage treatment, handling potato soil and summer cultural problems. A complete exhibit of standard potatoes, together with charts and illustrated lantern slides, formed a feature of the institutes. The meetings will be followed up with summer sessions on the fields of members.

The Seed Bed For Corn.

(Continued from page 1.)

do in a mysterious way with the rapid liberation of fertility in the surface soil.

Of course, we must make up our minds in advance that all will not be clear sailing, because many times our work will be punctuated by heavy storms. Most of us will know how to do a great deal better than we will be able to do. There will be thousands of instances this year in the central West where a soil has been plowed and put in shape for planting, and the planting will be delayed a week, ten days, or even two weeks. We are well aware that the weeds ought to be killed before planting, but of the two evils we will prefer to get the corn in the ground and trust to luck to care for the crop afterwards. This, in most cases, will be a wise decision, and wherever it becomes necessary to plant a field at a time when the weeds have already started, blind plowing should by all means be practiced. If two teams are at work, put one on the planter and one on the corn plow, throwing an inch or two of soil over the planted row and stirring effectively all the intervening space between the rows. This will be a serious setback to weed growth, and after the soil has been allowed to remain in this condition a few days, so that the weeds are again starting, give the field a good cross harrowing. If there is time, by all means go over the soil twice. Very few hills will be disturbed, but an immense amount of good will be done by again disturbing the tender weeds and by stirring the soil directly over the corn row. It would add greatly to the yield of corn this year if much blind plowing could be done, because it means in the end that the corn crop will be given about two weeks of a start on the weeds. The corn hills will not be choked out late in the season by weeds that cannot be caught with a cultivator, and every corn grower knows that this, in itself, will vitally affect the yield.

Agencies Behind Beef Campaign.

Several agencies are working in alliance to create practical interest in beef making by farmers and stockmen who have the natural requisites at hand. Foremost among these agencies is the Wisconsin Live Stock Breeders' Association, which, with the Department of Farmers' Institutes, held more than twenty special baby beef institutes in several counties of the state this winter.

Fifteen counties have entered the 1917 junior farmers' contest for the production of baby beef, or early matured animals. Local contests at county fairs will be followed by another all-state round-up at Madison in November, where large prizes will be given to the boys who show the best steers and heifers by farmers' organizations and packing houses.

No less aggressive and practical in their campaign methods for a general extension of beef production are the four state breeding clubs representing Aberdeen Angus, Hereford, Short-horn and Red Polled cattle. Many active members of national beef-breeding clubs are also swinging into line for the meat supply, as are also a number of community live stock associations.

Peat For Fuel

Mr. B. J. Packer, of the immigration department, has been making some inquiries relative to the commercial use of peat fuel. Mr. Packer furnishes us the following letter from Carl Bengtsson, of Chicago, who has had considerable experience along this line:

When I had the pleasure of meeting you at the United States Immigration Station here last Saturday we were talking of peat fuel and you asked me if peat could be commercially utilized for fuel purposes. To this I will answer that any bog (marsh) with a quality equal to the Merrill bog (which is the only one I have tested in your state) can be made into fuel, provided its location is not too far from market. This can be proved with little expense by making a few tons of what we in Europe call "tramp peat," which requires no machinery and is almost as good as machine peat. I will be glad to give a minute description of this method and answer any question pertaining to peat so far as my knowledge goes.

I also have a thorough knowledge of the manufacture of moss litter (stable bedding), and I think the possibilities of this industry ought to be investigated especially in a dairy country. The litter's great capacity of absorbing (often eighteen times its weight) and retaining not only the fluids, but also the gases in the stable is proved to be a real purifier, and the greatly increased value of the stable manure as fertilizer ought not to be forgotten.

Feeding the Cow Before Calving Time.

The proper time to begin feeding a dairy cow is six or eight weeks before calving, and practical dairymen agree that this preparation has more to do with the amount of milk and butter fat which a cow produces during the lactation period than does the feeding during any other period.

For cows calving during the summer or early fall most dairymen like to have a small pasture away from the herd, but with an abundance of grass, and, in addition, they like to feed a suitable grain mixture. Corn silage, with clover or alfalfa hay and a limited grain ration of three parts ground oats, two parts of bran and one part of oil meal is especially good for cows calving during winter or early spring. After calving the cows should be brought slowly up to full feed and thereby steadily to a higher production.—[H. H. Kildee, University Farm, St. Paul.

Attention to Navy Bean.

R. A. Moore, secretary of the agricultural experiment association, is of the opinion that more attention should be given at this time to bean growing by the farmers, especially in the light soil regions of the state.

The navy bean grows easily in this state; it bears a good market price and its food value makes it highly popular. Beans can be kept in storage indefinitely without injury and can be easily shipped to various parts of this country or abroad.

Wisconsin grows only but 15,000 acres, while Michigan has more than 400,000 acres in beans at the last federal census.

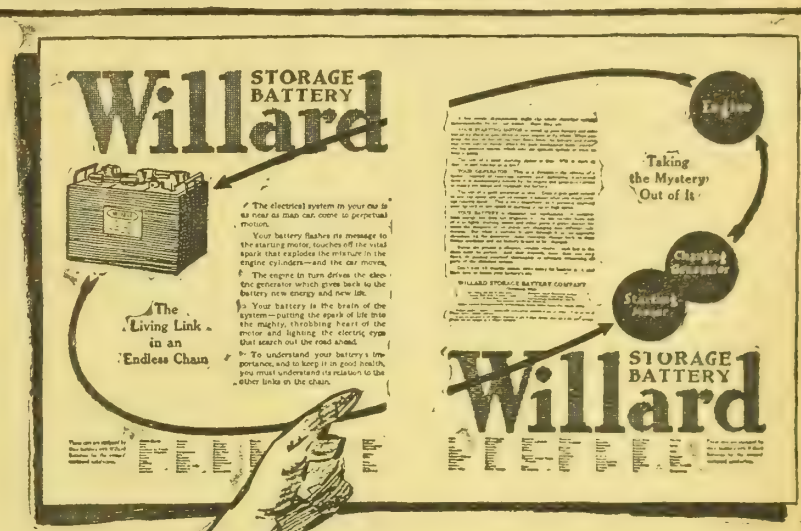
These cultural methods for the navy bean in Wisconsin were briefly outlined by Mr. Moore:

Beans follow corn in point of planting time. Usually the first ten days of June is the preferable period.

The ground must be well tilled. If ground is fall plowed it should be thoroughly disked early in the spring, and then gone over with a fine-tooth harrow. The mulch thus made will allow the soil to take in heat to the depth of several inches and sprout the weed seeds. By running over the soil at weekly intervals with a drag the weeds will be killed as they come up. This should be done several times before planting.

Beans do well on new soils and follow clover in rotation to advantage. In sandy soils they may be planted as deep as three inches, but on heavy soils two inches is enough. The regular grain drill will answer the purpose, the beans being dopped about four inches apart in the row.

Bean diseases, such as blight and rust, do not as a rule injure the crop in rotation or when planted on new soil.



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Questions and Answers.

An Electric Burglar Alarm.

Please give drawing and description of an electric burglar alarm attached to doors and windows of a house; one that will operate when the door or window is opened. What are bell magnets, and the armature of the same? The alarm is to operate with dry cells. What size of insulated wire is necessary? Can it be applied to the doors and windows of a chicken house with the same instruments?

Answer.—A burglar alarm may be arranged so that opening a window or door closes an electric circuit and causes a bell to ring, or it may be arranged so that opening the window or door opens an electric circuit and causes a bell to ring. The latter is much the better, especially where the wires must pass between buildings. In the former system all the burglar would have to do to prevent the alarm from operating would be to cut one of the wires. With the latter system the instant he cut one of the wires the bell would begin to ring.

Figure 1 shows how the first system is applied to the lower sash of a window. A thin brass strip T is fastened to the edge of the sash. Two strips of spring brass, S S, are fastened as shown just above the sash when the window is closed. B is an electric bell and D is the battery, consisting of one or two dry cells. When the window is raised the brass strip, T, bridges the gap between the two brass springs, S S, thus completing the electric circuit and causing the bell to ring. A switch may be placed anywhere in the line so that the bell may be shut off during the day. The upper sash may be wired the same way. Number 14 copper wire may be used. The door may be arranged on the same principle, two pieces of spring brass being fastened near the hinge of the door so that they are brought in contact when the door is slightly opened.

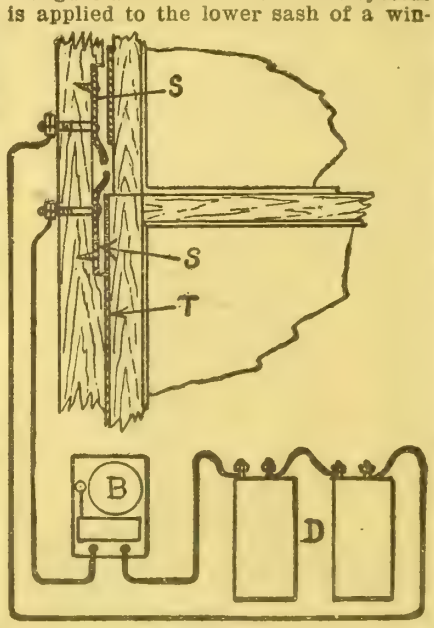

FIGURE 1.

The application of the closed system to the lower sash of a window is shown in Figure 2. When the sash is down the electric circuit is closed between the two spring brass strips, S S, by a brass strip on the bottom of the sash. This sends the current from the battery, W W, through the magnet coils of a telegraph sounder and draws the armature of the sounder down as shown. When the window is raised the circuit is broken, the armature, E, of the sounder lifts and closes the circuit between the battery and the bell, causing the bell to ring. Wet batteries of the zinc-copper-blue-vitriol type should be used for this system, as the constant drain of current would soon ruin a dry battery. Either system may be applied to several buildings using the same instruments.

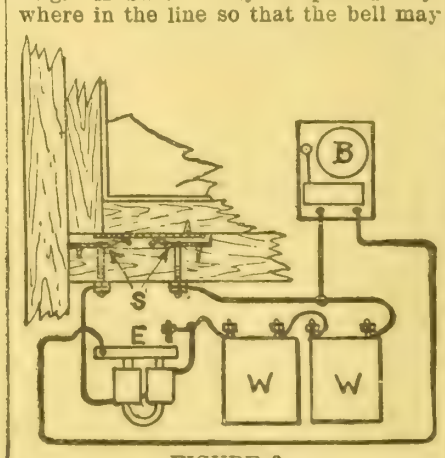

FIGURE 2.

The "bell magnets" referred to in a former issue are the magnets on an electric bell. The armature of the same is the soft piece of iron that bridges the ends of the magnet. This piece of iron is attached to the rod that works the clapper of an electric bell.

Weight of Water Under Pressure.

If water in a closed tank and under an air pressure of twenty-five pounds per square inch be weighed, would it weigh more or less than it would in a tank from which all the air had been exhausted? Is the weight of water the same under pressure as in a vacuum?

Answer.—Under ordinary temperatures and pressures, water is almost incompressible. One cubic foot of water under 100 pounds pressure would not weigh perceptibly more than one cubic foot of water under twenty pounds pressure, the temperature remaining the same. Of course, one cubic foot of water at 40 degrees Fahrenheit will weigh more than a cubic foot at 200 degrees. If water be placed in a tank and all the air exhausted, the water would become steam unless the temperature were below the freezing point. It would, therefore, occupy all the space in the tank, and one cubic foot of the vapor would weigh much less than one cubic foot of water under twenty pounds pressure. It would not be possible to pump all the air and vapor out of the tank so as to obtain a perfect vacuum.

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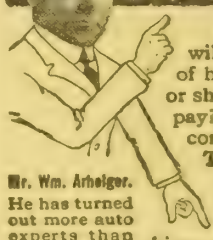

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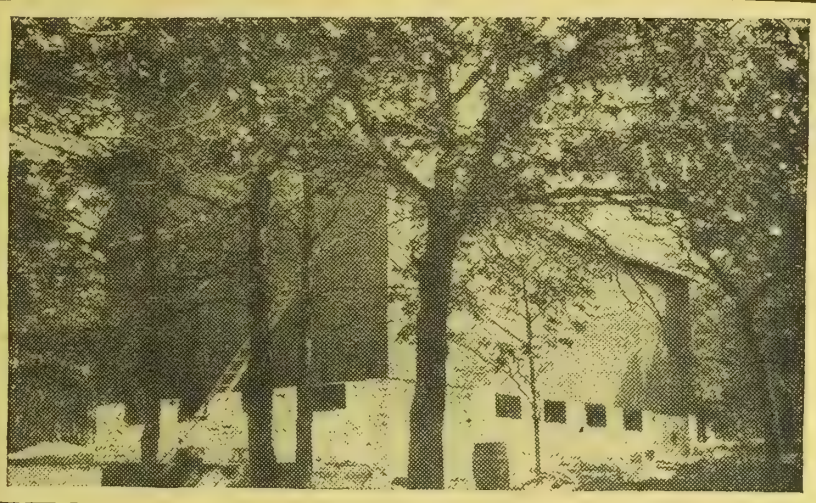
A Farm Success Against Odds.

Being a Few Observations on What an Eau Claire County Farmer Has Been Able to Accomplish by Hard Work and Perseverance.

THE experiences of those who are succeeding against heavy odds are always interesting. It matters not whether it be a young man forging to the front in a big concern because he has ambition and ability or the success of a settler who is making good on his chosen piece of land. Perseverance, it is said, always wins and when one learns of someone who is making it go it is interesting to delve into the history of that person.

MR. INGALLS CONFERRING WITH MR. HANGARTNER RELATIVE TO EXPERIMENTS WITH SOY BEANS AS SOIL BUILDERS AND A CASH CROP.

This desire prompted the writer recently to spend an hour in company with Mr. G. R. Ingalls, county agricultural representative, on the Hangartner farm in Eau Claire county. This is not a big farm or even a show farm, but here Mr. Alfred Hangartner, his wife and their four children are making for themselves a good home, are working against great handicaps in building up their farm, and, best of all, they are succeeding. The great lesson of it all is that constant work and interest and perseverance will win.



READY FOR THE DAIRY HERD. NEW BARN OF MR. ALFRED HANGARTNER, EAU CLAIRE COUNTY, COMPLETED LAST FALL.

Twelve years ago Mr. and Mrs. Hangartner came to Eau Claire county, Wisconsin. They had come over from Germany to the land of opportunity and with their savings they bought 120 acres a few miles from the city of Eau Claire. With a few old buildings thereon it was bought for $1,900 and the day the deal was closed Mr. Hangartner began his work to turn it into a productive farm, the kind of a farm he wished.

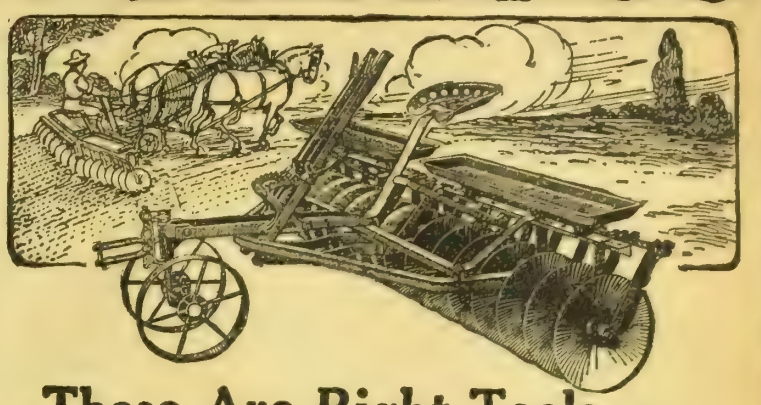
As he remarked to the writer, "I soon found the land wouldn't grow anything," but he did not throw up his hands in despair. On the contrary, he began studying the methods of soil improvement. Those were the days before county agricultural representatives and before the experiment associations were carrying their experiments to the farmer's door and much of Mr. Hangartner's knowledge had to come first hand and at his own expense. He began considering crop rotations and the growing of legumes to improve the soil, which was light and sandy. It was out of the question to suggest a herd of cattle to supply much-needed fertility. Fertility was expensive and, like the Upper Wisconsin settler of today, Mr. Hangartner, with the help of his wife, had to do the best his means permitted.

The rotations selected gradually improved conditions until one field which grew nothing but weeds when he took it produced 125 baskets of corn one year to the acre. Small grains were tried and a system of rotations were worked out which proved rather successful. This was to follow corn with winter rye, potatoes with oats, oats with winter rye and then sweet clover. This was followed until Mr. Ingalls became county agricultural representative and he immediately took an interest in Mr. Hangartner's operations with the result that he has introduced soy beans into the crop scheme to add humus to the soil, the long-needed element.

Mr. Ingalls, during the past summer, conducted several experiments with Mr. Hangartner, who realized the value of such aid, and particular attention was paid to the use of lime on this soil, it turning out that the limed sections produced much more heavily than unlimed sections. Mr. Ingalls also experimented with potatoes on this farm, but the severe season interfered to a great extent with his success. Soy beans were found to produce well and these will doubtless have a permanent place in the rotation system of this farm. Mr. Hangartner, compelled by necessity to work out for many years his own solution of his problems, was a ready coöperator with the county representative and the results he has accomplished on this farm, non-productive twelve years ago, shows what good methods and study will accomplish.

During the twelve years, aside from raising an estimable family, Mr. Hangartner has improved his soil so that it will begin to support a dairy herd. He has just completed a new modern barn; has six head of cows as a start into dairying and a delightful site picked out for the new home when that becomes a possibility. The barn came first because Mr. Hangartner believes that his cows should be well cared for, as they will provide the money eventually to build the new house. During this time the value of the land has increased, more through the improvements than from any outside cause, and it is certainly worth considerably more than the $1,900 it cost. Some estimate it now worth $6,000, not including the new barn. Mr. Hangartner hasn't placed a valuation on the farm; neither is he particularly anxious to sell.

THE CHILDREN ARE THE BEST CROP OF ALL. ALICE AND ERNA HANGARTNER.



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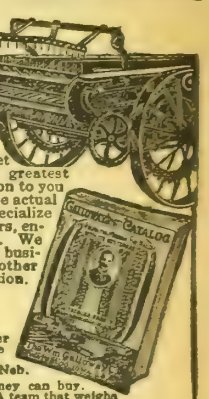

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It is as good a spreader as money can buy. I kept $36.48 in my own pocket. A team that weighs 1,850 lbs. pulls it easily. W. H. Adams, Pound, Wis.

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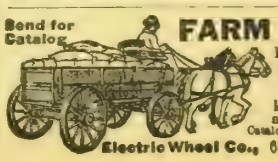

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DAIRY

Many in Pound-a-Day Class.

To the Editor:—At the end of its fourth year's work the Roberts and River Falls Cow-Testing Association shows production for the last twelve months as follows:

One cow, 500 to 550 pounds butter fat; two cows, 450 to 500 pounds; eight cows, 400 to 450 pounds; thirteen cows, 350 to 400 pounds; forty cows, 300 to 350 pounds; sixty-two cows, 250 to 300 pounds; sixty cows, 200 to 250 pounds; forty-four cows, 150 to 200 pounds; eleven cows 100 to 150 pounds; four cows, fifty to 100 pounds.

A total of 245 cows completed the years work, out of 430 which started. The remainder were sold or butchered. Some of the grades sold as high as $150. The highest producing cow for the year owned by J. L. Chapman, River Falls, has a record of 543.6 pounds of fat. She is a grade Holstein. The second on the list is a registered Jersey, owned by L. W. Ash, of Roberts, produced 494.6 pounds of fat. The average cow of the association produced 6,477 pounds of milk, and 267.15 pounds of fat. The value of the fat produced by the average cow was $96.75, cost of feed, $46.50 and profit $50.25. The return for every dollar spent for feed on the average cow was $2.08. We consider this a fairly good average for this year. Grain was so high that some herds did not get the feed they should have had. The lowest production of any cow was 91.6 pounds of fat and she showed a profit of $7.57 on that. There was one star boarder out of the cows which stayed for the year and she cost her owner $7.69. She was a two year old and may do better next year. It pays to feed grain even though feed is high. Don't look for all the profits in the winter. A cow on grain in the winter is in much better shape for good, hard work in the summer. I believe also that a little grain may be fed to advantage even in the summer months.

One of J. L. Chapman's grade Holsteins showed a profit of $113.39, this being the highest profit of the year. This cow was bought a little over a year ago for $75. She has produced as high as ninety-eight pounds of milk in twenty-four hours. Her feed cost for the year was $84.32. A grade Guernsey owned by J. W. Ruddeman, Roberts, made a total profit of $106.85. H. A. Rundell, of Roberts, also had a total profit on one cow, another grade Guernsey, of $106.15. C. G. Carlson,
Official Tester, River Falls and Roberts Association.

In Marathon County.

To the Editor:—During the month ending March 31st, 285 cows were on test in our association. Eleven produced over forty pounds of butter fat, and thirty-eight over thirty pounds. Five cows were disposed of as unprofitable. William Lenz' four cows produced an average of 738.4 pounds of 4.66 per cent milk, of 34.48 pounds of fat. Two cows passed requirement for the two-year-old junior class. One owned by Chrouser Bros. freshened the 24th of September, produced 723.1 pounds of 4.5 per cent milk, or 32.5 pounds of butter fat, in twenty-eight days. William Schneider's cow, Bossie, started a twenty-eight-day work at one year, eleven months and six days, making 996.5 pounds of 3.2 per cent milk, or 31.8 pounds of butter fat. Garret Hughes' registered Holstein for the month of March, produced 1,566.1 pounds of 3 per cent milk, or 46.7 pounds of fat. George W. Bargabos had two native cows which produced each forty-five pounds of fat, one showing a 5.2 per cent test on 873.6 pounds of milk.

Harry A. Johnson,
Official Tester, Stratford Association, Marathon county, Wis.

Alto Association.

To the Editor:—Our forty-five-pound list for March is as follows:

Owner, number and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Ed Bruins					
No. 1, P. B. J.	3	2-17-17	1002	6.4	64.1
No. 2, P. B. J.	2	12-1-16	870	5.8	50.5
No. 8, P. B. J.	3	2-1-17	867	5.6	48.6
No. 17, P. B. J.	6	3-1-17	834	5.9	49.2
No. 20, P. B. J.	9	10-14-16	765	5.9	45.1
No. 22, P. B. J.	3	2-10-17	837	6.3	52.7
No. 23, P. B. J.	7	11-7-16	996	7.2	71.7
No. 24, P. B. J.	8	12-19-16	984	6.0	59.0
No. 27, P. B. J.	12	1-14-17	1176	4.4	51.7
B. B. Vossekuil					
No. 6, G. J....	7	2-1-17	1110	5.1	56.6
R. Kastein					
No. 4, G. J....	9	12-31-16	1338	4.3	57.5
No. 6, G. J....	7	3-5-17	1164	4.4	51.2
No. 7, G. J....	7	3-3-17	1074	4.8	51.6
No. 10, G. J...	10	1-25-17	1389	3.8	52.8
J. W. Stelsel					
No. 12, G. D...	3	3-10-17	1146	4.2	48.1
Mrs. Theo. Kastein					
No. 14, G. G...	6	3-11-17	1239	6.0	74.3
Albert Rens					
No. 16, G. H...	7	3-10-17	1371	4.4	60.3
Ryer Westhuis					
No. 1, G. G....	4	1-15-17	1026	4.4	45.1
Jake Kamphuis					
No. 9, G. D...	7	2-6-17	1092	4.7	51.3
F. Whittemore					
No. 3, G. G...	9	12-10-16	987	4.7	46.4
No. 5, G. G....	9	1-20-17	1110	4.6	51.1
No. 10, G. G...	13	3-1-17	1053	4.3	45.3
No. 11, G. G...	3	2-17	1023	5.0	51.2
No. 13, G. G...	3	2-21-17	852	5.6	47.7
No. 16, G. G...	13	3-14-17	1104	4.2	46.4
No. 18, G. G...	8	8-12-17	1044	5.0	52.2

Best cow for month, grade Guernsey owned by Mrs. Theo Kastein, 1239 pounds milk, test 6.0 per cent, 74.3 pounds butter fat. Fifty-eight cows in forty-pound list for March.

F. L. Cuenot Tester.

In Shawano County.

To the Editor:—Shawano County Association No. 1 had 290 cows under test in March. Nine produced over forty pounds of fat. G. R. Rauseau's grade Holstein, producing 50.8 pounds of fat from 1,209 pounds of milk was high cow. Paul Druckrey's herd of four cows, averaged 855 pounds of milk and 30.5 pounds of fat. Members were saved about $4 a ton on purchase of car of feed. C. M. Rydberg, Official Tester.

Mishicot Cow-Testing Association

To the Editor:—The Mishicot Cow-Testing Association has just finished its first year's work, and is reorganized and started on the second year with increased interest. This increased interest is conclusively shown by the fact that already more than 400 cows have been entered for the yearly test, while last year only 300 were in the test for the year.

Mr. Albert Johannes has not only the highest butter fat producing cow, but the one making the most milk during the association year. His six-year-old grade Holstein produced 417.3 pounds of butter fat, and made a profit above feed of $98.47. To another of his grade Holsteins goes the honor of producing the most milk during the year, and second in the production of fat. This cow made 12,105 pounds of milk and 409.9 pounds of fat.

Mr. Chas. Kornely had the third highest butter fat producing cow, and also that in which we are most interested—the herd and the cow that made the most profit. The cow that made the largest profit above feed was a grade Holstein, making $133.61. With an average profit above feed of $88.99 his herd was the highest profit-making herd in the association.

Mr. Walter Zander had the herd making the highest average production of butter fat for the year. Each cow in his herd made an average of 330.1 pounds of fat and a profit above feed of $70.47.

Following are the ten herds having the highest average fat production:

Owner	Milk	Fat	Feed cost	Profit
Walter Zander..	7965	330.1	$67.71	$70.47
Albert Johannes	8704	311.19	63.48	61.97
Chas. Kornely..	8809	300.9	55.38	88.99
Oscar Sanz	6443	296.1	60.31	63.65
Geo. Wuellner..	7759	295.3	37.70	83.13
Wm H Spencer	6852	292.2	51.12	73.49
Wm. Bertoloet..	5909	290.3	53.45	69.32
Peter Fliegel...	7115	290.1	63.06	57.46
Robert Hessel ..	7442	287.2	54.84	60.40
H Zermuehler .	8017	285.8	55.37	61.19

These records certainly show that we have some high producing cows in this section. They show, too, that the cows producing large quantities of fat are the biggest money-makers even though they do eat more than some of the other cows.

Nine of these cows have qualified for entry in the pounds a day register for Wisconsin Cow-Testing Association, a register that is being established for cows making high-production records in cow-testing associations. The tester will continue his work in the association for the new year.

E. H. Meineke,
Official Tester, Manitowoc county, Wis.

THE TEN HIGHEST BUTTER FAT PRODUCING COWS.

Owner and breed	Age	Milk	Test	Fat	Feed cost	Profit
Albert Johannes, Grade Holstein.....	6	10456	3.99	417.3	$65.26	$ 98.47
Albert Johannes, Grade Holstein.....	9	12105	3.38	409.9	73.74	85.03
Chas. Kornely, Pure-bred Holstein.....	5	11189	3.56	409.4	69.60	112.94
Walter Zander, Grade Holstein	11	8747	4.60	402.5	79.51	84.88
George Wuellner, Grade Holstein.....	6	10340	3.82	395.6	47.54	110.43
Oscar Sanz, Native	8	7421	5.24	388.2	69.94	101.82
Chas. Kornely, Grade Holstein.....	4	9907	3.09	386.5	55.69	133.81
George Wuellner, Grade Holstein.....	6	9896	3.69	366.0	43.54	100.31
Walter Zander, Grade Holstein.....	5	8103	4.51	366.0	72.71	90.56
Albert Johannes, Grade Holstein.....	9	10302	3.48	358.6	66.78	66.69

Wrightstown, Greenleaf and Brillion Association.

To the Editor:—Our association records prove that more Wisconsin dairymen are learning the value of liberal feeding to good cows. Over 20 per cent of those tested in the month ending April 10th, or a total of seventy-three cows produced more than forty pounds of fat, and our high herd averaged 17.8 pounds [illegible]

High Feed Costs Smashed!

Down they go—to *smash!* In scads of cases cut down a HALF! Thousands of farmers are selling their No. 1 hay, milling off-grades. They're making the grandest alfalfa chop; fattening hogs, cattle, sheep, poultry and *purses!* making it cheaply, easily, with our famous patented Recutter Attachment (6 sizes for field use).

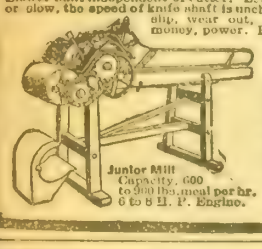
Handles leaves, stems and all! No wasted no injuring color of hay. Makes dandy combination feeds from clover, rice, straw, cornstalks, bean straw, pea vines, oats and rye. Biggest guaranteed capacity! 1200 to 2700 lbs. per hour. 600 to 900 lbs. of meal per hour with Junior Mill (run with 6 to 8 h. p. engine). Cracks peas, corn and beans.

SMALLEY SILO FILLER

SEVEN SIZES

Tremendously simplifies silo filling. Grip Hook Force Feed table automatically feeds cutter—saves wage and board of from one to three men. Makes richest feed, increases silo tonnage.

Blower built independent of cutter. Let your fan spin fast or slow, the speed of knife shaft is unchanged. No belt to slip, wear out, and waste time, money, power. Patented low-speed one pulley chain drive is faster, cleaner. Saves 1-4 to 1-4 power costs! Powerfully built. A fourth heavier with wonderful record for long service. Handsome new catalog FREE. Write for it to Dept 55



SMALLEY MFG. COMPANY
Manitowoc, Wis.

B. V. T. SILO

Notice the patented block. Excludes air and moisture. Permanent construction. Block indestructible. Why not have a Silo that will last forever? Write for free Silo book.

BRAZIL HOLLOW BRICK & TILE CO.
BRAZIL, INDIANA

I MET HIM ON THIS VERY SHIP!

It was within an hour of sailing time. I was on my way home from Europe five years ago. The Mauretania lay beside her Liverpool wharf. Everybody was hurrying to get on, as we were to sail at five o'clock. Suddenly, without warning—without a propeller turning—she commenced to pull away from her moorings. The gang planks creaked—broke loose—and there was quite a commotion as the mighty Mauretania tore loose from her moorings and floated out into the water. In the excitement I met a man who was leaning over the rail who looked at me and we laughed together. Then we just naturally got acquainted like people do when they are traveling. He was J. J. Berrigan of Orange, New Jersey, the famous cream separator expert and inventor. I had never seen him before but I had heard of him. I told him I was from Waterloo, Iowa, and he said, "You are Galloway." I soon found out he was the great cream separator expert and a man I was glad to meet. Naturally

"Read this little story. It was my turning point as a manufacturer of cream separators."—Wm. Galloway.

WE BECAME WELL ACQUAINTED

He told me what he had done in perfecting cream separator patents and improvements. I told him he was just the man I was glad to get acquainted with. After the Mauretania had been lashed to her wharf again, the excitement was over, and we pulled out of Liverpool several hours late—Berrigan and I began to talk cream separator, and every day after that we spent several hours together visiting. I told Mr. Berrigan that we were perfecting what I thought was the best cream separator ever produced, and I also told him if he would come to Waterloo and put on the finishing touches, go over the separator, test it, criticize it, find fault with it wherever he could, and suggest any possible improvements, I would pay him well for his time. In a few days after we landed in New York he did come to Waterloo. He said our separator was one of the finest designs he had ever seen, and with the few recommendations which he made, he pronounced it O. K.—good as the best—and better than many of the separators on the market today. Our engineers, designers and separator builders had produced a machine with graceful lines, simplicity of construction, combined all the good features and left out all the faults. Mr. Berrigan commended us on the work and immediately put his stamp of approval upon this machine. That's why I say

WE PERFECTED THIS SEPARATOR

before we offered it on the market. We put out in the hands of farmers and dairymen enough of these separators to know that they would stand up under any test, whether operated and used in the kitchen, the milk house, the creamery or elsewhere, used two or more times per day, every day, week after week, month after month. **I just want you to try it.** If you like it, buy it. If you don't, send it back. **We pay freight both ways.** If the New Galloway Sanitary Separator is as good as I say it is you can't afford to buy any other kind. If it is not as good as I say it is, I could not afford to make this **ninety day trial** offer and I could not afford to guarantee it for **ten years.**

Get My New Low Prices

AND READ MY 1917 BOOK ABOUT CREAM SEPARATORS

It tells of how we took four years to design and perfect this separator, to build into it every good cream separator feature and retain its beautiful proportions. How we did not build it down to a price, but built it up to a high standard in our own factories right here in Waterloo. It tells how we build Galloway Sanitary Separators from the ground up. How they are designed and many other separator secrets and facts. A meaty, exact, concise, truthful book about cream separators, gasoline engines, manure spreaders, tractors and other implements we manufacture. Why, by selling direct, I can make a machine as good or better than any high priced separator sold through other systems. These are a few of the reasons why I want you to get this book. It tells the whole story. It tells the truth. It tells the facts. Ask for it today. A postal gets it. Don't delay. A reading will save you dollars in buying.

Indisputable Proof!

Have operated several different kinds of separators. Galloway Sanitary skims as close and runs lighter than any. J. E. Ricketts, Paddensburg, Mo.

We know it skims close. It paid for itself. Wm. S. Brower, Farnum, Idaho. It is easier running and more easily cleaned than others. We made a saving of $23. I wouldn't exchange it for any high priced separator. E. F. Louthan, Carthage, Mo. Your No. 9 separates perfectly at rate of 800 lbs. per hour. (Only guaranteed for 750 lbs.) S. S. Brockway, Greenville, Pa.

Try a Galloway Sanitary Cream Separator in Your Dairy for Ninety Days.

Stand it side by side with cheaper machines and you will see the difference in material and workmanship, design and skimming qualities. Stand it beside the highest priced machines, test them together for months! Higher priced machines will not run any easier or skim any closer and cannot be more perfectly sanitary or better built. We want you to be the judge—we will take your decision as final. Separators shipped from Waterloo, Council Bluffs, Kansas City, St. Paul, or Chicago, whichever is nearest to you.

Note these few strong, simple, sanitary parts. Easy to wash clean—no rough edges—no sharp corners. Bowl catches any foreign matter in the milk. Only two shafts in the whole gearing—both of high-carbon steel, in long, perfectly fitted bearings. All gear shaft and both bowl spindle bearings supported by one casting—the gear case. All the working parts run spray of oil. Simple, effective driving clutch on crank shaft.

4 Good Sizes From 375 to 950 lbs. Capacity per Hr.

Wm. Galloway, President
WM. GALLOWAY, COMPANY
83 Galloway Station, WATERLOO, IOWA

R-39

list for the month ending April 10th follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
F. Zick					
Inka, P. B. H.	2	2-11-17	1221	4.2	51.3
Bessie, P.B. H.	4	1-17-17	1743	3.2	55.7
F. Kloehn					
Daisy, G. H...	8	1-4-17	1545	3.2	49.4
Dolly, G. H...	2	3-1-17	1419	3.8	53.9
Nellie, G. H...	9	1-21-17	1497	3.2	47.9
Aaggie I, P. B. H.....	10	1-4-17	1515	3.4	51.5
Aaggie II, P. B. H.	7	2-1-17	1509	4.0	60.4
J. Nachers					
Sadie, P. B. H.	2	3-1-17	1359	3.5	47.5
Peggy G. H...	6	12-25-16	1389	3.4	47.2
Belle, G. H...	4	1-1-17	1242	3.9	49.3
Aug. Huebner					
Hatchet, G. H.	6	2-11-17	1905	3.1	59.0
Blossom, G. G.	4	1-19-17	1029	4.7	48.3
Harry Brach					
Susie, G. J....	5	3-8-17	1212	4.4	52.3
Sally, G. J....	4	3-8-17	1041	4.9	51.0
M. Philips					
Blackie, G. H.	8	2-20-17	1171	4.0	46.8
John Kloehn					
Bliss, G. H....	6	2-27-17	1962	3.0	58.9
Nellie, G. H...	10	2-13-17	1749	3.4	59.4
Daisy, G. H...	3	2-15-17	1623	2.8	46.6
Betsy, G. H...	8	3-3-17	1668	3.3	55.0
Nigger, G. H..	9	3-9-17	1863	3.8	70.8
Spottie, G. H.	7	11-2-16	1470	3.2	47.0
Bossie, G. H..	7	1-13-17	1926	3.0	57.8
Beauty, G. H.	8	1-6-17	1524	3.1	47.2
Bessie, P.B. H.	5	2-26-17	1584	3.2	50.7
De Kol, P.B. H.	5	2-22-17	1581	3.0	47.4
Star, P. B. H.	5	2-21-17	1980	3.3	65.3
John Seybold					
Sunbeam, G.H.	4	1-24-17	1812	3.1	56.1
Elizabeth,G.H.	8	12-27-16	1470	4.1	60.2
Beach G. H...	3	12-10-16	1530	3.2	48.9
Daisy, G. H...	8	12-17-16	1734	3.3	57.2
Dorothy, G. H..	7	1-16-17	2070	3.2	66.2
Johanna, G. H.	4	3-2-17	1437	3.7	53.1
Rainbow, P. B. H.....	4	12-24-16	1503	3.3	49.6
Forest Lily I, P. B. H.....	6	1-13-17	1602	3.2	51.2
Cherryvale, P. B. H.....	9	1-25-17	1920	2.9	55.6
Fred Harford					
No. 1 P. B. H.	6	2-16-17	1575	3.0	47.2
No. 6, P. B. H.	8	12-11-16	1557	3.4	52.9
No. 7, P. B. H.	6	2-14-17	1560	3.1	48.3
No. 11, P. B. H.	6	2-20-17	1641	3.4	55.8
No. 13, P.B. H.	6	3-8-17	1560	3.4	53.0
No. 14, P.B. H.	6	2-13-17	1557	3.1	48.2
H. Baumgartner					
Blossom, G. G.	7	2-15-17	1227	4.2	51.5
Topsy, G. G...	6	3-10-17	870	6.0	52.2
Charles Schmidt					
Beauty, P.B.G.	4	2-23-17	903	5.2	46.9

F. A. Gaiser,
Official Tester, Wrightstown, Greenleaf, Brillion Association.

Five Hundred Cows to Texas.

To the Editor:—Notwithstanding the scarcity of good roughage and the high price of feeds, the cows in the Winnebago Cow-Testing Association are returning fair profits. The best cow for March was a grade Holstein owned by Ed G. Race, of Omro. Mr. Race has a herd of 106 Holsteins, consisting of pure breds and grades. He has a barn 50x120, and as fine a ventilating system as anyone I know of. On March 26th, Mr. E. W. Dale, of Beatrice, and O. E. Leibers each from Texas, and Mr. Frank M. Clark, of Healy, Texas, bought twelve head of high-grade milk cows from Mr. Race. These were shipped to Appleton, where they were to join a train load of grades and pure breds, numbering 500 in all which started for Texas, April 2d. Mr. Leibers stated that nothing but pure-bred bulls were allowed to go in this bunch. Mr. Race also sold his senior herd bull for $1,200 to Kirkpatrick Brothers, at Reedsburg, Wis. The following is the forty-five pound list for the month ending March 31st:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Ed G. Race					
Ormy P. B. H.			1548	3.4	52.6
No. 2, P. B. H.			1530	3.1	47.4
No. 7, G. H...			1735	3.2	55.5
No. 11, G. H...			1484	4.4	65.3
No. 20, G. H..			2102	2.6	54.1
No. 22, G. H..			1266	3.5	44.3
No. 44, P.B. H.	2½		1170	4.0	46.8
No. 19, G. H..	2½		1263	3.8	48.0
No. 30, G. H..			1287	3.7	47.0
No. 42, G. H..			1432	3.3	47.3
No. 10, G. H...			1253	3.9	48.9
Frank Searles					
Leitzs Pride of Hazelhurst			1002	6.5	45.1
H. R. Mosely					
Rosie, G. G...	4	2-6-17	993	4.6	45.7
Delma, P.B. G.	7	8-8-16	871	5.2	45.3
Heirmone, P. B. G.....	4	3-14-17	942	5.4	51.9
Frank Brooks					
Mary, G. D...	6	1-29-17	1038	4.4	45.7
G. E. Washburn					
Rose 2, P. B. J.	9		870	5.8	50.5
Roselinda, P. B. J.....	9		930	5.0	46.5
Will McFeteridge					
Blackie, N....	8	3-13-17	803	5.6	45.0
C. H. Slayton					
Lizette, P.B.G.	4	3-7-17	954	5.8	55.3
Sequel, G. G..	5	3-8-17	1023	5.8	59.3
C. Ruelke					
Dolly, G. G...	8	11-23-16	1047	4.8	50.3
Primrose, G.G.	7	12-5-16	1122	4.7	52.7
Edna, G. G...	7	1-10-17	1362	3.5	47.7
Eva, G. G.....	13	3-1-17	906	6.0	54.4
J. W. Thrall					
Jane, G. G...	3	1-25-17	1005	4.6	46.2
Marguerette, G. G.	8	11-15-16	1068	4.5	48.1
Dorothy, G. G.	5	12-18-17	912	5.0	45.6
Dolly Bloom, G. G.	6	2-8-17	1758	4.0	70.3
Ray's Best,G.G.	4	2-23-17	1248	5.2	64.9
Ed Mackie					
Lady, G. G....	6	2-20-17	978	4.6	45.0
Aug. Zimmerschied					
Sadie, G. H...		1-9-17	1092	4.9	53.5
M. A. Ralph					
Jersey, G. J...		2-16 17	975	4.8	46.8
W. Haase					
Freda, G. J...	7	2-7-17	1332	3.8	50.6
Lena, G. G....		2-28-17	1158	4.5	52.1
W. P. Bussey					
No. 2, G. J....	5	1-16-17	945	5.3	50.1
T. A. Farrow					
Eva, G. G.....	13	3-11-7	906	6.0	54.4
N. A. Rasmussen					
Rosanna,P.B.G.	6		980	4.7	46.1

A. R. House, Official Tester.
Levi Brunson, Secretary.

Manitowoc Association.

To the Editor:—The following is the forty-five-pound cow list in the Manitowoc County Association for the month ending February 28, 1917:

Owner, name and breed	Age	Pounds milk	Per cent of fat	Pounds B. fat
Adolph Otto				
Jewel, R. H.	3	1464.0	3.6	52.7
Torris Geraldson				
Martha, R. H.....	4	1714.3	4.0	68.6
Pauline, R. H.....	4	1476.0	4.0	59.0
Canary, R. H.....	4	1276.8	5.3	67.7
Labriga, R. H.....	3	1281.0	4.3	55.1
Pinery, R. H.....	2	1248.0	3.7	46.2
Walter Behm				
Flora, G. G.....	7	1046.5	5.0	52.3
Bossy, G. G.....	7	1054.5	4.4	46.4
Lady, G. G.....	6	1181.5	4.3	50.8
Oscar Peterson				
Rosa, G. G.....	4	1149.0	4.0	46.0
Nels Johnston				
Empsie, R. H.....	8	1453.9	3.5	50.9
Lady, G. H.....	6	1496.5	3.6	53.9
Pauline, G. H.....	5	993.3	4.6	45.6
Geo. Thompson				
Longfield, R. H.....	9	1794.3	3.1	68.1
Chas. Achenbach				
Jessie, G. H.....	4	1316.0	3.9	51.3
Ella, G. H.....	2	1027.0	4.4	45.2
Pat Cahill				
No. 17, G. H.....	7	1389.7	4.5	62.5
No. 18, G. H.....	3	1307.6	3.8	49.7
No. 1, G. H.....	6	1291.4	3.8	49.1
No. 14 G. H.....	7	1456.3	3.6	52.4
No. 25, G. H.....	8	1374.5	3.4	46.7
M. H. O'Connell & Sons				
No. 4, G. H.	9	1517.0	4.5	68.3
No. 7 ,G. H.....	7	1606.0	5.6	89.9
No. 9, G. H.....	2	1286.0	3.5	45.0
No. 13, G. H.....	4	1296.0	4.4	57.2
No. 20, G. H.....	3	1313.0	3.5	46.0

H. R. Brewster, Official Tester.
George W. Kiel, Secretary.

River Falls and Roberts Association.

To the Editor:—The following is our forty-five-pound list for March:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
J. L. Chapman					
Johanna, G. H.	2	11-24-16	1584	3.5	55.4
Belle 3, R. H.	3	10-24-16	1347	4.1	55.2
Belle 2, R. H..	4	1-18-17	2220	3.3	73.3
Belle 1, R. H..	8	12-26-16	2253	2.6	58.6
Dora, G. H....	7	2-14-17	2946	2.7	79.5
Bird, G. H....	4	11-14-16	2091	3.1	64.8
M. R. Pritchett					
Nina, G. G....	12	12-25-16	822	5.5	45.2
R. L. Alton					
Stub, G. H....	5	12-15-16	1410	3.4	47.9
G. L. Batten					
Fanny, G. G..	9	10-31-16	1155	4.0	46.2
Belle, G. S. H.		2-6-17	1302	3.9	50.8
Marie, G. G...	7	2-1-17	1443	5.2	75.0
S. E. Batten					
No. 17, G. H...	5	3-6-17	1359	3.9	53.0
H. A. Rundell					
Buttercup,G.G.	7	3-6-17	1293	5.5	71.4
D. E. Flower					
Jewel, R. H...	5	3-21-17	1158	4.9	56.7
Star, R. H....	4	12-25-16	1605	4.3	69.0
Salma, R. H..	4	1-5-17	1560	3.0	46.8
Hattie, R. H..	5	1-18-17	1452	3.1	45.0
Fobes, R. H...	4	1-23-17	1860	3.3	61.4
Canary Jewel, R. H.	2	3-17-17	1380	4.9	67.6
Bananza, R. H.	3	1-5-17	1470	3.3	48.5
Wm. Lamb					
Fancy, R. J...	10	3-12-17	1215	4.4	53.5

C. G. Carlson, Official Tester.
J. M. May, Secretary.

Barron-Dallas Association.

To the Editor:—The following is the forty-five-pound list for the Barron-Dallas Cow-testing Association for the month ending March 20, 1917:

Owner, name and breed	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
S. Borgen				
No. 1, G. H.....	Jan.	1335	4.3	57.4
O. Borgen				
Fawn, G. G.....	Dec.	1260	3.8	47.8
A. Borgen				
No. 2, G. H.....	Dec.	1050	4.9	51.4
No. 5, G. H.....	Nov.	1161	4.0	46.4
Carl Grover				
Blackie, G. H.....	Feb.	1125	4.6	51.7
W. Black				
Beauty, G. H.....	Jan.	1122	4.6	51.6
O. H. Burger				
Florrie, G. D.	Dec.	1107	4.5	49.8
E. M. Weldon				
Bess, G. G.....	Jan.	900	5.0	45.0
Fred Krahenbuhl				
B. R. Jo., R. H.....	Mar	1719	3.3	56.6
B. A. P., R. H.....	Jan.	1290	3.5	45.1
B. W. L., R. H.....	Jan.	1404	3.8	53.3
B. Pet, R. H.....	Jan.	1497	4.2	62.8
B. M. D., R. H.....	Feb.	2028	3.9	79.9

S. McBrayer, Official Tester.
W. Black, Secretary.

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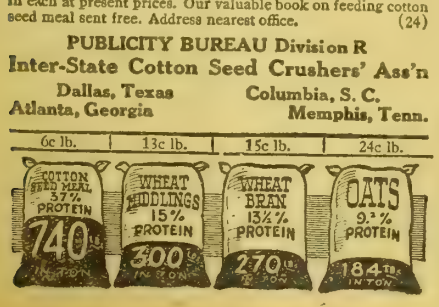
In no way can you get protein so cheap. In Indiana it was found that "a ton of cotton seed meal saved $55.40 worth of corn and clover hay." At present prices for corn, each ton saves $88. The figures below show just the number of pounds of protein to a ton in different feeds, and the cost of protein in each at present prices. Our valuable book on feeding cotton seed meal sent free. Address nearest office. (24)

PUBLICITY BUREAU Division R
Inter-State Cotton Seed Crushers' Ass'n
Dallas, Texas — Columbia, S. C.
Atlanta, Georgia — Memphis, Tenn.



How to Erect A Wood Tire Silo

Bolt tire to concrete base. Set the 2 x 4 spacers on lower tire and toe-nail. Place second tire on spacers and toe-nail. Repeat until framework is done. Nail on outer covering of spruce—then inner lining of California redwood.

You then have a **storm-proof, frost-proof, mould-proof** silo without hoops or guy wires—one that will not swell, shrink or decay—a different, *patented* silo that gives you the best possible service and at a reasonable cost. Write for our FREE silo folder and learn more about its construction and advantages.

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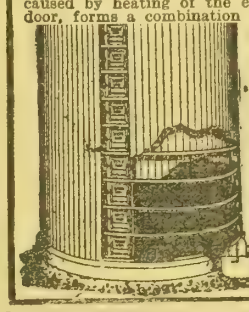

Drico Interlocking Hoops are made of wood, 4-ply thick, steamed and rolled to the correct curvature. In using these hoops the silo will be perfectly round, permitting an even settling of the ensilage. Hoops never need tightening, nothing can get out of order.

Both Drico Doors and Drico Hoops can be gotten from the lumber yards owned by the members of the Hemlock and Hardwood Manufacturers Ass'n of Wisconsin and from lumber dealers in general. If your local lumber yard cannot supply you, write direct to us **For Free Booklet** and prices.

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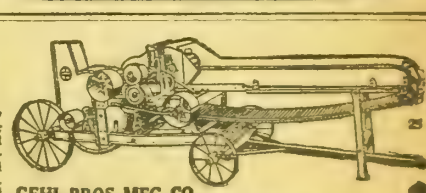

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Beautifying Farm Home Grounds.

Just a Little Added Expense Will Add to the Value of the Home Property.—By Franz A. Aust, Wisconsin Station.

MAKING a drawing on paper of the best way to plant the home grounds often "turns hindsight into foresight." When possible draw a plan to a definite scale; that is, have perhaps eight or ten feet on the ground equal one inch on the paper. Show the location of buildings, walks, drives, trees, garden, play area, laundry yard, and the like.

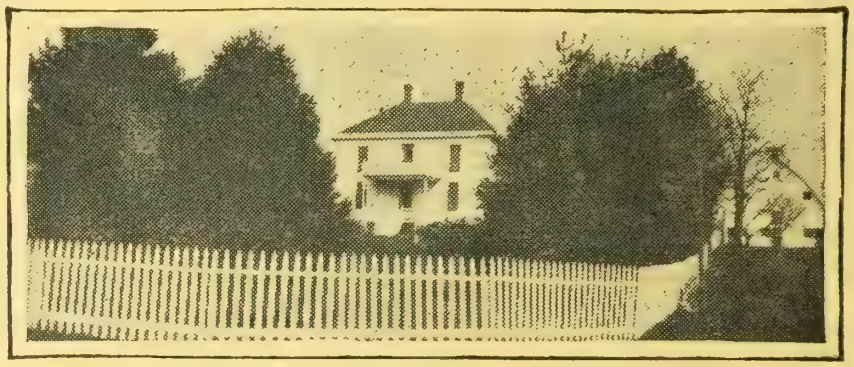
The house is the central feature of the home-grounds picture. Give it the

THIS HOME WOULD LOOK MUCH MORE BEAUTIFUL WITH A PROPER SETTING.

greatest prominence. Never dwarf its size by placing larger buildings nearer the road. Never plant tall-growing trees close to a small house.

The lawn is the foreground of the home picture. It should be large enough to give privacy and expanse. Keep it open, free from flower beds, statuary, monstrosities or improperly located plants which deface the picture. Trees furnish the frame and background of the home picture. Plant them on the border of the lawn to enframe the views to and from the house, to screen unsightly objects and for shade in summer and protection in winter. Plant trees along the roadway, so they will give shade for the passerby. Avoid planting trees too closely. Large trees should seldom be planted closer than forty feet apart. Do not plant box elder, soft maple, or poplar, unless they are alternated with permanent, long-lived trees. Remove the fast-growing trees as soon as they interfere with the permanent ones. Avoid planting lawn trees in straight rows. As a rule, they should stand either as single specimens, or in irregular groups. The weeping mulberry, camperdown elm, weeping beech, catalpa bungeii, and the like, are freaks and out of place on the lawn.

Small trees, such as the flowering crabapples, thornapples, plums, and mountain ash, when used singly, are valuable for enframing views near a small house where large trees would dwarf the house. When used in groups of two or three, and supplemented with shrubs they are valuable for



EVERGREENS ARE NOT ARRANGED TO THE BEST ADVANTAGE.

screening unsightly objects, for forming a transition between larger trees and shrubs, and for breaking monotony in the shrub border.

Evergreens are usually sold by their height and spread. Other trees, up to ten feet, are usually sold by their height, and larger trees by the diameter of the trunk near the base. Ordinarily it pays to buy a tree of at

WHEN THESE TREES GROW UP THE BUILDINGS WILL BE HIDDEN.

least one and one-half inches in diameter. Frequently much larger trees can be planted at comparatively low cost.

Shrubs are the harmonizing elements of the home-grounds picture. Group them at the corners and angles of the house to make it appear a part of the grounds. Plant masses of shrubs along the boundaries to give interest and year-around beauty. Use them to screen unsightly objects and to make walks and drives less prominent. Plant the more refined-growing varieties about the house and the coarser ones, such as sumacs, elders and blackhaw, at the borders, where they will be seen at a greater distance. Plant the high-growing shrubs at the corners of the house and in the wider portions of the border beds for accentuation. Plant the low-growing shrubs in front of the higher ones, so there will be a continuous mass of foliage.

Before buying or planting, be sure you know the ultimate height to which the plants will grow. When planting close to walks and drives, use compact-growing species to avoid obstructing traffic. Do not plant shrubs in a straight line, but place the plants irregularly, in order to avoid a lined-up appearance. The side of the planting beds next to the lawn should present a pleasingly curved outline.

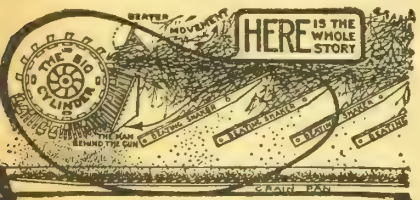
Shrubs are sold according to their height. One and a half to two feet for low shrubs, two to three for medium, and three to four feet for the higher-growing species are good sizes to buy. They should have good, bushy tops and equally bushy and well-balanced root systems. Mere whips are never acceptable. When purchasing in quantity, buy direct from a reliable nursery; stock purchased through agents naturally comes at higher prices. When bought in lots of ten or more, the cost of the common shrubs should generally not exceed 20 to 25 cents each. This does not always include packing and freight.

Unpack shrubs immediately upon their arrival, and if you cannot plant at once, place them in a trench and cover the roots with earth to prevent drying. When planting, do not leave the shrubs lying about the lawn, as great care should be taken to prevent injury to the roots by exposure. Spade up the entire bed to a depth of eighteen inches and work in some well-rotted manure. Dig a hole large enough to contain all the roots without crowding, and prune back the top of tree or shrub to balance the loss of roots made in digging. Water the plants well during the dry season by thoroughly saturating the ground once every week. Cultivate the beds by hoeing and keep down all weeds.

Flowers give life, color and variety to the home-grounds picture. Hardy perennial flowers, which come up from the root each spring, require much less

THE SETTLER CAN WELL AFFORD TO SPEND A LITTLE ON HOME SURROUNDINGS.

care than annuals or bedding plants, and many are just as satisfactory for cutting. Plant flowers along the garden walk, wall, fence, or at the edge of shrub plantings. Use those which can endure shade, together with ferns at the north side of the house. Na-



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tive wild flowers are usually best for such locations. For the beginner, it is better to plant perennial flowers in masses, using only two or three kinds, being careful that the colors will harmonize. Plant the taller perennials at the back and the lower ones in front.

To be beautiful, the home-grounds picture must be simple. Each object must be harmonious with the general plan, for "the beauty of the whole is greater than the beauty of any part." There must be a logical and orderly arrangement of the useful features and the planting materials must be in harmony with other features of the landscape. Do not neglect the plants we call common. The common—elder, sumac, blackhaw, thornapple and crabapple—are more beautiful in the average home grounds than many of the foreign shrubs. Plant permanent, long-lived trees and shrubs, which will be a credit to your efforts in years to come.

A recommended list of trees for street, lawn or woodlot. Many trees have been omitted from this list for the following reasons: (1) Because they are not universally reliable; (2) because their many insect enemies or some particular characteristic make them undesirable; (3) because they are useful solely for added variety. Those wishing more complete lists may write directly to the department of horticulture, University of Wisconsin, Madison, Wis.

A. Evergreens.

1. For background, screens, windbreak or woodlot.
   Long-lived trees—Norway or red pine, white pine, white spruce, white cedar, or arbor vitae.
2. For lawns.
   Large evergreens—See A-1 above.
   Small evergreens—Cedar in variety, Siberian arbor vitae, dwarf arbor vitae.
   Dwarf evergreens—Four to six feet; American yew, Japanese yew, Dwarf Mugho pine, Savin juniper, Waukegan Juniper.

B. Deciduous Trees.

1. For background, screens, windbreak or woodlot.
   Long-lived trees — Hard maple, elms, white oak, red oak, basswood.
   Short-lived trees (for quick effect only)—Carolina poplar, soft maples, willows, Bolle's poplar.
2. For street.
   Elms, Norway maple, pin oak, green ash, basswood.
3. For roadside planting.
   The best native trees of the locality.
4. For lawn.
   Large trees—(See B-1 and 2 above). Red maple, honey locust, burr oak, scarlet oak, hackberry.
   Small trees—Wild cherry, wild crabapple in variety, thornapple, mountain ash, alternate-leaved dogwood, moosewood, birch, shadbush or Juneberry, Tatarian maple.

Permanent and reliable shrubs for foundation and border planting. The list is not complete, but includes the shrubs most frequently used. The height at maturity depends upon soil and climate conditions, but when planted together the relative heights given will be maintained.

1. High shrubs—Ultimate height ten to fifteen feet. Plant five to six feet apart. Buy three to four-foot stock. Tall Siberian pea for borders. Red-twigged dogwood, bush honeysuckle, mock orange, ninebark, smooth sumac, lilac, nanny berry, wayfaring tree.
2. Medium-sized shrubs — Ultimate height six to eight feet. Plant four to five feet apart. Buy two to three-foot stock. Five-leaved aralia, buttonbush, gray dogwood, rough deutzia, winged burning bush, white bush honeysuckle, Morrow's honeysuckle, Japanese rose, Ramanas rose, American cut-leaved elder, silverberry, early-flowering spiraea, Van Houtte's spiraea, snowberry, arrowwood, downy arrowwood.
3. Low-growing shrubs.—Ultimate height, three to five feet. Plant two and one-half to three feet apart. Japanese barberry, small-leaved cotoneaster, summer snowball, hills of snow, fragrant sumac, Alpine currant, prickly rose, prairie rose, dwarf red spiraea, dwarf white spiraea, maple-leaved viburnum, dwarf evergreens.

Vines.

1. For brick walls—Engelmann's ivy.
2. For trellis or lattice—Japanese clematis, clematis virginiana, wild grape, Virginia creeper.

Perennial and near perennial flowers.

1. For poor soil.—Native columbine, wild aster, Scotch pink, blanket flower.
2. For border along fence, wall, or shrub plantings. (Arranged according to height.)
   A. Tall, two and one-half to six feet. Plant one and one-half to two feet apart. Swamp rose, false camomile, New England aster, New York aster, tiger lily, herbaceous or Chinese peony, golden-spurred columbine, canterbury bells, Japanese iris, hardy phlox, baby's breath, yellow-day lily, Siberian iris, Oriental poppy, hardy chrysanthemum, German iris, old-fashioned early peony, balloon flower, cone flower.
   B. Medium-sized, one to two and one-half feet. Plant one foot apart. Double sneezewort, peach-leaf campanula, coreopsis, bleeding heart, blanket flower, blue bonnet, giant daisy, dwarf balloonflower, showy sedum, globe flower, Rocky Mountain columbine, meadow sweet.
   C. Low—less than one foot high. Plant six to eight inches apart. Wild Sweet William, Carpathian hare bell, white Carpathian hare bell, Scotch pink, lily of the valley, Forget-me-not.
   D. Native wild flowers are usually better adapted to local climatic conditions than the garden flowers.

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A. J. TOWER CO BOSTON

GET MY PRICES

BEFORE YOU BUY BE sure and get my prices! Before buying a gasoline engine (manure spreader, cream separator or tractor) of any make, or kind, or price, please ask for and read Galloway's 1917 catalog—the biggest, most important book and greatest money-saver for my customers I ever put out! Get my proposition to you and compare it with all others; then be your own judge! We are actual manufacturers and sell direct to you from our factory. We specialize on the lines we offer. We were first to offer engines, separators, spreaders direct from the factory at one small profit. We have made the manufacturing and selling of these lines a life business. You can't afford to buy a gasoline engine or any of the other Galloway lines until you first get our prices and our proposition. Get my price before you buy! Cash or time.

HERE'S THE REAL PROOF!

My 6 h.p. Galloway was 5 yrs. old this fall. Works perfectly—good for 15 yrs. yet. HAROLD W. BARNES, DELPHI, IND.

I can't give it praise enough. I had a 6 h. p. Galloway engine belted to my 16 in. corn mill and it does the work, where an 8 h.p. of another make did not. M. P. SHOEMAKE, DEFEATED, TENN.

it has not cost me one cent for repairs. Am now buying a 2 1-4 h. p. engine and washing machine for the home. Consider the Galloway simplest engine made. ADOLPH DRINOVSKY, TRAER, IA.

I found the 16 h. p. Galloway simplest, most powerful, best governed engine I ever saw and $225 cheaper. HENRY WENHAM, MILTON, WIS.

THE WM. GALLOWAY CO., 35 Galloway Station, **Waterloo, Iowa**

LANDS AND HOMES

Canada Offers 160 Acres Land Free to Farm Hands

Bonus of Western Canada Land to Men Who Assist in Maintaining Needed Grain Production

The demand for farm labor in Canada is so great that as an inducement to secure at once the necessary help required, Canada will **give one hundred and sixty acres of land free as a homestead** and allow the farm laborer, who files on land, to apply the time he is working for other farmers as residence duties the same as if he had lived on the land he had applied for. This offer made onl yto men working on Canadian farms for at least 6 months during 1917, thus reducing the necessity of actual residence to 2 years instead of 3 years, as under usual conditions. This appeal for farm help is no way connected with enlistment for military service, but solely to secure farm laborers to increase agricultural output. A wonderful opportunity to earn good wages while securing a farm. Canadian Government will pay all far over one-cent per mile from St. Paul and Duluth to Canadian destination. Information as to low railway rates, etc., may be had on application to

GEORGE A. HALL
Canadian Government Agent
123 Second St. Milwaukee, Wis.

OPPORTUNITY LAND

Others are making good in Montana and North Dakota and so can you. Montana leads the world in development of farm lands—in quality of grain produced. There is still opportunity to homestead or purchase deeded land at very low prices in this great new golden Montana country. Send for Montana Bulletin today, fully illustrated and with complete information. Up in North Dakota prosperity reigns supreme. Diversified farming is proving a huge success in this bread basket of the world. And your share of this land awaits you for a small investment.

Let Me Mail You FREE Bulletins

containing full information about Montana and North Dakota opportunities. I will gladly help you make a choice and advise you honestly about best values on the line of the Great Northern Railway. Write for bulletins and advice today. Address

GREAT NORTHERN RAILWAY

E. C. LEEDY, Gen'l Immigration Agt.
Dept. 287 Great Northern Railway, St. Paul

FOR SALE

ONE of the finest 120-acre farms in Wood county, Wis., 4½ miles from a town of 7,000 population and three railroads, 1¼ miles from small town, school across road, within 1½ miles from creamery and two cheese factories, rich clay loam soil, 100 acres under plow, balance hardwood timber; new 8-room house, furnace heat, new basement barn, 36x100, cement floor, root cellar; manure carrier and granary; water in house and barn; well fenced; 4 horses, 25 high-grade Guernsey cows, 12 pure-bred Guernsey heifers, one registered bull, all new and modern machinery. Price $21,000, terms to suit. We have other fine improved farms.

BAUER & EICHE Marshfield, Wis.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. Address D. F. Bush, Minneapolis, Minnesota.

WELL improved So. Minn. farms. Write us for booklet and buy a home of your own on easy terms. The Sonnesyn Land Co., St. James, Minn.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippewa Falls, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

A Uniform For Every Boy

Write me quick for full information on how to get a uniform, scout hatchet, scout book, rifle, flag and many other articles for outdoor sports without a penny's cost.

Be the first Boy in your community to get one of these outfits. Form a troop and be the leader, you can have all kinds of fun. Write me a letter today and let me tell you how you can get this uniform, hatchet, rifle and many other articles free.

A. M. Piper,
Editor, Dept., 900
Des Moines, Iowa

ADVERTISING LOWERS SELLING COST.

Plenty of Facts Available to Substantiate This Claim.

The rising cost of living is the great universal hardship of the present day. So great and so many have these rises been that few people stop to realize that there have been any exceptions to the general rule. But the fact is that there have been numerous exceptions and all of these exceptions belong to the same great class—that of widely advertised goods.

The old idea that the cost of advertising raises prices dies hard. But the business man knows better. He knows that selling goods is costly business, no matter what the goods or what the selling methods. And he knows that anything which creates 'emand on a large scale, and thus makes selling easier, is bound to reduce selling costs and thus helps to reduce prices.

But evidence is better than argument; facts are better than theories. The Association of National Advertisers, an organization of 260 of the leading advertisers of the country, has been at great pains to collect the facts. It has secured an immense body of data from its members which proves that advertising does reduce selling costs and thus tends to reduce the selling price of advertised goods. "The proof of the pudding" is the argument that settles everything.

To present all the evidence, instance by instance, is impossible within these limits. A few representative cases will suffice.

The makers of a famous photographic camera, when they began advertising twentyeight years ago, made one camera which took a 2½-inch picture and which sold at $25. Today they make a far better camera which sells for $10. Another, which took a 4x5 picture, sold for $60. Today they sell a far better one for $20, and so on through the line.

A prominent hat manufacturer has, by means of advertising, reduced his selling cost 7 cents per hat. Result—the buyer gets a hat of better quality at no increase in price; this despite increased cost of raw material and workmanship.

When the manufacturer of a famous breakfast food specialty began advertising, his goods sold at 15 cents a package. Today the package is 50 per cent larger and the price has been reduced to 10 cents. Again advertising did it, the same causes producing the same results.

The producer of another well-known food specialty is selling his goods at 25 per cent less to the wholesale grocery trade than four years ago.

Twenty years ago a nationally advertised shaving stick was sold in a cheap metal leatherette-covered box. Today a stick containing 20 per cent more soap is sold in a handsome nickel box at the same price.

Then take the most conspicuous example of them all—the automobile business; and compare the $5,000 or $10,000 cars of ten years ago with the equally good cars of today, selling for a fraction of the money.

And so on through a long list. In every case, the manufacturer either has been able to lower the price or improve the quality at no increase in price.

How has he done it? By means of advertising, which has created demand on a larger scale and thus permitted production and distribution on a large scale. Result—improved manufacturing efficiency and reduced selling costs. And all of this in the face of a steady increase in the cost of labor and raw materials which, with advertising eliminated, might in many cases have fairly doubled the price of the goods.

"A triumph of economical marketing" is the only possible verdict for advertising in the face of these facts.

Ailing Animals.

Lack of Milk or Mammary Secretion.

Will you please tell me what to do for a sow to make milk? I have a sow with eight pigs and she doesn't give enough milk. They seem to be starving and she is fat and healthy. I feed her swill made of ground oats and shorts. They are her first pigs.

Some sows are naturally not good "sucklers." A supply of good food and plenty of exercise are to be advised. If you can obtain some good clean alfalfa hay take some of it that is well leaved out and pour boiling water over it and let it steep, then make a slop with the tea thus obtained. This may be of some benefit to her.

Crampy.

We have some horses that are crampy, or I suppose that is what is the matter with them. When we are working them in the field and stop them to let them rest they will raise their feet off the ground and jerk for a few seconds at a time. Can you tell me what causes this, and if there is any remedy?

You do not say whether these horses have been affected this way before or not. It may be simply crampiness from change of work, such as going into fields. This will probably wear off as the animals become more used to the work.

Worms in Horses.

Would like to know how to give turpentine and other ingredients to horses infected with round worms. Do you give it to them only once? Do they die after that? This recipe was given in the February 8th issue.

There was a misprint some time ago in regard to treatment of worms in horses. It should have read: Give twice daily for three days a drench composed of oil of turpentine or creolin, one ounce in linseed oil three or four ounces, to be followed on the third day by a physic of Barbadoes aloes, one ounce. This is for round worms. Feed lightly during treatment and rest for twenty-four hours after giving aloes.

Law Questions.

Widow Inherits Whole Estate.

A Subscriber, Middleton, Wis.—If a man in Wisconsin dies without making a will, leaving a wife and stepchildren, but no children of his own or descendants, to whom does his farm and personal property belong?

Answer.—His entire estate goes, by law, to his widow.

Mortgage Required No Stamp.

A Wisconsin Subscriber.—A real estate mortgage was executed and delivered on the fourth day of August, 1916. Did the federal law require United States revenue stamps to be placed on it, and if so, and stamps were not affixed, what is the penalty?

Answer.—No U. S. revenue stamps were required to be placed on said mortgage, as it was given to secure the payment of a debt, and such instrument did not require stamps.

Dog Law.

A Subscriber, Le Roy, Minn.—(1) If a farmer's dog runs out in the public road and bites the heels of the horses of a passing team, or scares the horses, has the driver of the team a lawful right to kill the dog? (2) If a farmer's dog chases cattle in another man's field, has the owner of the cattle a right to shoot the dog?

Answer.—(1) He has not, but if the dog has such a habit, he can make complaint before a justice of the peace and prove it, and the justice will order the constable to kill the dog and bury it. (2) The owner of the cattle has a right to kill the dog.

Claim Not Collectable—Mortgage.

A Subscriber, Madison, S. D.—(1) A moved on a farm as a tenant in the spring of 1915, when B, the preceding tenant, moved off. B left several things on the place, including an old steam engine with upright boiler, which he admits was no good for anything, except as old iron. After it had been on the place more than a year, A's boy took from it a few small pieces of brass and other little things for playthings, and when B moved the engine he charged A $15 for the things the boy took. Can B collect the same by law? (2) A certain farm lease, with a mortgage clause in fine printing, was made in July, 1914, covering all crops raised on the rented premises by the tenant, but it was not put on record. Is the mortgage valid?

Answer.—(1) He cannot. (2) The mortgage is valid as between the landowner and the tenant, but valid as to other persons who had no notice of the mortgage.

Settling an Estate.

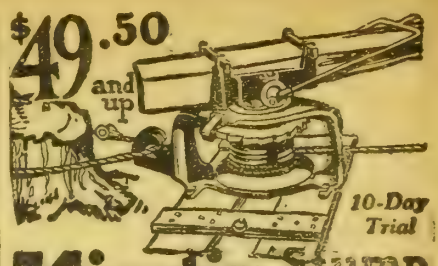
A Subscriber, North Milwaukee, Wis.—I have several brothers and sisters, all of whom live in the city. I left the city years ago to become a farmer. Our parents died six years ago, leaving real estate in Wisconsin—an old homestead which is to be sold and the proceeds divided among us children, but there is delay in selling and settling up the estate. One of my brothers is administrator of the estate and about two months ago I wrote to him asking for my share, as I was growing old, and wanted to buy a place of my own, but I received no answer. What steps can I take to get my share of my parents' estate?

Answer.—You should employ a reliable lawyer in the county where the homestead is located, to compel the administrator to settle the estate of your parents, and have partition made between you and the other heirs. You can do nothing in the matter by law without the assistance of a lawyer.

Insurance—Debts—Concealed Weapons.

A Subscriber, Langford, S. D.—(1) I had an insurance policy on which the premiums were all paid. I suffered loss on property insured, but my policy has been lost. How can I collect the insurance? (2) A man who is hard up, but has plenty of property, owes me money. How can I collect it? (3) When the publisher of a paper or magazine continues to send it to a subscriber after his subscription has expired, can the publisher collect pay for the same? (4) Have I a right to carry a concealed loaded revolver in the United States?

Answer.—(1) If the company refuses to pay you can bring suit against it and prove the contents of the policy and that the instrument was lost and recover your loss. Employ a good local lawyer to attend to it. (2) Sue the man and get judgment for the amount he owes you and have execution issued against his property. (3) If the subscriber continues to receive the paper or magazine by mail without objection the publisher can compel him to pay for the same. (4) Every state has its own laws on this subject. If you carry a concealed loaded revolver in South Dakota you are liable to be put in jail not exceeding one year or fined not more than $500 or both.



Kirstin Stump Puller

This KIRSTIN Horse Power Puller, used by the KIRSTIN METHOD, is the cheapest and fastest way known for clearing land ready for the plow. We will guarantee you a saving of 10% to 50% over any other method. Over 40,000 in use. All steel construction combines great strength and light weight. Clears two acres from one anchor. Easily moved. Can be used with single, double, and triple power as needed. Will pull any size stump. Guaranteed fifteen years, flaw or no flaw.

Automatic take-up for making quick hitches. Foot for foot of cable, KIRSTIN covers more ground than any other machine. Easy on horses and man. Ten-day trial in your stump field.

Now—today—quick—write for our special Profit Sharing Plan to early buyers and our big Free Book—"*The Gold in Your Stump Land.*"

A. J. KIRSTIN COMPANY
6552 Ludington St. Escanaba, Mich.
Largest makers in the world of Stump Pullers—both One Man and Horse Power.
1714

More Sunshine Less Feed

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Hatching Eggs and Chick Care.

To the Editor:—Run the incubator in the cellar, if possible. Turn eggs morning and evening. When through turning, gently roll with palms of hands for two minutes. See that all little ends of eggs are down. Do not turn the eggs after the end of the eighteenth day. Do not open the machine while hatching. This will let moisture escape.

First chicks out of shells are profit makers. In the brooder house maintain a floor temperautre of 65 to 70 degrees, and use a good hover. Baby chicks should not be fed until the morning of the third day, and then very sparingly. The floor should be covered with fine-cut, clean straw or chaff to a depth of two inches. To every seventy-five chicks scatter a half teaspoonful of grit and a small half handful of a good chick feed. They should be fed four times a day, and never more at a time than they will eat readily. If any grain is left, feed less next time. Gradually add more straw to promote exercise. At ten days keep a box of grit and charcoal before them at all times. On the sixth day feed a mash composed of two parts bran and one part rolled oats. To this add one-eighth finely sifted beef scrap and feed it dry in hoppers. Increase the amount of grains to meet the requirement of rapid growth. Now gradually feed them some green foods, such as sprouted oats, cabbage or alfalfa leaves, moistened a bit. Keep clean water before them always and do not let the vessels get foul.

As soon as the weather permits, the young chicks should be put out on range. This gives them a chance to develop rapidly. We have had good success raising chicks in houses 5x5, 4½ feet high in front and 3½ in back, with hover to nurse them.

For growing stock on range, keep before them in hoppers a mash composed of ten pounds bran, ten pounds shorts, ten pounds ground corn, five pounds meat scraps and a small handful of charcoal and salt. This should prepare them for fall laying. We have found that pullets that have laid heavily in their pullet year invariably have pale shanks and feet. This is due to the pullet's body not being able to furnish pigment necessary for the yolk of the egg, and consequently it must come from feet and shanks.

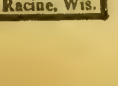
Eggs do not hatch well, chicks appear weak and puny and many die before ten days old because of immature stock and inbreeding. A common cause of lack of vitality is close confinement without sufficient exercise and fresh air. Beware of feeding too much corn. This is a one-sided ration. A variety of grains, including plenty of green food with plenty of exercise, is the proper way to insure good hatches. See that your hatches are normal. Oftentimes failures are caused by not being prepared to care for chicks. All coops or buildings that are to house the chicks should be thoroughly cleaned and disinfected. See that the brooder or hover is in good running order. Don't forget the straw, sand and chaff for the floors where your chicks are housed. This promotes exercise and warmth. Beware of chilling your chicks and exercise great care in not letting them crowd. If chicks go into the brooder strong and healthy and later many begin to have drooping wings and toe-pulling starts, it is an indication that the chicks have been overfed and have not been made to exercise enough.

Care must be taken that the chicks are not too numerous in the brooder. Overcrowding will cause them to sweat and take cold, and roup is the result.

Please remember that the "e" in exercise is the same "e" in eggs and don't forget that cleanliness is the silver key to success in the poultry world. Ever-Laying Egg Farm.

$9.25 BUYS World's Champion Belle City Incubator

140-Egg Size—Hot Water—Fibre Board, Double Walled—Self Regulated—Thermometer Holder—Deep Nursery, with $5.25 Hot Water 140-chick Brooder—both $13.50. Freight Paid East of Rockies.—Satisfaction Guaranteed. $1000 in Prizes.—Conditions easy to get big prize.—Save time.—Order now or write today for Free Catalog, "Hatching Facts". Gives short cuts to Poultry Success. Jim Rohan, Pres.



Belle City Incubator Co., Box 106 Racine, Wis.

Our Farm Help Column

The Wisconsin Farmer realizes the seriousness of the farm-help problem in the grain-belt states. In an effort to help our readers, this paper will publish for a limited time names and addresses of those who are in need of farm help, and also names and addresses of those who want jobs on farms. Will our readers who desire help please be as explicit as possible in their letters as to the kind of a man they need, whether for general all-round farm work, dairying, grain farming, live stock, and whether single or married man is wanted? Our readers will kindly conduct correspondence direct, using the addresses below in which they may be interested. Names will be published only once.

HELP WANTED.

John H. Kono, Dolliver, Iowa. General work. Wants experienced man.

FARM JOBS WANTED.

Joseph McCoy, Goldsberry, Mo.

SAVE YOUR CHICKS—FREE.

Write the Wight Company, 43 Main, Lamoni, Iowa, and they will send you enough Iowite Remedy, absolutely free, to save 40 chicks from White Diarrhea.—Adv.

FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

POULTRY AND PET STOCK.

PRESERVE YOUR EGGS with the Fleming egg preserver; costs but 2c per doz. A $1.00 jar will preserve 100 doz. eggs. Keeps eggs as fresh and sweet as the day they were laid. Recommended by all leading universities. Try a jar today. Agents wanted. P. O. Box 222, Madison, Wisconsin.

STRONG healthy baby chicks, or eggs for hatching; White Wyandottes, S. C. Rhode Island Reds; trap nested the year round; big values in pullets and cockerels from high record hens; mated pens; come and see these birds, or write for prices and records. Pine Lake Poultry Farm, Dept. 2, Hartland, Wis.

HATCHING eggs from full blood, prize winning SingleCombRhodeIsland Reds, Single Comb Anconas, White Indian Runner ducks, White China geese, Golden Sebright Bantams. Mrs. Wm. O'Leary, Honey Creek, Wisconsin.

HATCHING EGGS!From Ferris 230-egg strain S. C. White Leghorns. Pen mated. Fertility guaranteed. 15 eggs $2.00; 30 eggs $3.50; 50 eggs $5.50; 100 eggs $10.00. George Dietzler, Box 903, Shawano, Wisconsin.

S. C. White Leghorns, Queen strain, range raised. Bred to lay from 270-egg strain. Eggs testing 95 per cent fertile. From 2-year-old hens. Eggs, $1, 15; $5, 100. Mrs. Annie Dorn, R. 1, Hilbert, Wis.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

WHITE Orpingtons hatched from Mrs. Harnly's best pens that produced her famous Pan-American Winners. Eggs $3.00; utility $1.50. Wm. D. Mann, Highland Park, Illinois.

WHITE WYANDOTTES. Regals direct. 200-egg hens, nine years of ribbons; first, fourth cockerel, St. Louis, '16. Major matings $1.50, 15 Ezra Phillips, Ewing, Illinois.

SINGLE Comb Buff Leghorn eggs from heavy laying, solid buff stock. Settings $1.00; 100 eggs $5.00. Arthur Worthington, R. 7, Manitowoc, Wisconsin.

ONE-FIFTY, fifteen eggs postpaid. Campines, Andalusians, Spanish, Houdans, Minorcas, Hamburgs, Wyandottes, Rocks, Reds. A. Leavitt, Smithfield, Ill.

WHITE Rock hatching eggs; Halbach and Fishel strains; prepaid 15 for $1.50; 50, $4.00; 100, $7.50. Roy Richards, Lodi, Wis.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

$1.50 SETTING, $7 hundred, pure Barron White Leghorns. John Ball, West Locust, Dubuque, Iowa.

FERRIS heavy laying strain White Leghorns. Eggs $5.00 per 100. Harry D. Dunbar, Elkhorn, Wisconsin.

SCOTTISH TERRIERS. Great rat, watch, pet, stay home little dog. Price list 5c. S. Harr, Riverside, Iowa.

ENGLISH Penciled Indian Runners. White eggs $1.50. Wm. D. Mann, Highland Park, Illinois.

EGGS, 1.50—Prize-winning Reds and Anconas, both rose comb. N. H. Robinson, Monmouth, Ill.

SILVER Wyandotte setting eggs for sale; fertility guaranteed. John Lannon, Decorah, Ia.

START right! Write for mating list. Farmers' prices. Maurice Carver, Faribault, Minn.

TAME WHITE RABBITS; beautiful pets, $2 per pair. E. Harr, Riverside, Iowa.

PURE-Bred White Rocks. Address "Kremers", Whitehall, Wisconsin.

PRINTING.

GIVE your farm a name and let us print it on your letterheads and envelopes. Be up to date. 100 for 40c, 300 for $1, 500 for $1.50, post paid. Address S. Anderson, Route 8, Green Bay, Wisconsin.

TELEGRAPHY.

YOUNG MEN! Learn telegraphy. Railroads want operators. Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

SEEDS.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

FOR SALE—High germinating Silver King and Clark's Yellow Dent seed corn. Glenn Cass, R. 2, Box 82, Spring Green, Wis.

FOR SALE—Pedigree Barley No. 5; Pedigree Oats No. 1 and No. 5; also Timothy seed H. P. West, Ripon, Wisconsin.

SEED CORN, Wis., No. 3, pure-bred, tested, northern grown, $3.00 bushel, bags 30c. L. D. Garnhart, Spooner, Wis..

BLACK HILLS ALFALFA SEED; $6 per bu. For sample send stamp to Brookside Farm, Buffalogap, S. D.

FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck Spring Green, Wis

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

GOVERNMENT POSITIONS.

MEN AND WOMEN, 18 or over, wanted for U. S. Government life jobs; $75.00 to $150.00 month; steady work; short hours; rapid advancement; common education sufficient; write immediately for free list of positions now easily obtainable. Franklin Institute, Dept. B176, Rochester, N. Y.

POSITION WANTED.

A YOUNG city lad would like to work on a farm. No experience. For further information, address B. E. Miller, care Mohawk Theatre, 539 W. North Ave., Chicago, Ill.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

TAIL HOLDERS.

COWS' tail holders, post paid; sample 12c. 5 or more 10c each. F. C. Gieseker, Elmwood, Wis.

FARM LANDS.

HAVE two farms for rent; might sell or trade one for town property. M. A. Peoples, Ladysmith, Wisconsin.

MARATHON County Farms for sale. Bargains. Geo. Ritger, Cashier State Bank, Marathon, Wisconsin.

FARM LANDS.

FOR SALE—One of Wisconsin's best highly improved farms. If you want one made to order don't think you could improve on it. 229 acres all in one body. 180 acres under plow. 20 acres woodland with underbrush removed, balance pasture. All of his can be plowed as this pasture has no stumps or underbrush. No waste land. All heavy, clay loam soil, same as the best in southern Wisconsin. Lays fairly level, just enough slope to give the same good drainage. Nice 9 room house, lawn, grove, large basement barn 36x84, cement floor, gas and windmill water system. Other buildings, 4½ miles from Ry. town and seven miles from county seat, city of 3,500. Fine neighborhood. Corn, cattle, hogs main crop. Price $110 per acre, easy terms, worth more. Ry. fare refunded if not found as advertised. Write H. C. Inenfeldt, owner, Menomonie, Wis.

NORTH DAKOTA is essentially an agricultural state. In past five years it ranked first in production of wheat twice; twice it was second and once third; always first in production of spring wheat; also flax, equalling production of all other states. Once it was first in barley—never below third; never below seventh in rye or oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. Murphy, Immigration Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minnesota.

OREGON & CALIFORNIA RAILROAD CO grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three-hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

THE cream check is the thing! No where are conditions so favorable to the farmer and dairyman as here in Rusk county, where our company has opened up its own lands and offers them in tracts to suit at low prices and on the easiest possible terms. You won't know what you miss if you don't send for our literature before you locate. Flambeau River Lumber Co., Station D, Ladysmith, Wis.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind.Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

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HIGH class dairy farms, partly improved farms, and choice unimproved cut over hardwood land in wonderful Central Wisconsin. Pictorial bulletin free. Adam Paulus, Marshfield, Wis.

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FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Food Selection.

The food we eat must furnish several different substances if we are to maintain bodily efficiency and health. These substances may be grouped under seven heads: Mineral substances, protein, starches, sugars, fats, cellulose, and certain little-known, but very important, growth-stimulating substances. The housewife, therefore, who plans her meals or attempts to save money on food without some knowledge of these substances and of the five simple groups of foods which supply them is very liable to omit from her meals some food essential for the growth of children or necessary to supply the family with the energy they need for their daily tasks.

To plan meals in the interest of family efficiency and economy at the same time, the housewife, fortunately, does not need to do elaborate sums in calories, or to have any intimate understanding of such terms as protein and carbohydrates. If she will group the various foods in her pantry, vegetable bins and refrigerator into five simple groups, and will see that foods from each of the groups appear in each day's meals, she can feel certain that she is giving her family the eight different substances which the body needs. This grouping will help the housekeeper, who wishes to save money or time to simplify her meals without making them one-sided or incomplete. It will enable her to determine whether the meals supply all the different materials needed and will prevent substituting one food for another which has an entirely different use.

The nutrition specialists of the U. S. Department of Agriculture have published suggestive grouping in Farmers' Bulletin 808, on how to select foods, which will help the housewife to group foods in a simple and effective way. The first group includes fruits and vegetables, without which the diet would be lacking in mineral substances needed for building the body and keeping it in good working condition; in acids which give flavor, prevent constipation, and serve other useful purposes; and in minute quantities of other substances needed for health. They give bulk to the diet, also, thereby making it more satisfying to the appetite.

Meat and meat substitutes constitute the second group. These, which include milk, skim milk, cheese, poultry, eggs, fish, dried peas and beans, and nuts, furnish protein, which is an important body-building material. In the case of children part of the protein food should always be whole milk.

Foods rich in starch make up the third group. This would include cereal grains, meals and flours, cereal breakfast foods, bread, crackers, macaroni and other pastes, cakes, cookies, starchy puddings, potatoes (white and sweet) and other starchy vegetables. Cereals come near to being complete foods, and in most diets they supply more of the nourishment than any other kind of food. It is not safe, however, to live only on cereals.

Foods upon which we depend for sugar are included in the fourth group. Molasses, sirups, honey, candies, sweet cakes and desserts, fruits preserved in sugar, jellies, and dried fruits are in this class.

The fifth and last group furnishes the body fuel—the fats. This includes butter and cream, lard, suet and other cooking fats, salt pork and bacon, table and salad oils. Without a little of the fats the food would not be rich enough to taste good.

Some food materials really belong in more than one group. For example, cereals supply protein as well as starch; potatoes supply starch as well as mineral matters, acids, cellulose and body-regulating substances, for which they are especially valuable (group 1); and most meat supplies fat as well as protein. These classifications show some of the common food materials arranged in the five groups according to their most important nutrients, and a study of them will show the housewife, who has been serving bread, potatoes and rice or hominy in one meal, that one, or even two, of these may be left out without omitting any important nutrient. They will show her that a custard, which is made of milk and eggs, two foods from group 2, would hardly be needed after a meal in which a liberal supply of meat had been served, and that a child does not need milk at the same meal with an egg or meat. It will suggest that baked beans or other legumes, or thick soups made of legumes, are substitutes for meat rather than foods to be eaten with meat.

If, by studying these groups, the housewife finds that she has provided tissue-building protein (group 2) and the necessary, though small, amount of tissue-building minerals and body-regulating materials (group 1) she may safely build up the bulk of the diet from whatever materials from the other groups that seem economical, wholesome and appetizing.

How to Can Peas.

To the Editor:—I noticed that Mrs. J. S. wants to know how to can peas, so I will tell her how I did so successfully last summer. It was my first attempt, but came out quite well.

I had a wash boiler with a tight-fitting lid, which seems to be necessary. I used Mason jars with new lids and rubbers. I took a board that fit in the boiler and nailed cleats on the lower side—two are enough, one at either end—to keep the jars from the bottom of the boiler.

The sooner the peas are canned after gathering the finer flavored they will be. Boil them three minutes, drain, throw into cold water, drain and pack closely in the jars, putting a teaspoonful of salt on top. Fill the jar full of hot water (should be boiling), put the rubber and lid on, not quite tight, and place in the boiler with enough water to come within an inch of the top of the jars, and cook three hours after they begin to boil.

Remove from the boiler and tighten the lids at once. If the seal should not be perfect the first trial, replace the lid with a fresh rubber and boil fifteen minutes more.

A little surer way is to boil them one hour each day for three days, changing the rubber each day, as you will probably spoil the one already boiled in loosening the lid a little.

Canning vegetables is not difficult, but it takes time and care. Corn and beans are canned in the same way, only I found it more expedient to put the boiling water in the can before I put in the corn, as the water would not fill all the air spaces when I poured it in last.

We have had home-canned vegetables all winter and still have a few. I expect to can more this time if possible. Mrs. C. C. Dye.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Going to Make a Garden.

Dear Little Friends:—I always read your letters and enjoy them very much. I have often thought I would like to write a letter, so now I am going to do so and maybe some time I will write a story.

I am a girl of thirteen and I have dark brown hair and eyes. I weigh about 118 pounds and am quite short. I have three sisters and one brother.

I live on a forty-acre farm about seven miles from town. Our nearest neighbors live about sixty rods from us. One of my sisters and I have to walk two miles to school. We are having vacation now because the roads are so muddy. I am in the seventh grade. I love to read and am always reading when I haven't anything else to do. Nearly every night mamma reads aloud to us.

I am going to have a garden this summer and am going to raise pumpkins, watermelons, muskmelons, cabbage, tomatoes, onions, radishes, lettuce and maybe some early garden vegetables. I wish all the other girls and boys would make gardens. It is great fun. —Brown Eyes.

Wants to Make Bow and Arrow.

Dear Young Folks:—I should like to join your circle. We have had lots of snow here this winter, but now it is beginning to look like spring. The birds are back and the snow is just about gone.

Have any of the young folks had any experience in making a bow and arrow? I want to know what kind of wood to use and how to bend the bow and how to make the arrow go swift and straight. I don't know how to aim or what the shooting position is or how to hold the bow and arrow. I hope someone can tell me all about it. —Theodore.

The Dishwashing Game.

Dear Young Folks:—I have read your letters for a long time. I am eleven years old and am in the sixth grade at school. I have not been absent this term, but have been tardy a few times.

Will some of the young folks tell me how to play the game "Key to Unlock Character?" I have heard about it before, but do not know how to play it. I will tell you how to play the dishwashing game. My sister and I play it this way: As I wash the dishes I count them to see how many there are, and my sister counts them as she dries them. All of the dishes used in getting dinner ready must be counted—everything but the dish pans. Before starting we each make a guess and the one that makes the worst guess has to put away the dishes. If one guesses twenty-one and the other guesses twenty-three and the number of dishes is twenty-two, then we have to put away the dishes together. —Leona.

Has a Fine Team of Ponies

Dear Young Folks:—I am a boy eight years old and live on a farm of 292 acres. I go to school every day and am in the fourth grade. I love to read your letters every week.

I have many pets, one a little black dog named Nig. My brother and I have a team of Shetland ponies. We have harness, buggy and a saddle for them. We have lots of fun driving. Their names are Topsy and Madge.

This summer I am going to raise a great number of ducks, geese and chickens. I sure love the farm. —Ariel.

Rugs or carpets put away for the summer should be first thoroughly cleaned on both sides and beaten and then wrapped up in tight rolls protected by wrapping with tar paper. The additional covering or baling with burlap is not necessary except where the rolls or bales are to be transported or will require considerable handling.

BERWICK 2½ in.
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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wisconsin.

1759—A practical house dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

2052—Ladies' apron. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires 5¾ yards of 36-inch material for a medium size.

Waist 1817-Skirt 1818—A simple, but practical combination. Waist pattern 1817 cut in 8 sizes: 34, 36, 38, 40, 42, 44, 46 and 48 inches bust measure. Skirt 1818 cut in 8 sizes: 22, 24, 26, 28, 30, 32, 34 and 36 inches waist measure. To make and combine skirt and waist of one material will require 5⅝ yards of 44-inch material for a medium size. Two separate patterns, 10 cents for each pattern.

1729—A simple, becoming dress for the little miss. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 3 yards of 40-inch material for a 6-year size.

1731—Girls' "Middy" dress, with sleeve in either of two lengths. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 inches. It requires 4⅞ yards of 44-inch material for a 14-year size.

2056—A becoming dress for the growing girl. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 3¾ yards of 44-inch material for a 12-year size.

2041—Girls' underwaist and drawers. Pattern is cut in 6 sizes; 2, 4, 6, 8, 10 and 12 years. It requires 1 yard of 36-inch material for the waist, and 1¼ yards for the drawers, for an 8-year size. Ruffles on drawers will require about 2½ yards of edging, 3½ inches wide.

2050—Girls' one-piece dress, with bloomers. Pattern is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires 3½ yards of 27-inch material for the dress and 2 yards for the bloomers, for a 6 year size.

1892—Ladies' yoke skirt, in raised waistline. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅜ yards of 44-inch material for a 24-inch size.

2053—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

Blouse 2061-Skirt 2063—A charming sports or beach costume. Blouse 2061, cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 36-inch material for a 36-inch size. Skirt 2063, cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅞ yards of flouncing or bordered material 48 inches wide, or 4½ yards of 54-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2062—Ladies' waist with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36 38, 40, 42 and 44 inches bust measure. It requires 2½ yards of 44-inch material for a 36-inch size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for April 22, 1917.

Jesus Anointed at Bethany.

LESSON TEXT—John 12:1-11.

GOLDEN TEXT—She hath done what she could.—Mk. 14:8.

This is a lesson of Jesus in the home. It occurred at the beginning of passion week. We have before us the master; the worker, Martha; the worshiper, Mary; the witness, Lazarus; the traitor, Judas, and the people without. An unconscious bit of wisdom fell from the lips of that good housewife who exclaimed, "How much better my neighbors' houses look when I have my windows clean." Too much we are looking through the eyes of selfishness. Out of this lesson let us learn to look through unselfish eyes.

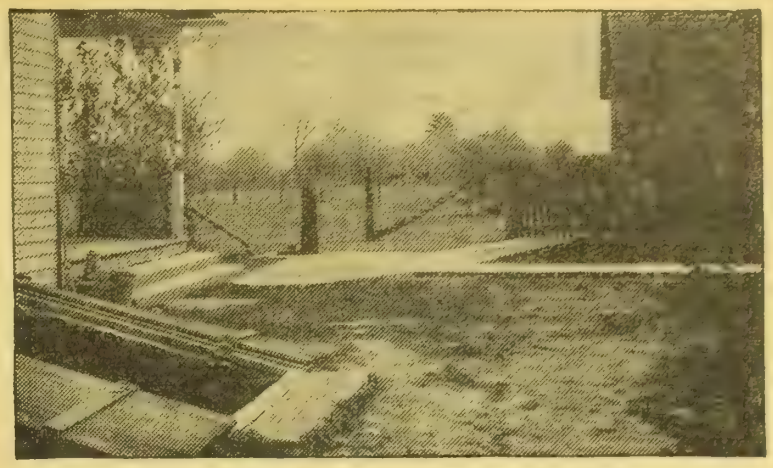
I. Unjust Criticism (vv. 1-6). It is six days before Jesus' last Passover. The accounts of Matthew and Mark suggest it to have been within two days, because they mentioned this feast after telling of the conspiracy of the chief priests and elders with Judas, who came to his determination to sell his Master after the reprimand given him on this occasion.

(1) The Value of Good Deeds. Jesus did not forget, in the supreme hour of his life, the friends whom he loved. To bring them some further spiritual gifts, he had come to their home in Bethany. Doubtless he also had in mind the desire to nourish the faith which had been kindled in the hearts of all by the resurrection of Lazarus, just as he returned to Cana after having performed his first miracle (John 4:54). Jesus was Very God of Very God, yet he was very much of a real man; therefore, he enjoyed the pleasures of home as much as other men, and the joys of kinship and brotherhood.

(2) The Wealth of Good Deeds. Out of her love Mary expended $51, probably her whole treasure, in the purchase of this alabaster box, and put it aside to use it upon him at the proper time. We do not think that she stopped to calculate the cost of this ointment. Love never estimates value. Her deed proved a safer guide of conduct than the calculating prudence of Judas and the other disciples (see Matt. 26:8). Such deeds are always looked upon with suspicion. The Iscariots usually are the leaders in criticizing the actions of others. Envy lay at the bottom of their criticism, but good deeds are unconscious, for we read that 'the house was filled with odor."

(3) A Standard of Good Deeds (Mark 14:8): "She did what she could," and we have also the record of good deeds, a memorial to her (Mark 14:9). A large number of people who never give of their own to the poor nor to the kingdom of God are willing to criticize others who do give out of the gratitude of their loving hearts.

II. Gracious Commendation (vv. 7-11). Jesus praised where his disciples and Judas criticized. The poor they always had with them (Mark 14:7). This must have been a challenge that evidently they had not attended to the poor as they should. Jesus also tells them frankly that whatsoever they do for him they must do speedily. Jesus' judgment upon Judas is a rebuke of the disciples; his exposure of the sophistry of the critics and of their subtlety is suggestive. Upon Mary's act he bestowed the highest possible praise. "She hath done what she could." That is all that is asked of anyone (II Cor. 8:12). Such commendation as Jesus bestowed upon no other and his wonderful predictions concerning her (Matt. 26:13) have been literally fulfilled. Jesus' judgment upon Mary is also suggestive. He shielded her, "let her alone;" He approved her works as being good, and he interpreted her innermost purpose in the act which she had performed. This outward act was literally the pouring forth of her heart's adoration and worship. Martha was in part taken up with her household service. Lazarus was in part taken up with his enjoyment of the presence of Jesus, but Mary was wholly taken up with Jesus himself. Does the record surprise us: "Wheresoever this gospel shall be preached throughout the whole world, this also which she hath done shall be spoken of for a memorial of her?" Judas, under the judgment of Jesus, was stung (Matt. 26:14) and hurries at once to the enemies of Jesus to strike a bargain with them for the betrayal of his Lord, though he did not secure from these enemies the equivalent of what she had poured upon him. Christ will be no man's debtor. He takes the poor offerings we lay before him, and crowns them with the richest reward. Mary's gift of ointment received words of commendation of which she never dreamed, and a reward far beyond her fondest hope, and has been the fount of countless deeds rich with love. Many people had gathered, not only for Jesus' sake, but that they might see Lazarus also. He drew people because of what Jesus had done for him, yet he drew them to Jesus. This brought him also under condemnation, for we must share the bitterness of the foes of Jesus.



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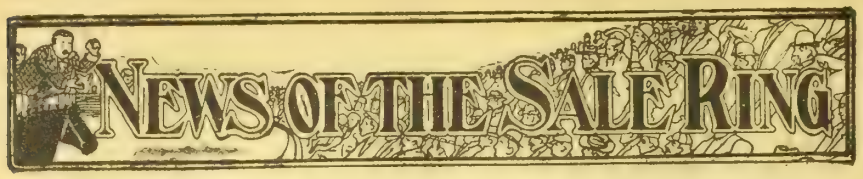

Stephenson's Holstein Sale.

As prophesied, the Stephenson Dispersion Sale held at Lake Mills April 6th and 7th, proved to be one of the record breakers in Wisconsin Holstein history. One hundred seventy-seven head sold for an average of $325. The splendid average is not only a tribute to James Torrey, whose skill as a breeder and clean reputation gained the complete respect and confidence of the buyers, but also to F. H. Everson, sale manager. Mr. Everson's wide experience as a sale manager and the excellent facilities at Lake Mills for conducting an auction made it possible to conduct the sale in a smooth and orderly fashion, which is of the utmost importance to get the maximum price for animals run through a ring. Another of the most gratifying things about this event was the fact that we have every reason to believe the animals sold are the kind that will do their owners good and will prove to be a profitable investment. There were so many animals deserving of special comment that it would be impractical to give them all mention; suffice it to say, however, that the splendid semi-official yearly work represented in the herd was appreciated. Many breeders came to the sale to learn the attitude of the average buyer concerning this point and we did not hear of any one expressing opinions discrediting yearly work after the sale. The Edgewood Farms, Pewaukee, were the heaviest Wisconsin buyers, while Gustave Pabst and R. E. Benson took some of the choicest individuals of the sale. The following is a list of sales:

FEMALES.

Zerma Pride, Nov., 1906; Gustave Pabst, Donovan, Wis. $400
A. W. P. Zerma Pietertje, March, 1915; Geo. Minshall, Darian, Wis. 580
A. W. P. Zerma Pride, March, 1913; C. J. McCulley, Reedsville, Wis.. 205
A. W. P. Zerma Pride 2d, Nov., 1916; Ernest Maltby, Mokena, Ill..... 280
Queen Walker Mercedes Molly Zell, Nov., 1909 M. J. Vea, Stoughton, Wis. 605
Rhaitgundis Mercedes Molly Zell 3d, Nov., 1909; Homer R. Dopp, Oconomowoc, Wis. 335
A. W. P. Rhaitgundis, April, 1913; Homer R. Dopp 310
A. W. P. Molly Zell, March, 1916; S. E. Jensen & Son, Clinton, Wis... 200
Victoria Segis Johanna, April, 1910; Kirchhefer 800
A. W. P. Johanna Segis, Dec., 1914; Ernest Maltby 750
No. 13½, G. A. Carter, Mauston, Wis. 100
A. W. P. Victoria Segis Johanna, May, 1916; Ernest Maltby..... 400
A. W. P. Segis Johanna 2d, Oct., 1915; Jas. Torrey, Kenosha, Wis.. 310
Queen Segis Johanna of Lake Sice, May, 1910; F. H. Scovel, Butte Des Mortes, Wis. 190
A. W. P. Queen Segis Johanna, Oct., 1915; Ernest Maltby 420
A. W. P. Queen Segis, Dec., 1913; Ernest Maltby 1125
A. W. P. Queen Segis 2d, Jan., 1916; Ernest Maltby 450
Gertrude Wayne Pontiac, March, 1911; Vea & Hildebrand, Stoughton, Wis. 355
A. W. P. Pontiac Girl, Sept., 1913; Ernest Maltby 410
A. W. P. Gertrude Wayne, Nov., 1914; R. E. Benson, Dousman, Wis. 415
Gertrude Wayne Johanna, March, 1914; E. B. Hill, Edgerton, Wis.. 190
Gladys Wayne, Jan., 1908; W. G. Banks, Jonesboro, Ark. 600
No. 27½, C. J. Ward & Sons, Ft. Atkinson, Wis. 265
Gertrude Pontiac Wayne, May, 1911; W. G. Banks..... 450
Pauline Wayne 3d, July, 1906; Hamslett & McNutt, Oxford, Wis. 260
Primrose Wayne, Feb., 1908; Cash Faville, Lake Mills, Wis..... 110
A. W. P. Primrose Wayne, March, 1913; H. Nelson, Union Grove, Wis. 480
Gertrude Wayne Colantha Fayne, March, 1911; Edw. G. Race, Omro, Wis. 410
Queen Netherland Wayne 2d, April 1903; W. G. Banks..... 125
A. W. P. Queen Netherland Wayne, Jan., 1916; Ray Benson, Donovan, Wis. 250
Princess Wayne Hengerveld, March, 1911; W. G. Banks..... 325
A. W. P. Princess Kayne Hengerveld, April, 1916; Geo. Minshall.. 230
Princess Cornucopia Marion Wayne, Oct., 1910; Vea & Hildebrand.... 830
No. 40½, C. O. Rust, Blue Mounds, Wis. 125
A. W. P. Princess Cornucopia, Sept., 1915; A. P. Ames, Brooklyn, Wis. 360
A. W. P. Pontiac Girl 2d, Nov., 1915; H. J. Hayes, Darian, Wis..... 240
Pearl of the Dairy's Perfection, Jan., 1909; Vea & Hildebrand.... 850
A. W. P. Pearl, Oct., 1913; H. A. Nelson, Union Grove, Wis..... 465
A. W. P. Pearl Perfection, Sept., 1914; H. A. Nelson..... 405
A. W. P. Pearl Perfection 2d, Oct., 1916; Nathan Dickinson, Lake Geneva, Wis. 210
A. W. P. Pearl 2d, March, 1916; James Torrey, Kenosha, Wis..... 210
A. W. P. Johanna Korndyke, March, 1913; Vea & Hildebrand..... 660
Johanna Korndyke Agatha Pontiac, May, 1915; F. B. Green, Evansville, Wis. 275
A. W. P. Rue Korndyke, Sept., 1914; Vea & Hildebrand, Stoughton, Wis. 280
A. W. P. Rue Korndyke 2d, Oct., 1916; R. P. Ames, Brooklyn, Wis.. 155
Hengerveld Tidy Abbekerk Princess, May, 1910; R. E. Benson, Dousman, Wis. 700
No. 53½, Nathan Dickinson & Sons, Lake Geneva, Wis. 210
Piebe Longfield Burke, Nov., 1909; W. L. Banks 4025
Piebe Longfield Burke Johanna, Nov., 1913; G. B. Hill, Edgerton, Wis. 250
Piebe Longfield Burke Johanna 2d, James Torrey 250
Walker Prilly Priebe Longfield, Dec., 1911; J. A. Forge, Burlington, Wis. 275
Walker Prilly Piebe Longfield 2d, April, 1916; Dr. E. J. Wilden, Sacramento, Calif. 265
Piebe Longfield Johanna, Feb., 1914; H. A. Nelson, Union Grove, Wis.. 360
Netherland Inka De Kol 2d, March, 1910; J. A. Forge, Burlington, Wis. 300
Walker Segis Inka, Sept., 1916; Dr. E. J. Wilden 150
Netherland Inka Johanna, June 1915; D. M. Jones, Wild Rose, Wis. 250
Walker Prilly Inka Homestead, April, 1912; J. A. Forge..... 165
Walker Prilly Inka Homestead 2d, Oct. 1916; Ernest V. Maltby..... 140
Walker Prilly Inka Johanna, July, 1914; C. J. McCully, Reedsville, Wis. 275
Altoana of Fernwood 2d, April, 1910; F. A. W. Kieckhefer, Pewaukee, Wis. 700
A. W. P. Altoana of Fernwood, March, 1916; James Torrey..... 260
Altoana Gernwood Johanna, Oct., 1914; Dr. E. J. Wilden..... 400
A. W. P. Altoana, Nov., 1913; Vea & Hildebrand 480
A. W. P. Alma Coin, Dec., 1912; Gustave Pabst 850
Alma Coin Agatha Pontiac, April, 1915; R. A. Benson..... 715
Sterling Pearl Colantha, Nov., 1908; F. L. Kleiner 630
A. W. P. Sterling Pearl Colantha, July, 1916; E. B. Adams & Son, Racine, Wis. 300
Pearl Agatha Pontiac, May, 1915; E. B. Adams & Son..... 600
Flossmor Corinne De Kol, Jan., 1910; Dr. E. J. Wilden..... 675
Admiral Walker Hengerveld, April, 1915; James Torrey 375
Walker Prilly Lady Oak Korndyke, Dec., 1911; J. A. Forge, Burlington, Wis. 310
A. W. P. Lady Oak, Oct., 1914; Ed. G. Race, Omro, Wis. 225
Lady Oak 2d, Nov., 1916; Ernest V. Maltby 140
Netherland Bessie Beechwood, March, 1910; Vea & Hildebrand.. 450
Walker Prilly Beechwood, March, 1912; Vea & Hildebrand..... 380
Walker Prilly Beechwood 2d, April, 1916; James Torrey 320
Snowflake Pietertje Longfield, Dec., 1909; G. T. Banks, Raines, Tenn. 360
Snowflake Pietertje, Jan., 1916; James Torrey 250
No. 94, Feb., 1917; Nathan Dickinson & Sons 155
De Kol Pontiac Clothilde, May, 1910; V. C. Kako, Jonesboro, Ark..... 350
Mercedes Korndyke, Oct., 1913; F. A. W. Kieckhefer 345
Rhoda May Korndyke, Oct., 1909; Gustave Pabst 725
Colantha Johanna Wayne Korndyke, Dec., 1912; R. E. Benson... 400
Korndyke Enterprise De Kol Segis, Nov., 1913; Homer R. Dopp..... 305
Maple View Queen, Feb., 1908; H. W. Faville, Lake Mills, Wis....300
Maple View Queen 2d, March, 1911; H. W. Faville 275
Princess May Segis, Dec., 1912; W. E. Tompson, Mauston, Wis..... 285
Ruby Pride Johanna, June, 1915; Perry Bros., Ft. Atkinson, Wis.. 250
Princess May Segis Johanna, May, 1916; Ernest V. Maltby..... 200
Bessie Belle Segis Johanna, Ernest V. Maltby 200
Queen Evelyn Segis Johanna, Aug., 1916; Ernest V. Maltby..... 200
Urcy De Kol Hartog, March, 1908, R. E. Benson, Dousman, Wis..... 360
Daisy Johanna Pride De Kol, May, 1915; Neal A. Henry, Utica, Minn. 285
Pearl Pontiac Netherland, April, 1912; G. C. Olson, Edgerton, Wis. 415
A. W. P. Pearl Pontiac, Sept., 1916; Gramlling Bros., Dousman, Wis.. 165
Princess of the Black and Whites, Oct., 1912; Dr. E. J. Wilden..... 350
A. W. P. Princess of the Black and Whites, May, 1916; H. J. Hayes, Darien, Wis. 255
A. W. P. Princess, March, 1915; V. C. Kays 300
Pietertje Kate Spofford 2d, Jan., 1915; F. A. W. Kieckhefer..... 500
Milford Lilith Homestead Oak, Nov., 1913; Sam Kisow, Lake Mills, Wis. 235
Martha Elgin Sarcastic Girl 2d, Dec., 1913; F. A. W. Kieckhefer.. 380
Jewel Irene, March, 1908; Fred H. Ball, El Reno, Okla. 300
No. 123, Florence Farms, Florence, Wis. 125
Netherland Saphira's Bessie 2d, Dec., 1907; H. W. Faville..... 300
Juneau Bell De Kol, Dec., 1910; F. H. Scovel, Butte des Morts, Wis. 280
Colantha Piebe Neta, Jan., 1914; Perry Bros. 250
Princess Cleveland Hengerveld, March, 1913 Dr. E. J. Wilden... 400
Gewina De Kol Mutual Segis, Dec., 1913; F. A. W. Kieckhefer..... 530
Ronie Watson 4th, Nov., 1913; A. F. Williams Est., Fond du Lac, Wis. 430
No. 131, Florence Farms 120
No. 131½, Florence Farms 120
Valdiva Ormsby Pietertje, Sept., 1915; Perry Bros. 230
Princess Aaggie Inka Johanna, March, 1915; F. A. W. Kieckhefer 350
Johanna Empress De Kol 2d, March, 1914; A. F. Williams..... 280
Rosa Inka Johanna, Jan., 1915; V. C. Kays 325
A. W. P. Rosa Inka, Feb., 1917; C. W. McCollough, Reedsville, Wis. 100
Johanna Fayne Korndyke, Dec., 1909; Vea & Hildebrand..... 225
Netherland Bessie Johanna De Kol, May, 1910; F. A. W. Kieckhefer.. 900
A. W. P. Bessie Johanna De Kol, Nov., 1915; F. A. W. Kieckhefer.. 400
A. W. P. Butter Maid 2d, April, 1916; F. B. Green, Evansville, Wis 240
Lady Walker Johanna Segis, Dec., 1916; G. A. Brakke, Scandinavia, Wis. 130
Lady Johanna Admiral Walker, June, 1916; Henry J. F. Truelser, Belfield, N. D. 150
A. W. P. Johanna Rue, Aug., 1912; W. G. Banks 400
Gertrude Wayne Walker, July, 1916; James Torrey 225
Walker Prilly Hengerveld Johanna, April, 1912 E. B. Hill, Edgerton, Wis. 195
A. W. P. Canary Mercedes, Sept., 1912; F. A. W. Kieckhefer..... 470
A. W. P. Canary Mercedes 2d, Oct., 1914; F. A. W. Kieckhefer..... 300
A. W. P. Canary Mercedes 3d, Jan., 1916; A. G. Williams Est..... 240
Walker Prilly Pearl Korndyke, Jan., 1912; W. G. Banks..... 400
Walker Prilly Pearl Korndyke 2d,

ADVERTISEMENT.

The Compensation Bill is Merely an Equal Rights Bill

THE so-called Compensation Bill now before the Wisconsin Legislature might be called by any other name. It doesn't grant compensation to anybody for anything. It only grants the right to sue. That is a right every other citizen enjoys—to go into court and ask payment for injury or damage sustained. It might better be called an Equal Rights Bill.

It could be called a *Legal Corrective Bill* for it only corrects the statutes which today discriminate against liquor men, denying them the otherwise universal right of citizens to bring civil action for damages or losses.

If you are run down by a street car or automobile, compensation or payment for your injuries is not handed to you. You have to prove your case in court. But the point is right here—you have the privilege and opportunity of doing so. The legal avenue is opened to you. You are allowed to sue for damages.

And that is all the so-called Compensation bill provides. It does not grant Compensation to brewers or anybody else in case of Prohibition. It provides no payment and carries no appropriation. It only opens the legal way so that the man or corporation effected can go into the Circuit Court and ask for a hearing of his claim for damages. Then he must prove his case before a jury, just the same as any other petitioner.

And *you* sit on the jury. You grant him a measure of Compensation or you do not, according to the evidence.

Is there anything unreasonable or unfair in that?

No. 27 *The Brewers of Wisconsin*

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar trouble and gets horse going sound. It acts mildly but quickly and good results are lasting. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered. Horse Book 9 M free.

ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful Swellings, Enlarged Glands, Wens, Bruises, Varicose Veins; heals Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Liberal trial bottle for 10c stamps.

W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

E. Blaine, Lake Mills, Wis. 525
Pearl Korndyke Johanna, March, 1914; F. A. W. Kieckhefer 900
A. W. P. Pearl Klondike Johanna, April, 1916; R. P. Ames, Brooklyn, Wis. 225
A. W. P. Valdiva, July, 1913; Vea & Hildebrand 190
A. W. P. Valdiva 3d, Nov., 1916; E. G. Race 130
A. W. P. Queen Valdiva, Oct., 1913; J. H. Greene, Clinton Junction, Wis. 235
A. W. P. Pearl Valdiva, Feb., 1913; James Torrey 365
Flossmor Johanna Butter Girl, July, 1910; J. H. Stacy, Palmyra, Wis. 200
A. W. P. Johanna Butter Girl, Oct., 1913; A. A. Wright, Appleton, Wis. 115
Walker Prilly Bessie Johanna, Feb., 1912; J. Lynard, Owatonna, Minn. 255
Admiral Walker Bessie Johanna, J. Lynard 255
Walker Prilly Valdiva, Feb., 1912; T. C. Coldren, Juneau, Wis. 275
Spring Brook Luna Korndyke, April, 1908; W. G. Banks 600
Maid Rosa Inka Johanna, Jan., 1915; F. A. W. Kieckhefer 475

BULLS.

Admiral Walker Prilly, March, 1910; Jane Hagen Farm, Kennedy, Minn. 1300
King Walter Pietertje Segis, Nov., 1913; Arthur Marmon, Salem, Wis. 510
Admiral Walker Prilly 18th, May, 1916; John Harnsgen, Malone, Wis. 230
Admiral Walker Prilly 28th, Nov., 1916; James Torrey 250
King Walter Pietertje Segis Rue, May, 1916 Henry J. F. Truelser, Belfield, N. D. 135
Admiral Walker Prilly 21st, May, 1916; Roy Beers, Honey Creek, Wis. 530
Admiral Walker Prilly 19th, May, 1916; James Torrey 190
Admiral Walker Prilly 29th, Oct., 1916; A. H. Messerschmidt, Madison, Wis. 100
King Walter Pietertje Segis De Kol, J. H. Roderick, Brodhead, Wis. 400
Admiral Walker Prilly 26th, Oct., 1916; A. S. Neale, Manhattan, Kan. 120
Admiral Walker Prilly 20th, May 1916; C. O. Ruste, Blue Mounds, Wis. 415
Admiral Walker Prilly 24th, July, 1916; Wm. Sheen, Bristol, Wis. .. 160
King Walker Pietertje Segis 6th, Oct., 1916; O. C. Lee, Stoughton, Wis. 200
King Walter Pietertje Segis Wayne, May, 1916; James Torrey 230
King Walker Pietertje Segis 7th, Nov., 1916; B. W. Rabenhorst, Jefferson, Wis. 105
Admiral Walker Prilly 23d, July, 1916; W. H. Johnston, Plattsville, Wis. 170
King Walker Pietertje Segis Lad, May, 1916; J. H. Lynard 225

The Inter-County Breeders' Association Sale.

The intercounty Breeders' Association fourth semiannual sale held at Watertown, April 5, 1917, was not up to its predecessors, as the list of the sales will indicate. The fact that it came just before the Stephenson sale may have had something to do with it, but inasmuch as the cattle consigned were not up to the usual standard of excellence undoubtedly had more to do with the low average received. There were, however, some splendid individuals consigned. Chief of these was Oak Homestead Fobes, an almost perfect individual and from a line of breeding recognized as being about the best Wisconsin has produced. Mr. Elbert Early, of Kansas, bought this animal consigned by T. J. Mullen for $475 and topped the sale. The following is a list of sales amounting to $100 or more:

FEMALES.

Vera Tritomia Woodcrest, Dec., 1916; F. G. Bartlet, Juneau, Wis. $120
Lady Vera Beets, June, 1913; Frank Gronert, Watertown, Wis. 165
Netherland Clothilde Tyressa, Mar., 1906; J. Lynard, Owatonna, Minn. 135
No. 8, Aug., 1916; Thaner Bros., Watertown, Wis. 100
Johanna Sir Aaggie, Jan., 1916; Farnsworth & Aukenbrandt, Baraboo, Wis. 350
Rogersville Johanna Belle, Jan., 1916; A. L. Williams, Est., Fond du Lac, Wis. 195
Madam Colantha Johanna, Feb., 1916; Everson Bros., Lake Mills, Wis. 160
Madam Aaggie Johanna, Feb., 1916; Everson Bros. 160
Rik Friesland Lady, Jan., 1915; A. L. Williams, Est. 280
True Lass Piebe, Feb., 1908; Lee Bros. & Cook, Harveyville, Kan. 200
Hilda Lassie Johanna, Dec., 1914; Gramling Bros., Dousman, Wis. .. 170
No. 21, Dec., 1916; Albert Berge, Valders, Wis. 155
No. 22, Feb. ,1917; Albert Berge ... 125
Babe Piebe Estata De Kol 6th, Feb., 1915; F. B. Green & Son, Evansville, Wis. 150
Johanna Korndyke Canary, Nov., 1916; Aug. Lendke, Juneau, Wis. 105
Babe Piebe Estat De Kol 7th, Feb., 1916; James Doyle, Waldo, Wis. 130
Piebe Estata Netherland Jewel, Nov., 1915; James Doyle 130
Johanna Piebe Estata De Kol, May, 1912; McFarland Bros., Watertown, Wis. 190
Babe Piebe Estata De Kol, Oct., 1907; John Bergin, Watertown, Wis. 150
Oak Fobes Piebe, Dec., 1915; Everson Bros., Lake Mills, Wis. 130
Rosetta Douglas, May, 1916; A. L. Williams, Est. 125
Inka Pontiac Douglas, Feb., 1916; F. B. Green & Son, Evansville, Wis. 150
Wisconsin Oak Lass, June, 1916; Everson Bros. 130
Queen Powers Queen, Sept., 1906; I. F. Poe, Oconomowoc, Wis. 160
Jessie De Kol Clyde Oct., 1915; Ole Medhus, Paullina, Ia. 165
Isabelle Pietertje Fayne 2d, July, 1916; James Doyle 115
Sunshine Ormsby Pontiac, May, 1908; A. L. Williams, Est. 245
Lady Hengerveld Rose, Dec., 1910; Kahlman Bros., Lowell, Wis. 195
Piebe Canary Homestead, April, 1915; Ole Medhus 135
Inky Katydid Canary, Dec., 1914; Fred Parkel, Waterloo, Wis. 150
Pauline Fern De Kol, Feb., 1915; Fred Parkel 125
Inky Moensje Fern, Nov., 1914; Ole Medhus 160
Empress Tritomia Katydid, Jan., 1915; F. B. Green & Son, Evansville, Wis. 160
Olive Beets Segis, Feb., 1915; Everson Bros. 135
Ella Beets Segis, Dec., 1914; Emil Kreuziger, Lowell, Wis. 165
Dora Ormsby Pietertje De Kol 2d, Sept., 1914; W. A. Strauss, Watertown, Wis. 150
Marie Aaggie Clothilde, Sept., 1904; Henry Groth, Watertown, Wis. .. 185
Piebe Orleans Colanthus 2d, Nov., 1911; Lee Bros. & Cook 210
Aaggie Nig Clothilde 2d, July, 1916; O. W. Grueneburg, Columbus, Wis. 110
Belmont Homestead of Inland, Oct., 1915; Ole Medhus 150
Rhoda Mercedes Homestead De Kol, Dec., 1911; Kuhlman Bros., Lowell, Wis. 170
Inka Burke Douglas, Nov., 1915; J. Lyngard 175
Lady Fobes Moensje, Dec., 1915; Emil Kreuzager, Lowell, Wis. ... 140
Wisconsin Piebe Oaked, Feb., 1915; Siebert Bros., Kinsen, Mo. 300
Wisconsin Piebe Jewel Johanna, March, 1915; Everson Bros. 230
Wisconsin Oak De Kol 2d, June, 1915; E. Kreuzgen 200
Wisconsin Oak De Kol, Dec., 1910; Ole Medhus 240
Dora Colanthus Pietertje, Jan., 1912; F. G. Bartlet, Juneau, Wis. 195
Mabel Waldorf De Kol, Aug., 1914; Ole Medhus 165
Dora Clothilde Pietertje, March, 1913; Ole Medhus 165
Liddie Pontiac Perfection De Kol, Jan., 1911; Ole Medhus 245
Pauline Paul Melchoin 2d, March, 1912; Lee Bros. & Cook 235
No. 80, Feb., 1916; A. W. Werhart, Watertown, Wis. 125
No. 81, Oct., 1916; A. S. Neale, Manhattan, Kan. 100
No. 86, Walter Begel, Sullivan, Wis. 185
No. 87, J. E. Pyrer, Watertown, Wis. 260

BULLS.

Oak Homestead Fobes, March, 1913; Elbert Early, Kansas 475
North Star Emperer Beets, Jan., 1915; McFarland, Bros. 270
No. 17; A. Burge, Valders, Wis. 155
Martin Johanna De Kol; M. E. Skindrud, Klevenville, Wis. 135
No. 19; Albert Berge 105
Martin Colantha De Kol; A. H. Hansen, Cambridge, Wis. 145
No. 30, Nov., 1916; J. E. Verhalen, Jefferson, Wis. 155

THE MARKETS.

Union Stockyards, Chicago, April 14th.—A booming cattle market last week and the first two days of this week has been checked by a liberal run due, in part, to feed scarcity and to the continuous advance in corn, but apprehension of arbitrary fixing of values by the federal government, as improbable as it is, has had much to do with it. This idea got into circulation and has dislodged many cattle prematurely, cattle that will be sadly needed later on when they would have come to the shambles in seasonal manner. The only proposition regarding price control that has been seriously made is the fixing of a minimum which would afford the producer assurance of remuneration and relieve him of apprehension of overproduction. The law of supply and demand will doubtless continue to govern maximum values.

Scarcity is and will continue to be for some time to come the keynote of the general live stock situation. Cattle receipts this week may look liberal from a statistical viewpoint, but at least 25 per cent of the crop represents premature marketing. Current prices for all classes of live stock are legitimate, no suspicion of manipulation attacking. Under war and semifamine conditions almost anything is possible, and it is improbable that top levels of the season have yet been touched. While the cattle market this week is closing in a slump and the hog market is off a point or two from the high time early in the week, the week's trade as a whole has been at the highest price levels in history. New top prices recorded during the week include beef steers at $13.45, hogs at $16.50 and lambs at $16.

Advances ranging from 15@35c in beef and butcher cattle values the first two days this week have since been lost and some of the beef steers now selling between $10.50 and $12.00 show 10@25c lower levels than a week ago. A run of nearly 23,000 cattle here Wednesday, the largest one-day crop for nearly two months, was the sole influence of depression. Buyers were quick to seize their temporary advantage to force price swings in their favor after having been at the mercy of the selling side for some time past, and they simply made the most of their opportunity. The dressed beef market is holding up well, but record prices are in force and they are restricting consumer call, as they doubtless will continue to do as the season advances. A number of loads of fat, heavy bullocks crossed the $13 line this week, with a few loads of the primest selling up to $13.25@13.45. The latter are specialties that have not been involved in trade vicissitude the last few days, but a good class of 1,325@1,475-pound steers have gone at $12.60@12.75 that were the $13 kind early in the week and declines from Monday's high spot measuring from 35@50c apply to most steers now selling between $10.50@12.50. On the lower qualitied light cattle the decline is less marked and killers are still getting very few steers with a decent flesh covering at $10 and below. Where feed is available, throwing over medium and light cattle at this juncture is questionable policy. The beef market is in healthy condition and values on a legitimate basis, but the market will not stand crowding. The excess this week has been wholly of cattle that could have been carried along and distributed. Many of them would not have been dumped, but for the arbitrary price scare, and letting them go at a sacrifice will be regretted.

Butcher cattle have followed much the same course as the steer market, advancing sharply to new record levels early in the week, but losing all the gains then scored, excepting on the top cream of the offering, before weekend. A spread of from $6.15@6.65 is now taking plain to good canner cows, with a meaty cutter kind ranging upward to $7.25. Most of the butcher cows of fair to good class are selling at a range of from $7.75@9, good to right choice 1,100@1,300-pound beef cows from $9.15@9.85 and choice to prime heavy Kosher cows up to $10.25@11.50. Some trashy, light, thin heifers are selling down to $6.50, but few decent killing heifers go much below $8 and $8.50@9.75 is taking a medium to good fat class, choice corney heifers selling largely between $10.25@10.75 and occasional prime lots upward to $11.50 and even $12, but they are decided specialties. On the week's high spot, ch ice heavy bologna bulls sold up to $9, stillers to $9.90 and odd prime corn feds to $10.50, all new price records, but the market is closing the week largely 25@35c under that time and back to last week's closing levels. Most of the bologna bulls are now selling at $8.15@8.65, common light canner bulls down to $7 and under, and the bulk of the butcher grades at $8.85@9.50. Good to choice veal calves are on a $13@13.50 basis, with common to plain light at $12@12.75, a choice 300-pound class around $9@9.50 and good, heavy and light throwout "bobs" around $8.

Summer grazing in the corn belt promises to be on the smallest scale in many years, meadows and pastures being rooted up everywhere in an effort to plant a record corn acreage. This policy and the high cost of thin, young cattle is working against a free trade in stockers and feeders and a good share of the supply here the latter half of this week sold 15@25c lower than the high time last week. A range from $8.50@9.50 has taken the bulk of the stock and feeding steers this week, choice strong weight feeders being quotable to $10 or better and some common light stockers selling below $8.

The elevation of top hogs to $16.50 on Tuesday of this week was followed by a 25c drop in prices after the first rounds on Wednesday, but the market refused to be held down and the better grades rebounded 10@15c from the midweek low spot. On the basis of yesterday's closing market, prices showed advances of mostly 60@65c over the corresponding day last week.

When and How to Spray Wisconsin Fruit.

J. G. Moore, of the Wisconsin College of Agriculture, horticultural division, has given us the following pointers on when and how to spray Wisconsin fruits:

Apple Sprays.—To control scale insects, spray with lime sulphur shortly before growth starts. Use five gallons commercial lime sulphur in forty to forty-five gallons of water, which is known as winter strength lime sulphur.

Prevent Plant Lice.—If plant lice were present during the past season, spray with 50 per cent nicotine sulphate, one part to 1,000 to 1,200 of water (one pint to 125 to 150 gallons of water) to which should be added four pounds of soap in solution. Apply just as the buds begin to show green.

To Have Pest-free Trees.—The above applications may or may not be necessary, but the following applications, known as summer spraying, must be made if the best results in producing pest-free fruit are to be secured:

1. Spray with a fungicide and arsenate of lead when blossoms show pink and have mostly separated in the cluster. If plant lice are present, add 40 per cent nicotine sulphate, one part to 1,000 to 1,200 of spray material.

2. Spray with fungicide and arsenate of lead from three to five days after most of the petals have fallen.

3. Spray with same material ten days to two weeks later.

4. Spray with same material about July 20th to 30th, depending upon the section of the state and whether the season is relatively early or late.

If the weather is moist and warm, make an application between applications 3 and 4.

The fungicide used may be either lime sulphur, one and one-fourth gallons to fifty gallons of water (summer strength) or Bordeaux mixture.

Arsenate of lead powder is more conveniently used than paste. One and one-half pounds to fifty gallons of spray material will be a satisfactory strength.

Bordeaux mixture is probably preferable as a fungicide in all applications except in numbers 2 and 3, but the price of the materials may at times make it advisable to substitute lime sulphur.

Sprays For Cherries.—It is not necessary to spray the cherry for scale insects. Bordeaux is preferable to lime sulphur as a fungicide on cherries.

1. Spray with fungicide and arsenate of lead just before blossoms open, using material of the same strength as that given for the summer sprays of the apple. Recent experiments indicate that this application may not be necessary.

2. Spray with same material when calyx (shuck) falls.

3. Spray with same material two to three weeks later.

4. Spray with same material as soon as possible after fruit is picked.

If aphis (plant lice) are present, spray with nicotine sulphate, one part to 500 to 700 of water. Add one and one-half pounds of soap to each fifty gallons of water.

Fighting Plum Pests.—1. Spray with fungicide (summer strength) and arsenate of lead just before blossoms open.

2. Spray with same materials when calyx (shuck) falls.

3. Spray with same materials two to three weeks later.

4. Use a fungicide shortly before fruit begins to ripen.

Bordeaux For Grapes.—Spray with Bordeaux mixture about June 10th to July 1st. Other applications may be made if fungous diseases appear. Use kerosene emulsion or nicotine sulphate if leaf hoppers or other sucking insects become troublesome.

Currant and Gooseberry.—1. Use nicotine sulphate, one pint to 125 gallons of water, to which add 3 pounds of soap in solution, just as buds show green.

2. If aphis are present, repeat in about ten days.

3. Spray with Bordeaux mixture and arsenate of lead about June 10th.

4. Spray with same materials after fruit is harvested.

Arsenate of lead or Paris green should be applied whenever the currant worm is present. Examine plantation at least once a week from May 15th to September 1 for the presence of this pest.

E-B BALING PRESS

The short baler with the long stroke. Big feed opening—long baling and tying chamber. Automatic safety device prevents breakage. Built for high speed, turns out a bale a minute. Light in weight—sturdy frame—short wheel base—easy to handle in small space. Supplied either with E-B Gas Engine or with belt equipment. Look for the E-B trade mark. It's our pledge and your guide to quality.

Emerson-Brantingham Implement Co. (Inc.) Dept. 437 Rockford, Ill.

Please send me free literature on articles checked:

[ ] Plows [ ] Harrows [ ] Cultivators [ ] Mowers [ ] Spreaders [ ] Drills [ ] Planters
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Name _____

Address _____

Beautiful Picture for You

Solve This Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, a beautiful panel picture, "The Popular Girl," printed in many colors. This is a wonderful picture. All you have to do is enclose four cents stamps in your letter to pay postage and cost of mailing. We will also send a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland pony.

Fine Pony Given Away

Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Write me today.

THE PONY MAN Dept. 608 Des Moines, Iowa

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Consignments at Fond du Lac County Sale.

ATTENTION of the Holstein breeders of the state is now directed to the big Fond du Lac county Holstein breeders' sale to be held at Fond du Lac, April 26th and 27th. This is to be one of the great sales of the year and our readers will be interested in some points concerning the several consignments. F. J. Bristol's consignment, consisting of fifty head from his own herd, offers an opportunity to get animals having a high percentage of Korndyke and King Segis blood. Probably no herd in America has more of the blood of these two famous sires than the one from which this consignment is coming. There are 44 females in this consignment, most of which are bred to Adventure Lad (165686) a 26th son of Spring Farm King Pontiac 6th. The dam of Adventure Lad will be one of the special features of the sale. She has 20.04 pounds as a junior two year old, 26.57 as a three year old and is one of the most beautiful cows in the state of Wisconsin. Mr. S. H. Bird is consigning some young stock from his herd which represents one of size, good individuality and consistent production. There are several families of three to five generations in the herd which indicate that these animals should be able to reproduce their kind. W. J. Gillett & Sons' consignment contains four daughters of King Peter Lyons and two daughters of 30-pound cows. It will be remembered that this consignment is coming from the well-known herd that produced Colantha 4th's Johanna, probably the best known cow of the Holstein breed. In S. C. Stanchfield's consignment we have eight cows and heifers bred to Colantha Johanna Champion 4th (113134) including an 18-pound daughter of a 27-pound cow and a 23-pound bull sired by Colantha Johanna Champion 4th. Henry C. Weber's and H. W. Bennett's consignment consists of 18 splendid daughters of Champion Johanna de Pauline (94988) a sire that is closely bred to Colantha 4th Johanna, being sired by her noted son, Colantha Johanna Champion. The dam of Champion de Pauline is Johanna Pauline 4th, with a record of 25 pounds in seven days and 731.25 pounds in a year. These daughters are uniformly good individuals and are from heavy-producing dams. They are bred to produce and should do some one a lot of good. Mr. W. H. Steiner is consigning 12 promising young cows and heifers to his 30-pound bull, Colantha Belle Boy Duchess (139113). He is also consigning two fine bull calves. One of them is out of Beauty Aaggie Grace 25.87 pounds which makes him practically a 26-pound bull. His sire is Colantha Belle Boy Duchess, 30-pound sire, so that he is royally bred and well backed by A. R. O. work. See page 23.—Adv.

Worms in Hogs.

IF your hogs have worms, you can't possibly expect them to put on weight in a short time, and that is the only way to make your hogs pay. Try putting Dr. Hess stock tonic in the swill or feed every day and watch the change. In a short time you would never know them for the same hogs. They will eat greedily, take on weight quickly and be able to ward off contagious diseases, now that their systems are right. Disease attacks only the weak and out-of-condition animals, never the strong, vigorous ones. A word about feeding your stock. When fed dry feed and stabled inside it is easy for them to get "off feed." Give them in every feed a little Dr. Hess stock tonic. This will keep them toned up, aid their digestion and generally improve their health. Below is given the ingredients of Dr. Hess stock tonic so you can see what it is made of and what each is for. Nux vomica, nerve tonic, aids digestion. Quassia, appetizer, worm expeller. Iron, blood builder, worm expeller. Sulphate of soda, laxative, acts on liver. Sulphate of magnesia, increases secretion. Nitrate of potash, acts on kidneys. Charcoal, prevents unhealthy fermentation. Dr. Hess, who is a doctor of veterinary science as well as a doctor of medicine, after years of veterinary practice, compounder the above mixture. So sure is he that it will expel the worms, add to the weight and put your hogs in healthy thrifty condition, that he has arranged with your dealer to supply you with enough for your stock, and if it does not do as claimed return the empty packages to him and your money will be returned. The manufacturers, Dr. Hess & Clark stand back of this guarantee and they have over 28,000 dealers in the United States and Canada.—Adv.

Seventy-five Years of Farm Tool Making.

THE P. & O. line of light draft plows, harrows, planters and cultivators are noted for their great strength, simplicity of construction and ease of operation. They are made in all sizes and types, in order to meet every condition in all sections. The Parlin & Orendorff Company, Canton, Ill., manufacturers of this line, have been in business for three-quarters of a century and the construction of their tools is based upon the knowledge gained from this long experience. Every farmer who is in need of one or more tillage implements should write to the company for their catalog which will be sent free on request, as advertised on page 18 of last week's issue.—Adv.

Herefords Numbering Ninety Head.

WE have just "discovered" one of the largest if not the largest Hereford herds in the state of Wisconsin. They are owned by L. M. Scott & Sons, Bagley, Grant county, Wis. The Scotts have been breeding and raising Herefords for the past ten years and have a herd of females numbering around 90 head. They have a herd that will justify publicity and the owners have made a mistake in not letting the people of the Northwest know that there was such a good herd of "white faces" in this territory. Their breeding herd is made up of cows from the noted Hereford herds namely, Luce & Moxley, Birch & Thompson, Van Natta, S. L. Brock, Geo. Leigh and others. Their cows are big and from the looks of the calves on the place, every cow of breeding age has a youngster. We believe that the Scotts can pick out 30 breeding cows that would equal any herd, other than show cattle, in the state. The senior herd bull is Beau Valentine by Director by the well-known Dandy Rex. The dam is by Columbus 19th by Columbus, the noted show bull. The young stuff on the farm speaks for this fellow as a sire of merit. The junior bull is Lad's Perfection, the real attraction on the farm. Sired by Bonnie Lad by Bonnie Brae 24th and his dam, Sister Perfection 2d is a full sister to old Perfection. He is bred in the purple and individually he is hard to fault. The other bull in service is imported Curly Boy, imported as a yearling by Geo. Leigh. Keep this herd in mind, it will be heard from, for James Scott, who is the cattle man, is a real caretaker and he has the cattle to work on, and the combination of the two generally gets good results.—Adv.

Wisconsin's Foremost Angus Herd.

MANY of the beef cattle men of Iowa have the idea that in traveling over the state of Wisconsin they would not see anything but "black and white" cattle, or dairy cattle of some breed. It is a fact that many farmers and breeders of the central states do not think of Wisconsin, only as a dairy state. In this connection we wish to call attention to an Aberdeen Angus herd owned by the McKevitt Brothers, Bloomington, Wis. There are few herds in Iowa that can boast of 100 head of "doddies" the equal to the McKevitt Angus. They are breeders in the strict sense of the word and while the McKevitts do not make a lot of noise, they are busy raising a class of cattle that are ready sale. The farm buildings are spacious, and irrespective of the weather the cattle are propertly housed and cared for. One never sees a lot of old thin, cows around this farm. High-class bulls have always been used in this herd. The young stuff on the farm is sired by a Pride bull, he being by a son of Black Woodlawn, and out of a granddaughter of Prince Ito. The present herd bull is Pawpaw, a pride by Protine by Baden Lad out of Pride McHenry 91st by Prince Pico by Bobby Dobbs. This is one of the best young bulls in the Northwest. There is a yearling bull on this farm that should be in the hands of a show man, he is the best bull of his age that the writer has seen. It will pay some of the Iowa men to cross the river and take a look at this great beef herd in a dairy state. Bloomington is in Grant county, the southwest county of the state.—Adv.

Features of the Sharples Separator.

SOME of the advantages of the Sharples suction feed cream separator are that it skims clean at widely varying speeds, it gives the same thickness of cream regardless of speed changes, it skims more quickly when turned faster, it is easy to clean and it has a low supply tank that eliminates a back-straining lift of the milk pail. These and other features are fully explained in the new catalog of the Sharples Separator Company, West Chester, Pa. Write for the catalog and kindly mention The Wisconsin Farmer when you write.—Adv.

Kirkpatrick Bros.' Holsteins.

THE Kirkpatrick Brothers, of Reedsburg Wis., have one of the best herds of registered Holsteins in that vicinity and if you need a good cow or a few heifers safe in calf to a King of the Pontiacs bred bull, write this firm. They also have some young bulls coming on. As mentioned above, they have good cattle and will give you a good deal. Write and mention The Wisconsin Farmer.—Adv.

Some Guernsey Bargains.

DO YOU know that there is a "real" herd of Guernseys at Platteville, Wis., owned by Chas. A. Wilkins? Mr. Wilkins has been breeding Guernseys for about eight years and in that length of time has built up a wonderful herd. Heading the herd is Langwater Frenchman, a fine, large bull with one A. R. daughter and several more on test. His sire is Dolly Dimples May King of Langwater, he by King of the May out of Dolly Dimples, champion, three and one-half years, 907 pounds fat. Few Guernsey herds have at the head a bull with the individuality and breeding that Langwater Frenchman has and Mr. Wilkins was very fortunate in getting this fellow. At this time he is offering seven of this bull's sons for sale—your opportunity. The following are four of the dams: Imported Daisy of Mound City, A. R. 10,066 milk, 514.86 fat; Lily Ella's Maid of Richmond, A. R. 9,507.5 milk, 515.38 fat; Goldie of Mound City (now on test) 196 days, 238 pounds fat; Mabel Olive A. R. 9,181.2 milk, 494 pounds fat as junior two year old. Mr. Wilkins also has a good tried bull for sale. A four year old sired by a son of Glenwood Boy of Haddon, out of a dam with a 530-pound fat record, as a junior two year old and now on retest and barring accident she will make better than 700 pounds fat. One of the best cows in the herd. A tried sire at a fair price. Mr. Wilkins has the goods, write him for sale list and please mention Wisconsin Farmer. See this page.—Adv.

Abundant Power and Light For the Farm.

THE Delco-Light farm electric plant brings city comforts and conveniences to the farm. It keeps the young folks on the farm and makes life happier and brighter for them. The Delco-Light outfit is simple and economical; the expense is reasonable and the advantage is very great indeed. It will light the home, run machines like washers, cream separators, churns, electric fans, and will also pump water for the stock. If you want to know more about Delco-Light on the farm write to the Domestic Engineering Co., Dayton, Ohio, for complete information, mentioning The Wisconsin Farmer in your letter. See advertisement on page 6 of last week's issue.—Adv.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

A. L. Gray—Chester Whites.

AS usual, A. L. Gray, Mt. Hope, Wis., is having good success with his spring crop of Chesters. About 50 head out of the "danger stage" three more sows to farrow. We have seen no pigs that are doing better than the Gray Chesters. He has a strong average with few runts. Most of them are by his good boar, Paddy, a son of the noted Schoolmaster, although there are a few good litters by High Style, the top boar in Chas. Richards' 1916 boar sale. He is by Elmo Chief by St. Elmo, and is a good breeding boar. There is one good litter by Combination Giant the good Iowa boar. These pigs will be shipped at weaning time, a single boar or gilt, a pair or trio, unrelated. Hogs are bound to be high next fall, so it will be to your advantage to buy early. Please mention this publication when writing.—Adv.

Opportunity to Buy Red Polls.

IF YOU wish to buy Red Polls, males or females, write Cloverbelt Farm, Hamburg, Wis. Just at this time they have a surplus of young stock. They are sired by Nerlar Jr. 18301, a bull that was grand champion at the state fair in 1915, and a sire of unusual merit. The foundation for this herd came from one of the best breeding establishments in this state and you will be pleased with the cattle raised on this farm. Write your wants and mention The Wisconsin Farmer.—Adv.

R. A. Morley Co. Short-horns.

R. A. MORLEY CO., Baraboo, Wis., are breeders of Short-horns and Percherons. Just now they have for sale a number of bulls, red white and roans. They come from good milking dams and if you are in need of a bull of this breed, write for particulars. See page 23.—Adv.

Line Bred "Yeksas."

WITH this issue of The Wisconsin Farmer, A. O. Oleson, Livingston, Wis., starts a card calling attention to his Yeksa Guernseys. This is the first time that Mr. Oleson has ever done any advertising, but he has a herd of Guernseys that are worthy of advertising and recommendation. We doubt if there is another herd of Guernseys in Wisconsin with as much Yeksa breeding. His farm has been rightly named Yeksahurst. Mr. Oelson is an experienced dairyman, having been with Guernseys for the past ten years. For five years he was half owner of the Helendale Guernseys at Athens, but for the past few years he has been located near Livingston, where he purchased a 200-acre farm. Twenty-five females represent his breeding herd. Among his good cows is Pattinette, a granddaughter of Guydette and Benjamine. She is in test now and bids fair to produce over 700 pounds during the year. Yeksanette is a daughter of the above cow sired by the well-known Increase. She has been in test 126 days and has to her credit 221 pounds fat. A twenty months old bull out of this cow is for sale. Madame Cherie is another one of the good ones. She is sired by Endymion, the national grand champion. This cow is in test now and the first 29 days in January gave 52 pounds fat. Missy Willow has been in test 131 days and has made 246 pounds of fat. Her dam has an A. R. record of 410 pounds at two and one-half years. Space will not permit us to mention all of the good record cows in this herd. All of the above are line-bred Yeksas, none of them are in-bred. There are only two cows in the herd that are not of Yeksa breeding. The bulls being offered are outstanding good individuals and will please. Write for tabulated pedigrees and mention The Wisconsin Farmer. See page 21.—Adv.

The Birch & Thompson Hereford Sale.

NO doubt the greatest lot of Hereford cattle ever sold in the state of Wisconsin will be sold by Birch & Thompson at their farm near Lake Geneva, May 18th. Sixty head have been cataloged—50 females and 10 bulls. This will include breeding matrons with calves at foot and yearling and two-year-old heifers. Of the latter there are some that are eligible to the big fairs this fall and it will be a grand opportunity to secure some show heifers. In Bonnie Brae 43d, this firm has a wonderful bull, in fact we believe him to be the best aged bull that we have seen in th state. Particular breeders should have some of his get. We will have more to say about this offering later, but in the meantime send your name for one of their illustrated catalogs. Herefords are gaining in popularity in Wisconsin and those that get in on the ground floor will reap the harvest in years to come. When sending for catalog please mention The Wisconsin Farmer.—Adv.

Schoenfelds Have Good Sales.

C. J. SCHOENFELD & SON, Fox Lake, Wis., report very good sales in Poland China hogs and Short-horn cattle. They now have 25 red, white and roan calves in one lot and six bulls ready for service. They are also offering 10 brood sows, May and June farrow, at reasonable prices. Among the sales recently made were one bull to S. B. McCune, Osseo, Wis.; one cow to Hickey, Beaver Dam, Wis.; one bull to H. Neinas, Ripon, Wis.; three heifers to H. N. Drake & Son, Beaver Dam, Wis.; one bull to August Raatz Cornell, Wis.; one sow to Dan Donovan, Adel, Wis.; one sow to August Middebrant, Fairwater, Wis.; one boar to William Schoenfeld, Beaver Dam, Wis; one sow to Frank Jones, Mineral Point, Wis.; one sow to Wisconsin State Prison, Waupun, Wis.; one boar to H. Kugrath, Watertown, Wis.; one sow to Marcus Whiting, Bruce, Wis., and one sow to H. Fratzke, Fairwater, Wis. Read Mr. Schoenfeld's advertisement on page 23 and write him your needs.—Adv.

Martiny & Son Guernseys.

RILEY MARTINY & SON, Baraboo, Wis., have gained publicity during the past winter by buying some of the best Duroc Jersey sows sold at auction. They now have a fine herd of Durocs, but when talking about this firm do not overlook the fact that their Guernsey herd is in keeping with their Durocs. Just at this time they have two Guernsey bulls of serviceable age for sale. They are well bred and out of good producing dams. Bulls that will suit you. Write and mention this publication.—Adv.

TOO LATE TO CLASSIFY.

MOUND CITY FARM

OFFERS [illegible] sired by Langwater Frenchman [illegible] and Dairymaid's Glenwood Pontiac [illegible] 30 [illegible] average 460 lbs. 20 average 505 lbs. fat. Send for sale list.
CHAS. A. WILKINS Platteville, Wis.

ANDERSON'S BIG-TYPE POLAND CHINAS

AM offering one choice yearling boar that weighs about 425, registered as Big Bone King. Have a choice litter of 13 February pigs which I will pay the express on if ordered before May 1st.
S. ANDERSON ROUTE 8, GREEN BAY, WISCONSIN

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.

DR. TRUMAN BROPHY **CHICAGO, ILLINOIS**

Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY **SHEBOYGAN FALLS, WIS.**

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS **WAUKESHA, WISCONSIN**

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 635.15 pounds of fat.

CHESNEY FARMS **LAKE VILLA, ILL.**
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (six nearest dams av. 590 fat). Dam, Yeksanette (126 ds. 221 fat). He traces nine times to Yeksa. Send for details.

A. O. OLESON **Livingston, Wis.**

MULE-FOOT SWINE.

IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

SALE DATES.

Holstein Cattle.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.
May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.
May 8-9, Lake Mills Holstein Breeders' Consignment Sale.
May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.
May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.
May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.
May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

Red Polls For Sale.

THE Cloverbelt Farm, Hamburg, Wis., is stocked with Red Poll cattle and this is one of the very few places that one can buy cattle of this breed. They have for sale bulls and heifers of different ages and if you are interested you should write them at once for prices, breeding, etc. Address Cloverbelt Stock Farm, Hamburg, Wis., and mention The Wisconsin Farmer—Adv.

Grade Holsteins Sell April 26th.

THOSE in the market for a few fresh cows can find what they want at Coon Valley, Wis., April 26th, when the Rundahl Brothers sell their entire herd of 57 head. This will include about 24 cows and heifers in milk and the balance will be heifers that will come in during the summer, and open heifers. All cattle are sired by a registered Holstein bull and bred to one of good breeding. This is our last opportunity to call attention to this sale. If interested write for sale list and description. —Adv.

ONE 3-YEAR-OLD GUERNSEY BULL

DAM, Oakwood Maid Eagle, with 448 pounds fat and sired by Golden Lad of Fern Ravine. Price $200. Also calves from 2 to 6 months old, mostly all dams imported and sired by different sires. Prices $50 to $100.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

RILEY MARTINY & SON
BARABOO, WIS.

TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

FOR SALE

GRADE Guernseys. 2 milking, 3 springers. 14 yearlings, 7 are bred. 8 fall calves. Price $1,400. 1 registered bull one year old at $100.

E. H. Kiesling **Jefferson, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Hanem Farm — WRITE YOUR WANTS

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.

W. G. Jamison & Sons, Appleton, Wisconsin

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitrick **Greenville, Wis.**

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

DUROC JERSEY SWINE.

Duroc Spring Pigs

HAVE over one hundred good ones sired by the grand champion

KING DEFENDER

Let me book your order now. Address

JOHN L. FISHER **JANESVILLE, WIS.**

CLARENCE GEORGE
OF EVANSVILLE, WISCONSIN

IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write

W. C. Jenkins **Bangor, Wisconsin**

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address

Geo. D. Sprain & Sons **West Salem, Wis.**

ATWATER

HAS no Durocs to sell until May. Will book your order.

L. F. Atwater **Bangor, Wis.**

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address

F. R. Constance & Sons **Waupaca, Wis.**

DUROC GILTS

BRED to Cook's Defender for sale. Only a few, order early. Address

Emmett Cook & Son, Richland Center, Wis.

When writing to advertisers kindly mention **The Wisconsin Farmer.**

HORSES.

PROPRIETORS OF THE WHITE CITY STOCK FARM.

WE OFFER

TO STALLION MEN who are looking for a good stallion to put on the stand a lot of stallions that will please the most critical. Our two-year-old black and dark gray Percherons weigh now up to 2,100, with the bone and conformation to carry their weight. Our Belgians are big and the right type. We now offer Bizzarrie, our 2,350 five-year-old imported herd header. This horse is the best we ever owned. A great stallion for someone. We now offer ten head of stallions from six to ten years old at sacrifice prices, as we won't carry any aged stallions over. We also offer one five-year-old imported Shire stallion for less money than he could be bought in Europe. Wanted to buy 50 head of big drafty stallions, one coming twos. Write us what you have. Send 25c in stamps for large horse hanger. All horses at big discounts till sold out.

FRANK P. SHEKLETON & SONS **LAWLER, CHICKASAW COUNTY, IOWA**

We are 50 miles west of Prairie du Chien, Wis., on the Milwaukee R.R., making direct connections for Lawler.

HOMEWOOD STOCK FARM

PERCHERON STALLIONS AND MARES IMPORTED and HOME BRED

GOOD, big, ton stallions and mares with plenty of quality, bone and the best of legs and feet. If you want a real draft stallion or mare come and see our stock or write for particulars. Most reasonable prices, terms and guarantee.

S. METZ & SON - - - - - HOMEWOOD, ILLINOIS

Have a choice lot of Hereford and Short-horn bulls for sale at reasonale prices.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

Largest Collection on Earth
150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

H. LEFEBURE & SONS, Fairfax, Iowa

8 miles west of Cedar Rapids

If in Cedar Rapids, phone us for hourly Interurban service

HART BROS., OSCEOLA, IOWA

IMPORTERS and breeders of **Percheron** and **Belgian stallions** and **mares.** We have the best lot of horses ever in our barns. Write or come and see us.

W. E. PRICHARD & SONS
OTTAWA, ILL.

PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

W. A. LANG & CO.
Importers and Breeders of

BELGIANS and PERCHERONS

IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars

W. A. LANG & CO. **GREELEY, IOWA**

Percherons--Belgians. Imp. and home-grown 4 and 5 yr. old stallions, ton and heavier. 3 yr. olds, 2 yr. olds, yearlings. Produce of 62 Imp. and home-grown mares and noted prize-winning Imp. sires. Farmers' prices.

Fred Chandler, R. 7, Chariton, Ia.

GALLOWAY CATTLE.

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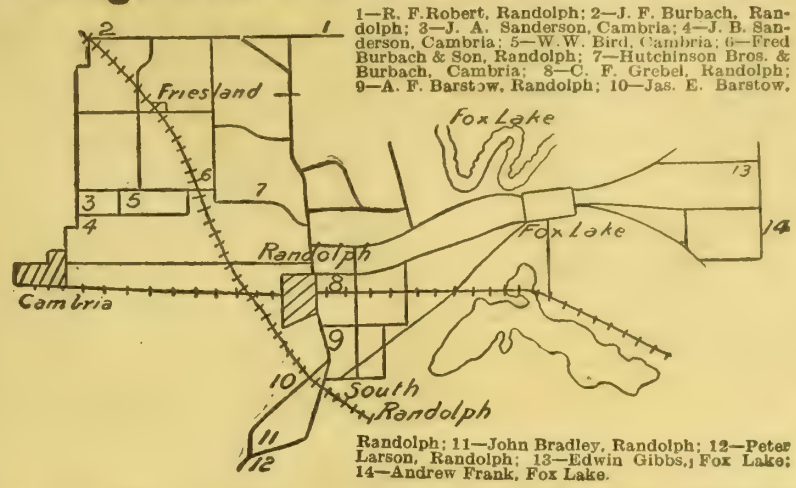

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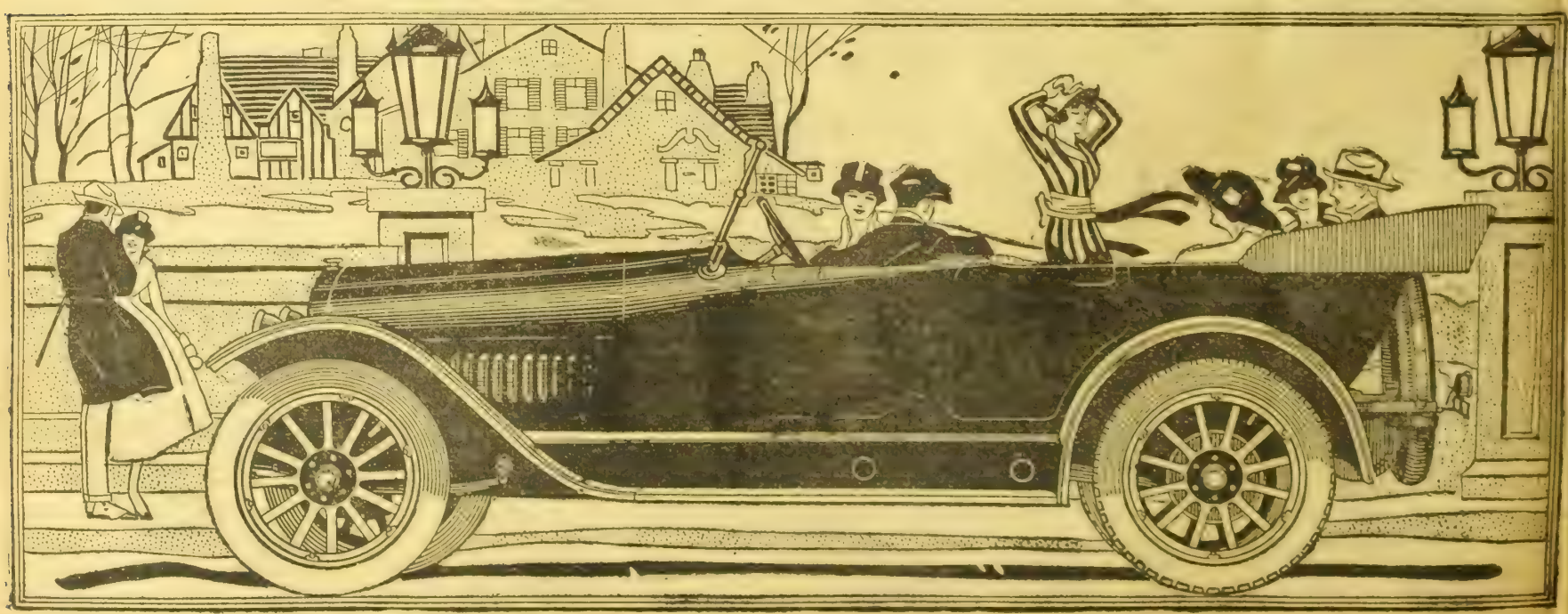

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UNIV. OF ILLINOIS

VOL. XLVI. NO. 17. THURSDAY, APRIL 26, 1917. WHOLE NO. 1839

Barron County Potato Work.

PREVIOUS to 1915, Barron county was not especially known for its potatoes. Potatoes were grown there as they are in many other counties today, with little or no attention being paid to quality. Since that time, however, the county has made some mighty steps forward. The progress that has been made is the result of proper organization and intelligent direction of this work. Twenty potato growers' associations were formed in 1915, with a total membership of 750. With the coming of these associations came an understanding of how the best results could be obtained from the efforts toward improvement and standardization. Each association decided upon the variety which was to be grown and thereby eliminated one of the chief difficulties of any potato-growing district. It is not only necessary that land will grow a big crop, but it is essential that the crop be uniform as to variety when marketed. As many as seven varieties could formerly be found in one field of potatoes. Now each field represents a particular variety, with no distant relations of that variety showing up in a row every so often. A big financial result of this organizing was noticeable during 1916, when $1,500 premium over the market price was received for Barron county potatoes on one shipment.

Though the associations are all very young, results at the shows have been highly satisfactory. Individual members showing at the Eau Claire State Show, in 1916, took quite a few prizes for Barron county. On Rural New Yorkers, first, second, third, eleventh and twelfth places went to members on individual exhibits, as did also first prize on Green Mountains, and first, fourth and fifth prizes on Burbanks. The county received second prize on the booth exhibit.

The associations were not formed, however, with an idea of merely standardizing the varieties grown. The work reaches farther than that. During the regular meetings of each association cultural methods of the crop are discussed by members or outside authorities, with the result that better methods in the field are now being followed. Some excellent results have been obtained with spraying under the direction of R. J. Cuff, the county agent. He has been behind the organization work in Barron county, and much credit is due him for the success of the work. His first effort toward saving the crop in the field by timely spraying, however, met with the usual rebuff from individual members. In one instance he visited the farm of a member and noticed that fifteen acres of the forty in the patch were "black as pitch" from blight. He offered to spray the balance of the crop for the owner, but received a kindly reply that it was deemed unnecessary. Blight had never, according to this member, spread from row to row, and he thought that that would be the total of his loss for the season. However, the next day the county agent received a telephone message to the effect that the little black spots were showing on the other rows and perhaps spraying would do some good anyway. Mr. Cuff immediately went to this man's farm and sprayed the rest of the field the same day. The little formula of five pounds of copper sulphate, five pounds of quicklime and fifty gallons of water saved that man $500 worth of potatoes. The loss from the remaining acres that had not been blighted was small, though they were attacked, while the first fifteen acres produced no potatoes at all. Quite naturally this convert is one of the strongest advocates of spraying in Barron county today.

WHAT THE BUGS DID IN TWO DAYS.

The biggest results in spraying have been obtained with Bordeaux mixture to prevent tip burn and sun scald. On the farm of Mr. Benson, at Barronett, $10 worth of spraying resulted in a profit of $300 worth of extra potatoes. Carl Hazelberg, at Barron, sprayed his fields of Burbanks and averaged eighty-eight bushels to the acre, while the unsprayed check portion yielded only twenty-five bushels to the acre. On another lot of Green Mountains 100 bushels were harvested to the acre where spraying took place and only fifty-seven bushels where no spraying was used. On a field of Rurals which was sprayed the yield was 156 bushels to the acre, while the unsprayed acre yielded only sixty-seven and one-half bushels.

The cost of spraying is approximately $5 an acre. On two fields the highest priced sprayer that could be bought on the market was used, and it was found that on a field of thirteen acres each acre made enough profit from the spraying to buy two machines of the kind used for the field. That would almost prove the wisdom of making an investment of this sort. The work of improving the quality of Barron county potatoes is given principal consideration. Mr. Cuff, however, has not made the mistake of advising all reforms in one year. The first year it was standardizing the varieties, the second better cultural methods, and this year it is to be better seed selection and treatment of seed for disease. Black scurf has made considerable inroads on the seed crop not only in Barron county, but all over Wisconsin. To combat it effectively, Barron county growers this year will use the corrosive subli-

(Concluded on page 18)

DOUBLE-NOZZLE MACHINE SPRAYER.

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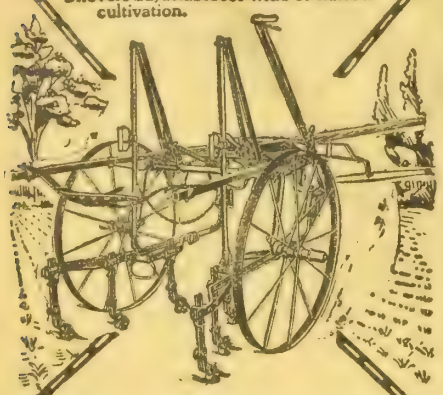

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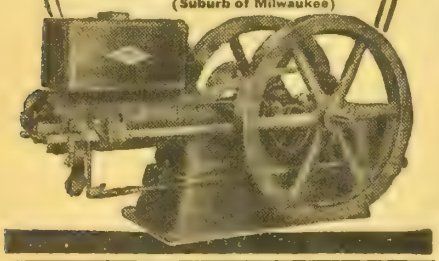

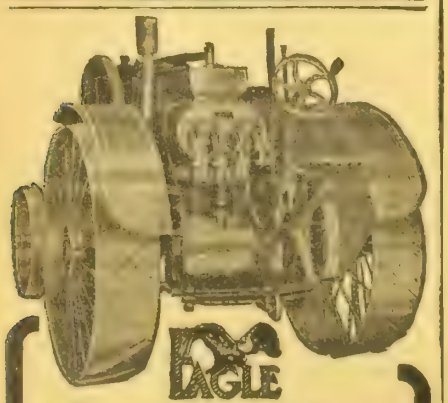

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FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Conservation of Farm Machinery.

War has come and with it new conditions for the farmer to meet. Within the next year millions of men who have been engaged in productive labor will cease to produce. Labor is already scarce and the places left vacant by the men going to the front cannot be filled by other men, as there are no surplus men to be had. Machinery and more efficient methods of labor must make up the deficiency. It must more than make up the deficiency, as the rest of the world is demanding more of us than ever.

We wish to impress upon our readers the necessity of properly caring for every farm implement and using it to the best advantage during the coming year. A cultivator rusting out in some fence corner is one item being detracted from the country's resources. While it may not pay to build expensive sheds to store idle machinery, every effort should be made to use the buildings at hand for protecting it. It is not a question of saving so many dollars and cents; it is a question of releasing the shops from the burden of making machinery needlessly when their efforts should be directed to other lines. The shops will have a difficult time of it at the best. Many mechanics will have joined the army, and steel will be hard to get, due to a shortage of the supply and the congested condition of the railroads. The farmer protecting his machinery is adding to the defenses of his country.

Needless to add, the most should be made of power farming. The gas engine and tractor should be used to the limit, as they are great savers of human labor and the labor of horses. France and England are encouraging the use of tractors as one means of increasing their food production.

Questions and Answers.

Repairs For Wilson Engine.

I would like to know where I can get repairs for the Wilson gas engine. It has been manufactured in Des Moines by the Gibbons Machine and Foundry Co., successors to the Wilson Machine Co.

Answer.—We doubt that you can obtain repairs for this engine unless you can obtain them from the Gibbons Co. It might be possible for you to get repair parts made at some local machine shop or garage.

Increasing Output of Generator.

We have a 1916 Reo Four auto. The generator, Model 241, is set to deliver ten amperes at twenty-five miles per hour. As we run but twelve to eighteen miles per hour, the battery is always going down. We do not want to send the car to the service station, as we are mechanics; we wish to learn how to adjust it ourselves.

Answer.—If we understand your outfit correctly it would be necessary for you to speed up the generator, making it run about one-half faster. To do this, increase the size of the sprocket on the engine or decrease the size of sprocket on the generator, or do both.

Poor Gasoline.

I have a Studebaker Six, 1914 model, that lets the gasoline through into the oil. The motor is not worn at all, and the piston rings seem to be good. They will hold the piston in place in the cylinder when it is loose from the bearing below. I tried all the pistons carefully; looking them over to see if there were any cracks. The inside walls of the cylinders are all smooth. After running a while, the oil becomes as thin as gasoline. You can see through it in a bottle. I believe that I could burn it in the engine for gasoline. The car has been doing this for a long time. It has been run about 8,000 miles. My garage man is a very good mechanic, but he does not seem to know what to do. What is the cause of the trouble? Are "Leak-Proof" piston rings any better than the common kind?

Answer.—The ordinary gasoline on the market at present contains a large amount of kerosene, which does not burn well in the older types of motors. The later automobile motors have the intake pipes run along by the side of the exhaust pipe so as to slightly heat the intake gases just before they enter the cylinder. This prevents condensation of the fuel spray and the trouble you are having does not then occur. Doubtless you would find it a great aid to connect a hot air attachment to your carburetor. A sheet iron jacket is fastened around the exhaust pipe. A flexible metal hose is run from the air inlet of the carburetor to this jacket, so that the air must pass around the exhaust pipe on its way to the carburetor. Your garage man can probably supply you with this outfit. We consider "Leak Proof" rings much superior to the common split ring.

Motorcycle Will Not Start.

Please tell me what is the matter with my motorcycle. I have put new piston rings in the cylinder and I cannot get it to run. I can't get it started; it just puffs and smokes. Can I make a car out of my motorcycle?

Answer.—There is often some trouble in starting a motor with new rings, as the rings may not fit the cylinder walls correctly. After the motor has been run awhile the force of the explosion forces the rings out against the walls and they lap in to a smooth surface, after which there should be no starting trouble. At the factory engines are usually run by a belt from another engine for several hours to lap in the rings before the engine is run on its own power. Be sure that you put the timing gears together in the correct position. See that the prick punch marks on the gear teeth come together, otherwise the timing will not be right. If your trouble is due to the new rings persistent cranking will start the motor.

It would be a difficult job to change your motorcycle to a car.

Some Carburetor Questions.

How large should a carburetor be for a twenty-five-horse-power motor? Does the Stromberg "G. No. 2" carburetor give good results? Would you recommend a Kingston dash adjusting carburetor for a Paige twenty-five-horse-power motor? For this motor, would a Schebler give better results than either of the above? How is a Stromberg No. 2 carburetor adjusted? Is there any danger from fire if the gasoline feed tube gets hot from the exhaust pipe, or if the carburetor overflows? What grade of oil is best for automobile transmissions?

Answer.—A twenty-five horse power motor requires an inch and a quarter carburetor. The Stromberg G No. 2 carburetor gives good results when in good condition and properly adjusted. The Schebler and Kingston are also good carburetors. We would not feel justified in recommending one in preference to the others. To adjust the G No. 2 Stromberg carburetor, proceed as follows: With the motor at rest, screw down the little nut on top of the air valve so that the spring on top of the air valve is perfectly free—so that it has about one-sixteenth of an inch end play. Adjust the nut below the air valve so that the air valve seats lightly. Start the motor, closing the choke valve in the horn at the bottom of the carburetor if necessary. Run the motor until it is thoroughly warmed up. Then screw the nut below the air valve up and down until the position is found where the motor runs smoothly at low speed, the spark being retarded. Then advance the spark to running position and open the throttle gradually. If the motor then backfires through the carburetor, screw the nut on top of the air valve up, so as to put more tension on the spring. Back firing results from a lean mixture and black, sooty exhaust from a rich mixture. Turning either adjusting nut up makes the mixture richer.

Many automobile fires result from the carburetor overflowing. The gasoline pipe is not likely to become hot enough to cause trouble. If it became hot enough to vaporize the gasoline the carburetor would not work properly. A heavy, sticky grease is best for automobile transmissions, especially if the gears are noisy. Yellow transmission grease is a fair lubricant in the summertime.

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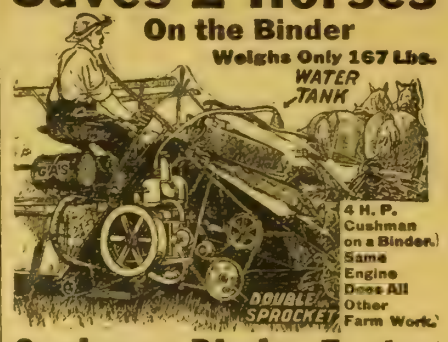

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It saves time because you can move right along all the time in heavy grain without killing the horses, and with no choking of sickle, elevators or packers.

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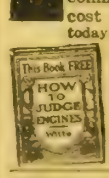

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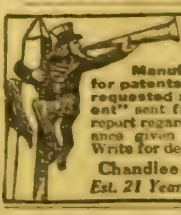

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College of Agriculture
University of Illinois

The Wisconsin Farmer

THURSDAY, APRIL 26, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

BADGER FARM SCHOOL ON THE JOB.

A VERY large part of my mail these days refers to the efforts of our national and state governments to enlist the farmers of this country in behalf of greater food production. In this connection, I am delighted to note the efficiency with which our Wisconsin College of Agriculture, through its allied organizations, is able to handle such a proposition as this. No sooner had the president urged the need of bigger crops than the Wisconsin College of Agriculture was out with a series of special bulletins and posters, giving some practical hints of what can be done, even at this late day in the season, to increase the production of foodstuffs in this state.

In emergencies our institutions, such as the Wisconsin College of Agriculture, should bend every energy toward relief, and I believe that is the real aim and purpose of those at the head of our great school. Last week The Wisconsin Farmer called attention to the emergency call from the Wisconsin Experiment Station to the farmers of this state to sow more spring wheat. The same sort of advice has been given concerning corn, and we have been urged to produce more heavily, if possible, of all our staple foodstuffs. My latest mail brings me a letter from the Wisconsin station on the subject of poultry and I ask all Wisconsin folks to read the following extracts from this urgent message:

Raise more chickens—it pays and it's patriotic. But the big waste in poultry comes through losses after the chickens are hatched. It's a crime against the nation's meat supply to let a chick die that has already consumed a part of the farmer's feed and used up some of the farm energy. Save your chicks.

Right now, buy a can of insect powder—be sure it's fresh—and some vaseline. Have you any coal-tar disinfectant? And how about a good egg crate so you can market your eggs without waste? Unless you have a supply of buttermilk or sour milk, stop and get a sack of meat scrap.

Tonight let the boys do your chores while you grease the heads of the baby chicks, and dust the setting hens with that insect powder. Then tomorrow, clean the coop and paint the roosts with kerosene or coal-tar disinfectant. That will kill the mites.

Why not market or eat the poor laying hens and all but a few roosters? You can tell your poor layers. They molt in the summer (good ones molt in the fall). They sit on the roost late in the morning and early at night. Feel their crops at night—good layers are good feeders. Sell all small, long-headed, late-hatched pullets.

Feed some buttermilk, sour milk, or meat scraps. Give them free range—but fence in the garden. Feed regularly a variety of good, clean feed. Keep a dry mash before the hens at all times. Use two pounds of ground feed, one pound bran, one pound middlings and one pound of meat scrap if milk is not available. Provide plenty of house room for the growing chicks. Sell or shut up all roosters after May 15th. The rooster makes eggs fertile—fertile eggs spoil.

Have the boys provide a clean, well-littered nest for every five hens. That will prevent dirty and broken eggs. Have them gather the eggs twice daily, and pack them in that egg crate in a cool, dry cellar or milk room. Market them at least once a week. Don't let the sun hit them on the way to market.

Of course this means extra work, but eggs and poultry are going to be high.

I believe that in no place in the country have the experiment workers reduced their work to a more practical basis than right here in Wisconsin. The extract above is submitted as evidence of this statement.

THE HEART OF THE FARM.

SOME of the letters which come to me from subscribers are so full of what is known as heart interest they are wonderful human documents. With unstudied, even unconscious eloquence, the writers reveal their souls in letters which are marvels of simple construction. Such a letter is the one I received recently from Mr. Ernest Schaal, of Oconto county, Wisconsin. I wish that I might print it in its entirety, but that is impossible, for Mr. Schaal wrote me at great length. But I am going to devote more than the usual amount of space to this letter, printing the major portion of it at least.

Mr. Schaal was kind enough to preface his letter with praise of my humble efforts to instruct and edify my readers in this page of mine, saying:

Dear Mr. Pierce: I have read your talks with much pleasure and now I see that you had to struggle for an existence, in your young days, like many others of us. I like to hear of people who had to struggle and who came out at the top. It shows there is something to them. I think I would enjoy talking with you, as you are interested in young people, as I am, and want to help anyone that will try to help himself, and they are the only ones you can help.

Mr. Schaal has certainly caught the spirit of my writings, for they are intended to be helpful to those who need help, encouraging to those whose courage is failing, uplifting to those who may have started on the downward path. It pleases me, indeed, that at least one of my readers should grasp so splendidly the motives which actuate me to continue this page of mine week after week.

But Mr. Schaal had something far more important to say than mere praise of my humble efforts. He went on to tell the story of his own early struggles, a story which I do not believe has been surpassed, for inspiration and cheer, by anything which has come to me in many months. Let me print a part of his letter herewith:

I will give you a sketch of my life and if it sounds too much like a fairy tale don't print it. I was born in Germany, in 1848, and came to America in 1849, the youngest of eleven children, landed in Mayville, Wisconsin, and inside of four years father and mother both died and the children were scattered. At first I was put with a stranger, but later some of my big sisters got married and I lived with them in Addison, Wisconsin, in a log distillery where they made rye whiskey. Two brothers-in-law owned it. There I learned the multiplication tables marked with white chalk on the rectifying tube with a faucet at the bottom with a glass set under it, so I learned two things at once. The former I remembered. I went to the district school some there. From there we moved to Iron Ridge, into a log cabin, and kept a grocery store and bar. I tended both and went to school some.

Shortly before the war I moved with another brother-in-law to Oakfield, Wisconsin. He soon went to the war and I worked for farmers around there when, in my fifteenth year, I joined the Sons of Temperance, to take the total abstinence pledge, and I always kept it. About that time, while working for a farmer, I resolved that when I got to be a man I would be a farmer; I would be a Christian and marry a Christian wife and have a large family, and when Sunday came I would hitch up my nice team and rig and we would all go to church, although I had never been to church or Sunday school then. The winter after I was seventeen my brother came to Oakfield from northern Wisconsin, Oconto county, and took me out of school to take his place up here, so he could go to the war the last year. He was taking care of a small farm and a war widow and family. I got $18 per month. In the fall he came back. I took my $118 and went back to Oakfield and stopped off at Fond du Lac and bought a government bond for $100 and the next year I came back to northern Wisconsin permanently; worked in the woods for the same man and others lumbering, and in the summer farming. When I was about twenty I bought 120 acres of land from R. Gillett and worked it out at $1 per day. About that time the country had settled up, so that we had preaching in the little red schoolhouse. I went and was converted. Then I decided "here I will live and die, let it be long or short," and I began to clear my farm. I boarded with my brother some and finally went into an old lumber camp and kept old bach two or three years.

About this time I began looking for the Christian wife and found her, and in the fall of '71 we were married and moved into my new block house. She had never kept house before, but she was happy and so was I. We set up our family altar the first morning and never have let anything sidetrack us from our religious duties. I never considered myself very smart, but was just foolish enough to have great faith in God and his word and believed that in the keeping of his commandments there was a great reward.

I never was very crazy to pile up money. Home, family, and good citizenship I considered worth more. In seventy-two our first boy came. We lived three miles from church and had only oxen then, and were very thankful for them. We used to go a-foot or with the oxen, but we always went and we enjoyed life big. About that time we built the first church in Gillett. Our boys and girls kept coming about every two years, until nine boys and two girls had come. Eight boys and one girl are still alive.

Is not that a splendid record, an inspiring letter? Here we have a man overcoming obstacles, resisting temptation, giving himself to God in his early days, hewing close to the line throughout a long life and rearing a family which shall keep his memory sweet for many years to come. I will admit, my friends, it brought the tears to my eyes to read Mr. Schaal's concluding words:

You will notice that I emphasize the spiritual part of my life, for it is the secret of what success I have had. I have enjoyed life big. I live in the best of neighborhoods. I love my neighbors and they love me, and my children are all good to me, and I feel that God has accepted my good deeds and he for Christ's sake has forgiven my bad deeds and I am still looking for good things.

Can any one read such a letter as this and then wonder how it has come that farming has been brought to such a high plane in one man's lifetime, how living standards on the farm have been so elevated, and how the farm has given to the world its greatest men and its greatest ideas? Such men are national heroes, although they die unknown. Such men are the greatest asset of our nation, though they possess little of this world's goods. I honor such a man far above those who sit in the seats of the mighty and govern empires by the nod of their heads.

It is such letters as this that I most delight to receive. You farmers who have succeeded, have you not some message to give the coming generation? If so, write to me and I will pass it along, as I do Mr. Schaal's this week. There is so much for us who are old to say to those who are young and time is flying by so rapidly. Shall we speak before it is too late?

EDUCATION AND THE FARMER

I AM not one of those who believe a college education absolutely essential to success in any line, be it farming or anything else. I am a firm believer in getting the best education possible. I believe that the more brains we mix with the seed we drop into the ground of our Wisconsin farms the better. But I cannot forget that some of the best farmers I know never went beyond the eighth grade in an ordinary one-room country school, and some of them did not even get that much schooling.

I am led to make these remarks by the publication of the results of an investigation conducted in one of our eastern states, purporting to show that success in farming increases proportionate to the college training of the farmer. Let me quote the item (from Leslie's Weekly) which caused me to write this article:

There is nothing alarming in the statement that one-third of the farmers of New York state fare so badly that they would be better off if they would lend the money they have invested in farms and hire out as laborers. This is a lower average of failure than prevails in most other callings. Mr. Hurley, when chairman of the federal trade commission, was authority for the statement that at least one-half of business ventures are failures. It is a case of efficiency, of the survival of the fittest, whether in business or farming. The Wicks committee, which has been investigating conditions among the farmers of New York to be used as a basis for legislation to benefit farmers and consumers, bears out this point. The farmer who has a high school education makes twice as much as the farmer who has not, and the college graduate on the farm makes three times as much as the farmer who has neither high school nor college training. The educated farmer is the one who is making money, just as superior intelligence brings increased success in every other line of work.

The writer of this item fell into one error, one of omission rather than of commission. Education is not always, or merely, a matter of schooling. Much more often it is a matter of observation, of personal experience, of keeping one's eyes and ears open and building on the mistakes of ourselves and of others. Admitting that this is education, rather than the obtaining of a sheepskin from some school or college, I am willing to assert that success in farming, as in everything else, depends absolutely upon it.

The mistake all too many people make is in assuming that education is to be obtained only within four walls, from the lips of a teacher or the printed words of a textbook. There is a bigger, broader education, which I am sometimes inclined to think is far more important. It is the education which we obtain first-hand, through experience and observation, which supplements and continues the education received in school, if we are so fortunate as to receive that kind, and often supplants the school education altogether. For instance, I believe there is an education, second to none, to be secured by reading a practical, dependable farm paper, edited by practical farmers and full of sound, reliable advice and information, supplementing this by attending farmers' institutes, short courses, neighborhood clubs and exchanging farming ideas with friends, neighbors and fellow farmers generally. Do some unusual conditions exist in a certain locality, they are to be contended with and overcome by an exchange of ideas by the farmers living there. This exchange of ideas constitutes education, just as much as college class work. We can secure a good education reading the daily newspapers, the weekly and monthly magazines, the state and national agricultural bulletins and standard books, such as those which I have listed in this page in recent weeks. Education is obtainable in so many ways, even by studying the stars at night as one walks through the country, or observing the habits of field mice and all manner of living things, that I would hesitate to say just what it is, how it is best to be obtained, who has it, or does not have it. Perhaps we might say, generally, that a good education is anything which we know and which we

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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Wisconsin Legislative Happenings.

With the present session drawing rapidly to a close both houses are working overtime in order to dispose of the hundreds of bills before them. Many of the bills have been in the committee for the better part of the session and are now just coming to light again. The time for introducing bills through individuals is now past and only a few bills are being introduced through committees.

A bill relating to the establishment of a state brand for butter and cheese which would distinguish Wisconsin cheese and butter on the market from the butter and cheese of other states is receiving favorable attention. The bill provides for certain standards which must be observed before any factory can label its butter and cheese with this trade-mark. Iowa and Michigan and Minnesota have such a law on their books which, according to the sponsors of the bill, has resulted in increased prices for the firms which have met the standards and are using this trade-mark.

The legislature recently passed the bill making it compulsory for manufacturers of American cheese in Wisconsin to stay within the 40 per cent limit for moisture. Formerly the national law was the only guide. This permitted unscrupulous manufacturers to add as much moisture to the cheese as was possible, because the national law merely asks that 50 per cent of the total solids in the cheese must be fat. Thus manufacturers could manufacture cheese having only 40 per cent of total solids and 60 per cent moisture. They were within the law as long as 50 per cent of the total solids was fat. The new law makes this impossible.

Another law that has been enacted makes an annual appropriation of $7,500 for 1917 and 1918 for the discovery and eradication of the White Pine blister rust. As yet the damage done by this disease on the pine forests of other states has not been repeated in Wisconsin. It was to the advantage of the state that such a law be passed at this time, when it is still possible to combat effectively the disease with a good chance of eradicating it completely.

The assembly passed a bill introduced by Mr. Schroeder stipulating that all weeds shall be removed from the land adjoining public highways before the 15th day of August.

The assembly also passed the bill making an annual appropriation of $2,000 for field work for combating hog cholera.

Nursery inspection and control of plant diseases will be strengthened if the senate concurs in the bill passed by the assembly requiring the filing of a certified copy of the state certificate by every dealer in nursery stock, and making it unlawful for anyone to accept any nursery stock for shipment without a valid certificate plainly attached to the outside of the package or box showing that the contents have been duly inspected. The bill also gives the inspector the authority to request information of all shipments of nursery stock and the holding of it subject to inspection.

The bill introduced by Mr. Grell relating to the inspection of commercial feeding stuffs and seeds and the proper labeling of fertilizer material was favorably recommended by the committee on agriculture. The bill exempts manures in their natural condition from this inspection. It also includes a requirement for seed advertisers to state the kind of seed and locality in which it was grown in the case of cereal grains, corn, alfalfa, clover and tobacco seeds.

The highway bill creating a state trunk highway system and providing for federal, state and county coöperation in the construction and maintenance thereof has passed the senate and will be taken up in the assembly shortly. The total mileage of all roads and streets included in the state trunk system is not to be more than 5,000 miles. This trunk system is to be selected after full investigation has been made by the highway commission as to the most necessary and advisable routes. The system shall be laid out exclusive of every road in a place having a population of 2,500 or more. Two amendments to the bill were adopted by the senate, the first stipulating that in case the safety and welfare of the state require that construction shall not proceed work on the road be stopped. The second provides for a revolving fund of $3,000 for the printing of a map of the state showing the trunk highway system.

The senate highway committee recommended for passage the bill relating to superintendents of highways, and the bill passed by the assembly relating to the county and town bond for highway improvement has been reported for concurrence. The bond bill makes it possible for any county, if its board so determines, to raise money for improvements of prospective state highways by issuing non-taxable semi-annual interest payment coupon bonds bearing 5 per cent interest and running for not more than ten years. The money to be expended in the respective towns is to be determined by the county board. All towns have the same opportunity for improving any portion of the highways by a vote of the electors at the regular town meeting or special meeting. The money must be deposited with the county treasurer and be expended for highway purposes on roads designated in the ordinance authorizing the bonds.

Seven bills dealing with the eradication of tuberculosis and dealing with the appraisement of animals will be threshed out at a joint meeting of the committee on agriculture, finance and state affairs which was scheduled for the latter part of last week. It is to be hoped that a compromise on the good measures can be effected. There are several worthy bills among the number, the passage of which would place Wisconsin still farther ahead in the work of eradicating tuberculosis in cattle and hogs. The legislature last week legalized sale of tags for animals tested for tuberculosis. While this has been done for years, there was never an appropriation to take care of this work. Under the law a revolving fund has now been created which will take care of distribution of these tags to owners of tested animals.

Wisconsin Crops and Prices.

With this issue The Wisconsin Farmer resumes its crop reports. These reports are furnished by farmer correspondents. We believe they contain as careful information as can be secured.

The April 1917 government crop bulletin gives some interesting facts as they relate to Wisconsin:

The estimated value of Wisconsin farm land (improved) is now $95 per acre.

The condition of winter wheat in Wisconsin is given at 93 per cent, which is 5 per cent higher than the ten-year average.

The price of winter wheat in Wisconsin, April 1, 1916, was 98 cents per bushel and the price April 1, 1917, $1.65.

The condition of winter rye April 1, 1917 was 95 per cent as compared to a ten-year average of 91 per cent.

Wisconsin is much better with winter wheat than most states reported in the government bulletin. Of course the crop in winter wheat is comparatively small in this state.

Wisconsin has 904 gasoline or kerosene tractors actually in use on farms.

The following statistics relating to the value of farm products March 15, 1917, as compared to the same date 1916 will be of interest:

Hogs were worth per hundred, 1916, $8.50, 1917, $13.30; beef, $5.90, 1916, and $7.10, 1917; sheep, $5.90, 1916, $8.80, 1917; wool, 28 cents, 1916, 25 cents, 1917; milk cows per head, 62.40, 1916, $70.60, 1917; apples per bushel, $1.05, 1916, $1.60, 1917; cabbage per hundred, $1.40, 1916, $6.40, 1917; onions, $1.10 per bushel, 1916, $5 per bushel, 1917; beans per bushel, $3.67, 1916, $6.85, 1917; timothy hay, $11.80, 1916, $14, 1917; prairie hay, $7.90, 1916, $10.60, 1917; bran per ton, $22.90, 1916, $37.40, 1917; cottonseed meal, $35.90, 1916, $47, 1917.

The only two products mentioned in the report covered which have not shown a gain are maple sirup, which is $1.30 per gallon this year the same as it was last year, and horses, which averaged $158 per head March 15, 1916, and $150 per head March 15, 1917.

A more recent estimate of the farm value of other products has been made by the federal department of agriculture, this based as to date of April 1, 1917. A few of the quotations follow:

Corn, 1916, 74 cents, 1917, $1.11; wheat, 1916, 98 cents, 1917, $1.65; oats, 1916, 43 cents 1917, 58 cents; barley, 1916, 65 cents, 1917, $1.14; rye, 1916, 87 cents, 1917, $1.43; potatoes, 1916, 79 cents, 1917, $2.01; butter, 1916, 33 cents, 1917, 39 cents; eggs, 1916, 18 cents, 1917, 26 cents; chickens per pound, 1916, 12.7 cents, 1917, 15.8 cents.

The Wisconsin Farmer quotes these figures so that the readers of this paper will be able to understand exactly what opportunity they have for making extra profits this year on extra yields.

Seed For Replanting Corn

To produce an adequate supply of food for the nation and have a considerable surplus to spare is the greatest emergency which we now face. Europe at the present time is 150,000,000 bushels of grain short of normal. The Argentine country will not export a single bushel, owing to partial crop failure, so that the world's food supply for the next eighteen months will be largely determined by the hustle American farmers put into our work during the next six weeks.

In the central West we have to do mainly with corn and we are exceedingly fortunate to have on hand a supply of good seed. It is important that no man take for granted that his seed will grow without testing it. Ninety per cent corn is not good enough this year. We must have just the kind of a stand that we aim at. Those who believe that two stalks per hill is enough must get their stand from two kernels per hill, while those who believe that the soil will produce three stalks per hill should plant three vital seeds and three only. Those who have not tested can well afford to enlist the interest of all members of the family in getting the matter under way without delay. If we keep in mind the great national need we will not hesitate to spend an occasional evening hour at this task. If the work is done while the corn is still in the ear everything that is weak or dead can be discarded, and it is just as valuable for feed as vital corn. A single good ear of corn will produce a thousand kernels, or enough to plant 250 or 300 hills. What a disaster it will be to spend our time this year cultivating missing hills as the result of a little neglect at this time.

But we are going to suggest that the matter be carried one step further. While the testing operation is under way let a second supply of seed be sorted out. No man can foresee what the condition of the soil will be a month hence and a wet, backward spring may mean the rotting of the seed on a very large acreage. In that case we should be ready without a moment's delay with a new supply of seed that has been tested and graded ready for the planting. If the early planting is not good we must take our chances with late planting, knowing well that good fodder will result even though a full crop of grain fails to mature.

We find upon inquiry that in some cases individuals are endeavoring to get a second supply of earlier corn. Our best yielding varieties throughout a considerable portion of the central West require anywhere from 120 to 140 days to mature, but there are varieties that will be out of the way of frost in ninety or at the outside 100 days. They will not yield as heavily as the other kinds, but it will be commendable foresight to have a supply of this early seed for at least part of the acreage that we are planning on.

Increase Production.

"Increase production" is the cry of the hour. It comes from the lips of President Wilson, our various governors, the authorities of our state agricultural colleges, our practical farm papers, from all loyal, patriotic citizens who realize the immense responsibility which confronts the American farmer.

The Wisconsin Farmer is dedicated to the task of assisting the farmers of this portion of the country to live up to the need of the hour and to their great responsibility. We shall do everything possible to make the acres and the herds of our readers still more productive, to the end that the world may be fed and clothed and none shall go hungry. We propose to make The Wisconsin Farmer, throughout the coming year, of more practical value to every member of the farm household than it has ever been before in all the years of its existence.

While we are doing this, may we count on the assistance of every one of our large family of readers? Will those whose subscriptions have recently expired, and those whose subscriptions will shortly expire, attend to this important matter at once, sending in their renewal check without delay? Will every reader make himself a soliciting agent to secure at least one new subscriber? We shall do our share by getting out better and more practical and valuable papers than ever before. Shall we form a working partnership to increase production and make this the biggest and best year ever known in American farming? Do your share by attending to your subscription renewal without delay.

Cutworm Nuisance.

Every hill of corn must be saved this year, and to that end special precautions should be taken to prevent insect depredations. Usually considerable damage is done by cutworms, these pests severing the young plants just as they appear above ground. The natural habitation is sod ground, and it is not uncommon to find instances where the stand on sod is reduced from 25 to 50 per cent by these insects.

The first thing to be considered in heading off cutworms is late planting. This gives an opportunity for the worms to mature and pass into a dormant stage before the coming on of the crop. Under ordinary circumstances one can well afford to plant sod ground two, or even three, weeks later than the planting on old ground. The decayed roots in sod means the development of more or less heat, thereby bringing the crop along more rapidly, so that at maturity sod-grown corn, even though planted late, is generally out of danger of frost on time.

There is some advantage in keeping vegetation checked between the time of plowing and planting. After a sod ground is plowed it should be well disked, in order to cover all exposed grass. While presumably worms live on roots, their preference is for the tender part of the plant above ground, and lack of food either hastens their maturity or starves them out. We repeat, therefore, that free cultivation between the time of plowing and planting is generally effective in bringing about the destruction of worms.

Then, of course, there is the so-called garden plan of poisoning the pests. We have never favored this method very strongly for the simple reason that we considered it impractical when applied to a large area. A bushel of bran mixed with one pound of white arsenic or Paris green and made into a mash by adding eight gallons of water and half a gallon of cheap molasses will be sufficient to treat four or five acres. After the mash has stood several hours, simply scatter it about in lumps about the size of a marble over those parts of the fields where insects begin to appear. It should be placed near the base of the corn hills. Of course, this is a matter that involves considerable labor, and yet rather than to sit idly by and watch the crop going to its destruction by the cutworm route, one

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

use to make ourselves better in our chosen line of work and more useful to our fellow men. Accepting that definition, the practical school of experience on the Wisconsin farm becomes as much an educator as any college or university.

Please do not misunderstand me; if your boy or girl wants to go to country school, town school, or college, and you can afford it, by all means let them go. Gratify their ambition for a school education to the limit. Go to college yourself, if you want to and can, even though your family is grown up, even though your hair is silvered and grandchildren clamber over your knees. But do not think this alone will suffice. We must put college training to practical use before it becomes real education. That being the case, the educated farmer is, of course, the one who succeeds, whether he ever saw the inside of a school classroom or not. In view of such a broad interpretation, the question of a college or university training becomes secondary. Going to a higher institution of learning is not going to make a success of any man, either in farming or anything else, unless he has natural aptitude, appreciates his education, puts it to practical use and gets into the work for which he is best suited and which appeals to him most. The school of hard knocks is one of the best in the world, when all is said and done.

A MAN WHO ALWAYS PLEASES.

THERE is no writer today whom I read with more genuine enjoyment than David Grayson, from whom I have frequently quoted in The Wisconsin Farmer, my last quotation being his remarkable tribute to the Bellflower apple. Nor is there any writer of today concerning whom I receive more inquiries from my readers. One can hardly have a taste for farm life and fail to be interested in Grayson's homely, philosophical sketches. Here is a typical letter, written by Mr. G. F. Trumbull:

Mr. James M. Pierce, whom I call our benefactor:—I send my copy of your paper on to young farmers for them to enjoy and profit by. In this way I feel that I am doing some good.

I want to get another copy of David Grayson's tribute to the Bellflower apple, which you printed recently. Would it be asking too much of you to send me another copy of that issue of your splendid paper, if you have it?

We are just starting our library. Thanks for the fine lists of good books you have published. Kipling's "Our Friend the Dog" is great.

I was able to send Mr. Trumbull The Wisconsin Farmer he wished, although I cannot always find back numbers, as the demand keeps the supply about exhausted. I am glad Mr. Trumbull likes Grayson so well, and I am delighted at the use to which he puts The Wisconsin Farmer after he is through with it. I always figure that each copy is read by five people, this being the average size farm family. Sending the paper on to others, after your own family is through with it, adds to its usefulness and makes the circle of my readers still larger, for which I am duly thankful.

There is so much interest in David Grayson among my readers, I am going to quote a little more from him this week, printing what he has to say about haymaking in this month's American Magazine. Grayson had been to the city for a day or two and was only too glad to get back to the hayfield, of which he says:

Haymaking is a really beautiful process: the clicking mower cutting its clean, wide swath, a man stepping after, where the hay is very heavy to throw the windrow back a little. Then, after lying to wilt and dry in the burning sun—all full of good odors—the horse-rake draws it neatly into wide billows, and after that John, the Pole, and I roll the billows into tumbles. Or, if the hay is slow in drying, as it was not this year, the kicking tedder goes over it, spreading it widely. Then the team and rack on the smooth-cut meadow, Bill on the load, and John and I pitching on! The talk and badinage that goes on, the excitement over disturbed field mice, the discussion of the best methods of killing woodchucks! Tales of marvelous exploits of loaders and stackers, thrilling incidents of the wet year of '98, when two men and one team saved four acres of hay by working all night—"with lanterns, I jing"! Much talk of how she goes on, "she" being the hay, and no end of observations upon the character, accomplishments, faults and excesses of the sedate old horses waiting comfortably out in front, half hidden by the mountain of hay above them and nibbling at the tumbles as they go by!

Then the proud moment when Bill, the driver, with legs apart, almost pushing on the reins, drives his horses up the hill!

"Go it, Dick. Let 'er out, Daisy. Stiddy, ol' boy. Whoa, there. Ease down now. Hey there, John, block the wheel—block the wheel, I tell ye. Ah-h now, jes' breathe a bit. I jing, it's hot."

And then the barn, the cavernous dark doors, the hoofs of the horses thundering on the floor, the smell of cattle from below, the pigeons in the loft whirring startled from their perches. Then the hot, scented, dusty "pitching off" and "mow-ing in"—a big process, an honest process; men sweating for what they get.

As I came in from the field that night the sun was low in the hills, and a faint breeze had begun to blow, sweetly cool after the burning heat of the day. And I felt again that curious deep sense I have so often here in the country, of the soundness and reality of the plain things of life.

Perhaps I should tell a little secret about Grayson. This is an assumed name, the writer's real name being Baker. Now, a few years ago, Baker was a magazine writer, who performed great public service by pointing out the evil and vice and graft that exist in the world. All of a sudden he stopped this, turned completely around and took to writing rural philosophy under the name of David Grayson. I like to think that he became so sick of the filth of political corruption that he sought to cleanse his own mind by writing his beautiful tributes to farming, which have brought such real pleasure to so many other minds. How much more enjoyable it must be to a man to write such pieces as his recent tribute to the Bellflower apple and this picture of haymaking rather than to have to deal always with the sordid things of life. Both kinds of articles serve a highly useful function and in both styles has Mr. Baker excelled. His stories of graft in high places have helped to purify public life in this country and there is a sweetness about his farm essays like the air as it comes off a hayfield that can hardly fail to make us all better men and women, better citizens, better Christians.

James M. Pierce

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can well afford to take heroic measures even though these measures do involve labor. It goes without saying that the bran mixture referred to, after it is prepared, must be handled with considerable care, and especially must it be kept away from live stock, including poultry.

A Wisconsin Suggestion to the Government.

A. D. Campbell, manager of the Wisconsin Advancement Association, has written the following letter to Hon. Wm. A. Redfield, secretary department of commerce, Washington, D. C.:

I have your circular letter of the 14th in the matter of greater food production. Let me say to you that if we can get proper activity in the matter of further clearing of Upper Wisconsin land of stumps we can grow enough additional potatoes this year to feed at least 500,000 United States soldiers for a year following harvest next fall.

There are now at least 50,000 farmers in Upper Wisconsin who have land otherwise cleared than of stumps and there is no good reason why each one of them should not clear more land of stumps and plant to potatoes this year. I know that people who are not familiar with modern machinery for pulling stumps will say that this is a slow and hard proposition, but I call your attention to the fact that three men and a team can pull from two to three acres of stumps in a day and that the land will grow from 150 to 200 bushels of potatoes to the acre if only reasonably cultivated.

There is no reason in the world why with the coöperation of the federal government we should not have a remarkable increase in the acreage of potatoes in Wisconsin this year and in this connection I will say that there is no region in the United States better suited to large crops of splendid potatoes than these Upper Wisconsin counties and in this I do not overlook the famous counties in the state of Maine.

It has been a matter of surprise to me that people in the agricultural department at Washington have up to date failed to appreciate opportunities in Upper Wisconsin and I trust that in this most serious crisis in our food supply these people will awaken to the fact that Upper Wisconsin has no superior in the production of not only potatoes, but also all the root crops, hay and the grains, and that probably no such pasture prevails anywhere in America as in these Upper Wisconsin counties.

There is still time for the government to take charge of the situation which is suggested by Mr. Campbell. Of course, things would have to be done on a large scale and done quickly. But in a case of emergency such as we now face our government should not hesitate on undertaking a task which requires a little speed. We do not believe that Mr. Campbell overstates the situation when he says that it would be possible to raise in Upper Wisconsin this year enough additional potatoes to feed a half million soldiers for a year following the harvest this fall. The government has found funds for developing western arid tracts. Several million acres can be reclaimed more quickly and to greater profit in Upper Wisconsin than they could be in the dry sections of the far West. Furthermore, it would not be necessary to maintain any extensive irrigation systems for all time to make the Upper Wisconsin lands productive.

Some Things Wisconsin Can Do.

C. P. Norgord, Wisconsin commissioner of agriculture, in a special communication to the press, writes concerning the present agricultural situation as affected by the war. In part he says:

Certain special food crops should be increased in acreage. Among these are the following:

Spring Wheat.—Particularly in the northern end of the state where this crop grows better than farther south, the acreage can be increased, but the crop should be sown at the earliest possible date.

Beans for our lighter soils.—One of our most nutritious and best keeping crops particularly adapted to shipment and for use by the army and navy. Our neighbor, Michigan, last year raised 500,000 acres of this crop, while we produced only 18,000 acres. There is seed enough available in the state to increase this crop by at least 5,000 acres. The greatest emphasis should be placed upon this crop.

Buckwheat likewise is a staple human food crop which there is ample time to increase even upon new breakings.

Potatoes.—A crop which lends itself to increased production at this time.

Corn.—More must be used for human food and the greatest possible acreage should be put in.

Better culture and care of all farm crops and animals is a patriotic duty which should keep us in the fields from early to late.

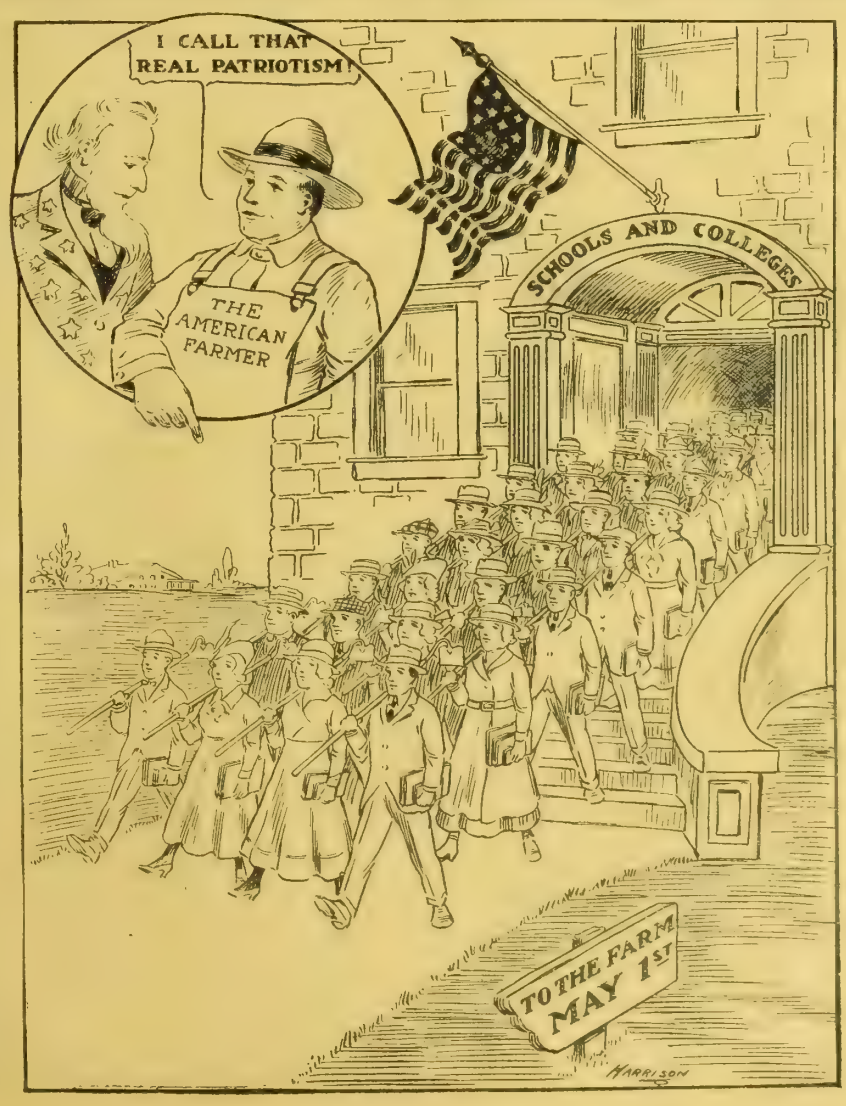
Know that your seeds will germinate; that grains and potatoes should be treated with formaldehyde to destroy disease; that fruits of all kinds should be sprayed to prevent the tremendous losses from disease. Every family should produce its own garden crops so far as possible and become self-supporting. Hence, every member of every family must become a producer.

The labor situation more than anything else will limit production. The young people from our homes and schools must be organized for effective labor by parents and teachers. Such labor in proper amount and supervision is one of the most healthful practices in which our young people can engage. All the labor of every country town should be released as far as possible for the farm. Use labor-saving machinery and methods.

The present and prospective supply, the cost of labor and machinery, all indicate profitable prices for the farmers' crop.

It is still possible to increase the acreage of spring wheat in Upper Wisconsin and potatoes, corn and beans in most parts of the state. There is also still time to consider the cultivation of all crops and the treatment of potato vines for protection against bugs and disease. There is also still time in most parts of the state to double the size of the garden.

The best posted agriculturists are recommending corn for this season. Our soils are well supplied with moisture. There is plenty of good seed corn this year.



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Prices never better! The producer is having his inning! Now is the time to get that big manure pile OUT ON THE LAND because every load means CASH IN THE BANK next fall for farm improvements, pleasures or other things you want. Get your manure crop out on the corn land--top dress the winter wheat! Get it on the soil where you are going to sow oats! Top dress the meadows--the alfalfa--the clover! A Galloway spreader used steadily for one or two weeks means that it will PAY FOR ITSELF because its use represents MONEY AT HARVEST time you otherwise would not get. Quit spreading by hand or using out of date spreaders when you can buy the best spreader on earth--the Galloway 1917 model Low Down No. 8 No. 5, or No. 1A and SAVE FROM $25 TO $50 over prices usually paid for spreaders not as good--not as down to date in design--not as light in draft--made of as fine materials, nor covered by the eleven Galloway spreader patents found exclusively on the Galloway.

GALLOWAY'S NO. 8 LOW DOWN SPREADER

is the crowning achievement of my spreader manufacturing career! Now built stronger than ever. The new Galloway wide-spreading V-shaped rake on every machine. DO NOT CONFUSE Galloway spreaders with low priced machines that do not have the special EXCLUSIVE PATENTED FEATURES and genuine merit (backed up by tens of thousands of Galloway spreader users). Beware of cheap, absolutely worthless imitations of the genuine Galloway at any price. DON'T BUY A SPREADER OF ANY MAKE OR KIND until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk WITHOUT OBLIGATING YOURSELF in any way!

30 DAYS' FIELD TRIAL

Test Galloway spreaders **on your own farm** in your own way and take your own time! They are returnable to us within one year if they do not come up to every claim we make for them! I will **pay freight both ways.** A Galloway spreader must sell itself to you. You are the judge. Spreaders shipped from Waterloo, St. Paul, Kansas City, Chicago or Council Bluffs—whichever is nearest your station, more convenient to you.

BACKED BY A $25,000 BOND

I have deposited in the Black Hawk National Bank of Waterloo a legally executed $25,000 bond to guarantee that I will live up to every agreement and STAND BEHIND EVERY CLAIM I make for Galloway manure spreaders, cream separators, gasoline engines, etc. You have nothing to lose and everything to gain when you deal with Galloway. I manufacture these spreaders in my own great chain of factories right here in Waterloo. Come and see me any time. You are welcome and I will be glad to show you how Galloway divides the melon and ships direct from factory to farm.

8-31

WORTH $50 MORE THAN ANY OTHER SPREADER

Remember this spreader is **low down**—only 42 in. high to center of box. Easy to load. Lightest draft spreader of its capacity built. Two horses handle Galloway spreaders anywhere. The Galloway **wide-spreading V-rake, worth $15 extra** on any spreader—costs you nothing extra on the **Galloway.** The **invincible, irresistible, patented roller feed**--an exclusive Galloway feature—the secret of its **light draft,** alone **worth $25 extra** on any spreader--exclusive again on the Galloway--costs you **nothing extra. Patented Automatic stop, Uniform Clean Out Push-Board—worth $10 extra** on any spreader—exclusive on the Galloway—costs you nothing extra. These are only a few of the special features you will find on the Galloway which are protected by Galloway patents. Don't buy a spreader of any make or kind until you have tried a genuine Galloway 1917 model No. 8, No. 5 or No. 1A at our risk without obligating yourself in any way Try it in your field for thirty days and return to me within one year if not perfectly satisfactory. Remember we manufacture in our own factories and sell direct from factory to farm.

Notice These Exclusive Features

(A) Angle steel endless apron running over solid bottom. Adjustable from 6 to 24 loads per acre. (B) Our patented automatic stop, uniform clean out push-board--worth $10 extra on any spreader. Exclusive on the Galloway--costs you nothing extra.

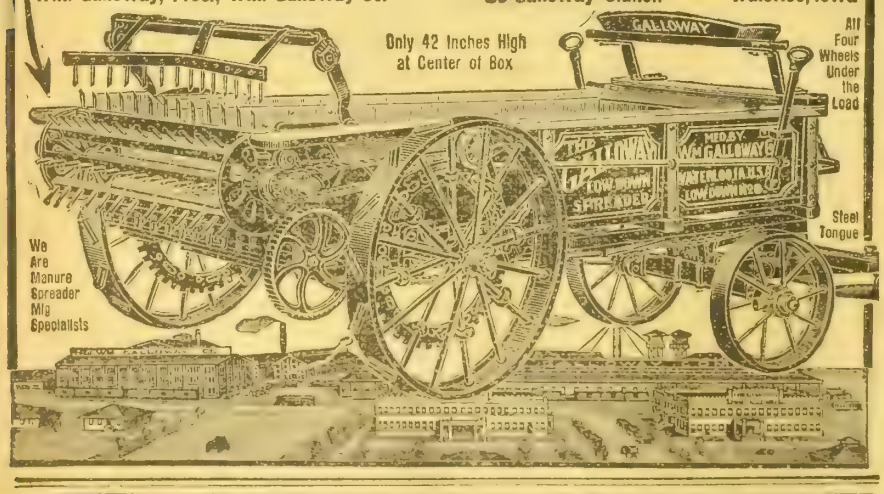
(C) Feed lever. Adjustable to any number of loads per acre. Convenient, handy--above the load.

(D) Gear lever. Throws both sides of beater into gear simultaneously. Sprockets on both rear wheels. Remember double chain drive. No twisted beater, broken beater shafts. Gearing equipped with differential. Power continuously applied to beater shaft.

Read about these and other Galloway exclusive spreader features in my new big 1917 book.

INDISPUTABLE PROOF: I saved $29 by ordering a Galloway. I know it is a better spreader than I could have bought here for $125.--Geo. A. Kralik, Okla. City, Okla. I consider it equal to a prominent machine sold for $140. One neighbor who has used both says he would rather have the Galloway---W. O. Cracraft Eckley, Colorado. There are six Galloway spreaders in my neighborhood. They tried my spreader first. All are more than pleased. Have had no repairs in seven years.--Edw. Semmelroth, Tekonsha, Mich. I saved $39. Believe I got a better spreader than was offered me here for $135.--A. T. Miller, Orella, Nebraska.

Wm. Galloway, Pres., Wm. Galloway Co. 39 Galloway Station Waterloo, Iowa



Get My New Concrete Mixer Offer

I want ten men in every county right now to accept my special co-operative offer. It will help you obtain a Sheldon Batch Mixer at little or no cost. Let me tell you about it.

You probably need a mixer for concreting on your place—most farmers do. The Sheldon is the ideal mixer for the farm. Light and easily portable, durable, low-priced. You'll find it will prove a mighty good investment. Write for special offer.

Sheldon Batch Mixers $11.50 Up

MAKE BIG MONEY Concreting In Your Section.

You can easily earn $8 to $20 a day with a Sheldon Batch Mixer. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time. Saves labor of 1 to 4 men, according to size of job. Or, if you buy a machine for your own use, you can make many times its cost in a season by renting it to neighbors.

Improve Your Farm

Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer. Will pay for itself on first small job. Beats hand mixing a mile. And it's a lot cheaper too. Takes the backache out of concrete. Makes possible those many small improvements on the farm that you wouldn't do without. Improvements which will add many dollars to the value of your land.

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Tells how to build your own mixer by using the *Free Plans* which we send with our iron parts. Also shows full line of built up machines. Two styles, hand and power. Will mix 2 1/2 cu. ft. in minute. Range 1 to 5 men busy. Chain drive, self-tilting dump, all parts guaranteed. Write today for catalog and special offer. Geo. G. Sheldon, Pres.

SHELDON MANUFACTURING CO., Box S-[illegible], Nebraska, Neb.

Build Your Own Concrete Mixer → FREE PLANS

OUR QUESTION BOX

WISCONSIN FARMER subscribers are invited most cordially to submit their problems to this department. Names will not be mentioned, but all inquiries should be signed. The value of this department to our readers largely depends upon their own zeal in submitting questions or inquiries that are closely or remotely related to farm or home affairs.

Questions and Answers.

Mangels on Rich Ground.

Kindly tell me what root crops would be best to grow on land that was formerly used as a building spot. It is rather rich and it contains plenty of lime and a little sand. Naturally I want to get the largest possible yield from the ground in question.

The mangel crop will unquestionably produce a heavier yield than any of the other root crops. While turnips and rutabagas require a fairly rich soil, it is a fact, nevertheless, that if it is too rich these crops tend to grow too much to neck and top. Mangels may be seeded some time in May, and if the crop is well cared for during the growing season it will yield anywhere from fifteen to thirty tons per acre.

Potato Peelings For Seed.

Some people say you can get a crop of potatoes by using the peelings for seed. As seed potatoes are very high in price I would like to know what you think about it.

There might be enough vitality in potato peelings to start a new crop, but it will start it very feebly and it will be absolutely necessary to plant the peelings very shallow. When one considers that it requires just as much work to take care of a poor crop as it does a good one a conclusion must be reached that it will pay to use good seed. This year one may cut the seed to two eyes in a piece and plant them about eighteen inches apart in the row.

Time to Sow Cane.

I expect to put in five acres of cane this year because I am going to be short of hay. I would like to know what is the best time to sow in order to get the largest possible yield. Do you believe in sowing in rows so that you can cultivate the crop, or is it better to seed broadcast and thus avoid the labor of cultivation?

Cane is a warm weather crop and it should not be seeded ordinarily before the middle of May. Indeed, it will do quite well even if it is seeded as late as the middle of June. If it is sown broadcast at the rate of eighty pounds per acre the stalks will grow rather fine and in that case the product may be used as roughage for all classes of stock. A big saving in the amount of seed needed to sow a given area can be made by stopping up certain holes in the drill and seeding thickly in rows about thirty or thirty-two inches apart. All things considered, thick sowing is preferable.

A Quick Hay Crop.

I have a fifteen-acre meadow that was entirely killed out this last winter and it makes me short of hay. I would like to know what to sow in its place in order to have a supply of roughage this fall and winter.

Oats seeded at the rate of three bushels per acre and cut just as they are beginning to turn in color a little will make a fairly satisfactory hay crop. Sometimes even better results are obtained by sowing together two bushels of oats and one bushel of field peas per acre. This will make rather a richer hay and the only objection to it is that the peas are high in price. Do not overlook the importance of the cane crop. Four or five acres of cane seeded at the rate of eighty pounds per acre about the middle of May will produce an enormous amount of good hay if it is seeded on rich land. Millet seeded at the rate of two or possibly three pecks per acre will also give good results.

Characteristics of Corn Gluten Feeds.

FOODS rich in protein will always be of the utmost concern to stockmen of the central West for the simple reason that the dominating food products of this area are low in flesh-forming constituents. Corn only contains about 7½ per cent of digestible protein and this is not enough to satisfy the animal needs during either the growing or fattening period. In the process of manufacturing starch and extracting oil from corn there is an important and valuable residue known as gluten feed, which is made up of the flesh-forming constituents of the corn plus the corn bran or exterior covering of the grain. There is approximately three times as much protein in gluten feed as in corn. This means that it requires approximately 125 bushels of corn to yield one ton of concentrated corn gluten feed. In the manufacturing process, corn is first conveyed into tanks, where it is soaked for many hours, thereby softening the kernel. Following this it is ground or, rather, broken up, and separation begins immediately. The starch and oil are refined into edible products, but when these are taken out there still remains a valuable stock food.

A ninety-day feeding experiment was conducted recently at the Iowa Agricultural College with four lots of ten ewes, the object of this being to determine the value of corn gluten feed as compared with corn. In Lot No. 1 each ewe received one pound of shelled corn and two pounds of corn silage daily together with timothy hay, oat straw and salt. On this ration the ten ewes gained 228 pounds in ninety days, or an average of .25 pound a day. Side by side with this lot, ten ewes were fed at the rate of one-half pound shelled corn a day and one-half pound of Douglas corn gluten feed, together with the same amount of ensilage, timothy hay, oat straw and salt, as was fed to the first lot. Note that the total weight of the grain is the same in each case, but these ewes, during the ninety-day period, gained 261 pounds, or an average daily gain each of .29 pound. The substitution of one-half pound of Douglas gluten feed for one-half pound of corn materially increased the daily gains.

In still another lot ten ewes were fed one-fourth of a pound of shelled corn daily and three-fourths of a pound of Douglas corn gluten feed, the balance of the ration being identical with that in the previous lots. These ewes made a gain of 318 pounds in ninety days, or an average of .35 pound per day, though they received no more grain than the ewes in Lot 1. Where one pound of Douglas corn gluten feed was used daily, and no corn, the ewes gained 254 pounds in ninety days, or an average daily gain of .28 pound.

In one instance, by feeding 675 pounds of gluten feed instead of the same amount of corn, eighty-nine pounds increased gain was obtained. This increase, computed at 13½ cents per pound, the approximate market value, makes gluten feed in this experiment worth $1.78 per hundred more than corn. If we compare the gains in Lot 1, which received no gluten feed, with Lot 4, which received no corn, but only gluten feed in the form of grain, we find that the gains of the latter were twenty-six pounds more on the lot than of the former. This twenty-six pounds extra gain at current prices amounts to $3.51, thereby giving to gluten feed a value of 39 cents per hundred pounds more than corn as a straight ration, or $7.80 per ton.

While these rations show up gluten feed in a most favorable light, there need be no occasion for surprise for the reason that corn does not contain sufficient protein to satisfy the needs of the fattening animal. Furthermore, it is lacking in ash constituents. In the case of gluten feed we have, as said before, three times as much digestible protein as is contained in corn, and there is, in addition, a much greater percentage of the essential phosphates, and these, unquestionably, contribute something to the well-being of the growing or fattening animal.

In And Around Wisconsin.

THE Polk County Holstein Association sold seventy-five grade cows and heifers a short time ago for $2,615, which makes an average of $104.60 per head. The cattle were shipped to Gilby, N. D., where they will be used to start a dairy farm in that section, which now is almost exclusively a grain farming country.

AN announcement has been made that the Wisconsin Department of Agriculture is ready to assist farmers in procuring a supply of seed adequate for their needs. C. P. Norgord, Commissioner of Agriculture, Madison, has this matter in charge and farmers who are short of seed or have surplus seed for sale should advise Mr. Norgord of the fact.

IN order to consider ways and means of lending support to the nation in the present crisis brought on by war, the farmers' clubs in seven Wisconsin counties have formed a central organization. It is believed that the federation can deal more effectively with the problem of increasing food production than can the different organizations working separately.

CHEESEMAKERS and patrons of about a dozen factories in the vicinity of Vesper, Wood county, held a meeting to discuss the methods of figuring payments for milk furnished and cheese produced. The outcome of the meeting was the adoption of resolutions recommending that patrons be paid by the method of using the fat test plus six-tenths, and that cheesemakers be paid on the basis of pounds of cheese manufactured rather than on the basis of pounds of milk handled.

THE project to form a farmers' shipping association at New Richmond has been carried out and the first shipments have been made. The board of directors of the new organization are: T. B. Denning, John Knopps, Ed Rund, Charles Winnery and Charles Wilbert, Jr. Charles Whinnery was chosen president of the board. The loading and transportation of live stock is in charge of Peter Jenson, who was elected shipper. Membership in the company is based on ownership of stock, but the price of the stock has not yet been given out.

CONSIDERABLE enthusiasm was aroused among the boys of Pierce county at the baby beef institute, which was recently held at Ellsworth. W. L. Houser, of Mondovi, a practical stock man and an active member of the Wisconsin Live Stock Breeders' Association, conducted the meeting. A large number of entries were made in the boys' baby beef contest. Some of the boys had been in the calf contest the year before, but the number of new entries gave ample proof that this work is rapidly growing in interest and popularity.

THE fieldmen of the Wisconsin Dairymen's Association are receiving so many calls to help organize new local cow-testing associations that they are unable to respond to all of them. Walworth county, with six associations, claims to be the leader of this work in the state. At the following places organizations have recently been formed: New Lisbon, Walworth, Springfield, Spring Green, Muscoda, Avoca, Black Earth, Juneau, Stoughton Monticello, Bloomfield and Ladysmith. More than ever before Wisconsin Dairymen are striving to cut down the cost of production and maintain a high standard in both quality and amount of product.

PROOF that Wisconsin dairy cattle are in great demand over a wide territory is shown by recent shipments of Homer Bailey, a big shipper, at River Falls, Pierce county. In two weeks Mr. Bailey shipped eight carloads of pure-bred and high-grade dairy cattle to points outside of the state. Included in this number was a carload of Holstein milk cows which was sent to Sidney, Mont., and which had been purchased from the herds of Alton Bros. and John Chapman, of Pierce county. Three other carloads were shipped to Harveyville, Kan., and two carloads to buyers in Mississippi. These facts are further evidence that the high quality of dairy cattle raised on Wisconsin farms is gaining recognition throughout all the United States.

THE Wisconsin Council for Defense, patterned after the National Council, has been at work during the last four weeks encouraging and assisting the farmers in planting a large acreage of staple crops. The farmers are making a loyal response, according to the reports of experts and there is promise of a large production of both pasture and grain crops if the weather is at all favorable It is stated that because of the very great demand, no danger of overproduction or a slump in prices need be feared. Governor Phillip has appointed the following members of the Wisconsin Council for Defense: A. T. Van Scoy, Milwaukee, representing the manufacturers; Dr. J. S. Evans, of the Wisconsin University Clinic, representing the medical profession; J. R. Wheeler, Columbus, representing the bankers; P. C. Eldridge, La Crosse, representing the railroads; J. G. De Mack, of the University College of Engineering; John Reese, Dodgeville, banker and farmer, and Magnus Swenson, of Madison. The governor himself is a member of the council, and the representative of the Red Cross interests and of the labor interests had not been chosen when this was written.

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NOW you can get the lighting plant for your farm that you've been waiting for—a plant with a guaranteed battery. You want electric light for your farm—you need it. You have simply been waiting for the *right* plant at the *right* price.

If you have investigated farm lighting plants you know that the battery is the heart and life and soul of the plant. The first great advantage of the Jupiter plant is that it is equipped with the famous 2-year guaranteed Perfection Battery.

Guaranteed Service

With proper care and usage you will get four to five years' life out of it—or even more. And battery renewals cost very little in this plant. Another great advantage of the Jupiter plant is its generator—not just *any* generator, but a real farm lighting generator designed and built especially for this purpose.

Operates On Your Own Gas Engine —Therefore, Costs $75 Less

You do not have to buy a gas engine with the Jupiter plant—your own gas engine will operate it. Therefore, its cost is $75 less than most plants sold with gas engine. That leaves you a $75 margin with which to purchase a very much better engine, if you haven't one already, than the engines which come with lighting plants.

You can operate the Jupiter Plant and charge your batteries *at the same time* your engine is doing other work—without one cent of extra cost for gasoline in generating your electric current.

We can furnish you with a good gasoline engine if you wish—but we do not make you take it as a part of the Jupiter plant, because your own gas engine will operate it just as well and save you money. The care and operation of the Jupiter plant is absolutely simple—a child can run it and care for it The cost of operation is almost nothing.

Jupiter Jr. No. 2 Complete $200

Cash or Time Payments

We will arrange for suitable time payments if you desire so that you can enjoy the modern, clean, convenient electric light which the Jupiter plant brings while you are paying for it. Fill in the coupon below, tear it out and mail to us today—and in return we will send you our attractive booklet and full particulars.

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Gentlemen: I am interested in your JUPITER Lighting Plant with the two years' guaranteed Perfection Battery. Please send me booklet and complete particulars.

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It's mighty poor economy to buy a good car and keep it knocking around the place without a home of its own

Build a Garage

Your car is an investment worth protecting, and a garage of "Old Faithful" HEMLOCK is the way to protect it. Keep the car by itself where it won't get damaged; where greasy rags, gasoline and other inflammable things are out of harm's way, and where you have a place with everything handy when you have a job of engine-tinkering or cleaning to do. *A garage built of*

"Old Faithful" HEMLOCK Lumber

will cost mighty little, and we shall be glad to supply the plans free so you may learn by experience the good points of the farmer's stand-by lumber. HEMLOCK is economical, lasting, light and pitchless.

PLANS FREE: Send for the "Old Faithful" HEMLOCK Booklet (just out) which shows pictures of garages as well as farm houses, town houses, barns, and other farm buildings for which we furnish free plans drawn by well-known architects, and include complete specifications and all practical details. If you are handy with tools you can build from them yourself. The book contains a COUPON GOOD FOR ANY TWO SETS OF PLANS FREE when presented to YOUR LOCAL LUMBER DEALER. He has the plans or can get them from us for you. We'll be glad to give you any advice or information we can. Just write

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Improve the fertility of your soil, get out stumps and shatter boulders quickly, safely and cheaply with Atlas. Blast beds for tree-planting, dig ditches and do other kinds of farm work in the most economical, up-to-date way.

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The Farmers' Open Forum

WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

Dairymen Wil ing to be Told

To the Editor:—The future progress of the dairy industry of the community, county or state will in a large measure depend upon whether or not the dairymen fully understand all of the factors that will influence their income from the dairy. All the men who milk cows and sell milk or cream may not take the time to figure profit and loss. It is, therefore, natural that they will consider facts presented to them by the creamery operators, buttermakers and others.

Several thousand dollars is lost annually by the dairymen because the test of the cream is below 30 per cent. The creamery company is also the loser. In 1915 approximately 105,000,000 pounds of butter fat was delivered to the factories of the state, largely in the form of cream. If the average test of the cream was 30 per cent the dairymen skimmed and sold 350,000,000 pounds of cream. If, on the other hand, the test of the cream was 25 per cent, 420,000,000 pounds of cream was sold, or a difference of 70,000,000 pounds of skim milk. If 20 per cent of cream was sold, 525,000,000 pounds was hauled from the farm to the factory, or a difference of 175,000,000 pounds of cream when comparing the 20 and the 30 per cent product. It is no wonder that the calves and the little pigs of Wisconsin prefer high-testing cream; it leaves more milk in the feed pail. What is 175,000,000 pounds of skim milk worth to the dairymen when corn is $1 per bushel? It means $875,000.

In reply the dairymen hold that buttermilk is returned to the farm. In some places it is, but not to the farms where the cream is collected by haulers or the buttermilk is sold to a few parties at a nominal sum per barrel. We admit that some of the buttermilk is returned to the farm in exchange for the extra skim milk that was in the thin cream, but the value of this buttermilk will not make up for the loss in the quality of the butter and the extra cost of factory operation, due to handling low-testing cream. The farmer pays for the extra cost of manufacturing the butter and he also loses when the butter does not bring the highest market quotation.

Dairymen, the keys are in your hands, and it is within your means to save this enormous waste. The higher testing cream, 30 to 35 per cent, leaves more sweet skim milk to be used as feed for the calves, etc. The cream will be of higher quality and you will have less cream to care for on the farm and to haul to the factory. The only objection that can be raised against the 30 to 35 per cent cream by the cream producers is that a little more cream adheres to the inside of the cans, but this need not be a loss. Cans are rinsed at the factory, and if the cream hauler leaves a little cream in the cans it can be saved. Whatever cream remains in the cans at the farm can be removed by rinsing the cans with fresh skim milk from the next skimming and run that product through the separator after the regular milk has been skimmed. The product rinsed from the cream can may also be used on the family table or for cooking purposes.

C. E. Lee.
Assistant Commis..oner Wisconsin Dairy and Food Department.

Farmer Posted on Feed Values.

To the Editor:—The past fall and winter has been a season of shortage in the line of the proper kind of roughage for feeding the dairy cow. The farm-grown grains yielded well, but owing to the large number of dairy animals kept in this section of the state a large quantity of commercial feeds had to be shipped in. There were only a few farmers who seemed to have the foresight or good judgment to lay in a full supply in the fall at a reasonable price. So with most of them it became not a question of what is best to feed our cows, but what can we get at most any price to feed them. The severe freezing weather of one year ago killed the greater part of the clover seeding, so this called for a larger amount of grain than would have otherwise been fed.

Our cow-testing association membership is too badly scattered to coöperate in the buying of feeds, there being no less than seven shipping points. Besides the farmers here seem to prefer the elevator men to control the feed proposition. This has caused them to not be slow to take advantage of the scarcity and it seems to be popular whether necessary or not. For instance, during a single week the price of a standard brand of dairy fed was put at $34, $36, $38 and $40 per ton. These towns are within a radius of about fifteen miles and we doubt the necessity of jockeying the price in that way.

There is a growing tendency among the farmers here to get away from some of the high-priced commercial feeds. The thinking dairy farmers are getting to see it is best to stick closer to the farm-grown grains, only buying such protein concentrates as oil meal, dried distillers' grain, cottonseed meal, etc., and in so doing derive more profit from their work and add more years of usefulness to the dairy cow.

A large majority of the dairy farmers in this community are well posted on the question of what and how to feed their stock. This is owing largely to the vast amount of information contained in the average farm and dairy papers that are found in most every farm home. Frank Lynn.
Fond du Lac Co., Wisconsin.

Guernsey Breeders Meet in Baraboo.

To the Editor:—The Guernsey breeders of Sauk county met at the business college building in Baraboo on March 31, 1917, for the purpose of forming a Sauk county Guernsey Breeders' Association. The election of officers was as follows:

President—Carl Wichern.
Vice President—R. F. Klemm.
Treasurer—Pierce Martiny.
Secretary—Clifford Capener.

The name of the association is the Sauk County Guernsey Breeders' Association. The object of the association is to promote the breeding and improvement of the high-grade and pure-bred Guernsey cattle in Sauk county, to aid its members in buying, breeding and selling first-class animals; also to establish a good reputation for Sauk county as a Guernsey center. This association is composed of dairymen who use pure-bred Guernsey sires exclusively in their herds, or have Guernsey herds under their immediate management.

It was voted to appoint a committee of three men to form the constitution and by-laws, consisting of R. F. Klemm, Pierce Martiny and Clifford Capener.

The governing body of the association is composed of a board of directors of nine active members, as follows: Henry Winke, Glen Johnson, George Hengstler, Roy Prouty, Pierce Martiny, Carl Wichern, Louis Wichern, R. F. Klemm and Clifford Capener.

The committee on the constitution and by-laws will be ready to report in a short time. Sauk county has been very successful in winning first prize and silver cup at the state fair at Milwaukee on fine county exhibits of agricultural products. Sauk county has one of the most successful coöperative creameries in the state. Anyone thinking of raising more young stuff should not hesitate for fear that he cannot sell them. You are not alone in this business now. You have the Sauk County Guernsey Breeders' Association to help you. Clifford Capener, Sec.
Sauk Co., Wisconsin.

Change in Name of Noted Hotel.

HEREAFTER the well-known Hotel Kaiserhof in Chicago will be known as the Hotel Atlantic. There will be no change in the management, but the hotel will be conducted on the same satisfactory plan as in the past. The location of Hotel Atlantic, on Clark street just south of Jackson Boulevard, is one of the most central in Chicago. The Atlantic is a strictly modern hotel in every way, and has long had the reputation of being one of the most comfortable hostelries in Chicago, and this reputation will be fully maintained in the future.—Adv.

CURRENT EVENTS

THE war finance bill of the United States, providing for issuance of $7,000,000,000 in securities—the largest war budget in any nation's history—was passed unanimously by the senate last week. It had already passed the lower house unanimously, so that in both houses of congress not a vote was recorded against it. The bill provides for a loan of $3,000,000,000 to the allies fighting Germany. Of the eighty-four senators present when the vote was taken, every one, including all those who voted against war except Senator Lane, of Oregon, who was absent because of illness, recorded themselves in favor of providing the funds to prosecute hostilities. Nearly all of the twelve absentees were ill. That, in the inability of the nation to supply men at once for the fighting lines, money should be America's immediate contribution to her allies, was the dominant thought expressed during the debate. Few senators participated in the discussion, which was totally devoid of partisan expression. Every senator speaking announced stanch intention to aid the government in prosecuting the war to speedy conclusion. Only two, Senators Borah and Cummins, declared opposition to the proposed allies' loan. A few favored raising a larger proportion by taxation of the present generation and less upon bonds.

THE participation of the United States in the great European war was warmly praised by the leading members of the British parliament last week. Both the legislative houses adopted—the house of lords unanimously and the house of commons with only one dissenting vote—resolutions expressing the profound appreciation of the British nation for the action of the United States in entering the war in defense of the high cause of freedom and the rights of humanity. The resolution in the house of commons was moved by Andrew Bonar Law, chancellor of the exchequer. Former Premier Asquith, seconded in an eloquent speech. The resolution in the house of lords was introduced by Earl Curzon, of Keddleston, lord president of the council. In all the speeches in both houses particular reference was made to America's purely disinterested intervention, "the most disinterested in history," as Mr. Asquith phrased it—the complete absence of any motive of self-interest, calculation or ambition. In the house of lords, Earl Curzon said the entry of the United States in the war stamped the struggle as a great uprising of the conscience of mankind to end the rule of Satan on earth. The president's speech to congress, Earl Curzon added, was a trumpet call, the sound of which would ring through the ages.

THE British and French continued to be successful last week in pushing German lines back on the western front, freeing a large portion of captured French territory from the forces which have held it for the past two and one-half years. The Canadian troops continued to cover themselves with glory, taking and retaining positions which had been considered absolutely impregnable. In four or five days the French troops captured 17,000 unwounded German prisoners, together with seventy-five cannon and a large quantity of other arms and stores. The latter part of the week the Germans were reported as fleeing in disaster, their retirement prior to that having been orderly, some of the ground being voluntarily surrendered, when it was found that the odds were against them. There has been but little activity in other sections, but the big push of General Haig, the British commander, and General Nivelle, the French commander, seems to have been signally successful, putting new heart into the allies.

THE St. Louis Chamber of Commerce has pledged itself to help the farmers in any way possible to stimulate production, even to the extent of working for a guarantee of minimum prices for foodstuffs, if necessary. This action was taken after Carl Vrooman, assistant secretary of agriculture, told the chamber that if the war lasted long the southern states probably would go hungry. If the railroads were taken over by the government for military purposes, he said, it would be difficult to transport food in sufficient quantities to the southern states. Mr. Vrooman said he had been assured at Memphis that $2,000,000 of food products would be raised this year within the city limits. He said he regretted to hear that farm boys were enlisting in the army and navy more readily than city boys. The city boys, he said, should do the fighting and the farm boys should stay at home and till the fields. Clubs, hotels and households should go to a war-time ration, he urged.

ASSURANCES have reached Washington that under no conditions that are now conceivable will the provisional government of Russia yield to the overtures from German and Austrian socialistic representatives to negotiate a separate peace. From every quarter comes assurance of support for the Russion provisional government. Rehabilitation of the crippled Russian railways by a corps of more than 500 trained American railway men will be the early result of an appeal to the president from several of Russia's ablest engineers. The new government thus will be strengthened against the pressure to make a separate peace with Germany. Plans to lend the Russian government some $2,000,000,000 out of the new $5,000,000,000 war bond issue already have been formulated, but American aid is to go still further and make effective the expenditure of the great sums of money the new Russian democracy is to receive from the United States.

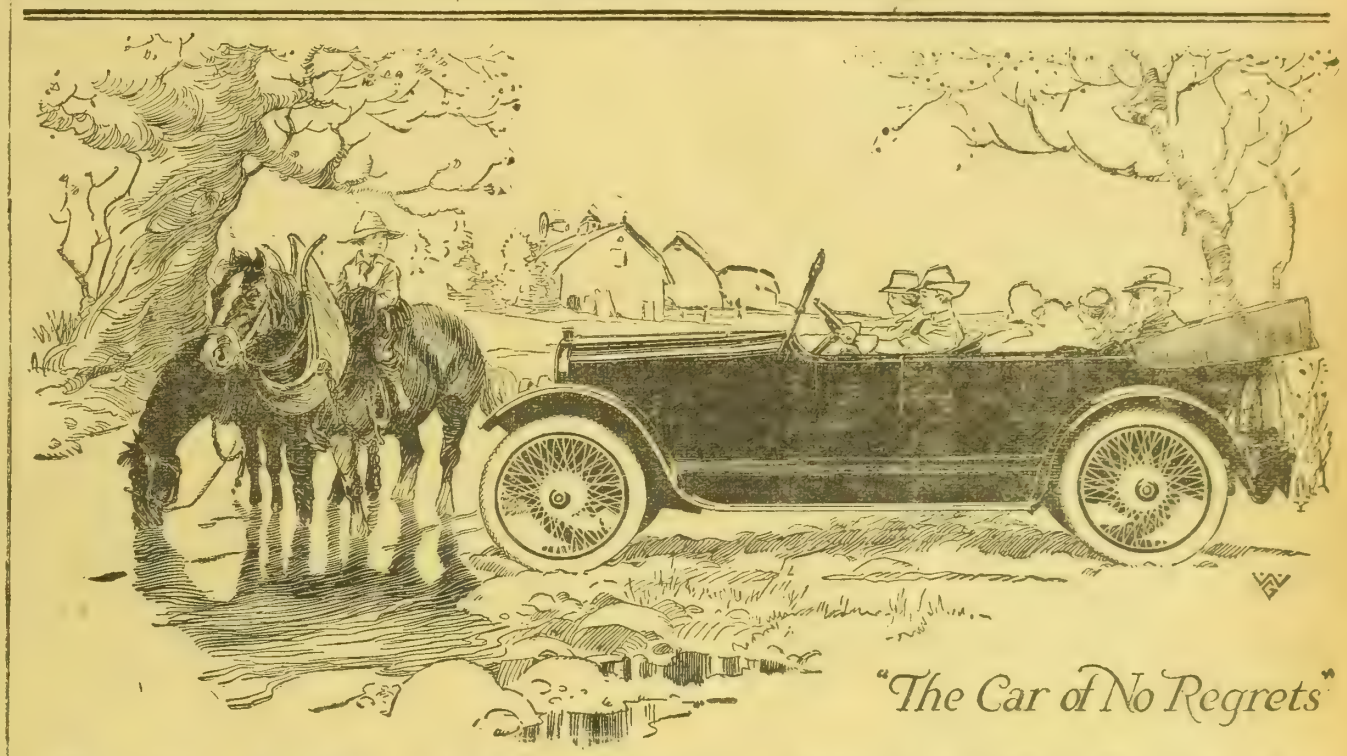
THE English food controller, Lord Devonport, has issued an order, prohibiting the sale of light pastries, muffins, crumpets or tea cakes. Cakes, buns, scones and biscuits can only be sold if they conform to the drastic restrictions respecting the amount of wheaten flour and sugar used. Tea shops, which are so popular in London and elsewhere in England will suffer severely by the new order. The war office has ordered a return made by May 1st, of all horses, mules, cattle, sheep, pigs and agricultural implements in Great Britain.

MAJOR-GENERAL WOOD, addressing the American Cotton Waste Exchange at Boston, said the United States would not fulfill its duty in this war until it had sent men to the front. "If we are to be part of the war," said General Wood, "our men in our uniform must be at the front. It is no child's play. We shall send living men and bring them back dead—but never until this is done shall we fulfill our duty. You are now standing behind the allied lines and behind such forces as we have afloat. There is a long period of preparation ahead of us, and the first step is to back up the plan for universal military service. You cannot let somebody else do your job and have a clear conscience. A voluntary service, however delightful in theory, is ridiculous in practice. Only 6,000 men have been enlisted in two weeks, and I leave it to you to estimate how long it will take to get an army of a million men."

Wisconsin Potato Institutes

The potato institutes which finished their course on March 31st, at Crandon, have been especially successful this year. The commercial agencies of all the counties where meetings were held coöperated with farm institute officers and with the State Potato Growers' Association in a manner that insured a satisfactory turnout at every meeting. The itinerary of the institutes included Shawano, Oconto, Amberg, Gillette, Mountain, Laona and Crandon. The choice of these cities was made because of their importance as points for shipping and sections where potato interests are coming in for bigger development. Marinette county formed a potato growers' association, with W. E. Morton for its secretary. Forest county formed another association at Crandon, with John Swinehart as secretary, and Shawano formed another, with Merton Moore as secretary. At every one of the institutes the attendance was especially good, a fine interest manifesting itself among the growers. A practical program was carried out at each point. Prof. J. G. Milward, of the college at Madison, had charge of the work. Talks were given on handling the seed stock, seed storage, treatment, handling potato soil, and summer cultural problems. A complete exhibit of standard potatoes, together with charts and illustrated lantern slides, formed a feature of the institutes. The meetings will be followed up with summer sessions on the fields of members of the associations where practical demonstrations will bear out the points brought out in the talks.

Sunlight has been found a great germ destroyer. Disease breeding germs cannot live long in its rays and for this reason buildings in which live stock are kept should be arranged to admit as much sunlight as possible. A barn with ridgepole running north and south is best, since windows on the east side will admit the morning sun and those on the west the afternoon sun.



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FOURSOME—$1585—(*Shown above*)—Designed for those who desire the sport type of car, with long, low, rakish lines yet in perfect taste. Narrow and "racy," this car seats four in comfort, has lengthy leg-room and is provided with four doors. A locked compartment just behind the rear seat gives generous and convenient storage space. The two front seats are of the "bucket" type. At their back is a combination tonneau and handy lamp which may be removed from its socket and carried about the car. Color: deep maroon.

TOURING—$1585—With all the advantages of a 120-inch wheel-base, this car has the roominess of a Six of 126 to 128 inches due to compactness of King V-type motor. Has many novel conveniences, and upholstery and finish are of the highest grade. The ideal large-family car. Seats seven. Color: dark green.

SEDAN—$2150—A year 'round car of the most luxurious type, upholstered in highest grade cloth and equipped with divided front seats. Sides completely removable in a few minutes without leaving car, and as easily replaced. A special compartment behind rear seat is provided for storage of side sections. With sides in place this seven-passenger model becomes a perfect closed car, all sections fitting without possibility of rattle and with no appearance of being improvised. Three colors: beaver brown, deep maroon or suburban blue.

ROADSTER—$1585—A very popular model with farmers, physicians and salesmen, because of large storage space. Has two roomy compartments; one behind front seat and the other under rear deck. Comfortable for three. Color: French gray.

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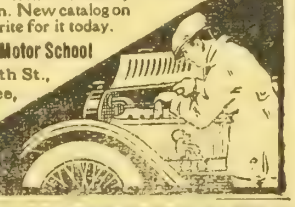

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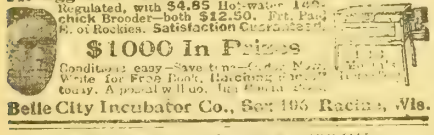
140-Egg Size—Hot Water—Double Walled—Self Regulated, with $4.85 Hot-water 140-chick Brooder—both $12.50. Frt. Paid E. of Rockies. Satisfaction Guaranteed.



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POULTRY AND PET STOCK.

Holstein Chickens

DON'T discourage prospective buyers of your stock by letting them see a lot of scrub chickens in your yard. If you believe in the Holstein Cow, send for my booklet on Black Minorcas, the Holstein of the Chicken World.

S. C. BEARN, R. 1, MELROSE, WIS.

Plymouth Rock Eggs for Hatching

he best of stock that will produce large, birds of the highest class. Satisfaction guaranteed. Order direct from this ad. Eggs, $3 per 30, $4 per 45, $8 per 100.

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HATCHING EGGS

S. C. RHODE Island Reds, from standard-bred laying stock, $1 50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED Plymouth Rocks and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, Matthews, R. 24, Ind.

WHITE PLYMOUTH ROCKS

HALBACH strn.: eggs for hatching $1.50, 15; $3, 30; $7, 100; satisfaction guaranteed; order from this ad. Jno. H. Berry & Sons, R. 6, Ia. City, Ia.

BABY CHICKS--EGGS

FROM healthy, heavy-laying stock. Blue Orpingtons, S. & R. C. Reds, Barred and White Rocks, Turkeys, Ducks. L. B. Coleman, Clear Lake, Wis.

RHODE ISLAND RED HATCHING EGGS! FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R.E. Daly Poultry Farm, Necedah, Wis.

HATCHING EGGS; prize-winning S.C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W F., Fond du Lac, Wis.

BABY CHICKS and eggs from trapnested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs 1.50, 15; 8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

S. C. R. I. REDS, prize-winners and heavy egg producers' eggs, $2 per setting; fertility guaranteed. Stock to sale. C. F. Copeland, Jefferson, Wis.

BARRED ROCK eggs for hatching. E. B. Thompson ringlets, $1.75 per 15, delivered. Write for prices on large orders. David Thoreson, Baldwin, Wis.

FIFTY varieties chickens, ducks, geese, turkeys, guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box 15, Lancaster, Missouri.

R. C. REDS, Partridge Rocks, eggs $1.50 per 15; choice pen of each for sale. Address W. E. Rice, Delavan, Wisconsin.

WHITE INDIAN RUNNER DUCKS, with racy, upright carriage. Eggs, $1.50 per 15. D. C. Johnson, Watertown, Minn.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Carelessness Causes Heavy Poultry Losses.

To the Editor:—A farmer once came to me and said, "Lawrey, I wish that you could tell me what is the matter with my chickens, as they seem to be moping around sneezing, etc." I said that it seemed as though they were roupy and he asked me if I would go out and see them if he would take me out and bring me back. I said, "Sure thing." When we arrived at the farm he took me out to the chicken house, a new one, made of hollow blocks and costing $600, a handsome house, with windows on all sides and so fastened that they could neither be raised nor slid back. The inside of the building was plastered as fine as a dwelling house and the roosts were hung by wires suspended from the ceiling so that there was no opportunity for mites to get to those chickens while on the roosts. When we opened the door of this building it was winter and I thought that I would faint from the effects of the stench that came out of it. The chickens seemed as though they were all sick to a certain extent. I said, "Take out those windows and leave them out and in their places put frames of muslin and I think you will soon find your fowls all right." He did so and gave them some permanganate of potash in their drinking water and the next time I saw him I wanted to know how those chickens were doing and he said, "Fine." The walls of that building were covered with moisture and no living thing could stay in that building and live any length of time.

I have another case in mind where a farmer wanted me to see his chickens and geese and, as it was a cold time, he had shut them all in and in the morning when he opened the door of the building the stench that came out was enough to make the angels weep. I looked in and the geese and ducks were under the roosts where the chickens slept and the manure was several inches thick, and yet such people wonder why they lose so many chickens. Some years ago a farmer wondered why his chickens were dying so fast and he wrote to an expert to know the cause of the dying. The farmer said that he knew of no cause for their dying. But on inquiry it was discovered that when the farmer cribbed his corn in the fall he put a lot of salt in it and in the springtime the shelled corn was in the bottom of the crib and the chickens had access to all that they could eat and they were dying from the effects of eating that corn.

A few years ago a poultry fancier wrote me and told me that he had lost twelve of his best chickens in a day and wondered if I could tell him what ailed them. I wrote to him and asked if there was any brine or salt that they had access to and he wrote me and said that he had put some beef brine outdoors and they could get that, but that he did not know that it would injure the fowls. I told him that he need look no further for the trouble, as that brine or any other brine would kill those chickens as quickly as the rankest of poison. Again we find people who will take a fresh paint can and put it somewhere where water falls into it and the first thing the people know they have several dead chickens and wonder why it was so. I remember another case where a little girl, the daughter of a storekeeper, had a nice flock of fifteen Buff Orpington chickens. One day her father took up the leavings in a cracker barrel, one that had salted crackers, and the chickens were fed before dinner and after dinner six of them were dead. She told me of their death with tears in her eyes and was wondering what caused their death and it was by my talking with her that brought out the feeding of the cracker refuse.

Many a flock of fowls have been wiped out on account of the water they had to drink. You and I have seen places where the chickens had to drink from the filthiest of water. It does beat the world how some expect to be successful with poultry and yet pay no attention to their comfort. J. R. Schureman says, "That at least 90 per cent of the ailments that attack our fowls are directly due to either the carelessness or ignorance of the attendants, especially where fowls are confined in limited quarters. It is a noticeable fact that fowls on the range shifting for themselves the greater part of the time are seldom troubled with the diseases that attack fowls in confinement. This proves that where conditions are favorable the fowls will keep in good health without the aid of medicines. There are almost numberless causes for the diseases of fowls, among which may be mentioned the following, each one of which should be avoided: Inbreeding, impairing the stamina and vitality of the fowls; the presence of an accumulation of filth in or around the poultry houses; stagnant and filthy drinking water; improper ventilation or overcrowding the poultry house, especially the roosting quarters; direct drafts in the poultry house; allowing the birds access to decaying vegetation or flesh; lack of good, sharp grit; lice, etc. The time to doctor a sick fowl is before the fowl gets sick, and the way to do this is to pay attention to the above advice. In addition he says that the breeding birds should be in the best of health, their blood being as free from disease as possible."

In the future, then, let us all work to keep our birds free from disease, as there is no other animal on the farm that pays as well as old biddy if you will give her half a chance.

James Lawrey.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

POULTRY AND PET STOCK.

STRONG healthy baby chicks, or eggs for hatching; White Wyandottes, S. C. Rhode Island Reds; trap nested the year round; big values in pullets and cockerels from high record hens; mated pens; come and see these birds, or write for prices and records. Pine Lake Poultry Farm, Dept. 2, Hartland, Wis.

S. C. White Leghorns, Queen strain, range raised. Bred to lay from 270-egg strain. Eggs testing 95 per cent fertile. From 2-year-old hens. Eggs, $1, 15; $5, 100. Mrs. Annie Dorn, R. 1, Hilbert, Wis.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

SINGLE Comb Buff Leghorn eggs from heavy laying, solid buff stock. Settings $1.00; 100 eggs $5.00. Arthur Worthington, R. 7, Manitowoc, Wisconsin.

GENUINE Mallards, 11 eggs, $2. White Wyandottes, $1.50, 15. Racing Homer pigeons, pair, $1.75. Oscar Hendrickson, North Branch, Minn.

WHITE Rock hatching eggs; Halbach and Fishel strains; prepaid 15 for $1.50; 50, $4.00; 100, $7.50. Roy Richards, Lodi, Wis.

PURE R. C. Rhode Island Red chickens; reliable eggs for hatching; $1.25 for 15, $5.00 per 100. Fred M. Smith, R. 7, Elkhorn, Wisconsin.

FANCY Buff Rock eggs, $3 for 15, from pen; from farm range flock, $1 per setting, $4 per 100. Mrs. Lucy Eminger, Gibson City, Ill.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

FERRIS heavy laying strain White Leghorns. Eggs $5.00 per 100. Harry D. Dunbar, Elkhorn, Wisconsin.

BLACK English shepherd pups. Best stock and watch dog on earth. Gerhard Walter, Hamburg, Minn.

SILVER Wyandotte setting eggs for sale; fertility guaranteed. John Lannon, Decorah, Ia.

SILVER Wyandotte eggs, $1.00 for fifteen, $3.00 for fifty. Webb Taylor, Beaver Dam, Wis.

BUFF Rock eggs, $1.50, 15; $6.00 per hundred. Wood Lawn Farm, Kilbourn, Wisconsin.

START right! Write for mating list. Farmers' prices. Maurice Carver, Faribault, Minn.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

PURE-Bred White Rocks. Address Kremers', Whitehall, Wisconsin.

SEEDS.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

GOLDEN Glow and Clark's Yellow Dent seed corn for sale. Wisconsin grown and fire dried. Burton Peck, Spring Green, Wisconsin.

SEED CORN, Wis., No. 3, pure-bred, tested, northern grown, $3.00 bushel, bags 30c. L. D. Garnhart, Spooner, Wis.

NORTHERN-GROWN Early Black Soy beans, $3 bushel, bags 30c. L. D. Garnhart, Spooner, Wisconsin.

FIRE dried Silver King and Golden Glow seed corn for sale. Burton Peck Spring Green, Wis

GUERNSEY BULLS.

GUERNSEY bulls; long A. R. backing; three twenty months old; Glenwood strain; pedigrees upon request. Paul E. Rudd, 413 Caswell Blk., Milwaukee, Wis.

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In past five years it ranked first in production of wheat twice; twice it was second and once third; always first in production of spring wheat; also flax, equalling production of all other states. Once it was first in barley—never below third; never below seventh in rye or oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. Murphy, Immigration Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minnesota.

POTATOES, three to four dollars. Onions, twelve dollars per hundred weight. Central Minnesota excels in producing these crops. They are the highest quality too. No county beats Aitkin. Lands are cheap. Prices from our company direct are low. Terms are made to suit the man who buys. Get ready to come. Buy before the price advances. Deal with the railway company that owns the lands and gives easy terms. ARNOLD, Land Agent, Rock Island Railway, 132 Wolvin Bldg., Duluth, Minn.

HERE IS YOUR CHANCE—Get a home; $1.00 per acre down and long time on balance. Hardwood timber land with timber enough to pay for the land and build your buildings, close to market, school and cheese factories. Clay loam soil all tillable. Taylor Co., the clover and dairy belt of Wis. Rib River Land Co., Medford, Wisconsin.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

I AM the owner of 200 acres of very fine land, all level, clear of encumbrance, all under cultivation, 20 miles from Madison, Wis. As this is a portion of a large farm, there are no buildings on it. I will consider a cash offer, easy payments, or will exchange for a small Wisconsin farm, or Milwaukee property. A, care of Wisconsin Farmer.

FREE—We are interested in seeing the low-priced farm lands around our home developed. If you are looking for land, just write me and say: "Without any cost to me, tell me how you got your farm home." Address Mrs. Lucy L. Ferguson, B-26, Cedarville, Marinette county, Wis.

DON'T postpone that trip to the cheap land districts of upper Wisconsin; it is important if you want some of the best cheap land in America. Write us for names of owners. Wisconsin Advancement Association, 1590 First National Bank Bldg., Milwaukee, Wis.

IMPROVED farm, near Minneapolis, 177 acres, $13,500. 320, prairie farm, Norman county, Minn., $12,000. Three quarters, Walsh county, North Dakota, improved, at $37.50. Stodden, owner, 619 Security Building, Minneapolis.

GOOD corn, clover and grain land; improved, partially improved, or unimproved, at prices ranging from $15 to $100 per acre; best of location and soil. Write us now. W. E. WEBSTER, Hudson, Wis.

UPPER WISCONSIN—40 to 80-acre tracts, well located; small buildings, clearings; $20-$30 acre. Terms, one-fourth down, balance easy. Wisconsin has no crop failures. R. J. Russell, La Crosse, Wis.

HIGH class dairy farms, partly improved farms, and choice unimproved cut over hardwood land in wonderful Central Wisconsin. Pictorial bulletin free. Adam Paulus, Marshfield, Wis.

WISCONSIN—Large list improved farms, unimproved lands, 60 miles from twin cities, good dairy, clover belt, easy terms. Write for list. RIVARD, Turtle Lake, Wisconsin.

BIG bargain, 80-acre improved stock and dairy farm 2 miles from Athens, $55.00 per acre. Write for particulars. John Braun Lumber Co., Athens, Wis.

200 acres, 25 clear; timber pays for land. Price $6,000. Best improved and unimproved Marathon county farms. J. G. Wolf, Wausau, Wis.

MARATHON County Farms for sale. Bargains. Geo. Ritger, Cashier State Bank, Marathon, Wisconsin.

HAVE two farms for rent; might sell or trade one for town property. M. A. Peoples, Ladysmith, Wisconsin.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient means to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200, write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

GOVERNMENT POSITIONS.

MEN AND WOMEN, 18 or over, wanted for U. S. Government life jobs; $75.00 to $150.00 month; steady work; short hours; rapid advancement; common education sufficient; write immediately for free list of positions now easily obtainable. Franklin Institute, Dept. B176, Rochester, N. Y.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be over the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

JERSEY HEIFERS.

JERSEY heifers, cows and bull calves of American and Island breeding. Very reasonable. M. C. Vosburg, Ft. Atkinson, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon.

TAIL HOLDERS.

COWS' tail holders, post paid, sample 12, 5 or more 10c each. F. C. Gunther, Elmwood, Wis.

Badger Crops Wintered Well.

Clover, Rye and Winter Wheat Are Safe—Plowing and Oat Seeding Have Begun—Live Stock Are Healthy, But Thin.

WISCONSIN.

Chippewa County.—The weather is fine and seeding is well started. Rye and winter wheat look fine and the acreage of these crops is large. Clover came through the winter in fine condition. Some cattle have been turned on to pasture because of scarcity of feed. Live stock are healthy. Farmers in this vicinity have just organized a shipping association and are sending stock to the New Richmond packing plant every Tuesday and Saturday. The milk condensery will start within a few weeks. Butter is worth 42 cents and milk for the cheese factory is bringing about $2.60 a hundred.—Ernest Neitzel.

Crawford County.—Spring work is in full swing. Nearly every one is in the field sowing oats. The weather has not been very favorable for pastures and winter grain. Rye is turning green, but the pastures have not made much progress. Clover and alfalfa were not winterkilled to any great extent. Hay and rough feed was quite plentiful last year so that live stock were carried through the winter in good shape.—H. H. Stuckey.

Door County.—The acreage of rye is larger than it has been for the last two years. The crop wintered in fine condition because of the large amount of snow which protected it. Clover also wintered well, but needs a warm rain. Farmers have begun their spring work; preparation for the oat crop is being made and the acreage will be large. The first year of our cow-testing association has just closed. Most of the members are enthusiastic about it and the work will undoubtedly be continued. Farmers that are feeding good cows are still making a fair profit.—L. E. Birmingham.

Douglas County.—So far there is little complaint with regard to winterkilling of winter rye and new clover. About the usual acreage of potatoes will be planted. Some spring wheat will be sown this year. The weather has been dry, but the ground is working up in fine shape. Live stock wintered well and are selling at good prices. Dairying is our main support, but many are advocating more extensive sheep raising.—D. N. Stone.

Florence County.—It is difficult to estimate the condition of the crops because the frost is not out of the ground and their is also some snow left. Live stock are in good condition and there are no diseases reported in this community, except two cases of glanders among horses.—Phill Kelms.

Iowa County.—Seeding has been delayed by the cold, long, dry spell. Many farmers are afraid that clover winterkilled badly, but some are of the opinion that a good warm rain will bring it up to average. Small grain is being planted at this time. A big acreage of wheat and oats mixed is being planted. The ground works up in fine shape. Cattle wintered well and the cheese factories are opening up early. Conditions in general are very promising.—Art G. Hoskins.

Jackson County.—Winter wheat, rye, clover and alfalfa look fine. Warm weather and rain are needed badly. Wheat seed is very scarce which will cut down the acreage of spring wheat. The soil works up in fine shape and a large part of the oat crop has been sown already. Live stock are not doing very well on account of the high price of feed. cows that did not winter well are apt to fall short in production this summer.—C. S. Ristow.

Juneau County.—Weather has been very cold and dry. Winter grain looks well. Clover is in good shape and all it needs is a warm rain. Spring seeding has started and the ground works fine. The spring pig crop is not large. Few farmers in this county are feeding hogs. Hay is scarce.—C. W. Hale.

Langlade County.—Weather has been fine so far. Winter grain looks good. There is a large demand for spring wheat for seed, but it is hard to get. Many farmers are buying hay at $16 a ton. Potatoes are worth $2.50 and there is only a small stock offered at this price. Cattle were kept in good condition during the winter because the milk flow was maintained and the milk sold to the cheese factory. There are few young pigs at this time. Many farmers are making maple sirup.—Charles Parsons.

Marquette County.—Spring is cold and dry. Clover and winter rye are in fine shape. Even the old clover came through the winter safely. Some farmers are plowing for oats and others have already put the crop in. Hay is selling at from $8 to $18 a ton. All feed is scarce and very high in price. Bran and shorts are worth $2.20 a sack. Farmers have sold off all their potatoes at from $2.50 to $2.60 a bushel. Cattle are very high in price. All live stock are in good health. Farm labor is very scarce.—J. M. Williams.

Oneida County.—Frost is not yet out of the ground and there has been considerable snow. About the usual acreage will be planted to potatoes. Farmers have sufficient seed for their own planting and a few have some for sale. Several litters of early pigs have been farrowed and are doing well. Cattle are in good health, but thin in flesh. A small acreage of rye was sown last fall.—F. S. Campbell.

Portage County.—Clover is in fine shape and looks strong and healthy. A warm rain will start it nicely. Rye is good except on hills where it has been blown off and damaged considerably. Most fields, however, look green and healthy because the heavy snows of the past winter afforded excellent protection from winterkilling. Alfalfa is not grown extensively, but what there is did not suffer from winterkilling. The prospect for all winter crops is about 25 per cent better than the average for the last five years. Live stock are in excellent condition. A considerable number of dairy cattle have been shipped from this section. Oat seeding has just started. Some spring wheat will be sown in this section.—Adthur H. Peterson.

Pierce County.—The weather is rather cold, but spring seeding has started. Rye and clover came through the winter in good shape. This has been an extra good season for maple sirup; the demand is good and the price varies from $1.25 to $1.50 a gallon. Cattle look well, but there is no pasture yet.—G. K. Moore.

Price County.—The season is cold and backward. No plowing has been done. Rye and clover came through the winter without damage. Live stock are in good condition and there is a slight increase in number over former years. Little spring wheat will be sown. Oats and potatoes will be the main crops.—C. F. Glissendorf.

Rusk County.—Live stock are looking fair considering the long, cold winter through which they have just passed. Clover and grasses stood the winter well and there undoubtedly will be a large hay crop. Very little of the new seeding was winterkilled. The number of cattle in the county is about normal. A fair estimate would be about 12,000.—T. M. Thomas.

Sawyer County.—Spring is very late, but this may be a good thing, because when it does warm up we may expect no dangerous frosts. Rye and clover look well and alfalfa is in good condition so far. Live stock are in good health. Farmers will plant large areas to potatoes, corn, beans, peas and similar crops this year in order to guard against the food shortage.—F. O. Setter.

Taylor County.—Spring is backward and very little seeding will be done this month. Rye and clover look well and were not wintrkilled in this section. Live stock came through the winter in good condition. Not all of the snow has disappeared and frost is still in the ground.—J. C. Hoffman.

Washburn County.—Spring is backward, cold and dry. Very little field work has been done. Rye, clover and alfalfa have not suffered from winterkilling, but they have not yet started to grow. The number of dairy cows will be increased this year because farmers are taking greater interest in dairying on account of the farmers' coöperative creamery. Live stock are

(Concluded on page 19.)

AVOID a "leaky" thresher this year. Hire or buy a thresher that will save your grain. A Red River Special will do it. It *beats* out all of the grain. Many owners have threshed out big sacks of grain from straw stacks left by other machines. Hire the man who owns a

Red River Special

or write us and learn about our "Junior" machine. Built in a size that makes home threshing pay. Run it with a gasoline engine, tractor, or light steam engine.

Not to be compared with usual small threshing machines. Has every feature of the Red River Special—famous "Man Behind the Gun"—same arrangement of shakers, adjustable chaffer, and large sieves. **Write for Circulars.**

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In Continuous Business Since 1848
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam Traction Engines and Oil-Gas Tractors
Battle Creek Michigan

Make the farm loan include Ideal Heating

The banker knows that radiator heating is an asset

A loan made for improvements which includes radiator heating is much easier to make because the investment in an IDEAL Boiler and AMERICAN Radiators makes the property so much more valuable and adds immensely to the happiness and permanency of the family on the farm. Young and old benefit by it. It is a large dividend-paying investment and soon repays the first cost in a few years. Radiator heating makes any old property modern, healthful, economical and in the "A" class for selling or renting.

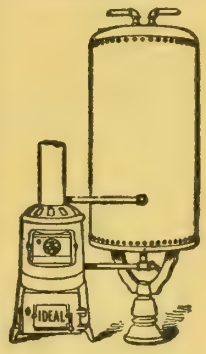
Farm success depends upon home comfort

AMERICAN RADIATORS & IDEAL BOILERS

The women folks ought to have a portion of the improvement money spent for their comfort. The success of the farm depends upon the health of your wife and the comfort and convenience of your home. You and your family must be comfortable during the long winter season and the raw, chilly Fall and Spring.

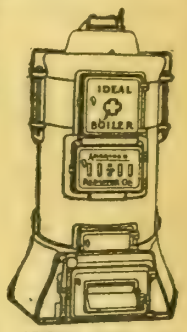
Basement or water pressure not necessary—don't wait!

IDEAL Boiler is set in cellar, side-room or "lean-to;" and same water is used for years. Put an IDEAL Boiler and AMERICAN Radiators in your house this year. Call up the nearest heating contractor and ask him to give you an estimate. Spend part of the Bank loan for this permanent, economical, dividend-paying heating outfit. Thousands of farmers say it's the "best in the world."



Our IDEAL Hot Water Supply Boilers will supply plenty of warm water for home and stock at small cost of few dollars for fuel for season.

A No. 4-22-W IDEAL Boiler and 420 ft. of 38-in AMERICAN Radiators, costing the owner $280, were used to heat this farm house. At this price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which vary according to climatic and other conditions



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GET MY PRICES

BEFORE YOU BUY BE sure and get my prices! Before buying a gasoline engine (manure spreader, cream separator or tractor) of any make, or kind, or price, please ask for and read Galloway's 1917 catalog—the biggest, most important book and greatest money-saver for my customers I ever put out! Get my proposition to you and compare it with all others; then be your own judge! We are actual manufacturers and sell direct to you from our factory. We specialize on the lines we offer. We were first to offer engines, separators, spreaders direct from the factory at one small profit. We have made the manufacturing and selling of these lines a life business. You can't afford to buy a gasoline engine or any of the other Galloway lines until you first get our prices and our proposition. Get my price before you buy! Cash or time.

HERE'S THE REAL PROOF!

I can't give it praise enough. I had a 6 h. p. Galloway engine belted to my 16 in. corn mill and it does the work, where an 8 h. p. of another make did not. M. P. SHOEMAKE, DEPSATEO, TENN.

It has not cost me one cent for repairs. Am now buying a 2 1-4 h. p. engine and washing machine for the home. Consider the Galloway simplest engine made. ADOLPH DRINOVSKY, TRAER, IA. I found the 16 h. p. Galloway simplest, most powerful, best governed engine I ever saw and $225 cheaper. HENRY WENHAM, MILTON, WIS.

My 6 h.p. Galloway was 5 yrs. old this fall. Works perfectly—good for 15 yrs. yet. HAROLD W. BARNES, DELPHI, IND.

THE WM. GALLOWAY CO., 35 Galloway Station, **Waterloo, Iowa**

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Bovee's Central Heating Furnaces
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At Manufacturer's Prices
Save 40% of Cost
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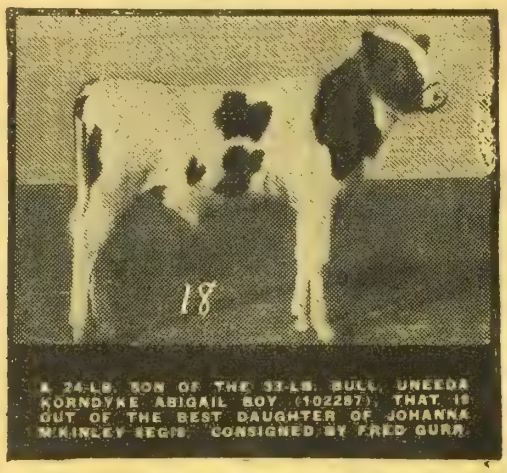
GET the benefit of our 21 years' experience in manufacturing and installing furnaces. Get our positive guarantee (and it's good). Get our free three-colored catalogue. Address

BOVEE FURNACE WORKS
204 W. 8th Street Waterloo, Iowa.

JULIANA KING OF ROCK (112126). WATCH FOR HIS DAUGHTERS AND COWS BRED TO HIM. OWNED BY JOHN D. HETTS.

JULIANA KING REPEATER, BY KING SEGIS PONTIAC AND OUT OF QUEEN JULIANA DIRKJE. OWNED BY JOHN D. HETTS.

A 29-LB. SON OF KING SEGIS PONTIAC, OUT OF MUTUAL LILITH OF ROCK. CONSIGNED BY JOHN D. HETTS.



A 24-LB. SON OF THE 33-LB. BULL, UNEEDA KORNDYKE ABIGAIL BOY (102287), THAT IS OUT OF THE BEST DAUGHTER OF JOHANNA WINKLEY SEGIS. CONSIGNED BY FRED GURR.

ANOTHER GRANDDAUGHTER OF KING SEGIS PONTIAC THAT SHOWS REMARKABLE CONSTITUTION AND VIGOR. CONSIGNED BY FRED GURR.

A BEAUTIFUL GRANDDAUGHTER OF KING SEGIS PONTIAC (44444) AND OUT OF HARCOURT ROSE DE KOL (103492). CONSIGNED BY FRED GURR.

JULIANA DE KOL LAKE SIDE, BY JULIANA KING OF ROCK (112126) AND OUT OF DE KOL LAKE SIDE. A 13-LB. TWO YEAR OLD. CONSIGNED BY JOHN JONES.

THE LAKE MILLS

175 HEAD-LAKE MILLS-MAY

John D. Hetts Consignment — **Fort Atkinson, Wis.**

(See Cuts 1, 2, 3, 4.)

We are consigning 18 head, mostly sired by **Juliana King of Rock** and **Juliana King Repeater,** including four yearling daughters of Juliana King of Rock, bred to Juliana King Repeater. Both of these sires are out of **Queen Juliana Dirkje** and by **Mutual Piebe De Kol** and **King Segis Pontiac,** respectively. We also have a **29-lb. yearling son of King Segis Pontiac,** out of the great producing cow, Mutual Lilith of Rock, that has just made nearly 30 lbs.

JOHN D. HETTS — FT. ATKINSON, WIS.

Fred Gurr Consignment — **Lake Mills, Wis.**

(See Cuts 16, 17, 18.)

The illustrations referred to indicate the individuality of our consignment. It is evident these animals have been rightly grown and that they show strong constitutional development.

Specal notice should be taken of the bull calf shown in cut 18. He is not only a perfect individual, but is out of a splendid 24-lb. cow and by Uneeda Korndyke Abigail Boy (102287), a 33-lb. bull.

FRED GURR — LAKE MILLS, WIS.

John Jones Consignment — **Milton Jct., Wis.**

(See Cuts 14, 15.)

The cuts mentioned above will serve to give a very good idea of the individuality the daughters of **Juliana King of Rock** and **Juliana King Repeater** possess, that we are consigning. They are out of **A. R. O. dams with records up to 26 lbs.,** and are granddaughters of **Queen Juliana Dirkje,** that made **1,021 lbs. at 3 yrs.** and **3,000 lbs. butter** in 36 months.

JOHN JONES — MILTON JCT., WIS.

Wm. Trachte Consignment — **Watertown, Wis.**

(See Cut 13.)

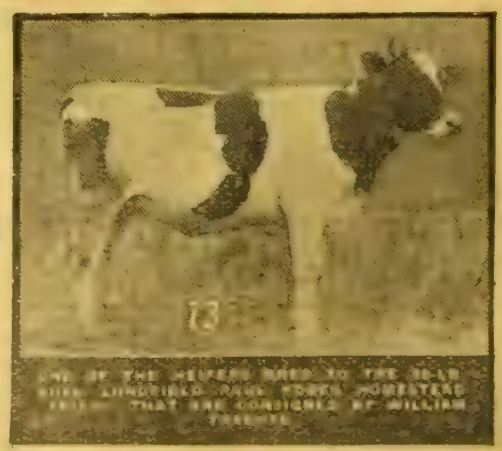
We are consigning 3 cows, 9 heifers and 2 bulls. **Eight of the heifers** are by **Duke Johanna Inka (59269),** a 31-lb. bull, and bred to our **30-lb. herd sire,** Longfield Paul Tobes Homestead (185899).

WM. TRACHTE — WATERTOWN, WIS.

WRITE FOR CATALOG TO F. H.

AUCTIONEERS—HAGER, KELLEY and MACK
S. T. WOOD IN THE BOX

LADY GEM REPEATER OF ROCK, BY JULIANA KING REPEATER (112126) AND OUT OF JULIANA GEM OF ROCK, BY LEE 7 DAYS 24 LBS. 22 OZS. CONSIGNED BY JOHN JONES.



ONE OF THE HEIFERS BRED TO THE 30-LB. SIRE, LONGFIELD PAUL TOBES HOMESTEAD (185899) THAT ARE CONSIGNED BY WILLIAM TRACHTE.

JULIANA DIRKJE (97608), DAM OF KING OF ROCK AND JULIANA KING ER, THE NOTED 3,000-LB. COW. OWNED BY JOHN D. HETTS.

KING NETHERLAND PLUM (175117), A DOUBLE GRANDSON OF KING OF THE PONTIACS, AND OUT OF A 31-LB. DAM. OWNED BY ALFAKORN DAIRY.

WINDSOR HOMESTEAD OAK DE KOL (166113), "NATURE'S MASTERPIECE," BY CANARY HOMESTEAD OAK DE KOL, AND OUT OF A 33.48-LB. COW. OWNED BY ALFAKORN DAIRY.

OLSTEIN SALE
-WISCONSIN- 175 HEAD

n Dairy Consignment Evansville, Wis.

(See Cuts 5, 6, 7, 8, 9.)

consignment consists of 18 head; 7 cows including the 24.06-lb. 4-year-old, **Grace** ; **Pohlcrest**, and calf sired by our 33-lb. senior sire, **Windsor Homestead Oak** 166113; "Nature's Masterpiece," sired by **Canary Homestead Oak De Kol**, a 29- one of Emmons Blaine's herd sires, and out of the **33.48-lb. cow, Windsor Sweet** laid; 9 yearling heifers from good A. R. O. dams and for the most part bred to r sire; and two grandsons of **Finderne Pride Johanna Rue**, out of A. R. O. cows.

DAIRY F. B. Green & Son, Props. EVANSVILLE, WIS.

thes, Geo. Stroebel, Henry Schimming Consignment, Jefferson, Wis.

(See Cuts 10, 11.)

ur consignments you will find 7 daughters of **Uneeda Korndyke Abigail Boy** now owned by Henry Anthes. He is practically a **faultless individual** and is from cow that has the distinction of being the best daughter of **Johanna McKinley** ome of these heifers are bred to a 34.5-lb. bull. The cuts indicate the individuality ifers.

ROEBEL AND SCHIMMING JEFFERSON, WIS.

& Fries Consignment Genoa, Wis.

h for our **31.76-lb. bull, Richland Pontiac Butter Boy 153981**, and our yearling se **9 nearest dams average 30 lbs.** Look for more detailed description of these t week.

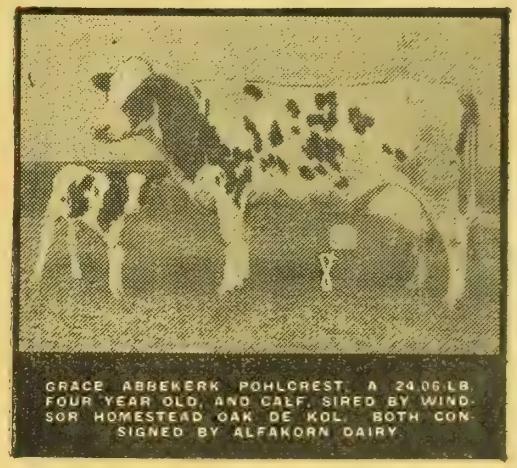
FRIES GENOA, WIS.

Steffen Lake Mills, Wis.

RSON, SALE MANAGER

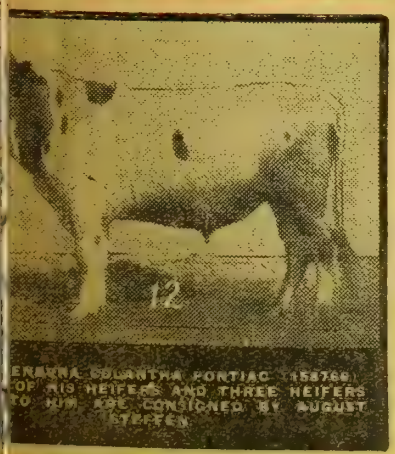
LAKE MILLS, WIS.

A GRANDDAUGHTER OF K. P. DIONA PIETERTJE THAT WAS SOLD TO OLIVER CABANA FOR $6,500.00. OWNED BY ALFAKORN DAIRY.

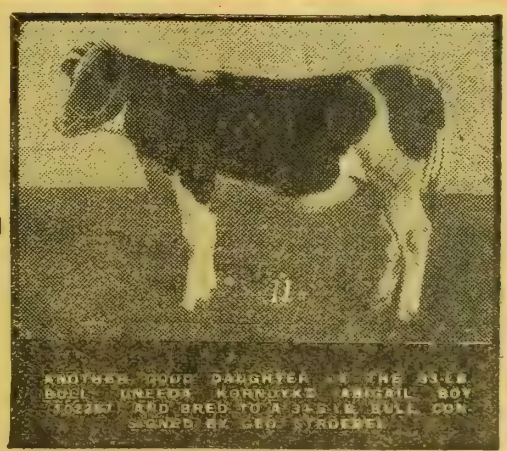


GRACE ABBEKERK POHLCREST, A 24.06-LB. FOUR YEAR OLD, AND CALF, SIRED BY WINDSOR HOMESTEAD OAK DE KOL. BOTH CONSIGNED BY ALFAKORN DAIRY.

YEARLING HEIFERS OUT OF A. R. O. DAMS, PART OF WHICH ARE BRED TO THE 33-LB. BULL, WINDSOR HOMESTEAD OAK DE KOL. CONSIGNED BY ALFAKORN DAIRY.



ERSYNA COLANTHA PONTIAC (158766) OF AIS HEIFERS AND THREE HEIFERS TO HIM ARE CONSIGNED BY AUGUST STEFFEN.



ANOTHER GOOD DAUGHTER OF THE 33-LB. BULL, UNEEDA KORNDYKE ABIGAIL BOY 153287 AND BRED TO A 34.5-LB. BULL CONSIGNED BY GEO. STROEBEL.

A SPLENDID [illegible] OF THE [illegible] UNEEDA KORNDYKE ABIGAIL BOY [illegible] AND BRED TO A [illegible] BULL. CONSIGNED BY HENRY SCHIMMING.

See That Air Space See That Double Wall

Note the concrete base and the *wood tires.*

The Wood Tire Hollow Wall Silo is *patented.* It is *different,* and every farmer who is considering buying a silo should make a full investigation of the claims we make for it.

Great Strength—Frost-Proof Easy to Erect—Lasts a Lifetime

No hoops or guy wires are used, yet only one has ever blown down, and that in a cyclone of unusual violence.

Its simplicity; the ease with which it is put up; the excellent quality of the silage; the freedom from frost; the absence of mouldy silage; the elimination of shrinking, swelling and decay; its long life—these are things that are important.

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Urgent demand sent out for farm help by the Government of Canada. Good wages. Steady employment. Low railway fares. Pleasant surroundings. Comfortable homes. No Compulsory Military Service. Farm hands from the United States are absolutely guaranteed against Conscription. This advertisement is to secure farm help to replace Canadian farmers who have enlisted for the war.

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Only those accustomed to farming need apply.

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Before you buy a cream separator (gasoline engine, manure spreader or farm tractor) be sure and get my prices—the lowest prices ever made on goods of equal quality. We sell direct to you from our great factories at wholesale. We specialize in manufacturing these lines, each article having special patented features found on no other make. They are exclusive on the Galloway, but cost you nothing extra Cash or time

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"I have used three other makes. Yours beats them all, Costs a third less, skims closer and runs lighter." A. Androws, Clinton, Oklahoma

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TABER LINED SILO

Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.

The latest improved Silo. A wood stave Silo; choice of lumber. Entire Silo creosoted. Special paint for outside. Acid-Proof Lining for coating inside after erection. The finest door and door frame on the market.
Special Galvanized Steel Octagon Roof—best manufactured.

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ESTABLISHED 1855
AGENTS WANTED IMMEDIATELY.

Most for your money!

You get the most for your money when you buy a high grade, first class separator at a reasonable price. You want a separator that gives satisfaction long after you buy it; that "stands up" under the test of wear; that skims closely; is easy to operate and clean; and gives you *the most capacity for every dollar you pay.* You get all this in the VIKING.

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VIKING CREAM SEPARATOR

Winner Opening Silo Roof

Gives 6 to 9 feet more silo space and 15 to 40 tons more silage worth up to $160 each year. Delivered prices quoted. Special discount to Early buyers. Act quickly. Write to day.
Silo Specialty Mfg. Co., 104 Market Bank Bldg., Minneapolis, Minn.

25 CENTS CALF RENNETS

We pay 25c each for salted rennets from milk-fed calves, if handled according to our directions. Little work to handle them. Write for directions. Address THE MARSCHALL DAIRY LABORATORY Madison, Wis.

DAIRY

Fresh Air in the Dairy Barn.

THE modern dairy barn with its solid walls and tight-fitting doors and windows has brought before the dairyman a new problem. A way must be provided to furnish fresh air for his cows. In the old milking shed with its loose board walls and open cracks that the wind swept through, there was no danger of the cows suffering from foul air, but in the almost air-tight stables which the majority of farmers have today, the health and productivity of the cows may be seriously affected by poor ventilation.

The average cow requires about sixty cubic feet of air per minute. This air is taken into the lungs, where the oxygen is separated from it and absorbed by the blood. Carbon dioxide and other poisonous gases are expelled from the lungs, and when the ventilation is poor these waste gases are breathed over and over. Besides the poisonous effect of these gases, harm is caused by oxygen starvation. When continued for a time this condition causes a weakened constitution and consequently a reduced milk flow. The expelled breath of the animal also contains a high percentage of humidity which tends to saturate the atmosphere with moisture and thereby increase the unhealthfulness of foul air.

The object, therefore, in ventilating is to remove the foul air laden with carbon dioxide and moisture and to introduce fresh air containing a normal amount of oxygen. This must be done without creating cold drafts and reducing the temperature of the barn too much. The ideal condition in the dairy barn is to have both warmth and fresh air. To meet this condition the intakes and outlets for air should be arranged in definite manner with due consideration of the forces which cause movement of air in buildings. These are: First, wind pressure against the sides of the building, which drives air through openings in the walls and thus increases the air pressure within; second, suction of the wind as it passes over an aperture, as illustrated by the draft caused by a wind blowing over a chimney; and, third, the tendency of warm air to rise and cold air to settle.

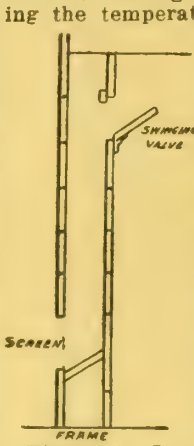

Figure 1.—Intake flue showing arrangement of inner and outer openings.

By a system of ventilators, these forces may be used to secure a continual circulation of air without chilling the interior of the building. The King system, which is one of the most satisfactory, consists of several intakes built in the outer walls about every ten feet apart, and two or three outlets placed near the middle of the building and extending out at the top like a chimney. If possible the intakes should be on every side of the building so that air may be forced in no matter which direction the wind is from.

In barns with wooden walls the intake flues may be made by utilizing the space between the studding. All that is necessary is to make an opening in the outside wall, as shown in Figure 1, and connect it with another opening in the inside wall near the ceiling of the stable. The inside opening should have a hinged door that may be opened and closed, and the outside opening should be screened over to keep out birds. It might be well also to line the flues with heavy tar paper, which will make them as nearly air-tight as possible. In concrete barns, forms of wood or metal can be made for the flues and put in place while the walls are being built. Similarly, when building brick or stone walls, it would be an easy matter to leave the necessary openings for flues while the material is being laid. In every case the object should be to connect an inside opening near the ceiling of the stable with an outside opening made lower down so that the wind will not get a straight sweep through.

The outlet flues are nothing more than long air shafts, extending from

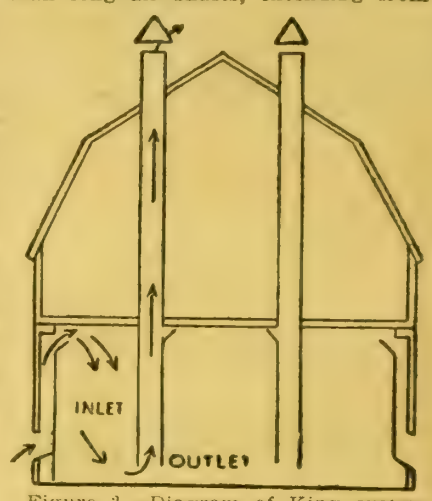

Figure 2.—Diagram of King system of ventilation with circulation of air indicated by arrows.

within one or two feet of the floor to a short distance above the roof. They are protected above with a revolving cowl or other storm shield. If a simple roof is built over the opening it should be high enough to allow the wind to sweep under. The shafts may be made of galvanized iron, insulated around the part that extends above the roof to prevent the formation of ice and frost on it in winter, or they may be made of well-seasoned lumber and lined with heavy tar paper.

With the King system of ventilation,

BRAVE THE WIND AND STORM in the best wet weather togs ever invented

TOWER'S FISH BRAND

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the air circulates in the manner shown by the arrows in Figure 2. Wind pressure and the cold temperature outside cause the air to flow through the intakes and enter the stable. The inside air pressure is thereby increased and a flow into the outlet flues begins. This latter movement is aided by the tendency of the warmer air of the stable to rise until it passes out of the flue at the top. At the same time the suction caused by the wind blowing over the top of the flue causes an upward flow of air and makes the rate of circulation more rapid.

In summertime, and especially when the wind is still, the greatest factor in air movement is the tendency of warm air to rise and cold air to settle, and, therefore, at this time it is of advantage to have a hinged door in the outlet shaft near the ceiling as shown in Figure 2. This door may be opened in sultry weather to allow an escape for the warm air as it rises to the ceiling. But in winter when warmth is desired the door should be kept shut, so that the ceiling will reflect the warm air and cause the cooler air near the floor to pass out through the flue.

The size of the flues will depend upon the number of cows in the barn. Under normal conditions, a cow will require sixty cubic feet of air per minute, and twenty cows will need twenty times this or 1,200 cubic feet. Since an opening one foot square will allow a passage of 300 cubic feet of air per minute without creating a disagreeable draft, an outlet shaft two feet square would be the proper size for ventilating a barn containing twenty cows. One outlet would be sufficient in this case, but there should be several intakes, in order that the circulation of air will reach all parts of the barn. In this instance, about twenty intakes, with openings of approximately thirty-six square inches each, would admit the necessary flow of air, or if the openings were made larger a smaller number would be sufficient.

Fewer But Better Cows Needed.

In Steele county, Minnesota, forty-five cows—15 per cent of 300 belonging to a cow-testing association—produced an average of 1,548 pounds of milk and 43.15 pounds butter fat per head during the month of January. The butter fat, sold at a coöperative creamery, brought an average price of 47 cents a pound, thus yielding an income of $24.98 per cow during that month. The cost of the feed for these cows, according to market prices then prevailing, was $10.58 per head, so there was a net profit of $14.40 per head. In other words, for every dollar's worth of feed consumed these cows returned $2.35 in butter fat.

It is cows of that kind that make dairying profitable. Better own ten such producers than thirty average individuals that would produce no more, but eat nearly three times as much as the better ones. The better cows not only yield a much larger net profit, but the labor required to take care of them is also much less. The good cows in a herd can be detected by testing and weighing the milk of each. Buy a Babcock test and a scale, or join a cow-testing association, and begin separating the boarders from the profitable producers.

Milking Machine More Sanitary.

To the Editor:—I think the milking machine is more sanitary than hand milking and the cows take to it readily. By being careful on the start, after the cows become acquainted with the machine they seem to like it much better than hand milking.

The machine is easily cleaned if done immediately after milking by running or syphoning cold water through the tubes, then washing with hot water and some good preparation. After washing, the tubes are placed in sterilized water. That takes care of them until the next milking.

A man should have at least twelve cows to justify buying a milking machine and twenty is better. A man and boy can milk twenty cows and feed the calves in one hour with one-half the labor of hand milking. When a man installs a milking machine he soon doubles his herd, as a few more with the machine cuts no figure, but when he milks by hand he naturally keeps cutting down on the herd. I would much rather milk twenty cows with the machine than ten by hand.

Buena Vista Co., Ia. J. M. Hussey.

Heavy shipments from Texas soon will relieve the country-wide shortage of onions and send prices down, the department of agriculture announced. Within the last few days Texas has begun to supply the country with more than 100 cars of onions daily. The crop is two weeks later this season than usual, but 20 per cent larger than last season.

Geneva Association.

To the Editor:—The following is our forty-five pound cow list for the month ending February 28th:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
A. G. Palmer & Sons					
Netherland, R. H.	3	1-6-17	1663	4.1	68.2
Daisy, R. H.	6	12-21-16	1674	3.3	55.2
Queen M., R.H.	3	12-27-16	1540	3.5	53.9
Mary, G. H.	5	11-23-16	1464	3.2	46.8
W. E. Palmer					
Burk, R. H.	2	1-26-17	1299	4.0	52.0
Fall B., R. H.	4	11-28-16	1487	3.3	49.1
Queen, R. H.	4	11-12-16	1560	2.9	45.2
I. W. Baker					
Daisy, G. J.	3	1-25-17	1036	4.8	49.7
Sandie, G. J.	7	1-24-17	1137	4.1	46.6
Frank Webster					
Nig, G. H.	6	12-21-16	1077	4.5	48.5
Ora P. Taylor					
Erma, R. J.	4	11-6-16	742	6.3	46.8
Dallas Davis					
Dorothy, G. H.	7	1-16-17	1369	3.4	46.5
Bird, G. H.	7	2-1-17	1191	3.9	46.4
Percy Harrington					
Knight, G. J.	5	11-13-16	759	6.0	45.5

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.

Door County Association.

To the Editor:—The following is the forty-five-pound list for the month ending March 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Rud Wolfgram					
Queen, N.	8	10-11-16	1209	3.8	45.44
Pat Hogan					
Dollie, G. H.	7	12-2-16	1556	4.2	66.77
Maude, G. H.	7	2-4-17	1534	4.0	61.36
Bessie, G. H.	6	1-1-17	1240	3.8	47.12
Lester Birmingham					
Beauty, G. J.	4	12-2-16	648	5.9	45.00
Mollie, G. J.	4	11-3-16	885	5.5	48.68
Daisy, G. G.	4	1-10-17	1048	6.2	64.98
Ed Fehl					
Primrose, G.G.	7	1-10-17	1271	4.6	58.47
Fred Ash					
Beauty, N.	6	2-10-17	1156	4.7	55.33
L. H. Klenke					
Starr, G. B.S.	5	1-19-17	995	4.9	48.75
Alfred Blonde					
Mollie, G. H.	5	1-2-17	1333	3.4	45.32
Jennie, G. H.	5	1-5-17	1173	4.3	50.43
Will Volks					
No. 3, G. H.	8	2-10-17	1392	3.8	52.90

George Thull, Official Tester.
Frank Starr, Secretary.

Guaranteed to do more and better work with less power

than any other; yet it *costs* no more to buy. Practically proof against breakdown. Solid oak and steel frame, mortised, bolted, braced; impossible to pull out of line.

Spiraled knives give clean shearing cut, requiring least power. 10 lengths of cut (5/16 to 2¼ in.). Frictionless self-feed table runs on chilled iron rollers. Speed of blower adjustable to least use of power for any height silo. One lever controls feed rolls and table. Automatic safety device.

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The cost of all materials is advancing like the price of wheat and corn.

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CARL C. ROESSLER
MAX L. TEICH

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Care of the Growing Child's Teeth.

By the end of the second year the baby should have his milk teeth complete and until the sixth or seventh year, when the permanent set will begin to appear, these teeth must serve all the purposes that the final set will serve later. Since this is the time the child is learning to chew his food, a process necessary not only for proper digestion but for the strengthening and developing of his jaws and for the proper growth of the permanent teeth, it is important to keep the first teeth in the best possible working order. The condition of the teeth is a fair index to the general health of the child.

Until the child is old enough to use a toothbrush himself, the mother should wash his teeth every day; but as early as possible the child should learn to care for his own teeth. If the teeth cannot conveniently be cleaned after each meal, the mouth may at least be rinsed. Children should be taught that it is of special importance to wash the teeth and mouth after eating nuts, or any sweet, sticky or pasty food. The teeth should be carefully cleaned at bedtime, since the fermentation of food particles left in the mouth, which leads to the decay of the teeth, proceeds more rapidly at night, when the mouth is still.

The child should be taught to brush the teeth from the gum downward or upward toward the cutting edge. When the teeth are brushed crosswise, the tendency is to push whatever is on them into the cracks and crevices of the teeth or under the edges of the gums. The inner surfaces of the teeth should also be brushed up and down, and the grinding surfaces should be scrubbed in all directions: after the scrubbing is finished the mouth should be thoroughly rinsed with warm water.

Some hard food like a stalk of celery or part of a ripe, juicy apple eaten at the end of a meal scours the surface of the teeth and leaves a fresh, clean taste in the mouth.

Children should be taken regularly to a good dentist once or twice a year after the first set of teeth is complete. If cavities appear they should be filled with soft fillings, and each tooth should be saved as long as possible. If the temporary molars are extracted before the sixth-year molars come in, the latter will be apt to crowd forward into the space left vacant, and when the later teeth come they will be pushed out of their regular places, destroying the natural line of the mouth. The first molars furnish the grinding surfaces necessary to proper chewing of the food. If they fall out too soon the child is hardly able to chew hard or tough food, and is likely to swallow such food in chunks.

The care of the child's first teeth is important also because the health of the permanent set is largely dependent upon that of the first set. The second teeth are much larger than the first and consequently need more room in the gum. For necessary development the jaws must be given plenty of exercise. Consequently the child should have a mixed diet, including some hard food which he cannot swallow without chewing. Toast, crusts, hard crackers, certain fruits like apples, salad, vegetables and meats should provide the food elements needed for healthy teeth if the child is thriving.—[Children's Bureau.

Clothes Moths.

The first tiny, yellowish moth that the housekeeper sees flitting about the lamp at night is a signal for her to marshal her forces for war against this destructive household pest. While these moths themselves do not eat anything, they are even now beginning the work of destruction by laying eggs which in a month or so will develop into tiny caterpillars, and these caterpillars or larvae, working underneath scanty webs or in little cases made from particles of the garments on which they feed webbed together by a whitish silk, work havoc with woolens and furs. The clothes moth of this country is the webbing species and its presence on garments can be detected by this whitish web. This web is noticeable even before the garments have been much eaten and if, therefore, they are discovered in time, a thorough brushing with a stiff brush will remove the larvae and save the garment from serious damage.

It pays to be eternally on the watch for these pests. Keep store rooms and closets free from an accumulation of dust. Such woolens, furs, etc., as are to be packed away for the summer should be taken care of as early as possible in the spring. Before being packed away such articles should be thoroughly brushed and beaten and, if possible, exposed to the strong sunlight for several hours out of doors. The brushing is very important in order to remove the eggs or young larvae which may have escaped notice. Materials which cannot be put away should be given the same thorough cleaning and inspection at frequent intervals during the summer, preferably every two weeks.

After being so brushed, cleaned and sunned the articles may be packed away safely for the summer by enclosing them in several wrappings of paper or in well-made bags of cotton or linen cloth or in paper sacks which can be tied or otherwise securely fastened, to prevent ingress of the moths. In these packages can be placed such repellents as tobacco dust, camphor, naphthalene cones or balls, and cedar chips, etc. The odors of these substances are disagreeable to the parent moths and act as a repellent, but they will not kill eggs or larvae which may be enclosed in the packages. Hence the necessity of the thoroughgoing cleaning and airing prior to packing away. The same precautions are needed with cedar chests and wardrobes.

Articles in daily or weekly use, and apartments frequently aired and swept or used as living rooms, are not to be seriously attacked. There is a risk, however, that even under these conditions attached carpets may be eaten around the border where the insects are not so much disturbed by walking and sweeping, and particular attention should be given to the border areas. Loose rugs are much less apt to be injured, but it is a good plan during the summer, if these are allowed to remain on the floor, to turn them over and thoroughly sweep or brush the under surface once every two or three weeks.

Never Had a Spoiled Can.

To the Editor:—I noticed where a Mrs. J. S. wants to know how to can peas for winter use. I get so much help from this page that I want to help someone else.

The peas should be picked when they have reached the size that is best for table use. Do not use them after they begin to get hard. The peas should be picked in the morning when they are cool and if the pods are dirty they should be washed before being shelled. Shell directly into pint jars which have been thoroughly washed and half filled with boiled water. Let the water get cool before putting in the peas. When the jar is filled add a half teaspoonful of salt. The rubber ring is then put in position and the lid partially screwed on. When all the peas are ready the jars are set in the boiler and cold water poured in until almost up to the rubber on the jar. The lid is then put on the boiler and the fire started. I like an oil stove best, as the heat is more even. Here is the secret of success in canning peas. The boiling is continued for two and one-half hours from the time the water first begins to boil. A shorter time than this means incomplete sterilization and consequently a failure in this vegetable. Where quart jars are used three hours of continuous boiling is necessary. As soon as the time is up lift the jars from the boiling water and immediately screw down the lid perfectly tight. I have never had a pint of peas to spoil when canned this way. My friends have tried it and think it fine. When cold put in a cool, dark place. Mrs. C. D.

Sweet Spiced Cucumber Pickles.

To the Editor:—In answer to a request from one of our readers for sweet spiced cucumber pickles, I am sending my recipe, which we think is a splendid one.

Gather the cucumbers in the morning; carefully wash them, pour boiling water over them and let soak overnight. In the morning let come to a boil in vinegar which has been diluted with water. Then drain, pack in jars and pour over them the following mixture, which should be boiled: One cupful of sugar, one cupful of water, one cupful of vinegar, one tablespoonful mixed spice, one teaspoonful alum.

I prepare each morning's cucumbers as I gather them, and in that way they keep their dark color and are also very brittle and nice. Mrs. C. J. W.

Uses Seed Corn For Hominy.

To the Editor:—In looking over the Home department I saw one or two requests which I think I can answer satisfactorily. One lady says that she cannot get the black ends off her hominy. I think the trouble is that she either does not cook it long enough in the lye or the lye is not strong enough, also the corn must be perfectly dry. Flint corn is the best for hominy. I generally use some of the seed corn or else dry the corn in a slow oven for a while. I never could get the black spots off by using corn just taken from the crib. If this lady uses perfectly dry corn and then proceeds in the usual manner I think she will have no more trouble.

If the reader who has trouble with her soap will follow the directions on the lye can I think her soap will be all right, and even if it is not so white I don't think it will affect the quality. Mrs. E. L. Price.

Spiced Cucumbers.

To the Editor:—The following is my recipe for spiced cucumber pickles, recently asked for by one of our number. We think this recipe is fine.

To one peck of cucumbers take a pint of coarse salt and make brine sufficient to cover cucumbers, pouring it on boiling hot. Let stand twenty-four hours, drain, repeat twice again using fresh brine each time and allowing twenty-four hours before each change. The fourth day drain brine off, cover with boiling water and let stand another day. When cucumbers are well filled out pack in jar, place among them small bags of whole allspice, cloves and cinnamon, with pieces of horseradish scattered through pickles. Heat vinegar boiling hot and pour over them. When cold cover with horseradish leaves.

This is not so much of a bother as it looks and the results will justify all the pains you take. Mrs. T. W. H.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Helps Make Mamma Happy.

Dear Young Folks:—I would like to join the Young Folks. I am eleven years old and live on a farm of 240 acres. I have three sisters and four brothers.

I help my mother with her work. I get the cobs, set the table, sweep the floor and do lots of other things to make mamma happy.

I go to school every day and am in the fifth grade. Our school was out the 19th of April. We had a program, consisting of six dialogues, six songs and seventeen pieces spoken by the children.

One Sunday last fall I went to church and then went home with my cousins. We ate dinner and then went to the Mission Feast. There were about 1,000 people there. They had it in a large grove over a mile long. They had stands and tents. We stayed until evening and had a very nice time.—Elsie.

Fun With the Pets.

Dear Young Folks:—I am a boy eleven years old and live on a 310-acre farm. One night about five o'clock I went to hunt my eggs and when I went down the sidewalk to the chicken house I heard a voice of a lamb. So I hurried down to the sheep stable and there were two lambs. The next Sunday morning when I got to the barn my brother said to me, "Did you see the other two little lambs?" I said I hadn't and I was surprised when I got to the stable, because there were two more little lambs. I wish that some of the boys and girls would tell me some names for my lambs. I can't decide on names for them. —Arnold.

Two Robins.

Dear Young Folks:—Once when I was looking out of the window I saw two robins. The father bird was sitting up on a branch. He and his mate were making a nest and the father bird was guarding it while the mother bird was off in the fields gathering sticks and strings to finish the nest. When she came back and was working on the nest the father bird went off to get some more sticks and strings. He came back with three sticks and four strings and when they had finished the nest the two mates flew off to find their supper. —Malda.

Gets a Hundred Eggs a Day.

Dear Young Folks:—I am a boy fourteen years old and live on a farm of 102 acres. I have three brothers and two sisters.

I am in the eighth grade. There are thirty children going to our school and we play ball and marbles every day.

I have seen many robins and meadow larks already this year.

My father has about 200 Leghorn chickens, and we get about a hundred eggs every night. The most we have got at night this year was 117.

My father and mother have a gasoline engine to do the washing, and a mangle to iron with. We have four cows to milk. My brother and I do the milking every night. We have five calves and we used to ride the calves all over the farm.

We have a Ford automobile. We have had it four years and have only run it 4,000 miles. Gaylord

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WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wisconsin.

2038—Girls' dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2⅝ yards of 36-inch material for a 2-year size.

2054—Ladies' house dress, with sleeve in wrist or elbow length. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 5¾ yards of 44-inch material for a 36-inch size.

2059—A charming negligee. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. The medium size will require 6½ yards of 36-inch material.

2039—Girls' dress to be slipped over the head. Pattern is cut in 5 sizes: 8, 10, 12, 14 and 16 years. It requires 3⅛ yards of 44-inch material for a 12-year size.

1854—An attractive apron model. Pattern is cut in 3 sizes: Small, medium and large. It requires 4½ yards of 36-inch material for a medium size.

1609—Girls' dress, with or without Bolero, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3⅜ yards of 44-inch material for a 6-year size.

1762—A practical ladies' apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 6¾ yards of 36-inch material for a medium size.

Waist 2037-Skirt 2060—A pleasing dress for home, business or calling. Waist 2037 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 44-inch material for a 36-inch size. The skirt 2060 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. For the skirt of the same width material, 4⅜ yards will be required. Two separate patterns, 10 cents for each pattern.

2051—Boys' Russian suit. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2½ yards of 44-inch material for a 5-year size.

1899—Ladies' waist, with bodice belt. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 2¾ yards of 36-inch material for a 36-inch size.

2057—Girls' one-piece dress with guimpe. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 1¾ yards of 27-inch material for the guimpe, and 4¼ yards for the dress, for a 12-year size.

Waist 1874-Skirt 1869—A splendid gown for many occasions. Waist pattern 1874 cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. The skirt 1869 cut in 6 sizes: 20, 22, 24, 26, 28 and 30 inches waist measure. It requires 8⅜ yards of 36-inch material for a medium size, for the entire dress. Two separate patterns, 10 cents for each pattern.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for April 29, 1917.

Jesus Welcomed as King.

LESSON TEXT—John 12:12-19.

GOLDEN TEXT—Blessed is the King of Israel that cometh in the name of the Lord.—John 12-13.

This lesson marks the beginning of that last tragic week in the life of our Lord, the most important week in all history since creation. The date was probably April 1, A. D. 30.

I. The Lesson of His Kinship. (vv. 12-16). Reading carefully the record of each evangelist, regarding this triumphal entry, we are still at a loss fully to describe the scene. It occurred the day following the supper in the home of Mary and Martha and Lazarus, i. e. on the Jewish Sabbath. From Bethphage Jesus sent two of his disciples into Jerusalem to secure the colt. They were to loose him without asking anyone's permission, and bring the ass and her colt to him to whom all things belong, with no other explanation than, "The Lord hath need of them" (Matt. 21:3). This command was in line with the prophecy (Zech. 9:9). The young ass was a symbol of peace, but the going of the disciples, in obedience to his command, was an act of faith, and obedience in the supreme test of discipleship (John 15.14). In response to their faith, they found everything just as he said it would be (Luke 19:32). Placing their garments upon the colt (Matt. 21:7) Jesus rode upon it toward the city, the people crying, "Hosanna"—literally, "Save, I beseech" (Ps. 19:37-40; see Luke 19:38; Mk. 11:9-10; Matt. 21:9). The enthusiasm of the moment was tremendous. For the moment this great crowd (Mk. 11:8) believed that Jesus was really the Messiah, they threw the garments of their holiday attire in his way (Matt. 21:8), and cast their palm branches before him. The Pharisees protested (Luke 19:39-40), but the enemies of Jesus for the moment were impotent (John 12:19). The Pharisees forgot their dignity to such an extent as to get excited along with the multitude, though with another purpose (See Luke 19:37-40). Unfortunately the enthusiasm of the people was not long-lived. Many of the same ones were soon crying, "Crucify him" (Ch. 19:14-15). Jesus himself did not join in the general joy (Luke 19:41-44), for he, with prophetic eye, saw the outcome (Luke 19:41-44).

II. The Lesson of Reverence (vv. 17-19.) It is one thing to acknowledge Jesus as a King. It is quite another to revere him as Lord and Savior. Never was there a time when we need more to have reverence for things holy and for constituted authority than the present day. The act of reverence on the part of this multitude for the God-anointed King ought to be a suggestion to those who look upon Jesus merely as a man.

Ride triumphantly;
Behold we lay
Our lusts and proud wills in Thy way.

Jesus' grief is in strange contrast with the joy of the multitude. The practical application for us today is: "Have we cast our talents before him, God's rightfully anointed King?" There had been a large company of people present when Jesus was at the tomb of Lazarus and raised him from the dead. The testimony of these eyewitnesses to the power of Jesus must have had great weight with the multitude. The enthusiasm of this crowd for Jesus excited the hatred of the Pharisees, making it all the more intense, for they saw the crowd forsaking them, and following one whom they envied and hated. To one another they exclaimed, "Behold, how ye prevail nothing." Notice the personal pronoun "ye," seeking to lay the fault upon others rather than taking their own share of the burden, another touch of human nature which is evident even today.

III. The Lesson of the Greek Pilgrims (vv. 20-26). These Greeks came first to Philip, who himself was a Greek. The hour had come (v. 23) when the work of Jesus for the Jews was to be finished. The Jews had been threatened with Greek religion, and that assault had been stopped by the Pharisees. Christ came first to the Jews that through them he might teach the Gentiles. Now his work for the Jews is done. He rejoices as he sees the Greeks coming to him, for it was to be in Greek dress and in Greek form of expression that Christianity was to conquer the world. But this rejoicing is tinged with sorrow, for it was a prophecy of the price that he must pay for the redemption of the world.

The Son of Man was glorified by his death; he was glorified by his reception on the part of the Gentiles; he was glorified by the approval of the father.

Verse 24 expresses one of the most tremendous facts in the life of Jesus (Cf. I Cor. 15:36).

Think of the rich fruits of Christ's death, the countless lives that he reached and ennobled, and the effect of his life on the practical affairs of the world, the hospitals and every movement for the advancement and the well-being of mankind which can be traced to the influence of his life.

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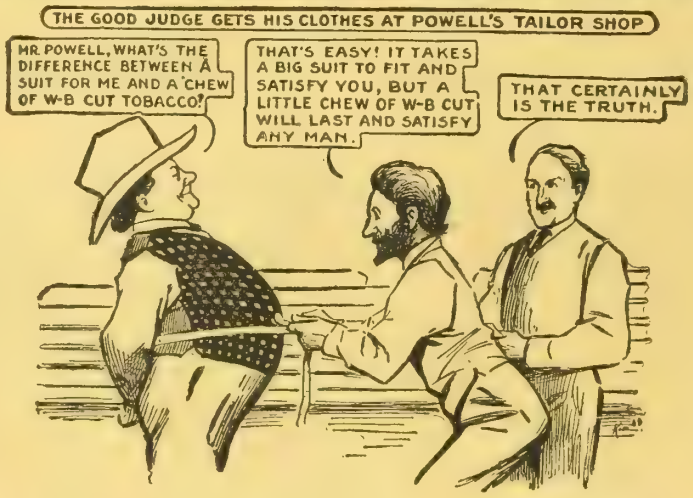

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Barron County Potato Work.

(Continued from page 1.)

mate treatment, consisting of four ounces of corrosive sublimate in thirty gallons of water. The seed stock is allowed to soak in this solution for one and one-half hours and each mixture is good for four batches. Not more than four lots should be treated with the same mixture, however, as the dirt weakens the chemical. During the coming summer, hill selection of seed will also be practiced, in order to obtain the very best seed for 1918.

The associations hold monthly meetings, at which they discuss better methods and any problems that might be of interest during the time of year. The Cedar Lake Potato Growers' Association recently combined its monthly session with a sort of get-together meeting and an enjoyable program and banquet was held.

Innumerable ways of improving social and business conditions have been opened up through this first move of these associations; and the results are already at hand. Nine associations have broadened out and applied their energies towards enterprises which to them are as important as potato growing. Shipping associations have been formed in Hillsdale, Barron, Almena, Ridgeland, Dallas, Hoskins, Turtle Lake and Canton. Some of these associations started with only a few members, but their growth has been remarkable in many instances. The Hillsdale association is a typical example of this. A month ago this community organized their live stock shipping association with twenty-five charter members. Today 168 farmers belong to it. They have handled in one month over $29,000 worth of live stock.

Coöperative buying is also becoming popular in Barron county. The Cedar Lake potato growers are purchasing their material for spraying coöperatively and receiving it at a lower cost because of this. It is planned to purchase dairy feeds during the coming winter on the same basis. Other associations have similar plans in mind. The demonstration that their potato work has given them is directly responsible for this. There is plenty of work for Mr. Cuff in Barron county. Over 4,000 farms are located in the county and only one-fourth of these have organized in one way or another for the development of better crops. Mr. Cuff is not so anxious to increase the acre yield as he is to save the yields of an acre. The loss annually from diseased seed stock, blight, tip burn and sun scald is considerable in every potato section. Where these have been eliminated a big step has been made toward greater production.

Certified growers are gaining in number in Barron county. There are now seven members already growing certified seed and over twenty applications for certificates have been made this year. The certified seed commands a higher price on the market because it has behind it the guarantee of inspection and supervision. The extra work and care required to produce good seed and meet the standards is well repaid when the seed is marketed.

Upper Wisconsin.

MR. GRIFFITH RICHARDS has resigned as county agricultural agent in Price county and accepted a similar position in Kenosha county. Mr. Forest Sargent, until recently manager of the Dr. Chas. Mayo farm near Rochester, Minn., has been chosen to succeed Mr. Richards.

MR. A. G. SEARING, of the Zenith Farm, Ashland Junction, Wis., writes The Wisconsin Farmer concerning some of the excellent work which has been done in Upper Wisconsin under the direction of Prof. E. F. Delwiche. He says: "When Professor Delwiche came up north pedigreed grain, pure-bred cattle, drainage, care and management of soils and crops were little heard of in this section. Today everyone has high-grade stock or hopes to have it, also pure-bred grains, and they are beginning to learn how to handle and take care of these. The further we get along in this work the more complicated it gets and the less we find that we really know, and this is where we are fortunate in having our obliging friend, Professor Delwiche, handy to help us and advise with us. When I first started in here twelve years ago I was plowing this heavy clay soil around and around with never a thought of draining it. I was doing the same way my grandad did years ago, back in New Jersey. Along comes the professor and sets me right and oh, my! what a difference it makes. I am just beginning to learn the first principles of taking care of oats and all I know along this line I owe to Professor Delwiche and our state experiment association."

RUSK county dairymen have recently organized the Marshall Dairymen's Association and through this organization are beginning the work of building a cheese factory on a site about three and one-half miles south of Conrath. The building will be completed about May 1st if present plans are carried out. The surrounding territory is especially favorable to the dairy industry and if the farmers coöperate fully in the undertaking, complete success should be forthcoming. The officers of the association are: Nick Engleman, president; John Rausch, vice president, and Cornell Elkow, secretary-treasurer. W. C. Kono, an experienced cheesemaker, will operate the factory.

TO the Editor:—The Lake Superior Holstein Breeders' Association held their annual meeting at the city hall, Ashland, Wis., April 4, 1917. County Representative Post was present by invitation and addressed the meeting upon the merits of the Holstein cow. It was voted that the association offer a prize consisting of a silver cup or tray for the best exhibit of Holstein-Friesian cattle by its members, at the Ashland County Fair the fall of 1917, cattle to be judged by the regular judges employed by the Ashland County Agricultural Society. Considerable interest has already been worked up in competition for this prize, and other prizes to be offered by the county fair association.

D. W. Emerson, Ashland Co.

THE So. St. Paul Live Stock Exchange has decided to hold a stock and feeder show at South St. Paul, September 20th and 21st. Over $3,000 will be given away in prizes. To accommodate the several sections which will be interested in this event the territories will be divided as follows: On cattle Group 1, eastern territory will include Wisconsin, northern Michigan and Minnesota; Group 2, central territory, will include North and South Dakota, and Group 3, western territory, will include Montana, Wyoming and Idaho. The division of sheep classes will be Group 1, native sheep, those from Wisconsin, northern Michigan and Minnesota being eligible. Group 2, feeder sheep, open classes, entries to be accepted from North and South Dakota, Montana, Wyoming, Colorado and Idaho. On September 21st, the last day of the show, there will be an auction sale of show cattle and sheep.

ONE of the first things for the settler to plant is his vegetable garden. A considerable part of the home food supply can be produced there. The land should be carefully plowed, and, if possible, given a dressing of manure or nitrate fertilizer. Hardy garden seeds should be planted as soon as the ground is thawed out enough to work well. Lettuce, peas, beets, carrots, onions and spinach belong to the early list. Sweet corn, wax and navy beans, cucumbers, squash and pumpkins follow in June. When land is broken in the early spring, with the intention of putting in a crop at once, it is well to use the disk immediately after the plow. A good way is to plow during the forenoon and then fit this land during the afternoon. Sod should never be left face up, as the grass will crowd out the tame plants sown later. Settlers must find out what crops will give best results. Such information, as well as facts regarding the buying of good seed of all kinds, will be furnished by the experiment stations or from county agricultural representatives. Although potatoes are undoubtedly one of the best crops for soils of a sandy or loamy nature, it is well not to plant too large an acreage at the expense of growing feed for live stock or the production of other food crops. Cabbage, rutabagas and turnips are good crops to grow on the heavy loams and clays and often give better satisfaction to new settlers than potatoes. The thrifty plans of Drumhead, Danish, Ballhead and red make good winter cabbage, while the Early Wakefield is excellent for late summer use. There is a steady demand for rutabagas in northern Wisconsin, and they grow well on new land and are not hard to raise. Mr. Delwiche gives a list of approved varieties of crops which have been proved by exceedingly careful trials to be safe for planting in northern latitudes and on new soil. Here are a few of them: Barley—Pedigree Nos. 5, 9 and 11 of the six-rowed type. Oats—Pedigrees Nos. 1, 3, 4 and 5. Rye—No. 1. Wheat—(Winter) Pedigree 208, Kharkoff and 408 Basca; (spring) Marquis, Blue stem and Red Fife. Peas—Golden Vine, Green, Scotch, Marrowfat. Soy beans—Early Black. Potatoes—Rural New Yorker, Burbank and Green Mountain; for early crops, Early Rose, Early Ohio and Triumph. Rutabagas—Purple Top and Monarch. Mangels—Golden Tankard, Mammoth Long Red and Half Sugar. Turnips—Yellow Aberdeen, Purple Top and Strap Leaved.

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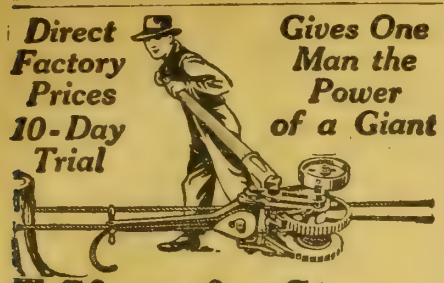

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FARMS wanted—Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

Clearing House For Seeds.

To the Editor:—In order to help farmers secure seeds, the state department of agriculture has been made the clearing house for locating supplies of seeds, and putting those desiring seeds in touch with the sources. Farmers and dealers who have seeds for sale are urged to send the state department information as to the amounts, varieties and prices. Such information should be sent in at the earliest possible date.

Persons desiring aid in locating supplies of seed are also invited to make application to the state department.

The department wishes to urge farmers and others who have supplies of seeds of various kinds on hand, and also those who wish to buy seeds, to advertise the same in their local papers, so that the buyers and sellers may get together locally. The local paper can be of no greater service than to insert such notices and run a regular marketing department.

The department now has option on the main supplies of potatoes in the state, for one week, also upon a large supply of navy beans. All orders for the above mentioned seeds should be accompanied by a draft made out to the commissioner of agriculture for the amounts based on $3 per bushel for potatoes and $10 per bushel for beans.

The department wishes to state most emphatically the fact that hardly any first-class seed potatoes are available at the present time. Parties wishing seeds must be satisfied with taking the best lots of common market potatoes.

The state department of agriculture feels that it is much safer and wiser to place the most prominent emphasis upon increased acreage of corn, beans and buckwheat rather than potatoes.

C. P. Norgord, Commissioner of Agriculture.

From the Holstein Association.

To the Editor:—I am advised through preliminary reports and by wire that the Holstein-Friesian cow, K. K. S. V. Topsy 220088, has shown a production of 568.4 pounds of milk, containing 32.05 pounds of fat in seven days with the test still in progress. She freshened at the age of three years, eleven months and twenty-four days. Her sire is King Korndyke Sadie Vale 86215; her dam 's King Segis De Kol Korndyke Topsy 146246. She was bred and is now owned by Mr. Quentin McAdam, of Waterville, N. Y. If computed on the 80 per cent basis, the equivalent butter production so far claimed for K. K. S. V. Topsy would amount to 40.06 pounds.

Malcolm H. Gardner,
Supt. A. R., Delavan, Wis.

Badger Crops Wintered Well.

(Continued from page 11.)

looking well. Feed is scarce and high priced.—L. D. Garnhart.

Waukesha County.—Spring has been backward, but some seeding has already been done. Some spring wheat may be sown this year. Feed for dairy cows has been very high and many herds have been poorly fed. Breeders of pure-bred stock are getting high prices for their animals. Buyers from other states have been at work here.—W. J. Main.

Wood County.—Heavy snows have protected the rye and clover and a little rain will put these crops in fine shape. They have already started to grow, but the ground is getting too dry. Farmers are preparing to put in the oat crop, but few will sow spring wheat. Fat live stock have all been sold. Considering the long cold winter cattle are in fair shape. There are very few hogs. Young pigs have been selling at from $12 to $15 a pair.—Fred E. Weber.

Government Report for State.—Fall-sown rye and winter wheat in Wisconsin have come through the winter in excellent shape and present prospects are very promising. The next week or ten days should put these crops out of danger from the alternate freezing and thawing weather. The ground in the counties where most of our rye and winter wheat is grown has been well covered with snow since December, and as a result the frost did not penetrate deeply, in many places not over six inches. The heavy snow covering, with the absence of ice on the fields produced almost ideal conditions for the fall-sown crops. Apparently the clover crop has also come through so far without any serious winterkilling. With the high price of pork, the temptation to market breeding stock has been strong, but the reports from all over the state indicate that but few farmers have sacrified many of their breeding sows and in some counties there is an increase. During 1916 the farmers of Wisconsin shipped to the primary markets over 1,600,000 hogs. This represented about three-fourths of the total number of hogs slaughtered and is considerably less than the number shipped in 1915. The general health conditions of stock of all kinds throughout the state is fully up to average.—W. F. Callander.

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THE OTTAWA MANUFACTURING CO.,
2191 King Street, OTTAWA, KANSAS.

FOR SALE—Pedigree Barley No. 5; Pedigree Oats No. 1 and No. 5; also Timothy seed H. P. West, Ripon, Wisconsin.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippewa Falls, Wis.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Lake Mills Holstein Sale.

AT the Lake Mills Holstein sale (see advertisement in the center pages of this issue), there will be an opportunity to select from 175 head of richly-bred Holsteins, possessing individuality and A. R. O. backing that is seldom equaled in a consignment sale. The fact that the Lake Mills sales have a reputation for clean management, merits the confidence of buyers desiring to purchase good stock. We have had an opportunity to inspect most of the consignments which we do not hesitate to recommend to the public. Most of the animals are in good condition and reiterate the statement that there will be an unusually large number of animals possessing superb individuality. The following is a brief review of some of the chief points of interest concerning some of the consignments to be represented at this sale. John D. Hetts, of Fort Atkinson, is consigning 18 head, mostly sired by Juliana King of Rock and Juliana King Repeater. The former is by Mutual Piebe De Kol and the latter by King Segis Pontiac and both are out of the famous cow, Queen Juliana Dirkje, that produced over 1,000 pounds of butter as a three year old and 3,000 pounds butter in three years. Mr. Hetts is also consigning a 29-pound yearling son of King Segis Pontiac and out of Mutual Lilith of Rock (194953) that has just completed a 29-pound record and is a good prospect for a much larger performance. The "Alfakorn Dairy," proprietors F. B. Green & Son, Evansville, Wis., are consigning a 24-pound four-year-old cow bred to their 33-pound bull sired by Emmons Blaine's 29-pound bull, Canary Homestead Oak De Kol and out of the 33.48-pound cow, Windsor Sweet Butter Maid, that is generally looked upon at the Lake Mills district as being a splendid prospect for 35 pounds. She is a remarkable cow and has transmitted most of her best points of individuality to her son, the Alfakorn senior herd sire, that is bred to a choice lot of yearling heifers, consigned by F. B. Green & Son. They are also entering two good grandsons of Findern Pride Johanna Rue, out of A. R. O. dams.—Adv.

Lake Mills Consignments.

FRED GURR, Lake Mills, Wis., is consigning some of the best individuals for the Lake Mills Holstein sale, May 8th and 9th, including three granddaughters of King Segis Pontiac. These heifers are remarkably well developed, possessing ideal lines and dairy conformation. To verify this statement look up cuts 16 and 17 in the Lake Mills sale advertisement of this issue. While looking up these heifers also notice cut 18, which gives a fairly good idea of the 24-pound bull calf Mr. Gurr is consigning. This calf is sired by Uneeda Korndyke Abigail Boy, a 33-pound bull that is a handsome individual and out of the best daughter of Johanna McKinley Segis. John Jones, Milton Junction, Wis., will have in his consignment some choice heifers sired by Juliana King of Rock and Juliana King Repeater, previously described in the noted concerning Mr. Hetts' consignment. Cuts 14 and 15 in the Lake Mills sale advertisement of this week will give an idea of the quality of the animals consigned by Mr. Jones. These heifers are out of good A. R. O. dams, having records up to 26 pounds. Individuality is a point Holstein breeders are paying more and more attention to each yar and it will, therefore, pay discriminating buyers to pay particular attention to Mr. Jones' consignment, as they are exceptional in the point of individuality. Henry Anthes, Geo. Stroebel and Henry Schimming, of Jefferson, Wis., have in their consignments at least seven choice daughters of Uneeda Korndyke Abigail Boy, the 33-pound bull previously described as a splendid individual and from the best daughter of Johanna McKinley Segis. This 33-pound bull is now owned by Henry Anthes and is throwing exceptionally high-class calves. Cuts 10 and 11 in the Lake Mills sale advertisement of this issue will show the quality of his get. A number of these heifers are bred to a 34½-pound bull and are, therefore, worthy of careful inspection. Tulloch & Fries, Genoa, Wis., have listed in their consignment a 31-pound bull out of a cow that made her record as a four year old, as well as a yearling bull, whose nine nearest dams average 30 pounds. This firm have the reputation of bringing good things to a sale, and their consignment should be carefully noted. Wm. Trachte, Watertown, Wis., is consigning three cows, nine heifers and two bulls. The heifers are by Duke Johanna Inka (59269) a 31-pound bull and for the most part are bred to Mr. Trachte's 30-pound bull, Longfield Paul Fobes Homestead (187899).—Adv.

Meeting the Beef Shortage.

IF farmers, cattle raisers and dairymen generally will use registered Short-horn bulls, they will increase their beef output and aid in the present crisis in providing an adequate beef supply. There will be no need of "meatless days" if pure-bred registered Short-horn sires will be put to use throughout the land. The Short-horn has been called the "ever efficient missionary of the bovine heathen of the earth." Short-horn blood has been the great improver in the cattle stocks of America for more than 100 years and continues to bear a large share of that responsibility. A Nebraska farmer who uses registered Short-horn sires recently sold his steers at the Omaha market for $196.04 per head, selling 30 cents above the record of the market during its entire history. A carload of Short-horn steers were the highest dressers at the last International Show. They were by registered sires and out of high-grade, good-milking cows. The champion carload of steers at the recent live stock show in Utah were Short-horns.—Adv.

Pig Crop Not as Good as in Previous Years.

A SHORT time ago we sent out 50 letters to breeders of registered hogs in Wisconsin and Minnesota and up to date—April 14th—we have had replies from 14 breeders. One of the questions we asked was whether their pigs were as good as in previous years. In most instances we were advised that the pigs saved would compare with other years, but owing to the damp, cold, gloomy weather in March it was difficult to save as many as they should. Only two of the breeders complain about "canker mouth." Several have had a heavy loss from the scours, due to the fact that the early pigs could not get out and exercise on account of the weather. Several advise that they have had the entire litter come without any hair and we have had different reasons given for this. Another question we asked was whether the old sows or the gilts saved the most pigs and strange to say, those that replied to this question had the best success with the gilts. Under ordinary conditions it is generally conceded that the old sow will save more pigs than a gilt. In the 14 herds, 185 sows have farrowed 1,614 pigs, an average of 8.7 pigs to the litter. Of this number 1,121 pigs were saved or an average of 6.05 pigs per litter. These pigs wre sired by 77 different boars. The three leading breeds are represented in this report, Poland Chinas, Duroc Jerseys and Chester-Whites. The highest average was 8.2 pigs—20 sows with 164 pigs. The lowest was 4.12, but this breeder had seven sows to farrow from the 10th to the 20th of this month, which should bring his average up. We expect to hear from other breeders soon and will give another summary in a near future issue.—Adv.

Sale at Marshfield May 10th.

THE Central Wisconsin Breeders' Association sale will be held at Marshfield, Wis., Thursday, May 10th. At this writing 75 head of Holsteins and Guernseys have been listed for this sale. Of this number 50 will be Holstein bulls and females and 25 Guernseys. These have been selected from the various herds in central Wisconsin and are good representatives of the two breeds. The sale is under the management of W. W. Clark, Grand Rapids, and you can rest assured that he will do his part toward getting together a good lot of useful cattle. For detailed information get one of the catalogs and same can be had by addressing Mr. Clark at the above address. Kindly mention The Wisconsin Farmer when writing.—Adv.

Olson at Strum.

O. C. OLSON, Strum, Wis., is the owner of a good herd of Poland Chinas and he also breeds Short-horns. Just now he is busy taking care of a fine bunch of spring porkers. In Short-horns he has a few young bulls for sale of the dual-purpose kind, rich in Clay breeding. Write him for description and price.—Adv.

Bates Short-horns.

GEO. WENHAM & SONS, Ft. Atkinson, Wis., have a Short-horn herd strong in Bates breeding. They have for sale young bulls out of good milking dams and sired by bulls of Wildeyes and Buttercup breeding. Write them if interested in milking Short-horn bulls. Mention this paper.—Adv.

Schoenfeld Short-horns and Polands.

C. J. SCHOENFELD & SONS, Fox Lake, Wis., are breeders of Short-horn cattle and Poland China hogs and if you are interested in bulls of this breed or in a good, big-type Poland China boar, let them know about it and they'll send you detailed description. This is a firm that we are glad to recommend.—Adv.

Wyatt Jerseys.

YOU will have a large number of Jerseys to select from if you visit E. E. Wyatt, Tomah, Wis. He will sell cows and heifers and can supply you with one or a carload. Write him at once and mention this paper.—Adv.

Maurer Short-horns.

SHORT-HORNS and the name, Maurer, are synonymous. Richard Maurer & Son, Fox Lake, Wis., need no introduction to men interested in cattle of this breed. They have some of the best Scotch breeding and if you are in need of a good bull or a few heifers, let the above firm make you quotatoes.—Adv.

Why You Should Buy Your Boar Now.

WE never could understand why more of the better farmers, as well as breeders put off buying their boars until late in the season. There are several advantages in buying early. If you buy your boar at three or four months old you generally have a larger number to select from, for the best ones are not sold. Then the farmer or small breeder can generally take better care of one boar pig than the breeder will with a large bunch, besides you can grow and feed him out as you think best. By the time the breeding season opens the boar is accustomed to his surroundings and you will have better success with him. He costs less at three or four months than he does at six or seven and the express rate is very low. Write some of the swine advertisers in The Wisconsin Farmer for prices on their pigs at weaning time. Order one now and take good care of him and you will be glad of your deal.—Adv.

War Durocs.

WITH the important countries of the world now at war, can you see any reason why the price of pork will not remain high? In view of the fact it behooves you to breed as many sows as you can for fall farrow. If you are going to need a boar we wish to call your attention to about a dozen that Dennis Shea, Melvina, Wis., has for sale. They are big-boned rugged fellows that will please you, at least they are good enough to ship on approval. They are well bred and out of those big sows for which his herd is noted. Write him and mention The Wisconsin Farmer.—Adv.

Guernseys to Indiana.

CHAS. A. WILKINSON, who has one of the best Guernsey herds in the state of Wisconsin reports the sale of a choice bull to S. S. Wenger, Wakarusa, Ind. He is sired by his good herd bull, Langwater Frenchman 19226, and out of Lily's Golden Fawn, 434 pounds fat. Mr. Wilkins has 30 cows with records completed to date that average 460 pounds fat. Twenty of them average 505 pounds, and ten have an average of 553 pounds fat. Wilkins has the goods, and if you want Guernsey bulls send for his sale list and please mention The Wisconsin Farmer.—Adv.

Young Offers Boar Pigs.

WE have just had a letter from P. W. Young, Prosper, Minn., advising that he is booking orders for spring boars to be shipped at weaning time, the last of May and first of June. He reports—April 1st—140 spring pigs by his three boars, Master's Giant, Orange Wonder and Young's Big Joe. If you want a good, big-type Poland China boar pig, get your order in early.—Adv.

JOHANNA KORNDYKE BUTTER GIRL (157802) consigned by F. J. Bristol, Oakfield, Wis., to the Fond du Lac Holstein sale on April 26th and 27th, was recently advertised as a good prospect for 35 pounds. She has just completed a record of practically 32 pounds. Her complete record is as follows: 20.04 pounds, junior two year old, 26.57 pounds at three years, and present record of practically 32 pounds. It will be remembered that she is the dam of Adventure Lad, that was sired by Spring Farm Pontiac 6th. Adventure Lad is bred to most of the 35 females consigned by Mr. Bristol.—Adv.

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

SALE DATES.

Holstein Cattle.

Apr. 26-27, Fond du Lac Co. Holstein Assn., S. H. Bird, South Byron, Wis., Manager.

May 1-2, Stephenson Farm Herd, of Kenosha, at Lake Mills, Wis.

May 8-9, Lake Mills Holstein Breeders' Consignment Sale.

May 10, Central Wisconsin Live Stock Breeders' Assn. sale, Marshfield, Wis. W. W. Clark, Mgr., Grand Rapids.

May 10, Delavan Breeders' Combination Sale, Delavan, Wis., F. P. Merrick, Secy.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

THE MARKETS.

Union Stockyards, Chicago, Ill., April 21st.—The somewhat liberal run of cattle around the market circuit again this week spells liquidation. For most of it the excessive cost of feed has been responsible, but feeders are still apprehensive of price fixing and believe it will be detrimental to their interests if resorted to. A Washington dispatch stated that the council of national defense had approved of Secretary Houston's plan, giving it authority to fix both maximum and minimum prices, and also to establish food distribution stations, but the secretary stated that such action was merely in the nature of precaution and would not be resorted to except an emergency arises. Certainly no emergency exists at present, nor is one likely. Of course, where cattle cannot be held advice to hold them back is superfluous, but unless such sacrifice is necessary it should be avoided. Thousands of little cattle have been dumped during the past two weeks, the owners of which will be nursing red-eyed regret before long.

Seasonable temperatures are stimulating the rise of grass, promising relief from feed scarcity. This ought to arrest current liquidation of light cattle which can be thrown out on pasture. The break of the past two weeks, which is equal to $1 per cwt. on many grades of light steers, has been due wholly to excessive marketing of immature stock. Had grass been available or corn more plentiful much of this liquidation would have been avoided. Hight retail prices have curtailed meat consumption and there has been a seasonable slump in trade, but in the case of beef cattle, excessive marketing is the chief depressing influence and until it is stopped the selling side will have trouble.

Cattle traders at this week-end are trying to get their bearings after a slump in values that, on most classes, has been continuous since early last week when prices hit the highest levels in market history. Yearlings have been hit the hardest, many little cattle weighing anywhere from 600 to 900 pounds and now selling at a range of from $9@10.50 showing declines of 75c@$1 from the recent high spot. Letting such cattle go at this juncture is a mistake and those making the sacrifice will realize it later. Feeders cannot take them to throw on grass, as they have had a little corn, consequently, they go to killers without competition. Yearlings coming now represent the June run and even then most of them are sacrificed short of condition.

Choice heavy cattle have suffered less than other classes of beef steers, but they have not escaped vicissitude. While a new high top of $13.50 was made Monday on prime weighty bullocks, the best heavy cattle seen here in weeks sold Wednesday at $13.35. This decline is not marked, but very few steers now coming can pass $12.50 and 25@50 cents declines from a week ago are shown on the bulk of the steers between that figure and $9, putting the bulk of the light and medium weight steer cattle 60c@$1 under the high spot early last week. Beef trade is in a rut. The kosher market for chucks at New York has had a sharp break and is weak at the decline. Prices reached a level where the consumer balked, which is merely a case of history repeating itself.

There have been two kinds of market this week in the she stock trade. Stress of demand has centered on canner and cutter cows which have not been plentiful and which have absorbed strength from the abnormal demand prevailing for such meat products as go into the manufacture of canned meats and sausages and from the activity and strength

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Just to get you interested (this has nothing to do with winning the auto) I offer you a set of six beautiful Soldier Boy Postcards if you can solve this missing number puzzle.

What numbers, placed in the vacant squares will make a total of fifteen when added either up and down or across?

Just fill in missing numbers and send 4 cents stamps to pay cost of mailing and I will send you this set of beautiful postcards showing our gallant Soldier Boys in action. In the same letter I will tell you about great Saxon Roadster offer.

The Auto Man 211 Popular Building
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Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address Room 201, Washington Building, Madison, Wis.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota Address Box 109, Sioux City, Iowa

M. T. White, western Iowa and northeastern Nebraska. Address 401 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

of the hide market. They are commanding the highest prices on record and show 15@25c advances over a week ago. Medium and fat cows, on the other hand, show steady to lower levels than a week ago and are largely 35@50c below the high time early last week, while light heifer yearlings have been subjected to the same sharp, irregular declines as have marked the trade on steer yearlings. On the current basis of prices canner cows selling at and below $6.50 are shelly light dairies, not above suspicion as being tubercular, $6.75@7.15 buying fair to good canners and $7.25@7.75 taking plain to good cutter cows. A fair to medium class of butcher cows sells, however, at $8.15@8.65, a good, strong weight beef class at $9@9.50 and only choice heavy Kosher cows above $10, a strictly prime kind being quotable on up to $11@11.50, but rarely to be had. Heifers at $7@7.85 are common or stockery light stuff, but $8.50@9 is taking a fair to medium killing grade, a good, fat class going at $9.25@10 and only choice corn feds at $10.50 and above. Common light bulls are selling extremely well along with low-grade she stuff, light canner bulls making $6.75@7.50. A decent 1,100 to 1,200-pound bologna grade, however, sells at $8@8.25 and $8.50@8.65 is buying good to choice heavy bolognas. Butcher bulls now sell largely at $8.75@9.50, only an occasional prime beef bull up to $10. Veal calves are being freely marketed and are showing seasonal declines, a lot of 95 to 100-pound vealers selling at $11.25@11.50 and good to choice 100 to 130-pound veals selling from $11.75@12.50.

Stock and feeding cattle trade continues of comparatively narrow volume, advancing corn prices and government price-fixing agitation being the demand curtailment factor. With the grazing season near ,however, a fair call has been had this week for stock cattle to put on pasture and this demand is expected to expand with the rise of grass. Prices show some decline from last week's closing and are largely 25@40c below the high time at the start last week. A good business class of 700 to 850-pound steers is selling at $8.40@8.85, an order buyer taking out 100 head of decent qualitied thin stockers at $8.35. Few feeders sold above $9.25, with bulk of all grades at $8.40@9.50. Feeders paid on up to $10@10.45 for a few loads of meaty strong weight steers, but they were a kind worth $11@11.35 to killers early last week.

Packers have had 'their bear clothes on" in the hog market this week and with some increase in receipts around the market circle and a less avid shipping demand, reflecting decreased consumption of fresh pork due to its high price, the "economy campaign" and higher temperatures, declines from the lofty level of prices shown a week ago have been easily enforced. At the close yesterday the market stood lower than the corresponding day last week, with pigs and light-light stuff weighing under 150 pounds showing a dollar break in extremes. Quality has been the poorest of the season, the proportion of pigs and lights being materially increased and choice strong weight butcher hogs scarcer. The $16 hog was counted out on Thursday, the extreme top being $15.95 and the bulk $15.40@15.85, but the $16 top reappeared Friday on a 5c advance. A few 150 to 180-pound light mixed hogs are selling down to $15@15.35 some 138-pound "pig stuff" as low as $14.50 and good to choice 90 to 125-pound pigs at $12.25@13.50. The decline curtailed receipts the last two days, but packers are acting extremely bearish and unless the marketward movement is kept down next week further declines are not improbable, although the situation can turn bullish overnight and supply curtailment early next week might easily prompt a reaction to higher levels. Provision stocks are rapidly diminishing. On April 1st the combined stock of cut meats at all packing points was 310,110,000 pounds, a decrease of 21,552,000 pounds during March. On April 1, 1916, the stock was 285,253,000 pounds. The April 1st lard stock was 57,901,000 pounds a decrease of 7,542,000 pounds during March; last year it was 106,753,000 pounds. The stock of pork on April 1st was 66,578 barrels against 81,285 barrels last year, the March decrease being 7,000 barrels. The present stock of meats is 15,813,000 pounds less and of lard 11,953,000 pounds more than the April average of the past ten years. High prices have curtailed neither exports nor domestic consumption.

Packers have been fighting the lamb market all this week, but have succeeded in inflicting only the slightest damage to the price list and that promises to be speedily repaired, the market closing healthy and with short runs in prospect for the coming week and for several weeks to come. At the close yesterday $16 was taking the best handy wooled lambs, against a $16 top at last week's closing, while the quotable limit on shorn lambs is $12.85, against an extreme top of $13 at last week's closing. A lot of strong weight lambs in the fleece sold, however, at $15.50@15.75 that were practically as high as at any time and scarcity has made sheep and yearlings immune to decline, good shorn classes, in fact, looking a point higher than a week ago. It is largely a $12.35@12.65 market on fair to good shorn lambs of desirable weights, with prime 103-pound fed westerns selling at $12.30 and some plain heavy clippers down to $12 or below. Light shorn yearling wethers scored $11.75 and good to prime shorn wethers at $11.15@11.50, the best shorn ewes at $11. Wooled yearlings at $13.50 were a good, but strong weight kind, and a prime light class is nominally quoted to $14.50, or higher, while $12.75@13.25 is taking wooled wethers of good to prime class and $12.75 a good fat grade of wooled ewes.

No good reason could be assigned why the federal government should take over stocks of wool, and Washington acted that way. Trading has been resumed, 50@52½c per pound being paid for big clips at feeding stations near Chicago this week, with every indication that the market is on a legitimate basis. Nothing will be more calculated to stimulate sheep husbandry than a high wool market and the business needs support of that kind at this juncture. Government control would have exerted a discouraging influence.

HOLSTEINS
FIFTY HEAD
GUERNSEYS
TWENTY-FIVE HEAD

Marshfield, Wis., Thursday, May 10

You get an assortment in this sale. Some of the females are out of A. R. O. dams, and sired by bulls of the most popular breeding.

All Have Been Tested

Central Wisconsin Breeders' Ass'n Sale

A sale for you to attend. Auctioneers: Perry, Krause, Ebby and Hamiel. Write for catalog to

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HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
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HAVE over one hundred good ones sired by the grand champion
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IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

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BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
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BUT still raising Durocs for May delivery. Order now. Address
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HAS no Durocs to sell until May. Will book your order.
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THEY are dandies, with stretch and quality. Our guarantee with each pig. Address
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Have a choice lot of Hereford and Short-horn bulls for sale at reasonale prices.

JERSEY CATTLE.

Oak Grove Jersey Farm

Bull calf, dropped Aug. 21, 1916, solid fawn color, will show as a calf this fall; tuberculin tested; dam on official test; price right. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins - - Fairwater, Wisconsin

JERSEYS.
HEIFERS AND BULLS

SIRED by Double Time Varsity King and a son Golden Maid's Viscount. We are milking 50 cows. **Fred Stubley, Black Earth, Wis.**

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

HEREFORD CATTLE.

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, by **Beau Gomez 2d**, he by the noted $4,000 **Beau Gomez.** Outstanding bulls at reasonable figure.
WALTER BROS. Chippewa Falls, Wis

HAMPSHIRE SWINE.

HAMPSHIRES

OR "Belted" swine, have 40 March farrowed spring pigs for May 1st delivery, males and females unrelated
Dane Stock Farm Oshkosh, Wis

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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Fred Chandler, R. 7, Chariton, Iowa.

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LAKE MILLS, WISCONSIN
EMMONS BLAINE - - - - PROPRIETOR

50 A. R. O. Holstein Cows with records up to 34½ lbs. in total herd of 200, headed by 29-lb. and 31-lb. sires.

SHORT-HORN CATTLE.

RAISE MORE BEEF

Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short-horn is the great improver.
Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.
Use only pure-bred registered bulls. We will help you to secure them.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
13 Dexter Park Avenue Chicago, Illinois

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, Janesville, Wisconsin

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
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Short-horns
MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

SHORT-HORNS

BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
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THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

Bates SHORT-HORNS

OFFERING choice bulls old enough for service sired by 17th Duke of Wapsie. Herd established 40 years. Correspondence invited.
B. W. Little Janesville, Wis.

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

SHORT-HORNS Both sexes and good individuals. Address Williams Bros., Bangor Wisconsin.

WE have some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

GREEN VIEW STOCK FARM
SHORTHORNS

OF serviceable age. Not a poor one offered. Guaranteed breeders. Address
John H. Bear & Son Spring Green, Wis.

SHORT-HORNS

OF either sex, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. Bernd New Richmond, Wis.

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

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SHORT-HORN BULLS—Two ready for service. From good milking dams.
J. M. SWEENEY & SONS, Edgerton, Wis.

THREE SHORT-HORN BULLS

FOR sale—10, 11 and 13 months old. Sired by a son of White Sultan and from good milking dams. A. J. Wheeler, R. 1, Beaver Dam, Wis.

SHORT-HORN BULLS

Red, white and roans. For particulars address
R. A. Morley Co. Baraboo, Wisconsin

REGISTERED Short-horn bulls of serviceable age, also some pure-bred calves, for sale. Prices right. Address John Fitzgerald, Grimms, Wisconsin.

GUERNSEY CATTLE.

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.
DR. TRUMAN BROPHY CHICAGO, ILLINOIS
Farm at Edison Park, Illinois

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS WAUKESHA, WISCONSIN

Registered Guernsey COWS
WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.
E. H. KIESLING Jefferson, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

ONE 3-YEAR-OLD GUERNSEY BULL

DAM, Oakwood Maid Eagle, with 448 pounds fat and sired by Golden Lad of Fern Ravine. Price $200. Also calves from 2 to 6 months old, mostly all dams imported and sired by different sires. Prices $50 to $100.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (six nearest dams av. 590 fat). Dam, Yeksanette (126 ds. 221 fat). He traces nine times to Yeksa. Send for details.
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TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
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YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

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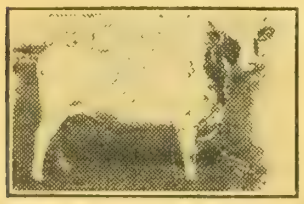

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MY private sale catalog now ready. If you want a good Poland China boar, to be shipped at weaning time, and will pay a fair price for the good kind, let me describe the boar you want.
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10 Fall Poland China Boars

Good ones. Sired by Smooth Price, Northside Wonder and Black Chief, out of 800 lb. sows

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BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address
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FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address
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BY Callaway's Favorite, one of the good Chester White boars of the state. Booking orders now.
WALTER GEORGE EVANSVILLE, WIS.

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CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reasonable prices on singles, pairs or trios. Address
A. P. CORTTE LOMIRA, WISCONSIN

RICHLY BRED BERKSHIRES

A CHOICE lot of June boars of best breeding at little more than pork prices. Can spare a few gilts of same age. Booking orders for March pigs. For prices write, O. R. Frauenheim, Random Lake, Wisconsin.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa.

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Calloway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
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CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write
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BREEDER of Chester Whites. Let me know your wants
WEST SALEM WISCONSIN

HOLSTEIN-FRIESIAN CATTLE.

PURE-BRED HOLSTEINS

PLYMOUTH, WISCONSIN TUESDAY, MAY 1, 1917

DISPERSION

ABSOLUTE dispersion of the C. J. Nehrling herd at Clover Mead Stock Farm. Included in the sale we find:

DUTCHLAND CREAMELLE ASCALON LAD, whose five nearest dams have semi-official records that average 1,035.12 lbs. butter and 24,793.0 lbs. milk. There are also sixteen of his calves while over half the females are bred to him.

14 DAUGHTERS and 6 GRANDDAUGHTERS of SIR JOHANNA GLADI KORNDYKE, who is from an A. R. O. daughter of Pontiac Korndyke and sired by Sir Johanna Colantha Gladi, he by Colantha Johanna Lad from a 32-lb. daughter of Hengerveld De Kol.

3 DAUGHTERS and 4 GRANDDAUGHTERS of COUNT SEGIS BELLEWOOD, he by Prince Segis Korndyke from one of the best daughters of Pietertje Hengerveld's Count De Kol.

Good A. R. O. Cows and Daughters of A. R. O. Cows.

All over 6 months of age tuberculin tested. Improve this chance to pick up some money makers. Sale under management of

Liverpool Sale & Pedigree Co., Inc.
LIVERPOOL, N. Y.

DISPERSION

HOLSTEIN-FRIESIAN CATTLE.

---The Efficiency of a Cow as a Milk Producing Machine is Mostly a Matter of Inheritance---
Prof. C. H. Eckles

HERE IS THE BULL THAT WILL GIVE RESULTS

PABST'S JOHANNA AAGGIE

Sire, KORNDYKE SEGIS JOHANNA, whose two nearest dams gave 38 pounds. Dam at 4½ years, 25.22 pounds butter, 493.9 milk, 4.09 per cent; 365 days at 3 years, 808.7 milk, 18,824.1. By King Pontiac Champion (53418).

Bulls From $150.00 Up.
Write for Particulars.

PABST STOCK FARM
(Breeders, Not Dealers)
Box W, Oconomowoc Waukesha County
WISCONSIN

HOLSTEIN BULL CALF FOR SALE

Korndyke Washington Ormsby

His sire is from a 23-lb. junior two-year-old daughter of Sir Pietertje Ormsby Mercedes and a 29.98-lb. dam. His dam is a 13.01-lb. junior two year old whose sire is from a sister to the sire of Ormsby Jane Segis Aaggie, 44.42-46.33 lb.

Look up his sire, Sir Korndyke Fytje Pietertje No. 132719.

I own his dam, Bonnie Ormsby Colantha No. 228930.

As I live in town and have no room for him, he will be sold worth the money.

BEN BACHHUBER
Elkhorn Wisconsin

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UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.

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Pewaukee Wisconsin

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON NASHOTAH, WIS.

AT LA BELLE VIEW FARM

WE sell Ormsby bull calves by wire before breakfast. If you want one of these youngsters from an A. R. O. dam, sired by our richly-bred Ormsby sire, whose six nearest dams have a 4% test and better, and who is first cousin to Duchess Skylark Ormsby (dairy queen of the world) get busy. Our prices are very reasonable.
EARL E, ROSENKRANS Oconomowoc, Wis.

HOLSTEIN BULL FOR SALE

HOLSTEIN BULL, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
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HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.
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Walcowis Farms

OFFER grandson of King of the Pontiacs, born July 19, 1916. Sire is a full brother to K. P. Manor Kate, world's yearly record senior two year old. Dam is a 19-lb. granddaughter of De Kol Burke. This calf is a splendid individual, dark in color and tuberculin tested. For further information, address
N. DICKINSON & SON Lake Geneva, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
Dopp Brothers Ixonia, Wisconsin

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey Grafton, Wisconsin

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MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address
C. F. DINEEN. CEDARBURG, WISCONSIN

Holstein Bull for Sale

SIRED by a 2-474-pound grandson of Hengerveld De Kol, dam Aaltje Salo De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A.R.O. daughters. Arthur Rust, West Allis, Wis.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. Winckler & Sons Medina, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER, SHEBOYGAN FALLS, WIS.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. Rhoda, 610 3d St., Watertown, Wis.

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HIGH-GRADE Holstein heifer calves; am in position to furnish single or car load shipments of selected well-marked calves at $18.00 to $20.00 a head. Also pure-bred bull calves. Send cash with order. Address S. E. Jones, Watertown, Wisconsin.

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HAVE a few bull calves from A. R. O dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

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REPRESENTS a rare combination of Ormsby breeding. His sire, Paul Ormsby, is a half-brother of Ormsby Jane Segis Aaggie and his dam, Lady Ormsby 2d, 22.35 lbs., is a half-sister of Duchess Skylark Ormsby and Pietertie Maid Ormsby. Our herd is on the accredited list. Send for extended pedigree. Address
H. E. Reddelien Oconomowoc, Wisconsin

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. Anderson Whitewater, Wis.

HILLSIDE STOCK FARM

KING Fayne Pontiac Ormsby, 18 mos. old, seven-eighths white straight; dam, 600 lbs. milk, 24.06 butter in a week. Also a few registered Holstein heifers for sale; price, $250.00.
KIRKPATRICK BROS. Reedsburg, Wis.

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FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
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RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

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Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
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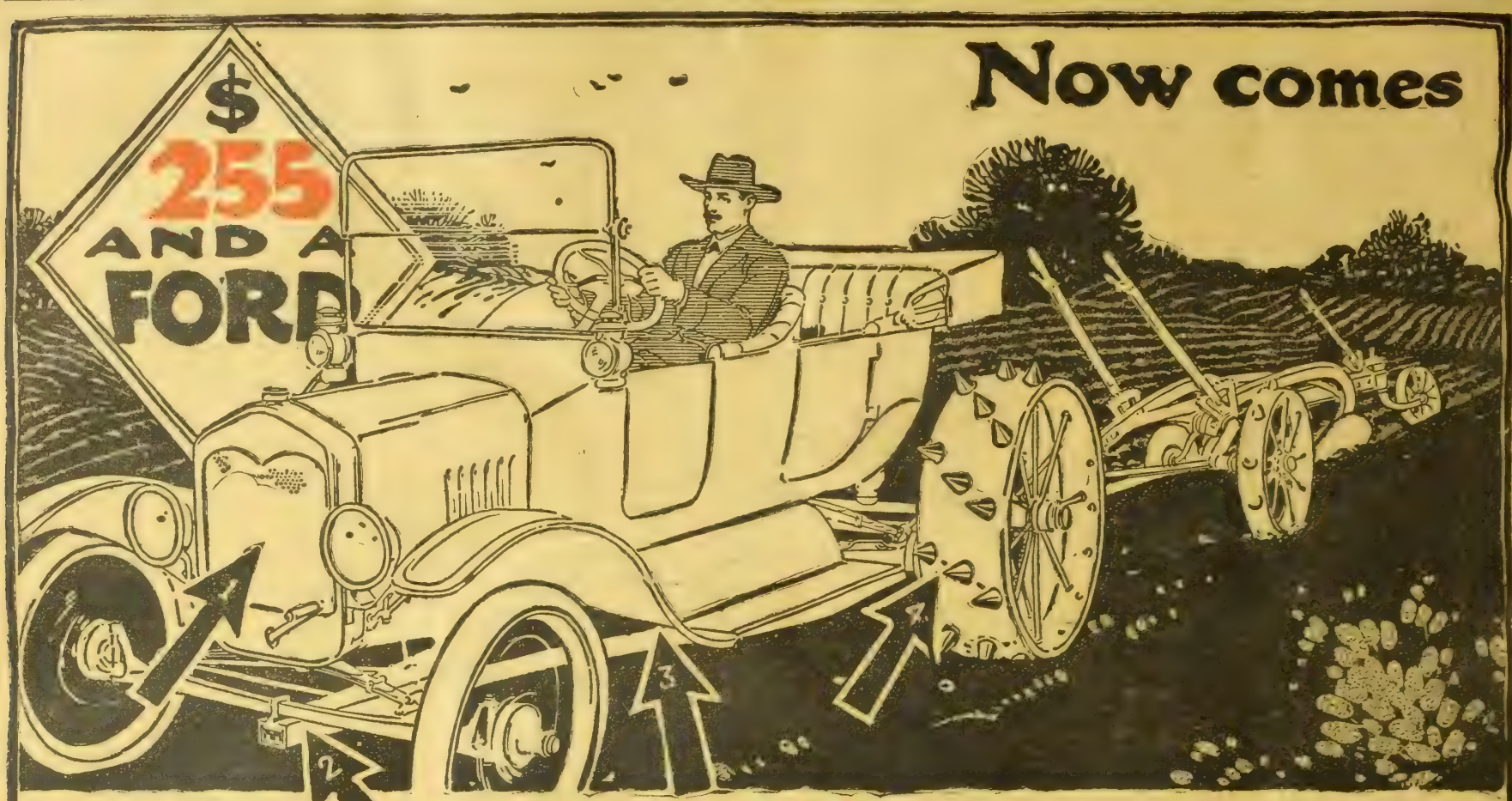

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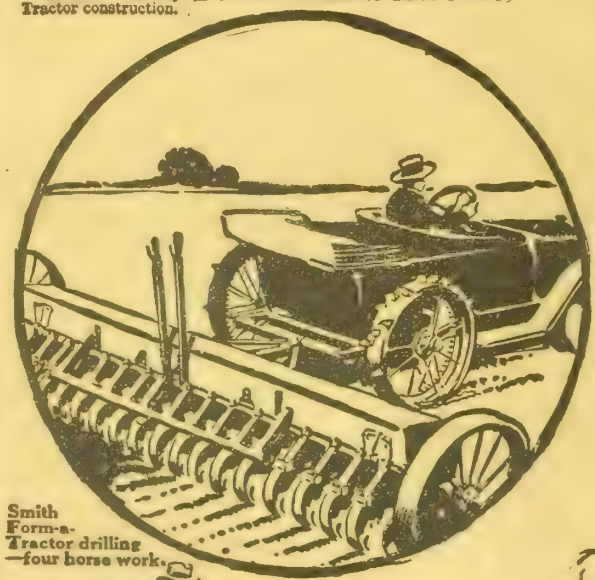

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In quality—workmanship—design—materials—Smith Form-a-Tractor gives you tremendous value.

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The patented Force Feed Oiling System guarantees perfect lubrication—freedom from burned out bearings, scored pistons. These two features are absolutely essential to proper tractor operation.

The tractor wheels are exceptionally wide, equipped with strong, durable lugs for service in soft soil, the roller pinions meshing with the bull ring gear of the tractor wheels, are made of nickel steel, heat treated.

The tractor axle is back of the Ford axle. The driving power of the pinions is exerted downward, keeping strain away from the Ford and giving utmost efficiency.

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Eleven-to-one gear reduction through the use of the Smith Form-a-Tractor roller driving pinion gives wonderful working power. Two and one-half miles an hour in plowing, binding, drilling and all other farm work—eleven times the pulling power of the Ford.

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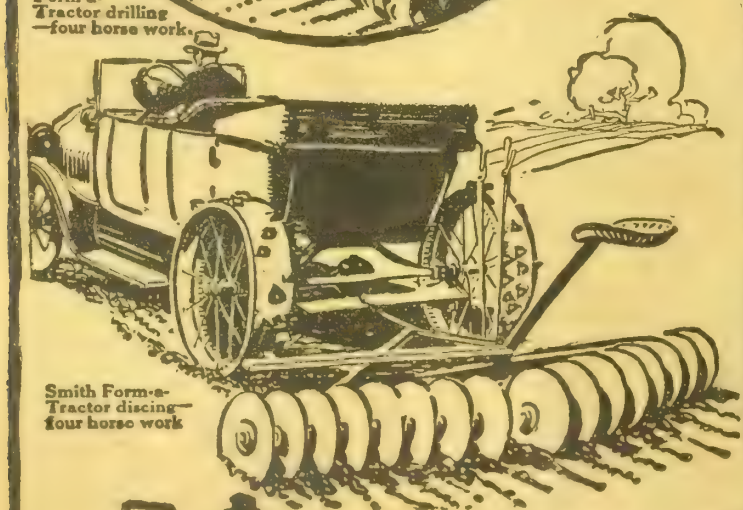

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THE WISCONSIN FARMER

VOL. XLVI. NO. 18. THURSDAY, MAY WHOLE NO. 1840

ILLINOIS
Reading Room of the
Urbana Ill.

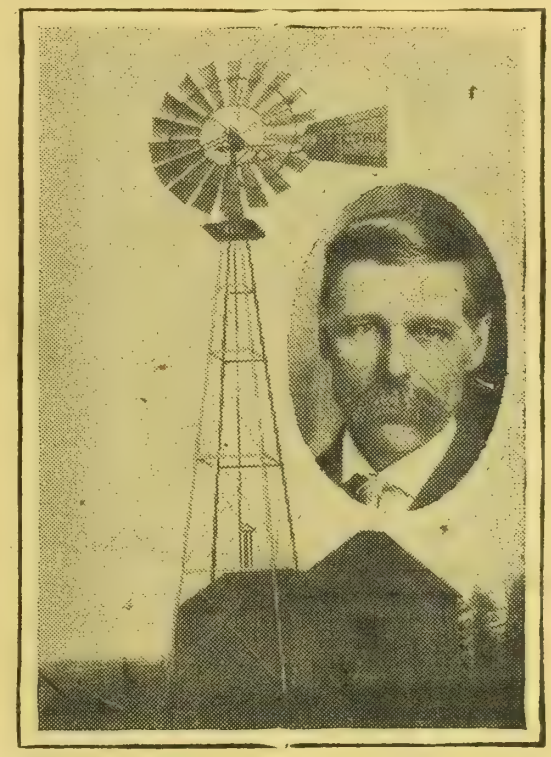
FARM RUN BY W POWER.

SNATCHING power free from the air to light innumerable electric bulbs in home, barn and outbuildings; to operate sheep-shearing clippers, stove-wood saw, churn, turning lathe, fanning mill, washing machine, feed grinder, electric fans, emery-wheel grinders and other time and labor-saving devices; to provide the motive power for an electric automobile and in many other ways to save back-breaking and money-costing labor, the electric farm of Mr. J. F. Forrest, of Poynette, Wisconsin, is so unusual as to deserve the fame which has come to it and its progressive owner. Mr. Forrest has to thank two large windmills for the inexhaustible power which he has had for the past seven years, practically without cost, save that of the original installation of his equipment.

It is now over seven years since Mr. Forrest decided that it was no longer necessary to carry an oil lantern with him when he had late chores to do, or was called out to barn and outbuilding in the evening or early morning. There was the constant fear of an overturned lantern, of flames leaping high, of barn and feed and stock consumed in a twinkling. What would he not give for a safe, cheap, convenient lighting system upon which he could depend, night after night, week after week? Mr. Forrest was mechanically inclined. He was not dependent upon the ingenuity of other men. As he sat in his comfortable farm home and heard the wind whistling through the trees, or soughing under the eaves, the thought came to him that here was nature's power, simply waiting to be set to work by man.

It was not long before he set about his task of harnessing the wind to do his work and bidding. An electric concern installed a power windmill on his farm. From that day to this Mr. Forrest has never been without his lights or his p wer to operate small machines.

The power plant today at the Forrest electric farm consists of a dynamo, cut-in and storage batteries, harnessed to two large windmills. The first windmill erected has a steel wheel twelve



SIXTEEN-FOOT MILL ON A FIFTY-FOOT TOWER FURNISHES ELECTRIC POWER.
(Insert, photograph of Mr. J. F. Forrest, of Poynette, Wis.)

feet in diameter and geared up so that the vertical shaft makes five revolutions to one of the wind wheel. The windmill is placed high, in order to obtain the fullest possible exposure to the wind in all directions. The dynamo is located on the second floor of the powerhouse, to which the windmills are attached, and is operated with a pulley on the upright shafting. The cut-in is an instrument which is placed between the dynamo and the batteries, operating very much like a check valve in a water pipe. This allows the electric current to pass into the batteries, but allows none to pass from the batteries into the generator. The battery consists of fourteen cells, having seven plates in each glass jar. When these were set up they were given their initial charge from the windmill. This battery has supplied light for the house, barn and barnyard for over seven years, without interruption. Even when there is no wind for days, there is enough electric current stored in the battery cells to last a full week.

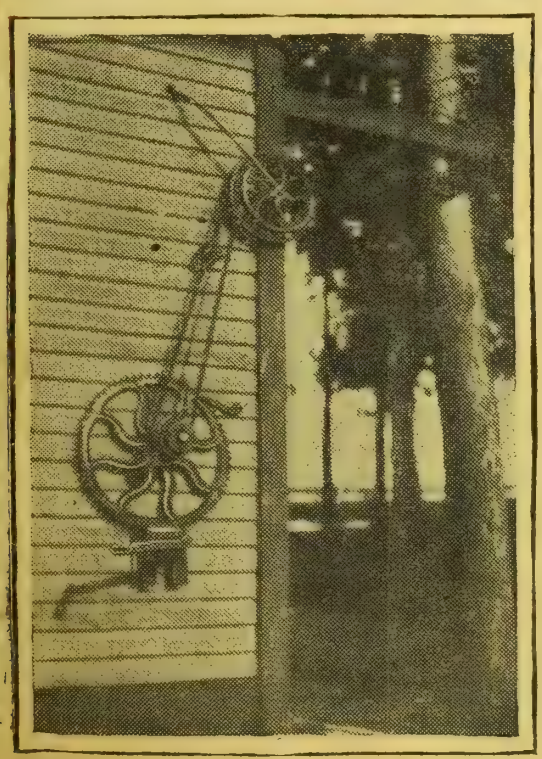
Having proved out his experiment so conclusively, Mr. Forrest decided to go still further. He concluded that the electricity generated by the winds aloft could, and should, do more of the farm work for him. Accordingly, he bought and installed a second power windmill. This second windmill has a sixteen-foot wheel. This wheel, running a dynamo regulated by a governor, generates a power of 110 volts, whereas the other generates only twenty-five volts. This new power plant has many duties to perform and performs them regularly and creditably. None is more useful or unique than the duty of charging the Forrest family automobile, enabling the owner to run the car an average of about twenty-three miles without recharging. Perhaps the manner in which this automobile is put to its various uses may best be told by Mr. Forrest himself, as follows:

"This car is not only used as a conveyance, but the batteries are plugged to a wiring system which extends to the different buildings, and electric motors operate machinery, such as the washing machine, churn, vacuum cleaner, fanning mill, emery-wheel grinder, sheep-shearing clippers, electric fans, turning lathe and a stove-wood saw. The battery in this car has forty cells, eleven plates in each cell, and will give over eighty amperes, which is equal to over eight and one-half horse power. This is sufficient power for a 24-inch saw to cut off dry oak wood as large as the saw will reach through.

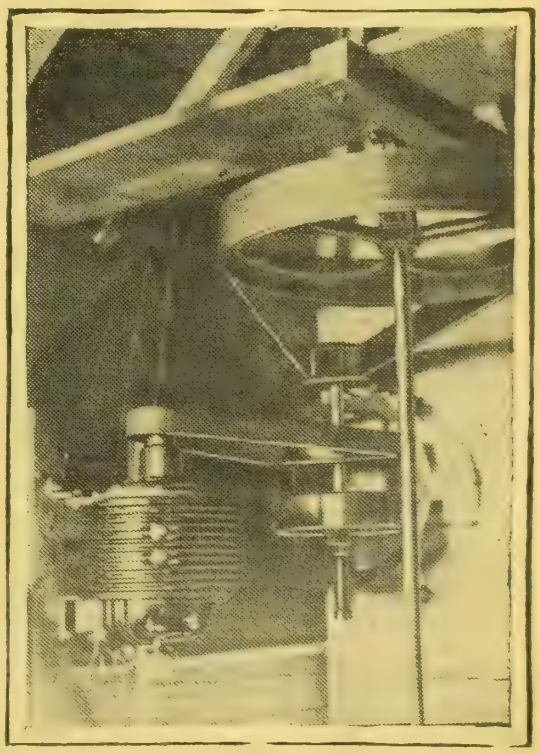
"A 12-foot wheel on the windmill is about right size for a 30-volt system, a 14 for a 60 and a 16 for an 80 to 110. It is not necessary to place these mills over the well; therefore, they can be placed on a near-by hilltop, where the wind exposure is the very best. Wires can be run thence to wherever power or lights are needed. With this system, farmers who have not had windmill service on account of obstructed wind exposure can do things electrically.

"Everything now suggests intensive farming. Farming is made up of gathering together the little things. The windmill is strictly along this line. In driving through the country we often see pumping windmills which are sort of make-shifts or make-believes, and are failures, so far as efficiency is concerned, being undersized, with low towers and, therefore, incapable of doing

(Concluded on page 18.)



FURLING DEVICE WHICH PUTS WINDMILL IN AND OUT OF GEAR—MILL ON HILL FORTY RODS DISTANT.



LARGE PULLEY ON THE VERTICAL SHAFTING EXTENDING DOWN CENTER OF TOWER FROM GEARING OF WINDMILL.

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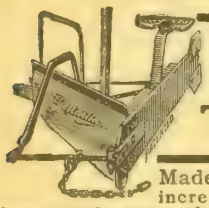

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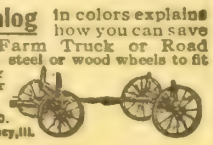


FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Advantage of Muffler Cut-Out.

I have a forty-six horse-power Paige car. I am thinking of putting on a muffler cut-out. Would it increase the power, and is there any benefit to the engine?

Answer.—When the muffler cut-out is open there is less back pressure on the engine and consequently the engine has more power. It does not affect the power of the engine when closed. It is useful in climbing hills or at other times when excess power is required. On account of the noise of the exhaust nearly all cities have ordinances forbidding the use of a car on the city streets with the cut-out open.

Slow Corn Shelling.

I bought a four-hole "Keystone" second-hand corn sheller a year ago which was nearly like new. It was run by a six-horse gas engine when I got it. I changed it to an eight-horse Morsell horse power. It seems that it gets motion enough and runs fine, but it shells very slowly. It does not seem to take the corn fast enough. Please tell me what is the reason that it does not take the corn faster?

Answer.—It must be that the sheller is running at too low a speed. The easiest way to speed it up would be to hitch the horses nearer to the center of the horse power, so that they will not have to walk so far to make one round.

Making Lead Stick to Tin.

Is there anything that will make lead stick to tin when soldering? If there is, where can I procure it?

Answer.—An excellent soldering fluid is made by dissolving granulated zinc in muriatic acid. You can obtain them at a drug store. Use all the zinc that the acid will dissolve. While dissolving the zinc gives off a gas that is highly explosive if ignited. When soldering, carefully scrape the parts to be soldered until they are bright and free from rust and dirt. Apply a little soldering fluid and heat the parts with a blow torch or soldering iron until nearly hot enough to melt solder. Then apply the solder to the parts with a hot soldering iron having a well-tinned point. Half tin and half lead makes a good solder. If you have trouble making the pure lead stick, tin the surfaces with half-and-half solder before applying the lead.

Size of Ford Lights.

Would you please give instructions as to what size and kind of bulbs to use for side and tail lights to be run from a Ford magnto? Can you give me the address of a company that handles repairs for the Flanders motorcycle?

Answer.—If your car was made before 1915, use six-volt, twelve-candle-power bulbs for the side lights, connected in series, and a twelve-volt, two-candle-power bulb for the tail light, which must not be in series with the other lights, but connected direct to the magneto. If you have a car of 1915 or later model, use eight-volt, two-ampere lights for the side lights and a two-candle-power, sixteen-volt lamp for the tail light. The above is for tungsten lamps. It is also assumed that either the headlights are supplied from some other source or that headlights were meant instead of side lights. It would not be advisable to try to run both side lights and headlights from the magneto.

We do not know of a company handling the repairs you mention. You had better write direct to the manufacturer.

Six-Horse Evener.

Can you give a description of a six-horse evener, four abreast and two in the lead?

Answer.—This evener is very easily made. Obtain six twenty-eight-inch singletrees and three ordinary doubletrees. Couple two singletrees to each doubletree in the usual manner. Obtain a piece of oak 2x6x72 inches. Bore the end holes four inches from each end and the other hole at the middle. Couple a doubletree to each of the two end holes. Obtain a chain long enough to reach from the middle hole of the seventy-two-inch bar to the other doubletree placed ahead of the four horses. The chain should have a ring at each end. Fasten the front doubletree to the chain by passing the clevis through the ring; fasten the rear end of the chain to the middle of the seventy-two-inch bar by passing a U-shaped strap through the ring of the chain. This strap should be made of iron about two inches wide and one-half inch thick. It should have holes in the ends to take the clevis pin that passes through the middle hole of the seventy-two-inch bar.

Connecting Lights and Ammeter.

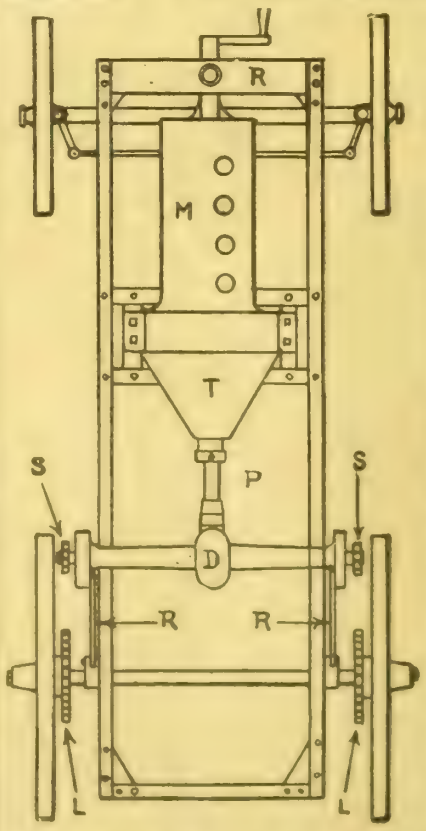
I have a "Genemotor" on my Ford car. I wish to install on the dash an ammeter showing charge and discharge. How shall I wire it? There are two large wire cables runing from the generator to the battery. Should I wire from each of these to the ammeter? I am going to put a spot light on my wind shield. Should I wire this from the two small wires which run from the storage battery to the other lights?

Answer.—Your idea of how to wire the spot-light is correct. Ammeters are usually placed in series, not in parallel as you suggest. That is, instead of connecting it between the two large wires you should cut one of the large wires and connect the ammeter to the two ends. In order for the ammeter to show both charge and discharge it would then be necessary to disconnect one of the light wires from the battery and connect it to the large wire between the ammeter and the generator, so that the current in flowing to the lights would pass through the ammeter, while the current from the generator to the battery would also flow through the ammeter.

A High-Wheeled Auto.

Please tell me through the Farm Mechanics Department whether it is possible to make a high-wheeler auto out of a Ford car so that it will go through muddy roads better than an auto with ordinary tires. My idea is to put a Ford engine in one of the old-style high-wheeled autos; and rig it up to use on a mail route when the roads are too bad to use a regular Ford. Please give a sketch of how to arrange it. What size wheels should be used?

Answer.—The figure shows the general arrangement of the outfit. R is the radiator, M the motor, T the transmission, P the propeller shaft of the Ford car, which would have to be shortened; S S are small sprocket



wheels on the ends of the Ford axles, D is the Ford differential, L L are the large sprocket wheels, R R are radius rods that keep the sprockets the correct distance apart. They should be adjustable, to take up the wear of the chain. The same springs and front axle are used as on a Ford car.

Using rear wheels forty-four inches in diameter, the sprockets, L L, should have about three times as many teeth as the small sprockets, S S. A good combination would be fifteen teeth in S and forty-five teeth in L. It is perfectly possible to make an outfit of this kind, but a great deal of labor would be required, and unless you have a shop of your own, it would prove an expensive experiment. The high-wheeled car was not considered much of a success.

Lighting From Magneto.

Can you tell me how to get a light from a magneto on a gas engine? It is a Wizard, Type A. The magneto has a friction governor pulley that runs on the flywheel. The engine runs 200 R. P. M.

Answer.—The above magneto is a fairly large direct current magneto and you might derive some lighting current from it. If it runs very steady you might wire the light direct to the magneto connecting the two terminals of the magneto to the two terminals of the lamp socket. A switch should be placed in the line. Use No. 14 rubber-covered wire to make the connections. A better way would be to charge a storage battery from the magneto and run the lights from the battery. Care must be taken to connect the positive pole of the magneto to the positive pole of the battery. Also the battery must be disconnected from the magneto before the magneto stops running, otherwise the current will flow backward from the battery through the magneto and demagnetize the magnets.

The proper voltage and candle power for the lights could best be found by measuring the voltage while the magneto is running by connecting a voltmeter across the terminals of the magneto and measuring the amperage by connecting an ammeter in the circuit having resistance and gradually cutting down the resistance until the armature of the magneto began to show signs of heating. Any dealer can tell you the amperes required to run a bulb of the voltage you find you require. If you cannot obtain an ammeter and voltmeter you might try a six-volt, six-candle-power light. If the light does not burn bright enough the voltage of the lamp is too high. If it burns out the voltage of the lamp is too low. If the magneto shows signs of overheating the candle power of the light is too large for it.

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The Wisconsin Farmer

THURSDAY, MAY 3, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

NORTHERN WISCONSIN'S GREAT OPPORTUNITY.

I LOOK for the greatest era of development northern Wisconsin has ever known to come immediately after the great European war. Every great war and political convulsion in Europe has been followed promptly by an increased migration to the United States. This was the situation right after the Franco-Prussian war and, later on, the establishment of the German empire. I am convinced that it is bound to occur again after the great war shall have come to an end—hasten the day!

That being the case, we, here in Wisconsin, confront a period of activity and prosperity within the next few months, or year or two at most (for the war can hardly last longer than that, at the very worst), for which we should be amply prepared, in time. The men and women of northern Europe, who shall come to this country, will look for land which they can get under cultivation and into production with the least delay. They will need to live near to market, so as to lose no time in selling their product and obtaining the ready money of which they will stand in sore need, after that which they brought with them has been expended for land, stock and implements. The only possible rival to northern Wisconsin would be the South. But the South is not nearly so far advanced agriculturally and economically as the North. In many parts of the South conditions still remain actually primitive. Labor is hard to obtain there and much of it is inefficient. Unless the federal farm-loan banks live up to the fullest expectations, money will continue to draw much heavier interest there than it does here in Wisconsin. Southern markets are further removed from the cheap land than are the markets to which northern Wisconsin ships. Every advantage is on our side. Consequently, I look for the pick of the emigrants to come out here and cast their fortunes with us, on the 10,000,000 acres of tillable land, now uncleared, which northern Wisconsin offers to the plow and to profitable production.

With the prospect being as I have outlined it here, I firmly believe we should lose no time in preparing for the influx of new settlers and the increased Wisconsin crop production which is sure to come. In The Wisconsin Farmer of last week I printed the splendid letter which Mr. A. D. Campbell, manager of the Wisconsin Advancement Association, sent to Hon. Wm. C. Redfield, secretary of commerce in President Wilson's cabinet. I want to reprint two paragraphs, for they show the possibilities of northern Wisconsin in one crop alone most strikingly. Mr. Campbell wrote:

Let me say to you if we can get proper activity in the matter of further clearing of Upper Wisconsin land of stumps we can grow enough additional potatoes this year to feed at least 500,000 United States soldiers for a year following harvest next fall.

There are now at least 50,000 farmers in Upper Wisconsin who have land otherwise cleared than of stumps and there is no good reason why each one of them should not clear more land of stumps and plant potatoes this year. I know that people who are not familiar with modern machinery for pulling stumps will say this is a slow and hard proposition, but I call your attention to the fact that three men and a team can pull from two to three acres of stumps in a day and that the land will grow from 150 to 200 bushels of potatoes to the acre if only reasonably cultivated.

That is the situation, as it refers to potatoes alone. But Wisconsin produces vast quantities of other crops. We are the leading dairy state of the nation. Think of the untold millions that can, and will, be added to our annual crop wealth when these cut-over lands of ours are put under cultivation, are dotted with farm homes and are teeming with men and women thanking God every day of their lives that they are far away from blood-soaked Europe, in a country where there is work and a chance to live and enjoy life for every man, woman and child under the stars and stripes.

The next few years are going to be the biggest and busiest northern Wisconsin has ever known. Get ready for them, so that opportunity will not wear out its knuckles rapping at our doors.

THE OLD-TIME HERB DOCTOR

A FEW weeks ago we discussed the merits, and the taste, of sassafras bark, for which I admitted having no love, notwithstanding its good effects on the human body in the spring, when our blood is too thick and we need a little rejuvenation. I have had many interesting letters on the subject of sassafras in particular and medicinal herbs in general since then. One of my correspondents asks the pertinent question: "What has become of the old-time herb or 'yarb' doctors, who used to be such common sights in the country, but who now seem to have passed away almost completely?" I am going to pass the question on to my readers. Is the old-fashioned herb doctor (gathering his tansy, ginseng, sassafras and pennyroyal) to be seen in your part of the country yet, or has the odor of gasoline driven him completely out of existence?

It is rather a coincidence that, just while this subject was fresh in my mind, the writer from whom I quote so frequently in these columns, David Grayson, the rural philosopher, should have published an article in The American Magazine, in which he describes the very man for whom we are searching: The old-time herb doctor. I do not want to weary you with Grayson, but let me quote just a little bit of what he says about the herb man, whom the sassafras bark has brought back to our minds just recently:

A strange old man, a wanderer upon the face of the fragrant earth. Spring and summer he wears always an old overcoat, and carries a basket with double covers, very much worn and brown with usage. His cane is of hickory with a crooked root for a handle, this also shiny with age. He gatners bitter-bark, tansy, ginseng, calamus, smart-weed and slippery elm, and from along old fences and barnyards, catnip and boneset. I suppose he lives somewhere, a hole in a log, or the limb of a tree, but no one knows where it is, or how he dries or cures his findings. No one knows his name: perhaps he has forgotten it himself. A name is no great matter anyway. He is called simply the Herbman. He drifts into our valley in the spring, is seen here and there on the hills or in the fields, like the crows or the blackbirds, and disappears in the fall with the robins and the maple leaves. Perhaps he is one of those favored souls to whom life is all spring and summer.

The age has passed him by, and except for certain furtive old women, few care now for his sovereign remedies.

I met him once in the town road, and he stopped humbly without lifting his eyes, and opening his basket let out into the air such a fragrance of ancient simples as I never smelled before. He said nothing at all; but took out dry bundles of catnip, sassafras, slippery elm, to show me. He had also pennyroyal for healing teas, and calamus and bitter-bark for miseries. I selected a choice assortment of his wares to take home to Harriet, but could get him to name no price. He took what I gave without objection and without thanks, and went his way. A true man of the hills.

With this interesting sketch as a starter, cannot some of my readers tell me of such men in their communities, either as they existed yesterday, or as they exist today, if they are still to be found in our midst? The old "yarb" doctor was not without value in his time, for there are many simple, yet effective, nostrums compoundable from the medicinal herbs to be found alongside our roads and which even prove to be well worth while, financially, for some farmers to grow for the market. We were all better off, in some respects, in the days when we turned to the kitchen cabinet or "safe" for concoctions of old-fashioned herb-remedies than we are nowadays when proprietary medicines, often containing habit-forming drugs, are to be had so easily by all, regardless of the harmful effect they may have on our system at the time, and the drug habits they may lead us into. Medicine has an important place in the world, but the less we can get along with the better. Maybe the old herb doctors had more common sense than we gave them credit for, after all.

At any rate, if this subject interests you or brings up memories, write to me. Here is a chapter of country life which may be very interesting, indeed, if we go into it deep enough, together.

WHAT IS SUCCESS?

I HAVE often thought of what constitutes success in life. It certainly is not the mere piling up of wealth, for many a modern Midas would gladly give all his millions for the comradeship of friends, the respect of society, the capacity for enjoying the finer things of life, or even for a good digestion. Yet, even the possession of all these things does not alone comprise success. For, as a contrast to the unfortunate rich, I know of a Wisconsin man who has a wide circle of friends, a strong character, and a fine appreciation of the good things of life that command their respect and admiration, and an appetite and digestion of the best, yet he will always feel that he was a failure, because he lacks some of the elements essential to business success. I think that we try to apply the term "successful" too broadly. We must consider the various kinds of success which a man can make, for, in this age of specialization, no man can be highly successful in very many different lines. But in its broader sense I think the best test of success is whether or not we make the most of our opportunities, whether we use what gifts providence has bestowed upon us to the best advantage. According to this standard, a czar who fails to use his power and position for blessing his people with the gifts of liberty and prosperity is a rank failure, while a crippled child of the slums, who rises above his environment and physical handicap, and makes himself a useful member of society, is a glorious success.

Not long ago I had the privilege of reading a letter which brought this fact home to me with renewed emphasis, and also suggested that it is not so much physical gifts which bring the richest things that life affords, as it is the gifts of mind and soul. The following letter is from Helen Keller, who, as my readers know, has been blind, deaf and dumb from infancy, but who has become one of the most inspiring examples of American womanhood. It was written to a friend of mine as Miss Keller was passing through the Rocky mountains, and I regard it as one of the best descriptions of the rugged beauties of our American Alps and one of the finest gems of letter writing I have ever read. Somewhat against his wish I begged a copy that I might share it with my Wisconsin Farmer readers. It reads, in part:

On the Backbone of the Continent, March 1, 1917. Dear Mr. Bemler:—I am writing now on the road to Provo, Utah. We have been climbing the Rockies since noon, and soon shall be 14,000 feet above sea level. My mother keeps stopping me to describe the mountains, and they are wonderful as they crowd about us on both sides, their snowy summits glistening in the sunlight. We just passed three imposing peaks on one side, called Princeton, Harvard and Yale. The greater part of the way the landscape is wild, bare and desolate. We come to gulch after gulch where the rocks soar out of sight into the blue sky. They are of all shapes imaginable. Some look like huge grazing cattle; others are like sphinxes and others like turrets and spires. My mother just saw some rocks scattered about exactly like tombstones in a vast cemetery. For miles and miles there is no sign of vegetation or "flower in the crannied wall." But sometimes the mountains are covered with small cedars, and at the foot are cattle in the field. Now it is sunset, and the mountain tops are glowing like opals. I wish that you could be with us to enjoy it all—the splendor, the exhilaration, the sense of new power that this height and breadth and sweep of the elements imparts to us. Sincerely yours, HELEN KELLER.

It seems as if, by some magic sixth sense, more than compensating for those which are lacking, she had grasped the sublime beauty and overpowering grandeur of the mountain scenery, which would have left others of us, with all our natural gifts, unmoved or powerless of expression.

Some weeks ago I published a letter from one of my Wisconsin readers who had been bereft of one of the bodily gifts which the most of us enjoy, but who wrote me in a tone of such cheery optimism that it was enough to shame me into a spirit of greater thankfulness for my own physical blessings. Now, again, a letter from one, even less fortunate than my Wisconsin correspondent, should make us feel humble that, with eyes to see and ears to hear, we, many of us, go through life missing the beauty and the pleasure which she senses without sight or hearing.

It makes me wonder if, after all, the obstacles which we conquer are not really blessings in disguise, and if it is not only through pain and struggle that we can come to the finest appreciation of the blessings and beauties which surround us. At all events, I am more convinced than ever that success is not entirely to be measured by what we achieve, but that the Master set the real standard of success in his parable of the talents, as something to be tested by the way in which we use the means which are given us.

REVIVE BADGER FARMERS' CLUBS.

IT HAS come to my knowledge that a number of farmers' clubs in Wisconsin have been permitted to die out within the last year. For this I am indeed sorry. There is, in my judgment, a legitimate field for the farmers' club, whether it works along literary lines or practical agricultural lines, or both. I know that the past winter has been a severe one and that many of our folks in Wisconsin have been snowbound for days at a time. I know also that it has been a busy season in the woods, and our good women do not always find it interesting to conduct their clubs alone.

I am a firm believer in organizations. In my judgment, the farmers of our state have not given

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Active Defense Work in Wisconsin.

Something over a week's work on the part of the Wisconsin Council of Defense, established by special act of the legislature, has developed a splendid line of constructive work. One work of great importance has been the distribution of potato seed at $3 a bushel, about $1 a bushel below the current markets, and more than 15,000 bushels were sent out in a week under the direction of the Wisconsin Department of Agriculture. The department has a gentlemen's agreement with dealers and shippers for an option on practically all the unsold potato seed stock in the state. Furthermore, the department has power, and has indicated a disposition, to seize any stock which is apparently being held in storage for higher prices, and distribute the same at as low a price as is possible. The war brings on unusual conditions, and these may be expected in other lines as well as in the potato business. The warehouseman who gets $3 a bushel for potatoes ought not to kick even though he has an idea he could get $5 a bushel by waiting and holding the seed a little longer. Another important measure to conserve the potato seed stock is the plan to save the seed ends of potatoes used for the table. County Agent G. M. Householder has inaugurated this plan in Rusk county. The seed ends are, of course, small in weight, most of the flesh being turned into food. But even with a seed end weighing not over one-fifth to one-seventh of an ounce, germination will follow planting if the soil is properly pulverized and the seed end planted not to exceed three or four inches in depth and about ten inches apart in the row. The potatoes raised from this stock will be good for table use only. The department of agriculture, county agents and banks and other agencies have not only cooperated to relieve the shortage of potato seed but have also brought in spring wheat seed in carload lots.

The Wisconsin Council of Defense, acting through the college of agriculture, is fathering the Emergency Food Agent. Eleven counties are enlisted in this campaign. The agents already appointed are:

Milwaukee county, F. J. Sievers, Wauwatosa; Racine county, C. F. Fawcett, Rochester; La Crosse county, T. H. Campion, Onalaska; Wood county, W. A. Clark, Grand Rapids; Marinette county, W. F. Morton, Marinette; Marathon county, R. A. Humphrey, Wausau; Dunn county, Theodore Sexauer, Menomonie; Chippewa county, W. C. Bradley, Hudson; Grant county, C. C. Burns, Platteville.

Most of these gentlemen represent the county agricultural schools. Mr. John Imrie, of Roberts, Wisconsin, has been tendered an appointment, but at the time this is written his reply had not been received. The county agricultural agents will take up the work in such counties as have agents. It is expected that within a few days more than half the counties will have an Emergency Food Agent actively at work in the field.

But it will be up to the individual farmer to really accomplish something in the way of greater production. The emergency food agents will be able to accomplish more in the cities and villages than in the country. The fact is, the farmers of the state have already decided to do their best. It remains for the idlers in the cities and towns to do their share to swell production. No one will be able to say that the farmers of the state are "slackers" on the proposition of producing food this season. The real work will consist in organizing those citizens who are now either unemployed or engaged in pursuits which will not help the country in this time of emergency.

Purely as a war measure the Wisconsin Highway Commission has recommended that the state go slow in expending money for new roads this year. The following statement has been sent out to county commissioners:

1. It is not a time to press road or bridge construction.
2. Road construction should proceed at the rate necessary to hold together the present state and county road organizations and to utilize present equipment.
3. While labor and materials are high there is no certainty that conditions will be better in 1918 or even in 1919.
4. In every county the demands made for labor and the prices paid for labor and teams on road work should be so regulated and safeguarded that the farmers will not be handicapped in holding or securing the men they must have at a price they are able to pay.
5. Maintenance of what we have built should be fully attended to.

One reason for a partial suspension of road work is that the officers of the state do not wish to further embarrass the labor market. Furthermore, materials and labor are too expensive for economical road building, in the opinion of the commissioners. Keep what we have in good condition, take care of the dirt roads and proceed with caution, is briefly the recommendation of the commissioners.

Wisconsin Legislature.

The proposed legislation to control tuberculosis in cattle will pass through another hearing before the agricultural committee this week before being reported favorably or unfavorably by the committee on agriculture.

Farmers and laborers will be represented on the university and normal school board of regents by the bill introduced by Representative Metcalf and passed by the legislature. This bill provides for two farmers and two representatives of labor on the university board and three farmers and three representatives of labor on the normal school board.

The agricultural committee reported without comment the skim milk cheese bill, introduced by Mr. Grell, providing for the manufacture and branding of skim milk cheese. This will leave the discussion on the bill open to the assembly when the bill comes up. The bill provides for the proper labeling of skim milk cheese and necessitates a license for its manufacture.

Rendering plants in cities, excepting those of the first class, will henceforth come under the rule of the state board of health. The legislature has given the board the power to inspect and examine any rendering plant in the state. In case the plant is found to be insanitary or located where it is a nuisance and dangerous to public health the health officers can do what in their judgment is best to remedy the matter of operation and make provisions which will protect the public health.

The Grell bill relating to unfair discrimination in buying milk, cream and butter fat has also been passed by the legislature. Under the law now any person or corporation buying milk, cream or butter fat for manufacture and paying for such purchases a higher price in one section than it is paying for the same commodity in another is liable to punishment under the state laws. Allowance is made for the difference in transportation costs. This will help some to do away with unfair discrimination and the creating of monopolies in various sections.

Another weed bill will soon come up in the legislature, having been reported out of the committee of agriculture last week without comment. This weed bill differs from the various laws on the books in that it provides that county boards must vote against meeting the demands of this bill or otherwise be subjected to the rulings of the bill. Voting for it or not voting at all makes the provisions effective in each county.

Northern Wisconsin settlers are given assistance by the bill passed by the legislature permitting the department of agriculture to purchase dynamite and other explosives for distribution at cost to bona fide settlers. A further measure was also passed providing for an investigation on the feasibility of state manufacture and distribution of explosives. The report on this will be made at the next legislative session.

The highway bill providing for a trunk system mentioned in last week's issue was passed and is now a law, but a provision has been attached that in case the governor or the highway commission think expenditures unwise at this time the work can be postponed.

The assembly rejected an amendment made by the senate to the bill introduced some time ago for the widening of sleighs. The assembly measure provides for the width to be increased to four feet and six inches without exceptions, while the senate would leave this optional with the county board. The measure will have to pass the senate again before it becomes a law.

The senate bill introduced by Senator Skogmo providing for a state brand of butter and cheese met sudden death at the hands of the finance committee. This puts the bill out of running for favorable action at this session of the legislature, but no doubt something of this nature will be passed during the next session. There is considerable argument in favor of a state brand and its success in Iowa, Michigan and Minnesota cannot be disputed.

Woman suffrage is to be submitted to the voters of Wisconsin in April, 1920. Both the house and senate have passed the bill. In its original form the question of suffrage was to be submitted in 1918. The senate changed this to 1920 so that another legislature will have an opportunity to consider the matter before it is finally submitted.

A Suggestion to Governor Philipp.

The Green Bay Local of the American Society of Equity has forwarded Governor E. L. Philipp a letter, pledging united support along the line of producing just as big a food crop in Brown county this year as is possible. While pledging their united support the society also makes the following suggestion to Governor Philipp:

We ask your assistance to give us an opportunity to deliver our products to the consumers, whether they may be on the battlefield or in the workshop, at a price that will be equitable to both the producer and the consumer. You can do this by recommending to the legislature now in session the passage of a law making the buying and selling of options, the gambling in farm products, a felony by law with adequate punishment for such offenses.

Will you do this in justice to the great number of farmers not alone in Wisconsin, but throughout the United States, as well as for the millions of consumers, who are now suffering because of the present conditions and rules of marketing farm products, together with the artificial prices now fixed by the combines?

The Green Bay Local has raised a point, which, in our judgment, the governor and the State Counsel of Defense cannot afford to overlook. It would indeed be a crime if the farmers of Wisconsin and the nation should raise a tremendous crop this year and still none of the food products could be placed in the hands of the consumer at a reasonable price. The Wisconsin Farmer has no word of censure against the fair jobber or dealer. We also believe that the warehouseman and the storageman should have a fair compensation for the service which they render. But the food gamblers and the warehousemen and storagemen, who simply hold up foods in times like these for speculative purposes, should be put out of existence. There are some who cry against the American Society of Equity. They should remember that it is the food gambler which makes such societies necessary. Eventually, farmers will unite and market their own products if there continues to be such a tremendous difference between the price of food as it leaves the farm, and the cost as it enters the home of the consumer.

War will, no doubt, regulate many things. Not the least important of these is likely to be a readjustment of marketing, whereby the farmer gets better pay for his labor and investment and the consumer secures lower prices.

Looking Ahead to Silo-Filling Time.

It is a well-known fact that in many localities the labor problem connected with silo filling has been solved by groups of farmers who work in a cooperative way at silo-filling time. It is simply a question of Jones helping Brown and both Jones and Brown helping Smith, and so on until every silo is filled. This plan has worked well and it has made possible the saving of a large amount of roughage that ordinarily would be wasted. As a rule, silo owners plan definitely on putting the product of a certain field into the silo. They use a variety of corn that is best adapted to that end and such a field is usually planted so that it will reach maturity at a time when it will be most convenient to fill the silo.

The Wisconsin Farmer has a suggestion to make to all those who are members of these so-called silo groups. Every field should be planted so that it will mature so as to fit in best with the silo-filling operations. Ordinarily it will take from two to three weeks to fill the silos in one group and if the individuals in a group will get together and map out the order in which the silos will be filled, then it will be wise to take the precaution of planting the fields in the same order in which the silos will be filled. If this plan is carried out it will mean that all the corn will be put into the silo in the proper condition, whereas if it is all planted at the same time a considerable part of the fodder will be too mature to make the best kind of ensilage. While it is practicable to add water to ensilage that is made from mature corn, it is nevertheless a well-known fact that the best ensilage is made from a high-yielding variety of corn that is cut just after the lower leaves begin to mature. There will be sufficient succulence in the product to insure it keeping well and by putting it up in this condition one will avoid that loss that is always associated with the complete maturity of the leaves and stalks.

Let Your Farm Paper Help You.

There will be no contradiction of our statement that there is a keener interest in agriculture in Wisconsin at this time than ever before in the history of the state. Unusual events have brought on this special interest. Farmers everywhere are realizing that they owe a duty to their country and that this duty can best be performed by heavy production of foodstuffs. Every agency which can help is putting its shoulder to the wheel. In a time like this the farmer leans heavily upon his farm paper and The Wisconsin Farmer is glad that this is so, primarily for the reason that it makes us a part of the patriotic army now at work for our government and for the world. The publisher and the editorial staff accept the added responsibility with the devout hope that they may be of some practical assistance to the thousands of farmers in the good old Badger state this year.

Our readers may depend upon it that we will do everything possible to make the columns of The Wisconsin Farmer not only interesting and [illegible] able but also helpful in the ma[illegible] of agricultural activities. The Wisconsin Farmer mail, including inquiries from subscribers, was never so heavy as it has been the past few weeks, and this is an indication to us that our readers are glad to avail themselves of the service which the editorial staff offers. The Wisconsin Farmer is always glad to receive communications from readers on any topics which would be of general interest. We are also always glad to have discussion on any articles which appear in the columns of the paper. If your neighbor does not take The Wisconsin Farmer, ask him to join us. If for any reason you have neglected to renew, do so at once, so that no issues will be missed.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

sufficient attention to the subject of organizations—such organizations as would look after their own interests. We cannot afford to give up our social life in the country. It is necessary for the young folks, and I believe it is just as necessary for the older folks. No man or woman becomes so narrow-minded as the one who crawls into his shell and has nothing to do with his neighbors, has no part in the business of the community, or takes no interest in the topics which are of greatest importance to those who reside in his neighborhood. In my judgment, it certainly pays to brush up against our fellows and exchange ideas and experiences. These good ends may be accomplished through the medium of the farmers' club, and I am always just a litle bit discouraged when I receive a letter to the effect that some club has disbanded or been allowed to go by default because of lack of interest of the members.

One of the commonest causes for failure of farmers' clubs is the fact that a few leaders do all the work and the others simply follow. If, for any reason, the leader or leaders move away, the club dies. Or, perhaps there may be a feeling created that some of the members are trying to run it all, and I have known many instances where this has resulted in lack of harmony and a subsequent lack of interest in the club.

I would not, for one moment, disparage the good work which some of our leaders do in getting a club organized. But the point I wish to emphasize is that when a club once gets on its feet, there should be something for most of the members to do. To sustain interest the duties of the club must be distributed and not carried by a few members. I know that some of my readers will say, "We have a lot of members in our club who cannot be induced to do anything." Well, in my judgment, that depends a good deal upon the way we get at them. Almost any member of any club has some ideas regarding club work. Why not be free to express these ideas? Make yourself at home in the work of the club and you will soon begin to enjoy it. Our place in these organizations, the same as our place in society in general, is largely what we make it. If we attend the club meeting, sit back in the corner and have nothing to say, save possibly an occasional biting word of criticism, how can we expect to get any good out of the club?

There are always a few people in each neighborhood who are just a wee bit smarter than others. Perhaps they have had better advantages. Such people should be big enough and broad enough to recognize the ability in those who have had lesser advantages and may be somewhat backward in their manner of speech or expression. Why not all work together to help those who are the weakest? If such a spirit can be developed in any club, I have no fear that a report will come in that the club has been disbanded, or that the meetings have been discontinued for lack of interest.

At this time, here in Wisconsin, there is an added interest to club work and all social and public gatherings. I refer to the patriotic interest. I wish to renew my previous offer to furnish, free, copies of the words of "America" to the secretary or any other authorized officer of any club. If my readers, who meet at these clubs, do not know "America" by heart, they should not let many more days go by until the grand old hymn—every line of it—is at their tongue's end. Send for copies of "America" and be sure and use them the next time there is a club meeting. I am always glad to have letters from club members regarding the work they are doing and the topics which create the greatest interest.

James M. Pierce

WISCONSIN FARMERS' CLUBS

Letters From Our Club Workers, and a Few Pointers on the Topics Discussed.

THERE is something wrong with the community that cannot show some organization or club which is a medium for the residents towards closer acquaintanceship. Sauk county points with pride to its twenty-five clubs and organizations which help the residents of the county to know each other and meet with each other for social and business reasons.

The Skillet Creek Farmers' Club, located in the district a few miles outside of Baraboo and named after a creek flowing through that section, is a typical example of a farmers' club which is at the same time social and educational. The motto of the club, "We can do it ourselves," aptly expresses the purposes for which it was founded. Though only started in 1905, the neighborhood was not without an organization of some kind for forty-six years. In 1870 or thereabouts the first farmers' club of the neighborhood, called the Skillet Creek Farmers' Club, was founded and lasted approximately six years. Its place was taken by the Authorora Circle. This was founded for both the young and the older people, but later on developed into a circle that left out the older folks entirely. It gradually died off between 1900 and 1905 and in its place the old Skillet Creek Club was revived.

One of the founders of this club was William Toole. Mr. Toole is a pioneer, having come to Wisconsin in 1859. His memory of the early organizations of the state and the county form interesting topics for discussion.

When organized the club consisted of some twenty members. The present membership is something over eighty and the meetings show a strong attendance each time. Meetings are held every two weeks during the winter and every month during the busy season of the year. At the head of the club are the president, the vice president, secretary and treasurer and a few advisory members, which control the programs and activities of the club. There is no set program arranged for months ahead, as timely topics are one of the chief aims of the club. The club interests itself in other matters besides social duties. Good roads, better field methods, home improvements and the hundred and one other topics essential to good farming come up in the regular turn for discussion at these meetings. Outside speakers are by common consent not very often invited, as it has been found that better results are obtained when local men give their experiences on questions of interest to the club. The large membership of the club and the regular meeting of so many people from one community has influenced the local papers to carry a report on the doings of the club, usually printed in connection with the program. These reports are read by non-members in the county who are no doubt stimulated towards greater interest in things vital to better farming through such reading. Thus the club activities have more than a local influence.

One of the features of the program is the visiting intermission, when the members are given an opportunity to talk to their heart's content to each other and men and women can exchange ideas of especial interest to their particular case. Refreshments are not the rule, though occasionally something light is served. The meetings are usually held at the home of some member who has invited the club. No regular order of meetings is followed.

One of the chief objects of the club has been accomplished in that it has tied the members together by a bond of friendship which, as someone aptly expressed it, "puts itself above the ordinary gossip of a community." Helpfulness and friendliness and sympathetic interest are three mighty weapons with which to overcome this worst trait of human nature. But the Skillet Creek Farmers' Club has in a large way brought this about by adhering strictly to these principles.

The growth and the lasting enthusiasm shown by the members of the Skillet Creek Farmers' Club has influenced other interests in the county to no small extent and Sauk county shows wonderful development in the club idea because of this.

SCENE AT A SUMMER MEETING OF THE SKILLET CREEK FARMERS' CLUB.

What a Live Farmers' Club Can Do.

To the Editor:—The principal subjects discussed during the past winter by the Inter-State Park Farmers' Club were farm buildings, farm management, farm credits and taxation. The only subject on which a consensus of opinion was expressed was the last named—all seemed to agree that the taxes are too high.

Our club has been organized five years now and during that time we have had under discussion every farm topic we could think of that would apply to farming in this locality.

When we first organized, the silo was a new thing up in this part of the state, so we took the subject up and worked it over pretty thoroughly. We got experts to come and give their experiences; in fact, we discussed every phase from construction to feeding the silage. This work did a great deal of good and hundreds of silos have been built.

We have held several short courses under the direction of the extension division of both Wisconsin and Minnesota. These have been far-reaching in effect. They not only have helped those who were able to attend but others have been helped indirectly. We once held a poultry short course with Mr. N. E. Chapman, of St. Paul, as director. This was an exceptionally enthusiastic meeting and I cannot begin to tell you the interest that was worked up in this line.

Another very interesting series was devoted to the study of soil fertility. We had two meetings a year for three years on this subject. Prof. A. R. Whitson and F. L. Musback, of Madison, were the principal speakers from away. This is a very important subject and we felt warranted in spending a lot of time on it. Everyone agrees that the time was very profitably spent. Considerable time was taken up with dairying and corn raising and also potato raising, as these are the principal industries of this locality.

We have been influential in starting several coöperative organizations, such as stock shipping and produce companies, and several farmers' clubs have been organized through the influence of our club. Just now we are interested in the Federation of Polk County Clubs. This was organized on the 20th of last January, its purpose being the betterment of rural welfare of the county.

We are expecting great things from this federation and we hope to make it a great influence for good. A great deal of interest is being taken, nearly all the clubs having joined, some twenty or more in all. We expect to hold at least two meetings a year, a winter meeting of two days and a picnic in the summer. This summer our picnic will be held June 16th at Deer Lake near the center of the county. We will have a short program and a good social time and we hope to get better acquainted. Next winter we plan to have an elaborate program and get down to serious business.

Polk Co., Wis. P. F. Amery.

Interested in Commercial Fertilizer.

Our club here at Pine River has, I believe, succeeded in arousing the young men and women also to take a greater interest in the most noble of all manual pursuits, farming. Interest has been created and maintained principally by the active part taken by the pupils of our state graded school. It is the rising generation, I believe, that should be educated and molded, not for war so much, but for work, real, physical farm work.

One phase of our club work the past winter has been the crying need of more intensive farming. A good interest was manifested at a lecture given on the value and proper use of commercial fertilizer. In this locality, I believe, there should be a liberal, but proper, use of some good commercial fertilizer to supplement the inadequate supply of our barnyard manure. To this end several experiments will be made during this spring and summer. H. P. Andersen.

Waushara Co., Wisconsin.

Card Parties Failed to Interest.

To the Editor:—I am very sorry to have to tell you that our club has done practically nothing, only met every two weeks and had current events and talked about and wondered if we really would have war. I will tell you there is too much opposition. If a few want one study, someone else is against it. We started in the fall to have card parties so the men could have a good time, but it seems as though some thought the men did not need a little pleasure and the parties were stopped. We have no photos of our club members, sorry to say, but if we did have, we would gladly lend them to you. I surely wish I could give you a better opinion of our club, but I am afraid I can't. I would gladly receive some good suggestions just what you think would be right for a country club. I think if all would work together the club might be a success. I wish you would please tell us what to do and what topics to take up so as to make our club an interest-

(Concluded on page 20.)

Wisconsin's Farm Labor Problem.

A Few Ideas From Well-Posted Badgers on How We May Help to Solve This Vexing Question of Farm Help.

Suggests Canvass of Available Labor.

To the Editor:—The farm help situation in this county is very serious and there will likely be a decrease in the potato acreage because of it. Because of this fact we have organized our county very effectively to meet the emergency problems that have arisen because of the war. We are now making a canvass of all the schools in the county to find out the available supply of farm labor. I think there will be considerable relief afforded by the labor that is in the schools at present.

In regard to suggestions as to how to use this school labor, and how it might be made both available and efficient, I wish to submit this plan. In Stevens Point there are a large number of young men in and above the eighth grade who have never had farm experience. I would suggest that a committee be appointed to confer with the principal of the schools and make an immediate canvass of all the available labor above fourteen years of age. The next step would be to appoint enough leaders from the business and professional men of the town, so that there could be a leader for every three or four boys. This leader could be assigned three or four boys. He could meet with them and their principal and also arrange to meet each boy privately with their parents. The object of a private conference would be to impress upon both the parents and the boy the importance of offering his services to the agricultural interests of a community at a fair price—"not war prices." It seems to me it will be necessary also to impress upon the prospective young farm hand the importance of staying by the job, and to make clear to him that it is a patriotic duty to carry out his contract in case it should be made. On the other hand, this leader could meet with prospective employers and impress upon them the fact that they, too, have a patriotic duty to discharge. Make them understand clearly that they cannot expect to get $35 worth of work out of a $20 or $30 boy. He should see that the farmer understands that he would be as much of a "slacker" to exploit the boy as would his hired man in case he gave up the job because there were disagreeable things to it.

I have been discussing this plan with the chairman of the County Defense Council and may write to you later if anything comes out of it.

J. M. Coyner,
Portage County Agricultural Agent.

Need "All-Year" Farm Hands.

To the Editor.—While farm help is very scarce and wages high, the farmers in our county who hire men throughout the season are pretty well supplied with help for the year. Many of the farmers, however, are obliged to put on extra help during the rush season, and there are others who only hire during the rush season. These farmers find it very hard to get help, as there are no men to be hired. It seems that every one is employed.

The men in La Crosse, through the efforts of the agricultural bureau of the Chamber of Commerce, have pledged themselves to assist the farmers of the county in harvesting their crops if laborers are scarce. More than 1,000 business men have signed their names to a petition, stating that they would go out and work at least one day in the fields assisting the farmers to harvest the crops. This has assured the farmers that they may plant large crops and still have the help to harvest them.

In summing up our labor situation, I would say that, while it is hard to get help, there is really no hardship put upon the farmer who can hire throughout the year. Transient labor is generally scarce. Probably this condition will, if carried to the extreme, cause the farmers to so adjust their farm management system that men can be employed throughout the year. If so, this will be of great help to the farmers and to the men who are obliged to work for the farmers.

T. H. Campion,
Principal La Crosse County Agricultural School.

Suggests Saloon Closing.

To the Editor:—Farm help, so far as I know it about the state, is going to be a scarce article. You ask for suggestions as to how the matter of farm help may be remedied. Here is one: In Wisconsin we have probably 8,000 saloons. It is safe to say that at least ten hours of time are consumed every day, at the very least, in each of these 8,000 saloons. That would make 80,000 hours of lost time, at the least, every day in Wisconsin. There are, in round numbers, thirty days to the month. We then have at least 2,000,000 hours of lost time a month on account of the saloons of Wisconsin, and I think that this is way too low. If the saloons of Wisconsin were closed during the next four or five months, this labor would probably be employed in some direction.

On top of this you can figure about one pool hall for each place of 500 people, which consumes an equal amount of time. It would help some, you see, if pool halls and saloons were closed, as places where slackers ordinarily hang 'round. But, then, this is too practical, and I presume you cannot use it. For my part, I am tired of this planning on using boys to do our farm work when men are consuming this tremendous amount of time at the saloons.

Yes, I think that it would be possible to get large interest among high school boys to do some sort of farm and garden work, but that is a matter which each community ought to realize upon under the direction of the State Council of Defense.

One thing we must be careful about and that is to have the emergency work going on so well organized in Wisconsin that we will not be consuming the time of the farmers in too many meetings. This is a thing which I very much fear some of our enthusiasts are planning on doing. So far as I am concerned, I have been going along my accustomed way, waiting for the State Council of Defense or some other duly constituted supervising body to tell me where to lay hold. We must be careful with the various agencies which are going to start out to do things that we do not become like a lot of bumblebees in a bottle.

E. L. Luther,
Supt. County Agents.

In Burnett County.

To the Editor:—Our farm labor problem in this county is not a serious one, because our farms are small and one-man size, and we seldom need extra help except in the fall. Several boys in our high school have expressed themselves as anxious to get work on farms.

Geo. Briggs,
County Agricultural Agent, Burnett county, Wis.

City People Should Volunteer.

To the Editor:—The farm labor problem is not serious in our county. There is a shortage, but the situation is not acute. I think the situation can properly be met in places by each city or village resident volunteering one day to go out into the country and help plant or harvest. Some central body could have charge of the work so that all labor would be properly distributed.

R. A. Kolb,
County Agricultural Agent, Taylor county, Wis.

Serious in Oneida County.

To the Editor:—Farm help is very serious in Oneida county, and so far we have been able to do very little to relieve the situation. A few young men are planning to go from school, but I fear this will not help very much.

W. D. Juday,
County Agricultural Agent, Oneida county, Wis.

Work of Wisconsin Breeders' Associations.

Rusk County Guernsey Breeders.

To the Editor:—As you know, we live in and are developing the youngest county in the state. Five years ago no apparent interest was taken in dairying and there were no organizations of any kind to promote this industry. What few cows there were in the county were native or imported scrubs and there were no pure-bred sires. We have more than sixty pure-bred Guernsey sires and more being purchased almost monthly. In fact, four of serviceable age were purchased a week ago. There are also a large number of pure-bred sires of other breeds throughout the county. One important fact that has been developed by the Guernsey and Holstein breeders' associations is the organization of a cow-testing association which will be organized this spring and conducted throughout the season. Farmers realize that this is the only means of testing out and grading up their herds. We all realize that we have cows which are not paying their way and we are determined to weed them out. We have a large creamery here and three cheese factories built within ten miles of us last year. Many of our farmers boast of a milk check for more than $200 a month during the spring and summer months.

Rusk county is a wonderful grass-producing region, corn ripens and the land produces abundant silage, clover and alfalfa. More than sixty silos were erected in the county last year, and land that sold a few years ago for $10 and $15 an acre, when developed, is now readily sold for $100 per acre and more.

At our last meeting held in February, the former officers of the association were re-elected and every one is taking hold with enthusiasm. Within the past two weeks we have been asked to furnish two carloads of grade Guernseys to the development agent of a railroad company in North Carolina and the university of the state of Iowa also desires to purchase a carload of Guernsey calves between the age of six and twelve months. The association, however, discourages these sales at this time, as we need all the stock we have to develop our own dairy interests at home.

L. E. McGill.

Jersey Breeders in Dunn County.

To the Editor:—I wish to report that the members of the Dunn County Jersey Breeders' Association are all doing fine. I have had occasion to visit most of them in the last few days. We have not had any official meeting of the association this winter, but there have been some interesting individual discussions and proposed changes and enlargement of our asso- the state.

H. L. Tuttle, Sec.

Organize Cow-Testing Association.

To the Editor:—I wish to report that we have organized a cow-testing association operated under the direction of the Waukesha County Guernsey Breeders' Association. We now have twenty-six breeders who are having their herds tested monthly. The annual summer meeting of the association will be held the day previous to our sale, which will be June 6th, the sale to be held on the 7th. Our summer meeting this year is to be held jointly with the annual summer meeting of the Western Guernsey Breeders' Association at the Geo. McKerrow & Sons farm, Pewaukee, Wisconsin. The present officers of our association are: Geo. Lawson, Oconomowoc, president; Earl Roberts, Waukesha, vice president; F. E. Fox, Waukesha, secretary and treasurer.

F. E. Fox.

Breeders Form Union.

To the Editor:—There are a few of us Jersey breeders here in St. Croix county and we are doing our best to have the Jersey cow secure the recognition which she deserves. We have joined forces with the Washington county, Minnesota, Jersey men and formed a good, strong organization with L. W. Ash, Roberts, Wisconsin, president. Everyone in this neighborhood reports active inquiries for stock and with the present high prices of feed a good many of our people are beginning to discover that they have cows which are not paying for what they eat. I believe in most of our testing associations in this neighborhood the Jerseys have produced butter fat cheaper than any other breed.

W. C. Bradley.

Manitowoc Guernsey Breeders.

To the Editor:—The Manitowoc County Guernsey Breeders' Association held their fifth annual meeting at the court house at Manitowoc on the 17th of February.

In the forenoon Mr. Gavin McKerrow gave a very interesting talk on feeding and caring for the Guernsey cow to make large records. He also gave the breeders pointers about pedigrees when they were going to buy herd sires, not to buy just because there was one large record on the pedigree, but to see to it that there are fairly good records all through the pedigree.

He also encouraged the breeders of Manitowoc county, saying they had some very good Guernseys. In the afternoon several of the leading business men of Manitowoc spoke to the members and said they were willing to help the association wherever they could. It was decided to give a silver cup to the Guernsey breeder that wins the most prizes on Guernseys at the Manitowoc County Fair next fall.

It was also decided to raise the membership fees to $2 a year instead of $1. The following officers were elected: President, Fred Jacobs, Jr.; vice president, John A. Pritzl; secretary, George W. Kiel; treasurer, Otis Merken; directors, August Ahrens, Henry Kolb.

The association has thirty paid-up members and more coming in.

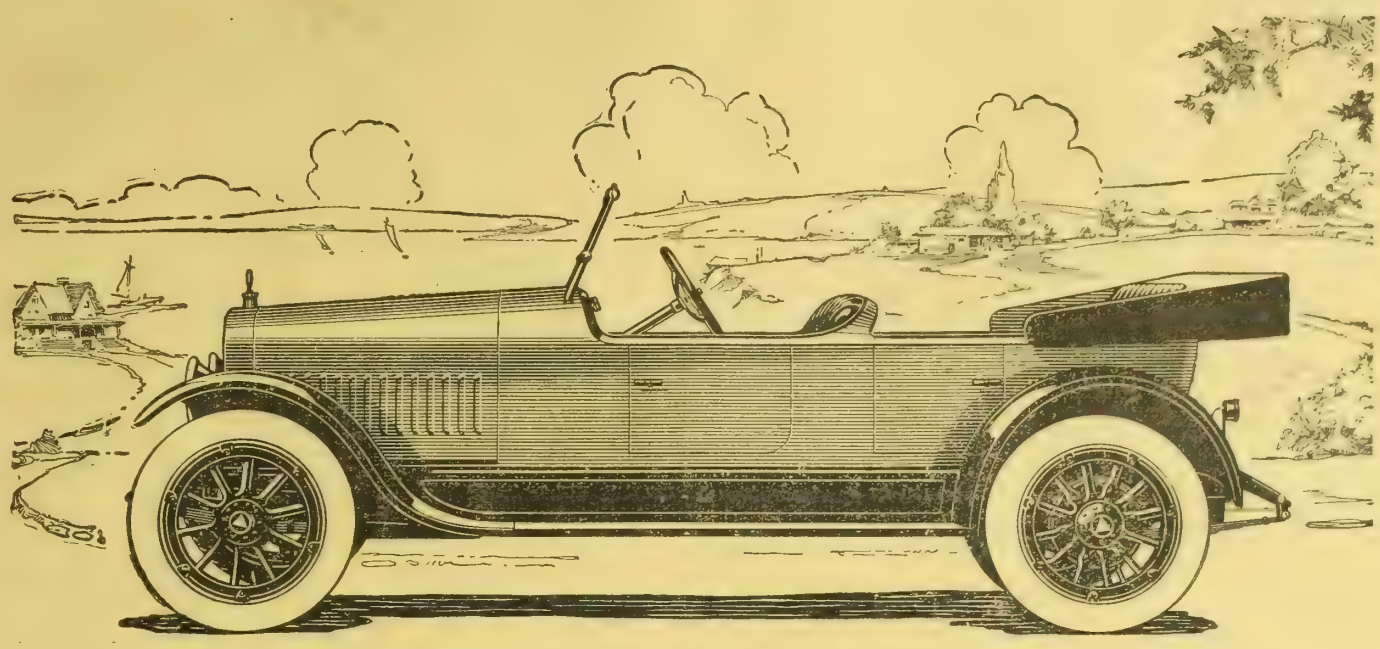
The summer meeting will be held on the Otto Rognes farm some time in June.

George W. Kiel, Sec.

Sheep Respond To Good Care.

By Ed Nordman, Chairman Agricultural Committee, Wisconsin State Council of Defense.

WHILE sheep require very little work and attention as compared with other lines of live stock, that little they must have with regularity and precision, otherwise the business is sure to be a failure. Sheep respond to good feed and careful treatment more readily, I think, than any other animal on the farm, but, on the other hand, they are the first to get out of condition and become unprofitable if they are neglected. This matter of care and feed is really of the greatest importance, for it is money thrown away to invest in fine breeding stock unless one has the facilities and the disposition to keep that stock in a thriving condition. I speak of this because there are many people who seem to have a notion that to succeed in the sheep business all that is necessary is to get a flock of registered ewes to begin with. My advice to beginners would be to look first to their facilities for caring for sheep. These being in a satisfactory condition, they should then get the very best foundation flock that can be afforded, and, in addition to this, the kind of pure-bred ram should be kept that conforms most nearly to the type of sheep which in the locality are likely to be the most profitable.



New Super-Six Speedster

Latest, Fastest Hudson Model. A smart car with new lines. Seats four. $1750 at Detroit.

The newest Hudson Super-Six model is a four passenger Speedster.

It is the smartest Speedster you have ever seen. In the grace of its lines, the dashing beauty of its finish and its wonderful performance it expresses the "spirit of youth."

The allotment of these cars to dealers is not large. Even before our dealers were told anything of its details, even without advertising or announcement of any kind, customers placed orders to assure early delivery.

To get an idea of the probable demand for such a car dealers asked some of our Super-Six owners about it. The result is shown in the orders they gave. No description of the Speedster, not even an idea of what it would look like, nor even assurance definite delivery dates. Still the orders continued to increase, and a repetition of last year's condition when buyers grew disappointed at not getting delivery of their Super-Six when wanted caused many dealers to stop accepting orders.

And why shouldn't there be such a demand for a Hudson Super-Six Speedster? Everyone knows of the official record of a stock Super-Six chassis in traveling a measured mile at the rate of 102 1-2 miles an hour. And all motorists are familiar with other wonderful performances of the Hudson Super-Six. The Super-Six has proved it has just the qualities you would require in a Speedster.

There could be no concern about the beauty or grace or finish of the body. The artists responsible for such lines as are revealed in the Super-Six Phaeton, the grace of the Hudson Super-Six Limousine, and the daintiness of the Town Car, could be relied upon to design the smartest Speedster.

Such a car awaits you. You must acknowledge its low sweeping lines, its rich Cobalt Blue body with English Vermilion wheels, the smartest Speedster you have ever seen.

Don't forget that the allotment is small, that the factory is not building many cars of its type, and that only a few cars are available to any one dealer. Some will probably not be able to get any at all.

Phaeton, 7-passenger $1650	Speedster, 4-pass. $1750	Town Car Landaulet $3025
Cabriolet, 3-passenger 1950	Town Car . . 2925	Limousine . . . 2925
Touring Sedan . 2175	(Prices f. o. b. Detroit)	Limousine Landaulet 3025

HUDSON MOTOR CAR CO., DETROIT, MICH.

In and Around Wisconsin

NINETEEN farmers in the vicinity of Neenah, Winnebago county, have completed the organization of a cow-testing association. Chriz Meltz was elected president and E. J. Jorgenson secretary and treasurer. The organization will be put into working order as soon as possible and a competent tester will be hired.

L. A. MARKHAM has been appointed county agricultural representative for Rock county. Mr. Markham has been identified with rural Y. M. C. A. work in Rock county. He is familiar with all of the agricultural organizations in the county and should be a splendid man for the position to which he has been chosen.

STOCKHOLDERS of the New Richmond Packing Company, who live in the vicinity of Rusk, held a meeting in that town recently to strengthen their organization. Officers were elected as follows: James Braker, president; Mike Bridgeman, secretary; Bert Wing, treasurer, and Ed Rosseter, buyer. Thursday was selected as the shipping day.

THE Wisconsin Live Stock Breeders' Association is responsible for the following statement: "On the basis of an eight-hour day every day of the year the total production in dairy and live stock lines was summarized as follows: Production every minute—butter, 756 pounds; cheese, 1,349 pounds; condensed milk, 2,264 pounds; meat, 5,557 pounds. The meat listd includes everything except poultry—veal, pork, beef, mutton. Poultry statistics show 56,000,000 dozen eggs a year and 9,000,000 chickens raised in Wisconsin."

A WORTHY effort to relieve the present scarcity of foodstuffs is being made by the Marathon County School of Agriculture in the organization of home gardening and canning clubs. Tomato clubs are especially popular. Any group of six or more girls between the ages of ten and eighteen years may start a club. When the tomatoes are ripe a canning outfit is sent to each club and an instructor shows the girls how to put up the product. Corn clubs also have been formed and are receiving help and encouragement from the local schools and the federal department of agriculture.

WITH the appointment of Leon H. Robbins as agricultural representative for Jackson county, approved by the board of supervisors, a total of twenty-two Wisconsin counties are now supplied with these public service agents. Mr. Robbins will begin activities at once with a tour of the farming districts to note conditions of labor and acreage in relation to food production. The Jackson county representative is well fitted for the position he assumes. He is a graduate of the Minnesota College of Agriculture, a former county agent in North Dakota, and has had much experience in practical farming. He has also taught agriculture in high schools.

DURING the months of January, February and March there were 65,000 licenses issued by the state of Wisconsin for motor vehicles. This is an increase of 14,560 or about 30 per cent over the corresponding period of the year, 1916. If this ration of increase should continue throughout the year Wisconsin will register 165,000 or 170,000 cars for 1917. There are about 695,000 horses in Wisconsin and it now appears that by the end of 1917 there will be one automobile for every four horses in the state. We do not have the accurate report for registrations of automobiles for April, but there is said to be about 30,000, which is maintaining the increase over 1916 in about the same ratio as the three previous months.

AT a recent session of the Kewanee Buttermakers', Cheesemakers and Dairymen's Association a large number of questions were asked and answered. The following will be of interest:

Q. How much silage should a dairy cow receive daily?

A. Thirty to forty pounds.

Q. How do you determine the value of a dairy cow?

A. By the amount of butter fat she produces in a year.

Q. What is the cheapest disinfectant for barns known and has it any other value on the farm other than as a disinfectant?

A. Lime; it sweetens the soil.

Q. What is the proper method for cooling milk?

A. Cool at 50 degrees F. immediately after milking.

Q. How often should milk be stirred in the can in the course of cooling?

A. Stir until thoroughly cooled.

Q. Does the feeding of silage affect the quality of cheese?

A. No.

Q. What should be done with a cow that gives twelve quarts of milk to a milking?

A. Should be milked three times a day and properly fed.

Q. Are the milking machines coming up to expectation?

A. Yes.

Q. How often per day should a dairy cow be watered?

A. She should have water any time she wants it.

Q. Now that whey butter is being manufactured, is the whey as valuable for hog food?

A. Yes, when the whey is not diluted with water.

Q. In our anxiety to get more pasturage, how many of us spare a few shade trees to get shady spots for our stock?

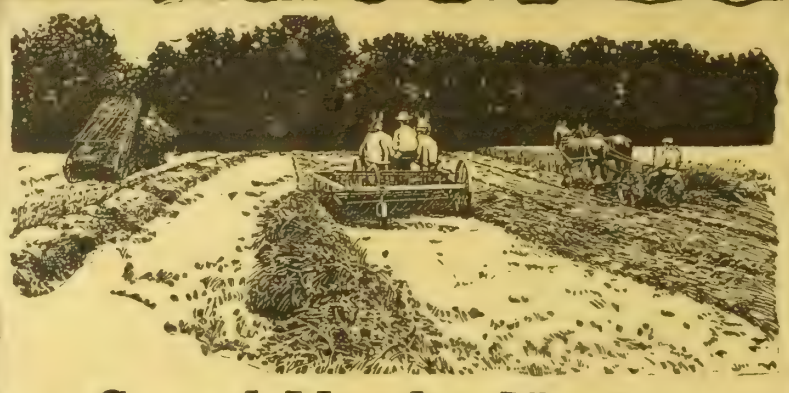
A. Sixty per cent.

WINNEBAGO county has engaged Reid F. Murray as county emergency food agent. Supervisors in each township of the county will act as local leaders and coöperate with Mr. Murray in his work. This special campaign is carried on under the direction of the Winnebago County Defense Council, a branch of the Wisconsin State Council of Defense. Mr. Murray expects to assist in distributing farm labor. He advises the saving of heifer calves instead of selling them for veal. Eleven other counties of Wisconsin are considering the employment of an emergency food agent.

POSTERS are in evidence throughout Wisconsin, urging farmers to do their bit for the country by striving to produce the largest crops possible. "Food production is farm patriotism," is the leading phrase of the posters, which were prepared by Dean H. L. Russell, of the agricultural college. The suggestion is made that as much land be put in cereals as possible and that the acreage of tobacco be cut down in districts favorable to corn growing. In addition it is urged that land owners coöperate with tenants as much as possible and that retired farmers help out on the farm wherever it is practical.

THE firm of Libby, McNeill & Libby, owning and operating a condense plant at Juneau, has taken up with its patrons the proposition of plowing land at cost. As we understand the company's proposition, it proposes to buy several tractors and put them in the fields and charge the farmers only the cost of operation and labor. The ultimate aim is to increase milk production, which, of course, can be best accomplished by raising the best feed. The company recommends that each patron put in a few acres of sweet corn, oats and field peas. In case of shortage of seed the condense company will furnish the seed at cost. In a statement issued the Libby, McNeill & Libby Company say that they can use all of the good, sweet milk they can get and that they are very willing to pay good prices.

MR. WM. TOOLE, of Sauk county, writes that there is considerable interest in harnessing up the Wisconsin river power and delivering it through the rural districts in the form of electricity. The cost of poles, wires, transformers, etc., for carrying current through the rural districts averages about $400 per mile and the labor for putting all in order for business is approximately $150 per mile. The expense must be divided among the patrons within a given distance, hence the thickly settled townships will be able to get the current cheaper per individual than those more sparsely settled. The usual average is about four persons to the mile, and at a cost of $550 per mile for installation this puts the cost per individual farm at about $135. The farmers organize their own companies to handle the current and it requires about twenty users for each company. A map of the proposed district to be served must be submitted to the state commission and all persons residing within the territory must be served if they desire, whether they wish to become share holders in the company or not. Under the state law all persons renting current from the local company must be on an equal basis so far as rates are concerned.



Speed Up the Haying

WHEN the mower has once started its work, every hour of good haying weather is precious. That is why it is good business to use **International Harvester** hay tools, which, in good curing weather, will put the hay under cover, well cured and in prime condition, **in four to five hours after cutting.**

With an **International, Keystone,** or **Osborne** left-hand side-delivery steel rake you can follow closely after the mower, piling up two swaths at a time on the raked stubble, into a light fluffy windrow that allows free circulation of air through the hay, curing it completely and quickly.

Now the hay is ready for the barn. The final step in speeding up is made with an **International, Keystone,** or **Osborne** mechanical loader—the quick, easy way to rake the field clean without threshing leaves and blossoms off the hay. These loaders are made in types and sizes for all different haying conditions, and can be obtained from local dealers.

We will gladly send full descriptions of any of these good **International Harvester** hay tools on request. The lines include side-delivery rakes, loaders, tedders, sweep rakes, stackers, and combined sweep rakes and stackers.

International Harvester Company of America
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UPPER WISCONSIN

TO the Editor:—Clearing land on light soils in Bayfield county has cost me about $30 per acre and on heavy soil where timber has been thick and large it will cost about $50 per acre. I have used chiefly dynamite in this neighborhood because of the fact that it seems easier to get the stumps together in piles and burn them. Dynamite is a little more expensive, but in my particular case it has proven to be cheapest when I consider the cost of piling and burning.

Alfred Johnson, Bayfield county, Wis.

SOME practical work is being done in Langlade county, where arrangements were made two weeks ago for the purchase of 1,000 bushels of spring wheat for seed. This wheat was bought from a Minneapolis concern and shipped to Antigo, where it was distributed through one of the local seed merchants and the county agricultural agent, F. G. Swoboda. The seed was sold at cost plus freight charges and a few cents incidental expense for handling. Some idea of the interest taken in this matter may be gathered from the fact that each bank in the county and each newspaper office assisted in collecting the requests for seed and turning them in to the county agricultural agent.

SETTLERS on the vast empire of cut-over lands in Upper Wisconsin are rallying to the call of the nation to increase the food supply. Farmers in more thickly-settled regions will go in for a maximum production of silage and crib corn, according to a statement of E. J. Delwiche, superintendent of the northern branch experiment stations of the Wisconsin Agricultural College, and in addition they will plant a good acreage of buckwheat, navy beans, oats, soy beans, barley and tested varieties of spring wheat. It is also expected that they will produce a supply of forage to keep a normal number of live tsock, including dairy cows. The new settler who has only a few acres fit for the plow and just a few head of live stock will have a more difficult problem, according to Mr. Delwiche, but his first step will be to plant a good vegetable garden and produce on it as much of his home food supply as possible. Many of the settlers on sandy or loamy soils will plant potatoes, but on the heavier soils, where potatoes will not do very well, such crops as cabbage, rutabagas and turnips will receive first consideration. For the present season experiments in new crops have been discontinued in Upper Wisconsin and all land and labor will be used to the utmost to produce a maximum yield of staple crops.

TO the Editor:—Potatoes are commonly grown in this state on farms where hay crops, corn and root crops are produced in abundance. As a rule, either dairying or some other form of the live stock industry is practiced on these farms as well. Potatoes should not be raised on the same land more frequently than one year in three and in some cases, one year in four is preferable. On the farm system mentioned, this rotation is easily provided. Under these systems of farming high-grade feeds are supplied to the live stock, thus making valuable manure available for soil fertility. This source of fertility is one of the foundations for success in commercial potato growing.

Many sucessful growers on the better kinds of soil, plow under the second crop of clover in the fall. In addition an application of stable manure is made before plowing. With this plan the clover sod and stable manure partly decompose during the winter and in the spring this sod can be thoroughly pulverized and fitted by the use of disks and harrows just previous to planting.

On the light, sandy soils of Wisconsin many growers prefer to postpone plowing and fitting the land until the approach of the potato planting season. In some cases a good growth of clover has started at this time, and to this stable manure is applied in a comparatively fresh condition. Intensive fitting is given the soil immediately before planting. Thorough ventilation and a good seed bed are essential to better crop of potatoes.

Both of these methods have proved successful in Wisconsin; and the application of manure varies as to time in the same manner. In any event, practical growers find that the intensive fitting of the land just before planting is more important than the sole question of fall or spring plowing.

J. G. Milward, Madison, Wis.

UPPER WISCONSIN people will be glad to know that the legislature has passed a measure empowering the state department of agriculture to buy dynamite and sell it to farmers of the state, for agricultural purposes, at cost.

D. J. JUDAY, county agricultural agent for Oneida county, makes the following statement as to what Oneida county farmers may do to prove their patriotism:

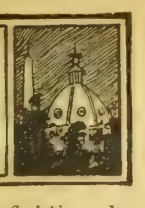
1. Grow as large an acreage as you can well tend of potatoes, carrots, rutabagas, navy beans and buckwheat. Grow a small plot of spring wheat and barley.
2. Sow no seed unless it has been tested for germination and purity.
3. Treat all grain and seed potatoes. If not familiar with the process inquire of your agricultural representative. Treating materially increases yields.
4. Prepare the seed bed well and cultivate more thoroughly than ever before.
5. Preserve a large supply of vegetables and fruits by drying, storing or canning.
6. Spray your potatoes at the right time, both with a poison spray and Bordeaux mixture.
7. Utilize all available farm manure and where there is not sufficient, procure commercial fertilizer.
8. People in cities and villages should raise all their own vegetables. Every vacant lot should be made to produce some food product.

TO the Editor:—Some idea of the demand for pure-bred northern-grown Wisconsin seed corn can be gathered from a letter received a few days ago by the Marinette County Agricultural School from C. A. Correll, a settler, of Marinette county, who was formerly an Indiana farmer. Mr. Correll and his son took first and second prizes in the state-wide grain show at Madison during the winter, on Wisconsin No. 25 corn, and, as Mr. Correll states in the accompanying letter, he could have sold a great deal more seed. Mr. Correll has been specializing in producing Wisconsin No. 25 corn seed ever since he located in Marinette county, and each year he has been able to receive prices way above the market because of the excellence of the seed he had to sell. The customers he secured the first year, are his customers every year now. Mr. Correll's letter follows: "I wish you would please ship me the bushel of seed corn I left at the training school last fall. I sold the last of my 200 bushels of seed March 1st, and since that time have had to return over $200 worth of checks and drafts—and still they are coming in every mail. I think I could have sold 1,000 bushels easily."

Howard I Wood.

Marinette county, Wis.

CURRENT EVENTS



THE British and French delegations, sent to this country to coöperate and confer on war matters, reached Washington last week, and daily meetings are being held with the president, members of his cabinet and high army and navy officials. The French delegation includes the famous commander, General Joffre, looked upon as France's savior, because of the manner in which he checked the rapid German advance on Paris in the early stages of the war. General Joffre is known to be heartily in favor of the United States sending troops to France. He believes that the moral effect of the stars and stripes participating in the actual fighting would be highly effective in the struggle against German militarism. His idea of an American expedition calls for a fighting force supported by auxiliary services, such as railway staffs, railway materials, base repair shops, telegraph and telephone lines, automobile transport and a strong aviation section. The French government is ready to offer whatever may be considered necessary to assist in sea operations, including the use for naval purposes of any or all ports in France. The ministry of marine has worked out for submission to the American government a comprehensive plan for overseas transports, for both army and navy purposes and for the provisioning of the civil population. While General Joffre is thus pleading for fighting men, Arthur J. Balfour, former premier, head of the British delegation, is pleading more for munitions and money than for men. He is laying stress upon these prime necessities: Shipping, food and other supplies, money and naval and military coöperation. The British and French delegations will remain here indefinitely, as long as they can render aid or be of any service in placing the United States on a military basis.

FOREIGN MINISTER BALFOUR, who heads the British delegation to the United States, denies most emphatically that it is the intention or desire of either the British or French delegations to secure a treaty from the United States pledging itself not to conclude a separate peace with Germany until the war has been fought to the end. Denying reports to this effect, Minister Balfour said: "I am told that there are some doubting critics who seem to think that the object of the mission of France and Great Britain to this country is to inveigle the United States out of its traditional policy and to entangle it in formal alliance, secret or public, with European powers. I cannot imagine any rumor with less foundation, nor can I imagine a policy so utterly unnecessary. Our confidence in this assistance which we are going to get from this community is not based upon such shallow considerations as those which arise out of formal treaties. No treaty could increase the undoubted confidence with which we look to the United States, who, having come into the war, are going to see the war through. If there is any certainty in human affairs, that is certain." Practically all of the anti-German allies have signed a pledge not to conclude a separate peace, but such a pledge will not be required of the United States, according to Mr. Balfour.

BOTH houses of congress have passed the bill providing for raising $7,000,000,000, by bond issuance, for a war fund, and President Wilson has signed the measure. The bonds will be issued as soon as the necessary printing and clerical work can be attended to. They will probably draw 3½ per cent interest. Already it is quite apparent that they will be taken up promptly by the general public, for advance subscriptions already total a large sum. A good part of this fabulous fortune will be loaned to the British and French governments to carry on the war. Without waiting for the bond issuance, the United States last week completed arrangements to loan England $200,000,000 at once, the money to be available out of the proceeds of the $250,000,000 worth of treasury certificates of indebtedness due June 30th. France's needs are placed at $100,000,000 a month practically as long as the war continues and England will ask for a large share of the big American fund, for while it is obtaining money at home for its war purposes the interest rates have risen there to a higher figure than they have in this country. President Wilson has asked Elihu Root, United States senator from New York and former secretary of state, to head a delegation to visit Russia to see what the financial needs of that country are. The United States will finance all the nations fighting Germany, so far as possible, that being the best and quickest manner in which it can render aid for the present, at least.

THE terrific drive of the British and French against the Germans along the western battle line in France continues, with repeated gains for the foes of the Teutons. The victory is being won at a heavy cost of human life, the Germans losing particularly heavily, according to the press reports. It is rumored that Von Hindenburg is withdrawing men from this line to send into Russia, where conditions are unsettled and uncertain, and that this is one of the chief causes of the allies' gains. The allies appear to have the advantage, however, in munitions as well as men and the German lines are being bombarded in a most terrific manner, prior to all the infantry charges. There has been much hand-to-hand fighting during the past week, the advantage seeming to be with the British and French. There is still much territory to be won back, however, before the Germans are pushed out of that portion of northern France which they won in their rapid drive toward Paris at the beginning of the war.

THEODORE ROOSEVELT advocates immediate steps to limit the amount of grain for brewing and distilling intoxicating liquors. He advocates also that the use of automobiles for joy-riding be stopped so that the nation's supply of gasoline can be conserved for war purposes, and that the government, in case of food shortage, mobilize and conscript men for tilling the soil. Several hundred farmers and estate owners cheered his address in which he declared for these things. "When we are threatened with a shortage of foodstuffs, as is apparent in the country-wide crop reports today and when it is our duty to supply food to our allies to our utmost ability, we should see that needed grain food necessities are not diverted from their proper usage to the manufacture of intoxicants. Most of the belligerent nations in Europe have taken steps to settle this problem. There are many other sides of this economy question. Joy-riding should be stopped. It is a waste of gasoline and we are going to need more gasoline than ever before in our war activities."

THE wave of war economy has hit the railroads and their transportation experts are figuring on how to reduce the number of passenger trains to the lowest possible number. Passenger service is considered by many of the railroads as more or less of an advertising luxury. They figure that by cutting out a part of their trains the traveler, while losing his present pleasure of "a train at any hour," the roads would have the satisfaction of filling every seat in the coaches and have two fares from seats which now carry only one. To many points, such as St. Paul, Kansas City and St. Louis, competing roads run trains starting on almost identical minutes and arriving on the same time. It is figured that by concerted action many of these trains can be eliminated and the remaining ones will still be able to care for the traffic. The government is desirous that some such action be taken, as it expects to be called on to move large numbers of men on a moment's notice and will need all the rolling stock available, it was said at the office of R. H. Aishton, president of the Chicago and Northwestern railway and one of President Wilson's national defense council.

THE first and most important duty of the American people to their allies is to economize on foodstuffs. This is the appeal of Herbert C. Hoover, chairman of the American committee for relief in Belgium, and recently appointed head of the American food board. "If we do not do it," he declares, "we stand a grave chance of losing the war, because our allies cannot fight without food. Our enemies are calculating that America will fail in this and our allies will need to give in. America can upset these calculations." Mr. Hoover's observations were made after three weeks of consultation with members of the British, French and Italian cabinets. He also investigated the food and shipping situation and plans for American coöperation. The net result he arrived at was that between now and the next harvest it would require a supreme effort by the American people. "I feel it my duty to emphasize," Mr. Hoover says, "that the food situation is one of the utmost gravity which unless it is solved may possibly result in the collapse of everything we hold dear in civilization."

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The Mitchell offers you
31 extra features—
24 per cent added luxury—
100 per cent over-strength.

When you see these extras—each a wanted feature—you will ask why others don't include them. This is to tell you the reason.

Cost $4,000,000

The Mitchell extras, on this year's output, will cost us $4,000,000. To add them to the ordinary car would bring the price too high.

In the Mitchell plant, we save them in factory cost. John W. Bate, the great efficiency expert, has worked for years to do that.

This entire 45-acre plant was built and equipped by him. And every detail is designed to build this one type economically.

He has cut our factory cost in two. No other plant could build a car like the Mitchell at anywhere near our cost. And that saving goes into these extras.

A Lifetime Car 100% Over-Strength

The 31 extra features—like a power tire pump—will seem a great attraction. The added luxury—24 per cent—makes the Mitchell the beauty car of its class.

But our greatest extra is the double strength in each important part. In the past three years we have doubled our margins of safety.

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See these new models. See all the extras they embody. You will want such a car as the Mitchell when you buy a car to keep.

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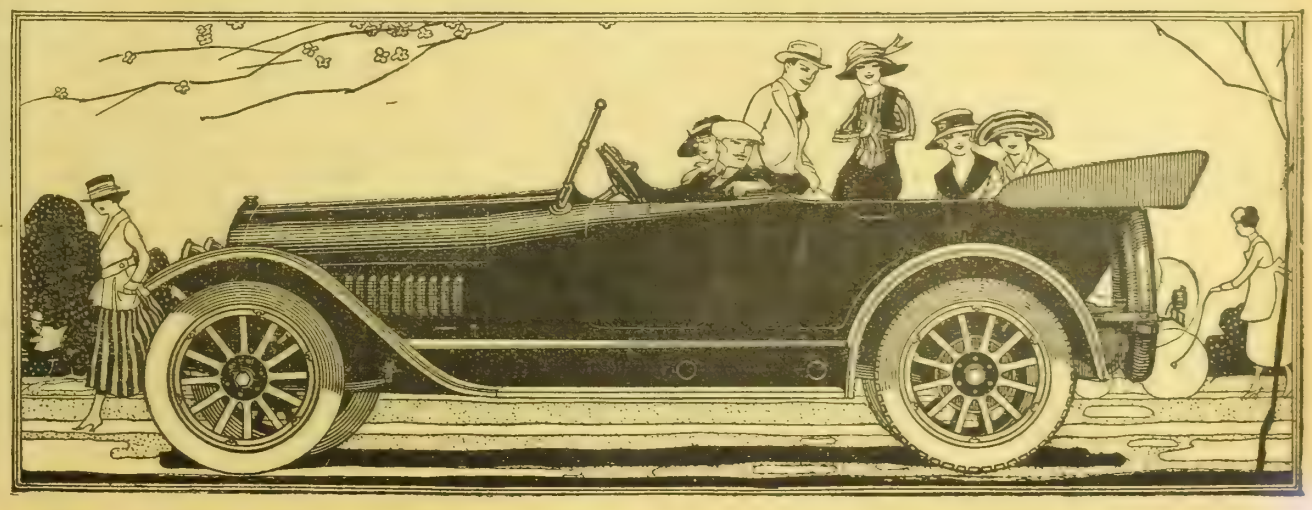


Substitutes Corn for Tobacco.

Dane County Farmer Says That, Everything Considered, Corn in the Long Run is the More Profitable Crop to Raise.

AFTER four years of close observation and careful comparison H. C. Taylor, of Dane county, Wisconsin, has decided to eliminate tobacco from his farming operations this year. He will use the land and energy formerly devoted to growing this crop toward increasing his supply of corn silage and grain for the feeding of additional dairy cattle.

Mr. Taylor is qualified to study the situation, as he has been for many years professor of agricultural economics at the agricultural college at Madison. His farming, however, is not of the book variety, as Mr. Taylor was born and raised on an Iowa farm.

According to Mr. Taylor, corn and tobacco are competing crops with a dairy farmer and corn should have first consideration. He figures corn in terms of corn silage and milk and corn and hogs and on that basis corn is the more profitable. The reasons which he sets forth in favor of corn at this time when conditions seem most favorable for the tobacco growers are worth considering. Mr. Taylor has had four years of good crops and comparatively high prices. In 1913, which was a banner year for tobacco growers, he received $600 for his share of a ten-acre field. In 1914 the price for tobacco was 8.5 cents per pound. In 1915 the price dropped to 5.5 cents per pound, but in 1916 it again raised to 10 cents per pound. During the same time corn has increased in value from 50 cents per bushel to more than $1. This is practically doubling its value. Mr. Taylor figures that 25 per cent increase over the 1916 price for tobacco is all that can be expected. Hence the decision to grow corn.

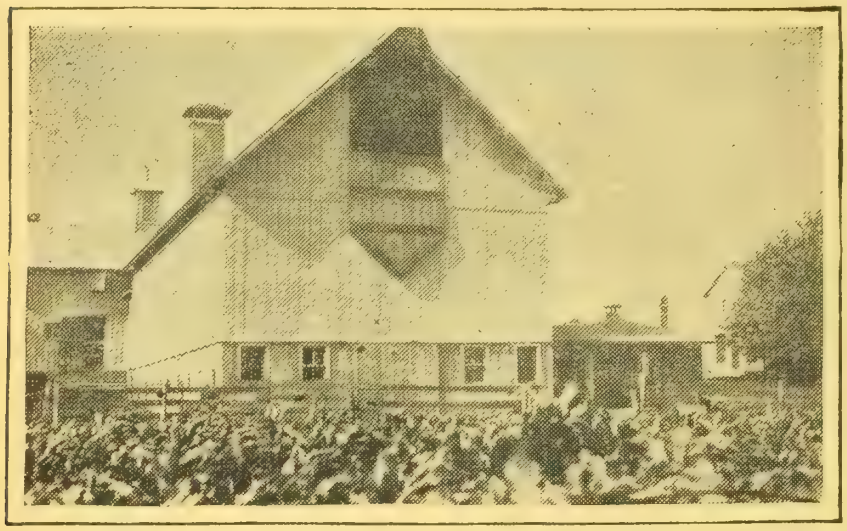
Mr. Taylor bought his first seventy-five acres in 1912 and started in a small way to build up a dairy herd of Brown Swiss cattle. He has since added eighty more acres to his farm and increased his herd to fifty-five head, mostly Brown Swiss. In bringing together his herd he purchased from the leading breeders the heifers out of high-producing dams. Some of the finest families of the Brown Swiss breed are represented in the herd, Esther's Cincey, Lady Bell, Esther North and Bell Dinsom. One of his Brown Swiss cows produced in one year 11,111 pounds of milk, testing 5 per cent, and others are approaching this very closely. Some of the grade stuff still in the herd is also doing very well. The total output of milk amounts to approximately 200,000 pounds each year. The milk is sold on the pound basis at wholesale prices for restaurant and hotel use. The grade steers also bring a nice profit when fattened and sold over the scales.

It is the opinion of Mr. Taylor that corn and tobacco cannot be successfully grown on the same farm under ordinary conditions. The majority of the tobacco in Wisconsin is, however, grown in connection with dairy farming. Growing both corn and tobacco, according to Mr. Taylor, will result in one or the other crop being neglected. The cultivation of corn comes at the same time when the main energy of the farmer must be applied in the tobacco field. The constant efforts necessary on the part of a grower in combating the root rot disease in tobacco also require much time, attention and planning. Root rot disease decreases the yield and quality of the finer grades of tobacco very often to such an extent that coarser grades or "resistant" types must be grown in order to get a crop at all. Tobacco also does not fit in the rotation of the dairy farmer because only certain crops will yield well on the land. Because of the high state of fertility tobacco lands are usually kept in, grain will lodge badly when planted on these fields. Leguminous crops are also subject to the root rot disease and they are, therefore, not adapted to these soils. Corn will do well following tobacco.

Man labor and horse power at work on a cornfield will produce more than on a tobacco field, according to Mr. Taylor. It requires more men to till the acre of tobacco than of corn. Man labor can only be employed for tobacco for a little better than six months each year, while corn and cows will give work and yield results the year round. Corn is not subject to fluctuating prices as tobacco is, because silage will always produce milk and grow animals that are in demand. The fourth silo will be put up this summer and this will give the farm a silage capacity of 500 tons.

Mr. Taylor figures that if Wisconsin's 400,000 acres annually devoted to tobacco were to grow corn in 1917 a gain of 2,000,000 bushels in the yield of this crop would be possible. Figuring further the additional labor set free to work on cornfields a gain of 10,000,000 bushels in the state's production could be expected.

The usual conditions during 1917 will no doubt have a great effect upon the demand for foodstuffs next fall and winter and farmers of the tobacco regions of the state will do well to ponder over the points brought out in favor of corn by Mr. Taylor.



H. C. TAYLOR, DANE COUNTY, BELIEVES THE DAIRY BARN, MILK HOUSE, DAIRY COWS AND CORN PAY BETTER THAN TOBACCO AND THE TOBACCO SHEDS.

CORN AND COWS, ACCORDING TO H. C. TAYLOR, BEAT TOBACCO FARMING.

READY FOR HARVEST ON THE H. C. TAYLOR FARM.

Expand the Corn Acreage.

Corn is the leading food and feed crop of the United States in geographic range of production, acreage and quantity of product. The vital importance of a large acreage of this crop properly cared for, therefore, is obvious. Because of the prices obtained for the last crop and the world demand for this grain, its profitableness to the American farmer during the approaching season is clear. The 105,954,000 acres planted to corn in 1916 yielded 2,583,000,000 bushels or more than 400,000,000 bushels less than the large crop of 1915—2,994,793,000 bushels—and considerably less than the five-year average—2,732,457,000 bushels. Conditions now warrant the planting of the largest acreage of this crop which it is possible to handle effectively.

Law Questions.

Taxes In Two States.

A Subscriber, Pierz, Minn.—I lived in Iowa in 1915 and until March 1, 1916, when I moved to Minnesota. My personal property was assessed in Iowa, in January, 1916, for the taxes of that year, and after I moved to Minnesota, it was assessed there for the same year. Will I have to pay taxes in both states?

Answer.—The time for the assessment for taxation of personal property in Minnesota is the first day of May in each year; therefore, you will have to pay taxes in both states.

Detectives.

A Subscriber, Ashland, Wis.—How can I become a detective by law in Wisconsin?

Answer.—The law of Wisconsin does not provide for the appointment of detectives. District attorneys sometimes have occasion to use the services of detectives. You might apply to the district attorney for such employment.

No Such Law About Threshers.

A Subscriber, Vassar, Mich.—I am a member of a threshing machine company in Michigan, and the stockholders recently held a meeting at which the following question was discussed, viz.: Is there any law in Michigan which compels our company to thresh a farmer's grain when we are passing his place with our machine, and thresh grain for other farmers in his neighborhood?

Answer.—There is no such law in Michigan.

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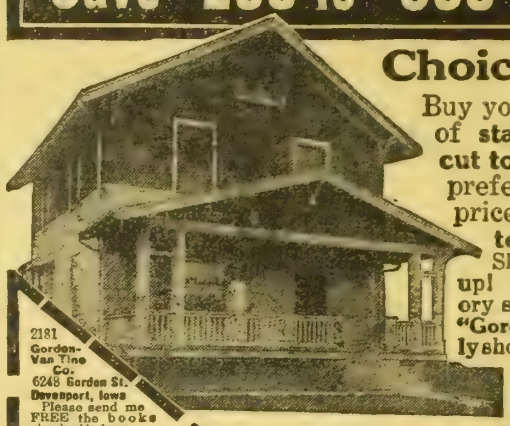

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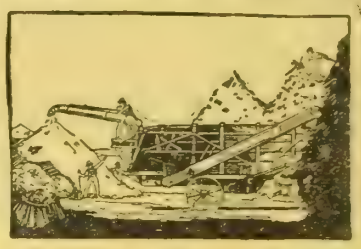

Save the Thresh Bill From the Stack

"We easily saved our thresh bills by using the Red River Special," says E. L. Hall and 14 other farmers near Densmore, Kansas. Here's the thresher that's *different*. It *beats out* the grain—gets it by force. Built for *fast work* too. Saves the thresherman's time—crowds more bushels into the day's work and more pleased customers into the season's run. Write and learn why the big money makers use the

Red River Special

It Saves the Farmer's Thresh Bill

If you own a tractor, hook it to Junior Red River Special and clean up an extra income this fall. Thresh your own grain and your neighbors' too. Our "Junior" is the ideal thresher for working with a tractor or gasoline engine. It is a younger brother to the Red River Special. Small enough to make home threshing pay—big enough to make money in custom work.

Has every needed feature of the big Red River Special—famous "Man Behind the Gun"—shakers, large sieves, etc. Write for circulars.

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In Continuous Business Since 1848
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam Traction Engines and Oil-Gas Tractors
Battle Creek Michigan

Spring Work Well Advanced.

Most of Oat Crop Is Seeded—Corn Plowing Has Commenced—Meadows and Pastures are Starting—Live Stock Healthy But Thin in Flesh.

WISCONSIN.

Barron County.—The weather continues cool and recent rains have delayed seeding. Clover looks fairly well. The acreage of wheat is small. Considerable spring wheat would be sown if the seed could be secured. Wheat and potatoes are scarce. About the usual acreage of barley and oats will be put in and a large acreage of corn for silage. Farm labor is scarce and wages are high.—S. J. Shannon.

Barron County.—Spring is very backward and little seeding has been done so far. More spring wheat will be sown than usual. There has been a big demand for barley seed. Stock came through the winter in good shape. Many farmers are short of hay and grain because of the long winter. There are not very many brood sows this spring and stock hogs have been sold off very closely. Young pigs from four to six weeks old are selling at $5.00 apiece. There is a big demand for dairy cattle of all kinds, but horses do not seem to be selling very high.—William Bartlett.

Bayfield County. — Wheat came through the winter in good shape. Clover was not damaged to any great extent because of the large amount of snow which protected it during the winter. The dairy industry is in good shape in this county.—W. R. Moore.

Buffalo County.—The outlook is favorable for good crops of rye, clover and alfalfa. Clover and alfalfa especially have come through the winter in fine shape. Cows are doing well considering the shortage of feed that is prevalent throughout the county. Hogs are in good condition, but are fewer in numbers than last spring. Many farmers sold their hogs off very closely because of the scarcity of feed. Oat seeding is well under way and soil works up in fine shape.—James G. Bates.

Chippewa County.—Most of the wheat has been seeded and about three-fourths of the other small grains. Pastures look fairly well for this time of the year. Young pigs are doing well but there are very few of them. Live stock show the effects of the long severe winter. Horses are doing fairly well. Poultry are in good shape. Rye and clover came through the winter without winterkilling and now look fine.—James A. Smith.

Crawford County.—The winter was very severe, but heavy snows protected the grain. Rye, wheat and alfalfa came through the winter in fine shape. Clover it not quite so good, but the condition of the wheat crop is above last year's average. Most of the farmers are sowing spring wheat. Nearly all of the oats and barley has been seeded and the early potatoes are nearly all planted. The acreage of potatoes will be larger this year than ast. Stocker and feeder cattle will be scarce. If the present price for stockers continues, pastures will not be crowded this season.—George Ashbacher.

Dodge County.—Cold weather is keeping vegetation back. Many farmers are now through with their spring seeding, but some have not yet begun. Winter wheat looks pretty well, but there is not a great deal of it. Few early potatoes have been planted so far. —E. R. F.

Dunn County.—Recent warm and abundant rains have helped crops a great deal. Clover came through the winter in excellent condition and is growing very rapidly. Most of the spring wheat has been sown and some oats. Winter wheat looks excellent. Because of the cold winter live stock are not looking extra well at this time. Prospects for big crops were never more encouraging.—E. A. Finley.

Eau Claire County.—Rye looks well, but there is very little of it in this locality. Clover is good in some places, but in others it winterkilled. The few pieces of alfalfa that are raised here look fair, but some of them are spotted. Little spring wheat has been sown. The seeding of barley and oats is well under way and the acreage of both these crops will be about an average. Cattle came through the winter looking a little thin because of the scarcity and high price of feed. There are fewer cattle on hand than a year ago.—C. A. Koll.

Forest County.—Farmers are plowing for oats and spring wheat. More spring wheat is being seeded this year than usual. There is scarcely any rye or alfalfa in this section, but what fields there are come through the winter in excellent condition. Clover also wintered well because of the heavy snowfall. In general, farmers had a more liberal supply of feed this past winter and the live stock were well cared for. A large increase in the number of dairy cows is in evidence.—H. H. Kamm.

Grant County.—There is scarcely any rye in this territory. Clover looks well, but it is badly in need of rain. Alfalfa is not grown much in this immediate neighborhood. Clover is not as good as last year on account of spring rains. Nearly all of the fall wheat winterkilled and a considerabe acreage will be put in spring wheat. Oat seeding is finished. There is about the usual number of live stock on hand, and they stood the winter especially well.—Al Vesperman.

Green Lake County.—Clover, alfalfa, and winter grains are looking well. Spring seeding is nearly finished and the ground has been in fine condition. More spring wheat will be planted this year than last. Pastures are starting up well, but cold weather is delaying growth to some extent. Live stock came through the winter in good condition.—G. B. W.

Iron County.—The acreage of barley and oats will be larger this year than usual, but the seeding season will be about ten days late. The acreage of potatoes will be large if enough seed can be secured. The dairy industry is increasing in this vicinity. Live stock wintered in fine conditon and they are perhaps 15% greater in numbers than last year.—J. A. Becker.

Juneau County.—Clover and alfalfa wintered well, although they are not extensively grown here. The acreage of rye is larger than usual and promises a good crop. There is an increase of about 25% in the acreage of spring wheat. A normal acreage of oats and barley will be sown as soon as weather conditions permit, but it is too wet at present. All live stock are healthy but thin in flesh. The pig crop is doing nicely.—J. H. McKnoll.

La Crosse County.—Clover, alfalfa and winter grains came through the winter in good shape. About the usual acreage of spring wheat and oats are being seeded. Recent heavy rains did considerable damage to newly seeded fields on sloping ground.—S. J. D.

La Fayette County.—The new seeding wintered in good condition, but there are some bare spots caused by dry weather last summer. Nearly all the alfalfa came through the winter in good shape and there will be a large additional seeding this spring. Oats are nearly all sown and warm rains are needed to start them. More spring wheat was sown this year than usual. Live stock wintered well. Many farmers are short of hay and other feed, and pastures are backward on account of dry, cold weather. Farmers are planting more early potatoes than usual.—W. F. Pease.

Ozaukee County.—Young clover and winter wheat suffered from winterkilling. The old clover looks fairly well. Many farmers are selling spring wheat this year. Live stock are in good condition.—M. J. Mueller.

Marinette County.—Fall sown rye came through the winter in fine condition and the prospects are excellent. Clover also is in good condition due to the heavy snow covering last winter. A good many small patches of spring wheat will be planted. Seeding of oats has been started, but the weather is a little too cold. In another week most of the small grain will be in the ground.—H. B. Pederson.

Polk County.—The weather has been fine during the past week and seeding has progressed rapidly. Most of the spring wheat is in the ground and oat seeding is well advanced. More wheat has been planted than usual. Winter grains came through in fine shape. Live stock are not in normal condition perhaps because of the scarcity of feed. Butterfat is worth from 45 to 47 cents per pound. Hogs are high priced and scarce. The soil is in excellent condition with just enough rain to start the pastures, which are showing green in some places. More gardens will be planted than usual. Altogether the prospects are very favorable.—Wallace Fountain.

Polk County.—Weather is cold and dry and rain is needed badly. Seeding is in progress and most farmers are sowing from two to ten acres of spring wheat. Oats and other crops will be about normal in acreage. It is too early to report on clover; alfalfa and rye are in good condition. Ground works up in fine shape. Young stock are doing fairly well. The milk flow has fallen off, due to the scarcity of grain feed. Early colts are not doing well and some reports say that April pigs are weak. Good grain for seed is scarce.—P. F. Amery.

Price County.—Live stock are doing extra well considering the hard winter. However, pigs suffered some from cold, and the young pig crop is below average. The demand for dairy cattle is greater than the supply. Milk cows are selling $25 higher than a year ago. Oat seeding is under way and the season is about ten days ahead of last year. The acreage of both rye and wheat is above that of last year and the weather is more favorable for small grain. The acreage planted to potatoes will be short because of the high price of seed. —W. J. Fox.

Richland County.—No rye has been sown. Clover came through the winter in good condition. Alfalfa winterkilled to some extent. Many farmers have sown spring wheat. Nearly all the oats have seen sown. Meadows look fair and are turning green. Live stock are not as plentiful this year as last. Considering the scarcity of feed the cattle look fairly well. The hay has all been fed.—E. C. Stewart.

Sauk County.—Rye and winter wheat are looking better than a year ago because of the heavy covering of snow last winter. Clover and alfalfa suffered very little from winterkilling. Oat and barley seeding is progressing slowly because of the recent rains.—Richard Klemm.

Sheboygan County.—Practically none of the rye, clover or alfalfa winterkilled and if the weather continues favorable these crops will yield better than they did last year. Spring work is advancing rapidly, although wet land is not drying out as fast as it should. A large share of the oat crop has already been sown. The acreage of oats and barley is about normal. Very little spring wheat was put in this year. One large seed firm sold only eight bushels. Because of the high prices paid for milk considerable feedstuffs were purchased and fed to dairy cows. One farmers' co-operative shipping association in this county bought over sixty cars of feedstuffs since last fall. As many as six cars were received in one day. Dairying will continue to be the main industry here, which will mean an increasing acreage of silage corn, clover and alfalfa.—J. M. Hoppert.

Taylor County.—Spring is backward in this locality. Very little has been done toward seeding oats and barley because the ground has been very wet and cold. Clover came through the winter in fine condition. There is no alfalfa to amount to anything in this county. Rye is slow in starting. Cattle and hogs are in good condition. Feed is scarce and high priced; oats are worth from 80 cents to $1.00, hay from $12 to $15, spring pigs $10 to $12 a pair. Farmers are anxious to get into the fields.—John E. Miller.

Let the Children Help.

This year above all other years every ear of corn used for planting should have back of it a record for germination. Planting a week ear or one that fails to grow reduces the yield of an acre from five to eight bushels. Every poor ear means a loss per acre of from $3 to $5. If food continues to become scarce it will mean more. It costs just as much to plant, cultivate and harvest a poor stand and crop of corn as to care for and harvest a bumper crop. The difference in yield is largely in the seed.

With the heavy amount of work now before the farmers much corn that the owner would like to test will remain untested unless some arrangement can be made to have it done by someone else. Testing corn has been taught the children by the country teachers in their agricultural courses and hardly a child lives in the country today that is not acquainted with the method of testing. The young people can test the seed corn that the father is too busy to test. Give them an opportunity to do so. It will not take long for you to check up their work and convince yourself that it has been done right. School children could well put in their time during the next few weeks testing corn for their parents or neighbors in order that every ear planted in 1917 will be known to be of strong vitality. Insure a higher yield and superior quality by making some arrangement to weed out the weak and dead ears before planting. A 100 per cent stand ought to be the ambition of every farmer this year above all others.

Potatoes and Seeds Almost Given Away.

To Introduce—I will send seed for 10 big hills, true **"Early Six Weeks"**—by far the earliest and best table potato on earth—enormously productive and best keeper, also 10 varieties best "Butter" and "Head" lettuce, 5 varieties best Pop Corn, 300 varieties lovely, easy-growng flowers, and a valuable novelty. All mailed for **two dimes** or 24 cents in stamps. ☞All the seeds and 30 hills potatoes for 50 cents. Seeds and 70 hills $1. More at same rate. Order quick. Tell your friends. Address, **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

Culvert Iron a Pure Product.

In the April 5th issue of our publication there appeared an advertisement of the Armco Iron Culvert and Flume Association in which was stated that "Armco iron is never less than 98.84 per cent pure." This should have been "99.84 per cent." The error was made, not through any fault of ours, but through a mistake in the making of the plate furnished by the advertiser. The association have asked us to make this announcement correcting the error and, feeling their request to be a reasonable one, we are publishing this paragraph.

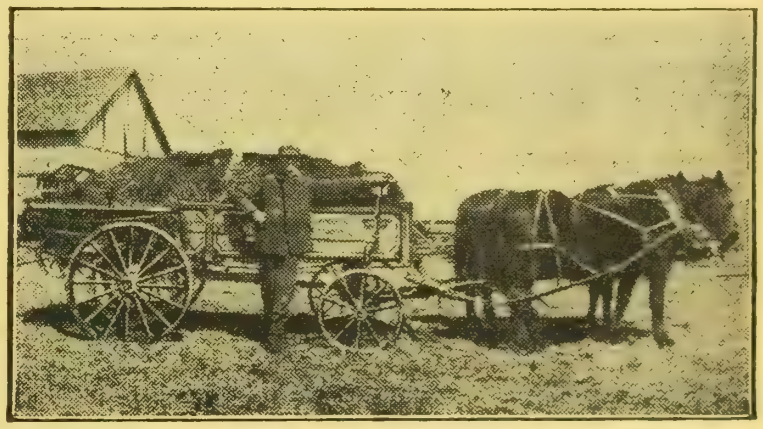
Ford Car For Belt Power.

A BELT power attachment, the Schluter, that connects with the crank shaft of a Ford car, is advertised in this issue, page 14, by the E. F. Elmberg Co., 124 Main St., Parkersburg, Iowa. It is a simple piece of machinery, and can be put on or taken off in fifteen seconds. The Elmberg Co. guarantee this attachment to be 8 H. P. capacity, and especially recommend it for its portableness. The Schluter sells for $22.50 and is sold direct by the factory, and through county agents. Write them for big illustrated circular.—Adv.

How Robt. Roth Picked Out His Spreader.

The Story of a Michigan Farmer Who Got the Biggest Profit From His Manure Crop---As Told by Himself.

WHEN Robert Roth, of Quincy, Michigan, decided to buy a manure spreader he was just as much at sea as thousands of others who are also in the market for manure spreaders. He read all the advertisements in the farm papers and scarcely knew which one to answer. He wrote to the manufacturers of manure spreaders for their catalogs and decided for himself just which



spreader was best suited to the handling of the manure crop on his farm; then he bought a machine, and here is what he says about it:

Dear Mr. Galloway:—I thought you no doubt would like to know how I like my Galloway No. 1 A spreader, recently purchased of you, so I wish to say you have got the best spreader that is on the market today. There are many points that are far ahead of other spreaders on the market. My two horses handle it with perfect ease, with the manure heaped away above the sides. No matter how high you pile the manure it takes it right off with ease. I wish to call special attention to the force feed push board which is a great improvement.

I had another spreader last year and there was always five or six bushels of manure left in the box that I had to pitch out with a fork or else haul it back to the barn. But my new Galloway cleans out all of the manure perfectly to the last bit; this is a big item. The all-steel beater and steel rake are great improvements; in fact, every part is very simple and not subject to much wear and puts other spreaders simply out of date.

In conclusion I wish to say that any farmer that is going to buy a spreader, my advice is, "Don't buy one of those big, cumbersome, horse-killing machines; get a Galloway and you will never regret it." I saved just $49 by buying a Galloway besides getting a better machine.

The points that stand out prominently in Mr. Roth's letter are these: Two horses handle his new machine with perfect ease when it is loaded very heavily; the patented force feed cleans out the spreader box thoroughly; the new Galloway steel beater and steel rake are great improvements, and he saved just $49 in buying a Galloway machine, besides getting what he thinks is a better manure spreader.

Why should any farmer use an old out-of-date spreader—a horse killer—one that does not clean thoroughly, when he can have an up-to-date piece of machinery just like Mr. Roth's? Wm. Galloway, of Waterloo, Iowa, the spreader inventor and manufacturer who has been more closely associated with the development of spreaders in America than any other man, will be glad to send his latest book about spreaders to anyone who inquires and mentions this paper.

Look at this picture of Mr. Roth and determine now to get the Galloway book about manure spreaders and have the same kind of spreader satisfaction that Mr. Roth describes above. —Adv.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

A Few Hints on Duck Culture.

To the Editor:—We are sure there are many who will read with interest some of our experiences with the different varieties of waterfowl. We will not bore the reader with a long description of the best varieties of ducks, but we believe that many may derive some benefits from a brief description of some of the more popular varieties.

First, we will take up perhaps the most widely known duck—the White Pekin—a Chinese production. They are, or should be, a bird as near white in plumage as is possible. Creaminess is not desirable for a fancy exhibition bird. In size they are considered one of the largest of ducks, are considered a very good market duck, and mature quite rapidly under proper conditions. As layers we cannot call them as prolific as some other varieties, producing, generally, fifty to 100 eggs each annually. They are good foragers and are hardy.

Next we will take up the Indian Runners, there being two varieties of Runners—fawn and white, and white. The size and general qualities of the two varieties are very much the same. Our experience with them has been that they are the same to the duck family as the Leghorn is to the chicken, their strongest point being the production of eggs. As a table duck we cannot recommend them as highly as others. As you will note by market reports in our cities, they undersell other varieties. They are hardy and are great rangers.

Then we have the Mammoth Rouen—a French production—a bird that is unrivaled among domestic varieties for general utility qualities, both as to shape and size as well as plumage. The drake resembles the wild mallard males considerably, except that they are a shade darker and the lines of color break off more distinctly. The female is doubly penciled with mahogany on black in all sections. Their bodies are long and very deep keeled, the same being carried about horizontally. As a table duck they are unrivaled, the meat being of fine texture, juicy and of high flavor. As layers they are very prolific for a bird of their size, generally producing from seventy-five to 120 eggs each per season.

We leave the matter of selection of a variety entirely to the reader, for we do not know his particular wants.

The incubation of duck eggs, either artificially or with hens, is as easy as with chickens. It takes twenty-eight days for a duck egg to hatch. We do not feed for from twenty-four to thirty-six hours after they are hatched and dry. However, we put them in a box with bottom covered with dry sand and let them pick at that. We geenrally start them on stale bread soaked in milk and squeezed dry, letting them have all they will eat from three to five times daily. We always furnish plenty of water at eating times. After they are a week or ten days old, we feed a mixture of ground corn, bran and middlings, equal parts, adding one-tenth part, by weight, of meat scraps. After mixing this thoroughly, we make it into a crumbly mash (not mushy or sloppy), using sweet skimmed milk or water to dampen. We feed this four times daily. This should be fed in a trough, and never feed more than they will clean up, always keeping plenty of clean water before them.

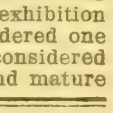
We always put them in a small enclosure where they have access to all the green grass they want, and take particular care they are protected from beating rains and storm. The main causes of losing ducklings are insanitary quarters and improper feeding, which may develop stomach trouble, which we have found in some cases hard to combat. However, we think that if one uses ordinary judgment, the casualties from raising ducks will be much fewer than in the case of chickens.

We do not recommend a pond or running water for ducklings until they are fully feathered.

Try and increase your poultry profits by raising a goodly flock of ducks each year. John D. Bowman.

$9.25 BUYS World's Champion Belle City Incubator

140-Egg Size—Hot Water—Fibre Board, Double Walled—Self Regulated—Thermometer Holder—Deep Nursery, with $5.25 Hot Water 140-chick Brooder—both $13.50. Freight Paid East of Rockies.—Satisfaction Guaranteed. $1000 in Prizes.—Conditions easy to get big prize.—Save time.—Order now or write today for Free Catalog, "Hatching Facts". Gives short cuts to Poultry Success. Jim Rohan, Pres.



Belle City Incubator Co., Box 106 Racine, Wis.

POULTRY AND PET STOCK.

Holstein Chickens

DON'T discourage prospective buyers of your stock by letting them see a lot of scrub chickens in your yard. If you believe in the Holstein Cow, send for my booklet on Black Minorcas, the Holsteins of the Chicken World.

R. C. O'HEARN, R. 1, MELROSE, WIS.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

ELSON'S WHITE WYANDOTTES—I am offering eggs from my high-class matings for $2.50 per 15, $4.00 per 30, $6.00 per 50, $10.00 per 100. I guarantee a fifty per cent hatch or refill order at half price. Milo Elson, Toddville, Iowa.

BARRED Plymouth Rocks and Buff Orpington ducks; Chicago winners, great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, Matthews, R. 24, Ind.

BABY CHICKS—EGGS

FROM healthy, heavy-laying stock. Blue Orpingtons, S. & R. C. Reds, Barred and White Rocks, Turkeys, Ducks. L. B. Coleman, Clear Lake, Wis.

RHODE ISLAND RED HATCHING EGGS! FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R. E. Daly Poultry Farm, Necedah, Wis.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs 1.50, 15; 8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

S. C. R. I. REDS, prize-winners and heavy egg producers; eggs, $2 per setting; fertility guaranteed. Stock for sale. C. E. Copeland, Jefferson, Wis.

BARRED ROCK eggs for hatching, E. B. Thompson ringlets, $1.75 per 15, delivered. Write for prices on large orders. David Thomson, Hebron, Wis.

BADGER POULTRY FARM—Pure-bred S. C. White Leghorn eggs, $1.25 per 15, $6 per 100. Chas. F. Kreger, R. 3, Box 36, Cambria, Wis.

FIFTY varieties chickens, ducks, geese, turkeys, guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

EGGS—BABY CHICKS: [illegible] Safe delivery guaranteed. [illegible] Poultry Farm, Box E, Lancaster, Missouri.

R. C. REDS, Partridge Rocks, eggs $1.50 per 15; choice pen of each for sale. Address W. E. Rice, Delavan, Wisconsin.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100 $4.50. Charles Schmit, Hortonville, Wisconsin.

WHITE PLYMOUTH ROCK EGGS for hatching, from seven grand matings at $7.00 per 100. A. F. Pohl, Hartford, Wis.

WHITE INDIAN RUNNER DUCKS, with racy, upright carriage. Eggs, $1.50 per 15. D. E. Johnson, Watertown, Minn.

EGGS—PRIZE-WINNING BUFF ORPINGTONS. Mrs. Harry Hardwick, 2220 Pleasant Street, Janesville, Wisconsin.

Our Farm Help Column

For a limited time The Wisconsin Farmer will publish free under this heading the names and addresses of those who want farm help or jobs on farms. Send all communications to the publisher. Names will be published only once.

HELP WANTED.

E. W. Carr, St. Lawrence, S. D. Single man wanted for stock farm.

Col. W. Russell, Winfield, Kan., two hands wanted to drive mowers and sweep rakes.

E. G. Carner, Gilmore City, Iowa, man for general farm work.

W. W. Day, Janesville, Wis. Wanted, man for general farm work. Not much milking.

Frank Frimmel, Liscomb, Iowa, wanted, man and wife—no children.

Frank E. Klicko, Sharon, Wis. Wanted man. Eleven cows to milk.

JOBS WANTED.

B. U. Orr, 1123 South Third Street, Cedar Rapids, Ia. Experienced. Wants $1.50 a day, paid weekly.

Charles Rundell, Livingston, Wis., single, salary wanted $40 per month, experienced.

Potatoes For Everybody.

Choice seed for **10 hills** true **"Early Six Weeks,"** earliest potato on earth and of superlative quality. Also 315 varieties superior Vegetable and Flower seeds. All safely boxed and mailed postpaid for **two dimes**, or 20 cents in stamps. 30 hills potatoes and the seeds for 50 cents. 70 hills and seeds, $1. More, same rate. Address, **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

Cream Separator Information.

A CREAM separator is an asset on every farm and the only question is, "What make shall I buy?" Starch Bros. Co., La Crosse, Wis., have been making a standard separator for the past fifteen years—modern in every respect. Until recently they have been supplying the mail order houses, but now they sell direct to the farmer. Send to the above firm for their book of information descriptive of their machine. Notice the advertisement on page 20.—Adv.

Ask your neighbor to subscribe for **The Wisconsin Farmer**.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

POULTRY AND PET STOCK.

LIMITED number 15-egg settings Chippewa Hardy Northern Strain W. Orps., at $2; 30 eggs, $3.75. Includes our $5 stock. 50% hatch or will duplicate at half price. Chippewa Orpington Farm, 722 Superior St., Chippewa Falls, Wis.

SINGLE Comb White Leghorns, sweepstake winners; every egg tested before shipped. Circular free. Reduced prices. From heavy laying stock, $1.25 per 15, $2.00 per 30. O. J. Hellum, Menomonie, Wis.

S. C. White Leghorns, Queen strain, range raised. Bred to lay from 270-egg strain. Eggs testing 95 per cent fertile. From 2-year-old hens. Eggs, $1, 15; $5, 100. Mrs. Annie Dorn, R. 1, Hilbert, Wis.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

S. C. Red eggs from some of Wisconsin's choicest winners, $3.00 and $1.50 per 15, $10.00 and $5.00 per 100. Wm. Wichern, Baraboo, Wis.

WHITE Rock hatching eggs; Halbach and Fishel strains; prepaid 15 for $1.50; 50, $4.00; 100, $7.50. Roy Richards, Lodi, Wis.

FANCY Buff Rock eggs, $3 for 15, from pen; from farm range flock, $1 per setting, $4 per 100. Mrs. Lucy Eminger, Gibson City, Ill.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

BARRED ROCK and S. C. Brown Leghorn eggs, $1 per setting, $4 per 100. The Pines Poultry Farm, Menomonie, Wis.

HATCHING eggs from R. C. Reds, 250 egg, trap nest strain, $2 per 15. Wm. R. Hart, R. 4, Marengo, Ill.

FERRIS heavy laying strain White Leghorns. Eggs $5.00 per 100. Harry D. Dunbar, Elkhorn, Wisconsin.

BLACK English shepherd pups. Best stock and watch dog on earth. Gerhard Walter, Hamburg, Minn.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

CHOICE Bourbon Red turkeys. Eggs for hatching, 25 cents each. Frank Olp, Delton, Wis.

BUFF Rock eggs, $1.50, 15; $6.00 per hundred. Wood Lawn Farm, Kilbourn, Wisconsin.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

WHITE Wyandotte eggs; reasonable prices. Mrs. Marcus Hanson, Cashton, Wis.

COLLIE sale. Also book on training, 35c. Collie Farm, Bloomington, Ill.

PURE-Bred White Rocks. Address "Kremers", Whitehall, Wisconsin.

CABBAGES.

ONE million Texas field-grown cabbage plants, Jersey Wakefield, Charleston Wakefield, All Seasons, Sure Head and Early Flat Dutch. Price, $2.00 per thousand, postpaid. 5,000 lots, $1.75 per thousand, express or postpaid. 5,000 or more by express at your expense, $1.00 per thousand. Rush Park Seed Co., Waco, Texas.

HOLSTEIN-FRIESIAN CATTLE.

FINE registered Holsteins, 2 cows, 2 yearlings and 2 calves; 2 of their dams averaged 100 lbs. milk in one day and 30 lbs. butter in seven days, officially. Wisconsin Live Stock Association, Appleton, Wis.

EMPTY BAGS.

SEND for our latest prices. We buy your empty feed bags at market prices. Write us today. Springfield Bag & Burlap Co., Dept. 5, Springfield, Ill.

TAIL HOLDERS.

COWS' tail holders, post paid; sample 12c. 5 o. more 10c each. F. C. Gieseker, Elmwood, Wisc

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In the past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley, never below third; never below seventh in rye and oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write AT ONCE, for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Building, Minneapolis, Minn.

TO help increase the country's volume of grains and other food products I am offering to sell about 5,000 acres choice agricultural lands near the cities of Superior and Duluth in 40, 80 and 160-acre tracts at low prices and on five to ten years' time, without any payment whatever on principal for two years, to any one who will clear and cultivate a part of the land at once. For full particulars write to W. H. Webb, Superior, Wis.

BUY land now! Do it before the advance that the season's rush is bound to create. Buy it while you can take your choice from our 25,000-acre tract that our company is selling to actual settlers. We have spent thousands of dollars building roads and opening it up. Our illustrated literature is free for the asking. Flambeau River Lumber Co., Station D, Ladysmith, Wis.

80-ACRE improved farm, three miles from Coleman, Marinette county, Wisconsin. 65 acres under plow, balance pasture. Good live creek runs through the 80. Fair house and barn; new tile silo. Price only $9,000.00 with lots of personal property. This is a big snap. One-half cash, balance on time. G. W. Ristau Land Co., Dept. A, Kaukauna, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, L and Department, Stanley, Wis.

FREE—We are interested in seeing the low-priced farm lands around our home developed. If you are looking for land, just write me and say: "Without any cost to me, tell me how you got your farm home." Address Mrs. Lucy L. Ferguson, B-26, Cedarville, Marinette county, Wis.

LAND clearing made easy, tells about stump removal by modern machinery. Write for it today, and other facts about cheap upper Wisconsin land. Wisconsin Advancement Assn., 1590 First Nat. Bank Bldg., Milwaukee, Wis.

GOOD corn, clover and grain land; improved, partially improved, or unimproved, at prices ranging from $15 to $100 per acre; best of location and soil. Write us now. W. E. WEBSTER, Hudson, Wis.

CORN farm, 400 acres, highly improved, 3½ miles from Lake Andes, Charles Mix county, South Dakota, located south of the north line of Iowa. For sale on easy terms. Homer W. Johnson, Sioux City, Iowa.

GOOD 120 cheap, 5 acres plowed; good pasture; considerable timber left; lies rolling; nice lake; 7-room house; log barn; 8 miles to station; $2,000, cash $900. The E. L. C. Co., 136-M, Dept. 10, Merrill, Wis.

BIG bargain, 80-acre improved stock and dairy farm 2 miles from Athens, $55.00 per acre. Write for particulars. John Brann Lumber Co., Athens, Wis.

MARATHON County Farms for sale. Bargains. Geo. Ritger, Cashier State Bank, Marathon, Wisconsin.

FOR SALE—Fine small farm home on one of Wisconsin's finest lakes. S. W. Gregory, Stone Lake, Wis.

SEEDS.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

GOLDEN Glow and Clark's Yellow Dent seed corn for sale. Wisconsin grown and fire dried. Burton Peck, Spring Green, Wisconsin.

BLACK Hills alfalfa seed, $6.00 per bu. For sample send stamp to Brookside Farm, Buffalo Gap, So. Dak.

CABBAGE, celery, tomato plants. 100, $1.00 delivered. Riverview Nursery, Des Plaines, Ill.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200 were now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. Owner will have privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

GUERNSEY CATTLE.

REGISTERED Guernseys, both sexes, six few good cows and heifers, guaranteed. Cloverneck Farm, Waterloo, Wis.

GOVERNMENT JOBS.

FARMERS wanted, $75 month, men and women; U. S. government jobs. War means hundreds vacancies. Country must be searched at once. Write immediately for list positions available. Franklin Institute, Dept. C-76, Rochester, N. Y.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

A Modern Badger Creamery.

Ventilation Plant Installed at Mt. Horeb Creamery Pleases the Buttermaker and Makes Him Feel More Like Sticking to the Job.

MT. HOREB'S $20,000 creamery began operations on March 23d. The new building, 36x80 feet, fills a long-felt desire on the part of the Mt. Horeb dairymen to produce their butter under modern conditions. The old building, located some distance out of town, had served its purpose well during the sixteen years of its existence. For a number of years, however, it was evident that the community had outgrown this building, so in 1915 the association decided on a new plant to be built in the city of Mt. Horeb.

The building is of brick and has two stories and a basement. The basement contains the ice machine, boiler and engine and the large casein vat, for, beside ice cream and butter, the creamery also manufactures casein for commercial trade. On the first floor at the front is a large office 16x20, and next to it the refrigerator, 12x12, and a smaller room for hardening ice cream. The temperature in this room is constantly in the neighborhood of 20 degrees below zero. The main room, the creamery proper, is 34x60 feet, and is so arranged that milk can be taken in on one side and the cream on the other. A hook lift has been arranged so that the cans are transferred from the wagon to the creamery without being handled by the farmer or creamery man. At the rear of the creamery a skim milk spout is located and here the farmers draw the pasteurized skim milk that is coming to them. Everything on the floor is arranged so as to be most practical for working purposes. There is a churn, two ripeners and three separators, an ice cream freezer and an ice crushing machine. In one corner a room 8x8 has been built for the testing of milk, cream and moisture and salt in butter. On the floor above is a large store room where the empty tube and materials for packing the product can be kept. Leading off from this is a separate room for the tank which supplies the water to the creamery. Water is pumped to this tank from a well in the basement; thus the creamery is not dependent on an outside water supply. The balance of the top floor is to be the hall for the Masonic lodge of Mt. Horeb. An elevator carries tubs and other materials from one floor to another.

One of the main features of the creamery and the most welcome improvment over the old building, in the estimation of Herbert E. Griffin, who has had charge of the buttermaking for the last six years, is the modern system of ventilation which has been installed in the creamery. Mr. Griffin is emphatic in stating that a ventilating system is absolutely necessary for a creamery today. Under the old system cellar conditions in the creamery resulted in considerable damage to machinery and building and above all to the health of the workers. The moisture-soaked atmosphere in a creamery without modern ventilation as in the old creamery breaks down the health of the strongest person, causing unfailing severe cases of rheumatism. Mr. Griffin states that under no conditions would he again work where a proper ventilation system has not been provided. There is constant danger during the winter months of catching cold by stepping from the overheated damp creamery onto the platform or returning home at night. The moist clothing exposes the creamery man to severe cases of cold. Good buttermakers are scarce and in these days none of them are without a position very long. The buttermakers of today can and are demanding certain conveniences which will insure their working under healthy conditions.

The two-fan modern system that has been installed at the Mt. Horeb creamery is planned along scientific lines and guaranteed to keep the air in the building fresh and the atmosphere partially dry. Fresh air intakes which bring the fresh air into the building and foul air flues to carry out the bad odors and moist air are the first principles of ventilation. However, creamery conditions necessitate a further aid to get rid of the large amount of steam which is always present in a creamery. Where steam condenses it settles to the floor in the form of water, making the air moist and heavy. To rid the creamery of the steam rapidly the Mt. Horeb system is so arranged that two openings in the ceiling, each about two feet across, which have in them a fan connected with the drive shaft, take care of most of the live steam as it is liberated. The fan sucks the steam up and drives it out as fast as it reaches the ceiling. A large amount of it condenses, nevertheless, and this is carried away by the floor flues. These floor flues begin about twelve inches above the floor and lead up to aerators on the roof. The wind blowing across the top of these aerators creates a suction, thus carrying out the heavier air that settles to the floor.

The Mt. Horeb creamery sells each year approximately 300,000 pounds of butter and a large amount of casein and ice cream. There are about 400 patrons in the association. The organization is on a coöperative basis, each patron having an equal share and vote. A president, secretary and manager and two other members form the executive committee or board of directors, who handle the affairs of the creamery. The buttermaker, Mr. Griffin, goes under the name of assistant manager and has under him two helpers. The untiring efforts of Mr. Griffin to make the new creamery as modern and practical as possible deserve special mention.

MT. HOREB, WIS., CREAMERY, JUST RECENTLY OCCUPIED.

Thousands of women are being recruited for agricultural service in England. More than 800 training centers have been established in England for instructing the women. Terms under which the women are recruited are that they shall be furnished board and lodging during the period of training; each shall be given a free outfit consisting of high boots, breeches, two pairs of overalls and a hat; the wage shall be $4.20 a week or the wage rate of the district, whichever is higher. In some cases the women workers are being housed in the towns and taken to the farms each day; in others they are staying at the farmers' homes. The welfare and supervision of the girls during training and after will be controlled by experienced women, carefully selected by the women's war agricultural committees in each locality.

YOU find men who are proud of themselves are mighty ready to learn about the little nibble of W-B CUT that does away with so much grinding and spitting. As soon as they learn to tuck away a little of the shreds in their cheeks and to let it alone, they find out the difference there is between *rich* tobacco and the excess-flavored stuff. The touch of salt in W-B helps to bring out the tobacco satisfaction.

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White Grubs Are Serious Pest.

Time Now to Prepare to Fight Them—By L. G. Gentner, Wisconsin College of Agriculture, Madison, Wisconsin.

TO MOST growers the white grubs are too well known to need any description. They have long been a serious pest to field and garden crops and have caused enormous losses, especially in southern Wisconsin, northeastern Iowa, northern Illinois, parts of Minnesota, southern Michigan, northern Ohio, northeastern Pennsylvania, southeastern New York and parts of Connecticut and New Jersey. In these regions the white grubs have a three-year life cycle and cause the greatest loss every three years, namely, 1918, 1921 and 1924. In order to avoid as much injury as possible in 1918, it is necessary to use cultural methods in 1917 and to practice crop rotation.

To fight the white grubs successfully it is necessary to know something about their habits. The grubs come from eggs laid in the ground by May beetles or June bugs. These are stout, reddish-brown to blackish

THE MAY BEETLE OR JUNE BUG, EXPECTED IN LARGE NUMBERS THIS YEAR.

beetles which may be seen flying about lights or bumping against the windows of a lighted room. They are expected to appear in large numbers this spring, the same as in 1914, when they will feed for a time at night on the leaves of oak, elm and other trees, and then lay their eggs in grass or weed lands or in fields planted to small grains or timothy. From these eggs tiny white grubs will hatch and feed on the roots of plants until late in fall when the ground begins to freeze. They will then go down into the soil below the frost line for the winter. In the spring of 1918 they will come up near the surface of the soil and feed on the roots of whatever plants may be growing there. That will be the year in which the greatest damage will be done, for the grubs feed from early spring until late fall, during which time they become nearly full grown. Late in the fall of 1918 the grubs will again work their way down into the soil below the frost line. In the spring of 1919 they will once more come up near the surface of the soil and feed for a short time on the roots of plants. Toward the first of June they will become full grown and make cells in the soil about three to eight inches below the surface. In these cells a change in form takes place and they go into a resting stage and are then called pupae. After several weeks these pupae undergo a change and adult beetles come forth. The beetles will remain in the cells until the spring of 1920, when they will come forth to lay their eggs in the same way as did the beetles in 1917. The beetles are expected to appear in large numbers every three years (1917, 1920, 1923) and the white grubs which hatch from the eggs laid by the beetles will do the most serious injury the year after the beetles fly in great numbers (1918, 1921, 1924).

The white grub.

Where practical one should not allow land to remain in grass, weeds, small grains or timothy in 1917, for [illegible] prefer to lay their eggs on [illegible] land. Wherever it is possible [illegible] so one should avoid planting corn, strawberries, potatoes or other root crops in 1918 on land that has been in grass, weeds, small grains or timothy in 1917. Land that is planted to corn or root crops in 1917 and kept well cultivated will contain few white grubs in 1918, for the beetles prefer to lay their eggs elsewhere. If it is necessary to plant wheat in 1917, the land should be planted in 1918 to timothy and grain, or to clover, peas and beans, which are not readily attacked by the grubs. Deep plowing and harrowing previous to October 1st in 1917 and 1918 will crush many grubs before they go down into the soil for the winter. Deep plowing and harrowing in 1919 as soon after July 15th as practical will crush the pupae and newly formed beetles which will still be in the cells in the soil. Early plowing in the spring of 1917 will crush many of the beetles before they come out of the ground. Chickens and hogs allowed to run over freshly plowed fields will destroy a great many grubs. Some of our common birds, especially robin redbreasts, pick up large numbers of the grubs and even some of the adults.

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Planting the Garden.

To the Editor:—The first and most important part of a good garden is a well-prepared seed bed. The soil should be free from sticks, stones and clods, and should be in perfect tilth. It may be necessary to rake the garden three or four times and use a hoe or the back of the rake to break up the lumps of soil, but such extra labor is well repaid.

After the soil is in condition for planting the rows of the garden may be laid out according to the plan previously prepared. There should be two permanent stakes at each end of the garden and then all measurements made from these stakes. The rows may be marked by putting small sticks or labels at each end of the row on which is written the name of the vegetable. It is then a very simple matter to get the rows straight by stretching a line and planting under it.

Only fresh, viable seed should be used. It is a good plan to test the germination of old or doubtful seed. This may be done by counting out 100 seeds and planting them in a shallow box filled with sand. If the seed germinates quickly and evenly and germinates more than 75 per cent it is satisfactory. But if it is slow and irregular in germinating and sends up weak sprouts or germinates less than 75 per cent it should be thrown away. The exception is parsnip, which often germinates as low as 50 per cent.

Viable seed need moisture, air and warmth to germinate. Seeds must absorb moisture from the soil before they germinate. That is why they often lie dormant for two or three weeks in dry soil before they sprout. Firming the soil over the seed to establish capillarity, planting the seed deeper in dry soil and sprinkling the soil after planting are ways of supplying moisture to the seed.

Because it shuts out the air and often causes the seed to rot too much moisture is almost as bad as not enough. Thorough drainage or lightening the soil with sand or manure will usually correct this condition.

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The Control of Garden Pests.

By James G. Moore, Wisconsin Experiment Station

Below is given a list of the more common insect pests of vegetables, with methods of control and formulae for spray mixtures. Control methods are stated by number. See "methods of control" table below.

COMMON GARDEN INSECTS OF WISCONSIN.

Vegetable	Insect	Stage in which damage is done	Damage	Control method
Asparagus	Asparagus beetle	Adult larva	Eats foliage and young shoots	1-2
Beans and peas	Pea weevil	All stages	Burrows in seed	3-4
	Bean weevil	All stages	Burrows in seed	5
	Pea aphis (louse)	All stages	Sucks juice from foliage	6
	Blister beetle	Adult	Eats foliage	2-7
Beet	Flea beetle	Adult	Eats foliage	2-7
	Leaf beetle	Adult	Eats foliage	1-2-7
	Beet aphis (louse)	All stages	Sucks juice from foliage	6
Cabbage	Cabbage maggot	Larva	Base of stems and roots	8-9
	Cabbage worms	Larva	Eats foliage	2-10-11
	Cutworm	Larva	Cut off plant	(See general)
	Cabbage (aphis)	All stages	Sucks juice from foliage	6
	Cabbage leaf miner	Larvae	Mines through leaves	12
Cucumber	Cucumber beetle	Adult larva	Eats foliage, destroys roots	2-13-14
	Squash bug	Adult larva	Sucks juice from foliage and stems	1-13-14-15-16
	Pickle worm	Larva	Eats fruit	1-10
	Melon aphis	All stages	Suck juice from foliage	6
	Squash vine borer	Larva	Burrows in vine	1-12
Celery	Celery caterpillar	Larva	Eats foliage	14
Corn (sweet)	Cutworm	Larva	Cuts off stem	(See general)
	Corn ear worm	Larva	Eats seed on cob	2-19
Melon	Same as for cucumber			
Onion	Maggot	Larva	Burrows in bulb	No satisfactory method
Squash	Same as for cucumber			
Radish	Maggot	Larva	Burrows in roots	No satisfactory method
Potato	Potato beetle	Adult larva	Eats foliage	2-7-10-14
	Potato flea beetle	Adult larva	Eats foliage	2-7
	Blister beetle	Adult larva	Eats foliage	2-7
	Potato stalk borer	Larva	Burrows in stem	9
Tomato	Tomato worm	Larva	Eats foliage	14
	Tomato stalk borer	Larva	Burrows in stem	9
Eggplant	Flea beetle	Adult	Eats foliage	2-7
	Potato beetle	Adult larva	Eats foliage	2-7-14
General	Cutworm	Larva	Eats foliage and base of stems	17-18
	Leaf beetles	Adults	Eats foliage	1-2-7
	Blister beetle	Adult	Eats foliage	1-2-7
	White grubs	Larva	Eats roots and base of stems	19

METHODS OF CONTROL.

1. Trap plants. 2. Dust plant with air-slaked lime and Paris green or arsenate of lead. Repeat at intervals as often as insect reappears. 3. Fumigate seed with bisulphide of carbon before planting. 4. Soak for one minute in boiling water. 5. Same as three, but as soon as harvested. 6. Kerosene emulsion or nicotine sulphate. Nicotine sulphate at times gives undesirable flavors to salad crops. 7. Bordeaux mixture containing arsenate of lead or Paris green. 8. Protect plant by tarred paper protector about three inches in diameter fitted closely around base of plant. 9. Burn badly infected plants as soon as discovered. 10. Apply arsenate of lead or Paris green in liquid form. 11. Fresh hellebore or pyrethrum may be substituted for 10. 12. Destroy infected part as soon as discovered. 13. Cover plants with hill protectors. 14. Hand picking—Should be done daily until further injury is unimportant. 15. Use traps—boards, sticks, clods, stones; adult insect hides under them. May be found in early morning or late evening. 16. Mash eggs—usually found on under surface of leaves. 17. Poison bait—(1) vegetable—spray clover with Paris green or arsenate of lead; scatter fresh material around plants in evening. (2) Bran mash—white arsenic or Paris green, one-fourth pound; brown sugar, one-fourth pound; bran, ten pounds. Mix thoroughly and add enough water to make a damp mash. 18. Dirt bands, tin or strawberry box protectors. 19. Fall tillage.

HOW TO MAKE THE SPRAYS.

Arsenate of lead (powder) or Paris green, liquid—one ounce to six gallons water.

Arsenate of lead (powder) or Paris green, dry—one ounce to three to four pounds air-slaked lime or flour.

Kerosene emulsion—5 to 7 per cent kerosene.

Nicotine sulphate (40 per cent) one part to 700 to 800 parts water. Add small amount of soap solution.

Bordeaux mixture 4-4-50 formula.

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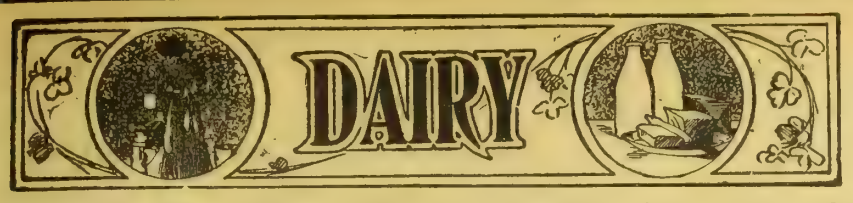

What Testing a Cow Did.

Cow-testing associations are increasing from year to year, but not nearly so fast as they ought to or as their value justifies. We still have too many cows that are unprofitable and too many good ones that are not appreciated as they should be, simply because their owners do not know how much better or poorer one cow may be than another. There is only one way to ascertain the value of a dairy cow and that is by weighing and testing her milk at intervals sufficiently often to enable the owner to make an intelligent estimate of her annual production as well as the annual cost of her feed.

Breeders of pure-bred dairy cattle are frequently big losers because they do not have their cows officially tested and, therefore, have nothing to show the prospective buyer how good a certain animal may be and what her ancestors before her did. This is illustrated by the following statement made by a Canadian breeder in a recent issue of the Holstein-Friesian Register:

I once offered an eleven-year-old cow for $150 to a man who was buying for the West. Shortly after she gave me a fine heifer. As we were doing some testing at the time we also started this old cow, and very much to my surprise she finished up by making 29.5 pounds of butter and 565 pounds of milk in seven days. Her best day's milking was ninety pounds. I have since refused $800 for her. This goes to prove the value of testing.

The intrinsic value of that cow was not enhanced by the testing, of course, but it showed that she was a much better producer than this experienced breeder realized. He had owned that cow for eleven years without appreciating her real worth. Had he known her value several years before her heifer calves would undoubtedly have been retained in the herd and her bull calves have sold for much more money. The difference in the selling or breeding value of a high and an average testing grade cow would not be so great as in the case of a registered animal, but in many instances it would represent a big sum. The breeding up of a high-producing grade dairy herd cannot be intelligently done without testing and weighing of the milk of each individual cow; neither can the poorer ones be weeded out without a knowledge of the cost of production of the several animals in the herd.

Join a cow-testing association if you can; if not start to test your own cows at least once a month and weigh their milk about once a week and from the results thus obtained manage your herd intelligently. More progress can be made along intelligent breeding and weeding lines than most farmers realize.

The Mechanical Milker.

The increasing difficulty of obtaining help on the farm, especially on dairy farms where from thirty to forty cows are kept, is causing many to inquire about the practicability of milking machines; whether they are really labor savers and whether they do good work. It cannot be said that the milking machine is meeting with universal approval, but we are convinced that it is not the fault of the machines that they do not satisfy everyone, but rather the fault of some people who expect too much of a machine. Many men have discarded milking machines even after having used them for several years. On the other hand, many more are using them every day and would not think of dairying on a large scale without them.

This difference of opinion among farmers and dairymen is not peculiar to one make of mechanical milker, but to all of them. We have seen the highest-priced machines on the market discarded by some men and very much eulogized by others. The same thing has been observed of the cheaper machines. The success of the milking machine, in our opinion, depends very largely upon the man who runs it. It requires intelligence to use a milking machine to advantage. You can't pick up a hobo and expect to make a successful milking machine operator out of him. Some hoboes can milk by hand; however, the majority of them are poor milkers. They usually dry the cows up unless watched very carefully, but it is utterly out of the question to trust a hobo with a milking machine and expect to get results. Intelligent labor is necessary, as is usually the case with machinery.

An intelligent dairyman will have no trouble with a milking machine, because he recognizes that each cow has an individuality of her own and that each must be treated as an individual if best results are to be obtained. A man who knows his cows in that way can get results with a milking machine if he wants to. Now and then cows are found that cannot be successfully milked with a machine, but there are very few of that kind. For that matter, there are cows that cannot be successfully milked by hand, or at any rate they cannot be milked by hand in comfort. One or two cows, therefore, may have to be eliminated from a herd of thirty or forty when a machine is first introduced. Heifers seldom, if ever, object to the use of milking machines.

One should always strip a cow after she has been milked with a machine, although in many instances one cannot get more than half a pound of milk from the strippings. Of course, it is important to get that half pound, as every man knows, otherwise cows are apt to dry up. Every particle of milk must be removed from the udder after each milking, besides by handling the udder after each milking one always knows its condition.

A man who milks from fifteen to twenty cows and has to depend upon one or two hired men to do the milking for him would in many instances be better off with a machine and do the milking himself, because it saves labor and besides it transforms the rather disagreeable job of hand milking into pleasant work.

Productive Dairying.

Prof. R. M. Washburn, of the dairy department of the University of Minnesota, is the author of an illustrated volume bearing the title "Productive Dairying." It contains the results of all recent experiments conducted by the various stations during the past decade, and the volume, if widely distributed, will do much toward improving the dairy industry. One chapter is devoted to the care and management of dairy cows, another to winter feeding, still another to clean milk production, and considerable attention is given to the marketing of dairy products. The publisher's price of this volume is $1.75 and The Wisconsin Farmer will supply the volume to its readers at this price.

Stockholders of the Farmers' Cooperative Packing Company, of Owatonna, Minn., will receive $65 on every $100 of paid-up stock as their pro-rata share of the assets of the company, which has dissolved. Payment is to be made May 27th. More than 1,500 stockholders are interested in the company, which was organized to build a $300,000 coöperative packing plant.

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Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Use More Corn Meal.

Wheat is high in price and the housewife who makes use of more wheat-flour substitutes will materially cut down the cost of food for her family and will at the same time be performing a patriotic duty in helping conserve the wheat supply of the country. Corn naturally takes first place as a wheat-flour substitute and there are innumerable ways in which it can be utilized in the diet.

Did you know that in making light bread corn meal can be substituted for wheat flour in any proportion up to 25 per cent of the total flour required? The texture of such bread is a little poorer than if made from all wheat flour, but it is light and spongy, wholesome and very palatable. Corn meal can be substituted for half the flour in making gems and muffins and many prefer pancakes made of corn meal alone. The batter in each case must be made thinner than in the case of wheat flour, as the coarse meal absorbs more moisture in baking.

But bread is not the only way in which corn meal can be used. Well-cooked mush with cream or milk is as palatable a breakfast or supper dish as you could wish. Then, too, the mush may be fried or combined with fruit or with cheese. Fish cakes with corn meal are good, and puddings and even doughnuts and cakes are made with corn meal as the basis.

Now as to the economy of using corn meal in place of wheat flour and cereals. At present retail prices corn meal costs about half as much per pound as wheat flour, one-third as much as rolled oats, one-fourth as much as rolled wheat, and about half as much as broken rice. In other words, while corn meal compares favorably with wheat flour and other cereals in the matter of food value, it may be had at a much lower cost per pound.

Unbolted corn meal, that is, meal made from the whole grain, contains more tissue-building material than the bolted meal that is usually sold at the stores, from which the germ has been removed in order to make the meal keep longer. Sometimes the unbolted meal can be bought, but with a small hand mill the best of corn meal can be had right in the home. The mills are not expensive, ranging in price from $1.50 to $5, and the meal can be ground coarse or fine as suits the individual taste.

Corn is likely to take a prominent place in the diet in the future and the numerous ways in which it can be used should not be overlooked. The department of agriculture, Washington, D. C., will send a list of corn meal recipes to anyone who writes for it, and those housekeepers who wish to serve the interests of their home as well as their country should make use of the opportunity.

Canned Vegetables Mean Well-Balanced Ration.

To the Editor:—I note with pleasure that Mrs. J. S. is interested in canning peas and other vegetables for winter use and I am glad to give her the method I have used successfully for the past three years.

Place shelled peas in a bag and put into boiling water. Boil five minutes, remove and plunge into cold water. Pack in jars, fill with boiling water and add one level teaspoonful of salt to each pint. Place rubbers and top partly tightened. Put jars into boiler with tight-fitting cover and false bottom, with water enough to cover jars to a depth of three or four inches, and after reaching the boiling point boil for an hour and a half. Remove and tighten covers and invert to cool.

I got this recipe and others by which I successfully can all vegetables, meats, soups, etc., from O. H. Benson, in charge of canning clubs, Washington, D. C. By these methods we have all the year round an abundant and well-balanced food ration at a very small cost, which has been a great blessing to us.

We, too, live on new land where vegetables do wonderfully well. Besides being a most healthful and profitable exercise it is a great pleasure to me to work among them and see them grow. Mrs. L. H. Curry.

Put Coal Hod on Casters.

One man defines efficiency as orderliness; another as the shortest cut to a given result with the least fatigue. My friend, Mr. New Housekeeper, thinks it is both, and has demonstrated this by putting his coal hod on casters.

With a castered hod, you may avoid the fatigue of lifting when you sweep, since a gentle push with the broom will remove it from your path. Then, too, you do not have to carry it across the kitchen, for a shove with the foot is enough to send it merrily on its way.

MISS LENA F. EAST AND HER OWN PARTICULAR COW, "ROSE."

This new example of kitchen efficiency can be made by screwing a board on to the bottom of the hod and attaching to it universal or ball-bearing casters. If you are a new housekeeper, try it, and see what a source of pleasure this specimen of your housekeeping skill will be to your friends.—[Charlotte A. Baker, Colorado Agricultural College, Fort Collins, Colorado.

To Curl an Ostrich Feather.

An ostrich feather that has lost its fluffiness may be curled again by using a dull knife or some other blunt edge. It is a rather tedious job, however, as each frond must be curled separately. Slip the knife under the frond down close to the quill and with the frond pressed lightly between the edge of the knife and the thumb bring the knife with a quick but steady movement toward the tip of the frond. Do not use a sharp knife, as that will likely break or cut the feather. The back of a case knife is best.

Varnish Good For Linoleum.

To the Editor:—One of our readers has asked about the advisability of varnishing inlaid linoleum and as one who has had experience I must say that varnish does not injure linoleum. On the contrary, it hardens it so that the dirt will not work into it: therefore, it should be varnished immediately after it is put down. Varnished linoleum is easy to keep clean and I would by all means advise this lady to try it. H. E. H.

A New Pie Recipe.

To the Editor:—I am a regular reader of the Home department and as I have tried many good recipes from its columns I am sending one for buttermilk pie that I think is excellent.

Use four eggs, two cupfuls good buttermilk, two scant cupfuls sugar, butter the size of an egg, four tablespoonfuls flour, lemon flavoring. Beat the eggs, add the flour, and beat together well. Then add the sugar, butter, milk and flavoring. This will make two large pies. Have your pie plates lined with good pastry. Bake only with one crust.

Will someone please tell me how to clean lard barrels for pickling and kraut? I have some barrels that I would like to use for this purpose, but I do not know how to clean them, if they can be cleaned at all.

Mrs. M. J. Smith.

Pickles For the Market.

To the Editor:—Last summer I salted down some cucumbers and they are now in brine of their own making. I have been wondering if some of the Home department readers could tell me how to prepare good sweet pickles from these. Can I make them so they will be crisp and tender? What proportions of vinegar and sugar should I use, and what combination of spices should be used to give best results? I would like, if possible, to have them like the sweet gherkins sold in bottles. I want to put them on the market if I can make a salable article.

An Old Subscriber.

Good Luck Canning Vegetables.

To the Editor:—For the last two or three years we have canned peas, beans, corn and asparagus and have had very good luck with them. We use the tin cans mostly, but have used the glass jars.

Hull the peas ready for canning and place them in a flour sack (they are easier handled that way) and put in a boiler or kettle of boiling water and blanch ten minutes. Then place in your jars, add a teaspoonful of salt to each jar and cover with boiling water. Place rubber in place and screw the lid on tightly. Put in a boiler of water with a frame under them and boil two or two and a half hours. Count from the time the water begins to boil. Remove from the boiler and tighten the lids. We put ours in boxes and put them in a dark place.

Joy Bouton.

Pack Lemons in Salt.

To the Editor:—I noticed in the Home department an inquiry about storing lemons for summer use. This is the way I used to store them and the plan always proved satisfactory. The lemons kept fresh and did not spoil.

First take any pail or pan which you think is large enough to hold as many lemons as you wish to store. Then sprinkle a little salt at the bottom. Next put in a row of lemons and cover them with salt. Then another row of lemons, and so on until you have all of your lemons covered. Put them in a cool, dry place. Coarse barrel salt is all right for this purpose.

P. I. Fisher.

Recipes.

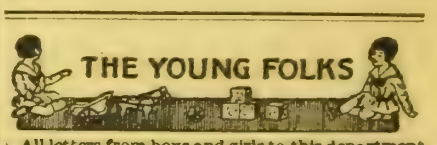
Rhubarb Baked With Raisins.—Peel the rhubarb and cut in half-inch slices. For a pound of rhubarb take half a cup of raisins and a cup of sugar. Use seedless raisins. Cover the raisins with boiling water and let cook until the pulp is tender and the water is evaporated to two or three spoonfuls. Sprinkle the rhubarb, raisins and sugar in a baking dish in layers and let cook in the oven or on top of the range until the rhubarb is tender, but not broken. Prunes may be used instead of raisins.

Beet Salad.—To one quart of well-cooked beets, chopped fine, add one quart of finely shredded cabbage, one cupful prepared horseradish, one-half cupful light brown sugar, one level teaspoonful salt. Serve in nests of lettuce, with mayonnaise.

Apple Pudding.—Two cupfuls bread crumbs, one cupful sugar, two cupfuls chopped apples, one-half cupful butter and a little nutmeg. Into a well-buttered pudding dish put a layer of the bread crumbs, then a layer of the chopped apples. Sprinkle with sugar, bits of butter and a grating of nutmeg. Repeat until dish is full, having last layer buttered crumbs. Pour over all one cupful of water. Bake slowly forty-five minutes.

Stuffed Cabbage.—One firm head of cabbage, one-half cupful cooked ham, chopped, one-half cupful bread crumbs, softened with milk, salt, pepper and a little chopped onion. Parboil cabbage and cut out the heart. Mix ham with softened crumbs, add seasonings and fill cabbage, binding it around with a clean strip of cloth. Put bits of butter or ham fat on top and bake about twenty minutes in a hot oven. Parboiled sweet peppers, with seeds removed, or parboiled large onions may be stuffed with same mixture.

Eggs Rolls (three portions).—One cup flour, two level teaspoons baking powder, one-fourth level teaspoon salt, one and one-half level tablespoons lard, four tablespoons milk, one egg, one level teaspoon sugar. Mix and sift the flour, baking powder and salt. Cut in the lard with a knife. Add the milk and the beaten egg yolk, mixing until a soft dough is formed. Pat into a shape one-fourth an inch thick. Cut into oblong pieces two inches by four inches. Beat the egg white stiff and add the sugar. Brush over the tops with this egg mixture. Make two parallel creases across the oblong pieces. Bake ten minutes in a moderate oven.



All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Drives the Hayfork and Likes It.

Dear Young Folks:—I have never written a letter to you before, but I would like to just the same. I am a girl thirteen years of age and live on a farm of 216 acres. We have two other farms. We have a very large woods and I go there when I want to wade or pick flowers.

In the summer I drive the hayfork and I enjoy it. I most always drive the team on the hay loader too.

I am in the seventh grade at school. I like my teacher fine. She is a good instructor. My brother and sister and I drive to school. My sister is going to graduate from the twelfth grade this year.

We have a seven-passenger Hudson 6. I have many rides in it. My longest ride was eighty-two miles.

I read Marie's story about the red hen. It was fine. —Helen Marie.

Caught Rabbit in Field.

Dear Young Folks:—I am a little boy eight years old and am in the second grade. I like to hear your stories and hope there will be more.

I am going to tell you about a rabbit. Last summer when we were cutting hay, papa, mamma and I were the only ones cutting. We scared up a great many rabbits and I tried to catch them, but, of course, I couldn't catch any. After a while I caught a little rabbit that was only a month or two old. I brought it to the house and put it on the porch and turned it loose. Mamma made me take it back to where I found it. I often think of it now.

—James.

Loves All Her Pets.

Dear Young Folks:—I live on a farm with my uncle and aunt. My parents died when I was very small like Sylvia's parents did, so we are both orphans, aren't we?

I have four pets which I must mention, a chicken, a dog and two cats. I love them all. I have nine dolls. Their names are Freda, Pansy, Ellen, Marguerite, Hazel, Verna, Polly, Kewpie and Sweetie. Aren't those beautiful names? I would like to own a parrot.

Now I shall describe myself. I have brown eyes, light hair, and I am eleven years old. I am in the fifth grade.

—Oleta.

Grandfather Sets Good Example.

Dear Young Folks:—I enjoy your letters very much. This is my first letter. I am a boy eleven years old. I live on a farm of 204 acres. I have a pure-bred Guernsey heifer of which I am very proud. I go to school every day. Our teacher's name is Miss Ruby, and we like her very much.

My grandpa is ninety-four years old. He gets up at four o'clock in the morning and builds the fire and carries in wood and water. He also feeds the chickens. Don't you think that is pretty good? —Llo. .

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2068—A dainty boudoir sack. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. The small size requires 1½ yards of 36-inch material.

1721—Girls' dress with sleeve in wrist or elbow length. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3 yards of 44-inch material for an 8-year size.

2094—Some attractive collars and a smart pair of cuffs. Pattern includes all styles illustrated and is cut in 3 sizes: Small, medium and large. No. 1 will require ½ yard; No. 2 collar, ⅝ yard; cuff No. 2, ⅜ yard, and collar No. 3, ⅝ yard of 27-inch material for a small size.

2069—An ideal play suit and comfortable school dress. Pattern is cut in 6 sizes: 2, 4, 6, 8, 10 and 12 years. Size 8 requires 3 yards for the dress and 1⅝ yards for the bloomers, of 44-inch material.

2093—A smart style good for many occasions. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5⅛ yards of 44-inch material for a 36-inch size.

1670—Costume with sleeve in either of two lengths (for misses and small women). Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5½ yards of 36-inch material for an 18-year size.

Waist 2090-Skirt 2079—A smart sports dress. The waist pattern 2090 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 36-inch material for a 38-inch size. Skirt 2079 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure, and requires 3¼ yards of 44-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

1783—Girls' dress with jacket blouse, and skirt attached to an underwaist. Pattern is cut in 4 sizes; 6, 8, 10 and 12 years. It requires 4½ yards of 36-inch material for a 10-year size. For separate jacket blouse it will require 2 yards of 36-inch material.

2070—Ladies' house dress with reversible closing and sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6½ yards of 36-inch material for a 36-inch size.

2072—A charming dress for mother's girl. Pattern is cut in 5 sizes; 4, 6, 8, 10 and 12 years. It requires 4 yards of 36-inch material for an 8-year size.

2077—Boy's rompers with sleeve in either of two lengths. Pattern is cut in 5 sizes: 2, 3, 4, 5 and 6 years. It requires 2⅝ yards of 36-inch material for a 4-year size.

1535—Ladies' overall apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 6¼ yards of 36-inch material for a medium size.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for May 6, 1917.

Jesus the Servant of All.

LESSON TEXT—John 13:1-15.

GOLDEN TEXT—And whosoever of you will be the chiefest, shall be servant of all.—Mk. 10:44.

This lesson is really a continuation of the latter part of the lesson of last week, for the glory of Jesus is his unselfishness whereby he wrought out redemption for mankind.

I. Selfishness Amid Holy Surroundings (vv. 1-11). The world does not appreciate Jesus. It never has. "His own," the Jews, did not appreciate him. We are considering him today as he was about to depart from the world that had despised and rejected him to one that appreciated him (Heb. 1-6). The development. Verse 2 tells of the Satanic suggestion that came to the heart of Judas. In it was personal desire, and, connected with it, human conspiracy. The coming to this upper room has been pointed out by a man bearing a pitcher (Mk. 14:12-16), the pitcher being suggestive of the Holy Spirit which was about to come in the place of the visible Christ, and it is in the midst of such sacred surroundings as this that Satan enters the hearts of students. This is a suggestion as to the power of environment. Environment is an aid, but it does not produce effective safety. No moment is too holy for Satanic suggestion. Jesus knew that the hour was come when he was to depart out of the world. "Having loved his own, he loved them to the end." Even though the Father had given all things into his hands, still it was necessary for him to teach the disciples once more, and finally, the lesson of humanity. He knew and remembered the strife among the disciples (Luke 22:24-28). Doctor Bonard's famous dream, analyzing zeal as being made up of ambition, pride and elements other than the love of God is worthy of consideration in this connection. We need to realize the danger of selfishness even in our service for God. Have we examined our motives? If the consequences of our superiority, either of rank or ability, tempts us to shirk the lowliest of services, it is time for God's children to recall this scene, and remember that "the servant is not greater than his Lord." Peter's strong protest (v. 8) brings out the fact that the washing by Christ of the disciples' feet was deeper than merely the outward application of water (See Rom. 8:9).

II. Service, the Evidence of Divine Humility (vv. 12-15). (1) This service was tender. Jesus had all things (v. 3), yet he became the servant of all. (2) It was for all. All need a washing. All the disciples needed to learn, and all servants must learn, to obey. (3) It signified sanctification. We are saved once for all, but we are constantly being stained by our contact with sin in the world; hence the need of renewed cleansing. New light reveals new need of cleansing. (4) It signified deity. Jesus read the thoughts of his disciples. He became their servant that in years to come they might know the meaning of service. He became their example, and in years to come they remembered his knowledge and service. (6) It was for "his own." The disciples did not know what it was he had done to them. Little do we understand oftentimes what it is the Lord has done to us. Jesus set them an example whereby he would remove the dirt of crime, self-seeking and every manifestation of selfishness from their sin-stained souls. We may call Jesus Lord and Master and it is well that we do so, for Master and Lord he is indeed, but, if we call him so, let us not do aught than make him in our lives what we call him with our lips. The idea here emphasized has given rise to much religious literature. "The Imitation of Christ" by Thomas a'Kempis, is the most popular book in the world next to the Bible.

"Verily, verily I say unto you" (v. 16). This introduction shows how important Christ considered his teaching at this point. "The servant is not greater than his Lord" (See Matt. 10: 24; Luke 6:40; 22-27). If the Lord bent to this lowly service, certainly they, the servants, should not think it beneath them to do likewise, nor should the one that is sent (an apostle) consider himself greater than he that sent him. John, who wrote this epistle, was one of the apostles guilty of an unholy strife for power and position, and desirous of bringing fire down upon those who did not acknowledge and follow Jesus, but he became a marvel of love and tenderness.

Knowing and doing are the twin pillars of the Christian faith upon which the house of happiness is built. Such service is not egotistical.

If we seek to do service for others, then we have the right to call Jesus Master and Lord, but if we seek honor rather than to be humbly useful, we shall have no right to call him thus.

This instance made a deep impression upon Peter, as can be seen from the striking illusion in his first epistle (I Pet. 5:5 R. V.)

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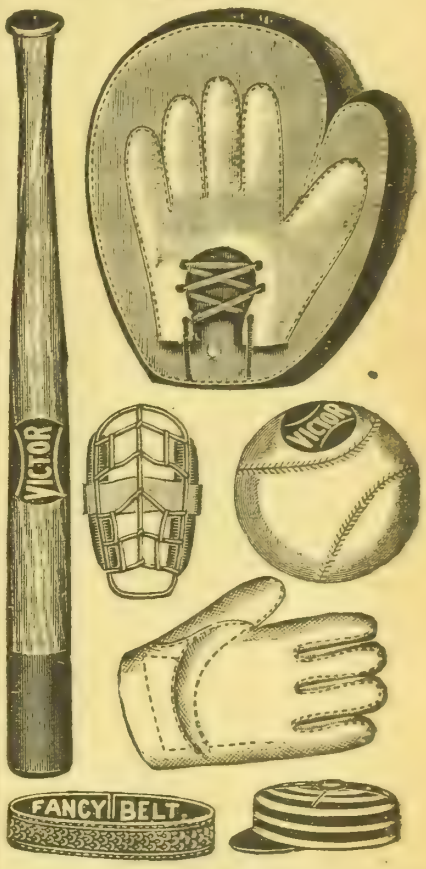

There are seven splendid pieces in this great outfit. The ash bat is a good one. The mask is made of heavy wire, full size. The catcher's mitt is thickly padded, very heavy and has patented fastener. The glove is of tanned leather and has patent clasp. The ball is strongly stitched and will last. A neat, adjustable belt and a dandy cap complete this great outfit. Remember you get the whole outfit of seven pieces for a little easy work. Write me to-day and I will tell you just how to get it.

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VETERINARY

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

"Blind Staggers."

I have a brood sow that has blind staggers. I have been feeding her buttermilk and corn and she has been following the cattle in the yard. Will you please tell me the cause of this and give me a remedy for it? I have this sow shut off by herself now and am feeding her sweet separated milk and oats.

This trouble may come from being infested with worms or may come from some trouble within the brain itself. Give nothing but milk for three or four feeds and give a dessertspoonful of oil of turpentine in each feed of milk and you may get results.

Contracted Tendons.

I bought a large black colt, coming four wears old, a while ago. The man I bought him from said he hurt himself running in the pasture a year ago last summer. He knuckles forward a little on his right front ankle when he steps on it. He doesn't favor it except after he has been running and playing a good deal. The man I bought him of said his left foot was the worst at first and that the right one got that way by favoring the left one. The left one is all right now. Please advise me what to do for him. I haven't done much for him yet, except to put on a little liniment, and used a stiff boot on it for a short time.

There is some contraction of the flexor tendon in this case. Treatment should not be attempted in these cases without the assistance of some one familiar with such cases. Some good may come from line firing the tendons, but this should be done by a veterinarian. Severing the tendon may prove beneficial.

Breeding to Immune Male Hog.

I am having serious trouble with my hogs and would like your advice. Is an immune hog considered healthy to breed to female hogs that are not immuned? I have bred twenty sows weighing from 200 to 300 pounds that were in good condition. The male had been immuned two or three months before placed in the pens. The pigs come unhealthy and without life, over half being born dead. Would like to know what you think is the trouble.

The fact that the male hog was an immuned hog has had nothing whatever to do with your pig trouble. You will have to look further than that, because there is no connection between the cholera immunity and the dead pigs.

Digestive Disturbance.

My pigs are dying off in a way I cannot account for. Would you please advise me how to treat them and what causes the disease? When they are about two or three days old their tails become red, they wander about the pen, wabbling and gritting their teeth. They get thin and dizzy like, and seem to be hungry and bite at everything they meet. The sows are in good, healthy condition, fairly fat and seem to have milk. I feed the sows on corn and water.

Your pigs are probably victims of digestive disturbances. There is in all probability some weakness of the pigs even at the time they are farrowed. Change the mothers' feed gradually, giving some oats and slop containing some shorts or middlings. See that the pigs have good, clean, dry quarters and your trouble may cease.

Retained Afterbirth.

I have a four-year-old Short-horn cow that dropped a calf about three weeks ago and did not clean at the proper time. She has a discharge of a bad odor at times. I feed her shredded fodder, cane, hay and a little corn. She is falling away in flesh.

A cow should never be neglected in this way, as the price paid for having her attended to is small compared to the injury done her from neglect. This animal's womb should be injected with a warm, clean water solution containing 1 per cent lysol or 1 to 5,000 permanganate of potash. This is to be done daily for a few days and by means of a long rubber tube and a funnel, the tube being inserted into the womb and the funnel attached to the other end. The fluid is best asperated after being in the womb awhile.

Farm Run By Wind Power.

(Continued from page 1.)

good work, even in high winds. Some windmills are noted for quitting work in high wind; is it any wonder some people have such poor opinion of windmills?

"The electric starter on automobiles is very similar to batteries charged by a windmill, the variable speed of the car being like the variable speed of the mill.

"Farmers, as a rule, are wary of electricity, fearing they cannot make it work. I did not know volts from amperes when I bought my lighting plant. When I got into the work I found everything worked out in a very simple manner. If we belt up a feed grinder we have to run it in the right direction. A dynamo also has to be run in the right direction. It is right and left-handed; that is, it has positive and negative wires the same as storage batteries, which are right and left-handed, called positive and negative poles. As an example, if a battery of men should take hold of hands, each man would represent two volts of pressure; fifteen cells would represent thirty volts' pressure. However, an additional cell is added to it for good measure.

"Amperes represent the amount of current flowing out of the battery. Watts are measurements and equal volts times amperes. Electric lamps are rated by the number of watts they consume. A horse power requires 746 watts.

"A cut-in is an instrument which keeps the current from flowing back from the battery into the generator and being wasted, the same as a check valve is in a water pipe.

"The hydrometer is an instrument which registers the state of charge. This will rise to a certain mark when the battery is fully charged and will settle as the current is being used.

"Batteries in glass jars are much preferred, as one can see the condition of the plates and the amount of sediment.

"The Electric Farm also has its wireless telegraph set, and was capable of receiving time and other messages sent out by the government stations and others. Since war has been declared, this has been dismantled by order of the government, the same as all amateur wireless sets."

Is it any wonder, in view of such utility, that both Mr. and Mrs. Forrest should be enthusiastic over the possibilities of electric power on the farm, or that they should proudly call their place The Electric Farm, printing a picture of windmill and powerhouse, with the adjacent barns and outbuildings, on their farm stationery?

Farming has passed the day and age when brawn alone sufficed, and has reached that stage when it is most successful when prosecuted by men who put the most brains into all of its operations. Mr. Forrest is a prosperous and successful farmer and has to thank the fact that his mind welcomes new ideas, and executes them, for the success and the prosperity which he has so notably achieved.

Canada Offers 160 Acres Land Free to Farm Hands

Bonus of Western Canada Land to Men Who Assist in Maintaining Needed Grain Production

The demand for farm labor in Canada is so great that as an inducement to secure at once the necessary help required, Canada will **give one hundred and sixty acres of land free as a homestead** and allow the farm laborer, who files on land, to apply the time he is working for other farmers as residence duties the same as if he had lived on the land he had applied for. This offer made onl yto men working on Canadian farms for at least 6 months during 1917, thus reducing the necessity of actual residence to 2 years instead of 3 years, as under usual conditions. This appeal for farm help is no way connected with enlistment for military service, but solely to secure farm laborers to increase agricultural output. A wonderful opportunity to earn good wages while securing a farm. Canadian Government will pay all far over one-cent per mile from St. Paul and Duluth to Canadian destination. Information as to low railway rates, etc., may be had on application to

GEORGE A. HALL
Canadian Government Agent
123 Second St. Milwaukee, Wis.

FOR SALE

FOR $700 cash, or will exchange for same, equity in a young, sound team not under 3,000 pounds (no plugs), and a few good milk cows, either of my two cars: A five-passenger, 50-horsepower Kissel, or my two-passenger, 40-horsepower American roadster. Both fully equipped and in fine running condition. All tires good as new. New extra inner tubes, extra tires, demountable rims, electric lights, automatic tire pumps. Each car cost $2,400. A great bargain. Write at once. Will send photo. Address H. Wallace, Lakewood, Wis.

OREGON & CALIFORNIA RAILROAD CO grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind.Com'r, A.T.& S.F.Ry.,1959 Ry. Ex.,Chicago.

FOR SALE—163-acre farm in Jackson county, Wis. Fine location on main road between two towns, 3½ miles to each. This is a bargain for anyone wanting a good stock farm at the right price. $3,000 will handle it. If interested, write for further particulars, W. C. Davis, Alma Center, Wis.

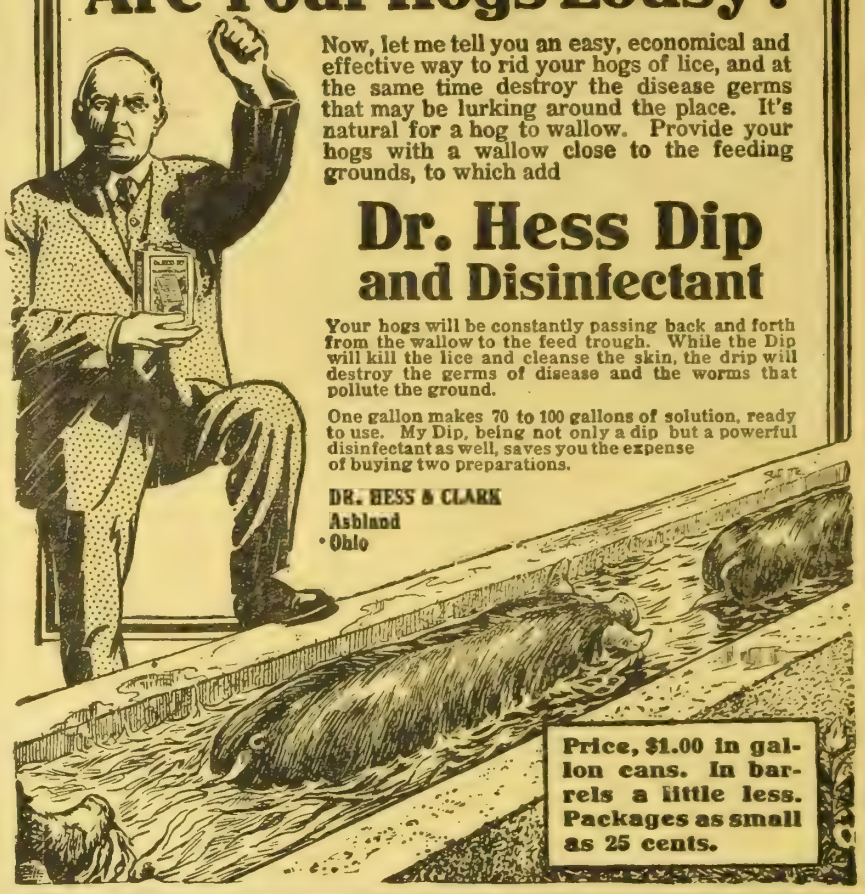
PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for four free books: inventions wanted, etc. I market your invention without charge. Richard B. Owen, 37 Owen Bldg., Washington, D. C.

WANTED TO HEAR FROM OWNER OF good farm for sale. State cash price and description. Address D. F. Bush, Minneapolis, Minnesota.

WANTED to hear from owner of farm for sale or exchange. Kubat Realty Co., Chippowa Falls, Wis.

STOP! Listen! 80-acre creek farm, $750; terms; free list. McGrath, Mountain View, Mo.

Are Your Hogs Lousy?



Now, let me tell you an easy, economical and effective way to rid your hogs of lice, and at the same time destroy the disease germs that may be lurking around the place. It's natural for a hog to wallow. Provide your hogs with a wallow close to the feeding grounds, to which add

Dr. Hess Dip and Disinfectant

Your hogs will be constantly passing back and forth from the wallow to the feed trough. While the Dip will kill the lice and cleanse the skin, the drip will destroy the germs of disease and the worms that pollute the ground.

One gallon makes 70 to 100 gallons of solution, ready to use. My Dip, being not only a dip but a powerful disinfectant as well, saves you the expense of buying two preparations.

DR. HESS & CLARK
Ashland
Ohio

Price, $1.00 in gallon cans. In barrels a little less. Packages as small as 25 cents.

Your Best Cow May Die!

from milk fever. Attacks heaviest milkers—50 to 60% succumb quickly. Yet the **new air treatment saves nineteen out of every twenty** cases. With the Pilling "Easy to Use" Milk Fever Outfit you can give instant treatment —no dangerous wait for veterinarian

PILLING *Easy to use* **CATTLE INSTRUMENTS**

Best made, last longest. Backed by 100 years of service.

Write today for our 48-page book showing treatment for milk fever, bloat, garget, hard milkers, etc. Shows and prices all needed instruments.

Case No. 2 contains $3.50 milk fever outfit and 8 other "Easy to Use" Cattle Instruments. $17.85 VALUE FOR $12

G. P. PILLING & SON CO.
8319 Arch Street Philadelphia

KEEP IT HANDY

You can never tell when a horse is going to develop a Curb, Splint, Spavin, Ringbone or a lameness. Yet it is bound to happen sooner or later. And you can't afford to keep him in the barn. Keep a bottle of

Kendall's Spavin Cure

handy at all times. John Sayer of 324 Bronson Avenue, Ottawa, Ont., writes: I would not be without Kendall's Spavin Cure at any cost. It is a priceless liniment for both man and beast. Get Kendall's Spavin Cure at any druggist's. $1 per bottle—6 for $5. "Treatise on the Horse" —free—or write to

Dr. B. J. KENDALL CO.
Enosburg Falls, Vt., U.S.A.

Get a Simplicity Jr

MIX YOUR CONCRETE Just the thing for building silos troughs, foundations, laying barn and barnyard floors, etc. Saves you much time, money and labor, over hand mixing. The drum construction insures perfect mixture. It has a large capacity, 35 to 50 yards per day. The "Simplicity Jr" is a practical low priced mixer, built with or without Power.

Saves its Cost in a Single Season

You can handle it yourself. Its easy to load—easy to empty—easy to clean—simple—all steel construction—strong and durable—chain drive—fully guaranteed. Power from our well known 2-H P. "Simplicity" engine.

Price. The low price will surprise you. Send post card today for prices and interesting folder.

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150 Lake Street
Port Washington, Wis.

M-128

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Consignments at Plymouth Sale.

AT the Plymouth, Wis., Holstein sale, May 15th, John Melins, of Adell, Wis., is consigning 12 head. Several of the females will be bred to his 34-pound sire. Mr. Melins is including in this consignment a two-year-old son of this 34-pound bull out of the best cow in his herd. A bull calf by this young bull out of one of the best cows in the herd will also be consigned. Truttschel Bros., Sheboygan Falls, Wis., are consigning three head. One of the animals of particular note is a 29½-pound bull calf sired by their 33-pound herd bull. The dam of this calf is a big, fine cow, typical of the Truttschel Bros. herd. Their entire list of A. R. O. cows, including two two year olds, average practically 27 pounds. R. C. Stolper, Random Lake, Wis., is consigning 16 head to this sale. In this consignment we find a number of mature cows in their prime that are exceptionally good individuals. Mr. Stolper also has a two-year-old grandson of King Segis Pontiac and sired by King Segis Pontiac Polkadot, a full brother in breeding to the $50,000 bull, King Segis Pontiac Alcartra. Struve Bros., Plymouth, Wis., are consigning three heifer calves and one yearling heifer. Three of this number are sired by their 28-pound bull and are out of exceptionally heavy milking dams. Dinah Johanna Abbekirk 2d has a record of 28.71 pounds in seven days and 677.45 pounds in 300 days. See advertisement of this sale on page 20.—Adv.

Grow Your Own Herd Bull.

JUST at the present time, Holstein bulls of serviceable age are very scarce and those that are advertising bull calves are having no difficulty in disposing of them. By buying your bulls when they are young you have the chance to grow them out to your own liking. Geo. A. Wilson, Neillsville, Wis., has a herd of good working Holsteins—big framey cows that are giving from 40 to 60 pounds milk a day, and at this time Mr. Wilson has several young bulls out of these good cows for sale. They are sired by Plain View Sir Johanna Clothilde whose dam gave 461.1 pounds milk and 23.19 pounds butter in seven days. These good bulls that are offered are just a little more white than black and are right in every way. They are well bred and the price is reasonable. Write for further description and please mention The Wisconsin Farmer.—Adv.

The Splendid Performance of Elm Court Johanna 2d.

THE Elm Court Farm, Briggsville, Wis., has produced and developed a Holstein heifer that now stands second in the amount of milk produced and fourth in the amount of butter in seven days of all cattle ever tested in the state of Wisconsin under two and one-half years of age. Elm Court Johanna Pearl 2d freshened at the age of two years four months and 15 days and in seven days produced 488.1 pounds of milk, testing 3.82 per cent, making 23.286 pounds of butter. The heifer's sire's dam has a seven-day record of 31 pounds as a full-aged cow and a yearly record of 1,146 pounds of butter, which shows the line of breeding from which she comes.—Adv.

Bryan Short-horns.

A. C. BRYAN, of Red Wing, Minn., has one of the best working herds in that part of the state. Most of his cattle are of the best Scotch breeding. About 125 head comprise the herd headed by two very good bulls. One, Village Cumberland, is a remarkable sire. We saw 30 calves by him and it has been some time since we saw that many calves by one sire that have so much breed character and uniformity as those by Village Cumberland. He is one of the few bulls in the Northwest out of a daughter of Cumberland's Last. The other bull in service is a son of Village Baronet, out of a Hopeful Archer dam. He is a good sort of a two year old and should cross well on the Village Cumberland heifers. Mr. Bryan will hold a sale in October at which time he expects to sell about 50 head of choice cows and heifers.—Adv.

Shimming & Stroebel's Consignment at the Lake Mills Holstein Sale.

MR. SHIMMING and Mr. Stroebel are consigning some choice heifers sired by Uneeda Korndyke Abigail Boy, a 33-pound bull that is out of the best daughter of Johanna McKinley Segis. These heifers are especially good individuals, well grown and out of A. R. O. dams. Part of this consignment is bred to a 34½-pound sire, which makes the consignment one that is worthy of the closest inspection for discriminating buyers.—Adv.

W. J. DANE, proprietor of the Dane Stock Farm, Oshkosh, Wis., reports that he has sold the balance of his Hampshire sheep as a foundation flock which have been shipped to Bartlesville, Okla. Mr. Dane also states that in view of the fact that he has rented his farm he is offering for sale tried Hampshire brood sows and fall gilts, which he had formerly intended to keep. It will be remembered that Hampshire sows make their good cross on grade sows for market hogs and those interested will do well to get in touch with Mr. Dane.—Adv.

Notes From Swine Breeders.

WE have recently visited some of the pure-bred swine breeders in the southern part of Wisconsin and while most of them have not succeeded in raising as many early pigs as they would like, the young pigs that we saw were doing nicely. We feel that the breeders are going to have a good lot of stuff to offer the buyers in due time. In the first place feed is exceptionally high and a "hog man" realizes that it does not pay to buy high-priced middlings, tankage corn and oats and feed it to inferior pigs, for that reason we expect to find the herds culled closely and only the good ones retained for the trade. Our trip was made the early part of April and the following figures were on pigs farrowed at that time, of course many of the breeders have pigs come through April.

DOBSON & EASTMAN, Lancaster, Wis., had 50 odd pigs and Burley Dobson thinks he has the best bunch, numbers considered, he has had for some time. The have some good pigs by the Big Ben boar purchased in Illinois. Others are by a yearling of their own breeding and he is some boar—he can be seen at the fairs this fall.—Adv.

FRANK MOREHOUSE, Lancaster, Wis., had the biggest bunch we saw, about 125 spring pigs out of 160 farrowed. Frank is one of the best hog men in Grant county and he is not afraid to buy feed for his hogs, but at that he thinks this number sufficient to feed this year. Most of them are by a son of Big Ben and a Jim Crow boar, both good boars and their get looks good. It is very likely Morehouse will have a herd at Milwaukee this fall.—Adv.

W. F. ACKERMAN, Glen Haven, Wis., has had excellent success this spring, having 65 pigs, an average of eight pigs to the sow saved. They are a uniform lot, all farrowed about the same time and being by A.'s Big Orange, they have the popular breeding. Mr. Ackerman has a young boar, farrowed last fall, sired by Percy Young's Orange Wonder and out of a Master's Giant dam. He is a very likely boar and with the care he will receive at the hands of Mr. Ackerman, he should develop into quite a likely herd boar.—Adv.

FRANK RENALDE, Lancaster, Wis., does not keep as many sows as some breeders, but what he has he has good and the 40 pigs he has compare favorably with any we saw. They are of big-type breeding sired by several different boars.—Adv.

ED HENDRICKS, Hazel Green, Wis., had 85 pigs from 12 sows farrowed at that time. Ed has every reason to be proud of his spring crop, for they are good with very few runts. Those sired by Model Major 2d, out of Black Jumbo dams are choice, with great stretch and size. He has two litters by Big Bob out of Long Big Bone dams. One litter each by Big Joe 2d and Blue Valley Jr. He is not certain yet whether he will hold a boar sale this fall or not.—Adv.

JOHN L. FISHER, Janesville, Wis., has around 100 spring pigs, most of which are by the grand champion, King Defender out of his richly-bred sows. He also has a fine litter by Cherry Chief Wonder and one litter by Oakland Orion Cherry King. Fisher has some promising pigs to offer at weaning time.—Adv.

RUNDE BROS., Cuba City, Wis., a recent addition to the Duroc Jersey ranks have about 40 pigs. Some of them are sired by a very good son of Prince Illustrator and they have one good litter by Burke, a son of the champion, Burke's Good Enuff. Another good litter is by the noted Grand Model. They have recently purchased a fall boar sired by Walt's Top Col. out of an Orion Cherry King dam that looks like a comer. He is of the very best breeding and we believe that he has a future. Keep your eye on this herd of Durocs.—Adv.

JAS. FISHER, Eastman, Wis., has 160 pigs and no breeder has his pigs doing better than Mr. Fisher. He said that he has had very little loss this spring and has better than an eight pig average. At the present time this breeder has most of his pigs sold for June shipment. He ships at weaning time and no man in the business sells as many Chester Whites in the Northwest as Mr. Fisher. Last year he sold 260 head for breeding purposes.—Adv.

J. C. HENDRICKS, Hazel Green, Wis., also has about 85 pigs sired by a dozen different boars, although the pigs of his own breeding are the toppers at the present time.—Adv.

CHARLIE FLESCH, Mt. Ida, Wis., has a dandy bunch of about 40 and he has some of the best pigs we saw on the trip. Most of them are by Big Mint and you fellow that think you have a big yearling, should see this boar. He is the biggest boar of his age that we have seen this spring and he will be "some boar" by Milwaukee time.—Adv.

E. H. PARKER & SON, Janesville, Wis., have about 75 pigs most of which are of their own breeding. King Orion. their great herd boar has done a good job on this farm and the litter by him are outstanding. Others by the Chief's Col boar are also good. Their sows purchased in the East had not farrowed at the time we were there.—Adv.

NEXT WEEK'S SALE PROGRAM

Tuesday, May 8	Holsteins, Lake Mills Holstein Breeders' Consignment sale, Lake Mills, Wisconsin, F. H. Everson, Mgr.
Wednesday, May 9	Holsteins, Lake Mills Holstein Breeders' Consignment sale, Lake Mills, Wisconsin, F. H. Everson, Mgr.
Thursday, May 10	Holsteins and Guernseys, Central Wisconsin Breeders' Association sale, Marshfield, Wisconsin, W. W. Clark, sale mgr.

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Holstein Cattle.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

Fond du Lac Holstein-Friesian Breeders' Sale.

The Fond du Lac Holstein-Friesian Breeders' Association Sale, April 26th and 27th, was a complete success, one which will undoubtedly establish Fond du Lac in the Holstein world as a place where annual sales of this character will be staged in the future. The building of a sale pavilion, ample for the accommodation of such events, is now practically a certainty. The sale was remarkable for the smoothness with which it was run and too much credit cannot be given S. H. Bird, sale manager, who reports that he did not encounter the slightest friction with the various consignors. The results of the sale, therefore, is further evidence of the value of loyal and whole-hearted coöperation in conducting a consignment sale. Mr. F. J. Bristol's consignment was, of course, the big feature of the sale and particularly the selling of his noted 31-pound cow, Johanna Korndyke Butter Girl. It is seldom that enthusiasm reaches the pitch in a sale that was shown when Johanna Korndyke Butter Girl was hanging between the $1,800 and $2,100 mark. Mr. Geo. J. Schuster, of Mukwonago, Wis., certainly made a royal acquisition to his already well-known herd by purchasing this splendid cow for $2,100 that promises such a brilliant future. Two of her sons are now in use in Mr. Bristol's herd which bespeaks his opinion of her merit. Mr. Bristol's entire consignment of 49 head sold well. Mr. Bird also consigned some splendid foundation stock that in no small measure contributed to the dignity of the sale. The other consignments were for the most part well fitted and in a commendable condition to enter the sale ring. The leading Wisconsin buyers were as follows: Geo. J. Schuster, Florence Stock Farm, Clovis Ctock Farm, Imig Bros., J. E. Barstow, Bein Bros., Homer R. Dopp, Carl J. Tremain and the John Finnigan Est. The total number of 138 head brought $35,755, averaging $261. The following is a list of sales:

BULLS.

Sir Piebe Aaggie Hengerveld 5th, March 25, 1913; F. O. Louden, Oregon, Ill. $130
No. 5, Dec. 5, 1916; S. H. Bird, So. Byron, Wis. 75
No. 26, Oct. 11, 1916; H. A. Mayes, Meridian, Wis. 190
No. 47, June 2, 1916; E. J. Cooper, Mosinee, Wis. 145
Sir Johanna Decia Ormsby, Nov. 13, 1916; Geo. Schuster 450
No. 56, April 3, 1916; F. O. Louden 180
King Segis Polkadot, Dec. 15, 1915; F. O. Louden 180
No. 91, sub., F. H. Holland, Oakfield, Wis. 150
King Colusa Korndyke Segis, July 15, 1916; Earl J. Tremain 160
No. 111, Sub., Henry Roberts 135
Sir Johanna Segis Artis, July 25, 1916; Fred Wobing, Chilton, Wis. 165
Bluebird Canary Butterfly, June 20, 1916; John Finnigan Est. 315
Bluebird Canary Ormsby Boy, July 6, 1916; F. O. Louden 150
Duke De Kol Clyde Inka, Sept. 13, 1915; J. S. Webb, Plymouth, Wis. 140
Hamilton Primrose Homestead, Nov. 22, 1916; R. W. Roberts, Escanaba, Mich. 130
Sir Johanna Korndyke, May 5, 1916; C. W. Keys, Fond du Lac, Wis. .. 165
No. 142 Sub., Wm. Jaeck, So. Germantown, Wis. 130

FEMALES.

Pinkette Zoldusky De Kol, Nov. 6, 1909; F. O. Louden 180
Mooie Pinkette Count, Jan. 5, 1913; F. O. Louden 180
No. 4, Feb. 4, 1916; Bein Bros., Plymouth, Wis. 195
Johanna Leis, May 9, 1916; J. N. Hamm, Humboldt, Kan. 145
No. 7, July 2, 1916; B. P. Smith, Miltonvale, Kan. 155
No. 8, Sept. 29, 1916; Florence Farms, Florence, Wis. 140
No. 9, Sept. 24, 1916; H. S. Eldrid, Milwaukee, Wis. 150
No. 10, Spt. 3, 1916; J. W. Hamm .. 155
No. 11, Sept. 29, 1916; J. W. Hamm 155
No. 12, July 24, 1916; J. W. Hamm 175
Lucy Belle Champion, May 15, 1916; B. P. Smith, ... 155
No. 14, Sept. 27, 1916; J. W. Hamm 170
Aaggie Baron Wayne, Nov. 18, 1913; F. O. Louden 325
Town View Oak, April 5, 1916; Florence Farms 170
Caroline Douglas Korndyke, Nov. 28, 1912; B. P. Smith 190
Lady Galaxy Segis, Oct. 25, 1915; B. P. Smith 180
Sterling Jewel Clyde, Dec. 6, 1910; Clovis Stock Farm, Minasha, Wis. 250
Sterling Jewel Clyde 2d, Jan. 12, 1913; W. L. Laird, Shiocton, Wis. 75
Sterling Jewel Netta Korndyke, Dec. 12, 1914; Andrew Barbeau, Rapid River, Mich. 110
Sterling Jewel Belle Korndyke 2d, Feb. 12, 1913; J. W. Parkyn, Reserve, La. 320
Sterling Aaggie Beauty Boy, Oct. 5, 1916; Fred Steege, Embarrass, Wis. 210
Doris Aaggie Grace, Feb. 26, 1909; Wm. Braatz & Sons, Brandon, Wis. 200
Sterling Jewel Doris Aaggie Grace, Jan. 14, 1914; Dr. Welden 280
Sterling Colantha Jewel Dorris, April 13, 1916; J. W. Hamm 175
May Doris, May 10, 1916; Geo. J. Schuster, Mukwonago, Wis. 215
No. 32, Sept. 20, 1916; Geo. J. Schuster 230
No. 33, Aug. 28, 1916; Geo. J. Schuster 230
Lady Piebe De Kol Pietertje, Mar. 12, 1904; F. O. Louden 95
Princess Belle Korndyke De Kol, Nov. 30, 1911; B. P. Smith 200
Lilly Fobes Clothilde, April 25, 1913; B. P. Smith 175
Ponderosa Lilly Johanna, Mar. 31, 1911; Wm. Tremain, Oconomowoc, Wis. 300
Ponderosa Lilly Johanna 2d, March 18, 1913; F. O. Louden 215
Ponderosa Jessie Johanna, April 13, 1912; Glenn Tremain 300
Ponderosa Mercedes Johanna, Nov. 14, 1911; Andrew Barbeau 350
Ponderosa Johanna Rigtje, Nov. 29, 1911; Owen Williams, Wild Rose, Wis. 305
Una Lilly 4th's Princess De Kol 2d, April 25, 1908; J. W. Parkyn 240
No. 43, Dec. 7, 1916; Archie Reed, Jr., Janesville, Wis. 100
Ruhamah Clothilde Segis, Oct. 16, 1911; J. W. Parkyn 280
No. 46, Dec. 12, 1916; Archie Reed, Jr. 95
Bloemtje Johanna Segis, Nov. 9, 1913; F. O. Louden 355
Bloemtje Grace Segis, May 7, 1912; F. O. Louden 355
Johanna Rutena 2d, Feb. 13, 1914; Geo. J. Schuster 530
Johanna Deone 4th, Dec. 18, 1914; Jno. J. Harrison, Waldo, Wis. 405
Johanna De Segis, Jan. 12, 1915; Geo. Schuster 550
Brahma Nelson Segis, Dec. 1, 1915; B. P. Smith 190
Segis De Kol Posch 3d, March 25, 1916; B. P. Smith 125
No. 58, Feb. 25, 1916; Silver Spring Farm Co. 185
Butter Boy Oak De Kol 2d, March 17, 1911; Andrew Barbeau 210
No. 60, Nov. 26, 1916; Florence Farms 135
No. 61, Oct. 14, 1916; E. J. Cooper .. 155
No. 62, Oct. 24, 1916; H. A. Mayes 140
No. 63, Nov. 29, 1916; E. J. Cooper .. 145
No. 64, Oct. 22, 1916; Geo. Otterly, Lond du Lac, Wis. 170
No. 65, Oct. 8, 1916; Geo. Ottery 170
No. 66, Dec. 6, 1916; A. C. Bristoe, Oakfield, Wis. 200
No. 67, Nov. 13, 1916; E. J. Cooper 130
No. 68, Nov. 18, 1916; Henry Roberts, Gladstone, Mich. 155
Monona Lady, Nov. 26, 1910; Imig Bros., Neillsville, Wis. 350
Uneeda Korndyke Gretna, Dec. 15, 1914; J. E. Barstow, Randolph, Wis. 310
Uneeda Korndyke, Dec. 31, 1914; J. E. Barstow 245
Uneeda Johanna Bonheur Grundy, Dec. 10, 1914; Andrews Barbeau .. 375
Uneeda Segis Gusta, Dec. 8, 1914; J. E. Barstow 310
Uneeda Johanna Bonheur Gabriella, Feb. 26, 1915; Glenn Tremain 310
Mutual Beinmkje of Rock 2d, Dec. 26, 1915; J. W. Hamm 215
No. 76, Dec. 3, 1915; J. W. Hamm .. 215
Uneeda Johanna Bonheur Guliemo, Feb. 12, 1915; Bein Bros., Plymouth, Wis. 295
Uneeda Korndyke Gussie, Dec. 7, 1914; Carl Hayes, Campbellsport, Wis. 310
Uneeda Korndyke Gretchen, Dec. 12, 1914; J. E. Barstow 285
Uneeda Korndyke Griselda, Dec. 22, 1914; J. E. Barstow 410
Uneeda Johanna Bonheur Gibby, March 4, 1915; Dr. Welden 400
Uneeda Korndyke Gwendolyn, Dec. 4, 1914; J. E. Barstow 250
Uneeda Korndyke Genevieve, Jan. 31, 1915; Dr. Welden 450
Uneeda Johanna Bonheur Gloriana, Dec. 8, 1914; Dr. Welden 400
Uneeda Korndyke Gordiana, Dec 16, 1914; Clovis Stock Farm 295
Uneeda Korndyke Gracia (twin), Sept. 5, 1914; Clovis Stock Farm 300
Uneeda Korndyke Grace (twin) Sept. 5, 1914; Clovis Stock Farm 300
Uneeda Segis Geraldine, Nov. 19, 1914; Dr. Welden 600
Uneeda Korndyke Fatima, Jan. 20, 1914; E. D. Jones 315
Oakfield Korndyke Dolly, April 10, 1914; Geo. J. Schuster 350
Uneeda Korndyke Della, Oct. 11, 1914; Imig Bros. 410
Uneeda Korndyke Fancy, Oct. 13, 1913; Louis Seibel, Forest Glen, Wis. 320
Heilo Bess Korndyke Anan, Oct. 20, 1915; J. W. Hamm 205
Cora Inka Korndyke Segis 2d, Nov. 18, 1915; J. W. Hamm 215
Cora Korndyke Anan, Jan. 8, 1914;

MILFORD MEADOWS STOCK FARM
LAKE MILLS, WISCONSIN
EMMONS BLAINE - - - - PROPRIETOR

50 A. R. O. Holstein Cows with records up to 34½ lbs. in total herd of 200, headed by 29-lb. and 31-lb. sires.

READ this! We have for sale a small lot of cream separators of a standard make, brand new, latest model, never unboxed. Will sell in single lots for less than you can buy from the mail order houses. Machines guaranteed. Repairs supplied. Write for information. Starch Bros. Co., La Crosse, Wis.

FOR SALE—Pedigree Barley No. 5; Pedigree Oats No. 1 and No. 5; also Timothy seed. H. P. West, Rippon, Wisconsin.

TOO LATE TO CLASSIFY.

CRATED BULLS
SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON Neillsville, Wis.

MOUND CITY FARM
OFFERS Guernsey bulls sired by Langwater Frenchman 19226 and Dairymaid's Glenwood Pinehurst 3d 26948. 30 records average 460 lbs. 20 average 505 lbs. fat. Send for sale list.
CHAS. A. WILKINS - Platteville, Wis.

Sheboygan Co. Holstein Breeders' Sale
Plymouth, Wisconsin, Tuesday, May 15, 1917

57 HEAD OF FIRST-CLASS, PURE-BRED HOLSTEINS; TUBERCULIN TESTED AND RIGHT IN EVERY WAY. FROM GOOD BREEDERS' HERDS OF SHEBOYGAN COUNTY. A BUNCH OF ANIMALS YOU WILL WANT WHEN YOU SEE THEM. AUCTIONEERS, MACK & LAUX, F. H. EVERSON IN THE BOX. WRITE FOR CATALOG

Foster Smith, Manager - Plymouth, Wisconsin

John. C. Enders, Calvary, Wis.... 260
Caroline Korndyke Anan, Jan. 12, 1914; Louis Sorenson, Larsen, Wis. 260
Caroline Korndyke Anan 2d, June 30, 1916; B. P. Smith 205
Helio Bess Korndyke Segis 2d, July 8, 1916; B. P. Smith 230
Uneeda Segis Gilberta, Mar. 24, 1915; John Pringle 305
No. 104, Imig Bros. 375
Oakfield Korndyke Adele 2d, Feb. 1, 1914; Dr. Welden 380
Uneeda Korndyke Gloria, Dec. 15, 1914; H. A. Mayes 290
Uneeda Korndyke Gertrude, Nov. 10, 1914; Homer R. Dopp, Oconomowoc, Wis. 255
Heilo Bess Korndyke Segis, Nov. 25, 1913; Dr. Welden 300
Uneeda Mutual Korndyke Segis 2d, No. 3, 1913; Dr. Welden 315
Uneeda Korndyke Florinda, Feb. 2, 1914; John Finnigan Est., Chilton, Wis. 345
Johanna Korndyke Butter Girl, Dec. 27, 1910; Geo. J. Schuster.....2100
Lady Reka Mooie Granddaughter, Jan. 17, 1915; Clovis Stock Farm 325
Johanna Segis Flora Mooie, Jan. 14, 1971; Homer R. Dopp..... 340
Johanna Segis Pearl Mooie, April 4, 1914; Homer R. Dopp 275
Mutual Mechthilde of Rock, Dec. 28, 1913; Dr. Welden 205
Wild Rose Prilly, Jan. 15, 1916; Florence Farm 275
Piebe Estata Blanche De Kol 3d, Nov. 6, 1915; Clovis Stock Farm.. 390
Wild Rose Hengerveld De Kol 3d, Jan. 12, 1916; Geo. Schuster..... 275
Jessie Fobes Prilly, Jan. 5, 1916; Chas. Brady, Bancroft, Wis..... 240
Bluebird Canary Piebe Blossom, July 10, 1916; B. P. Smith..... 195
Bluebird Canary Hilda Blanche, Mar. 9, 1916; H. S. Eldred 245
Bluebird Canary Ormsby Pet, Aug. 29, 1915; Dr. Welden..... 280
Portia Pietertje Inka 3d, July 13, 1910; J. E. Fissel, Oregon, Ill.... 200
Rose Jemima Homestead, Oct. 28, 1913; B. P. Smith 230
Sadie Flow Homestead, Nov. 19, 1914; Louis Sorenson 255
Winsome Mercedes De Kol, Oct. 27, 1912; Carl Hayes, Campbellsville, Wis. 220
Jessie Winsome Homestead, Jan. 3, 1916; Bein Bros. 180
Colantha Johanna Neta Paul, June 25, 1914; J. W. Parkyn..... 300
Model Oakland Beryl, Dec. 17, 1915; H. S. Eldred..... 225
Piebe De Kol Colantha 2d, Oct. 30, 1914; H. A. Mayes 295
Model De Kol Posch, Dec. 14, 1913; John. C. Enders, Calvary, Wis.... 260
Model Colantha, Dec. 20, 1912; Henry Hansen, Denmark, Wis. 280
Klazerina Beauty, Feb. 2, 1911; Clovis Stock Farm 380
Minnette Pauline Cedarside, Feb. 12, 1913; Bein Bros. 240
Marvel De Kol Beets 2d, Dec. 11, 1911; B. P. Smith 215
Elnora Pontiac Walker, Feb. 12, 1912; J. W. Parkyn 305

SUMMARY.
17 bulls ...$ 2,990; average....$175.88
121 females. 32,750; average.... 270.79
138 head ... 39,755; average.... 261.00

Wisconsin Farmers' Clubs.

(Continued from page 5.)

ing one for everyone. We haven't this year's report yet, but expect it at our next meeting. We have the last year's report and if you wish I will send both together as soon as it is made out.

Sauk Co., Wis. Mrs. Alta Miller.

[Editor's Note.—You ought to have one good social meeting every six weeks at the home of some member and a picnic in the summer time. I know that you have the federation picnic at Devil's Lake each year, but why not a special one of your own at some time when most of the members can get away. Many of our clubs are talking about such subjects as cow-testing associations, examination of soils, farm management and keeping books on the farm business, taxation, condition of the rural schools as to grounds and comforts of the children, etc. Several clubs have become successful from having some special object or aim to work for. For instance, a good object is to fix up the school grounds and buildings. Another is to put the cemetery grounds in shape. Another is to organize road dragging and distribute the work among the members so that each can do his share. These are only suggestions. I know of one club which had as its summer object keeping the roadsides mowed down and free of weeds. It helped the looks of things in that neighborhood a lot too. As a special program for the near future let me suggest a loyalty meeting. Get some good man to give you a patriotic address. Let the children sing patriotic songs, and the old folks, too, for that

PINE RIVER CLUB, WAUSHARA COUNTY, MEETS HERE.

matter. The Wisconsin Farmer will furnish copies of America (the words) to any club free. Write to The Wisconsin Farmer, Madison, Wis., and ask for them.]

Chippewa County Literary Club.

To the Editor:—I am sorry to state that the work of our Halliette Literary Society has been allowed to go by default during the past winter. I was appointed supervisor and teacher this year and have not been able to do any special work in any one vicinity. In my work this year, especially at the social meetings I attended in the rural communities, I discussed the merits of rural clubs and urged their organization. Next year I hope to help with the organization of more clubs, because I realize the results which may be accomplished when they are properly handled. We had a fine club last year. In my judgment a part of the work of the supervisor and teacher should be community work.

Alvin Carew.

Greatest Potato Offer.

Don't miss the wonderful extra-early "Six Weeks Potatoes." None on earth can compare. Now is your time. I will send true seed for 10 big hills and add 50 cents worth of the finest vegetable and flower seeds to introduce, all for **two dimes** or 24 cents in stamps. 30 hills and the seeds for 50 cents; 70 hills and seeds, $1. More, same rate. Don't delay. Please tell everybody. **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

The Lake Mills Holstein Sale
(REMEMBER THE DATE) **MAY 8 and 9**

175 HEAD of healthy, desirable Holsteins of the most popular breeding and from first-class Breeders' Herds. A fine lot of A. R. O. cows, choice heifers bred to 33 and 34½-lb. sires, and an exceptional lot of good bulls—sons and grandsons of King Segis Pontiac. Catalogs ready and sent upon request to

F. H. EVERSON, Mgr. LAKE MILLS, WIS.
AUCTIONEERS—Haeger, Kelley & Mack. S. T. Wood in the box.

HORSES.

LEFEBURES' BELGIANS
Largest Collection on Earth
150 Belgian Stallions and Mares 150
Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.
H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids
If in Cedar Rapids, phone us for hourly Interurban service

W. E. PRICHARD & SONS
OTTAWA, ILL.
PERCHERONS
GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

W. A. LANG & CO.
Importers and Breeders of
BELGIANS and PERCHERONS
IMPORTED and home-bred stallions from weanlings up to 6-yr.-olds. Write for particulars
W. A. LANG & CO. GREELEY, IOWA

Percherons, Belgians, Shires,
Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, R. 7, Charlton, Iowa.

HAMPSHIRE SWINE.

HAMPSHIRES or "Belted" swine. Have 20 Mar. weanlings, but in addition offer my "tired" sows, 4 gilts, 2 bred, 2 boars, sexes not related. All stock registered. Dane Stock Farm, Oshkosh, Wis.

WANTED
TO trade first-class farm in Iowa or Minnesota for high-class herd of Short-horns or Hereford. Nothing but top quality cattle considered. Give complete information concerning herd in first letter. Will give complete description of property and location of same in reply.
AMOS BURHANS Waterloo, Iowa

JERSEY CATTLE.

Oak Grove Jersey Farm
Bull calf, dropped Aug. 21, 1916, solid fawn color, will show as a calf this fall; tuberculin tested; dam on official test; price right. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Registered Jerseys
HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins - - Fairwater, Wisconsin

JERSEYS.
HEIFERS AND BULLS
SIRED by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking 50 cows. Fred Stubley, Black Earth, Wis.

REGISTER OF MERIT JERSEYS
BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS
COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys
YEARLING bulls sired by a son of the Gold Medal cow, Inez Rossire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

The Lake Mills HOLSTEIN SALE

MAY 8 and 9

Lake Mills is known as the place where dependable Holsteins can be bought.

THE sale company offers in this sale 175 head of good, desirable animals, tuberculin tested and of the most popular breeding. They offer A. R. O. cows that would be hard to beat, sired by sons of Pontiac Aaggie Korndyke and Beauty Pietertje, and bred to a son of Friend Pontiac Korndyke, that is from a 31.65-lb. daughter of King Segis. 18 A. R. O. cows, two with 24 pounds, one with 22 pounds, several 20-lb. cows, one bred to a 30-lb. son of Johanna McKinley Segis, daughters of 24-lb. cows bred to Rag Apple Pontiac.

Daughters of Canary Homestead Oak De Kol, Canary Fobes Bessie Homestead, King Segis Pontiac Polkadot, Juliana King of Rock, Duke Johanna Inka, Crescent Beauty Segis Pontiac, and the 33-lb. bull, Uneeda Korndyke Abigail Boy.

Heifers bred to Juliana King Repeater, Longfield Paul Fobes Homestead, Winsor Homestead Oak De Kol, King Genevra Colantha Pontiac and the 34 1-2 pound bull, M. M. Lilith Ormsby Fobes.

A few bulls of exceptional merit, sons and grandsons of King Segis Pontiac. One sired by King Beets Lyons and from Mary Segis Beets, 28.26-lbs. at 3 years; several sons of King Segis Pontiac Polkadot; one from a 24.64-lb. daughter of Johanna Mckinley Segis, two sons of Juliana King Repeater, whose three nearest dams average over 1,000-lbs. butter for the year; a son of King Segis Pontiac and from Mutual Lilith of Rock, that is now on test and that made 29.125 pounds the first 7 days; and last, but not least, the sire, Richland Pontiac Butter Boy, a 32-lb. bull.

Tulloch & Fries Consignment

WE have consigned 10 females of exceptional breeding and individual merit, all with good A. R. O. records or with good A .R. O. backing. Also the great young sire and show bull, RICHMOND PONTIAC BUTTER BOY 153981, his dam a 31.76-lb. junior 4-year-old daughter of a 27-lb. cow; his sire combining in the closest possible degree the blood of De Kol 2d, Belle Korndyke and Rag Apple's Clothilde Artis. He is ready for heavy service. Also a yearling bull whose nine (9) nearest dams average nearly 30 lbs., including the junior 2-year-old record of his dam, who will increase her record. Another youngster from a 24-lb. dam, a seven-eighths brother in blood to King Joh, the $7,000.00 bull. He is good enough to head any herd. Mention The Wisconsin Farmer when writing.

Tulloch & Fries - - - - - - - - Genoa, Wis.

A sale well worth attending. Write for catalog to

F. H. Everson, Mgr. -:- Lake Mills, Wis.

Auctioneers: Haeger, Kelley and Mack. S. T. Wood in the box.

HOLSTEIN-FRIESIAN CATTLE.

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

FOR SALE

A FINE bunch of heifers, granddaughters of Pontiac Korndyke. For further information, prices and pedigrees address
PETER LARSON RANDOLPH, WIS.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

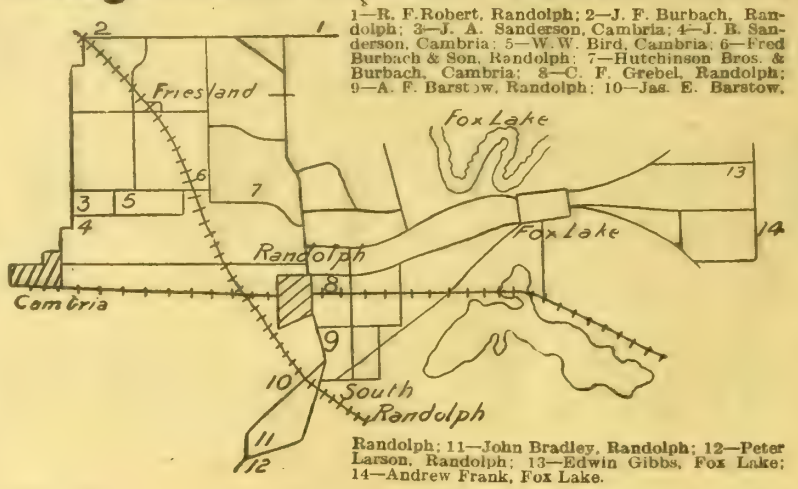
Young Bulls

SOON ready for service sired by Johanna Pontiac Korndyke Imperial, a son of Pontiac Kornkyke, 11 30-lb. daughters. Also a few bull calves sired by Sir Veeman Segis Hengerveld Burke, a son of Sir Veeman Hengerveld, 13 30-lb. daughters. For further description write
JOHN BRADLEY RANDOLPH, WIS.

Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price
Fred W. Burbach & Son - Randolph, Wis.

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Cambria; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

HOLSTEIN FEMALES

ONE 15-lb. three year old, one 16-lb. four year old, both due to freshen in December; one 20.87-lb. nine year old, not bred.
W. W. BIRD Cambria, Wis.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

REG. HOLSTEINS

Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
J. B. Sanderson - Cambria, Wisconsin

DON'T WAIT

UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.

EDGEWOOD FARMS, INC.
Pewaukee Wisconsin

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. Anderson Whitewater, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

HILLVALE PAUL ORMSBY

REPRESENTS a rare combination of Ormsby breeding. His sire, Paul Ormsby, is a half-brother of Ormsby Jane Segis Aaggie and his dam, Lady Ormsby 2d, 22.35 lbs., is a half-sister of Duchess Skylark Ormsby and Pietertie Maid Ormsby. Our herd is on the accredited list. Send for extended pedigree. Address
H. E. Reddelien Oconomowoc, Wisconsin

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey Grafton, Wisconsin

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

Holstein Bull for Sale

SIRED by a 2,471-pound grandson of Hengerveld De Kol, dam Aaltje Sale De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy milking dams $15 each, crated to ship. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

---The Efficiency of a Cow as a Milk Producing Machine is Mostly a Matter of Inheritance---
Prof. C. H. Eckles

HERE IS THE BULL THAT WILL GIVE RESULTS

PABST'S JOHANNA AAGGIE

Sire, KORNDYKE SEGIS JOHANNA, whose two nearest dams gave 38 pounds. Dam at 4½ years, 25.22 pounds butter, 493.9 milk, 4.09 per cent; 365 days at 3 years, 808.7 milk, 18,824.1. By King Pontiac Champion (53418).

Bulls From $150.00 Up.
Write for Particulars.

PABST STOCK FARM
(Breeders, Not Dealers)
Box W, Oconomowoc Waukesha County
WISCONSIN

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell

★

Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.
TULLOCH & FRIES' HERD GENOA, WIS.

AT LA BELLE VIEW FARM

ORMSBY BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
E. E. ROSENKRANS Oconomowoc, Wis.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. Rhoda, 610 3d St., Watertown, Wis.

Purebred Registered
HOLSTEIN CATTLE

In terms of dollars and cents the Holsteins are talking most effectively for themselves. Purebred Holstein cattle are the choice of every public institution or organization which attempts to produce milk in a scientific manner. Just ask a man who owns Holsteins, if you want to hear a story of prosperity. Every angle of Holstein superiority is fully covered in the books and pamphlets which are sent free for the asking. There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS Medina, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and granddam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.**

Registered HOLSTEIN-FRIESIAN

BULL and heifer calves for sale, sired by Burtondale Aaggie Korndyke 148746, the 28.48-lb. sire. Both grandams with records over 30 pounds butter. All the stock is out of well-bred and heavy-producing dams. Write or come and see a producing herd. **Henry W. Breher, Box 20, Sheboygan Falls, Wisconsin.**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy producing cows. Call and see our herd or write
WM. FENNER Sheyboygan Falls, Wis.

HILLSIDE STOCK FARM

KING Fayne Pontiac Ormsby, 18 mos. old, seven-eighths white straight; dam, 600 lbs. milk, 24.06 butter in a week. Also a few registered Holstein heifers for sale; price, $250.00.
KIRKPATRICK BROS. Reedsburg, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers Lyons, Wis

HIGH grade Guernsey and Holstein calves, 2 to 3 weeks old, $20. Crated to ship anywhere. 31.32 pure. Chas. Blott, Mukwonago, Wis.

GUERNSEY CATTLE.

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

GUERNSEYS. FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS WAUKESHA, WISCONSIN

A DOUBLE-BRED KING OF THE MAY BULL

READY for immediate service. Miriam's King of Ingleside 34140, born April 10, 1915, a well-marked, well-grown Guernsey of good, straight type. His sire and dam were both sired by sons of Imp. King of the May. His dam has an A. R. O. record (class E) of 447.76 lbs. fat. His five nearest dams average 10,812.46 lbs of milk and 580.28 lbs. of fat. Here is an opportunity. Send for extended pedigrees. Several yearling and younger bulls also for sale.

DR. TRUMAN BROPHY CHICAGO, ILLINOIS
Farm at Edison Park, Illinois

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.
E. H. KIESLING Jefferson, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

ONE 3-YEAR-OLD GUERNSEY BULL

DAM, Oakwood Maid Eagle, with 448 pounds fat and sired by Golden Lad of Fern Ravine. Price $200. Also calves from 2 to 6 months old, mostly all dams imported and sired by different sires. Prices $50 to $100.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (six nearest dams av. 590 fat). Dam, Yeksanette (126 ds. 221 fat). He traces nine times to Yeksa. Send for details.
A. O. OLESON Livingston, Wis.

RILEY MARTINY & SON
BARABOO, WIS.

TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

CHESTER WHITE SWINE.

CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

H. A. DERENTHAL, Manager, EAST SIDE STOCK FARM, WYKOFF, MINN.

BERKSHIRE SWINE.

CORTTE'S BERKSHIRES

FEBRUARY and March pigs of either sex for sale. These are sired by Pabst Rivaleer 3d—King of Rivals, well grown. Good prospects for next fall show rings. Reason able prices on singles, pairs or trios. Address
A. P. CORTTE LOMIRA, WISCONSIN

RED POLLED CATTLE.

RED POLLS

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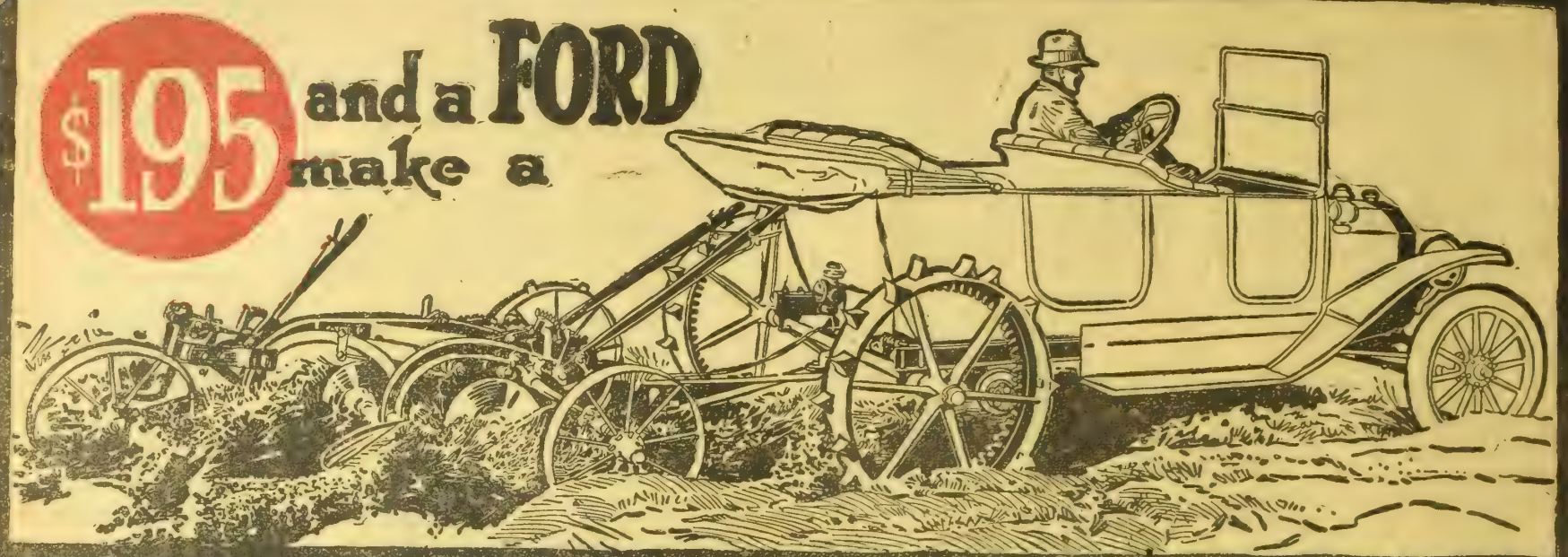

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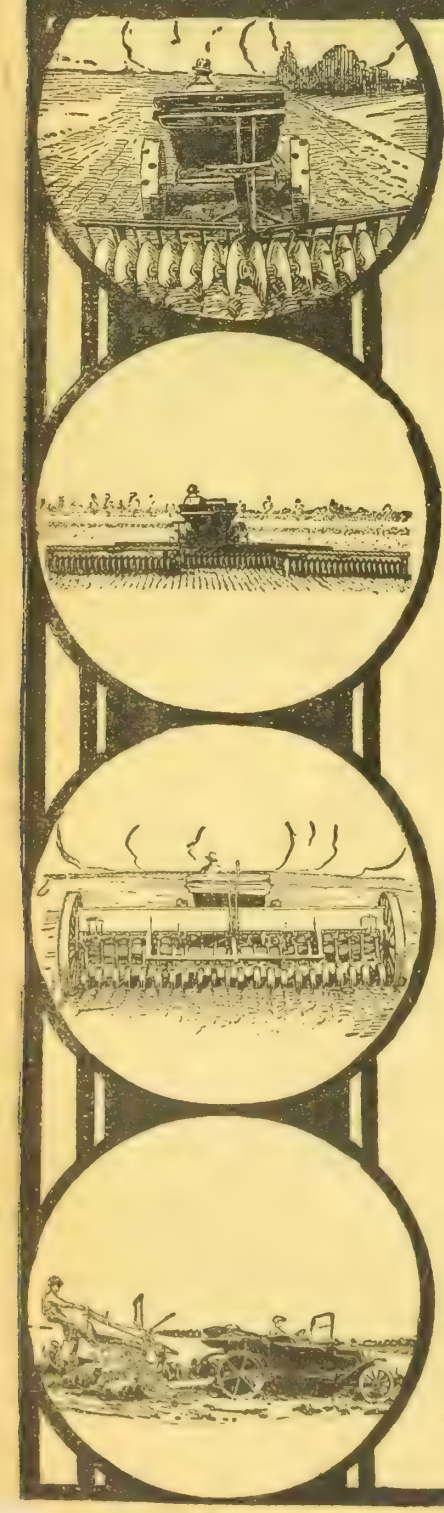

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ON MATH MICHELS' FARM.

President of Wisconsin Dairymen's Association by Use of Alfalfa Has Built Up a Fine Dairy Farm From Once Weed-Ridden Land.

IT TAKES nerve to buy a farm which has the reputation of being the most thickly infested weed plantation of a community, but this is just what Math Michels, of Fond du Lac county, did when he purchased his farm of 178 acres near Peebles, in 1909. What is more, he bought the farm with both eyes open and fully aware of the awful shape it was in. An examination of the fields showed that the Canada thistle had first claim on the fertility of the farm. Mr. Michels was confident, however, that he had the remedy against this pest, and so it has proved. Today the farm shows few places where weeds of any kind can boast a foothold. Alfalfa was the medium through which Mr. Michels successfully overcame the Canada thistle. After carefully preparing a seed bed by properly plowing, disking and harrowing the soil, alfalfa was seeded in combination with barley as a nurse crop. The barley and alfalfa growing rapidly had the jump on the thistle roots, which had not recovered from the thorough cultivation. The growing plants shaded the ground so that the shoots from the thistle had little show to develop to any extent. It is from the leaves that the nourishment must come for the roots, and this source having been practically eliminated, it was only a question of time before the thistles were smothered. During the first year, and especially the first cutting, quite a few thistles were present in the hay, but outside of making the crop mean to handle, they had no effect on the value of the hay for the stock. Within three years' time the thistles on the field had been entirely eliminated.

When Mr. Michels decided to use alfalfa to overcome the thistles he had his mind made up what to do with the alfalfa. One of the first things he did was to purchase a number of Guernsey cows. The combination of enterprise, Guernseys and alfalfa, resulted in the title of Guernfalfa Farm, selected as the name for the farm.

Mr. Michels has been a dairyman for more than thirty years. More than a quarter century of his life, however, was spent in the manufacturing end. He was one of the first students to be graduated from the dairy short course at the University of Wisconsin, and went from Madison to Vermont as instructor in dairying at the Vermont Agricultural College. He later worked in a similar capacity at the Massachusetts Agricultural College, coming from there to Wisconsin. For about twenty-five years he operated his own creameries and cheese factories in Fond du Lac and Calumet counties. He has been active in the buttermakers' association of this state and a member of the national association. His long-cherished desire for a farm, however, finally ended in the purchase of the present place.

After his first success in eradicating weeds from the farm, Mr. Michels turned his attention to cutting down the feed cost in the production of milk. After carefully investigating the feeding values of farm grains and grasses, he came to the conclusion that the feeds he was looking for had been at his disposal for a good many years without his realizing it. Corn silage and alfalfa form the complete ration for his cows today. They receive no other concentrates or feeds. The most peculiar fact is that his cows are yielding him a large profit on this economical ration. Last year his average profit per cow for cream alone was $112. Besides this he has the skim milk and the calves. His total expense for feed was a little over $50, which was used to purchase oil meal. The cows are fed silage twice a day and alfalfa three and four times a day, as much as they will eat. What the cows do not consume of the alfalfa the horses receive, as peculiarly, the horses prefer the stems of the alfalfa while the cows would rather eat the leaves. The herd boasts no animals with phenomenal records, but each heifer must earn her place by producing under farm conditions a profitable yield of milk and fats. The cows are tested for advanced registry, and results show that the production so far has been in excess of the requirements set by the Guernsey association. Most animals have exceeded the standard by at least 100 pounds of fat. Mr. Michels is of the opinion that this simple feeding has resulted in increased health in all his animals. There have been no cases of abortion, calf scours, tuberculosis, or any other disease on the place. Every animal two years old drops a nice calf and continues to do so without fail each year after that.

ADVANCE REGISTRY GUERNSEY, 400 POUNDS OF FAT AT THREE YEARS OF AGE.

ANOTHER ADVANCED REGISTRY GUERNSEY, 500 POUNDS OF FAT AT FIVE YEARS OF AGE.

ADVANCE REGISTRY GUERNSEY, 400 POUNDS OF FAT AT FOUR YEARS OF AGE.

Although the animals receive alfalfa practically the year around, it is never the same alfalfa from day to day. Each day a different cutting of alfalfa is fed, in order to give the cows the variety which animals all crave. In cutting and curing his alfalfa, Mr. Michels follows a system of his own. He cures the bulk of his crop in his large mow. As soon as the crop has been cut and the sun has had a chance to wilt the top leaves, it is raked into windrows and, after a few hours, loaded and put into the barn. In putting this hay into the barn, it is never raised higher than necessary in order to pass into the mow. Instead of a sling being dropped from the top of a track and settling in an unmanageable mass, it is just dropped in a loose shape, so that it can be spread over the mow in even layers. These are about six feet in depth and allow for the hay to heat to considerable extent without causing spontaneous combustion. Much of the hay is discolored through this heating process, but Mr. Michels finds that there is developed in just such hay something which makes it more palatable and higher producing than other hay. He feeds this discolored hay to his test cows, which do especially well on it. All cuttings are kept sep[illegible] that when the hay is fed, different cut[illegible] be used at any time it is desired.

GUERNFALFA FARM, OWNED AND MANAGED BY MATH MICHELS, FOND DU LAC COUNTY, WISCONSIN.

In feeding the silag[illegible] is carefully limited to twenty-five p[illegible] day, and the

(Concluded [illegible])

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

War and the Tractor.

The pen has been mightier than the sword, but this year it is the plowshare. It is generally conceded that the war is to be won b[illegible] an farmer. Article aft[illegible] appeared telling wh[illegible] and how to plant it. a[illegible] the farmer the dire necessity of increased acreage for all the food crops. Various means of accomplishing this result have been suggested, such as mobilizing schoolboys and retired farmers for farm work. While such ideas are good, they lose sight of the fact that production should be increased not by increasing the number of men employed in farm work, as men are scarce in all the trades, but by increasing the amount produced by one man on the farm. A man with only a hoe will not produce much. A man with a plow and a team of horses will make a much better showing. He has more machinery to help him. The difference is not as great as it seems at first, however, as the hoe does not eat. The team will consume the profits off of ten acres. There is just one real solution to the increased production problem, and that is the farm tractor. The tractor enables one man to produce more than two men and many horses could otherwise produce. The tractor does not eat when not at work, and at no time does it consume the food products of the nation. It requires no rest. It is ready for duty night and day. It plows the ground deeply. It plants the crops quickly. And it is there when it comes to the harvest. It is our surest means of increasing production.

Unfortunately, the number of tractors to be had at present is rather limited, though all tractor manufacturers are taking steps to greatly increase their production. We suggest that all farmers who own tractors keep their machines running night and day, as they are now doing in England. If the owner of the tractor has not enough work for it, possibly his neighbors could make use of it to advantage, a fair price being charged for the service. Foreign governments are fully alive to the possibilities of the tractor as a means of saving labor and increasing production. One foreign government recently offered to place a single order for 1,000 light farm tractors. The entire order was not accepted, as the manufacturer wished to favor our own farmers.

Questions and Answers.

Moth Balls in Gasoline.

Being informed by various magazines that moth balls may be used in gasoline as fuel in an automobile engine to increase its power, I am asking you to inform me whether this is injurious to the motor in any way.

Answer.—A moderate use of moth balls should not injure the motor in any way. The only possible harm likely to result would be from the increased wear on the engine, due to the increased force of the explosion.

Engine Does Not Run.

I have a two and one-half horse-power two-cycle boat motor that has stood for some time without running. Now I have cleaned it out and put in new packing, but it will not run. It has good compression. It has the Lunkenheimer carburetor. I have tried to run it with a motorcycle coil. Do you think that a vibrator coil would be better? It fires a little when the spark is fully retarded.

Answer.—Use a vibrator coil if you have a jump spark. Use a plain coil if you have a make-and-break spark. Test the spark plug or igniter outside the cylinder to see that you have a good spark. If the spark is all right, test the timing of the spark. When in fully retarded position the spark should occur soon after the piston passes top dead center. With good compression and a good spark properly timed, the only other chance for trouble is the fuel mixture. Vary this to obtain the correct one. Make the mixture too rich; then shut off the fuel supply and crank the motor till it starts. Quickly turn on and adjust the needle valve while the motor is running.

Gears Worn Out.

We have a 1914 model Studebaker car. We are having trouble shifting gears from high to intermediate and from intermediate to low. There is a grinding noise in the transmission. What remedy is there for it?

Answer.—The ends of the gear teeth are worn and battered up, due to the gears clashing together when shifted. This may be caused by the operator not throwing out the clutch while shifting, or may be due to the clutch spinning when released instead of coming to a stop. The only thing to do is to remove the transmission gears and examine their condition. It may be that the burred places can be ground off on a narrow emery wheel, but you will probably find that a new set of gears is required.

Carburetor Trouble.

My Buick 35 does not have the power on second gear that it should have. My engine also seems to "load up" on second gear. My carburetor is a Model L Rayfield. If I cut the gas down on the carburetor, it will back fire at high speed. Could it be that I have an air leak in the intake pipe? It is probable that I need my magneto recharged, or a new coil. My magneto is a Splitdorf. Any suggestions will be appreciated.

Answer.—An air leak could cause your trouble, but the adjustment of the carburetor is more likely at fault. An air leak can be easily detected by squirting a little gasoline on the suspected joints while the motor is running. If there is an air leak the motor will either slow down or speed up, depending upon whether the mixture is too rich or too lean. Air leaks may occur at the intake manifold gaskets and around the intake valve stems.

There is no air adjustment on a Model L Rayfield. You will find two knurled nuts or thumb screws on the side of the carburetor. The upper one is the high-speed adjustment, the lower one the low-speed adjustment. Both control the amount of gasoline. For less gasoline at high speed, turn the upper nut to the left. For less gasoline at low speed, turn the lower nut to the left. The above refers to the speed of the engine, not to the speed of the car. Your carburetor probably should be adjusted for more gasoline on high speed.

We doubt that your magneto or coil is out of order. If it were your trouble would be when the motor is running slow rather than when running fast.

Steam Condenser Surface.

We wish to condense the exhaust steam from a forty-four-horse-power steam engine by running a portion of the six-inch exhaust pipe in a rapidly flowing stream of water at 70 degrees F. The condensed water is to be drawn off by gravity by a drain pipe to a hot well. What length of six-inch pipe will have to be submerged to accomplish the result?

Answer.—About 300 feet of six-inch wrought iron pipe would be required if the steam leaves the engine at fifteen pounds gauge pressure. If you have only five pounds back pressure, about 250 feet would be required. Condensers are usually made of copper tubes about one inch in diameter. In copper tube condensers, two to three square feet of condensing surface is required for each indicated horse power of the engine.

As you evidently have plenty of flowing water, we would think that a jet condenser would be better for your purpose. Allow the steam to exhaust into a tank having one-half the volume of the cylinder. This tank has a spray of running water inside to condense the steam. The water required to condense the steam will weigh about thirty times as much as the feed water. The area of the injection orifice should be equal to the area of the piston divided by 250, in order to supply the above amount of condensing water.

Storage Battery Trouble.

Can you tell me what is wrong with my Prestolite storage battery? It was bought in 1916 and has been in use on a Maxwell car. It has been repaired four times at a cost of $20. It lasts from one to five weeks after fixing and then goes bad again. It seems to boil over the most at the left end; giving off a mushy substance. I have used nothing but pure distilled water. The boiling goes on when the car is standing idle. It starts with a leaky jar at the right side of the battery and one after another of the jars go dry. They must be filled every three days. This battery had been kept charged to 1.280 until it started to leak. All the cells are low now, except the two left ones. Is it worth while to spend any more money on this battery? The ammeter shows as many as twenty amperes some times; while again it does not show any.

Answer.—You evidently have some short circuits in your battery, due either to a collection of sediment at the bottom or to plates warped by overcharging. It looks like the cut-out on your car allows the battery to be charged too rapidly. We would suggest that you mix enough fresh electrolyte to fill the cells, give the battery a complete charge if possible, remove the old electrolyte and wash out the cells with distilled water, taking care not to allow the plates to dry. Then put in the fresh electrolyte and recharge the battery at once. Mix the electrolyte of distilled water and sulphuric acid to test 1.35. This extra strong solution is required because the plates will absorb some water while the sediment is being washed out. If this does not remedy the trouble, it would be best to purchase a new battery.

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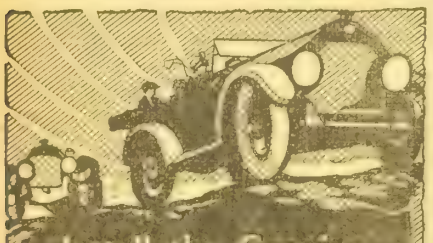

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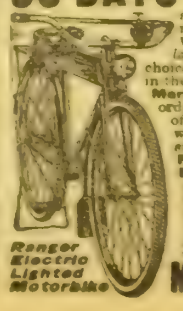

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The Wisconsin Farmer

THURSDAY, MAY 10, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

THE FARM OPPORTUNITY IN WISCONSIN TODAY.

I CONSIDER it a high compliment to be consulted by readers of The Wisconsin Farmer on their financial affairs, as so frequently occurs. If I can give any advice which will be of any assistance to my readers, I am indeed pleased.

I consider it to be the province of the publisher of a paper such as The Wisconsin Farmer to serve his readers in every possible manner. The publisher's duty does not stop with getting out the best paper possible. He should counsel with his readers whenever and wherever possible. Inasmuch as it is a physical impossibility for me to open the door of every one of the approximately 80,000 farm homes in Wisconsin into which The Wisconsin Farmer goes every week, most of this counseling together must be done by correspondence. When my readers show their confidence and trust in me by writing of their personal affairs, frankly and fully, asking my advice or counsel and otherwise making the relation between publisher and reader most cordial and intimate, I feel as though I were fulfilling my mission and I am pleased, indeed. My readers need have no fear that I will ever disclose any of their secrets; they are absolutely safe with me.

I am impelled to write along this line this week because of a letter received from a woman subscriber in Waupaca county, who asks my advice on selling off some of her pure-bred stock, in order to raise $500 to pay off a debt on silo, hay, and so on. I shall not disclose her name or address, but here is the major portion of her letter setting forth her problems and needs:

My Dear Mr. Pierce:—Maybe you could give me a little advice which I need very badly at present. I will explain as briefly as I can. Now we, my husband and myself, have a farm of 100 acres, with nice buildings, some unfinished. We bought this farm about ten years ago. Well, we first bought a sixty with a good house, but poor outbuildings. The barn was log, fit for kindling, a few old farm machines, two horses, one an old horse and one a gelding, also a scrub bull we sold for $30 and ten scrub cows we sold for from $35 to $40 apiece. Well, a year or so later my husband bought a lovely forty acres adjoining ours for $3,200, with a large house and a pig pen and two large barns. These were old frames, but had fine big timbers in them, and all helped to build us a new barn instead of the old log building. Well, we paid down on said forty $550, balance went in debt for. My husband has stumped a good share of it. Then he hired more money and bought a pure-bred Holstein bull and a registered cow. At present he has twenty-one head, ten pure breds and eleven grades. We bought about $850 worth of machines to work the farm with. Well, he went in debt to give the house a good painting and repairing, same on machines and $150 on a pure-bred bull when only four weeks, which is past three now and a fine animal. At present we have two teams of horses and an extra horse, also expect two colts in May and June. Our farm is worth $16,000 at least, I will say, with machines included. We are in debt about $7,800, including a few small bills. We have one bill of $300 on a silo. We have a double brick-walled silo and then all cemented from top to bottom like a big dish and steel bands every two feet from top to bottom.

Last season was such an unusually cold, wet season, and on account of ill health my husband didn't raise as much as usual, and when hay was ready to harvest we couldn't get help at any price. So this spring we are in a bad boat; have a bill for hay of about $150 and must buy seed potatoes and some oats for teams. Well, it seems bankers can't understand how hard it is sometimes for a poor farmer during his first years. At present I have a bill of $150 for hay due, another for $300 and a few small bills must be paid. I want to raise hay. Our clover is fine; also rutabagas in oats, oats, corn and as much land as possible in potatoes. My husband is ill with a stomach trouble. We have a good young man and two boys of our own, one thirteen last November and one eleven last November, so I think we can make it. My reason for selling off cattle is to get money enough to pay for hay and bills due. My husband is a hard worker, but not a good manager in some ways, and the bank won't lend him money without a signer, under any consideration, and I can't ask anyone to sign, so must sell stock to get money to help me over the bills now due. And if I can't make it, why, I can sell the farm, although it would break my heart to do so.

Believing as I do, most firmly, that now is the time to build up and breed up our herds, here in Wisconsin, instead of weakening them, I argued against selling the animals which my correspondent proposed to dispose of, urging that she be as frank with her home banker as she has been with me. Perhaps I could not do better than to print a part of my answer, as follows:

It is evident to me from what you write that you are not really in any financial straits, but what you need is a little ready money. This you ought to be able to get of your banker. It seems to me that if you would visit your banker and lay all the facts before him that he would be glad to give you the money. As to selling any registered stock or any good grade Holstein-Friesian cows at this time I certainly would not do it unless it is absolutely necessary. With the showing which you make in your letter it seems to me that you ought to be able to borrow enough money on a note signed by yourself and your husband to tide you over. You say that your place is worth $16,000. With the present price of milk and potatoes and other farm produce, you ought to arrange in some way to get the small amount of money which you need to tide you over. I should think you could arrange with some banker to take a portion of your milk checks until you paid back the loan. Or, if you have to do it, why not borrow some money on your cattle and then start in at once to pay it off a little at a time? The crops which you can raise on your place this year and milk which you can sell certainly ought to put you on Easy Street. In case your local banker is not in a position to make you a loan, why not visit the bankers at Waupaca? I know none of the bankers in your county personally, but sometimes where one banker is not in a position to make a loan, another can do so. I am judging your case entirely by the facts which you present me in your letter and it would seem to me that either the Old National Bank or the Farmers' State Bank at Waupaca, ought to be willing to loan you $300 to $500 for six months. As I understand, about that sum would tide you over.

I believe the financial returns of progressive farming here in Wisconsin will be bigger this year and for the next few years than they have ever been before. There is a good prospect of the government's establishing a minimum price for farm produce, so that the farmer will not suffer from overproduction or deflated prices. That being the case, we should make our acres and our herds yield to their very limit. Till every possible acre, make every acre yield to the utmost, breed up and build up your herds and by all means retain your pure-bred stock. It will pay, and pay well, this year, next year, and so on and on.

I am printing this letter and my reply because I believe the moral is obvious and is of interest to every reader of The Wisconsin Farmer. Consult your local banker, take his advice, hang on to your pure-bred stock, farm this year with redoubled vigor, and exert every energy toward taking advantage of the exceptional opportunity which is ours, here and now, in the Badger state. I firmly believe you will have reason for regret if you should do otherwise.

WHEN WISCONSIN WAS YOUNG.

IT IS hard to realize that a state like Wisconsin, for instance, where there is no spot more than a comparatively few miles from a railroad and where land, in the older portions, has already reached such a high price that young men are going to Upper Wisconsin to get a start on cheaper land, has been brought to its present high state of cultivation within a single lifetime. Such is the case, however. There are farmers still living in southern Wisconsin today who bought their land from the government for $1.25 an acre, whose early neighbors were the Indians and who were obliged to drive their products overland fifty miles, and even more, to reach a market. In this day of $3 wheat, $1.50 corn and $200 land, the younger people can hardly realize the wonders which have been wrought in the lifetime of us older folks.

I have often thought of this, but my attention was directed to it again while reading one of our big national weeklies, Collier's, which is publishing the autobiography of one of our leading novelists, a product of one of our Wisconsin farms: Hamlin Garland. Commenting editorially on Mr. Garland's story, Collier's says:

That vital flood of settlers surging out over the great plains made history so fast that now, after less than forty years, it seems a legend from the dawn of civilization.

Mr. Garland is still in the very prime of life, having passed the fifty-year mark only half a dozen years ago. Yet a man like him has seen a great state snatched from a vast wilderness and brought to a high state of productive cultivation, so that (according to the 1910 census) more than half the total land area of the state is improved farm land. Could there be more striking, convincing proof of the rapidity with which the farmer is working nowadays?

I have had the honor of meeting Mr. Garland and I am greatly interested in his autobiography because he is a native of Wisconsin and because his experiences duplicate mine in so many respects. His description of the old-time, wood-burning locomotives brought back to my mind, vividly, a similar engine which pulled the first train on which I rode, as boy. "All that day," he says, describing a railroad trip, "we rumbled and rattled into the West, feeding our little engine with logs of wood (which we stopped occasionally to secure from large ricks on the banks of the rivers) and halting at every town to take on or leave a car." Compare that train service with the vestibuled chair cars and sleepers on which we ride today on such long trips. Then compare the West of those days (1877 to 1880), as Mr. Garland describes it in his story, with the Wisconsin and Illinois, the Missouri, the Kansas and Iowa, of today. He is telling the story of how the neighbors came driving in to give his father and mother a surprise party, a "send-off" before they left Iowa, driven out by the chinch bugs, to seek a new home in the new lands of South Dakota. The chinch bugs had done their work only too well. "In vain did the Farmers' Institute lecturers plead for diversified tillage, predicting wealth for those who remained to engage in dairying," says Garland. "Farmer after farmer sold out and joined the exodus to Kansas, Nebraska and Dakota." Was it any wonder that his mother's face looked drawn and haggard, she who had experienced so many such moves, always toward the setting sun? Still there seemed ample excuse for his father's move, and Garland, then not quite of age, found himself feeling thus: "There was something large and fine in the business of wheat growing, and just as our harvesting machinery was reaching perfection, just as it seemed possible for us to handle our entire crop without hired help, it seemed a tragic thing that this plague of insects should come against us. I could not blame my father for his resentment and dismay." Here is the picture he paints of that good-by party, in the humble farm home, when the grain belt was young:

It was a very touching and beautiful as well as awkward moment for me, as I looked around upon these men and women, rough-handed, bent and worn with toil, silent and wet-eyed with the sorrow of parting.

I had thought our break-up deeply important before, but I now perceived its larger significance. It was all of a piece with the West's elemental restlessness. "Of what avail this constant uprooting?" I thought. "Is it not all a mistake?"

There, on a low mound in the midst of the prairie, in the shadow of the house we had built, beneath the trees we had planted, we were taking leave of one cycle of American colonization and entering upon another. The border line of the Middle West had moved on, and my indomitable sire was moving with it, even though in doing so he sacrificed his business and every friend he had. The free land of Dakota was vague as air at the moment. I heard a sound as of great gates closing behind us, and the fields of the West were wide and wan.

In the ten years of our life upon this farm we had seen the prairie disappear. Not one root of it was left. Barbed-wire lanes had displaced the trail. On every hand wheat and corn and clover had taken the place of the wild oat, the hazel bush, and the lily. Our house, small and commonplace to others, was now strangely dear. Therein Harriet had died. Through the garden Jessie's small feet had worn their wavering paths. Our very lives were woven into these hedges and rooted deeply in these fields, and yet, in response to some powerful inward yearning call, my father was about to set forth for a fifth time into the remote and unplowed West, and I was about to claim the grown son's right to a separate and divergent path. Small wonder that my mother sat with tear-blinded eyes while good and faithful friends crowded around her to utter their eternal farewells.

Such was the Wisconsin and Iowa of yesterday, as remembered by a man not yet old, whose memories are strangely akin to my own. Compare it with those states—and the rest of the grain belt—of today; a land of diversified farming, where, when one crop fails or is diminished, there remain a dozen to make up for it. Gone are the days when one crop failure drove men out upon the road again, to seek a new land and a new home. The days of permanent, productive farming have come, never to pass away. Surely, we are working rapidly, but none the less skillfully and effectively, when so much has been accomplished for Wisconsin in such a brief time and all of us are so inspired to make the future productive of even greater things than the past.

OUR DEBT TO THE SUNDAY SCHOOL.

IT IS 100 years ago this month since the Sunday school movement was officially started in the United States. We might well pause a few minutes to consider what an immense factor for good this movement has been in America, in the country as well as in the city.

As the story comes to me, it is a little more than 100 years since an English newspaper editor (I am

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES

BY JAMES M. PIERCE

JAMES ATKINSON, Editor-in-Chief

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The Wisconsin Farmer Madison, Wis.

Wisconsin Legislature.

It had been hoped that the present session of the legislature could be brought to a close during the present month, but both houses see themselves confronted with enough work at present to last well into June. The assembly is ahead of the senate in the amount of the work done and for this reason many of the farmer members in the assembly have asked leave of absence for the current week in order to assist planting the home acres. Fully one-third of the members in the assembly are farmers.

The state prison of Waupun, where binder twine is manufactured, has been granted permission to purchase 400 acres of land for farming purposes a few miles out of Waupun from the profits shown by this industry. Last year's profit amounted to $80,000 and estimates for the coming year place the sum at $125,000. The new land would cost $70,800. This land is to be farmed and the profits used for covering the cost of the state institution.

The bill relating to the reclamation and settling of cut-over lands will come up for third and final reading in the near future. Little opposition is expected in the house, though the senate might prevent final passage of the bill later on.

The senate passed a bill authorizing the university to conduct investigational and demonstrational work to determine the most efficient and economical methods of land clearing. This includes experimentation with mechanical devices and explosives under varying conditions. The authorities are given free leave to experiment with measures that will help future clearing of our cut-over lands in the state.

The state brand for butter and cheese bill, which was reported for indefinite postponement last week, has been revived and passed the second reading in the senate and has been ordered engrossed and is to be read a third time shortly. This has given friends of the bill hope that its passage during the present session of the legislature can be brought about. Everything possible will be done to let the assembly see the good points of the bill when it reaches that body, for there is a good chance now that it will pass the senate.

Another hearing on the tuberculosis bills was held last week, but nothing definite resulted. The bills will probably be referred back to the assembly without recommendation and the final fight on the measures will be made on the floors of the senate and the assembly when the bills come up for passage.

The bill repealing the fire insurance laws of the state was voted down by the assembly and this puts it on the dead list for the present session.

Recognition of services of men going to farms this summer was proposed by a measure introduced last week. Those working on farms for the summer were to receive an honor badge from the state. The bill was referred to the finance committee.

The assembly passed the bill providing for an appropriation of $20,000 for roads around the military reservation at Camp Douglas.

Badger Farmers Busy.

Wisconsin farmers are very busy—too busy right now to even read all the literature sent out to them through the various agencies to encourage greater food production. The Wisconsin Farmer believes that the farmers of Wisconsin are loyal in this time of national crisis and that they had fully intended to do their full duty long before it was considered advisable by the state and other agencies to conduct a campaign of urging. This is no criticism upon those who have been active in the campaign, nor do we wish to suggest that their work has been for naught. On the contrary, The Wisconsin Farmer believes that these agencies which have been trying to do their part to insure better crops should take courage from the situation. The farmer, as we have said, has been thinking for a long time along the lines which so many people are now suggesting to him. He has been making preparation, laying away the seed, fall plowing last year, sharpening up the tools and machines and in other ways getting ready for a big season. He has been inspired to this by several things, not the least of which is the knowledge that his country needs the food which he can raise. He has been encouraged to plan largely because of the high prices for farm products. Furthermore, he has been getting the idea of more intensive farming in this year 1917, by reading his farm paper. The farmer of today reads his favorite farm paper when he is obliged to put other reading matter aside for lack of time. Our renewals on subscription this year, our letters from farmers showing keen interest in the agricultural and live stock situation, all prove to us that the farmer has been interested for months in bigger production in 1917. The Wisconsin Farmer is glad to help in any way that it can. Those of our readers who have as yet failed to take advantage of our renewal offers should send in their remittances at once, so that issues will not be missed. If you do not get the paper regularly let us know at once. If you desire an extra copy to loan to a neighbor whom you think might be induced to subscribe, write to the office and it will be sent at once. Subscribers should feel free to communicate with the publisher or the editors at any time on any subject in which they are interested. We are here to serve, and when you subscribe you give us our opportunity.

The Glory of the Farmer

"The glory of the farmer is that in the division of labor, it is his part to create. All trade rests at last upon his primitive activity. He stands close to nature; he obtains from the earth the bread and the meat. The food which was not, he causes to be. The first farmer was the first man, and all his historic nobility rests on possession and use of land. Men do not like hard work, but every man has an exceptional respect for tillage and a feeling that this is the original calling of his race; that he himself is only excused from it by some circumstances which made him delegate it for a time to other hands. If he has not some skill which recommends him to the farmer, some product for which the farmer will give him corn, he must himself return into his due place among the planters. And the profession has in all eyes its ancient charm, as standing nearest to God, the first cause."—RALPH WALDO EMERSON.

Planting One Ear to the Row.

While special attention is being directed to the problems of making the 1917 crop as large as possible, we must not lose sight of the fact that the food situation next year might be much more serious than it will be during the coming winter. Realizing that situation, superior wisdom will be shown by those corn growers who appreciate the fact that there is a difference between the yielding ability of seed taken from ears that are similar in appearance. The experiment stations have demonstrated over and over again that the seed from an individual ear may differ widely in its yielding ability from one that looks equally well. In some instances the yield would be double when the character of the soil and the method of cultivation were identical.

This high-yielding characteristic is an inherent tendency that cannot be detected by a physical examination, and our contention is that it will pay to take the time this year to select out a few dozen ears and plant the seed from each in a row by itself. It will only take 150 kernels to plant a row fifty hills in length and this will be sufficient to test out the yielding ability of individual ears. Where the above plan is followed it is safe to assume that some rows will yield as high as seventy or eighty bushels per acre if conditions are normal this year and the soil is fairly good, whereas other rows will drop as low as fifty or even forty bushels per acre. When this information is obtained at husking time the grower is at once placed in possession of a few bushels of high-yielding seed. Possibly out of his fifty rows ten or fifteen will give a big yield and the balance can be thrown into the discard. Several bushels of seed from the high-yielding rows will be obtained and this, when planted in 1918, will affect the yield most favorably on a considerable acreage on that farm.

Those who begin this plan will carry it a step further by putting in a seed plat the following year and, if possible, discover individual ears that inherit a still greater ability to yield well. There is practically no limit to what can be accomplished by pursuing this plan, and in these days when we are talking about increasing our food supply it should be understood that in no other way that we have any knowledge of will a given amount of labor accomplish so much as by obtaining possession of a supply of seed bred up with a known high-yielding capacity.

Sow Rape in Every Spare Corner.

In spite of the great demand for increased production this year there will be lots of idle land in the corn belt due to the fact that sufficient help is not obtainable to put in and take off a crop. When it comes to handling corn there is a limit to what one man can do and no amount of urging will materially increase that allotment. Those who use forage crops extensively, thereby cutting down the amount of corn that will be fed this fall and winter, will accomplish the same purpose as if they handled a greater acreage of corn.

In this connection too much emphasis cannot be placed upon the value of rape, particularly by those who are raising a considerable number of hogs. Rape pasture is rich in flesh-forming material and if used in conjunction with corn very satisfactory gains may be made and these will be put on at a relatively low cost.

The Ohio Station pastured an acre of rape 119 days last year and during this time the rape saved corn to the value of $77.87. Of course, a small amount of corn was fed every day. In the face of this record one may safely conclude that it will be profitable this year to seed every foot of waste land to rape, particularly those spots on the farm that can be conveniently used for hog pasture. Old feed lots can be used to great advantage in this way and it is not even necessary to plow them up. Go to it with a disk, as a satisfactory seed bed can be prepared in that way. Five or six pounds of rape seed per acre seeded broadcast will produce a good stand, and if the hogs can be kept out for five or six weeks there will then be an amazing amount of good feed furnished during the balance of the season.

It is doubtful if at any time since the spring of 1899 has there been as much clover killed out as was the case this year, and as a result there will be a light hay crop harvested and there will be a scarcity of pasture. There will be plenty of cases this year where meadows will be left, although they are less than half a stand, and in those instances it would be a profitable venture to disk up part of the acreage and sow rape seed broadcast in them. Rape is not a good pasture for dairy cows, but it can be used advantageously in pasturing young cattle and, as said before, it is exceedingly satisfactory for hogs, as it is both palatable and nutritious.

Growth of Dairying in Waupaca County.

Our readers will be interested in a historical sketch of the Iola, Waupaca county, creamery, which was organized in 1896 with about fifty patrons. The 19th of January, 1897, C. L. Passmore had charge of the butter-making department and remained in charge until 1914. In the year 1897 the output was 71,918 pounds and the average price paid the patrons for butter fat was 16½ cents per pound. In spite of this low price for butter fat, as compared with present prices and the scarcity of cows, the building had to be enlarged four times to take care of the increase in business.

In 1902 there was 201,013 pounds of butter made and the farmers were paid 25.5 cents per pound for butter fat, receiving a total of $41,780 for the year's output.

In the year 1910 the number of patrons had increased to 300 and the creamery made 508,303 pounds of butter. The farmers were paid an average of 33.99 cents per pound for butter fat or a total of $144,366.

In 1914 R. C. Cleaves took charge of the butter-making department and is still in charge. In 1916, the twentieth year, there were 260 patrons and the output was 535,032 pounds of butter. The average price paid to patrons for the butter fat was 35.44 cents per pound, while the Elgin average for the same year was 32.72 cents per pound of butter. Last year the patrons received $155,982 for their portion of the proceeds.

From January 1, 1897, to December 31, 1916, covering a period of twenty years, the Iola creamery has manufactured 6,980,286 pounds of butter, for which it has received a total of $1,829,974. The patrons of the creamery in the same period have received $1,707,192. The cost of operation for the twenty years has been $122,779, or, in other words, the butter has been manufactured and marketed at an average cost of 1¾ cents per pound.

Recently a new creamery was put up and the cost of the new building so far is as follows:

Site	[illegible]
Contract for building heating plant, wiring	1,290.00
Warehouse	[illegible]
Refrigerating system	[illegible]
Pasteurizing vats	[illegible]
Deodorizer	1,250.00
Boilers and setting up same	[illegible]
Engine, shafting and belting	[illegible]
Sewer	[illegible]
Well	[illegible]

Taking into consideration the item moved in from their old plant, the actual cost of the new creamery is about $25,000. This is ten times the cost of the original creamery building twenty years ago. The refrigerating system alone in the new creamery cost practically the same as the creamery cost which was built in 1896.

We have seldom seen any clearer statement of the development of the dairy business in Wisconsin than this.

If there is some doubt as to the necessity for liming for alfalfa the most practical and satisfactory way to determine this point is to sow a small field to alfalfa, liberally liming a part of it, and leaving a part unlimed. The growth of alfalfa in the two parts will be a good test of the need for lime.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

glad that the press is entitled to the credit for launching such a far-reaching, magnificent campaign) stood one Sunday morning on a sidewalk in the city of Gloucester, England, and watched a gang of boys and girls playing in the street. In those days there were no child labor laws and those children, working long hours in the mills, had only Sunday to play. They knew no school training, they knew little discipline of any kind.

As the English newspaper man watched those poor, dirty, ragged urchins at play in the streets of the big city, the idea of the Sunday school was born in his brain. He hired some women school-teachers to teach those neglected boys and girls of the mills on Sundays and he paid the children to go to those teachers. Along with the teaching of reading and writing he insisted that religious instruction be given. Such was the beginning of the Sunday school movement, which has since swept the world until today there are 310,057 Sunday schools, 2,699,630 teachers and 27,345,407 Sunday school pupils in the world, practically one-half of the number being located here in our own country.

It was a few years later, in 1817, that the movement was really begun in the United States, and it is these American beginnings which were celebrated in so many of our churches, both in town and country, last Sunday, for the American Sunday School Union had been planning the centennial celebration for some weeks.

It seems to me an opportune time for me to pay my tribute to a factor in our national development second to none: The Sunday school. I am sure that my readers, regardless of denominational differences, will agree with me that anything which starts our boys and girls in the right path and keeps them there through the formative period of their lives, is a big and vital factor in our national progress and our individual development. Personally, I am free to admit that the Sunday school played a big part in shaping my life at a time when traits were being developed and character formed which were to guide me from that day to this. As I think over the subject, my mind goes back to my boyhood days on the farm of my father near Upper Sandusky, in Wyandotte county, Ohio, the same county in which the reservation of the Wyandotte Indians was located. Our family consisted then of father and mother and six children. My parents were devout Christians and dedicated themselves to the task of starting their children out in life with the proper religious training. I can recall, as though it were only yesterday, how, on Sunday mornings, we children would sing Sunday school songs, after breakfast, until it was time to hitch the team to the farm wagon (our only conveyance in those days), spread in the bottom of the wagon the hay which served the double purpose of bedding for us children as we rode to church and of feed for the horses at noontime, and then we were off for the four-mile ride to town.

Church attendance was almost an all-day affair in those days, now almost sixty years gone by. Arrived at Upper Sandusky, the team was unhitched near the church and the entire family proceeded to devote the greater part of the day to religious worship. Church services were generally held first, followed by Sunday school. I can recall that the minister's name was Rev. Thayer and that he was a vigorous speaker, flaying the flesh and the devil, sometimes frightening us children into penitence, other times leading us into the paths of righteousness by his eloquence. After Sunday school was over (the two services lasting well on to two and a half or three hours altogether) we usually had lunch in the rear part of the little one-room church, except on those momentous occasions when some town member of the congregation took us home for dinner, an affair which lingered in our memories pleasantly for many weeks. After lunch, we all repaired to the church again for the afternoon sermon, lasting another hour and a half or two hours. Then came the general handshaking, the hearty goodbys, and, after hitching up again, we were off for home, we children bouncing on the now bare bottom of the wagon, often with considerable discomfort, for the roads were none too good and home must be reached in time for the evening chores.

Those days are long past now, for time has silvered my hair, although it has failed to dim my memories or to obscure the pleasure which I derived from attending those services, Sunday after Sunday, in the years when my character was being formed and I was laying the foundation for the future. I owe a debt to the preachers and the Sunday school teachers of those years which I recognize only too willingly nowadays. Theological styles have changed with the passing years, but honor and truth and righteousness are eternal. The principles taught me in that little church, by those devoted men and women, have guided me throughout all the intervening years and shall continue to guide me until I am gathered to my sainted father and mother and all things are made clear to my eyes. I honor the church of the country, the Sunday school wherever it may be found, and I am glad of this opportunity to pay my humble tribute to both. Long may they continue to model and mold the lives of young and old and to make this a better, brighter, happier world for us all, through countless generations.

James M. Pierce

WISCONSIN FARMERS' CLUBS

Club Has Soil Specialist.

To the Editor:—Our little club, which consists of fifty-three members (and their families) was organized in March, 1915. Up to the present time we have done very little work along special lines, other than just endeavoring to build up the social side of our community, and, in this, we are certainly succeeding.

We meet the last Friday of each month in our town hall and serve a picnic dinner at 12:30 o'clock. It goes without saying that this is a drawing card for the most of us. The business meeting usually calls to order at about 2:30 o'clock. We are now a full-fledged club with a president, vice president, secretary, treasurer and sergeant at arms, besides our executive and program committees. The program committee invariably stages a fine program, usually rendered by local talent, of which we have an abundance.

Last year we had a soil specialist here to analyze our soils. Several of the farmers were very much interested in this. Recently, we received a communication from this gentleman on the subject of a "Sandy Soil Farmers' Institute," which he suggests as a good idea for the club to take up at some time this coming winter. The club is quite interested in this matter and is giving it consideration. During the winter our program committee put on a very interesting debate on a local bridge question. This line of work was new for us and drew out a large crowd. On a few occasions we have had in a motion picture machine and operator, giving us illustrated talks on some of the latest topics of the day. These were thoroughly enjoyed by old and young and will always prove a drawing card for a club. Then, too, we have been improving the accommodations about our town hall and premises. Through the coöperation of our club and the town board, new sheds for sheltering horses were built. These filled one of those long-felt wants and will stand as a monument to the efforts of the Caledonia Farmers' Club for some time to come.

We have also purchased some new furniture for the interior of our hall and will add more improvements from time to time as our circumstances permit.

Perhaps the best instance, illustrating the interest felt in the meetings of this particular club, was shown at our last meeting: The president mentioned the fact that our next club meeting would come just in the thick of corn-planting time and suggested that perhaps we would best postpone this meeting. There were perhaps more than 100 persons present and not one among them willing to make a motion that we postpone this meeting.

Mrs. Edwin Scherr,
Secretary Caledonia Farmers' Club
Trempealeau, Wis.

Discuss Schoolhouse Problems.

To the Editor:—Our club programs for the past year have been of an unusual nature. We plan to have an out-of-town speaker every other meeting. Our particular community was interested in the schoolhouse problem, and two of our meetings were devoted largely to that subject. County Supt. M. L. Barkley gave us an illustrated lecture on the rural school problem. Charles Harper, of the state department, also talked to us on schools, and Prof. F. T. Ullrich gave us an illustrated lecture on the importance of practical agriculture in the school. Our last meting was a patriotic one. Songs were sung and we had recitations by the grammar grades and a patriotic talk by Richard Lloyd, of the Wisconsin State Journal. I am very glad to see The Wisconsin Farmer taking some interest in our clubs.

Joe Roberts.
Secretary Blue Mounds Neighborhood Assembly, Dane county, Wis.

GETTING READY FOR REAL WORK.

Take Up Food Production.

To the Editor:—With our March meeting, the Lake View Farmers' Club, in Walworth county, completed its fourth year of successful work. The interest in our club is still growing and the membership larger each year. Our annual fair, held in 1916, was pronounced the best ever. The premium list amounted to over $200, which we consider worth while, and it was a great encouragement to the boys and girls who received the money. Our lecture courses are another valuable part of our club organization. The home talent number and Dr. Russell Conwell's famous lecture, "Acres of Diamonds," were exceptionally well received. In connection with our farmers' club, and as a part of it, we have the Junior Farmers' Club, composed of our boys and girls. We had the Champion Boys' and Girls' Club at the Wisconsin State Fair, 1916. Relative to the programs for our individual meetings, we have quite a variety of instructive and entertaining numbers aiming to create a greater interest in farm life and community coöperation as well as the social good times for the members. At our April meeting we spent considerable of time discussing the great agricultural needs of the community at this time and we appointed several committees to help in every way possible to stimulate a greater production among our club members. We are going to try and see to it that every member of this club exerts his best effort in the production of more food for the nation in our time of need. It seems to me that this would be the most important work in the club during the coming season and I believe it is a task in which we will be able to make considerable progress. We are always very glad to stimulate and encourage interest in the farmers' club movement, and I am pleased to know The Wisconsin Farmer takes the same position. A great deal of good, I believe, may be done in this way.

Paul F. Gavin.
Walworth Co., Wis.

The Farmers' Open Forum

WITH CONTRIBUTIONS FROM READERS OF THE WISCONSIN FARMER

Interesting Boys and Girls.

To the Editor:—I am very much pleased to note the interest which The Wisconsin Farmer is taking in the subject of agricultural activities in secondary schools. In our own school we are offering a full four-year course in agriculture. Following up the idea that the only way to make this course vital is to have the student carry to completion some farm project, and because we lack the necessary ground to carry out this work at school, we have arranged to have students select some summer project that they may carry on during their vacation.

Practically all of our boys belong to a "corn club" and will grow corn this summer. The girls have a tomato club and will grow tomatoes this summer. The tomato plants are being grown in the school hotbed which was made by the pupils in the seventh and eighth grades. (Am enclosing a photo taken while the boys were at work on the hotbed.)

To stimulate interest in the growing of pure-bred corn we are putting on an acre-corn contest. The local bank has put up a silver cup and two cash prizes to the boys making the best showing in this work. The corn to be used in this contest is to be either Wisconsin No. 7 or No. 12.

This is the first year we are doing any organized club work, so have no past record to boast of, but hope to make a good showing this season. We are hoping that the school board may put up some prizes for girls making the best records in tomato production.

J. R. Kahoun,
Principal Cobb, Wis., High School.

Eau Claire County Breeders.

To the Editor:—The Eau Claire Holstein Breeders' Association held one meeting during the past winter and this was chiefly a business session for the election of officers. On account of the intense cold weather there was a small attendance, although much interest was manifested by those present. G. I. Ingalls, county representative, presented a plan of advertising which met with hearty coöperation. It was decided that our club was not large enough to undertake the plan and we agreed to ask the Guernsey and Jersey clubs to join us, but up to this writing no definite arrangements have been made. It is planned to get up a catalog of all breeders, permitting each breeder to use as much space for advertising as he chooses to pay for. These booklets are to be sent to interested parties on application. Our annual picnic will be held at the Geo. McLellan farm, situated southeast of Eau Claire, on the third Friday of June, 1917. Our officers for the present year are: President, Charles Newhouse, Augusta; vice president, G. H. Comings, Eau Claire; secretary-treasurer, B. F. Von Berg, Augusta; director, B. M. Arrus, Augusta.

Frank Redlaczyk.
Eau Claire Co., Wisconsin.

Send Cattle to New Mexico.

To the Editor:—The Manitowoc County Holstein Breeders' Association is sawing wood and making gains faster than some might think. We now have a good live association of more than 100 members and the people in the city also coöperate with us. A few weeks ago C. F. Moon, of Portales, New Mexico, came here to see if he could get some good grades. He wanted only good grades which would produce not less than forty pounds of milk a day. He called on me to go with him and show him the best herds. It was poor traveling, as the roads were just breaking up, but in a short time we found a carload of what Mr. Moon called the finest cattle that he had seen. Before coming to our county he had visited several other Holstein centers. He found that not a great many buyers had combed over the stock here. The cattle which he secured were of good size and individuality and came out of herds with good herd sires. I believe that the cattle which he took with him to New Mexico will be fine advertisement for this county, as the new country is just beginning to get the right type of Holsteins. Several fine seven-day records as well as yearly records have been made by pure breds in this county and pure breds are fast becoming a leading factor in our dairy business. Good pure-bred bulls are being shipped out of this county almost every week, and in most cases to Upper Wiscaonsin counties. Heifers are scarce, as breeders are stocking up. It will be but a few years until we will have the very best pure breds for sale in this county and we will rank as high as we now do with the grades. The hospitality shown to buyers by our breeders has helped us to make sales and leave a good impression with those who have visited our county from a distance.

Charles Hampke, Sec.

Eight Hundred Bushels of Onions Per Acre.

To the Editor:—I am not a very good hand at writing, but will try and tell you how I raised 100 bushels of onions on one-eighth of an acre of land.

We have to plant on low land. Put on all the barnyard manure that can be plowed under and plow late in the fall just before it freezes up. Leave it rough, just as it was plowed, through the winter, then in the spring, as soon as the frost is out on top, begin to drag with a spike-tooth harrow and work it down hard. You can't work it too much. Work wood ashes in on top. I left some barrels in town at different places. They were glad to have me take the ashes away. Wood ashes will kill the onion weevil and also wire worms. When I go to town in winter as fast as the barrels are filled I take them home, then in the spring I have it ready. As soon as it can be worked down hard in the spring I plant the seed. The earlier the better. Freezing of the ground, or snow, will not hurt them.

I sow the large red Wetherfields. I sow with a garden drill in rows fourteen inches apart and I mix in a few radish seeds, so I can see the rows as soon as they come up. The radishes can be pulled out when weeding and will not hurt the onions. Keep the weeds out and cultivate often, but shallow. The ground must be kept loose on top for about an inch. The harder it is below the better. This will cause the onion to grow out of the ground and prevent thick necks. I leave them quite thick in the row—about two or three inches apart. They will crowd out as they grow.

I have always grown a few onions each year—never more than three-fourths of an acre. Have had some failures, but have not had a failure since I plowed in the fall and put ashes on in the spring as a top dressing. The 100 bushels on the eighth of an acre is the best I ever did. The rows crowded out so you could hardly set your foot between the rows. Some persons could not believe it and came and measured the ground. If this will help anyone who wants to raise onions I will be pleased.

Jas. H. Pugh.
Waushara Co., Wis.

Organize the Lumbermen.

To the Editor:—It looks now as though we might be short of farm help in this neighborhood this fall or the latter part of the summer. We will be able to use high school boys and probably some men from the city. I think it might be well for someone to take up the work of organizing the large number of lumbermen who will not be in the woods during the summer. At least we should be able to keep them out of the woods until the fall work is completed. From conditions in this county, I would assume that unless something unusual occurs, we will not be greatly handicapped by shortage of labor.

Douglas Co., Wis. J. M. Walls.

Using Hare For Food.

To the Editor:—I have always been a lover of pet stock and I saw an article in your paper recently by Mr. Hartmann on Belgian hares which hit me in a tender spot. Along in 1890 or 1891 I began raising the little pink-eyed white rabbits, and a few years later gave them up for the Belgians—not the Rufus Red, fine, rangy fellows that we have now, but a pretty nice pet, and great for eating. Talk about your spring fries, chicken isn't in it with a Belgian hare about three and a half or four months old, and why more people do not raise them for meat I do not understand. Take it in villages and small towns where a person has a small lot, they could keep a pair which with average luck would produce $80 or $100 of the finest kind of meat at very little cost.

As for food, nice, bright hay of any kind will do, but I prefer alfalfa or clover with oats, caring for them the same as you would sheep when on dry feed in the wintertime. They do well with carrots, sugar beets and mangles as green feed, but above all do not feed them cabbage or lettuce unless you want pot belly, which will soon turn into bowel trouble and then sure death.

I kept water before mine continually, also salt. Keep the hutches well cleaned at all times and so avoid sore hocks. Also keep them off the ground. A hutch 2½-2½x4 feet long makes a nice size for the does, 2½x2½x3 feet for the bucks. Have them made tight on two ends, the top, bottom and back so no draft can get to them. They cannot stand a draft or the heat, but will stand all kinds of cold. I have one doe that kindled in that cold snap this winter when it was 20 and 22 degrees, and I never had a doe do better or raise a finer litter.

The does and bucks should be separated when two or two and a half months old, never left longer than three months or there will be trouble. Never put young bucks and old ones together, for they will fight all the time.

When feeding to finish off for market I feed some corn and carrots every other day.

M. M. Lanphere.
Rock Co., Wisconsin.

In spite of the activities of the food committee of New York City, headed by George W. Perkins, to keep down the cost of living, the price of rice, one of the staples specialized in by the committee, is higher today than it has ever been, and, according to wholesale dealers in New York, it will continue to advance. Some of the dealers go so far as to predict that the wholesale price of the popular grades will go as high as 10 cents a pound before the new crop comes in, in September. Since Mr. Perkins' committee advocated the use of rice as a cheap and healthful food the wholesale price has almost doubled and the retail price has advanced from 5 to 8 cents a pound.

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The United States needs thousands of truck, transport, aeroplane and motor cycle drivers. Trained competent men are needed, men who can take care of the machines, men who know how to keep them in service. Any piece of motor-driven machinery the government owns or will own must be in service. Preference will be given to trained men. No matter what service the Army is doing, it must be fed. If it is on the firing line, it will need thousands of rounds of ammunition. The importance of trained men is very evident. Food and ammunition must be delivered regularly. Then too the army must often be transported.

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CURRENT EVENTS

CONGRESS spent the major portion of last week debating the conscription age and exemptions, both houses having passed the bill providing for raising the nation's new army by draft instead of waiting for voluntary enlistments. The maximum age of the men to be drafted was the main point on which the two houses differed. As passed by the senate the measure provides for the draft of men between the ages of twenty-one and twenty-seven, while in the house measure the age limits are fixed at twenty-one and forty. The senate authorized Theodore Roosevelt to organize a division of American troops to take abroad, while the house turned this request down, evidently fearing the political effect in the next presidential campaign. It is known that President Wilson is favorable to sending American troops to the fighting line in France, just as soon as the European allies think it best, but he holds to the belief that, for the present at least, the shipping facilities are needed more for sending foodstuffs and munitions abroad than for sending men. In a speech delivered at Chicago, Roosevelt continued to urge for permission to raise his troops and to lead them in France, saying: "I ask that I and those dearest to me and closest to me by blood shall be given the chance to prove the truth of our endeavor and be sent at the earliest possible moment under the flag to the firing line. I do not ask for men in the classes which would be taken under the administration's plan for an army raised under the obligatory system. I ask for men who would not otherwise be allowed to go. The force I propose to raise would represent an absolute addition to the nation's military strength, an addition which could be used at once, which would serve to put the flag and keep the flag on the firing line during the time that the great army was itself being raised, and while our flag would otherwise not be on the firing line. The favor I ask is the great favor of being allowed to render a service which I believe that my record entitles me to say I am able to render."

GENERAL JOFFRE and Vice Premier Viviani, heading the French war delegation to the United States, were accorded a wonderful reception in congress last week, arousing the greatest enthusiasm. Viviani delivered a stirring speech, while Joffre, who does not speak English, simply thanked the lawmakers for their reception. Both men visited Mount Vernon, the home and burial place of George Washington, and paid their respects to America's first president. In a message delivered to the American people, through the press, General Joffre, France's great war hero, told the people that France cherishes the confident hope that the stars and stripes will soon be flying on her battle lines. Victories sure to be won by the soldiers of the two republics, once more fighting shoulder to shoulder for liberty, declared the hero of the Marne, will "hasten the end of the war and tighten the links of affection and esteem which have ever united France and the United States." The marshal, replying to questions, said he deemed it advisable to send one American unit at a time to France rather than to wait for the complete equipment of a big army, because of transportation problems. The French delegation came out to the grain belt last week, visiting Chicago, St. Louis, Kansas City and other places in the middle West, arousing the greatest enthusiasm throughout their entire trip.

THE enormous inroads in the world's shipping made by German submarines within the last few weeks has brought to American government officials a full realization of the disaster that faces the United States and the allies if the undersea warfare is not checked. Governors and state representatives at Washington, last week for a national defense conference, took home to their people a message from the government emphasizing the menace to America and urging that there must be the fullest coördination by the states in war preparation if Germany is to be defeated. Secretary Lane told the conference that the great destruction of ships was threatening the existence of Great Britain and France and menacing the United States. No one, he said, knew the exact number of ships lost recently, but estimates put last week's submarine toll at 400,000 tons. Secretary Lansing in a statement declared the seriousness of the submarine situation could not be exaggerated and that it was time the country awoke to the true facts. Reports to the state department give a total of eighty vessels lost in one week, figures much higher than any contained in recent British announcements.

JAMES W. GERARD, former ambassador to Germany, told members of the Chicago Bar Association at a banquet given in his honor that the war with Germany would be "long and bitter." Mr. Gerard asserted that there was little likelihood of a revolution or uprising in Germany. Although the people of Germany are feeling the pinch of hunger, he said, there is no real probability that starvation may put an end to the struggle. There is enough food in Germany to last until the next harvest in July, he declared: "Many persons in this country believe that we are not actually in this war," Mr. Gerard said. "There is danger in such a view. There is a long war ahead of us, and we are in it until the finish. The fight will be long, but there is a prize ahead of us. We are in the fight because we could not keep peace with honor. We are fighting this war for ideals We are fighting for liberty and democracy and the permanent peace of the world This great prize only will be obtained when Prussian autocracy has been overthrown."

SECRETARY McADOO announced last week that the first offering of the bonds authorized under the war finance law would be a $2,000,000,000 "Liberty loan" issue, open to popular subscription at par, and that subscriptions would be received till June 15th, next. The bonds will be dated July 1st and will be ready for delivery on that date. Although department stores, newspapers, bond houses and many other organizations, in addition to banks, will be utilized in floating the bonds, the twelve federal reserve banks will be designated as central agencies in their respective districts. Details as to the denominations of the bonds have not yet been prescribed, but the lowest denomination will be so small as to place the bonds within the reach of every investor. Many offers of assistance in floating the issue have been received from women's organizations, and the secretary will organize a woman's committee to assist in obtaining subscriptions and distributing the bonds.

IMMEDIATE assistance to Russia and France in strengthening their railway systems is planned by the American government. The first step will be the dispatch of a commission of four railway experts, including John F. Stevens, a consulting engineer, who was chief engineer of the Panama canal commission before General Goethals. The plans of the defense council call for sending the entire American surplus rolling stock and expert employes abroad. The commission to Russia will give expert advice there and will seek to do everything possible to coördinate that nation's transport system for the movement of supplies and troops. American railway schedules will be altered so as to run only necessary passenger trains to free equipment for the movement of freight and leave as large a surplus as possible. Word reached Washington that in order to relieve economic conditions in Petrograd and also to lessen the strain on transportation facilities the Russian provisional government is transferring to south Russia the great munitions and supply plants in and near the capital.

GENERAL business conditions throughout the country, the federal reserve board announced in its monthly review, have not been affected by the entrance of the United States into the war, although in every district there is going on a process of readjustment which is reflected in many lines. In no section of the country, the board finds, has there been industrial, financial or commercial distress because of the changes incidental to placing the country on a war footing.

Home Planning Contest.

The farm home contest under the direction of the Wisconsin college of agriculture open to the men and women of Wisconsin farms has been quite favorably received and several hundred plans have reached the college. There has been a slump, however, during the last few weeks, probably due to abnormal conditions. Interest in the contest is essential to its success. Surely every one of our readers has an idea of what the ideal farm home should be like. It costs little time and affords considerable satisfaction to map this out on the cross-section paper furnished to each contestant on request, together with directions for making the drawing. Sample drawings accompany the directions and these serve as a guide in penciling the sketches. Simply address the Farm Home Contest, College of Agriculture, Madison, and submit your ideas on the paper they send you. It costs nothing to enter and might result in a prize being awarded you. The first prize is $25, the second prize $10 and the third prize $5. A modern cook book will be given the six closest contestants. The last date of mailing your plan is June 1st. Competent judges will pass on the appropriateness of each plan for average Wisconsin conditions and on its convenience of arrangement and economy of construction.

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Spring Sown Small Grains Are Up

Oats and Barley Are Growing in Spite of Cold Weather—Winter Wheat and Rye Show Good Stand—Live Stock Are Healthy.

WISCONSIN.

Barron County.—Rye, clover and alfalfa wintered in fine shape. Because of the high price of flour a few farmers are sowing spring wheat. Potatoes suitable for seed are selling at from $2.50 to $3.00 a bushel. Because of the scarcity of potato seed, the acreage will not be large. About one-half the oats are seeded. Cattle in general came through the winter in good shape. Eleven carloads of registered and high-grade Holstein cows and heifers have been shipped from this county since last November.—F. J. K.

Brown County.—Rye has never looked better. Clover is fine. There is very little wheat in this locality. Seeding is in progress. The acreage of potatoes will be cut down about one-third because seed is scarce and selling at $3.50 a bushel. The number of dairy cattle is normal and as a rule cows are in poor condition because of the scarcity of feed.—J. D. McAllister.

Buffalo County.—Clover and rye look fine. Seeding is well along. Weather is cold and unpleasant. Live stock are not doing well on account of the scarcity of feed. Seed potatoes are selling from $3.50 to $4.00 a bushel. Hogs are selling at $16 a hundred and in some cases even higher. Crop prospects in general are big.—John Wald.

Clark County.—Rye and clover came through the winter in fine condition and the prospects are for better crops than normal. Much rye was sown last fall. A few farmers are planning to sow spring wheat, but cold wet weather has prevented much sowing so far. A few fields of oats are in, but most of the farmers are unable to get the seed bed ready. Live stock came through the winter in good condition, despite the fact that feed was high-priced, especially hay. Few cattle have been sold. The prices of milk, butter and cheese encourage the increase of dairy herds. In March and April dairy cows sold at from $90 to $150 a head.—Louis Buddenhagen.

Crawford County.—Spring seeding is practically finished. Most of the oats are up and doing well. Recent rains have started the grass and although it has been quite cold, pastures are coming along as usual. Farmers are planning an increased acreage of all staple crops this year. Rye, wheat and meadows wintered well. The shortage of grain caused some live stock to come through the winter in rather poor condition. There is a shortage of brood sows and the effect of the winter is telling on the litters. Some farmers will put cattle on pasture in spite of the high cost of stock. Dairy cattle are in great demand—A. M. Laird.

Dunn County.—Winter wheat, clover, rye and alfalfa have come through the winter in fine condition. Considerable spring wheat is being sown, but the acreage will not be unusually large. Oat seeding is well under way. The season is cold and backward.—J. D. Millar.

Fond du Lac County.—Winter crops are in fine shape; alfalfa and clover are the best they have been for several years. Rye and winter wheat are good. Little spring wheat has been sown. Nearly all the oats and barley are in. Ground is in fine condition and the only hindrance is cold weather. Because of the great shortage of feed there are fewer dairy cattle in this vicinity than usual. The first county Holstein sale was a great success.—C. A. Williams.

Jackson County. — Clover came through the winter in fine shape and a good crop is promised. Alfalfa is also good. Winter wheat and rye are in splendid condition at this date. Pastures are late because of the unseasonably cold weather. Only about one-third of the oats are in. There will be an increased acreage of corn.—P. W. Jones.

Juneau County.—Grains and clover are the best they have been for five years. Spring grain sowing has been delayed by wet weather. About one-half the oat crop has been put in and some spring wheat. Live stock came through the winter in thin flesh, but have gained some recently. They are about normal in numbers. Dairying suffered to some extent during the past winter because of the severe cold.—C. A. Haskins.

Lafayette County.—Spring seeding is done. Very little wheat or rye is grown here. Early sown oats are coming up. Newly seeded clover and alfalfa wintered well, but many of the old clover meadows killed out. All stock wintered well. There are fewer brood sows than usual, but the spring litters are of good size. Pastures are backward and hay is getting scarce. More early potatoes have been planted than usual and general conditions are favorable.—W. J. Martin.

Langlade County.—Rye looks well. About one-fourth of the farmers will sow spring wheat. Some of it has already been put in. No oats have been sown and all seeding is backward because of the late season. Snow fell on the 25th and 29th of last month, which will delay seeding for several days. Clover fields look bare. Live stock are in fairly good condition, excepting cows. So far, about 90% of the lambs have been saved.—Chas. Lade.

Marquette County.—Rye is in fair condition. About 50% of the farmers have clover. Very little alfalfa is raised here. There was very little damage done from winterkilling. The oat crop is already in the ground. Dairying is fairly good. About 75% of the cattle are in thin flesh because of the scarcity of feed.—Emil Hein.

Polk County.—Rye seems to hold its own, although a smaller acreage was sown last fall than formerly. Clover winterkilled and only about 50% of it is left. Last year's seeding appears to be in fair condition. The small amount of alfalfa that is raised in this section is good. Spring seeding is nearly finished, but warmer weather is necessary to make a good crop. High prices of foodstuffs and live stock have caused a general selling off of grain and cattle.—E. H. Johnson.

Manitowoc County. — Rye, winter wheat and clover came through the winter in fine shape, but the recent late frosts and continued cold have done some damage to the winter wheat and clover. Very little spring seeding has been done on account of the heavy rains. Farmers are sowing more spring wheat than usual; the acreage of other grains will be increased also. Live stock are in good health. Feed is scarce and high priced. Farm labor is also very scarce.—Edwin S. Straka.

Trempealeau County.—Winter grain is good in this section—the best it has been in several years. Hardly any clover or alfalfa winterkilled. Much more spring wheat was sown this year than usual. Most of the grain is in and warmer weather is needed to start growth. Live stock show the lack of feed. Cattle are about as numerous as ever but calves are scarce.—J. W. Lowe.

Sawyer County.—Winter rye is growing slowly on account of continued cold and rain. Clover in some places seems winterkiled, but it is too early to make any accurate estimate. Cattle wintered rather poorly because of the shortage of hay. Movement is under way for farmers in this vicinity to raise enough spring wheat for their own needs. Most farmers will sow patches of from 1 to 5 acres of this grain.—J. Uhrenholdt.

St. Croix County.—Considerable wheat will be sown this spring and a larger acreage than last year may be expected. The acreage of rye is about the same as last year, but the crop is in better condition. The oat and barley crops will be normal. Clover came through the winter in fine condition. The number of dairy cattle will be increased this year and the number of beef cattle decreased. There are fewer brood sows than last year and the pig crop is smaller.—Stephen Everson.

Wood County.—A large acreage of rye was sown last fall and it wintered in good shape. Clover has been damaged about 25%. There is not much winter wheat raised here. Meadows and pastures are good so far but are not growing much this cold weather. A large acreage of oats and barley will be put in this spring. Cattle wintered well and are heathy but thin in flesh. There has been plenty of hay and straw, but prices for all feeds are high. Hogs are scarce and there have been few litters of young pigs. Young pigs are selling at from $10 to $14 a pair. The demand for milk cows is good.—P. B.

MINNESOTA.

Goodhue County.—Rainy cold weather has retarded spring work. Oats and spring wheat are nearly all seeded but farmers in this section are not inclined to plant much spring wheat. Winter wheat is not raised extensively, but the conditions of the few fields there are is about 100% normal. Barley, corn and potatoes will have about the same acreage as last year. Clover wintered well and promises a full crop. Rye is below the average because much of it failed to start last fall.—Otto Kolshorn.

In And Around Wisconsin.

A MEETING of the Equity Coöperative Exchange will be held at Fargo, N. D., May 23d and 24th. The purpose is to establish a minimum price for wheat and potatoes and also to take some action to discourage the trading in grain futures. It is expected the minimum price to be proposed would be $2 per bushel for wheat and $1 per bushel for potatoes.

THE price of milk in Madison will advance from 8 cents to 10 cents May 1st and the price of bread will be 10 and 15 cents per loaf, according to size. No more 5-cent loaves will be made. The 10-cent loaf will be reduced in weight from twenty ounces to sixteen ownces, so that consumers will pay 10 cents for what was called a 5-cent loaf a year ago.

SENATOR HANSON has before the general assembly a bill designated to cut down the number of road superintendents in Wisconsin from 16,000 to about 1,200. This bill provided for the election in April, 1917, of town superintendents of highways to serve two years. This bill would cut down as high as 200 or 300 road superintendents in some counties. It allows the supervisor in each town one man.

AT a recent mass meeting at Colfax, Dunn county, Wis., a committee was named to be known as the Colfax Labor Bureau. The purpose is to secure help for farmers. The committee is composed of E. B. Hill, George Vorland and Victor Noer. It is proposed that in time of seeding, haying, spraying potatoes or harvesting, temporary help will be furnished to farmers in need. This help will be chiefly from store and bank clerks who are familiar with farm work. Arrangements will be made for them to get away from their work in town and to close the stores and banks in the town for a day or parts of days as may become necessary. A number of merchants have expressed themselves as willing to close their stores and let their clerks go to the farms in the event of shortage of help.

ANOTHER advance has been offered in sugar beets. This time to $8 per ton. This advance was recently announced at Menomonee Falls where a number of sugar plants are located. It was claimed that sugar-beet acreage would be increased, provided help enough could be gotten to do the work. Every effort is being made to make arrangements to get help for the portions of the season when it is most needed.

F. H. SARGENT, COUNTY AGENT PRICE COUNTY, WIS.

THE Wisconsin Department of Agriculture has been making a splendid effort to put farmers, who want seed for planting, in touch with the sources of supply. C. P. Norgord, state agricultural commissioner, who is in charge of this work, has been kept busy handling the calls for potatoes and navy beans. More than 10,000 bushels of potatoes were bought by farmers through the department. The prices have been $3 a bushel for potatoes and $10 a bushel for beans. Although there will be a large demand for potatoes, farmers are urged to rely on a sufficient acreage of corn, beans and buckwheat rather than too many potatoes. Potatoes are a perishable crop and cannot be shipped as far or stored for as long time as cereals and beans, and, therefore, are less desirable for sending to armies across the ocean or for keeping until needed for home use.

MILK dealers in Madison have raised the price of milk to 10 cents a quart. Those who are delivering to local consumers in Janesville have reduced the price to 7 cents per quart. Inasmuch as the conditions are practically the same in both cities, it would seem the situation would bear investigation. It can't be claimed that feed is any higher priced in Madison than it is in Janesville. It has been the custom in previous years to reduce May 1st when spring pastures come on.

L. A. MARKHAM, JANESVILLE, NEW COUNTY AGENT IN ROCK COUNTY.

In Superior it was decided to simply leave the winter price and this has been the custom in most Wisconsin cities. We doubt if many of the farmers of Dane county who are furnishing the milk are getting an advance commensurate with the advance made by the Madison dairies.

FEDERAL DOUBLE CABLE BASE TIRES

Driving over rocky, rutty and uneven country roads is the hardest test you can give your tires.

The constant grind, twist and shock will soon show what they are made of.

Federal Tires are built with tough treads to better withstaand this wear and tear and give best possible traction.

They are safe tires, too. For in the base, next to the rim, are four strong steel cables which hold the tire securely to the rim under severest strains. Yet it slips off easily when necessary.

Made in white Rugged and black Traffik non-skid treads. Sold by leading dealers everywhere.

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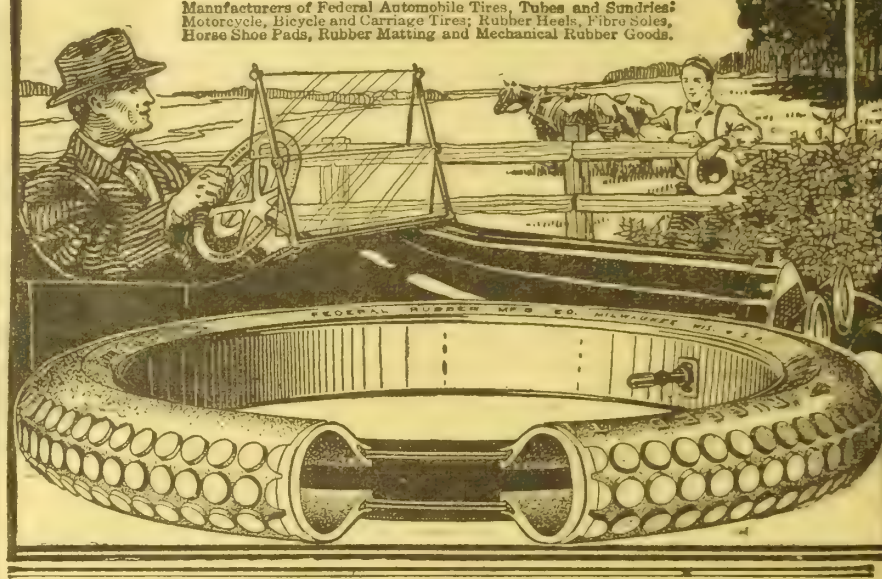
Manufacturers of Federal Automobile Tires, Tubes and Sundries: Motorcycle, Bicycle and Carriage Tires; Rubber Heels, Fibro Soles, Horse Shoe Pads, Rubber Matting and Mechanical Rubber Goods.



Potatoes For Everybody.

Choice seed for **10 hills** true **"Early Six Weeks,"** earliest potato on earth and of superlative quality. Also 315 varieties superior Vegetable and Flower seeds. All safely boxed and mailed postpaid for **two dimes**, or 24 cents in stamps. 30 hills potatoes and the seeds for 50 cents; 70 hills and seeds, $1. More, same rate. Address, **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 12.

Milk Goats Economical Producers.

Four Goats Will Yield as Much as One Cow and Do It on About Half the Feed When Carefully Handled.

JUDGING from the number of letters we have received during the past six weeks, there is a growing interest in milk goats in sections where the land is rough and hilly and the forage scanty. If the right kind of milk goats were introduced in such sections we believe they would prove quite profitable provided the necessary labor for milking them could be obtained. The industry on any one farm would no doubt have to be limited to the labor the farmer could command within his own family, as there is so much prejudice against goats in this country that it would probably be impossible to hire labor that would be willing to milk them.

Milk goats are practically unknown to people in this country except to a small percentage of foreigners. The first importation of milk goats was made in 1893 by W. A. Shafer, of Ohio, who brought over four Toggenburg goats. In 1904 a much larger number was imported by F. S. Peer, of Ithica, N. Y. Mr. Peer brought representatives of two breeds—the Toggenburg and White Saanen, both being native to Switzerland, where about six milk breeds exist. The United States Department of Agriculture imported a few milk goats as early as 1888, of the Maltese breed, but the experiments with them proved a failure.

Milk goats are more prolific than Angoras or sheep. They usually produce twins and very frequently triplets. The period of gestation is only five months, so it is possible to breed them twice a year, but ordinarily they are bred three times in two years. They may be bred as yearlings. Their lactation period is from five to eight months and good milking strains produce up to six and eight quarts of milk a day. Such yields, however, are exceptional, but good average goats should yield two to four quarts a day. Like cows, goats vary a great deal in producing capacity, but they can be improved much faster than cows because of maturing a year sooner and because they produce three times as many young per year.

Goats, to do their best in the dairy line, need careful attention. One must not assume that they can live on tin cans and stand all sorts of hardships in the way of exposure. They are sensitive to wet and cold, and should be kept in well-lighted and well-ventilated stables liberally supplied with dry bedding and maintained in a sanitary condition. In Switzerland the goat is called the "poor man's cow" because it costs but a fraction of the price of a cow and can be maintained on a very small amount of land. On the other hand, the keeping of goats is by no means limited to the poor people in that country, because the milk of the goat is considered a delicacy and is prized more highly for all purposes than that of the cow.

One reason why goat's milk is so highly prized is because the goat is not very susceptible to tuberculosis. On this point a French author says that out of 130,000 goats and kids annually slaughtered in Paris not one case of tuberculosis has ever been found by the meat inspectors of that city. Since bovine tuberculosis is much more prevalent in Europe than in this country, and we have a good deal of it here, one can readily appreciate why goat's milk should be esteemed so highly over there.

Another thing in favor of the goat that appeals to many people who like to drink raw milk is its natural cleanliness. A goat refuses to eat any sort of food with the slightest taint. Its food must be clean in every sense of the word.

While it is self-evident that a goat to produce three quarts of milk a day must have plenty of good feed, yet it can find an abundance of feed where a cow could find none. Goats are excellent foragers, great hill climbers, and eat all sorts of vegetation that cows will not touch.

Following are some of the best-known breeds of milk goats: Toggenburg, White Saanen, Nubian, Maltese, New Mexican, Spanish Maltese, White Appenseller and Valaisan. The Toggenburg breed is probably the leading breed in this country. It is a Swiss goat; in fact, it is the oldest and the leading breed in Switzerland. It is very hardy, brownish in color with white ears and legs, and has two parallel white stripes on the head, running from the ears to the mouth. Toggenburg goats are heavy milk producers with well-developed udders. They stand confinement very well.

Goat's milk is not only especially well suited for children because of its freedom from germs of tuberculosis but it is also exceedingly well adapted for the manufacture of fancy cheese. The noted Roquefort cheese of France that now sells on our market for 85 cents a pound is made from a mixture of goat's and cow's milk.

Fixtures to Land.

When a farm or other real estate is sold and nothing is said in the contract about certain articles on it, which are commonly considered as personal property, it is often a problem to the parties just what constitutes in law fixtures that go to the purchaser with the real estate sold, as part of it. This should be fixed in the contract itself, but usually it is not, and the omission to do so leads to misunderstanding, contention and sometimes to vexatious lawsuits.

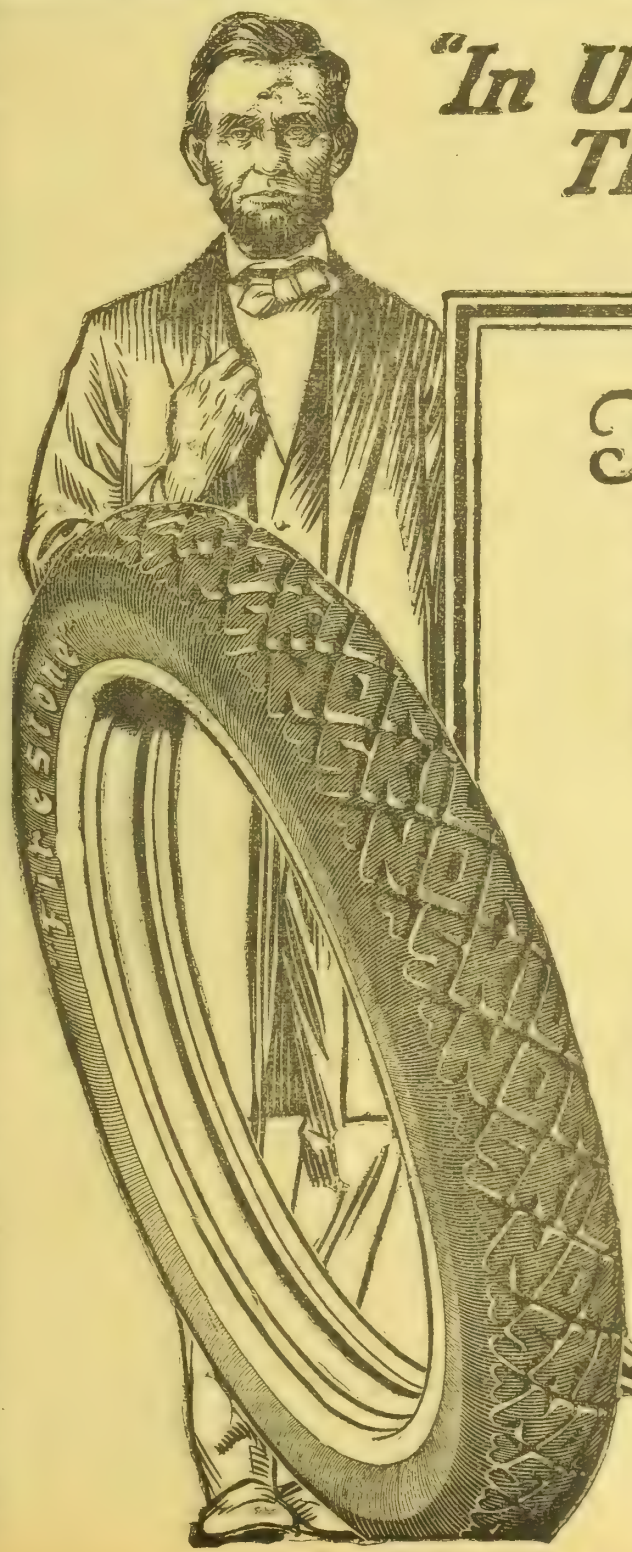
The law classifies all property into three divisions—real property, personal property and mixed property. Land is always real property and generally whatever is erected or growing upon land, or contained within it, or beneath its surface, constitutes a part of it in a legal sense, so that land includes not only the soil but everything attached to it permanently, whether attached by the course of nature, as trees, herbage and water, or by the hand of man, as buildings, walls and fences.

Fixtures mean things which in themselves are of a personal nature, but are so attached to the land that they belong to the landowner and cannot rightfully be taken away without his consent. Before such things are attached to the land they are of a personal nature, but when fixed or attached to the land they become fixtures thereto and part of it in a legal sense. In order for such things to become fixtures they must be fixed to the land in some degree greater or less. However, there are exceptions to this rule, as, for instance, keys, doors, windows and blinds, screens, bars, swinging gates, rails of a fence, door stones, loose lids of ovens and ash pits, fish in a pond, manure made on a farm by consumption of its products. Such things, though not actually fixed to the land, are fixtures and go with the land in a sale.

Three things are to be considered in determining whether or not a thing is a fixture: First, actual annexation to the land or to something appurtenant thereto; second, application to the use or purpose of that part of the land with which the thing is connected; third, the intention of the party attaching the thing to make it a permanent accession to the land. If such thing meets these three requirements it is a fixture to the land where it is attached.

In a sale of land, fixtures go with the land to the purchaser, unless they are expressly reserved. If the seller wishes to reserve fixtures from the sale he must do so in the deed. A verbal reservation is not sufficient. Generally the stationary engines and boilers fixed or set in foundations are part of the realty and pass by deed of the premises on which they are situated. As between seller and buyer, the following articles are deemed by law to be fixtures which pass by deed of the premises to the buyer, viz.: Trees cut and lying upon the ground and trees blown down by the wind, but not if such trees have been cut into logs or hewn or sawed into lumber; nursery trees planted by the landowner, water wheels and attachments, kettles in a dyeing factory, steam heating apparatus, including water pipes, boilers, radiators, etc.; bell hung in the cupola of a barn to be rung for farm purposes, church bell hung in the belfry, platform scales on a hay and grain farm, stanchions and tie chains for the cattle on a dairy farm.

The following articles are not deemed by law to be fixtures, as between seller and buyer, viz.: A steam engine set upon frames and portable, a planing machine and anvils resting on the ground, forge tools and a vice attachment screwed to a bench in a shop, grindstone in a movable frame, marble slabs laid upon brackets in a house, mirrors hooked but not otherwise fastened to the wall, telephone receiver and transmitter. These things remain the personal property of the seller of the land, unless the parties otherwise agree.



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A. Lincoln

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The Firestone factory and sales forces everywhere work together to produce highest quality at lowest possible cost. They want Firestone Tires to be universal in use, to reach all the people. They know that motoring reaches its best possibilities when on every machine in all seasons, the equipment is—

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TIRES AND TUBES

Best from the mileage standpoint, toughness of tread and strength of body. And this toughness is combined with the resiliency demanded for easy riding and car protection.

With the true Abe Lincoln policy of "pull together," Firestone Branches and Dealers everywhere unite to give you maximum efficiency and economy of service.

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Get Stumps Out The CHEAPEST Way

Explosives are recommended by the U. S. Department of Agriculture and by the leading State Experiment Stations as the best means of removing the stumps. Blast out your stumps—turn that idle land into money. You can do the work yourself easily and quickly with

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Bore a hole, put in the charge, light a fuse, and the work is *done!* Atlas Farm Powder blows the stump entirely out of the ground, splitting it up so it can be handled easily. Any one may use it without experience by following directions. Atlas Farm Powder costs little and works wonders in clearing land of stumps and boulders, breaking up subsoil, tree planting, ditching and draining. It saves labor, time and money.

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Our big, illustrated book "Better Farming" tells how to improve the fertility of your farm by breaking up the subsoil—how to make ditches, clear land, make holes for tree planting. It tells how any farmer can save time and save money by using Atlas Farm Powder—The Safest Explosive.

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WHEN an engine is bought for the farm it has nothing to do but work. Too many makers forget this and sell you an engine that would be more at home driving a pleasure car.

Nichols & Shepard don't forget what a farm engine is for—*just work*. For steam they build from 13-40 to 25-85 h. p., in five sizes and fifteen variations burning wood, coal or straw. For Oil-Gas from 25-50 to 35-70 h. p., full power on kerosene. All in the

Red River Special Line

Either kind will buckle down and *work*—not snort around and swell the expense account. Use your automobile when you want to burn up power for fun, but buy an engine that has no nonsense about it when it goes to work.

The final test on a farm engine is to hook it to a grain separator. That will require steady and reliable power to do paying work. Send to the Nichols & Shepard branch house that is nearest to you for a little paper that shows your own neighbors' letters on the farm power question. Any one of them will give you a money-saving tip. The handsome general catalog of the Red River Special Line will come with the paper if you ask for it.

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In Continuous Business Since 1848
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam Traction Engines and Oil-Gas Tractors
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It is illustrated and contains valuable Reports of U. S. Dept. of Agriculture on the latest scientific methods of seed cleansing

FORMALDEHYDE
The Farmer's Friend

is the best and most economical disinfectant—officially endorsed as *the* standard treatment for seed grains. It absolutely rids seed grains of smuts and fungus growth, also scab and blackleg diseases of potatoes—destroys germs in stables, cellars, kennels and chicken houses. One pint bottle costing 35c treats 40 bushels of seed. Write for the new illustrated Hand Book—FREE.

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The Best of the hardy varieties, bargain prices. Kellogg's Hardy Northern grown fruit plants are well grown and productive. None better. Also

THE EVERBEARING STRAWBERRIES

fruits from early summer till Nov. Send today for price list and pamphlet of instructions—62 years experience.
KELLOGG'S NURSERY, Box 224, Janesville, Wis.

See page 12. Read The Farmers' Market advertisements. There may be a bargain there for you.

Milking Strain of Short-horns.

Interesting Chapter From the Experience of the Littles Who Have Brought the Milking Short-horn Into Prominence in Rock County.

THE Littles are Scotch, and being Scotch, cattle raising comes as second nature to them. They belong to the clan who prefer Short-horns above all other breeds. Their success in this direction speaks clearly of the inherited adeptness in making the most of animal development.

It was way back in 1850 when John D. Little came to Rock county and settled on a homestead north of Evansville. Soon after him came the Short-horns, that were to make up the Champion Rose family, which strain is now predominant in the Little herd. The senior Little had four sons, three of whom, Joe, Harvey and Walter, are now carrying on the breeding work a few miles from the old homestead. Through years of hard work and careful mating, they have developed a strain of milking Short-horns which, in the estimation of their owners, fulfill quite satisfactorily the requirements of a milk and beef cow.

The herd was named after Mr. Champion, a breeder of the old country and from whose herd the first cow, Frolic, was purchased. The constant breeding of her offspring to bulls of the right stamp developed with the years the milking side of the herd, until today individuals have to their yearly credit records of 10,000 pounds of milk testing 4.10 per cent milk. There are seventy head in the herd today, twenty-seven of the cows milking.

The Littles know "where they are at" on the profit and loss side, for they have been weighing the milk and keeping tab on the herd for fifteen years. The cow that could not meet the standard and show a profit was weeded out of this herd long before the college men started their campaign of "weeding out the boarders." Of course, at first there was frequently a cow that could not pay her keep and to the shambles she went—fattened up nicely and sent over the block at a fancy price. It required no extra work and worry to dispose of her. Because of her breed she had the ability to put on flesh. That, in the opinion of Mr. Harvey Little, is the biggest and best point in favor of the milking Short-horn.

Harvey Little is the guiding spirit of the farm. The other boys are perfectly content to leave the administration of the farm finances, sale of cattle and disposal of the farm products to his care. When he decides to buy a new herd sire, or sell a serviceable bull from the herd or a matron or a calf, he tells them about it and it is all right. They have perfect confidence in the wisdom of his moves. Everything is discussed among the boys in a slow, even manner, with no one attempting to force his ideas upon the others. The mature cows on the Little place are of nearly perfect dual service type and are averaging 8,000 pounds of milk or better. They have the medium size that such animals must show, with good length and breadth without being massive like the special type beef animal, and over-refined in any particular like the strictly dairy breed. They have the wide forehead and the clean-cut head, free from throatiness. Their udders are generally large, extending forward and well up behind with evenly placed teats. The milk veins are long and branching with plenty of size. The cows move with the ease that is peculiar to their type, not sluggish and yet not nervous. The sires show the heavier form, with good length of body and with plenty of scale.

Better than nineteen matrons in the herd could have qualified during the last year for the "record of merit," which the Short-horn Association of America established a few years ago. This requires for the cow of five years of age or over to milk 8,000 pounds, yielding at least 300 pounds of butter fat in one year. The Little cows have done it for a number of years. Follow-

JANESVILLE ROSE 49TH—PRODUCED IN THREE YEARS AN AVERAGE OF 11,040 POUNDS OF MILK PER YEAR.

JANESVILLE ROSE 12TH, MOTHER OF JANESVILLE ROSE 49TH. SHE WAS FIFTEEN YEARS OLD WHEN SOLD AND BROUGHT A GOOD PRICE OVER THE SCALES.

ing are a few records of individual cows:

Cow	Lbs. milk in 12 months	Profit
Lilly Clay 4th	10,170	$94.00
Ida Fremont 5th	8,439	71.40
Janesville Rose 44th (seven months)	7,164	71.75
Janesville Rose 65th (4 year old)	8,256	57.28
Janesville Rose 70th	8,204	67.59
Janesville Rose 55th	8,419	70.54
Lady Mayflower 22d	9,090	74.57
Janesville Rose 5th (17 years old)	5,185	34.85
Lady Mayflower 27th (4 years old)	7,847	60.60
Janesville Rose 49th (3 years average)	10,877	

Lady Mayflower 27th and Lady Mayflower 22d, in spite of their big milk records, are of larger size than most of the cows in the herd. The first weighs 1,600 pounds at the present time and her stable mate 1,800 pounds. Cows like that, according to Mr. Little, are profitable at the pail and produce large, healthy calves. When their usefulness at the pail is ended they can easily be fattened up and sold to the packers, yielding a profit for the corn they have consumed.

BONNIE SCOTCHMAN BY SCOTCH SULTAN, OUT OF BONNIE BELLE MAHOE. OWNED BY THE LITTLE SHORT-HORN FARM.

Twenty years ago the Littles steered all their bull calves and sold them over the scales, but now they cannot raise enough to supply the demand which has sprung up throughout the country. The records go back to 1873, showing what happened to each animal and the profit the herd has made from year to year. Bull calves and heifers were sold at ridiculously low prices in those days, but as the herd improved and the demand for stock became better, prices advanced and nothing is sold to the butcher now prematurely. Bull calves bring a fine price from the breeders throughout the country and anything showing good returns at the pail is kept in the herd for breeding purpose and milk production.

The present herd header is Maud's Knight, whose dam is Rone's Maud, the first prize heifer at the International in 1914. Maud's Knight is by Robinhood, he by Beau of Glenside, he by Duke of Granville. Robinhood, the sire of Maud's Knight is out of Roan Lassie by Alice's Ensign, with eight heifers in the record of merit list, which specifies that a heifer must produce at least 5,000 pounds of milk within thirty months.

Two of the strong sires owned by the Little Bros. were the bulls, Roane Clay and Demonstrator 3d. Roane Clay was out of the famous Janesville Rose 12th, a cow bred on the Little farm. Rose 12th produced an average of fifty pounds of milk per day for seven days on home test, averaging 4.10 per cent butter fat. Her three last calves sold for $1,000. She was also the mother of Janesville Rose 49th, a cow that produced 11,040 pounds of milk in twelve months and finished her lactation period some months later with a final record of 12,548 pounds of milk. She dropped a nice calf a month after drying up and immediately started on a second record, yielding 11,582 pounds of milk in eleven months. She also made 10,000 pounds of milk in her third lactation period. Her three-year average is 10,877 pounds per year. She was sired by Demonstrator 3d.

On the dam side most of the females in the Little herd trace back to the famous cow, White Rose by Warrior. White Rose was imported by Governor Lloyd, of Maryland, in 1821, for dairy purposes.

In the nearly half century of time that has elapsed since the Little herd of Champion Rose Short-horns was started the constant aims of the elder Little and his boys have been to infuse the best blood of the Short-horn breed into the herd and breed, if possible, a true dual Short-horn cow for the general farmer. High production, easy feeding and good fleshing qualities have been the end in view. To attain the milk yield, none of the last two have been sacrificed. In the summer very little grain is fed and in winter silage and mixed feeds are rationed out according to production. The rule is "No work, no eat the dairy ration."

IDA FREMONT 55TH—RECORD 8,439 POUNDS, PROFIT $71.40. SOLD FOR $112 AFTER HER USEFULNESS AS A MILKER ENDED.

More Good Men For County Agents.

In releasing the senior and junior students of agriculture for work on the farm the college of agriculture of Wisconsin has done what was considered by them as the best work it could offer at this time. By their release, however, quite a few instructors at the college have also been released and are now available for county agents in the state. Under the new law twenty-five county agents are now permanently attached to various counties in the state. However, emergency agents have been asked by several counties. Under the law no funds are available for maintaining such agents in the agricultural work and their only opportunity of being supplied is in obtaining the services of the instructors that have now no classes to teach in the college. The activity of these men could be transferred to the counties, their pay coming as formerly from the university.

At least one such appointment has already been made in the case of Winnebago county, which has the services of Reid Murray for emergency agent for 1917. Mr. Murray has been active in the extension service of the agricultural college and has had many years of experience in an advisory capacity with the Northern Pacific Railway.

County agent work in Wisconsin has been highly satisfactory in the state and has been making progress during the last few years, whereas several other states have been going backward. Good men placed as emergency agents in the counties will establish still more firmly the county agent idea in Wisconsin.

Make the Roads Narrower.

To the Editor:—American farmers are at present being urged to cultivate every possible acre of ground this year, allowing not a foot to go to waste anywhere. This is rightly considered a patriotic duty of all farmers. Is it not then also a patriotic duty of those in a position to do so, editors, for instance, to start and push a campaign for legislation to cut down the legal width of our public highways? There is now more land wasted on the highways of the state than anywhere else. You yourself have surely often seen the wide strips of grass, weeds, etc., between the grades on our roads and the fences. On the heavily traveled roads between towns, where a good grade is necessary, they could not well be made much narrower, but they can be narrowed some. But on all the byroads and crossroads lie strips of idle waste land from six to ten feet wide on each side of the grade, and because the legal width of public highways was established when land was almost valueless it is now a misdemeanor for a farmer to move out his road fence to reclaim idle land. Now is a good time to get something started.

A Progressive Young Farmer.

Potatoes and Seeds Almost Given Away.

To Introduce—I will send seed for 10 big hills, true **"Early Six Weeks"**—by far the earliest and best table potato on earth—enormously productive and best keeper, also 10 varieties best "Butter" and "Head" lettuce, 5 varieties best Pop Corn, 300 varieties lovely, easy-growing flowers, and a valuable novelty. All mailed for **two dimes** or 24 cents in stamps. ☞All the seeds and 30 hills potatoes for 50 cents. Seeds and 70 hills $1. More at same rate. Order quick. Tell your friends. Address, **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Are Hawks a Menace to Poultrymen?

To the Editor:—There is much discussion as to whether hawks are a menace or a help to the farmer and poultryman, some claiming that they do more good than harm, others saying decidedly that they should be exterminated as rapidly as possible. I am led to conclude from my experience with them that the whole thing arises from an imperfect knowledge of the different kinds of hawks. I remember when I thought about the same thing, that no hawk should be allowed to live; and at that time I thought experience had taught me that they should not, but it was simply because I had not learned to distinguish one kind of hawk from another, nor did I seek this knowledge, either. A hawk was a hawk and that was all there was to it, and so say many today.

I admit there are some hawks that should be killed whenever possible. These are the pests, the hen hawk, the pigeon hawk and the chicken hawk. I well recall an experience my wife had with one of the chicken hawks. She was raising chickens for the early market that year and there was a pair of hawks that seemed determined to upset all her plans. I brought the chicken coops as near as possible to the back door, but these hawks would pounce down, grab a chicken and fly to a large tree not far from the house and eat it right before our eyes. Soon this happened two or three times a day and she soon saw her profits vanishing into the air, as it were, and although you may not believe it, it seemed as though these hawks knew when I was not around the house and always timed their visits to miss me.

At length she grew desperate and one day when they came twice in the forenoon she grabbed the gun that stood loaded handy and started out, but as soon as the hawk saw that it disappeared. When I came in I asked her what she intended doing, and, as she is not very large and as that gun sometimes had spells, I insisted in a very firm manner on her leaving it alone in the future. But a day or so afterwards Mr. Hawk came again when I was working near the house, and, being prepared for such an emergency, I followed him. He went to a marsh near by and I shot him as he circled over the place. Then mistrusting that there was a nest I hunted until I found it and killed the four young hawks which it contained. That ended our trouble with hawks for that summer.

There are, however, some hawks that I believe are really a benefit, as I have learned since then, but they often have to pay the penalty for belonging to a family with a bad name.

The marsh hawk feeds on mice, grasshoppers and other pests, although if driven to it from hunger he will also eat birds. The red-tailed and red-shouldered hawks are two that seldom, if ever, visit the poultry yard.

Should one of them get in the habit of visiting your poultry yard, then by all means make an end of him, for nothing that I know of is more exasperating than a hawk when he once gets a taste of young chicken, unless it may be a weasel or skunk.

Some hawks are exceedingly sharp and it takes quite cunning work to get them, and, in fact, I have spent hours in trying to get a good shot at one that was taking away the young chicks.

I have put up all kinds of things to scare them, with varying results. Sometimes a good scare will keep them away, and then again nothing short of a good load of shot will make a believer of them. Subscriber.

$9.25 World's Champion BUYS Belle City Incubator

140-Egg Size—Hot Water—Fibre Board, Double Walled—Self Regulated—Thermometer Holder—Deep Nursery, with $5.25 Hot Water 140-chick Brooder—both $13.50. Freight Paid East of Rockies.—Satisfaction Guaranteed. $1000 in Prizes.—Conditions easy to get big prize. Save time.—Order now or write today for Free Catalog "Hatching Facts". Gives short cuts to Poultry Success. Jim Rohan, Pres.

1-2-3 Month's Home Test

Belle City Incubator Co., Box 106 Racine, Wis.

POULTRY AND PET STOCK.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED Plymouth Rocks and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, Matthews, R. 24, Ind.

RHODE ISLAND RED HATCHING EGGS! FROM my heavy winter laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R.E.Daly Poultry Farm, Necedah, Wis.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

LIMITED number 15-egg settings Chippewa Hardy Northern Strain W. Orps., at $2; 30 eggs, $3.75. Includes our $5 stock. 50% hatch or will duplicate at half price. Chippewa Orpington Farm, 722 Superior St., Chippewa Falls, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs 1.50, 15; $8S, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pen headed prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

S. C. R. I. REDS, prize-winners and heavy egg producers; eggs, $2 per setting, fertility guaranteed. Stock for sale. G. P. Cleveland, Jefferson, Wis.

BARRED ROCK eggs for hatching, E. B. Thompson strain, $1.75 per 15 delivered. Write for prices on large quantity. David Thompson, Baldwin, Wis.

BADGER POULTRY FARM—Pure-bred S. C. White Leghorn eggs: $1.25 per 15 or $5, 100. Chas. F. Kreiner, R. 3, Box 36, Cambria, Wis.

FIFTY varieties chickens, ducks, geese, turkeys, guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE R. C. Rhode Island Red eggs, [illegible] eggs for hatching; $1.25 for 15, $5.00 per 100. Fred M. Smith, R. 7, Elkhorn, Wisconsin.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box F, Lancaster, Missouri.

WHITE INDIAN RUNNER DUCKS, with racy, upright carriage. Eggs, $1.50 per 15. D. E. Johnson, Watertown, Minn.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmitt, Hortonville, Wisconsin.

WINTER-LAY ROSE COMB RED eggs: 24, $1.50; 48, $2.50; 120, $5.75. J. M. White, Twin Lakes, Minn.

Black Feathers in White Chickens.

To the Editor:—In answer to a subscriber's letter to the editor will say that a totally black feather in any section of a White Orpington, Rock or Wyandotte is a disqualification. While the bird might be a pure bred, it would be worthless as a breeder in a good pure-bred flock. Your neighbor who paid $8 for a cockerel that has a black feather in the tail got a $1 bird. If any judge scored a White Orpington that had any black feathers in it, and gave a score of 90 to 95, I must say he is anything but a competent judge.

As I stated previously, White Orpingtons should have white or pinkish legs and toes free from stubs of feathers on legs or between toes. They should be very deep in shape and the back of fair length, but not narrow. The legs should be reasonably short. Tail can be full, but not carried too high. One will find some White Orpingtons with bluish legs and toes. This is not a disqualification, but is a defect. Blue or lead color is very serious. Don't breed from such birds.

The size of Orpingtons is a point to be considered, they being the largest or one of the largest of clean-legged varieties, so small males are not the best to breed from for improvement of size. Brassiness is to be eluded as much as possible. It shows up in cock birds worse than cockerels, so care should be taken to use pure white cockerels, though we see some brassiness in the best of shows. Judge.

Feeding Young Chicks

To the Editor:—However well poultry growers succeed in getting numerous young chickens hatched out, the desire to get birds big enough to sell or for table use is only begun. It makes no difference whether young chickens, during the early springtime, are mothered in flocks by hens, or protected and started in brooders, the proper food and feeding must of necessity be the same. Not necessarily must the food be of certain kinds or mixtures, but whatever is used, known to be food, is beneficial alike to all.

It is wise to rather underfeed just a little than to feed too much. Like the farm stock, the young and growing chickens thrive and do best if allowed daily to get hungry for regular meals. The old way once practiced of feeding the young chickens corn meal dough only cannot any longer be recommended except on farms where no restrictions are put on hens with good flocks to range far out in adjacent fields and woodlands. In such cases many bugs, worms and insects are consumed and act as a balance to the food for promoting growth.

Even on the farms now, fowls, young and old, are not allowed to range as they did once. Hence, more attention must be given to the kind and variety of foods they are fed. Whatever the grain mixture, such as corn, wheat, buckwheat, sunflower seed, millet, etc., ground together, a complete ration is not formed without a little animal meat in the composition. Let the food be fed dry, but provide plenty of pure, fresh water—then see the chickens grow. W. A. G.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

SEEDS.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

YELLOW Dent corn, 1914 tipped and tested, $6 bu.; 1916 not tipped or tested, $4 bu., f. o. b. Potosi. S. N. Bushnell, R. 4, Potosi, Wis.

GOLDEN Glow and Clark's Yellow Dent seed corn for sale. Wisconsin grown and fire dried. Burton Peck, Spring Green, Wisconsin.

BLACK Hills alfalfa seed, $6.00 per bu. For sample send stamp to Brookside Farm, Buffalo Gap, So. Dak.

SEED corn, Wisconsin No. 7 and Clark's Yellow Dent. Glenn Cass, Spring Green, Wis.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. Investing for Profit is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

GOVERNMENT JOBS.

FARMERS wanted, $75 month; men and women; U. S. government jobs. War means hundreds vacancies. Common sense education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. C176, Rochester, N. Y.

DITCHING.

EXPERIENCED on drainage districts, town ditches and farm projects. Hales & Ammnson, engineers, 1530 University Ave., Madison, Wis.

HOLSTEIN-FRIESIAN CATTLE.

FINE registered Holsteins, 2 cows, 2 yearlings and 2 calves; 2 of their dams averaged 100 lbs. milk in one day and 30 lbs. butter in seven days, officially. Wisconsin Live Stock Association, Appleton, Wis.

GUERNSEY CATTLE.

REGISTERED Guernseys, both sexes; also few grade cows; satisfaction guaranteed. Clovernook Farm, Whitefish Bay, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

HEREFORD BULLS.

FOR SALE—Hereford bulls, serviceable age; also Barred Rock eggs, $1 per setting. Jerry Gallivan, Hugo, Minn.

TAIL HOLDERS.

COWS' tail holders, post paid; sample 25c. 5 or more 20c each. F. C. Gieseker, Elmwood, Wis.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In the past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley, never below third; never below seventh in rye and oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write AT ONCE, for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Building, Minneapolis, Minn.

ONLY $700 down. Dandy 40-acre farm in heart of prosperous dairy region, Polk county, Wis. Fine buildings worth over $2,000 (send for photo) and best of clay loam land with about half in field and balance mostly open pasture, all tillable. Splendid location only half mile consolidated school, creamery, store, 6 miles town over state road. Real snap at $3,400. W. M. Christensen, cashier, Luck, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, L and Department, Stanley, Wis.

FREE—We are interested in seeing the low priced farm lands around our home developed. If you are looking for land, just write me and say: "Without any cost to me, tell me how you got your farm home." Address Mrs. Lucy L. Ferguson, B-26, Cedarville, Marinette county, Wis.

THE number of fine farms in the partially settled upper Wisconsin counties will surprise you. It is a country of success, and land there will not long be cheap. State map and crop figures free. Wisconsin Advancement Association, 1590 First National Bank Bldg., Milwaukee, Wis.

FOR SALE—By owner, 168-acre farm, fine house and two fine barns, in best of condition, worth $6,000. Clay loam soil, 80 acres under plow, farm located about one-half mile from village of 1,200 people. Price $10,000. Brush-McWilliams Company, in Wis., Antigo, Wis.

SECURE war prices for farm products; buy a farm. Here are a few bargains: 85 acres, 80-acre clearing, buildings, $3,500. 80-acre fine farm, buildings, $3,500. 40-acre, good home, $2,000. 120-acre, good farm, $2,800. The E. L. C. Co., Dept. 10A, Merrill, Wis.

GOOD corn, clover and grain land; improved, partially improved, or unimproved, at prices ranging from $15 to $100 per acre; best of location and soil. Write us now. W. E. WEBSTER, Hudson, Wis.

GOOD 120 cheap. 5 acres plowed; good pasture; considerable timber left; lies rolling; nice lakes; 7-room house; log barn; 3 miles to station; $2,000, cash $900. The E. L. C. Co., 136-M, Dept. 10, Merrill, Wis.

UPPER WISCONSIN, clover belt, farmers grow rich; 40-80-acre tracts; mile station; good roads, schools, churches; $20-$30 acre, ¼ down, balance easy. R. J. Russell, La Crosse, Wis.

WISCONSIN—Large list improved farms, unimproved lands, 60 miles from twin cities, ideal dairy, clover belt, easy terms. Write for list. RIVARD, Turtle Lake, Wisconsin.

A BARGAIN—100 acres fine land, one-half mile from town. Situated in finest farming district in Michigan. Must be sold at once. J. Christiansen, Pontiac, Mich.

BIG bargain, 80-acre improved stock and dairy farm 2 miles from Athens, $55.00 per acre. Write for particulars. John Brann Lumber Co., Athens, Wis.

FOR SALE—Choice, well-located fruit ranches, Lake Shore drive, Berrien county. Address Schulz, St. Joseph, Mich.

FOR SALE—Fine small farm home on one of Wisconsin's finest lakes. S. W. Gregory, Stone Lake, Wis.

POULTRY AND PET STOCK.

HATCHING eggs, pure-bred. Both White Single Comb Buff and Black Orpingtons. Houdans, Silver laced White Columbian Wyandottes. Both White, Rose Comb Brown Leghorns. Runner ducks. Setting, postpaid, $1.15; two, $2.15. Shipped in baskets. Richard Wegner, Ladysmith, Wis.

S. C. White Leghorns, Queen strain, range raised. Bred to lay from 270-egg strain. Eggs testing 95 per cent fertile. From 2 year-old hens. Eggs, $1, 15; $5, 100. Mrs. Annie Dorn, R. 1, Hilbert, Wis.

WINTER laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University poultry department. Certified Egg Farm, Madison, Wisconsin.

S. C. Red eggs from some of Wisconsin's choicest winners, $3.00 and $1.50 per 15, $10.00 and $5.00 per 100. Wm. Wichern, Baraboo, Wis.

BABY chicks from large winter laying S. C. White Leghorns, $12 per 100. Eggs, $5 per 100. 90% fertile. Richard Schwartz, Lomira, Wis.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

EGGS—Silver Laced Wyandottes, 15, $1.25; 30, $3.00. Rouen duck eggs, 12, $1.25. Fred Kucera, Clarkson, Neb.

FIRIS heavy laying strain White Leghorns. Eggs $5.00 per 100. Harry D. Dunbar, Elkhorn, Wisconsin.

DARK Single Comb Reds, 15 eggs, $1.25; 30, $2.25, postpaid. Chas. Miller, Plymouth, Wis.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

PURE-bred White Rocks. Address Kremers, Whitehall, Wisconsin.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

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SEND for our latest prices. We buy your empty cotton bags at market prices. Write us today. Superior Bag & Burlap Co., Dept. 5, Springfield, Ill.

Silverize Your Silage

for Better Fat Stock and Dairy Profits

CORN cut by Silver's "Ohio" Silo Filler makes better silage according to the records of "Ohio" users.

There's a difference in silage just as there is a difference in the machines that cut it. Some silage goes into the silo with long shreds and leaves which form air pockets and spoil the silage. Other silage is cut in uneven lengths—the sugar does not get out to properly act in the fermenting process. Silverized silage is cut in *short, even lengths*. The sugar juices around the joints of the cornstalks are *released*—the silage packs down air-tight in a homogeneous mass. Makes the *right* kind of food to bring *maximum milk yield* from dairy cows—or to put *weight* on fat stock.

Silver's "Ohio"

The Logical Silo Filler

"Ohio" cut silage is cut finer and more uniform than ordinary silage. Shorter lengths. Not just in spots but all the way from bottom to the top of the silo. The reason is, the knives hold their position. For example, if you set them at half inch, they cut half inch right along. Pressure of the material cannot spring them out of place. They are of the sturdy cylinder type, with bearings at *both* ends. Have accurate, patented adjustments for a quick, short, clean, shearing cut. The material is cut to a mold-proof semi-pulp—fine and free from "air pockets" and uncut leaves.

And this is but one of the many big features on Silver's "Ohio." Write and let us tell you about the others. About the new beater self-feed that saves a man's work at the feed table; the direct drive—drive pulley, knife cylinder and blower fan all on one shaft, reducing friction and saving power; the low-speed, explosion-proof blower fan; single lever control; bull-dog grip feed rollers, friction reverse and others.

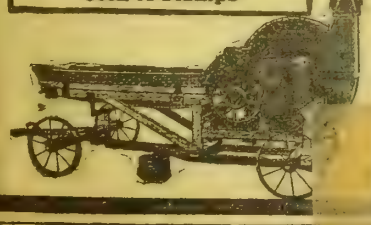
Books Free

One is our catalog—tells about Silver construction and why Silver's "Ohio"—the pioneer—is the logical silo filler for the custom man or the man who does only his own work. The other is a booklet that shows in dollars and cents why it pays to "*Silverize your silage.*" Write today.

The Silver Mfg. Co.
Box 312
Salem Ohio

Silver's "Ohio" is made in seven sizes—fit any farm or purse. For 4 h. p. gas to big tractors. 40 to 300 tons a day. Special light draft models for 4 to 10 h. p. engine.

"Modern Silage Methods" 264 pages—sent for 25c—coin or stamps



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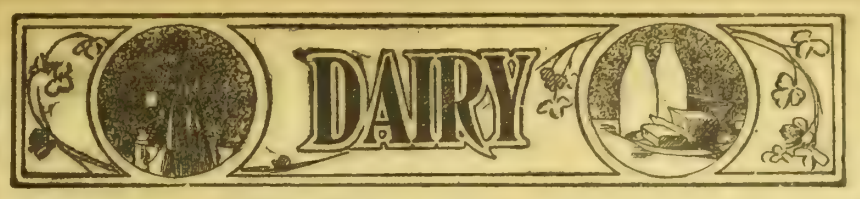

Dairymen and the War Crisis.

Dairymen have an important part to play in the present world conflict. Our army which our country shall raise and the armies of our allies must be fed. The people of our country and the hundreds of millions of population in the countries of our allies must be fed. This throws a tremendous responsibility upon America and upon American farmers. Our success in this warfare, and our success means the triumph of civilization, will depend no less upon the farms of our country than it will depend upon our armies. It is now admitted by military authorities that the war in Europe has ceased to be a conflict of arms, awful as the carnage may be, and has become a war of food and food supplies. The army that is well fed longest is the one to win.

It is the food situation and none other that has drawn America into the conflict. Germany has sought by submarine warfare to cut off the foreign food supply from England and to thus reduce her energy and her fighting power. We must draw a lesson even from Germany in that the food problem is one of the greatest, if not the very greatest, to confront any nation in time of war.

The industries of our country are being mobilized in support of war measures. Account is being taken of all manufacturing plants in order that their value in manufacturing war supplies may be determined. In no less a sense must our fields, our farms and our shipping facilities be organized for their proper place in support of our country and our civilization. One of the greatest sayings in the history of warfare is that of Nelson, the great British admiral, when he said to his crews about to enter battle, "England expects every man to do his duty." Today the call goes out through our land that "Uncle Sam expects every man to do his duty." This need not be at the battle's front. It doubtless is as great heroism for the man or boy in his uniform of white who shall take care of the dairy herd as it is for his brother to wear the khaki or blue of our fighting army. The milking machine will doubtless play as useful a part as shall the rapid-firing gun. The silo has its place in this war just as surely as have forts and ramparts. The auto truck on the dairy farm is of as great importance to our nation as is the truck that does duty just behind the trenches.

Dairying is an intensive line of agriculture. The present demand is for extreme utilization of all our agricultural possibilities. Dairymen are already doing this as are no others unless it be truck growers and orchardists. Our dairy farms are producing a high proportion of human food per acre. Dairymen can exert a very wholesome influence upon all farm operations. The silo is one great means of utilizing our principal crop. Dairymen have found the silo to be a means of increasing the live stock capacity of the farm. Scarcely one farm in ten throughout our country has a silo. Here is a wonderful opportunity for dairymen to do their country and their fellow farmers a great service in extending the use of silos. They can lend encouragement and give the benefit of their experience and later will be able to contribute the use of engine or filler. The by-products of the dairy are to be utilized as never before. In this crisis the nation cannot afford for a single gallon of skim milk or buttermilk to be wasted. They are too valuable as chicken feed or as pig feed or the skim milk can be made into cottage cheese as is already being done in many dairies.

Dairy organizations can do their part and doubtless they will render great service in continuing their campaign of education in the value of dairy products as food. Previously this promotion may have appeared the least bit selfish. Now it is a patriotic duty because greater use of dairy products means greater national efficiency. Doubtless our government will make pointed suggestions concerning many of our crops and products. In all which may affect the dairymen or dairy interests the organization will doubtless lend all possible assistance in putting such suggestions into practice.

Dairymen are to be called upon to face one of the most severe problems that will confront any class of men. That is the labor problem. The only positive thing that can be said concerning it is that dairymen cannot and will not flinch. They will meet this problem and they will solve it. Already dairy farms are short of help. A call for enlistment will remove many of the young men from the barns and farms and milk rooms. City routes will suddenly be left without drivers. The use of more labor-saving machinery will help. One active young dairyman has said, "If I can secure a two-row corn cultivator and a small tractor I shall be helped wonderfully and shall be able to pull through regardless of what happens." There are school boys and college boys and men from institutions that deal in luxuries whose services will be offered to farmers. These will be honest and industrious and anxious to do some patriotic service. Some of these will doubtless be able to render valuable service to dairymen. The American milkmaid will cease to be a myth and will become a reality. The young lady who serves her country through giving assistance to the dairy deserves recognition equal to that given her sister who may be in the Red Cross service. It is great and good to provide food for those at the front in order that they may do credit to the nation and in order that those on the firing line may be full of vigor that they may recover from injury or shall be able to resist disease. Doubtless this is as great a service as it is to render assistance after disease or injury has happened. British girls are milking cows, they are feeding calves, they are delivering milk. No less patriotic and no less willing are our American girls. They will be on duty just as soon as the demand shall appear.

There may come to the dairymen times of trial. We must remember that great truth was spoken by Garfield when he said, "At the head of all the sciences and arts, at the head of civilization and progress stands—not militarism, the science that kills, not commerce, the art that accumulates wealth—but agriculture, the mother of all industry and the maintainer of human life." The thought of this quotation is virtually in the heart and mind of every dairyman. In the strength of his ideals and conviction he will render great and important service to his nation.

Raising Colt on Cow's Milk.

To the Editor:—I noticed an inquiry as to how to feed and raise a colt on cow's milk. We raised one with good success. The mother died the same day the colt was born, but by the advice of two different veterinarians we raised it with little trouble after the first three weeks.

We fed it one quart of cow's milk, warm, half water. Start with a quart at first, with a beaten egg in it once a day to keep the bowels in good condition. Feed this every three or four hours, from early in the morning until midnight or later. Then after two weeks add the feed a little at a time, and two eggs a day, until the feed is enough to satisfy the hunger. We fed out of a round wash basin like feeding a calf and the colt learned to drink as easily as a calf and drank the same way. Later we put a box on a post with oats in it and the colt ate whatever it wanted to and did fine. It is now a strong yearling.

A Subscriber.

Oil mills on the Pacific coast have been operating for several years with soy beans imported from Manchuria and have found a ready sale in that region for the oil, cake and other products.

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Down they go—to *smash!* In scads of cases cut down a HALF! Thousands of farmers are selling their No. 1 hay, milling off grades. They're making the grandest alfalfa chop; fattening hogs, cattle, sheep, poultry and *pursest* making it cheaply, easily, with our famous patented Re-cutter Attachment (fits for field use).

Handles leaves, stems and all! No waste! no injuring color of hay. Makes dandy combination feeds from clover, rice, straw, cornstalks, bean straw, pea vines, oats and rye. Biggest guaranteed capacity! 1200 to 2700 lbs. per hour. 600 to 900 lbs. of meal per hour with Junior Mill (run with 6 to 8 h. p. engine). Cracks peas, corn and beans.

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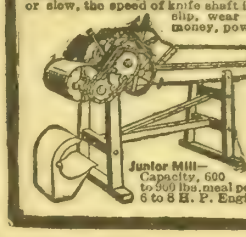

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The cost of all materials is advancing like the price of wheat and corn.

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Let us send you our proposition—to contract now for your silo and deliver it later.

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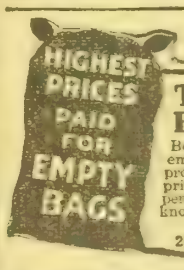
618 Live Stock Exch. Bldg., FT. WORTH, TEXAS



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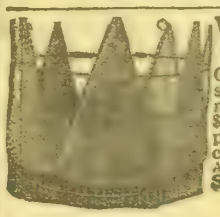

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Cow-Testing Reports.

Alban and New Hope Cow-Testing Association.

To the Editor:—Naturally people do not expect to find high-producing cows in a section of the country which was formerly devoted to logging, and where the hum of the sawmill can still be heard, but some very excellent results have been obtained by the first year of testing in the Alban and New Hope Association. Among some of the things that have been accomplished during the year are the following:

Nine bred for production sires have been placed at the head of as many herds some of these sires replaced scrub sires which were being used before the testing association was started. By having the heifers tested every month these farmers realized that in order to increase the production through breeding, they must use something better than the ordinary scrub sire that one can buy in the stockyards.

Fifty-two unprofitable cows were sent to the stockyards where they ought to have been a long time ago. The chances are that over half of these cows would have been occupying their stalls and giving the farmer the pleasure of feeding them just for the sake of their company, and also being a detriment to him in the way of pulling down his herd by breeding from these cows, if they had not been tested.

The champion cow for the year is a grade Guernsey owned by W. J. Wrolstad, Northland. Below are the figures for the five highest producing cows:

Owner and breed	Lbs. milk	Lbs. B. fat	Yearly value of product
M. J. Wrolstad			
Gr. Guern.	10,772	543.5	$194.94
A. L. Brekke			
Gr. Hol.	11,166	490.5	176.32
C. E. Erickson			
Gr. Guern.	9,616	467.0	162.36
G. J. Olstad			
N. Hol.	12,442	460.1	166.76
C. O. Wogsland			
Gr. Guern.	8,048	442.7	164.79

It cost $62.62 per cow for feed during the year, and they returned a profit of $112.35, and still some farmers will tell you that it does not pay to feed.

The three highest averaging herds for the year are owned by the following men:

Owner and breed	No. of cows	Lbs. of milk per cow	Lbs. of fat per cow
A. L. Brekke			
Holstein	4	8,835	351.5
C. O. Wogsland			
Guernsey	6	6,448	341.4
M. J. Wrolstad			
Guernsey	17	6,401	331.1

The value of product per cow was $123.62. Cost of feed per cow was $47.45. Profit per cow, $67.17. Another example of whether it pays to have good cows or not.

Each of the 218 cows that completed the full year's test produced 276.7 pounds of butter fat per cow, which is about 100 pounds more than the state average. They made a profit of $54.44 over the cost of feed.

Mr. Anton Brekke says: "If I had been a member of an association before, I would not have sold as many of my good cows as I have done. I have also taken more interest in dairying since I became a member of the association."

Mr. O. A. Colrud says: "I have increased my cream checks $250 in one year for my twelve cows."

Mr. M. J. Wrolstad says: "I paid my testing dues by taking better care of my cows during the dry spell this summer."

Ole P. Dobbie says: "It pays to get rid of my poor cows and to take good care of the high-producing ones."

I could quote statements like this from almost all the members.

M. E. Smith,
Official Tester Alban and New Hope Cow-Testing Association, Portage and Waupaca counties.

Reedsburg Association.

To the Editor:—Our forty-five-pound list for the month ending April 6, 1917, is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Kirkpatrick Bros.					
Helena, R. H.	6	Mar.	1620	4.3	70.5
Grace 11, R. H.	2	Feb.	1500	3.8	57.0
Homestead, R. H.	3	Mar.	1440	3.4	49.0
Ed W. Rusch					
Five Teat, G. H.	3	Mar.	1323	4.6	60.9
Bun, G H.	7	Jan.	1164	4.0	46.6
Rose, R. H.	6	Dec.	1404	3.3	46.8
J. J. Marshall					
Beauty, G. H.	6	Mar.	1680	3.6	60.5
Diana, G. H.	7	Mar.	960	5.3	50.9
Bell G. H.	6	Nov.	1335	3.4	45.1
James Carroll					
No. 5, G. H.	5	Jan.	1050	5.4	56.7
Dr. W. J. Miller					
Dot, G. J.		Feb.	927	6.0	55.4
Riley Stone					
No. 11, G. J.		Feb.	1020	5.0	51.0
Wm. Hahn					
Josie, G. H.	7	Nov.	1188	4.2	49.9
Frank Groat					
Mollie, G. G.	3	Dec.	813	6.0	48.8
Fred Thorne					
Dolly, G. J.	7	Mar.	840	5.8	48.7
Wm. Van der Ohe					
No. 3, G. H.	5	Nov.	1280	3.9	48.0
No. 10, G. H.	4	Nov.	1320	3.6	47.5
No. 4 G. H.	2	Feb.	1155	4.1	47.4
H. L. Maxham					
No. 9, G. H.	7	Jan.	1170	3.9	45.6

Alvin Wardas.
Reedsburg Association, Sauk county.

Mishicot Association.

To the Editor:—The following list of cows in our association produced forty-five pounds of butter fat or over for the thirty-day period ending March 31, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Albert Johannes					
Whitey, G. H.	10	1-23	1443	3.6	51.95
De Kol Mutual Pauline Romonger,					
P. B. H.	4	12-15	1368	3.5	47.88
Nellie, G. H.	4	9-18	1212	3.8	46.05
Peggy, G. H.	2	2-26	1128	4.0	45.12
Henry W. Schmidt					
Susan N.	4	1-31	1278	3.9	49.84
Mabel, N.	6	12-24	1149	4.2	48.26
Flora, N.	5	2-22	1209	3.8	45.94
Pearl, N.	9	2-10	1374	3.3	45.32
Joe Jacquetto					
No. 7, N.	4	11-10	987	5.1	50.33
No. 15 N.	5	3-1	1263	3.9	49.25
Frank Hessel					
No. 13, G. H.	6	3-7	1650	2.9	47.85
No. 3, G. H.	5	3-5	1500	3.1	46.50
Fred Eisenmann					
Helvin's Marie,					
G. H.	8	3-4	1365	3.5	47.77
Sussie, G. H.	8	12-10	1230	3.7	45.51
Chas. Kornely					
Dallas De Colantha Yeslit,					
P. B. H.	6	3-13	2319	3.0	69.57
Wm. H. Spencer					
Sallof, G. H.	6	12-23	1314	4.4	57.81
George Wuellner					
Nigger, G. H.	7	3-2	1386	3.6	49.89
Oscar Samz,					
Gahling, N.	9	12-2	1002	4.9	49.10

E. H. Meineke,
Official Tester, Mishicot Association, Manitowoc County.

Columbus Association.

To the Editor:—The following is our forty-five-pound list for the month ending April 12th:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Heulle & Wheeler					
Fencia, P. B. H.	5	2-24	1317	3.5	46.4
Pauline, P.B. H.	4	2-22	1521	3.4	52.7
A. L. Leffingwell					
Eddy, G. J.	6	2-1	1204	4.9	59.6
C. S. Steinbach					
Sophie, G. H.	4	2-24	1527	3.7	54.5
Henry Dolan					
Erna, P. B. H.	3	1-22	1483.5	3.6	53.8
John Senheim					
Jessie, G. H.	5	2-14	1164	4.2	48.9
Clark Smith					
Big 4, G. H.	7	3-1	1509	4.5	67.9
John Bendle					
Courtland Rose					
B. C., P. B. H.	4	3-11	1419	3.2	45.4
Peter Larson					
Johanna Champion,					
P. B. H.	6	1-1	1215	3.7	45.0
J. E. Barstow					
Beauty O. Burke,					
P. B. H.	6	1-8	1269	3.5	45.5
Dummie, G. H.	5	10-30	1092	4.3	47.0
Blackie, G. H.	8	3-1	1746	4.1	71.6
J. W. Burbach					
Canary Pride of Bonnie Meade					
P. B. H.	5	2-27	1664.6	3.1	51.6
Belle Empress Columbiana Ormsby,					
P. B. H.	6	1-29	1747	3.8	66.4
Melina of B. C.,					
P. B. H.	3	2-4	1357.6	3.4	46.2
Pride Aaggie Johanna De Kol,					
P. B. H.	6	12-31	1444.7	3.2	46.2
Canary Aaggie D. K. of Bonnie Meade,					
P. B. H.	4	12-19	1097.3	4.3	47.2
Wm. Meyers					
Cora, G. J.	9	10-7	828	5.7	47.2
Molly, G. J.	9	11-10	768	6.5	49.9
Hannah, G. J.	9	12-1	828	5.7	47.2
Everett Gilmore					
No. 13, G. H.	5	3-21	1128	4.4	49.6

C. F. Wehrwein,
Official Tester Columbus Association, Portage county, Wis.

Medford Association.

To the Editor:—The scarcity of good roughage and the high price of feeds are still problems here, but our cows are returning good profits. The best cow for March was a grade Holstein owned by August J. Brandt, who has a herd of sixteen Holsteins of which he may well be proud. Mr. Brandt can show records from his cows for a period of three years or more. Our forty-five-pound list for the thirty-day period ending April 15th, is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Mrs Mat Heinz & Sons					
B. B. No. 5, G. G.	5	Dec.	979	5.2	50.9
Bessie, G. G.	9	Jan.	996	4.7	46.8
R. Bachler					
No. 4, G. H.	8	Nov.	1445	4.6	61.8
No. 7, G. H.	6	Nov.	1103	4.8	52.9
No. 11, G. H.	3	Feb.	1550	3.8	58.9
No. 1, G. H.	8	Jan.	1494	3.4	50.8
Sam Suter					
*Taft, G. H.		Mar	1386	3.8	52.5

PATENTS WATSON E. COLEMAN, Patent Lawyer, Washington, D. C. Advice and books free. Rates reasonable. Highest references. Best services.

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They're built to meet the exacting farmers' needs and are the best in design, material and workmanship—combining every desirable feature a silo should have and embodying the "know how" acquired through more than twenty years experience in silo building.

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This construction is fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Requires no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

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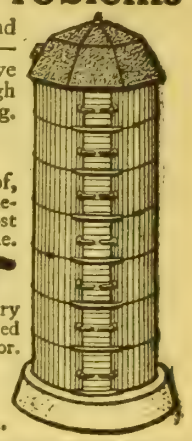

How to Erect A Wood Tire Silo

Bolt tire to concrete base. Set the 2 x 4 spacers on lower tire and toe-nail. Place second tire on spacers and toe-nail. Repeat until framework is done. Nail on outer covering of spruce—then inner lining of California redwood.

You then have a **storm-proof, frost-proof, mould-proof** silo without hoops or guy wires—one that will not swell, shrink or decay—a different, *patented* silo that gives you the best possible service and at a reasonable cost. Write for our FREE silo folder and learn more about its construction and advantages.

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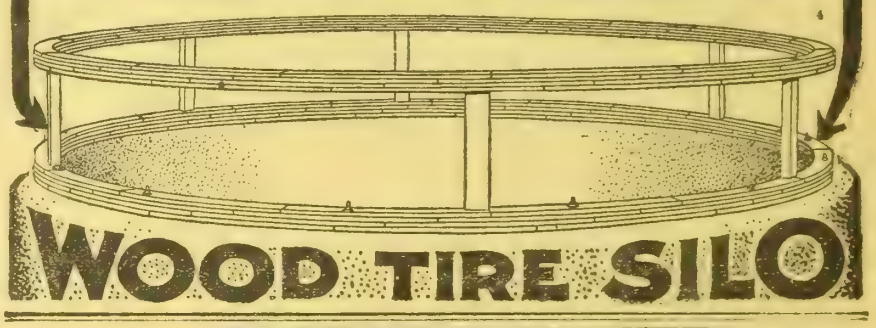

Canadian Farmers Profit From Wheat

The war's devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and wheat at over $2 per bu. offers great profits to the farmer. Canada's invitation is therefore especially attractive. She wants settlers to make money and happy, prosperous homes for themselves by helping her raise immense wheat crops

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and other lands at remarkably low prices. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to acre. Wonderful crops also of **Oats, Barley and Flax.**

Mixed Farming as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent.

There is now an extra demand for farm laborers to replace the many young men who have volunteered for service in war. The government is urging farmers to put extra acreage into grain. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Canada. or

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Vessie, N.		Jan.	1075	4.2	49.1
Joe Konecny					
Lady P. N., R. H..	7	Feb.	1698	3.8	64.5
Jersey, G .H.....		Mar.	1155	3.9	45.0
Wm. Ramm					
Lady ,G. H.....	10	Nov.	931	5.2	48.4
Bonnie, G. H.....	10	Dec.	1090	4.3	46.8
Aug. P. Muller					
Lena, R. H.....	3	Feb.	1440	3.5	50.4
John Gamper					
Heilo Rue, R. H..	8	Dec.	1246	3.7	46.1
Ormsby, R. H....		Mar.	1190	3.9	46.4
Hy Suter					
Bessie, R. H.....	6	Dec.	1563	3.9	60.9
Molly, R. H.	6	Jan.	1574	3.2	50.3
Frank Palopka					
Lady, R. H.....	9	Dec.	1444	4.4	63.5
Aug. J. Brandt					
Star, R. H.....	8	Feb.	1440	4.6	66.2
Lady, R. H.....	3	Jan.	1148	4.5	51.6
Fancy, R. H.	4	Feb.	1744	5.2	90.6
Flora, R. H.	6	Feb.	1264	4.3	54.3
Polly, R. H.....	4	Feb.	1448	4.0	57.9
White Face, R. H.	4	Mar.	1274	3.7	47.1
Alb. Zimmerli					
No. 8, R. H.....		Feb.	1476	3.6	53.1

A. T. Zeddies, Official Tester, Taylor Co.
*28 days. Wm. Brecke, Secretary.

Wood County Association No. 1.

To the Editor:—The following is our forty-five-pound list for the month ending April 25th:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Chas. Imig					
Iola Joh. Mink, R. H.	2	3-6-17	1212	3.7	45.0
Iola Joh. Aaggie, R. H.	5	3-9-17	1521	3.0	45.6
Iola Rigtje F. De Kol 2d, R. H.	4	3-21-17	1416	3.4	48.1
H. J. Basseuner					
Rosette Joh. Mercedes, R. H.	6	10-3-17	1683	3.5	58.9
Prospect Beauty 10th, R. H.	6	10-10-16	1482	3.4	50.4
Joh. Woodland Segis 2d R. H.	6		1563	3.2	50.0
Cary Clothilde, R. H.	6		1494	3.7	55.4
Uneeda Korndyke Almeda. R. H.	8	3-2-17	1682	3.1	52.2
Will Ehlert					
Lily, G. G.....	5	3-29-17	1349	3.8	47.5
J. F. Schmidt					
Joh. Lucy Best, R. H.	6	2-23-17	1506	3.3	49.7
Joh. Akkrummer, R. H.	7	3-22-17	1647	2.9	47.8
A. Osenga					
Dora Thorne Pauline, R. H.	7	12-12-16	1632	3.6	58.7
Peter Vander Ploeg					
Flora, G. H...	5	2-20-17	1188	3.8	45.1
Aukge Joh., R. H.	3	4-4-17	1620	3.3	53.5
Woodland Belle, R. H.	3	3-13-17	1299	3.9	50.6
Andrew Osenger					
Nigger, G. H.			1323	3.4	45.9
Kate, G. H.....			1245	3.7	46.1
W. J. Moody & Son					
May, G. H....	4	1-3-17	966	5.4	52.2
Blossom, G. H.	8		1110	4.3	47.7
J. C. Rolsma					
Ramona, R. H.	10	2-18-17	1527	3.0	45.7
Lily, R. H....	8	3-30-17	1320	3.4	44.9
J. C. Kuffer					
No. 12, R. H...	4		1305	3.9	50.9
No. 25, R. H...	4		1566	2.8	45.0
W. A. Schultz					
Mollie, G. H..	4	2-8-17	1908	3.5	66.8
Bleemie, G. H.	5	1-25-17	1440	3.8	54.7
Baker, G. H...	4		1344	4.2	56.2
Henry Hoeg					
Flossie, N. ...			1056	4.7	*49.5
Geo. Baltus					
No. 9, G. H....	4	4-8-17	1392	4.1	57.1

J. L. Williams, Official Tester.

Geo. L. Moss Resigns.

To the Editor:—Enclosed find my last report of forty-five-pound cows in the Waupaca and Butternut Ridge Association. In March, sixty-six cows produced forty pounds of butter fat or over. The association has been reorganized into two associations, with Mr. Arnin Isker tester for one and Mr. Martin Frihart, tester for the other. Each association will have about 400 cows. I have resigned from the work here. Attached is the forty-five-pound list for March:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
C. C. Boyce					
Perair, G. H...	6	1-21-17	1773	3.0	53.2
Unice, G. H...	4	1-20-17	1377	3.3	45.4
F. T. Jorgenson					
Ciff, G. H.....10		2-4-17	1476	4.3	63.5
Caroline, G. H.10		12-19-16	1500	3.5	52.5
F. R. Constance					
Gold Mine, G.J.	3	12-17-16	885	5.6	49.6
E. O. Frihart					
Brownie, G. J.	6	2-4-17	1924	7.2	66.5
Herman Becker					
Spot, G. J.....	8	11-29-16	855	5.8	49.6
Belle, G. J....	7	1-16-17	879	5.7	50.1
Sflvy, G. J....	8	1-4-17	903	5.3	47.9
Guy Anderson					
Pauline, G. G.	8	1-12-17	1356	3.9	52.9
Florence, G. G.	6	2-10-17	981	5.2	51.0
Pearl, R. J...	6	10-1-16	874	6.7	58.6
John Jenson					
Rose, N.	9	12-16-16	1170	4.0	46.8
Frank Bauer					
Bertha, G. H..	3	12-27-16	1362	3.5	47.7
W. J. House					
Daisy, G. H...	4	1-26-17	1041	4.5	46.8
Harriet, G. H.	3	1-2-17	1143	4.3	49.1
C. Rasmusson					
Mae, G. J.....	4	2-9-17	999	5.6	55.9
John C. Backes					
Pauline, G. G..12		2-11-17	1083	4.2	45.5
Bessie, G. G...	4	12-14-16	1098	4.5	49.4
Spot, G. G.....	6	10-3-16	1011	4.7	47.5
Ira Farley					
Belle, G. H...	5	10-25-16	1491	3.3	49.3
Brownie, N...11		9-19-16	921	5.2	47.9
Jewel, G. H...	6	12-17-16	1227	3.8	46.6
Jessie, G. H...	7	11-4-16	1362	3.5	47.7
Daisy, G. H...	5	1-2-17	1509	3.1	46.8
Eva, G. H.....	3	2-8-17	1356	3.5	47.5
Wm. Kneip					
Backes Gray,N.	9	12-20-16	1251	4.2	52.5
Fred Dunbar					
Shadow, G. H.	3	2-2-17	1293	3.5	45.2
Brindle, N. ..	8	2-2-17	1200	5.0	60.0
Sue, N.	5	2-21-17	1428	4.0	57.1
Wm. Rossey					
Bessie, G. G...	2	10-15-16	870	5.2	45.3
M. E. Lewis					
Harriet, G. G..	8	1-8-17	1110	5.0	55.5
John Hansen					
Clara, N.	8	3-5-17	1320	4.4	58.1
Guy Anderson					
Pauline, G. G.	5	1-12-17	1194	4.4	52.5
Florence, G. G.	6	2-10-17	978	4.6	45.0
Neeha, G. G...	5	3-14-17	1185	4.6	54.5

Wm. Kneip, Secretary.
George L. Moss, Official Tester.

Barron-Dallas Association.

To the Editor:—The following is our forty-five-pound list for the thirty-day period ending April 20, 1917:

Owner, name and breed	When fresh	Lbs. milk	Per cent fat	Lbs. B. fat
J. Holverson				
No. 3, G. H.....	Mar.	1221	4.2	51.2
E. A. Lentz				
Pansy, G. D.....	Mar.	1290	4.5	57.0
Carl Grover				
Blackie, G. H.....	Feb.	1113	4.1	45.6
W. Black				
Guernsey, G. G...	Mar.	1077	5.7	61.3
Beauty, G. H.....	Jan.	1125	4.4	49.5
C. A. Whiting				
Nell, G. H.....	Feb.	990	5.4	53.4
F. Krahenbuhl				
P. P., R. H.....	Mar.	2214	3.4	75.2
Mercedes, R. H...	Feb.	1668	4.5	75.0

S. McBrayer, Official Tester.
W. Black, Secretary.

State Cow-Testing Report.

To the Editor:—Upper Wisconsin carried off the honors in March for the highest butter fat producing cow. Mrs. F. D. Scott, of the Rice and Cedar Lake Association, has a five-year-old registered Guernsey which produced 88.8 pounds of fat during the month. The highest herd average for the month was that of Martiny & Son, Baraboo Association, with 58.2 pounds of fat per cow. This is also a Guernsey herd. New associations have recently been organized at Granton, Cedar Grove, Horicon, Neenah, Butternut Ridge, Seymour and Algoma. In March a number of unprofitable cows were sold to advantage and seventeen registered bulls were bought by members of the associations which reported. March reports (summarized) to Mr. Noel Negley, of the Wisconsin Dairymen's Association, follow:

Association	Tester	No. of 40-lb. cows	Fat production of high cow	Breed	Owner
Winnebago county	A. R. House	68	70.3	Gr. G.	J. W. Thrall
Empire	R. H. Monroe	66	63.1	Gr. H.	Wm. Kirschenstein
Linn	E. A. Massey	64	85.9	Reg. H.	A. P. Kaye
Waukesha County	A. O. Follett	63	76.7	Reg. G.	G. S. Love
Wrightstown, G. & B.	F. A. Gaiser	62	70.8	Gr. H.	John Kloehn
Manitowoc Co. No. 1	H. R. Brewster	60	69.0	Gr. H.	Pat Cahill
Rosendale, E.-N.	Frank Lynn	60	85.0	Gr. H.	H. D. Morgan
Alto	F. L. Guenot	58	74.3	Gr. G.	Mrs. Theo. Kastein
East Troy	H. F. Brandt	58	62.9	Reg. G.	Ray Schwartz
East Fond du Lac	M. H. Duel	49	56.1	Gr. H.	Herman Krug
Winchester	J. H. Toolajian	45	65.4	Gr. H.	Elmer Christianson
Columbus	C. F. Wehrwein	43	71.6	Gr. H.	J. E. Barstow
Baraboo	E. Hinrichs	43	72.0	Reg. G	Martiny & Son
Kewaunee County	Edw. Hoeft	40	54.7	Gr. H	H. Kassner & Son
Dunn County No. 1	W. E. Anderson	39	64.1	Gr. G.	Andrew Becker
Barron & Dallas	S. McBrayer	35	79.0	Reg. H.	F. Krahenbuhl
Mishicot	E. H. Meineke	34	69.6	Reg. H.	Chas. Koenely
Medford	A. T. Zeddies	33	75.3	Native	G. Huebner
Lindina	W. A. Neumann	30	52.2	Gr. J.	James Noonan
Bloomer & Eagle Point	R. A. Boyd	30	60.0	Gr. H.	Frank Stoik
Door County	George Thull	25	66.8	Gr. H.	Pat Hogan
Sauk Prairie	Earl Clingman	24	79.8	Gr. S. H.	Louis Young
Ozaukee County	W. Kalmerton	24	66.0	Reg. H.	Henry Peul
Rice Lake & Cedar Lake	F. J. Waldman	23	88.8	Reg. G.	Mrs. F. D. Stout
Langlade County	J. Reckinger	20	52.4	Gr. J.	Schroeder Bros.
Troy-Honey Creek	C. H. Shervurne	19	51.0	Gr. H.	John Babbington
Ontario-Norwalk & Wilton	Julius Ausen	13	56.6	Gr. G. ..	Thos. Barry
Stratford	H. A. Johnson	11	46.7	Reg. H.	Garrett Hughes
Shawano County	C. M. Rydberg	9	50.8	Gr. H.	G. R. Rousseau
Bone Lake & Luck	M. Nielsen	9	45.8	Gr. G.	Jens Jensen
Dunn County No. 3	G. C. Ogle	8	46.0	Gr. H.	Chas. Unser
Tigerton-Wittenberg	Gust Norrbom	4	48.2	Guer.	Oscar Holm

PATRIOTISM DEMANDS

That All Butter-Fat Waste Be Stopped

President Wilson's powerful appeal for the conservation of the nation's resources is still ringing in our ears. "The supreme need," he says, "of our own nation, and of the nations with which we are co-operating, is an abundance of supplies, and especially of food stuffs;" and again, "Upon the farmers of this country, therefore, in large measure rests the fate of the war and the fate of the nation."

Wasteful methods must be abolished. Every device that makes for the saving of time and labor on the farm must be utilized. Every plan that makes for the conservation of our food products must have the farmer's hearty co-operation.

And nowhere is there greater opportunity than in the production of dairy products, particularly butter-fat.

"Fats, fats, fats, more fats," that is the demand of the warring nations in Europe. The men who toil and the men in the trenches must have fats. They are the fuel that the human machine must have.

And no fat is so palatable or so easily assimilated as butter.

When it was simply a question of the farmer's own loss of profit, the tremendous waste of butter-fat on American farms was bad enough, but under present conditions such waste is nothing short of criminal.

And it is wholly unnecessary.

It is conservatively estimated that about a million cow owners in the United States are still skimming milk by some wasteful "gravity" method.

At an average of four cows to the farm, and an average waste of thirty-five to fifty pounds of butter-fat per cow, all of which could be saved by the use of a De Laval Cream Separator, this alone represents an annual waste of at least 140,000,000 pounds of butter-fat.

Then there are, perhaps, a million inferior or half-worn-out separators in use whose owners could save fifteen to twenty pounds of butter-fat per cow per year by replacing such machines with New De Lavals; and this represents another waste of at least 60,000,000 pounds of butter-fat annually.

Also there is the loss of time and labor that a De Laval would save and which could be better devoted to other productive work on the farm. This waste is hard to compute, but it is almost as important as the loss of butter-fat.

These are startling statements, but any dairy or creamery authority will agree that these estimates of waste are really very conservative.

Shall this tremendous waste continue? Will the loyal American farmer permit such waste when he appreciates the duty that is laid upon him to conserve the one article of food that above all others is necessary to the life and health and energy of the men who serve the nation in the field, the factory, the mine—and soon in the trenches?

We have always had an abiding faith in the American farmer, and we believe that if he is made to appreciate the full purport of the President's appeal to him, the appeal will not be in vain; and when he further appreciates what the De Laval can do to save the butter-fat which is now being wasted, and that his patriotic duty demands that such waste be stopped—NOW—our plants will not be big enough to take care of one-half the demand for De Laval Cream Separators.

THE DE LAVAL SEPARATOR COMPANY

165 Broadway, New York 29 E. Madison St., Chicago

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Bottles Useful in Canning Operations.

When the canning season opens there is going to be a shortage of both glass and tin containers. They will be high in price and in some instances it will be absolutely impossible to obtain them. Also, there is going to be more demand for jars and cans this year than ever before because the amount of fruit and vegetables to be preserved will exceed any previous year by thousands upon thousands of quarts.

What are the home canners going to do about it? They are going to save bottles of every description. They are going to hoard every glass, crockery or porcelain container that comes into the house. The small-necked bottles are going to be used by the home canners for fruit juices and the wide-necked ones, such as screw-top candy, cream or spice jars, are going to be used for putting up fruits, preserves, jellies and jams. If the product is such that it must be sealed as in the regular fruit jar, a cork and paraffin or sealing wax turns the trick. Jellies, jams and preserves need nothing more than a coating of paraffin over the top, and a paper cap.

By using bottles for all products that can be so preserved, the supply of regular glass jars and tin cans will be saved for vegetables, meats, soups and such products as must be cared for in the usual way.

Large tin canisters or tin cans with removable covers, provided the body of the container is air and water tight, will be found useful in canning certain fruit products. These cans may be sterilized and their covers hermetically sealed in place with solder or wax.

Then there is another way to conserve the supply of cans and jars and that is by drying and evaporating such products as apples, pumpkins, squash, beans and peas. Every preserving jar in every home in the land should this year be filled, but they should be packed only with such products as cannot be preserved in any other way.

It would be a good idea for every housewife to take the time now to look over her supply of cans and jars to determine how many she will need to take care of her canning operations, how many she can save by drying and evaporating certain products, and then set to work to gather together such containers as are here suggested—makeshifts, to be sure, but satisfactory nevertheless. Be a patriotic canner—mobilize the bottles and let nothing go to waste for lack of something in which to preserve it. The world needs every ounce of food that can be produced and American farm women have a wonderful opportunity to help.

Feeding the Child During Second Year.

Much of the illness and suffering among babies commonly attributed to the "second summer" or to teething is actually due to errors in feeding. The baby's delicate digestive mechanism, accustomed to dealing only with milk, cannot all at once undertake the task of adjustment to a varied diet of solid foods, but must be strengthened by the gradual addition of new foods until the organs are trained to more complicated operations. The safe rule for feeding the baby is to add but one new food at a time to his dietary; to watch carefully the effect of each one and to withdraw it and return to the simpler diet at the first sign of trouble. These rules are particularly important in summer, when a baby is more readily upset.

The following list shows the day's meals for a baby in his second year:

7 a. m. Milk, zwieback, toast or dried bread.
9 a. m. Orange juice.
10 a. m. Cereal, cup of milk.
2 p. m. Broth, meat, vegetable, stale bread, baked apple.
6 p. m. Cereal, milk, toast or bread.
10 p. m. milk (may be omitted.)

At this time the baby should be taking about one quart of milk in twenty-four hours; part of this may be poured over the cereal.

Oatmeal should be cooked three hours, with a little salt in the water. It should be served without sugar or with a very little only. The lighter cereals should be cooked at least an hour.

Bread for young children must have been thoroughly baked and should be quite dry when used, that is, at least two days old. Tender toast is made by cutting thin slices from such a loaf and allowing them to dry still more, then toasting them to a delicate brown over a quick fire. Toast thus made is crisp all the way through and may be used in many ways. Many children will like to eat it broken into bits in broth or milk. Hot breads and biscuits, griddle cakes and muffins are not suitable for young children.

The child may have a small portion of baked apple or prunes once a day in addition to his morning feeding of orange juice. The apple should be baked very tender and all the skin, seeds and hard spots should be removed. Prunes should be very carefully washed, soaked all night, then cooked until very tender with very little sugar. A small portion of the strained pulp may be given instead of apple, and the juice may be used also.

The child may have about a tablespoonful of scraped meat, or soft-boiled or coddled egg once a day. Beef, broiled, boiled or roasted, the tender part of a lamb chop or the delicate meat of chicken or fish may be used. All meat should be scraped or minced very fine, as no child of this age can be trusted to chew it properly.

A small portion of some properly cooked green vegetable like spinach or tender string beans may be given. Such vegetables should be fresh. They should be cooked, then drained and mashed or strained through a colander.—[Children's Bureau, United States Department of Labor.

THE YOUNG FOLKS.

Teddy Watches the Chickens.

Dear Young Folks:—I am eight years old and live on a farm. I have a pet dog. He is white with a black head and tail. He is a fox terrier and his name is Teddy. He always chases away the hawks and crows. As soon as the chickens make a fuss he is up and running after whatever is bothering them.

One of the young folks asked this riddle: What goes around the house and around the house and hides behind the door at night? It is a broom.

—Edith.

Wants to Make a Kite.

Dear Young Folks:—I should like to join your circle. I am a boy ten years old. I weigh about seventy-four pounds. I live on a forty-acre farm three miles from town. I have to walk a mile to school and am in the fourth grade.

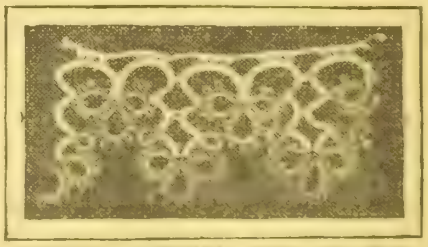
Have any of the young folks ever had any experience in making a kite? I have tried it many times, but never succeeded and I should like very much to know how to make one.

—Wallace.

Tatting in Blue and White.

The tatting edge here shown is made of No. 30 blue thread on shuttle and the same number white thread on spool.

Tie the ends and with white thread chain 6 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 6 d. s., 1 p., 6 d. s.; with blue thread 6 d. s., 1 p., 3 d. s., 5 p. separated by 2 d. s., 3 d. s., 1 p., 6 d. s.; close. Second blue ring 6 d. s., join to picot of 1st ring, 3 d. s., 5 p. separated by 3 d. s., 3 d. s., 1 p., 6 d. s.; close. Third blue ring, 6 d. s., join to 2d ring, 3 d. s., 1 p., 5 p. separated by 2 d. s., 1 p., 6 d. s.; close. That makes clover leaf.



PRETTY TATTING FOR WAISTS, AND DRESSES

Now with white thread, 6 d. s., join to white p. up the stem, 6 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 6 d. s., 1 p., 6 d. s., join to middle p. of last blue ring, 6 d. s., 1 p., 6 d. s.

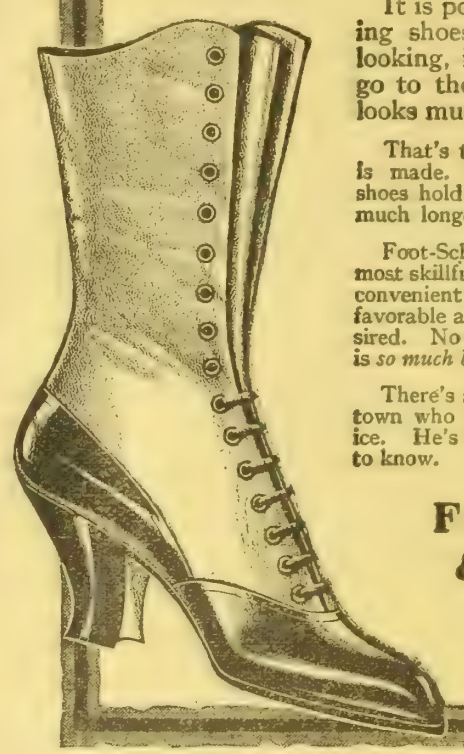
With blue thread make small ring of 5 d. s., join to p. on 2d blue ring of clover leaf, 5 d. s., 1 p., 5 d. s.; close. With white thread make 6 d. s.

The lower clover leaf is just the same as the upper one, only join first leaf to the little blue ring. After clover leaf is completed take white thread, 6 d. s. Make another little blue ring, then 5 d. s., join to last p. of blue leaf, 5 d. s., 1 p., 5 d. s.; close. With white thread 6 d. s., join to white p. coming down, 6 d. s., 1 p., 6 d. s., join to white p., 6 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 6 d. s., 1 p., 6 d. s., and you are ready for the upper clover leaf.

In blue and white or lavender and white this is beautiful on fancy waists, tub silks or gingham dresses for school.

Style Built Into Foot-Schulze Footwear

Foot-Schulze & Co. Saint Paul — THIS MARK ON THE SOLE DENOTES QUALITY



It is possible to make good-looking shoes that will stay good-looking, if the maker is willing to go to the trouble. To last, good looks must be *built* in.

That's the way *Foot-Schulze Footwear* is made. That's why these excellent shoes hold their pleasing appearance so much longer than shoes often do.

Foot-Schulze Footwear is made by the most skillful shoemakers in a wonderfully convenient factory under conditions as favorable and comfortable as could be desired. No wonder *Foot-Schulze Footwear* is *so much better!*

There's a Foot-Schulze dealer in your town who will give you the best of service. He's easy to find and a good man to know.

Foot-Schulze & Company

Saint Paul

Better Shoes

For farm wear. Double-tanned by a special process. "Farm Wear" Shoes resist barnyard acids. Another reason they outwear other work shoes—they are made of solid leather. They also fit better and feel better—because they are made over full standard lasts with extra wide treads. Four heights—6 to 16 inches. Black and Chocolate.

If your dealer doesn't handle "Farm Wear" Shoes, tell us his name and we will arrange it so you can examine a pair.

Nunn & Bush Shoe Co.
Dept. 59
Milwaukee

FARM WEAR SHOES

Mueller Pipeless Furnace

A real furnace. Heats whole house comfortably, dependably, cleanly and economically *from one register.* Exactly same construction as the old reliable *Mueller* line, but without pipes or flues. Ideal for old or new homes and buildings with small or partial cellars. Saves 35% in fuel. Burns hard or soft coal, coke or wood.

Made of solid cast iron, has triple jacket, substantial firepot and radiator, best type grate. Designed right, built right. 60 years of experience and the *Mueller Guarantee* behind it.

Tear out this ad, write your name and address on margin and mail to us for valuable free book on pipeless heating, and name of nearest Mueller dealer.

L. J. Mueller Furnace Co., 204 Reed Street Milwaukee, Wis.

Makers of Heating Systems of All Kinds Since 1857

Buy Your COFFEE WHOLESALE IN 5-LB LOTS

Get the BEST and SAVE 10 cts per pound. WE PAY POST, EXPRESS or FREIGHT

IF YOU CAN GET COFFEE SEND FOR PRICE LIST

JEVNE COFFEE CO. (Est. 1881) Coffee Specialists

Dept. 16, 2855-57 W. Madison St., CHICAGO.

WANTED A Man To Travel For A Profitable Business

YOUNG MAN—21 years or over, with some farming experience preferred. To take charge of a profitable retail business in your county. Good reference required. If interested, samples on request.

A Rare Opportunity

You owe it to yourself to investigate.

For complete particulars, write (mention this paper) to

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Ask your neighbor to subscribe for The Wisconsin Farmer.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 850 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wisconsin.

2083—A practical undergarment. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3½ yards of 36-inch material for a 36-inch size.

2075—A becoming model for the growing girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 will require 2⅞ yards of 44-inch material.

2088—A pretty dress for party or best wear. Pattern is cut in 4 sizes; 6, 8, 10 and 12 years. It requires 4¼ yards of 36-inch material for an 8 year size.

Waist 2097-Skirt 2076—A pleasing combination. The waist is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure, and requires 3⅛ yards of 36-inch material for a 36-inch size. Skirt is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅝ yards of 44-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

1704—Girls' dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3½ yards of 36-inch material for an 8-year size.

2073—Children's rompers with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2¾ yards of 36-inch material for a 4-year size.

1695—A dainty frock for mother's girl. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2 yards of 36-inch material for a 4-year size.

1791—Ladies' house dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

Blouse 1766-Skirt 1765—A splendid suit for sports wear. Both patterns are cut in 4 sizes: 14, 16, 18 and 20 years. To make the suit of one material will require 8⅛ yards of 36-inch material for a 16-year size. Two separate patterns, 10 cents for each pattern.

1739—Ladies' dress in surplice style. The overwaist is fitted on a lining which may be omitted if not desired. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

1735—Men's negligee or outing shirt, with sleeve in either of two lengths, and collar rolled high or low. Pattern is cut in 7 sizes: 38, 40, 42, 44, 46, 48 and 50 inches breast measure, neck measure to correspond in sizes, 15, 15½, 16, 16½, 17, 17½ and 18. It requires 3½ yards of 36-inch material for a 17-inch neck size.

2078—A simple apron model. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires for a medium size 4¾ yards of 36-inch material.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for May 13, 1917.

Jesus the True Vine.

LESSON TEXT—John 15:1-13.

GOLDEN TEXT—I am the vine, ye are the branches.—John 15:5.

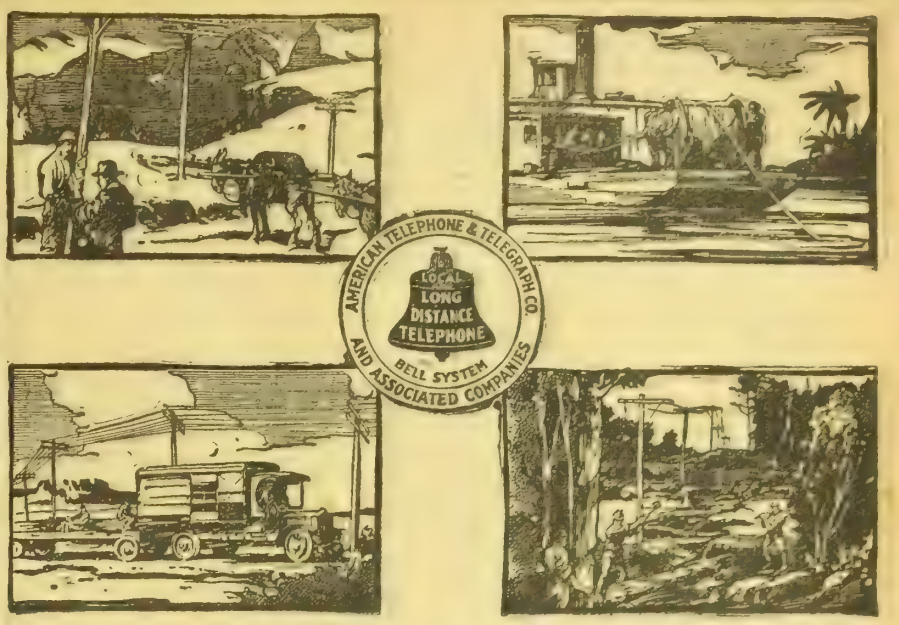
This lesson chronologically follows that of last Sunday. Christ had risen with his disciples from the supper table (14:31), and the remainder of his discourse may have occurred in an upper room, or in the courtyard of the house before they left the city, or on the way to the garden of Gethsemane.

I. The Abiding Life (vv. 1:4). Under the figure of the vine Jesus teaches spiritual truth by natural analogy. The vine is composed of roots, stem, branches, tendrils, and fruit. There is no separate life: The branches are one with the vine. Christ is the head of that body which is the church to its least member. The life lived by the Christian is Christ's life humanized, the purpose of which is fruit bearing. Discipline is in order to fruitfulness. "He (My Father, the vine-dresser) cuts away any branch on me which is not bearing fruit, and cleans every branch which does bear fruit, to make it bear richer fruit" (Moffat's translation). Paul tells us that "no chastening for the present seemeth to be joyous, but grievous: nevertheless, afterward it yieldeth the peaceable fruit of righteousness unto them which are exercised thereby." The Word is the cleansing agent (17:17). Verse four suggests a double abiding—we in him, and he in us— the branch depending upon the vine for life, and the vine depending upon the branch for fruit. Jesus had just been talking about his approaching death, and his disciples were full of anxiety. He tells them not to be troubled, and by this figure assures them that, though he would leave them, he would still be joined with them. Although they had been made clean, they are taught that the only way to keep clean is by "abiding" which is to be continued through the eternal spirit after his decease and ascent to the Father. "It is given to us to hold fellowship with both the root that twines itself about the cross and the tendrils which stretch upward to glory."—A. J. Gordon.

II. The Fruitful Life (vv. 5-8). If we abide in him we will bring forth much fruit. Note the progression; "fruit," "more fruit," "much fruit." If the branch does not bear fruit it is fit only for fuel (Isa. 27:11). "If ye abide in me, and my words abide in you, ye shall ask what ye will, and it shall be done unto you" (v. 7). Our first fruit is to glorify God (v. 8.) The vine does not consume the fruit which it produces, though it does exist for its production, thus glorifying God through its fruit-bearing function. The Bible uses many figures to illustrate the intimate relationship between root and fruit. "Without me," emphasizes Christ, "ye can do nothing." The "word" of verse three is equivalent to the word "I" of verse four. "Now ye are clean through the word which I have spoken unto you" (v. 3.) Our fruit bearing is for God's glory because it is an expression of his grace and power, and it is made possible through our identification with his dear son. Our fruitfulness attests our Christian character. We have not yet attained perfection in our conduct, but we are making progress.

III. The Permanent Life (vv. 9-13). "Fruit," "more fruit," "much fruit." Even as the life of Christ has increasingly manifested itself through the ages, so our individual lives are to increase in the fruitfulness which assimilates them to his character and expresses his graces. As the Father has loved Him, so has He loved us, and this love he communicates to those who abide in him. The evidence of our abiding is manifested by our joy in keeping his commandments, just as he delighted in keeping his father's commandments. Obedience and joy are correlated terms. The fuller the obedience the greater the joy. Bushnell said: "Heaven is nothing but the joy of a perfectly harmoninzed being filled with God and His love." Instead of minute, detailed instructions regarding their conduct, the disciples are here presented with love, the governing principle. Love was to be the one sufficient impulse for both divine and human relationships.

Three things are mentioned as resulting from the abiding life; power to bear much fruit; transform lives and change circumstances through answered prayer; and fullness of joy—a "joy unspeakable and full of glory." The world with its poor counterfeits has nothing like it to give, but all of these gifts are contingent upon our "abiding" in Christ, the source of every blessing. The personal pronoun suggests peculiarly intimate relationships: "My Father," (vv. 1, 8, 10); "My love," (v. 9); "My disciples," (v. 8); "My commandments," (v. 10); "My joy," (v. 11).



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Vast telephone extensions are progressing simultaneously in the waste places as well as in the thickly populated communities.

These betterments are ceaseless and they are voluntary, requiring the expenditure of almost superhuman imagination, energy and large capital.

In the Bell organization, besides the army of manual toilers, there is an army of experts, including almost the entire gamut of human labors. These men, scientific and practical, are constantly inventing means for supplying the numberless new demands of the telephone using public.

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WHEN A NAIL WON'T DO, USE

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IS THE RELIABLE METHOD FOR PREVENTING

FOOT AND MOUTH DISEASE

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You can make all live-stock quarters sanitary by using

KRESO DIP No. 1

The Standardized, Reliable Dip and Disinfectant.

KRESO DIP No. 1 has been used at the large state fairs in the United States for the last ten years to prevent the spread of contagious disease. It has done it, and KRESO DIP No. 1 will do the same for you on the farm.

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ABSORBINE, JR., for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. $1.00 a bottle at druggists or postpaid. Will tell you more if you write. Made in the U. S. A. by

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OREGON & CALIFORNIA RAILROAD CO grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

A SMALL farm in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.& S.F.Ry., 1959 Ry. Ex., Chicago.

FOR SALE—163-acre farm in Jackson county, Wis. Fine location on main road between two towns, 3½ miles to each. This is a bargain for anyone wanting a good stock farm at the right price. $3,000 will handle it. If interested, write for further particulars, W. C. Davis, Alma Center, Wis.

GOLDEN Glow seed corn, kiln dried, 98% germination; $3 per bu. Order from producer. Get descriptions. Riley Martiny & Son, Baraboo, Wis.

FARMS wanted—Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

A Beautiful Flag Button Free

Never have the Stars and Stripes been so popular as now. Everyone is wearing a flag on the lapel of the coat or pinned to the waist. If you haven't a flag to wear you should get one without delay. Here is your chance to get this beautiful flag button (size of cut) in colors. All you have to do is to enclose a two-cent stamp in your letter to pay postage and cost of mailing. We will also send you a certificate of entry in our grand contest for a $395 Saxon Automobile.

Saxon Car Given Away

A new auto contest is just starting. At the close of the contest a $395 Saxon Roadster will be given to the winner. In case of a tie a Saxon car will be given to each person so tied. Send at once and you can be entered in this great contest. Full particulars and one of the flag buttons by return mail.

Saxon Editor, 925 Popular Bldg., Des Moines, Iowa

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Use of Teat Dilator.

I have a cow that is a hard milker and I want to use a teat dilator on her. Is it necessary to call a veterinarian for this or can one do it himself?

One can pass the teat dilator with safety if the end of the teat is first cleansed and the dilator dropped in boiling water shortly before using.

Hand-Feeding Colt.

I would like to know the right method of raising a young colt by hand-feeding it. One of my neighbors is going to give me one as soon as the mare foals and I would like to know whether to use nipple or not.

This can be done by use of the nipple and bottle until the colt learns to drink. Use whole cow's milk diluted with water, and a little sugar added. At first feed often and in small quantities; later you may feed less often and in larger quantities.

Vicious Habit.

I have a pair of pet rabbits and one of them ate her litter. They were her first litter. I feed her bread, meal, etc. Can you advise me what to do for her?

This is no doubt a vicious habit which is often seen in mothers in various species of animals. It is one usually hard to overcome unless the animal just naturally outgrows it. If this occurs again, would dispose of her. Give her a good run and a variety of good, wholesome food.

Abortion in Sows.

I am having trouble with my sows aborting from three to six weeks after breeding. There is a white substance comes from them and in three or four days they take the boar again, and, as before stated, in three weeks the same thing takes place again. They are about a year old, large for their age and in fine condition. They are not too fat and have been properly fed for breeding purposes. I had two cows which aborted in an adjoining lot, but the sows were never in that lot. Do you think they could contract the disease from them under those conditions?

It is not thought that abortion is transmissible from cattle to swine and neither has it been proven that abortion in sows is of an infectious nature. It might pay you to fatten these sows out and sell them, then clean and disinfect premises and get new stock. Be careful in your feeding to not feed frozen and moldy feed.

Stricture of Milk Ducts.

I would like to know what is the matter with my Holstein cow. She has been fresh fifteen days and her two hind teats were entirely closed. I took a wire and opened them up, but every time I milk her I have to open them, and they only give about one-fourth of a stream—not enough for the calf to suck till she is dry. It seems as though there are little bunches right where the teats open into the bag. Her bag is soft and there is no swelling. This is her second calf. What causes this and what can I do for her? I saw a veterinarian about it and he said he would not operate and remove these bunches while she is in full milk.

Your cow's teats are strictured and your veterinarian is right in not operating while she is in full flow of milk. You can best use a German silver milk tube in each teat. This will drain off the milk and help open the duct. You should sterilize the tubes before using by boiling, and also see that the teats are clean. You can get the tubes of your druggist.

On Math Michels' Farm.

(Continued from page 1.)

heifers receive somewhat less. Two boys, Hiram and Harvey, help with the farm work and have an interest in the splendid herd that Mr. Michels has built up. The boys are given an opportunity to purchase stock when it is young and the father helps them in the sale of the developed animals. There are about forty animals in the herd at the present time headed by Sunburst King Masher, who is by King Masher's King and out of Yeksa Sunburst, with a record of 11,800 pounds of milk and 581 pounds of fat. A half brother to Sunburst King Masher out of Yeksa Sunburst sold for $500. Most of the cows are of the Yeksa strain of Guernseys and have inherited the habit of producing in true Yeksa fashion.

Mr. Michels is greatly in favor of home improvements and has in his home the modern conveniences so desirable on any farm. A water system, the result of intelligent harnessing of a spring on a hill somewhat higher than the home, supplies running water to any part of the farm. This spring was pressed into service by inverting a concrete box over it and banking the sides with clay so as to prevent surface water from entering the box. A pipe carries the water from this box to the house and barn. A furnace heats every corner of the large house.

At the rear entrance of the house is a room where the men can wash before entering the dining room which leads off from it. The kitchen is to one side, which makes it possible for the housewife to work without being disturbed by a procession of men filing through there at each meal time. Upstairs a bathroom gives the family the same conveniences enjoyed in the city, hot and cold water being available all the time. Mr. Michels has constructed a refrigerator which can be readily copied by anyone who has the advantage of running water. It is simply a box built like a refrigerator which has on the inside several coils of pipe through which the cool spring water is constantly flowing on its way to supply the tank in the milk house. This refrigerator has been in service for a number of years and has not needed any attention whatsoever except an occasional cleaning out by the housewife. The butter and milk stay cold during the hottest weather by this arrangement.

Light for the house is supplied by an acetylene gas tank situated in the woodhouse a few feet from the dwelling. This gas can also be used for cooking purposes during the hot season of the year.

A baby tractor was purchased for the farm during 1916, and has already made a good showing by its plowing and service for heavy work. Formerly five horses toiled long and hard in turning over the hilly fields on the Guernsey Farm—for there are a few hills in Fond du Lac county. Now the tractor puffs steadily along under its load and is ever willing as long as the fuel holds out. It has already played a big part in preparing the fields this spring. Every operation except the seeding on twenty acres that have been planted so far has been done by the tractor.

Mr. Michels' close association with the dairymen of Wisconsin has made him popular and well known throughout the state. He has done considerable institute work, and is always in favor of better things in farming as long as they are sane and reasonable. He is president of the Wisconsin Dairymen's Association, an organization which has been behind every big move in Wisconsin and has done much towards better farming in the state.

YOU'RE beginning to notice a lot more information about tobacco, since W-B CUT Chewing got into full swing. People don't hanker after size any more. They want *tobacco satisfaction*—and excess sweetening can't cover up what's not there. The good tobacco taste of W-B is winning friends pretty much wherever you go nowdays—just rich, sappy leaf, *shredded* and *seasoned with a bit of salt* to bring out the fine tobacco flavor.

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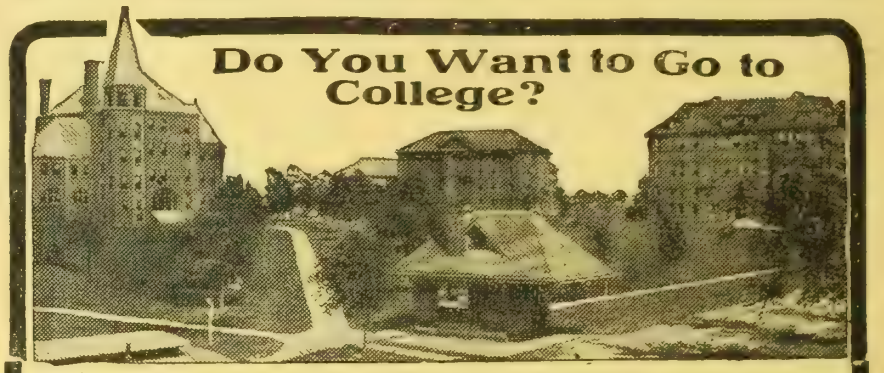

If you have been looking for an opportunity to go to college here is your chance. You can win a scholarship by my easy plan.

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Write me a letter today and I will tell you how easily you can get a scholarship in any first class college or university in exchange for a few hours of your spare time.

A. M. PIPER, Scholarship Editor, Dept. A, Des Moines, Iowa

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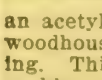
Caffatone—the Dairyman's preventative and remedy for scours, positively stops scours in calves and colts inside of 3 hours without binding. Caffatone is harmless—given to weak and delicate animals. Many calves are born with scours. Protect yourself now—have Caffatone on hand—often there is no time to get Caffatone after scours is discovered although we send immediately by parcel post. Caffatone keeps indefinitely—packed in gelatine case 15 tablets to box together with full directions. Results are guaranteed—Caffatone given widest endorsement by users—colleges. Money back guarantee card accompanies all orders—tear out ad—send us name of druggist—Pin $1.00 bill to letter. Protect your calves by mailing order today.



CAFFATONE REMEDY CO.
300 E. Main St., Platteville, Wis.

UPPER WISCONSIN

THE following reports, covering 1916 business of a number of Polk county, Wisconsin creameries, will be of interest:

Milltown Co-operative Creamery.

Total lbs. butter made in 1916...	421855
Average net price paid patrons per lb. butter fat.....	37.40
Average test of cream.....	25.46
Average per cent overrun.....	22.31
Average cost of making butter per lb.	1¾

Eureka Co-operative Creamery.

Total lbs. butter made.....	133020
Average net price paid per lb. butter fat	36.70
Average test of cream.....	28
Average overrun	20.40
Cost of making butter per lb....	2.09

Garfield Co-operative Creamery.

Total lbs. butter made.....	163619
Average net price paid per lb. butter fat	36.62
Average test of cream.....	24.2
Average overrun	23.5
Cost of making not reported.	

Bone Lake Co-operative Creamery.

Total lbs. butter made.....	158741
Average net price paid per lb. for butter fat	36.50
Average test of cream.....	25.67
Average overrun	20.78
Cost of making not reported.	

Lykens Co-operative Creamery.

Total lbs. butter made.....	116095
Average net price paid per lb. butter fat	36.27
Average test of cream.....	27.93
Average overrun	25.71
Cost of making butter per lb....	2.37

Volga Co-operative Creamery.

Total pounds butter fat.....	106715
Average net price paid per lb. butter fat	36.14
Average test of cream.....	29.22
Average overrun	22.59
Cost of making butter per lb....	2.10

Apple River Co-operative Creamery at Range.

Total lbs. butter made.....	199509
Average net price paid per lb. butter fat	35.62
Average test of cream.....	25.60
Average overrun	24.31
Cost of making not reported.	

Amery Co-operative Creamery.

Total pounds butter made.....	257905
Average net price paid per lb. butter fat	35.32
Average test of cream.....	26.57
Average overrun	21.31
Cost of making not reported.	

Milltown creamery paid the highest price, 37.40, and Volga creamery had the highest average test of cream, 29.22.

In comparing Polk county creameries with the largest co-operative creamery in Wisconsin, and perhaps in the world, we find that Polk county prices compare very favorably.

Barron Co-operative Creamery.

Total lbs. butter made.....	1,389,820
Average net price paid.....	36.15
Average test of cream.....	27.58
Average overrun	21.1
Cost of making butter per lb..	1.13

C. B. POST, Agricultural Agent of Ashland county, says there will be an unusual amount of clearing this year. Farmers have contracted for an extra amount of dynamite.

IT IS stated in some Upper Wisconsin counties where farmers are holding potatoes for higher prices that the assessors will render a statement for personal property taxation on this stock. Under this plan, which is to be carried out in some Upper Wisconsin counties the farmers will discover that their personal property assessment has been largely increased.

R. A. KOLB, county agricultural agent in Taylor county, warns against seed potato agents who are attempting to dispose of seed stock grown in other states, especially in the east. Last fall an agent canvassed Taylor county, selling New York potatoes as high as $6.00 per bushel for seed. Mr. Kolb says local potatoes are just as good and can be bought at about half price.

AS a member of the Oneida Council of Defense, Mr. W. D. Juday, county agricultural agent of Oneida county, has issued the following general recommendations:

That each grower, as far as possible, put in a series of diversified food crops.

Peas and beans are food high in protein and make good substitutes for the high priced meats. Both crops can be grown well here. The peas can be planted any time after May 1st, as they are not affected by light frosts. Beans are more tender and should not be planted until May 20th to 25th.

Carrots are a splendid vegetable and no family should raise less than enough to keep them over the winter. They are hardy, can be sown most any time after May 1st and yield big returns.

We can grow no surer crop than rutabagas. They can be sown any time up to last of June. It is best to sow this crop in drills.

An early variety of sweet corn (Golden Bantam preferred) is also an excellent food crop to grow. We can can or dry the surplus and thus be assured of another excellent winter vegetable.

The cost of seed per acre is an important item in the growing of each of the above-named crops and their food value is great.

Some of our best soil this year should be planted to the potato. This will be our cash crop and we should aim to make our yields per acre large so as to materially cut down cost of production. We know we can get good crops with potatoes. Put the crop in early and tend it better than you ever have before.

Buckwheat is a good cash crop as well as food crop to sow on land we have brought under cultivation late.

TO THE Editor:—An instance where it pays to raise roots is in the case of new settlers in northern Wisconsin. Ordinarily one-fourth to one-half of an acre of roots can be made to supply succulent feeds that shall be required for three or four cows and be the means of doubling their flow of milk through the winter months. However, after a settler has ten acres or more cleared, he should still continue to grow some roots, but he should depend upon silage to furnish the greater part of his succulent feed.

In an experimental way we have grown many varieties of roots, including rutabagas, turnips, stock carrots, and many kinds of mangel-wurzels, and have come to the conclusion that for our purpose the rutabagas are the most profitable to grow. First, because we can get a better stand; second, because it is less work to care for them, and third, because the quantity and quality of feed secured from a given acre of land is as great or greater than with any other variety of roots.

Rutabagas will grow on any soil that will grow corn or potatoes. As with other crops, so with roots, the better the land as to fertility and tilth the greater the crop we have a right to expect.

To grow a big crop of roots, put your land in the same condition that you would to grow a big crop of corn or potatoes. We have grown our rutabagas at distances varying from two to three feet apart in the row, and have come to the conclusion that where the land is in the best condition as feed can be grown at three feet or closer together and with less work.

We thin out to about ten inches in the row. If the soil is not in the best condition, they may be planted closer together, but on richer soil they must have more room to grow and develop.

Rutabagas can be sown any time up to the first of July, and in northern Wisconsin they will continue to grow until stopped by cold weather. I believe the largest yield is obtained by sowing them early, say the 20th of May, or thereabouts, as that gives them a long time to grow.

The crop may be cultivated and thinned out any time after the plants are an inch or two above the ground. After this they should be cultivated and hand hoed often enough to break up a dust mulch and to keep down the weeds. This cultivation will have to be kept up only until the leaves are large enough to completely shade the ground, when the crop will usually take care of itself. In this way in an ordinary season, rutabagas can be made to yield one thousand bushels per acre in the clay loam sections of northern Wisconsin.

The past season it cost us about five cents per bushel to grow and store them away in root cellars.

Some people object to raising roots because it requires too much work to grow them. From the standpoint of area, it does unquestionably take more work to grow roots than other stock feeds, not so, however, when taken from the standpoint of value. We can grow an acre of grain much cheaper and with less labor than is required to grow an acre of roots, but it costs more to raise a given value of grain products than it does the same value of roots.

Edward Nordman.
Chairman Agricultural Committee, State Council of Defense.

TO the Editor:—One of the greatest grains of the world is not looked after by the state nor its people and even our farm papers seem to have forgotten it. We have such a grain which can be cultivated and only one little handful is plenty for a meal. Now is the time to see that this grain is harvested and the thousands of acres that go to waste in northern Minnesota and northern Wisconsin would feed thousands, even millions, if it was looked after. It could be cultivated and harvested by machinery. The red man is the only man that has enjoyed this great grain, namely, wild rice. Now, Mr. Editor, please take this up with our experiment workers.

Geo. P. LeaQuee.
Bayfield county, Wis.

Our Farm Help Column

The Wisconsin Farmer is indebted to the Chicago Daily News for a number of names of men and women who want jobs on farms in Wisconsin. The names furnished us by the News are included in the list given below. The Chicago Daily News is coöperating with the government in running a farm labor recruiting station. We suggest that any of our readers who are in need of farm help, and who do not find listed below any offer which is interesting, write to the Farm Labor Recruiting Department, care Chicago Daily News, Chicago, Illinois. The Daily News is making no charge for its services.

HELP WANTED.

Sam Christy, Clarksville, Iowa, wants man for eight months.

Anton Flidr, Pocahontas, Iowa, wants man for remainder of season, $45 a month.

L. A. Dagett, Eldon, Iowa. Wants experienced steady man. Good wages.

FARM JOBS WANTED.

Chas. Le Dates, Walworth, Wis. Married, six boys eig htto twenty. Wants job on grain or dairy farm for self and three boys, fourteen, seventeen and twenty years old. Wages for self and wife $60.

John Koran, 507 So. 8th Ave., Maywood, Ill. Married, two children. Will work alone or with wife as cook or housekeeper.

W. K. Webster, 1150 West Washington St., Chicago, Ill. Married, one child. Age twenty-three. Wages $35 or $40 per month.

G. W. Chambers, 3159 Warren Ave., Chicago, Ill. Experience in general farming. Married, no children.

James McDowell, 2713 Madison St., Chicago, Ill. General farm hand, seven years' experience.

Cyril J. Ford, 731 Buckingham Place, Chicago, Ill. Single. General farm work. No experience. Age sixteen. Wages $25 per month.

Edgar Lowrey, 3733 Osgood St., Chicago, Ill. Age sixteen. No experience. Wages $25 per month.

R. Oefstedal, 4835 West Rice St., Chicago, Ill. Age twenty. Six years' experience on cattle farm.

Arthur Benson, 6946 Union Ave., Chicago, Ill. Age seventeen. Experience on truck farm. Wants job on grain farm. Wages $30 per month.

Philip M. Langerman, 6159 Evans Street, Chicago. Age nineteen. No experience. Wages $20 to $25 a month.

James Andronier, 757 West Madison St., Chicago, Ill. Age twenty-four. Greek nationality. Experienced. Wages $35 to $45 per month.

D. W. Baxter, 320 Humphrey Ave., Oak Park, Ill. Age eighteen. Some experience. Wages $20 to $25 per month.

Norman L. Smith, 1002 No. Dearborn St., Chicago. No experience. Does not want to go more than seventy-five miles from Chicago.

Frank J. Batista, 2539, So. Hamline Ave., Chicago, Ill. Single. Age twenty-two. Experienced. Wants work on dairy or grain farm.

Frank Colby, 2132 West Lake St., Chicago, Ill. Experienced. Will work on shares.

John Robinson, 3135 Archer Ave., Chicago, Ill. Experienced. Age fifty-one.

James Colas, 14 East Ontario St., Chicago, Ill. Experienced. Married. No children. Wife also wants general housework.

Edward M. Milward, 2938 No. Clark St., Chicago, Ill. Age twenty-two. Experienced general and dairy farming.

Bremmer Wattian, 3134 West 15th St., Chicago, Ill. Jewish. Age seventeen. Experienced, $30 per month.

J. D. Batson, 2304 Keeler Ave., Chicago, Ill. Age thirty-two. Married, three children. Experienced in general farm work.

Michael Linnane, 6316 Dorchester Ave., Chicago, Ill. Age twenty-five. Fifteen years' experience general farm work. Wages $40 per month. Wants all year job.

Frank Kengen, 109 West Elm St., Chicago, Ill. Single, three years' experience general farm and carpenter work. Wages $45 per month.

Frank Waldo, 2422 West Lake St., Chicago, Ill. Married. Two children. American. Thirty-five years old. Experienced. Wants work for self and wife in Waupaca county, Wis. Prefers tenant house and $50 per month salary.

A. T. Hougard, 1423 E. 69th Place, Chicago, Ill. Dane. Age twenty-six. Experience in general farm work. Wants job for self and wife, $50 per month for the two. Wife cannot do milking.

Mrs. Bertha Hodgkins, Sparta, Wis. Care of State school. Wants job for her son seventeen years old, experienced in all kinds of farm work. Also wants place for herself and boy, fifteen years of age, also with farm experience.

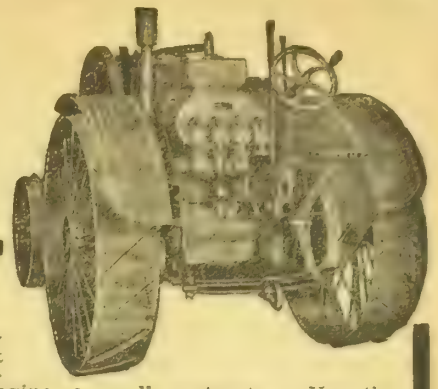
George C. Little, 624 No. 56th Ave., West Duluth, Minn.

Ray Wilson, 4515 Page Boulevard, St. Louis, Mo. Experienced at farming and as machinist.

Efforts to attract labor from the United States to Canadian farms under promises of high wages and other inducements by means of advertisements inserted in newspapers in this country have been ordered discontinued. Sir George Foster, acting prime minister of Canada, has telegraphed Senator Kellogg, of Minnesota, to this effect in response to a message from the senator pointing out that thousands of laborers have gone to Canada as a result of the propaganda conducted in this country.

An earnest appeal has been made by the Kansas City Star for the preservation of one of the most beautiful of wild flowers, the columbine, particularly along tourist routes. This appeal will find sympathetic support everywhere throughout the states in which the columbine is a natural annual, but it should be broadened to include all wild flowering plants that are needlessly, and often wantonly, pulled up by the roots. The conservation of wild flowers is a patriotic duty.

The Tractor To Buy



EAGLE

YOU want a tractor that not only gives you dependable traction, but belt power for your silo filling, threshing, etc. The Eagle is an all-round engine, as well as tractor. Has the famous two-cylinder engine with valve-in-head motor. The outgrowth of years' experience in motor and tractor manufacturing. Runs as well on **kerosene** as gasoline. Ideal for medium-sized farms. Simple in construction; all parts easily accessible. Easy to operate. 8-16 H. P.; 12-22 H. P.; 16-30 H. P. Sold under an absolute guarantee. For complete details send for our descriptive catalog today.

EAGLE MFG. CO. 740 Winnebago St., APPLETON, WIS.

INSTALL YOUR FURNACE NOW

Every person expecting to install a heating plant this year should ORDER AT ONCE.

Owing to the difficulty in securing material, and in transportation, it may be very difficult to secure a furnace late in the season. We bought a large stock of material last season, and we are prepared to furnish one of the very best heating plants at lower prices than can be made at the present price of material.

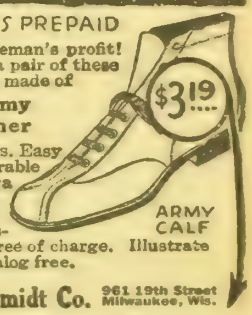
Bovee Furnace Works 204 W. 8th Street
WATERLOO, IOWA

FROM FACTORY TO YOU!

ALL CHARGES PREPAID

SAVE the middleman's profit! Send $3.19 for a pair of these farm-proof shoes, made of

Double Army Calf Leather



Soft, pliable uppers. Easy on feet. Solid, durable oak soles. Extra wide, sizes 6 to 11. Money refunded if you're not satisfied. We deliver free of charge. Illustrate shoe bargain catalog free.

Edw. P. Schmidt Co. 961 19th Street Milwaukee, Wis.

Greatest Potato Offer.

Don't miss the wonderful extra-early **"Six Weeks Potatoes."** None on earth can compare. Now is your time. I will send true seed for 10 big hills and add 50 cents worth of the finest vegetable and flower seeds to introduce, all for **two dimes** or 24 cents in stamps. 30 hills and the seeds for 50 cents; 70 hills and seeds, $1. More, same rate. Don't delay. Please tell everybody. **A. G. Cook (Potato Specialist) Hyde Park, N. Y.**—Adv.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Jersey Dispersion.

R. J. LINSCOTT will make a dispersion sale of his Jersey herd May 31st at Holton, Kan. This herd is headed by two of the leading Jersey bulls of the West, Jacoba Irene's Premier and Gamboa's Knight. There will be about 60 head of cows and heifers in milk or springing, and about 45 head of heifers and calves and 20 bulls, making 125 head. This is a dispersion sale of the largest and oldest herd of registered Jerseys in Kansas. There will be many register of merit cows, and everything will carry close up the blood of the most noted register of merit and prize winners—many close relations of world champion butter test cows. The sale will be featured by the blood of the world's champion long-distance dairy cow, Jacoba Irene. This cow held the world's official butter record for eight years, her dam has made three world's records since she was 15 years old—737 pounds butter in one year on official test when 18 years 11 months old at end of test. Jacoba Irene left two sons—one was sold in 1909 for $5,000 and is now held above price, nor can money buy one of his daughters of his owner; the other son is senior herd bull in the Linscott herd and he (Jacoba Irene's Premier 80234) will be offered in this dispersal, along with his sons and daughters and about 30 cows in calf to him—the chance to get the blood of the world's champion butter cows close up. The illustrated, historical catalog will be sent upon application. Address R. J. Linscott, Holton, Kan.—Adv.

Pig Reports Remain About the Same.

SINCE last report we have received eight more letters from breeders in reply to our letter asking for reports on their pig crop. The first 185 sows that we have a report on farrowed an average of eight pigs to the litter, saving six of this number. In this report 91 sows farrowed 753 pigs, a little over eight to the litter, and they have saved 581 or 6.4 pigs to the litter. The two reports are about the same. In all we have heard from 23 herds and it looks like six pigs would about be the average of the spring pig crop. During the next two or three months the representatives of The Wisconsin Farmer will see most of the pure-bred herds in the state and we will try to keep you posted as to what your fellow breeder is doing and the pigs that he has. Every spring you read about the "best bunch I or he ever raised" or some pig that "will be hard to beat at the fall fairs" or "the best pigs I ever saw," so unless there is some special feature about a litter we will not "rave" about the pigs yet. We all know that a few months will make a great difference, and we will not attempt to pick the future winners among the spring pigs. We will try to give you the information about the various herds that we think you would like to know, so follow the field notes of The Wisconsin Farmer.—Adv.

Some Good Chesters.

WE recently saw a nice bunch of Chester White pigs at Art G. Hoskins, Dodgeville, Wis. This is one of the younger breeders of the state, though his father had been breeding Chesters for several years. Hoskins hasn't the biggest herd, but he is a good feeder and brings his pigs along in a thrifty growing condition. He has an excellent February litter, nine raised and these are weaned and ready to ship and the man that gets a boar or gilt from this litter will be pleased with his purchase. They are sired by Paddy 2d, he by a son of Schoolmaster. Six sows are raising 47 pigs and these are all for sale to be shipped June 1st. Get your order in early, for good Chesters are in demand and these are good. Will have more to say about this herd later. Mr. Hoskins also has milking Short-horns headed by a son of Roan Clay, out of Janesville Rose 5th, that gave 8,609 pounds of milk when 15 years old. He is siring a fine uniform lot of calves. Don't overlook the Chesters. Mention this paper.—Adv.

Prichard & Sons' Have Good Stallion Sale.

W. E. PRICHARD & SONS, Ottawa, Ill., write: "We are writing to say that we are now practically sold out of Percheron stallions. We have only one coming three year old left to sell, and he is a right good dark gray, with lots of bone, style and substance. The last sale we made was to J. Crouch & Son, Lafayette, Ill., who took the good, big, upstanding, dark gray, Louvois, coming three years old. They bought him strictly for a show horse, and he certainly looks as though he ought to make good. We have never seen a colt improve faster than he has in the last six weeks. He stands up big, has a splendid head and neck, great quarters and deep body and stands on feet, pasterns and legs that we think are faultless. Besides this he can go one and move like a cyclone. If he goes on well until next fall the boys that meet him will know that they have been to a horse show."—Adv.

Offering Short-horns.

WE recently spent the day with P. N. Collins, River Falls, Wis., and saw the Short-horns he has for sale. Just at this time he has a few young bulls, red, from heavy-milking dams that he is offering at conservative prices. He also has a few heifers that he will sell. The heifers are a nice, typey bunch and any man wanting a few heifers of this breed should investigate this lot. Get your order in early and when writing please mntion The Wisconsin Farmer.—Adv.

Avoid Contagious Diseases.

ANYBODY who stops to think about it must come to the conclusion that the use of a good disinfectant where animals are kept is well-nigh impossible. Animal thrift can only follow animal health. There are germs of disease that affect animals just the same as germs of disease affecting the human family. Animals need to be kept clean, need clean quarters, need pure air to breathe. They are most likely to contract contagious diseases where the germs of disease are present. If you would not have your live stock exposed to the ravages of contagion, give them clean, healthy living quarters by using systematically and regularly a good, reliable disinfectant. The advertising in this paper of the Dr. Hess line of live stock preparations should have the close attention of all live stock owners. And among these preparations, none is more deserving a place about the stable than Dr. Hess dip and disinfectant. Dr. Hess dip and disinfectant is, first of all, a dip. It has a large use for the eradication of scab in sheep and sheep ticks. Also, hogs can be dipped or, what is perfectly to their liking, permitted to wallow in water to which Dr. Hess dip and disinfectant has been added. This is an excellent way to clean the skin and to rid them of lice—also for the treatment of skin diseases by keeping the skin in a condition to heal. A second and very important use of this preparation is as a disinfectant. It is necessary to destroy disease germs, keep down bad odors, etc. For such purposes there is nothing better on the market than Dr. Hess dip and disinfectant. It should be used freely about pens, stables, chicken houses, wherever there is a damp, foul-smelling place that affords a breeding place for germs of disease. It can be used to just as good advantage about the house as the stable, in sinks, drains, sewers, cesspools and the like. It will be found very valuable in the sick room, and in general to maintain healthful, sanitary conditions.—Adv.

Ready For Business.

WHEN you visit Adolph Nuttleman, West Salem, Wis., you will generally find him with a nice lot of Chester White pigs, and while many of the "boys" are complaining about the success they have had this spring, Mr. Nuttleman has nothing to say, for his pigs are up to standard. He had a few early litters and they are ready for shipment at this time; so if you want the pick of his bunch you must get busy at once. Mr. Nuttleman does not hold public sales, neither does he show at the fairs, so he has no reason to reserve the tops, consequently it is a case of the "first come first served" with him. This breeder is a good caretaker, and you will be pleased with the pig or pigs that you order from him. You need not be afraid to buy by mail from this breeder. Better order now, and don't forget to mention this paper.—Adv.

Sell Bull to Manitowoc Farm.

THE Pabst Stock Farm has just sold to the Manitowoc County Asylum Farms their young bull, Pabst Virginia Pontiac, born November 21, 1916, by King Pontiac, champion herd sire. The representatives of the asylum farms were on the lookout for individuality and have found just what they wanted when they visited the Pabst farm. Breeders are laying more and more stress on yearly records and the fact that there were 37 roomy box stalls, practically filled with cows under test, appealed strongly to the buyers. Pabst Virginia Pontiac's dam, Virginia Johanna, with a record of over 27 pounds of butter and 542 pounds of milk and a semi-official record at two and one-half years of 653 pounds of butter and 15,657 pounds of milk. This cow is by Johanna Rue Sarcastic Lad.—Adv.

Jerseys.

IF YOU want a few Jerseys, cows or heifers, E. E. Wyatt, Tomah, Wis., can supply your wants. He has a good working herd and you will be pleased with the Jerseys that he has for sale. He also has some young bulls coming on that are well bred and good individuals. Write him and please mention The Wisconsin Farmer.—Adv.

Bulls From A. R. O. Dams.

THE Silver Spring Farm Co., Eau Claire, Wis., have for sale a number of bull calves. They are out of their A. R. O. cows, for which this good herd is noted, and are out of an Ormsby Mercedes bull that heads the herd. Get the price on these young bulls. You can't afford to overlook this chance.—Adv.

THE Irreversible worm steering gear made by the E. H. Sprague Manufacturing Company, Department 15, Omaha, Neb., makes a wonderful difference in the ease and safety with which your Ford car may be handled. It absorbs the shock and strain that otherwise is taken up by the driver's arms. The front wheels are held firmly so that ruts and bumps cannot throw them aside, thereby giving absolute control from the steering wheel and minimizing danger of accident. This steering gear is inexpensive, easily attached, and is backed by the company's guarantee. Write the company for full particulars. See page 2.—Adv.

Dispersion Sale
Register of Merit Herd

JERSEYS
Holton, Kansas
May 31, 1917
125 HEAD 125

60 COWS and 45 heifers, calves and yearlings. 20 bulls, including 4 herd bulls. Jacoba Irene's Premier and Gamboa's Knight are in the sale. A majority of the females bred to Jacoba Irene's Premier (dam, Jacoba Irene, 1,191-lb. butter 1 year). 25 daughters of Jacoba Irene's Premier, 12 daughters of Imp. Oakland's Sultan, with more champion butter blood than ever in a western sale. D. L. Perry, auctioneer; Geo. W. Berry, fieldman. Send for the historical catalog. Address

R. J. Linscott **Holton, Kan.**

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

June 5, J. R. Linscott, Holton, Kan.

Holstein Cattle.

May 15, Sheboygan County Holstein Breeders' Assn. Sale, Plymouth, Wis. Foster Smith, Mgr.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

THE MARKETS.

Union Stock Yards, Chicago, May 5.—Continued liquidation of light cattle this week because of high feed cost and the belated rise of grass has carried values to irregular 15@40c lower levels on the bulk than a week ago, but there is no congestion in distributive channels and the vicissitude the trade has encountered has been due wholly to liquidation. This has put the visible supply in strong hands, weak holdings having been practically all dislodged. The market has possessed underying strength at all times. It merely needs relief from supply pressure to make a demonstration to that effect. The past six weeks have witnessed the slaughter of thousands of steers, especially yearlings, that would not have gone to the shambles under normal conditions until the July to September period. Many of them were laid in last fall for summer grazing purposes, but have been cut loose owing to the cost of corn and distrust of the future. The summer cattle market prospect warrants bullish sentiment. Visible supply from every possibe source is deficient.

Hog values are again crawling up. Whenever eastern demand revives, prices make a display of strength. In the language of a trader, "Hogs are not dear at $16.00. Product at that price costs us about 20c hung up. Figure what it is worth in Europe." Shipping demand is coming back. The recent break was due wholly to temporary laxity of orders from that quarter. If hogs were not worth the money, trash and quality would not be selling close together. Sixteen dollars for No. 1 hogs is warranted by supply and demand conditions.

The live mutton trade has continued last week's display of pyrotechnics. Supply around the market circle has hardly been within 50 per cent of normal even for this "between hay and grass" season when short runs are the rule and in the scramble for supplies sensational price jumps have been recorded which put last week's new records in the shade and which have more than verified the most bullish prediction. Sales of wooled lambs have been recorded up to $17.65, shorn to $14.65, while shorn yearling and two-year-old wethers mixed touched $13.25 and shorn matured ewes $12.50. Packers are fighting further upturns at this week-end, but the shortage in the available supply is acute and few care to venture an opinion as to what may happen in the way of establishing new high price levels in the immediate and near future.

Premature marketing has swelled cattle receipts at all markets for three months past and those who unloaded did not reinstate in a majority of cases. Already a load of long-fed steers weighing 1,400 pounds or more is a novelty and as the season works along this will be accentuated. Shortage of heavy cattle means tonnage deficiency. Two average yearlings are required to hang as much beef in the cooler as one big steer, consequently, supply statistics are deceptive. Numerically speaking, receipts of cattle this week have been liberal, seven western markets having had about 150,000 the first five days of the week, a gain of about 22,000 over the week previous and 33,000 more than the corresponding week last year, but average weights have been the lightest on record. A $13.40 top has been made on the best heavy steers and that kind is as high as a week ago, but the rank and file of the yearlings and fair to right good more matured steers of light and medium to strong weight have declined unevenly 15@40c. A fair class of dressed beef steers, not fat, but in decent condition, is selling at $11@11.50. If the crop could be limited to these and better cattle, the market would be in better shape. A grade of light killing cattle at $10.75@10.85 looks about 35c lower than a week ago. Good yearlings at $11@11.35 show less loss than the raft of $10@10.50 stuff. Whenever it is possible to hold these little cattle back it will be good policy. Considerable liquidation has been going on and some of these fine days what has happened recently in the lamb market will be repeated on yearling cattle. The feed bill is dislodging the June to August supply of little cattle long in advance of the usual time and it is probable that this stuff will keep coming.

The butcher she stock trade has been adversely affected by the declines in steers which the former must compete with for killers' favor. Good cows and heifers have been hardest hit, most of the cows now selling from $8.60@10, a right good to choice fat kind and heifers of good class going upwards from $9 showing 25@40c declines from a week ago, but common to fair butcher cows selling between $7.75 and $8.25 are not more than 25c down and canner cows are within 15c of a week ago, good cutters 25c down. Most of the canners are now selling at $6.75@7.00, cutters largely at $7.15@7.60. A spread from $8.25@9.75 is taking plain light to very good butcher heifers, only prime heavy and top-notch heifer yearlings being quotable to $11 and only cannery light heifers from $7.50 down. Bulls are a point lower than a week ago, but stags with a week ago while bolognas selling largely at $8.35@9.15, good to prime beef bulls at $9.40@10.25 and light canner bulls at $7@7.75. The veal calf market closes the week large-

The Wisconsin Farmer Sold His Live Stock.

THE WISCONSIN FARMER is certainly a good paper to advertise in, as I have found by experience. I sold a great many bulls, heifers and cows at satisfactory prices. —A. M. Anderson, Whitewater, Wis., breeder of Holstein-Friesian cattle.

The Wisconsin Farmer, Madison, Wis.
Guaranteed Weekly Circulation, 90,000.
Circulation in Wisconsin, 76,769.

Sheboygan County Holstein Breeders' Sale Plymouth, Wis. Tuesday, May 15, '17

75 head of good, pure-bred Holsteins, tuberculin tested and from breeders' herds.

Cows and heifers, some with official records, sired by Pabst Canary Pontiac Champion, Princess Mercedes Piebe Champion and King of Scott Valley, and bred to Uneeda Korndyke Alta Boy, Quineilo Johanna Korndyke Lad and Johanna Segis Pontiac Polkadot.

A few young bulls, one from a 29.50-pound daughter of Sir Rigtje of Pinehurst, and a well-bred two year old, Quineilo Johanna Korndyke Lad 166942.

Don't overlook this sale if you are in the market for good, pure-bred Holsteins

Catalogs are now ready and will be sent upon request. Mention The Wisconsin Farmer, and address

Foster Smith, Mgr., Plymouth, Wis.

Auctioneers—Mack & Laux. F. H. Everson in the box.

Truttschel Bros.
Sheboygan Falls

Are consigning a 29-lb. bull sired by their splendidly-built 34-lb. herd sire. The dam of this calf is a large handsome cow, the kind from which herd sires should be selected. This 29-lb. calf is a well-marked show type individual and comes from a herd where all the A. R. O. cows, including two year olds, average nearly 27 lbs. Nine cows were tested last winter, including two two year olds, that averaged 29 lbs.

R. C. Stolper
Random Lake

Is consigning a large number of mature cows and choice heifers, bred to his 27-lb. bull, Johanna Segis Pontiac Polkadot, a son of King Segis Pontiac Polkadot, a full brother in breeding to the $50,000 bull, King Segis Pontiac Alcartra.

John Melius, Adell

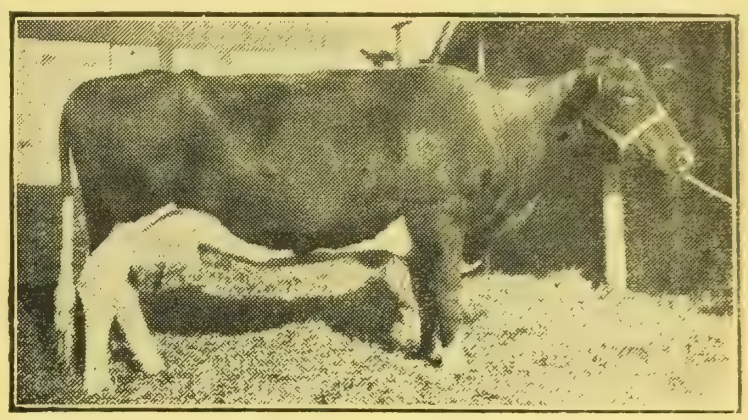
Is consigning four cows, a two-year-old bull sired by his 34-lb. herd sire, King of Scott Valley, two bull calves, one yearling heifer and three heifer calves. Three of the consignment are sired by the 34-lb. bull and three of the females will be bred to him. The two-year-old bull and one of the bull calves are from the two best cows in the herd.

Struve Bros., Plymouth

Are consigning four choice heifers, three of which are bred to their 28-lb. bull whose cut is shown in this advertisement.

A beautiful yearling heifer consigned by R. C. Stolper, that is representative of the young stock he is consigning.

Struve Bros.' 28.71-lb. herd sire. They are consigning three good bred heifers to this sale that are worth looking up.



Good individual in her prime, bred to the 27-lb. bull, Johanna Segis Pontiac Polkadot, and consigned by R. C. Stolper.

Another splendid cow bred to Johanna Segis Pontiac Polkadot, a 27-lb. bull, and consigned by R. C. Stolper.

Truttschel Bros.' 34-lb. herd bull, the sire of the 29-lb. bull calf they are consigning. The dam of this calf is a large, superb individual.

CHESTER WHITE SWINE.

CHESTER WHITE

FALL BOARS of different ages, from September to November farrow, sired by Ignatz, the junior champion of Minnesota, 1915, and Calloway's Kind, first at Minnesota in the senior yearling class and grand champion at La Crosse, Wis., for sale. Also booking orders for spring pigs of March and April farrow to be shipped at three months old. Address

H. A. DERENTHAL, Manager, EAST SIDE STOCK FARM, WYKOFF, MINN.

POLAND CHINA SWINE.

DO IT NOW

BUY Poland Chinas that will farrow this fall. I have had two fall gilts farrow in August. They are dandies, descendants of a Big Joe-A Wonder sow, and sired by Double Hadley 4th. Also 104 March and April pigs to be shipped later. I'll sell you good Polands worth the money. Write
R. MEINKING Bangor, Wis.

BUY YOUR HERD BOAR NOW

MY private sale catalog now ready. If you want a good Poland China boar, to be shipped at weaning time, and will pay a fair price for the good kind, let me describe the boar you want.
P. W. YOUNG Box 100, Prosper, Minn.

GOOD POLANDS

All in demand. I can spare no more. Thank you.
C. S. Flesch Mt. Ida, Wis.

POLAND CHINA

BOARS and gilts of August farrow, well grown, good type, sired by KING and BLACK EXPANSION. Prices right. Address
Jas. Derivan Fox Lake, Wisconsin

ly $1 higher than a week ago with the bulk of good to choice at $12.50@13.

Weather conditions have been more favorable for the stock and feeding cattle trade this week, but the steadily advancing corn market has been a bearish factor and bulk of the trading has been for a class of light fleshed cattle to put on grass. Prices have been well sustained. The bulk of sales has been at a range of from $8.75@9.75, a few choice fleshy feeders going at $10 and above. Most of the well-bred 700 to 975-lb. feeders are selling at $9.35@9.6 and fair to good kinds at $8.60@9.25. Ohio and Pennsylvania have been relatively good buyers. Traders are confident that a little warm weather and a let-up in heavy farm work will send a liberal number of buyers to market, as the shortage of cattle on feed for fall marketing is becoming more apparent each day.

Hog supply has been well maintained this week, the run around the western market circuit having shown a moderate increase over the week previous, but demand has been healthy and at the close yesterday prices stood within 5 to 10c of a week ago with a $15.95 top on choice heavy butchers and selected "singers" for the Canadian outlet and the bulk cashing at $15.60@15.90, the general average at $15.74 comparing with $15.78 a week ago. The present hog market has a legitimate appearance. Stocks are light and are being constantly depleted. Both beef and mutton are scarce and pork consumption will be enormouh right along. If the war continues enormous armies must be fed, while peace means universal demand for meats of all kinds. Skepticism as to legitimacy of present values under these conditions is unwararnted. Hogs have undoubtedly been closely marketed. There has been every possible incentive for gathering, prices being high and the feed bill likewise. The next considerable suppy, so far as tonnage is concerned, will be the summer crop of grass sows. There will be some fall-farrowed pigs, but they will cut little figure as far as the stuff that goes into packers' cellars is concerned. Sows will undoubtedly go to the shambles early at deficient weight.

Live mutton trade at the close yesterday stood 75c@$1.15 higher on lambs, shorn stock gaining most, and from 50@75c higher on sheep and yearlings than a week ago. Everything on the list is commanding record and phenomenal prices, but both supply prospects and wool trade conditions are such as to warrant expectancy of a continued remarkably high market. The top on wooled lambs, a supply now virtually limited to the last shipments of Colorado fed stock, has reached $17.65, or $4.05 per cwt. higher than the highest sale ever recorded here prior to the current year, and $4.75 above the top Colorado-fed lambs last May when $12.90 was reached for the first time. The top on fed lambs in 1915 was $11.85 and none ever sold prior to that year above $10.60. Shorn lambs are selling at an unprecedented discount for this season of the year from woolskins, but the spread between the two classes will narrow as the weather warms up. Choice 75-lb. shorn fed western lambs reached $14.65 here yesterday and the bulk sold at $14.15@14.45, only half-fat or extremely weighty kinds at $13.75 down. Shearers paid up to $17.10 for some heavy fleeced, mostly Colorado-fed lambs to shear and finish for the market. The last new crop western lambs to reach Chicago this season, good weight but rather dried-out Arizonas, averaged 67 lbs. and sold at $16.85. A few prime heavy native ewes in these reached $14.25, best shorn ewes and a good class of shorn wethers selling at $12.50 nad well conditioned 97-lb. shorn yearling and two-year-old wethers mixed up to $13.25.

1-2 TON I. C. S. AND CHESTER WHITES

WE are sold out at present but we are booking orders for spring pigs. These will be sired by Schoolmaster, the greatest boar of the breed, undefeated grand champion for 1916; Crandell-wonder, grand champion Ohio State Fair; Callaway Edd, grand champion Mo. State Fair, School Boy, grand champion at Wisconsin State Fair and Chicago fat stock show, and Abo 2d. We have 100 sows due March and April. Get our big catalog. We ship on approval. Reg. free. Harry T. Crandell & Son, R. 1, Cass City, Mich.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

5 Sows, 4 Boars

FARROWED Feb. 5, 1916. Chester Whites. Dandies and ready to ship. Also 40 March pigs to be shipped June 1st. Let me describe them.
ART G. HOSKINS Dodgeville, Wis.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY Mt. Hope, Wis.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write
Wm. F. Butts Evansville, Wis.

RAINY DAY

BY Callaway's Favorite, one of the good Chester White boars of the state. Booking orders now.
WALTER GEORGE EVANSVILLE, WIS.

DUROC JERSEY SWINE.

Duroc Spring Pigs

HAVE over one hundred good ones sired by the grand champion

KING DEFENDER

Let me book your order now. Address
JOHN L. FISHER JANESVILLE, WIS.

War Durocs

HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
DENNIS SHEA Melvina, Wis.

Cook's Defender

PIGS by the above Duroc boar will be shipped June 1st. He is by Defiance and is in the 1,000-lb. class. For the pick order early.
EMMETT COOK & SON Richland Center, Wis.

CLARENCE GEORGE
OF EVANSVILLE, WISCONSIN

IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. Jenkins Bangor, Wisconsin

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address
Geo. D. Spraain & Sons West Salem, Wis.

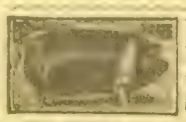
ATWATER

HAS no Durocs to sell until May. Will book your order.
L. F. Atwater Bangor, Wis.

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address
F. R. Constance & Sons Waupaca, Wis.

HAMPSHIRE SWINE.



HAMPSHIRES or "Belted" Boars. Have 20 May weanlings, but in addition offer my 2 yr. old herd boar, 4 gilts, 2 bred, 2 boars, not related. All stock registered. Dane Stock Farm, Oshkosh, Wis.

MULE-FOOT SWINE.

IMMUNE Mule-Foot hogs, all ages. Sired by and bred to champion boars. Reg. Hereford cattle. Chas. D. Thompson, Letts, Ind.

SHORT-HORN CATTLE.

RAISE MORE BEEF

Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short-horn is the great improver.

Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.

Use only pure-bred registered bulls. We will help you to secure them.

AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
13 Dexter Park Avenue Chicago, Illinois

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, Janesville, Wisconsin

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
J. E. KENNEDY JANESVILLE, WISCONSIN

Short-horns

MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

Short-horns For Sale

WE HAVE some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

RED POLLED CATTLE.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

HEADQUARTERS FOR

Red Polled Cattle

THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.
J. W. SALTER & SONS - UNITY, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner, Chariton, Iowa

HORSES.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds.

A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

Largest Collection on Earth

150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

H. LEFEBURE & SONS, Fairfax, Iowa
5 miles west of Cedar Rapids
If in Cedar Rapids phone us for hourly Interurban service

W. E. PRICHARD & SONS
OTTAWA, ILL.

PERCHERONS

GROWN on grass; big, sound, young and reasonable in price. If you want a stallion see US before you buy.

Percherons, Belgians, Shires,

Ten stallions ready for heavy spring, also mares and fillies. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals at first rank for sale.
Fred Chandler, R. 7, Chariton, Iowa.

BERKSHIRE SWINE.

CHOICE BERKSHIRE PIGS

OF March and April farrow, most of them sired by Amos' Rival 32d, and all out of large mature dams. I can please you. For prices, write
A. P. CORTTE Lomira, Wis.

Kindly mention this paper when writing

WANTED

TO trade first-class farm in Iowa or Minnesota for high-class herd of Short-horns or Herefords. Nothing but top quality cattle considered. Give complete information concerning herd in first letter. Will give complete description of property and location of same in reply.
AMOS BURHANS Waterloo, Iowa

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking—high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

SHORT-HORNS

STRICTLY BATES. Bates cattle for milk and beef. Have bulls for sale sired by 17th Duke of Wapsie. Write now.
B. W. LITTLE Janesville, Wis.

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.
P. N. COLLINS RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

SHORT-HORNS

BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. Drake & Son, Beaver Dam, Wisconsin

HILLSHADE FARM SHORT-HORNS

IF you are looking for good cattle at prices that are right we can suit you. Address Eben E. Jones, Rockland, La Crosse county, Wisconsin.

KITTY CLAY HERD HORNLESS SHORT-HORNS AND SHORT-HORNS

YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address
J. Warren Hoyt Rosendale, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin.

SHORT-HORN BULLS

Red, white and roans. For particulars address
R. A. Morley Co. Baraboo, Wisconsin

SHORT-HORNS

Both sexes and good individuals. Address Williams Bros., Bangor Wisconsin.

SHORT-HORN bulls for sale from 9 to 14 months of age. J. D. Beetham, Lancaster, Wisconsin.

JERSEY CATTLE.

Oak Grove Jersey Farm

Bull calf, dropped Aug. 21, 1916, solid fawn color, will show as a calf this fall; tuberculin tested; dam on official test, price right. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested sows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins - - Fairwater, Wisconsin

JERSEYS.

HEIFERS AND BULLS

SIRED by Oaklawn Tam Valentine and a son of Golden Maid's Viscount. We are milking 50 cows. **Fred Stubley, Black Earth, Wis.**

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Golden a grandson of Sophie 19th and son of Lancaster with 1,035 lbs. of 85% butter. For further information write O. R. & R. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

Kindly mention this paper when writing

HOLSTEIN-FRIESIAN CATTLE.

A 30-LB. BULL CALF You'll hear from

PABST KORNDYKE BLACKBERRY
Born March 5th;

Sire—Korndyke Segis Johanna, our $12,500 junior sire, by Johanna McKinley Segis, who is by King Segis and out of Johanna DeKol van Beers, 40.07. Korndyke Segis Johanna's dam Pontiac Lady Korndyke, 36.03, by Pontiac Korndyke; 2d dam Lady Korndyke Pauline DeKol, 29.14 by Pontiac Korndyke.
Dam—Pabst Blackberry at three years 31.68 by a 29.42 (three years) grandson of Hengerveld DeKol.
2d Dam—Pabst Pontiac Burke (three years), a 23.24 by King Pontiac Champion, our senior sire, by King of the Pontiacs.
3rd Dam—Edith DeKol Burke Hengerveld, 33.86, by DeKol 2d's Butter Boy 3rd.

A GRAND INDIVIDUAL
Watch for him at the
Waukesha Sale—May 31st and June 1st
Over 30 Young Bulls out of High producing A. R. O. Cows to select from.
Write for list.
PABST STOCK FARM
(Breeders—Not Dealers)
Oconomowoc, Waukesha County, Wis. **Box W**

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS **R. R. 11** **FRANKSVILLE, WIS.**

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ **SHEBOYGAN FALLS, WISCONSIN**

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.
TULLOCH & FRIES' HERD **GENOA, WIS.**

DON'T WAIT

UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.
EDGEWOOD FARMS, INC.
Pewaukee **Wisconsin**

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. Anderson **Whitewater, Wis.**

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS **Ixonia, Wisconsin**

AT LA BELLE VIEW FARM
ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
E. E. ROSENKRANS **Oconomowoc, Wis.**

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons **Elgin, Illinois**

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt **Oxford, Wisconsin**

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey **Grafton, Wisconsin**

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. Rhoda, 610 3d St., Watertown, Wis.

Holstein Bull for Sale

SIRED by a 2-474-pound grandson of Hengerveld De Kol, dam Aaltje Salo De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

GUERNSEY CATTLE.

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY **SHEBOYGAN FALLS, WIS.**

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS **WAUKESHA, WISCONSIN**

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

HOLSTEIN-FRIESIAN CATTLE.

Milford Meadows Stock Farm

Lake Mills, Wisconsin
Emmons Blaine, Prop.
50 A. R. O. HOLSTEIN COWS WITH RECORDS UP TO 34½ LBS. IN TOTAL HERD OF 200, HEADED BY 29-LB. AND 31-LB. SIRES.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON **NASHOTAH, WIS.**

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS **Medina, Wis.**

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER **Sheyboygan Falls, Wis.**

3 HOLSTEIN BULLS

FROM 6 to 9 months old. They are well bred, evenly marked and of good size. Also a few choice calves. Prices are very low for quick sale. Address **SWAN BROTHERS, Box 117, Sta. B, R. 6, Milwaukee, Wis.**

HOLSTEIN BULL FOR SALE
HOLSTEIN BULL, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

HILLSIDE STOCK FARM

KING Fayne Pontiac Ormsby, 18 mos. old, seven-eighths white straight; dam, 600 lbs. milk, 24.06 butter in a week. Also a few registered Holstein heifers for sale; price, $250.00.
KIRKPATRICK BROS. **Reedsburg, Wis.**

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers **Lyons, Wis**

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.
CHESNEY FARMS **LAKE VILLA, ILL.**
O. W. LEHMANN, Prop. **J. GRIMSHAW, Mgr.**

MOUND CITY FARM

OFFERS Guernsey bulls sired by Langwater Frenchman 19226 and Dairymaid's Glenwood Pinehurst 3d 26948. 30 records average 460 lbs. 20 average 505 lbs. fat. Send for sale list.
CHAS. A. WILKINS **Platteville, Wis.**

Four Guernsey Bulls

FROM 7 to 14 months old. A few younger ones. Most of them are from A. R. cows or cows now on test.
W. G. Jamison & Sons, Appleton, Wisconsin

RILEY MARTINY & SON

BARABOO, WIS.
TWO Guernsey bulls of serviceable age for sale. Booking orders for August and September litters of Duroc breeding.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (six nearest dams av. 590 fat). Dam, Yeksanette (126 ds. 221 fat). He traces nine times to Yeksa. Send for details.
A. O. OLESON **Livingston, Wis.**

A FEW WELL-BRED YOUNG BULLS — *the Harlem Farm* — **WRITE YOUR WANTS**
Emory C. Meitz **GUERNSEYS** **Appleton, Wis.**

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON **Neillsville, Wis.**

YEARLING GUERNSEY BULL
READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick **Greenville, Wis.**

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.
E. H. KIESLING **Jefferson, Wis.**

HEREFORD CATTLE.

WALTER BROS.' HEREFORDS

ONE two year old. Bulls for sale. Two senior yearlings, by Beau Gomez 2d, [illegible] $4,000 Beau Gomez. Outstanding [illegible] at reasonable figures.
WALTER BROS. **Chippewa Falls, Wis.**

LIVE STOCK AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY versed on pedigrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd. Chicago Illinois. Carey M. Jones, Pres.

I. E. STICKELMAN

CLARINDA, IOWA
I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

WAIT Don't pay double prices for Your Separator!

Learn how Galloway has protected you with Patriotic Prices. Act Quick!

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I want you to read the big Galloway Money-Saving Book and learn how I "divide the melon" with my farmer friends.

Get My FREE Book

These Are My Patriotic Prices!

Right now—when the country is calling for greater farm products! Right now—when you need a separator most, I am stampeding them all with my greater-than-ever separator offer! This special-to-you price proposition is my way of helping you to help the Nation. This year, of all years, much depends upon you men and women on the farm. These **save-you-half prices** show you how I am doing my bit so you can do yours. Every labor-saving implement you get now means that much more for you and the country.

Act Now—My Save-you-half Offer for 60 Days Only!

It's your last chance to save big money on a separator. Prices are soaring up and up. So don't hesitate—but act! Act! I set a 60 day limit for my special-to-you low-price proposition. How long my supply of these new Galloway Sanitary models at these half-to-you prices will last, while the rush is on, I cannot say. But I promise you this! If you let me hear from you now—**at once**—I'll see that you get prompt service and immediate delivery.

Sold to You on Trial! Test it for 180 Milkings!

Yes Sir! Test it for every separator point. Test it alongside the highest priced separator you know. That's what thousands of my separator customers do, and they come right back and say my new sanitary beats them all. But take nobody's word. Try it for 90 days yourself. Then if it isn't just what I claim—ship it right back. I'll pay the freight both ways. Its clean, perfect skimming will astonish you. You will marvel at the ease with which you can operate and clean it. Every part is rounded—no sharp corners for dirt to gather. It runs true in perfect alignment—always—because one casting—the gear case—supports all the gear shaft and both bowl-spindle bearings.

The entire gearing has but two high-carbon steel shafts—equipped with long perfect fitted bearings. All working parts run in constant oil spray. No sharp edges or corners in bowl to brake up butter fat globules. Separating discs separate entirely from each other for washing. Every drop of milk gets full skimming force of the bowl. Milk is so distributed that each disc gets its full share to skim.

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Easy to Run and Clean

Gentlemen: I have used the —— (names high priced machine) separator, but find the Galloway better in every respect, both in skimming and turning. Also the Galloway is easier to clean than others, and I am perfectly satisfied with my machine. A. J. Simmons, De Kalb, Ill.

Wins the Contest

Dear Sir: We have a contesting association here and we had our separator tested. It tested the best of any separator around here. F. Moore, R. 1, Viking, Minn.

Kept Skim Milk 3 Days But Found no Cream

Gentlemen: We find your No. 9 New Sanitary Cream Separator to be a first class machine in every respect, easily operated, easily cleaned, perfectly sanitary and a close skimmer. Have kept the skim milk for three days without one particle of cream appearing. Mrs. H. S. Campbell, Cynthiana, Ky.

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THE WISCONSIN FARMER

VOL. XLVI. NO. 20. THURSDAY, MAY 17, 1917. WHOLE NO. 1842

Making Agriculture Interesting.

Miss Maude Mitchell, of Sussex School, Waukesha County, Wisconsin, Has Worked Out Quite Satisfactorily the Handling of Agriculture in Rural Schools.

THE Sussex school, Waukesha county, has in many ways achieved a little bit more than the ordinary. It has demonstrated that the teaching of agriculture can be made of enough interest so that the parents encourage the effort of the child in pursuing this subject. It has also demonstrated that a woman can teach agriculture so that the children will actually learn something. There is no better evidence of the satisfactory results attained than the prizes awarded in competition with state and county bodies at the respective fairs. And the Sussex school has had a number of prizes awarded it within the last year. At the Wisconsin State Fair last year their complete exhibit won first prize in the educational exhibit for industrial work in all grades against all other counties in the state. The prize went to the Sussex school representing Waukesha county. Pupils from the Sussex school have won firsts in the county and state canning contests in county educational exhibits and in industrial work in these exhibits.

"I like to do a little more than is outlined in the book when it comes to teaching agriculture in a school," said Miss Maude Mitchell, in speaking of her work as principal of the Sussex school, District No. 10, Lisbon, Waukesha county. The added touches requiring much work and planning outside of school hours are the important factors that go to make up a successful course of study. Since its introduction into the rural schools, agriculture has come in for much criticism warranted to a large extent by the ignorance and attitude of the grade school teachers who taught the work. Miss Mitchell does not come under this classification and her pupils, instead of regarding the agricultural courses as tedious and useless, try their level best to do the work assigned to them a little better than the other boy or girl. This spirit has made the prizes possible which Sussex school has to her credit in county and state contests.

There are about 100 pupils in the school. Industrial work is taught in all grades. The mere requirement of teaching children the industrial work does not bring results. The teacher must be able and willing to do more than the prescribed bit. Children have active minds and their interest is only a passing one on most subjects. Making the course of study attractive enough to hold their attention is the acid test of ability. Results follow as a matter of course where this is the case. There are various methods of holding a child's attention. Miss Mitchell does it by tying up the work with the common farm practices. Thus during the course of study the pupils learn the proper method of testing corn, and after they have made a test of their own corn from the farm and have really grasped the essentials of a strong and a weak kernel, they are permitted to assist in the testing of corn brought to the school by farmers of the neighborhood. This corn is tested free of charge to anyone in amounts sufficient to plant ten acres. Thus many of the farmers, though they have already run a test of their corn, can get a check on their work by bringing samples to the school. The result is interesting to pupil and farmer alike. The one wants to show his ability and the other anxious to have his test verified.

In like manner the work in the dairy course is handled. Representative samples of the herd and of individual cows are taken and tested for fat content with the Babcock tester. Each pupil is taught the importance of accuracy in testing and the difference of reading the test correctly and incorrectly. They know as well as their parents that proper temperatures play an important part in the correctness of the test. They also have a very definite idea that some of the cows that are being milked at home must not be as profitable as supposed by the family. Feeding principles and the worth of the different feeds are taught with a home problem as basis for the study. That is something real to tie to and that makes learning worth while. At the close of the course the farm of some large and successful dairy farmer is visited and the owner readily consents to take the leadership for the day. Type and conformation of dairy cows are studied and the young boy or girl finds nothing tiresome about seeing a record animal and having the outstanding features pointed out. With the records of the cows to prove the points that go to make for large production, it gives the young mind a mental picture that will not so soon be lost.

SUSSEX GRADED SCHOOL, WAUKESHA COUNTY, WISCONSIN.

Noxious weeds are handled in the same manner the other subjects are treated. Each child is asked to make a selection of the weeds found on the home farm, and when these have all been neatly pressed and mounted on charts and identified, other weeds are gathered. Of each weed the life history and method of eradication is studied. The collections of the children are all uniformly neat and complete. Some have larger collections than others, but none are allowed to have below a set minimum number.

In the same way the other products of Wisconsin are taken up and studied, not from the standpoint of making these young minds authorities on any one or all of these subjects, but simply to stir the curiosity of the pupils and teach them some of the little things that will lead to larger accomplishments in the future. And the method followed by Miss Mitchell is very promising.

A great help in making the young students appreciate neatness are the charts which each must prepare on the subject studied. Exhibits of different kinds are also prepared by individual students. For instance, the son of the local cheesemaker will make a chart showing the different processes that have to be completed before the finished product reaches the market. These charts consist of samples of each step and are hung in the schoolroom. At the proper time the different steps are explained. With the chart goes a manuscript on the subject based on bulletins, textbooks and farm papers.

With each study taken up the implements necessary in planting cultivating and harvesting the crop are studied. Each child must know the name of the implements and by an arrangement with the town implement man these are explained in detail to the class.

Manual training has been carried on with some difficulties, due to lack of equipment, but the work is progressing well now.

In the domestic science courses the girls under the leadership of Miss Pearl Boots are also showing splendid results. Alternating each Friday afternoon the girls of the sixth, seventh and eighth grades take up cooking and sewing. As the time allowed by the schedule is too short to give the course the completeness which marks everything in the Sussex school, they are allowed to do considerable work in both branches at home for credits in the course. As a final and fitting conclusion to the course, the graduating members of the sewing class must make their own dresses to be worn at the graduation. These dresses are all alike in design

SUSSEX SCHOOL CHILDREN ON THEIR PLAYGROUND

(Concluded on page 18.)

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Questions and Answers.

Only Eight Miles to the Gallon.

I have a Model 83B Overland car which will not run over eight miles to the gallon of gasoline. The car runs well, and no gasoline leaks can be found. Your advice will be appreciated.

Answer.—The most common causes of excessive use of fuel are leaks in the gasoline tank or gasoline line, running with the spark too far retarded, faulty carburetor adjustment and incorrect timing. Gasoline evaporates so quickly that a small leak may not be noticed. A leak may be detected by noting whether the gasoline level in the tank lowers overnight.

A Three-Horse Evener.

I enclose a sketch of a three-horse evener. My horses weigh 1,660, 1,425 and 1,160 pounds respectively. All are in the best of condition for farm work. How much advantage should the 1,160-pound horse have on the evener so that the draft will be divided among the horses according to their weights?

Answer.—Figure 1 shows the general arrangement of the evener and the location of the horses. Figure 2

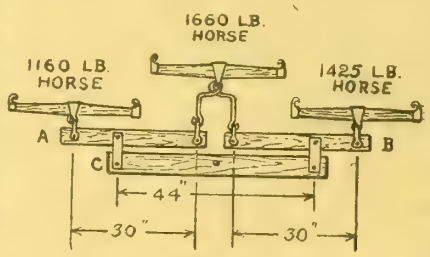

FIG. 1.

shows the pull at each end of the doubletrees and where the center holes should be located so that each horse will pull according to his weight. We will first consider doubletree B. The 1,425-pound horse is pulling on one end of this doubletree, and half of the pull of the 1,660-pound horse is exerted on the other. One-half of 1,660 is 830. The problem then becomes to locate the center hole so that the distance from the hole in the middle to the hole on one end multiplied by the pull on that end, is equal to the product of the other distance by the other pull. Referring to B, figure 2, it will be seen that

$$19 \times 830 = 11 \times 1{,}425, \text{ nearly.}$$

The distances 19 and 11 are found as follows:

$1{,}425 + 830 = 2{,}255$, the total pull.
$30 \times 830 \div 2{,}255 = 19$, the distance from the end hole to the center hole, 30 inches being the total center distance.
$30 - 19 = 11$, the other distance.

By a similar process it is determined that the distances for double-

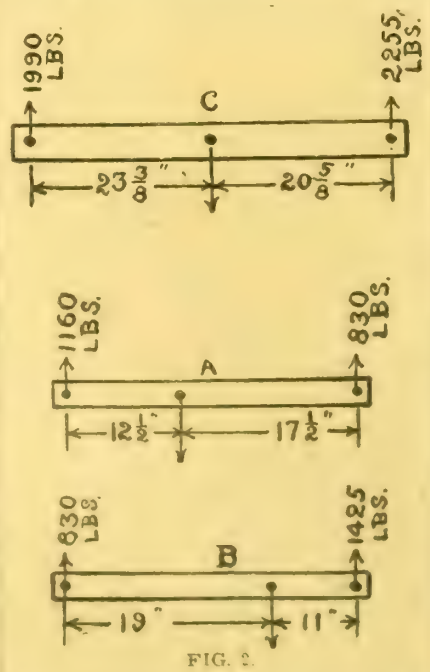

FIG. 2.

trees A are 12½ inches and 17½ inches. The total loads on each end of the tree C are then found to be 2,255 pounds and 1,990 pounds. The distances between holes are then found as above. These rules apply to the dividing of loads on all eveners where the pull is in a straight line.

Manganese Dioxide.

What is manganese dioxide made of, and how should it be mixed for dry cell use?

Answer.—Manganese dioxide is an ore, somewhat like iron ore. It is bla k and is composed of manganese and oxygen. When used in dry cells it is made into a paste by mixing it with water in which a small amount of sal ammoniac has been dissolved.

Lighting With Dry Cells.

I intend to install electric dash and tail lights on my Ford car. I have two-candle-power, three-volt bulbs in all the lights. I intend to use one switch. Please tell me how to wire the outfit. How many dry cells will be required?

Answer.—You will require twelve dry cells. While they are fresh, connect them in series-multiple, two in a series; that is, connect the cells in pairs, connecting the carbon of one cell of each pair to the zinc of the other cell, and then connecting all the remaining zinc terminals to one lead wire and all the remaining carbon terminals to the other lead wire. Run one of the lead wires to the frame of the car and ground it. Run the other lead wire to the switch. Wire from the switch to the tail light, and from the tail light to the frame of the car, grounding the wire. Run other wires from the switch to the two dash lights, and run a ground wire from each of the dash lights to the frame. After the cells are so old that the lights do not burn brightly, connect the cells in series-multiple, three in a series.

Car Runs Unsteady.

Can you tell me what is wrong with my Ford car? It pulls well on high up to about fifteen miles per hour, and then starts to jerk as though one cylinder is missing. By blowing the exhaust horn, it sounds as though one was missing. Above twenty-three miles per hour it runs fine. Have just removed the carbon from the cylinders and ground the valves.

Answer.—Your trouble may be due to worn or poorly adjusted vibrator points. First, determine which cylinder is missing. To do this, speed the engine up until the one cylinder begins to miss. Take the cover off the coil box and hold down the two outside vibrators with the fingers. This cuts out cylinders one and four. If cylinders two and three then run unevenly the trouble is in two or three; otherwise in one and four. If the trouble seems to be in two or three, hold down the vibrator of first one and then the other. You can then determine by the sound of the exhaust which is missing. When you are facing the coil box, the coil at the right hand end of the box controls cylinder No. 1; the coil next to it is No. 2; the next No. 3, and the left-hand coil No. 4.

Having determined which cylinder is missing examine the contact points of the coil for that cylinder. See that the points are flat and smooth; then adjust them so that when the vibrator spring is held down the gap between the points is slightly less than one-thirty-second of an inch. A further slight adjustment may be necessary to obtain the best working position.

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HERE'S THE REAL PROOF!

I can't give it praise enough. I had a 6 h. p. Galloway engine belted to my 16 in. corn mill and it does the work, where an 8 h. p. of another make did not. M. P. SHOEMAKER, DEFIANCE, TENN.

It has not cost me one cent for repairs. Am now buying a 2-1/4 h. p. engine and washing machine for the home. Consider the Galloway simplest engine made. ADOLPH DRINOVSKY, TRAER, IA.

I found the 16 h. p. Galloway simplest, most powerful, best governed engine I ever saw and $[illegible] cheaper. HENRY WEBBER, MILTON, WIS.

My 8 h. p. Galloway was 5 yrs. old this fall. Works perfectly—good for 15 yrs. yet. HAROLD W. BARNES, DELPHI, IND.

THE WM. GALLOWAY CO., 35 Galloway Station, Waterloo, Iowa

The Wisconsin Farmer

THURSDAY, MAY 17, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

STORIES OF FARM SUCCESS.

A FEW weeks ago I printed the letter of Mr. Ernest Schaal, of Oconto county, Wisconsin, a subscriber to The Wisconsin Farmer, who came to the grain belt in 1849, the youngest of eleven children of German parentage, and who, by determined effort, good farming and a high faith in God, here in the Badger state, has made good, so that today he has a good farm, a fine wife and eight fine children and is a pillar in his community. You may recall that Mr. Schaal made this statement:

We set up our family altar the first morning (after marriage) and never let anything sidetrack us from our religious duties. I never considered myself very smart, but was just foolish enough to have great faith in God and His word and believed that in the keeping of His commandments there was a great reward.

I expected many letters to come to me as a result of the publication of this one, but I was not prepared for the avalanche. They have come from every part of the country, from all sorts and conditions of people, from young and old. Mr. Schaal's testimony to the family altar seems to have stirred my readers more than anything I have printed in a long time. It has carried many a pioneer back to the early days and made the tears come to the eyes of many a man and woman of the farm who remember their own days of adversity when about all they, too, had was an unconquerable faith. Here, for instance, is a portion of the letter of Mr. John Thompson, a valued subscriber, who believes that Mr. Schaal may rightly attribute his success to his serene and constant faith in the Giver of all good things. Mr. Thompson writes, in part:

Dear Mr. Pierce:—I have just read the letter of Mr. Schaal. I note the surroundings (a log distillery, where he learned the multiplication table on the rectifying tube) of his early life and also the pivotal point, when his ambitions and decisions started for a certain goal. Now after the lapse of years, with the achievement and success that have come to him and the sunset of life coming on, I wonder if Mr. Schaal realizes what it was that led his ambitions in that way. I can see how he would keep on the way he did by the manner in which he and his Christian wife started up their home, namely the erection of the family altar, the best asset he could have chosen to brighten life's sunset. Going to church with our team was also the custom in my day, and my wife and I have seen from the lumber wagon, spring wagon, top buggy, surrey and rubber-tired buggy up to the top-notch auto to go to church in, all in one lifetime. Yet God's goodness and love have not changed. That simple faith and trust in Him still bring their reward and they are eternal. And now in the evening of life, is there any comfort and satisfaction to repay for the many trips to church and, of course, the means or money that he has given? Or would he be willing to go back to that turning point in life and make some other choice with some other goal in view? I am a man only six years younger than Mr. Schaal, and my life and aim have been to hold up the family altar and cultivate that simple faith in God, and I find there is joy and comfort as the sunset of life draws on.

You may recall that I asked others of my readers to tell the story of how they grubbed success from the grain-belt soil, now that the sunset of life is reddening the horizon of their careers. Many have complied with my request and their letters are extremely interesting. I shall print several of them, from week to week, for I believe there is great inspiration for all of us in the true stories of men and women in Wisconsin who have overcome obstacles and temptations and have come to be the leading, reliable men and women of our communities. As the second installment of these life stories of Wisconsin farmers let me print the letter of Mr. W. A. Lawrenson, as follows:

Dear Mr. Pierce:—I am just a new subscriber to your valuable paper, but reading the experiences of people in regard to how they started life and how they have prospered reminds me of a Methodist testimonial meeting, which I always enjoyed, though I am not a Methodist, only in that respect. I thought I had as hard a row to hoe in my early life as anyone. But I will take my hat off to Mr. Schaal, whose letter I so much enjoyed.

However, I was born in Liverpool, England, on May 18, 1864, came to the United States in May, 1873, with my parents. In the next year my father got killed, leaving my mother in destitute circumstances, with seven children, the oldest boy thirteen years old. I was eleven, one sister sixteen and two boys and two girls younger than myself. Mother washed and cleaned house, my brother and I would saw wood till after dark when we had been in school all day and all day Saturdays. When we could not get a job for our board in the winter my oldest brother and myself would go to school, sometimes three months in a year, and sometimes we did not go at all. When we got a dollar we gave it to mother and by so doing we kept the younger children in school until three of them taught school. Then we all put our earnings in the same pile, mother being the cashier, until I was twenty-nine years old and my oldest brother thirty-one. At this time we were farming on 320 acres of land of our own. I thought I ought to start a home for myself, so mother paid $825 on eighty acres of land, gave me three good horses, but a poor harness, eleven sows and one cow. So to make things complete I got married. My wife had taught twenty-four terms of school and had saved $400, so you see she was no spring chicken, being twenty-five past and I twenty-nine past, but we went to work and paid off a $600 mortgage. I lived there six years, when I traded in on 220 acres of better land and went $4,000 in debt. I have paid out, built a barn and then a house. We have four boys and one girl. Our oldest boy is twenty-one, the second boy past nineteen. They have both taken a business course. I don't want a child of mine to go through the world like I have. I have always tried to keep them in school. Last year I hired an old man to feed the pigs, gave him $25 per month and the eggs from 300 hens and the milk from six cows for two months. I rented forty acres of oat land that I had sowed with clover to a neighbor and had the same neighbor put up my alfalfa. We finished plowing corn on the first day of July and on the third I took my family, seven in all, the northern route to the Pacific coast at Newport, Oregon. We were there two weeks and then went to Eugene, Oregon. We got as far south as Los Angeles, Cal., and came back by the Salt Lake route. We went over 6,000 miles and saw nothing as good as the good old grain belt here for farming. When one gets a little dissatisfied there is nothing that will do them as much good as a trip.

This is exactly the sort of a letter I like to receive, a plain, unadorned tale of how a man made good on a Wisconsin farm. Think what an inspiration such a letter is to our boys and girls. I could hardly do better than to devote this entire page of mine to just such "human documents" for several weeks to come. Will those who are interested continue to write me in this strain, so that I can select the best and pass them on for the inspiration and guidance of all my readers, young and old?

There is many a heart-interest story concealed in the life of the farmer who grubbed his way to success, and this story is almost certain to inspire some other man to overcome obstacles and make good likewise. I have always found biography the most interesting reading in the world. Let us have some good life stories which will reveal the grain belt in the making and be an inspiration to all. Write me at length. I will not print your name unless you permit me to do so.

THE FARMER'S DUTY.

IT BECOMES more and more apparent to me every day that the great war, not only so far as Europe is concerned, but the United States as well, will be won by the farmer fully as much as by the soldier. Perhaps it is wrong to draw the contrast between the two men in this manner, for, after all, the farmer is a soldier, under orders to make his acres and his fields produce to the utmost, fighting battles every day, with the rain and the sun as his shrapnel and shot, battles which will determine the outcome of the war fully as much as those fought with powder and long-range guns in northern France and wherever the trenches extend.

France's greatest statesman of today, Vice Premier Viviani, is in the United States and, in company with General Joffre, the hero of the battle of the Marne, he toured the grain belt last week. He paid his tribute to the farmer and to the important part he plays in the present war when he said, in a speech at Decatur, Illinois:

Every bushel of wheat, every peck of potatoes counts as much as shells and bullets, and even more. In such a war as this, all must serve if it is to be brought to a quick and victorious conclusion. The farmer and his field fight the cannon foe as efficiently as the soldier in the trench.

That being the case, is it not the duty of every farmer, not only here in the grain belt but throughout the entire country, to redouble his efforts, to produce to the utmost, to fight the good fight in the furrow and feed lot, just as his brother soldier is fighting it in the trench and dugout? "Nail a flag to your plow and work for your country as you would fight for it," is the slogan of a southern editor, and it is a good one. We may not literally nail a fluttering flag to the plow which turns the moist earth these days, preparing the seed bed for the harvest's fruitage, but when we do our full duty on the farm we are carrying the flag on its way toward ultimate victory just as much as though we were firing a machine gun or twisting cold steel into the form of the enemy. One of the best-posted writers on agricultural and economic subjects in the country made this statement the past week:

If France, Italy and Great Britain are not fed, they will be defeated in ninety days, and we shall be defeated with them. We must send them the food they need, even if we have to go on short rations ourselves. No longer, if it ever was necessary, is this a matter of generosity or profit or policy; it is stark, bald necessity. Not to do it last year might have been good or bad policy or good or bad business; but not to do it this year, and next year, and the year after, and for ten years if necessary, will be perfidy. It will also be insanity and idiocy. We must feed our soldiers; and the men in the trenches, from the Swiss frontier to the North Sea, in the Trentino, at Saloniki, on the Suez front, in Mesopotamia, along that long, undulating, snaky line from Bessarabia to Riga, and the workers in fields and factories all over our side of the divided and battling world—all these are our soldiers just as much as if they wore our uniforms and fought under our flag. We must feed them as fully as we can. We must also feed ourselves.

It is not a time to stop and indulge in arguments over the necessity of the government's establishing a minimum price for farm products. That will come in due time. To refuse to put acres under cultivation now, when the season is on for such work, is the same as if a soldier bearing a musket were to throw down his arms at the order to "charge" and demand better pay for fighting to keep his country alive and civilization triumphant. My voice has always been raised against war, it always shall be so raised; but our country and our flag have need of every man today, and duty to country and flag rise above individual opinion and principle. Fight the good fight in the field and feed lot, as well as in the trench and dugout, and victory will be ours, a victory, which, I believe and pray, will mean an end to all wars for many, many years to come.

TAKING CARE OF THE CROPS.

I HAVE frequently expressed the opinion, on this page, that the marketing end of farming is as important as the producing, and that the successful farmer is one who studies market conditions and reports fully as much as weather conditions and reports. Therefore, I am in hearty accord with much that my correspondent, Mr. A. W. Cooper, says when he writes me as follows:

Dear Mr. Pierce:—Being a subscriber to your valuable farm paper I thought I would write you on a subject which I think should be studied. All the newspapers are advocating and advising us farmers to raise big crops, plow up all the waste ground, do all we can to raise food supplies. I have not seen one word as yet about taking care of the crops after they are raised. I have been farming and trucking for a good many years, and many times I have seen my garden truck go to waste or accepted prices that would not pay me 10 cents an hour for my labor, to say nothing of the seed and the land. I see there is talk of lots of appropriations to be used for agricultural purposes, and I am of the opinion that the most of them will be invested in red tape and commissions. I think it ought to be put into state-owned elevators, granaries, canning factories and cold storage plants, all owned by the state. I think the state should control prices and not let a lot of middlemen get rich plundering the people. The idea of buying potatoes at 80 or 90 cents a bushel and selling them for from $3 to $4 a bushel! I am for raising all I can, but I want a fair price for what I raise and I don't want the people to be held up. I know there is lots of waste land in this country where potatoes and other crops may be raised that would feed all the people in the country and leave some for shipping out of the country. I would advise all farmers and truckers to build big dry caves and store their potatoes and other root crops. I think there will be a big fruit crop (except peaches, they are nil) and fruit should be taken care of. I don't see any reason why we should be shipping foodstuff from other states when we have so much good land growing in weeds.

I think Mr. Cooper will find the solution to most of his problem lies in organization. The day is coming—and not so very far distant, either, in my opinion—when farmers will be organized all over the country, to such an extent that they will virtually determine the price which shall be paid for their product and their interests shall be considered paramount to all others. The farmer has suffered from lack of organization in the past. Relief is coming. The coöperative movement and the onward sweep of the farmers' clubs are opening the eyes of farmers all over the grain belt to the value and necessity of organization. There is no reason under the sun why the farmer, practically alone among men, should have no voice in saying what his labor shall be worth, what the fruitage of his summer's efforts shall bring when it is marketed. Because we have suffered this condition to exist for such a long time is no reason why we should permit it to continue much longer.

I have frequently printed stories showing how local organizations of farmers have succeeded in

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

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JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

No Cause For the Farmer to Worry.

In almost every county in the state patriotic meetings have been held, either under the direction of the County Council of Defense or at the instigation of citizens. The farmer occupies a most conspicuous place in all of these meetings and in the addresses and orations. It is realized by all that Wisconsin's biggest opportunity just now is to produce food for the nation. The writer was asked just a few days ago whether the state and agricultural authorities are overdoing it in their effort to induce the farmer to produce more. At first hand we would say "no." It is not possible to overemphasize the needs of the nation and world in the way of food at this time. When we realize that the United States this year will produce just about as much wheat as we ordinarily use ourselves we begin to wonder where the food for the balance of the world is coming from.

The farmer is just as patriotic as any man or class of men. He happens to be a little busier right at this time than a few other men. The season is late and the farmer may be pardoned if he takes out his patriotism in hard licks on the farm these days rather than in shouting at the patriotic meetings. He can do that later when the grain and garden are all in.

So for the present the farmer is talking less about war than any other class of our people. At the big spring live stock sales we have scarcely heard war mentioned.

There is nothing in the present situation to warrant any unrest on the part of the farmer. His chief duty is to "saw wood." His business will not be injured by the war. Occasionally we find a man who wonders whether the government will fix a maximum price on foodstuffs or a minimum price. So far as the farmer is concerned this subject is not worth worrying about. If the government does not fix a minimum price on grains or other farm products, the law of supply and demand will fix a price which will amply repay the farmer for his efforts. If the government in the interest of a low-priced food for the country, fixed a maximum price, that maximum is going to be sufficiently high that the farmer will make big profits on everything he raises. No one has suggested a lower maximum price on potatoes, for instance, than $1 a bushel. There has never been a year in the history of Wisconsin when farmers would not have gladly contracted in advance for all their potatoes at $1 a bushel. It has been suggested that $1.50 or $2 be made the maximum price for wheat. Such prices beat the 79-cent wheat we had not so very long ago. If the maximum for corn is fixed at 75 cents or $1 a bushel no hardship would be placed upon the corn raisers of the state. The government is not going to set the price of farm products down very low at this time, and, as we have said before, the matter is not worth worrying over. Furthermore, the government is likely to take a hand in other prices, if it undertakes to regulate farm products prices, and we may get some things cheaper than we are now getting them on the farm.

The cue for the farmer to take is to proceed along the even tenor of his way. Speed up wherever it is possible, and don't let any land or work be wasted. Buy as usual such things as are needed for the farm work and the health and comfort of the family. The farmer can come nearer affording luxuries the next few years than any other class of our people. Proceed with farm improvements as usual and as time and labor conditions will permit. Do not be scared at advances in prices of implements, building materials, fencing, paints, automobiles, oils, tires, etc. Most of these things will necessarily be higher in price. Compare the advance with the advance which you are receiving for corn, wheat, oats and live stock and you will see that you cannot expect the world to increase your pay and leave everything else at a standstill. Do not be afraid to buy good stock even at high prices. Of course, judgment should be used. But prices are advancing all along the line and it is simply a question of readjustment.

The farmer should not be afraid to borrow money in these times. It is probable that money will be plentiful throughout Wisconsin, and that interest rates will be reasonable. It pays to borrow money—as much as you can use to make more money on. The Wisconsin Farmer looks for continued high prices on farm products for at least three, probably five, years. It may be much longer. Our advice to young men is to get farm land. Get it as reasonable as you can, but get it. We mean this advice for the young man who knows how to run a farm and who is willing to work.

In general, our best word to the Badger farmer today is, "Don't hedge." Don't let the war scare you or cause you to haul in your sails. Let your sails out to a favoring wind. Go right ahead as usual, taking an optimistic view of the future, and making every lick count this summer.

Wisconsin Farm Help Situation.

Everyone seems to be interested in helping the farmer get help. As a matter of fact, the farmers of the state have made no general appeal for help. We do not mean by this that there is no demand for good experienced help, for there is, but one would imagine from the papers nowadays that the farmer had hoisted the white flag and issued a Macedonian call.

The farm help problem is slowly being systematized so that the farmers may soon actually get some help in getting labor. Just at this time there is a great mass of applicants for jobs on farms. No one with experience or farm knowledge has had an opportunity to cull out the good names from the list. The farmer is too busy to look up each man who is applying for help, and, in fact, rather than waste a day or two on such an errand he goes ahead in the fields whenever the weather will permit.

The best source of farm help available at this time in Wisconsin is the State Free Employment Bureau. This bureau has offices in Milwaukee, Superior, Oshkosh and La Crosse, and also a general office at the state house in Madison. The daily newspapers have been making a splendid effort to supply help, but these publications are unfortunately not in a position to do a great deal of good. They have no one to make a personal examination of those who want jobs, and in most cases have no one competent to judge the fitness of men for places on farms. Hence the farmer is taking a long chance in getting help through this source. It happens that there are still a few idlers in the cities who think they can get board and room and about $50 or $60 a month by going to work on a farm. The job appeals to them and they have visions of hiding away over behind the brow of some hill, far off from the farmhouse, and leaning on the hoe handle or even sleeping in the shade. They know that the meals will be good and regular and that sleeping is fine out in the country air. Such fellows are not worth much more than their salt on a farm. It takes a man to look after each man and the boss to look after both of them to keep things moving. The farmer is interested in getting good help, but he is afraid of getting stung and he has no room for the man who does not want to work early and late and at a salary somewhere near what he can earn. Of course, there are a large number of good, reliable young men and our farmers are glad to get hold of these, when the young men are industrious, willing to learn, and will attend to their business. There is so much work in the cities these days that the average man from Milwaukee or Chicago who is out of a job and wants to go on a farm is really not worth much as a laborer either in the city or the country. There are notable exceptions, of course.

The first big move in helping to solve the country help problem is to marshal all the resources in the country and the small towns. Don't let the boys go from the farms to war—at least not now—no matter if they are anxious to serve their country. With their knowledge of farming they can be of greater service at home. In many of the small towns there are young men and older ones who have had some farm experience, and who know what farm work means. Enlist them in the agricultural campaign. The Wisconsin Farmer believes it is best to rake and scrape our home state first for help before trying to bring in others from the outside.

Those who work on farms and give good service are going to be well paid, but don't think that the farmer is a millionaire. If farm labor goes too high it will discourage the farmer in his efforts to produce more. The farmer has to make a living and a profit on his work. He is paying more for labor now than ever before and is willing to pay well, but don't try to sting him.

Farmers' Club Problems.

Elsewhere in this issue appears a letter from the pen of Mrs. Mary Huntington Comings, of Eau Claire county, and interesting information relative to farmers' club work in that county. This letter raises a few interesting points which may well be discussed with profit by our readers. The Brunswick Neighborhood Club holds its meetings regularly on Sunday afternoons and this statement will arouse a discussion in many communities. The Sunday meeting time has been thoroughly threshed over in Eau Claire county. Mrs. Comings gives some reasons for the Sunday club meeting and in her letter to The Wisconsin Farmer adds these words:

> Last, but not least, we prefer our meeting on Sunday because we like a practical, everyday kind of religion, and we think we are doing a little to bring nearer His Kingdom on earth, when we coöperate to improve our farms, our schools and our homes.

Undoubtedly there will be those who will say that the Sabbath day should be reserved for church services only, but in the case of the Eau Claire county neighborhood it is shown that those who objected most strenuously to clubs on Sunday were those who paid very little, if any, attention to church. The facts are well recited in Mrs. Comings' letter and we would like to have every subscriber, at least all those who are in any way interested in club work, read this letter.

Clubs, like us mortals, must be rated by what they accomplish and fine-spun theories do not always work out well. The club concerning which Mrs. Comings writes has accomplished a good work along several lines, probably the most important of which is getting the parents and school children together on a common ground of interest. As reported, the standard of conduct in the neighborhood has been raised as a result of the work of this club, and Mrs. Comings very properly gives credit to a group of young men who have taken charge of the dances in their neighborhood and made them fit for real ladies and gentlemen to attend. The report from the Brunswick Neighborhood Club is a most encouraging one and The Wisconsin Farmer would like to know in what communities in Wisconsin they have been able to equal this record or better it.

Wisconsin Legislature.

Senator Henry E. Roethe writes in his Fennimore Times that the Wisconsin legislature will do well if it gets through with its work before haying or harvest. Many of us are discouraged about any hurried adjournment of the general assembly. But the war has brought up many new matters—matters which in our judgment could have been disposed of with a little less talk. However, we send our assembly 47 to 40, and The Wisconsin to look into things and often the best points of an argument are hidden until the argument gets to the point of an open spatfest. So we will hope that some good will result from all the discussion and delay.

Our readers will be a little surprised to learn that the women's suffrage amendment is not to be submitted after all. On a test vote it passed the assembly 47 to and The Wisconsin Farmer so recorded this fact in a recent issue. But the amendment route to defeat of the amendment was chosen and on the final vote the proposition was defeated 44 to 41—close, but sufficient to put to sleep any chances of women voting in Wisconsin for a few years yet. The Wisconsin Farmer is sorry, for we really believe that women should have the right to vote. Women will work hard the next few years—they have always worked hard. The burdens of war fall especially heavy upon the women. But we will have to look to some subsequent legislature to give them the right of suffrage.

The legislature has agreed to submit the prohibition question to the people of Wisconsin in 1918. Unless Governor Philipp intervenes we will have a chance to vote the state dry next year. The bill was introduced in the legislature by Assemblyman William T. Evjue, of Madison, January 24th. It was reported from committee for indefinite postponement March 15th, the committee vote being 4 to 3. By a vote of 52 to 44 the bill was ordered engrossed by the assembly March 22d, and it was passed by the assembly March 29th by a vote of 55 to 38. The senate committee on state affairs declined to make any recommendation on the bill. The senate vote on final passage was 21 to 1, a better showing for the dries than was expected. The wet and dry question will be submitted to the people of the state in April, 1918.

Many bills of interest to farmers and live stock breeders are still hanging fire in the legislature. However, the committee and the state officers have been in almost daily conference on these bills and some of the best of the measures will pass. The tuberculosis bill has undergone some important changes, increasing the limit of valuation on slaughtered stock, permitting area clean-ups, and the sale of reactors and also of pasteurized milk from reactors. Another added feature gives the state department of agriculture power to establish pastures for reactors where they may be isolated from herds and cared for and put into condition for market. A great many cattle which react under the tuberculosis test may get well under proper treatment and the state department takes the position that this is no time for killing any animal which can be saved. Many of these reacting cows can have perfectly healthy calves, and, as tuberculosis is not hereditary in animals, it is too much of a waste to kill an animal in fair health just because of the reaction. The effort on the part of the state to save as much stock as possible, and to reimburse the farmers on a fair basis, will go a long ways towards popularizing effort to stamp out tuberculosis by law. The accredited herd plan established by Secretary Norgord has been adopted by many of the best breeders of the state.

Daylight-Saving Plan Endorsed.

For the first time the state of Wisconsin is taking up the proposed daylight-saving plan seriously. This plan is now largely in use in Great Britain and other European countries. Under this plan all clocks in a given region on a certain date, about May 15th, are set forward an hour, and on another given date in the fall they are set backward an hour. The effect of this change is to make the day begin an hour earlier in the summer and go back to the old schedule in the fall.

Not a great many farmers would be affected by the change except as they have business with the people in towns and cities. As a rule, the farmer sets his clock forward more than an hour when it comes time for

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

obtaining better prices for their product, when they have graded it and sold it in large quantities by united action. I wish those of my readers who have had experience in such marketing organizations would write and tell me how the plan worked out. This is a most important matter and we could hardly do better, for the next few weeks, than to discuss it together.

FINDS THE BOOK LIST GOOD.

I FIND that interest remains high among my Wisconsin readers in the question of good books to read. Not a mail but brings me either a list of books recommended by some enthusiast, or a request for the name of the publishers and the cost price of some book which another correspondent has recommended. Many of the letters are in line with this one, from Mrs. R. W. Henderson:

Dear Mr. Pierce: I want to thank you for the fine list of books printed by you recently. For fully a year I have been trying to locate "The World I Live In," by Helen Keller, for our school library, as I am clerk of our district board and have most of the book buying to look after. It is one of the books mentioned in the list published by you in that issue. I believe the one entitled "Japanese Girls and Women" would also be a valuable addition to our list. Will you please tell me who publishes these and what they sell for? We now have all of Frank Carpenter's Geographical Readers and in all, including our dictionary and encyclopedia, we have 102 volumes.

Our county superintendent is going to memorize the little "literary prayer" you printed and use it in his lectures. I sent it to him, along with the list of books.

I enclose a stamp for a reply concerning the books. Believe me, I am most gratefully yours, with full appreciation of every good article you write.

Such a letter amply repays me for all my trouble and makes me more than ever anxious to continue this discussion, which so interests me and which I hope will be productive of good results in many and many a Wisconsin farm home. I have sent Mrs. Henderson the information she desires and will render a similar service to whoever calls upon me. If I can help any of my readers to find books which will interest, instruct and entertain them, leaving not a single harmful impression in their minds, I shall have done a good day's work and shall be well satisfied. So, send me your list of books, ask me questions concerning them, and use me in any way which appeals to you. I am at your service.

A FARM HAND'S EXPERIENCE.

WHEN I called for contributions on the subject of the respective merits of single and married farm hands I fancied I might receive some interesting answers, but I was not prepared for the avalanche of splendid letters from Wisconsin readers which has resulted. If the letters continue in the tone of most of those which are coming in now, I shall have to ask the champions of the single men to desist from writing me and the champions of the married men to get busy, for the single man has it over his married brother, a hundred to one, just at present.

Here is one of the best letters of the entire lot, in my opinion. It tells how a farm hand worked and saved until he became a landowner himself, and it champions the single man most ardently, with good facts to back up the choice. This letter was written to me by Mr. W. L. Regester:

Dear Mr. Pierce:—I served as a hired hand for several years, working by the month, by the year and by the day, generally getting $15 per month and board and washing, or $136 by the year, or 75 nts per day when working by the day, and the hours were from 3:30 to 8:00 or 9:00 p. m. and those men, too, let me have a part of the Sunday evenings off. That was along from 1893 to 1900 and in eastern Indiana. In 1900 I went to Oregon, where I worked one year as a sheep herder at $45 per month. There, of course, I got no Sundays off. Will say here I was just about as rich when I quit working out as I was when I began. The only money I had was what I made herding. Then I filed on a quarter section in the wheat belt of eastern Oregon and went to farming. In 1908 I sold out for $4,000 and came east again and bought an improved farm of 125 acres, paying $5,150, leaving me in debt about $1,500 after making the move and stocking up a little. But I have that debt almost paid and have plenty of stock for this size farm. I have had three chances to sell this farm this spring at $7,000.

Now about the hired hand. Of course I know there are lots of men that are no account at any price, but the single man who is willing to work I much prefer, as it isn't every married man that works out that has a congenial family by any means. Then I think one would find that he would be well repaid by the work done the balance of the time if, when there was a slack time, he would just say to the hired man, "Say, John, let's go fishing this afternoon or hunting, or to some picnic," as the case might be, and I just know from experience the hired man would have a kindlier feeling towards you and will do better work.

Now as to waiting until you have a home of your own, etc., before getting married, it is my opinion that the woman would enjoy and really much prefer helping to earn and build that home. In fact I believe the happiest time of their married life will be while they are working and planning together just what kind of a home they intend to have when they get able.

My friends, this is a splendid letter; it is a whole sermon on happiness, marital congeniality and numerous other things which we do well to consider here among ourselves. Such letters make me feel like taking a back seat, while my readers do the talking—perhaps you might call it preaching, sometimes. About all I am doing this week is to introduce the various speakers; I rather fancy the page will be more entertaining than usual, because I am allowing others to do most of the talking.

Continue to write to me on this and other subjects. Together, we can make this page the most interesting any farm paper ever printed. I am not saying this boastfully, for it is you who are supplying the ideas and discussing them, not I. This is as much your page as mine; it is a public forum in which all have an equal voice.

James M. Pierce

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him to work in the fields. And, as a rule, also he plans to stay by his job in the evening until time for candlelight. The new arrangement would change banking hours, making them an hour earlier, school hours, postoffice hours and bring the rural delivery mail to the farms of the state an hour earlier. It would make church an hour earlier on Sunday during the summer months, and we suppose it would have a tendency toward starting the young lady's best man homeward an hour earlier. As to this we are not certain unless mother taps her shoe on the floor by the time of the clock.

Most people get up earlier in the summer. Only the lazy man wants to snooze after the sun begins shining in his windows. The change in time would permit business people to get through with their work and have more time for recreation and work in the garden. For these reasons the people in the cities and towns would be benefited. The joy-riding parties into the country would get an earlier start and we should hope they would be able to get back into town in time for honest farmers to get a good night's rest.

Farmers' Side of Milk Prices.

Madison has been having what they call a milk war. That is, the people, and the newspapers in particular, have been objecting to an advance in the price of milk from 8 cents a quart to 10 cents a quart. There have been threats on the part of officials that dairymen might be put in jail on the assumption that in a meeting or conference held they had agreed to advance the price of milk on a certain date. Right here it may be well for us to advise our readers that such meetings had best be avoided. Even in cases where an advance is justified, better not have any vote on the matter, as such action is construed, under the law, as a combination to fix prices. The farmer as a rule knows so little about trusts and combinations that he is not familiar with the very stringent laws which we have in our state and nation on this subject. So beware of concerted action to raise prices, as the county attorney may be on your trail.

But we started out to tell of a rather unusual incident which occurred in connection with the milk muddle in Madison. One well-known Madison citizen gets milk direct from a farmer. He met this farmer at the door one morning and said, "I want to talk to you a minute." Here the farmer no doubt began to fear the worst. But he had been damned by others and was getting used to it.

"You are charging us 8 cents a quart for milk," said this Madison citizen. The farmer admitted it without comment. "Well," continued the purchaser, "I have been watching your milk and I find it is quite clean and wholesome, and that it raises a good, fair amount of cream. I have also been looking up the food value of milk and find that milk at 8 cents a quart, especially good milk like you bring me, is a very cheap article of food. In fact, it is one of the cheapest things we buy. I believe that your milk is well worth 10 cents and I shall have no objection whatever if you begin charging me 10 cents a quart, dating from May 1st, instead of the old rate of 8 cents a quart."

The Wisconsin Farmer has no record as to whether the farmer has recovered from the shock. The incident aptly illustrates how different an attitude some people might take toward the producer at this time. This same Madison citizen walked into a hardware store and heard the merchant kicking on the price of milk. "It doesn't cost any more to raise grass and produce milk than it used to cost," said this merchant. "The farmers are robbing us on this milk business." But the Madison citizen said, "Hold on here, Mr. Merchant. I think I can show you that you don't know what you are talking about. I suppose you imagine that a farmer can stick a cow out in the open country and that the cow will stay inside of certain imaginary chalk lines and eat grass and never run away."

"Oh, no," said the merchant. "There would have to be a fence, of course."

Then the Madison citizen asked the merchant if he didn't sell fencing and the reply was "Yes." It was also discovered that fencing was much higher than it used to be.

"You don't expect the farmer to milk cows without having nice, clean pails and bottles and caps, etc?" was the next question put to the merchant. And it was easily discovered that all these things have advanced in price. Then they discussed the advance in feeds, the advance in agricultural implements used to raise the feeds, the advance in price of land, in everything needed for the home, for building, for comfort or entertainment. Of course, it became plain that the farmer is hit by high costs as much as anyone else.

Where the farmer gets an increased price in milk, commensurate with general increases at this time, the people who buy milk have no legitimate cause to object. Where milk is raised and the farmer is paid the same old price, both the farmer and the people who buy ought to object strenuously. In the particular case at Madison, farmers can send all their milk away if they desire. Chicago or the condensing factories will take every pound of it and pay good prices.

If the farmers decided to send their milk elsewhere, Madison would be very lucky indeed if she got enough good milk at 10 cents a quart.

Root Crops Advised.

The spring drive in Upper Wisconsin is on for a bigger root crop than ever in this year 1917. While the time of planting varies with different seasons, soils and localities, in the main it may be said that not more than two or three weeks at the outside will elapse before it will be too late. The crops to grow are probably best outlined by Professor Delwiche, who writes as follows in one of his bulletins:

There is a variety of roots from which to make a choice. The kind to plant, depends on several factors, such as soil, the kind of stock, and the time of feeding.

Mangels furnish the largest yield per acre. They are comparatively easy to harvest, and keep well, better than either sugar beets or turnips. Mangels are relishd by all classs of stock. They are rather exacting as to soil and cultivation, more so than turnips or rutabagas. They are not so apt to taint the milk when fed to cows, as is the case with turnips or even rutabagas. On the other hand, they are comparatively low in dry matter as will be seen from the table showing the dry matter and digestible nutrients in different kinds of roots and in corn silage, per 100 pounds:

Kind of feed	Dry matter Lbs.	Protein Lbs.	Carbo-hydrate Lbs.	Fat Lbs.
Sugar beets	13.5	1.1	10.2	0.1
Mangels	9.1	1.1	5.4	0.1
Turnips	9.5	1.0	7.2	0.2
Rutabagas	11.4	1.0	8.1	0.2
Carrots	11.4	0.8	7.8	0.2
Silage	20.9	0.9	11.3	0.7

Carrots are high in feeding value and are relished by all kinds of stock, including horses. They are probably adapted to lighter soils than mangels, and are about equal to the latter in cost of production per acre. They yield less per acre, however, and need more care in storage than mangels.

Rutabagas are high in feeding value and yield well on very heavy soils, fully as well as mangels. They cost less to produce than mangels or carrots and may be fed to all classes of stock. They may be planted later than either carrots or mangels, but do not keep as well as mangels, and when not fed judiciously they are apt to taint the milk.

Turnips can be grown on wet land better than either carrots or mangels, so they can be sown nearly a month later. They are not so exacting as to soil requirements, make rapid growth, so need less attention for weeding and are easily harvested. Turnips may be grown often as a catch crop on new land, which is also true of rutabagas. On the other hand, they are not as good keepers as the other roots mentioned, are comparatively low in feeding value and taint the milk when given to milk cows, unless fed with care. They are a fine feed for sheep, and in England they are extensively used for that purpose.

On heavy soils in a wet and cold spring like the present there is a possibility of seed rotting in the ground if planted early. On warm, sandy soils there is little danger from this source. For fall feeding rutabagas should be planted not much before June 1st. For catch crops turnips may be as late at July 1st. It is better to delay planting root crops for a few days or even weeks when the ground is wet and cold and in poor working condition. For fields of from one to five acres or over planting should be done with a hand seed drill, but for larger patches a horse row which plants four rows at a time is economical. Test the seed for germination and put in enough to give a good stand. For beets use five or six pounds to the acre; carrots, two to four pounds to the acre; turnips, one to two pounds to the acre; rutabagas somewhat thicker than turnips. Professor Delwiche advises using 20 to 25 per cent more seed unless the seed is known to be of high quality. Root crops should be thinned as soon as they are well up. Delay in thinning is dangerous. Put the boys in the fields, show them how to thin the plants and they can do it as well as a man.

The Wisconsin Farmer advises a liberal planting of root crops through the upper portion of the state. These crops can be cultivated at small expense and they furnish good food and will remain in good condition for a long time in storage. Root crops are valuable for stock feeding and the settler who has a small area cleared will find that they produce abundantly.

The Louisiana sugar crop of 1916 was practically double that of 1915. Figures compiled by the department of agriculture show the 1916 crop was 607,800,000 pounds, and the 1915 crop 275 million pounds. The average cane yield was eighteen tons an acre in 1916 and eleven tons in 1915.

Eau Claire County Farmers' Club.

A Few Good Things Which Have Been Accomplished by Brunswick Neighborhood Club—By Mrs. Mary Huntington Comings.

I HAVE been intending to send The Wisconsin Farmer some matter concerning our club, and am glad to have a chance to join in encouraging this work. Some of the facts contained in this letter I wrote up recently for our local paper and others have come to my mind since. The Brunswick Neighborhood Club was organized two years ago by Mrs. Allen Preston and a small group of neighbors who began meeting at each others' homes on alternate Sunday afternoons. During the first six months a satisfactory organization was evolved, and the attendance got so large that it seemed best to hold the meetings in the schoolhouse. In spite of some opposition this plan has worked out very well, especially since the club purchased dishes and put up cupboards and shelves. During the first year the programs were furnished largely by city people. Special thanks are due our county agent, Mr. Ingalls, for his talks on various agricultural subjects. Also to Miss Lillian Johnson and Mr. R. F. Kaiser, who have been very helpful in trying to aid us in our social center idea. During the past season we had splendid addresses by several of the city pastors, a lecture on local history by W. W. Bartlett, and another on rural educational topics by Superintendent Schulz. Several others spoke for us, including Mr. Ben Faast, Wisconsin's representative on the federal farm loan bank board. While all of these talks were appreciated, the feeling prevailed that we should depend more on our own resources—that we would get more real good out of the club if we took a more active part in the meetings ourselves. This year under the fine leadership of Miss Helen Powell, of District No. 1, the school work and the club programs have been correlated in a very helpful manner. For example, the study of seed corn selection, for one Sunday afternoon, was followed by short talks by the schoolboys on the subject. There was also a corn-judging contest in which the parents and the pupils contested for the ribbons. The study of noxious weeds was followed by a contest of identification of the ordinary weeds which are pests of our farms. The best of the songs, little plays and poems used in the school classes are also used at the regular Sunday afternoon programs. In this way the parents are kept in close touch with the school work and the interest of the children in their work greatly stimulated. In addition to the club programs the club has made an effort to arouse interest in better farming by distributing small packages of alfalfa, Sudan grass and soy bean seed through the neighborhood. Last spring the club distributed 200 Buff Orpington egg settings in the district. We wanted to test out the breed with the hope that if he breed proved satisfactory we could standardize the poultry products of the neighborhood and establish a community egg circle.

Your readers may ask why we have our club meetings on Sunday. First, because in a rural community it is the only time when the parents and the children can conveniently meet. Evening programs which rarely get started before 9 o'clock and which keep the children up until midnight or after, seldom are of any great benefit. Second, because the Sunday meetings do not in any way interfere with church services. Some of the most enthusiastic club members are among those who attend church services the most regularly. In this neighborhood those who have been most violent in their objections to Sunday meetings are those who habitually dance until daylight Sunday morning and patronize the Sunday shows and ball games besides. Sincere religious feeling should always be respected, and no doubt other neighborhoods in Wisconsin might find it advisable to meet some other time than Sunday, or perhaps organize the parents and children in separate groups.

The women of the Brunswick Club have coöperated with the school board in furnishing hot lunches to the school children. Late in the summer the mothers had several canning bees at which fifty quarts of corn and tomatoes were put up. In addition the women are cleaning the schoolhouse every month and turning over the money thus earned to finance the hot lunches.

Affiliated with the Sunday Club is the young people's organization known as the O. A. A. O., which spelled out reads, "One for All—All for One." This club meets at the schoolhouse alternate Saturday nights for dancing and games. The seats have been put on strips of wood so that they can be easily lifted and stacked at one side of the room. Much credit is due the young people who have succeeded in setting a new standard of conduct in a neighborhood which has for fifty years depended largely for social pleasures upon the Saturday night dances at which the young girls as well as the young men often got drunk. Special mention should also be made of the dancing parties given during the past winter by the young men of the Mt. Hope neighborhood. These parties have been held at the Brunswick town hall and the booze and fights which formerly made hall parties a scandal have been conspicuous for their absence. These young men deserve the hearty support of those who are interested in community betterment.

Effect of Turning on Pasture.

In his recently published work, "Productive Dairying," Prof. R. M. Washburn discusses, among other things, the effect of turning cows to pasture on the composition of the milk. The notion is current that milk deteriorates in quality when a change is made from dry feed to pasture in the spring. In order to ascertain the facts of the case thousands of milk tests have been made at the Minnesota station before turning cows to pasture and afterwards. This work has been going on for twenty years with a herd varying from twenty to sixty cows, and tests have been made twice a day. All the principal breeds have been dealt with, including the Guernsey, Holstein, Ayrshire, Short-horn and Brown Swiss.

What was the result? It has been conclusively demonstrated that when well-fed cows are turned onto a pasture there is no decrease in the percentage of fat and milk. On the other hand, taking the whole herd through, there is a slight increase in butter fat. Professor Washburn says that the impression that pasturing lessens the fat content was gained during pioneer days when "spring poor" cows were turned onto bare pastures that did not furnish sufficient food to sustain weight, saying nothing of milk production.

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Your battery will wear out some day—all batteries do.

This is perfectly natural, because a storage battery is an electro-chemical apparatus, constantly charging and discharging—never resting. And as time goes on the electrical elements in it wear out.

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Willard doesn't stop with *building* the battery. He follows it—and my job is to assure satisfaction to Willard users. In other words—you not only get the *best quality to start with,* but you can rely upon me— and I'm a battery expert—to help you get the most out of it.

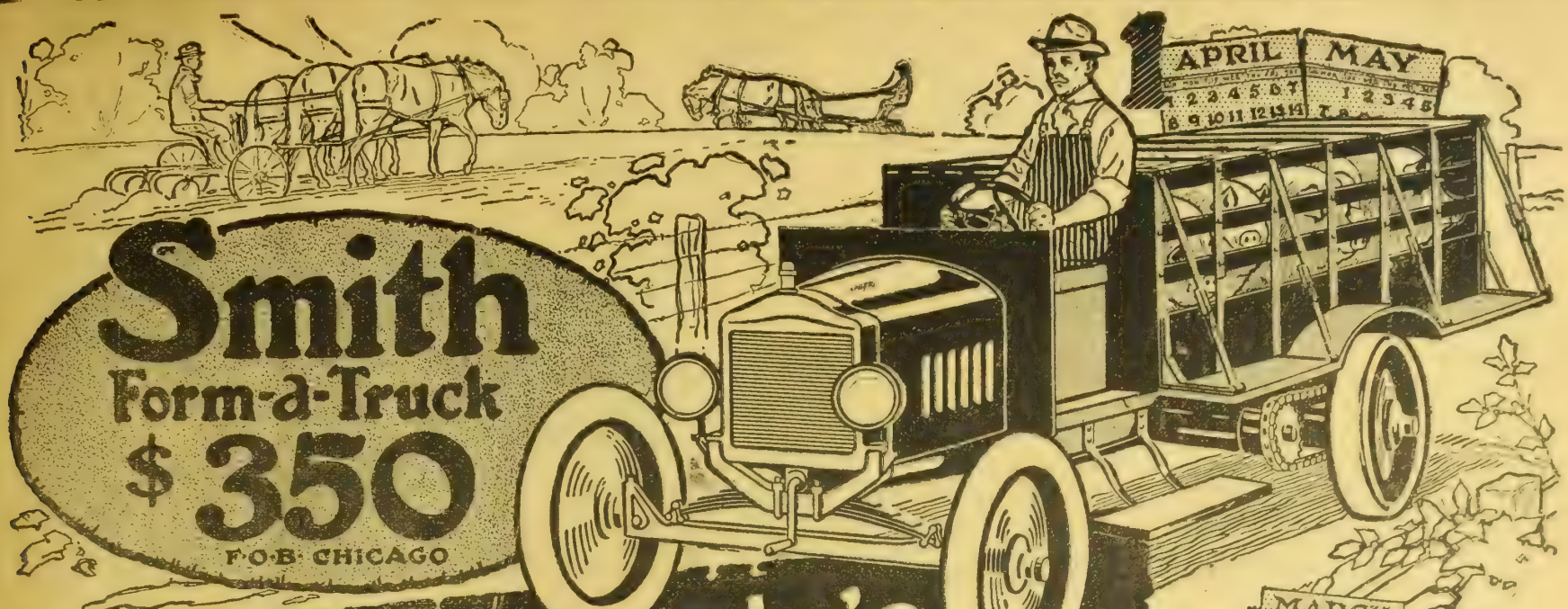
The result is that over 150 car builders use Willard Batteries on their cars, and car dealers are selling them to their customers.

Write to the Willard Storage Battery Company, Cleveland, Ohio, for the booklet, H-5, "What's Your Battery Worth," and list of the 950 Willard Service Stations.

Meanwhile, ask your dealer about the expert service I'm equipped to give you.

The Willard Service Station Man

Willard STORAGE BATTERY



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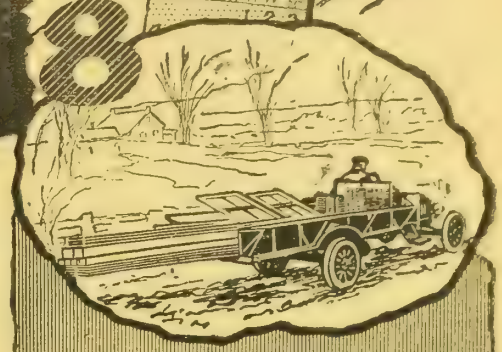

Saves Time in Hauling

Hundreds and hundreds of farmers everywhere now solve the shortage of farm labor by using Smith Form-a-Truck for all hauling. This alone saves seven-eighths time on the road.

For a single Smith Form-a-Truck hauls twice the load of two teams. And in one-half the time. An 8-to-1 saving in time.

Tremendous Economies

Save the pay of three drivers in hauling crops, hogs and milk to town One driver and a Smith Form-a-Truck will do all the work of four teams and four drivers. And note these wonderful savings: 12 to 15 miles per gallon of gasoline—6000 to 8000 miles on a set of tires—and practically no repair expense. Where else can you duplicate this economy?

Smith Form-a-Truck will carry 2000 pounds of milk 10 miles and return with the empty cans in less than two hours. And the total cost of the round trip is but $1.50—gasoline, oil, tires and everything. Think of it.

8 Farm Bodies in 1

Change to any one of 8 types of farm bodies is now made instantly with the famous 8-in-1 convertible farm body. Not a single tool is required. Merely pull the lever and change from hog rack body to hay rack body for loose grain—high side flare board body—flat rock body—stock rack body—basket rack body—flat rack scoop board down—or grain body. This is an exclusive Smith Form-a-Truck feature

Choose From 6 Power Plants

Smith Form-a-Truck combines with any Ford, Maxwell, Overland, Dodge Bros., Buick or Chevrolet—either new or used cars—to make a fully guaranteed one-ton truck. When the chassis of these cars is fitted to the Smith Form-a-Truck frame the remarkable strength of these cars is reinforced. You secure double construction—double strength—the strongest construction ever known to engineering. And the rear axles of these cars become jackshafts for the power chain drive. The strong, sturdy Smith Form-a-Truck axle carries 90% of the load.

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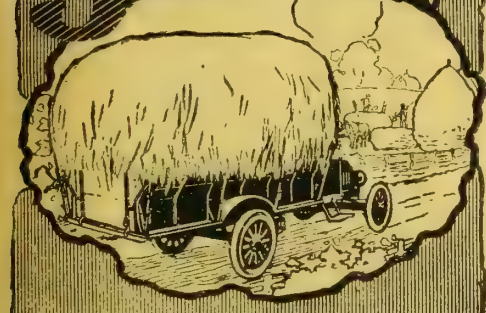

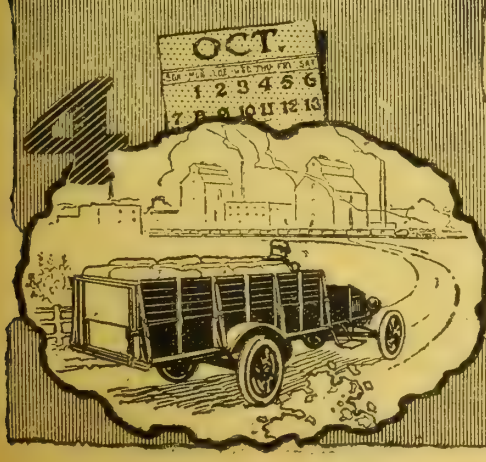

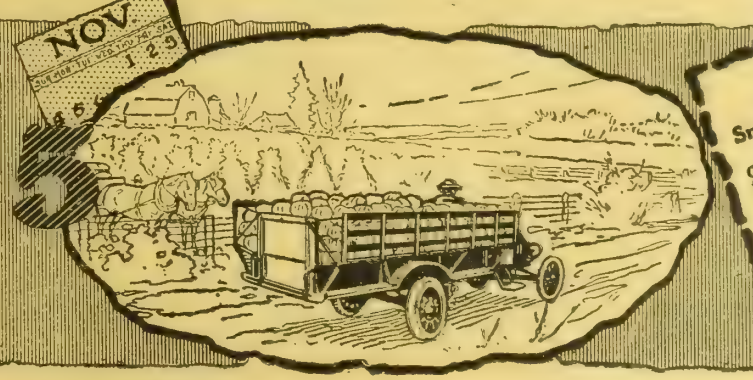

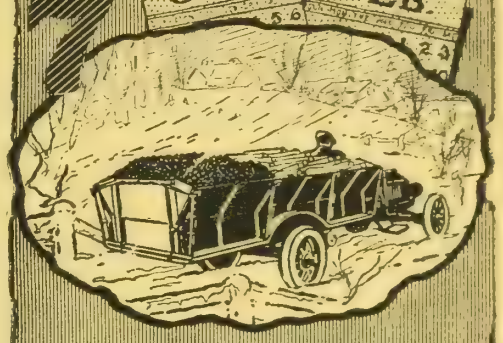

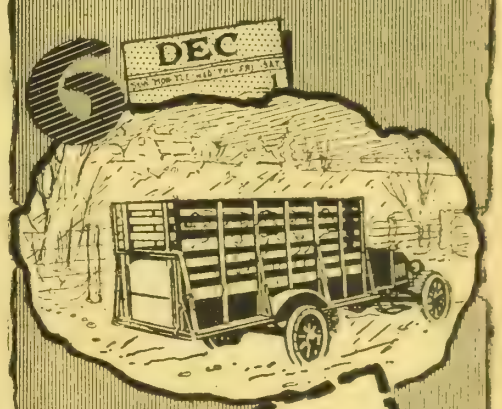

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In and Around Wisconsin

WISCONSIN HORTICULTURE advises against broadcasting seed except on soil which is free from weeds and where the crop grown stays in the ground a short period of time. Radishes may be sown broadcast, and also plants which are to be transplanted.

R. L. BRASURE, principal of the Crandon high school, will help John Swenehart, county agent, in his work in Forest county. J. F. Phillips, county superintendent of Taylor county, will also join forces with farmers and business men in aiding County Agent R. A. Kolb.

PROF. GEORGE W. DAVIES, of North Freedom, has been asked to take charge of the farm defense work in this county, at least temporarily. As county superintendent of schools, Professor Davies has actively identified himself with agricultural interests. He has a wide influence among the farmers' club members of his county.

GUS SELL, agricultural instructor in the Omro schools, will assist in Winnebago county defense work, being an assistant to Reid Murray, emergency food agent. L. J. Martell, superintendent of the Brown county schools, has been secured to aid the local committees in his county, under the leadership of E. A. Carncross, agricultural representative.

THE government crop forecast for May places the probable production of winter wheat at 2,030,000 bushels, which is 500,000 more bushels than last year and 300,000 more than the five-year average. Althought Wisconsin does rank high as a winter wheat producing state this is a very good record for a year when a wheat shortage threatens the whole country.

UNDER a new law recently passed by the legislature town and village assessors are required to report direct to Madison, the acreage planted in various crops and number of live stock in their jurisdiction. This will make it possible to have accurate information within a few months and will be of especial advantage in summing up the Badger live stock resources.

THERE is an increased demand for sprayers in Wisconsin, due to the determination of our fruit and potato growers to make yields as big as possible this year. In some cases young men are finding it profitable to secure sprayers and rent orchards for several years. By getting several small orchards and spraying them systematically they will be able to gather a good crop of fruit and the indications are that clean fruit will be worth a good sum this fall

AN effort to put practical coöperation into effect has been started in Fond du Lac county. The county papers will publish list of products which farmers have to sell direct, and they will also publish lists of names of men who are willing to work on farms either all or a part of the time. By these methods it is hoped the farmer will be able to get as good a price for his produce selling direct, and still the people in town will be able to save.

THE acreage of staple crops will be increased in Wisconsin this year, according to a report of the state agricultural commission to the state council for defense. This increase is a response to Governor Philipp's appeal for a greater effort in food production. It is estimated that the corn acreage will be about 10 to 15 per cent larger than usual this year, and the wheat acreage will be 20 or 30 per cent larger. About the usual area will be put in oats, barley and potatoes, but an increase in the land devoted to sugar beets and tobacco is expected.

THE state law relating to fishing has been changed so that May has been added to the months when the fisherman may try for a catch. There are a few restrictions thrown about the new arrangement, however, which our readers will do well to observe. No fisherman may take more than ten pounds a day, except that if he happens to land two big ones he is entitled to take both of them away. The limit is two fish or ten pounds if he catches smaller fish. Fish taken in May cannot be sold or shipped. Fish cannot be taken in May by any means or under any conditions which are prohibited in the regular open season. The open season begins May 30th. The change in the law will permit a good many people to catch fish for food.

IN the city of Grand Rapids seed potatoes were sold at $2.35 a bushel at the cars. This was a big saving. Beans were sold at $10.80 a bushel for seed—a pretty stiff price, but not what some of them are trying to charge. The city of Wausau also aided its people in getting good seed at reduced prices.

POTATO seed was sold in many points in southern Wisconsin at $2.80 per bushel by the state department of agriculture. This was a real help—an actual saving of about $1.20 a bushel. In addition to the saving we believe that the people of the southern part of the state will be well satisfied with the seed. Wisconsin-grown seed of the Rural and Early Ohio varieties should do well any place in the Badger state.

MEMBERS of the Racine County Milk Producers' Association are asking for an increase in milk rates to offset the high cost of feed. Since pastures are growing slowly and mill feed has advanced practically 100 per cent, the milk producers claim that there will be a milk shortage in May and June instead of the usual surplus and that a price of 5 cents a quart is reasonable under the present conditions. Retail milk dealers in that county have taken the matter under consideration.

THAT Rock county stockmen are prepared to produce quality beef in the food emergency campaign is shown by the fact that at a recent Hereford sale in Iowa three animals sired by Bonnie Brae 8th, owned by J. C. Robinson, of The Maples Farm, near Evansville, sold for $9,800. Two of the animals were bulls, an eight year old and a three year old, while the third, a two-year-old heifer, sold for $3,200, being the highest-priced female in the sale. Mr. Robinson is well known throughout the country as a beef producer, and is special adviser for the Wisconsin Boys' Baby Beef Contests, conducted by the state live stock breeders' association.

Meeting of American Jersey Cattle Club.

The forty-ninth annual meeting of the American Jersey Cattle Club, held at the Waldorf-Astoria, on Thursday, May 3d, at which every state but one was represented, disclosed that the year just ended has been the most successful in the history of the club.

The secretary's report showed the finances of the club to be in excellent condition, and also showed a substantial increase in the amount of business transacted. During the year 36,117 Jerseys were entered in the herd register and there were 34,499 transfers recorded, indicating an increase of 17 per cent over the year before in the sale of Jerseys, which is the largest increase in transfers that has been recorded for over twelve years. Eighty-four new members were admitted to the club during the year, bringing the total membership up to 649 against 592 the year previous. There are now 100 applications for membership pending, and it is expected that the club membership will soon be over 700.

A report on extension work brought out the fact that Jersey breeders are boosting the breed and its products more energetically than they have ever done before, and that great results have been attained by the breeders in their respective localities in stimulating interest in the breed. Field workers attended over 500 meetings in the interest of the breed and have been instrumental in organizing many state and local associations. It is planned to carry on this work more vigorously during the coming year.

The food crisis which confronts the nation was brought to the attention of the members and it was unanimously agreed upon that all Jersey breeders should be asked to coöperate with the national food commission and the committee on national defense, in the conservation of food products and for a greater production of dairy foods.

M. D. Munn, of St. Paul, Minnesota, was unanimously re-elected president of the American Jersey Cattle Club; Ed Cary, of Carlton, Oregon; F. J. Bannister, of Kansas City, Missouri; W. Gettys, of Athens, Tennessee, and George Batten, of New Jersey, were elected members of the board of directors for a term of three years. At a meeting of the board of directors following the annual meeting, F. W. Sessions, of Utica, New York, was elected vice president. R. M. Gow was reappointed secretary.

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See page 15. Read The Farmers' Market advertisements. There may be a bargain there for you.

Wisconsin has a lot of concrete country roads. This one is near Appleton, Wis. Built by the Wisconsin Highway Commission. State Highway Engineer, A. R. Hirst, Madison, Wis.

What a Concrete Road Will Do For You

YOU know how strong and lasting concrete is for barn floors, silos and bridges. It's just as good for roads. It gives permanent service. Remember these points:

1. A concrete road brings your farm nearer to market and adds dollars to profits. And this applies not only to farms on the concrete road but to every neighboring farm.

2. Over a concrete road you can haul four times the load that you can over dirt roads out of repair. You can do your hauling in wet weather and your farming in dry weather.

3. Wear and tear on horses, harness and wagons is very much less.

4. You can travel faster; start later; get home earlier.

5. Your family can drive to town any day in the year. They do not have to stay at home waiting for the roads to dry.

6. Your children can go to school in all kinds of weather, and when they grow up they will be content to live at home.

7. Merchants in town can deliver goods to your door.

You have to pay a road tax in your township or county. Why not use it for permanent highways instead of for repairs on impermanent roads.

The way to get concrete roads in your community is to demand them. See that a continuous system of roads is built; not a few stretches scattered about here and there. Our Bulletin No. 136 is full of interesting information. Write for a free copy.

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CURRENT EVENTS

THE British and French on the one side, and the Germans, on the other, are fighting bitterly for every foot of ground in northern France, victory perching first on one banner and then on the other. The allies seem to be pushing the Germans back slowly, but the work is tremendous and extremely costly in human lives. The Germans succeeded in repulsing the allies and recapturing positions at several places in the far-flung line last week, but if the press dispatches are accurate, the Germans are slowly, but surely, being pushed back out of the territory they captured with such a rush in the first week of the war, now almost three years ago. In the meantime, the American congress makes haste slowly in the matter of providing American troops to assist the allies. Congress has not yet granted Theodore Roosevelt the desired permission to raise a force to take across to the battle line. It is arranging to send railroad builders, but there have been no public indications as yet that armed troops will go in the very near future. A dispatch from Paris last week stated that the stars and stripes appeared on the streets there as the battle flag of an armed force when the flag and fifty men of the American field service under it on their way to the railroad station for the front were acclaimed enthusiastically by early risers all along the route. Thirty-one members of the contingent are from Cornell University. This is the first detachment of the American field service to bear arms and it is detailed for the transportation of munitions to the front.

IN order to raise the immense sum of money needed to carry on the war, the ways and means committees of both houses of congress have been at work, for some time past, devising a new schedule of taxes. Last week a war revenue designed to raise $1,800,000,000 by taxation during the coming year was unanimously adopted by the ways and means committee of the lower house. To bring the amount raised up to the desired total, the house committee wrote into the bill a flat increase of 10 per cent in all existing tariff duties and 10 per cent duties on all articles now admitted free, all estimated to bring in $240,000,000, this more than doubling the present tariff revenues. Most of the new revenue will come from the income, excess profits, and inheritance taxes and additional tariff duties, but the levies of the bill would reach into many other sources. Letter mail rates would be increased from 2 to 3 cents an ounce and postal cards from 1 to 2 cents, while $19,000,000 would be added to charges against newspapers under a new system based upon the present parcel post zones. Internal revenue taxes upon liquor and tobacco would be materially increased and there would be taxes on amusements, and stamp taxes of wide scope. The war income tax section would double the present normal tax of 2 per cent on individuals and 3 per cent on corporations. It would lower the exemption of individual incomes from $4,000 to $2,000 in the case of married persons and from $3,000 to $1,000 for the unmarried. The bill has not passed either house as yet, but the extraordinary need of money makes it imperative that some such measure pass without much delay.

THE new government bonds, to be known as the liberty loan, which will be issued shortly, will bear 3½ per cent and will be in denominations ranging from $50 to $100,000. These facts were made public last week by the secretary of the treasury, Mr. McAdoo. It is hoped that the rank and file of the public will take up the bonds, so as to make the loan a widespread one, rather than to let them get into the hands of bond houses and large investors solely. The bonds can be bought on the installment plan as follows: Two per cent of the subscription must be paid on application; the remainder will be paid as follows: June 28th, 18 per cent; July 30th, 20 per cent; August 15th, 30 per cent, and August 30th, 30 per cent. The bonds will be dated June 15th, instead of July 1st, the date previously designated, and the interest will be payable semi-annually on June 15th and December 15th. Two classes of bonds will be issued, coupon and registered. The lowest denomination of registered bonds will be $100, other denominations being $500, $1,000, $5,000, $10,000, $50,000 and $100,000. Coupon bonds, payable to bearer, will be issued in denominations og $50, $100, $500 and $1,000. The forthcoming bond issue will be limited to $2,000,000,000, with treasury certificates to an equal amount to be issued later. Banks throughout the country are subscribing to the liberty loan in large amounts, proposing in turn to sell them to their customers without a cent of profit to themselves. The government needs an immense sum of money and it will be raised by this bond issuance and by the proposed increase in taxation, which will approximate $33 per capita for the entire country.

GENERAL JOFFRE, the French commander to whom is generally given credit for holding the Germans back at the battle of the Marne in the first weeks of the great war, and Vice Premier Viviani, of France, visited the middle West last week and were given a wonderfully enthusiastic reception. Both men delivered notable addresses in Chicago and Springfield, Ill., and St. Louis and Kansas City, Mo., their train stopping en route now and then for short addresses and statements. A floral wreath was laid on the tomb of Lincoln, at Springfield, the same thing having been done at the tomb of Washington, at Mount Vernon, a few days previous. In an eloquent tribute to Lincoln, at Springfield, M. Viviani said: "You know, that born among the people, not able to read, Lincoln arose by study and intelligence to be the emancipator of modern civilization. He attained his ends by plunging the country into civil war after exhausting every other means within his power Lincoln understood human conscience and that is the reason he is proclaimed 'the immortal.' He accomplished this civilization and, although he is now in silence, by his triumphs and his deeds he still lives in memory. Three years ago the German government violated the rights of man without any motive or right, and sought to conquer France. The United States is now face to face with the same crisis. We are now together in this great world war to defend the rights and justice of man." In a public statement the French vice premier declared that the continuation and final success of the war "depends as much on the farmers as on the soldiers and the services rendered by those who cultivate the soil cannot be overestimated."

NINE new regiments of army engineers, to be composed exclusively of highly trained railway men, will be the first American troops sent to France. They will go "at the earliest possible moment," the war department announced, "for work on communication lines." The expedition will have a total strength of between 11,000 and 12,000 men, each regiment being composed of two battalions of three companies each. Every branch of railway workers necessary to the building or operation of lines will be represented and the war department expects a response to the call that will insure a force already trained to the minute, an army of experts in railway operation. Engineering feats of spectacular nature have been accomplished in perfecting these communication lines. A whole British railway was picked up bodily, rolling stock, rails, roadbed and all, and taken to France. American engineers had much to do with that. They also have, under contract with the British and French governments, driven tunnels, built spurs and bridges and mapped out schemes of transportation that are in operation today. America is preëminent in the field of railway engineering and the best talent and experience the nation can provide in that line will go into the new regiments, each of which would be able to undertake all or any part of the work of building or operating a whole railway system.

OFFICIAL wheat crop estimates announced last week show that with the world facing a bread shortage the United States, unless it cuts its present consumption, probably will produce only enough wheat this year to supply its own population. The forecast, compiled by the department of agriculture on conditions May 1st, put this country's winter wheat yield at 366,000,000 bushels, the smallest in thirteen years. There will be no estimate of spring wheat acreage until July, but with a crop of 250,000,000 bushels, which is higher than the average, this country would grow this year a total of only 616,000,000 bushels. The normal American consumption with seed requirements is put at slightly more than 600,000,000 bushels. The allies' wheat requirements for the coming year are put at 500,000,000 bushels as a minimum. The United States will be asked to supply more than half that amount. Wheat crops in other parts of the world are poor. The Argentine crop failed and home consumption will require the entire yield. Canada's production is confined chiefly to a spring crop of normally about 200,000,000 bushels, much of which is available for export. Since the war started America has exported to Europe vast quantities of wheat, reaching a high mark of 332,000,000 bushels in 1915. Last year the total fell to 243,000,000 bushels. Before the war it ran slightly less than 100,000,000 bushels.

Sunday gardening is not a violation of the laws at this time, in the opinion of Governor McCall, of Massachusetts. The governor has been urged by Mayor Curley, of Boston, and others to recommend that the Sunday laws be amended so as to permit persons who work at other employment other days in the week to do a little Sunday work in their vegetable gardens. Section 2, chapter 98, of the revised laws reads in part: "Whoever on the Lord's Day * * * does any manner of labor, business or work, except works of necessity and charity * * * shall be punished by a fine of not more than $50 for each offense." Owing to the fact that the cultivation of every bit of available ground is now being urged as public duty, the governor believes that garden work done by householders is a necessity.

WORN BEARINGS

What do they mean?

THE repair man says: "That knock? Worn bearings." Tightening will temporarily remedy the trouble. Refitting or renewing is the only permanent remedy. But it is more important to know what will help prevent this expensive operation.

To the eye, the surface of a bearing is smooth. But under the microscope it has a very different appearance. You see a succession of little hills and valleys

Now, imagine the engine in motion.

What happens?

Surfaces are in motion. Unless protected by a correct film of lubricating oil, the microscopic hills of metal meet and rub. The engine-power overcomes this resistance, but tiny particles of metal grind off

By degrees the snug fit becomes a loose fit. Noise follows. To correct this condition now, the bearings must be refitted or renewed.

The only protection against undue wear of bearings is the thin film of oil.

This thin film of oil must be highly elastic. It must fill-in the valleys. It must cushion the peaks and withstand pressure. It must stand up under the heat of service. These requirements call for oil of the very highest quality and of the correct body and character.

Gargoyle Mobiloils meet these requirements with scientific exactness. Used as specified in the Chart of Recommendations they effectively cushion the bearing surfaces, and meet the most severe demands of service and heat.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, kindly write our nearest branch, giving dealer's name and address.

GARGOYLE **Mobiloils**

A grade for each type of motor

CORRECT AUTOMOBILE LUBRICATION

Explanation: — The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic" etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (8 cyl)	..	..	A	A	A	A	..	..	..	..
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)	..	..	..	..	A	Arc	..	..	..	..
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	..	..	..	..	..	..
Auburn (4 cyl)	..	..	A	Arc	A	Arc	A	A	A	A
" " (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	..	..	..
Avery	..	..	A	A	A	A	A	A	A	A
" (Mod. 5 & C 1 ton)	..	..	Arc	Arc	Arc	Arc	Arc	Arc	..	..
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	..	..
" " (8 cyl)	..	..	A	A	..	..	..	..	..	..
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac	..	..	..	..	..	..	Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	Arc	Arc	..	..	..	..
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	..	..	Arc	Arc	Arc	Arc	A	A	Arc	Arc
" " (Mod. 6-40)	..	..	A	Arc	..	..	..	..	..	..
" " (Mod. 6-30)	A	A	A	A	..	..	..	..	..	..
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	..	..
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole	..	..	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	A	A	..	..	..	..
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" " (Mod. C)	A	Arc	A	Arc	A	Arc	A	A	..	..
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" " (8 cyl)	..	..	..	..	Arc	Arc	..	..	..	..
Dodge	A	Arc	A	Arc	E	E	..	..	..	..
Dort	A	Arc	A	Arc	A	Arc	..	..	..	..
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (6 cyl)	Arc	Arc	Arc	Arc	..	..	..	..	..	..
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc	..	..
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " (12 cyl)	A	A	A	A	..	..	..	..	..	..
Hudson	..	..	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (Super Six)	A	Arc	A	A	..	..	..	..	..	..
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
I.H.C. (air)	..	..	..	..	B	A	B	A	B	A
I.H.C. (water) (2 cycle)	..	..	A	A	A	A	A	A	A	A
I.H.C. (water) (4 cycle)	..	..	A	Arc	..	..	..	..	..	..
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A	..	..
" " (6 cyl)	A	A	..	..	..	..	..	..	..	..
" " Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
King	..	..	..	..	A	Arc	A	A	A	E
" " (8 cyl)	A	A	A	A	Arc	Arc	..	..	..	..
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	..	..

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
Lexington (Mod. 48)	..	..	A	A	A	A	A	A	..	..
" (Mod. 33-34-35)	Arc	Arc	Arc	Arc	Arc	Arc	..	..	..	..
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8 cyl)	..	..	A	A	..	..	..	..	..	..
Moline	..	..	..	..	..	..	..	..	A	Arc
" " Knight	A	A	A	A	A	A	A	A	..	..
Monroe	A	A	E	E	A	Arc	..	..	..	..
Moon (4 cyl)	..	..	..	..	Arc	Arc	A	Arc	Arc	Arc
" " (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	..	..
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" " (12 cyl)	A	A	A	A	..	..	..	..	..	..
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (8 cyl)	..	..	A	A	..	..	..	..	..	..
Oldsmobile	..	..	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	..	..	..	..	..	..
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard	..	..	..	..	A	Arc	A	Arc	Arc	Arc
" " (12 cyl)	A	A	A	A	..	..	..	..	..	..
" " Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige	..	..	..	..	A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc	..	..	..	..
" (6-36 & 38)	A	Arc	A	Arc	A	Arc	..	..	..	..
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A	..	..	..	..	..	..
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	..	..	..	..	..	..
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	Arc	Arc	..	..	..	..
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Saxon	E	E	E	E	E	E	E	E	..	..
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" " (8 cyl)	A	A	B	A	..	..	..	..	..	..
Stephens	Arc	Arc	Arc	Arc	..	..	..	..	..	..
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie (4 cyl)	..	..	..	..	A	Arc	A	Arc	A	Arc
" " (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	..	..
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Willys-Knight	A	A	B	A	B	A	A	A	..	..
Willys Six	Arc	Arc	..	..	..	..	..	..	..	..
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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Feeding the Dairy Calf.

"Feeding the dairy calf should begin before it is born," says Bulletin 777. "Poorly nourished cows give birth to weak, puny calves which are hard to raise." This bulletin deals mostly with range cattle, that are half starved through the winter, and will not apply literally to our ways and means in the corn belt, where few are the times an animal of any kind is stinted in the feed.

A cow should be well fed previous to bringing a calf, but this point is being so widely advocated at all the prominent institutes and by the bulletins that it is well to sound a warning note to the ones who might take the advice literally. A boy, a level-headed young fellow, heard a lecture of this kind at a state short course, from which he derived a noticeably broader outlook, translated the talk literally, went home and fed a valuable cow too much corn, and she is now in a precarious condition.

A range cow and a dairy cow that has been bred and trained along the highest possible production must not be lumped off in the same class in the matter of care. The former has rather too much exercise with a possible shortage of feed, while the latter is short on exercise enough to often cause her trouble at parturition. Our high-producing cows are more subject to milk fever and need to be fed along conservative lines, with plenty of good, succulent feed to keep them in good health and condition. It would seem that the danger lies in producing too much milk at the start.

Unless a calf or colt gets the first milk of the mother the chances for life are pretty slim. This stimulates the digestive organs and helps to expel the first passage. One of our calves was seemingly all right and was supposed to have sucked directly after birth. After about twenty-four hours it was found with its head drawn back and eyes rolled back, apparently ready to give up the job of living. Some milk was drawn from the cow and forced down its throat as a last desperate resort, with little hope of success. It was a very valuable calf and we especially desired to raise it. Within twenty minutes the bowels evacuated their contents and the little fellow was as lively as a cricket by the next morning.

After the first day we have found it better to take the calf from the dam. There is less fretting, the calf hardly realizing it has a mother, and after a couple of days the cow, if she be well treated, does not worry about her calf—just takes the separation as a matter of course.

The small bossy should have a dry, clean stall kept well bedded. A couple of young calves last winter were kept in a stall of the barn, and towards spring we happened to be at the farm and asked to see them. Such a mess! Wet, dirty, mangy and altogether uncomfortable. Fortunately, they had been well fed, and the owner got ashamed of it all, removed them and cleaned and disinfected the stall before returning them to their own quarters. "They just got to looking so mean that I felt that they were not worth trying to do anything with them," he said. "Thirty-five dollars would have bought them both." Next summer they will be cows and, as they are from a high-producing herd, their value is considerable.

This winter there were two more calves, full mates to the others, and they have been kept looking like pictures. It sometimes requires a like experience to learn the necessary lesson. This may be an opportune time to mention that the two calves this winter were fed commercial calf feed with the most gratifying results.

The bulletin advises that milk from tuberculosis infected cows should be heated to 145 degrees Fahrenheit and held at that degree thirty minutes before being fed. Why not go a step farther and say to discard all tubercular cows?

Pail-fed calves should be fed three times each day, so that there is no danger of overloading the stomach. The bulletin named advises that at birth a fifty-pound calf should have about eight pounds of whole milk a day, while a calf weighing 100 pounds should be allowed twelve pounds. The calf should have the milk from its own mother at least four days, when other milk may be substituted. In our herd is a cow that is giving about the right amount of milk to raise a calf, and as she is rather hard to milk, she is to be utilized to raise a calf from a cow whose time is too valuable for the production of butter fat to waste her time raising babies, and besides, the time saved in milking and feeding an extra calf is considerable. At no distant future date the milking machine will solve the milking of hard cows, as well as the others, on the small farms as well as the extensive ones. Not so very long ago the separator was thought to belong wholly to the special dairy people and today it is as much a matter of course as a sewing machine.

The calf should have whole milk for at least three weeks and a dairy male that is not to be used for breeding purposes is hardly worth it. And especially if the cow be a high producer. It is the heifer that is destined to take her place in the herd, thus making it possible to eliminate the older cows before they go to pieces, that we are dealing with.

Six months is a very good age to wean either calves or colts, but if there is an abundance of skim milk it cannot be utilized to a better advantage than to be fed to a future dependable cow. One calf that came in September was given milk until grass came the next summer, when she was an ideal type of dairy stock. Long, smooth, growthy, with soft, mellow hide. The only trouble is to keep someone from making an offer too tempting to keep her.

There are set times advised in the matter of when and what to feed in the meantime besides milk, but for the average farmer it would be safe to say, begin to feed a little grain as soon as the small bossy will eat it. A handful of oats or bran dropped in the bottom of the pail as soon as the calf is through drinking will encourage it to begin to nibble at an early age, and, once it gets started it will take care of anything you may give it—clover or alfalfa, cracked corn, bran, oats—one part oats, one part wheat bran and three parts cracked corn. This according to the bulletin. Have no fears about giving too much oats. The best of all the young things we grow have oats in unlimited quantities.

The Making of a Good Cow

To the Editor:—We sometimes hear the expression of some good-looking heifer, "She has the making of a good cow in her." It always makes us feel good to have it said of a heifer we own. Next to that is the pleasure of saying it about one owned by some friend.

But it is no easy thing, this making a good cow. The man who sets out to do it may as well make up his mind in the beginning that there is a long road ahead of him, and that there are many crooks and turns, as well as some pitfalls, before he reaches the goal of his ambition.

As the matter has presented itself to me in the course of a good many years of experience, some of the things we have to do to get the good cow we would like to have are these:

First and foremost, a clear idea of what we are working for. What is our ideal cow? Do we want her for milk and butter or for beef, or for both? This should be settled at the very outset.

And then we need to look ourselves over. Have we the patience, the persistence, the capacity to do everything as nearly right as possible? Often failure may very properly be traced to the man and not at all to the cow.

So far, good. Now we may set our stakes to get the best possible ancestors for our good cow. There are two routes open to us here. We may take the cows we have and by grafting them to better stock by and by reach the desired end. Or, we may go into the matter more expensively and invest in cows and a sire that are of known superior qualities. This is the most satisfactory method, provided we are able to do it. The great majority of farmers, however, may not have the ready money to put into an enterprise of this kind. For such there is this word of encouragement. If we take the stock we have and breed up, we have animals that we are acquainted with from start to finish, and

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25 CENTS **Calf Rennets** We pay 25c for salted Rennets from milk fed calves. It handled according to directions. The Marschall Dairy Laboratory, Madison, Wis.

this is no slight matter in the dairy economy.

And then in the making of our good cow we may well put kind, sympathetic treatment very high in the scale. Many an otherwise choice cow has been spoiled by having to submit to the careless, harsh and often cruel treatment of a man who has no interest in her. I want good men to handle my good cows while they are in the making. I would rather pay a man a little more if necessary and feel that he will do all his work well, regularly and with a due regard to my interests than to save a few dollars and think that it has cost me ten times what I imagined I was saving in the poor cow I have grown.

One thing more. We may have to work for years before we get our good cow. That is, the heifer we hoped would be the best of her name may turn out rather inferior to our ideal in the beginning. It may be wisdom not to turn her off, but to use her to breed with to a still better sire. So little by little we gain ground. This is a cumulative work. This year we gain a little, next year still more, and so on until at last we may reach a point very near, if not really up to, the standard we have set for ourselves.

All the way along it is highly interesting and instructive. It gives all life a zest and no little happiness.

Subscriber.

Producing High-Grade Milk in Summer.

To the Editor:—In the matter of producing high-grade milk it is not knowledge that we need so much as it is the attentiveness to do properly the things we already know. Everybody is agreed that the barns should be cleaned, windows swept down, manure taken from the gutters once each day, cows groomed free from manure, food always kept wholesome, and stale, unconsumed portions removed from the mangers. Good barn management consists in carrying out all these details. During the regular winter routine these things are done reasonably well, but during the rush seasons of planting, cultivating and harvesting the crops the alleys go litter covered, windows become opaque, manure accumulates in the gutters and a general air of neglect is apparent.

Everywhere in this work-a-day world the ideal and practical are far apart. It is easy to say that a thorough grooming is good for the cows, that it is an important thing to do if the best milk is to be obtained, but during the busy seasons most of us will do pretty well if we can find time to brush the loose hairs from the udders and flanks and to pay a little special attention to any flecks of manure that may accumulate. A minute per day per cow spent in this work will keep a good many hairs out of the milk pail and perhaps from the layman's point of view the number of cow hairs per pail is a better standard of purity than the number of bacteria per c. c. Take the well-meaning and well-trained health expert whose standards of cleanliness are laboratory ones and whose principal opportunity is to become acquainted with dairy conditions through an occasional visit to some famous dairy farm. I wonder if he realizes the length of the milk route from the udder to the consumer's table and how many opportunities there are for accidental contamination on the way.

In the production of high-grade milk the small-topped pail is one of the greatest helps where the milking is done by hand. Most of the dirt that gets into milk falls into it and hence the area of the top of the pail is a fairly direct measure of its cleanliness. The chief objection to the use of this sort of pail is that it is somewhat more difficult to keep clean and to handle than the open-topped pail. Let it be said that those contraptions where milking is done into a strainer are a good deal worse than useless. The part of the dirt that is really bad washes through.

Of course, high-grade milk means not only cleanliness in the barn and care in milking but it means clean utensils as well, and no utensil is clean from a bacteriological standard until it has been actually boiled or well steamed with live steam. There is no more prolific source of trouble than a strainer cloth rinsed in warm water and hung over the fence to dry, but the same cloth boiled for a few minutes after washing is clean from the standpoint of the bacteriologist.

There are a few fundamental principles in washing milk utensils. One is that alkalies and carbonates, like soda lye and salsoda, are preferable to soap or soap powders for cleansing purposes. Salsoda dissolves coagulated casein and this gives it a special value for washing up old dirty cans. Still, pails and cans that are well cared for from day to day will not make any great demands upon washing powder.

All pails should be inverted while hot after washing and cans should be laid on their sides or inverted on a slatted rack. They certainly must not be closed tight. There are few worse smells than a fairly clean can that has been shut up tight until it has become musty. But there should be no fairly clean cans. They should be clean. Of course, if steam is not available it is not an easy matter to do many of these things. A teakettle of boiling water is a "vain thing for safety" when it comes actually to sterilizing milk cans and yet thousands of faithful farm wives are doing a pretty fair job with such primitive apparatus.

It is a platitude that the two great factors in the production of milk are "cleanliness and cold" and it might be added that the greatest of these is cold. By this I mean that there is no milk so clean and good but that it will very rapidly spoil at a high temperature, say at 65 degrees or above, though not so rapidly as if it were dirty in the beginning. On the other hand, quite inferior milk will keep in presentable condition for a long time if it can be kept below 45 degrees. In other words, spoiling is a matter of bacterial growth and bacterial growth is a matter of temperature. Fairly good milk below 55 degrees will keep very well and above 65 degrees it changes fast. When the temperature is approached at which it is drawn from the cow it goes at geometrically accelerated speed. On the farm where milk selling is carried on there is then one simple unvarying rule, namely, reduce the temperature of the milk immediately after milking as rapidly and as low as possible and do not allow it to warm up again before it is purchased.

Subscriber.

Coming Shows and Sales.

To the Editor:—A feature that has contributed to the interest in purebred cattle association sales is that of a show contest limited to the animals entered in the sale. This plan was originated by the American Short-horn Breeders' Association and has been widely adopted in the various states and districts where Short-horn breeders' associations put on sales.

Secretary Harding, acting for the American Short-horn Society, has offered material encouragement to such shows by offering two trophies for the best bull and the best female in the show, and in addition cash prizes varying in amount with the extent and importance of the show and sale.

The response among breeders gives the assurance that the plan is highly popular. It creates a lively interest and friendly competition among the contributors that is not manifested in association sales where the show feature is not included. It has the definite effect of encouraging the consignors to put their cattle in better salable condition. It raises the standard and in every respect has a useful, constructive effect.

Many a small breeder has enthusiastically fitted his entries for a sale and show of this nature and won prizes who would not be inclined to fit animals for a county, district or state fair. He has something definite to work for in this case. In the first place he converts his animals into cash in the sale and he realizes that a higher price will be encouraged if his offerings are well fitted. He is still further encouraged if he succeeds in winning a prize near the top in the show contest. In addition to this he gains a prestige and a satisfaction if he succeeds in winning. It is a friendly contest that appeals to the sportsmanship of every man and the prize is well worth winning.

The American Short-horn Breeders' Association is inclined to extend this plan of coöperation with district breeders' organizations and encourages such organizations to avail themselves of these advantages. F. D. Tomson.

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See That Double Wall

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29

THE WAUKESHA COUNTY
A BREEDERS' SALE—WAUKESHA—MAY 31—

Dr. M. W. Downing & Bro.'s Dispersion

See cuts 1, 7, 13, 14, 8.

Our dispersal of 50 head includes the noted 5-year-old show bull, **Downing Pontiac Butter Man,** 21 of his daughters, 9 A. R. O. daughters of **King Hengerveld Pondyke,** a well-known son of King of the Pontiacs, 8 sons of Downing Pontiac Butter Man, and a son of Dutchland Creamelle Sir Ascalon. **Every female in milk has an A. R. O. record,** the lowest being a 13-lb. yearling. Others run up to 29.55 lbs. and all the heifers are from A. R. O. dams. Twelve of Downing Pontiac Butter Man's daughters and his dam are bred to Concordia De Kol Rag Apple (163748), a **31-lb. son of Rag Apple Korndyke 8th.**

Baird Bros.' Consignment

See cut 5.

Here we have 7 two-year-old heifers out of daughters of **Sir Urmagel Burke,** a 31-lb. bull with a 35-lb. sister; these daughters have records from 18 to 23 lbs. as 4 year olds. The heifers are bred to **King Superba.**

Connell Bros.' Consignment

See cuts 12, 17 and 18.

They are consigning **6 of the best animals** in their herd, including a daughter of a 27-lb. cow. This daughter is bred to their herd sire that is a splendid individual and a **son of Johanna McKinley Segis.** They are also offering a beautiful heifer calf, out of an 18-lb. **daughter of Homestead Jr. De Kol,** and sired by **Count Johanna McKinley.**

Dr. David Roberts' Consignment

See cut 4.

In this offering we have **Queen Schillaard (93154)** with 27.28 lbs. in 7 days and 764.71 lbs. butter, 18,329 lbs. milk in a year. She is bred to **King Superba,** whose dam is the first cow in the United States to have an official yearly record and to hold eight world's records at the close of her year's test. **Queen Schillaard's son,** sired by **King Hengerveld Pondyke** is also consigned. See field note in this issue.

H. H. Earle Dispersion

See cuts 9, 15.

The herd numbering 27 head includes 11 cows and heifers with records from 12 to 23 lbs., 5 daughters of **Fobes Mutual Diploma De Kol, a 25.99-lb. bull,** several daughters of **Friend Ormsby Johanna,** that already has a list of 20 A. R. O. daughters, and the splendid 3-year-old herd sire, **Canary Oak De Kol Homestead 5th,** a 24.60-lb. son of Canary Oak De Kol Homestead. This bull is one of the finest individuals of the sale.

Mielenz Dairy & Produce Co. Consignment

Includes **two young cows** with 18 and 20 lbs. respectively, that are bred to their 30-lb. son of **Rag Apple Korndyke 8th.**

S. B. Lowry's Consignment

Is composed of one well bred animal.

See field note in this issue for more detailed information concerning the sale and various consignments. Write for catalogs to Waukesha County Holstein-Friesian Breeders' Association, Waukesha, Wisconsin.

Downing Pontiac Butter Man (94805) Senior and Grand Champion Bull, Wisconsin State Fair 1916. Consigned by Dr. M. W. Downing & Bro., Waukesha.

Sir Pietertje Ormsby Mercedes 43d. A 34.59-lb. bull, one of Wisconsin's leading bulls, owned by J. J. Reid & Son, Oconomowoc.

Sir Spofford Pietertje Korndyke (156966), a 29.49-lb. bull out of Molly Spofford Pietertje. A show bull consigned by S. G. Cramer, Milwaukee.

Downing Pontiac Nellie (238545), 22.09-lb. senior two-year-old daughter of Downing Pontiac Butter Man. Consigned by Dr. Downing & Bro., Waukesha.

Downing Pontiac Korndyke Noble (205622), by Downing Pontiac Butter Man, and out of a 19-lb. daughter of King Hengerveld Pondyke. Consigned by Dr. Downing & Bro.

Canary Oak De Kol Homestead 5th (140727), by Canary Oak De Kol Homestead, whose three nearest dams have five 30-lb. records. Consigned by H. H. Earle, Eagle.

Downing Pontiac Mercedes Lass (238546), a 20.59-lb junior three-year-old daughter of King Hengerveld Pondyke. Consigned by Dr. Downing & Bro., Waukesha.

Netherland Pauline Johanna (162010), 29.55 lbs. butter, 683.2 lbs. milk, 7 days, and 604.98 lbs. butter, 11,838.6 lbs. milk in a year. Consigned by Dr. M. W. Downing & Bro., Waukesha.

Princess Elva Pearl, one of the best cows in the Earle consignment. Will be fresh about time of the sale. Consigned by H. H. Earle, Eagle.

OLSTEIN BREEDERS' SALE

NE 1—WAUKESHA—OF BREEDING STOCK

S. S. Cramer's Consignment

See cut 3.

Cramer is offering a **29.40-lb. bull,** whose dam has a sister with 3., **a daughter of a 27-lb. cow** due to freshen June 3d, and three other ed heifers bred to **a 31-lb. bull.** See field note in this issue.

S. A. Baird & Son's Consignment

See cut 11.

prises **a 27.35-lb. bull calf** that is an exceptional individual, sired **hland Creamelle Sir Ascalon,** the only bull in the world whose **five dams** average **27,000 lbs.** milk and **1,000 lbs.** butter and a **23-lb. 3 l,** with a daughter having a yearly record of **20,000 lbs. milk** and **butter,** bred to Dutchland Creamelle Sir Ascalon so as to freshen me of sale.

D. J. Howell's Consignment

See cut 10.

4.75-lb. two year old, bred to a 31-lb. bull, and a 20-lb. daughter of **agel Burke,** bred to a 31-lb. bull, are included in Mr. Howell's con- t.

George Carroll's Consignment

ains a choice cow and her daughter, carrying strong lines of breed- l nicely marked.

Fred Pabst's Consignment

See cut 6.

Mr. Pabst is offering a son of his $12,500.00 bull, **Korndyke Segis Johanna,** whose sire is the great 40-lb. bull, **Johanna McKinley Segis,** and out of **Pabst Blackberry with 31.5 lbs.** at 3½ years, a cow that represents one of the best families in Mr. Pabst's herd. **His full brother** sold at auction a year ago for $1,650.00.

John J. Reid & Son's Consignment

See cut 2.

They are offering several females, including a daughter of a 27-lb. cow, bred to **Sir Pietertje Ormsby Mercedes 13d,** one of Wisconsin's leading sires. His dam has 34 lb., three records above 31 lbs., and the world's record for three consecutive years' production.

Dreyer Bros.' Consignment

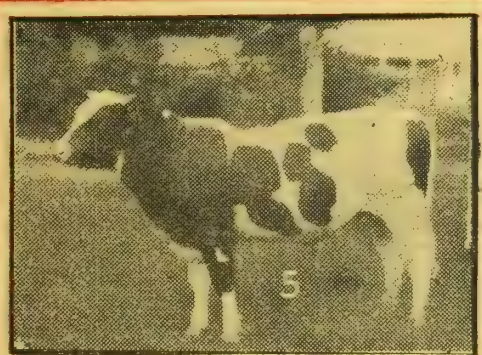
They are offering an 18-lb. daughter of **Sir Ormagel Burke** and her two daughters.

Schley Bros.' Consignment

Schley Bros., Waukesha County, four head, see cut No. 16—a splendid offering.

Roads Lead to **WAUKESHA, MAY 31-JUNE 1** Auctioneers: Haeger, Love, Ball and Benjamin. S. T. Wood in the box.

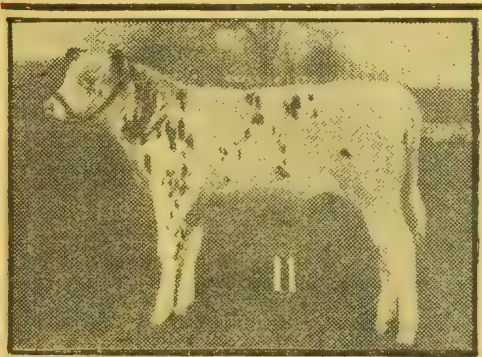
oberts Queen Schillaard Pontiac (197505), by Hengerveld Pondyke, and out of Queen Schil- d, 27.28 lbs. 7 days, 764.71 lbs. in a year. Con- ed by Dr. David Roberts, Waukesha.



King Superba 176125, out of Milanhurst America De Kol, that has held eight world's records. **Baird** Bros. are offering seven head bred to him.

A 31.68-lb. son of Korndyke Segis Johanna (127132), a 38-lb. bull sired by the 40-lb. bull, Johanna McKinley Segis, and Pabst Blackberry. Consigned by Fred Pabst, Oconomowoc.

rookvale Ormsby Korndyke (254245), 24.75 lbs. two year old, sired by Hillvale Sir Ormsby (10- R. O. daughters). Consigned by D. J. Howell, kesha.



27-35-lb. son of Dutchland Creamelle Sir Ascalon, whose five nearest dams average 27,000 lbs. milk, 1,000 lbs. butter. Consigned by S. A. Baird & Son, Waukesha.

Count Johanna McKinley, by Johanna McKinley Segis, and out of an A. R. O. daughter of King of the Pontiacs. Owned by Connell Bros., Colgate.

bst King Pontiac Lad (129298), a 30.38-lb. whose dam finished recently with about a 950-lb. . Owned by Schley Bros., Waukesha.

A choice heifer by Count Johanna McKinley and out of an A. R. O. daughter of Homestead Jr. De Kol. Consigned by Connell Bros., Colgate.

Count Johanna McKinley, two two year olds bred to him and two of his heifer calves. The four heifers are consigned by Connell Bros., Colgate.

Educating "White Collar" Brigade

Women Can Help Counteract Wrong Ideas As to Farming —By J. F. Sievers, Milwaukee County School of Agriculture.

[Editor's Note.—By special request Mr. Sievers has arranged for The Wisconsin Farmer a portion of his address to the League of Patriotic Women. In this address Professor Sievers pays his compliments to the present educational system fitting young men for "white collar" jobs, and failing to emphasize the dignity of farming as a profession or business. Professor Sievers' ideas are worthy of careful thought.]

I FEEL that there are two distinct ways in which the women of this nation can help in our national food emergency. One is permanent and the other is of a more temporary nature.

In regard to the first I will say that the present apparent shortage in our food supply as indicated by the high cost of farm products is perhaps primarily due to the fact that the rural population in this country has hardly held its own during the last ten years; in fact, we find by referring to government statistics that some of our leading agricultural states have actually had a falling off in their rural population. When we consider that this condition obtains when history tells us that our population in this country doubles every twenty-five years, it is not very hard for the individual who has average intelligence to conclude that we must by some means promote conditions that will keep our young people on the farm and also induce some of those raised in the city to become interested in farm work.

This is an educational problem and when it comes to matters pertaining to education I think that the American women have done more toward promoting that line of our national development than any other agency. The fact of the matter is that in our entire educational system we have up to date paid very little attention to the importance of the farm industry. Our entire city school system offers nothing of a practical nature that pertains to farm life or any of its activities.

In our rural schools we have chosen for our teachers men and women who have held up to the younger generation standards which meant to the youth that a career which did not permit him to wear a white collar every day in the week, or a training that did not permit him to enter one of the professions, was not worthy of his consideration. That our teachers have held up these standards I think will be borne out by the fact that very few of the men who devote some of their time to educational work in our rural districts, and women, too, have ever returned to the farm. Besides this we have been in the habit, and this is also educational, of picturing our farmers on the front pages of newspapers and magazines as a hay-seed with long flowing beard and hay growing out of their ears. This kind of pictures and this sort of ridicule have not had very much effect on the mature and established farmer, but it has not done much toward encouraging the younger people to enter the farm occupation.

Under our present system of education we find that a farmer who is big-hearted enough to send his boy through high school takes the chance of educating him away from the farm.

Our national government appreciates the bigness of this problem and in consequence is appropriating large sums of money for special agricultural education in our secondary schools. This kind of education is still very unpopular, due to a biased state of mind on the part of most people and also due to a lack of understanding. For this reason the moral support of the women of this country who have the time and energy and ability to give a social problem of this kind thorough consideration will do a great deal toward straightening out this unbalanced condition of society.

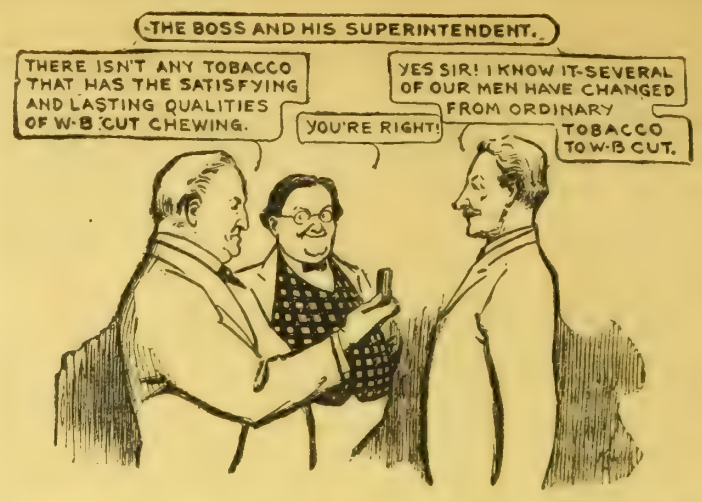
Two solutions of the present food problem have been suggested, one to induce the farmer to farm more intensively and the other to boycott farm products and thereby bring about a decrease in price.

In regard to the first I will say that the farmer needs no such inducement. He is well aware of the fact that if he farms more thoroughly and more scientifically that he could easily produce more products per acre. He has sufficient information at hand to bring about better agricultural conditions, but he is in sore need of the labor necessary to carry out this plan.

There used to be a time when there was "nobody on the old farm here but mother, me and John, except, of course, the extra help when harvest time comes on." Later there was "nobody on the old farm but mother, me and John" and since the farmer has made an effort to send his boy to high school, there is "nobody on the farm but mother and me," and mother and me haven't the time to farm intensively.

Our present shortage of labor on the farm requires that the farmer himself, who should primarily be a manager of not only his labor but that of two or three extra men, is looking after all minor details of producing the crop and consequently the cost of production becomes very high. We would have exactly the same situation in regard to products turned out by our factories if men who are qualified to superintend the plant had to be called upon to operate the actual machinery, a condition brought about by a shortage of labor.

In regard to boycott I will say that it is very evident that such action would, instead of offering relief, make conditions much more intense. This action, instead of encouraging more people to go into the farming occupation, would tend to discourage those that are already interested. The opportunity that the women of the nation have at the present time to help in solving this great national problem is before them as an entering wedge in the form of vast tracts of vacant property within the county limits that are in need of cultivation. It will bring home to our citizens the fact that we are surely beginning to appreciate that the American citizen, no matter how prosperous he may be, is after all entirely dependent upon the production of the land. I feel, and feel it keenly, that this work of aiding to increase the nation's food supply will require as great a display of patriotism as could be displayed in any other way, shape or manner. A good share of your patriotism will be demanded to overcome the sneers and criticism that your work may receive from a large mass of unthinking people who are ready and anxious to watch your work very keenly, and if there should be a failure in any one of the details, to give you very severe criticism. The bigness of your work should not be entirely based on the number of bushels of potatoes that you may produce, but upon the value that you have given to the nation in impressing upon its individuals the fact that this food problem is intense enough to deserve the consideration of a large class of people who would ordinarily be considered comparatively independent.



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Bean Planting in Early June.

There Is Still Time to Put in a Good Bean Crop Following Corn Planting—By R. A. Moore, Wisconsin Station.

THIS year the exceedingly high price of potatoes will encourage many to plant beans. We need more beans to help supply Uncle Sam's army. I believe that beans well tilled will bring the farmer a good profit this year. Seed beans will cost $4 to $5 per acre, while potato seed will run $30 to $40 per acre. An average yield of beans is eleven bushels per acre, while with good care beans ought to produce twenty bushels to the acre. Wisconsin has only about 15,000 acres in beans annually. It ought to be easy to more than double this this year. Sandy and sand loam soils are best adapted to beans. Ten to twelve counties in the central part of the state, and the lighter soils northwest and northeast of this central section, are especially adapted to this crop. The navy bean is the variety most generally grown in our state, though the kidney beans, black, brown and white, are also grown to some extent. In a time like this I advise sticking to the navy bean, as we know and understand it best.

Prepare the ground thoroughly. If it was plowed in the fall, spring disking followed by a fine-tooth harrow will help make a good dust mulch. Spring plowing is best on the sandy soils. Harrowing will kill many of the weeds and make cultivation easier. The mulch aids in warming up the soil. Harrowing weekly will sprout many of the weed seeds and, of course, it is always best to get the weed early in the season. Beans do best in rotation, following clover if possible. They can also be grown to good advantage following corn, peas, potatoes, but should not be grown on the same land for several years. The frosts last fall may have weakened the growing power of your seed, so it is best to test the seed. It is easy to make the test. Take a pie tin and place in it a piece of old flannel which has been boiled to disinfect it. Blotting paper will do if the flannel is not at hand. Put seventy-five to 100 beans on the flannel and cover with another dampened piece. Cover with another pie tin and put in a warm place. After six days count the beans which grew. Keep the flannel well moistened, but not too wet. Keep the beans at a good growing temperature—not too hot. It is much cheaper to sprout a few beans before planting than to sit around after planting to see whether they will grow. Bean planting should follow corn planting early in June. Be sure to wait until all danger of late frosts is passed. In Wisconsin the first ten days in June are the bean planting days.

Beans should be drilled in rows from twenty-four to thirty inches apart. Drop the beans about four inches apart in the row, using about a half bushel of seed to the acre. If grain drill is used close some of the holes so that the rows are planted at the proper distance. Some farmers plant with a corn planter or garden drill. If possible run the rows north and south to let in the sunlight. Watch the depth of the planting carefully. In light soils the seed may be planted as deep as three inches; in heavy soils an inch or two is about right.

If you did a good job of harrowing and the weeds were killed, you can wait until the beans are nicely above ground before attempting to cultivate. Cultivate shallow as the bean roots are near the surface of the ground. The best cultivation for beans is before they are planted.

Here's a "tip" about cultivating: Wait until the moisture is off the leaves before starting in. Dirt scattered on the leaves will usually cause the leaves to rot, reducing the leaf surface. The dirt won't stick if the leaves are dry. Cultivation while wet also distributes the anthracnose and blight diseases.

If you just have a few acres of beans they can be pulled very readily and stacked in the field. They are often cut with a mower, though this means some waste from shelling. Where a large acreage is grown a bean harvester is needed. This machine has knives which cut the stems just below the ground where they are soft. Two rows can be harvested at one time and the machine throws them together. After drying for a day or two cock in small piles for further curing, then haul to the barn and store or stack. Stacked beans need a covering of some kind to prevent the rain from discoloring, which materially reduces price. Beans should be left to ripen well before harvesting and then cut or pulled during dry weather.

Beans can be threshed with regular grain threshers if the machine is provided with blank concaves to prevent splitting the beans. Special bean threshers are generally used if obtainable.

Beans keep well in storage. A shallow bin is a good thing to put them in. If they are damp, shovel them over a time or two until they are dry. One of the beans' best qualities is that they can be stored for several years if kept dry.

Blight and rust (anthacnose) are among the few diseases which trouble beans. These diseases, however, generally occur where beans have been grown several years without thought of a rotation. The bean weevil also affects beans to some extent, but there is little danger in sections of the state where beans have not been grown as a general crop. Clean, hand-picked seed is the best disease preventive.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 15.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Caponizing Is Real Conservation.

The secretary of agriculture and many other government officials, as well as the agricultural boards of various states, have directed attention to the fact that it is absolutely essential that every effort possible should be made to increase the amount of foodstuffs raised in America. The fact has been emphasized strongly by prominent officials that the success of America in the present war depends upon the food produced and that every method of producing food supply should be carried out along the most efficient lines possible.

It is not necessary to direct attention to the increasing cost of poultry feed. The general tendency among poultrymen has been to say, "Yes, we know that, but with the increase of price on chickens and eggs we are still satisfied." Has the average poultryman stopped to consider that the corn crop of 1916, when nearly all Europe was looking to America for corn, was short over 400,000,000 bushels in America? Does he realize that, according to the department of agriculture in Washington, the average condition of the wheat crop on April 1, 1917, is the lowest ever recorded on that date? Although the American acreage was nearly the largest ever sown to winter wheat, on this one crop alone there is a shortage of over 50,000,000 bushels in the United States alone, while international reports show that a wheat shortage is general all over the world.

The situation offers the biggest opportunity to the live poultryman that he has had for many a year, an opportunity to make money and accomplish a patriotic service. Each rooster or cockerel that is killed at a weight of four pounds or thereabouts has consumed as much feed as it would have required to raise that same cockerel into a capon weighing seven and one-half or eight pounds and bringing in most markets practically twice as much per pound as the cockerel could bring.

A lively, active rooster is a fighting machine, not a profit machine. His comb, his spur, his crow and his high opinion of himself all are without value when he is killed, dressed and sent to market. Caponize him in his youth and he becomes a profit machine. He adds weight twice as quickly at a less food cost. He may not have a high standing in the chicken yard, but when he comes to market he is double weight and double price per pound.

Some of our readers will ask why caponizing has not been more generally practiced in America if it has all these advantages. The answer is easy. Land has been plentiful in America, poultry feed cheap and it is only those who have brought their poultry farms to the best business basis who have realized what a big advantage there was in caponizing. This year, with the increased cost of feed, that advantage becomes greater.

Caponizing is as old as Chinese history and is in broadest use in those parts of Europe where feed prices have ruled high. It is sure to be more broadly adopted in America each year as a means of making small crops of feed turn into large amounts of food for the American population. It is an essential to present conditions. There cannot be too many poultrymen engaged in caponizing, for the increased food value of each pound of capon flesh, as well as its greater delicacy, assures always a high price per pound in the market, to say nothing of the double number of pounds from the same feed. Caponizing is easy to learn. Any woman can do it and the caponized bird is easier to raise and easier to sell at a bigger profit.

The Wisconsin Farmer will be pleased to put its readers in touch with those who sell caponizing instruments. With these instruments will go a full treatise dealing with the practice of caponizing, illustrated in such a way that the novice under this instruction can caponize a large number with practically no losses.

Feeding Baby Chicks.

To the Editor:—We have been quite successful raising chicks not because we are well supplied with coops and other conveniences, but because we are very careful to always keep them warm and dry and to feed as our experience has taught us. We do not feed little chicks until they are thirty-six to forty-eight hours old. We take them from nests or incubator and put in a box, the bottom of which is covered with fine, dry sand. Let them pick at the sand. Then start them on cottage cheese with a little black pepper in it. Give them all they will eat three to five times daily. Always have plenty of clean water before them. We feed after they are four days old cottage cheese once a day and fine chick feed three times daily for two weeks. The cheese is good to feed all the time until the chick matures, as it is a fine growing feed and has an acid that kills white diarrhea. After they are two weeks old we feed some bran, chick feed and have them out on range, and always take care to get them in out of rains.

This is a simple formula, but we find it good. Some who are bothered with losing chicks should try it. Beware of lice and mites and remember cleanliness plays a great part.

A. Breeder.

Appropriation of $10,000,000 for purchase by the government of nitrates for fertilizing purposes and their distribution at cost to farmers of the Atlantic seaboard would be authorized by a bill passed by the United States Senate, 52 to 8. Increase in production of food crops, mostly in South Atlantic states, is the object sought. The bill provides for transportation of nitrates from Chile in government vessels and their sale by federal authorities to farmers. Many southern farmers and agricultural organizations indorsed the measure. Senators Smith, of South Carolina, and Smith, of Georgia, told the senate that the government could buy nitrates now stored in this country, sell them to the farmers and later replace them by bringing in more from Chile. Several senators who expressed fear that nitrate supplies needed for manufacture of powder might be depleted were told that the present supplies are sufficient for two years. The South Carolina senator said that by making nitrates available at reduced prices the corn and cotton crops of the South Atlantic seaboard could be increased from 50 to 100 per cent.

POULTRY AND PET STOCK.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

RHODE ISLAND RED HATCHING EGGS—From my heavy winter-laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R. E. Daly Poultry Farm, Necedah, Wis.

HATCHING EGGS; prize-winning S.C. Reds. White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W.F., Fond du Lac, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs 1.50, 15; 8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

MAMMOTH BRONZE TURKEY EGGS, 25c ea. Mrs. Peter Milfried, Cazenovia, Wis.

BADGER POULTRY FARM—Pure-bred S. C. White Leghorn eggs: $1.25 per 15 or $5, 100. Chas. F. Kreger, R. 3, Box 36, Cambria, Wis.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs: $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

WINTER-LAY ROSE COMB RED eggs: 24, $1.50; 48, $2.50; 120, $5.75. J. M. White, Twin Lakes, Minn.

POULTRY AND PET STOCK.

BABY chicks from standard-bred, Single Comb White and Brown Leghorns, $10 per 100; $90 per 1,000. Bred to lay large white eggs. Safe arrival guaranteed. Catalog free. Wolverine Hatchery, Box 2221, Zeeland, Mich.

WINTER-laying Single Comb White Leghorns. Eggs from high producers mated to pedigree cockerels, certified by University Poultry Department. Certified Egg Farm, Madison, Wisconsin.

BABY chicks from large winter laying S. C. White Leghorns, $12 per 100. Eggs, $5 per 100. 90% fertile. Richard Schwartz, Lomira, Wis.

BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

EGGS—Silver Laced Wyandottes, 15, $1.25; 50, $3.00. Rouen duck eggs, 12, $1.25. Fred Kucera, Clarkson, Neb.

AIREDALE pups. Imported stock. The best all round dog. Reasonable. Wm. Macaulay, Tremonpleau, Wis.

DARK Single Comb Reds, 15 eggs, $1.25; 30, $2.25, postpaid. Chris Miller, Plainfield, Wis.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

PURE-Bred White Rocks. Address Kremers', Whitehall, Wisconsin.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

LAND CLEARING.

EXPERT LAND CLEARING contractor, 15 years' experience; has four months open time, June to September. Contracts taken for tracts from 25 to 1,000 acres. Land cleared ready for plow, under guarantee of lowest cost. If you want your land cleared on business basis and at less expense than you could do it in any other way, write at once, giving full particulars. P. R. Cunningham, Mgr., Box 359, Escanaba, Mich.

GUERNSEY CATTLE.

REGISTERED Guernseys, both sexes; also few grade cows; satisfaction guaranteed. Clovernook Farm, Whitefish Bay, Wis.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

FARM WANTED.

WOULD like to buy good sized farm direct from owner. Give description. B. Portner, Box 754, Chicago.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

Our Farm Help Column

The Wisconsin Farmer is in receipt of so many applications from employment bureaus for positions on farms that it is not possible to publish them all. Our readers who have not yet been supplied with farm help should write the State Free Employment Bureau either at Milwaukee, Oshkosh, Superior, La Crosse or Madison. This is probably the quickest way to get help and the people in charge of these agencies have had considerable experience in picking out good men for farms. We are listing this week only those who have written to us personally and have not applied through any of the other agencies:

FARM JOBS WANTED.

Man and wife want place to work on shares by the year. Lock Box 605, Monticello, Iowa.

Floyd Lee Martin, P. O. Box 131, Worthington, Iowa. Experienced, $45 per month.

HELP WANTED.

H. P. Olson, Colfax, Wis., R. F. D. 5. General farm hand. Scandinavian preferred. Wages, $30. Six months' work. Small farm.

Man and wife wanted. Mrs. F. Frinnel, Liscomb, Iowa.

POTATOES FOR EVERYBODY.

I hope no reader will miss my Special Potato and Rare Seed Offer on page 8. This trial offer is made to secure thousands of new customers and friends.—A. G. Cook.—Adv.

Ask your neighbor to subscribe for The Wisconsin Farmer.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

FARM LANDS.

NORTH DAKOTA is especially an agricultural state. In the past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley, never below third; never below seventh in rye and oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write AT ONCE, for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Building, Minneapolis, Minn.

LOW-PRICED cut-over land from our company, the owners, direct to you and on terms to suit, in this ideal dairy country. You should see Rusk county before you locate, because nowhere else will the same money locate you so favorably, with every advantage, schools, churches, railroads, good markets near, and crops sure. Our company wants you to locate on its lands and will treat you right. Address Flambeau River Lumber Co., Station D, Ladysmith, Wisconsin.

TO HELP INCREASE the country's volume of grains and other food products I am offering to sell about 5,000 acres choice agricultural lands near the cities of Superior and Duluth in 40, 80 and 160-acre tracts at low prices and on five to ten years' time, without any payment whatever on principal for two years, to any one who will clear and cultivate a part of the land at once. For full particulars write to W. H. Webb, Superior, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

FREE—We are interested in seeing the low-priced farm lands around our home developed. If you are looking for land, just write me and say: "Without any cost to me, tell me how you got your farm home." Address Mrs. Lucy L. Ferguson, B-26, Cedarville, Marinette county, Wis.

SECURE war prices for farm products, buy a farm. Here are a few bargains: 85 acres, 80-acre clearing, buildings, $3,500. 80-acre fine farm, buildings, $3,500. 40-acre, good home, $2,000. 120-acre, good farm, $2,800. The E. L. C. Co., Dept. 10A, Merrill, Wis.

FOR SALE—I have several fine farms, with good buildings, which I can rent or sell very cheap at the present time. If you want a small or large farm in a good location, with good markets, write to or call on Cor. De Keyzer, Holland, Mich., for his free farm catalog.

LAND of clover, Rusk county, Wisconsin. Choice farms in rich, new dairy district, cleared and uncleared. Climate ideal. Rainfall abundant. Grasses luxuriant. Terms easy. Prices low. Folder free. Manning & Swaim, Ladysmith, Wisconsin.

$300 CASH DOWN will handle this 40-acre stock farm, only 2½ miles town, 12 cleared, balance easily cleared; touches small lake, house, barn, chicken house, well. Price only $1,500. Terms. C. M. Melberg, Lewis, Polk county, Wisconsin.

LAND clearing made easy; tells about stump removal by modern machinery. Write for it today, and other facts about cheap upper Wisconsin land. Wisconsin Advancement Association, 1590 First National Bank Bldg., Milwaukee, Wis.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

GOOD corn, clover and grain land; improved, partially improved, or unimproved, at prices ranging from $15 to $100 per acre; best of location and soil. Write us now. W. E. WEBSTER, Hudson, Wis.

A BARGAIN—100 acres fine land, one-half mile from town. Situated in finest farming district in Michigan. Must be sold at once. J. Christiansen, Pontiac, Mich.

FOR SALE—Choice, well-located fruit ranches, Lake Shore drive, Berrien county. Address Schulz, St. Joseph, Mich.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 306-28 W. Jackson Boulevard, Chicago.

SEEDS.

FREE SEED CORN, samples and circular. Northern home grown, hanger dried, heaviest yielding, early varieties. W. C. Bryant, Princeton, Illinois.

GOLDEN GLOW SEED CORN, $3 per bu. Clark's Yellow Dent, $3.50 per bu. Ear or shelled. 98% germination. BURTON Plock, Spring Green, Wisconsin.

BLACK Hills alfalfa seed, $6.00 per bu. For sample seed stamp to Brookside Farm, Buffalo Gap, So. Dak.

EARLY YELLOW DENT SEED CORN; germination 99. Arthur Popp, Jefferson, Wis.

GOVERNMENT JOBS.

FARMERS wanted $75 month; men and women, U. S. government jobs. War means hundreds vacancies. Common sense education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. C176, Rochester, N. Y.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

AGENTS WANTED.

AGENTS WANTED—Wanted, county agents for Oxo Gas Burners. Fit any cook stove. Use kerosene. Superior to coal or gas at fraction of cost. Radle, 20 East Jackson Boulevard, Chicago, Illinois.

HOLSTEIN-FRIESIAN CATTLE.

FINE registered Holsteins, 2 cows, 2 yearlings and 2 calves; 2 of their dams averaged 100 lbs. milk in one day and 30 lbs. butter in seven days, officially. Wisconsin Live Stock Association, Appleton, Wis.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Water Glass or Limewater For Preserving Eggs.

Now is the time when the thrifty housewife puts away in water glass or limewater eggs for next autumn and winter. This cannot be carelessly done if success is to be attained.

The first thing of importance is to have the eggs fresh, those not more than two or three days old being best. If possible to obtain them, infertile eggs are desirable. The shells must be clean and should be so when taken from the nest, as washing an egg with a soiled shell lessens its keeping quality, the water removing the gelatinous covering over the shell. Be sure, also, that there is not even the tiniest crack in the shells, for one cracked egg will spoil all other eggs packed in the same receptacle.

Clean, sound earthenware crocks are good containers. Scald them and let them cool completely before use. A crock holding six gallons will accommodate eighteen dozens of eggs and about twenty-two pints of solution. Too large crocks are not desirable, since they increase the liability of breaking some of the eggs and spoiling the entire batch.

It must be remembered that the eggs on the bottom crack first and that those in the bottom of the crocks are the last to be removed for use. Eggs can be put up in smaller crocks and the eggs put in the crock first should be used first in the household.

"Water glass" is known to the chemist as sodium silicate. It can be purchased by the quart from druggists or poultry supply men. It is a pale yellow, odorless, sirupy liquid. It is diluted in the proportion of one part of silicate to nine parts of distilled water, rainwater or other water. In any case, the water should be boiled and then allowed to cool. Half fill the vessel with this solution and place the eggs in it, being careful not to crack them. The eggs can be added a few at a time until the container is filled. Be sure to keep about two inches of water glass above the eggs. Cover the crock and place it in the coolest place available from which the crock will not have to be moved. Inspect the crock from time to time and replace any water that has evaporated with cool boiled water.

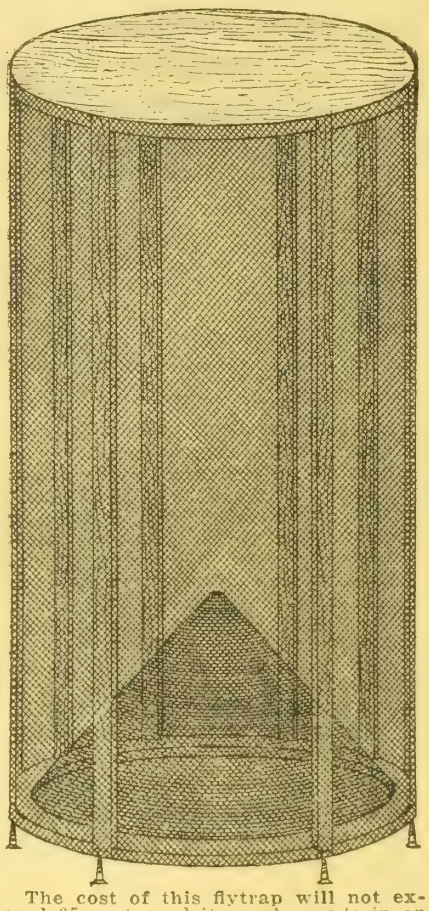
When the eggs are to be used, remove them as desired, rinse in clean, cold water and use immediately.

Eggs preserved in water glass can be used for soft boiling or poaching up to November. Before boiling such eggs prick a tiny hole in the large end of the shell with a needle to keep them from cracking. They are satisfactory for frying until about December. From that time until the end of the usual storage period—that is, until March—they can be used for omelettes, scrambled eggs, custards, cakes and general cookery. As the eggs age the white becomes thinner and is harder to beat. The yolk membrane becomes more delicate and it is correspondingly difficult to separate the whites from the yolks. Sometimes the white of the egg is tinged pink after very long keeping in water glass. This is due, probably, to a little iron which is in the sodium silicate, but which apparently does not injure the egg for food purposes.

Limewater is also satisfactory for preserving eggs and is slightly less expensive than water glass. A solution is made by placing two or three pounds of unslaked lime in five gallons of water, which has been boiled and allowed to cool, and allowing the mixture to stand until the lime settles and the liquid is clear. The eggs should be placed in a clean earthenware jar or other suitable vessel and covered to a depth of two inches with the liquid. Remove the eggs as desired, rinse in clean, cold water and use immediately.

Homemade Flytrap.

A cheap but effective flytrap to be set outside of houses and stables may be made in the following manner: Make a circular base about one foot in diameter from a board one-half or one inch thick. With a keyhole or compass saw cut out the main central part of this base, leaving a rim of about two inches in width. Make a top piece with the same outside diameter as the base, leaving it entire. Nail these about two feet apart with four to eight laths or other thin strips of wood, forming a cylindrical frame. Countersink the laths even with the outer edges of both the top and base. This will allow the wire screen to fit snugly around the edges of the top and bottom. Cover the sides of this cylindrical frame with ordinary screen



The cost of this flytrap will not exceed 25 cents and it can be made in an hour's time.

wire. Mosquito netting will do for a temporary trap. Care must be taken to make the edges fly-tight. Then make a cone-shaped inner base of ordinary screen wire to fit the hole cut in the wooden base. A small opening about one-quarter inch in diameter should be left at the top of the cone so that the flies will have easy access to the cage. Tack this wire cone snugly in the hole cut in the wooden base so that it extends up into the cage about eight inches or more. Now fasten from four to eight nails or screws into the bottom board to hold the trap about one-half inch above the surface. This space is sufficient for the entrance of the flies to the bait which is placed underneath the trap.

Use milk, bananas, sugar and vinegar or like materials for bait, and when a considerable number of flies have collected in the trap spray with gasoline or boiling water to destroy them. The trap may be cleaned by removing the inner cone-shaped wire base.

Saves Deep-Cut Potato Eyes.

To the Editor:—I want to give my experience planting potato eyes for the benefit of others. In my home, unless potatoes were very plentiful and cheap we always planted deep eyes in preference to the whole potato. I was much surprised the first time I saw people cutting up whole large potatoes for planting.

When potatoes were scarce or high or if for any reason it seemed best to be saving of them we began early saving the eyes (cut deep) from the finest potatoes when we prepared them for the table. When the regular cutting began the large potatoes were thrown back into the root house after the eyes were taken out, and the wounds dried. We used them for cooking before we used the uncut ones. They do not rot if used soon. I have often begun in February or March to save the eyes. Either dry the surfaces or place them in the cellar with sand sifted over them. In a wet year they come on much ahead of the large cutting, and my experience has been the potatoes do not rot so badly. I put two strong eyes in each hill and have just as fine potatoes as anyone around me.

One thing more I want to mention which has been a help to me. It may be many of the readers already use it, but I will pass it on anyway. To make my yeast I take the potato water when I have been cooking potatoes (about one quart) and add two tablespoonfuls of sugar and let it ferment. If I want to hurry it I add a yeast cake. It takes one or more additions of potato water and sugar to be at its best, but once well started you have such a fine liquid yeast. I simply add the potato water to my starter the day before I bake bread, adding my two tablespoonfuls or more of sugar to each quart of yeast or starter. The next morning it is all bubbly and has foamed up nicely. I set my sponge before breakfast, mix stiff after breakfast and utilize the dinner fire for bread baking. I have no more chilled yeast in winter nor sour in summer. I keep back a cup in a two-quart fruit jar each time, frequently changing to prevent souring. This yeast seems to require less flour in mixing, but we do eat more bread. Mrs. A. D. Hastings.

What Women Can Do.

To the Editor:—Our nation is at war with other nations. We do not know how long this war will continue, nor how many men of our country will be needed before the conflict is ended, but we do know that there will be much food needed by those who are not producing food. The war may reach proportions far beyond present expectations.

There is a scarcity of food, not only in our own country but all the world has come to feel the pressure of the high cost of living. All kinds of foodstuffs are soaring higher and higher.

During the civil war some foods were very expensive, while others were very cheap. This made it possible for one to live cheaply even in those turbulent times. Sugar sold at 25 cents a pound and some of the time coffee could not be bought at any price. But well-browned wheat and rye made a good substitute for coffee, and as sorghum molasses sold at 20 cents a gallon the poor man could have "long sweetening" for his coffee. A fat hen could then be bought at 5 cents per pound, dressed, or 15 cents each alive; this against $1 each for hens now. Eggs sold as low as 3 cents a dozen. Now you are lucky to get them for 3 cents each. Then every farmer raised his own meat and lard in abundance. I knew one family that was in the habit of killing fifteen fat hogs weighing from 300 to 400 pounds each. Think of the price of that man's meat bill now! With a heifer or two and a few sheep at odd times his meat bill alone would be $1,000.

But now, with the shortage of crops and with wheat, corn, oats, rye and potatoes selling at unheard of prices and going higher every day, the thinking men of our nation are advising the farmer to raise all the food products possible.

And here is where the farmer's wife (or any man's wife, for that matter) can do her part. Any woman who has a spot of ground can raise a garden and in so doing be a factor in this war, and gain health in doing it. Raise all the garden truck you can, and can all you raise. Let us put up for next year a sufficient amount for our own families and a surplus for the unfortunate ones who cannot do this.

One authority has said, "Grow a garden this season. Make it produce all the staple foodstuffs possible—potatoes, sweet corn, peas, beans, root crops and all such products as can be canned, dried, preserved or stored to the best advantage." This is excellent advice. Let us act upon it.

There is in my neighborhood, and perhaps in many other places in our broad land, a bountiful supply of wild fruit—thousands of gallons of wild strawberries, raspberries, blackberries, blueberries, gooseberries and plums, that can be canned, preserved or dried for winter use. These health-giving fruits should not be allowed to go to waste in strenuous times like these when the world has need of it.

We well-fed farmers' families can scarcely realize that if in 1917 there should be a shortage of crops we might some of us go hungry. We know, in a detached sort of way, that some of the people in Belgium, for instance, or in India, starve. But in America? Oh, no! we say. And still we know a hen sells for $1, and a pound of flour costs more than 6 cents, and that those who have not the price must go without. What would have been good wages a short time ago only suffices now for the bare necessities of life.

So sisters, let us help along. Let us get out our incubators and raise some of the best meat man ever ate. Let us be up and doing. Let us plant and hoe and garner the harvest. Let us "labor, working with our own hands the thing that is good that we may have to give to him that needeth."

Mrs. Lucy L. Ferguson.

Recipes.

Eggless and Milkless Cookies.—Two cupfuls sugar, one cupful lard, one cupful boiling water, three teaspoonfuls baking soda, one cupful molasses or sirup, two teaspoonfuls ginger, one teaspoonful salt, two tablespoonfuls cocoa. Dissolve soda in boiling water. Use flour enough to roll.—Helen Edenharder.

Easy Cake.—One-half cupful butter, one and one-half cupfuls sugar, four eggs, one-half cupful milk or water, one teaspoonful vanilla, two squares chocolate (melted), five tablespoonfuls boiling water, one and three-fourths cupfuls flour, three tablespoonfuls baking powder. Melt chocolate, add boiling water. Cream butter, add sugar and cream all thoroughly, add yolks and beat hard, then add milk melted chocolate and gradually the flour. Beat vigorously. Fold in stiffly beaten whites of eggs, vanilla and baking powder. Mix quickly and bake in two layers. Put together with caramel or chocolate icing.—M. McFadden.

Gingerbread.—One cupful molasses, one-half cupful boiling water, one and one-third cupfuls fine bread crumbs, two-thirds cupful flour, one teaspoonful baking soda, one and one-half teaspoonfuls ginger, one-half teaspoonful salt, four teaspoonfuls melted lard or other fat. Add water to molasses and combine with the dry ingredients mixed together, then add fat, and beat. Bake about twenty-five minutes in hot oven.

Stew With Dumplings.—Make stew from small pieces of meat and vegetables, cooking it on stove or in fireless cooker. Serve with dumplings made as follows: For a stew using one pound of meat mix a little more than an one-third cup of flour with one teaspoonful of baking powder and a pinch of salt, work in a rounding teaspoonful of butter and mix with enough milk to form a medium stiff dough. Cut into small pieces and cook in a buttered steamer over a kettle of boiling water or remove enough gravy from the stew to expose the meat and vegetables, and place the pieces of dought on these solid materials to cook.

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2086—A dainty dress for mother's girl. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2⅜ yards of 44-inch material for a 4-year size.

2098—A smart, one-piece model. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards for the guimpe and 5⅝ yards for the dress, of 36-inch material, for a 36-inch size.

2092—A smart, seasonable model. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 4 yards for the coat and 3 yards for the skirt, of 36-inch material, for a 16-year size.

2084—A good school dress for mother's girl. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size.

in overblouse style. Waist pattern 1826 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1825 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 7 yards of 44-inch material to make th entire dress for a medium size. Two separate patterns, 10 cents for each pattern.

1758—Ladies' apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 6¼ yards of 36-inch material for a medium size.

Blouse 1542-Trousers 1543—A comfortable suit. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 1¾ yards of 27-inch material for a 12-year size. Two separate patterns, 10 cents for each pattern.

1789—Ladies' negligee or dressing

1664—Ladies' Empire night gown. Pattern is cut in 3 sizes: Small, medium and large. It requires 5½ yards of 36-inch material for a medium size.

2087—A smart coat for the little miss. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2⅞ yards of 44-inch material for a 4-year size.

Waist 1826-Skirt 1825—A smart dress

sack. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3⅜ yards of 44-inch material for a 36-inch size.

1649—Girls' one-piece dress, with or without added pointed sections, with shield and with sleeve in either of two styles. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 4 years requires 2½ yards of 44-inch material for dress without yoke sections and 3⅛ yards with yoke sections.

2081—Ladies' house dress with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6¾ yards of 36-inch material for a 36-inch size.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for May 20, 1917.

The Importance of Self-Control—Temperance Lesson.

LESSON TEXT—Isa. 28:1-13.

GOLDEN TEXT—Every man that striveth for the mastery is temperate in all things.—I Cor. 9:25.

Wine in the Scriptures is spoken of under four aspects. First, social, that as illustrated by its use at the marriage in Cana. We must not, however, confuse this wine with the spirituous, strong drink of this present day. Second, medicinal (Prov. 31:6-7; I Tim. 5:23). These passages do not command us to use it as such, and God has very graciously revealed to us in modern medical research the futility of the use of alcohol in the matter of medicine as a remedy. Third, sacrificial wine (Matt. 26:27-29; Luke 22:17-20), and, fourth, wine is spoken about as productive of the woes of men (See Amos 6:1; Heb. 2:15; Prov. 23:20). It is also mentioned by way of contrast (See Eph. 5:18).

The Scriptures speak of drunkards in four different ways: (1) They are to be stoned (Deut. 21:20); (2) Drunkards lead to poverty (Prov. 23:21); (3) Drunkards are to be separated from other men (I Cor. 5:11); (4) they are to be finally separated from God (I Cor. 6:9).

Abstinence from strong drink is enjoined in the Scriptures under three heads: (1) The priest and Nazarite (Num. 6:3; Luke 1:15); (2) the ruler (Prov. 31:4); (3) those who are to worship Jehovah (Lev. 10:3).

This particular lesson is taken from a portion of Isaiah's prophecy where he is anticipating what is about to happen to Samaria, and uttering his warning unto Judah.

I. The Steps of Intemperance. First Disgrace and Dishonor (v. 1). The city of Samaria is compared to a chaplet of flowers on a drunkard's brow, which shall be trodden under foot because of his inebriety. Drunkenness seemed to have been so widespread as to become a national sin. Second, Disease and Degeneracy (v. 2). The pride of beauty spoken of in verse one is to "fall to the earth." This glorious beauty was after all only a "fading flower" (I Pet. 1:24). The coming of the Assyrians upon Samaria is described in a three-fold way: (1) As a "tempest of hail;" (2) as a "destroying storm;" (3) as a "tempest of mighty waters overflowing." The thought contained is that of widespread and overwhelming destruction. Back of this work of devastation and destruction and desolation was the wrath of God against sin (Ch. 2:4-9). All earthly pride shall be trod under foot. Samaria, "a fading flower," was to be greedily eaten up by the oncoming enemy.

II. Those Reached by Intemperance. Strong drink causes men to err in their conduct, in their moral insight, in their judgments. It reaches the beautiful (v. 1); it reaches the learned (v. 7); it reaches those in authority; in fact all classes. It leads men to the depths of degradation and to the loss of their wills (v. 8). It makes men to become beasts, wallowing in their own vomit. Not only Samaria, but "these also" (vv. 7 and 8), that is people of Jerusalem have erred through wine and strong drink. Even the priests and the prophets had and do so now (See Ch. 56:10-12; Micah 2:11). The priests were especially inexcusable because of the plain directness of God's word (Lev. 10:9-10; Ezekiel 44:21). The result of their intemperance was that they utterly failed in their official acts. They reeled in vision and stumbled in judgment. The use of wine and strong drink made their social gatherings filthy and disgusting. Temperance is the habit of abstaining from everything that destroys. It is the control and right use of God's good gifts for service. Intemperance is lack of control or the wrong use of God's gifts in self-indulgence.

III. The Lesson in Contrast. Jerusalem vs. Samaria. Samaria's crown of pride was not the glory of God. Its beauty was a fading flower (v. 4), his wisdom contemned through the ignorance of Samaria (vv. 6, 7, 12), his strength versus their weakness and wickedness (vv. 6, 13). God teaches by contrast as well as by direct precept. Verses nine and ten may be taken as a mocking answer of the people to God's prophet. Isaiah intimates that the time to begin our instruction is in childhood (v. 9), that precept must be upon precept, and line upon line, here a little and there a little. There never is a time when we can let up in this struggle against the mighty evil of intemperance.

Take as a reply (v 9) this would seem to indicate that God took them to be babies just weaned. If the prophet himself, is the speaker, then Jehovah is represented as teaching knowledge to babes and not to the self-efficient. It is these whom he "makes to understand his message" (R. V.), and the method of his teaching is precept upon precept. If we will not hear God's loving and patient call to repentance, he will speak to us through cruel enemies. If we will not teach our children, if we will not keep everlastingly agitating this question, he will use other means (v. 11).

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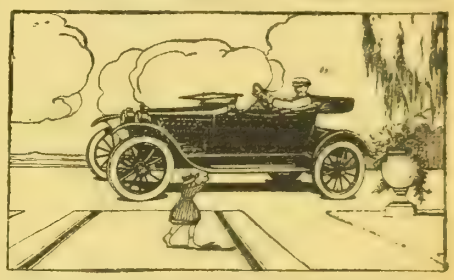
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To the person sending the best answer that can be used as a name for this picture, I will give a prize of $10.00 in gold. Get busy and write me what you think she says. You can win the $10.00 prize if you try.
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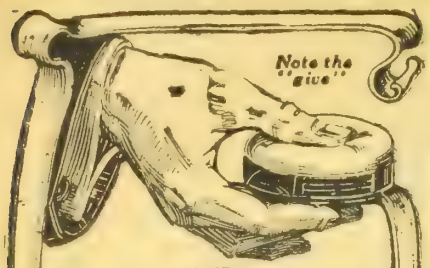
A new auto contest is just starting. At the close of the contest a $395 Saxon Roadster will be given to the winner. In case of a tie a Saxon car will be given to each person so tied. Send at once and you can be entered in this great contest. Full particulars by return mail.
Saxon Editor, 800 Popular Bldg., Des Moines, Ia.

The restriction in England of the output of beer to 10,000,000 barrels will make a great difference in the appearance of the Kent hop fields this year. The hops required for 10,000,000 barrels can be grown on about half the land given up to hops last year. Many growers are using their hop fields for food crops.

Ask your neighbor to subscribe for The Wisconsin Farmer.



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Making Agriculture Interesting.

(Continued from page 1.)

and necessarily simple enough in pattern to make this a possibility for all.

In the primary department where the tots learn their first lessons Miss Anna Schroeder has charge. The usual primary courses call for much work. Miss Schroeder has a way about her that makes the hours seem short for restless youngsters and she manages to add a few features. On Friday afternoon Miss Schroeder has the third, fourth and fifth grades in construction work. Raffia and clay construction form chief subjects. The work in this branch is as carefully planned and carried out as in the other courses.

It is no wonder, therefore, that truants are scarce in Sussex and instead of dreading the school work the children enjoy it. They like their teachers for the simple reason that the teachers, out of love for doing a thing well, have worked faithfully in preparing the work and the children realize this. They feel that the teachers have their interests at heart all of the time.

READING CLUB OUT ON AN EXCURSION.

Wisconsin Fair Dates.

The Wisconsin State Fair will be held at Milwaukee, September 10th-15th. O. E. Remey, West Allis, Wisconsin, is secretary. Other fairs in Wisconsin, the name of the secretary and the 1917 dates, follow:

Adams Co. Agric. Soc.	C. B. Moteyard	Friendship	Sept. 25-27
Ashland Co. Agric Soc.	Otto D. Premo	Ashland	Sept. 5-7
Athens Advancement & Agric. Assn.	F. H. Eisold	Athens	Sept. 14-15
Baraboo Valley Agric. Soc.	W. H. Hahn	Reedsburg	Aug. 7-10
Barron Co. Agric. Soc.	J. G. Rude	Rice Lake	Sept. 4-7
Bayfield Co. Fair Assn.	E. F. Daniels	Iron River	Sept. 25-27
Blakes Prairie Agric. Soc.	Oscar Knapp	Bloomington	Sept. 19-21
Boscobel Agric. & Driving Park Assn.	A. J. Seemann	Boscobel	Aug. 8-10
Brown Co. Agric. & Fair Assn.	Herb J. Smith	DePere	Aug. 27-30
Buffalo Co. Agric. Soc.	F. L. St. John	Mondovi	Sept. 25-28
Burnett Co. Agric. Soc.		Grantsburg	
Calumet Co. Agric. Soc.		Chilton	No fair in 1917
Central Wis. State Fair Assn.	R. R. Williams	Marshfield	Aug. 21-24
Central Agric. & Driving Park Assn.	E. G. Briggs	Gays Mills	Oct. 8-11
Columbia Co. Agric. Soc.		Portage	
Clark Co. Agric. Soc.	Myron E. Wilding	Neillsville	Sept. 3-6
Dane Co. Agric. Soc.	M. M. Parkinson	Madison	Aug. 28-31
Dodge Co. Fair Assn.	C. W. Harvey	Beaver Dam	Sept. 24-28
Door Co. Agric. Soc.	J. G. Ollinger	Sturgeon Bay	Sept. 18-21
Douglas Co. Fair Assn.	Frank E. Spring	Superior	Sept. 11-14
Dunn Co. Agric. Soc.		Menomonie	
East Monroe Co. Agric. Soc.	F. J. Rehberg	Tunnel City (Fair held at Tomah)	Aug. 28-31
Eau Claire Co. Agric. Soc.	Wes Warner	Augusta	Sept. 11-14
Elroy Fair Assn.		Elroy	
Evansville, Rock Co. Agric. Soc.	R. E. Smith	Evansville	Sept. 5-8
Fond du Lac Co. Agric. Soc.	E. T. Markle	Fond du Lac	Sept. [illegible]
Forest Co. Agric. Soc.		Crandon	
Fox River Fair & Driv. Assn.		Appleton	
Glenwood Inter Co. Fair		Glenwood City	
Grant Co. Agric. Soc.		Lancaster	
Green Co. Agric. Soc.	Leland C. White	Monroe	Aug. 21-25
Green Lake Co. Agric. Soc.	E. K. Cunningham	Berlin	Sept. 11-14
Inter County Fair	J. E. Barnard	Spring Green	Aug. 21-23
Inter County Fair	Frank S. Grubb	Stanley	Sept. 12-15
Inter-Township Fair Assn.	A. P. Lehner	Oconto Falls	Sept. 18-20
Jackson Co. Agric. Soc.	Samuel Lund	Blk. Riv. Falls	Oct. 2-5
Janesville Park Assn.	Harry O. Nowlan	Janesville	Aug. 14-17
Jefferson Co. & Rock R. Valley Agric. Soc.	O. F. Roessler	Jefferson	Aug. 28-31
Juneau Co. Agric. Soc.	W. F. Winsor	Mauston	Sept. 4-7
Kickapoo Valley Agric. & Driving Park Assn.	Fred G. Matthes	Viola	Oct. 2-4
Kilbourn Inter-County Fair Assn.	W. G. Gillespie	Kilbourn	Sept. 25-28
LaFayette Co. Agric. Soc.	Thos. Kirwan	Darlington	Aug. 28-31
Langlade Co. Agric Assn.	Henry Berner	Antigo	Sept. 4-7
La Crosse Interstate Fair Assn.	C. S. Van Auken	La Crosse	Sept. 25-28
Lincoln Co. Agric. Assn.	A. H. Smith	Merrill	Aug. 14-17
Lodi Union Agric. Soc.	W. M. Richards	Lodi	Sept. 4-6
Manitowoc County Fair	F. C. Borcherdt, Jr.	Manitowoc	Aug. 22-25
Marathon Co. Agric. Soc.	J. D. Christie	Schofield (Fair held at Wausau)	Aug. 28-31
Marquette Co. Agric. Soc.	W. P. Fuller, Jr.	Westfield	Sept. 4-6
New Richmond Fair Assn.	P. F. Neuerman	New Richmond	Sept. 28-30
North Wis State Fair Assn.	C. E Johnson	Chippewa Falls	Sept. 17-21
Oconto Co. Fair Assn.		Oconto	
Oneida Co. Agric. Soc.	Arthur Taylor	Rhinelander	Sept. 4-6
Outagamie Co. Agric. Soc.		Hortonville	
Ozaukee Co. Agric. Soc.	A. W. Horn	Cedarburg	Oct. 4-6
Pepin Co. Agric. Soc.	Chas. A. Ingram	Durand	[illegible]
Pierce Co. Agric. Soc.		Ellsworth	
Platteville Fair & Agric. Soc.	C. H. Gribble	Platteville	Sept. 4-7
Polk Co. Fair Soc.	E. J. Iverson	St. Croix Falls	Sept. 11-14
Portage Co. Agric. Soc.	B. O. Richter	Stevens Point	Sept. 28-31
Price Co. Agric. Soc.	Geo. R. Foster	Phillips	Sept. 18-21
Richland Co. Agric. Soc.	W. F. J. Fogo	Richland Ctr.	Sept. 25-28
Rusk Co. Agric. Soc.		Ladysmith	
Sauk Co. Agric. Soc.	W. E Baringer	Baraboo	Sept. 18-21
Sawyer Co. Agric. & Fair Assn.		Hayward	
Seymour Fair & Driv. Pk. Assn.	Geo. F. Fiedler	Seymour	Aug. 22-24
Shawano Co. Agric. Soc.	P. J. Winter	Shawano	Sept. [illegible]
Sheboygan Co. Agric. Soc.	C. W. Jackson	Sheboygan	Sept. 4-7
Southwest Wis. Fair Assn.	W. J Penhallegan	Mineral Point	Aug. 21-24
Sparta Dairy & Agric. Assn.		Sparta	
Stevens Point Fair Assn.	A. E. Bourn	Stevens Point	Sept. 4-7
Taylor Co. Mech. & Agric. Assn.		Medford	
Trempealeau Co. Agric. Assn.	Ben W. Davis	Galesville	Aug. 21-24
Vernon Co. Agric. Soc.		Viroqua	
Walworth Co. Agric. Soc.	Samuel Mitchell	Elkhorn	Sept. 18-21
Washburn Co. Agric. Assn.		Spooner	
Washington Co. Agric. Soc.	Jos. F. Huber	West Bend	Oct. 1-3
Watertown Inter Co. Fair	C. W. Harte	Watertown	Sept. 4-7
Waushara Co. Agric. Soc.	Chas. T. Taylor	Wautoma	Sept. 26-28
Waupaca Co. Agric. Soc.		Waupaca	
Winnebago Co. Agric. Soc.	Fred Badger	Oshkosh	Sept. [illegible]
Wisconsin State Fair	*Oliver E. Remey	Madison (Fair held at Milwaukee)	Sept. 10-15

*From June 1st to September 20th, State Fair Grounds, West Allis, Wis.

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Joint Ill.

One of our spring calves is very stiff in his legs. The joints of the front and hind legs seem to be swollen. He can hardly walk or get up.

We would suspect that your calf is a victim of joint ill and, if so, very little can be accomplished by treatment.

Head Sores on Pigs.

We have a few little spring pigs which have weak places on their scalps. Some are as big as a dime and they are red and soft. There seems to be a growth of some kind on them. These pigs are all from young sows.

We are inclined to believe the sore spots come from injury from some source and that the flesh, being irritated, rather pushes up above the wound margin. Wash clean all sores and apply tincture of iodine to the spots every other day for three or four times.

Enlargement on Carpal Joint.

I would like your advice regarding by five-year-old horse. He has had a little ball on his front knee for a year, but it did not grow larger until this spring. Now the ball is the size of a baseball and he is a little lame. He did not work until this spring.

You do not state whether this enlargement is hard or soft; therefore, it is hard to prescribe treatment. However, in either case it would be well to give the parts a stiff blistering while the animal remains idle. The blistering can be repeateed if need be.

Failure to Breed.

I have a Holstein cow (a very valuable animal) that came fresh last October. She cleaned well and seems all right except that she passes quantities of water often and has not come in heat. I have taken her to a veterinarian, but he did not seem to help her at all.

Just why your cow does not breed can only be determined by first having all history connected with the case and also by making an examination of her. There is probably some unnatural condition present in the generative system. Perhaps when grass comes and abundant exercise is furnished the trouble may be overcome.

Bloody Milk.

I have a Guernsey heifer that gives bloody milk. This is her first calf. She came fresh last October and the milk has been bloody all the time.

It is very doubtful if this cow can be helped any because of the long standing of the case. The trouble might come from injury to udder, from acrid foods, or might even come from deposits of tubercles or tumors in the udder. The irritation caused by milking contributes to draw the blood. If the food is too rich or abundant it must be reduced. If the trouble comes from acrid plants they must be removed from food such as hay; if from tubercle or tumors within the udder this cannot be overcome.

Lameness.

I have a four-year-old gelding, weight 1,150 pounds, that went lame on the left front foot about a week ago. He has his winter shoes on, so thinking they were hurting him, we removed them, but he got worse. We called the local veterinarian, but he failed to tell just what was the trouble. He dug around in the foot and the only thing he thought out of the ordinary was that the small end of the frog was reddish. He placed a blistered poultice on him. He is not quite as lame as he was, but is not right. Do you think we should place a shoe on him again?

With your few given symptoms it would be impossible to make a positive diagnosis. If the animal does not improve soon, would advise another examination by a competent man. There may be slight strain of some of the tendons, or there may be some shoulder lameness. These points should not be overlooked. If there should be a pus cavity within the wall of the foot, the lameness would not begin to subside till the puss cavity is freely opened. There may be some injury to the frog and heel, but rest may overcome most of the above lameness.

Warmer Weather Is Needed.

Pastures and Clover Growing Slowly—Too Cool for Corn Planting —Small Grain About Normal—Average Number of Live Stock.

WISCONSIN.

Bayfield County.—Weather is cold and backward. Oats and spring wheat seeding is in progress and there will be more spring wheat and oats this year than last. No potatoes have been planted yet, but prospects are for a larger acreage of this crop than usual. A big acreage of silage corn will be planted. Fruit trees were not injured by the cold weather. Strawberries are slow, but warm weather will bring them out. Stock wintered well, but there is no grass yet to speak of. We need warm rains.—E. C. Stevens.

Burnett County.—Seeding is done and it is two or three weeks earlier than last year. Frosts have been frequent and the weather is not good for crops. However, the grain is ready to peep out of the ground. Cattle are having a hard time, as the grass is growing very slowly. Farmers are out of hay and feed is "war priced." No diseases have been reported among cattle. Winter wheat is very poor. About the same acreage will be put in corn and potatoes this year as last. Rain has not been plentiful.—Fred Larson.

Chippewa County.—Spring work is late on account of cold weather. Pastures and grain are growing very slowly. Corn and potatoes will be planted about the middle of the month. Fruit trees will be later in blossoming this season than usual. The acreage of corn and grain will be increased above normal. Live stock are about normal in numbers. Cases of abortion have been reported in some herds of cattle.—Gustave E. Rheingans.

Clark County.—Farm work is about three weeks late because of the cold, wet weather. Winter grains and meadows are at a standstill. If the weather should warm up clover will be a good crop. The early sown small grain is coming up, but looks thin at this time. No planting of gardens has been done to speak of. Live stock are out on pastures.—F. W. Ackerman.

Douglas County.—More spring wheat is being sown this year than usual and the oat and barley crops will be extra large. Cattle wintered well, but April was a hard month for dairymen, as feed was very scarce and high priced. Pastures are smaller than usual.—J. Otten.

Grant County.—The small grain has been put in in good shape, but the weather is too cold for it to grow. All vegetation is growing very slowly. Live stock are in good health. Young pigs are not very plentiful. No corn has been planted in this locality so far.—P. R. Stoeffel.

Iron County.—Spring is backward and the frost is just about out of the ground. Seeding has been delayed. A considerable acreage of garden truck will be planted this year. All live stock are in good health.—Henry Peterson.

Kewaunee County.—Along the lake shore late seeding has been finished, but farther west it is about half done. Meadows and pastures look well, but are backward. Alfalfa wintered well. Live stock, including cattle are in good condition and more grain has been fed to them even at high prices. There are two cow-testing associations in this county and the prospects are good for another one. More heifer calves will be raised this year than usual. A normal acreage will be put in small grains. Several carloads of tile drains will be laid this summer. Seed potatoes are very scarce.—W. C. Katel.

Monroe County.—Clover, alfalfa, and winter grains wintered well and are doing fine. Oats are coming along fine and some spring wheat has been planted. Some farmers had to reseed oats on account of the heavy rain of April 18th. Corn planting will begin very soon if the weather stays warm. Live stock are in good condition considering the scarcity of feed. A few farmers have sold some of their cows on account of high prices and this may cut down the supply of cream until the young heifers begin producing. Our creamery pays 45 cents to 50 cents for cream. Poultry is profitable at this time. One farmer here got sixty chicks from four hens.—B. F. J.

Oconto County.—Ground is getting in good shape. There will be a large acreage of grain this year, also a large area of potatoes and corn. Cattle are in good shape, but there are no pastures yet. There is an average number of live stock on farms this year. Many farmers are wanting to buy good milk cows. —J. Hinker.

Outagamie County.—The first seeding of clover is very promising—about 95 per cent normal. Alfalfa also is about 95 per cent normal. Clovers on old meadows were hurt by frost, so that they are only about 75 per cent normal. Rye is very good. Winter wheat prospects are not good. Not many farmers put in spring wheat this year. Oat seeding is finished. A good deal of live stock have been shipped out. All stock is rather thin. There has been some trouble with scours in young calves.—Harry Lepplu.

Outagamie County.—Early seeding on cold, heavy soil has rotted to some extent and will be resown. The prospects are still favorable, however, for good crops. Corn planting will be a little late There is no pasturage yet to speak of and feed is now exhausted. A few warm days would change things considerably. Live stock are in good condition, but some are quite thin. Apple trees need pruning and spraying at this time. Pigs are scarce and sell at from $5 to $10 each. Farmers are trying to raise large crops of wheat, corn and potatoes. Seed wheat is worth $3.25 a bushel and potatoes from $4 to $5.—Peter Tubbs.

Oneida County.—Practically all of the wheat is sown and considerable oats and peas. Some of last year's seeding of clover winterkilled.—A. Blumenstein.

Ozaukee County.—Much clover winterkilled and winter wheat and rye suffered as a result of the severe winter and cold, backward spring. More spring wheat was sown this year than for many years past. The acreage of all small grain is unusually large and more land will be planted to corn than has been the custom. Corn and small grain together will show about 15 per cent increase in acreage. There is danger of short pasture, as some farmers are tempted by the high price of grain to use grass land for grain crops. Because of the high price of feed there is a tendncy to reduce the number of calves. Fewer mares will be bred than usual, because horses have not advanced in price relative to other classes of live stock. Many farmers are using tractors. There is no grass yet. Small pigs are scarce and the demand is great. The number of pure-bred bulls is increasing.—C. F. Dineen.

Marinette County.—Season is backward, but better than last year. Most of the oats are planted and some peas have been put in. Few potatoes are left in this section and the acreage of this crop will be smaller than last year. Farmers are pushing their work as much as possible. Good milk cows are worth from $85 upward. There are about the usual number of calves in the county. Hogs are scarce and pigs very high priced. Meadows are looking fine, but pastures seem to grow slowly.—W. B. Sanderson.

Pierce County.—Oat seeding has been delayed a little on account of rain and snow. Soil is in fine shape. Considerable spring wheat was sown, but there was not enough seed to supply the demand. About half the rye winterkilled. The usual acreage of potatoes will be planted. The corn acreage will be increased about 10 per cent. Clover came through the winter in fine shape. Hay is scarce and selling for $12 a ton in the barn. Pastures are starting, but warmer weather is needed.—T. B. Eaton.

Racine County.—Because of cold weather crops are backward. Grain is up, but making no growth. Hay and pasture have made very little growth. Live stock in general are in good condition. On account of the high price of veal young stock is being sold off. The acreage of grain this year is somewhat greater than usual. Many farmers are sowing enough wheat to supply flour for their own use.—Chas. Jeffery.

Sauk County.—Weather continues cool and fair. Oats are all in and much of the plowing for corn is done. Pastures are very short on account of the cold. The acreage of oats and corn will be about normal, there will be a slightly increased acreage of potatoes. Young cattle are not in as good condition as usual at this time of year because feed is scarce and high priced. A good number of pigs will be raised this year.—A. H. Buehler.

Shawano County.—Clover, alfalfa, winter wheat and rye came through the winter in fine shape. The recent clover seeding looks fine. The winter was hard and long and feed high priced; young stock are not in as good condition as a year ago. Because of wet weather for the last two weeks, low land has been difficult to work. Much corn for silage, as well as ear corn, will be planted. Farmers are selecting the cheapest new land and turned under clover land for potatoes. Few potatoes will be planted on poorer land because of the high price of seed. Beans and root crops will be planted extensively. An effort will be made to get crops for the canning factories.—M. J. Wallrich.

Taylor County.—Live stock wintered well. The season is late. Seeding has commenced and warmer weather has encouraged the farmer. There is a good deal of oats and summer rye in this section. Corn will soon be put in. Potatoes are scarce and worth $2.50 a bushel, but a considerable acreage will be planted. Grass and meadows are growing, but the hay crop will be late. Farmers and city people will make big gardens this year.—E. H. Dehne.

Trempealeau County.—Winter grain in this section looks fine, but cold nights are keeping the pastures back. However, they will soon be fit to turn cattle on. Fruit will probably be good this year. A large acreage of potatoes is being planted and considerable truck gardening will be done both in the country and on vacant lots in villages. The corn acreage is good and considerable silage will be made this year. Planting will not begin for about a week. Hay and small fruit are doing well because of the plentiful moisture. —C. G. Kremes.

Walworth County.—Weather is very cold and backward. Small grain is coming up slowly. Clover winterkilled badly. There are no pastures yet. Sheep have been turned out, but the cattle are still being fed. The lamb crop is good, but some farmers have had bad luck with young pigs.—Arthur Ewing.

Washburn County.—Grass has started to grow. Hay is scarce. Oats are practically all sown. Many small patches of spring wheat were sown. Weather is cold and dry with much east and northeast wind. About the usual acreage will be put in potatoes; and there is just enough seed on hand. Labor is very scarce.—John W. McCulloch.

MINNESOTA.

Mower County.—Season is cold and backward although most of the farmers have put in their small grain. Live stock are in good condition, but scarce. Few hogs are being fattened. The young pig crop is better than average. Farmers expect to plant more potatoes than usual. Clover and alfalfa look well. There is no pasture yet for cattle. Hay is selling for $15 a ton. In some cases lawns are being plowed up to make more garden.—Walter H. Martin.

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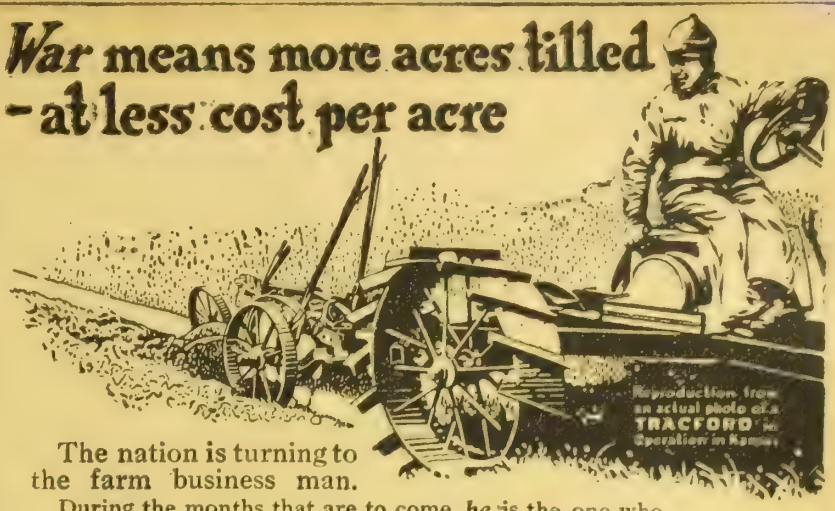

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Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

The Waukesha Holstein-Friesian Sale.

ON pages 12 and 13 of this issue will be found the advertisement of the Waukesha County Holstein-Friesian Breeders' Association announcing the next sale, which will be held at Waukesha on May 31st and June 1st. This will be the biggest sale of high-record animals that the association has ever held. It will include the complete dispersion of two of the best herds in Waukesha county and the drafts made from other herds include only animals of the very best breeding. Fred Pabst, of Oconomowoc, puts in a son of the $12,000 bull, Korndyke Segis Johanna, while Connell Bros., of Colgate, will put in six of the best from their herd, one of them a daughter of a 27-pound cow. The consignment of Dr. David Roberts, of Waukesha, consists of Queen Schillaard, a cow with a seven-day butter record of 27.28 pounds, and the other a son of this great cow. The Mielenz Dairy & Produce Company, of Pewaukee, will put in two cows having records of 18 and 20 pounds respectively. S. S. Cramer, of Hartland, will put in five good ones and J. D. Howell, of Waukesha, has entered three head. S. Baird & Son, of Waukesha, have entered a well-grown young cow out of a dam with a record of 27.35 pounds and also a 23-pound three-year-old cow. H. H. Earle, of Eagle, will disperse his entire herd of 27 head, including 12 cows and heifers with records from 12 to 23 pounds. John J. Reid & Son, of Oconomowoc, will enter three head, and Geo. Carroll, of Waukesha, two head. Mr. S. B. Lowry and Schley Bros., of Waukesha, have entered four head, while Dreyer Bros., Dousman, are putting in three animals, one being a yearling daughter of a 31-pound bull. Baird Bros., of Waukesha, are listing eight head, seven two-year-old heifers by a 31-pound bull. M. W. Downing & Brother will disperse their entire herd of 50 head, including their five-year-old show bull, Downing Pontiac Butterman. The dam of this bull will also be included in this offering, her record being 35.37 pounds, while her sister, with a record of 29.55 pounds will also be in this sale. The Downing entries will include eight sons of Downing Pontiac Butterman. They are nicely grown, well marked, and of splendid individuality. Catalogs for this great Holstein offering are now ready for distribution and may be obtained by writing Waukesha County Holstein-Friesian Association, Waukesha, Wis Please mention The Wisconsin Farmer when you write.—Adv.

The Martiny Durocs.

IN view of the fact that Riley Martiny & Son, Baraboo, Wis., bought some of the best Duroc Jersey sows in Wisconsin last winter, breeders throughout the state are no doubt interested in their outcome. We recently spent the day at the beautiful High Banks Farm, on the banks of the Wisconsin river, and the Martinys have a fine lot of Duroc porkers. The four sows purchased in the Atwater sale and the top sow of the Madison sale, five in all, are raising 40 thrifty, healthy pigs. All of these sows contain the blood of that good sire, Marion's Wonder, and the pigs are sired by Proud's Chief Jr., P. S. Wonder and Illustrator King. At the present time those by P. S. Wonder are the best pigs. The Minnesota sow sired by Chief Invincible with the litter by the champion, Royal King, is doing very nicely and with proper care some future herd boars should come from this litter. The balance of the pigs are by Martiny's Crimson, a son of Lee's Defender, out of a Golden Model 2d dam. There is one good litter by Royal King 2d, he by a son of the noted Royal King out of a Volunteer dam. In all eight sows are raising 62 pigs. Pierce and the slop pail are good "pals" and the pigs are as far along as any we have seen this spring. They expect to have a show herd out this fall and they certainly have a nice lot of material to pick from. At this time they have for sale a real fine yearling sow bred to Royal King 2d for a June litter. They will sell spring boars to any one interested in the good kind. The "tail-enders" will not be sold for breeders. Keep this firm in mind, for you Duroc men will have to figure that they are in the game in the future. Note the advertisement on page 22.—Adv.

Waukesha County Guernsey Sale.

THE tenth annual consignment sale of the Waukesha County Guernsey Breeders' Association will be held at Waukesha, June 7th. Sixty pure-bred males and females will be offered. On the day preceding the sale the annual summer meeting of the Western Guernsey Breeders' Association, and the Waukesha County Guernsey Breeders' Association, will be held at the Geo. McKerrow farm, Pewaukee. Here are two important events where pleasure and business may be combined in a most profitable way. Write to F. E. Fox, secretary, Waukesha, Wis., for a copy of the catalog of the big sale. Successful dairying depends on the cow and it will pay any dairyman to look over the offering at Waukesha June 7th. When writing for catalog please mention The Wisconsin Farmer. See advertisement on page 21.—Adv.

Buys New Herd Boar.

WE have just had a letter from M. H. O'Keefe & Son, Waunakee, Wis., advising that they have just purchased a September 4, 1916, Duroc Jersey boar to head their herd. This boar, named Giant Algo, is sired by Col. Algo, he a son of the noted King the Col. Col. Algo recently sold for $750 and he was one of the best boars in Iowa. Algo's Giant, the junior champion at Omaha last fall, is by Col. Algo, so the O'Keefe boar is a half brother to the junior champion. We hope Messrs. O'Keefe have the best of success with him.—Adv.

How Sam Jones Made Good, Careful Watching Overcome Poor Stock.

WHEN young Sam Jones moved to Center Point and bought out an old white farm that had been rented by diffrent ones for the last five years and given up as a failure, everyone said that it would not be long before he, too, did the same. They could not see how this young man, with very little practical knowledge, could succeed where some of the oldest farmers there had failed. They did not know, however, that Sam Jones intended to run his farm on a different basis than it had ever been run before. The first thing he did was to clean up all the barns and yards and put everything in the best condition possible. Then he went around to the different farmers and bought up a number of hogs and cattle. They were nearly all runts and scrubs, but with the ones already on the farm, they made a good showing in quantity but little in quality. Again all the neighbors shook their heads and said it was a shame to see another man fail, but they did not know Sam Jones. With the first feed, he gave Dr. Hess stock tonic to all alike, for he knew that almost all of them had worms and that it was necessary first to get rid of them and then build up their system. Very soon the neighbors noted the difference in the stock. They were all taking on fat and were better looking every way. A little later he shipped the whole lot to market and obtained the highest prices and his stock weighed as much as any other. When asked how he made such a success, he attributed it to careful watching and feeding Dr. Hess stock tonic. This preparation, he claims, is the only one he would use, for it has always done as claimed and is sold with a guarantee to do all claimed or your money back.—Adv.

Meinking Offering Good Gilts.

WE recently called on R. Meinking, Bangor, Wis., who has one of the oldest Poland China herds in the state. When we were there he had 104 pigs with four more sows to farrow, this was an average of about eight pigs to the litter and his pigs are certainly doing fine. They are sired by Wonder 274611, Double Hadley 4th 256019, Big Price Again 268817 and Select Major 239039. Mr. Meinking has about a dozen very nice fall gilts for sale that he is breeding to Double Hadley 4th for fall litters. These gilts are well grown and in nice condition and he is pricing them well worth the money. The dam of some of these gilts was out of a Big Joe-A Wonder bred sow, the best sow in the Meinking herd. He also has an outstanding boar, litter mate to some of the above gilts. He will weigh about 275 pounds and was farrowed September 2d. A good buy for someone. The spring pigs will be ready to ship about June 10th and if you are going to buy a spring pig of this breeder order early, for he sells many at this age. Investigate the bred gilts at once—they'll cost a great deal more this fall. See page 22.—Adv.

A Baby Herd From Crandall.

HARRY T. CRANDALL, Cass City, Mich., had 100 sows that farrowed in March and April and he is now ready to "do business" with anyone wanting Chester White spring pigs. His pigs are sired by several noted boars, in fact Mr. Crandall has six herd boars of his own, each one a first-prize winner and champion at some state fair. This is a feature not found in any other Chester White herd. He is featuring, at this time, "baby herds" consisting of two spring gilts and a boar not related. Here is an opportunity to get into the pure-bred game without a great outlay of cash, yet you can get in with the very best breeding and good individuals. Mr. Crandall will ship you good pigs, in fact he will ship on approval and he would not do this if he thought his pigs would not give satisfaction. He also furnishes pedigrees with his pigs made out in your name. Write at once for his catalog descriptive of the stock produced on this farm, look this over carefully and send your order so as to get the pick. Please mention The Wisconsin Farmer.—Adv.

Sales to Minnesota.

WE have just been advised by Dennis Shea, Melvina, Wis., that he sold 15 fall gilts to Mr. Farrar, of Minnesota. It will be remembered that Mr. Farrar was one of three men that paid $410 for Defender Queen in Atwater's sow sale. Mr. Farrar also purchased Model King, that good breeding boar that has been used in the Atwater herd, and a half interest in one of the Orion Cherry King boars of Mr. Atwater. Mr. Shea reports over 160 spring pigs "all doing nicely." Remember that he has some very fine fall boars for sale.—Adv.

"Long, Strong Back and Heavy Bone."

THE above is the expression commonly used by H. A. Derenthal, Wykoff, Minn., when you ask him what kind of a Chester White he likes. He has them with the above qualifications too, and just at this time he has some very fine fall boars that are "long and have strong backs and heavy bone." Of course they are well bred, for Hank knows the breeding that is in demand and he does not let his herd get "stale." We are glad to recommend this herd, for he has the goods. Please mention The Wisconsin Farmer.—Adv.

Dispersal of Linscott Jerseys, May 31st.

ANNOUNCEMENT of the dispersal of the register of merit herd of Jerseys of R. J. Linscott, Holton, Kan., is attracting the attention of dairy cattle breeders of all sections of the country, as evidenced by inquiries for the catalog. This sale, to be held May 31st, comprises 125 head of registered Jerseys, including 60 heavy milking cows, 45 heifers and 20 bulls. The offering includes imported cows, prize winners and cows with high official tests. The herd bulls, Jacoba Irene's Premier and Gamboa's Knight, are in the sale. The Linscott herd is the oldest and the first register of merit herd in the state. The herd has been bred up to a high standard by the use of such sires as Jacoba Irene's Premier, imported Oakland's Sultan, Golden Fern's Lad and other great bulls. The catalog reveals the herd is bred for heavy production of milk and butter as well as for type and the entire herd is in fine condition and comprises the greatest offering of Jerseys ever made in this section of the West. Write for the catalog, mentioning this paper.—Adv.

Makes Good Sales.

WE have just received the following letter from McKevitt Bros., Bloomington, Wis., breeders of high-class registered Aberdeen Angus cattle. "We are sending you a list of our bull sales recently made. It has been our best year to sell cattle. As usual we get our best results from The Wisconsin Farmer." They sold the following young bulls: A double Pride to F. M. Meinecke & Son, Forest City, Iowa; Arthur Ariss, Bagley, Wis., a Pride; Thos. Harris, Bagley, Wis.; T. A. Grimsey, Bagley, Wis., an extra good Erica; Matt. J. Zenz, Lancaster, Wis., an Erica; John Zenz, Bloomington, Wis., Arthur and John Fagan, Bridgeport, Wis., an Erica; John McKevitt, Patch Grove, Wis., a double Pride; E. L. Yager, Bloomington, Wis. The McKevitt Bros. have the goods and don't forget them when in need of Angus cattle. We will have more to say about their Durocs later. They have a herd of hogs that will class with the best.—Adv.

"King Orion."

NO boar that we have seen in the state has made the growth since last fall, that King Orion has. With all due respect to other good boars in the state that we have seen, King Orion is the best boar at the present time that we know of. He is owned by E. H. Parker & Son, Janesville. They also have a yearling by The Principal 4th, that is doing well and is a good individual.—Adv.

It Pays.

WE have just received the following from Riley Martiny & Son, Baraboo, Wis. "Please change our advertisement, for we have sold all the Guernsey bulls we care to for the present and it has all been through The Wisconsin Farmer. Thank you for the good work." You furnish good stock and The Wisconsin Farmer will get you the buyers.—Adv.

ALEC S. KNUDSON, Brodhead, Wis., has a very nice lot of Duroc pigs, most of which are of April farrow. Most of them are sired by a Taxpayer-Joe Orion 2d bred boar and he has no reason to complain about this boar as a sire. There are about 80 pigs on the farm from ten sows. He has one litter by King Defender. Knudson has been improving his Guernsey herd, with age, and he now has a herd that will compare with most any of them. Frank Rilma, a son of the noted May Rilma, heads the herd.—Adv.

W. C. SCHIEBE, Burlington, Wis., Chester White breeder and owner of Perfect Prince, one of the best boars in the state, has 60 some pigs from nine sows. Perfect Prince has done well since the fairs lase fall and at the present time looks like a contender for the blue this fall. The pigs by him are the best on the farm and will have a nice bunch to offer his trade this fall.—Adv.

COOK BROS., Burlington, Wis., have just purchased an outstanding yearling boar to head their herd of Chester White sows. He is a son of old Chief Keokuk and is a real boar in every respect. If he continues to do well they expect to show him at the fairs this fall and you breeders that have junior yearlings had better start to feed.—Adv.

J. D. GANT, Delavan, Wis., has some 75 pigs by several different boars. He has a good litter by King Orion, one litter by the champion, King Defender, and a nice litter out of his $290 Pal's Col. sow. This litter is by the Omaha champion, Orion Cherry King Jr. Others are by his Illustrator and Cherry Chief boars.—Adv.

A. E. PURDY, Orfordville, Wis., has about 50 Poland China pigs. Mr. Purdy is a good caretaker and he is with his pigs most of the time and he sure has them doing fine. He is now using a son of Percy Young's Orange Wonder in his herd and he sure has the size combined with quality.—Adv.

WM. F. BUTTS, Evansville, Wis., has about 40 Chester White pigs and they compare with any we have seen of the breed. Most of them are by his good boar, Pay Streak. Remember Mr. Butts has a fall boar sired by Izzy O. K. Wonder that looks like a comer. He will be shown this fall.—Adv.

W. G. BARTHOLF & SON, Burlington, Wis., have 50 Duroc pigs, and they are as good as any we have seen. They were farrowed in March and the owners were fortunate in saving most of the litters. They also have a nice bunch of fall boars and gilts.—Adv.

W. W. VAUGHN & SON, Burlington, Wis., have their usual assortment of Durocs, Chesters and Hampshires. They only kept a few Durocs, but they have a nice lot of Hampshire and Chester White pigs.—Adv.

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

May 31, J. R. Linscott, Holton, Kan.

Holstein Cattle.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Hereford Cattle.

May 18, Birch & Thompson, Lake Geneva, Wis.

Lake Mills Holstein Sale.

The fifteenth semiannual consignment sale May 8th and 9th was well attended and the bidding was generally good even though there were few sensatonal prices. Lilith King of Rock, a 29-pound son of King Segis Pontiac, consigned by John Hetts, topped the sale at $1,500 and was purchased by Emmons Blaine. It is seldom that as good an individual is led into a sale ring as Lilith King of Rock. When his individuality, breeding, especially on his sire's side, and the high producing qualities of his maternal ancestors are taken into consideration he measures up well to the requirements of an ideal herd sire. There were not as many high-class aged cows as one likes to see at a two days' sale, but on the other hand there were some exceptional yearling and two-year-old heifers consigned. Fred Gurr and John Jones had some of the choicest of these heifers in their consignments. Henry Anthes, Geo. Stroebel and Henry Schimming likewise had some especially well-bred heifers consigned. A two-year-old heifer consigned by Geo. Stroebel brought $360. Canary Fobes Jessie De Kol, consigned by Wm. Everson & Sons, was one of the choicest females of the sale and went to F. W. Rogers, Beaver Dam, Wis., for $500. The following is a list of sales:

Juliana De Kol Lake Side, May 25, 1916; John D. Hetts, Ft. Atkinson, Wis. $500
Hendrika Juliana Walker, Oct. 8, 1916; F. G. Behmke, Arkansaw, Wis. 170
Johanna Juliana Repeater, Oct. 2, 1916; Harold Baker, Renville, Minn. 100
Juliana Segis Johanna, Sept. 28, 1916; John D. Hetts 110
Johanna Pontiac Champion, Aug. 15, 1916; Geo. H. Elwell, Minneapolis, Minn. 165
Juliana Lake Side Johanna, Sept. 2, 1916; Morton Friend, Orland, Ind. 255
Lady Gem Repeater of Rock, July 13, 1916; T. C. Behnke, Arkansaw, Wis. 185
King Juliana De Kol Portia, Nov. 9, 1916; Fred Leonard & Sons, Jefferson, Wis. 85
Colantha Blossom Pontiac, Mar. 8, 1916; Wm. Everson & Sons, Lake Mills, Wis. 305
Belle Longfield 2d, April 17, 1913; R. E. Church, Elkhorn, Wis. 305
Piebe Pride Vale, Nov. 3, 1912; R. C. Church, Elkhorn, Wis. 350
Piebe Pauline Madrigal 2d, Dec. 31, 1910; Lee Bros. & Cook, Harveyville, Kan. 115
Sir Segis Beets Lyons, Jan. 11, 1916; Harold Baker 575
Johanna Korndyke Pontiac Polkadot, Feb. 16; R. C. Marshall, Lincoln, Neb. 300
No. 15, April 22, 1916; Wm. Everson & Sons 240
No. 16, Dec. 24, 1916; Wm. Everson & Sons 140
Abigail Ormsby Judith, Dec. 6, 1915; C. C. Fries & Son, Richland Center, Wis. 360
Fobes Tirania De Kol, Sept. 18, 1915; R. C. Marshall 190
Korndyke Mutual Wayne, Nov. 21, 1915; Gramling Bros., Dousman, Wis. 300
No. 20, Oct. 23, 1916; Henry Favill, Jr., Lake Mills, Wis. 165
Berty Segis Korndyke, Nov. 14, 1916; J. W. Goldthorpe, Milton Junction, Wis. 245
Copia Artis Korndyke, Nov. 17, 1915; Harry Faville, Lake Mills, Wis. 200
No. 23, Oct. 14, 1916; Gramling Bros. 120
Berty Netherland Wayne Korndyke, Nov. 18, 1915; R. C. Marshall 225
Aaggie Pontiac Burke 2d, April 15, 1913; F. W. Rogers, Beaver Dam 280
Aaggie Pontiac Burke, July 26, 1911; R. C. Church 255
Milford Jessie Fobes Homestead, Jan. 9, 1915; S. E. Jones, Watertown, Wis. 310
Milford Vale Bessie Homestead, May 1, 1915; J. P. Torrey & Son, Kenosha, Wis. 275
Milford Agatha Canary Oak, Dec. 28, 1913; S. E. Jones 340
Milford Lydia Segis Fobes, Dec. 23, 1914; S. E. Jones 300
M. M. Colantha Bonheur Oak De Kol, April 5, 1916; Chas. Flemming, Jefferson, Wis. 300
Milford Clothilde Oak De Kol, Nov. 18, 1915; Harold Baker 270
Milford Pietertje Oak De Kol, Dec. 2, 1914; Gramling Bros. 240
Milford Lydia Bessie Homestead, Dec. 21, 1915; S. E. Jones 180
Hettie Mercedes Homestead 4th, Sept. 18, 1915; Lee Bros. & Cook 140
Lady Hengerveld De Cola, Nov. 8, 1915; E. E. Randall & Son, Hustisford, Wis. 115

Queen Colanthus Mercedes, Sept. 24, 1915; F. W. Rogers, Beaver Dam 145
Daisy Geraldine De Kol, June 28, 1911; A. F. Keuler, Jeff, Wis. 155
Wayne Piebe, Sept. 10, 1913; M. E. Hoffman, Bassett, Wis. 150
Letta Queen Colanthus, April 29, 1911; Lee Bros. & Cook 165
Canary Auke Ormsby De Kol, Dec. 23, 1914; R. E. Benson, Dousman 385
No. 43½, R. E. Benson 100
Willow Grove Pearl Ormsby, Jan. 7, 1917; J. H. Fadness, Deerfield, Wis. 75
No. 45, April 8, 1916; Cash Favill, Lake Mills, Wis. 140
Belle Aaggie of Willow Grove, Sept. 25, 1913; Harold Hanes, Oregon, Ill. 240
Johanna Ormsby Nina Barbetta, Jan. 28, 1916; Cash Favill 145
Johanna Korndyke De Kol Pet, Mar. 26, 1916; John W. Robbins, Edgerton, Wis. 125
Countess Irma Korndyke, Aug. 12, 1916; J. W. Goldthorpe 135
Countess Grace Korndyke, Aug. 12, 1916; J. W. Goldthorpe 135
No. 51, Sept. 20, 1916; Lee Bros. & Cook 170
Mabel Juliana De Kol, April 3, 1916; R. C. Marshall 140
Crescent Beauty Segis Abigail, Feb. 28, 1916; F. W. Rogers 185
No. 54, Nov. 7, 1916; F. C. Behnke 275
Frances Gem Pauline, Oct. 23, 1914; M. W. Hollinger, Ft. Atkinson .. 195
Harcourt Rose De Kol 2d, Dec. 29, 1915; Fred Albreicht, Watertown, Wis. 305
Harcourt Darington Ordello Lyons 2d, Jan. 17, 1916; Fred Albreicht 305
Jessie Fobes Melchior 2d, Dec. 6, 1915; Fred Albreicht 305
Pontiac Polkadot Korndyke, Dec. 10, 1916; Harold Baker 115
Lady Leis Colantha, April 16, 1916; Harold Baker 145
Crescent Beauty Segis Pontiac Lad, Dec. 11, 1915; Henry Gies, Muscoda, Wis. 185
No. 63, Dec. 4, 1916; R. E. Haeger, Algonquin, Ill. 125
No. 64, June 10, 1916; Harold Baker 145
Pietertje De Kol Dirkje, April 12, 1916; Gov. O. Lowden, Oregon, Ill. 120
No. 68, Oct. 25, 1915; J. W. Jones .. 110
No. 69, Nov. 10, 1916; Harold Baker 125
No. 70, Oct. 22, 1916; Geo. H. Elwell 110
Countess Segis Roella, Oct. 28, 1916; Harry Faville 100
No. 72, Nov. 5, 1916; J. W. Jones 100
No. 73, Nov. 5, 1916; Gramling Bros. 125
Juliana Darington Repeater, Nov. 4, 1916; J. P. Torry & Son 100
Darington Johanna Repeater, Nov. 4, 1916; J. P. Torrey & Son 100
Richland Cadillac Pet, Oct. 12, 1914; Gramling Bros. 280
Richland Colantha Hengerveld, April 13, 1915; C. W. Fowell, Viroqua, Wis. 180
Laura View Pontiac, Dec. 28, 1915; Harold Baker 140
Richland Pontiac Lady Houwtje, May 15, 1915; P. A. Lukken, Klevenville, Wis. 235
De Kol Pietertje Vale, Sept. 20, 1909; J. W. Goldthorpe 370
No. 83, April 15, 1916; Rice Kimble, Milton Junction, Wis. 330
Pauline Pontiac Repeater, Oct. 14, 1916; J. P. Torrey & Son 100
Houwtje Marion of Rock, Nov. 3, 1915; F. C. Behnke 215
Arcadia Pontiac Repeater, Dec. 14, 1916; Harold Baker 230
Jewel Fayne of Rock, Nov. 11, 1916; Harold Hanes 170
Queen Ormsby Beets of Rock, Jan. 4, 1917; Geo. H. Elwell 200
Jess of Rock 2d, Nov. 4, 1915; F. C. Behnke 160
Bessie Juliana of Rock, Dec. 3, 1915; Frank L. Jones 210
Queen Craddock of Rock, Jan. 20, 1917; Everson Bros. 230
Lilith King of Rock, June 24, 1915; Emmons Blaine, Lake Mills, Wis. 1500
Lilith Burke Repeater, Feb., 2, 1917; Harold Baker 100
No 99, Nov. 8, 1915; S. C. Cushman, Supt. Columbia Co. Asylum, Wyocena, Wis. 130
Juliette Johanna Lass, Oct. 27, 1913; Chas. Flemming 160
Ida De Kol Master 2d, May 28, 1916; C. D. Stiles, Lake Mills, Wis. 130
Queen Beauty Inka De Kol, April 1, 1916; Harold Baker 145
Ruth Soldene De Kol, Feb. 10, 1916; E. E. Randall & Son 135
Gertrude Hazel Parthenea, Dec. 15, 1914; R. C. Church 200
Daisy Mink Longfield Mercedes, Jan. 30, 1912; A. F. Keuler 185
Ida Johanna Belle, April 1, 1915; Lee Bros. & Cook 130
Luzerana Garibaldi Parthenea, July 30, 1913; Lee Bros. & Cook 200
Bessie Johanna Lady De Kol, Nov. 26, 1913; Lee Bros. & Cook 155
Princess Jane Johanna De Kol, Nov. 20, 1915; Lee Bros. & Cook 105
Lad Dirkje Countess Pontiac, Sept. 8, 1916; Harry W. Favill 100
Fryslan Pontiac Shadeland, Dec. 10, 1913; Harry W. Favill 250
Fryslan Bessie Lyons, Oct. 19, 1911; Chas. Flemming 240
Convent De Kol Korndyke, March 16, 1907; Otto Logo, Ft. Atkinson 180
Fryslan Lyons Rose, Oct. 16, 1911; R. C. Church 365
Fryslan Pontiac Inka, May 30, 1912; Gramling Bros. 300
Plush Inka De Kol, March 21, 1911; Gramling Bros. 275
Fryslan Pontiac Jacoba, Nov. 24, 1913; R. C. Church 180
Minnie Cross Adorp, Oct. 2, 1914; R. C. Church 275
Mutual Friend Plum Pietertje, Mar. 18, 1913; E. E. Randall & Son 200
Susie Paul Clarabell, May 13, 1915; Chas. Flemming 190
Susie Prilly Pietertje, March 14, 1914; R. C. Church 230
Rachaela Ferndale Paul Beets 2d, Dec. 23, 1914; E. E. Randall & Son 225
Sir Alicine Netherland, Feb. 10, 1915; Otto Sanders, Mt. Horeb, Wis. 90
Beauty May Abyla, Dec. 29, 1913; M. W. Hollinger 155
Miss Johanna Pet Pontiac, July 20, 1915; R. C. Church 150
King Fobes Melchior, Dec. 22, 1916; Stromman & Wormeli, Cambridge 155
Lady Beryl Repeater, Feb. 2, 1916; Chas Krautz & Sons, Galena, Ill. 160
Zeldenrust Ida Repeater, Dec. 13, 1916; M. E. Hoffman, Bassett, Wis. 115
King Zur Repeater, Dec. 17, 1916; Lee Bros. & Cook 75
Marble Valley Repeater, Dec. 4, 1916; Frank L. Jones 335
Sadie Wayne of Rock, Aug. 11, 1915; Gramling Bros. 300
No. 144, March 2, 1916; Grover Hardy, Muscoda, Wis. 195
No. 145, Jan. 26, 1916; Grover Hardy 205
Zuba Johanna De Kol, May 7, 1914; Roy Hetts, Ft. Atkinson, Wis. 220
Canary Fobes Jessie De Kol, April 10, 1915; F. W. Rogers, Beaver Dam, Wis. 500
No. 148, April 15, 1917; Gramling Bros. 130
Katydid Ormsby, Feb. 20, 1914; Gramling Bros. 280

Commercial Fertilizers.

To the Editor:—The abnormal price of all food supplies and the great importance of increasing the yields as much as possible this year calls for the use of extreme measures. As a rule, stable manure is the only fertilizer used to any extent in Wisconsin and this ought to be used this year just as far as it is available, but the unusual conditions call for the use of other fertilizers where stable manure is not available.

Such fertilizers should be used on the most valuable crops and those which produce the largest amount of food per acre, such as potatoes, sugar beets, beans, corn and truck crops generally. While it is usually best to apply these fertilizers broadcast, it is better when the object is to get the maximum returns the first year of use to apply them in the hill or drill, the amount when used in the latter way being ordinarily about half the usual rate when applied broadcast and worked in.

The proper kind of fertilizer to use depends largely on the character of the soil, while the amount is determined by the crop. Light-colored soils which are low in vegetable matter, whether they are of a clay or sandy nature, need the element nitrogen chiefly, but usually it is profitable to use some phosphorus with it. Potash will ordinarily be secured from the store already in such soils. Dark-colored upland soils such as are commonly called "prairies" are more apt to be in need of phosphorus, but unless they have been manured recently will need some available nitrogen also. Marsh soils do not ordinarily need nitrogen, but do need phosphorus and potash.

The abnormal conditions this year have led fertilizer manufacturers to use practically all their fertilizing materials in the manufacture of their standard brands so that with the exception of acid phosphate and to a very limited extent of dried blood and ammonium sulphate, the mixed fertilizers are the only ones available. The fertilizer manufacturers indicate the composition of their mixed fertilizers by a series of three figures, the first of which gives the percentage of nitrogen, the second phosphoric acid and the third potash—a 2-8-2 fertilizer being one containing 2 per cent of nitrogen, 8 per cent of phosphoric acid and 2 per cent of potash. For most crops on upland soils a fertilizer containing from 2 to 3 per cent of nitrogen, about 8 per cent of phosphoric acid and no potash should be used and when applied near the hill, as in the case of corn or beans, 150 to 200 pounds per acre is about all that can be used without danger of injuring the germinating seed. When applied in the drill, as for potatoes, sugar beets or other drilled crops, 300 pounds may be used.

These fertilizers can be applied in the case of corn, potatoes, beans or beets by the use of planters having fertilizer attachments. Under these conditions the fertilizer does not come in immediate contact with the seed, but is mixed with a little soil so as to prevent it from burning the germinating seed. If the fertilizer is not applied at the time of planting it can be put on later even after the crops have been up one to two weeks, but as far as possible they should be applied with a machine which will drill the fertilizer in near the hill or drill, but place it from one to three inches below the surface so that it will be in contact with soil moisture. Less benefit is received the first year from applications of fertilizers applied broadcast and cultivated in, though this method would still be profitable under present conditions, since any plant food applied in this way and not absorbed by this year's crop would be available to next year's crop.

Since most of the potash ordinarily used in this country is imported from Germany and there is very little produced here, the price for this element has become abnormally high and only under very unusual conditions will it be profitable to use it. On marsh soils for truck crops, however, a fertilizer containing little or no nitrogen, 8 to 10 per cent of phosphoric acid and 2 to 3 per cent of potash might be used this year, using about the same quantities recommended for use on the different crops when grown on high land.

A. R. Whitson.
College of Agriculture.

POTATOES—LAST CHANCE.

I want everyone to see my great offer of Potatoes and Seeds on page 8. There never was another such valuable Potato as the true Early Six Weeks and now is your chance to get them at little cost. Order quick. This offer will not appear again.—A. G. Cook.—Adv.

Two Guernsey Events

Thursday
June 7, Waukesha, Wis.

TENTH Annual Consignment Sale of the Waukesha County Guernsey Breeders' Association will be held. **Sixty pure-bred males and females will be offered.** Successful dairying depends chiefly upon the cow and it will therefore pay you to come and look over Waukesha county's bred-for-production Guernseys.

Wednesday
June 6, Pewaukee, Wis.

THE annual summer meetings of the **Western Guernsey Breeders' Association** and the **Waukesha County Guernsey Breeders' Association** will be held jointly at the farm of George McKerrow & Sons Co., Pewaukee, Wis. Come and bring your friends with you to these two important events. Send for catalog of our sale.

Waukesha County Guernsey Breeders' Association

F. E. FOX, Secy. **Waukesha, Wis.**

CHESTER WHITE SWINE.

Long, Strong Backs, Heavy Bone

DERENTHAL CHESTERS. The above is descriptive of the fall boars I have for sale. A fine lot and well bred. Yes, I'll sell spring pigs.
H. A. DERENTHAL Wykoff, Minnesota

BERKSHIRE SWINE.

CHOICE BERKSHIRE PIGS

OF March and April farrow, most of them sired by Ames' Rival 32d, and all out of large mature dams. I can please you. For prices, write
A. P. CORTTE Lomira, Wis.

HAMPSHIRE SWINE.

HAMPSHIRES or "Belted" swine. Have 20 Mar. weanlings, but in addition offer my "tired" sows, 4 gilts, 2 bred, 2 boars, sexes not related. All stock registered. **Dane Stock Farm, Oshkosh, Wis.**

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner. Chariton, Iowa

CHESTERS

BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

5 Sows, 4 Boars

FARROWED Feb. 5, 1916. Chester Whites Dandies and ready to ship. Also 40 March pigs to be shipped June 1st. Let me describe them.
ART G. HOSKINS Dodgeville, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY Mt. Hope, Wis.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write
Wm. F. Butts Evansville, Wis.

RAINY DAY

BY Callaway's Favorite, one of the good Chester White boars of the state. Booking orders now.
WALTER GEORGE EVANSVILLE, WIS.

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I SOLD the record hog sale in Wisconsin. Get your date NOW for next winter.

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ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write

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SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address

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WE HAVE some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

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First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds. A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.

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150 Belgian Stallions and Mares 150

Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.

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Percherons, Belgians, Shires,

Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.

Fred Chandler, R. 7, Chariton, Iowa.

POLAND CHINA SWINE.

DO IT NOW

BUY Poland Chinas that will farrow this fall. I have had two fall gilts farrow in August. They are dandies, descendants of a Big Joe-A Wonder sow, and sired by Double Hadley 4th. Also 104 March and April pigs to be shipped later. I'll sell you good Polands worth the money. Write

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BUY YOUR HERD BOAR NOW

MY private sale catalog now ready. If you want a good Poland China boar to be shipped at weaning time, and want a fair price for the good kind, let me describe the boar you want.

P. W. YOUNG Box 100, Prosper, Minn.

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A FEW fall boars. Spring pigs coming fine. Book your order now. Address

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GOOD POLANDS

ARE in demand. I can spare no more. Thank you.

C. S. Flesch Mt. Ida, Wis.

POLAND CHINA

BOARS [illegible] sired by KING and BLACK EXPANSION [illegible] Address

James Derivan Fox Lake, Wisconsin

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.

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STRICTLY BATES. Bates cattle for milk and beef. Have bulls for sale sired by 17th Duke of Wapsie. Write now.

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YEARLINGS and over. A few young bulls. I'll try to please you. Write.

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BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

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OF either sex, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write

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YOUNG bulls and heifers sired by Kitty Clay's Duke, that is out of the best family of milking Short-horns in existence. Also several Buff Wyandotte cockerels. Address

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Red, white and roans. For particulars address

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RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

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THE Dual Purpose Kind. Have for sale bull calves, 3 to 6 months old. Can spare heifers.

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A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

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Duroc Spring Pigs

HAVE over one hundred good ones sired by the grand champion

KING DEFENDER

Let me book your order now. Address

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War Durocs

HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write

DENNIS SHEA Melvina, Wis.

Cook's Defender

PIGS by the above Duroc boar will be shipped June 1st. He is by Defiance and is in the 1,000-lb. class. For the pick, order early.

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OF EVANSVILLE, WISCONSIN

IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write

W. C. Jenkins Bangor, Wisconsin

SOLD OUT

BUT still raising Dams for May delivery. Order now. Address

Geo. D. Sprain & Sons West Salem, Wis.

ATWATER

HAS no Durocs to sell until May. Will book your order.

L. F. Atwater Bangor, Wis.

FALL DUROCS

THEY are dandies, with stretch and quality. [illegible] Address

F. R. Constance & Sons Waupaca, Wis.

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INDIVIDUALITY AND PRODUCTION COMBINED

A 29.23-LB. SON OF MANDOLENE DE KOL JOHANNA, that holds the Minnesota milk record for 7 days, producing 117.1 lbs. her best day and **Sir Ormsby Korndyke Mechthilde,** a Holstein she well known as a prize winner, and a sire of prize winners, is for sale.

V. S. CULVER Stillwater, Minn.

AT LA BELLE VIEW FARM

ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.

E. E. ROSENKRANS Oconomowoc, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER Sheyboygan Falls, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis

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GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS WAUKESHA, WISCONSIN

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.

PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wisconsin

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

LIST YOUR NAME

WITH US for a good spring boar, from the best sows sold last winter. Also have sow to sell; will farrow in June.

DUROCS. GUERNSEYS.
RILEY MARTINY & SON Baraboo, Wis.

MOUND CITY FARM

OFFERS Guernsey bulls sired by Langwater Dragoon 19226 and Dairymaid's Glenwood Prodigal 34 26948. 30 records average 460 lbs. 20 average 305 lbs. fat. Send for sire list.

CHAS. A. WILKINS - Platteville, Wis.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (sire near. [illegible] 790 lbs.). Dam, Yeksamette (126 ds. 221 fat). He traces nine times to [illegible] details.

A. O. OLESON Livingston, Wis.

GUERNSEY BULL FOR SALE

MY [illegible] bull, Glenwood's Noble Sire 23999, [illegible] and [illegible] in every way.

E. H. KIESLING Jefferson, Wis.

YEARLING GUERNSEY BULL

READY to ship. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 485 lbs. fat in 4 years. Price right. Send for pedigree.

W. L. Breitrick Greenville, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — **WRITE YOUR WANTS**

Emory C. Meltz GUERNSEYS Appleton, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write

GEO. A. WILSON Neillsville, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

JERSEY CATTLE.

Oak Grove Jersey Farm

Bull calf, dropped Aug. 21, 1916, seal fawn color, will show as a calf this fall; tuberculin tested; dam on official test; price right. Write for particulars.

W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old from tested cows and cows on test. Ten cows averaged 55 pounds of fat on association test for March. Prices reasonable.

E. Bruins - - Fairwater, Wisconsin

JERSEYS.

HEIFERS AND BULLS

SIRED by Double Time Valsity King and a son Golden Maid's Viscount. We are milking 35 cows. **Fred Stubley, Black Earth, Wis.**

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th and son of Lass 40th with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Boo Revere, 725 lbs. butter. For [illegible]

H. HOLT & SON Oconomowoc, Wis.

HEREFORD CATTLE.

WALTER BROS.' HEREFORDS

ONE year old. Bulls for sale. Two senior [illegible] Beau Gomez 2d, [illegible] by the noted $1,000 Beau Gomez. [illegible] at reasonable [illegible]

WALTER BROS. Chippewa Falls, Wis.

Kindly mention this paper when writing

HOLSTEIN-FRIESIAN CATTLE.

REG. HOLSTEINS

Bulls for sale of various ages.
R. F. Roberts - Randolph, Wisconsin

FOR SALE

A FINE bunch of heifers, granddaughters of Pontiac Korndyke. For further information, prices and pedigrees address
PETER LARSON RANDOLPH, WIS.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

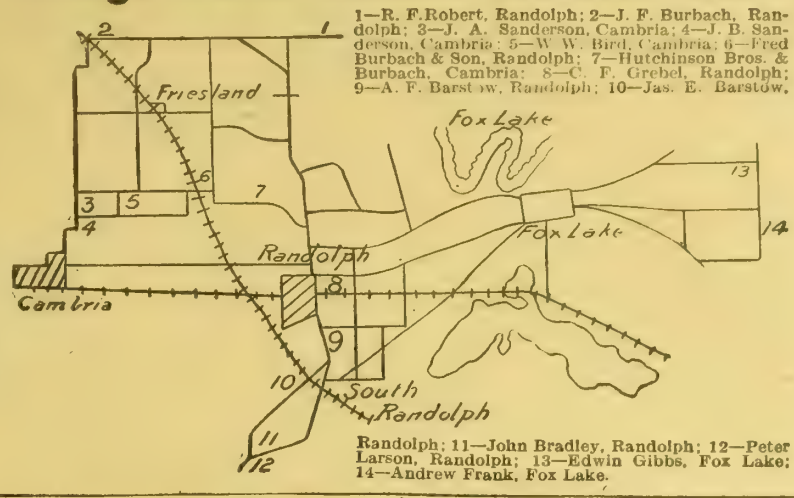
Young Bulls

SOON ready for service sired by Johanna Pontiac Korndyke Imperial, a son of Pontiac Kornkyke, 11 30-lb. daughters. Also a few bull calves sired by Sir Veeman Segis Hengerveld Burke, a son of Sir Veeman Hengerveld, 13 30-lb. daughters. For further description write
JOHN BRADLEY RANDOLPH, WIS.

Registered Holstein Bulls

FROM A. R. O. dams with records up to 24 pounds butter in seven days. **Four registered Holstein cows,** good producers, choicely bred and of good type. Send for pedigrees and price.
Fred W. Burbach & Son - Randolph, Wis.

Portage Prairie Holstein Breeders' Ass'n



1—R. F. Robert, Randolph; 2—J. F. Burbach, Randolph; 3—J. A. Sanderson, Cambria; 4—J. B. Sanderson, Cambria; 5—W. W. Bird, Cambria; 6—Fred Burbach & Son, Randolph; 7—Hutchinson Bros. & Burbach, Cambria; 8—C. F. Grebel, Randolph; 9—A. F. Barstow, Randolph; 10—Jas. E. Barstow, Randolph; 11—John Bradley, Randolph; 12—Peter Larson, Randolph; 13—Edwin Gibbs, Fox Lake; 14—Andrew Frank, Fox Lake.

Bulls Bulls

IF YOU want a sire write or come and see them. They are right and the price is right. Sired by **Captain Aaggie Homestead De Kol 99485,** a son of Aaggie Bell Pietertje 67562. Bulls up to fourteen months of age.
James E. Barstow - Randolph, Wisconsin

Registered Holstein HEIFERS

AND cows for sale. Sired by or bred to King Pabst Pontiac Hengerveld 129297. Also a few bulls for sale from heavy producing dams.
J. F. Burbach Cambria, Wisconsin

HOLSTEIN FEMALES

ONE 15-lb. three year old, one 16-lb. four year old, both due to freshen in December; one 20.87 lb. nine year old, not bred.
W. W. BIRD Cambria, Wis.

FOR HIGH-GRADE OR REGISTERED HOLSTEINS

REGISTERED HOLSTEIN COWS

FOR SALE, choicely bred, of high individual merit and good producers. Write or call and see them.
Chas. F. Grebel - Randolph, Wisconsin

BARSTOW & SON

WANTS to buy two high-record white Holstein heifers to breed to a son of Pontiac Korndyke.
Barstow & Son Randolph, Wis.

REG. HOLSTEINS

Cattle of choice breeding.
J. A. Sanderson - Cambria, Wisconsin

SIR PONTIAC CHIEF 3D

HEADS our herd, a son of a 35-pound sire. Will price a few females bred to this bull.
J. B. Sanderson - Cambria, Wisconsin

40-POUND KING SEGIS AND ORMSBY BREEDING
(The most popular strains of the Holstein breed today)

Sons out of daughters of Sir Ormsby Hengerveld De Kol, having records up to 25 pounds, and sired by our 40-lb. bull, JOHANNA McKINLEY SEGIS (44367), and BEAUTY PIETERTJE PRINCE (56435), an A. R. O. sire having 24 A. R. O. daughters including a 24-lb. two year old just tested, furnish a great opportunity to purchase the right kind of a foundation sire. Write for prices and extended pedigrees, stating the approximate age of animal you desire.

Carnation Stock Farms
OCONOMOWOC, WISCONSIN

DON'T WAIT

UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.

EDGEWOOD FARMS, INC.
Pewaukee Wisconsin

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. Anderson Whitewater, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey Grafton, Wisconsin

A 30-LB. BULL CALF
You'll hear from

PABST KORNDYKE BLACKBERRY
Born March 5th,

Sire—Korndyke Segis Johanna, our $12,500 junior sire, by Johanna McKinley Segis, who is by King Segis and out of Johanna DeKol van Beers, 40.07. Korndyke Segis Johanna's dam Pontiac Lady Korndyke, 38.03, by Pontiac Korndyke; 2d dam Lady Korndyke Fauline DeKol, 29.14 by Pontiac Korndyke.
Dam—Pabst Blackberry at three years 31.68 by a 29.42 (three years) grandson of Hengerveld DeKol.
2d Dam—Pabst Pontiac Burke (three years), a 23.24 by King Pontiac Champion, our senior sire, by King of the Pontiacs.
3rd Dam—Edith DeKol Burke Hengerveld, 33.86, by DeKol 2d's Butter Boy 3rd.

A GRAND INDIVIDUAL

Watch for him at the

Waukesha Sale—May 31st and June 1st

Over 30 Young Bulls out of High producing A. R. O. Cows to select from.

Write for list.

PABST STOCK FARM

(Breeders—Not Dealers)
Oconomowoc, Waukesha County, Wis. Box W

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
Wisconsin Star Stock Farms Ed M. Schultz, Hartford, Wis.

"WHERE PRICE AND QUALITY MEET"

HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.
TULLOCH & FRIES' HERD GENOA, WIS.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. Rhoda, 610 3d St., Watertown, Wis.

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address
C. F. DINEEN, CEDARBURG, WISCONSIN

Purebred Registered

HOLSTEIN CATTLE

The broad highway to success is persistent and intelligent application to something worth while. A successful 60-year-old dairyman said, "I have made the greater part of my money since I was forty-five. Up to that time I was making mistakes. I corrected a host of mistakes and ideas about cows and have made nearly all the money I have since that time." The difficulty is that some dairymen never wake up. Any farmer who will devote a short time to a study of the supremacy of Holstein-Friesian cattle as profitable milk producers and as dual purpose cattle will be able to turn his dairy operations to a profitable basis. Send for free literature. There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

Milford Meadows Stock Farm

Lake Mills, Wisconsin

Emmons Blaine, Prop.

50 A. R. O. HOLSTEIN COWS WITH RECORDS UP TO 34½ LBS. IN TOTAL HERD OF 200, HEADED BY 29-LB. AND 31-LB. SIRES.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS Medina, Wis.

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.**

Holstein Bull for Sale

SIRED by a 2-474-pound grandson of Hengerveld De Kol, dam Aaltje Salo De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN BULL FOR SALE

HOLSTEIN BULL, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

HILLSIDE STOCK FARM

KING Fayne Pontiac Ormsby, 18 mos. old, seven-eighths white straight; dam, 600 lbs. milk, 24.06 butter in a week. Also a few registered Holstein heifers for sale; price, $250.00.
KIRKPATRICK BROS. Reedsburg, Wis.

$1195 F. o. b. Racine
Mitchell Junior—a 40 h. p. Six
120-inch Wheelbase

Mitchell SIXES

$1460 F. o. b. Racine
7-Passenger—48-Horsepower
127-inch Wheelbase

Trust John W. Bate

To Build a Car As You Want It

The latest Mitchells will show you that John W. Bate is a master at building cars.

You have never, at any price, seen a car so complete. You have never seen such luxury, so much over-strength, at anywhere near our price.

How Mr. Bate Works

Mr. Bate, the great efficiency expert, has spent 14 years on Mitchells. The latest Mitchell is his 19th model. It is the final result of 700 improvements.

But he started by building this model plant, which now covers 45 acres. He spent millions of dollars to build and equip it to build this one type economically.

Nowhere else in the world could a car like the Mitchell be built at the Mitchell cost. His methods will save us on this year's output about $4,000,000.

It is that saving which pays for all the Mitchell extras, and gives men these matchless cars.

31 Extra Features

There are 31 features in the Mitchell which nearly all cars omit. Things like a power tire pump, reversible headlights, dashboard engine primer, ball-bearing steering gear.

There is more beauty and luxury than was ever before combined in a modest-priced car. The reason is, we build our own bodies. And all we save goes into this extra luxury.

And no other car has Bate cantilever springs. They make the Mitchell ride like an aeroplane. In two years' use, on many thousand cars, not one of these springs has broken.

100% Over-Strength

But the chief Mitchell extra is double strength in every vital part. In the past three years we have doubled our margins of safety. We are making the Mitchell a lifetime car. Three of these cars have already run over 200,000 miles each. That's 40 years of ordinary service.

Over 440 parts are built of toughened steel. All safety parts are vastly over-size. All parts which get a major strain are built of Chrome-Vanadium.

In these days of high steel prices, any car which is built this way is either rare or costly.

Everything You Want

Mr. Bate has worked 14 years to combine in Mitchells everything you want. He spent one year in Europe, to glean the best ideas from there.

Before designing this year's Mitchells, his artists and experts examined 257 new models. So all the known attractions are combined in these Mitchell cars.

One Size, $1195

The smaller Mitchell—Mitchell Junior—costs only $1195. Yet it is a powerful Six, with a 120-inch wheelbase. You never saw such value in a car around this price.

But the larger Mitchell offers special value. See both sizes. See the extra features, the extra beauty and the extra strength. You will want a Bate-built Mitchell then for the car you buy to keep.

If you don't know the nearest Mitchell dealer, ask us for his name.

MITCHELL MOTORS COMPANY, Inc.
Racine, Wis., U. S. A.,

TWO SIZES

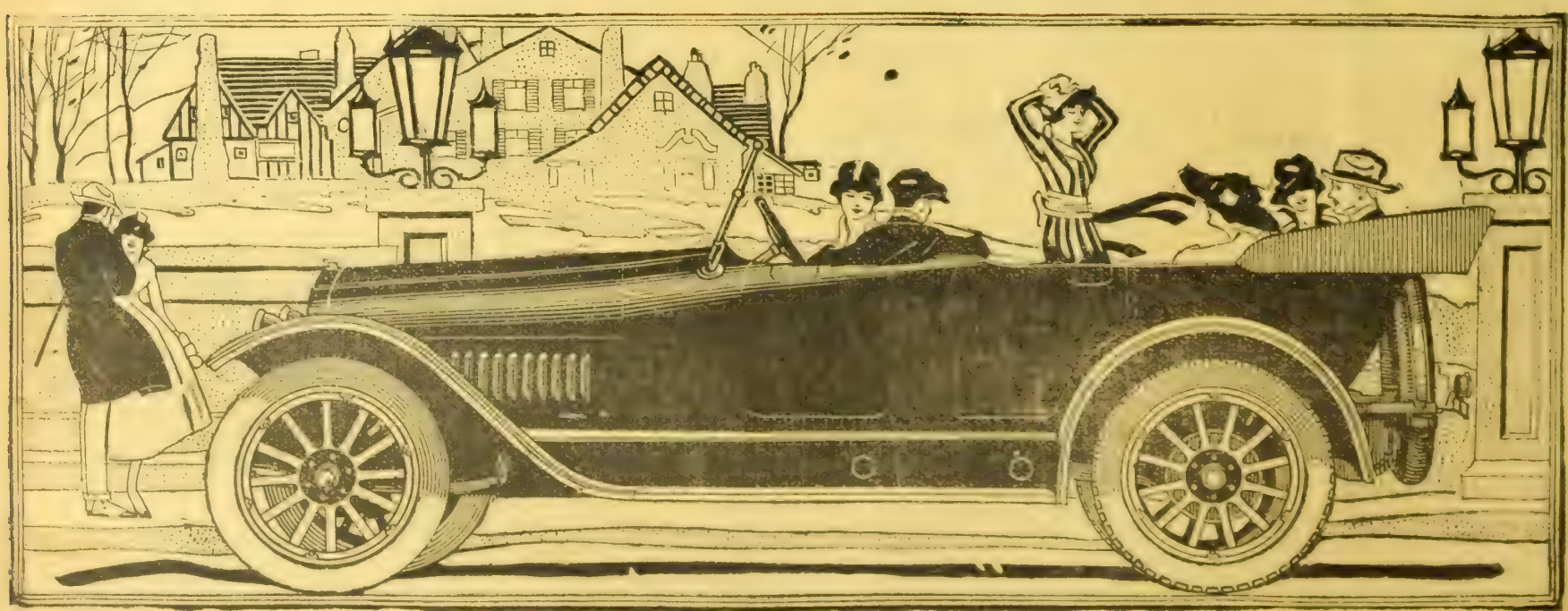
Mitchell—a roomy, 7-passenger Six, with 127-inch wheelbase and a highly-developed 48-horsepower motor.

Price $1460, f. o. b. Racine

Mitchell Junior a 5-passenger Six on similar lines, with 120-inch wheelbase and a 40-horsepower motor—¼-inch smaller bore.

Price $1195, f. o. b. Racine

Also six styles of enclosed and convertible bodies. Also new Club Roadster.



Buy a Liberty Bond

THE WISCONSIN FARMER

VOL. XLVI. NO. 21. THURSDAY, MAY 24, 1917. WHOLE NO. 1843

A DAY ON PABST STOCK FARM

ONE of the best proofs of the confidence men have in dairy cows is the extent and size of their investment in buildings and equipment for such stock. This is well demonstrated in the case of the Pabst Stock Farm, of Oconomowoc, which was converted into a Holstein establishment about ten years ago, after it became evident that the automobile had forever taken the place of the light horse in the hearts of the American people. Mr. Fred Pabst began with only a few Holsteins and with considerably less land than the farm now includes. However, the earnings from the herd during the first few years convinced him that dividends would also be forthcoming on a much increased acreage and with a greater number of cows. He purchased adjoining farms and more stock, until today he has 1,400 acres of land all in one tract, and about 300 head of excellently bred Holsteins that yield an annual income of approximately $25,000 by the sale of milk and bull calves.

For convenience, the farm has been divided into smaller units. Each unit has on it such buildings as serve the purpose best. The cattle are divided into two milking herds and one lot of cows under test. The large barn, formerly used for horses has been converted into a test barn. It can accommodate thirty-seven cows, giving each cow plenty of room and freedom of movement, as the box stalls are 12x12 and fitted with automatic drinking fountains and mangers. Plenty of windows on each side of the barn and a complete system of ventilation give the animals abundant light and air on even the darkest days. At first glance one might think that the buildings are rather large and elaborate, but a tour through any of them will convince the visitor that there are no frills about the place. Everything has been built with a view towards future increase and with the idea of permanency uppermost in mind. The buildings will be just as substantial and in as good condition twenty-five years from now as they are today. There is economy in building for permanency. With the exception of several wooden structures, there will be little money expended for upkeep during the next few years. The size of the buildings will permit of enlarging the herd to a maximum of 500 head, and this is what Mr. Pabst is looking forward to. The buildings that are now being completed on the place are a calf barn of hollow tile that will hold 112 calves, and a hospital barn, also nearing completion, where all cows having troubles during calving, or any animals requiring special attention, can be safely kept and properly cared for. A power plant, creamery and ice house and laundry constitute another building where the output of the entire herd can be taken care of in case this is necessary. A large elevator, to which all grain harvested on the farm will be brought, is situated on one of the farm units. From here each herd will be supplied with the necessary grain and ground feed and charged according to market prices. Thus each herd will have a separate account, stating exactly the expenses for the month, from which the profits can be more accurately figured.

There are no cows on the place that have not been tested. Every cow must produce at least twenty pounds of butter in seven days under test in order to hold her place on the farm. No females are sold from the farm except such that have outlived their usefulness. The large size of Pabst-bred Holsteins makes it possible to realize a good price even for cows sold over the scales. Two cows recently sold to the butchers brought $127 and $136, respectively.

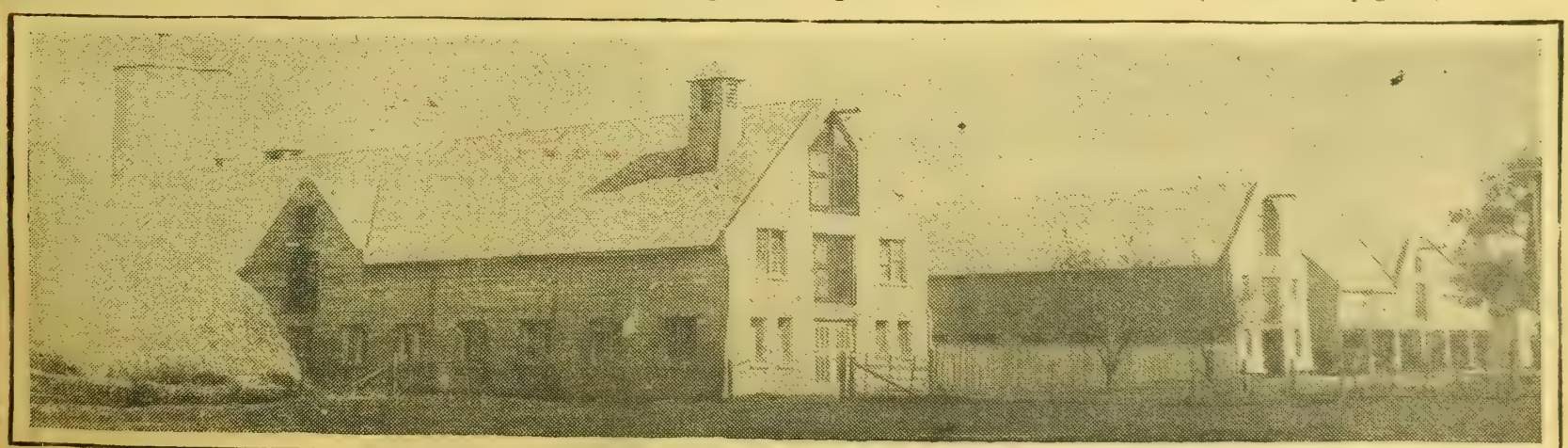
TEST BARN, FORMERLY TRAINING STABLE, FRED PABST FARM, WAUKESHA COUNTY, WIS. CONTAINS THIRTY-SIX WELL-LIGHTED AND WELL-VENTILATED BOX STALLS.

The breeding that has been followed on the Pabst farm is along Korndyke lines. The present senior herd sire is King Pontiac Champion, whose daughters have made creditable records in the seven and thirty-day tests. He is by the bull, King of the Pontiacs, which has sixteen daughters above thirty pounds, among which is K. P. Pontiac Lass, with a record of 44.18 pounds of butter in seven days. He has in all nearly 200 A. R. O. daughters. King of the Pontiacs is by Pontiac Korndyke. The junior herd sire was purchased by Mr. Pabst at the famous Dollar sale for $12,500. He is Korndyke Segis Johanna. His sire is Johanna McKinley Segis by the noted King Segis, and out of Johanna DeKol Van Beers, with a record of 40.07 pounds of butter in seven days and 151.39 pounds in thirty days. Korndyke Segis Johanna is also strong on the dam's side, being out of Pontiac Lady Korndyke, with a record of 38.03 pounds of butter in seven days. She is also by Pontiac Korndyke, the grandsire of the senior herd bull. Thus two herd bulls are bred along similar lines and carry the strong blood lines of the Korndyke family.

Some excellent cows on the place that have records to their credit include Pabst Hengerveld Colanthus, with a record of 31.51 pounds of butter in seven days and a yearly record of 873.56 pounds of butter. A bull calf from this cow by King Pontiac Champion has been retained in the herd for a herd sire. Edith De Kol Burke Hengerveld by De Kol 2d Butterboy has a record of 33.86 pounds of butter in seven days. She has just freshened again, giving birth to two bull calves, and is promising to surpass her present records. This would prove her vigor and constitution, producing in a little over eleven months three healthy calves and two splendid records.

The system of raising calves on the Pabst farm and developing in them constitution and hardiness is a novel one. From the ages of five months until about a half year before calving, the young stuff is wintered out in open sheds. Here they remain under the most severe weather conditions on a moderate amount of grain and plenty of roughage. The stock comes through this period of open-air living in excellent shape. They are strong and hardy and have developed properly under natural conditions. They are now fed for the exacting work of record production and calving. Seven of these larger sheds are located on various parts of the farm where, during the past season, 140 head of young stuff did particularly well in the face of one of the most severe winters Wisconsin has experienced. A new calf barn just being finished will hold 115 head, where calves of three months and over will be stabled in like manner. Accord-

(Concluded on page 18.)



ON THE FRED PABST FARM, NEAR OCONOMOWOC, WIS. MILKING HERD OF FIFTY-SIX IS QUARTERED IN BUILDING IN FOREGROUND. THE SECOND IS BARN FOR HORSES NEEDED TO CARRY ON FARM OPERATIONS.

It Takes Punch In the Power To Do Farm Work

TOY tractors have fooled a great many people, makers and buyers alike.

Theory won't plow a stony field or steadily drive a threshing machine. Nothing but strength, weight and power will do this kind of work.

The Nichols & Shepard Co. build *work* engines and build them so that you get *paying results* when they are at work.

Red River Special Line

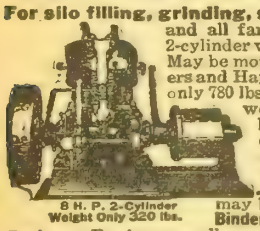
Two sizes of Oil-Gas Tractors, 25-50 and 35-70 H. P., full power on kerosene.

Your neighbor is running an engine of our make that will exactly fit any need you may have. He bought it because he wanted the best and he has written to us to say that he got it. His letter is published in a little farm paper that our nearest branch house will be glad to send to you free with a complete catalog. Write for them and secure reliable home information before you buy a power outfit of any kind.

Nichols & Shepard Co.
In Continuous Business Since 1848
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam Traction Engines and Oil-Gas Tractors
Battle Creek Michigan

Cushman Light Weight Engines

For silo filling, grinding, sawing, shelling, and all farm work. 8 H. P. 2-cylinder weighs only 320 lbs. May be mounted on Corn Pickers and Hay Balers. 15 H. P. only 780 lbs. 4 H. P. Cushman weighs only 190 lbs.—besides doing all other work, it is the original and successful engine for the binder. Also may be attached to **Corn Binders and Potato Diggers.**



8 H. P. 2-Cylinder Weight Only 320 lbs.

Cushman Engines are all-purpose engines. Easy to move around from job to job. Have Throttling Governor, Schebler Carburetor and Friction Clutch Pulley. Cushman Engines are not cheap, but cheap in the long run. Ask for book on Light Weight Engines.

4 H. P. Handy Truck

Cushman Motor Works
855 North 21st St., Lincoln, Nebr.

PLANS FREE — Build Your Own Batch CONCRETE MIXER

Along with our iron parts we send FREE plans, and permit to build your own concrete mixer under our rights. In that way you secure a practical mixer for all cement work at a cost so low you can not afford to mix concrete by hand.

Save big money and backbreaking labor. Sheldon's Batch Mixer repays its cost ($11.50 up on first small job—lasts for years. Ideal machine for farm jobs—designed by a farmer for farmers. No other like it. Patented. Mixes 2 1-2 cu. ft. a minute—keeps 1 to 6 men busy. Has chain drive, self-tilting dump, easily moved, all parts guaranteed. Does work equal to $200 mixers. Built-up machines, hand or power (1 1-2 h. p.)—or you can buy the iron parts and make your own machine.

Get Catalog and Special Offer

Shows our full line of mixers which are sold direct to you on strong guarantee. 30 days trial privilege. We want ten men in every county to accept our special co-operative offer right now which will help you to secure a machine at little or no cost. Write us today.

SHELDON MFG. CO.
Box 393 Nehawka, Neb.

Mix Your Own Concrete

TRY BEFORE YOU BUY

Select the bicycle you prefer from the **44 styles**, colors and sizes in the famous **"Ranger"** line. We send it on approval and **30 DAYS TRIAL**, *freight paid to your town*. Return it if not pleased and the trial costs you nothing.

Write at once for large illustrated catalog showing *complete line* of bicycles, tires and supplies, and particulars of *most marvelous offer* ever made on a bicycle. You will be astonished at our low prices and *remarkable terms*.

RIDER AGENTS Wanted —Boys, make money taking orders for Bicycles, Tires and Sundries from our big catalog. **Do Business** *direct* with the leading bicycle house in America. Do not buy until you know what we can do.

MEAD CYCLE COMPANY Dept. C-184 Chicago

See page 15. Read The Farmers' Market advertisements. There may be a bargain there for you.

Questions and Answers.

Lighting From Magneto.

I have a Splitdorf Model A Magneto on my Overland car. Could I light one or more lights from the magneto?

Answer.—It would not be possible.

Moth Balls in Gasoline.

I saw in your paper that moth balls may be used in a gas engine to give it more power. May they be used in a Ford engine without injury to the engine in any way? How many should be used to the gallon of gasoline?

Answer.—We have never heard of injury to an engine from the use of moth balls. Use twelve moth balls to fifteen gallons of gasoline.

Repairing Bicycle Wheel.

Please tell me how to fix a bicycle rim together where it is spliced. Will glue hold? In the first place the rim was warped out of shape. Tell me what will hold best when the bicycle is used in wet weather.

Answer.—Clean all the old glue out of the splice, so as to expose fresh wood all over the surface of the splice. Apply LePage's or other good liquid glue to the surfaces and clamp the splice together in a vise. Leave the rim in the vise for twenty-four hours so that the glue will thoroughly set. Then give the rim two coats of good varnish, which protects it to some extent from the weather. If it is not too badly warped it may be pulled into shape when the spokes are tightened.

Mixing Gasoline and Kerosene.

Would you please tell me whether a mixture of 50 per cent gasoline and 50 per cent kerosene will hurt a motor in any way? I have been told that it thins the oil and causes more friction. Is this correct or not?

Answer.—Kerosene is much harder than gasoline to vaporize and burn. Therefore, some of the kerosene may remain in the cylinder in a liquid state. This unburned kerosene works down past the piston into the crankcase and thins the oil. On this account, the friction increases and there is danger of the bearings burning out. Your carburetor will burn this mixture more successfully if it is water jacketed and provided with a hot air hose on the air inlet. In any case, the oil in the crankcase should be watched and replaced when it begins to become thin.

Dressing a Polishing Wheel.

I would like to know how to get emery dust to stick to a cloth wheel for polishing purposes. I have a cloth wheel that I clamp on an emery wheel shaft for polishing purposes.

Answer.—Grind off the end of a file to a sharp cutting edge, like a wood turning tool. Then place the cloth wheel on the shaft and set the hand rest near it. Start the wheel and true it up, using the old file as a turning tool. With the wheel still on the shaft apply hot common glue, turning the wheel by hand when applying the glue. This causes the fibers of the wheel to lay back. Have the emery dust in a shallow tray. Bring this tray up on the underside of the wheel and lightly press the emery against the wheel, slowly turning the wheel by hand. Then allow the wheel to dry overnight. If the wheel is removed from the machine it should be replaced with the same side out; otherwise the fibers of the wheel will run in the wrong direction.

Generator and Storage Battery.

Please answer the following questions in the Farm Mechanics Department: How thick should storage battery plates be made? How many holes should be bored in them, and how far apart? I have a fifty-volt, four-ampere motor of the upright type. Will this work as a dynamo? Will it supply sufficient current to charge a six-volt, twenty-five-ampere hour storage battery? The motor runs at 1,600 R. P. M. and is rated at one-sixth horse power.

Answer.—Storage battery plates are usually made about three-sixteenths of an inch thick, with as many holes in them as it is possible to have without making the plate too weak. The holes are cast instead of drilled. About one-sixteenth of metal is left between the holes, which are usually rectangular, about one-fourth of an inch wide and five-eighths of an inch long.

Your motor will work as a dynamo. You will need to move the brushes several degrees if the machine sparks at the commutator when used as a dynamo. It will furnish sufficient current to charge the storage battery you mentioned. Connect three fifty-volt sixteen-candle-power carbon lights in parallel between the generator and the battery to prevent the battery from charging too fast.

Steam Turbines.

Are there any locomotives today that are driven by steam turbines? If not, have they ever been tried out? Why do locomotives use air for the brakes, when steam is available?

Answer.—The steam turbine principle has not been applied to locomotive engines principally on account of the difficulty of starting and stopping; also varying the speed. The steam turbine does not work well at a slow speed. On account of the inertia of the wheel it takes some time to start it and also some time to stop it. Some of the larger ones run twenty minutes after the steam is shut off, due to the inertia of the parts. The steam turbine would not have much pulling power at low speed. The locomotive must start and run slowly under a heavy load.

Air is an ideal medium for setting brakes, on account of its elasticity and the ease with which it flows through pipes. Steam could not be used except on very short trains, as it would condense. It might be possible to use steam for the engine brakes, but as air must be used for the train it has been found better to use air on the engine also. The brake on every car on a long train may be set by allowing a small amount of air to escape from the main air pipe, or "train line," as it is called.

Some Steam Engine Questions.

How large a boiler would be required for a steam engine with a cylinder one and one-half-inch bore and three inches stroke? Would it be practical to make a two-cylinder opposed steam engine with the steam working in just one end of each cylinder so that one piston would turn the crank half way and the other piston would turn it the other half? Would it be better to have just one cylinder with the steam working on both sides of the piston? Please publish a diagram of a single-cylinder stationary steam engine with the steam working on both sides of the piston.

Answer.—Figure 1 shows a sectional view of an ordinary slide valve steam engine. D is the slide valve, E the exhaust port, P the piston, R the

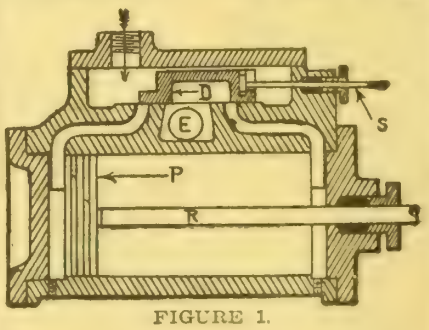


FIGURE 1.

piston rod and S the valve stem. In the position shown, steam is just beginning to enter the head end of the cylinder. The crank end of the cylinder is connected with the exhaust port

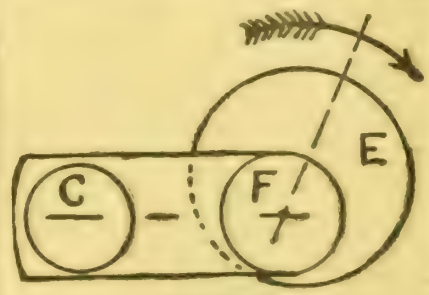


FIGURE 2.

by the chamber on the under side of the valve. Figure 2 shows the position of the crank and the position of the eccentric when the valve and piston are in the position shown in Figure 1. The direction of rotation is indicated by the arrow.

A two-cylinder opposed engine with steam working only on one side of the piston would not be as efficient as a single-cylinder engine with steam working on both sides of the piston, as there would be more heat lost by radiation, and consequently more condensation of the steam. Your boiler should have about four square feet of heating surface if its working pressure is 100 pounds per square inch.

Horse Power Required For Brick Plant.

I operate a brick plant. I use a twenty-horse-power steam engine connected to a forty-horse-power boiler to run the brick-making machine. Would you please tell me through the Farm Mechanics Department how large a gasoline engine would be required to run the brick machine?

Answer.—If your steam engine is fuly loaded, you should purchase a gasoline engine of not less than thirty horse power, as your load is somewhat variable. If you are making brick from a very hard shale, it might be advisable for you to get a forty horse power engine, as a gasoline engine will not take care of a sudden overload as well as a steam engine.

The Valve-In-Head Motor.

Has a valve-in-head motor more tendency to overheat than other motors? Does the spark plug being over the center of the piston cause the motor to overheat more than if it were on the side? Does a valve-in-head motor have more power than other motors? Do the spark plugs and cylinders suffer more from carbonization?

Answer.—Other things being equal, the valve-in-head motor has slightly more power and no more tendency to heat than other motors. It is no more liable to carbon troubles than the others. Overheating is usually caused by too high compression, due to the accumulation of carbon in the cylinders, to running with the spark retarded, to a poor water circulation, or to a loose fan belt. The location of the spark has little effect on the overheating if the spark is correctly timed.

Save Money on Twine.

To the Editor:—Our club has been organized since last November, starting with eleven members, and we now have ninety-seven. We meet once a month at the homes of the members and have good programs and good social times. Last year the members of the club went in together for binding twine and have done the same this year, at a saving of about $250 on the whole bill. We would like to work into more coöperative buying. Our last meeting was held at the home of Gilbert Gravesdale, ten miles north of Beloit. Mrs. R. C. Murdock, of Beloit, spoke of the Beloit center and the interests of the Lincoln Chautauqua. L. A. Markham, of Janesville, talked to us concerning the seed potato problem. Mrs. Carl Reimer gave a short report of a visit to the Harlan consolidated school and suggested some benefits which the community northwest of Beloit would derive of such a school. Earl Pallett told us of the financial problem of establishing a consolidated school here. Mrs. O. D. Antisdell, our Rock county superintendent, told us how to handle the legal phases of the problem. Luncheon was served to about 100 who were present. The next meeting will be at R. A. Barry Farm, June 13th.

Mrs. Dean Van Camp, Sec.

MODERN GAS TRACTOR

New Volume Describes All Types and Sizes.

A book of 480 pages entitled "The Modern Gas Tractor," written by Victor W. Page, has just come from the press. Mr. Page is recognized as an authority on self-propelled vehicles and internal combustion motors. In this book he explains everything so as to make it intelligible to one who is not an expert along mechanical lines. This book contains several chapters on driving the tractor on field and road, goes into the question of cost of operation, and gives many valuable hints on repairs. Ignition systems are described as well as all types of gasoline and kerosene vaporizers and carburetors. The book contains over 200 illustrations. It sells for $2 and The Wisconsin Farmer is in a position to supply it to its readers at this price.

The Wisconsin Farmer

THURSDAY, MAY 24, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

WELCOME OUR EMERGENCY FIELD MEN.

NEVER in the history of Wisconsin, in my judgment, have the leaders of agricultural thought had such splendid opportunity as now to become leaders in agricultural practice. Good patriotic men from our experiment station have been engaged in important research work, and this work has been carried out to the people of our state in book, circular and pamphlet form. But when May 1st arrived this year there was a general exodus from Madison on the part of young men who had been filling the classes at the college of agriculture. These young men, honor to their patriotic purposes, felt that they could be of greater good to their state and their country in this hour of need by getting out into the fields. I am very much gratified that the heads of our state institutions have taken this view of things and that they have gladly arranged to relieve the young men from class duties and let them go to the fields as well as to the front. When I see young men loitering around the city streets these days I look upon them as "slackers." While I am a fervent believer in study, and support with all my heart and soul the work of our agricultural college and our county agricultural schools, I cannot but believe that the classroom is no place for these young men until after our next harvest. So it has pleased me very much to see our young men and the heads of our schools coöperating along these lines.

My readers who have known of this general exodus to the fields may have wondered what there would be left for the college "professor" to do. But they have certainly made a mistake if they imagined for one minute that these aggressive men would be content to sit idly by, draw their salary and wait for the students to come back to Madison after the harvest next fall. Our college of agriculture faculty is not made up of that kind of men. The instructors in our county agricultural schools are not that kind of men. These men have spent a big part of a lifetime preparing for their work in the classroom, and I think we often forget that they are in reality much more in the student than the teacher class. Take our good friend R. A. Moore, for instance. Some of us may be prone to look upon him as a "professor," but the fact is he is just an exceptionally bright student, plodding along day after day trying to bring some new truths to light which will be a help to the farmers of our state. He stops long enough now and then to give us the results of his work, and then digs in again, proving over and over what he has previously discovered, experimenting along new lines—always and forever a student. Our beloved Dr. Babcock has been a student for half a century or over—a master of many principles, to be sure—but always a student, never failing in his efforts to more firmly establish truth, and to present his discoveries in such form that they will accomplish the largest good. I might go ahead and mention the names of several score of our experiment station workers, practically every one of whom devotes more time each day to studying than the students they meet in their classrooms.

I regard it as a strong indication of our intention here in Wisconsin to make our defense work practical, that many good men from our college of agriculture will be found out in the field work all this summer and until late in the fall. Coöperating with the Wisconsin State Council of Defense, and working more directly under the county councils, a number of members of the experiment station workers have accepted the duties of temporary county agents. In my judgment both the counties which employ these men and the men themselves will be greatly benefited by this arrangement. Several counties have been able to secure the services of men who would not be available for such work in ordinary times. And I feel that the men themselves will be greatly benefited by their close touch with the farmers. If any prejudice exists among the farmers of Wisconsin against the "county agent" system, let us do away with it at once. Let us give the field men coming in from the experiment station staff a hearty welcome, and we may be assured that all of these men will return to Madison in the fall or winter much better equipped to proceed with their studies along experimental lines. I bespeak for all the county agents of our state, all the emergency field men, and others who have temporarily rearranged their plans in order to help Wisconsin make a splendid showing in food production, a hearty welcome among the farmers with whom they will be colaborers. These emergency field men should be just as much interested in, and enthused concerning their work as they would be if they were made officers of a regiment.

SOME HEALTH HINTS.

I WONDER if a few timely health hints might not be appropriate just now? Summer is fairly upon us. We who live in the country should enjoy the best health of all people, but such is not always the case. Typhoid, malaria, dysentery and many other dread diseases are common to farmers. Often it is the water supply which is to blame. I do not lay any claim to being a medical authority, but I want to pass on for your guidance a few health hints I found in a newspaper the other evening, hints which are quite simple, but which may mean life or death in the end. Here they are:

A good water supply in the spring may save an undertaker's bill in the fall.

It's the spring fly which makes the summer pest.

A mosquito breeding pool may mean malaria later on.

Spring gardening has lengthened many lives.

Fresh air is the best tonic.

Today is the best time to begin to build for health.

Nothing is more important than that we guard against disease. Let me urge upon all my readers the importance of seeing if their water supply is of the best, if their houses are well ventilated and screened and if mosquito-breeding ponds are dried up and a constant source of infection thus removed.

EXEMPTING THE FARMER FROM THE DRAFT.

I AM FIRMLY convinced that when the army-draft law is put into effect the authorities will see that it is wisdom to exempt from conscription all men engaged in farming. The fact (and I believe it is realized by those who have studied the situation carefully) is that it is fully as important to raise crops, so as to sustain both the fighting forces of the nation and the stay-at-homes, as it is to take up arms and follow the flag across the shot-riddled field between the opposing trenches.

The farmer is a patriot. It was he who fired the shot which was heard around the world at Lexington, the shot which started the war to free the American colonies. Forth from the farms sallied the boys and men, in the civil war, to fight for the unity of the nation. Forth from the fields and feed lots went the boys and men in '98 to free Cuba and to advance the progress of civilization, shutting an iron door in the face of barbarism on the western continent. Forth from the farms would go many and many a boy and man should the president call for volunteers now to enter the lists against militarism and tyranny. But when it comes to looking over the nation and saying, with the force of law behind the edict, "You must leave your pursuit, take up arms and march against the foe," I believe that it is the course of wisdom to exempt the farmer from such service. Many a farm boy, fired with patriotism, yearning to take up arms and touch shoulders with comrades in khaki, will disagree with me. But I am looking at the matter in the larger light of the greater service to our nation and to humanity in general.

No army can win battles unless it is properly clothed and nourished. No army can long continue to be so sustained if the farmers, as a whole, are called from their tasks and made to bear arms instead of operating the implements of their useful and honorable calling. If we send the farmers of America—and particularly of the grain belt—to the front, our own nation must go hungry before the year is out; likewise those who are dependent upon our fields and herds, even though they live far away across the seas, must also go hungry. It is fully as necessary, fully as patriotic, to till the fields and care for the herds this year as it is to fire the machine gun, charge across "No Man's Land" into the enemy's trenches or otherwise take an active part in the battle of the bullets.

Congress realizes this. The president realizes this. That is why they insisted on an exemption clause in the war-draft bill, providing for the excuse from compulsory service in the army of "persons engaged in industries, including agriculture, found to be necessary to the maintenance of the military establishment or the effective operation of the military forces or the maintenance of national interest during the emergency"—I am quoting the exact words of the law. If it were not for this, the arm of conscription would reach out and take from our fertile grain-belt fields every boy and man between the ages of 21 and 30 and send them out to be cannon fodder, leaving fields untilled, herds uncared for and production virtually at a standstill.

The grain belt will be called upon to send a large number of men to the front. It has over 2,000,000 men between the ages of 21 and 30. One out of every twenty of these men will be called to the colors within the next few months; another quota within a year. In the next two or three years one out of every eight or ten will have been conscripted. But there are a dozen young men in the city to be spared for every one in the country that can be surrendered from the fields of production for the fields of destruction.

I am going to give you a table showing the number of eligible young men in the grain belt, according to the last federal census and the most authentic estimates. It is as follows:

State	Males between 21-30, both incl., April 15, 1910 (actual)	July 1, '17 (estimated)
Illinois	578,402	539,500
Iowa	199,490	199,000
Kansas	160,657	175,900
Minnesota	219,688	244,700
Missouri	303,132	315,600
Nebraska	119,408	129,400
North Dakota	67,112	89,000
South Dakota	65,563	80,500
Wisconsin	211,977	229,500
Total	1,925,429	2,003,100

Those who will go first will be determined by lot, their names drawn from a box just as men's names are drawn for jury service. Boards will be established in every county (one for every 30,000 population in cities) to determine who shall be excused, after their names are drawn. Higher boards, one for each judicial district, will review the decision of these county boards, and so by the first of September we shall have an army of a half million men ready to drill, preparing to defend the stars and stripes wherever they shall lead, in the name of justice and honor and righteousness.

I am opposed to war. I abhor war. Yet if war must come, I believe congress has done the right thing in passing this conscription bill, placing the burden of service upon the many, instead of upon the few. But it is right to exempt the farmer, for he is needed in the field; he will fight there even more determinedly and effectively than in the trench and redoubt. And fight he must, without thought just now of the pay he shall receive or the orders he may be given which he does not at once see the use for. The farmer in the field this year is a soldier under orders; he must obey or be a traitor. Only to this extent will he deserve the exemption which has been granted him and which is his by every right.

TWO WAR STORIES AND A VISION OF PEACE.

OUT of the murky blackness of war there flashes, from time to time, a ray of light which carries the message that human love and sympathy—the very warp and woof of civilization's fabric—are not altogether forgotten.

The other day I read a war correspondent's story of how a baby suddenly appeared, crawling across that narrow strip of hell, known as "No Man's Land," between the French and German trenches. How it had gotten there, in the midst of earth's inferno of death and destruction, no soldier knew. Perhaps it was some orphan left by fleeing families. At all events, there it was—the one human figure on the desolate landscape. The soldiers in the opposing trenches were stunned. For a moment they could not grasp what they saw, it was so foreign to everything that the day's work meant to them. All firing stopped, heads began to pop up over the trenches on both sides, and then a German soldier leaped from cover and, running out, picked up the little armful of humanity and carried it tenderly and laughingly back to safety. Not a shot was fired, and when he reached the German line the French troops stood above their earthworks, waving their caps and cheering. It was some time before the fighting was renewed and then the firing was desultory and half-hearted. Thus, for a few moments, "grim-visaged war had smoothed its wrinkled front," and the prophecy was fulfilled, which was written: "The lion shall lie down with the lamb and a little child shall lead them."

There is another touching story from the firing line which shows that the finest human sentiments

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Put Up a Good Silo This Year.

Just because Wisconsin has a silo to every third farm is no reason why we should let up on the campaign for more silos this year. We believe that every farmer who has one silo should have another one this year and every farmer who has none—well, it is difficult to conceive of a real up-to-date Wisconsin farmer having no silo at all. If such there be, let them get busy just as soon as possible. It is just as important to wage a campaign for saving every ounce of feed possible as it is important to campaign for bigger crops either through more intensive cultivation or greater acreage.

For half a century it has been well known that silage is one of the most economical feeds for the dairy cow and yet we haven't a tenth the number of silos we ought to have on our dairy farms. That silage is just as economical for the man with a beef-breeding herd who raises calves for the market or for him who fattens steers in the dry lot is a fact equally well, though more recently, established; yet there ought to be a hundred times as many silos on our beef farms as there are. Farmers are altogether too slow about building silos. It is time that they awake to the importance of saving the whole instead of two-thirds of the corn and other forage crops of that nature. Let the farmer show his patriotism this year by building more silos. This would not only help solve the food problem but it would also be of financial benefit to the farmer himself.

There never was a better time to build silos than right now. If you need money, tell your banker that you want to do your "bit" in helping to conserve the food supply of the country by building a silo and the chances are that you will have no difficulty in getting the money. Get your neighbors to do the same thing. Organize silo clubs and buy a cutter coöperatively. If it is impracticable to hire an engine to run it get a tractor and use it for other work on the side. The expense will not be heavy if three or four farmers club together. A silo will pay for itself in a single season. If corn is worth $1 a bushel next year, a forty-bushel crop will have a value of $40 an acre and that, as is well known, is only two-thirds its food value. The whole crop, if put in a silo, would have a value of $60. A forty-bushel crop will produce eight tons of silage, hence a 160-ton silo would hold twenty acres of that kind of corn and instead of having a market value of $800 it would have a feeding value of $1,200, and thus effect a saving of $400 and possibly a good deal more. If beef prices remain high, and there are no indications of materially lower prices prevailing next year, a much larger saving than the amount mentioned would be effected.

Not only should thousands of silos be built in every state this spring and summer but each silo should be filled more than once. The best silage is secured if the corn is cut after the kernels are glazed and the leaves are still green. Earlier cutting means loss of organic matter and later cutting means the loss of some of the leaves and the production of more fiber. The ideal time to cut corn for the silo, therefore, is as soon as it has reached maturity or within a few days of that time. The same applies to other silage crops. This, however, does not mean that good silage cannot be made from cured shock corn that was cut and shocked at the time it was in the best condition for the silo. To get the most out of our corn and the greatest use out of our silos it is highly desirable, especially when a man has more than one silo, to fill them more than once a season. Fill your silos in the fall when the corn is ready and then cut and shock as much more of the corn or other crop as can be utilized in the form of silage during the winter season and the following summer, and put this in the silos as soon as they have been emptied. First, empty one silo and refill it with cured shock corn; while this second filling is fermenting feed out the silage from the second silo and when that is gone refill this silo with cured corn. In this way a maximum of corn can be stored in a minimum of silo space.

The same thing can be done even if only one silo is available, but not with as satisfactory results because the dry cut corn should undergo some fermentation before it is fed. When filling a silo with dry corn arrangements must be made for adding a large quantity of water to the cut corn while it is being put into the silo. This is not a new method, but one that has been practiced by many farmers for a number of years with satisfactory results. It requires about one ton of water for each ton of dry, cured shock corn, and the water should be well mixed with the corn while it is being cut up and blown into the silo.

A Year of Work.

Never was it more important than now that the subscriber and the editor of a farm paper like The Wisconsin Farmer keep in close touch and harmonious copartnership. To this end we wish to urge upon all the subscribers to this paper that they attend to the important matter of their subscription without delay. This bids fair to be the biggest crop year America has ever known. Every farmer must keep in close touch with every practical authority, so that there may not be a minute, a grain of seed or an ounce of energy lost. You cannot afford to miss a single issue of The Wisconsin Farmer. Therefore, renew your subscription promptly.

If you are bothered with anything about your farming operations, write to the editor of The Wisconsin Farmer and he will either give your letter his own attention, promptly, or will turn it over to a department editor chosen for his task because of his practical efficiency. Subscribe to The Wisconsin Farmer, use its columns and its editorial staff and realize the immense possibilities open to the farmers of this section this year as never before.

Serious Shortage of Farm Implements.

A condition exists in the implement trade that will vitally affect production this year unless a greater attempt is made than ever before to work in a coöperative way. On account of shortage in the steel supply, implement manufacturers have had difficulty in producing even 75 per cent of their regular output, and as a result there will be an exceedingly great reduction in the number of planters, cultivators, plows and harvesters sold this year. The exact condition of affairs has recently been set forth by a special committee of the National Implement and Vehicle Association. According to this committee, all new factories making tractor plows are unable to meet the requirements of their trade. The corn acreage has been decreased by the shortage of listers, the tool necessary to plant corn in fall wheat fields. A shortage of regular corn planters is also imminent. All this is occasioned not by lack of capacity in implement factories but by inability to secure raw material, particularly iron and steel products.

The production of implements has been less than normal since 1913. Tools in the hands of farmers are more nearly worn out than ever before. Dealers' and manufacturers' stocks are reduced to a low ebb. The increased food requirements mean increased acreage and more than the normal supply of implements is necessary if the situation is met. This condition is accentuated by a shortage of labor on the farms and the necessity for increasing the proportion done with machinery.

Steel companies, after a conference with officials at Washington, at first allotted to the implement industry only 50 per cent of their requirements of sheet steel for 1916. After serious objection, this allotment has been increased 25 per cent. This means that the implement manufacturers are only able in the future to make 75 per cent of the normal production of machines in which sheet steel is a considerable item, such as harvesters, binders, corn planters, grain elevators, etc.

There are sold to farmers in this country yearly approximately 100,000 harvesters and binders. This decrease in supply would result in decreasing the farmers' harvesting ability 1,250,000 acres. Allowing for the acreage production indicated by the government in 1915 crop analysis of 16.9 bushels per acre, we would have a loss of 21,125,000 bushels.

In addition to this, binders are used for the harvesting of oats, barley and rye, of which there are 50,000,000 acres planted per year and a corresponding loss would be experienced in these crops.

There are 80,000 corn planters a year sold to farmers of the United States. Reducing this output 25 per cent means a reduction of 800,000 acres planted, which, according to government report of production for 1915 of 28.2 bushels per acre, would mean a loss of 22,560,000 bushels of corn.

The conclusion to be drawn is simply this, that wherever it is possible those who are fortunate enough to own good implements should make it a special point this year to accommodate a neighbor who is not. This applies particularly to planters and to harvesting machinery. Sometimes makeshift methods can be employed in preparing the seed bed. For example, fall plowed land which would ordinarily be put in shape with the disk can in emergency be prepared with a six-shovel corn cultivator. In the matter of planting, however, it is entirely different and nothing will take the place of the check row planter or lister. On the average, there are not more than three or four days actual planting on any one farm, whereas if worked in proper rotation it would be possible to put in 200 or 300 acres of corn with the one planter. In no way can men serve their country better this year than to make it a special point to aid neighbors by loaning or exchanging implements wherever it is possible to do so.

War Against Wisconsin Weeds.

A. L. Stone, of the Wisconsin Station, reminds us through a Wisconsin Bankers' Farm Bulletin that weeds should not be allowed to go to seed. He gives reasons which are not new to most of us, but which will bear repeating. They are as follows:

1. Because they reduce crop yields, by using moisture and plant food which crops should have. Most weeds use more moisture than do crops because they grow larger and have greater leaf surface. They stand drouth better and in dry seasons may entirely kill the crop.
2. Because they shade, crowd and dwarf grain crops. They help to keep alive many plant diseases and ailments. In a weedy field, the plants stay wet longer in the morning and rusts and smuts have a better chance to grow. They also suck life from crop plants, as in the case of dodder on clover and broom rape on hemp.
3. Because they increase the cost of harvesting, by causing extra wear and tear on teams and machinery. By twining about the corn and grain, choking the binder, causing bundles to stick together, and making shocking difficult, weeds make themselves very troublesome and costly.
4. Because they lower the selling prices of farm products. Weeds cause dockage on the grain market, injure hay, give offensive flavors to dairy products where cattle are pastured in fields with weeds with strong odors and injure wool and furs.
5. Because they reduce the net profit on the farm by poisoning live stock (poisonous weeds are numerous), by requiring payment of taxes for weed control, and by requiring an immense amount of labor to help in their control.
6. Because they lower the selling price of farms. No farmer will pay the best price for weed-infested land.

Now the question is, what are we going to do to prevent weeds from seeding? Mr. Stone states the case in the following language:

By rotating the crops—For the dairy farmer, the following rotation is a good one: First year, corn in which no weeds go to seed; second year, oats or barley, seeding at the same time to clover and timothy, using eight pounds of red clover and six pounds of timothy seed to the acre; third year, two crops of clover hay or one crop of hay and one of seed; fourth year, a crop of timothy hay or pasture. In the fall of the fourth year, manure the sod and plow ready for corn the next spring. If the corn is kept clean this rotation will keep annuals from going to seed.

By carefully plowing, cultivating and harrowing fields before seeding. By the time the soil is ready to work in the spring, millions of young seed plants have begun to grow. Careful cultivation with a disk or spring-tooth harrow will kill them. The cultivation, however, brings more weed seeds up, and, if the weather is warm, in twenty-four hours another crop will have started. A weed killed at this time means one weed less in the grain or corn crop. At no time in their lives can weeds be killed more easily than when they first begin to grow. A little more time and labor than farmers usually give to the preparation of the seed bed will pay good dividends in the crop.

By using weeder, spike-tooth harrow and cultivator freely in all cultivated crops such as corn and potatoes. The weeder and harrow will do little harm to the crop if used in the afternoon after the plants have wilted. In the morning, when the plants are fresh, they break off easily and some damage will de done.

Don't wait too long before cultivating, cutting, or digging. Many weeds are very deceiving in appearance, and while seeming to be perfectly green and still in bloom, will be found to have ripened their seed. Red root, lamb's-quarters, chickweed, purslane and pigeon grasses are good examples of such weeds. There are many others having the same habit, so begin early and let none of them get to the seeding stage.

These suggestions are important if we would have maximum yields this year and also clean up the soil for better crops in 1918.

Wisconsin Legislature.

After long weeks of debate in the committee the tuberculosis bills have finally reached the floor of the assembly and three of them have been engrossed and ordered to the third reading. One has been voted to be indefinitely postponed, which, in plainer words, means that the bill is killed. The bills passed deal with the appraisement and payment of indemnity, the control of tuberculosis and other diseases and the eradication of tuberculosis.

The first bill relating to the payment of indemnities for slaughtered animals places the maximum appraisement at $200, the owner to be paid on the basis of 50 per cent of the appraised value of the animal.

The second bill on the control of tuberculosis prevents the transportation of animals afflicted with any contagious or infectious disease within the state and places a penalty on those who knowingly transport diseased animals for any purpose whatsoever without the sanction of the live stock sanitary board or the commissioner of agriculture. An amendment was added which specifically states that no animals known to be diseased by the owner should be exhibited at state fairs or county fairs.

The third bill which was ordered engrossed by the assembly aims at the eradication of tuberculosis through the testing of cattle by areas and provides for disseminating information regarding the disease, its effects and its control. This is all to be preparatory to a state clean-up that is to follow in future years. In case 50 per cent of the residents of any area in a petition ask for an inspection and testing of the cattle in that area the department is authorized to do so.

These bills have still to pass the assembly at the third reading and they will then go to the senate for concurrence. However, there is every indication that the bills will be favorably treated.

The senate committee on corporations recommended that the bill introduced by J. C. Hanson for the erection of warehouses on railroad sidings be put to death. Mr. Hanson is determined to make a strong fight for the bill which is backed by the Wisconsin Society of Equity. The bill gives the railroad commission power to supervise the granting of private leases by railroads. It is said that under present conditions railroads have refused

FAMILY CIRCLE TALKS—By The Publisher.

(Continued on page 3.)

are remembered even amid the crash of cannon and the rain of shells that mark the fall of empires and of thrones.

A young English airman had brought to earth a German airplane. A young German lay dead amid the wreckage of his machine. As the English boy descended towards his victim, the dead lad's eyes, still open, looked up at him without malice from a face that was frank and fearless. The Englishman, feeling of his lifeless heart, found a picture of a woman with gray hair and a kindly, motherly look, though her face was seamed with the lines of patient suffering. Beneath the portrait was scrawled, in a boyish hand, the words, "Meine Mutter."

The English boy bore the body to safety. Then, taking a pencil and paper from his pocket, he hastily scribbled some lines. Mounting in his machine, he flew over the German lines and dropped his message, while the German soldiers greeted him with cheers instead of bullets, for his brave deed in bearing their comrade's body to safety.

This is the letter which found its way to the bereaved German mother, written by the foeman who had killed her son:

It's your son. I know you can't forgive me, for I killed him. But I want you to know he didn't suffer. The end came quickly. He was very brave. He must also have been very good. He had your picture in his pocket. I am sending it back, though I should like to keep it. I suppose I am his enemy, yet I don't feel so at all. I'd give my life to have him back. I didn't think of him or you when I shot at his machine. He was an enemy spying out our men. I couldn't let him get back to tell his news. It meant death to our men. It was a plucky deed. We were covered up with brush. He had to come quite low to see us and he came bravely. He nearly escaped me. He handled his machine magnificently. I thought how I should like to fly with him. But he was the enemy and had to be destroyed. I fired. It was over in a second. Just a blow on the head as the machine crashed to earth. His face showed no suffering, only excitement. His eyes are bright and fearless. I know you must have loved him. My mother died when I was quite a little boy. But I know what she would have felt if I had been killed. War isn't fair to women. God! how I wish it were over. It is a nightmare. I feel if I just touched your boy he'd wake and we'd be friends. I know his body must be dear to you. I will take care of it and mark his grave with a little cross. After the war you may want to take him home. For the first time, I'm almost glad my mother isn't living. She could not have borne what I have done. My own heart is heavy. I felt it was my duty. Yet now when I see your son lifeless before me and hold your picture in my hand, it all seems wrong. The world is dark. O Mother, be my mother just a little too, and tell me what to do. HUGH.

Far back behind the battle lines, beyond the Rhine, the German mother read the note. Her boy was dead—her baby boy—the pride of her mother's heart! Her mind could not grasp the meaning, the reason, the significance of it all. What was this terrible monster that was crushing out the lives of her children and other mothers' children? Her boy and this English lad—they were the same kind. No hate against each other was in their hearts. What was it that was driving them forward into this torturing, all-consuming furnace? Vainly she tried to answer the questions and, then, with trembling hands and tear-dimmed eyes, she wrote laboriously, the following:

Dear Lad:—There is nothing to forgive. I see you as you are—your troubled goodness. I feel you coming to me like a little boy astounded at having done ill when you meant well. You seem my son. I am glad your hands cared for my other boy. I had rather you than any other touched his earthly body. He was my youngest. I think you saw his fineness. I know the torture of your heart since you have slain him. To women brotherhood is a reality. For all men are our sons. That makes war a monster that brother must slay brother. Yet perhaps women more than men have been to blame for this world war. We did not think of the world's children, our children. The baby hands that clutched our breasts were so sweet, we forgot the hundred other baby hands stretched out to us. But the earth does not forget; she mothers all. And now my heart aches with repentance. I long to take you in my arms and lay your head upon my breast to make you feel through me your kinship with all the earth. Help me, son, I need you. Spread the dream of oneness and love throughout the world. When the war is over come to me. I am waiting for you. DEINE MUTTER.

Such is the story of an English boy and a German mother, which is vouched for by one who claims to know. And what a story it is of the mothers and children of men, who are the ones that suffer most from war—always the ones who suffer most! But along with the pity and anguish which it brings is another feeling akin to hope and cheer—a dream of the day when such as they shall rule the earth, a vision of the time "when the war drum throbs no longer and the battle flags are furled, in the parliament of man, the federation of the world."

I hope that all my readers will hold the fulfillment of this vision before them as America's part in this mad nightmare we call war, and that whenever the spirit of hate and bitterness threatens them, they will recall this story of two of those who have suffered most.

James M. Pierce

certain coöperative bodies the right to erect warehouses on railroad sidings. If this were allowed farmers' elevators could come in direct competition with elevators now on railroads.

The bill to give the state council of defense power to seize foodstuffs in Wisconsin and sell them at a price to be fixed by the state was advanced. The bill is not likely to meet with much opposition when it comes up for final passage, as it has the backing of the administration and the finance committee.

Buy a Liberty Bond.

The farmer (and town man, too, as well) who wishes to show his loyalty and patriotism cannot do better just at present than to subscribe for a Liberty bond. These are the bonds which the United States government is issuing in order to raise $2,000,000,000 (to begin with) to carry on its share of the war against Germany. The bonds are to bear 3½ per cent interest and have every resource of the national government back of them, so that they are absolutely safe investments. They are to be issued in denominations of $50, $100, $500, $1,000, and so on, interest to be payable June 15th and December 15th of each year. If the government should, at any time during the war, issue bonds bearing a higher rate of interest than 3½ per cent, these Liberty bonds may be exchanged for the new bonds and the advantage of the higher interest rate thus be taken.

The national government needs money for war purposes, needs it badly and needs it at once. A large percentage of this $2,000,000,000 bond issue is to be loaned to the European nations which are our allies in the war against Germany. Practically all of this money will be spent here in the United States, largely for foodstuffs and clothing. Hardly any of it will go abroad. The Liberty bond issue is, therefore, releasing for general circulation a vast sum which would otherwise be kept out of general circulation—that is, much of it. Good times can hardly fail to result from this action. The farmer will prosper by the bond issue. He should be a large customer for the bonds.

The Wisconsin Farmer urges upon every patriotic farmer that he investigate this issue of Liberty bonds, consult his local banker and loan his surplus funds to Uncle Sam, who is fighting our battles for us and giving to us all a prosperity and security the like of which we have never known before.

Freight Costs on Wisconsin Potatoes.

The Wisconsin Farmer is in receipt of the following communication:

In your issue of March 22d I noticed an interesting cartoon entitled "Where Producer and Consumer Both Lose." The drawing showed on one side a farmer receiving $1.25 a bushel for his potatoes and at the other end the consumer paying $3.75 a bushel. In between were three very corpulent figures representing the commission merchant, the railroads, and the wholesale dealer. The inference naturally to be drawn from this picture is that these three interests divide the amount of $2.50, which represents the difference between the price paid by the consumer and the price received by the producer.

It may be that the cartoon is entirely accurate and that the commission merchant, the railroads and the wholesale dealer do in fact receive this amount. I have not looked into the question of profits of the commission merchant or the wholesale handler of potatoes, but I have been interested in looking up the rates received by the railroads on potato shipments and I wish to suggest that in the interests of accuracy the figure representing the railroads should have been not more than one-tenth the size of the figure representing the producer, which would have made it of microscopic proportions in comparison to the size in which it was actually drawn.

I suppose that Chicago is the principal market for potatoes grown in Wisconsin. I find that the rates per 100 pounds from various Wisconsin points to Chicago are as follows:

From	Rates in cents per 100 pounds
Waupaca	13.5
Green Bay	12.5
Wausau	13.5
Prentice	19.0
Chippewa Falls	14.5
Stevens Point	13.5

As you will see by the above the rate from Green Bay to Chicago figures out 7½ cents a bushel, while the rate from Prentice, which is the highest of the points named, amounts to about 12½ cents a bushel. If the consumer in Chicago is paying $3.75 a bushel for potatoes shipped from Wisconsin, the railroads receive from 2 to a little more than 3 per cent of this amount. It hardly seems to me that this is an excessive ratio for the service they are called upon to perform.

If these Wisconsin potatoes were to continue their journey to New York, they would pay an average rate of 31½ cents a hundred pounds or approximately 19 cents a bushel; so that even in such a case the freight charge would be a relatively small proportion of the total price.

The idea conveyed by your cartoon has been presented to the public so repeatedly that it has resulted in a very exaggerated idea as to the part played by transportation charges in the cost of living, when as a matter of fact if you will look into the rates charged on most articles of ordinary use, you will find that the transportation charge is a negligible factor in the final cost. I realize, of course, that you did not publish the cartoon with any desire to create an impression unfair to the transportation lines, but I thought that you might be interested in seeing these figures just as I have been interested in looking them up and for that reason I am taking the liberty of calling them to your attention.

E. W. MAYO.

Mr. Mayo's statement is interesting and we are glad to give it space. It is not difficult for us to remember back to the time when the producer was getting 20 to 30 cents a bushel for good potatoes in Wisconsin, and if this producer happened to reside near Prentice it cost half what the potatoes brought per bushel to get them on to Chicago. Of course, railroad rates look very small just now in comparison with the high prices of farm products. At the time Wisconsin growers were getting 25 or 30 cents a bushel for good table stock, such stock was selling at retail in Chicago in many grocery stores at 80 cents to $1 per bushel. Figured on the basis of 80 cents a bushel the railroads got a fair slice of the cost of potatoes to the consumer. We are not prepared to say, however, that they got any more than they actually earned. But under normal conditions, and with the normal prices for Wisconsin potatoes (we refer to what the grower gets) the railroad figure for a cartoon would scarcely be so small that it could not be seen. The price of potatoes is viewed from two standpoints—that of the money the grower gets out of the stock and the cost to the man who uses the potatoes for food. There is a wider difference between these two prices, many believe, than is necessary. Much of this is, however, chargeable to the expensive systems of distribution, including deliveries and store credits. However, it is not easy to convince the grower that he gets absolutely a square deal when he sells nice, clean potatoes for 25 or 30 cents a bushel, and these same potatoes bring 80 cents a bushel in Milwaukee and $1 a bushel in Chicago. The Wisconsin Farmer, however, in the interest of fairness to the railroads, is glad to publish the figures on potato tariffs given by Mr. Mayo.

Intensifying Farm Work.

The increase in Wisconsin's production of food is not likely to be accomplished so much by increasing acreage of any one or all of the food crops as it is by better farming of the usual number of acres. The following paragraph seems to express the situation:

Here is one point I think we do not consider as we should, and that is that a man who is so disposed can intensify his operations on his farm to almost an unlimited extent. If you will keep, we will say, twenty cows on forty acres of land, that does not mean that you cannot keep right on and increase the number, and in doing so you get more fertility into the soil and raise bigger crops and more nutritious crops because you do grow bigger crops, and so you can keep right on growing more feed and keeping more cows. If any of us are ambitious to be big farmers, I believe there is a much better way of going about it than to get more land. It is not alone better for the individual, it is better also for the community. Roads and schools could be made much better and be had for less taxes in a community of small farms than in a community of large farms. Besides, there are numberless ways in which the farmers of a thickly settled neighborhood can operate to their mutual profit and advantage that are not practical in a locality where each farmer owns 160 or more acres of land.—Edw. Nordman, chairman of the Agricultural Committee of the State Council of Defense.

By the time another year rolls around Wisconsin will be able to increase the acreage of crops along many lines. There will be some increase, of course, this year, but it may not be so large as many will expect. No one suggests that we should plow up any considerable amount of our meadows and pastures in order to get grain. One of Wisconsin's chief responsibilities at this time is to increase the production of dairy products which are essential to feeding the world the same as grains and meats are essential. Butter and cheese have a great deal of food value. They will go a long ways toward sustaining our people.

Not More But Better Horses.

In the following communication Mr. Wayne Dinsmore, secretary of the Percheron Society of America, gives some facts and figures relating to the horse and mule situation in the United States:

The actual exports of horses during the thirty months ending March 1, 1917, amounted to 853,116 head of horses, valued at $182,994.406, and 289,062 mules, valued at $58,051,914. These figures are the most accurate that it is possible to obtain anywhere, as they are the figures given out officially by the department of commerce and labor and cover all exports from the United States to all countries. The great bulk of these have gone for war purposes, although there have been a few exports to northwestern Canada for farm use.

It has not been possible to obtain from any source whatever the number of horses sent out from this country by states.

The department of agriculture estimates for January 1, 1917, credited the United States with little over 21,000,000 horses and a fraction over 4,500,000 mules. The census for 1910 gave us 1,731,000 head of horses and mules foaled in 1909. This was taken April 15, 1910, so that we had about a million and three-quarters of yearling horses and mules.

In spite of the slackening in horse breeding in the last seven years, the best informed authorities are agreed that we are producing at least one and a half million horses and mules annually which come to yearling age, and the mortality thereafter is slight. We do not need an increase in mere number of horses. We do need an increase in specific kinds, to wit, heavy draft horses and good thick farm chunks of draft type, weighing from 1,300 to 1,600 pounds. Aside from these two sorts which are salable and of real value, we do not need an increase in any other kinds except first-class saddle horses, and these cost so much to produce and sell so low that there is no inducement whatever to the average farmer to raise them.

We would like to emphasize what Secretary Dinsmore says in regard to the kind of horses that we should produce in the future, namely, heavy draft horses and good, thick farm chunks weighing from 1,300 to 1,600 pounds.

Wisconsin Farm Boys in 1861.

Madison Veteran Gives Interesting Reminiscences of Civil War Days in Connection With Memorial Day Annual for Schools.

THE Wisconsin Memorial Day Annual, compiled by O. S. Rice, supervisor of school libraries, in collaboration with H. W. Rood, patriotic instructor of the Grand Army of the Republic for Wisconsin, has recently been issued. It is a splendid book, giving valuable information for the pupils of the public schools and suggestions for programs. One of the most interesting articles in the book is that by Mr. Rood, entitled, "Patriotism in the Civil War." Mr. Rood recalls the part which Wisconsin took in that noble conflict. The young men of Wisconsin began to enlist immediately after President Lincoln made the first call for 75,000 volunteers. There were in the cities of Wisconsin at that time about twenty organized militia companies. None of them had the required number of men. Boys from the farm were among those most anxious to join the volunteers. Mr. Rood says:

I knew three farm boys, John, Edgar and Henry, who thus enlisted in the First Wisconsin Infantry for three months. When they came home that night and it was told around the neighborhood what they had done, they became at once in our estimation three young heroes. After serving out their term of three months, all became officers in later regiments. So it was with hundreds of Wisconsin farm boys.

A comrade of my own company told me that while he was in school, on the 23d day of September, 1861, the boys and girls were somewhat excited by the sound of a fife and drum on the street. At recess time he, with others, ran—as all boys are still apt to do—down to hear the music and see what it was all about. When the bell rang to call them back to school, Charley was an enlisted soldier. He was the first boy in our company to be hit with a confederate bullet, and was so wounded that he had to be discharged. Hundreds of thousands of our soldier boys came into the army directly from the schoolroom. I can myself name many of them. The recruiting officer robbed the teacher of nearly all of the big boys.

It is a fact that the average age of our soldiers at enlistment was less than nineteen years. Not nearly half of them were yet nineteen years old. Some boys got into the service at thirteen—thousands of them when only fourteen or fifteen or sixteen years old made the very best of soldiers. They were likely to be healthier than the older men, for they could the more easily adapt themselves to all sorts of conditions of army life. They were generally more cheerful and hopeful than those who had dependent families at home. Such boys made army life a kind of play spell. They got all the fun out of it they could, and they found ever so much of it.

General Arthur McArthur entered the army as adjutant of the 24th Wisconsin Infantry when he was only seventeen years old. He came home at twenty as colonel of his regiment.

Now and then when a captain needed more men for his company he would arrange for a "war meeting" at a neighboring schoolhouse. Some neighbors would volunteer to take their teams and convey loads of the enlisted boys out to this meeting. The fife and drum and flag were in the wagon in front, and there was lively music all the way out and much other noise. Having arrived, there was some lively martial music, and then a patriotic speech. My captain was gifted with a sturdy eloquence, and on such an occasion was sure to arrive at a lofty degree of oratory. We boys would cheer him with all our might, and so, take it all together, we could make a great stir among the country people at the meeting. Then when the speech was done and there was more music, we were pretty apt to get one or more new names on our company roll.

During the civil war there were camps for military instruction in, or near, Madison, Milwaukee, Racine, Fond du Lac, Oshkosh, Ripon, Janesville, La Crosse and Prairie du Chien. The chief camp was that known as Camp Randall, near Madison. Mr. Rood says that most of the boys at Camp Randall lived in circular tents, about twenty in a tent. They slept upon straw and rolled up in blankets, all with their feet pointing to the center. When there were twenty in a tent they were packed in pretty close, as Mr. Rood says, "spoon fashion." At sunrise the drum corps beat a reveille, which meant for everyone to get out for roll call. Those who did not get out in time to answer to their names would be punished by having to do extra duty. As Mr. Rood remarks, some boys at home nowadays need some such system to get them out of bed in the morning. After roll call the boys washed up for breakfast and then to give them a good appetite went through a half hour of company drill, much of it on the "double quick." Then came breakfast, with about 2,300 eating at one time on long tables in a large room. Mr. Rood says the food was good. At half-past eight came the guard mount. Then the non-commission officers, sergeants and corporals were put on drill for an hour. Then came the hour of company drill until dinner time. At two o'clock there was battalion or regimental drill. At five o'clock came dress parade, and on pleasant afternoons there was a large crowd from the city to witness this sight. Quoting again from Mr. Rood's article:

At sunset the band came to the foot of the flag staff to play "retreat." This consisted of three or four pieces of their best music, and there would be an acre of us boys sitting on the ground round about to enjoy the concert. As the last tune of the last piece died away, boom! went the nearby cannon, when Old Glory came fluttering down to be carefully folded and taken in for the night. Then we all went to our tents, when we told stories, sang songs and spent a pleasant evening. Sometimes we went calling on the boys in other tents. At nine o'clock the drums beat "tattoo," which called us to fall in for evening roll call. Half an hour later a single drummer beat "taps," which meant that all lights must be out and no talking. I sometimes wish that our young people now might be brought to lead the regular life we lived in camp. They would in many ways be the better for it.

About once a week we had to go on guard. A line of guards paced back and forth all the time just inside the high board fence around the camp. If we wished to go down town we had first to get a pass. If caught out without a pass we were liable to be arrested and shut up in the guardhouse.

Mr. Rood goes on to describe the days in the field and on the march.

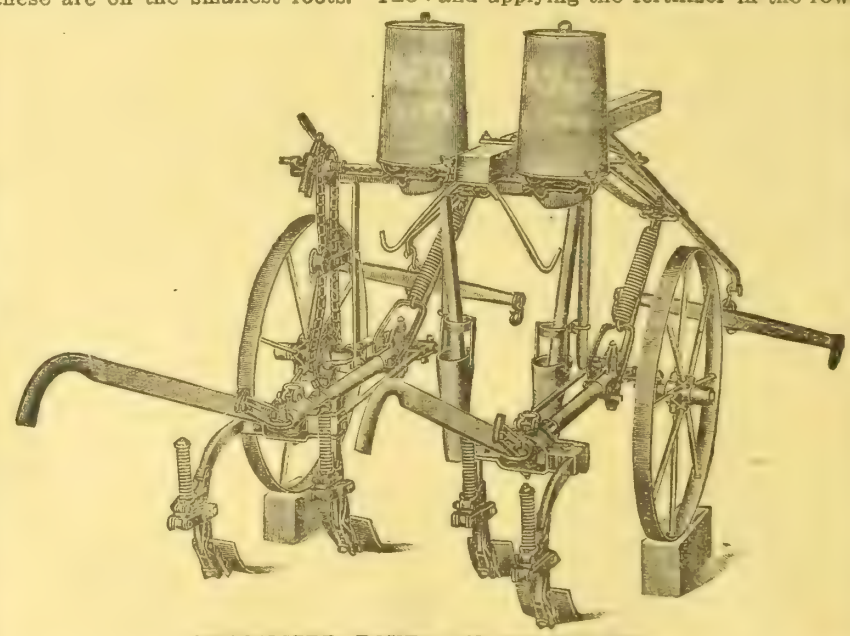
The Wisconsin Farmer has been previously indebted to Mr. Rood for many interesting facts which have been given in articles which have appeared in this paper with reference to the activities of Wisconsin regiments during the civil war.

Applying Fertilizers and Lime.

Ordinary Broadcast Methods Will Not Give Satisfactory Results —Drill and Cultivator Attachments Most Practicable.

—By J. W. Henceroth.

SINCE efficiency and success with the use of fertilizers depends very largely on the methods of application, let us see how they are being applied—and discuss the relative merits of the different methods. Some men spread them broadcast on top of the ground after the seed bed is prepared. Unless the fertilizers are thoroughly worked into the soil, broadcasting will not give the best results, as the fertilizers do not get down into the area where there is available moisture to dissolve the plant food, so that the tiny plant roots can pick it up. Some farmers apply fertilizers on top of the ground and plow them under, like manure. Ordinarily, this is not best, as the fertilizers are applied too deep. In using fertilizers and manure, one thing should be kept in mind, namely, that all plants absorb their plant food through their root hairs, and most of these are on the smallest roots. The largest percentage of roots and root hairs are in the second, third and fourth inches of soil. For this reason the fertilizer, and manure as well, should be placed in that part of the seed bed where there is the greatest moisture and bacterial action.



FERTILIZER BOXES ON CULTIVATOR.

The fertilizer attachment of whatever drill or planter is being used offers the best means of properly doing the work. It is not practical to apply fertilizers through drills or planters without fertilizer attachments. Some men endeavor to sow the fertilizer through the grain box, but this is seldom very satisfactory. Grain and seed compartments of most drills do not have force feeds that will drill the fertilizer regularly while the fertilizer compartments do have such force feeds. All grain drills, corn planters, potato planters, seed drills, etc., are made with attachments by means of which fertilizers ma[illegible] in the soil or in the rows at the time of planting. The fertilizer attachments for the different machines may be used for other special purposes than those for which the drill was specifically intended. For instance, the fertilizer attachment of the grain drill may be used for applying fertilizer on all ground put to corn, potatoes and garden crops before the particular crop in question is planted. The lime and fertilizer distributor is indispensable to the proper application of lime, and for top-dressing wheat and grass with fertilizer, it is without a rival.

It often happens that a person does not have the best tool for the application of fertilizer on particular crops. In this case some other tool may be substituted. For example, on corn, potatoes and all truck crops, all the fertilizer may be applied through the fertilizer attachment of the grain drill before the crop is put in. A potato planter with a fertilizer attachment may be used for marking out the land and applying the fertilizer in the rows for such transplanted crops as tomatoes, cabbage, celery, etc. A fertilizer attachment may now be purchased for most cultivators, for side-dressing rowed crops at the same time that the crop is being cultivated.

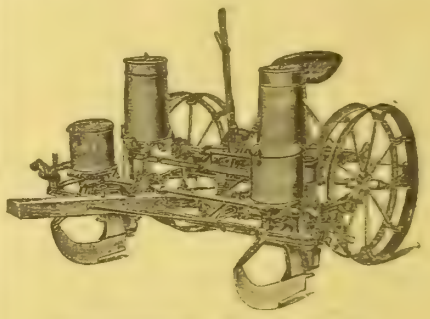
Practically all applications on all crops are best made by regular machinery, though fertilizers may be scattered by hand if necessary. When top-dressing by hand on rowed crops, or spreading fertilizer in rows before planting, a fertilizer funnel or "bugle" is a great back-saver and places the fertilizer just where needed without loss from wind. This handy device is like an ordinary funnel, but has a spout two inches in diameter and long enough to make it forty-two inches long over all. The fertilizer is carried in a bag slung over the shoulder. One hand guides the fertilizer into the funnel, while the other guides it along the row.

Anyone wishing to use fertilizer, but who does not have a fertilizer attachment for the drill, can apply the fertilizer broadcast through any one of the broadcasters that should happen to be available, and thoroughly disk it or harrow it into the soil. The fertilizer "bugle" may be used.

In many cases it is possible to buy a fertilizer attachment for the drill already on hand. It is not too late, if fertilizers were not used when the crop was put out, to use them as a top or side dressing when cultivating the crops. Anyone wishing to use fertilizers can secure a fertilizer attachment for his cultivator. No extra lime is required except what is needed to fill the box. The fertilizer is applied and cultivated into the soil, where the growing crop will make immediate use of it.

Careful directions are furnished with all machines, telling exactly how to regulate them to sow various amounts of fertilizer. Fertilizers are so manufactured in the modern fertilizer factory that they are ground, screened, mixed and cured for several months. Finally, when the shipping season arrives, they are taken out, reground, screened, bagged, and shipped immediately to the farmer, so that it comes to him in good, mechanical, drillable condition. If care is taken to see that the fertilizers do not get wet after arriving, there is usually little trouble experienced in their application. It is always advisable, when getting the machinery ready to drill any crop, to jack it up, throw both fertilizer and seed hoppers in gear, turn the wheels a certain number of revolutions and see that the desired amount of both grain and fertilizer is applied.

It is impossible to secure a 100-bushel crop of corn from a 60 per cent stand. On the other hand, it is entirely a waste of money to allow high-priced seed to "run through like water." The same thing applies to fertilizers. One thing should always be remembered in using fertilizers, and that is not to get too much close to the plant or in the hill. For instance, it is better to allow the fertilizer, even when applied in the row on corn, to run continuously and not drop it in the hill, even if the corn is hilled. Dropping too much fertilizer in the hill causes the corn roots to remain in one place. When dry weather comes the corn roots bunch and do not go out through the soil in search of water and plant food. For this reason it is better to apply two-thirds of the fertilizer on corn broadcast through the fertilizer attachment of a grain drill and the other third continuously down the row when the corn is planted. It is seldom advisable to apply more than 125 or 150 pounds to the acre in the corn row. Up to 600 or 800 pounds of fertilizer may be applied in the row to potatoes. All amounts above these should be applied broadcast before the crop is put in. Finally, all fertilizers should be cleaned out of the machine at the end of the season, in order that it may be in good working condition when the next seeding time arrives.



FERTILIZERS ON PLANTER.

Everyone using fertilizers should leave a test strip, and at harvest time should measure and weigh the crop from an equal area of fertilized and unfertilized land to see how well the particular analysis suits your land and crops. Fertilizers contain three plant foods likely to be deficient on most soils, viz.: Ammonia, which gives plants a quick start, a deep green color and promotes stalk growth; phosphoric acid, which increases the yield of all grains, hastens maturity and improves quality; and potash, which strengthens straw and plumps grains. Each farmer should study his crops and buy such an analysis of fertilizer as will supply the plant food most needed by his particular crop on his farm.

Foot, Schulze & Co. Saint Paul

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Cochrane, Fred Schlosstein.
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Goodman, Goodman Lbr. Co.
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Grantsburg, G. R. Wedin.
Green Lake, O. R. Duescher.
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Hammond, M. E. Johnson.
Hawkins, Georgas Store Co.
Hayward, Hanson Merc. Co.
Hegg, L. K. Underheim.
Hilbert, H. H. Eldridge.
Hiles, Forster-Mueller Lbr. Co
Hillsboro, Boston Store.
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Montello, N. Borenstein.
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Nelsonville, Sorbye & Loberg.
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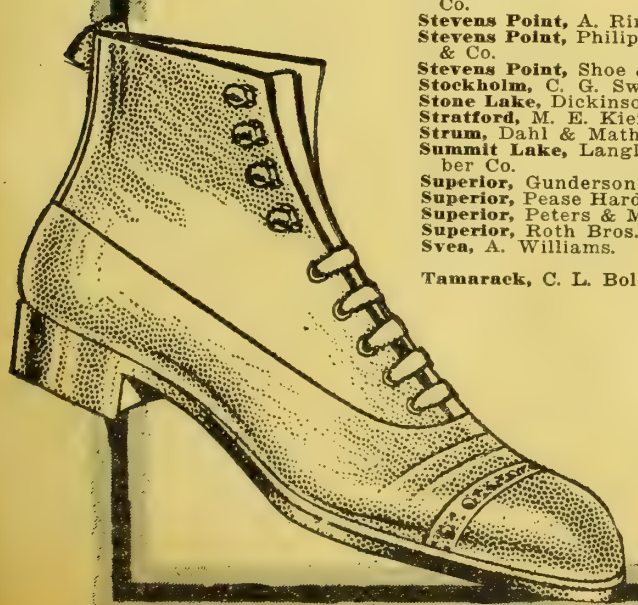

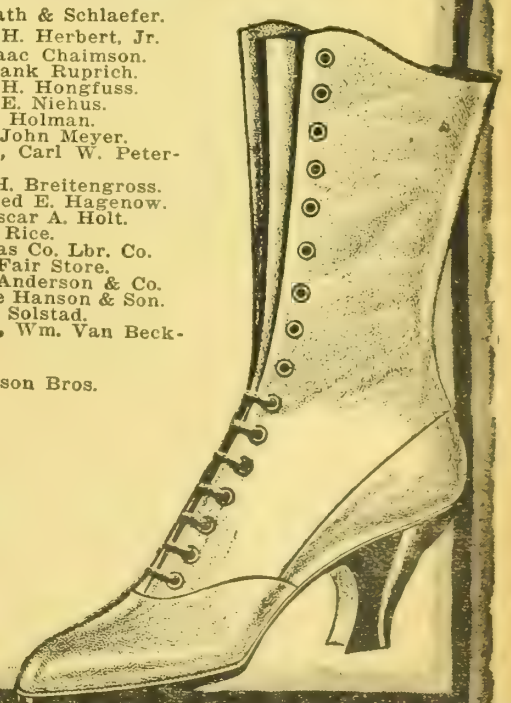

Foot-Schulze & Co.

St. Paul

In and Around Wisconsin

County Agent C. P. West, Sawyer county, recently bought a carload of fine grade Holstein cows and heifers at Black River Falls. This stock was shipped to Seeley. Mr. West found considerable difficulty in getting hold of good stock, owing to the big demand on the part of buyers from outside states.

J. W. Brann, field inspector for the State Seed Potato Service, has volunteered as special agent for Waushara county. Mr. Brann will devote his energies toward improving the potato crop. Reports from Wautoma indicate an increased acreage. Mr. Brann expects also to interest a number of farmers in putting out beans and soy beans.

E. R. Jones, secretary of the drainage association and drainage engineer for the college of agriculture, has been secured for emergency agent in Dodge county. It is expected that Mr. Jones will be able to reclaim a number of acres and to put many farms in better condition by means of surface drainage operations, including emergency plowing and shallow ditching.

ON ANTON SAVERDA'S PLACE, SOUTHERN JACKSON COUNTY, WIS.

D. H. Otis, who has had charge of the farm management work at the college of agriculture for several seasons, has been engaged as emergency field man for Jefferson county. Mr. R. V. Gunn, of the experiment station staff, has been assigned to Fond du Lac county. Henry Lunz, another experiment station worker, has volunteer for the same work in Columbia county.

Owners on a number of farms in Christiana township, Dane county, have organized the Christiana Soil Improvement Club with seventeen members. The club will coöperate in the purchase of limestone pulverizer and fifteen of the members will proportion the cost of same. They will also purchase a carload of phosphate fertilizer. Farmers in any community of the state who are interested in forming soil improvement clubs can get full particulars by writing to W. J. Geib, care of the experiment station, Madison, Wisconsin.

TWO ENGLISH SHIRE COLTS, THREE MONTHS OLD, TAKEN ON ANTON SEVERDA'S FARM, JACKSON COUNTY, WISCONSIN.

Mr. A. H. Karnahan, Black River Falls, an officer of the American Society of Equity, undertook to supply farmers with seed for sorghum and found the job a bigger one than he could handle and was obliged to come to Madison to get an extra supply. The seed for planting an acre for sorghum is very inexpensive. Mr. Karnahan says that he bought some of the seed at 12 cents a quart and not to exceed two quarts plant an acre. He recommends that the seed be planted eighteen inches apart in rows with three-foot space between. The seed from sorghum is valuable as a poultry feed.

The first issue of the Journal of Soil Improvement has come to the editor of The Wisconsin Farmer. This publication is to be issued by members of the soil department of the Wisconsin Experiment Association. The paper is the official organ of the Wisconsin Soil Improvement Association. W. J. Geib is editor-in-chief. Associate editors are H. W. Ullsperger, W. W. Weir and L. P. Hanson.

The Wisconsin Highway Commission has estimated that 1,245 miles of road will be constructed in the state this year and that 350 bridges will be built. This work is to be done under state aid and is separate from the trunk line work which is to be done by state and federal aid. The estimated expenditure for road construction alone is $3,700,000. The bridges will cost about $540,000 additional. In addition to this there will be county aid bridge work which will total over $500,000.

Wisconsin boys and girls who are interested in getting into poultry may secure a copy of the circular, "Start a Flock," by writing to the Wisconsin College of Agriculture, Madison, Wisconsin.

The Wisconsin Department of Agriculture has taken up the matter of selling beans for seed. The price announced May 17th was $10.50 per bushel, in whole sacks and $11 in parts of sacks. Previous to the May 1st quotation the department had sold two carloads at $10 a bushel.

The saving of fat, feed and fuel was the object of the first of a series of distinct war conferences of Wisconsin creamery operators and managers held at the commercial club at La Crosse recently.

About thirty different creameries in the La Crosse region were represented at the meeting, which was called by G. H. Benkendorf, of the dairy school, University of Wisconsin, and secretary of the State Buttermakers' Association.

Under the head of "fat economy," which has been found to play such an important role in the welfare of the central powers of Europe, the Wisconsin buttermakers discussed such points as the frequent delivery of well-cared-for cream during the summer, and the steps which must be taken at the factory to reduce the enormous annual losses from moldy butter.

Skim milk, now worth 75 cents a hundred pounds, instead of 30 cents as in the past, must be carefully economized, the discussion brought out. By skimming a thicker cream, having a higher fat content, more skim milk is left for the live stock on the farm.

Ways of adjusting the steam fittings and boilers of a creamery, in order to make use of every ounce of fuel energy, was also talked. The importance of thorough control of the moisture and salt in butter was another topic of interest.

"We hope to make these conferences of great patriotic service," declared G. H. Benkendorf, chairman, in his opening address. "You are helping your community directly, because one point learned may be the means of saving your creamery and its farmer-patrons a large amount of money, time and labor. Other meetings will be held at central places in the state at different times this season."

Representatives of creameries from the following towns were included in the conferences: La Crosse, Stoddard, Viroqua, Sparta, Westby, Cassville, Roadstown, Patch Grove, Arcadia, Bangor, Holmen, Bagley, West Salem, Melvina, Pigeon Falls, Ettrick, Galesville, Coon Valley, Leon, Prairie du Chien, Blair, Oakdale, Warrens, Mt. Tabor, DeSoto, Kendall, Mindoro and Waumandee.

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In Sheboygan County.

To the Editor:—I recently made a forty-mile trip through the northern part of Sheboygan county, May 2d. I found in many cases that seeding had hardly been started, due to the wet, cold weather. Near Cleveland, Wisconsin, seeding had been finished a week, but farther west it will take until the middle of May. Nowhere were pastures beginning to brighten up, so that farmers must figure on three more weeks of barn feeding.

One of the most serious conditions I found was the absolute scarcity of spring pigs. The extremely cold winter was hard on brood sows, so that litters were small and weak, many pigs being born dead or dying soon. Early spring pigs, six to eight weeks old, are selling at $6.50 to $8 each, and are a scarce article at that. Late litters will relieve this shortage somewhat.

We have just received a letter from Prof. A. C. Osterhuis, Wisconsin College of Agriculture, telling us of the safe arrival of our registered Guernsey bull at the experiment station. He writes: "We have already made good use of him. Professor Humphrey and Mr. Markey are both well pleased with his type."

This bull, that we have loaned to the department of animal husbandry, was our senior herd sire, Raymond of Wayland 20339. His dam is Fillmore 26864, A. R. 1857 reëntry. She produced 521 pounds of fat with first calf, and at five years, eight months, 696 pounds of fat in 10,953 pounds of milk. She is a daughter of Charmante's Rose King 11746, A. R., that has eight A. R. daughters. Among these are (1) Gold Dust's Elite, 29776, with a reëntry of 15,619 pounds of milk, 871 pounds fat (2,058.5 pounds fat in three years); (2) King's Alberta 33788 with 785.6 pounds fat at four and one-half years old as her third yearly record; (3) Fillmore's Happy New Year 34495 with a reëntry of 690 pounds fat.

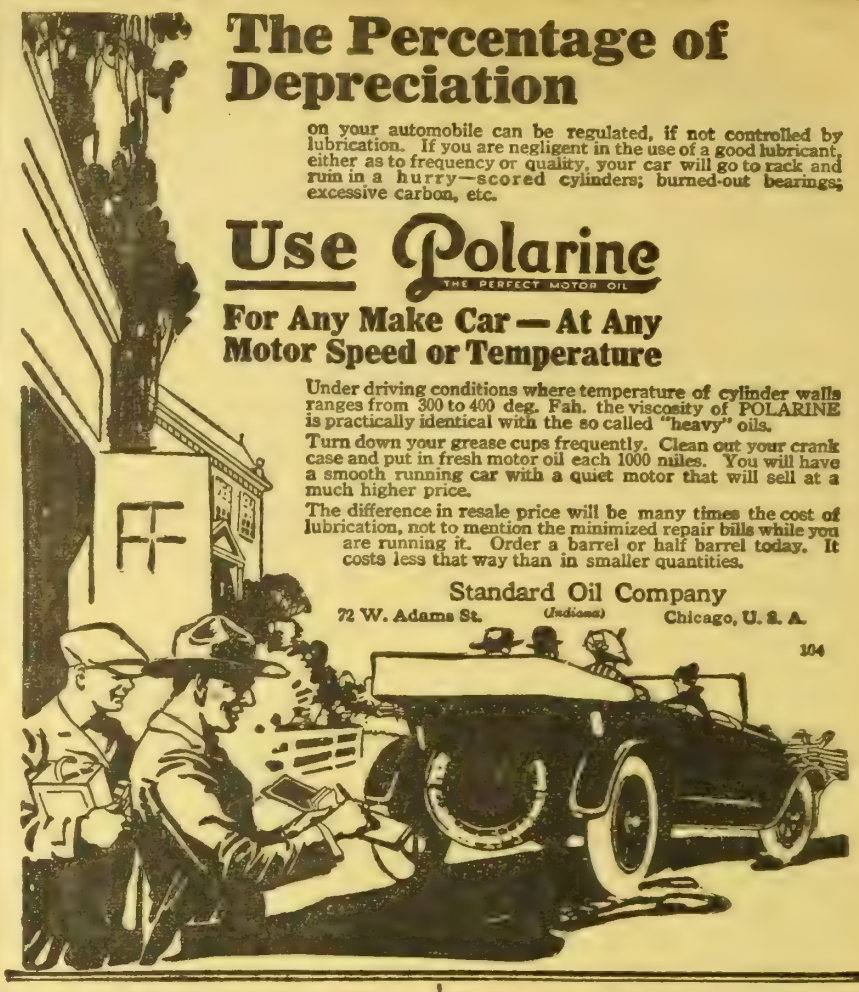
Raymond of Wayland, on his sire's side, is a grandson of Imp. Raymond of the Preel 11353, that has fifteen A. R. daughters. M. J. Hoppert.

Sheboygan Co., Wisconsin.

Wisconsin Rural Carriers.

Wisconsin rural letter carriers will meet May 30th and May 31st in their annual association meeting at Sturgeon Bay, Door county. Just as June is ready to be ushered in the Door county country looks its best and we have no doubt the rural carriers will enjoy every hour of their meeting at Sturgeon Bay. The officers of the association are president, A. D. Larson, of Sheridan; vice president, T. T. Pyburn, of Marshall; secretary, E. L. Demarest, Waupaca; treasurer, G. C. Granger, of Sheboygan Falls; organizer, Henry Gallenback, Beaver Dam.

Ask your neighbor to subscribe for The Wisconsin Farmer.



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CURRENT EVENTS

HOME rule for Ireland is nearer today than ever before, one of the results of the European war. Last week the British premier, Lloyd George, sent a letter to John Redmond, leader of the Irish nationalist party, outlining the government's project for the settlement of this vexatious question, which has given England more trouble than almost any other problem. The government, the letter set forth, has been desirous of effecting an immediate settlement which will concede the largest possible measure of home rule that can be secured by agreement at this moment, without prejudice to the undertaking by parliament of a further and final settlement of the most disputed questions after the war. The government's proposals provide for the introduction of a bill for the immediate application of the home rule act to Ireland, but excluding the six counties of northeast Ulster, such exclusion to be subject to reconsideration by parliament at the end of five years; a council of Ireland, to be composed of two delegations, representing the excluded area as well as the new Irish parliament; consideration of the bill after its second reading by a special conference under the chairmanship of some one commanding general confidence. As an alternative, it is suggested by the premier that a convention of Irishmen of all parties be assembled for the purpose of arranging a scheme of Irish self-government. It is known that the need of Irish home rule has been impressed upon the British commission, now in the United States, by prominent Americans and perhaps the entrance of this country into the war may prove to be one of the determining factors in giving the people of Ireland the self-government they have long been denied.

ONE of the big, tangible results of the European war has been to hasten the progress of prohibition in many of the nations engaged in the titanic struggle. That the United States may find a similar result coming from its participation in the war now seems probable. The first legislative step toward a dry nation and the conservation of our food supply was taken last week when the United States senate, by a vote of thirty-eight to thirty-two, passed a bill prohibiting the use, during the war and for one year afterwards, of cereals or grain in the manufacture of intoxicating liquors. The prohibition clause, as introduced by Senator Cummins, of Iowa, reads as follows: "That on and after September 1, 1917, during the period of the war with the imperial German government, it shall be unlawful to use or employ, directly or indirectly, any cereal, grain, sugar or sirup in the production of intoxicating liquor in any form or of any kind; provided that nothing in this section shall prevent the use of sugar or sirup in the manufacture of wines as now authorized by existing law; provided further, that this section shall not be construed to make unlawful the manufacture of alcohol or intoxicating liquor for industrial, mechanical, medicinal, sacramental or scientific purposes under rules and regulations to be established by the secretary of the treasury. A violation of this section shall be punished by a fine of not more than $5,000 or imprisonment for not more than three years or both."

A SQUADRON of American torpedo boat destroyers has safely crossed the Atlantic ocean and is assisting British craft in patroling European waters. The American navy's actual entry into the war zone has already been productive of a brush between a destroyer and a German submarine, with what results has not yet been made public. After the news was given out in London of the arrival of the American vessels, Secretary Daniels, of the navy department, issued a public statement in which he said: "United States naval vessels have been operating with the allied naval forces in European waters since May 4th. A number of destroyers sailed from American ports in the latter part of April, and all arrived at their destination without accident or delay of any kind. They were ready for operations when they arrived and went into service immediately. It has been the purpose of the United States navy to give the largest measure of assistance to the other countries at war with Germany that is consistent with the full and complete protection of our own coasts and territorial waters." The navy has thus become our first line of defense and offense, leaving the army to follow later on.

BROAD presidential authority over transportation, including power to determine what commodities shall be given preference in the movement of freight, was asked of congress by President Wilson with the plea that "the exercise of much authority has become imperatively necessary." In submitting a resolution authorizing him to exercise these powers for the duration of the war, or to delegate them to a transportation commissioner, the president wrote the house judiciary and commerce committees that while the railroads had shown a patriotic spirit, creation of some central authority should be authorized at once to guide in determining the priority of shipments. As a result a bill was introduced, giving the president authority to stipulate what commodities shall have preference in movement of freight. One provision added to the preferential shipments section would make it a misdemeanor, punishable by a fine of $10,000 and five years imprisonment, for any carrier or its employes to fail to comply promptly with the preferential shipment order. Another would give the interstate commerce commission authority to fix a just compensation for any extraordinary service rendered by a carrier in complying with such an order.

FINAL action was taken by congress Friday of last week on the war army bill and it has already been signed by President Wilson and become a law. This bill provides for the conscription of men between the ages of twenty-one and thirty, exempting the physically unfit, those with dependents and men who are needed on the farms and in other industries. The bill, as finally passed authorizes the president to raise volunteer forces, which Colonel Roosevelt desires to lead to France, but does not make it obligatory upon him to do this. It also raises the pay of practically all classes of soldiers. The bill, backed by the administration, was introduced in the senate April 19th, was passed April 28th in the senate by a vote of eighty-one to eight, and in the house, 397 to twenty-four, and since has been tied up in conference, returned there twice by the house to include the Roosevelt volunteer provision and further pay increases for enlisted men. Its chief provisions are: Raising of armed forces by the selective draft system, imposed upon all males between the ages of twenty-one and thirty years, inclusive, subject to registration and certain exemptions from service. Increasing the regular army to maximum war strength. Drafting into the federal service of national guard units. Raising of an initial force by conscription of 500,000 men, with addition of 500,000 if deemed necessary. Raising, if the president sees fit, of four divisions of volunteer infantry (the Roosevelt amendment). Increasing the pay of all enlisted men.

THE problem of the high cost of living can be solved by increasing the cultivation of the tillable land of the country through the taxation of unimproved land and untaxing improvements and other products of labor, according to a brief filed with the federal trade commission by the committee on the high cost of living. The brief urges the commission to recommend that some such action be taken by the legislatures of twenty-eight states, which possess a total farm acreage of 430,815,650 acres, it is stated, with only 250,875,588 acres improved. In all other states, the brief states, the change should be made possible by constitutional amendments.

FOUR HUNDRED THOUSAND pounds of Montana wool were sold in Chicago one day last week for 52 cents a pound, the highest price in the history of the western wool industry. The purchaser was the Union Mill Company, of Boston, and the trade was consummated in New York. This deal came on the heels of information that hardly enough wool exists to fill government contracts—including blankets, socks and underwear for the army. Talk of the substitute of cotton has forced that staple upward in the last few days until 25 cents a pound is predicted for October cotton.

GREAT BRITAIN has received a third installment of $25,000,000 of the $100,000,000 which the United States has agreed to lend to meet British purchases in this country during May. It is understood Great Britain is purchasing supplies on behalf of Russia in this country.

THE unsettled state of governmental affairs in Russia is causing the anti-German allies much concern. The new government is not holding the reins with the tight hands which are needed. The laboring element in Russia is extremely dissatisfied and the soldiers are taking practically no part in the European war just at present, enabling the Germans to withdraw soldiers from the Russian front and use them to strengthen the lines against the British and French. Notwithstanding this condition, the United States made an initial loan of $100,000,000 to Russia last week and is sending a commission, headed by Senator Elihu Root, of New York, to Russia, to arrange for the coöperation of the two governments in the further conduct of the war. Russia remains an uncertain factor, with almost anything possible there in the near future.

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In all, we believe the King Eight does offer a quite remarkable combination of power, economy, reliability, comfort and style, which, considered with the price, makes it a purchase absolutely safe for anybody and one thoroughly consistent with our slogan "The Car of No Regrets."

Foursome (shown above), $1700; 7-passenger Touring model, $1650; Sedan, $2300; Roadster, $1585. Prices F. O. B. Detroit and subject to increase at any time. A catalog in color will be sent on request together with the name of a near-by King dealer.

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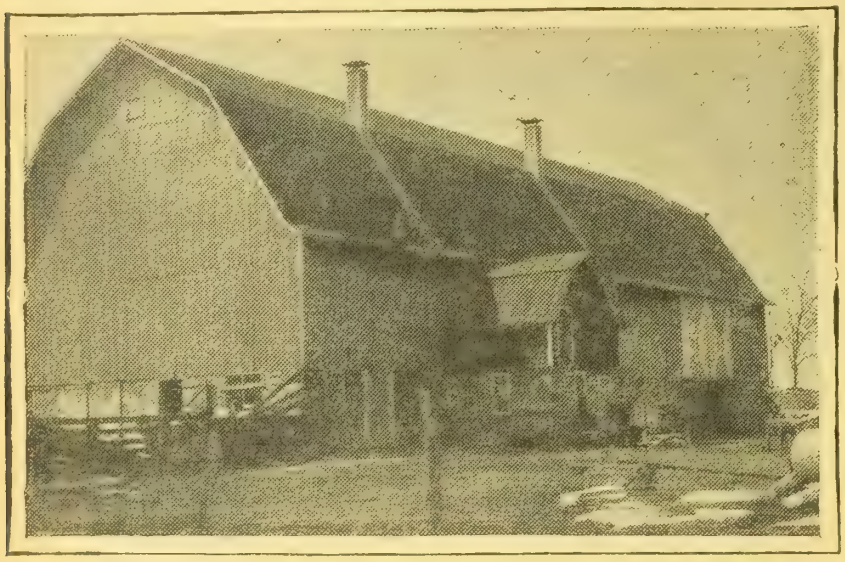
Will Put Up His Third Silo.

Ed G. Race, of Omro Farms, Winnebago County, Sees the Importance of Increasing Silage for the Benefit of His Herds.

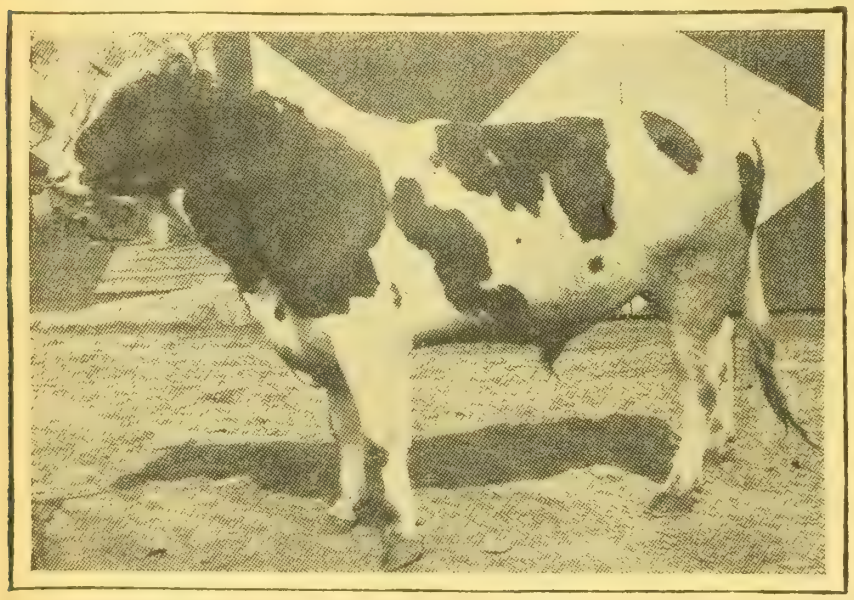
ED G. RACE, of Omro, farms each year 400 acres. Most of the farm's output goes to the dairy herd in the form of silage and grain and hay. Silage is the basis for live stock feeding, in the estimation of Mr. Race. Over 100 Holstein cattle, pure bred and grade, have convinced him of the wisdom of depending on silage.



BARN ON THE ED G. RACE PLACE, OMRO, WISCONSIN.

The first silo on Mr. Race's place was erected some seven years ago. The second soon followed and a third will be put up this year to prevent possible shortage next season when the herd will be enlarged. Looking back to the years when silage was unknown to Wisconsin farmers Mr. Race remarked that he was still wondering how they ever got along without this useful form of feed. It is impossible for him to get along without silage now. He has had to do so for a period of a few months during the past summers when his silage gave out, but the trouble experienced even in this short time in the feeding of proper rations for dairy production emphasized the need of another silo for reserve.

In proof of his statement as to the value of silage Mr. Race points with pride to his present herd sire, a Holstein bull which up to six weeks ago had not received any silage in his ration. Mr. Race claims that the bull since he was brought on the place has made the most wonderful gain on his ration of corn silage, alfalfa and a little grain that he has ever witnessed. The animal today shows up smooth and sleek, while prior to this silage ration he was in very poor condition.



SIX WEEKS SILAGE AND ALFALFA ADDED 100 POUNDS TO THIS BULL'S WEIGHT AND MADE HIM SMOOTH AND STRAIGHT.

About 100 acres of the farm are devoted to clover and alfalfa and the rest planted to corn, oats, barley, sugar beets and spring wheat. Mr. Race figures that cows make full use of the pasture for four weeks only and at the end of that time the addition of silage is absolutely necessary in order to insure continued large yields of milk. He never pastures the clover during the first year, but allows a stubble of six to eight inches of the nurse crop in order to give the field every opportunity to hold the snow in the winter and prevent freezing out. Results so far have always shown this method to give excellent stands the following year. This year's stand is another proof of the success of the practice.

NOW ADDING ANOTHER SILO TO THESE TWO.

To accommodate any future enlargements in this herd Mr. Race built a barn several years ago which he figured would take care of the increase of a lifetime. The barn is 50x120, giving room for twelve rows of box stalls on one side and two rows of stanchions with a wide alleyway on the other. The loft above holds 300 tons of straw and hay. This is enough to supply the demand for the herd for the entire year. Another barn 70x86 feet is for horses and young stock. Both barns have a stone basement and are well lighted.

Mr. Race has been farming twelve years, beginning like thousands of other Wisconsin dairymen with the stock left them by their fathers, just ordinary cows. Not long after, however, the first Holstein bull was purchased, followed shortly after by a further investment in the form of two pure-bred Holstein cows. The results of the influence of the sire gave so much promise that the herd has been continually added to and improved since that day. Most of the stock is home bred, and, though there are a considerable number of grades still in the herd, they are decidedly high class. One grade Holstein produced in one month's time 1,735 pounds of milk, testing 3.2 after being on test for a considerable period. She was the best in the testing association for March.

Senator Johanna White, out of a 31.07-pound cow, Johanna Piebe White, with yearly record of 1,146.78 pounds of butter and 26,497.6 pounds of milk.

Mr. Race is president of the Fox River Valley Holstein Breeders' Association. No better year has ever been experienced by the farmers of the Fox river valley than the season just passed. Though the prices for feed were high, butter fat also brought good prices and cattle were in especially heavy demand. The sales from this district were particularly large, the biggest shipment of the season being made on April 2d, when 300 animals started from Appleton for Texas. As fast as the stock is available buyers from all over the country eagerly snatch them up at good prices. R. J. Schaefer, formerly president of the Fox River Valley Breeders' Association, has been acting as agent for all surplus stock in the county. No better man could be found to direct buyers, according to Mr. Race, for no animal for sale goes begging very long before a buyer is found if Mr. Schaefer knows about it. One of the purposes of the breeders' associations is to aid in disposing of surplus stock, but during the last year the trouble has not been to dispose of stock, but to supply the demand.

Senator Johanna White, senior herd sire on the farm for four years and with excellent heifers to testify to his ability to reproduce, was recently sold by Mr. Race for $1,200.

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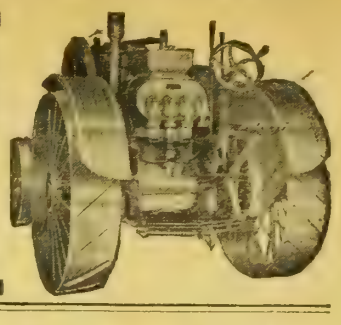

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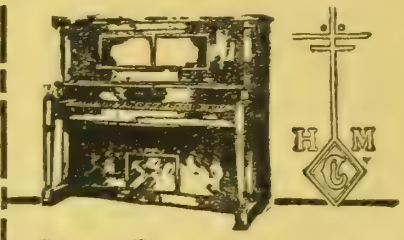

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New Books Free

Calamus Holstein Association.

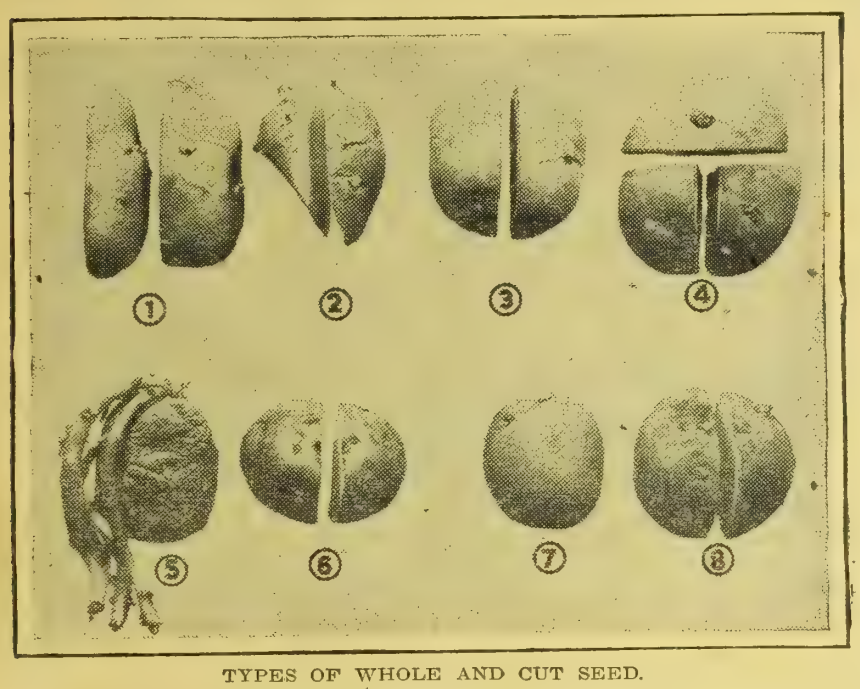
To the Editor:—Our Calamus Holstein-Friesian Association was established four years ago when there were no pure breds in this section. Now we have about fifty, and two-thirds of them are bulls heading the different herds. At our last meeting Mr. J. R. Wheeler, of Columbus, gave a fine report of the year's work of the cow-testing association at Columbus, proving to us that cow-testing brings big returns. Our new officers for the coming year are: President, William Haase, Beaver Dam; vice president, Joseph R. Rake, Columbus; secretary, E. A. Schiller, Beaver Dam; treasurer, D. Hughes, Columbus; director, F. Bilke, Beaver Dam.

E. A. Schiller, Sec.

Handling Seed Potatoes.

WISCONSIN'S yearly potato output, according to the latest crop reports, is from 25,000,000 to 36,000,000 bushels. With favorable weather conditions the indications are that this amount will be somewhat greater in 1917 because of the high prices prevailing during the past year and the strenuous efforts made by numerous agencies throughout the state for increasing this year's acreage of potatoes. Normally Wisconsin devotes about 300,000 acres to this crop each year.

A very timely bulletin on potato growing in Wisconsin by J. G. Milward has just been released by the agricultural experiment station. It deals with every phase of potato growing from planting to marketing and is worthy of close study by every farmer of the state that is planning on a potato crop this year.



TYPES OF WHOLE AND CUT SEED.

Seed cut in blocky pieces like Nos. 3, 4, 6, and 8 is preferred. Small to medium-sized tubers from healthy fields are satisfactory. No. 5 shows damage from shriveling and sprouting and should not be used.

The planting season for northern counties ranges from May 20th to June 1st for the late varieties. Early varieties for the southern seed trade may be planted as late as June 20th. Mr. Milward does not consider of value the practice of seeding late varieties later than the dates mentioned in order to avoid bugs.

Treatment for seed by the corrosive sublimate method or with formalin for scab and scurf should be done from three to four weeks before planting date. The treatments cannot safely be made if the sprouting has started. With the corrosive sublimate four ounces to thirty gallons of water is the proper proportion. The seed should be soaked one and one-half hours. The formalin treatment consists of soaking seed for two hours in solution of one pint of formalin to thirty gallons of water. The seed stock should be kept under moderate light and temperature condition after treatment to encourage sprouting before the tubers are cut. Within two weeks after treatment active sprouting will begin under proper conditions and by the time the planting is to be done the dead and weak seed can be sorted out. Strong, sound tubers will show evidence of growth.

The proper method of cutting seed tubers is shown in the picture. Blocky seed pieces are preferable. Each tuber has a bud end or seed end on which are located the quickest and strongest growing eyes. The proper method advised by Mr. Milward is to cut the tubers so that this end is divided. Smaller sized tubers can be cut in halves, cutting lengthwise. A strong early growth necessitates a good-sized piece of seed tuber. Whole seed can also be used whenever the tubers are known to come from clean, healthy fields. Seed plots can be planted late to insure a large percentage of small to medium-sized tubers. Planting culls from loading stations is a poor practice, because a large percentage of small seed may be due to disease, weak vines or unfavorable conditions. Seed tubers should not be cut too long before planting, as they are often damaged by long exposure to the sun or other unfavorable conditions. When delay occurs the cut seed should be housed under cool, dry conditions.

Under average conditions with seed twelve to sixteen inches apart in the row and rows thirty inches to three feet apart, ten to twelve bushels of potatoes are all that is necessary to plant an acre of potaoes.

Machine planters which drill the seed from four to six inches deep are in common use where the acreage is large. Where only a few acres are planted hand planters are commonly used and do excellent work. One man can plant from one-half to two acres a day where land is well marked, fitted, the seed cut and delivered to him on the field.

Commercial fertilizers are not as commonly used in Wisconsin as in the eastern states. Much work is to be done on this in the future. Planter attachments are available for applying fertilizer. On small areas fertilizer can be spread over the row and dragged in just before the potatoes come up.

Cultivation should begin before the crop can be seen. A spike-tooth harrow can be run over the fields to kill young weeds. As soon as the rows appear cultivation must take place to prevent weeds from gaining a foothold. As the season advances cultivation should become more shallow in order to prevent cutting of the tubers with the heavy shovel cultivators.

MACHINE PLANTER WITH SINGLE OPERATOR.

On the sandy soil growers claim spring plowing to be better for fitting the land. Plowing is postponed to the latest possible date preceding planting time, as these growers maintain a better seed bed can be prepared under favorable weather conditions. On a heavier soil fall plowing is preferred. Mr. Milward, however, emphasizes that intensive fitting, providing a good seed bed, is of more importance than the question of fall or spring plowing.

Potatoes easily wear out the soil if grown oftener than every third year on the same land. Green manuring and barnyard manure prevent this. Poor drainage causes disease of the vines and rotting of the seed tuber at the time of planting or of the crop prior to harvest.

For Home Grinding Limestone.

Farmers remote from the railroad or from a satisfactory lime supply will doubtless find it more economical to grind their own limestone where a good rack is available. Various companies are now putting small portable limestone grinders on the market. The cost of these grinders depends principally upon their size, but it can be said in general that those suitable for the use of individual farmers, or of groups of farmers coöperating in grinding stone will cost from $500 to $1,400. Such grinders have a capacity of from one to five tons an hour, depending upon the size of the machine, the kind and dryness of the rock, and the fineness of grinding. They require engines varying from eight to twenty-five horse power. Smaller sizes are on the market, but they have a correspondingly lessened capacity. A fair size for community work is a machine having a capacity of around two or three tons an hour, costing 750 to $1,000 and requiring an eighteen to twenty horse-power engine. A somewhat larger machine will often be more advantageous where many farmers are coöperating and where a large acreage is to be limed.

In selecting a grinder, care should be taken to see that it will handle pieces of stone at least four inches in thickness. Some grinders will not handle rock that has not first been crushed by another machine or broken by hand. The best of these large-sized portable machines will take, in stone measuring, five to seven inches thick and eight to twelve inches wide.—M. F. Miller, Missouri station.

Foxtail millet, which makes up approximately nine-tenths of all the millet grown in the United States, is declared by specialists in the United States Department of Agriculture to be valuable chiefly as a catch crop. The plant is adapted to a wide range of soils and climates. Although large yields are not obtained under favorable circumstances, millet does better on poor soil and in a dry climate than most other hay crops. Compared with Sudan grass, its chief competitor, millet is deficient both in quality and yield of hay, but the growing season of the Sudan grass is somewhat longer, and this provides greater opportunity in the latter for injury from drouth. In its feeding value the hay of foxtail millet has been found to be approximately the same as timothy hay.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Giving the Calves a Chance.

Dairy calves are deserving such care as will enable them to become better cows than their mothers have been. The young calf requires care and attention if this is to be accomplished. A stunted calf cannot mature at as early an age as one well fed from the start and she can never become as large an animal and it is more than probable that her production will never reach the point in quantity or profit unless she is fed reasonably well from the start.

During the first season there are many temptations to slight the calf. Grass sometimes becomes short, farm pigs make demand for the skim milk and the farm help becomes too busy to look after the youngster as to watering and protecting from flies. All these things are to be guarded against with as simple and satisfactory arrangements as possible.

For grass to be short need no longer be a handicap, because silage may be used in place of it. Calves like silage and do well when it is fed liberally. Should silage not be available, alfalfa, oats or any other green crop may be cut and fed in the green state to very good advantage. Skim milk may be reduced and even removed entirely if grain and other feeds are plentiful. However, it is probable that with good, well-bred calves it will give as good returns as when fed to pigs. Calves must have water and no arrangement is satisfactory unless a supply is provided to which they may run at will. Lack of water is one of the chief causes of unthriftiness in calves and since water can be so cheaply and easily provided it is always well to do so. No one knows better than a dairyman how necessary it is to protect against flies and no one knows better how much damage may be done by the little pests. Clean feeding places, clean yards and clean surroundings are the sure preventives of fly troubles.

Each calf deserves protection against its pasture mates if it is to do its best. An inexpensive row of stanchions in which all calves may be fastened at feeding time will insure that the small calf will get the milk or grain measured out to him just as surely as will the larger one. Such small stanchions prevent absolutely the larger ones crowding the smaller ones from the trough. To leave the calves in the stanchions for a few minutes after milk is fed will cause the youngsters to lose their desire to suck each others' ears, which is a very annoying habit and which may result harmfully. Care and thoughtful attention always reveal different ways or means by which the thrift of the youngsters may be increased and the progressive man or boy will invariably give his calves that extra care and attention. The old Scottish adage, "The eyes of the master fatten his stock," has a thousand applications and not the least among them is in calf feeding.

Efficient Feeding of Dairy Cows.

Dairymen are seeking the greatest production possible with the least amount and the cheapest feed with which it may be produced. In doing this they are considering the individual cow more and more. Formerly each cow was fed a measured amount of feed regardless of whether or not she was a heavy or a light producer. In this day of high-priced feed and close figuring and thinking it has occurred that there might be a close relationship between the amount of milk produced and the amount of feed required to maintain that production. Accordingly, men have set about to determine the correct proportion of feed. Experience showed that a cow giving milk rich in fat required a heavier feeding of grain than one giving milk low in butter fat. Also the character of the roughage made a difference. Silage containing a generous quantity of corn naturally cuts down the amount of concentrates. A cow thin in condition or one carrying a calf might well be fed a little extra.

However, a very satisfactory proportion has been determined which, when fed with care and judgment, has given very satisfactory results. The rule, if it may be called a rule, is to feed one pound of grain for each three to four and one-half pounds of milk that the cow is producing daily. This insures that the heavy producer shall have her just proportion and it provides that the low producer or the one far advanced in lactation shall not be fed any more than she deserves. This is an economical and a practical way of feeding.

Hundreds of dairymen have proven the value of this method of feeding. Experiment stations have tried it and colleges have advocated this as the correct practice in feeding. On one of Iowa's best dairy farms, notable for its good cows and its successful management, the feed is measured out for each cow before the feeding hour. A sheet showing the production of each cow for the preceding day hangs in the feed room and each cow is fed in exact proportion as shown upon that record. One of Iowa's progressive farmers has shown the merits of this plan. He had kept records when he fed in the old-fashioned hit-or-miss method. Now he has one year's record obtained under the new method. He gives his results as having decreased the cost of feeding. He also increased the production and, best of all, the profit was increased 200 per cent. Certainly this method of feeding which, according to every line of reasoning, is correct and which upon an ordinary dairy farm has demonstrated its value by increasing profit so markedly, is worthy of universal adoption.

System on Dairy Farm.

System and organization are two great watchwords in successful dairy management. They enable work to be done more quickly, more thoroughly and more surely, and with less expenditure of money and effort. They have transformed many a farm from a place of hurry and bustle for many long hours to a place smooth in its running and organized in every effort wherever required labor is performed at a specific time and in a definite manner. System and organization are just as important on a dairy farm as they are in any other business. They constitute main lines that are necessary if the greatest success is to be secured.

At the head of the list in systematic management stands the plan of the day's work. This is really the backbone of the dairy business. We may have land and barns and cows and a splendid market, yet without hard every-day labor they would be as naught. A systematic plan enables a man or set of men to accomplish more in a day. A place for everything and everything in its place, a time for everything and everything at that time constitute a very good motto under which work may be planned and executed. A regular routine of milking, feeding and cleaning the barn saves steps and time and adds to the effi-

PREVENT DEATH AMONG CALVES

Caffatone—the Dairyman's preventative and remedy for scours, positively stops scours in calves and colts inside of 3 hours without binding. Caffatone is harmless—given to weak and delicate animals. Many calves are born with scours. Protect yourself now—have Caffatone on hand—often there is no time to get Caffatone after scours is discovered although we send immediately by parcel post. Caffatone keeps indefinitely—packed in gelatine capsules—15 tablets to box together with full directions. Results are guaranteed—Caffatone given widest endorsement by many users. Money back guarantee card accompanies all orders—tear out advertisement, use name of druggist—Pin $1.00 bill to letter. Protect your calves by mailing order today.
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Flies rob farmers of over $90,000,000.
You are losing money every day you neglect spraying your stock with SHOO FLY. Guaranteed to KEEP OFF flies and many other insects. Aids in healing sores, allaying itching and preventing infection. Excellent for galls, also lice and mites in poultry houses. Used and endorsed since 1885. Costs less than ½c per animal per day.
Shoo-Fly
$1 TRIAL OFFER If your dealer can't supply you we'll send enough to protect 6 cows 30 days, also 3-tube sprayer. Name exp. office. Special terms to agents.
Shoo-Fly Mfg. Co.
1314 North 10th St. Philadelphia
COWS GIVE 1/3 MORE MILK WHEN NOT DISTURBED BY FLIES

ciency and to the profit. Under a system well planned no part of the work is likely to be neglected or forgotten as often happens where there is no plan or organization.

Judgment and reason constitute the best guide in revising the work of the dairy and farm. Many of the most prominent and successful dairymen prefer to do the milking in the morning before the feeding is done or before the stalls are cleaned. Under this method the cows are more quiet and there is less dust than if the grain and hay had been fed before milking. Furthermore, the possibility of the odor of silage or other succulent feed getting into the milk is entirely prevented. For the same reason there will usually be less dust and cont mination if the litter is not disturbed until after the milking has been done.

System has its place in herd improvement. The greatest breeders and improvers of live stock have planned their work and have everlastingly followed methods which they had carefully outlined. Persistent use of the Babcock tester is necessary if a dairyman is to determine with accuracy which cows are to be retained in the herd and if he is to determine which cows are most desirable as breeders. Systematic work in this will eliminate the unprofitable cows and will enable a man to retain only the ones that are profitable. Herds have doubled their production as a result of testing for a few years. In one community production was increased 100 pounds of butterfat per year by the application of the results secured through a cow-testing association.

In feeding operations splendid results are secured from systematic practices. The most carefully planned farms are carrying more cows for a given area than are the farms where there is no regular plan followed. By careful planning a man is enabled to have a perfect balance of everything.

Rice Lake-Cedar Lake Association

To the Editor:—In March there were 670 cows under test in our association of which twenty-three produced more than forty pounds of fat, eleven produced more than fifty pounds, four produced over sixty pounds and one produced 88.75 pounds. A registered Guernsey owned by F. D. Stout, of Long Pine Farm, produced 1,742.2 pounds of milk and 88.75 pounds of butter fat. The high-grade cow was also a Guernsey owned by Stout's Cedarlake Farm. She produced 1,144.6 pounds of milk of 5.9 of test, making 67.5 pounds of butter fat. The March forty-five-pound list is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Stout's Cedar Lake Farms					
No. 14, G. G...	4	Jan.	1343.7	3.95	53.8
No. 16, G. G...	4	Dec.	1129.0	4.3	48.55
No. 19, G. G..	4	Jan.	1144.6	5.9	67.5
Ed Kringle					
Sarah, G. H...	6	Dec.	1404.3	3.5	49.15
Ed Yager					
Florence M. D. K., P. B. H.....	7	Mar.	1494.2	3.8	56.78
Jacob Svacina, Jr.					
No. 6, G. H....	7	Feb.	1255.5	3.6	45.20
No. 7, G. H...	7	Dec.	1419.8	3.4	48.27
A. M. Chrislaw					
Belle B. of C. V., P. B. H.....	4	Jan.	1435.3	3.5	50.24
Maid W. D. J., P. B. H.....	6	Dec.	1391.9	3.6	50.11
Lone Pine Farm					
Langwater Charity, P. B. G.....	5	Feb.	1742.2	5.1	88.75
Imp. Daisy D., P. B. G.....11		Feb.	1329.9	4.7	62.51
Imp. P. Red Rose, P. B. G.....	9	May	840.1	5.8	48.73
Delight of L. P., P. B. G.....	4	Nov.	1054.0	5.5	57.97
Surprise of L. P., P. B. G.....	5	Dec.	936.2	5.6	52.43
Imp. B. De C., P. B. G.....11		Jan.	1004.4	5.8	58.26
Lady Enid of L. P. P. B. G.....	4	Feb.	1264.8	5.3	67.03

Fred J. Waldman,
Official Tester, Rice Lake-Cedar Lake Cow-Testing Association.

Stratford Association.

To the Editor:—Our forty-five-pound list for the month ending April 30th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Garrett Hughes					
No. 7, R. H.	5	1-14-17	1473.9	3.4	50.1
Luna, R. H.	6	2-10-17	1527.8	3.47	53.0
Art A. Arnold					
No. 5, N....10		3-24-17	1156.2	4.5	52.0
Wm. Schneider					
Spot, G. H..	6	3-5-17	1370.1	3.8	52.1
Nell, G. H..	6	2-20-17	1374.4	3.6	49.5
Susie, G. H.	8	3-3-17	1644.0	2.9	47.7
Geo. W. Bargabos					
Maud, N. ..	5	3-8-17	1243.1	4.2	51.2
Blue Bell, N.	7	1-27-17	902.1	5.2	46.9
Chrouser Bros.					
No. 25, G. H.	3	11-24-16	1076.3	4.2	45.2

Harry Johnson, Official Tester.
James L. Chrouser, Secretary.

Westby Association.

To the Editor:—The Westby Cow-Testing Association had thirty-five cows on its list which produced forty pounds of butter fat or 850 pounds milk for the month of March. Many of the farmers ran short of feed the latter part of the month. Following is the forty-five-pound list for the month:

Owner and breed	Age	When fresh	Lbs. milk	Lbs. B. fat
Melvin Staplien				
Gr. Guern.....	3	2-28-17	968	46.5
J. T. Anderson				
Gr. Guern.....	7	2-1-17	1029	46.3
Melvin Dahlen				
Gr. Guern....			895	51.9
C. O. Olson				
Gr. Hol.	4		1396	46.1
Vernon Co. Alms Farm				
Gr. Hol.		2-9-17	1253	48.9
Hugh Buchanan				
Reg. Jersey...	5	2-10-17	1127	60.9
Reg. Jersey...	5	12-13-16	872	45.3
Reg. Jersey...	4	2-27-17	1010	47.5

Ross N. Root, Tester.

Geneva Association.

To the Editor:—My experience with feed shortage the past winter has been quite extended. A number of members of the Geneva Cow-Testing Association bought feed last July to last them, but some of them did not buy quite enough and a few of them did not buy at all. Some of our members did not feel that they could afford to feed grain at the present high prices, and consequently the profits of some of our members is small. I bought six carloads last July, but have not made any purchases since. We got two cars of bran, two of oil meal and one each of brewers' grain and middlings. Those who have realized that it is necessary to feed have since been buying anything they could get hold of. Feed prices change so that I am not personally very favorably impressed with prepared rations. We cannot always tell by what we get in one shipment what we are going to get in the next batch. The following is our forty-five-pound list for the month ending March 31st:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
A. G. Palmer & Sons					
M. W. Girl, R.H.	4	2-4-17	1597	3.7	59.1
Beauty, R. H..	9	11-27-16	1748	3.0	52.4
Jessie, R. H...	2	2-7-17	1314	3.8	49.9
Shadie, R. H..	2	1-26-17	1311	3.7	48.5
Mary, G. H...	5	11-23-16	1661	2.9	48.2
Queen M., R.H.	3	12-27-16	1497	3.2	47.9
W. E. Palmer					
Windsor, R.H.	4	3-3-17	1615	3.4	54.9
Queen, R. H...	4	11-12-16	1721	3.1	53.4
Burke, R. H...	2	1-26-17	1386	3.5	48.5
I. W. Baker					
Kate, G. G....	8	2-11-17	1144	4.7	53.8
Daisy, G. J...	3	1-25-17	1113	4.3	47.9
J. H. Henderson					
B. 85, G .H...	5	1-25-17	1361	3.9	53.1
Dallas Davis					
Edith, G. H...	7	2-16-17	1404	3.7	51.9
Ora P. Taylor					
Erma, R. J....	4	11-6-16	797	6.5	51.7
Frank Webster					
Lucy, G. D....	5	2-23-71	1147	4.5	51.6
Burton Fairchild					
Queen, G. H...	5	1-1-17	927	5.4	50.1
Topsy No. 1, G. D.	8	2-7-17	1370	3.4	46.6
Edga, G. D....	9	3-2-17	1166	3.9	45.5
S. B. Fish					
Spot, G. D. ...	7	2-20-17	1401	3.5	49.0
M. C. Flack & Son					
Guernsey, G.G.	6	3-1-17	1054	4.4	46.4
Murton Petrie					
Belle, R. H...	6	12-22-16	1445	3.2	46.2
John Matteson					
Susan, G. H...	5	2-4-17	1215	3.8	46.2

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.

Reedsburg Association.

To the Editor:—The list of forty-five-pound cows in the Reedsburg Association for the month ending May 10th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent B. fat	Pounds of fat
W. J. Hahn					
Jossie, G. H.....	8	11-7	1161	4.0	46.4
J. A. Carroll					
No. 8, G. H.....	9		1251	4.0	50.04
Percy Alexander					
No. 20, G. J.....	6		894	5.6	50.06
Fred Hilmer					
No. 1, G. H.....		4	1575	3.4	53.6
Albert Gluth					
Blackie, R. P....	7	4-12	1020	4.6	46.9
Edgar A. Wood					
Blossom, G. H..	7	11	1395	4.2	55.8
Amy, G. H.....	7	11	1275	4.2	53.6
Kirkpatrick Bros.					
Helena, R. H....	7	3-6	1410	4.6	64.7

Wallace J. Cummins, Official Tester.
E. H. Koenecke, Secretary.

Kewaunee Association.

To the Editor:—The list of forty-five-pound cows for the Kewaunee Association for the month ending March 31st follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Matt Cherveney					
Betty, G. H...	6	11-11-16	1221	4.5	54.9
H. Kassner & Son					
No. 4, G. H...	7	1-5-17	1367	4.0	54.7
No. 10, G. H..	5	12-12-16	1047	4.4	46.1
J. P. Duerst					
No. 1, G. G....10		1-16-17	1138	4.5	51.2
Chas. Olson					
Topsy, G. J...	8	12-26-16	1079	4.7	50.7
Blacky, G. J..	8	2-9-17	1047	4.6	48.1
Geo. Ericksen					
No. 11, G. H...	8	1-6-17	1216	4.1	49.9
Aug. Tesch					
Ebony, G. H..	5	1-28-17	1166	4.1	47.8
E. Seidenglanz					
Susie, G. H...	3	1-8-17	1187	4.0	47.8
Wm. Katel					
No. 9, G. H...	6	2-2-17	1425	3.3	46.8
Wm. Koehler					
No. 5, G. H...	3	1-8-17	1081	4.3	46.8
Wenzel Cherveney					
Bessie, G. H...	8	12-15-16	1269	3.6	45.2

Edward Hoefs, Official Tester.
Geo. Ericksen, Secretary.

ADVERTISEMENT.

Finds Cream Separator Profitable

Letter From J. W. Barclay, Wamego, Kansas.

When four cream separators all of the same make are sold in a family it is pretty good evidence that this kind of a machine is giving satisfaction, is built from the best kind of material and designed right and sold at the right price. Here is what Mr. Barclay says:

"Dear Sirs:—I received the No. 9 Galloway Sanitary separator a week ago today. Everything in good condition except the tank has two small dents in it, but they are so small it would not pay to return it at all. I like the machine just fine so far.

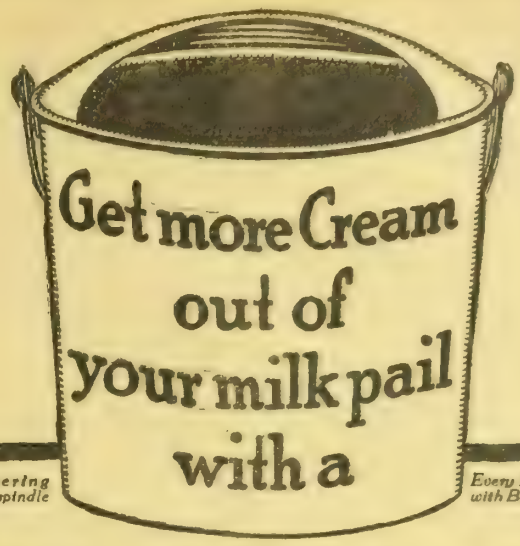
"I have good reason to know why the Galloway separator is all right, this being the fourth machine in the Barclay family, so you see I knew just what I was doing when I ordered a machine from you.

"If I had ordered my machine a little sooner and had got the coöperation cards, as I already have now, then I might have sold one of your machines to a neighbor of mine. He went to a dealer and purchased a 750 lb. capacity called (Mr. Barclay mentions high-priced machine not widely advertised) and paid $85 for it.

"Well I guess I have told you enough for once, so I will close.

Your friend, J. W. Barclay."

The manufacturer of this fine separator, William Galloway, Waterloo, Iowa, president of the William Galloway Company, will be glad to send you one of his 1917 books about cream separators if you will drop him a postal card asking for it and mentioning this paper. He builds the Galloway sanitary cream separator in his own chain of factories at Waterloo and sells them direct from factory to farm at one small profit. That is why so many of his customers say they saved from $25 to $50 and sometimes even more in buying a high-class cream separator.



Has self-centering bowl; detached spindle

Every De Laval equipped with Bell Speed-Indicator

NEW DE LAVAL
CREAM SEPARATOR

THESE are the days when you are getting *more milk in the pail,* and with butter-fat at its present high price you want to be dead sure that you are getting *all the cream out of the pail.*

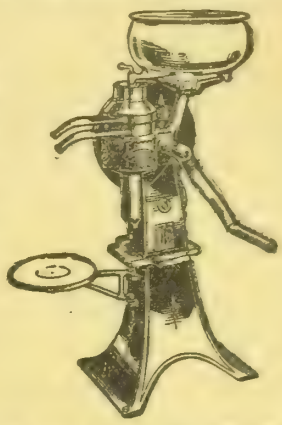
You certainly can't afford to feed butter-fat to the calves and pigs at from 30 to 40 cents a pound.

All sorts of *"claims"* are made for various cream separators, but what you are looking for is *"proof."*

Here is the most convincing kind of proof that the De Laval is the cleanest skimming machine:

Fifteen years ago there were a dozen different makes of creamery or factory separators in use.

Today the creamerymen and large milk plants the world over use the De Laval almost exclusively. In fact, it's hard to find a large cream producer or creameryman who will allow any separator other than a De Laval in his plant, no matter what the price.



Why? Because they have found that it makes a difference of several thousand dollars a year to them whether a De Laval or some other make of machine is used. They simply can't afford to use any other machine.

This is proof of De Laval closer skimming that you can't afford to ignore. Even if you don't separate as much cream as the creameryman, you can't afford to waste it any more than he can.

Your local De Laval agent will be glad to let you try out a New De Laval on your own place. If you don't know the local agent, write to our nearest office for catalog or other information.

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25 CENTS
Calf Rennets
We pay 25c for salted Rennets from milk-fed calves if handled according to directions. The Marschall Dairy Laboratory, Madison, Wis.

Weather Continues Favorable.

Farm Work Well Advanced, but Crops Growing Slowly—Pastures Are Short—Prospect for Fruit Is Favorable.

MINNESOTA.

Brown County.—Last week was dry and the farmers were able to finish seeding. Early potatoes and gardens are planted, but the weather continues cool with frosts every night. Pastures are bare and a number of farmers are out of feed. Considerable baled hay has been shipped out of this county and it is selling at $16 a ton. If the weather is favorable a larger acreage of corn and potatoes will be put in this year than last. Considerable building is under way; many silos are being put up and a number of farms are being remodeled. Labor is very scarce.—S. J. Shannon.

Crawford County.—Weather has been very cold and crops are not growing well. Oats and other spring grains are up. Rye looks fairly well, but seems to be shooting up rather straight and not stooling as it should. Meadows and pastures look well, but are late. However, some farmers already have cattle on pasture. Vegetables are coming up and fruit trees are beginning to shoot leaves. Strawberries are beginning to bud. The hay crop is about normal. Everybody seems to bear in mind that it is their duty to raise as large crops as possible.—H. H. Stuckey.

Door County.—Farmers are practically through seeding oats, peas and barley. The season is backward. Farmers are trying to increase the acreage of grain. The acreage of corn and beans will be increased as much as possible. Prospects for fruit are very good, especially for cherries. Fruit growers are applying the lime sulphur spray at this time.—L. E. Birmingham.

Douglas County.—This section needs rain badly. Pastures are slow and there will be an increase in the acreage of small grain and potatoes. Because of the cold spring not much corn has been planted. The county has agreed to guarantee the expenditure of $5,000 to buy seed for farmers who are not able to buy their own. Everyone seems awake to the present crisis and with true American spirit are trying to do their share.—B. N. Stone.

Dunn County.—Small grains are coming up. Wheat and rye look fine. Pastures are fair, but late. Potatoes and corn are being planted, but because of scarcity of feed, the potato acreage will not be as large as usual. Hay crops look well, but are still short We have had a long dry spell, but there has been no serious damage so far. Cattle still show the effects of winter; colts are making a good record. Pigs are fine.—James A. Smith.

Florence County.—The farmers are just beginning to do their seeding. Very little winter wheat was raised in this part of the county. Farmers are putting in oats and barley mostly. Farmers are figuring on raising a lot of potatoes this year if the weather permits. The season is very backward. Pasture is short.—Phil Kelmes.

Iowa County.—The season is ten days late. Heavy frosts at night and cold raw winds in the daytime have delayed vegetation. Some grain is up. Pastures are far below normal, but a rain with warmer weather following it would put them in good shape. The hog crop is about 90 per cent normal since a number of small pigs were lost on account of cold weather. Cattle are in fine shape and the milk flow is good. Iowa county has increased the acreage of wheat about 200 per cent, while other grains, potatoes, and gardens show an increase of at least 10 per cent over the general average.—Art. G. Hoskins.

Jackson County.—Grain crops, clover and meadows are in good condition, but need rain and warmer weather. Most of the live stock have been turned out to pasture, but they are getting short picking. It is too cold for meadows to grow very much. The corn and small grain area will be greater in our section this year than last and the increase estimated is about 15 or 20 per cent.—C. S. Ristow.

Juneau County.—Weather is cold and dry. However, some small grain has drowned out in the low places. Farmers are getting ready for corn and potatoes, but because of the cold weather they are slow in planting. Pastures and meadows are making slow progress on account of the weather. Most of the stock have been turned out on pasture. Hay is very short. The pig crop looks rather light.—O. W. Hale.

Lafayette County.—Small grains are at a standstill because of cold weather. Pastures are poor. Farmers are short of dry feed and have turned cattle on to the new seeding to give the pastures a chance. Some ground has been planted, but considerable plowing is yet to be done and several farmers are waiting for warmer weather. The acreage of small grain and corn will be about normal. About the usual number of live stock are being saved except that there will be fewer calves. The high price of provisions and scarcity of foodstuffs are causing an increased number of gardens this year. Because of the scarcity of help it is impossible for the farmers to increase their acreage much.—W. F. Pease.

Langlade County.—Weather is still cold, but most of seeding has been done. More spring wheat was sown than usual. The acreage of potatoes will not be greater than normal because seed is very hard to get. Many farmers are planning on plowing up old pasture and putting in rutabagas. The season was very cold for young stock and what is saved is below normal. Live stock are still eating dry feed. Pastures have not turned green yet.—Chas. Parsons.

Marquette County.—Weather is dry and windy with slight frosts nearly every night. Rye wintered fine, but has made very little growth lately and it is not stooling on account of dry weather. Rain is needed. Oats are backward. Clover and timothy have a fine stand, but no growth yet. Wild pasture is short and hay very scarce and high priced. Calves and lambs are doing unusually well, but brood sows are not doing well and the percentage of pigs is small. Live stock are healthy. Cows are scarce and there is not much young stock. Everyone is trying to put in as large a crop as possible, but help is very scarce. The potato acreage will be about as usual. Corn ground is nearly ready for planting; some farmers have planted already.—J. M. Williams.

Oneida County.—Dry weather last week enabled the farmers to make rapid progress with seeding, which is now practically completed. Most farmers are sowing from one to four acres of wheat and some barley and buckwheat are being sown besides the usual acreage of oats. Farmers are getting their potato ground in shape. As much corn will be planted as it is possible to care for. Warm rain is needed to bring up the pastures. Live stock are on dry feed but look well. Farmers are planning to plant a large area of vegetables. The clover seeding came through the winter in fine shape Butter fat is worth 40 cents; milk, 8 cents a quart; eggs, 30 cents a dozen, and hay, from $13 to $17 a ton.—F. S. Campbell.

Pierce County.—Weather has been cold and dry with only a few warm days. Pastures are short. Clover and rye are good. Fruit blossoms have not started yet, so they will probably be free from frost. Spring grain is growing slowly. Corn planting is about half done. Hay is scarce and selling at about $18 a ton. The farmer can always be depended upon to do his full share towards feeding the world and he will be equal to the task this year if the weather conditions are favorable. He will keep right on working sixteen hours a day. He never was known to go on a strike, no matter what the hours or the pay, and there is no need to fear that he will quit now.—G. K. Moore.

Price County.—Season is late, cool, and dry. The seeding of small grain has commenced. Meadows are in fair condition, but need warmer weather and rain. Pastures are short. Live stock are in fair condition. The percentage of young stock saved is about normal. There will be an increase in the acreage of potatoes. Some forest fires have started up within the last few days.—C. F. Glisendorf.

Rock County.—Weather is still cool and dry. Grain is very backward. Meadows look good, but are slow. Small grain is coming up nicely. The ground is too cool to plant corn. Potato planting is progressing, but the scarcity of seed is keeping down the acreage. Seed is selling at from $2.50 to $4 a bushel. Cattle are thin because of the extremely hard winter and backward spring. Horses came through the spring work in good shape.—P. F. Amery.

Rusk County.—Spring is backward and seeding is progressing slowly. Although some farmers have turned stock out to pasture, the grass is still short and backward. The new seeding looks very well and very little of it winter-killed. Cattle are in average condition for this time of year, but the hard winter and high price of feed show their effect on some herds. From all indications a large acreage of potatoes will be planted.—T. M. Thomas.

Taylor County.—Rye and clover came through the winter in good shape, but are not making much headway on account of cold weather. A warm rain is needed badly. Seeding of small grains is nearly done and the acreage will be about the same as last year. People in this vicinity will plant more potatoes than usual if they can secure the seed. Seed potatoes are worth from $2.50 to $3 a bushel. Live stock are rather thin on account of the shortage of hay. Not many cattle are being sold except calves and they are being picked up in this vicinity by buyers for the Chicago market. Hogs are scarce and pigs are selling at from $12 to $15 a pair. It is reported that a farmer west of Medford lost about eighteen head of cattle on account of tuberculosis.—J. C. Hoffman.

Washburn County.—Spring is backward and nights are cold. Vegetation has made little growth. Oats have been sown and some are coming up. Farmers are plowing for corn and potatoes. The ground is in excellent condition, but rain is needed. Winter rye is thin in some cases because it was frozen out. The acreage of spring wheat has been increased this year. Hay and grain are scarce and high in price. The percentage of spring pigs saved is below average. Many new settlers are coming into the county and improving wild land.—L. D. Garnhart.

Washington County.—Clover and fall grains came through the winter in good shape. Some of the early seeding is backward. The stand is missing on about one-third of the wet places. The weather has been too cool up to the present, which makes meadows very poor. About half of the late potatoes are planted. There is no corn in this section. Most of the live stock wintered well, but many farmers are now getting short of feed. Farmers in this vicinity are trying to produce the largest amount of foodstuffs possible. Fully a third more spring wheat was sown this year than usual.—M. P. Salter.

Wood County.—Weather is dry and crops are growing slowly. Rye looks fine. Farmers are planting corn. Pastures and meadows are very backward. Apple trees are beginning to bloom. All live stock are doing well and their number is about normal. A case of contagious abortion has been reported recently. Corn and small grain will be normal. The farmers are planting as many potatoes as possible.—Fred E. Weber.

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The Government this year is asking farmers to put increased acreage into grain. There is now a great demand for farm laborers to replace the many young men who have volunteered for service in the war. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature as to reduced railway rates to Supt. of Immigration, Ottawa, Canada, or to

GEORGE A HALL,
123 Second St., Milwaukee, Wis.
Canadian Government Agent.

Upper Wisconsin.

How to Handle Soy Beans.

Soy beans may be planted from one to two or even three weeks after corn planting. Prof. R. A. Moore and Prof. E. J. Delwiche in their exhaustive bulletin on the subject of soy beans say that good crops of hay can be grown from planting as late as June 15th to July 1st. Soy beans are valuable as a legume crop for the light, sandy soils of Wisconsin, especially the Jack Pine lands and the scrub oak plains. On account of its resistance to drouth and heat the soy bean may be grown on soils and in seasons in which clover might fail. In 1910 soy beans planted on freshly broken lands at the Spooner branch station, June 8th, gave a yield per acre of 2,500 pounds of hay of the Ito San variety and 1,600 pounds of hay of the Early Brown variety. In another experiment at the Crivitz station Early Black soy beans produced a ton and a half of hay on newly broken Jack Pine land. In addition there was 15.5 bushels of seed per acre. Soy beans may be grown profitably for seed in sections of the state where there is a long growing season. To secure the best results on ground where soy beans have not been grown the soil should be inoculated with the proper bacteria. Professor Moore says:

From experiments conducted throughout the state it has been found that when soy beans are grown on land for the first time, unless the seed or soil has been properly inoculated with nitrogen-fixing bacteria, few if any nodules wll develop on the roots. There seems to be a limited number of bacteria in the soil, however, and if soy beans are grown a second year on the same field a few plants will be found with nodules on the roots. The third year the bacteria will have increased to such an extent and be so well distributed throughout the field that nodules will develop plentifully and without artificial inoculation. On rich soils no difference has been shown between inoculated and uninoculated plots. It is evident, however, that even though the plants grown on uninoculated soils may be vigorous, they do not secure the nitrogen from the air, thus enriching the soil, but draw it from the soil, just as do non-leguminous crops, such as corn, oats, etc. On poor, sandy soil inoculation produces the better crop.

Several cultures for inoculating soy bean seed, previous to seeding, are on the market. Experiments carried on at the station during the past ten years show that soil inoculation is more certain in its results than the use of commercial cultures. If the grower desires to try such cultures, they may be obtained free of charge from the United States Department of Agriculture, Washington, D. C.

The best results have been secured when bacteria-laden soil was used for inoculation. It may be distributed by various methods. The seed may be merely dampened and mixed with the soy bean soil, and the mixture sown with a drill. A sack of soil is sufficient to inoculate two acres or more of land. A better method is to distribute at the time of planting, the inoculated soil in the rows as the soy beans are planted. This is done by means of a fertilizer attachment on the drill. Provided much inoculated soil is available, results can be hastened by broadcasting from 500 to 1,000 pounds of the soil per acre.

It should be remembered that sunlight kills the legume bacteria. The soil for inoculation, therefore, should not be exposed to bright sunlight, and if it is broadcasted on the field, it should be harrowed in immediately, and a cloudy day or early morning should be chosen for the operation.

The ground for soy beans should be prepared in the same manner as for corn or other cultivated crops. The soy bean, like other crops, responds to barnyard manure, but the addition of manure is not so essential, since the plant is able to get its nitrogen largely from the air. The clay lands should be plowed in the fall and in the spring disked, harrowed and made smooth by the drag and planker. For light, sandy soils spring plowing is preferable. If the soil is loose, it is advisable to compact with the roller. On clay and sandy loam soils both spring and fall plowing are equally satisfactory.

Soy beans may be planted with drills, the ordinary garden drill being sufficient for the small patch. For the large fields use the machine drill. One-third to a half bushel of seed per acre is required. When planted in drills for hay one-half to two-thirds of a bushel should be used per acre. Place the rows eighteen to twenty-four inches apart. Plant one to two inches on heavy soils and somewhat deeper on lighter soils.

In Sawyer County.

To the Editor:—We expect to have plenty of help to operate the farms in this county this year, but there will not be any to spare to send outside. We will do a considerable amount of land clearing in this county this year. We are working hard on the food preparedness campaign and featuring the garden project among the town people and we will undoubtedly have an increased acreage of potatoes among the farmers of this county. C. P. West,
County Agent, Sawyer County.

Ask your neighbor to subscribe for The Wisconsin Farmer.

WANTED CANADA LAND

WOULD like to correspond with parties who own good Canadian land, 320 acres or more, clear or nearly clear, to exchange for Iowa or Southern Minnesota corn belt farms.
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FARM WANTED. Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Increasing Poultry Products in the United States.

The statement made at the recent agricultural conference at St. Louis that the poultry products of the United States could be doubled within a year means that if everybody in a position to help did their part 600 million dollars' worth of food would be added to our supply this year.

This includes both meat for the table and eggs. Very few farmers practice a systematic plan of disposing of their fowls after they have ceased to be productive, although it is well known that fowls of the heavier breeds, such as the Plymouth Rocks, cease to produce a profitable number of eggs at the end of their second laying year, and that this holds true of the lighter breeds, such as the Leghorns, at the end of their third laying year. Consequently, if efforts were made to dispose of all females when their best laying days were over a large quantity of poultry meat would be placed on the market. All poorly developed chickens should likewise be culled out and used as meat. This way of disposing of unprofitable fowls would allow the farmer to feed his grain to younger and more productive fowls.

Caponizing the cockerels that are not intended for breeding purposes will not only increase their size but will place a more desirable poultry meat on the market. Another practice that should be adopted more widely is that of fattening all chickens that are to be marketed before they leave the farm. This can be done easily by confining the birds for a week or ten days and feeding them a good fattening ration. They will come to market then in better condition and the farmer will receive a profit for their added weight.

The greater production of turkeys, ducks, geese and guineas, all of which can be profitably raised and a ready market found in most sections, would increase the supply of poultry meat considerably. The production of ducks especially should be emphasized at this time, because of the rapidity with which they grow. Ducks of most of the meat breeds, properly fed and managed, frequently weigh from five to six pounds at ten weeks of age. It is estimated by poultrymen making a specialty of growing ducks that the feed cost per pound of producing duck meat ranges from 8 cents to 12 cents, depending upon the current prices of grain and other feeds.

The number of marketable eggs can be increased by following a few practical suggestions. Among the most important of these are the production of the infertile egg after the breeding season is over, and the proper handling of eggs by the farmer before sending them to market. The infertile egg is obtained when all male birds are removed from the flock. This does not decrease the number of eggs produced, but it does increase greatly their keeping qualities. The production of the infertile egg and the proper handling and marketing of eggs by the producer would increase tremendously the number of marketable eggs each year by diminishing the quantity that are rendered unfit for food. An increased production of duck eggs is advisable where available markets are found.

The poultry house should be clean and sanitary and the fowls free from insect pests, thereby preventing disease and mortality. It is estimated that nearly $9,000,000 worth of poultry is lost each year through disease alone. Special attention should be given to the feeding and housing of laying fowls at seasons of the year when their natural source of food supply is cut off.

The maturity of fowls hatched late can be greatly increased if the mother hens are confined until the chicks are weaned. In this way feed that is furnished the chicks produces growth, instead of energy to follow the mother. Extra precautions should be taken in the late spring and early summer to keep the young birds free from lice and disease, both of which cause thousands to die every year. More general use of the incubator and brooder will increase considerably the output of chickens, and consequently the number of layers the following year.

The United States Department of Agriculture and the several state agricultural colleges will be glad to supply helpful information to anyone interested in raising poultry on a large or small scale.

Breed Them True in Color.

To the Editor:—I have been criticised to a certain extent for the way I expressed myself in my previous article, "Don'ts and Whys." Regardless of your criticism, I am still ready to argue the good of producing color improvements in all varieties of pure-bred poultry. What would you think of a pure-bred Duroc Jersey that had black or white spots, or a Chester White with red spots? You might say hogs are different. But that is a poor argument for a poultryman to make. If we can't breed pure-bred varieties true to standard colors we might just as well go back to the ever-setting, non-laying dunghills that are losing their popularity steadily.

Wise people are beginning to realize the difference between pure-bred stock and scrubs.

As I promised in my previous article to write on parti-colored breeds, I will do so now. First, I will write of the Silver Laced Wyandotte, supposed to be the oldest of Wyandottes. Don't breed from birds that are single combed, or from males that are extremely brassy on top or that have white under color—slate is right. The hackle and saddle should be of silver color, each feather having a distinct black center. Breast should be very well laced and free from frosting on tips of feathers. The tail should be black and not carried too high, the legs yellow and free from stubs. Earlobes should be red. The females should not be too dark, neck laced same as male, balance of body well laced throughout, legs and earlobes same as male.

The Golden Laced Wyandotte is the same as the Silver Laced except where the Silver have white or silver the Golden have a dark golden color. The type is the same as all other Wyandottes.

The Partridge Wyandotte is the beauty breed. Don't breed from males with white undercolor in hackle or saddle or from those that have white feathers in any section. Look out for purple barring on black feathers in wings and breast. Keep centers of feathers in males' back and neck a nice black edged all the way around with a rich cherry color. Breed females with mossy backs or irregular penciling to males that are very clearly laced in black. This is a great improvement. The legs should be yellow or dusky yellow. The earlobes should be red.

Partridge Rocks are the same as Wyandottes except that they are single combed, a little higher on legs and longer in the body.

Silver penciled varieties are the same as Partridge only silver where mahogany and cherry in Partridge. Keep undercolor slate and backs distinctly penciled.

In black varieties don't breed from birds with purple barring or slate colored. The rich greenish black is standard. They should be absolutely free from white, red or buff undercolor, always the darkest. Keep the flock uniform—you will profit by it.

Poultry Judge.

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POULTRY AND PET STOCK.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

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BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS; S. C. Reds, prize-winners all leading shows. Eggs 1.50, 15; 8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

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BADGER POULTRY FARM—Pure-bred S. C. White Leghorn eggs: $1.25 per 15 or $5, 100. Chas. F. Kreger, R. 3, Box 36, Cambria, Wis.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs: $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

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THE FARMERS' MARKET

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THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

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POULTRY AND PET STOCK.

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BELDA'S Barred Rocks, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest, Wis.

FULL BLOOD female coach pups, $7. Eight weeks old. Order at once. Franklin Oswald, Bagley, Wis.

DARK Single Comb Reds, 15 eggs, $1.25; 30, $2.25, postpaid. Chris Miller, Plainfield, Wis.

WHITE WYANDOTTE EGGS, $1.00 for 15 postpaid. L. T. Solchenberger, Union Center, Wis.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

PURE-Bred White Rocks. Address "Kremers", Whitehall, Wisconsin.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

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WANTED—Position as superintendent of dairy, fruit or stock farm; graduate veterinarian, expert horticulturist; understand all branches of farming; best of references; correspondence solicited. Address Box 484, Washburn, Wis.

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HAVE YOU ANY EMPTY FEED BAGS to sell? Advise how many you have. We will quote you highest prices. Write today. Springfield Bag & Burlap Co., Dept. 5, Springfield, Ill.

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CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In the past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley, never below third; never below seventh in rye and oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write AT ONCE, for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Building, Minneapolis, Minn.

TO HELP INCREASE the country's volume of grains and other food products I am offering to sell about 5,000 acres choice agricultural lands near the cities of Superior and Duluth in 40, 80 and 160-acre tracts at low prices and on five to ten years' time, without any payment whatever on principal for two years, to any one who will clear and cultivate a part of the land at once. For full particulars write to W. H. Webb, Superior, Wis.

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DON'T POSTPONE THAT TRIP to the cheap land districts of upper Wisconsin—it is important if you want some of the best cheap land in America. Write us for names of owners. Wisconsin Advancement Assn., 1590 First Nat. Bank Bldg., Milwaukee, Wis.

$300 CASH DOWN will handle this 40-acre stock farm, only 2½ miles town, 12 cleared, balance easily cleared; touches small lake, house, barn, chicken house, well. Price only $1,500. Terms. C. M. Melberg, Lewis, Polk county, Wisconsin.

LAND of clover, Rusk county, Wisconsin. Choice farms in rich, new dairy district, cleared and uncleared. Climate ideal. Rainfall abundant. Grasses luxuriant. Terms easy. Prices low. Folder free. Manning & Swaim, Ladysmith, Wisconsin.

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FOR SALE—Choice, well-located fruit ranches. Lake Shore drive, Berrien county. Address Schulz, St. Joseph, Mich.

IMPROVED FARMS, best of location, priced reasonable, easy terms. W. F. Ryan, New Richmond, Wis.

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MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

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SEED POTATOES—Fancy Northern Minnesota rural stock, free from scab and rot, sound and firm, about 100 bushels. For sale by Leonard Frank Company, St. Paul, Minn.

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GOLDEN Glow seed corn, kiln dried, 98% germination; $3 per bu. Order from producer. Get descriptions. Riley Martiny & Son, Baraboo, Wis.

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FARMERS wanted, $75 month; men and women; U. S. government jobs. War means hundreds vacancies. Common sense education sufficient. Write immediately for list positions now obtainable. Franklin Institute, Dept. C176, Rochester, N. Y.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Waste.

The women of the United States are being asked as a patriotic duty to avoid waste in their kitchens and to do their part toward conserving the food supply. They are being asked to use more whole wheat and more corn meal, to grow and can more vegetables and fruits than they have ever grown and canned before. The great majority are ready and willing to do this and Uncle Sam will find that the women are only too glad to do their share.

But do they all keep their eye on that conscienceless waster, the garbage pail? He is forever on hand, ready to receive the slice of bread that has become dry, the glass of milk or bit of meat or potato or butter that has been left from dinner, and the amount of food it takes to support that garbage pail is astounding.

There are 20,000,000 homes in this country of ours. Let us count the waste of those 20,000,000 home garbage pails. Suppose into each one of those pails just for one day went one good-sized slice of bread. That slice of bread contains about three-fourths of an ounce of flour, which makes for the 20,000,000 homes a total of over 14,000,000 ounces of flour—over 875,000 pounds, or enough flour for over a million one-pound loaves of bread a day—365,000,000 loaves in a year.

Suppose the cook in each of these 20,000,000 homes allows only half a cup of milk to go to waste for one day. What would that mean? It would mean 2,500,000 quarts of milk a day thrown in the garbage pail, and in a year it would mean a waste of 912,500,000 quarts—the product of more than 400,000 cows.

Again, suppose that each household wastes for a day only one ounce of edible meat or fat. That means a daily waste of 1,250,000 pounds of animal food. A year of such waste would mean the loss of 456,000,000 pounds of valuable animal food.

And butter? One quarter of an ounce a day scraped off into the garbage pail in each of these 20,000,000 homes would mean the loss of 312,500 pounds. In a year it would mean a loss of 114,062,500 pounds.

Of course, this amount of food may not be wasted in all these homes every day, but even if we count one small slice of bread a week, one-half cup of milk, one ounce of meat or butter a week for each home, still the waste is appalling. The world is short of food, prices in our own country are high and millions across the seas are hungry. The government is asking the women to help and here is their chance. What could be done with a million loaves of bread, 2,500,000 quarts of milk, 1,250,000 pounds of meat and 312,500 pounds of butter in one day? Does it pay to watch the garbage pail?

Best Ways of Treating Old Soft Wood Floors.

Old floors of soft wood should receive special treatment. Dressing used for hard wood should not be applied, points out W. H. Ball, assistant in woodwork in the Kansas State Agricultural College.

"Raw linseed oil is the most satisfactory dressing for kitchen, bath and dining room floors," said Mr. Ball. "It has no affinity for water and is more nearly waterproof than any other oil.

"Clean the floor thoroughly. If it has been painted, a good paint remover should be used. Heat the oil to not to exceed 180 degrees, and after removing from the fire add a little turpentine—not more than 5 per cent. This will cause the oil to penetrate into the wood more readily and will improve the wearing qualities. A coat of good floor wax may be applied over the oil if a polish is desired, and rubbed with a woolen cloth or weighted floor mop. This makes it easier to dust or sweep the floor."

If a dark color is desired Van Dyke brown, burnt umber, or some other dark color may be added to the oil, although the oil itself tends to darken the floor. A common paint brush may be used to apply the oil, care being taken to spread it smoothly. Do not allow the oil to puddle, as it will dry on the surface and will peel off or produce glossy spots on the floor. One gallon of oil will cover from 500 to 700 square feet with one coat, depending upon the condition of the floor and the amount of wear. It is well to apply two coats in the beginning and renew with a coat once a year.

A common method of treating old floors in bad condition is to use a good floor paint after the floor has been cleaned. A dark color such as a brown, produced by burnt umber or such neutral colors as will harmonize with the color scheme of the room, should be used, in the opinion of Mr. Ball. It is not advisable to use a cheap varnish, as it is not permanent and will not pay in the long run.

If it is desired to bring out the grain of the wood the floor is stained the color chosen and then from two to three coats of good floor varnish is applied. Shellac is sometimes used for the first or priming coat, as the cost is from one-third to one-half that of varnish, but is not to be recommended for permanent results. In no case should shellac be used exclusively on the floor, as it has a tendency to scar and peel off.

Dandelions Fresh and Canned.

Now is the time to gather dandelions while they are young and tender. They are an important food plant because they contain mineral salts that are valuable to the body.

With a knife cut the dandelions close to the ground. The outside leaves, if old, may be discarded. Wash thoroughly but tenderly between the hands in three or four waters. Then drain either in wire basket or cheesecloth. Plunge them into boiling water and allow them to parboil about five minutes, then plunge into cold water. Remove and finish cooking in boiling water. This method will remove much of the bitter flavor.

If the dandelions are to be canned tie them in a large piece of cheesecloth, parboil and cold dip as for cooking. Then pack solidly into jars. If to be used for "greens" cut or chop, but if used for salad the leaves are not broken. Add one teaspoonful of salt to a quart jar, fill to overflowing with hot water, being careful not to break the glass. Adjust the rubber on the jar. If screw top jars are used fasten down the lids tightly, then turn back one-half turn to allow the steam to escape while cooking. If the E. Z. seal type of jar is used, adjust the top and wire, but do not snap the wire in place.

Put the jars in a boiler to which a false bottom has been fitted and fill the boiler up to the top of the shoulders of the jars with hot water, being careful not to break the glass. Cover the boiler, allow the dandelions to cook one hour from the time the water boils. Then remove, screw or clamp down the tops and cool quickly. As the jar cools it will be necessary to screw down the lid of the Mason jars.

The process must be repeated two days in succession. When recooking the lid of the jars must be loosened as on the first day.

The dandelions will keep if cooked for one and one-half hours on the first day, but this makes the flavor and color less agreeable.

If a steam pressure cooker is used the time required is one hour for one day at five pounds pressure.

When cooking for "greens" a slice of salt pork or bacon, or even bacon or ham rind may be added to the dandelions, and with pepper and salt, we have a delicious dish.

The light green color of the young, tender, fresh leaves makes them an attractive garnish and they may be used in any salad combination where lettuce is suitable. A combination of lettuce and dandelions and either boiled or oil dressing served with salted wafers, makes a delicious addition to any luncheon or dinner.

A good wilted dandelion salad is made as follows: Pour over the fresh, tender leaves a dressing made from one slice of bacon, one-fourth cup vinegar, one-fourth teaspoonful salt and one-eighth teaspoonful pepper.

Cut the bacon in small pieces, fry until crisp, add vinegar, pepper and salt to the hot fat and pour this over the dandelions. If vinegar is too strong a little water may be added.

Recipes.

Spice Cake.—One cupful sugar, one cupful sweet cream, two eggs, one teaspoonful each cloves, allspice, ginger and cinnamon, one teaspoonful baking powder, two cupfuls flour. Bake in a rather hot oven.—M. L.

Salmon Croquettes.—Drain one can of salmon as much as possible and then turn out on tissue paper to drain more thoroughly. Separate the fish into flakes. Make one cupful of white sauce with three tablespoonfuls butter, one-fourth cupful sifted flour, one-fourth teaspoonful each of salt and paprika and one teaspoonful lemon juice. Add the fish, spread on a plate and mix, breaking the fish as little as possible. When cold form into croquettes, roll in egg and bread crumbs, fry in deep fat.

Swiss Eggs.—Four eggs, one-half cupful milk, one-fourth cupful grated cheese, one teaspoonful fat, one teaspoonful salt, pepper. Heat milk and fat in baking dish, break in the eggs, sprinkle with salt and pepper. When nearly done add the cheese. Serve on toast. Strain the milk over the toast.

Apple Pudding.—Two cupfuls bread crumbs, one cupful sugar, two cupfuls chopped apples, one-half cupful butter, and a little nutmeg. Into a well-buttered pudding dish put a layer of the bread crumbs; then a layer of apples; sprinkle with sugar, bits of butter, and a grating of nutmeg; repeat until dish is full, having last layer buttered crumbs. Pour over all one cup water. Bake slowly forty-five minutes. Serve with cream.

Sirup Cake.—One-half cupful sugar, one-half cupful lard, one egg, one-half cupful sirup, one-half cupful sour or buttermilk, one-half teaspoonful cloves, one teaspoonful each cinnamon, nutmeg, salt and vanilla, one tablespoonful cocoa. This can be baked in loaf or layer.—Helen Edenharder.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

What Mother Does.

Dear Young Folks:—Here is a little story we wrote in school. It is about "Little Things My Mother Does for Me."

My mother washes and irons for me, mends my stockings and sews for me. My mother makes good things to eat and sings to me. She buys me lots of nice things and I love my mother more than anyone else in the world.

—Martha.

Picks Lots of Wild Flowers and Fruit.

Dear Young Folks:—I always like to read the letters which the little girls and boys write. This is my first letter.

I live in the country on a farm of 199 acres. My father also owns another farm up in South Dakota. I am fourteen years old and am in the seventh grade at school.

Now we have spring and we have lots of rain, so everything looks fresh and green. We have forty acres of wild forest. In the summer time I go out there and pick a lot of pretty flowers and ferns. I also pick raspberries, plums, grapes and chokecherries.

We have two dogs. One is a shepherd dog and the other a little pet dog whose name is Tricks. He can do many tricks, such as roll around, sit up on his hind legs, bark when he wants anything, and shake hands. He is brown and curly. He is getting old now. When he hears the thunder he is afraid and goes under the bed.

I can tat and crochet and cook, wash and bake and sew. I have four sisters and four brothers. Two of my sisters are married. I am the youngest of our family. I have four nieces and two nephews. We have a car and a piano and an organ.

I send my love to all the young folks and hope they will make our page better every week. —Lillian.

Saw Mother Coon With Six Little Babies

Dear Young Folks:—I have been reading your letters for a long time and enjoy them very much. I am twelve years old and in the eighth grade. I have been neither absent nor tardy this year and received a certificate and also a book from my teacher for getting the most head marks in spelling.

Our school was out the 24th of April and our teacher had a picnic in our neighbor's grove where there is a mother coon and her six little babies. They were the first I ever saw. I wonder if any of the other readers have ever seen a coon.

I live on a farm of 4,000 acres and I go three miles to school. I have one sister going to school, two sisters at home and one brother. I would rather live on the farm than in the city.

—Helen.

Would Fight With Grandpa.

Dear Young Folks:—I am a little boy three and a half years old, with brown eyes and hair. Mamma and I live with my grandpa. He is seventy-five years old and he has taught me all my letters. He tells me lots about the war, for he was a soldier. My Uncle Frank, is a soldier, too, and I have my flag, so if grandpa goes again he says I can go.

I like so much to hear your stories.

—Donald.

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See page 15. Read The Farmers' Market advertisements. There may be a bargain there for you.

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WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number an d size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also som e points for the needle. Address all orders for patterns and catalogs to WISCONSIN FARMER, Madison, Wisconsin.

Waist 2095-Skirt 2096—Just the thing for summer fabrics. Waist pattern 2095 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 2⅞ yards of 36-inch material for a 36-inch size. Skirt Pattern 2096 is also cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure, and requires 5¼ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

9821—Ladies' one-piece corset cover in round, square or "V" neck edge. Pattern is cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 1⅜ yards of 36-inch material for a medium size.

2082—One-piece dress for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5¾ yards of 44-inch material for an 18-year size.

1689—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 44-inch material for a 36-inch size.

2080—A pretty "party" or "best" dress. Pattern is cut in 4 sizes: 1, 2, 3 and 4 years. It requires 2⅞ yards of 27-inch material for a 4-year size.

2085—A smart and popular model. Pattern is cut in 4 sizes; 6, 8, 10 and 12 years. It requires 2 yards for the guimpe and 3 yards for the dress, for a 6-year size, in 27-inch material.

1727—A smart suit for the little boy. With sleeve in wrist or short length. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2⅝ yards of 44-inch material for a 4-year size.

1772—A simple attractive dress for home and porch. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

1724—A smart and simple model. Pattern is cut in 4 sizes; 2, 4, 6 and 8 years. It requires 2¾ yards of 36-inch material for the dress, and 1¼ yards for the bloomers, for a 4-year size.

2089—A charming negligee. Pattern is cut in 4 sizes: Small, for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires 6¼ yards of 44-inch material for a medium size.

2074—Ladies' "coverall" apron. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure, and extra large for 44 and 46 inches bust measure. It requires 5½ yards of 36-inch material for a medium size.

1801—Girls' apron and cap. Pattern for this combination is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 2½ yards of 36-inch material for a 10-year size for the apron, and ¾ yard for the cap.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for May 27, 1917.

The Holy Spirit and His Work—(Pentecostal Lesson).

LESSON TEXT—John 15:26-27; 16: 7-14.

GOLDEN TEXT—He shall teach you all things.—John 14-26.

This lesson follows chapter 15:1-4. The emphasis Jesus placed upon the new and deeper intimacy into which the disciples were about to enter, and which involved a participation in persecutions (v. 20). However, as a garrison and helper when this persecution should come, the believers are to have in their lives the Holy Spirit.

I. The Believer and the Spirit (vv. 26-27). The "paraclete" (helper) was to proceed from the Father, but Jesus was to send him. He is called the "Spirit of Truth" because it is his work to reveal the truth, and it is through his teachings only that anyone may know the truth. Jesus is the truth (ch. 14:6), and the Spirit of Truth is to enable believers to testify concerning Jesus. It qualifies them for such testimony. The disciples also had the added qualification of experience for "ye have been with me from the beginning." The disciples were eye witnesses of what he did and what he was, and heard and knew all that he claimed for himself and what his life proved itself to be.

II. The Believer and Persecution (16:1-6). This section has not been selected by the committee, but as a part of the lesson we cannot overlook it. In it the Master enumerates specifically things that were to come to the disciples and that they might "remember." He also mentions the fact that these things are to come after he has gone away. As a relief from sorrow (v.6), the Master goes on to show the relation of the Spirit to the world.

III. The Holy Spirit in the World (vv. 7-11). It was profitable for the disciples that Jesus should go, that another Divine friend was to take his place. This is the best section in all the Bible to teach the personality of the Holy Spirit. The personal pronouns in this section are very significant, there being seven in the thirteenth verse alone. The word "Comforter" here used means that and much more. It is the same word translated "advocate." In I John 2:1, it means one who is called upon to stand beside another as a helper, counselor, guide and friend. Jesus had been this to his disciples thus far, but he was going away, and another Friend was coming, who should not only be with them, but should dwell in them (Ch. 14:16, 17). The Comforter has come, and without him we can do nothing. He is the one who convicts the world "of sin, of righteousness and of judgment." Of sin, not because they have broken the moral code, but because they do not accept Jesus Christ as the Messiah (Hebrews 10.28. See ch. 3-18-20). In the second place, he is to convict the world of righteousness. The Holy Spirit has no other channel through which he can get at the world except through those who are already saved. He shows the world its error about righteousness; also that Jesus is the only righteous one, and righteousness is only possible to us in him (Phil. 3:9 R. V.) Because he has lived the right life, having fulfilled all righteousness, and gone on high, he, therefore convicts men, but the Spirit does his work through the agency of the world. Man needs to know first of all that he is a sinner; second, that Jesus "the righteousness of God," has provided for us, and it is the Holy Spirit who alone can show these two things to men. In the third place, he convicts the world of judgment because "the prince of this world is judged." This judgment is past (see John 12:31), for Jesus has conquered Satan. Certainly this is a truth that needs to be emphasized in this day. The judgment of sin and punishment for sin, due to unbelief or rejection of Jesus Christ, is seldom preached in our day.

IV. The Spirit and Truth. (vv. 12-15). There was much more that the Master might say to the disciples, but they were not ready to bear it (v. 12). He, however, looks forward to the day when the Spirit shall come, and they will be ready to receive these things. The Spirit will guide them into truth, all truth, for he shall not speak of himself, he will not bear witness unto or speak "from" himself, but the things that he will speak of will be concerning Jesus. The real evidence of the presence of the Holy Spirit in a believer or in a congregation is the degree of exaltation given to Jesus Christ.

There is a progressive intimacy in John. Jesus first calls those who are at his side, servants (Ch. 13:13). He next calls them friends (Ch. 15:15) and lastly he calls them brethren (Ch. 20: 17). This is the law of Christian experience.

Sunday school teachers should certainly take advantage of this lesson to bring out the work of the Spirit (vv. 8, 9, 10); the gifts of the Spirit (I Cor. 12); and the fruits of the Spirit (Gal. 5:22, 23). Let us be sure that our scholars know what it means to have a definite, intimate, personal relation with the all powerful one.

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OUR LEGAL DEPARTMENT

THIS department is edited by a practicing lawyer who has had years of experience at the bar. He will give accurate and reliable answers to all legal questions when they are of sufficient importance to be of practical interest to any considerable number of our readers. Subscribers who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delayingprinted answers, those to whom it is important to receive an immediate reply by mail should remit $1.00, addressed as above.

Law Questions.

Collection of Poll Tax.

A Subscriber, Northfield, Wis.—The property owners in this town pay a road tax. A certain person refuses to pay his poll tax. How can it be collected by law?

Answer.—The superintendent of highways in the town can notify such person to pay his poll tax and if he neglects or refuses to do so the superintendent can levy on and seize any of his goods and chattels and sell them to pay the tax.

Neglected Child.

A Subscriber, Kenosha, Wis.—A little boy now six years old, lost his mother when he was two years old, and his father has had entire care of him since. The father is addicted to the use of intoxicating liquor, and frequently takes the boy to town with him and into saloons, and gives him all the beer he wants. The child is neglected, and does not get proper food, nor care in other respects. What can be done about it under the laws of Wisconsin?

Answer.—Present to the county judge an affidavit of the facts showing that the physical or moral welfare of the boy is seriously endangered by neglect and the immoral habits of the father and thereupon the judge will investigate and remove the child from the custody of the father and provide it with a suitable home elsewhere.

Tax Sale—Mortgage—Redemption.

A Subscriber, Brookfield, Wis.—A bought fifty acres of land in Wisconsin. B holds a mortgage on the land. A failed to pay taxes on it, and it was sold for taxes. C bought up the tax certificates, and got a tax deed to the land, and sold the land to D. Does B's mortgage hold good and can he redeem the land?

Answer.—Either A or B could have redeemed the land from tax sale within three years after the tax certificates were issued, or at any time before the tax deed was recorded, but if the tax deed to C has been put on record it closes out B's interest so that he cannot redeem the land. If the tax deed is not recorded B can still redeem the land and thus protect his mortgage interest by paying what the land sold for at tax sale with all subsequent charges and 10 per cent interest and back taxes up to date.

Naturalization—Exempt Property.

A Subscriber, Maple, Wis.—(1) A foreigner who had taken out his first naturalization papers in this country, was a soldier in the United States army in the Spanish-American war in 1898. Did he thereby become a full citizen of the United States without taking out his second papers? (2) How much property can a farmer in Wisconsin claim as exempt from an execution on a judgment for a grocery bill?

Answer.—(1) He did not become a full citizen by his service in the army, but can be admitted by filing a petition in court, proving such army service and that he is of good moral character and has lived in the United States one year next before filing said petition. (2) Family Bible and all other family books and pictures, seat or pew in church, all family wearing apparel, beds, bedsteads and bedding, sewing machine, stoves and fixtures, cooking utensils and other household and kitchen furniture to the value of $200, two cows, ten hogs, one yoke of oxen and a horse or mule, or in lieu thereof a team of horses or mules, ten sheep and the wool thereof," one wagon, cart or dray, one plow, one sleigh, one drag and other farming utensils to the value of $200, feed for all said animals for one year and provisions and fuel for family for one year.

Ailing Animals.

Injured Hock.

We have a horse that was kicked in the hock joint about the middle of February. It is swollen to twice its usual size and is very sore and lame, but not stiff. It is open on both sides and the matter runs out. The sores have been kept clean by injecting lysol into them. Hot water applications have been used three times a day. We have had both flax seed and brown sugar and soap poultices on them. This draws out a good deal of clots and matter, but it still seems caked and hot at times. We have used liniment and healing oils also, but there seems to be no change.

This is a case which should have the immediate attention of a competent veterinarian if any good results are to be expected. We would not feel justified in prescribing here.

Induration of Udder.

I have a cow that has had a caked bag ever since she freshened about two months ago. Have done everything I knew of, but have had no success. Only one quarter of her bag is affected. She only gives about a quart of milk. She is three years old and has always been a good milker until now. She gives as much milk out of the swollen side of the bag as from the other.

There is an indurated condition present here, following inflammation. This may be hard to remove, since it has been this way for considerable time. Try daily application of the following to the affected parts. Gray mercurial cintment, two ounces; vaseline, one ounce. Mix well and rub small amount into affected part daily unless irritation is noticed, then discontinue use for awhile.

Loss of Pigs.

I would like to know what is the trouble with my pigs. Some of my sows farrow whole litters and not a live pig in the litter. We now have twenty-five pigs from seventeen sows. I feed a bushel of corn a day to twenty-one hogs, with house slop and water. We have a rubbing post and use crude oil mixed with coil oal, but we have not used oil of any kind for four weeks. The pigs are full grown and seem all right. We have not lost a pig that came alive. Our hog house has two raised doors, one about twelve inches, the other about two feet. Both doors have a bridge leading up to it with cleats about three inches apart. We have had this hog house five years and never had this troubde before. We are hoping to raise a hundred pigs this year.

This condition is often seen and is brought about from lack of vitality within the pigs themselves, causing death before or shortly after birth. There might have been injury here and even the feed might have been at fault, but it would be hard for us to name the exact cause.

A Day on Pabst Stock Farm.

(Continued from page 1.)

ing to Mr. Pabst this system of raising the young stuff has done much to keep tuberculosis out of his herd. Besides good breeding breeders are anxious for stock that is safe from tubercular infection and there is no better system for the breeder to follow in order

Pabst Champion, sired by King Pontiac Champion. She made a record of twenty-eight pounds of butter in seven days.

to keep this disease out of a herd than to provide natural conditions, plenty of air and outdoor exercise.

Since beginning in Holstein work Mr. Pabst has sold no heifer calves of his own breeding from the farm. The bull calves are sold at all ages. Eight years ago the average price was below $100 per head. Prices now range from $200 to $2,000. Breeding plus a reputation for health and vigor is responsible for this. The cream from the farm is sold to a Milwaukee dealer at market prices, and amounts to a goodly sum each year.

Besides the cows there are on the farm several thousand pure-bred chickens of Single Comb White Leghorns and Rhode Island Red varieties. These form a separate venture.

A few Percheron mares and several Hackney horses, together with a herd of Berkshires and some 200 grade sheep, complete the live stock population.

Manure is hauled to the fields the year around. It is the plan to manure crops soon after seeding, as the best results have been obtained from this method. A system of rotation followed on the thousand acres under cultivation consists of a general plan for each unit, comprising in all eight years,

Pabst Canary Queen 2d, 29.17 pounds, sired by Sir Hengerveld Model Johanna, farm herd bull at Pabst Stock Farm. Two half sisters have records of 31.5 and 30.3 pounds, respectively, and one of these, Pabst Hengerveld De Freule, has just completed a yearly record of 940 pounds of butter and 20,516 pounds of milk.

and worked out with a view towards obtaining plenty of hay on the fields nearest to the respective barns. The rotation is corn, oats, clover, corn, bar-

Pabst Golden Rod, sired by King Pontiac Champion. Has record of 26.02 pounds of butter in seven days as three year old.

ley and alfalfa. The farm is divided into eighty-acre fields, each field forming a separate unit and having the above rotation.

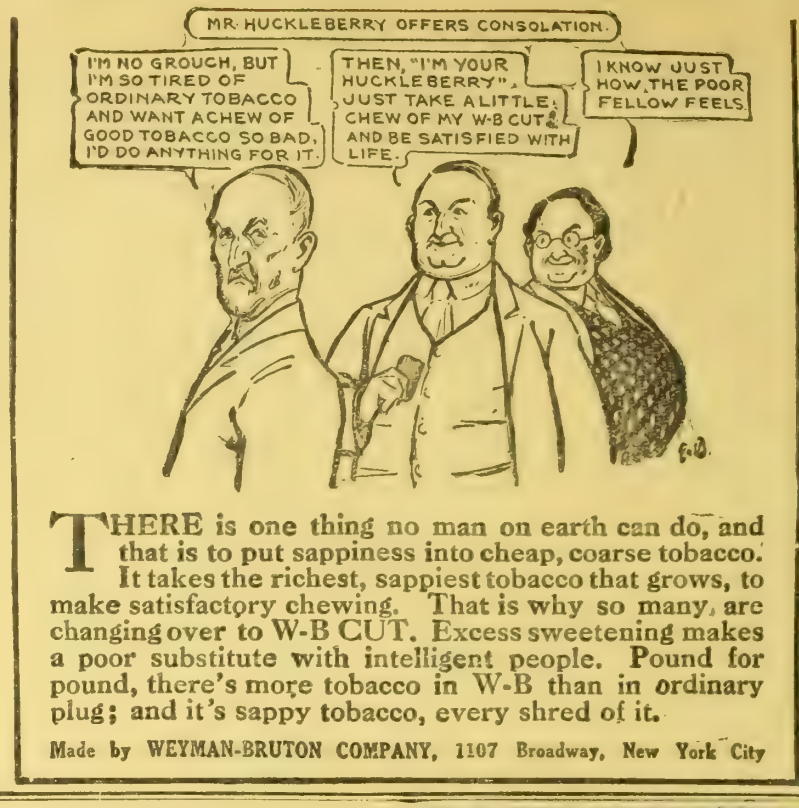
It is the plan to use the large con-

Pabst Hengerveld Colanthus. 1916—31.5 pounds of butter in seven days; 1917—30.32 pounds of butter in seven days. Had twin calves in 1917 and both above records were made in eleven months.

crete pavilion which was formerly the exercising pavilion during the days when Mr. Pabst bred horses, for the storing of fodder and bedding, leaving ample room for a sheltered place where the cattle can exercise during the rougher weather in winter. The pavilion is large enough to accommodate a complete threshing outfit and allow ample room for wagons and teams. Two tractors are used on the farm for plowing and threshing work. All of the corn which is not used for the eight monster silos on the farm is husked and shredded and the shredded fodder is used for bedding. Thus it is returned to the land and little of the plant food contained in the stalk is lost.

In the future enough stock will be produced on the farm to justify annual and semi-annual sales, which can be held in the pavilion with little trouble. Bull calves will be sold the year around, as at present, but under the plan proposed no females will be sold privately. These animals will be strictly of Pabst breeding from the cows and sires on the place. The method of raising all animals and the constant care they have received, together with the limiting of entry to stock bred on the place, will insure a safe and clean sale.

Every two weeks the various men carrying responsibility in the operation of this large Holstein establishment are asked to meet with Mr. Pabst for an informal talk and discussion of good and bad points in the operation of the farm. In this Mr. Pabst is following the system used in most business houses and which has proved a great factor in keeping men interested in the firm's welfare. This interest has a great bearing on the success of any establishment of a larger scale, and that is what the Pabst Stock Farm represents. Much money has been invested in making the place the most modern and practical of farms, but the Holstein is paying dividends.



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Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 15.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Dr. N. W. Downing & Brother, Waukesha.

DR. N. W. DOWNING & Brother are dispersing their entire herd of 50 head, including their great five-year-old show bull, Downing Pontiac Butterman, his 25.37-pound dam, her 29.55-pound maternal sister and 21 of his daughters, five of which have A. R. O. records. Included in the herd are nine high record A. R. O. daughters of King Hengerveld Pondyke, that has 30 A. R. O. daughters. King Hengerveld Pondyke is a son of King of the Pontiacs, from a 25-pound cow. Among other attractions of his herd are eight sons of Downing Pontiac Butterman, several of them have A. R. O. dams and grandams and are nicely marked, possessing splendid individuality. Twelve of Downing Pontiac Butterman's daughters and his dam are bred to Concordia De Kol Rag Apple 163748, a 31-pound son of the famous Rag Apple Korndyke 8th. There is only one female in the herd over seven years. Every female in milk has an A. R. O. record, the lowest being a 13-pound yearling and running up to 29.55 pounds at full age. All heifers are from A. R. O. dams up to 29.55 pounds. Every two year old not in milk, yearling heifers and heifer calves are sired by Downing Pontiac Butterman except one and that is a yearling daughter of the 40-pound bull, Johanna McKinley Segis and she has for her dam a daughter of Pontiac Korndyke, out of a 29-pound daughter of Woodcrest Nig De Kol. His herd also includes a son of Dutchland Creamelle Sir Ascalon, whose five nearest dams average for the year 27,000 pounds milk and 1,000 pounds butter. This herd is not only well known on account of the splendid A. R. O. work which has been done, but for its individuality as well. The senior herd sire, Downing Pontiac Butterman, is one of the greatest show bulls of the breed and his individuality is clearly stamped upon his offspring.—Adv.

Sons of Noted Boars.

WE recently looked over the Poland Chinas owned by Julius Peterson, Kilbourn, Wis., and he has a herd that no breeder would be ashamed of. His advertisement will appear regularly in The Wisconsin Farmer from now on. Mr. Peterson was fortunate in getting two good boars to head his herd, comparatively new blood for Wisconsin breeders. The yearling is a boar of scale with great length and good points in every respect. He is sired by the well-known western boar, Columbus Pan by Columbus, and his dam is by the widely-advertised Golden Gate King—no breeder could want a better boar. Blue Valley Big Bone is a fall boar that if fitted would make a creditable showing. He is by Blue Valley Quality, the best boar Thos. Walker ever owned and out of a Giantess dam by Big Wonder. Here are two real good boars and Mr. Peterson has six fine litters by the first boar—Smooth Columbus. Just at this time he has about a dozen fall gilts, most of which are by a Big Orange bred boar and they are bred or are being bred to farrow in August and September to one of the above boars. Here is a good chance—the gilts are good. Some of the good sows in the herd are of Black Orange and Longfellow breeding. Two good brood sows are by Baron Jr., he by Longfellow Sioux out of a dam by the noted Gritters boar, Baron. There is also a good sow by Long Big Bone, dam by Miller's Big Orange, and she is raising a nice litter of eight pigs. Write now for one of these gilts and if you want some of the pigs, place your order now. Mention this paper.—Adv.

Frank Arnold Durocs.

FRANK H. ARNOLD, Janesville, Wis., is the man that topped the Janesville Duroc Jersey sale last winter when he gave $155 for a daughter of Chief's Col. bred to the champion, King Defender. This sow farrowed 10 and is raising eight nice pigs. Mr. Arnold is one of the best hog feeders in Rock county, and at this time he has some 40 head of gilts and barrows that are about ready for the market. The 15 gilts are the pick of this bunch and they are good, and are being offered for sale now bred to farrow in August and September. They are sired by Sunny Model, he by Blue Ribbon Model, a boar that was a winner at Sioux City, Huron and Lincoln, he a son of the noted, Golden Model 2d. The dam of Sunnyside Model goes back in the third generation to old Iowa Notcher and Tip Top Notcher, of St. Louis World's Fair fame. This is old and standard breeding and can be used most any place with success. These gilts are and will be bred to a Defender-Valley G. boar. We are glad to recommend Frank Arnold and his Durocs, for knowing him as we do we are confident he will give you a good deal and stand back of his guarantee that every sow is to be safe in pig. Write him at once for further information.—Adv.

H. H. Earle, Eagle.

H. H. EARLE is dispersing his entire herd, consisting of 27 head in the Waukesha County Holstein Sale, May 31st and June 1st. There are 11 cows and heifers with records from 12 to 23 pounds butter, some of them junior three year olds with better than 20-pound records. There will be five daughters of Fobes Mutual Diploma De Kol 27.99-pound bull. Several daughters of Fayne Ormsby Johanna that already has a list of 20 A. R. O. daughters, and Canary Oak De Kol Homestead 5th, a 24.60-pound bull out of Canary Oak De Kol Homestead. This three-year-old herd sire is one of the finest individuals in the sale and is a representative of the Jones breeding which may give some idea of his individuality.—Adv.

Dispersal of Linscott Jerseys, May 31st.

THE dispersal of the herd of register of merit Jerseys, May 31st, announced by R. J. Linscott, at Rosalpna Stock Farm, Holton, Kan., is an event that is attracting the universal attention of dairy cattle breeders. The Linscott herd, established 1878, is one of the oldest herds in the West, and has been trained to a high state of efficiency in the production of milk and butter and from the start bred for type, constitution and beauty. The herd which will be dispersed comprises 125 head, including 60 register of merit cows, prize-winning cows, imported cows and home-bred cows, cows with official tests and their sisters, daughters and granddaughters. Linscott Farm has been the home of an illustrious line of notable Jersey sires, including Flora's Golden Fern, R. O. M., class A.; Imported Oakland's Sultan, first-prize bull, Island of Jersey, 1907, and sire of first and champion females, state fairs, and sire of a long list of R. O. M. heifers; Gamboa's Knight (by Gamboge Knight, the most prepotent sire in recent years); and lastly, Jacoba Irene's Premier, the son of the world-famed cow, Jacoba Irene, 1,191 pounds butter in one year, 2,927 pounds and three calves in 37 months, world record. There are 45 heifers in the sale, including granddaughters of Jacoba Irene, the butter queen, also, granddaughters of Gamboge's Knight, the butter sire king of the breed. The fresh cows, heavy milkers and springers and the herd bulls and yearling bulls are in the sale. The herd is in perfect health and will be offered in splendid condition. Good judges have pronounced it the best offering of Jerseys that has ever been made in the West. Those who attend the sale will have the opportunity to enjoy the large company of breeders expected, visit one of the best improved dairy farms in the state and at the same time purchase choicely-bred Jerseys and make profitable investments. See this page.—Adv.

More Additions to the Duroc Ranks.

SWINE WEEK held at Madison last winter did more for the advancement of pure-bred swine than many people realize. Almost every week we find someone who has just purchased his first "thoroughbred" sow or others who are taking more interest in the herd they own as a result of the boost and encouragement that they received at Madison. We recently visited the Webb Farm, at Poynette, Wis., and while Mr. Webb has been a believer in pure-bred stock for many years he did not pay a great deal of attention to that part of the business. His sons, Geo. W. and R. B., are of the younger generation that realize farming is a science and only the best stock can be kept profitably on their high-priced land. Mr. Webb, Sr., has turned over the swine end to the boys and after seeing the start they have made and the care the Durocs are receiving, we are confident that they will make a go of it. They have two good sows by Crimson's Gano, a grandson of Col. Gano and out of Chief of Col. dams. They also have a good sow by King Royal by Royal King out of a Dominant Col. dam that has a good litter by the champion, King Defender. Heading their herd is a son of Lee's Defender. In all they have a herd of some 60 head and in behalf of the Duroc fraternity of the state, we are glad to welcome them to the ranks.—Adv.

Waukesha County Holstein Breeders' Sale.

THE Waukesha County Holstein Breeders' Sale, May 31st to June 1st, will be the biggest offering that the association has yet presented. There will be two complete dispersions, including that of H. H. Earle and Dr. M. W. Downing & Brother's herds. This is a breeders' sale of breeding stock. No buy bidding is allowed and each consigner guarantees his stock to be exactly as represented. All animals consigned are from tuberculin-tested herds and tuberculin tested prior to the sale, under the supervision of the Wisconsin Live Stock Sanitary Board. The sale will commence promptly at 10 o'clock May 31st in the Waukesha County Live Stock Breeders' Association sale barn, Barstow Street, Waukesha, Wis. Write for catalogs to the Waukesha County Holstein Breeders' Association, Waukesha, Wis.—Adv.

Fruit Brothers, Waukesha.

FRUIT BROS. are consigning to the Waukesha County Guernsey Breeders' Sale, June 7th, Lillian May Bishop 31575, A. R. 2608, milk 11,513 pounds fat and 563 pounds as a three year old, sired by Mambrino, that sired four A. R. cows and that is sired by Buckthorn. Her dam is Lillian Bishop 2d, A. R. sired by Glenwood's Stranford, that is sired by Glenwood Boy of Haddon. Here is an exceptionally high-class Guernsey cow that should attract much attention.—Adv.

William M. Jones, Waukesha.

MR. JONES is consigning two animals this year to the Waukesha Guernsey Breeders' Sale, June 7th. Included in this number is Castello's Beauty, A. R. milk 11476 pounds, fat 555 pounds as a four year old, sired by Jeweler of Sunny Valley, that is sired by Lily Ellas Jeweler. The dam of Castello's Beauty is Royaline's Castello, that is sired by Royaline's 2d's Boy. Castello's Beauty's daughter, Castello's Beauty 2d, sired by Lord Waukesha, is an exceptionally attractive young cow as is her mother. These two cows are the kind which are worthy of laying the foundation for new herds as well as the kind which have made the Waukesha county sales famous throughout the country.—Adv.

Those Guernsey Bulls.

DON'T forget that Chas. A. Wilkins, Platteville, Wis., has those good Guernsey bulls for sale. They belong to the aristocracy of the breed, for they are out of high-testing A. R. dams and the sires are the best money could buy. They cost a little more than "ordinary" bulls, but they are worth it. Notice the advertisement in this issue and write for sale list. If you want a good bull, you'll be interested in what they have for sale. See page 22.—Adv.

Some Bull.

SHORT-HORNS of real fashionable breeding that can be purchased at a reasonable figure are very scarce and hard to find, yet there is a two-year-old Short-horn bull in Wisconsin that can be bought worth the money. He was dropped in January, 1915—his name, Sultan Goods. Sired by the $4,000 Royal Silver out of a Marr Missie dam. The following noted names appear in his pedigree: Choice Goods, Whitehall Sultan, Premier, The Lad For Me and the great cow, Princess Alice. A representative of this paper recently saw this bull and we are glad to recommend him to particular buyers. Few bulls of the breed have a better head and front than Sultan Goods. Not only is he a good individual, but he is a good sire, as the crop of calves on the place will show. You realize that his breeding is A number 1 and you will not be disappointed in the bull individually. It will pay you to make a trip to see this fellow. He was bred by Anoka Farms and is owned by F. S. Bunker, Kilbourn, Wis., and if you are interested write him for the tabulated pedigree and description. Please mention this publication.—Adv.

Fox Brothers, Waukesha.

FOX BROS. are consigning to the Waukesha County Guernsey Sale, June 7th, Waukesha's Prospect, sired by a son of Justinee's Sequel of the Preel, sire of 23 A. R. cows and is a son of Galaxy's Sequel; Evangelin of Round Prairie, a daughter to Derulius of Waukesha, that sired one A. R. cow 400 pounds fat; Verandess of Ulao Dale, a granddaughter of Two Creeks, sire of one A. R. daughter and is a son of Select's O. K., that has a record of 418 pounds fat as a four year old and that is a daughter to O. K., that sired eight A. R. cows; Lady Jane of Village View, is sired by Radius, a son of Radium

Wisconsin Jersey Breeders' Promotion Sale

Madison, Wis., June 14

70 Head from twenty-five of the best herds in the state will be sold. Catalogs ready about June 1st. Address

Chas. A. Peterson

Rosendale Wisconsin

Dispersion Sale

Register of Merit Herd

JERSEYS

Holton, Kansas

May 31, 1917

125 HEAD 125

60 COWS and 45 heifers, calves and yearlings. 20 bulls, including 4 herd bulls. Jacoba Irene's Premier and Gamboa's Knight are in the sale. A majority of the females bred to Jacoba Irene's Premier (dam, Jacoba Irene, 1,191-lb. butter 1 year). 25 daughters of Jacoba Irene's Premier, 12 daughters of Imp. Oakland's Sultan, with more champion butter blood than ever in a western sale. D. L. Perry, auctioneer; Geo. W. Berry, fieldman. Send for the historical catalog. Address

R. J. Linscott **Holton, Kan.**

NEXT WEEK'S SALE PROGRAM

Thursday, May 31 — Short-horns, R. J. Linscott, Holton, Kan.; Holsteins, County Breeders' Assn., Waukesha, Wis.

Friday, June 1 — Holsteins, County Breeders' Assn., Waukesha, Wis.

WAUKESHA GUERNSEY SALE

WAUKESHA, WIS., JUNE 7

60 SELECTED pure-bred Guernseys from the best herds of Waukesha County constitute the offering. No community offers as good an opportunity to select bred-for-production Guernseys as Waukesha County, so that it will pay you to attend this offering. The following is a list of the consignors and a brief mention of some of the animals they are consigning:

FRUIT BROS., WAUKESHA

are consigning **Lillian's May Bishop (31575)**, A. R. 2608, milk 11,513 lbs., fat 563 lbs. as a 3-year-old; sired by Mambrino and out of Lillian Bishop 2d. **Lillian's Milkmaid of Maple Hill**, A. R., milk 12,980 lbs., fat 567 lbs. as a 2-year-old; sired by Langwater Hayes Rosie King of the May and out of Lillian Bishop 2d. **Whitney of Maple Hill and Nancy of Maple Hill.**

GEO. C. HUMPHREY'S CONSIGNMENT

Lass of Springhurst, sired by Linden Duke and out of a dam which, at 10 years, made a record of 12,116 lbs. milk and 526 lbs. fat. **Mirza of Haddon**, sired by Glenwood's Combination 8th.

GOBDELL AND BLOTT'S CONSIGNMENT

Troy Center Blue Belle (50090), Lorraine of Maple Avenue (57187), Murdock's Merry Boy (40782), Imp. Lady 2d of de la Vielle Rue (35237), Lady's Mayflower (58438) and Hero's Violet (35952).

WM. M. JONES' CONSIGNMENT

Castello's Beauty, A. R., milk 11,476 lbs., fat 555 lbs. as a 4-year-old; sired by Jeweller of Sunny Valley and out of Royaline's Castello. **Castello's Beauty 2d** by Lord Waukesha and out of Castello's Beauty.

F. E. KUMROW'S CONSIGNMENT

Emolyn Hope (21225), now on test, 147 days, 4,647 lbs. milk, 254 lbs. fat, full sister to Pauline Hope, 441 lbs. fat.

CHAS. G. HILL'S CONSIGNMENT

Gentian of Sarnia (6908) by Prince of Sarnia and out of Alma of Sarnia, 381 lbs. fat as a 4-year-old. **Imp. Bluebird of Sarnia (46546)**, now under A. R. test, by Imp the Conqueror 3d and out of a 720-lb. fat Island Record dam. **Excel of Sarnia (4401 P. S.)**, now under A. R. test. **Imp. Eugenia of Sarnia (69008), Gracious of Sarnia (71411), Empress of Sarnia (54069)** and **Desire of Sarnia (49572).**

J. S. WILLIAMS & SONS' CONSIGNMENT

Park's Yeksa Queen 2d's Daughter (35593) by Rhea's King of the May and out of Park's Yeksa Queen, 433 lbs. fat as a 4-year-old. **Yeksa's Queen of Cameron (41847).**

G. J. WENDT'S CONSIGNMENT

Dolly's Pride of the Cedars, a splendid individual, sired by a son of Glenauric of Haddon.

R. R. SCHWARTZ'S CONSIGNMENT

Female, sired by a grandson of Trislette's Dirilius; **La Vera Belle, Creamland Jack** and **Gay Prairie Belle.**

C. J. & W. A. CONNELL'S CONSIGNMENT

Maple King of Sunny Slope, that is a grandson of May King's Brangue of Ingleside, and Glenwood's Minerva by Glenwood's Stranford.

GEO. D. DAWSON'S CONSIGNMENT

Mashie's Girlie of Sunnyside by Lindenwood Masher, **Dorinda Flower**, A. R. 455 lbs. as a 4-year-old, and **Queen Tilly of Sunnyside.**

GEO. McKERROW & SONS CO. CONSIGNMENT

Imp. Lady Betty of McKerrow's Farms (68727) by Sarnia Gem; **Imp. McKerrow's Flora of Le Douvre** by a son of Gov. of the Chene; **Imp. McKerrow's Douvre** by Brilliant of the Gree 3d; **Imp. McKerrow's Golden Rose** by Gov. of the Chene, and **Imp. McKerrow's Heaumes Doris**, a granddaughter of Gov. of the Chene. These animals are from the best of foundation stock and are worthy of special notice.

FOX BROS.' CONSIGNMENT

Waukesha's Prospect, a show bull, sired by a son of Justine's Sequel and out of a daughter of Senator Trowbridge; **Evangeline of Round Prairie**, daughter of Derilius of Waukesha; **Verandess of Ulao Dale**, a granddaughter of Two Creeks; **Lady Jane of Village View** by Radius, that is a son of Radium, and **Lady Isabelle of Village View**, same breeding as Lady Jane of Village View.

Remember the Annual Summer Meeting of the Western Guernsey Breeders' Association and the Waukesha County Guernsey Breeders' Association is at the Geo. McKerrow & Sons Co. Farm, Pewaukee, June 6th, the day before the sale. Send for catalog.

Waukesha Co. Guernsey Breeders' Assn.

F. E. FOX, Secretary - WAUKESHA

Auctioneers---Love, Hellen and Benjamin

and Lady Isabelle of Village View, the same breeding as Lady Jane of Village View.—Adv.

Carnation Stock Farms, Oconomowoc, Wisconsin.

FIETJE QUEEN DE KOL, 42.26 pounds, the world's record cow for nine years, has just been shipped from Oconomowoc to their western farm near Tolt, Wash., to be bred to Johanna McKinley Segis, the Carnation Stock Farms' 40-pound sire. After seeing that this splendid old cow was properly loaded on the express car we went out and looked over the herd which consists chifely of daughters and granddaughters of Sir Ormsby Hengerveld De Kol (31212) daughter of Beauty Pietertje Prince (56435) that are showing up well and sons and daughters of Johanna McKinley Segis (4436). Two 30-pound records have been made this winter and they now have a two year old by Beauty Pietertje Prince, that is going at a 25-pound clip. There are 40 daughters of Beauty Pietertje Prince in the herd that are a most promising lot, judging from their individuality and the showing those which have come in, are making at the pail. Those looking for top notch herd sires will find them in the sons of Johanna McKinley Segis and from daughters of Sir Ormsby Hengerveld De Kol and Beauty Pietertje Prince having A. R. O. records up to 31 pounds. They also have five sons of Beauty Pietertje Prince, out of A. R. O. dams up to 25 pounds. See page 23.—Adv.

Will Ship on Approval.

WHEN a breeder offers to ship his stock on approval one can generally depend on the stock and the breeder being on the square. Just at this time you have an opportunity to buy some Duroc Jerseys of fall farrow and if you wish, these will be shipped on approval, so you must be satisfied. We recently saw this bunch and they are real good. The gilts have the stretch, good color and have been carried along in nice shape. They have been bred to farrow the last of August to a son of King the Col. Of the boars, this breeder has five good ones, one of which is outstanding. These gilts and boars are sired by a Defender-bred boar and their dam is a daughter of old Valley G., the litter mate to Illustrator, so you need not be afraid of the breeding. These Durocs will please you, especially at the price the owner is asking. Write this breeder—C. J. Damerow, Beloit, Wis., R. 27, and he will give you a detailed description. Don't fair to mention The Wisconsin Farmer.—Adv.

Geo. McKerrow & Son's Co., Pewaukee.

GEO. McKERROW & SON'S CO. are as usual consigning a number of animals from the best foundation stock on the Island of Guernsey. In the Waukesha County Guernsey Sale this year they will have Imported Lady Betty of McKerrow's Farms 68727, sired by Sarnia Gem, that is a son of Billy's France 2d, that has sired 14 A. R. cows and is a son of Billy's France. Her dam is Red Rose 3d and is a daughter of Shamrock of the Spurs, that sired two A. R. daughters; Imported Fanny of McKerrow Farms, sired by Maid's Star; Imported McKerrow Douvie, sired by Brilliant of the Gree 3d; Imported McKerrow's Golden Rose, sired by Governor of the Chene, that has 63 A. R. daughters and Imported McKerrow's Heaum's Doris, a granddaughter to Governor of the Chene. Her dam is Doris of the Hague, a granddaughter of Prince Alban, that sired four A. R. daughters.—Adv.

Buy Berkshire Pigs.

WHEN you start, start right and if you like Berkshire swine buy where they have the goods. We believe that the Berkshire is going to gain in popularity very fast in the next few years, for as a matter of fact, this good breed of swine has never received the recognition in the corn belt that it justifies, but it is coming and if you want to get in on the ground floor buy a pair or a trio of "Berks" from A. P. Cortte, Lomira, Wis. If you are posted on pedigree you will appreciate Ames Royal 32d, the boar that heads this herd. He comes from the Curtis breeding and carries the most popular blood lines. These pigs were farrowed in March and April and at this time they can be bought worth the money. Write Mr. Cortte at once and please mention The Wisconsin Farmer.—Adv.

S. A. Baird, Waukesha, Wis.

S. A. BAIRD & SON are consigning to the Waukesha Holstein Sale, May 31st and June 1st, a well-grown young calf of exceptionally strong individuality, out of a 27.35-pound dam and sired by Dutchland Creamelle Sir Ascalon, one of the best bred bulls in the state of Wisconsin, whose five nearest dams average 27,000 pounds of milk and 1,000 pounds of butter. They are also consigning a 23-pound three-year-old cow with a daughter having a yearly record of 20,000 pounds milk and 863 pounds butter in a year, bred to Dutchland Creamelle Sir Ascalon to freshen about the time of the sale.—Adv.

Schley Brothers, Waukesha.

SCHLEY BROS. are consigning to the Waukesha Holstein Sale, May 31st and June 1st, Nagawicka 104062, that recently made a record of 20 pounds of butter two months after freshening. She is bred to Pabst King Pontiac Lad 129298, a $1500 30-pound bull. They are also consigning two well-bred heifers bred to this same sire.—Adv.

Dreyer Brothers, Dousman.

DREYER BROS. are consigning to the Waukesha County Holstein Sale, May 31st and June 1st, three head, including a 17-pound yearling daughter of Sir Urmagel Burke, a 31-pound bull with a 35-pound sister. Her half sisters have made records from 18 to 23 pounds as four year olds during the past winter.—Adv.

Buy Young Bull for Head of Herd.

A WISCONSIN Holstein herd that is rapidly growing and which from all indications is destined to become one of the leading herds in the state, is that owned by L. K. Luse, of Superior. Eight years ago Mr. Luse started to raise a herd of full-blooded registered cows in Jefferson, Wis. He has at all times kept a pure-blooded sire and he now has upward of 20 full-blooded cows and heifers. Realizing the necessity of securing as good a sire as possible with a limited investment, Mr. Luse has been quietly searching for some time for the proper bull. A short time ago Mr. and Mrs. Luse were stopping at Waukesha. Having a few minutes to spare they went out to visit the Pabst Farm, not intending to buy, according to them, and were so pleased with the very large herd of Holstein cattle that they decided to buy the young bull, Pabst Korndyke Pietertje, for the purpose of making him the head of their herd. His sire, three years old, Korndyke Segis Johanna, weighs over a ton. Mr. Luse says that the large production of many of the cows in the pedigree was the potent influence which caused him to make the purchase.—Adv.

Red Polled Cattle Demand Increasing.

WE have just receivel the following letter from J. W. Salter & Sons, Red Poll breeders of Unity, Wis.: "We are selling Red Polled cattle through your paper as fast as we can raise them. Just shipped a bull to A. F. Viestentz, West De Pere, and one to Jos. Raab, Auburndale. Tell your readers that we have at the present time three prize-winning bulls that are old enough for service. They are dandies and will improve most herds. The demand has been in excess of the supply. Our aim is to please our customers and we have been successful in that." We saw the Salter herd some time ago and they have a nice Red Poll herd and having seen some of the bulls they sold, we know that they give you value received for your money. The bulls they have for sale are right in every respect and if you are interested in this breed, write them for particulars. Please mention The Wisconsin Farmer.—Adv.

Atwater Durocs.

L. F. ATWATER, Bangor, Wis., has 120 spring pigs, about half of which are weaned and doing fine. The Shank sow for which he paid $310 has a fine litter of five by Investor. The good fall sow that Atwater showed last year has a fine litter of 10 by the junior champion boar, Proud Chief Jr. The best pigs on the farm are by this boar and L. F. has a real show and breeding boar in Proud Chief Jr. The Orion Cherry King boars that he bought in Ohio are doing fine and the Duroc breeder that has a bigger senior boar pig out this fall, than on of these that he expects to show, will have to go some. Notwithstanding the high price of feed Mr. Atwater will have out a full herd again this fall "better than ever." No boars will be offered at this time, they will be held for the boar sale this fall.—Adv.

S. S. Cramer, Hartland.

S. S. CRAMER is consigning to the Waukesha County Holstein Sale, May 31st and June 1st, his 29.49-pound bull that in the point of breeding, individuality and A. R. O. backing is one of the best herd bulls in Waukesha county. Sir Spofford Pietertje Korndyke 156966, is by Dutchland Sir Pontiac Korndyke, that has 10 A. R. O. daughters and is out of Molly Spofford Pietertje 123479, which not only has a 29.49 seven-day record, but has the distinction of winning the 20th association prize in 1913 at three years, three months and 21 days. The breeding on the dam's side of Sir Spofford Pietertje Korndyke is particularly strong in having as many animals which possessed consistent high production. Here is an opportunity to purchase a high-class sire, which is now in his prime, being born November 30, 1914.—Adv

Baird Brothers, Waukesha, Wis.

BAIRD BROS. are consigning to the Waukesha County Holstein Sale, May 31st and June 1st, seven two-year-old heifers out of a daughter of Sir Urgagel Burke, a 31-pound bull with a 35-pound sister. These daughters have records from 18 to 23 pounds as four-year-olds. These heifers are bred to King Superba 176125, a bull that is out of the noted cow, Milanhurst America De Kol, the first cow to be officially tested for one year. It will also be remembered that she has 34 pounds in seven days and held eight world's records at the time she finished her yearly test. It is needless to say that King Superba is one of the most noted herd sires in the state.—Adv.

John J. Reid & Son, Oconomowoc.

JOHN J. REID & SON are consigning to the Waukesha County Holstein Sale, May 31st and June 1st, a daughter of a 27-pound cow bred to Sir Pietertje Ormsby Mercedes 43d, one of Wisconsin's leading sires. The dam of this bull has three records above 31 pounds, the largest being 34 pounds and has the world's record for butter production for three consecutive years. Cows bred to this bull are worthy of particular attention.—Adv.

D. J. Howell, Waukesha.

MR. HOWELL'S 24.75-pound two year old, bred to a 31-pound bull, is one of the most spectacular to be consigned to the Waukesha County Holstein Sale May 31st and June 1st. She has not only made a phenomenal record, but is an individual that possesses indications of a great future. The man

purchasing her will undoubtedly have an opportunity to make a much larger record in one or more of the advanced classes.—Adv.

A Practical Farm Lighting System.

FARM electric lighting plants have demonstrated their convenience and economy on thousands of farms. Farmers who have them do not hesitate to recommend them to others, because they are past the experimental stage and ready for practical use. If you do not have one on your farm it will pay you to make an investigation of the Jupiter plants, made by the Dealers' Electric Lighting Co., 2903 Indiana Ave., Chicago, Ill. They are easy to install, they have the famous two-year guarantee Perfection battery and are equipped with a generator that operates with remarkable efficiency. The Jupiter outfit may be run with any kind of a gas engine or with a water motor or windmill. Where any kind of power is used for pumping water or similar work, the generator may be attached and the batteries charged without any additional expense. In this case the cost of operation would be almost nothing. The care and operation of the Jupiter plant is absolutely simple and easy enough for a child to manage. For full information about this remarkable lighting plant, write the company named above. Without obligation on your part, you will hear from them by return mail.—Adv.

Charles L. Hill, Rosendale, Wis.

MR. HILL is consigning six head to the Waukesha County Guernsey sale, June 7th, which are worthy of special comment. In this number we find Desire of Sarnia 49572, sired by Judge of Birchwood, that is a son of Dairy Maid's King, that sired 12 A. R. daughters and whose sire is Glenwood Boy of Haddon. Also Empress of Sarnia 54069, sired by Prince of Sarnia, that sired six A. R. daughters and that is a son of Masher 60 P. S., that sired 29 A. R. daughters. Also Gracious of Sarnia, sired by Knight Errant, that sired two A. R. cows and that is sired by Skeezicks, that sired 13 A. R. cows and whose dam has a record of 650 pounds of fat as a four year old. Also Imported Eugenia of Sarnia 69008, sired by Daniel's Squire; Excel of Sarnia 4401 P. S., now under A. R. test, Imported Bluebird of Sarnia 46546 also now under A. R. test and Gentian of Sarnia 69081 sired by Prince of Sarnia, that sired six A. R. daughters and that is the son of Masher 63 F. S., that sired 29 A. R. cows.—Adv.

Dr. David Roberts, Waukesha.

DR. DAVID ROBERTS is consigning to the Waukesha County Holstein Sale, May 31st and June 1st, a 27.28-pound bull calf, that is sired by King Hengerveld Pondyke, the best son of King of the Pontiacs and the calf's dam, Queen Schillaard 93154, not only has a seven-day record of 27.82 pounds, but also has a yearly record of 754.71 pounds butter and 18,329 pounds of milk. She is now bred to King Superba, whose dam was the first cow in the United States to be officially tested for a full year and who held eight world's records at the close of her yearly test. —Adv.

Geo. D. Dawson, Oconomowoc.

GEO. D. DAWSON is consigning to the Waukesha County Guernsey Sale, June 7th, Masher's Girlie of Sunnyside, sired by Lindenwood Masher, that is a son of the great Imported Masher's Sequel, that sired 68 A. R. cows. Her dam is Hillside Countess, 395 pounds fat and a daughter of Gypson, that sired 17 A. R. cows. Also Dorinda Flower A. R. 455 pounds fat as a four year old, sired by Prince of Emerald Farm, that is sired by Robiana's Standard, sire of 15 A. R. cows. Her dam is a daughter to Saturn, sire of two A. R. cows and is a son of Robina's Standard.—Adv

Connell Bros., Colgate, Wis.

CONNELL BROS. are consigning six of the best animals in their herd to the Waukesha County Holstein Breeders' Sale, May 31st and June 1st, which includes a daughter from a 27-pound cow bred to their herd sire, Count Johanna McKinley, a son of Johanna McKinley Segis, now at the head of the Carnation Stock Farm herd. We also find in the Connell Bros.' consignment a choice heifer out of an 18-pound daughter of Homestead Junior De Kol and sired by Count Johanna McKinley. —Adv.

C. J. & W. A. Connell, Menomonee Falls.

C. J. & W. A. CONNELL are consigning to the Waukesha County Guernsey sale Maple King of Sunny Slope, a grandson of May King's Vrangue of Ingleside, side of three A. R. daughters, 576 pounds of fat, 597 pounds and 523 pounds fat, respectively; also Glenwood's Minerva, sired by Glenwood's Stranford sire of 16 A. R. cows, a son of Glenwood's Boy of Haddon. See advertisement on page 20.—Adv.

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Jersey Cattle.

May 31, J. R. Linscott, Holton, Kan.

Holstein Cattle.

May 31-June 1, Waukesha County Holstein-Friesian Breeders' Association Sale, Waukesha, Wis.

Sheboygan Holstein Sale.

The third Sheboygan Holstein Sale did not break any record for high prices even though there were some high-class animals in the sale. Sir Longfield Pontiac Spofford, out of a dam that had a yearly record of 891.35 pounds butter and 21,107.20 pounds milk, consigned by Harry Keach topped the sale at $370. Truttschel Bros.' 29-pound bull calf was the cheapest thing sold, bringing $215. The following is a list of sales:

Quineilo Johanna Korndyke Lad, July 28, 1915; Bein Bros., Plymouth, Wis. $160
Highland Homestead Polkadot, April 11, 1916; W. F. Nehring, Jr., Rolling Prairie, Wis. 120
Highland Segis Longfield, Mar. 21, 1916; E. C. Peebles 115
Highland Careme Johanna, Mar. 10, 1916; Traxler 135
Lucy Segis Careme, Jan. 12, 1916; W. H. Nehring, Jr., Rolling Prairie, Wis. 180
Aurora Homestead De Kol, Nov. 20, 1911; Gramling Bros., Dousman, Wis. 140
Wa Wa Johanna De Kol, April 7, 1912; Gramling Bros. 285
Careme Wa Wa De Kol 2d, March 16, 1912; Wm. Kelley, Timothy, Wis. 270
Wa Wa Longfield De Kol, March 20, 1911; John Klug, Randon Lake, Wis. 205
Matilda Johanna Segis, Feb. 15, 1915; R. C. Nye 135
Rosa Melchior, April 5, 1909; R. G. Nye, Menominee, Mich. 140
Wa Wa De Kol Longfield, April 27, 1904; W. Traxler 165
Matilda Beechwood 2d, April 5, 1911; J. E. Kelley, Timothy 240
Scott Valley Paul, Mar. 28, 1915; E. Grady, Timothy, Wis. 100
Grace Melchior De Kol, Aug. 2, 1912; Nye 140
Ruth Melchior Burke, July 11, 1912; G. H. Thompson, Quarry, Wis. 130
Scott Valley Topsy, Dec. 5, 1915; F. W. Traxler, Plymouth, Wis. 110
Lady Nora Melchior 2d, Mar. 2, 1908; Traxler 145
Cherry Melchior De Kol, Dec. 12, 1910; Wm. Traux, Random Lake, Wis. 145
Eagle Johanna Jane, Mar. 13, 1916; Riordan Bros., Plymouth, Wis. 205
No. 29, Mar. 14, 1917; John H. Leizen, Oostburg, Wis. 215
Rigtje Johanna Piebe, Dec. 18, 1916; F. W. Traxler 180
Yeslet Champion Pontiac, Feb. 16, 1916; Nehring 130
Johanna Pabst Canary, April 2, 1916; E. C. Peebles, Fond du Lac, Wis. 100
Huntress Piebe, Mar. 11, 1915; A. F. Greesbach, Glen Beulah, Wis. 190
Greenbush Huntress Champion, Mar. 8, 1916; Frank Ubbelohde, Sheboygan Falls, Wis. 155
Blue Bell Canary De Kol 2d, Sept. 8, 1915; H. J. Goelzer, Plymouth 160
Fannie Hartog De Kol, Dec. 15, 1916; John Klug, Random Lake 100
Nora Vannatta, Jan. 6, 1916; W. F. Nehring 120
No. 41, July 30, 1916; John Finnigan, Chilton, Wis. 105
No. 44, Mar. 1, 1916; E. C. Peebles, Fond du Lac, Wis. 115
Princess Korndyke Mercedes Segis, May 15, 1912; F. W. Traxler, Plymouth, Wis. 150
Irene Walton Mercedes, April 30, 1911; H. J. Goelzer, Plymouth 230
Lady Melia Canary, Mar. 12, 1916; Nehring 120
Elsia Melchior Mercedes, Feb. 10, 1916; W. F. Nehring 135
Florence Ormsby Melchior, May 6, 1916; S. J. Riordan 140
Lady Camilla Pauline, Jan. 20, 1916; John H. Dulmes, Oostburg, Wis. 115
Lady Brandi Violet Longfield, Jan. 20, 1914; Nye 225
Brandi's Violet De Kol Longfield, Jan. 20, 1914; Nye 225
Ipsbrandia Pietertje Spofford, Jan. 5, 1908; Peter Faas, Plymouth 130
Sir Longfield Pontiac Spofford, May 9, 1916; Carl Krumrey, Plymouth, Wis. 370
No. 65, Jan. 12, 1917; Jno. N. Dulmes 205
Lady Klazerina Belle, April 23, 1915; Nye 120
Maid Netherland Joh De Kol, Jan. 20, 1911; Peter Faas 165
Hannah Pauline De Kol, Mar. 27, 1905; Peter Faas 135
Highland Mercedes Polkadot, May 19, 1916; W. F. Nehring, Jr. 170

An Acre of Roots.

An acre of roots will help winter your stock. This is the slogan of the campaign of the Wisconsin Agricultural Experiment Station for more root crops this year. Upper Wisconsin farmers, especially, are strongly advised to sow root crops in the new clearings or among the stumps. Every settler can grow root crops, while some may not have land suitable for corn. The experiment station workers say that an acre of roots will help feed ten cows during the winter. As feed will be high the cheapest expedient seems to be to raise more roots. Here are some of the advantages in favor of at least a small area for root crops:

1. Yields are 300 to 500 bushels to the acre.
2. Roots do well on new land.
3. Seed cost is low—40 cents to $1.25 a pound or $1.50 to $6 to put in an acre.
4. Easy to grow, requiring no expensive tools.
5. Cool nights of Upper Wisconsin ideal for root crops.
6. Good food for the table or the stock.
7. Helps to keep stock healthy.
8. Provides winter succulence.
9. Takes the place of silo during the settler's first winter.
10. Pound for pound with water out roots are as good food as grain. Roots will cut cost of grain feed at least half without reducing milk yield.
11. Keeps breeding stock in good condition.

Instead of worrying where the feed is coming from next winter for the cows why not buy one or two more and put in an acre or so of roots to help feed these cows next winter? Rutabagas, turnips, mangels, carrots, are all good. The state council of defense urges an acre or more of roots on each settler's place in Upper Wisconsin, as this will help increase the butter and meat production of the northern part of our state.

Wants Effective Dog Law.

To the Editor:—At present the state legislators are in session. This body of intelligent men could materially assist farmers of this state, and at the same time show their loyalty to the country, by enacting an effective dog law to protect the flocks of the farmers against the worthless, sheep-killing cur dogs, which are in a large measure responsible for the destruction and decrease of our flocks. Many states have enacted such a law. Why should not Wisconsin? Frank Kleinheinz.

CONNELL BROTHERS
COLGATE, WISCONSIN
Are consigning six of the best animals in their herd to the
WAUKESHA COUNTY HOLSTEIN SALE
MAY 31 AND JUNE 1, '17
Included in this number is a daughter of a 27-lb. cow bred to their herd sire, which is a son of Johanna McKinley Segis. They are also offering a beautiful heifer calf out of an 18.lb. daughter of Homestead Jr. De Kol and sired by their herd sire, Count Johanna McKinley.

S. S. CRAMER, MILWAUKEE
is consigning Sir Spofford Pietertje Korndyke (156966), a 29.49-lb. bull, to the
WAUKESHA COUNTY HOLSTEIN SALE
MAY 31 AND JUNE 1, 1917
This bull was born November 30, 1914, and is a show animal just in his prime. He is by Dutchland Sir Pontiac Korndyke (51543), 10 A. R. O. daughters and out of Molly Spofford (123479), an association prize-winning 29-lb. cow. Here is a real opportunity to purchase a high-class herd sire possessing good breeding, high A. R. O. backing and splendid individuality.

HORSES.

PERCHERON STALLION FOR SALE

First-prize three year old at North Wisconsin State Fair, sired by Royalist, grand champion at the Wisconsin State Fair. Dark gray, weight 1,900 pounds.
A heavy-boned, drafty fellow. Also one black five year old, weight 1,900 pounds, and second-prize aged stallion at North Wisconsin State Fair. These horses are in the harness every day.
L. P. MARTINY, Chippewa Falls, Wis.

LEFEBURES' BELGIANS

Largest Collection on Earth
150 Belgian Stallions and Mares 150
Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.
H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids
If in Cedar Rapids, phone us for hourly Interurban service

Percherons, Belgians, Shires,
Ten stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, R. 7, Chariton, Iowa.

TOO LATE TO CLASSIFY.

BULL SOLD, ad in last wk.'s issue. King Pontiac Korndyke Champion (his sire) is for sale. Age 4 years, ⅞ white, weight 2500 lbs., sure breeder, gets 75% heifers. Sired by a 31-lb. son of King of Pontiacs. Dam, 22.08 lbs. in 7 days, 560 lbs. yrly. Price right. Could use a few reg. females in exchange. Hillside Stock Farm, Reedsburg, Wis.

SHORT-HORN CATTLE.

RAISE MORE BEEF

Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short horn is the great improver.
Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.
Use only pure-bred registered bulls. We will help you to secure them.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
13 Dexter Park Avenue Chicago, Illinois

ROCK COUNTY SHORT-HORNS

FIFTY registered herds in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, Janesville, Wisconsin

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection Address
J. E. KENNEDY JANESVILLE, WISCONSIN

Short-horns

MILK BEEF

If you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

Short-horns For Sale

WE HAVE some young Short-horn bulls sired by Senator Clay 5th, for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

THE GREAT WORLD'S FAIR HERDS

40 Short-horn bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows sired by Big Bone and Long Wonder. Call at Prairie Lawn Stock Farm or write C. J. Schoenfeld & Son, Fox Lake, Wis.

Good Short-horns

FOR SALE. 20 choice bulls and heifers. Prices reasonable. Standard Scotch breeding and of the right type and quality. Richard Maurer & Son, Fox Lake, Wisconsin

SHORT-HORNS Both sexes and good individuals Address Williams Bros., Bangor Wisconsin.

Bates Milking Short-horns

YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking—high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

SHORT-HORNS

STRICTLY BATES. Bates cattle for milk and beef. Have bulls for sale sired by 17th Duke of Wapsie. Write now.
B. W. LITTLE Janesville, Wis.

Short-horn Heifers

YEARLINGS and over. A few young bulls. I'll try to please you. Write.
P. N. COLLINS — RIVER FALLS, WIS.
(35 miles southeast of St. Paul)

SHORT-HORNS

BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. Drake & Son, Beaver Dam, Wisconsin

SHORT-HORN BULLS

Red, white and roans. For particulars address
R. A. Morley Co. Baraboo, Wisconsin

"SOME BULL"—I have for sale the best bred Scotch bull in the country. Write for details.
F. S. Bunker, Kilbourn, Wis.

CHESTER WHITE SWINE.

Long, Strong Backs, Heavy Bone

DERENTHAL CHESTERS. The above is descriptive of the fall boars I have for sale. A fine lot and well bred. Yes, I'll sell spring pigs.
H. A. DERENTHAL Wykoff, Minnesota

DUROC JERSEY SWINE.

Duroc Spring Pigs

HAVE over one hundred good ones sired by the grand champion

KING DEFENDER

Let me book your order now. Address
JOHN L. FISHER JANESVILLE, WIS.

BRED GILTS

POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
JULIUS PETERSON Kilbourn, Wis.

15 DUROCS

FALL YEARLINGS, will farrow in Aug. and Sept. In nice condition, long, good backs and smooth. The sire is a grandson of Golden Model 2d. Guaranteed safe in pig. Write
FRANK H. ARNOLD Janesville, Wis.

YOUR APPROVAL

BEFORE YOU PAY for the DUROC-bred gilts and boars that I sell. August farrow, well grown, smooth and right. They'll please. Order.
C. J. DAMEROW Beloit, Wis.

CLARENCE GEORGE

OF EVANSVILLE, WISCONSIN
IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. Jenkins Bangor, Wisconsin

WAR DUROCS

HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
DENNIS SHEA Melvina, Wis.

LIST YOUR NAME

WITH US for a good spring boar, from the best sows sold last winter. Also have sow to sell; will farrow in June.
DUROCS. GUERNSEYS.
RILEY MARTINY & SON Baraboo, Wis.

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address
Geo. D. Spraim & Sons West Salem, Wis.

ATWATER

HAS no Durocs to sell until May. Will book your order.
L. F. Atwater Bangor, Wis.

FALL DUROCS

THEY are dandies, with stretch and quality. Our guarantee with each pig. Address
F. R. Constance & Sons Waupaca, Wis.

CHESTERS

BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

RAINY DAY

BY Callaway's Favorite, one of the good Chester White boars of the state. Booking orders now.
WALTER GEORGE EVANSVILLE, WIS.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY Mt. Hope, Wis.

CHESTERS

NOTHING for sale at present. Booking orders for spring pigs to be shipped at 3 months. Sired by Pay Streak. Write
Wm. F. Butts Evansville, Wis.

5 Sows, 4 Boars

FARROWED Feb. 5, 1916. Chester Whites. Dandies and ready to ship. Also 40 March pigs to be shipped June 1st. Let me describe them.
ART G. HOSKINS Dodgeville, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

GUERNSEY CATTLE.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.
E. H. KIESLING Jefferson, Wis.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman**, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitrick Greenville, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON Neillsville, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

THE "PINEHURST DAIRY"

HOLSTEINS

of Sheboygan Falls, Peter Reiss, Owner
are to be

95 HEAD DISPERSED 95 HEAD

TUESDAY, JUNE 12

AT

LAKE MILLS, WIS.

This sale will be held in the barns of the Lake Mills Holstein Breeders' Consignment Sale Co., and under their management.

This herd is one of the best in the state. There are 55 cows, 30 heifers, 2 noted sires and 8 bull calves.

There are 44 cows with official records, 1 having 34.43 pounds. There are 13 cows with yearly records.

Auctioneers---Haeger, Kelley, Mack.
S. T. Wood in the box.

F. H. EVERSON, Mgr., LAKE MILLS, WIS.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE have for sale at all times, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females, and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS WAUKESHA, WISCONSIN

GUERNSEY BULLS FOR SALE

GUERNSEY bulls from imported A. R. dams with good records. Sired by a son of Imported Royal George of the Isle and the A. R. cow, Imported Lily of the Mill. Handsome individuals, priced right for immediate sale.
PINEHURST DAIRY SHEBOYGAN FALLS, WIS.

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wisconsin

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian**, whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

MOUND CITY FARM

OFFERS Guernsey bulls sired by Langwater Freeborman 19226 and Dairymaid's Glenwood Pinehurst 3d 26348. 30 records average 460 lbs. 20 average 505 lbs. fat. Send for sale list.
CHAS. A. WILKINS Platteville, Wis.

"Yeksahurst" Guernsey Bulls

20 MONTHS old. Sire, Old Ironsides (six nearest dams av. 590 fat). Dam, Yeksanette (126 ds. 221 fat). He traces nine times to Yeksa. Send for details.
A. O. OLESON Livingston, Wis.

HOLSTEIN-FRIESIAN CATTLE.

Korndyke Johanna Segis

BE SURE AND SEE

Pabst Korndyke Blackberry

Born March 5th

At the

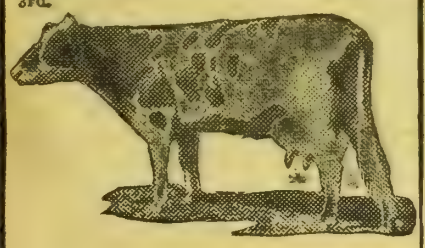
Waukesha Sale May 31 and June 1

Sire—Korndyke Segis Johanna, our $12,500 junior sire, by Johanna McKinley Segis, who is by King Segis and out of Johanna DeKol van Beers, 40.07. Korndyke Segis Johanna's dam Pontiac Lady Korndyke, 38.03, by Pontiac Korndyke's 2nd dam Lady Korndyke Pauline DeKol, 29.14, by Pontiac Korndyke.

Dam—Pabst Blackberry at three years, 31.68 by a 29.42 (three years) grandson of Hengerveld DeKol.

2d Dam—Pabst Pontiac Burke (three years), a 23.24, by King Pontiac Champion, our senior sire, by King of the Pontiacs.

3rd Dam—Edith DeKol Burke Hengerveld, 33.86, by DeKol, 2d's Butter Boy 3rd.



Pabst Blackberry

Over 30 young bulls out of high producing A. R. O. cows to select from at our farm. Fifteen minutes from Waukesha by interurban.

PABST STOCK FARM
(Breeders, Not Dealers)
OCONOMOWOC
Waukesha County, Wis., Box F

40-POUND KING SEGIS AND ORMSBY BREEDING (The most popular strains of the Holstein breed today)

Sons out of daughters of Sir Ormsby Hengerveld De Kol, having records up to 25 pounds, and sired by our 40-lb. bull, JOHANNA McKINLEY SEGIS (44367), and BEAUTY PIETERTJE PRINCE (56435), an A. R. O. sire having 24 A. R. O. daughters including a 24-lb. two year old just tested, furnish a great opportunity to purchase the right kind of a foundation sire. Write for prices and extended pedigrees, stating the approximate age of animal you desire.

Carnation Stock Farms
OCONOMOWOC, WISCONSIN

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS Medina, Wis.

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.**

Holstein Bull for Sale

SIRED by a 2-474-pound grandson of Hengerveld De Kol, dam Aaltje Salo De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN BULL FOR SALE

HOLSTEIN BULL, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

INDIVIDUALITY AND PRODUCTION COMBINED

A 29.23-LB. SON OF MANDOLENE DE KOL JOHANNA, that holds the Minnesota milk record for 7 days, producing 117.1 lbs. her best day and Sir Ormsby Korndyke Mechthilde, a Holstein sire well known as a prize winner, and a sire of prize winners, is for sale.
V. S. CULVER - - - - - - - - Stillwater, Minn.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
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26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
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Guaranteed Holstein Bulls

FROM 1 to 11 months of age, out of large record A. R. O. cows. They are sired by the great bulls, King Artis Pontiac and King Korndyke Veeman, that have records in their pedigree from 30 to 41 lbs. butter in 7 days. They are priced to sell.
Wisconsin Star Stock Farms **Ed M. Schultz, Hartford, Wis.**

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HOLSTEIN BULL CALVES by 32-lb. sires from A. R. O. dams. Popular breeding, good individuals. $100 up. Write and mention Wisconsin Farmer.
TULLOCH & FRIES' HERD GENOA, WIS.

Milford Meadows Stock Farm

OFFERS for sale a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
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UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.

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Pewaukee Wisconsin

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 nearest dams average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 7-8 white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
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OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

HOLSTEINS FOR SALE

MEQUON FARM offers Holstein bull calves sired by a 23-lb. grandson of King of the Pontiacs, out of high-testing cows, at very reasonable prices. Address
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HILLSIDE STOCK FARM

KING Fayne Pontiac Ormsby, 18 mos. old, seven-eighths white straight; dam, 600 lbs. milk, 24.06 butter in a week. Also a few registered Holstein heifers for sale; price, $250.00.
KIRKPATRICK BROS. Reedsburg, Wis.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON NASHOTAH, WIS.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

REG. HOLSTEIN BULLS

SIRED by Cedarlawn Champion 3d, whose two nearest dams average almost 24 pounds butter in 7 days with first calf. One bull out of a granddaughter of Sir Johanna De Kol, sire of the 40-pound cow, Johanna De Kol Van Beers. Address
Fred Kohlwey Grafton, Wisconsin

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10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
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ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
E. E. ROSENKRANS Oconomowoc, Wis.

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AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
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WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers Lyons, Wis

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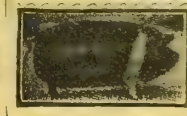
CHOICE BERKSHIRE PIGS

OF March and April farrow, most of them sired by Ames' Rival 32d, and all out of large mature dams. I can please you. For prices, write
A. P. CORTTE Lomira, Wis.

HAMPSHIRE SWINE.



HAMPSHIRES or "Belted" swine. Have 20 Mar. weanlings, but in addition offer my "tired" sows, 4 gilts, 2 bred, 2 boars, sexes not related. All stock registered. **Dane Stock Farm, Oshkosh, Wis.**

JERSEY CATTLE.

Oak Grove Jersey Farm

Bull calf, dropped Aug. 21, 1916, solid fawn color, will show as a calf this fall, tuberculin tested; dam on official test; price right. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and heifers on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins - - Fairwater, Wisconsin

JERSEYS.

HEIFERS AND BULLS

SIRED by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking 50 cows. **Fred Stubley, Black Earth, Wis.**

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BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiggins, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer
E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rossaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

RED POLLED CATTLE.

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.
J. W. SALTER & SONS Unity, Wis.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

HEREFORD CATTLE.

WALTER BROS.' HEREFORDS

ONE two year old. **Bulls for sale.** Two senior yearlings, by Beau Gomez 2d, he by the noted $4,000 Beau Gomez. Outstanding bulls at reasonable figure.
WALTER BROS. Chippewa Falls, Wis.

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30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner Chariton, Iowa

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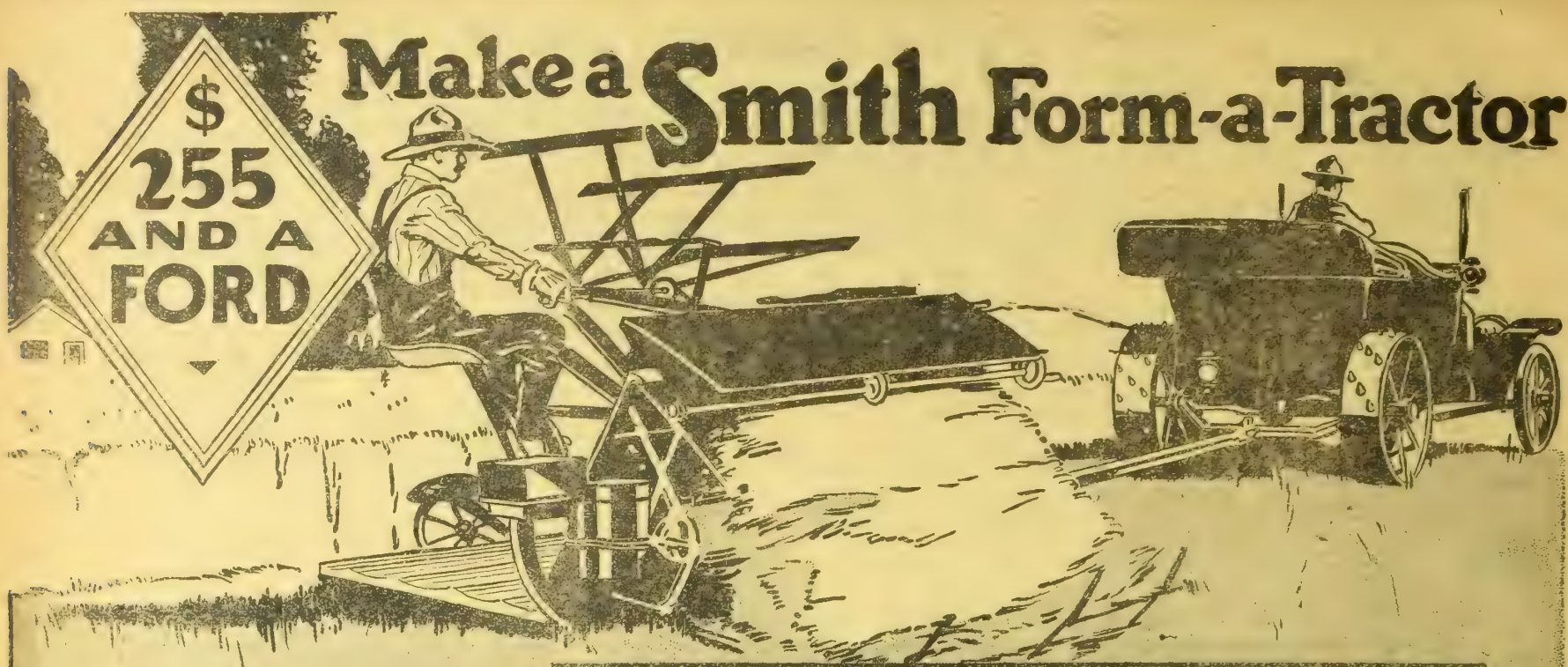

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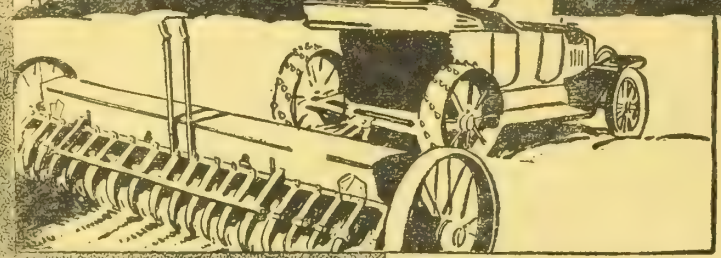
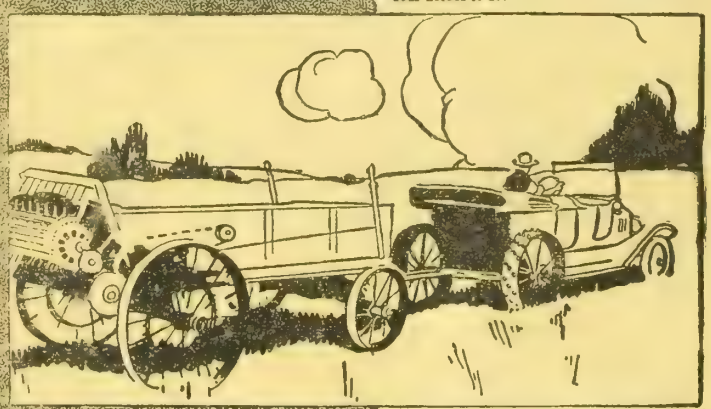
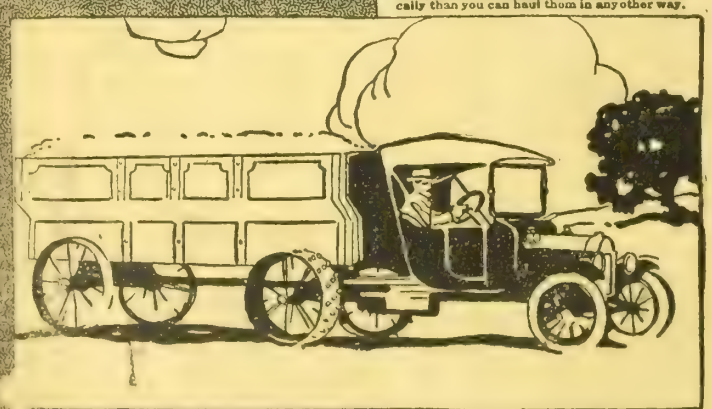


Smith Form-a-Tractor easily works in freshly plowed fields doing what you ordinarily use four horses to do.



With Smith Form-a-Tractor you can haul your heaviest loaded farm wagons either over the road, out of your fields faster, more economically than you can haul them in any other way.



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Smith Form-a-Tractor will easily plow seven acres to every four acres you can plow with horses. It will operate steadily at a speed of 2½ to 3 miles an hour. It will plow deeper, and in every other line of farm work it will show the same superiority over horse service that it shows in plowing.

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THE WISCONSIN FARMER

VOL. XLVI. NO. 22. THURSDAY, MAY 31, 1917. WHOLE NO. 1844

Road Work Through the Summer.

Sauk County, Wisconsin, Boys Engage in Effort to Keep All the Roads Dragged and in Condition for Travel.

A COMPANY of boys in Sauk county, Wisconsin, are engaged in what is called the Boys' Road Dragging Contest. Inasmuch as this is a step forward in taking care of the natural roads, our readers all over our state will be interested in some of the details of this contest. Mr. W. H. Babcock, associated in rural Y. M. C. A. work in Wisconsin, is secretary of the Boys' Road Dragging Contest and he has furnished us with the facts which are used in this article.

The work for 1917 was inaugurated by sending out a letter in March explaining what the sixty boys who had been engaged in the road dragging contest in 1916 had done, urging at least 100 boys from fourteen to nineteen years of age to join in the work this year. The contest this year is by townships, so that those who enter will not compete with boys in other towns. There are cash prizes in each town, but a committee is proceeding upon the plan of checking up the work frequently, so that they may know how the boys are doing. In cases where the road past any places need grading, boys are urged to see their town officers and get them to put it into shape as soon as possible. In this same letter the Good Roads Committee urges the boys of Sauk county to write or see Mr. Babcock and make suggestions for the summer's work. In addition, the boys are asked to keep in touch with the town board and to offer themselves for road work when such work is needed. For this work they get the usual wages in addition to the chance of winning a prize.

ERWIN LARRIDEN, OF THE TOWN OF REEDSBURG, SAUK COUNTY, AND HIS TEAM AND DRAG.

As before stated, the letter sent out to boys throughout the county was the opening gun in the 1917 drive for better roads all over Sauk county.

At present writing, May 20th, about the same number of boys have been set at work as last year, while a number of others are to begin as soon as their mile of road can be graded.

Sauk county does not claim any originality in promoting this idea. It was started in Rock county in 1915 by Mr. George F. Parker, the fountain pen manufacturer, of Janesville, and L. A. Markam, county Y. M. C. A. secretary, who has now become Rock county's agricultural representative or county agent.

When Sauk county's board of supervisors heard about it from Sauk county's Y. M. C. A. man, W. H. Babcock, they adopted the idea at once. The above committee was appointed from among the members of the board, and were authorized to spend $30 in printing and postage to promote the scheme. They also spent a few dollars for gasoline in inspecting the work, but when they reported at the November meeting on the results the committee was promptly reappointed, and the printing and postage allowance increased to $50 for 1917.

FOUR GOOD FARM HORSES FURNISH THE MOTIVE POWER.

How did they get the boys? In many cases the town chairman and his road supervisors simply hunted up every available boy, and if the road past his father's farm was of such a nature as to be helped by a road drag, he was employed to take care of that mile—in some cases two miles. Some towns paid thirty-five or forty cents per hour for boy and team, while others paid a flat rate of $10 for the season per mile of road. In every case where they graded up the road properly the boy "kept the roof" on with the drag.

Some town chairmen brought the matter up at town meeting, and in some cases the voters turned it down. In others the town board simply went ahead and disposed of part of the highway fund in that way. In one such town the matter was referred to at town meeting this year, and while one man said he thought it was a waste of money, half a dozen at once replied that it was the best road money the town had spent last year.

Mr. A. R. Hirst, state highway engineer, went with the boys and their fathers on an auto tour, in October, over the greater part of the boys' dragged roads, and his report was: "The only fault to be found with the boys' work was that in a good many cases their road was not graded up as it should be, so they had no chance to show what they could do." A salesman who lives at Reedsburg and travels by auto or team, says that even in the winter he could always tell in the dark when his wheels reached the edge of Washington township, where nineteen boys dragged about twenty-two miles of road. This was the home town of Mr. Schenk, chairman of the committee, and he saw to it that it was the banner township for boys' road work. One of his boys, Albert Schenk, and also Carl Hirschinger, in Baraboo township, were awarded gold watches by members of the county board, who dug up the money out of their own pockets because of the extra good work done on hilly, stony roads. These boys picked up a lot of loose stones after each dragging, and made good roads out of what had been bad ones. The gold watch offered by the Reedsburg Times was awarded by the editor to Erwin Larriden, whose mile of road is on the main line between Reedsburg and Lavalle, and subject to heavy traffic at all seasons. He has shown good judgment in dragging (or not dragging) his road at the right time. The "when" is just as important as the "how" in using the road drag. That is why no one or two men can attend to any great mileage of earth roads. It must be done by a large number of farmers or their sons, who live right beside the road to be cared for, and who can each study the peculiarities of his own section of road.

The contest for the most part was by townships only. It was easy to get a dollar from each of 112 auto owners for a prize fund, which made it $2 per boy. This fund was divided among the various townships at that rate, so that the town with three boys at work got $6 prize money to distribute, and the town with nineteen got $38. Some special checks were printed for the distribution of the prize fund. Each boy was supplied with a button badge; also with a printed sign, to post up beside his section of road, with the words: "Sauk County Boys' Road Dragging Contest, Section No. ——." Each boy was also sent a copy of the government bulletin on the split log drag Some of them followed the directions in this bulletin and built their own drags. But for the most part the town boards purchased enough iron drags to do the work.

Perhaps the best endorsement of the plan is that which came from the rural mail carriers. At their county convention on Washington's birthday they passed a resolution approving it and pledging their assistance. Since then they have helped to find a good many new boys for the work. The county highway commissioner, too, has not been so busy building macadam roads that he failed to notice what the boys were doing. Before the spring election he wrote to the chairman of each town, commending the scheme of setting older boys at work on earth roads. Some towns which had no boys at this work last year have joined the procession now, with from three to ten boys at work.

As proof that it pays to get boys interested in good roads while they are boys, notice this: Last December there was a week of warm weather, when roads thawed out. The contest had closed in November, and they would get no pay for work done later, and yet the habit was strong enough to bring out the majority of these young road makers, and their roads were nicely smoothed before they froze up for the winter.

After all, the present benefit to the roads is only one side of the proposition. The other is the forming of habits like these, so that the next generation of farmers will be better road makers than their fathers were. The Wisconsin Farmer commends this plan to other counties.

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CURRENT EVENTS

THE fight over the prohibition of the use of grains and cereals in the manufacture of intoxicating liquors promises to occupy much of the attention of congress and to become quite bitter. The senate went on record favoring the measure of Senator Cummins, of Iowa, prohibiting the use of grains for such liquors during the war and for one year afterward, but later it rescinded its action. The liquor interests are prepared to make a hard fight, but the prohibitionists are not dismayed. Foremost in their support is the council of national defense, whose advisers on this question have recommended with practical unanimity the prohibition of the use of grain in the manufacture of liquor and the employment of distilleries henceforth in making pure alcohol as an ingredient of ammunition. Prof. Irving Fisher, chairman of the council's subcommittee on alcohol, asserted that sooner or later the nation will be compelled to adopt prohibition as a war measure. Speaking in favor of the prohibition of the use of grains for alcoholic purposes Professor Fisher gave these facts: "Nearly 2½ per cent of the total crop of those cereals used in manufacturing alcoholic beverages are diverted to that use, while 5 per cent of the total crop of rice and 34 per cent of the total crop of barley are so diverted. More than 110,000,000 bushels of grain are used in the production of alcoholic beverages, 415,000,000 pounds of grapes and 152,000,000 pounds of molasses. In all about 7,500,000,000 pounds of food (grain, grapes, grape sugar, glucose and molasses) are so used each year. After making allowance for the production of denatured alcohol, the total fuel value so diverted each year is sufficient to supply the yearly energy requirement of over 7,000,000 men."

ENGLAND has at last awakened to the fact that she must solve her Irish problem before she can consistently accuse other nations of outrages in Poland or condemn them for not being a nation wholly by the consent of the governed. For the first time in modern history, the destinies of Ireland are to be placed in the hands of the Irishmen alone. Last week, the British prime minister, David Lloyd George, announced to the house of commons that the government will call a convention of Irishmen to frame a constitution for Ireland, and if Irishmen are able to agree upon any scheme for the administration of their country, will attempt to enact it into legislation without delay. All sections, parties, creeds and factions, with clergymen and laymen, as well as politicians and even revolutionists of the Sinn Fein society, will be invited to get together. In making his proposition before parliament, the premier said there was one thing common to the failure of all attempts to arrive at a settlement—that the proposals had emanated from a British government. The present government, therefore, had decided to invite Irishmen themselves to put forward their proposals. Hitherto Great Britain had undertaken all the construction and Ireland all the criticism. Once Irishmen were confronted with the problem they would give due weight to the obstacles and differences, he believed. The government proposed Ireland should try her own hand at framing a plan. This method, he said, had succeeded in Canada, Australia and South Africa, and he could not help thinking that what had been achieved there could be achieved in Ireland.

ALL three arms of America's fighting forces—the army, navy and marine corps—will be represented in the war zones of Europe in the near future. With American submarine destroyers already operating in European waters, chasing the German submarine, and with army regulars concentrating to carry the stars and stripe to France and Belgium, a regiment of marines (the fighting men of the ships) was last week designated to join the first expeditionary force. The marines will be attached to the army division under General Pershing, which is under orders to proceed abroad as soon as practicable. Although details are not being made public, it was calculated that, with the marine regiment, the total American force now designated for land service in Europe is close to 40,000. An army division at war strength comprises about 25,000 men, and upward of 12,000 are expected to be in the nine volunteer regiments of engineers now being recruited. The forestry regiment and the marine regiment each will number more than 1,000. The strength of the naval force in European waters has not been revealed. General Pershing and his staff will sail for Europe ahead of the troops, as there is much to be done on the other side to pave the way for final training of the force and to make ready for the huge army the United States is preparing to pour across the seas as rapidly as the men can be trained and equipped.

PRESIDENT WILSON has finally and positively decided not to accept the services of the volunteer troops which Theodore Roosevelt proposed to organize and lead to the allied trenches in Europe. Congress left the matter discretionary with the president and he states that he was advised by military experts, both in this country and abroad, to veto the proposition. In his public statement the president paid a high compliment to Mr. Roosevelt's patriotism and heroism, adding: "But this is not the time or occasion for compliment or for any action not calculated to contribute to the immediate success of the war. The business in hand now is undramatic, practical and of scientific definiteness and precision. I shall act with regard to it at every step and in every particular under expert and professional advice, from both sides of the water. That advice is that the men most needed are men of the ages contemplated in the draft provisions of the present bill, not men of the age and sort contemplated in the section which authorizes the formation of volunteer units, and that for the preliminary training of the men who are to be drafted we shall need all of our experienced officers." There is some talk that Roosevelt may be given a commission in the regular army and accompany General Pershing's expeditionary force when it starts for Europe, about September 1st. He may join the New York National Guards. That he will be in the fighting forces in France before very long now seems almost assured.

PRESIDENT WILSON has asked Herbert C. Hoover, the American director of Belgian relief, to undertake the emergency food administration of the country during the war. Mr. Hoover has accepted on condition that he may serve the nation without compensation. Authority for the appointment of Mr. Hoover as food controller is provided in the bill now pending in congress. Until it is passed nothing definite can be done. The president, however, clearly outlined his desires in a statement issued on the subject. Control of food products by a board independent of the department of agriculture is proposed in order that there may be no fear of the possibility of a permanent bureaucracy arising out of it," the president said. In his public statement, President Wilson said: "Authority is asked also to establish prices—but not in order to limit the profit of the farmers, but only to guarantee to them when necessary a minimum price which will insure them a profit where they are asked to attempt new crops, and to secure the consumer against extortion by breaking up corners and attempts at speculation when they occur by fixing temporarily a reasonable price at which middlemen must sell." There is a general belief that congress will establish a minimum price for farm products before it finishes this line of work, something which most authorities are agreed should be done, without undue delay.

THE number of men killed in the war thus far is estimated at 7,000,000 by Arthur Henderson, member of the war council of Great Britain. He estimated the total casualties of the war to be in excess of the population of the United Kingdom. (The population of the United Kingdom, according to the census of 1911, was 45,370,530.) Mr. Henderson said that after nearly three years of military effort there was no immediate prospect of cessation of hostilities. The severe character of the war and its prolongation tempted some persons to ask why peace should not be attempted by other means. He would tell them, he said. It was because the challenge thrown down by Germany in 1914 still held good. The lust of world domination which dictated the policy of aggressive military action on the part of Germany continued to be supported by the German emperor and his Prussian advisers. Until the great act of liberation had been fully achieved the allies could not falter.

THE army war bill has been passed by both houses of congress, signed by President Wilson and is now the law of the land. The president's signature set in motion immediately machinery designed to produce within a year's time a national army of more than 1,000,000 trained and equipped men backed by adequate reserves of men and supplies and by an additional 500,000 soldiers under training. June 5th is the date fixed by the president for registration, to be completed within five days and to be followed by the process of selection which will determine the first 500,000 men to be called to the colors about September 1st. Meanwhile the war department is pushing vigorously its preparations to mobilize the national guard, which with the regulars forms the first line army. It was announced that all existing regiments of the guard will be called into service by August 5th and officials estimate that with from a month to six weeks' intensive training these troops will be ready to go forward for final preparation behind the fighting lines in Europe for the fighting that is before them. Regular army regiments already are in motion northward from the border, preparatory to the expansion of the regular service to full war strength. Of the 183,898 men necessary to bring the regulars up to the 198,000 mark, 74,[illegible] already have been recruited and the remainder are expected to come in before June 15th.

GENERAL PERSHING, who commanded the expeditionary force sent into Mexico to capture or subdue Villa, and who is conceded to be one of the most able of all the officers of the regular army, will head the force of 40,000 troops which the United States will send to the firing line in France and Belgium as soon as possible, probably by the first of September. General Pershing, a republican in politics, was a brigadier general when he led the forces into Mexico in pursuit of the bandit, Villa. His work at that time won for him selection by his brother general officers as a major general and the choice was heartily indorsed by the war department and President Wilson himself. Under the plans of the war department, General Leonard Wood has been assigned the hardest task of any general officer. He will direct, as commander of the southeastern department, the mobilization and training of twelve divisions or more than 300,000 men, among whom without question will be those who will be first selected to follow General Pershing's forces to France.

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Cultivating the Sunflower.

The sunflower seems likely to come into its kingdom. The present high price of the seed is turning attention to it as a possible crop worth cultivation, and this interest is very likely to increase, for the more we know of this crop the more evident it appears that it has a great future.

There are farmers who have grown sunflower seed to a moderate extent and done so with profit, and without anything like a boom, which would be liable to a collapse. Conservative cultivators should try it out. The reason for increased prices for the seed is found in the new uses to which it is put. The oil which it makes is found to be a good substitute for linseed oil. It has long been known that for poultry food the sunflower seed is useful, and that if its use could be more generally introduced, it would be to the great advantage of the poultry business.

The sunflower is not very particular as to soils. It will thrive in any soil which is friable. It will do well on any soil which has drainage, and will laugh at drouths upon high land. Any land where corn will mature a fair crop will also grow the sunflower. Prepare the soil just as for corn and plant the seed with your corn planter, leaving three plants to a hill, just as though it were corn. The Mammoth Russian, which makes only one big head to a stalk, is the best variety. The sorts which branch out, making a dozen small heads to a stalk, must be avoided, for small heads greatly increase the labor of harvesting. For this critical job, we know of no machine which is effective. It is a matter of hand labor.

Birds are very fond of the seed, and it will not be safe to let it fully ripen on the stem, but cut it when the majority of the heads show color. Drive alongside the rows with a big wagon with high box, or rack. Clip the heads with six inches of the stem, using a corn knife. Throw into the wagon until you have a load. Then drive to an airy loft, where the crop is spread out to dry. After two weeks of warm weather, it will be dry enough to shell easily. Use the stalks for summer fuel.

The Wisconsin Farmer

THURSDAY, MAY 31, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

MEMORIAL DAY.

THE war, in which we are now engaged, gives new meaning and solemnity to Memorial Day. Before another year has passed there will doubtless be boys from the fertile fields of the grain belt, as well as from the noisy pavements of the cities, who will have given up their life's blood for their country, for liberty, for humanity. We may hope and pray that this shall not come to pass, but already youth is straining at its leash, and we cannot restrain it much longer.

To me, Memorial Day has always been fraught with peculiar, even painful, significance. It is an echo of that great struggle between brothers, the scenes of which linger in my mind with terrifying vividness. On that day, I lean back in my chair, close my eyes and watch people and scenes of civil war times pass in review in my mind. I see the fint parties of the early sixties, back in the Ohio village where I lived as a lad. I see my father, my uncles and my brothers marching away to war, some of them never to return, leaving an aching void in the family circle which a half century of healing time has not succeeded in filling, even in memory. I see the day when I, too, followed in my father's footsteps and took up arms in defense of my country. Then I think how few there were of that goodly company, setting forth so filled with high hopes of victory, returned to the homes and the hearts aching for them. Yes, my friends, Memorial Day, of all days in the year, is the time of sad, yet patriotic, memories, of rededication to unselfishness and service to our fellow men.

The ranks of the blue and the gray, as they shall march through the streets of our towns and cities this week, will be thin ranks; there will be fewer in line this year than ever before, for the hand of Time can not be stayed and some have gone out from among us, since last Memorial Day, to salute the Great Commander and receive their eternal orders. By next Memorial Day, who knows how many of the sons and the grandsons of the veterans who march this week will be lying in the trenches and redoubts of Europe, staining the soil of a foreign land with their life blood? Who knows, save Him in the hollow of whose hand is our only security?

My eyes are blinded with tears as I write; the text is too sacred for profanation in words. I can only hope and pray that the Great Commander may win His battle for righteousness and truth, for freedom and the eternal verities, without being obliged to send too many of His battalions into the thick of the fray. May some trumpet blast cause the walls of tyranny to fall down, as did the walls of Jericho in the days of old, so His hosts may march through, with flags fluttering and bands playing, to reap the fruits of such a glorious victory as shall mark the end of war for all time to come! Such is my fervent hope and prayer on this Memorial Day.

WHAT WISCONSIN FARMERS' CLUBS HAVE DONE.

I AM very deeply interested in a letter which comes to me from H. G. Seyforth, of Mondovi, Wisconsin, and from which I have been able to get some valuable information relative to the work of the Naples Social Club, of Buffalo county. In another column of this issue appears a report of the work of the Naples Social Club, and I hope that all of my readers will turn to this report and read it carefully. It gives us a splendid idea of what a farmers' club may accomplish. In a personal letter to me, Mr. Seyforth further says in part:

> I think you are doing the right thing by reserving one place in your paper for the farmers' clubs of Wisconsin.

Now that I can see what the Naples Social Club is doing, and since I have read the splendid report sent me a few days ago by Mrs. Mary Huntington Comings, of Eau Claire county, touching the work of the Brunswick Neighborhood Club, I am more than ever convinced that my decision to give more space to club work in the Badger state was entirely right. My readers will remember Mrs. Comings' letter appeared in the issue of May 17th. It is very interesting, indeed, to me to look over these reports and I think it is time well spent for all of us to figure for a minute upon the work that has been accomplished. From these letters I find the following activities have been started in the two clubs mentioned:

Improved social conditions among young people.
Established classes in reading, music and speaking.
Organized tennis club.
Organized community Sabbath school.
Organized rural Y. M. C. A.
Bought a car of crushed lime for use on sour soils.
Bought thirty-five bushels of certified seed potatoes.
Bought spraying materials for members to use.
Held summer picnics.
Held a canning institute.
Conducted sparrow, gopher and crow-killing contests.
Arranging for potato exhibit.
Bought dishes and put in cupboards at schoolhouse.
Secured public speakers for club meetings.
Arranged dances for the young folks.
Taught seed corn selection.
Arranged seed judging contests.
Studied weeds and their control.
Kept parents in close touch with school work.
Distributed alfalfa seed, Sudan grass seed and soy beans.
Distributed egg settings.
Organized egg circle.
Arranged for hot lunches at school.
Held canning bees.
Cleaned the schoolhouse.
Organized special club for young folks.

I have no doubt that when the members of the Naples Social Club and the Brunswick Neighborhood Club see these items listed in their Wisconsin Farmer this week, many will think of other important things which the clubs have accomplished since their organization. But are these not enough to warrant greater support of the farmers' club? I am convinced that if these clubs had done nothing more than get in close touch with their rural school-teachers they would have accomplished enough to warrant all the effort in establishing the club. If they had taken up nothing more than the plan of providing wholesome amusement and entertainment for the young folks, they would have had an object worthy of their time and attention. But see the added activities which have resulted from the organization of these two clubs. I say to you, my readers, that the farmers of our state are not nearly so well organized as they should be. There is power in organization as many of the big enterprises of this country have proved beyond a shadow of a doubt. The farmer and his family may exert their full share of power in the community and in the state at large, and even in our nation, if they will stand together for worthy objects. I stand for more farmers' clubs and greater activities in the ones which are already organized. If there are clubs in our state which have been lying dormant, now is the time to have them reorganized. Let them gather for patriotic meetings, and for such activities as are suggested in the list I have given above.

I would suggest that the list of activities I have given above be discussed at club meetings in our state, and let us discover whether other clubs are doing as much as the Naples and Brunswick clubs are doing. Perhaps someone can give us some new ideas. If so, let me hear from you.

WAS THE FARMER THE ROBBER?

TO THOSE who are making some study of marketing problems, perhaps the following little item, which I clipped a few days ago from a Milwaukee paper, will be of interest:

> A north side woman paid $4 a bushel for potatoes from a grocer in the neighborhood. She found one particularly large tuber that had been cut out with an apple corer, a note inserted, and the piece of potato replaced. The note read:
> "I sold these potatoes for 95 cents a bushel. How much did you pay for them?"

How many of my Wisconsin friends see the full significance of this incident? There was a profit of $3.05 a bushel in potatoes from the time they left the farmer or grower until they reached the consumer. Who will say that this is fair?

Did the person or persons who made this $3.05 profit have any money invested in farm land? I would guess probably not—at least not in any land they worked.

Did the person or persons who made this $3.05 profit plow any ground, buy any seed, plant any seed, do any cultivating, spraying, digging, hauling to market, or any of the other things necessary to bring a potato upon the market?

I guess you will all agree that the negative answer is again correct.

Then why, I ask, should the person or persons who made this $3.05 profit on a 95-cent investment be so favored?

Am I not right in saying that if the potatoes were really to be sold at $4 a bushel, the farmer or grower should most certainly have more than 95 cents? Perhaps someone will answer me that after the potatoes left the farmer they were stored, and hauled on railroads, and dealt out over counters in small lots in the stores. I am willing to admit all this, for I know it to be true. But I am not now, and never will be, willing to admit that this service is worth $3.05 a bushel. Do my readers believe that I am right?

I speak advisedly when I say that the farmer will not always submit to a system which brings big profits on his crops and in which he is not given fair opportunity to share in the profits. The potatoes referred to were not worth $4 a bushel by any honest system of figuring that can be conjured up. They were probably worth considerably more than 95 cents, having been bought by the consumer some weeks, or perhaps months, after they were dug from the ground, and at a time when potato prices were advancing because of the shortage. But if there are to be such big profits in farm products you will find that some day the farmer will wake up to the fact that he can hold his own potatoes, and build his own warehouses to store them in and take part of this profit himself on the crops which he has worked so hard to raise. I do not wish to be understood as objecting to the middleman when he takes a fair profit for the service rendered. Neither do I object to his taking advantage in a reasonable rise in the market. But I have had a suspicion that there are times when moneyed interests will buy up farm crops at as low a figure as possible in the fall, and then lie awake nights figuring out some plan to create a shortage, or at least an imaginary shortage, and boost the prices away beyond all reason. Then the consumer says the farmer is a robber. In the particular case in point, cited from Milwaukee, the farmer was not the robber. I leave it to my readers whether they agree with me. The farmer got a good fair price for his potatoes, but someone else got an exorbitant, a robber price, and the consumer was the victim.

I have often heard that the ideal system is to get more for the produce as it leaves the farm and still send this same produce to the consumer for less money. This might seem ridiculous at first, but I am becoming more convinced every day that it is reasonable, and that by fair and just marketing conditions, farmers may get a better price for their produce and the consumer still receive his food necessities at lower cost. We should not confuse the honest middleman with the food-robber—the speculator—the man who cares nothing for the farmer nor the ultimate consumer. He flim-flams the farmer on buying and robs the consumer whereever possible when selling. I feel keenly the need of laws which will make the food and grain speculator an impossibility.

BUY A LIBERTY BOND.

I DO not know the financial condition of all my readers. I do know, however, that we are enjoying unparalleled prosperity. I do know, moreover, that the farmer is the most patriotic man in the country. These things being so, I believe it will require but little urging on my part to induce a large percentage of my farmer readers to subscribe for the Liberty bonds which our national government is issuing to secure funds to carry on the war.

The farmer is a good business man. The day has passed—never to return—when any smooth-talking stranger, with his hair well pomaded, could sell the farmer a gold brick. The successful farmer of today is every bit as much a business man as the banker behind his wicket. The two simply exert their commercial energies along different lines. This being the case, the farmer is justified in asking for the business details of the Liberty bond issue. I am prepared to give them to him. I think he should ask for such information. Sound business sense, as well as patriotism, demands he buy a Liberty bond.

To begin with, the Liberty bond issue is to be for $2,000,000,000. This is an immense sum, yet we must not forget that it is less than one-fifth the value of the field crops and the animal and forest products of the United States last year; that it is only about two-thirds of the field crop production of the ten states of the grain belt (Wisconsin, Minnesota, North Dakota, South Dakota, Iowa, Illinois, Nebraska, Kansas, Missouri and Oklahoma) last year. Nor must we forget that Uncle Sam is worth something like $225,000,000,000, so that this Liberty bond issue represents merely 1 cent on the dollar

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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Governor Names June 5th "Duty Day."

Gov. Emanuel L. Philipp has issued a proclamation naming June 5, 1917, as "Duty Day." This proclamation conforms to that of the president of the United States issued in the city of Washington on the 18th day of May. Under these proclamations it is the duty of every male person in the state of Wisconsin who has attained his twenty-first birthday and who has not yet reached his thirty-first birthday on or before June 5, 1917, to present himself for registration in the precinct where he has his permanent home or residence some time between the hour of 7 o'clock a. m. and 9 o'clock p. m. on the date aforesaid.

We quote from the governor's proclamation:

No one within the age prescribed by law, and above referred to, is exempt from registration except officers and enlisted men of the regular army, the navy, the marine corps, and the national guard, and naval militia, while in active service of the United States and officers in the officers' reserve corps and enlisted men in the enlisted reserve corps while in active service.

Those who are sick and those who expect to be absent on the day of registration in cities of over 30,000 population, should at once apply to the city clerk, and in all other sections to the respective county clerks for registration cards; and file the same in their respective precincts on registration day. Persons absent from their homes attending schools, colleges and other institutions, will be treated as absentees, and should register under the rules prescribed for such persons.

The governor calls attention to the fact that the duty of registering rests entirely on the man who is subject to registration and any failure on his part subjects him to the penalties of the law. The penalty for failure is imprisonment for not more than one year. The penalty is severe for perjury on the part of any person attempting to evade registering or any person attempting to aid any other person to evade registering. Police officials of all kinds over the state are required to assist in execution of the registration law. They are required to report those who have not registered to the registration board and have authority to require any person to exhibit his registration certificate. The governor calls upon all citizens, patriotic bodies, county defense councils and other patriotic organizations to aid in making the registration a success. Carrying out the suggestion of the governor The Wisconsin Farmer urges every reader of this paper to remind any person whom he may know to be of military age of his duty to register June 5th.

In concluding his proclamation the governor says:

Our country is involved in a great war. The registration of our young men who are of military age is the first act by the government that makes us realize that we are engaged in war. No man can refuse his country's call, and I feel confident that the people of Wisconsin will respond without a murmur. They responded to the call of the country in the wars of former days—they will do so now.

The president wishes us to understand that this is not a draft, but a selection. That to be drafter for military service under this law merely means that the person so drafted has been found physically fit to render service as a soldier, and is asked by the government to do what we would expect him to volunteer to do.

I recommend to the citizens of the state that June 5th be made a memorable day in the history of the state of Wisconsin; that flags be displayed on public buildings and private homes, and that those who go to the booth and register, with the expectaion of rendering a service, will receive the applause that is due a patriotic citizen.

The day should be known by an appropriate name, and I suggest to the people and to the press of the state that we refer to it as Duty Day.

Finally, I express the hope that the law and the proclamation of the president will be complied with by all citizens who are subject to it, that the unpleasantness of inflicting punishment may be avoided, and that you will enable me to say to the president of the United States, at nine o'clock in the evening of June 5th, that Wisconsin stands ready to furnish her quota of soldiers to the nation.

It should be unnecessary for The Wisconsin Farmer to reiterate any of the governor's patriotic utterances or to urge our readers to give strict attention to "Duty Day." We believe that when the registration booths are closed on the evening of June 5, 1917, the patriotic and loyal young men of Wisconsin will all have their names on the honor roll.

Wisconsin Legislature.

By the governor's veto of the Evjue bill all liquor legislation has been defeated for the present session, unless a bill is introduced through a senate committee during the next few weeks. An attempt to introduce such a bill in the assembly following the veto of the governor failed, as it lacked the necessary two-thirds vote of approval of this body. Under the Evjue bill the people would have voted upon the question of wet or dry Wisconsin next year. It is likely that future political candidates will have to come out flat-footed for one side or the other during their campaign for election to the legislature, as the liquor question will be kept alive by the drys in their fight to put Wisconsin on the dry list. The governor in his veto charged that the bill was too sweeping, because it, among other things, forbade the operation of breweries even for export trade. The governor recommended the curtailment of sales of liquor containing more than 10 per cent of alcohol.

Of special interest to northern Wisconsin is the bill which carries with it an appropriation for the university experts to conduct land-clearing and demonstrational work in northern Wisconsin. The original appropriation was $37,250 for the next two years. The assembly in passing it added an amendment appropriating additional funds for this purpose. This money is to be applied on the work already begun and which has shown such splendid results. After passing the senate some time ago the bill was defeated by a few votes in the assembly recently, but through the motion for reconsideration of the vote it was brought before the assembly again and was finally passed. It now goes back to the senate for concurrence in the amendment and for enrollment. If nothing happens to it there, northern Wisconsin will be greatly aided in the work of making her acres fit for the plow.

Misinformation is at the bottom of most of the objections raised against the bill by the legislators. Northern Wisconsin's 10,000,000 acres of cut-over land, an agricultural kingdom in itself, needs the expert advice and the help that only trained men can give. The development of this land by the cheapest and most efficient method is highly important. There is no longer need for every stump to be grubbed in the old-fashioned, back-breaking way. Development in the twentieth century requires and should employ more modern methods. Necessary expenditures must be met by appropriations large enough to make substantial progress possible. It is the poor man who needs the help of the state. The well-to-do landowner not dependent upon the land for his first years of subsistence in northern Wisconsin can manage to take care of himself and his interests.

Private subscription made it possible last year to send a demonstrational train into northern Wisconsin to show the settlers how to get rid of the stumps. Cheaper methods of doing so were preached from every car door and they had immediate effect, because the advice was accompanied by demonstrations at every meeting. For the amount of money appropriated no better use could be made of it to assist northern settlers. It is another step towards speeding up development in northern Wisconsin.

A bill aiming to compensate farmers for losses sustained through the activities of beavers was killed last week. Under the state law the beavers are protected, though it has been frequently shown that dams built by them flood sections of the grain fields, causing considerable loss.

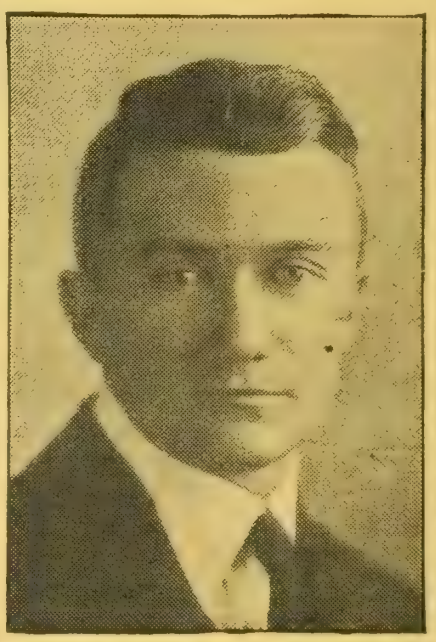
A bill giving aid to the Wisconsin Potato Growers' Association for developing potato work in Wisconsin has passed the assembly.

A great many bills are yet to be considered in both houses and it is likely that the legislature will be in session the entire month of June.

Death of Carl D. Livingston.

With very sincere regret The Wisconsin Farmer records the untimely death of Carl D. Livingston, assistant professor of agricultural engineering at the University of Wisconsin. Mr. Livingston died of malarial typhoid fever Thursday, May 24th. He contracted this fever while on a trip to New Orleans to address a land-clearing conference.

The deceased did conspicuous service in Wisconsin by arousing a statewide interest in land clearing. He had charge of two special trains, one over the Soo Line and the other over the North-Western Line in Upper Wisconsin last year. He was one of the best posted men in land-clearing methods in the United States, his ideas being copied quite generally in states where clearing timber land is considerable of a problem. Coming to Wisconsin from Washington, he was a worker in the forestry department, and his



CARL D. LIVINGSTON.

extraordinary ability was soon recognized by the faculty of the college of agriculture and he was given an associate professorship in agricultural engineering. The men and interests in Wisconsin determined to accomplish much in the way of land clearing this year and the next two or three years expected to place much dependence in Mr. Livingston, and his death is a distinct loss to the state. At the recent cut-over land conference in Eau Claire Mr. Livingston gave a comprehensive review of Wisconsin clearing problems, and men who have been giving these problems attention for years were amazed at his extraordinary grasp of this important subject.

The Wisconsin Farmer has been indebted to Mr. Livingston for a great deal of information on the subject of land clearng. Mr. Livingston was not only well posted in his chosen work, but he had the happy faculty of being a friend-maker and also the capacity to impart information to others so that they could make practical use of it.

The Best Farm Paper.

We are in receipt of hundreds of commendatory letters from subscribers every week in line with the following from a young reader of this paper:

I have been a reader of your paper ever since I have been old enough to read good. My father was a reader before me and is yet. I believe and know that your paper is the best farm journal I have ever seen.

This year promises to be the most useful The Wisconsin Farmer has ever enjoyed in its long career. This is the farm's year, as never before. That being the case, it is incumbent upon every farmer, who wishes to make the most of his exceptional opportunity, to take and to read regularly the most practical and reliable farm paper published in his territory. We firmly believe The Wisconsin Farmer is that paper, the one which he cannot and should not do without.

Attend to the important matter of your subscription renewal without delay. Induce as many friends and neighbors as possible to subscribe and thereby diffuse practical, dependable farm information generally throughout your locality. Never was there a year when a good farm paper was so indispensable to every farm home. We plan to make The Wisconsin Farmer more useful, more practical, more valuable to every member of the farm household this year than ever before.

Examination of Wisconsin Soils.

Quite frequently we receive letters from our readers asking whether it is possible to have their soil examined by the state, and if so what are the conditions and what is the fee. Mr. W. J. Geib, secretary and treasurer of the Wisconsin Soil Improvement Association, has written for The Wisconsin Farmer a comprehensive statement of this matter, which is as follows:

Through the state soils laboratory, the soils department of the college of agriculture is now able to make examinations of the soil on any tract of land in the state upon the application of the landowner. For this service a small fee is charged. The examination consists of making a careful study of this soil in the field, and collecting information concerning the methods which have been followed on the farm, the crops grown, methods of rotation, fertilization and cultivation. In the laboratory a chemical analysis and careful physical examination is made of the soil samples, and when this is completed a report is prepared for the farmer, outlining methods which the college considers best adapted to the permanent improvement of the soil on the farm examined.

Up to the present time about 660 farms have been examined in the state. These are distributed through sixty-three counties and about 210 different communities. In most cases applications come to us from groups of farmers ranging from five to fourteen or fifteen in number of individuals in group. We have about seventy-five such groups at the present time.

It is the desire of the soils department to keep in touch with these farmers and to aid them in carrying out recommendations which have been made. We receive reports from them here at the college from time to time and from these reports it is evident that the farmers are securing very satisfactory results from lines of improvements already started.

The Wisconsin Soil Improvement Association has been organized for the purpose of uniting these people who have had their soils examined, and others who may be interested in soil improvement, into a solid working unit. Through the Journal of Soil Improvement the experiences of various members of the organization will be conveyed to all others who may be interested in this line of work. We expect to form a local soil improvement association in practically all communities where we have made group examinations of farms. Up to the present time, however, only a few such clubs have actually been formed. The Christiana Club is one of the first. There is also one at Prairie du Chien.

The Soil Improvement Association, as you may know, is directed through the soils department of the college, although no state funds are used for it nor for the publication of the Journal. The soils department, however, will send a man to any community in the state where it is desired to have a soil improvement club formed. It is our purpose to urge all who are interested in soil improvement to join the state organization and thus secure the Journal of Soil Improvement. We believe that "In union there is strength," and wherever a group of farmers are united in their efforts to improve their soil they will be able to accomplish more than where each man is working independently. The college can render a greater service to a group of individuals than to scattered individuals. The college will assist in holding meetings in these various communities, and will render every service possible in advancing interests of permanent soil improvement.

Mr. Geib writes that he will be very glad to have the agricultural press of this state assist in the development of such soil improvement clubs in various communities. It is not necessary that soil examination should have been made in a community, for the college workers are glad to take up this work in any section where interest is shown.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued on page 3.)

of the assets back of the bonds. The security being thus sound and ample, what of the interest rate the farmer-investor will receive, when must his bond payments be made, when will he receive his money back, and so on?

The Liberty bonds are to bear 3½ per cent interest, and being free from all taxation (even income tax) this means virtually a 4 per cent investment. Interest is to be paid semi-annually, June 15th and December 15th of each year. The bonds are to be issued in various denominations, $50, $100, $500, $1,000, and so on. They will mature June 15, 1947 (thirty years from now), but they may be redeemed on or after June 15, 1932 (fifteen years from now) at par and accrued interest on any interest day. Should the bonds run to maturity, it will thus be seen, the investor more than receives all his money back, in interest, in addition to the principal. Should they run the minimum limit, he receives half of his money back in the form of interest, in addition to the principal. Immediate payment of the entire amount of the bonds subscribed for is not demanded by Uncle Sam. Instead, every application for a bond must be accompanied by a 2 per cent deposit. Let me assume, to make it clearer that a farmer buys a $1,000 Liberty bond (his subscription for a $50 or $100 or $500 bond will be just as welcome, however). He must accompany his application with a check for $20. On June 28th of this year he must pay $180; on July 30th, $200; on August 15th, $300, and on August 30th, $300. He is thus given three months in which to raise the money, enabling him to buy the Liberty bonds on the proceeds of his hay and small-grain crops this year, if he does not wish to touch any of the $2,000,000,000 which the farmers of the grain belt had on deposit in the state and savings banks at the last available reports.

With the proceeds of this $2,000,000,000 bond issue the government is going to prosecute its share of the great war and finance its allies, who will spend practically all of their share right here with the people who are loaning the money to them, buying foodstuffs, clothing, live stock, war munitions, and so on. Virtually none of the money will be sent outside the country, the entire $2,000,000,000 will be put in circulation here at home, thus enhancing our already widespread and high prosperity.

But there is another side to this matter—the good, sound business sense of such a subscription having been established. That other side is the patriotic side. Our country needs money; it is going to fight against tyranny and militarism and a complete disregard of humanity's rights. Before it fights with human blood it is going to fight first with dollars. We must have money with which to raise and equip an army, which, should it be sent to Europe, will not be sacrificed in vain because of its weakness and inefficiency. The nations which are fighting our battles already over in Europe need money in order to feed and clothe their soldiers, in order to supply them with arms and ammunition. We must supply this money; we must fight with gold and silver, for a time, while our allies fight with powder and lead and steel. Every day that we withhold from Uncle Sam our dollars means another day, at least, added to the great war, means untold human lives sacrificed, means thousands of mothers crying for the boys who will not return, who might have returned had we done our duty promptly. Shall we bear this unnecessary burden of responsibility another day? Shall we not, rather, go forth to meet Uncle Sam, carrying in our hands the money which our fruitful fields have yielded to us, which we have been enabled to earn and to save by the stable, beneficent government which now asks us, not for a gift, but merely for a loan?

Farmers of the grain belt, it is up to you to prove your patriotism! I know you will not be found wanting. Drive to town today and see your local banker. Ask him if what I say here is not the truth; if the Liberty bonds are not a good business investment; if our beloved nation does not need your financial aid and mine, quickly, unanimously, wholeheartedly. If you find out that what I say is, indeed, the truth, rally to the support of Uncle Sam, of the stars and stripes, of liberty and of civilization, and by the signing of your name to a check and the purchase of a Liberty bond show that you are, indeed, a soldier fighting for truth and honor and righteousness among all men and all nations.

Buy a Liberty bond today. Let this be the slogan of all farmers, to the end that Uncle Sam may find that he has no more loyal, patriotic citizens than the men and women who till the soil. The eyes of the nation, of the world, are upon us. Shall they look and plead in vain?

James M. Pierce

FEEDING SHEEP AND HOGS.

Walworth County Man Has Been Making a Success of it and He Also Has a Holstein Herd Which Is Paying Good Dividends.

MR. C. H. WISWELL, of Elkhorn, Walworth county, had been farming a good many years before he began feeding sheep and hogs for market on the enormous scale he is doing now. The idea for enlarging his farm operations came to him many years ago, but it was a long while before he carried it out. It lacked definite form, and Mr. Wiswell never undertakes a proposition until he has worked out to his satisfaction every detail connected with it. So he carried the idea around with him and kept on farming.

One day he saw a self-feeder in use on a farm he was visiting and it just struck him that the idea could be applied to feeding operations on a large scale. The self-feeder he saw was only a small affair, but it was working satisfactorily. On a bigger scale it ought to do equally as well, thought Mr. Wiswell, and he added the information to his plan for future large scale feeding.

That was four years ago. Today the idea has been developed and carried out. About 2,500 sheep and 400 hogs are prepared for the market each year by Mr. Wiswell at a minimum expense of feed and labor. The self-feeders have been developed and perfected to an extent which cuts the labor cost in two. They are not the small affairs which gave Mr. Wiswell's idea a foothold. He has enlarged the model so that the smallest contains two and one-half tons of feed at a time and the largest a carload. Sixteen of these, containing various feeds, take care of the sheep and hogs on the place.

Mr. Wiswell does not undertake too much at one time. He likes to divide his operation, so that there will be work and cash returns the year around. So he feeds sheep in winter and hogs in summer.

He buys his sheep in October and continues buying until January. The sheep are fed until they weigh approximately seventy-five to eighty pounds, which is the right weight for market. By April the last of the sheep have been fed off and the barns are turned over to the hogs, about forty of which are kept on the farm the year around. From April until June other hogs are purchased and fattened for market purposes until September. Then all but a few brood sows are again sold out and things gotten in shape for the first shipment of sheep.

All the eggs are not in one basket, however, as Mr. Wiswell does not believe it a wise policy to depend entirely upon the feeding operations for his revenue. As a backbone to all his undertakings he has a herd of highly bred Holsteins. The combination assures him of a definite profit, irrespective of market conditions. He can at any time discontinue his feeding work and feel safe that the dairy end will pay the running expenses of the farm. He talks of the herd with a feeling of pride, for the cows have made it possible to carry on his other enterprises on such a large scale. He knows they stand ready to furnish additional profits should things turn topsy-turvy.

In feeding so many sheep, Mr. Wiswell has had to figure with every convenience possible in order to save time and labor. The three large buildings that accommodate the animals are built so as to permit free entrance of teams and wagons for filling the self-feeder and taking out the manure. The first shed is 32x112 and has a hayloft above for 100 tons of hay. The second shed is also 32x112, but has no hayloft overhead. A third shed, 36x128, contains a hayloft for better than 100 tons of hay and has a self-feeder along the north wall holding a carload and a litter of feed. In each of the barns are also the movable self-feeders, the smallest of which will hold two and one-half tons. In filling these the men drive through the barn and the feed is shoveled from the wagon into the bins.

For roughage the sheep get silage, alfalfa and clover hay. Of the hay the sheep are allowed to eat all they want, but of the silage about one and one-half bushels per day is figured for each twenty-five sheep. With the silage a little salt is fed daily, in order to keep the animals in good shape. There has never been any trouble from disease on the farm, either with sheep, cattle or hogs. Mr. Wiswell believes in feeding plenty of salt regularly and his hogs get, in addition to the salt, a daily dose of copperas in the slop.

For grain feed Mr. Wiswell purchases wheat screenings for the sheep and also feeds quite a little salvage grain during a season. He purchases feeds the year around, watching the markets for favorable prices.

The hogs are fed in self-feeder fashion and receive, besides tankage, salvage grain and ground screenings, a slop made up of a mixture of ground screenings, oil meal and salvage grain. Salt and copperas are added to each batch mixed. This mixture is soaked in an eight-barrel tank before each feed and flows into the trough without a second handling. The hogs have access to five acres of native grass, which gives them plenty of exercise and enough grass feed to keep the bowels moving. They are permitted to root in the sheep barns and go through the manure for what feed they can find.

Before self-feeders were installed, it required the time of one man for about five hours each day to take care of only 150 hogs kept at that time. Today one man puts in about three hours each day to take care of 400 hogs. The self-feeders require no attention, except occasional filling, which is done by shoveling the feed over from the bin located in the hog house.

The hog house proper is 24x36 and has besides the storage bin, running along one entire side, a tool house on the far end. The house is plenty large enough to accommodate the hogs kept over the winter, as during the summer months the sheep barns are open to the feeders.

The farm has about 200 acres of fertile farm land. A pasture of thirty-five acres gives grass for the cows and the balance is divided into corn, clover and alfalfa. Two silos on the place take care of about thirty acres of the corn raised. Mr. Wiswell is never in a hurry about planting his corn, for he has what he considers two early varieties that will mature even in the shortest season. His corn for grain purposes is Golden Glow, and for silage purposes he uses a strain of Flint corn, known around that neighborhood as Smut Nose. He has put in the silage corn as late as the 20th of June and had his silos filled before many of the neighbors' corn had even matured.

The large amount of manure produced by the stock on the farm has made the acres rich in fertilizing constituents. The entire farm receives a heavy application of manure every second year. Mr. Wiswell is a member of various county organizations and is interested in all movements for farm betterment.

Western Guernsey Meeting.

To the Editor:—The summer meeting of the Western Guernsey Breeders' Association will be held Wednesday, June 6, 1917, at the farm of Geo. McKerrow & Sons' Company, Pewaukee, Wisconsin. Pewaukee is on the main line of the C. M. & St. P. Railroad, twenty miles west of Milwaukee, and also on the interurban line running from Milwaukee to Oconomowoc.

The speakers for the day will be Mr. Robert Scoville, of New York, the newly elected president of the American Guernsey Cattle Club, and Prof. C. G. Hopkins, of the University of Illinois.

We are very fortunate indeed to secure the speakers that we have, and a cordial invitation is extended to every Guernsey breeder to be present.

At the annual meeting of this association held at Madison last February, committees were appointed to recommend rules for the standardization of dealings between buyer and seller and also recommend an amendment, to the American Guernsey Cattle Club, for the conducting of A. R. tests. These committees will report at this meeting.

The executive committee are going to recommend at this meeting that hereafter either the president or secretary of every local association, in the territory covered by the work of this association, be ex-officio a member of this association. I would, therefore, urge the officers of all local associations to attend this meeting.

The committee having under consideration the employment of a field man will also make a report at this meeting.

The Iowa Guernsey Breeders' Association will hold their meeting on June 5th at the farm of Grant Enlow, Fairfield, Iowa. Those who wish can attend that meeting and reach Pewaukee at 11:08 a. m. on June 6th, and this train will leave Chicago at 8:15 and Milwaukee at 10:25.

The Waukesha County Guernsey Breeders' Association will hold their summer sale at Waukesha on June 7th, and these two events coming on successive days should attract many visitors. Charles L. Hill, Sec.

Letter Carriers' Convention Postponed.

Pres. A. D. Larson, of the Wisconsin Rural Letter Carriers' Association, advises The Wisconsin Farmer that the convention announced to meet at Sturgeon Bay, Door county, May 30th and May 31st, has been postponed to some future date. Announcement of the date of the convention will be made later.

Our Farm Help Column.

The Wisconsin Farmer has received the following letters the past week from farmers who want help and men and women who want jobs on farms:

FARM HELP WANTED.

Henry Schorner, Defiance, Iowa. Girl wanted for general housework.

H. P. Jergenson, Thornton, Iowa, Route 1, Box 30, wants experienced man. Wages $15.

FARM JOBS WANTED.

Mrs. Mamie Lee, Clermont, Iowa, wants position as housekeeper on farm or ranch.

N. J. Hilstrand, Rice Lake, Wis. Wants job clearing timber or brush, preferably by contract.

Richard Peterson, Belmond, Iowa, wants job on farm where there is not much milking.

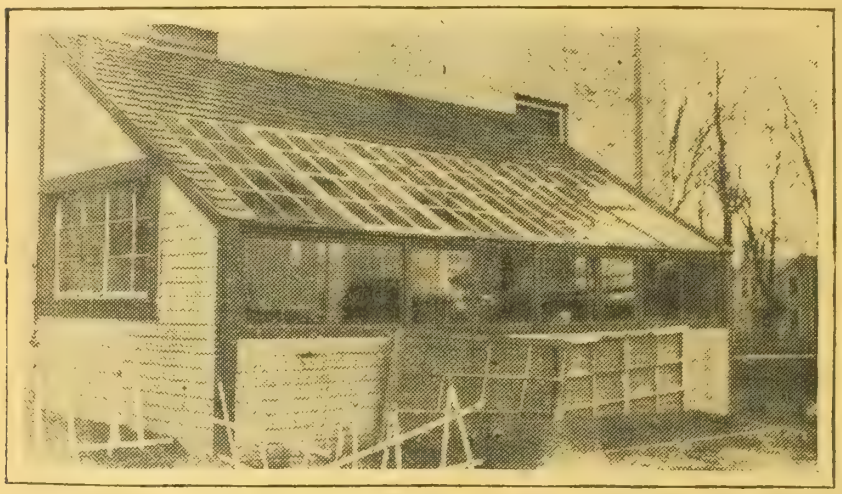
H. E. Bisshop, 214 N. 9th Street, Keokuk, Iowa. Wants position as traction engineer.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 14.

Where Agriculture Is Popular.

Young Folks of the Medina High School, Marshall, Wisconsin, Are Interested in Farm Work—By Earl J. Cooper, Principal.

THE wide-awake agricultural high school must be of service to its community—especially at the present stage of the world's history. In order to make secondary agriculture a success, we must use practical and up-to-date methods. The high school boy is a keen thinker. Moreover, he must be given live material to work with, or his interest dies. The teacher has a splendid chance to help make a good farmer out of the boy and instill the idea of patriotic duty in his life.

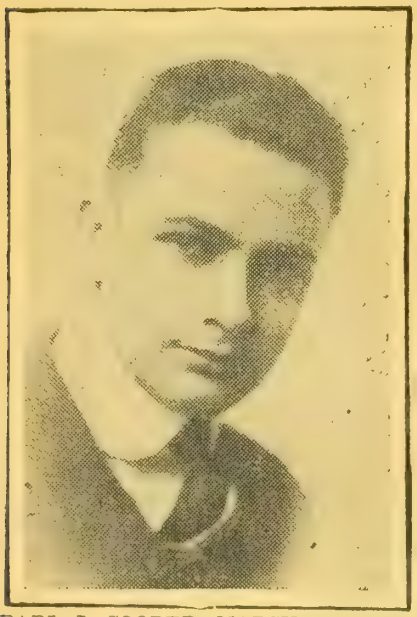


THE SCHOOL GREENHOUSE SUPPLIES CABBAGE AND TOMATO PLANTS FOR THE FARMERS AROUND.

The Medina Agricultural High School, located at Marshall, Wisconsin, is not a large institution, but it supports a four-year course in agriculture and a complete course in domestic science and art. These subjects are practical and are made to appeal to the home side of life.

Agriculture is studied both from the classroom and laboratory standpoint. Each subject is taken up first in school. If the boys are studying "good dairy cattle," score card, book lessons, and bulletin illustrations are taken up. The class is then taken to a near-by dairy and asked to judge the herds. When possible, trips are taken to more distant points to get the best possible material.

In the garden and greenhouse work a greenhouse, several hotbeds and small gardens form the laboratory material. In the greenhouse shown, enough cabbage and tomato plants are raised to supply the country 'round. In fact, the people depend upon this supply year after year.



EARL J. COOPER, MARSHALL, WIS., PRINCIPAL MEDINA HIGH SCHOOL.

Spraying and pruning can best be taught by actual work. The boys are taking care of several orchards, in order that they may learn by actual experience.

We find that boys do the best work if they own some of the material. Three months ago five boys purchased a high-grade Holstein heifer, Medina Lassie. Their problem is to feed her the best and cheapest ration and fit her for the fall fairs. A note was given for her which is to be paid when she is sold. The weekly gains are noted and she has proven to be a gainer so far. Every boy has added a fine experience to his school life.

A large number of boys have adopted pigs and chickens. There are over ten pigs now being owned by high school boys, and during the last two weeks nearly 200 chicks have been hatched "to help win the war." These animals will also be shown at the fall high school and county fairs. Eight boys have bought calves from their fathers and are taking entire care of the same. Others have taken over the home gardens; some chose the home orchard as an ideal project, while others have undertaken to test their herds. Every boy is busy.

MEDINA LASSIE, OWNED BY THE HIGH SCHOOL BOYS.

We have undertaken some extension work which has met with success. In connection with our school, the district schools in two townships have been organized into agricultural clubs. The country boys and girls are raising calves, pigs, chickens, vegetables, corn, or potatoes. The products are to be exhibited next fall at the Marshall High School fair, where suitable prizes will be given, both for the best individual work and for the school as a whole. In addition, the children have a chance to exhibit at other fairs and compete for state prizes offered. We know that this work has a definite value. It creates a love for the farm and no doubt will induce more to attend high school.

The Medina high school has helped to put on farmers', women's and childrens' institutes. The latter was the first of its kind to be held in Wisconsin in connection with a farmers' institute and attracted over eighty children from five schools. As a result of these institutes, club work was started and a cow-testing association formed.

During the past winter members of our faculty and members of the school have helped to organize four social centers—three in the country. These centers have been great social uplifts on long winter nights and will be repeated next year with, we hope, even better success.

We are finishing up the year by visits to all the neighboring country schools, wishing them a prosperous summer and strongly advising a further education in the Medina High School.

INTELLIGENT people have a way of sizing things up for themselves—W-B CUT is all shreds, all tobacco; and ordinary plug is leaf with a lot of heavy, gummy sweetening, holding it together. But everything doesn't go by quantity either; W-B CUT is a rich, sappy chew, because it's *rich, sappy* tobacco. It doesn't take so much W-B to satisfy. Take a small *chew*. Then notice how it *lasts*.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

Apple Trees (4 to 6 Feet)

Hardy Northern Grown. None Better

Kellogg's Hardy Trees are backed by 63 Years In The Nursery Business

$10 Per 100

Send today for our 1917 illustrated Catalog of trees, vines, ornamental shrubs and Small Fruit Plants.

Kellogg's Nursery BOX 224, JANESVILLE, WIS.

What the Naples Club Has Done.

Farmers in the Vicinity of Mondovi, Buffalo County, Have Accomplished a Great Deal Through Their Club.

To the Editor:—The Naples Social Club, which was organized in October, 1914, by the rural school-teacher and myself, has turned out to be one of the most successful farmers' clubs in Wisconsin. During the first year we did not do much in the line of buying or selling, or doing much for the community, only in the way of having programs, but during the last two years we have through our united influence bettered the community in many ways. We have improved the social conditions for the young people by giving them some place to go and giving them some responsibility besides giving them a good training in music and reading, and they are now able to appear before an audience without being afraid. We have organized a tennis club, a community Sunday school and a Y. M. C. A. The club has bought, during the past six months, one car of crushed lime rock, thirty-five bushels of certified seed potatoes and enough of the spraying chemicals to spray their potatoes for late blight and potato bugs. We are planning on holding our annual summer picnic June 5th. We are also planning on having a canning institute in August. At the present time the club is conducting a sparrow, gopher, and crow-killing contest.

FARMERS' CLUB CONVENTION HELD RECENTLY AT MONDOVI, WIS.

We expect to have a grain and potato exhibit next September, so you see we are planning on doing quite a bit of work the next few months. We hold our meetings in the rural schoolhouse once a month and find that is often enough. Our present membership is over fifty, and we usually have more at the meetings.

The present officers of the club are president, Paul Hanson; vice president, Mabel Koepp; secretary, Myrtle Paulson; treasurer, Helmer Amundson.

H. G. Seyforth.

In Langlade County.

To the Editor:—The Kempster Farms Club did not meet often during the past winter. Our situation here is contrary to that of most clubs in that the winter season is a very dull one in this county. Most of our men are gone to the woods and can't attend club meetings. We held some neighborhood or community meetings at the schoolhouse under the leadership of the teacher. We hope soon to reorganize our club here, and if we do, will be glad to send you a report of some of our interesting meetings.

Russell Knight,

Correspondent, Kempster Farms Club, Langlade county, Wis.

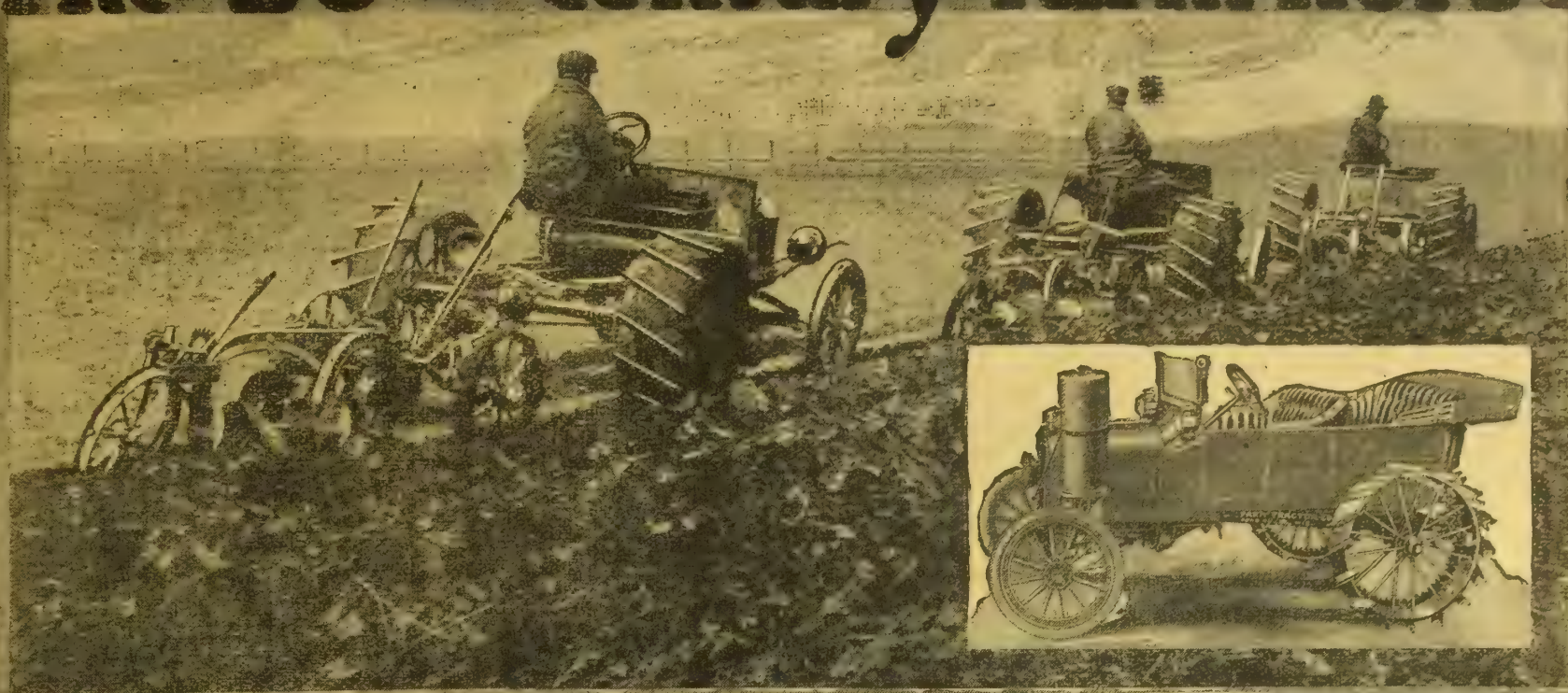
Lunch at Each Meeting.

To the Editor:—We disbanded the St. Croix Falls Club about a year ago and now have a club of a little different character which meets once a month with a membership fee of only 25 cents a year, and the only expense besides this entrance fee is the cost of entertainment. We meet once a month with lunch, which falls upon one member each month. Our new club meets the second Saturday afternoon of each month. So far our county agent has been able to be present at each gathering. Our new officers are Geo. J. Juie, president; Mrs. S. R. Powell, vice president; W. A. Larson, secretary and treasurer.

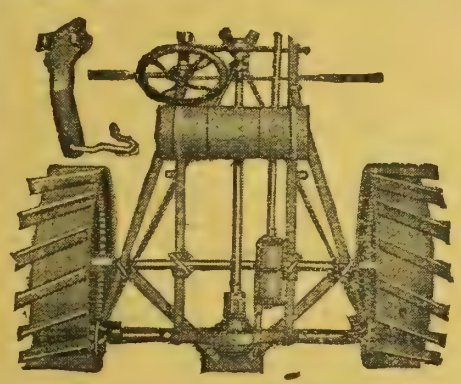
Polk Co., Wis. Conrad Johnson.

Ask your neighbor to subscribe for The Wisconsin Farmer.

The 20th Century Farm Horse

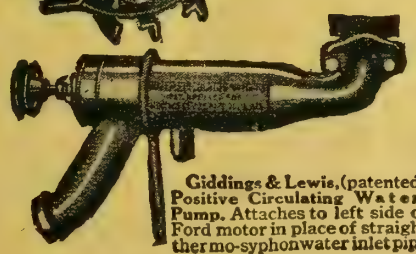


Actual photo of three 20th Century Farm Horses on the farm of T. W. Miekljohn, near Fond-du-Lac.

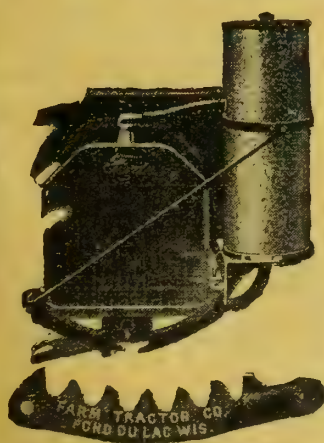


Tractor Unit complete which bolts to rear end of Ford frame after Ford wheels have been removed.

Tractor Wheels. Heavy 36-inch Tractor Wheels equipped with angle iron lugs for field work.



Giddings & Lewis, (patented) Positive Circulating Water-Pump. Attaches to left side of Ford motor in place of straight thermo-syphon water inlet pipe



Auxiliary Water Tank. This 10 gallon water tank attaches to left front fender bracket of Ford car.

Driving Gear Segement made from chilled semi steel and bolted to inside of Tractor Wheels. Each of the 8 segements interchangeable.

Driving Pinion. showing high carbon steel rollers which mesh with tractor wheel driving gear segements

A Stronger, Better Farm Tractor
At a Much Lower Cost

A stronger, more durable Attachment for Ford car, which makes a tractor that will do as much work as any high-priced tractor, and operate at much lower cost. The 20th Century Farm Horse is made stronger, of better materials and along more perfect mechanical lines. There is no more wear on Ford engine and transmission than when the Ford is used as a pleasure car.

Quickly and More Easily Attached

The 20th Century Farm Horse can be attached to any Ford car in a few hours. Anyone can attach it. No troublesome change of radiator is necessary; as the patented water circulating pump that is furnished keeps the Ford engine cooler than *merely a larger radiator.* A ten-gallon auxiliary water tank is attached to the left front fender bracket giving ample supply of water under every condition of weather and service. Can be easily changed back to a pleasure car when the plowing season is over.

Does the Work of Four Horses

The 20th Century Farm Horse will do the work of two teams — four good horses. Will go where horses and other tractors cannot. A light tractor does not pack or sink into the ground and its short wheelbase enables it to turn short. Operating cost stops when the Ford motor stops. Does not eat its head off in winter like horses in the barn. Can be used for night plowing with the regular Ford Lighting System. Plows five to six acres a day, in any soil, while horses can plow only three.

Price $150

With Pump and Auxiliary Water Tank

This price places the 20th Century Farm Horse within the reach of every farmer. It is built by a company which has been manufacturing high grade machinery and tools since 1857. Large production facilities and unlimited resources permit this company to sell this high grade Tractor Attachment at this amazingly low price.

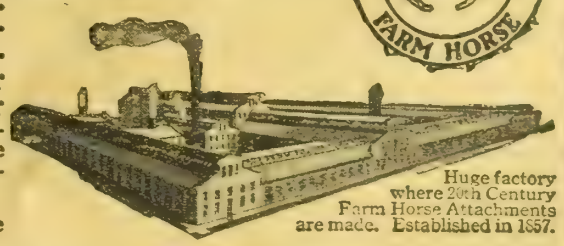
Don't Delay Writing for Information

In spite of very much larger production facilities which are now under way it is almost certain there will be a shortage of these Attachments later in the season. Don't delay and be compelled to buy an inferior Attachment. Write today for illustrated literature showing what the 20th Century Farm Horse will do on *your* farm.

Farm Tractor Company
100-200 Doty St., Fond-du-Lac, Wis.

DEALERS Automobile Dealers, Implement Dealers and Live Farmers:—There is big money to be made in selling tractors. Now is the time to get in this profitable business. The 20th Century Farm Horse Attachment, on account of low price and superior construction, offers you a bigger opportunity than any other Tractor Attachment. The company behind it is of unquestioned financial strength and backs up the sales efforts of its dealers with the heartiest co-operation, *and strong advertising.*

Write or wire for liberal Dealer's Plan or come to Fond-du-Lac and see us.



Huge factory where 20th Century Farm Horse Attachments are made. Established in 1857.

DAIRY

Number of Scrub Bulls Astonishing.

To the Editor:—On May 13th we completed the first month's work in the Monticello Cow-Testing Association with 611 cows tested for that month. A little over 700 cows are enrolled for the year's work, which puts us in a position where we can rightly claim that this is one of the largest and best associations of its kind in the state.

This one month's testing has shown that from its results several lessons can be learned.

First. The good looking cow is not always the best producer and the poor looking cow is oftener the best producer.

Second. It proved that the Babcock test is the only method by which the actual per cent of butter fat can be determined. Several members had cows picked out that they thought had the richest milk. Eight times out of ten their "guesses" were wrong and often the cow they didn't even consider proved to have the richest milk.

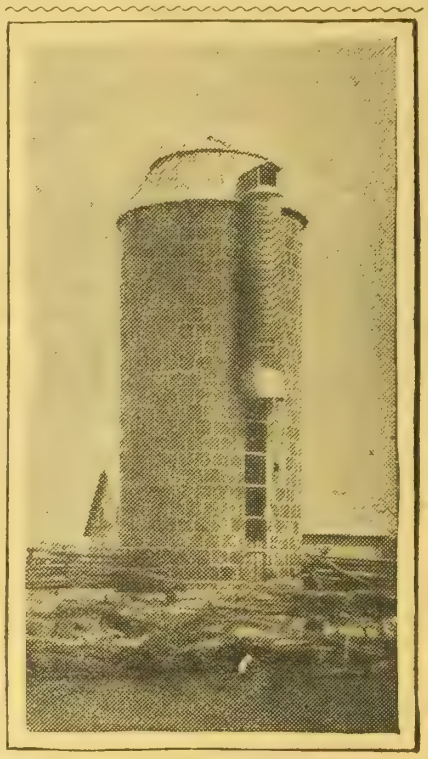
Third. In some herds there were two generations to test. Several of them showed that the daughters were poorer producers than their dams, indicating that their sire came from poor stock. It is astonishing to see the number of scrub pure-bred bulls there are in the country. Scores of farmers look for a bull that is cheap and always buy an inferior bull first, even if they have the chance to get a good one for $50 to $100 more.

Look around you and in every case you will find that the dairyman that has the goods has used good sires and has placed quality before price.

This month we have forty cows in the association that produced over forty pounds of butter fat. Of these forty, twenty-three are pure-bred Holsteins, thus showing the superiority of the pure bred over the grade. However, there are also scrub pure breds, and dairymen must be careful what they buy, or they may get a cow that is pure bred in name only.

Baltz Hoesly ran away with most of the honors, capturing the first seven places with some of his high producers. He has eleven cows in the list. His best cow, Minnehaha De Kol 3d, produced 2,253 pounds of milk and 80.2 pounds of butter fat. She averaged over seventy-five pounds of milk a day and made a very creditable record for herself and her owner.

Ernest Strahm has the best producing grade cow. She produced 58.1 pounds of butter fat in the month. Stauffacher Bros., however, have the heaviest milking grade cow. In thirty days she produced 1,629 pounds of milk, averaging 54.3 pounds of milk per day.



SILO AFTER A BAD FIRE.
This vitrified tile silo with steel hip-roof and chute was in the midst of a big fire on the Joseph Witgen farm, Fowler, Mich.

In summarizing the results it may be said that at present the cows in this community are excellent animals and that there are here many animals that are as good, if not better, than others elsewhere. The only trouble is that most of the cows here have never been tested and their owners do not know their real productive capacity.

Below is the list of all cows producing forty-five or more pounds of butter fat for the month ending May 13, 1917:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Baltz Hoesly					
Minnehaha De Kol 3d, R. H.	7	Apr.	2253	3.56	80.2
Wadmantje Hengerveld De Kol, R. H.	5	Mar.	2100	3.35	70.4
Midget Piebe Homestead, R. H.	6	Apr.	2082	3.09	64.3
Tuebie Midget 4th, R. H.	6	Apr.	2076	3.08	64.0
Phroso Homestead 4th, R. H.	4	Mar.	1938	3.27	63.4
Aunola Homestead De Kol, R. H.	4	Feb.	2010	2.94	59.1
Phroso Homestead, R. H.	9	Apr.	1929	3.03	58.5
Osa Aunola Homestead De Kol, R. H.	9	Feb.	2079	2.78	57.8
Minnehaha De Kol, R. H.	13	Mar.	1545	3.7	57.2
Parthenea Homestead 3d, R. H.	4	Mar.	1461	3.2	46.8
Osa Aunola Homestead De Kol 3d, R. H.	5		1452	2.8	40.7
Ernest Strahm					
Blumy, G. H.	4	Apr.	1383	4.2	58.1
Freitag, G. H.	8	Feb.	1413	3.6	50.9
Moose 2d, G. H.	5	Feb.	1383	3.2	44.3
Marty 1st, G. H.	6	Mar.	1488	2.9	43.2
Espies 1st, G. H.	10	Jan.	1362	3.0	40.9
Espies 2d, G. H.	8	Jan.	1305	3.3	43.1
Blum the White, S. H.	3	Apr.	1227	3.3	40.5
Christ Schmid, Jr.					
Highland Canary, R. H.	7	Mar.	1614	3.3	53.3
Miss Boon Canary, R. H.	6	Mar.	1257	4.0	50.3
Maggrath Piebe Lady, R. H.	11	Mar.	1221	3.5	42.7
Madrigal Korndyke Lady, R. H.	3	Mar.	1350	3.2	42.7
Thomas Voegeli					
No. 9, G. H.	5	Apr.	1368	3.6	49.3

Alvin W. Wardas, Official Tester.

Door County Annual Report.

To the Editor:—The first year of the Door County Cow-Testing Association closed May 1st. A larger organization is now being formed with about 500 cows. In the year just closed about 20 per cent of the cows of the association was sold to the butcher, having been shown by test to be unprofitable. Some cows, which were considered to be poor milkers, showed up very well in the test. The herds of all members have been put on a paying basis. The yearly record shows the number of cows in the 365-pound class—that is, a pound of fat a day. The highest butter-fat production for the year was made by a grade Brown Swiss, owned by L. H. Klemke, and her production was 455 pounds. The records show that it costs an average of $42.61 to feed each cow for a year. A considerable amount of feed was purchased in quantities by the association, keeping the cost down. The average profit per cow for the year was $52.96. For every dollar put into feed the actual return realized was $2.29. The following figures will also be of interest:

The average milk flow per cow for the year—5,778 pounds.
The average test—4 per cent.
The average gross income—$95.57.
The average roughage bill—$25.48.
The average grain bill—$17.13.
The average price of butter fat—41.6.
The average butter production—231 pounds.
The average cost of butter fat per pound—18.5.

The following table shows the returns made by the herds of six members of the association:

	No. cows	Lbs. milk	Lbs. fat	Feed bill	Profit
H. Neuvile	10	8437	326	$61.52	$74.36
Fred Ash	6	5919	315	54.41	72.89
Pat Hogan	10	7837	304	45.59	82.68
L. Klemke	13	7166	302	56.76	70.00
Will Voeks	10	6375	258	52.73	51.22
N. Thiel	10	7090	256	41.25	65.21

The weather holding out fair for several days permitted the farmers in this section to do their early seeding. Up to the 20th of May there was a general shortage of feed, many farmers buying hay at $15 per ton. Bran cost $50 per ton, hence the farmers outside of the association were not feeding grain and were anxiously waiting for a warm rain to boom the grass. Clover and alfalfa are doing fine. A large cherry crop is expected in this section.

George Thull, Official Tester.

WHIRLWIND SILO FILLER

TO OWN an ensilage cutter is to get the limit of food value from your silo crop, and maximum storage capacity from your silo. To own a Whirlwind is to possess silo filler perfection. A wonderfully fast and dependable machine—based on mechanical principles that speak for themselves.

The Whirlwind is simplicity itself. Five sizes, 3 to 40 tons hourly with 3 to 22 H. P. gasoline engine. Plain or traveling feed tables. Three styles of mounting. Every piece of cast metal used in Whirlwind construction is semi-steel and thoroughly tested prior to its acceptance as a Whirlwind part. Heaviest Cutter and Blower wheel on any filler makes for even cutting and the absolute safety coming from uniform centrifugal strain. Better investigate. Look before you leap. Get our free catalog and book: "Why and How of Silo Filling."

Our agent's "Weekly Bulletin" has much inside information. Your name will be put on our regular mailing list if requested today.

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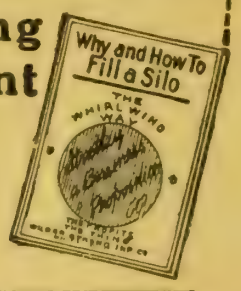

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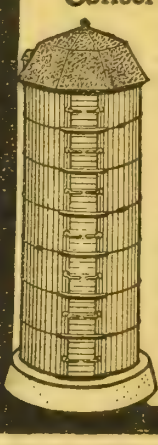
Turn under part of your pasture and plant it to saleable crops. Feed your stock cheaper, easier, more profitably with a few acres of corn cut into ensilage with a Kalamazoo Ensilage Cutter and stored in a Kalamazoo silo. Stop wasting land that should be used for money crops. This year, if ever, farmers have a chance to make *big profits.*



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Badger Live Stock Doing Well.

Cattle in Good Condition in Spite of Feed Shortage--Milk Cows Normal in Number, But Hogs are Scarce--Grass Growing Slowly--Small Grains Look Well.

WISCONSIN.

Barron County.—Weather has been cold and dry, but a few light rains have fallen. About half the corn is planted and the acreage is larger than last year. No increase in the acreage of potatoes is apparent. Oats are about normal, but there was more barley and wheat planted this spring than for several years. The area in gardens is also greater than usual. Pigs and hogs are fewer than last year, but there is an increase in the number and quality of dairy cattle. Feed is scarce, although grass is starting.—Wm. Bartlett.

Buffalo County.—Small grain looks well. Clover and alfalfa are doing well, but got a late start because of the cold weather. Pastures are coming along nicely at this time. Corn planting is well under way and some farmers have already finished. There will not be much increase in farm production this year because of the shortage of farm labor. The number of young calves and pigs is about normal. More gardens will be planted this year than last. Many people in cities and villages are planting gardens in vacant lots and in some places lawns will be plowed up.—Jas G. Bates.

Burnett County.—Crops are making slow progress. However, small grain, especially wheat, seems to be stooling well in spite of cold weather. The acreage of spring wheat is larger than last year. More corn and potatoes will be planted this year than last. Silo building has received a stimulus and more farmers are striving to improve their dairy herds. There seems to be less young stock than last year, but more cows. Hogs are below normal in number and pigs are very scarce.—A. G. Peterson.

Chippewa County.—Weather has been dry with very little rain. Crops are in good condition, however. The acreage of potatoes will be smaller than usual. Corn will be about normal. A good deal of vacant land such as city lots, rural highways and roadsides will be put in crops. Live stock are in good condition. Hay has been set back on account of dry weather. Pastures are very short.—Ernest Neitzel.

Crawford County.—The weather is fine at present. Small grain looks well. Corn planting has commenced and will be finished in about two weeks. There will be more corn and small grain this year than last, but less hay. Hay on old meadows will make a small crop because of the dry weather. Prospects for fruit and vegetables are very good. Few cattle are on feed because most of the farmers in this section are in the dairy business.—Geo. Ashbacher.

Dunn County.—Weather has been cold and dry. Pastures are growing, but grain has been delayed. Dairying is the great industry in this section and is increasing rapidly all the time. Cow-testing associations have been established in the county and the standard of the herds is being improved. Many hogs will be raised this year. Corn planting is under way.—E. A. Finley.

Eau Claire County.—There is a shortage of all kinds of live stock. Many cows are being sold and shipped out of this part of the county and also considerable young stock. Hogs are scarce and few pigs are being raised. Most of the young pigs from last fall were sold because of the scarcity of feed. Brood sows did not do well this year. About 20 per cent more corn is being planted this spring than usual. Oats and barley need rain. Some new seeding is growing well, but in general pastures and meadows are only fair. Warmer weather is needed.—C. A. Koll.

Forest County.—The condition of small grains is excellent, although they are somewhat late. There is an increase of about 10 per cent in the acreage and since the last rain prospects are favorable for 90 per cent of a crop. Vegetables and fruit are doing well. Since the spring rains and warm weather, pastures are beginning to grow and cattle are improving. This has been an ideal spring for a good crop of young pigs and calves. Farmers are planting twice as many potatoes as usual wherever the seed can be obtained. A good crop of corn will be planted this week and many silos will go up. Considerable credit is due to the committee of defense in this county for the effort to increase food production.—H. H. Kahn.

Grant County.—Small grain is not doing well because the weather has not been favorable. Meadows and pastures are slow in starting. Gardens look fair. From all indications the fruit supply will be good. Young stock are above normal. Farmers are putting in a good deal more corn and small grains this year than ever before. The weather is cold and rainfall plentiful.—Al Vesperman.

Green Lake County.—Warm weather and recent showers have started growth. However, all vegetation is backward, especially the late sown grain. The surface of the ground was hard so that it had difficulty in coming through. In general live stock are doing well. There seems to be a small increase in the number of dairy cattle and more farmers are patronizing cheese factories. The pig crop is about normal. More potatoes will be planted this year than last. Prospects promise a good crop of early apples, but the late varieties are poor.—G. B. W.

Iron County.—Weather is cold and dry. Pastures and meadows are in poor condition. Very little grain has been sown up to date. Live stock look well. There are more milk cows than formerly and the number of contracts with the creamery have been increased. The acreage of potatoes will be about 25 per cent larger this season than last.—J. A. Beckey.

Juneau County.—The dairy industry is steadily growing. A number of pure-bred herds have been established and their success is assured. The growing season began late, but everything is coming on well now since the recent rains. Corn planting has just started.—J. H. McNown.

Kenosha County.—Small grain is up. A big acreage of spring wheat and barley was sown. Most of the clover winterkilled. Meadows as well as grain, need rain. There is a big increase in the acreage of potatoes and beans. Most of the sugar beets have been sown and are in fine condition. Cabbage plants are doing well. Corn planting is well under way. The seed is scarce. Dairy cattle are in good condition, but feed is not plentiful. Young stock wintered fine. The new crop of calves is doing nicely and is larger in number than usual. Hogs are below normal in number: little pigs are in great demand. Horses are not plentiful and quite a few farmers have purchased tractors.—Geo. Kreuscher.

Kewanee County.—Warm weather with recent rains has started the grain crops and grasses. The percentage of cattle on pastures is small. There are more heifer calves this spring than usual. Dairy cows are thin, but are in good health. Every vacant lot and corner on the farm or in the city is being planted to gardens. Farmers are preparing a large acreage of corn, but little planting has been done so far.—Fred Lutz.

La Crosse County.—Much live stock was sold last winter on account of high prices and the shortage of feed, but dairy herds have been kept up to the usual number. Cows have been sold at very good prices and the market for dairy products has held quite steady. Most of the stock is already on pasture. Hogs are very scarce and in some instances farmers have sold off their breeding stock. Six weeks old pigs are selling for from $5 to $6 apiece. The corn acreage appears to be somewhat greater than last year, but that of small grains is not more than normal.—S. J. D.

Polk County.—Pastures are improving and the milk flow is increasing rapidly. Live stock are not in as good condition as usual. Silage-fed cattle seem to be in better shape than those fed on mill feed. Young calves are doing well and most of the heifers will be kept for breeding purposes. The pig crop will be only 50 or 60 per cent normal, as a large number of spring pigs were lost. The lamb crop is good. Winter grains look fine and spring grains are coming along in good condition. Meadows are a little late. A large acreage of potatoes has been planted and there will be larger areas of beans and buckwheat than usual.—Wallace Fountain.

Price County.—Three weeks of dry weather has left pastures in poor condition and cows that have freshened will not get enough grass. The high price of butter fat makes it profitable for farmers to feed bran and middlings. All live stock are in poor condition, but will improve with better pastures. Spring pigs are selling at $10 a pair and there are not enough to supply the demand at this price. Farmers who failed to get their seeding done in April have a poor show for a good crop. Most everyone is making a special effort to raise a big crop, but the main handicap is dry, hot weather.—J. W. Fox.

Richland County.—Cattle are not doing as well as they should because of the cold, backward spring and short

(Concluded on page 17.)

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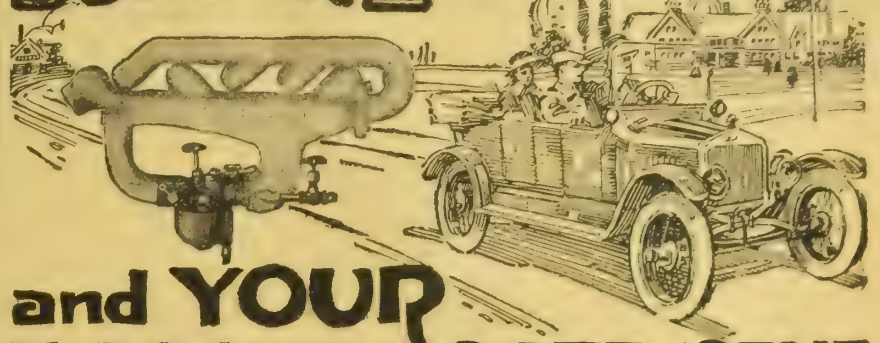

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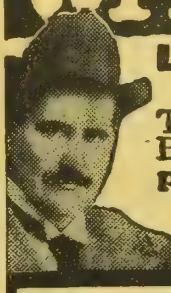

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Gentlemen: Your Galloway Sanitary Cream Separator which I ordered of you is much easier running and more easily cleaned than the separators which I had just worn out. And besides we have made a saving of $23. I would not exchange it for any of the high priced separators on the market.—Ebb. F. Louthan, R. 6, Carthage, Mo.

Let me give you the name of some one near you where you can see the Galloway

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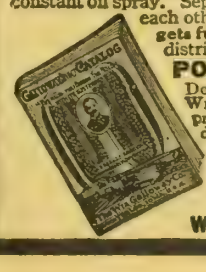

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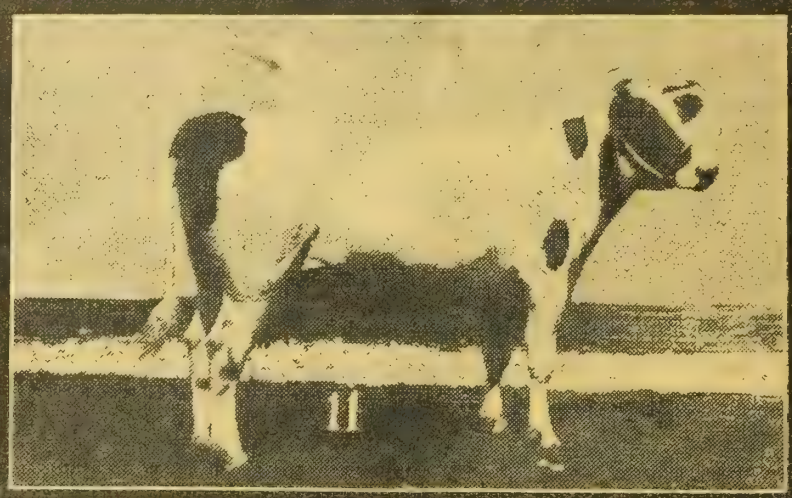
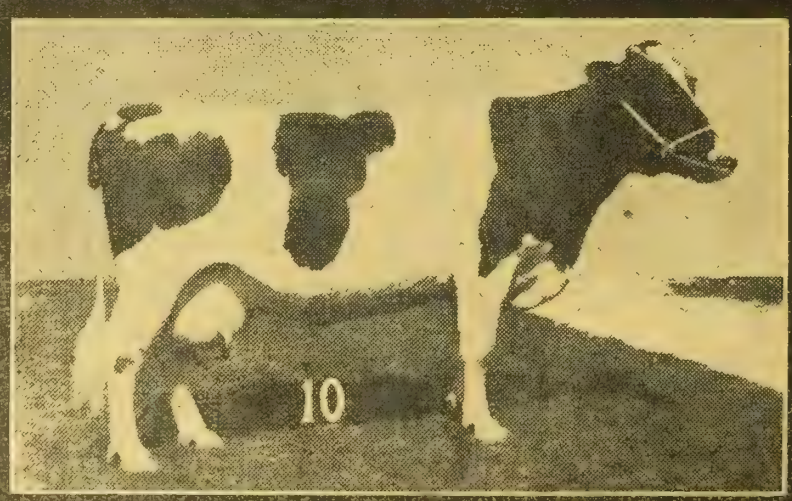
PINEHURST LADY MARY (184474). HAS 24.08 LBS. BUTTER, 508.5 LBS. MILK IN SEVEN DAYS, 808.183 LBS. BUTTER AND 20,371.0 LBS. MILK IN A YEAR AS A THREE YEAR OLD.



PINEHURST JENNIE (184465). HAS PRODUCED 460 LBS. BUTTER, 21,865 LBS. MILK IN A YEAR AS A FOUR YEAR OLD.



PINEHURST CLOE (157884). HAS PRODUCED 20.5 LBS. BUTTER, 521.6 LBS. MILK IN SEVEN DAYS AS A JUNIOR THREE YEAR OLD.

PRINCETTA BUG HORN DE KOL 3D (239618). PRODUCED 19,152 LBS. MILK AT TWO YEARS AND EIGHT MONTHS AND IS A PROMISING YOUNG COW.

PINEHURST

THIRTEEN YEARLY RECORD COWS—FO

PINEHURST PIEBE---(133468) a 34.43-pound
yearly records of 798.527 pounds butte

COMPLETE DISPERSION O

95 HEAD LAKE MILLS, JU

AN EXCEPTIONAL HIGH

For Size, Breeding, R
This Herd Would b

There are 50 fine large cows, 44 of which have official records.

30 heifers, choicely bred, and with good records back of the

13 cows with yearly records, four of them having over 800 lb

There are 30 daughters of Piebe Champion, all A. R. O. exce
averaging 25.28 lbs.; 2 daughters of Gem Pietertje Paul

33 daughters of King Segis Concordia Hengerveld 96214, se
daughters and 8 young sons of King Korndyke Akkrum
veld De Kol.

Most of the cows are in calf to these two good herd sires.

Write for Catalog to F. H. EVE

Auctioneers, Haeger, Kelley

RIGTJE PIEBE DE KOL 2D (184471). HAS PRODUCED 18,484 LBS. MILK WITH THREE QUARTERS AT FOUR YEARS AND IS A FINE LARGE COW.

ISPERSION

E ABOVE EIGHT HUNDRED POUNDS

three senior three year olds with average
27 pounds milk are in this group.

E "PINEHURST DAIRY"
, WISCONSIN 95 HEAD
ACCREDITED HERD

and Individuality
rd One to Beat

, Pinehurst Piebe 133468, with 34.43 lbs.

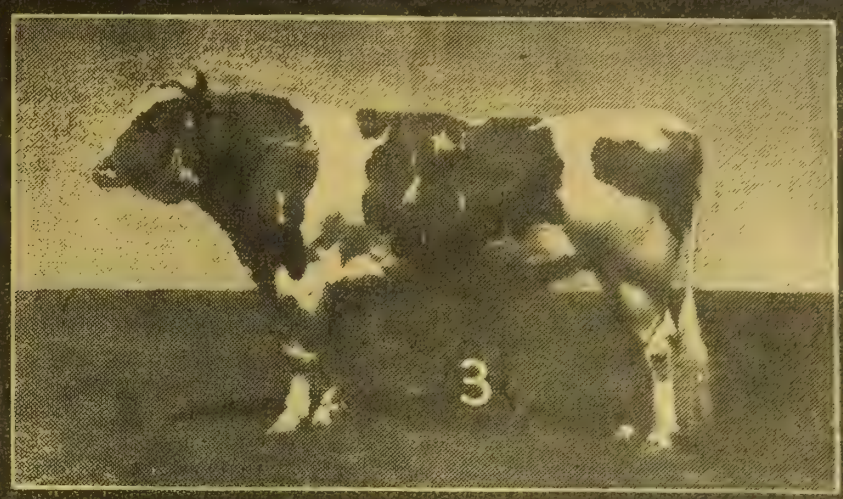
ar.

ghters of Sir Piebe Johanna Sarcastic, A. R. O. and
aughters of Beechwood Sir Josephine.

e, whose two nearest dams average 32.83 lbs.; and 9
166274, junior herd sire, a 31.11-lb. grandson of Henger-

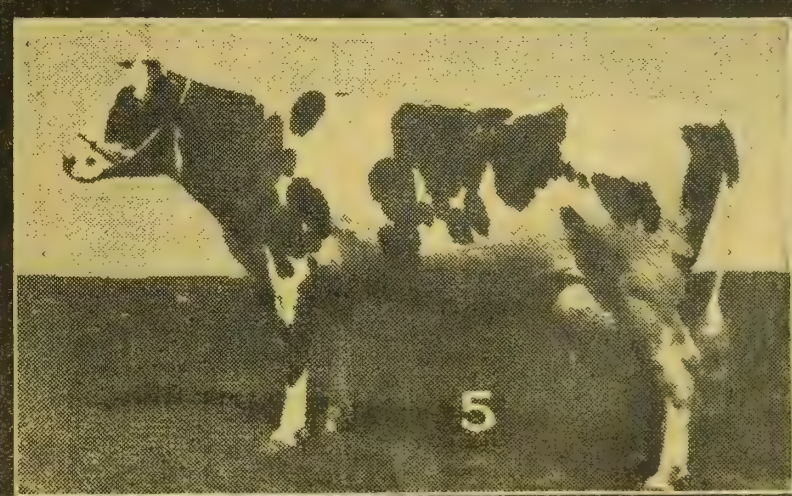
MGR., Lake Mills, Wisconsin

S. T. Wood in the box.



KING KORNDYKE AKKRUMMER ORMSBY (166274) JR. HERD SIRE, A 31.11-LB. SON OF SIR KORNDYKE DE KOL—35 A. R. O. DAUGHTERS.

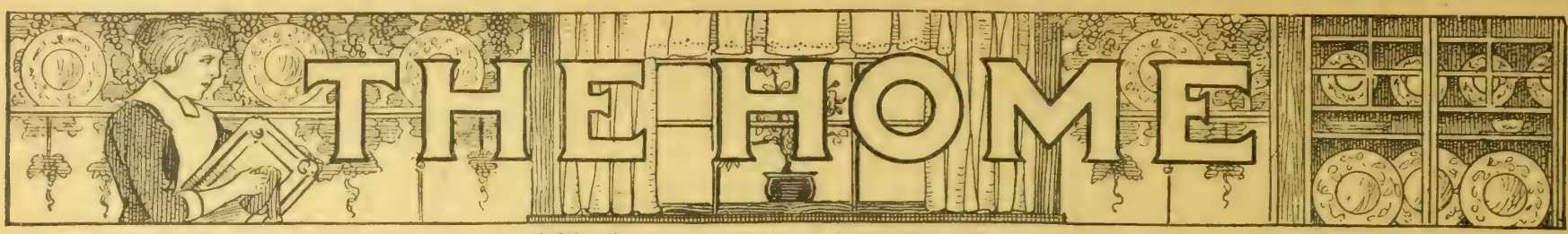
CARRIE SEGIS CONCORDIA, A BEAUTIFUL TWO-YEAR-OLD SHOW HEIFER THAT IS REPRESENTATIVE OF THE YOUNG STOCK IN THE HERD.



PINEHURST RIGTJE QUEEN (184473). HAS A RECORD OF 25.157 LBS. BUTTER, 575.6 LBS. MILK IN SEVEN DAYS, AND 750.045 LBS. BUTTER, 19,040.4 LBS. MILK IN A YEAR, AT THREE AND ONE-HALF YEARS.

LEY ROSE MECHTHILDE (72824). HAS 21.767 LBS. BUTTER, 458.8 S. MILK AND 813.5 LBS. BUTTER, 14,814.5 LBS. MILK IN A YEAR, AND IS A FOUNDATION COW; THREE A. R. O. DAUGHTERS.

PINEHURST GEAN 2D (204292). HAS 23 LBS. BUTTER, 511.3 LBS. MILK, SEVEN DAYS, AND 837.353 LBS. BUTTER, 18,209.8 LBS. MILK IN A YEAR AS A JUNIOR THREE YEAR OLD.



Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Time Table For Fruits and Vegetables.

To aid those who are planning to can a variety of products this year a table showing the length of time required for scalding, blanching and sterilizing fruits and vegetables is here given. This schedule is based upon the one-quart pack and upon freshly picked products. Five pounds of steam pressure is sufficient for processing fruits in steam pressure canners, and fifteen pounds for vegetables and meats. It would be a good idea to clip out the table, paste it to a cardboard and have it handy when canning time comes:

PRODUCTS	Scald or blanch	Hot water bath outfits at 212 degrees	Water-seal outfits at 214 degrees	Steam pressure 5 to 10 lbs.	Pressure cooker 10 to 15 lbs.
Fruits.	Minutes.	Minutes.	Minutes.	Minutes.	Minutes.
Apricots	1 to 2	16	12	10	5
Blackberries	No	16	12	10	5
Blueberries	No	16	12	10	5
Cherries (sweet)	No	16	12	10	5
Dewberries	No	16	12	10	5
Grapes	No	16	12	10	5
Peaches	1 to 2	16	12	10	5
Plums	No	16	12	10	5
Raspberries	No	16	12	10	5
Strawberries	No	16	12	10	5
Citrus fruits	1 ½	12	8	6	4
Cherries (sour)	No	16	12	10	5
Cranberries	No	16	12	10	5
Currants	No	16	12	10	5
Rhubarb blanch before paring	1 to 2	16	12	10	5
Gooseberries	No	16	12	10	5
Apples	1 ½	20	12	8	6
Pears	1 ½	20	12	8	6
Figs	15	40	30	25	20
Pineapple	10	30	25	25	18
Quince	6	40	30	25	20
Special Vegetables and Combinations					
Tomatoes	1 to 3	22	18	15	10
Tomatoes and corn	T. 2 C. 10	90	75	60	45
Eggplant	3	60	45	45	30
Corn on cob or cut off	5	180	90	60	45
Pumpkin	5	90	50	40	35
Squash	5	90	50	40	35
Hominy	5	120	90	60	40
Cabbage or sauerkraut	5	90	75	60	35
Greens or Pot Herbs					
Asparagus	5	120	90	50	35
Brussels sprouts	5	120	90	50	35
Cauliflower	5	120	90	50	35
Pepper cress	15	120	90	50	35
Lamb's-quarters	15	120	90	50	35
Sour dock	15	120	90	50	35
Smartweed sprouts	15	120	90	50	35
Purslane or "pusley"	15	120	90	50	35
Pokeweed	15	120	90	50	35
Dandelion	15	120	90	50	35
Marsh Marigold	15	120	90	50	35
Wild mustard	15	120	90	50	35
Milkweed (tender) sprouts and young leaves	15	120	90	50	35
Pod Vegetables					
Beans (Lima or string)	5	120	90	60	40
Okra	5	120	90	60	40
Peas	5	120	90	60	40
Roots and Tubers					
Beets	6	90	75	60	35
Carrots	6	90	75	60	35
Sweet potatoes	6	90	75	60	35
Other roots and tubers as parsnips or turnips	6	90	75	60	35
Soups, all kinds	..	90	75	60	45
Shell fish	3	180	120	90	60
Poultry and game	20	210	180	150	60
Fish	5	180	180	150	90
Pork and beef	30	240	240	210	90

Use Care in Selection of Kitchen Utensils.

Kitchen utensils should be durable, of smooth finish, easily cleaned and suited to the purpose for which they are intended.

Much time is lost and fuel wasted as a result of choosing the wrong utensils for cooking. Tin makes a satisfactory utensil for most quick baking processes, as it is light weight and heats and cools rapidly. The best grade is the heavy block tin. Pure tin is soft and pliable and consequently iron or steel often is used as a foundation. If this foundation material is exposed by scraping or scratching the utensil, rust will attack the iron.

Enamel, agate and granite ware are made on iron or steel foundations. Should the enameling material become chipped the iron body soon will rust. Often utensils of inferior quality are sold as bargains and soon chip and rust. The pure white, and the blue and white enamel wares are not suited for cooking processes where high temperatures are necessary. The gray and the brown varieties are much more durable.

Aluminum is attractive and of light weight. There is no danger of chipping or rusting with this material. It is desirable for many processes of cooking, as it heats rapidly. Iron is used for processes of cookery where a high temperature is necessary. It is durable if kept dry and free from rust. When not in use it should be coated with saltless grease to protect it. Earthenware is used for long, slow cooking or baking processes. The lids of earthen baking dishes should fit tight to keep in all moisture and heat.

Cooking utensils made of glass are attractive, easy to clean and sanitary. Such utensils have proved successful for baking processes when made of a material which can be subjected to high temperatures with no injurious effects.

When selecting cooking utensils, choose articles with smooth finished rims and made of one piece of metal. Avoid seams and useless curves as well as dirt-catching handles. A heat-resisting wood makes the best handle.

Utensils should never be bought until needed. Select articles of many general uses and few specific. There is no reason why a kitchen should have all utensils of one ware. Always consider the use and durability when selecting.—[Rebecca Bartholomew.

Pickles Roasting Ears.

To the Editor:—I have been a reader of the Home department for nearly a year and I see so many helpful things that I want to send a few ideas of my own.

I made a rag rug, crocheted hit and miss, with some bright colors (red, white, blue, green and some black) and some pale or dull colors. Everyone thinks it is nice. I made it long.

The lady who wishes to curl her ostrich tip can do so by holding it over the top of the teakettle while the water is boiling, using a dull instrument to curl if necessary. Good tips curl easily.

Canning and pickling time is drawing near and I want to tell the readers how I have pickled white field roasting ears. I cut the corn from the cob and prepare it the same as kraut. It has to be soaked out, of course, before cooking. You will find the corn very good fixed this way.

I have a good buttermilk pie recipe, too, that I am going to pass along. I use two tablespoonfuls of flour and one-half teacupful of sugar mixed with one-fourth pint good buttermilk. Then I add three-fourths pint more fresh buttermilk, let it come to a boil, and add a tiny pinch of soda. Bake in one crust, and frost. I add lemon flavoring to both the custard and the frosting. The frosting is made a delicate brown by setting back in the oven a few moments. Mrs. J. W.

Schooling Begins at Home.

To the Editor:—I was much interested in the subject, "Two Kinds of Schooling," and I think our most important schooling begins at home, or before our 'teen age, where we should be allowed to think and do our own reasoning. I remember when I was at home my mother took our older brother into her confidence in her business affairs and if my younger brother or I ventured to express our opinions we were promptly "called down" and told that older and more experienced minds understood better how to manage. We tried to keep still, but we had read others' opinions and had talked affairs over and thought we had a right to speak because we worked, too.

So when we started out for ourselves we hardly felt free to express our opinions because we had been cowed at home. I remember when I was first married my companion asked me my views about different things that came up. For awhile I had none to offer, but finally began to feel my liberty and to realize now, too late for my good, that my education on some subjects did not do me much good. My mind had not been given a chance to develop along lines in which I was interested at an early age. I was needed at home, so I stayed and worked for my board and clothes until over thirty.

I think we should draw out the children's minds by allowing them to express themselves, and if they have ideas worth while (which most all do on some subjects) we should put those ideas into use, or let the children. If given this freedom they will have larger ideas, they will enjoy their education more, and will try to get more schooling.

Not taking the children into your confidence, along with allowing them to raise a pig, calf or colt or poultry, then selling it and keeping the money, has driven many a boy and girl from home and school.

As for the school itself, I think country school-teachers are far better for country schools than town teachers. Our children have attended both town and country schools, as I did. You would be surprised what foolish things some city teachers say, in agriculture, for instance. That is the one reason I am opposed to consolidated schools. Such schools are so crowded the teachers do not have time to explain. Mrs. J. W. Jesse.

Boiling Salt Water For Pickles.

To the Editor:—I recently sent you a recipe for sweet cucumber pickles and I notice that someone wants more information about making them. The recipe should have said to soak in boiling salt water instead of water alone. I am glad to correct this mistake and hope this lady will have good luck with her pickles. Mrs. C. J. W.

To Clean Lard Barrels.

To the Editor:—One of the readers asked how to clean lard barrels so they could be used for pickles and kraut. I have had good success with the following method: Take hot water and lye and wash the barrel two or three times with this, then scald it thoroughly and it will be ready for use. Mrs. Olive Schoenfeld.

Floor Covering For Small Room.

To the Editor:—A good covering for the floor of a small room can be made as follows: Put a covering of newspapers on the floor about one-half inch in thickness. Be sure they are smooth and even. Then take carpet paper, building paper or heavy wrapping paper and cut it into the required lengths. Paste each strip down, joining the seams carefully, and tack the edges close to the baseboard. When it has become firm and trodden down, paint it with two coats of good floor paint.

This floor covering has been used in a small bedroom over a year and has proven satisfactory. It is warm and durable and can be kept clean by wiping with a dry or damp cloth. Clara Larson.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Arbor Day at School.

Dear Young Folks:—As I have not written to your page before I am going to send a letter. I am thirteen years old and am in the sixth grade. We do not have a very large school. Sometimes there are only two scholars left after the last recess. I have three brothers and one sister. I am the oldest of the family.

I am going to tell you about our Arbor Day. First, in the morning one of my schoolmates and I washed the windows. When we got through with that I helped some of the smaller ones scrub the desks. We put all the desks in order and cleaned up our teacher's desk, too. Then there wasn't anything else I could do in the schoolhouse, so I helped rake the yard. We raked it all up in a pile, then one of the boys lit it. Then one had to stand near and keep the fire from spreading. It was nearly eleven o'clock when we got through with that. We played knife awhile and then went into the schoolhouse. They had the floor nearly mopped. It was nearly twelve o'clock when we got through with all the work. At noon we ate our dinner and we were glad, too, because we were very hungry.

After dinner we went out to pick flowers. We followed a cow path for a ways, then we crossed a ditch. We had a hard time getting all the little children across, but we managed it some way. When we got to the river there was a large tree across it and all the boys but two crossed over to the other side. There were many pretty flowers on that side, such as Dutchman's breeches, adder tongues and bloodroots. We walked along the river bank for a long ways. There were several trees across the river and the boys crossed back and forth on them. The teacher and the rest of the scholars picked flowers. We followed the river until we came out a little way back of our schoolhouse.

When we got back to the schoolhouse we planted some flowers and one tree. Then we played a few games and went home. —Esther.

Flower Riddles.

Dear Young Folks:—I like to read our page very much and think this a pretty good paper.

Have you girls planted your flower seeds yet? I have, and have some pansies in bloom. I love to plant and take care of them.

My thirteen-year-old brother is raising potatoes this year. Last year he sold about twenty bushels.

Here are some flower riddles I wonder if you can guess:

1. What flower begs to be remembered?
2. What flower is the preacher of all flowers?
3. What flower tells the time of day?
4. What flower is worn on the foot?
5. What flower is a color?
6. What flower is a ferocious animal?
7. What flower greets the new-born day?
8. What flower is an amiable gentleman?
9. What flower declines to live on hills?
10. What flower is an emblem of great sorrow?
11. What flower bears the name of two girls?
12. Which is the youngest of the rose family? —Ida.

Recipes.

Corn Meal and Apple Pudding.—One-half cupful cornmeal, one quart milk one teaspoonful salt, one teaspoonful ginger, one-half cupful molasses, two cupfuls apples cored and cut in eighths. Scald the milk and add the cornmeal; cook for thirty minutes and add salt ginger and molasses. Pour in buttered baking dish; bake for one hour, stirring occasionally; add apples and bake one hour longer without stirring. Serve with cream or pudding sauce.

Cheese Fondu.—One cupful scalded milk, one cupful coarse crumbs, one cupful grated cheese, one teaspoonful butter, one-half teaspoonful salt, three eggs, speck cayenne. Mix milk and bread crumbs, cheese, melted butter and salt. Add yolks of eggs and mix well. Cut and fold in stiffly beaten whites of eggs. Pour into a greased baking dish, set in a pan of hot water and bake in a moderate oven until set.

Lima Beans With Bacon.—Cook until tender, a cup of lima beans in boiling salted water, to which a pinch of soda has been added. Drain off the liquid and add a pint of milk to the beans. Slightly thicken the milk with one tablespoon of flour blended with one tablespoonful of bacon fat. Add salt and pepper and place on a platter surrounded with slices of broiled or fried bacon.

Pineapple Pie.—Beat one-half cupful butter, one cupful sugar and yolks of three eggs to a cream. Add one can grated or crushed Hawaiian pineapple. Dissolve one tablespoonful cornstarch in a cup of sweet cream and add to the pineapple. Mix thoroughly. Beat the whites of the eggs until stiff and fold in lightly. Have ready a pie tin lined with crust. Fill with the pineapple mixture and bake in a moderate oven. Serve cold.

OUR FASHION DEPARTMENT.

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

Waist 2109-Skirt 2110—A smart and pleasing costume. Waist 2109 cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2⅝ yards of 36-inch material for a 36-inch size. Skirt 2110 cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅛ yards of 44-inch material for the skirt and 2½ yards for the tunic for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2124—A practical work suit for women. Pattern is cut in 4 sizes: Small (32-34 bust measure), medium (36-38), large (40-42), extra large (44-46). Size medium will requires 6¼ yards of 36-inch material.

2104—A charming lounging robe. Pattern is cut in 4 sizes: Small, 32-34, inches bust measure, medium 36-38, large 40-42, extra large, 44-46 inches bust measure. Size medium requires 6¼ yards of 44-inch material.

1270—Children's overalls. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 2⅛ yards of 36-inch material for a 6-year size.

2099—Mother's girl's favorite play dress. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 1⅞ yards of 27-inch material for a 6-year size.

1947—Ladies' house dress with sleeve in either of two lengths. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅞ yards of 36-inch material for a 36-inch size.

2116—A set of serviceable caps. The pattern includes the three styles portrayed. It is cut in 2 sizes: Medium and large. No. 1 will require 1 yard, No. 2 will require ⅞ yard, No. 3 will require ⅞ yard of 27-inch material for the medium size.

1796—Ladies' dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 44-inch material for a 36-inch size.

1776—A pretty frock for mother's girl. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3 yards of 44-inch material for a 6-year size.

1504—Ladies' camisole and envelope skirt drawers. Cut in 3 sizes: Small, medium and large. It requires 3¼ yards of 36-inch material for a medium size.

2115—A splendid "coverall" style. The pattern is cut in 4 sizes: Small 32-34, medium 36-38, large 40-42 and extra large 44-46 inches bust measure. Size medium will require 5¾ yards of 36-inch material.

1472—Girls' dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3 yards of 36-inch material for a 6-year size.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for June 3, 1917.

Jesus Betrayed and Denied.

LESSON TEXT—John 18:1-11, 15-17.

GOLDEN TEXT—He was despised and rejected of men.—Isa. 53:3.

In teaching this lesson to some of the younger classes, emphasis might be placed upon the dramatic scene in the garden of Gethsemane, and Peter's denial at the fire. In some of the intermediate classes the scholars might be asked to write short, one-minute essays, describing the scene as though they, themselves, were present. For the adult classes, of course, the central theme is the way that Christ's followers neglect him today even as the disciples slept in Gethsemane, and betrayed him like Judas or denied him like Peter.

I. The Place of Retreat (vv. 1-3). In his emphasis upon the spiritual grandeur of the deity of Jesus, John does not dwell upon the agony in the garden. He, however, gives us that noblest passage in the New Testament (chs. 14-17), the like of which cannot be found anywhere else in the world's writings. Having spoken these words, Jesus and his disciples went over the Brook Kedron (v. 1) to the garden, there to bear the awful weight of agony that was crushing him (Matt. 26:38), while at the same time he must strengthen his disciples, and fortify them against the coming trials. That this was a place of frequent resort for Jesus, Judas was aware. It was a sanctuary in which Jesus met the Father, and those who knew him knew it as a place of prayer, and the most likely place to find him at that time of night (v. 3). Rebuffed at Mary's prodigality, Judas had consorted with the priests, and now covetousness is to reap its reward. Judas was not hardened in a day. His greed for money, while at the same time listening to the teachings of Jesus, had gradually hardened his heart

II. Protecting and Protesting (vv. 4-11). (See Matt. 26; Mark 14; Luke 22). Jesus went forth in order to concentrate the attention of the soldiers upon himself, and to prevent a general attack upon the disciples. In answer to his question, they said they were seeking "Jesus, the Nazarene," a term of contempt which Jesus answered by saying, "I am he." John adds, "and Judas also which betrayed him stood with them." Greed for money, growing into theft and falseness of life, ended with the blackest crime the world has ever known. His salutation sent them backward (v. 6). Perhaps among the officers were some who had failed to arrest him on a former occasion (ch. 7.46), and who were now overawed by his marvelous words and majestic bearing. Again he answered, "Whom seek ye?" (v. 7), and they said, "Jesus of Nazareth," the same words as before, but probably in a changed tone, showing that they were prepared to listen with respect, though certainly not with reverence, to what he might have to offer. What a dramatic picture—the brazenness of sin, Judas who stood among the enemy, and the fearlessness of virtue, Jesus, facing his accusers. Augustine, commenting on this verse, says, "What will he do when he comes as a guest, if he did this when giving himself up as a prisoner?" His act, however, shielded his disciples, for not one of them was to be lost (v. 9 R. V.), and he knew they were not strong yet to stand the test of arrest and trial. At this point Peter attempts to defend Jesus (v. 10).

III. Peter Denying (vv. 15-17). As Jesus was led away, his disciples forsook him. They all left him, and fled, but Mark adds that a certain young man followed Jesus. It is conjectured that this young man was Mark. With quickness of action we are now transported to the judgment hall. There we see him bound, with his hands shackled behind his back, and led first to Annas (v. 13), which was an illegal transaction, "as though some reformer should be tried at Tammany hall in New York" (Robert E. Speer). Annas was now very old. From him he was taken to Caiaphas, followed by Peter "afar off," now in a different mood than when he smote the high priest's servant's ear. With him was that other disciple (John's way of referring to himself). Now John was known to the high priest, and he went in with Jesus into the palace, but Peter was standing without at the door. Notice the steps of his failure; First, he "slept" in the garden; second, he followed "afar off" (Luke 22:54); third, he "stood" without; fourth, he "sat" in the midst.

Then notice the denials, the last accompanied by cursing. Attempts to compromise with the world meet with the same measure of failure today as when Peter was in the judgment hall. Bad company is a good thing to keep out of unless gone into to witness for Christ. Peter did not have that purpose. The Lord had only to "look" at Peter (Luke 22:61), and he "remembered." We may deny Christ by our silence, by remaining outside of the church, by denying his existence, by profanity, by ridiculing his friends, by praising his enemies or by living a life of worldliness.

Cow-Testing Reports.

In Portage County.

To the Editor:—The following is our 45-pound list for the month ending May 4th:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
J. LeRoy Larsen					
Molly, G. G.	6	2-24-17	926	4.9	45.4
C. O. Wogsland					
Daisy, G. G.	9	10-1-16	818	6.2	50.7
Belle, R. G.	5	3-6-17	858	5.3	45.5
C. E. Ericksen					
Rolin, G. G.	9	2-29-17	1270	4.4	55.9
Whiteface, G.G.	9	3-3-17	1084	4.6	49.9
L. J. Olstad					
Native	5	2-20-17	1178	4.6	54.2
Anton B. Brekke					
2d Johanna, G. H.	2	1-4-17	1373	3.4	46.7
Bessie, G. H.	2	2-2-17	1131	4.3	48.6
Alfred L. Brekke					
Molly, G. H.		2-10-17	1241	3.9	48.4
Otto Halvorsen					
Rose, N.	11	2-12-17	1054	4.8	50.6
Norman Dahlen					
Silver Ollie 2d, G. G.	4	11-1-16	807	5.7	46.0
Silver Ollie, G. G.	6	11-4-16	923	5.6	51.7
E. O. Hellum					
Gr. Guern.	11	11-17-16	883	5.6	49.5
Gr. Guern.	7	1-21-17	806	6.0	48.4
M. J. Wrolstad					
Gr. Guern.	3	11-16-16	849	5.6	47.5
Gr. Guern.	10	1-10-17	1272	5.0	63.6
Gr. Guern.	3	2-4-17	1184	5.0	59.2

M. E. Smith.

Official Tester, Alban and New Hope Association, Portage County, Wis.

Wood Co. Association No. 1.

To the Editor:—The following is the list of forty-five-pound cows in our association for the month of April:

Owner, name and breed	Age	When fresh	Lbs. B. fat
C. H. Imig			
Iola Aggie Joh. R. H.	4	3-9-17	45.6
Iola Rig R. D. 2, R.H.	4	3-12-17	48.1
H. J. Bassuener			
Rosetta J. M., R. H.	6	10-3-17	58.9
Prospect B. 10, R. H.	6	10-10-16	50.4
Joh, W. S., R. H.	6		50.0
Clothilde, R. H.	6		55.4
Almeda, R. H.	8	3-2-17	52.2
Will Ekhert			
Lily G. G.	5	3-29-17	47.5
W. J. Moody & Son			
May, G. H.	4	1-3-17	52.2
Blossom, G. H.	8		47.7
J. W. Rolsma			
Ramona, R. H.	10	2-18-17	45.7
J. C. Kieffer			
No. 12, R. H.	4		50.9
J. F. Schmidt			
J. Lucy B., R. H.	6	2-3-17	49.7
J. A. Prunner, R. H.	7	3-22-17	47.7
A. Osenga			
Dora T. P., R. H.	7	12-12-16	58.7
Peter V. Ploeg			
Flora, G. H.	5	2-20-17	45.1
Arikge, R. H.	3	2-4-17	53.5
J. W. Bell, R. H.	3	2-13-17	50.1
And. Osenga			
Nigger, G. H.			45.0
Kate, G. H			46.1
W. A. Schultz			
Mollie, G. H.	4	2-3-17	66.8
Baker			56.4
Henry Heag			
Flossie, N.			49.5
Geo. Baltus			
No. 9, G. H.	4		57.1
G. H. Grover			
Gr. Guern.	12	3-6-71	47.7

J. L. Williams, Tester.
W. W. Clarke, Secretary.

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SAVES YOU MONEY
Buy direct and save $10 to $20 on a bicycle. RANGER BICYCLES now come in 44 styles, colors and sizes. Greatly improved; prices reduced. Other reliable models $16.75 up. WE DELIVER FREE to you on approval for 30 days free trial—actual riding test at our expense.
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MEAD Cycle Company Dept. C184 Chicago

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THE CURVE CUT ASSURES EASY FIT
AND FAULTLESS SIT
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FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

NORTH DAKOTA is essentially an agricultural state. In the past five years it ranked first in production of wheat twice, twice it was second and once third; always first in production of spring wheat; also flax, equaling production of all other states. Once it was first in barley, never below third; never below seventh in rye and oats. Has made great increase in corn and stock. You can still obtain home there without commission to us, while land is still cheap. Easy terms. Write AT ONCE, for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Building, Minneapolis, Minn.

640-ACRE FARM—"PAY AS YOU MAKE IT" NORTH DAKOTA SECTION, fenced, near market. Splendid for grain, alfalfa and stock. Strong demand for farm products; unusual opening. Will sell on "Half Earnings" plan, and help reliable farmers secure live stock loans. Only small cash payment required. HACKNEY LAND CREDIT CO., Hackney Bldg., St. Paul, Minn.

"AN EMPIRE OF HARDWOOD LAND"—We own 20,000 acres and four townsites, traversed by three railroads. Send for map. Wonderful opportunities for saw mills, box and woodworking factories. Free factory sites. Ask for information. UPPER WISCONSIN LAND CO., Ladysmith, Wis.

LAND CLEARING MADE EASY—Tells about stump removal by modern machinery. Write for it today and other facts about cheap upper Wisconsin land. Wisconsin Advancement Assn., 1590 First Nat. Bank Bldg., Milwaukee, Wis.

HELP YOUR COUNTRY by helping yourself, 320-640-acre homesteads. Circular free. Low-priced dry and irrigated farms. Homesteaders' Guide, Salt Lake City, Utah.

IMPROVED FARMS, best of location, priced reasonable, easy terms. W. F. Ryan, New Richmond, Wis.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

BARK PEELERS WANTED.

MEN WANTED—100 bark peelers at $3.50 per cord; general woodsmen, $40 per month and board. Station work along right of way of new logging railroad; prices according to character of work. Apply at once. Rib Lake Lumber Company, Rib Lake, Wisconsin.

SEEDS.

GOLDEN GLOW SEED CORN, $3 per bu. Clark's Yellow Dent, $3.50 per bu. Ear or shelled. 98% germination. BURTON PECK, Spring Green, Wisconsin.

EMPTY BAGS.

HAVE YOU ANY EMPTY FEED BAGS to sell? Advise how many you have. We will quote you highest prices. Write today. Springfield Bag & Burlap Co., Dept. 5, Springfield, Ill.

CHESTER WHITE PIGS.

CHESTER White fall pigs sired by W. B.'s Wonder now ready to ship. Wm. F. Belda, De Forest, Wisconsin.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

POULTRY AND PET STOCK.

BABY chicks from standard-bred, Single Comb White and Brown Leghorns, $10 per 100; $90 per 1,000. Bred to lay large white eggs. Safe arrival guaranteed. Catalog free. Wolverine Hatchery, Box 2221, Zeeland, Mich.

HATCHING EGGS from our fine flock of excellent winter layers. Queen strain Single Comb White Leghorns. Immediate shipment, eggs testing 95% fertile. $1, 15; $5, 100. Safe arrival guaranteed. Mrs. A. Dorn, Hilbert, Wis.

S. C. W. LEGHORNS, Young's strain. Eggs, $2, 45; $4, 100; chicks, 10c. Satisfaction guaranteed. Thornt Hubbard, Medora, Ind.

BELDA'S BARRED ROCKS, eggs for hatching, prepaid, 15 for $1.50; 30, $2.75; 50, $4; 100, $8. Wm. Belda, De Forest Wis.

FOX HOUND PUPS, full blood, 8 weeks old; best rabbit hunters. For sale cheap. F. C. Schneider, Lebanon, Wisconsin.

WHITE WYANDOTTE EGGS, $1.00 for 15 postpaid. L. T. Solchenberger, Union Center, Wis.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

ITALIAN bees; Barred Plymouth Rock eggs, 15, $1.00. Elias Fox, Union Center, Wis.

PURE-BRED WHITE ROCKS. Address "Kremers," Whitehall, Wisconsin.

OREGON & CALIFORNIA RAILROAD CO grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Movement For Better Poultry.

To the Editor:—A great movement toward better poultry, the conservation of poultry products and the ultimate results in profit from closer study of this industry has been taking place in Wisconsin this season.

Through joint committees of the Wisconsin Breeders' Association, the college of agriculture and the agricultural extension service of the University of Wisconsin, assisted by local poultry associations, over twenty poultry clubs have been organized in the state within the last few months.

The members of these boys' and girls' clubs are showing great activity in the study of the science of poultry culture and in their home project plans for raising chickens.

Not all of these students will become future poultrymen and poultry-women, but the lessons learned here of faithful attention to details are the fundamental principles underlying the care of all animals and cannot fail to have a healthy moral influence in developing future men and women.

A two years' course of lesson topics by the U. S. Department of Agriculture, coöperating with the poultry department, has been prepared by J. B. Hayes, of the poultry department of the University of Wisconsin.

The scope of the first lesson topic is embodied under the following heads:

The poorest hen produces no eggs, the world's record hen produced 314 eggs in one year. The average production is sixty eggs per year. Practice selection in the flock throughout the year to dispose of the poor producers and keep the good producers. The success in poultry keeping depends upon good strong, vigorous, healthy stock that is capable of heavy production in the winter months as well as in the spring months.

Disposing of poor producers decreases the feed bill without affecting the egg yield.

1. Select active hens. Birds that are active, happy and contented are producers. The best indication is to watch the fowls that are off the roost early in the morning and back late at night, putting in long working hours and going to bed with a full crop.

2. The hen with a good rich, red comb is either laying or about to lay. The eye is also bright and clear. The head is short, broad and full.

3. The body of a producer is deep and wide through the rear. The abdomen is full and pliable, but not "baggy" showing that fat has been stored up for the manufacture of eggs.

4. Short, closely-worn toenails indicate activity and activity means production.

5. Late molting hens are profitable. Discard all hens that molt before August 15th. Hens that molt in October and November are better producers than those that molt in July and August.

6. Select early maturing pullets that lay during November, December, January and February. Late hatched pullets that do not lay in January or February will not lay until spring and are "boarders."

7. Individuals in such breeds as the Rocks, Rhode Island Reds, Wyandottes and Leghorns that have pale-colored shanks in September and October are better producers than those with rich yellow shanks.

8. Pliability of the width between the pelvic bones indicates production.

9. Early hatched pullets are generally better winter producers than one or two-year-old hens.

10. Select an active, well-matured male as breeder.

The subject matter of the other lessons will appear later in these columns.

The members of the boys' and girls' clubs will be given credits for their lessons and home project work with poultry.

An inspection of the premises equipment and methods used by the individual members in the rearing of young chickens will be made by instructors from the department of poultry husbandry, University of Wisconsin, and complete records and a written description of the experiments will be required to be handed to the local leader.

Mrs. A. J. Schloerb,
Omro, Wisconsin.

BOYS' AND GIRLS' POULTRY CLUB, OF OMRO, WIS. FIRST ORGANIZED UNDER COOPERATION PLAN OF STATE AND FEDERAL EXTENSION WORKERS.

Raise More Turkeys.

To the Editor:—I have often wondered why farm women do not raise more turkeys. I have raised them for over twenty years and at the beginning my profits were not very great, but most every year more profit than loss. Of late years the scarcity of turkeys and the high prices obtained for them have made me study them more.

I have not the best of places for turkeys, but I believe I can raise them as safely as chickens. I wintered thirty hens and only lost one, and that was through carelessness. We have a flock of about eighty hens now. I keep one medium-sized tom to about ten hens. Every year I run all over the farm after them. But this year I had an old orchard fenced on two sides with forty-inch woven wire with one barb on top, and two sides with twenty-four-inch wire with three barbs on top. I also cut one wing off as close as I could and they do not offer to stray. For the first week they seemed heartbroken, but a variety of feed and kindness soon reconciled them.

I take my larger toms out to a block of wood and with a good, sharp knife pare off their toenails. It won't hurt them if they bleed some. See that this is done before any hens are injured.

Be sure and keep them healthy. I used to cure my turkeys, but the best plan is to keep them well. In good, fresh drinking water I put every two or three days some permanganate of potash (get it dry at the drug store and put in a bottle with water).

Don't expect them to live on grass from now on. All the year I feed my turkeys a little corn and oats and every few mornings dry bran, which is very good for them. I give them plenty of grit and all the charcoal I can get.

Mary Hakes.

Every weak ear of corn planted reduces the yield from five to eight bushels to the acre. Each bad ear planted means a loss of $3 to $5 an acre.

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Keeps legs sound and trim. It will add many dollars to the value of your horse. The old reliable remedy for Spavin, Ringbone, Splint, Curb, Swollen Joints and Lameness. Equally reliable as household remedy. At druggists, $1 a bottle. Get free book, "A Treatise on the Horse," or write to—

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Don't buy an auto. If you live in the country or town under 10,000, you can get this new, 1917 OVERLAND without cost, as a reward for a few weeks' spare time work in your own community. Many machines already given away. Write today for my easy plan.
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PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for 4 free books: inventions wanted, etc. I help you market your invention without charge. Address Richard B. Owen, 37 Owen Bldg., Washington, DC.

POULTRY AND PET STOCK.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

RHODE ISLAND RED HATCHING EGGS—From my heavy winter-laying, money-making strain. Our production double for 1917 season. Quick shipment anywhere. $1.50 per 15. R. E. Daly Poultry Farm, Necedah, Wis.

BABY CHICKS and eggs from trap nested, pedigreed Barred Rocks and S.C. White Leghorns with wonderful egg records. Write for circular to Amos G. Norman, Dept. D, Chatsworth, Illinois.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators, brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

FIFTY varieties chickens, ducks, geese, turkeys guineas. Low prices to make room. Catalog free. Dell Walrath, Box S, Janesville, Minn.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs: $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

EGGS—BABY CHICKS: 20 varieties. Safe delivery guaranteed. Catalog free. Miller Poultry Farm, Box E, Lancaster, Missouri.

SINGLE Comb Buff Leghorn eggs from first-class stock at $1.00 per 15, 100, $4.50. Charles Schmit, Hortonville, Wisconsin.

REDS AND ROCKS—Eggs, $1.50 for 15, $6 per 100; chicks, 15c each. Coleman's Poultry Farm, Clear Lake, Wis.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department.

Questions and Answers.

Steadying Ford Light With Dry Cells.

I have a new 1917 Ford touring car. I have heard that it is possible to send the lighting current through a pair of dry cell batteries, thereby making a steady, even light at both high and low speeds. Is it possible, and would it injure the magnets?

Answer.—We have never seen this scheme tried out. We doubt that it would work satisfactorily, and there would be danger of demagnetizing the magnets.

Favoring the Light Horses.

Is it possible to make a four-horse evener for a sulky plow so that three horses will walk on the unplowed ground, and one in the furrow; the two outside horses pulling two-fifths of the draft and the two inside horses pulling three-fifths of the draft?

Answer.—In order to arrange the draft in this manner, make the evener as illustrated and described above, except that the center pulley should be located thirty-five and three-fourths inches from the left-hand end and the plow clevis pin hole twelve inches from the center of the right-hand pulley.

Strength of Wire Rope.

I would like to know if a homemade wire rope made of No. 15 galvanized iron wire is stronger than a solid No. 5 galvanized steel wire. I pump the water 750 feet from the well to the yard, using a gas engine located at the yard, in connection with windmill quadrants. I have had a great deal of trouble with the wires breaking. I put up a tower higher than the yard, so that the outfit has only to pump the water, not force it up to the yard; but still the wires break. I think that the wire is too hard for the purpose.

Answer.—Wire rope would undoubtedly work better than solid wire, as it is not only more flexible, but much stronger for the same weight of metal. It would be better for you to buy the rope rather than make it. The boughten rope has a hemp center and is lubricated so as to make it flexible and durable. Use wire rope three-eighths of an inch in diameter.

Power of Tractor.

Would a tractor with a four-cylinder throttle governed motor of four-inch bore and six-inch stroke running at 650 R. P. M. have power enough to pull three fourteen-inch plows at two and three-fourths miles per hour? If the motor runs at 950 R. P. M. and the tractor travels two and three-fourths miles per hour, would it have power enough to pull two fourteen-inch plows? Would the drivers used on the "Tracford" serve the purpose here? Please give the names of the firms making steam cars.

Answer.—The four-inch bore, six-inch stroke motor could not be expected to develop much over fifteen horse power at a speed of 650 R. P. M. This is the amount of power usually considered necessary to operate two fourteen-inch plows. Your Ford or Maxwell motor should have power enough to pull two fourteen-inch plows. The drivers of a "Tracford" would be suitable for making a tractor, using one of these motors.

The Stanley steam car is the only well-known steam car on the market at present.

Tractor Engines—Air Cleaner.

Which will use the most fuel doing the same amount of work; the one-cylinder, two-cylinder or the four-cylinder tractor engine? Why do the four-cylinder tractor engines run at a higher speed than the others? Why do tractor motors become harder to start after two or three seasons' work? Do you know of a dust filter that can be used with a hot-air intake, where a "muff" is used around the exhaust pipe and a flexible metal hose to the carburetor?

Answer.—The amount of fuel used depends upon the general design of the motor, the adjustment of the carburetor and the condition of the motor so much that it is not possible to say which number of cylinders is the most economical. The present tendency is toward a four-cylinder motor. The four-cylinder motor may be run safely at a higher speed than a two-cylinder or one-cylinder motor, as it can be better balanced. On account of the higher speed, it develops more power for the same amount of piston displacement. Regarding the air cleaner, you might write to the Wilcox-Bennet Co., of Detroit, Mich. Old tractor motors are harder to start due to loss of compression.

Liberty Loan

United States Government Bonds for YOU

THAT our allies may buy food and materials to carry on our mutual struggle for democracy, your government is extending them credit through the great $2,000,000,000 Liberty Loan.

Not a dollar of this loan will leave this country or pay for other than American products.

Of the necessity for this loan, Secretary of the Treasury McAdoo says: "The greatest immediate service the American people can render in this war for universal liberty is to furnish the means for its vigorous prosecution. The Liberty Bond Issue is the first step. I earnestly bespeak the co-operation of every citizen throughout the length and breadth of the land in this great service of patriotism."

THE BEST INVESTMENT.

In asking you to subscribe to the "Liberty Loan" your Government does not ask you to spend your money. Instead it holds out to you an opportunity to make the safest investment in the world. When you invest in a "Liberty Bond" you get a signed promise backed by the total resources of the richest nation in the world—a nation whose wealth is recorded at $250,000,000,000.

THE HIGHEST INTEREST IN 20 YEARS.

The present bond issue gives you a chance to purchase government bonds paying the highest interest rate the United States Government has paid in 20 years. Liberty Loan Bonds bear 3½ per cent interest, payable semi-annually June 15th and December 15th. They are exempt from taxation, except for estates and inheritances, and yield an absolutely net income of 3½ per cent.

Liberty Bonds may be purchased in denominations of $50 and multiples thereof. If before the end of the war, government bonds bearing higher interest should be issued, you can exchange your Liberty Bonds for them.

PRACTICALLY AS GOOD AS CASH AND PAYING INTEREST.

The Liberty Loan Bonds are practically as good as cash and they pay interest. They can be used for as many purposes as cash without the risk of actual cash.

They may be registered in denominations of $100 or multiples thereof, so they cannot be lost or stolen. Your income then comes to you automatically.

Liberty Bonds are the best basis for credit in the world. As a farmer you know how handy it will be to use these bonds with your banker to get ready money before your crop is marketed. Machinery and equipment are often cheaper when bought for cash. Let the "Liberty Bonds" help you get it. Your banker will then grow to respect your business judgment and should be willing to make better rates upon the money you borrow.

No investment you hold can be safer and no other bond enjoys such a broad and ready market in case you wish to sell. You can get your money practically as easily as you can from a savings bank.

The last government loan sold at par in 1898 and at 110¾ two years later.

SUBSCRIBE NOW AT ANY BANK OR POST OFFICE.

Your country comes to you today with a solid business proposition—a chance to invest in the best securities in the world, while at the same time promoting the sale of your products.

Unless you act quickly and subscribe now you may not be able to get your share of these bonds. The last great bond issue was over-subscribed seven times.

Make your subscription at any bank or post office in your locality today.

Federal Reserve Bank of Minneapolis

Fiscal Agents of The United States Government
In Minnesota, North Dakota, South Dakota, Montana, Northern Wisconsin and Upper Michigan.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Pinehurst Dairy Dispersion.

AT the Pinehurst dispersion sale which is to be held at Lake Mills, June 12th, there will be offered one of the greatest herds of registered Holsteins in the state of Wisconsin. This herd of 95 head is not only royally bred, but has size, individuality, as well as good seven-day and yearly records. There are 13 yearly record cows in the herd, some of which have seven-day records as high as 34.43 and yearly records as high as 837.353 pounds butter and 18,269.8 pounds milk as a junior three year old. There are four cows above 800 pounds and a number in the 600 and 700-pound classes. The young stock are especially well grown and for the most part sired by King Korndyke Akkrummer Ormsby 166274 and King Segis Concordia Hengerveld 962214. The latter is the senior and the former the junior herd sire of this herd. The former is a 31-pound son of Sir Korndyke Hengerveld De Kol, that has 35 A. R. O. daughters, whose dam is a sister to the sire of Duchess Skylark Ormsby, th present world's champion butter cow. The senior sire is a 28.46-pound grandson of King Segis, as well as a grandson of the noted cow, Sadie Vale Concordia 3d. His sire, King Segis De Kol Korndyke, is also an A. R. O. sire of no small reputation. The following is a partial list of some of the A. R. O. cows in the herd. There are, however, 44 cows with official records to be sold at this sale. Pinehurst Piebe 133468 has 34.43 pounds butter, 551.7 pounds milk in seven days and as a junior three year old 28.633 pounds butter and 535.5 pounds milk and 676.87 pounds butter, 17,234 pounds of milk in a year. Pinehurst Grace 2d 204292, 23 pounds of butter, 511.3 pounds milk in seven days; 837.353 pounds butter and 18,269.8 pounds milk in a year as a junior three year old. Pinehurst Rigtje Queen 184473, 750.045 pounds butter and 19,040.4 pounds milk and 25.157 pounds butter, 575.4 pounds milk in seven days, Pinehurst Lady Mary 184474 has 24.08 pounds of butter, 508.5 pounds milk and 808.183 pounds butter, 20,371 pounds of milk in a year as a three year old. Parthenia Piebe De Kol 72845, that has 460.4 pounds milk and 18.257 pounds butter in seven days and is the dam of four A. R. O. daughters, including Pinehurst Grace 2d, that as a junior three year old made 837 pounds of butter in a year. Valley Rose Mechthilde 72824, that has 22|176 pounds butter, 458.5 pounds milk in seven days; 6,134 5 pounds butter and 14,814.5 pounds of milk in a year. She is also one of the foundation cows with three A. R. O. daughters. Rigtje Piebe De Kol 2d 184471, that has 18.484 pounds butter and 407.4 pounds milk as a four year old on three quarters. When writing for information kindly mention The Wisconsin Farmer. For illustrated announcement of this sale look at the two center pages of this issue.—Adv.

James Derivan.

JAMES DERIVAN, the congenial Poland China breeder at Fox Lake, Wis., has a nice lot of spring pigs to show visitors. Not as many as in previous years—about 50, but he will have some good ones to offer in due time. One of the biggest gilts by Oakland's Equal 2d has a nice litter by Mac's Chief 2d. A Big Orange sow has a fine litter by North Side Wonder. A Long Joe-Black Jumbo sow, and a real good one, has a litter by Wisconsin Jumbo 2d. A big sow by Rood's Big Joe has a good litter by Young Hadley. The best sow on the farm is by Black Jumbo out of an A Wonder dam—she is a real show sow. Mr. Derivan has a good yearling boar at the head of his herd. One with great bone, good on his feet and pasterns with a world of quality. He is a grandson of Big Hadley and his dam is by Goliath Defender by Big Defender. Some good blood is wrapped up in this boar representing old Tecumseh, Defender, Farver's Goliath and Big Hadley. Some of the breeders in Wisconsin have been of the opinion that Mr. Derivan has the medium type breeding, but after you see this breeding you can change your mind. The breeding is big and the sows are good. Keep this herd in mind and when you get ready for that spring boar or a gilt or two, let this breeder quote you prices.—Adv.

Richard Maurer & Sons.

THIS firm has the goods when it comes to good Short-horns. They demonstrated their ability to produce the good ones when they sent a heifer to the Madison sale and show and won championship. They have a number of choice Scotch cows in the herd, but what impressed us most was the choice young things they have in their barns. The herd bull is Baron Primrose by Clipper Stamp by Sultan Stamp, out of a dam by Premier Marshall, and they have some good bulls on the farm sired by this fellow. They have a very fine roan bull just past a year sired by Clipper Stamp out of a Marr Emma dam. Here is a real Scotch bull for someone wanting a bull to head a pure-bred herd of cows. There are also two red yearlings that are ready for immediate service. They have the following bulls for sale and we are glad to recommend any one of them. Some are Scotch, others topped. Two reds, 13 months, one August roan, one choice September roan, one August red, Scotch, one September red, one May red, two red just turned a year. All of these bulls are in good condition. Here is a chance to get a bull to your liking. If interested write to Richard Maurer & Sons, Fox Lake, Wis. The Short-horn bull at the university came from this farm.—Adv.

Waukesha County Guernsey Breeders' Sale, June 7th.

ON June 7th will occur the great event, the tenth semiannual sale of the Waukesha County Guernsey Breeders' Association, at Waukesha, Wis., the Guernsey capital of America. About 60 head of pure-bred Guernsey males and females will be offered by members of this association. This includes several cows with A. R. records as high as 565 pounds of butter fat as a three year old, and many others equally as good. Many heifers, bred and not bred, will be found among the number, all having excellent breeding, some being daughters of Governor of the Chene, granddaughters of Imp. Masher's Sequel, Glenwood Boy of Haddon, Lord Waukesha and Lord Yeksa. Also a few choice males are listed. The reputation of former sales and integrity of the members make this a safe and reliable place to buy Guernseys. This association is in the business to stay, and it is the aim and desire of the members to satisfy all of their customers, and they want your patronage. All the animals have been tuberculin tested and if desired, a certificate of health will be given. A committee of three has inspected all the offering and nothing but the very best individuals have been accepted. No culls or scrubs. Don't forget the joint annual summer meeting of the Western Guernsey Breeders' Association and the Waukesha County Guernsey Breeders' Association at the farm of George McKerrow & Sons Co., Pewaukee, Wis., on June 6th. This is an event that will be enjoyed by all. Come and attend the meeting and remain for the sale the following day. Write F. E. Fox, secretary, Waukesha, Wis., for a catalog of this big sale. See advertisement on page 19.—Adv.

C. J. Schoenfeld & Son.

ONE of the best bulls we saw in Dodge county was Village Mystic, owned by the above firm at Fox Lake. Village Mystic is a counterpart of his illustrious sire, Villager. His dam is imported Flower Girl 12th, so this bull is an aristocrat as far as breeding goes. He was purchased as a calf in the Hannah dispersion sale in Chicago. This sire has great scale, wonderful smoothness, a head full of breed character and his get is a credit to him as a sire of good Short-horns. The Schoenfelds have reason to feel proud of this good Short-horn bull and we have been advised that they refused an offer of $2,000 for him last summer. A fine yearling bull by Village Mystic is for sale. He is out of a Duchess of Gloster dam and can be bought worth the money. These breeders also maintain a herd of Poland Chinas and have for sale at this time a number of fall sows bred to farrow in August and September. They are bred to a son of Half Ton, a big-type boar heading one of the best herds in Indiana. If you are interested in either of the above breeds you will not be disappointed with the stock you find in this herd.—Adv.

Jersey Day in Wisconsin.

THE Wisconsin Jersey Breeders' Promotion Sale at Madison, Wis., June 14th, will be held in the agricultural college live stock pavilion. It has been the purpose of the Jersey interests of the state to conduct a high-class sale by consigning the choicest animals from the most noted herds throughout the state. There will be 70 head of selected Jerseys from 25 of the best herds, in this sale and will, therefore, offer an unparalleled opportunity to select high-class Jerseys for foundation purposes. The sale consists of register of merit cows with records up to 700 pounds. The best blood of America as well as the Island of Jersey will be represented, so that this auction should be one of the greatest Jersey events that has yet been conducted in the state of Wisconsin. Professor U. G. Van Pelt, Kimball's Dairy Farmer, Waterloo, Iowa; Mr. Harry Jenkins, of the Jersey Bulletin, Downers Grove, Ill.; Mr. Boynton, Hoard's Dairyman, Ft. Atkinson, Wis., and Jas. R. Garver, Wisconsin Farmer, Madison, Wis., will attend to bids for parties not in a position to attend the sale. Col. D. L. Perry will cry the sale. For further particulars write to Chas. A. Peterson, Rosendale, Wis., secretary of sales committee. Also write to Mr. Peterson for catalog.—Adv.

NEXT WEEK'S SALE PROGRAM

Wednesday, June 6 — Guernseys, Waukesha County Guernsey Breeders' Association, F. E. Fox, Secretary, Waukesha, Wis.

Thursday, June 7 — Guernseys, Waukesha County Guernsey Breeders' Association, F. E. Fox, Secretary, Waukesha, Wis.

Frank Swan's Guernseys, Wauwatosa, Wisconsin.

MR. SWAN who has been more or less intimately associated with the prominent breeders about Waukesha in promoting their annual sales and stimulating interest for Guernsey cattle in Waukesha county, has been making some very creditable two-year-old records. His cow, Sweet Alice of Norwood, just completed a record of 607.81 pounds fat, Tricky of Maple Heights, as a two year old made 461.94 pounds fat, and Pearl of Maple Heights, 350.6 pounds fat as a two year old. Sweet Alice of Maple Heights and Vazon's Sequel's Jcennilly now on test, look as though they would finish at better than 400 pounds as two year olds. Mr. Swan has five young bull calves for sale, three of which are out of A. R. cows; 544, 562 and 400 pounds respectively. These calves are sired by Billie of Paradise Spring City.—Adv.

Collins Offers Poland Chinas.

P. N. COLLINS, River Falls, Wis., now has for sale spring pigs sired by Black Bone by Black Big Bone and Smooth Jumbo by Black Jumbo, out of big-type bred sows. He also has several bred sows and gilts that he is pricing worth the money. They are bred to Chief Price by Big Price and Smooth Jumbo. Collins will sell you Poland Chinas worth the money and will guarantee every hog or pig he sends out. He also breeds Short-horns and has for sale a limited number of heifers and bulls. Write this breeder. He has been doing business for years and has a long list of satisfied customers.—Adv.

Bred Sows For Sale.

ONLY a few real good sows are being offered for sale at this time, for generally speaking, there is a shortage of breeding stock and those that have them do not care to dispose of them, notwithstanding the good prices that are being paid for good animals. L. E. Pease, Wales, Waukesha, county, Wis., has more sows than he can care for and for that reason he offers a few for sale. Some of them will make 500-pound yearlings and they are bred to a son of Master's Giant that weighed 600 pounds when he was 18 months old and he was not in show condition. You will get good breeding and be pleased if you get one of these sows. They are bred to farrow this fall. If you want a fall boar, Mr. Pease has two that weighed 275 pounds on May 1st. The spring pigs are coming along in good shape, sired by Model Giant, the boar mentioned above, and they will be shipped in June. It will pay you to order early and get the pick. Model Giant will be at Milwaukee this fall and should make a creditable showing, for he is a good boar. Note the advertisement in this issue and write at once relative to the bred sows.—Adv.

Like Produces Like.

BREEDERS of pure Bates Short-horns who wish to increase the milking ability of their herds will do well to keep in mind the herd of George Wenham & Sons, Ft. Atkinson, Wis. They have been breeding Bates Short-horns for 35 years and have produced many good dairy cows of the breed. Among them are Angie, with a record of 1,800 pounds of milk in 30 days, Prize Ida, that made 11,080 pounds in one year, and Samantha 2d 61210, that produced 7,812 pounds of milk in ten months and made a pound of butter cheaper than any other cow in the association test. Cows of similar character and records are the ancestors of the present herd, eight of them having tested 6 per cent butter fat. They are now offering bull calves, one old enough for service. Royal Oxford is bred heavily in the Wild Eyes and Duchess of Oxford families, backed through both sire and dam by Angie and other record cows. He is a good individual and should head a registered herd for excellence of dairy inheritance. See advertisement on page 19.—Adv.

A Progressive Guernsey Breeder.

MR. RALPH TRATT, who lives but a short distance from Whitewater, Wis., and who is generally recognized as one of the most progressive Guernsey breeders of the state, has been doing some splendid A. R. O. work. While visiting his herd recently we had the pleasure of inspecting 12 daughters of his former herd sire, Langwater Hambro, that have just about completed their year's work and will average around 450 pounds fat. These heifers have good size, well placed udders and are consistent producers. Mr. Tratt has also made some other creditable records; for instance, Ringlet, a full-aged cow, made 711.9 pounds fat, 13,000 pounds milk on three quarters and dropped a calf five months after completing this test. Stranford Derina, a full-aged cow, just completed a record of 665 pounds fat; Miss Leutilius finished with 572 pounds of fat and Imp. Darling of Melrose, 580 pounds. Mr. Tratt just recently sold a son of Ringlet to head Gustav Pabst's Guernsey herd.—Adv.

Great Demand For Herefords.

THERE is a great demand for Hereford cattle at this time and we are glad to say that Wisconsin farmers are paying more attention to this good breed of beef cattle. On May 16th McCray sold 75 head of "White Faces" at an average of $1,750; the following day Van Natta, Lafayette, Ind., sold 60 head at an average of over $800; on May 18th Birch & Thompson, Lake Geneva, Wis., sold 60 head at an average of $400. This shows what good Herefords will sell for to people that appreciate this breed. Walter Bros., Chippewa Falls, Wis., have a good herd of Herefords and as they have only been in the Hereford business a short time they do not expect the high prices, though they have cows in their herd that would compare favorably with those sold in the above-mentioned sales. They have some young bulls for sale that are choice, well bred and well grown. Write them for prices and description.—Adv.

A. M. Anderson's Holsteins.

WHILE visiting Mr. A. M. Anderson, who lives a few miles out of Whitewater, Wis., we learned that Mr. Anderson now has in his excellent herd of Holsteins 20 daughters of Sir Pontiac Chief, a 35.43-pound bull. Mr. Anderson also informed us that every animal in milk except one has an A. R. O. record and that these records range from 17 pounds as a yearling up to 28.70 pounds at full age. Mr. Anderson made 17 pounds on a yearling, practically 17 pounds on a junior two year old and 19.20 pounds on another junior two-year-old heifer recently. Practically every time we call upon Mr. Anderson we note some improvement in his farm. In the first place it was a new dairy

Many Inquiries From His Wisconsin Farmer Advertisements.

The live stock breeders of the state will be interested in the following letter to The Wisconsin Farmer from George W. Smith & Sons, Burnett, Dodge county, Wisconsin:

> We have very good results with the advertisement in The Wisconsin Farmer. We had a large number of inquiries coming in all the time. Kept me guessing to keep up with them, besides doing the chores and other necessary work. We have a very attractive bunch of young stock sired by Milkman and Young Clay Jr. We sold a bull and heifer to H. B. Drake & Sons, a bull to James Caughlin, a bull to C. E. Bryham, Lancaster, Wis.; a bull to Joe Hamshire, Marshall, Wis.; a bull to Schroder Bros., Two Rivers, Wis.; a bull to H. E. Kollath, Juneau, Wis.; a bull to Frank Houk, Rice Lake, Wis.; a bull to A. Frederickson, Neenah, Wis., and 8 heifers to H. B. Drake & Sons, Beaver Dam, Wis.

The live stock advertising columns are open to reliable breeders in Wisconsin. We have offers to make to our readers, including practically 80,000 in Wisconsin and more than 90,000 total circulation. Write to The Wisconsin Farmer for rates and further particulars.

barn and silos, then he began fencing his farm with steel fences and at the time we visited him last we noticed that many rods of tile had been laid and that there were many more tile on the farm yet to be laid.—Adv.

The Stock Tonic.

THE uses of the commercial stock tonic must not be misunderstood. Referring to Dr. Hess stock tonic which is very generally used by farmers all over the country, it can be said that Dr. Hess does not claim that it is in any proper sense a feed for stock. It is medicinal—a tonic and a conditioner, not a feed. It does not take the place of the regular feed. The words, "A Conditioner and Worm Expeller," printed plainly on every package, pail and drum, indicate in a general way its use. It conditions the animal system, rids of worms and enables animals to digest and get the benefit of their regular feed. Again, Dr. Hess stock tonic is not a secret preparation. It is compounded by Dr. Hess from his own formula, used for many years, and contains such drugs and ingredients as are everywhere known to produce certain desired results upon the animal as well as upon the human system. Among the ingredients, plainly printed on the packages, are the following: Nux vomica, digestive and nerve tonic and appetizer. Quassia, tonic and worm expeller. Sulphate of iron, blood builder and worm expeller. Sulphate of soda, laxative and liver tonic. Common salt, appetizer, cleanser and worm expeller. Epsom salts, laxative. Nitrate of potash, acts on kidneys. Charcoal, prevents noxious gases. Fenugreek, tonic and aromatic. These ingredients are carefully compounded and are incorporated in cottonseed bran sufficient to hold the mixture in a dry powder. When the purpose of Dr. Hess stock tonic is rightly understood, it will be appreciated why the dosage is so small. It is an economical preparation, a little of it goes a long way, but the best results are obtained from systematic and regular use. The object is to get animals in proper condition to thrive and to keep them that way.—Adv.

Mr. Harry Faville, Lake Mills, Wis.

MR. FAVILLE recently purchased a splendid bull calf from E. C. Schroeder, Moorhead, Minn., to head his herd at Lake Mills. King Ormsby Korndyke De Kol is sired by Sir Buffalo Korndyke, a young bull backed by the blood of show ring winners, his dam being first-prize cow and junior champion at the 1913 National Dairy Show, and his sire was first-prize two year old at the same show. King Ormsby Korndyke De Kol's dam was Dinah Pauline Clothilde Ormsby, a 23.99-pound four year old, that is now on test, having produced 700 pounds of butter her first seven months. The second three months of her test ran ahead of the first, so that in all probability this cow will go far ahead of the 1,000-pound butter mark. Mr. Favillle is to be congratulated upon this purchase, as this line of breeding can not be excelled in the point of combining size, individuality and high production.—Adv.

Prospect Farm Holstein Records.

THE Prospect Farm Herd owned by Paul J. Bast, Rockfield, Wis., has just completed two very creditable seven-day records. Prospect Johanna Homestead 21606, at the age of four years two months and 26 days made 686.4 pounds milk and 30.316 pounds butter, 80 per cent butter, and her daughter, Prospect Johanna Homestead 2d 286809, at the age of two years, two months and 16 days, made 562.7 pounds milk, 18.822 pounds butter fat, equal to 23.452 pounds 80 per cent butter. Prospect Bessie Johanna Homestead is a granddaughter of Netherland Johanna Rue 5th 73312, sired by the famous bull, Sir Johanna De Kol, and is a half sister to Johanna De Kol Van Beers, that formerly held the world's seven-day record. This is Mr. Bast's first attempt at A. R. O. work, which indicates that in the future we will hear much more of the performance of the Holstein herds at the Prospect Farm.—Adv.

Ben Berg, Lake Mills, Wisconsin.

MR. BERG, who a year ago made 32.9 pounds butter and 130.25 pounds butter in seven and 30 days respectively on Lady Oak 2d De Kol, succeeded this year in increasing both of these records, by making 34.09 pounds butter in seven days and 138.71 pounds butter in 30 days. Lady Oak 2d De Kol's dam is Lady Oak 2d, a 21-pound cow that has three 30-pound daughters, as well as being a daughter of Homestead Jr. De Kol. Mr. Berg also made a very fine record on Canary Fobes Inka De Kol, a junior three year old, by making 25.03 pounds butter and 517 pounds of milk in seven days. Mr. Berg also made 18 pounds and 22.26 pounds on two daughters of his herd sire, Canary Fobes Helena De Kol 101267. Those looking for choice bull calves would do well to write Mr. Berg more in detail about the breeding of some which he has on hands out of such cows as just reported.—Adv.

V. S. Culver, Stillwater, Minn.

MR. CULVER'S bull which has recently been advertised in The Wisconsin Farmer, we have had the pleasure of inspecting a few weeks ago and can recommend him to our readers as one that in the point of individuality and high A. R. O. backing has few equals. His dam, Meudlene De Kol Johanna, has produced 117 pounds milk in one day and 799.9 pounds milk in seven days, producing 29.33 pounds butter in seven days. This record gives this cow the distinction of holding the milk record not only in the state of Minnesota, but also in the Northwest and is about the seventh cow in the breed for milk production. We would, therefore, suggest that if any of our readers are interested in an animal of such breeding they would do well to write to Mr. Culver for more detailed information.—Adv.

Emmons Blaine's Recent Pacific Coast Shipment.

MR. BLAINE recently made a royal acquisition to his already famous Milford Meadows Stock Farm herd. This shipment consists of the well-known Pacific prize-winner, herd sire of H. C. Davis, Granger, Wash., and 10 choice heifers ranging from heifer calves to two year olds. Mutual Fobes Longfield De Kol 82595 already has about 12 A. R. O. daughters that give evidence of his worth as a sire, which in addition to his phenomenal show record makes him stand out preëminently as a great sire. Four of the heifer calves are daughters of this bull, which shows the high regard Mr. Blaine has for the line of breeding represented in Mutual Fobes Longfield De Kol's pedigree. He is sired by the well-known Fobes Tritomia Mutual De Kol, that has 27 A. R. O. daughters and his dam, Lady Longfield Fourth's Homestead Lass, is a 30-pound daughter of the well-known Homestead Junior De Kol, that has 71 A. R. O. daughters. This line of breeding blends very nicely with that of the Milford Meadows Stock Farm herd from the fact that their two senior herd sires have contained much of the blood of Homestead Jr. De Kol. Probably the most sensational individaul among the heifers is May Lilu Hijlaard Segis 2d, a yearling calf that is indeed a remarkable heifer calf. She immediately attracts the eye of visitors looking over this shipment, which is rather unusual from the fact that there are other noted prize winners and splendid individuals as well. Mr. Blaine also purchased a splendid bull calf from the E. C. Schroeder herd recently, which is another splendid addition to the Milford Meadows Stock Farm herd.—Adv.

Charles Beveridge, Lake Mills, Wis.

MR. BEVERIDGE is generally recognized as having one of the choicest small herds in the vicinity of Lake Mills and whose consignments to the Lake Mills sales always appear in the best of condition, reports the following A. R. O. records made by several animals in his herd. The most phenomenal cow is Winsor Sweet Butter Maid, sired by Sir Ormsby Johanna De Kol 37689. Her dam is Sweet Butter Maid, a daughter of Pontiac Butter Boy. Her A. R. O. records are as follows: 19.50 pounds of butter at 26 months; 24.60 pounds at three years; 27.67 at four years and 33.48 pounds at five years. Mr. Beveridge has a bull calf born January 1st, sired by a 31-pound bull out of one of his cows, that is now for sale. Tyranena Pontiac Bawn, practically the same breeding of the above cow, also made 24 pounds at five years.—Adv.

The Short-horns Around Fox Lake, Wisconsin.

A REPRESENTATIVE of this paper made a trip to Dodge county, Wis., to see the Short-horns in that vicinity, and we don't believe the farmers and breeders in Wisconsin realize that there are such good herds around Fox Lake and Beaver Dam. H. B. Drake, at Beaver Dam, has one of the oldest herds and a large herd, headed by a Whitehall Sultan bred bull. His herd is about half Scotch and the rest of the females have five or six good Scotch top crosses. Mr. Drake is a good caretaker and his cattle were in good condition and the spring calves are fine. He certainly has a fine bunch of heifers and young bulls coming on for the trade. He recently sold cattle to go to Washington and a bull for Texas. This is one of the good herds in that community.—Adv.

Attractive Red Polls.

WE recently inspected the Red Poll herd owned by Edward Bennett, Black Earth, Wis., and we were very much impressed with the smoothness and size maintained in this herd. Mr. Bennett hasn't as large a herd as some men, but he has good cattle and he is a good feeder and caretaker, consequently the cattle he has for sale are in a nice, thrifty condition. Just at this time he has for sale some very fine bulls from calves up and these will please the man that wants to buy a young bull and grow him out to his own satisfaction. Besides the express rate is very much lower. For those that have been wanting Red Poll heifers, here is your opportunity, for Mr. Bennett has a limited number of real choice heifers. Don't overlook this offering, for they are good and we don't hesitate to recommend them.—Adv.

A Gasoline Saver.

THE kerosene-burning device for Ford cars, manufactured by the Burn-Oil Device Co., Peoria, Ill., and advertised on page 9, is announced as a great fuel saver, and this announcement is backed up by facts to prove it. This invention has been thoroughly tested out, and has stood up every time so that there is no longer any chance for it to do anything but make good. It supplies the automobile with kerosene for fuel at a greatly reduced price, as compared with the price of gasoline, and does the work just as well. If you will write to Burn-Oil Device Co., Peoria, Ill., as per the advertisement on page 9, mentioning The Wisconsin Farmer, the manufacturers will be glad to send you full particulars of the new machine, as well as testimonials that give explicit proof as to the merits and value of this Ford attachment.—Adv.

Fruit Brothers, Waukesha, Wisconsin.

WHILE visiting Fruit Brothers' farm recently we were informed that they had a three-year-old Guernsey cow about to finish at 620 pounds. Lura of Maplehill is sired by May King Vrangue of Ingleside and is a splendid individual as well as a high producer. Another of his daughter's, Lady's Hope, has 400 pounds fat for the first six months at three and a half years. In class G they have a two year old sired by Langwater Hays Rosie, that is a half sister to the three cows they are consigning to the Waukesha County Guernsey Breeders' sale, June 7th. Their former herd sire was recently sold to Hill, Wells & Lawson, Rosendale, Wis. Fruit Bros. now have a number of his daughters in their herd and recently refused an offered of $5,000 for two of them.—Adv.

William Jones, Waukesha, Wisconsin.

MR. JONES, who has unquestionably one of the greatest Guernsey herds in Wisconsin, has been making some splendid A. R. records this winter, which are as follows: Royaline Dora 2d, a junior two year old, made 601.53 pounds fat and 11,800 pounds milk. Yexa Tops of Gold 2d made 571 pounds fat, 13,800 pounds milk. Yexa Tops of Gold 2d is a daughter of Yexa Tops of Gold's Fanny, a cow that has given Mr. Jones probably more distinction than any other among Guernsey circles. This cow stands fourth in the breed in the point of amount of butter produced in a year and second of all breeds in the state of Wisconsin. She also stands third in the amount of milk produced in the Guernsey breed. Mr. Jones is now using a son of this famous cow at the head of his herd which is the most promising young sire, possessing an exceptional scale and capacity. Mr. Jones is a believer in size and constitutional vigor and his herd, therefore, gives evidence of this ideal.—Adv.

SALE DATES.

Guernsey Cattle.

June 7, Waukesha County Pure-Bred Guernsey Breeders' Assn. sale, at Waukesha, Wis.

Badger Live Stock Doing Well.

(Continued from page 9.)

pastures. Farmers are letting most of their calves go for veal. There are more cows in this county than usual. Old meadows are short; last year's seeding looks fair and may make a good crop if the weather is favorable from now on. Oats are slow for this time of the year. Vacant lots in towns will be put in gardens.—E. C. Stuart.

Sauk County.—Barley and oats are backward because of prolonged drouth, but the drouth is now broken. Wheat and rye look well. Meadows and pastures are as good as could be desired. Clover shows an especially good stand. Corn planting is progressing slowly because of the unfavorable weather. The percentage of pigs saved in this locality has been far below normal; some breeders are reporting saving on the average only two pigs per litter. The increase in acreage of corn and small grains is about 10 per cent. County schools are giving pupils vacations so that they may help during the planting season. The railroad company is offering free rental of its right of way for productive purposes.—Richard F. Klemm.

Shawano County.—Pastures are backward. The new seeding of alfalfa, clover and timothy looks fine. More than the normal amount of young stock is being raised, both of dairy and beef type. Many new silos will be built this summer. Young stock for grazing is in demand, but cannot be purchased at reasonable prices and a considerable part of the grazing and cut-over land will go to waste this summer because live stock cannot be obtained to put on it. Pigs are in great demand. Much corn is being planted both for grain and silage. The area of corn will be greater than any time heretofore. This is also true of navy beans, onions and root crops. In spite of the high price of potato seed, a large acreage will be planted to this crop. Winter wheat and rye look as well as usual if not better.—M. J. Wallrich.

Sheboygan County.—Recent rains have broken the dry spell. As soon as the weather gets warmer farmers will turn their cows onto pastures. Seeding of small grains is finished, but considerable potato planting is still to be done. Some corn has been planted and farmers are now busy at this work. A number of new silos will be put up. Alfalfa is fairly good, but clover and timothy meadows are backward.—M. J. Hoppert.

Taylor County.—This week has been favorable for farm work. Oats, barley and spring wheat are all sown. Most of the potatoes have been planted. There will be an increase in the acreage of wheat and potatoes. Meadows and pastures are coming along fine. More attention is being paid to dairying than ever before. There are no contagious diseases among live stock. The weather is cold. Every available space will be put in gardens.—Jno. E. Miller.

Winnebago County.—The season is late and grain crops are backward, but look well. Very little corn has been planted so far. Clover and alfalfa stood the winter well and the season seems to be favorable for hay. A good acreage of sugar beets has been planted. Cows are bringing unusually good prices and considerable interest is manifest in dairying. Cow-testing associations have been formed and a cheese factory started in this vicinity.—S. L. Smith.

MINNESOTA.

Goodhue County.—Most of the young stock wintered well and is in good health, but because of the general shortage of feed they are decidedly thin. Weather is very dry and ground has become hard and baked. Grass is not making a good growth. Hogs are scarce because of the shortage of feed and many farmers have sold off their breeding stock more closely than usual. Grain conditions are disappointing because the hard soil has prevented considerable of the clover from breaking through. It was difficult to respond to President Wilson's call for increased production of foodstuffs in this county, for there is no idle land and the shortage of labor will cause the crops to receive less care than usual.—Otto W. Kolshorn.

POLAND CHINA SWINE.

POLANDS

BIG TYPE, BIG BONE, BIG LITTERS—Spring pigs are ready to ship—order now. Sows and gilts bred, to farrow this fall, to CHIEF PRICE and SMOOTH JUMBO. Also Short-horn bulls and heifers.
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BUY Poland Chinas that will farrow this fall. I have bred ten fall gilts to farrow in August. They are dandies, descendants of a Big Joe-A Wonder sow, and sired by Double Hadley 4th. Also 104 March and April pigs to be shipped later. I'll sell you good Polands worth the money. Write
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SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
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70 HEAD, selected from 25 of the best herds in the state by competent judges representing the Wisconsin Jersey Breeders' Association. The offering consists of Register of Merit cows with records up to 700 lbs. Heifers and heifer calves from R. of M. stock. Several promising show prospects and two or three young bulls of especially fine breeding, representing the best blood of the Island and America and the best efforts of Wisconsin Jersey breeders, and Wisconsin has made Jersey history. Spend the day with us if possible, but if you cannot attend, send bids to Prof. Hugh G. Van Pelt, Kimball's Dairy Farmer, Waterloo, Iowa; Mr. Harry Jenkins, Jersey Bulletin, Downers Grove, Ill.; Mr. Boynton, Hoard's Dairyman, Ft. Atkinson, Wis.; Mr. Garber, Wisconsin Farmer, Madison, Wis. Col. D. L. Perry, Columbus, Ohio, auctioneer. Write for catalog. Address

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HAVE a few bull calves from A. R. O. dams for sale Address Silver Spring Farm Co., Eau Claire, Wisconsin.

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IS booking orders for DUROCS to be shipped when three months old. Good individuals with good pedigrees. Write for details.

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BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write

W. C. Jenkins **Bangor, Wisconsin**

WAR DUROCS

HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write

DENNIS SHEA **Melvina, Wis.**

LIST YOUR NAME

WITH US for a good spring boar, from the best sows sold last winter. Also have sow to sell; will farrow in June.

DUROCS. GUERNSEYS.
RILEY MARTINY & SON **Baraboo, Wis.**

SOLD OUT

BUT still raising Durocs for May delivery. Order now. Address

Geo. D. Spraim & Sons **West Salem, Wis.**

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HAS no Durocs to sell until May. Will book your order.

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THEY are dandies, with stretch and quality. Our guarantee with each pig. Address

F. R. Constance & Sons **Waupaca, Wis.**

BERKSHIRE SWINE.

CHOICE BERKSHIRE PIGS

OF March and April farrow, most of them sired by Ames' Rival 32d, and all out of large mature dams. I can please you. For prices, write

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HAMPSHIRE SWINE.

HAMPSHIRES or "Belted" swine. Have 20 Mar. weanlings, but in addition offer my "tired" sows, 4 gilts, 2 bred, 2 boars, sexes not related. All stock registered. **Dane Stock Farm, Oshkosh, Wis.**

The Kind of Trenches We Americans Need Most

Pres. Wilson Says:

in his wonderful proclamation of Apr. 15, 1917:

. . . . . The importance of an adequate food supply, especially for the present year, is superlative. Without abundant food, alike for the armies and the people now at war, the whole great enterprise on which we have embarked WILL BREAK DOWN, AND FAIL.

The world's food reserves are low. . . . Upon the farmers of this country, therefore, in large measure rests the fate of the war and the fate of the nations. MAY THE NATION NOT COUNT UPON THEM TO OMIT NO STEP THAT WILL INCREASE THE PRODUCTION OF THEIR LAND, etc. . . . . .

To the American Farmer

You heard the "call" from the head of your nation addressed directly *to you*. What have you done about it? The "call" for maximum food production means greater acreages to be prepared, planted and cultivated. Are you equipped to answer your country's demand? You have done it in the past—you, no doubt, will do it NOW.

But conditions are different. Then, it was a "call to arms." Now it is a "call to farms"—to grow more food because there is a vast shortage in the world's food reserves. This means YOU must plow more; plant more; do it quicker; do it better; in order to do your full duty to your country's demand. You must plant every available acre, especially should your acreage of grain be extended. Your problem will be easier; your response to the "call" more helpful, if you will "enlist" the services of a

MOLINE ORIGINAL 2 WHEEL TRACTOR UNIVERSAL TRACTOR

HERE is a light, handy, compact, two-wheel tractor which costs less than four horses, but will do the work of seven horses. No other tractor on the market will do such a variety of work. It is strictly a ONE-MAN, all-purpose tractor; heavy enough to do all farm work, yet light enough to work on soft plowed ground without packing the soil and is inexpensive to operate—in fact, it is cheaper than horses.

—It will CULTIVATE as well as plow.
—It will do your discing, harrowing, planting, mowing, haying, harvesting—in short, anything you can do with horses, also all belt work on the average farm.
—It will do all this easier, quicker, cheaper than with horses.
—It pulls two 14-inch bottoms and furnishes 10 to 12 h. p. on the belt.
—It is made and backed by one of the oldest, strongest, most dependable farm implement companies in the world and built in the largest tractor factory in the world.
—It is the only tractor which will do all farm work without horses. You ride the tool—not the tractor—where you can plainly see the work you are doing.

Write for free catalog-folder and see for yourself how this handy all-purpose, one-man tractor will not only help you answer the country's "call" more completely, but help you solve your power and hired help problems to your utmost satisfaction.

MOLINE PLOW COMPANY

Dept. 30. MOLINE, ILLINOIS

[7]

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this letter from a Moline user:

The Moline-Universal Tractor has proven to be one of the best investments that I have ever made. It has been doing more than I expected of it. I have plowed 60 acres this fall. The Moline-Universal Tractor and two horses constitute the power of my 160-acre farm and there is very little work left for the horses to do. When the week is past, we find that more time has been spent caring for the horses than for the tractor. It is a little wonder when it comes to pulling a load up hill.

NORMAN BIERY,
Louisville, Ohio

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STEPHENS SIX AUTOMOBILES

Buy a Liberty Bond

THE WISCONSIN FARMER

VOL. XLVI. NO. 23. THURSDAY, JUNE 7, 1917. WHOLE NO. 1845

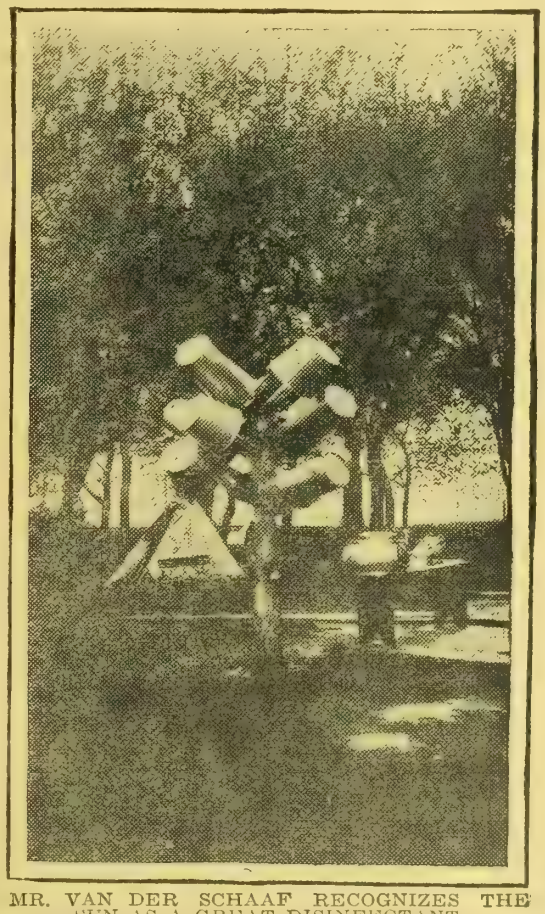
Dairying in Western Wisconsin.

SPLENDID work is being done in western Wisconsin in developing dairy herds. The conditions are scarcely less favorable than in the western and southern portions of the state, and those who have taken up dairying in the right spirit and followed correct methods have met with distinct success. No doubt the western section of Wisconsin may be expected in the immediate future to provide much of the increase which we look for in dairy production in this state. That the breeders of western Wisconsin are alert to their opportunities is evidenced by the good work of such organizations as the Western Wisconsin Holstein Breeders' Association, of which Mr. C. A. Van Der Schaaf, of Monroe county, is president and a leading spirit. Those who ride through Monroe county on the train may get an idea that the territory around Sparta is made up generally of big stretches of sand. If they would leave the train and take a trip into the country they would discover that this desert area has distinct limits and that the land outside of it is as fertile as any in Wisconsin. The Van Der Schaaf farm offers a good illustration of what has been done in western Wisconsin in the breeding up of a Holstein herd. What Mr. Van Der Schaaf has been able to do may be accomplished in almost any section of our western counties, and hence a recital of his experiences, even though less extended than the successful results warrant, should be an inspiration to our readers.

Mr. Van Der Schaaf was one of the visitors to western Wisconsin who went further into the merits of that portion of the state than to simply get a bird's-eye view of the sand prairies through which the railroad runs. He began his experience as a farmer by working on a number of farms near the city of Sparta. While he worked and saved he planned for the future. His observation made him so confident of success that one day he went to bed $14,000 in debt. But he slept as soundly after as before acquiring the financial burden. He felt safe that the money invested in farm land would prove a good investment.

That was ten years ago. The farm is running better than ever. The financial side has a healthy look and Mr. Van Der Schaaf feels modestly proud that his calculations turned out to be correct.

Since Mr. Van Der Schaaf is a Hollander, his taste naturally runs to Holsteins. And on the Holsteins he banked most heavily for the returns that were to make purchase of the farm possible. They are still on the job, the Holsteins are, just a small herd, but working hard. Mr. Van Der Schaaf does not consider more than he can handle. He believes that a herd of about thirty good cows can be better taken care of by the average dairyman than a larger herd; about fifteen cows form the milking herd the year around. Tests for phenomenal records have not been made at Enterprise Stock Farm, as he calls his place. But every cow must show her worth at the pail. In return for this, Mr. Van Der Schaaf feeds them well on clover and grain in



MR. VAN DER SCHAAF RECOGNIZES THE SUN AS A GREAT DISINFECTANT.

accordance with their milk flow and provides for the calves a sire with a reputable ancestry. His herd bull, North Star Cornucopia Sir Beets, is sired by Sir Beets Cornucopia Netherland, famous for his many winnings at the shows throughout the country. First and grand championship prizes came to him as regularly as he was entered. The two nearest dams of Sir Beets averaged 29.29 pounds of butter in seven days.

A young bull recently purchased by Mr. Van Der Schaaf traces back on the sire's side to Colantha 4th's Johanna Lad. His grandam was Johanna De Kol Van Beers.

There are about 100 acres of tillable land on the farm besides forty acres of wood lot. Of the 100 acres, sixteen are devoted to pasture for the milking herd and the balance is planted to corn, oats, barley and clover hay. In between the clover alfalfa has been sown for the last two seasons to inoculate the ground for a possible future stand of alfalfa. Patches of the meadow are sown to a mixture of one-third alfalfa, one-third timothy and one-third clover. The showing made by the alfalfa has been so satisfactory that a plot of alfalfa will be put in during the coming year.

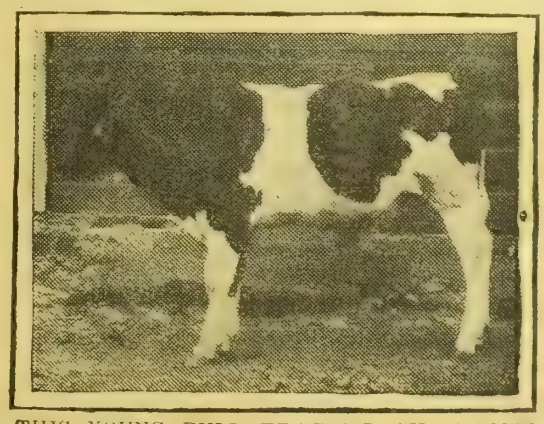
The barn is undergoing improvements this year in accordance with Mr. Van Der Schaaf's plan of "purchase as it can be paid for." Steel stanchions are going to replace the old wooden stanchions and a cement floor the earth and wood floor. A cement floor has also been laid in the separator room and in the hog barn. But the farm had to show that it would pay for the improvements and that the improvement would help the farm.

We have before stated that Mr. Van Der Schaaf is a leader in the Western Wisconsin Holstein Breeders' Association, and at this writing he is president of that association. The main object of the organization has been to sell and help sell surplus stock of the members who reside in Monroe, Jackson, Vernon, La Crosse and Trempealeau counties. At this time the work is somewhat slack, owing to the fact that buyers from all parts of the United States have fairly swamped the Wisconsin Breeders' Association with orders for grade and pure-bred cattle, both old and young. There is not a great deal of extra stock on hand. The growth of this association has been steady, being backed by the proper spirit on the part of the members. It was started in December, 1915, mainly through the work of Mr. Van Der Schaaf and L. E. Little, of the La Crosse County Agricultural School. The start was made with only eighteen members, but the association has kept adding members, until at present sixty-three breeders of Holstein-Friesian cattle are on the roll.

In order to make the association meetings more than strictly business meetings, the Holstein breeders of western Wisconsin combine with the La Crosse county associations of Guernsey and Jersey breeders and hold the summer meeting

(Concluded on page 21.)

PRINCESS INKA CANARY DIDO, ONE OF THE GOOD COWS OF THE HERD.



THIS YOUNG BULL TRACES BACK TO SOME OF THE MOST NOTED HOLSTEIN STOCK.

NORTH STAR CORNUCOPIA SIR BEETS, HERD BULL ON THE VAN DER SCHAAF FARM.

Will Be Big Demand For Buckwheat.

Sow It About the Middle of June---When Other Crops Fail Try Buckwheat---By R. A. Moore, Wisconsin Station.

TRY A FIELD of buckwheat this year. This wheat substitute will be in greater demand than ever next fall and winter. Buckwheat always takes quite an important place in the human diet, for practically everyone is fond of buckwheat pancakes.

A great deal of buckwheat is used for feeding purposes. It is highly recommended as a poultry feed.

Certainly there never was a time in the history of the state when more attention should be given to the buckwheat crop than the present year when all human and animal foods are so high in price. And Wisconsin farmers have not begun to supply the mills of the state with all the buckwheat they want. The millers have had to buy a large part of their supply from New York, Michigan and Pennsylvania.

Besides all this, buckwheat is a handy crop—it fills in when and where crops like corn, clover and other cereals fail to thrive. The land can generally be fitted for buckwheat after the other crop has failed. Newly cleared land that cannot be prepared before the middle of June can be put in buckwheat.

Buckwheat is easy to grow, and will give good returns on soil that is so low in fertility that other crops will scarcely grow. It will also respond readily to the richer soils.

While buckwheat should have good drainage, it is a splendid crop to grow on marshes which have been broken after drainage. It will help decay the vegetable matter on almost any new soil.

Clover and grass seedings are often put in with buckwheat and where the desire is to follow the buckwheat crop the next year with a hay crop, the clover and grasses are seeded at the same time buckwheat is sown. Buckwheat renders good shade for the tiny grass and clover plantlets, and aids very much in getting this crop established in the fields.

Buckwheat is also a great weed killer, helping to destroy all kinds of farm weeds. It grows erect and has broad spreading leaves which aid very much in keeping down weed growth and preventing rapid evaporation of moisture on sandy lands.

Three varieties of buckwheat can be sown in Wisconsin—Silver Hull, Japanese and common black. The first two varieties are exceptionally good strains for our conditions.

Buckwheat, just like any other crop, responds to good culture and for that reason the ground should be well prepared. If the ground can be worked over in the early part of June and allowed to lie for a few days to become compact, it will aid in the production of a good crop. A bushel to the acre planted by an ordinary grain drill or seeded is sufficient. Where Silver Hull is used, three pecks to the acre is enough.

Don't plant buckwheat too deep—not more than an inch on heavy soils, and from one to two inches on light soils. If the ground is newly plowed, it is a good plan to use a planker or roller to firm the soil before the seed is sown.

While, as a rule, a crop of buckwheat can be matured in the southern half of Wisconsin if sown at any time up to July 1st, it will be better to sow a little earlier so as to miss the heavy fall frosts. From June 10th to 25th would be about the right time, and when the seed is sown the crop needs no more attention until it is ready to harvest.

The time to harvest can usually be determined by the number of the ripened seeds. All the seeds will not ripen and there will be green seeds and even flowers on some of the plants, yet it can be caught at a time when the large portion of the seed has turned black, gray or brown.

Cut into small loose bundles and shock it like other grain. In order to allow the buckwheat to dry to better advantage, it is often cut with a binder without binding and left in loose bundles on the field. Later after drying, it is bound by hand. If the bundles are small and loose, they will dry out if properly shocked.

Buckwheat is threshed the same as other grains with an ordinary threshing machine. Concaves of the machine should be lowered so as not to crush seeds.

Usually a good local market is found for buckwheat. If, however, there is any doubt about securing a good market for the seed, full information can be secured by addressing the agricultural experiment station, Madison. The large buckwheat mills usually pay a good price for all buckwheat that is produced.

It seems in these days when there is need for an increased food production that a great deal of land which has not been used heretofore could be put into shape to raise a profit-producing crop of buckwheat.

Homestead Laws.

The U. S. homestead law provides a way by which a citizen may obtain a home on the public lands of the United States without cost, except the small sums necessary to entry and proving up. The homestead exemption laws of the various states are for an altogether different purpose: They do not provide a way for a person to obtain a home, but provide a way for a person who has already obtained a home to keep it safe from seizure and sale on execution or attachment. A man with a family can hardly be turned out of house and home anywhere in this country on account of his debts. In most of the states a person who is the head of a family is entitled to hold and occupy his home to a certain extent and value, free and exempt from all debts incurred after acquiring such home, except lien debts voluntarily placed upon it by both husband and wife. One of the essential elements of a homestead is that it be used as the home of the family. If it be abandoned as a home it cannot be lawfully claimed as a homestead. A mere temporary absence from it would not amount to abandonment. It has even been held that leasing a homestead with the intention of returning thereto after the expiration of such lease does not constitute abandonment. Either husband or wife may be the owner of a homestead. It is intended by law for the benefit of the family where the family may be sheltered and live beyond the reach of financial misfortune and the claims of creditors. Generally a homestead cannot be sold or mortgaged by either husband or wife without the consent of the other, but husband and wife may join in selling the homestead or placing a mortgage on it, and may sell it and put the proceeds in a new homestead which will, when acquired, be exempt from sale for debt.

In Iowa a homestead must not exceed half an acre if it be in a town or city, and not more than forty acres in the country, but in either case if a homestead be worth less than $500 it may be enlarged to that extent. It must not contain more than one dwelling house and such other buildings as are reasonably connected therewith, or, as the law says, "appurtenant thereto."

In Missouri a homestead in the country may consist of 160 acres of land of the value of $1,500, or eighteen square rods in a city of 40,000 people, or five acres in a town or city of less than 40,000 people.

In Oklahoma a homestead may consist of 160 acres of land in the country, or one acre in a city, town or village, with all improvements thereon, without regard to value.

In Illinois a householder having a family is entitled to a homestead to the extent in value of $1,000 in the farm or or lot of land and buildings thereon.

In Wisconsin forty acres of agricultural land, with dwelling and improvements thereon, or a quarter of an acre with dwelling and improvements thereon in a town or city, may be claimed as a homestead.

In Minnesota a homestead may consist of eighty acres of land with dwelling and improvements thereon, or one lot in a city of over 5,000 people, with improvements and dwelling, or a half acre with dwelling and improvements in a city or town of less than 5,000 people.

In North Dakota a homestead must not exceed 160 acres in extent, nor be of greater value than $5,000, or two acres in a town plat.

In South Dakota a homestead of 160 acres of land worth not to exceed $5,000, or one acre in a town plat is allowed.

In Nebraska 160 acres of land in the country worth not exceeding $2,000, or two city or town lots of the same value, may constitute a homestead.

In Kansas a homestead may be 160 acres of land, or one acre in a town or city, with all improvements thereon, when the same is occupied by the family as a home.

Law Questions.

Cannot Recover Damages.

A Subscriber, Bryant, Wis.—I bought a jack pump to run by a gas engine. While it was running I tried to oil it, and the cut wheels caught my glove and drew in a finger of my right hand and injured it so that the doctor had to amputate it. Can I recover damages on account of the cut wheels being uncovered?

Answer.—You cannot recover damages for the injury to your finger.

Trespass on Land.

A Subscriber, Rice Lake, Wis.—A owns a farm in Wisconsin, and a river runs through the farm. There is a public road by the river and certain parties go from the road and take from the river bed and banks gravel for concrete use. Has A a right to forbid them from so doing, and stretch a wire to prevent them from taking gravel?

Answer.—A has a right to forbid and prevent the taking of gravel from the river bed and banks on his land and to stretch a wire for that purpose so that it does not interfere with the road.

Division of Partition Fence.

A Subscriber, Corliss, Wis.—(1) I wish to have a line fence between my land and the land of my neighbor. Which end of the fence must I build? (2) The fence will be of wire. On which side of my part of the fence should I attach the wire?

Answer.—(1) If you and your neighbor cannot agree upon the matter apply to two or more fence viewers to decide it and they will meet and divide the fence and assign to each party the part he is to build. (2) Attach the wire on your own side.

Compelling Neighbor to Fence.

Mr. Homer C. Beattie, Antigo, Wis.—What legal steps will it be necessary for me to take to compel my neighbor who owns adjoining land, to build his half of a partition fence between our farms?

Answer.—You can apply to two or more of the fence viewers of the town where the land is situated to meet and decide the matter. The fence viewers will then divide the fence and assign to each the section which he is to build and fix the time within which the fence is to be built and file their decision with the town clerk, who will record the same. If your neighbor refuses or neglects to build his half of the fence within the time so fixed you can build it and have the expense thereof fixed by the fence viewers and certified to and then you must demand of your neighbor that he pay you the amount with the fees of the fence viewers, and if he fails to pay the same for one month, you can sue him and recover the amount with interest at 1 per cent a month.

"The Old Lines"

EVERYBODY speaks of them as "the old lines," many perhaps without realizing how thoroughly new and up to date are all these **Champion, Deering, McCormick, Milwaukee, Osborne** and **Plano** mowers, rakes and tedders. What really good improvement was ever made in haying machines that did not show itself first on one of these machines? Where can you find mowers, rakes, or tedders that need so little adjustment, so few repairs, or that are so easy to repair when they do need it? Nowhere. These old standard machines, known to farmers for three quarters of a century, can still be depended upon to get in all the hay from any field and to make the work light for the farmer.

When you need a mower, rake, or tedder, see the local dealers who handle the **International Harvester** lines. We can remind you here that our machines have always done good work, but the dealer can show you why they still do it. You will find that the local dealer has just the size and style you need. Buy from him.

International Harvester Company of America
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officially endorsed by the U. S. Dept. of Agriculture as the greatest and most scientific seed grain cleanser the world has yet known. Destroys smut and fungus growth in seed grain, prevents diseases of potatoes and other vegetables. Write for big instructive Hand Book to-day—it is FREE.

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100 WILLIAM STREET NEW YORK

The Wisconsin Farmer

THURSDAY, JUNE 7, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

YOUR FLAG AND MY FLAG.

ALL up and down this great, broad land of ours today flags are flying, public gatherings are singing our national anthem and breasts are stirred by the swelling heartbeats of a common patriotism. It gives new meaning to the poet's words:

Your flag and my flag!
And how it flies today,
In your land and my land,
And half a world away.

Rose-red and blood-red,
The stripes forever gleam;
Snow-white and soul-white,
The good forefather's dream.

Sky-blue and true-blue,
With stars that gleam aright;
A gloried guidon of the day,
A shelter through the night.

As I realize that nowhere are hearts more loyal or minds more patriotic to "your flag and my flag" than right here in our beloved Badger state, with more than one-fifth of its population foreign born and nearly one-half of foreign-born parentage, I am proud, as never before, of Wisconsin—America's greatest melting pot.

Of course, I have always been proud of Wisconsin's greatness—its greatness in men and women; its greatness in agricultural productivity; its greatness in laws and public institutions. I have wanted the world to know that it has the largest percentage of farms operated by owners and the most intensified and diversified agriculture of any of the forty-eight states. But today, more than ever, I would like to cry Wisconsin's greatness from the housetops, that all might know she is also first in devotion to the star-spangled banner and to the principles represented by our government at Washington.

You who were born here, of American parents, I congratulate, because from your earliest days you inherited through the veins of your forebears the spirit and traditions of American democracy. Even more heartily do I congratulate you, whose fathers and mothers broke the tender ties that bound them to a foreign home and came here that you might enjoy the rich blessings and opportunities of Wisconsin, which had been denied them in youth. But most of all do I congratulate you who were born in other lands, whom the guiding hand of Providence led along a path, which, though doubtless rough at times, brought you at last to fellow-citizenship in this great state.

And in the very next breath I want to acknowledge to those of you who made this the home of your adoption, the debt of gratitude which all Wisconsin and all America must feel for what you have given. I firmly believe that Wisconsin's leadership in farm products, in wealth, in good citizenship and good laws is in no small measure due to your thrift, your knowledge of scientific farming and to the high ideals which you brought here with you. Little wonder, then, that having contributed so much to the upbuilding of this state and nation, you now stand loyally together in their hour of need, upholding the institutions and the ideals which you helped to create, even as an earlier generation of Wisconsin citizens of foreign birth helped to preserve the Union in the dark days of civil war.

I think that the highest praise of all will, by common consent, be reserved for this large body of citizens who are connected by the closest ties of kinship with those whom fate has made enemies of the United States, but who, in spite of this fact, remain loyal and true to the land of their adoption. It is true that most of them came to this country to avoid the very things against which this government is now engaged in its great struggle, but that does not affect the fact that their family ties are no less tender than our own. As one of their number has so well said:

All men who are willing to lay down their lives for their country under any circumstances deserve to be enrolled as patriots. But the supreme test comes to a man when he is called upon to defend the flag, though his blood relations are arrayed against it. This is the supreme test of a man's loyalty to the flag of his adopted country.

So, with tear-dimmed eyes and hearts filled with pity, let us one and all unite in saying "All honor, then, that 56 per cent of Wisconsin's enlistments in the army are young men who are bound by ties of birth or parentage to those whom they are called upon to fight. To them belongs the highest honor, for it is they who suffer most!"

And so I greet you this week, my friends, as sisters and brothers all—sons and daughters of our common land. I care not where you first saw the light of day, or to what flag your parents first owed allegiance—I hail you as fellow citizens in this *our* state and *our* country! I rejoice that, no matter whether we have lived in monarchies, empires or republics, we are today all loyal to this government and this country, where each is the equal of a king, an emperor or a president, ready to work and die, if need be, for a land where freedom is forever enshrined in the hearts of the people, and universal fraternity, equality and liberty are the ideals towards which we strive.

I would not decry the patriotism of any other state, but when I think of the loyalty of Wisconsin's citizenship of every race and clime, I think her star must shine just a little more brightly than any of the forty-eight which cry to every breeze that blows—whether from northern Wisconsin's pine-scented woods or Florida's sunny strand, from New York's towering sky-line or from San Francisco's golden gate—the message of a united land, a common purpose and a universal hope to spread the gospel of peace, democracy and liberty throughout the world. In this mighty purpose the stars and stripes, with God's help, shall lead the way.

And so I close, with the sentiments of the remaining verses of the poem with which I began, asking and believing that all readers of The Wisconsin Farmer will join with me in them:

Your flag and my flag!
And oh, how much it holds—
Your hope and my hope,
Secure within its folds.

Your heart and my heart
Beat quicker at the sight—
Sun-kissed and wind-tossed,
The red and blue and white.

The one flag, the great flag,
The flag for me and you;
Glorified, all else beside,
The red and white and blue!

THE FARM BOY AND THE ARMY.

I AM in receipt of many letters, asking for information in regard to the new army-draft law, particularly as to the possible exemption of farmers. It may not be amiss to discuss this matter here among ourselves, to the end that all may be posted.

I am assuming that every man of the farm here in Wisconsin, who has passed his twenty-first birthday and has not yet reached his thirty-first birthday, registered under the new law on Tuesday of this week. That was his duty; if he failed to do it he is liable to imprisonment for not less than one year. But the mere fact that he is registered does not necessarily mean that he will be drafted. Let me explain the situation.

According to the best available figures, there are something like 10,000,000 young men, between the ages of twenty-one and thirty-one, in the United States. One million of this number live here in the grain belt; 230,000 here in Wisconsin. From the total number in the nation about 1,000,000 names will be drawn, within the next few weeks, for possible service under the colors. About 100,000 of this number will be from the grain belt; about 25,000 here in Wisconsin. These names will probably be drawn from a closed receptacle, somewhat similar to that from which names are taken for jury service. From the million names drawn, an army of 500,000 is to be secured. In each county there will be an exemption board, consisting of the sheriff, the county auditor and a physician. Men whose names have been drawn and who claim exemption must go before this board and make their plea. Men who are physically deficient are sure to be excused. Men who are morally deficient will likewise be exempted. Men who belong to the Quaker or Friends church, or otherwise have honest, conscientious scruples against war, will be excused. The law provides that men "engaged in industries, including agriculture, found to be necessary to the maintenance of the military establishment or the effective operation of the military forces or the maintenance of national interest during the emergency" shall be exempt. This may be taken to exempt practically all young men actively and actually engaged in farming, for nothing is more important this year than that we shall have bumper crops and that every man trained to the plow shall stay by the plow. Moreover, the law will exempt those who have someone absolutely dependent upon them, whether this be wife, child or other relative.

Let us assume that John Smith, a farm boy of twenty-five, desires to be exempted from service in the army. He has registered, as the law says he shall. The thing for him to do is to present himself before the county exemption board. He may claim exemption on several grounds: That he is a proficient, efficient farm worker and cannot be spared; that he is flatfooted or has poor eyesight; that he has a wife or a child dependent upon him, and so on and on. The first selection of names is to be twice the number actually desired for service; if more than a million names are needed before an army of 500,000 is finally secured they will be drawn as was the first lot, and so on and on, until by September it is hoped to have an army ready. This army will be trained in sixteen camps, scattered throughout the country; trained there for a half year, at least, before any active service, either at home or abroad, becomes imminent. There is little likelihood, therefore, of any farm boy being snatched away from his home, his folks and his work and being launched unto the trenches of Europe before another year, at least, has passed. I find that some of my correspondents think the parting is likely to occur almost any day now. They are wrong in this, as I have endeavored to set forth here. Even should exemption be refused by the local county board, there still remains the right of appeal to a state board and, finally, to the president himself.

As I have repeatedly said, I consider farm service fully as important and patriotic as army service: The farm boy is needed on the farm in Wisconsin this year more than in the trench and dugout. Should he want to enlist, however, he should be allowed to, for his country and his flag need him. The army might far better, however, be made up of the nonproducing boys and men of our towns and cities. The boy on the farm can do his patriotic bit as he plows the corn, feeds the stock, harvests the wheat, or performs any other necessary farm work. He is doing just as much toward bringing the war to an end over in Europe as though he were firing a bullet straight at the heart of the enemy.

I hope my readers will continue to write and ask me for information on this all-important subject. I shall give it to the best of my ability. When I cannot answer the questions myself I shall call on army friends to help me. In this crisis we must all serve as best we can.

EDUCATION AND THE WAR.

A FEW weeks ago I attempted to give a definite idea of what constitutes education, arguing that a college training is not an absolute essential to success in any line, be it farming or anything else. Some of you may recall that I said that a good education, in a general way, may be defined as "anything which we know and which we use to make ourselves better in our chosen line of work and more useful to our fellow men." I am indebted to a subscriber, Mr. J. F. Beeman, for a letter, in which he gives a definition of education, so far superior to mine that I pass it along to you with the greatest pleasure and without any delay whatever. Let me quote Mr. Beeman's letter somewhat at length, as follows:

I have been made sad many times when I knew that some farmers stinted themselves in the comforts of life to be able to send their sons and daughters away from home to get a higher education, which, when obtained, filled them with egotistical pride, causing them to look down with disdain upon the tillers of the soil. I have no doubt about this kind of an education being one of the principal causes leading the youths of the farm to the cities. This seems self-evident, being noticed by so many reliable people, and has given rise to the slogan: "Back to the farm." Book learning is very important, and parents cannot make arrangements too soon for every child to begin in a careful way after he is five years old. This beginning may be made at home, if no other facility presents itself.

Once I heard W. J. Bryan make a speech after his voyage around the world. In speaking of the education of Americans, he said that no person had a complete education "until he had learned to produce something." This statement, coming from such a prominent man, is of great importance. By the severest test that was ever placed upon civilized countries, Providence has visited the great nations of the world with the greatest plague that the world ever knew, bringing all classes of men back to the plow to get relief from the impending danger of starvation. However, the American nation has been looking ahead for several years to the improvement of the agricultural interests. The advocacy for better farming and for more men to follow the occupation of farming has been the agitation for a number of years.

However, notwithstanding this call by federal and state governments, farm journals, agricultural schools and some very prominent men, only a comparatively

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin Legislature.

An earnest effort will be made to clean up the remaining bills before the senate and assembly during the current month. All bills are to be referred to the calendar after this and committee hearings abandoned altogether. Either house acting as a committee of the whole will discuss the more important measures as they come up.

The expected liquor legislation which was to have been introduced through the senate now appears hopelessly lost for the present session, as under the rules a two-thirds vote of that body must be in favor of any bill introduced. Should any bill be proposed it is likely that under this rule it will come to grief here the same as it did in the assembly some time ago.

Senator Baxter's bill providing for the establishment of a state tuberculosis sanitarium in northern Wisconsin and making an appropriation of $75,000 for the carrying out of the bill was passed. The bill transferring police powers from the University of Wisconsin to the department of agriculture has been advanced and looks now as though it will be passed within a short time. This transfers to the state department of agriculture the inspection of feeds, fertilizers and seeds and the work of the stallion registration.

Agricultural representatives in Wisconsin will be increased to twenty-eight by a bill just passed. These agents will be supported by the state by an appropriation to meet the appropriations made by the university for the same work. This bill adds three to the list of twenty-five representatives authorized under bill 117 S. previously passed by the present legislature. This means permanent, not emergency, county agents.

The bill to increase the width of sleighs was killed in the senate last week. The state trade-mark bill for butter and cheese was also killed and in its place a resolution has been introduced to have the dairy and food commission investigate the practicability of such a trade-mark and to report to the next legislature.

The assembly passed the bill empowering county highway commissioners to remove fences from highways in the county or state system whenever a fence encroaches upon any highway on the county or state system. When such an order has been served upon the owner of a fence by the commissioner and the fence is not removed after thirty days the commissioner can have it removed and charge the township in which such lands are situated.

Senator Wilcox introduced a bill some time ago which aims to promote development in northern Wisconsin. The bill is not far enough advanced to predict its passage. It provides that whenever one-half of the landowners next to a proposed highway shall file a petition with the town board, highways shall be built during the current year. In the petition a release of the right of way on the lands owned by the petitioners must be included. No highways are to cost more than $750 a mile and no more than six miles are to be built in one township in any one year. The first one-third of the cost will be carried by the landowners owning one-half mile on both sides of the highways. Another third of the cost will be raised by a tax on all taxable property of the township. A county tax takes care of the remaining third. The landowners thus pay one-third of the costs of these highways, in addition to their share of the town and county taxes on their holdings.

Vital Topics Discussed.

The Wisconsin Farmer wishes to take this occasion to promise that all the big, vital topics of the nation will be taken up and discussed (impartially and always from the farm viewpoint) from time to time during the coming year. Our readers will recall that we devoted many columns to explaining the workings of the federal farm-loan law; that now we are explaining the workings of the army-draft law, the manner in which Liberty bonds may be subscribed for, and so on and on. We believe it to be the province of a farm paper such as The Wisconsin Farmer to keep its readers posted on every national question which affects their interest and welfare.

This being the case, we are confident that no present subscriber can afford to miss a single issue of The Wisconsin Farmer. See to it, therefore, without delay, that your subscription is paid in advance at least one year, longer if possible. See to it, also, that your friends and neighbors, who are farmers, likewise subscribe, for the paper will be just as valuable to them as it is to you.

Renew your subscription promptly; it will insure your receiving every number of The Wisconsin Farmer at a time when practically every issue of the fifty-two is worth the entire year's subscription price.

With Wisconsin Food Agents.

Wisconsin emergency food agents, taking the place temporarily of the county agent, whom we hope to see firmly established in many more Wisconsin counties later, are on the job. These men have furnished some valuable thoughts and information for the farmers of the state. Our readers will well remember John D. Imrie, who has been prominent in institute work and who has accepted the emergency food agent job for this year in Monroe county. He gives us some good ideas as to how the farmers of his section of the state (and many other sections may well heed his advice) may show their patriotism and safeguard the nation's resources. Read the following:

Don't sell short on food or live stock. Remember that there will be another year of high prices.

See to it that no bare spots are left in the pastures—sow soy beans or rape where the clover has been winterkilled.

Do not sell low on dairy cows. Remember that the milk of a dairy cow furnishes in her lifetime seventeen times as much food as her body will furnish.

Fill the silo. Silage is the cheapest food for making milk, and milk, butter and cheese are the best human foods.

Care well for the pigs. Keep them growing. Report at once to the county agent the first sign of cholera.

These recommendations come from a lifetime of farming experience and they are sound. Every reader of this paper will immediately recognize them as such.

In Dane county, A. L. Stone, known as the weed fighter, is also busily engaged and he sends The Wisconsin Farmer the following:

Hundreds of our acres of pasture and meadow land are being plowed and put into grain and forage crops other than grass and if the season is favorable Dane county will certainly produce its share of the food required in the present emergency.

All these surplus crops must be properly cared for or the seed and the effort in preparing the ground for them will be largely wasted. Maximum crops can be secured only by correct and timely cultivation.

The right kind of cultivation accomplishes four things of great importance to the crop. First, it helps make the plant food in the soil available for plant use; second, it puts the soil in condition to be warmed and aerated more rapidly than would otherwise be the case; third, it keeps a soil mulch on the surface to prevent the escape of moisture and keeps the large share of it in the soil where the plant can use it in its life processes; fourth, it kills the weeds which if allowed to grow to full development would crowd, dwarf the crop and rob it of much needed plant food and moisture.

To secure the best results this cultivation should begin early and continue until the need for it is over or the crop is "laid by" for the season.

Within five days after planting corn and potatoes should be dragged with a spike-tooth harrow, crosswise of the rows, especially if corn is drilled in. By that time the young weeds will be started, and at no time can they be killed more easily than when they have just started to grow. If a rain has fallen it is especially needful to harrow as soon as the soil will permit in order to restore the soil mulch and preserve the moisture. More will be said about cultivation later, but be sure to harrow the corn and potatoes at least once before they appear above the ground.

The year 1917 will be unique in the agricultural annals of the state in that experimental work will be given a wider scope because of the fact that most of our workers are to spend their time in the fields. While there may be some slackening in the experimental work at the station, our experiment workers will obtain a wealth of first-hand information from first-hand contact with farmers of every corner of the state. This information and experience should be of untold value in the future experimental station work.

Keeping the Roads in Shape.

The Highway Magazine has called attention to the bad roads of late spring and early summer, due to the freezing and thawing of springtime, and the rains in May and June, and the chopped-up condition of the dirt roads due to the narrow-tired wagon, which in many cases literally plows the roads into the semblance of a bog. The Wisconsin Farmer takes the liberty of quoting from The Highway Magazine:

The effectiveness of the admirable patrol system of maintenance, now happily being adopted in many states, is demonstrated most clearly during the winter and spring. A little timely work in caring for a threatened culvert installation or in clearing away mud and weeds from the mouth of a drain may save very serious damage to the road. A stitch in time saves ninety and nine in highway maintenance.

A patrolman can do a great deal with ordinary hand tools in the construction of temporary turnoffs to carry the water away from the middle of the road. He should, of course, make frequent inspections of bridges and note the possible weakening of timber structures by decay or the undermining of foundations of masonry by stream wear. A careful noting of cracks appearing in concrete structures, as a result of settling foundations or frost upheavels, may make it possible to take remedial measures before it is too late.

Corrugated iron pipe is likely to require very little attention of this kind, since its peculiar construction renders it practically immune to damage from settling fills or the heaving of the soil caused by freezing and thawing. This also should be carefully watched for signs of deterioration from rust. It seems to be the fact, however, that iron of the highest purity is capable of giving very long service in the form of road culverts.

As soon as the snow is gone and the water has settled or evaporated sufficiently to do away with thin mud, but by all means before it has become thoroughly dry, the road drag should be energetically employed. This will erase the ruts and holes produced by the traffic while the road surface was soft, and should result in an even crown which will efficiently shed the water of the spring and summer rains. After each of these, before the road surface has had time to completely dry out, the dragging should be repeated. If this is done intelligently and persistently, it is astonishing what an improvement can be effected on the ordinary earth roads which form such a large proportion of our mileage. The King road drag and the later more elaborate developments of the same admirable tool have been in use for fifteen or twenty years, but it would seem from the condition of thousands of miles of dirt roads in various parts of the United States that there must be a great number of road supervisors who never heard of such a thing. This is one of the mysteries of our American system or lack of system. The only explanation of this surprising ignorance of a practical and valuable method would seem to be that, as a class, highway engineers of technical education are making the great mistake of centering all their interest on the building and maintenance of expensively surfaced roadways and regarding the earth roads as unworthy of attention until such time as they can be entirely reconstructed, and that the local untrained road officials, to whose lot falls the care of this highly important portion of our road system, are not sufficiently in touch with one another and with the things which have been accomplished by the most progressive supervisors. The remedy for this, as for the other shortcomings of local popular government, is an unremitting publicity.

These observations are especially pertinent in Wisconsin in a late season like this has proved so far to be. It will take a little extra sacrifice on the part of our people to keep up the roads this year—extra sacrifice for the reason that men and teams are scarce. The Wisconsin Farmer believes that it is economy to keep the dirt roads of the state in as good condition as time and horse power will permit. We cannot afford to neglect our roads, bridges or culverts even in an emergency like the present offers.

Disinfecting Hog Quarters.

In a recent issue of the Berkshire World, Dr. A. C. Spivey discusses the question of "hog health" in a most interesting and instructive manner. Many phases of ill health are referred to, but this time we desire to quote what Dr. Spivey has to say relating to the problem of controlling worms and lice. On this topic he says:

Worms thrive and prolong themselves in the old litter in feed lots and beds. The common round worm, the thorn-headed worm, the lung worm and kidney worm, the worm producing mealy pork, and all parasites that prey on hog life each has a distinct life circle. A part of this circle of life in the parasite is spent in the insanitary conditions in the life of the hog. For instance, the common round worm, which is so prevalent in this part of the country, has a life history as follows: The male and female become adult worms while in the small intestines of the hog. Here they copulate, the female lays a host of eggs. These are passed out with the manure and drop to the ground. In the insanitary feed lot these eggs mix with the litter and consequently with feed and are again taken into the stomach of the hog, where they hatch and pass on back to the small intestines, where they begin a new life cycle. What is true of this parasite is generally true of all worms.

Don't you see from this history the necessity of cleaning all litter and frequently removing and replacing the bedding? Not only rake this litter and bedding up in a pile in the center of the feed lot or to one side of the door of the hog house, but at once haul the same out to some field where the eggs will be lost and the hogs or pigs saved from the infestation. The point should be well taken at this time that too many hog men, in cleaning out used bedding or, raking up litter, leave the same in the lot, where the pigs are constantly running, and where the pigs have only to walk or mess over the refuse to carry it on their feet back into their beds and their troughs. Such a raking and hauling should be followed by sprinkling on the cleaned ground and house floors a 3 to 5 per cent solution of some good standard disinfectant. Follow up with lime. We would like to add here that it is the cracks and crevices, corners and remote recesses that need the particular attention. Don't attempt to apply sanitation to a hog house or feed lot or trough by just merely cleaning around the center. That part is apt to need it the least. It is that litter that is lodged in the corner under the sill that needs to be dragged out and its resting place treated to your antiseptic and lime.

It is scarcely necessary to emphasize the points referred to by Doctor Spivey. The necessity for cleaning and disinfecting pens and yards was never more urgent than it is at the present time, because, apart from the large profits that will result from giving hogs good care, there are patriotic reasons why the supply of human food should be added to as much as possible by every man engaged in its production. Worms and lice lay a heavy tax upon the stockmen of the corn belt and the free use of disinfectants, as above stated, will do much toward the elimination of these pests. By spraying the yards, troughs and pens occasionally, these parasites can be controlled, and in this connection it should be added that no investment can be made that will equal that involved in the purchase of a hand spray pump, so that the stockman is equipped to periodically give his live stock quarters a good drenching.

It is true that the so-called hog oiler is proving to be a great boon to swine breeders in their efforts to destroy lice, but in the fight against worms, the spraying system cannot be too strongly endorsed. The use of the spray pump in conjunction with the production of pork at a much less cost than can possibly be made where these parasites are allowed to develop in their own sweet way.

The State Council of Defense has passed a resolution urging the highway commission to go slow in road work this year. The council does not advise the stoppage of all road work. On the contrary it advises that the present roads be kept in repair and that road organizations be preserved in so far as possible in each county and town. But when it becomes plain that men and teams are needed for farm work the council advises that the farm work be given preference.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

few of the American people realized the importance of this advice till the crisis was right at our doors. This panic for bread is good schooling for the rich as well as for the masses of the people. It is very sad to think that the earth had to be purged from its dross by the flow of rivers of blood; but these experiences, learned by this great world war, are the greatest incentives for better farming and better living in all civilized nations.

I take off my hat to Mr. Bryan in his definition of an education. Certainly, no person has had a complete education until he has learned to produce something. And when I see the cigarette-smoking college boys loafing around our city pool halls, producing nothing but laziness and obscenity, immorality and vice, I wonder if the college of hard knocks, producing men and women who can support themselves and fill the mouths and clothe the bodies of the dependent world, is not a much better educator, in the way of "producing something," than many of our colleges and universities, with their high-brow degrees. Send your boys and girls to high school and to college, if you can; but do not despair if you cannot, for they have an education open to them in the fields, even on the city pavements, an education which may produce something really worth while in the years to come.

Mr. Beeman gives us another splendid thought in what he has to say of the moral lessons of the great war. Perhaps the world is being purged, all for its own good, of much of its dross and selfishness, its extravagance and intemperance, by the rivers of blood, the blood of boys as bright and as full of promise as yours and mine. The world has advanced, century by century, through suffering and bloodshed; history may be repeating itself even now, in the titanic struggle across the seas. Not a nation in arms but has learned to know the corrupting evils of intemperance and extravagance since the war began. We bid fair to learn the same lessons here in America before the war shall end. Many and many a man will go to his death before all our drones learn to do their share in the harvest field, but good may come of it all, as Mr. Beeman so feelingly puts it. There is consolation in the thought; let us hug it to our breasts and take solace from it, even in the midst of alarms and grief and sorrow.

COME BACK TO THE FARM.

MANY a farm home here in Wisconsin has sent a boy or a girl to answer the call of town or city. Now the call is for that boy and that girl to come home—back to the farm, which stands sorely in need of them. Never was there a time, in my opinion, when it was so important that the prodigal son and the prodigal daughter should return to the farm, and help father and mother in the work which must be done, if we as a people and we as a nation are to live up to the full measure of our duty and our responsibility.

I wish that I might climb the dingy, winding stairs and knock at the dingy door, behind which sit all too many of the boys and the girls who have quit the farm for the city, only to find their dreams of bright lights and unending pleasures rudely shattered before many days had passed. The big men and women of our land have come from the farms and small towns, I will admit that. No one knows this to be the case better than I, for I have investigated the subject thoroughly and written on it often. But for every farm boy and farm girl who succeeds in the outside world there are literally a score of thousands who find no greater opportunity in the city than they would have found on the farm, who go through life merely as the background (useful, to be true, but not dramatic or inspiring, as were the boyhood or girlhood dreams) against which stand forth the few notable figures of exceptional success. For every paean of praise sounded for the farm boy and the farm girl who win fame and fortune there are a million heartaches for those who do not win fame and fortune, who go through life wishing they had never left the old home and the farm folks, yearning for the sight of growing things, the fragrant smell of the fields in early spring, the sound of the cattle and the horses and the hogs in the feed lot or pasture.

To all those who have made the mistake of going from the farm to the city, even to those who have won fame and fortune sufficient to offset the heartaches and the loneliness and the selfishness of the city, I recommend these verses, which I clip from The Saturday Evening Post, entitled, "The Call of the Farm." Read them; every word is true:

Long have you worked in the grimy mills,
  Long have you toiled in store and shop;
Going the gait that blights and kills,
  With never an hour to stay or stop.

Son of the farm, come back to her now;
  A brush-smoke odor is in the air;
The redbreast follows behind the plow,
  And sweet the savor of country fare.

Don't you remember the cedar lane,
  And hedge where the brown thrush built her nest?
Come and visit these haunts again;
  Oh, come and loaf in the shade, and rest!

Come; let the pallor and bleach of Town
  Turn in the sun to wholesome tan.
Once more, hearty and hale and brown,
  Feel and look like a countryman.

A bed in the farmhouse 'waits you now;
  There's an extra horse in the stable, too,
And in the barn is an extra plow,
  And we have happiest work to do.

Not one of us here is very poor;
  Not one has splendor and wealth and pride;
And every home has an open door
  And honest friendliness inside.

The folks will be glad to shake your hand,
  And glad to hear what you have to tell
About the people in cities, and
  The wondrous things that there befell.

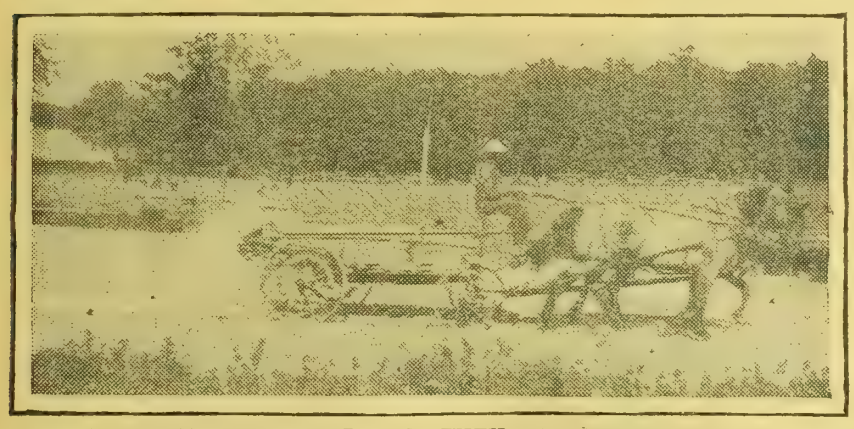
We miss you more than you know, my lad;
  And after supper, when work is done,
We sit and wish for you awful bad!
  Come back; come back to the farm, my son.

America has need of every farm boy, of every farm girl, this year. There are battles to be fought in the cornfield, in the wheat field and the feed lot, over the hot range in the kitchen of many a Wisconsin farm home in canning season, upon which the fate of the world and of civilization depends fully as much as the battles fought along the Somme or even along the Rhine. Come back to the farm, you wandering boys and girls of the countryside; do your bit here, gladden the heart of father and mother, put the stars and strips triumphant and make the whole wide world better and brighter because you undid a mistake before it was too late. This is the call of the hour, a call which I hope will not fall on unhearing ears.

James M. Pierce

GROWING AND HANDLING ALFALFA

IMPROVING by having others criticise is one of the ways in which the Swartz Brothers, of Waukesha, Wisconsin, claim to have grown into the reputation of being the premier alfalfa farmers of the middle West. In a day's journey over the 500-acre farm run by these boys the visitor is constantly invited to question methods and practices followed by the owners of these farms.



APPLYING AIR-SLAKED LIME WITH A MANURE SPREADER.

BALING ALFALFA IN FIELD ON CORNFALFA FARMS.

The visitor begins his day when he steps off the train and is greeted by one of the partners, Peter or Lewis or Jayson, and enters the machine which takes him out to the farm. The conversation will soon turn to alfalfa, and, as the different fields along the roadside come into view, details fairly flow out at the least suspicion that the traveler is interested.

The brothers took hold of this farm about eleven years ago and as a starter gave it a name which is at once distinctive and expressive. They named it Cornfalfa and secured the national rights which protect the name from being used on any other farm or establishment in the United States. Nowhere else in America can this name be applied. If you don't believe it try to label your next sausage output Cornfalfa sausage and see what trouble you get into.

The alfalfa area varies between 150 and 200 acres. Old fields are plowed under and new fields prepared each year.

With the Swartz Brothers, work on the alfalfa field begins with the fall plowing. This is done by tractor. During the winter lime is hauled to such fields as show signs of acidity. The lime is the air-slaked kind and is allowed to slack still more in piles, the piles increasing considerably in size during the process. It is the pea lime from the lime kiln and is applied approximately at the rate of one and a half to two tons to the acre. In spite of numerous statements against the use of the air-slaked lime for alfalfa fields the Swartz Brothers have found that, properly applied, it does not injure the soil or the crop through too rapid action. The fields certainly bear out this statement. The lime is applied with manure spreaders.

The next process consists of thoroughly disking the ground in the spring. If the field is a new one and has never had alfalfa on it before, the process of inoculation follows the disking. Sweet clover soil or soil from old alfalfa fields properly dried and worked into fine particles is broadcasted over the land at the rate of 500 pounds to the acre. A man precedes the harrow and, like the sower of old, casts the soil for inoculating the field over the ground. The harrow following it covers it up immediately and prevents the sun from destroying its useful purpose. Then follows the corrugated roller or planker which makes the seed bed firm and smooth.

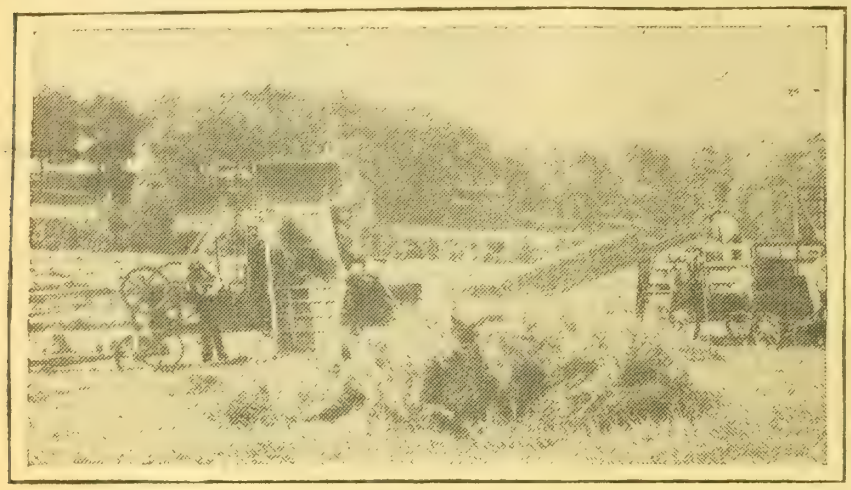
At the same time the nurse crop of oats, barley or wheat is sown at the rate of one bushel to the acre by the drill. The alfalfa is seeded in amounts from twenty to twenty-five pounds per acre. The new fields which have not had alfalfa seeding on them before are given the twenty-five-pound rate. All old fields receive only twenty pounds.

FIRST CROP IN BARN, SECOND IN STACK AND THIRD IN THE CUTTING.

In cutting the nurse crop the stubble is left standing ten to twelve inches from the ground. Thus the alfalfa has a better chance of escaping the strong rays of the sun and jumping to a sufficient growth by the time the extreme hot weather is on so that it will not die of lack of moisture. In winter the stubble of the nurse crop serves to hold the snow in a manner which protects the field from bare spots and extremely cold, killing frost.

The second year the stubble is still on the job to assist in the curing of the first crop. The first crop comes during the rainy season and needs every possible advantage in curing. Excessive moisture is readily taken up by the dry grain stalks and the crop aided materially in curing rapidly and properly. The presence of this dry

stubble in the first crop is in the eyes of the Swartz boys a blessing rather than a bother. According to them, the first cutting is ready for the mower when the young shoots start out on the crown and are from one to two inches in length. This will occur during some years when the blossoms are partly out and sometimes when no blossoms or only a few are showing. As a rule, this comes at about the middle of June. The crop is never cut shorter than three to four inches from the ground.



UTILIZING THE SAME LABOR THAT STACKS TO PUT HAY IN THE BALER

The second cutting comes about forty days later and is allowed to mature somewhat longer than the first. The third crop is pastured with cattle or sheep. When three crops are made into hay from the same field during one year the second crop is cut early enough to permit a third crop to be made by September 1st.

The Swartz Brothers have made a rule to pasture no field for the first three years. After that they consider the alfalfa well enough established to permit pasturing without serious injury to the crops.

Various fields have been cut only two times a season for a number of years. It has been found that for a period of five years a field with two crops taken off of it each year will yield as much, if not more, than a field cut three times each season. The big advantage in harvesting only two crops from a field is the insurance against freezing out, either in whole or in part. A third crop brings with it the danger of a short stand, as the only protection against the snow and ice and thawing of the winter and spring months. Since two yields will total as much hay over a period of four and five years as three cuttings per season, the extra insurance against freezing out ought to be a strong factor in favor of only two cuttings.

The Swartz boys are not afraid of experimenting a bit now and then in order to prove debatable points to their own satisfaction. They have a field of fifteen acres some distance away from their own farm which has grown alfalfa for seven years. When they took hold of it eight years ago it was a thistle and weed patch which no one in the neighborhood cared to rent at $5 an acre. The Swartz boys took it and without even troubling to put on manure seeded it to alfalfa. For thirty-five years this field has had no application of manure, yet the alfalfa is growing splendidly and yielding better instead of declining. It is the intention to run this field as long as possible without adding any fertilizer to the soil. The boys want to see how long it will take until alfalfa has sapped the field of the necessary constituents for plant growth. Each year, of course, the alfalfa adds nitrogen to the soil. But phosphoric acid is also a necessary element and this the plant roots draw from the soil without replenishing it. How long it will take the alfalfa field to use up the available phosphorus of those fifteen acres is a question that the brothers want answered. The boys think that the well-rooted alfalfa plant is going into depths and bringing up phosphorus which is not available to other plants because of their shallow root system. The lowest yields have been five tons to the acre for two cuttings.

TEN DAYS DIFFERENCE IN THE CUTTING OF ALFALFA.

Alfalfa silage has been tried successfully for two years at the Swartz farm. Each year about 700 sheep are fed during the winter on alfalfa silage and alfalfa hay. The combination is, according to Mr. Swartz, an excellent one and sufficiently balanced to feed sheep on it alone.

The alfalfa is baled right in the field and stored in big stacks for sale and for feeding.

An interesting experiment now going on consists of twenty plots, each one-twentieth of an acre in size. Each plot represents a variety of seed truly representative of its name. Kansas seed known to have been raised in Kansas grows beside the excellent Montana seed. Strains of Grimm alfalfa from Minnesota and seed from South Dakota occupy plots next to imported Turkestan. Cheap seed and the highest-priced seed on the market grow side by side, sometimes evidently forgetful of the fact that higher-priced seed ought to excel cheap seed. In another plot strains of Wisconsin-grown alfalfa show up favorably alongside of highly recommended western varieties. However, Mr. Swartz is going to conduct the experiment on a more extensive scale. In a patch of ground prepared this year 100 good-sized plots will be marked and seeded to alfalfa from every state of the Union. Wherever a variety is claimed to exist it will be searched out, inspected and approved and then seeded for comparison with other varieties.

There are a dozen different things of interest on Cornfalfa Farm and each is worthy of a story in itself. A day spent with the Swartz Brothers is a day well spent.

The National Dairy Show of 1917.

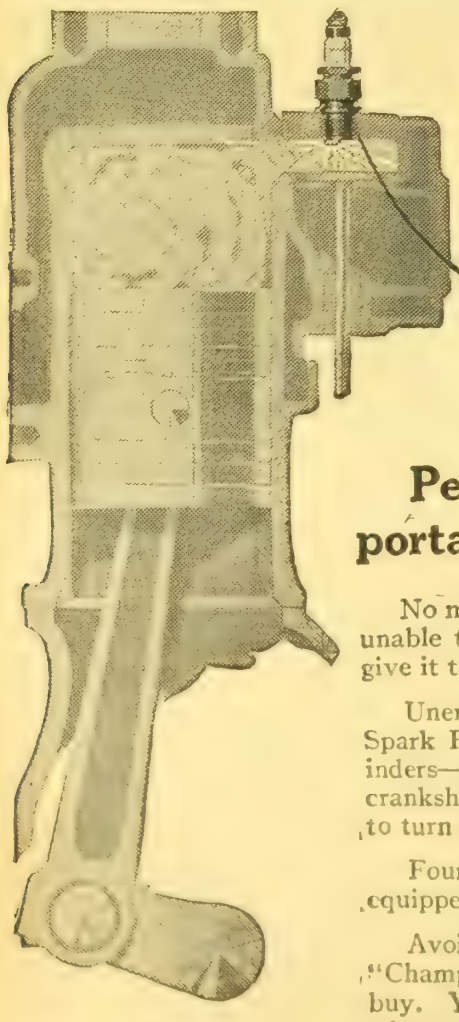
To the Editor:—This year's show will go down in history not only as having been the greatest dairy show of all time but as the most useful show ever held for agriculture. The demands now so insistently being made upon our people to produce food must reach the inner consciousness of every dairy farmer and make him feel that the call is personal to him and that therefore he must put into his business those often heard of and much put off methods of conservation and development that will make of his equipment a machine of greater service to his country in its time of stress.

Milk and its products contain properties sufficient unto themselves not only to sustain life but to keep man in fighting trim. No other food can equal it and no other food production can be as quickly realized. It, therefore, seems most natural that the heaviest call will be made upon the dairy industry in this food supply question, and it is timely that every aid and assistance be rendered by our industry to our country. We are calling upon the patriotism of every man who has anything to offer to our people, be it cows, machinery or feed, that will add to our ability to meet the situation, to bring what he has to this show, and we have tendered the show to the federal department of agriculture and to the agricultural colleges for such advanced uses as they care to make of it for the benefit of our people. The show is serving a wonderful purpose each year under normal conditions, and we now propose to speed it up to meet abnormal conditions. Regardless of the duration of our participation in the war, we must be able to take care of the feeding of the people of the world for some time to come, so that we have many years before us that will call for the maximum of production of raw and manufactured dairy products.

There should be no hesitancy in any part of this great industry to rally to the flag, nor to make of this year's national dairy show an epoch maker for the material benefit of the whole country. Now is the time to conserve the heifer calf and to confine all breeding operations to securing the very highest class of offspring to be brought to full maturity. Let every dairyman put his shoulder to the wheel and see that nothing is left undone that will tend to insure an immediate full food supply, and have no fear of the future, as it is very questionable if we will again see supply equal demand for our products.

W. E. Skinner,
General Manager.

Ask your neighbor to subscribe for The Wisconsin Farmer.



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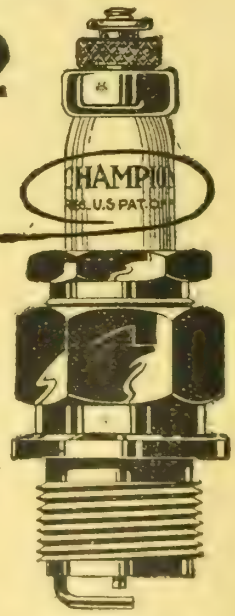

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CURRENT EVENTS

CONGRESS is busily engaged considering the war revenue measures, on which the two houses differ very materially. It now seems assured that the senate will cut down many of the house's most rigorous provisions, leaving part of the fund desired by the administration the first year of the war to be raised by bond issuance, rather than to be covered completely (as was first proposed) by taxes of various kinds. The senate bids fair to remove the automobile tax which the manufacturer was to pay and to levy a tax on cars, according either to the horsepower or the original cost, which the individual owner must pay. It will probably also reduce the rigorous and confiscatory provisions in regard to second-class postage which the house provided and remove part of the severe burden from the publications of the country. It may agree to the three-cent postage on letters and the two-cent postage on postcards and provide for most of the stamp taxes which were in force during the Spanish-American war. It will put a stamp tax on proprietary medicines, but will probably not make liquors bear as heavy a part of the burden as the lower house proposed. Taxes on sugar, coffee, tea and cocoa, far in excess of those which the house proposed, may be adopted. The senate will spend the greater part of June considering the war-revenue measure, while the house will be busy with the bill providing for news censorship and food legislation. Congress will be in session most of the summer, so as to give the president whatever aid or counsel he may need in the present crisis.

PRESIDENT WILSON was the chief speaker at the Memorial Day exercises at the national cemetery at Arlington and delivered an eloquent address in which he paid high tribute to the dead soldiers and dedicated America to respond to the call of liberty whenever and wherever it may be sounded. "In the providence of God," he said, "America once more has an opportunity to show the world that she was born to serve mankind." The president declared that while no such day as this could be without sorrow, he looked rather with envy on those who served their country in the civil war because their work for liberty is accomplished. "Any memorial day of this sort is, of course, a day touched with sorrowful memory," he said, "and yet I, for one, do not see how we can have any thought of pity for the men whose memory we honor today. I do not pity them. I envy them, rather, because theirs is a great work for liberty accomplished and we are in the midst of a work unfinished, testing our strength where their strength has already been tested. There is a touch of sorrow, but there is a touch of reassurance also in a day like this, because we know how the men of America have responded to the call of the cause of liberty and it fills our mind with a perfect assurance that that response will come again in equal measure, with equal majesty and with a result which will hold the attention of mankind."

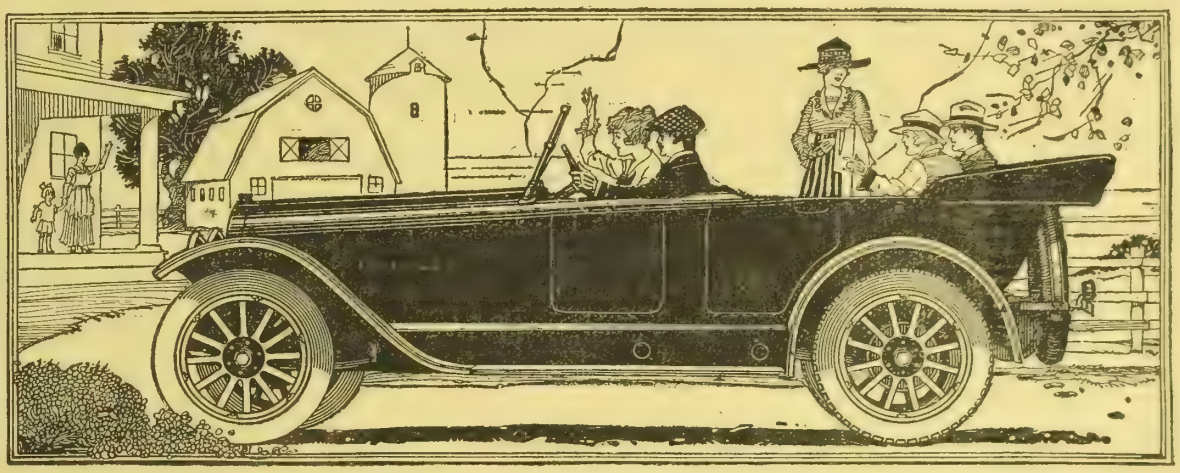
SEVERE wind storms wrought havoc throughout Illinois, Kentucky and Indiana last week, resulting in the loss of several hundred lives and the destruction of property valued at millions of dollars. The loss was especially heavy in and around Mattoon and Charleston, Ill. The whirlwind left fifty-four dead and 300 injured at Mattoon and thirty-five dead and fifty-nine injured at Charleston, twelve miles east. Four hundred and ninety-six dwellings were demolished and 2,500 persons made homeless at Mattoon. In Charleston 1,600 are homeless. The property loss in Mattoon is placed at $1,000,000, in Charleston at $750,000 and by the farmers in the surrounding country at $1,000,000. The loss in small towns is figured at $250,000, making a total loss by the storm of $3,000,000. This spring's windstorms have been unusually severe and costly in human lives. The outside public responded liberally to the call for help sent out by the stricken towns and the authorities have the situation well in hand, although the sorrow and suffering can hardly be overestimated.

THE middle West is enthusiastic in support of the war and overwhelmingly favors the administration's $2,000,000,000 war tax bill, according to Secretary of the Treasury McAdoo, on his return to Washington, from a tour of nine states devoted to boosting the Liberty loan. The secretary said, however, that redoubled efforts must be made to assure its oversubscription by June 15th. "The purpose of the war, the reasons for America's entry into it, and the ideals for which we are fighting are generally understood; in fact, I found not a single dissenter throughout the entire trip," said Mr. McAdoo. "I was overwhelmed with messages to the president of the enthusiastic, loyal and devoted support of the people in every part of the country I had the privilege of visiting. The sentiment throughout the West may be summed up as follows: 'This war was forced on Uncle Sam. Now that he is in it we don't intend that he shall be licked!'" The secretary said he found the most gratifying disposition on the part of the people everywhere to bear the necessary additional taxation required for the war and for the maintenance of sound economic conditions in the country.

IF the administration exercises the prohibition powers proposed in the food control bill pending in congress, the ban will fall upon beer, into the production of which goes about 52,500,000 bushels of barley every year. The American people do not eat barley, but their allies in France will eat every bit they can get, and for each bushel of barley exported for food that much wheat can be kept for home consumption. A complete report upon the relation of the liquor trade to the food supply has just been compiled for President Wilson, after careful investigation by an expert. It will be used in connection with the new food administration work and in dealing with all prohibition problems arising during the war. The report is said to hold that the manufacture of whisky does not substantially affect the food supply, because corn is the chief ingredient, and the 32,000,000 bushels of corn converted annually into whisky is not an appreciable part of the country's 3,000,000,000 bushel corn crop.

PLANS to organize the women of America so that they may play a deciding part in the world war have been announced by Herbert C. Hoover, food administrator. It is the idea of Mr. Hoover to urge every woman who presides over a household to enlist as a member of the bureau of food administration, of which he is the head. Women so enrolling would be obliged to sign a written pledge to carry out the advice and instruction of the food administration and would be entitled to wear the badge of the administration. "We can eat plenty if we eat wisely," and "We must adopt the gospel of the clean plate" are two epigrammatic bits of advice the women will be asked to bear in mind. Regarding the campaign Mr. Hoover said: "Local products must be used instead of those from further afield in order to save transport and to encourage local production. During the summer season a larger proportion of vegetables should be used in order to save those staples which are more easily kept. The use of staples with which we are familiar, such as corn bread, should be encouraged in order to save those which our allies need."

THE opinion is forming rapidly among the people of Holland that the resignation of former Premier Tisza, of Hungary, indicates a serious crisis in the relations between Austria-Hungary and Germany, although the economic and military grip of Germany on its lesser ally has not depreciated. Although the reason for the resignation of Count Tisza has been announced as his opposition to the franchise reforms, the Dutch editors believe that the Austro-Hungarian desire for a separate peace, which is not opposed by the young emperor, was the real cause for the overthrow of the Tisza ministry, who was considered the creature of Germany. The interest in Germany in this situation is revealed in the report that Home Secretary Helfferich, Foreign Secretary Zimmerman and Herr Roedern, the reichstag leader, will visit Vienna. This is connected with the unconcealed anxiety in the German press. The possibility of Austria-Hungary concluding a separate peace with the allies offsets the fears, on the other hand, that Russia may be tempted to conclude a separate peace with Germany. Austria-Hungary and Russia remain the uncertain factors in the great war for the present.



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From the Honest Farmers' Club.

A Few Particulars of the Activities of This, One of the Successful Clubs of Walworth County, Wisconsin.

Report of the Honest Farmers' Club.

To the Editor:—Our farmers' club is located in the northeastern part of Walworth county and the southwestern part of Waukesha county. It is comprised of members of three school districts. Our meetings are held in the rural schoolhouses of the above three districts.

We organized in March, 1916, with a charter membership of forty-five. This has steadily grown until at present we have some 125. Our dues are 50 cents for men, 25 cents for ladies and 5 cents for the school children. The children have the 5 cents fee mainly because we believe they will take more interest if they are paid members. Other methods of raising funds have been basket socials, at the various schoolhouses, in which the proceeds were divided with the school district, and also we hold an annual field day in June at which time we have several prominent speakers, band, ball games and Scotch games. To this an admission of 25 cents is charged to men. Dinner is served by the ladies for those who so desire at an additional charge.

Meetings are held every two weeks on Wednesday nights. The teacher of the districts where the meeting is held furnishes a large part of the program from the children such as recitations, dialogues, etc. Then we generally have a few musical numbers with a talk on some good agricultural subject by a member or some outside speaker. Occasionally we have a question box which furnishes a live discussion on some of our problems which confront the farmer.

County Representative L. L. Oldham deserves a great deal of credit for the success of our club, having given us several good personal talks, and has been instrumental in securing other valuable information. We held a community fair for the youngsters at which they could exhibit various farm crops, garden products, etc. Prizes were awarded. Besides being a stimulus toward the growing of these, several good points on selection of seed grains were learned by the members from the judges. Professor Rogan, of Eagle graded school, and Mr. Oldham were the judges.

The past winter the club sent flowers to the sick members, which were greatly appreciated by them.

Prof. R. A. Moore gave us a fine talk on the "Breeding and Dissemination of Grains" on March 9th. This was very highly appreciated by all who attended. As several of our members are growing pure-bred grains, it was interesting to know just how they were produced and the untiring efforts it took to put Wisconsin where it is in the production of seed grains.

About 75 per cent of our members treated their oats for smut this spring, which was brought about some by the farmers club.

This fall we aim to have a good exhibit of our produce at our county fair at Elkhorn.

The Walworth County Federation of Clubs is to purchase a lantern slide machine for use at meetings of clubs in the county. By clubs paying $8 toward purchase and express on same and slides they can use it at meetings. Slides are sent out by the college of agriculture. In this way, good instructional lectures can be given.

The young people are taking a very active part in our work and we consider it a good thing for young and old to get out together and have some good social times.

Lauren E. Husten, Pres.

[Editor's Note.—Recently The Wisconsin Farmer published a report of the Brunswick Neighborhood Club, Eau Claire county, written by Miss Mary Huntington Comings. In referring to the young people's dances an error crept in whereby the letter read "the young girls as well as the young men at the dances got drunk." In fairness to the writer of the letter and the girls too, we call attention to the fact that the reading should have been "the young men" instead of "the young girls." The Wisconsin Farmer believes that our good club people do not favor the use of liquor at dances. A good social time can be had without liquors either for the boys, the girls or the old folks.]

For Sore Mouth in Pigs.

To the Editor:—That "sore mouth" disease of little pigs is causing much avoidable loss on Wisconsin stock farms this season.

When every farmer is trying hard to save every pig in every litter because of the urgent demand for pork and pork products, it is imperative that attention be called to this disease. Hidden in the soft tissues of the mouth, this trouble is often undiscovered until too late.

Pain and swelling in the gums make it difficult for little pigs affected with sore mouth disease to nurse or eat. This is the first symptom of the disease. Later ulcers with dark red borders and cheeselike centers develop.

Death caused by absorption of poison from the sores will occur in a few days unless treatment is given speedily. Wounds to the gums caused by tooth cutting or other injury enable germs to enter and start the trouble.

When the disease is suspected, examine the mouth of every pig. Those showing sores in the mouth should be treated separately as follows:

Swab the ulcers with a solution of potassium permanganate, made by dissolving one ounce of the crystals in two quarts of freshly boiled warm water. Then wash out the mouth with this disinfectant fluid. Bad cases should be treated twice daily, and all cases at least once each day until healing is complete.

To prevent the spread of sore mouth the heads of the pigs should be dipped in the same solution, previously mentioned. Pens must be cleaned up and disinfected with some reliable commercial disinfectant, prepared and supplied according to regular directions furnished by the manufacturer.

The disease is contagious. Hence each successive litter born in a pen previously occupied by infected pigs is in danger of becoming stricken with the disease unless thoroughly sanitary measures are taken.

Dr. F. B. Hadley.
Experiment Station Veterinarian.

Daylight Saving Plan.

To the Editor:—I notice by The Wisconsin Farmer that people in our state are becoming interested in the proposed daylight saving plan and that it is largely in use in Great Britain and other European countries, but I doubt whether the way they do it there would do us any good here. The way we do here in our neighborhood, when we start digging potatoes, which is generally in October or November, we set our clock one hour ahead so we can get in ten hours of work in daylight and we think it is a pretty good idea.

The rye around here looks pretty good and if it keeps warm we might have a pretty good crop yet. Our corn is all planted and a good many acres of potatoes will be planted in June and also a large acreage of beans. Everyone seems to be trying to double the acreage of all products this year.

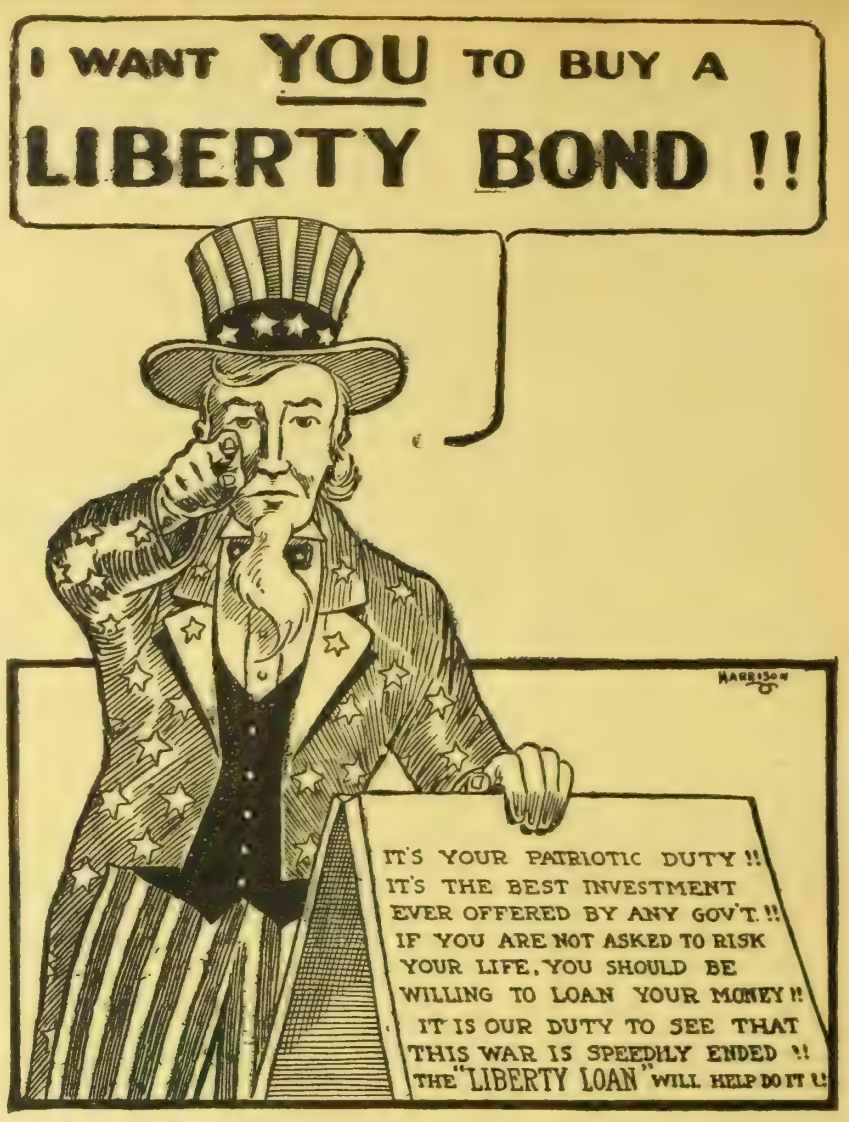
I am always on the lookout for my Wisconsin Farmer and glad to get it when it comes. A. J. W.

Waushara Co., Wisconsin.

Sheep For Upper Wisconsin.

To the Editor:—There is one class of live stock about which little is said, and that is sheep. They furnish the country not only with more meat, but also supply our nation and soldiers with warm, suitable clothes. We are indeed very short of wool at this time, since this country produces only about half the number of pounds required for the nation. Besides this we must figure that much more wool is now needed for our army. In what manner could farmers show their loyalty and patriotism to their country in a higher degree than by a larger production of wool and mutton? They would serve the nation in its need as well as reap a handsome profit for themselves by engaging in this industry. At the present time wool sells for from 50 to 55 cents a pound, and last year's lambs sold on the Chicago market last week for $18.35 a hundred pounds, a price never heard of before. For the two reasons stated, namely, loyalty and assistance to the nation and profits derived by the producer, every farmer, wherever possible, should keep at least a small flock of sheep in addition to his other live stock. Sheep raising today is regarded as one of the most profitable live stock industries, especially on rough, hilly land which cannot be tilled. In northern Wisconsin there are hundreds of thousands of acres of undeveloped stump and part brush land which could be utilized to great advantage for sheep raising. Clover and grass which grow so abundantly on this land would furnish ample feed for many thousands of sheep. A splendid opportunity is offered here to help the nation as well as to clear a big interest on the investment.

Another point to be considered is that in sheep raising much of the scarce, high-priced labor is eliminated. During the grazing season, if the flock is given all the pasture it needs, and pure, fresh water and salt, it is satisfied. Boys and old persons, unable to do heavy farm work, can take care of a flock almost throughout the year. It is hoped that the words "more wool and mutton production" will be written in the largest kind of type on every farm home, so that service may be rendered the nation by increasing sheep husbandry to its fullest capacity. Frank Kleinheinz.



Angus Herd is Sold.

To the Editor:—Our company recently sold two cars of pure-bred Angus cattle to go to Huron, South Dakota. I believe this is the largest sale of pure-bred cattle ever made from this county. It is our intention to replace our beef herd with dairy cows.

Depot Farms Co.
Jackson Co., Wisconsin.

To Prevent Cows Sucking.

To the Editor:—I see an inquiry for a preventive of a cow sucking herself. Take a ⅜-inch gas pipe eight inches long. Saw in one inch at each end and then saw half way on side. Take remaining half and bend back so it will hold two old bridle bit rings. Drill two ¼-inch holes clear through, about the center of the pipe, at right angles. Now, fasten this on said cow, forming a bridle bit. When she attempts to suck she will draw air in at the ends of the bit and, therefore, she cannot form suction around teat to draw the milk.

There is one objection to this, and that is if the cow has to drink from shallow water she cannot immerse her mouth deep enough to prevent air coming in at the ends of the bit.

Edgar Hansen.

New Work for the Dairy Commissioner.

During the present session of the legislature new work has been added to the office of dairy and food commissioner. Some of the bills requiring inspectors from this department have already been enacted and other duties are quite sure to follow in case the proposed bills become laws. The whey butter bill and the new test for moisture in cheese, the cold storage legislation and the transfer of the soda water licensing, and the inspection of bakeries and the confectionerers all help to swell the great amount of detail work which the dairy and food commission is held responsible for. Much of this work formerly was in the hands of the industrial commission. The transfer from that department was made in most cases on request of the associations themselves.

Only one man has been added to the force thus far and he is to take care of the baking industry. For the other extra work either no appropriation or only small appropriations have been made, barely sufficient to carry on the work in the proper manner. The men of Mr. Weigle's staff all have to be hustlers in order to keep up to the hard program which has been laid out for them.

The appointment of Leon H. Robbins as agricultural representative for Jackson county has been approved by the county board of supervisors. Mr. Robbins will begin work at once, beginning with a tour of the farming district in order to determine the labor conditions and the acreage of land in use for food production. He is well qualified for his work, having had much practical experience. Since this appointment there are now twenty-two counties in Wisconsin that are supplied with public service agents.

Badger Crop Prospects Favorable

Stand of Small Grain is Good—Clover Shows Good Promise—Corn and Potatoes Nearly All Planted —Warmer Weather Needed to Push Growth.

WISCONSIN.

Adams County.—Weather continues cold and wet. Rye and meadows look well and pastures have improved some during the past week. Some corn and potatoes are in the ground. With warmer weather all crops will promise well. The acreage of all crops will be about normal. Fruit has not been damaged by frost. The crop is average.—W. B. Barnes.

Barron County.—Since the snow last fall there has been little moisture. Pastures and meadows are backward. Small grain looks well and the acreage is about 10 or 15 per cent larger than usual. The acreage of vegetables has been increased this year. Farmers are saving a larger percentage of live stock than formerly; spring pigs are selling from $5 to $10 each. Most of the corn and potato planting is finished.—F. J. K.

Burnett County.—Five weeks of dry, cold weather with severe frosts have injured crops in this section. Pastures and meadows are dry and crisp. Fodder is scarce and many farmers are obliged to sell stock because of the continued drouth which keeps pastures from growing. Farmers are trying to increase production, but weather conditions so far are not favorable.—E. H. Johnson.

Brown County.—Weather continues cold and dry and crops are not looking very well. The stand of grain is not good and if rain does not come soon the grain crop will be light. Grass looks well, but seems to be rather short. Corn and potatoes are being planted at this time. The acreage of potatoes will be less this year on account of the high price of seed.—J. D. McAllister.

Buffalo County.—The early grain looks fine, but the late grain is not so good as it might be because of the cold weather. Corn is all planted. Pastures and hay are doing well. Live stock is in good condition; hogs are selling at very high prices. Potatoes are very scarce and are worth $3.50 a bushel.—John Wald.

Calumet County.—Spring grain looks fine. Rye and wheat are good and prospects for a large yield are favorable. Most of the corn is planted. Apple and cherry trees are in bloom. Beans and peas look well and the area planted to them is large.—Joseph Buchinger.

Clark County.—Small grains are up, but as yet are not making normal growth. Most of the corn crop is in the ground, but a few farmers are still plowing for corn. The potato acreage is greater than usual. A few warm days have brought the pastures forward, but cold rains are checking their growth again. Fruit prospects are very promising.—Louis Buddenhagen.

Crawford County.—Most of the corn has been planted and farmers are hoping for warmer weather. The acreage will be larger this year than usual. Recent rains have helped pastures and improved the prospect of a good hay crop. Wheat, rye and spring grains look fine. Several cars of cattle have been shipped in lately and are on pasture. Last week's frost did little damage.—A. M. Laird.

Door County.—Spring is cold and backward. Clover withstood the winter in fine shape and looks well. There is a large acreage of peas. Small grain is just coming up. The acreage of corn will be increased considerably. Cattle are selling at from eight to nine cents a pound. Small pigs are very scarce and sell at $4.50 each. The area planted to potatoes will be about normal.—John Azone.

Douglas County.—Small grain is backward, but there is plenty of time for it to develop into a good crop. Because of cold, dry weather, meadows and pastures are nearly a month late. Recent rains are improving these conditions. Because of the scarcity of hay and pasture, dairy cows have not done well. More calves are being raised than usual. The acreage of wheat and potatoes is larger than usual.—J. N. Ottun.

Dunn County.—Corn planting is nearly finished. Small grain looks well, but the weather is still cold. Pastures need rain and warmer weather. Several frosts occurred last week, but did no material damage. It is not likely that the acreage of grain will be increased this year because farmers have had as large crops as are possible for several years. There are a number of dairy sections in this county.—J. D. Miller.

Fond du Lac County.—Due to late season, spring grains are not as promising as usual, but are improving. Winter wheat and rye are very good. A frost on May 22d killed much of the early garden truck and injured fruit blossoms to some extent. Very little corn has been planted, but the ground is in fine condition and most of the crop will be in the ground in about ten days. Pastures and the seeding of grass are promising. Cattle suffered from cold, rainy weather, but are now improving on good pasture. Young stock seem to be more numerous than usual. Farmers in the southwestern section of this county are looking forward to the completion of the Libby, McNiell & Libby condensery to be located at Waupun.—C. A. Williams.

Iowa County.—Small grains in this section look well. Corn planting is nearly finished; that which was planted in early May was damaged recently by a severe frost. Pastures and meadows look well, but are still backward because of the cold weather. The number of young stock is about normal or perhaps a little above. The acreage of corn and small grain will be a little greater this year than last. The early fruit blossoms were injured by the frosts to some extent.—J. M. Blotz.

Juneau County.—Small grain looks fairly well, considering the backward season. The late sowing of oats is doing well. Frequent rains are keeping the ground soft. Meadows look well, but pastures are not growing rapidly because of lack of warmth and moisture. Fruit trees are in full bloom and promise good crops. Gardens need warmer weather. Considerable corn has been planted; some of it was caught in a frost on May 23d. A good deal of late corn will be planted this year. The pig crop is late, but a normal number of young stock will be saved.—C. E. Hoskins.

LaFayette County.—Weather is cold. Early planted corn is coming up. Some planting is to be done yet. Small grain looks well. Pastures and meadows are backward. Many spring pigs have died. Calves are going to market in poorer condition than usual on account of the high price of milk. Fruit trees have an abundance of bloom. There are fewer colts than usual.—W. J. Martin.

Langlade County.—Spring seeding is nearly finished and most of the crop is up. Some ground will be planted to peas this year. Farmers are still plowing for corn in some sections, but considerable of the crop is already planted. Nearly all of the potatoes are planted and the acreage of this crop will be about normal. Some new land has been cleared and will be put in corn, also old meadows that have been plowed up. Clover is very backward because of the cold, dry weather. Cattle are thin since hay, ensilage and all other feed is scarce. The percentage of young live stock saved is about normal. A special effort is being made to save heifer calves. The area planted to beans will be larger this year than last.—Chas. Lade.

Lincoln County.—On account of the cold weather, small grains are not growing well. About the usual acreage has been put in small grain. Pastures and meadows are very short. Live stock is normal in number. Cattle are healthy, but thin. More spring wheat was sown this year than usual and more potatoes were planted. There will be about a 10 per cent increase in the acreage of crops planted this year.—G. A. Patterson.

Manitowoc County.—Weather has been fine for spring sowing and ground has been in good shape. Farm work is progressing nicely; some corn has been planted. There is plenty of moisture for growing crops, but the weather is too cold. Stock are on pastures, but grass is short. Labor is scarce in some sections. The corn and small grain area in this locality will be greater than last year—from 5 to 10 per cent greater.—Edw. E. Straka.

Oneida County.—Most of the small grain is planted except some barley. That which is up seems to be doing nicely; but there will have to be rain soon in order for it to make a good growth. The acreage of grain is larger this year than usual. More potatoes will be planted than formerly and also more beans and root crops. Corn planting is nearly finished. Pastures are in poor condition, but live stock seem to be done nicely on dry feed. Young clover is making a very good growth.—Chas. H. Jewell.

Outagamie County.—Old pastures are poor, but the new seeding is good. Corn has been delayed by cold, wet weather. Late frosts and storms have damaged the wheat, rye and oats to some extent. Potato planting is well under way. Early sown vegetables will be planted over in many cases on account of damage from frost. Cattle are in normal condition. Feed is scarce and high priced.—Harry Lepplu.

Sawyer County.—Weather continues cold and dry with prevailing northeast winds, which reach a high velocity at times. Seeding is finished, but grain is coming up slowly because of lack of moisture and warmth. Clover seems to be in good condition, but is not growing well. Pastures are thin. Corn and potato planting is under way; at this time about 50 per cent of the corn and 40 per cent of the potato crop are in the ground. Unless rain comes soon further plowing will be difficult.—Jens Uhrenholdt.

Trempealeau County.—Small grains are looking well. Most of the corn is planted and some of it is up. The pastures are fine. The grain area in this locality has not been increased very much because it could not be without selling off some of the live stock. Much land is changing hands this year.—John W. Lowe.

Wood County.—Meadows and pastures are shorter than they have been for many years. Heavy frosts and cold weather damaged the rye crop about 20 per cent. Oats, barley and peas look fair. The acreage of rye was increased about 12 per cent this year, oats 10 per cent and potatoes 20 per cent. All vegetables are later than usual. Young stock are about normal, but there are more milk cows than average. Hogs are about 25 per cent fewer in number than normal. Pigs are below normal in number, but growing fine.—Peter Brown.

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To Form Egg Association.

Ten million dollars' worth of eggs are produced in Wisconsin each year. Of the total production nearly 17 per cent, it has been estimated, is lost each year through various causes which are for the most part preventable.

In order to reduce all unnecessary losses to a minimum George G. Weigle, the dairy and food commissioner, has called a meeting in Madison for June 7th and 8th at the capitol building to perfect an organization which will undertake to develop and foster efficient methods on the production and handling of eggs. In a letter sent out to the egg men of the states ideas on how best to stop the enormous loss and waste through spoilage are asked for. But the commissioner does not want anyone to stop at that. He wishes to have all egg men, both producers and dealers, present at this meeting to give their personal view and aid in forming an organization through which more effective means for conservation of the egg crop can be carried on.

Speakers for the day will be Dr. Klein, of the food and dairy commission of Illinois; Commissioner Norgord and Professors Halpin and Hatch, of the agricultural college.

The dairy and food commission will not be connected with this organization in any way except in an advisory capacity when their services are asked for. The meeting on June 7th and 8th will be simply for the purpose of starting the ball rolling. Coöperation on the part of the commission will, however, be promised in advance, for anything the commission can do in the way of increasing production and preserving the product is simply in line with their work.

Destroying White Grubs.

To the Editor:—How can we farmers combat the white grub? It seems to me as a common, everyday farmer, that it is of more importance than any other matter connected with production of crops, especially corn. I understand we have to start this summer and destroy the June bug in order to be free from the grubs next year. The June bugs are already here on my farm at least and I, for one, do not relish the idea of giving up part of my crops next year to their offspring.

What distance would a light draw the bugs if a tub and lantern is set out for them as is recommended? Would one trap like that on a 160-acre farm do much good? If not, how many would be necessary? If one farmer puts out tubs and the neighbors do not, will it do much good on the one farm that sets out the tubs? It seems as if some law on this would be of more benefit to humanity than some of the laws we now have and are proposing.

In the face of this food shortage proposition it seems to me the white grub pest is not given anywhere near as much consideration as it should be. My observation and experience do not show that any method as to plowing early or late does much good. Two years ago the grubs worked in all conditions of soil and next year they will be worse, according to indications.

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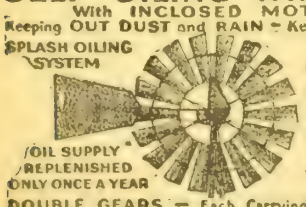

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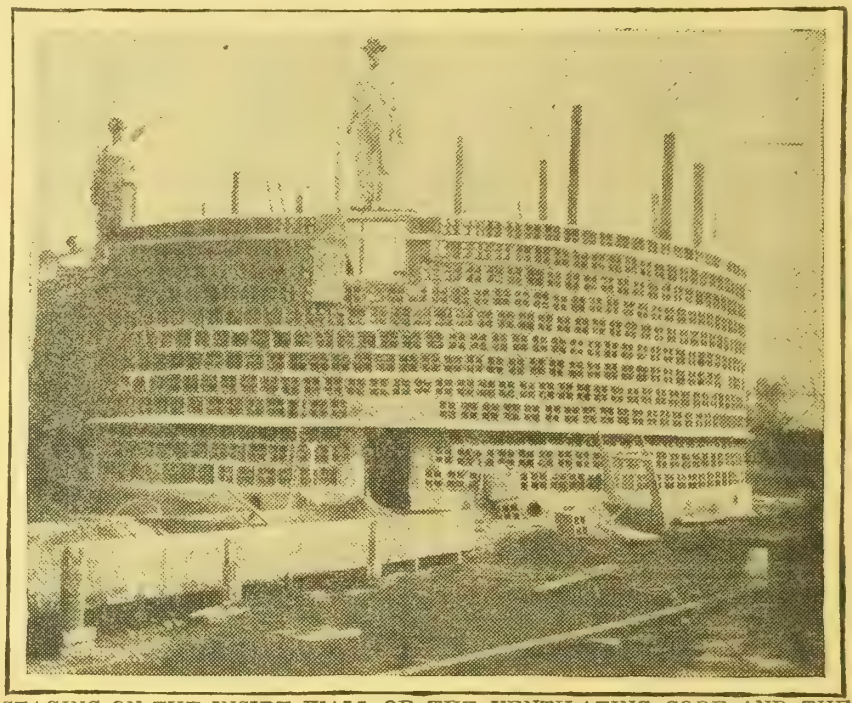
IT DOESN'T pay the modern farmer to plow, disk, harrow, cultivate and harvest unless he gets big prices for his crop. Moldy corn that's docked 5 to 10 cents on the market is the result of wrong cribs on the farm. Just so will modern cribs starve out the vast army of rats which hundreds of farmers in the corn belt are fattening annually. Rats that spread plague and disease as well as eat up the profits are dangerous. Present-day crib construction immunes the cribbed corn from the invasion of mold or rot and assures the owner that every kernel will be turned into money. Farm efficiency is cutting great wide swaths into twentieth century agriculture.

Photographs here tell a story of how one Iowa company built a 10,000-bushel round crib that is fit for high-priced corn. It was built of hollow clay blocks with the open ends out and set at an angle so that the rain cannot get at the cribbed corn. It is repair and time proof and rat proof. It lessens the work of cribbing, since a small elevator in the center ventilating core operated by a small oil engine hoists all the corn to the crib from the wagon dumps. It cures corn properly and stores it with safety. It is a type of corncrib that corn-belt farmers can well afford to build. This method of crib construction can be carried out to an advantage in any sized or capacity crib. It is adaptable to the needs of the small quarter-section farmer as well as to the big farm that covers a section or more of land. It is a crib that if made in large sizes fits well the needs of the small or large elevators over the country.

Thirty by thirty-two feet is the size of the crib here shown, which gives promise to become exceedingly popular in the corn states. Round cribs need less material and have more strength than rectangular cribs of the same capacity. When the method of building becomes more generally known by builders, this type of crib will come to its own. Circular walls are easiest built of blocks and when safely reënforced in the mortar joints by one-quarter-inch wires the resulting wall is a permanent and serviceable improvement. For the foundation of cribs of this sort a two-foot-wide footing is necessary. This is eight inches thick and goes down about three feet below the grade line to insure safety from frost. A sixteen or eighteen-inch foundation wall of concrete will support the building. Use a one to five or a one to four mixture for this work. The foundation for the center ten-foot ventilating core will be of just the same dimensions as for the outside walls. In laying the foundation wall above grade the five-inch drain tile must be imbedded into the concrete. These are for drainage and also as an air space under the floor. Crib floor construction of concrete has had many enemies in the past due to the fact that it causes moldy corn. Concrete floors must be built to be dry. Good results will be secured if one follows out the details as shown here in the cross section of the walls. Keep the concrete from coming in direct contact with the soil and soil moisture. Cover the entire space with six or eight inches of coarse gravel before laying the five-inch-thick floor. The drain tile are set in first before the floor is laid and placed about four or five feet apart and run through to the ventilating core. Eighteen inch wide and eighteen inch deep shelling trenches in the floor are built in to make easy the job of shelling corn. An endless belt runs through the trench and carries out the ear corn to the sheller. Short pieces of plank are laid over the trench when being filled. It is estimated that from one-half to three-quarters cent per bushel of shelling costs can be saved in this crib. One man can roll the ear corn into the trench and feed more corn than the average sheller can handle. The walls of these trenches are of concrete or could be made up from a hollow block and thereby eliminate the building of the forms. For the floor and foundation of this Iowa crib there was required about eight yards of gravel and fourteen barrels of cement.

The walls of this permanent circular store house for corn are eight inches thick. The blocks made especially for this purpose are set at a slope of one to four as is shown. The

(Concluded on page 19.)



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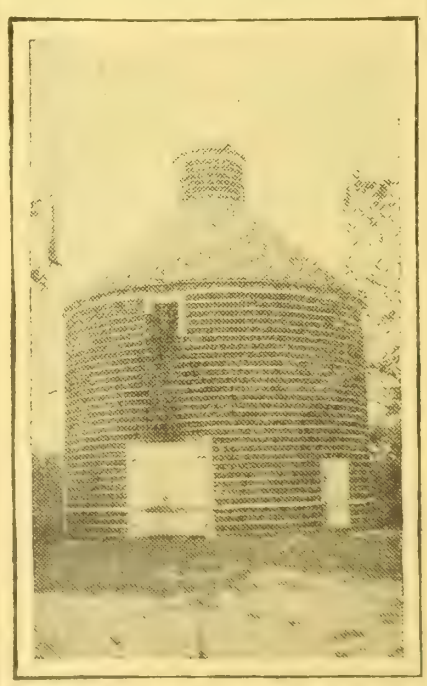

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Questions and Answers.

Igniting Acetylene Gas.

Will gas generated from carbide and water ignite from an electric spark?

Answer.—This is acetylene gas. It ignites readily from an electric spark. It is practically the same gas that is used in "Prestolite" tanks, the gas which was usd to a considerable extent for starting motors.

Moth Balls.

I would like some information as to the use of moth balls in gasoline. What are they made of? How many can be used safely in a gallon of gasoline? In a two-cycle engine, where the oil and gasoline are mixed, will they cause any trouble? Have they a tendency to keep the cylinder cleaner, or do they foul the cylinder?

Answer.—Moth balls are made from coal tar. They are not manufactured to any extent in this country. Since the war, the price has risen from 10 cents per pound to 40 cents per pound. For use in gasoline use one ball to one and one-fourth gallons. No trouble should be caused by the oil in the gasoline. Due to the more perfect explosion, there should be less trouble due to fouled cylinders. However, we have but little information on the subject and would be glad to hear from any of our readers who have tried it.

Ignition From Storage Battery.

I have a three-horse-power gasoline engine, and I would like to know if I can wire it to run from my lighting plant storage battery instead of using dry cells. I have a thirty-volt storage battery. The engine has a spark plug and a coil. I use four dry cells with it. Will I need a new coil, and what kind should I use? I have plenty of No. 12 insulated copper wire. Will this be all right for wiring?

Answer.—You can use your storage battery for ignition. Wire the storage battery to the engine and coil exactly as the dry cells are now connected, except that a coil of about 500 feet of No. 16 iron wire should be connected in the circuit to protect the coil. If your ignition should then appear to be weak use less wire. The correct amount of iron wire to use depends upon the resistance of the coil. Your present coil should work all right. You can also use the No. 12 insulated copper wire. Ignition from the storage battery is better than ignition from dry cells.

Efficiency of Gearing.

Approximately, what is the per cent of power lost in a spur gear contact; straight bevel gear, spiral bevel gear, worm gear, and roller pinion contact? How much more power is delivered when each of the above runs in an oil bath? Will a roller chain deliver more power from one shaft to another than a set of two spur gears? How much power is lost through a universal joint? Why any? How much easier does a shaft turn on roller or ball bearings than on plain bearings? Where could I get a description of the different designs of universal joints in use today?

Answer.—No definite statement can be made as to the power lost in transmission through gearing and chain drives, as the loss is greatly affected by the load, the speed, the lubrication, the size of the pulleys and other factors. For slightly lubricated gearing from 2 to 10 per cent of the power is lost. If the gears run in oil only about half as much power will be lost. The loss is slightly more for bevel gears than for spur gears, and the spiral bevel gear is less efficient than the straight bevel, the advantage of the spiral bevel being its quiet running qualities. The loss of power through a roller pinion is somewhat less than for a spur gear if the roller pinion is well lubricated and kept free from dirt. The worm gear drive is the least efficient of all, the loss of power being from 5 to 40 per cent. A roller chain has about the same efficiency as a spur gear under similar conditions.

Wherever there is friction there is loss of power. There is some friction in a universal joint between the separate parts, and, therefore, there is some loss of power. The greatest loss is at the bearings that support the shafts near the joint. This loss increases rapidly as the angle between the shafts increases. In common practice this angle is seldom made over 30 degrees, and the friction losses vary from 2 to 20 per cent. For information on universal joints write to the various manufacturers for their catalogs.

The friction is only one-fourth to one-half as great with roller bearings as with plain bearings, and ball bearings are still more efficient.

Making a Camera.

Please publish in your Farm Mechanics Department how to make a camera.

Answer.—We do not consider it practical to make a camera on the farm, as the lens would have to be bought, and the lens is the most expensive part of the camera. The shutter would also be difficult to make. A light tin box having a pin hole at one end and provision for holding a plate holder at the other may be used as a camera where very long exposures are possible.

Will Not Pull on High Speed.

I own a Model 1914 Ford car. It pulls well on low, but when I change over to high, the car begins to jerk and does not pull even. Can you tell me what is wrong?

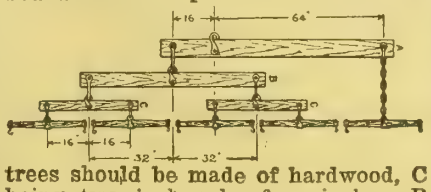
Answer.—Your clutch is probably worn and needs adjusting. The following instructions are given by the Ford Company for adjusting the clutch:

Remove the plate on the transmission cover under the floor boards at the driver's feet. Take out the cotter key on the first clutch finger and give the set screw one-half to one complete turn to the right with a screwdriver. Do the same to the other finger set screws, but be sure to give each the same number of turns and don't forget to replace the cotter key. After a considerable period of service, the wear in the clutch may be taken up by installing another pair of clutch disks rather than by turning the adjusting screws in too far.

Five-Horse Evener For a Disk.

I want to make a five-horse evener for a disk and I do not know the exact measurements. Will you please help me out? The evener I have in mind is like the sketch below. Can you give me the measurements for this evener? I have also seen another style of five-horse evener for a disk, with one horse in the center. Perhaps you could tell me how to make that.

Answer.—We are publishing the sketch, with the addition of the principal length dimensions. It will be noticed that the disk clevis is located directly back of the middle horse. The outfit as shown consists of five twenty-eight-inch singletrees, two doubletrees forty inches long, the holes being located four inches from each end, one doubletree, B, seventy-two inches long with the end holes four inches from each end, the middle hole of both B and C being half way between the end holes, and the doubletree, A, which is ninety inches long, the end holes being located five inches from each end and the other hole sixteen inches from the right-hand end hole. The ends of the doubletrees should be bound with strap iron. The double-



trees should be made of hardwood, C being two inches by four inches, B two inches by five inches and A two inches by six inches, approximately. To shorten the hitch, C C are sometimes mounted on top of B. It will be noted that the principle of leverage in this evener is the same as was explained in a former issue. There are four horses pulling on one end of doubletree, A, and one horse on the other: 4×16=1×64.

With one horse in the middle as you mentioned, doubletree A would not be used; doubletree B would be made thirty-two inches longer and the middle horse would be hitched by a chain to the middle clevis of B. This would have the disadvantage of not compelling the middle horse to take its share of the load, but it shortens the hitch and simplifies the construction.

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The United States needs thousands of truck, transport, aeroplane and motor cycle drivers. Trained competent men are needed, men who can take care of the machines, men who know how to keep them in service. Any piece of motor-driven machinery the government owns or will own must be in service. Preference will be given to trained men. No matter what service the Army is doing, it must be fed. If it is on the firing line, it will need thousands of rounds of ammunition. The importance of trained men is very evident. Food and ammunition must be delivered regularly. Then too the army must often be transported.

Quartermaster Department and Signal Corps Need Trained Men

The Michigan State Auto School trains men thoroughly. Every student learns pleasure cars, trucks, motor cycles, and gasoline motors of every kind from A to Z. Graduates of the Michigan State Auto School are in big demand by the leading Automobile plants at Detroit. These factories know from actual experience that our men are thoroughly, completely, and practically trained.

No matter what happens to a truck or pleasure car a Michigan State Auto School graduate is competent to repair it. Cars in the care of a graduate give highest efficiency. This is the kind of men Our Government wants and is daily enlisting. Trained men who will be efficient themselves and keep every bit of motor driven equipment in the most serviceable condition.

LEARN A SUBSTANTIAL BUSINESS

Men who become trained in the Auto Business and serve their country can go into a permanent business as soon as their services are no longer needed. The trained mechanic is always in big demand. His ability is recognized at once. Ours is the largest Auto School in the country. Better jump on a train and come to Detroit as hundreds have done.

ACT QUICKLY Get full particulars, "Auto School News" and new 128 page illustrated Catalog, absolutely free.

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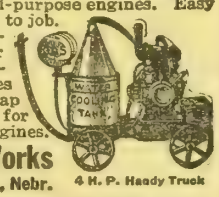
THE OLD RELIABLE SCHOOL. A. G. ZELLER, President
1406 Auto Bldg., 687-89-91 Woodward Ave., DETROIT MICH., U. S. A.

Cushman Light Weight Engines

For silo filling, grinding, sawing, shelling, and all farm work. 8 H. P. 2-cylinder weighs only 320 lbs. May be mounted on Corn Pickers and Hay Balers. 15 H. P. only 780 lbs. 4 H. P. Cushman weighs only 190 lbs.—besides doing all other work, it is the original and successful engine for the binder. Also may be attached to Corn Binders and Potato Diggers.

8 H. P. 2-Cylinder Weight Only 320 lbs.

Cushman Engines are all-purpose engines. Easy to move around from job to job. Have Throttling Governor, Schebler Carburetor and Friction Clutch Pulley. Cushman Engines are not cheap, but cheap in the long run. Ask for book on Light Weight Engines.



4 H. P. Handy Truck

Cushman Motor Works
855 North 21st St., Lincoln, Nebr.

UNCLE SAM WANTS AUTO EXPERTS
YOU CAN QUALIFY IN 6 WEEKS TO DRAW BIG PAY.

The government is paying high salaries to trained auto experts—to men who can drive a pleasure car, truck, ambulance, motorcycle or any other motor-driven vehicle—to men who know how to find and remedy trouble if anything goes wrong.

Milwaukee Motor School
Graduates are in the U. S. Service at good pay

Preference is always given to trained men—particularly to auto mechanics. Food, munition and supplies will be moved by men who can best drive and care for automobiles; and for such service you can draw better than soldier's pay.

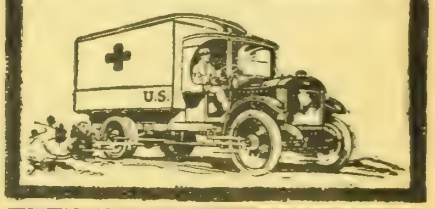
We use no books—you get practical work on all makes of cars, trucks, etc—you do the work yourself under the direction of Mr. Arhelger and other auto experts.

Write us for free book and details telling how you can make big money as an auto expert.

Wm Arhelger

Graduates the Milwaukee Motor School has turned out recently have passed Uncle Sam's rigid examination for auto experts.

MILWAUKEE MOTOR SCHOOL
221 Seventh St. Dept. G Milwaukee Wis.



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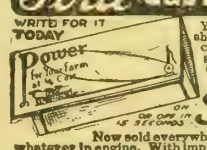

You farmer Ford owners, let me show you how for less than 1-6th cost of 3 h. p. portable gas engine, you can get power reliable as your Ford engine, portable as your Ford car. Guaranteed.

ON OR OFF IN 15 SECONDS Schluter AUTO BELT ATTACHMENT

Now sold everywhere. Easily attached. No change whatever in engine. With improved crank socket and detachable crank handle, just hook it on and start to work. Only $22.50. Order from this ad on 5-day money back guarantee, or write for big FREE circular.

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"BIGGEST LITTLE THING ON THE FARM"

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KING OF BALERS
40 styles and sizes for every purpose. Catalog free.
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WE PAY THE FREIGHT

Before you buy get our catalog, prices and samples of our great never slip lock fence. We pay the freight, give you the staples, save you money. Barb wire, gates, lawn fence, at money-saving prices. Write today.
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When writing to advertisers kindly mention The Wisconsin Farmer.

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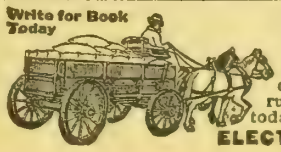


FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Steel or wood wheels to fit any running gear. Wagon parts of all kinds. Write today for free catalog illustrated in colors.

ELECTRIC WHEEL CO., 65 Elm Street, Quincy, Ill.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Wisconsin Poultrymen, Attention.

To the Editor:—An army of poultry will help win the war. Uncle Sam says: "The nation's meat supply is short. Chickens are the quickest meat crop that can be produced. Chickens require no large cash outlay. We need an increase of 100 million pounds of pou[illegible] year. Wisconsin's share is 3½ million pounds. Will you raise a bigger flock? It pays and it's patriotic."

The foregoing statements from a placard issued by the agricultural experiment station at Madison should have serious consideration from every reader of these lines.

At Chicago was recently held a nation-wide poultry conference with delegates in attendance, representing organizations of every branch of the poultry industry, the purpose of the meeting being to organize a campaign to increase the production of poultry and poultry products and to facilitate the handling of the same as a means of relieving, so far as possible, the shortage of food supplies which is now being felt and is sure to increase.

Pres. E. E. Richards, of the American Poultry Association, was in attendance and was directed to enlist the coöperation of the 8,000 members of this association to assist in producing the additional 100 million pounds of poultry for 1917.

We are resolved that Wisconsin shall not be found wanting in the production of the extra 3 million pounds, which is her share of the sum total. To accomplish this we must have the earnest coöperation of local poultry associations and of raisers of poultry on farms and elsewhere who are not affiliated with local associations.

The poultrymen of Pennsylvania are offering 50,000 eggs free to boy scouts and boys' and girls' clubs of the state. This is patriotism and it is hoped that our Wisconsin poultrymen will meet every similar request. Our newly organized boys' and girls' clubs are reporting good work, but in many instances hatching would be continued later if eggs were offered by our poultrymen to these club members.

Broilers can be produced weighing from one and one-half to two pounds at from eight to twelve weeks and layers and roasters in from four to seven months. There will be good profit in these, even with the present high price of feeds, but the thought that should be foremost in the producer's mind is to feed the hungry. As a nation we have been very wasteful and millions of dollars' worth of food is consigned annually to the garbage can that should be converted into wholesome food by way of poultry products.

A poultry house sufficient to care for a small flock in town need not be expensive. A piano box may be so arranged as to accommodate a dozen fowls and may be neatly arranged.

In many instances it will be advisable for beginners to purchase day-old chicks, which with good care will come to laying before cold weather sets in. Avoid losses by controlling parasites that annually kill thousands of chicks and keep quarters clean to prevent disease. Reader, this is a personal appeal to you, not only to do your duty but to encourage your neighbors and friends to do likewise. The Wisconsin Poultry Breeders' Association are ready to lend their assistance in furnishing eggs at a nominal cost or where necessary to contribute them free of cost.

The poultry department of the agricultural college at Madison are asking opportunity to advise and assist you to succeed with poultry if you are inexperienced. Never before has the value of the hen been so much appreciated and never before in our history, as a nation, has the shortage of a food supply been so apparent. Wisconsin must do her full duty.

Geo. W. Hackett.
President Wisconsin Poultry Breeders' Association.

Feeding Poults.

Improper feeding, combined with close confinement, has been the cause of many failures in turkey raising. When on free range the poults are busy searching for feed most of the day. Here there is no overfeeding and lack of exercise, such as the poults are often subjected to by those ignorant of their wants. If the range is plentifully supplied with green feed, grasshoppers, and other insects, and if the weather is favorable, then the best plan is to allow the poults to feed themselves. It is usually advisable, however to have them come home at night, and if driven up and fed at a certain place every night, they will soon learn to come up themselves.

When, on account of rainy weather or unfavorable range conditions, it is advisable to raise the poults by the coop method, more care must be given to their feeding. For the first two days after hatching, poults require no feed, the yolk of the egg which they absorb before breaking out of the shell being sufficient to maintain them for that length of time. Access to clean drinking water and a little coarse sand and green feed to pick at is all that is needed until the third day. Beginning with the third day, the poults should be fed according to the quantity of natural feed they are able to pick up outside the coop. They should always be hungry. To feed all they will clean up several times a day removes the cause of searching for feed, so that little excise is taken and indigestion is sure to result. When natural feed is scarce, or when the poults have to be kept from ranging outside, they should be fed lightly about five times a day. If allowed to run outside the coop, where they can find insects, seeds and green feed, they need not be fed oftener than tw or three times a day.

Successful turkey raisers use many different kinds of feed, some of the most common being as follows:

1. Hard-boiled egg chopped fine and cornbread crumbs for the first week, and then whole wheat and hulled oats.
2. Stale bread, soaked in milk and squeezed dry, for the first few days, andthen common chick feed.
3. Clabbered milk seasoned with salt and pepper, cornbread crumbs.
4. Equal parts "pinhead" oats, whole wheat and cracked corn.
5. Cracked wheat.
6. Corn meal and wheat bran mixed in the proportion of three to one and baked into bread.
7. Bran or middlings one-half, cracked Egyptian corn one-quarter, wheat and hulled oats one-quarter.

In addition to the above, skimmed milk and buttermilk are quite often fed, with excellent results. A good plan is to keep the milk in front of the poults during the morning and water during the afternoon. If grit and green feed cannot be picked up outside the coop, they must be provided in some other way. Chopped onion tops, lettuce leaves, dandelion leaves, and alfalfa make excellent green feed. Grit can be furnished in the form of coarse sand.

While confined to the coop, the mother hen should be fed twice a day on a mixture of grain, such as equal parts corn, wheat and oats, and green feed, while water and grit should be kept before her all the time. An occasional feed of meat scrap or fresh, lean meat is greatly relished and helps to keep her in good condition. In feeding the hen and poults, it is advisable to feed the latter outside the coop and the former inside, in order to prevent her from eating the feed intended for the poults. It is seldom necessary to keep the hen and poults confined for more than a few days at a time, and the sooner all can be given free range, the better. Whether or not they should be put into the coop at night after ranging during the day depends on the weather and the danger from predatory animals.—[Bulletin.

FARMERS' MARKET

Wanted—For Sale—To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

NORTH DAKOTA, most successful agricultural state in the Union, producing as many dollars per acre as states where land sells four times as high. In past five years held first place every time in production of wheat and flax; and once in barley. In climate, soil, crops, railroads, schools, roads, North Dakota exactly as good as best in Illinois, Iowa or Minnesota. You can obtain a home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

RUSK COUNTY LANDS! In the great potato-growing district of Northern Wisconsin, offer great opportunities for industrious farmers. We want people, looking for homes, in this ideal, partly timbered district, to write us so that we can tell them why it is to their interest to buy their lands of us. Send name and address today. Flambeau River Lumber Co., Owners, Station D, Ladysmith, Wisconsin.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

BARGAIN—160 ONLY $5,000. 2 miles good town, Polk County, Wis. Fine hip-roofed barn 34x48, small house, drilled well, all fenced 16-inch woven wire. Rich clay soil, rolling surface, largely cleared, small field. Wonderful sheep and cattle farm. Natural blue grass and clover pasture. Baker, K-110, St. Croix Falls, Wis.

ONLY $1,000 DOWN TAKES 40—2 miles station, on creek, near large lakes. Good frame house 18x28, 16x18; barn, other buildings; 30 acres field or meadow with nice surface and clay loam soil. Bargain at $3,000 for quick deal. Baker I-110, St. Croix Falls, Wis.

WISCONSIN—65 farms, 15,000 acres, wild land. Corn, dairy, clover belt. Counties: Barron, Polk. Easy terms. Lowest prices. List free. L. Rivard, Turtle Lake, Wis.

IMPROVED FARMS, best of location, priced reasonable, easy terms. W. F. Ryan, New Richmond, Wis.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. James, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

POULTRY AND PET STOCK.

BABY chicks from standard-bred, Single Comb White and Brown Leghorns $10 per 100, $90 per 1,000. Bred to lay large white eggs. Safe arrival guaranteed. Catalog free. Wolverine Hatchery, Box 2221, Zeeland, Mich.

FULLBLOOD Scotch Collie pups for sale at farmers' prices. J. V. Northrup, Waupun, Wis.

PURE-BRED WHITE ROCKS. Address "Kremers," Whitehall, Wisconsin.

RAILWAY MAIL CLERKS.

RAILWAY MAIL CLERKS WANTED—$75 month. Special examination questions free. Franklin Institute, Dept. D176, Rochester, N. Y.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

Canada's Liberal Offer of Wheat Land to Settlers

is open to you—to every farmer or farmer's son who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is much higher but her fertile farm land just as cheap, and in the provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads Are Actually Free to Settlers and Other Land Sold at from $15 to $20 Per Acre

The great demand for Canadian Wheat will keep up the price. Where a farmer can get over $2 for wheat and raise 20 to 45 bushels to the acre he **is bound to make money**—that's what you can expect in Western Canada. Wonderful yields also of **Oats, Barley and Flax. Mixed Farming** in Western Canada is fully as profitable an industry as grain raising.

The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent. There is now an unusual demand for farm laborers to replace the many young men who have volunteered for service in the war. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

GEORGE A HALL,
123 Second St., Milwaukee, Wis.
Canadian Gov't Agt.

Own a Farm

in Wisconsin. A REAL opportunity. We have improved farms, with and without stock in Taylor, Marathon, Clark, Lincoln and other good clay soil, dairy counties. $40 to $80 an acre. Liberal terms. 10 years to pay. Interest rate 6%. R. R. fare refunded to buyers. Our lists and literature FREE. Write TODAY. Reference this magazine.

LOEB-HAMMEL
REALTY CO. (Not Inc.)
Medford Wisconsin

WAR is Making Minnesota Farmers Rich

WE HAVE 500 money-making, improved farms for sale. In corn and wheat belt. Most productive land in United States. You can't afford to buy until you have learned about our remarkably low-priced, improved farms. Easy terms. Write for particulars. Agents wanted.
MOREHART LAND CO. Mankato, Minn.

OREGON & CALIFORNIA RAILROAD CO grant lands. Title to same revested in United States by act of Congress dated June 9, 1916. Two million three hundred thousand acres to be opened for homesteads and sale. Timber and agricultural lands. Containing some of best land left in United States. Now is the opportune time. Large sectional map showing lands and description of soil, climate, rainfall, elevations, etc. Postpaid one dollar. Grant Lands Locating Co., Box 610, Portland, Oregon.

FARM LAND

WANTED TO HEAR from owner of good farm for sale. Any territory. Want description and cash price. Write
JOHN H. OAKS 411 Main St., Oshkosh, Wis.

FARM WANTED. Wanted to hear from owner of farm or fruit ranch for sale. O. O. Mattson, 2954 Cedar Ave., Minneapolis, Minn.

WANTED TO HEAR FROM OWNER OF GOOD farm for sale. State cash price and description. Address D. F. Bush, Minneapolis, Minnesota.

POULTRY AND PET STOCK.

HATCHING EGGS

S. C. RHODE Island Reds; from standard-bred laying stock; $1.50 per 15 or $7.50 per 100; $2.50 per 15 or $10 per 100 eggs; exhibition stock $5 and $10 per 15 eggs. Winnebago Poultry Yards, R. 23, Omro, Wis. A. J. Schloerb, Mgr.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators and brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom Stillwater, Minn.

REDS AND ROCKS—Eggs, $1.50 for 15, $6 per 100; chicks 15c each. Coleman's Poultry Farm, Clear Lake, Wis.

Our Farm Help Column.

The following new applications for farm help and farm jobs have come to The Wisconsin Farmer since the last issue:

FARM JOBS WANTED.

Albert Barton, 1250 West Madison St., Chicago, Ill. Age 30. Experienced.

FARM HELP WANTED.

Charles Friday, Gotham, Wis. Wants single man, milking and general farm work. Wages $35 per month.

E. W. Carr, St. Lawrence, S. D. Married man wanted for general work and care of pure-bred Short-horns.

In And Around Wisconsin.

Several local branches of the American Society of Equity in the vicinity of Boyceville, Dunn county, are planning to build a warehouse at that town. The farmers realize that this would be an important step toward improving marketing conditions and already considerable stock has been subscribed for the project.

The Wisconsin College of Agriculture, at the advice of the State Council of Defense, has issued a circular advising farmers to plant buckwheat this year. The suggestion is made that buckwheat grows satisfactorily on land where corn has failed to grow, on wet land which has just been drained, on newly cleared land and on sandy places of the farm. This crop can be planted late in the season, and, for this reason, can fill in where other crops have failed, and the demand for it this year promises to absorb all that is produced. It is an effective weed killer and also a good nurse crop.

A condensery with a capacity of 100,000 pounds of milk daily is being put in by the Van Camp people at Sawyer, Door county. It is reported that the Van Camp Company has been requested by the government to put all of its plants in condition to have a maximum output in 1917. It was the original intention to use the plant at Sawyer for canning peas and other small vegetables, but later it was decided to make a condensery of it. Three-ton trucks will be used in gathering the milk. Most of the condensed milk will be furnished the United States army.

Farmers in Wisconsin who are short of help may obtain assistance in securing someone to work for them by writing to the State Council of Defense at Madison. P. L. Prentice, of the United States Department of Labor, has been in Madison recently conferring with state officials with regard to the labor problem and arrangements were made to establish an agricultural employment zone covering the entire state. Under this plan the State Council of Defense will be in touch with the Chicago office of the federal department of labor and can put Wisconsin farmers in touch with applications on file there.

Drainage work on the Troy marsh in Walworth county will be started this summer. The contract for the work amounts to $50,590 and will include laying more than 20,000 feet of tile in addition to extensive dredging. At present eight capstans utilizing horse power are available for dredging, but a tractor is now being constructed for this purpose. The Troy project is one of a number of drainage plans that will be carried out in Wisconsin this season in order to increase the acreage of agricultural land. Farmers are realizing that the cost of tiling and ditching is not exorbitant and the urgent demand for foodstuffs together with high prices is influencing them to drain their wet land and put it under cultivation.

Patriotic meetings in various towns of Walworth county have aroused both the city and country people to the need for an increase in food production this year and a gratifying response has resulted. Committees are striving to get every available space planted to some useful crop and already an increase in the total acreage is evident. An increase in the number of gardens is also noticeable. The labor question was recognized as a big problem and a labor committee, with L. W. Swan, of Elkhorn, as chairman, was organized to handle this problem. This body is now at work listing the names of those who may be depended upon to do farm work during the busy season. Several tractors were brought into the vicinity of Sharon by Libby, McNeill & Libby, and men and boys are plowing for corn with them. The committee in charge has more than 600 acres on its list, which are to be plowed at a charge of $1.50 an acre. Small grains have been put in in fine shape and every effort is being made to get the corn planted on time. With such enthusiasm and activity there need be little doubt that the people of Walworth county will have plenty for themselves and some to spare when the harvest is at hand.

Liberty Loan

What it Will Mean to the Farmers of America

TO YOU—the farmers of America the Liberty Loan means: a Bigger Market for Your Crops—and Opportunity to Make the Best Financial and Patriotic Investment.

The great $2,000,000,000 Liberty Loan is being made to our Allies in order that they may purchase the products and materials of our farms. Not a dollar of it will leave this country or pay for other than American products. It will come back to us in payment for our labor and materials. It will broaden the market for our goods, increase the demand for what we have to sell, and speed up production by making us raise bigger crops.

The Liberty Loan will make the United States the chief creditor of our Allies and will bind them to making favorable trade relations for the sale of our farm products more effectually than could any treaty.

The Liberty Loan will keep supply and demand moving, and will prevent the depression which sometimes comes with war. It means increased activity in every line where farm products are needed. Europe can use all the American farm products she can get. The Liberty Loan will make it possible for her to get them.

THE BEST INVESTMENT.

Liberty Loan Bonds may be purchased in multiples of $50. They bear 3½ per cent interest, payable semi-annually December 15th and June 15th. They mature in 30 years and are redeemable in 15 years. They are exempt from all taxes except estate and inheritance, so that they give an absolutely net income of 3½ per cent.

Furthermore if, before the end of the war, the Government issues any bonds bearing a higher rate of interest, you can exchange your Liberty Bonds for these higher rate bonds.

Liberty Loan Bonds are signed promises to pay from the richest nation in the world. They are backed by the total wealth of this country—wealth estimated at $250,000,000,000 or 125 times the present loan.

AS GOOD AS CASH WITHOUT THE RISK.

When you need money before your crop is marketed, you can get a loan from your banker, using these bonds as security. They are the best collateral in the world.

No investment can be safer and no other bonds enjoy such a broad and ready market in case you wish to sell. Every issue of Government Bonds this country has ever made have at some time sold at a profit.

The last great Government Bond Issue was sold for par in 1898 and for 110¾ in 1900.

THE BEST PATRIOTIC INVESTMENT.

The Liberty Loan makes it possible for America to strike the winning blows for the liberty of the world—the protection of trade and the safety of American commerce. Secretary of the Treasury McAdoo says to the farmers of America today: "The greatest immediate service the American people can render in this war for universal liberty throughout the world is to furnish the means for its vigorous prosecution. The Liberty Bond issue is the first step. I earnestly bespeak the co-operation of every citizen throughout the length and breadth of the land in this great service of patriotism."

Be a government bond holder. The four payment dates make it possible for you to wait until nearly harvest time before making your final payment on your bonds. Subscribe to the Liberty Loan through any bank or post office today.

Federal Reserve Bank of Minneapolis

Fiscal Agents of The United States Government In Minnesota, North Dakota, South Dakota, Montana, Northern Wisconsin and Upper Michigan.

Kalamazoo
ALFALFA & ENSILAGE CUTTERS

Before you buy an ensilage cutter, find out all about the *Kalamazoo*—the *only* cutter on the market having a center shear. The Kalamazoo has an unbreakable malleable knife *wheel*—not a knife cylinder. Two knives are constantly cutting toward *center*—absolutely no side-thrust. No wasted power. This center-cutting knife wheel delivers a steady, even flow of ensilage to the blower—clogging is absolutely impossible. Another big feature—

The Knife Wheel is the Blower Fan

You can't realize what a power saving this means until you see a Kalamazoo in operation. All wearing parts are easily adjustable. Cutting adjustment is on shear bar only. This makes adjustment of knives simple and easy compared with other cutters.

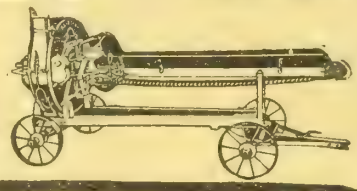
Get a Kalamazoo—save power—save cutting cost—feed your herd on less acreage. "Do your bit" by helping prod[illegible] biggest saleable c[illegible]

KALAMAZOO [illegible]
Dept. 111

Get this Free Book
Explains valuable improved money saving features of Kalamazoo Ensilage Cutters—also alfalfa cutters—and *Easy Payment* plan.

[illegible] clock work!

Fed—cut—elevated—all in one operation



DICK'S Blizzard Ensilage Cutter

Just feed in the corn—fast as you can—the BLIZZARD does the rest.

Knives and fans are all mounted on the wonderful fly wheel. Every ounce of power counts. Light running. Eats work. Elevates any height. Cuts silage evenly. Packs closely, keeps well. Practically no wear out to BLIZZARDS.

Write for Latest Catalog
—It's a book every silo owner should have. Explains the different principles of building silo fillers, and describes the BLIZZARD in detail.

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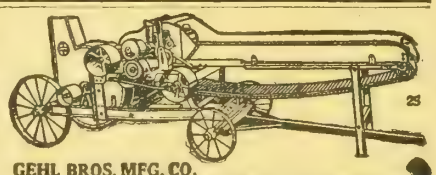
The new models are "wonders." *All steel frame;* low feed table; positive safety device; *automatic feeding;* 6-arm blower that simply *can't* clog and can be regulated to height of silo; malleable knife heads; best knife adjustment. Holds record for simplicity, safety, clean cutting and great capacity. *Write for catalog* showing ten sizes. Gives full details and explains *how* and *why* the "Gehl Silberzahn" is *better*. Write today.



GEHL BROS. MFG. CO.
103 South Water St., West Bend, Wisconsin

Silver's "Ohio"

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"Silverize [illegible]r Silage"

[illegible]ut silage is "different." Cut yours the "Silver" way. Make it mold-proof. Packs air-tight—ferments properly—makes better food for stock. World-record animals eat Silverized silage. Ask for book, on Silverized Silage—convincing proof.

"Ohio" features—beater feed, spring-proof knives, friction reverse, direct drive. The leader everywhere. Seven sizes, 40 to 300 tons a day—4 horse-power gas to big tractors.

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Ask for catalog and special printed matter

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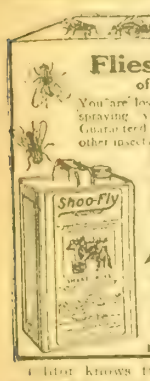
A record book you will use every day. Write for it. Also for Silo Filler Catalog. For speed in silo filling, you want a *Rosenthal.* Extra large throat, cutter head with four knives. Three sizes, self feed with automatic speed control

ROSENTHAL SILO FILLERS are the most economical you can buy. Find out why. Get catalog and record book now.

Rosenthal Corn Husker Co.
Box 15
Milwaukee, Wis.

Flies rob farmers
of over $90,000,000.

You are losing money every day you neglect spraying your stock with SHOO-FLY. Guaranteed to KEEP OFF flies and many other insects. Aids in healing sores, allaying itching and preventing infection. Excellent for galls, also lice and mites in poultry houses. Used and indorsed since 1885. Costs less than ½c per animal per day.



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$1 TRIAL OFFER If your dealer can't supply you we'll send enough to protect 6 cows 30 days, also 3-tube sprayer. Name exp. office. Special terms to agents.

Shoo-Fly Mfg. Co.
1314 North 10th St. Philadelphia

COWS GIVE 1/3 MORE MILK HORSES DO MORE WORK

Editor knows from experience Shoo-Fly is O. K.

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Turn Your Old Bags Into Cash

Before doing anything with your empty bags, be sure to get our proposition. We pay top notch prices and stand shipping expenses. Write at once and let us know what you have on hand.

FEDERAL BAG CO.
2327 Morgan St., St. Louis, Mo.

25 CENTS Calf Rennets

We pay 25c for salted Rennets from milk-fed calves if handled according to directions. The Marschall Dairy Laboratory, Madison, Wis.

When writing to advertisers kindly mention **The Wisconsin Farmer.**

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Yes sir—right on your own farm—90 days—180 milkings you can try my new Sanitary Separator. Try it side by side with any other high grade separator you want. The more severe you make this comparison test the more sure I am that you'll keep my new Sanitary model. If you don't, ship it right back at my expense.

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WM. GALLOWAY, President
WM. GALLOWAY CO., 33 Galloway Station, WATERLOO, IOWA

DAIRY

A Sheboygan County Success.

FEW FARMERS, if any, make money in spite of themselves. They make money because they understand their business. They must know their business before they can expect profits. Years of experience in the school of hard work and long hours form the basis of most of the advancement made in the farming business.

EAGLE RIGTJE QUEEN.
29.17 pounds. At three years old, 27.22 pounds.

EAGLE RIGTJE PEARL.
Records, 22.67 at two years; 26.22 at three years, and 29.27 at four years.

From grades to pure breds is the big step in developing a dairy and breeding establishment. Before this step is reached every man wants to be convinced that results will justify it. If there were no money value in pure breds and the average production of pure breds were less than grade cows there would be little use in larger investments being made in dairy cattle.

GROUP OF SEVEN SISTERS, AVERAGE 30.5 POUNDS OF BUTTER IN SEVEN DAYS, ON TRUTTSCHEL FARM, SHEBOYGAN COUNTY, WIS.

The Truttschel herd, a few miles out of Sheboygan Falls, run by two brothers, Ed and Otis, was founded on this principle by Mr. Charles Truttschel, Sr., about ten years ago. He had been farming land near Sheboygan Falls in company with his father for a good many years. The Truttschel family were pioneers of the county, coming there in 1850. From the very first dairying was followed, but, of course, on the old system. The cow was a cow when she gave a pail full and when she didn't—well, she wasn't a good cow. That continued for a good many years until the news of better dairy cattle reached into Wisconsin.

EAGLE RIGTJE YESLSTINE.
Senior four year old, 29.50 pounds; senior three year old, 25.93.

EAGLE RIGTJE BEAUTY.
Aged cow with record of 28.11 pounds butter fat.

So the herd was improved very slowly at first, mostly by guesswork and gauging the cow's worth by looking at the amount of milk in the pail after each milking. Then followed the pure-bred bull, a Holstein, whose daughters showed wonderful improvement over the ordinary milk cows of the neighborhood. It didn't take long and a few pure-bred cows were added to the herd. From these three cows came the stock which in time replaced the grade cows and from their offspring again came other stock with ever better records.

But it has only been four years since testing has been going on at the Truttschel farm. The mere word "pure bred" formerly stood for high production and profit, while today every cow is under suspicion until she has proved herself otherwise. When the first tests were made by the brothers not every cow in the herd was a wonder and not every cow had been judged correctly. Some were high in amount of butter fat and some were low. There was no speculation about it. The Babcock test rated them all according to their qualifications. The brothers used this information wisely and have some excellent results to show for each year since the testing work was begun.

During the last season nine cows were tested that averaged over twenty-nine pounds of butter in seven days, fifteen cows averaged 26.9 pounds of butter in seven days with many individuals going better than thirty-three pounds of butter for a week.

The boys have the conservative way that was characteristic of their father. Even now, though the pure-bred work has shown excellent results, they are not plunging into the breeding game. There are only about twenty-five cows on the place, twenty of which are milking. All increase is gradual and well planned. When an animal is added to the herd by purchase it must be an individual that will strengthen the blood now in the herd.

The sire that has shown his worth

in the biggest way is Sir Rigtje of Pinehurst. Seven cows sired by him have produced excellent records, among which are three full sisters out of Besse WaWa De Kol that had a record of 26.93 pounds of butter in seven days. These seven cows averaged 30.5 pounds of butter in seven days. But Sir Rigtje of Pinehurst had the backing of a high-producing dam. His mother was Rigtje Piebe De Kol, that made 918 pounds of butter in a year out of 23,000 pounds of milk.

The present herd sire is Count Piebe out of Pinehurst Piebe, with a nice record of 34.43 pounds of butter in seven days. He traces back to King Segis, one of the premier bulls of the Holsteins.

Ordinary farm conditions prevail and the boys are not wasting any extra feed in order to coax an additional pound of milk from a cow. Silage plays an important part in the ration and is fed the year around. Grain is

EAGLE RIGTJE BELLE.
Aged cows, 32.40 pounds. Produced 128 pounds in thirty days, twenty-eight pounds at four years old and twenty-five pounds at three years of age.

fed at the rate of about one pound to three and one-half pounds of milk per day. The ration is made up of corn, oats and bran. Good clover hay forms the roughage in winter.

The farm contains 160 acres, planted to a rotation of corn, oats and clover, with a little barley occasionally used for a nurse crop. About fifteen acres of the farm are in timber, which affords some pasturage to help out the twenty acres of native sod available for grazing during the summer. About forty acres of clover and fifty acres of oats with the balance in corn make up the total acreage.

The milk is sold on the pound basis to the local cheese factory.

What "Weeding Out" Has Done.

To the Editor:—It is generally agreed that the present high prices are going to do good for the dairyman. If he expects to show profits it will be necessary for him to do at least two things, namely, (1) weed out inferior cows by joining a cow-testing association; (2) use better sires. To keep a herd whose records are not known is fundamentally wrong and such a herd cannot be expected to return the greatest profits. What can be accomplished by "weeding out" inferior cows is plainly apparent in the herd at the Milwaukee County School of Agriculture. This is a Holstein herd and the following table will show their production:

Total number of animals in herd	54
Total number milk cows	36
Average milk production per cow, pounds	9,018
Average butter fat production per cow, pounds	303
Average per cent test	3.36
Income for dairy product in 1916	$6,099.06

These figures are all the more striking when it is known that students do a great deal of the work in the barn. Students always feel free to help in the barn and many of the boys learn to milk at the school. The herd is maintained on a practical basis. As a matter of fact, farm conditions are as nearly represented as is thought advisable for the students. The following figures may be of further interest:

Income of dairy products 1916		$6,099.06
Expenses for feed 1916:		
Grain	$1,186.33	
Hay at $18	1,080.00	
Silage at $4	720.00	
Pasture at $7 per A.	175.00	
Labor	1,055.63	
Supplies, milk cans, pails, etc.	469.10	
Laundry	9.30	$4,695.36
Profit		$1,403.70

Our next ideal (and every man has to have an ideal in herd improvement) is 10,000 pounds of milk and 350 pounds of butter fat. E. L. Liddle.

Milwaukee Co. School of Agriculture.

Artichokes for the Silo.

To the Editor:—You preach in your last issue, "Put Up a Good Silo This Year." Now my neighbors have silos, but have little or no corn to fill them with. One filled his with clover and others had theirs only half full of corn. For who can expect to grow corn in a country which actually in climatic condition is only fit for a polar bear? The silage from clover does not suit me at all. I cannot stand the smell of it. Nor is corn much better. True it is, green fodder keeps up the flow of milk. Has anyone had experience with silage made from Jerusalem artichokes? I find when the artichoke is cut in the fall when green cows eat every bit of it, while corn they leave more than half the stalks. There may not be the same weight as of corn, but there is in addition about sixty to seventy bushels of tubers per acre, which are given a similar feeding value as potatoes. Artichoke stalks are not as easily killed by frost as corn, only how would they be cut for silage?

Farmers object to artichokes because they are called weeds. Well, so are sweet clover, white clover, sour dock, yellow dock, English or broad-leaved plantain. For the latter they pay out every year their hard-earned dollars and raise more and more. I see no earthly use of this. Artichokes I get out, not plantain. I have not found, as yet, a single animal, horse, cow, calf, swine or sheep, on my place that will eat sweet clover, but artichokes they all eat. Only swine refuse the stalks when somewhat old.

I have been thinking of making silage from artichokes, but will it become sour like clover? I have no silo now, but corn is a gamble and I prefer to make hay from clover. I have grown roots for twenty-five years. In 1916 I had my first failure, but I hope to have better luck this year.

Herman Riedel.

Columbus Association.

To the Editor:—Our forty-five-pound list for the month ending May 12th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
A. L. Leffingwell					
Eddy, G. J.	6	3-1	1167	5.39	62.9
Henry Dolan					
Erna, P. B. H.	3	1-22	1343.6	3.4	45.7
August Soldner					
Mercedes, P.B.H.	9	3-28	1308	3.5	46 8
Boldt Cow, G.H.	5	4-7	1224	4.1	50.2
John Bradley					
Nancy June, P. B. H.	8	2-28	1389	3.4	47.2
B. C. Mercedes Pont., P. B. H.	4	4-7	1458	3.6	52.5
Courtland Rose B. C., P. B. H.	4	3-11	1242	4.1	50.9
Courtland Bess 3d, P. B. H.	4	4-11	1143	4.2	47.0
J. E. Barstow					
Blackie, G. H.	8	3-1	1452	3.6	52.3
Pet, P. B. H.		12-15	1185	3.9	46.2
A. F. Barstow					
De Kol, P.B.H.	6	12-5	1233.2	4.1	50.6
J. W. Burbach					
Belle Empress, P. B. H.	6	1-29	1566	2.9	45.4

C. F. Wehrwein, official tester.

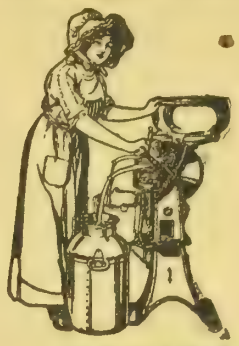
WINNING STOCK JUDGING TEAM AT MADISON LAST WINTER. LEFT TO RIGHT— EARL OLSON, HARNEY WARD, ALBERT ANDERSON, OF THE WOOD COUNTY AGRICULTURAL SCHOOL.

The Alto Association.

To the Editor:—The 45-pound cow list for April follows:

Owner, number and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Ed Bruins					
No. 1, P. B. J.	3	2-17-17	981	5.6	54.9
No .17, P. B. J.	6	3-11-17	948	5.0	47.4
No. 22, P. B. J.	3	2-10-17	633	9.2	58.2
No. 23, P. B. J.	7	11-7-16	723	7.2	52.1
No. 24, P. B. J.	8	12-19-16	684	8.6	58.8
No. 27, P. B. J.	12	1-4-17	1206	4.2	50.7
Garret Greenfield					
No. 9, G. H.	8	3-13-17	1568	4.2	57.5
R. Kastein					
No. 4, G. J.	9	12-31-16	1113	4.1	45.6
Mrs. Theo Kastein					
No. 14, G. G.	6	3-11-17	1269	4.9	62.2
Albert Renz					
No. 16, G. H.	7	3-10-17	1284	4.3	55.2
L. B. Redeker					
No. 1, P. B. J.	4	3-29-17	876	5.6	49.1
No. 4, P. B. J.	6	3-24-17	1200	4.7	56.4
No. 10, G. J.	4	4-2-17	672	7.0	47.0
Jake Kamphuis					
No. 9, G. D.	7	2-6-17	1023	4.6	47.1
B. Kastein					
No. 8, G. J.	7	3-27-17	1104	4.4	48.6
F. Whittemore					
No. 5, G. G.	9	1-20-17	1008	4.9	49.4
No. 3, G. G.	9	12-10-16	978	4.8	46.9
No. 10, G. G.	13	3-1-17	1068	4.3	45.9
No. 12, G. G.	8	4-3-17	984	5.5	54.1
No. 16, G. G.	13	3-4-17	1209	4.2	50.8
No. 18, G. G.	8	2-12-17	930	4.9	45.6

F. L. CUENOT, Tester.
Ed Bruins, Pres., Fond du Lac County.



MORE CREAM LESS LABOR
Through Using a
NEW DE LAVAL
CREAM SEPARATOR

PATRIOTIC DUTY as well as dollars-and-cents self-interest now demands of every cow owner the saving of every ounce of cream and butter fat.

Likewise the saving of time that is possible through a cream separator of ample capacity, that is easily turned and always in order.

There was never a summer in the history of the country when both these considerations were of as great importance to the nation as well as to the individual producer of cream and butter.

Under present circumstances, a modern De Laval Cream Separator will save its cost every few weeks. Every cow owner owes it to himself and his fellow countrymen to effect this saving.

This is true whether you have no separator or have an inferior or half-worn-out machine, even if it be an old De Laval model.

It is important to remember, too, that if you cannot pay cash for a new De Laval machine, you can buy one on such liberal terms that it will actually pay for itself while you are using it.

Every New De Laval is equipped with a Bell Speed Indicator

Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for new catalog or any desired information.

THE DE LAVAL SEPARATOR CO.
165 Broadway, New York 29 E. Madison St., Chicago
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

High Feed Costs Smashed!

Alfalfa Recutting Attachment

Down they go—to *smash!* In scads of cases cut down a HALF! Thousands of farmers are selling their No. 1 hay, milling off-grades. They're making the grandest alfalfa chop; fattening hogs, cattle, sheep, poultry and *purses!* making it cheaply, easily, with our famous patented Recutter Attachment (6 sizes for fields use).

Handles leaves, stems and all! No waste! no injuring color of hay. Makes dandy combination feeds from clover, rice, straw, cornstalks, bean straw, pea vines, oats and rye. Biggest guaranteed capacity! 1200 to 2700 lbs. per hour. 600 to 900 lbs. of meal per hour with Junior Mill (run with 6 to 8 h. p. engine). Cracks peas, corn and beans.

Grip Hook Feed Table

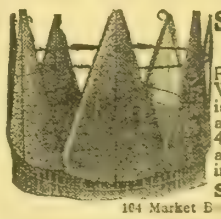
SMALLEY SILO FILLER
SEVEN SIZES

Tremendously simplifies silo filling. Grip Hook Force Feed table automatically feeds cutter—saves wage and board of from one to three men. Makes richest feed, increases silo tonnage.

Blower built independent of cutter. Let your fan spin fast or slow, the speed of knife shaft is unchanged. No belt to slip, wear out, and waste time, money, power. Patented low-speed one-pulley chain drive is faster, cleaner. Saves 1-3 to 1-4 power costs! Powerfully built. A fourth heavier, with wonderful record for long service. Handsome new catalog FREE. Write for it to Dept. 55

Junior Mill—Capacity, 600 to 900 lbs. meal per hr. 6 to 8 H. P. Engine.

SMALLEY MFG. COMPANY
Manitowoc, Wis.



Save $160 Yearly In Silage

Four times the cost of the Winner Opening Silo roof is saved yearly by giving additional space for 15 to 40 tons in your silo. Durable, easily attached, low in price. Write today.

Silo Specialty Mfg. Co.,
104 Market Bank Bldg., Minneapolis, Minn.

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Rice.

High prices are daily making it more urgent for the thrifty housewife to look about for cheaper foodstuffs, and this is where rice comes into its own. Last year not only was the rice crop in the United States larger than ever before but the world crop of rice also was greater than for many years. It may well, therefore, be given an important place in the diet.

While rice has always been considered a good food, it has not been given the important place it deserves. It is not only palatable but very nutritious and easily digested. Boiled rice is digested in one hour. It may be cooked quickly and without waste. It has been used as a breakfast cereal and as a foundation for pancakes, croquettes and desserts, but its importance at this time is due to the fact that it may be used as a vegetable like potatoes and as a substitute for other more expensive foods. In such case, however, especially when it is used as a substitute for potatoes, a liberal supply of fruits and vegetables should be provided, otherwise the body will be robbed of important mineral substances.

In this connection it may be stated that highly polished rice is conceded to be less wholesome and nutritious than the unpolished. The polishing process removes the outer layers of the grain which contain phosphorus pentoxide, which seems to be necessary to make rice wholesome. However, if, as said before, fruits and vegetables are supplied in connection with the rice diet, this difficulty is overcome.

The ways in which rice may be used are numerous. It may be boiled in salted water and used like potatoes as a vegetable at a meal at which meat, eggs, beans, gravy or other foods rich in protein are served. It may be used in stews and soups and in combination with cheese, minced meat or poultry, eggs or fish. In combination with dates or raisins it makes a delicious breakfast dish. In fact, the ways in which it can be used are too numerous to mention and the ease with which it can be prepared, together with its low price, make it a food worth considering during these times of food shortage and high prices.

Cream Cheese.

To the Editor:—I wonder if any of the readers can tell me how to make cream cheese like we buy in bricks. I know that some people do have good luck making such cheese and I wish they would tell us how they do it. I have read quite a bit about cheese-making, but I thought if I could get the experience of those who have had success it might be easier.

Mrs. L. R.

Rainy-Day Play for Children.

How many times on a rainy day has some busy mother been interrupted with the plea from her restless, active children, "Mother, what can we play?" and how many times has mother wished she knew something new to suggest which would give the busy fingers and brains employment and make the children feel that they are actually doing something worth while.

The projects suggested below will involve more or less "muss" and "trash" from the standpoint of the very tidy housekeeper, but they will keep the children absorbed and busy for hours and will furnish excellent training in coördinating head work and hand work. Some small corner, at least, should be given to the child where he may keep his materials and carry on his manufactures. If possible, have a shop in a shed or an empty room where a box of scraps, a hammer and some nails will invite invention without fear of rebuke. When paper cutting or other hand work is done in the family rooms, clearing up afterwards should be made a part of the game and a good workman should be expected to keep an orderly shop wherever it is located.

Paper: 1. Cut out and mount pictures.

2. Cut freehand familiar objects.

3. Illustrate stories with free cuttings and cut out pictures.

4. Make picture books illustrating stories above.

5. Make a house book, grouping pictures of things for one room on one page.

6. Cut out and repeat simple units in form of borders for book covers, playhouses, etc.

7. Cut out families of paper dolls. Make clothes for each doll and color with crayon.

Cardboard: Use empty boxes, ribbon reels, film reels, etc.

1. Make balancing figures to fasten on weighted ribbon reels and pill boxes.

2. Make jumping jacks of cardboard and fasten on wooden frames.

Wood: 1. Make toy furniture from scraps that can be nailed together.

2. Make carts from boxes, using tin can tops for wheels.

3. Saw out animals from thin soft wood with coping saw.

4. Mount animals on trucks, using film reels for wheels.

5. Make three-ply animals which stand alone.

Cloth: 1. Make doll garments of all sorts.

2. Make furnishings for doll beds.

3. Make bags for marbles, bean bags, etc.

4. Make sails for boats and biplanes.

Playhouses: 1. Make playhouses play stores from empty boxes, either wood or heavy paper. For a house, use one box for each room. Arrange the rooms conveniently and cover with cardboard roof. Furnishing the rooms will provide abundant opportunity for work with paper, cloth and wood. By taking enthusiastic interest in what the children do and suggesting frequent improvements, they can be encouraged to make considerable progress in various forms of handwork. Stores may be built on a similar plan, stocking them with either samples of real goods or such imitations as the children can manufacture.

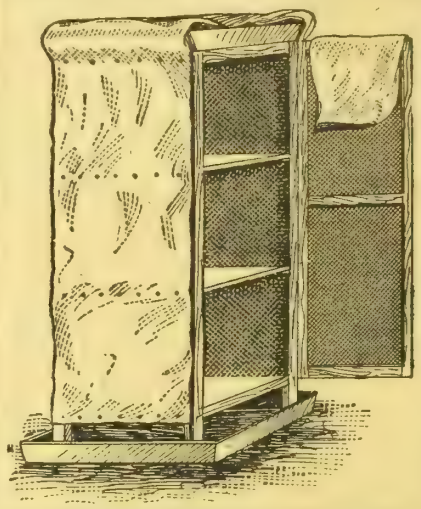
Sand Box: 1. Make representations in the sand box of stories read. Encourage the children to make use of paper, cardboard and other materials in expressing their ideas.—[Agricultural Extension Service, Missouri University.

Refrigeration Without Ice.

Those who are unable to obtain ice during the summer always dread the warm weather when it is hard to keep milk and butter and when left-overs spoil before they can be used. Such persons, if they knew the merits of the homemade iceless refrigerator, would lose no time in constructing one. This can be done with little labor and at a very small cost.

All that is necessary is a wooden frame covered with canton flannel, burlap or heavy duck. If the frame can be screened, so much the better. Evaporation is the principle of this cooler. A pan of water is placed on top of the frame and wicks, made of the same material as the covering, and resting in the pan of water, conduct the water over the sides and ends of the pan, allowing it to seep down the sides of the box. This evaporation will maintain a temperature of 50 degrees in the cooler on hot, dry days.

Make a screened case three and one-half feet high with the other dimensions twelve by fifteen inches. If a solid top is used, simply place the water pan on this. Otherwise fit the pan closely into the opening of the top frame and support it by one-inch cleats fastened to the inside of the frame. Place two movable shelves in the frame, twelve to fifteen inches apart. Use a biscuit pan twelve by fourteen inches on the top to hold the water, and where the refrigerator is to be used indoors have the whole thing standing in a large pan to catch any drip. The pans and case may be painted white, allowed to dry and then enameled. A covering of white canton flannel should be made to fit the frame. Have the smooth side out and button the covering on the frame with buggy or automobile curtain hooks and eyes, arranged so that the door may be opened without unfastening these hooks. This can easily be done by putting one row of hooks on the edge of the door near the latch and the other just opposite the opening with the hem on each side extended far enough to cover the crack at the edge



AN ICELESS REFRIGERATOR WILL MAINTAIN A TEMPERATURE OF 50 DEGREES IN HOT WEATHER.

of the door, so as to keep out the warm outside air and retain the cooled air. This dress or covering will have to be hooked around the top edge also. Two double strips one-half the width of each side should be sewed on the top of each side covering, and allowed to extend over about two and one-half or three inches in the pan of water. The bottom of the covering should extend into the lower pan.

The refrigerator should be placed where it is shady and where there will be a good circulation of air around it. Those who have tried this plan have found it very satisfactory and it involves so little time and money that every farmer's wife who is unable to obtain ice should have one.

Pickles From Brine.

To the Editor:—As I have received many benefits from the Home department I am sending an answer to a request from "Old Subscriber" about how to prepare pickles from brine so they are equal in flavor and brittleness to those you buy.

Put your pickles to be soaked out in a suitable vessel and pour over them boiling water to cover well. Let soak until the water is quite salty. Do this until the pickles are to your taste. I leave mine tasting pretty well of the salt. Then prepare a hot spiced vinegar, using the pure cider vinegar and mixed spices, adding some ground cinnamon tied in a cloth to prevent the discoloration of the pickles. Make up enough to cover the cucumbers well and just before pouring it over them (in a stone jar) add a heaping teaspoonful of alum for each half gallon of vinegar used. One can make the pickles either sweet or sour. We prefer the sweet ones.

These will keep indefinitely—that is, if you can keep them, which I find almost impossible because we all like them so well. Put them in a cool place and they will be ready to eat the second or third day. Mrs. C. E. P.

Recipes.

Fig Cookies.—One cup granulated sugar, one-half cup lard, two-thirds cup figs cut fine, four tablespoons milk, four level teaspoons baking powder, two-thirds level teaspoon nutmeg, one-half level teaspoon salt, one and two-thirds cups flour, one teaspoon lemon extract. Cream the lard and add the sugar and the figs. Add the milk and the dry ingredients (baking powder, nutmeg, salt and flour) sifted together. Add the lemon extract. Form into a soft dough ball and toss on a flour board. Roll out into a sheet one-third inch thick, and cut into two-inch squares. Place a quarter of an inch apart in buttered and floured cooky pans. Bake twelve minutes in a moderate oven.

Hot Weather Pot Roast.—Put four or five pounds pot roast in a pan with salt and pepper to taste. Sprinkle two tablespoons flour over meat and rub in. Add as many carrots and onions and potatoes as needed for dinner, fill pan three-fourths full of water and bake in slow oven two and one-half hours. This is a good Sunday dinner, as one can put all the dinner in oven and it will be cooked when you get out of church, even to having the gravy made ready to serve.

Vinegar Pie.—Two tablespoonfuls flour, one-half cupful sugar, one-fourth cupful vinegar (unless too sour); mix, add boiling water until you have enough for one pint. After it boils down thick as good thick cream add a little butter. Pour in unbaked crust and grate nutmeg over top. Do not bake too long or it will be watery. Frost the top if desired.—G. B.

THE YOUNG FOLKS.

Happy Hollow Farm.

Dear Young Folks:—I have never written to you before, but I have read your letters and like them fine. I am a girl fourteen years of age. I have hazel eyes and brown curly hair.

I live on a farm of 117 acres near a town. My home is in a hollow, so we call it Happy Hollow Farm, and I do my best to make it happy. My home is near a large forest and East Locust Creek runs through it. My sister and I have fine times gathering wild flowers in the woods. We go swimming in the creek. I like the country, and I would not give my country home for a city one.

I help with the farm work and help my mother cook. I have five pets, a dog, cat, pig, hen and rooster. I call the dog, Dutch; the cat, Sir Robert; the pig, Grunt; the hen, Pet, and the rooster, Dick. I love them all.

I go to school and am in the eighth grade. I am going to try to pass this year. I would like to go to high school. I dearly love music and I can play the organ and sing. My father owns a car and my sister and I take many long rides in it. She knows how to run it. I like horseback riding, too. —Alta.

Topsy.

Dear Young Folks:—I have written a story for you and here it is.

"Ouch! Stop that!"

It was little Dorothy Graham who said this. Topsy, her cat, whose spirit was easily aroused, was sticking her very sharp claws into her little mistress' arm.

Dorothy had been playing with her cat that day because it was raining outside and she had to stay indoors. When Dorothy was not looking the cat had run at her doll and had been scratching and pawing in its hair, which made Dorothy very mad because she loved her doll very much. So she had run and caught Topsy and started to whip her. That was when Topsy had dug her claws into her arm.

When Mrs. Graham, who was out in the dining room, heard this cry she turned and ran into the room where Dorothy was and when she got there what did she find but her little daughter in tears and Topsy sitting over in the corner with a queer look in her eyes.

Mrs. Graham had just picked Dorothy up and was going after Topsy when a man came and stood in the doorway. It was Dorothy's father, who was coming home to dinner, and had come in to see what was the matter. So that put an end to Dorothy's troubles and they all went to dinner. —Lois.

A School Picnic.

Dear Young Folks:—Our school was out last Friday, and we had a fine time. They had a picnic for the scholars, and we had ice cream at noon. Then about three o'clock we had an orange hunt. I passed the third grade this year.

I am nine years old. I have two sisters and two brothers. I know the answer to Pauline's riddle: What is it that stands on one leg and carries its heart in its head? The answer is a cabbage. —Mildred.

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1615—Ladies' camisole in kimono style. Pattern is cut in 3 sizes: Small, medium and large. It requires 1¼ yards of 36-inch material for a medium size.

Blouse 1647-Skirt 1646—A good sport suit. The blouse and skirt are both cut in 4 sizes: 14, 16, 18 and 20 years. It requires 3½ yards for the skirt and 2½ yards for the blouse of material 44 inches wide, for a 16-year size. Two separate patterns, 10 cents for each pattern.

2102—A comfortable dress for mother's girl. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3 yards of 44-inch material for a 6-year size.

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2100—Ladies' combination garment of corset cover and drawers. The pattern is cut in 7 sizes; 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3⅞ yards of 36-inch material for a 36-inch size.

2121—A pretty dress for the school girl. The pattern is cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 5⅛ yards of 32-inch material.

1715—Ladies' apron with or without sleeve in either of two lengths and with collar or with neck edge in square outline. Pattern is cut in 3 sizes: Small, medium and large. It requires 6¾ yards of 36-inch material for a medium size with sleeves; without sleeves, 6 yards.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for June 10, 1917.

Jesus Crucified.

LESSON TEXT—John 19:16-22, 25-30.
GOLDEN TEXT—Christ died for our sins.—I Cor. 15:3.

We are compelled to omit a consideration of that dark, despicable trial in Pilate's judgment hall. Pilate's weak-kneed subservience to custom and the cry of the politician is one of the blackest pages in history. His scourging of the man whom he, himself, declared innocent, is practically without parallel. After the mocking and the scourging, Pilate said unto the people, "Behold the man" (v. 5), and later in sarcasm he said to the same people, "Behold your king" (v. 14). Teachers should emphasize at the beginning and all through this lesson that Jesus suffered and died for the sins of all men, ours as well as those of his own day.

I. The Crucifixion of Jesus (vv. 16-22). It was about nine o'clock in the morning when Pilate gave his infamous order that Jesus should be crucified. It was indeed a sorrowful procession which moved itself along the "Via Dolorosa" (the Sorrowful Way), consisting of the Roman soldiers, the tottering, physically exhausted man of Galilee, and, Luke adds, "sorrowing women." They took him to the place of a skull, a hill about sixty feet high, at the foot of which was the rock-hewn sepulcher in which his body was later laid. The place was called in Hebrew "Golgotha," the Aramaic for skull. Calvary is the Latin for the same. On either side of him were crucified the robbers, which was an evident effort to add to his shame as well as a salutary warning to the Passover pilgrims. Over the cross Pilate wrote a title on a wooden tablet. Following the usual custom, this was nailed at the head of Jesus, setting forth his crime. The words it bore were, "Jesus of Nazareth, King of the Jews," as though Pilate would take malicious revenge upon the mob which had made him perform a deed he had sought to avoid. Literally this sign meant, "This man is the kingliest of all Jews, and see what they have done to him." In response to Pilate's questioning, Jesus said, "I am the King of the Jews." Pilate knew that he was innocent, and sought to let him go free, but, rather than incur the hatred of the Jewish authorities, he yielded to their demand for his blood, and became a party to the murder of the Son of God. Men today take a part in his crucifixion rather than surrender wholly to him, and pay the price of open confession. "They crucified him." How these words laid the pride of men in the dust. Human nature is the same today as it was 2,000 years ago when the world's bitterest hate was wreaked not upon a bad man, but upon the best man, the perfect man, the God-man. The pain Jesus suffered on Calvary was no imagination. He suffered it all for us (Isa. 53:6), but the physical suffering was not the most severe agony he bore (Ps. 69:20; Matt. 27:46). The crucifixion of Jesus was part of the eternal purposes of God's love and redemption.

II. The World's Darkest Hour (vv. 23-30). Each of the Gospel writers refers to the part the soldiers took in casting lots for his garments. They were unconsciously fulfilling the phophecy of Psalm 22:18, and it was from their number that one of the supreme testimonies to the character of Christ came (see Matt. 27:54). The first three evangelists tell us of the throng of pilgrims who passed along the highway from the north, close at hand, and who wagged their heads in imitation and mockery of the agony of the one who was being crucified. But there were others who were spectators of this event, a group of Christ lovers (v. 25).

"It is finished." These are remarkable words. He had finished his suffering; he had finished that for which he came into the world when he began his ministry; he had finished the mission for which his father had sent him into the world; he had finished and fulfilled the prophecies concerning his suffering and death; he had completed the work of the redemption; the atonement was finished, and Satan's power was finished; the Mosaic law was finished as far as its claims upon the believer were concerned (Rom. 10:4; Col. 2:13; Eph. 2:15 and 16). Outwardly it seemed to be Satan's supreme hour. It was the world's darkest hour.

The seven last words. These would

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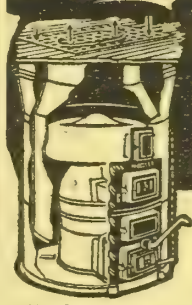

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be an interesting study for any class. (1) "Father forgive them for they know not what they do;" (2) "Today thou shalt be with me in Paradise." (3) "Woman, behold thy son;" (4) "My God, my God, why hast thou forsaken me?" (5) "I thirst;" (6) "It is finished;" (7) "Father into thy hands I commit my spirit." Christ had power to lay down his life. He had power to take it up again, but he laid it down submitting to a burial in the tomb. At that moment note the effect upon the malefactor, upon the centurion, upon the elements of cloud and sky, upon the veil of the temple, upon the people and upon his friends. What is the effect of this story upon yourself, teachers, and upon those who are listening to your instruction?

UPPER WISCONSIN

Build a Silo Now.

To the Editor:—Save summer succulence for winter feeding. It will pay and it will be patriotic.

You will then provide your stock with a feed that has been preserved with its natural juices as distinguished from feeds that are dried out and stored away as hay or fodder. Because of its juicy character, ensilage is a much better feed than dry fodder, no matter how well this fodder has been cured.

My experience leads me to believe that there is the same difference between good ensilage and dry fodder made from the same crop that there is between grass and the hay made from this grass. Where any of our principal roughages are fed or preserved green at the period of their growth when they contain the largest amount of digestible nutrients, they supply the cheapest feed for milk or meat production that we know anything about.

Dried out and fed as hay or dry fodder these feeds are less valuable because they are less digestible. While they contain as much nutrition as they do in their green state, the animal's digestive apparatus does not have the capacity to make use of it, hence the reason why concentrates must be fed in such liberal quantities to make milk or meat on dry feeds.

Corn is the crop from which, as yet, most of the silage is made, though farmers are beginning to utilize other crops for this purpose. Clover has been found to make very excellent silage and peavine from our pea canning institutions are all made up into this feed. At Antigo this peavine silage has been sold to farmers for $2 per ton and the hundreds of tons that had been ensilaged one year were all sold out by the 1st of February. My own opinion is that any feed that will make hay or fodder will also make ensilage, though the value of the ensilage will vary with the different crops of which it is made.

Since corn is yet the principal ensilage crop, I will state my opinion of the way it should be grown in northern Wisconsin for best results.

The tendency of corn in the cooler climates is to become flinty and the flintier it is, as a whole, the more protein the plant contains; therefore, a variety of flint corn should be selected, the largest that will mature in the locality where it is planted.

As the purpose is to grow the most feed possible on a given area, the corn should be planted about twice as thick as if grown for grain. On the clay loams of northern Wisconsin the seed should not be planted before the 20th of May, and preferably a week or ten days later, to be sure that the growing season has set in. Care should also be taken to plant the seed near the surface, not over one inch in depth, as it will then come up quickly and grow rapidly, all of which is a big help in fighting the weeds later on. So much for the seed; now about the land.

It has been demonstrated that land rich in nitrates will produce a fodder that is comparatively rich in protein.

One investigator states that by heavy manuring and thorough cultivation it is possible to feed 25 per cent more protein into a crop of corn than when grown on poor soil, with insufficient cultivation. Whether this estimate is overdrawn or not, it is nevertheless an important fact, since it points out one more way by which the farmers may produce more of their own protein on the farm and be less dependent on the millers for the important element in their cows' rations.

It must be borne in mind that the climate of northern Wisconsin is cooler and usually more moist than in the south, as a result of which growing plants contain more sap and do not dry out as quickly as they do in a warmer and drier atmosphere. For this reason I have succeeded in making the best and sweetest ensilage by letting the corn get ripe and if not frosted, then to cut it down and let it dry one or two days before filling the silo. My aim is to put the corn into the silo just as dry as it will keep. If the corn is struck by a frost it will then usually dry out enough in a few days to make good silage. Frozen corn should not be allowed to stand out too long, as it damages the leaves to be exposed to the weather when it is in this condition.

While a very large proportion of farmers are beginning to see the good there is in silage, I doubt if very many of them have yet begun to fully appreciate its true value, and for this reason the silos now being built do not have the capacity their owners will wish they had later on.

I would advise every farmer of northern Wisconsin to so plan his silo construction that he will have room for seven tons of silage for each cow he expects to keep on the farm, two and one-half tons for each head of young stock, the same for each horse and about 600 pounds per head for his sheep. This amount will allow fifty to sixty pounds per day for each cow for 200 days, fifteen to twenty pounds each for horses and young cattle, three pounds per head for sheep and there will be silage enough left in the spring to help out the pastures during the summer.

This may seem like heavy feeding of ensilage to cows, but our best cows eat this much every day. They are doing well on it and the only thing that ails them is that twice each day they get hungry for more silage. Our aim is to feed most of our stock all the silage they will eat up clean twice each day. We have not enough ensilage so we can quite do this yet, but we are planning to have more in the near future. It may be urged that it will require too much land to grow the ensilage I advise feeding. To this I reply that the land can be put to no better use whatever than to grow the crops for this feed.

There are two reasons why ensilage is more essential to the north Wisconsin farmer even than it is to farmers who reside farther south. One of these is that while vegetation grows rapidly in that territory, the growing season is comparatively short and in order to have the advantage of green, juicy feed for a longer period and at a reasonable cost silos must be constructed. The other is that the country, being new, a large proportion of the clearings are relatively small. Silos and silage must furnish the means by which these small clearings can be made to carry the most stock per acre and thus, by increasing his income, to greatly assist the farmer in developing his farm.

One mistaken idea that is entertained by many northern Wisconsin farmers is that a silo won't pay them unless they have large clearings. This is a wrong notion. It will pay a farmer in this section to construct a silo as soon as he is in a position to raise ten acres of corn and clover each year. Of course, the first silo would have to be small, but if constructed of concrete it could be used later on for summer feeding, when the larger clearings would warrant the building of a bigger silo.

Both in the building and filling of silos by farmers of limited means the principle of coöperation can be brought to bear to the great advantage of all concerned. One set of silo forms will build any number of concrete silos, and where their cost is distributed among several farmers this expense for each of them will be comparatively small. The same principle holds true in purchasing the silo-filling machinery. Then there is the benefit to be derived from changing work while the silos are being filled.

Ed Nordman,

Chairman Agr. Committee State Council of Defense.

Sheep Raising in Northern Wisconsin.

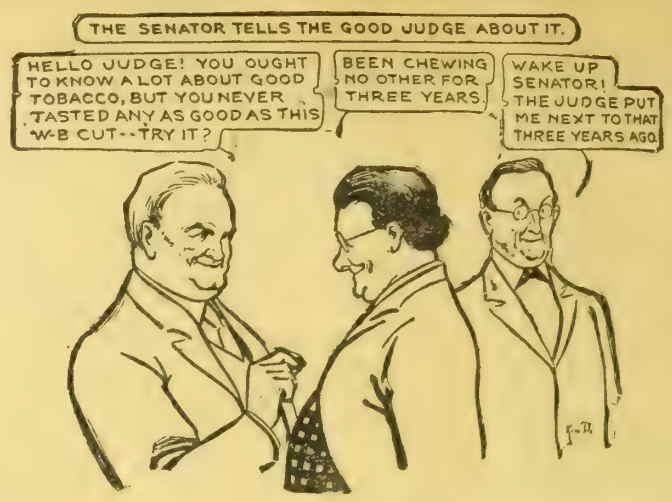
To the Editor:—I think north Wisconsin is all right for raising sheep, not only on a small scale but on a big scale successfully, providing your land is not too low or too level. Sheep want rolling high land if possible to thrive well. I think nothing pays better than sheep. At present wool is high and so is mutton. In order to raise sheep successfully see that you have the right lay of land to keep and run sheep. And if you have, get a woven wire fence first twenty-six inches and three barb wires on top. Cut-over land, stump land sowed in alsike clover is the best. See that there is plenty of good, clean water, salt and some shade trees for the hot summer months. Keep sheds for winter cool and dry. Feed nothing but alsike clover hay in winter and plenty of salt and water.

If you have a bunch of ewes don't put ram in for breeding until December 10th or 15th. This will give the ewes a chance to run on green grass in early spring so they will have plenty of milk. They will drop lambs from May 5th to May 10th. Don't keep too many sheep in pasture and change pastures every three years. Plow over old pastures, raise every kind of crop on it and sow down with alsike clover. I put twelve pounds of clover to an acre. Cull out all rams and sheep and lambs every fall not good for breeding. Keep only the best and strongest ewes for breeding.

I think to start in, the Wisconsin native sheep picked out are O. K. for a start, but be careful and select the best pure-bred Shropshire ram you can get two to three years old, or an Oxford ram is all right. Keep on breeding up on one kind only. Don't keep ram more than two years for breeding.

I have been in the sheep business on the range for eight years in Wisconsin. Now I am on a 120-acre farm in Taylor county, Wisconsin. We started three years ago with a small bunch to find out how sheep will do. I find that nothing will pay better. I have eighty fine breeding ewes. I got 100 pairs of lambs this spring. We sold the wool for 45 cents per pound. Our Wisconsin native sheep sheared ten pounds per head. Each lamb is worth $10 per head this fall. If you can't keep many try and keep from five to ten head anyway on your farm. Feed oats for one month before lambing time and keep the best clean clover hay for sheep.

E. H. Dehne.



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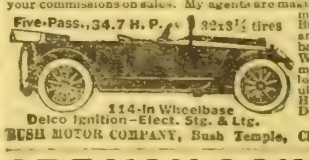

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NEWS OF THE SALE RING

Waukesha Holstein Sale.

The Waukesha County Holstein Sale, May 31st and June 1st was a big success. Prices in most cases far surpassed expectations. The sale came to a total of $35,585. One hundred and fifteen head averaged $309.43. The bulls, including many young calves, averaged $306.30, or coming within $3.13 of the general average. Nine head sold for an average of over $1,000, and two head sold for an average of over $2,000. The most sensational sales were made by D. J. Powell, Waukesha; Fred Pabst, Oconomowoc, and S. A. Baird & Son, Waukesha. Mr. Howell consigned a 24.75-pound two year old, Brookvale Ormsby Korndyke 245245, that is a most promising young cow to which Mr. Geo. Schuster and H. E. & Roy E. Aitken took a particular fancy. The latter, however, after considerable sparring, purchased the cow for $2,150, a price that is said to be the highest ever paid for a Holstin cow at public auction in the state of Wisconsin. Mr. Pabst's 31.68-pound three months old bull calf also went for a splendid figure. Mr. Briggs, of Milwaukee, and Gramling Bros., of Clousman, put up a lively scrap for this animal until he reached the $1,900 mark. He finally went to Mr. Briggs for $1,925. The 27-pound bull calf consigned by S. A. Baird & Son that sold for $1,255, clearly demonstrated the value of combining good breeding, good feeding, good fitting, and good advertising. This calf was given every possible opportunity to put his best foot forward when he entered the ring and the reward was indeed gratifying. A half brother, from a different consignment, by the same sire and out of a 25-pound cow followed the Baird calf and brought $285, nearly $1,000 less. The latter calf, though a good prospect, did not have the opportunity, however, his half brother had been given, which is a partial explanation for the extreme difference in price. Baird Bros.' consignment of two-year-old heifers was one of the choicest that has been presented at any of the spring sales and was certainly a good advertisement for the Waukesha Holstein sales. Too much credit cannot be given Mr. W. L. Baird, secretary of the Waukesha County Holstein Breeders' Association, and one of the firm of Baird Bros., for the success of the sale, as his untiring energy and enthusiasm has been back of it at every turn. The following is a list of sales: Downing Pontiac Butter Man, Oct.

7, 1911; R. C. McCanna .....$ 650
Canary Oak De Kol Homestead 5th, April 3, 1914; H. H. Schrodermeyer, Waverly, Ia..... 500
Lady Johanna Ruffina, Dec. 9, 1910; Fred A. Ball, Reno, Okla. 315
Tillie Janette, June 21, 1908; J. G. Altiores, Ixonia, Wis..... 215
Lady Allie, April 5, 1904; J. E. Altwies, Ixonia, Wis..... 155
Princess Elva Pearl, Mar. 12, 1910; R. F. Sprague 240
Rose Clothilde Friend Pearl 2d, July 28, 1914; Harvey Gettleman, Rockfield, Wis..... 255
Jewel Fobes De Kol Ormsby, Dec. 17, 1914; Harvey Jeffery, Menomonie Falls, Wis. 205
Allie Jannette Segis, July 19, 1914; Harvey Gettleman 250
Lady Friend Ormsby, Nov. 21, 1913; U. F. Schafer, So. Germantown, Wis. 225
Ruffina Johanna, Jan. 2, 1914; U. F. Shafer 305
Rose Clothilde Friend Ormsby, Jan. 13, 1914; Gettleman 340
Ruffina Fobes De Kol, Dec. 10, 1914; Homer Dopp 300
No. 12, April 12, 1917; A. W. Elger, Calhoun, Wis. 35
Princess De Kol of Rock, May 8, 1916; G. A. Dingeldine 160
Lady Allie De Kol, Dec. 12, 1915; S. H. Bird, So. Byron, Wis..... 155
Rose Friend Ormsby De Kol, Jan. 8, 1916; Jas. H. Fallon, Burlington, Wis. 160
Lady Friend Ormsby De Kol, Dec. 26, 1915; S. H. Bird 180
No. 17, April 21, 1917; Mike Lemartz 55
Lady Allie Oak, Jan. 7, 1917; Fred Ball 130
Jannette Segis Oak, Feb. 6, 1917; Gramling Bros. 155
Beauty Johanna Oak, Dec. 10, 1916; C. G. Smith, Ganson, Mo... 105
Johanna Oak Ormsby, Jan. 24, 1917; J. D. Morris, Waukesha.. 95
Sir Ruffina Johanna Oak, Jan. 25, 1917; Arthur P. Guide, Forest 65
Sir Rose Johanna Oak, Dec. 16, 1916; Wm. Burke, Waukesha.. 100
Johanna Ormsby Oak, Jan. 29, 1917; Taylor & Biggs, Fulton, Mo. 90
No. 25, Mar. 15, 1917; Fred Ball, Reno, Okla. 50
Nockdair Segis Urma, Feb. 25, 1915; Ben Wolf, Jefferson, Wis. 370
Nockdair Segis Christmas Chimes, Dec. 29, 1914; W. J. Marry, Waukesha, Wis. 365
Nockdair King Segis Urmagel, Nov. 3, 1916; R. C. Stolper, Random Lake, Wis..... 175
Nockdair Segis De Kol Rue, Mar. 31, 1915; R. E. & H. E. Aitken, Waukesha, Wis. 240
Nockdair Segis Korndyke Lottie, Mar. 29, 1915; H. E. & R. E. Aitken 560
Nockdair Segis Midland Extra, Mar. 2, 1915; Roy McCanna, Burlington, Wis. 535
Nockdair Segis Goldbron, Aug. 4, 1915; Roy C. McCanna 360
Rachel Spofford Burk, March 24, 1913; Ben Wolf 445
Rachel Spofford Burke 3d, April 24, 1916; Michleston Bros., Waukesha, Wis. 265
Rachel Spofford Duke 2d, Mar. 23, 1915; Lester M. Sleep, Waukesha 325
No. 37, Dec. 19, 1916; W. A. & Ed F. Straus, Watertown, Wis..... 1,255
No. 39, April 10, 1916; B. Clyde Brown, Waukesha, Wis. 275
No. 40, Oct. 8, 1916; H. E. & R. E. Aitken 300
No. 41, Sept. 27, 1916; S. S. Cramer, Hartland 325
Jessie Mechthilde Fobes 2d, May 25, 1915; H. W. Silvermole, Mukwonago, Wis. 245
Jessie Piebe De Kol Fobes, Feb. 6, 1915; Taylor & Briggs, Fulton, Mo. 210
Ida Homestead 2d, Feb. 21, 1907; Hugh Christianson, Mukwonago 430
Canary Mercedes Piebe 2d, Aug. 6, 1915; Ben Wolf 220
Ashburn Pontiac Ormsby Thelma, September 27, 1915; Robt. Green, Mukwonago, Wis. 365
Ashburn Segis Pontiac Marion, Sept. 12, 1915; John Dauce, Brookfield, Wis. 260
Ashburn De Kol Segis Ormsby, Oct. 9, 1916; Wm. Krouse & Sons, Thorpe, Wis. 120
Downing Pontiac Perfection, Aug. 29, 1916; W. H. Carr 165
Downing Pontiac Majesty, Nev. 12, 1916; Walter Reik, Lake Beulah, Wis. 175
Downing Pontiac Korndyke Noble, Nov. 26, 1916; Chas. Smith, Ganson, Mo. 180
Downing Pontiac Bell Boy, Dec. 6, 1916; Frank D. Beuling, Lake Beulah, Wis. 145
Downing Pontiac Segis Prince, Dec. 13, 1916; Fred Ball, Oxla, Wis. 75
Downing Pontiac Dutchland, Dec. 13, 1916; John Jungbluth, Pewaukee, Wis. 285
Downing Pontiac Abbekerk Pike, Dec. 15, 1916; Fred Ball 95
Downing Pontiac Schillaard Pride, Dec. 1916; Albert Steinke, Waukesha, Wis. 200
Downing Pontiac Mercedes Mustard, Mar. 23, 1917; F. S. Ball.. 55
May Netherland Pauline 2d, Oct. 16, 1907; W. D. Hostrop, Cedar Falls, Ia 265
Gem Segis Pietertje, Oct. 5, 1909; Krause & Son 250
Becky Korndyke, Aug. 10, 1909; Taylor & Briggs 310
Netherland Pauline Johanna, Oct. 13, 1910; Schley Bros., Waukesha, Wis. 775
Queen Schillaard 2d; Ben Wolf.. 500
Downing Pontiac Butter Maid, Oct. 23, 1911; W. D. Hostrop.... 455
Downing Pontiac Netherland Girl, Dec. 11, 1911; Roy C. McCanna 360
Downing Pontiac Pet, Sept. 11, 1912; Burke Bros., Waukesha.. 300
Downing Pontiac Belle, Nov. 13, 1912; G. Elger, Calhoun, Wis... 105
Downing Pontiac Countess, Dec. 12, 1912; Taylor & Briggs..... 410
Downing Butter Queen; Mar. 3, 1912; Krause & Son 250
Downing Pontiac Daisy Mar. 13, 1913; W. D. Hostrop 455
Downing Pontiac Star, Sept. 1, 1913; Glen G. Smith, Missouri.. 205
Downing Johanna Pontiac, April 28, 1911; Wm. Peebles & Son, Oconomowoc, Wis. 490
Downing Pontiac Jewel, April 18, 1913; McCanna 300
Downing Pontiac Mercedes Lass, Jan. 6, 1914; McCanna 375
Downing Pontiac Nellie; Geo. Schuster, Mukwonago, Wis..... 665
Downing Pontiac Fillpail, Sept. 19, 1914; Hostrop 425
Downing Pontiac De Kol Nancy, Dec. 11, 1914; G. C. Dingeldine.. 375
Downing Pontiac Harmony, April 15. 1915; Burke Bros. Waukesha 295
Downing Pontiac Carolyn, May 6, 1915; Taylor & Briggs..... 480
Downing Pontiac Combination, April 22, 1915; Aitken 550
Downing Pontiac Schillaard Susan, Dec. 4, 1915; Taylor & Briggs 340
Downing Pontiac School Girl, April 28, 1915; P. J. Muehl..... 240
Downing Pontiac Mistake, W. D. Hostrop 290
Downing Pontiac Show Girl, May 1, 1916; Muehle 240
Downing Pontiac Promise, April 23, 1916; Muehle 225
Downing Pontiac McKinley, May 30, 1916; P. J. Muehle, Lake Buelah, Wis. 350
Downing Pontiac Snowdrop, Nov. 28, 1916; John Jungbluth..... 415
Downing Pontiac Duchess, Dec. 8, 1916; Howell, Menomonie Falls 185
Downing Pontiac Winnie, Dec. 11, 1916; James H. Fallon, Burlington 205
Downing Pontiac Fond Hope, Mar. 14, 1917; Henry E. Howell, Waukesha, Wis. 130
Downing Pontiac Milk Maid, Mar. 23, 1917; Henry Howell 150
Downing Pontiac Lady, March 26, 1917; Henry E. Howell 150
Downing Pontiac Myrtle, April, 6, 1917; Geo. S. Love, Waukesha.. 105
Queen Schillaard, May 8, 1906; Homer Dopp, Oconomowoc, Wis. 455
Roberts Queen Schillaard Pontiac, Oct. 25, 1916; Union Grove Dairy Farm Assn., Grand Rapids, Wis. 305
Gertie Artis Pontiac, Jan. 24, 1916; R. J. Muehl 180
Theodosia Pietertje Veeman, Jan. 4, 1916; H. W. Carr, Waukesha 200
Honey De Kol Pietertje, Jan. 25, 1916; Taylor & Briggs 190
Sir Spofford Pietertje Korndyke, Nov. 30, 1914; Taylor & Briggs 410
Princess Pauline Spofford 2d, Jan. 27, 1915; R. C. McCanna 460
Fobes Mechthilde Homestead, May 16, 1912; H. E. & R. E. Aitken 260
Belmont Inland, May 17, 1910; J. H. Sleep 290
Brookvale Parthenia Ormsby, Jan. 18, 1910; Aitken 515
Brookvale Ormsby Korndyke, Feb. 16, 1914; H. E & Roy E. Aitken 2,150
Segis Pontiac Burke, Dec. 8, 1913; Aitken 500
No. 111, Mar. 3, 1917; W. O. Briggs, Milwaukee, Wis..... 1,925
No. 112, Nov. 18, 1915; Jas. Murphy, Footbill, Wis. 185
Canary Josephine, July 5, 1911; H. W. Carr 260
Nagawicka De Kol, Nov. 23, 1907; Homer H. Callritt, Mineral Point, Wis. 400
Monona De Dikkert Johanna, Nov. 29, 1909; Aitken 380
No. 116, April 2, 1917; Chas. G. Smith, Ganson, Mo. 105
Kate Pontiac Lass, Nov. 1, 1915; P. G. Muehl, Hartland, Wis...

More Emergency Food Experts.

Four more counties will have emergency food agents. These are M. H. Scott, for Manitowoc county; A. C. Oosterhuis, for Sheboygan county; J. L. Tormey, for Iowa county, and A. R. Alberts, for Washburn county.

Mr. Scott came originally from Iowa and is a practical stockman. Mr. Oosterhuis is a native of Wisconsin and a member of the animal husbandry department of the university for several years. Iowa county's food agent, J. L. Tormey, is well known as the secretary of the Wisconsin Shorthorn Breeders' Association. Mr. Alberts has had considerable experience on the branch experiment station farms of the state.

Less than fifteen counties of the state are now without specialists to aid their county defense councils in pushing vigorous food-producing programs.

Sheep Men Are Active.

An effort is being made to recruit Wisconsin's army of sheepmen.

The stockmen of the state through their official organization, the Wisconsin Live Stock Breeders' Association, are coöperating with the college of agriculture and the farmers' institutes in a campaign to aid in popularizing sheep raising.

Buffalo county has been selected as the scene of the first objective. Here from June 12th to 15th farm institutes on sheep production will be held at Mondovi, Durand, Gilmanton, Lincoln, Fountain City and at other places in the Waumandee valley, which, stockmen say, are capable of being turned into shepherds' paradises.

Arthur Broughton, president of the American Shropshire Breeders' Association, with his years of experience and keen insight into the wool and mutton business, will lead the march of the sheep-raising recruits.

A Crib For High-Priced Corn.

(Continued from page 10.)

blocks are eight by eight by eight inches in size. Each has four air cells. Since they are not square cut they will make a smooth outside and inside wall and will at all times keep out the rain and moisture. It is necessary that the walls be smooth and perpendicular or the corn will lodge and bridge across throwing an unusual strain on the walls. Number two and number three corn has been shelled out of these cribs when in the same community other cribs have been a source of nothing but moldy corn. Ventilating cribs are a mighty big problem to solve, but this tile crib seems to fill the bill in a very acceptable manner. Every course of blocks in the wall are reenforced with three one-quarter-inch black unnanealed wires set in the mortar joint. To fight the hungry and troublesome rats a rat-proofing screen covers the inside of the three lower blocks, while a galvanized rat-proofing table projects out four inches. Made of heavy material it will not readily be bent out of shape and if the outer edge is bent downward the horses or other stock will not be injured.

Build the roof right and it will be strong and if properly planned will be easily constructed. A double two by eight plate is bolted to the top of the tile wall, as is shown by the drawings. These bolts can be easily made by any blacksmith. The rafters of two by six are then nailed to the plate and are supported at the center by posts projecting up from the ventilation core walls. At the lower end of the rafters near the outside walls the rafters should not be over three feet apart. When all the rafters have been spiked to the plates pieces are nailed in between at intervals of six feet starting at the lower end and running upward. Then nail on the sheathing so as to run with the rafters. It is a good plan to curve the pieces which were nailed in between the rafters, that is, to make them a little higher in the center. The resulting roof will then be perfectly smooth and will give a very pleasing appearance. One by four sheathing is commonly used with shingles of a tar and asphalt preparation or of steel. At the top of the roof is placed a large cupola or a ventilator of a galvanized metal. This will draw like a chimney up through the ventilating core and the result is that all the moisture is pulled out of king corn that is stored in the surrounding cribs.

Two thousand seven hundred dollars built complete the round 10,000-bushel capacity crib shown on page 10. This includes the building complete with roof, the cup elevator and the gas engine and everything in readiness for operation, ready to receive the corn. The tile were purchased at the rate of $60 per thousand. This particular crib was built for a farmers' coöperative elevator company in Iowa. For the average farm, however, a much smaller crib would be needed. Many of the smaller size have been built on smaller farms with good results. A capacity of about one-quarter this size would fit well on many farms. For $700 or $800 a farmer could build a very satisfactory crib of this type of construction, one that would last a lifetime, fight rats and mold and give him big return for the money spent in the building of the crib.

Fourth of July Packet For You

Count the Dots and Win a Beautiful Prize

You see in the picture, an Automobile covered with dots. Can you count the number of dots on this Auto? If you can do this, we will send you as a prize, *a packet of beautiful Fourth of July post cards*, lithographed in rich colors and also a certificate of entry in our grand contest for a Saxon Automobile. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

SAXON AUTO GIVEN AWAY

Remember the Saxon will absolutely be given away at the close of the grand contest. In case of a tie a Saxon will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars by return mail. THE AUTO MAN, Dept. 300, Des Moines, Iowa.

A 12 Year Old Boy or Girl can do more and better work with this

Handy Cultivator and Weeder

than three men with common hoes. Price $1.75 by parcel post prepaid. AGENTS WANTED. Ulrich Mfg. Co. 26 River St. Rock Falls, Ill.

SUGAR 4c Per Pound one of our leaders. We save you money on groceries. Write for particulars. COLE-CONRAD CO., Dept. 54, Chicago, Ill.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Jersey Sale at Madison.

THE sales committee of the Wisconsin Jersey Breeders' Promotion Sale to be held at the agricultural college live stock sale pavilion, Madison, Wis., June 14th, has made careful selection of the 70 head of Jerseys to be offered. This committee visited the E. Bruins farm in Fond du Lac county and selected a couple of good heifers in milk, one a very promising daughter of Western King's Chief. At Charles Peterson's farm in the same county, several very nice heifers were chosen, including one a daughter of Harbinger's Chief, very classy and promising stuff. At Lorenz Metzlar's, near New Franklin, a yearling heifer was listed. Metzlar's herd is strong in the blood which made F. H. Scribner's herd famous and Metzlar's present herd sire was secured at Scribner's dispersion sale. The sales committee called at the Weigand Bros. place, near Cleveland, the home of the Hood Farm bull, out of a 1,000-pound cow. This is a great herd in the molding and they are consigning one of their cows with an official record of 602 pounds of fat and two of her daughters, and all three in calf to this famous bull. W. H. Clark's place, at Rice Lake, was visited and two choice heifers chosen. Mr. Clark was not anxious to dispose of these, but did so in the interests of a better offering at the Madison sale. A good consignment of heifers and a young cow were secured at the E. C. Jacobs herd, Elk Mound, a herd well known for its splendid records. Eight entries were selected from the Rollie Vandervoort, E. E. Hill and E. E. Wyatt herds near Tomah. These are splendid herds, all building on official butter fat tests. Ed McGilvra consigns two good cows and their heifer calves about seven months old. A Clover Land bred bull is heading this herd at present. Mr. McGilvra also offers a yearling bull of serviceable age, which is a good one. A good consignment has been secured from the Stubley Ranch at Black Earth. All of these will be well worth bidding on. Consignments are made from the herds of M. C. Vosburg and R. E. Roberts, of Ft. Atkinson, who are using sons of Noble Oak Lands, as is also Wm. Knight, of Eagle, another consignor, the three herds sending up a splendid offering for this sale. The inspection trip of the sales committee wound up at the Howie herd, Elm Grove, and the Fewacres Farm, at Wauwatosa, seven good entries were secured from the latter. Nothing more needs be said concerning these except that they were in their usual bloom. Buyers need have no hesitancy in investing in these Jerseys, as some of the shrewdest men in the dairy business can see great opportunities for profit in the future of this breed. See page 22.—Adv.

W. J. Gillett & Son's Company, Rosendale, Wis.

WHILE visiting this noted herd a few days ago, we had a very pleasant interview with Mr. W. J. Gillett, who has been improving much in health during the past several months. While talking over Holstein problems in general his son, Forest, who had just recently come into the firm, was introduced. Forest Gillett up until about eight months ago was assistant-cashier in one of the banks at Fond du Lac, but realizing that there were greater opportunities for him by taking up the splendid work which his father started many years ago, he decided to cast his lot on the farm with his father and brother, William Gillett, Jr. We were much pleased after looking at the herd to note the splendid records which have been made recently on the first two-year-old daughters to be tested sired by their splendid herd bull, Sir Pietertje Ormsby Mercedes 38th, a 34.59-pound bull, that was bought several years ago from the E. C. Schroeder farm. His daughters not only have splendid conformation, but especially well-placed udders. One of them made 22.66 pounds in seven days and another 19.45 as junior two year olds, which is some indication of what may be expected from the younger animals in the herd sired by this bull. It will also be remembered that this herd broke the state milk record for seven and 30 days last winter with Johanna Darknesss that produced 120.5 her best day, 833.9 in seven days, and 3,118.9 in 30 days. She also made 31.25 pounds butter in seven days and 135.32 pounds butter in 30 days. Another of their herd made 115.9 her best day, and 771.6 in seven days, as well as making 30.46 pounds of butter. Three 30-pound records were made in this herd last winter.—Adv.

William Marshall, Whitewater, Wis.

MR. MARSHALL, who has been breeding registered Holsteins for a number of years, and who has been making some creditable A. R. O. records, has one of the best herds in the vicinity of Whitewater. He now has on hand seven bull calves, six months old out of A. R. O. dams with records of 17 pounds as two year olds, up to 24 pounds as matured cows. Mr. Marshall tested six two year olds last winter that averaged practically 18 pounds. These calves are sired by his present herd bull, King Korndyke Hengerveld Grou, whose dam made 23.46 pounds butter in seven days and 700 pounds of butter in a year on three-quarters. If you are interested in bull calves at this age it will pay you to write Mr. Marshall in regard to the animals described.—Adv.

Harvest Farms' Holsteins, Mayville, Wisconsin.

WHILE visiting Mr. Jerry Riordan, manager of the Harvest Farms, a few days ago, we had an opportunity of looking over the two noted herd sires, Spring Farm King Agatha of Pontiac, and King Agatha of Pontiac Lass. Both of these sires are from the noted Francis M. Jones herd, Clinton, N. Y. Spring Farm King Agatha of Pontiac is a son of King Segis De Kol Korndyke, a son of King Segis and Pontiac Clothilde Korndyke 2d, the first 37-pound cow. His dam is Agatha Pontiac, whose record at four years 9 months is 36.90 pounds butter in seven days. His dam and sire's dam average 39 pounds of butter in seven days. His sire is a son of the best daughter of Pontiac Korndyke, and his dam the best daughter of the best son of Hengerveld De Kol. The junior sire, King Agatha Pontiac Lass, is a son of King Korndyke Pontiac Lass, whose dam, K. P. Pontiac Lass, was the first cow to produce 44 pounds of butter in seven days. Her dam, Tweede De Kol Lass, in turn has a record of 34.39 pounds butter in seven days. The dam of King Agatha of Pontiac Lass is Spring Farm Agatha of Pontiac, which has a record as a junior three year old of 30.67 pounds butter in seven days. Her dam, Agatha of Pontiac, has a record of 36.90 pounds butter as a four year old. The four nearest dams of this bull have an average of 36.53 pounds butter in seven days. Both of these sires are excellent individuals and are siring young stock of most promising conformation. The senior sire has a two year old daughter that just made 18 pounds under ordinary conditions and his junior sire has a number of young calves to his credit that are strictly of the show type. The Harvest Farms also have a very fine Percheron establishment and it will be remembered by those attending the Wisconsin State Fair last year that the Harvest Farms captured 19 blue ribbons out of a possible 22, which may give some idea as to the quality of the animals shown by the Harvest Farms.—Adv.

Mr. Fred Stubley, Black Earth, Wis.

MR. STUBLEY has just written the office saying that he is sold out of females and that he could have sold a hundred more, which is indicative of the great demand for high-class Jersey cattle. Mr. Stubley states that there never was as good a demand as there is at present. However, he has a couple of bargains left in young bulls and those in the market for such animals would do well to get in touch with him. See page 22.—Adv.

Bonnie Mead Farm, Randolph, Wis.

HERE is another convincing argument why it pays to advertise in The Wisconsin Farmer. While visiting this establishment a few days ago we were informed that a transaction had just been completed in which 12 registered Holsteins, including four aged cows and eight yearling heifers, were to be shipped to Herman Telkamp, Fergus Falls, Minn. Mr. Telkamp came to the farm with a copy of The Wisconsin Farmer in his pocket and asked for further information regarding the animals advertised. As a result of this interview these 12 head were sold for an average of $333, which we think is a good average for 12 animals of this age, considering the fact that only four of the yearling heifers were out of A. R. O. dams. These heifers were good individuals however, and were sired by the present herd sire of the Bonnie Mead Farm, which is a full brother to the noted cow, Pietertje Maid Ormsby. Besides having this splendid bull at the head of their herd they have a double cross of the Alcartra, Springbrook Bess Burke family, Van Beers, Canary Mercedes, Sir Johanna De Kol and the Ormsbys represented in the females of their herd. All cows in milk have A. R. O. Records ranging from 17-pound two year olds up to 27.21 pounds as mature records.—Adv.

Excellent Trade in Durocs.

WE HAVE just had a letter from F. R. Constance & Sons, breeders of Duroc Jersey swine and Jersey cattle, Waupaca, Wis., advising that the fall boars he has been advertising are all sold and that he has had a good demand. Another incident where good Durocs are in demand. This firm now offers spring pigs—boars and gilts—that have been well grown and cared for and they guarantee them to please the buyers. This firm is absolutely "on the square," their word is good, and when they write you about a boar or sow you will find the pig just as represented. If not, you are at liberty to return same. Mr. Constance enjoys a nice business and it has been built up by giving value received. We are glad to recommend this herd to prospective Duroc buyers. Notice the advertisement in this issue and when writing for further information, please mention The Wisconsin Farmer.—Adv.

Higgins Has New Blood For Wisconsin.

REALIZING that it was time to get some new blood in Wisconsin, J. W. Higgins, formerly of Gotham, now of Richland Center, Wis., brought some Duroc Jersey sows into the state last winter that are a credit to the breed in this state and to Mr. Higgins as a Duroc breeder. He had some good sows before, but they are what would be termed "cold blooded," so he disposed of these and bought sows of the most fashionable breeding, yet he did not overlook individuality. He has a very fine two year old by the $2,650 Royal King, he by the noted Orion Cherry King. Her dam is by Cherry King 2d, he by Cherry King, the sire of Orion Cherry King. No better pedigree could be written. She had a late fall litter by Valley Chief's Col., he by that great sire and breeding boar, Chief's Col., and out of a daughter of Future Fame by L. E.'s Valley Chief, he by L. E.'s Valley King, the sire of Illustrator. To our knowledge, Mr. Higgins is the only man in the state that has a daughter of the great boar, Cherry Chief, and she has a litter by The Admiral, a litter mate to Valley Chief's Col. There is also a good sow on the farm, sired by a son of Royal King, that has a litter by King Orion. Higgins has a good boar that he is using, sired by Royal King, out of a Top Col. dam. He is a real herd-boar prospect. This breeder has some other sows that are "bred in the purple," but space will not permit us to mention them at this time. Wisconsin Duroc breeders can use some of this good breeding. Get some of it and tone up your herds a little. He has a few that he will sell in June. Write him for more information and note the advertisement in this issue on page 23.—Adv.

Attractive Short-horn Literature.

TWO attractive and interesting little booklets, "The Advantages of the Short-horn" and "The Short-horn as a Beef Maker," have been issued by the American Short-horn Breeders' Association, and will be supplied free in any quantity to those who will write for them. They should have wide distribution. Address American Short-horn Breeders' Association, 13 Dexter Park Avenue, Chicago, Ill.—Adv.

Big Bone Wonder—850 Pounds.

SOME time ago we called attention to the outstanding Poland China boar, Big Bone Wonder, owned by L. P. Martiny, Chippewa Falls, Wis. This was a great boar when we saw him in March and we have just had a letter from Mr. Martiny saying that he now weighs over 850 pounds and he does not think he will have any trouble in making him weigh 1,000 pounds by fall. If he does he will be a hard boar to beat in the aged class, for he has so many good things about him other than size. He is a spring two year old, sired by Perfect Wonder by Big Wonder 2d by Big Wonder, dam, Lady A. by Linkford's Choice. There is a herd in Iowa that has the reputation of having the best sows of any one herd in America, and the best sows in this herd are of Big Wonder breeding. Mr. Martiny is now offering spring pigs sired by Big Bone Wonder—they can be bought cheaper now than they can later when the breeders throughout the state have seen their sire. Guernsey bulls are also for sale. The Guernseys in this herd are strong in Glenwood breeding and are well grown and cared for. The bulls for sale are good ones and will please. Some of them are out of A. R. dams. Write Mr. Martiny relative to the above breeds and please mention The Wisconsin Farmer. See page 23.—Adv.

Chester Whites at Spring Green.

WE HAD another surprise in store for us when we visited Carl Hickcox, at Spring Green, Wis. We knew that Mr. Hickcox bought the top sow in the Burlington Chester White sale, but we found that this was not the only good Chester White on this farm. This breeder has some seven sows that any man might be proud of—big, deep, stretchy matrons, all raising good litters. There are 60 pigs on the farm, most of which came in March and they compare favorably with any we have seen of the breed. The Schiebe sow has a nice litter by Guy's Comet, he by White Prince, out of a Comet dam. The sow is by Eagle Chief, he by the noted White Eagle Chief, and her dam is the well-known show sow, Sister No. 1. Mr. Hickcox will offer his pigs in July, for by that time one can tell more about the pigs and he does not want to ship out any that are not first class. Watch for later announcements.—Adv.

Isaac Higgins Fashionable Durocs.

WITH this issue of The Wisconsin Farmer, Isaac Higgins, Gotham, Wis., starts his advertisement calling attention to his good herd of Durocs. This breeder and J. W. are brothers and they visited several states and herds last winter looking for Duroc Jerseys that would improve their own herds and at the same time furnish some new breeding material for Wisconsin. Both of these men made good buys and have some great sows to show visitors. Mr. Higgins has a choice senior yearling by Big Climax, he by Big Bone Climax, a boar that has a good reputation as a sire in western Iowa. This sow is raising a fine litter by The Admiral, and he is a litter mate to Valley Chief's Col., mentioned in the J. W. Higgins field note. A two year old by the royal grand champion, Royal King, is one of the best in the herd. Her dam is by Cherry King 2d. This sow is a litter mate to the good Royal King sow we mentioned in his brother's herd. She had a fall litter by Gano Model Educator, a boar that combines the blood of Col. Gano, Golden Model 2d and Educator by Ohio Chief. There is a good Defender bred sow on this farm, one of those long, deep, high back kind. She has a fine litter by Chief Advancer, a grandson of Chief Select on the sire's side and a Crimson Wonder bred dam, a boar of great smoothness and quality. Mr. Higgins has a good gilt by S. & H.'s Col., the biggest boar of his age that we saw last summer. He is a grandson of King the Col. This gilt has a litter by Pal's Chief Col., a boar representing the blood of Pal's Col. and Chief's Col. We will have more to say about this herd later, but remember, Isaac Higgins, Gotham, Wis., has the goods, and if you are going to want some of this kind better get your order in early. His advertisement appears on page 23 in this issue.—Adv.

The Dispersion of the Krippner Jerseys.

ON JUNE 15TH a good herd of working Jerseys will be sold at Rice Lake, Barron county, Wis., by L. M. Krippner. This dispersion is not due to the fact that the Jerseys are not money-makers; in fact, 15 cows produced an average of $106 in butter fat and some of these were two-year-old heifers. Mr. Krippner has no children to assist him with his dairy and he cannot get hired help suitable, so he has decided to close out the entire herd of some 30 head. This will consist of 14 matured cows, though none of them old and they are a fine lot with plenty of scale and substance. Most of them are milking now and others will be fresh in a short time. There will also be some bred and open heifers and bull calves. Mr. Krippner showed his herd at the Northern Wisconsin Fair last fall and with four Jersey herds competing he won 13 firsts. The bull now in service is Fenwick's Golden Jolly, a five year old, and 80 per cent of his calves are heifers. His dam is now on test and in eleven months she has produced 415 lbs. fat. The writer saw these cattle a short time ago and those who attend this sale will not be disappointed. They are in good condition, are all tuberculin tested and all of them have been raised on the farm. The blood lines are strong in Golden Lad and Pedro. This sale follows the Jersey Breeders' Association sale at Madison on June 14th, and buyers can leave Madison after that sale and make good connections for Rice Lake. The catalogs are now ready and can be had by writing L. M. Krippner, Rice Lake, Wis. Please mention The Wisconsin Farmer. See page 22.—Adv.

Northern-Grown Durocs.

YOU have heard of northern grown seed corn and northern grown potatoes, and now we have northern grown Durocs. P. P. Schmit & Sons, formerly of Iowa, and now located at New Richmond, Wis., are breeders of Duroc Jerseys and offer through the agricultural press, for the first time, Durocs of their own breeding and raising. Just at this time they have a nice lot of March boars for sale that are sired by Crimson Lad, he by the well-known show boar, Van's Crimson, out of a daughter of the grand champion, Van's Duroc Wonder. Crimson Lad weighed right at 700 pounds last fall as a senior yearling, has a wonderful back and is good from end to end, and is siring a bunch of uniform pigs. The sows are big and have plenty of quality, and, by the way, the boars that are being offered are all out of matured dams. The sows trace back to old Kelly's Pilot Wonder and Hanley, Jr. 1st. The Schmits have 67 pigs from seven sows, so you will get a boar from a large litter. These gentlemen expect to stay in the Duroc business, and the boars they send out are to be their advertisements, so nothing but good ones will leave the farm. At a later date the gilts will be offered, but just now

NEXT WEEK'S SALE PROGRAM

Thursday, June 14 — Jerseys, Wisconsin Jersey Breeders' Association, Chas. A. Peterson, Secretary, Madison, Wis.

Friday, June 15 — Jerseys, L. M. Krippner, Rice Lake, Wis.

the pick of the boars will be shipped. The prices are right and satisfaction is guaranteed. See page 23.—Adv.

Short-horns For Sale.

SHORT-HORN cattle that can be bought are scarce this year. However, we recently found a herd of 80 head, but in view of the fact that the owner had never done any advertising, few knew there was such a large herd in Lafayette county. This herd is owned by G. Stahlnecker, Darlington, Wis., and he has for sale several young bulls that can be bought worth the money. The attraction of the offering is a roan senior yearling sired by the well-known White Rock. This bull was purchased in the Herr Bros. & Reynolds Short-horn sale last fall. Inasmuch as so many of Mr. Stahlnecker's cattle have some Whitehall Sultan blood in them, he cannot use this bull to good advantage, consequently he is for sale. He has plenty of scale, is a good roan in color and is suitable to head a pure-bred herd. Investigate this bull. Besides this fellow he has two other roan bulls, yearlings past, that are nice. At this time he has about 15 bulls, dropped between September, 1916, and January 1st. There are some roans, reds and whites and they have been carried along in nice shape and will please prospective buyers. They are sired by a bull called Scotch Mine, he by the well-known Sultan Mine. It will pay prospective bull buyers to investigate the bulls being offered. Their dams are heavy milkers, and are the big, broad-backed kind. The advertisement appears in this issue. Write for further description and please mention The Wisconsin Farmer. See page 23.—Adv.

Yeksahurst Guernseys.

IF YOU have Guernseys you, of course, know about the Yeksas, and if you haven't some of this breeding your herd is not complete. A. O. Oelson, Livingston, Wis., has a herd of Yeksa bred cows; in fact, he specializes on this line of breeding and calls his farm "Yeksahurst." He has for sale at this time several young bulls of serviceable age from his A. R. cows. They'll please you and if you'll write him he will send you tabulated pedigrees. In writing please mention The Wisconsin Farmer.—Adv.

Great Demand For McDonald Poland Chinas.

J. D. McDONALD, North Bend, Wis., has sold all of his fall pigs but two, having had the greatest demand for his stock he has ever had. In going over his sales we find that he has sold $5,700 worth of Poland Chinas since January 1, 1917. The pure-bred hog business is not so bad if you raise the right kind and let people know what you have. The spring pigs are coming along fine and the early litters are now old enough to ship. Miss Price 4th, the second prize aged sow at Iowa last year, has a nice litter sired by Matchless Wonder, the boar that was second "under six months" at Iowa in 1915. Miss Chief Price, the Minnesota grand champion, farrowed in April and has a nice litter by Crow's Progress. Mack has a great show herd started. His fall boars and his senior and yearling boars are far better than his boars were last year at this time. But then a good breeder should improve each year. Mack's Chief weighs about 900 pounds now and should make a creditable showing again this fall. The spring pigs are fine and there are several boars that look like real herd-boar prospects in the lot. The spring crop is sired by the following boars: Crow's Progress, Matchless Wonder, Mc's Big Bone, Orange Boy (Ike Conrad), Big Orange Equal (E. Story), Smooth Price (J. C. Hendricks) and several others. In all, he has pigs by 13 different boars and of couurse the big noise about the McDonald herd is his wonderful sows. No herd in the state has better or bigger brood sows. The pigs are ready—boars or gilts—and if you want to grow out your own herd boar, get busy at once, don't wait until they are all picked over. Please mention The Wisconsin Farmer. See page 23.—Adv.

Union Stockyards, Chicago, Ill., June 2d.—Curtailment of cattle receipts around the western market circle this week has exerted a tonic influence. There has been a more active demand and prices on all beef and butcher cattle and stocker stuff as well, as the week-end show fully as high a basis as a week ago. Hides and by-products are carrying their share of the load and the market looks statistically strong. Killers are timorous, however, and balk at any prospect of accumulating high-priced beef. All the evidence obtainable from shippers in from the country is that cattle originally intended for summer feeding on grass are being cut loose. Long-fed stuff is being rapidly reduced to relatively few holdings in strong hands, and, as few cattle have been going on feed, a bare spot must develop sooner or later. The country undoubtedly has a big crop of yearlings, but a lot of little cattle have been sacrificed during the past ten weeks and it is doubtful if there will be more than enough to go around. The summer run will be deficient in weight, and that means less beef tonnage than normally.

Hog trade has had a 30@40c reaction on light runs since the bottom of the recent decline was struck last Tuesday, when the market was about 90c lower than May 14th, when the crest of the boom was passed. After corn planting hog prices always slump and the recent break is causing no concern. The market may come back, but even if early May recorded high point for the year the grower is in an enviable position. Few of them have overstayed the good market. The recent break has been facilitated by relaxation of Canadian demand, but the May run was much heavier than expected, and, as spring litters are being weaned a free movement of packing sows at an early date will be logical. Everett C. Brown, president of the Chicago Live Stock Exchange, predicts that low point on hogs for the summer season will develop during the next 30 days, followed by a steady advance until October, an $18 trade on eastern account being possible meanwhile.

Live mutton trade has been undergoing a process of readjustment this week made necessary by the abnormally and unwarrantedly high prices paid the week previous and by the changing character of the offering. The consuming public finally balked at paying the big prices for dressed product that were made necessary by the high cost of the stock on foot and packers suddenly became as bearish as they had been aggressive buyers during the preceding six weeks or more. Since the high time last week matured sheep and lambs have declined $1.50@2 per cwt., while spring lambs have been hit for $2.75@3 declines. It is improbable that killers' bear raid has run its course, yet no one in the trade expects anything other than record summer and fall prices to prevail, many traders being confident that fat lambs of the 1917 vintage will sell above the $15 line all this summer, although there is no precedent for such a market.

Cattle quality this week is the poorest of the season, carrying a lot of low dressing and half-fat stuff dislodged by the feed bill and skepticism concerning the future of the market. Most of it was laid in last fall and shows a profit, consequently owners consider they are displaying good judgment by letting it go. Just how long such cattle will be unloaded is a conundrum. It has been a good market all week for light and handyweight steers and, considering the large proportion of little stuff, yearlings have given a good account of themselves. Wednesday's run carried a jag of yearlings and $11.75@12.50 got many of them. While killers are hungry for such beef, it is not difficult to get a few too many of that kind of cattle on the market any week.

Choice, heavy steers are closing 10c higher than last week. Several loads made $13.70 and $13.60 was practically the limit on that kind late last week. Plain heavy and coarse stuff has been the meanest acting, while fat handyweights are seasonably popular. Eastern beef trade has not been robust, but will soon come back the moment supply lets up. Prices on the bulk of steers show little change for the week, what was taken off early on Monday having been since restored. Yearlings are doing exactly as advertised. They have advanced anywhere from $1 to $1.50 per cwt. since the April low spot and are scheduled for a good market. That they will pay their board bill is a certainty, as it promises to be a great market all summer for yearlings. All that is necessary for the feeder to do is making little cattle decently fat. Nothing handicaps a yearling at the market more than stockery appearance, as the beef cannot be sold to advantage.

Butcher cattle show little change in value from a week ago. Demand has been best for the right good to choice fat classes, which have been active, and if anything, a little higher than late last week, but the trade on canners, cutters and all the lower grade of dairy cows has been weak. A few extra prime heavy beef cows are selling above $11 and tip-top heifer yearlings have sold upward to $12.10, a new record for straight heifers, but $8.25@10 is taking the bulk of the butcher cows of fairish to strictly good fat classes and $8.65@10.60 most of the heifer stuff. Only a few light tail-end heifers sell down to $7.50 and below and $6.75@7.65 is taking most of the canner and cutter cows. Bulls sold stronger to higher the first half of the week, but lost their gains and more subsequently. A spread of from $8.60@10.15 is taking common light bolognas to good butcher bulls, only trashy light canner bulls going below $8 and choice to prime corn-fed beef bulls reaching $10.25@11. Veal calves have had a $1.75@2 decline from last week's top levels, closing the week at $13.25@13.50 for good to choice fair weight vealers and at $12.50@13 for plain to good lights, with throwouts largely at $8.50@9.

Stockers and feeders are steady to stronger than a week ago, but the volume of trade is still narrow. Fair to good stock steers are selling largely at $8.65@9.50, and good to choice feeder yearlings and more aged feeders up to $9.75@10.25. A load of extra choice fleshy feeders, the kind on which killer competition is strongest, sold to an Ohio operator for short feeding purposes at a price well above $11. There is very little trade in such grades and the few odd sales which are made are not a criterion to the general market.

Declines in hog values last week and at the start of this week were instrumental in sharply curtailing the marketing of swine here and elsewhere the last few days and the market has made a good recovery, although packers have fought the advance at every step and at the close yesterday the market still showed a 10@15c loss from a week ago, but a 30@40c advance from the low spot on Tuesday of this week. Receipts at eleven markets the first five days of the week showed a decrease of nearly 175,000 head from like period last week. Best selected butcher hogs sold yesterday at $16.05 with 210 to 260-pound butcher hogs largely at $15.85@15.95 and the bulk of the packing hogs at $15.50@15.75, comparatively few hogs of fair weight going below $15.60, though small lots of rough heavy packers ranged down to $15.25, some common to fair 135 to 150-pound light stuff down to $14.75@15.25 and good to choice pigs from $13.50@14.50.

Although supply of live muttons has been very light again this week, bad dressed trade conditions and packers' determination to work prices down to a more legitimate trading basis, have been the controlling influence in the market, which has declined about as rapidly as it had previously been advancing. The slump came as a logical and seasonal readjustment and apparently it has not yet run its course. The run has carried a dwindling proportion of dry-fed stuff and a larger quota of feed-lot tail-ends and grassy natives. The latter have had the meanest call, though not showing materially more decline than the best fat classes. At week-end most of the aged lambs and matured sheep showed declines of from $1.50@2 and spring lambs a $2.75@3 break from the recent high spot. It is now largely a $14.75@15.25 market for decent to choice shorn lambs, coarse, bucky natives ranging down to $13.50@14 and culls selling downward from $13. Wool lambs have become practically a minus quantity. Fair to choice spring lambs are selling at $16@17.75, with decent to good culls at $12@14. Trade on fat shorn ewes is on an $11.50@12.25 basis, cull ends selling largely at $6@8.50. Shorn wethers of choice class are quotable to $13 and light shorn yearlings to $14.25, but such stuff is practically lacking.

Dairying in Western Wisconsin.

(Continued from page 1.)

on the same day. The annual meeting this year is to be held at Sparta, June 20th, and take on the aspect of a farmers' picnic. Besides the meeting a good time can be had by everyone present and a good program will be arranged. The hope of the men behind the meeting is to have the governor present on that day. Other speakers of prominence will be present. Former meetings were a success because of the excellent talks given by such men as John B. Irwin, George McKerrow, Prof. J. L. Tormey and Dean Russell, of the agricultural college, State Commissioner of Agriculture C. P. Norgord and other prominent speakers.

THE VAN DER SCHAAF FARM HOME MONROE COUNTY, WIS.

CHESTER WHITE SWINE.

Long, Strong Backs, Heavy Bone

DERENTHAL CHESTERS. The above is descriptive of the fall boars I have for sale. A fine lot and well bred. Yes, I'll sell spring pigs.
H. A. DERENTHAL Wykoff, Minnesota

CHESTERS

BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

"RAINY DAY"

ONE OF THE good CHESTER boars of the state. His pigs are great. Order one or more.
WALTER GEORGE Evansville, Wis.

BUTTS' CHESTER WHITES

READY TO SHIP. Buy a pig, grow your own herd boar. Sired by my show boar, PAY STREAK. Prompt attention.
WM. F. BUTTS Evansville, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

5 Sows, 4 Boars

FARROWED Feb. 5, 1916. Chester Whites. Dandies and ready to ship. Also 40 March pigs to be shipped June 1st. Let me describe them.
ART G. HOSKINS Dodgeville, Wis.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY Mt. Hope, Wis.

See page 12. Read The Farmers' Market advertisements. There may be a bargain there for you.

Farm Loan Association.

Farmers in the vicinity of Washburn have formed a farm loan association and made application to the Federal Farm Loan Bank at St. Paul, Minn., for a charter and loans amounting to $39,500. There is no doubt that the application will be accepted, since the new organization is well above the minimum requirement both in membership and amount of loan. The law requires a minimum membership of ten farmers and loans amounting to $20,000 before a charter will be granted. When all the farmers who have taken an interest in the Washburn organization have sent in their applications the membership will be about forty and the amount of loans between $50,000 and $60,000. Bayfield county and the western half of Ashland county will be the territory covered by the new organization which will bear the official name of The Washburn National Association. The board of directors are: B. Hirsch, president; L. F. Kinstler, vice president; M. J. Raarup, E. R. Tetezner and J. N. Kinney, directors. Andrew Berge was elected secretary-treasurer. When the organization is complete, members can borrow from $100 to $10,000 on their farms for productive purposes and pay it off in from five to forty years, according to the amortization plan. The interest rate will be about 5 per cent.

Silo filling is being solved in the new counties in the same manner as grain threshing. One man can get an outfit and help his neighbors at silo-filling time. One outfit cannot handle a large number, but the plan works well in neighborhoods where the farm land is not yet sufficiently developed to permit of all modern machinery.

JERSEY DAY IN WISCONSIN

Wisconsin Jersey Breeders' Promotion Sale

will be held in the Agricultural College Live Stock Pavilion.

Madison, Wis., June 14

Sale to commence at 1 p. m.

70 HEAD, selected from 25 of the best herds in the state by competent judges representing the Wisconsin Jersey Breeders' Association. The offering consists of Register of Merit cows with records up to 700 lbs. Heifers and heifer calves from R. of M. stock. Several promising show prospects and two or three young bulls of especially fine breeding, representing the best blood of the Island and America and the best efforts of Wisconsin Jersey breeders, and Wisconsin has made Jersey history. Spend the day with us if possible, but if you cannot attend, send bids to Prof. Hugh G. Van Pelt, Kimball's Dairy Farmer, Waterloo, Iowa; Mr. Harry Jenkins, Jersey Bulletin, Downers Grove, Ill.; Mr. Boynton, Hoard's Dairyman, Ft. Atkinson, Wis.; Mr. Garber, Wisconsin Farmer, Madison, Wis. Col. D. L. Perry, Columbus, Ohio, auctioneer. Write for catalog. Address

Chas. A. Peterson, Rosendale, Wis.
Secretary of Sales Committee

DISPERSION SALE OF KRIPPNER JERSEYS

RICE LAKE, WIS., JUNE 15

(The Day Following the Madison Sale)

30 Head—14 Choice Cows, 3 Bred Heifers, 8 Open Heifers, 5 Bulls.

GOLDEN LAD AND PEDRO breeding. Everything has been tested, no disease of any kind in herd—a well-conditioned herd. Herd bull is Fenwick's Golden Jolly, whose dam in the past eleven months has given 415 lbs. fat. Best of connection from the Association sale at Madison. Col. Perry, auctioneer. Write for catalog.

L. M. Krippner - Rice Lake, Wis.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

HAS FOR SALE, bull calf, dropped Oct. 23, 1916; dam on test now, made the first 7 months, 312 lbs. butter fat. This bull calf is solid color, in good condition and well grown; tuberculin tested. For particulars, address
W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins - - Fairwater, Wisconsin

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

HAMPSHIRE SWINE.

HAMPSHIRES or "Belted" swine. Have 20 Mar. weanlings, but in addition offer my "tired" sows, 4 gilts, 2 bred, 2 boars, sexes not related. All stock registered. **Dane Stock Farm, Oshkosh, Wis.**

HOLSTEIN-FRIESIAN CATTLE.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb. bull Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers Lyons, Wis.

HOLSTEIN-FRIESIAN CATTLE.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON NASHOTAH, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

AT LA BELLE VIEW FARM

ORMSBY-BRED Holstein bulls will not reach you and; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% fat, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
E. E. ROSENKRANS Oconomowoc, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Lake Geneva, Wisconsin.

BULL SOLD, all the last wk's issue. King Pontiac Korndyke Calamity, has sired is for sale. Age 4 years, 7/8 white, weight 2500 lbs., sure breeder, gentle. Sired by a 31 lb. son of King of Pontiacs. Dam, 22.08 lbs. in 7 days, 560 lbs. yrly. Price right. Could use a few reg. females in exchange. Hillside Stock Farm, Reedsburg, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale, white predominates. Sire, Plain View Sir Johanna Calamity 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON Neillsville, Wis.

Please mention this paper when writing

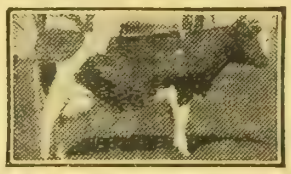
HOLSTEIN-FRIESIAN CATTLE.

PABST QUALITY BULL CALVES

From
A HERD OF OVER 300

$100 and up

PABST STOCK FARM
(BREEDERS, NOT DEALERS)
Oconomowoc, Waukesha County, Wis., Box W



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

INDIVIDUALITY AND PRODUCTION COMBINED

A 29.23-LB. SON OF MANDOLENE DE KOL JOHANNA, that holds the Minnesota milk record for 7 days, producing 117.1 lbs. her best day and Sir Ormsby Korndyke Mechthilde, a Holstein sire well known as a prize winner, and a sire of prize winners, is for sale.
V. S. CULVER - - - - - - - - - Stillwater, Minn.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

"WHERE PRICE AND QUALITY MEET"

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FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.**

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DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
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OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

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HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
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THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
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BIG TYPE, BIG BONE, BIG LITTERS—Spring pigs are ready to ship—order now. Sows and gilts bred, to farrow this fall, to CHIEF PRICE and SMOOTH JUMBO. Also Short-horn bulls and heifers.
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150 Belgian Stallions and Mares 150
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Poland Chinas

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STAUDE Mak-a-Tractor. Ready to hook on and pull any load that a 4-horse team can handle.

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See the STAUDE Mak-a-Tractor do the work of four big horses. **See** it start on high gear with full load. **See** the STAUDE special cooling radiator and force-feed oiling system that absolutely prevents the engine from overheating. **See** why the STAUDE Mak-a-Tractor has an actual block pulling test equal to eleven times the power of the FORD touring car. **See** for yourself how the STAUDE converts speed into increased pulling power.

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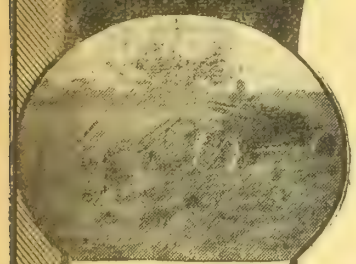

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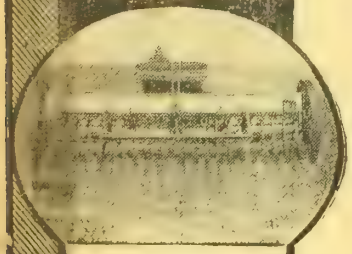

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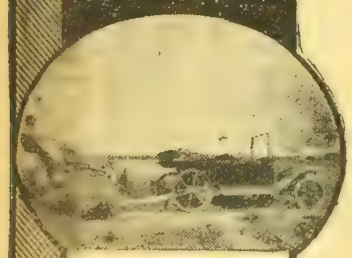

Draws the biggest 4-horse binder like a plaything—day and night.

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The STAUDE will travel 5 miles to their 4 miles—and turn the same furrow.

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This outfit converts any Ford car—roadster or touring car—into a farm tractor that will pull any load that four horses can move. The tremendously strong tractor drive wheels and axle carry the weight of the car and do all of the pulling. There is no weight or pull on the Ford axle or frame.

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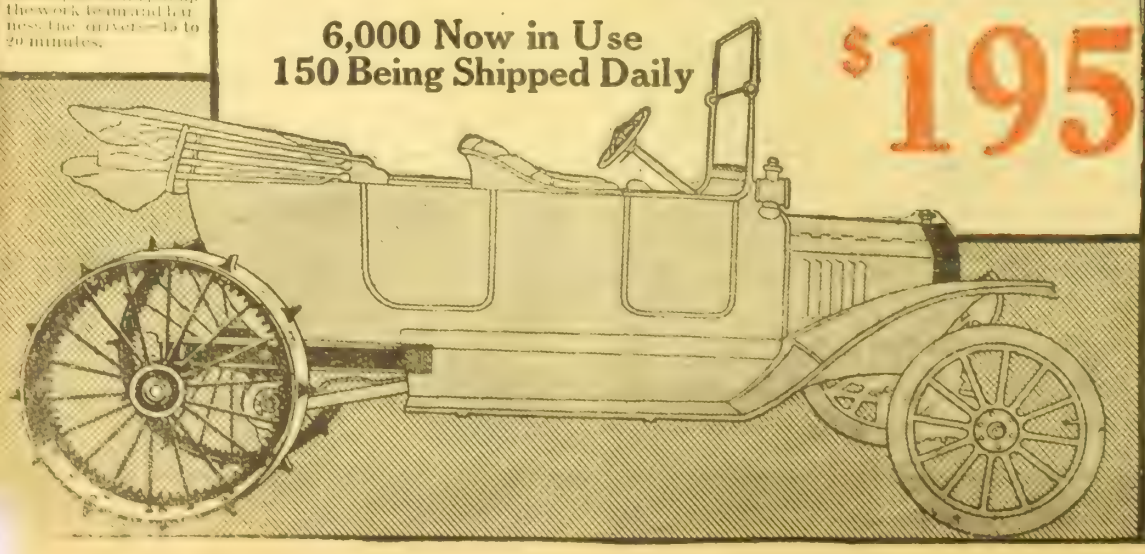

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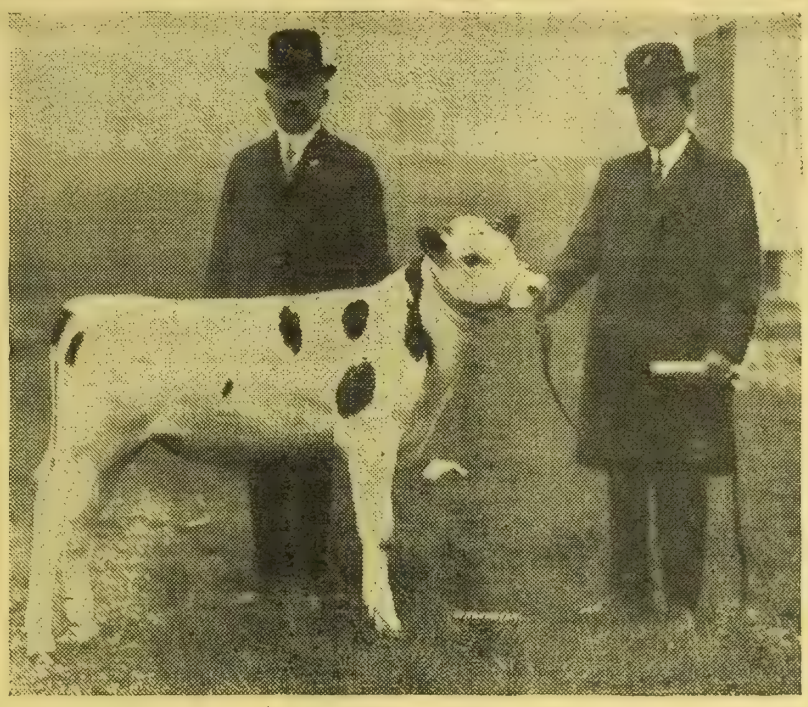
THE WISCONSIN FARMER

VOL. XLVI. NO. 24. THURSDAY, JUNE 14, 1917. WHOLE NO. 1846

NATIONAL HOLSTEIN MEETING.

THE Holstein-Friesian Association of America held its annual meeting June 6th at Worcester, Mass., this year and as is the custom of the event a large and enthusiastic number of breeders throughout the United States were in attendance.

Probably never before in the history of the Holstein business have conditions been more favorable for the future of this great industry than today. Dairying is now recognized as one of the most important branches of agriculture and it is just as essential at this time to increase the production of butter and cheese as it is to increase the production of wheat, corn, oats and other field crops. The Holstein-Friesian Association of America has been a virile organization for many years, aiding and assisting in bringing out the great points in favor of the Holstein cow. The Holstein cow would, of course, have been a great dairy animal if there had never been a Holstein association. But it was necessary to have the association in order that the splendid achievement of this dairy cow become known to the world and in order that the proper spirit of competition for honors might enthuse breeders to accomplish the greatest possible results. The Holstein ow has had the merit and the association has afforded an opportunity for her to distinguish herself before the world as an efficent dairy machine. The work of this organization has been of such a high character as to warrant its careful study by other organizations designed to popularize any particular breed of live stock. One of the chief reasons for the success of the Holstein-Friesian Association of America is that it has always been fortunate in having at its head men of big caliber and wide vision. These men have long since known the possibilities of their favorite cow. That they have come into the realization of some of their ambitions may be seen by the report of sales made at Worcester this year. Not only is the Holstein a great farm cow, a prolific producer of milk, but the prices which were offered at public sale at Worcester for the 143 head sold, entitle the breed to a rank of gentility in the dairy world which fulfills the highest ambitions of those who have striven so energetically to give the black and white cow her "place in the sun."



King Ormsby Jane Rag Apple, sold at Worcester sale for $53,200, the highest price ever paid for an animal. Mr. D. W. Field, Brocton, Mass., buyer, holding calf. Back of calf Oliver Cabana, consignor. Calf at five months weighs 250 pounds. His dam, Ormsby Jane Segis Aaggie, at six years of age holds seventeen world's records, including seven, thirty, sixty, ninety and 100 days' records for butter and milk. At four years her seven-day record was 44.42 pounds and at five, 46.33 pounds—milk, 879 pounds.

The association at present has the good fortune of having at its head a man who has not only proved his ability in this capacity, but a man whose high standards command the admiration and respect of all Holstein breeders throughout this country and whose guiding hand has had a mighty influence toward eliminating that which is questionable from the Holstein business. D. D. Aitkin was, therefore, deserving of the courtesy of being unanimously reëlected president of the National Holstein Association of America.

The only change this year in the officers of the association is in the board of directors. The following are the new members on the board: W. B. Barney, Hampton, Iowa; A. G. Brockway, Syracuse, N. Y., and W. A. Matteson, Utica, N. Y.

At the business session the chief topic of discussion was the subject of tuberculosis, led by F. F. Field. In his discussion he related how they had cleaned up their own herd and enumerated a number of practices that he felt were essential in dealing with the dreaded disease. In the first place, Mr. Field advocates plenty of fresh air and sunshine. He also believes in taking the calf from its mother immediately after being born and treating it as if the dam were known to be a reactor. Milk to be fed the calves is pasteurized by holding it at about 145 degrees for thirty minutes. Pasteurizing by the flash system is not recommended, as it has a tendency to destroy some of the properties of milk which makes calf raising much more difficult than where milk is not heated to so great a temperature and is held for a greater length of time. Cultures are taken from the older animals of the herd frequently to determine their physical condition. After Mr. Field closed his remarks a rather heated discussion followed with reference to the efficacy of the tuberculin test and the laws affecting its use.

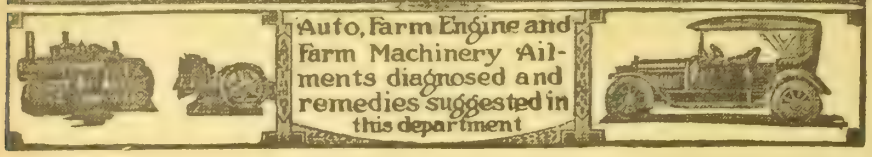
In business session, the Holstein-Friesian Association of America voted several appropriations which indicates the broad gauge of the organization. The total sum of $100,000 was appropriated for Liberty Loan Bonds and an additional $1,000 for the Red Cross. Wisconsin people will be interested in the many kind words which were heard during the association meeting concerning ex-Gov. W. D. Hoard. The members were solicitous concerning the health of Wisconsin's former governor, who has rendered conspicuous service to the dairying industry not only in his home state, but in the dairy world at large.

Glen Alex Queen, sold for $18,000. Record at two years, eleven months, twenty days 42.36 pounds of butter in seven days—608.3 pounds of milk. World's champion two year old. Consignor, A. C. Howe, Glen Alex Farm, New Hartford, N. Y. Purchaser, Hollywood Farms, Hollywood, Wash. This cow's dam made a record of 42.26 pounds of butter in seven days at nine years.

It was gratifying to see the increasingly large number of Wisconsin representatives at the meeting. There should have been many more from the Badger state, as the annual meeting and sale held in connection therewith is a great education for any breeder. A great opportunity was offered to rub shoulders with big men who have big ideas and to get a broad and comprehensive view of the possibilities of the dairy business and of the Holstein breed in particular. Every Holstein breeder in Wisconsin should plan to attend at least one of these great national gatherings and if it is possible, it would pay him to be there every year. A great many breeders arranged to take in the national meeting and sale as a part of vacation trip, and many brought their wives along. Sight-seeing trips were planned for the ladies and various social affairs occupied their attention while the weighty matters of the Holstein business were grinding on. In this

(Concluded on page 11.)

FARM MECHANICS



Questions and Answers.

Tire Filler.

Please tell me how to make a solution to put into a bicycle tire to make it a solid tire. How much of this solution will it take to fill a tire 28x1½?

Answer.—You can buy this solution as cheap as you could make it. Ask your auto supply man for "Pneumastic" or some other tire filler.

Tube Vulcanized to Reliner.

Having purchased some reliners for my tires this spring, I note that I have put them in wrong. The reliners vulcanized onto the inner tube. How can I separate them again?

Answer.—We know of no way to separate vulcanized parts if the vulcanizing is well done. You might try dissolving the cement with benzine, but you will probably have but little success.

Battery For Trouble Lamp.

Please tell me how large a storage battery or how many dry cells would be required to light a two-candle-power, six-volt dash trouble light with a tungsten bulb?

Answer.—Use a six-volt, forty-ampere storage battery, or any six-volt storage battery of forty or more ampere hours capacity. Or you can use five dry cells connected in series. A more economical combination would be ten dry cells connected in series-multiple, five in each series. That is, connect five cells together, carbon to zinc; then connect the other five cells together the same way. Then connect the two remaining zinc terminals to one terminal of the light switch, and the two remaining carbon terminals to the other terminal of the lighting switch.

Lighting From Dry Cells.

I installed a spot light and a dash light on my 1917 Ford car. The spot light has a twenty-four-candle-power nitrogen bulb and the dash light a two-candle-power, six-volt bulb. I have these connected to eight dry cells. What size of bulbs would give the best satisfaction? Could I connect the spot light to the magneto? Would it be better to get more dry cells?

Answer.—Your magneto would burn out either of the bulbs mentioned above, as their voltage is too low. It is not economical to operate a twenty-four-candle-power light from dry cells, but it can be done. For operating the two lights with as great a degree of economy as can be expected, use twenty-five dry cells, connecting them five in a series, and the five series in multiple, as explained in the preceding answer. By using resistance in the circuit, you could operate the lights from the magneto, but it would overload the magneto.

Motor Misses at High Speed.

I have a Model 79 Overland car equipped with a Splitdorf magneto with "TSA" transformer and Model R Schebler carburetor. It is nearly always impossible to start the motor on magneto, even when the motor is warm. When the throttle is suddenly opened, the motor will choke. It then seems to fire on only one or two cylinders. Sometimes it will even stop. When the throttle is slowly opened, it picks up all right; but when the car is running at twenty-five miles per hour or faster it seems to miss once in a while, and will also do this when pulling pretty heavy. The car has been run about 5,000 miles, and has good compression. I have cleaned the spark plugs, and have cleaned the carbon out of the cylinders. Would the points on the spark plugs being too wide cause this trouble?

Answer.—Too wide a gap at the spark plug points could cause the trouble. A weak valve spring on an exhaust valve might also be the cause. Sometimes a valve spring will become weak after having been used for some time. The platinum points of the magneto circuit-breaking device may have become worn or burned. They should be dressed with a fine file so that they make good contact. The most common cause for missing at high speed is faulty carburetor adjustment. The following instructions are given by the Schebler Company for adjusting the Model R carburetor:

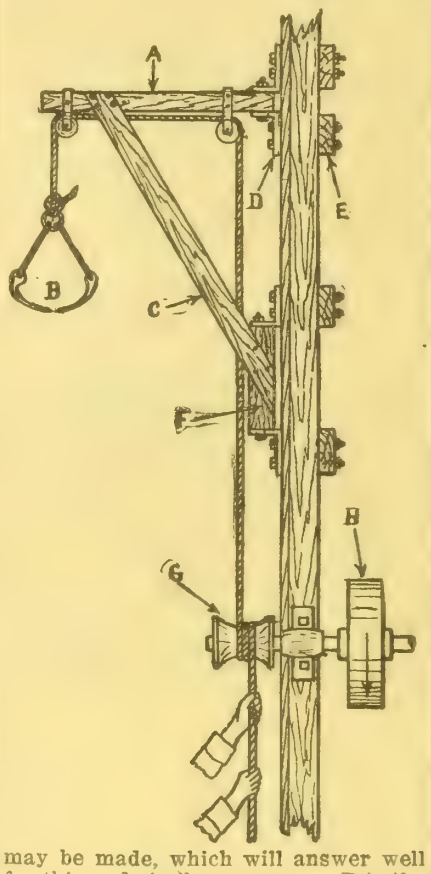
To adjust the Model R carburetor, turn the air valve cap over the auxiliary air valve to the right until it stops; then turn to the left one complete turn. To start the engine, open the throttle one-eighth to one-fourth way. When motor is started, let it run until the engine is warmed; then turn air valve cap to the left until the engine hits perfectly. Advance the spark three-fourths way on the quadrant; if the engine back fires on quick acceleration, turn the adjustment screw under the auxiliary air valve up, so as to increase the tension on the air-valve spring. Turning the air valve cap to the right enriches the mixture. For best economy and power, we recommend that the slow speed adjustment be made as lean as possible.

In your case, you should start the engine and then gradually screw in the adjusting screw under the air valve until you can speed up rapidly without choking.

A Power Hay Hoist.

Please tell me in the Farm Mechanics Department whether it is practical to make a homemade hoist to put hay in the barn, the hoist to be operated by a gas engine. Please publish a sketch showing how to make it with a reverse. How many horse power would it take?

Answer.—We are publishing a sketch showing how a simple power hoist



may be made, which will answer well for this and similar purposes. B is the hay grapple fork, which should be purchased from your implement dealer. A is a 4x4 oak timber, one end of which is mounted so as to swing in a bracket made from two iron straps bolted to the side of the barn as shown in the figure. The straps should be about four inches wide and three-eighths of an inch thick. A should be long enough to reach from the side of the barn to the center of the hayrack. F is a 4x4 oak block, mounted so as to turn between two strap irons bolted to the side of the barn. The pivot bolts in A and F should be in line. C represents two side braces between A and F, one brace being bolted to each side. Pulleys to support the hoisting rope are suspended by iron straps from A. G is a drum mounted on a jackshaft driven from the engine, H being the driving pulley. The drum may be made of wood if your dealer cannot supply you. To operate the hoist, pull on the free end of the rope. A slight pull increases the grip of the rope on the drum, and the power for pulling up the load is furnished by the shaft. To lower the load, release the rope. There should be a clutch on the engine or a tight-and-loose pulley on the shaft so that the shaft may be stopped whenever desired.

Making a Small Tractor.

I would like to have a little information I would like to make a [illegible] tractor. I have a two and o[illegible] horse-power engine. Could I u[illegible] binder bull wheels for the wheels? Could I use a chain direct from the crank shaft to the drive wheels? How much would it pull? Would it pull two sections of harrow?

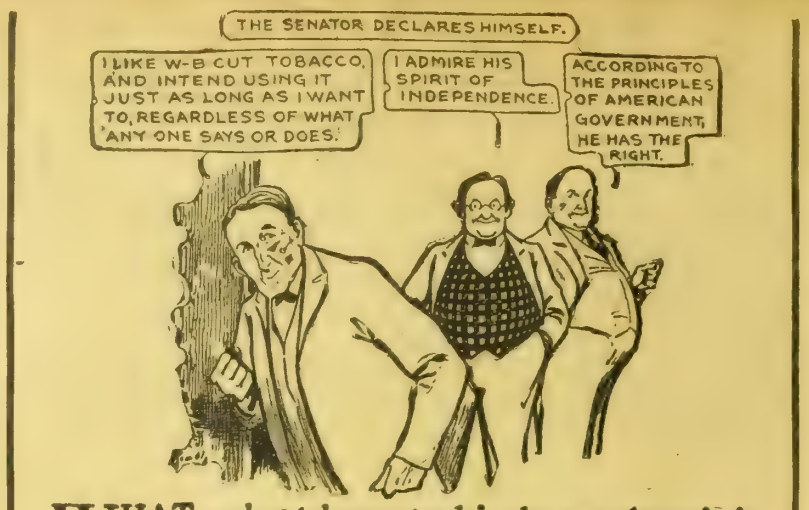
Answer.—Your engine is rather small for making a tractor. Unless you are careful to avoid friction, the machine would not much more than pull itself. If very well constructed, it might pull about as much as one horse. You could use binder bull wheels for the drivers, although mower wheels would be better for such a small engine. It is doubtful that you would be able to reduce the speed enough if you run direct from the engine to the drivers. Besides, you would not be able to reverse the machine. You would in any case need a clutch either on the engine shaft or on the jackshaft so that you could stop the machine without stopping the engine.

Drive For a Biplane.

Do you think that a motor making 300 R. P. M. on low and 700 R. P. M. on high would drive a wood propellor on a biplane fast enough to make it rise in the air? By putting a small pulley on the crank shaft of the motor and a pulley three times as large on the propellor shaft, the propellor would make 1,200 to 1,400 R. P. M. The biplane and engine complete weigh about 200 pounds. Would it be best to use a belt or chain drive to run the propellor? How many miles per hour would this machine make in the air? The diameter of the propellor is about eight feet; and it has two blades.

Answer.—An engine for an aeroplane must have a large amount of power for a small amount of weight. This condition can only be met by engines of very high speed. Since the engine mentioned above is a low-speed engine, it would not be very suitable for aeroplane work. If the engine develops thirty horse power or more, it would probably operate the aeroplane. The speed of the machine would depend upon the general design; thirty to forty miles per hour might be expected. The drive between engine and propellor must be positive; never use a belt drive for this purpose, as the belt might slip or break. To speed up the propellor, place the sprocket on the engine sh[illegible] small one on the pr[illegible] the reverse, as [illegible]ated

A quart[illegible] of a [illegible] horses for the army are to be purchased by the war department as soon as the funds authorized by the $5,300,000,000 appropriation bill now pending are available. It is estimated that $50,000,000 [illegible]ded for this purpose. [illegible]partment has all the ma[illegible]dy for gathering this enor[illegible]nber of horses. Agents of the [illegible]artermaster's department are [illegible] the field, and as soon as the [illegible]ident has signed the bill they will [illegible]eed with the buying.



WHAT makes tobacco good is the sap there is in the leaf to start with and the way it's cured—some tobacco is sappier than others. If you take a big chew of W-B CUT, you may find it too rich for you. Take a *little* chew—it's made of fine, sappy, leaf; there's a lot of *tobacco satisfaction* stored away in it. The touch of salt brings it out, without so much chewing; and a *little* chew *lasts* and *satisfies.*

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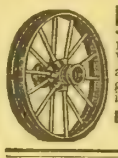

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The Wisconsin Farmer

THURSDAY, JUNE 14, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

WISCONSIN FARMERS EAGER FOR FEDERAL LOANS.

I AM delighted to be able to report, this week, that the new federal land bank which will serve Wisconsin, Minnesota, North Dakota and Michigan, and which is located at St. Paul, is embarking on its career with every prospect of even greater success than I have been predicting for it. I am advised by Mr. W. S. Harris, one of the directors of the bank, that there are applications on file already for practically $15,000,000, which sum is to be loaned to the farmers of Wisconsin and neighboring states at the low rate of 5 per cent. The aggregate farm-mortgage debt of the four states served by the St. Paul bank (according to the last report of the federal census bureau) is $348,520,213. Thus we see that the new federal land bank is already called upon to handle 5 per cent of the total farm-mortgage indebtedness of these four states in the very opening days of its existence.

There is good reason to believe that the farmers of Wisconsin, Minnesota, North Dakota and Michigan will patronize Uncle Sam's new bank to a far greater extent as the weeks and the months pass. I am indebted to Mr. Harris for giving me some very interesting information in regard to the new bank, as follows:

We sent out, to the country, organization papers for about 450 associations. In addition there were about 193 inquiries from people who had not actually held meetings, but who said that they would hold meetings and organize as soon as we were ready to do business. To these we did not send out a full set of documents—preferring to wait until organization was completed.

The few associations we have heard from average each more than $30,000 of loans. If this average is maintained over the 450 associations which have actually held meetings—and if those associations complete their organization—we will have something like $15,000,000 of loans applied for—within the very near future. Some of our associations are applying for as much as $100,000 of loans.

Mr. B. F. Faast, of Eau Claire, is vice president of this federal bank at St. Paul, which gives us a state interest in its success. I am not informed just what percentage of the applications are from Wisconsin farmers, but I have no doubt but that the percentage is large, for of the $348,520,213 farm-mortgage indebtedness of the four states I have named, $146,815,313, or more than 40 per cent of the total, is here in Wisconsin. Our farmers are learning that it is good business to use their credit for the purpose of adding to their land and stock holdings, improving their farmsteads and buying machinery with which to increase their efficiency. The day has passed when a mortgage was considered a disgrace. The states which lead the nation in agricultural production also lead in the amount of farm indebtedness. The two are closely allied.

I shall continue to keep my readers posted on the working of the new federal farm-loan law from time to time. I have explained practically all its details already, but if any readers of The Wisconsin Farmer are in doubt on any point, I shall be only too glad to make it plain to them if they will write me. It is important that every Wisconsin farmer secure the financial "sinews of war" on as advantageous terms as possible, for crop production depends, in large measure, on an ability to obtain money easily when it can be best expended in making our farming operations either more extensive or more efficient.

EXEMPTING THE FARMER FROM THE ARMY.

I AM in receipt of many letters from subscribers, commending my stand on the subject of exempting farmers from service in the army. Several of my farmer-correspondents raise the interesting question of the uselessness of the city boys who are flocking to the farm in such large numbers at present (in the hopes of escaping conscription) compared with the worth of the experienced and efficient farm hand, who has made a business of following the plow for many years. I do not believe I can do better than to quote two of my correspondents, living in widely separated parts of the grain belt.

First, let me print a portion of a letter received from a farmer-subscriber living at Hager City, Wisconsin, who asks to have his name omitted. He was formerly a banker in a prosperous Wisconsin town, but turned farmer some years ago and is as good a tiller of the soil as you will find in many a day's journey. Thrilled by the call of Uncle Sam for troops to take the field, he endeavored to join the officers' reserve training camp, "but was persuaded by army men that I belonged where I am (on the farm) because I am an experienced farmer." This man writes me, in part, as follows:

I consider your article, "Exempting the Farmer From the Draft," very timely and believe the matter should be brought to the attention of the proper officials at once. * * * The government wants us to raise all we can and seems to think that we can break records with under-aged and inexperienced city boys. I was talking with a personal friend who is now with the officers' reserve training camp. He told me he could not see why a young man of the farm—experienced and able to be depended upon to do things right—of draftable age, should be exempted, that we farmers could get along with boys under age and boys from the city. I do not agree with him at all. I have tried city boys on the farm until I am tired of them and would rather struggle along alone and do what I can and leave the rest go undone, as I would not then be throwing money away. Now is no time to be trying out green and usually shiftless boys, who think of nothing but sundown, bacon, pay day and a good time. As soon as they have a few dollars coming they are ready to quit and spend it and then look for another job. It certainly seems to me that they should exempt men now working on the farm, if they are experienced, and use the other men first. Then, if they really need these men later on I would gladly say "take them and we will make the best of it." Any time that Uncle Sam wants me personally I am ready to go, but if he doesn't need me because I am a farmer it would seem that he doesn't need my experienced help, all other things being equal.

I consider this a splendid letter. It breathes patriotism and a devotion to high farming ideals. I believe it expresses the convictions of a great number of my subscribers. Certainly, it expresses my own views, in most admirable manner.

Here is a letter along somewhat similar lines, written to me by Mr. George Worneldorff, of St. Paul, Kansas:

You are certainly using fine judgment in your stand in regard to leaving the young men on the farm who will come under the age limit to be drafted in the army. When the men from twenty-one to thirty-one are taken from the farm you have taken the cream of the farm labor, and while it is all right to encourage the city boys to go to the farm where they may be of service, they could not take the place of the young man reared on the farm who understands handling machinery and planting, cultivating and harvesting the crops.

I have been engaged in farming in Kansas for over forty years and run a 400-acre grain and stock farm, and I believe one good farm hand who has had a life of experience on the farm is of more use to the farmer at present than any number of inexperienced men. No good experienced hand should be taken from the farm at this time if we are to raise the produce the government needs. Farming is a trade not learned in a few days, or a year.

I do not want you to think these are all the letters I have received on this subject; they are simply typical of the vast number. The authorities at Washington have ruled that farmers, as a class, are not to be exempted from army service, but that they will be excused, as individuals, where it appears they will be of more service in the field and feed lot than in the training camp and trench. It is up to the individual. If he is a good farmer he can do more by raising bumper crops than he can by carrying a musket. If he is a poor farmer he will probably make a poor soldier, but it is up to Uncle Sam to use him as he thinks best. A poet, writing in the current issue of Collier's Weekly, expresses it splendidly when he says:

Our garden beds and fertile farms
  Shall yield the strength divine
That nerves the mighty man-at-arms
  And builds the battle line.

Then bravely to your labors,
  My lads that dig the loam!
Your blades of wheat are sabers
  That strike for flag and home.

And though ye gain but little thanks
  That wield the spade and hoe,
Your hills of corn are stalwart ranks
  That march against the foe!

THE MAN WHO WINS WARS.

IF ANYTHING more were needed to prove the Napoleonic theory that an army travels on its stomach, and to show that the farmer who raises the produce which feeds an army is entitled to as much credit for the victory as the general who directs a campaign and the soldiers who execute the orders, even at the cost of their lives, it is to be found in the press dispatches of the last few days. I have before me, as I write, a half dozen or more items which I have clipped from the newspapers within the last few days which prove so clearly the important part the farmers of Wisconsin, in common with their fellow farmers throughout the nation, will play in the war that I cannot refrain from printing extracts therefrom.

Here, to make a beginning, is a dispatch from Amsterdam, quoting the German imperial vice chancellor as saying:

England's war of starvation has from the first brought clearly before the eyes of the German people the fact that Germany stands or falls with its agriculture. Owing to the activity of the submarines and the failure of the harvests, England, too, is thrown back on its agriculture.

Could anything be more emphatic proof of the fact that, while the soldier in the trench and dugout and on the battlefield is giving up his life for his country, the man behind the plow is the man who, in the final fight, will either win or lose for his country?

Here is an editorial which appeared in the London Daily Mail, pointing out the necessity of releasing farmers from the army and returning them to their fields:

Release the plowmen! If the crop of 1917, upon which a large number of persons in this country are depending for food, is to be saved, skilled agricultural workers in the army must be instantly released to work on land for the next six weeks or so. A semi-famine in 1918 can only be averted by instant action.

My readers may recall that when Lloyd George was placed in charge of the bureau of munitions of Great Britain, his first order was to return to the factories the mechanics who had formerly worked there, but who had enlisted and gone to the front. He knew they were more valuable making shells than they were firing them, so he called them back. Now the eyes of England are opened to the fact that the farmer in the field is a better fighter than the farmer in the trench, the man behind the plow a more important figure than the man behind the gun.

Here is another dispatch from London, showing how the soldiers, home on furlough, are put to work hoeing gardens and increasing national production:

The British Tommy, home on leave from trench-digging and guarding the line, now passes most of his time digging and hoeing truck gardens in his native land. In doing this he is augmenting the land army of civilians at home and the thousands of soldiers in training at the various military camps in England who find time to do their "bit" in the gardens. Throughout the length and breadth of this island, around the military camps and especially along the railway lines, may be seen well laid-out gardens or allotments. In February there were 25,000 of the plots under cultivation in this country, thus giving some idea of the speed with which the people have taken to the spade and plow since the authorities have tried to arouse them to the danger of starvation as threatened by the submarines. The government threatened to commandeer idle land unless it was cultivated. The result was that farmers everywhere got busy and there is now very little land "going to waste." Flower beds are barred; only foodstuffs are to be raised.

Right in line with this is the dispatch which quotes Sir Arthur Lee, director general of food production of England, as saying: "We want 2,000 American tractor plows for the use of a civilian army of night plowers which we are about to enlist throughout the British Isles." He added:

Behind every plow will be a skilled farmer. They will be assisted by prisoners, conscientious objectors, members of the home defense forces and women. This way we hope to produce enough food to make us independent of outside help so long as the war lasts. We do not believe we will be able to produce sufficient to feed the population in time of peace, but are confident we will be able to grow enough to stave off starvation during the war. For this we thank the German submarines. They already have given England an agricultural policy which is destined to make us to a large extent self supporting. The submarines also have revived rural life, given the farmers a minimum wage and generally made our national defense more effective than a thousand speeches in parliament.

My friends, these dispatches are very convincing to me. They prove to me that the farmer of Wisconsin and the other great agricultural states of the Union is the man upon whom rests ultimate victory or defeat.

A LIBEL ON FARM WOMEN.

I AM indeed grieved to find the magazine which publishes the wonderfully good and true-to-life articles of David Grayson, the rural philosopher, printing a rank libel on the farm woman. That this libel should have been written by a grain-belt author—born and reared here "in our midst," where the spirit of farming should strike a responsive chord in every breast—makes the matter all the more regrettable. I am reprinting the libel because it is typical of the writing of some authors, who do not seem to be able to catch the rural spirit in any manner whatsoever, notwithstanding the fact that none is more sympathetic, more understandable or more freshly and frankly delight-

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin Legislature.

If you have a Ford car or any other car or implement repaired in the future the mechanic who makes, alters or repairs such an article of personal property at the request of the owner is entitled to a lien thereon for his charges providing they are reasonable and just. The legislature has placed on the statute books at this session a modification of the present law which will have a far-reaching effect. The law concerns only those who do not pay. Farmers are not usually included in this class, but a knowledge of the law will do no harm. The lien given takes precedence over any chattel mortgage upon such property for all charges not exceeding $75 in amount. For the excess in amount over $75 the lien given by this law is subject to the lien of any chattel mortgage. It is possible under the law to file a lien at any time. The lien will not apply except to unpaid payments. If the principal contractor has been satisfied a sub-contractor cannot have a lien against the property.

The Governor has also signed a bill appropriating $8,000 for the purchase of live stock for the Waupun Prison Farm. This bill followed the one recently approved appropriating $78,000 for the provisions of the farm from the unexpended balance of the twine plant.

The Governor's anti-whisky bill, introduced in the Senate and defeated by that body, about winds up the anti-liquor program for this session. The referendum bill championed by Assemblyman Evjue in the House and Senator Skogmo in the Senate was defeated by the veto of the Governor, who thought it too radical. In his recommendations for a bill prohibiting the sale of beer in excess of 3 per cent alcohol and wine in excess of 10 per cent the Governor incorporated his ideas of sane regulation. A bill containing these provisions subsequently introduced was defeated by Senate and Assembly. Several other bills dealing with the liquor business which were killed during the present session included one to prohibit treating, one which would compensate dependents of a person obtaining liquor in a saloon from the saloonkeeper, one to limit saloons to a ratio of 1 to every 1,000 population instead of 1 to every 500, one to establish a dry zone around the Soldiers' Home at Milwaukee and one to provide for the closing of saloons at eleven o'clock at night. A measure prohibiting the sale of liquor on islands in the Mississippi river was one of the few bills that passed successfully.

The University Extension appropriation bill was concurred in by the Assembly. Of the $25,000 additional voted for University extension $20,000 must be used for other work as required by the State Council of Defense. The bill makes an appropriation of $171,110 for operation, $5,000 for medical extension work and $5,000 each year for capitol purposes. The $20,000 shall be used only in connection with extension work for war purposes, as requested by the State Council of Defense.

The Assembly gave final passage to the bills dealing with tuberculosis eradication which have been previously described in these columns.

A fight will be made against the proposed tax on dogs which purposes to establish a fund to pay for the damages done by dogs to live stock, principally sheep. Sheepmen of the state are in favor of the bill which calls for a tax of $2 to $4 per dog from every farmer in the state. The idea is to have a record of all the dogs in the neighborhood so that damages can be traced. A similar bill was passed by a former legislaturer, but met with Governor McGovern's veto. The chances are that the present bill will not get as far as that. There is still too much misunderstanding on the points for or against such a tax. No one can deprive either the city man or the farmer of the right to keep a dog. The dog is man's natural friend. But dogs have heretofore enjoyed the privilege not enjoyed by any other domestic animal except the housecat. Dogs are left free to roam wherever they choose to go, though it has been proved again and again that all dogs are not useful and therefore not entitled to the freedom that has been allowed them. Other domestic animals are our friends and still we do not permit them to run into the neighbor's field and we ought not to permit the dog to go wherever he pleases. The tax will eliminate the mongrel and protect the well-bred, useful dog.

The Wilcox bill relieving cities and towns from paying the cost of removing railroad crossings was killed by the Senate. The new law would have placed the burden of making street crossings safe upon those who made it unsafe—the railroads. The defeat of this bill leaves the city and towns to pay from 10 to 50 per cent of this cost out of their own pocket. Thousands of dollars must be expended by the smaller cities of the state for these purposes while in the case of Milwaukee it is reported that the expenditures for street purposes will amount to more than a million dollars, which must come from the people in the form of taxes.

The state fair appropriation bill was engrossed by the Senate after this body had defeated a bill introduced by Senator Bray for the suspension of the state fair during the war. England was cited in the debate as finding such restrictions of little benefit and it is quite unnecessary that Wisconsin give up the fair this year.

Great Events Today.

Happenings of the week are discussed, impartially and accurately, in the department of The Wisconsin Farmer known as Current Events. In addition, the leading happenings are discussed, frankly and fearlessly, by Mr. Pierce in his signed page. Farm progress is detailed not only on the regular editorial pages but throughout every department of the paper.

We believe that the farmer who wishes to keep abreast of the happenings of the time, in his state and nation and in the world at large, cannot possibly do better than to read The Wisconsin Farmer regularly. This being the case, we urge upon all our readers the importance of seeing to it that their subscription is paid well in advance, so that they will not miss a single issue. Friends and neighbors on the farm should also be induced to subscribe, so that they, too, may enjoy the benefits.

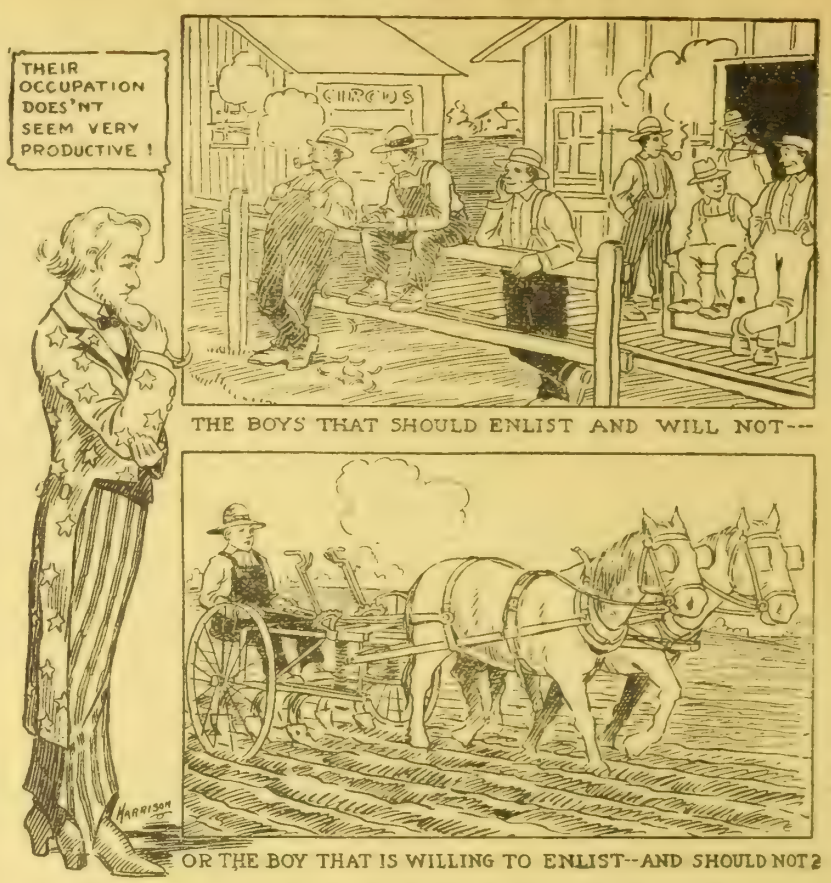
Attend to your subscription renewal without delay. The world is afire and the patriotic citizen must keep abreast of the times and know how and when to act in every emergency.

A Loyal Badger Response.

Wisconsin responded patriotically to the registration June 5th, Duty Day, under the selective conscription law. There were more than 240,000 young men between the ages of 21 and 31 registered for war service in this state, and, according to the latest reports as we go to press with this issue of The Wisconsin Farmer, just a few over 96,000 claimed exemption. Wisconsin not only registered its full quota with[illegible] disturbances but had a smaller percentage of exemptions claimed than most of the states thus far reporting. A dispatch which comes to our notice as this is written says that it is estimated 50 per cent of those who registered in the nation June 5th claimed exemption. In Wisconsin only about 40 per cent claimed exemption from service. Wisconsin registrations exceeded the estimate made from the last census and Governor Emanuel L. Philipp had the proud pleasure of sending in Wisconsin's report on registrations first of any state report in the Union. From the farms, from the factories, from the offices, from the scenes of manual labor all over this great state, there was a general response. Richland county was first to get its report to the governor's office and La Crosse county was only a few seconds behind.

All honor to our Wisconsin boys who have thus signified their willingness to meet duty's call when their beloved country is in need.

A PLACE FOR EVERY MAN.



THE BOYS THAT SHOULD ENLIST AND WILL NOT—

OR THE BOY THAT IS WILLING TO ENLIST—AND SHOULD NOT?

Wisconsin Potato Situation.

J. G. Milward, secretary of the Wisconsin Potato Growers' Association, and assistant in horticulture at the Wisconsin Experiment Station, Madison, has found it necessary to correct certain erroneous reports sent abroad concerning the Wisconsin potato situation. Mr. Milward says:

There will be an increase in acreage in the commercial potato-growing sections of the state. This department has discouraged the extensive planting of potatoes by inexperienced persons in non-potato producing sections of Wisconsin. The high price of seed and the growing scarcity of labor made it inadvisable to plant potatoes under these conditions. The statement has been made that the department has discouraged an increase in acreage in order to safeguard high prices in the fall. This statement is absolutely incorrect. Early potato planting conditions in Wisconsin are very satisfactory. Conditions relative to seed and acreage are also satisfactory. Should we have a normal season a very large crop of potatoes is assured.

It is unfortunate that the splendid efforts of the college of agriculture and the State Council of Defense should have been misinterpreted. As Mr. Milward has stated, it was thought ill advice for inexperienced farmers in sections of the state least ad[illegible] to potato growing, to go too [illegible] into the potato business. [illegible] words, it was thought [illegible] good seed in portio[illegible] where it would produce [illegible] only because of climatic [illegible] tions but also because [illegible] uld be placed in the ha[illegible] who had had wide exper[illegible] dling potatoes, and wh[illegible] reason of this experienc[illegible] bushels per acre. It woul[illegible] folly to have advised a fa[illegible] hern Wisconsin, who should raise corn or oats, to have gone heavily into the potato business this year, just because potatoes had reached an abnormal price. The state departments have been entirely right in their work and we believe the crop in the fall, conditions being normal, will justify their recommendations. As to prices for potatoes the coming fall and winter no one has the slightest fear of overproduction or prices which will fail to net good incomes on investments and work.

Waste No Food.

Already it has been demonstrated that the ultimate outcome of the war will largely be determined by the amount and character of the food supply, and since the United States has entered the conflict this country is looked to for enormous exports of food products during the next twelve months. The 1917 crop is now in the ground and we can do nothing to increase the yield but to give intertillage crops sensible care. In the meantime, every man, woman and child can perform a real service to the country and to the great cause by preventing waste of foodstuffs.

A statement recently made by Secretary of Agriculture Houston brings an astounding fact to our attention in reference to the enormous annual food waste in this country. He says for partial immediate relief every individual and community should consider earnestly the matter of food conservation and the limitation of waste. As a nation we seem to have a disdain of economizing. "In many homes," says the secretary, "there is a strong feeling that it is 'only decent' to provide more food than will be eaten and that it is demeaning to reckon closely. The experts of the department of agriculture report that the dietary studies made by them point to an annual food waste of about $700,000,000. Of course, the waste in families of very limited means is slight, but in the families of moderate and ample means the waste is cons[illegible]. Even if the estimate were reduced by half, the waste would still be enormous."

[illegible]e in the household re[illegible] measure from bad prep[illegible]d bad cooking, from im[illegible]are and handling, and, in well [illegible] families, from serving an undu[illegible]ber of courses and an overabun[illegible]nt supply and failing to save and utilize the food not consumed. As an instance of improper handling it is discovered that in the preparation of potatoes 20 per cent of the edible portion in many cases is discarded.

Food is wasted when too much is served at a meal. Uneaten portions are left on the plate and later thrown into the garbage pail. Learn to know the needs of your family and serve

FAMILY CIRCLE TALKS—By The Publisher.

ful. Here is what purports to be a description of the farm women of the grain belt, where the action of the story is located:

A worn and dreary lot, these farmer women, living a skimmed-milk existence, putting their youth, and health, and looks into the soil. They used often to sit back near the stove in winter, or in a cool corner near the front of the store in summer, and reveal, bit by bit, the sordid, tragic details of their starved existence. Fanny was often shocked when they told their age—twenty-five, twenty-eight, thirty, but old and withered from drudgery, and child-bearing, and coarse, unwholesome food. Ignorant women, and terribly lonely, with the dumb, lack-luster eyes that bespeak monotony. When they smiled they showed blue-white, glassily perfect false teeth that flashed incongruously in the ruin of their wrinkled, sallow, weather-beaten faces. Mrs. Brandeis would question them gently.

Children? Ten. Living? Four. Doctor? Never had one in the house. Why? He didn't believe in them. No proper kitchen utensils, none of the devices that lighten the deadeningly monotonous drudgery of housework. Everything went to make his work easier—new harrows, plows, tractors, windmills, reapers, barns, silos.

Fearing that her picture might be immediately branded as a base libel, the writer has sought to tone down its crudeness and glaring defects by asserting that it is a picture of farm women "before the day when every farmhouse boasted an automobile, a telephone and a phonograph." Does this far-fetched attempt at an apology hold good, however, when we reflect that the magazine writer has the farmer spending his money for tractors and silos "before the day of the farm automobile and phonograph," when the fact is that these four were introduced to the farm and adopted by the farmer at practically one and the same time? In my opinion, the libel has come about from the lack of sympathy with the farmer and with farming, which is prevalent in all too many of those who are producing our current literature. More than ever, it convinces me that we need a school of writers in sympathy with the soil, the men who till it and the devoted women, who, in word, deed and appearance, are proof of the uplifting nobility of our country life. Is it not high time that our magazine and book writers were studying the farmer and his family and ending these libels and caricatures, which masquerade as true-to-life pictures, to the great injury of those thus held up to scorn?

Some day an epic of the cornfields and the wheat fields will be written which shall disclose the farmer, his wife and his family as the real-true, simon-pure Americans. Hasten that day!

THE KID HAS GONE TO THE COLORS.

I CONFESS to being a great lover of poetry. Therefore, when I find some bit of verse that appeals especially to me, I feel like passing it along, so that all my readers may enjoy it with me.

Last week we saw the boys from the farm and the boys from the town and city registering for Uncle Sam's army, ready to do their bit in the trench and redoubt, if necessary. Not all the boys who registered will be called to the colors, but one in ten or twelve will be; and it may be your boy or mine; nobody knows. It is with this feeling of solemn uncertainty that I pass along to you, this week, the verses entitled, "The Kid Has Gone to the Colors," which I found in the Indianapolis News:

The Kid has gone to the Colors
And we don't know what to say.
The Kid we have loved and cuddled
Stepped out for the Flag today.
We thought him a child, a baby,
With never a care at all.
But his country called him man size,
And the Kid has heard the call.

He paused to watch the recruiting,
Where, fired by the fife and drum,
He bowed his head to Old Glory
And thought that it whispered: "Come!"
The Kid, not being a slacker,
Stood forth with patriot joy
To add his name to the roster—
And God, we're proud of the boy!

The Kid has gone to the Colors;
It seems but a little while
Since he drilled a schoolboy army
In a truly martial style.
But now he's a man, a soldier,
And we lend him a listening ear,
For his heart is a heart all loyal,
Unscourged by the curse of fear.

His dad, when he told him, shuddered,
His mother—God bless her!—cried;
Yet, blest with a mother nature,
She wept with a mother pride.
But he whose old shoulders straightened
Was granddad—for memory ran
To years when he, too, a youngster,
Was changed by the flag to a man!

James M. Pierce

each no more than you think he will want.

Food is wasted when too much is prepared for a meal. Unserved portions are likely to be thrown into the garbage pail or allowed to spoil. Many housekeepers do not know how to use left-over foods to make appetizing dishes.

Food is wasted when burned or spoiled in cooking. Improperly prepared or poorly seasoned food will be left on the table and probably wasted. Buy food wisely and then prepare it carefully.

Food is wasted when handled carelessly. Buy clean food, keep it clean until used, and be neat in all details of cooking and serving. This lessens waste and is a valuable health measure as well.

Food is wasted when we eat more than our bodies need for growth and repair and to supply energy for our work. Overeating tends to poor health and fat instead of brawn, makes us sluggish and indolent instead of energetic and resourceful. Eat enough and no more. Eat for physical and mental efficiency.

The World Shortage of Food!

The growing shortage of food products is brought home by the official statistics for various countries showing the increased cost of food since the beginning of the war. In the United States the average increase for all foodstuffs has been about 25 per cent, but a food unit made up of flour, potatoes, salt pork, beans, molasses, sugar, corn meal, milk, oatmeal, tea and soup, which cost $2.36 in 1915 and $3.07 in 1916, now costs $5.10, or over 100 per cent increase in the past two years.

Another angle on the high cost of living is afforded by a comparison of the facts that $10 would buy as much food in 1904 as $28.33 would buy last May, and $15 in September, 1916, would buy as much as $24.91 would buy in May, 1917.

While rents and clothing have not advanced proportionately, the above facts show the need for unusual economy, both in money and in food, which is facin[illegible] people of this country. Matte[illegible] kind, which are everybody's [illegible] are likely to become nobody'[illegible], and each of us is apt to fo[illegible] responsibility which he owes [illegible] thinks of the insignificant e[illegible] his own little personal savi[illegible] accomplish. However, natio[illegible] thing more than the individu[illegible] raised to the millionth de[illegible] only way that anything c[illegible] mplished is by each one [illegible] personal sense of responsib[illegible] the matter. The waste of [illegible] nce of edible meat or fat b[illegible] he 20,000,000 families in the United States each day means a national daily loss of 1,250,000 pounds, or nearly half a billion pounds annually—sufficient to keep a small European nation from starvation.

In urging greater use of corn products for family use, the department of agriculture believes that one of our greatest sources of economy lies. It is asserted in this connection that less than 10 per cent of our 3,000,000,000-bushel corn crop is used for human food, though it lends itself admirably to many such uses. Corn bread promises to become a much more common sight on the table of every American home in the months and years to come than it ever has been, and thus to contribute its share, not only to the health and strength of the race, but also to meeting the shortage of wheat.

Nor is the United States alone in its problems. Indeed it is in some respects far better off than its sister nations of the earth. Since the war began average British food prices have advanced nearly 100 per cent as compared with 25 per cent in this country. In Austria the advance has been 172 per cent; in Italy 70 per cent and in Canada 38 per cent. However, in Canada loaves of bread weighing one and a half pounds sell for 12 cents, as compared with 15 cents in Chicago, which leads to the thought which The Wisconsin Farmer has formerly expressed, that the government investigators should turn their attention to the speculators and commission men for an explanation of the advance in food prices rather than to the producer.

It is a world shortage we are facing, and every reader of The Wisconsin Farmer should feel it his duty to do what he can, not only by increased production where possible, but also by personal economy and care, to help meet the serious situation for humanity's sake, as well as for selfish reasons. A good citizen has been defined as a man who regards an obligation as sacred whether it can be enforced against him or not, and The Wisconsin Farmer is sure that the farmers of Wisconsin will feel their obligation in this matter and embrace it as an opportunity to help their fellow men, rather than regarding it as a burden to be avoided where possible or, at best, endured grudgingly.

Worcester Holstein Sale.

In this issue will be found a detailed report of the National Guaranty sale, held June 7th and 8th at Worcester, Mass. Our readers had expected a big sale and a high average for the Holstein stock offered at this sale. But they did not expect that 143 head would sell for an average of nearly $1,000 more per head than was paid for the offerings at Detroit last June. We are pleased to note th[illegible] the stock offered at Worces[illegible] ing to Wisconsin. But the outstanding fact in connection with the sale is the high valuation which men of sober judgment and experience have placed on good pure-bred dairy breeding stock. Every reader of The Wisconsin Farmer should review carefully the sales made at Worcester and by so doing he will get a clearer estimate of the almost limitless opportunity now offered breeders of pure-bred dairy stock. The Wisconsin men who attended the Worcester meeting of the National Holstein Breeders' Association have returned to their home state, determined to place Wisconsin in an even higher position in the Holstein-Friesian world. We have the natural advantages to accomplish this desired end. We have breeders of integrity. Wisconsin stock is already in great demand in the West and Southwest. Wisconsin breeders can get prices in proportion to their improvement in the quality of breeding stock. At some not far distant day Wisconsin should have the National Holstein-Friesian Association meeting and a sale which would eclipse anything in the line of dairy sales ever held in this western country.

Approves Road Dragging.

F. W. Swant, a Wisconsin Farmer subscriber in Barron county, writes us in response to Mr. Babcock's road article, published in The Wisconsin Farmer May 31st. Mr. Swant heartily approves the road dragging plan which has been worked out successfully in Sauk county, and he believes this plan gets the most good roads for the greatest number of farmers. He writes as follows:

As I was reading your article in the May 31st number of your paper I thought it might be well to let you know what we are doing in Barron county with the road drag. Some years back the county board passed a resolution to set aside the county's share of the auto licen[illegible] tax and pay for half of the drags and dragging, but as the state law only allowed 50 cents per mile for round trip there was not very much done. In some towns nothing was done while a few did enough to show the public the benefit of the drag and the June session of 1915 passed another resolution paying for half of the drags and the towns paying the other half and the county paying all of the dragging at 75c per round trip mile and the automobile tax pays it all. Although our 1917 state legislature has taken the tax away from the drag fund after this year the county should not let the dragging stop. It is the best thing we ever did with our roads and it should be kept under the county system for the towns having cities in them have so much more on the roads near the cities and the whole county use these roads, for we all go to town. The system is under the county and state aid highway commission and they appoint the chairman of each town board to take care of his respective town.

Three miles is all one man can drag and take care of and shorter stations are better in order to have the work done in the right time. The road drag is the cheapest and best road maintenance there is. What we need is more light grading and dragging. The old system of grading the roads and letting them go to pieces until they get impassable and then regarding it too expensive and little good is the result.

It is undoubtedly true that a very large per cent of farmers may be well served by better dragging and grading of the roads. The grading of course is first and the matter of drainage must be looked after. Then keep the roads well dragged and it is surprising what good results may be obtained. The highway commission has recently adopted a resolution to the effect that new road work should be reduced to a minimum, for the present, due to the heavy general taxes and the additional war taxes which will be assessed against us for some time to come—we do not know how long. The Wisconsin Farmer takes the position that we can afford to proceed regularly with road work despite the war—that is, all existing roads should be kept in a good state of repair, and new good roads added as the taxpayers in the towns and counties feel they are able to pay for them. The country will probably be even more prosperous, at least for a season, as a result of the war, hence a policy of strictest retrenchment is not needed at this time. But we have always felt that roads, paid for by taxpayers, should serve as large a number as possible, of the taxpayers who pay for the roads. The beginning of all road betterment is improvement of the dirt roads, the natural roads, as they are built up by grading and drainage. A great deal of campaigning has been done for trunk line roads, and our only suggestion in this regard is that the farmer who does not happen to live on the trunk line road, should have some benefit from the taxes he pays, to the extent of improving, at least by grading, drainage and dragging of the road which passes his door. We delight in traveling over Wisconsin's good roads, but we cannot help remembering the farmer who is several miles off this road, and we believe it is the duty of those who administer the expenditure of taxes to spend time, effort and money so as to accomplish, as nearly as may be possible, an equal distribution of benefits to all who help keep up our road systems by paying taxes.

The Wisconsin Farmer has no fight on better road campaigns, but we feel a most important part of the good roads movement, which is now general, is to keep the natural roads in condition. The road drag is the most efficient instrument yet discovered for this important work.

Practically every farm of considerable size in northern Wisconsin is equipped with a tractor, according to a statement made by C. P. Post, agricultural agent in that territory. Those who have tried the tractor claim that it is much more satisfactory than horses for plowing, disking and dragging cut-over land.

The National Guaranty Sale.

New Price Records Fixed For Live Stock at the Big Holstein Sale Held Last Week in Worcester, Massachusetts.

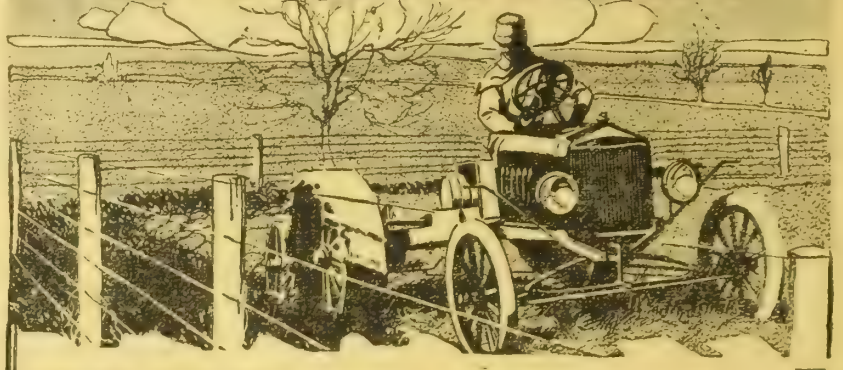
The National Guaranty Sale, held at Worcester, Mass., June 7th and 8th, far eclipsed even the most hopeful anticipations generally voiced at the national Holstein meeting, held the day prior to the sale. It was a sale that has already gone down in history as the greatest of all public auctions of live stock. Practically every record was smashed and the average for the 143 head sold is almost appalling. Never before has the future of the Holstein business looked so promising. It is seldom that such enthusiasm is witnessed as was shown at this great event. While the cattle assembled at Detroit last year far surpassed any collection of Holstein cattle that had ever been gotten together before, the animals sold at Worcester likewise greatly outclassed those sold a year ago at Detroit. One hundred forty head of cattle sold this year came within $2 of averaging $1,000 more per head than the 140 head sold at Detroit. The total number of head sold this year was 143 and they averaged $2,073.21. The first 50 head sold averaged $2,028.10 and the first 100 head $2,089.10. As was generally prophesied before the sale, King Ormsby Jane Rag Apple proved to be the sensation of the sale. Mr. Cabana therefore has the honor of topping both of these national Holstein sales. It will be remembered that a year ago a half brother topped the Detroit sale at $20,000. The dam of the calf sold this year is conceded by a larger number of the greatest judges to be the best living cow of the breed. Ormsby Jane Segis Aaggie is still a young cow and may even surpass her own matchless record. Probably the other greatest sensations of the sale were Mr. Howe's 42-pound world's record two-year-old that sold for $18,000 and Mr. Pelletier's world's record junior four-year-old that sold for $18,300. Her two sons brought $8,700, making a total for the three head of $27,000. Buyers came from coast to coast and as far south as Georgia. Wisconsin took some of the choicest animals of the sale. Practically all of the cattle sold to Wisconsin go to Waukesha county. Waukesha county has very good grounds for claiming that they purchased a bull calf that stands second only to the $53,000 bull. None of the other 40-pound bulls have dams with yearly records that approach that of the dam of their bull. Woodcroft Perfection is now Wisconsin's highest record bull and was purchased for $5,200 by Aitken Bros., Baird Bros., S. A. Baird & Son, Muckleston Bros. and D. J. Howell, all of Waukesha. Aitken Bros. purchased a beautiful 31.44-pound cow for $3,225 that was one of the choicest cows of the sale, and also a choice yearling heifer consigned by D. W. Field & Co. for $1,825. The Alfacorn Dairy, owned by F. B. Greene & Son, Evansville, purchased a good 30-pound calf. The following is a list of sales:

Antrim Lyons De Kol, Mar. 21, 1916; A. M. Smith, Melrose, Mass. ..... $ 275
Queen Segis Hartog Walker, Jan. 20, 1916; Elliot D. Curtis, Bantam, Conn. 300
Meadow Brook Fayne Hartog, April 10, 1914; Elliot D. Curtis 350
Eolan Pontiac De Kol, Sept. 27, 1912; W. J. Wood, Worcester, Mass. 320
Avon Pontiac Clothilde, Sept. 5, 1913; Forsgate Farms, Cranberry, N. J. 675
Lady Icaloy 2d, Oct. 13, 1909; F. J. Blanchard, Sand Lake, Mich. 290
Beauty Walker Hengerveld Ondine, Mar. 18, 1913; L. M. Broadwater, Wilmington, Del. 300
Edith Prescott Fayne 3d, Mar. 12, 1915; J. G. Kerr, Warner, N. H. 475
Edwina Bessie Korndyke, Feb. 10, 1914; Elliot D. Curtis..... 400
Vinita Anna Segis, Aug. 5, 1909; Forsgate Farms 425
Johanna Segis Model, Jan. 18, 1917; Gardner Hall, Jr., & Co., So. Willington, Conn. 2,500
Netherland Cornucopia Korndyke, May 12, 1914; A. M. Smith, Melrose 300
Ruby Pietertje Hijlaard 3d, Feb. 14, 1916; J. P. Lyman, Ashby, Mass. 285
Rancher Farm Topsy, Nov. 2, 1915; F. Pratt, Derry, N. H..... 1,500
No. 16, Jan. 2, 1917; J. F. Shanahan, Buffalo, N. Y..... 270
K. K. S. V. Aaggie Maid, Dec. 1, 1916; J. F. Shanahan 1,000
Lady Ivaloo Yankee Korndyke, Nov. 26, 1912; A. M. Smith.... 315
Hollis Johanna, Jan. 23, 1907; Forsgate Farms 430
Colantha Roella De Kol, Mar. 13, 1914; Forsgate Farms..... 330
Segis Esther Mobel, April 14, 1916; W. B. H. Dowse, Boston 680
Mobel Burke Netherland, July 13, 1916; W. B. H. Dowse..... 565
Antrim Jennie Vale, Dec. 10, 1916; F. Pratt, Derry N. H..... 1,050
Green Ridge Betty, Jan. 15, 1916; Bros Lewis, Danvers, Mass.... 275
Alcantra Segs, Sept. 24, 1916; Datus Clark, Peru, N. Y..... 1,500
Fairmont Alcartra Pietertje, Jan. 20, 1916; J. F. Shanahan..... 780
Finderne Valdessa Korndyke 2d, April 4, 1915; John M. Tobin, Allegan, Mich. 450
Finderne Miriam Fayne 2d, Oct. 28, 1914; J. F. Shanahan..... 1,010
Clovercrest Creamelle Posch, Nov. 12, 1909; Branford Farms, Groton, Conn. 675
Colantha Aaggie Maid Mutual, Feb. 19, 1916; H. E. & R. E. Aitken, Waukesha, Wis. 1,825
King Ormsby Jane Rag Apple; D. W. Field Holstein Co., Montella, Mass. 53,200
Rovilla Marion De Kol, May 29, 1908; Forsgate Farms 410
Aaggie Jewel Segis, June 12, 1913; Hollywood Farms, Hollywood, Wash. 355
Clothilde Colantha Pietertje, Dec. 17, 1910; S. N. Herst, Center Square, Pa. 625
May Clothilde Pietertje, Nov. 6, 1907; Julius Schmid, Montgomery, N. Y. 440
Creston Flossie Josie, Oct. 20, 1915; Elliot D. Curtis 330
Pride Hengerveld Lennox, Jan. 26, 1911; J. F. Shanahan..... 1,400
Lady Rag Apple Echo, Mar. 15, 1916; Gardner Hall, Jr. & Co... 1,000
Terracelawn Beets De Kol Pauline, Feb. 27, 1914; T. A. Herona, Oakland, Cal. 320
Frieda Artis Soldene Pontiac, Feb. 14, 1912; Fred A. Richardson, So. Lyndboro, N. H..... 800
S. V. H. Lotta, Nov. 22, 1915; Frank H. Metcalf, Holyoke, Mass. 645
K. K. S. V. Cora Veeman, June 5, 1916; J. P. Lyman..... 1,175
Woodcrest Pietertje Pontiac, May 28, 1912; Antrim Farms, Syracuse, N. Y..... 1,310
No. 49, April 15, 1917; Julius Schmid 600
Tehee Fayne, April 29, 1910; F. Pratt 4,200
Acme Segis Pontiac 3d, Feb. 26, 1914; Elliott D. Curtis 375
Verona De Kol Beets, Sept. 27, 1913; J. F. Shanahan 10,000
Superba Albina Verona, Oct. 29, 1915; J. F. Shanahan 2,200
Superba Rag Apple Verona, Sept. 30, 1916; J. F. Shanahan 5,000
Woodcroft Perfection, Oct. 27, 1916; Aitken Bros., Baird Bros., S. A. Baird & Son, Muckleston Bros., D. J. Howell, Waukesha, Wis. 5,200
K. P. B. L. Piebe, Dec. 3, 1915; Davidson Lloyd, Wassaix, N. Y. 375
Johanna Hengerveld Beets, Mar. 10, 1910; Henry A. Kuter, Maple Rock, Ill. 2,300
Johanna Segis Champion, Sept. 15, 1915; D. H. Herst 3,100
Queen Hamilton Pontiac, Nov. 29, 1915; J. P. Lyman 430
Sulphur Springs Belle 3d, Nov. 18, 1915; J. P. Lyman 430
Fancher Farm Maxie 2d, Dec. 20, 1915; Ralph King, Mentor, O. 7,000
Susquehanna Segis Belle, April 3, 1916; Forsgate Farms 590
Cornucopia Colantha, Dec. 26, 1911; Chas. H. Dold, Olden, N. Y. 180
Vinita Beatrice Ophelia, May 17, 1916; W. W. Stevens, Liverpool, N. Y. 560
B. P. I. Pontiac Tryntje, Dec. 4, 1916; Wm. P. Morsell, Frederick, Md. ..... [illegible]
B. P. I. Tryntje, Dec. 17, 1915; Wm. P. Morsell 330
Bos Aaggie Lily Korndyke, Dec. 8, 1911; J. F. Shanahan 780
Queen Tehee Woodcrest Pietje, Dec. 28, 1914; Eugene Arthur, Lowville, N. Y. ..... [illegible]
Tehee Woodcrest Korndyke, Jan. 9, 1917; W. P. Turner, No. Reading, Mass. ..... [illegible]
Colantha Pauline Hengerveld Segis, Oct. 3, 1915; J. H. Loverin, Bantam, Mass. ..... [illegible]

(Concluded on page [illegible])

GROUP OF WISCONSIN MEN AT THE NATIONAL GUARANTY SALE HELD AT WORCESTER, MASS.

Every Acre-Every Fence Corner Must Be Tilled This Year



DEALERS!

Here's a light tractor proposition that you can sell under an absolute guarantee of satisfaction to the buyer. The pioneer Ford tractor attachment of them all—a tried and **proven** success on thousands of farms—we are offering you for a short time only, the opportunity to sell TRACFORDS in **your** territory on most liberal terms.

TRACFORD agents have sold as many as 15 to 20 machines in a single demonstration—hundreds have sold out their allotment in a few days. So write or wire us for dealer information **at once!** This offer will remain open for only a short time.

Write or wire us TODAY

The food supply of the world is practically exhausted. Our success in the war is dependent upon the American farmer—and upon America's 1917 crops.

To meet the demand, every tillable acre must be put under cultivation—every small tract and fence corner must be profitably planted. The foresighted business man is planning on plowing every foot of his ground—*and plowing and planting right up to the fence line.* That is why thousands of American farmers are buying the

TRACFORD

"The Tractor Universal"

$125 F. O. B. Detroit

—the dependable and **proven** attachment for converting Fords into light farm tractors. With the TRACFORD, you can quickly turn your Ford car into a powerful tractor unit—a tractor light in weight and with a short turning radius, making it a most practical plowing machine for cultivating the open field—the small strip of land. Its short turning radius makes the TRACFORD splendidly adapted for orchard work—for working in and around—"to" and "away" from the trees.

The TRACFORD plows only on high gear—and is capable of doing any farm work formerly done by three good horses. It is the tractor unit for **you**—for **your** work—and **your** farm.

Let us put you in touch at once with the TRACFORD dealer in your district who can **prove** to you—with a demonstration—the possibilities of the TRACFORD on your farm.

Mail the coupon for "The Tracford Catechism" and the name of the nearest Tracford representative.

Standard-Detroit Tractor Co.
1515 W. Fort Street Detroit, Mich.

Mail This Coupon TODAY!

Standard-Detroit Tractor Company
1515 W. Fort Street, Detroit

Please send me "The Tracford Catechism" and also put me in touch with the Tracford dealer.

Name _____

Town _____

State _____

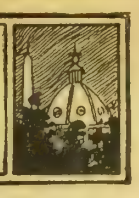
County _____

Colantha Pontiac, beautiful 31.44-lb. cow, bought by H. E. and R. E. Aitken, Waukesha county.

Woodcroft Perfection, [illegible] bull, calm[illegible] and 40.25 lbs., bought by Waukesha county breeders.

Colantha Aaggie Maid Mutual, sired by Colantha Sir Aaggie, dam Colantha Maid, 28.[illegible] lbs., bought by H. E. and R. E. Aitken.

CURRENT EVENTS



ARMY registration day passed, last week, without any untoward incidents. A few miners in Butte, Mont., and some of the Indians on western reservations endeavored to make trouble, but for the most part the men between the ages of twenty-one and thirty-one went to the registration places with a sense of the solemn duty of the occasion and without attempting to evade the law in any manner. The returns for the country are not all in as yet, but every indication points to an enrollment passing the 10,000,000 mark. It is proposed, within the next few weeks, to have about 1,000,000 names drawn from this great total, in the effort to have an army of 650,000 ready to start training by the first of September. Approximately one-half of all who registered last week either claimed exemption or announced that they would claim it in the event that their names were drawn. So that of the 1,000,000 names selected in the first draft, hardly more than 500,000 men will be found eligible for the army, even if that many. Names will continue to be drawn, however, until enough have been secured. The army will be trained and established in sixteen camps scattered throughout the country, in permanent quarters and under regular-army officers. It is not likely to see actual service in Europe for another year at least, as the regular army will be sent over first, to be followed in the late fall or early winter by the National Guard, now being mobilized in the various states.

THE war-tax bill, by which the government proposes to raise at least a part of the fabulous fortune needed for current war expenses, will reach the United States senate some time this week, the senate finance committee having wrestled with it for the last three or four weeks and having practically finished their task. Many changes will be made in the bill as it passed the lower house. The second-class mail rates will probably remain as they are, a tax on newspaper and magazine advertising to be imposed instead. Letter postage will be raised to three cents an ounce and postcards to two cents apiece. Stamp taxes will be imposed quite generally. Prohibitive taxes upon distillation of whisky and other spirits for beverage purposes with a ban upon their importation have been agreed upon by a substantial majority of the committee. Taxes fixed by the house on beer and wines were left unchanged, though they have not yet been finally approved. General suspension of beverage production by distilleries and use of liquor now in bonded warehouses probably would be the effect of the new tax section if enacted into law. Manufacture of alcohol for industrial, mechanical and medicinal purposes would not be affected. In addition to the present tax of $2.20 per gallon on the liquor, a tax of $20 per bushel (from $5 to $9 a gallon upon all grain, cereal or other foodstuffs used in manufacturing whisky or other distilled spirits for use as beverages) was written into the bill. Increased taxes of $5 per gallon upon molasses, sirups and substitutes used in distillation for beverage purposes also were agreed upon.

PRIVATE advices from Germany tell of growing dissatisfaction among the people at large with the political results of the ruthless submarine campaign and the absence of any indications that it has brought the desired peace near to hand. During their long campaign for the unrestricted use of submarines the advocates of this measure made very definite promises of immediate results. "Two or three months" was the phrase used everywhere in street and newspaper arguments in regard to the time it would take to bring England to her knees, ready for peace. Even though the official propaganda has since declared the government bound itself to no particular time to produce results, the prediction that they would be obtained in two or three months has remained in the minds of the people. Grumblings are now heard that, although four months have passed, England shows no signs of weakening, but on the contrary seems determined to prosecute the war more bitterly than ever.

A RESOLUTION urging the American people to eat less meat and more corn, rice and barley products as substitutes was adopted by the house of delegates of the American Medical Association, in convention in New York City. The memorial will be sent to President Wilson, Herbert C. Hoover and to congress. The federal food board is requested in the resolution to appoint a scientific committee of physicians and other experts on diet and nutrition to act, without pay, in an advisory capacity, and to provide such a commission with means for a public campaign regarding nutritional foods "as well as to warn the public that high prices will deprive both the poor of our country and our allies in Europe of meats, breads and other foods necessary for health, efficiency, and even life itself."

EVIDENCE that two complete high-powered wireless installations, assembled in New York City, from various sources, were shipped piecemeal to Mexico, supposedly for use of a German spy system in this country, was unearthed in connection with the arrest of three men on charges of conspiring to send mail containing military information surreptitiously from the United States to Germany through members of Norwegian ship crews. It was estimated by the United States commissioner before whom the alleged plotters were arraigned, that it was through their instrumentality that advance news of the impending arrival in England of the American destroyer fleet was sent to Germany before it even became generally known in this country that it had sailed.

IT is stated in an official quarter in Washington that Japanese capitalists are negotiating with Mexico with a view of assisting in the industrial and commercial reconstruction of that country and that Mexico is favorably inclined towards the proffered assistance to her financial rehabilitation. Japanese banks, it was said, believe Mexico presents a field for legitimate investment as promising as any visible in the financial world. Japanese financiers, too, are said to be willing to advance money to the Mexican government on terms less onerous than may be obtained in the United States, at the same time winning for their nation the increased friendship of Mexico.

LORD NORTHCLIFFE, at the request of the British war cabinet, has accepted the position of head of the British war mission in the United States in succession to Arthur J. Balfour, who has returned to his duties at the foreign office. Lord Northcliffe's task will be to coördinate the various British missions and act in concert with the missions of the entente allies and of the American and Canadian governments. Lord Northcliffe is well known as a writer and newspaper proprietor. He has been active in British political affairs and recently has been engaged in vigorous support of Premier Lloyd George's home-rule-for-Ireland policy.

CONTRACTS for 750,000 additional pairs of shoes for the new army have been awarded at an average price of $4.75 a pair. With these contracts the government has ordered 3,360,000 pairs of shoes for the army and 850,000 pairs for the navy. Their total cost will be about $20,000,000. Julius Rosenwald, chairman of the committee on supplies for the council of national defense, estimated that the government had saved $2,000,000 on the transaction by arranging for supplies of leather without advertising for bids.

Agricultural and live stock interests, protesting to the Interstate Commerce Commission against the railroads' proposal for a 15 per cent general increase in freight rates, declared that such a revision not only would unjustly burden food producers, but would handicap seriously the whole food production campaign initiated by the government as a war measure.

Lord Devonport, the British food controller, has issued an elaborate order regulating the sale and prices of meat, including live animals. The order prohibits speculative re-sales, eliminates jobbing transactions, and states what profits shall be permitted to dealers and the cost of the carcasses.

Willard STORAGE BATTERY

Willard Gives You TRIPLE Service

Storage Batteries need *continuous service* throughout the whole time they are in use, and to assure the car owner of satisfaction that service must be three-fold.

Willard is the only battery maker that is actually giving all three kinds of service.

1. ***Built-in Service.*** Good quality means saving a lot of expense for repairs. Willard quality costs more money, but that it *pays* is absolutely proven by the fact that *over 150 car builders* use Willards on their cars exclusively.

2. ***Trouble-Preventing Service.*** Willard publishes booklets—free to car-owners—telling them exactly how to take care of a good battery and avoid the little errors that cause battery starvation, over-heating and other injuries.

3. ***Trouble-Curing Service.*** Even the best battery ever made will not last forever. Some day it will need to be overhauled and put in good condition again. Willard maintains over 950 service stations like mine manned by trained battery experts, so that battery owners can depend on skilled workmanship and reasonable charges.

Write to the Willard Storage Battery Company, Cleveland, Ohio, for the booklet, H-6, "What's Your Battery Worth," and list of the 950 Willard Service Stations.

Meanwhile, ask your dealer about the expert service I'm equipped to give you.

The Willard Service Station Man

Guernsey Men at McKerrow's

Threatening Weather and Rain Fail to Interfere With Successful Meeting of Western and Waukesha County Associations.

GUERNSEY men of the Western Guernsey Breeders' Association and Waukesha county h ld their summer meeting and picnic on June 6th at the George McKerrow farm at Pewaukee. About 500 people attended, though most of them came doubtful of the chance of a nice day and all left convinced that the weather man plays no favorites. Rain and wind tried hard to break up the meeting, but every one stayed until the meeting was over. The business meetings of the two associations were held in the morning. The Western Guernsey Breeder:' Association again discussed the matter of employing a field man and decided to take no action until a more thorough canvass of the breeders of Wisconsin, Minnesota, Iowa and Illinois had been made and enough contributions received to carry the work for at least one year. The plan of charging each association member according to the number of animals in the herd will provide sufficient funds to employ a good man and defray all expenses for more than a year. The committee in charge of this work believes that $2,500 will be sufficient to start with.

The suggestion made at the winter meeting of the association at Madison for a new classification for all cows carrying their calves for 265 days of the test was reported as favorably acted upon by the national association and fourteen classes are thereby established instead of seven. The only difference between the previous classification and the new classification is the credit each animal receives for carrying a calf 265 days during the time she is making her yearly record. The cow meeting the requirements for Class A or Class B, and so on, will receive the classification of "A A," "B B," and so on, under the new ruling. Cows not carrying a calf during the test period for the time stated will still receive credit according to the old classification. A suggestion which will be called to the attention of the national association to simplify this plan was made by Mr. Ehrbach, of Helendale Farms, near Athens, Wis. He suggested that the various classes be distinguished by ribbons of the colors now used in the show ring. Another suggestion was to color the official papers of the various classes, so that one could tell at a glance in what class the cow had finished her record.

Chas. L. Hill, of Rosendale, placed before the association a set of rules for the standardization of practices between buyers and sellers. The members were asked to give these suggestions their consideration until the winter meeting, when they will be brought up again for endorsement. The recommendation of Mr. Hill could well be applied to all breeds of cattle as well. They are as follows:

All prices made are f. o. b. at seller's station and animals to be expressed are to be crated by the seller and crate to be returned at the expense of the seller.

All animals to be shipped with a good halter on.

Every bull over one year old to be guaranteed to be a breeder, providing the buyer's cows are in good condition. If not a breeder, to be replaced at the option of the seller by one equally as good, or to be returned to seller and purchase price refunded. In case of exchange, the buyer and seller to each pay transportation charge one way. If taken back and price refunded, the seller is to pay transportation charges.

Every heifer sold over one year old guaranteed to be a breeder. If not a breeder to be taken back or exchange made on same basis as for bulls.

Every cow sold guaranteed a breeder or exchanged on same basis.

Seller to call attention to any unsoundnesses of udder or other defects.

If an animal sold as a heifer has a defective udder at calving the loss is the purchaser's.

Registry and transfer certificate and tabulated pedigree should accompany every sale.

In regard to tuberculosis, it is recommended that in states where provision is made for state accredited herds, that all members have their herds so enrolled.

Where the buyer tests an animal inside of three months after purchase and finds an animal tubercular with no other reacters in the herd then the loss shall fall on the seller, unless he is able to show a test of his herd within ninety days before sale and that there were no reacters in his herd.

It is urged that when the seller knows his herd is affected with abortion that he so inform the buyer.

"A Balanced Ration For the Crops" was the topic selected by Dr. Cyril G. Hopkins, of the Illinois Experiment Station, chief speaker of the afternoon. The results of the Illinois Experiment Station have been followed closely by investigators all over our country. Our sister state to the south has done more work along crop production lines than any state in the central West. The findings of Doctor Hopkins and his associates have been valuable, because Illinois farmers have tried out the recommendations made and have found them practical and economical in increasing acreage yield. According to Doctor Hopkins, the five essentials necessary for plant growth which man must provide are nitrogen, phosphorus, calcium, magnesium and potassium. Barnyard manure contains all of these elements in varying amounts. Lack of sufficient fertilizer of this kind, however, is quite common and in such cases the supply must be met by the addition of the elements according to the wants of the soil. Limestone or dolomite, when added to the soil, supplies calcium and magnesium. Wisconsin soils, with the exception of some sections in the peat regions, are plentifully supplied with potassium. Phosphate rock, bone meal and acid phosphate all carry phosphorus, and, depending upon the conditions of the soil, phosphorus is added by means of one of these three. Humus for the soil is supplied by green manuring and through applications of barnyard manure. Both these forms are made more efficient by the addition of calcium. Calcium, humus and phosphorus with legumes supplying the nitrogen will keep a soil in excellent condition. A ten-year average for corn at the Illinois station on fields with manure and calcium and phosphorus present in the required amounts gave an average of eighty bushels to the acre. The absence of manure reduced this yield to seventy-eight bushels. Crop residues plus calcium and phosphorus, with oats, gave a ten-year average yield of 62.3 bushels. The addition of manure to this field increased the yield to 63.2 bushels. The difference in the fields having phosphorus and no manure and those having phosphorus and manure is not so great as when no phosphorus is added, except with the manure. The manure shows up stronger when applied alone, because of its phosphorus content. When phosphorus is applied in some other way the value of the manure is less noticeable. It is then valuable as humus. Balanced with calcium and some phosphorus manure gives excellent results. A four-year average at the Illinois station with alfalfa in rotation, plus manure, gave 2.8 tons of alfalfa against five tons where calcium and phosphorus were added to the manure and the crop residue turned under.

A motion to buy $250 worth of Liberty bonds by using a part of the investment fund of the Guernsey breeders' association was seconded and carried before the meeting adjourned.

Growing Field Beans.

To the Editor:—The prevailing high prices for dried beans coupled with the general scarcity of food products have created much interest in this crop.

Climatically, the bean is a hot weather plant, being just the reverse of the pea, and is well adapted to the corn belt.

As to soil requirements, it does fairly well on thin clay soils, but still better on good corn land. On extremely rich land it tends to vine too much, and continues to bloom throughout the season, and sets but lit'le seed.

There are a number of varieties of bush beans. The pea bean or navy bean, so famous as a soup maker, is one of the best varieties for the corn belt. It combines hardiness, earliness and yield, and is a stable commodity for which there is always a market demand. The crop should be planted about the second or third week in June, using three pecks of the variety named per acre. The seed is dropped three to four inches apart. A corn planter with bean plates may be used; set at about the same depth as for corn.

The after care can be simplified by going over with the disk harrow two or three times at intervals before planting, as successive crops of weeds appear.

The crop is usually ready to h[illegible] the latter part of August [illegible] of September. The [illegible] after the leaves [illegible] and before the [illegible] ly.

The first step i[illegible] ants off just below the su[illegible] the ground. Some of t[illegible] corn cultivators with a sh[illegible] ting blade answer admirabl[illegible] s are then cured and rak[illegible] the eastern growers pr[illegible] livery rake, though any [illegible] wer. They may be eith[illegible] at once, or mowed. The [illegible] readily, and if stored da[illegible] lor the beans. In fact, a[illegible] ther at harvesting time [illegible] ifficulty with the crop in the [illegible] By adjusting the con- [illegible] grain separator can [illegible] st be done with care, [illegible] from split beans is [illegible] e have repeatedly used [illegible] ashioned ground hog separator [illegible] r this work. For small patches a flail does very well.

After passing through the fanning mill, the beans should be hand picked to throw out any badly discolored or split beans. This is not necessary, but it pays if child labor is available.

From fifteen to twenty bushels per acre is a common yield, and the returns per acre were unusually satisfactory last season. So long as the war continues, high prices will probably prevail, but possibly at a lower level than last year, which was partly due to a crop shortage. A. T. Erwin.

Stretch of Concrete on the Ohio River Road near Parkersburg, W. Va. Built in 1915 under the direction of Burdett Woodyard, Engineer.

The Farmer Can Pull Himself Out of the Mud

FARMERS know the value of permanent roads in their communities. They can get them if they act along the following definite lines:

1. All main highways should be built of concrete to withstand motor car traffic.

2. It is far better to lay out and build at once a system of concrete roads than to build a few scattered miles every year between stretches of mud.

3. It is better to raise a lot of money by a good roads bond issue and build right, than to spend each year the road funds on hand in temporary construction.

4. Concrete is as desirable for roads as for other important structures; and it is the least expensive permanent road material.

Some farmers may not like a bond issue. They do not realize that a very few cents a year per acre is enough to pay off the bonds and all interest.

In Illinois it has been figured out by the State Highway Commissioners that a system of four thousand miles of permanent roads would tax farm land less than three cents per acre per year for twenty years. That's nothing. The whole four thousand miles can be built at once and make a tremendous saving in annual upkeep.

The farmer should act. He can spread information among his neighbors, he can talk to his road officials, influence his lawmakers to pass a good roads bond issue; and he can vote for it.

This Association can give you reliable information about the cost of building concrete roads and how to go about it. Write for Bulletin No. 136.

PORTLAND CEMENT ASSOCIATION

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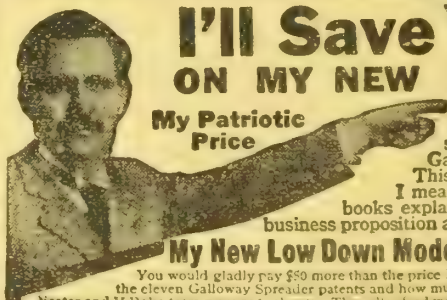

My Patriotic Price

I mean exactly that. Get your Spreader from me and save big money. You get your spreader straight from factory to your farm. Deal with Galloway and you deal direct with the maker. This direct-to-you way makes a saving of $25 to $50. I mean every word, and it's absolutely true. My free books explain the whole spreader situation. It's a plain business proposition and will open your eyes when you learn the facts.

My New Low Down Model Has Them All Beat

You would gladly pay $50 more than the price I ask when you see and understand the eleven Galloway Spreader patents and how much they mean to the Spreader. Steel Beater and V Rake tears manure to shreds. The roller feed means light draft. Patented automatic stop, uniform clean-out push-board and unbreakable steel tongue, all remarkable improvements that you want and need on your Spreader. I'll give you the easiest buying plan with any terms to suit your convenience.

Get My Two Free Books Write tonight for them—a postal will do. Read my Spreader story. Summer top-dressing means extra yields and extra profits, and farm products are now higher than ever. Get my low prices before you buy. Send today sure for the books on Spreaders, also Separators, Engines, Tractors and other Implements. Advantageous shipping points save you freight. WM. GALLOWAY, Pres.

Wm. Galloway Co., 39 Galloway Sta., Waterloo, Ia.

Grass and Grains Improving.

Recent Rains Helped Growing Crops—Hay Prospect More Favorable—Still too Cool for Corn—Live Stock Doing Well.

WISCONSIN.

Adams County.—About 10 per cent more rye will be raised this year than last. Oats are a little backward because of cold wet weather. Pastures are good. Cattle are in fairly good shape. Corn is coming up. The acreage of beans will be increased this year. Clover is in good shape. Alfalfa wintered well. There is a shortage of spring pigs.—Louis Wallert.

Barron County.—Weather continues cool and wet, and growth of vegetation has been retarded. Some corn and potatoes are yet to be planted. Pastures are not making the growth they should. —S. J. Shannon.

Bayfield County.—Oats, spring wheat, peas, and barley look fine. These crops have an acreage of about 10 per cent more than last year. Meadows are backward on account of dry, cold weather. The hay crop is improved, however. Most of the corn is planted and potato planting is in full swing. The acreage of potatoes will be about 15 per cent greater than usual. The number of gardens is much larger than formerly. Strawberries are backward; very few are in bloom yet. Live stock are thin because pastures are still scant, but with warmer weather prospects will be very good.—E. C. Stevens.

Burnett County.—Two days of good rains broke the drouth in this section and gave a stimulus to all growing crops. Corn and potatoes were planted in good shape. Some corn is up, and with favorable weather a bumper crop may be expected. Small grain looks well. Pastures are improving, and cattle are looking better. Breaking new ground for fodder corn and rutabagas is in progress. Tame grass looks well.—Fred Larson.

Chippewa County.—Grain crops are in good shape. Because of the cool, dry spring all grains had a good chance to root well and the recent rains have pushed their growth. The hay crop is not so good as last year. Corn is up and looks well. Potatoes are just starting through the ground. Apple trees are in blossom. Garden truck is not very far along yet. Live stock are in good condition. Hogs are selling at from 14 to 16 cents a pound, which is a record-breaking price here. Butter is worth from 40 to 42 cents and eggs from 30 to 32 cents a dozen.—Gustave E. Rhinegans.

Clark County.—Small grain is growing slowly. Corn and potatoes are coming up. The ground is in good condition with just enough moisture, but warmer weather is needed. The present prospect for a big crop of clover and timothy is favorable. Live stock are doing fine on pasture; all stock are healthy. Fruit trees are loaded with blossoms.—Fred Ackerman.

Grant County.—Weather is cool and wet. During the last ten days we have had four or five inches of rainfall. Grass and small grain look fairly well, but it is too cool for corn. Potatoes and gardens are coming along nicely. Much young stock is being raised. Fruit seems to be in good shape.—P. R. Stoffel.

Iron County.—Last month was dry and cold. Meadows and pastures are about 80 per cent normal. Recent rains have helped them considerably. Cattle are in fair shape. The acreage of potatoes was increased about 15 per cent this year. Not all of the crops are in the ground yet. About three-fourths of the garden truck is planted. Apple trees are not yet in bloom.—H. P.

Kewaunee County.—About 75 per cent of the corn is planted; the acreage will be about 10 per cent greater than last year. Cows are on pasture, but the grass is short and backward because of cold weather. Grain is coming up and the stand seems rather thin, but still prospect is favorable. Clover and alfalfa winterkilled badly in exposed places. The potato acreage is about the same as last year. Fruit prospects are promising. Very little hay has been sold here; most of it is fed to live stock. The acreage of wheat is about 20 per cent greater this year than last. Garden truck looks well and strawberries promise about 70 per cent of a crop.—W. C. Katel.

Marinette County.—Excellent rains during the last week have helped pastures. The new seeding and old meadows both look well. Because of the cool weather corn is not growing rapidly. About the usual acreage of potatoes was planted. Farmers are clearing as much land for cultivation as possible. More beans will be planted this year than usual. Prospects are favorable for a heavy hay crop. Cows are worth about $100 a head. Few pigs are on the market.—W. B. Sanderson.

Monroe County.—Rainy weather has delayed corn planting. The early planting is already up. The acreage is normal. Oats and hay are doing fine. Pastures are good and the cows are doing well. Most of the gardens are backward on account of cold weather.—D. E. J.

Oconto County.—Crops in general look well. Planting is all finished. Late potatoes, grain and hay look fine. Pastures are good. The acreage of potatoes will be increased about 10 per cent this year. Cattle are in good condition; milk cows are scarce. Fruit appears to be late. The dry spell was broken by rain on May 30th.—N. J. Henker.

Outagamie County.—Since warmer weather began, all grain and grass crops have made noticeable progress. Pastures are fair. The milk flow is abundant and some cheese factories are pushed to the utmost to take care of the supply. More wheat was sown this year than usual, and the acreage of corn was increased. With a favorable season the production of potatoes will be large. Live stock are healthy; pigs are scarce and high in price. Corn and other feed are scarce. Merchants are paying 32 or 33 cents a dozen for eggs. —Peter Tubbs.

Racine County.—Oats and barley are making good progress. The acreage of these grains is probably 5 per cent greater this year than last. The acreage of corn is about the same as last year, but not all of the acreage is planted yet. Hay land and pastures are in good condition. There will be a large increase in the area planted to cabbage this year.—Chas. Jeffery.

Sauk County.—Weather has been very cold and rainy which has delayed corn planting. Corn which was planted more than two weeks ago is up. Oats and rye are doing well. Meadows and pastures are good, but are short for this time of year. Some potatoes have been planted, but most of the planting is now in progress. Cattle look well and spring pigs are in good shape.—A. H. Buehler.

Taylor County.—Seeding is finished and potato planting is nearly done. Rain is needed to start the new seeding. The hay crop will be late this season unless warmer weather comes soon. Live stock are doing well on grass. Very few cattle are on feed. Hogs are scarce and selling at Chicago prices to local butchers. The lamb crop is reported very good. Wool is worth from 45 to 55 cents a pound. Horses are worth from $150 to $250.—E. H. Dehne.

Trempealeau County.—Small grain, timothy and clover are doing fine. Recent rains have put life into all growing crops. Frost has done some damage to fruit and tender plants. Corn has not been damaged. Live stock find ample feed in pastures. Warmer weather is needed.—C. J. Turner.

Walworth County.—Warmer weather is needed. Heavy rains came on May 31st and June 1st. Corn is about two-thirds planted and some is up. The acreage of this crop will be greater than that of last year. More wheat was sown than usual. Grass and pastures are growing slowly because of cold weather.—Arthur Ewing.

Washburn County.—Recent rains were very beneficial. Small grain is growing well. Rye winterkilled to some extent. Corn is all planted. Potatoes are nearly all planted. Pastures and meadows are short. The pig crop is below normal.—John W. McCulloch.

MINNESOTA.

Dodge County.—All crops are backward. The weather is cold and wet. About 25 per cent more wheat was sown this year than formerly, but the acreage of barley and oats is about as usual. About one-third more corn was planted than the average, but it is slow in coming up. Grass looks well, especially the new seeding. Pastures are good. Fruit trees are full of blossom. Gardens are backward. Young stock are in good shape, but scarce. The pig crop is good.—Frank Houston.

Mower County.—Corn is nearly all planted. The acreage is larger than last year. Very little wheat was sown in this county. The new seeding of clover is good, but the old seeding is light. Fruit promises to be a bumper crop. Apple trees are being sprayed near Austin by the agricultural department. Live stock are healthy and there is a very good crop of young pigs. Fewer cattle are on pasture than usual and they are very high in price. —Walter H. Martin.

"Harness up your motor car to a coffee or spice mill and grind your own flour," was the advice of Mrs. D. W. Redfield, of Evanston, Illinois, at a meeting of the section for housewifely thrift of the Woman's Club unit for patriotic service. "From eight bushels of wheat you now get only five bushels of flour by the old method," said Mrs. Redfield. "Why not grind your own and have it all flour? I have worked a little mill successfully in my own home for years. We had an electric motor connected with the washing machine and we used this same power to grind corn and flour. Any boy could jack up the motor car off the ground, attach the grinding machine to one hind wheel, turn on the power, slip in the clutch and grind the family grain."

The power of gasoline is generally rated by the distance it will propel an automobile. But the same energy, if directed to other and more varied purposes will milk thirty cows, bale four tons of hay, mix thirty-five cubic yards of cement, plow three-fifths of an acre of ground, or it will generate enough electricity to light a large farmhouse for thirty hours.—[Popular Science Monthly.

Your Ford Car

Why it should be lubricated with Gargoyle Mobiloil "E"

In lubricating Ford Cars, there are eight vital considerations. Each one must be met if the engine is to deliver its full power and be free from undue heat and wear.

These factors are:

(1) **Speed, Bore** and **Stroke.** Under the hood you have a small, high-speed engine. The Ford speed conditions demand oil of a different body from that demanded by low-speed conditions. The body of Gargoyle Mobiloil "E" meets this Ford need with scientific exactness.

(2) **Piston Clearance.** The Ford pistons are closely fitted. Each piston has two upper rings and one lower ring and an oil groove. The lower ring tends to prevent a surplus of oil working into the combustion chamber, while the oil groove insures proper lubrication of the wrist-pin. Engineering tests show that the body of Gargoyle Mobiloil "E" forms the correct film for the Ford piston clearance.

(3) **Lubricating System.** The oil is supplied to the forward end of the crank case and flows back to the fly wheel compartment which acts as an oil reservoir, the lower portion of the fly-wheel being submerged below the oil level.

The fly-wheel in revolving, picks up the oil which is thrown by the centrifugal force of the revolving fly-wheel into the catch-basin, from where it is led by ¼" copper piping to the timing gears and then to the oil splash trough under the front cylinder.

From the front splash trough the oil overflows into the second splash trough; from the second splash trough into the third splash trough. From the third splash trough the oil returns to the oil reservoir in the fly-wheel compartment, whence it is again circulated.

Gargoyle Mobiloil "E" has the scientifically correct body to properly distribute to all friction surfaces.

(4) **Cooling.** The Ford engine is water-cooled by the thermo-syphon system, and is equipped with two forward speeds. The continued use of low gear often causes over-heating. For full protection, oil should be used which distributes freely to the heated frictional surfaces, as Gargoyle Mobiloil "E" does.

(5) **Ignition.** The Ford system of ignition is by low-tension magneto, located in the fly-wheel, employing a four-unit coil of the vibrator type. Gargoyle Mobiloil "E" will burn cleanly from ignition points—a most important consideration.

(6) **Bearings.** The Ford bearings are of the two-bolt type, brass with Babbitt lining, closely fitted. The correct body of Gargoyle Mobiloil "E" enables it to properly reach all parts of the closely-fitted bearings.

(7) **Carbon Deposit.** To insure the least carbon under all conditions, an oil should be used whose only deposit will be of a dry, non-adhesive character—easily and naturally expelled through the exhaust. Gargoyle Mobiloil "E", if the proper level is maintained, will deposit little, if any, carbon in a Ford engine.

(8) **Extreme Weather Conditions.** On hot Summer days you will sometimes see Fords running under over-heated conditions, often due to faulty lubrication. Ford owners, who use Gargoyle Mobiloil "E" are free from this trouble, owing to the ability of the oil to absorb and radiate heat. On cold Winter days oil is required of a fluidity which enables it to meet low-temperature conditions and permit ease in cranking the engine. Gargoyle Mobiloil "E" completely fills these requirements.

We guarantee Gargoyle Mobiloil "E" to be fully up to the high standard demanded of all Gargoyle products. It easily reaches all friction surfaces and gives thorough protection after distribution.

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A grade for each type of motor

In buying Gargoyle Mobiloil "E" from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not Gargoyle Mobiloil "E", kindly write our nearest branch, giving dealer's name and address.

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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Cow-Testing Reports.

Kewaunee Association.

To the Editor:—Our forty-five-pound list for April follows:

Owner, name and breed	Age	Lbs. milk	Lbs. B. fat
Wm. Koehler			
No. 12, G. H.	9	1330	54.5
No. 7, G. H.	9	1383	47.0
Wenzel Cherveney			
No. 1, G. H.	8	1344	47.4
No. 6, G. H.	6	1126	45.0
J. P. Dnerst			
No. 7, G. G.	4	984	45.2
No. 1, G. G.	7	990	51.5
James Wishka			
No. 12, G. H.	5	1185	45.0
Wm. Katel			
No. 9, G. H.	6	1411	48.0
No. 7, G. H.	6	1271	48.2
Benton Wiese			
No. 8, G. H.	6	1251	51.5
Matt Cherveney			
Stinka G. H.	5	1414	49.5
Kate, G. H.	5	1709	75.2
Bila, G. H.	7	1381	52.5
Bessie, G. H.	5	1380	58.0
Louise, G. H.	6	1291	47 8

Edward Hoeft Official Tester.

Waukesha County Guernsey Association.

To the Editor:—The Waukesha County Guernsey Cow-Testing Association for the month of April had forty-four cows which produced more than forty pounds of butter fat. The Walter Hardiman herd at Pewaukee, thirteen cows, averaged 33.29 pounds, with an average of 750.3 pounds of milk. The forty-five-pound cows for the month are as follows:

Owner and breed	Age	Lbs. B. fat
Sam C. Hooper, G. G.	8	63.89
Fred C. Smith, G. G.	7	61.69
L. J. Wendt, G. G.	12	56.17
L. J. Wendt, G. G.	6	50.50
Fred Smith, G. G.	3	50.01
Walter Hardiman, G. G.	9	50.00
Sam Hooper, G. G.	6	49.90
Warren Gerrits, G. G.	9	49.88
Earl Roberts, P. B. G.	6	48.02
Thos. H. Evans, G. G.	5	46.20
Wm. Steele, G. G.	7	45.97
Walter Hardiman, G. G.	5	45.39

Harold E. Snyder, Official Tester.

Geneva Association.

To the Editor:—Our forty-five-pound list for the month ending April 30th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
A. G. Palmer & Sons					
M.W. Girl, R.H.	4	2-4-17	1620	3.7	59.9
Beauty, R. H.	9	11-26-16	1599	3.2	51.2
Jessie, R. H.	2	2-7-17	1383	3.6	49.8
Pontiac, R. H.	2	3-7-17	1275	3.9	49.7
Queen M., R.H.	3	12-27-16	1380	3.5	48.3
Mary, G. H.	5	11-13-16	1422	3.4	48.3
Daisy, R. H.	6	12-21-16	1374	3.5	48.1
Fall, R. H.	6	12-12-16	1476	3.2	47.2
W. E. Palmer					
Windsor, R.H.	4	3-3-17	1617	3.7	59.8
Queen, R. H.	4	11-12-16	1515	3.2	48.5
Burke, R. H.	2	1-26-17	1524	3.1	47.2
Ora P. Taylor					
Valentine, R.J.	3	3-13-17	1125	5.0	56.3
Dehorned, G. J.	7	3-20-17	969	5.7	55.2
Erma, R. J.	4	11-26-16	780	7.0	54.6
Lilly, R. J.	4	3-29-17	789	6.0	47.3
Merton Petrie					
Netherland, R. H.	5	4-7-17	940	5.5	51.7
Frank Webster					
Lucy, G. D.	5	2-23-17	1209	4.2	50.8
Jas. Henderson					
B. 85, G. H.	5	1-25-17	1104	4.4	48.6
Dallas Davis					
Dorothy, G. H.	7	3-4-17	1227	3.9	47.6
Jessie, G. H.	7	3-23-17	1410	3.3	46.5
Edith, G. H.	7	2-16-17	1251	3.6	45.0

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.
Walworth county, Wis.

In Taylor County.

To the Editor:—Never before have the members of the Medford Cow-Testing Association been so short of feed as at the present time. In spite of this we are still holding our own. In the month ending May 27th, twenty-seven cows in our association produced over forty-five pounds of butter fat. The highest record is 79.8 pounds of butter fat or 99.7 pounds of 80 per cent commercial butter, and that record was made by a grade Holstein cow owned by August J. Brandt. This same cow also carried off the honors in the month of April, both in this association and in the state report, as I get the information from Mr. Negley's reports of the seventy-five associations in the state. Of twenty-seven cows in our association which produced forty-five pounds of butter fat or over in May, four produced more than sixty pounds of butter fat and twelve more than fifty pounds of butter fat. Eight of these high producers are owned by August Brandt, two by Joe Koenig, one by Mrs. Mat Heinz & Sons, four by R. Baehler, two by H. Suter, one by Aug. P. Mueller, one by G. Heubner, one by Albert Zimerli, one by Frank Halopka and two by William Ramm. With the exception of four registered Holsteins, one grade Guernsey and one native, all cows in our association are grade Holsteins. A. T. Zeddis, Official Tester.

In Barron County.

To the Editor:—In the Rice Lake and Cedar Lake Cow-Testing Association 670 cows were tested for the month ending May 1st. Twenty-nine produced more than forty pounds of butter fat. We believe the cost of feed doesn't make so very much difference on a good cow, because we can easily see that it pays to feed the right kind of feed to the right kind of a cow. Our honor cow for April was a grade Guernsey owned by the Cedar Lake Farms. She produced 1,350.2 pounds of milk and 72.91 pounds fat. The forty-five-pound list for the month ending May 1st is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Gottfried Erb					
Blue, G. H.	6	Mar.	1104	4.1	45.26
Ed Yager					
Allie Snowflake, P. B. H.	4	Mar.	1251	4.1	51.29
Florence Mercedes D. K., P. B. H.	7	Mar.	1611	3.1	49.94
Mercedes Elysian Ringwood, P. B. H.	6	Mar.	1461	3.5	51.14
Jacob Svacina, Jr.					
No. 6, G. H.	7	Feb.	1230	4.0	49.20
W. F. Krippner					
Inga Cornelia 2d, P. B. H.	7	Mar.	1485	3.1	46.04
A. M. Chrislaw					
Barron Flows D. K., P. B. H.	6	Mar.	1650	3.4	56.10
Belle Beauty of C. V., P. B. H.	4	Jan.	1371	3.3	45.24
Maid Wickfield D. G., P. B. H.	6	Dec.	1371	3.6	49.36
Conrad Markwall					
No. 2, G. G.	4	Feb.	1160	4.8	55.68
Lone Pine Farm					
Le Belle De C., P. B. G.	11	Jan.	861	5.5	47.36
Surprise of L. P., P. B. G.	5	Dec.	915	5.6	51.24
Imp. Daisy P. P. B. G.	11	Feb.	1191	4.6	54.79
Delight of L. P., P. B. G.	4	Nov.	912	5.4	49.25
Lady Enid of L. P., P. B. G.	4	Feb.	843	5.6	47.21
Longwater Charity, P. B. G.	5	Feb.	1290	4.9	63.21
Cedar Lake Farm					
No. 21, G. G.	5	Feb.	1350.2	5.4	72.91
No. 24, G. G.	4	Mar.	1124.7	5.0	56.24
No. 14, G. G.	4	Jan.	1262.8	3.8	47.99
No. 19, G. G.	4	Jan.	1044.5	4.9	51.19

Fred J. Waldman, Official Tester.
Ed Yager, Secretary.

New Association in Waupaca County.

To the Editor:—The Scandinavia Cow-Testing Association, of Waupaca, started its work May 1st with thirty-four members owning 483 cows. I have purchased scales for practically every member and they started weighing milk daily on June 1st. We have already sold two scrub sires and purchased five registered ones. Our members did not feed as heavily as they would have done had not feed been scarce and commercial foods high in price last fall. The rains in May started the pastures and we look for a better report next month. The forty-five-pound list for the month of May follows:

Owner, name and breed	Age	When fresh	Pounds milk	Per cent of fat	Pounds B. fat
Christ Wesley					
Fanny , N.	5	4-20-17	1217	4.6	55.9
K. B. Knuitson					
Beauty, G. G.	7	4-15-17	1008	5.0	50.4
A. P. Thorrison					
Josie, G. H.	5	1-15-17	1277	4.0	51.1
N. P. Rasmussen					
Spottie, G. G.	9	2-15-17	890	5.0	45.5
Blacky, N.	9	3-1-17	1107	4.5	49.8
S. A. Simonson					
Josephine, G.H.	7	1-1-17	1237	3.9	48.2
S. D. Shambeau					
Daisy, G. H.	5	5-1-17	837	5.8	48.5
E. A. Hotz					
Rosie, G. G.	6	1-1-17	961	4.8	46.1
John Vig					
No. 1, G. G.	6	4-27-17	1166	4.4	51.3
Mrs. Louis Knutson					
Princess, G. G.	6	1-15-17	890	6.1	54.3
H. L. Rowe					
Sigre, G. G.	9	1-31-17	942	5.0	47.1
Julius Bestul					
No. 6, G. G.	5	1-15-17	1011	4.6	46.5

H. R. Brewster, Official Tester.

In and Around Wisconsin.

A bean and corn contest, open to those who live in the vicinities of Forest, Bloom and Sylvan, in Richland county, and Liberty, in Vernon county, will be an event of much interest this year in that territory. Prizes will be given to the contestant who grows the best acre of beans and the one who grows the best five acres of corn. In each case the first prize will be $15, the second $10 and the third $5. These prizes will be awarded by the Viola Fair Association.

Daily weather reports will be furnished to farmers of Marathon county as soon as the plans of the Wausau Telephone Company are put into effect. The reports will be telephoned to various points throughout the county where they may be obtained by persons in that neighborhood. Weekly forecasts will also be sent out giving the predictions with regard to the weather in the Great Lakes region. In addition notices of approaching storms, frosts, etc., will be made known as soon as they are received from the weather office. This service will be furnished free to farmers.

The Coöperative Cow-Testing Association which was organized not long ago at Mukwonago is doing good work. A. N. Johnston, teacher of agriculture in the Mukwonago High School, was one of the leaders of its organiaztion. The officers of the association are: A. O. Bayley, president; Hugh Thomas, vice president; M. C. Lobdell, secretary, and Willard Poter, treasurer. In addition to the officers the other members of the board of trustees are Frank Kipp, J. Brophy and Fred Andrews.

All expectations have been exceeded by the rapid development of the Ladysmith Coöperative Creamery of Rusk county in production of butter. The product for May, 1917, was 165 tubs as compared with eighty tubs for May, 1916, which is an increase of more than 100 per cent. This increase is especially remarkable when it is considered that pastures have been short this spring and the high cost of feed prevented much supplementary feeding. The prevailing price for butter fat has been about 44 cents, making the payments due farmers for May cream total about $4,000. This record shows that the farmers of Rusk county know how to make a success of coöperative work.

Especially attractive cash prizes are to be offered at the Wisconsin State Fair for Percherons and Clydesdales foaled in 1916. Thes special prizes for yearlings entered in futurity classes have now become a popular and well-established classification at all the leading state fairs in the middle West. The liberal list of prizes enables the small breeder to compete with the large exhibitor and receive creditable cash prizes. The entries were scheduled to close on June 1st, but owing to a delay in making the preliminary announcement, entries will be accepted if mailed on or before June 20, 1917. The entry fee for each animal will be $5. First payment of $1 must accompany the entry; second payment of $1 per entry on or before July 10, 1917, and final payment of $3 per entry on or before August 24, 1917. Substitutions and transfers can be made before second payment is due. The proposed cash prizes are as follows:

Percheron colt foaled 1916

1st	2d	3d	4th	5th	6th	7th	8th	9th
$45	$35	$30	$25	$20	$20	$15	$10	$5

Percheron filly foaled 1916

1st	2d	3d	4th	5th	6th	7th	8th	9th
$45	$35	$30	$25	$20	$20	$15	$10	$5

Clydesdale colt foaled 1916

1st	2d	3d	4th	5th	6th	7th	8th	9th
$35	$25	$20	$15	$10	$10	$5		

Clydesdale filly foaled 1916

1st	2d	3d	4th	5th	6th	7th	8th	9th
$35	$25	$20	$15	$10	$10	$5		

The entries must be made with O. E. Remey, secretary of the state fair, state fair grounds, West Allis, Wis.

Fond du Lac Meeting.

To the Editor:—The Fond du Lac County Holstein-Friesian Association will give their first annual basket picnic June 15th at Unducliff Farm, the home of C. H. Brugger, located on the ledge east of the city. At 10:30 a business session will be held. At 1 p. m. a short program will be given. Professor Gunn, of Madison, is to give an address, after which there will be games and dancing. All breeders of the black and white are cordially invited to come for a good time.

C. H. Brugger, Secy.

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National Guaranty Sale.

(Continued from page 6.)

Leoraline Pontiac, Mar. 25, 1911; H. E. & R. E. Aitken 3,225
Maplemont Vadora Pontiac, Aug. 29, 1912; C. E. Houghs, Washington, Conn. 1,250
Fancher Farm Tirania Segis, April 15, 1914; Forsgate Farms 570
Pledge De Kol Arrahwanna, July 2, 1912; W. W. Stevens, Liverpool, N. Y. 705
No. 80, Mar. 29, 1917; F. B. Green, Evansville, Wis. 700
Eldora Korndyke, April 5, 1914; W. W. Stevens 305
Terracelawn Bonnie Beatrice, April 19, 1915; W. J. Wood, Worcester, Mass. 490
Olive Sprig Colantha De Kol, Dec. 22, 1911; Branford Farms, Groton, Conn. 660
Sir Pontiac Waldorf Pietje, Mar. 8, 1916; Ralph Stevens, Liverpool, N. Y. 9,000
Otsego Mobel Korndyke, Feb. 16, 1917; John Branck, Pawling, N. Y. 445
Green Ridge Prilly De Kol 2d, Dec. 1, 1916; Roy L. Williams, New Milford, Pa. 445
Fairmont Alcartra Daisy, Dec. 26, 1915; Leroy S. Putnam, Rutland, Mass. 1,450
Fairmont Alcartra De Kol, Jan. 22, 1917; Oliver Cabana, Jr., Elma Center, N. Y. 1,225
Colantha Maida, Feb. 4, 1916; Oliver Canaba, Jr. 2,600
King Segis Pontiac Maartje, Oct. 9, 1916; E. A. Baker, Boston.. 1,100
Idyllwilde's Queen, Dec. 13, 1916; Gardner Hall Jr. & Co..... 1,500

WISCONSIN BUYERS, LEFT TO RIGHT—D. J. HOWELL, BERT BAIRD, ROY AITKEN, W. G. BAIRD, GARFIELD MUCKLESTON.

No. 93, Dec. 23, 1916; A. L. Pike, Lubec, Me., Albert E. Hodge, Fairfield Center, Me. 1,000
Clover Farm Cermena Segis, Dec. 17, 1913; Quentin McAdam, Utica, N. Y. 1,200
Queen Segis Carlotta, April 11, 1915; G. H. Broadwater, Wilmington Del. 2,400
Wolverine Prilly Cornucopia, April 12, 1912; Branford Farms 500
Paula McKinley, Oct. 2, 1912; Branford Farms 875
Barrington Butter Boy Girl, Oct. 29, 1914; C. H. Beuchler, Atlanta, Ga. 300
Aaggie Alban Pontiac, Jan. 20, 1910; A. C. Howe, New Hartford, N. Y. 625
Briar Beauty Princess, June 17, 1915; Mrs. W. O. Blaume, Boylston, Mass. 305
Emblagaard Denver Champion, Oct. 26, 1915; Blacres Farm, Wellsboro Juction, Pa. 3,850
Queen Walker Pietertje, Dec. 18, 1911; Elliott D. Curtis 225
Clara Countess De Kol 2d, Feb. 23, 1910; Bramford Farms..... 1,025
Eva Pauline Dart 2d, May 15, 1910; Branford Farms 1,025
King Pontiac Inkspur Lad, April 2, 1916; Wm. P. Morsell 450
King Echo Sylvia Johanna, Feb. 14, 1916; Quentin McAdam.... 5,350
Colantha Lipkje De Kol, April 1, 1914; W. J. Wood, Worcester, Mass. 430
Terracelawn Pontiac Vale, Jan. 11, 1917; J. C. Singleton, Woonsocket, R. I. 650
Marydale Korndyke Lily Pauline, May 7, 1911; F. H. Metcalf, Holyoke, Mass. 7,500
Superba Korndyke Johanna, Dec. 16, 1916; Jas. F. Roy, Franklin, Mass. 2,000
Superba Rag Apple Axelina, Nov. 23, 1915; John Orfman, Middletown, N. Y. 2,550
Colantha Aaggie Hartog Pauline, Feb. 19, 1916; Oliver Cabana, Jr. 2,600
Belle Segis Champion, Mar. 29, 1912; Quentin McAdam 5,000
Ruth Segis Champion, May 24, 1915; Ralph Jones, New York.. 2,050
King Korndyke Fannie Veeman, Dec. 21, 1916; Gardner Hall, Jr. 12,000
Lady Agnes Mercedes, Aug. 11, 1909; W. W. Stevens 920
King Segis Champion Netherland, May 22, 1916; Edw. F. Meyer, Finderne, N. J. 700
Amy Rag Apple Corlain, Feb. 1, 1912; J. E. Singleton 1,210
Lottie Walker Spofford 2d, Feb. 9, 1911; W. W. Stevens 625
No. 129, Sept. 29, 1916; Eugene Arthur 700
Finderne Canary Valdessa, Feb. 20, 1917; W. W. Stevens..... 450
Finderne Snowflake Valdessa, Feb. 24, 1917; W. W. Stevens.. 600
Finderne Holingen Fayne Korndyke, Aug. 16, 1915; Ohio Board of Commissioners, Columbus, O. 8,000
Claris Rag Apple, Mar. 5, 1914; Quentin McAdam 1,625
Segis Wayne Johanna 2d, Jan. 3, 1911; W. J. Wood 740
Antrim Segis Alcartra Wayne, Mar. 23, 1917; S. H. Hust, Center Square, Pa. 500
Woodcrest Paula Walker, Feb. 28, 1914; Geo. F. Smith, Barre, Mass. 1,125
Alcartra Polkadot 2d, July 7, 1909; Quentin McAdam 2,025
Fancher Farm Helen, Nov. 9, 1915; Raymond Crum, New Hackensack, N. Y. 1,510
Sir Yankee Segis, April 18, 1916; Frank Ostrander, Almond, N. Y. 605
Viscount Jennie Jewel De Kol 2d, Nov. 12, 1911; F. H. Metcalf... 1,225
King Model 2d, Feb. 28, 1917; Lyman Keeler, Danbury, Conn. 500
Lynden Pansy Pledge Lass 2d, May 5, 1910; W. W. Stevens .. 925
Creston Coloma Beauty, Aug. 14, 1912; Forsgate Farms..... 505
Dell De Kol Segis, Nov. 15, 1911; J. F. Shanahan 1,200
Vinita Alice Segis, May 5, 1909; Branford Farms 625
Joan of Racmamwey Alpha Dean De Kol, April 23, 1914; Branford Farms 475
Sulphur Springs Minnie Pontiac, Nov. 12, 1915; A. M. Smith..... 415
Wandermeere Belle Hengerveld, Aug. 10, 1912; J. F. Shanahan, Chas. H. Dold, Phillip Dold, Buffalo, N. Y. 18,300
King Hengerveld Segis 16th, Feb. 2, 1916; W. W. Stevens... 3,700
No. 158, Jan. 22, 1917; C. E. Hough, Washington, Conn..... 5,000
Glen Alex Queen De Kol, April 9, 1914; Hollywood Farms, Hollywood, Wash. 18,000
Prince Tietje, April 28, 1912; H. C. Swartout, E. J. Armstrong & Sons, F. G. Quaif, Hartwick & Son, N. Y. 7,500

SUMMARY.

Average 1st 20 head	$ 580.00
Average 1st 25 head	630.00
Average 1st 30 head	2,431.00
Average 1st 35 head	2,144.00
Average 1st 40 head	1,993,75
Average 1st 50 head	2,028.10
Average 1st 60 head	2,101.00
Average 1st 61 head	2,361.63
Average 1st 70 head	2,217.00
Average 1st 80 head	2,194.50
Average 1st 90 head	2,188.38
Average 1st 100 head	2,089.10
Average 1st 110 head	2,288.86
Average 1st 120 head	2,235.91
Average 1st 130 head	2,176.65
Average 1st 140 head	2,105.89
Average for 143 head	2,073.21

National Holstein Meeting.

(Continued from page 1.)

regard mention should be made of the New England hospitality and the carefully planned arrangements made by the people of Worcester to make the few days' stay in their city a pleasant one.

Wisconsin went to the meeting this year with over 1,200 proxies and made a fight for getting the meeting for Milwaukee next year. It was voted to allow the executive committee to appoint the place and they decided not to give a report until fall, which was not entirely satisfactory to the Wisconsin representative, as they felt they were entitled to a decision in their favor at this time. Wisconsin is not necessarily out of the running yet, however. Waterloo had a number of enthusiastic supporters and in all probability the meeting will go to one of the two places mentioned.

The following is a list of Wisconsin breeders who attended: Dr. David Roberts and wife, Waukesha; Fred Pabst, Oconomowoc; Emmons Blaine, Lake Mills; Roy Aitkin, Waukesha; F. Jr. Bristol, Oakfield; Bert Baird, Waukesha; W. G. Baird, Waukesha; D. J. Howell, Waukesha; Garfield Muckleston, Waukesha; F. W. Greene, Evansville; Fred Gusendorf, Chris Schroeder, Racine, and Jas. Garver, Madison.

Twenty Million Miles of Telephone Wire

The telephone wire in use in the Bell System is long enough to run from the earth to the moon and back again forty times.

The Bell System has about twice as much telephone wire as all Europe.

More than 500,000 new telephones are being added to the Bell System yearly—almost as many as the total number of telephones in England.

In twelve months the Bell System adds enough telephones to duplicate the entire telephone systems of France, Italy and Switzerland combined.

In proportion to population the extension of the Bell System in the United States is equal in two years to the total telephone progress of Europe since the telephone was invented—a period of about forty years.

The Bell System fills the telephone needs of the American people with a thoroughness and a spirit of public service which are without parallel the world over.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy One System Universal Service

Good Milk Record.

Ethan C. Peebles, Lake View Stock Farm, Fond du Lac, Wisconsin, sold milk and cream off his farm during the month of April to the total amount of $610.64. This represents the production of a herd of twenty-eight registered Holstein cows. The milk was marketed at Fond du Lac for $2.14 per hundred, the average test being 3.46. Mr. Peebles uses a milking machine and says that this machine enables him to handle his herd successfully despite the shortage in farm help.

With a fund of $25,000, which later may be increased, the Westchester County (New York) Commission of Safety has insured between fifty and seventy-five farmers against all possible loss on their crops in the event that prices should drop, it was announced recently. These farmers, who have enlisted in the reserve army of food producers, are assured a minimum price of $1.50 a bushel for potatoes and $1.75 a bushel for corn and buckwheat. In turn the farmers have pledged themselves to increase their acreage and raise as much food as the soil can develop.

Scraps of left-over meat or fish can be combined with cereal or other mild-flavored food, both to give flavor and to add nourishment to the total dish.

UNCLE SAM WANTS AUTO EXPERTS
YOU CAN QUALIFY IN 6 WEEKS TO DRAW BIG PAY.

The government is paying high salaries to trained auto experts — to men who can drive a pleasure car, truck, ambulance, motorcycle or any other motor-driven vehicle--to men who know how to find and remedy trouble if anything goes wrong.

Milwaukee Motor School
Graduates are in the U. S.
Service at good pay

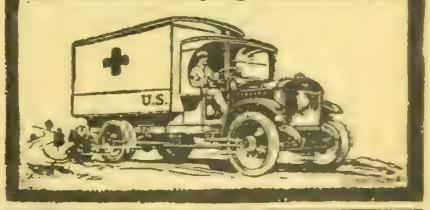
Preference is always given to trained men—particularly to auto mechanics. Food, munition and supplies will be moved by men who can best drive and care for automobiles; and for such service you can draw better than soldier's pay.

We use no books—you get practical work on all makes of cars, trucks, etc —you do the work yourself under the direction of Mr. Arhelger and other auto experts.

Write us for free book and details telling how you can make big money as an auto expert.

Wm Arhelger Graduates theMilwaukee Motor School has turned out recently have passed Uncle Sam's rigid examination for auto experts.

MILWAUKEE MOTOR SCHOOL
221 Seventh St. Dept. G Milwaukee Wis.



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WE PAY THE FREIGHT

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EAST BIRMINGHAM IRON ROOFING COMPANY
Dept. F, Birmingham, Ala.

Liberty Loan

United States Government Bonds for YOU

THAT our allies may buy food and materials to carry on our mutual struggle for democracy, your government is extending them credit through the great $2,000,000,000 Liberty Loan.

Not a dollar of this loan will leave this country or pay for other than American products.

Of the necessity for this loan, Secretary of the Treasury McAdoo says: "The greatest immediate service the American people can render in this war for universal liberty is to furnish the means for its vigorous prosecution. The Liberty Bond Issue is the first step. I earnestly bespeak the co-operation of every citizen throughout the length and breadth of the land in this great service of patriotism."

THE BEST INVESTMENT.

In asking you to subscribe to the "Liberty Loan" your Government does not ask you to spend your money. Instead it holds out to you an opportunity to make the safest investment in the world. When you invest in a "Liberty Bond" you get a signed promise backed by the total resources of the richest nation in the world—a nation whose wealth is recorded at $250,000,000,000.

THE HIGHEST INTEREST IN 20 YEARS.

The present bond issue gives you a chance to purchase government bonds paying the highest interest rate the United States Government has paid in 20 years. Liberty Loan Bonds bear 3½ per cent interest, payable semi-annually June 15th and December 15th. They are exempt from taxation, except for estates and inheritances, and yield an absolutely net income of 3½ per cent.

Liberty Bonds may be purchased in denominations of $50 and multiples thereof. If before the end of the war, government bonds bearing higher interest should be issued, you can exchange your Liberty Bonds for them.

PRACTICALLY AS GOOD AS CASH AND PAYING INTEREST.

The Liberty Loan Bonds are practically as good as cash and they pay interest. They can be used for as many purposes as cash without the risk of actual cash.

They may be registered in denominations of $100 or multiples thereof, so they cannot be lost or stolen. Your income then comes to you automatically.

Liberty Bonds are the best basis for credit in the world. As a farmer you know how handy it will be to use these bonds with your banker to get ready money before your crop is marketed. Machinery and equipment are often cheaper when bought for cash. Let the "Liberty Bonds" help you get it. Your banker will then grow to respect your business judgment and should be willing to make better rates upon the money you borrow.

No investment you hold can be safer and no other bond enjoys such a broad and ready market in case you wish to sell. You can get your money practically as easily as you can from a savings bank.

The last government loan sold at par in 1898 and at 110¾ two years later.

SUBSCRIBE NOW AT ANY BANK OR POST OFFICE.

Your country comes to you today with a solid business proposition—a chance to invest in the best securities in the world, while at the same time promoting the sale of your products.

Unless you act quickly and subscribe now you may not be able to get your share of these bonds. The last great bond issue was over-subscribed seven times.

Make your subscription at any bank or post office in your locality today.

Federal Reserve Bank of Minneapolis

Fiscal Agents of The United States Government
In Minnesota, North Dakota, South Dakota, Montana, Northern Wisconsin and Upper Michigan.

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Cough in Cow.

I have a yearling heifer that coughs, mostly in the morning. She gets good hay and a little bran. She feels well, or seems to, but looks poor. Would like to know if there is any help for her.

You do not give a very strong line of symptoms, but we would suspect tuberculosis and would advise you to have her tested for same. The condition may not be tuberculosis; however, it might pay you to have a test made.

Cowpox.

Would you please give a remedy for cowpox, and also the cause of it?

Cowpox is a contagious inflammation of the udder and is spread from one cow to the other by the milker, or through other means of contact. In herds of cattle that regularly receive careful handling, no special treatment will be found necessary beyond the application of softening and disinfecting agents to such vesicles upon the teats as may have become ruptured by the hands of the milker. Carbolized vaseline or iodoform ointment will be found well suited to this work. Do not allow the calves to suck the mothers affected. A milk tube, which has been cleansed by boiling, may be used on teats which are badly affected.

Spasms in Young Pigs.

I have some young pigs that had spasms at three days old and I am at a loss to know the cause. There were twelve pigs in the litter. It was cold, so I put them in my furnace room and took them to their mother every two hours. They seemed to be doing fine at first, but on the third day they had spasms and frothed at the mouth. They all died within three hours except five. I gave the mother salts in milk and the five that lived are doing well. One of the men had given her slop from the kitchen which contained raw potato peelings, but outside of this she had only ground rations of corn and barley.

It is very probable these young pigs were victims of acute indigestion, which is quite often seen in young pigs. It was also hard on these pigs to be first in a warm furnace room and then taken out to the mother.

Paralysis in Colt.

I had a colt one year old which was in fairly good shape. Had been running out in cornfield and at a straw pile. I put him in the barn one morning and he seemed to be all right, but at noon he laid down and could not get up. It seemed as though he was hurt in his hind quarters, but he could use his legs and was strong to handle. He ate well and drank water and appeared to be all right except that he could not get up. He was this way for a week. The last four days his head swelled up and just below the butt of the ear and eye it broke open and discharged. It broke also on his right front leg. The discharge had a very bad odor. I killed the colt and I would very much like if you could tell me what was the matter with him.

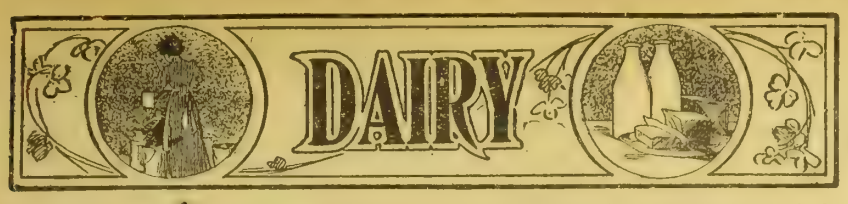
Probably your colt's first trouble was paralysis, but the second trouble might have come from some trouble such as distemper, or from injury to those parts. It would be hard to make a positive diagnosis of the trouble from the symptoms given.

Sweeny (Shoulder Slip).

I have a five-year-old mare that seems to be lame in the shoulder. Some tell me it is sweeny. She has been lame about two weeks. At first I applied a liniment. Now I notice that the shoulder is shrinking away. She walks fairly well but limps some. When she trots she limps very badly. What can I do for her? I do not have to work her very much. How long will it take to cure her?

This animal should be given complete rest and a severe blister applied over point of shoulder and all over atrophied area, or you might have your veterinarian inject hypodermically tincture of iodine in small amounts in seven or eight places over the sweenied area. This should be followed by daily application of some stimulating liniment for five or six days.

The use of grain in the manufacture of alcoholic beverages was condemned in a resolution adopted by the Kansas Grain Dealers' Association. A copy of the resolution will be forwarded to Washington to be presented to the senate.



Lively Trade in Dairy Cattle

Wisconsin is rapidly becoming the greatest nursery for breeding stock in the United States.

During March and April buyers from other states with commissions to purchase 1,500 head of dairy cattle were met by officials of the Wisconsin Live Stock Breeders' Association.

This represents but a small part of the trade in dairy cattle. For during the same period the college of agriculture received inquiries for over 1,000 head and officials of the community breeders' associations of the state had many calls for stock.

Many of the best live stock exporting counties do not as yet employ agricultural representatives, and are, therefore, not included in this report. But some idea of the growth and development of the industry in those counties can be gained from the fact that one group of Missouri buyers recently purchased sixteen carloads of dairy cattle in the eastern sections of the state.

During April about 200 head of cattle were supplied by the older counties of the southern and central portions of the state to settlers in the newer counties of the North. The settlers of the upper part of Wisconsin furnish an excellent market for live stock and stand for substantial development of this important home industry. Dairying is taking a strong hold in that part of the state just as it has in older sections. Much meat is also being produced there.

Laws Interest Dairymen.

To the Editor:—American or cheddar cheese now containing more than 40 per cent moisture, under Chapter 87, laws of 1917, would be considered an adulterated product and under section 4600 of the statutes a penalty is provided for the sale of an adulterated product. We are enclosing copies of two laws, Chapter 43, relating to whey cream and whey butter. These and Chapter 87, herein above referred to, relating to the moisture of milk and cheddar cheese, were passed during the present session of legislature and are now in effect. Section 1 of Chapter 43 reads as follows:

Whey is the product remaining after the removal of fat and casein from milk in the process of cheesemaking. Whey cream is that portion of whey rich in milk fat which is separated from whey by centrifugal force, is fresh and clean and contains not less than 18 per cent of milk fat. Kumiss is the product made by the alcoholic fermentation of mare's milk or cow's milk.

Section 2 reads as follows:

There is added to the statutes a new section to read: Section 4607d-3. No person shall by himself, his agent or servant sell, offer or expose for sale or have in his possession with intent to sell or exchange or deliver any butter manufactured in whole or in part from whey cream, unless such butter shall have the words "whey butter" conspicuously stamped, labeled or marked in plain Gothic letters at least three-eighths of an inch square, so that the words cannot be easily defaced, upon two sides of each and every tub, firkin, box or package containing said whey butter; or if such butter is exposed for sale uncovered or not in a case or package, a placard containing said words in the form described in this section shall be attached to the mass in such a manner as to be easily seen and read by the purchaser. Any person who violates any of the provisions of this section shall be guilty of a misdemeanor and upon conviction thereof, shall be fined not less than $25 nor more than $100.

Chapter 87 reads as follows:

Section 1. Subdivision (9) of section 4601—4a of the statutes is amended to read: (Section 4601—4a) (9). Cheese is the sound, solid and ripened product made from milk or cream by coagulating the casein thereof with rennet, pepsin, or lactic acid, with or without the addition of ripening ferments and seasoning or added coloring matter and contains, in the water-free substance, not less than 50 per cent of milk fat and cheese known as American or cheddar cheese not more than 40 per cent of moisture; except that Emmenthaler cheese, commonly known as domestic Swiss cheese, shall contain in the water-free substance not less than 43 per cent of milk fat.

Skim milk cheese is the sound, solid and ripened product, made from skim milk by coagulating the casein thereof with rennet, pepsin or lactic acid, with or without the addition of ripening ferments and seasoning.

Goat's milk cheese, ewe's milk cheese, etc., are the sound, ripened products made from the milks of the animals specified by coagulating the casein thereof with rennet, pepsin, or lactic acid, with or without the addition of ripening ferments and seasoning.

George J. Weigle.
Wisconsin Dairy and Food Commissioner.

Variation of Fat in Milk.

To the Editor:—In a recent issue of The Wisconsin Farmer was an article entitled "Effects of Turning on Pasture." Now I have observed many statements from testers (professors of agricultural experiment stations included) and some of them were very misleading. My experience has been that if in the fall when the pasture became scant we turned cows into the clearing (either second or third crop of red clover) the first day and also sometimes the second all cows dropped with the test of milk exactly 1 per cent. The third day and thereafter the test was the same as at other times of the year. A cow that at the average tested 3.8 only the first and sometimes the second day in fresh clover tested 3 per cent or 2.8 per cent.

I have also found some difference in test in winter and also at different times in summer. A cow with a test of 2.8 per cent when a heifer may change to 4 per cent by her fourth calf. Excitement may also change the test. I have one cow, however, that has never changed her test either when fresh or toward the end of lactation; neither cold nor heat, fresh pasture or old affected her test of 3.7 per cent. She is a large Short-horn and always looks fat. I have had natives testing 5 per cent and the Holsteins on an average test 3.6 to 3.8 per cent, and often, toward the end of lactation, 6 per cent. While the fat Short-horn gave 175 pounds of butter fat a year the natives gave 220. Half and half, native and Holstein, give 300 to 320 pounds, but all are young.

I find extra feeding with boughten grain does not pay. As long as my own grain lasts it is not counted at the price of boughten grain, but there is too little to feed. H. R.

Law Questions.

Carrying Concealed Weapons.

A Subscriber, Bagley, Wis.—Can a citizen of Wisconsin obtain a permit to carry a revolver in that state, and, if so how and where?

Answer.—There is no provision in the laws of Wisconsin authorizing permits to carry revolvers or other deadly weapons. The penalty for carrying such weapons is a fine not exceeding $100 or six months' imprisonment.

Release of Mortgage.

A Subscriber, Butternut, Wis.—A holds four notes against B, secured by a mortgage on B's property. All the notes are payable on or before due, and the last note is due in 1920. Can B pay off all the notes at any time before the last one is due and compel A to release the mortgage or must B wait till the last note is due before he can get the mortgage released?

Answer.—By the terms and conditions of the notes B can pay all of them at any time and compel A to release the mortgage. Upon paying the notes B should present to A a release made out and ask A to sign and acknowledge it, and if A refuses to do so he is liable to B for $100 and other damages, which B can recover by law.

Crooked Creek—Flooding Land.

A Subscriber, Eastman, Wis.—My neighbor and I own adjoining farms in Wisconsin, his farm being on higher ground than mine. A creek runs through both farms. There is a bend in the creek on my neighbor's farm, and when there is a flood, the water overflows the banks of the creek at this bend and runs upon forty acres of my corn land, doing it great damage. I have asked my neighbor to straighten out the creek on his land so that the water will flow freely between the banks into the straight channel on my land without flooding it and I offered to help him do so, but he refuses to do anything about it. Can I compel him by law to straighten the creek?

Answer.—You cannot compel your neighbor by law to straighten the creek on his land. You might build a dike or embankment on your land along the division line to prevent overflow water from the creek from flooding your land.

BUY THIS TRIAL LOT ON MY GUARANTEE YOU TAKE NO CHANCES

I'M not taking any chances—neither are you. Cow-Ease does the work. I originated it sixteen years ago, and I *know*. That's why I can afford to personally guarantee your money back if Cow-Ease doesn't do for you just what it has done for thousands of farmers and dairymen.

COW-EASE
Keeps Flies off Cattle and Horses

And keeps every promise I make for it.

It increases the milk yield by keeping cattle contented, and makes milking easier because cows sprayed with it stand quiet.

Cow-Ease is a harmless liquid. It does not gum the hair or blister the skin. Apply it before each milking. One gallon sprays a cow 200 times.

Flies not only irritate your cattle and cause them to produce *less* milk and *poor* milk, but are a menace to your own health.

Ask your dealer for Cow-Ease today—the flies will "shoo" the minute you begin to use it.

M. Elton Rose Vice President.

TRIAL OFFER
If your dealer cannot supply you, send me his name and $1.25, and I will deliver, prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For west of Missouri River and for Canada, above Trial Offer, $1.50.

CARPENTER-MORTON CO. 87 Sudbury St., Boston, Mass.
Manufacturers of Cow-Ease Established 1840

APPLETON Silo Filler

In quantity and quality of silage made per hour

the Appleton has any silo filler beat, by actual *records*. Great capacity, with tremendous strength to stand the hardest, continuous service, made Appleton the choice of those thousands who *investigated* it before they bought *any* silo filler. Have *you* investigated it?

Guaranteed to do more and better work with less power

than any other silo filler. Costs no more to buy and much less to operate. Its all-round economy guarantees you silage at the lowest cost per ton and makes you most profit on work for others. Don't buy until you *know* what Appleton offers. Send for

Two Free Books

about silo building and silage; and about Appleton Silo Fillers, showing 4 sizes for 4 h. p. gasoline engines and up.

Appleton Mfg. Co., 4122 Fargo St. Batavia, Ill.

Use A Wood Tire Hollow Wall Silo

Cannot Sag, Blow Down or Rot.

Cures and preserves silage perfectly. Prevents freezing of silage. Easy to construct. A real farm building, permanent and rigid. No hoops to get loose. No guy wires. No staves to shrink or swell, but a smooth, double wall from base to roof, the inner wall being of *California Redwood*.

Guaranteed for 20 Years

"But Lasts a Lifetime"

The patented wood "tire" is built up of inch boards, and shipped in sections. The boards overlap in step formation at both ends. When nailed together, these sections form a ring of unusual strength. The silo frame forms its own scaffolding.

WOOD TIRE
AIR SPACE
INNER WALL
OUTER WALL

Send for our folder which shows how the Wood Tire Silo is built, and also what owners think of them. A postal brings it. Write today.

Agents Wanted in unassigned territory.

WOOD TIRE SILO CO. 4
7 Clark Street
Sheboygan Falls, Wisconsin

25 CENTS Calf Rennets

We pay 25c for salted Rennets from milk-fed calves if handled according to directions. The Marschall Dairy Laboratory, Madison, Wis.

The President Says:

"It is of the most imperative importance that everything possible be done and done immediately to make sure of large harvests."

Conserve and Increase Your Forage Crops

Turn under part of your pasture and plant it to saleable crops. Feed your stock cheaper, easier, more profitably with a few acres of corn cut into ensilage with a Kalamazoo Ensilage Cutter and stored in a Kalamazoo silo. Stop wasting land that should be used for money crops. This year, if ever, farmers have a chance to make *big profits*.

Kalamazoo LIFE-TIME-SILOS

are built to meet the exacting farmer's needs. Best in design, material and workmanship. Have every desirable feature a silo should have and embody the "know how" acquired through more than twenty years experience in silo building.

Glazed Tile Silos—fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

Wood Stave Silos—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete ready to set up. Quickly and easily erected by inexperienced home labor. All Kalamazoo Silos are made with Galvanized Steel Door Frames and continuous doors, forming a safe ladder entire height of silo.

Write today for our free descriptive booklet. If interested in an Ensilage Cutter, ask for Kalamazoo Cutter catalog. *Easy Payments*, if you wish.

KALAMAZOO TANK & SILO COMPANY Dept. 211 Kalamazoo, Mich.

FIRST COST ONLY COST

Only $2 Down
One Year to Pay!

$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 9 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

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100,000 now in use

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Work, the Blessing.

Once I thanked God for many a glittering thing
Which now I know was worthless and which passed
With things forgotten and behind me cast,
As I moved onward, borne by time's swift wing.
But never thought I then that work could be
God's gift, but rather, punishment it seemed;
And often in my lonely hours I dreamed
Of days when from its bonds I should be free.

But now I know that work is man's best friend,
Heaven's highest blessing to a world like this;
And now I ask no longer ease and bliss,
But only this: "Give me until the end
Strength for the needed toil as each day passes by.
When I can work no longer let me die."
—Ninette M. Lowater.

The Child--Its Food.

[Amy L. Daniels, Department of Home Economics, University of Wisconsin, tells what to feed children of fifteen months and older.]

What a child is depends largely upon what it eats. Failure to grow normally or to do well in school work can often be traced to one of two causes—an insufficient amount of food or a wrong adjustment of the various necessary food factors. Children grow from small to large individuals. Their rate of growth is determined to a large extent by the kinds and amounts of food they eat.

In feeding a child fifteen months old or over to meet his bodily needs, he should have at least one food each day from the following groups: Group 1, tissue-building foods, such as milk, eggs, fish, meat, etc.; group 2, fruits and vegetables; group 3, wholesome fats, such as butter and the fats found in egg yolks and meats; group 4, bread and cereals; group 5, simple sweets; and group 6, water.

The first group provides protein. Without those foods which contain what scientists call "proteins," and which build up the tissues of the body, a child would not grow. Proteins are present in fairly large proportions in milk, eggs, cheese, fish, meat, peas, beans and lentils. (When peas, beans and lentils are served they should be thoroughly cooked and, for the younger child, mashed or run through a strainer.) Certain other foods contain these essential building materials in very small amounts. The tissue-building materials of milk and eggs are particularly good, and should, therefore, be supplied to the child in fairly liberal amounts. Every child should have at least three cups of milk a day. To this would be added one egg, if the family budget will allow it, and for the older child (three years) a small amount of meat or fish. The child which cannot have the egg should be supplied with more milk. The remainder of the tissue-building needs of the child will be supplied from other foods which are needed in the body for purposes other than building tissues, but which contain small amounts of tissue-building materials in varying quantities.

The second group yields mineral matter. A second need of the child for growth purposes is mineral material. This is especially needed for the development of bones, teeth and muscles. Mineral matter is present in a fairly liberal amount in milk more especially, and in eggs, as well as in fruit and vegetables. Therefore, besides milk, we should include both vegetables and fruit in our children's meals.

A good rule to follow in planning the meals for a child is to serve each day besides the fruit two vegetables—one a starchy food like potatoes or rice or hominy, and a succulent vegetable, such as carrots, spinach, turnips or cabbage. As a considerable amount of valuable mineral matter, one of our chief reasons for serving these vegetables, dissolves out in the water in which they are cooked, the water should be saved. It may be boiled down to a small amount as the vegetables are cooked, and served in this form or made into and served as a sauce, or it may be saved and made into soup.

The fruit given should be in all cases well ripened and may be served either raw or cooked. Underripe and overripe fruit may cause digestive upsets which have led many mothers to believe that fruit is harmful. This is particularly true of bananas, for these are all too frequently served in the unripe stage. When quite ripe, the skins are brown rather than yellow. If bananas or other unripe fruit must be served they should be cooked.

The third group furnishes fats. The heat and energy needs of children should be supplied by those foods that contain fat, starch and sugar. Those fats which are best adapted to children are the fat of milk—butter and cream—and the fat of egg yolk, and, to a certain extent, meat. Vegetable oils, such as olive oil, cottonseed oil, peanut oil and the like, are also good, but should never be allowed to exclude the use of these other fats.

Too much fat may cause indigestion in children. Most mothers are familiar with the digestive disturbances following the excessive eating of rich foods, for example, pastry, rich cakes or fried foods. In these cases, too much fat has been taken together with other materials, which may be detrimental. If we limit fat to the normal amount of butter served on bread, the cream (top of milk) served with cereal, the fat obtained from the milk and egg, and the small amount found in other foods, as, for example, in simple pudding and muffins, the normal child will not be taking too much. Only the unusual child will need greater restriction in the fat content of his diet.

The fourth group supplies starches and sugars. A certain amount of starch and sugar should also be included in the diet of children. These are given for the purpose of supplying energy and heat to the body. The baby gets a sufficient amount of energy foods from milk. The older child must be given a larger proportion, so, besides the milk, he needs cereals, breads, fruits and vegetables, since varying amounts of sugars and starches are obtained from all these.

The cereals given to the child should include those which contain the outer parts of the grain. These not only supply mineral material but a certain amount of roughage necessary for normal digestive processes. The clogging of the intestines (constipation) is most often caused by too highly refined foods. More bulk in the form of coarse cereals, breads made from whole grains, fruits and vegetables, will frequently relieve this condition without using drugs.

The fifth group includes sweets. Because candy supplies nothing but energy material, whereas most of the other foods supply some other essential as well, it is wise to limit the amount of candy or cane sugar that a child takes, lest he get too little of the other materials necessary to build his bones and tissues properly. The lump of sugar or piece of candy at the end of a meal may be beneficial, provided, of course, the child has eaten enough of the other foods served. A small amount of sugar on the cereal may encourage the child to eat what otherwise he would reject, but care should be taken that there is not an undue amount of sugar, or that the child is not eating sugar and leaving cereal.

The modern mother needs to give special consideration to the beverages her children are given. Tea and coffee no longer form any part of a child's diet. They are not foods—only stimulants, and under no condition should they be given to children, even those of high-school age. Chocolate and cocoa may be given in moderate amounts to the older child. In both of these are contained a stimulating material similar to that in tea and coffee, but in lesser amounts. Sometimes very small amounts of cocoa are added to the milk for younger children in order to get them to take more milk. Only under such conditions is this permissible.

A liberal amount of water should, in all cases, be given. This may be taken not only between meals but with meals as well. Care, however, should be exercised that the water is taken between bites and that it is not used to wash the food down. Children must be taught that food must be thoroughly chewed. Soft drinks, except those made from fruits, as lemonade and orangeade, or grape juice and the like, should be prohibited. Many mothers are not aware that root beer may contain a considerable amount of alcohol. This, as well as all other alcoholic beverages, should be forbidden.

All children should be given three meals a day, and the amount given should be fairly evenly distributed among the three meals except for the undernourished child. Between-meal lunches should be discouraged. The habit among high-school children, especially, of going to school without breakfast or with a cup of coffee and a slice of toast, is dangerous. A goodly portion of our girls who fail to complete their high-school courses because of ill health or low grades are undernourished. This does not mean that the home is not supplying enough food, but that the home does not see that the girl gets enough of the right kind of food. Success in all phases of life means adequate nourishment. Food faddists are in danger of being undernourished.

A normal healthy child seldom eats too much, although he may eat too much of one kind of food of which he is particularly fond. Only candy need be cited as an example. Good food habits should be taught early and the children should learn to eat a variety of foods. Nutritional safety lies in a fairly liberal supply of a variety of foods. If a person eats a variety of foods, he or she is much more likely to get some of all the necessary food substances than in cases where the variety is limited.

House Ants.

Ants are attracted to the house by grains of sugar and crumbs of bread or cake on the floor and shelves of kitchen or pantry. Absolute cleanliness and neatness, therefore, is the surest way of preventing a siege of this troublesome pest. This applies, also, to the porches and yards. The practice of sweeping crumbs into the dooryard is accepted as an invitation by the ant.

Once having gained access to the house the ants may be trapped by moistening porous sponges with sweetened water and placing them where the insects are most numerous. The sponges should be inspected several times every day and if ants have collected in them they should be destroyed by plunging in hot water, the sponges again prepared with the sweetened water and replaced.

The most effective means, however, is to find and destroy the nests. There are three or four species of ants which bother indoors, the little red ants and the little black ants being the most common and troublesome. The little red ant is the true house species, making its nest behind the plaster, wainscoting or baseboard and mantels, beneath flooring, and, in fact, wherever there are cavities with external opening. The little black ant is not strictly a house species, although frequently found indoors and becoming at times as troublesome as the red ant. Its colonies are usually located under walks and stones, in the yard and under steps and low platforms.

The red house ant is usually difficult to eradicate, but, if the nest is found, two or three ounces of carbon bisulphide can be injected into it, which will kill the queen and workers present and the rest will then die out in time. The nest of the little black ant is more easily located by following the workers as they leave the house and go into the yard. The nest can be treated with hot water or by injecting carbon bisulphide, which may be applied through one or two holes in the top of the nest. These holes after treatment should be covered over with earth.

Chickens Will Help.

To the Editor:—The women are all asked to do their bit to help out the food supply. Probably there is no better way to do this than to raise poultry. Set eggs whenever possible until cold weather. Meat will be just as high next winter as it is now, and perhaps higher.

One woman I know here says she will keep her incubator full all summer, using turkey eggs when possible and when it is not chicken eggs. Even if not large enough to sell, the chickens will make food at home when they cannot be kept any longer.

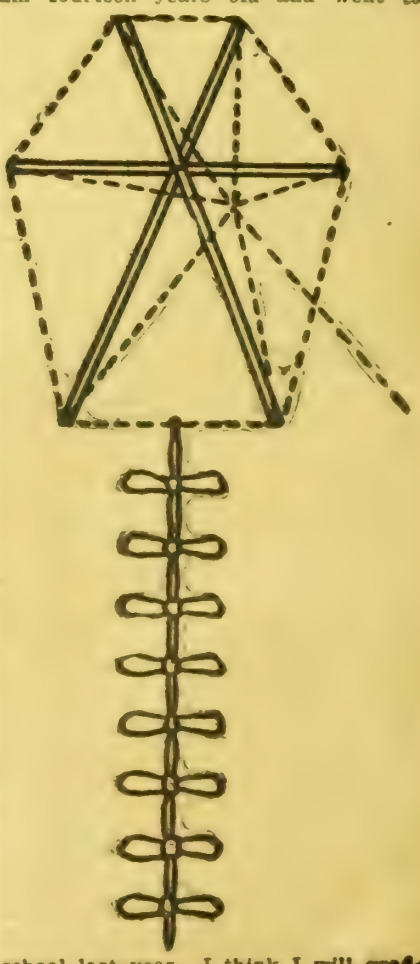
Did any of the readers ever salt chicken meat? I have, and, though some of the flavor is lost, the meat is very good, tender and delicate.

N. M. L.

THE YOUNG FOLKS.

How to Make a Kite.

Dear Young Folks:—I have read your letters for several years, but this is the first time I have ever written. I am fourteen years old and went to



school last year. I think I will graduate this year. I have three brothers, but no sisters. I can tat and do lots of crocheting. I take most of the care of the chickens and raised about 500 last year.

I will tell Wallace how to make a

kite. First you take three light sticks about one-fourth of an inch thick, one sixteen inches long and the other two twenty-one inches long. Fasten them together about seven inches from one end, as shown in the drawing. After you fasten them you cut a little slit in the end of each stick and run a string around in these slits. Then lay the frame on some tough paper and cut around the kite about an inch from the string. Put some paste on the edges of the paper and lap it over the string. Then cut three lengths of string a little longer than the sticks and fasten them at each end of the sticks so as to have them crossed in the center, and fasten the kite string where they cross. For the tail use strips of cloth long enough to balance the kite.

I will ask the young folks a riddle. What is it that we often return, but never borrow? —Lucille.

A Bird Lover.

Dear Young Folks:—I will write you about the birds that build around my home. There are bluebirds, martins, wrens, robins, mocking birds, Bob Whites, whippoorwills and lots of others. Lots of them build in our orchard. I like to hear them all sing, but I like the mocking bird's song the best of all. I wouldn't rob a bird of its eggs for anything. I think it is wrong, and, besides, they eat lots of bugs and worms that eat the vegetables in the garden and take up the corn in the field.

I will tell you a story about a litttle boy and his uncle. The little boy's name was Charlie and his uncle's name was Uncle Ben. Charlie had a new rifle, and one morning he said to his Uncle Ben, "Come and go with me to the garden; I am going to shoot some of those mean robins that are eating up all our cherries." Uncle Ben said, "All right," and got his hat.

They were just going through the gate when Charlie said to Uncle Ben, "There's one of them." "Oh, no!" said Uncle Ben, "he was just eating a bug." They stood still a minute and the robin flew back to the cherry tree. This time Charlie thought sure he was eating a cherry and started to shoot him, but Uncle Ben caught his arm and said, "Don't he have to have some pay for his work? He eats the bugs that eat more cherries than the robin does." Charlie decided it wasn't so wrong for the robin to eat cherries after all.

—Mary.

Answers to Ida's Flower Questions.

Dear Young Folks:—I like to read our page and think it a pretty good paper.

I love flowers very much and have planted a good many seeds. A girl named Ida wrote some flower questions and I think I have the answers to most of them.

1. What flower begs to be remembered? Forget-me-not.
2. What flower is the preacher of all flowers? Jack-in-the-pulpit.
3. What flower tells the time of day? Four-o'clock.
4. What flower is worn on the foot? Lady's-slipper.
5. What flower is a color? Pink.
6. What flower is a ferocious animal? Snapdragon.
7. What flower greets the new-born day? Morning-glory.
8. What flower is an amiable gentleman? Sweet William.
9. What flower declines to live on hills? Lily of the valley.
10. What flower is an emblem of great sorrow? Bleeding heart.
11. What flower bears the name of two girls? Rosemary.
12. Which is the youngest of the rose family? Baby rambler.

—Eulalea.

Recipes.

Bran Bread.—One cupful milk, one cupful water, one-half cupful sugar, two teaspoonfuls salt, one-fourth to one yeast cake, one-third cupful warm water, one tablespoonful shortening, one cupful bran, five to six cupfuls white bread flour. Put sugar, shortening and salt in mixing bowl; pour on the scalded milk and boiling water; when lukewarm add the yeast cake softened in the lukewarm water. Add the bran and flour, stirring until thoroughly mixed. Use enough flour to make it the consistency of white bread dough. Put to raise. When double its bulk, knead into loaves; let raise again and bake as white bread.

Spinach Omelet.—One cupful cooked spinach, one and one-half tablespoonfuls flour, two tablespoonfuls butter, one-half cupful cream, one-third teaspoonful salt, few grains pepper, four eggs. Chop spinach fine and make a sauce of the butter, flour, cream, pepper and salt, allowing it to boil thoroughly. Combine this with the spinach, separate the egg yolks from the whites, beat the yolks till lemon-colored, adding a third of a teaspoonful of salt and a little pepper. Beat the whites till stiff and dry and cut and fold them into the first mixture. Pour into a hot, well-buttered omelet pan, put the spinach over the top and cook very gently for about twelve minutes till the egg is set and the omelet brown. Fold as for any omelet.

Whipped Cream Dressing for Fruit Salads.—Three egg yolks, one-fourth cupful sugar, one-fourth teaspoonful salt, one-third cupful vinegar, whipped cream. Beat the egg yolks, add sugar, salt and vinegar and cook in a double boiler until thickened, stirring constantly. Remove from fire and set aside to cool. When cold fold in sufficient whipped cream to make it very fluffy.

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Waist 1935-Skirt 1916—A smart tailored dress. Waist pattern 1935 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 7 yards of 36-inch material for a 36-inch size for the entire dress. Two separate patterns, 10 cents for each pattern.

1383—Shirt for boys and youths. The pattern is cut in 5 sizes: 8 10, 12, 14 and 16 years. It requires 2¾ yards of 36-inch material for a 10-year size.

2107—A pretty summer dress. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7⅞ yards of 44-inch material for a 36-inch size.

1425—Ladies' house dress, with long or short sleeve. The pattern is cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¼ yards of 36-inch material for a 36-inch size.

1909—A new coat dress for misses and small women. The pattern is cut in 4 sizes: 14, 16, 18 and 20 years. Size 16 requires 6 yards of 44-inch material.

2119—A becoming popular style for the growing girl. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 2⅛ yards for the guimpe, and 3½ yards for the dress, of 27-inch material.

1937—Junior dress. The pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 3¼ yards for the dress, and 3 yards for the overblouse, for a 14-year size in 27-inch material.

2123—A simple dress for the little girl. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 3 yards of 36-inch material for a 6 year size.

2127—A simple apron style. Pattern is cut in 4 sizes: Small 20 and 22, medium 24 and 26, large 28 and 30, extra large 32 and 34 inches waist measure. Medium size will require 3½ yards of 36-inch material. Price 10 cents. With the apron you may wear a house dress made after pattern 1435 which is cut in sizes 23 to 44 inches bust measure. Price 10 cents.

1371—Girls' dress in empire style, with or without bodice. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2¾ yards of 36-inch material for a 6-year size.

2108—A comfortable play or beach suit for small boys. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 2¼ yards of 36-inch material for a 3-year size.

1339—Ladies' kimono perforated for sack length in straight or pointed outline. The pattern is cut in 3 sizes: Small, medium and large, and will require 4½ yards of 44-inch material for the full length style, and 2¾ yards for sack length, for a medium size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for June 17, 1917.

The Risen Lord.

LESSON TEXT—John 20:2-16.

GOLDEN TEXT—But now is Christ risen from the dead, and become the first fruits of them that slept.—I. Cor. 15.20.

The death of Christ made a deep impression upon the beholders (Luke 23:48, 49). Joseph, who seems to have been a secret disciple, obtained the body, and gave it burial (Mark 15: 42-47). In Mark's record we have the story of the discovery of the resurrection by the women, and Matthew tells us how his enemies dealt with that fact. Be sure to use a good harmony of the four gospels in presenting all of these lessons, else some important detail will be overlooked.

I. Mary's Visit to the Tomb (vv. 1-10). The Sabbath ended at sundown, and the shops were then open, and Mary Magdalene [illegible] spices with which [illegible] the dead body of Jesus. There is strong probability that the women paid a visit to the tomb late on Saturday (Matt. 28:1, R. V.). Starting the next morning, "while it was yet dark" (v. 1), they came to the tomb to perform this last service of love. Jesus had no need of such [illegible] (Matt. [illegible] 19), but the women were rewarded by receiving the first glimpse of the risen Lord. There were five appearances on this first day of the week: (1) to Mary Magdalene, (2) to the "other women," (3) to Peter; (4) to those on the way to Emmaus and (5) to the ten disciples, Thomas being absent.

None of these seemed to expect Jesus to be risen, for they had each failed to listen to and ponder his words. The extent and genuineness of the affection of the women is found in that they went to serve Jesus when apparently all hope had failed (I. Cor. 13:8, R. V.). as soon as Mary saw the stone rolled away, she concluded that the tomb had been rifled, and hastened to report to the disciples (v. 2). This report of the women to the disciples was considered "as idle tale's" (Luke 24:11). With intense eagerness Peter and John ran to the tomb thus reported as being robbed. John, the younger, reached the tomb first, but in reverence did not enter, only stooping to look in (vv. 4, 5). Peter, the impetuous one, rushes inside, and sees the linen clothes lying, and the napkin that had been about the head carefully folded and lying in a place by itself (v. 7). This apparently insignificant detail is one which is really significant inasmuch as it shows that the tomb had not been rifled, leaving disorder behind. Instead of excitedly snatching the napkin from his face, and hurling it wither it might fall, he had quietly taken it off, and in an orderly way laid it aside. It is in such minute details as this that we see the greatest evidence of the veracity of this record.

II. Mary Weeping (vv. 11-15). The disciples returned to their own homes, and doubtless to the other disciples (v. 10), but the loving Mary remained behind in this place made sacred as having housed the body of the Lord. It is natural for us to linger in silent meditation in places of our greatest revelation or of our deepest soul experience. Jesus had told his disciples over and over again that he should rise again, and it seems strange that his enemies should have remembered it (Matt. 27:63) and his friends not.

III. Mary Worshiping (vv. 16-18). There must have been an inflection in the voice of Jesus, for, upon the utterance of that one word, "Mary," she recognized her risen Lord. Joyfully she exclaimed, "Rabboni," that is to say, "Master" (v. 16), and would have poured out her love and worship at his feet. Jesus, however, does not suffer her to hold him fast. Mary must leave him, and tell the others. Literally, he says, "Do not lay hold of me, but go and make known the glad truth that I am risen again." The risen Lord must return to "My Father" and "My God," whereas the one who would gladly have remained at his feet must go to the brethren, and make known the facts of the fulfillment of prophecy and the resurrection of our Lord.

The bribed soldiers spread abroad the tale that the disciples had stolen his body. The later lives of these disciples, their heroism and martyrdom, are evidence of the absurdity of any such act on their part.

The resurrection of Jesus is a vindication of his claim to being the Son of God. We do well to emphasize his birth, and to dwell much upon his death, yet both of these have no essential value apart from his resurrection.

Apart from this, the cross is the end of a failure. The resurrection demonstrated that Jesus Christ's redemption was not completed upon the cross. The resurrection is better authenticated than any other event in history.

The risen Lord called this weak band of disciples "my brethren" (Matt. 28:10). He is our brother still, and we are to proclaim his work of redemption, the proof of which is the resurrection, unto others who know it not, for this story is no fiction. It is the world's most tremendous and awe-inspiring and glorious fact.

Because rhubarb leaves contain certain substances which make them poisonous to a great many persons, specialists of the United States Department of Agriculture warn housewives against using this portion of the plant for food. A number of letters have been received by the department calling attention to the fact that certain newspapers and magazines are advocating the use of rhubarb leaves for greens, and that disastrous results have followed the acceptance of the advice.

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The Wisconsin Farmer, Madison, Wis.

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$1,000 DOWN—Fine improved 80, only 1½ mile good town, 45 acres splendid field, 15 cleared, balance heavy hardwood. Level, with nice drainage. No rock. Buildings, well, etc. A big snap at $5,000. Come at once. Baker, D.110, St. Croix Falls, Wis.

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UPPER WISCONSIN, clover belt, farmers grow rich; 40-80-acre tracts; mile station; good roads, schools, churches; $20-$30 acre, ¼ down, balance easy. R. J. Russell, La Crosse, Wis.

MARATHON COUNTY, WISCONSIN, improved farms $25.00 per acre and up; unimproved farms $15.00 per acre and up. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

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POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

A Junior Poultryman.

To the Editor:—I am writing you a contribution concerning my flock which consists of 100 Single Comb Brown Leghorns. It is not so very large as yet. I have more in the show line than in the market line. I started to take care of this flock late last spring and in the fall just before the show season opened up a friend of mine, who is somewhat of an expert in the poultry business, came and helped me pick out a few to show. We picked out four females and two males. This friend, Mr. Roberts, showed me different points about the birds and also about fitting them for the show pens. My first show was in December, 1916, at Oconomowoc, and I got first and third on cockerels and first and fifth on pullets and second on best pen, in which class I was beaten by only one-eighth of a point. My total winnings were four ribbons and $4.50 cash. After this show I started fitting my birds for another show late in December at Mukwonago. At this show I received a silver cup and ribbons for best pen of Single Comb Brown Leghorns. After this show the females picked each other's feathers and were damaged so that I could not show them any more that season. Later I bought a cockerel which came from Indiana and put him with my best pen. I also separated these to themselves so I could keep the eggs separately. I have about fifty chicks from this pen and from these I expect to pick several show birds for next season. Fred Southcott, Jr.

Dousman, Wisconsin.

[Editors' Note.—The Wisconsin Farmer is glad to see how well one of our schoolboy friends is getting a start in the poultry business. He writes us that he expected to send us a letter some time last winter, but like all boys who have an ambition to succeed he has been putting in hard licks at school. The Wisconsin Farmer hopes to hear of Fred, Jr.'s, further success in showing his Single Comb Brown Leghorns.]

Poultry and Preparedness.

"An increased attention given to the poultry industry will prove to be one of the country's greatest defenses against a food shortage," says the poultry husbandry department of Iowa State College. "Poultry can be kept profitably on practically every farm and on many town and city lots," they say. It can be more quickly and extensively increased than any other important class of farm animals, and a marked increase in the production of poultry products can be made without an increased use of foodstuffs that can be used more advantageously for direct human consumption or for feeding other farm animals. Poultry is kept in large numbers in China and other countries where the most intensive system of agriculture of the world is practiced and where the demand upon the land for the production of human food is so great that practically all other classes of farm animals are excluded. This is largely due to the ability of poultry to utilize to the greatest advantage waste products of the field and garden such as sprouting seeds, insects and the scattered grain unavoidably left on the harvest field and threshing ground; also a significant amount of the scrap from the table, waste vegetables from the garden and even the clippings and dandelions gathered from the lawn. In addition, by-products of the meat-packing houses, the flour mills, the cereal and starch factories and whey, skim milk and buttermilk in excess of that demanded for human consumption can all be used most profitably [illegible]r poultry feeding. Because poultry [illegible]mong the most efficient of all ani[illegible] in utilizing the food provided for [illegible] the production of the highest [illegible] human food, the grains not [illegible] or human consumption, such as a large part of the corn, oats, barley, kafir corn, millet, etc., can also be fed to poultry most profitably.

The high value of both the materials that can be used for animal feeding and animal products necessitates a greater need than ever before of the use of good stock and a more careful system of management. No longer should the presence of weak and unproductive stock in the flock be tolerated, while special attention should be given to that which is kept that it may have a fair opportunity of serving the country by paying its way. A more general application of practices followed by the most successful poultrymen will tremendously increase the country's supply of poultry products and the profits of those who adopt them.

Those who have their stock hatched early will have a decided advantage in getting the eggs next winter that will doubtless bring the highest price ever realized. Well-matured pullets make the best winter layers. Good care and good feed will do much to overcome the handicap of hatching later.

Poultry parasites will prove to be the poultry keeper's most costly guests. The common chicken mite that too often comes with the season of spring should be informed by a clean and well whitewashed poultry house that he has worn out his welcome. If he appears in spite of this suggestion an application of crude oil or kerosene to the roosts and if necessary a stream of boiling salt water to the nests and other fixtures will urge him beyond resistance.

Lice are the cause of serious loss among the chicks, though not so harmful as mites in the case of mature stock. They can be readily exterminated by applying an amount of a mixture consisting of equal parts of blue ointment and vaseline equal the size of a common field pea to the abdomen and sides of the body beneath each wing of each mature fowl. Extreme care should be taken in handling this material, as it is extremely poisonous. If the hens are properly treated before the chicks are permitted with them it will not be necessary to treat the chicks, thus saving either serious loss or much trouble in treating them.

Scaly leg is a common infectious disease that causes much unnecessary loss. It is caused by the presence of a parasite which works under the scales of the legs and toes and can be readily cured by treating these parts by dipping them in a mixture consisting of equal parts of sweet oil and kerosene.

A tremendous loss represented in the mortality of young chicks can readily be prevented by rigidly following the common homely suggestion of keeping them from getting chilled, overheated or crowded and by feeding a palatable, clean, wholesome and well-balanced ration in limited quantities only for the first few days. Infertile eggs tested from the incubator or under hens, and skim milk and buttermilk are the greatest of all known preventives of bowel trouble and the greatest insurance of a good, healthy growth.

Better care of the eggs produced on Iowa farms sufficient to prevent the present preventable yearly loss would result in an increase in the nation's egg crop greater than the average yearly production in each of half the states of the country. "Swat the rooster;" provide plenty of clean nests; gather the eggs twice each day or oftener during warm weather and once each day at other seasons; keep them in a clean, dry, cool place and market them often without washing is common sense advice which if followed will turn the trick.

The labor problem as it affects the poultry industry can be greatly reduced by greater specialization. High-class breeding stock bred for the purpose for which it is to be used by the poultry specialist will prove to be a greater source of profit than ever to the producer. The central hatchery and the use of the stove brooder greatly increase labor efficiency in poultry production and are certain to increase in importance throughout the country. All in all we seem to see the dawn of the poultry keeper's greatest opportunity.

Feeding Young Guineas.

To the Editor:—I read with pleasure each week your advice on raising different kinds of poultry, and derive much benefit from it, but I have never yet seen anything about the feeding and raising of young guineas. As I am interested in this kind of bird I would like to see an article in your paper as to how to feed them and care for them, as they seem hard to raise.

Mrs. C. R. B.

Lord Devonport, the British food controller, has issued an elaborate order regulating the sale and prices of meat, including live animals. The order prohibits speculative re-sales, eliminates jobbing transactions, and states what profits shall be permitted to dealers and the cost of the carcasses.

Vegetables properly prepared tempt the appetite. When they are soggily cooked or poorly seasoned, much of them will be left on the table.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators and brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners at leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

PURE-BRED White and Barred Rock chicks, 15 cents each. Eggs: $1.00 per 15, $5.00 a hundred. Mrs. J. F. Bloom, Stillwater, Minn.

Fourth of July Packet For You

Count the Dots and Win a Beautiful Prize

You see in the picture, an Automobile covered with dots. Can you count the number of dots on this Auto? If you can find the right number, we will send you as a prize, *a packet of beautiful Fourth of July post cards*, lithographed in rich colors and also a certificate of entry in our grand contest for a Saxon Automobile. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

SAXON AUTO GIVEN AWAY

Remember the Saxon will absolutely be given away at the close of the grand contest. In case of a tie a Saxon will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars by return mail. **THE AUTO MAN, Dept. 300, Des Moines, Iowa.**

NEWS OF THE SALE RING

R. J. Linscott's Jersey Sale.

The sale of registered Jersy cattle of R. J. Linscott, Holton, Kan., was attended by representative breeders from most all the western states. The auction resulted in the dispersion of 110 head for the average price of $210. The Linscott herd, established 1878, was one of the oldest herds of pure-bred Jerseys west of the Mississippi river and the first register of merit herd in Kansas. Buyers were present at the sale from no less than ten states. The business men's association of Holton, gave a banquet to the breeders, who greatly enjoyed the entertainment. The Kansas Jersey Breeders' Association was organized with 130 members. Col. D. L. Perry, of Ohio, was the auctioneer, assisted by James McCullough and C. M. Crews. Colonel Perry's unique style of conducting an auction was highly appreciated by the audience. The high price for a female was $500, paid by A. H. Wood, of Oklahoma. The herd bull, Jacoba Irene's Premier, sold for $850, the top price, to H. B. Taylor, of Wisconsin. Majesty's Golden Eva brought $460, next to the high price for a female, and was purchased by A. H. Wood. The list of sales included a lot of young calves, which were sold in single lots. The aggregate amount received for the day's sale was $23,980, including a few animals not listed. The bulk of sales are listed herewith:

FEMALES.

Distinction's Star 3d, Charles Tilley, Frankfort, Kan. $225
Gamboa's Distinction, W. E. Humes, Cawker City, Kan. 200
Distinction's Tipsey, T. E. Jones, Iola, Kan. 125
Distinction's Star 2d, E. W. Hull, Weston, Mo. 325
Gamboa Knight's Beauty, H. H. Wood, Breymon, Okla. 500
Distinction's Jacoba Irene, F. M. Lattimer, Holton, Kan. 100
Heifer calf, A. F. Miller, Milton, Mo. 100
Eminent's Jolly Louise, J. D. Marr, Eckerland, Kan. 250
Gamboa's Jolly Louise, L. K. Bacon, Holton, Kan. 225
Gamboa Knight's Jolly Lou, A. R. Taylor, Parsons, Kan. 135
Eminent's Jolly Louise 2d, Vinces Bovinska, Valley Falls, Kan. 170
Sultan's Jylol Louise, W. W. Patterson, Bronson, Kan. 400
Heifer calf, E. R. Lancaster, Hooker, Okla. 160
Gamboa Knight's Jolly Queen, W. W. Patterson 350
Miss Fern Maid, H. C. Holt, Kearney, Neb. 185
Jolly Fern Maid, H. C. Holt 200
Sweet Fern Lassie, H. C. Holt 175
Gorgeous Topsey Fern, T. H. Barber, Osawatomie, Kan. 135
Sultan's Beauty, W. W. Patterson 400
Gamboa Knight Princess, J. A. Conk, White City, Kan. 185
Gamboa Knight's Mousy, Mr. Summers, Hope, Kan. 100
Margaret's Gamboge Maid, Frank Boland, Miltonvale, Kan. 200
Gamboa Knight's Rose Maid, S. H. Whitford, Garnett, Kan. 170
Gamboa Knight's Ophelia, S. H. Whitford 170
Gamboa Knight's Beth, W. W. Patterson 225
Gamboa Knight's Bessie, Mr. Summers 90
Gamboge Knight's Tipsey, E. Mead, Plainville, Kan. 85
Eminent's Bessie N., F. D. Dalton, Pocahontas, Kan. 175
Gamboa Knight's Pansy, J. M. Shaffer, Jays, Kan. 230
Tipsey's Eminence, W. W. Walton, Holton Kan. 75
Lottie Fern Leaf H. C. Holt 185
Silver Palm Leaf E. H. Barber 135
Sultan's Golden Stella, Mary Culver, King City, Mo. 210
Gamboa Knight's Stell, Mart Gibson, Chanute, Kan 150
Golden Fern Stella, W. W. Patterson 300
Oakland Sultan's Stella, Vinces Bovinska 150
Sultan's Coomassie L. 2d, F. H. Boch, Wichita, Kan. 230
Sultan's Juangie, W. W. Patterson 200
Golden Maid's Juangie, M. A. Smith, Cawker City, Kan. 200
Golden Maid's Tipsey, E. R. Lancaster 90
Sultan's Queen Mellie, L. A. Poe, Hunniwell, Kan. 300
Sultan's Gray Fern, J. W. Hartley, Manhattan, Kan. 255
Gamboge's Golden Fern, E. V. Fritts, Paola, Kan. 200
Sultan's Golden Tipsey, Chas. Sherman, Perry, Kan. 225
Golden Fern's Tipsey, J. A. Reynolds, Winchester, Kan. 205
Gamboa Knight's Tipsey, De Witt Lee, York, Neb. 150
Sultanes Warder's Mysette, H. H. Keil, Abilene, Kan. 235
Warder's Sultane, Geo. Felton, Effingham, Kan. 250
[illegible]'s Duchess of Rosalpha, H. [illegible] 180
[illegible] Pansy, W. W. Patterson .. 300
[illegible] Golden Eva, A. H. Wood, [illegible] 460
[illegible] Lancaster 145
Gamboa's [illegible] Inez Hutchinson, [illegible] 175
Magyarland's [illegible] Lass, M. A. Smith 205
Torono Fifth [illegible] Fritts 140
Jacoba Irene's [illegible] B. Taylor, Beloit, Wis. 240
Jacoba Irene M[illegible] Taylor 290
Jacoba Irene's [illegible] Taylor 240
Knight's Jolly Louise, C. A. Scovill, Sabetha, Kan. 245
Hebron Hazel, W. W. Patterson 400
Golden Fern's Figges, J. A. Reynolds 220
Knight's Golden Figges, E. V. Fritts 150
Coronet's Ophelia, J. P. Jones, Beattie, Kan. 275
Hero King's Ethel, C. W. Cochran, Wallan, Ia. 165
Gamboa Knight's Eminence, E. H. Barber 140
Mildred of Browndale, Mary Culver 205
Mildred Jacoba Irene, E. R. Lancaster 135
Hereby, Mary Gibson 300
Fox's Hereby, F. H. Boch 180
Golden Fern's Mildred, Mart Gibson 300
Gamboa Knight's Fern, Mr. Summers 155
Olga 4th Pride 3d's Pet, W. W. Patterson 255
Eminence Dottie Dell, M. A. Smith 250
Vestal Maiden, Mary Culver 235
Gamboa Knight's Maiden, R. J. Yest, Sylvia, Kan. 100
Gamboa Knight's Interest, Frank Boland 150
Fox's Tormentress, M. A. Smith 325
Tormentress A. Jeanette, M. A. Smith 275
Tormentress Gay Tipsey, E. R. Lancaster 105
Envalde's Princess, E. C. Wiley, Arkansas City, Kan. 350
Golden Torment Fairy, M. R. Crosby, Iatan, Mo. 175
Jeanette's Golden Queen, H. B. Hauek, Miltonvale, Kan. 220
Sultan's Distinction 2d, H. Boch 155
Gamboa Knight's Mary Jane, A. H. Wood 150
Golden Maid Mysette, H. Boch 210
Eminent Erie Bell, H. C. Holt 160
Eminent Erie Daisy, A. R. Taylor 180
Silver Fox's Helen Bell, T. H. Barber 125
Eminent Florence Porter, E. C. Wiley 275
Gorgeous Nightingale E. R. Lancaster 75
Brown Fern Lady, T. H. Barber 160
Southern Mockingbird, H. C. Holt 155
Sultan's Golden Agnes, Albert Barret, Springfield, Mo. 280
Stella's Jacoba Irene, E. R. Lancaster 135
Heifer, Jas. D. Goswell, K. C., Mo. 225

BULLS.

Jacoba Irene's Premier, H. B. Taylor 850
Gamboa's Knight 495
Tipsey Sultana's Eminent, H. C. Holt 230
Mabel's Oxford Izia's Gamboge, Jas. Grier, Conway Springs, Kan. 315
Jolly Louise Knight, G. M. Abbot, Hiatook, Okla. 200
Jolly Fern Maid's Fox, Ira Bradford, Perry, Kan. 55
Golden Princess Gamboge, G. M. Ellis, Guthrie, Okla. 200
Premier's April Lad, R. F. Diest, Lafontaine, Kan. 85
Stella's Eminent Sultan, S. B. Dressler, Lebo, Kan. 90
Magyarland's Gamboge Knight, A. M. Templin, Farmer, Neb. 195
Gamboa Knight's Prince, E. Mead 80
Mysette's Golden Eminent, Jno. Brady, Oswego, Kan. 30

SUMMARY.

14 bulls .....$ 3,070; average.... $220
92 females .. 19,990; average.... 208
110 head ..... 23,060; average.... 210

Waukesha Guernsey Sale.

One of the most successful sales ever held by Waukesha Guernsey men was their sale on June 7th following the meeting of the Western Guernsey Breeders and the county association at Pewaukee on June 6th. At the conclusion of the sale F. E. Fox was glad to announce that a $357 average had been realized on 47 animals that passed through the ring during the afternoon. Illian's Milk Maid of Maple Hill topped the sale at $1,025. She was bought by W. P. Cowan, of Wheaton, Ill. Nancy of Maple Hill was second, going at $805 to George W. Browne, of Waukesha. Castello's Beauty went to Longhurst Farm at Peoria for $800. Of the 47 animals, 29 sold for $300 and better and no females sold for less than $200. The cattle were well fitted and this together with the breeding helped to make buyers and consignors satisfied with the result.

FEMALES.

Lima Girl, March 12, 1909; Bartlett Bros., Pewaukee $210
Whitney of Maple, May 10, 1914; Ames Bros., Weaver, Minn. 355
Imp. McKerrow's Douvre, July 7, 1915; A. M. Sisler & Son, Grand Rapids, Minn. 275
Princess Rhoda, Oct. 6, 1916; Ames Bros. 230
Lass of Springhurst, May 17, 1914; L. G. Johnson, Whitewater, Wis. 240
Excel of Sarnia, Aug. 24, 1914; E. J. Longyear Excelsior, Minn. 225
Imp. McKerrow's Heaume's Doris, March 10, 1915; E. J. Longyear 365
Queen Tilly of Sunny Side, Aug. 9, 1916; A. M. Sisler & Son 305
Hero's Violet, Nov. 28, 1910; Jno. J. Schuarty, Troy Center, Wis. 265
Desire of Sarnia, Dec. 29, 1913; Ingalls Farm Co., Fond du Lac, Wis. 350
Verandess of Ulas Dale, July 15, 1912; Sam Siewert, Colgate, Wis. 240
Mirza of Haddon, Jan. 28, 1910; L. G. Johnson 325
Imp. McKerrow's Flora of Le Douvre, April 21, 1915; E. J. Longyear 370
Dorothy of Edgemont, July 30, 1908, Geo. Markell, Darien, Wis. 210
Imp. Lady II de la Vielle Rue, July 31, 1910; Sisler & Son 245
Gentian of Sarnia, June 30, 1916; H. O. Hinkley, Rockford, Ill. 305
Park's Yeka Queen 2d's Pride, Jan. 4, 1911; Bailey Falls Farm, Ogelsby, Ill. 300
Lucile of Beaver Lake, Apr. 19, 1907; Mayowood Farms, Rochester, Minn. 340
Daisy's Bell, Oct. 26, 1911; Jacob Strasser, Peoria, Ill. 235
Evangeline of Round Prairie, May 3, 1911; Geo. E. Stocking, Rochelle, Ill. 325
Imp. McKerrow's Golden Rose, May 7, 1915; Wm. Wrigley, Jr., Lake Geneva, Wis. 635
Illian's Milkmaid of Maple Hill, Sept. 8, 1912; W. P. Cowan, Wheaton, Ill. 1,025
Lillian May Bishop, Sept. 27, 1909; Fred W. Backer, Weyauwega, Wis. 635
Henry's Maid of Bailey Falls, Mar. 28, 1912; Ingalls Farm Co. 300
Castello's Beauty, Oct. 25, 1907; Longhurst Farm, Peoria, Ill. 800
Castello's Beauty 2d, Mar. 10, 1912; A. P. & H. S. Lovejoy, Janesville, Wis. 750
Masher Girlie of Sunny Side, Dec. 13, 1915; H. O. Hinkley 315
Empress of Sarnia, Apr. 14, 1914; Sisler & Son 360
Emolyn Hope, Feb. 10, 1906; Geo. E. Stocking 315
Isabina's Margery, Apr. 16, 1916; Sisler & Son 225
Imp. Lady Betty of McKerrow Farms, May 1, 1915; Ames Bros. 460
Imp. Bluebird of Sarnia, Mar. 25, 1911; Sisler & Son 410
Glenwood's Minerva, Feb. 25, 1913; Jacob Strasser, Peoria, Ill. 500
Troy Center Blue Belle, Feb. 14, 1914; Mayowood Farm 300
Imp. Fanny of McKerrow Farms, May 15, 1915; A. E. Wilcox, Mauston, Wis. 405
Nancy of Maple Hill, Apr. 16, 1915; Geo. W. Browne, Waukesha, Wis. 805
Park's Madeline, Sept. 18, 1915; Jno. Featherstone, Manson, Iowa 280
Yeksa Queen of Cameron, Dec. 15, 1911; M. C. Ewing, Wausau, Wis. 300
Murdock's Morning Glory, May 4, 1907; Wilbur Williams, Waukesha, Wis. 225
Ly of Meridian's Dewdrop, Dec. 25, 1914; A. E. Wilcox 330
Imp. McKerrow's Topsy, May 4, 1915; Sisler & Son 460
Lorraine of Maple Avenue, Nov. 8, 1914; M. C. Knutson, Mosinee, Wis. 295
Gracious of Sarnia, Sept. 19, 1916; H. O. Hinkley 305

MALES.

Maple King of Sunny Slope, Aug. 13, 1916; M. W. Goddard, McGregor, Iowa 130
Creamland Jack, Nov. 15, 1916; J. B. Wilmer, Honey Creek, Wis. 110
Dolly's Pride of the Cedars, May 3, 1915; Geo. B. Brown, Charleston, Ill. 225
Waukesha's Prospect, Jan. 6, 1914; Jacob Strasser 370

Warding Off the Currant Worm.

The worst enemy of the currant, so far as it affects the yield of fruit, is the currant worm, which also works on the gooseberry plants. It is well to plant the two fruits close together and the worms will attack the gooseberries first and can be killed there. The worms begin to work in the center of the clumps near the ground and work up, frequently doing much damage before being discovered. For this reason it is well to start early, worms or no worms, by sprinkling the bushes thoroughly when the leaves are half grown, using a teaspoonful of either Paris green or white hellebore in a pail of water. Or the poison may be mixed with a quantity of flour and applied early in the morning when the leaves are wet with dew. Two sprinklings, ten days apart, will surely destroy the first brood of worms. A close watch must be kept for the second brood.

Stop Scours in 3 Hours Caffatone stops scours in 3 hours. Does not bind, and is harmless. Guarantee card accompanies all orders. Pin $1 to letter. Mail your order today. Caffatone Remedy Co., 304 Main St., Platteville, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

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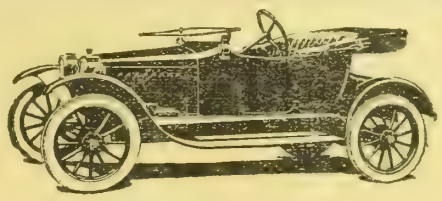

A Real Car Fully Equipped

Saxon Roadster Given Away

People's Popular Monthly Will Give Away This Splendid Saxon Roadster and 14 Other Grand Prizes on September 15th

The $395 Saxon Roadster which will be given away by the People's Popular Monthly on September 15th, is the standard two-passenger car with a four cylinder motor. It is fully equipped with windshield, one man top and storm curtains, carbide lighting system, horn and gasolene gauge, also a full set of tools.

It will carry two people 50 miles an hour, and will run 40 miles on a gallon of gasoline. The Saxon Roadster is being used by salesmen, doctors and others who must cover a lot of ground in a hurry. It certainly does the business. It's a fine looking car, too. This car will positively be given to some contestant; you may just as well be the winner as not. In case of a tie for any prize, the identical prize will be given to each tying contestant.

Here's the Way To Become a Contestant

For this $395 Saxon Roadster. Take your copy of the People's Popular Monthly and show it to your friends. Tell them how much you enjoy it each month. Get three of them to pay you 50c each for a year's subscription to this splendid magazine. Keep 50c for your work and mail $1.00 with the names of the subscribers written plainly on the starting ticket at the bottom of this page. You will then be a full fledged member of the Saxon Auto Club with 3,000 votes to your credit.

Besides the 3,000 votes you will be entitled to 5,000 extra votes for promptness. This will give you a big start of **8,000 votes** in the contest. Just as soon as you send in your three subscriptions we will send you more subscription blanks and helps for getting subscribers. Every subscription counts 1,000 votes and the Saxon Roadster goes to the one having the most votes at the close of the contest. The other 14 grand prizes go to the next fourteen. Moreover, you will be paid a liberal cash commission on every subscription you secure. Get busy today and get the first three subscriptions.

5000 Extra Votes Given for filling out and mailing this Starting Ticket promptly

Starting Ticket in Saxon Roadster Contest

People's Popular Monthly,
Des Moines, Iowa.

Gentlemen: Enclosed find $1.00 for which send People's Popular Monthly to each of the following persons for one year. I have collected 50c from each one and have kept 50c for my work. These subscriptions entitle me to 3,000 votes, besides the 5,000 free votes for sending this list promptly, toward the Saxon Roadster or one of the 14 other grand prizes to be given to members of the Saxon Club at the close of the contest September 15

Subscribers' Names — Addresses

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.....

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Please send me more subscription blanks and samples Popular Monthly, together with any other helps you I want to win the Saxon Roadster.

My Name ..... Address

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

John Jones' Herd.

JOHN JONES, Milton Junction, Wis., has a small herd of registered Holsteins which has been making some exceptionally good junior records, including a 16.56 junior two year old, as well as a 14.72 and 13.78 junior two year old. The tested daughters are sired by Wisconsin Admiral Walker 65689, whose grandsire is Admiral Walker Pietertje, that tied Sir Veeman for second place by having 50 A. R. O. daughters with highest milk and butter production. Mr. Jones recently sold five head under one year at the Lake Mills consignment sale that averaged $254. He now has on hand for sale two bull calves with exceptionally good semiofficial backing. One of these is a calf whose five nearest dams excepting his own average over 932 pounds of butter, while the four nearest dams of the other excepting his own average 1,045 pounds of butter. These calves are good individuals and we would, therefore suggest that breeders looking for a young bull of such breeding and A. R. O. backing would do well to write to Mr. Jones for more detailed information regarding this stock. Please mention The Wisconsin Farmer when you write.—Adv.

J. W. Goldthorpe's Herd.

A FEW days ago we had an opportunity of looking over the herd of Mr. J. W. Goldthorpe, Milton Junction, Wis., and were much pleased with the splendid individuality and excellent A. R. O. records represented. Mr. Goldthorpe has at the head of his herd a 31-pound bull and practically all of his cows have A. R. O. records ranging from 18 pounds at two years to 31 pounds at full age. Mr. Goldthorpe now has on hand a six months old bull calf out of his 31-pound cow for sale. The calf is a splendid individual, well marked and is from as good a pair of individuals as could be desired. The dam in particular is a splendid individual, being a large, strong cow possessing practically all of the desirable points that go to make up ideal dairy conformation, while the calf's sire is a show bull and one that has made a creditable showing at a number of fairs.—Adv.

Chester White Breeders.

ART G. HOSKINS, Dodgeville, Wis., is offering one of his best sows. Since last June she has raised 18 pigs and the best litter on the farm this spring is out of her. Since he is keeping the gilts he will sell the sow. She is right in every way and he is selling her for no fault. He figures that she will be an advertisement for his herd. She is bred to a good boar to farrow August 4th. A good buy for a good breeder. Art will also sell his herd boar, as he cannot use him another year, and, as he is in good condition he will sell him to anyone that appreciates a good boar. He is a grandson of the $800 champion, Schoolmaster, and is a boar with a world of quality. Of course, he will sell spring pigs and he has some dandies. Write this breeder your wants, and mention The Wisconsin Farmer.—Adv.

John P. Vogt, Jr., Chesters.

WE recently called on John P. Vogt, Jr., who has 140 Chester White spring pigs. He has more pigs this spring than he knows what to do with, different from most of the swine men in the state this year. Mr. Vogt has never done much advertising, but this year he feels that he has some good enough to send out and he is going to let the people know what he has for sale. It is only natural that from 140 spring pigs one should be able to pick a few good ones. He has some very fine February and March pigs and these are ready to ship now. His advertisement will appear in The Wisconsin Farmer, starting in July and we will have more to say about this herd at that time. His address is Glen Haven, Wis.—Adv.

Chas. Flesch's Big Mint.

WE still think that Chas. Flesch, Mt. Hope, Wis., has one of the best, if not the best, yearling Poland China boar in the state. We saw this boar again the first of June and he continues to improve with age. He is big and smooth and is all boar. Charlie is not sure whether he will show anything this year or not, though we would like to see him bring this good boar out this fall. He has some pigs that are ready to go and most of them are by his old herd boar, Jumbo's Equal 2d. He has a litter of boars sired by Young's Big Joe out of a Master's Giant Orange Wonder dam. Better speak early if you want one of this litter. His advertisement appears on page 20. Write for prices etc.—Adv.

Patterson, Jr.

[illegible] Patterson, Jr. [illegible]

[illegible] very [illegible] champ- [illegible] have some [illegible] later, but [illegible] late they [illegible] August. Bear [illegible] reference.

[illegible] Wis., has [illegible] spring pigs [illegible] later. Most [illegible] that he bought in the Atwater sale last fall, and by the way this boar is headed for the 1,000-pound class. His pigs have stretch and size and if all goes well Jake will have some good boars to offer in July. Keep this herd in mind.—Adv.

Some Dandy Poland Pigs.

W. F. ACKERMAN, Glen Haven, Wis., who breeds the big-type Poland Chinas, has a bunch of spring pigs that are doing as well or better than any we have seen of like ages. Mr. Ackerman is a good feeder, not only of hogs, but his Herefords and other stock show that they have not been neglected, even though he does have to pay exorbitant prices for feed. The best pigs on the place at this time are by A.'s Big Orange, a Big Orange-bred boar that he used for two years. He has a nice litter by Smooth Price and a good litter by Black Jumbo. His fall boar sired by Master's Giant is doing fine. He was in only ordinary condition June 1st and he weighed right at 300 pounds—he will easily make a 500-pound yearling. Mr. Ackerman will have the best lot of pigs to offer his customers this fall that he has ever had. Keep this herd in mind. We will have more to say about it later.—Adv.

Neeseman Poland Chinas.

WE recently spent some time with Aug. Neeseman, Warren, Ill., breeder of big-type Poland Chinas. Although Mr. Neeseman's postoffice is Warren, Ill., his farm is located in Wisconsin, and he is one of the boosters for Wisconsin Polands. One of the best gilts sold in the Madison sale last winter was from this farm. At this time he has some 125 spring pigs and we will say that we have not seen a bunch of pigs that have as much stretch as those on this farm. At a later date we will have more to say about this herd and we want to say now that this breeder will have a fine bunch of big-type Poland China boars to offer the public.—Adv.

Don't Forget Orion Col. S.

WHEN you get ready to buy that spring boar, don't overlook the pigs sired by Orion Col. S., the big-type Duroc Jersey boar owned by W. C. Jenkins, Bangor, Wis. No breeder has a better bred boar and he is good individually. His sire is the $2,500 Col. S. Jr., and his dam, Opal Orion, is by that great sow sire, Orion Chief. Mr. Jenkins has a nice lot of spring pigs coming on and he is going to have some real herd headers in the bunch. Get his prices before you buy.—Adv.

Do You Want Bargains?

DR. B. L. WERNER, Marshfield, Wis., is offering 20 young, registered Holstein cows that are bargains. They are sired by Zobeda Colantha Sir Lad 70176 and they are bred to Sir Johanna De Kol 19th 64143 whose sire has 66 A. R. O. daughters. These young cows are right in every respect and they are certainly bargains at $250 each, the price Dr. Werner is asking for them. Investigate this offer at once, for they will not be on the market long.—Adv.

Olathe Holsteins.

IF you want Holsteins write Silver Springs Farm Co., Eau Claire, Wis. They have a herd that is noted for its producing ability and if that is the kind you want, communicate with them. Their breeding is standard and they have big, roomy cows that appeal to visitors. They are glad to show their cattle and it is well worth your time to see this working herd. In writing for details please mention this publication.—Adv.

Belgians and Holsteins.

WE call your attention to the advertisement of Post & Wygant that appears on another page of this issue. These men breed and sell Belgian horses and Holstein cattle and just at this time they have some young stuff for sale that they are pricing worth the money. It will be to your interest to investigate this offering. Address Post & Wygant, Barron, Barron county, Wis. See page 20.—Adv.

Roy Horsfall.

ROY HORSFALL, Mt. Hope, Wis., is now nicely settled on his new farm and is better equipped than ever to raise Duroc Jerseys. He has some 30 pigs this spring and as Roy is going to push these pigs, he'll have some good ones to offer later. In due time his advertisement will appear in The Wisconsin Farmer.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter, Baraboo, Wis. (Sale at Chicago, Ill.)
Dec. 1, Anoka Farms, Waukesha, Wis.

Growing Sunflowers.

To the Editor:—I notice in a recent issue of this paper an article on sunflowers, and thought I would give my experience in handling them. Few people know they can be threshed with a grain separator. In 1915 I went to Arkansas to run an engine for a relative. After we got through threshing wheat we rigged our machine for threshing peas. We shipped it across the river into Missouri on Saturday to begin the peas on Monday. While we were unloading a man came and wanted to know if we could thresh sunflowers. We told him we could (we didn't know anything about it). Well, we pulled out to the roadside and he brought his crop. The first two or three efforts we failed, then we went to threshing them. The peas did not cure fast and we saved the sunflower crop. We threshed over 9,000 bushels of them and did a fine job. You can put away a crop in a hurry if you can get the help. We ran twenty-three wagons one day and then they could not keep us busy. We used a little Case separator, twenty-eight-inch cylinder, hand feed. The feeder had nothing to do except when a big head would not slip in, then he had a stick to start it to the cylinder.

Subscriber.

It might be profitable this year to consider the plan of sowing a few acres of buckwheat. This is a crop that may be put in as late as the middle of June or even as late as the first of July and yet result in a good yield. It will not do well if seeded early because in that case the hot weather comes at a time when it injures the crop. Buckwheat, to yield well, must blossom and fill in the fall when the weather is cool.

THE MARKETS.

Union Stockyards, Chicago, Ill., June 9th.—Choice beef cattle are gradually working higher, the extreme top this week being $13.75, which is the highest in the history of the trade and the bulk of the long-fed beeves sold at $13.35@13.65; good to choice grades $12.75@13.25; medium to good $12.00@12.75, and ordinary to medium killers all the way from $10.50@12, according to weight, quality and flesh. The "slicker" class have been adversely affected by a heavy movement in the Southwest and were ripe for readjustment. They have had a little feed on grass, and were selling out of line with middle and choice grades. The 800 to 900-pound kinds recently selling at $9.50@10 have been dropped 50c per cwt. and may be expected to work still lower, but the market is technically sound and the prospect does not warrant throwing anything overboard that is doing well and can be carried along. That there will be too many cattle at any time is improbable except that temporary congestion of mild nature may occur from time to time.

June is usually considered a "bearish" month in the hog trade because, as a rule, there is a fairly liberal marketward movement after urgent work in the fields is over, and assuming that such will be the case again this year buyers have thus far succeeded in lowering values slightly. Net declines at the close yesterday were only 15@25c from the closing session of May, but prices averaged 88c lower than the mid-May high spot. The spread in hog values is widening and a month or so hence this feature is likely to become decidedly more pronounced, for by midsummer receipts will include a liberal percentage of "grass widows" and light skippy hogs, and while the near future of the trade looks a little bearish, there will have to be more evidence of a fairly good supply to come during the next 60 days to warrant the prediction of any big, permanent decline in the market.

A continuous downward trend in values has carried sheep and lamb prices anywhere from $2.75@4.75 per cwt. below the high point a half-month ago and while declines were expected by producers as well as market operators, the slump has amounted to more than was looked for. It appears that the market has touched bottom for the present, however, and that some slight reaction may soon occur, as the supply of dry-fed stock has been very closely garnered and there is nothing but light receipts in sight for several weeks, at least, to come.

Fat cattle trade has given a good account of itself again this week. Good to choice grades of both beef and butcher cattle are closing strong to 15c higher than a week ago, handyweight and yearling steers and the top classes of cows and heifers gaining most. Plain and coarse heavy steers have done well to hold their own in the case of low-grade grass she stock, bulls and "slicker" class of killing steers irregular declines have been noted, bologna bulls having been hardest hit and selling 75c@$1 below the high time early last week. The top on yearlings has been steadily crawling up despite scarcity of choice heavy steers, while the big cattle have made little progress. Killers are making a demonstration of their ability to use a lot of light beef at this season, while demand for heavy kosher material is limited. It looks probable that choice

TOO LATE TO CLASSIFY.

HOLSTEIN BULL

WE OFFER A RICHLY BRED HOLSTEIN BULL born April 5, 1917, two-thirds white, straight top line and well grown. Herd on Federal Accredited List of Tuberculin Tested herds. His dam, a granddaughter of King Segis, has a record of 18.25 lbs. of butter at 8 years. We have just made a record of 29.09 lbs. on a sister to this cow. Sire of bull is a grandson of Colantha Johanna Lad. Price for immediate sale, $100. Remember he comes from a clean herd.

J. J. REID & SON OCONOMOWOC, WIS.

Every Home Should Own a Flag

"OLD GLORY"

"Long May It Wave
O'er the Land of the Free
And the Home of the Brave."

We have secured a quantity of high-grade, printed flags 3 ft. x 5 ft., with canvas heading and brass grommets, colors guaranteed fast.

You May Have One of These Flags

if you act promptly. It is almost impossible to buy flags and we may not be able to secure any more at a reasonable price.

Here Is Our Offer

For only $1.00 we will enter your subscription to People's Popular Monthly for one year and send you this beautiful flag postpaid. Or we will send you the flag free and postpaid for securing only three 1-year subscriptions to People's Popular Monthly at 50 cents each.

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Mail us the names of the three subscribers and $1.50 today and the flag will be yours. Or send us a dollar today for your own subscription and we will mail the magazine each month for a year and send you one of these splendid flags postpaid. These offers are good only while the flags last, so send your order today.

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SHORT-HORN CATTLE.

OAK LAWN SHORT-HORNS
SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
J. E. KENNEDY JANESVILLE, WISCONSIN

ROCK COUNTY SHORT-HORNS
FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. Kennedy, Sec'y, Rock County Short-horn Breeders' Ass'n, Janesville, Wisconsin

Short-horns
MILK BEEF
IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

Bates Milking Short-horns
YOUNG bulls from heavy milking dams and sired by generations of heavy-milking—high testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

BULLS FOR SALE --- SHORT-HORNS
THREE YEARLINGS past, one by the noted White Rock. Fifteen coming yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.
G. STAHLNECKER Darlington, Wis.

"SOME BULL"—I have for sale the best bred Scotch bull in the country. Write for details.
F. S. Bunker, Kilbourn, Wis.

Please mention this paper when writing

SHORT-HORNS
BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. Drake & Son, Beaver Dam, Wisconsin

Short-horns For Sale
WE HAVE some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORNS
STRICTLY BATES. Bates cattle for milk and beef. Have bulls for sale sired by 17th Duke of Wapsie. Write now.
B. W. LITTLE Janesville, Wis.

SHORT-HORNS
OF EITHER SEX, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. BERND New Richmond, Wis.

WORLD'S FAIR HERDS
SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.
C. J. SCHOENFELD & SON Fox Lake, Wis.

CHESTER WHITE SWINE.

Long, Strong Backs, Heavy Bone
DERENTHAL CHESTERS. The above is descriptive of the fall boars I have for sale. A fine lot and well bred. Yes, I'll sell spring pigs.
H. A. DERENTHAL Wykoff, Minnesota

CHESTERS
BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

ATTRACTIONS
An outstanding Chester White sow to farrow August 4th. Am keeping her gilts. Also a fine Schoolmaster bred boar. Spring pigs. Write.
ART G. HOSKINS DODGEVILLE, WIS.

"RAINY DAY"
ONE OF THE good CHESTER boars of the state. His pigs are great. Order one or more.
WALTER GEORGE Evansville, Wis.

BUTTS' CHESTER WHITES
READY TO SHIP. Buy a pig, grow your own herd boar. Sired by my show boar, PAY STREAK. Prompt attention.
WM. F. BUTTS Evansville, Wis.

Ready for Business
CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

Gray's Chester Whites
PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY Mt. Hope, Wis.

HEREFORD CATTLE.

Herefords
LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. Chippewa Falls, Wis.

GALLOWAY CATTLE.

30 GALLOWAY bulls for sale, 14 to 18 months of age, sired by Standard Favorite and Stanley's Othello. Also cows and heifers and Oxford rams for sale. C. S. Hechtner Chariton, Iowa

yearlings, handy-weights and heavy steers will be on an even basis when temperatures rise, although big cattle are likely to be scarce. That the country has been conserving calves is evident, but many of them are being marketed prematurely. This is a mistake, as they will be worth good money later on. The May run of yearlings was heavy and June to date has duplicated it, as with medium to best corn-fed steer yearlings selling anywhere from $11.50@13.50 there is every incentive to cash. Where cattle are gaining and doing extra well and another 30 to 60 days would put them in the choice class the trade generally believes it will pay to feed to a good finish, but early shipment of common stuff seems advisable, as they are still selling high proportionately and higher than they will sell a month hence, when "grassers" begin moving freely, and by the latter part of June, or early in July a liberal movement of grass cattle from Olkahoma and southern Kansas is expected.

The market for butcher cattle appears to have reached its zenith, in fact medium and low-grade stuff is now selling several points below the recent high spot, particularly grassy grades, and, as the movement of southwestern grass stuff swells further recessions in values are probable. Ripe corn-fed cows and heifers, on the other hand will be scarce all summer and are expected to hold up well. A few prime heavy Kosher cows are selling up to $11.50@12, and fancy heifer yearlings up to $12@12.50, but $8@10 is taking the bulk of the decent to very good fat cows and $8.50@10.65 most of the heifer stuff. Inferior to best canner cows are now selling at $6.25@7 and [illegible] largely at $7.15@7.60. The ab[illegible]ally high bull market of early last [illegible] toppled of its own weight, only a few prime corn feds holding up well. Bulk of the bologna and common [illegible] bulls are 75c@$1 below the recent [illegible] spot, most of the bolognas now [illegible]ing at $8@9. Good to choice veal [illegible]ves are selling largely at $13.75@14.25.

The trade in stock and feeding cattle has been rather quiet again this week. The few good ones are selling as high as any time, but the common and medium grades, which have made up the bulk of the supply the last two weeks, show anywhere from 25@50c per cwt. decline from the recent high spot. Choice flesh feeders are quotable up to $10.50, but are scarce, bulk of the offering of fair to good 600 to 800-pound stockers selling at $8.65@9.60.

The $16 hog has again "taken the count," only a few loads of choice, heavy butcher selling here since early Tuesday above $15.80 and the bulk of the fair to good mediums and mixed butchers going Friday at $15.45@15.50, with rough to good heavy packing at $15.10@15.35, light mixed at $15@15.25 and some common 140 to 150-pound stuff below $15, good to choice pigs largely from $13.25@14.35. The general average price of hogs at Chicago yesterday figured $15.50 against $15.64 a [illegible]go and $16.38 on May 14th last, [illegible] of the year. The spread in [illegible]en common and good hogs [illegible] seasonal manner and [illegible] of the trade that is [illegible] more pronounced a[illegible] eeks.

Pa[illegible] on live mutton values, [illegible] weeks ago, has continued [illegible]al this week and at the [illegible]stand from $2.75@3.25 lowe[illegible]mbs, about $4.50 lower on s[illegible]nd from $3.50@4.75 lower [illegible]uttons than the May high [illegible]ative ewes showing the most loss. Receipts have been light, but demand for the dressed product has been shot to pieces by the high cost of that commodity and killers have shown an ability to get along with a mere handful of mutton in their coolers. The belief is expressed in trade circles, however, that the decline has about run its course. Now that facts are becoming known, it is evident that the 1917 lamb crop is the shortest the country has had in many years. Feeding lambs will be high for the reason that there will not be enough to go around, and everybody will want them. Packers will cut deep, taking half-fat stock that under ordinary conditions would go to the feeder without competition. Wool is high and nothing vended in the sheep house can possibly be cheap. As the trade now stands $13.50@14.25 is taking most of the old crop shorn lambs, $16@16.50 medium to good spring lambs and $9.50 buying best shorn ewes. A load of choice Ohio-fed shorn wethers sold at $11 and $11.50@12.25 bought fair to very good shorn yearlings.

DUROC JERSEY SWINE.

HERE IT IS
NEW DUROC BLOOD FOR WISCONSIN. Sows by CHERRY CHIEF, ROYAL KING, KING ROYAL, LEE'S DEFENDER. Litters: THE ADMIRAL (by Chief's Col.); Valley Chief's Col. (litter mate to above); KING ORION, CHIEF ADVANCER. A limited number of pigs FOR SALE. Order early.
J. W. HIGGINS Richland Center, Wis.

Aristocratic DUROCS
BLOOD LINES of the most fashionable breeding, for the particular hog-man. LOOK—ROYAL KING, BIG CLIMAX, COL. GANO, EDUCATOR, CHIEF'S COL., DEFIANCE and KING THE COL. breeding. Have pigs of this breeding for sale. Start right, get the best. Order early.
ISAAC HIGGINS Gotham, Wis.

RED OAK DUROCS
FALL PIGS ALL SOLD. Spring pigs for sale, either sex. My DUROCS MUST PLEASE YOU or you return them. At your service.
F. R. CONSTANCE & SONS Waupaca, Wis.

Remember King Defender
Grand Champion Wisconsin, 1916, when you buy DUROCS.
JOHN L. FISHER Janesville, Wis.

ATWATER
IF INTERESTED in DUROCS, write me.
L. F. ATWATER Bangor, Wis.

NORTHERN GROWN DUROCS
BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS New Richmond, Wis.

DUROCS
FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

15 DUROCS
FALL YEARLINGS, will farrow in Aug. and Sept. In nice condition, long, good backs and smooth. The sire is a grandson of Golden Model 2d. Guaranteed safe in pig. Write
FRANK H. ARNOLD Janesville, Wis.

YOUR APPROVAL
BEFORE YOU PAY for the DUROC-bred gilts and boars that I sell. August farrow, well grown, smooth and right. They'll please. Order.
C. J. DAMEROW Beloit, Wis.

ORION COL. S.
BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. Jenkins Bangor, Wisconsin

WAR DUROCS
HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
DENNIS SHEA Melvina, Wis.

LIST YOUR NAME
WITH US for a good spring boar, from the best sows sold last winter. Also have sow to sell; will farrow in June.
DUROCS. GUERNSEYS.
RILEY MARTINY & SON Baraboo, Wis.

SOLD OUT
BUT still raising Durocs for June delivery. Order now. Address
Geo. D. Spraln & Sons West Salem, Wis.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160
THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD North Bend, Wis.

POLANDS
BIG TYPE, BIG BONE, BIG LITTERS—Spring pigs are ready to ship—order now. Sows and gilts bred, to farrow this fall, to CHIEF PRICE and SMOOTH JUMBO. Also Short-horn bulls and heifers.
P. N. COLLINS River Falls, Wisconsin

Flesch Poland Chinas
Will now ship spring pigs of the best big-type breeding. Let me know your wants.
C. S. FLESCH Mt. Ida (Grant Co.), Wis.

JULY 1st
I will ship POLAND CHINA pigs. By that time I can tell what kind of hogs they will make and can send you good ones. Shall I pick one for you?
JAS. DERIVAN FOX LAKE, WIS.

BRED GILTS
POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
JULIUS PETERSON Kilbourn, Wis.

DO IT NOW
BUY Poland Chinas that will farrow this fall. I have bred ten fall gilts to farrow in August. They are dandies, descendants of a Big Joe-A Wonder sow, and sired by Double Hadley 4th. Also 104 March and April pigs to be shipped later. I'll sell you good Polands worth the money. Write
R. MEINKING Bangor, Wis.

Martiny's Special Offering
POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the county great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.
L. P. MARTINY Chippewa Falls, Wis.

HORSES.

LEFEBURES' BELGIANS

Largest Collection on Earth
150 Belgian Stallions and Mares 150
Choice stallions and mares for sale. Heavy weight, best quality, reasonable prices. 1917 catalog ready. Come and see them.
H. LEFEBURE & SONS, Fairfax, Iowa
8 miles west of Cedar Rapids
If in Cedar Rapids, phone us for hourly Interurban service

Percherons, Belgians, Shires,
Ten stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, F[illegible]

Poland Chinas
SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
[illegible] Waukesha

BERKSHIRE S[illegible]

CHOIC[illegible] BERKSHIRE PIGS
OF March and April farrow, most of them sired by Ames' Rival 32d, and all out of large mature dams. I can please you. For prices, write
A. P. CORTTE Lomira, Wis.

When writing to advertisers please mention The Wisconsin Farmer.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS - - - - Waukesha, Wisconsin

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wisconsin

Registered Guernsey COWS

WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS O. W. LEHMANN, Prop. **LAKE VILLA, ILL.** J. GRIMSHAW, Mgr.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.

E. H. KIESLING Jefferson, Wis.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. Breitick Greenville, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Allenville, Wis.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

HAS FOR SALE, bull calf, dropped Oct. 23, 1916; dam on test now, made the first 7 months, 312 lbs. butter fat. This bull calf is solid color, in good condition and well grown; tuberculin tested. For particulars, address

W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE some bull calves for sale from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. Bruins - - Fairwater, Wisconsin

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of [illegible] 40th with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT - - - TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Imp. Rosaire, 725 lbs. butter. For [illegible] write

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[illegible] AUCTIONEERS.

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[illegible]ees of leading

World's [illegible]al and [illegible]nt with [illegible]he business for free [illegible]ering.

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Get

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.

Gustav Pabst, Prop. Fred Southcott, Mgr.

A FEW WELL-BRED YOUNG BULLS — The Harem Farm — WRITE YOUR WANTS

Emory C. Meltz GUERNSEYS Appleton, Wis.

RED POLLED CATTLE.

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.

J. W. SALTER & SONS Unity, Wis.

RED POLLS

YOUNG bulls for sale. My herd bull is a son of J. D. Diana 2d Proctor 23929. Write your Wants. Address L. C. Underwood, Avoca, Wis.

TO SELL

RED POLLS: Fine bull calves from 1 to 8 months old; also choice heifer calves.

EDWARD BENNETT Black Earth, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

HOLSTEIN-FRIESIAN CATTLE.

Holstein-Friesian Cows

Twenty Registered Young Cows

Ages from three to six years old, whose sire is Zobeda Colantha Sir Lad, No. 70176, and bred to Sir Johanna De Kol 19th, No. 64143, whose sire has 66 A. R. O. daughters Price $250 each. I sincerely believe that those are bargain prices. Do not wait to correspond, but make a personal investigation immediately before it is too late.

DR. B. L. WERNER MARSHFIELD, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

DOPP BROTHERS Ixonia, Wisconsin

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

AT LA BELLE VIEW FARM

ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.

E. E. ROSENKRANS Oconomowoc, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER Sheyboygan Falls, Wis.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

W. H. S. Rhoda, 610 3d St., Watertown, Wis.

Holstein Bull for Sale

SIRED by a 2,474-pound grandson of Hengerveld De Kol, dam Aaltje Sarie De Kol Pontiac, butter 365 days, 718.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 33's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write

W. C. Kenyon & Sons Elgin, Illinois

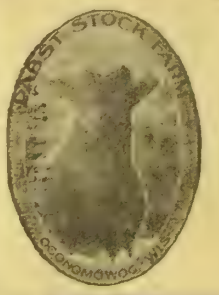
Belgians--Holsteins

REGISTERED—BEST BREEDING. Young stock for sale, low prices.

POST & WYGANT BARRON, WIS.

HOLSTEIN-FRIESIAN CATTLE.

PABST QUALITY BULL CALVES



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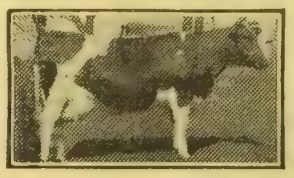
A HERD OF OVER 300

$100 and up

PABST STOCK FARM

(BREEDERS, NOT DEALERS)

Oconomowoc, Waukesha County, Wis., Box W



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.

INDIVIDUALITY AND PRODUCTION COMBINED

A 29.23-LB. SON OF MANDOLENE DE KOL JOHANNA, that holds the Minnesota milk record for 7 days, producing 117.1 lbs. her best day and **Sir Ormsby Korndyke Mechthilde,** a Holstein sire well known as a prize winner, and a sire of prize winners, is for sale.

V. S. CULVER - - - - - - - - - Stillwater, Minn.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.

NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.

ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN

Purebred Registered

HOLSTEIN CATTLE

A Holstein owner knows that he holds as an asset something more than size, weight, individuality, breeding and the highest standard of productiveness. He knows that he is a partner, directly and indirectly, in all of the progressive efforts of the Holstein-Friesian Association, and also in its financial soundness and mighty prestige. He benefits from its annual prize offerings of $22,500 and its yearly educational publicity campaign costing $25,000. The official records of its Advanced Registry Office establish for his cows positive and relatively high market values. Since 1908 the average auction price of Holsteins has increased to $255 per head. There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America

F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

DON'T WAIT

UNTIL you are ready to use a bull, but buy a calf and have one when you need him. You can raise him as cheap as we can and you will save on express charges. The one you want may be gone if you wait too long. Write now.

EDGEWOOD FARMS, INC.

Pewaukee Wisconsin

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoblusky De Kol, that has 10 A.R.O daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNutt Oxford, Wisconsin

BULL SOLD, as per last week's issue. King Pontiac Korndyke Champion (his sire) is for sale. Age 4 years, 2 months, weight 2,500 lbs., sure breeder, gets 75% heifers. Sired by a 31-lb. son of King of Pontiacs Dean, 22.08 lbs. in 7 days, 560 lbs. yrly. Price right. Could use a few reg. females in exchange. Hillside Stock Farm, Reedsburg, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write

GEO. A. WILSON Neillsville, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb. bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address

Lawrence Robers Lyons, Wis.

40-POUND KING SEGIS AND ORMSBY BREEDING (The most popular strains of the Holstein breed today)

Sons out of daughters of Sir Ormsby Hengerveld De Kol, having records up to 25 pounds, and sired by our 40-lb. bull, JOHANNA McKINLEY SEGIS (44367), and BEAUTY PIETERTJE PRINCE (56435), an A. R. O. sire having 24 A. R. O. daughters including a 24-lb. two year old just tested, furnish a great opportunity to purchase the right kind of a foundation sire. Write for prices and extended pedigrees, stating the approximate age of animal you desire.

Carnation Stock Farms

OCONOMOWOC, WISCONSIN

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

B. F. WINCKLER & SONS Medina, Wis.

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address **WALCOWIS FARMS, M. Dickinson & Son, Lake Geneva, Wis.**

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 NEAREST DAMS average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb. cow, Pontiac De Kol. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is 5 years, well grown, and of exceptionally good conformation. Send for his extended pedigree. Address

A. M. ANDERSON WHITEWATER, WIS.

HOLSTEIN BULL FOR SALE—Holstein bull, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Cedarburg, Wis.

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

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THE WISCONSIN FARMER

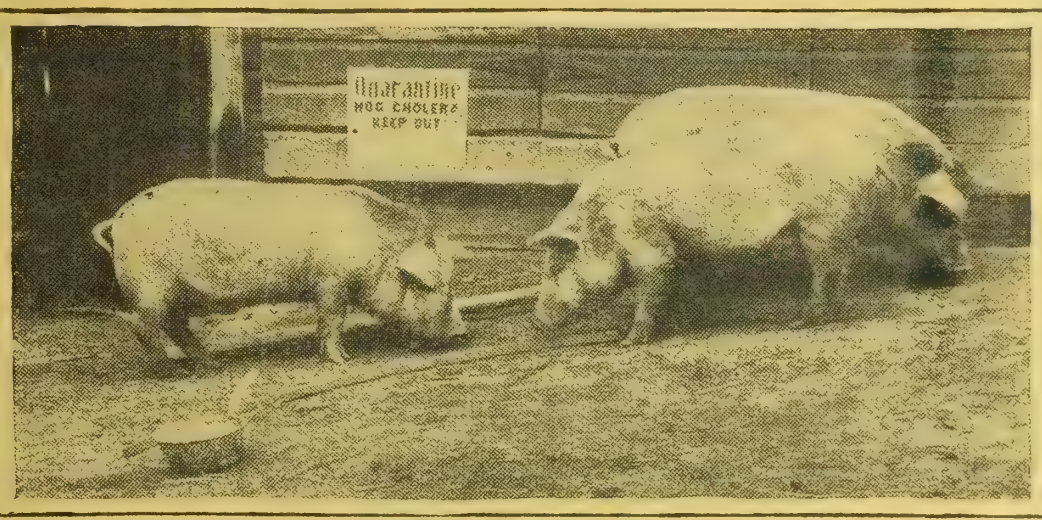
VOL. XLVI. NO. 25. THURSDAY, JUNE 21, 1917. WHOLE NO. 1847

THE FIGHT ON HOG CHOLERA

SUCH information as The Wisconsin Farmer has been able to obtain from its readers leads to the conclusion that the pig crop of 1917 is below normal to start with. Some localities report about half the usual number of pigs farrowed, and the loss even among these has been very heavy, owing to the abnormally cool weather during the latter part of April and the fore part of May. This being the situation, it follows that every possible precaution be taken to save the pigs that possess sufficient hardihood to withstand the unfavorable conditions thus far. While there are numerous ailments that swine breeders must be on the outlook for, cholera is the disease to be dreaded more than all others combined. With hogs up to $16 a hundred, a healthy pig ought to command a good deal of respect, and his life is worth fighting for. Those who stay on the farm this year and raise hogs and cattle, and corn and potatoes to supply the world with food will display just as high a form of patriotism as those who shoulder arms.

In many parts of the corn belt cholera has already broken out and the loss up to the present time has been by no means inconsiderable. This means that here and there can be found infected premises and later on, when exchange of work begins in threshing and in filling silos, we may then expect the infection to go like a prairie fire, unless sensible precautions are taken to stamp out the disease promptly and to wipe out all sources of infection. The lead of the United States government in the fight on cholera might well be followed, because the bureau of animal industry has succeeded in working out a plan that will stamp out disease when the matter is undertaken in a systematic and coöperative way. When the disease once makes its appearance it is no time then to quibble over the soundness of this theory or that theory, as there is too much at stake. Individuals here and there may be found who have no confidence in the serum treatment, and very often these men obstruct the whole program. If they will look the facts squarely in the face they will find that there is ample justification for placing confidence in the government's plan of combating cholera. Extensive investigations along this line have been carried on by the Federal Bureau of Animal Industry. The records show that in one county, in 1912, 23.4 per cent of the hogs died from cholera. This work began in 1913, and that year the loss was 10.1 per cent, while the following year it was 5.1 per cent. In 1915 the loss was 1.5 per cent and in 1916, 1.3 per cent.

The work in that county resulted in shedding a great deal of light on the whole hog cholera problem, and, among other things, it was demonstrated beyond doubt that the early use of good serum following an outbreak will save practically all the hogs in a herd. In eighty-three herds, comprised of 4,549 hogs that were treated just as soon as the disease made its appearance, the loss was only .02 per cent. In eighty-eight herds comprised of 4,178 hogs where the disease had made greater progress the loss was 20 per cent, and in thirty-five herds comprised of 2,318 hogs where the disease had advanced still further the average loss ran as high as 40 per cent. In a total of 206 diseased herds containing 11,045 animals there was a loss of 1,893 head, or 17 per cent. Compared with this, statistics were gathered on thirty-three herds containing 2,089 hogs that were not treated and the loss in this case was 1,755, or 84 per cent.



INFECTED PIGS WITH THAT "THOUGHTFUL" EXPRESSION CHARACTERISTIC OF CHOLERA.

The government emphasizes three factors in the control of hog cholera, namely, vaccination, quarantine and sanitation. This does not mean vaccination of every herd, because there is no occasion for injecting serum into hogs in a healthy herd. Let healthy hogs alone, says the department, but give them such inspection daily, so as to be on your guard and detect the first indication that disease has entered the herd. When a hog comes out in the morning, looking as if he were thinking about something, it is time to get busy, because a healthy hog never gives you the impression that he is devoting much thought to anything. Illness changes his whole program, and every man who has had an extensive experience in handling hogs knows what it is to see individuals in the herd come slowly out of the shed in the morning with a very thoughtful expression on their countenances. While it may not be cholera, this condition should be accepted as a danger signal, and the "thoughtful" hog should there and then be placed in a pen by him-

(Concluded on page 9.)

CHOLERA INFECTED YARDS WHICH MUST BE ABSOLUTELY SCRAPED DOWN TO BARE MOTHER EARTH. STONES, LOGS, MANURE AND ALL THINGS THAT ARE MOVABLE MUST BE CLEANED OUT—THOROUGH DISINFECTION MUST THEN FOLLOW.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Spark Plugs Break Often.

Please answer my question in the Farm Mechanics Department. What causes the spark plugs in my Henderson four-cylinder motorcycle to break so often? Is there any remedy for it?

Answer.—The breakage is probably due to the packing nut that holds the porcelain part of the plug being screwed down too tight. This nut should be tightened just enough to prevent the gases from blowing through. If tightened too tight, the porcelain will have no chance to expand when it becomes hot, and it breaks as a result.

Making a Ford Tractor.

I am planning on making a tractor out of my Ford car by bolting an extension on the frame of the car and letting it extend out behind about three feet. To this extension I would attach an axle with drivers thirty-six inches in diameter, the sprocket on the drivers being twenty inches diameter. The automobile wheels would be replaced by three-inch sprockets on the wheel axles. Will this make the tractor run too fast? I want it to travel about 2½ miles per hour. How much horse power will the machine have? If these sprockets drive the machine too fast, please give the diameter of the smaller sprocket to use with the large sprocket, twenty inches diameter. Please also give me the diameter of the large sprocket to use with the three-inch sprocket for a speed of two and one-half miles per hour. Can this tractor be made O. K.?

Answer.—You should have a gear reduction of at least ten to one at the drive wheels. If you use twenty-inch sprockets on the drivers, you would be able to use only two-inch sprockets on the axles. This is too small a sprocket to work well. Using three-inch sprockets on the axles, you should use thirty-inch sprockets on the drivers. You could reasonably expect four to six horse power at the drawbar.

There are devices now on the market for changing a Ford into a tractor. Unless you have most of the parts, plenty of time, a good many tools and some mechanical experience it would be cheaper and more satisfactory to you to purchase one of these outfits.

Clutch Does Not Release.

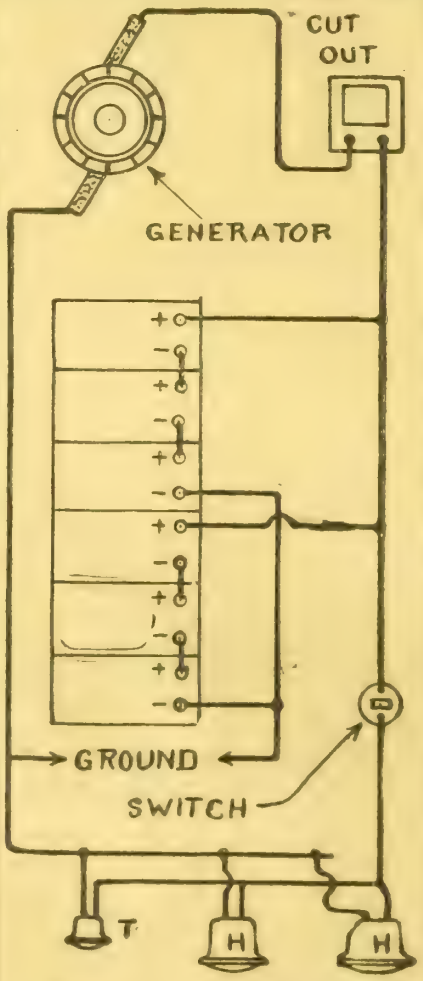
The clutch that I have on my "Flander Four" motorcycle does not want to work, for some reason. Can a clutch wear so that it will not release? When the engine runs, the clutch will not release, but when I turn the rear wheel by hand, it releases. Can I give the clutch too much oil?

Answer.—Steel disk clutches and cone clutches having no leather or asbestos lining should run in oil for best results. If the oil used is too heavy, some trouble may be experienced from the clutch not releasing properly. Clutches having a leather or asbestos facing usually work better without oil. We cannot say what is the cause of your trouble. There may be a shoulder worn on the clutch shaft. The remedy would be to remove the shaft and file the shoulder tapered, so that the clutch would slip out. The clutch may be adjusted too tight, or some part may be broken.

Replacing Burnt-Out Generator.

I have a Cartercar equipped with a sixteen-volt Jones starter and storage battery. The wiring became short circuited and burnt out part of the wiring and melted some of the connections in the switch. How much more damage was done I do not know. What I want to know is, could I discard the old generator and starter and put on an "Ever-Ready" storage battery charger, using only half of the storage battery? Of course, I would want this equipment for lights only. I do not care much for the starter, and in this way I could take quite a bit of weight off the car. The Ever-Ready starter generates seven volts, five amperes at 2,500 R. P. M. and ten volts, eight amperes at 2,700 R. P. M. against the battery resistance. If this plan is practical, please publish diagram of wiring for two headlights and a tail light. What kind of wire should I use?

Answer.—It would be well for you to have a competent repair man to examine your present generator. Possibly it can be easily repaired. Then if you wish, you could have the outfit for lights only. It is practical to install the Ever-Ready outfit as you suggest if you prefer to do so. You may have quite a little work to do to fit the generator to your machine. Use either three cells of the battery, the three cells being connected in series as at present; or use six cells, connecting the other three cells in series with each other and in parallel with the other series of three cells. This latter combination is to be preferred, and is shown in the figure. Ground one terminal of the generator, unless the generator has only one terminal, in which case one terminal is already grounded inside the generator. Run a wire to the automatic cut-out, and from the cut-out to the battery as shown in the diagram. The method of wiring the lights is shown in the diagram. Use 6-volt, 12-candle-power lights for the headlights and 6-volt, 2-candle-power light for the tail light. Use flexible low tension cable for wiring.



Trouble With No. 1 Cylinder.

I have a new 1917 Model Ford touring car that is giving me much trouble in cylinder No. 1. Every fifteen miles the spark plug in this cylinder has to be cleaned, or it will not fire. Will it help this trouble if I get leak-proof rings? How will it do if I use an oversize piston and ordinary rings?

Answer.—If you have good compression in this cylinder, all that you need is an oversize piston. The piston should not fit the cylinder too tightly; you should be able to put the piston in the cylinder with a piece of newspaper on one side of it. Too small a piston will cause the trouble you mention. If necessary to use new rings, leak-proof rings should give better results than the common ring.

This trouble seems to be due to too much oil at the front end of the motor, the oil supply pipe emptying out at the front end of the crank case. We would be pleased to hear from some of our readers who have had this trouble and overcome it.

Driving Feed Grinder With an Automobile.

I enclose a sketch of a Ford automobile connected to a Duplex No. 30 Kelly crusher and grinder, for making corn chop, chicken feed meal, etc. This ten-horse-power machine grinds twenty to forty-five bushels per hour, and runs at 500 to 900 R. P. M. Please advise me through the Farm Mechanics Department if this will work all right. Is this the right way to rig it up? Will it place any unusual strain on the automobile, or any part of it?

Answer.—The sketch, which space will not permit us to publish, shows a Ford car with one rear wheel jacked up and the car blocked so that the feed grinder may be run by a belt from the rear wheel to the grinder pulley. The great objection to this scheme is that the driving is done through the differential gears, and these gears are not strong enough to stand such service for a very great length of time. A better way would be to mount a jackshaft under the floor of the room where you do the grinding, having two pulleys on this shaft coming up through the floor so as to run the rear wheels of the automobile on them. Run an overhead countershaft from this jackshaft, and drive the grinder from the countershaft. The Ford engine will not be very durable if the grinder is worked continuously at its full capacity. It should stand up well, however, if the grinder is run at about 700 R. P. M.

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My offer—besides patriotic prices—means five easy buying plans—with terms to suit. I also give a power test on your own farm. Listen to this: "I can't give your engine praise enough. I had a 6 h.p. Galloway engine belted to my 16-in. corn mill and it does the work where an 8 h.p. of another make did not. —M. P. Shoemake, Defeated, Tenn." "My 6 h.p. Galloway was 5 years old last fall. Works perfectly, good for 15 years yet.—H. W. Barnes, Delphi, Ind."

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A MARVEL for speed—turns out a continuous stream of bales. Heavy steel transmission, self-feeder and block dropper. Friction clutch starts or stops press instantly. **Especially adapted for alfalfa.**

Big money baling hay—faster the press, the more money—that's why you should use the

Sandwich Hay Press

Works Like Lightning

Solid all-steel press. Sandwich gas or oil engine with magneto, mounted on same truck furnishes power.

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"Tons Tell" gives facts, figures and pictures—all about hay baling. A postal will do.

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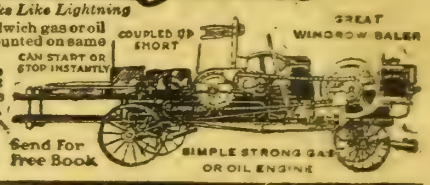

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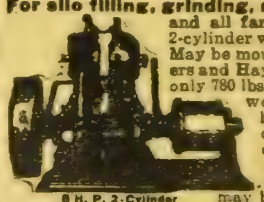
For silo filling, grinding, sawing, shelling, and all farm work. 8 H. P. 2-cylinder weighs only 320 lbs. May be mounted on Corn Pickers and Hay Balers. 15 H. P. only 780 lbs. 4 H. P. Cushman weighs only 190 lbs.—besides doing all other work, it is the original and successful engine for the binder. Also may be attached to Corn Binders and Potato Diggers.



8 H. P. 2-Cylinder Weight Only 320 lbs.

Cushman Engines are all-purpose engines. Easy to move around from job to job. Have Throttling Governor, Schebler Carburetor and Friction Clutch Pulley. Cushman Engines are not cheap, but cheap in the long run. Ask for book on Light Weight Engines.

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855 North 21st St., Lincoln, Nebr.

4 H. P. Handy Truck

SELF-OILING WINDMILL

With INCLOSED MOTOR, Keeping OUT DUST and RAIN, Keeping IN OIL

SPLASH OILING SYSTEM

Constantly Flooding Every Bearing With Oil, Makes it Pump in The Lightest Breeze And Prevents Wear

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DOUBLE GEARS—Each Carrying Half the Load

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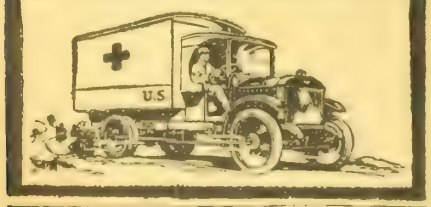

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The Wisconsin Farmer

THURSDAY, JUNE 21, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

FARM BOYS WHO MAY BE DRAFTED.

I DO not believe there ever was a time in my life when the daily mail brought me so many heart-touching, tear-starting letters as nowadays. I am well within the truth, when I say that a dozen times a day I find my eyes swimming as I read the letters of fathers and mothers who lie awake at night, picturing their sons (their sole dependents) torn from them, to be thrust into the shell-riddled trenches of Europe, or hurled across the death-raked No Man's Land, to become cannon fodder in a twinkling. It is not lack of patriotism which causes these fathers and mothers of the farm to lie awake, trembling with fear, and to write me, begging me to do what I can to secure exemption for their boys. The fires of patriotism are burning brightly on the farm altars these days. It is not a lack of loyalty to the stars and stripes, I repeat; it is merely a realization that if their boys are taken, the farm home will be dismembered, the farm crops will rot or wither in the field, the farm herds will fade away, misery and want and ruin will stalk through the land, for production will diminish and poverty will ensue.

Let me print a few of these letters, just to show how the parent heart of the farm is troubled these days; how it comes that I go about my work with a heavy heart, bearing the burden of many and many a farm boy's usefulness, his very life, in fact. This first letter is from a devoted "mother in Israel," who pronounces this benediction in closing her letter. "I ask God's richest blessing on you and yours." Do you wonder, in view of such a benediction, that I have given her letter even more than the usual thought and attention? Here is part of what she writes to me:

We have been a subscriber to your paper for a good many years and like it fine, but I never thought I would ever ask a favor of its editor. I saw an article in your paper written by you in which you were in favor of exempting all the farmer boys from draft. I had thought of it right along, how would we raise a crop without experienced farmers? It is hard for them to handle the farm with all the drawbacks we have. Then, as you say, how would those who never have farmed do the best with our farms?

You have guessed long before this that I am a mother and that I am writing in behalf of my boy. And a very good, precious boy to me. He is all we have, just the one child. His father got injured some years ago and is quite an invalid. And I am fifty-seven years old and injured my right ankle so I am quite badly crippled. We have a 200-acre farm, part pasture and the rest we farm. Our boy is twenty-three years old, so you see he is one who had to register. He has something like fifty acres of oats that look fine and over fifty acres of corn, potatoes, beans and Sudan grass, and sixty acres of hay ground, or something like that. And he has done most of the work, as he just got a young man to help him about five weeks ago. His eyes trouble him during the warm and dusty weather, also when it is cold, giving him severe headaches. Has to wear dark glasses most of the time. He frequently finds time to help me, as I try to do my work alone. He is our only and main support. Without him it doesn't seem possible to run the farm, as we are trying to pay off quite a debt. He lost the best horse he had a few weeks ago.

It seems to me he is working as hard for Uncle Sam as is possible for a young man to work, as we have had so much rain and the corn needs plowing, getting very weedy, and when it dries it will be hard work. There are a large number of other boys I could name who are working hard on their farms and doing fine by putting up a hard fight against weeds and the elements to raise all that is possible. God knows I am sorry for the mothers in Europe and pray constantly for peace and God's blessing on all, but the mothers in the United States, where we have done nothing to bring on the war, God pity and bless every one, is my prayer.

I have written this distracted mother, saying I did not believe there was much, if any, danger of her son being drafted, under the circumstances, and that I would do what I could to help her out, should her worst fears be realized. Uncle Sam loves his farm boys; he is not going to make them, and their beloved mothers, suffer unduly; neither is he going to raise an army and send it across seas, without seeing to it that the farms at home are kept up to their highest stage of efficiency, that the army may be fed and clothed and our national prosperity maintained.

Here is another letter, from a boy liable to army service. It is rather long, but I do not feel that I can spare any part of it; you are entitled to it all:

I am a young man twenty-two and am running a 160-acre farm for my mother; that is, I am at the head of it. I have two brothers, seventeen and thirteen, respectively. I have no one solely dependent on me, which is one of the things asked about on the registration card, so I did not claim any exemptions from draft. While my folks could get along without me, I think they will find it pretty hard going, as we are all hard at it all the time. I began to run this place when I was sixteen and I found it hard digging. We have more land broke out now, more stock, more work, harder work now than we had then. There is probably no man who can take hold of things here and make them go as I do. I know that my brother cannot, for he, at seventeen, is not as big or strong or as capable of managing things as I was at sixteen. One thing is certain, that if I leave here a capable man will have to be put in my place or production will decrease. What I want to know is, since I did not claim exemption on the registration card, have I a right to do so in case I am drafted? I will simply place the facts before Uncle Sam and if he wants me to go to the trench at the expense of production of crops or the saving of crops already produced, I will go, for I'm no coward. That is the reason I did not claim exemption. Or was I too big a coward to claim exemption? I would be almost certain to pass the examination, as I have nothing the matter with me, so it will do no good to claim exemption along that line. I don't use tobacco in any way whatever, let alone alcoholic beverages.

My life is probably an exception. Most young people want to be where they can have a gay time, they want to be in the "crowd" where there is excitement and pleasure. I was never that way. I chose my life work early, at thirteen, and have never once thought of changing my mind. And I have been working towards it as much as possible ever since. At sixteen I wanted to go to the State School of Agriculture as soon as I could. But I had no more than decided on this when my brother next older than myself became tired of the farm. He went to business college with the intention of becoming a great business man. But he spent three years of his life and a lot of money and learned nothing. The gay life carried him away. He went back to the farm, contented that city life is not what it is cracked up to be. With my brother gone I became the "boss" and how could I go to agricultural school? I didn't go and never will. But that is not saying that I am not getting an education. I am taking a course in agriculture by mail from the biggest and finest institution of its kind on earth. And I like it. I read and study the farm papers. I study bulletins from the department of agriculture. I try to pick up information in every way available. And (I hope you will not call it boasting) I have always done as well as most of my neighbors and better than some. I wish to tell the boys (or girls either) that it is not necessary to leave the farm in order to get an education. Stay on the farm is my advice to all farm boys and girls.

I cannot make it too emphatic that I would consider it a crime to tear such a boy away from the farm, away from the parents and younger brothers dependent upon his work, to send him to the battlefields of Europe. Farmers are not to be exempted from army service as a class, but as individuals, where the conditions warrant it. In this case, the conditions certainly warrant exemption.

One thing I want to point out is this: Exemption can be claimed after the draft, even if it was not claimed at registration. Many farm boys have written me in regard to this. I shall print more of their letters, on this phase of the subject, next week, but I want to set their minds at rest thus early.

My heart bleeds for those who suffer nowadays, as the war clouds hover lower and lower over our beloved land. But, in the midst of war and its alarms, let us not forget that "God's in His heaven, all's right with the world" and that "He, watching over Israel, slumbers not nor sleeps."

A CHAMPION OF THE SINGLE MAN.

SOME time ago I received a letter from a farmer who is through, for all time, with unmarried helpers. In the course of it he stated he had paid his last single man (back in 1910) $27 a month, kept a horse for him, furnished board and washing, and gave him most Sunday nights off. Since then he has hired only married men, finding that they are to be relied upon more and that they ask for less in the way of extras. My correspondent concluded his letter in this manner:

Married men are steadier and more satisfied. They have their own family to be with nights and Sundays, when they are not busy. They cannot pick trouble out of nothing and leave in thirty minutes, as the single man can, because they must have a house to move into before they can leave.

I hope others among my Wisconsin readers will write me on this subject, giving me their views and experiences. Personally, I find the subject very interesting. As I said before, being single is no crime, and we should not condemn all unmarried farm hands simply because they have not yet found the right woman. Marrying does, of course, steady a man down and make him realize the responsibilities and duties of life more. But, on the other hand, some of the best, most efficient and most dependable farm hands I know continue to live in single blessedness, permitted by their employer to use the family bathtub, not only on Saturday nights, but as often as they wish.

THE MORTGAGE THAT NEVER COMES DUE.

I AM indebted to Mr. B. F. Faast, of Eau Claire, vice president of the Federal Land Bank, of St. Paul (which serves Wisconsin, in addition to Minnesota and Michigan), for the best explanation of the amortization or partial-payment phase of the new federal farm-loan law which I have seen anywhere. In a personal letter, just received, Mr. Faast states that Wisconsin farmers are availing themselves of the opportunities under the new law to a large extent, the result being far more satisfactory than Mr. Faast and his fellow directors of the federal land bank anticipated. He adds that the new law not only enables Wisconsin farmers to obtain long-time loans from the federal bank at 5 per cent, but it has had the effect to reduce the rate of interest in all sections of the country, due to the competition of the federal system. He continues: "This fact alone is going to save the farmers in this section of the country thousands of dollars annually. This money, of course, will go back into further improvements and assist in the general agricultural development."

I want to set forth Mr. Faast's explanation of the amortization system in full. It was written expressly for readers of The Wisconsin Farmer, and follows:

An amortization mortgage is rather a new word to the average American borrower. It means a loan on which part of the principal as well as the interest is paid on the regular interest payment dates. In Europe the amortization plan has been known to the farmers and used by them for about 150 years; and within the next few years (if we may judge from the number of applications for such loans which the Federal Land Banks have) many American farmers will be taking advantage of the economical kind of farm loan.

From a comparison of the amortization plan of paying mortgage indebtedness with the customary five-year method of payment we learn some interesting facts.

Under the usual method, a $1,000 loan running for thirty-six years at 5 per cent (no payment being made on principal) at the end of the period will represent the total paid-in interest, $1,800; if then, the principal sum is paid, it would make a total amount of $2,800 paid by the borrower (both principal and interest) during the thirty-six years. This does not include the cost of renewing the loan at each customary five-year period.

Under the amortization plan, the semi-annual payment includes, in addition to the payment of interest, a small payment upon the principal. Thus, if a $1,000 thirty-six-year loan is secured through one of the federal land banks, the borrower pays $30 each six months for thirty-six years, with the exception of the last payment, which is $46.56. This payment represents 5 per cent on interest and 1 per cent on principal, making a total annual payment on principal and interest of only 6 per cent. Therefore, by paying at the rate of only 6 per cent each year, both the principal and the interest will be fully paid at the end of the thirty-six years, and the total amount paid in interest during this period would be $1,176.56, and adding the principal payment of $1,000, it would make a total of $2,176.56, against $2,800, a saving to the borrower under the amortization plan of $624.44.

Or let us figure this another way. The actual interest paid on a federal farm-loan mortgage under the amortization plan is 5 per cent. The apparent interest, however, figured on the basis of the total interest of $1,176.56 actually paid is approximately 3¼ per cent. Plainly the amortization plan saves the borrower money. Because of the reduction of the principal each year he gets the benefit of the diminishing interest.

One advantage of the amortization plan is, therefore, that it saves the borrower money. But a further great advantage of the plan is that at no time does the total principal become due. The farmer never has to worry over the fact that on a certain day he must pay his $1,000 mortgage, or secure a renewal of it. Under the federal plan, he has only to pay a charge or a tax—as we might call it—of 6 per cent per annum, which will, in thirty-six years, pay the entire principal and interest. An amortization loan of this kind cannot be classed as a mortgage in the usual meaning of the term mortgage; it is rather a charge against the land, payable in six-month installments.

It will, therefore, be readily seen that even when the rate is the same (5 per cent) the amortization plan has many advantages for the borrower over the customary straight five-year mortgage.

"The mortgage that never comes due" would be a good name for the loans made through the federal land banks. I have predicted success for the plan ever since it was inaugurated. I am still confident. Mr. Faast makes it all so plain that none of us need be frightened by the formidable sound of "amortization." If it saves us money and helps a good financial system to work well, we should, all of us, welcome it eagerly, as I am sure we shall.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin Legislature.

The Wisconsin Council of Defense, through the food bill which has passed both houses, is given full power to seize food, fuel, storage houses and fuel depots should the attempt be made by speculators to boost prices or in case a serious scarcity arises. Senator Wilcox in speaking for the bill praised the measure, as he saw in it an efficient weapon to curb speculators. Not only does the act give the council of defense the power to seize the foodstuffs but it serves as a warning in advance to such men.

The governor has signed the bill for providing a tuberculosis sanitarium in northern Wisconsin, but he has withheld approval of building this during the war. The bill appropriates $75,000 for buildings, but makes no provision for equipment and maintenance. The cost of other sanitariums proves that additional funds are necessary to get such a building under way. Labor is needed for war purposes, according to the governor, and a larger sanitarium is needed in the state than the one provided for. For this reason it will be up to another legislature to appropriate sufficient funds to cover all expenses.

The legislature in a joint resolution has decided to give all members of the National Guard from Wisconsin, who served on the border during the last year, an appropriate decoration in the form of a badge which will be part of the uniform of the Wisconsin boys.

For the first time during the present session the governor's veto was overruled by the senate, which passed the bill providing for state aid for armories for the National Guard. The bill provides an annual appropriation of $52,500 for the annual construction of three armories. The governor in vetoing this bill held that during time of war the need for armories was not as great as in peace times, as the federal government took care of the soldiers to a large extent. The senate, however, decided to overrule the veto and the bill is now in the assembly. If this body also overrules this veto the bill will become a law in spite of the governor's disapproval.

Both houses of the legislature are promising to wind up the season's work very shortly now and the farm legislation will probably be finished up within the next week.

Importance of Wisconsin Live Stock Industry.

According to official information compiled by the Wisconsin Live Stock Breeders' Association there was, on January 1, 1917, live stock in Wisconsin of the total value of $274,129,000. This report does not cover poultry or bees. In the year 1916 the estimated value of all farm crops in Wisconsin was $208,770,000, or more than $60,000,000 less than the capital invested in live stock at the end of the year 1917.

From this it will appear that the live stock business is a matter of very great importance in Wisconsin. On January 1, 1915, the state live stock valuation was estimated $254,130,000. Federal inspection records for the year 1915 show that within that year beef, mutton, wool and dairy products were sold to the total value of $185,250,000.

This would indicate, according to the estimate of the Wisconsin Live Stock Breeders' Association, that in the year 1917 Badger farmers may expect to participate in the distribution of $200,000,000 as receipts from live stock and live stock products. The increase will come from increase in value of stock and live stock products rather than from increase in volume of sales. Had we, as Wisconsin farmers and stockmen, had the foresight several years ago to have engaged more extensively in the raising of beef, hogs and sheep, think what a great sum might be added to the state's wealth this year. We have not even gained in dairying as we should have gained, despite all our efforts. The percentage of farmers who make a study of feeding for production—a study based on their own as well as the experiences of others—is still all too few.

A dairyman in Taylor county, a member of the Medford Cow-Testing Association, had the banner cow among the thousands listed under the seventy-five cow-testing associations of the state in April. And this production was accomplished in a time when feed was the shortest and highest in price it has ever been known to be in Taylor county. The performance is the result of study of the ration which produces the most milk, cost and effect upon the cow always considered.

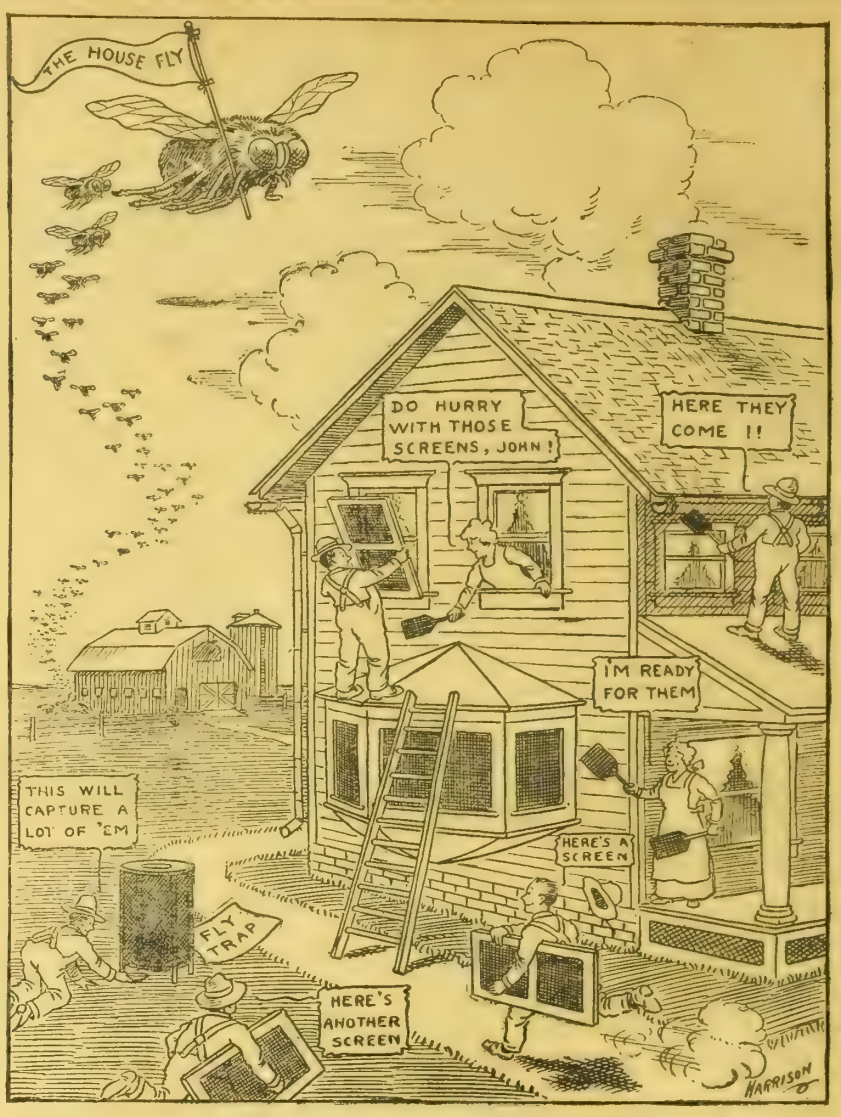
If a dairyman in a new country on high-priced feeds, and amid great scarcity of feeds, can win a state record, how many thousands of dairymen in this state, by giving closer attention to their cows, and what they are feeding, and knowing, either from their own or the experience of others just what feeds will produce at biggest profit, could not only better their own conditions, but help in the great nation-wide campaign to provide food for the nations which are fighting for free government?

Co-operation from Badger Farmers.

Mr. Geo. Carpenter, of Sauk county, Wis., at a recent meeting held in Madison, discussed the relation of the farmer to the war. In part he said:

This great problem of increasing the food supply for Wisconsin and in part for the world, rests entirely with us. We can't afford to let one acre in any community lie idle. We can't afford to permit poor farming in this state this year. We can't allow the farmers to raise weeds instead of grain. We must see that crops are properly taken care of and harvested, for if this war is continued for three years, as it is now estimated it will be, two people will starve to death to every one person killed by a bullet. The man behind the plow is fully as necessary as the man behind the gun, but if this man behind the plow does not do his duty, it is the duty of every patriotic citizen to see to it that such a man is recommended for draft and put in the army. Sub-committees, appointed in every township and working under the direction of the county and state council of defense, should see to it that the live stock industry is properly looked after as well as the crops. These workers could get the exact facts. Personally, I favor a system of premiums or badges for men and women, boys and girls who have largest yields of food products, conditions considered. It is the duty of the members of the defense councils either the state council or town, to find out the amount of farm labor needed and see that the problem is cared for. I am satisfied that in our own state we will be able to gather the harvest, as our citizens are volunteering their service and we will be able to use the crews on the country roads. I understand that a great many married men are applying for positions on farms. This is the best kind of help we can get. The farmer boy or girl who wears the badge of honor for the production of food may be just as proud of this badge as a soldier or nurse who gets the medal of honor for work at the front. The men and boys who will not speed up on the farms in Wisconsin this summer should be recommended for draft in the army so that some competent person may take their place on the farms. I must have the coöperation of every man interested in agriculture, and if I can't get it I should feel like resigning and letting someone else fill the position of chairman of the committee of agriculture.

One secret of the success of the German people in the war has been their resourcefulness in mustering all classes of citizens to the support of the war. The writer talked recently with a gentleman who had come from Germany just previous to the present war. Small divisions of agricultural communities in Germany were found to be thoroughly organized with competent leaders, who had all the facts concerning their community in hand. One of these leaders was found to have a card index report of every farmer in his district. From this report you could ascertain that Hans Schmidt, for instance, had one sorrel horse, five years old, one bay mare, seven years old, two aged horses, one gray and one roan, one set of harness in good condition, one set of harness in need of repair, etc. The report would show the amount of grain on hand on the farm at a certain date, the amount of potatoes and fodder, the number of milk cows, poultry, etc. Also the number of acres in the farm, the age of the farmer, his wife and all his children. In this particular instance, according to the report which the writer heard, Hans Schmidt was under orders, immediately war should be declared, to strengthen the timbers under a certain small bridge across a brook along the highway adjoining his farm. These facts are stated simply to show the importance which a great military nation gives to its agricultural producers. If, here in America, we had everything worked out to a fine detail, as it has been worked out in Germany for the last quarter of a century, there would be no need, now, of urging greater food production for the support of ourselves and our allies. The Wisconsin Farmer bespeaks for Mr. Carpenter a generous support through the growing and harvesting season. As Mr. Carpenter says, "the country needs it and we must have it."



KEEP THE RASCAL OUT.

Big Questions of the Day.

Who is to be exempt from army service? How are the men to be drawn? Shall farmers be exempted as a class or as individuals? How may Liberty Bonds be purchased? How is the federal farm-loan law working out? What amounts are being loaned by Uncle Sam on farms in each state of the grain belt? How is the great war progressing? Shall there be a food dictator to determine maximum and minimum prices for farm products?

All these and a host of other important national questions are discussed, and answered, in The Wisconsin Farmer from week to week. No farmer in this part of the country can afford to be without a practical, thorough farm paper which discusses such vital topics impartially and fearlessly, in addition to giving him the practical advice and information he needs on all farming matters.

See to it that your subscription to The Wisconsin Farmer is paid in advance at least a year, so as to insure receiving every copy at this most important and critical time. Induce as many farm friends and neighbors as possible to subscribe, so that they, too, may receive the benefit of the service being given to the farmers nowadays by The Wisconsin Farmer.

We shall continue to make this paper both the mouthpiece of the farmer and the forum for public discussion of matters of vital farm interest. Do your share by renewing your subscription promptly and securing as many new subscribers as possible.

Restricting Export of Brood Mares.

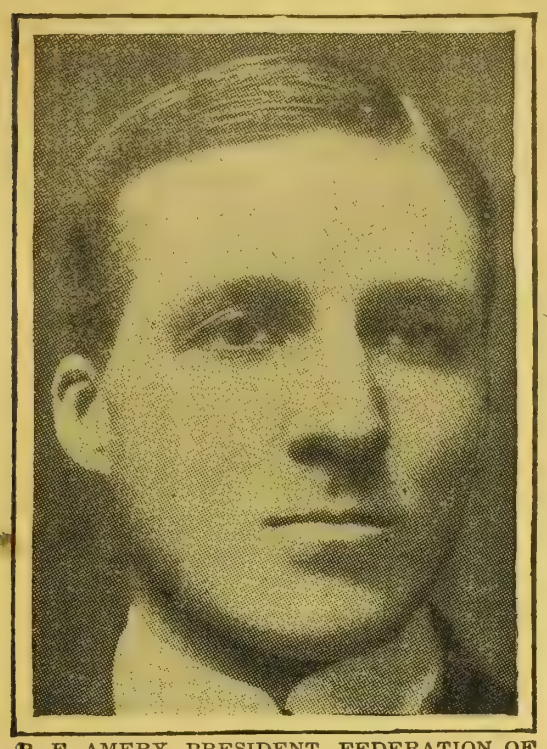
From the war department comes the announcement that the purchase and export of more than 200,000 mares from the United States has already been made and it is now planned to restrict their exportation as much as possible. Secretary of Agriculture Houston has advised the war department that a curtailment of the shipping of mares is desirable to prevent a shortage of breeding animals in the near future.

Already the British purchasing commission has agreed to stop buying mares for military service, but the Italian and French agents have expressed a fear that following such a course would prevent them from buying an adequate supply of horses. The conference recently held resulted in the Italian, French and British commission agreeing that they would not purchase mares under eight years of age. This plan will continue until July 31st when definite arrangements for the future will be made.

Our own war department purchases no mares whatever, it pays higher prices than the allies have been paying, but it requires higher standards, and it uses entirely horses and mules.

The Jackson County Guernsey Breeders' Association will hold their annual picnic this year at the C. S. Ristow farm, June 23d. All interested in live stock are invited to attend.

Polk County Federation Meeting.



P. F. AMERY, PRESIDENT, FEDERATION OF POLK COUNTY CLUBS.

MARTIN STENERSON, SECRETARY, FEDERATION OF POLK COUNTY CLUBS.

C. W. BRACE, TREASURER, FEDERATION OF POLK COUNTY CLUBS.

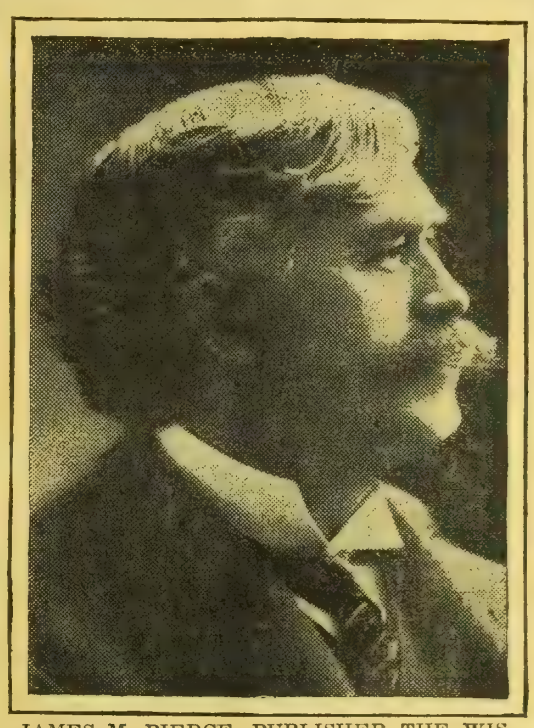
ALMOST a thousand Polk county, Wis., farmers attended the summer gathering under the auspices of The Federation of Polk County Clubs, at Deer Lake Park, Saturday, June 16th. It was the first summer meeting of the federation organized January 20, 1917, and more clubs, of a single county, were represented than at any previous meeting of the kind in the state. The county now has thirty clubs, in addition to the large number of equity societies, shipping associations and other farmers' organizations, and may justly claim that it is one of the best organized counties, among farmers, of any county in the state. The clubs are not so large in point of membership as in some counties, but the interest is great in farmers' club work, and unless some other county in Wisconsin gets busy very quickly Polk county is likely to carry off many of the honors in state club work.

The federation meeting was held in a park overlooking beautiful Deer Lake. Farmers' club work in Polk county is the outgrowth of Minnesota clubs. The first club was organized on the Minnesota side of the river in 1911, and is known as Interstate Farmers' Club. This club has held regular monthly meetings throughout the winter for six years and has planned to continue these meetings for the coming year. Affiliated with the club is a live stock shipping association.

Just at present there are twenty clubs in Polk county affiliated in the Federation of Polk County Clubs. This will be increased by several in the next few weeks. Several of th equity societies are planning to join the federation. Another big federation meeting will be held in the winter. The plan is to hold two big county meetings a year, one in the summer and the other in the winter. The initiation fee for individual members for the year is 25 cents and each club which joins is required to pay $1.

Such an organization as has been formed in Polk county could not have been successful but for the splendid class of citizenship in this county, and the successes which have been made by the farmers. We met farmers at this big picnic who ten years ago were worth practically nothing, and had bought their land on payments, the first payment in most cases being a small one. Now they have their farms cleared and paid for, well stocked, and are independent. The soil in Polk county is fertile, and the climate favorable for corn, potatoes, all the grasses and grains, and for hardy fruits. The present season is somewhat backward, as it is throughout the entire state. Potatoes look good, but corn is coming slowly. Good warm sunshine for a few weeks will bring all these things out in fine shape. The St. Croix Valley district has not had the cold rains which have visited southern Wisconsin.

The story of farmers who have settled in Polk county within the past twenty-five or thirty years is uniformly the same. Some of them have had to work pretty hard, but success has always crowned their efforts. At this season of the year the country looks beautiful. Possessed of natural beauty, the green hills and fertile valleys are inspiring to the man who has an eye for good farming and dairy land. Once Polk county is all settled, it will push many of the older counties in wealth of land and production of farm crops. The county is well supplied with good schools and has fine roads, the winding drives being a delight to the motorist as well as an all-the-year-'round convenience to the farmer. Wisconsin people who have not visited Polk county have missed seeing a portion of the state richly endowed with natural resources and scenic beauty. On the grass-covered hills are many splendid herds. Hogs are paying well in Polk county and there are a considerable number of beef cattle. The county is noted for its clover crop. All grasses grow luxuriantly. The county is dotted with numerous lakes, mirrored between the green-clad hills, a picture which constantly delights the eye.



JAMES M. PIERCE, PUBLISHER THE WISCONSIN FARMER.

The federation meeting was one of the most successful which has ever been held in Wisconsin. The attendance will grow as the rich farm lands of this favored county are occupied. George H. Hazard, of St. Paul, one of the organizers of the Interstate Farmers' Club, presided at the meeting upon request of P. F. Amery, president of the federation, and Martin Stenerson, county superintendent and secretary of the federation. Prof. George C. Humphreys, of Madison, head of the animal husbandry department of the Wisconsin College of Agriculture, spoke on organization work in Wisconsin—the best organized state in the Union, in so far as farmers are concerned. D. E. Williard, of St. Paul, agricultural representative of the Great Northern Railroad, spoke at length on marketing problems, giving the farmers present at the meeting the benefit of some of his personal experiences in handling farm products. These addresses were well received. William H. Wiseman, associate editor of The Wisconsin Farmer, spoke for James M. Pierce, publisher of this paper, Mr. Pierce having been invited to deliver an address and being unable to attend. Mr. Wiseman read an address prepared by Mr. Pierce. Mr. Pierce sent his keen regrets that it was impossible for him to attend this meeting. His address, as delivered by Mr. Wiseman, was as follows:

Mr. Chairman, Officers and Members of the Federation of Polk County Clubs:—

I am indeed pleased and proud to be represented on your program this afternoon and only regret that I cannot be with you in the body as well as in the spirit. It is an occasion to which I have been looking forward with the greatest anticipations and none of you can begin to share the regret which I feel that it is impossible for me to address you personally. However, I am glad to send this message to you through one of my associates on the editorial staff of The Wisconsin Farm-

SOME EXAMPLES OF MODERN FARM HOMES AND BARNS BUILT UP AS A RESULT OF GOOD FARMING AND DAIRYING OPERATIONS ON THE SPLENDID LANDS OF POLK COUNTY, WISCONSIN.

er whom I have asked to bear my words of greeting to you.

Polk county means much more to me than could be told in words, for it is the home of many hundred loyal friends, who have been patrons of my paper for years. It has been well said that there are no friends like the old friends, and so, indulging in a moment's sentiment on this occasion, I want to express just a little of the kindly feeling I have for those of you whose hands I may never have clasped and into whose eyes I may never have looked, but whom I cannot help from regarding as old friends, because of the loyal support, help and inspiration which you have given me. I feel that Polk county, like all Wisconsin, is holy ground for me, and that if I could but be with you today, I would indeed be in the house of friends.

Although Polk county is not one of the older counties of our state, it has contributed its full share towards Wisconsin's greatness and glory, helping to put it in the front rank of all the farming states in the Union, with the largest percentage of farms operated by owners and with the most intensified and diversified agriculture of any in the sisterhood. And Polk county has done more and better than this—it has added to Wisconsin's wealth of good men and women and contributed to her ideals of good citizenship. I hold with old John Knox that this is the greatest contribution which any people can make and that every good citizen is that much in riches added to the commonwealth.

I find most eloquent testimony to the progressive spirit of Polk county farmers in your federation of clubs that has set an example of which all Wisconsin may well be proud and follow. I believe that, with twenty-one clubs affiliated into this splendid organization, you lead all other counties in the state, Sauk county being second with eighteen and Walworth county third with ten. I see in this fact a prophecy of an even stronger organization in the days to come, when Polk county will furnish a model, not only for Wisconsin, but for harmonious coöperation among farmers' organizations for all states in the Union. I congratulate you most heartily on this fact and pledge you unreservedly the support of The Wisconsin Farmer in helping to realize this promise.

This is the day of coöperation everywhere, and in few states has coöperative effort been carried to a greater or more beneficial extent than here in our beloved Badger state. The time has come when no man can play his part with greatest credit to himself, his family and his state when working independently, as an isolated individual. The old individualism of pioneer days, when each person or family was self-sustaining and sufficient unto itself, have passed away and today we recognize that in union there is strength and that the spirit of the times demands united effort for common ends. Only in this way have the greatest advances been made along agricultural, as well as industrial lines, during recent years. It is natural that agriculture should have lagged behind industry somewhat in this respect, so that there is a tremendous undeveloped field for further coöperative effort among the farmers of this country in solving their mutual problems and satisfying their common needs, and nowhere is there a richer, vaster field for this work than right here in Polk county, where you have made such a splendid beginning.

Among the many problems which you face and whose solution through united effort would contribute immensely to the prosperity of this state, this county and the individual members of this federation, are those of clearing and draining. This is especially true of the former, as the legislature has provided the legal means for drainage projects, assessing the cost of them to the benefited lands. But, so far, no legal machinery has been provided for clearing off stumps and brush by anything excepting individual effort. If this were done, Polk county, with its thousands of fertile acres held back from cultivation for this reason, would become an agricultural empire that would challenge the attention of settlers far and wide, and would increase its production of agricultural wealth many fold with every passing year. Congress saw fit to give the nation the Carey Act, making it possible to expend millions in an effort to reclaim the dry and barren desert lands of the West—an act, by the way, which has been shamefully abused by swindling promoters and fly-by-night imposters, who have gulled the credulous public with impossible irrigation projects. Might congress not much better see merit in providing means for reclaiming lands, such as those here in Polk county, naturally fertile, in a climate where all conditions are favorable, close to the greatest markets, as can be so easily done by merely removing the stumps? It requires no such tremendous expenditures as the reclamation of arid western deserts; no experimentation, no complicated engineering schemes by which promotion companies can make immense profits out of projects wholly worthless. All it needs is the funds and initiative for performing on a large scale a simple, practical work, which can be done in that way much more cheaply and quickly than if left to individual enterprise. And the results are not in doubt—they are demonstrated all over Wisconsin, wherever they have been tried, and they are as sure to yield immense returns in agricultural wealth as anything can be. Surely here is a rich field for coöperative effort in Polk county and one that will literally fulfill the scriptural injunction of making two blades of grass to grow where there was only one before.

Another problem which you in Polk county, in common with farmers everywhere, face, and which is growing more serious with every passing year, is that of securing better marketing conditions, and I know of nothing in which coöperative effort would be productive of surer and better results than along this line. Blessed in every conceivable way by nature for the production of grass, corn, wheat, potatoes, small grains and a dozen other crops, there yet remains for you the problem of marketing. For what doth it profit a man to raise bumper crops if he can-

WILLIAM H. WISEMAN, ASSOCIATE EDITOR THE WISCONSIN FARMER.

not sell them at a good margin on his investment and labor expended? I said that this is a problem which Polk county shares with all other counties of the grain belt, and it was never more strikingly illustrated than today, when the farmers everywhere are failing to receive their fair share of the advance in the price of agricultural products. For example, most of the farmers of the grain belt sold their corn last fall at from 75 cents to $1 a bushel, and yet today it is bringing over $1.50 a bushel on the Chicago board of trade. Wheat which sold for $1 to $1.50 per bushel is now bringing over $2.50. Who got the difference between the price for which the farmer, who produced it, sold and the price it is now bringing? Someone who had no investment in farm land or machinery, who did no plowing or harrowing, no planting or cultivating, no hauling, no worrying, made the big end of the profits. A striking example of this was furnished here in Wisconsin the other day, when a woman bought a bushel of potatoes in one of our large cities. Noticing that one potato, somewhat larger than the rest, had been cut open, she broke it apart and found a note from the man who raised it, which read, "I sold these potatoes for 95 cents a bushel. What did you pay?" The woman had paid $4 a bushel! Somewhere between the producer and the consumer $3.05 had been absorbed. Now, my friends, I say to you that such a condition should not be possible. Nor do I mean to decry the services of the middleman, as we call him. He serves a useful and necessary function under our present wasteful method of distribution, but I do maintain that in such instances as those quoted his profits are out of all proportion to his services. I realize that it is a delicate thing to attempt to regulate economic forces by law, but I firmly believe, especially under present abnormal conditions, that something should be done to limit the profits of the middleman or men to a reasonable and fair return on the time and capital which they have expended AND NO MORE, always with an eye to the principle that the man who really creates wealth shall receive the largest share of it. In that way I believe we will approximate the ideal of letting the producer receive more for his toil and the consumer pay less for his products. You may call this paternalism or whatever you like, but, for my part, as I view the great, powerful combinations of capital and labor, and realize their absolute control of so many of the necessities of life, compelling tribute where no tribute is due, I believe most firmly in the protecting arm of the state and federal governments being used to carry out the policy of "live and let live."

But even this is not the surest and best solution to the problems of marketing which confront you, for you can work out your own salvation much better than the best of governments can work it out for you. When we consider what has been done here in Wisconsin by the coöperative efforts of the American Society of Equity, when we study the example of how the farmers of North Dakota have benefited by the building of elevators for the storing and handling of their grain, it opens up the great possibilities which could be further accomplished by you along this line. Is it not worth more study and investigation at least? I would not urge farmers to rush pell-mell into untried experiments which might prove unsuccessful and entail financial loss, but I do believe that it would pay the members of the federated clubs of Polk county to investigate carefully the experience of similar undertakings for coöperative marketing. I appreciate, of course, that the members of this organization are busy men and that you save considerable time and effort by selling quickly to the nearest buyer for what you can get, but I never could understand why the farmer should be the only big business man in the country who has nothing to say about the price set upon his product. If a man offers you a price for your colt or calf which you think is too low you refuse it, but if you are offered 75 cents for corn which you know will sell for more than a dollar later, you accept it unhesitatingly.

Of course, the great fundamental trouble is that the farmers as a class have not been united, while the powers that prey on their divisions are always united. This is true not only in economic matters, but in political affairs, as well. In a state like Wisconsin, with its vast agricultural wealth and population, the farmer is the largest stockholder in the biggest business corporation in the state—the state government. He is the one who suffers most from misrule and the one who benefits most from good government. He should never be a narrow partisan in state affairs, but always an active participant in them, for if he does not look after his own interests, which are the largest interests, he can be sure that no one else will.

In this connection I always recall the words of the immortal Lincoln, uttered in an address before our Wisconsin State Agricultural Society in 1859, which, like so much of his public sayings, is applicable to all time—as true

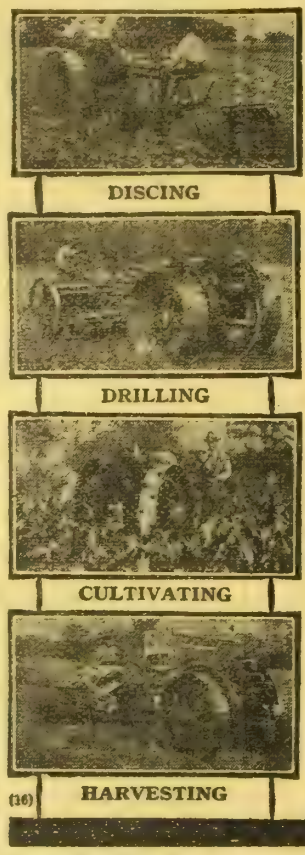
(Concluded on page 8)

THE ORIGINAL
2-WHEEL TRACTOR
That Does All Farm Work
WITHOUT HORSES

WHEN you begin to consider the purchase of a tractor, whether for a farm of 80 acres or more, there are a number of questions you will need to ask yourself before you buy. Here are some of them:

—Will it CULTIVATE as well as plow? Will it do ALL my farm work without horses? Will it work on plowed ground without packing the soil? Will it do the work quicker; easier; and save on hired help? Is it really a ONE-MAN tractor? Will it handle as easily as a team of horses, rather than be too heavy, clumsy and inconvenient? Do I ride on the tool where I can see the work I am doing, or will I have to have someone run the tractor while I am operating the farm implement?

Here is the tractor that answers these and all other farm power problems of the average farm most practically and profitably. A tractor that is heavy enough to do all farm work that horses will do, yet light enough to be handy and work on plowed ground without packing your soil.



MOLINE ORIGINAL 2 WHEEL

UNIVERSAL TRACTOR

This is the original Two-Wheel Farm Tractor. It pulls two 14-in. plows; will disc, harrow, plant, CULTIVATE all hill and row crops, pull mower, binder, manure spreader, fill your silo—and do all belt work on the average farm. In fact, it will do anything you can do with horses; do it quicker, easier; and with less hired help. It weighs only 2800 lbs., but all its weight being on its two wheels—*all its weight is traction weight.* The tool you hitch it to forms the rear wheels and you do not have to pull around a ton of needless weight. It will back up with tools attached easier than a team will back. You can turn around in a small space; get close to the rows and the fences.

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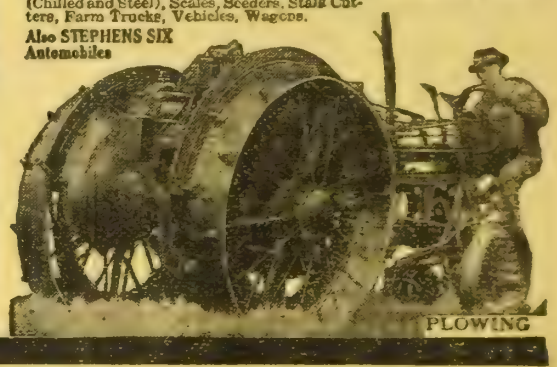
Also STEPHENS SIX Automobiles



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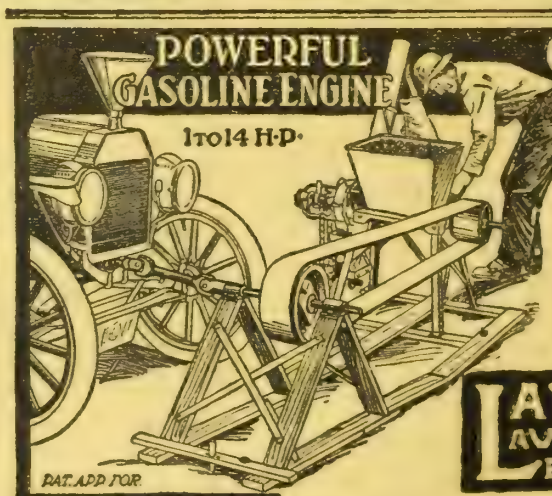
1 TO 14 H.P.



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Grinds Feed *Shells Corn*
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CURRENT EVENTS

CONSTANTINE I, King of Greece, was forced to abdicate, in favor of his second son, Prince Alexander, last week. The action was taken on the peremptory demand of France, Great Britain and Russia, the powers which protect Greece. The main reason for the action was that Constantine has long leaned toward Germany, his wife being the favorite sister of the kaiser. The allies have a large army stationed in Greece, but they could not send this army on any extended campaign against the Teutons as long as an unfriendly Greece government and army were in their rear. The crown prince was not acceptable to the allies, inasmuch as he, too, is favorable to the kaiser. The second son was acceptable and he was made king. Constantine had been king of Greece for four years, following the assassination of his father and during his reign had doubled Greek territory, as a result of the Balkan wars. Both Constantine and the crown prince intend to leave the country immediately. It is reported that they will embark on a British warship and proceed to Switzerland by way of Italy. It is presumed that Prince Alexander will take up his kingly duties with full acceptation of the ideas which the protecting powers desire to be put into effect in the government of Greece during the present war. He is twenty-four years of age and has been free from antientente proclivities. Affairs in Greece, which several times since the outbreak of the war had seemed on the verge of settlement, recently have taken on such an aspect of uncertainty that it became necessary for the powers to act with decision.

GENERAL PERSHING, who is to command the United States army in France, in support of the allies, reached Paris last week and was given an enthusiastic reception. He is accompanied by forty-six American staff officers, fifty-nine military clerks and sixty-seven American enlisted men. Their duties are to prepare the way for the coming of the first units of the American army, which will doubtless reach France some time in August or September. In a public statement, issued upon reaching France, General Pershing said: "We are the precursors of an army that is firmly resolved to do its part on the continent for the cause the American nation has adopted as its own. We come conscious of the historic duty to be accomplished when our flag shows itself upon the battlefields of the old world. It is not my role to promise or prophesy. Let it suffice to tell you we know what we are doing and what we want." General Pershing led the troops which went into Mexico on Villa's trail. He is an experienced commander and has the honor to have the most important command given to any American officer since the civil war.

GERMANY is responsible for a most barbaric air raid upon the east end of London last week a raid which exacted a frightful toll of life among women and children. Fifteen German airplanes and Zeppelins sailed over the poorer and more congested section of London, dropping bombs on the helpless people underneath. A dispatch from London gives this description of the partial result: "The bombing of a schoolhouse furnished one of the most pitiable scenes in the whole raid. The bomb struck the roof squarely, cutting clean through and passing through two classrooms, one above the other, killing some children, but sparing the majority. It finally exploded with terrific force in a room on the ground floor where there were sixty-four little children from five to seven years of age, ten of whom were killed outright and all the others more or less injured. Some of the babies had arms and legs torn off, others were shockingly lacerated, some stunned and others buried in the wreckage. The room was filled with the screams and moans of the tiny sufferers, many of whom were crying distractedly for their mothers. Many of the children were lying limp and helpless across the shattered desks, bleeding from terrible wounds. Others were writhing in pain and some bodies were unrecognizable." It is little wonder that such inhuman air raids have enraged England as has nothing else during the three years of the war.

THE government has been given control over exports by congress. The measure, as finally passed, puts into the hands of the president a weapon by which it is intended to stop supplies from entering Germany through neutral countries. Passage of the bill removes to a great extent the necessity of the British blockade, since the United States originates most of the exports that reach the neutrals, and will be in position with the aid of British machinery established during the three years of the war to see that the countries are supplied with just enough food and materials for their own needs. The measure also permits the president to trade for articles controlled by the allies, which heretofore have been permitted to come to America only in limited quantities. The United States, with an enormous trade balance in its favor and largely independent of the rest of the world for raw supplies, can force release of the supplies it does need by exercising its new power over exports. Fair control over shipping will result. As administered the act will require licenses for export cargoes and under this arrangement the government can force neutral ships from harbors where they have sought safety from submarine attack into service to transport cargoes wanted by the home countries. American and allied shipping, too, can be required to carry cargoes to the destinations the government considers should be supplied for a proper conduct of the war.

AN air fleet beyond the wildest imagination of the men fighting in Europe is to be constructed and operated by the United States. This is to be one of the powerful contributions of this country to the allied effort to bring the imperial German government to terms. Congress is to be asked by the war department for $500,000,000 for the immediate construction and operation of airships. Before the expiration of a year an additional sum of $500,000,000 may be asked. With such a large amount placed at its disposal the war department will be able to build two fleets of 50,000 machines each. If any such number of fliers could be mobilized on the European battlefield victory would be assured promptly, according to representations made by British and French officers. In the first place, the German machines would be driven out of the air. The effect would be to blind the German army. Their artillery could not be used effectively, since there would be no signaling planes to tell them whether their projectiles were falling properly. Air raids upon France and England would not be possible. On the other hand, the American airships would be assisting the allied artillery and could drop a perfect hail of bombs upon the German trenches and thus enable the infantry to attack with comparative safety.

REPORTS have been current for several weeks past that both Russia and Austria are tired of the present war and are seeking separate peace. Austria is known to be a disappointment to Germany and would probably relish an end to hostilities, from which it has suffered grievously. Russian conditions are chaotic today, at best. The country needs an autocrat to rule it, but the right man has not yet come forward. Revolution has followed revolution until things are far from settled. Direct overtures for peace were made by Austrian commanders recently to the commanders of the Russian armies opposing them, but nothing came from them. According to press dispatches, one of the Austrian commanders, General Rohr, selected two peace delegates from every division of Austrian troops on his particular part of the front—120 men in all. The delegates, according to papers in possession of the Russian war office, included an Austrian prince. These 120 Austrians, bearing white flags and blowing bugles, advanced to the Russian lines—the Russians respecting the white flag and meeting the enemy unarmed, in front of the trenches. There the Austrian spokesman outlined the plan for a cessation of hostilities, without waiting for governmental action. "If you want peace, go to Petrograd," declared the commander of the Russian troops. He forbade his men further discussing the matter and sent all of the Austrians except the prince and one other under a military escort back to the Austrian lines. On the two Austrians detained, the Russian war office declared, were found papers including orders for every Austrian regiment to effect a peace agreement with the opposing Russian regiments.

PRESIDENT WILSON has sent a communication to the Russian people which admirably sets forth the position of the United States in the great world war. The president has made it plain that the United States will insist upon the following: "No territory must change hands except for the purpose of securing those who inhabit it a fair chance of life and liberty. No indemnities must be insisted on except those that constitute payment for manifest wrong done. No readjustments of power must be made except such as will tend to secure the further peace of the world and the future welfare and happiness of its people." The president has likewise made it plain that peace will not be agreed to if that peace merely restores the conditions which existed before the war broke out. He said: "Of course, the imperial German government and those whom it is using for their own undoing are seeking to obtain pledges that the war will end in the restoration of the status quo ante. It was the status quo ante out of which this iniquitous war issued forth, the power of the imperial German government within the empire and its widespread domination and influence outside of that empire. That status must be altered in such fashion as to prevent any such hideous thing from ever happening again. We are fighting for the liberty, the self-government, and the undictated development of all peoples, and every feature of the settlement that concludes this war must be conceived and executed for that purpose. Wrongs must first be righted and then adequate safeguards must be created to prevent their being committed again." Great Britain has announced that it concurs in the president's position and will work in conjunction with him to bring about peace upon such terms.

The Bottom Is the Heart of the Plow

It is the hard working and essential part of any plow. All the rest of the plow is built merely to enable the bottom to do its work. That is why the bottom should be designed and constructed exactly right. Upon it depends the value of the entire plow.

The right kind of plow bottom makes money for you—it lays the foundation for the right kind of seed bed. The crop yield is increased. The plow lasts longer—a saving in actual cost. It pulls lighter—a saving in horseflesh, power and trouble.

John Deere Moldboard Tractor Plows

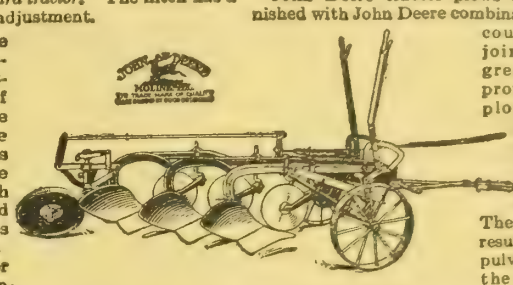
Have the Famous John Deere Bottoms

The bottom on every John Deere plow is correctly designed—John Deere plow success is largely due to bottom construction. It is the result of eighty years experience.

John Deere tractor plows can be used *with any standard tractor.* The hitch has a wide range of adjustment.

They make one-man tractor plowing outfits. A pull of the rope by the man on the tractor lowers or raises the bottoms high and level, and the tractor does the work. Does not gather trash when turning or being transported.

John Deere Light Tractor Plows *can be backed up*—they have a stiff hitch.



John Deere Quick Detachable Shares the greatest time and labor savers ever devised for a plow, *save eight to thirty minutes changing each share,* and the change is easily accomplished. No danger of skinning your knuckles or bruising your arms.

John Deere tractor plows can be furnished with John Deere combination rolling coulters and jointers, the greatest improvement in plows since John Deere Quick Detachable Shares were developed. These jointers result in better pulverizing of the soil, turn and cover all weeds, and make plowing easier.

Two, three or four bottoms.

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Thoroughly Disc Before and After Plowing

After the grain has been cut from your fields and before the hot August and Septembersun has cracked the ground, allowing the subsoil moisture to escape, use the

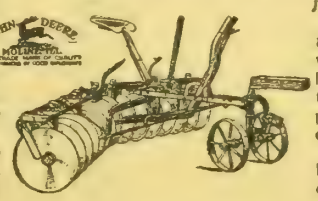
John Deere Model B Disc Harrow

Noted for Thorough Disking

It produces a fine dirt surface mulch that *stops evaporation* of moisture and *catches and holds rainfall.*

Mixes stubble, trash and weeds thoroughly into the soil. *Checks weed growth. Pulverizes surface thoroughly—ground is kept mellow—plowing is made easier.*

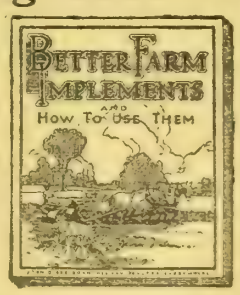
Using the Model B after plowing completes a seed bed that is *thoroughly pulverized through* and *through*—no clods—no air spaces—*seed bed fits the subsoil perfectly.*



The Model B is *exceptionally flexible*—that is why it disks so thoroughly. The spring pressure third lever assures uniform penetration regardless of dead furrows or ridges.

Write now for free booklet on this profitable disc harrow.

Big Book Free



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JOHN DEERE, MOLINE, ILLINOIS

Polk County Federation Meeting.

(Continued from page 6.)

today as when it was spoken nearly sixty years ago. He said:

"Farmers as a class are neither better nor worse than other people, but their interest is the largest interest. It also follows that that interest is most worthy of all to be cherished and cultivated, and if there be inevitable conflict between that interest and any other, the other should yield."

Those words were uttered under conditions somewhat similar to those we face today, when the war clouds were lowering and the storm was almost ready to break. The martyred president, with characteristic far-sighted vision, saw that between organized capital and labor the farmers of the country were in danger of being ground, as between the upper and the nether millstones, and he sounded this note of solemn warning that their interests—the largest which exist in this country—should be carefully guarded. To accomplish better laws, better public institutions and an honest, wise and economical expenditure of the tax funds to which they are the principal contributors, the farmers of Wisconsin must stand together in giving battle to the common enemy to whom neither party principles nor the common welfare mean anything, as compared with office holding and the perquisites of office holding. The example of the embattled farmers of North Dakota in rallying around a single standard, without regard to partisan lines, in the last election and carrying all the state offices from governor down on a platform of a square deal to the farmer-taxpayers is an inspiring illustration of what can be accomplished by united effort along political lines. It is a potent influence which is leavening the whole lump throughout the grain belt. The farmers of Minnesota and Iowa have caught the spirit of it and are coming into their own in state affairs. I am proud to believe that honesty, economy and efficiency in public office has been the rule rather than the exception in Wisconsin. In fact, I believe that Wisconsin is the best governed state in the Central West, if not in the country, but I also believe that eternal vigilance is the price of safety, and that greater interest and participation in public affairs, along non-partisan lines, by the farmers of our state will insure even better government than we have ever enjoyed.

I am sure that I do not need to elaborate on the social value of such splendid organizations as yours is. You have discovered that as you have gone along, and I am sure that such gatherings as this, where you meet and exchange ideas with your neighbors, perhaps many miles removed, whom you might not otherwise know, have been and will be increasingly productive of greater breadth of vision, more sympathetic understanding and of mutual pleasures. If there is any class of citizens of this great land of ours that are entitled to the very best which can be provided for them, it is the farm women of America. They are indeed "the mothers of the race," for the typical American is not the city-pampered man, woman or child. It is the farmer that is the real typical American, upon whose shoulders rests the basis of the country's most substantial and enduring prosperity. Such as they are the real bone and sinew of the land. It will be a sad day for America if the farmer, the pioneer going out onto the broad prairies and breaking the virgin soil or clearing away the forests with his woodman's axe, ceases to be the model of the virtues of the race. Surely, then, the companion of his joys and sorrows, his labor and his reward—the farm wife and mother—is entitled to the best that their means afford in adding to her pleasures and lightening her burdens. Surely she is entitled to full partnership in the firm to whose success she has been so faithful and liberal a contributor.

As I think of these things and realize how much Wisconsin owes to those fathers and mothers of men, who laid so well the foundations of this great commonwealth, my mind goes back over the years and dwells in loving reverence on the pioneers. With my mind's eye I see them as they came west, rank by rank, from eastern states, from foreign lands, each making its contribution to the development of this state and each leaving its share of the inheritance for us to enjoy. Here within our borders all these streams of population coalesced into one and when they rolled on, wave after wave, across the mighty Father of Waters towards the setting sun, it was not as New Englanders, Southerners or Middle States men—not as Scandinavians, Germans, Englishmen or any other nationality, but as citizens of Wisconsin, bearing aloft wherever they went the torch of good citizenship. Thus in a very real sense was Wisconsin the melting pot of the West, and today, as never before, this fact is showing itself in loyal patriotism to the stars and stripes—to your flag and mine—the flag of our common country, no matter from whence we came or what our parentage.

When I think of the trials and hardships of those days—for the winning of Wisconsin and the West was a struggle, my friends, that demanded as great heroism as the struggles of the battlefield—I say that when I think of all it cost in hardship and toil and suffering to make Wisconsin the state we enjoy today I am both humble and proud—proud of the rich inheritance which we have receivd and humble to think how much of it we owe to others. It behooves us to guard well this heritage, my friends, and to add to it where we may, that we may pass it along to our children and our children's children without a taint upon its honor or a check on its further development.

For I believe that an even brighter day is dawning for Wisconsin and for all America. The clouds that involve our land just now will but make the sun seem brighter when the clouds roll by, as they surely will. I believe that the day is coming surely, if slowly, when war shall be no more and the earth's brotherhood will beat their swords into plowshares and their spears into pruning hooks; when the farmers, not only of Wisconsin, but of the whole nation, will come into their own and enjoy a fuller measure of all the good things of life than ever before. In the dawn of that new day I am sure that you members of the Polk county federated clubs will play your part of good citizenship courageously, willingly, and patriotically, so that you may hand on to generations yet unborn the splendid heritage which you have received in all its glory.

In conclusion, I want to thank you for giving me the honor of being represented on your program by this paper and to express again the regret I feel over not being with you in person as I am in thought today, with the hope that the privilege may be given me on some similar occasion in the near future to meet you all face to face and enjoy your hospitality.

In the meantime, let me assure you of the loyal support and coöperation of The Wisconsin Farmer, at any and all times, in promoting the things in which we are mutually interested. Whenever I may serve you in any capacity, all you need to do is to command me, confident that it is my highest ambition to make my paper increasingly worthy with every passing year of the support of such splendid Wisconsin farmers' organizations as the federated clubs of Polk county.

Wisconsin Crop Report.

Brown County.—Weather has been rainy and cool, but is warming up. Wet land is drying out and corn and potato planting is nearly finished. Meadows and pastures are making fine growth. All crops are late—grain looks fair, especially the early sown. The milk supply furnished to the cheese factories is large and brings the farmer from $1.90 to $2 per 100. Condensories are also paying good prices for milk. Farmers are not taking much interest in horse breeding this year.—S. J. Shannon.

Crawford County.—Crops are held back by continued cold weather and rain. Hail did considerable damage to rye in some districts. Oats, wheat and barley look fair. Corn is planted and most of it has been cultivated once. Potatoes and other garden truck are doing well in some localities, but in other places they are not so good. Fruit prospects are favorable. Meadows do not show up favorably at this time.—H. H. Stuckey.

Douglas County.—Because of the dry spring, hay will be short on old meadows. Recent rains may improve the new seeding. Small grains are backward on account of cold weather and occasional frosts. This year's grain acreage will exceed last year's by 25 per cent. Little corn will be planted, but root crops will be increased. Gardens are backward, but fruit promises well. Young stock look well; all stock in good or medium flesh are being picked up by local buyers.—B. N. Stone.

Dunn County.—Rainfall is plentiful. Hay and small grains are coming fine. Corn is backward. Pastures are good. Young stock are doing well. Dairy cows are not up to normal in production because pastures were late. Young chickens are few in number and hens are not laying well. Potatoes are nearly all in the ground. Cutworms have been at work on gardens and corn.—Jas. A. Smith.

Iowa County.—Last two weeks have been cold and wet, but nevertheless served to make a good hay crop and start the pastures and small grain. Corn is about two weeks late and the stand is 90 per cent normal. Favorable weather is needed to kill weeds. Garden stuff is late, but looks well. Rainy weather decreased the milk flow, but prices are high and farmers are not complaining. Factories pay from $1.90 to $2.05 a hundredweight for milk. The acreage of all grains is above normal.—Art G. Hoskins.

Jackson County.—Because of the cold spring, rye and winter wheat will be below normal. Weather now is warmer and moisture is plentiful. Spring crops look fine. Hay and pastures are fine at present. The acreage of oats is about 10 per cent above normal, corn 15 per cent and potatoes 20 per cent. Live stock are in fine condition.—C. S. Ristow.

Juneau County.—The acreage of small grain is about normal, but there is an increase of 25 per cent in the land put in corn and potatoes. Small grains have a thin stand in some fields. Vegetation is backward, but the last few days have been more seasonable and will stimulate it. Pastures are progressing. Live stock are in good condition.—C. W. Hale.

Marquette County.—Weather is cold and rain abundant. Oats are improving. Rye will not make half a crop; pastures haven't grown well on account of cold weather. Both young and old clover are doing fine. Most of the corn is planted and the acreage is about 20 per cent above normal. Potato seed is very scarce so that the acreage of this crop is not more than normal. Almost 40 per cent more land will be devoted to beans than usual in spite of the fact that seed is worth $11 a bushel. Strawberries promise a heavy yield. Young pigs are scarce and high priced. All stock are healthy.—J. M. Williams.

Pierce County.—Recent rains which fell here were badly needed. Most of the spring grain looks well. Rye and clover are good. Pastures are improving. Corn is rather backward on account of the cold weather. Most of the tillable land in this county is already under cultivation and therefore little increase will be made this year.—G. K. Moore.

Polk County.—Everything is growing fine, although the weather is still cool. The hay crop will be somewhat short, but small grain and corn never looked better. Early potatoes are doing nicely. Although bean seed is worth $15 a bushel, a large area will be planted to this crop. The pig crop is below average. Cattle are about normal and show improvement since grass started up.—P. F. Amery.

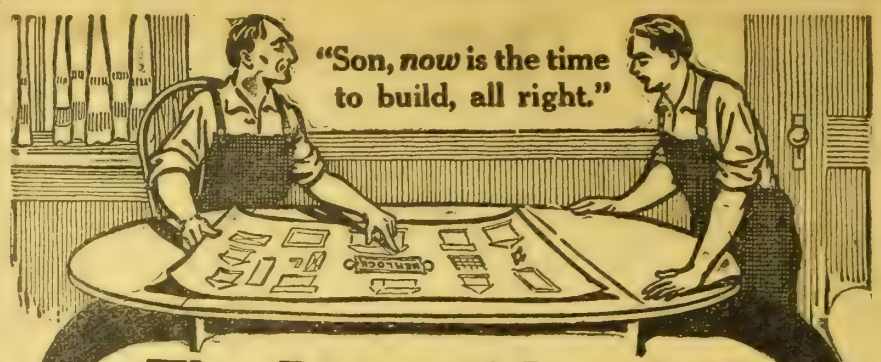
Portage County.—The acreage of small grains is about 10 per cent greater than last year. The acreage of potatoes and corn is about normal. On this soil oats are rather backward. Corn is up and looks well. Hay and pastures were slow, but recent rains and warm days have pushed them forward. Live stock are in exceptionally good condition. About 15 per cent more dairy heifers are on pastures this year than last.—Arthur H. Peterson.

Taylor County.—All crops are backward on account of cold weather. The oat crop will be good if conditions are favorable from now on. Rye will make about 75 per cent of a crop. Barley will be normal. Potatoes are not up yet; more were planted than last year. Fruit will not yield well on account of hard frosts. Garden truck is not yet out of the ground. The hay crop may be short. Pastures are late and many farmers are still feeding hay. Live stock look well.—J. C. Hoffman.

Washburn County.—Good rains during the first week in June greatly improved the crop prospects. Pastures are fairly good and meadows promise a fair crop of hay. Oats, spring wheat and barley are up to the average, but rye is thin. Nearly all potatoes have been planted and the acreage is greater than normal. Live stock are healthy. Spring pigs are scarce and selling at high prices.—L. D. Garnhart.

Washington County.—Because of heavy rains and cold weather, crops are not as far along as they should be. All winter crops are doing well, but barley and oats are not in good condition. The hay crop is excellent. Alfalfa will soon be ready to cut. Spring wheat is scarce, but the prospects are

(Concluded on page 13.)



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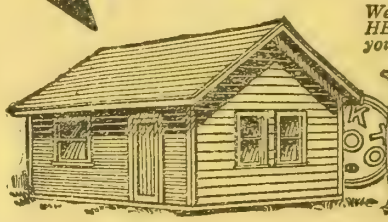

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The Fight on Hog Cholera.

(Continued from page 1.)

self. Begin at once to disinfect his former sleeping quarters, so as to destroy any infection that may previously have been scattered. If a second ailing hog appears, get him into the isolated pen without delay, also. A visit from an experienced veterinarian at such a time may result in saving practically all the hogs that are still on feed. If the trouble is diagnosed as cholera it is then time to get busy with the serum.

Every swine breeder who finds that he has cholera in his herd should endeavor to control it in the manner here described and, in addition, he should take steps to protect his neighbors' hogs by placing upon his own premises a self-imposed quarantine. This means that sick hogs that are likely to recover must be kept in close quarters with no access to yards or pastures. It means a thorough cleansing of the yards that have previously been run over by infected hogs, and it involves taking out all manure and trash and scraping the surface down to bare Mother Earth. After this, careful disinfection is absolutely essential. Troughs should be turned over and drenched and every hole and corner that is not exposed to the direct rays of the sun should be thoroughly disinfected. The infection in the open yards and fields, when filth is once removed, soon disappears, but it may remain for a twelve-month period in filth. It follows, naturally, that where yards are cleaned and disinfected, and where sick hogs are kept confined to a single pen, that the disease cannot spread. Simply remember that the body discharges of diseased hogs scatter hog cholera, and when there is no means of coming in contact with these, then infection cannot spread.

Recently, attention was called to a case where two hogs in a herd of eighty showed signs of cholera. A veterinarian was called and failed to recognize the disease, but pronounced it enteritis. No attempt was made to immunize the herd against cholera. One by one the hogs in this herd sickened and not until sixty head were lost was the disease pronounced cholera. The loss in this case amounted to more than $1,000. The owner was in part to blame, as the first diagnosis was made by the veterinarian before there were clearly defined marks of cholera. It should have been followed up with a second examination, when there would have been marked evidence of the presence of real cholera. The remainder of the herd could have been treated and the chances are that the loss could have been cut down to $100, or not to exceed $200, even including the price of treatment.

Of course, there are many things to contend with in this fight to stamp out the much dreaded disease. Instances can be found in every county where serum has utterly failed, and cases can be pointed to where a herd of healthy hogs has been wiped out after treatment. Men who have sustained such losses are dubious about the government's plan, and well they might be. However, swine breeders should be broadminded enough not to judge the entire situation by their own personal experience. Serum will not immunize against pneumonia. Indeed, a herd badly infected with pneumonia, when treated with serum, will die off even quicker than if they were let alone. Sometimes veterinarians make an incorrect diagnosis. They are human and, like men in other professions, will make mistakes, but this does not justify swine breeders in condemning all veterinarians. If hog cholera is ever combated it will be the result of coördinate effort of breeders and veterinarians. Remember that in many cases there is a mixed infection, and it is enough to baffle even the most skillful and experienced. Plain hog cholera, however, can be prevented by administering the right amount of good serum at the proper time. There are nostrums a-plenty on the market, but none of these will cure hog cholera and none will immunize an animal against disease. Anti-cholera serum is the only product that has ever been discovered that will do this, so why lose time in trying to coddle a sick herd along with patented dopes, herbs and concoctions of one kind and another?

If swine breeders would act promptly when disease makes its appearance and carry out the program outlined above and follow this up by exercising a little care when they leave their premises while the disease is on the farm, and if every animal that dies from cholera is promptly burned, it will be possible in a few years to absolutely stamp out the disease. Speaking of burning diseased animals, mention should be made of the fact that there is at the present time considerable carelessness along this line. Sixty-five cases broke out in four adjoining townships last year and in a few weeks the disease was entirely stamped out. In this case diseased carcasses were promptly burned, pens were cleaned and disinfected, special precautions were taken for a time, so as not to spread infection on the feet or by vehicle wheels, and the record of cleaning up this bad mess was made without the further spread of disease. In other words, it was confined, with the exception of two cases, to the herds in which it appeared before the campaign of eradication was started. Every man in this particular neighborhood placed his confidence in the ability of the officers in charge and he followed instructions to the very letter. At a comparatively small cost and with but little loss even in diseased herds, cholera that might have cost the farmers in this locality tens of thousands of dollars absolutely disappeared, and up to the present time not a single case of reinfection has shown up.

Every swine breeder should keep in mind the various agencies that are used in spreading cholera infection, and in doing this he will be the better able to protect his own herd and also to safeguard the interests of his neighbors. In 206 cases traced to their original source, it was found that the infection in sixty-one instances was spread as the result of visiting or exchanging labor between farms; four cases were due to the spread of infection from adjoining pens and pastures, and thirty-one outbreaks were traced to an infection that held over from a previous year. There were sixty-four outbreaks due to infection carried by dogs and in five instances disease was introduced by the purchase of new stock. Contaminated streams were responsible for six outbreaks and nine outbreaks were attributed to birds. In addition, there were twenty-five outbreaks that could not be accounted for, but the means of spreading here enumerated throws a good deal of light on the whole problem, and, if sensible precautions are taken to prevent any of these agencies from scattering infection, the problem of combating cholera would be greatly simplified and the loss from this disease very greatly reduced.

Department of Agriculture's Rules for Preventing Spread of Cholera.

LOCATE your hog lots and pastures away from streams and public highways, and do not allow your hogs to run on free range or highways nor to have access to canals or irrigation ditches.

Do not visit your neighbor's farm nor allow him to visit you if he has hog cholera on his premises.

Do not drive into hog lots after driving on public highways.

Do not use hog lots for yarding wagons and farm implements.

Do not place newly-purchased stock, stock procured or borrowed for breeding purposes, or stock exhibited at county fairs immediately with your herd. Keep such stock quarantined in separate pens for at least two weeks, and use care in feeding and attending stock to prevent carrying infection from these to other pens.

Burn to ashes or cover with quicklime and bury under four feet of earth all dead animals and the viscera removed from animals at butchering time, because they attract buzzards, dogs, etc., which are liable to carry hog-cholera infection.

If hog cholera appears in the neighborhood confine your dog and encourage your neighbor to do the same.

Mange, lice and worms lower the vitality of hogs, rendering them more susceptible to disease.

Have all hogs treated immediately with anti-hog-cholera serum, after which they should be kept on a light diet, with pure drinking water, and confined to limited quarters that should be cleaned and sprayed three times a week with "1 part of compound cresol solution to 30 parts of water," until the disease has abated in the herd.

To obtain the best results the serum must be administered as soon as the disease is detected in the herd. Be sure that the temperature of all hogs is taken. A temperature above 104 degrees F. in ordinary weather and when the animal is not excited indicates infection, and such hogs require an increased dose of serum.

Remove all manure and mix it thoroughly with quicklime.

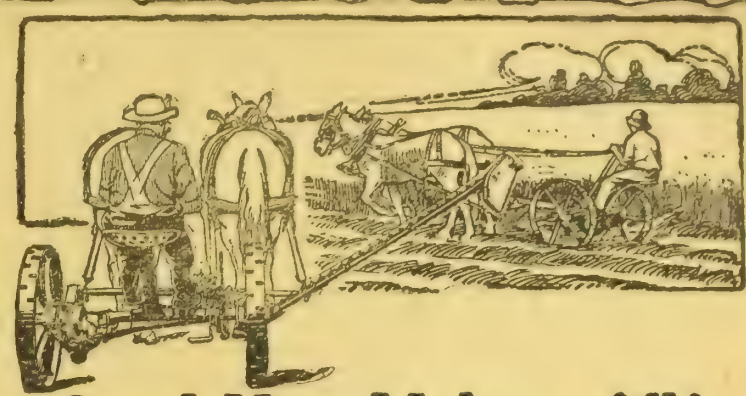
Burn all litter, rubbish and old hog troughs.

After the premises are thoroughly cleaned, spray walls, floors and other surfaces, including remaining hog troughs, etc., with a disinfectant (1 part compound cresol solution to 30 parts water). Where hog houses are small, turn them over, exposing interior to sunlight. Clean premises, properly exposed to sunlight, will not retain infection any great length of time.

Wallow holes and cesspools should be filled in, drained, or fenced off.

All runs underneath buildings should be cleaned and disinfected and then boarded up to keep hogs out.

Destroy hogs that do not fully recover, as they may be carriers of cholera infection.



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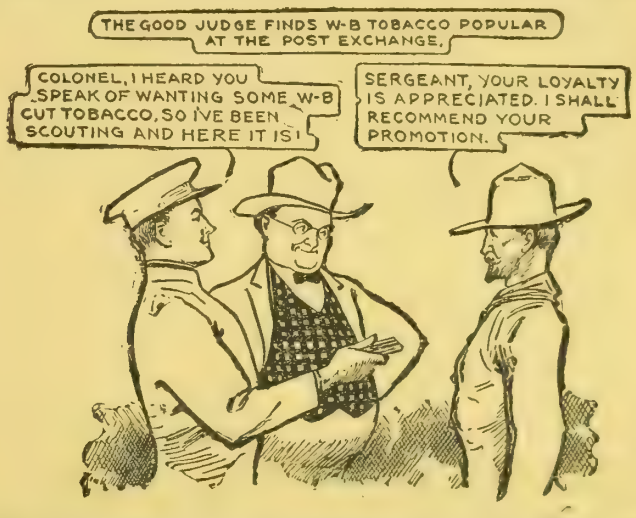

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OUR DAIRY DEPARTMENT

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JERSEY MEETING AT MADISON.

Good Attendance and Keen Interest in All Addresses.

There was not a large gathering present at the meeting of the Jersey breeders held on June 14th in the stock pavilion at Madison preceding the promotion sale. However, those present had the benefit of listening to a number of excellent speakers.

Pres. F. F. Showers opened the meeting and reviewed briefly the progress that had been made since 1909. In that year there were only twenty-four cows doing official work, while this year more than 100 cows are on register of merit test. Mr. Showers urged retail dairymen so to advertise their product as to obtain a better price for higher testing milk. Jersey milk, according to him, is entitled to a bigger price than is being received by the Jersey men.

Dr. Eliason, state veterinarian, took occasion to warn against serious contagious diseases among cattle and stock at the present time. Vigilance is now of utmost importance. The doctor urged everyone to nip in the bud any possible spread of disease by promptly reporting suspicious cases to the proper authorities. Previous experiences with diseases have proved the wisdom of this. He also touched upon the proposed legislation regarding tuberculosis. The doctor is not in favor of the radical means which have prevailed in the past and he has managed to put into the bills now about to be enacted into laws features which will make it considerably easier for the farmer who has the ill fortune to find tuberculosis present in any one of his cows, to readjust his business with a minimum of loss.

Dean Henry, formerly at the head of the agricultural college of the university, was also on the program. We all know what Dean Henry has done for Wisconsin agriculture. His wonderful book, Feeds and Feeding, is undoubtedly the most authoritative and exhaustive book on this subject. He called attention to the difficulty encountered in former years in making breeders see the value of pedigrees. Today the cow without a recorded ancestry cannot very well expect to sell for a fancy price and breeders are very slow in investing their money in such animals. Dairying, according to the dean, keeps us out of trouble by reason of the hard work connected with it, but it also pays us well for this hard work.

Professor Humphrey, of the animal husbandry department of the college, made a strong plea for a greater state association to carry the gospel of the Jersey cow into every county of the state. There is room for more pure-bred cattle in Wisconsin and there is room for good Jerseys in Wisconsin, but a state association is essential to the success of their distribution among such farmers as have not yet decided on the dairy breed with which they wish to work. Nineteen county associations are at present alive in Wisconsin and the Jerseys have made some showing and received considerable help through these bodies. They have also shown up well in the various cow-testing associations, of which there are now seventy-eight in the state.

A "Cow Demonstration" by Hugh G. Van Pelt, owner of Waterloo Jersey Farm and director in the American Jersey Cattle Club, ended the program. Mr. Van Pelt pointed out the five essentials which are necessary for the cow to have in order to produce large quantities of milk. By using a cow to illustrate his points the talk proved to be of greater value than a mere lecture on the subject. The five essentials, according to Mr. Van Pelt, are constitution, capacity, nervous temperament, blood circulation and udder development.

St. Croix Guernsey Meeting.

The sixth annual picnic of the St. Croix County Guernsey Breeders' Club was held at the H. A. Rundell farm. Officers for the coming year were elected as follows:

President—Lloyd Rundell.
Vice President—Hiram Rundell.
Secretary and Treasurer—Oscar Schwallen.

W. H. Phipps, of Hudson, explained the Liberty Loan Bond and District Attorney W. T. Door gave a patriotic address. Another speaker, Professor McKerron, of the University of Wisconsin, spoke on the value of community activities. T. M. Olson, the new county agent, gave a splendid talk on his work. It was decided to hold a winter meeting at Hudson and make the meeting a combination breeders' convention, inviting the representatives of other breeds to participate. County Agent T. M. Olson, of St. Croix county, and J. S. Klinka, of Polk county, were in charge of the high school boys' judging contest with entries from both counties. Prof. H. M. Stevens, of New Richmond, and Mr. Christianson, of Roberts, had charge of the grade judging contest. Percy Reed, of New Richmond, and George Larson, of Frederic, tied for first place with a total of 187 points each and the first and second money was divided between them.

The Pierce County Guernsey Picnic.

Talks on alfalfa, cow-testing associations and praises for the Guernsey cow were the high spots in the Pierce county Guernsey picnic held by the breeders' association of that county on June 12th. The E. P. Bjerkeng's farm near Ellsworth was selected for the picnic and the attendance was large.

A stock-judging contest in which Ed Wild, of Elmwood, won first in the men's division, proved quite a success. Mr. Wild not only placed the animals correctly but estimated their annual production within a few pounds of the actual figure. For his good work the association granted him a free membership card. In the boys' contest W. Ingli, M. B. Krueger and Robert Shannon, of the Ellsworth High School, won first place. Robert Shannon is the same boy who won first in the state stock-judging contest at Madison last February. Second place in the boys' contest went to James Walker, of Roberts.

Chief speakers of the day were Prof. W. W. Park, of the Wood County Agri-

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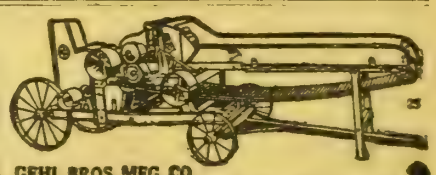

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cultural School, who spoke on the Guernsey cow and the value of the test association from a financial and educational standpoint. Prof. Ralph Peterson, of the Ellsworth high school, gave several song selections and a patriotic talk in which he emphasized the importance of the farmer in helping in the present food crisis. Principal J. H. Hammer, of the Roberts Agricultural High School, spoke on alfalfa as the crop for greater dairy profits. He mentioned the various difficulties encountered in Pierce county in the growing of this crop and the remedies which would overcome a great many present failures. He mentioned especially the application of ground limestone for sweetening the soil and assisting the alfalfa in its fight for a stand during the first months.

At the business meeting held in the afternoon the new officers were elected. For the coming year they will be: President, George Wild, of Elmwood; vice president, Gust Grossman, of Elmwood; secretary, Melvin Hammer, of Spring Valley, and treasurer, Russel Rudesill, of Baldwin.

La Crosse County Celebrates Guernsey Day.

To the Editor:—La Crosse county, on June 8th—Guernsey Day—classified as one of the great Guernsey centers of the country. Never before did the owners of more than 150 pure-bred Guernsey sires in the county have an opportunity to show the results of their breeding efforts. To say that they took advantage of their opportunity is putting it mildly. Guernsey dairy kings and queens were there from all parts of the county in numbers. Breeders for a distance of nineteen miles brought animals. By ten o'clock more than eighty choice animals graced the show pavilion. Twenty-eight cows made up the aged cow class. Promptly at 12:15, headed by the West Salem band, eighty magnificent Guernseys were marched through the streets of the village and the first Guernsey Day in the United States was inaugurated.

The occasion attracted more than 500 people. Farmers came from all parts of the county and many from neighboring counties were present. City folks turned out in numbers. Everyone was interested in the sleek Guernsey cattle exhibited, the stock judging, games and speeches, which marked the day.

Vilas Young, West Salem, carried off the silver cup in the boys' calf contest in a hotly contested event, in which Irvine Nuttleman, West Salem, finished second with Claude Bonsack, Brice's Prairie, third.

Emil Miller was rated the best stock judge among the farmers who competed. Other honors awarded were:

Aged pure-bred cows—Emil Miller, Barre; Ray Lewis, West Salem; Clinton Griswold, West Salem.

Aged grade cows—Mrs. Michaelson, West Salem; Richard Wehrs, West Salem; Howard Aldrich, West Salem.

Cows, two to three—Ludwig Lee, Holmen; Otto Wolf, Barre; Hiram Lovejoy, West Salem.

Cows, one to two—Mrs. Michaelson, West Salem; H. D. Griswold, West Salem; W. D. Sandman, Holmen.

Cows under one year—Ray Lewis, West Salem; Ed Young, Barre; H. M. Bonsack, Brice's Prairie.

Aged bulls—H. D. Griswold, West Salem; Adolph Nuttleman, West Salem; Otto Wolf, Barre; Ray Lewis, West Salem; Emil Miller, Barre.

Yearling bulls—K. O. Gaardner, Holmen; Wiilliam Behnub, West Salem; W. H. Meyer, Bangor.

Hills of the Guernsey Cattle Club of America was present and assisted Prof. G. C. Humphrey in the judging.

Professor Merrill gave a splendid address on the opportunity of the farmers of today. T. H. Campion.

Cow-Testing Reports.

Reedsburg Association.

To the Editor:—I enclose a list of the 45-pound cows in the Reedsburg association for thirty-one days, ending May 9th. For the third consecutive month Helena of Wayside, a seven year old belonging to Kirkpatrick Brothers' herd of registered Holsteins, leads the association in number of pounds of butter fat. The cow giving the most pounds of milk was also a grade Holstein belonging to F. J. Hilmer. E. A. Wood's herd of grade Holsteins averaged 41.06 pounds butter fat.

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
E. H. Koenecke					
Abbie, R. H.....	3	Apr.	1416	3.6	51.0
F. J. Montgomery					
No. 5, R. P.....	10	Apr.	1147	4.0	45.9
W. J. Hahn					
Josie, G. H.	8	Nov.	1122	4.4	49.4
W. J. Paff					
No. 8, G. H.....	5	Apr.	1349	3.6	48.6
Smith Bros.					
No. 4, G. H.....	10	Mar.	1386	4.0	45.4
Wm. Alexander					
Sis No. 3, G. H..	13	May	1144	4.6	52.6
Jennie No. 4, G.H.	5	Mar.	1119	4.4	49.2
Buttercup					
No. 7, G. H.....	4	May	1277	4.2	53.6
Molly, J. H.....	3	Apr.	1063	4.9	52.1
Fred J. Hilmer					
No. 1, G. H.....	5	Apr.	1761	3.2	56.4
Edgar A. Wood					
Blossom, G. H..	8	Dec.	1451	3.2	46.4
Albert Gluth					
Blackie, R. P....	8	Feb.	1311	3.6	47.0
Guy E. Seamans					
Tango, G. H.....	5	May	1125	4.6	51.8
Schenkat Bros.					
Fence Buster, G.H.	7	Mar.	1218	3.8	46.3
Sandy, G. H.....	8	Mar.	1039	4.5	46.8
Kirkpatrick Bros.					
Helena, R. H....	7	Mar.	1435	4.2	60.3
Queen, R. H.....	5	Mar.	1104	4.2	46.3
J. M. Johnson					
Goldie, R. J.....	6		719	7.0	50.3
Bessie, G. J.....	11		837	6.0	50.2
Heart, G. J.....	8		877	5.7	50.0
Pink, G. G.....	5		1249	4.6	57.5

W. J. Cummins,
Official Tester, Sauk county, Wisconsin.

Alto Association.

To the Editor:—The cows producing forty-five or more pounds of butter fat for the month of May are as follows:

Owner, number and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
No. 2, G. J....	4	4-21-17	951	4.8	45.6
Ed Bruins					
No. 5, P. B. J..	3	4-16-17	1062	5.4	57.3
No. 17, P. B. J.	6	3-1-17	858	5.6	48.0
No. 23, P. B. J.	7	11-7-16	696	6.8	47.3
J. W. Kastein					
No. 10, G. D...	7	4-13-17	1227	4.2	51.5
No. 15 G. J...	4	4-17-17	951	5.4	51.4
J. B. Kastein					
No. 2, G. J....	8	5-2-17	1716	5.6	96.1
No. 5, G. H...	6	4-12-17	1425	3.4	48.5
No. 6, G. J....	3	3-17-17	1200	4.6	55.2
Garret Greenfield					
No. 8, G. G....	11	1-27-17	813	5.9	48.0
J. H. Redeker					
No. 8, G. D...	8	2-11-17	939	4.9	46.0
R. Kastein					
No. 2, G. J...	6	12-28-16	885	5.2	46.0
No. 4, G. J...	9	12-31-16	1149	4.7	54.0
No. 6, G. J....	7	3-5-17	1665	5.0	50.3
No. 7, G. J....	7	3-3-17	1074	5.1	54.8
No. 16, G. J...	8	5-9-17	996	4.8	47.8
No. 19, G. J...	7	4-13-17	1208	4.6	55.3
No. 21, G. J...	8	5-8-17	1245	5.0	62.3
J. W. Stelsel					
No. 3, G. H...	5	11-7-16	987	4.6	45.4
No. 6, G. H...	5	1-13-17	1080	4.2	45.4
No. 12, G. D..	3	3-10-17	1002	4.5	45.1
Mrs. Theo. Kastein					
No, 3, G. J....	8	4-24-17	1143	5.0	57.2
No. 14, G. G...	6	3-11-17	1047	4.7	49.2
L. B. Redeker					
No. 2, G. J....	6	3-14-17	1203	4.1	49.3
No. 3, G. J....	7	1-2-17	1158	4.6	53.3
No. 4, P. B. J.	6	3-24-17	1188	5.5	65.3
No. 10, G. J...	4	4-2-17	660	6.9	45.5
B. Kastein					
No. 3, G. J....10		3-27-17	1092	4.2	45.9
No. 8, G. J....	7	3-27-17	1386	4.2	58.2
F. Whittemore					
No. 3, G. G...	9	12-10-16	1044	5.1	53.2
No. 5, G. G...	9	1-20-17	1176	4.7	55.3
No. 6, G. G...	9	11-25-16	1143	4.2	48.0
No. 10, G. G...13		3-1-17	1140	4.4	50.2
No. 12, G. G...	8	4-3-17	1065	5.0	53.3
No. 13, G. G...	3	2-21-17	774	6.2	48.0
No. 15, G. J...20		2-14-17	981	5.2	51.0
No. 16, G. G...13		3-14-17	1491	3.8	56.7
No. 18, G. G...	8	2-12-17	987	5.3	52.3
No. 19, G. G..	7	3-31-17	1011	4.5	45.6

Highest cow for the month grade Jersey (J. B. Kastein, owner) 1,716 pounds of milk; 5.6 test; 96.1 pounds butter fat. F. L. Cuenot, Tester.

Wolf River Association.

To the Editor:—Our forty-five-pound list for the month ending May 25th follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Geo. Feuerstein					
Peggy, G. H..	4	4-21-17	1339	4.3	57.5
Aug. Krause					
Elsie, G. H....	5	4-11-17	1566	3.5	54.8
Henry Harmann					
Mary, G. H..	8	3-1-17	1320	4.1	54.1
Jul. Pflughoeft					
Betty, G. G...	5		1271	4.2	53.4
Rosa, G. G....	6		1162	4.6	53.4
Bruno, G. G..	7		1019	5.1	51.9
Nellie, G. J...	9		1153	4.1	47.3
Fawn, G. J...	6		1023	4.6	47.0
Nigger, G. J..	6		1088	4.2	45.6
Otto Sibilsky					
Goldie, G. H..	7		1689	3.1	52.3
Cherrie, G. H..	6		1255	4.0	50.2
Beauty, G. H..	4		1333	3.5	46.6
Daisy, G. H...	6		1054	4.3	45.3
Henry Wessel					
Stearn, N. 12			1441	3.5	50.5
Daisy, N.	4		1026	4.5	46.1
Geo. F. Blahnik					
Bonnie, G. H..	6	12-21-16	1119	4.4	49.2
Beauty, G. G..	6		923	5.1	47.0
Darling, G. G.12		12-11-16	858	5.4	46.3
Aug. Nesemann					
W. Rose, G. D.			1035	4.5	46.5

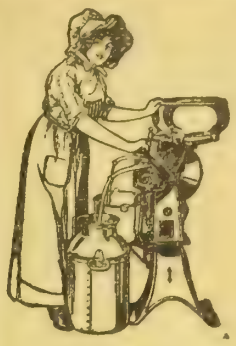
Fred Phueler,
Official tester Kewaunee county.

Winnebago County Association.

To the Editor:—Our forty-five-pound list for May is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
G. W. Searles					
Rella, G. J....	6	10-9-16	1020	5.0	51.0
Levi Brunson					
Kate, G. J....	7	1-2-17	720	6.3	45.3
Laura, G. J...	6	3-6-17	1125	4.0	45.0
Aug. Zimmershied					
Lady, G. H...	6	4-10-17	1260	4.2	52.9
C. H. Slayton					
Lisetta, P.B.G.	6	3-7-17	849	5.5	46.6
Ferndell, G. G.	7	4-13-17	1032	4.7	48.5
Chas. Ruelke					
Dolly, G. G...	8	11-3-16	939	5.6	52.5
E. Rose.					
No. 42, P.B. H.	3	1-20-17	984	5.1	50.1
No. 11, G. H..	5	1-2-17	1167	4.0	46.6
Aug. Franz					
No. 5, G. G...	4	3-31-17	1266	3.6	45.3
Frank Brocks					
No. 12, G. D..	6	10-18-16	795	8.3	65.9
John W. Thrall					
Rose, G. G...	5	8-27-16	975	4.7	45.8
Marguerite, G. G.	8	11-15-16	1050	4.9	51.4
Dolly Bloom, G. G.	6	2-8-17	1551	3.8	58.9
Vijola, P. B. G.	3	10-15-16	819	6.0	49.1
Roy's Best, G.G.	5	2-22-17	1008	4.8	48.3
Rose of Stockbridge, G. G.	6	4-28-17	1065	4.8	51.1

T. G. Fisher, Official Tester.
Levi Brunson, Secretary.



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BECAUSE THE NEW DE LAVAL IS so much simpler and more easily handled and cared for than any other, and you cannot afford to waste time these busy days "fussing" with a machine that ought to have been thrown on the junk pile long ago.

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THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

THE HOME WOMAN'S DUTY.

While all honor is due to the women who leave their homes to nurse and care for those wounded in battle, no woman should feel that, because she does not wear a nurse's uniform, she is absolved from patriotic service. The home women of the country, if they will give their minds fully to this vital subject of food conservation and train themselves in household thrift, can make of the housewife's apron a uniform of national significance.—Department of Agriculture.

Another Way to Help.

Knitting needles are going to do their part to help win the war if only willing women can be found to ply them. A marching soldier wears out one pair of socks a week and millions of pairs are needed for the army now being equipped for the war, so many millions that, even with all the output of the factories, we are going to fall short unless the women of America begin to knit as the women of England and Canada are knitting. "It cannot remain merely a matter of the commissary department of the army," says a Red Cross worker, "where the demand cannot be supplied. It must become a personal matter, with every woman knitting for some American soldier in her family or among her friends or among the thousands who have neither sisters nor mothers nor any other relative from whom they may expect personal kindnesses."

Directions for making the socks are as follows:

Eighty stitches.

Knit two plain, two purl for four inches.

Knit plain for two and one-half inches, narrow two stitches, seven rows plain, doing this for five times, and after fifth narrowing knit two and one-half inches plain.

Take off thirty-four stitches for heel and make double heel for two and one-half inches. Then turn heel.

Pick up twenty stitches on each side. Knit two together, evening off until you have seventy stitches left in all.

Knit nine inches from end of heel. Narrow every sixth stitch for one row, then knit five rows plain. Narrow every fifth stitch, then knit five rows plain, and so on, until six stitches are left. Then bind off.

If you are knitting socks for some particular soldier, then, of course, the exact size will be known; otherwise they should be of large sizes, and care should be exercised so that there will not be a ridge below the heel or at the end of the toe. Be sure that your needles are of a proper size for the wool you propose to use.

Here is a field where women can help wonderfully toward the comfort of our soldiers and we are sure there is not one woman in the country who is not willing to do her share.

Drying Fruits and Vegetables.

The present shortage of both sugar and containers makes drying an economical method of preserving food in the home. Many fruits and vegetables which are canned ordinarily may be taken care of in this way.

Drying may be done in the sun, by artificial heat, or before an electric fan. The only objection to sun drying is the uncertainty of weather conditions; a cloudy day before drying is completed may cause the product to sour. In sun drying the product may be placed on sheets of paper or muslin held in place by weights, or a drier may be used the same as for drying in artificial heat. If a drier is used the drying may be completed by artificial heat in case the sun fails during the process. Small driers may be purchased for from $5 to $15, but if one does not care to go to this expense a very satisfactory one may be made at home. A simple homemade drier consists of trays and a holder. Four strong, upright wooden supports connected by horizontal bars will hold several trays at once. Make the trays like window-screen frames and cover with cheesecloth or unbleached muslin, or, if desired, one-fourth-inch galvanized wire mesh may be tacked to the side and end boards to form the bottoms of the trays. Frames for use with artificial heat should, of course, be made of noninflammable material to as great an extent as possible.

Food to be dried in the sun should be covered with mosquito net and the trays shifted often to promote drying. When the drying is to be done by artificial heat, as on the back of the stove, the supports on which the trays rest should be raised a few inches above the heated surface by means of pieces of metal or bricks. This permits a free circulation of hot air up through the trays and thus carries the moisture away from the products. As many as six trays may be placed in the frame when artificial heat is used. In drying before an electric fan the number of trays that may be placed one above the other will depend upon the diameter of the fan.

Shelled beans and green peas may be dried in this fashion as well as string beans, sweet corn and various other vegetables and fruits. Sweet corn should be slightly cooked, then cut from the cob and spread in very thin layers. Spinach that is in prime condition for greens should be prepared by careful washing and removing the leaves from the roots. Spread the leaves on trays to dry thoroughly.

The larger vegetables and fruits will dry better if sliced. They should be cut into slices one-eighth to one-fourth of an inch thick. If thicker, they will not dry thoroughly. While drying, the products should be turned or stirred from time to time.

Following are recipes for a few of the vegetables that must be sliced or chopped:

Beets.—Select young, quickly grown, tender beets, which should be washed, peeled, sliced about an eighth of an inch thick, and dried.

Turnips should be treated in the same way as beets.

Carrots should be well grown, but varieties having a large, woody core should be avoided. Wash, peel and slice crosswise into pieces about an eighth of an inch thick.

Parsnips should be treated in the same way as carrots.

Onions.—Remove the outside papery covering. Cut off tops and roots. Slice into one-eighth-inch pieces and dry.

Cabbage.—Select well developed heads of cabbage and remove all loose outside leaves. Split the cabbage, remove the hard, woody core, and slice the remainder of the head with a kraut cutter, or other hand slicing machine.

Beet tops.—Tops of young beets in suitable condition for greens should be selected and washed carefully. Both the leaf stalk and blade should be cut into sections about one-fourth-inch long and spread on screens and dried.

Swiss chard and celery should be prepared in the same way as beet tops.

Rhubarb.—Choose young and succulent growth. Prepare as for stewing by skinning the stalks and cutting into pieces about one-fourth inch to one-half inch in length and dry on trays.

Dried products should be packed temporarily for three or four days and poured each day from one box to another to bring about thorough mixing, and so that the whole mass will have a uniform degree of moisture. This is called "conditioning." If, during this conditioning, any pieces of the products are found to be too moist, they should be returned to the trays and dried further. When in condition, the products may be packed permanently in tight paper bags, insect-proof paper boxes or cartons or glass or tin containers.

Canning Tomatoes in Glass.

To the Editor:—I believe I can give a few ideas on canning that may benefit some. There are a great many women who are unable to can tomatoes in glass so they will keep. I tried and tried, but failed, so I solved the problem last year by experimenting both with tomatoes and blackberries.

I sterilized my glass jars, filled them with tomatoes, added a teaspoonful of salt to each quart, put on the rubber and lid (not very tight), then set the jars in a gallon sirup bucket of cold water. I just laid the lid on top so the steam could escape and by the time the water boiled the tomatoes were cooked. Then I screwed the lid on tight. I could hardly wait till I needed them to see if it was a success, and, sure enough, it was, for they were fine.

Blackberries have always been hard for me to keep, so I tried them the same way, sweetening them a little, and they were as fine as the tomatoes.

Tin cans are so scarce now I felt that this might be worth knowing to some at least. I expect to use the boiler when I can this year, and I am going to put up cherries and raspberries the same way.

Mrs. Florence Beal.

Rose Beads.

To the Editor:—I have been reading with interest and appreciation the letters the readers have written to the Home department. I have found so many things which are helpful and useful to others that I hope someone will help me. Can anyone tell me how to make beads from rose petals? I should be very grateful for this information. I should like, also, to know of an attractive way to string them.

Loraine.

Many persons are unaware that the green and tender tops of many vegetables, such as radishes, turnips, celery and beets, contain valuable mineral and other food substances, and are excellent cooked as greens, or even as additions to salads.

Recipes.

Chicken Pudding.—Two cupfuls leftover chicken, diced, two eggs, two cupfuls milk, one can of corn or two cupfuls green corn, one teaspoonful salt, one-eighth teaspoonful pepper. Butter a baking dish or casserole and put in the chicken. Pour over it a mixture made of the two eggs beaten, the milk, corn and seasonings. Put in a pan of hot water and bake until set, in a moderate oven.

Prune Cornstarch Pudding.—One-half pound prunes, one-third cupful cornstarch mixed with one-fourth cupful cold water, one cupful sugar, two cupfuls cold water, one and one-third cupfuls boiling water, one-half cupful chopped nut meats, a few drops oil of lemon. Wash prunes. Soak overnight in cold water. Boil these in the same water till soft; slip out the stones and cut prunes in quarters. Add sugar, boiling water, and oil of lemon; simmer five minutes, then add cornstarch mixed with cold water, and boil twenty minutes longer; stir in the nut meats. Serve cold with plain or whipped cream.

Barley Muffins.—One cupful whole wheat flour, one cupful barley meal, one-fourth teaspoonful salt, two teaspoonfuls baking powder, one egg, one and one-fourth cupfuls sour milk, one-half teaspoonful soda, two tablespoonfuls beef drippings or lard. Sift flour, barley meal, salt and baking powder. Dissolve soda in a little cold water and add to sour milk. Combine flour mixture and sour milk, add beaten egg and melted fat. Bake in muffin pans in a moderate oven.

Pea Salad.—Drain a can of peas, peel and dice three medium-sized cucumbers, and prepare one-fourth pound of nut meats. Mix all together and moisten with a boiled salad dressing.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Has Some Young Pigeons.

Dear Young Folks:—I am a little girl ten years old. I live on a farm of 160 acres. I have a little brother five years old and another eight, and two sisters, one a year old and one three.

Alonzo, my oldest brother, brought two young pigeons to the house the other day and I do not know what to feed them. Could any of the boys or girls tell me in their letter what to feed them? I feed them pop corn and corn, but they don't seem to eat. We have a little baby mule. It is black. I love my mother and father. I am in the fifth grade at school.

—Lucille.

Helped Father Harrow.

Dear Young Folks:—I have written to you twice before, but I guess my letters found the hungry waste basket. I am twelve years old, five feet three inches high, and have blue eyes and dark brown hair. I am a lover of farm animals. I have harrowed about sixty acres for my papa this spring. I am breaking two colts to ride now and think it is lots of fun. I like farm life much better than city life. —Dorsie.

A Summer Vacation.

Dear Young Folks:—I am sending you a story and I hope you will like it.

When school closed for the summer vacation Harry and Lolna were going to their grandfather's. School was out on Friday so they helped their mother get ready, for they were to go on Saturday. They could hardly wait to get started to the train. Their train didn't leave until four o'clock in the afternoon and the children thought it was the longest afternoon they ever saw.

They didn't get to their grandfather's until ten o'clock Sunday morning. Their grandfather was at the train to meet them. It was ten miles from town out to his house. They talked all the time they were going out and their grandfather told them all about the little chickens and ducks.

At last they came to the house. It was a large house with shade trees all around it. Their grandmother had dinner all ready for them and when they got through with dinner they asked their mother if they could go out and play and she told them they could.

About three o'clock in the afternoon their mother began to wonder where they were, so their grandfather went out to look for them. In a little while he came back and said he couldn't find them, so their mother and grandmother went out to hunt for them. They found them down by the brook picking flowers. When they got back to the house it was supper time, so they ate their supper and went to bed and dreamed they were down by the brook picking flowers again. They had had a lovely time the first day of their vacation.

—Nellie.

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1768—A smart one-piece model, with sleeve in either of two styles. Pattern is cut in 3 sizes: 2, 4 and 6 years. It requires 2⅝ yards of 44-inch material for a 4-year size.

2106—A smart "pocket" dress for the growing girl. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 3⅝ yards of 44-inch material for a 10-year size.

2129—A pretty dress for the little miss, with bolero and with two styles of sleeve. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 1¾ yards for the bolero and 4¼ yards for the dress, of 27-inch material.

1927—Girls' dress with or without bolero and with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 3¼ yards of 27-inch material for a 4-year size, with ¾ yard for the bolero.

2111—A pretty gown. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5⅝ yards of 44-inch material for an 18-year size.

Waist 2117-Skirt 2126—A pleasing combination. Waist pattern 2117 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2½ yards of 36-inch material for a 36-inch size. Skirt 2126 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3 yards of 44-inch material, for a 24-inch size. Two separate patterns, 10 cents for each pattern.

1378—A comfortable beach or outing suit for the small boy. Pattern is cut in 4 sizes: 3, 4, 6 and 8 years. It requires 1¼ yards of 36-inch material for the blouse, and 1⅛ yards for the trousers, for a 3-year size.

2118—A stylish skirt in raised waistline. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 4⅛ yards of 44-inch material, for a 24-inch size.

1674—Ladies' house gown or negligee, with sleeve in either of two lengths, and with or without yoke facings. Pattern is cut in 3 sizes; small, medium and large. It requires 5¾ yards of 44-inch material for a medium size.

1342—Ladies' apron with or without band trimming. Pattern is cut in 3 sizes: Small, medium and large. It requires 5⅛ yards of 36-inch material for a medium size.

1364—A simple and becoming dress, suitable for house, porch or business wear. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

2101—A most attractive style. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 36-inch material for a 36-inch size.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for June 24, 1917.

The Purpose of John's Gospel.

REVIEW—Read John 21:15-25.

GOLDEN TEXT—These are written, that you might believe that Jesus is the Christ, the Son of God; and that believing ye might have life through his name.—John 20:31.

There are a variety of methods to be followed in reviewing the work of the past six months and to give variety. Teachers of classes, or superintendents of schools may select one or combine several, as their judgment dictates. Of course, the easiest way is to procure a good speaker who is familiar with the Gospel of John and the lessons of the past quarter, and let him bring out in the review its most outstanding and salient features.

One method would be to have one-minute talks either by members of the class or persons selected from the school. Each of twelve scholars could be assigned one minute, each to have one of the lessons of the past quarter.

Another good way would be to take the outstanding and significant verses from the lessons of the quarter, not the golden text, but verses which seem to emphasize the outstanding features of the six months' work. "Behold the Lamb of God," (Ch 1:36): "Ye must be borne again," (3:7); "Come see a man which told me all things that ever I did; is not this the Christ?" (4:29); "Verily, verily I say unto you, he that heareth my word and believeth on him that sent me, hath everlasting life and shall not come into condemnation, but is passed from death unto life," (5:24). "I must work the works of him that sent me while it is day; the night cometh when no man can work."

Another method of review would be, particularly in the adult classes, to have each lesson with its present-day emphasis. For instance, the past quarter: Lesson 1—The Christian in his dealing with blindness. Lesson 2—Modern wonders of healing and medical missions. Lesson 3—The shepherding of church members. Lesson 4—Do we know how to give? Lesson 5—Is Christ supreme in our national life? Lesson 6—Ambition and its cure. Lesson 7—The world's good springing from Christ. Lesson 8—Temperance reform. Lesson 9—The Holy Spirit in everyday life. Lesson 10—How Christ is betrayed and denied today. Lesson 11—The uplifting power of the cross. Lesson 12—Why men believe in immortality.

A good method of review would be to have someone take up each of the golden texts, announcing it in advance that pupils may be prepared for this method. The teacher would write the texts of the quarter, each on a separate piece of cardboard, and lay them face down on a table; pupils would then draw the golden texts, one at a time, and tell what the lesson is to which this text belongs, giving as full an account of the lesson as possible, the teacher helping out with questions where necessary.

It will be of great value to the pupils if they can get in this review a clear outline of the main events of Christ's last weeks upon earth, covered particularly by the past quarter. There are forty standing events of the past quarters: (1) The healing of the man born blind; (2) Jesus the good Shepherd; (3) Jesus sending forth the seventy; (4) Jesus in Berea; (5) The raising of Lazarus; (6) The ten lepers healed; (7) Bartimaeus at Jericho; (8) Jesus visits Zaccheus; (9) Jesus anointed by Mary; (10) The fig tree; (11) Triumphal entry; (12) Cleaning the temple; (13) Weeping over Jerusalem; (14) The widow's mite; (15) The Greeks seek Jesus; (16) Preparation for the passover; (17) Washing the disciples feet; (18) The Lord's supper; (19) The farewell discourse; (20) The farewell prayer; (21) The agony in Gethsemane; (22) Judas betrays Jesus; (23) The arrest of Jesus; (24) Peter denies Jesus; (25) Jesus before Ananias; (26) Jesus before Caiphas; (27) Jesus before the Sanhedrin; (28) The mocking of Jesus; (29) Jesus before Pilate; (30) Jesus before Herod; (31) Pilate condemns Jesus; (32) The sorrowful wait; (33) The crucifixion; (34) The seven last words; (35) Jesus dies; (36) Burial; (37) Resurrection; (38) Appears to Mary; (39) Appearance during the forty days; (40) The ascension.

As brought out heretofore, John sets forth the purpose of this Gospel; namely, that "Jesus is the Christ, the Son of God, and that believing on him we might have everlasting life, eternal life in his name." (See golden text).

A Suggestion.

In setting forth this review, let us not as teachers and officers, overlook the opportunity we have of calling from our scholars an expression of the faith that has been born within them. (See Rom. 10:9, 10.) Jesus the light of the world has power to set me free from sin and "whom the son shall make free is free indeed." If we properly set him before our scholars, they will be made free from the slavery of sin and enter into the freedom of believers. True faith is built upon facts; those who accept and believe these facts will have everlasting life.

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ONLY $1,000 DOWN TAKES 40—2 miles station, on creek, near large lakes. Good frame house 18x28, 16x18; barn, other buildings; 30 acres field or meadow with nice surface and clay loam soil. Bargain at $3,000 for quick deal. Baker I-110, St. Croix Falls, Wis.

WANTED TO HEAR FROM OWNER OF GOOD farm for sale. State cash price and description. Address D. F. Bush, Minneapolis, Minnesota.

Worth-While Farmers Club

To the Editor:—The present officers of our club are: President, Daniel Flack; vice president, Mrs. J. Matteson, Elkhorn, Wisconsin; secretary, Mrs. H. E. Reynolds, Lake Geneva; treasurer, Geo. Brown, Lake Geneva. We had regular club meetings through the past winter with a different topic for discussion at each association and always with a speaker for each evening. Just at present the club is most interested in a membership campaign and it has proved a very good way to get members. We have also started a boys' club for the benefit of the young boys and we hope to see them become even more interested in farm work. We also have a girls' club for the training of girls in domestic science.

Mrs. H. E. Reynolds.
Secretary Worth-While Farmers' Club, Walworth Co., Wis.

Wisconsin Crop Report.

(Continued from page 8.)

good for a good yield per acre. The acreage of potatoes will be about one-third larger this year than formerly. Live stock are normal in number and doing nicely.—M. P. Salter.

Waukesha County.—Clover is making rapid growth. Alfalfa winterkilled to some extent. Corn that is up looks well. Small grain promises a big crop. Pastures are good and the first crop of hay will be heavy.—W. J. Mann.

Wood County.—Recent warm weather and rains have improved the crops greatly. Oats, rye and corn are normal. Wheat and barley are not grown here. Hay is coming up fine. Garden truck is making good progress, but the fruit crop will be light. All live stock are healthy.—Fred E. Weber.

Our Farm Help Column

HELP WANTED.

D. M. Jones, R. F. D. 1, Box 47, Creshard, S. D., wants experienced farm hand. No boozer or cigarette user need apply. Wages $45 per month. Will hire until first of December by the month and no lost time.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

M. H. O'Keefe & Sons—Waunakee.

AS president of the Wisconsin Duroc Jersey Swine Breeders' Association, M. H. O'Keefe, of Waunakee, is well known, though nothing has ever been said about his Durocs. As is well known, Mr. O'Keefe is inclined to be a little timid about blowing his own horn, but he has some hogs that are worthy of publicity. Right here we want to say that the success of the Duroc sale held at Madison last winter was greatly due to his untiring efforts. One of the good sows in the herd is sired by G. J. Cherry Chief, out of a dam by The Professor. She has a nice litter by Illustrious Professor. Another good sow is of Top Col. John's Ohio Chief and Marion's Wonder breeding and she has a fine litter of nine. A good sow tracing to the noted Ohio Chief and Proud Ohio Chief has a good litter of five pigs. The $90 sow purchased in the Madison sale sired by Prince Defender has seven dandies by Royal King 4th. This is one of the best litters on the farm. A sow that combines the blood of the champion, Freed's Col., Chief's Col., Muncie Chief and Helen Blazes is raising 11 of the 14 pigs she farrowed. Most of these pigs are sired by Regulator Wonder. On his sire's side he traces to Top Col. and Marion's Wonder; the dam goes back to old Ohio Chief and Proud Advance. The attraction on the farm is the present herd boar, Giant Algo. He is sired by Col. Algo, he by King the Col., out of a daughter of Chief Select. Giant Algo is a half brother to Algo's Giant, the junior champion boar at the National Swine Show. This firm are now offering boars and gilts and they are good, having been carried along in nice shape. Buyers will be pleased. Write for details.—Adv.

B. W. Little's Short-horns.

JUST at this time B. W. Little, Janesville, Wis., has for sale six young bulls sired by his good breeding bull, 17th Duke of Wapsie. One of the good young bulls is out of a daughter of Siddington Duke 6th, and she is only removed four times from the noted Imp. Grand Duchess of Oxford 60th. This bull is roan in color and is a good one. There is a light roan bull in the bunch, that is a full brother in blood to the one mentioned above. A half sister to the dam of this bull is giving over 50 pounds milk a day at this writing. Mr. Little can supply your wants if you want a straight Bates-bred bull. Write him for a tabulated pedigree of the bulls he has for sale and please mention The Wisconsin Farmer.—Adv.

Harvey Little Short-horns.

HARVEY LITTLE'S milking Short-horns, of Evansville, Wis., are too well known in Wisconsin to need much comment. We simply want to mention the fact that he has a couple of good bulls for sale that are of serviceable age. One of them is a rich red, just past a year and he is sired by a Scotch bull and his dam gave 6,488 pounds of milk and his grandam gave 9,843. He has an outstanding roan bull that looks like a real herd-bull prospect. His grandam was in the 10,000-pound class. Besides these he has several young bulls that are doing fine out of his best cows. If you want beef and milk you can get it in this herd. Mention The Wisconsin Farmer when writing. See page 16.—Adv.

Webbs at Poynette.

WITH this issue of The Wisconsin Farmer, W. A. Webb & Sons, Poynette, Wis., start an advertisement offering Duroc Jersey spring pigs. We called attention to this herd a short time ago and we will not go into details at this time other than to say that they own and are raising a class of Durocs that will give satisfaction. Their blood lines are the most popular, and, as they are good feeders you will not find the pigs neglected. They will gladly sell you a pair not related and they guarantee satisfaction in every respect. Write them for further description.—Adv.

Meinking Polands.

R. MEINKING, Bangor, Wis., changes his advertising copy and now offers you the pick of 104 March and April Poland China pigs. We saw these pigs some time ago and Mr. Meinking had them coming fine. They are sired by Double Hadley 4th and out of fine, smooth sows. There is a fine litter on the farm out of a Big Joe-A Wonder dam that are for sale. There is another litter sired by Young's Big Joe out of a daughter of Orange Wonder from a Master's Giant dam. Get in on these if you want something really classy. See page 15.—Adv.

Blood of Grand Champion.

WITH this issue of The Wisconsin Farmer, McClurg Bros., Viroqua, Wis., start their usual card offering for sale. Durocs of the most fashionable breeding. We will have more to say about this herd later, however, we might mention that every one of the Duroc Jersey boars that they have for sale are sired by a son or out of a daughter of a grand champion. If you buy now you get the pick of their boars. Pedigrees and crates furnished free. Write for details at once.—Adv.

Bred Durocs For Sale.

DON'T forget that Frank H. Arnold, Janesville, Wis., has a number of Duroc gilts for sale. They are fall yearlings and are bred to farrow in August and September. Bred Durocs that can be bought are scarce and here is your opportunity to get some good gilts. They are well grown and are the pick of some 40 head. Write now and mention The Wisconsin Farmer.—Adv.

Damerow Offering.

C. J. DAMEROW, Beloit, Wis., has some fall boars and fall gilts that you will be pleased with if you are in the market for anything of this breed. They come from good stock, are well bred and have been properly cared for. If interested write him at once and mention this publication.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter, Baraboo, Wis. (Sale at Chicago, Ill.)
Dec. 1, Anoka Farms, Waukesha, Wis.

NEWS OF THE SALE RING

Pinehurst Holstein Sale.

The Pinehurst dispersion sale held on June 12th marked the end of the Pinehurst Dairy, of Sheboygan Falls, Wis. The top price of the day was paid for Pinehurst Piebe by E. V. Maltby, of Mokena, Ill., who purchased this cow for $2,000. Pinehurst Piebe has a record of 34.43 pounds of butter in seven days. Heavy buyers were the Lake Kampeska Dairy Farm, of Watertown, S. D. Fourteen animals were purchased by the South Dakota men. E. V. Maltby was also a heavy purchaser, successfully bidding for eight head. Probably one of the cheapest "buys" of the day was that of King Korndyke Akkrummer Ormsby, that went at the low figure of $910. This bull is out of a 31-pound dam and has 25 per cent of the same breeding as Duchess Skylark Ormsby, the world record cow. F. Lehman, of Watertown, Wis., was the lucky purchaser. The great number of young bulls in the ring hurt the average of the sale to some extent, but everything considered the prices were fair. King Segis Concordia Hengerveld, grandson of King Segis, also went at a very low figure considering his excellent breeding. He went to Crites Bros., Honey Creek, Wis., for $635. The average for the sale, including the young stuff, was $266. Following are the sales over $100:

King Segis Concordia Hengerveld, Dec. 16, 1911; Crites Bros, Honey Creek, Wis. $635
Valley Rose Mechthilde, Mar. 28, 1904; H. J. Perrigo, Beloit, Wis. 230
Parthenea Piebe De Kol, Sept. 13, 1903; G. E. Turville, Oconomowoc 130
Pinehurst Lady, May 15, 1909; Edward Yohn, Watertown, Wis. 160
Pinehurst Jane, Jan. 26, 1912; Lake Kampeska Dairy Farm, Watertown, S. D. 400
Yeseltine Champion, Dec. 22, 1910; F. A. Chandler, Greenwood, Wis. .. 255
Rigtje Piebe De Kol 2d, Feb. 10, 1912; Gramling Bros., Dousman, Wis. 290
Vannatta Bug Horn De Kol 3d, Feb. 19, 1914; W. S. Laird, Shiocton, Wis. 310
Pinehurst Rose, Dec. 23, 1911; Geo. Minchell, Darien, Wis. 345
Valley Rose Mechthilde 2d, Jan. 3, 1913; H. J. Perrigo 230
Josephine Piebe 2d, Nov. 22, 1913; E. V. Maltby, Mokena, Ill. 385
Yeseltine Champion 2d, Jan. 24, 1913; Columbia County Asylum, Wyocena, Wis. 215
Jennie Glenice Champion, Nov. 14, 1913; A. Reik, Lake Beulah, Wis. 270
Princess Yeslet 3d, Feb. 4, 1914; H. Ellsworth, Elkhorn, Wis. 205
Pinehurst Parthena Champion 2d, Nov. 24, 1914; E. E. Truttschell, Sheboygan, Wis. 280
Pinehurst Vannatta, Sept. 22, 1909; H. J. Perrigo 370
Princess Champion 2d, Jan. 26, 1913; F. A. Chandler 250
Pinehurst Gertrude, Oct. 30, 1912; H. J. Perrigo 265
Valley Rose Mechthilde 3d, Dec. 23, 1913; Lake Kampeska Dairy Farm 370
Pinehurst Thoro, Jan. 10, 1910; H. J. Perrigo 330
Pinehurst Lady 2d, Mar. 3, 1914; Lake Kampeska Dairy Farm 310
Pinehurst Fayette, Dec. 19, 1911; A. C. Oosterhuis, Sheboygan Falls, Wis. 290
Pinehurst Fayette 2d, Mar. 2 1914; Lake Kampeska Dairy Farm 400
Valley Rose Segis, Mar. 3, 1916; Lake Kampeska Dairy Farm 255
Pinehurst Piebe Rigtje 2d, Dec. 12, 1913; H. J. Perrigo 280
Pinehurst Ormsby Piebe Rigtje, Feb. 6, 1917; C. J. Draves, Ft. Atkinson, Wis. 100
Segis Rose Champion, Feb. 2, 1916; Fred Weifenbaugh, North Lake, Wis. 270
Pinehurst Ormsby Rose, Jan. 21, 1917; F. E. McClure, Aurora, Mo. 200
Pinehurst Lady Mary, April 21, 1912; Lake Kampeska Dairy Farm 780
Pinehurst Clothilde, May 5, 1916; A. P. Kaye, Walworth, Wis. 270
Segis Concordia Lady, Mar. 13, 1916; F. E. McClure 280
Lady Segis Josephine, Dec. 1, 1915; Lake Kampeska Dairy Farm 410
Pinehurst Sue, Dec. 27, 1910; W. Krause, Thorpe, Wis. 310
Pinehurst Segis Sue, July 25, 1916; Lake Kampeska Dairy Farm 170
Piebe Susan Lady, Dec. 6, 1914; Columbia County Asylum 165
Vannatta Bug Horn De Kol, Feb. 5, 1907; J. C. Watermark, Fall River, Wis. 160
Pinehurst Lady Josephine, Feb. 4, 1917; M. F. Peck & Son, Marshall, Wis. 220
Pinehurst Vannatta 2d, Jan. 22, 1915; A. Reik, Lake Beulah, Wis. 350
Segis Bug Horn De Kol, April 22, 1916; Lake Kampeska Dairy Farm 300
Pinehurst Segis Bug Horn, Nov. 18, 1916; Lake Kampeska Dairy Farm 175
Valley Rose Champion, Aug. 8, 1914; H. J. Perrigo 170
Pinehurst Ormsby Champion, Dec. 24, 1916; George Kruckemburg, Edgerton, Wis. 135
Spring Side Carrie, Dec. 11, 1908; Ed Yohn, Watertown, Wis. 115
Spring Side Carrie 4th, Dec. 6, 1914; H. J. Perrigo 275
Pinehurst Ormsby Carrie, Mar. 3, 1917; H. J. Perrigo 105
Pinehurst Caroline, Jan. 5, 1912; F. A. Chandler 230
Carrie Segis Concordia, April 13, 1915; E. V. Maltby 450
Pinehurst Caroline 2d, Sept. 4, 1914; W. L. Laird 285
Pinehurst De Kol Caroline, June 23, 1916; Chas. Steinback, Columbus 265
Pinehurst Ormsby Caroline, April 15, 1917; A. C. Oosterhuis 110
Caroline Pinehurst Hengerveld, Mar. 28, 1915; F. A. Chandler 200
Segis Caroline, Feb. 22, 1916; Columbia County Asylum 200
Pinehurst Rigtje Piebe De Kol, May 16, 1916; H. H. Hugett, St. Paul, Minn. 235
Pinehurst Segis Princess, May 22, 1916; Lake Kampkeska Dairy Farm 200
Pinehurst Yeslet, Feb. 12, 1912; G. E. Turville, Oconomowoc, Wis. .. 250
Segis Lulu Hengerveld, Feb. 2, 1916; M. F. Peck & Son, Marshall, Wis. 300
Pinehurst Thoro 2d, May 2, 1914; B. O. Noble, Milwaukee, Wis. 300
Pinehurst Rigtje 2d, July 13, 1913; Gramling Bros. 355
Fayette Beauty, May 11, 1915; A. C. Oosterhuis 380
Pinehurst Segis Fayette, May 1, 1917; Everson & Son 140
Pinehurst Piebe, Oct. 15, 1909; E. V. Maltby 2000
Pinehurst Ormsby De Kol, July 13, 1915; Lake Kampeska Dairy Farm 230
Parthenea Piebe De Kol 2d, Feb. 11, 1913; Fred Weifenbaugh 355
Parthenea Piebe De Kol 3d, Nov. 8, 1915; E. V. Maltby 560
Pinehurst Segis Parthenea, June 8, 1916; Charles E. Steinback, Columbus, Wis. 225
Pinehurst Ormsby Parthenea, Jan. 5, 1917; Samuel Hall, Edgerton, Wis. 120
Jane Hengerveld, Mar. 5, 1915; E. V. Maltby 560
Pinehurst Jane 2d, Mar. 4, 1914; E. V. Maltby 300
Pinehurst Ormsby Jane, Mar. 17, 1917; E. V. Maltby 150
Pinehurst Grace 2d, Jan. 5, 1913; Lake Kampeska Dairy Farm 600
Pinehurst Ormsby Gertrude, Feb. 13 1917; T. F. Wolfe 200
Pinehurst Rigtje Queen, April 12, 1914; J. P. Torrey & Son, Kenosha, Wis. 560
King Korndyke Akkrummer Ormsby, Dec. 25, 1914; F. Lehman, Watertown, Wis. 910
Jennie Glenice 2d, Nov. 4, 1907; E. Ellsworth, Elkhorn, Wis. 125
Pinehurst Jennie, Sept. 18, 1911; E. V. Maltby 600
Pinehurst Glenice, Aug. 30, 1910; E. C. Peebles, Fond du Lac, Wis. .. 340
Pinehurst Jennie 2d, Mar. 26, 1914; J. J. Swirdhard, Fall River, Wis. 215
Pinehurst Ormsby Glenice, Mar. 3, 1917; McClure Bros., Aurora, Mo. 115
Pinehurst Rigtje Piebe De Kol, May 16,1916; McClure Bros. 120
Pinehurst Cora, Jan. 13, 1911; Archie Reid, Janesville, Wis. 215
Pinehurst Ormsby Cora, April 20, 1917; McClure Bros. 135
Pinehurst Segis Josephine Rigtje, Aug. 2, 1916; Lake Kampeska Dairy Farm 200
Pinehurst Segis Hengerveld, Dec. 3, 1916; A. C. Oosterhuis 145
Josephine Segis Concordia, Jan. 23,

Pure-bred Guernsey cow, Cereal of Sarnia (40340), age five years, and her two pairs of twin calves, all less than a year old. First twins dropped June 6, 1916, both females, sire, Clarence of Sarnia (22850), second twins dropped May 11, 1917, male and female, sire, Preel of Homestead (34414). Besides the four calves she did remarkably well in the production of milk and butter fat at Old Hickory Guernsey Farm, F. W. Abbs, proprietor.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

THE WISCONSIN FARMER • MADISON, WIS.

FARM LANDS.

NORTH DAKOTA, most successful agricultural state in the Union, producing as many dollars per acre as states where land sells four times as high. In past five years held first place every time in production of wheat and flax; and once in barley. In climate, soil, crops, railroads, schools, roads, North Dakota exactly as good as best in Illinois, Iowa or Minnesota. You can obtain a home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

LOW-PRICED CUT-OVER LAND from our company, the owners, direct to you and on terms to suit, in this ideal dairy country. You should see Rusk county before you locate, because nowhere else will the same money locate you so favorably, with every advantage, schools, churches, railways, good markets near, and crops sure. Our company wants you to locate on its lands and will treat you right. Address Flambeau River Lumber Co., Station D, Ladysmith, Wisconsin.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

RUSK AND SAWYER COUNTIES—We own 20,000 acres of good land and four townsites on the Soo and Omaha lines. Forties, eighties, etc., $15 to $25 per acre on very easy terms. All high land, plenty of hardwood timber and best clay loam soil. Excellent openings for saw mills and wood-working factories. Write for literature. Upper Wisconsin Land Co., Ladysmith, Wis.

FARM AUCTION SALE—The 440-acre dairy farm belonging to the estate of Moses Kaufmann, will be sold at auction July 18, 1917; 4 miles from the metropolis of South Dakota and a fine market. Easy payments, 15 years' time; 5½% interest. For further particulars write to Jones & Matthews, attorneys for estate, Sioux Falls, S. D.

NO PAYMENTS FOR FIVE YEARS—Only taxes and interest; $1.00 per acre down, balance on or before ten years; hardwood timber land with timber enough to pay for the land, close to market, schools and cheese factories; clay loam soil, all tillable. Taylor county, the clover and dairy belt of Wisconsin. Rib River Land Co., Medford, Wis.

MARATHON COUNTY, WISCONSIN, improved farms $25.00 per acre and up; unimproved farms $15.00 per acre and up. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

FARM LOANS on very good farms at 5% interest without commission and with privilege of partial payments. Write Geo. L. Jacques, Special Loan Agent, Northwestern Mutual Life Insurance Company, Neillsville, Wisconsin.

COWS FOR SALE

I HAVE FOR SALE a large assortment of choice tubercular tested cows, all due to freshen soon. You can buy one or a carload. John Blanchard, Columbus, Wis.

HELP WANTED.

WANTED—Young man, good habits, clean milker, to help on small Jersey dairy ranch adjoining town. State wages. Mrs. H. G. King, Salmon, Idaho.

RAILWAY MAIL CLERKS.

RAILWAY MAIL CLERKS WANTED—$75 month. Special examinations. Franklin Institute, Dept. D176, Rochester, N. Y.

SAVE MONEY ON LUMBER.

SAVE money on your lumber bill. Write us. Pacific Coast Sawmill Co., Portland, Oregon

POULTRY AND PET STOCK.

FOR SALE—S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks. Chicago winners; great layers; established 18[illegible]; eggs for hatching: $1.50, 15; $4.50, 60; $8, 100; prompt delivery and good hatch guaranteed. C. Earl Hoover, R. 24, Martinsville, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Lake View Poultry Farms, Box W. F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chic, ducks, incubators and brooders. Address Iowa Poultry Farms, Inc., Box 414, Clinton, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

CHESTER WHITE SWINE.

Long, Strong Backs, Heavy Bone

DERENTHAL CHESTERS. The above is descriptive of the fall boars I have for sale. A fine lot and well bred. Yes, I'll sell spring pigs.
H. A. DERENTHAL — Wykoff, Minnesota

CHESTERS

BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL — Cass City, Mich.

ATTRACTIONS

An outstanding Chester White sow to farrow August 4th. Am keeping her gilts. Also a fine Schoolmaster bred boar. Spring pigs. Write.
ART G. HOSKINS — DODGEVILLE, WIS.

"RAINY DAY"

ONE OF THE good CHESTER boars of the state. His pigs are great. Order one or more.
WALTER GEORGE — Evansville, Wis.

BUTTS' CHESTER WHITES

READY TO SHIP. Buy a pig, grow your own herd boar. Sired by my show boar, PAY STREAK. Prompt attention.
WM. F. BUTTS — Evansville, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN — West Salem, Wis.

Gray's Chester Whites

PIGS will be shipped at weaning time. Sire, Paddy by Schoolmaster. Get your order in early.
A. L. GRAY — Mt. Hope, Wis.

HORSES.

Percherons, Belgians, Shires,
Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, R. 7, Chariton, Iowa.

BERKSHIRE SWINE.

CHOICE BERKSHIRE PIGS

OF March and April farrow, most of them sired by Ames' Rival 32d, and all out of large mature dams. I can please you. For prices, write
A. P. CORTTE — Lomira, Wis.

RED POLLED CATTLE.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD — AVOCA, WIS.

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.
J. W. SALTER & SONS — Unity, Wis.

TO SELL

RED POLLS: Fine bull calves from 1 to 8 months old; also choice heifer calves.
EDWARD BENNETT — Black Earth, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wisconsin.

HEREFORD CATTLE.

Herefords

LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. — Chippewa Falls, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mo'S BIG BONE, JUMBO'S GIANT, [illegible] EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD — North Bend, Wis.

POLANDS

BIG TYPE, BIG BONE, BIG LITTERS—Spring pigs are ready to ship—order now. Sows and gilts bred, to farrow this fall, to CHIEF PRICE and SMOOTH JUMBO. Also Short-horn bulls and heifers.
P. N. COLLINS — River Falls, Wisconsin

POLAND CHINA PIGS

YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
R. MEINKING — BANGOR, WIS.

Poland Chinas

SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
L. E. PEASE — Wales, Waukesha Co., Wis.

The Sweetness of Low Prices Never Equals the Bitterness of Poor Quality.

EXPLAINED in my private sale catalog, now ready. Write
P. W. YOUNG — Box 100, Prosper, Minn.
POLAND CHINAS

Flesch Poland Chinas

Will now ship spring pigs of the best big-type breeding. Let me know your wants.
C. S. FLESCH — Mt. Ida (Grant Co.), Wis.

BRED GILTS

POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
JULIUS PETERSON — Kilbourn, Wis.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

HAS FOR SALE, bull calf, dropped Oct. 23, 1916; dam on test now, made the first 7 months, 312 lbs. butter fat. This bull calf is solid color, in good condition and well grown; tuberculin tested. For particulars, address
W. M. KNIGHT — Eagle, Wis.

Registered Jerseys

HAVE some bull calves for s ale from one to eight months old, from tes ted cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. Bruins — Fairwater, Wisconsin

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY — Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL and heifer calves from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information wr ite O. R. & K. T. Wiegand, Cleveland, Wisconsin.

JERSEYS

COWS and heifers, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT — TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON — Oconomowoc, Wis.

LIVE STOCK AUCTIONEERS.

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THOROUGHLY versed on pe igrees of leading breeds of live stock.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. Jones Nat'l Sch ool of Auctioneering, 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

I. E. STICKELMAN

CLARINDA, IOWA
I SOLD the record hog sale in Wis consin. Get your date NOW for next winter.

Martiny's Special Offering

POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding, of all ages.
L. P. MARTINY — Chippewa Falls, Wis.

JULY 1st

I will ship POLAND CHINA pigs. By that time I can tell what kind of hogs they will make and can send you good ones. Shall I pick one for you?
JAS. DERIVAN — FOX LAKE, WIS.

DUROC JERSEY SWINE.

RED OAK DUROCS

FALL PIGS ALL SOLD. Spring pigs for sale, either sex. My DUROCS MUST PLEASE YOU or you return them. At your service.
F. R. CONSTANCE & SONS — Waupaca, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS — POYNETTE, WIS.

NOTICE!

OFFER FALL DUROCS that will farrow in August and September. Nice condition, long, good backs and smooth. Guaranteed safe in pig. Write.
FRANK H. ARNOLD — JANESVILLE, WIS.

O'KEEFE

OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.
M. H. O'KEEFE & SONS — WAUNAKEE, WIS.

Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advance breeding. Write. Good blood for good breeders.
J. W. HIGGINS — RICHLAND CENTER, WIS.

FASHION

DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
ISAAC HIGGINS — GOTHAM, WIS.

Remember King Defender

Grand Champion Wisconsin, 1916, when you buy DUROCS.
JOHN L. FISHER — Janesville, Wis.

ATWATER

IF INTERESTED in DUROCS, write me.
L. F. ATWATER — Bangor, Wis.

NORTHERN GROWN DUROCS

BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS — New Richmond, Wis.

DUROCS

FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

YOUR APPROVAL

BEFORE YOU PAY for the DUROC-bred gilts and boars that I sell. August farrow, well grown, smooth and right. They'll please. Order.
C. J. DAMEROW — Beloit, Wis.

ORION COL. S.

BY COL. S. JR. out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. Jenkins — Bangor, Wisconsin

WAR DUROCS

HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
DENNIS SHEA — Melvina, Wis.

LIST YOUR NAME

WITH US for a good spring boar, from the best sows sold last winter.
DUROCS. GUERNSEYS.
RILEY MARTINY & SON — Sarasoo, Wis.

SOLD OUT

BUT still raising Durocs for June delivery. Order now. Address
Geo. D. Spraim & Sons — West Salem, Wis.

TOO LATE TO CLASSIFY.

OAK LAWN FARM, JANESVILLE, WIS.

FOR SALE—Four very choice Short-horn cows running in age from three to five years, all heavy in calf to my herd bull, Maxwalton Amateur.
J. E. KENNEDY — JANESVILLE, WIS.

1916; Fred Weifenbaugh 230
Pinehurst Cloe, Oct. 6, 1910; H. H. Hugett 260

The Jersey Promotion Sale.

Jersey breeders held their promotion sale at Madison, June 14th. Fifty-six head of Wisconsin Jerseys passed under the hammer of Colonel Perry during the afternoon. The top price of the sale was paid by Theodore Worley, of Fennimore, for Mabel L. Fly, an excellent heifer, both in breeding and in individuality. Nine animals sold for $200 and over. Everything considered, prices were low throughout, the average for the 56 head ranging around $130. What animals had the better breeding and records in the pedigrees sold for fair prices. Too much of the stock went at a very low figure, considering the breeding and care behind it. Following are the prices:

Eminent's Lady Love, Mar. 11, 1911; F. J. H. Stoltz, Secherville, Wis. .$190
Eminent's Tulip of Oak Grove, Feb. 12, 1915; C. J. Alt, Lancaster, Wis. 225
Volunteer's Sally Ann, May 27, 1911; A. J. Dufty, Webster, Wis. 160
Desirable of Oak Grove, Jan. 1, 1915; Chas. Peterson, Rosendale, Wis. 230
Lady Lambert's Token, Aug. 15, 1910; Ed Bruins, Fairwater, Wis. 170
No. 6, bull calf, Feb. 12, 1917; R. G. Keterer, Worley, Wis 40
Rose of Meadow Lawn, Oct. 1, 1913; Lorenz Metzler, New Franken, Wis. 140
Torono's Jacoba Lad's Iva, Sept. 30, 1916; J. B. Levi, Genoa, Wis 80
Tulip of Meadow Lawn, Sept. 15, 1913; Ed Bruins 145
No. 10, bull calf, Dora's Favorite Lad, Mar. 8, 1916; F. M. Jacobs, Rockford, Ill. 125
Toron's Jacoba Lad's Rosebud, Oct. 10, 1916; J. B. Newcome, Pewaukee, Wis. 70
Fewacres Louise, Sept. 27, 1916; E. C. Jacobs, Elk Mound, Wis 110
Belvidere's Loretta, Nov. 23, 1912; Theo. Worley, Fennimore, Wis.. 185
Noble's Tryphosa; Lawrence Metzler, New Franken, Wis 135
Noble's Lady Delia, Apr. 30, 1914; A. J. Dufty 160
La Fewacres Badger Girl, Sept. 21, 1916; J. B. Levi 90
Karnak's Golden Pride, Apr. 5, 1913; Theo. Worley 200
Nell's Oxford Sultan, Nov. 24, 1916; Edw. Berryman, Dodgeville, Wis. 40
Oxford Flora Rose, calved Sept. 18, 1916; Chas. Peterson 80
Oxford Lady, Sept. 25, 1915; Lorenz Wetzler, New Franken, Wis. 100
No. 22, heifer calf, Oct. 4, 1916; A. J. Dufty 70
No. 23, heifer, Oct. 25, 1915; A. J. Dufty 70
No. 24, heifer, Jan. 18, 1916; Chas. Peterson 70
Tormentor's Rexinia, May 12, 1916; Fred Stubley, Black Earth, Wis. 105
Chlorippe, Jan. 23, 1914; Fred Stubley 165
Udella Varie, Dec. 14, 1915; C. J. Alt, Lancaster, Wis 75
Derry's Lady Nestor, June 12, 1913; Charlie Lucy, Black Earth, Wis. 140
Fenwick's Jolly Dream, Dec. 13, 1914; H. S. Needham, Rockford, Ill. 125
Fenwick's Noble Princess, Mar. 11, 1913; H. S. Needham 175
Majesty's Actress, Aug. 19, 1910; E. E. Wyatt, Tomah, Wis 175
Starry Queen 2d, Mar. 2, 1914; H. S. Needham 170
Heifer; Chas. Peterson 205
No. 36, heifer, Sept. 3, 1916; Chas. Peterson 85
No. 37, heifer, May 25, 1916; A. J. Dufty 105
Togo's Oxford Bessa, Apr. 7, 1916; E. E. Wyatt 90
Miss Narcisse 4th, July 20, 1915; J. H. Berger, Oconto Falls, Wis 270
Rose's Keepsake, Mar. 25, 1915; J. H. Berger 200
Nora of Hutzelland, Dec. 14, 1915; Jewel Collis, New Franken, Wis. 65
Lady Michie, Dec. 11, 1909; A. J. Dufty 130
Lady's Golden Phlox, July 19, 1915; Lorenz Wetzler 95
Latty's Golden Fern, Aug. 13, 1915; W. B. Barssey, Omro, Wis 205
No. 45, heifer, 7 months; A. J. Dufty 65
No. 45½, heifer, 5 months; A. J. Dufty 75
No. 46, heifer; Lorenz Metzler 90
Time's Fern, Dec. 13, 1912; J. H. Berger 200
No. 48, heifer; A. J. Dufty 50
Bumble Hannah, Oct. 15, 1912; H. S. Needham 155
Bunble's Leda Stella, Nov. 26, 1912; A. J. Dufty 145
Nemo's Molly Marguerite, Aug. 6, 1913; J. H. Maynord, Lodi, Wis.. 140
No. 52, heifer, Jan. 30, 1916; Chas. Lucy 85
No. 53, heifer; Theo. Worley 75
Mabel L. Fly, Oct. 10, 1910; John Peterson, Orange, Wis 305
Fly Betsy, Dec. 22, 1914; A. J. Dufty 165
No. 56, heifer, Feb. 1, 1916; E. C. Jacobs, Elk Mound, Wis 180
No. 57, heifer calf, Oct. 11, 1916; Theo. Worley 75
No. 25, heifer; A. J. Dufty 65

HOLSTEIN BULL

WE OFFER A RICHLY BRED HOLSTEIN BULL born April 5, 1917, two-thirds white, straight top line and well grown. Herd on Federal Accredited List of Tuberculin Tested herds. His dam, a granddaughter of King Segis, has a record of 18.25 lbs. of butter at 8 years. We have just made a record of 29.09 lbs. on a sister to this cow. Sire of bull is a grandson of Colantha Johanna Lad. Price for immediate sale, $100. Remember he comes from a clean herd.
J. J. REID & SON — OCONOMOWOC, WIS.

YOUNG BULLS

OUR YEARLING BULLS are all sold; have several from 4 to 6 months old from dams with records up to 28.22. They are handsomely marked Holsteins and grand individuals. Send for pedigree, photos and prices.
W. H. S. RHODA — 610 3d St., Watertown, Wis.

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Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short-horn is the great improver.
Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.
Use only pure-bred registered bulls. We will help you to secure them.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
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SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
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FIFTY registered herds in the county. Milking Short-horns— Scotch or Scotch-topped. You can find what you want in Rock county. Write
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IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
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YOUNG bulls from heavy milking dams and backed by generations of **heavy-milking --high testing cows.** They combine **Clay Buttercup** and **Wildeyes** breeding, the two best Bates families. Prices reasonable.
Geo. Wenham & Sons, Ft. Atkinson, Wis.

BULLS FOR SALE --- SHORT-HORNS

THREE YEARLINGS past, one by the noted White Rock. Fifteen coming yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.
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BULLS, cows and heifers. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
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WE HAVE some young Short-horn bulls sired by Senator Clay 5th for sale. Out of good milking strains. O. C. Olson, Strum, Wisconsin.

SHORT-HORNS

STRICTLY BATES. Bates cattle for milk and beef. Have bulls for sale sired by 17th Duke of Wapsie. Write now.
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SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.
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GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS - - - - Waukesha, Wisconsin

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HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wisconsin

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WE ARE OFFERING

THREE imported and five home-bred cows for sale at reasonable prices. They are bred to our good herd bulls and two are due to freshen soon. Send for description and breeding, or better yet, come and see them. We will also sell our herd bull, **Peerless of Midlothian,** whose dam made 535.15 pounds of fat.

CHESNEY FARMS LAKE VILLA, ILL.
O. W. LEHMANN, Prop. J. GRIMSHAW, Mgr.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.
E. H. KIESLING Jefferson, Wis.

YEARLING GUERNSEY BULL

READY for service. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. Breitick Greenville, Wis.

GUERNSEYS

OF both sexes for sale. Advanced Registry blood lines. Individuals of merit and well worth investigating. A. H. Hinman, Altonville, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

HOLSTEIN-FRIESIAN CATTLE.

RIVERVALE FARM

OFFERS some fine Holstein bull calves, very light in color, from A. R. O. dams and grand dams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON NASHOTAH, WIS.

Registered Holstein Heifers

HEIFER calves and young cows for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky De Kol, that has 10 A.R.O. daughters. He is a grandson of Hengerveld De Kol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna De Kol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNutt Oxford, Wisconsin

AT LA BELLE VIEW FARM

ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
E. E. ROSENKRANS Oconomowoc, Wis.

BULL SOLD, ad in last wk.'s issue. King Pontiac Korndyke Champion (his sire) is for sale. Age 4 years, ¾ white, weight 2500 lbs., sure breeder, gets 75% heifers. Sired by a 31-lb. son of King of Pontiacs. Dam, 22.08 lbs. in 7 days, 560 lbs. yrly. Price right. Could use a few reg. females in exchange. Hillside Stock Farm, Reedsburg, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON Neillsville, Wis.

REGISTERED HOLSTEIN HEIFERS

FROM 5 months to 15 months of age sired by the 31.17 lb bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
Lawrence Robers Lyons, Wis.

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A HERD OF OVER 300

$100 and up

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(BREEDERS, NOT DEALERS)
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INDIVIDUALITY AND PRODUCTION COMBINED

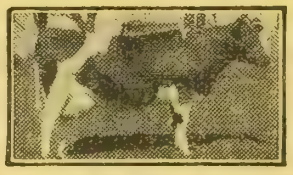
A 29.23-LB. SON OF MANDOLENE DE KOL JOHANNA, that holds the Minnesota milk record for 7 days, producing 117.1 lbs. her best day and Sir Ormsby Korndyke Mechthilde, a Holstein sire well known as a prize winner, and a sire of prize winners, is for sale.
V. S. CULVER - - - - - - - - - Stillwater, Minn.

REGISTERED HOLSTEIN BULL CALVES

FROM A. R. O. dams. One born Jan. 16, 1916. Well grown and ready for light service. Priced to sell immediately. Write for pedigrees and prices.
NORTON FARMS R. R. 11 FRANKSVILLE, WIS.

26.64-lb. Holstein Bull

TEN months old, sired by Sir Parthenea Champion and from the 26.64-lb. 3-year-old heifer, Parthenea Jolie Clothilde De Kol. Four other young bulls from A. R. O. and untested cows, 7 to 10 months old. We also offer for sale our senior herd sire, 8 registered and yearling heifers and bull and heifer calves. We produced 16 A. R. O. cows last year, several from 20 to 28 pounds. Come and visit our herd and see the sire and dams of these animals.
ADAM LORENZ SHEBOYGAN FALLS, WISCONSIN



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

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Twenty Registered Young Cows

Ages from three to six years old, whose sire is Zobeda Colantha Sir Lad, No. 70176, and bred to Sir Johanna De Kol 19th, No. 64143, whose sire has 66 A. R. O. daughters Price $250 each. I sincerely believe that those are bargain prices. Do not wait to correspond, but make a personal investigation immediately before it is too late.
DR. B. L. WERNER MARSHFIELD, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER Sheyboygan Falls, Wis.

10 YEARLING BULLS 10

EXTRA well grown, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. Rhoda, 610 3d St., Watertown, Wis.

Holstein Bull for Sale

SIRED by a 2-474-pound grandson of Hengerveld De Kol, dam Aaltje Salo De Kol Pontiac, butter 365 days, 748.76 pounds; milk, 16,623. A granddaughter of Johanna Rue 3d's Lad. For pedigree and price, write L. V. Garvens, Brookfield, Wis.

HOLSTEIN CALVES

WE offer for sale choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write
W. C. Kenyon & Sons Elgin, Illinois

OLATHE HOLSTEINS

HAVE a few bull calves from A. R. O dams for sale Address Silver Spring Farm Co., Eau Claire, Wisconsin.

40-POUND KING SEGIS AND ORMSBY BREEDING (The most popular strains of the Holstein breed today)

Sons out of daughters of Sir Ormsby Hengerveld De Kol, having records up to 25 pounds, and sired by our 40-lb. bull, JOHANNA McKINLEY SEGIS (44367), and BEAUTY PIETERTJE PRINCE (56435), an A. R. O. sire having 24 A. R. O. daughters including a 24-lb. two year old just tested, furnish a great opportunity to purchase the right kind of a foundation sire. Write for prices and extended pedigrees, stating the approximate age of animal you desire.

Carnation Stock Farms
OCONOMOWOC, WISCONSIN

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS Medina, Wis.

Write to Walcowis

FOR a good young bull, born October 2, 1916. He is sired by our 31-lb. show bull, Iowana Sir Ollie, and is from a 12-lb. two-year-old daughter of a 24-lb. cow. Both dam and grandam now on yearly test. Bull is tuberculin tested, evenly marked and an attractive individual. Address WALCOWIS FARMS, N. Dickinson & Son, Lake Geneva, Wis.

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 NEAREST DAMS average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb. cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4 year-old daughter. His is ¾ white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. ANDERSON WHITEWATER, WIS.

HOLSTEIN BULL FOR SALE—Holstein bull, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for hard service about May 15th. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Prop., Glenbeulah, Wis.

Belgians--Holsteins

REGISTERED—BEST BREEDING. Young stock for sale—low prices.
POST & WYGANT BARRON, WIS.

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THE WISCONSIN FARMER

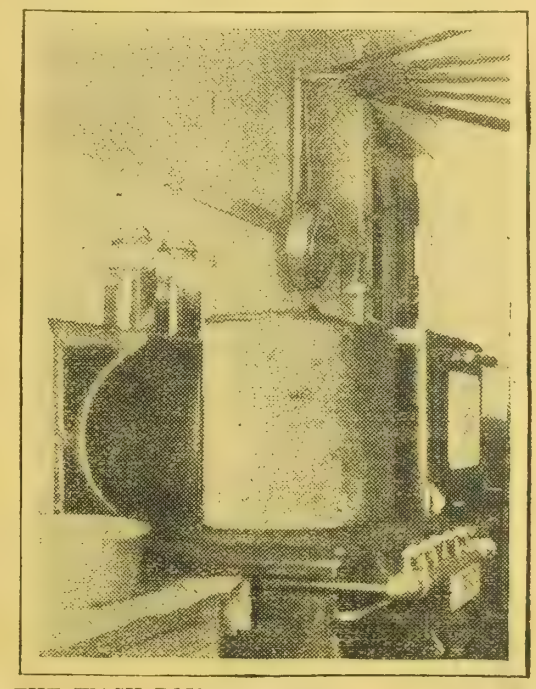
VOL. XLVI. NO. 26. THURSDAY, JUNE 28, 1917. WHOLE NO. 1848

Food Conservation in the Home.

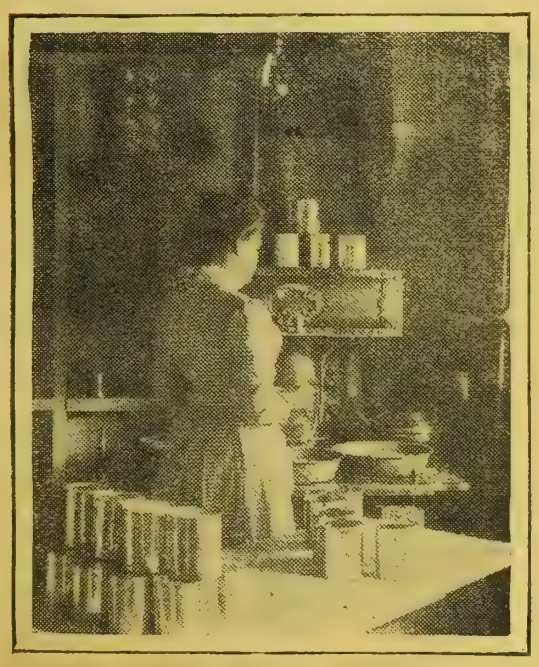
IN KEEPING with our present policy to conserve every bit of the nation's food supply, the work of canning fruits and vegetables in the home seems particularly important. Enormous quantities of these products have been wasted every year, because they are perishable and cannot be shipped far or stored until there is a demand for them, but this year it is absolutely necessary to save them for food. Canning clubs are being organized for this purpose throughout all the country. Their membership includes boys, girls and grown folks alike, and their work is growing steadily in value and interest. Everyone who joins a canning club is required to learn how to can by the "cold pack" method at least one jar of every suitable product grown in his locality, and those who can provide more than enough to supply their own home are encouraged to sell the surplus on the market.

While it may not be possible for a member of every household to join a canning club, those who cannot may do their share in saving the nation's food supply by canning at home such fruits and vegetables as are available in their vicinity. Perhaps the first step in this direction is to learn the "cold pack" method. It is superior to other methods, in that it is adapted to all fruits and vegetables, requires comparatively little time, labor and equipment and produces a product with better flavor, brighter color and finer texture.

In canning operations the first essential is to prevent decay or spoiling. Very minute organisms are the cause of decay and they must be killed by sterilizing or boiling before the canned product can be preserved for any length of time. By the "cold pack" method this is done in a water bath that is easily made of a wash boiler, lard can, tin pail or any other container with a close-fitting lid. A low rack or platform in the bottom of the container is necessary to support the jars which are to be sterilized. This rack should be about three-quarters of an inch high and made of either wood or wire netting, so that it will be firm and unyielding. For convenience, wire handles may be attached at the ends to permit lifting the rack full of jars up out of the boiling water after sterilization has been completed. Although there are special outfits on the market, such as the steam pressure cooker, the wash boiler outfit has proved entirely successful and it may be set up with materials that are on hand in practically every home.



THE WASH BOILER MAKES A GOOD WATER BATH OUTFIT.



A FARM KITCHEN WHERE CANNING IS DONE WITH EXCELLENT RESULTS.

In the "cold pack" method either glass jars or tin cans may be used. Any of the well-known types of glass jars are satisfactory; the main thing is to be sure that they are sound and free from nicks or rough places around the top. As a rule, new covers and rubbers should be used every year, but sometimes the covers are used twice. Whether new or not, they should always be tested before use by filling a jar with water, fastening on the rubber and top and inverting. If the water leaks out the least bit the outfit cannot be used, since the leak will let air in and introduce organisms of decay. When tin cans are used a soldering outfit is necessary and directions for handling it are usually furnished when the outfit is purchased. In every case precaution must be taken to make the jars or cans absolutely air tight. The only additional equipment needed is a table, paring and corning knives, clean cloths, a watch or clock to time the sterilizing and plenty of fresh water. A thermometer is convenient to tell when the water is hot enough, but is not absolutely necessary. While the water may be heated on a range or cook stove, an oil stove heats more quickly and is more convenient, especially when it may be taken out in the yard.

Since there is a difference in the way in which different kinds of fruits and vegetables are prepared for canning, it is necessary to divide them into classes and explain the process for each class. For example, there is a class which consists of soft fruits, such as strawberries, blackberries, dewberries, sweet cherries, peaches, apricots, etc. These should be canned as soon after picking as possible, because deterioration and souring set in almost immediately. The canning process is as follows: Rinse the fruit by pouring cold water over it through a strainer; then cull, stem and seed, if necessary, and pack closely in glass jars or tin cans. Add boiling hot sirup, consisting of one part sugar to one and one-half parts water. Then put on the rubber and cover and partly tighten, or, if tin cans are used, put on the caps and solder the tips. Fill the rack in the wash boiler with jars and put in enough water to come within one and one-half inches of the top of the jars. Place the lid on the wash boiler and after the water begins to boil hard, sterilize for sixteen minutes. Then remove jars, tighten covers and stand jars upside down to test for leaks. If there are no leaks, wrap in paper when cool and store in a cool, dark place.

For sour berry fruits, such as currants, gooseberries, cranberries and sour cherries, the procedure is slightly different, since the fruit must be blanched and dipped before sterilizing. First, the berries are stemmed, hulled and cleaned, then placed upon a cloth and dipped cloth and all in boiling water and blanched for one minute. Then they are removed and dipped immediately into cold water, after which they are packed closely in jars. A thicker sirup is used for these berries than for soft fruits, and it should contain one cup of sugar for every cup of water. When the hot sirup has been added, the rubbers and covers are partly fastened on and the jars of fruit sterilized for sixteen minutes. The rest of the procedure is the same as for soft fruits.

Hard fruits, such as apples, pears and quinces, should be blanched for one and one-half minutes instead of one minute, as in the case of sour fruits, before plunging into cold water. When this is done and the skins and cores have been removed, the next step is to pack closely in jars, leaving the fruit whole or cutting it in quarters or slices. A hot sirup is then added, consisting of one part sugar to one or one and one-half parts of water. From this point on the process is exactly the same as that used for soft fruits,

(Concluded on page 15.)

A FRUIT CELLAR WITH THE JARS OF FRUIT PLACED ON SHELVES ALONG THE WALL.

CURRENT EVENTS

THE British and French advance in northern France and Belgium continues, although not such rapid progress is being made as was made the last week or two. Both armies have abandoned their trenches, in places, and are now fighting from shell craters, which are not easy targets for the artillery and which give the men good protection between their charges and sorties. While this is going on, General Pershing, in command of the forces which the United States will send, is getting acquainted with the situation and with the men with whom he is to coöperate when his command arrives. He was given a magnificent welcome in Paris and has spent the past two weeks studying the needs of the allied armies and discussing plans with Joffre and other military men of France. It is expected that the first detachment of the United States forces will reach France about the first of September, coincident with the assembling of the conscript army in the sixteen cantonments here in the United States. Already the stars and stripes have reached the battle lines, however, being carried there by American aviators and by American troops in the Foreign Legion. By next spring the United States proposes to be a big factor in the war, but it can do little in the way of actual fighting before that time.

HAVING abandoned their window-smashing and general obstreperous tactics with the outbreak of the war, the women of England are now in a fair way to win the ballot through having proved themselves worthy of it, by taking a hand and doing their bit while the men are off at war. The principle of woman suffrage was adopted in the house of commons last week by the overwhelming majority of 330 votes. It is expected that proposal now will be made that the franchise be conferred on women on the same basis as men. The opponents of the measure among other arguments made the best they could of the reports received here of the attitude of Miss Jeanette Rankin, the only woman representative in the American congress, on the question of the entry of the United States into the war. Sir Frederick G. Banbury, unionist, for instance, described Miss Rankin as having been hysterical and unable to vote, but this and other pleas against the ability of women to exercise the franchise fell on deaf ears, and when the division was called the members trooped into the house with the aim of putting an end once for all to a question which they had made up their minds no longer was an academic one, by voting upon it as a live issue. The English women have waged a long and bitter fight, but victory for them seems now imminent.

RUSSIA, Italy and Belgium have war commissions in the United States at the present time, following the visits of similar commissions from England and France. The Italian commission made a tour of the grain belt last week. Marconi, the inventor of the wireless telegraph, is a prominent member of this commission. The Belgian commission is headed by Baron Moncheur, who presented to President Wilson a personal letter from King Albert, of Belgium. In a speech of presentation the baron thanked the United States for the support it had given his country by feeding and clothing the people and then added: "But the chivalrous sentiments which animate the people of the United States went further than this when President Wilson, giving an admirable example of disinterested power, uttered the words well fitted to make us tremble with hope and to cause us to fix our eyes confidently upon the starry banner which has become more than ever the symbol of strength placed at the service of the highest and most pure principles. Leaning upon the young, strong and generous hand which the American people holds out to her, Belgium, once she is delivered from the oppression of the enemy, will arise and throwing aside the odious weight of foreign occupation will courageously and proudly resume the path of progress in the light of the sun of liberty." In his response President Wilson declared: "The American people have been able to understand and glory in the unflinching heroism of the Belgian people and their sovereign, and there is not one among us who does not today welcome the opportunity of expressing to you our heartfelt sympathy and friendship, and our solemn determination that on the inevitable day of victory Belgium shall be restored to the place she has so richly won among the self-respecting and respected nations of the earth." The United States has a tender feeling toward the Belgian people and their sovereign and will never rest until justice has been done them, and their country has been restored.

ELIHU ROOT, United States senator from New York and former secretary of state, heads the war commission which this country has sent to Russia to find out what that country's needs are and to coöperate with it in carrying on the war. John F. Stevens, one-time engineer in charge of the building of the Panama canal, heads a commission of railroad men who are assisting in giving Russia the transportation facilities of which it stands sorely in need. In promising the help of this country Senator Root made this declaration: "No enemy is at the gates of America, but America has come to realize that the triumph of German arms means the death of liberty in the world; that we who love liberty and would keep it must fight for it, and fight for it now when the free democracies of the world may be strong in union and not delay until they may be beaten down separately in succession. So, America sends another message to Russia—that we are going to fight and have already begun to fight for your freedom equally with our own, and we ask you to fight for our freedom equally with yours. We would make your cause ours and our cause yours, and with a common purpose and mutual helpfulness of a firm alliance, make sure of victory over our common foe." In responding to Senator Root, on behalf of Russia, the minister of foreign affairs promised that his country would continue fighting to its utmost, saying: "The Russian people consider war inevitable and will continue it. The Russians have no imperialistic wishes. We know that you have none. We shall fight together to secure liberty, freedom and happiness for all the world. I am happy to say that I do not see any moral idea or factor between America and Russia to divide us. We two peoples—Russia fighting tyranny, and America standing as the oldest democracy—hand in hand will show the way of happiness to nations great and small." Russian affairs seem to be clearing somewhat, the army having gained several minor victories within the last few days, giving rise to the hope that Russia may still prove an ally worth having and helping.

HERBERT C. HOOVER, the food administrator of this country, has called upon the housewives of America to help him conserve the food supply. He proposes to enlist all of them as members of the food administration, actual enrollment of the housewives of the nation to take place between July 1st and 15th. In a statement issued to the women of the United States, Mr. Hoover made these telling points: "Since food will decide the war, each American woman can do a real national service by protecting the food supply of the nation. Ninety per cent of American food consumption passes through the hands of our women. In no other field do small things, when multiplied by our hundred million people, count for so much. A single pound of bread saved weekly for each person will increase our export surplus of wheat 100,000,000 bushels, and an average saving of 2 cents on each meal every day for each person, will save to the nation for war purposes $2,000,000,000 per annum. The proper assurance of the food to our allies will not only encourage them, but it will maintain them in war. Without a larger margin from our abundant food supply, only to be secured by individual effort and volunteer sacrifice, the war will be prolonged, and thousands of lives, not only of men, but also women and children needlessly lost. The guiding hand of women in the home can alone control in this matter." Mr. Hoover directed the work of Belgian relief and is a splendid administrator. He is a product of the grain belt, having been born in Iowa, although much of his lifetime has been spent abroad. President Wilson proposes to give him almost unlimited power in the hope of conserving the nation's food supply.

IN a rousing public speech, delivered last week, Colonel Theodore Roosevelt denounced the sentiment abroad in the United States against "fighting England's war." The colonel demanded that Americans curtail their pleasures for the period of the war and instead give the money they might use in such frivolities to the Red Cross or other relief work. Continuing, he said: "Ours is an ignoble safety. We will get victory this time because of our far-sighted allies. Some future time, if we are not ready, we will go down in unpitied disaster. There actually have been Americans who recently have been saying:—'Why should we fight on the same side as England, our ancient foe?' I would like to see any man here unpatriotic enough to say that at this time. Abraham Lincoln's rule holds good for nations. Where a nation is wrong, fearlessly oppose it; when it is in the right, stand by it. Any man who hates England more than he loves the United States should be thrown from the country. A nation must be judged by its conduct in any given crisis. An unfriendly attitude against England is as base and unjust as would be an individual grudge between two men because their great-grandfathers fought. The sentiment is that of a traitor."

PRESIDENT WILSON issued a proclamation designating the week of June 23d to June 30th as recruiting week for the regular army and called upon unmarried men without dependents to enroll for war service in order that the ranks of the regulars might be filled promptly. The proclamation follows: "I hereby designate the period of June 23d to June 30th, next, as recruiting week for the regular army and call upon unmarried men between the ages of eighteen and forty years who have no dependents and who are not engaged in pursuits vitally necessary to the prosecution of the war, to present themselves for enlistment during the week herein designated, to the number of 70,000. Woodrow Wilson." The president's action was taken at the request of army officials who have been seriously concerned at the slow rate of recruiting for the regular army. It had been hoped that the regular service could be brought to its whole war strength of approximately 300,000 men by June 30th, which would have permitted the war department to carry out its plan in regard to the training of all the forces to be raised and also as to the dispatch of armies to France. For several days, however, the average enrollment for the army per day has been little more than 1,000 men instead of the 5,000 or more the department hoped to secure.

Poultry Clubs in Green Lake County.

The boys' and girls' poultry clubs, of which there are five in the county, were organized by County Supt. Geo. W. Kelley in February, 1917. There are about 400 boys and girls who are members of these clubs. This takes in the whole county and nearly every school district is represented. Green Lake county is the first county in the state to work this club plan out as a county-wide project.

The organization was brought about as follows: The county was divided into five centers—Princeton, Green Lake, Markesan, Berlin and Kingston, which included the territory ten miles each way around each center. In Markesan, Green Lake and Princeton the high school which comes under the county superintendent's jurisdiction was used as a meeting place, in Kingston the state graded school was used, and in Berlin the county training school was used as a meeting place.

The teachers were notified that a meeting was to be held in their center and were urged to bring in their pupils on a certain date. They came with their pupils. Pupils had to be between ten and eighteen years of age in order to become club members. The club in each center was organized, a constitution adopted, and a president, vice president and secretary were elected. At two of the organization meetings Professor Hayes, of the University, gave excellent talks on better poultry, and at two others Mr. T. L. Bewick, state club leader, was present and gave excellent talks.

The officers were chosen from the body of pupils in each club. A local leader who was a man of maturity was chosen for each center to help and advise the officers as to how best to carry out the work of the club. Mr. L. W. Peterson, principal of the Markesan High School, was chosen local leader for the Markesan center. The following officers were elected:

President—Erwin Eckert, Markesan.
Secretary—Grace Pike, District No. 2, Mackford.

Mr. Edw. Manning, teacher of agriculture in the Green Lake High School, was chosen local leader for the Green Lake center. The following officers were elected:

President—Clifford Jackquith, Green Lake.
Vice President—Elmer Schilf, District No. 2, Brooklyn.
Secretary—Chas. Wiesner, Green Lake.

Mr. Edw. Mittermeyer, teacher of agriculture in the Princeton High School, was chosen local leader for the Princeton center. The following officers were elected:

President—Arthur Luedtke, Princeton.
Vice President—Harold Hardell, District No. 8, St. Marie.
Secretary—John Nickodem, Princeton.
Assistant Secretary—Edw. Polus, Princeton.

Mr. C. D. Lambertson, principal of the Green Lake County Training School, was chosen local leader for the Berlin center. The following officers were elected:

President—Avis Gibbard, District No. 6, Berlin.
Vice President—Henry Schrader, District No. 6, Berlin.
Secretary—Carl Zamzow, District No. 1, Berlin.

Mr. Chas. Fulton, principal of the Kingston State Graded School, was chosen local leader for the Kingston center. The following officers were elected:

President—Harold Knight, of Kingston.
Vice President—Merle Williams, Kingston.
Secretary—Lillian Holvenstot, District No. 2, Marquette.

The work of these clubs is carefully planned and directed by County Supt. Geo. V. Kelley and Supervising Teacher A. L. Wishlinski. Each club center has a meeting once a month at the regular meeting place of the club. At these meetings topics pertaining to the care and feeding of the setting hen, hatching, brooding, and feeding of young chicks by the natural method are discussed. Members of the club appear on the programs; also the local leader, and at times an outside speaker. A number of meetings have been held and a great interest was shown by the club members. The supervising teacher, A. L. Wishlinski, the county superintendent, Geo. V. Kelley, the agriculture teachers in high schools, and practical poultrymen have been on programs.

Angus Men Organize in Grant County.

The enthusiasm among the Aberdeen Angus breeders of Grant county crystallized June 20th in the organization of a county association which promises to do some very excellent work in furthering the interests of this beef breed in southwestern Wisconsin. The meeting was held at Lancaster and twenty men were present. Grant county may reasonably lay claim to the title, "Aberdeen Angus headquarters of Wisconsin," for within its borders there are twenty-five men breeding pure-bred Angus cattle and representing in round numbers about 800 head. This is regarded as an opportune time to boost for the Angus breed in this state.

Many of the smaller dairymen are using Angus bulls on their dairy bred cows and in this way they are getting some good calves from which to make "baby beef." The Grant County, Wisconsin, Aberdeen Angus Breeders' Association expects to do more than simply meet once a year, elect officers, talk about politics or the war and then go home and say, "Well, that's over for another year," they are going to boost the Angus cattle in Wisconsin and let people outside of this state know that there are cattle in Wisconsin other than dairy cattle. There was some talk of sending out a view herd from Grant county next year. The idea is to pick the best cattle there is in the county from the various herds and make the fair circuits. In this way the Angus will be placed before the public in Wisconsin and incidentally the Grant county Angus. There has been some talk of a "beef week" at Madison next winter during the short course. If this comes to pass the Aberdeen Angus men of the state (and this means Grant county will be chiefly interested) will hold a sale of Angus cattle. This is a very fine suggestion and we hope nothing will interfere with this arrangement. It will do more for the advancement of this breed than all other efforts of the past combined. Mr. Arthur McKevitt, of the firm of McKevitt Bros., Bloomington, Wisconsin, was elected president. Mr. R. A. Austin, Lancaster, vice president, and Walter J. Steinhoff, Platteville, secretary-treasurer. In electing Mr. Steinhoff as secretary we believe the breeders selected a very capable man. It is a recognized fact that the secretary is the real factor of any organization and if he is a wide-awake man an association will succeed. The secretary of this association is a prominent breeder and is a real booster and we know that he will put forth every effort to advance the breed. Five directors were elected, namely: Dr. Homer Sylvester, Montfort; Phil Hauk, Cassville; Orville H. Kettler, Platteville; Harry Young, Bridgeport, and Hugo Keehner, Potosi. The membership fee is to be $1 with annual dues of 50 cents.

The state association of Angus breeders will no doubt afford hearty coöperation in the work which the Grant county association is attempting to do. Breeders of Grant county are live and enthusiastic and are willing to do considerable missionary work to help their good cause along. We expect to see Grant county become famous for its "doddies."

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The Wisconsin Farmer

THURSDAY, JUNE 28, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

FARMERS ACCUSED OF TREASON.

I WANT to do what I can to correct and offset a report, abroad at present, which seriously reflects on the patriotism of the farmers of this section. The report is to this effect: That the farmers of Wisconsin, Minnesota and neighboring states, while enjoying unparalleled prosperity and reaping the advantages of high prices, due to the war, failed to respond to the plea of the government for money with which to take up the $2,000,000,000 issue of Liberty Bonds. I consider the charge most serious. I also consider it most unjust.

Let us proceed in an orderly manner. First, I will present the indictment. It is signed by Gov. Theodore Wold, of the Minneapolis Federal Reserve Bank, and is as follows:

The farmers, who are receiving the highest prices in history for wheat, hogs and cattle, and for practically everything else they produce, are not responding to the call of their government and are displaying apathy and indifference. The Liberty loan is a new idea, and perhaps we ought not to expect to educate all of the people in six great states in the thirty days' time that we have been at work, but the fact that stands out strongly at this time is that the farmers, either from apathy, lack of information, or because they do not have the same opportunity that is afforded the people of the cities and towns to come in touch with campaign work, are not responding. In this district, where millions of money has gone into the hands of the agricultural classes during the last year, and where the greatest prosperity has prevailed, this result is extremely disappointing.

I might follow the practice of the lawyers and file a demurrer, or some other technical legal paper, but I propose to meet the issue fairly and squarely. First, I will present a couple of witnesses, in the form of clippings from grain-belt newspapers, telling of the hearty and patriotic response of the farmers to the call of Uncle Sam for funds with which to carry on the war.

As my first witness I shall introduce a clipping from a Chicago newspaper establishing two things: first, the prosperity of the grain-belt farmer; second, his patriotism. The clipping speaks for itself:

Almost $9,000 for three carloads of live stock is, as it seems, a price almost inconceivable even for war times, but it is what John Wagoner, a farmer living at Hartland, Iowa, got in Chicago on Wednesday's market.

Wagoner says he is going to buy Liberty Bonds. He figures that if farmers are able to make such money because of the war, it is up to the farmers to buy bonds. Wagoner had forty-one head of cattle in the consignment and seventy-five hogs. All were of his own feeding, and fed with corn he raised. The steers brought within a dollar of the top for the day, and the hogs within 10 cents. The cattle at $12.75, brought $5,938 95, and the hogs at $15.90, amounted to $2,903.90, or a total for the three loads of $8 842.85. Wagoner bought the cattle last October at 9 cents.

When three carloads of stock bring $9,000, and the whole sum is turned over to Uncle Sam for munitions of war, in the hour of national peril, there can be no question as to either the prosperity of the farmer or of his perfect willingness—aye, his eagerness—to give freely of his earnings that the stars and stripes may continue to wave o'er the land of the free, the home of the brave

But, let me continue. Next I shall introduce a clipping from a grain-belt newspaper, telling of a representative meeting of farmers, called for the very purpose of subscribing for these Liberty Bonds:

Remember Lexington!

Two hundred farmers at a representative meeting last night in the supervisors' office adopted this as their battle cry for the coming week, and pledged themselves to strain every effort to buy—

A million dollars' worth of Liberty Loan Bonds.

Every farmer in the county will be personally canvassed and urged to buy a bond. The meeting was the first getting together of the county council of national defense. Every township was represented. Stirring speeches and determined pledges to show the stuff farmers are made of marked the session.

"We will show the Germans," said one of the committee, "that we are made of the same stuff as the Lexington farmers of the revolution who barricaded themselves behind their fence corners and thus saved the country."

Then someone suggested the slogan "Remember Lexington," and the room fairly rang with the historic battle cry.

The embattled farmers at Lexington, who fired the shot heard round the world, back in 1775, have worthy successors in these grain-belt farmers, subscribing for the bond issue which shall spread liberty throughout all the world.

I have other evidence to introduce, in the form of letters which have come to me within the past few weeks as a result of the advertisements for Liberty Bonds which I ran in The Wisconsin Farmer and my other farm papers, without any charge whatever, either to the government or to the banks which handle the loans; running them free, as a matter of patriotic duty, to assist as best I could. I do not have the permission of the men who wrote these letters to print them, but I am going to ask for this permission and as soon as I receive it I shall print their letters and show how hearty has been the response of farmers, from the northern boundary of Wisconsin and Minnesota to the southern line of Oklahoma—throughout the entire grain belt—to this call of Uncle Sam for dollars, which shall fight as effectively and patriotically as shot and shell. Suffice it to say, now, that the farmers of the grain belt have proved to me, by their letters answering these Liberty Bond advertisements in my papers, that they are not hoarding their money, but that they are patriotic in the extreme, fully as patriotic, in fact, as the men who stood at Lexington and held back the British redcoats in that early hour of national peril.

I consider it a libel to charge the farmer with selfishness and lack of patriotism. I propose to hunt for further evidence to offset this charge. Will my readers who have subscribed for Liberty Bonds write and apprise me of the fact? We are accused, before the High Court of Public Opinion, with a most heinous crime, to-wit: Treason. What shall our answer and defense be?

HOW THE ARMY WILL BE DRAFTED.

I AM in receipt of scores of letters from farm boys, asking me if they made a mistake in not claiming exemption from possible army service at the time they registered, if they will be exempt because their parents are dependent upon their labors, and telling me such heart-interest stories as frequently move me to tears, always to deep sympathy. I am sending a personal answer to each of these young farmers, but it occurs to me we might discuss this matter together, publicly, with profit to us all.

In the first place, as I understand the law, exemption can be claimed, and granted, after the draft has been made, regardless of whether it was claimed at the time of registration or not. Let me quote a good authority (The Chicago Tribune) on this point, as follows:

If a young man has reason to believe that he should be exempted from military call, that will be considered after registration. Exemption from service and registration are distinct and separate things. Nothing will be done about the exemptions by the government until the registration is completed and the names have been enrolled on the selective draft lists. Then the president will issue a proclamation setting forth exemption regulations and the exemption boards will get to work.

This is my understanding of the operation of the law, confirmed by practically all the military and legal authorities with whom I have talked. There are really five separate and distinct steps in the securing of what is to be known as the "conscript army," which I will tabulate as follows:

First: The registration. This has already taken place and has resulted in the government's obtaining the names of approximately 10,000,000 men between the ages of twenty-one and thirty, inclusive.

Second: The draft. This has not taken place as yet, nor has the date for it been announced. It will probably take place some time in July, the names to be drawn from a receptacle (somewhat similar to a jury box) by lot; one-tenth of the names which were registered being drawn at first, twice as many names as are needed being drawn, so as to permit of every other man being exempted and still leave an army of 500,000.

Third: The exemption. A board of three will be appointed by the president for every county and for every 30,000 of population in every city. Claims for exemption will be made before this board, the rulings of which will be subject to revision by a higher exemption board, probably one to each judicial district, or two to each state. Exemption will be made for physical and moral shortcomings, and in case the drafted man appears to the exemption board to be more useful to his country at his regular work. Men who work on farms and in munition factories will undoubtedly be exempted first, as their work is most important.

Fourth: The assembly. This will be in cantonments for drill instruction. The United States has been divided into sixteen divisions, with one camp or cantonment in each. Thus, to illustrate: Soldiers who are drawn in Wisconsin and Michigan will be assembled and drilled at Battle Creek, Mich. Soldiers drawn from Illinois will be assembled and drilled at Rockford. Soldiers drawn from Iowa, Nebraska, Minnesota, North Dakota and South Dakota will be assembled and drilled at Des Moines, Iowa. Soldiers drawn from Missouri and Kansas will be assembled and drilled at Fort Riley, Kan., and so on, until sixteen cantonments are provided, to cover the forty-eight states. Each cantonment will provide for 35,000 to 40,000 troops.

Fifth: The actual service. This will hardly occur within a year from date, as the government must build permanent buildings (to house the soldiers) at each of the sixteen cantonments, and the conscript army cannot possibly be brought together before September 1st, even if then. Six months, at least, must be given over to drilling, so that none of the conscript army will be sent abroad before June or July of 1918, at the earliest.

I hope I have made myself clear on these points; if not, write to me and I will do my best to explain the plan, in detail, by correspondence. But there is no reason to lie awake nights, worrying because exemption was not claimed at registration, nor to believe that our army is to be hurled into French trenches within the next few weeks, or even months. Uncle Sam is not going to take advantage of any of his boys, particularly those from the farm, upon whom so much depends.

In this connection, Mr. Cyrus Nolin raises an important point in a letter to me, as follows:

I commend your effort in bringing out the importance of exempting the experienced farmer from the draft, in behalf of the national welfare, for there is reason to believe the importance of this matter will not be realized, because nearly all of the registration board, who, in most cases, will be the exemption boards, are town and city men, and some of them cannot realize the difference between an experienced farmer and any other man of like intelligence. If the farmer is to be drafted, he should certainly be represented on the exemption board, also.

The point is well taken; the farmer is entitled to representation on the boards which shall determine who shall go and who shall stay at home. I sincerely hope the authorities will give him this representation. I shall do what I can to assist in bringing this about and shall advise you, from time to time, of the progress made. If I need a final, telling argument to clinch my point, I cannot possibly do better than to quote the immortal Thomas Jefferson:

Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous; and they are tied to their country and wedded to its liberty and interests by the most lasting bonds.

What exemption board can drag a farm boy from the labors of a producer in view of such eloquent and authoritative testimony and tribute to his usefulness as the real patriot and soldier?

CO-OPERATION IN BORROWING.

I AM sure that readers of The Wisconsin Farmer will be interested in a letter which one of the officials of the federal land bank has written to me in regard to a phase of the federal farm-loan law which is not generally understood. Many of my readers are doubtless aware that every farmer who borrows from one of these federal land banks must subscribe for capital stock therein to the amount of 5 per cent of the sum he borrows, $50 for every $1,000 of his loan. The letter I have just received deals with this phase of the law, as follows:

Many farmers do not understand that this is a coöperative plan of banking. They have, therefore, made applications as an individual, which makes it necessary for us to write them and make suggestions as to the formation of a coöperative association and explain that it will not be practicable for them to inject individual action, for if we had individual connection there would be no well-developed coöperative plan, as one would antagonize the other. This is something that the press does not carry to the individual in a way that they understand it, for by this chain and with the connecting link the stock subscription, small though it be, by the farmers, brings them in direct connection with a chain of big banks that extend to them the longest time ever made to an American farmer or any other farmer and at an interest rate as low as the average commercial borrower can get.

A great many people, in most cases those who do not think or else those who are opposed to the law, attempt to analyze the result of the small stock subscription, and in further explanation will say that this is for the purpose of making perfect, at least making strong, the link of mutual associations, and the day the mutual association link becomes strong and well established the farm-loan act is a success, regardless of the business features of the 6 per cent investment.

However, there are but few private corporations

(Concluded on page 5.)

THE WISCONSIN FARMER

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The Romance of Wisconsin's History.

Strangers who are ignorant of Wisconsin's history are apt to think of it as something prosaic, dull and uninteresting. A New York editor a few years ago described the life of this section of the country as being "socially and physically a dull gray monotone." To such as he, romance is connected only with things ancient, such as "the splendor that was Greece and the glory that was Rome."

The truth is that nothing could be more romantic, more interesting, more inspiring than the winning of Wisconsin from unsurveyed prairie, uncruised forest and uncharted rivers and lakes to the present high state of cultivation which Mr. W. H. Wiseman, one of the associate editors of The Wisconsin Farmer, found in Polk county, when addressing the federated clubs of that prosperous section on June 16th. There was hardly one of the thousand people present, representing thirty affiliated farmers' organizations, the truth about whose life and success would not sound stranger than fiction.

Although one of the newer counties of Wisconsin, a comparatively brief period has seen it transformed from almost primeval forest to a prosperous, productive, highly cultivated farming section. Men who went there with only a hundred dollars or so a few years ago are now worth from $25,000 to $35,000! There are forty-one creameries and cheese factories in Polk county! Single land companies are selling two and three farms a day! Settlers are moving in, attracted by the fine clover land! Everything is on the boom, and cattle and grass land never looked better!

The scenery is among the most attractive in a state famed for its beauty spots, and its green hillsides, with valleys dotted by beautiful lakes, furnish sights to rest the eye and delight the soul.

To the effete eastern editor or his correspondent, who assumes to "write Wisconsin up" from the windows of his flying Pullman or between munches of his sandwich at the depot restaurant, Wisconsin's story may seem flat, stale and unprofitable. But to the man who knows what the winning of the wilderness has meant, who understands the life of the people, who has heard from their own lips the stories of their struggles and final success, Polk county and all the other counties of Wisconsin are surrounded with all the glamour of romance, with all the interest of the most thrilling fiction and with the spirit of those who have conquered Nature and compelled her to yield the tribute of prosperous homes, splendid crops and a contented people.

The Farmer and the Military Draft.

Just what will be the war department's attitude toward the exemption of farmers from military duty is not yet clear. It is expected that in the near future official orders will be issued from Washington for local exemption boards to follow in the matter of all exemptions. One thing may be stated, and that is that those who registered on June 5th did not prejudice their case any by failing to state their grounds for exemption at that time. Each individual's case will be considered on its own merits in connection with the war department's ruling by his local exemption board after he has been drafted, while those who are not selected by the draft will have no occasion to consider exemption grounds unless they are selected by a later draft.

There is no question, in our opinion, about what the war department should do in the matter of those legitimately engaged in actual farming, and this opinion is based on the nation's and the world's welfare, fully as much as on the farmer's welfare. We believe that every such man should be exempted from military duty, at least for the present, and also for the future, unless the demand for soldiers becomes greater than anyone now anticipates.

We firmly believe that every real farmer can be of far greater service to the cause of the United States and her allies working in his field than he could on the firing line. We have heard much about the duty which America owes to feed the world, of the obligation which every farmer owes to increase his yield this year and to cultivate every bit of spare ground. All this is simply a question of farm help. Heaven knows that the farmers of the United States, and especially those of the grain belt, will do all they can to obtain the largest possible yields, and work early and late, to the limit of human endurance, to accomplish this. But they cannot do more than they have done in the past—not as much, in fact, owing to the increasing shortage of farm help—without more skilled farm laborers. To consider a further reduction of the farm labor supply for military purposes is to make a mock of all the campaign propaganda which state and federal agricultural departments, agricultural colleges and journals have indulged in for increased yields.

Now and then some modern Solomon, whose knowledge of farming has been gained in a ten-story office building, or at best, by his automobile trips through a farming community on his way to his golf and country club, rises to suggest in a sage manner that the college boys under draft age be used to supply any shortage in farm help. He does not realize that farm labor of today requires as specialized and skilled work as that of the clerk in his office, and that the average college boy, who has never worked on a farm, is not worth his board, not worth the time it would take to train him in the duties of the farm, which require physical brawn, mature judgment and experience.

One of the best letters along this line which we have received is the following:

> Dear Mr. Pierce:—After reading your valuable paper and noticing the comments of yourself and some of your subscribers in regard to farm boys being exempt from the first draft, I can refrain no longer from voicing my sentiments and those of the farmers in general with whom I have conversed regarding this subject. We must admit that the government needs men and must have them to defend the flag, and the farm boys are just as patriotic as any others. But what will we do if they take them, especially on the first call? Our own and other nations are depending on our farmers for provisions, which will be none too great with the best of care and help. As for untrained college boys, I have had an experience which would be typical. I was talking with a seventeen-year-old boy, who had just returned from college and wanted work. He told me that he had never harnessed a horse nor cultivated a row of corn, but he thought $45 a month and board would be about right. Now pray tell me what help such a boy would be until he had learned the knack of doing farm work, which can't be acquired in a minute? Experienced farm help, worth three or four green college boys, are now asking $55 and $60 a month and board. What will we do if they take even that away from us for service in the trenches? I have conversed with farmers who say if they have to pay $60 they will have to quit farming. And consider the farmer boys who have worked along and gotten fully equipped with teams, live stock and machinery, besides doing their bit in buying Liberty Bonds—does it seem right to take them on a moment's notice? If they must go, give them a chance to harvest their crops and dispose of their holdings or make other arrangements, which they could perhaps do by the time of a second call for men. It seems to me that this would be no more than justice to the farmer. I am glad you take the position you do and wonder if it is not possible for you to intercede with some higher authorities concerning this matter. Hoping you will exert every effort at your command, as you always have done, for fair play for the farmer, I am, respectfully yours,
>
> AN OLD SUBSCRIBER.

To every sentiment in the above letter the publisher of this paper echoes a hearty "Amen;" and he pledges himself to this subscriber and to all the rest of his readers to use his influence in every way possible to prevent any further drain on our already far too limited farm labor supply, and to secure exemption for farmers in the first draft, at least.

Let the government make good all its talk about the patriotic duty of the farmers to increase their yields this year. Let them leave the man with the overalls at work in the field and then call upon the town pool-room loafers and slackers, who are like the lilies of the field in that "they toil not, neither do they spin, yet Solomon in all his glory was not arrayed like one of these." They need the training and discipline more than the farmer boys; they can be of practically as great service to their country in the trenches as the farmer boy could; and the nation will be but little worse off for their going. To do otherwise is to defeat the whole purpose of the selective draft, which was to leave the men at home who can be of greatest service there, and to send to the firing line those who could not or would not serve the nation's needs if they were left behind. As Governor Harding, of Iowa, so well said to the War Department at Washington last week, "To urge the farmers to increased yields, to encourage them to plant large crops and then to call them from their fields before their crops are harvested, would be like ordering an army to charge the enemy and then to take away their guns and bayonets just before they sprang forward."

The Farmer's Year

Shall the farmers of the grain belt be exempted from war service? This question is asked in hundreds of letters written to The Wisconsin Farmer these days. It is one of the big problems of the time. Is a strong, stalwart, physically perfect boy of twenty-five more useful in the cornfield than shouldering a musket in the French trenches or firing a gun on one of the mighty war ships?

These and other equally big and vital topics of the time are discussed, week by week, in The Wisconsin Farmer, not only in the page devoted to the publisher's opinions on current topics, but in the Current Events and in the general editorial pages. No other farm paper is devoting so much space to such a careful and accurate consideration of the big, national problems of the day.

No farmer can afford to be without The Wisconsin Farmer. No farmer can afford not to keep posted on the big issues which are discussed in this paper. No farmer can afford not to know and to practice the utmost farming efficiency, preached by experts each week in this paper. Therefore, every farmer who is already a subscriber to The Wisconsin Farmer should renew his subscription without delay, while those who are not already on the lists should lose no time in subscribing.

This is the farmer's year. Make the most of it. Subscribe to The Wisconsin Farmer and see where your best opportunity, your highest usefulness, is to be found.

Wisconsin State Fair.

Wisconsin will have a state fair, and it should be the best state fair in the history of our state. If the weather man can induce the elements to smile in the second week in September we believe that all state fair records will be broken.

Our breeders and our grain growers should plan now for their exhibits at Milwaukee. A feeble effort was made in the legislature to call off the fair for this year, but Wisconsin is too rich and prosperous to neglect its agricultural and live stock business in such a manner, and the products of the farms are going to be so good this year that it would be a shame to keep them out of the annual friendly competition, and deprive the pubilc of seeing them.

In the live stock end, particularly, it behooves every breeder to be up on his toes. Wisconsin does not receive abroad the high consideration which the character of our stock and of our breeders warrants. Next year we hope to see the national Holstein sale come west, and it may be that we will be so fortunate as to get it in Milwaukee. It is time to be picking the stuff for this sale—Wisconsin ought to be able to get into the Holstein cattle game in a way that will not only advertise our state abroad, but profit our breeders at home. Some of our good Short-horn cattle are to be offered at public sale in the near future in Chicago, and if we mistake not the beef cattle world will sit up and take notice when the Wisconsin animals are led into the sale ring. To maintain our place in the live stock world, expositions like the state fair must go on, and they must receive more liberal support. Other breeders of dairy cattle, beef cattle and swine in Wisconsin are active and they should have the privilege of competing for worthy prizes at the state fair, no matter if the country is at war.

So we are glad that the effort to give the state fair a black eye failed, as it should have failed. And we expect to see a lively interest in the fair.

The Farmer Is Somewhat to Blame.

Farmers of Wisconsin have always been interested in coöperation, and just now they are very much alive to the subject of coöperative marketing as well as coöperative buying.

A speaker at one of our state meetings recently declared that the farmer is very largely to blame for the small prices he gets for farm produce in comparison with the prices which such produce brings on the retail market. How many farmers of our state plan far enough ahead to care for their crops until prices are better than they usually are in the fall when the markets are loaded? How many farmers are fixed with a place to store all their oats, or corn, or barley, or rye, or potatoes, or even their hay?

A few days ago we heard a Wisconsin farmer raising a terrible rumpus, oratorically speaking, about the prices at which wheat was being sold at Superior. He remarked that much of the wheat was being sold at $1 or more per bushel higher than it cost those who bought it and shipped it to Superior. He also remarked that it was a mighty funny thing that wheat that came into Superior and Duluth was such a low grade and wheat that was shipped out was nearly all No. 1 hard. We are not prepared to say whether the figures which this good brother quoted are correct or not. But if farmers will deliver grain to markets in every sort of poor condition, they must not blame the markets or the buyers if they cannot get the highest price for it. The grading of a good many farm products can be done on the farm just as well as at the terminal elevator stations. And when it is so done, the farmer may reasonably expect to get his share of good prices.

We have heard a good deal said about potatoes being sold from the farm at $1 a bushel and sold in the cities at $4. It is true, and the farmer failed to get his share, but in some measure he was responsible, or at least the system of marketing to which he was a party was responsible. Few potatoes are delivered at the warehouses in Wisconsin in the same clean and selected condition in which they appear on the markets in the cities. Someone has said that the standard potato is the potato which the housewife likes best to buy for her table. When we deliver good and bad potatoes in the same load, and add a considerable amount of dirt, we must not expect to top the market. Few of our best potato growers have sold any stock at $1 a bushel. If the potato growers of the potato sections of Wisconsin will deliver their best potatoes, well graded and selected, in sufficient lots to some central point, so that the offering is attractive to heavy buyers, they will find that the price will also be more attractive. If it is not, then there is reasonable ground for object-

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

or incorporated companies, including banks, that have legislation in their favor like the stockholders in National Farm-Loan Associations, for National Farm-Loan Associations own for their stockholders stock in this bank and other land banks along with the United States government, and the government cannot, under the terms of the act, participate in any proceeds whatsoever, which leaves the 5 per cent investment a better chance than said farmers could possibly have if they invested it with any other stock company. At any rate, they would not have any such privilege so far as the disbursements and proceeds are concerned.

The law is very plain that this capital stock subscribed for by the farmer-borrower shall be paid any dividends earned by the bank, so that it is quite likely to be a good investment. Nor is it in any manner a bonus or commission paid for the loan, inasmuch as every cent of it will be paid back when the mortgage is paid off. Thus, supposing a farmer borrows $5,000. He buys $250 worth of capital stock in the land bank, which earns whatever dividends the bank stock pays during the existence of the loan; then, when the mortgage is paid off, this $250 is returned to him. It is simply left with Uncle Sam as an evidence of good faith on the part of the farmer-borrower and to give the plan that element of coöperative organization which is absolutely necessary to make such a far-reaching plan succeed.

AN ACRE FOR THE RED CROSS.

I WANT to commend the example set by the farmers of Washington county, Minnesota, who are donating the year's crop from one acre of land on each farm to the Red Cross fund. These farmers are doing a real patriotic service. Their corn and wheat and oats will go toward saving many a gallant boy's life in the shot-riddled and blood-stained trenches of Europe, toward solacing many a mourner, toward making less hard the pathway of the blind, the maimed and the halt.

I am indebted to a friend in Washington county for this brief account of what is being done there. It is pregnant with possibilities:

Washington county farmers are donating the year's crop from one acre of land on each farm to the Red Cross fund. This idea, conceived by W. S. Moscrip, of Lake Elmo, has appealed to the farmers of the county, and more than 100 had made pledges of an acre each today, after less than one week of the drive.

Each farmer is giving an acre of wheat, an acre of oats or corn, or a corresponding value in potatoes, peas or other crop, and the Red Cross committee of the Washington County Patriotic League is making plans to market the crop.

It is expected returns will range from $20 to $75 an acre. A big Red Cross card, displayed by the roadside in each field donated to the Red Cross, will show where a patriotic farmer lives, and will serve to advertise the Red Cross movement to every passer-by. The cards read: "This crop is growing for the Red Cross."

After harvest each farmer will take the product of the Red Cross acre to the nearest market town. The Red Cross committee will assemble the grain and produce and sell it for the benefit of the Red Cross fund. They expect to get "top of the market" from patriotic buyers.

Why should not, and could not, every county and every farmer in the entire grain belt follow this splendid example? The farmers of Canada started the movement a couple of years ago, when they set apart an acre for the government's use, giving the entire crop to help send the dominion's contingent across the seas and feed and support them. Canadian farmers have proved themselves wonderfully patriotic; they have entered into the spirit of the crisis with a magnificent unselfishness. I like to think of those farmers who have moved away from the United States grain belt, to cast their fortunes with this younger country, doing their bit along with the native-born. They set us an example which we may well follow.

And is there not proof, in the work of these Minnesota farmers, of the patriotism of farmers as a whole? Is not the claim that the farmers are not doing their duty, whole-heartedly, in the national emergency, a base libel which you and I cannot disprove too emphatically and promptly? All over this great land of ours farmers have figuratively nailed the flag to the plow and are feverishly engaged in turning under the sod, sowing and planting the seed, cultivating the land and increasing production in every possible manner. The president has called upon them to serve, as soldiers, in the fields of production, without stopping to ask what their wage shall be, what their brothers will be doing while they are thus laboring under the burning sun of summer, what the result shall be if they win or if they fail. The farmer is a soldier, marching under sealed orders this year. He knows that his general is sending him forth to do battle and that he must fight to his utmost. The farmer is a patriot, in his field and feed lot this year, fully as much as the soldier in the trench and redoubt.

And of all organizations having to do with war, certainly there is none which deserves our sympathy and support so much as the Red Cross. Always first at the front, it makes easy the last moments of the dying, cares for the dead and snatches many a life from the grim reaper, whose sickle is upraised to garner it.

James M. Pierce

ing to the buyers, and the next move is for the farmers to provide some method of storing their potatoes until they can find some buyer who will not attempt to remove them so far in the matter of price from the ultimate consumer.

One of the large coöperative packing houses of this state failed largely because no system was arranged to care for the stock offered by its stockholders. These stockholders rushed their shipments in at any time which suited them. As a result, on certain days there were several cars and on other days there were none. The company could not afford to run full capacity on some days and lie idle on other days. In another similar institution the shipments to the packing house were arranged by a zone system. Certain districts shipped on certain days. The manager of the plant was notified several days in advance about what he might expect and what kind of stock would be shipped. He was able to prepare. He saw to it that shipments from other districts were held off, and sent to the packing house at another time when they could be handled. This plant operating under this system has been fairly successful. These things only illustrate that the farmer must apply business methods to his business.

But nothing excuses the speculator or the storage house robber—there are some of them who are robbers—who collect the necessities of life for the sole purpose of holding them for a rise and charging the consumer double what they are worth. The speculator is an enemy to the farmer as well as the consumer. He urges us to raise great crops and sell them to him at a reasonable figure on the ground that we must feed our boys at the front. Then he hopes to charge our government two or three times what the farmer gets, and the unsuspecting public outside of the farmer holds up its hands in holy horror and howls about the robber-farmer.

The farmer has not received in the past, nor is he now receiving, exorbitant prices for his products. With possibly a few exceptions he does not ask for exorbitant prices. When he patriotically toils to raise big crops to help feed the armies he has a right to expect that those who handle the crop after it leaves his hands shall not enrich themselves unreasonably.

The Wisconsin Farmer Ahead.

The Wisconsin Farmer has been commended from all sides for the promptness with which we presented our readers with a complete report of the National Holstein Association meeting and sale at Worcester, Massachusetts. The information concerning this session and sale was given to the readers of The Wisconsin Farmer a week earlier than they could have secured it in any other Wisconsin farm paper. Special pictures of Wisconsin men who attended the sale and animals which were purchased by them were published exclusively in The Wisconsin Farmer. Such service is made possible only by the alertness of our editorial staff. The policy of The Wisconsin Farmer is to distinguish between matters of real and minor importance and to give our readers complete reports of such events as interest most the largest number. The instance herein referred to is only one of a number which we have no doubt our readers have already noticed.

Food Saving Day in Wisconsin.

Throughout the state of Wisconsin Sunday, July 1st, is to be known as "Food Saving Day." Herbert Hoover, in charge of food conservation in the United States, has requested that the day be generally observed, not as a day to accomplish all the conservation of food, but as a day when this important subject shall be given serious consideration in all the homes of the land. Being Sunday, a request has been made that the ministers of the country talk on food waste and food conservation. Being Sunday, our farm folks will be gathered at home, at least for a part of the day, and it will be about as serious and Christian a duty as can be performed that day to decide what plans shall be adopted to conserve food for the farm home and perfect arrangements to garner just as much in the fall as can be gotten for the markets.

Food conservation will not fall entirely upon the men. The women of our state have a very important part. Let us see to it that all the products of the garden are saved this year and not allowed to rot. We will call that farm housewife unpatriotic who buys canned fruits and vegetables at the store and fails to put up that which is raised at her own home. Almost every farm housewife can double the food put up for winter if she tries. When she does it she simply releases that much more food for the balance of the country and for our allies across the seas. So, it is a patriotic thing to can fruit and vegetables for this winter. Mother and the girls can sing "America" very appropriately while they are canning eatables, drying corn or fruits, or putting away any sort of good food for the winter months. It may be that the food you put up on the farm will release other food which will feed some of Uncle Sam's soldiers in the trenches. When you help send food, by saving food at home, you are just as much a part of the world's army fighting for democracy as the men who carry the muskets or load the cannon on the battlefield.

Traveling through our great state, we see many flags waving from the farm homes. Supporting this flag is the farm garden, the farm orchard, the fields and the live stock—all a part of the great supply army without which field armies are useless. Let us all help our leader, Mr. Hoover, to save the food. Let us have no empty cans or fruit jars on the place this year.

HE KNOWS WHAT HE NEEDS.

Farmers who are raising potatoes this year should plan now for having them sprayed with Bordeaux mixture for the prevention of late blight. Paris green may be combined with the Bordeaux mixture and the bugs killed with the same operation. No farmer can afford to take the risk of raising diseased potatoes. It cuts down the yield at harvest time and may require one or more sortings of the potatoes in the cellar. It is much cheaper to spray. Begin to plan for it now. Write to the experiment station or ask the emergency food agent for information on Bordeaux mixture if you do not have it, and raise only first quality potatoes. Stop the waste.

Wasted Grain and Time Could Have Paid Your Thresh Bill

Save your grain from the straw stack. Hire the man with a Red River Special, or get our "Junior" Red River Special and thresh your own grain. "We know that this separator saved enough grain to pay our thresh bills," says W. B. Sharp and 13 other farmers of Cordell, Oklahoma, after threshing with a

Red River Special

It Saves the Farmer's Thresh Bill

Here's the thresher that's different. It *beats out* the grain. Built for fast work too. Saves the farmer's and thresherman's time—crowds more bushels into the day's work and more good jobs into the season's run.

Our "Junior" Red River Special is the ideal thresher for home threshing. It's a younger brother to the Red River Special. Small enough to make home threshing pay—big enough to make money in custom work.

Has every needed feature of the big Red River Special—famous "Man Behind the Gun"—shakers, large sieves, etc. Hook it to your tractor.

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FARM FOR SALE—133 acres, heavy clay loam; 30 acres timber, balance productive fields that produce acre for acre as much as any land in the West, great markets; ½ mile from town and railroad; new 10 room house, full basement; telephone; large new basement barn, ten horses, fruit, fine climate, mild winters. Price $3,000, half down, balance on easy terms. Send for free photos and description. A. L. Wilkins, R 1, Union, N. Y.

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FINE DAIRY FARM FOR SALE WITH GOOD BUILDINGS AND GROWING CROPS; ½ mile from city limits of Appleton, Wis. Five minutes' walk from interurban; ¼ mile from concrete road. Owing to death of owner this property will be sold with or without personal property. R. Van Wyk, Admr., Appleton, Wis.

FARM WANTED
Wanted to hear from owner of good farm for sale. Give cash price and description. Write
JOHN H. OAKS, 414 Main St., OSHKOSH, WIS

La Crosse County Guernsey Day

All Breeders of County Co-operated to Make Guernsey Day at West Salem, June 8th, a Big Success.

GUERNSEY DAY, as instituted and inaugurated so successfully by the La Crosse County Guernsey Breeders' Association at West Salem, Wisconsin, June 8th, is a distinct feature in Guernsey development circles. For years La Crosse county has been one of the principal Geurnsey centers of the West. The influence of the first breeders has been to promote the interests of the breed and today more than 150 pure-bred sires are doing service in the county. The blood of the most noted bulls of the breed predominates and the splendid production records of the cows keep the breed constantly before the public eye.

Improvement has been the keynote of this county association and favored with a strong executive board this idea is being firmly implanted in the mind of every breeder. This association realizes the position of the young or inexperienced breeder, and to direct him along the right lines is one of its principal objects. Winter meetings, lectures and summer meetings have been held each year, but nothing seemed to bring the breeders to a point where each could see what the other fellow was doing. If only a show could be held where type and lines of breeding could complete and breeders could meet on a common ground and discuss their problems it was felt that the results would be far-reaching. The result was Guernsey Day.

THE PARADE GUERNSEY DAY, WEST SALEM, JUNE 8TH.

All the breeders in the county were asked to bring cattle to West Salem June 8th. To say that they coöperated in the movement is putting it mildly. More than eighty head lined up on the date named and by ten o'clock the pavilion was filled to overflowing. Breeders drew cattle for nineteen miles. Fifteen boys in the calf club brought in their calves. Every class was well filled and there were classes for aged sires, young bulls, bull calves, aged cows, cows two to three years old, yearling heifers and heifer calves. Twenty-eight cows were shown in the aged class. Nine aged bulls competed for places. Any class would have done credit to a state fair. Hills, of the Guernsey Cattle Club, and Prof. G. C. Humphrey placed the ribbons.

Executive committe La Crosse County Guernsey Breeders' Association. Reading from right to left—H. D. Lovejoy, W. D. Sandman, Otto Moos, directors; Pres. S. L. Dudley; Prof. G. C. Humphrey, judge; Hill of the Guernsey Cattle Club; T. H. Campion, secretary.

BOYS' CALF CLUB, GUERNSEY DAY

Promptly at 12:15, headed by the West Salem band, the cattle were paraded through the streets of West Salem.

Farmers for miles around were present as well as scores of people from neighboring towns and cities.

Judging contests were held for men and boys.

In the afternoon an interesting program was given. Professor Merril gave a splendid talk on the "Opportunities of the Farmer."

When the day was done everyone was happy and Guernsey Day in La Crosse became an assured yearly event.

Cow-Testing Reports.

Splendid Record in Monroe County.

To the Editor:—The month of May found many members of the Monticello Cow-Testing Association short on feed and they were obliged to put their cows on pasture before the proper time. Weather conditions have been unfavorable for maximum production, but notwithstanding these handicaps our cows did remarkably well. In May we tested 652 and 143 of these produced forty pounds or more of butter fat. Forty-seven of this number produced over fifty pounds butter fat. Baltz Hoesly had the five best cows and the best herd average. Twenty-seven cows averaged 1,548 pounds milk and 54.2 pounds fat. If there is any herd in cow-testing associations which can surpass this I would like to hear from them. The best grade cow is owned by Henry C. Klassy. She produced 1,469 pounds of milk and 61.7 pounds butter fat. The heaviest milking cow, owned by Wm. Spring, produced a total of 1,804 pounds of milk. At present we have twenty-five members with 271 registered Holsteins, 427 grade Holsteins, twelve grade Brown Swiss and three native cows. Quite a few of our farmers are handicapped by the scarcity of farm help and the cows, as a rule, have had to suffer. While some farmers have been keeping calves from their poorest cows they are now selling them as rapidly as they can. The forty-five-pound list for the month ending June 13th is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Baltz Hoesly					
Minnehaha Exeter De Kol, R. H.	4	Apr.	2452	3.36	82.4
Queen Phroso Clothilde, R. H.	4	May	1798	4.46	80.2
Minnehaha De Kol 3d, R. H.	7	Apr.	2350	3.4	79.9
Taebie Queen Midget, R. H.	5	Apr.	2108	3.5	73.9
Palmer De Kol, R. H.	11	May	1587	4.40	59.8
Tuebic Clothilde Midget, R. H.	4	Apr.	1631	4.1	67.9
Lady Pearl Hengerveld, R. H.	7	May	1447	4.28	61.9
Wadmantje Hengerveld De Kol, R. H	5	Mar.	1773	3.4	60.3
Minnehaha De Kol, R. H.	13	Mar.	1637	3.6	58.9
Midget Piebe Homestead, R. H.	6	Mar.	1261	3.6	58.4
Aunola Homestead De Kol, R. H.	4	Feb.	1621	3.6	58.4
Osa Aunola Homestead De Kol, R. H.	9	Feb.	2080	2.7	56.2
Osa Aunola Homestead De Kol 3d, R. H.	5	Mar.	1783	3.1	55.3
Parthenea Homestead 3d, R. H.	4	Mar.	1507	3.5	52.8
Palmer De Kol 3d, R. H.	7	Oct.	1073	4.8	51.5
Tuebie Midget 4th, R. H.	6		1531	3.3	50.5
Midget Piebe Homestead 2d, R. H.	4	Mar.	1262	3.8	48.0
Piebe Homestead, R. H.	9		1606	2.9	46.6
Vinzenz Baebler					
Beauty Gertrude Ormsby, R. H.	8		1879	3.6	67.6
Maple Leaf Mercedes Parthenea, R. H.	6		1879	3.6	67.6
Riverside Lass, R. H.	6		1404	4.3	60.4
Barbara L. 2d Johanna, R. H.	8	Feb.	1618	3.5	56.6
Beauty Gertrude Ormsby 2d, R. H.	6		1618	3.4	55.0
Maple Teat, R.H.	8		1308	4.1	53.6
Beauty Girl Pietertje 2d, R. H.	5		1370	3.9	53.4
Jeltje Netherland Ormsby, R. H.	4		1500	3.4	51.0
Johanna Hendricka Alcartra, R. H.	4	Feb.	1538	3.0	46.1
Pearl Netherland Ormsby	5		1407	3.5	49.3
Starie Paul De Kol 3d	8		1395	3.5	48.8
Piebe Queen 5th Hengerveld, R. H.	7		1259	3.8	47.8
Fred C. Marty					
Zur Johanna Pense,					

R. H.	6	Feb.	1829	3.4	65.6
Henry C. Klassy					
No. 16, G. H.	4	Apr.	1469	4.2	61.7
No. 18, G. H.	4	May	1819	3.3	59.7
No. 23, G. H.	7	Feb.	1575	3.3	52.0
Minnie, G. H.	9	Mar.	1727	3.0	51.8
Beauty, G. H.	5	Mar.	1246	3.9	48.6
Wm. Klassy					
No. 35, G. H.	10	Apr.	1562	3.3	51.5
No. 31, G. H.	10	Apr.	1364	3.7	50.5
No. 14, G. H.	10	Mar.	1209	3.8	45.9
No. 9, G. H.	10	Mar.	1435	3.2	45.9
Wm. Spring					
No. 14, G. H.		Apr.	1804	3.4	61.3
Christ Schmid, Jr.					
Miss Boon Canary, R. H.	6	Mar.	1454	4.1	59.6
Highland Canary, R. H.	7	Mar.	1798	3.3	59.3
Madrigal Korndyke Lady, R. H.	3	Mar.	1324	3.4	45.0
Dick Zentner					
No. 7, G. H.			1711	3.3	58.5
No. 13, G. H.			1327	3.6	47.8
No. 3, G. H.			1457	3.3	48.1
Pierce Bros.					
Mary Ann Highland Parthenea 3d, R. H.	7	Jan.	1215	4.8	58.3
J. H. Freitag					
No. 3, G. H.		Apr.	1615	3.6	58.1
Colantha Elgin De Kol 2d, R. H.	5		1702	3.1	52.8
Johanna Elgin America, R. H.	6		1482	3.1	45.9
J. M. Fritag					
No. 5, G. H.	3	Mar.	1488	3.8	56.5
Wm. Baumgartner					
Countess Mercedes Korndyke, R. H.	8	Jan.	1333	4.1	54.7
Roscoe Smith					
Miss Netherland Mercedes 2d, R. H.	8	Mar.	1634	3.3	53.9
Three Teat, G. H.	8	Apr.	1677	3.2	53.7
Black Leg, G. H.	5	Apr.	1262	3.7	46.7
Ivan Elmer					
No. 7, G. H.			1386	3.7	51.3
Ernest Strahm					
Freitag, G. H.	8	Feb.	1299	3.9	50.7
Moose 2d, G. H.	5	Feb.	1342	3.5	46.9
Blumey, G. H.	4	Apr.	1426	3.2	45.6
Stauffacher Bros.					
Bluemby G. H.	4	Mar.	1188	4.3	51.1
Kugul, G. H.	6	Mar.	1683	3.3	55.5
Gilbert P. Hoesly					
Aggie Hengerveld Johanna, R. H.	8	Apr.	1631	3.1	50.6
J. J. Truttman					
No. 14, G. H.	6	Mar.	1490	3.3	49.2
No. 10, G. H.	7	Mar.	1525	3.1	47.3
Thomas Voegli					
No. 22, G. H.	8	Feb.	1395	3.5	48.8
No. 9, G. H.	5	Apr.	1429	3.4	48.6
No. 11, G. H.		Apr.	1550	3.0	46.5
No. 18, G. H.	9	Jan.	1336	3.4	45.4

Alvin W. Wardas, Official Tester.
I. B. Pierce, Secretary.

One Ninety -One-Pound Record.

To the Editor:—Our forty-five-pound list for the month ending May 31st is as follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Frank Hessel					
No. 13, G. H.	6	3-7	1452	3.2	46.46
No. 3, G. H.	5	3-5	1740	3.2	55.68
No. 4, G. H.	7	12-23	1165	4.1	47.72
Chas. Kornely					
Dallas De Colantha Yeslet, P. B. H.	6	3-13	2547	3.6	91.69
Blust, G. H.	7	2-26	1305	3.8	49.59
No. 16, N.	7	8-5	1203	4.0	48.12
George Wuellner					
Polly, G. H.	7	3-18	1377	3.5	48.19
Guernsey, N.	9	2-11	1125	4.4	49.50
Fred Kappelmann					
Blacy, N.	7	5-16	939	4.9	46.01
Mousy, N.	5	5-16	1194	3.8	45.37
Wm. H. Spencer					
Saloff, G. H.	6	12-23	1200	3.9	46.80
Nellie, N.	6	4-26	1140	5.3	60.42
Albert Johanness					
Niggar, G. H.	3	4-9	1338	3.9	52.18
Henry Zumuehlen					
Ebony, G. H.	6	4-7	1674	3.0	50.22
Oscar Samz					
Gahling, N.	9	12-2	888	5.4	47.95
Robert Hessie					
Niggar, G. H.	5	3-9	1317	3.5	46.09
Peter Fliegel					
No. 8, N.	9	3-39	1356	3.7	50.17
Stephen Dvorak					
Mandy, N	6	4-13	1134	4.0	45.36

E. H. Meineke, Official Tester.
Mishicot Cow-Testing Association.

Columbus Association.

To the Editor:—Our best average herd record for the month ending June 12th goes to Peter Larson, whose Holsteins averaged 1,034 pounds of milk and 36.5 pounds fat. All but two members of our association tested their seed corn and eighteen out of twenty-eight members put in wheat compared with six who put in wheat last spring. The forty-five-pound list for the month ending June 12th is as follows:

Name, owner and breed	Age	When fresh	Lbs. milk	Percent of fat	Lbs. B. fat
A. L. Leffingwell					
Eddy, P. B. J.	6	3-1	972	5.22	50.7
Julius Heyden					
No. 25, G. H.	5	4-25	1296	4.6	59.6
No. 37, G. H.	6	5-1	1470	3.9	57.3
C. G. Steinbach					
Buttermaid, G. H.	5	12-24	1083	4.4	47.7
Henry Dolan					
Emma, G. H.	4	4-7	1564	3.7	57.9
August Soldner					
Boldt Cow, G. H.	5	4-7	1314	3.7	48.6
John Senbinn					
Jessie, G. H.	5	2-14	1182	3.9	46.1
Whitey, G. D.	5	5-7	1470	4.5	66.2
John Bradley					
Nancy June, P. B. H.	8	2-28	1596	3.3	52.7
B. C. Mercedes Pont					
B. C., P. B. H.	4	4-7	1578	3.4	53.7
Courtland Nancy, P. B. H.	3	1-5	1227	3.7	45.4
Zora, P. B. H.	6	10-8	1377	3.7	50.9
Peter Larson					
Job Champ, P. B. H.	6	1-1	1239	3.8	47.1
J. E. Barstow					
Blackie, G. H.	8	3-1	1518	3.8	57.7
Nellie, G. H.	9	11-14	1200	3.9	46.8
Wm. Meyer					
Hannah, G. J.	9	12-1	936	5.8	54.3
R. F. Roberts					
No. 4, P. B. H.	3	5-9	1305	3.5	45.7

C. F. Wehrwein, Official Tester.
Columbus Cow Testing Assn.

In Barron County.

To the Editor:—We had 680 cows under test during May. Pasture is a little slow coming on on account of cold weather. Our highest cow for the month was a pure-bred Guernsey owned by Lone Pine Farm. She produced 1,336.1 pounds of 5.2 per cent milk, making 69.48 pounds butter. Our forty-five-pound list for May follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Ed Yager					
Florena Mercedes D. K. P. B. H.	7	Mar.	1503.5	3.2	48.12
W. F. Kreppner					
Inga Cornelia 2d, P. B. H.	7	Mar.	1593.4	3.3	52.58
Barron Flow D. K., P. B. H.	6	Mar.	1453.9	3.5	50.89
Piebe Paul Parthena, P. B. H.	13	May	1085.0	4.8	52.08
Thyralma Clyde Jewell, P. B. H.	4	May	1596.5	3.9	62.26
Belle of C. V., P. B. H.	4	Jan.	1314.4	4.1	53.88
Maid Wickfield D. J., P. B. H.	6	Dec.	1329.9	3.4	45.22
Lone Pine Farm					
Langwater Charity, P. B. G.	5	Feb.	1336.1	5.2	69.48
La Belle D. C., P. B. G.	11	Jan.	852.5	5.6	47.74
Delight of L. P., P. B. G.	4	Nov.	992.0	5.5	54.56
Lady Enid of L. P., P. B. G.	4	Feb.	1147.0	5.4	45.88
Surprise of L. P., P. B. G.	5	Dec.	926.9	5.8	53.76
Cedar Lake Farms					
No. 21, G. G.	5	Feb.	1578.6	4.2	76.30
No. 24, G. G.	4	Mar.	1136.1	4.6	50.26
No. 14, G. G.	4	Jan.	1263.9	4.5	56.88
No. 19, G. G.	4	Jan.	979.7	4.7	46.06

Fred J. Waldman, Official Tester.
Ed Yagel, Secretary.
Ed Thompson, President.
Rice Lake and Cedar Lake Cow Testing Assn.

Western Wisconsin Holstein Meeting.

To the Editor:—The annual summer picnic of the Western Wisconsin Holstein-Friesian Breeders' Association, held in coöperation with the Guernsey and Jersey breeders' associations of Monroe county, on the beautiful grounds of the Wisconsin public school for dependent children, at Sparta, Wednesday, June 20th, was a splendid success. The attendance was good. The day was ideal and no more suitable place could be found for such a gathering. Dr. J. F. Brown, superintendent of the state school, did everything in his power to make the occasion a success. Besides donating the silver cups as prizes for the judging contests, he left nothing undone to make those present feel at home throughout the day.

Mr. W. H. Hanchett, a live-wire farmer of Monroe county, and a prominent Wisconsin institute worker, briefly traced the development of breeds in his introductory remarks. No breeder present could help but feel that he should be a loyal supporter of his breed association, county, state and national.

Prof. D. S. Bullock, of the Wisconsin Live Stock Breeders' Association and university animal husbandry department, using two Holstein cows of the school herd, gave a splendid dairy cow demonstration. Many questions were asked and many valuable points brought out.

T. P. Abel, a prominent attorney of Sparta, gave most inspiring patriotic address and was loudly cheered.

J. D. Imrie, the county agent, gave a most interesting talk on the part the dairy cow can play in the war. The judging contest was won by the following: Men—Fred Nuttleman, West Salem, La Crosse county. Boys—Henry Schauf, Sparta, Monroe county.

T. H. Campion.

A joint report of the Wisconsin Department of Agriculture and the federal department indicates that farmers in Wisconsin have increased the acreage of all spring-sown crops. The increase of spring wheat is given at 35,000 acres more than last year. In a number of counties the acreage is more than doubled. Thousands of acres of old pasture lands and old meadows have been plowed up and used for spring-sown crops

A Bigger Yield From the Same Field.

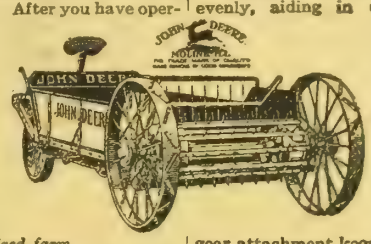
From any field that you have been manuring by the hand method you can get a bigger yield if you use the spreader method—and save much time and labor.

A good spreader tears up the manure into small particles and spreads it evenly. The manure goes farther. It can be worked well into the seed bed so that the plant roots get all of its valuable plant food. *Wasting manure is like wasting money—a good spreader makes every particle of manure count.* A Newton County, Ind., farmer testing the spreader and hand methods of applying manure on two ten-acre tracts found that the *spreader method gave 120 more bushels of corn, 140 more bushels of oats and 9 more tons of clover.*

The John Deere Spreader

The Spreader with the Beater On the Axle

has special capabilities for increasing your crop yields. Its exclusive features make it the ideal implement for the best method. Ask any owner of the John Deere Spreader about the way it increases crop yields and saves time and labor. After you have operated a John Deere Spreader of your own for a year, you will fully appreciate how much these gains really mean. *You'll find that the Spreader with the Beater on the Axle more than pays for itself in one year from the gains it gets on even a fair-sized farm.*



The beater on the axle construction *eliminates all chains, clutches and scores of other trouble-making parts. Does away with half the types of castings otherwise necessary. Does away with adjustments. Puts upkeep at minimum. Makes the John Deere Spreader exceptionally long-lived.*

Beater is all steel—practically indestructible—runs on roller bearings, aiding light draft. Beater teeth spirally arranged—tear up manure perfectly and distribute it evenly. Deliver manure close to the ground—wind does not affect spreading.

Revolving rake feeds manure to beater evenly, aiding in uniform distribution. Shock - absorbing spring relieves spreader and horses of sudden strains.

Spreader only hip-high to top—easy to load. Big drive wheels—light draft. Ball-bearing apron drive—apron travel frictionless. Simple gear attachment keeps weight of load from making apron race when spreading up hill.

Easy to operate—only two levers—one lever determines number of loads spread to the acre; the other starts and stops the spreading. It's so simple, a boy can operate it.

Wide-spread attachment for extra wide spreading.

Write for booklet on the John Deere Spreader.

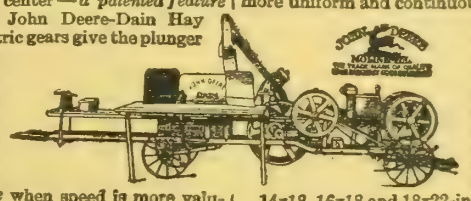
More Bales Per Hour at Less Expense

A saving is made in the cost of baling each bale, the press lasts longer and costs less to run when the John Deere-Dain Motor Press is employed.

John Deere-Dain Motor Press

Bales 1½ to 3 Tons Per Hour

This press puts out neat, well-pressed bales unusually rapidly because the gears are mounted off center—*a patented feature* found only on John Deere-Dain Hay Presses. Eccentric gears give the plunger and self - feed arms *more power on the pressure stroke* just when more power is desired, and a *quicker return on the idle stroke* when speed is more valuable than power.

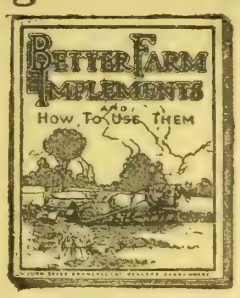


The working parts are carried back out of the way with practically no effort on the part of the engine. This results in more uniform and continuous application of the power than can be obtained with any of the ordinary types of presses. *You get more bales per hour at less expense* under these conditions.

14x18, 16x18 and 18x22-inch sizes, with or without engine.

Write for free booklet.

Big Book Free



Better Farm Implements and How to Use Them

America must produce more food. Labor-saving implements will play an important part in increased crop production.

This book tells all about a full line of labor-saving farming implements. Tells how to adjust and operate many of them. A practical farm implement encyclopedia. Worth dollars. Illustrates and describes the following machines: Walking and Riding Plows, Tractor Plows, Disc Plows, Disc Harrows, Spring Tooth and Spike Tooth Harrows, Corn and Cotton Planters and Drills, Listers, Alfalfa and Beet Tools, Grain Drills and Seeders, Riding and Walking Cultivators, Lister Cultivators, Mowers, Side Rakes, Loaders, Sweep Rakes and Stackers, Hay Presses, Grain and Corn Binders, Corn Cutters, Stalk Cutters, Kaffir Headers, Manure Spreaders, Portable and Inside Cup Elevators, Corn Shellers, Wagons, Farm Trucks and Buggies. This big book will be sent *FREE* if you state the implements in which you are interested and ask for Package X 640

John Deere Said

in reviewing his career, that he felt most pride in the consciousness that he never produced an implement of poor quality.

The same pride that John Deere felt is the pride of the makers of John Deere implements today. It is a powerful incentive to the maintenance of the high standard to which John Deere tools have been kept for eighty years.

JOHN DEERE
MOLINE ILL.
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

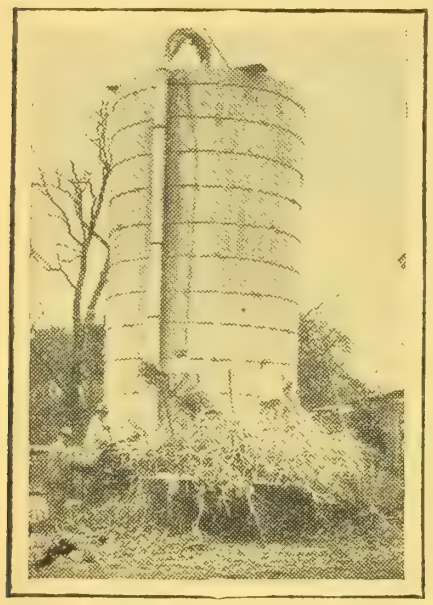
John Deere Implements are sold by John Deere dealers everywhere

JOHN DEERE, MOLINE, ILLINOIS

Silo Conserves Waste Products.

Any Kind of a "Good" Structure Will Answer the Purpose and Effect a Great Saving of Materials.

IN TIMES like these, when every effort is being made to conserve food for ourselves and our allies, the live stock on the farm must not be forgotten. Our cattle, hogs, sheep, horses and poultry must also be fed. In a great dairy state like Wisconsin the chief feeding problem has to do with the dairy cattle. There are nearly 2,000,000 dairy cows in this state which must have nourishing food all this summer, all next winter and until another crop is raised to carry them through another year. A few of our most farsighted dairymen have helped solve their feeding problems



THOUSANDS OF SILOS WILL BE FILLED IN WISCONSIN THIS FALL.

with the summer silo—an extra silo in which good, succulent food has been stored away as a protection against short pastures and dry seasons. Others have caught on to the idea of buying feeds in the fall. Those who are able to buy in the fall in quantities save a good deal of money. Where one dairyman cannot handle a sufficient quantity to get lowest rates, it is best for him to buy coöperatively, combining his purchase with that of several neighbors. Thus car lots of feed can be secured, often at a very great saving. This plan is

A GOOD FORCE CAN PUT UP FROM FIFTY TO EIGHTY TONS A DAY.

especially good for those dairymen who need certain food elements to complete a balanced ration.

But our main dependence is farm feeds. The most economical plan is to raise the feed right on the farm, supplementing it with purchases needed to balance the ration, if any. The problem is often fully solved by careful planning in the matter of caring for the farm-grown feeds. This is a year in which we cannot afford to let anything go to waste. Furthermore, at this writing, we are face to face with a prospect of frost before our corn crops in Wisconsin can fully mature. The season in some respects is not unlike that of two years ago, when hundreds of dairymen late in the summer or early in the fall were sore at themselves because they had not erected a good silo or two to take care of their corn. Warm weather coming on after June 15th has done a great deal to bring crops up toward a normal condition, but "knee high" corn on July 4th is likely to be the exception all over our state. As it appears now, much of our corn will have to be put into the silo. The condition which confronts us is responsible for the "silo drive," now in progress in the Badger state, a summer campaign which, in point of importance, eclipses almost anything that has been done this season by the county agents and experiment workers.

Looking our present situation squarely in the face, there is apparently good foundation for this "silo drive." Wisconsin has 60,000 silos now, and the mere fact that silos are increasing by the thousands every year is evidence that they are worth while. About the best argument for a silo that we know of is that the successful dairymen have them, and in many cases now have two and even three or four where there is a large number of cows. There are thousands of farms in the state where there is one silo and where there should be two. Many silos are old and out of date—were not properly put up—and in too many cases were not the kind expected to last many years. The modern silo rests on a good firm foundation, does not need wiring to keep it from being blown down by the winds, is big enough to handle a large crop, and sufficiently ornamental that it will be in keeping with the other buildings about the farm.

The Wisconsin Farmer is often asked what kind of a silo is best for the Wisconsin farm. The following definition, given by the Wisconsin Experiment Station, expresses our idea pretty well:

A silo should be round and smooth on the inside, perpendicular from top to bottom and air tight.

Some of our readers will ask whether the silo should be built of concrete, or wood, or vitrified tile, or steel, or brick. This is a matter which we have to leave to the individual. There is merit in all of these silos. We are not so much concerned about the materials which are used for a silo as we are that the silo be built, and that it be large enough to accommodate plenty of feed. The matter of expense and durability must be taken into consideration. Our readers might as well ask us what make of automobile to buy. We could recommend a number of them. Selection of the exact kind of a silo is a matter of individual opinion, which must be governed to a great extent by circumstances. But good silos are made from any of the materials mentioned, and the more expensive ones we have found by experience are usually worth the added cost.

Corn is not the only Wisconsin crop which may be put with profit into the silo. Peas, waste from the pea canneries, oats and peas, soy beans with corn, beet tops mixed with corn fodder, chopped clover and corn, etc., make good silage. Other mixtures may be adopted, many introducing alfalfa, but corn usually is the base and chief element.

There may be those who will say that they have put money already into other things this year and will put off the silo for another season. This is false economy, provided you have roughage on the farm which the silo would accommodate and which your stock will need before pastures come around in 1918. It is just as reasonable and sensible to borrow money to build a silo as it is to borrow money to buy cows or build dairy barns. The writer finds before him a copy of a Wisconsin paper in which a banker urges the farmers of his county to erect a number of silos the coming year. "If you haven't the money, come down and see me and let's talk it over," is the message which this banker's advertisement carries. Money borrowed at the present rates of interest is well borrowed if it causes a modern silo to be erected and finally results in 100 tons or more of good, succulent feed being stored

MAKING "ENSILAGE" WHILE THE SUN SHINES.

away against the rigors of the coming winter. A silo, properly erected, of good materials, should last for many years. It is an ideal farm investment. It gives, according to scientific investigation, 20 to 30 per cent greater feeding value to corn than the same corn would have if fed as dry fodder. It provides feed at a time when dairy prices are highest and milk flow is most desired and most profitable. It is insurance against short pastures and dry seasons. It is also insurance against losses which might otherwise come from early frosts. The silo helps the farmer to make the best possible use of frosted corn. Even immature corn can be saved by putting it in the silo. Silage in connection with grain may be well used to fatten stock for market. The silo furnishes the cheapest winter feed obtainable. Where a man feeds twenty or more cows the silo pays for itself in feed saving in a short time—two or three seasons at most—and often in one season. The silo helps use up all the corn, with least possible waste. The man who properly cares for his silage can feed his cattle on less acres and this means more acres for marketable crops. The silo is the best friend of the dairyman, because silage, properly fed, and included in the ration in proper proportions, does not injure the quality of milk, nor have any deleterious effort on milk products, such as butter and cheese.

While others are thinking it over, make up your mind to build a silo now. You will thus be ready for any eventuality.

City Delivery and High Milk Prices.

Each morning three milk delivery wagons drive the distance of the same city block. Each of them regularly delivers one pint of milk to a residence within that block. Apparently the cost of delivery constitutes a considerable portion of the amount that each of those three customers is required to pay for the milk. One wagon drawn by one horse could deliver the three bottles of milk as well as three can do it. The extra time required would not consume one hour of time per month. Yet the three customers are paying for the use of three wagons and three horses and are paying high prices for three delivery men.

In a city under 100,000 in population an observer has found that no less than twenty-two milk wagons pass a certain street each day. It is apparent that there is an immense waste of time and expense in this, all of which goes to increase the cost to consumer and to decrease the profit to the producer.

The expense of delivery is seldom carefully tabulated. However, two brothers who operate a dairy of eighty or 100 cows have adopted the following plan: One brother stays on the farm. He produces the crops, pays for the extra feed. He does the milking or hires it done and delivers it to the depot in the city. The other brother does the delivering of the milk and collecting of accounts. Each receives exactly half the income for handling the delivery business. The one in the city shares fifty-fifty with the brother on the farm. One not well informed in regard to the expense of delivery might think that the brother in the city would have the best of the bargain. Such is not the case, however, according to a sister who keeps the books for the firm. She gives it as her opinion that the brother on the farm actually makes more clear money than the one in the city.

City dealers retail milk at about double the price they pay the farmers, yet they frequently do not appear to be succeeding very well. Could some more economical method of delivery be worked out it would be to the advantage of both consumer and producer. The city or town customer would be enabled to secure milk at a lower rate. The producer would doubtless be able to increase his margin of profit while reducing the price to his patrons. Furthermore, a lowering in price would doubtless induce a greater consumption which the dairyman very much deserves. Whatever plan may be developed will require team work. It may be a common delivery wagon with the patron selecting the dairy the milk from which he is to be supplied. It may be a coöperative standardized union of dairymen. It is certain that practical, thoughtful dairymen will be able to meet this condition which is a hardship upon themselves as well as upon their customers.

Inspecting a Good Dairy Herd.

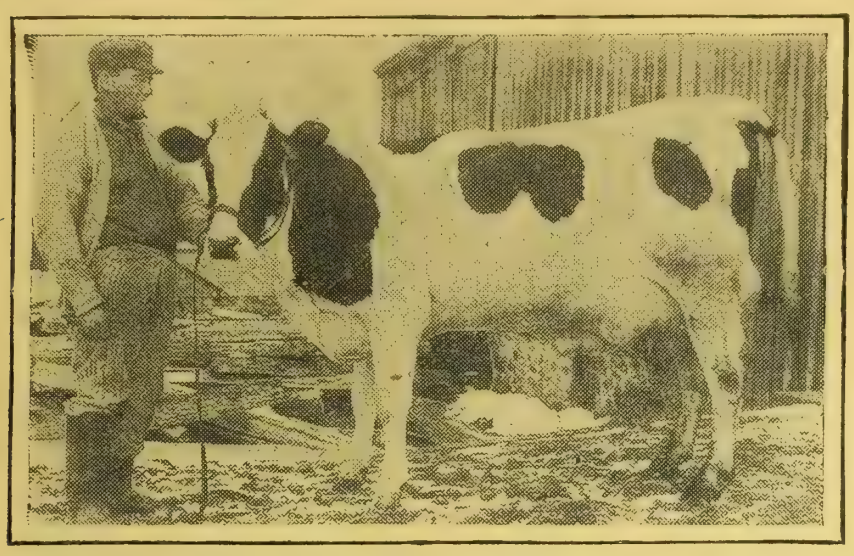
To the Editor:—A call came to me to go away up into the state to get the facts about a cow that had just made a world record for butter. I was glad to go. It always does a man good to step out of the home furrow for a little while and get a glimpse of what his neighbors are doing. It sets the current of thought to flowing in a different direction and sharpens up the appetite for new and better things.

A few things I saw on the way that day have been in my mind ever since, and because they helped me, it may be that they will be of value to others. While we may not always look through the eyes of our fellows, we do get hope and help and inspiration from the methods and the opinions of those who are out in the world where things are being done.

The man who keeps his eyes open cannot help seeing that dairy farming brings comfort. As I slipped along between the hills and through the valleys, a variety of landscape passed before my eyes. Now I would be cheered

by the sight of a stretch of country where everything looked prosperous. The houses and barns were all painted and up in good condition, the fences were in fine order, and all as neat as a pin. I could make a pretty fair estimate as to the degree of prosperity which was coming to the farmers of such sections; and it was apparent that dairy farming was the means of making all these improvements, and I had no doubt that most of the landowners were putting aside some money against the coming rainy day. Then, perhaps in a few moments, the train would switch me away through a strip of country that lacked this thrifty appearance. Fewer cows were in the pastures of those farms; the buildings were less attractive; my conclusion was that for some reason dairying had been displaced by some other line of farming, and the contrast placed a long credit mark down to the advantage of the cows. Dairy farming is a good foundation stone for farm success. It brings peace and comfort.

At the farm where I found the cow with the world record, I got a new insight into the value of good care, scientific feeding and a big ambition. The farmer whose cow was at the time being tested out was under the care of an expert, who watched her as a good engineer might the locomotive which is to bring him safely to the end of his journey with his precious freight. Every pound of food was carefully weighed. The body of the cow was safeguarded as a skillful physician might care for a patient, so that she might not get off her feed, but do the best possible work. At night a trusted hand slept in the barn, to make sure that there was no tampering with the cow by any jealous or scheming person. Not a thing was overlooked that would enable the cow to do her best. The milking was carefully done, with all noises hushed and nothing to distract attention.



A HOLSTEIN WITH A THREE-YEAR-OLD RECORD OF 533.1 POUNDS OF MILK AND 23.24 POUNDS OF BUTTER.

And what was the result? Here are a few figures as given me by the owner of the cow, Mr. Eugene La Munion, Solsville, N. Y.

At two years, eleven months and twenty-one days, the young Holstein cow, Lockhart De Kol, in seven days gave 566.9 pounds of milk, making 29.27 pounds of butter. In thirty days she gave 2,415.9 pounds of milk, from which 116.53 pounds of butter were made. As a senior three year old in seven days this cow made 30.56 pounds of butter. For nearly four years this cow held the world record.

Another cow of the same herd, Lockhart Bessie De Kol, at three made this record: In seven days she gave 533.1 pounds of milk, with 23.24 pounds of butter. A picture of this cow is given.

Now, the point I wish to bring out is: What would it mean if all the dairy cows of this country were to be so cared for all the time, and not for a few days at a time when a big record is desired? What a revolution it would make in the dairy business of the world? And why should not this be done? If it pays one man to care for his cows well, why not all of us?

Another good thing came to me as the result of my visit to this farm, and that was the value of a big dream. A few years before that Mr. La Munion had a few very commonplace cows. None of them could be expected to do anything very great. He was badly in debt and the prospect for getting out was not very good. Then he had a dream of the better cows he might get about him. He started out to see what he could do. He bought a few thoroughbred cattle. He bred to the best available sire. The day I was at his place he had sent a cow away to be bred at a cost of $100. From that small beginning this young man has done things that have given him a standing among the world's breeders. Most of his neighbors have been helped, too, for where one man succeeds in rising above the level of the common herd, soon others will follow. So all along the valley one may now see better herds.

Coming home through the shadows of the closing day, I saw men driving their cows home to be milked. It was interesting to note the difference in their way of doing things. As it grew late, some were hurrying their cows along at top speed. Here and there I would see a dog chasing cows with udders pressed hard with milk, snapping, yelping and harrying the poor victims. Boys in full chase, clubbing, throwing stones, yelling till the dogs must have envied them their ability to hurry and worry the herd. We all know what is the effect of such treatment when it comes to the milk pail and the Babcock test. Why should any of us ever permit our cows to be harried this way?

But not all do. I saw other men going home with the cows that night and doing it as if they realized that a good part of the proceeds of the day's work depended upon the condition of the herd when it reached the stable. The cows appreciated it, too. Some of them were chewing their cuds as they quietly wandered in from the pasture; now and then one stopped to pick a fresh bit of grass; if there was a dog anywhere around, he was making no noise about his job. Once in a while he might rub up against the legs of some laggard cow, as a gentle hint to her that it was time to get along to the barn, but there was no sign of nabbing, no barking, no worrying.

And I came home convinced that the difference in the success men reach is very largely a matter of the man and his methods. E. L. Vincent.

COW-EASE GUARANTEED TO MAKE GOOD OR I WILL!

MY personal money-back guarantee is back of every can. Cow-Ease is not an experiment, but a tried, sure fly-repellant that has made good for sixteen years. I originated it and I *know* that

COW-EASE

Keeps Flies off Cattle and Horses

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Cow-Ease positively keeps flies away and keeps your cows quiet and contented. You reap the benefit in more milk and *better* milk, and in easy milking. Flies not only irritate your cattle and reduce the milk yield but they are ladened with deadly disease germs. Get rid of them.

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TRIAL OFFER If your dealer cannot supply you, send me his name and $1.25, and I will deliver prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For west of Missouri River and Canada, above Trial Offer, $1.50.

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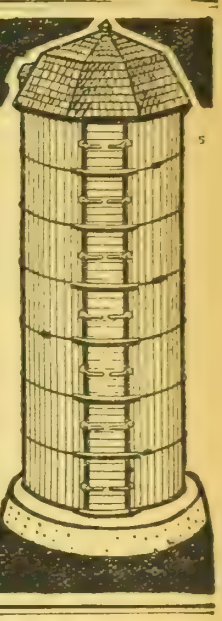

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Turn under part of your pasture and plant it to saleable crops. Feed your stock this winter cheaper, easier and more profitably with a few acres of corn cut into ensilage with a Kalamazoo Ensilage Cutter and stored in a Kalamazoo Silo. Stop wasting land that should be used for money crops. This year, you have a chance to make *big profits.*

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In quantity and quality of silage made per hour

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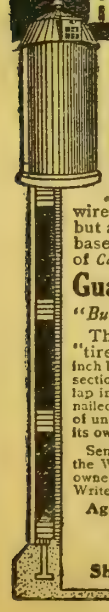

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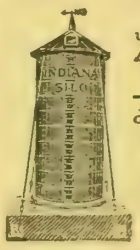

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If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

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$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 30 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

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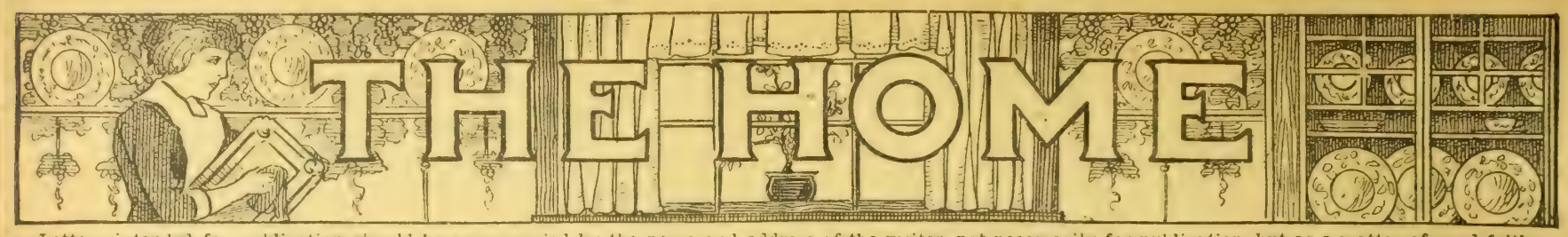
We pay 25c for calf Rennets from normal calves if handled and ready to dry properly. The Marschall Dairy Laboratory, Madison, Wis.



Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Still Another Way to Preserve Vegetables.

We have received the following letter from one who is interested in food preservation:

I have been a reader of the Home Department for over a year and now I would like to ask some advice. I want to can some beans and I have been wondering if they can be put up like kraut. I am a girl eighteen years old and if I could secure this information it would help me a great deal.

String beans, beets, cabbage, cucumbers and other garden crops may be preserved by what is known as the fermentation method. The vegetables are not cooked, but are put down in a salt brine in any non-metal water-tight container and are sealed up with paraffin and are otherwise made air-tight. Under this treatment lactic acid will develop and this acid, the value of which as food has been recognized, acts as a preservative.

The strings should be removed from string beans before they are put up. Beets, of course, and cucumbers, require careful washing to remove all dirt before brining. After being so prepared, pack into a clean, water-tight barrel, keg or crock. On the bottom of the barrel place a layer of dill weed and a handful of mixed spice. Add another layer of dill and another handful of spice when the barrel is half full and when almost full add a third layer. If a keg or crock is used, the amount of dill and spice can be reduced in proportion to the size of the receptacle. When the container has been filled within a few inches of the top, add a layer of covering material—beet tops or grape leaves—about an inch thick. If any spoilage should occur on the surface, this layer will protect the vegetables beneath. Press down with a clean board weighted with bricks or stone. Do not use limestone or sandstone.

Make a brine by adding one pound of salt to ten quarts of water. To each ten quarts of brine so made add two-thirds of a quart of vinegar. The vinegar is used primarily to keep down the growth of injurious bacteria until the lactic acid ferment starts, but it also adds to the flavor. Add sufficient brine to cover the material and allow it to stand twenty-four hours. Then make air-tight. The time necessary for complete fermentation to occur depends upon the temperature. In a warm place only five days to a week may be necessary; in a cool cellar three to four weeks.

There always will be more or less bubbling and foaming of the brine during the first stages of fermentation. After this ceases a thin film will appear which will spread rapidly over the whole surface and develop quickly into a heavy, folded membrane. This scum is a growth of yeast-like organisms which feed upon the acid formed by fermentation. If allowed to grow undisturbed it will eventually destroy all the acid and the fermented material will spoil. To prevent this scum from forming it is necessary to exclude the air from the surface of the brine. This should be done by either of two methods, twenty-four hours after the vegetables have been packed.

Perhaps the best method is to cover the surface—over the board and around the weight—with very hot, melted paraffin. If the paraffin is sufficiently hot to make the brine boil when poured upon it, the paraffin will form a smooth, even layer before hardening. Upon solidifying, it effects an air-tight seal. Oils, such as cottonseed oil or the tasteless liquid petroleum, may also be used for this purpose. As a measure of safety with crocks, it is advisable to cover the top with a cloth soaked in melted paraffin. Put the cover in place before the paraffin hardens.

The second method, which may be used with barrels or kegs, is to pack the container as full as possible and then replace the head. In using this method for fermentation of beets, cucumbers or string beans, add the board and weights as described above and allow to stand for twenty-four hours before heading. During this period most of the gas first formed escapes and the container then may be headed up tight, first removing the board and weights. Then bore an inch hole in the head and fill the barrel with brine, allowing no air space. Allow bubbles to escape. Add more brine if possible, and plug the vent tight. If the barrel does not leak, fermented products put up in this manner will keep indefinitely.

After sealing with paraffin the containers should be set where they will not be disturbed until the contents are to be used. Any attempt to remove them from one place to another may break the paraffin seal and necessitate resealing. If the containers are not opened until cold winter weather, the vegetables should keep without spoilage until they are used up. If opened in warm weather they are likely to spoil quite rapidly unless the paraffin is reheated and the container resealed immediately. In the case of cucumbers and chayotes, it is preferable, if enough material is available, to use the method of packing in kegs or barrels.

Only those vegetables which cannot be kept by storing or early ones that are not available later in the season should be preserved. Late beets, for example, can be better kept in the cellar.

The method of putting up cabbage by fermentation has a number of advantages over the present process of making sauerkraut.

In the case of such vegetables as beets or beans, if it is desired, when they are to be eaten, to wash out the brine and serve as fresh vegetables, the addition of the spice when they are put up is not necessary.

The Baby's Sleep.

During the first month of its life a baby needs twenty hours of sleep a day, and thereafter not less than sixteen hours a day up to the end of its first year. It should sleep alone in a crib or basket. A clothes basket with a simple mattress made of excelsior and covered with a heavy blanket makes a good substitute for a crib while the child is small.

The room in which the baby sleeps should be darkened and well ventilated, the windows being lowered from the top. If it cries and refuses to sleep under these conditions, then it is time to look for the cause, for it is probably sick or overfed or maybe hungry.

All children should take a nap of from one to two hours in the middle of the day until they are six years old.

Corn Salad.

To the Editor:—It is a little early for a corn salad recipe to be used, but if all the subscribers are like me and keep all of the papers—not only the Home page but all of it—it will be all right.

For this salad use four quarts of green corn cut off the cob, one large head of cabbage (chopped), two onions, one and three-fourths pounds of sugar, one-half cupful of salt, two quarts of vinegar, one-fourth cupful of ground mustard, two or three green peppers, and about two teaspoonfuls of celery seed (more if you wish). Cook the cabbage and peppers separately. Cook the corn with one quart of vinegar. Then mix these and add the onions and all other ingredients, except the mustard, and cook again. The mustard should be mixed with enough vinegar to make smooth and add just before canning. Can hot in glass jars.

Can't some of the readers tell us some new lettuce dishes—some that they have tried and found good?

Ida M. Vinsom.

Made Scrapbook For Recipes.

To the Editor:—I have been a reader of your paper for many years and have received much help. I have made a scrapbook for the recipes I most needed, putting cakes in one part, pies, puddings, canning, each in a part by themselves. It is surely handy, not only for myself but for younger members of the family.

I wonder if someone would not be interested in the way I put corn down in salt. I cut the corn from the cob and use one part of salt to seven of corn. I mix it well and pack in stone jars, cover with a cloth and plate and weight down.

To freshen corn put down in this way take as much as is needed from the jar, draining the brine back. Cover the corn with cold water and let come to a boil; drain and cover with water again. Repeat this three times. Then drain and season as you would canned corn.

Grandma.

Recipes.

Buttered Rice With Peppers.—One cupful rice, two quarts boiling salted water, two sweet green peppers, two tablespoonfuls butter. Cook the rice in the boiling salted water twenty minutes or until tender, but not broken. Drain in a colander and set in an open oven for five minutes to dry off. Seed the peppers and chop fine. Put butter in a frying pan over the fire and when it hisses add the minced peppers; toss and stir until smoking hot all the way through. Put the rice into a dish and pour the peppers over it, loosening the mass with a fork to allow the sauce to penetrate.

Potato Salad.—Three cupfuls cold diced potatoes, two cold boiled eggs, one medium-sized Bermuda onion, three-fourths cupful salad dressing, one cupful whipped cream. Dice potatoes, chop onions, chop egg white and cut yolk in small pieces. Blend with salad dressing and whipped cream.

Orange Froth.—Juice of one orange, juice of one lemon, grated rind of one-half orange, three eggs, one cupful sugar. Beat the yolks of the eggs until light and add the sugar; beat to a cream. Add the orange and lemon juice and cook in a double boiler until it boils, stirring constantly. Have the egg whites beaten stiff and pour over them the hot sauce, beating all the time. Cool and put in glass cups, from which it is to be served, and set on ice.

Lemon Sherbet.—Two quarts milk, one and one-half pounds sugar, juice of six lemons. Mix sugar and milk together; put in freezer, and when partly frozen add lemon juice and freeze like ice cream. The grated rind and juice of two oranges may be added to the above if desired.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

A Fishing Trip.

Dear Young Folks:—As I have never written to your page before I am going to now. I enjoy reading the letters so much.

I live on a 120-acre farm three miles from the city. I am eleven years old and am in the seventh grade. I have two brothers and one little sister going to school. We have to walk a mile and a half to school.

I help my mother in many ways. I can sew, bake, scrub, crochet and also cook some plain things.

I will tell you about my trip fishing for perch. One day I went fishing down by the harbor with a bunch of girls. We went at six o'clock in the morning and came home about half past five in the evening. We took our dinner with us. In the afternoon a man took us in his big boat and gave us a ride around the bay. It was a very pleasant ride. In the evening my father came after us with the horses.

We have a gasoline engine and also a threshing machine and engine. We have four horses and fifteen head of cattle. I have a pet dog. He is a shepherd dog and his name is Captain. He is very kind and my little brother can put his hand in his mouth and he won't bite. In the winter we hitch him to a sled. He can pull three of us on a sled. He is getting pretty old now, but my father will not kill him for my sake and my brothers'.

I have a garden of my own. I planted lettuce, carrots, and radishes and my mother is going to give me some tomato and celery plants.

I send my best regards to all the young folks and hope they will make our page better every week.

—Evelyn.

Came Over the Rockies

Dear Young Folks:—This is my second letter to the Young Folks' page. I was born in Portland, Ore. Papa, mama and I came over the Rockies when I was seven weeks old. My papa has taken this paper for several years and I enjoy reading your letters.

I live on a farm of 160 acres. We have a spring in the pasture that runs water the year round. Our farm is tiled also. I have a pony whose name is Cricket. He is very gentle, and I like to ride him. I have two little brothers and one sister. I put all three of them on my pony at once. I like to ride him to the field and pasture and to school.

Mama has twelve geese. We have got over forty eggs. I went to town school all my life until a year ago when we moved to the farm. I don't like the country school very well yet. My sister and I have a mile to go to school. I find it quite different from the school in town. I am eleven years old and am in the sixth grade.

I like to help mama sew and I like to cook, too. I like to make pies, cakes, cookies and candy. Here is my recipe for chocolate fudge. One cupful milk, two cupfuls of sugar, one-fourth cake of chocolate, butter the size of a walnut. Cook until it hardens, remove from stove and beat until it thickens.

—Leta.

Made a Bird House.

Dear Young Folks:—I always like to read the letters the little boys and girls write. This is the first time I have written to you. I am a little girl nine years of age. I have a little sister two years old. Her name is Ruth.

My papa and I made a little bird house and set it on a post in our front yard. One day I went to the garden to see my flowers and I saw a little bird close to the house. I think it has built there. When I put the house up I put some pieces of cake by it.

I like all the little folks who write to our page.

—Margaret

Caught a Little Rabbit.

Dear Young Folks:—I have never written to you before and I am going to tell you about my pet rabbit. I am eleven years old and in the seventh grade.

Once upon a time I was catching mice under corn fodder that my uncle was moving and a little rabbit ran out. I started after it, but I lost sight of it for a while. When I saw it again I ran after it and overtook it. I took it home and put it in a box. It stayed in the box for two days and then it jumped out, but I knew it was in the house. The next day my uncle told me that it was under the stove and I could catch it and play with it. I am going to keep it as long as it lives because it is a nice pet.

—Russell.

Likes to Read.

Dear Young Folks:—My brother farms 160 acres of land but only owns 160 acres. We have five cats. Their names are Bunny, Mouser, Chinky, Starlight and Lollypop. Our horses' names are Prince, Queen, Jim, Bud, Prince and Fan—we have two horses named Prince.

Do any of the young folks like to read books? I do, and I will tell you some dandy ones. Babes in Bloomland, Somebody's Little Girl, The Christmas Stocking, Live Dolls' Party Days, and Billy Whiskers, Jr.

—Elizabeth.

Names For Arnold's Lambs.

Dear Young Folks:—We are cousins. We saw Arnold's letter and we are going to give his lambs names. We hope they will suit him. We thought he could name them Muffie, Fluffie, Snowball and Cupid.

We are eleven years old and think we will be promoted to the sixth grade. We each have a little sister.

Eunice and Gladys.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE FARMER AND STOCKMAN, Kansas City, Mo.

1653—Girls' dress, with or without pockets and with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2¼ yards of 44-inch material for a 4-year size.

1415—Boys' blouse suit with straight trousers and with or without shaped band. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2 yards for the blouse and 1⅛ yard of 27-inch material for the trousers for a 3-year size.

2112—A new and attractive model. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3½ yards of 44-inch material for an 8-year size.

Coat 2114-Skirt 2113—A seasonable and popular style. The coat 2114 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2113 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 8⅝ yards of 44-inch material for the entire suit, for a medium size. Two separate patterns, 10 cents for each pattern.

Waist 2125-Skirt 2105—A smart summer frock. Waist pattern 2125 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 2105 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. For a dress in a medium size, it will require about 5½ yards of double width material. Two separate patterns, 10 cents for each pattern.

1723—A neat and practical model. Pattern is cut in 3 sizes: Small, medium and large. The medium size will require 5⅛ yards of 36-inch material.

2128—A stylish, attractive model. Pattern is cut in 3 sizes; 16, 18 and 20 years. It requires 5½ yards of 44-inch material for an 18-year size.

2103—A practical work dress. Pattern is cut in 7 sizes. 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6¼ yards of 36-inch material for a 36-inch size.

1928—A smart and practical ladies' skirt. Pattern is cut in 7 sizes; 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 5⅝ yards of 27-inch material for a 24-inch size.

1673—Girls' middy dress with skirt attached to an underwaist, and with sleeve in either of two lengths. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 4⅛ yards of 40-inch material for an 8-year size.

2130—Girls' dress with two styles of sleeves and with or without bolero. Pattern is cut in 4 sizes; 6, 8, 10 and 12 years. It requires 1⅛ yards for the bolero, and 3¾ yards for the dress of 27-inch material, for a 6-year size.

1919—Ladies' shirt waist. Cut in 7 sizes: 34, 36, 38, 40 42, 44 and 46 inches bust measure. It requires 2¾ yards of 36-inch material for a 36-inch size.

Save the Fat.

The increased prices of butter, lard, and all other fats bid fair to go still higher. Dr. Louise Stanley, of the University of Missouri College of Agriculture believes that the shortage can be relieved considerably by saving much of the fat which is usually wasted in the home. Such saving may avert a deficit of this important foodstuff which accounts in part, it is said, for the inadequate diet of the German people. Investigations of additional sources of fat are being made; but it remains for the housekeeper to conserve the available supplies.

The familiar grease trap stood for many years at the foot of the sink as a definite testimonial of the fat wastage which passed out of the house by that route. The garbage can and the slop bucket give further evidence. Some of this waste is unavoidable perhaps, but much of it can be saved and every housewife should appoint herself that task.

Efforts should be made to utilize the fat which comes into the home in the form of fat meat. Much of it is rendered as the meat cooks. This should be clarified and saved. Serve a piece of fat and a piece of lean if the family will eat fat. Otherwise save the fatty portions so that the fat may be rendered and used instead of lard.

The fat which cooks out from bacon should be carefully treasured. If it is not scorched, it may be used for corn bread, muffins, griddle cakes, in salad dressing, to season vegetables, and in numerous other ways.

Chickens in good condition usually yield more fat than is palatable to serve with the meat or soup. The excess may be used acceptably wherever any other fat is used. It has been recommended as especially desirable for pastry. On account of its consistency it may be mixed with harder fats to make them all more soft.

Soup should be set aside to cool so that the fat may collect in a cake on the surface. This may be placed with the fat to be clarified.

Water may be used in clarifying fat. The amount to be added depends upon the degree of impurity of the fat. Heat only until the fat melts and then stir well. The fat separates as a more or less clear layer on top while the water dissolves out much of the impurity from it. If the fat contains sediment, it can be removed by straining while hot through double cheesecloth. If objectionable odors and flavors are present, they may be removed in many cases by heating the fat with small pieces of charcoal.

Fats should be kept free from water in closed opaque containers in a cool place. Rancid fats may be kept for soap making.

"If every housekeeper will pledge herself 'to save the fat' we need not fear a fat famine in our country," said Miss Stanley recently. "If we continue in our reckless waste of this valuable food, the amount is likely to fall far short of our needs and the price will be unnecessarily increased. Will you do your part to keep up the supply and keep down the price?"

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for July 1, 1917.

Isaiah's Call to Heroic Service.

LESSON TEXT—Isaiah 6.

GOLDEN TEXT—Also I heard the voice of the Lord saying, "Whom shall I send, and who will go for us?" Then said I, "Here am I; send me."—Isa. 6:8.

The lesson committee now turn for a third quarter's lesson to a series of studies in the Old Testament as found in II Kings, Ezra and Nehemiah. As an introduction, they have chosen this chapter in the book of Isaiah.

Isaiah prophesied in the latter half of Uzziah's reign, B. C. 760 and down to the early years of the reign of Manasseh about B. C. 694 (ch. 1:1). This event took place probably B. C. 775. The place was Jerusalem; the kingdom of Israel was still in existence (for thirty-three years longer) being utterly destroyed in B. C. 721. The name Isaiah means "the salvation of Jehovah;" his wife is called "the prophetess;" two of his sons are named and his social position was high, as shown by his intimacy with kings. Isaiah lived in troublous times. He was a reformer seeking to rescue his nation from the sins growing out of their disobedience to God. He was the leading statesman of his time, the greatest of the prophets, an author, a heroic, single-minded, patriotic, fearless, undaunted man of great personal power and influence. He was a prophet of hope; he wrote out of his long life of faithfulness and fellowship with God. The book of Isaiah falls into two great divisions; chapters 1-39 being chiefly historical, interspersed with songs and poems; chapters 40-66 are a collection of prophecies that have to do chiefly with the return from the Babylonian exile and the days of future glory for the kingdom of God.

I. Visions (vv. 1-4). As we have said, Isaiah prophesied in a time of great need. The prophet was very much discouraged. In this passage he locates his vision at a special time and place (ch. 1:1). Every man's great need today is a real vision of God. We are not so much in need of theories about God, as a vision of God himself. Uzziah's long reign of fifty-two years, in which the kingdom prospered and the king's name was spread abroad, stopped as suddenly as an earthquake, and his glory was eclipsed (see II Chron. 26:16-19). The place in which Isaiah saw his vision was the house of God. Perhaps not in the temple, but seeing the vision from the temple the prophet looked to a house not built with hands, Jehovah's own heavenly palace. Therein he saw "the Lord sitting on a throne . . . and his train filled the temple." Above it, or around it, were arranged hovering couriers and the seraphic choir. The majesty of this vision is indicated in verse two, its glory in verse three and its power is indicated in verse four. The whole earth was filled with God's wondrous wisdom, love and power. Literally "the whole earth is full of his glory." The Hebrew word for holiness comes from a word meaning "to set apart—set a distance from." The holy Lord is not only sinless, but he is sublime and absolute also. It may seem difficult to harmonize Isaiah's vision with John 1:18, yet these manifestations were one and the same, for all that saw Jesus saw God (John 14:9). King Uzziah was dead, but the real king was living still, high and lifted up. The attempt to reason about him, what he must be and what he must not be, as if he were one of ourselves (Eph. 1:20, 21) is absurd.

II. Divisions (vv. 5-13). (1) The vision of the prophet (vv. 5-7). This vision brought conviction because it showed how far separated from God the prophet was. It also brought conversion in that he acknowledged himself to be unclean, himself and his surroundings to be vile. It also led to cleansing, for the king heard the voice of the prophet, removed his guilt and purged his sin. (2) The voice and proclamation from the king (vv. 8-13). The king called for a messenger (v. 8) and at once the prophet is found. Someone has said that "a task without a vision is drudgery; a vision without a task is a dream; while a task linked to a vision will move the world." Not only did the king ask for a messenger, but he gave the message which the messenger was to utter (vv. 9-12). The message was to be to his own people; it was not to be a pleasant one. Verse 13 shows us this message in prophecy. Isaiah ought to fully proclaim the truth, but the people would not understand it, and the whole effect of his proclamation would be to harden them.

The Application.

What is your application of this vision for Isaiah? We are a Christian nation, but there are many degrees and kinds of Christians; those who sincerely try to follow Jesus; those who live under a Christian government, and are unaffected by Christian influences. There is only one way to save this nation from going the way of Nineveh and Tyre; that is, that justice and righteousness shall govern, and that justice and righteousness shall be the fruit of regenerated lives. The cry is for a better social environment and a more just social position.

Some families take pride in serving lavish and overbountiful meals and overgenerous service of food. This leads inevitably to waste of food on the table and is a temptation to overeating, which often impairs health and efficiency.

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Warm Weather Helps the Crops.

Although Small Grains and Corn are Backward, Good Warm Weather Will Put Them in Good Shape.

Crop reports from Wisconsin counties indicate an increased acreage of corn and spring wheat. Spring wheat is in good condition, corn somewhat backward, but picking up wonderfully well since the summer weather started. Pastures and meadows also show a splendid improvement, although they have come on a little late. In the main, crops have gained considerable in the past week.

WISCONSIN.

Barron County.—The crop situation is rather backward. About 15 per cent increase in wheat and buckwheat. Small increase in corn and potatoes. Hay is very backward and prospects are for a short crop. All garden truck is late. Small fruit is fair. Very little hay left on farms. Stock is in fairly good health, but pasture is short and stock does not pick up very fast. We are badly in need of warm weather.—Wm. Bartlett.

Burnett County.—The weather continues cold and on the 15th we had a heavy frost which did much damage to corn, potatoes, beans and tender garden truck, especially on light, sandy soil, while others report but little damage. Wheat, barley, rye and oats are looking fine and have an acreage of about 5 per cent more than last year. The hay crop, both tame and wild meadow, is much in need of rain, as are pastures, also, though they are in fairly good shape and cattle are fine. There are about the same number of cows as last year, but probably 10 per cent less young stock on pasture. All are in a good condition of health.—A. G. Peterson.

Crawford County.—The weather has been cold and wet for the past two weeks, but is now warming up nicely. Oats, wheat and barley look well. Rye is thin on account of the dry spring—it did not stool the way it should. Corn is a good stand, but backward, but with warm weather it ought to make a good advancement. Pasture is good. Meadows will be better than expected. There are fewer cattle in pasture than usual, but they are in healthy condition. Garden truck is good and fruit promises a good crop.—George Ashbacher.

Forest County.—General crop conditions are good, though the season is late and cold. With warm weather from now on a good average crop is in sight. The crop acreage has increased about 25 per cent, including new lands put under cultivation. It is safe to say potato acreage has been increased 50 per cent in this manner while the small grains have increased from 5 to 10 per cent. Meadows show a condition of 90 per cent and small grains 85. Live stock is doing remarkably well, owing to the splendid pastures and also to the absence of flies and insects.—K. A. Kamm.

Grant County.—Small grains, such as oats, barley and wheat, are looking fine. Corn is most all up, but is slow in growing. Have had much rain up until the last few days and also cold weather. Pastures are fine. Hay looks to be a good crop. Gardens are doing well in most cases, although some things are very late, due to the cold. From all appearaices there will be a large amount of fruit. Orchards are full now. The number of live stock on pasture is about as usual.—A. Vesperman.

Green Lake County.—All small grains have been doing very well lately and are about equal in condition and acreage to last year with the exception of barley, many fields of which have a very light stand. Corn has germinated very well, though in need of more warm weather. There is an increase in the acreage of beans and potatoes. Hay and pastures are good. Live stock looks well and a larger percentage than usual is being raised.—G. B. W.

Iron County.—Weather conditions are fine and all crops are looking well, but are two weeks behind. Meadows and pastures are improving. There are about 25 per cent more potatoes planted this year than last. Live stock is in good condition.—J. A. Becker.

Juneau County.—There is perhaps a 25 per cent increase of acreage sown to spring wheat and 10 to 15 per cent increase of winter wheat and rye, with oats and barley about normal. Corn will be a 10 to 15 per cent decrease in acreage on account of bad weather conditions. Some fields will be sown to buckwheat. Pastures are good and hay will be good. Gardens are good and fruit trees set full of fruit. All live stock in good healthy condition and pastures carrying their full quota.—J. H. McNown.

Kenosha County.—Small grain is looking excellent and meadows are improving very fast. Corn is coming up pretty well, but cold weather has retarded growth. Some corn to plant yet. Sugar beets are growing well and thinning is well under way. Cabbage plants are scarce. Many patches have been destroyed by insects. This will cut down the acreage some. Pastures are good and stock is doing fine. Potatoes are looking well. Prospects are for a good crop.—Geo. Krenscher.

Kewaunee County.—There will be a very large acreage planted to corn. A large percentage is to be or has been replanted. Small patches of spring wheat are seen on a great many of the farms. Barley is looking fairly well. Some fields of peas look fine. Oats look more sickly. Although short, the hay crop shows a good stand. Garden truck is very backward. Pastures are fair and cows are doing fairly well. Young stock not housed has suffered on account of cold and damp weather, yet they are doing nicely. Indications point to a good apple crop—Fred Lutz.

La Crosse County.—Small grains are looking well. Corn is backward on account of cold, wet weather. Cutworms have done much damage to field and garden crops on light soil. Fruit will be only an average crop, owing to frost when in bloom. A smaller number than usual of young stock is on pasture, but they are in a thrifty condition.—S. J. D.

Marinette County.—Spring wheat, oats, barley and peas look fine at present. The cold weather at the start of these crops gave them a chance to root well and now after the splendid rains of last week they are making a very good growth. The early planted potatoes are just coming up. The weather so far has been favorable for this crop, as the fields could be properly harrowed after planting, which helps very much to check the weed growth. For corn the weather has been rather cold, but it is now coming out nicely and some of it has been cultivated the first time this last week. Of the foregoing crops I think the usual amount of acreage has been planted, excepting possibly a few more acres of potatoes and spring wheat. Meadows look fine, especially new seedings of clover, which are excellent. Pastures have made a very good start last week. The prospect for fruit is good, trees having gone through the blossoming period without any damaging frost. The cherry trees are fine and well filled. The number of gardens is much larger than formerly. There is a great demand for cows. Pigs are very scarce and there are few on the market.—H. B. Pederson.

Outagamie County.—The principal crops are in good condition at the present time. Oats have improved and are making very satisfactory growth. Barley is doing very nicely at present. Rye has improved very much, but is thin in stand, due to late frosts and cold, wet weather. Winter wheat is improved and is doing very nicely since last report. Corn is somewhat backward, grub worms doing quite serious damage. About one-third replanted. The acreage of the principal crops, especially oats and corn, is quite above the normal of the last five years. Clovers, pastures and new seeding are splendid in this locality. Old meadows are not up to normal of other years. Fruits and garden truck are very backward at present, but may improve, as the weather looks favorable at present. Live stock is healthy. Some young stock was lost about six weeks ago with white scours.—Harry Leppla.

Ozaukee County.—On account of wet and cold season the crops are a little behind. Barley looks well, but oats does not, only half of it being up. Potatoes are fairly good, but corn is uncertain. Most farmers have to replant their corn. Hay is short and pasture is poor. Live stock is in fairly good condition.—Nic J. Mueller.

Price County.—Cold weather for the past two weeks has added but very little growth to our crops. Rye is short and starting to head. All small grains show good color, but rather short. Hay meadows show a prospect of a very short crop. They resemble city lawns and only three weeks to hay making time. All stock are improving as to condition, but if July and August should turn dry, stock will suffer from short meadows and lack of water. Corn is showing a good stand, but late. Potatoes don't show above the ground yet, except a few early ones. A few farmers are finishing planting late potatoes. Some have contracted their potatoes for $1 per bushel.—Wm. Fox.

Richland County.—Oats are looking fine. Wheat is winterkilled. Some pastures are getting quite good now, but were very slow on account of cold and wet weather. Prospects for hay are good. Gardens have been very slow on account of the cold. Corn is quite small yet, most of it about four inches high. It needs lots of warm weather to make a crop. Live stock is looking fine.—E. C. Stewart.

Sauk County.—Wheat and rye will be very short in the straw. Oats and barley are still backward, but are gaining. Corn is from two to four weeks backward. Many farmers had to replant whole fields. The hay crop looks best of any so far, but rain is needed. Pastures look normal. Apple and cherry trees give promise of bearing heavily. Weather is too cold for strawberries. Early potatoes show up nicely.—R. F. Klemm.

Sheboygan County.—Due to a long cold and wet spell the early part of June, almost all crops are two or three weeks behind. Spring grains have made slow growth; so have potatoes. Some farmers still have to plant their potatoes. Considerable corn remains to be planted. Some have worked up corn land and replanted it twice, due to heavy rains. Pastures have not kept cows up to normal milk flow. Most farmers had neither hay nor silage left on June 1st, and the poor pasture did not furnish enough feed for maximum production.—M. J. Hoppert.

Taylor County.—Weather cool and dry. There was a light frost on the 15th. Crops of all kinds are late and not doing very well. Old meadows need rain and warm weather badly. Corn is about all planted, but very little up yet. Potatoes look well. Garden truck is doing fairly well. Dairy products are on the increase. Young stock is doing well. Some new ground is being plowed and planted.—John E. Miller.

MINNESOTA.

Goodhue County.—The following is a brief outline of the crops covering a large part of Goodhue county. Conditions as compared with average crops: Winter wheat very good, but small acreage; spring wheat 60 per cent, average acreage; barley 90 per cent, average acreage; oats, medium to good, usual acreage; flax, fair, reduced acreage; corn, below average, increased acreage; rye medium, reduced acreage; hay (grass) light; hay (clover) very heavy, increased acreage; potatoes not far enough to make estimate; pasture medium. Fruit and garden truck promising. Young stock is perhaps 75 per cent in number with normal years, and owing to scarcity of feed last winter is in decidedly inferior condition. Hogs about 50 per cent in number, condition good. Chickens 75 per cent in number, condition good. Crops, especially corn, are not tilled as well as in normal years, owing to scarcity of labor. The labor offered in many cases is high priced, but very poor quality.—Otto W. Kolshorn.

About Selling Off Your Poultry.

To the Editor:—Because it is possible to start up in poultry in a comparatively short time, a large per cent of people, even farm people, are selling off the greater part of their flocks to save a few bushels of high-priced grain. Now, friends, think twice before you call a buyer. Consider this all-important part first: Next spring, when you expect to buy baby chicks, or even eggs for hatching, you will find that you are not the only one who is short on poultry products, and, ten to one, you cannot find what you need when you need it.

We are practical farm poultry people at this place, and we are not selling nor culling quite so close as formerly. Nothing that will not pay for its keep and a margin of profit is being kept, but anything in the hen or pullet line that will be a producer is held. Everything considered, poultry products are on par with other things, even grain at present high prices. It is all on an enormous scale and all there is for it is to produce enough high-priced stuff to sell to even things up. Within the next seven months a fairly good hen will pay for herself twice over and be worth as much money as before.

If it does not seem advisable to feed for eggs through the winter, hens may be kept at a small cost and be healthy and ready for business the latter part of February or the first of March, when they should lay almost continuously until molting time; and, unless there is a panic, eggs will not be cheap at any time this summer.

Keep your layers; the more the better, and divide the grain ration into smaller parts. Too much corn fed to farm poultry is largely the cause of liver trouble and kindred ailments. Farmers of the corn belt are prodigal of their corn. It is so plentiful, and has been at a moderate price so long, that it is hardly counted as being necessary to save. Give more bulky food. Bran, clover, alfalfa, some oats, possibly a little wheat—not much, some little corn and an abundance of milk, all the water they can consume, shells, grit and fresh air.

Minnie G. Stearns.

The Janesville fair will be held this year August 14th, 15th, 16th and 17th, being one of the early fairs in Wisconsin. There will be a good live stock show. Mr. John E. Kennedy, head of the Rock County Short-horn Breeders' Association, has secured the assistance of the national association, which appropriates $200 to be used in prize money. There will be a total of $500 in premiums for Short-horn classes alone at the Janesville fair. Special attention will also be given to the swine, sheep and horse exhibits and there will be an automobile show. One feature of the fair this year is that no complimentary tickets will be issued with the exception of one single admission ticket to each member of the fair association. The directors are expecting to pull the Janesville fair out of debt and have the best fair in the history of the association.

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GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

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HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

WRITE for low price on best thoroughbred poultry and pigeons, eggs and baby chix, ducks, incubators and brooders. Address Iowa Poultry Farms, Inc., Box 414, Clarion, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15, $8, 100. Order from this ad. Address C. L. Pro Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred, prize-winning Rhode Island Reds, $2 per setting, three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

FARMERS' MARKET

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THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

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NORTH DAKOTA, most successful agricultural state in the Union, producing as many dollars per acre as states where land sells four times as high. In past five years held first place every time in production of wheat and flax; and once in barley. In climate, soil, crops, railroads, schools, roads, North Dakota exactly as good as best in Illinois, Iowa or Minnesota. You can obtain a home there without commission to us, while land is still cheap. Easy terms. Write at once for plan direct dealing. J. S. MURPHY, Immigration Agent, Soo Line Railway, 1272 Soo Bldg., Minneapolis, Minn.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

DON'T SAY FATHER HAD BETTER OPPORTUNITIES. Here is 120 acres very easily cleared land. Productive soil. Some rolling but all can be tilled; 5¼ miles to town, 2½ miles to creamery and store. Price from owner, $21.25 per acre. About $500 cash, balance easy terms, 6% interest. Famous Polk Co., 56 miles from St. Paul. Better see it. A. B. Wesner, Centuria, Wis.

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668-ACRE IMPROVED STOCK FARM, Polk Co., Wis.; good buildings, fences, living water; small payments, easy terms, low interest. Write for description. Mason Booth, owner, Merchants' Hotel, St. Paul, Minn.

MARATHON COUNTY, WISCONSIN, improved farms $25.00 per acre and up; unimproved farms $15.00 per acre and up. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

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FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

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MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

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REGISTERED HOLSTEIN BULL ready for service; 2 of his dams averaged 100 lbs. milk in 1 day and 35 lbs. butter in 7 days, officially; $100. Wisconsin Live Stock Association, Appleton, Wis.

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I HAVE FOR SALE a large assortment of choice tubercular tested cows, all due to freshen soon. You can buy one or a carload. John Blanchard, Columbus, Wis.

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WANTED—Good experienced man for general farm work on beef cattle farm. No milking. Must be good with horses. State experience and wages in first letter. Ernest Biddick, Livingston, Wis.

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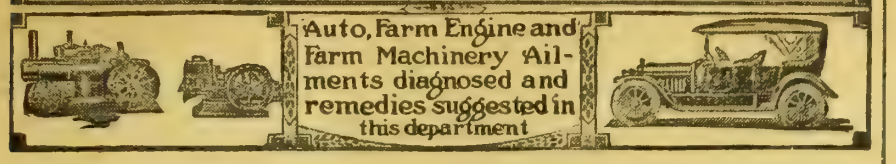
FARM MECHANICS



Questions and Answers.

Melting Points.

What are the melting points of brass, copper, iron, aluminum and glass?

Answer.—Brass is an alloy, its melting point depending upon the relative amounts of copper and zinc used in its composition. One thousand seven hundred degrees Fahrenheit is a fair average. Cast iron melts at about 2,000 degrees, copper at 1,950 degrees, aluminum at 1,160 degrees and glass at 1,200 degrees.

The Best Type of Engine.

We want to get a twelve-horse-power engine. Which do you consider the better for all around farm use, the two cycle or the four-cycle engine? Which is the more economical in the use of fuel, the throttle governed, or the hit-and-miss type?

Answer.—The general opinion of designers is that throttle-governed four-cycle engines are better in fuel economy and reliability than the other types of engine. It is largely a question of design. There are some good two-cycle engines on the market, and a large majority of farm engines are of the hit-and-miss type. For furnishing electric power, the throttle-governed engine is to be preferred.

Lighting With Dry Cells.

I would like to know how many dry cells it would take to operate two six-volt, twelve-candle-power lights. How long would they last? I would like to equip my Ford car with electric lights, and I don't like to use the magneto.

Answer.—It is not practical to operate the head lights of an auto with dry cells, on account of the cost. To some extent, dry cells are being used to operate the tail light, where the candle power is quite small. To operate the two lights mentioned above, not less than sixty cells should be used—eighty would be better, connected in series-multiple, five in a series. About forty hours' service could be expected from the sixty cells.

Running Corn Sheller by Auto Engine.

I have a two-cylinder, twenty-horse-power engine. I would like to know whether it will run a four-hole Joliet corn sheller successfully if it is fitted with a throttle governor. What size pulley would be needed on the transmission shaft if the pulley on the sheller is seven inches diameter?

Answer.—Your engine has ample power to operate the sheller. Run the engine at about 700 R. P. M. To find the diameter of the pulley to use on the transmission shaft, multiply the R. P. M. of the belt pulley shaft of the sheller by 7, and divide by the R. P. M. of the transmission shaft of the engine. If this figures out a pulley less than six inches in diameter for the engine, it would be better to use a pulley larger than seven inches in diameter on the sheller.

Running a Washer With a Ford Car.

I have a 1916 Ford. Is it safe to put an eight-inch pulley on one rear wheel, jack up the wheel, and run a power washer from the pulley? What horse power would this develop, the engine running at a rate of twenty miles per hour on the road? Would it be advisable to occasionally change the pulley from one wheel to the other for light work? If so, how often? Should I take the pulley off and put the hub cap on to go on the road? How could I attach a ten-gallon cream can to the radiator to help cool the engine?

Answer.—It would be entirely safe to run the washer as you suggest. A washer requires very little power, usually less than one-half horse power, and, therefore, but little strain would be put on the differential gears. As much as twelve horse power could be delivered by the above method, but the differential would not stand up long under so great a load. It would not be necessary to change the pulley from one wheel to the other unless the axle bearing next to the wheel begins to show signs of wear. It would be best to remove the pulley when the car is taken on the road, as the pulley might catch on something that would bend the rear axle. You should have no trouble with cooling if your fan belt is tight, your spark properly advanced and your cylinders reasonably free from carbon. It would be possible to attach the cream can to the radiator by means of T connections replacing the top and bottom connections of the radiator. The T's would have to be made special, and a pattern and casting would be required. The upper T would be connected to the top of the can and the lower T to the bottom of the can, the top of which should be level with the top of the radiator.

Engine Does Not Run Steady.

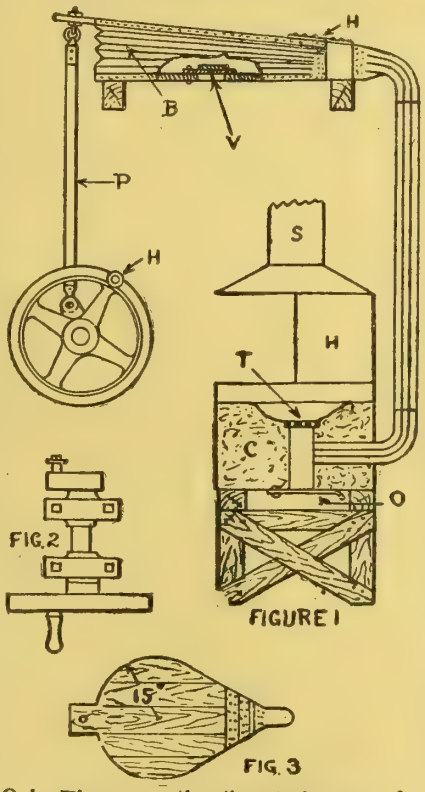
I am writing to you about my gasoline engine, which does not run as it should. It starts easy and runs all right for a little while until it gets warmed up; and then every little while it slows down like it was going to stop, and then will start up again and run all right for a while. I have tested the batteries and the igniter, and the spark seems to be all right. I have ground the valves and cleaned the engine and carburetor. I am at a loss as to what is the trouble.

Answer.—The most probable cause of the trouble is too much oil working past the rings into the cylinder, causing poor ignition. This might be due to an oversupply of oil, a small piston or worn piston rings. A sticking float valve in the carburetor or a loose wiring connection could cause the trouble.

Making a Forge.

Please publish a sketch showing how to make a forge. I would like to have the blower run by a crank. I have a frame that has four legs. It is about three and one-half feet high. I can make the fire box part, but do not know how to make the blower.

Answer.—Figure 1 shows a sectional view of the forge; also the location and arrangement of the blower. An old iron tub may be used for the fire box. It may be mounted on a wooden framework. A hole should be cut in the bottom for a clean-out, and covered with a swinging plate, shown at



O in Figure 1. Another hole must be cut in the side for the air pipe. Fill the tub within four inches of the top with ordinary clay, leaving a hole about three inches in diameter through the middle. Over this hole, place the tuyere or grate, at the bottom of a bowl-shaped basin in the clay. This basin should be about five inches deep. A hood and smoke pipe S should be placed over the tub to carry away the smoke. H is a piece of sheet metal surrounding the back half of the forge. It prevents some of the smoke from escaping and helps to retain the heat.

The blower may be mounted near the ceiling, as shown, supported on two 2x4's. It consists of a top and bottom board, each shaped like Figure 3, except that the bottom board has the "handle" cut off. The radius of the circular part should be about fifteen inches. The top and bottom boards are connected by the leather bellows, B. H is a hinge, which may be made of leather. A hole three inches in diameter is cut in the bottom board, and covered by the valve, B, which consists of a piece of leather, fastened at one end and having a wood block on top of it. The blower may be operated by the pitman, P, driven by the crank, H. The arrangement of the crank is shown in Figure 2. Wooden bearings may be used for the crankshaft if desired.

Moth Balls in Kerosene.

I have been of the impression that if moth balls were put in kerosene and the feed pipe run along the motor in such a manner that it would get very hot while on the way to the carburetor, the motor would run on the kerosene after having been warmed up with gasoline. What is your opinion?

Answer.—We have never seen the moth ball idea tried out with kerosene. To use kerosene successfully, the kerosene should be heated, preferably by running the feed pipe through the jacket water near the carburetor, which should have a float chamber holding but little fuel. The air should also be heated. The fuel pipe should not be run through the exhaust, as too high a heat will carbonize the kerosene.

Some Tractor Engine Questions.

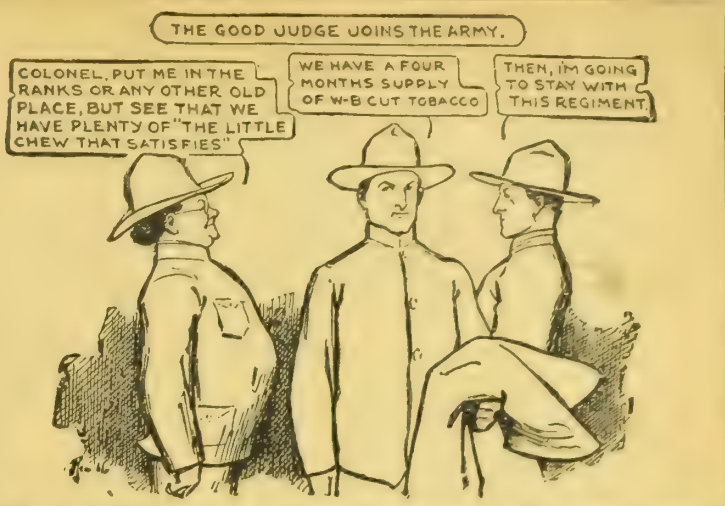
Please tell me whether an engine having a five-inch bore and six-inch stroke, running at 700 revolutions per minute and geared to two and one-fourth miles per hour, would be large enough to pull three fourteen-inch plows under average conditions? Are the Kingston and Swiss magnetos good for tractor work? Would it require as large a crankshaft for a five-bearing engine as for an engine having three bearings? Is one and seven-eighths inch large enough for the above engine if it has five bearings?

Answer.—You did not state whether the engine has two or four cylinders, but we presume that it has four cylinders, as you speak of its having five bearings. It should have plenty of power to pull three fourteen-inch plows under almost any condition. A two-cylinder engine of the above size would pull three plows under ordinary conditions. Either magneto should give satisfactory service. We would consider the above size bearing rather small for a five-inch cylinder, especially for tractor work. Much depends upon the quality of steel used in the shaft, however.

Horn and Dimmers.

I enclose picture of a Monarch exhaust horn. The law reads: "The use of siren horns except on motor vehicles in charge of the police and fire departments of cities and upon hospital ambulances and fire insurance patrols is hereby prohibited." Is the horn referred to considered a siren horn? Does a Model 1915 Ford car require a dimmer on the lights? The city law here requires the lights to be dimmed on the city streets. How could you wire for a dimmer to be controlled from the driver's seat?

Answer.—The term "siren" is rightfully applied only to horns which produce a sound gradually and alternately varying between high and low pitch. As the horn you refer to produces a musical chord, the pitch of which does not vary, it should not be classed as a siren horn. The dimmer ordinances of nearly all cities may be satisfied by painting the upper half of the light glass with whiting mixed with water or gasoline. This may be easily removed if desired. If the Ford is not operated at high engine speed, the dimming feature should not be required. A set of dimmer lights could be installed in exactly the same manner as your other lights and operated by a separate switch. It would be better, however to operate both sets of lights from a four-point switch. Consult your dealer in auto supplies.



WHEN men are drawn together in the army, you find out a lot about their likes and dislikes. It's always been a great place for the spread of W-B CUT popularity. They show each other why you shouldn't take more than a *little* chew of W-B CUT. Every shred is chock full of sap; a big chew is too rich. They take to W-B CUT, strong; nothing is too good for our soldiers.

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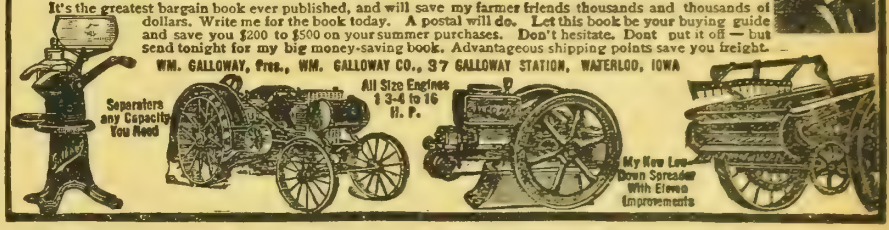

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

What Is Doing at L. F. Atwater's.

WE recently spent the day with L. F. Atwater, Bangor, Wis., and no doubt many of our readers would be glad to know what is going on at their great Duroc establishment. About 125 pigs represent the pig crop and L. F. thinks they are better than they were at this time last year. Rising Star 2d, a full sister to the last year's grand champion sow, has a fine litter of ten sired by P. S. Wonder. Lee's Girl, the dam of the boar purchased by Church, of Elkhorn, in the sale last fall, has one of the best litters on the farm sired by Proud Chief Jr. Four of this litter are entered in the futurity. Marion 3d, whose five daughters sold in the winter sale at an average of $105, has a litter of ten by Illustrator King. Marion's Lady, the best sow in the herd, farrowed her seventh litter this spring, and will be shown this fall as the aged sow. The first five litters from this sow have averaged over $600 per litter, and he is keeping the sows out of the last two litters. Model May by King the Col., and the dam of Model King, has six dandies by P. S. Wonder. From this litter one boar and one sow will be shown. Defender Queen 2d, litter sister to the $410 sow, has a fine litter by Proud Chief Jr. Four of these pigs are the best on the farm and can be seen at Milwaukee. The junior champion sow of Minnesota and Wisconsin, raised nine good pigs by P. S. Wonder. The high Model sow, the top of the Shanks sale, farrowed eight pigs and raised five. Of this number the two boars are choice. This litter is by Investor. The top gilt of the same sale is raising six young Investors. Atwater has his pigs sorted into five bunches, and they certainly are doing well. He will have a great bunch for his boar sale October 17th. As to his show herd, they are better at this time than they were last year. We feel safe in saying that this breeder will have the largest under-year boar out this fall. The writer weighed this boar at nine months and 11 days old, and he weighed 453 pounds, and he isn't in show condition yet. This is the Orion Cherry King boar bought in Ohio. The following are the weights of the show herd on June 12th. The junior yearling sow, 537 pounds; the senior yearling sow, 610 pounds; the aged sow, 725 pounds, and three under-year sows averaged 360 pounds. The futurity pigs weighed from 85 to 104 pounds. The breeders that bought sows bred to Proud Chief Jr. and P. S. Wonder will have reason to feel proud after the ribbons are tied this fall on the get of these boars.—Adv.

J. E. Kennedy Adds 13 More Short-horns at an Average of $1,207.

THOSE in a position to know have made the remark that J. E. Kennedy, Janesville, Wis., now has the best herd of Scotch Short-horn cattle in Wisconsin, and that it would be impossible to pick 50 breeding cows in one herd in America better than those that now grace Oaklawn Farm at Janesville. Those who have been following the Short-horn sales during the past year are familiar with the class of cattle Mr. Kennedy has been buying. During the week of June 4th, 12 females and one bull were added to this herd at an average cost of $1,207. In the Carpenter & Ross sale he bough Imp. Kirklevington Empress 12th, a fine white cow with a heifer calf at foot. She cost $1,200. In the same sale he bought an imported heifer at $1,000. In the Frank R. Edwards sale five head were purchased by Mr. Kennedy at prices ranging from $775 to $1,300. In the Thos. Stanton sale six head were bought for Oakland Farm, among them being Maxwalton Amateur, purported to be one of the great Short-horn bulls that has gone through a sale ring the past year. Maxwalton Amateur is a three-year-old roan bull sired by the noted Maxwalton Renown, he by the one and only Avondale. His dam is a straight Bruce Augusta, perhaps the most popular family known to the Short-horn breed. Mr. Frank Harding made the statement that he considered the dam of this bull the greatest Short-horn cow he ever saw. This bull cost Mr. Kennedy $3,450 and will be assisted in the herd by a son of the 1909 International champion, Selection, for which Mr. Kennedy paid $2,000 as a calf. This recent purchase gives the owner 50 head of breeding cows that for individuality and breeding are the equal of any in the United States. We will have more to say about the cows in this herd later, but for future reference bear in mind that Oaklawn Farm, Janesville, Wis., is the home of one of the great Short-horn herds. It is worth traveling many miles to see.—Adv.

W. W. Quackenbush, Melrose.

THOSE that attended the Madison Poland China sale last winter will remember that W. W. Quackenbush, Melrose, Wis., bought five of the best sows that were consigned to that sale. We recently saw this herd, and this breeder has Polands that will compare with any in the state. Besides the sows purchased at Madison, he bought several other high-class sows during the past winter and at this time he has some 75 spring pigs on the place. A little later we will tell you of the blood lines represented in this herd. Mr. Quackenbush is a good feeder and will have some fine boars and gilts to offer.—Adv.

Bernd Short-horns.

DON'T forget W. J. Bernd, New Richmond, Wis., if you are in the market for a Short-horn bull or in fact anything in the line of Short-horns. This firm has a large herd of good cattle and they can supply your wants and make you satisfied. If interested write them and mention The Wisconsin Farmer.—Adv.

McDonald's Show Herd Doing Fine.

WE recently spent a day with J. D. McDonald, of North Bend, Wis., and the Poland Chinas he is fitting will make some sit up and take notice again this fall. As is the case with every breeder that has a winning herd of cattle, horses or hogs, someone will complain about the winner getting ribbons "handed" to him or having the judge "fixed" and, of course, we have heard these remarks made about J. D. McDonald because he has a herd that can win, but if some of these same men would put in the time and care with their show material that Mack does they might be able to win too. Mr. McDonald is in the game to win and if there is anything that he can do or buy that will make his hogs better, a few dollars will not stop him. At this time none of the stuff is carrying too much fat to be past the "blooming" stage by fair time. Oakwood's Big Model, the senior yearling boar, weighed 575 pounds June 1st. The following weights were taken Decoration Day. The junior yearling boar, Oakwood's Giant, weighed 520 pounds. The three under-year boars averaged 390 pounds. The same aged sows will be shown that won last year. Mack has a choice senior yearling sow sired by Jim Crow, the sire of last year's winners. She weighed 590 pounds. At this time the best sow on the place is the junior yearling. She is almost perfect and weighed 545 pounds. She is sired by Hancher's Big Price. The futurity pigs weigh right at 100 pounds now. Miss Chief Price, the Minnesota grand champion, has seven fine pigs by Crow's Progress. Miss Price 4th has seven by Matchless Wonder. The real boar on this farm is Mc's Big Bone, a senior yearling by Big Bone's Equal out of a Black Orphan dam. This is the best boar we have seen on the McDonald farm and he would make a creditable showing, but Mack does not know whether he will take him out or not, for he will be more valuable as a sire than a show boar. There are 160 pigs on the farm, and they have done fine. If you want good Polands you can get them in this herd.—Adv.

Queen Viola, the $1,000 Chester White Sow.

WE recently had a visit with A. C. Brecher, Alta, Iowa, the man that had nerve enough to pay $1,000 for Queen Viola, the Chester White sow that was grand champion at the National Swine Show. This sow farrowed 19 pigs and raised 13, five boars and eight sows. He has sold four of the boars for $750 and kept one for his own use. He has had a chance to sell all of the eight sows, but they are being retained for the sow sale that will be held next winter. Even though this sow cost $1,000 one can see that this investment will prove profitable and it has put Mr. Brecher on the map. Before he bought this sow he was unknown as a Chester White breeder. Now every man that has Chesters has heard about Brecher. Besides owning the world's champion Chester White sow, the buy was worth $1,000 to Mr. Brecher in advertising.—Adv.

Red Polls from A. R. Dams.

L. C. UNDERWOOD, Avoca, Wis., is now ready to ship you a Red Poll bull. This is one of the good Red Poll herds in the state and those that favor this breed will not be disappointed with the Underwood cattle. The cows in this herd are producers. One cow in the herd that has been milking since last November gave 51 pounds of butter fat and 1,370 pounds of milk during the month of May. Five of the 10 cows in milk gave over 40 pounds of butter fat during May. This was under ordinary farm conditions. Mr. Underwood is a good feeder and caretaker and his Red Polls are in nice condition ready to go on and make good for the buyer. This breeder is the secretary of the state association, and if there is any information relative to the Red Poll breed that you would like to have, write him. Mention this paper, please.—Adv.

Duroc Specials.

JUST at this time Geo. D. Sprain & Sons, West Salem, Wis., have some special bargains in Duroc Jersey pigs. If you will buy a pair or a trio they make prices that are attractive. Their spring pigs are sired by several good boars. There are three good boars doing service in this herd. Grand Model 21st is a boar of great length and size, and is sired by the triple grand champion, Grand Model. Royal Top Col. was a winner last year, and is sired by Put's Top Col. by Morton's Top Col. Illustrator Special is the best boar on the farm just at this time. He is sired by the grand champion, Prince Illustrator, out of a King the Col. dam. Besides pigs by the above boars they have pigs out of good sows that they bought last winter. The Sprain Durocs are good enough to ship on approval. Let them quote you prices.—Adv.

Durocs—Last Chance.

C. J. DAMEROW, Beloit, Wis., has some Duroc Jerseys to sell that are bargains. They were farrowed last fall, are well grown and good individuals. The gilts have been bred to farrow this fall, and the boars are good enough to head a good herd. For quick sale, Mr. Damerow is pricing this stuff very reasonable, and if you are interested get busy at once. The fact that this breeder offers to ship on approval is a recommendation for his Durocs.—Adv.

Great Galloway Bargains.

IF any reader of this paper wants to buy some good Galloway cattle he should write to or go and see C. S. Hechtner, Chariton, Iowa, at once. He is offering 50 head of his very best cows for sale, and among these are some of his best show cows. These are all bred and well along in calf. He is offering these cows at prices at which any farmer or breeder can afford to buy and make all kinds of money on them. He also offers 16 head of good, serviceable yearling bulls for sale and quite a few of these are out of imported cows. We certainly think he is offering you some great bargains in Galloway cattle, and at prices that will astonish you when you think of what some cattle are selling for at the present time. We suggest that you get busy right away and go and see these cattle, and when you write Mr. Hechtner kindly mention this paper. See advertisement on page 16.—Adv.

H. O. Tellier, Auctioneer.

DURING the next few months many sales will be held and other breeders will contemplate holding sales this coming fall and winter. For the benefit of those who may hold sales in the future, we wish to direct your attention to H. O. Tellier, Farmington, Minn. Mr. Tellier is a man with unlimited experience in connection with the pure-bred live stock business and is a salesman of unusual ability. He has a wide acquaintance among the breeders and he can get you the high dollar for your stock when sold at public auction. The fact that he is on the leading sales of the Northwest speaks for his ability. Write him for dates. We are glad to recommend him.—Adv.

Good Poland Buys.

IF you want Poland Chinas write L. E. Pease, Wales, Waukesha county, Wis. Mr. Pease has a nice lot of fall sows bred to farrow this fall, and they are being priced worth the money. They are bred to Model Giant, perhaps the best son of Master's Giant that ever came to Wisconsin. The spring pigs by this boar are fine, and if you want the pick, get your order in early. In writing, please mention The Wisconsin Farmer.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter, Baraboo, Wis. (Sale at Chicago, Ill.)
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago, Ill.

THE MARKETS.

Union Stockyards, Chicago, Ill., June 23d.—The annual early summer readjustment of cattle values has been vigorously prosecuted during the past two weeks and while choice corn-fed beeves are holding strong and selling readily at the highest prices of the year, with a new top of $13.80 this week, declines have been shown from the high point on all steers going below $13 and practically everything in the butcher cattle line. Middle and low-grade cattle of both sexes, particularly anything showing grass, has dropped anywhere from 75c@$1.50 from the May high spot, when killers took anything wearing a hide without haggling. In the undercurrent of the market conditions are unstable. Too many light steers are being dumped into the hopper, and as country demand is lacking, they are being rough-handled. The future of such steers as are selling anywhere from $7.50@10.50 is in doubt. They have no regular standing at present, and prices depend largely on the mood of the buyer.

Hogs have had their June break, in the opinion of most people connected with the trade, and packers realize it. From the crest of the May rise to the bottom of the break the depreciation was about $1 per cwt. of which 25@50c has been recovered on qualitied kinds. Packers have been disappointed in the June run, both as concerns numbers and quality. Good hogs have been closely garnered, few growers overstaying the high markets, and the next 90 days will witness a run of mediocrity and trash. Packers are buying common hogs because the other kind is available only in limited numbers. The July run will be freighted with packing sows and the majority of them will not be overburdened with lard. A wide spread between good shipping grades and packing stuff is inevitable, but backers have abandoned the idea that they will have access to cheap hogs.

That the 1917 lamb crop all over the United States is the smallest in 25 years is now definitely known. Two weeks ago killers made a successful raid on sheep values with the avowed intention of putting the common price of spring lambs down to $15 per cwt., but for days past they have been losing ground, the market having reacted $2.25@2.50 per cwt. Spring lambs sold at $19 per cwt. on the local market yesterday, and the prospect for an $18 market all through the summer is excellent.

New high records are being scored in the wool market. In Montana a good combing clip changed hands at 57c. Ohio growers are said to be demanding from 65@70c for both fine and medium clips and some eastern buyers are operating freely at 65c. A year ago one-fourth blood combing Ohio wools were quoted from 37@38c and on March 1st of this year 52@55c, which shows the rapid upward strides made in values with the end not yet in sight.

The break in cattle values late last week and early this week has arrested loading of light cattle in the country, as it should. At the new scale of prices there is no longer incentive to gather them. If the country holds back light stuff next week the market will have a chance to recuperate. The beef market down east is not as healthy as it might be, but will respond to diminished supply, as local stocks are not heavy and are easily depleted. The better grades of beef steers, the $12@13.80 kinds are no lower than last week's close. In the lower levels of the market trade is hard to quote. It has been a matter of doing the best they could with bids frequently 50c apart. With a glut of common steers everywhere killers have been under no necessity to buy that kind, and little country competition has been available.

Butcher and canning cattle have suffered sharp declines again this week on all but prime corn feds which are very little lower than the best time this season. Canners and cutters are $1@1.25 per cwt. under the high spot in the trade, medium to good beef cows show 75c@$1 decline, the choice grades of grass-fat cows, or the kinds selling from $9.50@10.25, have declined about 50c per cwt., while the in-between slippery kinds of heifers that during the booming market sold all the way from $9@10.50 per cwt. are off $1.50. Bulls have suffered a similar decline to she stuff with the exception of choice butcher bulls, and even they show 50c decline, while everything else is $1@1.50 per cwt. under the high time. Everybody expected this break in the market, for it always takes place when the grass cattle begin coming, and with cattle values on such an abnormally high basis, as they have been all spring, it was only logical that the decline should be not only sudden, but very severe, and from now on until midsummer some rather violent fluctuations in the butcher stuff trade are probable, yet for the time being it would seem as if enough decline had taken place and between now and the fourth of July lessened receipts and some recovery in prices is likely. Veal calves are selling very high in sympathy with the lofty lamb market, as high as $15.85 (a record price) having been paid for prime vealers the last few days and the bulk of the crop at $15@15.50.

Little interest is being taken in she stock cattle at this juncture, especially in the corn belt. Prices have been high and the producer is more interested in feed than feeding. Grass may be plentiful, but corn is scarce and there is a general disposition to reduce summer beef-making operations to minimum volume. The country has been wary of investment at the prices and is in waiting mood. Most grades of stock and feeding cattle are 50@75c lower than a week ago, while compared with the recent high spot plenty of common light stockers of both sexes are a flat dollar lower. A spread of from $8@8.85 is taking the bulk of the fair to good stock and feeding steers, with choice to extra feeding yearlings and best fleshy feeders making $9.50@10.

Continued fine weather in most sections has held hog receipts to proportions well within the requirements of the trade. Demand in fact exceeded supply during the fore part of this week and prices at the close Wednesday stood 40@50c above the corresponding day last week. On Thursday receipts expanded somewhat and the market lost a little of its gimp, most sales being 10@15c lower after the start when some choice heavyweights landed about steady. Further depreciation, particularly on packing and common light stuff, occurred on Friday when comparatively few hogs were good enough to sell at $16 or better, while some thin, light weights sold down below the $15 notch, but the bulk of the packing and butcher hogs sold within a range of from $15.15@15.80, the general average at $15.48 comparing with $15.50 a week ago. Pigs are selling largely at $13@14.50 for good to choice.

Receipts of sheep and lambs have been light again this week, the marketing for the past fortnight having been the smallest within any corresponding period within a generation. Demand has not been met and the market has advanced sharply, showing at the close price jumps of from mostly $1@1.25 on choice lambs over a week ago and gains of $2.25@2.50 per cwt. over the low spot two weeks back. Matured muttons of fat class have advanced $1@1.50 within this period. Over one-half of the week's receipts have been direct to packers, from Ohio river markets, the movement of Tennessee and Kentucky lambs now being well under headway. The market occupies a somewhat treacherous position and it will take no marked swelling of supply at this juncture to cause an abrupt decline. Nothing cheap, however, is possible, as western lambs will be late and below normal in quantity and native territory cannot furnish enough to give the buying side a material advantage. As the season ages inquiry is increasing for feeding and breeding stock, but very little is coming to supply the wants of the trade in this line. Most of the right good to choice spring lambs are making $18@19 and grass-fed handyweight shorn lambs of medium to best class are worth $15.75@16.75, a coarse, bucky, native sort with weight ranging down to $14. There is inquiry for smooth, light shorn lambs for feeding purposes up to $12.50@12.75. Fat ewe trade is on a $10@10.50 basis for natives with choice light fed westerns selling on up to $11. Light matured wethers are quotable to 12.50 and $13@13.50 is taking most of the yearling stuff coming, although choice, light, dry-fed yearling wethers are nominally quoted to $15 and higher. Native year-

ling ewes are going out for breeders up to $12 and better and a full-mouthed class sells around $10.50@11. A part deck of extra choice fed Idaho ewe lambs, averaging 102 pounds went to the country as breeders at a cost of $17.50 per head.

Central Wisconsin Holstein Breeders.

To the Editor:—On account of bad weather the summer meeting of the Central Wisconsin Holstein Breeders' Association at Marshfield, Wood county, was held in the large pavilion. It was a union meeting of all breed organizations. Geo. F. Coming, Eau Claire, and Charles H. Hill, of Rosendale, were the chief speakers. There was a splendid program of recitations, songs, games, etc. At the business meeting it was decided to hold a public sale again next fall. The following sales committee was chosen: W. W. Clark and O. J. Leu, of Grand Rapids; J. C. Kieffer, of Auburndale; Wm. Burhopp, Marshfield, and Wm. Krause, of Thorpe. We had a large crowd at our summer meeting. O. J. Leu, Sec.

Rural Letter Carriers Meeting.

The postponed annual convention of the Wisconsin Letter Carriers' Association will be held at Sturgeon Bay, July 4th and 5th. This is a meeting toward which the carriers have been looking with great interest and will probably be one of the best meetings they have ever held. A splendid program has been arranged.

Over $1,000 will be awarded in cash in premiums at the La Crosse Corn and Grain Show, at La Crosse, Wis., December 17th-22d. There will be entries from Wisconsin, Minnesota and northern Iowa. A tentative premium list sent out shows fourteen classifications on corn, besides three sweepstakes and liberal premiums for oats, barley, wheat, rye, buckwheat, sheaf grains, sheaf grasses, potatoes, soy beans, field peas, garden peas and beans. Our readers throughout western Wisconsin and eastern Minnesota should keep this La Crosse Corn and Grain Show in mind. It will be worth while to be an exhibitor and also attend the show.

Food Conservation in the Home.

(Continued from page 1.)

except that sterilization should continue for 20 minutes instead of 16.

Tomatoes are canned in a manner very similar to that used for hard fruits. The first step is to grade them for size, ripeness and color with the view of putting only those that are alike in the same jar. Next, scald in hot water long enough to loosen the skins and plunge quickly into cold water. A convenient way to do this is to place the fruit on a clean cloth and, by gathering up its four corners, dip fruit and all into the hot water for a few seconds and then into the cold. After this remove the skins and cores and pack in jars, using only whole tomatoes. Add one level teaspoonful of salt to each quart; place the rubber and cover in position and partly fasten; then sterilize for twenty-two minutes. When this is done, remove jars, tighten covers, invert and let stand a while to cool. If there are no leaks, wrap in paper and store.

Vegetables, such as lima beans, string beans, peas and okra, must be sterilized for a much longer time than fruits or tomatoes, since their tissues are thicker and they contain less acid, which serves to check the work of decay organisms. Canning should be done the same day the vegetables are picked. The first thing necessary is to cull, string or shell. Then blanch in hot water for from two to five minutes, remove and plunge quickly into cold water. Pack in jars or tin cans and add one level teaspoonful of salt to each quart and enough boiling hot water to fill the open spaces. Place rubbers and tops in position and partly fasten, or, if tin cans are used, cap and tip. Sterilize in the hot water bath for 120 minutes; then handle in the same way as fruit.

The foregoing process is also used for sweet corn, except that the time for blanching and sterilizing is longer. It is necessary to blanch the corn on the cob for from five to fifteen minutes before it is plunged into cold water. Then the corn is sliced off with a sharp knife and packed in jars. A teaspoonful of salt is added to each quart and enough hot water to fill all open spaces. The sterilization should continue for 180 minutes instead of 120, as in the case of other vegetables.

In all the canning operations mentioned, the length of time for sterilizing, or boiling, applies to quart jars and when half-gallon jars are used the time must be lengthened 10 or 15 per cent. For instance, if corn is packed in half-gallon jars, it must be sterilized for 200 minutes instead of 180, since the larger bulk requires more time for the heat to penetrate to the center of it. In every case care must be taken not to count the time for sterilization before the water has started to boil vigorously. Bubbles begin to rise before the water has actually reached the boiling point of 212 degrees and sterilization does not begin until a few minutes after this.

These are the directions for canning that have been used with success by canning clubs all over the country, and anyone who will follow them carefully can put up enough fruit and vegetables to provide a variety and abundance for home use, and possibly some for sale. Throughout the season there is bound to be a large supply of perishable produce without a market, and those who undertake to can it, so that it may be saved for later use, undoubtedly will be as true patriots as those who serve their country in producing grain or munitions of war.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Building, Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wisconsin.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

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160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
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SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
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HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
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A HERD OF OVER 300

$100 and up

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OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
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HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
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WE OFFER A RICHLY BRED HOLSTEIN BULL born April 5, 1917, two-thirds white, straight top line and well grown. Herd on Federal Accredited List of Tuberculin Tested herds. His dam, a granddaughter of King Segis, has a record of 18.25 lbs. of butter at 8 years. We have just made a record of 29.09 lbs. on a sister to this cow. Sire of bull is a grandson of Colantha Johanna Lad. Price for immediate sale, $100. Remember he comes from a clean herd.
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23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
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ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.
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10 YEARLING BULLS 10

EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
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RED POLLED CATTLE.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
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$53,200 PAID FOR HOLSTEIN BULL CALF. The greatest tribute to the superiority of Holstein-Friesian cattle was paid in the auction sale at Worcester, Mass., June 7th and 8th, where a Holstein bull calf brought $53,200, a Holstein cow $18,300, and a Holstein heifer $18,000; 143 animals were sold for $296,470, or an average of about $2,073 per head. In 1916 at Detroit, Mich., 140 animals were sold for an average of $1,173 per head. This great increase in selling values is proof conclusive of Holstein popularity, partly due to the Holsteins raising in the past year all world's 7-day records for milk and butter. The world's record for butter in 7 days is now over 50 lbs.

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RUST BROS.

OFFER the richly bred Holstein bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

WE OFFER NOW FOR SALE

DAUGHTERS of Sif Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
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BUY HIM NOW

A Jan. 15, 1917, bull calf, evenly marked, tuberculin tested, and a good individual. Sire is a son of Pietertje Maid Ormsby 35.56 butter in 7 days, has full sister with record of 1,255.6 butter in 365 days, average per cent fat 3.95. Dam a 15 lb. 2-year-old granddaughter of King of the Pontiacs. For pedigree and picture write to Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

A 28.70-POUND HOLSTEIN BULL

WHOSE 2 NEAREST DAMS average 32.07 lbs. butter in 7 days. His sire is out of the 35.43-lb. cow, Pontiac De Nylander. His dam has a record of 28.70 and has a 24.61 lb. 4-year-old daughter. He is ⅞ white, well grown and of exceptionally good conformation. Send for his extended pedigree. Address
A. M. ANDERSON **WHITEWATER, WIS.**

HOLSTEIN BULL FOR SALE—Holstein bull, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one half white, straight, good size, ready for light service. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Proprietor, Glenbeulah, Wis.

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WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of high milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

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HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 5 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna De Kol. Two bull calves also for sale. Address
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VOL. XLVI. NO. 27. THURSDAY, JULY 5, 1917. WHOLE NO. 1849

Interest in Red Polled Cattle.

Dual-Purpose Type Should Prove Popular in Wisconsin, Where Both Milk Production and Beef are Desirable---By L. C. Underwood.

IT IS NOT the easiest thing in the world to trace back to the time when Red Polled cattle were first known. The fact is that time is now so far distant that it is much more simple to refer to the latter achievements of the breed than to try to give authentic information as to its ancient history. Red Polled cattle have been bred and improved in England for more than 150 years, and we have pretty accurate information and records concerning their development during that period. In the earlier days of the breed's history there were two counties in England, Suffolk and Norfolk, where the Red Polled cattle were made a specialty and where breeding for improvement resulted in a very splendid type which Red Polled breeders have since tried to copy and improve. In the absence of recorded facts concerning the earliest development of this breed in England, various theories have been set forth to account for the origin of what we refer to as the Suffolk and Norfolk Red Polled cattle.

However, in support of the assumption that there was of old a breed of Red Polled cattle, it may be mentioned that there is at the present time in a remote district of Austria a breed corresponding in every important particular to the purest and best type of Suffolk and Norfolk stock. The most conspicuous development of this breed, however, has come in the past decade in America, where results have been obtained beyond comparison with that of the famous English herds.

As an example of the Red Polled milk and butter fat production, I need only refer to such a herd as has been developed by the Jean Du Luth Farms, in Minnesota. On these farms they have a pure-bred Red Polled cow, Beauty 31725, which stands forth in competition with the big butter fat producers of the world. She has a record of 20,280 pounds of milk in one year, and 891.5 pounds of butter fat. Notwithstanding this splendid record, she came through the test with a weight of 1,750 pounds, indicating the superb character of the Red Polled breed in producing beef as well as milk. In this same herd, which is one of our best examples of what can be done with Red Polled cattle, there have been as high as thirty cows, with not a single one having an official butter fat record below 460 pounds. Thus it may well be assumed that the Red Polled cow, when properly bred and properly cared for, can do even better than the "pound-a-day" record, toward which all Wisconsin dairymen are striving as an average for their herds. It must be remembered in this connection that Wisconsin has too long worried along with 150-pound cows, and with a state average around that figure, Wisconsin cannot assume the place in the world of dairying to which she rightfully belongs. The effort therefor is for more uniform production, raising our herd and state averages, and I am convinced that the Red Polled cow may be depended upon to do her part in this effort. Wisconsin has at this time a number of very creditable herds of Red Polled cows, whose yearly butter fat production runs from 300 to 400 pounds. It would be possible for me to cite a number of individual records in this state running from 400 to 500 pounds of butter fat.

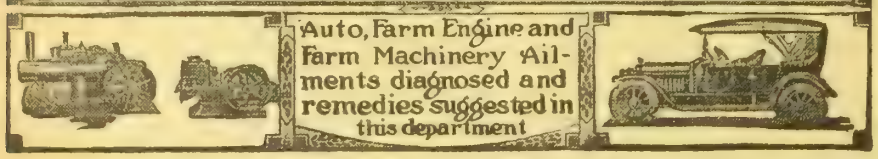
GOOD TYPES OF RED POLLS CARRY SHOW FLESHING QUALITIES AS WELL AS DAIRY CHARACTERISTICS.

Let us consider the beef-producing qualities as well as the milk giving qualities of the Red Polled breed. In England at the Smithfield Club show, in 1890, a Red Polled steer dressed 73.72 per cent. This, according to the London Live Stock Journal, has been exceeded only once in England and never by a pure-blooded steer of any breed. In the carcass classes at the International Live Stock Show, at Chicago in 1908, in the two-year-old class, with thirteen entries, all breeds competing, Red Polled cattle won third and fourth places. This, as beef breeders will readily recognize, was keen competition, and there were superb entries in the class from Iowa, Nebraska, Minnesota and Missouri state herds, and from the best individual breeders in the beef-raising section of our country. In 1909, with similar competition, Red Polled cattle won fifth in the two-year-old class. Again, in 1910, all breeds competing, and the best stuff of the country exhibited, Red Polled cattle won fourth place in the same class. In 1911, under similar conditions and in the same class, they won third place. Again, in 1912, they won third and fifth, first going to the University of Nebraska, and second to Iowa State College, Ames, Iowa. The

(Concluded on page 15.)

THE RED POLLED COW WILL BE AN IMPORTANT FACTOR IN THE FUTURE IN BEEF AND DAIRY CATTLE IMPROVEMENT. STYLE AND MASCULINITY MUST BE DOMINANT CHARACTERISTICS OF THE RED POLL SIRE.

FARM MECHANICS



Lubricating Exposed Gears.

The problem of lubricating the exposed gears of a tractor is a difficult one. The lubricant must not be thin enough to run off, and it must not be gummy enough to hold the dust and dirt. The following is recommended to be a very efficient method of lubricating exposed large cast iron gears, like the bull gear of a tractor.

Mix one pint of powdered rosin with one pint of graphite and one pint of gasoline. Apply this mixture like paint to the teeth of the gear and allow it to dry. This should not require over a half hour. Give the gear teeth a coat of the mixture every ten days, or as often as they show signs of needing lubrication.

Questions and Answers.

Were Old Motors Efficient?

Were the old style motors put in cars eight or ten years ago as efficient in operation as the late ones? I mean in power actually developed, not in operation on the road or in hill climbing?

Answer.—The principal improvement has been in the reduction of weight for a given horse power. The new motors are also more durable, due to better oiling systems and reduced weight of the reciprocating parts. It is doubtful if the motors of today show a greater fuel economy than those of several years ago. There has been some progress made in carburetor design, but this is offset by the poor fuel now on the market.

Brakes Will Not Hold.

I have a 1916 model Maxwell on which the brakes do not hold as well as they should. I have tightened both hand and foot brake turnbuckles until they are tight enough, but still it takes both brakes to hold on hills where formerly one would hold easily. The brake bands have had grease on them, but I have cleaned them off well. The brake band lining is not worn badly. Is there something I could put on them to make them hold better? I suppose a new lining would be better, but why will the old ones not hold until worn out, or nearly so?

Answer.—The material from which brake lining is made has a tendency to glaze. Soak the bands in gasoline to remove all the grease. Allow them to dry thoroughly, and then file the outside surface with a coarse file just enough to rough up the surface. If they still slip, you might use powdered rosin on them.

Carbon Removers—Aluminum Pistons.

Are any of the so-called carbon removers on the market harmful to the cylinder walls or pistons of an engine? What is the advantage, if any, of aluminum pistons in a Ford motor?

Answer.—We have heard of no bad results from the use of carbon removers. Aluminum pistons should increase the power of any engine. A considerable part of the power of an engine is used to move the piston and connecting rod back and forth. The lighter the piston and rod can be made, therefore, the more power the motor will develop. The bearings will also wear longer, as the piston and rod exert a pounding effect on the bearings every time the direction of motion is changed—2,000 times a minute. The lighter the piston the less the pound.

Running Cream Separator From Engine.

Please inform me through your paper how I can attach a two-horse-power gasoline engine to a 400-capacity cream separator. The engine runs 400 R. P. M.; the separator, sixty R. P. M. What size pulleys should I use for each; or could I belt direct from the engine to the separator?

Answer.—It would not be advisable to belt direct from the engine to the separator, as too much of the engine vibration would be transmitted to the separator. The speed of an ordinary farm engine also is too variable to operate a separator belted to it. It is best to use a countershaft. Drive the countershaft by a belt from the engine. Drive the separator by a belt from a governor pulley on the countershaft. The dealer from whom you purchased the separator can supply you with the governor pulley and tell you what size pulleys to use.

Unloading Hay.

I would like to ask a few questions concerning a hay hoist operated by a gasoline engine. There is a ten-inch pulley on the engine, which runs at 350 R. P. M. and develops four horse power. What would be the simplest way to attach it to the hay rope? Please show a diagram of the hoist and how to make a clutch for applying the rope. I enclose diagram showing location of hayloft and engine house.

Answer.—We are publishing the diagram of the location of the hayloft and engine house in Figure 1. E is the engine, L a line shaft in the engine room, T a trolley track for unloading the hay and OO are the holes in the floor of the loft where the ropes for moving the trolley pass through. Figure 2 shows a possible arrangement for operating the trolley from the engine. In Figure 2, E is the engine, L is the engine room line shaft, and W is a shaft extending entirely across the loft. This shaft should be one and one-half inches in diameter

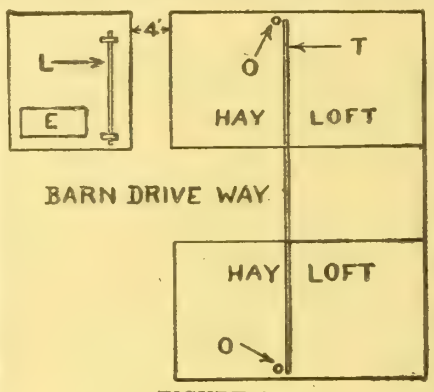


FIGURE 1.

and should be supported every six feet by a hanger or bearing box. The drums for winding the rope that moves the trolley are located at each end. This rope is attached to the trolley at the middle and fastened to the drums so that when one drum is winding up the rope the other is unwinding. P is a pulley on line shaft, L. This pulley should be ten inches in diameter and twenty inches long. It is fastened on the line shaft, and may be made of wood. H consists of three pulleys sixteen inches in diameter, one having a straight face four inches wide, the

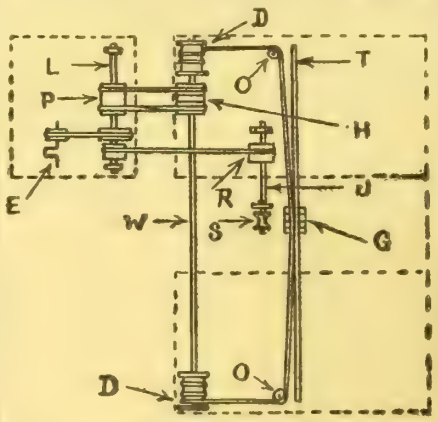


FIGURE 2.

other two a face eight inches wide. The middle pulley is keyed to the drum shaft, W; the two outside pulleys are loose on the shaft and retained in place by set collars. One crossed belt and one straight belt are used to drive the pulleys. When the belts are in the position shown, the drum shaft does not turn; when the crossed belt is shifted to the tight pulley, the drum shaft rotates one way and it rotates in the opposite direction when the straight belt is shifted to the tight pulley. In Figure 2, OO are grooved pulleys for guiding the rope.

J is a jackshaft driven from the line shaft, L. On one end of J is keyed a spool, S, located so that the hoisting rope may be given a couple of turns around it to hoist the hay from the wagon. R is a tight-and-loose pulley which makes it possible to start and stop the jackshaft at will. The sling pulleys should have a locking device. This applies also to the spool hay hoist recently illustrated in these columns, no such device being shown. A trolley complete with pulleys and locking device may be purchased for about $8.

Replacing the Acid in a Battery.

Could you inform me how to change the acid in a storage battery? Where could I get a book telling how to take a battery apart and repair it?

Answer.—If your local book dealer cannot supply you with a book on storage battery repair, write to any of the well-known catalog houses. Before withdrawing the electrolyte, give the battery a complete charge. The electrolyte is made by mixing distilled water or clean rainwater with sulphuric acid, using enough acid to make the mixture test 1.3 with a hydrometer. Then draw off the old electrolyte, wash out the battery with distilled or rainwater, put in the new electrolyte and recharge the battery at once. The plates must not be allowed to dry while changing the electrolyte. When mixing the electrolyte, slowly pour the acid into the water stirring the mixture with a glass rod. Never pour the water into the acid, as an explosion might result. Do not charge a battery too rapidly, as the life of the battery will be shortened by rapid charging.

Some Tractor Engine Questions.

Please tell me which is considered the better; a cylinder with removable head, or a cylinder with the head cast on the cylinder? How could the carbon be cleaned out of the cylinder with the solid head? Which is considered the better lubricating system for a tractor engine; a gear driven pump or the splash system?

Answer.—It is a disputed point as to whether the splash system or the forced feed oil system is the better. It largely depends upon the design of the motor. Often the geared pump is used in connection with the splash. As a rule, a splash system is not satisfactory on kerosene burning outfits, as the kerosene thins the oil. The splash system does not work well on two-cylinder opposed engines, as too much oil is thrown into one cylinder by the upward movement of the crank.

It is also a disputed point as to whether or not the head should be cast on the cylinder. If it is cast solid the entire cylinder must be removed to scrape out the carbon. However, it gives a more rigid construction than the removable cylinder head, and there is not the possibility of a leaky gasket, as is the case where the head is removable.

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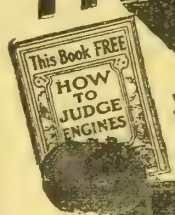

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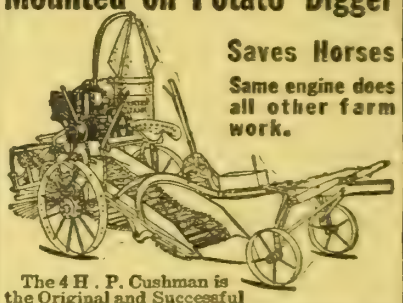

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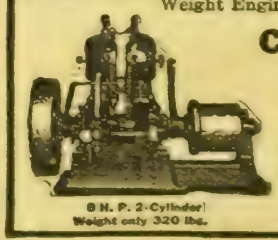

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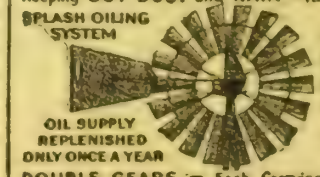

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The Wisconsin Farmer

THURSDAY, JULY 5, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

WHEN THE HARVEST CALLS FOR MEN.

I AM in receipt of a letter from Mr. F. G. Swoboda, county agricultural representative of Langlade county, which is such a valuable contribution on several vital questions now before the farmers of Wisconsin (farm help, prohibition, army enlistments, and so on) that I cannot refrain from printing it almost in full. Mr. Swoboda gives me the reassuring information that, thus far, the farm help situation in his part of our state has not become serious, although the time is not far distant when men will be needed badly. He raises the interesting point that the men who will not arm should be obliged to farm, rendering service in this manner to their country. But let Mr. Swoboda speak for himself:

Thus far farmers seem to have gotten on pretty well, for the most part. There have been some calls for help, but comparatively few. However, it seems evident that conditions will be different during haying and harvesting. A number of young men from the farms have enlisted and others will very likely do so. Some of our most promising young farmers' sons have already gone to the front. Some of them, I am sure, could have performed no more valuable service for their country than by remaining on the farm. They would gladly have continued to serve their country in the furrow; not that they were not willing and ready to go to war, but rather than be conscripted they volunteered.

Some of our business men are talking of closing up their stores one day during harvesting and haying season a week to help farmers gather their crop. The plan is only in the talking stage, but it seems to me it has merit.

Like most northern communities, we have a considerable number of lumberjacks hanging around saloons and boarding places doing little or nothing. It seems to me some plan should be devised to make these men work where needed.

Many of them are so booze soaked that they couldn't pass muster for enlistment. They won't voluntarily go on farms. Seems to me that as a matter of justice they should be conscripted for some form of service.

The day is coming, in my opinion, when the government will step in and see to it that the farmer is given the labor he needs to harvest his crops just as an officer is given men to command on the field of battle. The bugaboo of a "paternalistic government" will not always stand between us and the apex of production and prosperity. We have been afraid, in the past, of having the government —either federal or state—"usurp" some of our individualistic rights and prerogatives. That is one of the lessons which the war will teach us: That the government which protects and preserves us in times of war has the right to say how our work shall be done, and who shall do it, in times of peace. Certainly, a start cannot possibly be made in a better place than right on the farm, in harvest time, where men are needed as no place in all the land.

I do not know that Mr. Swoboda had this thought in mind when he wrote as he did, but it is one I have had in mind for some time. I shall have more to say along this line in the future; I simply advance the idea now, in a general way, so that you may be thinking it over and be prepared to express yourself, either in agreement with me or in argument, when we can take it up together more in detail.

PRODUCE AND SAVE.

WHILE the problem of food production is the farmer's, the problem of food conservation is largely the city man's. It will avail the nation little if the farmer makes his acres and his herds produce to the utmost, in the present crisis, and extravagance continues to waste that which he produces.

I am glad to find a timely note of warning uttered in one of our large magazines, The American. It is directed particularly to the city man, but because I believe the farmer wants to know the ultimate use to which his produce is put I am going to reprint a portion of it. The magazine writer is arguing that there is something which every person—regardless of age, station and occupation—can do in the present emergency, and that is to conserve the world's all-too-little food supply. He is frank to admit that the cities are the centers of extravagance. Then he goes on to give this advice to the city man:

You who live in the cities have to lead the way. Otherwise, it is no use to preach food thrift to the millions of rural folk who are comparatively thrifty as it is.

If you can't serve your country at the battle front you can serve her at the dinner table. Give up your suppers after the theater, your midnight lunches after a party. Every time you eat a late evening meal you are taking food from the bare cupboards of our fellows across the ocean.

Eat at home. A housewife can reckon how much food her family needs. A public caterer has to have enough for all possible guests, and a great deal is wasted. Dinners out should be reduced to a minimum.

Stop asking a lot of guests to dinner every few days, and making an unnecessary and unholy show of much food. Parties of this sort are going to come mighty close to disloyalty in the days ahead. The society woman who gives a tea or dinner to a couple of hundred guests is committing a national crime. There is no occasion on which it is necessary to entertain more than ten or a dozen persons. One can get all the wit and brilliance in that number that anyone needs.

Don't just do these things yourself—create a public opinion against them. Preach and live the gospel of the clean plate. Everyone in America ought to be forced to eat everything on his table. In that event a good many of us would die of indigestion, and most of the rest would learn that an altogether unnecessary amount of food is being cooked.

That is good advice, every word of it, and I sincerely hope that it will be followed. Enough food is wasted in the average city hotel to feed many poor and deserving families; enough is wasted on the average table, both in the city and on the farm, to care for many a starving man. Shall we not see to it, regardless of where we live, that this waste is stopped? Preach and practice the gospel of the clean plate so that we may lie down to sleep untroubled by the thought that what we wasted would keep a human life going. The magazine writer who gave the city man such good advice again hit the nail on the head when he said:

There is going to be a short loaf over across the water, anyway—a tremendously short loaf. The nations who are fighting with us—fighting for us, today—are facing something pretty close to famine. Every blade of wheat, every spear of corn, every potato or other foodstuffs that one of us can bring up will go toward making that loaf just a little larger. The man who can make two hills of beans grow where one grew before is hurling a bomb at the enemy.

But there is an even greater service for all of us. Cut down waste! We are throwing into our garbage pails enough foodstuffs to keep countless people from starvation. Do you know that it would take 400,000 acres of wheat land to make up the loss sustained if only one slice of stale bread a day were thrown away in every American household?

Produce to the utmost; save to the limit. In no other way can the hungry be fed; in no other way can the war be won. We are in this war not for conquest or for martial glory but to put an end to militarism, to despotism. That is the great object. But if, in doing this big and necessary thing, we should incidentally put an end to the things which have hurt ourselves, which have held us back from real greatness, shall we not do so? He also serves who saves, remember that.

REQUIREMENTS FOR THE ARMY.

I AM in receipt of many letters from farm boys asking what the physical qualifications of a soldier are. Perhaps it might not be amiss to give this information here.

Not all the farm boys who will be drafted will ask to be exempted. The adventurous spirit is abroad in the country as much as in the city. Patriotism is rampant in cornfield and feed lot. Therefore, we may expect that many of the farm boys who are summoned to the colors will want to go. What tests must they pass, before the examining officers, to make good?

I am advised by military authorities that the successful applicant for the army must be at least five feet, four inches, in height, and not over six feet; he must weigh not less than 128 pounds nor more than 190. His lungs and heart must be well-nigh perfect. Any heart "murmur" will disqualify. His hearing and sight must be good; color blindness is not necessarily a disqualification. Loss of fingers or toes or an ear are disqualifications. Chronic diseases or mental disorders will disbar any applicant. At least four molar teeth are required. Deformed feet will keep a man out of the army, so will flat feet.

I have an idea that many a farm boy who, to all intents and purposes, is a perfectly healthy specimen of manhood, will find, to his great amazement, that he cannot pass all these army tests. I have in mind a strapping young fellow, a great athlete, who, to all outward appearances, is physical perfection. Yet this young fellow is flat-footed. Should his name be drawn for army service he will undoubtedly be rejected. The army wants men who can stand long, hard marches; the flat-footed man will be rejected.

By the time these words are read the manner in which the first conscript army is to be drawn will probably have been announced in the daily papers. The plan, at present, seems to be this: Every man who registered on June 5th will have a number assigned to his registration card. Thus, supposing a farm boy was 85th in line at his polling place; his card will be numbered 85. Suppose a city boy, in a heavily-populated precinct, was 510th in line; his card will be numbered 510. Now, it is proposed to draw from a box or wheel, in Washington, a great number of cards, and the numbers on the cards thus drawn will be the numbers which are to be taken, in every precinct and registering place in the United States, both city and country. Let me illustrate: Suppose the first card drawn in Washington has the number 85 on it. That means that in every registration place in the United States, town and country alike, the boy whose card has the number 85 on it will be drawn for army service. The names of the men drawn will not be known until in each township or precinct the lists are looked up to see whose card is numbered 85. Or suppose the number drawn is 500. There may be thousands of townships and precincts where the registration on June 5th did not reach 500; in that event no one in those townships or precincts will be drawn on that number, only the larger polling places will be affected. This will result in cutting down the country's representation in the army—a consummation devoutly to be wished, in my humble opinion.

I hope to be able to announce the plan, in full detail, in a week or so. The army camps or cantonments are already started, men are working like beavers to get the soldiers' habitations ready. We shall have an army of a half million drilling within a few months. In the meantime we must grow large crops, economize on food and trust to God that all will come out right in the end.

GETTING OUT OF THE RUT.

OFTEN the mail brings me letters so filled with heart interest, so throbbing with human emotion, I feel as though I could not delay a day in passing them on to you. I am tempted to stop the presses and publish them immediately, so eager am I to give the assistance asked or to receive advice and suggestions from my readers as to how to cope with the problem presented. I am free to admit that no letter received in several weeks has affected me more strongly, or made me more eager to give the needed aid, than one which came to me a few days ago from a Wisconsin farm woman. Her loyalty to her husband, her willingness to share any burden with him, her eagerness to get ahead, her unbounded ambition to prove to her parents that in marrying the man of her choice she made no mistake, her loving efficiency as a mother, her all-around worthiness seem to me to stand out in every sentence. I do not have the pleasure of a personal acquaintance with my correspondent; I know nothing of her except what the letter sets forth; yet I am intensely interested in her case. I want to do anything I possibly can to help her out of the rut where she is wearing out her soul and body. Read her letter and see if you can help me to help her:

We are one of your subscribers and do enjoy your paper so much. We always turn to the editorials first and find them so interesting and helpful. You seem to understand people so well and make such helpful suggestions to the ones that come to you for advice. I told my husband that I was going to write you and maybe you could tell us what we could do and help us, so if you will be patient with me I will tell you something of ourselves so you will understand the "why" of the request we make.

We are "hired help" and have been for a number of years. We get $40 a month, house, garden, milk and half the chickens and proceeds. That is not bad wages, but as we have four small children it is pretty hard to get along and try to have a little laid by for sickness and the unexpected. My husband is a hard-working man, steady, sober, reliable, and is always at work, no matter what the weather or where the "boss" is. He attends strictly to business. But we seem to be in that everlasting rut. We keep out of debt, but never seem to get ahead any to speak of, no matter how we try. While still real young my husband had to leave school to support a widowed mother, so did not have the advantage of many of a financial start before marriage. We have lived in town and on the farm and find the farm the best. We are always out of debt, or at least while on a farm, but while working in town we are sure to get behind. We try so hard to get some money laid by so that some day we can start on a farm for ourselves, but with our family of little ones it seems impossible. We are not the roaming, shifting kind. We are on our second year here, to the surprise of all the neighbors, as the man we work for is considered a hard man to work for, but we have had no trouble and he

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin Eagle at Philadelphia.

A Wisconsin eagle, a perfect likeness of "Old Abe," famous during the civil war days, was to fly with forty-nine others on July 4th at 12 o'clock from the tower of Independence Hall at Philadelphia in commemoration of the fiftieth anniversary of the closing of the civil war. The year 1915 was really the exact year in which to celebrate, but Philadelphians were not ready at that time or in 1916, so they made all their plans for a great celebration on Independence Day this year. Every state in the Union and the colonies were to be represented by an eagle which was to be set free at noon on the 4th of July. Each state and each of our possessions were asked to send a large flag—15x8 feet—and a tablet 15x22 inches with the motto of the state and the name and year inscribed. The flags and tablets will be hung in Independence Hall. The Wisconsin tablet is of the same wood that the state capitol is finished in, Wisconsin oak, and has on it in gilt letters our motto, "Forward," and "Wisconsin, 1917."

The eagle for the celebration was furnished by Mead Theobald. The authorities were in doubt as to the possibility of getting an eagle in time for the celebration. Mr. Theobald's neighbors at Barneveld informed him of Wisconsin's predicament and with true patriotic impulse Mr. Theobald brought his eagle to Madison. The eagle was caught by young Lester, son of Mr. Theobald, last January. The trap had been set for a fox, but the eagle, hungry for a meal, descended on the bait and was caught in the steel trap. Lester promptly took him home and kept him in an old garret. The eagle measures six feet from tip to tip.

Those that claim to know something of the habits of the eagle say that this bird will come back to Wisconsin upon being liberated and if you happen to capture or shoot an eagle within the next year examine his left foot and if on it is marked the name Wisconsin he is the eagle that was sent to the celebration at Philadelphia in 1917.

Dean H. L. Russell's Anniversary.

Dean H. L. Russell, head of the Wisconsin College of Agriculture, celebrated on June 19th his twenty-fifth anniversary as doctor of bacteriological science. Dean Russell's services as head of one of the greatest agricultural schools of the world, and without doubt the greatest dairy school of the world, date back ten years and he has been a member of the university faculty for twenty-four years.

The most conspicuous work has been done by Dean Russell in regard to bovine tuberculosis. At the time he came to the University of Wisconsin practically nothing had been done in regard to tuberculosis in cattle. Russell, fresh from his studies in Europe and at Johns Hopkins University, had given considerable attention to tuberculosis. He tested the university herd for the first time in 1894 and since that year every animal on the university farm has been tested once every twelve months. He instituted educational campaigns and slaughtering demonstrations which gave Wisconsin farmers complete knowledge of tuberculosis as far as science had been able to analyze it. Bulletins and circulars treating of the necessity for greater care against infection and spread of the disease went out under the direction of Dean Russell for many years. The efforts of Dean Russell coupled with other work that has been done by various bodies in the state has popularized the tuberculin test in Wisconsin and has made Wisconsin farmers recognize the value of testing. Wisconsin will in the next few years prove how much she is ahead of every other section of the country in the work of eradicating tuberculosis.

We do not by any means wish to convey the idea that Dean Russell's services to the state are confined to his activities in the fight on tuberculosis. He has been the mainspring in a number of campaigns which have resulted in state-wide benefit. It would take a review of the work of the college of agriculture to enumerate all this. Dean Russell is right now at the height of his usefulness as far as agricultural and live stock interests of the state are concerned.

The Theory of Shallow Corn Cultivation.

Considerable experimental work has been done at our stations to demonstrate conclusively that the practice of cultivating deeply after corn is a foot high greatly reduces the yield. This can be well understood when we consider that three-fourths of the roots of the corn plant are found in that part of the soil that has been turned by the plow. The laceration, therefore, of even a part of these roots will intercept the plants' ability to take up food and moisture, and this has a direct effect on the yield. If a field of corn is fairly free from weeds one had better let it alone rather than to do a lot of root pruning.

The Illinois station has done a great deal of experimenting along this line and as the result of eight years' work it was ascertained that corn that was never cultivated, but the weeds simply allowed to grow in their own sweet way, yielded 7.3 bushels per acre. On the other hand, where weeds were kept down without stirring the soil the yield was 45.9 bushels per acre. Of course, no man would think of allowing his crop to go uncultivated, but these results show the extreme yields that might be expected from the two methods of handling the soil. According to the Illinois station, there is little advantage in cultivating corn unless there are weeds to be destroyed. This applies particularly on mellow soils, though on the clays frequent stirring of the soil will mean thrift to the plants.

Recent investigations seemed to belittle the advantage of the so-called dust mulch for the simple reason that well-developed corn roots will take up the moisture that comes from the lower soil and prevent its evaporation. This being the case, the important thing in corn cultivation is to keep the weeds in check without stirring the soil deeply. At the Missouri station it was found that corn cultivated four times shallow yielded 66.9 bushels per acre, whereas four deep cultivations resulted in a yield of 53.5 bushels per acre. Here was a direct gain of 13.4 bushels per acre. In the same field a small area was kept free from weeds with the hoe and the surface soil practically not disturbed. The yield in this case was 63.8 bushels per acre, thus demonstrating that, after all, the important thing to be learned in handling the corn crop is to keep the weeds down, and the one thing above all others to be avoided is that of cutting into the soil deep enough to lacerate feeding rootlets.

Drainage Suggestions.

Under the direction of the Wisconsin State Council of Defense, E. R. Jones, secretary of the Wisconsin State Drainage Association, has issued drainage suggestions as follows:

1. Have your dead furrows extend in the line of greatest slope on the flatter lands.
2. Plow in narrow lands not over four rods wide so that there will be a dead furrow or a back furrow ever two rods.
3. Plow twice in the dead furrow where it crosses a ridge. In long, level furrows, plow twice near the outlet to create a fall toward the surface run.
4. Use a light road grader or a V-shaped ditcher to make the surface run into which the dead furrows can discharge.
5. Cut a trench through the sod to the fence to connect the dead furrow with the road ditch or surface run outside the fence. Don't dam the dead furrows.
6. Clean out the dead furrows after seeding or planting. Use a spade or hoe, or smash the lumps by dragging a log down the furrow.
7. Have corn rows extend in the same direction as the dead furrows so that they will not be filled up by cultivation.
8. Slope your dead furrows in fields of small grain so that you can cross them with a binder without jolting.
9. Keep an eye open for the wet spots on which water stands after each rain, and fix up the dead furrows before the next rain.
10. Get busy with a spade or a hoe as soon as it stops raining. Every spadeful of earth means a shovelful of corn.

Mr. Jones writes that he recently spent a couple of days in Jefferson county, carrying the gospel of drainage from farm to farm. As an illustration of the negligence on the part of one farmer in particular, Mr. Jones writes he noticed water standing in three dead furrows about four rods apart on an acre of excellent flat clay land which had been seeded to oats. This land was dry when seeded, but rains had flooded it. Mr. Jones got hold of the man who had put in this crop and with his instrument convinced him that it would be easily possible to give an outlet to the dead furrows. The farmer said to Jones, "Some day I will take the plow and plow a furrow across the end of these dead furrows and let that water get away." But Mr. Jones said, "Let's do it now." So a team was unhitched from a wagon and hitched to the plow. The furrow was plowed where it would do the most good—plowed twice across a little ridge. Mr. Jones writes that the water followed them so fast they had to keep off to one side to keep their feet dry. In thirty minutes all the furrows were empty. The side of the furrow made was trimmed with a spade, so that it might be crossed easily with the binder. This work did not exceed one hour for the whole job and it is a good example, as Mr. Jones writes, of what may easily be done to help save a crop.

Seeded Alfalfa in Corn Successfully.

A recent issue of the National Alfalfa Journal contains a communication from Mr. C. L. Woodward, of Brookings county, South Dakota, on the question of seeding alfalfa in corn previous to the last time of cultivation. The venture in this case was singularly successful and we believe that Wisconsin Farmer readers will be interested in what Mr. Woodward has to say. He writes:

Thinking my experience with the "cornfield method" of seeding alfalfa might interest your many readers, here it is as best I can give it.

Having decided to make a start with alfalfa, naturally I began to look up methods of seeding it. I read articles in the various farm papers pro and con of various methods and talked with my neighbors, all of which naturally resulted in some confusion and a decision was up to me alone. On one thing all seemed to agree, that from ten to twenty pounds of seed per acre were needed.

Finally a neighbor called my attention to a new and novel way to me of seeding alfalfa. He said that he had just run up against a new method and that it looked good to him. He said this new method consisted of sowing the seed with a press drill in standing corn at the last cultivation. This method appealed to me after he had fully explained it, for these reasons:

First. The cornfield at this time is a perfect summer fallow and all weeds are eliminated.

Second. At this time of the year there is sure to be moisture in the soil of the cornfield.

Third. The growing corn will protect the tender alfalfa from scorching winds, hot sun and sand storms.

Fourth. The cornstalks form a snow catcher in winter which gives early moisture in the spring.

Fifth. I am sure of a bumper crop of corn, and lose nothing but my alfalfa seed in case of a failure of alfalfa, and last, but not least, I save 50 per cent on the cost of seed, because this new method requires only about six pounds of seed per acre.

After debating the matter pro and con, we decided to procure a drill, my neighbor wishing to sow twelve acres and I about four acres. I seeded my four acres in one end of my twenty-acre cornfield. I followed directions carefully when cultivating my corn, not hilling it, and kept it clean from weeds, and when the corn was ready to "lay out" I hesitated about sowing my alfalfa because of the very dry, loose condition of the soil, so I waited till the last of July before drilling in my seed and drilled it in just after a shower. I used six pounds of seed per acre with the following results:

I have a good stand of alfalfa; I had a clean field of corn, a full crop of corn, and my alfalfa going into winter, not very tall, but green and all alive on December 1st. Of course, my late seeding and the unprecedented drouth caused a lighter growth of the alfalfa than would otherwise have been the case, had the usual moisture been present. Others who have given this method a longer trial tell me that with usual moisture and on well-manured soil the growth of alfalfa will be from one to two feet the first fall.

Those of our readers who might feel disposed to try this plan should bear particularly in mind that the alfalfa in this case was seeded with a drill. This means that the seed was uniformly covered and in a measure it accounts for a good stand resulting, even though but six pounds of alfalfa was used in the seeding. As a rule, the sowing of pasture or forage crops in corn previous to the last time of cultivation is not successful for the reason that a poor stand generally results and this poor stand can be traced to the fact that the seed is not well covered with soil. The question of a good covering applies to rape, peas, rye or any crop that is sown in midsummer.

Three Big Problems.

The three big problems of the day from the farmer's standpoint are these: Production, marketing, conservation. Every acre must be made to yield to its utmost. The crops must be marketed to the best advantage. Foodstuffs of all kinds must be taken care of, so that there will be no waste; extravagance must be cut out, the gospel of the clean plate must be preached and practiced by all.

Every issue of The Wisconsin Farmer will be found to contain practical, dependable articles dealing with each one of these three big problems: Production, marketing, conservation. These articles are written by men who know what they are writing about. They alone are worth the subscription price of the paper. But the departments are maintained intact, giving the farmer advice on every question of practical farming as it arises in his daily work.

Such a combination of usefulness and interest was never maintained before by any farm paper. It is of the utmost importance, therefore, that every subscriber see to it that he is paid well in advance and that his friends and neighbors likewise subscribe to The Wisconsin Farmer. The date of your subscription expiration is shown on the label upon your paper. Look at it and renew promptly. Induce as many other farmers as possible to subscribe, so that prosperity may be passed around generally and all may take advantage of the splendidly efficient articles and editorials in this paper.

Cutting Down Labor in Haymaking.

It is doubtful if the hay crop has been as light as it is this year more than once in the last two decades, this being due to the winterkilling of meadows. In spite of this fact, however, there will be millions of tons of hay cured in the central West and haymaking operations will soon be under way. Help is scarce and the quick way will be the best way this year. In most instances there will be no time for putting the hay in shock and the curing will in the main be done in the windrow.

The theory of haymaking is an interesting one, because good hay depends upon the degree of success that is attained in getting the moisture out of the stems through the leaves without allowing the leaves to get dry enough to shatter off. It must be remembered that the leaves of any plant are richer in food materials than the stems, so that much exposure to the sun, while the hay is spread thinly on the ground, means that the leaves will suddenly shrivel up, the pores close, and at the same time the moisture in the stems will remain.

To prevent the drying up of leaves, which amounts to the same thing as

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

is very good to us and raised the wages this year of his own accord. Our year is up again November 1st, but will stay unless something better appears. We left our last place because the owner wanted to cut our wages down, but since has told my parents he has been sorry many times he let us go and we could come back any time and that my husband was the best man he ever had.

Mr. Pierce, I know I am taking up your very valuable time and am tiring you with my "tale of woe," but we get so discouraged at times and it seems as if there ought to be some way out. My husband is too good a man to be plodding along year after year behind someone else's plow for a mere existence. For twelve long years I have prayed to the all-wise Father for the time when we could better our condition, but it seems the Lord hasn't seen fit to answer my prayer. What I would ask you, Mr. Pierce, isn't there some way my husband could qualify for a better farm position? He has had a good dairy experience, as well as general farming. What is this new position of cow testing? We know of a young man who took up that work and surely he must have studied it up while doing other work. In fact, I know he did. I also happen to know he is getting $60 a month, with all expenses. Of course he had to pay for his knowledge, but gladly would we do that if we could only provide better for our children and make our farm home come a little nearer. My husband cannot go away to study, for he has to work and we have not the means. This work seems to be something new, so will likely be in demand for some time to come. Won't you tell us more about it or put us in touch with someone who can? Three different times have we tried to get someone to finance us to start on a farm, but without success. My people all are pretty well fixed in this world's goods, but none seem to think they could give us a little "boost" and at the same time they say: "Why didn't I marry someone better off?" and such talk. I just made up my mind I would send my appeal to a stranger-friend and maybe there would be some results. For the sake of our little ones won't you help us to help ourselves? We would be so grateful to you, Mr. Pierce, and work so hard and try to show you by results how we thank you.

Is not this a case deserving not only of our sympathy, but likewise of our assistance? Think of this hard-working, loving wife, fighting against the fate which has held her and her loved ones down, no matter how hard they toil, how hard they struggle to better themselves. Do you wonder that I answered this letter immediately, giving what little advice I could in the emergency? But I feel as though we must not stop here. Surely, somewhere in our family circle is a farmer needing the help of just such a family. Will he write to me, so I can bring him in communication with my correspondent, so that this husband, wife and little ones can go over the parapet of their rut—like soldiers over the parapet of a trench—and charge across the field which leads to victory? There must be others who can tell, better than I, how to succeed in this cow-testing work which so interests my correspondent. There must be others who know of farms which can be taken over by this family and on which they can find their long-delayed, but none-the-less-deserved, opportunity.

There is nothing more pathetic to me than the struggle of the deserving to get ahead. I may be imposed upon now and then, but I would rather be "taken in" a score of times than to lose one golden opportunity to help one deserving man or woman. Write me your advice; let us work together, so that the sun of hope may finally dawn after the night of dark despair and, hand in hand, husband and wife may lead their brood of little ones into the promised land of independence.

James M. Pierce

getting rid of the moisture from the stems, it is necessary to get hay into the swath as quickly as possible. Where there is plenty of help to handle the crop, of course, one can go a step further and put it in the shock, but we assume that this year there will not be one farmer in ten who can take the time to shock his hay. If he cuts in the forenoon and the weather is at all drying, he can possibly rake the day's cutting into windrows before night, or at least the following forenoon. The side-delivery hayrake has made it possible to hasten drying by turning over the windrows the second or even the third time. In this way the moisture contained in the stems is eliminated and the leaves do not become dry enough to shatter off.

In many instances hay is spoiled by leaving it scattered thinly in the hot sun for a few hours and then putting it in the stack or in the mow. It may have a dry feeling to the touch, but there is a great deal of moisture left in the stems, so that it is apt to heat to the point when stored that greatly impairs its value. In most cases this year hay will not be touched with a hand fork until taken away from the carrier of the loader, or when it is pitched in the field where there is no loader. It may not be quite as good in quality when cured in the windrow as if it is cured in the shock, but, all things considered, we must be satisfied with a product of lower quality if we can materially cut down the labor involved in haymaking.

Act Quickly When Hog Cholera is Suspected.

A few alarming outbreaks of hog cholera have occurred in certain parts of the central West and in view of the fact that the hog crop is light and that there is an urgent necessity for large meat production this year, it is exceedingly important that every precaution should be taken to prevent the spread of the disease. The department of agriculture is doing its utmost to spread information in regard to this matter and in a recent press bulletin swine raisers are advised to act quickly when a sick hog shows up. We quote from the bulletin:

Don't take a chance with a sick hog. Act quickly. Get a veterinarian or a trained man immediately. Don't wait a single hour when you suspect disease in your herd. Use the telephone or send to town at once. Only prompt action will stop hog cholera losses. Every hog saved will help win the war.

This is the message of tremendous importance which the United States Department of Agriculture is carrying to farmers, not only in the great hog belt included in Iowa, Missouri and Illinois, and near-by states, which produce 34 per cent of the hog output of the United States, but also to farmers of the South, where in several states in 1916 hog losses due to cholera rose to two to three times the average losses for the country. Hog losses in 1916 by disease rose to 130 per 1,000 in Arkansas, 105 in Louisiana, 100 in Florida, eighty in Georgia, seventy-six in Tennessee, seventy in Alabama and sixty-five in Mississippi, against an average of forty-eight per 1,000 for the entire country. At least 90 per cent of these losses were attributed to hog cholera.

The time for argument about anti-hog-cholera serum is past, declare the specialists of the bureau of animal industry, United States Department of Agriculture. Explicit figures are readily available which prove unmistakably that, when administered in time by competent persons, hog cholera serum will keep well hogs from taking the disease for a period of three to six weeks. Not argument but quick action is imperative to get serum and a trained operator to the farm to treat the hogs. Hogs will be saved and the nation's meat supply increased if every farmer will immediately upon sign of disease call in the nearest available expert to diagnose the complaint and administer whatever treatment is necessary.

The department of agriculture is urging that all state, county, and local live stock interests, including state veterinarians, live stock boards, state college workers, county agents and local veterinarians, begin immediately to organize anti-hog-cholera preparedness campaigns to reach every farmer in every county. Such organization already exists in many places. Where it does not there is need of special and immediate action before the hot weather conditions favorable to hog cholera come on.

Bankers and other business men can aid in the work of informing farmers where they can get expert help immediately when they suspect cholera in their herds. Lists of accredited persons competent to diagnose cholera and administer serum, together with their addresses and telephone numbers, should be furnished to each farmer in the county, with the appeal that he call for help at once in case of need. Business men may also arrange through the local veterinary authorities or county agents to buy serum at the nearest state serum plant, private plant, or serum depot and hold it in reserve for emergency use. State and federal animal industry authorities should be notified at once by telegram of any outbreak.

Because a single outbreak of hog cholera on any farm is a matter of moment to the entire community, and because hog cholera infection is rapidly spread in many ways, the department of agriculture is urging farmers to employ every possible measure to keep the disease out of their herds. The department has issued a special hog cholera poster—"Stop Hog Cholera Losses"—which gives specific directions for avoiding infection by sanitary and self-quarantine measures; also directions for the isolation and treatment of cholera-infected hogs, and directions for disinfection and restocking the hog lot. Farmers' Bulletin 834, soon to be published, contains the latest information at the command of the United States Department of Agirculture concerning hog-cholera prevention and the immunization of hogs against the disease.

The bulletin here referred to, namely, No. 834, should be in the hands of every man who owns a herd of hogs and we advise our readers to send for it to the department of agriculture, Washington, D. C. Every swine breeder should be prepared to act quickly when disease makes its appearance, not only because it will be of great benefit to himself to do so, but because it will afford protection to the entire community in which he lives.

Still Good Demand for Horses of Right Type.

It is the prevailing opinion of men who have a comprehensive knowledge of agricultural and industrial conditions that there will always be a satisfactory market for good, sound, heavy horses. Dr. C. W. McCampbell, of the Kansas station, says that draft horses have increased in value 10 per cent during the past ten years, judging the matter on the basis of the Chicago market reports. He says that all horses passing through that market in 1906 that would classify as drafters, including the good, bad and indifferent, averaged $190 a head. In 1916 the same class of horses averaged $210 a head. The demand for horses on farms and the influence this demand exerts in making horse values is shown by the fact that under normal conditions only 1.5 per cent of the horse population of the country passes through the central horse markets annually.

The profitable type is the sound, good looking, bold going, easy keeping, durable horse, weighing, in working condition, 1,500 pounds or more. Such a horse not only meets the needs for efficiency and economy in farming operations, but it also sells for the high dollar on the open market.

Market reports show that the bigger the horse the better the price, provided size is combined with quality and substance. Common 1,300 to 1,400-pound chunks bring $165 to $185; medium-weight chunks (1,400 to 1,500 pounds) with flesh and quality, $190 to $215; heavy-weight chunks (1,500 to 1,600 pounds) $200 to $225; horses weighing 1,600 pounds or more, ready to go to work, $175 to $350.

If the producer hopes to raise the most efficient farm horse, which is also the most profitable market horse, he must observe more carefully the fundamentals in profitable horse production, believes Doctor McCampbell.

Horse raisers must study more carefully changing economic and market conditions which affect horse demand, values and prices, and determine whether these changes are permanent or only temporary. Horsemen must study more carefully those features of conformation and soundness that make a horse a good individual. Breeders must study the various types of horses that they may be better able to select the efficient and profitable type.

Recognition of Wisconsin's Agricultural Industry.

Gov. Emanuel L. Philipp has very properly recognized the agricultural and live stock interests of Wisconsin by naming a prominent representative of these important industries as a member of the new state board of education. We refer to the appointment of Chas. L. Hill, of Rosendale. Mr. Hill is well known by our readers as a prominent Guernsey breeder, a successful farmer and a public speaker on both agricultural and political subjects. As a sign of the times, it may be mentioned that Mr. Hill is also a prohibitionist, having been standard bearer of that party in campaigns for governor and United States senator. The present legislature has increased the state board of education from five to nine members. Of the nine comprising the new state board, five are appointed by the governor, one is to be appointed by the board of regents of the university and one to be selected by the officiary of the state normal schools. This provides for seven members and the governor and superintendent of public instruction are ex-officio members. By special provision of the law the secretary of state is an ex-officio member until January 19, 1919.

It is the duty of the state board of education to examine and audit through its accountants the finances of all schools receiving state aid and recommend to the legislature appropriations for the different schools. Mr. Hill's term will end August 1, 1920.

Stacking the Grain.

The Wisconsin Experiment Station gives the following brief review of well established advantages of threshing grain from the stack rather than hauling it direct to the separator from the fields:

Sweating in the stack greatly improves the quality and color of grain. This is especially valuable with wheat and rye.

Grain which goes through the sweating process in the stacks is better than that which is left to sweat in the bin.

Heavy rains will not hurt well-stacked grain. Oats are decidedly susceptible to dampness, and will not readily dry out in the shock.

Stack-threshed grain can be piled in a smaller place than shock-threshed grain with less chance of injury through heating. It does not require so much watching after storage.

Sudden showers during threshing time do not delay operations when working from the stack. When threshing from the shock the reverse is frequently the case, and all hands must wait because the shocks in the field have become water soaked.

Remember 1915. This was a damp threshing season and thousands of bushels of grain were lost just because it wasn't safe in the stack where it should have been.

County food emergency agents are starting a concerted campaign to interest farmers in stacking their grain. Shock threshing is better perhaps for the man who is early on the list, but woe unto those who must wait through all kinds of weather and run the chance of having shock grain in the field sprout or discolor from the rain.

Land-Clearing Demonstrations.

Among the important bills passed in the closing sessions of the general assembly was one appropriating $37,000 for continuance of land-clearing demonstrations in Upper Wisconsin. This is the work which was so well started by the late Carl Livingston. Prof. F. M. White, of the agricultural engineering division, college of agriculture, will take personal charge of this work this season or until it is possible to find a man who can direct the demonstrations. At this writing it is impossible to give a definite schedule of the demonstrations, which will start about July 10th or 15th, but local papers will give sufficient announcements to apprise the communities in which the demonstrations are to be held. The demonstrations will continue several weeks and many points in Upper Wisconsin which were not reached last year will be visited.

Under the provisions of the bill as finally passed this demonstrational work will continue for two years. Professor White will be able later to give the state a review of this work. It was unfortunate that Mr. Livingston was unable to arrange the result of his work in bulletin form, and this matter caused him to worry a great deal during his last sickness.

As many of our readers as are able to do so should plan to attend the demonstration nearest to them, and make a careful study of the most economical methods of land clearing.

How to Fight the Potato Bug.

Wisconsin Potato Growers Advised to Profit by 1916 Experience—By J. G. Milward, Wisconsin Experiment Station.

PARIS green, arsenate of lead and other poisons will each kill potato bugs effectively, if applied in time. The choice of these different materials is of less importance than the following direction: Apply poisons on time and do the work thoroughly.

Potato growers, remember your experience in 1916! Not over 14,000,000 bushels of potatoes, or less than half a crop, were harvested in Wisconsin in 1916. Bug injury, tip burn, arsenical burning combined with a dry, hot season caused this serious damage to the potato crop.

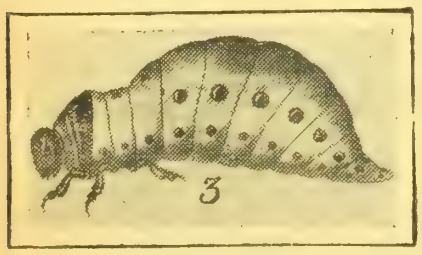
The old beetles after wintering in the ground emerge about the time the vines appear above the ground. They mate on the young vines and colonies of orange-colored eggs are laid on the under sides of the leaves.

Hand pick old beetles on small areas. The old beetles and also leaves containing eggs may be removed and destroyed on gardens and small fields.

MATURE BEETLES AS WELL AS THE BUGS OR LARVAE DESTROY POTATO TOPS.

In a few days the eggs hatch and the young larvae or "bugs" will, as a rule, gather in colonies or clusters on the tender, terminal shoots and begin to feed.

Apply poisons when young colonies begin feeding. A very small amount of arsenic will kill the young bugs at this time. If left to feed for several days and grow to large size, large amounts of poison are required to kill them. Badly damaged vines never regain healthy growth and development.



THE LARVAL OR "BUG" FORM OF THE POTATO BEETLE.

Carelessness is often noticed in the use of excessive amounts of poison and faulty working of machinery. During hot, showery weather, severe losses result under these conditions from a combination of bug injury, tip burn and arsenical burning.

Most poisons may be either added to water and applied as a liquid spray or dusted on the vines.

Paris green will kill at the rate of two pounds to fifty gallons of water. Many potato growers prefer to use three pounds to fifty gallons. Paris green, applied at this rate in water, during hot, showery weather, may cause some arsenical burning.

To avoid Paris green burning, add to each barrel of spray about two pounds of lime, after slaking lime carefully.

Growers who have spraying machines and equipment for making Bordeaux mixture will find it satisfactory to apply Paris green with a dilute Bordeaux mixture:

BORDEAUX MIXTUE FORMULA.
(Half strength.)

Blue vitriol	2 pounds
Stone lime	2 pounds
Water	50 gallons

This method will prevent all Paris green burning and also controls the flea beetle and other leaf-eating insects.

Paris green in dry form may be dusted on the vines, mixed with flour, land plaster or air-slaked lime at the rate of one part of Paris green to three parts of the dry powder used. Paris green is sometimes used dry and undiluted when dust blowers are available.

Powdered arsenate of lead and Paris green have been used successfully by some growers at the rate of one pound Paris green, two pounds powdered arsenate of lead and fifty gallons of water. This can be used with the dilute Bordeaux mixture.

Powdered arsenate of lead may be added to water and sprayed on vines at the rate of four pounds to fifty gallons. It may also be dusted on vines diluted one part arsenate, three parts air-slaked lime, flour or land plaster. It is also used pure in the dry form where dust guns are available. Paste poisons are not advised on account of difficulty and loss of time in mixing. Buy the powdered arsenate.

THE MATURE POTATO BEETLE.

Newer forms of poisons, arsenite of zinc powder, zinc Bordeaux paste and other commercial products will be used to a limited extent in several sections of the state. Arsenite of zinc powder may be used at the rate of three pounds to fifty gallons of water and paste forms at the rate of four pounds to fifty gallons.

On the average it requires three applications at close intervals to completely control the bugs. This varies with the season and the seriousness of infestation. Usually the egg-laying period lasts several days. The vines grow rapidly. The bugs crawl to new and unsprayed growth. The weather may be showery. For all these reasons, growers should watch carefully for the need of repeated applications.

If a large part of the early hatches escape into the ground, they will emerge again as adult beetles in about ten days' time (August 1—August 5). This second brood is very active, hard to kill and often seriously strip the leaves from the vines.

Hand atomizers, knapsack sprayers, power outfits, all sizes of dusting machines are available. Growers who purchase horse-power spraying machines are urged to buy the latest and best makes. Excellent machines, both fifty and 100 gallons' capacity, are on the market. These machines may be used at about seventy-five pounds' pressure during the bug season and at 100 to 125 pounds' pressure during the late summer spraying against blight.

Good nozzles are necessary. The large plates or caps on nozzles should be used during the bug season to insure a heavy rate of application of poison per acre. Watch the nozzles and see that all parts of the vines are covered with poison.

More than a billion dollars' worth of barnyard refuse is wasted in the United States annually according to Carl Vrooman, assistant secretary of agriculture. "This is the prize waste of champion wastes of the world, the world's greatest preventable leak," Mr. Vrooman said. "At this time such a waste as this is a national tragedy. In peace times the waste would be bad enough, but with the solemn duty of saving the world from famine upon us, the need for the economy of this national resource ought to be apparent to everyone. Here is a thought for the American farmer which ought to challange his patriotism. It is not simply a colossal war measure. It is a measure which, if put into practice, will permanently benefit American agriculture."

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3, 5 and 6 Horse Power

THE FAMOUS KEROSENE-GASOLINE ENGINES

Its name tells the story. The cut shows the proof and a trial will convince you. The most modern engine for all purposes, **because,** they require no cranking, are easier to operate, lighter in weight, have more power, are absolutely dependable. Built of the highest grade material. The first cost is less, the upkeep is almost nothing. Investigate before you buy. Send for circular.

SIMPLE GAS ENGINE CO. **MENASHA, WIS.**

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

COWS FOR SALE.

FOR SALE OR EXCHANGE for good cows, heifers, land, sheep or steers, a handsome seal brown registered Percheron stud, three years old this spring. 11-inch bone below knee, 2 feet 4 inches above knee, girths 7½ feet. Archie H. Cook, Baraboo, Wis.

I HAVE FOR SALE a large assortment of choice tubercular tested cows, all due to freshen soon. You can buy one or a carload. John Blanchard, Columbus, Wis.

BABY CHICKS.

BABY CHICKS—Standard bred S. C. White Leghorns for July 10th delivery, $9 per 100. S. C. Brown Leghorns July 17th. Safe arrival guaranteed. Catalog free. Order from ad and save time. Wolverine Hatchery, Zeeland, Mich.

CALVES WANTED.

CHOICE HIGH-GRADE Holsteins, Guernseys and Short-horn calves. A few select ones at $15 to $35 each, expressed at little cost. Write Ed. Howey Co., South St. Paul, Minn.

MILKING MACHINE FOR SALE.

FOR SALE—Milking Machine. Two-cow unit. Automatic vacuum and natural air pressure type. In first-class condition. Address W. M. Smith, 5305 Cornell Ave., Chicago, Ill.

TELEGRAPHY.

LEARN TELEGRAPHY—Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

FARM LANDS.

ALABAMA ALFALFA LANDS—Beautiful rolling prairie country, well drained naturally, health conditions very good, ample timber and shade, overflowing artesian wells of pure water, 50 inches annual rainfall, ideal climate, mild winters. Alfalfa grows without liming or inoculation, stays green all year, grazed December to March with cattle, sheep and hogs, cut for hay 4 to 6 times in season, variety native grasses and several clovers growing wild. Soil rich in lime makes best production of live stock. We are tick free. Dairying very profitable. Labor cheap and plenty of it. Creamery here paying Elgin prices and better for butter fat. Buy here where so many farmers and breeders from 11 different states have bought and making good; 30,000 acres for sale; any size farm wanted, terms reasonable, land cheap considering fertility and quality of soil. Good railroad facilities, several pike roads and more building. Corn, wheat, oats, velvet beans and many other crops grown here. Full information and photographs upon request. C. C. Clay Alfalfa Land Co., Demopolis, Ala.

NORTH DAKOTA in per capita and farm production surpasses every other state. As many dollars per acre can be produced as in states where land sells four times as high. Government records prove it. Climate, soil, crop, railroads, schools, roads exactly as good as best in Illinois, Iowa and Minnesota. The Soo Line wants practical, diversifying farmers. You can obtain a home without commission to us while land is still cheap; easy terms. Write at once for our plan of direct dealing. J. S. Murphy, Immigration Agent, Soo Line Ry., 1272 Soo Bldg., Minneapolis, Minn.

LOW-PRICED CUT-OVER LAND from our company, the owners, direct to you and on terms to suit, in this ideal dairy country. You should see Rusk county before you locate, because nowhere else will the same money locate you so favorably, with every advantage, schools, churches, railways, good markets near, and crops sure. Our company wants you to locate on its lands and will treat you right. Address Flambeau River Lumber Co., Station D, Ladysmith, Wisconsin.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

RUSK AND SAWYER COUNTIES—We own 20,000 acres of good land and four townsites on the Soo and Omaha lines. Forties, eighties, etc. $15 to $25 per acre on very easy terms. All high land, plenty of hardwood timber and best clay loam soil. Excellent openings for saw mills and wood-working factories. Write for literature. Upper Wisconsin Land Co., Ladysmith, Wis.

FARM AUCTION SALE—The 440-acre dairy farm belonging to the estate of Moses Kaufmann, will be sold at auction July 18, 1917; 4 miles from the metropolis of South Dakota and a fine market. Easy payments, 15 years' time; 5½% interest. For further particulars write to Jones & Matthews, attorneys for estate, Sioux Falls, S. D.

NO PAYMENTS FOR FIVE YEARS—Only taxes and interest; $1.00 per acre down, balance on or before ten years; hardwood timber land with timber enough to pay for the land, close to market, schools and cheese factories; clay loam soil, all tillable. Taylor county, the clover and dairy belt of Wisconsin. Rib River Land Co., Medford, Wis.

BURLEIGH COUNTY, N. D., improved and unimproved lands $20 to $35 per acre. Aurora County, S. D., improved farms $43 to $60 per acre, sold on very easy terms. A. H. Schroeder, Mankato, Minn.

668-ACRE IMPROVED STOCK FARM, Polk Co., Wis.; good buildings, fences, living water; small payments, easy terms, low interest. Write for description. Mason Booth, owner, Merchants' Hotel, St. Paul, Minn.

520 ACRES—4 miles from Ladysmith; $10 per acre, ten years' time. Armstrong Land Co., Ladysmith, Wis.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

HELP WANTED.

WANTED AT ONCE—Three men to work on poultry farm. Must thoroughly understand either incubation and brooding, feeding or health and sanitation. Are willing to pay good wages to the right man. Address Oak Dale Farm, Austin, Minn.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

REGISTERED HOLSTEIN BULL.

REGISTERED HOLSTEIN BULL ready for service; 2 of his dams averaged 100 lbs. milk in 1 day and 35 lbs. butter in 7 days, officially; $100. Wisconsin Live Stock Association, Appleton, Wis.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892, eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

CURRENT EVENTS

THE first detachment of United States soldiers landed on French soil last week, preparatory to going into action at the front under command of General Pershing. It has not been announced how many soldiers were landed, but the number runs into the thousands. Some 2,500 marines were included in the first landing. The troops left the United States without any public announcement and made their way in safety across the ocean and through the zone where the German submarines do their deadly work. The transports were convoyed by American battleships. The troops were given a wildly enthusiastic reception by the French, who look to the United States to save them in their plight, the French resources being almost exhausted. Other troops will follow from time to time and the National Guard regiments will probably reach France some time this fall, with the first detachment of the conscript army to follow early next spring. Considering the difficulty of mobilizing, of securing all the necessary provisions and equipments and the distance to be traversed the rushing of troops to France was done in record time and was a brilliant achievement. The American forces will be a net gain to the allies. It will throw no single burden of supply or equipment upon them. The troops will be fed, clothed, armed and equipped by the United States. Around them at the camp on French soil tonight are being stored supplies that will keep them going for months, and more will follow. General Pershing and his staff have been busy for days preparing for the arrival of the men. Despite the enormous difficulties of unpreparedness and submarine dangers that faced them, the plans of the army general staff have gone through with clocklike precision. Most of the first American troops to land had seen service in Mexico recently and are in splendid physical condition, anxious to get into the trenches and the fray.

THE administration food control bill, giving the president broad authority to control the distribution of food and fuel for war purposes, passed the lower house of congress by the decisive vote of 365 to five. Attached to it was a prohibition measure which forbids the use of foodstuffs for the manufacture of alcoholic beverages and gives to the president the authority to take over for war purposes all liquors now on hand. The amendment designed to cut off manufacture of liquors was adopted, 132 to 114. It was submitted by Representative Barkley, of Kentucky, democrat, and would provide that no food, food material, or feed could be used during the war for the manufacture of alcohol or alcoholic beverages except for governmental, industrial, scientific, medicinal or sacramental purposes. On the amendment authorizing government use of distilled spirits there was no roll call, and only a few scattered nays were heard on the viva voce vote. The United States is in a fair way to follow the lead of Russia, England and France and adopt strict prohibition measures during the war. Russia was the first of the great powers to take this summary action, but it was not long until the other nations followed suit. The United States is seriously considering the matter and congress will probably give the president all the authority needed to cut off the liquor traffic completely, if he sees best to do so. The agricultural committee of the senate has gone even further than the house and provides for a "bone dry" nation at the will and order of the president, beer and whisky to be absolutely prohibited.

THE $2,000,000,000 issuance of Liberty Bonds by the United States government was oversubscribed 50 per cent. The total subscriptions amount to $3,035,226,850. More than 4,000,000 people bought bonds. Ninety-three per cent of subscriptions or those of 3,960,000 persons were for sums varying from $50 to $10,000, while twenty-one subscribers applied for allotments of $5,000,000 each or more. The New York federal reserve district led the list with subscriptions totaling $1,186,788,400, or more than three times the amount subscribed in the next district, Chicago, $357,195,950. The other districts sent subscriptions as follows: Boston, $332,447,600; Cleveland, $286,148,700; Philadelphia, $238,309,250; San Francisco, $175,623,900; Richmond, $109,737,100; Kansas City $91,758,850; St. Louis, $86,134,700; Minneapolis, $70,255,500; Atlanta, $57,787,550; Dallas, $48,948,350. On account of the oversubscription those who subscribed in amounts larger than $10,000 will receive only a portion of the bonds they ordered, but all who subscribed for bonds in amounts less than $10,000 will receive all they ordered. The bonds are now being printed and will be ready for distribution to the subscribers about the first of August. The wonderful response of the American public was complete proof of the fact that the nation is behind the president and is ready to fight with men, money and munitions, to the end that tyranny and oppression may be banished from the earth.

SOMETHING like $105,000,000 was raised for the Red Cross in the nation-wide drive which ended last week. Practically every state contributed its quota, while some went far above the mark. Nothing has brought the war nearer home to the individual than this Red Cross drive, with its stories of bravery and suffering and its national appeal for aid. The rural districts contributed generously and the nation responded to the cry for help with wonderful spontaneity. The money raised is sufficient to carry on the work of the war relief for perhaps half a year, after which it will be necessary to come to the people again for funds.

ASSURANCES have been given the United States that Russia will not conclude a separate peace with Germany and that it is in the war to stay. These assurances were given in a speech before congress delivered by Special Ambassador Bakhmetieff, head of the Russian war mission to this country. "With all emphasis," said the ambassador, "may I state that Russia rejects any idea of a separate peace. What Russia is aiming at is the establishment of a firm and lasting peace between democratic nations. The triumph of German autocracy would render such a peace impossible. Russia will not fail to be a worthy partner in the league of honor." No previous incident of the war has stirred the senate and house to such enthusiasm. Senators and representatives who had restrained their applause at the appearance of Marshall Joffre and Foreign Secretary Balfour threw away all reserve and cheered the Russian envoy to the echo.

MILITARY Germany long ago introduced a card catalog for men and live stock. Every man and every horse and beast of burden was examined in peace time to determine suitability for military service and was indexed so as to be available. The system is now about to be extended to agricultural food products and applied to the harvest of 1917. Orders have been issued at Berlin to begin the giant card catalog in which all grains on the stalk, potatoes in the ground, fruit on the trees and other products will be entered, together with details of acreage, the number of individuals and live stock on each farm and the amount of food and fodder the farmer is entitled to retain for all purposes. This will be followed by regular reports through all stages of growth, harvest and delivery through the hands of the wholesaler, the miller and the retailer to the ultimate consumer. The reports will be checked up when considered necessary by a test of threshing and examinations. The system is introduced at the instances of the Prussian food commissioner, Doctor Michaelis, not only for the purpose of furnishing the government with information on the food supply and to avoid erroneous estimates such as proved nearly catastrophic this spring, but also to prevent the farmer from feeding grain and potatoes counted upon as rations for the people, to his cattle and other animals.

AN appeal to women to reduce by one-third the amount of wheat they use for the family was made by Joseph P. Griffin, president of the Chicago Board of Trade, to the woman's committe of the national council of defense. "We Americans normally use for food and seed 640,000,000 bushels of wheat annually," he said. "This year there will be but 650,000,000 bushels of wheat compared with 3,000,000,000 bushels of corn. That leaves but 10,000,000 bushels of wheat to send to the allies, and that's not bearing near our share of the burden. Every housewife in the United States can give up one-third of the amount of wheat she ordinarily uses. There is no end of wholesome nutritious corn products and by using these she saves not only one-third in the price of grain, but gets a much larger proportion of energy-producing nourishment and of fat."

MORE than 500,000 men have volunteered in the American army and navy in the period of less than three months that has elapsed since war was declared to exist. The army, navy and national guard represented an aggregate strength of little more than 300,000 men when the war resolution was adopted. Today between 700,000 and 800,000 are enrolled in the various branches of the fighting service and the great majority of them are armed, equipped and under training. They wlil be joined at the end of the summer by nearly 1,000,000 men selected for the new national army from the millions registered for war duty June 5th. The regular army totaled a little more than 100,000 men three months ago. It is nearing the 250,000 mark today and war department officials, backed by the press of the country, are bending every effort to bring it up to 300,000.

PLANS for insuring the lives of American soldiers and sailors during the war will be discussed at a conference of life insurance presidents with Secretary McAdoo, of the treasury department. One idea suggested is to place the insurance in the hands of the federal war risk insurance bureau, which is now insuring lives of men of the merchant marine. Another plan to be considered is a combination of insurance companies, coöperating with, or backed by the government.

TOP DRESS CROPS NOW!

MANURE MEANS MORE PROFITS!

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Right now—this summer—is the time to top dress your crops. Get that big manure pile out on the land where every load spread means many more dollars for you in the great fall harvest. Spread your manure crop on your next year's corn land. Put a golden manure dressing over your winter wheat. Cover your valuable oats and make them still more valuable. Every pile of manure is in reality a pile of gold. Farm products are going higher and higher in price. The bigger and better your crop—the bigger and better your profits.

Farm Renters—Look Here! The present high prices and higher ones that are coming mean that you cannot afford to let your manure lie around your farm idle. Make it work for you. Make it produce more of the valuable farm products that are commanding such good prices today.

Spread Manure the Galloway Way

Stop the hard, wasteful hand method of spreading. Quit using that old makeshift, half broken spreader. Get Galloway's famous No. 8 Low Down or any Galloway Model direct from our immense factories and save $25 to $50.

Get Galloway's New Model Big Crop Spreader

Let me prove that in buying this great late model spreader direct from Galloway you not only save that $25 to $50, but you get the best spreader that I or any one else ever built. It's impossible to get as good a spreader as Galloway's, because I studied and investigated them all before I built my newest model. None has so light a draft—such a big horse saver. And best of all I have eleven new exclusive spreader improvements. These eleven new features are patented and controlled by me. On no other spreader can these eleven improvements be had. So if you want the newest and best in a spreader—the most down-to-the-minute in design, efficiency and work—your choice must be the Galloway.

See How I Have Improved the Spreader

Learn about my new steel beater and wide spreading V-rake that pulverizes and tears the manure to shreds. See my incomparable patented roller-feed that works on the same principle as moving a house on rollers. This together with the large drive sprockets make the lightest draft ever known. Remember my new model spreaders are not horse killers. The Galloway positively is easier handled with two horses than other spreaders with three and four horses. My patented automatic stop and uniform clean-out push board make spreading easier and more thorough than with old style spreaders. The everlasting tongue of pressed steel is positively indestructible. The beater teeth are strong and extra durable and break up the toughest clumps into finest particles. The rear shaft of high carbon steel is now stronger than ever. All metal parts neatly finished with asphaltum weatherproof paint. Spreader is adjustable from 4 to 24 loads per acre. Has double chain drive direct from rear wheels. Extra heavy bolts hold the beater bars in beater head. Beater bracket is strengthened beyond strength required by extra bolts. Part for part, all the way through from front to rear, the Galloway Spreader excells at every point.

Get My Low Patriotic Price!

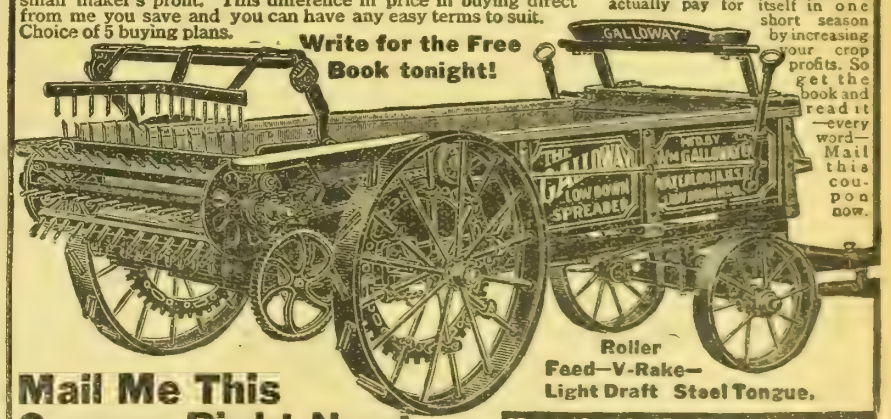
This of all times is the time to use a spreader. A top dressing now means bigger crops this fall when prices will be higher than ever. And then all farm products will be at a premium. The men and the women on the farm must do their share for the nation. I am doing mine by naming you a low Patriotic Price that will help you in doing your bit for the country. It means

A Clear Saving of $25 to $50 for You

You get the Galloway direct from your field to your farm. Remember Galloway is not a dealer, jobber or agent, but the manufacturer—the maker—with a tremendous chain of factories at Waterloo, where he turns out hundreds of spreaders, Separators, Engines, Tractors and other implements on only one small maker's profit. This difference in price in buying direct from me you save and you can have any easy terms to suit. Choice of 5 buying plans.

Write for the Free Book tonight!

I Want You to READ THIS FREE BOOK That tells the whole story of my direct-to-you plan of buying and how I save you so much on such a wonderful Spreader. My book explains everything and shows you how my spreader on your farm will actually pay for itself in one short season by increasing your crop profits. So get the book and read it—every word—Mail this coupon now.



Roller Feed—V-Rake—Light Draft Steel Tongue.

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Let me place in your hands the most valuable money-saving book ever given to the farmers of this country. It gives you full details of this remarkable spreader bargain and how I actually save you $25 to $50 on the highest grade spreader built. Don't confuse the genuine Galloway with cheap imitations made to meet my price. No other spreader can have the honest Galloway quality and the exclusive Galloway patented features. Here's proof:

Geo. A. Kralik, Oklahoma City, Okla., says, "I saved $29 on a Galloway. I know it is better than I could have bought here for $125.00."

Spreaders are shipped from place nearest your station, St. Paul, Chicago, Kansas City, Council Bluffs or Waterloo factories. Write tonight. Use the Coupon.

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I am interested. Please send me low prices — full information about your new Model Low Down Spreader and big money-saving book on Spreader Secrets.

NAME.....

TOWN.....

R. F. D.....STATE.....

Fly Time and Milk Production.

An unbelievable amount of money is lost each year by the dairymen of Wisconsin because of flies.

That the keeping of flies along with dairy cows is expensive can be determined by anyone who cares to investigate.

If a herd will drop in production anywhere from 5 to 20 per cent with the coming of "fly time," and this at the season when production should be most abundant and economical, it should be apparent to all that flies collect or cause heavy tax.

That we are troubled less by this pest than in some less favored sections is cause for congratulation, but we should not, and need not, be satisfied with conditions as they are. In fact, there is still less excuse for our neglect of a matter which in many cases means the difference between profit and loss in summer dairying.

The cow is the most important part of the dairy department. The more or less expensive buildings and fittings we buy on her account are to assist her in the production of milk and butter fat, to extend her period of usefulness and to reduce the labor necessary to her care.

In brief, all this outlay of cash is to make the keeping of these cows more profitable. We invest dollars hoping to some day see them return accompanied by others of their kind. This is all well and good, but don't blame the cow if she cannot give milk and fight flies at the same time. The latter is not her job. That is yours if we will persist in breeding the "pesky" things.

Flies are pests, no matter how you consider them. The poor esteem in which they are held is indicated by the general slogan, "Swat the fly." It is a good one, too, and should be obeyed early and often.

We have all seen, however, that flies are less prevalent on some farms than on others. Of course, there must be a reason for this. If their presence is due to some cause which can be removed, then flies need not be present in such numbers as to be a plague.

The fact is that flies are most troublesome on farms where the least care is taken in the disposal of waste material and they find least encouragement on premises where the strictest cleanliness is the rule. The favorite hatching place of the fly is the fresh manure pile and it swarms about wherever animal or vegetable matter is left to decompose.

The best control is prevention. The best time to "swat the fly" is before he becomes one. Therefore, remove their breeding places, which are manure piles or refuse dumps. Clean up any spots where they may congregate, and destroy eggs or larvae. By so doing the nuisance is attacked at its source, which is always the effective way of handling such a problem and other precautions for protecting live stock from annoyance have some chance of accomplishing the desired end.

"Swat" the manure pile and thus effectively swat the fly. Perhaps we have overemphasized the value of the manure pile. If so it is not intentional, for it is the manure and not the pile that is worth saving.

The more direct the course of the manure from the stable to the land the better, for the valuable elements are then fixed in the soil where they are needed instead of being wasted through leaching or fermentation. The manure pile is an eater of fertility and a breeder of flies. Either is cause enough for its removal. Any dairyman would consider himself outraged if required to pay a license fee of $25 to $50 for maintaining a manure pile on his premises for purposes of ornament. True, still he would not have to be the owner of many cows before he would lose that much through wasted fertilizer and increased flies.—[Roy T. Harris, Wisconsin Bankers' Farm Bulletin.

Dr. Babcock Honored.

Dr. Stephen Moulton Babcock, inventor of the Babcock test and one of the foremost men in Wisconsin's dairy history, was honored by the University of Wisconsin during the graduation exercises of the school on June 20th for the great work which he has done in the interest of the state and the university. Dr. Babcock's work along scientific lines stands out preeminently and it is both proper and timely that the school where he has spent so many years of his life and where he has worked so unselfishly and untiringly should confer upon him the degree of doctor of science. The 6,000 persons that crowded the live stock pavilion during the exercises applauded the doctor in a manner which left no doubt as to his popularity.

The university also honored Paul S. Reinsch, United States minister to China, by conferring upon him the degree of doctor of laws. Mr. Rinsch graduated from the University of Wisconsin in 1892.

Mrs. Mary F. Bradford, superintendent of schools at Kenosha and formerly president of the Wisconsin Teachers' Association, was honored with the degree of master of arts.

The total graduation from the university this year numbered approximately 1,000.

Dairy Cattle Congress.

The eighth annual Dairy Cattle Congress will be held at Waterloo, October 1st to 7th. The show this year will undoubtedly be one of the largest in the history of dairy experience in the West. As usual opportunity is offered to buyers to choose good breeding stock. While most of the cattle will not be for sale, breeders will have an opportunity to determine, in a general way, the best types of the several breeds. Exhibition space for machinery, dairy supplies and equipment, etc., is being reserved by manufacturers as usual. Dairy cattle congress is for all dairymen, creamerymen and farmers. Its prize money is open to all breeders in the world.

Eau Claire County Holstein Breeders.

The Eau Claire County, Wisconsin, Holstein-Friesian Breeders' Association held its annual picnic at the George B. McLellan farm, ten miles southwest of Augusta and a mile east of Foster. The day was ideal and visitors came for twenty miles around. Roads are good in this neighborhood and care plentiful. A picnic dinner was served at noon, at which the association furnished free coffee, cream, sugar, ice cream, cups and plates, and those who attended brought the balance of their dinner. The tables were heavily laden. D. S. Bullock, of Madison, gave a very interesting talk on keeping herd records and Mr. Ingalls, our county agent, gave a splendid talk on "The Value of Belonging to an Association." The program included solos by Miss Flo West and Eldredge Hubbard. The 300 people who attended this picnic spent a very enjoyable and profitable day.

Langlade County Guernsey Breeders.

Langlade county Guernsey breeders made history for their association in a ninety-mile auto trip to Wausau and vicinity on June 12th. Nine automobiles loaded with Guernsey enthusiasts of the county enjoyed the outing.

Visits were made to the Marathon County Agricultural School and to three of the leading Guernsey herds of Marathon county near Wausau. At each farm Mr. Math Michels, of Peebles, guest of honor of the day, gave short talks on various phases of the Guernsey industry. Owners or herdsmen explained their methods of management. County Representative cow, a yearling and a calf. Son number three has a yearling. Four younger sons haven't yet attained the A. C. Humphrey, of Marathon county, acted as pilot for the party while in his county. Mr. Humphrey also gave a most interesting talk on the "Points of the Dairy Cow."

At Lily Dale Farm the proprietor explained how he had built up his herd of thirty-five head from one pure-bred heifer calf purchased thirteen years ago. Mr. Bandy always made it a point to purchase high-class, pure-bred sires. He related with deserving pride his plan of taking his boys into partnership. When a boy obtains the age of about twenty Mr. Bandy gives him a heifer calf, which, with its offspring, becomes the permanent property of the boy. His oldest boy now owns four head besides having sold $300 worth of bulls. The second son has a age when according to dad's plan they are entitled to a calf of their own. "But all are interested in Guernseys," declared Mr. Bandy.

Heartily endorsing Mr. Bandy's plan, Mr. Michels told how he has lined up his boys in much the same way. He starts them at sixteen. On the Michels farm about a third of the fifty head of pure breds are owned by the boys. "I tell you there is nothing like it to rouse a boy's interest in stock," declared Mr. Michels. "My boys are not only more interested in their own Guernseys but in mine as well. They are perfectly satisfied to stay on the farm." "That watering system cost me just $45 and I can't see how any northern Wisconsin farmer can afford to be without one," said Mr. Bandy, when questioned as to his opinion of the value of an inside watering device. His supply tank is of concrete, built in one side of the feed room between the silo and the barn. The cups and controlling device are the output of a well-known barn equipment firm. He did the work himself.

The contribution of northern Wisconsin's luxuriant pastures to the size and capacity and vigor of the Guernsey was well exemplified in both the Walter Alexander and B. T. Wilson herds. Not a delicate specimen in the whole lot on either farm.

For the man who delights in a cow with long, deep, roomy middle, coupled with a frame and constitution to match, these cows were a sight to behold. Real cows for size, every one of them. To the man who would switch from the Guernsey to a cow of larger size and conformation, these cows were a warning "to don't."

On the Wilson farm Lady McLean, grand champion Guernsey at the 1915 state fair, was led out for inspection. This beautiful specimen of the breed proved an inspiration for the Langlade county breeders. Using her as a test Mr. Humphrey most ably presented the points of the ideal dairy cow. Guernsey interest is growing rapidly in Langlade county. Since January 1st six farmers who did not previously own one have purchased pure-bred sires. Two other farmers bought exceptionally high-class sires from well-known Guernsey herds in the southern part of the state. Several farmers are planning the purchase of pure-bred Guernsey heifers at an early date.

Officers of the Langlade County Guernsey Breeders' Association are: President, Gustave Schroeder; vice

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Fond du Lac County Holstein Breeders.

The annual summer meeting and picnic of the Fond du Lac county Holstein-Friesian Breeders' Association was held at the C. H. Brugger farm, June 15th. Sec. J. J. Ermatinger, of the Fond du Lac Association of Commerce, announced the desire of his organization to promote in any possible way the dair cattle interests of the county. He asked the breeders to furnish him with cattle which they have for sale so that he could pass this information to visitors coming to Fond du Lac county for good stuff. In this way buyers may be able to find out in town where they can get hold of a carload of stock. This is a splendid plan of coöperation that might well be adopted in every place. It would certainly be very handy for buyers to find out in town in just what part of the county they could secure the stock they desired. A good many visitors to the city are accompanied by bankers and these men have the habit of getting acquainted in the cities and towns before going to the country. The Fond du Lac Association of Commerce looks upon the development of the country surrounding Fond du Lac as of great importance and has offered to assist in many ways in this work. Mr. Brugger has a fine modern bungalow on his place, built of split hardheads, and he also has a fine modern dairy barn. This farm proved an ideal place for the gathering and everyone enjoyed the day immensely.

Barron County Holstein Meeting.

The annual summer meeting and picnic of the Barron County Holstein Breeders' Association was held at Krahenbuhl Grove, Saturday, June 16th. The chief address was given by W. F. Schilling, who gave a splendid talk, reviewing at some length the progress of the Holstein breed in the country and in Barron county, as compared with ten years ago. The older dairymen present participated in a judging contest for the best dairy cows and the boys and young men judged the calves. It was a big day for the Holstein interests of the county.

Club Studies Dairying.

To the Editor:—Our club has been having a good time the past year. We are interested in debating in general discussion on farm topics and also have dancing and singing. Dairying is the leading subject. We have done some community breeding and erected a coöperative creamery (not entirely on account of the club, however) and just now the club is discussing the extension of our creamery coöperation so as to enable us to deliver milk to the city trade. We feel that we might be able to make arrangements to handle milk orders from consumers. We have several young men in our club who have taken a course at Madison and can discuss farm topics very well. This region is rapidly developing in dairying. The pastures during the summer months are good. Clover grows luxuriantly, and, owing to the cool, moist climate, remains good until late in the fall. All kinds of grain and crops are doing well here in Douglas county. We are glad to see The Wisconsin Farmer taking an interest in clubs. J. F. Kirwin.

South Superior Farmers' Club, Douglas county, Wis.

Eau Claire-Dunn County Guernsey Breeders.

To the Editor:—The Eau Claire County Guernsey Breeders' Association held its annual summer picnic June 13th, in connection with the meeting of the Dunn county association. The scene of this picnic was "Atlasta Farm," the beautiful place owned by C. T. Bundy, near Cedar Falls, Dunn county. Mr. Bundy's herd consists of fifty pure-bred Guernseys, a great many of which have already qualified for advanced registry, with very creditable records, and several others now on test are coming along in good shape with prospects of good records. The first heifer from Mr. Bundy's herd bull to be put on test has, during the first month, produced 62.6 pounds of butter fat. The visitors spent the forenoon admiring the stock and getting pointers to take back home and aid them in improving their own herds. There was a basket luncheon at noon followed by judging of dairy cows. Mr. Klatt was awarded first prize and Joe Cramer second. Professor Wolf, of the Dunn County Agricultural School, gave a talk, followed by Mr. Hills, of Peterboro, New Hampshire, who presented greetings from the home office of the American Guernsey Cattle Club. He spoke very emphatically of the duty of the breeders of the middle West, who are expected to do everything in their power to increase the number of dairy cattle, in order to supply the demand which is coming surely from the eastern markets when the farmers and dairymen there are obliged to sell off at least a part of their cattle because of shortage of feed. Prof. G. R. Ingalls, our county agent, gave us a fine talk. Mr. Bundy explained the change made in the rules for conducting advanced registry tests, as adopted at the last session of the American Guernsey Cattle Club. It was a big day for the Guernsey breeders of Eau Claire and Dunn counties, and the hospitality of Atlasta Farm was universally commended. W. W. Kinyon, Sec.

Eau Claire Co., Wisconsin.

Waukesha County Jersey Picnic.

The annual summer meeting of the Waukesha County Jersey Breeders' held at H. W. Claflin's farm, Muskego, Wisconsin, June 21st, was an event that furnished both pleasant and profitable recreation for a goodly number of Jersey enthusiasts as well as many broad-minded dairymen representing other dairy breeds.

Mr. and Mrs. Claflin have the happy faculty of making their guests feel at home and they are to be congratulated upon making the good spirit possible which prevailed throughout the meeting. Mr. Claflin has an excellent Jersey herd and the fact that there were some of the choicest specimens of the breed almost continually in sight of the meeting gave the event a distinct Jersey tone.

A particularly good list of speakers also had much to do in making this meeting a success. Prof. D. H. Otis, of the Wisconsin College of Agriculture, gave one of his substantial talks, in which he briefly pointed out the significance which the dairy cow is to play in the titanic struggle which is just ahead of us. The data Professor Otis gave regarding the present food supply of this country and the prospects for this year's crops as well as the efficiency of the dairy cow in converting raw materials into human food should encourage every farmer interested in the dairy business. Professor Otis also pointed out the great demand for dairy cattle that would be made upon this country after the war.

Mrs. Addie Howie, Elm Grove, recognized not only in Wisconsin but throughout the entire country as a leading exponent of the Jersey breed, championed the Jersey cause in an able manner and made the prophecy that the day was coming when, not only in Wisconsin, but wherever dairying reached a high state of perfection, the Jersey cow will be foremost.

Mrs. Howie pointed out the performance of Brown Bessie as well as members of her own herd that have demonstrated the possibilities of the Jersey cow. Mrs. Howie is not only a noted lecturer on dairy subjects but has made thousands of pounds of butter with her own hands which gives her hearers added respect for her opinions on matters pertaining to the future for the Jerseys. In accounting for the fact that Jerseys are not more prominent in Wisconsin than they are, Mrs. Howie laid the blame on the men behind her rather than the cow herself.

Rev. John Humphries, of Big Bond, gave an ardent address on patriotism that contained much food for serious thought and incidentally made a vigorous plea for national prohibition.

Mr. S. A. Baird mentioned the Gov. W. D. Hoard memorial fund that has been started, and suggested the part Wisconsin dairymen should take in this worthy movement.

Mrs. N. Kartach spoke on the Red Cross work which is claiming so much attention at present.

G. P. Jones, Waukesha county Y. M. C. A. worker and labor agent, outlined some of the splendid work they were endeavoring to accomplish.

Gavin McKerrow, a prominent Waukesha county Guernsey breeder, was called upon for a few remarks and he emphasized the importance and possibilities of a county breeders' association.

GROUP OF VISITORS AT WAUKESHA COUNTY JERSEY BREEDERS' PICNIC.

About 12,000 pounds of wool were sold by Gage county, Nebraska, farmers at a recent coöperative wool sale conducted in that county under the direction of L. Boyd Rist, the county agricultural agent. The average price received for the wool was 51 cents a pound, some farmers receiving as high as 55 cents. Buyers from Philadelphia, St. Joseph, Kansas City and Omaha attended the sale.

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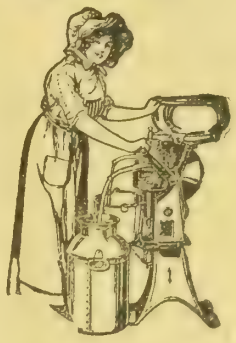

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THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

How to Destroy Bedbugs.

We have a letter from one of our subscribers who has just moved into an old house that is so badly infested with bedbugs that she is at a loss to know how to deal with them and she appeals to us for some method of eradication.

The commonest prescription for bedbugs is a mixture of one ounce of corrosive sublimate in a pint of alcohol, to which is sometimes added four ounces of turpentine. This liquid may be squirted by means of a small syringe into cracks around the beds, around mopboards, in back of picture frames or other hiding places where the bugs live. Gasoline or kerosene may similarly be used, in which case, because they are not corrosive, an ordinary spring-bottom oil can may be used for making the applications. Gasoline is especially penetrating and less liable to leave after odors than kerosene, and if used liberally enough will destroy eggs of the insects in the cracks where the bugs hide. When using gasoline, on account of its explosive nature, precautions should be taken with fire. Boiling water poured over infested bedsteads is sometimes recommended and would be serviceable if liberally used, but this treatment is harmful to varnish.

Since bedbugs breed in any cracks in the room, such as under wall paper, under mopboards or in the bedsteads, in which places they hide during the daytime, it is often impossible to reach all the places with a liquid treatment. Notwithstanding the inconvenience attending its use, under such conditions fumigation will be most effective. The room must be made as nearly gas tight as possible by stopping up keyholes and by pasting strips of paper over any openings. Sulphur may be burned at the rate of two pounds to every 1,000 cubic feet of room space. It should be placed on an iron plate, wet with a cupful of denatured alcohol and ignited, or sulphur candles may be substituted. The room should be kept closed for fourteen hours. Sulphur has the disadvantage of bleaching or tarnishing articles in the room

There is one other very efficient method of destroying bedbugs or any kind of vermin in the house, and that is by cyanide fumigation. This method is quite dangerous, however, and should be used only as a last resort. Because the gas produced is colorless and virtually odorless, the danger attending the use of cyanide is often not appreciated, and if it is carelessly employed might have as disastrous results on the people living in the house as on the bugs. When all other methods of eradicating the bugs fail and cyanide fumigation is demanded it may be carried out as follows:

For every 1,000 cubic feet use ten ounces of sodium cyanide mixture, a little less than a pint of sulphuric acid and a quart of water. The acid should be poured slowly into the water in an earthenware jar and the cyanide should be wrapped in a piece of paper. When the room is in readiness the paper of cyanide may be dropped into the acid and the room should then be immediately closed Even a slight inhalation of the evolved gas may have bad effects, so the greatest care in using the poisonous cyanide should by all means be exercised. Before the room is again to be entered it should be thoroughly aired from the outside.

An Inexpensive Meat Substitute.

Cottage cheese is one of the important meat substitutes, say specialists of the United States Department of Agriculture. It contains a larger percentage of protein (the chief material for body building) than most meats and furnishes this material at a lower cost. In every pound of cottage cheese there is about one-fifth of a pound of protein, nearly all of which is digestible. Meats, on the other hand, usually contain less protein and besides have a certain waste, such as bone and other inedible material. A pound of cottage cheese daily would supply all the protein required by the ordinary adult engaged in a sedentary occupation.

The following table shows that cottage cheese, obtainable at from 12 to 17 cents per pound, is much cheaper than most meats in furnishing protein for the diet.

For supplying protein, one pound of cottage cheese equals:

1.27 pounds	sirloin steak.
1.09 pounds	round steak.
1.37 pounds	chuck rib beef.
1.52 pounds	fowl.
1.46 pounds	fresh ham.
1.44 pounds	smoked ham.
1.58 pounds	loin pork chop.
1.31 pounds	hind leg of lamb.
1.37 pounds	breast of veal.

In addition to protein, energy for performing body work must be furnished by food. As a source of energy also cottage cheese is cheaper than most meats at present prices. The following table shows the comparison when energy is considered.

On the basis of energy supplied, one pound of cottage cheese equals:

8 1-3 ounces	sirloin steak.
11¼ ounces	round steak.
11¼ ounces	chuck rib beef.
10¾ ounces	fowl.
5½ ounces	fresh ham.
5 ounces	smoked ham.
6 ounces	loin pork chop.
7 1-3 ounces	hind leg of lamb.
12¾ ounces	breast of veal.

An Old Hand at Making Beads.

To the Editor:—I shall try to explain to Miss Loraine how to make rose beads. Gather the rose petals (any color will do) while the roses are in their prime, fully open, but not showing any signs of the petals falling off. The sweet smell of the beads comes from the fresh petals. Be careful not to get any pollen or leaves among the petals, because when ground and molded they will crack the beads because they do not give or dry.

When you have gathered a sufficient quantity of petals put them through a food grinder. Grind as many times as you have time for—the more times they are ground the finer will be the beads. I usually grind mine fourteen times. When they have been ground through the finest cutter of the grinder put in a sheet-iron pan, as an old black bread pan or an old stovepipe. The blacker the pan or tin the better the beads are and the blacker. Be sure the tin or pan is not rusty and do not use a tin pail or enameled pan. Spread the pulp lightly over the pan so as to get thoroughly black. Keep the pulp in a cool place, as in a cool cellar, for it must stay damp. Never keep it near the stove or in the sun. Turn and spread the pulp once a day and grind if desired, for it makes the beads finer grained. When ground be sure to return the oozing juice.

After three or four days the pulp has generally blackened through. The pulp must never get hard or moldy. If, when put into a ball, it is about as soft as putty it is about ready to mold into beads. If it should get too hard to mold, put a little glycerine or olive oil in it—just enough to moisten it. This helps to make the beads glossy also.

The beads should be made at least three-fourths larger than you want them to be when dry because they shrink in drying. In molding the beads place a small piece of pulp in the palm of your hand and roll with the fingers of your other hand. Be sure the beads are pertectly round and the same size, unless, of course, you wish larger beads at the bottom of the chain and smaller ones around the neck, which makes a pretty chain when strung.

When the beads are made stick a pin or needle through the center of each and put on a cracker board to dry. After ten to twenty days, or when hard, the beads may be strung. Keep them in a cool place away from the heat and sun while drying, otherwise they will crack.

When ready to string slip off the pin or needle and string first a rose bead and then a gold one. If the gold beads are small two or three may be used between the rose beads. The gold beads may be bought for from 10 cents to $3 a string.

Never let babies wear rose beads, because they are liable to eat them and it will make them very ill.

If you get tired making the beads stop and think of me, for I have made at least 750. You may think only city people have time to make rose beads, but, oh, no, for I am a country girl and have much to do besides.

Augusta M. Zebarth.

Grinds Rose Petals Nine Times.

To the Editor:—I want to tell Loraine how to make beads from rose petals. I take about a gallon of rose petals and grind them every morning for nine mornings through a food grinder. After the first grinding I put them in a rusty bucket and put rusty nails in with them. After the ninth grinding I make them into beads. When making the beads I rub a little vaseline on my hands to keep them from sticking. I put the beads on hat pins to dry and when they are perfectly dry I string them. They are black and are pretty with gold beads between them.

I wonder if anyone cans mulberries as I do. I use about one-third gooseberries or green grapes and one-third mulberries. Cook and can as you would any other fruit. They are fine for making pies. Bertha S.

Use Dark Petals For Rose Beads.

To the Editor:—I have read many of the letters which have been written to the Home department and I enjoy them. I will tell Loraine how to make rose beads.

Take a quantity of fresh rose petals, preferably the darker ones, clip the small "eye" from the base of the larger ones and pass through a food grinder three times, first using a coarse blade, then the finest. Return to the mass the water which has oozed from the pulp, spread on a sheet-iron pan and set in a cool place for a day. The next day repeat the grinding three times and again put away in the sheet iron pan. Continue in this way for five days until the mass, which has become darker, is perfectly smooth and pliable.

On the sixth day take bits of the paste and roll with the fingers into balls twice the desired size, as the beads shrink about half. If the paste is too dry to roll, moisten with water. If it breaks in the attempt to roll, run through the grinder again. Repeat the rolling the next three days. Before the balls become too hard pierce each with a hat pin and run them on pins, pressing each with a piece of heavy paper to make a perfect shape. Mark designs on the beads at this stage, using a small wire hairpin. When the hat pins are filled insert in a cushion and let them remain until the beads are thoroughly dry. Polish by rubbing with the palm of the hand moistened with vaseline or olive oil and let stand several days more. String on double waxed linen thread No. 36, with two or three small gold beads after each rose bead. Silver or iridescent beads also combine well with the rose beads.

Clara Martenson.

A simple and artistic centerpiece to put upon the dining table between meals may be made of cretonne. The size of the centerpiece depends somewhat upon the size of the table, but the usual thirty-six-inch diameter of the stock size will be suitable for the average table. The centerpiece is made of two circles of the same diameter, cut from cretonne. If the paper in the room is plain, a figured material repeating as its principal color the same as that on the walls will be in good taste. With a pattern paper a plain cretonne should be used. After the circles are cut, the edges are turned slightly in all around, and the two circles are sewed together on the edges with invisible stitches. To finish off, stitch on a large edge. Centerpieces can be made in this way to match any color scheme or to fit any table by cutting the foundation pieces the same shape as the table. If the same cretonne is used for curtains, candle shades and upholstery, very beautiful effects may be obtained in a room.

THE YOUNG FOLKS.

How "Uncle Sam" Was Named.

How many of the boys and girls know how the United States came to be known by the nickname "Uncle Sam?" Uncle Sam is doing so much for boys and girls, and grown-ups, too, all over the world just now that we ought at least to know how he got his name, don't you think?

During the war of 1812 a man by the name of Elbert Anderson was engaged in furnishing supplies for the army. His store yard was located at a small town on the Hudson river. All army supplies, of course, had to be examined by a government inspector. The supplies at Anderson's yard were inspected by a man named Samuel Wilson, who was familiarly known as "Uncle Sam," and, as each box or package was passed it was marked with the initials of the contractor Mr. Elbert Anderson, and of the United States, thus, "E. A.—U. S." The man who performed the duty of marking the boxes was asked what the letters meant and he replied that they stood for Elbert Anderson and "Uncle Sam." The story was told and printed and "Uncle Sam" the United States has remained ever since.

"Doctor."

Dear Young Folks:—I am a little girl ten years old. I am in the fifth grade at school. I also study music. I have a piano and can play several pretty pieces.

The pet I loved most of all was a little puppy that was given to me by our family doctor and I named him "Doctor." We made him a nice little box under the house and he slept in it every night. He was my constant playmate. After he grew larger he would bark at the dogs that passed. One morning a big hound jumped over the fence and began fighting Doctor and before we could stop him he had bitten him in a great many places. We learned afterwards that he bit a number of dogs and a boy, for he was mad. So we had to have poor Doctor killed.

Mildred.

Keeps House for Father

Dear Young Folks:—I have been a silent reader of your column for quite a while and would like to join if there is room for me.

I was reading your letters today and read the one signed "Lucile." She asked a riddle—What is it that we often return, but never borrow? The answer to it is "Thanks."

I have no mother. My mother died six years ago I am twelve years old and in the seventh grade. I keep house for my father and three brothers. I have two brothers and two sisters away from home. I raise chickens and garden. My two little brothers help me hoe in the garden.

Will some of you girls who have mothers ask them how long I should wear my dresses and if it is all right for me to go to parties if I go with my brother? I have no mother to fix my clothes and I don't know how, but I do all my own sewing. Vesta.

Joined a Garden Club.

Dear Young Folks:—I am a girl thirteen years of age. I go to school and am in the seventh grade

How many of the girls and boys have a garden this year? I have. I joined a garden club and planted a nice garden.

We live one mile from school. I love to go to school. I have one sister. My pets are a dog named Bounce, a cat named Tommy and a few bantam chickens. We have about fifty little ducks, too. I love country life very much

We have a kodak and we have fine times taking pictures. Bessie.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern. Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

2134—A practical suit for the growing boy. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 will require 3 yards of 36-inch material.

2142—A simple summer gown. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires for an 18-year size 6⅜ yards of 36-inch material.

Blouse 2148-Skirt 2157—A splendid combination for sports or outing. The blouse 2148 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Skirt 2157 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. The skirt requires 3 yards of 44-inch material and the blouse 3¼ yards of 44-inch material for a medium size. Two separate patterns, 10 cents for each pattern.

1742—Girls' jumper dress, with guimpe having long or short sleeves. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 1¾ yards of 27-inch material for the guimpe, and 2⅝ yards of 36-inch material for the dress, for an 8-year size.

2139—A practical and comfortable first set of short clothes. Pattern is cut in 5 sizes: 1, 2, 3, 4 and 5 years. The dress will require 2¼ yards of 36-inch material. The slip 1½ yards. The drawers 1¼ yards for a 4-year size.

2160—A pretty dress for the growing girl. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 2 yards of 36-inch material for the guimpe, and 4¼ yards for the dress, for a 10-year size.

1397—Girls' dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 3 yards of 44-inch material for a 6-year size.

1690—A dainty summer frock. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8½ yards of 44-inch material for a 36-inch size.

2158—A practical, comfortable and popular undergarment. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium requires 3¼ yards of 36-inch material.

1976—Ladies' skirt with yoke trimming. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 5¼ yards of 44-inch material for a 24-inch size.

2132—Ladies' "cover all" apron. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. It requires 4⅞ yards of 36-inch material for a medium size.

1984—Ladies' house dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¾ yards of 36-inch material for a 36-inch size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for July 8, 1917.

Ahaz, the Faithless King.

LESSON TEXT—II Chron. 28:1-5, 20:27.

GOLDEN TEXT—Without faith it is impossible to please him.—Heb. 11:6.

LESSON TEXT—II Chron. 30:1-13.

Ahaz reigned sixteen years from about 739 to 723 B. C., over the kingdom of Judah its capital being in Jerusalem. The kingdom was nearing its end, and was destroyed within a few years after the death of Ahaz. His character presents many interesting questions for discussion; the character of his reign, the wealth and prosperity of his father and grandfather, the development of his character from the home wherein he originated, why a nation can be successful and not be righteous or virtuous, that is, outwardly successful, and the application of these questions to our present-day political and commercial lives.

I. Ahaz, the Ruler, (vv. 1-5). The character of Ahaz is not to be admired. He played a prominent and evil part in the history of the kingdom of Judah. We find his name recorded among the Syrian inscriptions of the year 732 B. C., the Hebrew historian having dropped the prefix "Jeho" from his name. The full name indicates that he had "grasped Jehovah," yet he was untrue to his name. The historian says "he did not that which was right in the sight of the Lord." This puts it mildly, but indeed few of the kings of Judah did otherwise, and he patterned his conduct not after the good model of his father, but the thoroughly bad conduct of the kings of the northern nation, Israel. He was but twenty years of age when he took the throne, but had already entered upon a course of action opposed to that of his father.

II. Ahaz Ruined. The choice lay before him of following in the steps of his grandfather, Uzziah, and his father, Jotham, (Chron. 1:10). He chose to defy God, openly disobeyed him and was disloyal to his God and his country, walking in the ways of the kings of Israel, (v. 2), burnt his children in the fire, after the abominations of the heathen, (v. 3) made molten images of Baal, (v. 2), and spread that worship into the high places on the hills and under every green tree (v. 4), made sacrilegious use of the temple's treasury and was dishonest as well as profane. He trusted Baalim more than he trusted God.

III. Ahaz Rebuked. God did not allow him to pursue his course of action without protest. When the children of good men go wrong, there is no measuring the extent of depravity to which they will sink. Nevertheless, God was opposed and tried to save the young man and the nation. God used the king of Syria as one agency for rebuking this mad young man. He carried away great multitudes captive, 120,000 in one day (v. 6), and "200,000 women, sons and daughters" (v. 8) at another date. Ahaz himself was filled with terror at the great calamity that overtook him. (Isa. 7:2.) While he received temporary help (II Kings 16:9, 10), he received ultimately ruin from the king of Assyria, for he became a vassal and was summoned to Damascus to pay homage to that king, as appears from the account II King's 16:7-9, and also from the Assyrian inscription, above referred to. Other enemies also attacked him—Edomites from the southeast carried away captives, and the Philistines from the southwest invaded the cities of the low plains, south of Judah, and took possession of them (vv. 17-19) and the army of the Assyrian, which Ahaz led to rob and profane the temple and its treasures in order to buy them off (v. 22-24), completed the ruin of his nation. Ahaz was forced to pay a heavy tribute to the Assyrian king (v. 21), and got no help for his outlay. He put his trust in an arm of flesh instead of in the mighty arm of God, which brought upon him the curse that always comes to those who trust in man (Jer. 17:5, 6). There is a blessing which always awaits those who trust in Jehovah (Jer. 17:7, 8). The wise man turns to God not in the time of his distress, but at all times. Instead of sacrificing to the God who saved his father and who would save him, Ahaz sacrificed to the god "which smote him." His defiance knew no bounds (v. 24). He seemed to have dabbled in every known form of false worship, thereby "provoking to anger the Lord God of his fathers" (II Kings 23:11 12). God is long-suffering to those who wander from him, but there comes an end to his patience (II Peter 3:9, 10).

IV. The Reverse Picture. There are several problems to be solved as we view this picture, for it is a story of real life, not only of the early times, but is being repeated even today and in this country. (1) Men will reap that which they sow. One cannot sow wild oats and reap the fruits of righteousness. (2) Jehovah places righteousness above security or prosperity. (3) God's purposes are for the uplift and the making of the nation and the individual better. God never does evil that good may come out of it. A loving father must exercise discipline, and let us not be mistaken.

Recipes.

Cottage Cheese Salad.—Mix thoroughly one pound of cottage cheese, one and one-half tablespoonfuls of cream, one tablespoonful of chopped parsley, and salt to taste. Fill a rectangular tin mold with cold water to chill and wet the surface, then line the bottom with waxed paper and pack the cheese in three layers, putting two or three parallel strips of pimento between the layers. Cover with waxed paper and set in a cool place until ready to serve, then run a knife around the sides and invert the mold. Cut in slices and serve on lettuce leaves with French dressing and wafers. Minced olives may be used instead of the parsley and chopped nuts also may be added.

Escalloped Tomatoes With Rice.—One cupful of rice, eight medium-sized tomatoes, two tablespoonfuls of sugar, two teaspoonfuls of salt, a little paprika, two tablespoonfuls of butter, buttered crumbs. Brush a casserole or an earthen dish with butter, and put in half of the rice, which has been boiled and blanched as usual. Put in a layer of tomatoes, skinned and cut into halves, and sprinkle with sugar, salt and a little paprika; put in the rest of the rice and cover with the rest of the halved-and-seasoned tomatoes. Cover with buttered crumbs; put on the cover and place in a moderate oven to bake for twenty minutes. Uncover and bake until nicely browned. A cupful of cream sauce flavored with two tablespoonfuls of grated cheese may be poured over the dish intsead of using the buttered crumbs to make a pleasant change.

Gooseberry Pudding.—Two cupfuls gooseberries, two cupfuls diced stale bread, one and one-half cupfuls sugar, two tablespoonfuls butter, a pinch of salt. Remove the blossoms and stems and cut the gooseberries in halves. Brush a baking dish with butter and put alternate layers of bread, berries and sugar—three of bread and two of berries and sugar. Put butter on top; cover, and steam for one hour; uncover and put in a moderate oven for one hour.

Red Raspberry Tapioca.—One cupful red raspberries, one-fourth cupful tapioca, one-half cupful sugar, a pinch of salt, one egg. Using one cupful of water, boil the tapioca until thick; then add raspberry juice, sugar and salt; boil until clear; pour into glasses. Separate the egg, and beat the white until dry, adding one tablespoonful of sugar; cover the tapioca; dust with pulverized sugar, and place in a pan of water and set in an oven to dry. The raspberry juice is made by mashing berries with a quarter of a cupful of water; put on the fire and boil for three minutes then mash through a strainer.

A quart of milk is equal in food value to eight eggs, a pound of steak, or half a pound of cheese. This is the statement of the committee on utilization and economy, Kansas council of defense. Milk, it is pointed out, is a cheap tissue builder, because the protein that it contains is of a kind particularly valuable for building tissue. Ordinarily milk is the cheapest and most valuable source of lime and phosphorus. Milk is deficient in iron, but the iron that it contains is particularly well utilized by the body.

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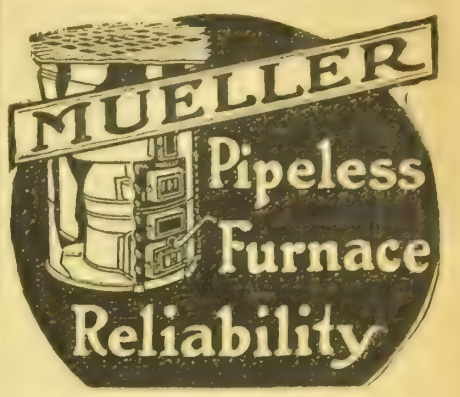

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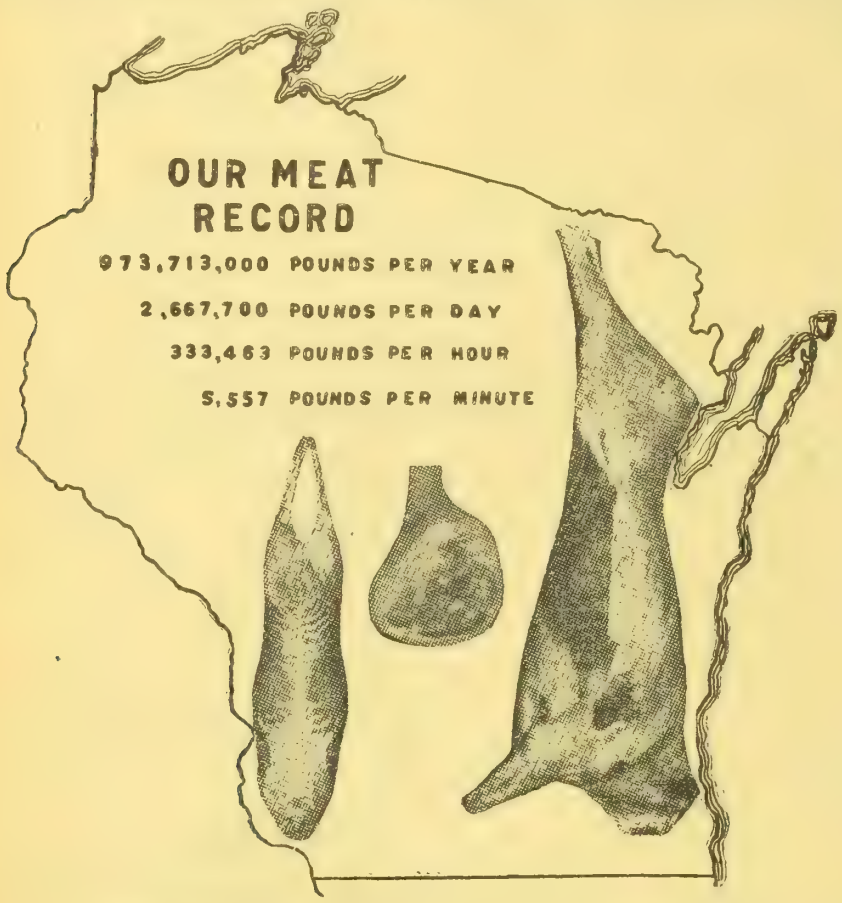
Badger Meat and Butter Record.

Over 5,000 Pounds of Meat and 750 Pounds of Butter a Minute Produced in the State of Wisconsin.

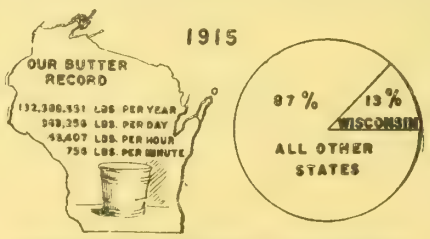
WISCONSIN is coming strong on food production, and our meat products are helping to swell the big total of money received by the farmers of this state for butter and cheese. Those who may have imagined that the production of meat in this state is not an important item will be interested in the official figures. Comparing Wisconsin's meat production in 1910 with that in 1915 shows an increase of 100 per cent. In the year 1910 approximately 500,000,000 pounds of mutton, beef and pork were produced in this state. In 1915 this total had increased to 973,713,000 pounds, entitling Wisconsin to a front rank among the states producing meat products. The accompanying illustration shows the production in pounds annually, daily, hourly and even down to the minute. In 1910 the record was 1,370,000 pounds a day, 171,000 pounds per hour and 2,850 pounds a minute. In 1915 the daily production of meat in Wisconsin had increased to 2,667,700 pounds, the hourly production to 333,463 pounds and the meat produced each minute to 5,557 pounds. With the extra effort which is being put forth this year these figures will be increased to a great extent when the records for 1916 and 1917 come in. An increase of one or two beef animals, an extra hog or two or two or three sheep per farm in Wisconsin, would swell these interesting total figures to such proportions as to put Wisconsin in a commanding position among the meat-producing states of the Union.

Official figures give Wisconsin's butter record for 1915 at 132,588,551 pounds. Every minute of the twenty-four hours of each day Badger dairymen produced more than 750 pounds of butter. On the whole, Wisconsin produced 13 per cent of all the butter produced in the United States. That there will be a good increase this year goes without saying.



WISCONSIN MEAT PRODUCTION AN IMPORTANT ITEM.

Farmers of Wisconsin have made good profits both in the production of meats and butter and there is every indication that the markets in these products will remain staple. Wisconsin not only has a good record for production but also an enviable reputation for quality.



WISCONSIN BUTTER PRODUCTION IN 1915.

What County Agents Are Doing.

This Has Been a Year of Great Activity Under This New System and a Great Deal of Good Has Been Accomplished.

THE county agent fits very well into the economy of things, agriculturally speaking, in a year like this when all good advice looking toward the greater production of food is appreciated by everyone. It is probable that the year 1917 will prove the county agent system to the extent that there will not be the opposition to his system in the future that there has been in many counties of the state in the past. From reports sent to the superintendent of Wisconsin county agents we gather the following, indicating some of the activities under this system:

Ashland County.—The farmers of Ashland county have secured all the seed they need for spring seeding through the efforts of the county representative with the coöperation of the county council of defense. A carload of lime was recently distributed to the farmers in the vicinity of Butternut, and forty bushels of seed potatoes were treated at Glidden.

Barron County.—Hog cholera has again appeared in Barron county, but no time was lost in taking steps for its prevention. The county representative secured the assistance of the state veterinarian and a large number of herds have been vaccinated. In one case, a farmer lost hogs worth $250 from the disease because he did not believe in the treatment and did not get his hogs vaccinated, while his neighbors about one-half mile away vaccinated their swine and suffered no losses. Two carloads of limestone have been ordered by farmers in the vicinity of Barron, Mikana, and Angus and twenty-nine head of cattle were sold to outsiders.

Bayfield County.—Certain sections of Bayfield are well adapted to the raising of fruit. Considerable effort has been made by the county representative in giving information relative to planting, pruning and spraying of fruit trees and fruit bushes. Much has also been done with the boys' and girls' clubs. They have used eighty-eight bushels of potatoes and a large quantity of garden seeds and No. 23 seed corn.

Brown County.—During May, 762 bushels of potatoes were distributed among the farmers by the county representative with the assistance of the county council of defense, at a net saving of $100. Funds for loans were pooled by several banks of the county to the extent of $3,800. Brown county will do its share in bean production this year.

Burnett County.—Much time and care have been spent by the county representative in coöperation with the county council of defense in supplying farmers with grain, potatoes, navy and soy bean seed.

Douglas County.—A fund of $5,000 has been provided by the county board to furnish money to worthy farmers wishing to buy seed. Plans are being completed to make a raid on the stumps this fall. Already 1,100 pounds of dynamite have been secured for this purpose.

Eau Claire County.—Talking better live stock, soil acidity, and gardening has kept the county representative busy during the past month. He has also been investigating labor conditions and teaching agriculture in the training school.

Forest County.—Over 1,500 bushels of seed potatoes and twenty-five bushels of seed corn have been distributed among farmers of this county. A large portion of this corn will be used for ensilage. Seed grain and rutabagas were distributed in considerable amounts. It is estimated that Forest county will have 200 acres in rutabagas. The second car of dynamite for land clearing has arrived.

Jackson County.—A total of 1,256 farmers and others were present at six patriotic meetings held in different sections of the county by the county representative in coöperation with the county council of defense. Jackson county has done its share in putting in seed for increased food production. Potatoes, navy beans, corn, alfalfa, oats, and buckwheat have been widely distributed by the county representative.

Kenosha County.—No pains were spared by the county representative this spring in getting plots of Grimm's alfalfa started for demonstration purposes. The growing of alfalfa is becoming more and more popular with the Kenosha county farmers. Preventive measures have been taken for scab, blight and potato bugs. More Kenosha farmers this year than ever before are planting beans, cabbage, beets and onions. He has also placed hired help with ten farmers of the county.

Langlade County.—Many farmers have treated their oats for smut as the result of an extra effort put forth by the county representative in this direction. In coöperation with the county council of defense, seed potatoes, beans, corn and oats have been distributed. This looks like a big "food" year for Langlade county.

Lincoln County.—Inspecting seed grand and potatoes and alfalfa plots kept the county representative busy this month. He also planned several barns and worked on the demonstrational plots of his field projects.

Oneida County.—Credit propositions are doing a great deal for increased crop acreage in Oneida county. Two carloads of fertilizer have been purchased through the office of the county representative.

Polk County.—In coöperation with the council of defense, the county representative purchased 800 bushels of seed potatoes for distribution, at a considerable saving to the farmers of the county. Valuable help has been rendered by the county representative this month in bringing farmers who had potatoes, beans and live stock to sell in touch with those who wanted to buy. Because of an outbreak of blackleg at Osceola, where five calves died from the disease, a vaccinating demonstration for its prevention was given. Visitors to this demonstration were so pleased that they suggested a town meeting, which was very successful.

Portage County.—Fifteen farmers' meetings covering every section of the county have been held during the first half of the month by the county representative in coöperation with the county council of defense: 3,714 farmers were present. Local bankers have furnished soy beans for demonstration plots on the light soils of this county.

Price County.—The boys and girls are doing their bit in Price county. Several new orchards have been planted and such fruit trees as Wealthy, Duchess, Greening, Hibernal and Whitney crabs have been set.

Rock County.—Recently, the employes of one company in Beloit were addressed by the county representative on the rudiments of gardening. As a result the company has secured thirty acres of land in one plot and also the use of many vacant lots in the city for gardens. Over 800 bushels of potatoes have already been planted under the direction of two expert gardeners employed by the company.

Rusk County.—Through the efforts of the county representative and with the coöperation of the bankers at Hawkins Rusk county farmers have secured a carload of 700 bushels of seed potatoes. The potatoes were loaned on share basis with the understainding that the seed would be returned in the fall. At least fifty settlers who would not have been able to do so otherwise were thus enabled to plant an acre each of potatoes.

Sawyer County.—By the prompt action of the county representative and the assistant state veterinarian what would probably have been an epidemic of hemorrhagic septicaemia among the cows was recently averted at the Indian Farm School. A hundred children have been organized into a garden club. The city of Hayward furnished the land and fitted it for garden.

Taylor County.—One farmer of Taylor county built the first silo in his community last year and this spring felt happy that he had sufficient supply of corn silage and remarked that his cattle never looked better. He is also balancing up the rations for his dairy cows, buys concentrated feeds, weighs and tests the milk from his herd and now has completed a year's record of his herds—all upon the advice of the county representative. Five silos are being built in that neighborhood this summer.

Vilas County.—A number of farmers have recently purchased a carload of dairy cows from Barron county. This is an important point in the dairy history of the county. Spraying fruit trees, planning ventilation in barns, delivering seed corn to various farmers, assisting with the distribution of dynamite, testing milk and cream, and working on field demonstration plots are activities which have occupied most of the county representative's time recently.

Walworth County.—It is expected that 10,000 gallons of sorghum will be manufactured in Walworth county this fall; plans are being made to operate five sorghum mills. Sixteen men and two boys from the high school have been placed as hired help with farmers. Nine canning demonstrations with a total of 1,500 people in attendance were held in coöperation with the home economics department of the university. The gardeners' association of Lake Geneva has promised to grow a large number of cabbage and tomato plants for distribution among the poor people of the county.

In seventeen recent Short-horn sales 760 Short-horns sold for a total of $602,010, an average of $800 on the entire number, and yet only two prices in the long list that could be called even approaching the spectacular—a yearling imported bull, Caledonia, sold for $7,000 and a two-year-old home-bred bull, Rosewood Reserve, sold for $8,100.

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The Government this year is asking farmers to put increased acreage into grain. There is now a great demand for farm laborers to replace the many young men who have volunteered for service in the war. The climate is healthful and agreeable, railway facilities excellent, good school and churches convenient. Write for literature as to reduced railway rates to Supt. of Immigration, Ottawa, Canada, or to

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FARM FOR SALE—133 acres, heavy clay loam; 30 acres timber, balance productive fields that produce acre for acre as much as any land in the West; great markets; ½ mile from town and railroad; new 10-room house, full basement; telephone; large new basement barn, hen houses, fruit; fine climate, mild winters. Price $3,000, half down, balance on easy terms. Send for free photos and description. A. L. Wilkins, R 1, Union, N. Y.

FARM WANTED

Wanted to hear from owner of good farm for sale. Give cash price and description. Write
JOHN H. OAKS, 414 Main St., OSHKOSH, WIS.

Small Grains Growing Rapidly.

Oats Promise Well—Pastures Show Big Improvement—Hay is Excellent in Most Sections—Cold Weather Retards Corn.

WISCONSIN.

Adams County.—Weather continues cold, wet and backward. Corn has made very little progress. Cutworms have damaged it to some extent, and the general outlook for corn is good at present. Rye and oats look well. Tame hay will make a bumper crop. Potatoes are good except on low, heavy land, where the seed rotted. Cattle are doing well; there are fewer young stock than usual. All crops have about the usual acreage.—W. B. Barnes.

Brown County.—Weather is cold and wet at present. Frequent rains prevent cultivation. Corn and small grain suffer from excessive rain. All crops are late. Pastures are improving. Live stock look well. The acreage of sugar beets is falling off somewhat. Grain crops are late and may yield less than the average.—J. D. McAllister.

Buffalo County.—Crops are backward, especially corn. Clover and alfalfa are doing well, however. Fruits and vegetables are normal. Live stock gained considerably after going on to pasture. The milk flow is less than last year, but the price of milk is higher. There has been too much rain to keep the roads in good condition.—John Wald.

Clark County.—Warm weather and plenty of moisture are pushing the corn forward, but the crop is not yet normal. Hay is growing well, but will hardly reach normal height. Clover looks well. Oats are growing rapidly and look fine. Pastures have improved much and stock are in good condition. Fruit promises well and garden truck grows well under present conditions.—Louis Buddenhagen.

Door County.—Spring was cold and backward. Hay and clover meadows look well; the stooling has been satisfactory. Oats need warmer weather. Hogs are scarce and small pigs in demand. Replanting of corn was necessary in many cases. Oats will be good if weather stays warm. A large planting of potatoes is expected.—John Aznoe.

Douglas County.—The spring wheat acreage is larger than usual. More potatoes than usual were put in. Planting was done in better shape this spring than usual because of favorable weather. Small grain is late, but with favorable weather from now on will make a good crop. Pastures are fine. Live stock are in good condition.—J. N. Ottum.

Dunn County.—The season is cold and backward. Small grain looks fine, but corn stands still. The hay crop will be between light and medium yield. Strawberries promise well.—J. D. Millar.

Fond du Lac County.—Wet, changeable weather has delayed growth of crops. Oats, barley and corn have been considerably retarded. But winter grains are different, rye and wheat being in fine condition. Prospects are good for heavy crops of hay, especially alfalfa and clover. New land and pastures are being broken and the increase in acreage of cultivated land is about 10 per cent as compared with last year. Live stock are in good condition and pastures promise to hold out for some time yet. The increase in dairy cows and heifers is noticeable, and the dairy output is surpassing all previous records for the county.—C. A. Williams.

Iowa County.—Small grains look well. The straw will be heavy. Corn is backward because of damp, cold weather and cutworms are damaging some fields. Replanting is in progress. Pasture is abundant and hay promises well.—J. M. Blotz.

Juneau County.—Small grain looks well, except rye, which will make only one-half a crop. The acreage of all small grains will be about 25 per cent larger than last year. Corn is not doing well because of damage from cutworms and wet weather. Some replanting is necessary. Fruit and garden truck are good. Stock enjoy good health and are normal in number. Pastures are good.—C. E. Haskins.

Lafayette County.—Weather is wet and corn lags three weeks behind. Weeds have come up in many fields. All small grain, besides meadows and pastures are above normal. Fruit promises a fair crop. Gardens are doing well. More potatoes than usual are planted. Few colts were raised and low prices for horses have checked breeding. Milk is worth more than $2 at the cheese factories. The pig crop seems below average.—W. J. Martin.

Langlade County.—Crops are poor because of cold weather. There is not much difference between this year's acreage and last year's, except more corn was planted this year where old meadows killed out. Rye headed out well; some fields are very good, but others show winterkilling. Oats, barley and spring wheat are backward. The stand of new clover is good, but the growth short. Meadows also are short and pastures are cropped close to the ground. Corn is up, but growing slowly. Potatoes look well. Live stock show effects of short pastures. Pigs rank low in number. Labor is scarce at this time.—Chas. Lade.

Lincoln County.—Small grains are fine. The season is late and crops are about ten days late. Hay will make an average crop. Potatoes are growing nicely. There are about 50 per cent more gardens than usual and all are in fine shape. Live stock are healthy; the number of milk cows is increased, but young stock are only normal in number.

Oneida County.—Most of the potatoes are up and doing well. But heavy rains have prevented cultivation. Grain and hay are fine. It is too wet and cold for corn. Cattle are in excellent shape, because of the good pastures. Beans, peas and small fruit look well. The potato acreage is larger than usual and many rutabagas were put in this year.—Chas. H. Jewell.

Manitowoc County.—Small grain has an increase in acreage of from 5 to 10 per cent, but the crops are backward on account of continued cold weather. The corn acreage is 10 per cent above average. Much of it on lowlands must be replanted. Hay does not promise well at present. Live stock are normal and show considerable improvement since going on to pasture.—Edward E. Straka.

Marinette County.—Potatoes have made excellent growth. Winter wheat, rye, oats, clover and grasses have suffered from cold wet weather. Warm weather may bring all crops up to normal except hay. Corn is from four to six inches high. Pastures have grown slowly, which is discouraging to those feeding a large number of stock. Dairy cows look well and many new cheese factories are being built to handle the milk. The coöperative cow-buying association delivered a load of splendid dairy cows here last week. Fruit prospects are only fair.—W. E. Morton.

Marquette County.—The increase in acreage of all crops is about 10 per cent. Winter wheat is making good progress. Oats look fair and rye seems good. Clover is better than last year. Little spring wheat and barley is raised here. Pastures are normal. Live stock are thrifty. Rainfall is plentiful.—Emil Hein.

Sauk County.—Corn is small for this time of year. Hail and excessive rain did considerable damage to it. Hay will yield heavily. Rye shows improvement, but will be a light crop. The potato acreage is about normal. Live stock of all kinds look fine because of good pasture.—A. H. Buehler.

Sawyer County.—Weather continues cold, with plenty of rain. Potatoes are coming up and appear well. The acreage is about 10 per cent greater than that of the last five-year average. Grain is nearly three weeks late. Grass and pastures are also late. Much clover winterkilled and hay will not be plentiful this year.—Jens Uhrenholdt.

St. Croix County.—More wheat was sown this year than formerly. The acreage will be about 10 per cent greater than last year. The stand of all grains is good, but growth is backward. Rye fails to equal last year's crop. Wheat, oats and barley promise well. Hay averages below last year's prospects at this time. Pastures are good. Early potatoes are larger than usual, and the outlook promises a record-breaking yield. Cattle went to market in large numbers and no increase is expected this year. The pig crop falls below the average for several years.—Stephen Everson.

Taylor County.—Cold weather has retarded growth of crops; hay is nearly a month late. Pastures look well and live stock are doing fine. Potatoes and all other garden truck are growing slowly. Good crops may be expected if the weather is favorable from now on. Much new land was broken this spring and many new gardens were planted. Pigs are scarce and sell for from $12 to $15 a pair. Horses are plentiful and sell with difficulty.—E. H. Dehne.

Trempealeau County.—Small grain looks fine. Corn has been held back by cold nights and continuous rains, but warm weather is now pushing it along rapidly. Cutworms and crows have done some damage. Pasture is abundant and cattle look fine. Hay promises to be a good crop. The wool clip is rather light, due perhaps to cool weather.—Carl Kremm.

Walworth County.—Weather continues wet and cold. Small grains and pastures are good. Meadows look well. Corn is small for this time of year and weeds are getting a start. Hilly ground planted to corn has been washed badly by rain. Considerable wool was produced this year and buyers are paying 50 and 60 cents for it.—A. E.

Washburn County.—Hay and grass are short, though the rains have been good. Small grains look well. Corn has a good stand, but cutworms have been at work in the spring sod. Three months of hot weather and plenty of rain are needed.—John W. McCulloch.

Wood County.—Cold weather and late frosts have kept the crops back, but since June 1st more seasonable weather has started vegetation in fine shape. The meadows are about 10 per cent below average in acreage and cultivated crops, especially beans, have been put on the land. Buckwheat is replacing beans on areas that were damaged by cutworms. Potatoes are fine and the acreage of them is normal. Gardens are growing fine. Oats promise better than last year. Rye is heading out fine. Barley is 5 per cent better than last year. Pastures are medium. More cows and fewer steers are on hand.—P. B.

A CLASS OF INDIAN FARMERS AT INDIAN FARMERS' INSTITUTE, MAUSTON, WISCONSIN.

A profit at the rate of $3,676.46 an acre was the pace Miss Corrine Freeman, state canning champion, set in her school garden at Holdredge, Nebraska, in 1916. Miss Freeman's garden was only fifteen by twenty feet, but she grew fourteen different kinds of vegetables in it. Tomatoes, Swiss chard and eggplant were the most profitable crops. Miss Freeman's books on the garden show that she sold $3.88 worth of vegetables, used $19.60 worth for the home table and canned $4 worth, which makes the yield $27.48. Her expenses were $2.16.

THE GOOD JUDGE TELLS WHICH IS BETTER, AND WHY IT IS.

A good many people are looking into what makes men change over to W-B CUT and stick to it so. Tobacco is tobacco, but all chewing, isn't *all* tobacco. You don't have gummy excess sweetening to chew out of W-B CUT, before you get down to satisfaction. The shreds are tobacco, through and through—and the richest, sappiest tobacco that grows. You notice the difference at once—W-B CUT goes twice as far as ordinary plug.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

$15 to $20 A Day Clear

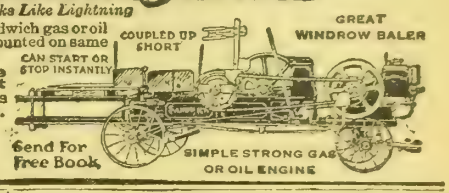
A MARVEL for speed—turns out a continuous stream of bales. Heavy steel transmission, self-feeder and block dropper. Friction clutch starts or stops press instantly. **Especially adapted for alfalfa.**

Big money baling hay—faster the press, the more money—that's why you should use the

Sandwich Hay Press

Works Like Lightning

Solid all-steel press. Sandwich gas or oil engine with magneto, mounted on same truck furnishes power.



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"Tons Tell" gives facts, figures and pictures—all about hay baling. A postal will do.

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IS THE RELIABLE METHOD FOR PREVENTING

FOOT AND MOUTH DISEASE

HOG CHOLERA

AND OTHER CONTAGIOUS DISEASES.

You can make all live-stock quarters sanitary by using

KRESO DIP No. 1

The Standardized, Reliable Dip and Disinfectant.

KRESO DIP No. 1 has been used at the large state fairs in the United States for the last ten years to prevent the spread of contagious disease. It has done it, and KRESO DIP No. 1 will do the same for you on the farm.

KRESO DIP No. 1 is reliable. It is easy to use. It is inexpensive.

FOR SALE BY ALL DRUGGISTS.

We will send you free a booklet on the treatment of mange, eczema or pitch mange, arthritis, sore mouth, etc.

We will send you free a booklet on how to build a hog wallow, which will keep hogs clean and healthy.

We will send you free a booklet on how to protect your hogs from lice and parasites and disease.

Write for them.

PARKE, DAVIS & CO.

Dept. Animal Industry. DETROIT, MICH.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Watch For Dobson & Eastman at Fall Fairs.

WE recently had the pleasure of inspecting the show herd that Dobson & Eastman, Lancaster, Wis., are preparing for the fall fairs, and they certainly have the goods. With the exception of a junior yearling boar their show herd will be made up of underyear stuff. The junior yearling boar weighed 530 pounds June 20th, and can carry a lot of flesh yet, so that we expect to see this firm have out one of the largest yearlings to be seen this fall. Burlie has the pigs on full feed and on the above date they weighed right at 100 pounds. One was weighed and she weighed 110 pounds. They have three good fall sows, but one is outstanding and will certainly make a creditable showing. They will weigh right at 400 pounds each. Burlie says that his pigs are better this year than at the same time last year. The pigs are by Double Hadley, Big Ben Jr., and Sunrise rice. The fall stuff is by last year's show boar, D. & E.'s Jumbo. The Grant county Poland China breeders held a meeting on June 20th, and October 8th was selected for the annual boar sale. Bear this date in mind. Thirty boars and ten open gilts will be sold at that time.—Adv.

Big Joe.

WHEN in Iowa and you hear the name Big Joe you think of a noted Poland China boar. In Wisconsin we have a Big Joe, but he gets his name by being one of the big men in the Poland China World—Joe Hendricks, of Hazel Green, Wis. There are several good herds of Poland Chinas in the state, and by past records Joe has demonstrated that he is in the very front row. At this time he has a great bunch of porkers. At this time last year this breeder had a very common lot of Poland China pigs, but those that attended his sale know that he had the goods then. This year his pigs are as good and bigger than any we have seen, so with this start we will leave it to you to imagine what they will be by fall when the boars are ready to sell. Of course he will sell boars now if you want to grow them out to suit yourself. Of course you will have to pay for the feed if you wait until fall, and no doubt you can feed them cheaper than Joe. It will pay you to take a drive to Hazel Green and see two of the best herds of big types in the country.—Adv.

Morehouse Polands Doing Fine.

WHILE at Lancaster we saw the 65 pigs that Frank Morehouse has on full feed and they are doing as well as any we have seen. Frank will have some good boars and gilts of the best big-type breeding to offer at a later date. The pigs are by Big Type Jim, a son of Jim Crow, and out of Big Type Bess, the top sow of the Madison sale last winter. Some good pigs are by Big Ben H., he by the noted Big Ben, out of a daughter of the great brood sow, Great Lady C. A sow by the highly-advertised boar, Goldengate King, had a litter by the Minnesota boar, Melbourne. One of the best litters on the farm is by Big Type Jim, out of a daughter of Black Orange by Big Orange. Keep this herd in mind. Morehouse has good Polands and will treat you fair. His advertisement will appear in The Wisconsin Farmer at a later date.—Adv.

Good Short-horn Sales Continue.

WE have just been advised by Albert Maurer, of the firm of Richard Maurer & Sons, Fox Lake, Wis., that the demand for Short-horns is greater than the supply. His letter reads: "The bulls about which you gave us a write-up have all been sold. Carlson Bros., of Minnesota, bought the bunch. During th epast week we sold a Scotch cow and calf and two Scotch-topped cows, one with calf at foot, to one of your advertisers, P. N. Collins, River Falls, Wis. Mr. Collins has some good Short-horns, and we were glad to be favored with his business. The Wisconsin Farmer does the work, and we thank you for your good service."—Adv.

At Ed Hendricks'.

IF you want to see a good bunch of the "big kind" Polands take a trip to Ed Hendricks, Hazel Green, Wis. Ed had the goods last year, but we will go on record as saying they are better this year. He is not certain whether he will make a sale this fall or not, for he is having such a demand for his pigs already, but he is holding all of the tops and if he does make a sale it will be one of the best offerings ever sold in the Northwest. Model Major 2d is the big noise on this farm, and if there is a real 1,000-pound prospect in the state this boar is in that class. Black Jumbo is still on the job, but he is too well known to need any comment at this time. When you think of good big types think of E. W. Hendricks.—Adv.

The Home of Orion Cherry Col.

YOU Duroc breeders of Wisconsin should get the name Orion Cherry Col. fixed in your mind, for there is a boar by this name in the southern part of the state that we believe will be heard from in the future. He is sired by Walt's Top Col. and out of a daughter of the dean of Durocs, Orion Cherry King. This boar is right in every way and with the care that he is getting at the hands of the Runde Bros., Cuba City, Wis., he should make "some boar." This firm has just started with pure-bred Durocs and they expect to have one of the good herds of the state in a short time. They have a good litter sired by Waltemeyer's Great Wonder—the boars will be for sale, the gilts will be retained in the herd. One of the best litters at this time is by a son of the champion. Burke's Good Enuff, and out of a Big Col.-Chief Defender dam. They also have other litters on the farm sired by an Advance bred boar. The pigs on this farm compare favorably with any we have seen. As mentioned above, the Runde Bros. are good feeders, and when you find a good feeder you generally find a man that will make a success of the hog business. We will have more to say about this herd later, but don't forget Orion Cherry Col.—Adv.

Pease's Model Giant.

WE have just had a letter from L. E. Pease, Wales, Wis., advising that his good Poland China boar, Model Giant, will be at the fairs this fall. Mr. Pease did not intend to show this boar, but he looks so good at this time, he thinks it advisable to get him where people can see him. On June 1st he weighed 700 pounds, which is a good weight for a senior yearling that has not been overly crowded. The spring pigs by this boar look fine and the fall gilts, that weigh over 300 are bred to Model Giant to farrow in September. Fall gilts that weigh 300 pounds and bred to such a good boar should be a good property. Write for details.—Adv.

John L. Fisher Buys Noted Holstein Bull.

JOHN L. FISHER, Janesville, Wis., appreciates the value of a good sire whether it be cattle or hogs. Mr. Fisher has been looking for a good bull to head his Holstein herd for some time, and finally selected the good yearling bull, King Segis Pontiac Isaac. As a calf this bull was second at the Iowa State Fair, first at the Indiana State Fair, second at the New York State Fair and first at the National Dairy Show in 1916. He also headed the first-prize calf herd at three state fairs. He is sired by King Segis Pontiac, out of a well-bred A. R. O. dam. This bull topped the R. E. Haeger Holstein sale, going to Mr. Fisher at $1,525. With King Defender at the head of his Duroc Jersey herd and this young bull heading the Holsteins, Mr. Fisher has two excellent sires. Just at this time he is offering for sale registered heifer and bull calves. Write him.—Adv.

Galloway Cattle For Sale.

IF you want to buy some good Galloway cows and heifers or some nice serviceable young bulls it will pay you to go and see C. S. Hechtner, Chariton, Iowa, who is offering 40 head of cows and heifers for sale and 16 head of bulls. There is no better Galloway herd in America than the Hechtner herd and he is making prices on these cattle that will insure their making money for any man that buys them. Kindly mention this paper when writing Mr. Hechtner. See page 16.—Adv.

Calf Goes to Tennessee.

WHAT Fred Pabst terms the best-marked calf he has had for sale this season is Pabst Korndyke King, purchased recently by R. H. Hill, Isabella, Tenn. This wonderful individual was born March 27, 1917. His dam, Pabst Lulu Lady by King Pontiac Champion, has a junior two-year record of 849 pounds butter and over 20,000 pounds of milk. This cow was one of the 25 leading Holsteins last year. Her dam, Lulu Hartog De Kol, has a seven-day record of 28.55 pounds butter, testing 3.78. The sire of this calf is Korndyke Segis Johanna, whose three nearest dams average over 38 pounds.—Adv.

Buy Your Angus Cattle in Grant County.

THERE is a great advantage in having a selection from which to pick when buying any kind of live stock. With this thought in mind we call your attention to the advertisement of the Grant County Aberdeen Angus Breeders' Association, that will appear regularly in The Wisconsin Farmer from now on. There are some 800 head of registered Angus cattle in Grant county, Wisconsin, and we believe we are safe in saying that there are more high-class cattle of this breed in Grant county, than in all the rest of the counties in the state combined. The secretary of this association is Walter J. Steinhoff, Platteville, and he has a list of all the females and bulls in the county that are for sale. Write Mr. Steinhoff what you wish to buy, and your inquiry will have prompt attention.—Adv.

Do You Want Polands With Stretch?

STARTING with this issue Aug. Neeseman's Poland China advertisement will appear regularly in The Wisconsin Farmer. This breeder's postoffice is Warren, Ill., though his farm is located in Wisconsin. e has the big-type Polands, and up to date we have not seen a bunch of spring pigs with as much length as the Neeseman Polands. The average farmer herd of sows is too short and "chubby," but the Neeseman type will fix that and you will get some sows that will raise big litters of big pigs. This herd is full of the very best breeding and we feel sure that the boars and gilts that are now ready for shipment will meet with approval. Let this breeder quote you prices. A good place to buy a trio and get started with registered Poland Chinas.—Adv.

Shanks and His Investor Durocs.

FROM time to time our readers have read about the great work done by W. N. Shanks, Worthington, Minn., in developing one of the leading herds of big-type Durocs. Mr. Shanks has each season added to his herd both in size and in quality. His Durocs are favorably known in all of the western states where Durocs are grown. There has been no boom and no bluster about his work. He has bought the best to be found. His instructions to the field men who have bought for him have always been to buy the best, but he insists on size, strong backs, and perfect feet. The offering which he will put up in August is such as to cause most men to marvel. The get of the great Investor are proving, in his hands, to be by far the best things he has raised. Most of these are from daughters of High Model or King the Col., a few being by Grand Model 12th. In the August 14th sale there will be 15 spring boars, 15 fall boars and 15 sows bred for fall farrow. This sale offers attractions enough to cause any man to travel clear across the continent if he is after a real big boar. Investor is some real boar. He has that immense size which is demanded and with that size he has the feeding quality which is absolutely essential to any animal, the ultimate end of which is the meat barrel. It is all right to talk big-type and extreme type, but unless you maintain fleshing qual'ty along with that size you are a loser. Investor is an easy flesher. He is as soft and mellow as you could wish. At the proper time we shall have more to say about this good boar and the excellent lot of boars which Mr. Shanks will sell that were sired by him. Note that the boar sale is August 14th. In writing Mr. Shanks concerning this sale, or anything else of interest, please mention this paper.—Adv.

Quackenbush Boar Offer.

THE name of W. W. Quackenbush, Melrose, Wis., is familiar to the men interested in Poland Chinas. This is due to the fact that this breeder purchased some of the best sows that were sold last winer. Just at this time he is offering spring boars for sale and he has some dandies. Don't get teh idea that the sows he bought last winter are all he has. Owing to the fact that pork was high he sold some of his brood sows hat did not come up to standard, keeping only the very best, and to these he added the sows above mentioned, giving Mr. Quackenbush at this time a very high-class lot of Poland China sows. The get of several

Brought Success Beyond Expectations

THE advertisement we inserted in your paper announcing our sale, brought us success beyond all expectations. Hoping that we may use The Wisconsin Farmer as an advertising medium again.—H. L. Weber, breeder of Holstein cattle, Oakfield, Wis.

THE WISCONSIN FARMER, Madison, Wis.
Guaranteed Weekly Circulation, 90,000.
Circulation in Wisconsin, 76,769.

"Teddy" Is His Name

Here is Your Chance to Win a Fine Pony

Do You Want "Teddy" FREE?

I am going to give "Teddy," a beautiful Shetland pony, with a saddle and bridle, to some boy or girl. Do not send me any money but write today for my great offer.

You Can Be Winner of "Teddy"

"Teddy" is a beautiful spotted Shetland from the greatest pony farm in the United States. I have given away forty-five ponies but "Teddy" is the king of them all. He is a beauty in every way and as gentle as a lamb. He is your's free, for a little easy work. In case of a tie a pony will be given to each contestant so tied.

45 Ponies Given Away
I have already given away Dandy, Patches, Duke, Carlo, Domino, Gyp, Nemo, Scout, General, President and thirty-five other ponies. "Teddy" is next. It's your chance.

1500 Votes Free
Just as soon as I hear from you, I will tell you all about my great offer and I will also send you absolutely free, a special coupon good for 1500 free pony votes. Send in coupon today.

REMEMBER—I will send you 1500 Free Votes and particulars about "Teddy" as soon as I hear from you; so send me your name and address on the coupon right now. Don't put it off a minute. This chance may never come to you again. make up your mind to win "Teddy."

A. M. PIPER
725 Popular Building
Des Moines, Iowa

USE THIS COUPON
Write your name and address plainly and mail at once to A. M. Piper, Editor, 725 Popular Bldg., Des Moines, Iowa.

Your Name.....
Your address
(Town).....
(State).....
St. or Rt. number.....
This coupon entitles you to 1500 Free Pony Votes, so fill out and mail at once.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

CHESTER WHITE SWINE.

Champion Chester Herd of Northwest

SPRING PIGS READY TO SHIP. The best are none too good. Buy or order early.
H. A. DERENTHAL WYKOFF, MINN.

noted boars is represented in this pig crop. He has breeding that will not conflict with what you have in your herd. Let him quote you price. We are glad to recommend this herd. Melrose is near lack River Falls, his shipping point.—Adv.

Where to Get Red Polled Cattle.

IN this issue of The Wisconsin Farmer can be seen the names of the men in the state of Wisconsin who breed and sell Red Polled cattle. If you want to buy a bull or some females write to one of the breeders whose names appear in this list . If he cannot supply your wants he will refer your letter to someone who can. Also notice the Red Polled article that appears in this issue written by L. C. Underwood, Avoca, Wis., the secretary of the Wisconsin Red Polled Cattle Breeders' Association.—Adv.

Martiny Offer.

WITH this issue of The Wisconsin Farmer, Riley Martiny & Son, Baraboo, Wis. change their Duroc advertisement and offer for sale their spring boars. Their pigs are good, several of them weighed over 100 pounds June 15th and they are out of those good, big sows that this firm purchased last winter for use in their herd. We do not hesitate to recommend this Duroc herd.—Adv.

SALE DATES.

Short-horn Cattle.
Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago.

Duroc Jersey.
Aug. 14, W. N. Shanks Worthington, Minn.
Oct. 17, L. F. Atwater, Bangor, Wis.

Duroc Jersey.
Oct. 8, Rock County Poland China Breeders' Sale, Lancaster, Wis.

THE MARKETS.

Union Stock Yards, Chicago, Ill., June 30.—Prime corn-fed cattle of all weights have held up well again this week, though a liberal mid-week supply effaced 10@15c advances shown Monday, even on that kind. All other classes have been in super-abundant supply and the market has declined unevenly, the medium and low-priced grassers still undergoing a sharp downward revision in values that is to be expected at this time of the year. A new high record top has been made this week at $13.90 and the surprisingly large number of long-fed bullocks, considering the abnormally high corn market, have been included in the run. Many choice seven-to-ten-months-fed cattle, both in yearling, handy and heavy weights, have sold up to $13.25@13.75. The spread is wide, however, and killers are now getting a lot of decent, though light and grassy, dressed beef steers of warmed-up- class down around $10.00@10.75.

Hog supply statistics are deceptive, grassy and common light mixed stuff is always plentiful at this season, but current scarcity of corn has aggravated conditions and probably fewer good corn-fed hogs have been yarded in a run of about 115,000 here the first five days this week than the trade has ever known in June. The $16.00 quotation has been eliminated, temporarily at least, the best hogs selling here yesterday at $15.75 with few above $15.50, but the spread is rapidly getting wider and the bulk of the packing grades are now going below $15.00, common heavy packers selling in carload lots as low as $14.20.

A free movement of new crop lambs running direct to packers through the Louisville and Nashville gateways and some little increase in the market-supply here, have swelled sheep-house receipts this week to almost double the proportions of the week previous and the market has slumped off rather sharply, but not unexpectedly, from recent high levels. Most everything on the list is closing $1.00@1.50 lower than a week ago, but the market might break $3.00 per cwt. more and still be abnormally high for the season, though there is small chance in trade opinion of the common price for good fat lambs dropping below $15.00 at any time this summer. The movement of range lambs out of Idaho, already three weeks late, is on the horizon, some having reached Missouri river markets, in fact, this week where initial sales were made at $18.40, against $11.65 for the first shipment reaching Chicago last year. High prices will tend to draw the stuff marketward as early as it is ready to come, but owing to the shortage of breeding stock winter losses and a desire on the part of range flockmasters to conserve as large a proportion of their ewe lambs as possible, owing to the known world-wide scarcity of wool and mutton existing, many well-posted traders expect to see the summer run of range sheep and lambs fall forty to fifty per cent below that of last year.

Cattle trade started off the week in healthier condition than the close the week previous, a moderate Monday supply finding a strong to 10@15c higher market and top steers being boosted to $13.90, for a new yard record. The advance, however, along the liquidating influences of the high cost of feed and, insofar as the lower priced grass cattle are concerned, the drowning out of pastures in some sections, prompted free loading for the mid-week market which was 10@15c lower than Monday on most everything, while additional weakness th latter half of the week put the bulk of the steer run below choice 15@35c lower than a week ago, some grassy stuff being as much as 50c under Monday Next week's supply will be cut into by the Fourth of July holiday, eliminating one of the principal market days of the week, and the trade is expected to respond to stimulus of moderate receipts, with some reaction from declines this week. It is the general expectancy of the trade that good to choice cattle will gradually work higher, while on the other kinds, erratic and uncertain markets are to be expected until grass stuff has subsided to a rock-bottom basis for the midsummer season.

Butcher cattle have formed a small proportion of the week's bovine marketing and the market made some recovery early in the week from declines shown the week previous. However, the gains have been more than lost on the common and intermediate gradse of cow stuff. Prime dry-lot beef cows and heifers are in the category of specialties and are commanding wide premiums. A small bunch of heifer yearlings of this class sold here on Thursday at $13.35, establishing a new high spot, but in the case of this high-dressing specialty stuff the same treatment that is accorded top-notch steers is logically forthcoming.

Interest in Red Polled Cattle.

(Continued from page 1.)

Red Polled cattle winning in the years mentioned were bred and fed by individual breeders.

I do not anticipate any difficulty in disposing of Red Polled breeding stock. In fact, Red Polled cattle will stand up with any of the breeds in these days when surplus stock of good breeding is so much in demand. Most of our Red Polled breeders are now kept sold down to the calves but a few weeks old. If we could have more good breeders, and a little better advertising, so that the stockmen of our country would better understand the nature of this great breed of cattle, we would see Red Polled catle much more widely distributed than they are today. As secretary of the Wisconsin Red Polled Cattle Association I am often asked the question, "Where can I find some good Red Polled cattle?" Too frequently I do not have a list on hand to which I may refer prospective buyers. But our breed is growing splendidly and the number of animals recorded in the past few years has increased about 100 per cent.

In conclusion I want to say that we do not have "freaks" in the Red Polled breed. The Red Polled breed adheres closely to the law that like begets like; in fact, I believe this breed more consistently carries out the principle of this law than any other breed of cattle.

CHESTERS

BUY a "Baby Herd"—two gilts and a boor. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

CHESTER WHITES
Pigs Ready—Order Now
A. L. GRAY MT. HOPE, GRANT CO., WIS.

Ready for Business
CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

ATTRACTIONS
An outstanding Chester White sow to farrow August 4th. Am keeping her gilts. Also a fine Schoolmaster bred boar. Spring pigs. Write.
ART G. HOSKINS DODGEVILLE, WIS.

"RAINY DAY"
ONE OF THE good CHESTER boars of the state. His pigs are great. Order one or more.
WALTER GEORGE Evansville, Wis.

BUTTS' CHESTER WHITES
READY TO SHIP. Buy a pig, grow your own herd boar. Sired by my show boar, PAY STREAK. Prompt attention.
WM. F. BUTTS Evansville, Wis.

HEREFORD CATTLE.

Herefords
LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. Chippewa Falls, Wis.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160
THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD - - - - - - North Bend, Wis.

POLANDS
BIG TYPE, BIG BONE, BIG LITTERS—Spring pigs are ready to ship—order now. Sows and gilts bred, to farrow this fall, to CHIEF PRICE and SMOOTH JUMBO. Also Short-horn bulls and heifers.
P. N. COLLINS - - - - - - River Falls, Wisconsin

POLAND CHINA PIGS
YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
R. MEINKING BANGOR, WIS.

Quackenbush
NO BREEDER IN THE STATE purchased as many high-class brood sows last winter as I did. These, added to what I had, gives me a herd second to none in the state. Poland Chinas Extraordinary, priced reasonable.
W. W. QUACKENBUSH MELROSE, WIS.
Shipping Point, Black River Falls

Size Quality POLANDS
IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.
O. C. OLSON STRUM, WIS.

Poland Chinas
SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
L. E. PEASE Wales, Waukesha Co., Wis.

The Sweetness of Low Prices Never Equals the Bitterness of Poor Quality.
EXPLAINED in my private sale catalog, now ready. Write
P. W. YOUNG Box 100, Prosper, Minn.
POLAND CHINAS

Martiny's Special Offering
POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.
L. P. MARTINY Ohippewa Falls, Wis.

BRED GILTS
POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
JULIUS PETERSON Kilbourn, Wis.

RED POLLED CATTLE.

RED POLLS
WISCONSIN BREEDERS
Females and Bulls for Sale
Write the following breeders:
J. B. Ahlers.....West Bend, Washington County
C. S. Arnold.....Holcombe, Chippewa County
Edward Bennett.....Black Earth, Dane County
J. O. Baker.....Wagner, Marinette County
Byron Curran.....Taylor, Jackson County
L. F. Bigelow & Son....Brooklyn, Green County
J. W. Martin & Son....Gotham, Richland County
Wm. Radke.....Black Earth, Dane County
J. W. Salter & Sons....Unity, Marathon County
L. C. Underwood.....Avoca, Iowa
J. F. Wulff.....Grafton, Ozaukee County
Wm. Wulff.....Grafton, Ozaukee County
H. Zeigler.....Middleton, Dane County

RED POLLS
A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

HEADQUARTERS FOR
RED POLLED CATTLE
THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.
J. W. SALTER & SONS Unity, Wis.

TO SELL
RED POLLS: Fine bull calves from 1 to 8 months old; also choice heifer calves.
EDWARD BENNETT Black Earth, Wis.

RED POLLED CATTLE
A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

STRETCHY BOARS
THE DEMEAND IS FOR BOARS with plenty of length. My Poland Chinas have the desired stretch with size and quality. Seeing is believing. Let me ship one. Will also sell gilts.
AUG. NEESEMAN WARREN, ILL.
On Illinois-Wisconsin Line

JULY 1st
I will ship POLAND CHINA pigs. By that time I can tell what kind of hogs they will make and can send you good ones. Shall I pick one for you?
JAS. DERIVAN FOX LAKE, WIS.

DUROC JERSEY SWINE.

Pairs Duroc Specials Trios
BY
GRAND MODEL 21ST by Grand Model; ROYAL TOP COL., by Put's Top Col.; ILLUSTRATOR SPECIAL by prince Ill.
Out of
our big tried sows. Shipped on approval. Write
GEO. D. SPRAIN & SONS, WEST SALEM, WIS.

DUROCS
You've heard of our big sows. Boars from them are now on sale.
Shipped on approval if you wish.
RILEY MARTINY & SON BARABOO, WIS.

RED OAK DUROCS
FALL PIGS ALL SOLD. Spring pigs for sale, either sex. My DUROCS MUST PLEASE YOU or you return them. At your service.
F. R. CONSTANCE & SONS Waupaca, Wis.

Blood of Grand Champions
STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.
McCLURG BROS. VIROQUA, WIS.

ORION COL. S.
BY COL. S. JR., out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. JENKINS BANGOR, WIS.

Du ROCKS Du
WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

NOTICE!
OFFER FALL DUROCS that will farrow in August and September. Nice condition, long, good backs and smooth. Guaranteed safe in pig. Write.
FRANK H. ARNOLD JANESVILLE, WIS.

O'KEEFE
OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.
M. H. O'KEEFE & SONS WAUNAKEE, WIS.

Particular Breeders
DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.
J. W. HIGGINS RICHLAND CENTER, WIS.

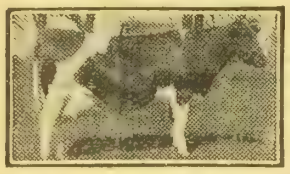
FASHION
DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
ISAAC HIGGINS GOTHAM, WIS.

ATWATER
IF INTERESTED in DUROCS, write me.
L. F. ATWATER Bangor, Wis.

NORTHERN GROWN DUROCS
BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS New Richmond, Wis.

WAR DUROCS
HIGH prices must continue. Breed your sows for fall litters. I have some big, rugged, August and September boars. Write
DENNIS SHEA Melvina, Wis.

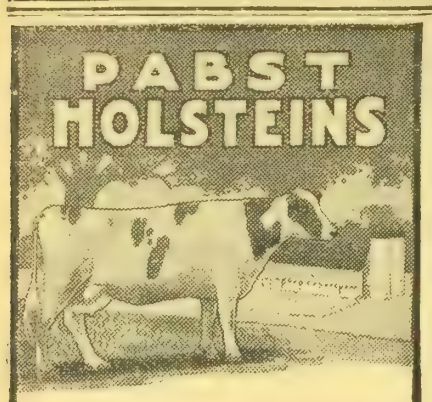
HOLSTEIN-FRIESIAN CATTLE.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.



Are playing an important part in the development of the Holstein Breed in America. There are over 300 heads in this State Accredited herd.

We sell bull calves at a price ranging from $150 up. Send for list.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc Wisconsin
Box F

KING PONTIAC SEGIS VEEMAN
(134190) IS FOR SALE

A 29.29-Pound Son of King Segis Pontiac Count.

King Segis Pontiac Count is a grandson of King of the Pontiacs, that has more thirty-pound daughters than any bull and is sired by King Segis Pontiac, that has sired more high-priced bulls than any sire.

King Segis Pontiac Count also has the distinction of siring the greatest producing junior two year olds of the breed. He has three junior two year olds that average 28.46 pounds butter in seven days and five junior three year olds that average 31.37 pounds and 610 pounds milk in a week. The herd at which King Segis Pontiac Count stands at the head leads all others in prize winners for A. R. O. work for the year just closing.

For further particulars concerning King Pontiac Segis Veeman write to Edgewood Stock Farm, Burlington, Wis.

A 27.81-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 20.20 lbs. butter. She has a 30 lb. daughter and a 25 lb. dam. A little more black than white; well grown and of exceptionally good conformation. Born February 1, 1917. For pedigree and further information address

A. M. ANDERSON WHITEWATER, WIS.

10 MORE COWS

OPPORTUNITY RAPS at every man's door. Here is a chance to get some fine animals to found a good herd of registered Holstein-Friesian cattle, for a small sum of money. Cows from $150 to $250. They are bred to Sir Johanna DeKol 19th 64143, a young bull weighing 2500 pounds, with nine A. R. O. daughters, a brother to two world record cows, whose sire has 66 A. R. O. daughters. These cows will soon freshen and their offspring will equal the value of the cows. Also six yearlings to sell at $125 a head. Wire or write immediately, as they are exceptionally cheap.

DR. B. L. WERNER MARSHFIELD, WIS.

RIVERVALE FARM

OFFERS SOME FINE HOLSTEIN BULL CALVES—very light in color, from A. R. O. dams and grandams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

GEO. H. GIBSON NASHOTAH, WIS.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

B. F. WINCKLER & SONS Medina, Wis.

HILLSIDE STOCK FARM

REGISTERED HOLSTEINS, 3 A. R. O. cows, 4 heifers and 5 young bulls, 7-day and yearly record backing, straight individuals, mostly light colors. Priced to sell. Write or come.

Kirkpatrick Bros., 1½ mi. S. of Reedsburg, Wis.

FOR SALE

28 HIGH-GRADE HOLSTEIN HEIFERS, 12 to 18 months old, from good selected cows.

HENRY PETERSON NORTH LAKE, WIS.

OLATHE HOLSTEINS

HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 5 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna DeKol. Two bull calves also for sale. Address

LAWRENCE ROBERS LYONS, WIS.

BUY HIM NOW

A Jan. 15, 1917, bull calf, evenly marked, tuberculin tested, and a good individual. Sire is a son of Pietertje Maid Ormsby 35.56 butter in 7 days, has full sister with record of 1,255.6 butter in 365 days, average per cent fat 3.95. Dam a 15 lb. 2-year-old granddaughter of King of the Pontiacs. For pedigree and picture write to Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

Registered Holstein Heifers

HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNUTT OXFORD, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

DOPP BROTHERS Ixonia, Wisconsin

AT LA BELLE VIEW FARM

ORMSBY-BRED Holstein bulls will not reach around; winter calves all sold. We now offer one born in March, dam made 21 lbs. butter in 7 days, 3.90% test, 6 nearest dams to sire tested 4% and better, sire is also first cousin to Duchess Skylark Ormsby (dairy queen of the world), average test for year, 4.24. Good test is some drawing card. Better investigate, our prices are low.

E. E. ROSENKRANS Oconomowoc, Wis.

10 YEARLING BULLS 10

EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

W. H. G. RHODA, 610 3d St., Watertown, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER Sheboygan Falls, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

JOHN L. FISHER JANESVILLE, WIS.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

HOLSTEIN BULL FOR SALE—Holstein bull, born Oct. 14, 1916. Good A. R. O. records on both sire's and dam's side. Nicely marked, about one-half white, straight, good size, ready for light service. For pedigree and price apply to Mountain Ash Stock Farm, J. B. Cain, Proprietor, Glenbeulah, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write

GEO. A. WILSON Nellisville, Wis.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS - - - - Waukesha, Wisconsin

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wisconsin

JERSEY CATTLE.

INEZ ROSAIRE'S OXFORD (103364) FOR SALE

HE IS BY PRIME OXFORD whose brother sold for $11,500 and whose dam, Gedney Farm Oxford Prime, is known as one of the most celebrated Jersey cows of Island. Inez Rosarie, the dam of Inez Rosaire's Oxford, has 720 lbs. butter and 10,287.6 lbs. milk to her credit and is sired by Rosarie's Golden Lad, that sired Rosarie's Olga 4th's Pride, 984 lbs.; Anna Rosarie, 794 lbs.; Inez Rosarie, 720 lbs., and Gertie of Glymllyn's 2d, 744 lbs. For more information regarding this bull write to

H. HOLT & SON OCONOMOWOC, WIS.

OAK GROVE JERSEY FARM

HAS FOR SALE, bull calf, dropped Oct. 23, 1916; dam on test now, made the first 7 months, 312 lbs. butter fat. This bull calf is solid color, in good condition and well grown; tuberculin tested. For particulars, address

W. M. KNIGHT Eagle, Wis.

Registered Jerseys

HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. BRUINS FAIRWATER, WIS.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT TOMAH, WIS.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

GUERNSEY BULL FOR SALE

MY herd bull, Glenwood's Noble Secret 23999, four years old, good breeder, right in every way.

E. H. KIESLING Jefferson, Wis.

YEARLING GUERNSEY BULL

READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. BREITICK GREENVILLE, WIS.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS

Emory C. Meltz GUERNSEYS Appleton, Wis.

LIVE STOCK AUCTIONEERS.

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering.** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

I. E. STICKELMAN

CLARINDA, IOWA

I SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

SHORT-HORN CATTLE.

RAISE MORE BEEF

Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short-horn is the great improver.

Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.

Use only pure-bred registered bulls. We will help you to secure them.

AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
13 Dexter Park Avenue Chicago, Illinois

ROCK COUNTY SHORT-HORNS

FIFTY REGISTERED HERDS in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write

J. E. KENNEDY, Sec'y Rock County Short-horn Breeders' Assn. Janesville, Wisconsin

VISITORS WANTED

SEE 50 $1,000 COWS—SEE Maxwalton Amateur, the $3,450 bull. SEE a $2,000 bull calf. SEE the best Short-horn herd in the Northwest.

OAKLAWN FARM J. E. KENNEDY JANESVILLE, WIS.

Bates Milking Short-horns

YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.

GEO. WENHAM & SONS, FT. ATKINSON, WIS.

"SOME BULL"—I have for sale the best bred Scotch bull in the country. Write for details.

F. S. Bunker, Kilbourn, Wis.

HOLSTEIN-FRIESIAN CATTLE.

Two Holstein Bulls For Sale

SIX AND SEVEN MONTHS OLD. Good individuals with good breeding. For particulars and prices write

L. V. GARVENS R. R. 2, Brookfield, Wis.

HORSES.

Percherons, Belgians, Shires,

Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.

Fred Chandler, R. 7, Chariton, Iowa.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

Short-horns

MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

HARVEY H. LITTLE Evansville, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

WORLD'S FAIR HERDS

SHORT-HORNS. POLAND CHINAS

OFFER heifers and bulls by VILLAGE MYSTIC by Village Lad. SOWS bred for fall farrow. We please our customers. Write or visit.

C. J. SCHOENFELD & SON Fox Lake, Wis.

BULLS FOR SALE --- SHORT-HORNS

THREE YEARLINGS past, one by the noted White Rose. Fifteen young yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.

G. STAHLNECKER Darlington, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

H. B. DRAKE & SON BEAVER DAM, WIS.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 28. THURSDAY, JULY 12, 1917. WHOLE NO. 1850

THIS MAN CHOSE JERSEYS.

WHEN Fred Stubley took over his father's farm, just on the outskirts of Black Earth, he only had a few hundred dollars to pay down on it. Though the father was satisfied with this initial payment, he had certain definite ideas on how it would be possible for the boy to make the farm pay enough profit so that the land could be eventually all paid for. Being an old-timer, he had his doubts on the new enterprises that younger generations were undertaking.

When the boy, therefore, purchased three head of Jersey cows the following year, the elder

ONE OF FRED STUBLEY'S PROFITABLE JERSEYS.

Mr. Stubley was convinced that the farm was going to smash at top speed. He went to his banker and held a long conference for the purpose of securing the banker's help in stopping these uncertain ventures on the part of the young man. But the banker and the Black Earth State Bank officials were farsighted business men. They believed in dairying and they believed in Mr. Stubley, Jr.'s, ability to make dairying pay. So they told Stubley, Sr., that if ever he became convinced that the risk was too great to carry, they would be willing to take the matter in hand and finance it themselves.

FRED STUBLEY, WHO HAS MADE A SUCCESS WITH JERSEYS.

The father has never had reason to regret letting the young man have his way, for the three Jerseys soon developed into a fairly good-sized herd, and the milk and creamery receipts showed that the possibilities of dairying had not been overrated.

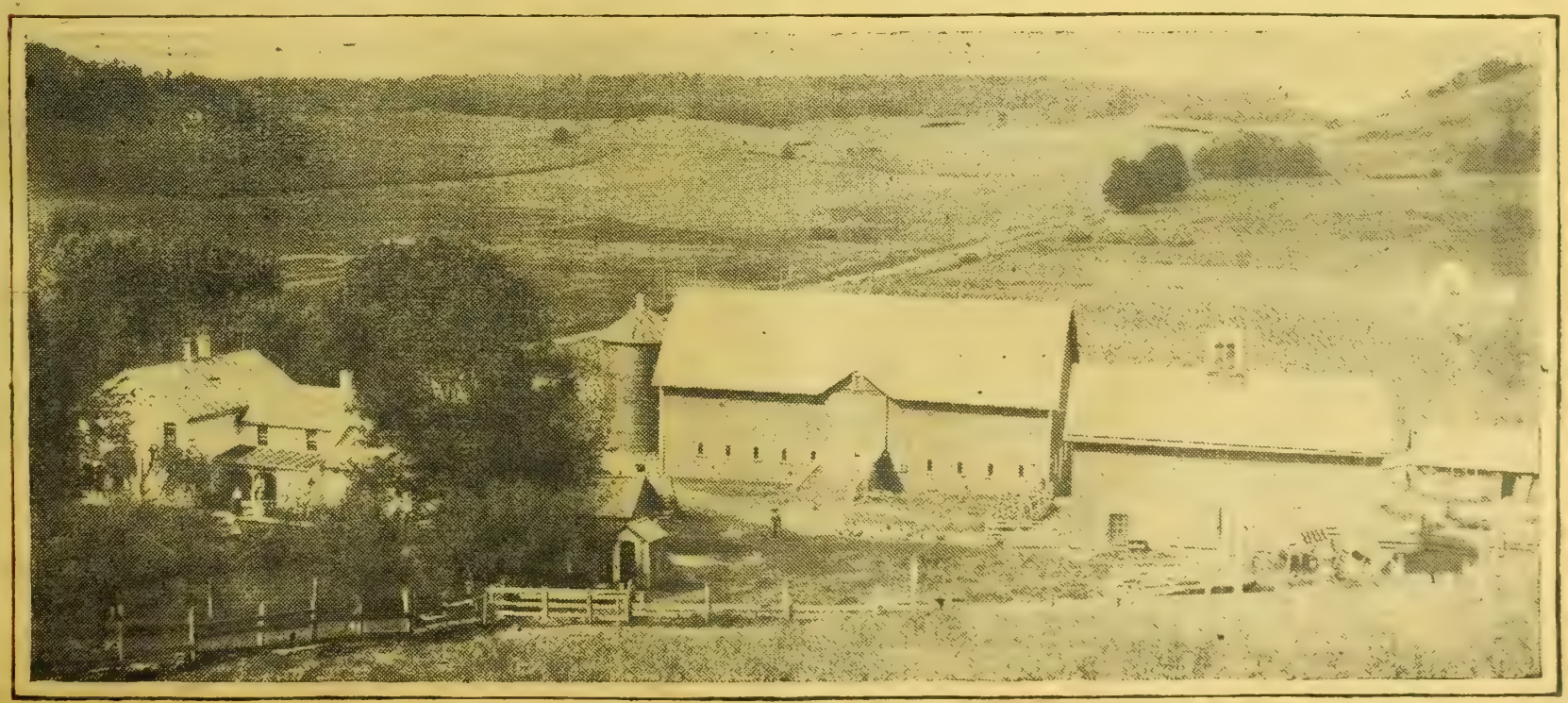
Today 100 head of young stuff and milkers form the herd. Twenty cows are always at work, that being the minimum number. During the fall season and through the winter the milking herd is larger, because more time can be put into the production end during this part of the year.

Soon after the first Jerseys came on the farm, Mr. Stubley and several other dairymen of Black

ANOTHER JERSEY WHICH HELPS MAKE THE HERD PAY.

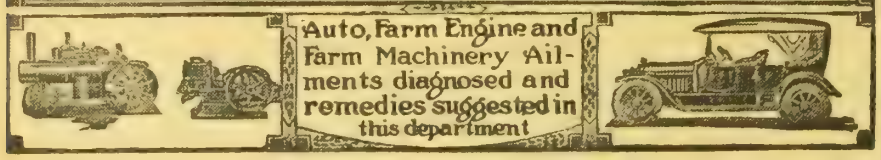
Earth organized a farmers' coöperative creamery, which is still doing business. They had a few ups and downs, but on the whole the creamery company has worked to the satisfaction of the members during all these years. Greater interest is now being taken in dairying than ever

(Concluded on page 6.)



THE HOME AND FARM BUILDINGS ON THE FRED STUBLEY PLACE, BLACK EARTH, WISCONSIN.

FARM MECHANICS



Questions and Answers.

Voltage of Spark Coil.

How many volts will a high tension spark coil produce when operated by four dry cells?

Answer.—That depends upon the winding of the coil and the condition of the dry cells. You can test the voltage by seeing how long a spark the coil will produce. It takes 60,000 volts to produce a spark one inch long. A spark one-half inch long would represent one-half as much, or 30,000 volts.

Clutch Slips.

I have a 1917 Model Ford car that does not go into high as soon as the clutch is released. It will spin on low a while before it goes into high. When it has a hard pull it will slip out of high into low. What is the trouble?

Answer.—The clutch is not adjusted tight enough. To adjust it, proceed as follows: Remove the plate on the transmission cover under the driver's feet. Take out the cotter key on the first clutch finger and give the set screw one-half to one complete turn to the right, using a screw driver. Do the same to the other finger set screws. Be sure to give each the same number of turns and don't forget to replace the cotter key.

Oxygen and Acetylene Gases.

Kindly define the difference between oxygen gas and acetylene gas. Can oxygen gas be successfully used to decarbonize cylinders? Is it as good as acetylene gas for this purpose? Where can oxygen be secured?

Answer.—Oxygen can be secured from the Bettendorf Co., of Davenport, Iowa. It is an elementary gas; that is, it cannot be subdivided into other gases or substances. It does not burn alone, but supports combustion. Acetylene consists of two gases, carbon gas and hydrogen gas, combined in a certain chemical union peculiar to that gas. It alone would not burn, but mixed with oxygen it burns with an intense heat. Oxygen is used in removing the carbon from cylinders, but it is necessary to ignite the carbon.

Adjusting a Carburetor.

Please explain the correct adjustments of a Model H Holley carburetor used on a 1915 Model R Reo 4. We are getting only seven and five-tenths miles per gallon of gasoline. The low speed plug is turned about a quarter turn to the left. When the motor runs idle it will stop at times unless the air is shut off. The packing nut for the needle valve allows enough gasoline to leak out to keep the lower part of the carburetor saturated. The spark plugs seem quite sooty, but not enough to prevent even firing. Should the low speed plug be set with the prick punch mark at the top for ordinary driving speed, say twenty miles per hour?

Answer.—Unscrew the packing nut on the needle valve and pack it with any kind of valve packing or with cotton twine saturated with soap. This will stop the leak around the needle valve. This leak may account for a considerable portion of your low mileage per gallon of gasoline. Then adjust your carburetor as follows, the instructions being taken from a circular issued by the Holley Bros. Co.:

Open the adjusting needle one and one-quarter turns, start the motor, advance the spark slightly and open the throttle about one-third. Now turn the needle to the right cutting down the gasoline until the motor begins to slow up, back fire or missfire; then gradually increase the gasoline feed by turning the needle to the left until the motor picks up and reaches its best speed without much odor or black smoke coming from the exhaust. Now close the throttle and retard the spark to idling position and adjust low-speed plug until the motor runs smoothly without loading. The low-speed plug must be turned slowly to obtain the best results, and the amount of turning can be determined by the action of the motor, as it can be turned in either direction and accomplish the same results.

Power Line Interferes With Telephones.

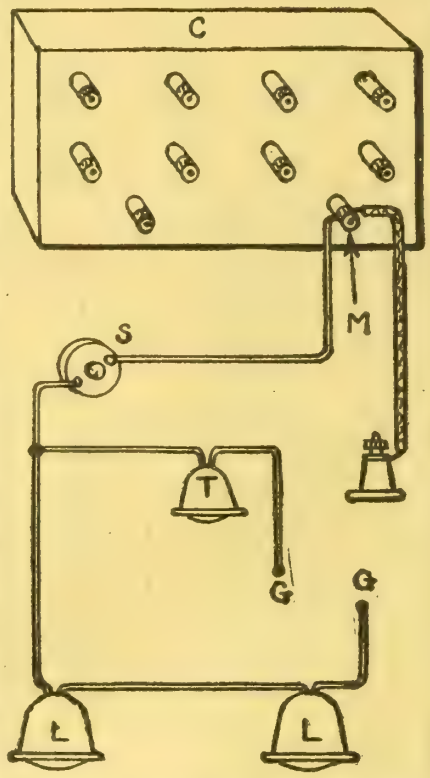
The Iowa Railway and Light Co. have built a line through here to transmit electric current from one town to another. Our telephone line is on the opposite side of the road, the two running parallel for over a mile, only crossing once. At the point of crossing the telephone line is about ten feet below the power line. Why is it that when the power line current is flowing it affects the telephone line so that it is almost impossible to talk? Is there any remedy for this annoyance?

Answer.—The current in the power line induces a current in the telephone line that causes the interference. The only way to overcome this is to use a complete metallic circuit for the telephone; that is, using two line wires instead of one line wire and a ground wire. Both line wires should run on the same poles. The current induced in one wire will largely neutralize the current induced in the other. The power company should stand the expense if the telephone line was installed first.

Lighting a Ford Tail Light.

I wish you would publish a diagram showing how to put an electric tail light on a Ford car, Model 1917. I wish to wire the tail light so that the magneto will operate it.

Answer.—The figure shows how the wiring should be done. C is the coil box, the back of the box being shown



with all excepting the lighting wires removed. M is the magneto terminal on the coil box; S is the lighting switch on the dash; L L are the headlights; and T is the tail light. G shows the wires grounded at any place on the frame of the car. Use a two-candle-power or four-candle-power bulb for sixteen volts for the tail light.

Engine Overheats.

Please tell me why my Model T Ford motor overheats. It has done so ever since it was new, and it has now run 3,500 miles. I have kept the engine free from carbon. I have tried running the spark lever in different places, but this does not help. I have had the fan blades twisted as much as possible, and am running the fan belt extra tight. I have flushed the radiator and water jacket thoroughly. I also have a water circulator. I use Polarine oil. I usually run at a speed of about twenty miles per hour. The water boils before I have gone two miles. The car has plenty of power, and I have had the valves ground. I always keep plenty of oil in the crank case and keep the radiator full of water. The engine starts easy, and I have examined the brakes to see that they do not drag. The car runs smoothly.

Answer.—You have certainly gone into the matter very thoroughly. The above letter shows the proper way to locate the trouble where a motor overheats. The Ford motor has some tendency to overheat, due to the fact that it has a rather high compression. You may be running with too rich a gasoline mixture. If the mixture is too rich the flame coming from the exhaust ports of the motor will be red instead of blue, as it should be. The flame may be observed by running the motor with the exhaust manifold removed. Too rich a mixture also causes a sooty exhaust. One of the most common causes of overheating is running with the spark too far retarded. It may be that there is a fine or other obstruction in the water jacket of the motor, or a bunch of solder in the radiator that prevents the water from circulating freely.

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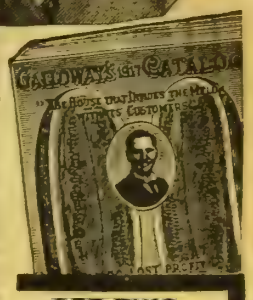

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I call it that because that's exactly what it is. It has features (exclusive features), that make it the best engine ever made, bar none. Point for point—part for part—it excels every other engine I know—and I know them all. Test it—try it—any way for any kind of work—tough or easy jobs—and you'll agree with me that my masterpiece engine is a masterpiece in every sense. If you pay less than my price you skimp on quality. If you pay more, you pay too much.

I Guarantee the Biggest Engine Value in the World—Write and Ask Me to Prove It

Yes sir, the best engine—quality for quality—size for size—power for power—at the price. That's what I offer you in my Masterpiece Six. And I'll give you brand new, this-year engine improvements that are exclusively mine—cannot be had on any other engine but the Galloway. For instance, adjustable bearings, economy carburetor, valves-in-head, double ball governor, water-cooled cylinder head, automobile-ground valves.

Power Test On Your Own Farm

But you don't have to take my word, or anybody's word. You can try my Masterpiece Six on your own farm for a free power test if you want to. Let the engine—by the work it does for you—decide whether you'll keep it. Test it on easy, hard or medium work. It's all the same—but test thoroughly before you decide.

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It tells everything you ought to know about engines. How to pick them out and why you should demand a heavy weight, large bore, long stroke and low speed. It also explains Galloway's direct-to-you plan of selling and why it means you get your engine at these patriotic prices at the time when the nation is calling for big crops. Write for the book today, sure!

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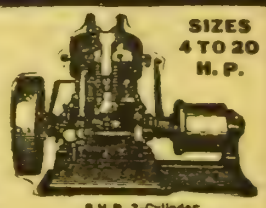
It's easy to own a Galloway Masterpiece Six or any other size Galloway engine. My fair buying plans give you the terms you like and a power test on your farm. Send tonight for this book. Learn these engine facts, and facts on Separators, Spreaders, Tractors and other Implements. A postal will do. We ship from St. Paul, Chicago, Council Bluffs, Kansas City or Waterloo factories.

Wm. Galloway, Pres.
Wm. Galloway Co.
88 Galloway Station
WATERLOO, IOWA

2-Cylinder Cushman Engines

FOR SILO FILLING



8 H. P. 2-Cylinder Weight Only 320 lbs.

Lester Jensen, Ogdensburg, Wisc., writes Feb. 2, 1917: "Last September I purchased a 15 H. P. Cushman Engine to run a No. 13 Blizzard Cutter in filling our silos. It did the work. Running the ensilage cutter at full capacity for 10 hours required 10 gallons of gasoline. Only slight attention was necessary from the man doing the feeding at the cutter.

"Since then we have been using the engine to run a feed grinder all winter. By filling the water jacket with hot water and using the handy gasoline priming cups on each cylinder, I was able to start this 15 H. P. Cushman in any kind of weather with one or two turns of the flywheel. The **easy, quick starting** of the Cushman is an important advantage."

4 H. P. on Corn Binders and Potato Diggers

The 4 H. P. Cushman, weighing only 190 lbs., is the one engine that may successfully be attached to Corn Binders and Potato Diggers, saving a team, reducing the wear and tear on the machine and securing better results. Write for circular explaining how they are attached to these as well as other field machines. The same engine may also be used for all other farm work, being so light in weight that it is easily moved around from job to job.

Very Steady and Quiet

Cushman engines run very steadily and quietly, like high-grade automobile engines. No loud explosions or fast-and-slow speeds.

The All-Purpose Engines

Cushman Engines are the All-Purpose Farm Engines, weighing only about 40 to 60 lbs. per H. P. — about one-fourth what ordinary farm engines weigh. 8 H. P. 2-cylinder weighs only 320 lbs. Besides doing all other jobs it may be mounted on Corn Pickers and Hay Balers. 15 H. P. 2-cylinder weighs only 780 lbs.

Cushman Engines have **Throttle Governor, Schebler Carburetor** and **Friction Clutch Pulley.** They are not cheap engines but are cheap in the long run. Ask for book on Light Weight Engines.

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The Wisconsin Farmer

THURSDAY, JULY 12, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

THE GRAIN BELT'S PATRIOTISM.

I AM well within the bounds of fact when I say that not in a generation has there been a Fourth of July such as that of Wednesday of last week. Celebration gave way to consecration; hilarity and noise to serious thought and prayerful contemplation. The spirit of the day was that of Lincoln's Gettysburg address and the people of the nation met, with almost religious fervor, to dedicate themselves to the great task before us; to take increased devotion to the cause for which our heroes will give the last full measure of devotion; to highly resolve that the dead shall not die in vain and that this nation and all the nations of the earth shall have a new birth of freedom; that government of the people, by the people and for the people shall not perish from the earth.

What little remained of sectional lines in this country, after the Spanish-American war, has been completely obliterated in the common effort for the common cause of liberty, democracy and peace. There is no longer a South or a North, an East or a West—it is all America, one country, one flag and one purpose.

A few months ago I discovered, in my general reading, that the eastern papers, with their customary provincialism, were greatly concerned over the patriotism of the West. Because we of the central West did not join in their hysterical fears of a fleet of Zeppelins raiding Boston, or of submarines shelling New York City; because we of the grain belt did not protest over and over our willingness to see the issue through and our loyalty to the stars and stripes, our eastern cousins became greatly perturbed for fear we might fail to do our duty. Today, I am glad to say, all this is forgotten; the West is doing what everyone (except those residents of the Atlantic seacoast who regard Buffalo, N. Y., as "way out west") knew she would do. The West far surpasses the East in voluntary enlistments for military service; in our proportionate subscription to the liberty loan and in our share of Red Cross subscriptions. The figures just given out show that among the first seven states which exceeded their share of Red Cross subscriptions, only two (Delaware and New York) are east of the Allegheny mountains, while of the remaining fifteen, five or one-third (Illinois, Iowa, Nebraska, North Dakota and South Dakota) are among the ten grain-belt states of the central West.

Considering these facts, it is not to be wondered at that the eastern press has begun to calm its fears that the West is not still in the Union. As I have formerly said, I have no inclination to draw comparisons at this time, for patriotism is not to be measured by census statistics or by dollars and cents. It is to be gauged only by heart throbs, by ideals and by courage, and there is no counting machine which will record these sentiments. But I merely wish to call the attention of our eastern cousins to the fact that they can, with perfect safety, devote themselves to putting their own room in our common dwelling-place in order and leave us here in the West to bear the load of our own responsibilities.

The minute men of Concord and Lexington were the embattled farmers who "fired the shot heard 'round the world;" it was the farmers of the middle West who left the fields to be tilled by the women and children and turned the tide of defeat to victory in the dark days of the civil war; it was the West that furnished the largest quota of troops in the Spanish-American war, and it is the Central West that will bear the heaviest brunt of the burden, whether in providing supplies or men, that will finally save the world for democracy on the blood-stained fields of Europe.

Let us hear no more of eastern or western patriotism, but only of American patriotism.

OPENING OUR HEARTS AND PURSES.

I HAVE called attention elsewhere on this page to the attitude, until quite recently, of the eastern press, which looked askance on the patriotism of the West and assumed a "holier than thou" attitude toward us in the matter of loyalty. Since writing the article entitled "The Grain Belt's Patriotism," I have received such tangible, indisputable evidence of the grain belt's wonderful patriotism and generosity, I cannot refrain from passing it on to you as conclusive refutation of the baseless charges of the eastern press.

My very good friend, Mr. Frank Dunning, president of the Citizens' Bank, of Bedford, Iowa, a man to know whom is to love, the very elect of this earth, has reported to me the result of the solicitation of a Red Cross committee in one-half of one of the townships of the county where he lives: a typically agricultural and rural county of the grain belt, without a town of more than 2,000 population in it. The township on which Mr. Dunning reports does not contain a single postoffice, it is rural all the way through. Moreover, while there is a high general average of farming prosperity, there are no wealthy men in the township. It is made up of good, honest, well-to-do farmers who do their work well, rear their families in the fear of the Lord and are loyal, patriotic Americans ever and always. Let Mr. Dunning tell the story of how he went among them soliciting Red Cross subscriptions and of the reception he met:

My Dear Mr. Pierce:—The statement made in some of the eastern publications that the West is not responding to the call for cash contributions in aid of the many worthy causes that have for their object the aid, comfort and physical and moral support of our army in the present war with Germany, should be most vigorously refuted. Such statements are made either with the design to misrepresent the facts, or are the result of misinformation.

Taylor county, Iowa, is a typical agricultural community of the Middle West, and the way in which her citizens are responding to every appeal of the government for financial aid in every worthy cause thus far advanced shows that she is not indifferent and lethargical, but interested and alert. As an example, a canvass was made in a portion of Ross township by a committee, of which I was a member, in the interest of the Red Cross War Fund, and every family visited (with the exception of three) contributed in sums ranging from $1 to $25. I am enclosing herewith a copy of the list, showing names and amounts. All of the contributors live on R. F. D. No. 5, out of Bedford, with the exception of three men.

The territory covered in this particular instance was the west half of Ross township, and practically every family was visited by the committee. All expressed interest in and anxiety for the cause. There is no town in this territory. The $50 basket collection at the head of the list represents a collection taken at the Hazel Dell Baptist Church, a country charge in the community. At a meeting held by a committee at the Siam country charge on Sunday there were sixty-one people present, and fifty-one of them, on being given the opportunity, paid the $1 and became active members of the Red Cross. The sum of $95 was subscribed for the war fund, made up altogether of subscriptions of $5 and more. At East Mission, another country charge in Clayton township, $120 was subscribed, there being three $25 subscriptions and the balance $10 each, the smaller subscriptions being left for the committee to secure.

A thorough canvass of one-fourth of one township in Adams county, just north of us, resulted in a total subscription of $369, and there were only two $25 subscriptions. There are no towns in any of the above territory.

Taylor county's apportionment of $7,500 in aid of the Red Cross will be oversubscribed, as was its allotment in the cause of the Army Y. M. C. A.

These things indicate that when a thorough canvass is made in the interest of a worthy cause, the people of the Middle West respond quickly and liberally.

Sincerely yours,
FRANK DUNNING.

This splendid report from Mr. Dunning fills me with rejoicing. It comes from a section of the country where I made my home in the early days of my residence in the grain belt, after I left Ohio, as a mere boy. Many of the names are familiar to me; I knew the fathers and the mothers of these liberal givers back in the days when I was beginning my newspaper work, among these grand people. It is like getting a cheering letter from home to read these names and to see the magnificent manhood and womanhood responding to the call of humanity in this manner. I cannot refrain from printing the names of these donors in the western half of Ross township, Taylor county, Iowa, as Mr. Dunning sends them to me. There are sixty-one names altogether, not counting the donors to the basket collection at the Hazel Dell Baptist Church. All but three of the sixty-one live on one rural route running out of Bedford. Let me print the honor roll:

Basket Collection at Hazel Dell Bap. Ch.	L. R. Helm	Elmer Derrickson
rs. F. E. Gaddis	J. W. Lacey	John Tribolet
r. M. Jared	T. E. Cobb	R. B. Stewart
T. H. Hensley	Mrs. Marley	Wm. Vannatta
J. C. Allen	Floyd Cobb	W. H. Mahan
R. E. Duncan	I. B. Conn	J. W. Coon
Howard Swaim	Wm. McCoy	D. R. Thompson
Ed. Spencer	J. W. Dorr	J. E. Van Camp
G. A. Davidson	E. E. Townsend	E. K. Mendenhall
Emily Swaim	E. J. Glover	P. Allen
Marley Brothers	A. C. Marley	Arthur Thompson
M. C. Owings	W. B. John	E. G. Foreman
J. E. Larison	W. T. Marr	D. Pack
A. J. Terry	S. F. Hatfield	Wm. Blake
Mrs. A. J. Terry	W. P. Spencer	Ralph Miller
John Bordner	T. J. Trumbill	J. E. Larison
T. F. Allen	Gaddis Brothers	Earl Smith
H. Mothershed	L. J. Davidson	J. E. Stewart
Floyd Swaim	D. V. Van Camp	M. J. Murphy
B. D. Toll	Delbert Jared	Wm. Kinney
	A. J. John	E. L. Oxley

Here is splendid refutation of the oft-made charge that we of the grain belt are not opening our hearts and our purses to the country in its hour of need. By this morning's paper I see that the state where the good people named above live (Iowa) heads the entire nation in the number of Red Cross chapters, having two more than New York, although New York's population is four times Iowa's. Nothing could more conclusively prove that the grain belt, the agricultural sections and the individual farmers are standing behind Uncle Sam, the president, Old Glory and the soldiers and sailors, as one man, wholeheartedly devoted to the cause of humanity, determined to keep the world safe for democracy.

EXEMPTION FOR FARM BOYS.

PURSUANT to my promise of last week to announce the government's plans for drawing the new army, I will outline herewith the particulars as they were given to me within the last few days. I feel that this is a subject of general interest, for I am not exaggerating when I say that I have received hundreds of letters (many of them so moving as to bring tears to my eyes) from farm mothers, who hope to save their boys from conscription, and from farm boys, who believe they will be serving Uncle Sam better on the farm than in the foreign trenches. To all of my correspondents I can say that the situation is brighter today than ever before.

First and most important, I am glad, indeed, to be able to say, there is repeated evidence that the government proposes to exempt the farm boy, wherever and whenever the circumstances point to his being useful on the farm to carry on the work of tilling the soil and harvesting the crops. Special regulations for his exemption have been made. While the farm boy will not be exempted merely because of his occupation, his case will be heard by a special tribunal, vested with ample authority to exempt him if the circumstances warrant. Let me go into detail a little.

The names of 1,000,000 to 1,500,000 young men will be drawn, in a few days, from the lists of 10,000,000 who registered on June 5th. Exemption boards have already been appointed, one for every county of less than 45,000 population or city of 30,000, with additional boards, where necessary, for each additional 30,000 population. Thus, Waukesha county, Wisconsin, having a population (according to the 1910 census) of 37,100, will have one exemption board; while Fond du Lac county, having a population of 51,610, will have two exemption boards. These local boards will have power to exempt the physically and the morally unfit and those having someone dependent upon them. I might add that the farm boy who is the sole support of a widowed mother, or an aged and infirm parent, or an orphaned brother or sister under sixteen years of age, or a wife or minor child, will be exempted by these local county boards. But if a farm boy has no such dependents and still wishes to be excused from army service, there remains another recourse for him.

Above the local exemption boards in authority there will be district exemption boards, one for each federal judicial district. This means one each in Kansas, North Dakota and South Dakota; two each in Minnesota, Wisconsin, Missouri, Oklahoma, Nebraska and Iowa; and four in Illinois. Appeals may be made from the decision of the county and city boards to these district boards. But agricultural exemption is to be decided by these district boards alone, the local boards having absolutely nothing to say on this subject. The farm boy, therefore, who claims exemption on the ground that he is needed to bring the corn crop through to maturity, or feeders to the market, must present his claims to the district board of his state. If the board is convinced that he is a hard worker, and that farm production will suffer if he should be taken away, it will exempt him and that will end the matter; if it says "No," there is no higher court to which to appeal, the matter is likewise ended.

I have good reason to believe that farmers will be well represented on these district boards, so the outlook is far from dark. I shall have more to say on this phase of the matter within a week or two. In the meantime, my advice to all my correspondents and to all interested is this: "Keep a brave heart and do not despair; Uncle Sam realizes that he needs his farm boys on the farm and he is not going to take advantage of anyone." With this knowledge in our hearts, let us face the future hopefully, convinced that all will come out right in the end.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Rural Carriers at Sturgeon Bay.

Every day a representative of Uncle Sam passes the farmer's door. We refer to the rural carrier. He is always on the job no matter what the weather. He represents a service which the farmer appreciates and which he desires to have continued on an efficient basis. The Wisconsin Farmer was represented at the carriers' convention in Sturgeon Bay last week and attention of our readers is directed to another page where a review of some of the important points brought out at this meeting is published. The rural carrier asks for no taffy or high-sounding praises. He asks a chance to work and to do his work right and to get fair pay. The state organization is social in character and in addition it has for its object the improvement of the service. The carriers do not meet as a grievance committee, but, on the contrary, meet to discuss constructive measures for the benefit of all of us. The rural carrier, before the present war is over, may become a forceful agency in aiding the government. If he is called upon he will do his duty. The Wisconsin Farmer is glad to note that the carriers had a good meeting at Sturgeon Bay, in the cherry country, and we hope that much benefit may result from this session.

Urgent Need to Increase Live Stock Production.

It is very natural that there should be much agitation in the central West of increasing live stock production. In this area natural conditions are more favorable to the industry, because we are enormous producers of both grain and roughage. From the West comes the same cry and Mr. R. W. Clark, of the Colorado station, urges that the flocks and herds be increased in numbers. He points out that animal products such as mutton, beef and pork are very high in price, so high that the question is often asked: "Will prices continue high?" They may not continue as high as at present, but they are bound to continue a great deal higher than they were when the war began.

Previous to 1914, we had an increasing population and a decreasing animal production. From 1910 to 1914, the population of the United States increased 7 per cent, while sheep decreased 5 per cent and cattle 10 per cent. Hogs in the same time increased only 1.2 per cent. If war had not come, prices would have increased, although not as much as they did. Animal production has been reduced or destroyed throughout the whole of Europe and the English colonies. Years will be required to reëstablish the herds and flocks after the war ceases.

A few years of good crops will produce a great grain surplus, but this is not true of live stock. Hogs produce at one year, but better at two; sheep at two years, but better at three; and cattle at two years, but better after three years of age. Farmers are reluctant to increase their live stock; it is a slow process and requires considerable capital and experience. Grain raising gives quick returns and is more attractive to the average farmer.

There is no danger of prices being low for a great many years. The nations of the world will be in the market for breeding stock when the war ceases, and no matter how high prices may go, people must have meat, milk, wool and all that is made from the pelts and hides. Furthermore, so serious is the condition that legislation will probably be provided to prevent price setting and to stimulate production.

Aside from profits, farmers need to engage in animal production. The fertility of the soil must be restored and maintained; there must be a better division of labor on the farm throughout the year than at present, and to be more prosperous, the farmers must have a regular monthly cash income. These conditions can be brought about only by live stock and the country will not be most prosperous, and especially the farmer, until they prevail.

Encouraging Wisconsin Settlers.

The Wisconsin Live Stock Breeders' Association has issued a lette to prospective settlers from which we quote as follows:

The opportunities for profitable live stock production are numerous in Wisconsin. In fact, there is not a state in the Union better adapted by nature to this important and necessary branch of farming; in few are the farms so conveniently near the great markets of the country and in none is more done by the state and coöperative agencies to encourage the raising of those classes of live stock which will return the producer or stockman the most substantial profits.

Community breeders' associations numbering 111 have already been formed in fifty-one counties of the state. Each of these coöperative organizations is helping the stockmen of the respective counties in the improvement of their herds, studs or flocks, in the purchase of breeding stock and by creating centers to which buyers may go in search of any one class of farm animals, is assisting their members, and others, in disposing of their surplus at better prices than would otherwise be possible.

Similarly, through the formation of cow-testing associations, Wisconsin farmers and dairymen are enabled at a very low cost to "weed out" their unprofitable cows and to more economically feed their herds.

We send you this information for the reason that we believe, as a prospective settler, you will be interested in learning of the numerous agencies which are at work in Wisconsin to increase the profits to be derived from raising live stock.

Wisconsin is very much alive agriculturally, and all the agencies already mentioned are at the service of settlers in the cut-over sections of Upper Wisconsin, as well as of the farmers in the more thickly settled portions of the state. The work being done by these organizations means greater prosperity for all. We will gladly furnish additional information concerning the work of these associations and clubs, or place you in touch with the secretaries in the section of the state in which you are interested.

This is a great year for buying land. Our Wisconsin people should not overlook the opportunities in their own dooryard.

Our Share in the Liberty Loan.

Perhaps some of our readers have thought that the large advertisements of the Liberty Loan which appeared several weeks ago in The Wisconsin Farmer were paid for, and that this paper was getting a part of the revenue from the sale of the bonds. The letter which is published in part herewith, shows that The Wisconsin Farmer donated almost $700 in advertising space to the Liberty Loan campaign, not receiving a cent for this service. We may add that this donation was given gladly. Neither did the publisher of The Wisconsin Farmer nor his associates feel that this donation of advertising space relieved them of any further responsibility. On the contrary, they bought bonds just the same as they would have done if they had given no advertising space. And we were doubly glad of an opportunity to give a great deal of space to the subject of Liberty Bonds in out editorial columns. This space, of course, is not for sale at any price. Chairman John H. Rich, of the Federal Reserve Bank of Minneapolis, who is also federal reserve agent, writes to the publisher of The Wisconsin Farmer under date of July 2d as follows:

The final totals of the Liberty Loan subscription in the ninth federal reserve district have just been obtained. The subscription is $70,223,100 which, in view of the extent of the district and the fact that it is largely agricultural, which has necessitated an immense amount of advertising and organization work, is very satisfactory, and represents a response which is in keeping with the importance and dignity of these states.

In behalf of this committee, which has been acting under the instructions of the secretary of the treasury, I beg to express our sincere thanks for the donation of advertising space which you have made, amounting to 1,746 lines, and to acknowledge your contribution of the cost of the same amounting to $698.40, and as well, the amount of reading space that you have devoted to this subject. Your action was of material assistance in the flotation of the loan and I want to thank you for the interest and practical patriotism which prompted it. In carrying information to the rural districts and towns, no part of our work has been more effective than that handled by the newspapers in their display advertising, their editorials and their news comments.

The committee appreciates the assistance received and is of the opinion that without this help it would have been extremely difficult, in view of the great area of the territory under its charge, to have brought adequate information to people of this district in time to permit them to make their response before the close of the campaign.

Again expressing our appreciation of your patriotic service, very truly yours, Central Liberty Loan Committee, by John H. Rich, Chairman.

Our readers may well imagine that this is a letter which we will prize very highly. The Wisconsin Farmer is glad to have had an opportunity to do its part and is ready for still further service for Uncle Sam.

Fond Du Lac County Activities.

From June 25th to 30th R. V. Gunn, emergency county agent for Fond du Lac county, and D. S. Bullock, of the State Live Stock Breeders' Association, toured Fond du Lac county and held meetings at Empire, Rosendale, Ripon, Alto and Calumet Harbor. The purpose of these meetings was to encourage still more raising of larger numbers of better live stock. Mr. Bullock gave an illustrated lecture at each place showing the types of live stock worth having and Mr. Gunn spoke for more silos and a conservation of the crops in general. There are approximately 2,000 silos in the county. This apparently makes a proportion of one silo to every two farms, as there are 4,000 farms in the county. Since many farmers, however, have more than one silo on their place it is certain that the proportion would be more nearly one to three. Mr. Gunn is convinced that a greater number of the farms in the county have sufficient stock to warrant a silo. Of twenty-one towns which have been petitioned by him to gather figures on the number of silos in their community, ten have reported that a total of nearly 300 farms are without any silo at all. A recent survey by Mr. Gunn shows that there is an increase of 7.3 per cent in the number of acres which have been planted to corn this year. The increase warrants an increase in silos also.

Although Mr. Gunn has only been in the county a short time, his work is being appreciated and he is in demand at every breeders' meeting and community meeting held. During the past month the Holstein, Guernsey and Jersey breeders have held their summer meetings and he has talked to nearly 1,000 people at these three meetings alone.

Taking soil samples or running a level for a drainage layout are all the same to Mr. Gunn, and, though there are hardly enough hours in the day to take care of all the matters that come to his desk and call for his personal attention, he is on the go as long as it is daylight and then puts in his evenings getting ready for the next day.

Besides his work with the farming interests he also has a part in the activities of the women of the country. The county has been divided into four districts under Miss Frances Perkins, who oversees the domestic science work of each district. A domestic science teacher for each of the four districts consults with her as to the work for each community and reports to Miss Perkins the work done by the various clubs and women's associations. These clubs include the canning and food conservation work that is done in the county. In the city of Fond du Lac seven of the nine schools in the city will be used by the city women for the canning work. The County Council of Defense furnishes the gas necessary for the cooking. Steam pressure cookers have been purchased by the women of the clubs and the necessary vegetables will be donated from the various gardens.

A bulletin board in each of the schools will call attention to food conservation and on it will be posted recipes and hints on how to use substitutes for various materials now in use. The women are encouraged to copy these and use the suggestions in their own homes. The women of the city have also spread the gospel of organization to the country and twelve new canning clubs have been formed during the last two weeks.

It is the desire of Fond du Lac county men to have the best organized county and defense council in the state. Their efforts so far have proved they are working in the right direction. Behind every movement or ably seconding it is the chamber of commerce represented in the person of J. J. Ermatinger, its secretary. Mr. Ermatinger has great things in mind, not only for the city of Fond du Lac, which he is serving primarily, but also for the live stock interests of the county. The pure-bred work in the county is attracting more attention over the state each year and the Fond du Lac men feel there is a great opportunity for both the city and the county to become the best-known farming center in Wisconsin.

The Winterkilling of Alfalfa.

There are many shabby looking alfalfa fields all over the central West and, of course, thousands of fields were plowed up and put in corn. The individual who sustained a loss of a field or two is not very much concerned about the question of his loss. He knows in a general way that the winter was too cold and the crop did not have enough snow protection. The strange part of the matter is, however, that some fields escaped. Others were half killed, while still others were completely destroyed. This is well illustrated in a letter by C. S. Burgess, which recently appeared in Field's "Seed Sense." It reads:

In reply to "What killed alfalfa?" I will try and tell you of a few fields in this community. I have three small fields of old stands; the oldest about thirty years, one ten and one four. There is some dead in all three fields, but more in the ten-year piece than in the other two combined. Another field just across the road on clay banks and bottom of draw is a piece nine years old that is nearly all dead and about forty rods farther on is another field on same kind of ground, three years old, that is a good stand. On the next eighty east of here are six acres ten years old, on good level ground, of rich loam, that is all dead. A short distance farther is ten acres, sowed last year, that is a perfect stand. All fields sowed in May without a nurse crop. None of these fields were pastured and all are well drained. That is, there is no water standing on them. I have talked with several farmers about their alfalfa and most say it is about half dead. I don't advance any reason, nor have I heard anybody that could give a cause for the conditions around here. But what killed the salsify and wheat and most of the parsnips has proved to be mighty hard on alfalfa. These are the condition in this part of Nebraska.

It is singular, indeed, that the thirty-year-old alfalfa field suffered less in the case cited by Mr. Burgess than one that had been established ten years. On the whole, the oldest field suffered most. We have in mind one instance where alfalfa, seeded five years ago, was practically all killed, whereas another two-year-old adjoining field, with a soil exactly similar, came through the winter in splendid shape. The experience that alfalfa growers have passed through indicates that the common variety is not absolutely hardy, and sooner or later we will have to use the Grimm variety. To be sure, there is not enough seed of that variety to answer the immediate needs of all who wish to establish alfalfa this year, but it is not too early to begin giving it a try-out on a small scale.

NEW LAWS OF INTEREST TO FARMERS.

The Badger Legislature Has Passed a Large Number of Acts Which Will Govern Farmers and Breeders of This State.—Altogether 600 Bills Passed.

THE 1917 legislature during its session considered nearly 1,500 bills, of which approximately 600 have been enacted into laws. The agricultural work considered by the senate and assembly during the session just passed contains some of the most important legislation for Wisconsin's agriculture that has been passed in recent years.

Heading the list is the tuberculosis legislation which has been encouraged by educators and breeders for many years. The Wisconsin plan of eradicating tuberculosis will, if followed out as proposed, place Wisconsin so far ahead of every other state in the Union as regards health in cattle that the state will be the mecca for pure-bred breeders of the United States in a greater measure than the most optimistic of us can anticipate. The plan of eradication provides for the complete clean-up of the state by areas, the isolation of reactors, pasteurization of their milk under state supervision or in case of slaughter a compensation not to exceed $100. The necessary authority for the enforcement of precautionary measures has also been incorporated in the laws. Any person moving animals afflicted or previously exposed to contagious or infectious diseases, including tuberculosis, is liable to a fine in case he transports such animals without the permission of the department of agriculture or the state live stock sanitary board. After an area has been cleaned up, as, for instance, a county or two or three counties, no uninspected animals can be brought into this county or counties under penalty of a fine and on the second offense imprisonment and fine.

The work of eradication will of necessity take years before it will be completed, but the beginning will be made shortly and a county or two counties cleaned up during the present year. The cleaning up of any area, however, will not be forced upon the people, as the law specifically states that such work is only to be begun in districts where one-half of the resident farmers and cattle owners request it.

For the prevention of hog cholera in the state the legislature has appropriated $2,000. This work will be done by the state veterinarian.

The state department of agriculture has been entrusted with the control work of animal and plant diseases and the police functions transferred from the university department of agriculture to the state commissioner of agriculture. It has been felt for a long time that the educational work of the college men was being hampered by the control work which at various times called for the application of police powers. Though such police powers were never employed except in the quarantining of herds that were a menace to a community or in preventing shipments of diseased nursery stock, the feeling aroused very frequently hindered later work of the college men along educational lines. Under the new system the commissioner of agriculture will take care of any control measures and the college men will continue the educational work without any handicap as formerly. Commercial fertilizer analyses and the stallion registration work are included in this transfer of control powers. Inspection of nurseries and nursery shipping stock, prosecutions of unreliable fertilizer concerns and violations of the statutes in regard to transportation of animals will all be handled by the department of agriculture in the future.

In order to have a better check on the agricultural resources of the state the legislature has enacted a law which will make it the duty of assessors of the towns and counties of the state to collect such statistics in relation to the principal farm products and agricultural resources as the department of agriculture may require. These statistics will be gathered each year when the annual assessments are made. A tabulation of the statistics must be forwarded by the assessors before July 15th of each year.

Of six bills introduced for the eradication of weeds or their control only two were accepted and made into laws. Under the law now a competent person is appointed by the chairman of each town board before the 15th day of May, whose duty it is to report concerning the noxious weeds in his district. Cases where this work has been neglected must be reported to the chairman of the town board, who, between the 1st and 15th day of August, must report to the commissioner of agriculture. The commissioner reports such failures to the proper district attorney, who will prosecute to recover the penalty for such violations. Threshing machine operators must also take all proper precautions that their machines are reasonably clean from all noxious weed seed before removing the machine from one farm to another.

Northern Wisconsin was benefited by the land-clearing bill, which provides for investigational and demonstrational work on the part of the university to determine the most efficient and economical methods of land clearing. This year's work is to start on July 16th and will continue for fourteen weeks under the direction of F. M. White, professor of agricultural engineering at the university. Besides experimenting with the best mechanical means for pulling stumps the demonstration trains will prove the possibility of clearing land quickly and economically and serve to attract settlers to the rich cut-over sections.

A settlers' reclamation department has also been established under the direction of the commissioner of agriculture. Whenever twenty-five settlers of any county petition the county board for funds for the reclamation of agricultural land by drainage or by removal of stumps, brush or fallen or standing timber, such funds shall be raised by appropriation, tax levy, loans or bonds not to exceed $100,000. These funds will be deposited with the state treasurer to be loaned under the supervision of the department. Persons owning forty acres or more of cut-over stump land and actually occupying such land or intending to occupy such land within a year and who intend to farm such land for at least five years can have five acres cleared, stumped, brushed or otherwise improved for the plow each year for a period of three years, making in all a total of fifteen acres which one settler can have cleared with state aid. Counties desiring to benefit from this reclamation act must, if they have not already done so, employ a county agricultural representative who is to aid in the work of agricultural development in the county.

The legislature also passed a measure empowering the department of agriculture to purchase dynamite and other explosives for distribution at cost to bona fide settlers of northern Wisconsin. The department of agriculture is instructed to make such rules and regulations as may be necessary to handle the orders for such dynamite and for its distribution.

County agricultural agent work has been helped along by the present legislature and the number of agents now possible for Wisconsin for which appropriations have been made are twenty-eight. This does not pertain to the emergency food agents which have been engaged this year by counties having no regular agricultural representative. The agents here referred to are the permanent representatives employed by the counties and financed with the aid of the state.

The dairy and food commission has had its duties increased through the laws that have been created this year. Besides the regular inspection work of the milk and cream supply and the dairy products in general the soda water industry and the baking interests of the state have been turned over to this department. The dairy commissioner has been given the right to appoint special dairy and food commissioners for any factory or plant buying or receiving milk and cream for manufacture into butter or cheese or for condensing or for retail trade. When two-thirds of the patrons of any factory or plant petition in writing for such a special inspector and guarantee the expenses and salary for such a man the dairy and food commissioner can appoint a qualified person with power to enfore the laws conferred by the state upon all dairy and food inspectors. The dairy and food commissioner has supervision over all the work done by this special inspector. The special inspector shall supervise and inspect the weighing and testing of milk, cream, butter or cheese and may perform such other duties as he has contracted for or which the dairy commissioner asks of him as long as they pertain to the inspection work.

The state dairymen's association was granted an appropriation of $6,000 annually for carrying on the cow-testing work and for encouraging better dairying.

The unfair discrimination in buying milk, cream and butter fat as heretofore practiced in certain cases where competition was especially keen between corporations has been made unlawful. Wherever a plant or corporation in order to create a monopoly or to destroy the business of the competitor discriminates between sections or towns in the state by buying such milk or cream or butter fat at a higher price in one section than is paid by the same plant in another section, after making due allowance for the difference in the cost of transportation, such a plant is liable for violation of the law.

"Whey butter" must from now on be conspicuously stamped or marked in letters at least three-eighths of an inch square upon two sides of each and every tub or package containing whey butter under penalty of a fine not to exceed $100. The legislature defined whey as the product remaining after the removal of fat and casein from milk in the process of cheese making. Whey cream is that portion of whey rich in milk fat which is separated from the whey and contains no less than 18 per cent of fat. The making of whey butter originated in the Swiss cheese districts where the loss of fat in the whey has been greater than in other sections. Whey butter has been marketed in many instances as first-class butter and it is to make this impossible that this law was enacted.

The lawmakers also established a standard of grades for apples grown in the state. There are now four classifications for Wisconsin apples: "Wisconsin Standard Fancy," "Wisconsin Standard A," "Wisconsin Standard B," and "Wisconsin Unclassified." These standards apply to all apples which are sold in closed packages. Apples packed under the law in closed packages must have on the outside the name and address of the person for whose authority the apples were packed, the name of the variety, the grade of apples and the minimum size or numerical count of the fruit in the package. Apples packed and branded in accordance with the United States apple grading law are exempt from the provisions of this section. Only packages offered for sale or consigned or shipped for sale must be branded in the manner prescribed. Enforcement is vested in the commissioner of agriculture.

The acts of the county board of supervisors of any county containing a city of the second class relating to appropriations to any county fair association have been legalized by the legislature, even when such appropriations have exceeded the limit provided in previous sections pertaining to county fairs. All associations which held fairs during 1915 and which filed their statements in the proper form before March of this year have been allowed the amount of their claim as far as such societies were entitled to state aid.

A bill introduced in the legislature for a state brand for our dairy products was defeated, but a resolution introduced by Senator Skogmo during the early part of the session has resulted in the creation of a committee to investigate a system of branding and marketing farm products. This committee will also study coöperative enterprises and submit plans for aiding and developing these for the best interests of our agriculture; it will investigate land and credit systems and auditing and accounting systems; it will examine into the systems of marketing, standardizing and branding of farm products. Two senators and three members of the assembly have been appointed to carry out the provision of the resolution and report to the next legislature. The committee is composed of Geo. B. Skogmo, of River Falls; Anton Kukuck, of Shawano; Henry Grell, of Johnson Creek; Chas. D. Rosa, of Beloit, and Riley S. Young, of Darien.

The state board of health was granted additional powers to deal with the location and construction and operation of rendering plants where carcasses of dead animals are disposed of. Under the law they can inspect and remedy all methods of operation which are a menace to public health.

The State Council of Defense created by the legislature was given additional powers in a bill passed at the close of the session which will make it possible for this council to seize foodstuffs and other property when, in its opinion, such foodstuffs and property are required for common defense or for the general public's welfare. It has also the power to fix the compensation which the individual or corporation whose foodstuffs and property are seized is entitled to. Not only foodstuffs can be seized, but also warehouses, buildings or storage facilities which may be required in order to serve the purpose of the state. The state council can store, handle, sell or distribute as it sees fit the property taken. All foodstuffs or properties taken by the council will be paid for by the council and in case of any dissatisfaction an appeal can be made in the courts for a readjustment.

Numerous other laws were passed only indirectly or very distantly pertaining to agriculture. Of interest, however, to the farmers of the state is the amended fire insurance law. Under the new provision all buildings must be paid for at the full value stated in the policy. Formerly an insurance policy contained the value of a building or automobile, but the companies were under no obligation to pay the full value of the policy. As a rule, an appraiser from the company made his estimate on the depreciation which had taken place since the policy was written and it was not an infrequent occurrence for a person whose barn had been insured for $2,000 to be forced into accepting $800 or $900. Hereafter the full value must be paid irrespective of depreciation or expert appraisals.

OF INTEREST TO BADGER FARMERS

IMPORTANT ACTS OF THE WISCONSIN GENERAL ASSEMBLY HAVE BEEN REVIEWED IN THESE COLUMNS FROM TIME TO TIME DURING THE PROGRESS OF THE SESSION. THIS ARTICLE GIVES MORE PARTICULAR ATTENTION TO THOSE NEW LAWS IN WHICH THE FARMERS AND BREEDERS OF WISCONSIN HAVE GREATEST INTEREST. TO FAMILIARIZE HIMSELF WITH CHANGES WHICH HAVE BEEN MADE IN THE LAWS OF THE STATE, EVERY READER SHOULD PERUSE CAREFULLY THE REVIEW GIVEN HEREWITH, AND IT MIGHT BE WELL TO PRESERVE THE SAME FOR FUTURE REFERENCE.—EDITOR.

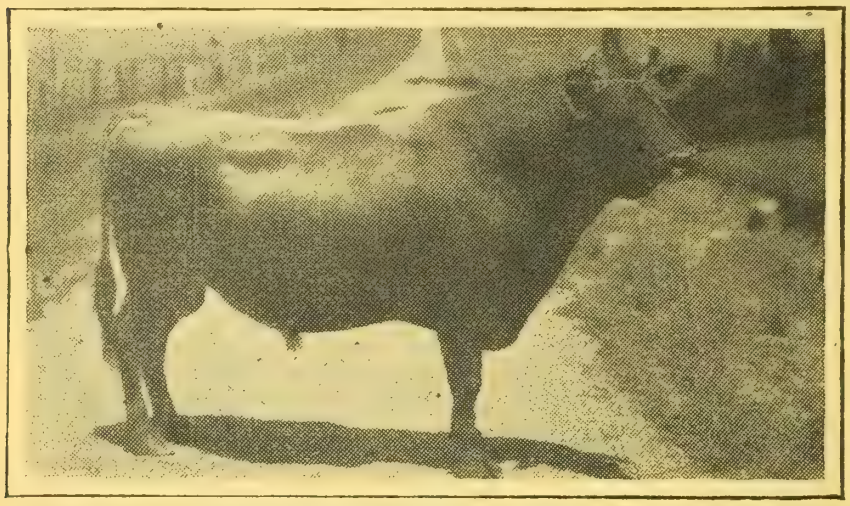
THIS MAN CHOSE JERSEYS

(Continued from page 1.)

before. A test association was recently formed which includes 500 cows of Black Earth and vicinity. The first report for the month ending May 18th shows that Mr. Stubley has six cows of the eleven giving over forty pounds of butter fat in thirty days. The tester takes care of twenty-seven herds in the association, testing each herd once a month and also making regular tests of separators to see that they skim as they should and that no butter fat escapes through the skim-milk spout. "Guest" cows can soon expect an invitation to leave from their various boarding places when the full figures for the first few months' work are compiled. Twenty cows of Mr. Stubley's herd average over thirty-six pounds of butter fat for the month. This is highly satisfactory, considering that this represents the entire herd under test.

Mr. Stubley began by buying recognized producing stock and he has developed a considerable number of fine animals himself. Several years ago he imported fourteen cows from the Jersey Island, securing some excellent individuals with which he has since improved and strengthened his herd. His herd sire at the present time is Golden Maid's Viscount by Golden Maid's Prince. He is an imported bull with a deep, long body, wide chest and a typical Jersey head—broad at eyes with small horns set high, and with the dished face and broad muzzle. He carries out especially well over the back. His dam traces back to the blood of Golden Lad, famous in Jersey history. Another bull which has done much toward improving the heard is Bluebell's Eminent, a half brother of Noble of Oaklands, one of the best known sires of Jerseys in America. Some of the cows which have been showing well at the pail are Mint Drop, Double Time, Kilda Girl, Glory, and Rose. Kilda Girl has 600 pounds of fat to her credit for the year's work and after eight months' milking she gave, during the recent cow-test work, forty-nine pounds of fat. She is by Royal Majesty. Mint Drop gave, during the thirty days ending May 18th, 48.5 pounds of fat, Rose yielded 44.5 pounds of fat and Glory yielded 42.6 pounds of fat. Another cow not milking at the present time is Canary's Bluebell by Noble of Avaranche. Avaranche is a son of Noble of Oaklands, the $15,000 sire.

There are about 180 acres on the Stubley farm. Not only were the dairy cows able to pay for the original home place, but they have added another farm to the original one since their coming to Black Earth.



GOLDEN MAID'S VISCOUNT BY GOLDEN MAID'S PRINCE, IMPORTED SIRE AT THE HEAD OF STUBLEY HERD.

The silo was just a logical addition to the farm buildings when the dairy cows came. It has done good service through all these years and has helped to make the profit from the milking possible. More than $15 per cow is about the average income each month from the herd, which figures into a neat profit for a twelve-month period. Besides this, Mr. Stubley has the surplus stock to sell at good prices. The demand for Jersey heifers during the present season has far exceeded the supply.

Dairy cows are the money-makers, and the Stubley herd is just another of the thousands of proofs Wisconsin is ever ready to furnish any other state or community that has not realized this.

FEDERAL
DOUBLE CABLE BASE TIRES

If you've never used Federal Tires try them now. Without an equal for country roads. The non-skid treads are tough and durable, give perfect traction and hold the car safely to the road in wet or slippery weather.

No matter how hard or rough the going, Federal Tires always hold fast. For down in the base of the tire four strong steel cables anchor the tire safely to the rim against the hardest kind of strains. Yet they slip off easily when necessary.

Made in white Rugged and black Traffik non-skid treads. Sold by leading dealers everywhere.

The Federal Rubber Company of Illinois
Factories: Cudahy, Wis.

(3)

Manufacturers of Federal Automobile Tires, Tubes and Sundries; Motorcycle, Bicycle and Carriage Tires; Rubber Heels, Fibre Soles, Horse Shoe Pads, Rubber Matting and Mechanical Rubber Goods.

Rural School Work in Polk County

UNDER the direction of County Superintendent of Schools Martin Stenerson and County Agricultural Agent John S. Klinka, some very profitable work has been done in Polk county by young people in keeping milk and butter fat records. This work has been carried on for over two years. Something over two years ago the boys and girls in the seventh and eighth grades tested a total of 1,072 samples obtained from 252 cows. In 1915 forty-two students tested 1,324 samples from 296 cows covering a period of six months each. The young people were provided with a special card on which space was arranged for the record of ten cows and blanks for morning and evening weight records, pounds of milk and butter fat per day and month, percentage of test, price of butter fat per pound, value of butter fat per pound with butter. While the young folks make up these cards, the work was supervised by the parents who signed the card.

During the month of October last year six agricultural school fairs were held in Polk county. One of these fairs was held in consolidated district No. 1, Apple River, in a new modern, two-room building recently completed and similar to fifteen other buildings constructed in Polk county.

In this building were grouped and displayed in most artistic fashion exhibits of cooking, sewing, fancy hand work and curios. Vegetables, grains and fruit occupied one larger room in the basement. In the beautiful maple grove on the grounds were exhibited horses, cattle of both beef and dairy breeds, sheep, pigs and poultry.

Special features were the Indian wigwam, Indian weapons, Indian hand work, brass and copper ornaments and utensils, old-fashioned weapons from Sweden and Norway and some beautiful and expensive drawn and woven work from Mexico. A fine old lady of the community carded and spun wool into yarn, a sight not often seen now.

The judging of the agricultural exhibits was done by Professors May and Clark, from River Falls, the cooking and hand work by the ladies of the Polk County Training School faculty.

At four o'clock those in attendance, estimated at about 200 people, partook of a bountiful meal prepared and served by the ladies of the neighborhood.

At eight o'clock in the evening a program was given which included talks by Superintendent Stenerson and Prin. C. W. Monty, and an illustrated lecture on live stock by County Representative J. S. Klinka. A business meeting followed to decide whether to purchase a piano, organ or a Victrola for the school. Following this was a meeting of the Equity Society.

The above gives an idea of the plan and purpose of holding these contests. The farmers are encouraged to bring samples of their products and are invited to come to the school. Much interest has been shown in these fairs wherever they have been held in the county. Similar fairs, on a larger scale, have been held in two of the villages in the county, namely, at Frederic and Milltown.

It has been Superintendent Stenerson's aim to secure a closer coöperation between the school and the home by interesting the teacher and pupils in active farm work and by encouraging work in the schools which will be of practical use on the farm. The plan has worked out splendidly and we doubt if any other county in the state has made more rapid progress in school work and school buildings than has Polk county. There are about thirty graded schools in the county and most of them are second-class schools located in rural districts giving special courses in agriculture, manual training and domestic science.

Students Man Tractor.

Working every daylight hour on land that would not otherwise have been plowed this year, four students of the college of agriculture are using tractors to advantage in helping the farmers of Dodge and Walworth counties solve the labor problem.

These students, who are now working in shifts behind the tractor at Juneau and Sharon, respectively, are Lester L. Pattinson, Darlington; C. E. Walsh, Eau Claire; J. H. Hill, Wyocena, and W. H. Ross, Milwaukee. The tractors are furnished and maintained on the job by a large food manufacturing company with headquarters in Chicago. This firm has condenseries at both Juneau and Sharon and is thus vitally interested in helping its farmer patrons make a good showing in food crops this year.

The plowing has almost without exception been done on old sod land or marshes, rough pastures and in other places that would probably not have been turned under with horse power. The boys are running in two shifts a day, taking thirty minutes daily for a thorough overhauling and inspection of their tractors, which are small, light-weight machines of about twenty horse power.

It is said that the plowing is being done at about $1.50 an acre. This price represents no profit and merely pays running expenses of the machines and the operators. The students have now been at work for at least a month.

"Farmers whom I have met are pleased with the work being done by the students and their tractor plows," said E. R. Jones, Dodge county emergency food agent. "Their work has been of great benefit to numbers of farmers, pushed to the limit as they have been to get the spring work done on time."

Grain Smuts

The U. S. Dept. of Agriculture recommends the use of Formaldehyde for cleansing seed grain before planting. It guards against the development of stinking smut and loose smut in wheat—

FORMALDEHYDE
The Farmer's Friend

The loss through smut in this country amounts to millions annually. This can be prevented by treating all seeds before planting with Formaldehyde solution. Pint bottles at your dealers, 35 cents, treats 40 bushels. Complete directions for using Formaldehyde, U. S. Dept. of Agriculture reports and hundreds of valuable suggestions in our big illustrated booklet sent free.

PERTH AMBOY CHEMICAL WORKS
100 William Street New York

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST.

It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department E, Farm and Real Estate Journal, Traer, Iowa.

CURRENT EVENTS

THE United States expeditionary force to France, which arrived safely last week, was twice attacked by German submarines on the way over, but not a man, animal or ship was lost in the voyage. Considering the distance, the dangers and the difficulties, the feat of sending such a large body of troops abroad was performed in a remarkably successful manner. The details of the trip were not announced until the last ship (bearing horses and supplies) had reached a French port in safety, then Secretary Daniels, of the navy department, issued a public statement in which he said: "The transports bearing our troops were twice attacked by German submarines on the way across. On both occasions the U-boats were beaten off with every appearance of loss. One certainly was sunk and there is reason to believe that the accurate fire of our gunners sent others to the bottom. The whole nation will rejoice that so great a peril is passed for the vanguard of the men who will fight our battles in France. No more thrilling Fourth of July celebration could have been arranged than this glad news that lifts the shadow of dread from the heart of America." No announcement has been made of the number of troops sent over in the first army, but it will mount high into the thousands. The soldiers will be given additional training behind the French trenches and then sent into battle within a few weeks. That they will give a good account of themselves is a foregone conclusion.

A DETACHMENT of troops under General Pershing was sent to Paris, from the seaport where they had landed, to participate in a Fourth of July celebration in the French capital city. Press dispatches state that Paris turned out a crowd "that no American city ever surpassed for size, enthusiasm and profusion of Stars and Stripes." The fact is, all of France has gone wild over the arrival and the forthcoming participation of the American troops and no honors are too great to be showered upon men and officers alike. Newspaper accounts of the Fourth of July celebration give these interesting details: "The enthusiasm of the vast crowd reached its highest pitch when General Pershing, escorted by President Poincare, Marshal Joffre and other high French dignitaries, passed along, reviewing the lines of the Americans drawn up in square formations. Cheering broke out anew when the American band struck up the 'Marseillaise' and again when the French band played the 'Star Spangled Banner' and Pershing received the flags from the president. 'Vive les Americans! Vive Pershing! Vive les Etats Unis!' shouted over and over by the crowd, greeted the American standard bearers as they advanced." General Pershing has been given royal honors since his arrival a few weeks ago, enough to turn the head of a less democratic man than he has proved himself to be.

DELIVERING a Fourth of July address with characteristic pugnacity, Col. Theodore Roosevelt declared that those in America who champion Germany's cause against the cause of America are guilty of moral treason and are, in fact, although not in law, moral traitors. Speaking along this line the former president said: "For over two years Germany has heaped insult upon insult, injury upon injury, on our people. We did not even dare to prepare so as to be able effectively to resent wrong in the future. Our supine inaction was partly due to the folly engendered in our people by the professional pacifists. But an even more important factor was the dread many of our politicians felt, not merely of the German army abroad, but of German votes at home. The selfishness and shortsightedness of the American politicians were indefensible, and they were due to the fact that the men who took the lead in the German-American movement sought entirely to subordinate the actions of the country of which they were nominally citizens, the United States, to the needs of the country for which they cared, Germany. Now we are at war with Germany, yet many of these persons supported, of course, by professional pacifists, continue to champion Germany's cause as against the cause for which we are fighting. This is a moral treason to the republic, and all who engage in it are, in fact, although not in law, traitors who have no right longer to be treated as American citizens." Colonel Roosevelt has been a big factor in spurring American patriotism into action in the present crisis. He would undoubtedly like to take a hand himself in the actual fighting in France.

WITH the arrest of Joseph Graber, of Scranton, Pa., an organizer of the Industrial Workers of the World, charged with being a spy in the employ of the German government, federal authorities declared their investigation had satisfied them that recent strikes and agitations of the I. W. W. in the anthracite coal regions had been stirred up by German agents with the hope of lessening the power of the United States in the war by decreasing coal production. "Information in our hands," said John M. McCourt, assistant United States district attorney, who has had charge of the investigation, "proves the connection between the organizers and leaders of the Industrial Workers of the World movement here and the German government. Graber, an organizer of the I. W. W., is a German agent. Our information proves, too, that German money has been poured into this district in an effort to cause strikes and thus lessen coal production."

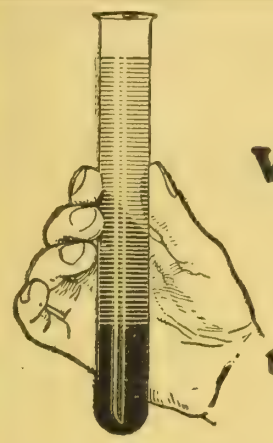
TWENTY-THREE states out of the forty-eight are bone dry now, as a result of the Reed law going into effect the first of July. This law prohibits shipment of liquor into any dry territory where its manufacture or sale is prohibited. Eleven other states are partially affected by the legislation, which has been hailed by temperance advocates as the greatest single step toward abolition of the liquor traffic in the nation's history. The law bars from prohibition areas, whether states or smaller corporations, all mail matter containing advertisements or solicitations for orders for intoxicants, a provision designed to aid in enforcing the antishipment feature by suppressing the activities of mail order houses in dry territory. Justice and postoffice department officials have made extensive preparations for enforcement of the statute. Prohibition has made wonderful strides in this country in the last few years; more within the last few months than in any similar period of time before in our national history.

THE Interstate Commerce Commission has denied the plea of the railroads of the United States for a horizontal increase of 15 per cent in freight rates. In its decision the commission indicated its willingness to increase class rates in the eastern district approximately 14 per cent. Since about one-fourth of the freight handled is moved under class rates, the decision virtually allows the eastern lines about 4 per cent increase in gross freight revenue. Increases sought in rates on coal, coke and iron ore will be granted. The commission found, as a result of extended hearings, that the carriers generally show a substantial and increasing financial prosperity and that they have ample resources with which to conduct transportation. Little sympathy was given the arguments of the roads that they were victims of war prices, the commission holding that the carriers have profited by the mobilization of troops.

THE Russian army is again in the field, attacking the German and Austrian troops in Galicia, and has been wonderfully successful in the early stages of its resumed hostilities. Gen. Hugh Scott, chief of staff of the United States army, was a witness to the successful operations of the Russian army last week. In these early attacks 10,000 German and Austrian prisoners were taken. The Russian troops were lead by Minister of War Kerensky, the man of the hour in Russia. The Russian forces are sweeping everything before them along a twenty-mile front and seem to be in a fair way to be a big factor in the allies' operations once more, notwithstanding the unsettled affairs which have come about as a result of the recent revolution and overthrow of the czar.

REGULATIONS to govern the drawing of the new national, or conscript, army were issued last week by President Wilson. The regulations make it clear that there are to be no class exemptions and that each individual case must be decided upon its merits. The local exemption boards—one for each county of less than 45,000 population or city of 30,000, with additional boards where necessary for each additional 30,000 population, will pass upon claims for exemption, except those based upon industrial or agricultural occupation, subject to appeal to the district boards. All cases involving agricultural or industrial exemptions will be passed upon by the district boards, one for each federal judicial district, which also will decide appeals from decisions of the local board. The actual date for the drawing has not been made public, but it will be some time this month, as the president hopes to have the men started in their various camps by the first of September, if possible.

OVER a score of lives were lost as a result of serious race rioting in East St. Louis last week. The outbreak was occasioned by the importation of a large number of negro laborers a few weeks ago. Early last week the negroes precipitated the trouble by firing on a wagon load of officers, killing one of them. Thereafter, it was not long until mobs were formed and a virtual state of anarchy existed in East St. Louis for several days. Negroes were shot down without warning or for the commission of any offense and negro property was destroyed. Hundreds of colored people fled across the river, to St. Louis for safety. Order was not restored until the United States government interfered and regular army troops were sent to the scene of trouble. Officials estimate the dead and dying at 100, but they admit that their figures are based merely on reports from different districts. Workers have started to searching for burned bodies in the sixteen and one-half burned blocks, mostly negro tenements. The number of dead probably never will be known, as many bodies were thrown in streams and many others burned. Three hundred and ten dwellings, mostly negro shacks, valued at $300,000, were destroyed by fire in the rioting, according to a statement made by Fire Chief M. J. Tobin.



And this was called oil!

A chemist's report on a sample taken from a crank-case

An operator of motor trucks in Rochester, N.Y., who was getting irritating results from his lubrication, furnished us with a sample of the used oil from the crank-case.

It proved to be 72% gasoline.

How did the gasoline get there?

As you know, there is a clearance between piston rings and pistons. The oil used on this car, being of wrong body and character, had failed to seal this clearance. Gasoline had been forced down past the piston rings with each compression stroke. The gasoline had then been churned into the oil until there was actually more gasoline than oil in the crank-case.

72% gasoline in crank-case oil is of course unusual.

But the incident brings out pointedly a very common condition.

Oil that furnishes a poor piston-ring seal always allows the escape of gasoline into the crank-case.

And it takes very little gasoline in the crank-case to seriously impair the oil's lubricating efficiency.

Motorists repeatedly report that Gargoyle Mobiloils, used as specified in our Chart, cut their usual gasoline consumption from 10 to 20%. Why?

Because when the proper grade of Gargoyle Mobiloil is used, the combustion chambers are sealed gas-tight and power-tight. Oil of correct body keeps the gas in the combustion chambers where it belongs. It keeps the gas out of the crank-case where it *does not* belong.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Marine Engines.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, kindly write our nearest branch, giving dealer's name and address.

GARGOYLE

Mobiloils

A grade for each type of motor

CORRECT AUTOMOBILE LUBRICATION

Explanation:—The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (8 cyl)			A	A	A					
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)					A	Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Auburn (4 cyl)			A	Arc	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Avery			A	A	A	A	A	A	A	A
" (Mod. 3 & C1 ton)			Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac							Arc	Arc	Arc	Arc
" " (8 cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A					
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arpe
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
I.H.C. (air)					B	A	B	A	B	A
I.H.C. (water) (2 cycle)			A	A	A	A	A	A	A	A
I.H.C. (water) (4 cycle)			A	Arc						
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (6 cyl)	A	A								
" " Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
King			A	Arc	A	A	A	A	A	E
" (8 cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" " (Mod. 48)			A	A	A	A	A	A		
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Locomobile	E	E	E	E	E	E	E	Arc	Arc	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8 cyl)			A	A						
Moline									A	Arc
" " Knight	A	A	A	A	A	A	A	A		
Monroe	A	A	E	E	A	Arc				
Moon (4 cyl)					Arc	Arc	A	Arc	Arc	Arc
" (6 cyl)					Arc	Arc	Arc	Arc		
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard				A	Arc	A	Arc	Arc	Arc	Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	Arc	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36 & 38)	A	Arc	A	Arc	A	Arc				
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	Arc						
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Saxon	E	E	E	E	E	E				
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" " (8 cyl)	A	A	B	A						
Stephens	Arc	Arc	Arc	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie (4 cyl)					A	Arc	A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Willys-Knight	A	A	B	A	B	A	A	A		
Willys Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, Rochester, N. Y., U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

Domestic Branches: Detroit, Boston, New York, Chicago, Philadelphia, Kansas City, Kan., Minneapolis, Des Moines, Pittsburgh, Indianapolis

Rural Carriers at Sturgeon Bay.

Wisconsin's Loyal Band of Carriers Pledge Renewed Allegiance to the Government and Talk for Better Service.

THE men who deliver the goods in Wisconsin" were the guests of Sturgeon Bay and Door county on July 4th and 5th. It was the fourteenth annual convention of the Wisconsin Rural Letter Carriers' Association. Sturgeon Bay had invited the carriers to Door county and the citizens, together with the local carriers' association, saw to it that the visitors were entertained in a manner which they will always remember.

The entire afternoon of the 4th was given over to entertaining the visitors. An auto trip through the thousands of acres of cherry trees which have made Door county famous was the first thing on the program. The Coöperative Orchard Company, which owns over 600 acres of cherry trees in one piece, has probably the largest sour cherry orchard in the world. For two hours all the visitors could see on either side of the road were acres and acres of cherry trees all bearing heavily. Besides the large orchard of the Coöperative Company, many individual orchards of twenty acres and more were passed. Following the auto trip a special boat ride was arranged which took the visitors for a three-hour trip on the bay out to the canal which connects the bay with Lake Michigan and back to the other side of Door county into Green Bay and back. Delightful weather and music aboard the ship made the trip all the more pleasing. In the evening the convention was tendered a banquet by the commercial club of the city. After an excellent menu, a short program of music and speeches rounded out the day perfectly.

During the business session held on July 5th W. D. Brown, editor of the R. F. D. News, was the principal speaker. Mr. Brown's many years of service in behalf of the carriers at Washington, D. C., have been appreciated by the Wisconsin men and he has been on the program at the annual gathering of the association for eight successive years. There is always something vital in the talk he gives and his points are based upon close observation and a full knowledge of the problems of the country carrier. That is why Mr. Brown can speak to the convention straight from the shoulder and praise and criticise without losing his popularity. He praised the faithful service of the carriers in the past and urged the men to continue giving efficient service, especially under the trying circumstances that confront many carriers at the present time. The postoffice department, it appears, in trying to cut down the expenses of rural delivery, has eliminated many of the carriers and has added to the mileage of other carriers so that the standard route of twenty-four miles per carrier has quite fequently been increased to thirty miles. For this extra work the carriers have not been paid, though the department is very careful in grading the pay for each route downward when it is below twenty-four miles. The standard route of twenty-four miles carries with it a salary of $1,200. For each mile under twenty-four $2 or $3 a month less is paid so that an eighteen-mile route will carry with it only the salary of $912. Mr. Brown urged the carriers to be loyal to the service, but at the same time to remember that through the association they had a right to petition congress within reasonable limits for such improvements of conditions as are justified by the prevailing high prices and greater service rendered. The pay of the carriers is not commensurate with the work done. According to Mr. Brown, rough laborers in Washington receive today for work which previously brought them no more than $2.50 per day, from $6 to $7 with the same amount of work, the same kind of work and the same hours. In order to work more effectively and in order to lend more strength to the petitions it is necessary that every carrier of Wisconsin and the carriers of the other forty-seven states by members of the National Carriers' Association. Of the 1,600 carriers in Wisconsin only 622 belong to the association. Too many are afraid that their activities in the association will bring them a reprimand from headquarters. There are in the United States nearly 50,000 carriers. If these men were all members of the association and if $1 a year were charged for dues from each member the association would be in a position to make its petitions count and the funds would be sufficient to maintain a man in Washington in the interest of the rural letter carriers the year around. The city carriers are now doing this and are employing a man to present their arguments to the proper officials. The city carriers have also safeguarded themselves by having at their head a man not in the service, but with experience and a full knowledge of the needs of the city carrier. Mr. Brown urged the Wisconsin association to express itself favorably towards a similar plan in the form of a resolution and to present this at the national meeting which will be held in Kansas City during the coming month. He also urged a Civil Service Court of Appeals to which men dismissed from the service without reason could appeal for reinstatement. At present there is no opportunity for the individual carrier to plead his case even if he has the best of arguments.

The resolutions committee incorporated many of the ideas Mr. Brown had touched upon in his address in the final resolutions which were passed by the association and which will be presented to the national association. The resolutions ask that congress be petitioned for extra compensation for increased mileage at the rate of $2 per month for each additional mile over twenty-four. In view of the extra cost of equipment and the increased price of feed the carriers asked to have provided in addition to their salary $120 as a minimum for each route and a maximum of $300 for the longest routes. This money is to be applied to the purchase of horses and vehicles. The resolutions also ask for a Civil Service Court of Appeals for rural carriers. They also asked that the national convention consider a change in the constitution and by-laws of the national association so that a man not in the service can be elected an officer in the association. The meeting pledged its loyalty to the government during this crisis particularly and pledged themselves to continued faithful and efficient service in the future. W. G. Arle, president of the Door County Carriers' Association, and the citizens of Sturgeon Bay were remembered in a separate resolution which expressed the thanks of the convention for the splendid entertainment provided by the commercial club and the citizens of Sturgeon Bay. A special resolution was passed expressing the sympathy of the Wisconsin association at the death of Chas. Richter, of Saukville, Ozaukee county, who died of a paralytic stroke on the morning of the second day of the convention.

A. D. Larson, president of the association, called the attention of the carriers to the better roads program which was voted by the last legislature. Under the federal road law $1,500,000 will be available for road work in Wisconsin during the next five years, which amount the state has voted to meet with a similar appropriation and which will be expended upon the roads of Wisconsin according to the program outlined in the bill known as 444-S. This bill, since enacted into law, will combine the larger sized towns of the state by a permanent system of roads. Mr. Larson called attention to the difficulty which the carrier has to meet with upon his trips in the form of bad roads. High-priced feed and the high cost of foodstuffs have made the salary of the carrier seem out of proportion with prevailing wage rates for other work. However, the service must not suffer and he is confident that if not before, then after peace has been established the department will recognize the justice of increasing the wages of its employes.

Delegates for the national convention elected were A. D. Larson, of Sheridan; S. D. Clark, of West De-Pere; W. G. Kildow, of Whitewater; George Hiller, of Janesville; T. T. Pyburn, of Marshall, and W. G. Arle, of Sturgeon Bay.

The city of Wausau was selected for the next state convention, which is to be held on the same dates as this year, July 4th and 5th.

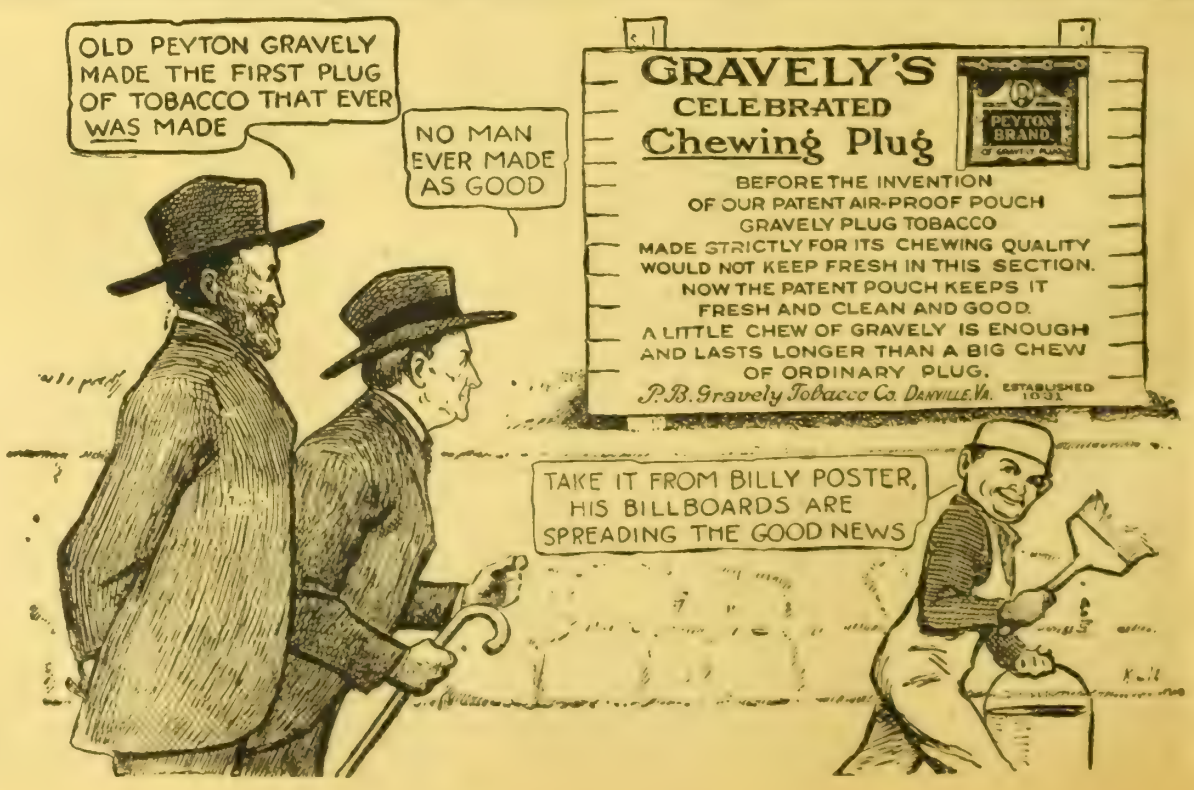
The officers for the coming year will be the same as last year, every officer being reëlected by unanimous vote: President, A. D. Larson, of Sheridan; vice president, T. T. Pyburn, of Marshall; secretary, E. L. Demarest, of Waupaca; treasurer, G. C. Granger, of Sheboygan Falls, and organizer, Henry Gallenbeck, of Beaver Dam.

GROUP PICTURE TAKEN AT THE FOURTEENTH ANNUAL CONVENTION OF WISCONSIN RURAL LETTER CARRIERS AT STURGEON BAY, JULY 4TH.

Monroe County Jersey Breeders' Picnic.

To the Editor:—The Monroe County Jersey Breeders' Association held its picnic June 27th at the Hill Crest Jersey Farm. The attendance was good and everybody had a fine time. The association is developing rapidly and the prospects for the Jersey in Monroe county were never so bright as now. After dinner a business meeting was held and the following officers were elected: E. E. Wyatt, president; M. L. Hill, secretary; Earl Aney, treasurer. The association has contributed a bull calf to the Red Cross, which is to be sold at auction this fall at the eastern Monroe county fair. After the meeting, I. D. Imrie, the county agent, gave an interesting talk on the Jersey cow and the value of the silo to the farmer. M. L. Hill.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 16.



Cow-Testing Reports.

In Waukesha County.

To the Editor:—There were fifty-eight forty-pound butter fat records made in the Waukesha County Guernsey Cow-Testing Association in May. A herd of twelve cows belonging to Walter Hardiman, Pewaukee, produced an average of 707.3 pounds of milk and 38.23 pounds of butter fat. The forty-five-pound list for May follows:

Owner	Breed of cow	Age	Lbs. B. fat
Wm. Steele	G. J.	7	83.41
Sam Hooper	G. G.	8	69.77
Wm. Steele	G. G.	7	64.35
Sam Hooper	G. G.	7	60.02
Goodhand Kingston	G. G.		56.72
Wm. Steele	G. S.	8	55.48
Wm. Steele	G. S.	8	54.21
Wm. Basse	P. B. G.	5	51.52
F. C. Smith	G. G.	3	50.97
Wm. Steele	G. H.	6	50.23
D. W. Jones	G. G.	6	49.87
Walter Hardiman	G. G.	4	49.76
Walter Hardiman	G. G.	5	49.29
Sam Hooper	G. G.	6	48.59
Walter Hardiman	G. G.	9	48.48
Goodhand Kingston	P. B. G.		48.12
Earl Roberts	P. B. G.	6	47.70
D. W. Jones	G. G.	8	47.52
Nashotah House	G. G.	12	47.03
C. F. Spaulding	G. G.	3	47.01
Fox Brothers	G. G.	5	46.97
A. J. Hodgson	G. G.		45.95
Walter Keuper	G. G.	7	45.83
Wm. Sydow	P. B. G.	4	45.73
C. F. Spaulding	G. G.	5	45.36
Thos. H. Evans	G. G.	8	45.21

State Cow-Testing Report.

A summary of May reports of Wisconsin cow-testing associations shows some splendid records. A seven-year-old pure-bred Holstein, owned by Fletcher Bros., of Rosendale, Fond du Lac county, produced in thirty-one days, 2,985 pounds of milk containing 110 pounds butter fat. Other honors were taken by the Monticello Cow-Testing Association, of Green county, the report of which was published in a recent issue of The Wisconsin Farmer.

Testers are aiding the dairymen in various ways. H. L. Brewster, of Scandinavia, has convinced all of his members that it pays to buy milk scales and weigh the milk of each cow daily. Fred Pfuehler, of Wolf River, says twenty-four out of his thirty-two members are now weighing the milk of each cow daily. C. F. Wehrwein, of Columbus, says that he is not only testing cows but has aided all but two of his members to test their seed corn this spring.

Waukesha county Guernsey breeders are also realizing the value of cow-testing associations, and started a second association July 1st, which, like the first association, includes only Guernsey cattle.

The following associations have been recently organized: Dodgeville, Gay's Mills and La Farge, Alma Center, Brookfield, Avalon and Waukesha Guernsey No. 2.

On this page will be found a summary of the May reports received by Noel Negley, of the Wisconsin Dairymen's Association.

Sauk Prairie Association.

To the Editor:—The grade Holstein, Ellen, owned by J. A. Hatz, was high cow in the Sauk Prairie Testing Association for May with a production of 1,782 pounds milk netting 71.3 pounds butter fat. The forty-five-pound cows for May are as follows:

Owner and breed	Lbs. milk	Lbs. B. fat
J. A. Hatz, G. H.	1781	71.3
J. A. Hatz, G. H.	1519	64.3
L. A. Young, N.	1038	58.1
M. Morley, G. H.	1800	57.6
A. E. Gruber, R. H.	1372	53.3
C. Watkins, G. S.	1032	46.9
J. P. Gruber, G. H.	1658	49.7
W. Welch, G. J.	1000	46.3

Earl Klingman, Official Tester.

In Wood County.

To the Editor:—Wood County Cow-Testing Association No. 1 had sixty-five cows producing forty pounds of butter fat or more during the month of June. Practically no one is feeding, owing to the prohibitive prices of grain and other feeds, and to the exceptional quality and abundance of grass. The forty-five-pound list for June follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
W. J. Moody & Son Belle, G. H.	5	5-18-17	1095	4.2	46.0

(Concluded on page 14.)

STATE COW-TESTING REPORT.

Association	Tester	No. of 40-lb. cows	Fat production of high cow	Breed	Owner
Alban & New Hope	M. E. Smith	24	63.9	Reg. G.	C. O. Wogsland
Alto	F. L. Cuenot	73	96.1	Gr. J.	J. B. Kastein
Avoca	Bessie Lipsitz	28	64.6	Reg. G.	J. Bridgeman
Baraboo	Ernest Hinrichs	52	57.4	Reg. G.	L. M. Wickern
Bear Creek	L. M. Sasman	33	59.2	Reg. H.	Art Klemm
Black Earth	J. Uebersetzig	13	50.7	Gr. H.	J. Coldwell
Bloomfield	J. Levinson	13	52.0	Gr. D.	Geo. Vosburgh
Bone Lake-Luck	Marius Nielsen	5	44.8	Native	C. E. Woodward
Cedar Grove	Herbert Molter	95	84.4	Gr. H.	Wm. Nyhof
Chilton	O. F. Kossman	99	66.4	Gr. H.	Salm Bros.
Clintonville	E. A. Hammen	35	60.3	Reg. J.	John Robbins
Columbus	C. F. Wehrwein	33	66.2	Gr. S.H.	J. Sennhenn
Dodge County	F. J. Jazdzewski	62	69.3	Gr. H.	Otto Brandt
Dunn County No. 1	W. E. Anderson	23	62.4	Gr. G.	Roy McDonald
Dunn County No. 3	George C. Ogle	28	60.3	Gr. D.	Paul Lecheler
East Fond du Lac	W. H. Duel	78	70.1	Gr. H.	Herman Vetter
Eau Claire County	E. Sutton	18	71.9	Gr. G.	Victory & Zell
Empire	R. A. Boyd	71	68.2	Gr. H.	Casper Bros.
Geneva	F. W. Drake	35	70.2	Reg. H.	Ora P. Taylor
Granton	G. W. Ehlert	85	59.6	Gr. H.	E. F. Brooks
Happy Valley	J. B. Voskuil		60.0	Gr. H.	J. H. Doornink
Kewaunee	Edw. Hoeft	53	83.6	Reg. H.	Frank Shimek
Langlade	John Reckinger	14	47.7	Native	Schroeder Bros.
Lindina	A. J. Hunsader	29	58.0	Gr. H.	M. W. Timbers
Linn	E. A. Massey	40	93.0	Reg. H.	A. D. Cornue
Manitowoc County	J. E. Bowstead	68	72.3	Gr. H.	Wm. Kelley
Maple Grove & B. R.	Marlin Frihart	44	65.4	Gr. H.	Auther Glocke
Medford	A. T. Zeddies	44	79.8	Gr. H.	A. J. Brandt
Mishicot	E. H. Meineke	46	91.7	Reg. H.	Chas. Kornely
Monticello	A. W. Wardas	143	82.4	Reg. H.	Baltz Hoesly
Mosinee-Emmett	W. H. Brewster	26	79.4	Gr. H.	E. J. Coerper
Mukwonago	Harry Hooyboer	41	79.5	Reg. H.	G. J. Schuster
Muscoda	O. L. Garrison	55	68.5	Gr. S.H.	Walter Cooper
Neenah	A. H. Martin	16	63.4	G. Ayr.	J. E. Jorgensen
Nelsonville & A.	J. H. Moss	44	66.1	Reg. G.	J. L. Loberg
New Holstein	Nauder Nelson	49	72.8	Gr. H.	Hugo Libke
Norwalk-Wilton	C. C. Jackson	28	88.3	Reg. H.	Lawton & Son
Outagamie County	Charles Maas	28	50.8	Native	Geo. Tubbs
Pleasant Springs	A. L. Odeen	10	56.8	Reg. H.	Hildebrandt
Reedsburg	W. J. Cummins	41	60.3	Reg. H.	Kirkpatrick Bros.
Rice & Cedar Lake	F. J. Waldman	25	69.5	Reg. G.	Mrs. F. D. Stout
Rosendale-E. L.	Frank Lynn	50	110.0	Reg. H.	Fletcher Bros.
Sauk Prairie	Earl Clingman	19	71.3	Gr. H.	Jacob A. Hatz
Scandinavia	H. R. Brewster	27	55.9	Gr. G.	Chris Wesley
Spring Green	J. M. Garrett	23	69.9	Gr. H.	Leon Peck
Stanley	W. C. Johnson	54	71.5	Reg. H.	Geo. Weissenben
Stratford Coöp.	H. A. Johnson	21	48.9	Reg. H.	Fenwood Stock Farm
Tigerton-Wittenberg	T. Gjermundson	12	56.3	Reg. G.	Oscar Holm
Troy & East Troy	H. F. Brandt	70	67.5	Gr. H.	M. Westpahl
Troy-Honey Creek	C. H. Sherburne	38	82.0	Reg. H.	C. L. Sprecker
Walworth	A. H. Otto	35	78.1	Reg. H.	Benj. Schwartz
Waukesha-Guernsey	H. E. Snyder	44	63.9	Gr. G.	S. C. Hooper
Waukesha County	W. T. Scott	54	72.2	Reg. G.	Dr. G. S. Love
Waupaca-Sheridan	Armin Isken	24	56.8	Gr. G.	Leonard Row
Winchester	J. H. Toolajhan	57	61.8	Gr. H.	Helmet Haehl
Winnebago County	T. G. Fisher	51	65.9	Gr. D.	Frank Brooks
Wolf River	Fred Pfuehler	38	62.7	Gr. H.	Henry Harmann
Wood County No. 2	Clarence Olson	9	68.0	Reg. H.	E. E. Boyce
Dunn County No. 2	Chas. Wetmore	40	66.0	Gr. H.	Willis Peck

The Bottom Is the Heart of the Plow

It is the hard working and essential part of any plow. All the rest of the plow is built merely to enable the bottom to do its work. That is why the bottom should be designed and constructed exactly right. Upon it depends the value of the entire plow.

The right kind of plow bottom makes money for you—it lays the foundation for the right kind of seed bed. The crop yield is increased. The plow lasts longer—a saving in actual cost. It pulls lighter—a saving in horseflesh, power and trouble.

John Deere Moldboard Tractor Plows

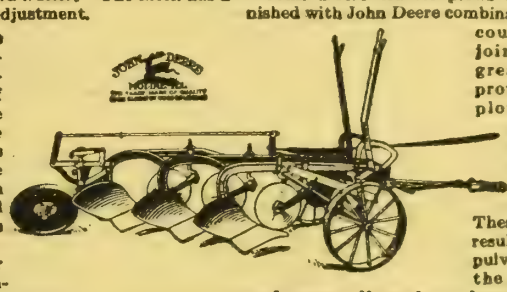
Have the Famous John Deere Bottoms

The bottom on every John Deere plow is correctly designed—John Deere plow success is largely due to bottom construction. It is the result of eighty years experience.

John Deere tractor plows can be used *with any standard tractor*. The hitch has a wide range of adjustment.

They make one-man tractor plowing outfits. A pull of the rope by the man on the tractor lowers or raises the bottoms high and level, and the tractor does the work. Does not gather trash when turning or being transported.

John Deere Light Tractor Plows *can be backed up*—they have a stiff hitch.



John Deere Quick Detachable Shares the greatest time and labor savers ever devised for a plow, *save eight to thirty minutes changing each share*, and the change is easily accomplished. No danger of skinning your knuckles or bruising your arms.

John Deere tractor plows can be furnished with John Deere combination rolling coulters and jointers, the greatest improvement in plows since John Deere Quick Detachable Shares were developed. These jointers result in better pulverizing of the soil, turn and cover all weeds, and make plowing easier.

Two, three or four bottoms.

Write for free booklet.

Thoroughly Disc Before and After Plowing

After the grain has been cut from your fields and before the hot August and September sun has cracked the ground, allowing the subsoil moisture to escape, use the

John Deere Model B Disc Harrow

Noted for Thorough Disking

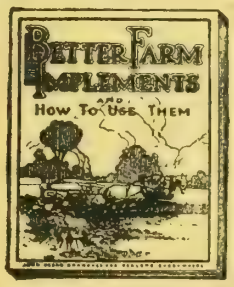
It produces a fine dirt surface mulch that *stops evaporation* of moisture and *catches and holds rainfall*. Mixes stubble, trash and weeds thoroughly into the soil. *Checks weed growth. Pulverizes surface thoroughly—ground is kept mellow—plowing is made easier.*

Using the Model B after plowing completes a seed bed that is *thoroughly pulverized through* and *through*—no trash bunches—no clods—no air spaces—*seed bed fits the subsoil perfectly.*

The Model B is *exceptionally flexible*—that is why it disks so thoroughly. The spring pressure third lever assures uniform penetration regardless of dead furrows or ridges.

Write now for free booklet on this profitable disc harrow.

Big Book Free



Better Farm Implements and How to Use Them

America must produce more food. Labor-saving implements will play an important part in increased crop production.

This book tells all about a full line of labor-saving farming implements. Tells how to adjust and operate many of them. A practical farm implement encyclopedia. Worth dollars. Illustrates and describes the following machines: Walking and Riding Plows, Tractor Plows, Disc Plows, Disc Harrows, Spring Tooth and Spike Tooth Harrows, Corn and Cotton Planters and Drills, Listers, Alfalfa and Beet Tools, Grain Drills and Seeders, Riding and Walking Cultivators, Lister Cultivators, Mowers, Side Rakes, Loaders, Sweep Rakes and Stackers, Hay Presses, Grain and Corn Binders, Corn Cutters, Stalk Cutters, Kaffir Headers, Manure Spreaders, Portable and Inside Cup Elevators, Corn Shellers, Wagons, Farm Trucks and Buggies. This big book will be sent *FREE* if you state the implements in which you are interested and ask for Package X 640.

The Name "John Deere"

is implement insurance. It fixes the quality, and has done so for eighty years.

Don't forget that goods that have the reputation and are the biggest sellers on the market are the best in their line — always.

The increasing number of John Deere implements in use every year indicates the farmers' final verdict.

JOHN DEERE
MOLINE, ILL.
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

John Deere Implements are sold by John Deere dealers everywhere

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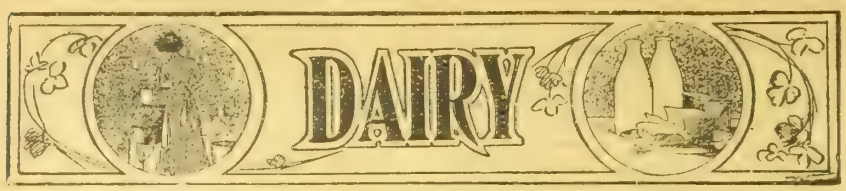


The Dairy Sire.

The dairy sire must be looked to for herd improvement. Whether the dairy be composed of grade or pure-bred cows the practical way of securing improvement is by the use of sires of a higher class than is represented in the females. Of course, many low-producing cows are being weeded out, yet it is not to be expected that the total benefit secured from this source will be but a small proportion of the great increase we may expect from the use of pure-bred sires whose ability to bring herd improvement is pronounced.

Among the advantages of a pure-bred sire is the fact he comes from a breed that has been bred for dairy production and which has been kept pure for generations. This purity of breeding is an indication that the bull will transmit the qualities of his ancestry to his offspring. The bull that is not pure bred will have in his make-up the qualities of cattle not suitable for the dairy. The qualities may be distinctly opposed to herd improvement. He would in all probability transmit to his offspring many of those undesirable characteristics. He would be very likely to lower the milk-producing average of the herd. Putting the comparison of the pure-bred and the grade bull upon the most simple basis possible we find that the pure-bred bull is very likely to be possessed of dairy characteristics which he may transmit to his offspring, while the grade is not likely to be possessed of those dairy characteristics except in a very limited degree and for that reason we can expect but very little of the transmission of dairy characteristics to the offspring. This would eliminate the grade or scrub bull even though there were no other reasons available.

Chief in favor of the pure-bred bull is the fact that successful breeders have learned, through hard experience, to use no other kind. In using the pure-bred bull he is securing the blood that has been built up through generations of successful breeding for production. To his mind the bull is half the herd and offers reasonable opportunity for improvement. The owner of a pure-bred herd seeks to improve by using a bull whose ancestral record is better than the record of his own cows. Thus in the sale of dairy bulls we find the calves of high-producing cows and the progeny of bulls whose heifers have made high records are very much in demand. The owner of a grade herd has a more certain opportunity for improvement because the average production of the ordinary grade herd is less than the production of the ordinary herd of pure breds.

Care needs to be used in selecting a dairy bull. It might be well said that to use a grade or scrub is a step backward and we may also say that only a portion of pure-bred bulls are capable of bringing improvement. This latter statement has been proven in numerous tests. Bulls whose ancestral records have indicated that they were well suited to be selected as herd breeders have failed to bring improvement when the record of their daughters was compared with the records of the dams. The bull from a cow that has made a good record and from a family known for high-production ability is to be preferred to one of unknown record.

The tried sire is the only one that may be depended upon to surely improve the herd. By tried sire is meant the one which has been in service for such length of time that his daughters are able to show by annual record that they are better dairy cows than their dams. Such sires are rare under our practice of using a bull for two or three years and then discarding him. We must pay more attention to this matter. We must watch the bulls in our neighbors' herds and seek the ones that have proven their real value as sires of desirable offspring. The great breeders and improvers of live stock have used tried sires and in order to try out males that looked hopeful they have leased them out with the understanding that they might be called in at any time they have proven their worth. In this way they found it possible to determine which of many bulls were really suited for herd improvement. Invariably they discarded many. This was done at a very low expense to themselves and it enabled them to get a line on the good ones as no other plan could possibly have done. This plan is worthy of consideration by ambitious breeders everywhere.

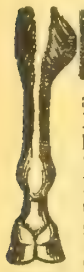
Coöperative owning of bulls enables farmers and dairymen to have a much better bull available than would otherwise be possible. Bull rings where a number of farmers combine to buy three or more bulls, each of which is to be used in a separate community and exchanged after two years, has much to commend them. They not only enable all farmers to patronize a promising bull but they enable the inferior bulls to be weeded out and the others are kept long enough to determine their real value which enables them to be patronized to a greater extent than would otherwise be probable.

Separators Economical and Labor Saving.

To the Editor:—For the farmer who has a few cows, the most satisfactory method of skimming milk is by the use of a good hand or power separator. While the initial cost may be thought rather high, it will soon pay for itself, because there will be practically no butter fat left in the skim milk; a better and higher testing quality of cream, and, consequently, of butter obtained; the cost of various utensils and the labor of washing is saved; and, as the separating is done at once after milking, the skim milk is always fresh and sweet for feeding calves and pigs. It is generally considered by all experienced separator users that a separator means an increase of revenue from each cow of $5 to $15 a year, according to her milk flow. The dairyman with only five or six cows would thus soon have his separator paid for.

As regards capacity, one of 450 pounds an hour is sufficient for up to about ten cows. But always bear in mind when making the selection that you want one with a capacity slightly greater than is really required, because by closing the feed trap a little and running the separator a little below its capacity it does somewhat closer skimming and thus produces richer cream. The speed should be uniform, and, if anything, a little faster

YOU CAN'T CUT OUT A
Bog Spavin or Thoroughpin
but you can clean them off promptly with



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TRADE MARK REG. U.S. PAT. OFF.

and you work the horse same time. Does not blister or remove the hair. $2.00 per bottle, delivered. Will tell you more if you write. Book 4 M free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Varicose Veins, Ruptured Muscles or Ligaments, Enlarged Glands, Wens, Cysts. Allays pain quickly. Price $1 and $2 a bottle at druggists or delivered. Made in the U. S. A. by W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

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One Year to Pay!
$29 Buys the New Butterfly Jr. No. 2. Lightrunning, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.
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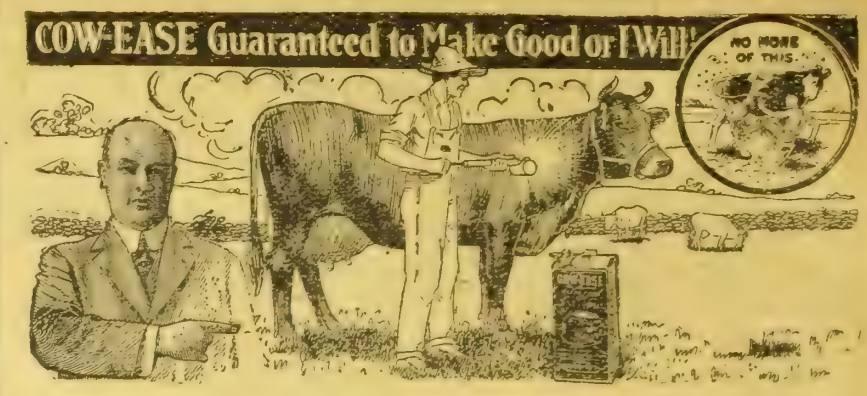


BUY THIS TRIAL LOT ON MY GUARANTEE YOU TAKE NO CHANCES

TRIAL OFFER If your dealer cannot supply you, send me his name and $1.25, and I will deliver, prepaid to your address a half-gallon can of COW EASE and SPRAYER for applying. For west of Missouri River and for Canada, above Trial Offer, $1.50.

I'M not taking any chances—neither are you. Cow-Ease does the work. I originated it sixteen years ago, and I *know*. That's why I can afford to personally guarantee your money back if Cow-Ease doesn't do for you just what it has done for thousands of farmers and dairymen.

COW-EASE
Keeps Flies off Cattle and Horses

And keeps every promise I make for it.
It increases the milk yield by keeping cattle contented, and makes milking easier because cows sprayed with it stand quiet.
Cow-Ease is a harmless liquid. It does not gum the hair or blister the skin. Apply it before each milking. One gallon sprays a cow 200 times.
Flies not only irritate your cattle and cause them to produce *less* milk and *poor* milk, but are a menace to your own health.
Ask your dealer for Cow-Ease today—the flies will "shoo" the minute you begin to use it.

M. Elton Rose Vice President.
CARPENTER-MORTON CO. 87 Sudbury St., Boston, Mass.
Manufacturers of Cow-Ease Established 1891

The President Says:

"It is of the most imperative importance that everything possible be done and done immediately to make sure of large harvests."

Conserve and Increase Your Forage Crops

Turn under part of your pasture and plant it to saleable crops. Feed your stock cheaper, easier, more profitably with a few acres of corn cut into ensilage with a Kalamazoo Ensilage Cutter and stored in a Kalamazoo silo. Stop wasting land that should be used for money crops. This year, if ever, farmers have a chance to make *big profits*.

Kalamazoo LIFE-TIME-SILOS

are built to meet the exacting farmer's needs. Best in design, material and workmanship. Have every desirable feature a silo should have and embody the "know how" acquired through more than twenty years experience in silo building.

Glazed Tile Silos—fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

Wood Stave Silos—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete ready to set up. Quickly and easily erected by inexperienced home labor. All Kalamazoo Silos are made with Galvanized Steel Door Frames and continuous doors, forming a safe ladder entire height of silo.

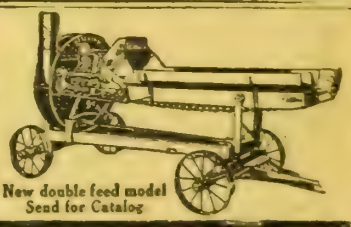
Write today for our free descriptive booklet. If interested in an Ensilage Cutter, ask for Kalamazoo Cutter catalog. *Easy Payments*, if you wish.

KALAMAZOO TANK & SILO COMPANY Dept. 211 Kalamazoo, Mich.

"FIRST COST ONLY COST"

It does the work!

DICK'S Blizzard Ensilage Cutter


New double feed model
Send for Catalog

The Blizzard will fill *your silo*, no matter how high, with the engine you have. It cuts evenly. Runs steady as a clock, season after season. IT DOES THE WORK.

The Blizzard is simple, compact, and does maximum work with minimum power. Knives and fans both mounted on heavy-rib-reinforced fly wheel. Every ounce of power counts. Your regular farm engine big enough. World's highest silos have been filled with Blizzards. Cuts silage evenly, no matter how fast it's run. Repair expense small. Practically no wear-out to it.

Write us how high your silo is, what power you have, how many acres you cut, and we'll be glad to advise fully which of the 6 Blizzard sizes is best for you. *Write for catalog*, describing the new double feed Blizzard. Biggest ensilage cutter improvement in years. "What Users Say" and "Making Silage Pay Better" are also most valuable and offered you free of charge.

THE JOS. DICK MFG. CO. Box 212 Canton, Ohio

SIDEHILL

The new models are "wonders." *All steel frame*; low feed table; positive safety device; *automatic feeding*; 6-arm blower that simply *can't* clog and can be regulated to height of silo; malleable knife heads; best knife adjustment. Holds record for simplicity, safety, clean cutting and great capacity. *Write for catalog* showing ten sizes. Gives full details and explains *how* and *why* the "Gehl Silbermahn" is *better*. Write today.

GEHL BROS. MFG. CO.
103 South Water St., West Bend, Wisconsin

than stated in the instructions, rather than slower. In some tests made, an extra speed of five revolutions a minute has caused an increase in the butter fat of almost as many per cent. The cream should test from 25 to 35 per cent, because the higher the quality of cream the better the butter.

Immediately after separation the cream can should be set in cold water and the cream stirred until its temperature is about 50 degrees.

The use of preservatives should be strongly discouraged, as not only are they destructive to the cream but they are absolutely unnecessary where proper conditions of dairying are carried out. After the cream is all separated, the bowl of the separator should be washed at once, the slime that has collected either burned or cast into the compost heap, and all parts washed, scalded and dried in the sunlight and air. Thorough cleaning must be carried out in every detail every time the separator is used, otherwise the cream will acquire a bad flavor and the first thing you know your returns from cream will not be as pleasing as they should be, and about the next thing you know you will be so discouraged that you will quit the business. Subscriber.

Indications of a Good Dairy Cow.

To the Editor:—The regular use of the scales and the Babcock test is an indispensable part of the work of the modern, progressive, successful dairyman. Still there are many occasions when it is desirable or necessary to form some estimate of the qualities of a cow where the information given by the scales and Babcock test is lacking. There are certain characteristics of form which more or less certainly indicate the capacity of a dairy cow. Many become so skilled in recognizing these characteristics that they are able to separate good from poor cows to a high degree. A knowledge of these characteristics is indispensable to a skillful dairyman.

It is generally recognized that a dairy cow should be wedge-shaped, that is, the skeleton of the hinder portion of the body should be distinctly more largely developed than those of the forward portions. She ought to stand from half an inch to an inch and a half higher at the hips than at the shoulders. The width as viewed from the front should be distinctly wider behind than before and the depth of the body as viewed from the side should be distinctly greater behind than before.

To be able to produce large quantities of milk a cow must also have vigorous powers of respiration and circulation. Since milk is formed by the blood vigorous circulation is required to carry the blood in large quantities to the udder and particularly to the minute capillaries. Vigorous powers of respiration are necessary to purify the large amount of blood which must pass through the lungs. Vigor of respiration is indicated by a large, deep, full chest and by large, clean, open-air passages, particularly the nostrils and throat. Vigor of circulation is indicated by prominent exterior blood vessels and by a bright pink complexion of the thinner portions of the skin and visible mucous membranes.

To secrete large amounts of milk a cow must digest and assimilate large quantities of food. She must, therefore, have large powers of digestion, assimilation and secretion. Capacity to digest is indicated to a certain extent by the size of the digestive organs, since a large part of the cow's food is bulky and she must have capacity to take in large amounts of food. Vigor of assimilation and secretion is seen in the abundance and healthy condition of the hair and the softness and pliability of the skin and the abundance of secretion from it.

More useful than any other outward characteristics of the cow as indicating her capacity to secrete is the size and condition of her udder. Naturally a useful cow must have a large udder and from the aesthetic point of view the more regular in form it is the better. The actual size and capacity of the udder, however, may not be indicated by its apparent size. In some animals the udder is held so close to the walls of the abdomen and so great a part of it is hidden between the legs that it may appear smaller than an udder of the same or even smaller size that is more pendulous.

So, too, in ascertaining the quality of an udder its so-called fleshiness must be taken into consideration, that is, in some udders the connective and fatty tissue is so much more abundant that it occupies room that would otherwise be occupied by true milk-secreting follicles. Such an udder will be tense and firm, especially when empty, and will have little secreting capacity in comparison with its size. A so-called fleshy udder is approximately the same size when empty as when full. An udder in which the greater part of the tissue is made up of milk ducts and secreting follicles will shrink rapidly as the milk is drawn from it and when empty will be particularly loose, pliable and flexible.

In the cow, as in the bull, there are many so-called "milk signs" that are relied upon more or less implicitly by various people in ascertaining the qualities of cows. Foremost among these are the milk veins. These milk veins never by any possibility contain milk, but form a system of exterior veins on the lower part of the abdomen that serve to convey a part of the blood from the udder back toward the heart.

The milk veins vary in size, in length, in sinuousness and in simplicity or multiplicity of branches. Insomuch as their size indicates to a certain extent the amount of blood circulating in them they may be considered as useful signs. The larger the milk veins naturally the larger the amount of blood flowing through them. A cow with a large, elastic, tortuous and branching milk vein is likely to be a better cow than one less well developed in this respect. The milk veins cannot, however, be relied upon implicitly as indicating the capacity of a cow to produce large quantities of milk. Subscriber.

La Crosse County Jersey Breeders.

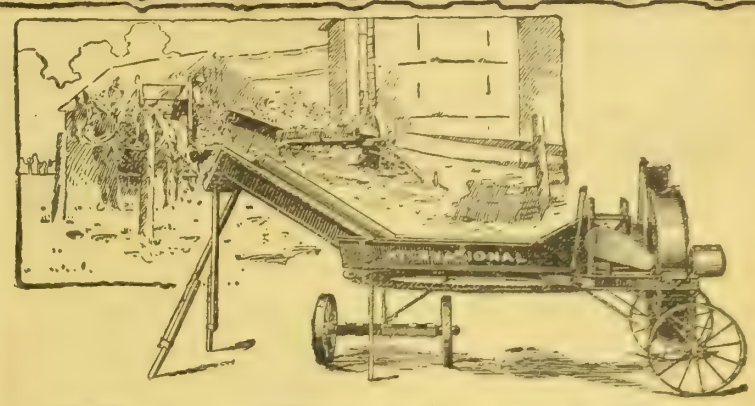
To the Editor:—The La Crosse County Jersey Breeders' Club held its annual summer meeting Saturday, June 23d, at Progressive Hall, Holmen. Officers for the ensuing year were elected as follows: Jos. Greene, Bangor, president; Thomas Davis, Holmen, vice president; G. C. Gabel, La Crosse County School, Onalaska, secretary-treasurer. Board of directors: Theo. Skogen, Holmen; Adolph Johnson, Midway; Milo Sullivan, Mindoro; Walter Ofstedahl, Holmen.

A Minnesota Champion Guernsey.

Starlight's Contrast 33439, a six-year-old cow, owned in Minnesota, has just completed a year's record of 811.11 pounds of butter fat and 17,702 pounds of milk. This record was made with her fourth calf and with only three-fourths of an udder, one of her teats having been lost through an injury. As a junior two year old this cow made a record of 461.6 pounds of butter fat. She is now the Minnesota champion Guernsey cow of all ages.

She was sired by Starlight's Excelsior 7992. This bull has sired three high-producing daughters, all of which were state champion Guernsey producers when their records were made. It is interesting to note that these three daughters of Starlight's Excelsior have all been winners in the show ring. It is also of interest in this connection to note that a son of one of these daughters had been twelve times a champion at the age of two years, while a son of one of the other daughters was beaten in 1915 only by a three-fourths brother. This is an example of the breeding value of a proved sire. He is not only able to transmit his dairy qualities to his progeny, but his sons and daughters have also been able to transmit superior qualities to their progeny.

The highest monthly production of butter fat by Starlight's Contrast while making her last record was 86.16 pounds of butter fat, and the lowest 44.71 at the close of her record period.



Fill Any Silo at Lowest Cost

INTERNATIONAL Ensilage Cutters are now made in five sizes, with capacities ranging from 3-6 to 16-25 tons per hour. The line now includes sizes for filling every silo, from the smallest to the largest and highest.

International Ensilage Cutters fill silos at the lowest power cost. Every feature of these cutters, the knives and blowers on the same flywheel, the carefully machined bearings, the complete oiling system, the absence of all unnecessary gears and sprockets, the steady feed arrangements, the fine adjustments that can be made, all tend to make them easy running, and economical of power. A 4 to 6-H. P. Mogul kerosene engine will run a type F cutter up to its full capacity of 6 tons per hour, and the largest International cutter, a type A, requires only 25 Mogul kerosene H. P. to handle its heaviest loads.

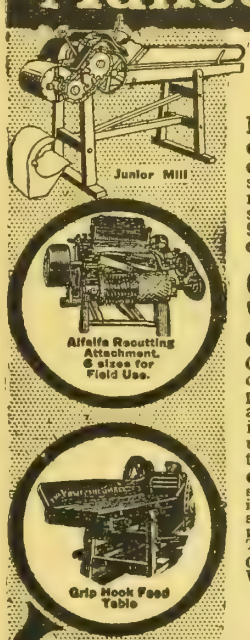
When you buy an International Ensilage Cutter, of any size or type, you get a complete machine that will do the work it was built for at the lowest cost, with safety to the operator, and in a satisfactory manner. Our catalogues tell all about the many good features of these machines. A line to the address below will bring you full information promptly.

International Harvester Company of America (Incorporated)

CHICAGO U S A

Champion Deering McCormick Milwaukee Osborne

This Silo Filler Makes Alfalfa Chop



Write NOW For Wonderful New Smalley Book FREE

Learn how thousands of farmers are fattening hogs, cattle, sheep and poultry with alfalfa chop made quicker, easier, better than ever before! Learn how they're selling their A1 hay, milling off-grades for feed—how they're making simply great combination feeds from clover, rice, straw, bean straw, pea vines, oats, rye and corn stalks—600 to 900 pounds per hour with Junior Mill and 6 to 8 horsepower engine. This mill cracks peas, corn or velvet beans.

Smalley Silo Filler (Seven Sizes)

Chain Drive — Force-Feed Grip Hooks

Grip hooks do the work of human hands. They catch the corn—automatically push it under the paddle roller and powerful, swift revolving, bevel edge knives set like a lawn mower do the rest. No grinding, no pounding. Turns out ensilage, clean-cut, fine, uniform, unbeatable in richness. Increases tonnage! Saves time, money! Two men's labor with large outfit!

Chain Drive forever does away with belt wear, belt slipping. That means power saved! Blower operates independently of knives. Let your fan spin fast or slow—speed of cutter shaft is unchanged—more power saved! A saving of 1-5 to 1-4 in power alone. Think of it! Two machines in one!

Get all the facts. You want an outfit—need one. Write NOW for sample of chop and FREE book, to

THE SMALLEY MFG. CO. DEPT. 55

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Use A Wood Tire Hollow Wall Silo

Cannot Sag, Blow Down or Rot.

Cures and preserves silage perfectly. Prevents freezing of silage. Easy to construct. A real farm building, permanent and rigid. No hoops to get loose. No guy wires. No staves to shrink or swell, but a smooth, double wall from base to roof, the inner wall being of *California Redwood*.

Guaranteed for 20 Years

"But Lasts a Lifetime"

The patented wood "tire" is built up of inch boards, and shipped in sections. The boards overlap in step formation at both ends. When nailed together, these sections form a ring of unusual strength. The silo frame forms its own scaffolding.

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AIR SPACE
INNER WALL
OUTER WALL

Send for our folder which shows how the Wood Tire Silo is built, and also what owners think of them. A postal brings it. Write today.

Agents Wanted in unassigned territory.

WOOD TIRE SILO CO. 4
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THE INDIANA SILO

Fifty thousand are now in use on the finest farms in America.

If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

Let us send you our proposition—to contract now for your silo and deliver it later.

We still have openings for a limited number of farmer agents.

INDIANA SILO CO.

618 Union Building, ANDERSON, INDIANA
618 Silo Bldg. KANSAS CITY, MO.
618 Indiana Building DES MOINES, IOWA
618 Live Stock Exch. Bldg., FT. WORTH, TEXAS

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Knitting Needles Should Be Busy.

Many women are finding time even these days to do something in the way of knitting socks, making comfort kits and various other articles, to add to the comfort of the soldiers in the trenches. We cannot do too much, for the need is great. If our fighting men are to be supplied with these much-needed articles we must each take an active part. In England even the men and boys—those who for various reasons cannot go to the front—are knitting, thereby doing their country a service as truly as though they shouldered a gun.

We must not forget to include the sailors in our efforts to be of service, for they are in as great need as the soldiers. They need sweaters, scarfs and wristlets. To aid those who wish to do this kind of work the women of the Navy League, at Washington, have formed a committee for the supervision of making knitted articles. In any community where a group of women can unite in this work much can be accomplished, and those who wish to form such an independent unit should write to the Comforts Committee, Navy League, 1316 Sixteenth St., Washington, D. C., stating how many members there will be in the unit and how many articles or sets of articles can be furnished in three months. There are no dues connected with such a unit and no obligations whatever except to do the work. Those who are so situated that they cannot join a unit need not be discouraged, for the Comforts Committee are glad, indeed, to get single articles or sets from individuals, but where possible it is more satisfactory to work through a local unit.

Following are directions for making the sweater, muffler and wristlets. The sweater is made in one piece and sewed up at the sides:

Sweater: Cast on eighty stitches.
Knit two, purl two stitches for four inches.
Knit plain until sweater measures twenty-three inches.
Knit twenty-eight stitches, bind off twenty-four stitches for neck.
Knit twenty-eight stitches.
Knit seven ribs on each shoulder, cast on twenty-four stitches.
Knit plain for nineteen inches.
Purl two, knit two stitches for four inches.
Sew up sides, leaving nine inches for armholes.
No. 5 celluloid needle and three-fourths pound gray knitting yarn are required.
Muffler: Cast on fifty stitches.
Plain knitting for fifty-eight inches.
No. 5 celluloid needle and one-half pounds dark blue yarn are required.
Wristlets: Cast on fifty-two stitches.
Knit two, purl two for twelve inches.
Sew up, leaving two-inch space for thumb three inches from top.
No. 3 bone needle and one hank gray knitting yard are required.

Clothe the Baby For Comfort In Hot Weather.

Very much of the comfort of a child depends upon his having the right kind of clothing. This is especially true in summer. One hot day a mother came into an infant-welfare station in a large city bringing a screaming baby who would not be pacified. The trained and sympathetic eye of the nurse in charge saw that the little feet were covered with knitted woolen socks. She asked the mother to take them off. Immediately the screams ceased and the baby stretched his naked feet in delight at being relieved of the intolerable irritation.

During the hot months children should wear just as little clothing as possible. Babies require only a diaper and one other garment, while runabout babies and children up to five will be amply clothed in waist and drawers, with one outer garment, preferably a cotton slip, apron or rompers, or one of the many similar garments illustated in the pattern books.

The one-piece dress is a great boon to busy mothers, being easy to make and to wash and iron. If the kimono sleeve is used, the dress will be cooler, but in some garments the set-in sleeve is less clumsy and wears better. Rompers, loose at the knee and low-necked and short-sleeved, may be used for little girls and boys alike. Denim overalls are rather cumbersome for the hotter weather, but are adapted to cool days.

Starched, frilled and fussy garments are all alike unsuitable for young children, whose clothing should be such as will make them perfectly comfortable and permit the freest play. No child should have to think of his garments during the play hours; he should, of course, be subject to reasonable restrictions upon wilful or mischievous soiling or destruction of his clothing.

Cotton is the best material for outside garments, since a child of this age should have no clothes that cannot be washed. Mothers disagree as to the comparative merits of white clothing and colored. White garments may be boiled, and thus the amount of rubbing necessary to get them clean is very greatly lessened. On the other hand, white dresses are soiled almost as soon as the child begins to play out of doors. It must be remembered that while white or light colors show the soil sooner, there may be just as much actual dirt on the darker ones. It must also be remembered that light colors like blue, green, lavender or pink are almost certain to fade unless they are washed with special care. Striped and check ginghams fade less than plain materials, but often shrink badly in washing. Such materials should be shrunk before being made up. Seersucker and cotton crepe materials of many kinds have the great advantage of needing no ironing. These rough materials are not very cool and if used for summer wear should have short sleeves and round neck to avoid chafing the skin of the arms and neck. Percale, galatea, madras and the better grades of gingham or dress linen are all good materials for children's clothes. For hot weather almost any of the thin materials may be used.—[Children's Bureau.

Soap Economy.

Buy soap intelligently.
Make your own soap.
Utilize bits of soap.
Make your own cleaning and bleaching agents.

These are suggestions sent out by the committee on utilization and economy of one of the state councils of defense.

Within the last few weeks the price of laundry soap by the box has practically doubled and indications are that it will continue to climb. Usually there is not a marked saving in buying soap by the box when considered from the financial standpoint only. There is economy, however, in buying it in quantities and allowing it to dry. This makes it go much farther.

A good grade of laundry soap can be made in the home from drippings, rancid oils and fats that ordinarily are wasted. Homemade laundry soap may be made by using seven pounds of solid fat and one pound of lye dissolved in eleven cups of water.

Clarify and strain the fat and allow it to harden. The fat is warmed enough to melt it and the lye solution stirred in until the mixture becomes a creamy mass. It is then poured into molds to harden. This makes a firm soap for general kitchen use at a small cost.

All small pieces of soap should be saved and kept free from dirt and dust. When a sufficient number has accumulated, it can be made into soap jelly or solution. This can be used for dishwashing, woodwork, soaking clothes, washing flannels—if made from neutral soap—and scrubbing.

One bar of soap or its equivalent in small pieces may be added to two or three quarts of water in the preparation of soap solution. Shave the soap and put into a saucepan with cold water. Heat gradually for one hour until the soap is dissolved. A tablespoonful of ammonia, turpentine or kerosene may be added if desired.

One bar of soap or the equivalent in small pieces and one quart of water is recommended in the preparation of soap jelly.

A good liquid cleaning and bleaching agent can be made in the home easily by the use of one pound of sal soda dissolved in one quart of boiling water and one-fourth pound chloride of lime added to one quart of cold water. Mix thoroughly. Let stand for several hours. Pour off the clear liquid. Bottle and keep in cool place.

Home Canning By the One-Period, Cold-Pack Method.

Canning fruits and vegetables in the home by the one-period, cold-pack method is a relatively simple process and can be done with ordinary kitchen equipment and with comparatively little labor. Much of the surplus of the home garden can be saved for winter use by this canning method, which is fully described in a special bulletin just issued by the United States Department of Agriculture, Farmers' Bulletin 839, "Home Canning by the One-Period, Cold-Pack Method." This bulletin is of special interest and value to all housewives, canning clubs, societies or persons interested in conserving the food supply of the nation. It may be had on application to the United States Department of Agriculture.

The bulletin contains very explicit directions for canning practically all of the common garden vegetables, including tomatoes, peppers, sweet peppers, pumpkin, squash, sweet corn, field corn, beans, peas and root vegetables, also various combinations of vegetables. It also includes canning directions for soft fruits and berries, hard fruits, as apples, pears, quinces. Directions for the canning of camp rations, meats and soups are given in detail.

Each step in the canning process by the one-period, cold-pack method is carefully outlined from the preparation of the equipment and the raw materials to the storing of the canned products. A special time table showing how long fruits, vegetables, soups and meats should be scalded, blanched or sterilized, is of particular value to the housewife. Various types of home-made and commercial canning outfits are described.

Uses Tincture of Iron in Rose Beads.

To the Editor:—One reader of the Home page asked how to make beads from rose petals, so I will tell a way which I know of that I think would be very good. Gather the petals from roses while in bloom and grind them through the sausage grinder, using the finest knife you have. Put a little tincture of iron in the mass (which leaves the smell and makes the beads get hard), then roll as large as you wish for beads. Before drying make a small hole in each with a hatpin or darning needle.

When the beads are dry string them with small gold or silver beads, putting on the string first a gold or silver bead, then a rose one.

Do any of the readers know the words to the song "The Dying Nun?" I would be very much pleased to have them. Geneva Quackenbush.

Recipes For Hot-Weather Drinks.

Orange Nectar.—One and one-half cupfuls orange juice, one cupful pineapple juice, one-half cupful lemon juice, two-thirds cupful sugar, two cupfuls water. To the strained fruit juices add the sugar and water. Stir until sugar is dissolved, then place on ice until chilled.

Mint Punch.—One quart fresh mint leaves, one cupful grape juice, one cupful strawberry or raspberry juice, sirup. Bruise the mint leaves and cover with boiling water for ten minutes, strain and add the grape juice and strawberry or raspberry juice (either fresh or canned fruits may be used). Sweeten to taste with sirup made of equal quantities of sugar and water boiled together for ten minutes.

Egg Lemonade.—Juice of two lemons, one-fourth cupful sugar, one egg, two cupfuls water. Beat the egg until well blended. Add lemon juice and sugar and stir until dissolved. Add water, mix well, chill in refrigerator or add ice, and serve.

Black Raspberry Nectar.—Two and one-half cupfuls unsweetened raspberry juice, juice of two lemons, two-thirds cupful sugar, two cupfuls water. Wash and dry the lemons, then rub the surface thoroughly with the sugar to extract the oil. Squeeze out the juice and add to raspberry juice. Add sugar and strain. Add water and chill.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

A New Kind of Alarm Clock.

Dear Young Folks:—I am a little girl ten years old. My height is four feet ten inches and my weight seventy-seven pounds. I live on a farm of 104 acres. I am in the seventh grade. We named our school Pleasant Hill School and it is two miles from our house.

I will tell you about my pets. My dog can dance for anything he wants to eat, and he sits in a corner on his hind feet and does other things. I also have a pet calf and a canary bird that sings at four o'clock in the morning. We call him the alarm clock. We have three cats.

I can play most any tune on the mouth organ. Estella.

Feed Little Pigeons by Hand.

Dear Young Folks:—I am a boy about twelve years old. I live on a farm of eighty acres. I helped cultivate corn this spring.

I had some pigeons, but somebody killed them. I will tell Lucille what and how to feed and water her pigeons. I fed mine wheat, corn and a little sand to keep them in order. I fed them by hand when they were small. Open their mouths and drop the sand and grain in a little at a time. Water them with a teaspoon. You have to put the food and water in their mouths a little at a time, as they will choke if they are given too much at a time. Keep this up until they can eat by themselves.

I am in the seventh grade at school. Fred.

Wants to Know How to Float.

Dear Young Folks:—I am a boy fourteen years old. I own two young pigeons and I feed them oats and bread and give them water.

I have a boat, too. I can swim, but I don't know how to float. Can any of the boys tell me how to float without being in the water to show me?

We have a little calf that I think a great deal of. It is brown. I have made a little garden this year. I am in the seventh grade in school. Freddie.

Young Folks Scrapbook.

Dear Young Folks:—This is the first time I have written to your page. I am a girl eleven years of age. I live on a 130-acre farm. We have two automobiles and I have many rides. I have two brothers and four sisters. One of my sisters and I go to school. My older sister graduated from high school in June.

I am going to make a scrapbook and every time the paper comes I will take the Young Folks' stories and paste them in it. I am going to call it the Young Folks' scrapbook. Alice.

What to Feed Young Pigeons.

Dear Young Folks:—I have never written a letter before, but I enjoy reading your letters. I am a girl thirteen years old. I have two sisters and one brother. I am in the seventh grade at school.

Lucille wanted to know what to feed her young pigeons. I am going to tell her what I feed mine. I feed them mostly chop and maize. I have twelve old pigeons and four young ones. Willie.

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2154—A pretty summer dress with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6 yards of 44-inch material for a 38-inch size.

2133—A smart and popular style. The skirt is a five-gore model. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 will require 4¼ yards of 44-inch material.

2161—A charming and seasonable combination. Pattern is cut in 5 sizes: 2, 4, 6, 8 and 10 years. Size 4 will require 2⅜ yards for the dress, ⅝ yard for the hat and ⅜ yard for the basket, of 36-inch material.

Waist 2155-Skirt 2147—For business, home or shopping.—Waist pattern 2155 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 36 inch material for a medium size. The skirt 2147 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. Size 24 requires 4¾ yards of 36-inch material. Two separate patterns, 10 cents for each pattern.

9074—Infant's set, consisting of a dress, a slip, a kimono, barra-coat, nightgown and petticoat. The set is cut in one size. The dress will require 2½ yards of 36-inch material. The slip 2¼ yards, and the petticoat, nightgown and kimono will each require 2 yards. The barra-coat will require one yard of flannel for the skirt, and ½ yard of cambric or muslin for the body.

2141—A comfortable apron model. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. It requires 5⅛ yards of 36-inch material for a medium size.

9716—Girls' underwaist and drawers. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires ¾ yard of 36-inch material for the waist and 1 yard for the drawers for a 6-year size.

2004—Junior dress, with sleeve in either of two lengths. Pattern is cut in 3 sizes; 12, 14 and 16 years. It requires 5¼ yards of 36-inch material for a 14 year size.

1751—A charming summer frock. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires 4 yards of 44-inch material for the dress with ruffles, and 3 yards without ruffles for a 14-year size.

1979—Ladies' shirt waist. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¾ yards of 36-inch material for a 36-inch size.

1720—A smart, but simple dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 will require 6 yards of 44-inch material for a 36-inch size.

2150—A simple negligee. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 4 yards of 36-inch material for a 36-inch size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for July 15, 1917.

Hezekiah, the Faithful King.

LESSON TEXT—II Chron. 30:1.

GOLDEN TEXT—He that cometh to God must believe that he is, and that he is a rewarder of them that diligently seek him.—Heb. 11:6.

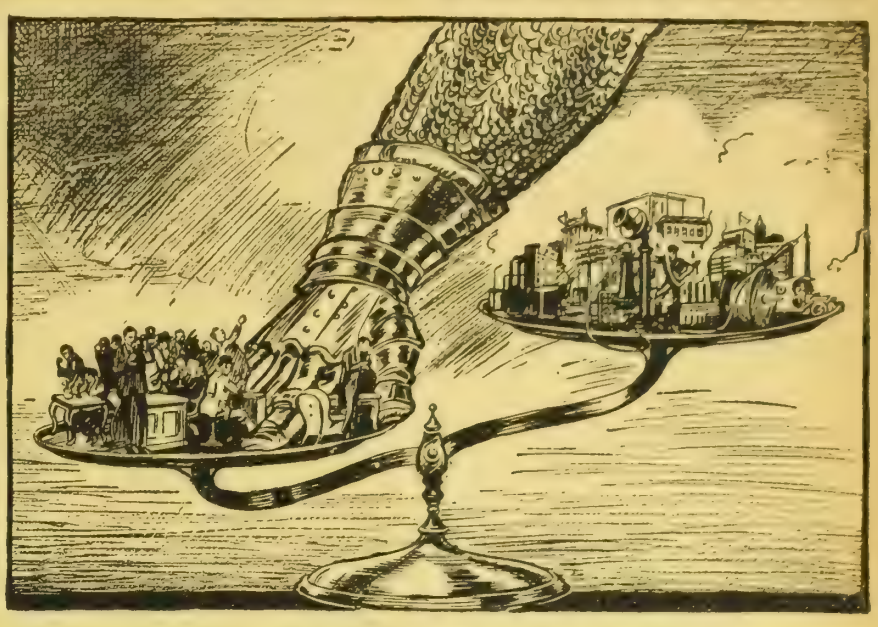
The reformation under Hezekiah is one of the bright and attractive spots in the latter history of the kingdom of Israel. It was a most thorough reformation and God set his seal upon it in many wonderful ways. Teachers ought to give their classes a comprehensive view of all that Hezekiah did, as recorded in II Chron., chapters 29-32.

I. Hezekiah's Proclamation. (vv. 1-6). The proper introduction to this lesson would be to return to chapter twenty-nine and note the restoration of the worship of Jehovah. How it began in one man's heart, Hezekiah; how he called the people to be clean (29:15), then called upon a cleansing of the house of God and its restoration (vv. 18, 19). How he called them to renewed sacrifice and worship (vv. 20, 21). The restoration of the sin-offering and of the burnt-offering, and the result of these offerings in the Levitical music and in the worship of the great congregation (29, 28). The sequel of song always follows and accompanies a true revival of religion. Having consecrated themselves unto the Lord, Hezekiah sends out this proclamation. The consecration of the people, as referred to in chapter 29, was very complete. (See vv. 31-36.) Hezekiah was a man of deep discernment as well as of true piety. He saw the meaning of the sacrifice of redemption and put the passover forward as the very heart-center of the worship of Jehovah. (See vv. 1, 2.) Whoever understands the passover, understands God's way of salvation. (See Exodus 12:13-23; I Cor. 5:7, 8; Rom. 3:25, 26; John 1:29.) Hezekiah did not confine his call to those of Israel alone, but extended it beyond its borders to those of Ephraim, thus manifesting the true missionary spirit. Hezekiah had ample Scriptural warrant keeping this passover out of its regular order (vv. 9-13). God is not a God of time or place. Wherever obedience is possible, whether it be a matter of time or not, God approves. Hezekiah, however, did not act upon his own initiative, but sought counsel. (See v. 2.) The man who is the most clearly led of God is the man who is most eager and anxious to know how God is leading other men and will listen most patiently to their counsel. The fact that the people had not "gathered themselves together at Jerusalem" for a long time, might have warranted a further delay. Not so with this enthusiastic young king. He was not bound by precedent, but was anxious to please God.

II. Hezekiah's Exhortation (vv. 7-13). Hezekiah began his exhortation by calling attention to the trespasses of their fathers (v. 7). At the same time he reminds them that if God gave them over to desolation because they themselves were stiff-necked (v. 8) and yielded not themselves unto the Lord to enter his sanctuary, which he had sanctified unto them, they would come under the fierceness of God's wrath, for they had turned from the Lord; they had "trespassed against the Lord God of their fathers." Because of that trespass God had "given them up to desolation." Literally he had made them "an astonishment." This astonishment and desolation was well known, "as ye see" (v. 7). Anyone with eyes open can see today the desolation of individuals, of families, communities and nations who trespass against God. For a generation we have had the deity of Christ and the inspiration of his Word called into question and that the individual man is the dictator of his own conscience and life, and it is because men have departed from their faithful allegiance to Jesus Christ and fail to obey his command, that we see the strife and desolation of today.

The first departure caused people to be "stiff-necked" and Jehovah is calling them to repentance, but they would not hear (see Ch. 36:13; Ex. 32:9; Rom. 10:21). In place of this "stiff-neckness" of their hearts Hezekiah entreats them to turn again to the Lord and not to be stiff-necked as were their fathers (v. 8).-that if they will turn again unto the Lord (v. 9) they will find compassion so that they shall again enter his gracious and merciful dealings. Having yielded themselves they were to enter into communion with him and "enter into his sanctuary, which he had sanctified forever."

They were also to serve him. Most blessed results were to follow for them and for their brethren and their children, but all of this bright prospect is conditioned upon repentance, surrender, communion and service, which is based upon the fact that Jehovah "is gracious and merciful" (Ex. 34:6, 7; Ps. 86:5; Jonah 4:2; Mark 7:18). Then, even as now, there were those who would not yield themselves to God's gracious invitation. As the priests passed through the country of Ephraim and Manasseh, even unto Zebulun, they were "laughed to scorn and some mocked" (v. 10).



The Weight of War

The heavy hand of war has disturbed the balance between supply and demand the world over. Our problem of serving the public has all at once assumed a new and weightier aspect.

Extraordinary demands on telephone service by the Government have been made and are being met. Equipment must be provided for the great training camps, the coast-defense stations must be linked together by means of communication, and the facilities perfected to put the Government in touch with the entire country at a moment's notice.

In planning for additions to the plant of the Bell System for 1917, one hundred and thirty millions of dollars were apportioned. This is by far the largest program ever undertaken.

But the cost of raw materials has doubled in a year. Adequate supplies of copper, lead, wire, steel and other essentials of new equipment are becoming harder to get at any price, for the demands of war must be met.

Under the pressure of business incident to the war, the telephone-using public must co-operate in order that our new plans to meet the extraordinary growth in telephone stations and traffic may be made adequate.

The elimination of unnecessary telephone calls is a patriotic duty just as is the elimination of all waste at such a time. Your Government must have a "clear talk track."

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MEND IT TODAY 10¢

Cow-Testing Reports.

(Continued from page 9.)

Blossom, G. H.	8		1224	4.1	50.2
Peter Backstra					
Blackie, G. H.	6	1-29-17	1149	4.2	58.3
Grace, G. H...	5	2-25-17	1836	2.7	49.6
F. W. Schultz					
Star, G. H....	9	5-28-17	1401	3.3	46.2
H. J. Bassuener					
Hesetta Johanna, R. H.	6	3-10-17	1512	3.0	45.4
Theodore Kerndyke, R. H.	8	3-21-17	1662	2.7	45.0
Mercedes, G.H.	6	5-7-17	1539	3.3	50.8
Hause Bros.					
No. 6, G. H...	6	2-14-16	1200	3.8	45.6
No. 24, G. H...	4	4-10-17	1302	3.5	45.6
A. Osenga					
Dora T. Pauline R. H.	7	15-29-16	1632	3.3	53.9
J. F. Schmidt					
J. Lucy Best, R. H.	6	2-23-17	1470	3.2	47.6
Bert Gates					
Sady, R. H....	3	12-30-16	819	5.6	45.9
Pet, R. H.	4	1-30-17	1386	3.8	52.7
Polly, R. H...	6	4-24-17	2346	2.8	65.6
Geo. Baltus					
No. 9, G. H....	4	1-8-17	1317	3.7	48.7
W. A. Schultz					
Mollie, G. H...	4	2-8-17	1566	4.3	67.3
Bleemie, G. H.	5	1-25-17	1356	3.5	47.7
T.M. Segis, R.H.	3	4-19-17	1467	3.4	49.9
Baker, G. H...	3	2-13-17	1230	3.8	46.7
Peter Hoppensperger					
No. 8, N.	8	4-14-17	1140	4.0	45.6
W. J. Waggoner					
De Kol Burke, R. H.	7	4-9-17	1518	3.3	50.1
J. G. Holland					
J. C., G. H.....	6	3-24-17	1161	4.3	49.9
Gust Hause					
Guernsey, G.G.	6	5-28-17	1100	4.3	47.9
J. C. Kieffer					
No. 7, R. H...	8	5-14-17	1734	3.0	52.0
No. 12, R. H...	5	3-10-17	1350	3.4	45.5
Henry Heeg					
Flossie G. S.H.	8	3-12-17	1380	3.6	49.7
Beauty, G. H.	4	5-24-17	1560	3.3	51.5

J. L. Williams, Official Tester.

New Holstein Association.

To the Editor:—In May 382 cows were under test in the New Holstein Cow-Testing Association, Calumet county. Sixty of these produced forty pounds of butter fat and fourteen more than fifty pounds. The best cow in the association is a grade Guernsey owned by H. J. Duecker. She produced 1,593.4 pounds of milk and 68.5 pounds of butter fat. A Guernsey herd of eighteen cows owned by F. F. Thielke & Son produced an average of 873 pounds of milk and 41.8 pounds of butter fat. The forty-five-pound list for May follows:

Name, owner and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
Rudolph Paulsen					
Rose, N. ...	2	4-17-17	855.6	5.6	47.9
Fred Hass					
Kate G. H.	7	4- 2-17	1363.1	3.5	47.7
Edw. Hass					
Florence, R. G.	2	3-31-17	972.4	4.9	47.6
Maud, G. G..	6	3-24-17	1216.7	4.2	51.0
A. W. Wieting					
Blumy, G. H.	7	3-23-17	1536.5	3.8	58.3
Rud. Jochimsen					
Birdie, G. H.	8	4-14-17	840.1	6.5	54.6
Hugo Libke					
Carrie, G. H.	5	11- 4-16	1046.7	4.3	45.0
Nellie, G. H.	6	3-24-17	1386.1	3.8	52.6
Martha, G. H.	6	3- 2-17	1536.4	3.4	52.2
F. F. Thielke & Son					
Gypse, R. G.	9	3-10-17	1099.7	5.6	61.6
Maine, R. G.	14	2- 4-17	839.5	5.5	46.1
Primrose, R. G.	9	11-24-17	926.4	5.5	50.9
Beauty, R. G.	4	1-10-17	854.5	5.3	45.2
Mary, G. G..	13	1- 6-17	1101.9	4.9	53.9
Bless, G. G..	13	11- 7-16	1005.3	4.6	46.2
Brindle, G. G.	9	11-30-16	838.1	5.9	49.4
Meta, G. G..	9	11-26-16	1057.3	5.0	52.8
Lady, R. G..	12	11- 7-16	928.1	4.9	45.4
John Kuhn					
Jack, G. H..	4	4-15-17	1334.2	3.8	50.6
Blessie No. 4, G. H.	8	12-23-16	1203.0	3.9	46.9
H. J. Duecker					
Bummy, G. G.	11	1- 3-17	1050.9	4.7	49.3
Marquard, G. G.	9	1-28-17	945.5	5.0	47.2
Ladysmith, G. G.	9	3-26-17	1072.6	4.7	50.4
White Spot, G. G.	8	12-15-16	985.8	4.7	46.3
Annie, G. G.	5	4-25-17	1593.4	4.3	68.5
Rola, R. G..	5	5- 2-17	918.1	5.8	53.2
Erich Vorpahl					
Back, G. G..	11	4-16-17	1286.7	4.3	55.3
Bessie, G. G.	11	2-21-17	1177.7	4.2	49.4
Blackie, N..	4	4- 1-17	1259.3	3.6	45.3

Cedar Grove Association.

To the Editor:—The following is the list of forty-five-pound cows in the Cedar Grove Association, Sheboygan county, for the month ending May 31st:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
W. D. Huenink and W. Lubach					
Aggie, G. H...	4	3-1-17	1755	3.4	59.7
Molly, G. H....	9	4-14-17	1497	3.6	53.9
Spot, G. H.....	2	4-22-17	1457	3.6	52.5
Wm. Nijhof					
Flossy, G. H...	5	4-1-17	1407	6.0	84.4
Maggie, G. H..	5	2-18-17	1268	4.1	52.0
J. P. Brill					
Daisy, P. B. H.	7	3-21-17	1761	3.0	52.8
J. Bloomer					
Nancy, G. H...	4	2-24-17	1535	3.8	58.3
Kleinhesselink Bros.					
No. 5, G. H.....	5	4-12-17	1476	3.4	50.2
G. Laarman					
No. 2, G. G.....	4	3-8-17	1243	4.2	52.2
Will Lohuis					
Bessie, G. H...	6	4-6-17	1615	3.3	53.3
Spottie, G. H...	6	2-26-17	1519	3.4	51.6
Josephine, G.H.	8	3-15-17	1717	3.3	56.6
Belle, G. H....	4	2-20-17	1550	3.3	51.2
J. H. Hyink					
No. 8, G. H.....	6	2-20-17	936	5.4	50.5
J. D. Walvoord					
No. 1, G. H.....	10	4-19-17	1597	3.2	51.1
John Meyerink					
No. 3, G. H.....	6	3-2-17	1330	3.8	50.5
Mrs. Eichler					
Droppers, G. H.	5	4-15-17	1482	3.8	56.3
Kellie, N.	6	3-13-17	1609	3.2	51.5

Herbert Molter, Official Tester.
D. W. Huenink, Secretary.

Black Earth Association.

To the Editor:—The Black Earth Cow-Testing Association, Dane county, organized in March, began testing April 19th. It has twenty-nine members and there are 627 cows under test for the year. During the month ending May 19th 514 cows were under test and twenty-two of them produced over forty pounds of butter fat. Fred Stubley's herd of Jerseys produced an average of 36.2 pounds of butter fat per cow. Mr. Stubley also had the banner cow which produced 57.7 pounds. About sixty of our cows are pure breds and the balance grades. Eight unprofitable cows have been sold to date. The forty-five-pound list for the first month follows:

Owner, name and breed	Age	When fresh	Pounds milk	Percent of fat	Pounds B. fat
John Coldwell					
Whity, N.	4	4-17	975	5.2	50.7
Bert Stuart					
Spot No. 1. G. H.	10	3-17	1163	4.0	46.5
Fred Stubley					
Bessie, R. J....			884	5.6	49.5
Princess, R. J...			983	5.5	54.1
Kilda Girl, R. J.			930	6.2	57.7
Mint Drop, R. J.			1181	4.2	49.6
Robt. Brunner					
Tillie, G .D. ...	5	5-1-17	1308	3.5	45.8

John Uebersetzig, Official Tester.
H. C. Sukliffe, Secretary.

Rules and Boards for the Draft.

The Way the Selective Draft Will Be Made and the Men Who Will Handle it in Wisconsin.

IN THE near future, probably about July 15th, the work of choosing those who will make up the first armed troops which the United States will send to Europe, out of about 10,000,000 who registered on June 5th, will be begun. It is expected that probably a million and a half will be chosen by lot at this time.

The rules of the selective draft, as announced last week by President Wilson, do not provide for the exemption of any particular class of citizens, such as farmers or mechanics, but leaves the question of exemption to be decided in each individual case on its own merits by the exemption boards.

There are two kinds of exemption boards—a local one for each county or city and one for each federal district. The local exemption boards comprise three men in each county having less than 45,000 population and in each city of less than 30,000 population, with additional boards for each additional 30,000 population. The federal district exemption board comprises five members from each federal district in each state.

The first step in the selective draft process will be the meeting of all county and city exemption boards, who will number consecutively all those who registered in their jurisdictions on June 5th, and the names and numbers will be posted publicly and given to the press. Following this the local exemption boards will be notified of the quota apportioned to them, but the number of voluntary enlistments in either the national guard or in the regular army or navy from each county or city shall be deducted from the quota assigned to it for draft.

Numbers will then be drawn by lot sufficient to make up the county or city's quota and then men whose numbers correspond with those drawn will be notified within three days, their names will be publicly posted and given to the press. The men so designated will appear before the local exemption board and will first be given a careful physical examination, subject to revision later by regular army surgeons. If the physical examination is passed, then comes the question of exemptions for other causes.

Local exemption boards have power to exempt only state or federal public officials, persons in the military or naval service, ministers of religion and students of divinity, alien enemies, those on whom others (such as wife, child, widow, aged or infirm parents, orphan child under sixteen, etc.) are largely dependent, the morally defective and members of any recognized religious sect prior to May 18, 1917, whose creed forbids participation in war and whose religious convictions accord with that creed. Claims for exemption because of dependents may be made by the man himself, by those dependent on him or by a third party, who has personally investigated the case, and they must be accompanied by at least two corroborating affidavits and complete proof that the dependents are actually supported mainly by the man's physical or mental work. County and city exemption boards are required to pass upon such claims within three days after the affidavits are filed and, in case the parties are not satisfied, they can then appeal to the exemption board of five men for their federal district, who must give a decision within five days after the closing of the proofs. Their decision is final.

All claims for exemption on the ground of necessary agricultural or industrial occupations can be presented only to the federal district exemption board of five men, as the local county or city boards have no authority to consider them. The federal district exemption boards must be convinced before granting exemptions for this reason, that the services of the man claiming exemption on these grounds are actually necessary to the maintenance of the military forces or to the national interest of the United States.

Certificates of exemption are not necessarily permanent and may be revoked with changing conditions or they may be granted for a limited time only, such as until after the harvesting of crops.

The following are the county exemption boards for Wisconsin:

Adams—J. W. Hoard, A. J. Soley, G. F. Treadwell and John W. Purdy, all of Friendship; A. W. Baker, of Hancock; John Huber, of Brooks, and C. F. Heberlein, of Kilbourn.

Ashland—C. L. Kleinsteiber, T. R. Yankee, J. M. Dodd, C. A. Lamereaux, J. A. Watson and C. O. Hertzman, of Ashland; W. G. Fordyce, of Butternut.

Barron—H. P. Borgen, T. T. Hazelberg, Nels Werner and T. W. Borrum, of Barron; J. W. Bell, of Chetek; W. A. Demers, of Rice Lake, and H. S. Comstock, of Cumberland.

Bayfield—Andy Murray and Nels M. Oscar and D. P. G. Frey and J. W. McLoed, of Washburn; J. P. Savage, of Iron River; C. H. Werden, of Mason, and J. W. Dady, of Bayfield.

Brown—Dr. D. H. Gregory and H. J. Smith, of De Pere; Henry C. Smith, of Green Bay, and H. J. Flaherty, of Denmark.

Buffalo—Albert Anderson, John Mell and E. J. Ganz, of Alma; Dr. P. B. Amundson and Dr. John Luetscher, of Mondovi; F. J. Bohri, Jr., of Fountain City, and Otto Ochsner, of Waumandee.

Barnett—R. C. Anderson, T. C. Olson, A. P. Nelson and A. L. Kyllo, of Grantsburg; L. R. Roberts, of Webster; J. E. Spangberg, of Siren, and Richard Goldsmith, of Swiss.

Calumet—Herman Rau, E. G. Hard, Dr. E. L. Bolton and H. F. Pingel, of Chilton; Dr. F. J. Fecter and H. D. Lawson, of New Holstein; F. D. Pieper, of Hilbert.

Chippewa—J. G. Cornell, C. L. Christianson, C. A. Hayes, H. J. Goddard and W. H. Howleson, of Chippewa Falls; W. H. Bridgman, of Stanley; A. T. Newman, of Bloomer.

Clark—Henry Hewitt, O. C. Anderson, Dr. E. L. Bradbury, R. F. Kuntz, Otis Slocumb, of Neillsville; Dr W. R. McCutchen, of Thorpe; F. W. Draper, of Loyal.

Columbia—J. R. Klabunde, H. R. Tongen and H. T. Andrews, of Portage; A. V. De Nevin, Wyocena; Robert Caldwell, of Lodi; C. D. Riggs, of Leo; L. A. Wright, of Columbus.

Crawford—J. F. Herold, Sam Sletmark, C. A. Armstrong, L. F. Copsey, of Prairie du Chien; A. B. Peterson, of Soldier's Grove; G. T. Atwood, of Gays Mills; Dr. T. E. Ferell, of Seneca.

Dodge Board No. 1—Harry Marsh, Chas. Hawks and F. H. Clausen, of Horicon; Frank E. Woodward, of Watertown; R. M. Fletcher and Dr. O. E. Gaetsch, of Eustiford; Dr. Louis Bachhuber, of Mayville.

Board No. 2—C. W. Hathaway, F. F. Aldach and W. E. Hallock, of Juneau; A. B. Chandler and E. E. Williams, of Beaver Dam; M. E. Terry, of Lowell, W. J. Conklin, of Fox Lake.

Door—Eli Stegmann, R. Herlache, Dr. T. C. Proctor and N. C. Garland, of Sturgeon Bay; Sam Perry, of Forestville; Wm. Jess, of Washington Island; Rev. O. N. Jordheim, of Clay Banks.

Douglas—Dr. A. G. Wilcox and E. S. Cosgrove, of Solon Springs; K. W. McLaggan, of Cordon; A. G. Earshaw, of Lake Nebagamon and R. B. Johnson, of Superior.

Dunn—Frank Pieper, Henry Miller, F. Mortensen, Dr. I. V. Grannis and G. M. Hovlid, of Menominee; E. B. Hill, of Colfax; E. E. Black, of Downing.

Eau Claire—George Garman, J. H.

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In the counties which have two or more boards the jurisdiction of these boards has been determined upon as follows:

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Board No. 2—Towns of Beaver Dam, Calamus, Burnett, Chester, Elba Fox Lake, Oak Grove, Lowell, Portland, Trenton, Westford, and the villages of Fox Lake, Lowell, Reeseville, the east ward of the village of Randolph, the first, second, third and fourth wards of the city of Waupun, and the cities of Juneau and Beaver Dam, population 23,918.

Fond du Lac, Board No. 1.—The towns of Calumet, Empire, Fond du Lac, Forest, Friendship, Marshfield, and Taycheedah, and the villages of North Fond du Lac, St. Cloud and the city of Fond du Lac, population 29,198.

Board No. 2.—Towns of Alto, Ashford, Auburn, Byron, Eden, Eldorado, Lamartine, Metomen, Osceola, Oakfield, Ripon, Rosendale, Springdale, Waupun, and the villages of Brandon, Oakfield, Campbellsport and the fifth and sixth wards of the city of Waupun, and the city of Ripon, population 22,412.

Manitowoc, Board No. 1.—The towns of Centerville, Liberty, Manitowoc, Manitowoc Rapids, Meeme, Newton and the city of Manitowoc, population of 21,942.

Board No. 2.—Towns of Cato, Coopertown, Eaton, Franklin, Gibson, Kossuk, Maple Grove, Mishicot, Rockland, Schleswig, Two Creeks, Two Rivers, and the villages of Kiel, Reedsville, and the city of Two Rivers, population 23,206.

Marathon, Board No. 1.—Towns of Bergem, Berlin, Bern, Briton, Cassel, Cleveland, Day, Eauplaine, Emmet, Frankfurt, Flieth, Hasley, Hamburg, Holton, Hall, Johnson, Maine, MacMillan, Marathon, Mosinee, Rib Falls, Riethbrock, Spencer, Steppin, Wein and the villages of Athens, Marathon, MacMillan, Mosinee, Edgar, Spencer, Stratford, east ward of the village of Colby and that part of the village of Unity within the county of Marathon, population 26,664.

Board No. 2.—The towns of Eston, Eldron, Franzen, Harrison, Hewitt, Knowlton, Kronenwetter, Norris, Pike Lake, Clover, Ringel, Texas, Wausau, Weston and the villages of Brokaw, Schofield, and the city of Wausau, population 28,990.

Outagamie, Board No. 1.—Towns of Bobina, Center, Dale, Ellington, Grand Chute, Greenville, and the village of Shiocton, and the city of Appleton, population 24,871.

Board No. 2.—Towns of Buchanan, Black Creek, Cicero, Deer Creek, Freedom, Hortonia, Caucana, Liberty, Maple Creek, Maine, Oneida, Osborne, Seymour, Vandenbroek, and the villages of Black Creek, Kimberly, Little Chute, Hortonville, Welton and the cities of Kaucana, Seymour, and the third ward of New London, population 24,231.

Rock, Board No. 1.—The towns of Center, Fulton, Janesville, Lima, Milton, Magnolia, Porter, Union, and the cities of Edgerton, Evansville, Janesville, and the village of Milton, population, 27,749.

Board No. 2.—The towns of Avon, Beloit Bradford, Clinton, Harmony, Johnston, La Prairie, Newark, Plymouth, Rock Spring Valley, Turtle, and the villages of Clinton, Orfordville, and the city of Beloit, population 27,789.

Sheboygan, Board No. 1.—The towns of Sheboygan and the city of Sheboygan, population 28,687.

Board No. 2.—The towns of Greenbush, Herman, Holland, Lima, Lyndon, Mitchell, Mosell, Plymouth, Rhine, Russell, Scott, Sheboygan Falls, Sherman, Wilson and the villages of Cedar Grove, Elkhart Lake, Oostburg, Randon Lake, Sheboygan Falls, and the city of Plymouth, population 26,201.

Milwaukee, Board No. 1.—Town of Lake, and the city of Cudahy, 18th ward of the city of Milwaukee, the towns of Granville in Milwaukee, and the villages of North Milwaukee, Whitefish Bay and East Milwaukee, population 19,638.

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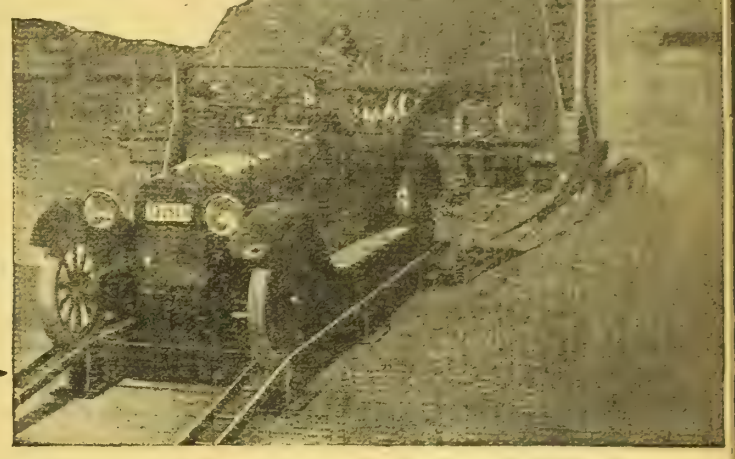

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Adams County.—Oats are growing well. Corn is backward and clover is hard to cure on account of wet weather. Alfalfa cut and in the barn. Pasture is good and cattle look well. Dry weather would be acceptable for a few weeks. Help is scarce.—Louis Wallert.

Bayfield County.—Good growing weather prevails, except that there is too much moisture for corn on heavy soil. Oats, wheat, rye, barley and peas are doing fine. Old meadows do not look well, but the new seeding is fine. With the copious rains we have had the old meadows may thicken up. Strawberries are late. Potatoes look fairly well and the late planting is coming up. Cherries and apples will yield fairly well. Pastures are good and live stock are doing fine. Their number is about average. The acreage of beans was increased about 75 per cent this year.—E. C. Stevens.

Burnett County.—Grain never looked better than at present. Potatoes are fine. Hay will yield about 50 per cent below last year's crop. Corn grows slowly on account of the cold weather. Pastures are not good, because it is too dry and cold.—Fred Larson.

Chippewa County.—The grain crop looks well. Hay will yield lighter than last year. Corn grows slowly. Potatoes look well. Garden truck has improved much since the recent rains. Fruit is fairly good. Live stock is in good condition. Cold weather has delayed crops to some extent.—Gustave E. Rheingans.

Clark County.—All crops are fine. A few fields of corn were damaged to some extent by cutworms. Clover haying will commence as soon as the weather is favorable. The crops of apples and small fruits will be about average. Pastures are good and live stock are healthy and growing.—Fred Ackerman.

Grant County.—July commenced with a light frost, which is not encouraging to the corn raiser. Hay and other grass is good. The hay harvest has already begun. Oats and barley look fine; the straw of both is very tall. Winter wheat and rye have done better than was expected. Pastures are good. Garden truck and potatoes look well. Cherries are making a good crop and some varieties of apples are doing fine. Live stock are in good health. P. R. Stoffel.

Iron County.—The hay crop is light and late timothy has not started to head yet. Rain is plentiful, which may push the crop along, but at this time the condition is about 25 per cent below normal. Pastures look well and cattle are doing fine. About 10 per cent more calves will be raised this year. Garden truck is doing well.—H. P.

Kewaunee County.—Corn is all planted, but some that was planted early had to be replanted. Small grains look well, but are about two weeks late. Cold weather and too much rain caused the delay in vegetation. Hay is also about two weeks late, but clover will make a good crop. Quite a few farmers planted soy beans in the corn this year. Pastures are fair and live stock are doing well. Apples promise about 90 per cent of a crop. Garden truck and small fruit are doing well.—W. C. Katel.

Marinette County.—Pastures are fine. Corn is growing nicely and some has been cultivated for the third time. The new seeding is doing well. Frequent rains have done much to promote the growth of clover. Oats and wheat promise well. Sugar beets have a poor stand. Early potatoes look well; the acreage of late ones is large. Pigs are scarce, selling at from $10 to $12 a pair. Several cheese factories have started up. The milk flow is good. Some orchards show an abundance of fruit, but others failed to bloom. Small fruits look fine.—W. B. Sanderson.

Monroe County.—Hay and small grain look well. Hay will make a big crop. Some farmers have cut alfalfa, and have begun to cut clover. Corn is not as good as last year and needs warmer weather. Pastures are good and cows are doing well. Strawberries are yielding well.—S. F. Jones.

Oneida County.—Hay is short and will not be ready to cut before the middle of July. Small grains are growing well. Corn is backward because of cold weather. Potatoes are out of the ground and cultivation has commenced. Pastures are fair.—Art Blumenstein.

Outagamie County.—Good rains have kept pastures in excellent condition and assured an abundant hay crop. Wheat, oats, barley and rye look fine, although they are late. Corn has a good stand and is well tended; the outlook is very good. Potatoes promise a full crop and $4 potatoes will not be heard of again. Live stock of all kinds are in good health. Wool is selling at from 50 to 60 cents a pound. Dairying is making good progress—butter is worth 37 cents, cheese 22 cents and skim milk $1 per cwt. Calves are in good number, although there is a temptation to sell them for veal, which is bringing from $10 to $14 per 100. Pigs are scarce and high priced; the demand is much greater than the supply.—Peter Tubbs.

Pierce County.—The oat crop looks fine. Barley has a rather poor stand, but the color is good. A few days of warm weather have started the corn. There is very little wheat, but it looks well. Old meadows are thin, but the new seeding is fine. Pastures are fine since the recent heavy rains. Potatoes never looked better. The alfalfa crop is good; some plants measure forty inches long. Reports say a few hogs have died of cholera.—T. W. Eaton.

Racine County.—Wet cool weather delayed all crops. Corn is late and weedy. Small grain shows fair condition. Old seeding of hay is light, but the new seeding which survived the winter is good. Cabbage planting has begun; the time is about two weeks later than usual. The acreage will be less than usual because the plants are scarce and not very good in quality. Potatoes are good. Pastures look fair. The fruit prospect is not especially good.—Chas. Jeffery.

Winnebago County.—The season has been cold, with heavy rains, but in spite of this, small grains and pasture look well. Hay is good, except on old meadows, where the crop is thin. Potatoes have rotted in the ground to some extent. Garden crops were damaged to some extent by cold, but in general crops promise fairly well. Live stock are in good condition, but hogs are rather scarce.—Seymour L. Smith.

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We can fill your order if you buy that silo now. But you must act quickly—our supply of materials is rapidly being depleted. Orders are coming in fast. Next year's prices will be much higher — so order now. Be on the safe side. Buy a Saginaw. You have the choice of either a Saginaw Steel-Built or Saginaw Leader Silo.

A prominent New York Banker says: "There ought to be a million silos built and filled before the growing season is over. They will not only help to win the war but to make living cheaper after the war."

Don't delay. Write or wire us at once. Address Dept 183.

The McClure Co.

Saginaw, Mich. Cairo, Ill.

POULTRY AND PET STOCK.

FOR SALE—S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting, three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

Langlade Jersey Meeting.

Langlade county Jersey men enjoyed a pleasant and profitable day at Blaine Stewart's farm on Friday, June 29th. W. H. Clark, widely known Jersey breeder of Rice Lake, was guest of honor and principal speaker for the day. Frank Krall, of Elmhurst, lead home the high-grade Jersey calf offered by the association in the drawing contest.

Ladies of the Winner Grange served refreshments to the kiddies and perchance to the grownups who developed "sweet tooth." Mary O'Connor gave a recitation in her usual most pleasing manner.

The attendance might have been larger, but as it was included a majority of the Jersey men of the county.

Mr. Clark spoke on "The Importance of the Sire in Developing the Dairy Herd." He urged in no uncertain language the absolute necessity of every dairyman using only a pure-bred sire, a good individual and one not only from a good producing dam, but also from a line of good producing ancestry. Health, vigor and a good constitution he urged as essentials in the make-up of a sire. "Raise the calf well if you want good cows," was another of the choice bits of advice which he gave. "We weigh every bit of the milk which our calves get up to the time they are six months old. Our calves get all the grain they will eat of practically the same mixture that we feed the cows. We feed our calves skim milk until they are about ten months old. Feed them on whole milk for the first month and feed them three times a day."

"The man who robs his calves of the milk that they must have when they are small, so as to increase his check at the cheese factory, is holding the penny so close to his eye that he can't see the future dairy dollar at arm's length," declared Mr. Clark. "You'll never have a good cow if you don't raise the calf right. Get your heifers to freshen at two years old and keep them working. Don't be afraid to feed. The dairy cow is the best market a farmer has for hay, grain and corn raised on his farm.

County Representative Swoboda told of what the Jerseys had been doing in Langlade county. He gave records of a number of the best producing cows and herds in the cow-testing association. Figures given were of the type to convince the most strenuous knocker of the breed that Jerseys will make good even in the strenuous climate of northern Wisconsin, if given a chance.

Some of the accomplishments of Langlade county Jerseys as given are worthy of careful consideration of every thoughtful dairyman. In 1915 the high cow of the Langlade County Cow-Testing Association, Chas. Schotte's Jersey, Susie, produced 466.3 pounds of fat from 8,424 pounds of milk. This same cow held the record for 1916 with 478 pounds of fat. This record is all the more remarkable, as the cow spent a week at the Wisconsin State Fair as one of the ten high cows for the cow-testing associations of the state.

Of the ten high cows in the association, seven of them were Jerseys, including the first four positions each with a fat record of 429 pounds or better.

The high herd in 1915 was a Jersey herd, with an average fat production of 381 pounds. In 1916 the three highest cows were Jerseys. These records are all the more remarkable when the proportion of Jerseys to other breeds is known. Of the 366 cows that completed the year's work, eighty-eight were Jerseys. Of thirty cows with records of butter fat above 350 pounds, eighteen were Jerseys. Of the eight high herds, herd No. 1 had three out of seven cows Jerseys. No. 2, 3 and 4 were solid Jerseys. No. 5 was 85 per cent Jersey. No. 7 and 8 were Jersey.

Perhaps the most remarkable cow in the association was a twenty-two-year-old Jersey cow belonging to Bert Wright, which produced 352.6 pounds of fat out of 6,682 pounds of milk. Her gross returns were over $114.48 feed cost, $46.22 and profit, $68.25. A fifteen-year-old Jersey cow, owned by Harry Guenthner, produced 364.1 pounds of fat from 7,649 pounds of milk. Gross returns, $123.62; feed cost, $53.29; profit, $70.23.

Jerseys also carried off the honors for high-producing two year olds. A Jersey heifer belonging to Mrs. J. Knos produced 298 pounds of fat from 5,040 pounds of milk. Queen Lorena, a Jersey heifer belonging to Walter Head, produced 286.6 pounds of fat. That it pays to feed well was well proven in the 1916 records. Mr. Schotte's cow, Susie, with a feed bill of $58.46, produced gross returns from sale of milk of $159.41, and a net profit of $100.95. One of Harry Lyon's Jerseys produced a net profit of $93.70 after paying a feed bill of $43.43. Several other Jerseys produced net profits around $90.

Sec. Perry Gillet secured a number of new memberships for the association. There are now fifteen pure-bred Jersey sires in the county. Four of them were brought in within the past year. Most of the Jersey breeders are members of the cow-testing association.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

LIGHTNING RODS.

RELIABLE AGENTS, write for 1917 agency for Diddie-Blitzen rods. Best lightning rods sold. L. F. Diddie Co., Marshfield, Wis.

PET STOCK.

CANARIES, Parrots, Pheasants, fancy pigeons, monkeys, bears, wolves, ferrets; pets of all kinds. Circular free. Detroit Bird Store, Detroit, Mich.

FARM LANDS.

ALABAMA ALFALFA LANDS—Beautiful rolling prairie country, well drained naturally, health conditions very good, ample timber and shade, overflowing artesian wells of pure water, 50 inches annual rainfall, ideal climate, mild winters. Alfalfa grows without liming or inoculation, stays green all year, grazed December to March with cattle, sheep and hogs, cut for hay 4 to 6 times in season, variety native grasses and several clovers growing wild. Soil rich in lime makes best production of live stock. We are tick free. Dairying very profitable. Labor cheap and plenty of it. Creamery here paying Elgin prices and better for butter fat. Buy here where so many farmers and breeders from 11 different states have bought and making good; 30,000 acres for sale; any size farm wanted, terms reasonable, land cheap considering fertility and quality of soil. Good railroad facilities, several pike roads and more building. Corn, wheat, oats, velvet beans and many other crops grown here. Full information and photographs upon request. C. C. Clay Alfalfa Land Co., Demopolis, Ala.

NORTH DAKOTA in per capita and farm production surpasses every other state. As many dollars per acre can be produced as in states where land sells four times as high. Government records prove it. Climate, soil, crops, railroads, schools, roads exactly as good as best in Illinois, Iowa and Minnesota. The Soo Line wants practical diversifying farmers. You can obtain a home without commission to us while land is still cheap; easy terms. Write at once for our plan of direct dealing. J. S. Murphy, Immigration Agent, Soo Line Ry., 1272 Soo Bldg., Minneapolis, Minn.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

40 ACRES FOR SALE—Some improvements; river running through; no waste land; plenty of timber to pay for it. Make good small stock or poultry farm. $1,000 if taken soon. Small capital needed. Fred Christiansen, Wittenberg, Wis.

40, 80 OR 160 ACRES good clay loam land. Hardwood timbered or open land ready to farm. No waste land. Close to towns. $20 to $25 per acre. $200 down, balance long time. F. M. Doyle, Immigration Agent, Ladysmith, Wis.

FARM FOR SALE—Within five miles of a village of fifteen hundred inhabitants. Fifteen acres cleared. $2500 worth of saw log timber. Price right, and terms reasonable. Write Healy-Brown Co., Wausau, Wis.

BURLEIGH COUNTY, N. D., improved and unimproved lands $20 to $35 per acre. Aurora County, S. D., improved farms $43 to $60 per acre, sold on very easy terms. A. H. Schroeder, Mankato, Minn.

668-ACRE IMPROVED STOCK FARM, Polk Co., Wis.; good buildings, fences, living water; small payments, easy terms, low interest. Write for description. Mason Booth, owner, Merchants' Hotel, St. Paul, Minn.

FOR SALE—80-acre farm, 3½ miles from county seat; 60 acres cultivated; fine buildings; insured for $3,900. Must be sold. Price $6,500. Address R. J. Russell, 812 King St., LaCrosse, Wisconsin.

640 ACRES FREE—Circular explains. Box 18, Havre, Montana.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

HELP WANTED.

WANTED AT ONCE—Three men to work on poultry farm. Must thoroughly understand either incubation and brooding, feeding or health and sanitation. Are willing to pay good wages to the right man. Address Oak Dale Farm, Austin, Minn.

TELEGRAPHY.

TELEGRAPHY—Summer rates extended account big demand for help by government and telegraph companies. Ladies and gentlemen act quick. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

STOCK WANTED.

STOCK WANTED—Will take herd of cattle (young or mature) for 160-acre tract in Edmunds county, S. D. Also tracts in Indiana and Michigan for like exchange. Farmers Securities Company, South Bend, Ind.

REGISTERED HOLSTEIN BULL.

REGISTERED HOLSTEIN BULL ready for service; 2 of his dams averaged 100 lbs. milk in 1 day and 35 lbs. butter in 7 days, officially. $100. Wisconsin Live Stock Association, Appleton, Wis.

CALVES FOR SALE.

CHOICE HIGH-GRADE Holsteins, Guernseys and Short-horn calves. A few select ones at $15 to $35 each, expressed at little cost. Write Ed. Howey Co., South St. Paul, Minn.

MILKING MACHINE FOR SALE.

FOR SALE—Milking machine. Two-cow unit. Automatic vacuum and natural air pressure type. In first-class condition. Address G. H. Daugherty, 33 S. Stone Ave., LaGrange, Ill.

COWS FOR SALE.

I HAVE FOR SALE a large assortment of choice tubercular tested cows, all due to freshen soon. You can buy one or a carload. John Blanchard, Columbus, Wis.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Schuster's Recent Purchases at Stevens Bros.' Sale, Liverpool, N. Y.

WHILE visiting Mr. Schuster's herd a few days ago we were greatly impressed with his 20 head of animals recently purchased at the Stevens Brothers' sale. Mr. Schuster now has the distinction of having twice as many 30-pound cows in his herd as any other breeder in the state of Wisconsin. He now has eight 30-pound cows, including Belle Pontiac Lincoln 156045, that has 32.82 pounds butter and 711.30 pounds milk in seven days. She averaged over 100 pounds of milk a day for one month. Another of his 30-pound cows is Lulu Inka Pietertje Pontiac 218410, with a record of 32.38 pounds butter, 589.30 pounds milk as a four year old in seven days and 31.47, 581.40 as a three year old in seven days. K. P. Gem 201634 has 31.82 and 522.10 at three and a half years in seven days. K. P. Johanna 157597 has 30.62 pounds butter and 491.70 pounds milk in seven days and a semiofficial yearly record at two and one-half years of 856.4 pounds butter and 17,973.10 pounds milk. K. P. Ruby Pietertje 164900 with 33.37 pounds of butter. Princess Korndyke Topsy Paul 2d 181952 with 30.57 pounds of butter and K. P. Daffy 176706 with 30.10 pounds butter constitute the remainder of the 30-pound cows recently purchased at Stevens Bros.' sale. Three females of this shipment are bred to King of the Pontiacs, which has more 40-pound daughters, more 30-pound daughters and more 20-pound junior two-year-old daughters than any other sire of the breed. Six other females of the shipment are bred to King Model, the young sire that sold for $10,400 and was considered good enough by the Stevens Bros. to use on a large number of their best cows and two other females with the consignment are bred to another of the noted herd sires of the Stevens Bros.' herd, known as It, a 37-pound bull. Holstein breeders looking for herd sires of extraordinary merit will do well to keep this herd in mind. Mr. Schuster is now looking for a 40-pound bull to head this great herd. His farm is located at Mukwonago, Wis.—Adv.

Mr. William M. Jones, Waukesha, Wis.

MR. JONES has just completed a most excellent test barn, containing 13 box stalls, which are now filled with cows that live up to the reputation of the Jones herd. A number of these animals are going nicely and will in all probability finish with records that will be in keeping with the excellent performance of a number of animals in the herd which have already been tested. Dora Adda, for instance, made 81 pounds of butter fat a month for the first three months of her test. She has a daughter that will finish the last day of July that will go better than 700 pounds. Lady Tricksey of Waukesha is now about seven months along on her test and is now going at the rate of two pounds of butter fat a day. Her highest month was 83 pounds of butter fat and she likewise in all probability will go over 700 pounds for a year. Yeksas' Tops of Gold's Boy was just two years old the day we visited the herd and a larger, more promising Guernsey bull we have never had the opportunity of inspecting. He is a son of the record cow, Yeksas' Tops of Gold's Fanny, the cow that has done much to make Mr. Jones' herd famous and is a great example of size, vigor and strong constitution which are characteristics that stand out prominently in Mr. Jones' herd.—Adv.

Mike Stoehr, Viroqua.

MIKE STOEHR, Viroqua, Wis., is paying more atention to the Duroc end of his business and he has a bunch of porkers this spring that he has reason to feel proud of. He has some March pigs that are as good as any we have seen. The demand is for stretch and his pigs have it together with the other good points. Most of the pigs are sired by a son of the grand champion, Prince Illustrator, and out of real good sows. Mr. Stoehr has five sows that are dandies—big, high backs, good feet and good brood sows. His sows farrowed an average of 12 pigs to the litter, and raised over eight. The sows are of The Professor breeding. This breeding has a Professor bred boar, two years old that he cannot use to advantage any longer, that he will sell. He is a big boar and is too good to sell on the market. Anyone wanting a tried sire should investigate this boar. The spring pigs are ready to ship and they will please you. Notice the advertisement in this issue and when writing please mention The Wisconsin Farmer.—Adv.

Fuel Saver For Ford Cars.

FORD owners will be interested to hear that a device has been perfected that enables them to run their cars on kerosene instead of gasoline. Most anyone will pocket the saving and be glad of it. The device is attachable to any Ford motor in a short time. The car is started on gasoline that is carried in a separate little tank and after running a minute is switched over onto the kerosene. It has been demonstrated that a car will travel farther and faster on a gallon of kerosene than on the same amount of "gas"; the engine gives a steadier pull; can be throttled down lower and will take grades that could not be made on high with gasoline. The Burn-Oil Device Company, of Peoria, Ill., is making and selling this device and they will send printed matter if you will give them your name and address. Tell them you read about it in The Wisconsin Farmer.—Adv.

Geo. W. Browne, Waukesha, Wis.

MR. BROWNE has been conspicuous at the recent Waukesha county Guernsey sales from the fact that he has been buying much of the choicest stock that has been offered at these auctions, and today he has on his Broad Ripple Stock Farm some very choice cows about 19 of which are now on official test. Imp. Lynchmeie Vespasia 3d, a very good-looking cow that has now been on test for seven and one-half months; Kate of Sunny Valley has made over 400 pounds during her first six months; Glencoe of Maple Hill is going at about two pounds of butter fat per day, and Maplene Alice on test about eight months is going at the rate of 600 pounds of butter fat. Marietta of Maple Hill, that has a record of 640 pounds of butter fat at three and a half years is now on re-test and going at about 80 pounds butter fat a month. One of the herd sires used in Mr. Browne's herd is Dora's Boy of Sunny Valley, whose dam is Royalene's Dora that has 717 pounds butter fat in a year and a full sister to her son just mentioned has 601 pounds as a two year old. Mr. Browne has two bull calves now sired by this bull for sale. Mr. C. E. Browne former manager of the Biglow Holstein Farm, Breedsville, Mich., and who has also been manager of the Kempton Farm, near Duluth, Minn., has recently been selected as general manager of this farm. Geo. Konrad, who has had much experience in test work, is now giving a good account of himself with the cows now on official test.—Adv.

Edgewood Stock Farm, Burlington, Wis.

THE Edgewood Stock Farm has been purchasing a number of very choice pure-bred animals with which to build up their herd. At the recent Waukesha County Holstein Breeders' Sale they purchased several heifers from the Baird Brothers' consignment which was recognized as being one of the best offerings at the sale and also purchased Daising Pontiac Butterman, a bull that has been a noted prize winner last year was senior and grand champion at the Wisconsin State Fair. This herd sire is one of the best individuals of the breed and should do much for improving the individuality of the Edgewood Stock Farm herd. King Pontiac Segis Veeman, a 29.29-pound son of King Segis Pontiac Count, that is now at the head of the herd which won more prize money for A. R. O. work last year than any other herd and which has the distinction of having the greatest producing junior two-year-old daughters of the breed. A more detailed description of this bull will appear in the advertisement on page 19.—Adv.

Dr. B. L. Werner Advertisement.

NOTICE the Holstein advertisement of Dr. B. L. Werner, Marshfield, Wis. The cows and price would be hard to duplicate and they are bred to an excellent young bull. If interested write at once, this opportunity won't last long.—Adv.

Smiley Polands For Sale.

WM. SMILEY & SONS, Albany, Wis., are now ready to supply you with your Poland China boars. We do not hesitate to say that the Smileys have a fine bunch of pigs this spring. The top sow of the Madison sale has seven good pigs by Crow's Progress. They are for sale. The $110 gilt has eight by a son of Black Jumbo. Other good pigs by Wisconsin Jumbo 2d, Major Miller and Smiley's King. Get busy if you want the pick at a reasonable price.—Adv.

Carpenter & Carpenter.

WHEN considering the good herds of Short-horn cattle that grace the farms of Wisconsin, one cannot overlook the herd owned by Carpenter & Carpenter, Baraboo, Wis. Their herd is made up of the very best Scotch cows, many of which are imported. The attractions on the farm just at this time are many, owing to the fact that so many choice individuals are going to make the fair circuit this fall. Lord Cullen, the imported herd sire, is in the nicest condition we have ever seen him. He weighs right at 2,600 and his smoothness is very noticeable. Maxwalton Queen, the aged cow that they showed so successfully last year, is in fine condition. She is due to calve in a very short time. She will make a wonderful showing. This firm has a two year old by Sultan Mine that is choice. She has just had a calf, which took off a little flesh, but by fair time she will be one of the good two year olds. The senior yearling is by Regal Stamp and she is one for which no apologies will have to be offered. All the young stuff is by Lord Cullen and after looking at the heifers and bulls by this sire, one cannot help but be impressed with him as a meritorious sire. On October 31st this firm will hold a calf sale in Chicago. This will consist of 65 lots, bulls and heifers, many of which are imported. Everything will be of the choicest Scotch breeding. In due time more will be said about this good herd.—Adv.

Evansville Chester White Headquarters.

EVANSVILLE, WIS., can claim Chester White headquarters; at least we feel safe in saying that no other town in the sttate can boast of three better herds of this breed. It's not a case of one good herd, but the three herds will compare with any in the state. In the three herds the very best blood lines are represented and as for individuality, we have seen no better pigs than those owned at Evansville. The Evansville breeders will hold a bred sow sale February 6th and their ambition is to place an offering of Chester White sows before the public that will be a credit to the breed in Wisconsin. When you see a Chester think of Evansville and watch next week's issue for further announcement.—Adv.

Hillside Stock Farm Belgians.

KIRKPATRICK BROS., proprietors of Hillside Stock Farm, Holstein headquarters, at Reedsburg, Wis., offer for sale some choice Holsteins. The three cows are the big kind with good A. R. O. records and they can be bought worth the money. They also offer four heifers that are choice with the very best breeding and A. R. O. backing. The bulls are light in color and from excellent dams. It will pay you to investigate this offer.

Look For the Monogram.

ON page 18 of this issue is a blank space with a monogram in the center. In next week's issue this space will contain information of interest to many of our readers. Watch for the advertisement and the monogram.—Adv.

A Long Wonder Boar For Sale.

LONG WONDER heads one of the good Duroc Jersey herds in Iowa and the McClurg Bros., Viroqua, Wis., have a son of this boar that they will sell. He is the largest spring boar we have seen this spring and some farmer that wants a Duroc boar better than any of his neighbors have, should write relative to this boar. He sure has the size and quality.—Adv.

Q For Quackenbush.

Q FOR Quackenbush, quality and quantity is to be the slogan used by W. W. Quackenbush, Melrose, Wis. Mr. Quackenbush has one of the select Poland China herds in the state. His herd is made up of representatives of the most noted families of the breed. About five years ago state fair winners were purchased for foundation stock. In 1915 the second-prize boar pig at the Iowa State Fair was purchased and he made good, for some of the best sows in the herd are sired by Matchless Wonder. The top gilt in the Madison sale was by this boar. Two sisters to this gilt are in this herd. Victoria G. 541538, one of the best sows, raised 11 pigs this spring by Chief Price. Giantess W., the top gilt in Joe Hendricks' 1916 sale raised 10 pigs by Chief Price. When this gilt was 12 months and three days old she weighed 535 pounds and farrowed a litter of 14 pigs. Mr. Quackenbush bought five sows in the Madison sale that averaged $120. They made good. The spring pigs are sired by the following noted boars: Mc's Big Bone Orange Wonder, Big Ben Jr., Blue Valley King, Sunrise Price, Big Ben H. and Chief Price. This breeder has the goods and can ship you a good boar pig worth the money. We saw this herd and was very much impressed with it. Melrose is near Black River Falls, his shipping point. Quackenbush and McDonald are only two miles apart. We are glad to recommend this herd. See page 18.—Adv.

Shanks-High Model-Investor.

THE above combination is a winner. W. N. Shanks, Worthington, Minn., has, in a few short years stepped into prominence as one of the leading breeders of high-class Durocs. Every boar used in this herd has been a sire of note but the greatest of all is Investor. Many great offerings have been made from this herd, but the one to be made August 14th will outclass all former offerings of boars. There are 45 head listed, 15 fall boars mostly by High Model, but there are a few by Grand Model 12th and by Royal Gano, both of which were also used in the herd. The 15 spring boars are all by Investor and most of them are from daughters of High Model, though several of them are from daughters of King the Col. Among the sows are several of the Lady Top Notcher family which has proved to be the most successful things used in this herd. In a later issue we shall have more to say about this good offering. Watch The Wisconsin Farmer, but in the meantime address Mr. Shanks as above for catalog or any other information which you may desire. Please mention The Wisconsin Farmer in writing.—Adv.

H. P. Pazik, Waukesha, Wis.

MR. PAZIK, who has been breeding Ayrshires but a comparatively short time, has been making remarkable progress and has shown good judgment to place at the head of his herd, Cavalier's Fond Hope a noted prize winner formerly owned by Adam Seitz. This bull has won first at three National Dairy Shows ,trhee Dairy Congresses and never lost a blue ribbon during the entire time he was on the circuits. Mr. Pazik now has a good sized herd and is expecting to increase it to 60 or 70 head. He also has a number of very good cows in his herd so that breeders looking for bull calves will do well to keep Mr. Pazik's herd in mind, as calves sired by Cavalier's Fond Hope are practically certain to be good individuals.—Adv.

L. R. Seibecker, Baraboo.

L. R. Seibecker, Baraboo, Wis., has only been breeding Duroc Jerseys for about two years and we believe he is going to make a real hog man. He has 35 spring pigs, most of them April farrow and they are better than many March pigs we have seen. Mr. Seibecker will offer his boars and gilts about the middle of July and we feel confident that anyone ordering a Duroc from him will be pleased with his purchase. His advertisement will appear in The Wisconsin Farmer.—Adv.

FORTY head of splendid Galloway cows and heifers and 10 or 12 young bulls are offered for sale by C. S Hechtner, Chariton, Iowa, on page 19. These are the very best of Galloway cattle and some of the cows are imported and some have been his very best show cows. If you are looking for some real bargains make it a point to go and see Mr. Hechtner. When you write him kindly mention this paper.—Adv.

His Wisconsin Farmer Advertisement Sold All His Hogs

MY advertising in The Wisconsin Farmer has sold all of my fall boars and have also sold some spring pigs through it. Could have sold a great many more. Got inquiries every day from the advertisement. Am well pleased with the results and will always remain with you.—J. C. Hendricks breeder of Poland China hogs, Hazel Green, Wis.

THE WISCONSIN FARMER, Madison, Wis.
Guaranteed Weekly Circulation, 90,000.
Circulation in Wisconsin, 76,769.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Aug. 14, W. N. Shanks, Worthington, Minn.
Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant County Poland China Breeders' Sale, Lancaster, Wis.

DUROC JERSEY SWINE.

LESS MONEY BUYS GOOD PIGS AT THIS TIME

DUROC JERSEYS

from EXCELLENT SOWS. Sired by a son of PRINCE ILLUSTRATOR. Same pigs will cost A fine lot of March and April boars and gilts. Good feet, stretchy, good backs and BIG and $15 more in August and September. I guarantee satisfaction.
MIKE STOEHR VIROQUA (VERNON COUNTY), WIS.

WATCH THIS SPACE NEXT WEEK

DUROCS

You've heard of our big sows. Boars from them are now on sale.
Shipped on approval if you wish.
RILEY MARTINY & SON BARABOO, WIS.

DUROCS

FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

NORTHERN GROWN DUROCS

BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS New Richmond, Wis.

FASHION

DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
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BY GRAND MODEL 21ST by Grand Model; ROYAL TOP COL., by Put's Top Col.; ILLUSTRATOR SPECIAL by prince Ill. Out of our big tried sows. Shipped on approval. Write
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SPRING PIGS—Either sex. They must please my customers. At your service.
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STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.
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OFFER FALL DUROCS that will farrow in August and September. Nice condition, long, good backs and smooth. Guaranteed safe in pig. Write.
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160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
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I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.
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IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.
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JULY 1st

I will ship POLAND CHINA pigs. By that time I can tell what kind of hogs they will make and can send you good ones. Shall I pick one for you?
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YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
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The Sweetness of Low Prices Never Equals the Bitterness of Poor Quality.

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SOWS AND GILTS, bred for fall farrow; some will weigh 500 lbs. as yearlings; bred to MODEL GIANT, weighed 600 lbs. at 18 mos. Two fall boars weighed 275 May 1st. Booking orders for spring pigs.
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POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
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THE DEMEAND IS FOR BOARS with plenty of length. My Poland Chinas have the desired stretch with size and quality. Seeing is believing. Let me ship one. Will also sell gilts.
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Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
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CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
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LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. Chippewa Falls, Wis.

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THE MARKETS.

Union Stock Yards, Chicago, July 7.—Everybody in the beef trade at this time is wanting choice to prime corn-fed cattle, otherwise it is a dull and declining market, the spread in prices between top and mediocre classes having been further amplified. From $13.00 up in the steer trade, prices are as high as at any time this season and from 10@25c above last week's close. Greenish and medium to fairly good short-fed cattle, however, are that much lower, in fact, the more common grassy stuff going downward to $9.50 is frequently quoted 35@50c lower than a week ago and as much as $2.00 per cwt. below the high spot early last month. Ripe corn-fed bullocks are showing up in fewer numbers each week and will from now on. Such classes will continue to charter their own course, but breakers are still ahead for the cheaper grades. South and mid-west pastures are disgorging stuff as fast as it can put on some grease and a free movement out of that territory for several weeks ahead seems certain.

Combined receipts of hogs at eleven leading markets the first five days this week were 167,000 less than like period last week, a considerable proportion of the decrease being attributable to the mid-week holiday. An advance in cash pork product and in provision futures have helped to strengthen the hog market which at the close yesterday showed a 30c higher top and a 55c higher average than a week ago, some light hogs being as much as 60c higher. After more than a week's absence a 16c top was reinstated, one load reaching $16.05 on Friday. The spread in prices, while much narrower than a week ago, is still wide, the general average yesterday at $15.40 being 65c below the top and a good many common heavy packing and some light-light stuff going down to $14.60@14.85. Reports from many sections are to the effect that good hogs have been closely gathered and there is a strengthening belief in trade circles that packers are going to have a hard task cut out for them in keeping the common price of choice corn-fed hogs below the $16.00 notch; in fact, the more optimistic are predicting a recovery in values to and even above the spring high spot. The spread, however, will continue wide.

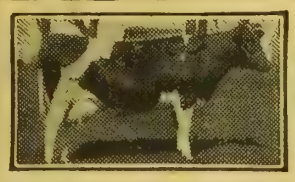
Packers have made further severe inroads on the cost of sheep and lambs on foot this week, lambs showing at the close yesterday a decline of about $1.00 @ $ from a week ago, and sheep a 50c break. The season's movement from below the Ohio river is under full headway and the vanguard of the range lamb run out of the northwest is helping swell the supply and increasing killers' desire to get prices down to a more workable summer basis. It is doubtful, however, if choice lambs sell down to $15.50 at any time this summer. There are standing feeder orders already for thousands of good feeding lambs and buyers express a willingness to pay up to $15.00 for such goods. Demand for breeding ewes has reached the furor stage and, owing to marked scarcity of such stock, this end of the trade has advanced to new high levels, fancy light native yearling ewes going to the country here yesterday up to $16.00 per cwt.

Top cream of the beef steer supply is selling fully as high as at any time this season and at the highest July levels in market history. Several loads of prime 1,450-lb. branded Herefords from an Iowa feed lot, made $13.90 on Thursday's market, there was a sprinkling of yearlings up to $13.25@13.50 and a fair showing of choice bullocks in handy yearling and heavy weights between $13.00 and $13.50. The proportion of ripe corn-fed cattle, however, is dwindling and the spread in prices is growing wider every day. For the bulk of current beef steer offerings it is a $10.50@12.75 market and there is sizable showing of light to fair weight grassy and warmed up steers down around $8.50@10.00, much of the stuff of current value below $9.50 is $1.50@2.00 lower than the season's high point. It is a very irregular market on all medium and low grade stuff and hard to quote with any degree of exactness.

A few toppy cows and heifers are selling at much the same prices as a week ago, but the market has had an additional break of 25@50c this week on most of the butcher stuff of class to sell under $10.00 on the present market, bulls and canner stuff showing the full decline. Packers have had a big gob of direct stuff from other markets, chiefly St. Louis, and most of it has been a cheap southwestern kind that has had a bearish influence on similar classes on this market. Most of the butcher cows are now selling at $7.50@9.50, only occasional prime heavy kosher cows upward from $10.50. It is largely a $5.75@6.00 canner market and bulk of the decent to good cutters go at $6.35@6.90. Common light grass heifers range down to $6.00, or lower, a meaty killing kind at $7.25@8.00 and only choice corn-feds above $9.50, although there is still outlet for strictly prime baby beef heifers on up to $12.00 and higher, some such being taken, in fact, in mixed lots with yearling steers of toppy class up to the limit of the yearling market. More bulls are selling below than above $8.00, good bolognas going now at $7.50@7.75 that made $2.00 more money on the high spot last month. Some cannery light bulls sell down to $6.25@6.75 and few beef bulls coming are good enough to sell at over $9.25, although $10.50, or better, is quotable for prime corn-feds. Calves are lower than a week ago with the bulk of the good to choice vealers at $14.00@14.50. Stock and feeding cattle values continue on the down grade with most sales 25@35c under a week ago. Traders are looking for a broader demand following the harvesting of small grains, but no active call is expected, at least until there is some assurance of a generous corn crop, as both corn and young cattle suitable for feeding purposes are too high to interest many prospective buyers at this juncture. Sales this week of stock and feeding steers have been largely at $7.50@8.50 with only choice selected classes of fleshy feeders and breedy yearling stuff above $9.25.

While the top on hogs here yesterday at $16.05 was only 30c higher than the corresponding day last week, the curtailed marketing has given the medium and lower priced stuff better standing in the eyes of buyers and a lot of light and mixed packing hogs showed as much as 40@60c advances. Compared with the low spot at last week's closing the general average is more than 50c higher. It is not believed that the country can longer market fat hogs freely, the high price of corn having turned the supply toward the shambles early and deficient in weight and few hogs will be finished on corn at the present price of that cereal. A dozen or more loads of choice heavy butchers sold yesterday at $16.00, but, although quality was of better average than earlier in the week, comparatively few hogs were good enough to pass $15.80. For poor to good mixed and heavy packing hogs sales showed a range of from $14.60@15.25.

HOLSTEIN-FRIESIAN CATTLE.



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OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

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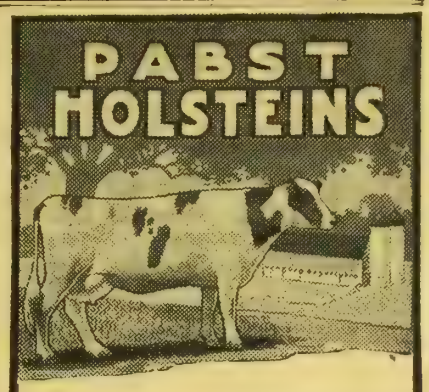
A 29.29-Pound Son of King Segis Pontiac Count.

King Segis Pontiac Count is a grandson of King of the Pontiacs, that has more thirty-pound daughters than any bull and is sired by King Segis Pontiac, that has sired more high-priced bulls than any sire.

King Segis Pontiac Count also has the distinction of siring the greatest producing junior two year olds of the breed. He has three junior two year olds that average 28.46 pounds butter in seven days and five junior three year olds that average 31.37 pounds and 610 pounds milk in a week. The herd at which King Segis Pontiac Count stands at the head leads all others in prize winners for A. R. O. work for the year just closing.

For further particulars concerning King Pontiac Segis Veeman write to Edgewood Stock Farm, Burlington, Wis.



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10 MORE COWS

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A 28.31-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 21.20 lbs. butter, second dam 17.50 lbs. butter. The bull is a little more black than white. Well grown and a good individual. Born January 27, 1916. For pedigree and further information address

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OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

BUY HIM NOW

A Jan. 15, 1917, bull calf, evenly marked, tuberculin tested, and a good individual. Sire is a son of Pietertje Maid Ormsby 35.56 butter in 7 days, has full sister with record of 1,255.6 butter in 365 days, average per cent fat 3.95. Dam a 15 lb. 2-year-old granddaughter of King of the Pontiacs. For pedigree and picture write to Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

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DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

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HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

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SIX AND SEVEN MONTHS OLD. Good individuals with good breeding. For particulars and prices write

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23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

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REGISTERED HOLSTEINS, 3 A. R. O. cows, 4 heifers and 5 young bulls. 7-day and yearly record backing, straight individuals, mostly light colors. Priced to sell. Write or come.

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EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

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28 HIGH-GRADE HOLSTEIN HEIFERS, 12 to 18 months old, from good selected cows.

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HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

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SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write

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FROM 5 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna DeKol. Two bull calves also for sale. Address

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VISITORS WANTED

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YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.

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IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

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OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.

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"SOME BULL"—I have for sale the best bred Scotch bull in the country. Write for details. F. S. Bunker, Kilbourn, Wis.

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GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

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HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.

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2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

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FOUR AND SIX MONTHS OLD and four grade heifers bred to calf this fall.

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READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Voeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

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A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.

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A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

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REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

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REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

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18 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

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HE IS BY PRIME OXFORD whose brother sold for $11,500 and whose dam, Gedney Farm Oxford Prime, is known as one of the most celebrated Jersey cows of Island. Inez Rosarie, the dam of Inez Rosaire's Oxford, has 720 lbs. butter and 10,287.6 lbs. milk to her credit and is sired by Rosarie's Golden Lad, that sired Rosarie's Olga 4th's Pride, 984 lbs.; Anna Rosarie, 794 lbs.; Inez Rosarie, 720 lbs., and Gertie of Glymllyn's 2d, 744 lbs. For more information regarding this bull write to

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HAS FOR SALE, bull calf, dropped Oct. 23, 1916; dam on test now, made the first 7 months, 312 lbs. butter fat. This bull calf is solid color, in good condition and well grown; tuberculin tested. For particulars, address

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HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

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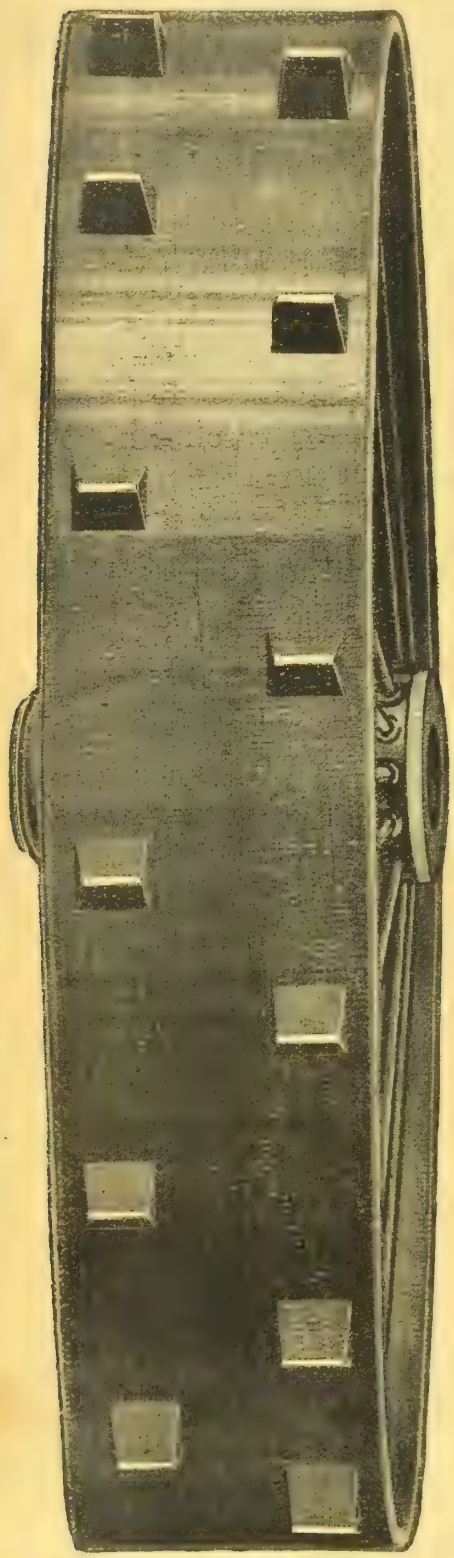

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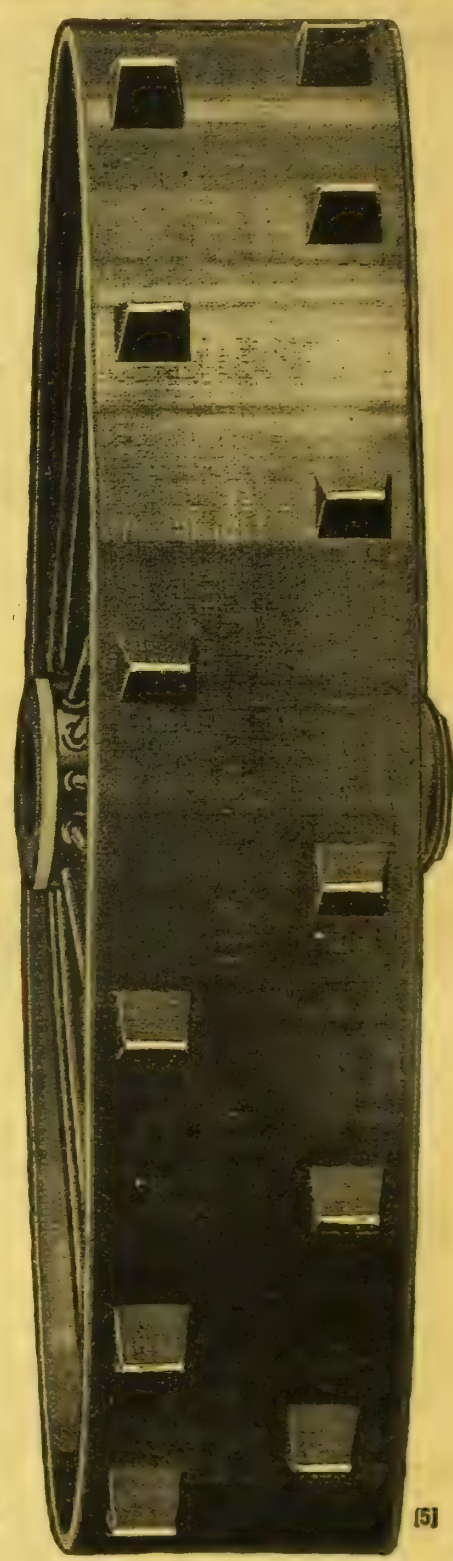

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THE WISCONSIN FARMER

VOL. XLVI. NO. 29. THURSDAY, JULY 19, 1917. WHOLE NO. 1851

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Some Actual Tractor Performance

J. E. Kennedy, Rock County Farmer and Stock Raiser, Gives The Wisconsin Farmer Readers Benefit of His Experiences With Farm Power.

FAITH has given way to performance in the use of the tractor on Wisconsin farms. For several years makers of tractors have found it necessary to give demonstrations and to invite people for miles around to see what the tractor would do and to hear the promises which were made for this wonderful machine. But the missionary work for the tractor is about complete. The tractor has stepped into that realm of certainty backed up by hard experience. And now that it has been firmly established on this foundation, we no longer think of the field engine as a freak performer. Instead, we set it down beside other farm machines and tools which have been tried and tested and which we know will accomplish definite results in the hands of men who will properly use them. It pleases The Wisconsin Farmer to tell at this time of actual tractor performance. Our faith was not lacking when some others feared that the tractor was being overplayed. But we feel that we are now getting down to bed rock, as it is now possible to tell what has been done with tractors on Wisconsin farms. Information like this is more than skin deep; it is convincing. The writer has had any number of invitations from Wisconsin farmers to visit their places and see what a tractor really does, day in and day out, in the season for field work. Only a short time ago we spent a day to great profit with that well-known and successful farmer and stockman, J. E. Kennedy, of Rock county. A great deal of interest could be written about Mr. Kennedy and his farms—beautiful farms, well kept up, well stocked, carefully and profitably farmed. But the purpose of this particular article is not to write up Mr. Kennedy, who, as a man and farmer, deserves a lot of space in any practical farm paper, but to tell about his experiences with tractors. He has had two. The first, a light machine, was a success and would probably have remained on the farm except for the fact that Kennedy wanted a little more power—a machine which would not hesitate when pulling three bottom through either sod or stubble. So he took a step up in the power scale and bought a 10-20 this spring. This 10-20 machine has had a great many nice things said about it. If the thing were animate and could respond to petting as a good intelligent horse can, we imagine this 10-20 would have many affectionate pats bestowed upon it. But the tractor is a machine as we well know, and while we can appreciate its good works we cannot love it as we do a good horse. Mr. Kennedy has a certain amount of respect for this machine, however. He thinks enough of it to keep it in a nice dry shed, where there is a good, hard cement floor and a roof which doesn't leak. While a tractor has no feelings, it will "act up" by way of rusting, if left out in the open fields between jobs. This particular 10-20 is driven into its shed at nights just as the horses are driven into the barn, and after a few days' experience with the tractor the hired man stops trying to throw the lines and shout "whoa." He learns that the tractor doesn't have to be fed when brought in; that there is no bedding to be laid for it; that there is no harness to take off; no currying; just a turn of the lever and Mr. Tractor is ready for a good night's rest. On the morrow the machine needs oiling, a fresh supply of kerosene, a few levers turned and away goes the iron horse puffing and snorting—as frisky as any pair of colts you ever saw, just about as swift and with better staying qualities.

J. E. KENNEDY, ROCK COUNTY, WIS., FARMER WATCHES HIS TRACTOR DISKING THROUGH ROUGH SOD.

NO WONDER MR. KENNEDY'S CORN WAS IN ON TIME—HE WAS PREPARED TO HANDLE IT WITH SPEED.

No sooner were introductions over than we saw that Mr. Kennedy, though a very practical farmer, is also a book farmer. By this we do not mean that he gets his farm knowledge out of books. On the contrary, he works out his own theories right on the farm. But he keeps books as a business proposition. It is his opinion that a farmer ought to know "where he is at" just as much as the village merchant or the country banker. "What would you fellows think of a storekeeper who waited until the end of the summer to count up his cash?" asked Mr. Kennedy. Of course, we all know that the successful business man can't run along a very great while without having definite figures on the condition of his business. So we might speak of Mr. Kennedy as a "cash register" farmer. He knows every night at 6:30 o'clock how many acres of ground were plowed during the day and how much there is left to do. It was corn-cultivating time on the place when we visited it, and Mr. Kennedy told us before we arrived (after referring to his little black vest pocket book) just how much of the corn had been gone over for the second time. And, furthermore, he asked us, with a smile on his face that looked like satisfaction, to note the difference in the height of corn on his place and on some other places the names of whose owners we will not mention. Well, we did notice, and Kennedy is one of the few men in the neighborhood who lived up to the "knee-high by the Fourth of July" corn. So it might appear that it is not always right to blame the late season onto Providence. There are some pretty sparse clover fields this year in Rock county due to winterkilling, but the clover isn't killed on the Kennedy farm by a long shot. Another instance where the Almighty isn't altogether to blame. Kennedy had a good crop of clover last year, cut it only once and didn't let his cattle eat the second crop down too close. The second crop formed a mulch, which protected the roots of the clover and carried it through the winter. Kennedy got a good lot of hay last year, a good lot of feeding off the second crop, and still protected this year's crop, which, without any exaggeration, is the heaviest crop of clover we have seen in Wisconsin this year. So much for careful farming. As stated before, it would be easier to write a book about this farm than a page, and, as it is our intention to discuss tractors, we will have to let Mr. Kennedy's marked success along other lines go for this time.

The Kennedy farm (this particular one—there are several) has 350 acres, mostly level land. It is known as Oak Lawn Farm, a name suggested by the beautiful oak trees and the parlor-like smoothness of the pasture land. Mr.

(Continued on page 5.)

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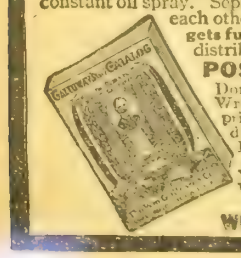

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Guernsey Breeders' Picnic.

To the Editor:—The Waushara County Guernsey Breeders' Association held its first annual picnic and judging contest at Johns Lake, Thursday, June 21st. Over 300 people were present at the meeting. Several head of full blood and grade Guernseys were on exhibition, and in the judging contest which took place a couple of young Guernsey boys, N. A. Kliefgan and F. Donagan, were awarded first and second places.

Mr. H. D. Griswald, a member of the state fair board and a successful Guernsey breeder from West Salem, Wisconsin, gave a very instructive talk, demonstrating same with the cattle which were on exhibition, following which Mr. Griswald gave a splendid talk on educational and promotion work of Guernsey breeding. Following Mr. Griswald's talk Emergency Agent Brann gave a short, interesting address on silage, clover and cattle, exemplifying the benefits which would accrue to Waushara county by persistent working of this combination.

Mr. C. T. Taylor then gave a brief address on the necessity of greater production, because of the increased demand throughout the cities and nation for western supplies. Mr. W. W. Clark, principal of the agricultural school of Wood county, addressed the farmers on the subject of organizing a cow-testing organization, explaining thoroughly the necessity of and the benefits which would accrue from an association of this nature. Following his address fifteen breeders signed the articles to organize a cow-testing association, and it is believed that the necessary number of twenty-six will soon be signed up.

Too much cannot be said relative to the merits and the advantages to dairymen by having a competent cow-tester inspecting and testing their herds once a month and any farmer regardless of the kind of cattle he is raising can become a member of this association.

The Guernsey Breeders' Association has grown to a membership of fifty-one members, owning over 500 head of pure-bred and grade Guernsey cattle. The membership is increasing from year to year and the herds are increasing likewise, which demonstrates that the Guernsey cattle have proven to be among the most profitable breeders for Waushara county.

Music during the day was furnished by the Mt. Morris Fife and Drum Corps which was greatly appreciated, and the meeting was pronounced a very pleasant success by all present.

H. O. Arveson, Sec.

Favors Conscripting Labor.

To the Editor:—Permit me to mention a few things that it seems to me should be emphasized in the present food shortage crisis.

Like all people, the farmer does his work first and then when more time is available he takes time to listen. We accuse the average farmer for a lack of interest and appreciation of the nation's want for food. Such accusations are unfounded. The farmer is more than busied with the extra work the "greater acreage campaign" of last spring has put upon him. The season is not at all favorable and the farmer is more discontented than ever. He sees his fields overrun with weeds, he sees his crops put in at unusually high cost going to the mercy of insect pests and diseases. All this is going on in the face of one of the greatest labor shortages that the Wisconsin farmer has ever seen. We need every bit of labor we can get and if necessary labor for the farms should be conscripted. I firmly believe that idle hands should be forced into profitable occupation. Vagrancy should be severely dealt with as well as street corner idlers and the like. It should be the greatest misdemeanor for able-bodied men to be found without good, legitimate employment. We must have labor if what we have in our fields may be brought to successful harvest.

Not too much emphasis can be put upon the necessity of a silo whether it be in the extreme north or in the grain and corn belt of the state. It would seem that the lateness of the corn this season will mean an immature crop with only a part harvest of the fields put in corn this year. The fodder which we shall find extremely high-priced as the feeding season advances must be kept for winter use and a silo seems and is the only means by which it can be done efficiently and profitably. Our cry is, "A silo on every farm—two are better than one."

Potato crops are going to be sacrificed if we do not watch and guard against the disastrous potato blights. We must harp unceasingly spray—spray—spray, not merely for the bugs and beetles, but the deadly blight. Not only is the usual crop in danger of loss, but all the added acreage and seed as well as labor invested in the campaign for more and greater production.

Let our farmers know the truth of our present situation in regard to food shortage and you never will find a more loyal patriot. He needs help on the farm to make the most of his possibilities. I have the utmost faith in the farmers of the nation; if necessary he will not only do his duty on the farm, but will prove himself as good a soldier as he is a farmer. My hat goes off to him every time.

Rufus R. Runke,
Emergency Food Agent.

Does All These Things With a Tractor.

To the Editor:—I am using an 8-16 tractor on my place and my experience shows that I can plow about seven acres of good, hard ground in ten hours. I can pull two or three spring tooth harrows, owing to the condition of the soil on my place. I can pull a binder, haul in the hay, load with a loader, pull my clover huller and grain thresher, grind feed and saw wood. My tractor is also a dandy to move heavy stones with. I have never tried to pull stumps, but I would think it would pull as much of a stump as eight horses and possibly then some. I am fully convinced that this tractor will do as much plowing and dragging as three three-horse teams, and do it every day, and I would never have a sick horse on my hands, and this work can be done on about thirteen gallons of kerosene and two quarts of oil. No farm can be fully equipped nowadays without a tractor. I have had mine two seasons and I am thinking of getting another one, that is, a 10-20.

Geo. H. Wunderlich.
Langlade Co., Wis.

Ayrshire Does Her Bit.

To the Editor:—The seven-year-old cow, August Lassie, owned by the Lawrence A. Reymann Estate, Wheeling, West Virginia, has completed an official yearly record of 19,582 pounds of milk, 831.50 pounds butter fat, test 4.11 per cent.

August Lassie was born August 8, 1910, and already has three official records to her credit. On February 1, 1915, she completed her first official advanced registry record, producing 10,047 pounds of milk, 398.24 pounds butter fat. On March 13, 1916, she finished her second record with 17,784 pounds milk, 720.03 pounds butter fat, test 4.05 per cent, and her third record just completed 19,582 pounds milk, 831.50 pounds butter fat, test 4.25 per cent.

The completion of this last record gives August Lassie a three-year cumulative average record of 15,791 pounds milk, 649.92 pounds butter fat, 4.11 per cent test. J. G. Watson.

Potato Outlook Is Good.

To the Editor:—We are conducting a campaign on potato bug control and at the present time I regard this as of the utmost importance, as a cultural operation which should receive attention of potato growers. We find that the potato beetle infestation is not so serious in some sections of the state as it would have been had we had dry, hot weather. Reports coming to this office indicate that the potato crop is in very good condition and in all our important crops in Wisconsin I believe there is none in better condition today. Should we have a normal season during July and August the chances for a very large crop of potatoes is good. J. G. Milward,
Assistant Professor in Horticulture,
Wisconsin College of Agriculture.

Ask your neighbor to subscribe for The Wisconsin Farmer.

The Wisconsin Farmer

THURSDAY, JULY 19, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

YOUR WAR AND MY WAR.

I AM in receipt of a letter which I cannot let go unanswered and unrebuked. It is so different from the vast majority of the letters which come to me from my farmer-readers I can hardly realize that one of the prosperous farmers of this highly productive grain belt of ours wrote it. In a way it is so unpatriotic as to lay the writer open to the serious charge of treason, yet I cannot bring myself actually to prefer such a charge against him, for I believe he wrote to me in good faith, not realizing the extent of his guilt. Let the letter speak for itself:

Dear Mr. Pierce:—While Europe is in need of our help, there are thousands of mothers throughout the United States today weeping because their sons must go to the land of destruction, full of misery, hunger and disease. Those who have no sons to go are shouting and telling what ought to be done. But we poor parents do not want to see our sons go where they go to their death, on foreign land, 3,000 miles away from father and mother.

It seems strange to me that there cannot be a war anywhere in the whole world, but the United States gets into it. Look at the Cuban war, the trouble in Mexico, and so on. Does our government think we like to raise our boys to shed their blood for all the nations of the world? We elected President Wilson thinking he was the man to keep us out of war. Has he done it? No! Our best young men, that we raised from babyhood up to where they can do us the best of good, must now lose their lives and good health in a war 3,000 miles from home. Shame! It looks as though all any nation has to do is to go into war and then get the sympathy of the United States and away our boys go, regardless of dear parents, wives and children. They go not only to France, but anywhere there is war. Let's stop. If any nation gets into war they should see and know how to get out or else not get in. I am for the United States only; for war, never! Where is the song "I Didn't Raise My Boy to Be a Soldier"?

I shall not print the name and address of the writer of this letter, for I believe the time is not far distant when he will regret every word of what he has written. I cannot let the occasion go by, however, without expressing my views, positively and emphatically.

There is no one who detests war more than I do, as all of my readers who have done me the honor to read my recent writings must surely know by this time. I know what war means, from bitter experience. I know what it is to have a father buried in an unknown southern grave, where he fell, before Vicksburg, fighting for liberty, even as our boys will be fighting tomorrow in the trenches of Europe. I know the heartaches and sorrows of the mother and her large family, deprived of their chief means of support. I know the hardships of going to work to help support a family as a boy, of walking long distances to work and of trying to take the place of a man, when I ought to have been at school. I know, too, the duties of military service, for, as a lad of fifteen, I volunteered to help repel Morgans raiders from Ohio. I say I know the sufferings, the pangs, the awful brutality of war. But there are worse things than death and suffering, for no nation, no ideal is worth living for unless it is also worth fighting and suffering and dying for. It is the duty of all of us today, as never before since the civil war, to present a united front to the enemy of humanity in supporting our state and national governments in their prosecution of the war to an everlasting peace and final victory for the righteousness that exalteth a nation.

Don't deceive yourself, my misguided friend, with the idea that this is not your war, for it is to your interest as much as to those of the farmers of England that the United States play her part and that her boys and men and women meet the sacrifices that will be necessary as bravely and patriotically as those of France, England, Belgium and the other allied nations of the earth have done for years. It would be our eternal shame and humiliation, our disgrace and our destruction if we did not rise to this occasion. I did not raise my boy to be a soldier either, but I am proud to think that when the occasion arose for him to be a soldier he responded in the Spanish-American war and if he were needed he would respond again, even as I would if it were necessary, in spite of my years.

This never was England's or France's war alone—it was humanity's war. Today it is also America's war, Missouri's war, Iowa's war, Wisconsin's war—your war and my war. It was started, not by the great common people of Germany, whom I admire, but by an autocratic, power-seeking military caste for the purpose of world dominion, just as every other great war lord in history has sought world power. I do not see how any man can read the history of the beginning of the war, the story of the rape of Belgium, the defiance by the German government of all sacred treaty rights, the plots for years against the United States, without realizing that this was not a European family quarrel, but a struggle for the eternal principles of democracy and liberty all over the world.

I firmly believe (and the story of Germany's diplomatic intrigues in Mexico and South America bear me out in it) that if our allies had been defeated America's turn would have been next and we would either have had to fight the greatest military power on earth alone and unprepared, or else have bowed our heads under the German imperialistic yoke and furnished tremendous war indemnities to Germany when she was swollen with the pride and lust of victory. For my part, I prefer to take time by the forelock and get ready and fight with the aid of the other democracies of the world in their common effort for final universal peace, rather than to have to face the issue single-handed.

These are my honest, earnest views, and I shall adhere to them with the last breath of my body. I did what I could to avert war, but when it came I realized that it was inevitable, that it must be fought out to the bitter end to insure that everlasting peace which shall give to every man the right to work and to enjoy the fruits of his labor undespoiled by the avaricious hand of the tyrant. This is the war of the farmers of America, as well as the soldiers. It must be won by both, one in the field and the feed lot, the other in the trench and redoubt. Shoulder to shoulder, in spirit, they must charge the common enemy and drive the tyrant from the face of the earth, which he would cover with monuments to martial glory rather than with ripening crops and grazing herds, smoking factories and other evidences of peace and plenty and prosperity.

I hope the man who wrote me the letter which occasioned this reply of mine will write me again and that this second time he will admit being ashamed of what he wrote before, and will pledge himself to stand by the stars and stripes wherever and whenever they may wave for decency and democracy; for honor and home; for truth and righteousness and God.

FARM LOAN BONDS ON MARKET.

FARM loan bonds, issued by the various federal land banks to provide money for five per cent loans to farmers, are now upon the market and I am advised are meeting with a ready sale. I am in receipt of a circular from a well-known bond house, advertising these bonds as gilt-edge investments, which I believe them to be. They bear 4½ per cent interest, but are selling at 1⅛ per cent above par, or face value, which makes them net 4¼ per cent. Being free from federal, state, municipal and local taxes they are especially attractive to investors and I cannot see any reason why the public will not take them up in such quantity as to insure the federal land banks having plenty of money to meet all desired loans.

I am advised that a total of $11,661,905 in mortgage loans has been asked of these twelve government banks by the 230 national farm loan associations already chartered. There are applications for $100,000,000 more now pending, but not yet approved. It is slow work getting the local associations of ten or more farmers organized, their charters approved, the farm land appraised and all the necessary details arranged. Yet I continue to have faith in the system and hope that bit by bit the red tape may be lopped off, so that every worthy farmer may be able to avail himself of the opportunity to get ample funds from Uncle Sam at a low rate of interest and for as long a time as desired. I am advised that most of the loans so far made to the local associations run for thirty-six years and are to be retired by semi-annual payments. As I have frequently stated, a six per cent annual payment by the borrower pays the interest and retires the principal in thirty-six years, so that the mortgage never really comes due.

A number of banking and bond houses have joined hands and are going to take half of the bonds issued by these federal land banks within the next six months, up to a total of $30,000,000. The government confidently expects that it will need to issue $100,000,000 to $150,000,000 worth of farm loan bonds within a year, the demand for money being steady. The farm-mortgage indebtedness of the nation, according to the last federal census, was $1,726,172,851, so that the loans already approved amount to only two-thirds of one per cent of the whole amount. The effect is noticeable, however, in the reduction of interest rates by insurance companies, banks and individuals, so that the law has worked some good even thus early in its existence. I predict that greater good will come from it within the next few years.

HELP IN THE FARM KITCHEN.

I AM glad to note that a farm woman has raised her voice for fair play in the matter of help in the present crisis. Why should every energy be strained to give the man the aid he needs in the field and absolutely nothing be done to give the woman the assistance she needs fully as badly in the kitchen? Let us be fair in all things, especially in the treatment of those of our own household.

I cannot introduce the subject to your consideration better than to quote the letter of the farm woman who raises the point, as follows:

Has it occurred to any to volunteer their services in helping the farmer's wife as well as helping the farmer? So many of our patriotic women seem eager to drive an ambulance or join the signal corps, but I have not seen a large list of those who are willing to don a checked apron and handle a mess for the additional farm laborer. It is, of course, much more picturesque to have one's photo taken in charming khaki trouserettes seated on a tractor; but isn't it equally patriotic and fully as important a "bit" for the woman patriot to stay in the kitchen of the farm where she is so badly needed?

Many of the men urged to go and work on farms have complained that they would be willing to go if their wives (in the city) would allow or encourage them. Now, why is it not practical for the wives of such men workers to go along to the farms with their husbands, and do their share by cooking and helping the country housekeeper? Never was it more difficult to secure kitchen and house service in the country. Why not put up tents or small barracks on the large farms, and have the women accompany their husbands and work at cooking, and later at canning, while their husbands plow and reap? This might be a solution also of the charge against the unmarried floating farmhand, who disappears on Saturday night or who is rendered less fit by weekly sprees.

We cannot have the maximum of production in the fields and feed lots until there is the maximum of efficiency and of happiness in the home. An overburdened farm wife, worn to a frazzle over the hot range in canning or harvest season, obliged to care for a baby and a brood of little tots, the sole worker in a ten-room house—without encroaching in the least on our discussion of what I called the "libel on the farm woman" in a recent magazine, are we not justified when we stop to inquire if this is getting the most out of life, if it is being fair to our women folks, if it is making country life the ideal, uplifting life that it should be and could so easily be made? Shall we not see to it that the wife and the mother in the kitchen have the necessary help, as well as the husband and the father in the field? Think it over.

There is a great and far-reaching responsibility on the women of our land today, both those of the country and those of the city. A grain-belt preacher, in a sermon last Sunday, hit it off admirably when he said:

I rode the other day up the valley, and, as I saw the waving fields of green, it seemed they were waving banners of our great warfare. Do you know that a tablecloth may be a banner also and that above that banner there is wasted an average of $50 a year by every family in America? The waste of a single ounce of food every day in every home means a yearly waste of nearly one-half billion pounds of food. The waste of a single slice of bread daily in every home means the daily waste of a million loaves. I have quoted these figures from the government's food expert. Because I am a preacher I should like to add the plea that you make your tables an altar and your frugality a sacrament of freedom. Go home then today to your tables and let their white coverings be to you as the banners of humanity's war for freedom and the right. Away from that snowy banner stretches the toil of a world. But away from it also today there stretches the hopes and fears of God's crusaders. May their shouts of victory never be drowned by hunger's cry because we have failed. It is that the fighters may have a fair chance in God's warfare and humanity's that you are asked to save your bread and help save their battle.

The red, white and blue in the trenches must be supported by the green in the fields and the snowy white in the kitchen and dining room. They are banners which will lead us on to victory if equally supported; to let any one of the three trail in the dust is to tempt defeat.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

The Tractor and Farm Production.

There should be no occasion for conflict between the advocates of the draft horse as an agency of farm power and those who favor the use of the tractor for the same purpose. In order to keep the nation at the highest point of production during the present conflict we will have to put every available animal into the collar, and, in addition, every reliable tractor that can be turned out from our factories. The day for quibbling over the superiority of one form of power or the other has passed and when this paper undertakes to say that there is an important place on the farms of the Central West for the tractor, it is not implied that the horse is condemned as an economic unit of power.

In this issue of The Wisconsin Farmer will be found the record of a number of instances that have come from men who have had experience in handling the farm tractor, and these speak for themselves. No effort has been made on the part of The Wisconsin Farmer to present the experience only of those who have had good success with the tractor, and, if there is more comment that is favorable to the tractor than otherwise, this is because our readers have so expressed themselves.

One expert on farm power points out that there is more energy spent in plowing the soil of the United States annually than is used in the combined factories of the land during the same period. This means an enormous horse power, and yet there is no denying the fact that a great deal more power should be used, because, on the whole, our soils should be plowed much deeper than they are at the present time. We have been content in the past with turning the furrow four or five inches deep whereas, unquestionably, there are many types of soils that could be advantageously plowed six, seven and eight inches deep. It will be the tractor rather than the horse that will meet this new emergency and thereby increase production without enlarging the area under cultivation by simply making each acre do more. Those who have large draft horse investments and who regard the coming of the tractor as inimical to their best interests should consider this fact. Certainly the horse is not equal to the task of plowing a deep furrow at anything like a moderate cost, whereas it has been proven over and over again that under ordinary conditions the tractor will plow land deeply and do the work economically.

Those who have given the tractor a good try-out are not slow to point out its advantages. Machinery does not tire, and temperature has no effect on the working ability of a tractor. It gives service alike in hot and cold weather. There are no colicky pains to contend with and there can be no sudden collapse which corresponds to the death of a work horse. When a part becomes broken it may be quickly replaced, so that on the whole the modern tractor may be depended upon to go through a work season with but little interruption.

In the very necessity of the case many farm operations should be performed quickly. At the outside, there is only a period of two or three weeks for spring plowing, and, should the weather be unfavorable, this means, under ordinary circumstances, a late putting in of the crop. It is in this respect that the tractor literally makes good, because it can be put into forced service. Many instances have been called to our attention this spring where the tractor has been worked twelve and fifteen hours a day. Indeed, cases have been called to mind where headlights have been used and the tractor worked constantly, day and night. If it is true that the tractor is handicapped by undue wetness of the soil, then this disadvantage is offset, and, indeed, more than offset by the advantage here referred to. Tile drainage will in the end solve the problem of wet fields and remove the most serious handicap to the general introduction of the tractor. Wet lands in any event are seldom productive, so that in preparing the way for the introduction of the tractor we are getting ready for a more improved type of agriculture that will lead to increased production.

As before intimated, this paper is not specially interested in making any odious comparison between the tractor and the horse, because each will find its own sphere. Those who wish to compare the cost of tilling a given acreage with horse power and with tractor power will find instances in this issue of The Wisconsin Farmer. A careful reading of the data here presented will show that the tractor does not suffer by comparison with the horse in cost of tilling an acre of land. Indeed, the tractor shows up very favorably, even though a year's experience or two years' experience does not throw much light on the annual depreciation.

Winterkilling of Alfalfa.

There are many shabby looking alfalfa fields all over the Central West and, of course, thousands of fields were plowed up and put in corn. The individual who sustained a loss of a field or two is not very much concerned about the question of his loss. He knows in a general way that the winter was too cold and the crop did not have enough snow protection. The strange part of the matter is, however, that some fields escaped. Others were half killed, while still others were completely destroyed. This is well illustrated in a letter by C. S. Burgess, which recently appeared in Field's "Seed Sense." It reads:

In reply to "What killed alfalfa?" I will try and tell you of a few fields in this community. I have three small fields of old stands; the oldest about thirty years, one ten and one four. There is some dead in all three fields, but more in the ten-year piece than in the other two combined. Another field just across the road on clay banks and bottom of draw is a piece nine years old that is nearly all dead and about forty rods farther on is another field on same kind of ground, three years old, that is a good stand. On the next eighty east of here are six acres ten years old, on good level ground, of rich loam, that is all dead. A short distance farther is ten acres, sowed last year, that is a perfect stand. All fields sowed in May without a nurse crop. None of these fields were pastured and all are well drained. That is, there is no water standing on them. I have talked with several farmers about their alfalfa and most say it is about half dead. I don't advance any reason, nor have I heard anybody that could give a cause for the conditions around here. But what killed the salsify and wheat and most of the parsnips has proved to be mighty hard on alfalfa. These are the condition in this part of Nebraska.

It is singular, indeed, that the thirty-year-old alfalfa field suffered less in the case cited by Mr. Burgess than one that had been established ten years. On the whole, the oldest field suffered most. We have in mind one instance where alfalfa, seeded five years ago, was practically all killed, whereas another two-year-old adjoining field, with a soil exactly similar, came through the winter in splendid shape. The experience that alfalfa growers have passed through indicates that the common variety is not absolutely hardy, and sooner or later we will have to use the Grimm variety. To be sure, there is not enough seed of that variety to answer the immediate needs of all who wish to establish alfalfa this year, but it is not too early to begin giving it a try-out on a small scale.

More Rye and Wheat in Wisconsin.

The success that accompanied the appeal from the various agencies for more wheat in Wisconsin last spring and which resulted in an acreage increase of 33 per cent will be repeated during the coming weeks in an effort to encourage the seeding of more winter wheat and rye.

The millers and farmers of the state will work together with the Wisconsin Bankers' Association, the college of agriculture and the Wisconsin Experiment Association in order to make the undertaking a successful one.

The State Millers' Association is to meet at Neenah, July 20th and 21st, for its annual convention. The rye and winter wheat seeding question will be the chief topic under discussion. Plans for organizing the millers of different localities, the grain dealers, bankers, merchants and farmers in order to carry the campaign into every section of the state where the growing of wheat and rye is possible will be worked out at this meeting. The labor question and the problem of securing seed for planting will also be thoroughly discussed. The biggest factor in solving the seed problem will be the coöperation of the State Agricultural Experiment Association with its well-organized county orders.

There is room for more wheat and rye growing in the state. Profits from both crops are possible in a greater degree than generally admitted. The millers' convention is doing a good thing for Wisconsin in aiding in every possible way the increase of these necessary food products in these serious times.

Itinerary of Land Clearing Special.

The first local demonstration of the Wisconsin land-clearing special is in progress at Murray, Rusk county, as this issue of The Wisconsin Farmer goes to press. The itinerary of the special for the balance of the trip is as follows:

Kennan, Price county, July 23d to 28th, S. M. Sargent, Phillips; Holcombe, Chippewa county, July 30th to August 4th, A. J. Edminster, Holcomb; Joel, Polk county, August 6th to 11th, John Klinka, Balsam Lake; Frederick, Uolk county, August 13th to 15th, John Klinka, Balsam Lake; Siren, Burnett county, August 15th to 18th, G. M. Briggs, Grantsburg; Hines, Douglas county, August 20th to 25th, J. M. Walz, Superior; Brill, Barron county, August 27th to September 1st, R. L. Cuff, Barron; Seeley, Sawyer county, September 3d to 8th, C. P. West, Hayward; Washburn, Bayfield county, September 10th to 15th, V. E. Brobaker, Washburn; Mercer, Iron county, September 17th to 22d, John Kendrigan, Mercer; Merrill, Lincoln county, September 24th to 26th, A. H. Cole, Merrill; Rhinelander, Oneida county, September 27th to 29th, W. D. Juday, Rhinelander; Phelps, Vilas county, October 1st to 6th, Oscar Gunderson, Eagle River; Laona, Forest county, October 8th to 13th, John Swenehart, Crandon.

Editors of The Wisconsin Farmer have accompanied other similar special trains and witnessed the demonstrations, and it is our advice that all farmers and settlers who can possibly do so visit the demonstration grounds at least one or two days. The demonstrations cover practical methods of land clearing. Don't miss the demonstration in your neighborhood.

What a Wisconsin Farmers' Club Did.

For the benefit of those who belong to a farmers' club or would like to belong, the following letter written for The Wisconsin Farmer is reproduced:

To the Editor:—The Fairview Social Club, of Black Earth, Wis., was organized May 5, 1916, for the purpose of promoting social activities and for the discussion of farm topics. The club has forty-three members and sixteen honorary members, the majority of whom are at each meeting.

Besides many social gatherings, the club has conducted several projects which were beneficial to the farmers. Two of these projects were a crow and hawk hunt, resulting in the practical extinction of crows from the neighborhood, thus saving the corn crop, and a June bug hunt. The June bug hunt lasted a month, there being two sides working under their respective captains, who kept count of the number of bugs caught. It was discovered that the best time to catch the bugs was between the hours of 10 and 12 p. m., as bugs by that time had alighted on the trees and could be shaken off easily onto a canvas, gathered up and destroyed. The trees the bugs seem to feed on most are the butternut, hickory nut and walnut. By the method described 62,346 bugs were caught, which, if allowed to live, would have produced, according to statistics, 4,987,680 grubs. In any contest conducted by the club the losing side furnishes a supper, so there is always something in view for the winners. Floyd Drake, Secretary.

Surely our readers will see in this letter a practical illustration of the value of community organization. This letter simply suggests what may be done. There are any number of things which a live farmers' club may do for the neighborhood.

Help Gather Badger Crops.

A good crop of small grain and potatoes is in sight and a pretty fair prospect for corn. The thought in the minds of farmers at this time is how they are going to get sufficient labor to harvest the crop. This is a problem in part for the individual farmer who will have to work early and late and the members of his family will have to do all in their power to help him. But there is every reason to believe that the farm help now on farms in this state will not be sufficient to gather and store all the crops. This being the case, the matter becomes a problem for the state council of defense and The Wisconsin Farmer is pleased to note that it is being given attention in many counties. It was not enough to urge the farmers to plant and cultivate intensively. The harvest is just as important. It is not an easy matter to sit in an office and advise how this is to be done. But some suggestions are being worked out which may well be given publicity. In some neighborhoods clerks in stores, banks and offices will be relieved for several days during harvest and ordered to the hog and grain fields by their employers. In case the employers think they can do more in the field than the clerks the "boss" himself will in many cases get back to the farm for a few days. In order to systematize the work of the volunteer army of crop gatherers the emergency food agents in each county are trying to list all men who will aid in harvest. In the Dane county newspapers will be found a blank which reads like this:

Dane County Council of Defense:—

I agree to offer my services to help harvest the crop of Dane county during the months of August and September and am willing to be assigned by the Dane County Council of Defense to any farm in Dane county for a period of ..... weeks.

Signed.....

This provides a convenient means of enlistment in an army just as important as the army at the front.

Probably by the time this issue of The Wisconsin Farmer reaches its readers the conscripted army will have been drawn. This will take away a great many men who might otherwise work in the harvest fields. Other sections of the country and Canada are also bidding high for the workers who will be left. Young men have left us to join the guards, the regular army, etc., and our factories and other institutions are working full time, so there is no doubt that labor will be scarce. We strongly urge all communities to afford to county councils of defense the fullest coöperation in this work. It would be little short of a crime to raise a bumper crop and fail to harvest all of it.

Tractor For Stump Pulling.

Louis Helson, of Webster, Wisconsin, writes as follows:

I have broke about twenty acres with tractor this spring, and before this pulled the stumps on the same ground. These were green jack pines up to six or eight inches. The cost of working with the tractor was about $1.50 per day. This same tractor has pulled the manure spreader, disk, harrow, plow and I am going to use it soon on the road grader. My tractor is an 8-16 and pulls two gang plows easily, plowing up to six acres a day.

The tractor is being used quite extensively in pulling stumps. Our readers will be interested to know that the Wisconsin State Fair is to have a tractor demonstration this year in connection with the fair September 10th to 15th. The big national tractor demonstration and show is on at Fremont, Nebraska, August 6th to 10th. While stump pulling will probably not be demonstrated at either of these shows, it is well for the prospective tractor buyer to keep this added utility in mind.

Some Actual Tractor Performance.

(Continued from page 1.)

Kennedy was not easily converted to the tractor. Before he had a tractor he worked twelve good, sturdy horses on this farm. When the tractor came on the farm six of these horses went out. They were sold for $1,500—an average of $250 each. The tractor cost $1,000—the last one—and right here Mr. Kennedy was $500 cash in pocket. Just as soon as the 10-20 reached the farm it was given a severe test. It was started down through sod ground, seeded down for about twelve years, and turned the trick, or rather the furrows, at the rate of eight acres a day, pulling three bottoms through the sod with ease and dispatch. One of the pictures shown herewith gives an idea of how this tractor disked this turned-over sod which was so rough that it was necessary to weight down the disk as shown in the picture. This man Kennedy of whom we write, is standing looking at the tractor's performance, and as this is "Jack's" first and only photograph, according to his own statement, better take a good look at it. All this plowing and disking was done with one man at the helm, or rather wheel, of the tractor. In another picture shown herewith, the tractor is busy disking and pulverizing, with a double horse team following with a harrow, another team following with the roller, and a fourth team winding up the operation with a planter. In order to keep history straight on this horse business on this farm, let us say that the extra team here was borrowed from a neighbor for the day, and is not a part of the Kennedy farm live stock. Kennedy felt he was a little late with this corn and he couldn't wait until his own teams on the harrow and roller were through. That's an example of good farming and economic farming. When you need an extra team just for a day or two, just hire 'em, instead of investing $500 to $600 to keep 'em on steady. That's always providing that it is possible to get an extra team. Mr. Kennedy's strong point in farming is in always getting what he needs and when he needs it.

Well, the outfit as shown in the two pictures of which we have spoken, cleaned up fifteen acres a day, and that's putting in corn pretty fast. The tractor was largely responsible. Mr. Kennedy says that on this particular job it would have been necessary to have had twenty horses to accomplish what he did in the time he did. This first test earned the 10-20 a permanent stall on the Kennedy farm.

Knowing that Mr. Kennedy keeps books a natural question was what it cost him to keep up the tractor. Somewhere in the funny papers we have heard about "it's not the cost, but the up-keep." Mr. Kennedy made the flat statement that it costs about 25 per cent as much to keep up the tractors as it would cost to keep up horses sufficient to do the same work. The 10-20 on an average takes the place of six horses—sometimes it does the work of eight horses. Mr. Kennedy has kept careful count of saving in labor. He figures that it takes twenty minutes per horse, or two hours four times a day, to hitch, unhitch, feed, etc., so he keeps regular hired men. When you figure this labor time lost on six or eight horses it means a labor cost of an extra man regularly so long as the horses are working regularly. This time is figured from the time the hired men say "whoa" at the barn until they are on hand at the back door clamoring for grub. Most men don't figure this labor cost against their horses. But Mr. Kennedy does, and that's where he's a little wiser than some of the others. Furthermore, Mr. Kennedy knows how much it costs to keep a horse a year on 75-cent oats and $20-a-ton hay. He figures it costs just $165 per horse per year on the average. He says that his tractor has displaced six horses and hence there is a saving of six times $165 or $900 a year. That's enough to buy the tractor.

But we know our readers will say there is some cost of operating the tractor and that, while the machine doesn't eat oats or $20 hay, it does consume fuel, and we shall talk of that just a little later. The cost of operating the tractor when it is not in use is practically nothing. It doesn't require nearly so much space as six horses—in fact, not any more than a team. But the feed bill for the horses goes right along, work or no work, and it doesn't take any science to prove that horses with nothing to do will "eat their heads off" on present feed prices.

Surely we'll all be interested in the fuel costs of Mr. Kennedy's 10-20 tractor. It takes about one and a quarter gallons of kerosene to plow an acre of corn or oats stubble. This kerosene can be gotten for 8 cents a gallon, if you go after it, or delivered on the farm for 9 cents a gallon. While the tractor uses chiefly this cheap grade of fuel, it is necessary to have a supply of gasoline on hand for priming to get the engine well started up. Just as soon as it is heated the kerosene will do the work. Mr. Kennedy finds that his engine uses on an average of five gallons of gasoline a week. This gasoline he buys delivered at the farm for 22 cents a gallon. Add to this the cost of lubricating oil, of which three gallons a week at 21 cents a gallon are needed, and you have the fuel cost of operating this tractor for a week. Let us set it out in table form so that we can see it better:

65 gallons kerosene	$5.85
5 gallons gasoline	1.10
3 gallons oil	.63
Total fuel cost	$7.58

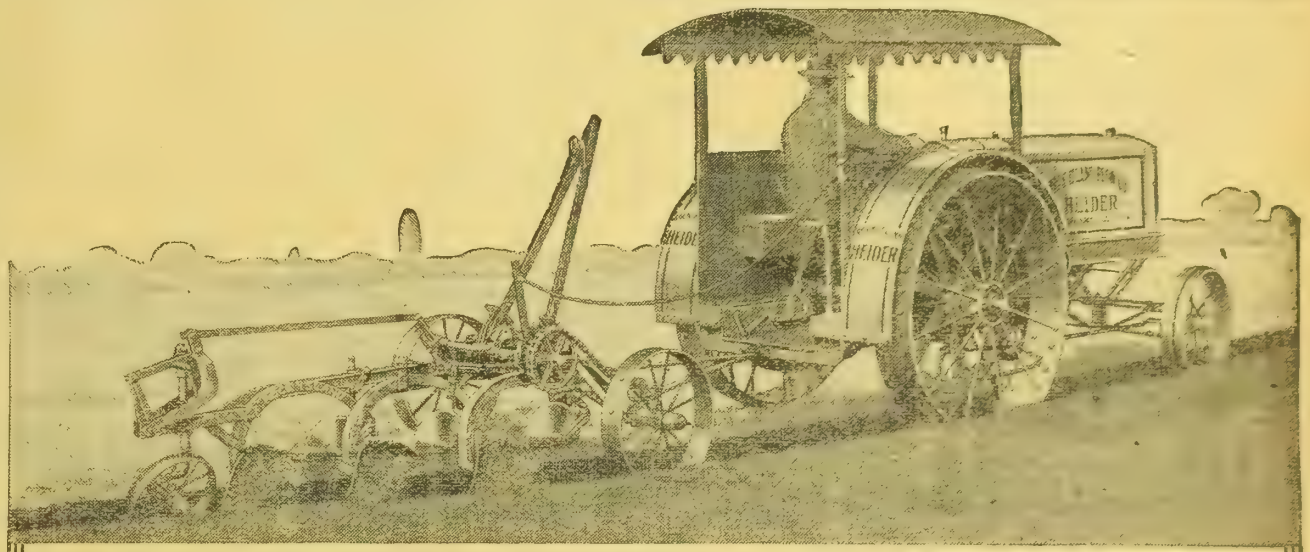
For this fuel cost, plus the added cost of the man to operate the tractor and the cost of investment in the machine and depreciation, Mr. Kennedy averaged fifty acres of plowing in corn or oats stubble in a week's time. For plowing sod ground he says to add ten gallons of kerosene and let the other figures stand as they are for stubble ground. So the additional fuel cost for sod ground on the Kennedy farm is only 90 cents, or call it a dollar in round figures, and say that $8.58 will run the tractor a week and plow fifty acres of sod.

Is it necessary to elaborate on these figures? We believe they are very understandable and we vouch for them as being the actual costs kept by Mr. Kennedy on his regular farm work. Mr. Kennedy figures that feed for six or eight horses necessary to do the work of the tractor would be close up to $20 a week. As feed is fuel for the horses we have a fair comparison of fuel costs in each instance. The care of tractor and teams (outside the hitching and feeding to which we have referred) about offset each other so far as length of time is concerned. In other words, oiling, fueling and care of the tractor takes about as much time, when the machine is working, as currying and cleaning the horses and harness. The big difference comes in that the horses require this work when they are unable to do any service on the farm, while the tractor in its days of idleness requires no work at all.

Can the ordinary farm hand run a tractor? The answer on Mr. Kennedy's farm is "yes." It was near the first of July when we visited the Kennedy farm. The engine was bought in April. The man who set it up stayed two days to show the boys how to run it. The hired man has since kept the tractor at work when needed and the man who made the sale hasn't even been back to look at it. Mr. Kennedy claims a tractor is just a little bit easier to run than an automobile. If you don't think a farm hand can run a car over the country roads, offer him the use of the car to take his best girl riding and see what a wonderful knowledge of practical mechanics will suddenly loom up in him.

Is the tractor good for any other work than plowing? Mr. Kennedy again says "yes." He used his small engine last year to grind all the farm feed. He used it to fill a big silo. This year the 10-20 will fill two silos, Mr. Kennedy having caught the spirit of silo building and erected a twin to the big brick silo he already had. Furthermore, Kennedy is helping serve his country by raising a spring wheat crop which looks fine and his wheat and oats will be threshed this year with his own small separator, run by the belt power from the tractor.

The Kennedy tractor started plow-



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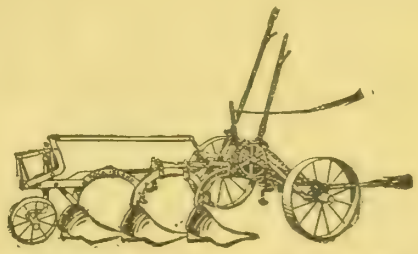

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Model D-9-16 carries two Rock Island No. 9 plows. Handiest plowing outfit you could own. Your hands operate the tractor while your foot raises or lowers the plows. Automatic power lift. Gets into fence corners easier than you ever could with a team. Sold with or without plows attached. Write for special circular.

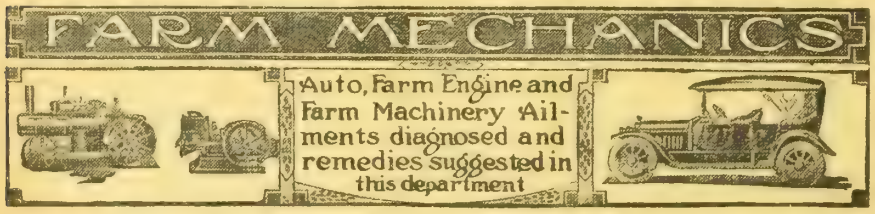
Heider Tractors Burn Kerosene, Gasoline or Distillate Fuel

ing April 10th. It was put up May 19th. It plowed 180 acres of land, sixty of which was the rough sod of which we have spoken, and double disked 160 acres. It pulled three bottoms all through and not a share was changed. Thus the 10-20 stands on its record.

Mr. Kennedy has made one change in his farm as a result of the tractor. He has cut out some fences, making his eighty-rod fields a half mile in length and saving turns.

The fifty head of pure-bred Short-horn cattle on the Kennedy farm would be hard to beat. But this is another story. Perhaps we may get a chance to tell it some other time. He has a junior yearling bull calf, thirteen months old in June, a son of Selection, grand champion Short-horn bull at Chicago in 1909, which is about as promising a bit of bull as we have ever seen. His herd bull is Maxwalton Amateur, by Maxwalton Renown, famous show bull son of Avondale. This is a herd of Short-horns where money doesn't seem to talk at all—at least, not for the choicest stuff. Mr. Kennedy takes the position that there is no price on the cream of his stock unless he decides to go out of the cattle business. "Why sell bulls and cows which I can't duplicate," says Kennedy. And there is a good deal of sound reasoning in such doctrine. Mr. Kennedy has recently visited some of the big Short-horn sales and bought cows for four figures. Price doesn't stump him at all if he can get what he wants.

But, to wind up on the subject of the tractor, we have it as Mr. Kennedy's direct statement that Wisconsin farmers with 160 acres or more can ill afford to pass by the tractor without giving it very careful consideration. "As for me," says Mr. Kennedy, "you couldn't get my tractor away from me for five times what it cost if I couldn't get another one."



Questions and Answers.

Size of Dirigible Balloon.

How many feet in circumference would a dirigible have to be to lift 800 pounds? Would a model gas engine with a one-inch bore work on the Diesel principle?

Answer.—The circumference would depend upon the shape of the balloon. It is volume that counts. In figuring the volume of the balloon you can count on every cubic foot of volume lifting about .07 of a pound if the balloon is filled with hydrogen gas. If properly designed, the model engine with a one-inch bore should work.

Material For Magnets.

How can I temper iron so that it will hold magnetism? Please publish a diagram showing how magnetos are made.

Answer.—Common iron cannot be tempered so as to hold its magnetism. Tool steel can be tempered to hold magnetism by heating it to a cherry red heat and plunging it in water. There is a special grade of steel, known as magnet steel, that makes better magnets than tool steel.

If you are interested in the construction of magnetos, write to some of the magneto manufacturers for their literature describing the construction of their magnetos.

Magneto Out of Order.

I have an Overland car, Model 83. It is equipped with a Dixie magneto. My magneto troubles me quite a little; therefore, I would like to know how to arrange the ignition so as to use dry cells on my Willard storage battery.

Answer.—If your car is not already equipped to use the storage battery for ignition, it would be considerable expense and trouble to make the change. It would be better for you to take your car to the nearest Overland service station and have it put in order. If it is the magneto alone that is causing trouble, write to the Sumter Electric Co., of Chicago, and they will direct you to the nearest repair station for their magnetos.

Engine Runs Irregularly.

I have a 1914 twin Yale motorcycle that works only on one cylinder when running on low speed. Then it will back fire through the carburetor and speed up for a while, and then gradually slow down again. It has good compression and tight valves. Can you give me the cause of the trouble?

Answer.—An air leak at the point where the intake manifold is attached to the cylinder that misses is the most probable cause of the trouble. Other possible causes are: Dirty spark plugs, due to too much oil; improper gas mixture; a weak exhaust valve spring on the cylinder that is giving the trouble; too great a clearance between valve stem and push rod; an improperly adjusted vibrator point, or too much spark advance.

Lights Burn Out.

I have a Ford 1917 Model touring car. I am having trouble with the light bulbs burning out all the time. I have used bulbs of six volt, twenty-one candle power; nine volt, twenty-one candle power; nine volt, eighteen candle power, and nine volt, fifteen candle power, but it makes no difference. Has a Ford magneto a resistance? Could I use an eighteen to twenty-four-volt, forty-candle-power bulb, no tail light being used? Does it take more current for a twenty-four-volt bulb than for a nine-volt bulb, or is the voltage only for distance and heat? Which bulb is recommended as using the least current; the vacuum or the nitrogen filled bulb? Will it injure the Ford magneto to use a forty-candle-power bulb? A certain company has a device called "Evenlite" to regulate the current for low and high speeds. Is it O. K.? Has it a hand adjuster for regulating the light to suit the driver?

Answer.—The lights burn out because the voltage of the bulbs is too low to stand the speed you are running. If a nine-volt bulb burns out, use a ten-volt or twelve-volt bulb. Too great a candle power may injure the magneto. You should not use over two bulbs of fifteen candle power each. The forty candle-power bulb might overload the magneto. The magneto has no resistance coil; the bulbs themselves are the resistance; the higher the rated voltage the higher the resistance of the bulb. It takes less current for a twenty-four-volt bulb than for a nine-volt bulb if the candle power is the same. The power required to operate the bulb would be slightly more for the twenty-four-volt bulb. The nitrogen-filled bulb is more economical in use of current than the vacuum bulb. We are not familiar with the regulating device you mention.

Making a Tractor.

I would like to know if I could use a twelve-horse-power Fairbanks-Morse, two-cycle, two cylinder motor for a tractor? By using a clutch, could I use two bull gears for drivers with chain drive? Would it pay, or would it use too much oil? What would it pull? The flywheel turns about 800 R. P. M.

Answer.—We would not advise you to attempt to make a tractor unless you have all the materials at hand, or at least know where you can get them and what it will cost. You should also have a good supply of tools. Your engine if installed in a suitable machine should pull one fourteen-inch plow. It might pull two twelve-inch plows. You could use the two bull wheels and chain drive successfully. The cost of the fuel should not be excessive.

Wiring Lights For Alternate Use.

We are wiring our house for electric lights. We would like to have two lights in some rooms, a reading light and another light, arranged so that when one is turned on the other is turned off automatically. Is this possible?

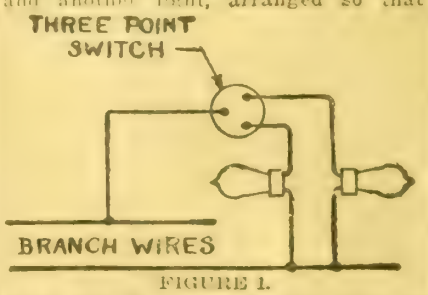


FIGURE 1.

Answer.—It is possible. All that is necessary is a three-point switch, connected as shown in Figure 1.

Wisconsin State Fair.

The premium book of the Wisconsin State Fair has been sent out and is perhaps the most attractive book issued by any state fair this year. A total of 20,000 copies have been sent to prospective exhibitors and others.

A total of $46,116.87 is offered for premiums in various departments, an increase of $5,044.75 over 1916. The liberal offerings have prompted breeders' associations and individuals to offer cash prizes in the sum of $3,612. Various associations and individuals offer medals and trophies conservatively valued at $1,000, making a total of $50,728.87 offered to exhibitors this year.

In the horse department premiums for the draft horse classes have been materially increased. The successful futurity classes for Percherons and Clydesdales of former years will be continued and additional money is offered in these classes. The division for light horses has been entirely revised and made up to date, so that the Wisconsin State Fair will have a high-class horse show each day of the fair. A class for Shetland ponies has been added and entries for this class will be limited to horses bred and owned in Wisconsin.

In the cattle department, in addition to increasing premiums for both beef and milk cows, the state fair has added classes for dairy Short-horns and will also continue the cow-testing association demonstration, which was a feature of the 1916 fair. Cows making the largest yearly records of butter fat will be on exhibition and arrangements will be made for informal discussions and demonstrations of interest to all dairymen. Liberal special prizes are offered in this department by breeders' associations.

In order to stimulate breeding of sheep, especially in Wisconsin, the state fair has added liberal premiums for animals bred and owned in Wisconsin. The liberal classifications of former years in open classes will be continued. This department has a new building, added in 1916.

In the swine department premiums for Berkshires, Chester Whites and Duroc Jerseys have been increased and futurities for Poland Chinas and Duroc Jerseys will be continued. In addition to liberal increases in premiums, the state fair also offers prizes for Spotted Poland Chinas. This department has a new building added in 1916.

In order to have a high-class poultry display the poultry department has been completely revised, several additional classes have been added and special prizes will be offered for displays of the principal varieties. The excellent pigeon displays of former years will be continued. This department will show in a new $25,000 building equipped at a cost of $3,000.

The departments of county exhibits and agriculture have been combined and an effort will be made to have every county of the state make an exhibit. Premiums will be offered for corn of the 1917 crop and also for the 1916 crop. Liberal premiums will be offered for principal varieties of potatoes.

In the horticultural department a new class has been added for cranberry exhibits and the state horticultural society also offers premiums for exhibits by Wisconsin nurserymen.

In the dairy department, in addition to prizes for the common varieties of cheese made in Wisconsin, prizes will be offered for several of the fancy brands of cheese that are becoming more and more popular.

In the boys' and girls' department attractive special premiums are offered by breeders' associations and also by Frederick C. Underwood, president of the Erie Railroad, and by the Merchants' and Manufacturers' Association of Milwaukee.

The woman's work department has been revised and will this year particularly appeal to the farm woman of Wisconsin.

Hampshire Breeders Meet.

To the Editor:—The officers and directors of the Wisconsin Hampshire Breeders' Association held a meeting June 29th at the Hotel Ewing in the city of Fond du Lac. There were present H. A. Bush, president; A. L. Damon, vice president; E. E. Cowles and T. C. Wilsie, directors; W. W. Meacham, secretary and treasurer. It was decided to hold a meeting of the state association either the last week of October or the first week in November, at which time arrangements may be made to hold an auction sale of Hampshires at Madison. It was also decided to place a Hampshire gilt at the university farm. The meeting was enthusiastic and we hope for good results therefrom.

W. W. Meacham, Sec.

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SIMPLE STRONG GAS OR OIL ENGINE
CAN START OR STOP INSTANTLY
GREAT WINDROW BALER
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CURRENT EVENTS

GOADED into action by the extortionate prices being charged for some of the staple articles of food and raiment (without much, if any, regard to the price paid the producer) President Wilson last week appealed to the nation's business interests to put aside every selfish consideration and to give their aid to the nation as freely as those who go out to offer their lives in the battlefield. In a statement addressed to the coal operators and manufacturers he gave assurances that just prices will be paid by the government and the public during the war, but warned that no attempt to extort unusual profits will be tolerated. "Your patriotism," said the president's appeal, "is of the same self-denying stuff as the patriotism of the men killed and maimed on the fields of France, or it is no patriotism at all. Let us never speak, then, of profits and patriotism in the same sentence. I shall expect every man who is not a slacker to be at my side throughout this great enterprise. In it no man can win honor who thinks of himself." In unmeasured terms, however, President Wilson condemned the shipowners of the country for maintaining a schedule of ocean freight rates which has placed "almost insuperable obstacles" in the path of the government. "The fact is," he asserted, "that those who have fixed war freight rates have taken the most effective means in their power to defeat the armies engaged against Germany."

THE fortunes of war fluctuated badly last week. The Germans, by a vigorous effort, succeeded in pushing back the British line in Belgium for some good ground and men gains. At the same time, the Russians continued to beat the Germans and Austrians back in Galicia, taking many prisoners and seriously threatening the city of Lemberg. The Russians are pushing ahead on a 100-mile front and seem to be a factor once more in the allies' operations against the Teutons. The English succeeded in bombing a German-Turkish vessel and some important war buildings in Constantinople. The American ship, Kansan, loaded with a cargo of flour and other foodstuffs and with steel, was sunk off the coast of France, with a monetary loss of about $6,000,000 and some loss of life, the extent of which has not been officially announced. General Pershing has selected the portion of the allies' line which the United States troops will be moved to, and attempt to hold against the Germans, within a few weeks, after they have been accustomed to the new trench warfare and living. There were renewed indications that Germany and Austria, either singly or together, might be willing to discuss peace terms, but the only terms which Germany has shown any evidence of accepting are so one-sided and unreasonable as to make an early peace out of the question.

THE most daring and the largest air raid which the Germans have yet made on London and other English cities occurred last week and resulted in the loss of a score of lives, with several other score injured. The destruction of property was larger than ever. So frequent and so heartless have these air raids become that the English are demanding that reprisals be made upon German towns. There has been much discussion since this last raid of the apparent lack of necessary defenses of the English against such attacks from the air. The Germans are using airplanes instead of Zeppelins nowadays. In this last raid over a score of airplanes made the trip, flying in close formation. The English succeeded in shooting down ten of the German airplanes, with attendant loss of life among the navigators, but the damage done by the raiders was much greater than that done by the defenders. Thus far the English military authorities have positively refused to make raids on German towns in reprisal, contending that they are not warring on women and children, the main sufferers from these air attacks.

THE last step necessary to make the national guard of all the states available for duty in France was taken by President Wilson last week, with the issuance of a proclamation drafting the state troops into the army of the United States on August 5th. It is expected that the national guard will follow the regular army into service in France and will, in turn, be followed by the conscript army, which takes up its work of training at the various cantonments September 1st, or soon thereafter. Fourteen camp sites for the sixteen tactical divisions into which the guard will be organized have been selected and the militia bureau is preparing the railway routing of the troops to the camps. Seven of the sites selected are in the southeastern department, five in the southern and two in the western. The two others will be in the southeastern department and until they are approved assignment of regiments to camps and divisions cannot be fully worked out. The state troops are called into service as follows: On July 15th, New York, Pennsylvania, Ohio, West Virginia, Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota and Nebraska. On July 25th, Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New Jersey, Delaware, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Tennessee, Illinois, Montana, Wyoming, Idaho, Washington and Oregon. On August 5th, Indiana, Kentucky, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas, Missouri, Kansas, Colorado, New Mexico, Arizona, Utah and California.

GOVERNMENT control of American exports, authorized in a provision of the espionage act, was ordered put into operation July 15th by President Wilson with the issuance of a proclamation requiring the licensing of shipments to all countries of the most important export commodities. In a statement accompanying the proclamation the president declared the government's policy will be first, to give consideration to American needs; next, to meet as far as possible the requirements of the allies, and lastly to supply the neutral countries wherever practicable. It is made clear that every effort will be made to see that no supplies reach Germany, Austria and Turkey. The commodities named in the list put under control are coal, coke, fuel, oils, kerosene and gasoline, including bunkers; food grains, flour and meal, fodder and feeds, meats and fats; pig iron, steel billets, ship plates and structural shapes, scrap iron and scrap steel; ferro manganese, fertilizers, arms, ammunition and explosives. The inclusion of foodstuffs in the proclamation lends color to statements that the administration is considering the advisability of a complete embargo for sixty days on all food shipments to give the country time to ascertain the amount of its supplies and to give allied and neutral countries an opportunity to present a full program of their requirements.

DIRECTORS of the Chicago Board of Trade last week fixed a maximum price of $1.28 for the December and May (1918) deliveries of corn. No action was taken as to September corn. According to an official of the board the establishment of a new maximum price for the December delivery and for all later options was needed to bring trading conditions into harmony with the government's war policy of preventing undue speculation and unwarranted high cost to consumers. Generally the options of the new 1917 crop were dealt with in last week's action. A maximum price of $1.65 for the September delivery in Chicago and for all other old crop futures already in effect, was not disturbed, as the value of old corn for immediate delivery was now much in excess of that limit and had that day touched the highest figures ever known for Chicago, $1.91¾ a bushel for ordinary [illegible]

REPORTS that the food administration will buy at a price of less than $2 a bushel to the grower for the 1917 American wheat crop drew from Herbert Hoover this denial: "It is not the intention of the food administration to fix the price for wheat, nor is it expected that it will have any such powers. If the food bill passes congress, however, we certainly will not stand for speculative buying. The farmer will be protected, it was further asserted by Mr. Hoover, against centralized buying by the allies. Mr. Hoover and his associates are anxious to feel that the export price should be maintained at a figure that will be an inducement to farmers to continue production.

Soy-bean meal, like cottonseed meal, has a high fertilizing value. Feeding the meal to stock and applying the manure to the soil is the most economical way to use it.

Don't *Guess* at Your Battery's Condition, *Know*

Knowledge is easy. Just see that the battery is filled *regularly* with *pure distilled* water; and test it regularly with a Willard Hydrometer.

Our little free book "Are You Starving Your Battery" tells exactly how and when to do both.

Result, you won't be in danger of having your car stall, your starter fail or your lights go out.

But even good care won't save a poor battery—you need a good one to begin with—and what could be safer than to buy the one which has been adopted as standard by the engineers of over 150 car builders and is used in 1,000,000 cars?

When you write to the Willard Storage Battery Company, Cleveland, Ohio, for the booklet, H-7, "Are You Starving Your Battery," ask for the list of 950 Willard Service Stations.

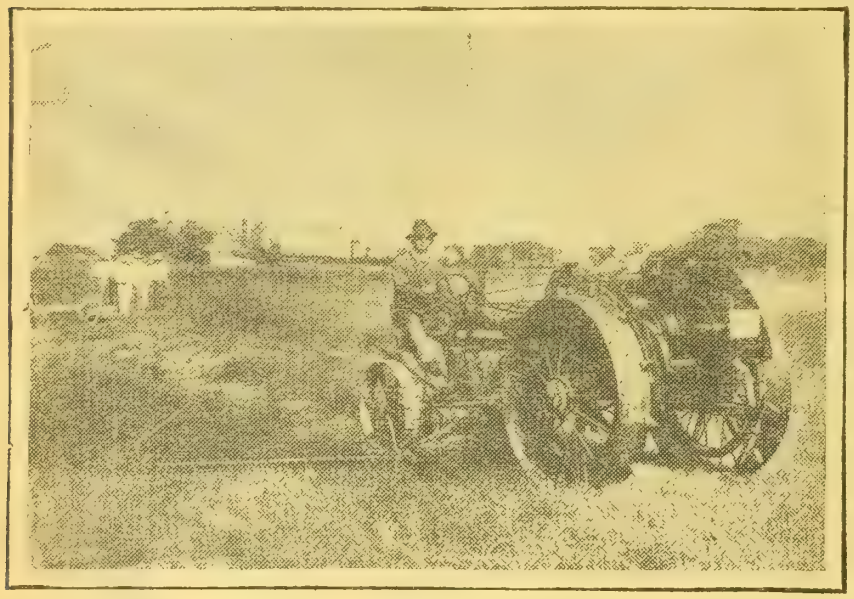
Meanwhile ask your dealer about the expert battery service I'm equipped to give you.

The Willard Service Station Man

Evidence Favors the Tractor.

Badger Farmers Have Had Considerable Experience With Tractors and They Are Well Satisfied.

THE WISCONSIN FARMER has been able to gather some practical ideas from Wisconsin farmers who have had tractor experience. These indicate the adaptability of the tractor to the farm conditions of this state. To be sure, the tractor works to better advantage in some soils, especially those free from stones and stumps. The tractor will save horseflesh even on the rough farms as well as on the bes and, but some allowance must be made for poor conditions.



HORSE FLESH CAN BE SAVED WHEN THE TRACTOR HANDLES THE MOWER.

T. O. Mandt, a few miles out of Madison, has a farm of 173 acres which has never been cleared of the stone. The chances are it will be in the very near future, however, for Mr. Mandt purchased a 15-30 tractor last fall and proceeded to plow up one of the worst fields on his place. For more than half a century plows drawn by horses have picked their way in and out among the many boulders. The tractor was shown no consideration, however, and the four bottoms that followed it stubbed their points so often and broke the wooden peg so frequently that Mr. Mandt became convinced a tractor was not receiving fair treatment under these conditions. However, he plowed thirty acres and resolved that this year a start would be made to clean the field of the big stones. And he intends to use the tractor in doing so. He has found that a log chain snaked around a big boulder and attached to the tractor will move a stone of considerable size to any place the tractor is headed for. Each stone will, during the next plowing, be marked and treated in the same way and the field gradually cleaned up. "I do not know whether I can say that I saved so very much time, but I do know that I saved a lot of horseflesh by using that tractor," said Mr. Mandt. "I will save some more when it comes to getting the big stone out for that tractor will walk away with anything I can loosen enough to get a chain around. It has helped me to the extent that I can get rid of two horses, which leaves only six for the farm work, and I expect I will be able to cut down this number when I have learned more about my machine." During the summer the tractor is being used for road work.

Down at Sharon, Wis., the American Milk Company, following the appeal of President Wilson to the farmers for a greater effort for crop production, offered their patrons and others around Sharon and Darien to plow for the maximum of $1.50 per acre all such land as they thought they could not handle, owing to a shortage of labor and machinery. About fifty farmers signified their intention of making use of this offer and the milk company purchased three tractors to do the work. Some of the farmers had ten acres and some more, but all of it was land which it was impossible for them to get under the plow this spring. The company estimates that from 500 to 600 acres were put into crops through their offer, which would not have raised much else but pasture grass this season. The shifts on these tractors worked from 4:30 a. m. to 8:30 p. m. every day for about five weeks. Much of the land was rough, some of it stony and all of it exceedi gly tough plowing. Nevertheless the tractors averaged from six to seven acres for the time they were working. Sometimes three bottoms would turn as high as ten acres and over and some days only half that much. Four local boys and two University students from Professor White's agricultural engineering classes managed the tractors. The two university students held their own with the experienced men, though they had never run a tractor other than the work in the school required. The emphasis Professor White places upon a thorough study of each machine in the classroom and laboratory proved its value right here. The American Milk Company has done a good work in offering this service to the farmers around Sharon and Darien and they showed that there was no other motive but service that prompted this offer. There are no obligations for the farmers to meet except the $1.50 fee per acre plowed. They can plant what they wish, sell where they wish, or feed it to dairy or beef cattle.

USE THE TRACTOR IN HARVEST TIME AS WELL AS FOR PREPARING THE SEED BED.

O. A. Lukken & Sons, Hartwig and Albert, are farming some 300 acres near Mt. Horeb. Seven or eight horses are on the farm to furnish the power. A year ago they decided to buy a small type tractor. The first thing they did was to give the horses a vacation and hitched the tractor to the binder instead. Last season was undoubtedly one of the hottest in the history of the state. The Lukkens had thirty-five acres of oats to cut, dead ripe, but it was too warm for horse labor. The tractor worked that day and the next and the next. Many of the neighbors began in spite of the heat, but had to unhitch during the day and wait for the cooler hours or until the next day. "It was even too hot to shock," said Hartwig, "but it wasn't too hot to sit on the seat and run the binder. We think that our tractor saved our horses during those days. We didn't dispose of any, as we raise a few colts each year, but we will undoubtedly do so as we get squared around and get the machinery for field work for the tractor."

Wm. Thompson, also of Mt. Horeb, got a small-sized tractor about a year ago and, though he originally bought it for silo filling for his own farm and for work around the neighborhood, he has also used it for plowing, pulverizing and harrowing. "I did not get a steering attachment with my tractor when I bought it and I find that it is not easy to plow without one. I have cussed the tractor at times, but now that I know all about it I believe it is all right. It can do the work with a saving of horses wherever it is used right." It takes about $2 worth of kerosene and lubricating oil for a ten-hour day to plow with two bottoms, and Mr. Thompson says he can average better than four acres a day.

PREPARE FOR SHORTAGE OF FARM LABOR

A big shortage of farm labor this fall is inevitable. Be prepared. Bring in a recruit that needs no training—one that won't be drafted. Prepare to harvest your potato crop with a

Hoover Potato Digger

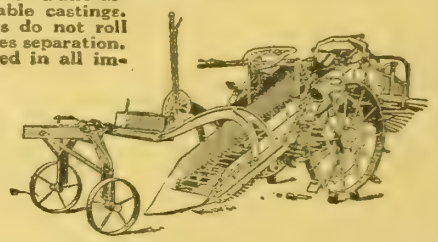
It is crop protection

Not only does a Hoover Digger help to solve the farm labor shortage but it harvests your crop at less cost. One man with a Hoover Digger and horses will dig as many potatoes as any ten men can dig by hand.

The Hoover gets them all out of the ground—no waste. Stalks and weeds are delivered to one side. The Hoover Digger can be furnished with a picker attachment which delivers the potatoes in piles or in crates.

Hoover Diggers are built to last. Built almost entirely of steel and malleable castings. Elevator rods are offset. Potatoes do not roll back. This construction promotes separation. Dust-proof roller bearings are used in all important bearing points. Big drive wheels are used.

Write for booklet covering the full line of Hoover Potato Diggers. Ask for package P—64



JOHN DEERE
MOLINE, ILL.

AGAIN THE TRACTOR IS USEFUL IN PULLING LOADS WHICH A TEAM COULD NOT BUDGE.

UP THE HILLSIDES WITH A STEADY, RELIABLE CHUG-CHUG WHICH PLEASES THE FARMER.

with it. Sometimes it will plow more and sometimes less. A tractor cannot be used in all kinds of rough land, and it is only fair to have fields and farms so arranged that the greatest efficiency is possible. Mr. Thompson hitches pulverizer and harrow to the tractor at the same time with especially good results.

Swartz Bros., of Waukesha, have used a two-wheel tractor during the last year for 100 days of ten hours each. They plow and prepare their fields with the tractor, harvest their grain, bale alfalfa, thresh and fill silos with it. "We have our farm in such shape now and our work so arranged that we can make use of the tractor during all times of the year with a greater saving of time and effort than was possible with horse labor alone," said Peter C. Swartz, one of the brothers. "We have cut down our horse labor from twelve to eight and we have arranged our fields so that we have fairly good-sized tracts to work on." The boys are more than satisfied with their tractor; they are enthusiastic. On their 500-acre farm it is especially important that they get the work done quickly and at the time when weather conditions are favorable. According to their statements the tractor has made this possible in a greater degree than horsepower ever could.

Matt Michels, of Peebles, in Fond du Lac county, got a tractor last year and has used it for fall and spring plowing. There are a few hills on his place that have always proved hard plowing for the horses. The tractor chugs up those hills just as steady as on even ground. It was a saving of horseflesh and time there also that played an important part in the decision to purchase a tractor. Besides plowing other uses for the tractor will be found and the back-breaking work taken away from the animals as fast as the conditions can be made right. The two Michels boys on the father's farm have the mechanism of the tractor down to the last letter and can get every bit of power from the fuel that it is possible to get.

Barnett County Federation Meeting.

To the Editor:—What proved to be the greatest event that has ever taken place within the boundaries of Burnett county, Wisconsin, was the first annual picnic given by the Federation of Farmers' Clubs of Burnett county, on June 3d. The day was ideal—not too warm, yet just a good picnic day when a person feels comfortable with his coat on. The picnic grounds were seven miles southeast of Grantsburg on the shore of Wood Lake, one of the many beautiful lakes in Burnett county.

The Alpha-Midway Farmers' Club prepared a float out of a hay rack. This was used by the Grantsburg Band, which provided the music for the day. The speaking was advertised for the afternoon, but at 11 a. m. fully 1,000 people were on the grounds. At 1 p. m. it was estimated that at least 1,700 people were there ready to listen to the program and take part in the various events. As the principle drawing card, the club chipped in and bought a high-grade Holstein calf to give to the person guessing nearest to its correct weight. Fully 800 people guessed at this calf's weight. Of this number four guessed within half a pound of the correct weight. These four drew lots and the calf was won by Walter Curry, a sixteen-year-old farmer belonging to the Ekdall Farmers' Club.

The program committee also arranged to have a boat race between farmers' clubs, another open to men and one open to women. In the farmers' club boat race Midway-Alpha won first place, Wood River second and Randall third. The girls' boat race was very exciting, six young ladies taking part in this race.

Quite a neat little sum was realized from the sale of ice cream and lemonade, which is to be used in some way whereby the public will derive the benefit. It may be that a "Farmers' Club Rest Room" will be built at the fair grounds.

Mr. Packer, immigration commissioner, and D. E. Willard, development agent of the Northern Pacific Railroad, were the speakers of the day. Everyone was so inspired by the many good things that they heard that they went home thinking Burnett county about the best place to live in America. Farmers' clubs are already making plans for a bigger and better picnic next year.

Prof. R. A. Moore was in Burnett county June 26th and organized the Burnett County Order of the Wisconsin Agricultural Experiment Association. Twenty-two members joined the association and all joined with the determination to make the order one of the good ones such as we find in Wisconsin. Burnett county raises thousands of acres of pedigree rye at the present time and we are in hopes of pushing the pure seed propaganda to such an extent that nothing but the very best will be found in Burnett county.

George Briggs,
Grantsburg, Wisconsin.

Big Holstein Breeders' Picnic.

To the Editor:—The Mount Horeb Holstein Breeders' Association met in their second annual summer picnic at Sec. J. E. Stolen's farm June 29th. The day was ideal for such an event and there were 250 automobiles parked about the farm, besides a number of buggies. Altogether there were about 2,000 people present. Music was furnished by the Mount Horeb band and there were good speakers both in the afternoon and evening. The president of the association, Mr. Ruste, welcomed the picnickers in his usual good-humored way. The boys who were present were very much interested in a judging contest on yearling heifers. Mr. Moore, from North Dakota, gave us a good address on the formation, and the object and aims of the Farmers' Nonpartisan League. This speech took very well with the large audience. At the basket dinner the secretary furnished hot coffee and the association free ice cream and buttermilk. An address was given in the afternoon by Mr. Freis, of Richland Center. He discussed handling the Holstein breed of dairy cows to secure the best results. Mr. Freis also judged a number of young bulls for the benefit of the interested members. It is evident that farmers in our vicinity are keenly interested in the Holstein cow and the members of our association certainly think this is the best dairy cow. We have now 100 members in good standing and we expect soon to see western Dane county one of the best Holstein cattle centers in this country.

J. E. Stolen, Sec.

Jersey Breeders Meet.

To the Editor:—Shawano and Marathon counties' Jersey breeders picnic, held at Elm Grove Farm on July 4th, was very well attended, there being about 300 present. F. F. Showers, president of the Wisconsin Jersey Breeders' Association, gave a most interesting and instructive talk on patriotism and matters pertaining to the farm and the Jersey cow in particular. Mr. Merton Moore and Mr. R. A. Humphrey, field agents of Shawano and Marathon counties, were present. Each gave instructive talks as to their duties and ways in which they may assist the farmer. These men spent the time in becoming acquainted with the people and giving them information. Nearly all us farmers have some knotty little problem that we like to hand to someone for solution. Mr. Showers gave a cow demonstration. Marie Peterson won first prize in the cow-judging contest. Laurin Klovdahl was so close a second that it was decided to give them equal money. Mr. Showers, Mr. Moore and Mr. Humphrey were the awarding committee.

A. J. Peterson, Sec.

An Agricultural Celebration

To the Editor:—Over 8,000 people turned out to the agricultural Fourth of July celebration held at Monroe this year. E. S. Bullock, of the Wisconsin Live Stock Breeders' Association, gave an excellent address on "Winter Dairying and Dollars."

L. F. Graber,
Emergency Food Agent.

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Waterloo Boy Tractor pulling 4-disc plow 7 inches deep in Texas black wax and dragging 3-foot harrow, on farm of Col. Samuels, near Dallas, Texas.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Arrange the Kitchen to Save Steps.

A well-planned kitchen saves time, and every woman, and particularly the farm woman, is forever and always on the lookout for ways and means of saving time and steps. She needs the extra time that a convenient kitchen will give her. She needs it for rest and recreation quite as much as for the performance of the countless other home and social duties that fall to her lot. A woman worn by much trudging in a mammoth, badly arranged kitchen, wearied by endless carrying of fuel and water, and fatigued by poor light and ventilation cannot expect to do her duty. She may wear herself out in the service of her family, but her duty—giving her best to her family—will not have been performed, because her "best" will have been expended in the hours of toil, and she will be too tired and worn to enjoy the family companionship which makes life worth living.

Think of the saving in steps and strength by even so simple a thing as a wood box beside the kitchen range, instead of running to the outdoor supply each time the fire is replenished. Women who have made their kitchens a convenient workshop may think it isn't possible that any kitchen is unprovided with a near-at-hand fuel supply, but, unfortunately, such is the case. And then, just to go a bit further these hot days, there should be an oil or gasoline stove, and, further yet, a fireless cooker, to eliminate the heat of much necessary baking and brewing. Work in a cool kitchen is far different from work in a hot one.

A drain board on one or both sides of the sink is a great help. Here vegetables can be prepared or dishes washed without once having to cross the room. Drawers may be built beneath the sink or a cabinet arranged above to hold soap, scouring powder, brushes, towels, etc. The sink should have rounded corners, because such will not catch the dirt and are easy to keep clean.

There are not two housewives in a dozen who would arrange their cupboards alike, but all will agree that they should be roomy, convenient to both stove and sink, and of a height to suit the worker. All working utensils should be kept near the place where they are most used. Built-in cupboards above and below a work shelf or a kitchen cabinet (and the present-day cabinets are wonders in the completeness of their equipment) serve this very need by having handy pots and pans as well as provisions.

Of course, the size of the kitchen depends upon its uses. A small kitchen, well lighted and well ventilated, is much to be desired if it is possible to have it. But even when it is necessary to use a large kitchen the equipment may be concentrated at one side so that there need not be useless tramping over a great space.

If the housewife will only look after these and numerous other small items in her kitchen she will be surprised at the time and energy saved.

Corn and Cheese.

Specialists of the United States Department of Agriculture point out that corn may be used with cheese in place of macaroni for the preparation of a delicious and nutritive combination dish. The following recipe has been worked out:

1 cup samp (coarsely ground or cracked corn).
1 quart of water.
1½ teaspoons salt.

Boil the samp in the salted water until tender. Drain and combine with the following sauce:

1 cup skim milk.
1 cup finely cut cheese.
2 tablespoons flour.
1 teaspoon salt.
¼ teaspoon mustard, paprika, or other seasoning.

Mix the seasonings with the dry flour. Add enough milk to form into a smooth paste. Add the remainder of the milk and heat in a stewpan, stirring constantly until thick. Add the cheese and stir until it is thoroughly melted.

Put a layer of the boiled samp in a baking dish or casserole. Add a layer of sauce, and so on alternately until the material is all used. Sprinkle bread crumbs over the top layer of sauce and cook in a medium oven until the crumbs brown.

Lye hominy or hulled corn (to give it both its southern and its northern name) may be used in place of coarse cracked corn in the preparation of this dish. If this product is used, it is unnecessary to heat it until it is placed in the oven. A richer sauce may be made, if desired, as follows:

Melt two level tablespoonfuls of butter in a saucepan. Mix into it the flour and seasonings. Add the milk and heat, stirring constantly until the sauce becomes thick and smooth. Add the cheese and stir until it is melted.

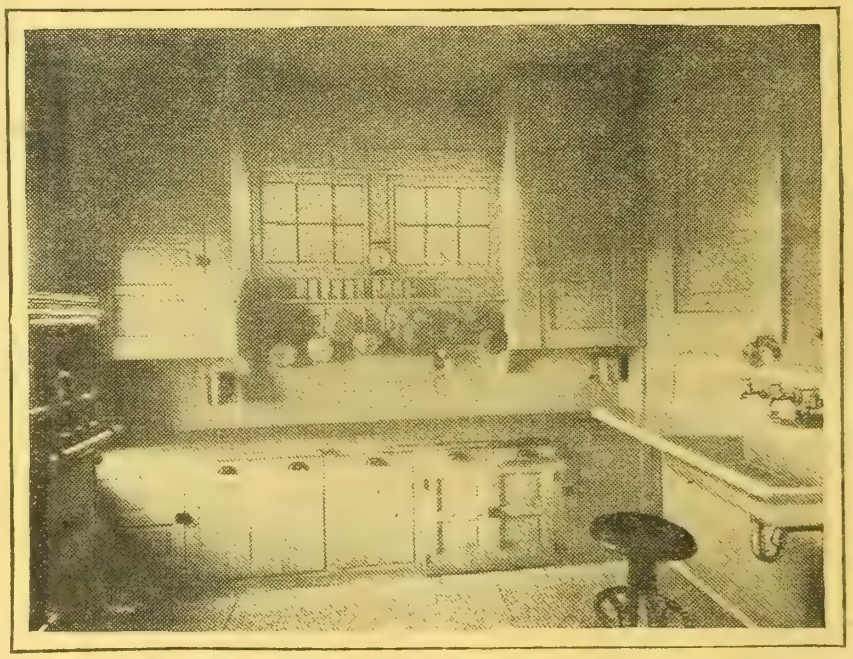
Fruit Juices for Jelly Making Kept Without Sugar.

Fruit juices for use later in jelly making can be sterilized and bottled without sugar and made into jellies at the housewife's convenience. This enables her to do with fewer jelly glasses and to distribute her purchases of sugar for jelly making through the year. Moreover, with the bottled juice she can make a greater variety of jellies, as juices which will not jell can be put up when the fruit is ripe and combined later with fruits that will jell, or fruits ripening at different seasons can be combined. For example, the juice of strawberries, cherries or pineapple can be kept without sugar and later when apples are plentiful can be made into combination jelly.

From the unsugared sterilized juices of currants, apples, crabapples and grapes, kept from nine to eighteen months, the bureau of chemistry, United States Department of Agriculture, recently made jellies of excellent texture, flavor and color.

To put up unsugared fruit juices for jelly making, proceed exactly as if jelly were to be made at the time. Cook the fruits until they are soft and strain out the juice through a flannel bag. Heat and pour while hot into bottles previously scalded. Fill the bottles full, leaving no air space between juice and cork or seal. Place the filled sealed bottles on their sides in water near the boiling point, and keep them in the bath for about thirty minutes. Make sure that the corked or sealed end is under the hot water. As soon as the bottles are cool, cover the cork with a paraffin seal. Thorough sterilization and sealing are absolutely essential to success.

To make jelly from the sterilized juice, test its jelling quality, add the proper amount of sugar and proceed as in making jelly from freshly expressed juice.



An ideal arrangement of stove, work table and sink. The windows above the work table afford plenty of light, and the ample cupboard and storage space near at hand are features that appeal to every housewife.

Cream Cheese.

To the Editor:—I noticed in a recent issue that Mrs. L. R. wanted a recipe for cream cheese. I have a recipe that I got from your paper a year ago and I have had such good success with it that I am sure Mrs. L. R. will like it.

Five pounds of milk will, as a rule, make one pound of cheese. Use the milk that is drawn from the cows at the evening milking, keeping it cool overnight, as the less the cream is permitted to rise the better. In the morning warm this milk to a temperature of 85 degrees and then add the morning's milk. After thoroughly aerating by stirring and pouring, thus allowing all animal odor to escape, pour all the milk into a large boiler.

If it is desired to color the cheese, put in about one teaspoonful of cheese coloring to twenty gallons of milk, then add one-half ounce of rennet extract to twelve gallons of milk, or, if rennet tablets are used, one tablet about the size of a cent will be sufficient for eight gallons of milk. Dissolve the tablet in a little warm water before adding it to the milk. Use enough rennet to start the milk to curdle in about fifteen minutes. The milk should be at a temperature of about 85 degrees when the rennet is added, and it is a good plan to have the temperature slowly rising while the rennet is working, but it should not go above 88 degrees.

The cheese is ready to cut when it will break smooth and clean cut for a short distance ahead of the fingers. If a regular cheese knife is not at hand, use a clean corn knife and cut both ways, making the cuts about one-eighth of an inch apart. Stir the curd very gently for four or five minutes, then start up the fire and increase the temperature to about 96 degrees during the next fifteen minutes. It is necessary to watch the milk closely during the heating process, and a small thermometer which can be bought for a few cents should be used.

To tell when the whey is ready to draw off, press the curd between the hands, and if it spreads apart when the pressure is removed it is then ready to be drawn off. Add four and one-half ounces of salt to the cheese curd obtained from 100 pounds of milk.

The mass is now ready to be pressed. If there are no cheese hoops available, a strong pail will answer the purpose, first lining it well with cheesecloth and then filling to the brim with curd. Now place a cloth over the top of the pail to cover the curd. On this place a strong follower that will fit tight in the pail, and apply pressure by placing a block on the follower and over this a pole about ten feet long fastened at one end. Place the cheese two or three feet from the end that is fastened and at the outer end place about twenty-five pounds of weight to make sufficient pressure. Let this stand for three or four hours, then double the weight at the outer end and let stand for about twenty-four hours. The cheese is then taken from the press and rubbed for fifteen minutes with good, fresh butter. Then sew bandage around it to keep it from flattening out. Keep the bandage clean and smooth and rub it with butter until it is thoroughly saturated. Put the cheese in a dry, airy place to cure. Rub every day with butter, turning each time. The rubbing prevents the cheese from molding and the turning causes it to cure evenly.

Mrs. Harker.

Pickled Beets.

To the Editor:—I have just read an article on canning vegetables for winter use and I will give my method of putting up beets. I cook the beets until tender, then lift them out into cold water. Let them stand a few minutes, when the skin will slip off easily.

While the beets are cooking I prepare the vinegar by putting in salt, pepper and sugar to taste, and have it boiling hot by the time the beets are ready. Drop the beets in the prepared vinegar and let them boil until all are thoroughly heated through, then back in glass cans and pour the sirup over them and seal tight. I always use about one teacupful of sugar to a gallon, as we like them sweet. In this way they are ready for the table at any time. Mrs. L. Stubblefield.

Not Always Happy.

It is customary, but I think it is a mistake, to speak of "happy" childhood. Children are often overanxious and acutely sensitive. Man ought to be man and master of his fate; but children are at the mercy of those around them. Mr. Rarey, the great horse-tamer, has told us that he has known an angry word to raise the pulse of a horse ten beats a minute. Think, then, how it must affect a child!—Lord Avebury.

If lemons are dried and do not seem to contain much juice just pour boiling water over them and let them stand until the water is cold. You will be surprised at the amount of juice they contain, and the juice is not weakened by the water.—[Mrs. W.

THE YOUNG FOLKS

Squirrel Finds a New Home.

Dear Young Folks:—I enjoy reading the Young Folks' page very much, but have never written before. I live on a 217-acre farm half a mile from a small town. I am ten years old and am in the sixth grade. I have a brother five years old who will start to school next year, and two sisters going to high school.

I have a garden of my own. I planted radishes, beans, peas, turnips, squashes, and also some flowers.

I will tell you about my pet squirrel. One morning while I was outdoors feeding my kittens the chickens made a queer noise and upon looking up I saw a small, fluffy ball bounding toward the door. Mama, wondering what the chickens were making such a noise about, opened the door, and in jumped a little squirrel. It seemed to think that this was its home and has been

here ever since. It will eat food from my hand, and it doesn't seem to be afraid of anything. It is a comical sight to watch it wash its face and wipe it with its fluffy tail. Mabel.

Wants to Help Vesta.

Dear Young Folks:—I enjoy reading your letters very much. I am a little girl twelve years old. I live on a farm five and one-half miles from town. I have my father and mother and one sister and I am very sorry for Vesta. I read her letter and would like to tell her what she wanted to know. I asked my mother about it and she said the dress should be worn about four inches below the knees after the hem is turned up. And she also said it would be all right for her to go to parties with her brother. Aneta.

A Cookie Recipe.

Dear Young Folks:—I have never written to you before and I am going to tell how to make sour milk cookies. I am twelve years old.

Mix one-half cupful of butter with two cupfuls of sugar, two eggs, one cupful of sour milk, one teaspoonful of soda in the sour milk, two cupfuls of flour. Add enough more flour to roll the dough soft. Roll one-fourth of an inch thick and bake on floured tin.

I hope some of the girls will try my cookies and have good luck. Florence.

Has a Pet Skunk.

Dear Young Folks:—I am thirteen years old and have passed the ninth grade. I live on a 160-acre farm. We have twelve head of horses and eight little calves. I have a bicycle which I enjoy riding very much.

I am going to tell you about my pet skunk. One night we saw a skunk running from the chicken house to a ditch. Next night we saw three young ones come out from under the chicken house. We set a trap where they went under and the next morning one of the little ones was in the trap. We shut it up in a building and at noon it was gone. The next morning it was in the trap again. We put it in a box and kept it until we made a pen. It eats birds and meat and drinks milk. It makes a nice pet. Ivan.

Tends to Poultry.

Dear Young Folks:—I am a girl eight years old and live on a farm of eighty acres. I tend to all the poultry we have. We have sixty-two ducks and I feed them morning and night. I have a hen of my own setting, and the ducks that hatch will be mine for the work I do.

When fall comes I will go to country school again and will be in the second grade.

I have three brothers and two sisters. One of my sisters was graduated from school this spring.

I will ask you a riddle. When does the rabbit sit on a stump? Ida.

Thinks Vesta Should Have a Good Time.

Dear Young Folks:—I have just finished reading the column for the Young Folks and want to write a little letter to Vesta.

I am a girl thirteen years old and my mama makes my dresses just about two inches below my knees and I think that is a pretty length.

I have a brother eleven years old and mama and papa let us go to parties once in a while, and I think if Vesta has all the housework and all her own sewing to do she ought to go to parties once in a while. Don't you? Marie.

Recipes.

Frozen Custard.—One quart of milk, one cupful of sugar, two eggs, two tablespoonfuls of cornstarch, one-half teaspoonful of salt, one-half teaspoonful of vanilla extract. Beat the eggs and sugar until well mixed; then add the cornstarch, which has been mixed with a little cold milk. Add all to the hot milk, in a double boiler. Cook for fifteen minutes. Cool, add the salt and flavoring, and freeze. Half a cupful of fruit chopped fine may be added when the custard is partly frozen.

Frozen Rhubarb Punch.—One quart stewed rhubarb, three cupfuls of sugar, one cupful of water, a few grains of salt. The pink rhubarb is best (do not skin it). When thoroughly cooked, mash through a fine strainer. To the quart of strained rhubarb add the sugar, which has been boiled with one cupful of water for five minutes. Add a few grains of salt to bring out the flavor. When cold, freeze the same as sherbet. Serve with whipped cream.

Chocolate Mousse.—Three tablespoonfuls grated chocolate, one cupful sugar, one cupful milk, one-fourth cup cold water, one teaspoonful vanilla extract, one-fourth teaspoon salt, one tablespoonful granulated gelatine, and the whip from two cupfuls of cream. Melt the chocolate, add the sugar and milk and boil one minute. Mix the gelatine with the cold water, add to the boiling mixture; when cool, add flavoring, salt and whipped cream. Pour into baking powder cans, binding the cover on with a cloth dipped in melted butter. Pack in equal parts of crushed ice and salt and let stand for four hours.

Apricot Ice.—One quart of apricots, one lemon, one and one-half cupfuls sugar, three cupfuls water. Boil the sugar and water five minutes. Crush the apricots or press them through a sieve and add to the sirup. Add lemon juice and grated rind. When cold, freeze.

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2156—Juniors' dress with sleeve in either of two styles. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 4½ yards of 44-inch material for a 16-year size.

9355—Sun bonnets for ladies and girls. The pattern including both styles is cut in one size, medium, for ladies and for girls. It requires for No. 1, 1½ yards, and for No. 2, 1¾ yards of 32-inch material.

1906—Girls' dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 1 yard of lining 36 inches wide for the underwaist, and 3¼ yards of material for the dress, for an 8-year size.

Waist 2152-Skirt 2153—A stylish gown. The waist 2152 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. The skirt 2153 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It will require 6½ yards of 44-inch material to make the entire dress of one material for a medium size. Two separate patterns, 10 cents for each pattern.

2159—Dress for misses and small women. The pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires 5⅛ yards of 44-inch material for a 16-year size.

1738—A new and comfortable bathing suit for girls. Pattern is cut in 6 sizes: 4, 6, 8, 10, 12 and 14 years. It requires 4¾ yards of 27-inch material for an 8-year size, for the suit with bloomers; without bloomers, 3½ yards are required.

2146—Ladies' kimono or lounging robe. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium will require 7 yards of 36-inch material.

2145—A neat dress for mother's girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 4½ yards of 36-inch material for a 10-year size.

2149—A very attractive dress for the growing girl. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years, and requires for an 8-year size, 3¾ yards of 36-inch material.

1963—A new and pleasing apron model. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. Size 38 requires 5¼ yards of 36-inch material.

2144—A simple house dress. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 6¼ yards of 36-inch material.

1710—A neat apron for work or play. Pattern is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires 2¼ yards of 36-inch material for a 6-year size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for July 22, 1917.

Sennacherib in Days of Judah.

LESSON TEXT—II Kings 19:20-22, 28-37.

GOLDEN TEXT—God is our refuge and strength, a very present help in trouble.—Psa. 46:1.

Last week's lesson was a great picture of the reform of the nation. Today we have another picture which needs to be carefully put before the children. It is a national picture of a ruler and the invasion of his country. In reality it reveals the principles which are the same today, and which affect the lives of boys and girls as well as men; the dangers, temptations, the need of prayer, the need of a life of faith in God, the care of a heavenly father, deliverance and victory. It is a great thing for any nation or any individual to have such a marvelous experience of God's salvation. It occurred probably B. C. 701, the latter part of Hezekiah's reign. Assyria on the north was enlarging its borders and seeking to overcome Judea. Read parallel account in II Kings 18; II Chron. 32 and Isa. 36-37. We have on the Taylor cylinder an account by Sennacherib of the victory over Hezekiah, found in Nineveh in 1830 and now in the British museum.

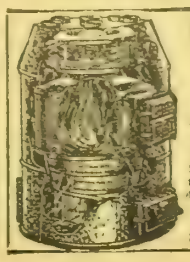
I. The Situation. When the great Sargon died at Nineveh, the Syrian governments sought to assert their independence. It was a good time for Hezekiah also to assert his independence. Accordingly they refused to pay the customary tribute to Assyria. For a time Sennacherib was too busy attending to other portions of the empire to pay much attention to the city of Jerusalem. Later, however, he subdued the cities on the coast and threatened Egypt itself.

II. The Supplication (vv. 20-22). God does things because we pray. There was more power in Hezekiah's prayer than there was in his army. Through his prayers he laid 185,000 of his enemies in the grave. Hezekiah's God saved his people out of the hand of Sennacherib (v. 19). God did it. One great reason why he heard Hezekiah's prayer was because it was for God's own glory that Hezekiah asked (v. 19). One great reason why so many of our prayers are not answered is because they are selfish—seeking our own gratification and not God's honor (James 4:3 R. V.). Rending his clothes and putting on sackcloth, Hezekiah went to the house of God while his messengers sought out the prophet Isaiah. From II Chron. 32:20 we find that Isaiah joined with Hezekiah in his earnest prayer (Matt. 18:19, 20), thus the king and prophet worked as well as prayed. They showed their faith by their work (James 2:17, 18). At the same time they waited upon God for an answer, not because God was unwilling to bestow good things, or must be importuned, but that his gifts may bring the greater benefit. He sometimes delays his answer, thereby fitting us to receive them because of the intensity of our desire and to appreciate the things he has to bestow. God is as ready to say to us as to Hezekiah, "Thy prayer is heard," if we will not meet the conditions of prevailing prayer (I John 3:22; I John 5:14; Rom. 8:26,27).

III. God's Glorious Deliverance (vv. 23-37). God permitted the Assyrians to attack and they thus imagined they were having their own will and could do as they pleased, but when his "rod" had done its work, they found the difference. The God against whom they raved guided them as with a "bridle" and turned them back to Assyria. Sennacherib considered himself more than a match for God (Ch. 18:23-25) but had to return like a conquered beast of burden with God's "hook" in his nose and bridle on his lips. God allows the enemies of his people to go a certain length in order that his people may be humbled and seek him. Then he puts forth his hand and says, "This far and no farther." Jehovah gives us the same promise he gave Hezekiah, "I will defend this city." Is not the city of Jerusalem that God defends more safe than a city defended by an army? (Psa. 46:5, 6, 27:1). God had promised David that his kingdom should not perish, for in it lay the hope of the world and his plans for the redemption of mankind. Not because of the people did God defend the city, but because of his oath. This is a most dramatic picture, the mysterious destruction of the Assyrian army (vv. 35, 36). The Lord sent his angel, literally his "messenger," who applied his own plan for the accomplishment of his purpose.

There is a sort of a grim irony in the ending of Sennacherib's career. He who had so defiantly asked, "Who are they among all the gods of the country that have delivered their country out of mine hand," is led back to the house of his own god whom he imagines to be so potent to worship and in that very presence is slain by the hands of one of his own sons. The importance of this event is shown by the fact that it is referred to in three books of the Bible and probably referred to in another, occupying seven or eight chapters, besides being recorded on the great cylinder to which reference is made.

Wheat prices abroad, where the governments have control of food supplies, are shown to be much lower than in the United States by a report made to the food administration by the allied wheat commission. While wheat is selling well above $2 in this country, the government prices in other countries, according to the allied commission, are as follows: United Kingdom and France, $1.80; Germany, $1.80; Belgium, $1.60; Australia, $1.14; India, $1.35; Italy, $1.69 to $1.94. The wheat shortage has forced the allies to require the use of 20 per cent corn, rye or barley in the manufacture of flour, and most of the countries permit use of a large percentage of the cereal.



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OUR DAIRY DEPARTMENT

ALL communications relating to dairy matters should be addressed to this office. Inquiries of general interest regarding dairy management and production will be promptly answered.

Butter and Cheese for Wisconsin's State Fair.

To the Editor:—Never before in the history of the dairy industry of the state were the butter and cheesemakers and the operators called upon to do their part in the production of the world's supply of food as at the present time. All of these men are handling valuable food material and every pound must be made to count for so much energy stored up. Several of these 3,000 or more men in the state are working harder this year than ever before in order that additional men may be available for other lines of work; hence we realize that the men behind the churns and the men behind the cheese vats are not loafing on their jobs. Early and late they can be found at the factory. It is not a ten-hour day, but in some cases one-half out of every twenty-four hours. Last Friday morning a cheesemaker and his helper were found busy at their work at 5:20 and with all indication that they had been there prior to 5:00 o'clock. These men feel that they are not too busy to enter a sample of their product at the coming Wisconsin State Fair.

The state fair management has set aside $2,300 as a premium fund. This is a large amount, but money gained in entering dairy products at a state fair is not the sole purpose of the exhibitors. The larger problem is showing to the people of the state what they are actually doing. Two things count in an exhibit, namely, number and quality. It is, therefore, essential that a large number of men enter exhibits in order that the two large refrigerators may be crowded to the doors. Newspaper reporters will see it and the publications they represent will print the story that will be read by the people of other states. This is free advertising for your product. The story will never be told, however, unless you, as a buttermaker and as a cheesemaker, get behind the movement and do "your bit." One hundred buttermakers and 200 cheesemakers cannot do it, but 700 or more makes a mighty strong force behind the movement. Make your plans now. September 3d, the day that the butter and cheese should be at the state fair park, West Allis, will soon be upon us.

Years of experience in dealing with Wisconsin's butter and cheesemakers has proved that a large number have made butter and cheese of high quality. They will do it again this year. In fact, we believe that conditions were never better than they are this year for the making of good dairy products. Now is the time to work with your patrons for good milk and good cream. They will furnish that kind of product when they fully realize the importance that their work bears to the quality of the finished product.

The state fair is your institution and the dairy department can be made to represent the industry only in so far as it has your coöperation.

George J. Weigle,
Wisconsin Dairy and Food Com.

A Change in Jersey Registration Fees.

To the Editor:—The amendments to the by-laws submitted on May 15th to the members of the American Jersey Cattle Club for a vote have resulted in the adoption of a new schedule of fees covering the registration of domestic-bred Jerseys. The new fees will go into effect on September 17, 1917, and will be as follows:

FEMALES ONE YEAR OLD OR UNDER.
To members .....$1 each
To non-members ..... 2 each
FEMALES OVER ONE YEAR OLD AND NOT MORE THAN TWO.
To members .....$2 each
To non-members ..... 3 each
FEMALES OVER TWO YEARS OLD.
To members or non-members..$10 each
MALES ONE YEAR OLD OR UNDER.
To members .....$2 each
To non-members ..... 3 each
MALES OVER ONE YEAR OLD AND NOT MORE THAN TWO.
To members .....$3 each
To non-members ..... 5 each
MALES OVER TWO YEARS OLD.
To members or non-members..$10 each

The American Jersey Cattle Club.

Manitowoc Holstein Meeting.

To the Editor:—Manitowoc county Holstein breeders held their annual picnic with an attendance of nearly 1,500 at the Ferd Lemberger farm near Cato on Sunday, July 1st. It was a big success and demonstrated the growing interest in the county in the black and white breed.

President Kornely and Secretary Hampke, of the association, and Mr. Lemberger provided for the entertainment and comfort of the crowd. Brief addresses were given by Mr. Commings, of Eau Claire, on "The Value of the Holstein;" by Prof. A. C. Oosterhuis on "The Type of the Dairy Cow;" Mr. Scott, emergency food agent for Manitowoc county, spoke on his work. The president and secretary both gave brief talks.

A women's milking contest was held, first prize being awarded to Mrs. Jos. Basl. Leo McConnell was awarded first prize in a boys' judging contest. The picnic was in the form of a basket social. Milk and lemonade were served to the crowd by the association, which is the largest cattlemen's organization in the county. Over 200 autos were lined up at the Lemberger farm for the picnic. The music was furnished by the Kellnersville Band.

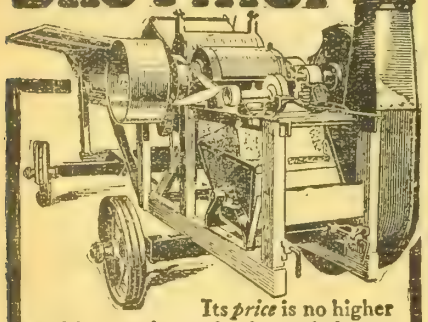
Chas. Hampke, Sec.

Urges Sowing of Fall Rye.

To the Editor:—We are trying our best to accomplish something toward increasing the food supply in Washburn county. In my judgment, three things are most important if we are to get the best results: First, sufficient and correct cultivation of intertilled crops to control weeds and maintain a mulch; second, use of sprays for the control of insects and diseases on potatoes; third, sowing of all recently broken or cleared land and land subject to drouth in July and August to fall rye before October 1st. If we can accomplish these things I think we will have gained considerable

A. L. Albert.

APPLETON Silo Filler



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Guaranteed to do more and better work with less power and labor than any other. Tremendously strong construction; frame solid oak and steel, mortised, bolted, braced: impossible to pull out of line. Blower independent of cutter; allows speed adjustment for minimum use of power for any height silo. Feed table frictionless, runs on chilled iron rollers; knives spiraled, giving clean shearing cut with least use of power. (10 lengths of cut—5/16 to 2½ inches.) Easiest to handle and safest—feed rolls and table controlled by one lever; automatic safety device; low down, cut-under frame.

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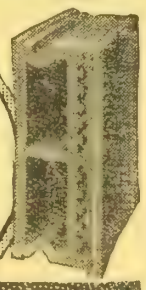

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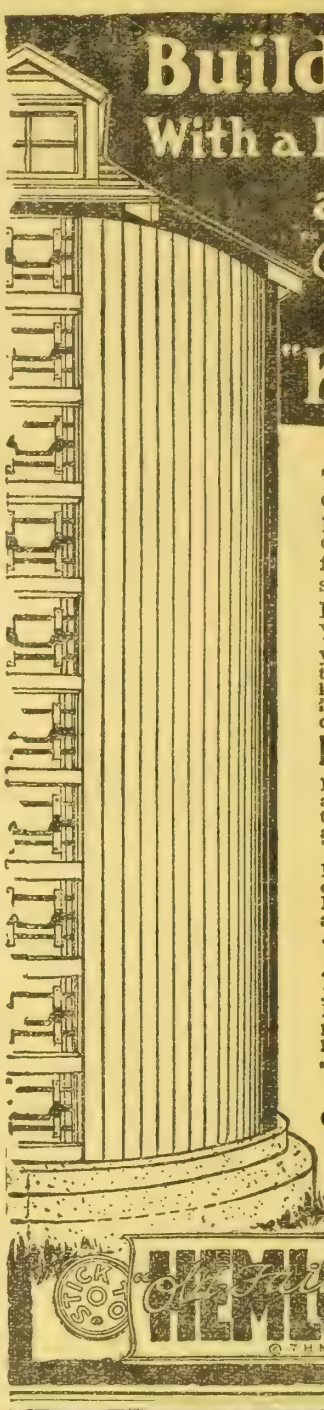

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It is double-walled and the silage will not freeze. You can handle your silage with a fork only, the year 'round. No staves needed. No iron hoops to tighten. Self-anchored—needs no guys, has never been known to blow down; it *can't*; but if it *could* it is so strong it would *bounce* like a barrel. Any handy man can build one. So cheap that practically

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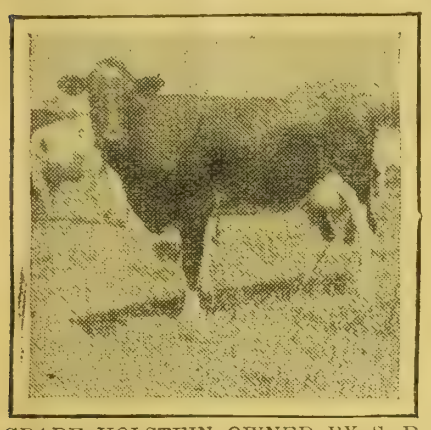
Cow-Testing Reports.

Will Buy Heavily of Feeds.

To the Editor:—The second month's work of the Scandinavian Cow-testing Association shows us gaining. In May we had twenty-seven cows which produced forty pounds or more of butter fat, and in June we had forty cows making this record. Two more registered bulls have been bought to replace scrubs. Our first meeting was held June 30th and we have decided to purchase the next year's supply of commercial feeds in carload lots. At a



GRADE HOLSTEIN OWNED BY S. D. SHAMBAUGH, WAUPACA COUNTY.

meeting to be held soon we will hear from a feed expert. Our members are all deeply interested in our work. A grade Holstein owned by S. D. Shambeau was our banner cow for June. This cow was purchased a few days prior to freshening for $112 from a man who had never done any testing. She had no feed, but pasture during June and produced 1,842 pounds of 5.1 per cent milk, making 93.9 pounds of butter fat, or 117.3 pounds of 80 per cent commercial butter. This cow will probably be close up to the record in cow-testing associations of the state for June. Notwithstanding the good record of this grade and others in his stable, Mr. Shambeau is going to replace his herd with registered Holsteins. The forty-five-pound list for June follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
H. L. Rowe					
Sigre, G. G.	9	1-31-17	909	5.0	45.5
Christ Wesley					
Fanny, G. G.	5	4-20-17	963	5.8	55.9
Alfred Johnson					
Foxy, G. G.	8	5-6-17	1474	3.5	51.7
S. A. Simonson					
Johanna, G. H.	4	5-30-17	1155	4.0	46.2
S. D. Shambeau					
Champion, G. H.	4	5-30-17	1842	5.1	93.9
The E. A. Hotz Farm, A. L. Olson, Mgr.					
Jennie, G. G.	6	3-1-17	933	5.0	46.7
Rosie, G. G.	6	4-1-17	1008	4.8	48.4
P. C. Erickson					
Lodavine, G. G.	2	3-6-17	696	6.5	45.2
B. M. Ellingson					
Ringlow, G. H.	5		993	5.0	49.7
A. P. Thorison					
Josie, G. H.	5		1014	4.8	48.7
C. E. Torgeson					
Daisy, G. H.	12		1113	4.2	46.7
Pearl, G. J.	6	5-26-17	1203	4.3	51.7
N. P. Rasmussen					
Detlo, G. G.	7	5-13-17	1053	4.8	50.5
Judie, G. G.	7	4-4-17	1179	4.0	47.2
Spottie, G. G.	9	4-8-17	900	6.0	54.0
K. B. Knutson					
Beauty, G. G.	7	4-1-17	1125	5.5	61.9
Lady, G. G.	8	3-10-17	804	5.7	45.8
John Vig					
Leona, G. G.	6	4-24-17	1202	4.4	53.8
Julius Bectul					
Mabel, G. G.	5	2-15-17	1054	4.9	51.6
Hans Mork					
No. 6, G. G.	3	3-6-17	714	6.3	45.0

H. R. Brewster, Official Tester.
Harry L. Rowe, Secretary.

Reedsburg Association.

To the Editor:—Helena of Wayside, a registered Holstein owned by Kirkpatrick Bros., again led the Reedsburg Cow-Testing Association in the month ending June 10th, with a record of fifty-six pounds of butter fat. Following is the forty-five-pound list for the month:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Kirkpatrick Bros.					
Helena, R. H.	7	Mar.	1401	4	56
Fred J. Hilmer					
No. 1, G. H.	.	Apr.	1638	3.4	55.7
F. J. Montgomery					
No. 12, G. H.	8	May	1578	3.4	53.7
No. 5, R. P.	10	4-23	1208	3.8	49.7
No. 10, G. H.	8	Jan.	1347	3.5	47.1
Edgar A. Wood					
Blossom, G. H.	8	Dec.	1320	4	52.8
Wm. Alexander					
Sis, G. H.	13	May	1074	4.6	49.4
Albert Gluth					
Blackie, Red P.	8	Feb.	1164	4	46.6

W. J. Cummins, Official Tester.
E. H. Koenecke, Secretary.

Fox River Valley Association.

To the Editor:—The forty-five-pound cows in the Fox River Valley Association for the month ending June 10th were as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
John Seybold					
P. B. Hol.	7	12-3-16	1338	3.4	45.5
Gr. Hol.	9	12-6-16	1497	3.4	51.0
G. Huebner					
Gr. Durham	7	3-10-17	1494	3.8	56.8
Gr. Hol.	9	4-10-17	1782	3.8	68.4
Gr. Guern.	6	3-11-17	1365	4.2	57.2
A. Kussow					
Gr. Hol.	7	1-21-17	1353	3.6	48.8
O. Zitlow					
Gr. Hol.	7	2-13-17	1146	4.0	45.2
Gr. Hol.	6	10-22-16	960	4.8	47.0
B. Scheibe					
Gr. Hol.	6	2-12-17	1374	4.8	65.9
Brittnacher Bros.					
Gr. Hol.	3	5-6-17	1527	3.1	47.2
Fred Zick					
P. B. Hol.	4	12-2-17	1812	3.2	58.0
P. B. Hol.	10	5-14-17	1980	3.6	71.2
C. Crabb					
P. B. Hol.	6	11-21-16	1728	3.2	55.3
Fred Tess					
Native	7	3-16-17	1242	4.6	57.1
Native	8	4-21-17	1176	3.9	45.8
Native	2	5-10-17	1437	3.6	51.7
Henry Beach					
Gr. Jer.	4	3-16-17	963	4.8	46.1
Gr. Jer.	5	3-21-17	879	5.2	45.7
Wm. Rocke					
Gr. Hol.	5	5-30-17	1092	4.4	48.0
John Klo n					
Gr. Hol.	6	2-18-17	1254	3.6	45.2
Gr. Hol.	8	2-6-17	1539	3.0	46.1
Gr. Hol.	10	1-20-17	1284	4.8	62.9
Aug. Huebner					
Gr. Guern.	5	11-22-16	915	5.4	49.4
Chas. Schmidt					
Gr. Guern.	7	5-20-17	1227	4.7	57.7
And. Mentemans					
Gr. Hol.	7	6-9-17	1858	3.3	61.2

F. A. Gaiser, Official Tester.
Mowry Philips, Secretary.

In Fond Du Lac County.

To the Editor:—The Forty-five-pound list of the Alto Cow-Testing Association, Fond du Lac county, for the month of June is as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
J. H. Kastein					
No. 2, Gr. Jer.	4	4-21-17	1044	4.6	48
Ed Bruins					
No. 5, P. B. Jer.	3	4-16-17	1122	4.7	52.7
No. 7, P. B. Jer.	5	5-2-17	867	5.2	45.1
No. 8, P. B. Jer.	3	2-1-17	840	5.4	45.4
J. H. Bruins					
No. 7, Gr. Durh.	9	4-20-17	1377	3.5	48.2
J. W. Kastein					
No. 14, Gr. Jer.	4	5-12-17	1020	5.4	55.1
No. 1, Gr. Jer.	5	1-30-17	732	6.4	46.8
J. B. Kastein					
No. 2, Gr. Jer.	8	4-2-17	1518	3.2	48.6
No. 5, Gr. Hol.	6	4-12-17	1322	3.8	50.6
No. 6, Gr. Jer.	3	4-17-17	1176	4.1	48.2
Garret Greenfield					
No. 26, Gr. Hol.	3	5-27-17	1353	4.6	62.2
J. H. Redeker					
No. 16, Gr. Durh.	5	5-28-17	930	4.9	45.6
George Greenfield					
No. 7, Gr. Hol.	3	6-4-17	1101	4.7	51.7
R. Kastein					
No. 4, Gr. Jer.	9	12-31-16	1206	4.1	49.4
No. 7, Gr. Jer.	7	3-3-17	975	4.9	47.8
No. 19, Gr. Jer.	7	4-13-17	1194	4.6	54.7
No. 21, Gr. Jer.	8	5-3-17	1344	4.4	59.1
J. W. Stelsel					
No. 4, Gr. Durh.	5	5-22-17	1287	4.2	54.1
Mrs. Theo. Kastein					
No. 3, Gr. Jer.	8	4-24-17	1227	4.2	51.5
No. 14, Gr. Guer.	6	3-11-17	1134	4.6	52.2
Albert Rens					
No. 3, Gr. Durh.	8	5-3-17	1209	3.8	45.9
No. 5, Gr. Hol.	7	6-19-17	1266	3.7	46.8
James Vossekuil					
No. 1, P. B. Jer.	4	3-29-17	840	6.6	55.4
No. 4, P. B. Jer.	6	3-24-17	1026	7.0	71.8
B. Kastein					
No. 3, Gr. Jer.	10	3-27-17	987	5.0	49.4
No. 8, Gr. Jer.	7	3-27-17	1239	4.4	54.5
No. 9, Gr. Jer.	9	6-11-17	1050	4.6	48.3
F. Whittemore					
No. 5, Gr. Guern.	9	1-20-17	1002	5.2	52.1
No. 12, Gr. Guer.	8	4-13-17	825	5.5	45.4
No. 16, Gr. Guern.	13	3-14-17	1185	4.0	47.4

Fred L. Cuenot, Official Tester.
J. W. Kastein, Secretary.

In Manitowoc County.

To the Editor:—The Manitowoc County Cow-Testing Association had seventy-two out of 475 cows which produced over forty pounds of butter fat in the month ending May 31st. Torris Geraldson's herd of thirteen registered Holsteins led the association with an average of 1,141 pounds of milk and 43.2 pounds of butter fat. Late pasture and lack of feed have prevented many cows from doing their best. We expect our next report to be more representative of the character of our cows and what they can do. The forty-five-pound list for the month ending May 31st follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Wm. Kelly					
Snider, G. H.	10	Apr. 29	1538	4.7	72.3
Creame Wa Wa De-Kol, R. H.	5	Mar. 20	1682	4.2	68.4
Armsdale Butter Pauline, R. H.	4	Apr. 25	1717	3.8	65.3
Torris Geraldson					
Artasia Netherland Pontiac, R. H.	5	Mar. 22	1555	4.2	65.3
Martha Korndyke Canary Rosamond, R. H.	5	Jan. 30	1262	4.3	54.3
Canary Michthilda Princess, R. H.	5	Feb. 4	1191	4.4	52.4
Canary Mercedes Maud, R. H.	5	Feb. 16	1284	3.7	47.4
Piebe Hengerveld Rose, R. H.	5	Apr. 9	1284	3.7	47.4
Kurt Voelker					
Laura II, G. J.	5	Apr. 24	963	5.8	55.9
John Pinter					
Nigger, G. H.	9	Mar. 15	1460	3.4	49.6
Adolph Otto					
Lady Oak Homestead					
Mutual DeKol, R. H.	9	Mar. 28	1457	3.4	49.5
Roselawn Johanna Ormsby, R. H.	3	Mar. 8	1565	3.0	47.
Albert Wagner					
Speckle, G. H.	8	Mar. 5	1070	4.4	47.1
Staney, G. H.	2	Dec. 9	1023	4.5	45.9
Molly, G. H.	4	Apr. 19	1203	4.6	55.3
Moose, G. Durh.	5	Feb. 20	1023	4.4	45.
Ernest Gutschow					
Queen, G. H.	6	Jan. 21	1333	3.8	50.7
Adolph Klann					
Rosholt, G. G.	8	Apr. 18	862	5.4	46.5
Michael Fitzgerald, Jr.					
Kicker, G. H.	5	Mar. 8	1233	4.1	50.6
Whitey, G. H.	8	Mar. 8	1122	4.3	48.2
Jos. Brennan					
Creame of Nettle Hill, R. G.	4	Mar. 5	983	4.9	48.2
Patrick Cahill & Sons					
No. 1, G. H.	7	Nov. 24	1191	4.0	47.7
No. 3, G. H.	6	Apr. 1	1315	3.6	47.3
No. 6, G. H.	5	Mar. 24	1220	4.1	50.
No. 7, G. H.	5	Mar. 28	1307	3.5	45.7
No. 9, G. H.	7	Feb. 17	1175	4.5	52.9
No. 12, G. H.	8	Feb. 9	1513	3.6	54.5
No. 13, G. H.	6	Mar. 15	1405	3.6	50.6
No. 14, G. H.	8	Dec. 24	1206	3.9	47.5
No. 15, G. H.	8	Feb. 14	1339	4.0	53.5
No. 17, R. H.	8	Nov. 22	1240	4.3	53.3
No. 18, G. H.	4	Jan 12	1202	3.8	45.7

J. E. Bowstead, Official Tester.
Geo. Kiel, Secretary.

In Door County.

To the Editor:—The list of forty-five-pound cows in the Door County Association for the month ending June 31st follows:

Owner, name and breed	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Geo. Bagnall				
Brown Swiss, G. B. S.	4	918	4.9	45.
Henry Neuville				
Lottie, G. H.	7	1271	4.1	52.1
Pansey, G. H.	8	1178	4.0	47.1
Alfred Bloude				
Bessie, G. H.	6	1238	3.8	47.0
Mollie, G. H.	6	1191	4.5	53.6
L. H. Klenke				
Dollie, G. B. S.	4	1316	3.7	48.6
Starr, G. B. S.	6	947	5.2	49.2
Fred Ash				
L. Jane, G. J.	6	930	5.5	51.2
Ed Fehl				
Lucy, G. G.	10	1110	5.0	55.5
White Bark, G. G.	4	1032	5.4	54.4
L. Birmingham				
Daisy, G. G.	4	876	5.7	49.9
Anton Babler				
No. 14, G. H.	5	1112	5.4	60.0
Lewis Draves				
No. 1, N.	6	1085	4.2	45.5
No. 9, N.	7	930	5.2	48.3
Geo. Steiner				
Jane, G. H.	6	1290	3.7	47.7
Beauty, G. H.	5	1246	3.8	49.0
Katie, G. H.	7	1178	4.0	47.3
Reddie, N.	11	1488	3.1	46.1
Bessie, G. H.	8	1358	3.8	51.6
Jennie, G. H.	6	1318	4.2	55.3
Nigger, G. H.	7	1178	4.6	54.2
John Keogh				
No. 4, G. H.	5	1147	4.0	45.8
No. 5, G. J.	9	1054	4.4	46.3
No. 9, G. H.	3	1178	3.8	45.0

George D. Tibill, Official Tester.
L. F. Keogh and Frank Starr, Secretaries.

In the Fox River Valley.

To the Editor:—The Neenah Cow-Testing Association was organized in May with seventeen members and has now increased to twenty-five members in July. In June 250 cows were tested and thirty-seven produced forty pounds of butter fat or more. The list of forty-five-pound cows for June [illegible]

Owner, name and breed	Lbs. milk	Per cent of fat	Lbs. B. fat
Marcus Petersen			
No. 1, G. H.	1665	3.8	63.3
Alfred Luebben			
No. 3, G. H.	1431	3.7	52.9
Howard Jorgensen			
No. 6, G. H.	1185	4.0	47.4
J. E. Jorgensen			
No. 1, G. Ayr.	835	5.3	45.3
No. 5, G. H.	1098	4.2	46.1
John Harness			
No. 10, G. Guern.	1080	4.8	51.8
Peter Sann			
No. 28, G. H.	1050	4.7	49.4
A. R. Maxwell			
No. 7, G. H.	1365	3.5	47.8
No. 13, G. H.	1395	3.3	46.0

The herd of A. R. Maxwell had the highest average, producing 36.39 lbs. butter fat per cow per month.

A. H. Martin, Official Tester.

THIS MAN FINDS HIS TRACTOR HAS GREATLY INCREASED CROP YIELDS.

Canada's Liberal Offer of Wheat Land to Settlers

is open to you—to every farmer or farmer's son who is anxious to establish for himself a happy home and prosperity. Canada's hearty invitation this year is more attractive than ever. Wheat is much higher but her fertile farm land just as cheap, and in the provinces of Manitoba, Saskatchewan and Alberta

160 Acre Homesteads Are Actually Free to Settlers and Other Land Sold at from $15 to $20 Per Acre

The great demand for Canadian Wheat will keep up the price. Where a farmer can get over $2 for wheat and raise 20 to 45 bushels to the acre he is bound to make money—that's what you can expect in Western Canada. Wonderful yields also of Oats, Barley and Flax. Mixed Farming in Western Canada is fully as profitable an industry as grain raising.

The excellent grasses, full of nutrition, are the only food required either for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent. There is now an unusual demand for farm laborers to replace the many young men who have volunteered for service in the war. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Can., or to

GEORGE A. COOK,
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Canadian Gov't Agt.

Galloway's Complete Pumping Outfit

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Don't wear yourself out in hot blistering weather pumping water. Don't depend on windmills. They are unreliable and risky. Let this wonderful Galloway complete pumping outfit do this hard work, giving water when you need it. The engine is the famous Galloway 2¼ horse-power water cooled, stationary. Pump jack is extra powerful, double geared—designed especially for deep wells. Strong 16 ft. of Drive Belt. Everything complete already to hitch to pump. Besides pumping, engine will run washer, churn, cream separator, grind feed and saw wood. Simple—easy to operate.

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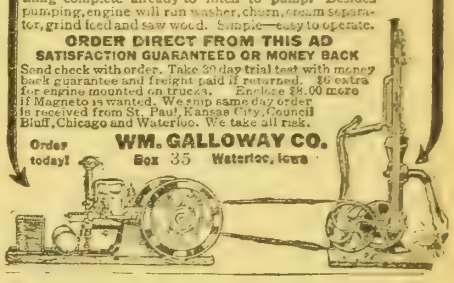

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It makes a lot of difference. Users of "Capewell" Nails get the best holding nail. They also get the one which is safest and easiest to drive. Not the cheapest regardless of quality, but the world's best at a fair price. Insist upon The Capewell. It pays.

FARM FOR SALE—133 acres, heavy clay loam; 30 acres timber, balance productive fields that produce acre for acre as much as any land in the West; great markets; ½ mile from town and railroad; new 10-room house, full basement; telephone; large new basement barn, hen houses, fruit; fine climate, mild winters. Price $3,000, half down, balance on easy terms. Send for free photos and description. A. L. Wilkins, R 1, Union, N. Y.

FOR SALE

160 ACRES of cut-over oak and hickory land in Reynolds county, Missouri. Four miles from county seat. Three miles from railroad town. Will raise anything. Price $1,000 cash. Address Box 206, Douglas, North Dakota.

ALFALFA SEED—Nearly 100% pure, $8.75 bu. Alfalfa book free. Samples marked. Timothy, $3.50. Rape, 14c lb. Fall turnips, 75c. Johnson Bros., Nebraska City, Nebraska.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices.
WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

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RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

THE WISCONSIN FARMER · MADISON, WIS.

FARM LANDS.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

RUSK COUNTY LANDS! In the great potato-growing district of Northern Wisconsin, offer great opportunities for industrious farmers. We want people, looking for homes, in this ideal, partly timbered district, to write us so that we can tell them why it is to their interest to buy their lands of us. Send name and address today. Flambeau River Lumber Co., Owners, Station D, Ladysmith, Wisconsin.

FOR SALE—Two improved eighties, adjoining Missouri river, on beautiful flat south of bridge at Mobridge, S. D. Price per acre, $125. FOR SALE:—Improved Wisconsin farm, 138 plus acres, adjoining beautiful lake. About seven miles from Danbury or Webster. Price $40 per acre. Will accept farm in north river section of South Dakota for equity. M. T. Woods, Mobridge, S. D.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

40, 80 OR 160 ACRES good clay loam land. Hardwood timbered or open land ready to farm. No waste land. Close to towns. $20 to $25 per acre. $200 down, balance long time. F. M. Doyle, Immigration Agent, Ladysmith, Wis.

FARM FOR SALE—Within five miles of a village of fifteen hundred inhabitants. Fifteen acres cleared. $2500 worth of saw log timber. Price right, and terms reasonable. Write Healy-Brown Co., Wausau, Wis.

663-ACRE IMPROVED STOCK FARM, Polk Co., Wis.; good buildings, fences, living water; small payments, easy terms, low interest. Write for description. Mason Booth, owner, Merchants' Hotel, St. Paul, Minn.

FOR SALE—80-acre farm, 3½ miles from county seat; 60 acres cultivated; fine buildings; insured for $3,900. Must be sold. Price $6,500. Address R. J. Russell, LaCrosse, Wisconsin.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

BUSINESS CHANCES.

FREE for six months—My special offer to introduce my magazine, "Investing for Profit." It is worth $10 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer, quickly and honestly. Investing for Profits is the only progressive financial journal and has the largest circulation in America. It shows how $100 grows to $2,200; write now and I'll send it six months free. H. L. Barber, 509-28 W. Jackson Boulevard, Chicago.

HELP WANTED.

WANTED AT ONCE—Three men to work on poultry farm. Must thoroughly understand either incubation and brooding, feeding or health and sanitation. Are willing to pay good wages to the right man. Address Oak Dale Farm, Austin, Minn.

TELEGRAPHY.

TELEGRAPHY—Summer rates extended account big demand for help by government and telegraph companies. Ladies and gentlemen act quick. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed. Northwestern Telegraph School, Eau Claire, Wis.

AGENTS WANTED.

BIG MONEY CAN BE MADE selling the BEST-PHONE. A new talking machine that "Speaks for Itself." Previous experience unnecessary. By our new selling plan the BEST PHONE sells itself. Write for particulars. Chas. W. Shonk Co., 138 Seventh Ave., Maywood, Ill.

MONEY TO LOAN.

MONEY to loan on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

REGISTERED HOLSTEIN BULL.

REGISTERED HOLSTEIN BULL ready for service; 2 of his dams averaged 100 lbs. milk in 1 day and 35 lbs. butter in 7 days, officially; $100. Wisconsin Live Stock Association, Appleton, Wis.

CALVES FOR SALE.

CHOICE HIGH-GRADE Holsteins, Guernseys and Shorthorn calves. A few select ones at $15 to $35 each, expressed at little cost. Write Ed Howey Co., South St. Paul, Minn.

LIGHTNING RODS.

RELIABLE AGENTS, write for 1917 agency for Diddie Burson rods. Best lightning rods sold. L. F. Diddie Co., Marshfield, Wis.

MILKING MACHINE FOR SALE.

FOR SALE—Milking machine. Two-cow unit. Automatic vacuum and [illegible] pump. In first-class condition. Address C. C. Dougherty, 33 S. Stone Ave., LaGrange, Ill.

ALFALFA SEED.

ALFALFA SEED—$8.00 per bushel. Good purity and germination but dark color. Better grades for more money. Write for samples and prices. Henry Field, Shenandoah, Iowa.

GASOLINE ENGINE FOR SALE.

TEN horse-power "Starite" gasoline engine, used about seventy hours, $100. Also elegant light station wagon and Hercules stump puller. Cheap. Millioki Stock Farm, West Allis, Wis.

HOLSTEIN COW.

REGISTERED HOLSTEIN COW, defective udder, richest breeding, bred to a High butter sire, $150. R. M. Harriman, Appleton, Wis.

BELGIAN HARES.

RUFUS RED Belgian hares. Curtiss Rabbitry, 212 Saunders St., Grand Rapids, Mich.

Crops Show Splendid Promise.

All Small Grain Looks Fine—Hay Shows Improvement—Corn Is Growing Well at Present—Milk Product Is Normal.

Brown County.—Weather has been cool and wet, but today is warm and bright. We hope for more favorable weather in order to save the clover. The crop should be cut now in order to get a seed crop. Corn and potatoes are backward. On lowland the crop killed out badly. Some grain was injured on the lowland. Pastures have improved lately and the milk flow is good. Patrons of cheese factories are getting $2 a hundred for their milk. Young pigs are scarce and high priced, selling for from $6 to $8 each. Calves have been sold off close and there are not many beef cattle. A storm in this section on July 1st did considerable damage.—S. J. Shannon.

Buffalo County.—The corn crop is good, but backward on account of cold weather. Prospects for a good yield compare favorably with those of last year. Oats and barley are heading, and promise a heavy yield. Grass in meadows and pastures shows good growth. Cattle are in good condition, but many farmers have sold off their stock pretty close, because of high feed prices and also high prices for stock. Berries and fruit are plentiful. Gardens look well.—J. G. Bates.

Douglas County.—Crops are all growing slowly because of cold weather. Old meadows will not produce more than one-half a crop. Up to the present we have had about the right amount of moisture, but a little more would be beneficial at this time. Small grains look well, although about three weeks late. Pastures are fairly good and live stock appear thrifty. Taken altogether the outlook promises better than it has for several years.—B. N. Stone.

Dunn County.—Weather is cool, with plenty of rain. Corn does not promise a good crop; it is backward and the cutworms have injured the stand. The late planting and replanting have suffered. Grain promises to yield well and hay will make about 85 per cent of a normal crop. Haying has started. Potatoes are fine, except where poor seed was planted. Small garden truck is not good. Rye looks fair. Fruit prospects are good. Live stock look well. Small pigs are receiving care.—Jas. A. Smith.

Iowa County.—Corn is growing rapidly now, but falls behind the growth of last year at this time. Cutworms did some damage, but rain and cold weather have held the corn back most. Hay, pasture and small grain are the best they have been for several years. Potatoes are excellent and garden stuff and fruit are at least normal. Cattle are doing fine; about the usual number are on pasture. Milk continues to sell at the $2 mark. Haying is in full swing.—Art G. Hoskins.

Juneau County.—Corn is two or three weeks later than average on low flat land the crop is very poor. Much replanting was done and the condition of the crop is not more than 50 per cent normal. Small grain is fine on high land, but poor on lowland. The hay crop promises an average yield. Pastures look well and gardens and potatoes are fine. Strawberries will yield heavily in this section.—E. W. Hale.

LaFayette County.—Some corn was damaged by recent high water, but not to a great extent. In general the crop is doing fine. Cutworms have done a little damage. Prospects for a crop are even better than last year, providing we have a late fall. Rain has delayed cultivation on some fields. Small grains have excellent prospects for bumper crops. A heavy crop of hay is going into the barns and stacks. New seeding yields well, but the old meadows are somewhat light. Pastures are good. Early potatoes look fine and promise a large yield. Late ones show good progress. Fruit of all kinds is plentiful. Cattle are in good health and show thrift.—W. F. Pease.

Langlade County.—Wet weather has not injurd the corn, but cutworms have done much harm. The crop is as late as it was last year, but warmer weather would put it in good shape. All other crops look well. Pastures are good. Prospects for fruit show up well. There is the usual number of cows and calves, but hogs and pigs are scarce. The spring weather was too wet and cold for poultry to do well. Feed is high and little of it is being fed.—C. Parsons.

Marquette County.—Weather is cold and rainy for this time of year. Lowland is very wet and marshes are under water. Meadows and pastures look fine. Tame hay is a heavy crop. Rye has improved very much in the last five years. Corn, beans and cowpeas show a fine stand, but cutworms have bothered them a great deal. Potatoes have a good stand. Strawberries are extra good. Live stock are healthy.—John M. Williams.

Polk County.—Weather is still cold for the season. The rainfall is just right. Old meadows are poor, but the new seeding looks fine. It will yield from one and one-half to two tons per acre. Alsike clover does better than medium red clover this year. Grain never looked better; rye and barley are headed; wheat and oats have stooled well. Potatoes are fine, but about ten days late. Garden truck looks well; some of it, however is later than usual. Strawberries are yielding a very good crop. Pastures have been unusually short this year, which has reduced the milk flow. Cattle look well, however, and all stock are normal.—P. F. Amery.

Portage County.—In general crops have not looked better for many years. Hay seems about 10 per cent better than last year and about 30 per cent better than the average for the last five years. Oats and rye are above normal. Corn has been held back by continued cold weather, but has not been damaged by rain. Potatoes are growing rapidly and so far have not been bothered by bugs. Pastures have made good growth of late and live stock are in very good condition. Creameries get more milk than ever before.—Arthur H. Peterson.

Price County.—Although corn is about two weeks late, it has not been injured. The hay crop will be somewhat lighter than last year. Pastures are fair and live stock look fine. Feeding operations show an increase. Fruit and gardens are behind, but look promising. In general crop prospects are good.—C. F. Glissendorf.

Rusk County.—Milk cows are producing better this year than last. Grass grows slower and contains more nourishment. Cattle of all kinds are in exceedingly fine condition. Because of cool weather corn is somewhat backward. There will be an average hay crop. Recent rains have improved conditions very materially and the outlook indicates that an abundant crop will be harvested.—T. M. Thomas.

Taylor County.—Corn will be a poor crop on account of cold weather. Oats look well and will yield an average crop. Rye is doing well; barley will be about average. Potatoes and garden truck are excellent. The new seeding of hay will make a bumper crop, but the old seeding will not be more than avearge. Pastures are good and live stock look well. Feeding operations have increased. Many farmers are selling calves and young stock at good prices.—J. C. Hoffman.

Washington County.—Cold, wet weather during June set the corn crop about two weeks behind as compared with last year. About 5 per cent of the crop has rotted; some of it was replanted. Potatoes are good in most places, but wherever the water stood on the land they are missing. Hay crop is excellent in this locality. Small grains are coming along nicely; oats made wonderful progress during the last three weeks; wheat promises to be extra good. Peas are poor in most places because of too much cold rain. Fruit prospects are good. Strawberries, however, are not quite as plentiful as a year ago. Indication point to an increase in feeding operations.—M. P. Salter.

Washburn County.—Warm weather has greatly improved all crops. Corn especially has been pushed forward. Potatoes are excellent. The hay crop has fallen short. Oats look extra well, pastures are fine. Rye will make 75 per cent of a normal crop.—L. D. Garnhart.

Wood County.—Warmer weather is improving corn. The crop is very late. Not many spots were killed out, but many fields show damage from cutworms. Prospects for corn are not promising. Oats are heading and look well. Rye will be good. Hay shows good promise. Late potatoes are making rapid growth. Wild pastures show a decline. All live stock are healthy, but feeding operations have decreased very much.—Fred E. Weber.

High Price for Guernsey Bull.

To the Editor:—A new high price has been paid for a Guernsey bull. This time it was B. E. Nixon, of Yountville, California, that secured from Florham Farms, of Madison, New Jersey, the bull Itchen Daisy's May King of Langwater 17349 for an $8,000 consideration.

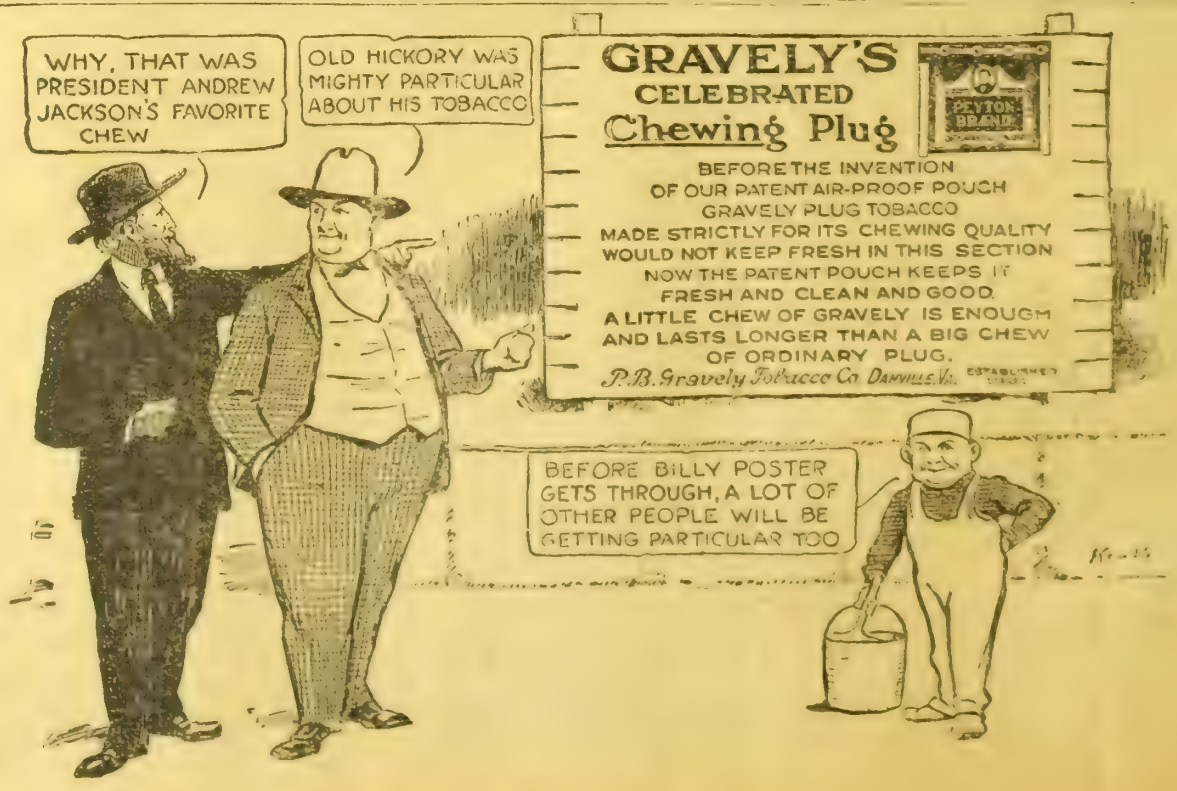
Evidently Guernseys are looked upon favorably by California dairymen. It was not long ago that we heard of the purchase of Imp. Itchen May King 25174 from Mr. Hope by a California breeder for the then record price of the breed, $4,500.

Some of the highest prices that have been paid for Guernseys at public auction have been paid for animals akin to Itchen Daisy's May King of Langwater 17349. At the Hope sale in 1916, four daughters of Ne Plus Ultra 15265, a full brother of Itchen Daisy's May King of Langwater 17349, sold for an average of $1,493.75 each. At the 1917 auction seven daughters of Ne Plus Ultra 15265 sold for an average of $1,339.28 each. Imp. Itchen Daisy 3d 15630, the dam of Itchen Daisy's May King of Langwater 17349, was sold a number of years ago for $4,000 and her son, Imp. King of the May 9001, as a calf sold for $2,000. Langwater Dairymaid 26377, a daughter of Imp. Itchen Daisy 3d 15630, sold at the Langwater sale last fall for $6,150.

This bull will be a valuable addition to the Guernsey sires on the western coast. His sire is Dolly Dimple's May King of Langwater 12997, an Advanced Register grandson of Imp. Itchen Daisy 3d 15630, A. R. 100, whose records are 534 pounds of fat at two years and 714 pounds of fat at four and one-half years.

American Guernsey Cattle Club.

Mont. land—You can't lose. Values advancing. Offer will interest you. Homefinders' Assn., Billings, Mont.—Adv.



Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Merriman's Guernsey Herd.

S. R. MERRIMAN, who lives a few miles west of Fort Atkinson, Wis., on the Rock river, has just about completed the remodeling of his barn, which is now up to date in every particular, and, therefore, makes excellent quarters for his splendid herd of Guernseys. His son, Clifford Merriman, who was graduated from the agricultural college of the University of Wisconsin last spring has been directing his attention particularly towards the development of a number of cows in his father's herd. He has about eight cows on test now for about five to six months that are making records which reflect much skill upon his ability in taking care of test cows. Two junior two year olds are now going at better than a 500-pound clip; one has produced 126 pounds fat in 81 days and the other 81 pounds fat in 42 days. Three three year olds are also doing well, one has produced 235 pounds fat in 167 days; another 184 pounds fat in 117 days and another 61 pounds fat in 42 days. There are three aged cows on test which are also making quite a good showing. One of these animals has produced 279 pounds in 133 days and has averaged two pounds a day for the first six months; another has produced 216 pounds fat in 135 days. Mr. Merriman has a number of very promising young bull calves for sale as well as a yearling of exceptional individuality. His sire is Bob Rilman's Monogram, a 700-pound bull and his dam is Joker's Queen, that has produced 61.83 pounds of fat in 42 days.—Adv.

Rhoda's Holsteins.

WHILE visiting the Holstein-Friesian herd of W. H. S. Rhoda, about nine miles from Watertown, Wis., a Wisconsin Farmer representative was first shown two daughters of Oak De Kol Ollie Homestead. These heifers are practically faultless individuals; one has a 17-pound two-year-old record. There isn't a full age cow in the herd with less than a 20-pound record and others have records of 28.22 pounds. Mr. Rhoda's 28-pound cow is a daughter of Canary Paul, a former herd sire of his that has many splendid cows to his credit. Markade Marie 2d, a granddaughter of Johanna Rue 3d Lad, has a 25.52 junior four-year-old record, that is a cow that would attract attention in any herd. Lady Van Beers Netherland another one of his favorite cows, made 24.22 pounds at 13½ years and is an individual that is seldom equaled. Daisy Douglas Fobes, a remarkable heifer, that made 14 pounds three months after calving is a young cow that should be heard from later. Mr. Rhoda is now using Pabst Maplecrest King, a sire that is practically a perfect individual and one that has both a seven-day and some official yearly record backing that puts him in a class among the great sires of the state. From the fact that he has been used in his herd a couple of years makes it necessary for him to be replaced and anyone looking for a high-class sire would do well to correspond with Mr. Rhoda concerning this bull.—Adv.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Aug. 14, W. N. Shanks, Worthington, Minn.
Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

A HERD RECORD

With a Message for Every Dairy Farmer

THE Cloverdale Farm Herd, owned by A. J. Daugherity, Streator, Ill., averaged for 50 cows, all ages, 15,325.5 pounds milk, averaging 592.3 pounds butter. The fifty (year) records were made while feeding **Unicorn Dairy Ration** as the entire grain ration summer and winter. Mr. Daugherity has fed **Unicorn Dairy Ration** for eight years. He writes that he has found it more economical, from the standpoint of milk production, than any home ration he could combine. It makes more milk, takes less grain to do it, and keeps the cows healthy. Write for free Cow-Testers' Manual.

CHAPIN & CO.

Dept. I-11 CHICAGO, ILL.

CHESTER WHITE SWINE.

Champion Chester Herd of Northwest

SPRING PIGS READY TO SHIP. The best are none too good. Buy or order early.
H. A. DERENTHAL WYKOFF, MINN.

CHESTERS EXTRAORDINARY

BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.
WM. F. BUTTS Evansville, Wis.

RAINY DAY

By **CALLAWAY FAVORITE**—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write
WALTER GEORGE Evansville, Wis.

100 TO 130 POUNDS

WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.
B. H. BABCOCK Evansville, Wis.

CHESTERS

BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

KIRST CHESTERS

THEY SATISFY—Correspondence invited. (N. W. and St. Paul Railroads.)
A. L. KIRST Tomah, Wis.

GRANT CO. CHESTERS

FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.
JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

ATTRACTIONS

An outstanding Chester White sow to farrow August 4th. Am keeping her gilts. Also a fine Schoolmaster bred boar. Spring pigs. Write.
ART G. HOSKINS DODGEVILLE, WIS.

CHESTER WHITES

Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

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LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l Sch col of Auctioneering,** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

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AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

I. E. STICKELMAN
CLARINDA, IOWA
I SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

DUROC JERSEY SWINE.

LESS MONEY BUYS GOOD PIGS AT THIS TIME

DUROC JERSEYS

from EXCELLENT SOWS. Sired by a son of PRINCE ILLUSTRATOR. Same pigs will cost A fine lot of March and April boars and gilts. Good feet, stretchy, good backs and BIG and $15 more in August and September. I guarantee satisfaction.
MIKE STOEHR VIROQUA (VERNON COUNTY), WIS.

PATHFINDER 2d

The Duroc boar that made good. His pigs are great—you'll want one. Have 125 March and April pigs out of those good sows in my herd. Priced to sell and make customers. Write or visit

DENNIS SHEA MELVIN, WIS.
Near Sparta

WED., OCT. 17
ANNUAL
DUROC BOAR SALE

80 BOARS, 10 SOWS—New blood for my old customers. See my pigs at the fall fairs—THEY SELL IN THIS SALE. Write for price my best boars, reserved for the sale.
"The Home of Big Durocs."

L. F. ATWATER
BANGOR WIS.

Blood of Grand Champions

STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.
McCLURG BROS. VIROQUA, WIS.

ORION COL. S.

BY COL. S. JR., out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. JENKINS BANGOR, WIS.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

DUROCS

FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

NORTHERN GROWN DUROCS

BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS New Richmond, Wis.

FASHION

DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
ISAAC HIGGINS GOTHAM, WIS.

O'KEEFE

OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.
M. H. O'KEEFE & SONS WAUNAKEE, WIS.

DUROCS

You've heard of our big sows. Boars from them are now on sale.

Shipped on approval if you wish.
RILEY MARTINY & SON BARABOO, WIS.

CONSTANCE DUROCS

SPRING PIGS—Either sex. They must please my customers. At your service.
F. R. CONSTANCE & SONS Waupaca, Wis.

NOTICE!

OFFER FALL DUROCS that will farrow in August and September. Nice [illegible], long, good backs and smooth. Guaranteed safe in pig. Write.
FRANK H. ARNOLD JANESVILLE, WIS.

Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.
J. W. HIGGINS RICHLAND CENTER, WIS.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD - - - - - - North Bend, Wis.

POLAND CHINA PIGS

YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
R. MEINKING BANGOR, WIS.

SMILEY & SONS' POLANDS

READY TO SUPPLY YOUR WANTS—Boars with size and quality. The Smiley guarantee always.
WM. SMILEY & SONS ALBANY, WIS.

The Sweetness of Low Prices Never Equals the Bitterness of Poor Quality.

EXPLAINED in my private sale catalog, now ready. Write
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POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.
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BIG-TYPE POLAND CHINAS

I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.
Camel Hill Stock Farm
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IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.
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HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars [illegible] Write
JAS. DERIVAN Fox Lake, Wis.

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POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN [illegible] farrow in Aug. and Sept. The big, stretchy kind. Write
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THE DEMEAND IS FOR BOARS with plenty of length. My **Poland Chinas** have the desired stretch with size and quality. Size is lengthening. Let me ship one. Will also sell gilts.
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On Illinois-Wisconsin Line

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Herefords

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WALTER BROS. Chippewa Falls, Wis.

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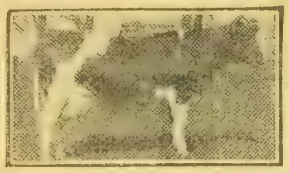
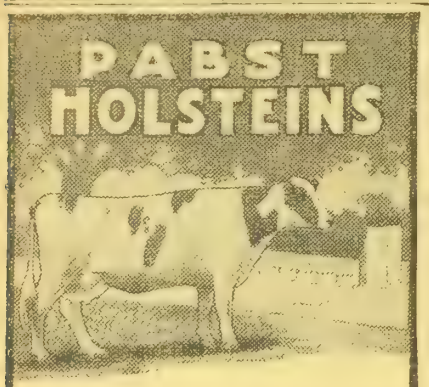


Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.



Are playing an important part in the development of the Holstein Breed in America. There are over 300 heads in this State Accredited herd.

We sell bull calves at a price ranging from $150 up. Send for list.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc Wisconsin
Box F

Pontiac-Ormsby Breeding

BULL, BORN JANUARY 23, 1917; dam Daisy DeKol Ormsby 3d. Record 25.15 lbs. butter in 7 days; 612 lbs. milk. Her dam is a 21.07 lb. daughter of Sir Ormsby Heng. DeKol, who has 66 A. R. O. daughters. His sire is out of the 35.43 cow, Pontiac De Nijlander. The bull is mostly white, and a grand individual, the making of a good show bull. For pedigree and further information address

A. M. ANDERSON WHITEWATER, WIS.

Registered Holstein Heifers

HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

H. F. McNUTT OXFORD, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address

DOPP BROTHERS Ixonia, Wisconsin

DO IT NOW

GET THIS YOUNGSTER to improve your herd. Bull calf, born April 9, 1917, sired by a son of Pietertje Maid Orm by 35.56 from a 22-lb. three-year-old granddaughter of King Segis. Calf is nicely marked and well grown. Will send pedigree and picture upon request.

N. DICKINSON & SON,
WALCOWIS FARMS, LAKE GENEVA, WIS.

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OFFER the highly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HOLSTEIN BULL FOR SALE

A SIX-MONTHS-OLD SON of a 22-lb. junior three year old, sired by a grandson of King of the Pontiacs, evenly marked, good individual and good size. Price $175.

SWAN BROS. Box 160, R. 1, Wauwatosa, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that lay 10 to 60 lbs. a day. Write

GEO. A. WILSON Neillsville, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

JOHN L. FISHER JANESVILLE, WIS.

HILLSIDE STOCK FARM

REGISTERED HOLSTEINS, 3 A. R. O. cows, 4 heifers and 5 young bulls, 7-day and yearly record breeders, good individuals, mostly light colors. Priced to sell. Write or come.

Kirkpatrick Bros., 1½ mi. S. of Reedsburg, Wis.

KING PONTIAC SEGIS VEEMAN

(134190) IS FOR SALE

A 29.29-Pound Son of King Segis Pontiac Count.

King Segis Pontiac Count is a grandson of King of the Pontiacs, that has more thirty-pound daughters than any bull and is sired by King Segis Pontiac, that has sired more high-priced bulls than any sire.

King Segis Pontiac Count also has the distinction of siring the greatest producing junior two year olds of the breed. He has three junior two year olds that average 28.46 pounds butter in seven days and five junior three year olds that average 31.37 pounds and 610 pounds milk in a week. The herd at which King Segis Pontiac Count stands at the head leads all others in prize winners for A. R. O. work for the year just closing.

For further particulars concerning King Pontiac Segis Veeman write to Edgewood Stock Farm, Burlington, Wis.

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OFFERS SOME FINE HOLSTEIN BULL CALVES —very light in color, from A. R. O. dams and grandams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address

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OPPORTUNITY RAPS at every man's door. Here is a chance to get some fine animals to found a good herd of registered Holstein-Friesian cattle, for a small sum of money. Cows from $150 to $250. They are bred to Sir Johanna DeKol 19th 64143, a young bull weighing 2500 pounds, with nine A. R. O. daughters, a brother to two world record cows, whose sire has 66 A. R. O. daughters. These cows will soon freshen and their offspring will equal the value of the cows. Also six yearlings to sell at $125 a head. Wire or write immediately, as they are exceptionally cheap.

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DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.

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EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

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AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

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WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

Two Holstein Bulls For Sale

SIX AND SEVEN MONTHS OLD. Good individuals with good breeding. For particulars and prices write

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HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 5 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna DeKol. Two bull calves also for sale. Address

LAWRENCE ROBERS LYONS, WIS.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. O. S. Hechtner, Charlton, Iowa.

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RAISE MORE BEEF

Mr. Farmer and Mr. Cattle Raiser, you will increase your beef output by using registered Short-horn bulls. The Short-horn is the great improver.

Mr. Dairyman, select your bull from a Short-horn strain showing a milk tendency. The calves from him will sell readily and at higher prices and the milk flow will be maintained.

Use only pure-bred registered bulls. We will help you to secure them.

AMERICAN SHORT-HORN BREEDERS' ASSOCIATION,
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OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. Invite inspection. Address

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ROCK COUNTY SHORT-HORNS

FIFTY REGISTERED HERDS in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write

J. E. KENNEDY, Sec'y Rock County Short-horn Breeders' Assn. Janesville, Wisconsin

Short-horns

MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

HARVEY H. LITTLE Evansville, Wis.

Bates Milking Short-horns

YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Olay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.

GEO. WENHAM & SONS, FT. ATKINSON, WIS.

BULLS FOR SALE --- SHORT-HORNS

THREE YEARLINGS past, one by the noted White Rock. Fifteen coming yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.

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BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

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RICHARD MAURER & SONS Fox Lake, Wis.

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STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

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OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.

O. J. SCHOENFELD & SON Fox Lake, Wis.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.

FOX BROTHERS - - - - Waukesha, Wisconsin

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wisconsin

JERSEY CATTLE.

INEZ ROSAIRE'S OXFORD (109364) FOR SALE

HE IS BY PRIME OXFORD whose brother sold for $11,500 and whose dam, Gedney Farm Oxford Prime, is known as one of the most celebrated Jersey cows of Island. Inez Rosarie, the dam of Inez Rosaire's Oxford, has 720 lbs. butter and 10,287.6 lbs. milk to her credit and is sired by Rosarie's Golden Lad, that sired Rosarie's Olga 4th's Pride, 984 lbs.; Anna Rosarie, 794 lbs.; Inez Rosarie, 720 lbs., and Gertie of Glymllyn's 2d, 744 lbs. For more information regarding this bull write to

H. HOLT & SON OCONOMOWOC, WIS.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.

W. M. KNIGHT,
Eagle, Wis.

Registered Jerseys

HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

E. BRUINS FAIRWATER, WIS.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT TOMAH, WIS.

HORSES.

Percherons, Belgians, Shires,

Ten stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.

Fred Chandler, R. 7, Charlton, Iowa.

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2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — **WRITE YOUR WANTS**

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YEARLING GUERNSEY BULL

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THE WISCONSIN FARMER

VOL. XLVI. NO. 30. THURSDAY, JULY 26, 1917. WHOLE NO. 1852

GUERNSEYS PAY FOR A FARM.

GUERNSEYS made the purchase of Ralph Tratt's 200-acre farm, near Whitewater, possible. Ralph bought the farm from his father, who also used Guernseys as a medium towards profits. Thirty-four years is a long enough time to give any undertaking a fair trial. It is just thirty-four years ago that the first Guernsey bull and his family of three heifers came to the Tratt farm. For seventeen years F. W. Tratt, the father of Ralph, worked hard and succeeded in developing a profitable herd. When he was ready to let his son have a chance at the farm he did not consider it wise to hand 200 fertile acres and a well-established herd over on a platter, so to speak. Ralph had to buy the place. He began as a hired man, passed into partnership on shares with his brother, took over his brother's half and continued on shares alone and finally purchased the farm. The only advantage he had was the opportunity. He has made the most of it and his present herd and farm bear evidence of his industry and ability. There are at present ninety head of Guernseys on the place. Thirty-five are milking and the balance is young stuff and cows about to freshen.

A most pleasing sight strikes the eye of the visitor who happens to chance in at the Tratt place and look at the string of heifers grazing in the first meadow a few rods from the barn. Irrespective of breed likes or dislikes, no one can pass without favorable comment those twelve fine-looking heifers with their almost perfect udders. These heifers, just now under test, show a uniformity of udder development that any dairyman is bound to notice and to praise. No chance breeding could produce such perfect attachment behind, such levelness at the bottom and such even carrying forward of the udder. Neither do well-placed and well-developed teats result from haphazard methods. There must be stock with ancestry behind it.

The Tratt herd has ancestry and both Tratt, Sr., and Jr., have persistently put thought and experience on every individual bred on the place. For more than twenty years—twenty-three, to be exact—nothing but A. R. bulls have been used in the Tratt herd. A Guernsey bull must show at least two of his offspring capable of meeting the requirements set by the Guernsey association before he can be classed as an A. R. bull. This requirement for two-year-old heifers is 250 pounds of fat in 365 days and for mature cows 360 pounds. This is proof of a sire's ability to transmit milking qualities which will put cows on the profitable side of the ledger. The twelve heifers, some about to finish and some just beginning on the last six months of their test, show every indication of exceeding the requirements of their class by 200 pounds of butter fat and better. They are the best evidence in favor of the methods that have prevailed on the Tratt farm in the breeding work, for they are all the offspring of one bull, Langwater Hambro.

OFFSPRING OF LANGWATER HAMBRO, FORMER HERD SIRE RALPH TRATT FARM, NEAR WHITEWATER, WIS., SHOWING MARKS OF GOOD ANCESTRY.

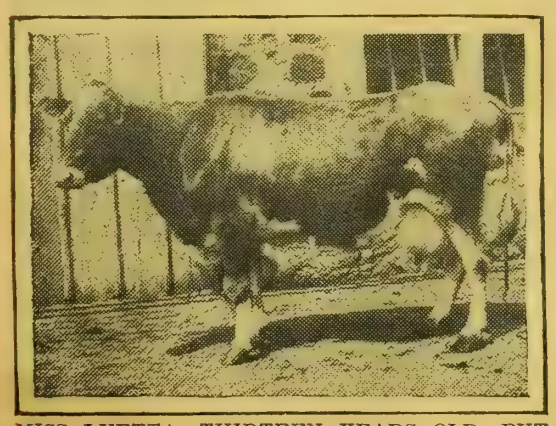
YOUNG STOCK TYPICAL OF HAMBRO BREEDING.

Langwater Hambro has the ancestry behind him that makes possible the showing these twelve heifers will make. He is a May Rose bull, sired by Dolly Dimple's May King of Langwater. His six nearest dams average 722 pounds of fat under official yearly test. He is a half brother to Ne Plus Ultra, the sire that is attracting so much attention in the East, having more two-year-old offspring with a high average of fat than any other bull of the breed. Both the Hambro bull and Ne Plus Ultra have the ancestry of King of the May and famous Dolly Dimple to thank for their success.

There are thirty-eight head of Hambro offspring in the Tratt herd today. Most of these are young stock, but in order to avoid inbreeding, Hambro was sold some time ago and his place has been taken by Bob Rilma's Monogram, bred on the farm. He is by Bob Rilma, a son of the cow, May Rilma, well known to Guernsey men the world over. Bob Rilma's Monogram is out of the cow, Collaludda, with a record of 702 pounds of butter fat in a year. The average of his dam and grandam is 887.5 pounds of butter fat in a year, which makes him especially strong on the production end.

There have been over fifty records made on the place, the best one of which probably is that by the cow Ringlet. She has 711 pounds of fat to her credit for the year. A half sister to her, also bred by Mr. Tratt and sold many years ago, recently made a record of 717 pounds of fat at the age of thirteen years. Ringlet's record is still better when one considers that she is a three-teated cow and that she carried a calf for eight months of her test. Miss Luetta, thirteen years of age, is also a respected member of the herd. Her record of 540 pounds of fat stands a good show of being beaten when she again freshens. Her development of milk veins, her big, strong frame and her make-up in general proph-

(Concluded on page 6.)



MISS LUETTA, THIRTEEN YEARS OLD, BUT STILL GOOD FOR A RECORD.

BOB RILMA'S MONOGRAM, TRATT'S HERD SIRE, A GRANDSON OF MAY RILMA.

ONE OF THE HAMBRO HEIFERS—GOOD UDDER AND HEAVY VEINS.

CURRENT EVENTS

THAT the United States can be of greater service to England and France against the Germans by dominating the air than in any other manner is the consensus of opinion among military experts. They argue that with England controlling the water and the French at least holding their own on land, America must turn to the air and by sending an immense flotilla of airships against the enemy, dropping bombs and annihilating towns and regiments, the war can be brought to a speedy close. This being the case, without a dissenting vote or even a roll call the lower house of congress, last week, passed the $640,000,000 appropriation bill, providing for the huge airplane program with which the United States expects to carry the war to Germany and bring decision in the great conflict. It was the largest appropriation an American congress ever has passed in what is termed "a lump sum." Ordinarily, in $100,000,000 bills, and even $1,000,000,000 measures of now, congress sets forth explicitly just how the money shall be expended, specifying every item. The measure simply turns over this tremendous sum to the government for aviation purposes. And out of it the country will expect the construction of the greatest air fleet the world has known. The bill really marked a historic step in America's war, making the second big distinctive thing that the United States has set out to accomplish, aside from the gigantic preparations that all nations make for war. The first was the $500,000,000 merchant ship program. Last week it was the more than a $500,000,000 air program. It will mean government airplane factories, built and operated by the government, as well as enlarging many times the output from every private factory capable of turning out airplanes. It means the conversion of the engine plants of several of the motor factories largely to airplane engines.

RUMORS of a desire on the part of Germany—rather a willingness—to consider peace terms continue to arise every few days. A dispatch to the leading French newspaper, the Paris Temps, from Geneva, Switzerland, says the German government, according to reliable information, meditates the dramatic proposal to its enemies and to the world of a complete disarmament, except for sufficient forces to maintain compulsory peace by compulsory arbitration. "The German government," says the Temps, "while allowing the solution of the internal crisis to appear as a success for the Pan-Germanists, has in view a maneuver of a quite different aspect. The bellicose declarations which resound, and will perhaps continue in Berlin, will be nothing but the prolog, designed to represent Germany as invincible. Afterwards, perhaps sooner than is expected, will come the theatrical initiative in which Germany will show a disposition to disarm." In the meantime, however, the Germans are fighting frantically, renewing their artillery operation all along the line. The Russians continue to attack them in numbers in Galicia, but there were no decisions at arms last week which indicate an early decisive victory for either side.

WHILE the lower house of congress lost no time in passing the immense appropriation bill for necessary airships in the war, the senate is delaying matters. The senate military affairs committee reported favorably on the bill, without delay, and undoubtedly a majority of the senators favor it, but Senator LaFollette, of Wisconsin, and Senator Gronna, of North Dakota, are blocking the administration plans and forcing a delay which may cost thousands of human lives in the end. The opposition of the grain-belt senators is to that provision of the bill, as passed by the house, which empowers the president to draft men into the aviation service. The whole conscription subject bids fair to be opened up and a long debate and delay to ensue. The airship, as it is known today, was invented in the United States, but this country has lagged behind all the other great world powers in perfecting the airplane and adapting it to war uses. The airplane ranks alongside the submarine in importance in the present great world war.

A POLITICAL upheaval in Germany last week caused the retirement of the chancellor, von Bethmann-Hollweg, and the oppointment in his place of Dr. Georg Michaelis, former food commissioner, a Prussian bureaucrat, who is but little known in this country. The change is said to be a triumph of the crown prince over the kaiser, his father, and to mark a wider breach between the two. The resignation of the chancellor came in the end quite unexpectedly, for Dr. von Bethmann-Hollweg, in the prolonged party discussions and heated debates of the main committee of the reichstag, which had been proceeding all through the week, seemed to have triumphed over his opponents, who have been clamoring for his head, by making concessions which were tantamount to the formation of a kind of imperial coalition ministry. At the same time the chancellor, by the declaration that Germany was defensively fighting for the freedom of her territorial possessions, evolved a formula, that seemed satisfactory to both those who clamored for peace by agreement and those who demanded repudiation of the formula "no annexation and no indemnities." In all this Dr. von Bethmann-Hollweg, was strongly backed by the emperor. The advent of the crown prince upon the scene—summoned by his imperial father to share the deliberations affecting the future of the dynasty—seems to have changed entirely the position with regard to the imperial chancellor. The crown prince at once took a leading part in the discussions with the party leaders, and his ancient hostility to Dr. von Bethmann-Hollweg, coupled with his notorious dislike for political reform, undoubtedly precipitated the chancellor's resignation.

AFTER reviewing an infantry regiment which had had little more than one month's drill, General Leclercq, military chief of the Belgian mission which is now touring the West, declared that four months' intensive drilling would make the American soldier the equal of any who are now ready to go in the trenches. The entertainment for the Belgian mission at Salt Lake included an inspection of the United States army regiment at Camp Douglas, the forty-third infantry, which is composed of recruits who have been drilled little more than a month. General Leclercq was much impressed by the progress the men have made. Four months' time, he said, would be ample to fit them to take their places in the trenches in France. "I was particularly impressed by the way the men have responded to discipline," he said. "The silence and repose of the lines is the hardest thing to achieve and was most noticeable among the men I saw today. These things are important because they show that the men are under perfect discipline." General Leclercq was unwilling to estimate how many American soldiers it would be necessary to move to France in order to secure a prompt victory over the German forces. "Other things are necessary a well as the men," he said. "It is important to know how many big guns can be sent over and how well the men can be armed."

AN appeal to the business world to "make the conduct of this war as clean and patriotic, as heroic and self-sacrificing as it is in the trenches of France and Flanders," was issued by Carl Vrooman, assistant secretary of agriculture. "Never before have the business men of the nation shown as much patriotism as they have displayed in the United States during the past three months," said Mr. Vrooman in a formal statement. Unfortunately, however, there have been exceptions to this rule. Only recently we have seen the secretary of the navy and the chairman of the shipping board forced into the arena in a hand to hand struggle with an organization of unpatriotic, selfish, sodden steel magnates. If an army of civilian patriots be not organized to stand behind the president and fight this great fight for business honor, while our boys in khaki are fighting and dying triumphantly in the trenches, the country will be disgraced at home by a despicable scramble for illegitimate war profits on steel and coal, on munitions and food. Every day we hear men regret that they are too old to enlist. There is no man too old to make his sacrifice at the shop, the bank, the farm, the ballot box, a sacrifice of greed and partisanship."

REPRESENTATIVES of fifteen farmers' organizations, including the National Farmers' Union, conferred with members of the food administration at Washington last week and adopted resolutions protesting against the plan of senate leaders to fix a price of $1.75 a bushel for wheat in the food control bill. Enactment of the measure as it passed the house was urged, the proposed senate amendments being declared unworkable. The price fixing section as proposed, the resolutions declared, would permit "gambling, speculation and exportation to proceed without restriction." "We are strongly opposed to the fixing of the exact amount of a minimum price for wheat by law," they continued, "because we recognize that it is an expert question to be settled after such consideraion as congress cannot possibly give it, in a manner which will give the producer a full voice. The food administration should be vested with power to deal with this question."

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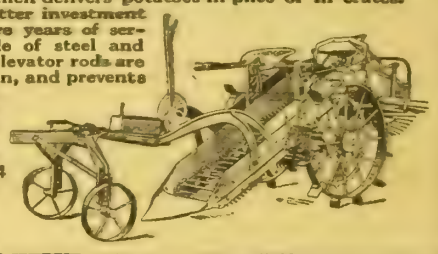

JOHN DEERE
MOLINE, ILL.

Unlawful to Sell Stale Eggs

To the Editor:—The practice of buying and shipping eggs case count or current receipts has come to the notice of the dairy and food commissioner. The term "case count" and "current receipts" are well understood by everyone dealing in eggs and these terms, therefore, need not be explained.

It is my belief that the pure food law, section 4600 and 4601 of the statutes, makes it unlawful to continue the practice of selling eggs case count and current receipts after the weather conditions are such that there is apt to be spoilage in eggs. The particular provision of law covering the sale of spoiled eggs is as follows:

An article of food shall be deemed to be adulterated if it consists of or is manufactured wholly or in part, from a diseased, contaminated, filthy, decomposed, tainted or rotten animal or vegetable substance or any animal or vegetable substance produced, stored, transported, or kept in a condition that tends to render the articles diseased, contaminated or unwholesome.

The law makes the sale of an adulterated article of food a misdemeanor punishable by fine and imprisonment. Spoiled eggs are adulterated articles of food.

The sale of decomposed or spoiled eggs is a direct violation of the provisions of law above quoted and on and after June 15, 1917, there will be a rigid enforcement of the provisions of this law.

There are two ways to comply with the above provisions of the law: First, candle all eggs bought and sold, thus knowing that you are dealing only in good eggs, and, second, if you cannot or do not candle to determine the fitness of the eggs you are selling and shipping, sell and bill eggs loss-off, that is, with the understanding that all eggs found to be unfit for food are to be rejected by the persons to whom you are selling your eggs.

Geo. J. Weigle,
Dairy and Food Commissioner.

Wild carrot or Queen Anne's lace (Daucus carota) is thought to be the plant from which the cultivated garden carrot originated. The garden carrot, if allowed to grow unmolested for several years, gradually loses the highly developed crown-tuber for which it is valued as a vegetable, and becomes indistinguishable from the ordinary wild carrot.

The Wisconsin Farmer

THURSDAY, JULY 26, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

NO TREASON HERE.

I AM delighted to be able to report that the charge of treason preferred against the farmer (on the ground that he was not only absolutely indifferent to the needs of Uncle Sam in the present crisis, but also that he was failing to buy the Liberty Bonds) has been disproved most convincingly by the large number of letters written to me as a result of my recent article. You may recall that I quoted Gov. Theodore Wold, of the Minneapolis Reserve Bank, who had issued a public statement in the course of which he said: "The farmers, who are receiving the highest prices in history for wheat, hogs and cattle, and for practically everything else they produce, are not responding to the call of their government and are displaying apathy and indifference." I gave it as my opinion then that this accusation was false and was nothing more nor less than a libel upon the farmer. Let me quote a couple of letters, selected from among many score, which I have received since then to substantiate my opinion.

The first is from a man who has farmed all his life and who modestly asks me to refrain from printing either his name or his address. Both can be had by Governor Wold, however, if he desires. The letter follows:

My Dear Mr. Pierce:—I have read your excellent paper for a good many years and I think your views on the topics of the times in every issue are worth more than what you charge us for the paper for a whole year. After seeing your request in the issue of June 21st asking the farmers that had bought Liberty Bonds to write you, I made up my mind I would write and help you all I could to overcome the charge of treason against the farmers. My wife and I have always lived on a farm and when the call came to buy liberty bonds we subscribed for $2,000 worth. I know of farmer boys in this neighborhood who have registered and are subject to draft and who have subscribed liberally for bonds. I called up the different banks of our town this evening and asked them what per cent of the subscriptions were taken by the farmers and they all said from 35 to 40 per cent were taken by farmers. That doesn't sound much like treason.

The second is from Mr. F. J. Salladay, breeder of registered Duroc Jersey swine, at Ainsworth, Iowa, and is so strong and emphatic I thought, at first, it would be best to tone it down a wee bit before printing it, but on second thought I decided to pass it along to you exactly as it came to me. Mr. Salladay wrote as follows:

Dear Mr. Pierce:—The first item that caught my attention in your paper of June 21st was that entitled "Farmers Accused of Treason." I read it through, and the charges made by Gov. Theodore Wold made my blood boil. That man is a German sympathizer and should be driven out of a decent farmers' community. I am a resident of Washington county, Iowa, and am a farmer, and if all the bonds had been bought by such as Wold my opinion is Uncle Sam would blush with shame. The farmers here did nobly. Some were afraid for a while they would be left out. Even the children were anxious to subscribe. I went to one boy and asked him what he thought of the Liberty Loan. He did not understand it. I explained, and he said, "I cannot go to war, but write my application for a $100 bond." That is the way they felt about it down here.

You asked subscribers for bonds to write, so I took the liberty, and I don't want to hear any more of Wold's pro-German talk.

My opinions have been amply substantiated; the farmers of the grain belt have been completely vindicated. They bought Liberty Bonds and they will buy them again, when the second issue is put upon the market, within the next few months. Uncle Sam need never fear that the farmers of the grain belt are not behind him, as one man, with their brawn and their brain, their money and their boys. If the downfall of the Kaiser depended only on the patriotism of the American grain belt, the war would be over tomorrow.

WORTHLESS FARM HELP.

THERE is one phase of the farm-labor situation, as it exists today, which should not be overlooked and which is most important, in my opinion. That phase is this: The inability of unskilled, inexperienced labor from the city to take the place of the trained farm boy, in the event the latter is drafted for the army.

It has become rather the fad or fashion for college boys to turn to the farm during their annual summer vacations. This year it has been more popular than ever. Some of the boys may have a yearning for country life; they may wish to clear their brains and develop their muscles by plowing corn and pitching hay before the college doors open again in the fall. But, on the other hand, there are many who seek to escape military service this year by pretending to be invaluable on the farm. I know of young college boys who boast of having "enlisted," when, in fact, all they have done is to go to the farm of their own wealthy father, or the country place of some wealthy friend, and play at farming for a few weeks or months, until the danger of being drafted has passed.

I am not making this charge without ample substantiation. I personally know of instances proving it. Moreover, I found this item in a newspaper onl a few days ago. It presents a most serious situation, in my opinion:

Government agents have been at work for the last few days investigating the cases of several farmers in the Newtown, Flushing and Great Neck sections, of New York, who are reported to have accepted money to keep sons of wealthy men on their payrolls so as to escape the draft. The agents have obtained the names of young men who registered as farmers, but who, it is said, have not been tilling the soil.

Government officials have been told that farmers have been well paid by wealthy parents to "employ" the youths. According to reports that have been openly discussed in these sections at least a dozen farmers have men on their payrolls who do not know a grub hook from a cultivator. These men, according to the story, are supposed to report daily to the farmers and to receive wages of $6 a week. Instead of working on the farm the young men are devoting their time to playing golf or driving about the island in their motor cars.

So far as I know such a situation does not exist here in the grain belt; but unquestionably many a city boy, who knows nothing about farming and has no especial knack for it, is turning to the farm in an effort to escape serving Uncle Sam in the army. This is not the kind of labor the farmer needs any year, particularly this year. Let me quote a letter from a subscriber, Mr. W. J. Loving, of What Cheer, Iowa.

In regard to the drafting of the farm boys for the army, I would say the government would make a bad mistake in taking the farm boys away to the army, because the shortage of crops would amount to more than the fuss with Germany. We are handling about 150 acres of grain and if it wasn't for the experienced help I would have to cut it down to about twenty-five or thirty acres, as I am pretty well broken down. I keep no stock for college students to experiment with. I have had my share of that. I bought a team of horses for $400, hired a town boy to work for me and he got this team tangled up in the harrow and crippled one of them till I never got the harness on her again. That ended me hiring town boys and I would not keep an old soak on the farm overnight. I want a man who can hitch up four horses and go to the field to work, without my being at his heels all the time. We have one college student in our neighborhood who stood in the field two solid hours by the watch without turning a wheel. I don't want that kind of help. We have other farmers in this neighborhood that if they have to give up their boys they will have to cut their crops down because they won't be able to handle them.

The officials in charge of the army draft will make a most serious and costly mistake if they take the farm boy away from the field on the assumption that his place can be filled by the city boy. On the other hand, no farm boy should be exempted unless he is really needed, unless he is a bonafide farmer. Our exemption boards have a grave duty before them; the success of our army in the field and on the farm depends on their doing their work well and justly.

EXEMPTING THE FARM BOY.

I FEAR some of my readers have gained the wrong impression from my continued plea for the exemption of the farm boy from army service. I have the honor to be read by fathers and mothers who have retired from the farm and who now live in the town or city. These parents love their sons fully as much as do those who have stayed by the old farm. Their boys are mechanics or clerks. Why, they write me, should the boys on the farms be exempted and these transplanted farm boys in the city be taken from their useful occupations and thrust into the awful maelstrom of war?

Let me print one of the letters—characteristic of many—before I attempt to outline my views. It comes from a devoted "mother in Israel," whose heart bleeds at the thought of her beloved son being torn from her. She writes me as follows:

I have been a subscriber to your paper for a number of years and have just read the letters from mothers of farmer boys. I, too, am a mother, but not of a farmer boy. I see that you are in favor of exempting farmer boys. Let me tell you about my boy and then you can judge which mother needs or loves her boy best. I have one boy twenty-three years old, a Christian boy. I mortgaged my house and lot to put him through high school and he always worked hard during vacations to earn his clothes and help all he could. He now has a position where he can take care of himself and help some. I would like to ask what would become of the old U. S. A. if the boys were all farmers. I would like to know who needs her boy most, the mother with 200 acres of land or the mother of a boy like this.

Now, in answer to this and the other letters which I have received, of a similar nature, let me outline my views in detail. I am not pleading for the exemption of the farm boy on the ground that he is any dearer to his mother than the city boy. Neither am I pleading on the ground that he is a better or more loving boy, or works harder or more faithfully to support his parents. I am not pleading for the farm boy merely because he is a farm boy and lives in the country rather than in the city. I am pleading for him because he is engaged in the most useful occupation there is in the land today (with possibly the single exception of munition making). We can get along without new houses or skyscrapers for a year or two; the carpenter and brick mason can be spared to become soldiers. We can—if need be—do with fewer lawyers, fewer clerks, fewer printers, even fewer preachers, for the time being. But it would be absolutely impossible for us to win, or even to carry on, the war if we were to cut down our food production. The farm boy is absolutely needed to maintain this and to increase it.

If we are to take a thousand or a million boys from the farm, there will be famine and suffering next winter, for food must be had, for soldiers and civilians alike. Food is just as necessary to the successful prosecution of the war as shells and gunpowder. A mechanic or a clerk is just as dear to the heart of his mother as a farmer, but wheat and corn and beef are more necessary just now to our nation, the world and civilization than castings and calicoes, useful as these are. That is exactly and solely why I say the farm boy should be spared to his work, even if the town boy is not.

Let me print another of the many letters I have received:

I am a subscriber to your paper and have been for a long time and am very fond of it. I noticed in a recent copy several letters from farmers and their wives expressing fear that their sons may have to go to war. I do not agree with them and cannot see why, just because they are farmers, their sons should be exempted any more than our sons who are not fortunate enough to be farmers. We are not farmers and are very much in need of our sons. We have three and all have been taken away from us to fight for their country. One is on a battleship and has gone to France, another is on a submarine at New London, Conn., and we do not know where the third is, as we have not heard from him in four weeks. There is no father or mother living who thinks more of their sons than we do. It leaves my wife and me all alone and we are on the down-hill side of life. Let me assure you it is not only farmers who miss their sons. We should all do our duty without complaining, and pray that our sons may come back to us again safely.

My heart aches for that father and mother, giving so generously of their blood to their country. I hope every one of those brave boys may be spared, to return and gladden the home which gave so nobly when the call of duty and of honor sounded. Such parents and such boys are the pride of our beloved land.

And here is still another letter, the last I shall print this time:

I have just been reading the letters of the mothers and their plea that their sons should not be drafted. Now, don't think I do not sympathize with each mother, for God only knows our hearts. The very life is being pulled away from us when our sons are taken. But I really think there is another side. I don't want to be selfish, but isn't a mechanic, or one engaged in any other occupation as far as that goes, just as dear to his mother as a farmer is to his? I am a farmer's wife and love the dear old homestead. We have a beautiful little home nestled in the forks of the Raccoon. I have one son who was a farmer until his wife's sickness drove him to other business. He is a mechanic of the best type. He is a good Christian man—no tobacco or intoxicating drinks for him, the sole support of a sickly wife, and as loving and devoted a son as God ever gave a mother. But he is of the conscription age. Now I honestly think that in the case of farmers the farms could rent for enough to keep the families, while my boy has nothing to fall back on, yet because he has no farm he is compelled to go and the single young man who has a farm to attend to can claim exemption. I can cite you to numbers and numbers of cases similar to this. I use my own son as an example.

In answer to this letter I will say this boy should find ready exemption as the sole support of a sickly wife. The law provides for such deserving cases. It would be the same if he were a farm boy. He should be spared; he is needed at home.

I hope I have made myself clear; it is the usefulness of the occupation that I found my plea upon; not undue favoritism or partiality, or anything but the good of our nation in its moment of great stress. On this ground the farm boy should be spared.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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THE WISCONSIN FARMER, Madison, Wisconsin

Wheat and Rye Situation in Wisconsin.

That farmers of Wisconsin should grow enough wheat and rye during the coming year to meet all home demand and thus release for war use the supply usually shipped in was the decision of representatives of Wisconsin flour mills and county orders of the agricultural experiment association at a recent meeting of the State Millers' Association. Their plan was to increase the supply of staple foodstuffs available for war use. It would mean an increase of about 6,000,000 bushels of grain in the production of this state, since the estimated consumption is approximately 16,000,000 bushels, while the normal yield does not exceed 10,000,000 bushels.

Patriotic efforts of this kind are worthy of encouragement, but in this particular case the farmers should proceed cautiously. In so far as production can be increased by bringing new land under cultivation, by clearing out stumps, draining, grubbing and similar measures, it would be an excellent thing. But should high prices for grain and enthusiasm for a bumper yield of wheat and rye cause farmers to plow up good meadows and destroy valuable pastures, then their very purpose would be defeated. Bread is not the sole article of diet. Enormous quantities of butter, cheese and condensed milk are used in the armies and at home. Where would these products come from if Wisconsin, preeminently a dairy state, should plow up her pastures and meadows for wheat? Pastures cannot be put in in a season; every farmer knows that it takes considerable time and expense to get a good stand of blue grass. And few regions are so well adapted to growing heavy meadows of clover and alfalfa as Wisconsin. Such crops are the ones upon which the state has built up an enviable reputation, and a partial loss of them at this time would be serious.

While all of us are anxious for big grain crops next year, we must not overlook the fact that other foodstuffs also are indispensable. Of these Wisconsin has been furnishing a liberal share of milk and milk products, for which her farms are particularly adapted. If she should change over to growing wheat at the sacrifice of dairy production, some less favored territory would have to take over this work. Obviously this would be poor economy. Let each region produce that which it can produce best—this is the only way to bring the supply of foodstuffs up to the maximum. Grain production should not be discouraged. Much land in Wisconsin is particularly adapted to it and there is land not yet under cultivation that would yield excellent grain crops. But at this time a too vigorous campaign to increase grain production in Wisconsin, when combined with the lure of high prices, may turn men away from dairying who should stay in it. A big acreage of grain with a prospect of more than $2 a bushel at the harvest may look tempting to the dairyman who has felt the pinch of a shortage of dairy feed, but it is the long-time production—the average over a period of years—that counts. In another year or two the relative prices of foodstuffs may make a radical change. In most cases it will not pay to change from one line to another in order to grow each year the crops that are relatively high priced. The farmer who has land adapted for wheat and rye will do well to get it in the best possible shape for these crops this fall, but the plowing up of land for grain that is best adapted to pastures, meadows or other crops is a practice that may be seriously questioned.

New Army Drawn.

The drawing of the conscript, or national, army occurred in Washington last Friday without any untoward incidents, the first step in the assembling and training of an army of over 600,000 men to supplement the regular army and the state troops. A total of approximately 1,374,000 men were called to the colors, from which it is expected, and hoped, that one-half will be found eligible for service. To accomplish this result 10,500 numbers were drawn in Washington, the corresponding numbers in each of the districts in the entire country being ordered before the examining and exemption boards for possible service under the flag. The first number was drawn by Secretary of War Baker, the next few by other high officials; then the task was turned over to clerks, the work of drawing the 10,500 numbers consuming an entire day and far into the night. The numbers had been placed in capsules and these, in turn, placed in a large box, where they were vigorously stirred every little while, being drawn by a blindfolded person, thus insuring absolute fairness. The men whose names were thus drawn will appear before the boards without delay. Those who are physically and morally deficient will be excused at once, while the other grounds for exemption will be taken up one at a time. The district boards (varying from one to four to the state) have sole jurisdiction on the question of exemption for farm laborers, but the other exemptions are to be decided by local boards, one for each 30,000 population, with appeal to the district board. Work on the sixteen cantonments where the soldiers are to be assembled, in September or October, is being rushed to completion and the herculean task of training Uncle Sam's new army will be well under way within a few weeks.

A Word to Wisconsin Dairymen.

It has been reported that scarcity of feed in Wisconsin and high prices of beef are causing many farmers to dispose of their dairy cows. The extent to which this is being done cannot easily be determined at this time, but if the sale of dairy cows reaches such proportions as to deplete the herds in the country, a shortage of dairy products will follow that can only mean a calamity to the nation. The importance of milk and milk products for food has been emphasized until their use has reached an extent where they are practically indispensable. In many homes butter and cheese have largely displaced meat. With meat soaring toward a price that is prohibitive for many persons, a sharp decline in the supply of butter and cheese would produce a shortage in fat and protein foods, because these substances in a readily digestible form compose only a small part of a vegetable diet. The result would be undernourishment for a large part of the population.

The present reports, however, need not give alarm. Successful dairymen hold the opinion that low-producing and unprofitable cows should go to the block, and the conditions now prevalent may be an economic force to compel this practice. If this is the case, then good instead of harm will result, because the dairy herds will thereby be improved in efficiency. Too many low-producing cows have been hiding in the herd among the high producers. High feed prices may force the use of the scales and milk test to hunt out these loafers and send them to the butcher, the price of beef furnishing a stimulus for such work. Under such conditions may good come even out of high prices.

In so far as the marketing is confined to inferior stock, we may look upon the situation with favor. A relatively small herd of high-producing cows renders a much greater service in times of food shortage than a large herd of low-producing cows. Feed is used more economically and the status of the dairy industry improved. But a note of caution may be sounded with regard to marketing young stock. The same conditions which induce selling of low-producing animals may induce marketing of calves and heifers. When feed prices reach a high level, many farmers and dairymen look with disfavor upon calf raising, preferring to sell them for veal and risk the chance of buying good cows when they are needed. Experience teaches that the scarcity of good cows is a stumbling block to such practice. Good milkers are not available at anything like satisfactory prices. The surest way to build up the dairy herd lies in filling the vacant ranks with heifers raised on the farm.

Even though feed costs rule high, wherever possible the good calves and heifers from high-producing parents should be saved. They will be needed to fill the places of culls and old cows that have served their period of usefulness. If they are not saved the dairyman may come to a time when he will look in vain for profitable cows to replenish his herd. As long as the scrub stock goes to market at the lure of sky-high prices for beef, there should be no real concern, but whenever the number of good young stock falls short, the dairy industry faces a perilous situation. Let the dairyman think before he sends his promising calves and heifers to market this year; for all indications point to the fact that good dairy stock will be in great demand.

Combating Hog Cholera.

A great many swine breeders are of the opinion that the feeding of new corn is in some way or other associated with the development of hog cholera. It is presumed, for example, that hogs not accustomed to much grain when started on the new crop are thrown out of condition, their blood heated, rendering them susceptible to the disease if they should come in contact with the infection. The Wisconsin Farmer concedes that new corn fed liberally tends to overheat the blood, but a careful investigation will lead to the conclusion that hog cholera spreads in the fall more rapidly than during the spring and summer, for the reason that infection is carried more readily during the season when farmers exchange work than at any other time.

Very extensive hog cholera investigations have been made by the government, and, as a result, it was found that more than 25 per cent of the outbreaks could be traced directly to the exchanging of labor and to visiting between farms. This being the case, it follows, naturally, that where hog cholera makes its appearance on a given farm, the owner of that farm should take special precaution not to scatter the disease. This will not involve much expense nor will it entail a great deal of labor. The government has almost reduced to a science, methods of combating the spread of hog cholera. Where the disease makes its appearance on a given farm, the hogs must be handled in a certain definite way in order to cut down the loss and to prevent the spread of the disease. Sick hogs should be isolated promptly, and by this we mean that they should be put in a small pen or yard. If they are treated immediately with serum a considerable percentage of even sick hogs can be saved. Remember that infection can only be spread to other animals through the medium of the body discharges of the sick hogs. Well hogs, therefore, in a herd where the disease has appeared, should be put into other quarters and the yard to which they previously had access should be cleaned and disinfected. This means the removal of manure and the taking away of all rubbish, including logs that are sometimes used in the approach to doors and stones around watering troughs. Infection will remain in these places even for a twelve-month period. By cleaning up the yard the infection will be absolutely destroyed where the direct rays of the sun can strike the surface, and disinfecting material should only be used around fences, at the base of buildings and wherever disease germs are likely to be lodged.

Remember that it is entirely practical to care even for sick hogs without scattering the infection. Every time the pen is entered, the precaution should be taken to dip the shoes in disinfecting material. By following this plan the disease can be confined to very close quarters and the herd of no neighbor will be endangered, while the premises upon which the disease appears will be kept free from infection save only in the small pen where the sick hogs are quartered.

It has been found that dogs carry hog cholera infection freely and it, therefore, follows that the individual who allows his dog to run at large when there is cholera in the neighborhood is taking chances that a good business man is not justified in taking. While, of course, all dead hogs should be promptly burned, so the dogs and birds do not have access to the carcass, yet, as a matter of fact, this practice is not always carried out and there is constant danger of birds and dogs spreading infection from dead animals. It goes without saying that the swine breeder should be prepared to sacrifice his dog's liberty in order to protect his own herd. Every state in the corn belt can save hundreds of thousands of dollars annually if all dogs could be prevented from roaming at night during the summer and fall months.

The Seed Bed for Alfalfa.

Very good success may be attained from both fall and spring sowing of alfalfa. If the land is in proper condition and the seed is good there is little risk to run. The one important argument in favor of fall plowing is that the crop will not meet so much opposition from weeds because all annual weeds that start in the fall are done for forever and only the perennials will remain to put up a fight the following year. It is entirely practicable to prepare the seed bed for alfalfa after taking off a grain crop, but it must be remembered that it would pay well to put a good deal of labor on the seed bed. In many cases grain is shocked in straight rows, thereby allowing opportunity for disking the land between the rows of shocks and in that case the first step is taken in the preparation of the seed bed. Two or three good diskings will bring the soil into condition so that when it is plowed after the grain is removed it then may quickly be gotten into shape. In any event, considerable disking and harrowing must be done after the soil is plowed because the better the soil is prepared the better will be the stand.

It must be remembered that alfalfa takes very kindly to farmyard manure and where a supply is available it can be put to no better use than to apply it on the stubble land before disking or before plowing. In many cases the manure will carry to the land the kind of infection needed by the roots so that they will vigorously attack the nitrogen in the air and store it in the tissues of the plant.

Wherever possible the seeding should be done with a drill, as this insures a more uniform covering. In some instances half of the seed is drilled one way and the balance in the other direction, it being claimed that this will insure a better stand than where all the seed is drilled in at one time. The seeding may be done any time after the middle of August and before the middle of September. There is advantage in getting the seed in fairly early, because in that case there will be a good fall growth if there is enough moisture in the soil to bring about quick germination. Not infrequently there will be a growth of a foot or even eighteen inches and this affords a fine protection of the root system during the severe periods of the winter and spring.

The English ministry of food will take over control of the entire 1917 crop of potatoes, wheat, barley, oats and rye, according to announcement today. The orders will forbid individual dealings and will cancel all existing contracts for this crop.

Why More Wheat and Rye for Wisconsin

CONVINCED that Wisconsin could add materially to the world's supply of grain without injuring in any way her vast live stock industry, farmers, grain experts and millers of the state will unite in a push for the production of winter wheat and rye this fall. Plans for the campaign were considered at the meeting of the State Millers' Association at Neenah July 20th and 21st.

Live stock has displaced grain farming in Wisconsin. Fifty years ago our state was second in the production of wheat; today Wisconsin is not even among the first twenty-five.

With rye Wisconsin has made a better showing. Our output in 1916 was not only the largest, 6,075,000 bushels, but amounted to 12 per cent of the total production in the United States. This is because rye will grow where wheat, corn, potatoes or oats often fail.

The idea for growing more winter grain in Wisconsin is based upon a carefully considered plan. We all know that hundreds and thousands of acres of sod land are performing no special service at the present time. The reason they are not under the plow is partly because there is not sufficient help to place this land under cultivation and grow the crop, but partly also because the possibilities of raising fall grain has not been fully recognized.

This spring the farmers of Wisconsin responded nobly to the nation's call for more wheat. Though it was late in the season when the appeal for an extra effort for wheat production was sent out, crop statistics show that 33 per cent more wheat was sown this year than last. Hundreds of farmers who had long ago abandoned wheat raising planted a few acres this spring "to help the cause along." The aggregate amounted to a third more than the total planted last year. Many of the farmers frankly did so without much hope for a profit. It was patriotism and love of country that caused the extra acreage to be put into wheat. If anything, however, conditions will be more serious next year than they are now. Winter wheat and rye are two cereals which the world is greatly in need of. We can grow one of the two crops in nearly every county with a few extra acres on every farm where wheat or rye can be produced the total for our state will be tremendous.

E. J. Delwiche, in charge of the northern branch of the experiment station farms, gives probably the best plan for increasing our acreage in rye and wheat without using such land as is under cultivation now to any great extent. According to Mr. Delwiche, the old and run-out meadows now serving little, if any, towards food production, can well be turned under and planted to wheat or rye. Where wheat cannot be grown on the sod acres corn can perhaps be planted and the ground usually occupied by corn can in part be planted to wheat. Rye will grow anywhere where corn and wheat will grow and in many places where nothing else will grow. Mr. Delwiche calls attention to the big factors in favor of fall grain production, especially as they apply to the northern section. The red clay belt district and the sections where heavy soils cause considerable trouble in the spring can be better prepared for the spring crops if part of the work is done in the fall. Distribution of labor is an item on every farm. With only a few good weeks to do the entire spring work in it is highly advantageous to have a big part of the land taken care of by fall seeding. The harvest, as well as the spring work, is better distributed when fall grains are sown. Poor results in crop production in many sections of our state are in a large measure due to lack of labor. One man working part of the time in the fall and part of the time in spring is able to prepare more land, seed more grain and harvest more grain than if all the planting, seeding and the working of the land were to be done in spring.

Rye is a crop that will grow anywhere. It will grow on sod land, land of high fertility and low fertility, land well prepared and land not so well prepared. It is known as the "poor man's crop." Like any other crop, however, it will respond to good care, to the application of fertilizer and to drainage. Yields will naturally be bigger when greater trouble is taken to give the crop every chance it deserves.

Four years ago the Wisconsin Experiment Station, after years of trial with pedigreed seed among its many coöperators, the farmers, was able to announce that the pedigreed seed was superior to the common variety to the extent of eight bushels per acre. Since then pedigreed rye has been widely grown in the state and has helped to keep Wisconsin in the lead as a rye-producing state. Rye is an especially good crop for the sandy regions of our state, as it will provide a covering for the land and prevent "blowing of the land" during the spring months. Rye can be pastured fall and spring and will still produce a good crop if not pastured too closely.

Arguments have been heard in favor of planting oats because of its greater need in our state for live stock feeding. Mr. Delwiche, however, also has an answer to this. He points out that twenty bushels of rye at $2 per bushel is worth more than a thirty-five-bushel crop of oats at 75 cents per bushel. Rye does not impoverish the soil in any greater degree than any other grain crop.

According to Prof. R. A. Moore, of the Wisconsin Experiment Station, rye can be grown following almost any crop which can come off the ground in sufficient time to be prepared for rye. The natural crops for it to follow are canning peas, early potatoes and early garden crops. It can be grown on marsh lands that have been plowed during the summer and on land that has grown cereal crops. It can also be sown to corn land at the last cultivation between the rows. Where the corn has been intended for the silo the seeding can wait until the corn is removed and the ground has been disked. Very few failures have ever been recorded against rye and it will grow as well on the heaviest clays as on the light, sandy soils. Mr. Moore states that rye seems to be helped by pasturing in nearly every case except where it is sown on low, moist ground. The harvesting of rye comes sufficiently early so as to be harvested before any of the cereal crops are ready for the binder. The new pedigree rye has a stiff stem that stands up particularly well. Yields that have been recorded for rye, according to Mr. Moore, have frequently reached the fifty-bushel mark. Using the pedigreed seed instead of other varieties would increase the yield of all our rye by 25 per cent.

To prevent smut losses in the rye crop the seed is treated with formalin at the rate of one pound of formalin to forty gallons of water. The seed is spread out on the floor about three to four inches thick and the formalin sprinkled over it. It is then shoveled several times and finally placed into a pile and covered up until it is to be drilled or broadcasted on the fields. Rye can be seeded as late as October 1st.

The millers of the state have called attention to the fact that there is great need for a uniform variety of the soft and hard wheat grown in the state. Two or three different varieties of hard wheat will make a good flour. Two or three varieties of soft wheat will likewise do well. But the mixture of hard and soft wheat will make an inferior grade of flour and a poor loaf. For this reason the millers are anxious that as much as possible a standard variety of wheat be adopted and only these varieties be seeded this fall. A recent sample of wheat taken from the cars in Milwaukee as they came into the market showed two varieties of hard wheat, two varieties of soft, rye, oats, weed seed and dirt. Naturally the presence of both hard and soft wheat, other grains and foreign matter influences the grade of flour produced. The prices the farmer receives are in accordance with the kind of grain he brings to market.

In order to insure a better price for the producer and a better grade of flour for the miller, demonstrations and lectures will be given in the wheat sections of the state, calling attention to the varieties which have proved best in the tests of the Wisconsin Experiment Station and the agricultural experiment station. The difference between these two associations is that the experiment association is made up of the farmers of the state who try out grains and grasses under practical conditions after the experiment station of the college has tried out these grains on the station plots.

The wheat, which has proved its worth at the Ashland branch station and which will probably receive the endorsement of the experts, is the Bacsca variety. The Bacsca has been tried for a greater number of years than any other variety and has outyielded other varieties during a ten-year average. There are many wheats which will do well for a year, but, for various reasons, cannot repeat the sensational performances of a previous season. It is, therefore, highly important that a reliably tested strain be advocated from which results are sure to come.

Another wheat which has proved its worth in the south central and southern portions of the state is the Wisconsin pedigree No. 2, the Turkey Red, which, for a three-year average at the Madison station, yielded 36.6 bushels per acre. The highest yield reported for this wheat was fifty bushels to the acre.

Those living in the heavy loam and clay soil sections of the state can well grow wheat in the rotation. Where the soil is rich a rotation of corn, oats or barley (manured), winter wheat (seeded to timothy and clover), clover, hay or pasture, is advocated by the Wisconsin Experiment Station. The two grain crops following each other make it advisable to fertilize the ground before plowing or adding top dressing to the winter wheat.

A rotation where winter wheat does not follow a small grain crop is corn, barley or oats (seeded to clover or timothy), clover hay, hay or pasture, winter wheat (manure wheat stubble). The disadvantages of this rotation, which was also worked out by the college, are that the sod must be plowed very early, so that the soil may be compact for the wheat seed bed. This would mean a loss of the second crop of hay and the pasture in the fall.

Plowing for winter wheat should be done as early as possible, in August rather than in September. This will give the soil time to settle before being seeded. Wheat needs a firm, well-compacted seed bed. The heavy rains on the plowing will generally compact the soil sufficiently, but during dry weather the roller ought to be used, especially where large amounts of grass have been turned under. Without compacting the soil, the green mass will hold the soil from the furrow slice beneath it. Following the roller the harrow should be used to provide a mulch which prevents the loss of moisture. On heavy soils the crumbly, loose condition of the seed bed is most easily procured by disking the soil immediately after plowing. Where it is necessary the disk should be used twice and followed by the harrow. Small lumps in the field about the size of a man's fist are not necessarily an objection on a winter wheat field. Frost will pulverize these lumps and leave the ground in good condition in spring. The lumps will hold the snow on the field and prevent the freezing and thawing of the soil, which causes the winterkilling.

For the northern half of the state the 25th of August to the 10th of September is considered the proper time to seed winter wheat. In the southern part of the state seeding generally takes place between the 10th and 20th of September. There is such a thing as sowing wheat too early. When plants grow too large, and are about ready to "shoot" before winter sets in, they are in great danger of freezing out. Seeding with the disk requires less seed per acre, places the grain at a uniform depth, and will result in a uniform stand.

Wheat can be grown in various sections of the state. E. J. Delwiche and B. D. Leith, of the Wisconsin Agricultural Experiment Station, make the following statement in their bulletin on wheat growing in Wisconsin:

When grown in rotation wheat does well on heavy loams and clays but is not adapted to light soils. There is a belt of heavy, red clay soil south of Lake Superior, extending through parts of Douglas, Bayfield, Ashland and Iron counties, which is well adapted to the growing of both spring and winter wheat. The climate of this region is

THE NATION'S GREATEST MOMENT.

also favorable to the development of the wheat plant.

Another area which has been found well adapted to wheat raising is in the eastern section of the state, particularly in the counties adjoining Lake Winnebago, the lower Fox River, Green Bay and Lake Michigan.

A third wheat district is found in the western part of the state in parts of Polk, St. Croix, Barron and adjoining counties south of the northern boundary of Dodge and Columbia, have soils well adapted to wheat growing.

There is a wide belt of land in central Wisconsin, having clay loam soil, which, at least so far as can be judged by their physical composition, seems adapted to wheat growing. Experiments begun on these soils in 1911 seem to indicate their suitability to winter wheat production. Good results were obtained in 1911 with both spring and winter wheat, and winter wheat did exceptionally well again in 1912.

In addition to those already mentioned smaller areas equally well suited to wheat raising are to be found in other sections of the state.

Fall grain growing is not Wisconsin's chief industry, nor is it the intention of the wheat and rye advocates to attempt to change our live stock husbandry into grain growing. But it is possible to add wheat to many farms in Wisconsin where it is not now grown or where it is grown in a small measure only. The big increase of our acreage of spring wheat is a good indication of what Wisconsin is willing to do and can do, without any falling off in her beef, hog, and dairy production. The movement ought to find enough support in the state to make a big showing in 1918. It will be another proof of Wisconsin's loyalty and patriotism, and it can be done without serious loss to our present enterprises.

A GOOD SAMPLE OF WISCONSIN PEDIGREE RYE.

Guernseys Pay for a Farm.

(Continued from page 1.)

esy that there is every chance of this being possible.

All of the records are made under natural conditions and each cow is bred to produce a calf within three months after finishing the year's work. No extraordinary means are employed in feeding or milking the cows. A grain ration of ground corn and oats, bran, oil meal and a commercial feed are proportioned out to them as their production warrants it. Alfalfa hay is fed in abundance, together with silage and clover. Only cream is sold from the farm and the skim milk goes to the calves and hogs.

The silos take care of thirty acres of corn each year, and, though they look small, they are squat and extend twelve feet in the ground. They open into the barn. The barn built into the side hill makes it possible to have a basement barn facing south and west, admitting plenty of light and air. But Mr. Tratt does not depend upon windows and doors alone for his ventilation. A modern system of intakes and outlets with an aerator on the roof provides fresh air the year around. Foul odors are carried up and out with a rapidity that the system guarantees. The barn is whitewashed twice a year, or as often as necessary in order to insure clean walls and ceilings. The whiteness of the walls gives the barn a clean and bright appearance even on darker days.

Mr. Tratt believes in conveniences on the farm. Electric light, running water, furnace heat and an office in which to keep records and correspondence were, therefore, included in the ten-room house which he erected several years ago. The rooms have been arranged according to a practical plan. The sitting room has not the appearance of the old-time parlor, though it supplanted it. Wide entrances give it the look of comfort and ease so lacking in old-time structures. Comfortable also are the chairs that have replaced the stiff-backed upholstered ones of years ago. A large talking machine shares honor with the piano in helping to entertain visitors.

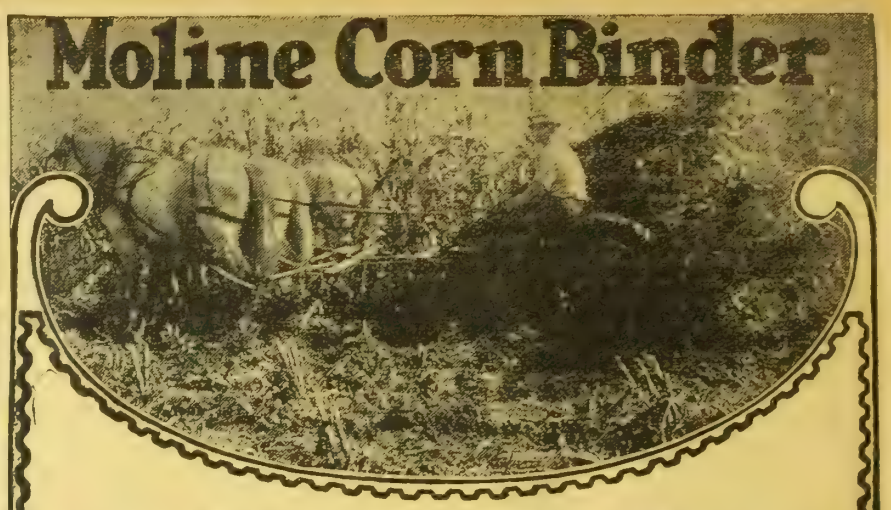
One feature not so frequently met with on a farm has also been introduced at the Tratt farm home. That is the sleeping porch which for three years has been made use of every night without a single exception. Winter or summer makes no difference. Mr. Tratt and his family have become so used to sleeping out-doors that they would not trade back now under any consideration.

Electric power from the city of Whitewater provides the light in the home and in the barn and motors attached to the current pump the water and run the separator. Just a push of a button and the machinery is in motion.

No wonder that Mr. Tratt considers the city life with disdain. His house affords him every convenience that the largest city could provide, his farm a better living than most business enterprises could offer.

TRATT MAKES USE OF HIS SILOS AND A MODERN VENTILATING SYSTEM.

Moline Corn Binder



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You'll need the 40% crop value in the stalks; and you can rely upon the Moline Corn Binder to do a clean job of harvesting, no matter what condition the crop is in.

Gathering boards extend 5 1/2 feet in advance of knife, straighten up down corn before cutting. Properly set springs and shields prevent clogging by short stalks, weeds or loose leaves—insure steady work.

Conveying chains deliver corn to binding device in perfect order. You get smooth, firmly-bound bundles with unvarying regularity—no missing.

Lightest running main wheel in the world. All carrying and driving friction is eliminated by self-aligning, anti-friction bearings.

Solid steel main frame holds working parts in easy working position at all times—insures long life and good service under hard strain.

Ask your Moline Dealer about the Moline Corn Binder, or write us for Illustrated Literature.

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Moline Plow Company, Moline, Illinois

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Plows (Steel and Chilled) Harrows Planters (Corn & Cotton) Cultivators Listers *Moline-Universal Tractor*

Stalk Cutters Hay Loaders Side Del. Rakes Dump Rakes Potato Diggers

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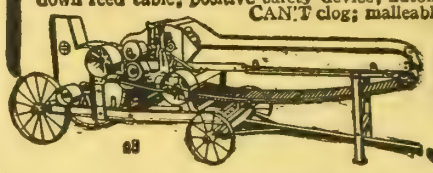
The Gehl-Silberzahn is known as "the King of Ensilage Cutters" because of its simplicity, safety, convenience, clean cutting and great capacity. The new models are better than ever — the result of 25 years' experience in building ensilage cutters exclusively. All-steel frame; low-down feed table; positive safety device; automatic feeding device; six fan blower that simply CAN'T clog; malleable knife heads; best knife adjustment.



Write for Catalog showing 10 sizes. Gives full details and explains HOW and WHY the Gehl-Silberzahn is BETTER. Get this catalog BEFORE you buy a cutter. Write today — a postal will do.

GEHL BROS. MFG. CO.
103 S. Water Street West Bend, Wis.

Arsenic Soon Kills All Blister Beetles.

Arsenate of lead and Paris green are effective destroyers of the several species of blister beetles that attack vegetables. Spraying or dusting these poisons on the plants is necessary several times in a season for complete control, since these insects are especially hard to kill.

For large areas spraying with three pounds of arsenate of lead paste and a pound of Paris green in fifty gallons of water is recommended by the Ohio Agricultural Experiment Station to kill blister beetles. Potatoes are frequently attacked by blight, which can be controlled by Bordeaux mixture made of four pounds of copper sulphate and five pounds of hydrated lime in fifty gallons of water. If the arsenate of lead and Paris green are added to Bordeaux instead of water, both insect and disease injuries will be prevented at one operation.

Applications must be made soon after potatoes are up and later at intervals of two weeks, if necessary, for complete protection, the experiment station entomologists say.

For small gardens Bordeaux mixture may be made by dissolving an ounce of copper sulphate in half a gallon of water, and an ounce and a half of hydrated lime in a half gallon of water, and then pouring the two solutions together. To this are added for blister beetles an ounce of arsenate of lead paste and a third of an ounce of Paris green.

Some gardeners are fairly successful in controlling these pests by dusting plants with poison. An ounce of arsenate of lead powder and a third of an ounce of Paris green may be mixed in a pound and a half of fine lime and dusted from a cheesecloth bag or a small can with a perforated top.

Blister beetles are striped, spotted or plain black or gray. They have slender bodies about half an inch long, with long sprawling legs. Potatoes, beets, beans and peas are their favorite hosts.

Discovery in the internal revenue division laboratory of a process for manufacturing glycerine from sugar was announced by the treasury department. Under the secret process evolved, the cost of this substance, a heavy factor in the manufacture of explosives, will be reduced to slightly more than one-fourth of its present cost. Glycerine is at present manufactured almost entirely from fats, at a cost of 90 cents a pound, which is six times its cost of production before the war. The discovery is the first to be announced by chemists working in cooperation with the council of national defense.

An Agricultural Patriotism.

Portions of an Address, July 4th, by L. F. Graber, of the Wisconsin Alfalfa Order, and Green County Emergency Food Agent.

This is a day and age of rapidly upward soaring prices for land and labor. It is a time when we are realizing the highest prices for agricultural products the farmer has known since the civil war. It is a time when the nations of the world are crying for more food. With 40,000,000 men withdrawn from the fields of productive industry and drafted into the destruction of life and property which accompanies all warfare—with the unfavorable seasonal conditions which universally prevailed last year—a crop shortage and a food shortage has occurred which has reflected itself in the unusually high prices for food products and which is vitally affecting the peoples of every land. It is this tremendous food shortage that prompted President Wilson in his message to the people of the United States to emphasize in no uncertain terms that the winning of the war is in a large measure dependent on the American farmer. It is his patriotic responsibility to feed not only the army and the 100,000,000 Americans, but to help feed the armies and peoples of those nations who are now our allies in this great war. And so the farmer is the "soldier of the furrows" and it is his patriotic duty to produce more than he has ever produced before. The soldiers of the trenches will march to battle shouting the "Battle Cry of Freedom." The soldiers of the furrows will march to battle with the weeds, weather and pests shouting the battle cry of "Feed Them." And in this food production battle for humanity much will depend on the kind of ammunition and weapons the farmer will use. The silos are our most powerful guns in bringing down the high cost of winter feed. Corn and alfalfa are the ammunition for cattle that produce the cheapest and greatest amount of meat and milk. Particularly in this year when food production is a patriotic necessity it is becoming necessary for live stock farmers to grow chiefly those crops which work hardest for them—those crops which produce the most and bring the greatest net returns for the labor and effort applied. In Green county there are two crops which stand foremost in the production of feed per acre for live stock—corn and alfalfa—corn for silage, alfalfa for hay. They are the two crops when grown successfully make a combination on any farm that for feed production, milk production or meat production cannot be beaten. An acre of alfalfa will produce three times as much actual feed as an average acre of timothy. Yes, I know there are arguments for timothy. We say it is easy to get a catch and that it seldom winterkills, but it still remains that timothy produces the least amount of feed and the poorest quality of feed for cattle when compared with clover or alfalfa. On the $150 land of this county timothy will continue and must continue to give way in importance and area to those superior feed-producing crops—alfalfa, clover and corn.

Green county leads the state with her 28,000 acres of alfalfa, but we are behind on silos. Of the 2,465 farms, only 889 have silos—only one out of every three. In Sheboygan county 80 per cent of the farms are equipped with silos. If there was ever a time when the dairy farmer who has not a silo should be so equipped it's right now. The hay crop is short. Corn is behind. Frost may get it next fall. You can get double the amount of feed from an acre of frosted corn if you have a silo. There is no cheaper or better succulent winter feed known in the world than corn silage for Green county farmers. Get your order for a silo in today. It may be very difficult to get silos later on, as several factories are already oversold. A silo and alfalfa on every farm in Green county spells—Agricultural Patriotism.

Boys' and Girls' Calf Club.

To the Editor:—There are many boys' and girls' calf clubs, but only a small percentage handle pure breds. The first pure-bred Holstein heifer calf club of the United States was organized at New Douglas, Illinois, by Charles A. Prange, a banker of that town. From Chenango county, New York, and other centers of high-class Holstein breeding, he bought seventy-five pure-bred Holstein heifer calves, descendants of or closely related to cows that have made official records of thirty pounds or more of butter in seven days.

These calves arrived at New Douglas just after pasture grass started. The boys and girls who had signified their wish to become members of the calf club each drew a number and the calf marked with that number became their property after they had given a signed bank note bearing 6 per cent interest for the animal.

October 17, 1917, or as near that date as arrangements can be made, the animals will be offered at public sale by the celebrated Holstein auctioneer, Col. R. E. Haeger, who has generously donated his services for this occasion. Noted speakers and men high in the dairying and political circles of the state will be present and speak. The Southern Illinois Milk Producers' Association, numbering 2,600, is expected to make a field day of this occasion.

The animals, handled by their young caretakers, will be led into the ring and auctioned off and the amount of money each one realizes will be given to the young owner who also has the opportunity to win one of five money prizes given to the boy or girl who owned and took care of the five animals bringing the highest prices.

It would be difficult to think of a better plan to inculcate the desirability of good care and feed or of the advantages of pure-bred animals. Every youngster who has taken care of an animal and realized a goodly profit on it will thereupon be thoroughly inoculated with the pure-bred fever. The Holstein-Friesian Association might, with good results to the breed, make a small donation from its surplus toward such a laudable enterprise.

G. H. Truckell.

Save Every Ton of Hay.

To the Editor:—I want to suggest to the farmers of Wisconsin that they should get every ton of hay that it is possible to get. Be sure and cut all the wild hay and save it and get ready to feed stock without buying hay. There is still time to sow turnips in the corn before laying by. Under favorable conditions turnips will make a large amount of food for man and stock. Crops are looking fine in our neighborhood. The potato crop will be a winner from present indications.

W. W. Clark,
Emergency Food Expert, Wood county, Wisconsin.

Poison ivy will not be killed by a single cutting, as new shoots or suckers are persistently sent up from the rootstocks. The rootstocks must be exhausted by destroying the foliage as fast as it appears, either by repeated mowing or by spraying with a strong salt brine made at the rate of three pounds of common salt per gallon of water. If the weed is cut or sprayed in June and the treatment repeated about three times at intervals of ten days or two weeks, the rootstocks will become exhausted and die. Arsenite of soda (a violent poison), one-fourth pound per gallon of water, or crude oil may be substituted for the salt spray. Spraying does not affect the roots directly, but is simply equivalent to cutting. However, there is the advantage that one need not come into actual contact with the plant.

AREYOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F. Farm and Real Estate Journal, Traer, Iowa.

PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for 4 free books; inventions wanted, etc. I help you market your invention without charge. Richard B. Owen, 37 Owen Bldg., Washington, D. C.

A Bigger Yield From the Same Field.

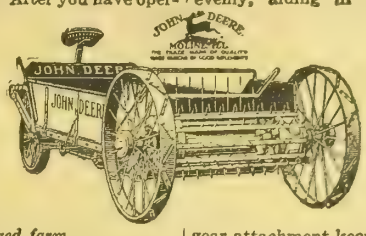
From any field that you have been manuring by the hand method you can get a bigger yield if you use the spreader method—and save much time and labor.

A good spreader tears up the manure into small particles and spreads it evenly. The manure goes farther. It can be worked well into the seed bed so that the plant roots get all of its valuable plant food. *Wasting manure is like wasting money—a good spreader makes every particle of manure count.* A Newton County, Ind., farmer testing the spreader and hand methods of applying manure on two ten-acre tracts found that the *spreader method gave 120 more bushels of corn, 140 more bushels of oats and 9 more tons of clover.*

The John Deere Spreade.

The Spreader with the Beater On the Axle

has special capabilities for increasing your crop yields. Its exclusive features make it the ideal implement for the best method. Ask any owner of the John Deere Spreader about the way it increases crop yields and saves time and labor. After you have operated a John Deere Spreader of your own for a year, you will fully appreciate how much these gains really mean. *You'll find that the Spreader with the Beater on the Axle more than pays for itself in one year from the gains it gets on even a fair-sized farm.*



The beater on the axle construction *eliminates all chains, clutches and scores of other trouble-making parts. Does away with half the types of castings otherwise necessary. Does away with adjustments. Puts upkeep at minimum. Makes the John Deere Spreader exceptionally long-lived.*

Beater is all steel—practically indestructible—runs on roller bearings, aiding light draft. Beater teeth spirally arranged—tear up manure perfectly and distribute it evenly. Deliver manure close to the ground—wind does not affect spreading.

Revolving rake feeds manure to beater evenly, aiding in uniform distribution. Shock - absorbing spring relieves spreader and horses of sudden strains.

Spreader only hip-high to top—easy to load. Big drive wheels—light draft. Ball-bearing apron drive—apron travel frictionless. Simple gear attachment keeps weight of load from making apron race when spreading up hill.

Easy to operate—only two levers—one lever determines number of loads spread to the acre; the other starts and stops the spreading. It's so simple, a boy can operate it.

Wide-spread attachment for extra wide spreading.

Write for booklet on the John Deere Spreader.

30% of the Corn Crop's Feeding Value Is in the Stalk

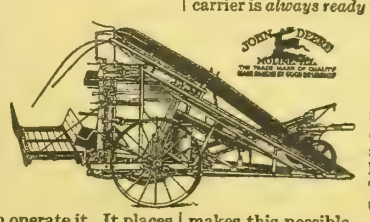
You save money by cutting your corn and putting it in the silo or feeding it to stock in the feed lot—because thirty per cent of the entire feeding value of the corn crop is in the stalk.

John Deere Corn Binder

A Labor and Crop Saver

Inspect the Power Carrier—a Great Improvement.

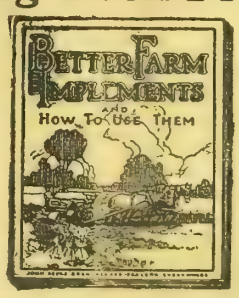
The John Deere Corn Binder saves corn that is lost by binders equipped with the old style tooth carrier. The power carrier delivers into the windrow all loose fodder that is discharged onto it with the bundles. *Requires no leg power* or effort to operate it. It places all the *bundles out of the way* of the horses when three horses are used abreast. This carrier is *always ready* to receive the bundles.



The John Deere Corn Binder can be *turned quicker than the horses turn.* There is no dragging of binder at any time. *Square corners can be turned* and the horses are relieved of neck weight. The all-steel, quick-turn tongue truck makes this possible.

Write for free book, "The Better Binder."

Big Book Free



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This book tells all about a full line of labor-saving farming implements. Tells how to adjust and operate many of them. A practical farm implement encyclopedia. Worth dollars. Illustrates and describes the following machines: Walking and Riding Plows, Tractor Plows, Disc Plows, Disc Harrows, Spring Tooth and Spike Tooth Harrows, Corn and Cotton Planters and Drills, Listers, Alfalfa and Beet Tools, Grain Drills and Seeders, Riding and Walking Cultivators, Lister Cultivators, Mowers, Side Rakes, Loaders, Sweep Rakes and Stackers, Hay Presses, Grain and Corn Binders, Corn Cutters, Stalk Cutters, Kaffir Headers, Manure Spreaders, Portable and Inside Cup Elevators, Corn Shellers, Wagons, Farm Trucks and Buggies. This big book will be sent *FREE* if you state the implements in which you are interested and ask for Package X 640 .

Uniformity in Implement Manufacture

means much to you. You want to feel safe that every implement you buy is up to standard. Getting implements whose quality and workmanship is up to standard is a matter for your serious consideration.

Specialization — different factories for different classes of tools, each directed by specialists pre-eminent in their particular line—control of all the processes in the manufacture of implements from the leading raw material used to the finished product; and rigid adherence to exact duplication of trial implements whose qualities have been fully tested in actual field work, all combine to make John Deere implements uniform in quality and design.

JOHN DEERE, MOLINE, ILLINOIS

HAY MAKES GOOD YIELD.

Clover and Alfalfa Harvest Is Good—Small Grains Are Ripening Well —Cool Weather Delays Corn—Live Stock, Especially Dairy Cows, Show Fine Condition.

WISCONSIN.

Barron County.—We have had considerable rain during the last two weeks. Small grain looks well. Winter rye is very good. Potatoes will yield above the average. Because of dry, cold weather in May and June, hay will fall below the average. Corn is poorer than the five-year average because of the late spring. Nearly everyone has a large garden. Live stock of all kinds look well; very little is being fed, dairying being the main industry.—Wm. Bartlett.

Calumet County.—All crops are fine. Potatoes look well, but some have rotted. Corn has grown well on high land, but on wet land was drowned out. Peas and beans are ripe. Pastures are good. The clover crop promises well this year. Gardens look well.—Joseph Buchinger.

Crawford County.—We are having good growing weather except that it is a little too wet for corn on heavy soil. On sandy soil the crop is doing fine. Prospects indicate a bumper crop with a favorable fall. The harvest of winter wheat, rye and early oats has commenced. Wheat and oats are well filled and will make good crops, but rye did not fill as well as usual. A good crop of early potatoes is assured. Late potatoes are growing well. Vegetables are plentiful and fruit promises a large yield. Farmers are busy making hay. Cattle on pasture show a healthy condition.—George Ashbacher.

Dunn County.—All grain crops look fine; they are fully equal to those of last year, except corn. Storms have done no damage, but rains have left the ground full of moisture. No more rain is needed until after the grain harvest. Pastures are excellent. All live stock looks well and free from disease.—E. A. Finley.

Eau Claire County.—Oats and barley are doing well. The barley crop filled well, but the stand is a little thin. Oats have started to head. Rye has made good growth and has filled well. Clover hay looks patchy and the weather has been poor for putting it up. The timothy crop is light. Corn seems to be doing very little because the weather is too cold. On lowland it has not grown much for three weeks. Pastures are good and cattle look well. Crops in general are hardly up to average.—C. A. Koll.

Florence County.—The hay and grain crops are below normal. Cold, wet weather has caused rotting of potatoes to some extent. Corn looks bad. Gardens are backward. Live stock are in normal condition and no diseases have been reported.—Phil Kelms.

Forest County.—No damage was sustained from heavy rains, but cool weather delayed planting. Corn is grown here only for fodder and silage. Cool weather benefitted the small grains, which look better than usual. Old meadows will be light, but the new seeding promises a big yield. Live stock are excellent and the absence of flies has favored the cattle very much.—H. A. Kamm.

Iron County.—Heavy rains and cold weather have delayed all crops. Potatoes look well. Meadows will not make more than 75 per cent of a crop. Little haying has been done. Pastures are good. Small grain and corn are short, but look fine and may make normal crops. Live stock look well and their number is increasing.—J. A. Becker.

Juneau County.—Although still small and backward, corn has made a start on the upland; on the lowland it is very unpromising. Small grains look fine; wheat promises the best crop for several years. Rye also promises well. A big acreage of buckwheat was sown, perhaps 25 per cent more than normal. Potatoes look fine and the acreage is above normal. Hay will make a full crop, but the weather is bad for saving it. Live stock are healthy and doing fine, but no feeding operations are under way.—J. W. M.

Kenosha County.—Corn is backward on account of cold weather, but has the best stand it has had for several years. A good crop of hay is going up at this time. Potatoes look fine. Cabbage and sugar beets are excellent. Gardens will yield abundantly, but fruit it not plentiful. Excessive rains have stimulated pastures. Cattle are doing well.—Geo. Kreuscher.

Kewaunee County.—At least 5 per cent of corn planted was lost by excessive rains, but it was replanted and now is doing well. Small grains, grasses and garden truck are all about two weeks late, but show excellent condition. Potatoes look well. Haying has begun and promises to make more than an average crop. There is a shortage of spring colts and pigs.—Fred Lutz.

La Crosse County.—Corn is late. Wet weather has hindered field work and some fields are getting grassy. The hay crop is heavy, but haying has been delayed by rain. Pastures are not looking well, but small grains are fine. A large number of young stock, in only fair condition, has been sold to the packer. The tendency seems to be to reduce the number of feeders. The early potato yield is lighter than usual and some of the potatoes have rotted. New potatoes are selling for about $2.40 per bushel.—S. J. D.

Marinette County.—Corn has been delayed by cold rains. On lowlands some replanting was necessary because of drowning out. Warmer weather prevails now and the crop has made a fair start. Potatoes never looked better, especially the early planting. Bugs are appearing, but have done no damage. All small grains look well, pastures are good, haying has started. The hay crop is about two weeks later than usual. New meadows are good, but old meadows are thin and the whole yield will fall below that of last year. Live stock look well. Small fruits are late; strawberries are good and also the early cherries. Apples are not promising much this year.—H. B. Pederson.

Ozaukee County.—The corn crop looks poor this year because of too much rain. Potatoes are fair and hay is plentiful. Barley will make a fair crop. Pastures are short and meadows are poor because of too much rain. Live stock are in good condition. Feeding operations show an increase.—J. N. M.

Polk County.—The heavy rains have done no damage to this county. Corn is still backward, but growing nicely now. Small grains never looked better. Newly seeded meadows are good, but old ones are thin. Pastures look well and live stock show good condition. Butter fat brings 40 cents a pound. Hogs will be scarce and high priced this year. A larger acreage of beans than usual was planted and they look fine. All gardens and fruit are doing well.—Wallace Fountain.

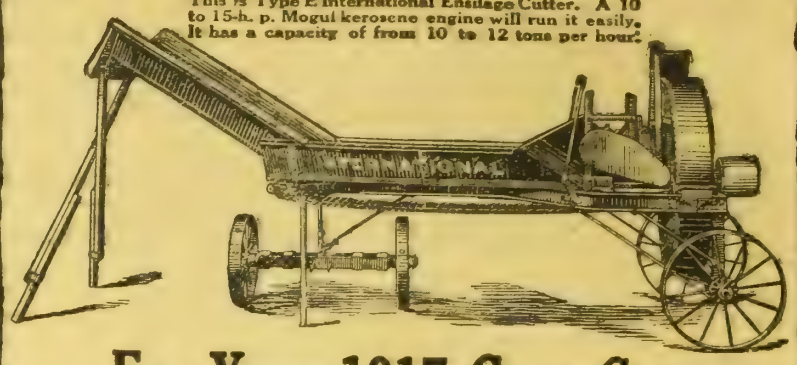
Richland County.—On lowlands the corn crop was damaged by cold rains. The crop is later than it was last year; much of it stands less than waist high. Oats look well. Barley is good. The hay crop promises a good yield. Pastures are fair. Fruit is plentiful.—E. C. Stewart.

Sauk County.—In general the corn crop is below normal. Continued cool will make the prospects of a mature crop very doubtful. Pastures and meadows are all that could be desired of them. Since pastures are good and feed costs are high, little summer feeding of cattle is in progress. The first crop of clover is making from three to five tons per acre. Weather conditions are retarding the harvesting of this crop. Small grains look promising, except where drainage is poor and the soil sandy.—Richard F. Klemm.

Shawano County.—The corn crop is very backward except on sandy land. During the last three days, however, it has grown splendidly. On lowland the crop looks worse than it has for years, but we have hopes of a fair crop, at least for silage. The yield depends largely on the conditions during the next sixty days, or eighty days. Small grains, such as rye, oats, barley and wheat, look much better than last year and should equal the average for the last five years. Hay is later than a year ago, but the new seeding is unusually fine. Pastures are splendid. Thousands of acres of good clover are going to waste on cutover land in this part of the state because of lack of live stock. Gardens are better than for years. Insects have bothered very little. Live stock never looked better in this vicinity. All crops with the exception of corn are as good as they have been for the last thirty years.—M. H. Wallrich.

St. Croix County.—The number of cattle and hogs is about the same as last year. Pastures look well and cattle show good condition. There is a tendency to ship more calves to market than formerly. The high price of milk and the high price of veal combine to bring this about. With cheese at 24 cents a pound it hardly pays to keep the calf longer than it takes to get him ready for market. Most of the cattle in this region are mixed breeds, but they follow the dairy type. The unusually high price of corn hastens the marketing of cattle and hogs before they are finished. The outlook for corn is poor and the pea crop is below normal, which does not promise well for the pork raiser. Rye and barley will make good crops. Hay will yield well. The fields of wheat and oats are fine.—Stephen Iversen.

Taylor County.—The weather has been fine for all kinds of grains, meadows and gardens. However, the nights are a little cool for corn, tomatoes and cucumbers. Hay and clover look fine and will make fair crops. Some harvesting is now in progress. Corn is small and late. Potatoes promise a full crop and the acreage is above normal. Pastures have done well and dairy stock show good condition.—John E. Miller.



For Your 1917 Corn Crop

THE **International Ensilage Cutter** shown above is a good size for individual use, or for neighborhood use wherever a medium-capacity machine is required. Note how simple and compact it is, and how safely the gears are housed.

Then there are both smaller and larger Internationals. Type F is the lightest-running cutter made—you can run it with 4 to 6-h. p.; capacity 3 to 6 tons per hour. The larger sizes will put up to 25 tons per hour into the silo, and a 25-h. p. engine will handle the heaviest loads.

Corn growers everywhere know that **International Ensilage Cutters** cannot be beat for uniform cutting, high elevation, safety and durability. They fill silos at the lowest power cost. Every feature of these cutters, the knives and blowers on the same flywheel, the carefully machined bearings, the complete oiling system, the absence of all unnecessary gears and sprockets, the steady feed arrangements, all tend to make them easy running and power saving.

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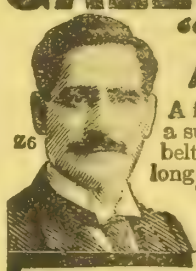
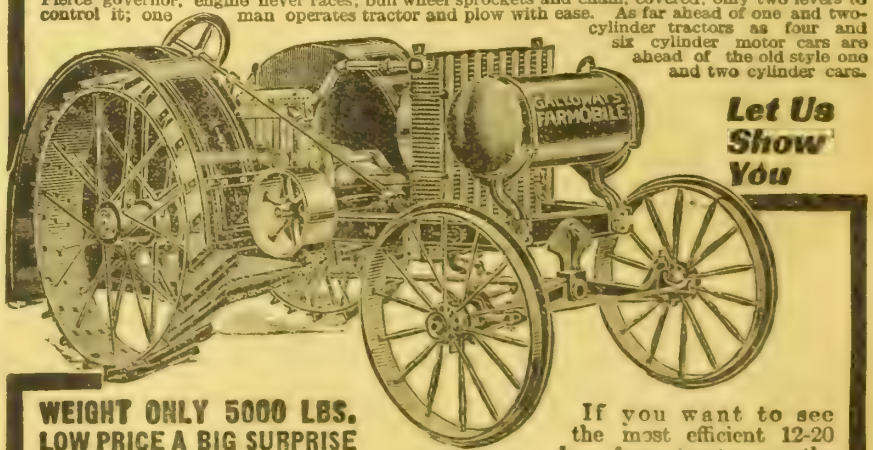
GALLOWAY'S TRACTOR



"Pulls Anything, Anywhere, Anytime." That's what users say!

A four wheeler delivering 12 full horse power on the draw-bar (with a surplus of 4 h. p. by actual dyamometer test) and 20 h. p. on the belt (with a surplus). Four cylinder, valve in the head, water cooled, long stroke, modern gasoline motor, transmission a unit with motor. The Galloway Efficiency Farmobile gets its name because of the small amount of power lost between engine and draw-bar. We have exclusive right on this patented transmission. By actual test its sustained efficiency at the draw-bar is 86.7%. That's why it "pulls anything, anywhere, any time." Will do any portable engine job, sawing, silo filling, corn shelling, shredding, pull 28 in. grain separator, feed grinding, pumping for irrigation, etc. Will handle three 14 in. bottoms 8 to 9 in. deep in clover and timothy sod. For building roads, dragging and grading it cannot be excelled. Double chain drive, gears run in oil tight case in oil bath; rear wheels 58 in. high; 15 Hyatt roller bearings and 6 ball bearings used in the Galloway Efficiency Tractor. Extra heavy duty motor, Schebler carburetor, Eiseman magneto, Pierce governor, engine never races; ball wheel sprockets and chain, covered; only two levers to control it; one man operates tractor and plow with ease. As far ahead of one and two-cylinder tractors as four and six cylinder motor cars are ahead of the old style one and two cylinder cars.



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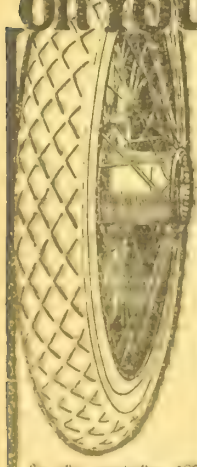

3500 Mile Guarantee

Manufacturers of high-grade Tires sell us their surplus stock or overproduction for spot cash.

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Size	Plain	N-Skid	Guaranteed Tubes
28x3	$ 7.60	$9.25	$2.35
30x3	7.70	9.60	2.40
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30x3 1-2	9.95	11.10	2.85
31x3 1-2	10.55	11.60	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.35
31x4	14.75	16.00	3.70
32x4	15.05	16.85	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.35	4.00
35x4	17.00	18.60	4.50
36x4	17.20	18.85	4.70
33x4 1-2	21.05	23.05	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
36x5	24.90	27.25	6.05
38x5	27.10	29.40	6.25
40x5	28.00	28.80	6.35

Thousands of our satisfied customers are getting from 3000 to 4000 miles service—why not you?

Pay after examination. 3% discount for cash with order.

We ship C. O. D., subject to inspection. When Oversize Tubes (Clincher, Q.D. or S.S.) are desired.

ORDER TODAY—prices may jump. Full information on request. Address

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AUTO EXPERTS WANTED

BY the Government as Truck Drivers, Mechanics and Engineers. The training may keep you out of the trenches. Steam and Gas Engineers and Mechanics are also needed everywhere at home. Learn in the best equipt school. Write for big catalog.

ENGINEERING COLLEGE AUSTIN, MINN.

More About the Big State Fair.

Mr. F. M. White of Madison, to Have Charge of Tractor Show Which Will Be a Big Feature of the Fair.

THE Wisconsin State Fair for 1917 will be held at State Fair Park, just outside of Milwaukee, September 10th-15th. Weather permitting, it will be the biggest fair that has ever been held.

High spots in this year's program are a tractor show of more than ordinary proportions; a market and food exhibit, showing preparation, marketing, shipping and distribution of food products; $50,000 in premiums and several new classes for live stock; a new $25,000 poultry building; an automobile show of new and of used cars; and, lastly, repainted buildings and properly drained grounds.

Since the state fair has come under the direction of the state department of agriculture a steady improvement has been noticeable in the fair each year. Under the old system buildings and grounds were rapidly getting into poor shape. Now each item of expense and each necessary improvement is properly taken care of in businesslike fashion. Each department of the fair is under the care of an efficient superintendent with a practical knowledge of the work.

F. M. White, of the agricultural engineering department of the university, will have charge of the tractor demonstration. The demonstration will be held in the morning on 1,200 acres of land near by, and the tractors will be on exhibition in the afternoons and evenings on the grounds. Wisconsin stands alone in providing a tractor show for her citizens in connection with the state fair. But Wisconsin's fair officials, and Sec. Oliver E. Remey in particular, are strongly in favor of demonstrating every piece of machinery which will increase the man power per acre and result in greater and more economical food production. There are now only about 1,000 tractors in the state, which has some 220,000 farms of various sizes. Not all these can make use of a tractor, but thousands of them can and will do so as soon as they are convinced of the possibilities of the tractor. The same is true in regard to all machinery. More machinery means greater production and cheaper labor. It is by machinery that we must solve the help problem.

The classes for live stock have been made more attractive for the small breeder of the state in that greater opportunities are given him to win ribbons. The Wisconsin competitions have been added to eliminate the chances of the professional showman gathering in all the prize money. Open competitions have, however, been made attractive enough so that outside breeders will find it worth their while to exhibit at Wisconsin. The judges for all classes of live stock have been selected with a view to making ribbons at the Wisconsin fair something particularly desirable. All judges are chosen on their merits alone.

The automobile show will be the largest of its kind in the country. There will be 52,000 square feet of floor space given over to new machines and an equal amount of space for used cars.

The old creek which runs through the section where the sheep and swine barns stand now flows through a concrete flume and the ground has been filled in so that it is now dry instead of a mire. The race track has also been drained.

There will be space for 20,000 automobiles on the grounds, which can be parked free of charge.

The racing events promise to be especially good. Four days will be given over to horse racing and two days to auto racing. Two big stakes of $5,000 each have been guaranteed by the Milwaukee Chamber of Commerce and the Plankington Hotel.

There will be a boys' and girls' camp again under the direction of Professor Bewick, of the University of Wisconsin. A pageant showing the advance of agriculture in Wisconsin is planned for this year which will be presented entirely by the boys and girls. The thousands of children, led by the boys' and girls' department, will sing "The Star Spangled Banner" on Children's Day, September 10th.

In character of entertainments Wisconsin has led all other fairs. Wisconsin was among the first to do away with all questionable entertainments and the amusements this year will be more than ever free from objectionable "acts." Aeroplane flights and fireworks are the biggest of the twenty acts which will be given each night.

The educational side of this year's fair, however, is going to be the one big thing. The finest cattle (beef and dairy), hogs, horses, sheep and poultry, together with canning and fruit exhibits, will make the fair supreme in live stock. The tractor and machinery exhibits and demonstrations will make it likewise supreme industrially.

Every department headed by an expert in that particular work is the secret of the fair's growth in every branch. The entire responsibility, however, actually rests on Secretary Remey and Commissioner of Agriculture Norgord. But if sincerity plus ability plus work will accomplish anything, then Wisconsin will take a long step forward this year to soon being able to say that we have the best fair of any state in the Union.

Clearing With a Tractor.

To the Editor:—I can honestly say that from my own experience I think the tractor the most efficient and economical machine yet invented for putting our lands under cultivation.

We had three men running our 12-25 tractor and they pulled the stumps and broke up about twenty acres of land in less than two weeks. We are using a twenty-eight-inch breaking plow and cutting a twenty-four-inch furrow to the depth of seven inches. We turned under all the average grubs and most of the small stumps, while the trees and larger stumps we pulled with the tractor before we started plowing. All our neighbors state that it is the finest piece of breaking they have ever seen.

We figure that we made a saving of $5 to $6 an acre and besides did a much better job.

Although we have not had any repairs on our tractor this season, I must confess that pulling stumps is hard on the tractor on account of the temptation to overload it, and most operators get more or less careless when the day is nearly over and have a tendency to jerk the tractor, but this is by no means the fault of the machine.

For my part I think that the tractor is so far ahead of horses that there is no comparison. I plowed about forty acres this spring on sixty gallons of gas and twenty gallons of kerosene and about four gallons of oil.

I would recommend a small tractor, not larger than 10-20, on a 160-acre farm, while a larger farm ought to make good use of a 12-25 or an 18-36. Of course, it must be taken into consideration that there is some work that cannot be done with a tractor, such as tilling or breaking steep hillsides, hauling produce to market (that is, in this locality), and numerous other things. Horses cannot be entirely dispensed with on a farm, but we have plenty of work for four horses on 250 acres of cultivated land besides the work that we do with the tractor. Anton Omernils.

Burnett Co., Wisconsin.

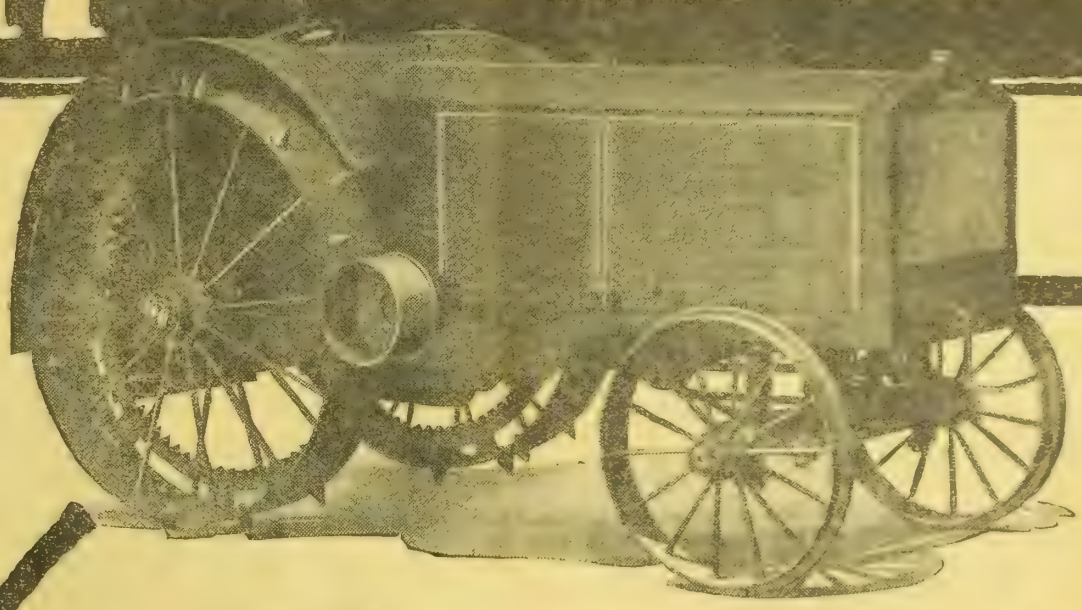
Detecting Ticks in the Flock.

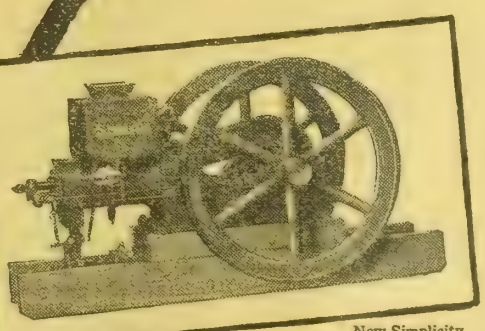
When sheep are heavily infested with ticks they bite and scratch and rub against any available object, including other members of the flock. The natural position of the wool is disturbed by these efforts to obtain relief from the intense itching; more or less wool is pulled out, and the fleece may have a ragged appearance.

If sheep ticks are causing the trouble, they may be found by parting the wool over the neck, breast, shoulders, belly and thighs. They are large enough to be seen readily and are of a brownish color. On warm days they often may be observed crawling over the tips of the wool. If ticks are present pupae usually will be found attached to the wool fibers. These are seen easily with the naked eye, being about one-eighth of an inch in length. Their color varies from yellowish white to dark brown, and the shell is glossy and firm.

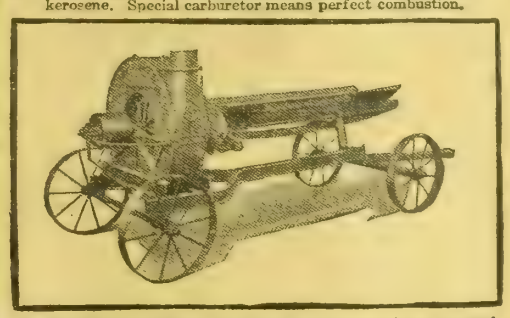
Any condition which causes the sheep to bite and scratch themselves may be mistaken temporarily for ticks. In every instance close examination should be made and the cause definitely learned. It should be remembered, however, that the presence of ticks does not exclude other possible causes of the irritation, such as scab, lice, common ticks, bearded seeds, thorns, etc.—[Bulletin.

17 YEARS Of Experience Behind This TRACTOR





New Simplicity kerosene engine with throttling governor. Smooth running; instantly changes to gasoline or kerosene. Special carburetor means perfect combustion.



Simplicity Blower-Cutter—cuts fast, delivers maximum amount of silage per horse-power. Substantially built, safe, durable.

HERE'S a tractor that will give you good, downright, honest service. It has stood every tractor test, working under all conditions of soil. It has proved itself a tractor of merit—and our reputation of 17 years' standing is back of every tractor we put out.

TURNER Simplicity TRACTORS

are all-around tractors, practical for the average sized farm. They will do your plowing, discing and harvesting; also your hauling and belt work. Powerful enough for the heavy jobs; light enough to handle the small jobs economically.

Simple control, easy to handle. Practically all working parts enclosed. Equipped for kerosene or gasoline. Waukesha Tractor Motor, Hyatt Roller Bearings—standard design throughout.

Tear out this ad, write your name and address on the margin and mail for descriptive literature. Mark a cross under the Simplicity engine and Feed Cutter if interested in these products.

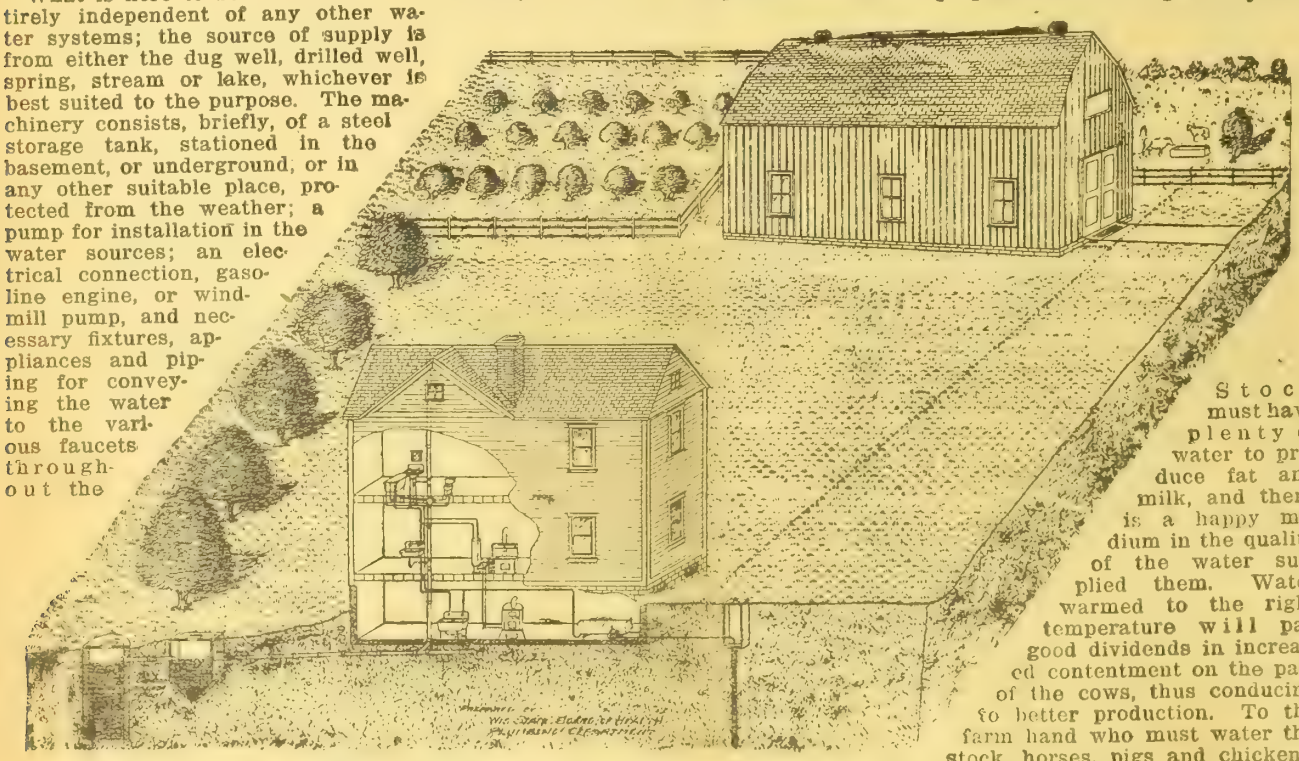
TURNER MFG. CO., 101 Lake Street, Port Washington, Wis.

Running Water on the Farm.

Farmers Can Ill Afford to Do Without This Convenience—By Louis W. Bridgman, of the Wisconsin State Board of Health Dept.

RURAL life has already attained many of the luxuries and conveniences of the urban dweller. The telephone, the automobile, rural free mail delivery, and musical instruments are some of the farmer's modern day possessions. But the utility most essential to the health, convenience, protection and general well being of the farm home is none of these, but may be made an adjunct of such homes. We refer to a home water supply system. These private plants have been so well developed that a rural home may be as comfortably served and protected as any city home having the advantage of waterworks. What this means for the economic freedom of the farm housewife is not difficult to understand; what it may mean as an encouragement for the young folks to remain on the farm is also a factor not to be lightly regarded. It means at once an end of the worst of kitchen drudgery, and a time—and labor saver around the barn and dairy. Hot and cold running water can be had in any farm home in Wisconsin by the expenditure of a reasonable amount for equipment.

What is here to be described is entirely independent of any other water systems; the source of supply is from either the dug well, drilled well, spring, stream or lake, whichever is best suited to the purpose. The machinery consists, briefly, of a steel storage tank, stationed in the basement, or underground, or in any other suitable place, protected from the weather; a pump for installation in the water sources; an electrical connection, gasoline engine, or windmill pump, and necessary fixtures, appliances and piping for conveying the water to the various faucets throughout the home and farm buildings. For the average farm, where electrical connection is not available, gasoline or similar power is preferred, especially because it can be used for a multitude of power purposes, such as running the grindstone, feed mill, washing machine, woodsaws, corn shellers, cream separators, churns, vacuum cleaners, etc.



CROSS SECTION OF MODERN FARM PLACE SUPPLIED WITH HOT AND COLD RUNNING WATER.

The principle of the elevated tank was the forcing of water through the house by pressure from above. The basement tank comprehends forcing the water upwards to all parts of the house and to other farm buildings by means of compressed air. Omitting technical details, this system may be briefly described as follows:

The pump is set in the well. It is connected by supply pipes with the air-tight tank located in the basement. The motor or engine operates the pump, which forces water into the tank through an opening in the bottom. With no outlet at the top, the air already in the tank is compressed from the force of the water entering from below, or by the medium of an air compressor equipment. This pressure forces the water through the outlet pipes connected to the bottom of the tank and leading to the various faucets, the kitchen sink, bathroom, washbowls, etc., in the house, and to the outside fixtures where water is used for the usual farm duties. When the tank gets half full, all the air which, before water entered, filled the tank, is compressed into the upper half, and a pressure of fifteen pounds to the square inch may be formed. Such a force is able to send water through pipes to a height of nearly thirty-five feet. The air remains in the tank and is compressed when more water is pumped in, and expands downward, pushing the water before it, when the water is drawn off. To be able to pump water to the second floor, the tank should be pumped one-third full of water. If still fuller, the supply available on that floor will be practically unlimited.

Electric power, when available in adequate voltage, is desirable because of its ease of application and relatively low expense. The original cost of this power is, of course, smaller than gasoline power. The motor is usually so installed that it starts automatically when more air storage is needed and stops when the necessary pressure has been obtained. The only attendance required is occasional lubrication and cleaning. A motor with over one horse power will do the pumping for the average farm.

A windmill pump can be made to work satisfactorily if the proper installation is made. This method is, of course, the most inexpensive. Its chief defect is found in the inconstant supply due to lack of winds. Such a pump serves very well if two cylinders are used—one to lift the water from the well and the other to force it into the storage tank.

Gasoline or similar power, which probably is best adapted for most farms, can be used as low as one horsepower and can be located anywhere on the premises—in the basement, garage, barn or other suitable building. It is necessary to run the engine only a short time daily to lift all the water needed about the farm. One engine can be used to pump water and generate electricity at the same time, if a private electrical plant is installed in the home.

There is no longer excuse, outside of absolute lack of capital, for the average farm home being without running water and the fire protection which goes with it. This facility revolutionizes conditions for the farm housewife. It is the constant pumping and carrying of water that makes farm housework hard. It is usually the woman's part to do this work. Then the water must be heated over a fire, with time and expense other adverse factors. These difficult working conditions may not always affect women unfavorably, but their usual tendency is to impair their health and lower their resistance to disease. The convenience of a running water system for all the family should in itself commend the plan. There is nothing more desirable than modern devices for cleanliness, such as baths, lavatories and laundries in every home. Bathtubs and lavatories are modern essentials in the public health movement. Where these are lacking the natural tendency is to neglect personal ablutions, and sanitary science has demonstrated that this neglect often spells illness and loss of vitality, and predisposes to fatal disease. Bathing in sanitary bathtubs with hot and cold water always on tap is likely to become a fixed habit, not a distasteful and deferred duty, and easily grows into a pleasure which increases with the force of the habit. A clean body conduces to clean living.

Running water is fully as great a boon to the farmer and his help around the barns and dairy as to the women folks in the home. Fresh water can be pumped to faucets placed at the most convenient places for their use. A system of the kind described enables the farmer to give his stock water heated to just the right temperature. Freezing cold water offered to cows has the wrong effect on their digestive workings, chilling the stomach and interfering with the proper flow of the digestive juices. Stock must have plenty of water to produce fat and milk, and there is a happy medium in the quality of the water supplied them. Water warmed to the right temperature will pay good dividends in increased contentment on the part of the cows, thus conducing to better production. To the farm hand who must water the stock, horses, pigs and chickens, the use of running water should mean much. The farm chores lose much of their disagreeableness when pumping and carrying water from the well are done away with. Stables and pens can be flushed daily; wagons, buggies and automobiles washed with the hose, and an abundant supply of water provided for cleansing the cans and pans in the dairy house.

A farm water supply having an adequate pressure is a most valuable advantage on any farm as a protection against fire. Because of their isolation from city fire protection, rural homes are more likely than not to be destroyed if fire gets a fair start. It is one of the marked points of a farm water system to be able to increase the pressure in emergencies to throw a powerful stream. One faucet constantly connected with a fire hose will serve as an efficient fire protection at all times, and is an inducement towards lower insurance premiums. A full supply of water is always at hand, and the system assures a constant good pressure.

Any system of running water requires that the buildings be properly heated in order to avoid freezing of the pipes in cold weather, and that the engine may do its work under proper conditions as regards temperature, freedom from frost, and other factors. Therefore, a house warmed by furnace heat or some system of air or water heating is much preferred over stove heat. The former is not essential, however, if due attention is paid to adequate heating by stoves.

FARMERS' MARKET

Wanted—For Sale—To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

FOR SALE—Two improved eighties, adjoining Missouri river, on beautiful flat south of bridge at Mobridge, S. D. Price per acre, $125. FOR SALE—Improved Wisconsin farm, 138 plus acres, adjoining beautiful lake. About seven miles from Danbury or Webster. Price $40 per acre. Will accept farm in north river section of South Dakota for equity. M. T. Woods, Mobridge, S. D.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

SQUARE QUARTER, Red River Valley land, all under cultivation, buildings little value, three miles from two good railroad market towns. Best quality soil, well drained, no waste land; excellent neighborhood. $45 per acre for quick sale, easy terms, 6 per cent, no trades. C. L. Lindstrom, Grand Forks, N. D.

FARM FOR SALE—Within five miles of a village of fifteen hundred inhabitants. Fifteen acres cleared. $2500 worth of saw log timber. Price right, and terms reasonable. Write Healy-Brown Co., Wausau, Wis.

340 ACRES FOR RENT—Mile from town, fine chance for a good stock man. I will help stock it. Have a smaller farm I will sell to right man on easy terms. M. A. Peoples, Ladysmith, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—80 acres best timber land, Clark county. Inquire John Nicholson, Coal City, Ill.

HELP WANTED.

WANTED AT ONCE—Three men to work on poultry farm. Must thoroughly understand either incubation and brooding, feeding or health and sanitation. Are willing to pay good wages to the right man. Address Oak Dale Farm, Austin, Minn.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

CALVES FOR SALE.

CHOICE HIGH-GRADE Holsteins, Guernseys and Short-horn calves. A few select ones at $15 to $35 each, expressed at little cost. Write Ed Howey Co., South St. Paul, Minn.

MILKING MACHINE FOR SALE.

FOR SALE—Milking machine. Two-cow unit. Automatic vacuum and natural air pressure type. In first-class condition. Address G. G. Daugherty, 33 S. Stone Ave., LaGrange, Ill.

ALFALFA SEED.

ALFALFA SEED—$8.00 per bushel. Good purity and germination but dark color. Better grades for more money. Write for samples and prices. Henry Field, Shenandoah, Iowa.

ALFALFA SEED—Nearly 100% pure, $8.75 bu. Alfalfa book free. Samples mailed. Timothy, $3.50. Rape, 14c lb. Fall turnips, 75c. Johnson Bros., Nebraska City, Nebraska.

HONEY.

HONEY—Pure extracted honey. Better and cheaper than butter or sauce. Price list on application. M. E. Bares, Stanton —, Eau Claire, Wis.

HOLSTEIN COW.

REGISTERED HOLSTEIN COW, defective udder, richest breeding, bred to a 44-lb. butter sire, $150. R. M. Hartman, Appleton, Wis.

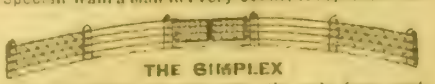
BELGIAN HARES.

EARN $20 WEEKLY raising Belgian hares. Pa[illegible] 10c. Ulysses Anderson, 2421 Orden, D[illegible], Colorado.

TELEGRAPHY.

LEARN TELEGRAPHY—Positions guaranteed. [illegible] Telegraph School, Eau Claire, Wis.

Special! Want a Man in Every County to represent me

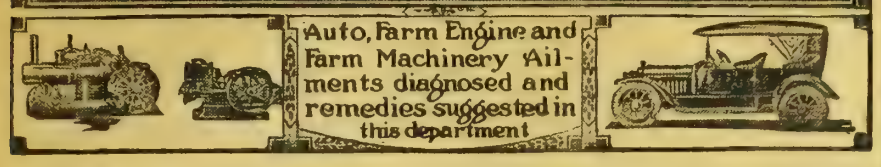


THE SIMPLEX

EVERLASTING concrete post, the only fence post ever made that the wire can be put on and taken off at will. Nothing to break or rust and will last forever. Answer at once as I only have one man to a county. Let me help you in business. Reference required. J. S. GIBSON, Mfr. & Patentee, 2323 W. 35th Place, Chicago, Ill.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

FARM MECHANICS



Questions and Answers.

Lubrication of Motors.

Do you recommend the use of graphite with the engine oil of an automobile?

Answer.—We do not. Graphite is an excellent lubricant for steam engine work, but not for an auto engine. The high heat in the combustion chamber may cake the graphite around the piston rings and cause them to stick. It may also clog the small oil passages through the crank shaft and bearings.

Arc Lights.

Please answer the following question through the Farm Mechanics department: Will a generator capable of lighting thirteen seventeen-candle-power twenty-watt lamps be strong enough to operate an arc lamp? It is a ¼ K. W. generator.

Answer.—Your generator is only half large enough to operate an ordinary arc light. Four hundred to 500 watts are required; 200 to 350 candle power is produced. The arc light is wasteful of power.

Size of Pulleys.

Please tell me in your Farm Mechanics department how large pulleys I will need to reduce the speed of 550 R. P. M. at my engine to 55 R. P. M. at my separator, using a jackshaft. The pulley on the engine is six inches in diameter and the pulley on the separator is fourteen inches in diameter. The speed of the jackshaft is immaterial.

Answer.—The pulley on the jackshaft driven by a belt from the engine pulley should be four and two-sevenths times as large as the pulley on the jackshaft that is belted to the separator. For example, a thirty-inch pulley and a seven-inch pulley may be used on the jackshaft, the thirty-inch pulley being belted to the engine and the seven-inch pulley to the separator.

Tractor Gearing.

I have a forty-horse-power motor. I would like to make a tractor with it. I am going to cut off the propellor tube of an auto and set the differential up to the transmission, using the rear axle as a jackshaft. I intend to use binder wheels for drivers. I am using the sprocket wheels of a manure spreader. The small sprocket has eighteen teeth and the large one fifty-four teeth. How many plows would the outfit pull, and what would be its speed if the engine runs at 900 R. P. M.? If this does not gear the tractor correctly, what size sprockets should I use?

Answer.—This gearing would give over seven miles per hour on high. This is twice as fast as it should travel. A better ratio for your sprockets would be fifteen teeth and ninety teeth. The tractor should pull three fourteen-inch plows under any reasonable condition. The binder wheels are rather small for the drivers and this would probably be the limiting feature of the pulling power of the outfit.

Dimming Auto Lights.

Would a piece of colored celluloid be all right to use in auto headlights for dimmers? Would it be all right to take a round piece and cut in two putting half in each light? Would that do as well as having the glasses ground? Could I use that by law?

Answer.—Dimmer and speed regulations are usually local ordinances; therefore, a dimmer that would be satisfactory in one city might not be considered sufficient in another. We believe that the method you have mentioned would be considered satisfactory. The half circles of celluloid must be so placed that the bright light will shine on the ground. A medium shade of brown should give good results. A round piece of brown celluloid about two and one-half inches in diameter located at the center of the glass might be all right. Whiting, mixed with water or gasoline, is often used to frost the glass so that the lights will not be too bright. This is an inexpensive and satisfactory method of dimming.

Not Enough Dry Cells.

I have two electric lights on my buggy, which I wired myself, as per sketch. I use two-candle-power six to eight-volt Mazda bulbs, and run them with five dry cells connected in series. They don't seem to give a bright light when both of the bulbs are burning, but when I short circuit the wires on one light the other gives a good light. If they are wired wrong, please publish a sketch showing how to wire them. If not, how can I make them give a better light?

Answer.—The sketch, which we are not publishing for lack of space, shows the batteries and lamps connected in series. This wiring would be O. K. if you use ten dry cells in series instead of five. Using only five dry cells, you should connect the cells in series and the lights in parallel. To do this, ground one terminal of the battery and run a wire from the other terminal to both of the lights, grounding one terminal of each light. Place the switch in the line leading from the battery to the ground. A still better combination would be to use ten dry cells, connected in series multiple, five in a series, the lights being connected in parallel.

A Small Tractor.

I am sending a sketch showing the pulling mechanism of a small tractor. The engine to be mounted on this frame is four horse power. I believe the mechanical parts shown will work all right, but I would like to know how to make some device for the rear shaft or rear sprocket for turning corners, as the outer wheel has a greater distance to travel than the inside wheel. I would like for you to publish a sketch showing how to make this part.

Answer.—Figure I shows the arrangement of the above tractor. C is the engine crank shaft, A the drive pulley on the engine, B the pulley on the jackshaft driven from A; SS are small sprockets on the jackshaft and LL are large sprockets. The device for starting and stopping is not shown. If pulleys A and B have flanges the

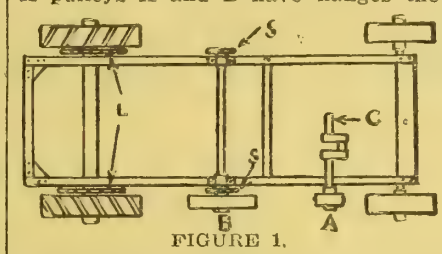


FIGURE 1.

belt could be laced loose enough to slip and a belt tightener used to start and stop the machine. No provision is made for backing, which probably would not be necessary with a small machine like this.

To permit one wheel to travel faster than the other when turning corners, attach a ratchet to the hub of each drive wheel, as shown in Figure 2 at R. The sprocket, S, must be mounted

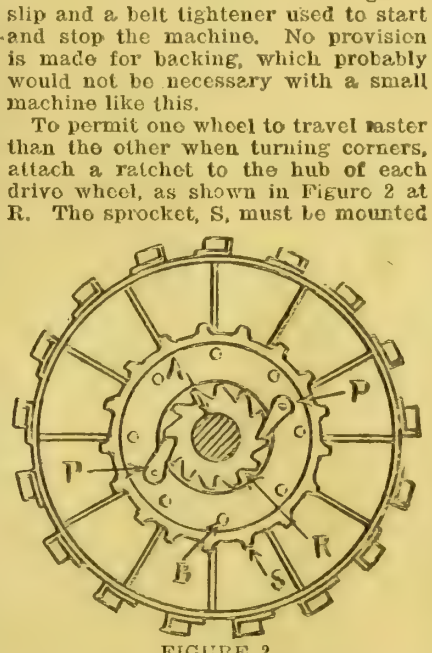


FIGURE 2.

on a long hub free to turn on the rear axle, which must be stationary. The sprocket is mounted on this hub by bolts through the holes marked B. Two ratchet pawls, P P, held in place by springs, act as drivers when the pull is on the sprocket. When rounding a corner the driving is done by the inside wheel, the ratchet permitting the outside wheel to move faster. It would be impossible to back the machine with this arrangement.

A Jet Pump.

I would like a little information on the construction of a jet pump. I would also like to know if it will draw water about seventy feet with an eight-foot lift. I saw the cut of one in the Farm Mechanics department some time ago, but I have mislaid it. Any information you can give me will be appreciated. My boiler carries 100 pounds of steam pressure and has three-fourths-inch pipe connections.

Answer.—The jet pump or ejector, as it is often called, works on the principle of an atomizer. A small jet of steam is blown into a pipe. The jet creates a suction back of it. The jet pump, with steam at 100 pounds pressure, will lift water twenty-four feet. If the pump is placed near the water level it would raise the water seventy feet. Under the conditions mentioned in the above letter a pump with three-fourths-inch pipe connection should pump over 1,200 gallons per hour; with a half-inch connection it would pump over 600 gallons per hour. The pump should not cost over $4 and your local hardware dealer should be able to order one for you. If not, write us again.

Carbon Prevention—Gasoline Economy.

What is the best preparation to put into an automobile engine to prevent carbon from forming? What make of car of the same horse power uses the least gasoline per mile?

Answer.—The best carbon preventive is a good set of piston rings and a proper regulation of the oil supply. Carbon is usually caused by the oil working up past the rings. This may be due to poor rings; too high an oil level in the crank case, where the splash system is used, or too much pressure and poor-fitting bearings where forced feed is used. Carbon may also be due to too rich a gasoline mixture. In any case, an ounce of prevention is worth a pound of cure. There are some compounds on the market that claim to prevent carbon if used with the gasoline, but we have never tried them.

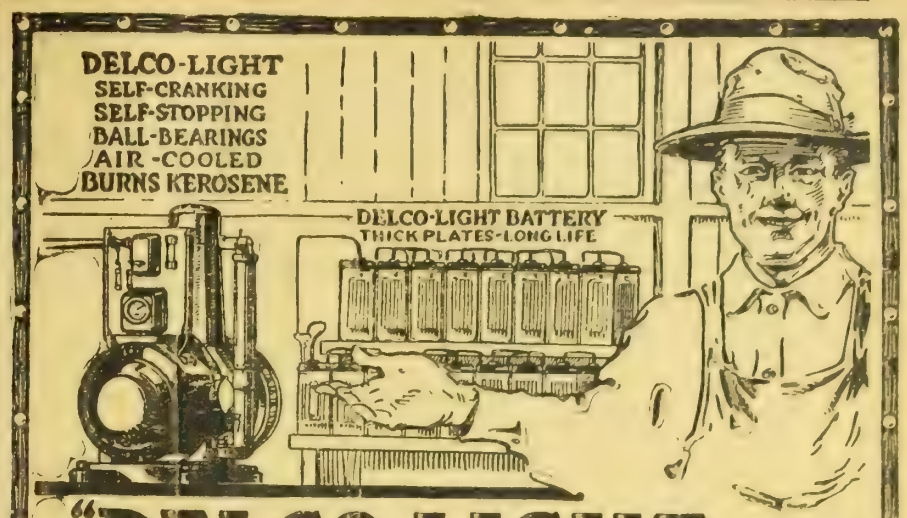
It would be impossible to say which car has the best fuel economy on account of the different weights and horse powers of the cars. Much depends upon the adjustment of the carburetor, the timing of the spark and the judgment used by the driver in controlling his spark and throttle.

Using Kerosene and Gasoline.

Is it practical to use a mixture of kerosene and gasoline in a one-horse-power gasoline engine? Can the mixture be used in a Ford car?

Answer.—Many small engines will work successfully on kerosene or a mixture of kerosene and gasoline after the engine has been run long enough to become hot. The fuel should be heated by running it in a coil of copper pipe around the exhaust pipe or through the jacket water, the latter to be preferred. The temperature of the kerosene should be between 170 and 200 degrees. The air should be heated, the usual method being to carry it from a sheet iron jacket around the exhaust pipe to the carburetor by a flexible metal hose. If the engine pounds from preignition, arrangements should be made to allow a little water to drip inside the sheet iron jacket on the exhaust pipe. The steam will be carried in through the air.

The oil in the crank case must be watched, as unburned kerosene may work down into the crank case and ruin the oil, causing the bearings to burn out. There are some carburetors on the market that claim to burn kerosene successfully in Ford cars. We would not advise you to try burning kerosene or even a kerosene-gasoline mixture in your car without a special carburetor.



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MEAD CYCLE CO., DEPT. B-54 CHICAGO

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Teaching the Child by Example.

Little children invariably copy the sights and sounds about them. Thus their earliest education is acquired not by precept or teaching but by unconscious imitation of those with whom they live. The child, even before he learns to talk, is quick to notice and imitate the manners and behavior of those about him. Likewise, when he begins to talk he picks up words and phrases used by his elders and copies their manner of speech.

It is easy to see, therefore, the effect of one's own conduct upon that of the child. If the language of those among whom a child lives is correct and agreeable, if their manners are pleasant, if they exhibit a thoughtful consideration for others and a gentle and kindly behavior, he unconsciously acquires similar ways. The habit of courtesy comes not alone nor chiefly from direct instruction, but from imitation. If a child sees that his elders are habitually courteous in their association with each other, if kindliness and consideration for each other are the habits of the home, these qualities will inevitably stamp themselves upon the child. Good manners are an invaluable asset to every person, but good manners have their root and foundation in fine qualities of mind and heart, and only the constant daily exercise of them will help give the child that charm of manner which is such a delight in persons of every age. In like manner the opposite qualities are imitated and help to produce a different sort of child.

Parents have a great responsibility in molding and shaping a child's character. These early lessons in conduct and manners are never quite eradicated and it is the parents who play the greatest part in the teaching of these lessons. Men who as children were accustomed to hearing uncouth language will even in manhood lapse into this fault, no matter how well educated they may have become, and the same is true of physical mannerisms and even of the mental attitude. If a child hears nothing but scolding, faultfinding, complaining and quarreling he is almost sure to develop these qualities in himself. On the other hand, if he lives in an atmosphere of kindliness and courtesy he will as readily acquire gentle habits and a pleasant manner. It is the duty of parents, then, to "live" as well as teach the fine qualities they wish to develop in their children.

Waste no Fat-Suggestions for its Utilization.

At this time when all kinds of fats cost so much, it behooves the thrifty housewife to utilize every bit that comes into the kitchen.

The fat from mutton or lamb may be used in making soap, or in making tallow that is good for chapped hands.

Goose grease is an old-time remedy for sore throats.

Chicken fat, rendered, makes an excellent cooking fat. It is especially good for biscuits, cornbread, muffins or spice cakes.

Beef fat or suet is much cheaper than lard and can, in most cases, be substituted for it.

Any fat from pork can be rendered and used in cooking. When trimming meat at home, save all fat and render it. If the meat is trimmed at the market, insist on having the trimmings delivered with the meat.

The unrendered rind that is cut from meat makes an excellent grease for griddles, skillets or other pans. When cooking bacon, pour off the excess fat and save it. It is very good for browning potatoes or parsnips.

The cracklings that remain when fat is rendered may be used in soap, corn breads, spice cake or for chicken feed.

Any butter that is not fresh may be worked over with cold water and greatly improved.

Rancid olive oil can be freshened by heating with a few slices of potato. —[Magdelene Hahn.

Let Nothing Spoil.

Heat, dirt, improper handling, flies, insects and rats or mice are the greatest food wasters.

Keep perishables cool, clean and covered. The moment meat, fish, milk and eggs are allowed to get warm they begin to spoil. Bacteria and germs multiply rapidly in slightly warm food and quickly make it dangerous or unfit to eat.

Keep perishable foods in the coolest, cleanest place you can provide, preferably in a good refrigerator or ice house, but, at any rate, in covered vessels suspended in the well, or in the coolest clean place in your home or cellar. Do not keep perishable foods in a hot kitchen or pantry or in a sunny place a moment longer than is necessary. Dry cold is a better preservative than damp cold.

The dust particles in the air carry molds and germs. Meat, fish and milk are ideal breeding grounds for such germs. Keep your food covered so that these bacteria and germs will have as little chance as possible to get on your food.

House flies—better called "typhoid flies"—are among the dirtiest things that enter our homes. They fly from sewers, privies and manure heaps, carrying filth on their feet, which they deposit on any food on which they light. Frequently germs of typhoid fever are carried by flies in the filth on their bodies, and in their excrement (fly specks). Ordinarily cleanliness demands that flies be kept out of our homes and away from our food. Health protection makes it essential to banish flies. Keep all food covered, or at least screened from these carriers of deadly disease and filth. Destroy flies by every possible means.

Rats and mice destroy millions of dollars' worth of food and other property every year in homes, on farms and in business establishments. Many rats harbor the germs of bubonic plague. Trap and kill them. Look upon every mouse as an enemy to your property.

Eradicate roaches and house ants. Keep weevils out of cereals. Keep your food where such pests cannot reach it.

Keep household pets away from food.

Don't let fresh vegetables or fruits wilt or lose their flavor or begin to rot because they are handled carelessly. Keep perishable vegetables in cool, dry, well-aired, and for most vegetables, dark rather than light places. Learn how to store potatoes, cabbages, root crops, fruits and other foods so that they will keep properly for later use. Don't think that any place in the cellar or pantry is good enough to store food. Heat, dampness, poor ventilation, bruising or breaking will rapidly make many vegetables rot, ferment or spoil. Warmth and light make vegetables sprout and this lowers their quality.

When there is a surplus of fruits or vegetables that will spoil if kept, cook or stew them and keep them cold and covered for use in a day or two. Can or preserve all surplus food from gardens for winter use. In a morning's work, with ordinary home utensils, you can put up many cans of vegetables and fruit for winter use. When any fruit or vegetable that can be canned becomes plentiful can it for home use next winter.

Write today to the United States Department of Agriculture or to your state agricultural college for full information as to how to keep food in the household and how to can and preserve all surplus fruits and vegetables.

Make saving, rather than spending, your social standard.

Puts up Beans Like Kraut.

To the Editor:—I read the letter from the lady who wanted to know how to put up string beans like kraut. I put them up in this way: I wash them well, string them and then cut real fine, cutting lengthwise. Then I put them in jars and proceed as in making kraut. Do not get them too salty.

When I want to use them I wash them well and put them on to cook in cold water. They are fine in vegetable soup and we also like them cooked with milk. A Reader.

Wants Some Advice About Cooking.

To the Editor:—I wish some of the good cooks who read the Home page would tell me how they cook green string beans and cabbage. We like both of these vegetables, but get tired of the same old way of cooking them. Also I would like to know how to roast an old hen so that the meat will not all dry up. I never have any luck with them. One more thing I want, and that is a good recipe for bread dumplings. Can someone give me one of their good tried recipes? Mrs. H. L.

Here Is a Real Mother.

To the Editor:—I want to write a few lines to help little Vesta, whose letter appeared in a recent issue.

Dear little Vesta, have you not some good neighbor woman who will help you about your dresses? God bless you, dear child. Don't think of your dear mother as being dead, but think of her as I do of my mother who went away twenty long years ago. I just feel as though she has gone away to her good home and, while we are very lonely, let us be good and do all the good we can to all the people we can, then all will be all right in the end.

If I were where I could, I am sure I would try to help you some about your sewing and I would make the dresses in length to come about half way between the knees and shoetops.

I think it is all right for you to go to good, wholesome entertainments as long as your brother goes along. But I would go to church and Sunday school.

Now let me tell you about myself, dear little Vesta. I am a married woman and one of those despised stepmothers. I have been married twenty-one years. I helped my husband to raise one little boy that was left without a mother just as you were. I loved him and tried to be as near a real mother to him as I could be, and now he is a married man with two little boys of his own and I still love him. There never was a night too cold or too dark that I would not make an effort to go to him if he needed assistance. I shall always have a warm place in my affections for him, for he is a dear, good boy.

Then fourteen years ago last April one of my sisters was laid away. She left one little boy twenty months old and it fell to my lot to care for him. I did so with the help of my good husband, and we have him with us yet.

One year ago another of my sisters was called away to the good home and left a little boy twenty-six months old. So it was my lot again to take him and he is also with us now. His papa joined the army and we shall care for him just as though he were our very own.

So you see, little Vesta, my heart goes out to you and to all little orphan children. I never hear of one or read of one being left that I do not wish I could help them in some way. I do not boast of anything I have done in the way of caring for the dear little children that I have had with me, for I just feel that when I have done all that I can do I have only done my duty. I have no children of my own, but I love all the dear little folks.

A Friend.

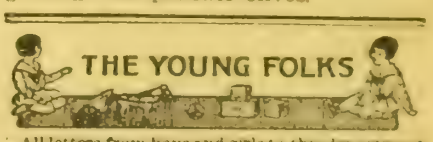
Recipes.

Spoon Cornbread.—One cupful white corn meal, two cupfuls boiling water, one tablespoonful butter, one teaspoonful baking powder, one teaspoonful salt, one egg yolk well beaten, one-half cupful cooked hominy, one-third cupful cooked rice, one cupful milk, one egg white. Add corn meal gradually to boiling water, boil five minutes, add butter and let stand until cool. Add baking powder, salt, egg yolk, cooked hominy and rice, and milk. Beat two minutes, then add stiffly beaten egg white. Turn into a buttered pudding dish and bake in a hot oven forty minutes.

Peanut Butter Cookies. — Three-eighths cupful peanut butter, one-half cupful sugar, one egg well beaten, three-fourths cupful flour, one-fourth teaspoonful salt, three-eighths teaspoonful cinnamon, three-eighths teaspoonful soda. Work peanut butter until creamy, add sugar gradually, egg, soda dissolved in three-fourths tablespoonful hot water and dry ingredients. Chill, roll thin, shape, arrange on buttered sheet and bake in moderate oven.

Lemon Egg Nog.—Beat an egg yolk until it is lemon colored and thick. Then add a teaspoonful of sugar gradually and follow with the stiffly beaten white of the egg. Add a tablespoonful of lemon juice and serve while cold.

Pimento Salad.—One quart stewed tomatoes or tomato juice, one slice onion, one teaspoonful salt, four whole cloves, one teaspoonful sugar, pinch of thyme, two tablespoonfuls gelatin, one-half cupful water, one cupful chopped pimentos. Boil tomato and seasonings together for ten minutes. Soak gelatin in the cold water for five minutes, add to tomato mixture and when gelatin is dissolved, strain. When it begins to thicken add the pimentos. Turn into a mold, first dipped in cold water, and chill. Serve on water cress and garnish with pimento olives.



All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Tom Gets a Fright.

Dear Young Folks:—I am a girl twelve years old. I live in a little town named Broken Bow. I have lots of fun. We have a picnic nearly every Saturday and our B. Y. P. U. has a party every other Saturday.

I have a pet cat named Tom. One time he got on the table. Mama's teapot was on the table and Tom knocked it off and broke it. Mama whipped him and he ran off and never did come back until one day I found him up town. I brought him home and fed him and he never got on the table again. Ethel.

Wants to Be Kind to Vesta.

Dear Young Folks:—I hurry to the mail box every Thursday in order to get the paper. I always read the letters you write. I am twelve years old. I am in the seventh grade and I like school very much. I have written twice before, but I suppose my letters were failures.

In one paper there was a very interesting letter signed "Vesta." I thought I would like to do Vesta a kindness and tell her the things she wants to know. Mother said she would judge Vesta by me. If she is

around four feet, nine inches tall she should wear her dresses two or two and one-half inches below her knees. And mother doesn't think it would hurt for Vesta to go to a few parties with her brother, but she thinks she is most too young to go to a great many. Mother thinks she must be pretty smart to do all her sewing.

I have a pet pony named Bobby. He is black and white. I ride him to school. He is very gentle.

I take music lessons and like it very much.

We live on a 160-acre farm. I would not give up country life for city life.

I hope Vesta takes to mother's plan.

Blanche.

Metta and the Prince.

Dear Young Folks:—I am a girl twelve years old and in the seventh grade at school. I like the story of Metta and the Prince and I want to tell it to you.

Metta lived with her grandmother and they were very poor. One morning Metta started to market with a basketful of eggs and she felt something pulling at her skirt. She turned around and saw a queer little man.

"Good morning, Metta," he said. "I am in trouble and want you to help me." Of course, Metta said she would and he told her what to do.

"Go to the stump where the rosebush grows, sit down and cover me with your apron. Don't get up until I pull your dress." Metta did exactly as he said and tucked her apron around him so that he was completely hidden.

No sooner was he out of sight than an old witch came around the bend of the road. She had a long nose and sharp eyes and she wore a tall hat and carried a big staff.

She stopped beside Metta and said, "Get up, girl, and let me by," but Metta had promised the queer little man not to move and she meant to keep her promise, so she kept quite still.

This made the witch very angry, so she took the basket of eggs and tramped on them. Still Metta never moved and the witch was so cross that she gave a dreadful howl and turned and ran away.

Then Metta felt a tug at her skirt and the little man stepped out and said, "You have done my master a great favor. I can tell you nothing more, but come again tomorrow at the same time." Metta promised to come again and he disappeared.

Metta was a little frightened about her eggs, but she gathered up the basket and went home and when she handed it to her grandmother she was surprised to find it filled with gold pieces, so, after all, there was not the least thing to worry about.

The next day she started again as she had promised, and the very same thing happened and the witch was so angry this time that she raised her staff to beat Metta, but still Metta was not afraid. Again the old witch ran away as fast as she could go.

As soon as the witch was gone Metta heard a noise and when she looked behind her where the rosebush grew she saw a handsome prince. He took her hand and said, "Metta, that old witch cast a spell over me three years ago and you have broken the charm. Every day for two years she came to sprinkle me with ashes to keep me under her spell. This was the last year and if she had succeeded in throwing the ashes over me today I never could have returned to the world again, but would always have remained a rosebush."

Then Metta and the prince went to the grandmother's house and they were married and lived very happily.

Emma.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for July 29, 1917.

God's Gracious Invitation.

LESSON TEXT—Isaiah 55:1-11.

GOLDEN TEXT—Seek ye the Lord while he may be found, call ye upon him while he is near.—Isa. 55:6.

The Bible is throughout a forward looking book. No matter how dark the light, it looks forward to the dawn of a new and better day. Whenever written, the prophet looks forward toward the end of the Babylonian exile. Isaiah died about 142 years before that event. That scene is laid in Babylonia. Isaiah prophesied in Jerusalem.

I. The Invitation, (vv. 1-8) In order to understand the fullness and blessedness of this invitation, we should read in its connection chapters 53 and 54. In chapter 53 we have a prophecy and vision of the Messiah, making his atonement for sins, "wounded for our transgressions." Again we have in this connection a picture of the Messiah as our leader and Savior. In chapter 55 we have the invitation and joyous welcome to the beautiful city which he is establishing for us.

(1) Who is Invited? The word "Ho" is perhaps an abbreviation of the word "Hold," used to excite attention. This invitation is extended to every one: (a) the "thirsty," to those who are needy; (b) the poor and the rich; those "without money," and the supply is abundant, even as the water. Every one is invited without limitation or distinction. The greatness of a man's spirit is measured by the number of his desires and thirsts, by their qualities and by his capacities or the intensity of his thirst. Those invited were to have "wine," a luxury, and "milk," a staple necessity, without money and without price. The currency of the kingdom of Heaven is grace (v. 1).

(2) Who Will Come? (v. 3). Only those who are listening and who are attentive. Many fail of eternal life because they do not pay attention to the claims of religion. "Come unto me," (Matt. 11:28). We go to God for salvation and help, and we find life. Life is more than mere existence. It is the natural, harmonious, joyous activity of every part of our being. The result of coming is, "your soul shall live," and the surety of it is, "an everlasting covenant." Literally, an agreement with promises which can never be broken, namely, "the sure mercies of David." (See II Sam. 12:29; I Cor. 17:7-27; Ps. 89:1-4; also Luke 30:41, 44). We are bought, but we did not pay the price. The mercies of David are the antitype of our Savior; the mercy of grace. True satisfaction is in its right order. (See vv. 2, 3). Christ is a faithful witness, the exalted one, (v. 5) to this covenant.

(3) When to Come (v. 6). While he may be found, and while he is near, implying a time when he may not be found and a time when he will not be near. All of God's promises are conditional.

(4) The Way to Come (v. 7). Forsake open sin, turn from unrighteous thought, turn to the Lord and receive his "multiplied pardon." Man is everywhere depicted in the Scriptures as wandering away from the true God and there is no salvation if we insist on continuing in sin.

II. The Transformation (vv. 8-13). God's promises have back of them all the power of the universe and are as certain as the process of the seasons. In working out his transformation in the character of man, we are to think his thoughts after him. We see and know only very little of this spirit, but God sees, knows and controls the universe, which is at his command. (I Cor. 10:13; Phil. 4:19). We are to enter into his way, and his ways are as the heavens, higher than those of the earth. Having entered into his ways we are to bring his fruits (see John 15). If the Divine seed (v. 11) is implanted within us, then we may expect to see the fruits of the kingdom of God, which are born of the spirit. (Gal. 5:22-26). This transformation involves service, for we are to have a mission, "go out to all the earth," being led by the Messiah and thus receive "joy and peace." As sure as "the rain cometh down and the snow from heaven and returneth not, but watereth the earth," so is the seed of the Word in the hands of the sower, to become bread to the eater. As we go forth we have his promise (v. 11) that, "it shall not return void, but shall accomplish that which I please, and it shall prosper in the thing whereto I sent it."

As a result the "thorns" (evil) shall be displaced by "fig trees" (good). God's word bears fruit in implanted lives. (John 6:33; James 1:18; I Peter 1:23). God calls this word, which is spoken of by the prophet, "My word." What the prophet says, God says. What an inspired man says, God inspires him to say. God's promise will be consummated in redeeming society, as well as redeeming creation (vv. 12, 13; Ch. 35:10; 49:9, 10; 51:11; Jer. 31:12-14; Isa. 25:1, 2). The language about the mountains and hills breaking forth into singing, is interpreted in Psalms 65:11, 13.

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1367—Child's rompers and cap. The pattern is cut in 3 sizes: 2, 4 and 6 years. It requires 2½ yards of 36-inch material for a 4-year size. The cap requires 1¼ yards of 24-inch material.

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2137—A smart little dress for mother's girl. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2138—A simple nightgown. Pattern is cut in 5 sizes: 12, 14, 16, 18 and 20 years. Size 16 requires 4⅛ yards of 36-inch material.

2136—A neat and becoming house dress. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

1977—A smart and practical ladies' apron. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 7¼ yards of 36-inch material for a 38-inch size.

1756—A new skirt model. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires for a 26-inch size 3⅝ yards of 44-inch material.

2005—Ladies' shirtwaist, with or without yoke, and with collar rolled high or low. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3¾ yards of 36-inch material for a 36-inch size.

Plans for uniting the 7,000 flour mills of the country to aid the government in its task of food distribution are now being worked out, according to an announcement by James F. Bell, Minneapolis flour man, who is chairman of the United States millers' committee formed by request of Herbert C. Hoover, public food administrator. An open address, published here today, and signed by Mr. Bell, says: "A flour mill in active operation may become of equal or greater value than a regiment of troops."

Can nothing that can be kept without canning. Dry such vegetables as corn, string beans, navy beans, mature lima beans, okra, etc.

A real furnace. Heats whole house comfortably, dependably, cleanly and economically *from one register.* Exactly same construction as the old reliable *Mueller* line, but without pipes or flues. Ideal for old or new homes and buildings with small or partial cellars. Saves 35% in fuel. Burns hard or soft coal, coke or wood.

Made of solid cast iron, has triple jacket, substantial firepot and radiator, best type grate. Designed right, built right. 60 years of experience and the *Mueller Guarantee* behind it.

Tear out this ad, write your name and address on margin and mail to us for valuable free book on pipeless heating, and name of nearest Mueller dealer.

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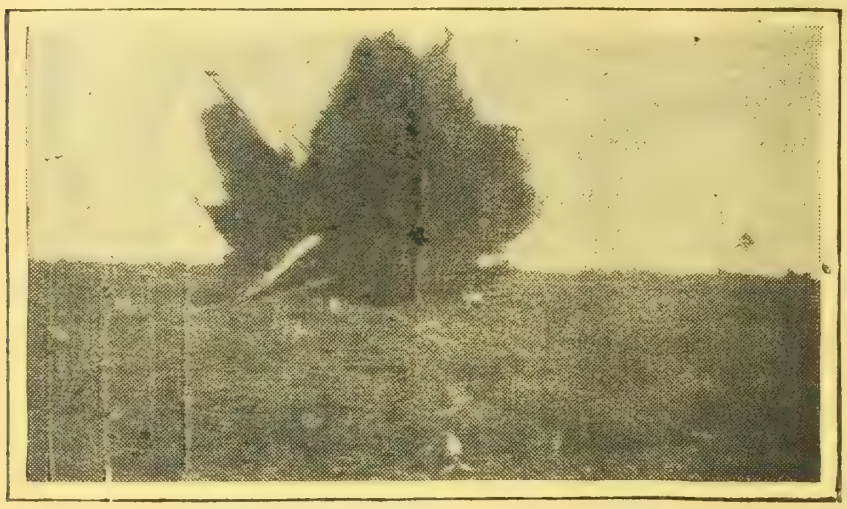
"Drive" on Badger Stumps.

Land Clearing Demonstrations Again in Full Swing and Much Practical Information Being Given on Subject of Clearing Cutover Sections.

THE biggest demonstration of pulling stumps ever undertaken began its fourteen weeks' tour through northern Wisconsin at Murry, Rusk county, July 16th. The demonstrations are carried on by the college of agriculture and are under the direction of F. M. White, of the agricultural engineering department of the college. The work this year will be somewhat different from that of the two previous demonstrations in that it will be much more extensive. Not only demonstrations will be given—these are going on all the time—but the labor and time required to pull stumps by hand, machine or horse power or powder will be carefully noted. Each method of land clearing is given a thorough trial on a space of one or two acres set aside for that particular method. Getting rid of stumps under varying conditions of types of soil, size of stumps and number of stumps per acre in the quickest way possible is the object of the work. Nowhere has there ever been a careful check made on the amount of labor and time required by the different methods. Facts in regard to this will be gathered on this trip.

The blasting of stumps requires some knowledge of how to figure on the power of the explosives that are to be used. At this demonstration an expert from a large powder company is on hand to give definite information on the number of sticks it will require to blast a stump of twenty or eighty inches across in clay or sandy soil, where to place the charge in order to do most effective work, how to load a cartridge without any danger to the operator, and how to blast by the electrical method or with fuse and match.

Companies manufacturing machinery for pulling stumps are also represented and the visitor to these demonstrations can investigate each company's claim to his own satisfaction. They have skilled men on the job who are able to show the visitor how stumps can be removed by horsepower pullers. The work of clearing a space of an acre or two at one setting of the machine can be seen here. The men in charge will gladly show the proper ways of attaching a cable to a stump, how to crack a stump before pulling it or how to pull it and then crack it in order to make it easier to drag the stump over to the piler. Root hooks for the snags and time-saving and labor-saving methods for getting at the blind stumps are also shown. A one-man outfit, which is just what the name implies, an arrangement by which one man can pull stumps successfully, is likewise included. Block and tackle pulling with rope and chain is given a tryout alongside of the commercial pullers. Two kinds of pilers are building the stumps into piles ready for burning.



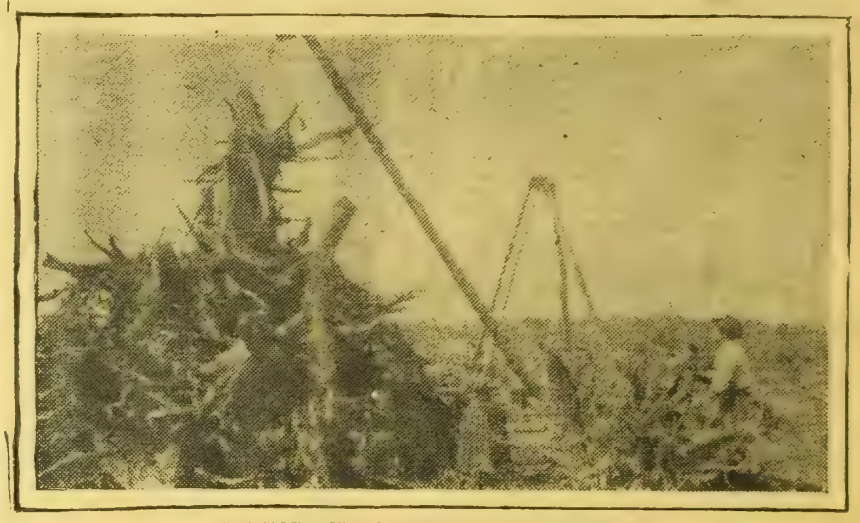
AN IRRESISTIBLE FORCE AGAINST STUMPS.

Ten acres were secured at Murry by the college to carry on this work. Similar tracts have been spoken for at each of the stops that are to be made along the route. These ten acres were divided up into two-acre plots and on each a different method of removing stumps was practiced. The first three days were given over to gathering information on the size of each stump blasted or pulled, the time required and the labor necessary to do the work. The last days were devoted entirely to demonstrations. While people were welcome on all days, the last days were given over especially to answering questions for visitors from all over Rusk county and beyond. No grand stand blasting was done, nor were extraordinary stumps left for the last days. It is not the object of those in charge to make people wonder at the spectacular things than can be done with powder and puller, but the object is to give honest, every-day demonstrations of the work of clearing land quickly with a minimum of labor. A similar program of gathering data and giving demonstrations will be followed at each stop.

The companies coöperating with the college of agriculture in this work are the Du Pont NeMours Co., of Wilmington, Delaware; the Kirstin Co., of Escanaba, Michigan; the Flynn Co., of Superior, Wisconsin; the LaPlant Choate Co., of Cedar Rapids, Iowa, and the Merrill Iron Works, of Merrill, Wisconsin. Owing to a slowness of freight movements the last two companies were not able to begin work at Murry, but will join the special later on.

GETTING THE BIG ONES WITH A PULLER.

Northern Wisconsin should be greatly benefited by the demonstrations which have just commenced at Murry and which will be held in fifteen different localities in the northern half of the state. Seventy-eight per cent of Rusk county, for instance, is within five miles of a railroad. Nevertheless, only 2 per cent of Rusk county is under the plow. Crops in Rusk county on the land that has been cleared are equal to those of our southern counties both in yield and quality. The college of agriculture realizes that this condition which is true of most of our northern counties can be more quickly overcome when proper methods for getting rid of stumps have been worked out. The demonstrations that are carried on in connection with the experimental work will be a means of convincing old and new settlers that it does not require a lifetime to clear an unimproved piece of land. The experimental work must depend upon months and probably years of careful observation in order to be of value in regard to facts and figures. The demonstrational work, however, will be of immediate value in that one can see in one or two days' time how fast an acre can be cleared by any of the various methods now advocated. The old timers generally do not look with favor upon this work of showing the northern Wisconsin farmer on how to clear his land. Yet their objections can hardly be said to be based on anything better that they might know of. As a matter of fact, the methods which will save time and labor are not being followed by many of the settlers at this time. New settlers have always had considerable difficulty in learning about the method by which land can be most easily cleared. This year and in the years to come new men will make their homes in northern Wisconsin in greater numbers than ever before. As a rule, these new farmers are used to a different type of farming altogether. What holds true in Iowa and in Illinois does not apply to northern Wisconsin. The entire system of farming that these men have been used to for years must be adapted to meet the conditions of a new country. To these men the demonstrations are invaluable. Their neighbor might have cleared his farm with one type of machine or by blasting or even by hand. The newcomer would have to travel many miles, however, and use up considerably more than a day or two, in order to find a man for each of the methods that are now being practiced in clearing land; and then he would not have the service of the expert to answer every question of the machine



PILING THE STUMPS FOR BURNING.

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Don't be fooled on the engine question. Let Galloway post you on the secrets of engine making and selling. I'll tell you some engine facts in my book that will astound you. Learn the truth about engine claims and know all about heavy weight engines, light weight, four cycle engines. What horsepower, bore and stroke mean. Learn how to judge engines. Then see how dealing with me—Galloway the maker—you can save on your engine and get the type exactly suited to your needs. You cannot make a mistake after you read my free book.

It's My Masterpiece Engine

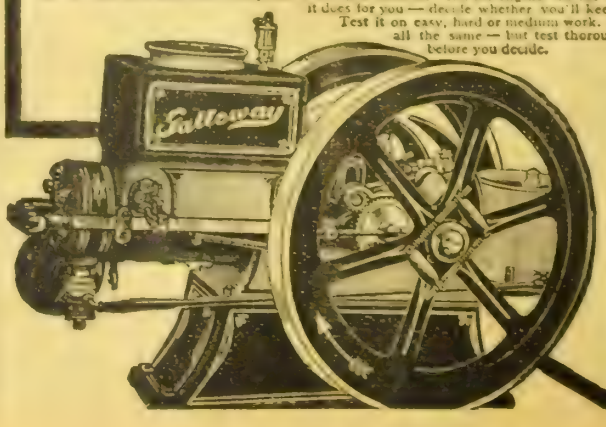
I call it that because that's exactly what it is. It has features (exclusive features), that make it the best engine ever made, bar none. Point for point—part for part—it excels every other engine I know—and I know them all. Test it—try it—any way for any kind of work—tough or easy jobs—and you'll agree with me that my masterpiece engine is a masterpiece in every sense. If you pay less than my price you skimp on quality. If you pay more, you pay too much.

I Guarantee the Biggest Engine Value in the World—Write and Ask Me to Prove It

Yes sir, the best engine—quality for quality—size for size—power for power—at the price. That's what I offer you in my Masterpiece Six. And I'll give you brand new, this-year engine improvements that are exclusively mine—cannot be had on any other engine but the Galloway. For instance, adjustable bearings, economy carburetor, valves-in-head, double ball governor, water-cooled cylinder head, automobile-ground valves.

Power Test On Your Own Farm

But you don't have to take my word, or anybody's word. You can try my Masterpiece Six on your own farm for a free power test if you want to. Let the engine—by the work it does for you—decide whether you'll keep it. Test it on easy, hard or medium work. It's all the same—but test thoroughly before you decide.



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clearing and stump blasting work. The concerns which are interested commercially in the land-clearing work as well as the railroads that traverse the cut-over sections are doing a commendable service to northern Wisconsin by coming forward in the manner in which they have, to help in every way possible to make this land-clearing special a success. It is costing every one of these concerns good money to coöperate with the college and there are no immediate results in sight. The great cry that has gone up for increased acreage and increased acre yield in order to produce a maximum amount of foodstuffs within the next few years is finding an excellent response on the part of these companies. After Murry, July 16th to 21st, the train moved to Kennan, in Price county, where it will be from July 23d to 28th. The route after that is as follows: July 30th-August 4th, Holcombe, Chippewa county; August 6th-11th, Joel, Polk county; August 13th-15th, Frederick, Polk county; August 15th-18th, Siren, Burnett county; August 20th-25th, Hines, Douglas county; August 27th-September 1st, Brill, Barron county; September 3d-8th, Seeley, Sawyer county; September 10th-15th, Washburn, Bayfield county; September 17th-22d, Mercer, Iron county; September 24th-26th, Merrill, Lincoln county; September 27th-29th, Rhinelander, Oneida county; October 1st-6th, Phelps, Vilas county; October 8th-13th, Laona, Forest county.

The drudgery has been banished from the work of stump pulling and stump lands, being the cheapest land available to a farmer today, will be sought after by settlers more eagerly in the years to come than ever before. Some acres have a hundred stumps on them, others not as many. Some stumps come out readily and others pull hard, but the work for the man is nearly the same in every case. Where he does not wish to use horse power he can use powder, and where he wishes to use both he can do so at a saving of time, labor and money. Each condition, however, requires separate attention.

SPLITTING STUMP WITH DYNAMITE AND PULLING IN TWO SECTIONS.

Cow-Testing Reports.

Pure-bred Holstein the High Cow.

To the Editor:—In June we had seventy-four cows which produced over forty pounds of butter fat. Our record for July will probably be about as good. Pastures are still good. Some of the farmers in our association are feeding grain all summer. The corn crop was behind until about the second week in July, when it began to pick up, and prospects are now good. Clover is very heavy this year and it is lodging in many places so that farmers are cutting it from two sides. Our forty-five-pound list for June follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Steven Dvorak					
Beauty, N.	6	Apr. 7	1290	3.7	47.73
Frank Hessel					
Dolly, N.	7	May 4	1296	3.8	49.25
No. 4, G. Hol.	7	Dec 23	1338	4.6	61.54
No. 8, G. Hol.	6	Jan 8	1263	3.6	45.46
No. 10, G. Hol.	6	June 4	1617	3.2	51.73
No. 4, G. Hol.	8	June 8	1575	3.3	51.97
No. 9, G. Hol.	5	Feb 25	1140	4.0	45.60
No. 10, G. Hol.	5	Mar 19	1518	3.6	54.64
Chas. Kornely					
Dallas De Colantha Yeslet, P. B. Hol.	6	Mar 13	2028	3.7	75.03
Hattie Weltji Mercedes, P. B. Hol.	6	June 1	1905	2.7	51.43
Blust, G. Hol.	7	Feb 26	1308	4.0	52.32
Lady, G. Hol.	5	Apr 26	1401	3.6	50.42
No. 14, G. Hol.	3	Dec 22	1410	3.2	45.12
No. 16, N.	3	Apr 5	1194	3.8	45.37
George Wuellner					
Niggar, G. Hol.	7	Mar 2	1413	3.4	48.04
Nauman, G. Hol.	9	Mar 2	1350	3.6	48.60
Polly, G. Hol.	7	Mar 18	1416	3.6	50.97
Ira Beyer					
Bess, G. S. H.	7	Mar 24	966	4.8	46.37
Dolly, G. S. H.	4	May 16	1197	3.8	45.48
Daisy, G. S. H.	6	May 17	1191	3.8	45.26
Oscar Lang					
Gahling, N.	9	Dec 2	1008	5.1	51.41
Fred Witte					
Pearl, G. Hol.	4	Apr 18	1299	3.6	46.76
Albert Johannes					
Niggar, G. Hol.	3	Apr .9	1188	4.0	47.52
Henry W. Schmidt					
Pearl, N.	9	Feb 10	1305	3.6	46.98
Flora, N.	5	Feb 22	1317	3.7	48.72
Sussen, N.	4	Jan 31	1218	3.9	47.50
Henry Zermuehlen					
Hol. Bess, G. H.	10	Jan 11	1440	3.3	47.52
Ebony, G. Hol.	6	Apr 7	1560	3.3	51.48
Frank Bergel					
Snow Ball, N.	7	June 18	1329	3.6	47.84
Wm. H. Spencer					
Nellie, N.	6	Apr 26	1107	4.4	48.71
Joe Wegner					
Niggar, N.	4	June 2	1215	4.2	51.03
Peter Fliegel					
Daisy, N.	9	Mar 30	1314	4.0	52.56

E. H. WEINEKE, Official Tester.

Jersey Cows Making Good Records.

To the Editor:—A registered Jersey herd owned by Ora P. Taylor, of Elkhorn, is doing very good work in the Geneva Coöperative Cow-Testing Association this year. Eminent's Lily White 287410, has made the best record for one month of any cow in the herd, she is a four year-old, freshened March 29, 1917, and for the month of May she produced 1,048 pounds of milk, testing 6.7 per cent, making 70.2 pounds of butter fat. For June she produced 1,107 pounds of milk, testing 6.7 per cent, making 74.2 pounds of butter fat. When she made her June record she was on pasture and was just getting a small amount of silage when she was put in the barn to be milked.

Erma's Rosebud 287415, is another four-year-old cow which has done very good work. She freshened November 6, 1916, and has made 436.1 pounds of butter fat in seven months and twenty-one days. She has never made a real large record for any one month, the largest being only 68.6 pounds of butter fat, but her production has held quite uniform one month with another making 792 pounds of milk, testing 6.2 per cent, making 49.1 pounds of butter fat for the eighth month in milk.

Ernestine's Rosebud 375680, the first daughter of Erma's Rosebud, and sired by Noble's Reindeer 111171, freshened January 3, 1917, at the age of eighteen months and has produced 166.9 pounds of butter fat in five months and twenty-five days.

Mr. Taylor has eighteen pure-bred Jerseys in milk at the present time and all of them are making very good records. Up to the present time Mr. Taylor has not tested his cows officially, but contemplates doing so next year.

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Ora P. Taylor					
Lilly, R. J.	4	3-29-17	1048	6.7	70.2
Valentine, R. J.	3	3-13-17	1138	5.8	66.0
Slattery, G. J.	8	3-28-17	1001	5.3	53.1
L. Pansy, R. J.	4	3-27-17	871	5.7	49.6
Erma, R. J.	4	11-6-16	741	6.6	48.9
Spots, G. J.	7	3-19-17	899	5.2	46.7
Fancy, R. J.	5	3-9-17	744	6.1	45.4
Queen, R. J.	6	10-22-16	809	5.6	45.3
A. G. Palmer & Sons					
Sadie, R. Hol.	9	3-16-17	2062	3.1	63.9
Mary, G. H.	5	11-23-16	1479	3.4	50.1
Daisy, R. H.	6	12-21-16	1265	3.8	48.1
Pontiac, R. H.	2	3-7-17	1262	3.7	46.7
M. W. Girl, R. H.	4	2-4-17	1293	3.6	46.5
Harry Ames					
Bluebell, G. H.	4	4-14-17	1469	3.8	56.2
Frank Webster					
Lucy, G. Dur.	5	2-23-17	1231	4.3	52.9
Daisy, G. Dur.	7	5-4-17	1298	3.7	48.0
Floyd Wright					
Louie, Native	6	4-23-17	1398	3.4	47.3
W. E. Palmer					
Queen, R. H.	4	11-22-16	1302	3.5	45.6

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.

Winnebago Association.

To the Editor:—The list of forty-five-pound cows in the Winnebago County Cow-Testing Association for the month ending June 30th follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
C. Ruelke					
Jennie, P. B. G.	6	5-23-17	1089	4.5	49.0
C. H. Slayton					
Ferndell, G. G.	7	4-13-17	1080	4.4	47.5
Sequel, G. G.	5	3-8-17	1149	4.0	45.9
E. P. Sawyer					
Victoria, P. B. G.	7	4-25-17	1080	4.8	51.8
M. A. Rolph & Son					
Jersey, G. J.	4	2-16-17	795	6.0	47.7
G. W. Searles					
Rella, G. J.	5	4-18-17	1182	5.0	59.1
Aug. Franz					
No. 12, G. H.	12	3-18-17	1116	4.6	49.1
John Thrall					
Rose of Rockbridge P. B. G.	6	4-28-17	1272	4.0	50.8
Dolly Bloom, G. G.	6		1296	3.8	49.2
N. A. Rasmussen					
May Bee, G. G.	6	6-13-17	1230	4.8	59.0
Gus Pansy					
No. 4, G. H.	4	5-10-17	1260	4.4	55.4
W. P. Bussey					
No. 1, G. J.	7	2-27-17	1305	4.4	57.4
H. R. Mosley					
Heirmone, G. G.	6	3-22-17	1065	4.6	57.9
Goldie, G. G.	6	3-30-17	1215	4.5	54.6
Maid, P. B. G.	4	3-15-17	849	5.8	49.2
Levi Brunson					
Blue Bell, P. B. J.	5	3-8-17	960	6.4	61.4
Edd Jennings					
Fae of Elco, G. D.	5	11-12-16	1275	3.6	45.9
No. 12, G. D.	5	1-20-17	1326	3.8	50.3

F. G. Fisher, Official Tester.
Levi Brunson, Secretary.

Guernseys Make Good Showing.

To the Editor:—Mr. C. E. Ericksen carried off the honors in the Alban-New Hope Cow-Testing Association for the month ending July 4th, with his herd of Guernseys. Ten cows which completed the monthly test averaged 774 pounds of milk and 37.9 pounds of butter fat. The cost of feed per cow was $5.82 and the total value of product per cow $17.79, making a profit of $11.97. One grade Guernsey in this herd produced 1,141 pounds of 4.8 per cent milk, making 54.8 pounds of butter fat. Mr. Ericksen is a firm believer in feeding his cows a certain amount of grain with summer pasture. Herds which averaged a pound a day of butter fat or better are as follows: G. J. Olstad, Holsteins; F. Leroy Larsen, Guernseys; Moore & Galloway Lumber Co., Herefords; J. P. Madsen, Guernseys; M. J. Wrolstad, Guernseys; F. L. Taylor, Holsteins; A. L. Brekke, Holsteins; E. O. Hellem, Guernseys; F. A. Nace, registered Holsteins. The forty-five-pound list for the month follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
C. O. Wogsland					
Belle, R. Gur.	5	3-6-17	859	6.2	53.3
C. E. Ericksen					
Rolin, G. Gur.	9	2-29-16	1012	5.1	51.6
Whiteface, G. Gur.	9	3-3-17	1141	4.8	54.8
G. J. Olstad					
Julin, N. Hol.	9	3-20-17	1393	3.4	47.4
Freebot, N. Hol.	7	3-21-17	1143	4.0	45.7
Tom Olson					
Rosy, N. Gur.	4	4-27-17	868	5.4	46.9
Alfred L. Brekke					
Snokum, G. Hol.	9	3-10-17	1162	4.0	46.5
Moore & Galloway Lumber Co.					
Molly, N.	.	4-22-17	1005	4.6	46.2
M. J. Wrolstad					
Grade Guernsey	10	1-10-17	978	5.2	50.9
Grade Guernsey	3	4-26-17	932	5.0	46.6
F. L. Taylor					
Pearl, G. Hol.	5	3-6-17	1277	3.5	45.0

M. E. SMITH, Official Tester.
M. J. WROLSTAD, Secretary.

Geneva Association.

To the Editor:—The forty-five-pound cows in the Geneva Association, Walworth county, for the month of June were as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
A. G. Palmer & Sons					
Chase, R. Hol.	6	5-28-17	1968	4.5	88.6
Queen, R. Hol.	4	5-29-17	1875	3.8	71.2
Walker, R. Hol.	3	5-12-17	2172	2.9	63.0
Beauty, R. Hol.	9	11-27-16	1455	3.5	50.9
Ora P. Taylor					
Lilly, R. Jer.	4	3-29-17	1107	6.7	74.2
Lassie, R. Jer.	5	4-28-17	918	6.8	62.1
Valentine, R. Jer.	3	3-13-17	1032	5.2	53.7
L. Pansy, R. Jer.	4	3-27-17	909	5.6	50.9
Erma, R. Jer.	4	11-6-16	792	6.2	49.1
Princess, R. Jer.	5	4-30-17	870	5.4	47.0
Dehorned, G. Jer.	7	3-20-17	789	5.9	46.6
W. E. Palmer					
Queen 2d, R. Hol.	2	5-10-17	1833	3.1	56.8
Dallas E. Davis					
Snowflake, G. Hol.	7	5-12-17	1437	3.9	56.0
Jessie, G. Hol.	7	3-23-17	1506	3.4	51.2
Merton Petrie					
Netherland, R. Hol.	5	4-7-17	1488	3.6	53.6

F. W. Drake, Official Tester.
Leo D. Dunlap, Secretary.

Columbus Association.

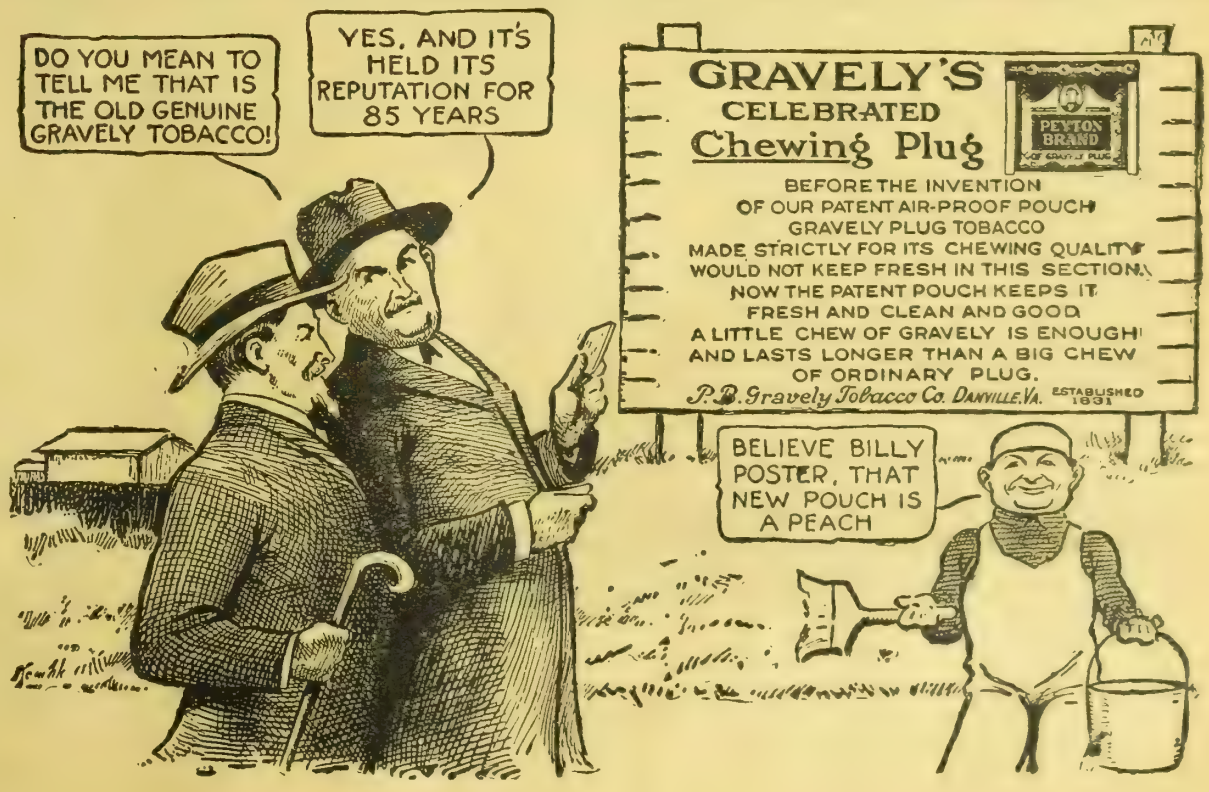
To the Editor:—Our forty-five-pound list for the month ending July 12th follows:

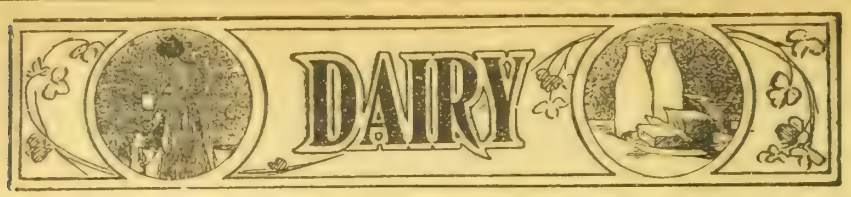
Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
R. F. Kalkhorst					
No. 12, P. B. Hol.	6	4-29	1041	5.2	54.1
A. L. Leffingwell					
Eddy, G. Jer.	5		936	4.62	52.6
Daffodil, G. Jer.	2	5-21	795	5.97	47.5
Julius Heyden					
No. 37, P. B. Hol.	6	5-1	1551	3.6	55.8
Henry Dolan					
Emma, G. Hol.	4	4-7	1446.5	3.6	52.1
August Goldner					
Boldt cow, G. Hol.	5	4-7	858	5.5	47.2
John Bradley					
Nancy June, P. B. H.	8	2-28	1467	3.5	51.4
B. C. Mercedes Pontiac					
P. B. Hol.	4	4-7	1368	3.3	45.1
Courtland Rose B. C.					
P. B. Hol.	4	3-11	1239	3.9	48.3
J. E. Barstow					
Blackie, G. Hol.	8	3-1	1209	3.9	47.2

The best herd average was Henry Dolan's which was 1,135.1 lbs. milk and 35.6 lbs. fat.

C. F. Wehrwein, Official Tester.

Considerable interest is being manifested in the stocker and feeder show to be held in South St. Paul September 20th and 21st. A sale will close the show and H. O. Tellier, well-known auctioneer, of Farmington, Minnesota, has been engaged to cry this sale.



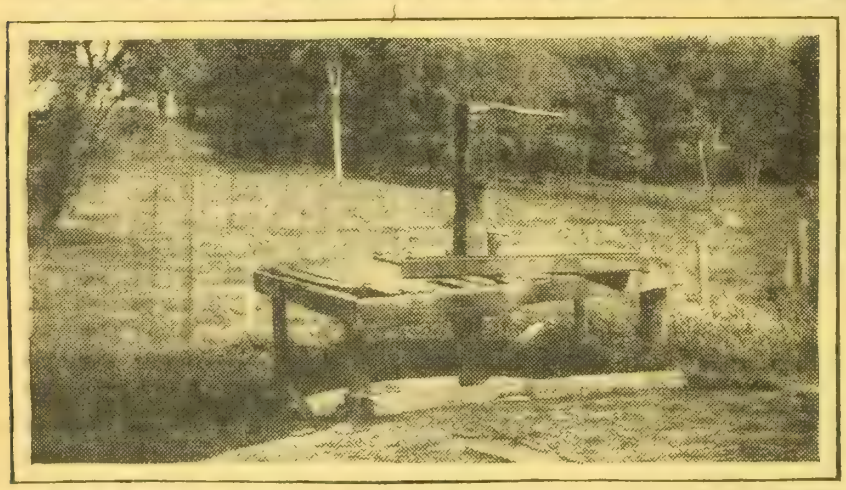


Separators for Cheese Factories.

Cheese factories of Wisconsin are not all using whey separators, though the whey separator has proved its worth wherever it has been installed. Aside from the fact that the butter fat lost in cheese making is not being turned into a profitable product by the factory, it is safe to say that not half of the fat contained in the whey tank is utilized by the patrons for feeding purposes.

The accompanying picture is a good illustration of average conditions. The tank setting on the lower side of the factory has over it a platform with a pump on it. This pump takes the whey from the bottom of the tank. The warm whey flows from the factory into the tank each day. The fat globules in the whey rise to the top. As the pump reaches to the bottom of the tank only the thin portion containing no fat is taken out and the fat remains in the tank. As new whey is added more fat rises to the top only to go to waste because of the system.

D. S. Bullock, field man for the Live Stock Breeders' Association, who took this picture, is authority for the statement that in many instances from one-half to three-quarter-inch layers of fat are present in these tanks. The fat goes up and down in the vat as the whey is added and taken away. Each day more fat remains in the tank. When the tank needs cleaning the cheesemaker takes this fat, which is by this time a sticky mass, and buries it. That is good profit going to waste, as can be proved by the factories which have installed the whey separators.



THIS SORT OF TANK AT OUR CHEESE FACTORIES SHOULD BE DONE AWAY WITH.

In 1916 the figures from twenty-eight factories taken at random from Dane, Iowa, Lafayette and Green county establishments showed a profit from whey cream which averaged for each of the twenty-eight factories $1,426. This profit is going to waste in hundreds of cheese factories in Wisconsin. It is a situation which ought to be remedied at once.

A whey separator will do this. It will conserve the butter fat for the patrons and turn waste into dollars. Under the existing conditions neither factory nor patrons make use of the butter fat contained in the whey. The greater portion of it actually rots on the surface of the tank until it is necessary to clean it out and cover it up. Said one patron: "The best we ever do with it is daub it all over ourselves when we try to take it out of the tanks with a bucket."

Factories which have the separator installed pump the whey to a tank overhead from which it feeds automatically into the whey separator. This butter fat can be sold to butter establishments which make a business of turning this product into butter. There is a chance here for an added profit for every one of our coöperative cheese factories and the thousands of patrons supplying these factories will do well to look into the matter.

Keep as Many Cows as Possible.

To the Editor:—In my judgment the most important things for the Badger farmer to consider in the next three months is the careful and thorough cultivation and harvest of his crops; the construction of more silos wherever such are needed for winter feeding and for supplementing pastures in summer. They also need to study carefully the optimum utilization of labor. To this end an effort should be made to keep as many cows per man as one can reasonably handle. The nation is looking to Wisconsin to play a large and important place in supplying dairy products, and we need to speed up along this line, with a view of at least increasing our output 25 per cent.

An enterprising farmer in Jefferson county has recently arranged with a number of boys from his town to go to the farm in the morning and under proper supervision spend their time in hoeing corn. The boys carry their lunches with them in order to save extra work for the housewife. This is serving two useful purposes—it is helping increase the food supply and it is helping to develop the boy.

D. H. Otis.

Emergency Food Agent Jefferson and Waukesha Counties.

Care of Cream in Hot Weather.

To the Editor:—In the care of cream on the farm and also in the way it is delivered to the creamery in hot weather there are many different methods employed. Frequently where only a few cans are produced the cream is allowed to remain on the farm too long before it is delivered at the creamery. This, of course, results in cream of a poor grade. In many cases the cream is cooled too slowly. Just the other day I was at a farm where the cream was cooled by placing it in a tub of water. The cream warmed the water and the water cooled the cream and soon both reached the standstill stage. I happened to be there when that stage had been reached and I should judge that the temperature was 70 degrees. At that temperature bacteria work vigorously and undesirable flavors are the result.

Just as soon as possible after the cream has been extracted from the milk it should be cooled to a temperature below 60 degrees and kept cool until delivered. When the milk is taken from the udder it has a temperature of about 98 degrees Fahrenheit, which is just right for the work of the wrong kind of bacteria. The average well water has a temperature of about 50 degrees and offers a very practical means to cool the cream on the farm. One of the cheapest ways of doing this is to provide a small tank through which all the water must pass before it goes to the stock watering tank. This tank should be placed in a building so that the warm rays of the sun will not shine on the cream cans and so that the cream will have some protection from the storms of summer.

Shotgun cans are best in which to cool the cream, as the cream cools more quickly in them and they are more conveniently placed in and taken out of the tank than other receptacles. The cream should be stirred while being cooled. Stirring hastens the cooling process by liberating the animal heat and bringing the warm parts of the cream in contact with the cool sides of the can. In running the water into the tank and out again it is a good idea to have the inlet at one end at the bottom and the outlet at the other end and at the top of the tank. A clean cloth spread over the top of each can to keep out dust is better than a closely fitting lid, a change of air thus being assured which helps to keep the cream odorless.

Some of those who employ this method of cooling cream like to have the cream separator in the same building. This is not a bad plan where there is plenty of room and the machine is kept as clean as possible. The room, too, must be kept clean, of course. Wherever there is a board floor in the milk house it will be found difficult to keep it clean and sweet, for when milk or cream is spilt, it begins to decay and then it is almost impossible to keep a floor as clean as it should be. A concrete floor is much better than wood and it does not cost any more than the average board floor.

When cream is being transported from the farm to the creamery or shipping station it is important that the cans be protected from the rays of the hot sunshine. I have known cream to be hauled four or five miles in hot weather without so much as a blanket over the cans. Under such conditions the temperature of the cream frequently rises as high as 12 degrees during transportation. Such a rise in temperature encourages souring and a low grade of cream. In hauling cream in hot weather a wet blanket should be placed over the cans and this in turn covered up with a dry one. Felt jackets for the cans can be obtained from dealers in dairy supplies and in our experience in using them we have found that they are worth a good deal more than they cost. They are easily slipped on and off the cans and help wonderfully in keeping the cream cool during delivery.

Subscriber.

Farm Cheese Making.

To the Editor:—In the June 7th issue I find an inquiry about how to make cream cheese. I have found a good many who have preferred mine to that bought at the stores.

If the evening's milk is to be used together with the morning's milk, it should be strained into common cans or any suitable vessel, which in warm weather is placed in cold water or otherwise kept cool until the next morning. It is a good plan to stir the milk well before going to bed, partly to help it cool quickly and partly to prevent too much cream from rising. The next morning after weighing the morning's milk, it may at once be strained into the cheese tub. Then pour in the evening's milk and stir

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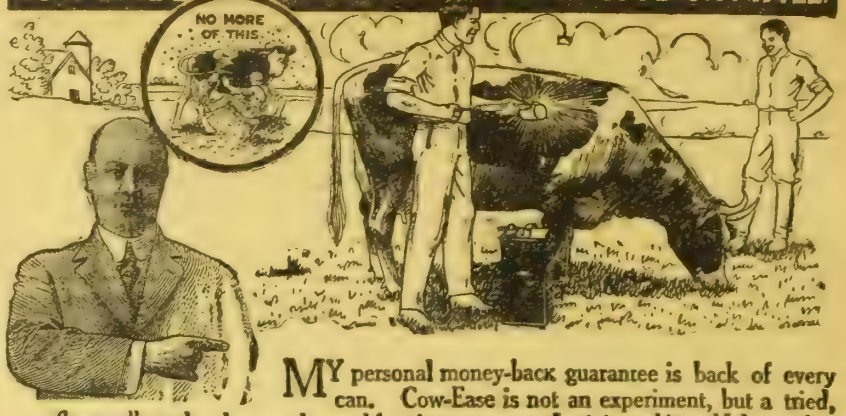

MY personal money-back guarantee is back of every can. Cow-Ease is not an experiment, but a tried, sure fly-repellant that has made good for sixteen years. I originated it and I *know* that

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Keeps Flies off Cattle and Horses

It is an absolutely harmless liquid—applied with a sprayer. It does not gum the hair or blister the skin. Its cost is trifling, and a gallon will spray a cow over 200 times.

Cow-Ease positively keeps flies away and keeps your cows quiet and contented. You reap the benefit in more milk and *better* milk, and in easy milking. Flies not only irritate your cattle and reduce the milk yield but they are ladened with deadly disease germs. Get rid of them.

Thousands of farmers and dairymen are using Cow-Ease to their profit. Why not you? Remember I personally guarantee satisfaction or "your money back." Ask your dealer for Cow-Ease to-day

M. Elton Vose Vice-President.

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Manufacturers of Cow-Ease. Established 1840.

TRIAL OFFER If your dealer cannot supply you, send me his name and $1.25, and I will deliver prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For west of Missouri River and Canada, above Trial Offer, $1.50.

High Feed Costs Smashed!

Down they go—to *smash!* In scads of cases cut down a HALF! Thousands of farmers are selling their No. 1 hay, milling off-grades. They're making the grandest alfalfa chop; fattening hogs, cattle, sheep, poultry and *purses!* making it cheaply, easily, with our famous patented Recutter Attachment (sizes for fields use). Handles leaves, stems and all! No waste! no injuring color of hay. Makes dandy combination feeds from clover, rice, straw, cornstalks, bean straw, pea vines, oats and rye. Biggest guaranteed capacity 1,200 to 2,700 lbs. per hour. 600 to 900 lbs. of meal per hour with Junior Mill (run with 6 to 8 h. p. engine). Cracks peas, corn and beans.

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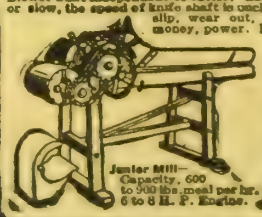
SEVEN SIZES

Tremendously simplifies silo filling. Grip Hook Force Feed table automatically feeds cutter—saves wage and board of from one to three men. Makes richest feed, increases silo tonnage.

Blower built independent of cutter. Let your fan spin fast or slow, the speed of knife shaft is unchanged. No belt to slip, wear out, and waste time, money, power. Patented low-speed one-pulley chain drive is faster, cleaner. Saves 1-8 to 1-4 power costs! Powerfully built. A fourth heavier, with wonderful record for long service. Handsome new catalog FREE. Write for it to Dept 55 SMALLEY MFG. COMPANY Manitowoc, Wis.



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$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

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100,000 now in use

well. Any common tub or tight wooden box may be used for cheese tub. If you have an open boiler the milk may be heated in a shotgun can or a tin bucket placed right in the boiling water, but it must be stirred all the while unless the temperature of the water is as low as 140 degrees, when it may be left alone, though the heating takes much longer if not stirred. This way of heating I have found the best, as it is always necessary to have a large boiler for heating water for cleaning purposes and it is much safer than heating it over direct fire.

When the milk is heated to 84 degrees, remove the can from the boiling water and add the rennet. If coloring is to be used, this must be stirred in carefully before adding the rennet. Cheese color can be bought in fluid form in the same sized bottles as butter color. Some do not use it at all.

For farm cheese making rennet tablets are very handy to use. The number of tablets required is one for every hundred pounds of milk. This tablet should be dissolved in pure cold water and the solution is then added to the milk. Stir well four or five minutes and stir now and then gently on the surface so as to prevent the cream from rising, but take care to stop in time so that coagulation be not disturbed. Cover the vat and if a reliable rennet is used in the right quantity it may be left about half an hour without any attention. After that it must be watched closely and whenever the curd splits or breaks clean when a finger is passed through it, it is ready to cut. The cutting may be done with any knife which is long enough (it can be made out of tin or hard wood). With this the curd is cut crosswise, taking care that it is cut right down to the bottom of the vat. Then take a common skimmer, insert it slowly and then gently lift it up, and allow the curd to break by its own weight. When the whole mass is reduced to cubes of two or three inches, leave it for about five or ten minutes, then stir the curd gently, breaking up the pieces until they average one-half or one-fourth inch in diameter. The curd is now left to settle and as soon as possible part of the whey is dipped off into a can or pail. Stir again and when settled dip off more whey. Keep this process up until the curd feels shotty or the particles are hard enough to rub between the fingers without sticking together.

Add good dairy salt at the rate of four ounces to the curd from 100 pounds of milk. Too little salt allows the cheese to ripen too fast and too much salt will make the cheese too dry and prevent its curing properly. Of course, the salt must be distributed evenly in the curd.

It is now filled into the molds or hoops. The best hoops are made of heavy tinned iron, but can be made of wood if only care is taken to have it perfectly straight and smooth inside. Place a piece of cheesecloth inside the hoops and have folds as smooth as possible. When full, the edges of the cloth are laid smoothly over and the lid is put on.

This cheese is usually pressed twenty-four hours. The pressure must be about 500 pounds for a ten-pound cheese. When taken from the press it is bandaged by sewing a piece of cheesecloth around it. The room in which it is kept should be well ventilated and the temperature considered best is between 50 and 60 degrees. The cheese should improve until it is ten or twelve months old, but can be eaten any time.

Mrs. Anna Frank Sorensen.

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Fifty thousand are now in use on the finest farms in America.

If you are going to buy a silo—this satisfactory service rendered everywhere—should be of special interest to you.

The cost of all materials is advancing like the price of wheat and corn.

Why not save money by contracting for your silo now. It undoubtedly will cost you more next spring or summer.

Let us send you our proposition—to contract now for your silo and deliver it later.

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GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

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800 ACRES IN PINE CO., lays level to gently rolling, about 300 acres natural meadow, about 200 acres cleared for the plow and mower; land has been pastured for several years and is well set to grass. Will pasture 400 head of cattle and ordinary years will cut 250 tons of hay in its present condition; all fenced and cross-fenced. Set of buildings suitable for tenant or foreman, adjoining farms worth from $60 to $80 per acre. Can deliver this farm at $35 per acre, easy terms. Best bargain in Minnesota. SWAIN & SOMERS Hinckley, Minn.

FARM FOR SALE—133 acres, heavy clay loam; 30 acres timber, balance productive fields that produce acre for acre as much as any land in the West; great markets; ½ mile from town and railroad; new 10-room house, full basement; telephone; large new basement barn, hen houses, fruit; fine climate, mild winters. Price $3,000, half down, balance on easy terms. Send for free photos and description. A. L. Wilkins, R 1, Union, N. Y.

A SMALL FARM in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.&S.F.Ry., 1959 Ry. Ex., Chicago.

FOR SALE—44-A. farm; good clay soil; 14 A. plowed, 28 cleared; on main road; 1¼ m. to Holcombe with ry. sta., good high school; new 7-r. house, new barn. Fritz Rodin, Holcombe, Wis.

Waukesha County Holstein Meeting.

The summer meeting of the Waukesha County Holstein-Friesian Breeders' Association will be held at the home of Mr. Fred Pabst, Oconomowoc, Wisconsin. Mr. Pabst is one of the largest breeders of Holstein-Friesian cattle in the United States and stands out as being a leading man in the Holstein industry in Wisconsin.

The principal speakers of the day will be Mr. Moscrip, Lake Elmo, Minnesota, who is recognized as being the best judge of Holstein-Friesian cattle in the United States. Mr. Moscrip judged at practically all of the large fairs and dairy shows last fall. He was judge at the Waterloo Dairy Cattle Congress, at the National Dairy Show, at the Minnesota State Fair and at the Illinois State Fair. Mr. Moscrip owns a large herd of the famed "Black and Whites." His herd is founded upon size, individuality, uniformity and production. Another speaker of the day will be Hugh G. Van Pelt, of Kimball's Dairy Farmer, Waterloo, Iowa.

J. E. Stallard, recently selected by the county board of Waukesha county as a county agent, is to begin his new work on August 1st and will be introduced to the county at the meeting on August 2d. The county association took an active part in securing a county agent for Waukesha county. The project was first put before the county board by the association two years ago. The association thus takes pleasure in the introducing of Mr. Stallard to the county on that date.

Another feature of the day will be the sale of a pure-bred heifer calf which is to be given to the Red Cross movement by the association. The calf's name is Brookvale Segis Burke and comes from the herd of D. J. Howell, who recently sold a two-year-old heifer at the Waukesha County Holstein sale for $2,150. The dam of the calf, Segis Pontiac Burke, is from Sir Urmagel Burke, a 31-pound bull with a sister who made 35 pounds of butter in a week. Her dam has a record of 25.06 lbs. butter in seven days. Sir Urmagel Burke has 39 A. R. O. daughters. Several of them with records between 25 and 30 pounds of butter in a week. He is by a three-fourths brother to De Kol Burke, who has 77 A. R. O. daughters, including several world's record animals. The dam of the calf was bought at the Waukesha sale by Aitken Brothers from Mr. Howell for $500.

The plan for the day will be as follows:

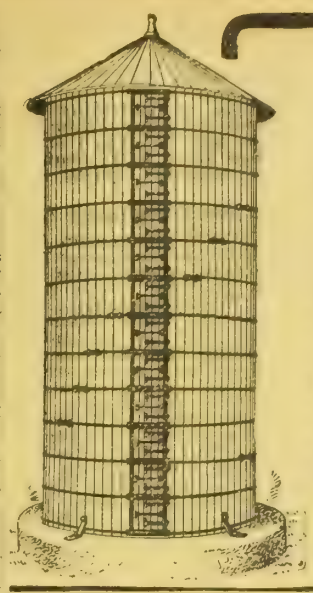
10:00 a. m. Assembled at Pabst Stock Farm No. 1.
10 to 11 Trip by auto to visit the famous Pabst herds.
11:00 a. m. Judging demonstration by Wm. Moscrip at Farm No. 1.
12:00 Charcoal dinner served by Mr. Pabst in the large open-air arena on the Pabst ground which is situated just west of Farm No. 1.
2 p. m. Address, "How to Feed the Dairy Cow Under the Present Feed Conditions," Hugh G. Van Pelt, Kimball's Dairy Farmer, Waterloo, Iowa.
3 p. m. Introduction of J. E. Stallard, county agricultural agent.
4 p. m. Sale of Red Cross calf.

Music and other entertainment will also be provided.

Mr. Pabst's farms are located between Delafield and Oconomowoc. The roads leading to the farm are in excellent condition.

Persons who take the trip by street car get off at Nashotah station, which is a short distance from Farm No. 1.

Dr. L. R. Jones is responsible for the statement that root crops are more susceptible to lightning injury than other plants, while the grasses and cereals as well as cotton are completely safe in the worst electrical storm. Wisconsin potato fields are open to lightning damage, the stricken spots usually varying from a few feet to a rod or more in diameter.



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No matter what your corn crop is like you need a

GEHL SILO

A good corn crop pays its biggest dividends when in a silo. A poor corn crop can be saved only by a silo. At present prices a silo will pay for itself the very first season.

Don't wait until your crop is ready for harvesting before you build a silo. There is a serious shortage of silo building materials this year and you may not be able to buy later in the season. Insure your corn crop now. Write at once for prices and description of Gehl Silos.

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The President Says:

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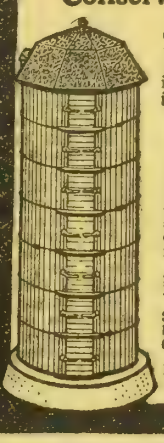
Conserve and Increase Your Forage Crops

Turn under part of your pasture and plant it to saleable crops. Feed your stock cheaper, easier, more profitably with a few acres of corn cut into ensilage with a Kalamazoo Ensilage Cutter and stored in a Kalamazoo silo. Stop wasting land that should be used for money crops. This year, if ever, farmers have a chance to make *big profits*.



Kalamazoo LIFE-TIME-SILOS

are built to meet the exacting farmer's needs. Best in design, material and workmanship. Have every desirable feature a silo should have and embody the "know how" acquired through more than twenty years experience in silo building.

Glazed Tile Silos—fire-proof, frost-proof, storm-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost—a written guarantee goes with every one.

Wood Stave Silos—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete ready to set up. Quickly and easily erected by inexperienced home labor. All Kalamazoo Silos are made with Galvanized Steel Door Frames and continuous doors, forming a safe ladder entire height of silo.

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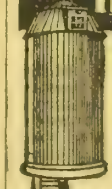
Count the Dots and Win a Beautiful Prize

You see in the picture, an Automobile covered with dots. Can you count the number of dots on this Auto? If you can do this, we will send you as a prize, *a packet of five beautiful Army and Navy post cards*, lithographed in rich colors and also a certificate of entry in our grand contest for a Saxon Automobile. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

SAXON AUTO GIVEN AWAY

Remember the Saxon will absolutely be given away at the close of the grand contest. In case of a tie a Saxon will be given to each person so tied. Send at once so you can be entered in this great contest. Full particulars by return mail. THE AUTO MAN, Dept. 314, Des Moines, Iowa.

Use A Wood Tire Hollow Wall Silo



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Cures and preserves silage perfectly. Prevents freezing of silage. Easy to construct. A real farm building, permanent and rigid. No hoops to get loose. No guy wires. No staves to shrink or swell, but a smooth, double wall from base to roof, the inner wall being of *California Redwood*.

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The patented wood "tire" is built up of inch boards, and shipped in sections. The boards overlap in step formation at both ends. When nailed together, these sections form a ring of unusual strength. The silo frame forms its own scaffolding.

Send for our folder which shows how the Wood Tire Silo is built, and also what owners think of them. A postal brings it. Write today.

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Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Giant Invincible One Among Many.

THE best junior yearling boar, of the Duroc breed, that we saw while in Minnesota is owned by J. J. Cain, of Skyberg. Mr. Cain is the breeder that made the big "killing" in the futurity and open classes at Hamline last year, and he is getting ready to come back this year. The attraction on this farm is Giant Invincible, a son of Chief Invincible 2d, he by the noted Chief Invincible. This is the boar that Mr. Cain purchased while attending the Omaha show last fall. He measures seventy-four inches from between the eyes to the root of the tail, stands thirty-eight inches high and has eight and three-quarters inch bone. Combine these measurements with a boar that has quality and conformation and one would naturally expect to find a good one. Giant Invincible is the best herd boar prospect that we know of and we have no doubt but what he will have this boar at Hamline, but he will not be in show condition. He does not want to fat him this year, but expects to show him as a half-ton boar a year from this fall. Just keep this boar in mind and if he doesn't grow out to be one of the best boars in the northwest we will be badly mistaken. The pigs sired by him came late, but they are good for their age. On January 16th Mr. Cain will hold his first bred sow sale and most of the offspring will be bred to this boar. There will also be several sired by him. Remember these notes, for Giant Invincible is one of the coming boars of the breed.—Adv.

At H. A. Derenthal's.

OUR first stop on our trip among the swine breeders of Minnesota was at H. A. Derenthal's, Wyckoff, Minn., who has what is commonly termed the champion, Chester White herd of the Northwest. We found Hank with some 150 spring pigs. He was unfortunate in losing some of his earliest litters, consequently has not as many pigs as generally found on East Side Stock Farm. His show herd is fine and he has an aged herd ready that is a credit to him as a breeder of Chesters. He also has an outstanding showing of "under-year" stuff and will be especially strong with fall gilts. Just at this time Hank does not know whether he will take Ignatz out again this year or not. He has used him heavily and would need to be crowded fast to get in show condition. This boar is siring a fine lot of good-footed, high-backed Chesters and he is worth more as a sire than he is as a show boar. There are some real herd-boar prospects in some fall boars that he has. These have been held back for the select and critical buyer and anyone wanting something choice would not go wrong on one of these boars. They are sired by Ignatz and Callaway's Kind and out of prize-winning sows. One good boar is out of the grand champion sow at Hamline last year. The spring pigs are also being shipped. Wisconsin breeders will make no mistake by getting some of this blood in their herds. Write this breeder.—Adv.

J. J. Reid & Son, Oconomowoc, Wis.

IN interviewing Mr. Reid, Jr., the other day with reference to their herd of Holsteins he informed us that they now have 20 daughters of Tritomia Ormsby. The first two daughters of this sire have made very creditable A. R. O. records, one making 19.7 pounds of butter as a two year old and the other, 17 pounds butter as a senior yearling. Mr. Reid also gave us a bit of interesting news with reference to their herd sire, Sir Pietertje Ormsby Mercedes 43d, the 34.5-pound bull which they purchased from E. C. Schroeder, Morehead, Minn. Early Dawn Peep, a full sister to the dam of their herd bull has just made 1,287 pounds butter in a year. The performance of this cow and the dam of their bull, Aaggie Wayne Peep, makes a world's record for the production of butter in a year for full sisters. The dam of their bull also holds three records for the production of three consecutive years so that their herd sire is now a world's record bull on two points.—Adv.

Chippewa Stock Farm.

L. P. MARTINY, Chippewa Falls, Wisconsin, writes that during June he had a good call for Guernseys from men that were critical buyers. He sold four bulls and four females and still has six excellent sons of Stranford's Glenwood of Pinehurst 6th and Dasher of Sarnia, the latter the second prize two-year-old bull at the state fair, that are for sale. Mr. Martiny has an excellent herd of cattle and the bulls he has for sale will please. Remember this is the home of one of the best aged Poland China boars in the state—Big Bone Wonder. He will weigh well over 900 pounds by fair time and he is a "real boar." Better buy a bull or a boar; Martiny has the goods.—Adv.

Jerseys at Tomah.

E. E. WYATT, Tomah, Wis., needs no introduction in Wisconsin, for, as an officer of the Jersey Breeders' Association and an institute worker he has a large acquaintance. We don't want you to forget his Jersey herd when you are in the market for anything of this breed. He can supply your wants. He also raises Durocs.—Adv.

Herefords for Beef.

SOME of our readers are no doubt interested in Hereford cattle and for their information we want to recommend Walter Bros., Chippewa Falls, Wis., as they have one of the very best herds in the state. Outstanding bulls head the herd and their foundation cows are as good as can be found in the Northwest. They have bulls that will please the most critical. Write them.—Adv.

Wilkins Makes Good Guernsey Sales.

CHAS. A. WILKINS, Platteville, Wis., has one of the good Guernsey herds of the state, containing cows that have excellent A. R. records. In a recent letter he says: "The Guernseys I have been advertising in The Wisconsin Farmer are all sold at satisfactory prices. Am sending you the names of the buyers that you can use as you see fit. Have some fine calves coming on sired by Langwater Frenchman. Will be with you again later." Mr. Wilkins sold bulls to the following: Dickson Bros., Almena, Wis.; Earl Packard, Curtiss, Wis.; Aug. Runde, Cuba City, Wis.; Runde Bros., Cuba City, Wis.; S. S. Wenger, Wakarusa, Ind.; Chas. Lade, Polar, Wis.; Thos. Moran, Arlington, Wis.; Henry A. Marshall, Coopersville, Mich.; Geo. B. Snowden, Platteville, Wis.; Joe Linden, Platteville, Wis. Females were sold as follows: Two A. R. cows and one heifer to Emil Walthers, Medford, Wis.; one A. R. cow to Fred Jenner, Arlington, Wash.; one cow and heifer calf to J. E. Wrage, Arlington, Wash.; one A. R. cow to Richard S. Rawson, Platteville, Wis. The females sold were to be used for foundation cows in the various herd. In passing we might mention that The Wisconsin Farmer was the only state paper Mr. Wilkins used.—Adv.

E. E. Rosencranz, Oconomowoc, Wis.

We were greatly interested in looking over Mr. Rosencranz's herd the other day to note the splendid breeding represented in the pedigrees of the two herd sirs which he is now using. His junior sire is a half brother to the sire of Ormsby Jane Segis Aaggie, the cow that now holds 17 world's records is the dam of the $53,200 bull calf recently sold at the great Wooster sale and the cow that is rated by a number of the most eminent judges of the day as being the greatest living cow of the breed. The dam of this junior herd sire was the first cow bred in Waukesha county to produce 100 pounds of milk in a day and is also one of the first thirty-pound cows. The senior sire is a grandson of Sir Ormsby Hengerveld De Kol. This animal is line bred containing more than 50 per cent the blood of his grandsire. One of the best cows in Mr. Rosencranz's herd is a 24-pound granddaughter of Homestead Junior De Kol, a cow of remarkable individuality as well as one which indicates persistent mark producing tendencies.—Adv.

Orion Col. S.

WE recently saw Orion Col. S. and this good Duroc Jersey boar has done fine since he was shown at Milwaukee last fall. The owner, W. C. Jenkins, Bangor, Wis., expects to show him again this fall and we feel that he will make a creditable showing in the aged class. We consider Orion Col. S. one of the real good big-type boars in Wisconsin—a boar with a wonderful high-arched back, good depth and length, and his breeding is the very best, being by the noted Col. S. Jr., and out of a daughter of old Orion Chief. Jenkins also has one of the largest fall boars we have seen. With a little flesh he would weigh well over 500 pounds. A yearling sired by Pathfinder is also being used in this herd. A senior yearling sow will be shown that is very choice; she is sired by the noted High Model and is a grand sow. Watch for the Jenkin exhibit at the fairs. He will have out some good sows. Don't forget Orion Col. S., one of the good boars in the state.—Adv.

Don't Forget the Northern Grown Durocs.

DON'T overlook the P. P. Schmidt & Sons Duroc herd at New Richmond, Wis. This herd should especially appeal to the farmers and small breeders in the north central and northwestern part of Wisconsin, for the Schmidt Durocs have been raised under northern conditions. The boars and gilts that they have for sale must give satisfaction, they are recommended that way. They come from prize-winning blood and the price is reasonable. Write for details and mention The Wisconsin Farmer.—Adv.

Another Chester White Convert.

THE last addition to the Chester White column in The Wisconsin Farmer is A. L. Kirst, Tomah, Wis., and the pigs that he has for sale will compare favorable with the other advertisers in our publication. Mr. Kirst has not been "in the game" as long as some, but he is a good feeder and caretaker and he has his pigs "coming." July 1st his March pigs weighed right at 100 pounds. His spring crop represents some 50 head of March and April pigs and the owner need not be ashamed of them, for we feel confident they will please the buyer. Mr. Kirst expects to buy an outstanding herd boar this fall and his ambition is to have one of the good Chester herds of the state. He has two choice sows selected for the Madison sale. If you want Chesters—gilts or boars—write this breeder, he'll give you a square deal.—Adv.

Madson & Sons' Polands.

WE recently saw the Madson Poland China herd at Madison, and they are certainly doing fine. We saw their pigs about the same time last year and we are glad to report that they have a much better lot this year. Their pigs are the most uniform lot we have seen. They did not have any early March pigs, the first one came about the middle of the month. Of the 75 head of spring pigs on the farm there are only two runts, which is very uncommon this year. The Defender boar is quite a hog. He is a junior yearling and sired by the good Minnesota sire, Choice Expansion, out of a D's Defender dam that was a winner at Minnesota as a senior yearling. The Madsons have a good boar in Defender and he is siring a nice bunch of pigs. They also have pigs sired by Big Bone Bob by Big Ben and Big Buster by Big Carver. One of the best litters is by Big Pfander, a noted Illinois boar. We will have more to say about the Madson pigs. They will have some fine boars to offer this fall.—Adv.

Mr. S. G. Courteen's Guernsey Herds.

MR. COURTEEN'S Guernsey herd which is on his beautiful estate a few miles from Oconomowoc, Wis., has been improved greatly since we last visited it and we were particularly interested in the new herd bull which is a grandson of May Roma, formerly the world's champion Guernsey cow. Bob Roma Superior is practically a faultless individual sired by Bob Roma and out of the splendid imported cow, Belle Daisy of Sarnia by Galaxy's Sequel. Their senior sire, Glenwood's Champion by Glenwood's Boy of Haddon, is a half brother to Dairy Maid of Pinehurst. He is the sire of a number of very attractive bull calves now on the farm and has to his credit 20 A. R. daughters. His best daughter has 802 pounds butter fat in a year. It will be remarked that Beauty Eagle which sold about a year ago for $1,550 is also in this herd. She was at one time the highest producing cow in Waukesha county and now is the second cow in the production for one year.—Adv.

Durocs at Pagel's.

GEO. PAGEL, Zumbrota, Minnesota, has some sixty-five spring pigs, most of which are doing very nicely. His good boar, H. C. Wonder, has made a good growth since he was shown last year and is a better boar now than he was then. The pigs by him are good. The best litter on the farm is sired by the grand champion, Big Wonder. He also has a good litter by Investor out of a High Model dam. Pagel has a good herd of sows and has a nice "layout" for a hog farm. He may hold a sale in October and sell boars and gilts at that time.—Adv.

Future Prospects.

WITH this issue of The Wisconsin Farmer, John North is before our readers again, offering heifer and bull Holstein calves. They are from two to ten months old and are sired by Jewel Aaggie Alcartra 143923, who is out of a twenty-one-pound three year old. By the way, this cow will also be offered for sale and she is worth investigating. The young stuff that is for sale is nicely marked and are being priced to sell. Write John North, Kilbourn, Wis., for details and please mention The Wisconsin Farmer.—Adv.

Drake & Son for Short-horns.

WITH the number of Short-horns owned and raised by H. B. Drake & Son, Beaver Dam, Wis., they are at all times in a position to supply you with bulls or heifers. They have some good cattle, Scotch and Scotch topped and the herd is headed by a good Whitehall Sultan bred bull. If you are in the market for Short-horns write H. B. Drake & Son, Beaver Dam, Wis., and please mention The Wisconsin Farmer.—Adv.

Villager-Bred Bulls.

VILLAGE MYSTIC, the Short-horn bull at the head of the C. J. Schoenfeld & Son herd, is a son of the noted Villager. This firm has some very likely young bulls for sale sired by Village Mystic and some of them are out of Scotch cows. Their address is Fox Lake, Wis., and if you want cattle of this breed write for further description.—Adv.

Buy Bull Calves.

GEORGE A. WILSON, Neillsville, Wis., makes a specialty of selling Holstein bulls as calves. At this age they come very cheap and the express rate is not noticeable. They are sired by a well-bred bull and out of good-producing registered cows. If interested write and mention this publication.—Adv.

The Short-horn Grows in Favor.

IT doesn't require an extensive inquiry among farmers and cattle breeders of experience before one is impressed with the additional weight of 100, 200 or 300 pounds which the mature Short-horn possesses. The Short-horn not only has greater scale, but a superior quality of flesh, and its docile temperament and adaptability to all conditions commends the breed to farmers, feeders and ranchmen everywhere. When the value of the Short-horn calf is added to the returns from the mother's milk, it is evident that Short-horn cows are making dependable and profitable records in the dairy. When Short-horn steers repeatedly top the market at all the leading packing centers, and Short-horn cows are making milk records of from 10,000 to 16,000 pounds for one lactation period, no argument is necessary to further establish the merit of the breed. A leading packer-buyer recently stated that the quiet temperament of Short-horns was an important factor in their killing qualities and one that is not overlooked by the skillful buyer. Breeders of Short-horns are being encouraged and aided by the American Short-horn Breeders' Association which offers $50,000 in cash prizes at the 1917 fairs and shows. By this generous appropriation breeders are encouraged to put their cattle in condition and claim a share of the prize money, and the added prestige from the winning of prizes gives an increased value to the individual animal and to the herd which it represents.—Adv.

Shank's Investor.

KEEP in mind the great sale of Duroc boars and bred sows to be held by W. N. Shanks, Worthington, Minn., on August 14th. He will sell 45 head, one-third each of spring boars, fall boars and bred sows. There will be five boars of spring farrow that were sired by Pathfinder and the others will be by Investor. Let us again remind you that Investor is some boar and some sire. Buy one of his sons and you will not make any mistake. Those looking for a Pathfinder boar will be given a chance to buy one at their own price—Mr. Shanks never sets the price on anything in his auction sales. All of the sows included have been bred to Investor—come and take your choice. Plan to be in Worthington August 14th. Announcement later.—Adv.

Extraordinary Herd Boars.

WE are still of the opinion that P. W. Young, Prosper, Minn., has three of the best Poland China boars to be found in one herd in America. The blood of these boars will add prestige pound boars with quality of a medium type. If you want boars of this caliber get his boar sale list or private catalog. to your herd. You don't want to sacrifice quality to get them big—neither does Young. He can show you 1,000-Address P. W. Young, Box 100, Prosper, Minn.—Adv.

SOME mighty good bargains in registered Galloway cattle are being made by C. S. Hechtner, Chariton, Iowa, on page 25. He has a splendid lot of cows and heifers for sale and some splendid young bulls. Among the cows that he is offering are some that are show cows and some that are imported. Mention this paper when writing him, but go and see him if possible and go as soon as you can —Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Aug. 14, W. N. Shanks, Worthington, Minn.
Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

THE MARKETS.

Union Stockyards, Chicago, Ill., July 21st.—Corn-fed beeves, not as prime as the $14 bullocks of last week, turned the $14 notch here this week, a load of 1,200-pound two year olds touching $14.05, while a three-car string of heavy 'stillers scored $14. Both are new record prices and the distillery feds sold against an extreme top on the class of $10.95 last year. Demand for beef must be enormous, otherwise current prices would be impossible. In a numerical sense there is no shortage, as cattle receipts at western markets are running several laps ahead of the same period last year, but empty corncribs mean light weights and deficient quality. Values of corn-fed steers are constantly working higher and there is confident prediction of a $15 market this side of the Christmas holidays. Even grassers are doing a creditable stunt. Killers' needs appear insatiable and growers are responding by gathering cattle everywhere.

Sizing up the cattle market situation, the trade feels that it is logical to expect a rather liberal movement of grass cattle in the aggregate throughout the summer and early fall, but an abnormal demand situation sufficient to cope with it and hold the market to high levels. The generous needs of the United States and allied

governments for beef to supply their huge military forces and the civilian populations, the unprecedented demand for labor, the high prices being paid for that commodity and the extremely high prices current for hides, skins, etc., pressage a healthy cattle market and highly remunerative prices for the live stock producer and feeder right along.

Packers have been a bearish set in the hog trade this week and up to the close yesterday had succeeded in breaking values 40@50c from prices current a week ago. Sentiment in the hog trade is somewhat mixed. Although the June run of hogs was the smallest for the month, with a single exception, within 25 years, no one doubts that the country has a very sizeable quantity of pork in the making up its capacious sleeve, and with the hog market attractive and feed so high, it will, say the bears, keep the market hopper comfortably filled. Fortunately, there is little disease, although occasional sporadic outbreaks of cholera are reported. "One thing is certain," say those who favor the bull side of the situation, "that is that until new corn is available corn will be converted into pork sparingly, and so few choice heavy hogs, comparatively, will reach market, meanwhile that the spread in prices will continue wide, with quality commanding a big and merited premium."

Viewing the shortage in sheep and lamb supply, both present and prospective, as guaged by normal marketings, the lofty wool market and the broad demand for feeding and breeding stock, trade talent is of one mind in declaring that nothing vended in the sheep house this summer or fall can possibly be cheap in the accepted sense of the word. Feeders have paid up to $15.50 for good Idaho feeding lambs here this week, and if packers get very many good, fat lambs below $15.50 any time this summer, many close students of the trade will have to admit themselves false prophets.

Seven western markets have received approximately 190,000 cattle this week, an increase of 40,000 over the week previous and 34,000 more than a year ago, yet prices have advanced under a broad and healthy demand and new record levels on top classes have been established. Middle grades of killing steers have shown the sharpest price appreciation, most of the $10.25@12 kinds closing 35@50c higher than a week ago, while choice to prime bullocks in all weights and the common to fair light grassers are generally 25c up. The big end of the week's beef steer supply has cashed within a range of from $11@13.75. Prime long-fed yearlings topped at $13.95, prime distillery fed steers at $14 and handy weight corn feds at $14.05, with a still higher figure nominally quotable for strictly prime heavy bullocks at the close. Under $11 it has been a market for light grassy steers, a fair showing of feedery and fair fleshed 800 to 1,050-pound steers going for slaughter at $8.50@10.50. The supply of ripe winter-fed cattle left in feeders' hands is very small, the record corn market having drawn cattle out of feeders' hands from six to ten weeks earlier than they otherwise have come and the trade can see nothing but a still higher market for such specialties, although the price spread between them and low-grade steers is now the widest in trade history.

Butcher cattle values have also advanced irregularly this week, the bulk of the fat cows, heifers and bulls gaining 25@40c over a week ago, while canners and cutters are mostly 10@15c higher and veal calves a full 25c up. Most of the butcher cows are now selling between $8@9.50, occasional ripe, heavy kosher cows up to $11@11.50 and a common grass sort, bordering on cutter quality, down to $7.25. Canners and cutters are moving largely within a range of from $6@7, with good meaty cutters up to $7.10@7.20 and shelly old canners as low as $5.50. It is a $7.50@10 market for ordinary grass heifers up to a good killing class showing corn feeding, while choice to prime corn-fed heifer yearlings are quotable up to $10.75@13 and fancy mixed steer and heifer yearlings on up to the top of the baby beef market. Doggy, thin grass heifers, lacking quality to make them appeal to stocker buyers, frequently go as canners at $6.25@6.75. Choice heavy bologna bulls have advanced up to $8@8.75, bulk of the 1,000 to 1,250-pound sausage bulls now selling at $8.10@8.50 and canner and common lights at $6.25@7.50. It is a $9@10.35 market for medium to choice fat bulls, prime dry feds being quotable on up to $10.50@11. Bulk of the good to choice veal calves are making $14.25@14.50, choice odd selected lots going as high as $14.75.

A broader general demand for stock and feeding cattle than has been shown in recent weeks, brought out by excellent grazing conditions and good corn crop prospects, the healthy fat cattle trade and the recent declines in thin cattle values, has featured the week's trading and prices at the week-end are largely 25c higher than a week ago. Breedy 900 to 1,000-pound feeders in light flesh have sold up to $9.50, while a range of from $7.85@8.75 has taken the bulk of the plain to good 600 to 800-pound steers going to the country and only trashy, ill-shaped, light tailings have been available below $7. Now that haying and the harvesting of small grain will soon be out of the way in most sections of the corn belt, demand for cattle for summer grazing is expected to show more breadth and as supplies are not heavy, a healthy trade is in prospect.

CHESTER WHITE SWINE.

Champion Chester Herd of Northwest
SPRING PIGS READY TO SHIP. The best are none too good. Buy or order early.
H. A. DERENTHAL WYKOFF, MINN.

CHESTERS EXTRAORDINARY
BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.
WM. F. BUTTS Evansville, Wis.

RAINY DAY
By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write
WALTER GEORGE Evansville, Wis.

100 TO 130 POUNDS
WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.
B. H. BABCOCK Evansville, Wis.

CHESTERS
BUY a "Baby Herd"—two gilts and a boar. I have six herd boars, every one a champion at some fair. I ship on approval and register free. Write for my catalog.
HARRY T. CRANDALL Cass City, Mich.

MAKE MONEY
BUY A CHESTER boar of me and improve your herd. Best breeding; well grown.
ART. G. HOSKINS Dodgeville, Wis. (Mile west of city.)

CHESTER WHITES
Pigs Ready—Order Now
A. L. GRAY MT. HOPE, GRANT CO., WIS.

KIRST CHESTERS
THEY SATISFY—Correspondence invited. (N. W. and St. Paul Railroads.)
A. L. KIRST Tomah, Wis.

GRANT CO. CHESTERS
FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.
JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business
CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

JERSEY CATTLE.

INEZ ROSAIRE'S OXFORD (103364) FOR SALE
HE IS BY PRIME OXFORD whose brother sold for $11,500 and whose dam, Gedney Farm Oxford Prime, is known as one of the most celebrated Jersey cows of Island. Inez Rosarie, the dam of Inez Rosaire's Oxford, has 720 lbs. butter and 10,287.6 lbs. milk to her credit and is sired by Rosarie's Golden Lad, that sired Rosarie's Olga 4th's Pride, 984 lbs.; Anna Rosarie, 794 lbs.; Inez Rosarie, 720 lbs., and Gertie of Glymllyn's 2d, 744 lbs. For more information regarding this bull write to
H. HOLT & SON OCONOMOWOC, WIS.

OAK GROVE JERSEY FARM
HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
W. M. KNIGHT, Eagle, Wis.

Registered Jerseys
HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. BRUINS FAIRWATER, WIS.

JERSEYS
HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. K. & K. T. Wiegand, Cleveland, Wis.

JERSEYS
COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT TOMAH, WIS.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF
ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

DUROC JERSEY SWINE.

LESS MONEY BUYS GOOD PIGS AT THIS TIME
DUROC JERSEYS
from EXCELLENT SOWS. Sired by a son of PRINCE ILLUSTRATOR. Same pigs will cost A fine lot of March and April boars and gilts. Good feet, stretchy, good backs and BIG and $15 more in August and September. I guarantee satisfaction.
MIKE STOEHR VIROQUA (VERNON COUNTY), WIS.

WED., OCT. 17 ANNUAL DUROC BOAR SALE
30 BOARS, 10 SOWS—New blood for my old customers. See my pigs at the fall fairs—THEY SELL IN THIS SALE. Will not price my best boars, reserved for the sale.
"The Home of Big Durocs."
L. F. ATWATER
BANGOR WIS.

PATHFINDER 2d
The Duroc boar that made good. His pigs are great—you'll want one. Have 125 March and April pigs out of those good sows in my herd. Priced to sell and make customers. Write or visit
DENNIS SHEA MELVIN, WIS.
Near Sparta

CONSTANCE DUROCS
SPRING PIGS—Either sex. They must please my customers. At your service.
F. R. CONSTANCE & SONS Waupaca, Wis.

DUROCS
You've heard of our big sows. Boars from them are now on sale.
Shipped on approval if you wish.
RILEY MARTINY & SON BARABOO, WIS.

FASHION
DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
ISAAC HIGGINS GOTHAM, WIS.

O'KEEFE
OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.
M. H. O'KEEFE & SONS WAUNAKEE, WIS.

Blood of Grand Champions
STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.
McCLURG BROS. VIROQUA, WIS.

NORTHERN GROWN DUROCS
BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.
P. P. SCHMIT & SONS New Richmond, Wis.

ORION COL. S.
BY COL. S. JR., out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
W. C. JENKINS BANGOR, WIS.

NOTICE!
OFFER FALL DUROCS that will farrow in August and September. Nice condition, long, good backs and smooth. Guaranteed safe in pig. Write.
FRANK H. ARNOLD JANESVILLE, WIS.

Du ROCKS Du
WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

Particular Breeders
DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.
J. W. HIGGINS RICHLAND CENTER, WIS.

DUROCS
FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160
THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD - - - - - - North Bend, Wis.

EXTRAORDINARY Poland Boars
"Master's Giant" "Orange Wonder" "Young's Big Joe"
One of their Sows Should Head Your Herd
P. W. YOUNG Box 100, Prosper, Minn.

POLAND CHINA PIGS
YOUR PICK FROM 104 farrows! in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
R. MEINKING BANGOR, WIS.

FOR UALITY AND UANTITY WRITE W.W.

BIG-TYPE POLAND CHINAS
I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.
Camel Hill Stock Farm
UACKENBUSH, Melrose, Wis.

SMILEY & SONS' POLANDS
READY TO SUPPLY YOUR WANTS—Boars with size and quality. The Smiley guarantee always
WM. SMILEY & SONS ALBANY, WIS.

Size Quality POLANDS
IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.
O. C. OLSON STRUM, WIS.

HOW MANY?
THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

Martiny's Special Offering
POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.
L. P. MARTINY Chippewa Falls, Wis.

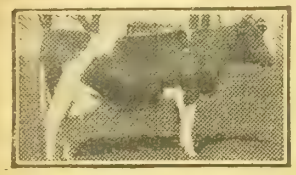
BRED GILTS
POLAND CHINAS—Bred to sons of BLUE VALLEY QUALITY and COLUMBUS PAN, to farrow in Aug. and Sept. The big, stretchy kind. Write
JULIUS PETERSON Kilbourn, Wis.

STRETCHY BOARS
THE DEMEAND IS FOR BOARS with plenty of length. My Poland Chinas have the desired stretch with size and quality. Seeing is believing. Let me ship one. Will also sell gilts.
AUG. NEESEMAN WARREN, ILL.
On Illinois-Wisconsin Line

HOLSTEIN-FRIESIAN CATTLE.

TWO-YEAR-OLD Holstein Bull

A BULL THAT WE GUARANTEE to be right in every respect and just as we describe him or no sale. He is straight, good size, well built, nicely marked, more white than black and throws light-colored calves; whose eleven nearest dams have good A. R. O. records. Sire's dam, Princess Mercedes Riebe at four years made 26.39 lbs. butter and 561.50 lbs. milk; at two years, 667.39 lbs. butter and 17,400.70 lbs. milk for one year. Sire's grandam at four years made 18.23 lbs. butter and 474.10 lbs. milk and 909.91 lbs. butter and 21,611.70 lbs. milk for one year. The dam of this bull made nearly 21 lbs. butter at three years of age; her dam made 16 lbs. butter at two years of age and her dam made 16.60 lbs. butter. If you are in need of a bull come and see this one, or write for a tabulated pedigree and price to Mountain Ash Stock Farm.
J. B. CAIN, Prop. - - - - - - - - - Glenbeulah, Wis.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

KING PONTIAC SEGIS VEEMAN

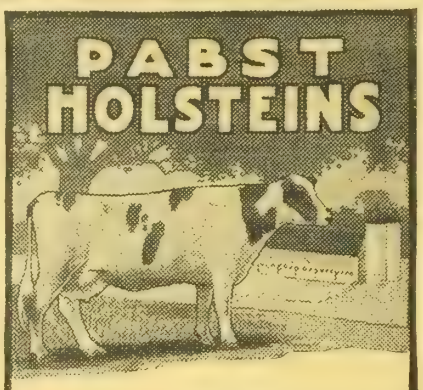
(134190) IS FOR SALE

A 29.29-Pound Son of King Segis Pontiac Count.

King Segis Pontiac Count is a grandson of King of the Pontiacs, that has more thirty-pound daughters than any bull and is sired by King Segis Pontiac, that has sired more high-priced bulls than any sire.

King Segis Pontiac Count also has the distinction of siring the greatest producing junior two year olds of the breed. He has three junior two year olds that average 28.46 pounds butter in seven days and five junior three year olds that average 31.37 pounds and 610 pounds milk in a week. The herd at which King Segis Pontiac Count stands at the head leads all others in prize winners for A. R. O. work for the year just closing.

For further particulars concerning King Pontiac Segis Veeman write to Edgewood Stock Farm, Burlington, Wis.



Are playing an important part in the development of the Holstein Breed in America. There are over 300 head in this State Accredited herd.

We sell bull calves at a price ranging from $150 up. Send for list.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc Wisconsin
Box F

Purebred Registered

HOLSTEIN CATTLE

To the open minded farmer or dairyman, the results of actual comparative tests of Holsteins with other breeds are striking object lessons of economic investment. The ten largest records of Holstein cows average 1,007 pounds of butterfat and 25,897 pounds of milk in a year. A like number of cows of the nearest competitive breed produced 974 pounds of butterfat, and 18,120 pounds of milk. One good Holstein cow will produce as much as two ordinary cows at a saving in feed and care. There's big money in the big "Black and White" Holsteins.

Send for FREE Illustrated Descriptive Booklet.

The Holstein-Friesian Association of America
F. HOUGHTON, Sec'y, Box 143, Brattleboro, Vt.

A 28.44-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43-lb. cow, Pontiac De Nijlander. His dam has a junior four-year-old record of 21.46 lbs. butter in 7 days. She has a 17.50-lb. yearling daughter. The bull is a black, well grown and of exceptionally good conformation. Born November 25, 1916. For pedigree and further information, address
A. M. ANDERSON WHITEWATER, WIS.

Registered Holstein Heifers

HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.
H. F. McNUTT OXFORD, WIS.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER Sheboygan Falls, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

10 MORE COWS

OPPORTUNITY RAPS at every man's door. Here is a chance to get some fine animals to found a good herd of registered Holstein-Friesian cattle, for a small-sum of money. Cows from $150 to $250. They are bred to Sir Johanna DeKol 19th 64143, a young bull weighing 2500 pounds, with nine A. R. O. daughters, a brother to two world record cows, whose sire has 66 A. R. O. daughters. These cows will soon freshen and their offspring will equal the value of the cows. Also six yearlings to sell at $125 a head. Wire or write immediately, as they are exceptionally cheap.
DR. B. L. WERNER MARSHFIELD, WIS.

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS Ixonia, Wisconsin

DO IT NOW

GET THIS YOUNGSTER to improve your herd. Bull calf, born April 9, 1917, sired by a son of Pietertje Maid Ormsby 35.56 from a 22-lb. three-year-old granddaughter of King Segis. Calf is nicely marked and well grown. Will send pedigree and picture upon request.
N. DICKINSON & SON,
WALCOWIS FARMS, LAKE GENEVA, WIS.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HOLSTEIN BULL FOR SALE

A SIX-MONTHS-OLD SON of a 22-lb. junior three year old, sired by a grandson of King of the Pontiacs, evenly marked, good individual and good size. Price $175.
SWAN BROS. Box 160, R. 1, Wauwatosa, Wis.

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON Neillsville, Wis.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE

WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS - - - Waukesha, Wisconsin

Homestead Farm Guernseys

HAS for sale a son of "Governor of the Chene." Is five years old, gentle, a good stock getter, is all right in every respect. Also seven sons of this bull, from six to ten months of age, all of A. R. O. breeding. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wisconsin

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — **WRITE YOUR WANTS**
Emory C. Meltz **GUERNSEYS** Appleton, Wis.

YEARLING GUERNSEY BULL READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Veeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITICK GREENVILLE, WIS.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

RED POLLED CATTLE.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.
J. W. SALTER & SONS Unity, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

HEREFORD CATTLE.

Herefords

LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. Chippewa Falls, Wis.

SHORT-HORN CATTLE.

OAK LAWN SHORT-HORNS

SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
J. E. KENNEDY - - - - - - - JANESVILLE, WISCONSIN

ROCK COUNTY SHORT-HORNS

FIFTY REGISTERED HERDS in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. KENNEDY, Sec'y Rock County Short-horn Breeders' Assn. Janesville, Wisconsin

Short-horns

MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

Bates Milking Short-horns

YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.
GEO. WENHAM & SONS, FT. ATKINSON, WIS.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

WORLD'S FAIR HERDS

SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.
C. J. SCHOENFELD & SON Fox Lake, Wis.

SHORT-HORNS

OF EITHER SEX, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. BERND New Richmond, Wis.

BULLS FOR SALE --- SHORT-HORNS

THREE YEARLINGS past, one by the noted White Rock. Fifteen coming yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.
G. STAHLNECKER Darlington, Wis.

HOLSTEIN-FRIESIAN CATTLE.

WE OFFER NOW FOR SALE

DAUGHTERS of Sir Johanna De Colantha De Kol 53056. We have 4 heifers about 6 months old out of him for sale. Price $600. They are nicely marked, well grown and backed by A. R. O. records and rich breeding. We also have a few heifers bred to a 33.68-lb. bull for sale and also several cows bred to the same bull. Prices on application. Inspection invited.
B. F. WINCKLER & SONS Medina, Wis.

10 YEARLING BULLS 10

EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. G. RHODA, 610 3d St., Watertown, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER JANESVILLE, WIS.

Two Holstein Bulls For Sale

SIX AND SEVEN MONTHS OLD. Good individuals with good breeding. For particulars and prices write
L. V. GARVENS R. R. 2, Brookfield, Wis.

OLATHE HOLSTEINS

HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 6 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna DeKol. Two bull calves also for sale. Address
LAWRENCE ROBERS LYONS, WIS.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

HORSES.

Percherons, Belgians, Shires,
Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, R. 7, Chariton, Iowa.

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LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

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THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

I. E. STICKELMAN

CLARINDA, IOWA
I SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 31. THURSDAY, AUGUST 2, 1917. WHOLE NO. 1853

Takes Good Care of His Cows.

C. H. Brugger, of Fond du Lac County, Spent Considerable Money on Dairy Barns and Ventilation But He Believes It Is Worth While.

THE first thing C. H. Brugger, of Fond du Lac county, decided upon when he bought his present place of 200 acres some five years ago was that dairying should be the chief enterprise. In order to eliminate once and for all the question of properly housing his future dairy animals, Mr. Brugger immediately decided to build a barn that was big enough to take care of any increase in his dairy herd for years to come. The dairy barn which, to his mind, would best meet the requirements of the future cost him a considerable sum of money, but it had in it every idea which he thought necessary to successfully carry on the work of milk production.

The main barn is 165 by 36 feet and runs east and west. It has on each side eight double windows 2x4 feet, allowing plenty of light during all kinds of weather. Sixty-nine cows can be stanchioned in this barn, with plenty of room left behind the cows and in front of the mangers to move about with the feed wagon and the manure carrier. At the east end of the barn two monster silos 16x39 empty into the alleyway. Leading off from the aisle at the east end on one side is the milk room with its gasoline engine and cream separator. The engine is also used to furnish the power for the milking machine. On the other side of the aisle opposite the milk room is a feed room where feeds can be stored and mixed for the herd. Above this feed room, but extending the width of the barn, is another feed room which will take care of several carloads of feed at one time. All the rest of the upstairs is available for storing hay and straw for the herd. The hip roof on the barn gives an added amount of space. The loft is big enough to take care of the entire season's supply of hay and bedding.

MODERN DAIRY BARN ON C. H. BRUGGER FARM, FOND DU LAC COUNTY, WISCONSIN.

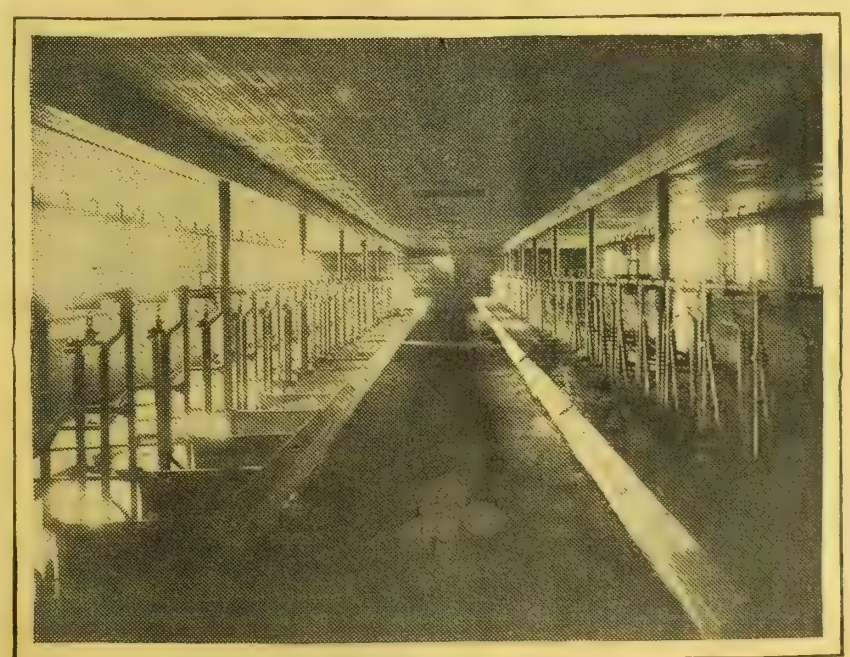
Attached to the barn on the eastern end is the section for the box stalls and calf pens. This is 28x68 and of half the height as the main barn.

The lumber used in the building of the barn is northern pine lumber for the outside, while inside the cow barn, feed and milk rooms are finished off with Georgia pine. The barn is well ventilated on the King principle and contains all modern conveniences, as sanitary stanchions, manure carriers, cement floors and gutters and running water. Wires for the electric lights have already been put in and will be attached to a power system in the near future.

Mr. Brugger did not begin his farming with the many years of experience behind him that his neighbors enjoy. He was not even raised on a farm. His only experience previous to buying this place was when he ran a grain farm from his city desk with the help of his brother. In laying the foundation for his dairy herd Mr. Brugger went at it very slowly and deliberately. He purchased most of his stock as calves and developed them into good milkers. For several years he attempted to operate his farm over the telephone, but he finally discovered that it requires the personal touch of the owner in order to make a farm a success. Though he did not know very much about the practical part of farming, and as he now jokingly states, "It took a year to learn the trade and I am still learning," he pitched in with honest enthusiasm from the very start. "I have always liked farming," said Mr. Brugger, "and I will continue to like it with all its hard work and worries." It is Mr. Brugger's plan to develop a herd of Holstein cattle of big type and high-producing qualities. The sale from surplus animals during the last year has proved in a big way the possibility of such an establishment. Cattle buyers from every part of the United States visiting Wisconsin have found Fond du Lac county a good place to buy and Mr. Brugger, like others, found that there were not enough Holsteins to go around. He has now about sixty head, young stock and all, but his plan is to increase his herd until he can have fifty cows milking all the time. His milking machine will milk twenty-five cows in an hour and a half with three units working and two men following up the machine and tending to the milk. Additional units can easily be added to take care of fifty cows in the same time with the help of another man.

Though it is the intention to place the entire herd under official test with the Holstein association, Mr. Brugger nevertheless decided to join the cow-testing association in order to do both himself and the association some good. At the last month's summing-up nine of his cows, though they had been on milk since last fall, tested over forty pounds of butter fat for the month.

But if Mr. Brugger believes in a good home for his cows, he also believes in a good home for his family. His farm house is exceedingly well built and includes all the comforts that are the city man's and provides many advantages which the city cannot equal. It is airy, light and unique in its appearance. Like the barn, it cost Mr. Brugger considerable money to build it, but he is satisfied. Mr. Brugger believes that the comforts of a home are worth a little extra money and life is pretty short at best.



INTERIOR VIEW OF THE MAIN COW BARN ON THE C. H. BRUGGER FARM

The Wisconsin Farmer does not at any time advise its readers to spend money for improvements above what their income will warrant. At the same time it is too often the case that a good barn or a good home is looked upon as an expense rather than a permanent investment and we should take into the consideration the years of dividends which such good substantial improvements on the farm will bring. It is not just what we can make out of the barn, or just the cost of the new home as compared to the receipts of one year or even two or three years. The expenses of permanent improvements should be spread over the period which the improvements will serve the owners of the farm.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Steel Piston Rings.

Have steel piston rings in gas motors been found as satisfactory as rings made of gray iron? If not, why not?

Answer.—Steel piston rings are not a success. A cast iron ring wears better in a cast iron cylinder than a steel ring, as the surface of the cast iron ring soon acquires a smooth glaze, while the surface of the steel ring does not. The exhaust gases also corrode the steel ring more than the cast iron ring.

Running on Acetylene Gas.

Please tell me in the Farm Mechanics Department whether an engine would run if the gas from carbide and water is turned on the spark plug as it sparks, and then turned off automatically? If a cylinder is two inches diameter and has a three-inch stroke how much power has it? How many batteries would be required? Would a gas pipe or steam pipe be smooth enough for the cylinder?

Answer.—A gas engine will run on acetylene—the gas formed from carbide and water—but the acetylene cannot be admitted in an instant and it must be mixed with the air in the cylinder before it will explode. It would be possible to make an outfit to admit the gas during the intake stroke. The above size of cylinder should develop one-half horse power. At least four dry cells should be used for ignition. Gas or steam pipe is not smooth enough for a cylinder. A cylinder must be very smooth and round to hold compression, and cast iron makes a better cylinder than wrought iron or steel. There is a certain amount of graphite in cast iron that acts as a lubricant. Steel pistons have not been very successful.

Engine Speeds Up.

I wonder if you can advise me how to repair my gasoline engine. It is mounted on a truck, and is used mostly for running the washing machine, feed grinder, and other light work. Lately it takes spells of speeding up every little while. It runs well until it warms up, and then it will speed up until the truck bounces. After a little while, it will stop firing and then catch itself and run all right. In a few minutes it will speed up and repeat the performance. It often speeds up to such an extent that before I can get from the washing machine to the engine, it will have bounded so hard that the connecting wires on the batteries are broken.

Answer.—If your engine has a governor, some of the governor parts may be sticking. You may be feeding too much fuel through the needle valve, due to opening it too wide, or the needle valve may be worn, the hole being so large that the fuel supply cannot be properly regulated. If there is a pocket in the bottom of the intake where the gasoline can settle, the gasoline may be collecting in the pocket for awhile, and then, being carried over with the air, cause the motor to speed up. If you have a carburetor, a sticky float valve could cause the trouble. It might be that the rings of your motor are worn out, allowing too much oil to work up past the piston. This would make the ignition uncertain. The motor might fire good for a time and then, when the spark plugs become drenched with oil, the plugs would cease to fire until the oil drained off. A blue smoke from the exhaust indicates too much oil. A black smoke indicates too much gasoline.

Running Washing Machine From a Ford.

I saw in your paper that a washing machine could be run from a Ford car, and that is just what we want. Is an eight-inch pulley the right size, and how can it be fastened to the wheel? Does the car or the machine have to be fastened down solid? Could the car be used to pump water from a well 125 feet deep, and what size cylinder should the pump have?

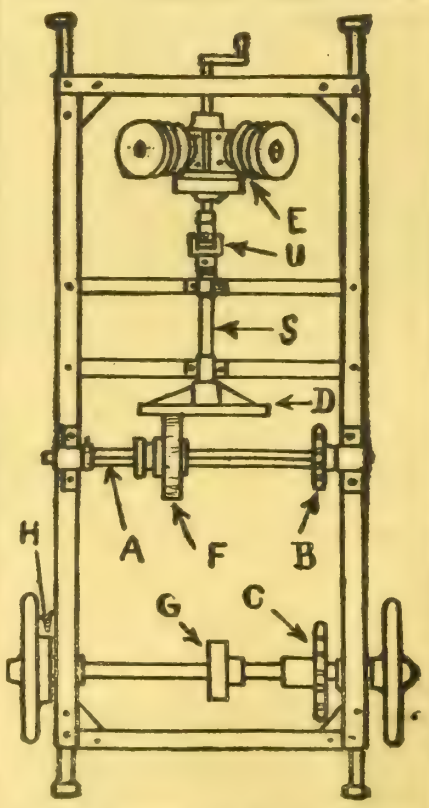
Answer.—Your washing machine should run about 70 R. P. M. If it has a twelve-inch belt pulley use a four-inch or six-inch pulley on the rear wheel of the Ford. The pulley will be more easy to attach if made of wood. The pulley may be made in halves and clamped on the hub and hub cap of the wheel, or two bolts may be removed from the hub flanges and longer bolts used to clamp the pulley against the hub, or two or three holes may be drilled and tapped in the hub flanges and the pulley fastened on by means of cap screws.

The weight of the machine will hold it down. The car should be blocked at the front and one rear wheel should be jacked up—the wheel to which the pulley is fastened. As the power required to run a washing machine is very small, no injury should result to the car. The car should not be used in this manner for heavy work. The car should be used in the same manner for pumping water, using an ordinary pump. A power pump requiring not over four horse power could also be used. While the motor will deliver over twenty horse power, the drive is through the differential gears when the car is used as above and these gears will not stand a heavy load continuously.

Making a Cycle Car.

I would like to know if it is practical to make a cycle car like the enclosed sketch, using a nine-horse-power Harley-Davidson motorcycle engine. Would it work to have a friction slide on a square shaft for a clutch? What kind of differential should I use? How large chain wheels? Would it do to have the friction wheel made of two thicknesses of board, faced with sheet iron?

Answer.—In the figure, E is the engine, U a universal joint and S the drive shaft, one end of which carries the iron or steel disk, D. This disk is keyed to S and held in place by a set screw. It would be better to have



shaft S arranged to slide endwise a small amount with a spring behind the disk to hold it up against the friction wheel with an even pressure. F is the friction wheel, sliding on the square shaft, A, the shaft being turned round at the bearings. B is a small sprocket wheel fastened on shaft A. C is a large sprocket wheel, fastened on the rear axle. There should be about three times as many teeth in C as in B. G is a drum on the rear axle. A leather strap around this drum may be used as a brake. H is a ratchet hub on one of the drive wheels, which takes the place of the differential. The drive wheels are bicycle wheels twenty-four inches in diameter. Motorcycle wheels would be better.

This outfit should work successfully. The weight of the machine comes on the drive axle, which is not very good, but in this case it will work if the axle is strong enough not to bend. The rear axle bearings should be roller bearings with dust-excluding caps, though a babbit bearing will work if kept lubricated and protected from the dust. The friction wheel, F, should not be made of wood. Make it of pasteboard. Heavy pasteboard, known as binder board, makes a very good friction wheel. The pasteboard should be clamped between the flanges of an iron hub, about half an inch of the board extending beyond the flanges of the hub.

Adjusting Carburetor.

Please tell me how to set a Model G1.3 Bayfield carburetor on a Model 38 four-cylinder Auburn car for speed.

Answer.—The high-speed adjustment is the knurled nut at the top of the carburetor near the intake manifold flange. For more gasoline turn this thumb nut to the right. Turn the nut a little to the right and note the effect on the running of the motor at high speed. If the running is not affected, turn it a little more to the right. You will soon discover which way to turn the nut to get the best results. Do not turn the nut very far without trying the motor and noting the effect.

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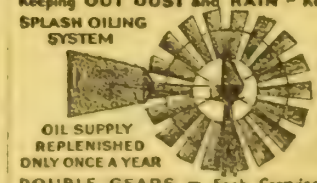

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The Wisconsin Farmer

THURSDAY, AUGUST 2, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

A STEP NEARER OUR GREAT ARMY.

WE ARE a step nearer to having a great national army in the field than we were a fortnight ago. The drawing took place at Washington without any mishap or untoward incident. The daily papers have printed the numbers in the order they were drawn, so that practically every young man who registered knows whether he is drafted for the first, the second or the third army, and so on. In case any of my young readers have not seen their numbers and do not know the order in which they will be called before the local exemption boards, I suggest that they get in touch with their local newspapers or see their county sheriff, who will probably be able to show them the list or answer their questions, at least.

The next step in forming our big, million-strong national army is to summon twice as many young men (in the order in which their numbers were drawn at Washington) as may be needed, to appear before the local boards for physical examination and possible exemption. Twice as many as are needed will be summoned, on the theory that every other man will be found either physically deficient or entitled to exemption as the sole support of a dependent wife, mother or father or as a worker in field or factory so important that he cannot be spared to don uniform and fight with gun and saber. I regret exceedingly to see that some small-caliber politicians have been appointed on these local exemption boards, while the physicians appointed are not always of the first rank. I can only hope, however, that they will do their work faithfully and well, so that no man finally drafted into the army will have any reason to feel that there was anything unjust or unfair about his selection.

As I have pointed out before, the jurisdiction over farm laborers rests entirely with the district exemption boards, the local city and county boards having absolutely nothing to do with this. The president has appointed the members of these various district boards (one each in Kansas, North Dakota and South Dakota; two each in Wisconsin, Minnesota, Missouri, Oklahoma, Nebraska and Iowa, and four in Illinois), in practically every case following the recommendation of the governors of the states. I am glad, indeed, to see that farmers are given representation on practically every one of these boards, throughout the entire grain belt. Thus in Iowa, acting on the recommendation of Governor Harding, the president has appointed Mr. E. M. Cassady, of Whiting, a member of the board for the northern district, and Mr. Harry Hopley, of Atlantic, for the southern district. Both are farmers of the most progressive and successful type, men who may be relied upon to consider the farming needs and to order exemptions where they know farm work will be delayed or hindered by the drafting of farm boys. Practically the same situation exists in the other states of the grain belt. I am glad, indeed, that this is the situation, for it makes it easier for me to answer the scores of touching letters which come to me daily from grain-belt farm mothers, who tearfully ask for a farmer to decide the farm boy's fate and not to leave him to the mercies of city men who do not understand the situation. I am in receipt of dozens of letters similar to this one, from a devoted "mother in Israel" whose sorrowing heart can be felt in every word of her tearful appeal:

Dear Mr. Pierce:—As I am a reader of your good paper I just couldn't keep from writing you on the war, as it is most important to me, having three sons that had to register for the draft. As I am a poor widow woman with no one to advise me about this exemption, I would like to have you help me all you can to keep my boys at home. They are all farmers and they do their own work and help other farmers, so they are busy all the time. So please help me all you can.

I see what someone wrote you about membership on the exemption board. Do your best to have some good men put on; some farmers, for help is scarce here now and if my boys are taken what will they do with their crops? Doesn't the governor live where you do, don't you know him well? Please see him about it and do your best and God will reward you, I am sure. Oh, if Wilson hadn't got us into this awful war, how much better it would have been. I don't think he had any business to get us in. He could have made England and France loans of money and that would have done; then they could fight it out themselves.

Now please do all you can for me and please write me at once, for I can't endure this worry much longer. One of my sons is talking of going some place to harvest. Is this all right, as harvest will be late here now. Please write and tell me right away. Now please let me hear from you, for I am nearly crazy about it all. Now please do all you can and let me know if you will write and help me.

You can readily realize that such a letter as this touched me deeply. I am glad to be able to report that this woman lives in a district where a splendid farmer has been named on the exemption board. If her sons are called, he will surely see to it that they are allowed to remain with her and the harvest fields, which need them so badly.

LOANS RUN $800,000 A DAY.

I AM advised from Washington that the federal land banks of the country are making loans to farmers, at 5 per cent annual interest, at the rate of $800,000 a day. Up to the close of business July 13th the Federal Farm Loan Board had chartered 432 farm loan associations, whose loans aggregated $20,699,337. These associations have an average membership of eighteen farmers each (they must have at least ten) and the average loan to the individual farmer is $2,250.

This report would indicate that the new system is now in smooth working order and that the farmers are quick to take advantage of this opportunity to secure money from Uncle Sam for a long time and at a low rate of interest. By next spring, when the great majority of farm loans are either made or renewed, the applications should be many times what they are now. Farm loan bonds are being issued to secure the necessary capital for these land banks and altogether the plan seems to be working out well.

I am still hopeful that within a short time some provision will be made which will enable the farm tenant to forge ahead and to get hold of his own place more quickly than it is now possible to do.

THE FARMER'S DEBT.

I WAS HARDLY prepared for the avalanche of letters resulting from the publication of the one from the Wisconsin farm woman struggling to get out of the tenant rut. Some offer situations, others advice. All are interesting; practically all are valuable. I have forwarded many of them to the woman whose letter started the discussion, in the hopes that out of the correspondence there may come at least a ray of light to lead them into easier paths.

I wish I had the space to print all the letters, but that is utterly impossible. This week I am going to print two which interest me particularly, because they deal with one phase of the subject which is most important: Is it advisable to go into debt in order to get out of the rut, to get ahead in the world? One of my correspondents says "Yes" most emphatically; the other answers "No" equally positively. Before I give my opinion, let me print the two letters. Here is the one advocating going in debt. It was written to me by Mr. H. H. Kesler, of Bedford, Missouri:

I think I can answer the letter in your article "Getting Out of the Rut." First, is this man honest? He is not, nor has he been, in debt. Some men cannot get in debt very deeply because they are not trusted. Now I will tell how I started from a hired hand. This is what these folks will want to know.

I was working for $16 per month. I worked six months and saved $53. I took that $53, hired a team to put in fifteen acres of wheat, and that winter I worked all I could. About March I bought a span of small mules, mortgaged my two-thirds of the growing wheat and also the mules I bought to secure the mule note. I did hauling for other people until time to plant corn. Then I rented twenty acres of rich river bottom land and raised nearly 1,000 bushels of corn, two-thirds of which was mine. At 35 cents per bushel this would be $350, my part being $333 or thereabouts. Now, my wheat (which did not make very much) and corn paid my mule note, but left nothing but seed wheat and corn for another crop—no money. I had to work for other people for cash money.

After paying for the first two mules I bought two more, mortgaging the four to secure the last two. I put out larger crops and hired a hand. I had to borrow money. Sometimes I paid when due, but most times renewed the note.

Then I bought 124 acres of very poor land, very cheap, but through incorrect deeds I lost twenty-three acres of it. I still own the 101 acres and have picked up little tracts now and then until I have 315 acres of good land, fair improvements, ten head of horses, six mules, forty-three head of cattle and thirty-three head of hogs, besides a tractor, farm engine, corn shredder and a lot of other farm machinery. All this in thirty-two years. I am in debt, of course, but not heavily, considering the value of the property.

Now, Mr. Pierce, tell this man he must be honest as well as a hard worker. He must go in debt. Tell him to save enough to buy one horse or mule, then buy another horse or mule (on time). He can mortgage the cash paid on one to secure the second one. Tell him to rent a small farm, go in debt for a few farming tools and buy more afterwards. He should buy a cow and a few pigs or, if he can, buy a few brood sows, etc. If this man waits until he has cash enough to start farming he will die a hired hand. This is my advice, and advice which I followed myself.

Here is the one against going into debt, with such splendid advice on specializing, on burning the midnight oil in order to get ahead in the world, that in many ways I consider it the best of all the letters received. It was written to me by a woman who desires her name withheld. I comply with her request, although I think she makes a mistake by not sharing her name with all of us here in the family circle. Her letter follows:

My husband is now fifty-seven years old, very broken in health. My health has never been good and I have always worked far beyond my strength, and as we grow older the road gets more difficult to travel. We have been "hired help" most of the years past. For sixteen years my husband was foreman, but never had wages in proportion to the amount of labor and responsibility required and I never received anything for the sixteen hours daily labor. Our boys and girls were denied even a common school education. One girl never went beyond the fifth grade. Five times we have tried to have a home of our own. I inherited from my father a great desire to raise fruit, vegetables and flowers for pleasure as well as profit, and as often as we would have a little saved up we would make the attempt, each time going heavily in debt, thinking we would be sure to "make good" this time. But I begin to think God never intended us to have a home. The first place had to be sold at a sacrifice because of heavy doctor bills and the loss of a valuable horse; the second because we could not keep up the payments and four children in school on $10 per week.

Now we have a beautiful little place of fifteen acres—my ideal home, very nearly—but last year's crop failure has made it seem impossible for us to meet our obligation and so, once again, I am heart sick over the fear that all will have to go. So I wish to say, however badly you want something for yourselves, keep out of debt. It is far better in the end. Educate your children for some special line. That is where that husband and mine have failed. I realized this before it was too late and insisted that my two boys and two girls take up special study nights. Now they thank mother from full hearts for it. Our oldest son, at the age of twenty-six, is a machinist foreman, the next, twenty-five years old, is a mechanical draftsman in Chicago and a Y. M. C. A. man. The girls are working their way through college, making up all their back studies, without any assistance from home. The boys help them when they get in a pinch, which isn't often. Neither boy has ever worked for as low wages as the highest their father ever received.

That husband is not too old to specialize on something. Do it, burning the midnight oil if necessary. It will pay big interest on the investment. I tried to persuade mine to do it years ago, but he just laughed. Now he looks at his successful boys and realizes it was no laughing matter. He can do a lot of things well, but is not an expert at any one of them. If it's nothing but a crop of potatoes, specialize on that crop.

Surely, here is a pro and con discussion which cannot fail to interest every one of us, to have valuable advice for us all. Personally, I have never been afraid of debt. I bought my first newspaper, when a mere lad of twenty, by turning over to the former owner four steer calves, of the value of $20 each, canceling an indebtedness of his of $20, giving my note for $150 due in one year and assuming a mortgage on the plant of $900. When I add that I was obliged to pay 36 per cent interest (payable quarterly in advance) on my indebtedness, you can readily see that I carried a pretty heavy burden for one so young. The fact that in a year and a half I had succeeded in paying off all my indebtedness proves that debt in my case was not too heavy a millstone about the neck of a struggling young man.

Nor have I been afraid of going into debt, in order to get ahead, in later years. I believe that the late J. Pierpont Morgan was right when he said a millionaire is not so much a man who has a million dollars as it is a man who can get a million dollars. One of the largest manufacturers of agricultural implements in the grain belt told me the other day that he would borrow all the money anybody would loan him, that "Mortgage" was his middle name. There are many men like him; they go into debt and then fight an uphill battle until they are out of debt and a little further along the road to fortune.

I wonder what my readers think of this phase of the subject. Will you write to me, giving me your experience and your opinion? Are we justified in going into debt in order to buy more land or more stock, to build better homes and barns, to add a silo to our farms? What do you think? After all, it is your opinion which counts, not mine, on this, as on all other subjects. Will you let me have it, frankly and fully?

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

County Farm Demonstrations.

County farm demonstrations will be held during the coming weeks as follows: Appleton, Outagamie county, August 17th; Weyauwega, Waupaca county, August 18th; Richland Center, Richland county, August 20th; Chippewa Falls, Chippewa county, August 22d; New Richmond, St. Croix county, August 23d; Reedsburg, Sauk county, September 3d.

At all these meetings a field trip and program will be held which will be of interest to the men and women alike. A. H. Wright, of the college of agriculture, will take care of all discussions on field crops; D. C. Bullock, field man for the Wisconsin Live Stock Breeders' Association, will give a lecture on live stock raising; Nellie Maxwell, of the department of farmers' institute, will give a talk on food and food conservation. Field trips to the plots at each of these stations will be made and the work that is being done at each station will be explained by Mr. Wright and the superintendents of the various farms.

These picnics are worth traveling many miles for and every farmer and his family are well justified in taking a day off in order to visit these county farms and view the experiments that are being carried on.

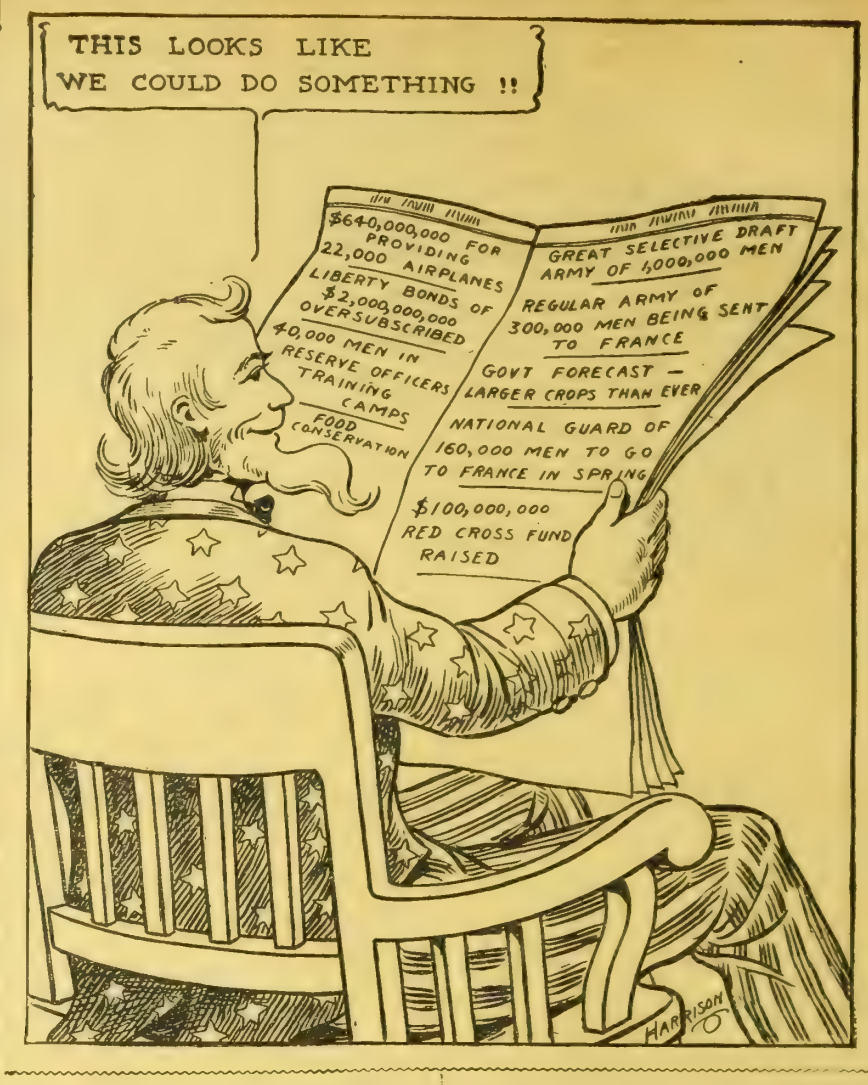
At the recent meeting at the Wood County Farm at Marshfield everyone present voiced his satisfaction with the work that is being carried on and not only asked questions, but quite a number expressed a desire to have their farm rotations so changed as to make use of the work and the results of the experiment station.

Seeing things is always more convincing than reading about them. Wood county farmers in attendance at that picnic expressed their surprise and satisfaction at the results. They believe the work of the county farm is a real benefit, but they were only convinced of it by seeing the plots with their own eyes.

Aiding in Wisconsin Harvest.

Farmers need help to gather Wisconsin crops. The state department of agriculture, county agents and emergency food agents are doing what they can along this line. In Kenosha county both men and women have enlisted and they have had for two or three weeks an automobile squad taking people to the farms to help in the fields and in canning and otherwise preserving the fruits and vegetable crops. Langlade county also has a flying squadron composed of busy men who are willing to sacrifice less important work to help the farmers gather all the crops. At Colfax, Wisconsin, storekeepers and clerks have been organized on a basis that each man spends a few days in the harvest fields. These helpers will be especially valuable when it comes time to dig the potato crop in the vicinity of Colfax. All these agencies are helpful to some extent. The worst slacker today is the able-bodied man who loafs in town when he is needed in the fields. Every pound of hay in the state, even that along the highways in the portions of our state where clover and other grasses grow wild like weeds, should be cut and saved. Some are predicting that hay will reach a record price this winter. But the main point is that all of it will be needed for feed and good hay saved will release grains needed by our people, our allies and our armies. A talk against wastefulness is not needed so badly in Wisconsin as it is in some other states where farmers have not learned to farm carefully or to save all the crop.

As we have repeatedly said, however, the labor problem is one for the individual farmer. If he cannot get help, as will be true in many cases, he will have to see to it that he, with the help of his family, gets in all the crop. We were talking with one of the wealthiest farmers in the grain belt the other day and he told us that he had offered $5 a day for farm help and couldn't get it. From seven in the morning until eight at night his wife drove the tractor while he handled the binder cutting oats. He told us he has the biggest crop of small grain that he has ever had; that he can't get help, notwithstanding the fact that he needs it worse than he ever did; but he also told us that not a pound of grain or hay will go to waste on his farm. He is one of the kind of men who says "it can be done" and that kind of a man succeeds, obstacles notwithstanding. Appreciating as we do the efforts of town and city folks to help, we still believe that the farmer must depend chiefly upon himself. If one man can get his work done and help another who is in sore straits for help he should do so. Uncle Sam is fortunate, and Wisconsin especially is fortunate, that farmers are not afraid of work.



Wisconsin Farmers' Exemption Claims.

President Wilson last week announced the Wisconsin Federal District Exemption Boards, members of which had been nominated by Governor Philipp as follows:

District board for Division No. 1 of the western district of the state of Wisconsin comprising the counties of Rock, Green, Lafayette, Grant, Iowa, Dane, Jefferson, Columbia, Sauk, Richland, Crawford, Vernon, Adams, Juneau, Monroe, LaCrosse, Buffalo, Trempealeau, Jackson, Wood and Portage:

John C. Gaveney, lawyer and farmer, Arcadia, Wis.

C. F. Burgess, engineer, Madison, Wis.

Richard Meyer, Jr., banker, Lancaster, Wis.

W. W. Gill, doctor, Madison, Wis.

J. A. Craig, manufacturer, Janesville, Wis.

District board for Division No. 2 of the western district of the state of Wisconsin comprising the counties, Pepin, Pierce, St. Croix, Dunn, Chippewa, Eau Claire, Clark, Marathon, Lincoln, Taylor, Price, Rusk, Barron, Polk, Sawyer, Washburn, Burnett, Iron, Ashland, Bayfield, Douglas, Vilas and Oneida:

Guy J. Johnson, labor representative, Eau Claire, Wis.

A. H. Wilkinson, banker, Bayfield, Wis.

D. W. Woodworth, doctor, Ellsworth, Wis.

Geo. B. Skogmo, lawyer, River Falls, Wis.

W. B. Heineman, lumberman and farmer, Wausau, Wis.

District board for Division No. 1 of the eastern district of the state of Wisconsin will hear claims from registered men from the city of Milwaukee only:

George Lines, attorney, 711-16 Pabst Bldg., Milwaukee.

C. H. Stoddard, doctor, 508-10 Goldsmith Bldg., Milwaukee.

Chas. H. John, manufacturer, Wisconsin Motor Mfg. Co., Milwaukee.

Max W. Babb, vice president Allis chalmers Co., Milwaukee.

Fred H. French, patternmaker, 957 39th St., Milwaukee.

District board for Division No. 2 of the eastern district of the state of Wisconsin comprising the counties Kenosha, Racine, Walworth, Waukesha, Ozaukee, Washington, Dodge, Sheboygan, Fond du Lac, Green Lake, Marquette:

George Harrington, farmer, Elkhorn, Wis.

Grove Harkness, doctor, Waukesha, Wis.

A. J. Horlick, manufacturer, Racine, Wis.

Chester D. Barnes, lawyer, Kenosha, Wis.

Harry W. Bolens, manufacturer, Port Washington.

District board for Division No. 3 of the eastern district of the state of Wisconsin comprising the counties of Waushara, Winnebago, Calumet, Manitowoc, Kewaunee, Brown, Outagamie, Waupaca, Shawano, Oconto, Door, Marinette, Langlade, Florence, Forest:

John Strange, manufacturer, Neenah, Wis.

Frank Durham, farmer, Wautoma, Wis.

John C. Thompson, attorney, Oshkosh, Wis.

Robert E. Minahan, doctor, Green Bay, Wis.

Florian Lambert, labor representative, Oshkosh, Wis.

By the time this paper reaches our readers announcement will have been made as to the time and place of meeting of these boards. Our readers subject to draft will have first received notice to appear before the local boards. They will be examined as to physical fitness before the question of exemption is taken up. The matter of exemption on account of industrial pursuits, including agricultural, will be passed upon by the federal district exemption boards herein above named. This class of exemption does not come before the local board. Exemption claims on the ground that someone is largely or wholly dependent for support on the person drafted or on physical grounds are being taken up all over the state by local boards. Appeal may be made from the local boards to the federal district boards and the decision of the federal district board is final. Exemptions claimed by reason of agricultural pursuits may be appealed from the district boards to the president, but the president announces he will act only upon recommendation of the war department. No appearance in person will be made before the federal district boards. Claims will be made by affidavit. All such affidavits must be filed within five days after claim of exemption reaches the district board. Proper forms may be had at local or district boards. In case any local board does not have the required printed forms, the correct wording for such form may be secured from a pamphlet, copies of which are in the hands of all local boards. Any man found physically disqualified for army service will be given a discharge certificate by the local board and this closes the case so far as he is concerned. In cases where exemption claim is sustained by either local or district board certificate of discharge will be issued. If the decision is against the claim the applicant for exemption will be so notified. The government will notify all those who are finally accepted for service when it is ready to receive them.

Discharges on account of exemption are conditional upon the applicant remaining in the kind of service upon which he claimed exemption. In other words, if a man is exempted because he is a farmer and he ceases to be a farmer he loses his exemption rights. The district boards have the power to withdraw or modify discharges at any time they consider the circumstances warrant. Those who are physically fit, free of dependents and whose presence at home is not essential to our national existence, will become members of Uncle Sam's new armies. It may be depended upon that none but actual workers will be exempted on the claim that they are needed on farms.

Apply for Seed Now.

At the millers' convention at Neenah the bankers' association, through its representatives, Burton M. Smith and Geo. D. Bartlett, offered to assist the millers in distributing the seed of the high-yielding and better milling wheats and rye for next year's crop. It was decided that the first 100 bankers applying for seed should be provided with from thirty to forty bushels each of what seed there is available of the Pedigree No. 1 rye and the Turkey Red types of wheat.

The seed supply, however, will be limited. It is safe to say that of these proven varieties no more than 5,000 bushels will be available for seed. If you are intending to sow wheat or rye this fall apply to your banker at once and secure from him a promise to reserve for you some of this seed. The price will not be placed too high. The object is to distribute the seed among as many farmers as possible and to place it where it will be of value. The first 100 bankers that apply will receive the seed. If you do not ask your banker to apply for seed he probably will not do so, or he will do so when it is too late. It is a question of getting in on the ground floor. You can only do so by acting at once.

Wheat will bring a good price in 1918 even if the war should end tomorrow. The world needs wheat and will need wheat from America next year as well as this. There is a strong possibility that in the near future the government will assure the farmer that his crops, and wheat especially, will not be sold at a loss, but will be bought at a fixed minimum price sufficient to reimburse the grower under all conditions for labor and money invested.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Drying Fruits and Vegetables.

Pointers on Important Method of Conserving Food---By Domestic Science Instructors University of Wisconsin,

DRYING is an old and satisfactory method—thoroughly tested by our grandmothers—of preserving a variety of fruits and vegetables for winter use. It saves storage space, sugar and containers, which is especially important at this time.

At the present time when an increased amount of food is being raised for future use, it is important that it be preserved in the most economical way. Drying requires neither sugar, spice nor special containers. Under the proper conditions, foods so preserved can be kept indefinitely.

If the supply of canning containers is limited, drying is a good method of saving the surplus.

Preserving foods by drying may be done in these ways:

By sun drying—Spread the prepared food in wire or netting trays, cover with netting to keep the food from insects, and dry in the open air. This method is useful in dry, hot weather.

By artificial heat—in the oven or a special drying apparatus—When drying food in the oven, place it, properly prepared, on clean platters, dripping pans or trays. Leave the oven door open during the process. Rapid ventilation is essential to success.

By an air blast created by an electric fan.

By combining any of the above methods. Many find it desirable to start the drying process in the oven and complete it in the sun.

TEN RULES FOR DRYING.

1. Use good material. Food selected for drying should be in the same condition as that selected for immediate table use.
2. Work rapidly. All foods and vegetables should be dried as quickly as is consistent with good results.
3. Slice large foods to get more drying surface—Small fruits, vegetables, some berries, mature beans and peas and small onions may be dried whole. Larger fruits and vegetables should be cut so as to expose more surface for drying. The usual way of doing this is to slice them.
4. Do not overheat—If the food is to be dried in the oven, the temperature should not be too high, otherwise the food will cook rather than dry. Use low heat throughout the entire process. At the beginning the oven should be somewhat cooler than later. The temperature should never exceed 140 degrees F. The use of a thermometer helps to avoid overheating. By placing a cooking thermometer through two corks in which holes have been made it may be kept in the oven while the food is drying.
5. Be sure food dries evenly—Food should be stirred frequently during the drying process. This prevents overheating and the growth of molds.
6. Keep food free from dirt and insects—Foods dried out of doors must be protected from flies and other insects. Mosquito netting or cheese cloth stretched on frames may be used. Always be careful to avoid dust and insects.
7. Watch dampness—Do not allow food to become damp during the drying process. It is better to bring food which is being sundried indoors at night.
8. "Conditioning"—All food should be thoroughly dried before it is stored. It is best to allow it to remain in a dry place for several days, turning it frequently in the meantime; this permits more complete and effective drying. The process is technically known as "conditioning."
9. Storing dried food—Store dry food in paper bags, boxes, tin containers, such as pails, and cracker boxes. These should be kept in a dry place free from insects and moisture.
10. Save the cooking liquid—Soak all dried food twenty-four hours before cooking. Cook in the water in which it has been soaked; allow this to evaporate to small bulk, and serve with the fruit or vtgetable or use in soups or sauces.

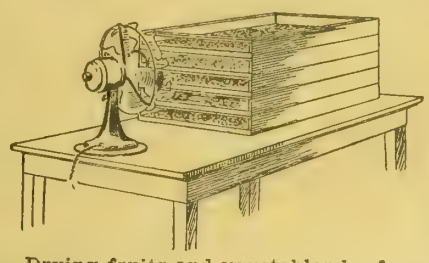
Corn—Method 1—Immediately after picking and husking place the ear in unsalted, boiling water for five minutes to set the starch and "milk;" plunge into cold water; drain or wipe with clean towels; cut kernels from cob, being careful not to cut too close to the cob. Use sharp knife. Dry by any of the suggested methods, preferably in the oven.

Corn—Method 2—Husk freshly picked corn, remove tips of kernels with sharp knife or cabbage slicer; extract pulp or "milk" by scraping with a blunt knife; mix thoroughly; partially dry by placing corn pulp in a pan over hot water until mixture thickens. Spread on clean dripping pans or platters; stir occasionally while drying. When thoroughly dry, condition and pack.

String beans—Method 1—Directly after picking, string the beans, wash in cold water, drain on soft paper or towels; cut in one-inch pieces or slice lengthwise. Dry by artificial heat.

String Beans—Method 2—Directly after picking, string and wash beans; plunge immediately into boiling water for five minutes; then plunge into cold water; drain on soft paper or towels; cut into desired form—either one-inch pieces or thin slices cut lengthwise—and dry by artificial heat.

If beans have become too old to use



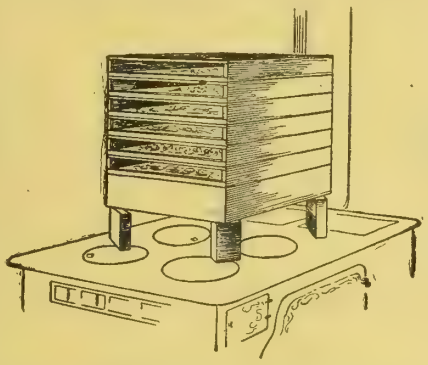
Drying fruits and vegetables by forcing air across the trays by means of an electric fan.

as string beans, allow them to ripen; then shell and store.

Green Peas—Shell freshly picked peas, steam ten minutes or boil five minutes; plunge in cold water, drain, and dry by artificial heat for six or eight hours.

Greens and Herbs—Spinach, beet greens, lettuce, dandelions and chard supply mineral material and other necessary food substances which may be lacking in the winter diet. As great a variety of these as possible should be dried.

Herbs are also valuable since they

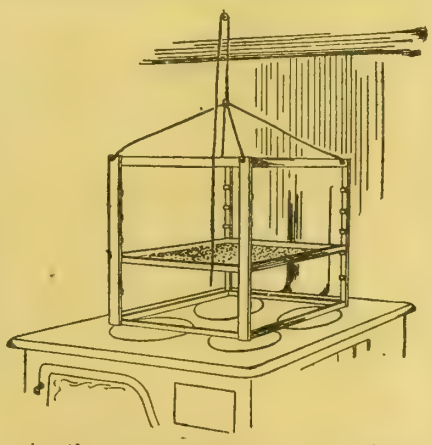


The placing of bricks under the four corners of this homemade drier to be used on the kitchen range permits the free circulation of hot air up through the trays; thus carrying off the moisture.

add variety to the flavor of winter foods. Celery tops, parsley, mint, sage, onion tops, pepper and cress are useful for this purpose.

All greens and herbs should be carefully picked over and washed in several waters. The quicker oven method of drying makes them retain their natural color and flavor better. Only in very hot, dry weather should the sun-dry method be used. Dry thoroughly, condition and pack.

Pumpkins and Squash—Prepare by steaming, boiling or baking; mash and



Another arrangement for the drier over the range—in this case supported by a rope from a pulley attached to the ceiling.

spread on clean dripping pans or platters, and dry in the oven, stirring frequently. Condition and pack as indicated for corn.

Pumpkin and squash may be sliced and dried without previous cooking.

Other Vegetables—All other vegetables, such as carrots, turnips and potatoes may be dried. This, however, should be done only when storing facilities are poor or when the product is to be shipped a long distance. Wash, pare or scrape; cut into one-fourth-inch slices; dry and pack.

Small Fruits and Berries—Small berries, such as blueberries, currants, gooseberries, raspberries and even cherries and grapes can be very successfully dried. The length of time required is from six to eight hours.

Use only sound, unbruised fruit; wash clean and drain on soft paper or clean towels. Spread on clean dripping pans or platters and dry in oven. Be careful that the oven is not too warm in the beginning. A low temperature (100 degrees Fahrenheit) at first will be about right. If this is gradually raised to 130 degrees or 140 degrees Fahrenheit, the best results will be produced.

Berries may be successfully dried in trays in open air where the weather is hot and dry.

Apples and Pears—Wash fruit, pare, core and cut into one-fourth-inch slices. Dip immediately into a weak salt solution made of three level tablespoonfuls of salt to one gallon of water. Drain; spread on trays, dripping pans or platters; dry until somewhat leathery. Condition and pack.

Rhubarb—Select young stems of rhubarb, wash and cut into one-half-inch pieces, using a very sharp knife. If the skins are not removed, the rhubarb retains its pink color. Dry, condition and store.

Higher Yielding Wheat and Rye.

Good Seed and Proper Preparation of Seed Bed and Early Sowing Seem as Important as More Acreage.

"AS MUCH more winter wheat and fall rye as we can raise without injury to dairying, live stock in general, or other profitable farm crops," is the way one of our prominent agriculturists sizes up the situation in Wisconsin. And in our judgment this is about right. It is very gratifying to note the deep interest taken in grain raising by our experiment station officials, by the millers of the state and by the Wisconsin Bankers' Association, and this will all be productive of good results. Wisconsin will increase its wheat acreage, but in all probability increased wheat production per acre will be a bigger factor than increased acreage. To simply adopt the millers' slogan, "more wheat and more rye for Wisconsin," does not necessarily mean that various lines of farming and live stock are to be abandoned and the attention of farmers turned to wheat and rye to the exclusion of other important products.

Wisconsin, according to the estimates, is not feeding herself. The annual consumption of wheat for flour and seed in the state is approximately 16,000,000 bushels. Of wheat Wisconsin produced in 1916 3,700,000 bushels and of rye 6,075,000 bushels or a total of less than 10,000,000 bushels. This leaves Wisconsin 6,000,000 bushels short in supplying her own needs. To raise this 6,000,000 is the object of the various bodies that are coöperating in this campaign for more winter grain.

High-milling and high-yielding winter wheat and rye have long been the object of the Wisconsin Experiment Station. Through the college of agriculture investigations have been conducted at the various county branch stations and at Madison in order to ascertain what strains of wheat and rye will yield the highest and be worth the most for bread-making purposes. This work under the direction of Prof. R. A. Moore and his assistants, E. J. Delwiche and B. D. Leith, has been going on for more than fifteen years. The results so far indicate that both winter wheat and rye varieties possessing the qualities sought for have been developed in the Turkey Red wheat and the Pedigree No. 1 rye.

The Wisconsin Bankers' Association is interested in the production of better-yielding and better-milling grains, and, through their agricultural committee, in charge of Burton M. Smith, of North Lake, will assist in the distribution of several thousand bushels of seed during the coming weeks. Geo. D. Bartlett, secretary of the Wisconsin Bankers' Association, one of the chief speakers at the meeting, called attention to the fact that his association some seven years ago commenced coöperating with other associations in the state to bring about the agricultural superiority of Wisconsin. First by contest in grain growing and then by the distribution of Wisconsin Bankers' Bulletins and by various other means this association has had a leading part in calling the attention of outsiders, as well as the farmers of the state, to Wisconsin's greatness in agriculture. Financial assistance rendered by Wisconsin banks within the last few years has amounted to many millions of dollars. According to Mr. Bartlett, the coöperation of the experiment station, the State Millers' Association, the State Grain Dealers' Association and the 850 bankers belonging to the bankers' association will make it possible to call the attention to Wisconsin farmers to the need of higher yielding and better milling winter wheat and rye in a stronger way than any other combination or organization could do. The members of the experiment station association are already growing these grains. Similar movements for the improvement of barley, corn and potatoes have resulted in increased yields with these crops and the present movement has every chance of being equally successful.

A moving picture story on grain breeding at the Wisconsin station by Prof. K. L. Hatch, of the extension department of the college was run at a local theater.

According to E. J. Delwiche, the sections adjoining to Lake Superior, the red clay belt and the sections in the clay belt of eastern Wisconsin, will grow these winter grains profitably. Drainage and fertility are of more importance to wheat than they are to rye and the seeding dates for winter wheat should not be placed later than the first week in September, while rye can be seeded as late as October 1st-5th.

The hard winter wheats, according to B. D. Leith, rank a very close second to the famous hard spring varieties of the Northwest and Canada. They will make just as good bread, and, while they do not yield quite as well as the soft winter wheats the quality is superior. The Turkey Red type recommended by the station will excel all other winter wheat thus far tried on the station farms. They have tried nearly all varieties of winter wheats at these stations.

Several of the millers testified to the excellency of the milling quality of the wheat and rye recommended by the station. The question of seed will form a difficult problem, as the supply is limited. Nevertheless, it is the intention to charge only a moderate price per bushel.

Badger Dairy Cows Improving.

Conditions Favor Culling of Herds---All Live Stock Healthy---Pigs Are Scarce---Small Grains Look Fine---Pastures Hold Out Well.

WISCONSIN.

Adams County.—With warmer weather the corn crop is showing improvement, but in most cases the stand is poor and the growth three or four weeks late. The crop of tame hay was large, but some of it was damaged. Rye promises a fair crop and will be ready to cut next week. Oats look well except on low ground where they drowned out. Bugs are plentiful. Pastures are good and all live stock look well.—W. B. Barnes.

Brown County.—The last two weeks were cloudy with lots of rain. The corn has been damaged by thunder storms. Potatoes, sugar beets, cabbage and other garden truck were also injured. Wet weather has made haying difficult. Rye will be ready to cut soon. Live stock look well, and the number of pure-bred animals is increasing. Corn is very backward and will have to make rapid progress in order to mature before frost.—J. D. McAllister.

Burnett County.—Many farmers reduced their herds when pastures began to dry up in June. Pastures are now green and rich and cattle show fine condition. Corn and grass crops appear above normal at this time. Corn was held back by cool nights, but is growing rapidly now. Feeding operations show up about the same as usual.—Erick H. Johnson.

Burnett County.—Grain looks fine and the potatoes are the best they have been for many years. Hay made a big gain during the last ten days and will at least be 75 or 80 per cent as large as last year's crop. Corn has grown slowly and needs warmer weather. Live stock are doing fine and the late rains have brightened up the pastures. Garden truck looks fine. Beans are doing well and there will be a production of this crop that will exceed that of last year by 150 per cent.—A. G. Peterson.

Clark County.—Excessive rains, cold weather and cutworms have retarded the growth of corn, making it show about 50 per cent of the usual growth and stand. Warm weather during the past week has improved the fields that were not damaged much and if conditions remain favorable a crop may be secured. Small grains are better than they have been for several years. Meadows and pastures are excellent. Gardens are unusually fine and fruit promises a good crop. Strawberries produced heavily. Live stock are in splendid shape and the herds are increasing in size very rapidly.—Louis Buddenhagen.

Clark County.—All crops look well, except corn which is rather slow. Potatoes and gardens are about the best they have ever been. Farmers are hoping to establish a cow-testing association in this county soon. Many of them haul milk to a local cheese factory.—N. W. Scherer.

Door County.—Cattle look well and all stock prices are high. Plenty of moisture has kept the pasture in good condition. Weather has been too cold for oats Corn is backward and will need plenty of warm weather in the next few weeks in order to mature a crop. Beans look well. The hay crop yielded well. Farm help is scarce. Farmers are helping one another in order to get the work done.—John Aznoe.

Douglas County.—Weather has been too cold to produce good hay so this crop will be short. Small grains and all root crops look well at this time. Corn is not extensively raised in the northern part of this county yet. Potatoes look promising. A number of cows may be disposed of this fall because of the high price of feed. Some farmers are starting in with a few sheep on account of the high prices paid for wool and mutton.—J. N. Ottun.

Buffalo County.—Live stock in Wisconsin are making such progress that we may justly feel proud of the industry. Good milk cows sell as high as $125 a head and more. Many farmers in this locality are beginning to raise pure-bred stock, as they are worth much more. Old corn is scarce and hogs are going to market about half the market weight. Barley has a good color and is just about ripe. Corn is growing nicely since the weather warmed up. New potatoes are fine.—John Wald.

Dunn County.—Live stock have never looked better. Cool weather and abundant pastures have kept them in good condition. Creamery receipts have been unusually heavy for this time of year. The hay crop has been cared for and returns are better than was expected. Farmers in the east are sending dairy cattle to the block and the Middle West must, therefore, grow feedstuffs and raise every good heifer in order to maintain the number of dairy cattle in the country. Grain looks splendid; corn, however, is ten days late.—J. D. Miller.

Grant County.—Small grains look exceptionally well. Weather has been cool, so they are doing fine. Hay is good in most sections. Corn looks well, although it is far from what it should be. The fall weather will have to be very favorable if we get a crop. Gardens and fruit look fine. Live stock are in good health.—A. V.

Green Lake County.—Small grains look better than they did last year. Corn with the exception of being late has a very good prospect. Only a small percentage was destroyed by wet weather. Tame hay looks better than usual and pastures are very good. Fruit, garden truck and potatoes show good condition. Live stock have been doing well and there is a slight increase in the number of them.—G. B. W.

Juneau County.—Corn on lowlands has been damaged by rains. Corn on upland appears normal and compared favorably with last year's crop. Small grain will probably yield 25 per cent higher than the five-year average. Pastures and meadows will rank above last year's condition. Live stock are healthy and normal in number. Feeding is increasing a little. More interest is manifest in dairying lines than formerly. Farmers are culling their herds. Pure-bred stock is coming to the front. —C. E. Haskins.

Lafayette County.—Dairy stock and products are high priced. Milk brings $2.50 at cheese factories. There are few sheep and the pig crop falls below normal in numbers, but seems to be doing well. Barley has been harvested and oats will be ready in a few days. The oat crop will yield heavily. Early potatoes are plentiful and excellent in quality. Haying is nearly finished. Fruit promises well. Pastures show good growth of grass.—W. J. Martin.

Langlade County.—Farmers are raising better stock by using registered sires. All the heifer calves are saved, but the bull calves are disposed of. All live stock is improving, but especially dairy cattle. Butter and cheese are increasing in volume of production—the increase is perhaps 25 per cent greater than last year's total. Young pigs are scarce. All crops look well, except corn. Oats have headed out and barley is in bloom. Rye is well filled. Potatoes look well. Pastures are getting short. —Chas. Lade.

Lincoln County.—Live stock of all kinds are healthy. Dairying is the most important line in this section. Some very good herds have been built up. Holsteins lead in preference. Not much young stock is kept. Pastures are good and some very substantial cream checks are coming to the farmers. One man received more than $500 for the output of June. Pigs are healthy, but scarce. Corn is growing slowly; the crop may not be more than 50 per cent normal. The small grain looks well, but is late. Haying has just started and promises a big crop. Potatoes are doing well. Gardens and small fruit have good prospects.—G. A. Patterson.

Manitowoc County.—All live stock are thrifty. Farmers are turning to dairying on a larger scale than ever before because prices of dairy products are high. Calves were sold off close and there are not many beef cattle. Pastures look fine. Hay promises a fine crop, but the weather is unfavorable for curing it. All grains promise good yields, especially on high lands. Corn is about three or four weeks late on account of unfavorable weather. Garden truck and potatoes are fine.—Edward E. Straka.

Marinette County.—Live stock is claiming much interest among farmers, especially dairy stock. More than 500 cows are tested each month in this section. Five carloads of dairy cows were brought into this locality this season and there is demand for more. The Cöoperative Buying Association is doing good work. Pastures have been good. Prices for milk are unusually high. The number of silos is steadily increasing. Small grains and potatoes are in excellent condition. A remarkably good crop of hay has just been harvested. Corn is behind, but growing rapidly at present.—W. E. Morton.

Marquette County.—Although rains have been excessive no damage has been done to corn. The prospect is more favorable than last year. Small grains are 50 per cent better than last year. Pastures up to the present have been fine. Grass in the meadows is still light, but still grows. Gardens are far ahead of what they were last year. Feeding operations show an increase. —Emil Hein.

Oneida County.—Live stock are in good condition and pastures show up well, but are now getting dry. Flies worry the cows and prevent them from feeding in the daytime. The milk flow however, remains good. Much of the milk goes to cheese factories. Calves are doing well. Farmers are realizing the value of pure-bred stock and are looking for better cows. Holsteins and Guernseys seem to be the favorite breeds in this section. Although the bugs are bad, potatoes are growing fine. Corn has made good progress lately. The hay crop will fall below normal in yield. Small grains look promising. Gardens and fruit promise well.—Chas. H. Jewell.

Outagamie County.—Live stock are in very good condition and many dairy calves are being raised. White scours in calves and bloat in cows caused some loss. Pastures are very good. Hogs are in good health. Horses show good condition, but fewer colts are being raised than usual. There are no young beef cattle. Oats, barley and rye have improved wonderfully. Winter wheat is about 70 per cent normal. Corn looks well, but seems a little backward. Potatoes are very good.—Harry Lepplu.

Sawyer County.—Dairying prospects are improving throughout this vicinity. A number of pure-bred sires have been brought in and also some grade and pure-bred females. While herds are not increasing much in size they are improving in quality. Pastures are very good. The milk production was high until hot weather and flies came. All young stock, both dairy and beef, look fine. Haying is in full swing, but the crop on the average is light and most of it is timothy and alsike clover, because the red clover winterkilled. Grains look well, especially wheat and early oats. Corn is backward and has a poor stand. A few fields on the lighter soils look well. Potatoes promise well at this time.—Jens Uhrenholdt.

Wood County.—Farmers are raising more heifer calves than usual, but fewer steer calves. Most of the unprofitable cows are being fattened and marketed. Thin ones were sold for canners. The prices of milk and cream encourage farmers to keep good milkers. Pastures are improving and the flow of milk is very satisfactory. Hay is late and hard to save on account of rains. Prospects for potatoes and oats are above normal. A good acreage of buckwheat was put in and will yield well. Corn is late, but has improved in growth recently.—P. B.

Winnebago County.—Corn has grown rapidly during July. The weather is more settled and seasonable. Most of the crop is late this year, and makes the prospect poorer than last year. The small grain prospect is excellent, however. Clover, timothy and alfalfa will yield abundantly. Wild hay is not so good. Small pigs are scarce and high priced. Pastures look well and seem to hold out satisfactorily. The apple crop is light. Strawberries and small fruits are promising.—Seymour L. Smith.

More Tractor Experience.

To the Editor:—I am using a tractor, but have had the machine only a short time. I have plowed ten acres with it and that was land which was well cleared. I find that I can do splendid work with this tractor and save a lot of hard work cutting oak grubs and roots. I used a twenty-inch breaking plow with wheel truck and find that I can cut roots, etc., larger than is commonly done with horses. My machine is an 8-16, eight horse power on drawbar and sixteen horse power on the belt, and I regard this as a good all-purpose machine for a farmer of this section. In plowing for my neighbor, ten acres, I averaged over ten acres a day and burned forty-five gallons of kerosene, at 9½ cents a gallon, and about six gallons of gasoline at 24 cents a gallon, for the entire job. I also used about five gallons of lubricating oil, at 34 cents a gallon. My total expense for the job was about $10. I received $6 per acre for my work and so you see cleared about $50. I am starting on a twenty-acre piece for myself and will sow rye this fall. I will try and break forty to fifty acres for rye. I intend also to run ensilage cutter this fall and may be able a little later to give you more facts about the tractor. A year from now I will know more about the machine and its value than now.

Burnett Co., Wis. Harol Marcell.

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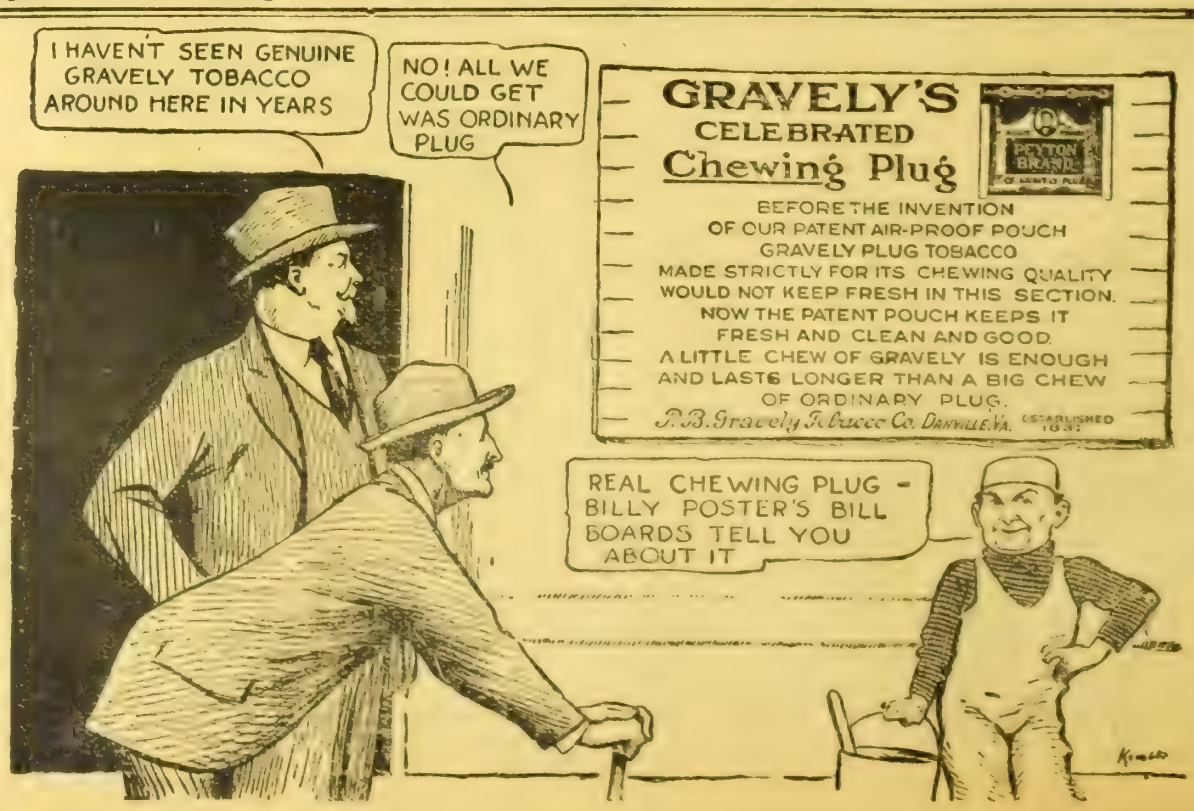


CURRENT EVENTS

NO attempt is made at Washington to minimize the seriousness of the war situation in Europe. The United States is in the war and will go through with it, but any hope of a short struggle has gone glimmering with the apparent complete collapse of the Russian war machine. The development was not unexpected by many army officers. When the offensive of July 1st was started by the Russian forces, the most frequent comment heard in Washington was that it was probably the dying kick of the old Russian machine. For the United States the Russian collapse may have an immediate and direct bearing. It will, if the German general staff presses its advantage, release additional German forces to bolster up the western front where American troops are to be engaged. The German line on the west has not been seriously impaired at any point, officials here believe. It has been noted, in fact, that the one strategic advantage gained in recent fighting was gained by the Germans. Many officers here believe that when a small sector of the British line in Belgium was overwhelmed, the Germans improved their weakest front materially. That being the situation, the importance of assembling and training a huge American army becomes all the more important. Men whose names were drawn early for the conscript army are already being examined by their local selection boards, while the state exemption boards are holding meeting and perfecting organizations. The sixteen cantonments, where the million soldiers will be drilled, are being rushed to completion and the new army should be in uniform by the first of October, at the latest. A second army will be assembled a few months later, so that by next spring the United States will have close to 2,000,000 men under arms.

APPROXIMATELY two-thirds of the national guard of the country is now in the federal service under President Wilson's call. The remaining units will be brought in August 5th, on which day the whole force of probably 300,000 men will be drafted into the army of the United States and will lose its status as militia. From that day on the state troops can be used for any duty the president may direct and will be subject to no limitations that do not apply to the regular army. The first increment of the guard was called out ten days ago. Those called now in the second increment embrace New England, middle western and northwestern states and several southern states. Probably more than 150,000 men went on the federal pay roll. New York, Pennsylvania and Ohio troops and those from several other states were in the first increment. With federalization of the entire force complete after August 5th, the ranks of all regiments then will be filled up to full war strength with men from the selective draft lists. If transportation is available, the best of the state troops may be hurried to France at once, stopping only for final outfitting before they sail. The intensive instruction to fit them for trench warfare will be given at the American training camps in France, where General Pershing's regulars already are at work.

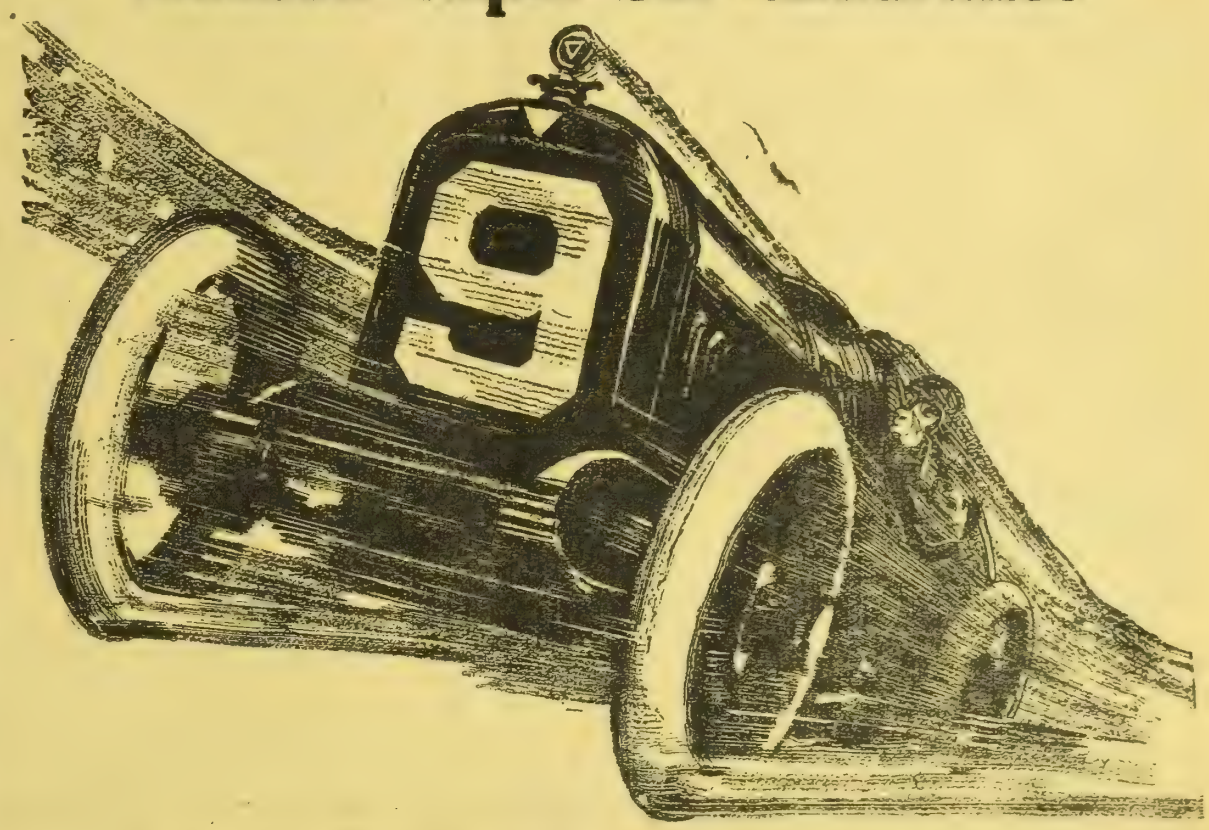
THE Russian offensive in Galicia has crumbled, whole Russian regiments retiring before the Germans and Austrians without making any attempt whatever to hold the ground they had gained, at a heavy cost, but a few days before. In the crisis, the man of the hour, Kerensky, has been appointed a virtual dictator. He is doing everything humanly possible to restore order and discipline, but the task is almost too great even for a man of his force and leadership. It is now recommended that all deserters and soldiers who retire, except under the strongest pressure from the enemy, be summarily shot as cowards. Whether the iron hand will be forthcoming to make Russia a gain a factor for the allies is very doubtful, however. It is reported unofficially that much of Russia's determination of the past few weeks is due to the work of Elihu Root, at the head of the American commission, who has handled things with force and vigor. But Russian affairs are sadly demoralized and but little can be expected of that nation for some time to come, if ever during the war.

PLANS worked out in congress for raising war revenue were overturned by announcement of forthcoming additional estimates for war expenditures aggregating more than $5,000,000,000, principally in anticipation of assembling a second army of 500,000 men under the selective draft. Secretary McAdoo, at a special meeting of the senate finance committee, revealed that the war department alone is preparing estimates to cover additional expenditures of nearly $5,000,000,000, and asked the committee to hold up the $1,670,000,000 war tax bill until the detailed estimates of all departments are submitted. The committee agreed to the request and pigeonholed a report on the measure which it had planned to submit. The new estimates, including $500,000,000 additional for the shipping board and $100,000,000 for the navy department, are to be submitted to the committee soon. Then there will be another revision of the war revenue measure, probably resulting in an increase of the bill's gross tax levy by from $35,000,000 to $1,500,000,000. Further credits may also be authorized in the form of bonds or indebtedness certificates. Besides the additional sums needed for the American war program, Secretary McAdoo told the senate committee that the $3,000,000,000 authorized for loan to the allies for their further assistance would be needed.

WHILE the United States is preparing to spend an additional five billion dollars for war preparation, as outlined by Secretary McAdoo last week, Great Britain goes ahead spending about $35,000,000 a day, with the largest war budget now asked for or ever known in history. Moving in the house of commons a vote for $3,500,000,000, the largest war credit yet asked and bringing Great Britain's expenditure to the colossal total of $36,460,000,000, Andrew Bonar Law, chancellor of the exchequer, gave startling figures of the amazing growth of great Britain's financial burden in the world war and emphasized from the financial viewpoint alone the great importance of the United States entering the war as insuring that the allies would not be deprived of victory through lack of money. The house was astonished to learn that Great Britain's advances to the allies and dominions had already reached the huge total of more than $5,000,000,000. The daily war expenditure although it shows a substantial improvement over the figures given on May 9th, when Mr. Bonar Law asked for the last war credit, still approaches $35,000,000 daily and exceeds the budget estimate by $5,000,000 daily, but comparing the last seventy-seven days with the first thirty-five days of the financial year, the expediture showed a reduction of a million daily.

THE administration food control bill, rewritten after five weeks' bitter contest, was passed by the United States senate last week by a vote of eighty-one to six. The senate made so many changes in the bill as passed by the house that the bill is now in a hopeless tangle. The house appointed a committee to confer with the senate, but has instructed this committee to reject all the senate changes. As revamped by the upper house the bill gives the president broad authority over foods, feeds and fuels, the latter including kerosene and gasoline; provides for administration by a food board of three members, instead of an individual; authorizes federal fixing of coal prices, requisition and operation of mines and authorizes a minimum guaranteed price of not less than $2 a bushel for wheat at primary markets. The senate prohibition section, prohibiting manufacture of distilled beverages during the war and directing the president to buy all distilled spirits in bond, was substituted for the house "bone dry" provision and will be one subject of difficulty in conference. The food administration change is aimed directly at Herbert C. Hoover, the American who had charge of the relief work in Belgium, who has been appointed food commissioner here in the United States and to whom objection has arisen, led by Senator Reed, of Missouri. The president is said to stand firm on the proposition that Mr. Hoover is to have complete charge and that he will not accept a board to have any supervision over Mr. Hoover. The matter is badly tangled now and it will probably take several weeks to clean it up.

Speedway's Crushing Tests Prove Hudson Super-Six Endurance



Four Hudson Super-Six Specials raced at Cincinnati. All four finished in the prize money: First, in the Free-for-All; Second, Seventh and Ninth in the 250-mile classic.

At Chicago on June 16, Ralph Mulford in a Hudson Super-Six Special broke the American speedway records for 150 and 200 miles. For 200 miles he averaged 104 miles an hour—faster than any car ever traveled such a distance before.

Speedway racing is the most abusive of all motor tests. Every part of a car is subjected to manifold destructive stresses. It is endurance that counts most on the Speedway.

Hudson Super-Six speed tests are in reality endurance tests. It is possible to build faster cars than the Hudson Super-Six Special, but the speedway record of 104 miles an hour for 200 miles, now held by a Hudson Super-Six Special, proves that endurance is more important.

Our interest in racing is not so much to see how fast we can make the Hudson Super-Six. It is to demonstrate motor endurance. It would take too long, at ordinary driving speed, to demonstrate the endurance life of a Super-Six. The speedway in a few hours calls for all the stamina required in years of ordinary use.

No other racing car of prominence so nearly resembles stock production as does the Hudson Super-Six. Practically all of the notable racing cars, and particularly those against which the Hudson Super-Six Special has shown its superiority, were built especially for racing. They bear slight resemblance to the stock production of any factory. Their cost is usually so great that not more than two or three cars are ever built. The Hudson Super-Six is essentially a production car.

The very qualities of endurance that are necessary in racing are the qualities you should demand in the car you buy. It guarantees safety, low maintenance cost and long service.

You can get a Hudson Super-Six in any body type you may desire. There are eight designs to choose from. The carriage detail matches the high quality of the chassis construction.

Phaeton, 7-passenger	$1650	Touring Sedan	$2175	Town Car Landaulet	$3025
Speedster, 4-passenger	1750	Town Car	2925	Limousine	2925
Cabriolet, 3-passenger	1950	*(All prices f. o. b. Detroit)*		Limousine Landaulet	3025

HUDSON SUPER SIX

HUDSON MOTOR CAR COMPANY
DETROIT, MICHIGAN

Experiment Work in Wood County

Valuable Lessons on Better Use of Land Are Made Known at Big Gathering on Farm Near Marshfield.

WOOD county was invited to come and view at first hand the work of the county experiment station at Marshfield, Friday, July 20th. And some 300 or more came, and saw, and went home satisfied that the experiment station is a good thing and Mr. F. L. Musbach, in charge, is doing his work well.

The day was announced as picnic day, but it was more like going to school. Every hour was taken up by lectures and field trips.

Dean Russell, of the college of agriculture, opened the day's program by giving the visitors some facts on the question of food conservation and what it really signifies. His talk was based on sound arguments and free from all kinds of impossible suggestions which have lately been the chief stock-in-trade of many of our well-meaning, but uninformed, citizens and public men. The dean first pointed out the necessity of branch experiment stations, like that maintained at Marshfield. Types of soil and local conditions are important factors in determining the best types of farming to be practiced. What is good in Ashland or Spooner is not always good for Wood county and vice versa.

Better use of the land and more returns in crops and dollars from that land must be the solution of America's problem of feeding the world according to Dean Russell. The wheat output of all nations is short this year. Russia has wheat, but no way of getting it out of the country. Australia has a normal crop, but lacks transportation. Argentina has only half a crop; Canada, if reports of the last few weeks are true, has suffered severe failures in several of her wheat sections. In our own country Dean Russell stated 5,000,000 acres in Oklahoma and western Nebraska had to be put into forage crops because the wheat winterkilled.

Wisconsin is not primarily a winter grain state. She is a dairy state and the greatest in America. But Wisconsin can raise wheat. There are hundreds of farmers doing so at a profit and they are dairying besides. But wheat or rye or any other crop should be raised only from the best seed obtainable, given the maximum amount of care in regard to preparation of seed bed and tillage and should be kept free from diseases such as smuts, blights or rusts. Animal diseases, likewise, should be held in check by the use of the methods that science has evolved for that purpose.

The mistakes of Germany were cited by the dean in proof of his arguments for live stock conservation at this time. Germany in 1914-15 butchered half of the hogs in that year, 16,000,000 of them, in the belief that the war would be of short duration. She has realized her mistake now and is trying to rebuild her swine industry. We are making the same mistake, according to Dean Russell. Reports are that the New England states are selling off their dairy cattle in unheard numbers. High prices for feed—too high in the estimation of the New England dairyman—coupled with high prices of meat on the hoof, are tempting these men. This condition can be remedied by a minimum price being set for our farm products by the government. Though the patriotic side of the farmer has been successfully appealed to since the war began, it is not fair in the estimation of Dean Russell to ask farmers to continue to produce extra large amounts of foodstuffs and give them no assurance in regard to prices. The dean is not alone in his contention. He is championing a contention thousands of farmers have made since the increased production campaign was begun.

Education should also not be neglected. England did so. England is sorry. "If the war is short, why," asked the dean, "tear down what required years of hard, earnest efforts to build? If the war, on the other hand, will continue for a number of years, we must be ready to replace the men who with their education unused dies in the fight for our country. We must keep our educational institutions going. Only by feeding in from below new minds and new men can we keep pace with the destruction of lives that this war will entail."

Following the dean's address E. J. Delwiche, in charge of the northern branch experiment stations which includes Wood county, took charge of the men and showed them the field work. The women meanwhile heard Prof. J. G. Halpin, of the college of agriculture, talk on the parasitic diseases that play havoc with the poultry crop each year. Mites, lice and chicken ills of all kinds were discussed in detail and for each of the troubles a proper remedy advised.

Some excellent work of the Wood county station is that done in regard to winter wheat. Clover, peas, wheat is the rotation followed. Wheat can ask for no better seed bed than that prepared following peas. Wheat growing in Wisconsin, according to Mr. Delwiche, is a lost art. Quite generally wheat is sown too late in the season to make a successful growth. "Seeding wheat on September 6th or later is tempting nature," said Mr. Delwiche. If there is not enough time to prepare ground at least two weeks before seeding, then let the field be sown to rye. No wheat for Marshfield and vicinity ought to go into the ground after September 1st-4th. Rye can be put into the ground as late as October 1st and it will do well.

Early seeding gives the grain a better chance to stool. Six pecks of wheat to the acre is sufficient. Top dressing with manure is good. Manuring winter grains is not advisable except as top dressing. The Turkey Red and the Bacsca have proved superior for Wisconsin conditions.

Blight-resistant peas, rust-resistant grains and oats that will not lodge are some of the improved seed strains that the station intends to produce. They are making headway, too. The peas looked the best of any seen this year and were judged excellent by everyone there.

Various rotations and treatments of soil with rock phosphate and acid phosphate lime and manure form another set of experiments. Liming has been found necessary for successful growing of clover and alfalfa and beneficial to oats in strengthening the stalk and is accepted as good for corn. The four-year rotation has so far shown up well. This consists of two years of hay, ten pounds of clover and five pounds of timothy, one year oats and one year corn.

In the afternoon there was another field trip under the direction of Mr. Musbach and for the women a demonstration by Miss Gladys Branegan, of the college agriculture extension department on drying fruits and vegetables. Shortage of tin and glassware and an unusual supply of vegetables makes the old-fashioned method of drying our fruits and vegetables of importance. Sun and oven drying are the most usual forms. Oven temperature must not be too high in order not to cook the food. For each vegetable and fruit variety different methods must be followed to insure success.

Mr. Halpin then gave a talk on "How to Tell a Laying Hen," and he pointed out the factors that makes up a laying hen on living models. The red color of the comb and the disappearance of the yellow color from the legs are the surest indication that a hen is a worker. Early out of bed and late to roost, heavy feeding, frequent singing, short head and late molting are other indications of the good useful fowls.

Mr. T. L. Bewick, of the college of agriculture, in charge of the boys' and girls' club work entertained a host of youngsters during a good part of the afternoon. Weed identification and games kept the children interested in spite of other attractions.

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Fond du Lac Sales Pavilion.

A cattle sales pavilion is being erected at Fond du Lac. This building will be completed in time for a May 1, 1918, sale. The structure will cost about $20,000.

The sales pavilion is the result of an agreement between the rural development bureau, representing the Association of Commerce, and F. J. Bristol, of Oakfield, and S. H. Bird, of South Byron, representing the Holstein breeders of Fond du Lac county and of the Fox river valley.

This pavilion will serve for breeders of several counties, including Fond du Lac, Winnebago, Brown, Sheboygan, Calumet, Ozaukee, Washington, Dodge, Green Lake, Outagamie, Waushara and Manitowoc.

The building will be about 120 feet square, of frame and concrete construction and two stories in height. It will be absolutely modern in every detail and will contain a large sales ring which will accommodate 200 head of stock. The first sale is planned for May 1, 1918, and this will be followed by many other important sales.

Barron County Picnic.

Members of the Rice Lake-Cedar Lake Cow-Testing Association met at the Ed Yager farm in Barron county Saturday, June 30th, for their annual picnic. There were about 150 present. Mr. E. H. Thompson gave a brief address and introduced the chief speaker, Prof. Geo. C. Humphrey, of Madison. He talked on dairying with special reference to tuberculosis and the fortunate position which Upper Wisconsin occupies in regard to this dread disease among cattle.

Prof. F. M. White, of the agricultural engineering department at Madison, talked on sanitary conditions of the farm home, urging modern conveniences, pure water, and doing away with the cesspool. Professor White advises farmers to vaccinate for typhoid fever and he succeeded in interesting a number of farmers in more conveniences for the farm home.

County Agricultural Agent Mr. Cuff urged the application of the new tuberculosis law in Barron county. While Barron county has practically no tubercular cattle, the county agent and the progressive dairymen are interested in adopting such measures as will keep the county free from this disease.

Farmers and their wives participated in a judging contest and it was a great day for dairying in Barron county.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

THE WISCONSIN FARMER - MADISON, WIS.

FARM LANDS.

SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

RUSK COUNTY LANDS! In the great dairying district of Northern Wisconsin, offer great opportunities for industrious farmers. We want people, looking for homes, in this ideal, partly timbered district, to write us so that we can tell them why it is to their interest to buy their lands of us. Send name and address today. Flambeau River Lumber Co., Owners, Station D, Ladysmith, Wisconsin.

CHOICE SNAPS—160 acres level lying, easily cleared land; clay loam soil; considerable building timber and firewood; good stream of water; splendid stock proposition; on good road; school, church and cheese factory 2 miles; $15 per acre. An 80 at $10 per acre; a 40 at $300. One-fourth down. Can be had without down payments. Write for particulars. The Ev. Luth. Colonization Co., No. B-M, Dept. 10, Merrill, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

SQUARE QUARTER, Red River Valley land, all under cultivation, buildings little value, three miles from two good railroad market towns. Best quality soil, well drained, no waste land; excellent neighborhood. $45 per acre for quick sale, easy terms, 6 per cent, no trades. C. L. Lindstrom, Grand Forks, N. D.

FOR SALE—200 A. farm; 50 A. in crops; 60 A. in pasture. Rest good wood land. With buildings. Will sell cheap. Inquire Claude Detjens, Gleason, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

FOR SALE—80 acres best timber land, Clark county. Inquire John Nicholson, Coal City, Ill.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

CALVES FOR SALE.

CHOICE HIGH-GRADE Holsteins, Guernseys and Short-horn calves. A few select ones at $15 to $35 each, expressed at little cost. Write Ed Howey Co., South St. Paul, Minn.

MILKING MACHINE FOR SALE.

FOR SALE—Milking machine. Two-cow unit. Automatic vacuum and natural air pressure type. In first-class condition. Address G. G. Daugherty, 83 S. Stone Ave., LaGrange, Ill.

ALFALFA SEED.

ALFALFA SEED—$8.00 per bushel. Good purity and germination but dark color. Better grades for more money. Write for samples and prices. Henry Field, Shenandoah, Iowa.

HOLSTEIN COW.

REGISTERED HOLSTEIN COW, defective udder, richest breeding, bred to a 44-lb. butter sire, $150. R. M. Harriman, Appleton, Wis.

BELGIAN HARES.

EARN $20 WEEKLY raising Belgian hares. Particulars, 10c. Ulysses Anderson, 2421 Ogden, Denver, Colorado.

Continued Interest in Baby Beef.

Wisconsin Boys Who Have Entered Contest Write Interesting Letters to Assistant Secretary Baker.

THE baby beef contest for 1917 is a success according to Secretary Baker, of the Live Stock Breeders' Association. Fifteen county fairs have put in classes for baby beef this year and a lot more have promised to do so, but have not been heard from as yet.

There are more entries this year than last and the letters which the boys are sending in to Mr. Baker are good evidence that every one of the young stockmen is on his toes to produce a prize winner.

This is the second baby beef contest held in Wisconsin. The rules this year permit any girl or boy between the ages of ten and twenty years to compete. The girls are yet to be heard from, however.

John C. Robinson, expert stockman himself, is the field man or baby beef specialist. He is visiting the boys who have entered the contest and supplementing his series of letters on baby beef production with heart-to-heart talks. In his letters Mr. Robinson has made clear to each contestant why baby beef raising is important, what to look for in a baby beef, the market side of baby beef production and how to feed prize-winning baby beeves. By his visits Mr. Robinson analyzes each separate case for the boy, points out the good and the bad practices of feeding and instructs him in the proper manner of caring and finishing out an animal.

Here are just a few of the letters the boys are writing to Mr. Baker, of the Live Stock Breeders' Association, telling of their experience with baby beef growing:

Baraboo, Wis. Dear Sir:—The 10th of March my calf weighed 330 pounds. The 24th of June he weighed 598 pounds. George Premo's calf weighed 360 pounds on the 10th of March and 606 pounds on the 24th of June. We are well pleased with the way they are doing. We are feeding ground oats, corn, bran and oil meal and are going to add molasses later on. Stanley H. Premo, George Premo.

New Richmond, Wis. Dear Sir:—My calf is getting ten pounds of skim milk three times a day, three and one-half pounds of oats and cracked corn three times a day and five pounds of alfalfa hay three times a day. He was six months old on the 4th of July. He now weighs 436 pounds with a gain of eighty-four pounds in less than a month. Last month he gained ninety pounds. Daniel Hasebach.

Gotham, Wis. Dear Sir:—When I got my calves this year the oldest weighed 415 pounds, the smallest 190 pounds. I began feeding oats and corn mixed while the calves were sucking a cow. I kept increasing the amount of feed as the calves' appetites increased. On June 1st I began feeding three times a day. On June 6th the oldest weighed 620 pounds and the youngest 415. Wayne Martin.

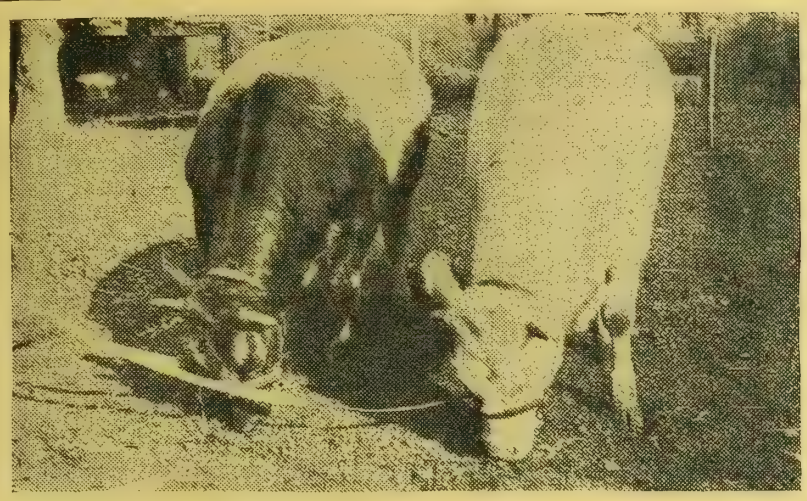
Dane, Wis. Dear Sir:—My calf is a grade Short-horn steer dropped November 3, 1916. He is not the best kind of a calf, but he is the best obtainable. As he was fed on skim milk before I took charge of him he did not make big gains like those sucking a cow. He weighed 511 pounds of the 30th of May. I am feeding ground corn, oats, barley and linseed meal in a mixture, three times a day with a little molasses. Alfalfa hay is before the steer all the time and receives water regularly three times a day. Henry Kurtz.

Bagley, Wis. Dear Sir:—My calf is growing like a weed. He will weigh about 700 pounds and he is only nine months old. He was always small for his age until a few months ago, but since then he has picked up fast. He has a good appetite and eats regularly everything I feed him. Ted Scott.

Gilmantown, Wis. Dear Sir:—My calf got along fine until the first of June when it slipped on the cement walk and hurt its back. For three weeks is could not get up, but now it is again as spry as ever. It is averaging a gain of three pounds a day. I am feeding it all the skim milk it can drink twice a day and a mixture of one-third each of oats, corn and bran and a handful of oil meal three times a day. I am now feeding him clover hay. This picture was taken when the calf was two months old. Walter C. Farmer.

All the letters carry a special invitation for Mr. Robinson, the field man, to come and see the calves and each boy is confident the advice of Mr. Robinson will do much to bring the calf feeding to a successful finish.

The final round-up for the contestants will come on November 21st and 22d when the first three prize winners at each county or district fair contest will exhibit their prizes at Madison. Last year's winner was Alvin Morley, of Baraboo. His steer was later on exhibited at the Chicago International, where it won first and reserve championship. Herr Bros. & Reynolds, of Lodi, exhibited him at Chicago.



TYPES OF BADGER BABY BEEF RAISED BY ALVIN MORLEY, SAUK COUNTY PRIZE WINNER IN 1916 CONTEST.

Farm According to Plan.

To the Editor:—Efficiency in handling the farm work this year is one of the primary considerations that every farmer should have in mind. Farm labor, at best, is not going to be any too plentiful. For this reason, as a matter of patriotism as well as one of dollars and cents, every minute of available time should be utilized to its best advantage.

The only way that this can be done is to plan ahead, to know what your work is going to be tomorrow, next week or next month. The success of large business houses is largely due to this "planning ahead" and with many firms it has been the direct means of saving them in struggling against the many problems of competition, selling and buying.

The farmer should be just as much of a business man as the banker, manufacturer or the storekeeper. Note the farmers in your neighborhood who have been the most successful. You will find that these men have planned ahead, not only in the solving of their labor problems, but in the selling of their produce, and in the purchasing of stocks, feeds and other supplies. Farmers of this sort are excellent men to follow, for what they have done others can do provided they will exert the same effort coupled with good common sense.

It is the labor problem this year which must be utilized to its fullest efficiency and this represents a problem to the farmer which will require his best business judgment. This is no time for the farm slacker or procrastinator. Work must be planned ahead and it must be done at the time planned on if the farm is to produce its maximum.

A big aid in helping the farmer to plan his work is a pocket notebook or "farm reminder." Make up your mind when the best time will be for doing the hundred and one jobs you have to do and make a note of them so that they will be done when originally planned and not a week or two late. Whenever you discover a piece of broken machinery which you are going to need later on, use your "farm reminder" so that there will be no excuse for you losing a day or two of good working weather simply on account of your forgetting about it. Everyone makes mistakes and this year of all years it is our duty to fight against them and make just as few as we possibly can.

A job which can be done during a rainy day should never be done during clear, working weather when the time can be more efficiently employed in the field. Whenever a "rainy day" job is discovered, and it is always a good plan to go out of your way to discover them, make a note of it and then utilize your working force to its best advantage when your first rainy day comes along. A great deal of time will be saved in doing this.

"A stitch in time saves nine" is a mighty good axiom. If you can do a job today which will only take a short time, but which is liable to take several days later on, do it and then credit the time saved to your labor account.

Never put off until tomorrow a job which you can do today, but whatever is done let us do that job today which will mean greater crops later.

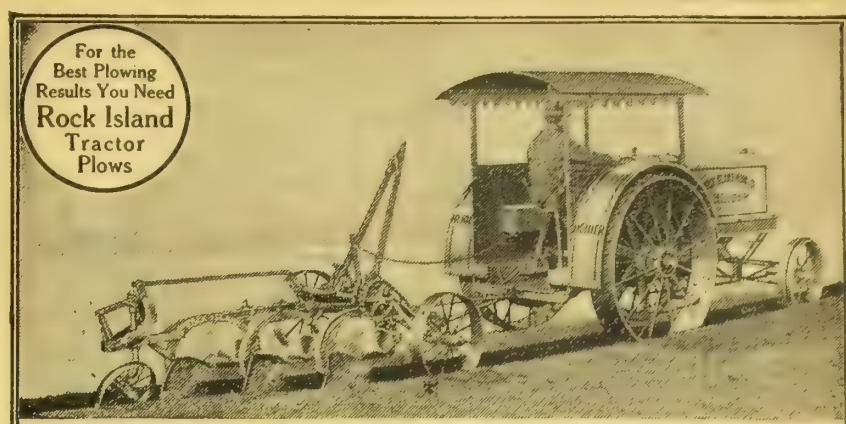
Utilize the energy of the children by giving them certain responsibilities. It will be the best preparation in the world for the greater burdens which they will have to take up later.

There are a great many small jobs, but ones that take time, which can be done just as efficiently by them as by the regular farm hands. Make a note of these small jobs so that they will be taken care of at the proper time. Nothing will please the average farm boy so much as that of having a few calves or hogs placed under his charge, and with a little instruction beforehand in regard to feeding and management the ultimate result will be just as good or perhaps a little better than it would have been otherwise.

Make a thorough analysis of your farm. Study it from every point of view and take time to do a good job of it. Try and determine where you can make the short cuts and when and at what time your activities can be best utilized. If you have more help than you really need, arrange your work so that you can aid the neighbor who is not so fortunate. If you are short of help, do your part in making every effort to procure it. Your county council of defense has been organized to assist you in handling just such problems and they will help you with them if you will but let them know of your needs. F. D. Lewis.

College of Agriculture.

Forty tons of shelled peas from twenty acres is the yield of one Douglas county farm northeast of Lawrence, Kansas. This was the first crop. Now the same twenty acres is doing double duty by growing corn, planted since the peas were cut three weeks ago. The peas were raised by W. A. Pine and four sons. The crop, when cut and hauled to the canning factory, sold for 2 cents a pound, bringing $1,600. The output of the canning factory on this yield is estimated at 80,000 cans.



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MOVE this lever forward to go ahead—back to reverse—neutral to stop. Could any control be more simple? This is one of the many advantages in the Heider special friction transmission. "I didn't know any more than a six year old boy about an engine when I bought my Heider," says one owner. "Yet I plowed and double disced 200 acres, cut 70 acres wheat, sowed 110 acres, and had no trouble that I could not locate myself." The

"Friction Drive Beats 'Em All" "I believe what makes this engine the high grade that it is, is the friction drive, thereby getting seven speeds without disconnecting the power or running chances of stripping any gears." F. H. HILBORN Mohall, N. D.

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12-20—Made and Sold by Rock Island Plow Co.—9-16

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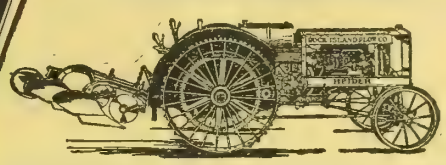

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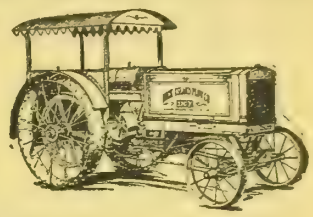

HEIDER MODEL C 12-20—Gears enclosed in dust tight case, working in oil. Heider Tractors have standard four wheel construction—four cylinder heavy duty Waukesha motors. 7 speeds forward—7 reverse.

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Jelly Making.

Many letters have been received by the Home Department asking for information relative to the making of jelly. The writers of some of these letters complain that their jelly is sirupy, others that it is tough and leathery, while still others say their fruit juice will not jell at all.

These conditions are accounted for by the nature of the fruit and the proportion of sugar that is used in making the jelly, as well as by the method of handling. A soft, sirupy jelly, for instance, is the result of using more sugar than the fruit juice requires, or because boiling after the sugar has been added has not been continued long enough to drive off excessive water. Too much sugar, also, will cause the appearance of crystals throughout the jelly. A tough jelly, on the other hand, results from the use of too small an amount of sugar or because the boiling is prolonged after the jellying point has been reached. A cloudy jelly is due to having cooked the fruit too long before straining off the juice or to not having used sufficient care in straining the juice. In the case of apple and crabapple jelly it quite frequently occurs that when first made the jelly will be clear, later becoming cloudy. Usually this condition is due to the use of partly green fruit, the starch in the fruit causing the cloudy appearance.

As to the failure to jell, the juice from certain fruits, such as grape, apple, crabapple, orange and current is better suited for making jelly than that from certain other fruits. This is because the juice from these fruits contain in greater proportion than others the properties necessary for jelly making, pectin and acid. Some fruits lack pectin, the fundamental jelly-making substance, in such proportion that their juice will not jell unless pectin is supplied from some other source. This is usually accomplished through the addition of the juice of other fruit rich in pectin. The peach, strawberry and cherry are examples of fruits which contain acid, but are lacking in pectin. Other fruits, such as the pear and quince, contain a sufficient amount of pectin, but are lacking in acid. In this case the proper balance can be obtained by adding juices from acid fruits. The amount of pectin which any given fruit juice contains may be determined by a simple test which is described below.

From Farmers' Bulletin 853 we quote the following explicit directions for jelly making, a careful study of which should enable anyone to make a good jelly from the fruit at hand:

Wash such fruit as berries, grapes, and currants in running water and add one cup of water for each pound of fruit. For apples, quinces and such hard fruits, wash, slice and add three cups of water to each pound of fruit. The fruit should be cooked until tender, a small quantity of water being added to help extract the juice. The fruit juice will flow more freely when heated than when cold, and the cooking develops the pectin. As soon as the fruit is tender the liquid should be squeezed through a cheesecloth and then be allowed to drip, without pressure, through a flannel jelly bag. Overcooking of the fruit is apt to result in a cloudy jelly. After cooling the juice to room temperature test it to determine the amount of pectin present. This test gives some idea of the proper proportion of sugar to juice. Add one tablespoonful 95 per cent grain alcohol to an equal volume of cooled fruit juice and shake gently. The effect of the alcohol is to bring together the pectin in a jelly-like mass. If a large quantity of pectin is present it will appear in one mass or clot when poured from the glass. This indicates that equal quantities of sugar and juice may be used. If the pectin does not slip from the glass in one mass, less sugar will be required. A fair proportion is three-fourths cup of sugar to one cup of juice. If the pectin is thin and much separated, one half cup of sugar allowed for each cup of juice will be sufficient.

The quantity of juice to be cooked at one time will depend upon the size of the vessel and the methods of heating available. The capacity of the vessel used should be four times as great as the volume of juice to be cooked. If the attempt is made to cook a large quantity of juice at one time over a slow flame, there will be a loss of color and a decrease in the yield, partly due to the destruction of the pectin.

When the proportion of sugar to juice has been determined, measure the fruit juice and place over the fire to cook. When the juice begins to boil, add the sugar immediately and stir until the sugar is dissolved. By adding the sugar when the juice begins to boil, more time is given for the inversion of the sugar by the acids of the fruit and there is less danger of crystallization.

After the sugar has dissolved, the cooking should be as rapid as possible. Finished jelly can be obtained more quickly by rapid cooking. Long cooking will tend to darken the product and destroy the pectin, which will cause the finished jelly to be less firm.

A thermometer can be used to great advantage to show when the jellying point is almost reached. No exact temperature can be given, because the jellying point differs with different fruits, with the quantity of sugar used, and with the same fruits at different seasons.

Since no definite temperature can be given for the finished jelly, the most convenient means of determining when it is finished is to test it with a spoon or paddle. Dip a spoon or wooden paddle in the boiling mass. Remove and cool by moving it back and forth for a few seconds and then allow the jelly to drop from it. As long as there is sirup present it will run or drop from the spoon. When the jellying point is reached, it will break from the spoon in flakes or sheets. When this jelly stage is reached, remove from the fire immediately and skim. Skimming at this point saves waste. After skimming, pour at once into hot, sterilized glasses and set aside to cool.

Care should be exercised when boiling the sirup not to allow it to spatter on the side of the pan and dry, because in pouring the finished product into the jelly glasses these crystals will be carried in also and the jelly become seeded with crystals. It is a good idea to keep the side of the pan wiped down with a clean, damp cloth so that the crystals cannot form.

Jelly should be cooled as rapidly as possible and when cold covered with melted paraffin. Store in a cool, dark, dry place.

Meals for the Harvesters.

The harvesting season is here and in some localities the usual rivalry between farmers' wives to see who can prepare the most elaborate meal for the hands will hold sway. But not in all communities, for some of us are learning that the simpler meals are best and that in order to the better serve others we must save ourselves.

Some of us are going to plan our meals so that a great deal of the work of preparation can be done in the cool of the morning and the cooking done in the fireless cooker. We are going to furnish only nourishing food, temptingly prepared and served, and omit the fancy dishes. We are going to plan our meals solely with the idea of supplying nourishment, with no thought as to how many different kinds of pie or cake Mrs. Jones or Mrs. Smith served. Maybe it will be a temptation to some to outdo Mrs. So-and-So, but the reward will be in the fact that the men will like it better and will go back to their tasks better fitted to perform them. If we give them what they need to sustain their strength and energy our task will be well done.

"What to have" is always a question, whether the meal be simple or otherwise. The home economics department of the Kansas Agricultural College has prepared a number of menus to help the farm wife with her harvest-time meals. These are only sample menus and can be changed to suit the locality or season. But they serve a good purpose in suggesting ideas and we give some of them for the benefit of the busy housewife:

Breakfast—Fruits and cereals, bacon and eggs, creamed potatoes, milk and coffee.

Dinner—Pot roast of beef with gravy, browned potatoes, creamed corn, sliced tomatoes, corn bread, jelly, fresh apple pie, iced tea and milk.

Supper—Cold sliced beef, browned potatoes heated in gravy, stewed tomatoes, southern slaw, bread, preserves, canned or fresh fruit, tea and milk.

Where bacon and hot biscuits occur on the same menu the bacon can be cooked in the oven while the biscuits are baking by placing it on a wire rack in a dripping pan.

For pot roast a cheap cut of meat can be used, such as a piece of rump or shoulder. Sear the meat well on all sides in an oiled iron kettle, add a small amount of water and let simmer until tender. About an hour before it is done add the pared potatoes, turning them frequently so they will brown evenly. Extra allowance of potatoes and gravy should be made for the evening meal.

Breakfast—Fruit, broiled ham, eggs, fried mush, bread, syrup, coffee and milk.

Dinner—Fried chicken with gravy, mashed potatoes, green beans, lettuce salad, bread, cherry roll, iced tea and milk.

Supper—Cold fried chicken, creamed potatoes, sliced tomatoes, bread, preserves, chocolate bread pudding with whipped cream, tea and milk.

Where the dinner menu calls for mashed potatoes boil extra ones, to be used as creamed potatoes for the evening meal. After dinner combine the remaining mashed potatoes with egg and shape into patties ready for frying the following morning. The chocolate bread pudding should be made during the morning hour. When preparing supper keep in mind things that may be cooked on the same fire for breakfast.

Breakfast—Fruit, cereal, creamed dried beef, poached eggs, potato cakes, hot biscuits, jelly, coffee and milk.

Dinner—Soup, pork, apple sauce, rice, boiled beans, boiled cabbage, fresh onions, corn bread and white bread, caramel custard ice cream, milk and coffee.

Supper—Cold sliced pork, German fried potatoes, baked beans, cottage cheese, corn bread and light bread, baked apples with whipped cream, tea and milk.

Caramel custard ice cream is made by combining three cups of milk, two eggs, one and one-half cups of sugar (half caramelized) and making a steamed custard. When this is cooled add three cups of cream and freeze. Baked apples should be prepared in the morning. Extra rice should be cooked and all that is left put into a can and molded to be sliced for breakfast.

Breakfast—Fruit, cereals, bacon and eggs, fried rice muffins and sirup, coffee and milk.

Dinner—Soup, baked ham with gravy, boiled potatoes, creamed peas, fried apples, radishes.

Supper—Cold sliced ham with mustard, potato salad, buttered beets; pickles, bread, preserves, baked custard, tea and milk.

In preparing one meal watch for opportunities to make use of the same fire and the same time and labor in preparing dishes for the coming meal. Biscuits for breakfast can be made and molded in the evening and put in the refrigerator.

Breakfast—Fruit, cereal, minced ham and eggs scrambled, creamed potatoes, hot biscuits, jelly, coffee and milk.

Dinner—Soup, New England boiled dinner, horseradish, corn bread, jelly, tapioca pudding, coffee and milk.

Supper—Corned beef hash, greens, sliced tomatoes, corn bread, light bread, fruit, cake, tea or milk.

For the New England boiled dinner, which should be started early in the morning, wipe carefully a piece of well corned beef, plunge into boiling water and let simmer four or five hours until the meat is tender. A piece of salt pork from which the rind has been removed may be added and the two cooked together. About one and one-half hours before time for serving prepare turnips, carrots and beets. Add the turnips and carrots to the stock. Cook the beets separately, using some of the meat stock to cover them. Prepare onions and cabbage and barboil each separately to take away some of the strong flavor. Cook the onions separately in some of the meat stock, and after the cabbage has been parboiled put it in the kettle with the turnips and carrots. About one-half hour before serving add pared potatoes. The meat may be returned to the kettle and reheated. Serve the onions and beets in separate dishes. Place the meat in the center of a large platter and place the vegetables attractively about it. Horseradish sauce may be served with the meat. It is made by soaking one-half cup of bread crumbs in milk, drain and mix with one cup well-drained horseradish, whip one-half cup of cream and fold in carefully the mixture of bread crumbs and horseradish.

Breakfast—Fruit, cereals, scrambled eggs, fried potatoes, graham gems, preserves, coffee and milk.

Dinner—Soup, Swiss steak with gravy, escalloped potatoes, buttered carrots and peas, sliced tomatoes, bread, fruit, shortcake, tea and milk.

Supper—Creamed codfish on toast, French fried potatoes, buttered turnips, lettuce, cottage cheese, bread, preserves, fruit gelatine cake, tea and milk.

Gelatine for supper dishes should be prepared soon after breakfast to insure its being firm. Chill thoroughly.

For Swiss steak pound flour into a piece of round steak on both sides. Season well and sear in very hot suet drippings until a good brown crust is formed. Add sufficient water to barely cover and simmer slowly one to one and one-half hours.

It is suggested, also, that the women serve themselves first. This is a good idea, because then they are rested and refreshed for the dinner period of hurrying about to serve the men.

Blue and White Tatting for Girls' Middies.

This pretty pattern is made with No. 30 thread in two colors, blue and white, with the blue on the shuttle.

With the white thread 6 d. s., 1 p., 2 d. s., 1 p., 6 d. s., 1 p., 6 d. s. Blue thread ring, 3 d. s., 5 p. woth 2 d. s. between 3 d. s., and close. White thread chain 6. Blue thread ring 3 d. s., 5 d. s. with 3 d. s. between, 3 d. s., close. White thread chain 6 d. s. Blue thread ring 3 d. s., 5 p. with 2 d. s. between, 3 d. s., close. White thread chain 6 d. s., join to white picot coming down. 6 d. s., 1 p., 2 d. s. 1 p., 6 d. s. with blue ring 6 d. s., join to middle p. of last

blue ring, 6 d. s., and close. White thread chain 6 d. s., 1 p., 2 d. s., 1 p., 6 d. s., 1 p., 6 d. s. With blue ring 3 d. s., 1 p., 2 d. s., 1 p., 2 d. s. Join to same picot with last two rings; 2 d. s., 1 p., 2 d. s., 1 p., 3 d. s., close. White thread chain 2 d. s., 1 p., 2 d. s. Now make five of these blue rings, joining each. Each has 3 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 2 d. s., 1 p., 3 d. s., and close. Between each ring, with white chain 2 d. s., 1 p., 2 d. s. After fifth blue ring chain 6 d. s (white), join to white picot, 6 d. s., 1 p., 2 d. s., 1 p., 6 d. s. Make the little blue ring of 6 d. s. Join to middle picot of 5th blue ring, which brings you to the top again.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Steaming of Vegetables Better Than Boiling.

Boiling removes many times more soluble matter than does steaming. This soluble material includes soluble proteins, sugars and the still more important mineral constituents. These mineral constituents represent the most important nutritive part of the green vegetable. The table given below is illuminating:

Percentage of loss of mineral matter by:

	Bleaching by boiling	Bleaching by steaming
Peas	24 %	1.6 %

This indicates that in the cooking of vegetables the steaming method is much to be preferred to boiling unless one uses for food the water in which the vegetable is boiled. The exception will occur in the blanching of the special vegetables from which one wishes to remove a strong raw odor or taste.—[Inga M. K. Allison.

A Compliment for Vesta.

Dear Young Folks:—Every time the paper comes I read the Young Folks' page. I think it is a nice, little, cozy corner.

I am thirteen years old and am in the seventh grade. I read Vesta's letter and I think she is a bright little girl. A girl twelve years old should just

wear her dresses below her knees. My mother says you are old enough to go to parties with your brother. I did when I was twelve. You must have a great deal to do if you do all the work, and I am sure you are a good housekeeper, too.

I never did know how Uncle Sam was named until the Young Folks told me.

I have a cat named Tom. He is yellow and white.

Let's all write more so we will have more letters to read. Bessie.

Poor Little Waif!

Dear Young Folks:—I am going to write to you and tell you about a little kitty I have for a pet. It is nearly three months old and is a wee little thing. Its name is Waif. We named it Waif because when it was little the mother cat would not have anything to do with it and one night it nearly chilled to death.

One day my mother and I were out in the garden and we lost it, but we found it under a potato vine fast asleep. Eula.

Takes Good Care of Her Garden.

Dear Young Folks:—As I have never written to your page before I am going to now. I enjoy reading the letters so much. I live on a 320-acre farm fifteen miles from the city. I am fifteen years old and am in the eighth grade. I have three brothers and one little sister. We have to walk a mile and a half to school.

I help my mother in many ways, and I have a great big garden for myself. I can sew, cook, bake, crochet and tat. Yesterday I cleaned my garden and pulled all the grass and weeds. I have some potatoes that I am going to sell, and also a big patch of onions. Onions are very high in price this year.

Best regards to all the little girls and boys who are readers of this page. Lillian.

How to Make Butter Scotch Candy.

Dear Young Folks:—I am a little girl six years old. I did not start to school last year, but will go this year. I know how to write some and can add and know all of the letters, both small and capitals.

We live on a farm six miles from town. I have a baby brother six months old.

I have four little kittens. I have no names for them. And I have a little dog that I call Cricket because he is never quiet.

I am going to tell you how to make butter scotch candy. I can make it by myself. One cup of sugar, one cup of sirup, one-half cup of butter, one teaspoonful of vinegar. Boil all together until it hardens in cold water. Then pour on greased plates. I hope some of you will try this because it is very good. Lila.

Three New Friends.

Dear Young Folks:—We have been reading your letters for some time, but this is the first time we have written. We are sisters, aged fourteen, twelve and eleven. We live in town and have two blocks to go to school.

We have three pet quail, one pet cat and a pet chicken. Will some of the young folks tell us what to feed the quail?

Two of us are in the seventh grade, and the other in the fifth grade. We go to Sunday school every Sunday. Margaret, Annabel and Sadie.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for August 5, 1917.

Manasseh's Sin and Repentance.

LESSON TEXT—II Chronicles 33:1-20.

GOLDEN TEXT—Let the wicked forsake his way, and the unrighteous man his thoughts; and let him return unto the Lord, and he will have mercy upon him; and to our God, for he will abundantly pardon.—Isaiah 55:7.

The reign of Manasseh was the longest of any of the kings of Judah. It is strange that a wicked king should have the distinction of the longest reign. This can be accounted for, perhaps, by the fact that the nation was in such a state that their idolatrous corruption needed to go to its fullest development. It seems to be necessary in a world of free beings, that their actions must go to a certain stage of development. It was so with the inhabitants of Canaan before that land was possessed by Israel. Israel was kept in Egypt until the iniquity of that nation was full. In this case doubtless the Lord permitted this to go on until the idolatrous practices would become extremely obnoxious.

I. Manasseh's Sin (vv. 1-9). Though he had the example of a good father, he with passionate endeavor gave himself up to the imitation of the heathen about him. This shows that grace is not inherited; a good father may have a bad son. It also teaches us that it is absolutely necessary to bring the grace of God into vital touch with our children, for that grace is absolutely essential to their salvation. Only his grace can counteract the downward pull of sin.

1. He restored the high places which had been destroyed by his father (v. 3). It is thus seen that he sought to undo the good work done by his father.

2. He erected altars to Baal (v. 3). The idols worshipped on these altars seem to have been images of licentious appearance, provoking the indulgence of the human passion. Therefore, with this worship was coupled the grossest licentiousness.

3. He introduced the star worship of the Chaldeans and Assyrians (v. 3). He even erected these altars in the house of the Lord, placing them on a level with God himself.

4. He set up Moloch in the Vale of Hinnon (v. 6). He not only encouraged this worship on the part of others, but he even caused his own children to pass through the fire.

5. He practiced magic, witchcraft, and dealt with a familiar spirit (v. 6). So gross were these practices that they did even worse than the heathen whom God had destroyed before the Children of Israel came into the land.

6. He rejected the Lord's testimony (v. 10). Doubtless the prophets had again and again admonished him, but he seems to have turned entirely aside from such remonstrances.

II. Manasseh's Chastisement (vv. 11-13). The Lord in grace used the Assyrians to chastise Manasseh, so as to bring him to see his evil ways. He was captured, perhaps while hiding among the thicket of thorns (v. 11), bound in chains and carried to Babylon. This was most humiliating. His hands were manacled, his ankles fastened together with rings and a bar.

III. Manasseh's Repentance. (vv. 12, 13). Fortunately, the chastisement had its desired effect. Manasseh was brought to his senses and turned from his evil ways. The steps in his repentance are as follows:

1. Affliction (v. 12). This was most severe. Bound with chains and dragged to Babylon. While this was severe, it was light in comparison with the sins which provoked it.

2. Supplication (v. 12). Manasseh had the good sense to cry out to God in this condition. It is the unmistakable evidence that God's chastisement is accomplishing its purpose. We are instructed in James 5:13 in time of affliction to pray.

3. Humility (v. 12). This is a common characteristic of penitent souls. Those who come under the hand of God always recognize it in their humble walk.

4. Forgiveness (v. 13). As soon as God sees the signs of penitence, he turns in mercy to the penitent and grants absolution for sin. No one needs to wait long to receive his forgiveness.

5. His kingdom restored (v. 13). Manasseh not only was forgiven, but he was actually restored to his kingdom. Those who truly repent, God will not only forgive, but he will restore (Psa. 32:3-5).

6. Apprehension of God (v. 13). Through this experience Manasseh came to know God.

IV. Manasseh's Reformation (vv. 14-20). Manasseh was not content with merely receiving God's forgiveness and restoration to his kingdom, but he sought so far as possible to undo the mischief which he had done.

1. He strengthened the fortification of Jerusalem, so as to make his people safe from the attack of a foreign foe (v. 14).

2. He removed the idols from the House of the Lord (v. 15). Through bitter experience he had come to know that an idol is nothing, that it could avail him nothing in time of deepest need.

OUR FASHION DEPARTMENT.

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

2191—Dress for elderly ladies. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅛ yards of 36-inch material for a 36-inch size.

2018—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2171—A pretty summer dress. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 3½ yards of 44-inch material for a 10-year size.

2173—Dress for misses and small women. Pattern is cut in 3 sizes; 16, 18 and 20 years. Size 18 requires 4⅞ yards of 44-inch material.

1945—Child's set of short clothes. Pattern is cut in 5 sizes: 6 months, 1, 2, 3 and 4 years. It will require for the dress, 2⅝ yards of 36-inch material. For the drawers, ¾ yard, for the slip, 1½ yards, for a 2-year size.

Corset Cover 2048-Petticoat 2049—Some desirable underwear. The camisole 2048 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 1⅝ yards of 36-inch material for a 38-inch size. The petticoat 2049 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. The underskirt requires 6 yards of 36-inch material with the flounce, and 4 yards without the flounce, for a 24-inch size. Two separate patterns, 10 cents for each pattern.

1804—A seasonable and becoming model. Pattern is cut in 4 sizes; 2, 4, 6 and 8 years. It requires 3½ yards of 36-inch material for a 6-year size.

2168—A practical apron model. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium requires 6⅛ yards of 36-inch material.

1880—Boys' suit. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 2⅛ yards of 36-inch material for the blouse, and 1 yard of 44-inch material for the trousers for the 8-year size.

2178—Girls' dress, with sleeve in either of two styles. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2170—An ideal house dress. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires for a 38-inch size, 6⅞ yards of 36-inch material.

2195—A group of serviceable sleeves. Pattern includes all styles illustrated and is cut in 4 sizes: Small, 11 inches; medium, 13 inches; large, 15 inches, and extra large, 17 inches arm measurement. Medium size requires, for one pair of sleeves, 1⅛ yard for No. 1, 1⅜ yards for No. 2, 1⅜ yards for No. 3, and 1⅜ yards for No. 4, of 27-inch material.

Catalog Notice.

Send 10 cents in silver or stamps for our up-to-date fall and winter, 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating 30 of the various, simple stitches) all valuable hints to the home dressmaker.

Let's Eat More Cheese.

"More cheese might be used at home and on the farm to good advantage," is the advice of the dairy department at Iowa State College. It is one step toward food conservation, for the milk and buttermilk oftentimes wasted can be made into cheese which, pound for pound, contains about twice the nutritive value of meat and is a very good substitute for it. Following is a recipe for making the new buttermilk cottage cheese:

Use raw, sour cream buttermilk. Heat buttermilk directly from the churn to 136 or 140 degrees Fahrenheit; hold at that temperature for an hour before draining off whey. Stir buttermilk during heating and hold only enough to secure a uniform heating, this done to break up the curd as little as possible. If the whey does not show clear by heating to 140 degrees Fahrenheit bring heat to 150 degrees or slightly higher. After allowing heated buttermilk to stand for an hour run or dip whole mass into muslin cloth which is spread over some form of draining rack. A rack is easily made by tacking quarter-inch mesh galvanized wire on a shallow box in place of the bottom. When curd has drained sufficiently dry, salt to taste, about one ounce salt to four pounds curd.

The best cheese is made when a considerable amount of starter is used in the cream. If this is not done a small amount added to the buttermilk before applying heat will help the coagulation.

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DAIRY

Curing a Sucking Cow.

ALMOST every dairyman knows of at least one way which, in his estimation, will keep a cow from sucking herself. Rather than bother with a cow of this kind, however, most dairymen are willing to let the animal go at a very low figure and be rid of her for once and all.

Ben Berg, of Lake Mills, however, has a lot of patience and when he saw a chance to buy the Holstein in the picture he decided she was a good cow and would not only raise excellent calves, but produce large amounts of milk herself. The cow was to all appearances a hopeless case, as her owner had tried various methods to prevent her from milking herself. Mr. Berg has devised what he thinks is the most effective system to stop cows from doing this. He places a surcingle over the cow's shoulders and right in back of the front legs. A stick fastened to the halter by means of a snapper comes back above the right front leg and is attached to this surcingle with a string. The stick is provided with a dull point which is forced into the side of the cow if she turns her head to the right in order to reach around. Failing in this she will try to reach her udder by turning her head to the left, but here the stick tied to the surcingle will hold her head effectively so that she cannot reach more than half way around.

The system is not cruel to the animal and at the same time prevents all possibility of the cow milking herself. In summer time a blanket can be thrown over the cow to keep the flies from bothering too much.

The cow in the picture has two records of over thirty pounds of butter fat in seven days. She also holds the thirty-day record for the state in her class.

The case is an example of how a highly bred cow with a bad habit is making good in spite of herself. Just a little patience and a simple contrivance has made this possible. In return the owner is getting large yields of milk and many excellent calves.

AN EFFECTIVE WAY OF PREVENTING A COW MILKING HERSELF—DEVISED BY BEN BERG, OF LAKE MILLS.

Milk That Stays Good.

To the Editor:—I am told by the folks down town that there is a great difference in the keeping quality of milk purchased from different dairies. Some will keep sweet a long time, while other brands will turn sour in a little while. There are dealers who treat their milk in one way or another, by pasteurizing or sterilizing, so that it will keep good indefinitely, but some people do not find this milk entirely satisfactory. In fact, a certain physician told me he never used pasteurized milk himself, because it made gas in his stomach and bowels, so he recommended milk just as it came from the cow.

How is it that there is this difference in untreated milk? I can answer that question in great measure. It is due largely to the care the long-keeping milk receives before it leaves the farm. On some farms only the most trivial pains are taken to keep the milk good, while on others no pains are neglected in this direction.

For instance, I now have in mind a young farmer who cools his milk down just as soon as it is brought from the milking stable. Up to the present he has been in the habit of setting the cans in a kettle or tub and pouring cold water around them, stirring the contents of the cans in the meantime.

Just now, however, this progressive young man has been putting the finishing touches on a homemade cooler. In his milk house he has made some forms of old boards, laid down a cement floor and built a deep trough for the milk cans. The work was all done by the farmer and his hired man. They dug down about two feet below the surface of the floor, filled in with stones, gravel and cement, leaving at one end a space for the deep reservoir. Around the top edge of the front of the trough a hardwood board protects the cement from being chipped off when the cans of milk are set over into the water. It is a very creditable piece of work, with the provisions for putting in and letting out the water.

Milk thus cooled down and stirred until it is free of the animal heat is bound to keep far longer than that which has not been subjected to any such treatment. Take milk that is bottled without proper cooling and aerating and it is pretty apt to sour in a little while, especially if it be not kept in a good place after it is delivered. Many cellars are wholly inadequate for the storage of milk, or anything else, for that matter. It is not always possible for the consumer to get ice, and the bottles of milk must be kept in any out-of-the-way place until needed. The wonder is that it keeps as well as it does.

After all, it is a question of the man. Some are not satisfied until they have done their best to make all they do the very best possible. These are the men who may really be called the salt of the earth. Subscriber.

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Blocks made of better tile with "ship-lap" joint—are set together with thin mortar line exposed—a smoother, better looking wall—silage settles better. Reinforced with twisted steel—continuous doorway—safe and easy ladder front, the quality construction in vitrified tile. Write for catalog and prices.
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You can't realize what a power saving this means until you see a Kalamazoo in operation. All wearing parts are easily adjustable. Cutting adjustment is on shear bar only. This makes adjustment of knives simple and easy compared with other cutters.
Get a Kalamazoo—save power—save cutting cost—feed your herd on less acreage. "Do your bit" by helping produce America's biggest saleable crop.
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Get this Free Book
Explains valuable improved money saving features of Kalamazoo Ensilage Cutters—also alfalfa cutters—and *Easy Payment* plan.

County Exhibits Contests.

The Milwaukee Journal each year offers a cup for the best county exhibit at the Wisconsin State Fair. It is expected that a larger number of counties will be in competition for this cup this year than usual.

The cup is a beautiful piece of the silversmith's art. The base is five inches high, while the cup itself is fourteen—a total of nineteen inches. From handle to handle it measures eleven inches.

On one side the lettering is already

done, with the exception of the name of the county which will receive the cup for the best exhibit, and reads: "Presented by the Milwaukee Journal to ———— county for the best county exhibit in the Wisconsin State Fair of 1917." It will be on exhibit in one of the downtown stores just previous to the fair, which will be from September 9th to 15th.

Cow-Testing Reports.

Wood County Association No. 2.

To the Editor:—The following is a list of the forty-five-pound cows in the Wood County Cow-Testing Association No. 2 for the month ending June 30th:

Owner, name and breed	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
C. F. Schroeder & Son				
Hulda, R. H.	1410	3.4		47.94
Wm. Haag				
No. 7, G. G.	1170	4		46.80
Carl Freelauf				
Spider, G. H.	1350	4.4		60.06
Wm. R. Burhopf				
Phoebe, G. G.	1347	4.1		55.26
Bessie, G. J.	1377	4		55.08
Jacob Palmarch				
Rosie, N	1140	4		45.60
Walter Maxwell				
Little Spot, G. H.	1176	4.4		51.74
Ralph Heidrich				
Pet, G. G.	1020	4.5		45.90
Simon August				
No. 5, G. G.	1239	4		49.56
Joe Gerlach				
No. 3, N	1290	4		51.64
E. E. Royce				
Beema, R. H.	1530	3.8		58.14
Doll, R. H.	1164	4.1		47.72
Geo. Arions				
Bell, G. B. G	1047	4.4		45.87
Lily, G. G.	1164	4.2		48.89
Flossy, G. G.	1158	4		46.32
Willmer Drollinger				
Sleepy, G. B. S.	1203	4.5		54.13
Mrs. Seubert				
No. 14, G. G.	1200	3.8		45.60

Clarence Olsen, Official Tester.
H. A. Schroeder, Secretary.

Feed Better Cut Silage
It pays. Shows a big profit in dollars and cents, as proved by users of Silver's "Ohio." This machine cuts silage unlike other silo fillers. Reduces it to a mold-proof semi-pulp that packs solidly, expels all air, releases the sugar juices, ferments evenly and properly. Free from shreds and leaves. Makes the high quality silage that brings biggest milk yields from dairy cows, puts weight on fattening stock. Write for book that proves wisdom of "Silverizing" silage.
Silver's "Ohio"
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Cuts better silage and more of it in the day's time. A simply built giant of strength and big capacity. Backed by 62 years' manufacturing experience, by the pioneers of silo fillers. Many big leading features.
Knives that cannot spring and let "air-pocket" shreds and leaves get into the silo; patented friction reverse and single lever control, automatic beater-feed—saves a man's work at the feed table; heavy 12-gauge sheet-steel fan case, real "galvanized" pipe, low speed fan—fills highest silos with ease. 7 sizes—40 to 300 tons a day. 4 h.p. gas to big tractor power.
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"Modern Silage Methods," 264 pages, sent for 25c, coin or stamps.

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Special Galvanized Steel Octagon Roof—best manufactured.
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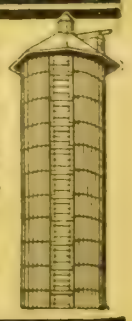

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Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Shanks Will Put Up Great Summer Duroc Sale.

THE sale of Durocs to be made August 14th by W. N. Shanks, Worthington, Minn., is such as to attract wide attention and patronage. Mr. Shanks has listed 45 head, one-third of which are sows bred to the 1,000-pound Investor. Lady Top Notcher 11th is one of these. She is litter sister to the top of the sow sale last winter. This sow has raised three litters of pigs in which she raised 23 pigs. She is full sister to the $800 High Model Top and to other herd boars of note. Lady Top Notcher 14th is a full sister to her and will also be included in the sale. This sow is a member of the litter that was shown with her dam, as being the best ever produced on this farm—this was at the opening of one of the sales held by Mr. Shanks. The other sows are mostly yearlings by the noted High Model, a few by Grand Model 12th. Col.'s Lady by King the Col., her dam by Osborn's Prince of Cols. This sow raised 10 pigs in her spring litter. She is a good sort and being bred to Investor should make her a most desirable addition to any good herd. Lilac Blossom 2d is another good daughter of King the Col., that is a real brood sow, raised eight pigs this spring. The sow end will be attractive throughout. The 15 fall boars are mostly by High Model, there being a few only by Grand Model 12th and by Royal Gano. These fall boars are the pick of 35 fall boars—everyone is fit to head a good herd. Among these are sons of old Lady Top Notcher 6th that were sired by Grand Model 12th. Others are out of daughters of King the Col., Col. Gano, King Gano, Crimson Wonder 3d. The spring boars comprise the greatest attraction ever listed by Mr. Shanks. Five of them by Pathfinder and ten by Investor. Investor is the one great boar to follow on High Model and King the Col. sows. Here are herd headers. Mr. Shanks was indeed fortunate when he secured this great boar. The mating of Investor with the immense sows in the Shanks herd has produced results beyond the greatest expectations of their owner. Plan to be at the sale and to reap the reward of the efficient mating practiced by Mr. Shanks. In writing for catalog please mention this paper.—Adv.

A Johnson on Each Corner.

YOU have all read or heard about Johnson Brothers, of Royal King fame. They live near Lake Crystal, Minn. There are four brothers in the firm all living on the same section, one on each corner, and Duroc hogs on each farm. Royal King is back on the job again after having something wrong with one of his legs causing serious lameness. Some breeders would like to have you believe that Orion Cherry King stuff have poor feet, but if you will visit this farm and see Royal King and his get, you will be convinced that somebody has made a mistake. The boys made a real buy when they added Fancy's Victor to their herd. He is a wonderful breeding boar and individually he will compare with the best. This is the only boar that we know of sired by old Fancy Col. If you want to see big sows with high backs and good feet visit Johnson Bros. We will not go into details about all the good sows and litters, there are too many of them. Just remember that this firm have a herd of sows as good as money could buy. They are carrying over many fall sows for the winter sale and they will certainly be attractions. Their ambition is to put up the best offering in the state on the 8th day of next January. —Adv.

Reese's King.

LOUIE REESE, Brooklyn, Wis., has a good herd boar that he calls Reese's King. He is a two year old and is by Pfander's old King of All and we think he is the only boar with this line of breeding in the state. Besides being a good individual he is a good sire, for the pigs by him will compare with any we have seen. A daughter of Fessy's Orange, a line-bred A Wonder, has a nice litter of eight. There is a litter on the place by Big Long Bob 2d, a grandson of Big Bob. The dam of the $100 gilts in the Madison sale raised another nice litter by Reese's King. The gilts and boars that Mr. Reese has for sale are all right and will please you. Their breeding is the best big-type and the pigs have been well grown. If you are going to buy Polands it will pay you to buy early. Write him and please mention The Wisconsin Farmer.—Adv.

An Old Timer.

J. A. DOERR, Viroqua, Wis., has been breeding and selling Chester Whites for a good many years. He has never made a great deal of noise, but has been selling hogs as fast as he could raise them and has been enjoying a lucrative business. Doerr Chesters can be found all over this state and adjoining states and his past customers are his best advertisers. If you want a boar or a gilt he can supply your wants and at a price you are willing to pay. Write him and mention this publication.—Adv.

F. B. Schaub, Honey Creek, Wis.

MR. SCHAUB'S Holstein herd is now headed by King Klorinda Counsellor, grandson of King Sejis Pointia and out of a 15-pound daughter of Peter Mutual De Paul. Her five nearest dams average 28.70 pounds butter in seven days. He is now offering for sale four females in his herd at a very low price considering their breeding and individuality. Three are yearling daughters sired by a son of Knight Errant. The other animal for sale is a two year old and a full sister to one of the yearling heifers—a splendid individual and just fresh.—Adv.

At P. W. Young's.

WE recently spent the day with P. W. Young, Prosper, Minn., and one needs a day to see all the good ones that Percy has to show. You will want to spend about half of the time with the three herd boars. It's a real treat for anyone that appreciates good hogs to see Young's Big Joe—he is a remarkable boar in every respect. There may be better two-year olds, but they are scarce and we have never seen one. He weighs over 1,000 now and will weigh 1,100 or over by October. If you want to see a big one that is smooth take a trip and see Young's Big Joe. After you have spent about an hour feasting your eyes on this boar take a little time for Orange Wonder, another 1,000-pound boar that has all the good points. Many of the good judges say Orange Wonder is the best boar in the herd. What would happen if we all saw things in the same light? The writer has never seen a Poland China boar that appealed to him more than Master's Giant, the senior herd boar on this farm. This grand old boar is now five years old, there is not a wrinkle or crease on him, he has a perfect foot and a wonderful back. Even at this age we think he could be made to weigh over 900 pounds and would make a creditable showing. We are perhaps partial to this boar because we know all the sows and boars in his pedigree for several generations back and every one was a good one. We will say again that no breeder has three better herd boars. Those that attended the Ed Hendricks boar sale last fall will remember that P. W. bought a boar sired by the Oakland's Equal boar out of a Black Jumbo dam. This boar cost Percy $40, but he is in the $500 class now and if he is not in the money at Hamline some one has a choice junior hid. This shows what can be done with good seed when given proper care. Young has some great boar pigs and they are for sale. They are guaranteed to please and no poor ones are sent out. We do not hesitate to recommend this herd or the breeder, it is a great combination. Write for his sale catalog containing the breeding of the various boars he has for sale. Address P. W. Young, Box 100, Prosper, Minn., and please mention The Wisconsin Farmer. —Adv.

At F. M. Washburn's.

WE found F. M. Washburn, Lake Crystal, Minn., with over 100 pigs, the majority being by the one and only Chief Invincible. Mr. Washburn sold most of the sows that were bred for early farrow, in his January sale, consequently, he has not as many early March pigs as in previous years. His pigs are good and with a few months more age they will compare with earlier pigs. We need not say a great deal about Chief Invincible. He is conceded to be one of the best boars of the breed and he is making good in Washburns' hands. The best thing we have seen sired by the highly advertised Pathfinder is a sow on this farm. She is truly a great sow and would be a credit to any herd in America. She is raising a fine litter by "Chief." Mr. Washburn contemplates holding two bred sow sales next winter. His first sale will be held January 9th and another one some time in February. He has several fall boars by "Chief." If any of our readers are interested in boars of this age get in touch with the owner. We will have more to say later.—Adv.

Siebecker at Baraboo.

BARABOO is the center of a thriving live stock country, there being many herds of various breeds around this very pretty town. One of the better swine breeders of that locality is L. R. Siebecker, who has Duroc Jersey hogs. With this issue of The Wisconsin Farmer Mr. Siebecker starts a card that will appear regularly from now on. We saw the pigs he has for sale, a short time ago and they are dandies and will please the man who gets them. He will sell you gilts or boars and at a price you are willing to pay. His pigs are in excellent condition, as their owner is a good caretaker as all stock on the place will show. This fact alone is worth consideration in buying live stock. Get his prices.—Adv.

W. G. Bartholf's Durocs, Burlington, Wisconsin.

W. G. BARTHOLF'S crop of spring pigs consists of 45 head. They are mostly sired by Outlook Cherry King by Brookwater Cherry King. They are doing splendidly and a number of very promising boar pigs were noticed in the lot. Mr. Bartholf also has on hand three fall boars sired by Outlook Cherry King and out of some of his best brood sows. These animals are in fine condition and anyone in need of such a sire would do well to correspond with Mr. Bartholf in reference to these animals. Mr. Bartholf also has one particularly fine litter by a son of Pathfinder.—Adv.

F. A. Swoboda's Holsteins, East Troy, Wisconsin.

MR. SWOBODA is now using Sir Ormsby Johanna De Kol 37, sired by Sir Ormsby Johanna De Kol, that has 31 A. R. O. daughters, including a 33.34-pound cow. He is now offering for sale two bull calves and two heifer calves sired by his herd bull. These youngsters are all sired by Johanna De Kol 37, good individuals with perfect top lines. Write Mr. Swoboda for more information regarding these calves.—Adv.

Dobson & Eastman Ready for Business.

WITH this issue of The Wisconsin Farmer, Dobson & Eastman, the popular Poland China breeders, of Lancaster, Wis., advise the public that they are ready to supply their wants. It is useless for us to go into detail about the hogs bred and raised by this firm, their history is well known to all lovers of this great breed of hogs. Their spring pigs weigh from 100 to 160 pounds and from that weight you may know they are good ones. They will sell boars or gilts and they guarantee satisfaction. They also have a few fall boars for sale and have some sows bred to farrow in September that can be spared. Everything on this farm is cholera immune, which is an important item to many buyers. Burlie advises that his show herd is coming fine and he hopes to make a strong showing at Milwaukee this fall. They will have a junior yearling boar at the fair that is a real one and he should weigh over 700 pounds by fair time. Every hog they show will be of their own breeding. There is no breeders in the state that we are more willing to recommend than Dobson & Eastman. They are absolutely on the square and whatever you buy of them must be satisfactory.—Adv.

Moss Brothers, East Troy, Wis.

AS we visited the Moss Brothers recently we were greatly impressed with their enthusiasm for the Holstein business and were glad to notice the good judgment that they used in selecting their foundation cow, Vevie Bell of Elkhorn. That is a rare individual and one that is capable of transmitting her exceptional individuality. She is the dam of Knight Errant Queen, the foundation cow of Mr. Dunbar's herd that was dispersed last spring. Moss Brothers are now using a son of Vevie Bell of Elkhorn in their herd and have for sale a good bull calf out of a sister of Knight Errant King that has 28.55 pounds.—Adv.

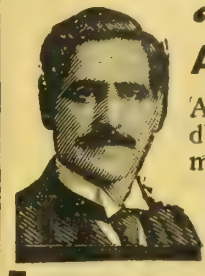
It Pays to Buy a Proven Sire.

HERE is a real opportunity as Mr. Emmons Blaine, of Lake Mills, Wis., has decided to sell Canary Homestead Oak De Kol 89469, one of his senior herd sires. This bull has stood at the head of one of the best herds in the state of Wisconsin for several years and has to his credit already 20 A. R. O. daughters, including a 22.82-pound junior two year old. He is a 29-pound son of Homestead Junior De Kol, as well as a grandson of Jesse Fobes Bessie Homestead, a 34.96-pound cow that has upon various occasions attracted much attention as a producer and as a show cow. He is in splendid condition and is guaranteed a breeder straight and right in every particular. —Adv.

John Swenson Has the Goods.

WE will frankly say that John Swenson, Willmar, Minn., has the best bunch of Duroc pigs that we saw in Minnesota. Other breeders have some good ones too, but John has about 150 and we only saw five that could be called tail-enders. The pigs by the grand champion, E. J.'s Crimson Wonder are fine, which proves that this boar is a worthy sire, as well as a show boar. He is looking fine and we believe he could "come back" if showed again this year. The pigs by Big Wonder are dandies and Mr. Swenson says that as long as he continues to produce the goods he will retain him in his herd. We feel safe in saying that this breeder has one of the finest lots of big sows to be found anywhere in the Northwest. We hear a lot about 700 and 800-pound sows, but they are as scarce as 1,000-pound boars, but Swenson has them as big as the biggest. He topped several sales last winter and the sows that he purchased have raised

GALLOWAY'S TRACTOR



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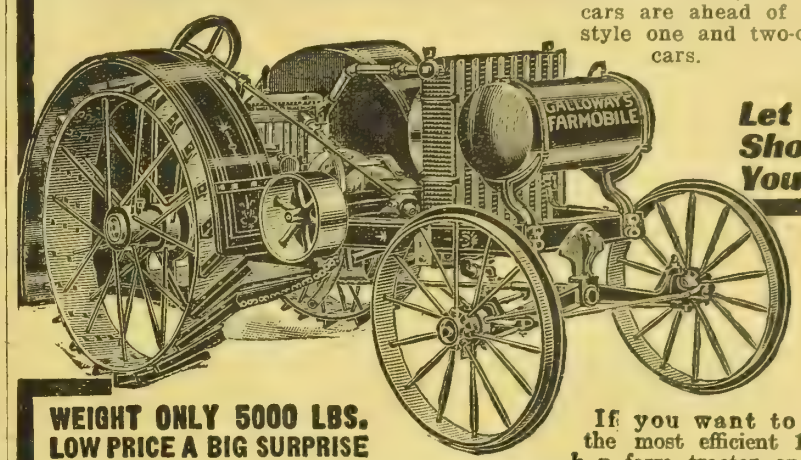

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POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trap-nested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb,** Mgr., R. 28, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, R. 6, 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

WISCONSIN STATE FAIR AND TRACTOR DEMONSTRATION
MILWAUKEE
SEPT. 10.11.12.13.14.15
THE EXPOSITION BUILT TO HELP UNCLE SAM IN THE PRESENT TITANIC WAR BY ENCOURAGING INTENSIFIED PRODUCTION AT HOME.
1,500 FEET OF TRACTORS; 1,200 ACRES FOR DEMONSTRATIONS ALONG ELECTRIC RAILWAY FROM FAIR GROUNDS; SPECIAL ELECTRIC TRAINS TO DEMONSTRATIONS DURING MORNING HOURS.
MAMMOTH MACHINERY EXHIBIT.
BEST IN LAND OF CATTLE, HORSES, SHEEP, SWINE AND DAIRY—AGRICULTURAL AND HORTICULTURAL PRODUCTS, WOMEN'S WORK AND FARM BOYS' AND GIRLS' WORK.
MAMMOTH POULTRY EXHIBIT IN NEW $25,000 BUILDING EQUIPPED AT COST OF $3,000
MARVELOUS FOOD, HEALTH AND MARKET SHOW.
GREATEST AUTOMOBILE SHOW IN AMERICA IN 1917—104,000 SQ FEET OF AUTOMOBILES.
ALL DAY EVERY DAY, UNEQUALLED PROGRAMS OF CLEAN, HIGH CLASS ENTERTAINMENT, INCLUDING LOUIS GERTSON, KING OF BIRD MEN, IN MIDAIR STUNTS AND TWENTY-FIVE CIRCUS AND VAUDEVILLE ACTS; FLIGHTS OF THREE BALLOONS AT ONCE WITH PARACHUTE JUMPS.
FIFTEEN BANDS AND ORCHESTRAS.
GORDON'S $10,000 WAR SPECTACLE IN FIREWORKS EVERY NIGHT, TOGETHER WITH ENTIRE DAY PROGRAM OF ACTS, INCLUDING GERTSON IN STARTLING AVIATION STUNTS.
FOUR DAYS OF HARNESS RACING, INCLUDING TWO $5,000 STAKES SEPT. 10, 11, 12 AND 13.
TWO DAYS OF SENSATIONAL AUTOMOBILE RACING BY TWENTY STARS OF THE AUTO RACING WORLD, INCLUDING THE WORLD'S CHAMPION, SEPT. 14 AND 15.
YOU CAN'T SEE AND FULLY APPRECIATE THIS GREAT SHOW UNDER THREE DAYS. COME PREPARED TO STAY.
DAYS 50¢ NIGHTS 25¢

good litters for him. From the present outlook there will be a wonderful January sale offering. More later.—Adv.

Watrous' Holsteins, Troy Center, Wis.

MR. WATROUS, who has the distinction of developing the highest record junior four year old record cow at her age in the state, has recently purchased Hill Vale Sir Ormsby from D. H. Howell, Waukesha. It will be remembered that he already has ten very creditable A. R. O. daughters to his credit including a 24.7-pound two year old that recently sold for $2,150 at the Waukesha county Holstein sale. We feel like congratulating Mr. Watrous and Mr. Howell in this transaction because it shows Mr. Watrous was keen to recognize the merit of this splendid sire and that Mr. Howell showed good judgment in selling his bull to a man who is capable of making records that will reflect additional credit to his ability as a buyer of good producing cows. Mr. Watrous made a 26.3-pound record on Star Vale Aaltje Pauch II. Mr. Watrous is also offering for sale his herd bull that is a full brother to Aaltje Johanna, his 28.56-pound junior four-year-old cow, and is also offering two bull calves of exceptional individuality and breeding. One of these is out of the 28.56 junior four-year-old cow and the other from a 26-pound cow. The following is a list of the A. R. O. daughters of Mr. Watrous' new herd sire, Hill Vale Sir Ormsby: Brookvale Ormsby Snowball, four years, 20.3 pounds in seven days; Brookvale Ormsby Snowbird, junior two year old, 14.18 pounds in seven days; Brookvale Ormsby Jewel, senior yearling, 16.43 pounds in seven days; Brookvale Ormsby Netherland, junior four year old, 27.33 pounds in seven days; Brookvale Ormsby Netherland II, junior two year old, 16.78 pounds in seven days; Brookvale Ormsby Anna, senior three year old, 21.32 pounds in seven days; Brookvale Ormsby Korndyke, senior two year old, 24.70 pounds in seven days; Brookvale Ormsby Queen, five year old, 24.40 pounds in seven days; Brookvale Ormsby Snowbird, senior three year old, 17.16 pounds in seven days; De Frule Fayne Ormsby, two years, 16.76 pounds in seven days.—Adv.

Poland News of Special Interest.

ONE of the best herds of Poland Chinas in Minnesota will be sold October 17th. This sale is the Gerlich & Barker herd, of Mankato, known all over the United States. This will be a dissolution sale and everything will positively be sold. Mr. Barker has purchased a farm and in order to close the partnership deal between he and Mr. Gerlich the sale will be held on the above date. Both men have agreed not to bid on a sow or reserve any for their own use, consequently breeders can attend this sale with the assurance that they will get a chance at the poor ones and the good ones alike, of course, there won't be any of the former. There will be about 140 spring pigs and they are good ones, about 25 fall sows all good ones and all of their breeding herd, show sows, etc. The three herd boars will be the main attractions. This will include Choice Expansion, G. B. Giant and Big Expanso, three extraordinary herd boars in the 1,000-pound class. This will be an opportunity for Wisconsin breeders, for with this large number to sell there are bound to be bargains. Keep the date in mind, we will give the details of the sale later.—Adv.

McKerrow's Big Sheep Sale, Pewaukee, August 15th.

WISCONSIN sheep breeders will have a rare opportunity to select high-class show stock and breeding rams August 15th, when Geo. McKerrow and Sons Co. will sell at their farms, Pewaukee, Wis., 120 head of home-bred and imported Shropshire and Oxford sheep. About half of the offering will come from their recent importation and the remainder from their own matchless herds that represent 24 years of intelligent breeding. No herds in the country have been more consistently in the lime light at the leading fairs these many years than McKerrow's Shropshire and Oxford herds. This fall instead of showing, as is their usual custom they are going to hold a great sale and sell the stock they would ordinarily have shown. There will be 50 Shropshire herd headers and 25 Oxford herd headers of exceptional merit in the sale. Also 20 head of Senator Bibby's get. Senator Bibby is one of the greatest rams of the breed. His get has won more prizes than that of any other ram. See advertisement on page 16.—Adv.

A. G. Swoboda, Troy Center, Wis.

MR. SWOBODA is now offering his senior herd bull, No. 75146, sired by Korndyke Pontiac Pointer King, that has eight sisters that together average over 30 pounds in seven days. Mr. Swoboda's sire is from an A. R. O. cow and is mostly white and is in good condition—a guaranteed breeder, and can be purchased at a very reasonable figure. He also has for sale a bull calf sired by Sir Ormsby Johanna De Kol 37 and out of an A. R. O. half sister to Finderne Hollingen Fayne, a world-record cow.—Adv.

Ackerman Has the Goods.

SOME time ago when we called on W. F. Ackerman, Glen Haven, Wis., he had the best bunch of pigs we had seen at that time and we have just been advised by another party who recently saw them that "Will has the goods this year." We believe that Ackerman made a mistake when he let A's Big Orange go. Here was one of the good boars of Wisconsin individually, and as a breeder, we don't know of a boar that bred more to type and uniformity than A's Big Orange. Not only that, he sired big litters. If the fact that Mr. Ackerman has size, quality, big litters and good breeding in his Polands means anything to you write him. His pigs have been well grown, they have as much size and more quality than many we have seen. If you want gilts he has them for sale or he will sell you a pair or trio at a reasonable figure. Note the advertisement that appears in this issue and when writing for details please mention The Wisconsin Farmer.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31. Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1. Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1. Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1. Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Aug. 14. W. N. Shanks, Worthington, Minn.
Oct. 17. L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2. Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 17. Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Feb. 7. State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8. Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22. Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6. Combination Sale, Wm. T. Butts, Walter George and R. H. Babcock, Evansville, Wis.

GUERNSEY CATTLE.

GUERNSEYS FOR SALE
WE HAVE FOR SALE AT ALL TIMES, serviceable Guernsey bulls of A. R. breeding, also young bull calves whose dams are now on official test making very creditable records. Could spare a few choice females and a few grades. Write us your wants. If you can arrange to come and see the herd, let us know and we will be glad to meet the train and entertain you. Our herd is on the "accredited tuberculin tested" list.
FOX BROTHERS - - - - Waukesha, Wisconsin

A FEW WELL-BRED YOUNG BULLS — the Haven Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Homestead Farm
OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

2 to 8 Months Old Guernsey Bulls
SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Voeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITICK GREENVILLE, WIS.

SHORT-HORN CATTLE.

THE SHORT-HORN IS THE BREED FOR YOU
THAT EXTRA 100 TO 200 POUNDS OF WEIGHT costs you nothing. The Short-horn excels in scale and quality of flesh, is of quiet temperament and makes profit under all conditions. Mr. Dairyman, when you add the value of the Short-horn calf to the returns from its mother's milk, you will see that the Short-horn is the cow for you. $50,000 will be offered as prizes for Short-horns at the 1917 fairs and shows. For information, address
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

OAK LAWN SHORT-HORNS
SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address
J. E. KENNEDY - - - - - - - JANESVILLE, WISCONSIN

ROCK COUNTY SHORT-HORNS
FIFTY REGISTERED HERDS in the county. Milking Short-horns—Scotch or Scotch-topped. You can find what you want in Rock county. Write
J. E. KENNEDY, Sec'y Rock County Short-horn Breeders' Assn. Janesville, Wisconsin

Bates Milking Short-horns
YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Clay Butteroup and Wildeyes breeding, the two best Bates families. Prices reasonable.
GEO. WENHAM & SONS, FT. ATKINSON, WIS.

B. W. Little, JANESVILLE WISCONSIN
STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

Short-horns
MILK BEEF
IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

BULLS FOR SALE --- SHORT-HORNS
THREE YEARLINGS past, one by the noted White Rock. Fifteen coming yearlings, sired by SCOTCH MINE by Sultan Mine. Dams bred for beef and milk. Let me describe these bulls.
G. STAHLNECKER Darlington, Wis.

SHORT-HORNS
BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

MAURER & SONS
SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

WORLD'S FAIR HERDS
SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.
C. J. SCHOENFELD & SON Fox Lake, Wis.

What is Unicorn?
IT IS a dairy feed containing three times as much protein and fertility as corn. It contains no human food. It will pay you to sell most of your corn and oats and use Unicorn in your dairy ration. We have the highest records for milk production of any complete dairy feed. Send for free copy of Cow-Testers' Manual of tables, etc., also interesting records of cows.
CHAPIN & CO.
Dept. H-42 CHICAGO, ILL.

JERSEY CATTLE.

OAK GROVE JERSEY FARM
HAS FOR SALE: 1 register of merit cow, age 6 years, 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
W. M. KNIGHT, Eagle, Wis.

Registered Jerseys
HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.
E. BRUINS FAIRWATER, WIS.

JERSEYS
HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & E. T. Wiegand, Cleveland, Wis.

JERSEYS
COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT TOMAH, WIS.

Elmdale Farm Jerseys
YEARLING bulls sired by a son of the Gold Medal cow, Inez Rossire, 725 lbs. butter. For attractive prices, write
H. HOLT & SON Oconomowoc, Wis.

POLAND CHINA SWINE.

160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.
J. D. McDONALD - - - - - - - **North Bend, Wis.**

POLAND CHINA PIGS

YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.
R. MEINKING **BANGOR, WIS.**

THE UTMOST IN POLAND CHINAS

DOBSON & EASTMAN **Lancaster, Wis.**

SPRING AND FALL BOARS OR SOWS. Sows bred to farrow in September. Everything is cholera immune. Will ship now or deliver at the State Fair, Milwaukee. The important item this year is ORDER EARLY.

SMILEY & SONS' POLANDS

READY TO SUPPLY YOUR WANTS—Boars with size and quality. The Smiley guarantee always.
WM. SMILEY & SONS **ALBANY, WIS.**

SIZE QUALITY

POLANDS

GILTS AND BOARS by A'S BIG ORANGE, one of the best producing boars ever in the state. His pigs are BIG, yet are easy feeders. Every one from a big litter. I try to please.
W. F. ACKERMAN **Glen Haven, Wis.**

EXTRAORDINARY

Poland Boars

"Master's Giant" "Orange Wonder" "Young's Big Joe"
One of their Sons Should Head Your Herd
P. W. YOUNG **Box 100, Prosper, Minn.**

FOR QUALITY AND QUANTITY WRITE

BIG-TYPE POLAND CHINAS

I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.
Camel Hill Stock Farm
W.W. DACKENBUSH, Melrose, Wis.

Size Quality

POLANDS

IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.
O. C. OLSON **STRUM, WIS.**

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.
LOUIE REESE **Brooklyn, Wis.**

STRETCHY BOARS

THE DEMAND IS FOR BOARS with plenty of length. My Poland Chinas have the desired stretch with size and quality. Seeing is believing. Let me ship one. Will also sell gilts.
AUG. NEESEMAN **WARREN, ILL.**
On Illinois-Wisconsin Line

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON **Kilbourn, Wis.**

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN **Fox Lake, Wis.**

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F, Farm and Real Estate Journal, Traer, Iowa.

When writing to advertisers kindly mention The Wisconsin Farmer.

Martiny's Special Offering

POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.
L. P. MARTINY **Chippewa Falls, Wis.**

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS
Females and Bulls for Sale
Write the following breeders:

J. R. Ahlers	West Bend, Washington County
C. S. Arnold	Holcombe, Chippewa County
Edward Bennett	Black Earth, Dane County
J. O. Baker	Wagner, Marinette County
Byron Curran	Taylor, Jackson County
L. F. Bigelow & Son	Brooklyn, Green County
J. W. Martin & Son	Gotham, Richland County
Wm. Radke	Black Earth, Dane County
J. W. Salter & Sons	Unity, Marathon County
L. C. Underwood	Avoca, Iowa County
J. F. Wulff	Grafton, Ozaukee County
Wm. Wulff	Grafton, Ozaukee County
H. Zeigler	Middleton, Dane County
John A. Curran	Sechlerville, Jackson County
Lars J. Lee	Cambridge, Dane County

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD **AVOCA, WIS.**

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.
J. W. SALTER & SONS **Unity, Wis.**

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

ABERDEEN ANGUS CATTLE.

RAISE

BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

HEREFORD CATTLE.

Herefords

LET US DESCRIBE and quote you prices on our bulls.
WALTER BROS. **Chippewa Falls, Wis.**

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

HORSES.

Percherons, Belgians, Shires,
Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.
Fred Chandler, R. 7, Chariton, Iowa.

HOLSTEIN-FRIESIAN CATTLE.

RIVERVALE FARM

OFFERS SOME FINE HOLSTEIN BULL CALVES—very light in color, from A. R. O. dams and grandams and sired by Korndyke Pontiac Piebe Burke, a grandson of Piebe DeKol Burke, at very reasonable prices. Address
GEO. H. GIBSON **NASHOTAH, WIS.**

Two Holstein Bulls For Sale

SIX AND SEVEN MONTHS OLD. Good individuals with good breeding. For particulars and prices write
L. V. GARVENS **R. R. 2, Brookfield, Wis.**

OLATHE HOLSTEINS

HAVE A FEW BULL CALVES from A. R. O. dams for sale. Address Silver Spring Farm Co., Eau Claire, Wisconsin.

REGISTERED HOLSTEIN HEIFERS

FROM 6 MONTHS TO 15 MONTHS of age sired by the 31.17 lb. bull, Sir Wayne Johanna DeKol. Two bull calves also for sale. Address
LAWRENCE ROBERS **LYONS, WIS.**

HOLSTEIN-FRIESIAN CATTLE.

TWO-YEAR-OLD Holstein Bull

A BULL THAT WE GUARANTEE to be right in every respect and just as we describe him or no sale. He is straight, good size, well built, nicely marked, more white than black and throws light-colored calves; whose eleven nearest dams have good A. R. O. records. Sire's dam, Princess Mercedes Riebe at four years made 26.39 lbs. butter and 561.50 lbs. milk; at two years, 667.39 lbs. butter and 17,400.70 lbs. milk for one year. Sire's grandam at four years made 18.23 lbs. butter and 474.10 lbs. milk and 909.91 lbs. butter and 21,611.70 lbs. milk for one year. The dam of this bull made nearly 21 lbs. butter at three years of age; her dam made 16 lbs. butter at two years of age and her dam made 16.60 lbs. butter. If you are in need of a bull come and see this one, or write for a tabulated pedigree and price to Mountain Ash Stock Farm.
J. B. CAIN, Prop. - - - - - - - - - - **Glenbeulah, Wis.**

PABST QUALITY BULL CALVES

From
A HERD OF OVER 300

$100 and up

PABST STOCK FARM
(BREEDERS, NOT DEALERS)
Oconomowoc, Waukesha County, Wis., Box W

Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. **Lake Mills, Wis.**

Three Young Cows $175 Each

REGISTERED HOLSTEIN FRIESIAN—Will soon freshen, bred to Sir Johanna De Kol 19th, which weighs 2,500 lbs.; has 10 A. R. O. daughters. The calves from these cows will be worth the price that you pay for the cows. Don't let this opportunity slip by. It's the greatest bargain offered in 1917.
DR. B. L. WERNER **Marshfield, Wis.**

23-POUND HOLSTEIN BULL

BORN March 14, 1916. His dam is a 23-pound daughter of the noted "butter fat" sire, Sir Clyde. Her test is 4.23% fat. His sire is a 25-pound son of the 32-pound bull, Beauty Pietertje Prince, and whose dam is the double bred Ormsby cow, Queen Ormsby Duchess. Send for pedigree and price. Address
DOPP BROTHERS **Ixonia, Wisconsin**

DO IT NOW

GET THIS YOUNGSTER to improve your herd. Bull calf, born April 9, 1917, sired by a son of Pietertje Maid Ormsby 35.56 from a 22-lb. three-year-old granddaughter of King Segis. Calf is nicely marked and well grown. Will send pedigree and picture upon request.
N. DICKINSON & SON,
WALCOWIS FARMS, LAKE GENEVA, WIS.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ina Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

10 YEARLING BULLS 10

EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.
W. H. S. RHODA, 610 2d St., Watertown, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH **Kilbourn, Wis.**

HOLSTEIN BULL FOR SALE

A SIX-MONTHS-OLD SON of a 22-lb. junior three year old, sired by a grandson of King of the Pontiacs, evenly marked, good individual and good size. Price $175.
SWAN BROS. **Box 160, R. 1, Wauwatosa, Wis.**

CRATED BULLS

SEVERAL young Holstein bulls for sale; white predominates. Sire, Plain View Sir Johanna Clothilde 136887, out of registered dams that give 40 to 60 lbs. a day. Write
GEO. A. WILSON **Nellisville, Wis.**

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER **JANESVILLE, WIS.**

KING PONTIAC SEGIS VEEMAN

(134190) IS FOR SALE

A 29.29-Pound Son of King Segis Pontiac Count.

King Segis Pontiac Count is a grandson of King of the Pontiacs, that has more thirty-pound daughters than any bull and is sired by King Segis Pontiac, that has sired more high-priced bulls than any sire.

King Segis Pontiac Count also has the distinction of siring the greatest producing junior two year olds of the breed. He has three junior two year olds that average 28.46 pounds butter in seven days and five junior three year olds that average 31.37 pounds and 610 pounds milk in a week. The herd at which King Segis Pontiac Count stands at the head leads all others in prize winners for A. R. O. work for the year just closing.

For further particulars concerning King Pontiac Segis Veeman write to Edgewood Stock Farm, Burlington, Wis.

A 27.81-lb. BULL

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SALE HELD IN THE PAVILION ON THE FARM NEAR

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15 immense fall boars, the choice of 35 good ones, mostly by HIGH MODEL. Few by Grand Model 12th and Royal Gano.

15 outstanding spring boars, 5 by PATHFINDER, 10 by INVESTOR.

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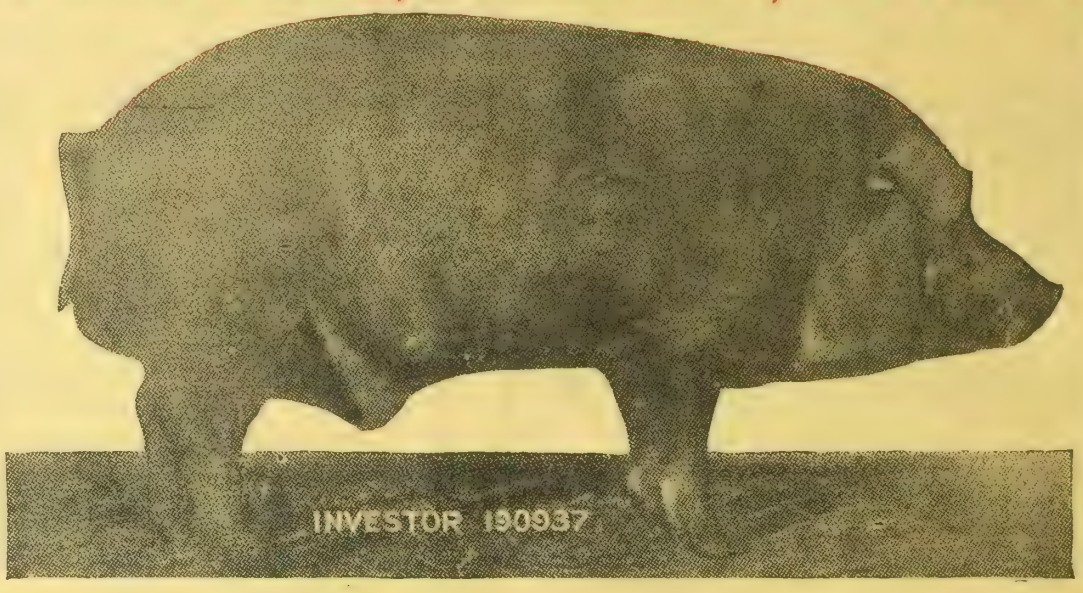

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combination produce BIG, high-backed, high-standing, heavy-boned stuff. They command the admiration of the most critical judges and buyers.

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EVERY animal listed has been most carefully selected. Not a single excuse will be needed. An offering combining great size, rare quality, high backed, heavy boned, and perfect feet. Investor has proven to be the one perfect sire to use on these High Model and King the Col. sows. He is the PEER OF ALL SIRES; recognizes no competition; is outstanding in size, type, quality. Superiority stamps his offspring. A son of Investor is a fitting herd boar for any progressive breeder who is catering to the best BIG TYPE. A most cordial invitation is extended to all. Come. Catalogs ready. Kraschel and Duncan, Auctioneers. W. S. Steele and T. P. Shreve represent this paper.

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CHESTERS EXTRAORDINARY
BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.
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By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write
WALTER GEORGE Evansville, Wis.

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WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.
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DUROC JERSEYS
A fine lot of March and April boars and gilts. Good feet, stretchy, good backs and BIG and from EXCELLENT SOWS. Sired by a son of PRINCE ILLUSTRATOR. Same pigs will cost $15 more in August and September. I guarantee satisfaction.
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THE SIRES OF MY SPRING BOARS. Name of the breeding you prefer. Every pig guaranteed.
DENNIS SHEA MELVINA, WIS.
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For My Duroc Boar Sale October 17
I'LL SELL BOARS that my old customers can use. As an attraction I will sell INVESTOR JR., a yearling son of Shank's Investor and "some boar." Will also sell spring pigs by Investor out of the sow that topped Shank's sale. Boars by DREADNAUGHT, he by Illustrator. Boars by PROUD CHIEF JR., by Cherry Chief. No matter what breeding you have you can use some of these boars.
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You've heard of our big sows. Boars from them are now on sale.
Shipped on approval if you wish.
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I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

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I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
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DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.
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BY COL. S. JR., out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write
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OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.
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THE WISCONSIN FARMER

VOL. XLVI. NO. 32. THURSDAY, AUGUST 9, 1917. WHOLE NO. 1854

MILKING MACHINE STANDS TEST

TWO and a half years ought to be a long enough time to give a milking machine a fair trial. E. C. Peebles, of Lakeview Stock Farm, near Fond du Lac, has used his milking machine every day since March, 1915. In all this time he has never had any trouble from garget, sore teats, nor have any of his cows been milked by hand because the machine could not do the work. The only cows that have been milked by hand are those that were doing official work.

"The milking end used to be the biggest part of our farm work and was the cause of considerable trouble with all our hired help," said Mr. Peebles. "Now the milking is the easiest part of our chores. One man can take care of twenty-five cows in one hour and ten minutes and do the separating and feeding of the calves at the same time. Two men can take care of the twenty-five cows in forty minutes."

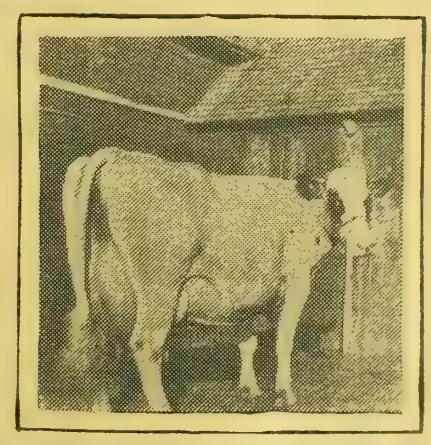
According to Mr. Peebles, the biggest part of the trouble experienced by farmers with the milking machine can be avoided when the standard which is exacted of the mechanical milker is not placed too high. Some men want a milking machine to milk the cows absolutely dry. This is an unreasonable request, and were the milker so perfect that it would do this, it would be of no particular advantage. The cow's udder must be carefully watched, more so when she is milked by a machine than when milked by hand. The perfect milker would make men careless in this respect and any injury to the cow's udder would not be discovered until it had taken on serious proportions. "I strip my cows after the milker has finished, and in this way I know just exactly whether the machine has been left on the cow long enough or too long, so that I can correct the mistake at the next milking. The stripping also gives me an opportunity to see that everything is in good shape with each cow."

There is no hurry necessary in finishing up the cows. The man leisurely strips the last milk from the cows and by that time the machine has finished with the next pair. Each two cows require approximately four minutes to be milked by the machine. With Mr. Peebles' two two-units, two men can take their time, following up the machine, carry the milk to the separator, run the separator and feed the cows.

Mr. Peebles milks from thirty to thirty-five cows the year around and is only able to do so because of the milker. The same sets of rubber tubes which came with the machine are still in use. When the milking is over steam from a boiler in the separator roo is forced through the pipe line, thoroughly sterilizing them. Hot steam is also sent through the tubes and the teat cups. During the time they are not in use they are submerged in a tank of running water. The quality of Mr. Peebles' cream and milk has been pronounced excellent at the factory. Mr. Peebles has never owned a grade cow. He took the farm from his father about four years ago, but as he has been on the place since a boy, he influenced his father to change the herd from a grade Holstein to a pure-bred Holstein herd during his last years. The farm contains about 160 acres, of which forty are in alfalfa, thirty in oats and fifty in corn. The rest is taken up by pasture, and some additional hay land is rented each year. The herd consists of sixty-five head, including the young stock.

From a very modest beginning in dairying this farm has developed within the last ten years into a highly profitable dairy establishment. In 1906 for the month of January the cream check was $43.20. For February it was $33.13, and for March $38.18. In January, 1917, the check was $379.94; in February $388.92; in March $491.30; in April $610; in May 498.96. This gives him an average of over $400 per month returns from milk and cream alone, aside from which he can still sell his surplus stock and the cows that produced the milk and calves.

E. C. PEEBLES' BARN, WHERE MECHANICAL MILKER HAS HAD THOROUGH TRIAL.



FLOSSIE MAUDE, 24.57 POUNDS OF BUTTER FAT IN SEVEN DAYS. OWNED BY MR. PEEBLES.

There is some fine Holstein blood represented in the herd of Mr. Peebles. The herd sire, Sir Rigtje Johanna, is by Eir Elmen Johanna and out of Eagle Rigtje Jessie, with a seven-day record of 32.71 pounds of butter fat at four and a half years of age. The sire traces back to Sir Hengerveld De Kol and many other famous sires of the Holstein breed. The offspring of Sir Rigtje Johanna are bought up as fast as they are produced. "If I had a dozen bulls on hand today I could get rid of every one of them in short order for good prices, as buyers are continually trying to purchase any surplus stock that might be on hand," said Mr. Peebles.

The Peebles farm was one of the the first in Fond du Lac county to have a silo. The increase in the dairy herd made it necessary to provide more feed and another silo was erected considerably larger than the first about two years ago. The silage has all been used during the last year with barely enough left for summer feeding. Mr. Peebles figures that from thirty to thirty-five good cows well handled will bring him as much profit as a larger herd containing a greater percentage of inferior milkers. His largest profit for one month was made in April of this year, when twenty-eight cows netted him $610. Two of the twenty-eight were on their last month of milking and were practically dry, so that the returns were in reality made on twenty-six cows.

But Mr. Peebles would not think of milking again without the help of the machine. As a time-saver and labor saver it is worth more to him than any other thing on the farm.

Our readers will be glad to get the benefit of this actual experience. For some time Wisconsin Farmer editors have been looking carefully into the claims of the mechanical milker, and, as is the case with the tractor and other new things coming into general use, we prefer to give our readers the benefit of practical experience rather than to simply hand out claims made. In the main experience with milking machines is very satisfactory, especially where the dairyman will take the same time and pains to handle his machine Mr. Peebles has taken. Quite a few of our readers have felt that the milker was all right for the immense big dairy, but that the smaller dairyman could not afford it. While Mr. Peebles' herd is somewhat above the average there are hundreds of men in Wisconsin who have about the same number of cows. Any dairyman will easily recognize the value of Mr. Peebles' machine as a labor saver in these days when farm help is scarce and when it appears that for some time at least the help problem is likely to grow worse rather than better. It is a time when every possible labor saver—real labor savers which do not cost so much as to make their use prohibitive—should be employed by the dairymen of this state. A loss in production is unthinkable and the limit of human energies on the farms of the state has about been reached. At all events we are very glad to give our readers the benefit of this practical experience from a Wisconsin dairyman well known by name even though many of our subscribers may not enjoy a personal acquaintance with him. Management of a dairy farm, such as Mr. Peebles operates, is not so idealistic that the same success may not be obtained by thousands of others.

DAIRY COWS AND FEED LIKE THIS LEAD TO THE MECHANICAL MILKER.

The Potato Storage Problem.

Temperature of 36 to 40 Degrees Desirable—Bins Should be Small and Depth of Pile Not Over Six Feet.

THE storage of potatoes of the main crop can be accomplished most satisfactorily throughout much of the United States in the dugout pit or potato cellar in some of its various forms of construction, says a recently published farmers' bulletin of the United States Department of Agriculture, "Potato Storage and Storage Houses." In general, the bulletin says, no attempt is made to store potatoes of the early crop, since usually they are sold for immediate consumption.

While the dugout storage house is in most general use, concrete or masonry houses with frame superstructures are, perhaps, most satisfactory in cold climates.

The primary purposes of storage, it is pointed out, are to protect the tubers from extremes of heat and cold and from light. Account also must be taken of conditions of humidity and ventilation and of the size of the storage pile.

The temperature should be the highest at which potatoes can be maintained firm and ungerminated, and which will at the same time hold fungous diseases in check. Experiments of the department with artificially refrigerated storage indicate that 36 degrees Fahrenheit is sufficiently low for all practical purposes and that in the earlier portion of the storage season a temperature of 40 degrees Fahrenheit is just as satisfactory as a lower one except where powdery dry rot infection occurs.

All natural light should be excluded from potato storage houses, because when the tubers are exposed to even modified light they are soon injured for food purposes. A practical rule in regard to humidity, the bulletin already mentioned says, is to maintain sufficient moisture in the air to prevent the wilting of the tubers and at the same time to keep the humidity content low enough to prevent the deposit of moisture on the surface of the tubers.

If potatoes are piled in too large piles they may become overheated and deteriorate. Six feet is a good maximum depth to which to pile tubers in bins, and the area covered by each pile also should be limited. A good plan is to insert ventilated division walls at intervals through the pile or bin. These may be made by nailing relatively narrow boards on both sides of 2x4 uprights, one-inch spaces being left between the boards. General ventilation for the whole storage house usually is accomplished through ventilating shafts in the roof.

The possible ways to store potatoes, says the bulletin, are pits or earth-covered piles, in dugout pits or potato storage cellars, in insulated wooden structures, in substantial masonry or concrete houses and in artificially refrigerated storage houses. The latter two methods are the most expensive. Pitting is the most primitive method of storage, but if properly done on well-drained locations is satisfactory in so far as the preservation of the potatoes is concerned. The chief drawback to pitting is that the potatoes are not always easily accessible in the winter.

The dugout pit or potato storage cellar is probably more widely used than any other type of storage space. Fitted with water-tight roof it is especially popular in the central portions of the United States. In the arid and semi-arid sections a type with sod or dirt roof is in most general use. As a rule, the excavation for the cheaper structures of the dugout pit or cellar type when erected on level or nearly level land does not exceed three feet. The soil removed from such an excavation, particularly if the dugout is of any considerable size, is ample for banking the side and end walls and also for the roof. The cost of construction may be greatly modified, according to the character of the location.

In the cheaper dugouts, where the soil is of such a nature as to remain intact, it is allowed to form the side and end walls, the roof being supported on plates resting on the soil and held together by boards or joists. This form of construction involves a deeper excavation and a constant element of risk from a cave-in. In the more expensive and substantial structures the side and end walls are built of concrete.

Insulated frame potato storage houses are not used very extensively. As a rule, they are better adapted to southern than to northern climatic conditions. The construction feature of such houses is the thorough insulation of their walls, ceiling, doors and windows. This type of storage house is not to be recommended for northern locations, nor is it advocated for the South except where poor drainage conditions will not permit the use of the dugout or cellar style of house. It is not recommended, because it cannot be so economically constructed, nor does it furnish as good a type of storage as the properly ventilated cellar storage house.

The Aroostook type of storage house, with concrete or masonry basement walls and wooden superstructure, seems to be distinctively a product of Maine, and so far as has been observed is not found to any extent outside of the state. It is an expensively constructed house and is almost always located on a side-hill or knoll in order that advantage may be taken of a ground-level entrance. That such houses have proved satisfactory to the potato grower in Maine is evident from the fact that practically no other style of potato storage house is in use in that state.

Book for Farm Library.

Instructive Volume for Young People as Well as for Farm Owner.

Under the title "Productive Plant Husbandry" a 460-page volume from the pen of Kary C. Davis has just come from the press and The Wisconsin Farmer deems it a privilege to recommend this volume to its readers. It is designed to meet specifically the needs of growing boys and girls who are interested in plant problems. The soil itself is given a good deal of attention in this volume and all the principal farm, garden and vegetable crops are taken up in the order of their importance. Then there is a great list of crop enemies, including weeds, insects and diseases, that are considered in the minutest detail. The volume contains 452 illustrations and a contemplation of this fact alone will give some idea as to the attractiveness of the volume, because illustrations always add interest to the text. It is not claimed by the author that this volume is designed to assist the farmer in making more money out of his crops, but it certainly will add to the interest of the work to those who are dealing with the soil or handling any form of plant life. The book will prove intensely interesting to growing boys and girls. The regular publisher's price is $1.75 and arrangements have been made by The Wisconsin Farmer to supply it to its readers at this price.

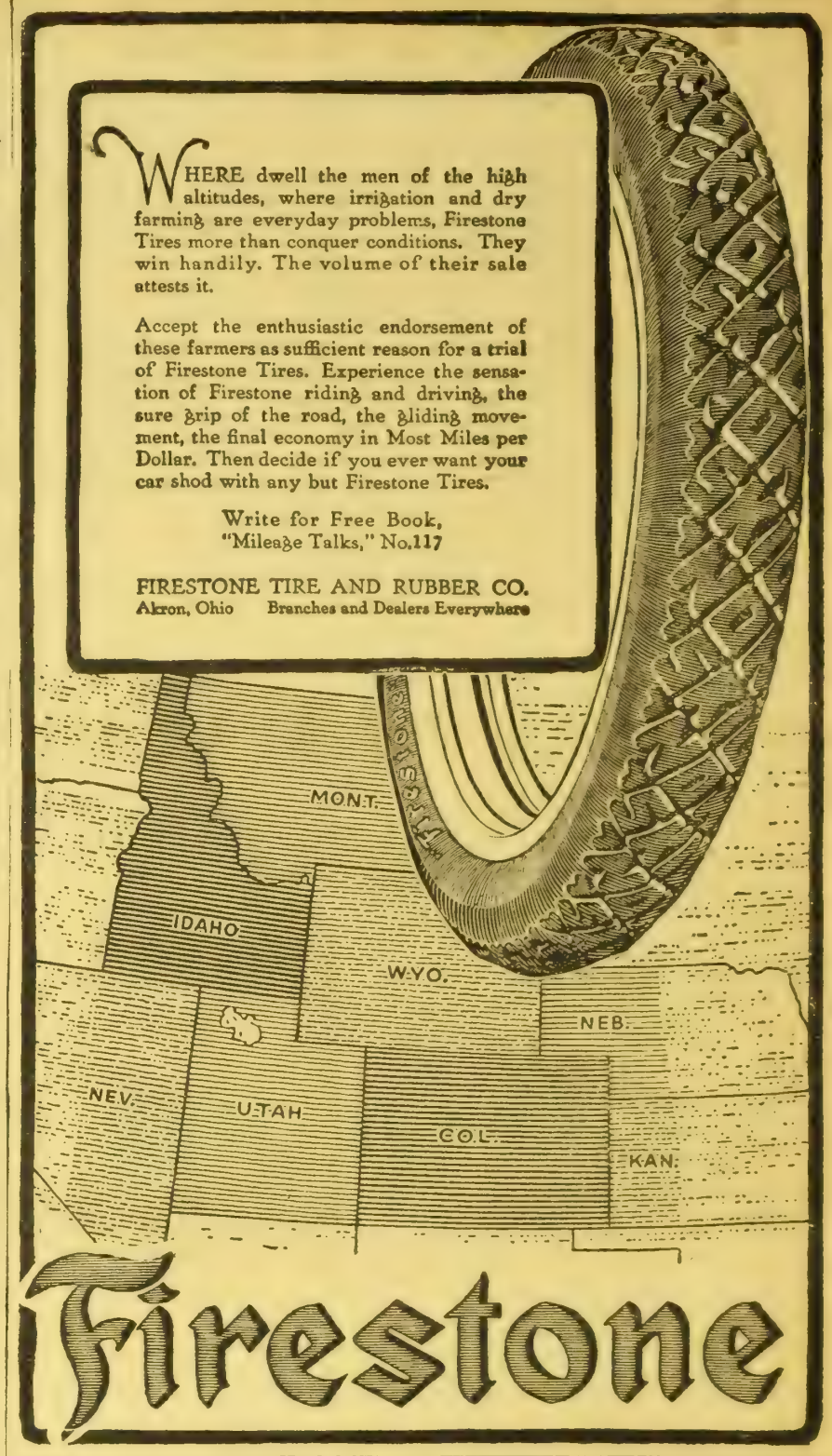
Clover Seed.

To the Editor:—For many years Wisconsin has had an excellent reputation for the quality of the clover seed produced in the state, and there was a time when Wisconsin-grown clover seed would command the highest price on the market. This condition was of great benefit to the farmers of our state who were growing the various kinds of clover seed, because it allowed them to secure considerably higher prices than could otherwise have been obtained. The whole situation is being changed, however, by the presence of weed seeds in the clover seed. The seedsmen tell us that it is no longer possible to sell Wisconsin-grown seed, particularly alsike seed, at a premium, but that because of its condition due to weed seeds, it is necessary in many instances to either sell it at a lower price than can be obtained for other clover seed or else to go to considerable expense to clean it before it can be sold.

Perhaps the worst seed in the state which infests the clover seed is the Canada thistle. It is not often that the seeds of Canada thistles are found in red clover, because the seed crop is usually taken from the second growth and the thistles are prevented from seeding by the first cutting. In alsike, however, where the seed is taken from the first crop, the thistles may become extremely bad and usually ripen at the same time the clover seed does. It seems to be almost impossible to find Wisconsin-grown alsike clover seed at the present time which does not contain more or less Canada thistle seed. This seriously injures the sale of the seed and is rapidly destroying Wisconsin's reputation as a clover seed producing state. Much of the Canada thistle seed could be kept from getting into the alsike clover seed if farmers who are producing this seed would go over their alsike with a mower just while the clover and the Canada thistles are in bloom and clip off the thistles. The thistles grow so much taller than the clover that it is possible to cut them off and prevent them from going to seed without doing very serious injury to the clover. Farmers of this state who are planning to cut alsike clover for seed should take every care to prevent the Canada thistles growing in the clover from going to seed. The quality of the alsike clover seed grown in Wisconsin is excellent and the only thing that prevents it from obtaining the highest market price is the presence of the Canada thistle seeds in it.

We recognize the fact that the labor conditions this year are unusual because of the great amount of wet weather which has kept farmers from keeping their work up to date and that it may be impossible in many instances for farmers to take time to clip the thistles in their clover fields, but wherever it is possible this should be done. There is no question that the time and labor required would be well paid for in the higher price which can be obtained for the seed.

A. L. Stone, State Seed Inspector.



Destroying June Bugs.

To the Editor:—In response to the Pierce county subscriber regarding June bugs, I wish to say that about dusk they will settle and feed on butternut, hickory and burr oak trees. Spread a large canvas under the tree, place a tub with water in it on the canvas, hang a lantern close down to the center of the tub. Then get up in the top of the tree and shake each limb as you descend. When one gets down there will be some June bugs to scoop into the tub. A Subscriber.

The sheep tick is a wingless parasitic fly which spends its entire life on the sheep. It obtains its food by puncturing the skin and feeding on the blood and lymph of the animal. The irritation thus caused, especially in the case of lambs, is great, and the constant drain of blood may in time become serious. Infested sheep are so restless that they do not feed well and are in general less thrifty than tick-free flocks. These conditions hamper the growth of wool and in general lower the market value of the sheep. From a purely economic point of view, therefore, dipping is a profitable practice.

Ask your neighbor to subscribe for The Wisconsin Farmer.

The Wisconsin Farmer

THURSDAY, AUGUST 9, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

SHALL WE HAVE PEACE?

THE time is ripe, in my opinion, for us to counsel together over the possibilities of an early peace. There may be some who regard these possibilities as remote; I do not. Already I can see tiny rifts in the black clouds, forerunners of the dawn's bright rays, the dawn that shall mark the beginning of the end of all war.

On a titanic scale, war is simply a dispute between men. It is a lawsuit between two farmers over a division-line fence, magnified many millions of times. The same rules and principles apply to war, therefore, which apply to our individual differences. Many of us have learned—often by bitter experience—that it is well, at times, to settle our differences outside of court; that litigation is costly, protracted and often wholly unnecessary. What would peace be now, between the fighting powers of the world, save a settlement outside of court of the dispute which sent us leaping at each other's throats? If it is desirable to arbitrate our personal differences and save court costs, is it not a million times more desirable to arbitrate our national disputes and save war costs: millions of human lives, billions of dollars?

One of the parties to the present dispute between nations has evinced a desire to talk peace. Some among us question the good faith of this party in such a situation. But because the man whom we are suing in court, or who is suing us, is the owner of more land than we own, or lives in a larger and finer house, or won the last lawsuit in which he was engaged, is that any reason why we should prejudice our own interests and refuse to hear what he has to offer, at least? We reserve the right to reject his proposed settlement outside of court, if his terms do not appeal to us as fair and right. But shall we not at least hear them, particularly when the lives of our loved ones are at stake, as well as all the property which we have gathered together by such hard work and self-denial and with so many high hopes of the future?

Certain utterances have been made within the last few days, by German and Austrian statesmen, which lead me to believe that peace is not out of the question. Let me mention one or two of these. Within the last week the Austrian-Hungarian minister of foreign affairs, doubtless with the sanction of the German military authorities, made this public statement:

> I am absolutely convinced the entente will never succeed in crushing us, and, since in our position of defense, we have no intention of crushing the enemy, the war will end sooner or later in a peace by understanding.

If "sooner or later," why not before your son and mine are forced to lay down their lives in a foreign land, heroic sacrifices to a war which might have been stopped if the spirit of compromise could only have been magnified sufficiently to cover national disputes as it does individual ones?

Again, the same Austrian-Hungarian minister is quoted as expressing the hope that a peace may be concluded that will "prevent forever" the recurrence of another war. Is this not a sentiment to which all of us will heartily, yea, fervently and prayerfully, subscribe? Who among us desires war? Who among us but would stop this war, and all wars for all time to come, if it were in our power? Shall we not grasp at the chance to restore peace when it is held out to us, not questioning too much the sincerity of the offer until we can learn the details and think it over? Better a "peace by understanding," a million times over, than war with a continued frightful loss of human lives, with fields and feed-lots, factories and stores, homes of low and high degree, confiscated by war's awful needs or leveled by the shot and shell of the enemy.

I believe we should stand by the president; I believe we should continue our war preparedness without the slightest interruption, working night and day to raise our army, strengthen it, equip it and prepare it to take the field the equal of any army on earth. I believe we should set about immediately to become masters of the air, that our aviators may spy out the plans of the enemy and frustrate them. I believe we should work incessantly to solve the submarine problem and to reclaim the freedom of the seas from those who would despoil us of the rights of commerce. I believe we should put our house in order for whatever might occur, no matter at what cost. But if the hand of Divine Providence should see fit to stop our armies before they reached the battlefield, would we not all drop on our knees and thank Him who had saved us from the great sacrifice? And who knows what means Providence may use to hold back the blade from descending upon the necks of our loved ones, what hand may be the one to stop the awful slaughter? Let us hear the peace terms and then counsel together as to whether or not we shall accept them.

WHY THE FARMER SHOULD BE EXEMPTED.

I HAVE the most positive convictions on the subject of the exemption of farm labor from the army draft, as my readers must surely know by this time. I believe it is fully as patriotic and necessary to bring our crops through to a bountiful harvest this year, and next, as it is to take up arms against the enemy. That being the case, I have repeatedly urged that every one of the district exemption boards (which shall decide this important matter) should contain at least one farmer, who would understand farm needs and conditions and be in a position to render justice to the farm boy. I am indeed pleased to find that the farm has been given this representation, in practically every district of the grain belt. But my campaign has not stopped with this. I am now endeavoring to open the eyes of the city members of these boards to the importance of exempting farm labor. A few days ago I received the following letter from a city member of one of the district exemption boards here in the grain belt, to whom I had written a note of congratulation on his appointment. The letter shows an open-mindedness, and a desire to learn and be influenced by the opinions of others, which I find most commendable. The letter follows:

> Dear Mr. Pierce: I wish to thank you very much for your expressions of satisfaction on my appointment to this Board. I think I realize the importance of it.
>
> I would appreciate it very much if you would write me confidentially your views as to the exemptions that should be allowed for farm laborers and farmers themselves.
>
> Of course, you appreciate on the one hand the necessity of the government's obtaining a sufficient number of soldiers, and, on the other hand, the necessity of raising the crops. The difficulty, to my mind, is in distinguishing those men who cannot be spared from those who can readily be replaced. I appreciate that on a farm, to a certain extent, there is expert labor needed; while, to a very great extent, it is merely labor which could be performed by men who are not wholly physically fitted for military service.
>
> Of course, we do not know how many of these cases will come before us, but we will try to do the right thing with reference to them.
>
> Very truly yours, ——. ——. ——.

In reply, I outlined my views, as I have expressed them from time to time in these columns, urging with all the force I could command that the farm boy be allowed to remain in the field and feed-lot, to the end that production might be maintained and increased, and the world be fed and clothed. It might not be amiss to print my reply, in full, as follows:

> My Dear Mr. ——. ——. ——: In reply to your favor of recent date, I wish to say that I have some very positive convictions on the subject of the exemption of farmers from the military draft, and I welcome the opportunity to outline them to you. I am glad, indeed, to learn that you realize the immensity of the trust and responsibility placed upon you, and I am confident that you will do your duty patriotically and in such a manner that no man shall be drafted unjustly nor any be exempted unfairly.
>
> It is my honest, earnest opinion that few, if any, farmers can be spared to the colors this year or next. The president has called on the farmer to increase production to the utmost. The success of the armies in the field and the sustenance of those who remain at home, not only here, but abroad, depend upon this. Production cannot be maintained at its maximum without every worker now engaged. Our duty is to make easier, rather than harder, the task of those upon whom countless millions must depend for their food and raiment.
>
> I call your attention to the fact that here in the grain belt of the Middle West our crop acreage, as a whole, is larger than it was last year. Our winter wheat fields are yielding as high as sixty and seventy bushels to the acre. Abandoned winter wheat fields have been hastily seeded to other crops (thanks to an army of tractors) and will yield abundantly. Our oats fields are returning a magnificent crop. The corn situation is reassuring. We shall produce bumper crops this year, if every man now engaged in field and feed-lot is allowed to remain there, without hindrance. Wheat farmers are planning for a still larger area to be sowed to wheat this fall. The armies now in the field, and soon to be placed there, must be fed next year (and the next, and the next, should the war drag along) more through our efforts than through the efforts of any other people. Production must continue to be increased, else hunger and famine and defeat of the flag must inevitably ensue.
>
> I realize that agricultural exemption must be granted in individual cases, rather than as a class immunity. But no boy or man, within the draft age, should be taken from the farm if his place cannot be filled, without an hour's delay, by an equally efficient and capable substitute. Farming has become a fine art; it is a matter of brain as well as of brawn. It no longer consists merely of plowing the earth, dropping in the seed and awaiting the harvest. It is a mixture of engineering, chemistry, physics, mathematics and various other sciences. I am not arguing that a college education is indispensable to farming success; but I am arguing that practical experience is indispensable. You cannot make a city boy into a farmer in a twinkling, no matter how anxious he may be to become one, no matter how great our national crisis. Production depends on efficiency now as never before. The secretary of agriculture has repeatedly stated, within recent weeks, that this is no time to experiment with unknown crops. Neither is it any time to experiment with unknown workers.
>
> I might cite innumerable instances to you to illustrate the point I have in mind, but one will have to suffice. It is a simple one, conclusive for that very reason. It has happened often and will happen many more times if farmers are obliged to depend upon unskilled, inefficient help.
>
> A near neighbor of mine, a farmer who had planted 150 acres of corn, found himself in the middle of the cultivation season without experienced help. Through a city labor bureau he obtained a man who had had little or no farm experience; willing enough, perhaps, but unacquainted with farm conditions and needs. This man was given a trustworthy team and set to work cultivating the corn. He made a sorry botch of the job from the very first. To make matters still worse, the team (a perfectly trustworthy one, which had never before given any trouble whatever) took matters into their own heads the second day and a runaway ensued, the cultivator being smashed into bits and the horses spoiled beyond all redemption. This man had been warned against just such an occurrence, not because the team was in the habit of running away, but because that farmer knew (as do all farmers) that a team which has once run away is never to be depended upon again; that it is, in fact, practically ruined for farm work. To this day, that particular team is nervous and high strung and can be handled only by the most skilled driver. My farmer neighbor has tried out other men of this type and not one of them turned out to be skilled enough to do the work. Today he and his sixteen-year-old boy are working their 240-acre farm by themselves.
>
> I could duplicate that farmer's story hundreds of times, but the point I want to make is just this: Farm help must be skilled and experienced. The average-sized farm here in the grain belt is about 160 acres. At least two able-bodied men are needed to work a farm of this size the year around. In harvest season, a third man is absolutely necessary. To draft farm boys or men so as to reduce the number of workers, PER FARM, below this minimum number needed, is so to impair agricultural efficiency as to endanger production and military success. I believe our district exemption boards will make a very serious mistake if they take any farm worker, within the draft age, who has worked on a farm for three years or more, who presents affidavit to the fact that he is a skilled worker, who cannot be replaced by an equally efficient worker immediately, or who gives evidence of becoming more useful within the immediate future, than any one who can be found to take his place. In brief, I believe that 95 per cent of the boys and men drafted from the farm should be exempted, and that only those should be taken who are individually incompetent, whose places can be filled without delay or trouble, or whose parents have sufficient money to continue the cultivation of the farm without unbearable financial loss to them. I believe our district exemption boards should show in most positive manner, by their prompt and determined action, that the man in the furrow is doing his bit fully as much as the man in the trench, and that he also fights who stays at home to make the farm yield to its utmost, that there may be no danger of empty stomachs and unclothed backs among the boys who are found to be more useful under the colors than in their wonted occupations at home.
>
> I trust I have made myself clear. I am taking the liberty to enclose some editorials along this line which I have written recently for my farm papers. If you will do me the honor to read them I believe you will learn my opinion in minute detail. I cannot make myself too emphatic on this matter, and I hope that you will see things as I do when the time comes for you to make an official decision.
>
> Once more thanking you for your courtesy and with highest personal regards I remain,
>
> Sincerely yours, JAMES M. PIERCE.

I hope I have succeeded in proving my point. I might have written at much greater length, citing innumerable other instances of farmers' losses from unskilled, inexperienced city help, but the members of the exemption boards are busy men; I preferred to send a short, concise letter, supplementing it with copies of the articles of the same nature which have already appeared in this page of mine. I do not propose to stop here, however. I plan to send a copy of this letter to every member of every district exemption board in the entire grain belt, hoping that by so doing the importance of exempting farm labor may be impressed upon all of them, and our crops may be taken through to maturity, from one end of the fertile Middle West to the other, without a single acre being lost. There is nothing more important at the present time than this, in my opinion. Uncle Sam must raise an army. He must put that army in the field. But in doing this he should not reduce production of that which sustains life: Our herds and our crops. To take the farmer or his help from the field and feed-lot is to bring about hunger and famine; it is to cause the innocent to suffer. I shall work and protest against it to the very end.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin's Campaign for More Silos.

The present campaign to increase the number of silos in Wisconsin surpasses in effort and enthusiasm anything of its kind that has been launched in recent years. Although most of the meetings to encourage farmers to build silos for this season's corn crop have already been held, still much educational work remains to be done, and throughout the coming fall and winter it will be continued until the farmers of the state are thoroughly acquainted with the use of silage for stock feeding. Back of the movement stand the state agricultural college, county soil associations and progressive farmers in all parts of the state. Dairymen, especially, are in sympathy with the campaign, since they have learned to look upon the silo as a foundation pillar of their business.

Starting this year, the campaign is especially timely. A new situation confronts us, which has no parallel in past years. All food supplies are scarce, because vast quantities must be diverted from their usual channels to feed the millions of men at the battle front who can produce nothing. Grain which was intended to feed live stock is needed for human consumption, and yet the demand exists for the usual production of meat, milk and milk products. Obviously the dairyman's problem consists in finding other feed than grain to supply his cows. So far the best solution seems to be in the use of silage, but silage cannot be produced without silos—hence the need of a silo campaign.

In this regard there is another situation which must not be overlooked. The acreage of corn in Wisconsin this year considerably exceeds that of last year, but the crop is late and much of it may never mature in time to escape frost. With a silo it can be saved, but without one the frost may catch it and leave the farmer with only a supply of inferior fodder. While fodder makes a satisfactory feed, silage is more desirable, because it yields more food material per acre of land and suffers less waste in harvesting. Careful experiments show that from 10 to 25 per cent of the food material in cornstalks is lost in broken leaves and stems and in fermentation when they are cured in the shock. The loss in food value of silage will not exceed 5 or 10 per cent under normal conditions. In no other way than with a silage can so much digestible feed be produced on a given area of land. Since three tons of silage contain as much digestible nutriment as one ton of hay, an average yield of eight or ten tons of silage per acre would be considerably more than the two tons of hay which the same land would ordinarily produce. Besides silage is usually a sure crop, while no hay crop can be claimed until it stands safely in the stack or mow.

Of course, silage cannot be fed exclusively with best results any more than can corn or hay, because it falls short of being a balanced ration. Some grain and dry roughage must supplement it, but their amounts may be relatively small. When thirty or forty pounds of silage per head are fed to good dairy cows, the concentrates may be cut down to about eight or nine pounds without decreasing the milk flow. In this connection, however, it must be remembered that animals differ a great deal in their individual food requirements and the effect of silage on each animal must be watched. It may cause trouble with some cows, particularly when it is first used. But when the cows become accustomed to it in the ration it stimulates the milk flow and for milk production it provides a cheap feed of unquestioned importance.

When these facts are brought to light not many farmers will question the value of a silo. Perhaps the silo campaign has already convinced many that silage should have a place in their feeding operations. Then the next step will be for them to act on their convictions. The kind of silo need not cause much concern, since any silo that is air-tight, smooth inside and sturdy enough to stand the strain will prove satisfactory. Practically all the silos made by companies who have faith enough in their product to give it full publicity may be depended upon. There are many good types of wood, stone, concrete and tile, and the farmer can take his choice. The important thing is to choose now, for silo filling time will soon be at hand.

Superintendents and Judges.

Men of wide experience and reputation as specialists in different lines of farming and animal husbandry have been picked to act as superintendents and judges at the sixty-seventh annual Wisconsin State Fair and Exposition, to be held at State Fair Park, West Allis, September 10-15, 1917.

Farmers of Wisconsin are well acquainted with practically all of the department superintendents, including farm crops and county exhibits, E. L. Luther, superintendent of farmers' institutes; bees and honey, N. E. France, state apiary inspector; education, George W. Davies, Sauk county's superintendent of schools and emergency food agent; horses, W. K. Caldwell, Morrisonville, of the State Live Stock Breeders' Association and leading authority on horse breeding; horticulture, N. A. Rasmussen, of the State Horticultural Society and a successful commercial orchardist; poultry, Geo. W. Hackett, North Freedom, commercial judge and producer of poultry; sheep, Ira M. Chryst, prominent member of American Society of Equity; swine, James Dillon, director of the Wisconsin Live Stock Breeders' Association; tractor demonstration, F. M. White, college of agriculture; young people's clubs, T. L. Bewick, state leader of young people's agricultural club work.

These are some of the well-known men who will pick the winners in live stock and the best samples in farm products: Clydesdale and Shire horses, George Hutton, superintendent of University Farm, Madison; beef cattle, E. A. Trowbridge, of Missouri Agricultural College, formerly of the Wisconsin College of Agriculture; dual-purpose cattle, Andrew Boss, University Farm, St. Paul; dairy cattle, except Brown Swiss, Hugh G. Van Pelt, Waterloo, Iowa, formerly with the Iowa Agricultural College; milk and cream, Donald R. Mattson, dairy school, University of Wisconsin; butter, G. H. Benkendorf, dairy school, University of Wisconsin, and C. E. Lee, dairy and food commissioner.

Other judges of miscellaneous products include J. G. Moore, college of agriculture, horticulture exhibits; A. L. Stone, college of agriculture, grains and forage crops; J. G. Milward, college of agriculture, vegetables.

Farmer Must Have Railroads' Help.

The publisher is in receipt of a letter from a large manufacturer of silos who could have sold several hundred silos, so he writes, in Wisconsin this year if the railroads had been in position to ship the materials promptly. Many silos are being erected in Wisconsin this year; in fact, this year and next will probably be banner years in the construction of silos in this state. Many silos are now in course of construction and some are planned which will still be built this season. The silo saves feed and the farmer with two good silos is going to be able to release some grain to add to the enormous quantity which will be needed to feed our home folks, our armies and the people and armies of our allies. The silo would be important if we did not need it to help save grain, as silage has repeatedly been demonstrated as the cheapest form of dairy feed, and, furthermore, experiments show it to be among the very best feeds for stimulating milk production. It is folly for us to preach more silos if freight conditions are to be such that materials cannot be put on the ground for the farmer's needs. Some way must be devised to get these materials into the hands of the farmers, and not only materials for erecting silos but for erecting other needed farm buildings and equipment and also for transportation of implements needed in farm work. How shall we be able to accomplish much by crying greater production, if we shall withhold from the farmer the equipment and tools which he must have to insure such production? The state council of defense, not only our council in Wisconsin but those of other states as well, should carefully investigate and discover whether materials, equipment and tools needed on farms are held back because of poor railroad facilities. If it is found that this charge is true in many instances immediate action should be taken to relieve the situation.

ANOTHER PLACE FOR MUCH-NEEDED FARM HELP.

Work the Soil to the Limit.

A reduced fertility supply will be one outcome of the present cropping program because every many is using his best endeavors to excel all former records. We have in mind one instance where an eighty-acre field was plowed up this spring after being in grass for forty years, the owner's purpose being to do his level best to add to the grain supply of the world.

One of our subscribers, in the following communication, outlines a plan that will, if carried out, bring the soil to its limit in production:

In developing methods to get the best possible returns from a small farm of forty to eighty acres or even less, I have found it necessary to give careful attention to soil conservation. Long years ago I became a firm believer in the feasibility and practice of double cropping, but this system will soon exhaust the soil, unless a thorough application of manure is provided every year, and an intelligent scheme of rotation is adopted.

Either in operating a small dairy, or raising stock for market, one must be prepared to feed through frequent periods of summer drouth. This is absolutely necessary if the milk output is maintained on a basis that will fulfill contracts and bring in the cream checks regularly. Corn comes late in the summer and fall, and in addition to this the winter supply of hay must be provided. Summer feeding seems to be of ever-increasing importance in dairy districts. Then the growing scarcity, or advancing value of land constitutes another question. It needs little argument to show that we ought to improve our farming lands, if possible, accomplish as much on forty acres as formerly we did on eighty or one hundred.

I have always secured practical results by sowing rye for fodder. This is ready to cut and put away late in May, and it can be followed with millet, late corn, cane, feterita, or a dozen different things. Then you come face to face with the problem of soil exhaustion. It would not be wise at all to repeat that process regularly without something put back, and lots of something. Yes, manure is good, but how about getting enough? It can be seeded to clover following the millet, and it should be devoted to clover for a couple of years. Then after that it is fit for almost any crop. If the clover cannot be successfully seeded in the fall, then don't let the soil lie bare, but sow to rye so as to not waste any elements, and plow early and sow the clover with a nurse crop of oats in the early spring.

When a field has produced corn for two seasons, it is proper then to seed to oats and clover, or if you have manured the soil sufficiently, the clover may be left out and the oats followed by late fodder corn, with rye following this. This gives the land a pretty severe trial, but what are we keeping the land for, and had we not just as well work the soil to its full limit? Two years with clover and good applications of manure will give it strength to do lots of work, and I think we are not doing our duty unless we work it to the limit, both ways. Feed the soil liberally and crop it heavily.

Pastures are getting poor here and if the weather continues dry long in many cases the cattle will be consuming the fodder planted for next winter. But even the farmers who have a good sized alfalfa field must push forward on intensive lines. They need the greatest possible diversity consistent with reason, and this they can best secure by giving intelligent study to the system of double cropping and practical rotation, and this is only the duty of every farmer. Are we going to do it and reap good harvests in future years, or will we just plug along and find our farms soon about gone?

This subscriber might have gone one step further and recommended the application of artificial fertilizer. The supply of manure made available each year is only enough to fertilize a very small percentage of our total crop area and after we have used the manure to the limit and clovered the land as much as is practicable there are still great possibilities ahead that may be realized as a result of applying the kind of artificial fertilizer that is best adapted to one's land. Potash is literally off the market, but we have an almost unlimited supply of phosphoric acid, so that in working the soil to its full limit we will fall short of the mark in many instances if we lose sight of the fact that it is possible to greatly increase production and to increase the profit in a given crop by using phosphorus in one form or another.

Work of Alpha Literary Society.

How Farmers' Organization Works for Pleasure and Profit to Its Members--Contributed by Mary Birr, Supervising Teacher.

ALPHA LITERARY SOCIETY, of Morgan, Oconto county, Wisconsin, is three years old. It was organized to interest the boys and girls outside of school in general reading, in reading farm journals, magazines, dairy newspapers and worth-while books.

The first meeting was in a home. Special invitations were sent to each boy and girl in the district, urging their attendance at this initial meeting and explaining its purpose. About twenty were present. Two or three chapters from "Timothy's Quest," by Kate Douglas Wiggin, were read. Everyone was very much interested, and it was decided, upon the suggestion of someone present, to finish reading the book at subsequent meetings. This naturally led to a discussion of the value of an organized club. Before the gathering adjourned the club was legally organized.

At the second meeting, officers were elected, and it was agreed upon that meetings be held regularly every Wednesday evening at the schoolhouse. Everyone who wished to join was asked to write his name in the secretary's book and pay a fee of 25 cents annually. Any boy or girl in this or adjoining districts over ten years of age is eligible for membership.

At the fourth meeting a simple constitution was adopted, and the club was named the Alpha Literary Society of Morgan, the word "Alpha" being inserted because it was the first club of any kind organized in this community.

In the beginning the work was confined to the reading of the book named and a short period of parliamentary drill. Roberts' Rules of Order was used; the drill was conducted by members of the club, but the teacher was the guide. The following winter the story read was dramatized and with the proceeds from the entertainment was bought an organ and two lamps for the school.

The character of the programs has changed from time to time, always based on the needs of the members. Beginning with the second year the programs included recitations, debates, readings, talks, social times and topics relating to local neighborhood affairs. During the winter months of the past year the meetings were really night schools, as this outline of the work done will indicate:

Song.
Reading, by two members, ten minutes. Kipling's "Captain Courageous" and Hale's "Man Without a Country" were read.
Arithmetic, twenty minutes. Farm problems and simple work in fractions, decimals and percentage.
Spelling, thirty words.
Agriculture, ten minutes. Two topics, one assigned, based on farm bulletins, one optional, based on farm journals.
Current events, ten minutes. Two topics, one assigned topic, one optional.
History. Smith's "History of Wisconsin." Report of one chapter at each meeting.
Business meeting and parliamentary practice the balance of the ninety minutes the meeting was in session.

During the months of June, July and August the club meets once in two weeks. The following are some of the topics and talks given at the last three meetings:

Object lesson on folding and displaying the flag.
Flag salute.
Lightning—cause and effect.
Weeds and how to eradicate them.
Clara Barton, founder of the Red Cross.
Cyrus McCormick, inventor of the self-binder.
History of the potato and its diseases.
The common housefly and its danger.
The cabbage worm.
Russia—area, population, surface, climate, products, government, etc.
Value of cultivation and how to cultivate.
Spelling match.
Short readings.

The club had two social meetings the past year, one a marshmallow roast and a community picnic. To the latter everyone in the district was invited. They had a speaker, an abundance of good things to eat and lots of fun.

During the winter they gave a home-talent play called "Back to the Farm." This play is published by the University Extension Division of Minnesota and costs 10 cents per copy. The proceeds from this play was $75, $25 of which was donated to the Red Cross. Every girl member of the club is a member of the Red Cross, wears a button, and is ready to help in any way she can.

Each year the club has had a traveling library from the Traveling Library Commission at Madison. They also own many of the government farm bulletins. We hope to affiliate with the State Reading Circle next year and have each member work for a reading circle certificate.

The club now has a membership of thirty. It is hoped that eventually it will emerge into a community club which will include everyone in the community as an active member.

I believe the club is accomplishing the purpose for which it was organized. There are evidences that the boys and girls enjoy reading more than they did before; they appear more interested in, and are in closer touch with, what is happening in the county, state and nation; and there has grown up between the members an increased spirit of neighborliness, good fellowship and loyalty.

Silos.

To the Editor:—This letter, or article, is authorized and inspired by the State Council of Defense. It is a present, pressing necessity, from a national standpoint, not only that the greatest possible corn crop be produced, but that it be saved in the most valuable condition with the least possible waste. To do this farmers must have silos. Silos will increase the feeding capacity of the farm at least 25 per cent. To increase the carrying capacity of an eighty-acre farm 25 per cent by the addition of land would cost approximately $2,500. Do it by building a $250 silo—build a better one if you can. It will not only be to your financial advantage to build and use a silo, but it is a patriotic duty as well. To feed more live stock—produce more meat, milk, butter and cheese, is the duty of every farmer at this time when the world is hungry and our nation is in a war that will test to the uttermost both the fighting and producing resources of the country.

A silo on every farm is the present war emergency demand. It is a demand of modern, profitable farming in times of peace as well. Everyone should build one this year. If the corn crop matures and is good the silo will be necessary to get the greatest feeding value out of it. If it does not mature—is killed by the frost before it ripens, then you need the silo more than ever. You can get very good results by siloing frosted corn, vastly better than you can get from the crop harvested in any other way. Frosted corn makes good silage, if harvested within a few days after being frozen. Harvested in any other way neither the grain nor the fodder is of much value.

By all means build a silo and fill it full for the winter's use. It will come nearer making for your live stock "a sweet summer time" of the cold winter months than anything you can do for them. Silage is good for all live stock kept on the farm.

The man who has a silo knows from experience the value of it. It is his patriotic duty, and a neighborly privilege as well, to tell the silo story to his friends who are without this necessary modern farm equipment. He can become an effective soldier of his country and a friend of hungry, starving children by enlisting as a missionary to urge silo building. Do it now. Make a list of friends with whom you have influence who are without silos, visit them, or ask them to visit you, and talk out the silo subject. This will be real service to the country and to your neighbors.

Mondovi, Wis. W. L. Houser.

To insure an adequate supply of canned goods for the army and navy the defense council's supply committee asked all the country's canners to reserve 12 per cent of each canner's pack of peas and corn, 18 per cent of tomatoes and 6 per cent of salmon.

30 Per Cent of the Corn Crop's Feeding Value Is in the Stalk

Whether you cut your corn and put it in the silo, or cut it and feed it to your stock in the feed lot, you save money—because thirty per cent of the entire feeding value of the corn crop is in the stalk. You get the use of all of it.

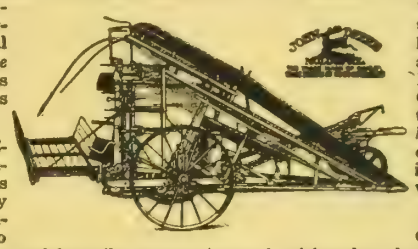
There are times when you can save even more than this by using a corn binder. For instance, when the corn is late in maturing, and there is very apt to be frost before it is out of the way, then it can be cut at the proper time and the entire feeding value, most of which otherwise would be lost, can be turned into big profit.

John Deere Corn Binder

A Labor and Crop Saver

Inspect the Power Carrier—a great improvement.

The John Deere Corn Binder saves corn that is lost by binders equipped with the old style tooth carrier. The power carrier delivers into the windrow all loose fodder that is discharged onto it with the bundles. *Requires no leg power* or effort to operate it. It places all the *bundles out of the way* of the horses when three horses are used abreast.



This carrier is *always ready* to receive the bundles, is easily and quickly removed, and is flexibly connected to the machine—works satisfactorily over uneven ground. In going over ditches, it is not injured. Its weight balances the machine, making the binder lighter draft.

The John Deere Corn Binder misses but little, if any, corn. The gatherers have a wide range of adjustment and are easily controlled to keep the points close to the ground in corn that is down. *Ample capacity* and *prompt elevation are assured* by the clearance in the throat and the flexibility of the long, adjustable throat springs.

Neater bundles are made because there are three packers, the long third packer working close to the butts. The knotter is the same as used on the John Deere, the Better Grain Binder. It is the *most accurate knotter* for the *greatest length of time*, as it has hardened wearing parts.

The John Deere Corn Binder can be turned quicker than the horses turn. There is no dragging of binder at any time. *Square corners can be turned* and the horses are relieved of neck weight. The all-steel, quick-turn tongue truck makes this possible.

Write to us for free book, "The Better Binder."

A Bigger Yield From the Same Field

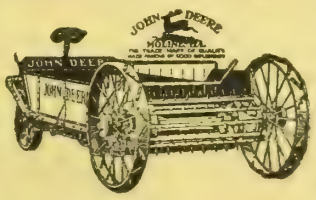
Manure well shredded and spread evenly gets the best results. It goes farther. Plant roots get all of its plant food. On any field that you have been manuring by hand you get approximately a 25 per cent increase in crops by using

The John Deere Spreader

The Spreader With the Beater On the Axle

Ask any farmer who uses a John Deere Spreader. *How much would that mean to you in these years of high crop prices?* And you'll find there is a saving of 50 per cent in time and labor.

Beater on the Axle is found only on John Deere Spreaders. Does away with chains, clutches and half the castings otherwise necessary. *Means better spreading, fewer repairs.*

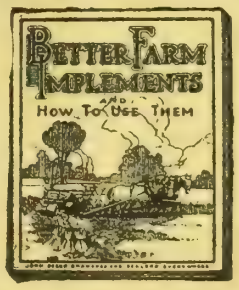


Revolving Rake which feeds manure to beater evenly, and Ball Bearing Apron Drive, securing frictionless apron travel with no racing, are other exclusive features.

Spreader only hip-high—easy to load. Big drive wheels—light draft. Easy to operate—only two levers—a boy can run it.

Write for free booklet on the John Deere Spreader.

Big Book Free



Better Farm Implements and How to Use Them

America must produce more food. Labor-saving implements will play an important part in increased crop production.

This book tells all about a full line of labor-saving farming implements. Tells how to adjust and operate many of them. A practical farm implement encyclopedia. Worth dollars. Illustrates and describes the following machines: Walking and Riding Plows, Tractor Plows, Disc Plows, Disc Harrows, Spring Tooth and Spike Tooth Harrows, Corn and Cotton Planters and Drills, Listers, Alfalfa and Beet Tools, Grain Drills and Seeders, Riding and Walking Cultivators, Lister Cultivators, Mowers, Side Rakes, Loaders, Sweep Rakes and Stackers, Hay Presses, Grain and Corn Binders, Corn Cutters, Stalk Cutters, Kaffir Headers, Manure Spreaders, Portable and Inside Cup Elevators, Corn Shellers, Wagons, Farm Trucks and Buggies. This big book will be sent *FREE* if you state the implements in which you are interested and ask for Package X-640.

Eighty Years Ago

the John Deere steel plow appeared in the agricultural world. Because it met a critical situation and solved it, where other types of plows had failed, it was recognized as the leader of plows, and under its leadership was accelerated the wonderful agricultural development of America.

That plow formed the standard for other John Deere implements—and today each class of John Deere implements is a leader in its field because the basic idea is right.

JOHN DEERE MOLINE, ILL. THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

JOHN DEERE, MOLINE, ILLINOIS

In and Around Wisconsin

A step in wool preparedness is to be taken at the Great Lakes Wool Convention, to be held in Chicago, August 21st and 22d. Wisconsin, Michigan and Minnesota are expected to occupy a prominent part in this convention. Millions of acres of grazing land in the northwestern states are to be offered to offset the 50,000,000 acres of sheep range which has been taken by homesteaders. Representatives of the federal government, state experiment stations, railroads, packers and stockyards interests, wool growers, manufacturers, bankers, sheep breeders and feeders, etc., will be present at the meeting and discuss the wool shortage. It is expected that some practical measures will be taken

Walter Farmer, Gilmanton, Wis., and his entry in baby beef contest.

to increase the immediate supply through the raising of more and better mutton. A program of great interest has been prepared and sheep and wool growers will be interested in attending the session.

The editor of the American Sheep Breeder, Mr. W. W. Birch, says there are a million less sheep in Wisconsin than in 1900, representing a decrease of about two-thirds. Considering the availability of northern Wisconsin cutover lands for raising sheep and the present prices of mutton and wool, it would seem that this condition should not exist. Here seems to be an opportunity to increase production without very much investment. Clearing is unnecessary in most cases for sheep. On the contrary, the sheep help to clear the land and they can do it very economically.

T. H. Campion, county food agent of La Crosse county, after a careful survey of the silos of the county, estimates that the total number is now 1,075, an increase of sixty-two in the past year. Some good work has been done by Mr. Campion, under the direction of the County Council of Defense, interesting farmers in more silos.

Mr. Guy Spiers, creamery operator at Eau Claire and Chippewa Falls, predicts that butter will be very costly during the coming winter. The quantity of butter in storage on July 1st had gone down to 7,000,000 pounds less than last year at the same time. Mr. Spiers recently returned from an inspection trip of several of his creameries in northern Wisconsin and says that he never saw things looking any better in that country. Upper Wisconsin will produce one of the biggest crops of potatoes and small grain in many years, Mr. Spiers believes.

A Burnett county farmer has lost fifteen shoats by poisoning with arsenate of lead, which was used for spraying in the orchard. It was thought possibly that the pigs were poisoned by part of the spray which settled on the grass under the trees. The case is regarded as unusual and, as a rule, there is no danger from spraying, but it appears that it is advisable not to be careless in the use of Paris green, arsenate of lead or any other poisons used to control plant insects or disease.

The Wisconsin Department of Agriculture has issued a warning against hog cholera as follows:

Hog cholera season is now here. The annual losses from this disease in the United States amounts up into the millions of head of swine.

Patriotic duty as well as personal gain demand that these losses be avoided.

The 1917 Wisconsin legislature appropriated $2,000 to the Wisconsin Department of Agriculture to be used in controlling outbreaks. The department will within the amount named endeavor to get in touch with all outbreaks and direct the attack in cooperation with hog owners, local veterinarians, county agents and the college of agriculture.

Notify the state veterinarian at Madison of all outbreaks.

If hog cholera appears in your neighborhood, have your hogs treated with serum. Serum may be obtained at cost from the college of agriculture. If you cannot administer the serum yourself, employ a veterinarian, and if no one in your locality is familiar with its administration, notify the state veterinarian and a deputy will be detailed to aid and instruct in its application.

Speed up and let someone assist you to save your hogs.

Let us save them and not burn them.

Eternal vigilance is the price of clean swine yards in our state. Pork is not only worth too much money to be thrown away by carelessness, but it is very necessary as a part of the food products of the nation.

County Food Agent D. H. Otis, in Waukesha county, has urged farmers who have good varieties of winter wheat to report same to him. He expects to list the seed on hand so that those without seed may get in touch with others that have it. Mr. Otis has been conducting a campaign against flies, urging the removal of their breeding places on farms throughout the county. In the hot summer season he insists that manure piles should be hauled to the field very frequently, and he has also recommended darkened stables and screens and the application of spray mixtures to afford temporary relief.

As a result of the state-wide silo campaign many experiment station workers are expecting that Wisconsin will have 75,000 silos by 1918. Wisconsin bankers are repeating their previous offers to loan money to farmers with which to erect silos. The fact is, however, that not a great many

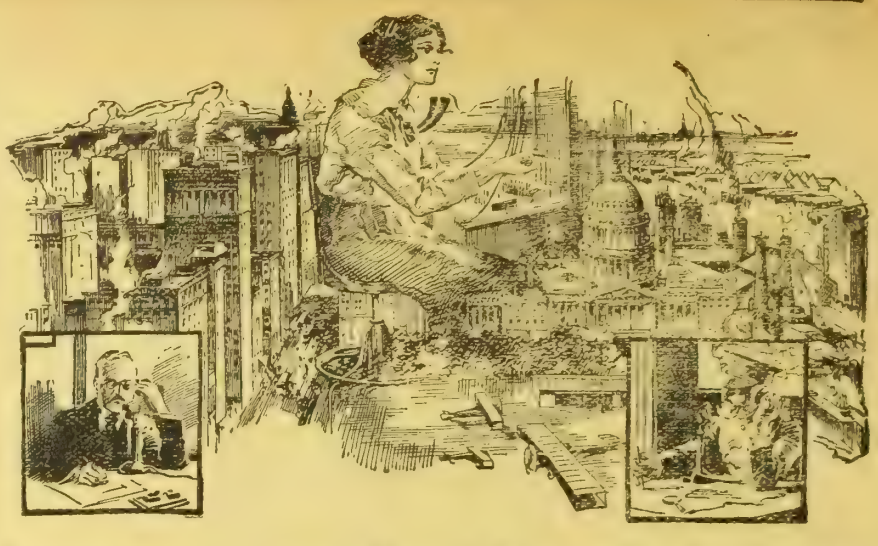
Chas. Skaife, Livingston, Wis., and steer he is feeding in baby beef contest.

farmers need to borrow money to build silos. Most of them have the money or the credit. However, those who don't happen to have it handy and want to pay cash for the silo which is always the best and cheapest way, can easily secure the accommodation necessary at their bank.

Anticipating against a possible wet August and September, warning has been sent to potato growers to spray liberally with Bordeaux mixture to prevent late blight. Four sprayings are usually required to insure against blight. Experiment station workers are keeping a close lookout for the first appearance of blight.

The Hayward, Wisconsin, creamery recently closed its fifth year. Within a year this creamery has paid its patrons over $90,000 for 291,000 pounds of butter fat. T. W. Schuman, buttermaker, has won many honors for his good work in this creamery and the success of the creamery is due in a large measure to his untiring efforts.

The Belleville, Wisconsin, Breeders' Club and Modern Woodmen will hold a monster Dairy Day celebration, September 3d. Representatives of dairy appliances or equipment are invited to make a display on that date.



Answering the Nation's Call

IN this "supreme test" of the nation, private interests must be subordinated to the Government's need. This is as true of the telephone as of all other instrumentalities of service.

The draft for war service which has been made upon the Bell System is summarized in a recent Government report.

Government messages are given precedence over commercial messages by means of 12,000 specially drilled long distance operators all over the country.

The long distance telephone facilities out of Washington have been more than doubled.

Special connections have been established between all military headquarters, army posts, naval stations and mobilization camps throughout the United States.

More than 10,000 miles of special systems of communication have been installed for the exclusive use of Government departments.

Active assistance has been given the Government by the Bell System in providing telephone communications at approximately one hundred lighthouses and two hundred coast guard stations.

Communication has been provided for the National Guard at railroad points, bridges and water supply systems.

A comprehensive system of war communication will be ready at the call of the Chief Signal Officer, and extensive plans for co-operation with the Navy have been put into effect with brilliant success.

As the war continues, the demands of the Government will increase. And the public can help us to meet the extraordinary conditions by putting restraint on all unnecessary and extravagant use of the telephone.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Urging Better Seed.

To the Editor:—In the spring an association of business men in the county was formed to give financial assistance to worthy farmers who were unable to secure it elsewhere. This assistance was mainly for the purchase of seed. No assistance was given the farmers until I had personally visited the farm and determined his actual need. He was then given the seed and his note taken for payment due at the time of harvest. In this way a number of acres had been put into crops in this county that otherwise would not have been planted.

The labor problem has worked itself out in very good shape, although there are farmers who are now short of help. Yet the situation is not at all acute. Many of our farmers want help, but are unwilling to pay wages which are at all attractive.

We have conducted a silo campaign which has brought results. The campaign has not been at all spectacular, but has been able to connect farmers direct with their local silo agent and in this way a number of silos were constructed. Both the silo agents and manufacturers are very lenient regarding the time of payment for silos. The banks have also been willing to advance money for silo construction.

At the present time I am attempting to get in touch with as many farmers as possible that have pedigreed winter wheat or pedigreed rye and urging them to save as much of it as possible for seed this fall. I believe there will be a good demand for both seed rye and winter wheat this fall. If this demand can be filled from good pedigreed varieties the yield will be increased next year and thus the food supply be increased. Henry Lunz,
Emergency Food Agent.

Reports made to the Wisconsin Experiment Station indicate the presence of barley stripe, a fungous disease to some extent in certain localities. According to crop disease specialists, little can be done at this season of the year to control the pest or to reduce the losses caused by its ravages. "The disease," said A. G. Johnson, of the college of agriculture, "carries over on the seed from year to year and appears first on scattering plants when the crop is from six to eight inches tall. The affected plants show light colored or brownish stripes in the leaves. As the plants begin to fill those which are diseased crinkle down and die. Formaldehyde carefully applied controls the disease almost perfectly. It is applied shortly before seeding. After thorough cleaning, seed should be soaked for two hours in one pint of commercial formaldehyde mixed with thirty to forty gallons of water, then drained and spread out to dry. This treatment controls the covered smut of barley as well as stripe disease."

A Practical Seed Corn House.

Dane County Farm Owners Have Worked Out This Problem With a Very Satisfactory Result.

SEED corn houses, like all other buildings, must be planned correctly in order to serve best the purpose for which they are intended. The beginner in the seed corn business often finds that the house so carefully planned and apparently in every way perfect does not meet the requirements of practice. After a year or two the owner knows just exactly where the trouble lies and the next house that is put up will not have the mistakes found in the first one.

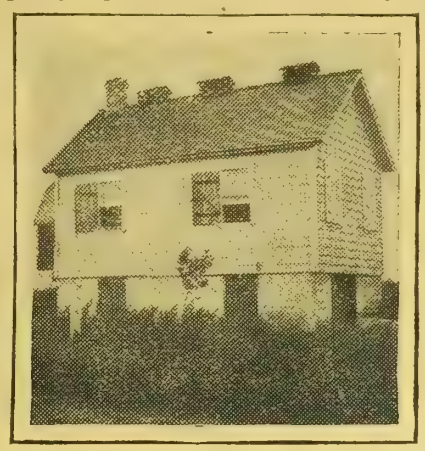
It took Kaltenberg & Sons, near Waunakee, six years in the seed corn business to discover the type of house which would give the best results. The farm is owned by Jacob Kaltenberg, Sr., and his four sons, Anton, Peter, Joseph and Jacob, Jr., and contains approximately 400 acres, of which about one-fourth is planted to corn each year. In 1906 Anton started for the agricultural college at Madison and the very same year, convinced of the possibility of raising seed corn, he brought home twenty ears of Silver King corn, which he carefully planted in separate rows. The following year, 1907, thirteen bushels were harvested and from the thirteen bushels the seed corn business grew until approximately 400 bushels are sold each year to neighbors and farmers throughout the state. Although 400 bushels might not seem so enormous an amount, it is all they can take care of and keep up the quality of the seed.

The first corn was stored in the attic where it was allowed to dry thoroughly with the aid of furnace heat. Later on a seed corn house was constructed 16x16 with a stove in the center and the corn on wire shelves two rows to the shelf. Somehow or other the corn did not dry satisfactorily with stove heat. There would always be some moldy cobs even with the corn that was nearest to the stove. Some of the ears would draw moisture from the other ears and nothing could overcome this difficulty. So the boys kept the house a little while longer until they were thoroughly convinced that stove heat and wire shelves were not quite the proper thing for a seed corn house. It might be for others, but, according to the boys, the results obtained convinced them that a better plan must be followed.

In 1913 they built their present seed corn house which has on top of an eight-foot cement basement a one-room structure 14x22x8 feet. Five windows and a door together with three ventilators on the roof admit the air and wind during the bright, sunny days of fall. Each window has a storm door which can be closed during the cold weather. In the basement a furnace from which six registers are supplied with heat is kept going constantly from October until December.

The corn is picked from the seed field, which is usually about twenty or thirty acres in size, during the first two weeks in October. Seed corn must be picked somewhat earlier than other corn. As only one-fourth of the field is good seed corn, the three-fourths which must be put into the crib, where no special means of drying are provided, is partly spoiled before being entirely fed up. This is a loss, however, the seed corn man must stand or else go to the expense of picking a field over twice. After the seed corn has been picked it is taken to the seed corn house and hung on a homemade hanger, which consists of an ordinary pine tobacco lath four feet in length and having on each side sixteen of the twenty-penny finishing nails. By means of a hook two laths can be combined and thus hung from rods attached to the rafters and running the length of the building. One man can, with a little practice, soon learn to hang ten bushels of corn an hour. The advantage of the lath hanger over the wire hanger is the rigid center which can stand the push of the ear as the butt is forced upon the nail. The hangers are about three inches apart on the rod and 400 bushels can thus be placed in this small space without much trouble.

For the first month the five windows and the door are kept open every day in order to allow plenty of circulation in the house. The fire is started the second week, however, and continued until the final day. After the first month the house is partly opened for two weeks—just



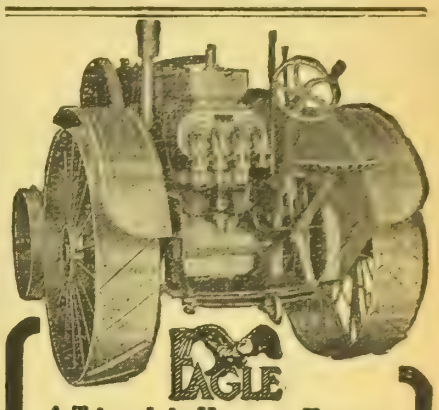
Heated, well-ventilated seed corn house on Kaltenberg farm, Dane county, Wisconsin.

enough to allow plenty of circulation at all times. On the nicer days all the windows are opened. From then on until the end of December the building is kept closed, but the heat coming from below and the ventilators on the roof provide plenty of circulation. When the corn becomes like glass so that about one-half of an ear will shell off when it is dropped on the floor the process is finished. It is then safe to send the corn by express or freight during the coldest weather without any injury to its germinating powers. When corn has not properly dried out cold weather will affect the vitality of the germ and a lower test results.

Raising seed corn is not as simple as it appears nor can quality seed be placed on the market without expense or trouble. This seed corn house is the result of many years of close observation and was erected at a cost of nearly $300. The drying out process costs in fuel better than $5 a week. The corn not fit for seed, but picked somewhat earlier constitutes a loss because it is of a lower quality for feeding purposes than corn picked later when it is mature. The extra work and the chances for poor germination which would make the corn valueless as seed must also be considered items of expense. All these things do not make the actual profit from $3 or $4 seed corn as large as many people suppose.

The best of the seed corn is used each year for planting the home field. The corn land which is to produce the seed is carefully chosen from pasture sod land which has good drainage and plenty of fertility. During the winter manure is added to this land to make the yield for the coming year as large as possible and give the corn every opportunity to develop properly. Between twenty and thirty acres are planted for seed purposes each year.

Responses to the appeal for householders to help the food supply by raising their own foodstuffs as far as possible have been particularly encouraging, the national emergency food garden commission announced recently. The increase in the number of food gardens for the whole United States is 222 per cent. This gain represents a total of 1,175,000 acres, according to the best figures obtainable. The commission estimates that the value of the food to be raised in home gardens this year will approximate $350,000,000. Much of this food will be raised on vacant lots and tracts not heretofore cultivated, making the increase all clear gain.



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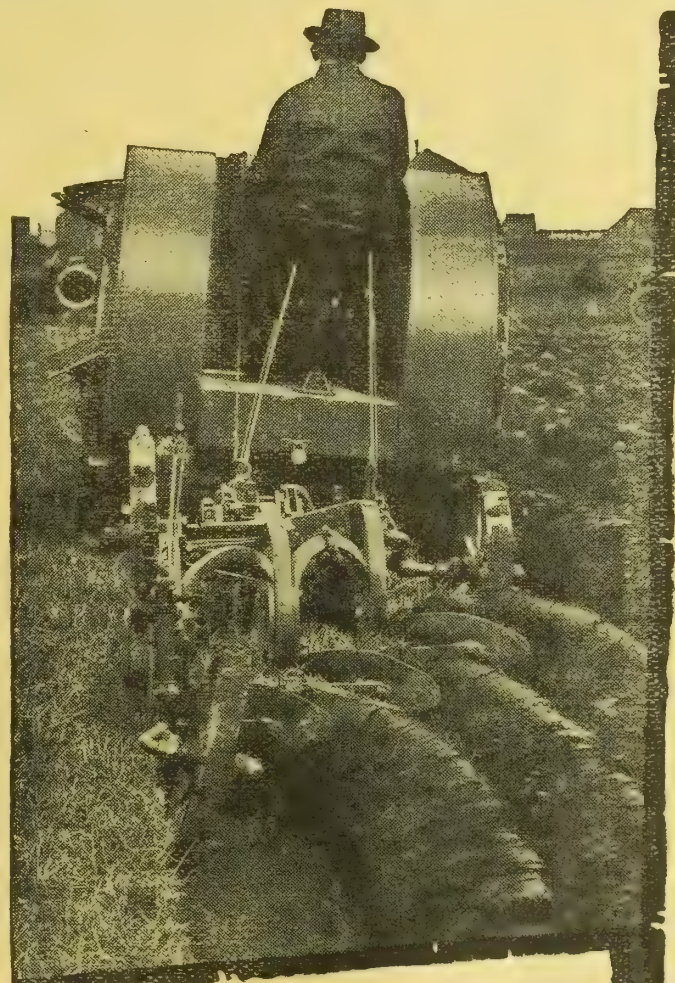

The Light Tractor With the Heavy Pull

ALL fields are alike to this tractor. It has pulled plows through heavy clay and worked soil where water stood several inches deep—it has demonstrated its ability under all conditions. A Waukesha tractor motor gives it abundant power for plowing, discing, harvesting, hauling large loads and handling heavy belt jobs. Yet this tractor is light enough for the small power jobs on the farm. The

TURNER Simplicity

tractor is adapted to farms of average size and is built for all-around farm work. Although light in weight it has great strength—can be relied on to deliver 2,000 pounds constant pull at the draw bar. Simple control—handled with a single gear-shift lever. All working parts run in a bath of oil and are enclosed in dust and dirt-proof cases. Standard design—only the most approved and tried-out principles are used. Equipped for kerosene or gasoline. As good in every way as the famous Simplicity farm engine, having thousands of satisfied users.

Tear out this ad, write your name and address on the margin and mail for descriptive literature. Mark a cross under the Simplicity Farm Engine and Feed Cutter if interested in these products.

TURNER MANUFACTURING CO.
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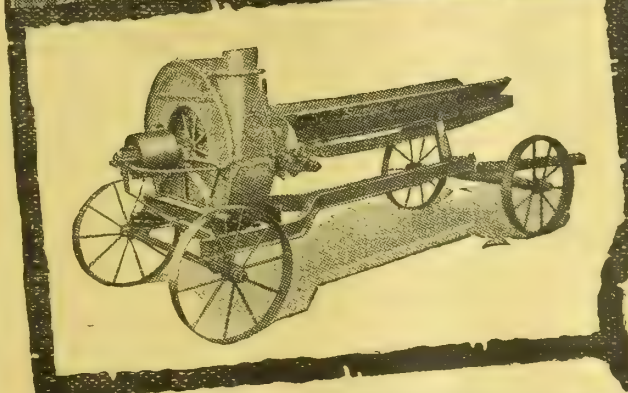
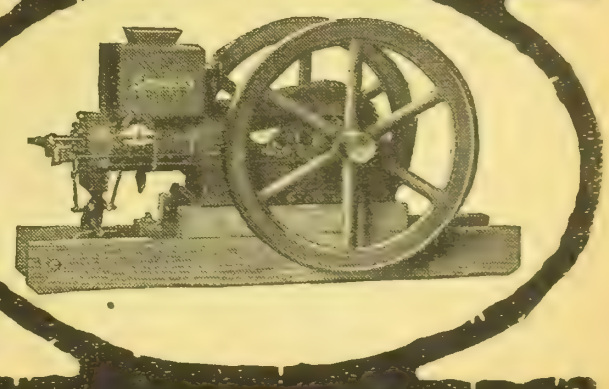


Simplicity Blower-Cutter noted for its great capacity and economy of operation. Many exclusive features which insure efficiency and durability.



New Simplicity kerosene engine. Throttling governor insures smooth running. Special carburetor provides perfect mixture. Burns kerosene without smoke or carbon.

Good Yield of Hay in Wisconsin.

Clover and Timothy Show Fine Quality—Small Grains Are Splendid—Corn Is Still Late.

WISCONSIN.

Adams County.—Clover and timothy hay are harvested and the yield averaged about two tons per acre. Oats are doing fine and if nothing happens there will be a good crop on the low lands. Rye is about ready to cut. Corn is growing rapidly. We will not have many apples this year. Gardens show fine condition. Early potatoes are in blossom. Young stock are healthy. Pastures furnish plenty of food on low land. Dairymen are not feeding heavily because of the high price of grain. —Louis Wollert.

Burnett County.—Haying is in full blast and the weather is ideal for it. The crop improved much during the last few weeks, and the yield will be about 75 per cent of that of last year. Grain is in excellent condition. We will have bumper crops of grain and potatoes if hot weather does not come just before the harvest. Corn is doing fine and there will be plenty of silage. Cattle show good condition and all farms are well stocked. The milk flow is falling off on account of flies. Pastures are good. Weather is very warm. —Fred Larson.

Chippewa County.—Grain is far enough along so that heat cannot injure it. Oats and barley look well. Some of the hard grain is now being cut. The hay crop was about half as good as last year. Corn is growing rapidly and will make good ensilage. Potatoes look well and if the blight and dry weather does not hurt them they will produce a good crop in this part of the state. Garden truck is fairly good and fruit looks fine. Live stock are doing fine.—Gustave E. Rheingans.

Clark County.—With favorable weather haying will soon be finished. The crop will be large with clover and timothy of fine quality. Grain looks well, but seems to be ripening too fast. Corn is catching up with the season. New potatoes are on the market. Fruit will not be abundant. Dairymen are depending mostly on pastures for stock feed.—Fred Ackerman.

Grant County.—Barley and winter wheat are harvested and oat cutting has begun. Oats will be of better quality than last year. The weather is very hot and corn and late potatoes need rain. Hay has been put up in fair shape and seems to be normal in yield. Pastures are getting dry. The heat has cut the milk flow considerably. Early potatoes are good, but there are only a few in the hill. Live stock show good condition.—P. R. Stoffel.

Kenosha County.—Haying is well along, but the crop is not as heavy as last year. The quality is good. Harvesting of rye and barley will begin this week. The crop is better than last year, although it lodged to some extent. Cabbage, beets and onions are in fine condition. Potatoes are good and some early potatoes are now being marketed at $2 a bushel. Frequent rains have kept feed growing well and cows are keeping up the milk flow. Gardens are producing well. The prospects are good for a second crop of alfalfa. Corn has grown very rapidly during the last week.—Geo. Kreuscher.

Kewaunee County.—Haying is about three-fourths done and the crop shows fair quality. Corn is three week late, but is growing nicely at present. Small grains show good promise and barley has commenced to ripen. Pastures are very short and there is quite a falling off in the flow of milk on account of hot weather. Potatoes look fine and garden truck promises well.—W. C. Katel.

Marinette County.—Meadows of last year's seeding made a heavy hay crop and most of it went into the barn in good condition. The old seeding did not yield so heavily. Some timothy is yet to be cut. Corn is growing nicely, but still remains late. Early potatoes are coming onto the market and the price is falling rapidly. Winter wheat looks fine and will be ready to cut in a few days as also will rye. Oats look well. The yield of this crop will be good if the weather does not get too warm before harvest. Pastures are drying up to some extent. Only a small per cent of the dairymen here feed grain to their cows. Gardens look fine. —W. B. Sanderson.

Monroe County.—Haying is nearly done. The yield is about one-third heavier than last year and of very good quality. Winter wheat which was cut here made about thirty bushels per acre. Spring wheat looks well. Early oats are being cut and may make fifty bushels per acre. Corn is growing rapidly and will make a good crop. Pastures are good because of frequent rains and cows are doing well. The creamery is getting more cream than last year. Gardens never looked better and potatoes promise a good yield.—D. F. J.

Oneida County.—The hoy crop will run about one and one-half tons to the acre. About half of it has been cut; the new seeding of clover was good, but the old meadows were poor. Grain looks well. Barley will be ready to cut by the last of the week. Hot winds and dry weather are damaging small grain in some parts of the county. Potatoes will make a big crop if rain comes soon. Corn is doing fine. Cattle are not doing well on account of dry pastures and flies. There are about 20 per cent more cattle than last year and fewer calves are being killed for veal. Garden truck is good.—A. Blumenstein.

Pierce County.—Rye and barley are being harvested and reports indicate a good yield of fair quality. Wheat and oats are ripening rapidly because of the hot southwest winds. Potatoes are doing well, but will need rain soon. Considerable clover was damaged in the first part of this season, but most of the crop was put up in good shape with a yield of about two tons per acre. Timothy was rather light and probably will not average more than one and one-half tons per acre. Corn is doing fine and will make a good yield if the warm weather continues. Pastures have been good and live stock are in fair condition.—T. B. Eaton.

Racine County.—Warm weather during the last two weeks has helped the corn very much. The hay crop is being harvested and the yield averages about two tons per acre. Dry weather favors harvesting. The grain harvest has not started. Oats and other grains show good condition and promise heavy yields. The fruit crop looks well, especially cherries and small fruits.—Chas. Jeffery.

Sauk County.—Hay has been put up and gave a good yield, much above the average for this section; in addition the quality was fine. On sandy land the yield ran about one and one-half tons per acre and on heavier soil about two and one-half tons. Rye is in the shock and from indications the yield fell below normal. A few small fields of wheat look well. Corn is growing rapidly, but will not mature without a very late fall. Potatoes are making a good growth and promise a good crop. —A. H. Buehler.

Trempealeau County.—Most of the winter wheat and rye are harvested, and some of the barley. Excessive heat and drouth damaged the oats and corn. Oats cannot be helped, but rain would do the corn and potatoes much good. In fact, rain must come soon in order to make even fair crops in this section. —C. J. K.

Washburn County.—Small grains look fine. Corn is growing nicely and has a fair stand. Potatoes are excellent. Hay and pastures are rather short.—J. W. McCulloch.

Walworth County.—Weather has favored growing crops during the last ten days, but there has been too much rain for haying. However, this work is nearly done and the hay crop was much better than we expected. Barley and rye are nearly ready to harvest. Grain crops are very promising, but will lodge badly if a storm comes. Early potatoes are good and late ones promise a good yield.—Arthur Ewing.

MINNESOTA.

Mower County.—Corn is doing nicely in this section, except on the low land where rain and cold weather have almost ruined it. Oats will make an average crop. Barley is good and some of it is being harvested. The hay crop made a splendid yield. Stock cattle are scarce. There are fewer horses raised here than formerly; automobiles have put the driving horse out of business. —Walter H. Martin.

Requests For Wisconsin Trained Men.

To the Editor:—During the year closing July 1, 1917, the dairy department of the University of Wisconsin has been asked to recommend men to fill the following positions:

Buttermakers, 183; helpers in creamery, 24; buttermakers and ice cream men, 14; cheesemakers, 176; helpers in cheese factory, 4; combined butter and cheesemakers, 16; managers of factories, 16; ice cream makers, 12; cow-testing association men, 4; city milk plants, 27; city milk inspectors, 6; condensed milk factories, 35; factories wanted to buy and for sale, 23; dairymen, 8; traveling men, 3; oleomargarine factories, 7; instructors in other colleges, 25. Total, 583.

The manufacturers of dairy products are realizing more than ever before the greater value of trained men over untrained men because they are beginning to understand the importance of the small leaks and losses from waste that trained men will notice, but careless operators will allow to go to waste. Thus a saving of 25 cents per day on fuel, 10 cents on oil, 10 cents on salt, 5 cents on color and $1 on the waste of butter fat in the handling of milk at the cheese factories and cream at creameries may amount to $500 or $1,000 a year in a single factory.

It is estimated that there are at least 3,000 creameries, cheese factories, milk plants and ice cream factories in Wisconsin. If the operators, managers and patrons of each one of these can be shown the saving through many small economies, the result will be a great increase in the total food and fuel supply of the country.

The following points should be given special attention in all of our factories at the earliest possible moment:

Methods of Saving Fuel at the Factory.—Coal probably will cost from $8 to $10 a ton within a short time, and since losses amounting to $1 per day may easily occur in firing the factory boiler, it is important that this question should be given serious consideration.

Prevention of Mold in Butter.—Moldy butter was the cause of considerable losses in Wisconsin butter last year. This trouble will, no doubt, arise again, but it may be easily prevented when the simple method of steaming both the tubs and the liners is thoroughly understood and practiced.

The Value of Skim Milk.—Farmers should realize that skim milk is worth 75 to 80 cents per hundred pounds for feeding stock at the present time instead of 30 cents per hundred as has been estimated in years past.

The Control of Moisture in Butter and in Cheese.—A factory cannot afford to be careless on this point, especially when the present high prices of these products prevail, as a uniform moisture content in both the butter and the cheese each day will materially affect the gross amount manufactured at each factory.

Some of the points to be noticed in connection with this campaign of saving food and fuel are the following:

1. The losses of butter fat in buttermilk, skim milk and whey.
2. Actual yield obtained of the product manufactured.
3. Is the yield up to the legal standard?
4. Are unnecessary overweights given in packages?
5. Is a record kept of actual weights of products sold in each shipment?
6. Is there an opportunity for saving of fuel by covering steam pipes?
7. What is the condition of the boiler?
8. Are there any leaks in steam pipes?
9. What is the accuracy of the thermometers used?
10. Is the milk and cream thoroughly mixed before sampling.
11. Is the equipment for testing the moisture content of butter and cheese made each day, up to the highest standard desired?
12. Are the rinsings of the milk and cream cans saved each day?
13. Do you understand the feeding value of skim milk, buttermilk, and whey for feeding farm pigs, calves and chickens?
14. Is the food value of milk, cottage cheese, butter and other dairy products understood by both the producer and the consumer?

This saving of waste and reducing losses in the manufacture of dairy products will be one of the special features of the next winter dairy course, which begins at Madison November 6th. E. H. Farrington.

In Chippewa County.

To the Editor:—All crops in this portion of the state were looking fine up to August 1st with the exception of corn. Corn was very poor in most cases with, however, some very good fields in the lighter soils. The farm help question is indeed a serious one. There are some farmers who feel that they might as well let the crop spoil as pay $3 a day and board. I have seen more women and children in the hay fields this last week than I ever expected to see or thought would be necessary, and the weather was terribly hot, too. I do not see how the women could stand it. I am afraid that some of the women will look like the women in the story by Edna Ferber, "Fanny Herself," in the American Magazine, which your editor objected to so strongly as not being typical of the American farm women. Well, I know Wisconsin pretty well and too many of her women will stand up under the description of Edna Ferber and I am sure that I do not know any remedy for it. We are on the watch here for blackleg and hog cholera. We are also urging farmers to sow Wisconsin pedigreed rye this fall, as it will produce from five to ten bushels per acre more than the ordinary rye. The farmers near Bloomer, where the condensery is just starting, are trying to figure out the value of skim milk. There should be some experiments tried out right around here to find out what it is really worth to feed pigs. I have held a good many meetings in schoolhouses, with good audiences, preaching the gospel of good citizenship, better business methods for the farm, more sunshine in the heart and music in the soul, and I hope it is worth while. W. C. Bradley.
Chippewa County Food Agent.

Successful Crops

You may be certain of big profitable crops if you adopt the most up-to-date method of seed grain treatment as recommended by the U. S. Dept. of Agriculture—

FORMALDEHYDE
The Farmer's Friend

This powerful disinfectant destroys grain smuts, rust and fungus growth. It prevents flax wilt, also scab and black-leg diseases of potatoes. It rids stables and chicken houses of disease germs and flies. Formaldehyde is surely a great boon to the farmer. Our Formaldehyde at your dealer, 35 cents in pint bottles will treat 40 bushels of seed. Big illustrated Hand Book sent on request—free.

Perth Amboy Chemical Works
100 William Street New York

GET EVERY SPUD

This year, of all years, it is important to get all of your crop out of the ground. Every potato you harvest means money to you. Every potato available will be needed for food consumption. You are sure to get all of your crop if you use the

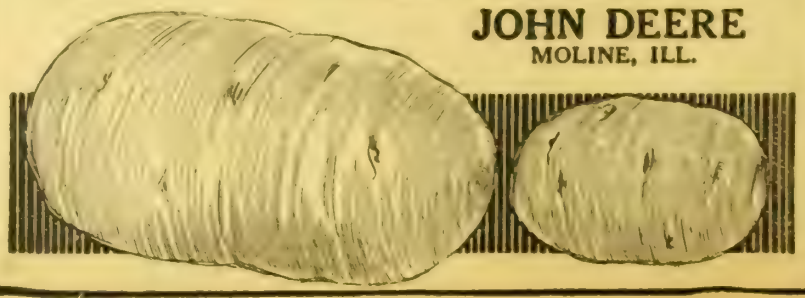
Hoover Potato Digger

Built in a variety of styles.

Besides getting all of the potatoes the Hoover digs your crop at less cost. Indications point to a big shortage of farm labor this fall. A Hoover Digger is crop insurance. It enables you to dig your crop in the shortest possible time. Digs as fast as any ten men. Delivers all of the potatoes in rows—every one exposed. The Hoover can be furnished with picker attachment. Potatoes can be delivered in crates or dumped in piles.

Hoover Diggers are built to last—built almost entirely of steel and malleable castings. The sides of the elevator made of structural steel. Elevator rods are offset. Potatoes do not roll back. This construction promotes separation. Dust-proof roller bearings are used in all important bearing points. Write for booklet covering the full line of Hoover Potato Diggers. Ask for package P—64

JOHN DEERE
MOLINE, ILL.



CURRENT EVENTS.

THE fourth year of the war opened last week with authorities differing as to which side has the advantage. One goes so far as to say that Germany would gladly have traded all her colonial possessions (all the territory she has lost so far) any time for Belgium, and that she not only has practically all of Belgium today, but a good slice of France, Servia and Roumania and a lot of territory in Russia. No fighting has yet occurred on German soil, so that Germany has not yet been forced back to her own frontier to assume the defensive. On the other hand, the losses of men and guns are said to be heavier with the Germans than with the allies, so that Germany's man power is slowly but surely suffering. The Germans still have sufficient men, however, to enable them to rush forces from one part of the battle line to another to strengthen their defenses whenever the allies open up a new campaign. Authorities also differ as to how much longer the war will last. There are none who predict that it will come to a close before the fall of 1918, while many assert that it will run at least three years more. When the war broke out, in August, 1914, Lord Kitchener predicted that it would last three years and there were many who derided his predictions. Time has vindicated him, however. Peace talk is heard every little while, largely emanating from Germany, but it almost always follows some temporary victory for the Germans and comes at a time when peace, if made, would be in their favor. The allies have shown no intention of making peace until the German military power has been broken, and this seems almost as far off today as it did one, two or even three years ago.

THE French and English troops began a new drive against the Germans last week and met with considerable success. The first trenches, for several miles, were wrested from the crown prince of Bavaria after one of the most terrific artillery bombardments of the entire war. The German troops were sadly demoralized by the unending hail of missiles and were captured by many thousands together with numerous guns. When the news of the drive reached Washington, the authorities there were greatly encouraged. The possibilities of the new offensive produced the suggestion that if the allied front could be extended to the Dutch frontier, the Netherlands government might join the allies. Recent reports from neutral sources indicated that the Germans feared some such action by their little neighbor. In that connection, it has been noted that numerous small German steamers lying in Dutch waters since the outbreak of the war have been captured or destroyed recently while attempting to return to Germany, and that several divisions of German troops have been reported massed along the Dutch frontier. Holland has maintained strict neutrality thus far, but if it could be enlisted on the side of the allies the advantage would be a tremendous one.

A DELUGE of personal inquiries concerning future steps in the army draft, and of pleas from industrial concerns for exemption of their expert workers, drew from the provost marshal's office at Washington a statement that questions must be addressed to local boards and that claims for industrial and agricultural exemption must go later to the district boards. No general class of workmen will be exempted, Provost Marshal General Crowder told the coal production committee, which sought information whether miners would be left at their work. Appeals to the provost marshal's office from employers on behalf of their workmen can accomplish nothing, it was explained, as regulations promulgated by President Wilson govern all exemptions. "The question of whether a man is more useful to his country in a peaceful pursuit than in military service is a matter to be taken up with the district board," said an announcement, "and for that board to determine in the light of the circumstances surrounding each individual case. Procedure in case of claim for discharge on the ground of industry or agriculture is explicitly outlined in the regulations. Only the upper or district board has jurisdiction of an industrial claim for discharge."

THE enormity and variety of tasks confronting American army engineers in making the expeditionary force in France a single organic unit, independent of French and British aid, were emphasized by the officers of the chief of army engineers in a statement last week. Not only must miles of railroads with their narrow-gauge spurs be built, and bridges, roads, wharves and piers constructed and repaired continually, but lumber for a score of purposes must be cut from the forests of France by a regiment of trained foresters; great underground electric power houses must be established to supply current to the trenches and dugouts; scores of wells must be drilled and miles of water pipes laid through American camp cities somewhere in France. Sign painters and artists will have to be taught the craft of "camouflage" to conceal military operations from the enemy; expert miners will direct vast underground burrowing; battle maps of enemy territory must be made and a multitude of hospitals, refrigerating plants and machine shops are to be constructed.

IN a vigorous speech carrying with it an appeal to arms, for all able to bear arms, against German autocracy, Theodore Roosevelt declared America is only half awake to its task. He assailed the theory that the war can be financed by a tremendous tax on incomes and declared for heavy and progressive taxes on excess profits. "A reasonable profit should be given on government war contracts," he said, "but no man in America has a right to become tremendously wealthy as a result of this war. We are in a war and our first business is to fight," said Mr. Roosevelt. "Only a few months ago I heard people say they would give money, potatoes and other things, but would let someone else fight for them. That is pawnbroker patriotism. The foremost place in patriotism is that of the American who actually goes to face shells and cannon." In another brief address Mr. Roosevelt said all his kin who were eligible had "lined up" for military service and that "it isn't my fault that I'm not over there now."

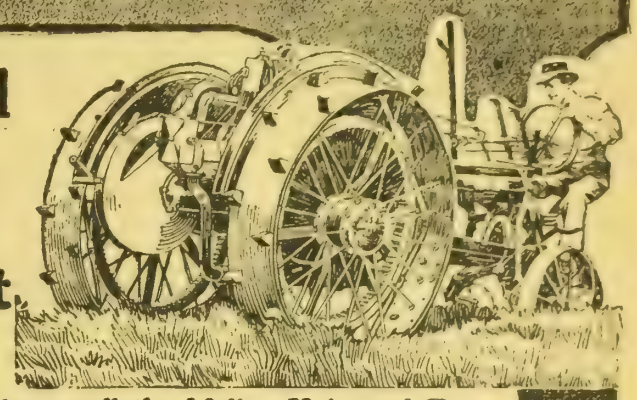
REPORTS of the first selection boards to fill their army quotas for the selective draft will give the first definite information on probable percentage of rejections for physical reasons or on account of dependents. All available statistics indicate a probable rejection of one in every four for physical disability. The average for the whole country is expected to be between 25 and 30 per cent. There is no available data as to the dependents or industrial exemptions. Some officials expect the lowest rejection and exemption rates will be in well-to-do communities, such as suburbs of large cities, where men of comfortable incomes make their homes, and their sons have had better food, care and surroundings than factory hands of near-by towns and should be in better physical condition. In factory towns, the rejection rate for physical disability probably will be high, as the men are confined six days a week at their machines. Virtually every married man of those registered in these places is the sole support of his wife and children and such men cannot be taken.

AMERICA will win the war, Herbert Hoover, food administrator, declared in a statement, because of its superior resources and through the ability of the American people to organize. The success already evident of the nation's voluntary food conservation effort, Mr. Hoover said, points to a final victory. "Germany accomplished less in this direction in twelve months," he said, "than our people have in four. The only need of legislation and authority is to curb those who would profit by this voluntary movement." More than 2,000,000 women, Mr. Hoover announced, have enrolled as members of the food administration and pledged themselves to follow its directions as to saving food within the household. Within sixty days, he added, many more millions will have become members. "No one can rightly be gloomy over the outcome for the American people in this war," Mr. Hoover said. "Success in this war is a question of resources and the will and ability of the people to organize themselves to use them rightly and to endure."

THE senate of the United States last week passed a resolution providing for the submission to the states of a prohibition amendment to the federal constitution. The vote was sixty-five to twenty, eight more than the necessary two-thirds. The resolution now goes to the lower house of congress for action there. It reads as follows: "The manufacture, sale or transportation of intoxicating liquors within, the importation thereof, into, or the exportation thereof from, the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited. This article shall be inoperative unless it shall have been ratified as an amendment to the constitution by the legislatures of the several states, as provided in the constitution, within six years from the date of the submission thereof to the states by the congress. The congress shall have power to enforce this article by appropriate legislation." Twelve democrats and eight republicans voted against the measure; Lewis, of Illinois, and Reed, of Missouri, being the grain belt's representatives who voted in the negative. The matter was rushed through so as not to interfere with other legislation and in an endeavor to transfer the fight to the various states rather than to make it a national one.

AT the beginning of the fourth year of the war, last week, the German kaiser issued a proclamation in which he declared the victories of the past three years would be continued and that the enemy could not prevail against the strength of the German arms and the righteousness of their cause. Among other things the "war lord" said: "The enemy is stretching out his hands toward German territory, but he shall never have it. New nations continue to enter into the war against us, but that does not frighten us. We know our strength and we are determined to make use of it. They wish to see us weak and powerless at their feet, but they shall not prevail. They received disdainfully our words of peace; they did not know how Germany could fight. Throughout the world they have slandered the German name, but they cannot extinguish the glory of German deeds. Thus we stand erect at the close of this year, unmovable, victorious and intrepid. Our trials may still await us, but we shall meet them with a grave mien and full of faith. Throughout the three years' achievement the mighty German people has become firm in its resistance against all that the power of the enemy can conceive. If the enemy wishes to prolong the sufferings of war they will weigh more heavily upon him than upon us." The allies refuse to take the German hints at peace as serious or as being made in good faith. They are a unit opposing any peace which does not provide for the complete restoration of Belgium, which Germany has not as yet conceded in any manner whatever.

Fits Your Farm



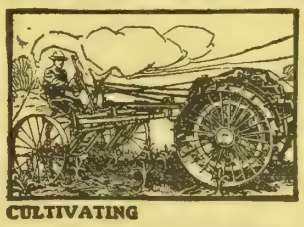
Does All Farm Work Without Horses

See for yourself how well the Moline Universal Two-Wheel Tractor FITS YOUR FARM. It *cultivates* as well as plows. It works on plowed ground without packing the soil. It is as easy to handle as a team of horses. It gets close into the fence corners, turns short and backs with tools attached. It is a real one-man tractor. You ride on the tool where you can see the work you are doing. You don't have to have someone run the tractor while you operate the farm implement, and finally, it DOES ALL FARM WORK WITHOUT HORSES.

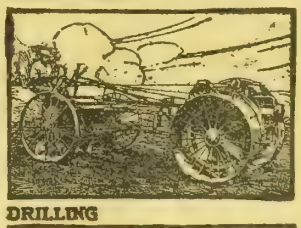
Costs Less Than 4 Horses Does the Work of 7 Horses

With all the advantages named above the Moline Universal Two-Wheel Tractor is also low in first cost and very inexpensive to operate. It costs you less than 4 good horses. When it comes to pulling it has the power of 5 horses and because it travels faster and never tires, it will actually do the work of 7 horses.

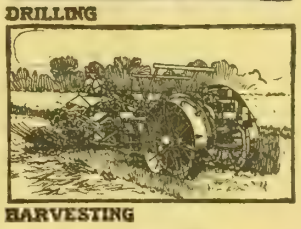
MOLINE ORIGINAL 2 WHEEL TRACTOR UNIVERSAL TRACTOR



CULTIVATING



DRILLING



HARVESTING

will do anything you can do with horses and do it quicker, easier, better and with less hired help. Because all its weight is on two wheels — it has no dead weight to carry. All its weight is traction weight. It throws all of its weight into the pull. The tool you hitch it to forms the rear wheels. This gives two big advantages. FIRST: It does away with almost a ton of needless weight—which tractors of the 3 and 4 wheel types require. SECOND: It enables the operator to ride the tool instead of the Tractor. In this way you can watch the work closely. You can turn short, get closer into fence corners than you can with a team and back with tools attached.

If you have an average farm of from 80 to 300 acres you will find this one-man, two-wheel, all-purpose tractor ideally fitted for your work. Don't buy any tractor until you have investigated the Moline Universal. Write for new Catalog Folder and read how this tractor is solving the hired help and power problems on other farms like yours. Write today.

MOLINE PLOW CO. Dept. 30 Moline, Ill.

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The Moline Line
Includes:
Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Rakes, Lime Spreaders, Mowers, Manure Spreaders, Plows (Chilled and Steel), Reapers, Scales, Seeders, Stalk Cutters, Farm Trucks, Vehicles, Wagons, also
STEPHENS SIX AUTOMOBILES

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Gentlemen:—
I am interested in finding out how the Moline Universal Two-Wheel Tractor will fit my farm.

I work.....acres. The land is.....
(level, rolling, hilly.)

The soil is.....

Name.....

P. O...... *State*.....

DAIRY

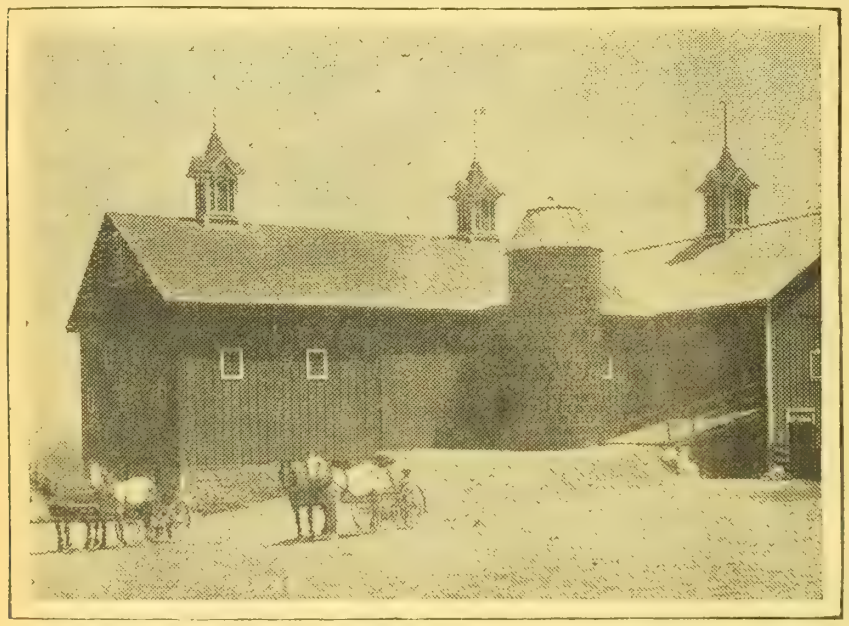
Selling Out to the Butcher.

It has been reported that scarcity of feed and high prices of beef are causing many farmers to dispose of their dairy cows. The extent to which this is being done cannot easily be determined at this time, but if the sale of dairy cows reaches such proportions as to deplete the herds in the country, a shortage of dairy products will follow that can only mean a calamity to the nation. The importance of milk and milk products for food has been emphasized until their use has reached an extent where they are practically indispensable. In many homes butter and cheese have largely displaced meat. With meat soaring toward a price that is prohibitive for many persons, a sharp decline in the supply of butter and cheese would produce a shortage in fat and protein foods, because these substances in a readily digestible form compose only a small part of a vegetable diet. The result would be undernourishment for a large part of the population.

The present reports, however, need not give alarm. Successful dairymen hold the opinion that low-producing and unprofitable cows should go to the block, and the conditions now prevalent may be an economic force to compel this practice. If this is the case, then good instead of harm will result, because the dairy herds will thereby be improved in efficiency. Too many low-producing cows have been hiding in the herd among the high producers. High feed prices may force the use of the scales and milk test to hunt out these loafers and send them to the butcher, the price of beef furnishing a stimulus for such work. Under such conditions may good come even out of high prices.

In so far as the marketing is confined to inferior stock, we may look upon the situation with favor. A relatively small herd of high-producing cows renders a much greater service in times of food shortage than a large herd of low-producing cows. Feed is used more economically and the status of the dairy industry improved. But a note of caution may be sounded with regard to marketing young stock. The same conditions which induce selling of low-producing animals may induce marketing of calves and heifers. When feed prices reach a high level, many farmers and dairymen look with disfavor upon calf raising, preferring to sell them for veal and risk the chance of buying good cows when they are needed. Experience teaches that the scarcity of good cows is a stumbling block to such practice. Good milkers are not available at anything like satisfactory prices. The surest way to build up the dairy herd lies in filling the vacant ranks with heifers raised on the farm.

Even though feed costs rule high, wherever possible the good calves and heifers from high-producing parents should be saved. They will be needed to fill the places of culls and old cows that have served their period of usefulness. If they are not saved the dairyman may come to a time when he will look in vain for profitable cows to replenish his herd. As long as the scrub stock goes to market at the lure of sky-high prices for beef, there should be no real concern, but whenever the number of good young stock falls short, the dairy industry faces a perilous situation. Let the dairyman think before he sends his promising calves and heifers to market this year; for all indications point to the fact that good dairy stock will be in great demand.



A SILO OF GOOD STANDING WHICH WILL ALSO STAND SECURE FOR A GOOD LONG TIME.

The Dairyman's Profit.

To the Editor:—Every time we hear those who buy butter speak of it, we catch some such note of complaint as this: "The farmers must be just piling up money! Such a price as that for a pound of butter!" The same note may be heard in regard to the price of milk. People think the farmer is profiting greatly by the price he receives for this household necessity. We hear it in regard to eggs, potatoes, everything the farmer has to sell.

What these good people do not know is the cost of producing milk and butter and what share of the price they have to pay really ever reaches the farmer at all. All through the winter months, as well as when the pastures are short in the fall and early spring, cows must be fed liberally of grain. If those who do not understand why dairy products are so high would just take their morning paper and see what wheat feed, bran, middlings, gluten—every kind of mill stuff, in fact, is quoted at, and then remember that this is just what the farmer is feeding to get his milk, and then if they were to trace the price of milk back to the farm and find out exactly what the farmer gets for it, these friends might change their minds in regard to the farmer piling up money so fast.

Then, too, there is this side of it: No man who keeps anything of a dairy can do all the work himself. He must have help. This help must have better pay than hired men received in the past. It is all right that they should. Their own expenses are much higher than they used to be; but it makes the farmer squirm to meet the increased demand for better wages. As a rule, the farmer keeps all this to himself. He does not like to confess to his hired men and to the world what is really his financial condition. Only by chance does this come out.

In our part of the country just now there is a fund from which farmers may borrow to meet the expenses of buying seeds and other farm necessities, giving their personal recognizance therefor. There is a committee in charge of the disbursing of this fund, and the chairman of our local committee told me only yesterday that he was surprised to see some men apply for this kind of aid. He had supposed they were in comfortable circumstances, not at all affected by the stress of the times; and here they were, borrowing money to meet current farm needs.

To my mind all this goes to show that the price of milk will have to go still higher, butter will have to bring a better price or the farmer will have to stop doing business. The only other alternative is that some way shall be found to curb the tendency of the distributing agencies to get the lowest possible figures for milk from the farmer and the highest possible price from the consumers. Somehow the cost of getting milk from the farm to the home must be lowered. Then farmers will receive more for their product and the consumer will get his milk and butter more cheaply.

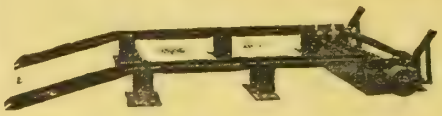
Subscriber.

The National Dairy Show.

The men of the industry are responding with such enthusiastic interest to help make the National a success this year that the mark we are now shooting at is a 100 per cent better show than last year. The patriotic fervor which every man evidences when approached to take hold with both hands this year and help solve the problems before the dairy industry, which are many and complex, bespeaks an extremely valuable show and mass meeting of the industry this year at Columbus, Ohio.

We hope all fairs and shows of the year, conducted to deliver wise and patriotic counsel upon the actual agricultural requirements of the day and desirous of rendering inspirational assistance, will be well attended, but for those of the dairy industry who recognize their obligation to humanity and desire to make their business profitable, the National will hold more sound fundamental value than all other shows combined. Held as it is in the center of a great live stock breeding and agricultural section, easily reached from everywhere, no limit to hotel accommodations, more cattle, more demonstration, more exhibits, more entertainment than ever before, with reduced rates on which you should secure early advice, granted from practically all sections—all insures the most valuable National Show ever held. A nice time of the year to get off for a needed rest and stock taking period, October 18th-27th. Make of this date your one certain, sure engagement of the fall.

The Auto Utilizer



and Your Auto Always Ready to Fill Your SILO

The Easiest Thing a Car Was Ever Set to Do

If you own an auto you don't need any other engine—nor do you need to wait turns for the regular silo filling workers to come around. Every farmer can do his own silo filling with his auto and an AUTO UTILIZER. Everybody's going to be mighty busy this year looking out for himself. Silo filling is going to be speeded up as never before. Here's how you can fill yours—independently, quickly, economically.

Just Run Car Onto Runway
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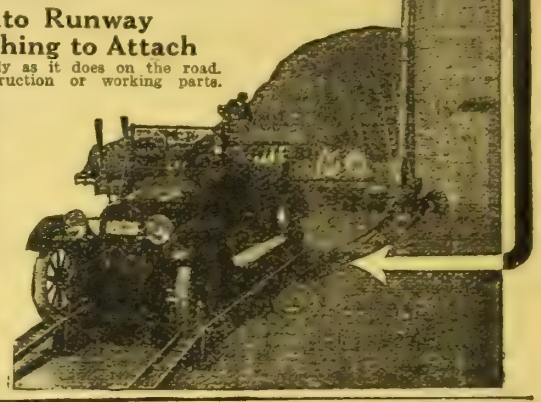
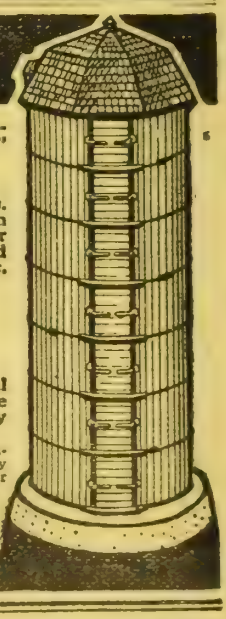
Car stands level and runs exactly as it does on the road. Positively no strain on its construction or working parts. Because the Auto Utilizer is so simple and everlastingly strong it's the only practical means of using a car for farm power. Unit construction makes it easy to move about. All steel and iron. Only two simple revolving parts—running in long Hyatt Roller Bearings. Find out all about it and you won't be without it. Ask your dealer if he has seen it—if he is going to demonstrate it. Send today for complete descriptive literature.



THE AUTO UTILIZER CO.
Dept. W. F.
Burlington, Wisconsin

The President Says:



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are built to meet the exacting farmer's needs. Best in design, material and workmanship. Have every desirable feature a silo should have and embody the "know how" acquired through more than twenty years experience in silo building.

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WOOD TIRE SILO CO.
7 Clark Street
Sheboygan Falls, Wisconsin

Cow-Testing Reports.

Monticello Association.

To the Editor:—In June we had 675 cows under test and 136 of these produced forty pounds of butter fat; of this number, sixty-three produced forty-five pounds and over. There was a slight falling off in the "honor" gains, due to flooding of a few pastures and disagreeable weather.

Fred Marty's registered Holstein, five years old, gave 2,415 pounds of milk and 89.7 pounds of butter fat in June. This is the record of our association. It is interesting to note that the bull calf from Cornelia Johanna sold for $100 shortly after it was four weeks old. Mr. Marty tells us that before Cornelia Johanna was tested, he would have sold the calf for $75 and probably less.

The best grade cow in our association last month was owned by A. Kubly; she produced 1,824 pounds of milk and 63.8 pounds of butter fat.

As usual, Baltz Hoesly ran away with the herd honors as his twenty-eight head averaged 1,425 pounds of milk and 46.9 pounds butter fat. These cows were fed on pasture alone. Mr. Hoesley in our list this month has sixteen cows producing over forty-five pounds. Enclosed is our list of forty-five-pound cows for the month ending July 13th:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Baltz Hoesly					
Lady Pearl Hengerveld, Reg. Holstein	7	May	2040	3.4	69.4
Minnehaha Excelter De Kol, Reg. Holstein	4	Apr.	1908	3.6	68.7
Queen Phroso Clothilde, Reg. Holstein	4	May	1788	3.8	67.9
Phroso Homestead 2d, Reg. Holstein		May	1863	3.6	67.1
Parthenea Phroso Johanna 4th, Reg. Holstein		May	1629	3.7	60.3
Tuebie Clothilde Midget, Reg. Holstein	4	Apr.	1782	3.3	58.8
Palmer De Kol, R. H.	11	May	1506	3.8	57.2
Aunola Homestead De Kol, Reg. Holstein	4	Feb.	1893	3.0	56.8
Tuebie Midget 4th, Reg. Holstein	6	Mar.	1539	3.6	55.4
Tuebie Queen Midget, Reg. Holstein	5	Apr.	1554	3.5	54.4
Minnehaha De Kol 3d, Reg. Holstein	7	Apr.	2031	2.6	52.8
Osa Aunola Homstead De Kol 3d, Reg. Holstein	5	Mar.	1701	3.1	52.7
Wadmontje Hengerveld De Kol, Reg. Holstein	5	Mar.	1623	3.2	51.9
Osa Aunola Homestead De Kol 3d, Reg. Holstein	9	Feb.	1845	2.7	49.8
Palmer Climax De Kol, Reg. Holstein	6	Dec.	1173	4.1	48.1
Midget Piebe Homstead, Reg. Holstein	6	Mar.	1563	3.1	48.5
Vinzenz Baebler					
Maple Leaf Mercedes Parthenea, Reg. Holstein	11	May	1845	2.8	51.7
Ella Vernen De Kol, Reg. Holstein		May	1200	4.3	51.6
Maple Leaf Mercedes Parthenea 2d, Reg. Holstein			1665	2.8	46.6
Beauty Gertrude Ormsby 2d, Reg. Holstein			1524	3.0	45.7
Barbara L. 3d Johanna, Reg. Holstein	8	Feb.	1566	2.9	45.4
Beauty Gertrude Ormsby, Reg. Holstein	8		1224	3.7	45.3
J. M. Freitag					
No. 30, R. H.	7	May	1584	3.8	60.2
No. 27, G. Br. Swiss	12	Nov.	1203	4.0	48.1
No. 1, G. H.	11	May	1344	3.5	47.0
No. 5, G. H.	3	Mar.	1272	3.5	46.5
No. 31, G. Br. Swiss.	6	May	1368	3.4	46.5
Henry C. Klassy					
No. 16, G. H.	4	Apr.	1584	3.6	57.0
No. 19, G. H.	6	Apr.	1320	4.0	52.8
No. 25, G. H.	9	Mar.	1518	3.3	50.1
No. 18, G. H.	4	May	1509	3.3	49.8
No. 23, G. H.	7	Feb.	1479	3.3	48.8
Stauffacher Bros.					
Kugel, G. H.	6		1416	3.3	46.7
Flora, G. H.	4	May	1332	3.5	46.6
Sadie, G. H.	.		1419	3.2	45.4
Spot, G. H.	6		1491	3.1	45.2
Fred C. Marty					
Cornelia Johanna, Reg. Holstein	5	Jun.	2415	3.71	89.7
Zur Johanna Pense, Reg. Holstein	6	Feb.	1680	3.4	57.1
Queen Alcartra Johanna, Reg. Holstein	6	Dec.	1320	4.0	52.8
Echo Parthenea Posch, Reg. Holstein	4	Mar.	1305	3.6	47.0
Abe Kubly, Jr.					
No. 40, G. H.	.		1080	4.8	51.8
No. 25, G. H.	.		1824	3.5	63.8
No. 16, G. H.	.		1866	3.2	59.7
No. 9, G. H.	.		1251	3.8	47.5
J. J. Truttman					
No. 10, G. H.	7	Mar.	1860	3.0	55.8
No. 9, G. H.	4	Jun.	1626	3.3	53.7
No. 20, G. H.	5	Feb.	1428	3.3	47.1
Gilbert P. Hoesly					
Johanna Aegis Tuebie, Reg. Holstein	6	Jun.	1500	3.7	55.5
Grille Clifden De Kol, Reg. Holstein	9	May	1677	3.1	52.0
Aaggie Hengerveld Johanna, Reg. Holstein	8	Apr.	1509	3.1	46.8
Christ Schmid, Jr.					
Highland Canary, Reg. Holstein	7	Mar.	1860	3.4	63.2
Miss Boon Canary, Reg. Holstein	6	Mar.	1449	4.1	59.4
Belle Mercedes Longfield, Reg. Holstein	5	May	1458	3.1	45.2
Wm. Baumgartner					
Lady Madrigal Korndyke 2d, Reg. Holstein	4	May	1380	3.3	45.5
Lady Madrigal Korndyke, Reg. Holstein	7	Mar.	1365	3.3	45.1
J. H. Freitag					
No. 3, G. H.	.		1461	3.5	51.1
Bertha, G. H.	.		1299	3.5	45.5
Dick Zentner					
No. 24, G. H.	.		1650	3.0	49.5
No. 7, G. H.	.		1437	3.2	46.0
Jake Schultz					
Bonnie, G. H.	5	Mar.	1227	3.7	45.4
Thomas Voegeli					
No. 22, G. H.	8	Feb.	1251	3.6	45.0
Roscoe Smith					
Blacky, G. H.	8	Jun.	1605	3.5	56.2
Pierce Bros.					
Wadmontji Clothilde De Kol, Reg. Holstein	3	May	1356	3.7	50.2

ALVIN W. WARDAS, Official Tester.
I. B. PIERCE, Secretary.

Black Earth Association.

To the Editor:—For the month ending July 19th, we had sixteen forty-pound cows, and six over forty-five pounds. The milk flow is down considerably, owing to the hot weather and flies. Fred Stubley's herd of twenty pure-bred Jerseys are the herd holding the highest record, producing an average of 33.9 pounds of butter fat per cow. Following is the forty-five-pound list:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
B. W. Stuart					
Spot No. 1, G. Hol.	10	3-17	1080	4.2	45.4
Fred Stubley					
Comone's Fairy, R. J.	7	11-9-16	726	6.2	45
Noble's Princess, R. J.	5	4-1-17	975	5.2	50.7
Eminent Rose, R. J.	7	4-2-17	810	5.7	46.2
Kilda Girl, R. J.	9	11-1-16	921	5.4	49.7
Ibsen's Mint Drop, R. J.	8	4-19-17	1137	4.1	46.6

JOHN UEBERSEKIG, Official Tester.
H. C. SUTCLIFFE, Secretary.

Wood County Report.

To the Editor:—Enclosed is our list of forty-five-pound cows for July. We had 623 cows under test and sixty-two made forty pounds of butter fat in thirty days. Our high cow was 81.4 pounds, and made the third highest record this association has ever had. One herd averaged 36.59 pounds and another 35.92. These herds belonged to W. A. Schultz, of Auburndale, and Mr. A. Osenga.

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
A. Osenga					
Nig, G. H.	5	6-23-17	1731	4.7	81.4
D. T. Pauline, R.H.	7	1-29-17	1602	3.0	48.1
Bert Gatis					
Dolly, R H.	6	4-24-17	1815	3.2	58.1
Pet, G. H.	4	1-30-17	1470	3.9	57.3
W. A. Schultz					
Mollie, G. H.	4	2-8-17	1548	3.5	51.2
Bleemie, G. H.	5	1-25-17	1410	4.1	57.8
Geo. Baltus					
No. 2, G. H.	3	5-20-17	1185	4.7	55.7
W. A. Schultz					
T. M. Segis, R. H.	3	4-10-17	1452	3.3	47.9
J. F. Schmidt					
H. J. Artis, R. H.	4	6-25-17	1539	3.5	53.9
Prausa Bros.					
No. 13, G. H.	4	6-12-17	1539	3.1	47.7
Peter Hoffensperger					
No. 10, G. H.	8	4-14-17	1035	4.6	47.6
Pitt & Waggoner					
De Kol Burke, R.H.	7	4-19-17	1278	3.7	47.3
C. H. Imrig					
Iola J. A. De Kol, Reg. Holstein	5	6-16-17	1471	3.1	45.6

J. L. WILLIAMS, Official Tester.

Alban and New Hope Association.

To the Editor:—The dairy float, shown in picture reproduced herewith was a distinctive feature in the Fourth of July parade held at Rosholt, Portage county. This float exhibited a silo, an up-to-date stall and manger provided by a local hardware company and a grade Guernsey cow owned by C. E. Erickson. This cow produced 467 pounds of butter fat in the year 1916, being third in production of all the cows under test in the Alban and New Hope Cow-Testing Association for that year. During the procession Mr. Erickson milked the cow, Mr. Worsted, secretary of the association, did the feeding, and Mr. M. E. Smith, official tester, did the testing of milk. J. M. Coyner, our county agent, weighed the milk and Mr. Ole P. Dobbe, recorded the weight of the milk on milk sheet. Mr. Warner, buttermaker at Rosholt, was in charge of the separator. Spectators who watched this float in the parade could not understand how they could get three pails of milk from one cow. This mystery was later solved when it was told that a milky appearing solution of lime water was used to fill the pails. P. H. Bremmer, of the Wisconsin Lumber Co., built the miniature silo and furnished the lumber for the same. Mr. Bremmer is a firm believer in coöperating with the farmers. The silo campaign which has just closed in our county resulted in promise of twenty new silos.

M. E. Smith, Official Tester.

CAMPAIGNING FOR COW-TESTING ASSOCIATION MEMBERS AND MORE SILOS IN PORTAGE COUNTY.

Sheboygan County.

To the Editor:—Mr. J. Bloomer owns the highest producing cow for the month of June; she produced 1,543 pounds of milk which tested forty-two and contained 68.6 pounds butter fat. Her record for May was 1,535 pounds of milk, test 3.8, butter fat 58.3.

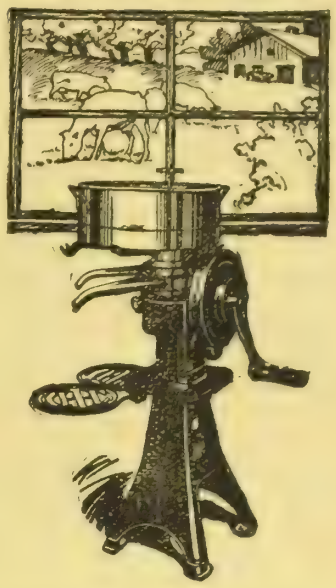
Mr. Will Lohnis' herd of grade Holsteins holds the honors as the highest producing herd in the association for the month of June. His herd of eight cows averaged 1,452 pounds milk, average test 3.5, average pounds butter fat 48.7. These cows consumed an average of five pounds of grain daily, besides their pasture.

Mr. Will Nyhof owns the cow which produced the largest flow of milk for the month of June; her record is as follows: Milk, 2,280 pounds; test, 2.7; butter fat, 61.6 pounds.

Mrs. Thomas Bichler has decided to improve her future herd by using a pure-bred sire. She purchased a pure-bred Holstein bull of S. L. DeSchmidt. This animal is backed by a good seven-

(Concluded on page 16.)

Get All the Cream



YOU cannot expect to get all the profit from your cows unless you have a separator that skims clean. Why don't you make up your mind here and now to buy a **Primrose** or **Lily cream separator?** Then if your checks are not big enough, you will know that the trouble is with the cows, not with the separator.

The president of the Iowa Federation of Cow Testing Associations says that of the machines in use in his association, and they are many, the **Primrose** skims closest. It leaves less than one-hundredth of one per cent of the cream in the milk. The **Lily** skims just as close. Neither one wastes any cream. With prices of everything as high as they are now, to waste cream is little short of a crime.

Yes, you can buy separators for less money. You can also pay more. But you cannot buy a closer skimming machine, one that runs easier, or one that will skim clean for a longer time. Do not delay. The longer you put off buying a **Primrose** or **Lily** cream separator, the more you lose. Get one of these machines, and your separator troubles will disappear as if by magic. Drop us a card for catalogues and full information.

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its *price* is no higher and its cost in service is much *lower. Records* prove this.

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and labor than any other. Tremendously strong construction; frame solid oak and steel, mortised, bolted, braced: impossible to pull out of line. Blower independent of cutter; allows speed adjustment for minimum use of power for any height silo.

Feed table frictionless, runs on chilled iron rollers; knives spiraled, giving clean shearing cut with least use of power. (10 lengths of cut—5/16 to 2¼ inches.) Easiest to handle and safest—feed rolls and table controlled by one lever; automatic safety device; low down, cut-under frame.

Two books FREE!

One on silo building and silage crops etc; the other a catalog of Appleton Silo Fillers; showing four sizes for 4 h. p. engines and up. Write

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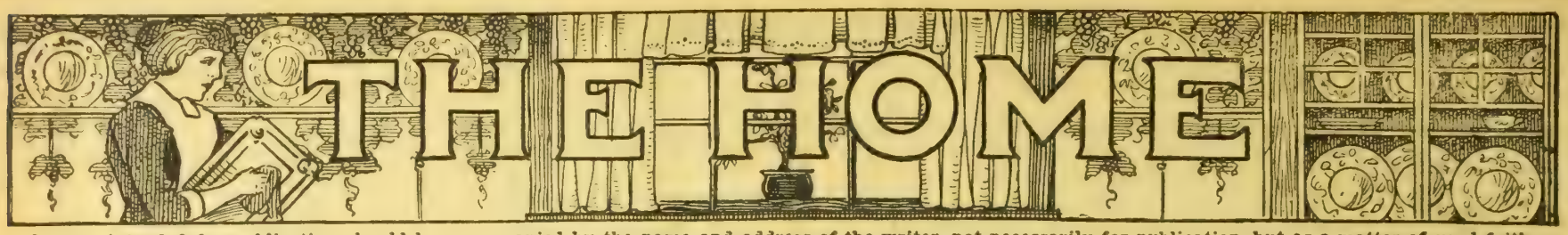

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Origin of the Red Cross.

Active interest in Red Cross work is spreading, and many are working during their spare time in different branches of relief work. The work of the American Red Cross at the present time is so far-reaching that it is interesting to note from what a small beginning the movement sprang.

One day in midsummer in the year 1859 a terrible battle was fought at Solferino in the northern part of Italy between the Austrian army and a combined force of France and Sardinia. It was a fierce struggle, in which the Austrians were defeated. When it was over, 35,000 men lay on the battle field, dead or wounded, and only a handful of doctors and surgeons were present to care for them. As a result, many of those who might have been saved by prompt and proper care lay for days where they had fallen.

A Swiss gentleman named Henri Dunant, who viewed the field after the battle, was greatly stirred at the sight. He rendered what assistance he could to care for the wounded, and when he reached home he set about organizing a world's society for wounded soldiers. He wrote a story of the field of Solferino, gave lectures, and addressed communications to all the nations of the world inviting them to join in such an organization.

A conference at Geneva was the result of his efforts. Eleven nations joined in the plan. The symbol of the society, a red cross on a white ground, was adopted as a compliment to the Swiss government, whose flag is a white cross on a red ground, and it was agreed by the representatives of the eleven nations that this emblem should be a protection to all members of the society, its helpers, hospitals and the sick and wounded under its care.

The United States did not pledge itself to become a member of the society until the year 1882. Clara Barton, the civil war nurse, was responsible for this action. Miss Barton at the beginning of the civil war was a clerk in the patent office at Washington. Immediately upon reading President Lincoln's proclamation calling for 75,000 volunteers she gave up her position and volunteered as a nurse without pay in the Army of the Potomac.

Miss Barton and her helpers worked on the battle fields even during the firing, and so faithfully and fearlessly did she work that toward the end of the war she was appointed to have charge of all the hospitals at the front, and later, in appreciation of her unusual ability, President Lincoln appointed her to conduct a search for missing men. So well did she perform this task that she was able to report the names and fate of more than 30,000 missing men of the Union armies.

However, a year or two later she was obliged to give up the work on account of ill health, and she went to Switzerland to rest. It was there that she became acquainted with the work of the Red Cross. So interested was she that at the beginning of the Franco-Prussian war in 1870 she immediately volunteered her services with the Red Cross. This experience so impressed her with the value of such a society that upon her return to the United States she began founding a similar organization. The society Miss Barton founded, however, did not devote itself exclusively to relieving wounded soldiers, but to the relief of all suffering in times of famine, pestilence, floods, fires, earthquakes or any great misfortune. This work is familiar to all.

The American Red Cross was reorganized in 1893 under the name American National Red Cross. The society was incorporated by an act of congress in 1900 and placed under government supervision. The management of the society is conducted by a central committee of eighteen members. Six of these are appointed by the president, who also is president of the society. One of the things required of the society is that at the beginning of each year a full account of the past year's work be given to the war department.

In 1905 the total membership of the American National Red Cross was 300; today it numbers thousands. From the small beginning made by Clara Barton has grown a society that knows no boundaries of nations, a society that carries relief and hope and cheer to every corner of the world where suffering and need exist.

One Way to Use Waste Skim Milk.

One of the readers of the Home page, Mrs. J. C. P., writes us as follows:

I have read so many helpful things in your columns that I am coming to you for aid myself. I have to throw out a great deal of milk and I want to know how I can use it, for I do not like to waste it. Is there not some kind of cheese I can make from sour milk?

There certainly is a cheese that can be made from sour milk, and it is a most delicious and nourishing food. Cottage cheese, as it is called, is richer in protein than most meats, and is much cheaper. Every pound of it contains more than three ounces of protein, which is the chief material for body building, besides being a valuable source of energy. That being the case, it would be almost a crime to throw away skim milk or sour milk, and particularly during these war times when women are being urged to save every ounce of food possible. The more cottage cheese that can be used to replace meat in our homes the more meat there will be for the boys in the trenches, for meat can be transported to the trenches, whereas cottage cheese cannot.

If the milk is sweet it should be placed in a pan and allowed to remain in a clean, warm place at a temperature of about 75 degrees until it clabbers. The clabbered milk should have a clean, sour flavor. Ordinarily this will take about forty-eight hours, but when it is desirable to hasten the process a small quantity of clean-flavored soured milk may be mixed with the sweet milk. As soon as the milk has thickened to the consistency of thin jelly it should be cut into pieces the size of a walnut, after which the curd should be stirred thoroughly with a spoon.

Place the pan of broken curd in a kettle of hot water so as to raise the temperature to 100 degrees Fahrenheit. Cook at that temperature for about twenty minutes, during which time stir vigorously with a spoon for one minute at five-minute intervals. At the conclusion of the heating, pour the curd and whey into a small cheesecloth bag (a clean salt bag will do nicely) and hang the bag on a fruit strainer rack to drain. After five or ten minutes work the curd toward the center with a spoon. Raising and lowering the ends of the bag helps to make the whey drain faster. To complete the draining tie the end of the bag together and hang it up. Since there is some danger that the curd will become too dry, draining should stop when the whey ceases to flow in a steady stream. The curd is then emptied from the bag and worked with spoon or butter paddle until it becomes fine in grain, smooth, and of the consistency of mashed potatoes. Sour or sweet cream may be added also, to increase the smoothness, palatability and flavor. Then it is salted according to taste, about one-quarter ounce to a pound of curd.

Cottage cheese is an appetizing dish in itself, but it may be varied by the addition of chopped sweet peppers, chopped onion or parsley, or caraway seed. Some like it in combination with fruit preserves, such as strawberries, figs or cherries, and served with bread or crackers.

An attractive cottage cheese salad may be made as follows: Mix thoroughly one pound of cheese, one and one-half tablespoonful of cream, one tablespoonful of chopped parsley and salt to taste. First, fill a rectangular tin mold with cold water to chill and wet the surface; line the bottom with waxed paper, then pack in three layers, putting two or three parallel strips of pimento between layers. Cover with waxed paper and set in a cool place until ready to serve; then run a knife around the sides and invert the mold. Cut in slices and serve on lettuce leaves with French dressing and wafers. Minced olives may be used instead of the parsley, and chopped nuts also may be added.

If desired, the cheese may be made into rolls to take the place of roasts or meat loaves. These are made by combining the cheese with beans, cowpeas, lentils or peas and adding bread crumbs to make the mixture thick enough to form into a roll. Three such recipes are given below:

Boston Roast—One pound can of kidney beans or equivalent quantity of cooked beans, one-half pound of cottage cheese, bread crumbs, salt. Mash the beans or put them through a meat grinder. Add the cheese and bread crumbs enough to make the mixture sufficiently stiff to be formed into a roll. Bake in a moderate oven, basting occasionally with butter or other fat, and water. Serve with tomato sauce. This dish may be flavored with chopped onions, cooked in butter or other fat and a very little water until tender.

Pimento and Cottage Cheese Roast—Two cupfuls of cooked lima beans, one-fourth pound of cottage cheese, five canned pimentos chopped, bread crumbs, salt. Put the first three ingredients through a meat chopper. Mix thoroughly and add bread crumbs until it is stiff enough to form into a roll. Brown in the oven, basting occasionally with butter or other fat, and water.

Cottage Cheese and Nut Roast—One cupful of cottage cheese, one cupful of chopped English walnuts, one cupful of bread crumbs, two tablespoonfuls of chopped onion, one tablespoonful of butter, juice of half a lemon, salt and pepper. Cook the onion in the butter or other fat and a little water until tender. Mix the other ingredients and moisten with the water in which the onion has been cooked. Pour into a shallow baking dish and brown in the oven.

With all these ways of using cottage cheese there is no excuse for ever having to throw out sour milk and we suggest that Mrs. J. C. P. and others who have not been in the habit of making use of skim milk or sour milk try some of these recipes. The use of cottage cheese will save the milk, cut down the meat bill and please the family as well.

Recipes.

Rhubarb With Bananas.—Four cupfuls sweetened rhubarb sauce, two large bananas, one-third cupful sugar. Slice the bananas thinly in a serving dish. Sprinkle them with the sugar. Pour the hot sweetened rhubarb sauce over the bananas. Set aside to cool. Serve cold.

Stuffed Eggplant Shells.—Two eggplants weighing about one pound each, two tablespoonfuls butter or other shortening, boiling water, one chopped green sweet pepper, one cupful dry bread crumbs, speck pepper, one-half chopped onion. Cut out the inside of the eggplant, leaving a shell about one-half inch thick; cook in boiling salted water for five minutes. Fry the onion, pepper and eggplant pulp, all chopped, in the butter for about ten minutes. Then add the bread crumbs, one and one-half cupfuls boiling water, and seasoning. Fill eggplant shells with this mixtue and sprinkle dry crumbs over the top. Place in a pan with a little water and bake one-half hour.

Cold Fruit Pudding.—Two cupfuls stale cake crumbs, one cupful cooked prune pulp, one cupful whipped cream. If possible, a few fruit cake crumbs should be used in the two cupfuls. The prunes should be measured after the skin and stones have been removed. Mix fruit and crumbs until they are like a smooth paste, then add cream, and beat till well blended. Turn into a shallow granite pan and stand in a cool place for three hours. Cut into square portions for serving and accompany with whipped cream. The prune mixture should not be liquid or the pudding will not be stiff enough.

Stuffed Tomato Salad.—Six medium-sized tomatoes, six stuffed or hard-boiled eggs, lettuce, mayonnaise. Peel the tomatoes. Hollow out to form cups. Dust with salt and pepper and let stand in French dressing for a few minutes. Then slip an egg into each tomato and serve very cold with a garnish of lettuce and mayonnaise.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

Helps With Haying.

Dear Young Folks:—I am a girl eleven years old and I will be in the eighth grade next year. I live on a 160-acre farm four miles from the nearest town.

We are very busy haying now. My sister drives the team in the field and I lead the horse. We have filled four bents in our barn and we only have one more to fill and then we will have to stack the rest outside.

I go to Sunday school and church most every Sunday. I finish the junior department in October and then I go into the intermediate department. Our class is the C. F. H. class. There are five in my class and we like our teacher very well. We planned at one of our late meetings to dress dolls and make pictures for the little poor children over in India.

I feel very sorry for Vesta and I hope she will soon find a nice friend.

Helen.

Helps Mama, Who is Sick.

Dear Young Folks:—I enjoy reading the Young Folks' page very much, but have not written before. I am twelve years old and in the eighth grade. I have three smaller brothers. They all go to school. I am the oldest, and the youngest is seven years old.

My mama is sick and I do most of the work. She came from the hospital about two months ago.

I can tat and crochet and I love to sew.

There are some birds that built a nest under our porch and there are young ones in the nest now. I like to watch the old bird teach the little ones to fly. She will get a piece of bread and fly to a near-by fence and sing.

We have two dogs to play with.

Lela.

Answer to Ida's Riddle.

Dear Young Folks:—I enjoy reading your letters very much and would like to join your column. I am ten years old and have four sisters and one brother. My brother and oldest sister are married. My brother is a storekeeper and my sister is a farmer's wife.

I live just a quarter of a mile from school. I am in the seventh grade.

We have a Ford automobile and we also have two colts named Champ Clark and Billy Sunday.

I will tell Ida the answer to her riddle: When does a rabbit sit on a stump? I think it sits on a stump every time it sits down because it's tail is nothing but a stump. Is that right, Ida?

Esther.

Joined the Calf Club.

Dear Young Folks:—I would like to join your circle. I am eleven years of age and in the fifth grade at school.

About February 1st they organized a calf club here and my brother and I are members. We got a calf apiece. My brother's calf is giving one gallon and one pint of milk at a milking. We are very proud of our calves.

I like to guess the riddles the Young Folks send in.

Ralph.

[Ralph sent us a riddle for the Young Folks to guess, but we could not publish it because he forgot to send us the answer. You remember we asked you to always send the answer with the riddle. Perhaps Ralph will write again.]

One of the uses to which fruit juice may be put is the making of delightful drinks or fruit punches. When served with plain sponge cake they make a delicious dessert or refreshment for small companies.

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WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Inclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

2017—Juniors' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 4½ yards of 44-inch material for a 14-year size.

1697—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅛ yards of 44-inch material for a 36-inch size.

Coat Waist 2184-Skirt 2187—A charming three-piece suit. The waist and coat blouse are cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2⅜ yards of 36-inch material, for the waist, and 3⅜ yards for the blouse, for a 36-inch size. The skirt is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure, and requires 3⅜ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2180—Girls' one-piece dress with guimpe. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 1¾ yards for the guimpe and 4 yards for the dress, of 27-inch material, for a 10-year size.

2169—A smart dress for mother's girl. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3⅝ yards of 36-inch material for an 8-year size.

2186—Infant's set, consisting of a cap, a sack, a nightgown and a dress. For the dress of flouncing it will require 1¾ yards of 36-inch material with 1¼ yards of plain material for yoke and sleeves. Of nainsook or lawn 36 inches wide it will require 2¼ yards. The gown will require 2½ yards of 24 or 27-inch material. The cap, ⅛ yard of 18-inch material. The sack requires ⅞ yard of 27-inch material.

2030—Boys' blouse suit, with or without shield and yoke facing, and with sleeve in either of two lengths. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2½ yards of 44-inch material for a 3-year size.

2175—Dress for misses and small women. Pattern is cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 6⅜ yards of 44-inch material.

2162—Ladies' two-piece morning or house dress (with sleeve in either of two lengths). Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires for a 38-inch size, 5⅝ yards of 36-inch material.

2022—A practical ladies' apron. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. It requires for a medium size 4⅝ yards of 36-inch material.

2190—Ladies' one-piece corset cover, in round, square or "V" neck edge. Pattern is cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 1⅜ yards of 36-inch material for a medium size.

2046—An ideal porch or morning dress. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6½ yards of 44-inch material for a 38-inch size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for August 12, 1917.

Josiah's Good Reign.

LESSON TEXT—II Chronicles 34:1-13.

GOLDEN TEXT—Remember now thy Creator in the days of thy youth.—Eccles. 12:1.

The reign of Josiah is in striking and pleasing contrast with that of many of his predecessors, especially that of his father, Amon, and grandfather, Manasseh.

I. Time of Beginning (v. 1). He ascended the throne when only eight years of age. At this tender age he evidently had a sense of the import of the service of God's house. This sense must have been strong to enable him to withstand the corrupt influences of his surroundings. The prevailing idolatry influenced this boy, but influenced him in the opposite way in which boys are usually influenced. It aroused his hatred for it. This serves to demonstrate the fact that circumstances do not necessarily determine the direction a life may go. Each individual has the ability to determine the course of his life; and moreover, his responsibility so to do. It is a most perilous thing to be thrust into such a prominent position while so young. However, sometimes such responsibility has a sobering effect, calling forth one's latent powers. That his aspiration for God and the right was genuine is proven by the fact that he persisted therein for thirty-one years.

II. The Character of His Reign (v. 2). "He did that which was right in the sight of the Lord, and walked in the ways of David his father, and declined neither to the right hand nor to the left." He not only maintained outward order and decorum as to the worship of God, but doubtless at heart desired to please God.

III. Josiah's Reformation in the Kingdom (vv. 3-7). He first set out to root out idolatry from the land. This was a prodigious task, requiring great courage and skill. He did this with a strong hand. Without pity he swept out from the land these abominations. In the execution of this task he—

1. Broke down the altars of Baalim (v. 4). This form of idolatry was first brought into the land by Jezebel when she married Ahad. The images seem to have been such as would appeal to the sensual nature of men; therefore, it was but natural that the grossest licentious practices should be associated with this worship.

2. He broke in pieces the groves, carved images, and molten images (v. 4). He even made dust of them and strewed it upon the graves of those who had been offering unto them.

3. He burned the bones of the priests on their altars (v. 5). He not only showed no pity for them, but he manifested a decided fierceness in the execution of his task.

4. He extended this destruction to certain districts in the northern kingdom. It was not until all this was done that he returned to Jerusalem (vv. 6, 7). His reformation thus began at home, but was extended to the widest extent of his kingdom.

IV. Josiah Repaired the Temple (vv. 8-13). Having rid the land of its idolatry, he set himself to the repairing of the temple which had been so long neglected. This neglect, coupled with gross abuses at times, made it to be sadly in need of attention.

1. His deputies (v. 8). This work he entrusted to a committee of three—Shaphan, the royal secretary (II Kings 22:3); Masseiah, mayor of Jerusalem; and Joah, the recorder, the historian of the nation. In the matter of ridding the city and country of idolatry Josiah took the lead in person, but now the work had gone far enough forward that he could work by deputy. He chose his deputies from among "laymen" instead of the priests.

2. Method of procedure (vv. 9-13). (a) Collection of money (v. 9). It would seem that for some time collection of money for temple repairs had been going on. Perhaps it was begun in connection with the destruction of kingdom, even giving the remnant of agents in this work were the Levites. They collected it from all over the kingdom, even giving the remnant of Israel an opportunity for fellowship in this matter. This shows us that religious interests of the people should be sustained by all the people adhering thereto.

(b) Money placed into the treasury (v. 9).

Hilkiah, the high priest, was the treasurer. From this treasury the overseers drew the money and paid it to the workmen who repaired the temple.

(c) The overseers (v. 12). Among the overseers were certain skilled musicians. The duty of these overseers was to exercise supervision over the carpenters, builders and other artisans, and the helpers of all classes. The musician, by skillful music, incited the workmen to diligence and activity, thus lightening the burdens of their toil. Music in the soul while working bears a very vital relationship to the work itself.

3. The character of the work (v. 12). They did the work faithfully. This is a fine thing to be said of a set of workmen.

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is the new title of TODAY'S MAGAZINE with which has been consolidated THE HOUSEWIFE. The new magazine, *Today's Housewife*, will be bigger, brighter and better than either Today's Magazine or The Housewife were alone.

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Facts You Ought to Know About the Wonderful HOMEMAKERS' BUREAU of TODAY'S HOUSEWIFE

This is a thorough, efficient and above all practical course of instruction in the seven important home activities. Really seven complete correspondence courses in drudgeless, wasteless housekeeping. Every word will be authoritative, every formula tested, for we have secured the most famous authorities in the country to direct the courses.

Their intimate, personal talks to you are part of our 1917 plans for the readers of **Today's Housewife.** If you could secure these courses elsewhere they would cost you from $15 to $60 apiece, but many of them could not be had in any other way, for three or four of the lecturers have given up other work to give their time to our readers.

COOKERY AND NUTRITION:
By Miss Caroline Hunt, whose governmental title down in Washington is Nutrition Expert. Her writings on dietetics are considered textbooks.

HOME DECORATION:
By Frank Alvah Parsons—President of the New York School of Fine and Applied Arts, and undoubtedly the greatest authority on interior decoration in America.

HOME NURSING AND INFANT CARE:
By Dr. Josephine Baker, who is the Director of the Bureau of Child Hygiene of the City of New York, and under whose management infant mortality has decreased enormoulsy.

HOUSEHOLD MANAGEMENT AND SANITATION:
By Miss Sarah Josephine MacLeod, head of this same department in Pratt Institute.

FINANCIAL MANAGEMENT AND BUDGET MAKING:
By Miss Winifred Gibbs, of Columbia University, and budget maker for the New York Society for Improving the Condition of the Poor.

DRESSMAKING AND MILLINERY:
Two women of national reputation are now rearranging their work in order to take charge of these departments in TODAY'S. Their names will be announced in an early issue.

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Increase to $1.00 May Be Necessary

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Use of Lower-Grade Dynamite.

An Important Lesson in Cheapening Clearing With Explosives Taught by Experiments.—By E. R. McIntyre.

IT BEING the writer's good fortune to travel at times as the official press correspondent on land-clearing trains during the spring and fall of 1916, a few first-hand observations of the work are here set down.

The explosion of a time-worn theory was the greatest explosion in the entire season's operations among the stump-land farms. Settlers had formerly believed that high-grade, quick-acting dynamite was absolutely necessary for successful land clearing. This old idea has been blown sky high, and has never returned. The Wisconsin demonstrations proved conclusively that, save in a very loose, light, dry soil, a 20 per cent grade of ammonium dynamite, costing from 2 to 5 cents less a pound than the grades formerly deemed essential, will do the work fully as well.

Further, such low-grade farm powders are safer to handle, can be used in cold weather to the freezing point of water, and leave the soil in much better condition.

Dynamite blasters on the "show me" excursions plainly convinced the settlers on the Badger cut-over lands that neglecting to put the bore holes in the right position and improper tamping and firing of the charge made the use of a high-grade, quick-acting powder seem advisable.

They took pains to teach the onlookers that the best results follow only when the bore hole under the stump is well placed. They impressed them with the elementary fact that the center of the charge must be placed under the stump at the point where it is held the tightest by the earth.

The end of the bore hole, they emphasized, must be well past the resistance center, and its depth usually thirty to thirty-six inches, and frequently four feet deep under the larger stumps.

As stones, roots and hardpan often interfere with boring, it was pointed out that the crowbar alone is not the handiest and best tool for this purpose. They proved this by the demonstration of special two-inch augers on ordinary soils, an inch-and-a-quarter size, steel-pointed punch bar on muck or sandy soils, and that indispensable tool, the eight-sided driving iron, pounded "home" with a ten-pound sledge.

They showed the visitors that a pitchfork handle answers the purpose of a tamping stick, the requirements of which are that it must be made of wood, and be straight, smooth and strong. A short, round-pointed shovel comes in handy to fill cavities around the stump and to bring dirt to cover the charge, the audience learned.

Other tools to complete the stump blaster's kit in order to get the best results at low cost of time, money and life, as shown to the Wisconsin settlers, included a dynamite thawer, a "safety-first" cap crimper and fuse cutter, and a box for carrying the blasting caps.

However, the big hit of the demonstrations was made by the electric blasting apparatus. Faults of the old cap-and-fuse method, with its slower rate of work, greater expense, greater danger from misfires and less effective results are all remedied when the electric method of stumping is adopted.

Here, in place of the fuse, two copper wires enter the cap, which is sealed at the factory with a sulphur compound which holds the wires in place, thus doing away with hand crimping. Several charges can be loaded under a large stump, the wires connected in a circuit and all set off at once by means of the blasting machine.

This machine is a small, series-wound generator set in a tight wooden box. Current is generated by spinning the armature by means of a plunger. The machine needs no recharging, and with good care it will last a lifetime.

When every one is at a safe distance, and all connections are made, the operator makes one quick downward motion of the plunger and every charge goes off at once. Several times on the recent demonstrations girls and women proudly fired the charge in this manner, thus doing their "bit" for agriculture.

With "blind" or top-rotted white pine stumps, several charges can be placed at points below the several roots, and all discharged at once with the electrical machine. This means that less dynamite will be used than if only one charge is fired under the stump. After the stump is out the hole left is much smaller than where only one charge is fired.

Another important phase of the situation was repeatedly demonstrated and bids fair to get results. The party showed the settlers that very effective work could be done by using hand or horse power stump-pulling machines in combination with dynamite. The blasting was done either before the stump was pulled or afterward, just enough power being used to crack the main part of the stump and break up the root system, making the pulling and piling easier.

More inquiries for settlement, more actual settlers pouring into the upper-lands, and five times the amount of purchases of stumping equipment—this is the gist of the present-day facts.

"Listen to these letters from county agricultural representatives, in charge of farm activities in several of the back-woods districts of Wisconsin," said Dean H. L. Russell, college of agriculture, who has succeeded in obtaining a good appropriation from the state to undertake two years more of energetic land-clearing campaigns.

Just an abstract from some of them will be printed to show the sentiment that refuses to be stumped by the stumps in this day of pressing agricultural need:

Vilas County.—Ten tons of dynamite unloaded here the other day. There will be more land cleared in two months this year than in any five-year period before.

Taylor County.—Farmers want all the dynamite they can get and more, too. Every pound of dynamite in the hands of a good farmer means more tillable land. The bankers are with us and all are busy.

Oneida County.—More than six tons of dynamite will soon be here for immediate use, and farmers will follow with an order for another six tons. There will be more land cleared here than in any two years previous. You have started something.

Ashland County.—Have just completed the little job of unloading and distributing about twenty-one tons of dynamite to our farmers. Stump pulling is surely the biggest single aid to food production that farmers here can give.

Just a word in closing this article: It is hoped most earnestly for the adequate protection and future extension of the food production areas that at no time in our national warfare for democracy will it be found necessary to curtail the output of farm powder—the force which is so rapidly opening up new acres for the plow and the cow.

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Richmond County Picnic.

The Richland County Holstein-Friesian Breeders' Association will hold its annual meeting and picnic at the H. A. Brace home, four miles north of Lone Rock, Wisconsin, Tuesday, August 14th.

The address will be delivered by R. R. Runke, emergency food agent for Richland county. He will speak on "Breeding and Feeding Holsteins."

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SEPT. 10.11.12.13.14.15
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MARVELOUS FOOD, HEALTH AND MARKET SHOW.
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FOUR DAYS OF HARNESS RACING, INCLUDING TWO $5,000 STAKES SEPT. 10.11.12 AND 13.
TWO DAYS OF SENSATIONAL AUTOMOBILE RACING BY TWENTY STARS OF THE AUTO RACING WORLD, INCLUDING THE WORLD'S CHAMPION SEPT. 14 AND 15.
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DAYS-50¢ NIGHTS-25¢

Pulleys.

From time to time we have received several letters asking how to fasten a pulley to the rear wheel of an automobile in order to use the auto to drive a corn sheller, wood saw or other machine. We published an answer to one of these letters in our last issue. In this issue we are publishing three sketches to explain more fully how this may be done.

Figure 1 illustrates the construction of a small split-wood pulley. This pulley may be clamped on the wheel hub of autos having long hubs of small diameter, like the Ford. It consists of two pieces of wood, bolted together with four bolts, the heads and nuts being countersunk below the surface of the pulley. A socket wrench is used to tighten the nuts. Machine bolts three-eighths of an inch in diameter may be used unless the service is severe, in which case use one-

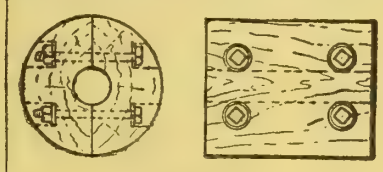

FIGURE 1

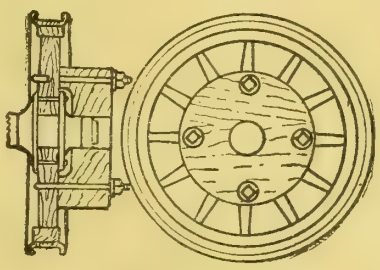

FIGURE 2

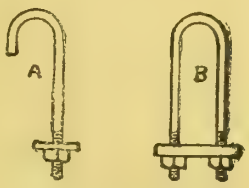

FIGURE 3

half-inch bolts. Some mechanics prefer carriage bolts. This pulley is also suitable for use on line shafts. No keyway is required, as the hole is made small enough so that the bolts clamp the pulley on the shaft. Any farmer can make a pulley of this kind if he has a few wood-working tools. If this pulley is to be used to drive a tight-and-loose pulley, where it is necessary to shift the belt, the outside diameter should be the same the entire length of the pulley; that is, the face of the pulley should be straight. If the belt does not have to be shifted, a crown-faced pulley works better, the diameter of the pulley at the middle being about one-eighth of an inch greater than at the ends.

Figure 2 shows a larger wood pulley fastened to the rear wheel of an auto by means of hook bolts, similar to the one shown at A in Figure 3. This pulley is not hard to make. It may be made of a solid piece of wood, but it is better to make it of several pieces of wood, one-half to one inch thick, carefully planed, cut out in circles, covered with liquid glue and bolted or clamped together while the glue is drying. The center hole should be the size of the auto wheel hub, so as to center the pulley. The outside diameter of the pulley may be trued up after the pulley is bolted on the wheel. Start the auto engine and shift the gears into high, so as to turn the pulley rapidly. Nail a board up near the face of the pulley to act as a tool rest. The top edge of the board should be even with the center of the pulley and just clear the face of the pulley. Then, using a half round chisel known as a gouge, true up the pulley, holding the gouge firmly in the hands.

In some cases it is possible to bolt a cast iron pulley to the auto wheel, using U-shaped bolts or clips as shown at B, Figure 3. This clip clamps the spokes of the wheel and the spokes of the pulley.

Questions and Answers.

Battery Worn Out.

I had an electric lighting plant installed a little over three years ago. It has a fifty-light chloride accumulator open storage battery. The party who installed the plant said the battery would last ten years; but to have the liquid renewed every three years. Now I can store but little current, and electricians here say that I will have to get new batteries. What would you advise, and what is the formula for the liquid?

Answer.—The life of a battery depends upon the care it receives; also the service for which it is used. Rapid charging or discharging soon ruins a battery. A house-lighting battery under fair conditions should last at least five years. Allowing the battery to stand in a nearly discharged state or with the plates not entirely covered with the electrolyte tends to ruin it. If the plates of your battery are not crumbled or covered with a white substance known as sulphate you may be able to renew the battery by charging the electrolyte. However, it would be best to write to the company that makes the battery first; possibly they will fix it for you.

If you wish to repair the battery yourself, make the liquid by slowly pouring sulphuric acid into distilled water while stirring the water with a glass rod. Use enough acid so that the mixture will test 1.35 with a hydrometer. One part of acid to a little less than five parts of water by volume is required, but the mixture should be tested with a hydrometer, as the strength of the acid varies. Having mixed the electrolyte, give the battery as complete a charge as possible. Remove the plates carefully from the jars and pour distilled water or clear rainwater over them to remove the sediment. Also wash out the jars with pure water. Replace the plates in the jars and add the electrolyte. Do not allow the plates to dry while making the change. Charge the battery at once. Considerable time will be required to give the battery a complete charge after changing the electrolyte.

Rewinding Telephone Generator.

I have a five-bar telephone generator, the coils of which are burnt out. Would it be practical to rewind it? The generator is made by the Chicago Telephone Co. Where could I get wire to rewind it? Could this generator be used as a magneto on a jump spark engine?

Answer.—It would be best for you to return the magneto to the makers for repairs unless you wish the experience of winding it. In this case, carefully note the manner of winding as you remove the wires. Order the same size wire to rewind it. Your local hardware dealer can order it for you; if not, you can obtain it from any of the well-known catalog houses. It would not be advisable to attempt to use this generator as a magneto to run a gas engine.

Keeping a Battery Charged.

I have a 1917 Ford car with a Ward-Leonard starter. Please give me any information you can as to how to keep my battery charged and up to full strength.

Answer.—In order to keep the battery charged the car should be run at a speed exceeding ten miles per hour. At a lower speed the battery does not charge. When the lights are on a speed of about fifteen miles an hour is necessary to keep the battery from discharging. A charge-and-discharge ammeter is very useful in telling whether the battery is charging or discharging. Where possible, it is best to run at a speed that will keep the battery on two to five amperes charge. Avoid the frequent use of the starter. The starter requires much current; therefore, learn how to start the motor in the shortest time possible. Correct adjustment of spark, throttle and choke valve will often materially reduce the number of turns necessary to start the motor. Avoid leaving the machine stand for a long time with the lights burning.

Once a month add enough distilled water to the battery to keep the plates covered at least half an inch. Occasionally test the gravity of the electrolyte, using a syringe hydrometer. When fully charged the electrolyte should test from 1.2 to 1.4. The test should never be less than 1.15.

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Size	Plain	N-Skid	Guaranteed Tubes
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30x3	7.70	8.60	2.30
32x3	9.25	9.95	2.75
30x3 1-2	9.95	11.10	2.85
31x3 1-2	10.65	11.60	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.55
31x4	14.75	16.60	3.70
32x4	15.05	16.45	3.90
33x4	15.75	17.20	3.90
34x4	16.10	17.55	4.00
35x4	17.00	18.60	4.50
36x4	17.20	18.65	4.30
34x4 1-2	21.65	23.65	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
35x5	24.90	27.25	6.05
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COLLINS PLOW COMPANY
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Cow-Testing Reports.

(Continued from page 11.)

day A. R. O. record as well as by our association record. The forty-five-pound list for June follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Alvin Veldboom					
No. 7, G. Hol.....	9	3-29-17	1014	5.2	52.1
Van Driest Bros.					
No. 2, N.....	8	2-1-17	1299	4.1	53.3
John DeMaster					
No. 6, P. B. A...	8	4-13-17	1317	3.8	50.1
Will Nyhof					
Madge, G. Hol...	6	5-24-17	2280	2.7	61.6
Huenink & Lubach					
Dot, G. Hol.....	7	2-24-17	1374	3.8	52.3
Molly, G. Hol.....	9	4-14-17	1617	3.1	50.1
J. P. Brill					
Star, P. B. Hol....	4	3-22-17	1536	3.6	55.3
Daisy, P. B. Hol...	7	3-21-17	1719	3.0	51.4
May, P. B. Hol...	9	1-6-17	1275	4.0	51.0
Saddie, P. B. Hol.	8	1-9-17	1446	3.9	56.4
J. Bloomer					
Kate, G. Hol....	5	1-15-17	1543	3.5	54.0
Nancy, G. Hol.....	4	2-24-17	1632	4.2	68.6
D. Orebebeke					
Nelly, G. Hol.....	7	1-2-17	1149	4.4	50.6
G. Laaranan					
No. 10, N.....	8	3-20-17	1395	4.3	60.0
Edw. DeMaster					
No. 2, N.....	5	3-15-17	1323	4.3	56.9
Will Lohnis					
Bessie, G. Hol.....	6	3-6-17	1575	3.2	50.4
Spottie, G. Hol...	6	2-20-17	1725	3.1	53.5
Bessie 2d, G. Hol..	4	4-15-17	1731	3.0	51.9
Josephine, G. Hol..	8	3-15-17	1659	3.2	53.1
J. D. Walvoord					
No. 1, G. Hol.....12		4-12-17	1464	3.7	54.1
John Hilbelink					
No. 2, G. Hol.....	8	2-9-17	1515	3.4	51.5

HERBERT MOTTER, Official Tester.
D. W. HUENINK, Secretary.

Manitowoc County List.

To the Editor:—We had 491 cows under test in June, and eighty-nine gave forty pounds of butter fat or better. Patrick Cahill's herd of twenty-five head, repeated their forty-pound average, by yielding an average of 1,189 pounds of milk, netting 42.18 pounds of butter fat. William Kelly still has the highest producing cow, with a record of sixty-seven pounds for June. The forty-five-pound list for June follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Patrick Cahill & Sons					
No. 1, G. H...	7	11-24-16	1318	3.8	50.1
No. 3, G. H...	6	4-1-17	1225	4.4	53.9
No. 4, G. H...	6	2-12-17	1377	3.3	45.4
No. 6, G. H...	5	3-24-17	1281	3.6	46.1
No. 9, G. H...	7	2-7-17	1238	4.4	54.5
No. 12, G. H...	8	2-9-17	1498	3.9	58.4
No. 14, G. H...	8	12-24-16	1226	4.0	49.1
No. 15, G. H...	8	2-14-17	1476	4.2	62
No. 17, G. H...	8	11-22-17	1337	3.6	45.1
No. 20, G. H...10		3-2-17	1295	3.6	46.6
No. 21, G. H...11		5-28-17	1579	3.7	58.4
Theo. Pritzl					
No. 5, G. H...	7	1-11-17	1344	3.4	45.7
No. 14, G. H...	5	1-8-17	1272	3.6	45.8
Frank Gressl					
Princess, G. H...	7	3-15-17	1504	4.3	64.7
Joe Gintner					
Pearl, G. H....	6	5-20-17	1419	3.7	51.5
Joe Brennan					
Nettle Hill, R. G.	4	5-11-17	1236	4.4	54.4
Wm. Kelly					
Snider, G. H...10		4-29-17	1812	3.7	67
Brindle, N. 14		5-29-17	1884	3.4	64.1
Armsdale Butter Pauline,					
Reg. Holstein ..	4	4-7-17	1776	3.3	58.6
Creame Wa Wa De Kol,					
Reg. Holstein...	5	3-2-17	1908	2.8	53.4
Grey, G. H.....14		2-14-17	1092	4.2	45.9
Lucy, G. H.....	8	3-15-17	1047	4.8	50.3
Reddy, N.	3	3-8-17	942	5.1	48
Emmit Kelley					
Stock, G. H.....	9	1-1-17	1222	3.7	45.2
Norwegian, G. H..12		2-20-17	1221	3.8	46.4
James Conway					
Blackhead, G. H.	6	3-25-17	1185	4.2	49.8
Daisy, G. H.....	6	4-17-17	1653	3.0	49.6
Bessie, G. H.....	6	5-1-17	1614	3.3	53.3
Ernest Gutschow					
Queen, G. H.....	6	1-31-17	1313	4	52.5
John Casper					
Nigger, G. H....	7	3-13-17	960	4.7	45.1
Albert Wagner					
Brownie, N.	6	1-20-17	1089	4.2	45.5
Bessie, N.	5	3-18-17	1245	3.8	47.2
Adolph Otto					
Lady Oak Homestead Mutual De Kol,					
Rg. Holstein ..	9	3-28-17	1782	3.05	54.7
Johanna Pietertje Ormsby,					
Reg. Holstein ..	4	12-31-17	1560	3.32	51.7
Idyl Korndyke Ormsby,					
Reg. Holstein ..	3	3-21-17	1632	2.85	46.4
Adolph Klann					
Rosholt, G. G...	8	4-19-17	984	5.4	53.1
Miss Fox, G. G...	6	3-18-17	849	5.6	47.5
Kurt Voelker					
Black Face, G. J.	7	4-20-17	906	5	45.3
Forris Geraldson					
Canary Mechthilda Princess,					
Reg. Holstein ..	5	3-7-17	1199	4.2	50.4

J. E. BOWSTEAD, Official Tester.
GEORGE KIEL, Secretary.

Winnebago County Association.

To the Editor:—Our forty-five-pound list for the month ending July 31st, is as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	B. fat Lbs
C. Puelke					
Jessie's Jennie,					
P. B. G.	2	6-23-17	1075	4.5	48.4
Dolly, G. G.....	8	11-23-17	1043	5.2	54.2
E. P. Sawyer					
Victoria, P. B. G.	7	4-25-17	1004	4.6	46.2
Dorrett, P. B. G.	6	6-21-17	1171	4.6	53.2
Aug. Franz					
No. 12, G. D.....12		3-18-17	1259	4.3	54.1
N. A. Rasmussen					
May Bee, G. G..	5	6-3-17	1190	5.4	64.2
A. P. Shelton					
No. 7, G. H.....	4	5-12-17	1457	3.1	45.4
Frank Brooks					
Bess, G. H.....	7	6-20-17	1116	4.3	48.1
H. R. Mosley					
Heirmone, P. B. G.	4	3-14-17	945	4.8	45.8
Bessie, G. G.....	8	3-20-17	1162	4.3	49.8
W. P. Bussey					
No. 1, G. J.....	6	4-27-17	1215	4.4	53.0
Levi Brunson					
Blue Bell, P. B. J.	5	3-8-17	976	5.2	50.7
G. W. Searles					
Pella, G. J.....	5	4-18-17	1050	4.7	49.3
Edd Rose					
No. 21, G. H.....	8	7-1-17	1596	3.3	52.6

T. G. FISHER, Official Tester.
LEVI BRUNSON, Secretary.

Encouraging Best Settlers.

H. A. Kamn, of Crandon, Forest county, Wis., writes The Wisconsin Farmer concerning the new spirit that has set its mark on the farm and communities near Crandon. One of the large lumber companies has been selling cut-over land in Forest county for some time. It had been its policy to sell land to anyone, regardless of who he might be or where he might be from, but early last year this company organized a land department for the purpose of getting substantial settlers in the district and engaged L. Mordt as manager of this department. Mr. Mordt had previously been engaged in establishing large German and Scandinavian settlements in Oklahoma and Texas. He left the Southwest because of the everlasting drouth and selected Upper Wisconsin as the "one best bet" in the country. This land department was named the Per-Ola Land Company. The results of Mr. Mordt's work have been more than gratifying. For a number of years agricultural development in the Forest county section was at a standstill, but this spring, as the direct result of this work, a score of new settlers, most of them of considerable means, arrived and in the past few weeks these settlers have been extremely busy preparing new ground for this year's crop. We quote from Mr. Kamm's letter:

They are going in strongly for potatoes, oats and hay and truck gardening. Most of these settlers already know The Wisconsin Farmer, as the greater number of them came from the southern part of the state, though quite a few hail from Chicago and Milwaukee. One of the settlers, Mr. Lee Carr, a cigar merchant from the loop district of Chicago, settled here last fall, made several hundred dollars clearing his land in the winter, and is putting in ten acres of potatoes this spring. He is going into the stock and dairy business. Mr. Mordt tells me that he has a number of such men coming up this summer. Among others, the Milwaukee manager of a large millinery manufacturing company. A larger number of settlers are coming during the summer and next fall.

The plan Mr. Mordt has employed is original and unique, as well as very successful. It is called the Per-Ola plan. It includes a coöperative system, which unites the landowners, land buyers, and the sales representatives of the land department, thereby cutting down expenses. In addition to this, the Keith & Hiles Lumber Company offers the settlers substantial assistance in the different farming communities built up under this plan by the free use of the most modern clearing machinery, an appropriation of $7,500 being made for every 5,000-acre unit. The settlers receive clearing machinery as they arrive, and are also guaranteed capital for the construction of cheese factories of the most modern kind, as soon as milk cows are secured in sufficient numbers to make their operation a paying proposition. There are many other features which are interesting, but too numerous to mention here. No settler is located unless he has enough capital to carry himself through till success is obtained.

Most of the settlers who arrived this spring and last fall are of American, German and Scandinavian descent, and, as they all have some cattle, they have increased the live stock and dairy business in this country considerably. All are enthusiastic about this new development around Crandon. The work that has been done here all last year and this spring promises a rich future for all, and I believe that if the other districts of northern Wisconsin, where there are cut-over lands, would offer new settlers more material help and assistance along the line that the Keith & Hiles Lumber Company, through their land department, is offering their settlers, the country would be developed faster.

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SILENT PARTNER WANTED—We have a fine chance to buy fine farms close to the city of Oconto, Wis., suitable for stock farms, that would feed over a thousand head of cattle, at a very low price on account of old age and death of owners. There are over 100 head of thoroughbreds on them now that would go with the farm. There is big money for the party that would furnish the money to swing the deal. Address C. S. Hart, Oconto, Wisconsin.

CHOICE SNAPS—160 acres level lying, easily cleared land; clay loam soil; considerable building timber and firewood; good stream of water; splendid stock proposition; on good road; school, church and cheese factory 2 miles; $15 per acre. An 80 at $10 per acre; a 40 at $300. One-fourth down. Can be had without down payments. Write for particulars. The Ev. Luth. Colonization Co., No. B-M, Dept. 10, Merrill, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

A REAL BARGAIN, 640 acres, clay loam soil. 80 acres of valuable hardwood timber, balance open land, covered with clover and grass. Two small houses and barns, 20 rods to fine fishing lake, two miles from two railroad towns, best sheep or stock proposition in northern Wisconsin. Will divide in quarter sections. Only $20 per acre. Terms to suit. No trades considered. Other smaller tracts also. F. M. Doyle, Ladysmith, Wis.

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WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

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RED POLLED BULL CALVES, good ones. Iver Iverson, Manchester, Minn.

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WANTED—Farm hand. Kindly state wages desired in first letter. Also want girl for general housework. Roy Dolphin, Montfort, Wis.

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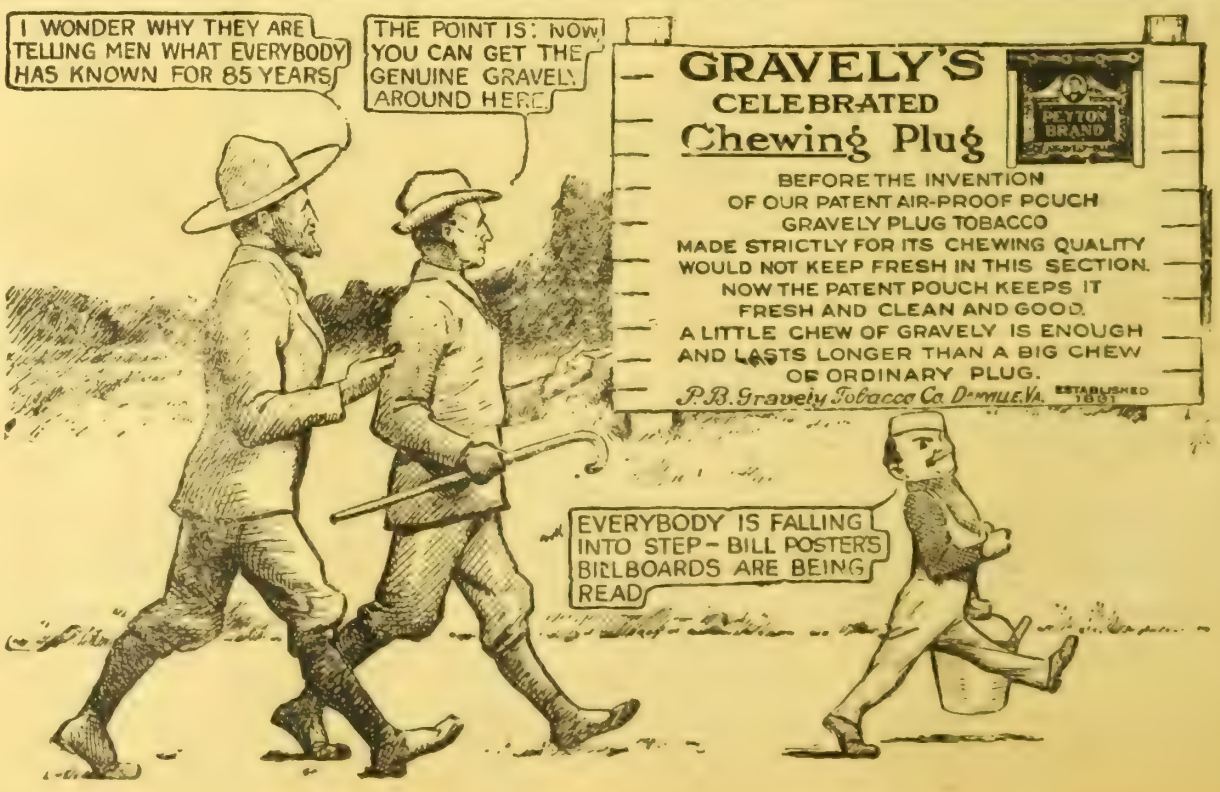
HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

FARM FOR SALE—133 acres, heavy clay loam; 30 acres timber, balance productive fields that produce acre for acre as much as any land in the West; great markets; ½ mile from town and railroad; new 10-room house, full basement; telephone; large new basement barn, hen houses, fruit; fine climate, mild winters. Price $3,000, half down, balance on easy terms. Send for free photos and description. A. L. Wilkins, R 1, Union, N. Y.

A SMALL FARM in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.&S.F.Ry., 1959 Ry. Ex., Chicago.

PATENTABLE IDEAS WANTED. Manufacturers want Owen Patents. Send for 4 free books; inventions wanted, etc. I help you market your own invention without charge. Richard B. Owen, 37 Owen Bldg., Washington, D. C.



Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

One of Wisconsin's Holstein Foundation Herds.

WHILE visiting Rust Brothers, West Allis, Wis., last week we again had the opportunity of noting the splendid work which has been done in this noted herd, from which foundation stock has been sold that has formed the nucleus of many of Wisconsin's most noted herds. Rust Brothers likewise have sold much stock that has gone to foreign countries especially Japan. At present they have in their herd a number of exceptional cows with records ranging from 27 to 33 pounds of butter in seven days. Rust Brothers' herd has also made its appearance at the Wisconsin State Fair for a greater length of time than any other herd in the state and in this connection it may be said that its appearance has always reflected credit upon its owners. They have on hand at present a number of promising young bulls that should be of interest to many breeders throughout the state wishing to select a herd sire bred along the lines of high production, good individuality and plenty of size. Sir Ida Lotta Hengerveld, a grandson of Ida Lotta 5th, a 29.47-pound cow that has also a semiofficial record of 17,980 pounds of milk and 816 pounds butter in a year, is a promising young bull, that is being offered for sale at a very reasonable figure considering his ancestry. In this connection it might be added that they recently sold a bull calf from their 33-pound cow for $1,000. Breeders wishing to get the right kind of foundation stock would do well to correspond with Rust Brothers with reference to the bull calves they now have on hand.—Adv.

Big Bone Wonder—Martiny.

SEVERAL times we have called the attention of our readers to the good Poland China boar, Big Bone Wonder, owned by L. P. Martiny, Chippewa Falls, Wis. We have had this boar slated as a winner at Milwaukee and we made a trip to see how he had done since we saw him in March. We found L. P. "down in the mouth" when we asked him how the good boar was getting along. The pigs by Big Bone Wonder looked so good that he was anxious to get some fall litters by him and in breeding a sow the boar, in some manner, wrenched one of his hind legs and he has been lame for several weeks and incidentally "off feed." This was indeed a great disappointment to Mr. Martiny, for he had reason to be proud of this boar and wanted to show him at Hamline and Milwaukee. As it is he won't be in condition to take out now. There are some good gilts and boars on this farm sired by this boar, also some by other boars out of some real big-type sows. The writer weighed a couple of the brood sows, neither of which are going to be shown and neither are getting any grain, simply running on pasture. One weighed 530 pounds and the other 570 pounds, so you can glean from this that they are "big type" and are in the 800-pound class. Mr. Martiny will have a futurity litter at Milwaukee that is "some litter." This breeder has some vey fine Guernsey bulls ready for service. They are of the very best breeding and are being priced worth the money. If you want Polands or Guernseys, it's to your own interest to get in touch with Mr. Martiny. Kindly mention this paper. See page 18.—Adv.

Atwater Donates Pig to Red Cross.

WE have been advised that L. F. Atwater, the popular Duroc Jersey breeder of Bangor, Wis., is going to donate one of his very best pigs to the Red Cross. This pig will be disposed of at the Wisconsin State Fair, and Mr. Atwater assures us he is giving one of the best boars that he has in his herd this year, and he is arranging a unique plan for the disposal of the pig and makes this further promise that if the man who buys the pig would rather have $100 than the pig, he will give him the $100 and keep the pig. It is possible that some city folks under the plan arranged may get the pig and in this event, Mr. Atwater thinks that they would rather have the cash than the animal. The fact that Mr. Atwater is willing to give $100 for the pig is proof that the boar will be one of the best of his spring crop. We are glad to see breeders take this interest in the Red Cross Association's work.—Adv.

R. C. Church Has Good Boar.

WE recently saw the R. C. Church Duroc boar that was purchased in the Atwater boar sale last fall. We thought this was the best boar sold in the sale and we are still of the same opinion. He is not fat, but Roy has grown him in nice shape and if he was in condition he would be the biggest junior yearling that we have seen in the state. He is big all over, has good feet and bone and a wonderful back. He is sired by Great Chief, a son of the noted Cherry Chief, and he is out of a daughter of Lee's Defender. Mr. Church has a number of good pigs by this boar that will be offered for sale later. Don't forget that R. C. Church, Elkhorn, Wis., has one of the good boars in the state.—Adv.

Gant's Farm Durocs.

THE Gant's Farm Durocs are doing fine. There are around 100 pigs on the farm and they are all doing nicely. Many of them will weigh well over 100 pounds and none of them have been pushed along for show, but by the first of September there will be some boars and gilts in this bunch that will compare with the best of them. The Durocs on this farm represent the most popular blood lines known to the breed and in due time we will tell you all about them. The litter by Orion Cherry King is coming along in fine shape and there should be some "scramble" when these are offered for sale. The advertisement will appear in this publication in due time.—Adv.

Prepare Early For the Madison Sales.

IT IS a settled fact now that the Poland China, Chester White and Duroc Jersey state associations will hold sales at Madison next winter, either the first or second week in February. It is very important that the very best animals be sent to these sales. There were Durocs and Polands consigned to these sales last winter that should have gone to the stockyards. Breeders now see where they made mistakes and we hope for outstanding individuals for the sales next winter. Now is the time to make your selections for this sale—pick the best gilts and carry them along for this event. Pick something that you would like to keep yourself—don't send a sow that is not good enough to keep in your own herd—the other breeders don't want her any more than you do. It should be the ambition of everyone consigning to these sales to be the consignor of the sow that topped the sale. The secretaries of the various associations want to know just as soon as possible the names of the breeders that expect to have entries in these sales. If there is any information you want write the secretary of your state breed association or you can write The Wisconsin Farmer. Prepare now to boost your game.—Adv.

Duroc Jersey Breeders Meet at Madison.

THE directors of the Wisconsin Duroc Jersey Breeders' Association, met at Agricultural Hall, Madison, Wis., Saturday, July 28th, to discuss the feasibility of holding another bred sow sale at Madison next winter. All those present were in favor of such a sale and committees were appointed to make necessary arrangements. The date for the sale cannot be settled just at this time. There is some talk of having another "swine week" the week following "farmers' week." A committee was appointed to confer with members of the other state swine breeders associations and arrange for a week of sales if possible. This joint meeting will be held during the state fair at Milwaukee. The sales were a grand success last year and we see no reason why they cannot be an annual event. The Poland China breeders, the Chester White breeders and the Duroc Jersey breeders now contemplate sales of their respective breeds next winter. As yet it is not decided whether the Hampshire or Berkshire breeders will hold a sale or not. We hope they can get together and be represented.—Adv.

W. C. Scheibe, Burlington, Wis.

MR. SCHEIBE, as usual, is getting ready for the fall fairs and has a number of promising individuals coming on nicely, including his herd boar, Perfect Prince, that was shown last year at five fairs, including the Wisconsin State Fair. He has thus far been undefeated in his class and has been champion over all breeds at two fairs. He is an exceedingly smooth individual and will offer the keenest kind of competition this fall. Mr. Scheibe also has a couple of sows that look like winners, as well as a number of spring pigs which are in a thrifty condition. Mr. Schiebe's yearling fall boar purchased from Arthur Thompson, Wabash, Ind., sired by Royal Blood, is likewise a good individual, as well as Guy Comet, sired by White Prince.—Adv.

W. W. Goodrich, Ft. Atkinson, Wis.

THE above man lives near Ft. Atkinson, Wis., and besides being in the Holstein business he also keeps registered Duroc Jerseys. Just at this time he has some 50 head of spring pigs that are being offered for sale. Most of them are sired by Defender Major 2d, he a son of the $1,500 Defender Major by the $10,000 Defender. The dam was a daughter of the grand champion, Volunteer. The pigs are stretchy, high-backed fellows and should give satisfaction. He also has a late litter by the grand champion, King Defender. Mr. Goodrich will give you a good deal and if you are interested it will pay you to write him. Please mention The Wisconsin Farmer. See page 18.—Adv.

L. V. Garvens, Brookfield, Wis.

MR. GARVENS is now offering his herd bull, Hengerveld Salo De Kol Beets, that is mostly white, a good individual and large for his age. He is a two-year-old son of Hengerveld De Kol Beets, and out of Aaltje Salo De Kol Pontiac, that has 748.76 pounds butter and 15,623.90 pounds milk in a year. Mr. Garvens also has several young bull calves that are typey individuals that can be purchased at a reasonable figure.—Adv.

Reuben Klafonda, Racine, Wisconsin.

MR. KLAFONDA'S ability as a show man and tester has brought him into prominence in Holstein circles quite frequently the last few years and he is now contemplating a dispersion of his entire herd at the Lake Mills sale this fall. This herd consists of nine aged cows most of which have very creditable A. R. O. records ranging from 25.6 pounds as a junior four year old to 27.7 pounds at full age. These cows are in calf to a 30-pound bull, North Star Parthenia Sir Beets. It will be remembered that one of his noted cows, Kolantha Piebe of Elm Court stood second in the aged cow class in 1913 at the Wisconsin State Fair. She is a large cow of exceptional capacity and possesses the lines necessary to win in the show ring today. Mr. Klafonda also has in his herd a 31-pound bull calf sired by North Star Parthenia Sir Beets as well as a bull calf out of a 25.6-pound junior four year old. Mr. Klafonda is now advertising his herd sire which is a two-year-old bull, Racine Johanna Bessie Piebe, that is by Johanna Kolantha Sarcastic Lad II, and is out of his 25.6-pound junior four-year-old cow that is a splendid individual.—Adv.

Harvey Longley, Dousman, Wis.

MR. LONGLEY'S Guernsey herd, to our knowledge, never has put up as good an appearance as it does at the present time and one who has been in a position to watch Mr. Longley's progress as a Guernsey breeder cannot help but appreciate the rapid progress which he has been making. His aged cows present a uniformity of high producing type that is pleasant to note and his two-year-old heifers, as well, look as though they would be able to hold up the present high standard of his herd in production. Mr. Longley stated that he would price two or three of his aged cows, several of his two year olds, as well as six yearling grade heifers. Anyone interested in Guernseys of this character would do well to correspond with Mr. Longley concerning his herd and we take pleasure in recommending it from the fact that it is now on the state accredited list and that we have absolute confidence in Mr. Longley's reputation as a breeder.—Adv.

Some Very Choice Herefords.

WALTERS BROS., Chippewa Falls, Wis., will have a Hereford show herd out this fall that will be a credit to them, and the state of Wisconsin. They will be shown at all the leading fairs in the state and our readers that are interested in this herd should arrange to visit some of the fairs that they "make." They will have with them some young bulls that are choice and they are for sale. If you will write them they will send you a list of the fairs that they will attend and you can arrange to see their stock then. This, perhaps would be easier for you than to go to Chippewa Falls. The young bulls they offer are sired by Beau Gomez 2d, he by Beau Gomez that sold once for $4,000 and last year he was sold at auction for $3,900, so you can see that their bulls come from well-bred stock. Write them your wants and mention this publication. See page 19.—Adv.

Silver Spring Farm Bull—Money-Maker.

THE Silver Spring Farm Co., Eau Claire, Wis., are offering a six months old Holstein bull that will certainly make money for the man that buys him. He is sired by an A. R. O. bull and his dam has an A. R. O. record and is a fine individual. The advertisement that appears on page 19 of this issue gives his breeding, price, etc. This exceptional offer will not last long, so if you are going to need a bull of this breed, here is your opportunity. In corresponding with the owners please mention The Wisconsin Farmer.—Adv.

Grant County Durocs.

ROY HORSFALL is another one of those Grant county breeders that are producing better Durocs. He lives near Mt. Hope and can ship from Fennimore on the Northwestern or from Bridgeport on the Milwaukee. Roy has taken good care of his pigs and he can sell you a boar and a few gilts that you will be pleased with. His price is very reasonable, considering what you can get for the money, and once a customer, always a customer. We will have more to say about this herd later.—Adv.

Sale of Young Stock.

THERE has been great activity in the sales department of the Pabst Stock Farm during the past few months. According to advice just received from Fred Pabst, practically all of their older calves have been disposed of. The oldest one they now have on hand is Pabst King De Kol Maplecrest. Among the recent sales that have been made is that of Pabst Korndyke Killarney which was purchased by the Bechaud Brewing Company, of Fond du Lac. This is a nice, straight calf, light in color. The dam has not been tested. This is her first calf and she will be tested next season. George J. Wiesemann, of La Grange, Mo., recently bought Pabst Korndyke Alder. This is a straight calf, light in color and with plenty of substance. W. H. Johnston, of Troy Center, Wis., has secured Pabst Terzool Korndyke. The calf has a wonderful capacity. His dam is a large cow with the well-balanced King Pontiac Champion udder. Another purchaser from Troy Center was Charles Arnold, who bought Pabst Barberry Korndyke. This is a nicely marked calf, more white than black, with a white face, and a good straight individual. See page 19.—Adv.

McKerrow's Big Sheep Sale, Pewaukee, Wis., August 15-17.

This event should be a record-breaker as McKerrows are offering sheep of the highest quality, including fifty Shropshire breeding rams, twenty-five Oxford breeding rams, thirty Shropshire yearling ewes, that have just arrived from England, fifteen Oxford ewes and show sheep of all ages. McKerrows have arranged for the following men to take care of the mail order business. Prof. Frank Kleinheinz, Agricultural College, Madison, Wis.; Prof. W. C. Coffey, Agricultural College, Urbana, Ill.; Prof. T. G. Patterson, University Farm, St. Paul, Minn., and Secretary W. C. Shafer, of the American Oxford Association, Hamilton, Ohio. See advertisement on page 18.—Adv.

Orrin Hake, Jefferson, Wis.

MR. HAKE is one of Jefferson county's most progressive breeders who has shown the wisdom of selecting the right kind of a herd sire. His herd header is by King Pontiac Champion, one of the most noted sons of King of the Pontiacs, now at the head of Fred Pabst's Holstein herd, and is out of K. S. P. Dione, that has 29.15 pounds of butter in seven days and 724.35 pounds of butter in a year. This cow is one of Mr. Pabst's good ones and is recognized as being the best producing daughter of King Segis Pontiac. Mr. Hake is now offering several young bull calves for sale out of consistent producing dams.—Adv.

Oxfords, Polands, Short-horns.

IF you want a registered Oxford ram, if you want a registered Poland gilt or boar, if you want a Short-horn bull write to P. N. Collins, River Falls, Wis. Mr. Collins has been breeding pure-bred stock for some time and he enjoys a good business and the noticeable feature is the fact that he sells to the same men year after year. He will be pleased to describe what he has for sale of the various breeds, and we are confident that the prices will be within reason. Write at once, and please say you saw the advertisement in The Wisconsin Farmer. See page 18.—Adv.

William O'Leary, Honey Creek, Wis.

MR. O'LEARY'S herd of Holsteins, mostly daughters of Green Valley Thorndyke Vilma makes a very creditable showing as we had an opportunity to inspect them several days ago while

TOO LATE TO CLASSIFY.

BROAD RIPPLE FARMS

GUERNSEYS FOR SALE

SERVICEABLE YOUNG BULLS and bull calves; A. R. Cows in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.

GEO. W. BROWNE, Prop. Waukesha, Wis.

Boys! Boys!

Get a "Bing-Bang" Gun Free

This is one of the greatest novelties of the season. The "Bing-Bang" Gun is good for 1000 Hot Shots, does not cost a cent to operate, and is absolutely harmless. You can have all kinds of fun with one of these "Bing-Bang" Guns. If you get one, every boy in your vicinity will want one too.

All you need to do is to write a letter and say:

"Please send me one of your 'Bing-Bang' Guns and tell me all about the American Junior Automobile that you are going to give away."

As soon as I receive your letter I will mail you a "Bing-Bang" Gun and send you full information about the American Junior that I am going to give to you or some other little boy or girl. Please enclose 3c in stamps in your letter to pay postage and cost of mailing the Gun. I have given away many automobiles and I want to tell you how you can get one for your own.

Address your letter to Pres. Junior Auto Club, Dept. 185, Popular Bldg., Des Moines, Iowa.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

80 Shropshires 40 Oxfords

To be sold

AUGUST 15-17

McKerrow Farms, Pewaukee, Wis.

THIS OFFERING includes McKerrow's entire English importation reserved for the sale and the choicest show stock from their own well-known herd. Among the Shrops there will be thirty sons and daughters of Senator Bibby and Bibby Champion. Write for catalog to

McKERROW FARMS Pewaukee, Wis.

CHESTER WHITE SWINE.

CHESTERS EXTRAORDINARY

BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.

WM. F. BUTTS Evansville, Wis.

RAINY DAY

By **CALLAWAY FAVORITE**—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write

WALTER GEORGE Evansville, Wis.

100 TO 130 POUNDS

WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.

B. H. BABCOCK Evansville, Wis.

BIG TYPE O. I. C. and Chester White Swine

FOR SALE—Special prices for the next thirty days on all spring boars. All sold except just a few that we are keeping so we can furnish pairs no kin. Get our catalog of our champion.

HARRY T. CRANDELL & SON, Cass City, Mich.

J. A. DOERR

VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

MAKE MONEY

BUY A CHESTER boar of me and improve your herd. Best breeding; well grown.

ART. G. HOSKINS Dodgeville, Wis. (Mile west of city.)

CHESTER WHITES

Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

KIRST CHESTERS

THEY SATISFY—Correspondence invited. (N. W. and St. Paul Railroads.)

A. L. KIRST Tomah, Wis.

GRANT CO. CHESTERS

FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.

JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.

ADOLPH NUTTLEMAN West Salem, Wis.

grazing on pasture. Mr. O'Leary also has a granddaughter of Hengerveld De Kol that is a creditable individual. From the good cows that he already has in his herd we prophecy that if he is successful in procuring the right kind of a herd sire he will in a short while have one of the leading herds in his vicinity.—Adv.

Bernd Short-horns.

W. J. BERND, New Richmond, Wis., is one of the "old timers" in the Short-horn game and he needs no introduction in Wisconsin. We only wish to say that he has one of the good herds of Short-horns in the state and if you wish to buy cattle of this breed, correspond with him.—Adv.

Northern Grown.

DON'T forget those northern-grown Durocs offered for sale by P. P. Schmit & Sons, New Richmond, Wis. They give a liberal guarantee and will send boars and gilts that will make friends and customers.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 25-Mar. 1, Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Aug. 14, W. N. Shanks, Worthington, Minn.
Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

DUROC JERSEY SWINE.

QUICK SALES SMALL PROFITS **DUROCS**

THE GILTS AND BOARS that I have for sale will please the most critical. Let me convince you. "Big with Quality."

MIKE STOEHR - - - - - - Viroqua, Vernon County, Wisconsin.

For My Duroc Boar Sale October 17

I'LL SELL BOARS that my old customers can use. As an attraction I will sell INVESTOR JR., a yearling son of Shank's Investor and "some boar." Will also sell spring pigs by Investor out of the sow that topped Shank's sale. Boars by DREADNAUGHT, he by Illustrator. Boars by PROUD CHIEF JR., by Cherry Chief. No matter what breeding you have you can use some of these boars.

L. F. ATWATER Bangor, Wis.

DUROCS

FOR SALE—Four fall boars, 3 fall gilts, not bred, and a few spring pigs; pedigree furnished.

HAROLD RUDE Edmund, Wis.

Grant Co. DUROCS

THE GILTS AND BOARS I have for sale will please. Some of the most popular breeding. Satisfaction guaranteed.

ROY HORSFALL Mt. Hope, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

Pathfinder 2d by Pathfinder
Col.'s Choice by King the Col.
Pal's Defender by Lee's Defender

THE SIRES OF MY SPRING BOARS. Name of the breeding you prefer. Every pig guaranteed.

DENNIS SHEA MELVINA, WIS. Near Sparta

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

NORTHERN GROWN DUROCS

BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.

P. P. SCHMIT & SONS New Richmond, Wis.

FASHION

DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.

ISAAC HIGGINS GOTHAM, WIS.

DUROC JERSEY SWINE.

DUROCS

You've heard of our big sows. Boars from them are now on sale.

Shipped on approval if you wish.

RILEY MARTINY & SON BARABOO, WIS.

Blood of Grand Champions

STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.

McCLURG BROS. VIROQUA, WIS.

ORION COL. S.

BY COL. S. JR., out of a daughter of ORION CHIEF. New Duroc blood for Wisconsin. Booking orders for spring pigs. Write

W. C. JENKINS BANGOR, WIS.

DUROCS

FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

W. W. Goodrich Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

J. W. HIGGINS RICHLAND CENTER, WIS.

O'KEEFE

OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.

M. H. O'KEEFE & SONS WAUNAKEE, WIS.

POLAND CHINA SWINE.

100 BIG-TYPE POLAND CHINA SPRING BOARS AT $30.00 EACH

Double treated, and we record them. They will be worth $30.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs.

They are from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo, whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouws, noted Big Jumbo. There is no bigger breeding. Others by Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. Buy your boar now and save from $20 to $50. Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd, one of the greatest in America, as well as one of the most up-to-date, pure-bred stock breeding establishments.

W. H. COOPER Hedrick, Iowa

THE UTMOST IN POLAND CHINAS

DOBSON & EASTMAN Lancaster, Wis.

SPRING AND FALL BOARS OR SOWS. Sows bred to farrow in September. Everything is cholera immune. Will ship now or deliver at the State Fair, Milwaukee. The important item this year is ORDER EARLY.

EXTRAORDINARY Poland Boars

"Master's Giant" "Orange Wonder" "Young's Big Joe"

One of their Sons Should Head Your Herd

P. W. YOUNG Box 100, Prosper, Minn.

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

LOUIE REESE Brooklyn, Wis.

Our Farm Help Column.

FARM JOBS WANTED.

Mrs. Nina Babcock, Chippewa Falls, Wis., Route 1. Has two small children. Wants position as housekeeper. References asked and given. Claims experience as cook.

FARM HELP WANTED.

John H. Gothye, Hancock, Ia., wants man until after harvest and corn husking.

What does silage cost? Considering the cost of growing the crop, interest and depreciation on investment, and cost of filling, silage costs about $2.80 a ton, say the agricultural engineers at Ames, Iowa. They figure it as follows: A survey of a large number of farms indicates that it costs very close to 80 cents a ton to put up silage, including cost of cutting, hauling, packing and rent for engine and ensilage cutter. The cost due to interest and depreciation, figured at 5 per cent each, is about 50 cents for an average 100 to 140-ton silo, which costs approximately $500. Cost of growing will come to about $1.50 a ton, which includes rent of corn land, cost of plowing, seeding and cultivation. This totals $2.80 for the cost of a ton of silage.

Oxfords Polands SHORT-HORNS

Big strong rams that will please. Sows bred to farrow this fall—gilts and boars. Best big types. What do you want?

P. N. COLLINS RIVER FALLS WIS.

160 BIG-TYPE POLAND PIGS 160

THAT NUMBER IS SIRED by thirteen different boars, among them being MATCHLESS WONDER (winner at Iowa), CROW'S PROGRESS, Mc'S BIG BONE, JUMBO'S GIANT, BIG ORANGE EQUAL—out of those big, smooth sows for which my herd is noted. Let me describe my pigs.

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POLANDS

GILTS AND BOARS by A'S BIG ORANGE, one of the best producing boars ever in the state. His pigs are BIG, yet are easy feeders. Every one from a big litter. I try to please.

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OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

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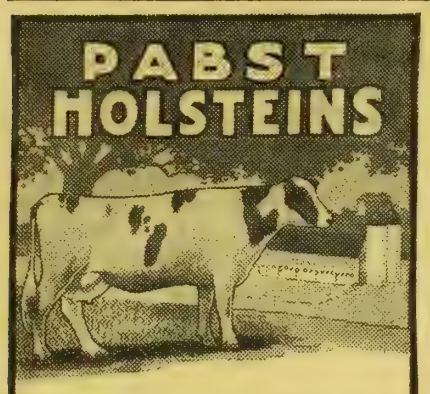

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HEIFER CALVES AND YOUNG COWS for sale. Ten daughters of the 24.12-pound bull, Sir Korndyke Zoldusky DeKol, that has 10 A. R. O. daughters. He is a grandson of Hengerveld DeKol, that has 116 A. R. O. daughters. These heifers are bred to the 40-pound bull, Johanna King Segis, a son of the 40-pound cow, Johanna DeKol Van Beers. Yearling bulls and younger from A. R. O. dams with records from 14 to 30 pounds. High-grade springers and young cows. Write us your wants.

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THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 21.20 lbs. butter, second dam 17.50 lbs. butter. The bull is a little more black than white. Well grown and a good individual. Born January 27, 1916. For pedigree and further information address

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SONS OF Sir Hengerveld Korndyke Ormsby, whose dam, Pietertje Maid Ormsby, made 35.56 in 7 days and 145.66 in 30 days and whose full sister has 1,255.62 butter and 25,418.3 lbs. milk in a year. We are now offering one born May 18, 1917, from an 18.25 lb. 3-year-old granddaughter of King of the Pontiacs. Calf is dark in color and a splendid individual. Write now for price, pedigree and photo to

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10 YEARLING BULLS 10

EXTRA WELL GROWN, good individuals and nicely marked, all more white than black, sired by good sires and from heavy-producing dams with records from 19 lbs. to 23 lbs. Priced for immediate sale from $100 to $150. Don't wait to write.

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FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

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August 15th
McKerrow Farms, Pewaukee

120 HEAD of select home-bred and imported Shropshires and Oxfords will be sold. The 60 head of home-bred show stock and 60 head of choice imported animals in the sale afford an unparalleled opportunity to select show stock and breeding rams. There will be 50 Shropshire and 25 Oxford herd headers in the offering. Write to McKerrow Farms for catalog and further particulars concerning this great sale.

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D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

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Percherons, Belgians, Shires,

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SCOTCH CATTLE of the most fashionable breeding. Some young bulls for sale. I invite inspection. Address

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WHILE THEY LAST

SHORT-HORN BULLS. A few dandies—reds and roans. One by White Rock, he by Whitehall Sultan—a real herd bull.

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HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.

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HAVE SOME BULL CALVES FOR SALE from one to eight months old, from tested cows and cows on test. Ten cows averaged 53 pounds of fat on association test for March. Prices reasonable.

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HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

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BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

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YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write

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MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

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YOUNG BULLS from heavy milking dams and backed by generations of heavy-milking, high-testing cows. They combine Clay Buttercup and Wildeyes breeding, the two best Bates families. Prices reasonable.

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B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

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Gustav Pabst, Prop. Fred Southcott, Mgr.

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Emory C. Mellz GUERNSEYS Appleton, Wis.

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RED POLLED CATTLE.

RED POLLS

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HEADQUARTERS FOR

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RED POLLED CATTLE

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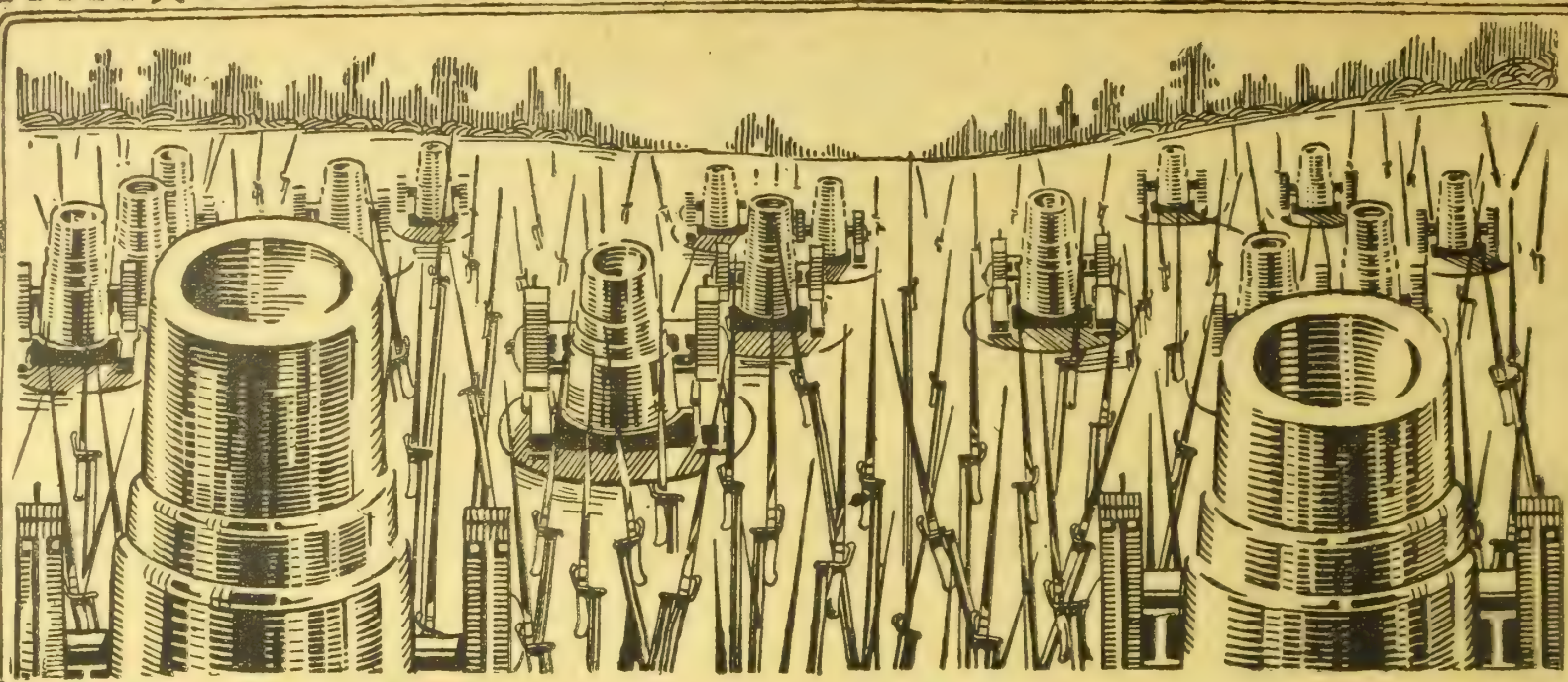

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THE WISCONSIN FARMER

VOL. XLVI. NO. 33. THURSDAY, AUGUST 16, 1917. WHOLE NO. 1855

Tractor Demonstration at Fremont, Nebraska

THE national tractor demonstration held at Fremont, Nebraska, last week, under the auspices of the tractor and thresher division of the National Implement and Vehicle Association, was a mammoth affair. This was the fifth event of this character and the number of tractor entries as well as the attendance eclipsed all former records. When the first demonstration was held in 1913, the tractor was a novel thing and a quarter section of land answered all the demonstration needs that year, as there were but eighteen entries. The next year it required a half section to furnish a workable area for the twenty-eight tractors. In 1915 400 acres were plowed by the forty-eight tractors that participated. Last year there were nealry 100 tractors on the ground and 800 acres of land was required for the demonstration. There were eight demonstrations in all last year, but the officers of the National Implement and Vehicle Association decided that in 1917 there would be but one contest, requiring an area of 3,000 acres to care for all the entries. This land was available in the vicinity of Fremont and there were tractors enough on hand last week to plow every foot of it.

It was made plainly apparent last week at Fremont that the days of "tractor bluff" were over. Manufacturers have learned that the farmer knows a good honest furrow when he sees it. There were as many as 30,000 and 40,000 visitors on the grounds daily last week and, unquestionably, among this number would be thousands who were seriously contemplating supplementing their horse power with tractors. Most men believe in plowing deeper than they actually practice. They are convinced that they have skinned over the soil at a depth of three or four inches long enough and it was therefore a pleasing sight to see many plowing outfits last week cutting eight inches deep in a stiff soil. The comment that one could hear on every hand regarding these deep furrows was of the most favorable character, because it is a well-known fact that the deep-plowing farmers on the whole are the individuals who raise the biggest crops.

Never before have the tractor demonstrations been made so intelligible for the visitor as was the case this year. Every outfit was placarded, showing the brake horse power of the engine, the revolutions per minute, the plowing speed in miles per hour and the kind of fuel used. There were some mammoth outfits in the contest, some of them capable of plowing thirty acres a day, but interest in the main centered in the tractors capable of pulling two and three plows. These were followed mile after mile by men who realized new possibilities in crop production as the result of using an equipment that would do the heavy work of soil tillage quickly and do it thoroughly. The three-furrow plows were turning land at the rate of eight, nine and ten acres a day—an area that would require two men, each operating a four-horse outfit. If one might judge from the comments heard on every hand last week it would be safe to conclude that visitors on the whole were convinced that power farming had come to stay. Here and there on the grounds could be found men who had tried out the tractor in a practical way and were enthusiastically championing its cause.

THOUSANDS OF VISITORS WALKED THE HEADLANDS CONTINUOUSLY WHILE THE TRACTORS WERE AT WORK.

Coincidental with the development of the tractor has come the improvement of a tractor plow, and the character of the work done in the fields this year far surpassed the demonstrations of the past. Surface trash was well turned under and the furrows in most instances were straight and true. The plows entered the soil at a marked line and were taken out at the end with a pleasing abruptness that would be the envy of skillful horse plowmen. Apparently plow manufacturers have faith in the coming of the tractor, judging by the skill that they have displayed in adapting their plows to this form of power.

But the work last week was not confined wholly to plowing. There were drills in the field, many disks, surface packers, harrows and, indeed, an innumerable variety of surface tillage implements. Even corn planters and cultivators were operated with gas. While plowing is an important branch of tillage it is not the whole thing: Keen interest was displayed last week in the work of harrowing, disking, drilling and packing the soil. At these tasks many of the tractors seemed at home. Putting the soil in shape after it is plowed is heavy work on horses because the footing is bad and an important part of their energy is taken up in walking over the land. The big-wheeled tractors seemed to move over the mellow ground with ease, leaving it in most cases in ideal condition for a seed bed. Even the smaller tractors were doing the double work of disking and harrowing and this made strong appeal to those who all their lives have been handling but one implement at a time, even with four- and six-horse hitches.

Interest in tractors has been greatly stimulated by the rapidly increasing price of grain. One visitor, who owns a 440-acre farm, was displaying special zeal over the workings of a 12-20 tractor. He was accompanied by a neighbor who was an enthusiastic champion of the horse and who was a sure-enough Doubting

(Concluded on page 10.)

HEADQUARTERS OF BOTH TRACTOR AND ACCESSORY MANUFACTURING COMPANIES AT FREMONT, NEB.

CURRENT EVENTS

THE cheering word is brought back from Russia, by the commission headed by Elihu Root, former secretary of state, that the republican form of government, recently established, is certain to be maintained if this country will give the Russians assistance and if Kerensky, the Russian republican leader, is spared to his task. If the Russian government becomes stable the Russian army will once more become a big factor in the war and much of the responsibility of the United States will be lessened. Without Russia, the United States will have to bear a much heavier brunt of the war. Unqualified encouragement from the United States, moral and financial when necessary, is essential to keeping life in the new government, the commissioners agreed. A separate peace with Germany is the gravest fear. Left to fight along with her present government in control, the president was told, Russia will emerge triumphant and strong, but if either by great masses of troops or clever propaganda Germany should accomplish the overthrow of the Kerensky government, the outlook would be dark indeed. General Hugh Scott, a member of the commission, was with the Russian army in some of its fiercest campaigning and he is enthusiastic over the bravery of the Russian soldiers and the part the Russian army is taking in the general campaign.

PRESIDENT WILSON won out over congress in his fight for the food regulation bill. The bill was finally adopted by the senate last week by the decisive vote of sixty-six to seven, Senators Gronna, of North Dakota, and La-Follette, of Wisconsin, being prominent among the few who voted against it. The president is expected to appoint Herbert Hoover, of the Belgium relief commission, food administrator, to begin active service at once, following the preliminary plans which he has been formulating while congress was working on the food bills. In addition to its comprehensive provisions for control of food, fuel, fertilizer and farm equipment, the control bill carries drastic prohibition features. Thirty days after it is approved it will be unlawful to use foodstuffs in the manufacture of distilled beverages or to import distilled spirits for beverage purposes, and the president will be empowered to commandeer for military purposes distilled liquors now held in bond and to regulate or restrict the use of foods in the manufacture of wine and beer. A minimum price of $2 a bushel for wheat, at primary markets, is established in the bill, as passed.

DEFINITE assurance that the American public will be protected against profiteering and that the allied governments will get their war supplies at the same prices as the United States, is contained in an announcement of the administration's war price policy. Prices now charged for materials necessary to the industrial life of the nation are out of all proportion, the announcement said to the cost of production. "Unconscionable profits," it is declared, are made on national resources entering into the manufacture of articles to be consumed by the public. Already the administration is preparing for drastic action to reduce prices, if negotiations with manufacturers fail to produce results. Robert S. Lovett, of the war board, declared the government was ready for such a contingency and felt confident it could meet the situation. If possible, he said, it hoped to achieve results without resort to legislation. In the senate Senator Pomerene introduced a bill to authorize the president to fix the prices of iron ore, iron, steel and their products, and to regulate their production and sale through the federal trade commission. Full power to control the sale and distribution of foods, feeds, and fuel was given to the government in the final passage of the food control bill.

THE national guard in every state in the Union became part of the regular United States army last week. Statements issued by the war department place the total force of national guard thus taken into the federal service at 13,093 officers and 419,834 men. Another statement showed that 180,766 war volunteers have been recruited for the regular service since April 1st, leaving only about 2,000 vacancies in the regulars at war strength. These figures mean that approximately 725,000 men are now under arms exclusive of the navy and marine corps, to be supplemented within the next few weeks by 687,000 raised under the selective draft bill. Of the latter number about 500,000 will compose the third great element of the war army, the national army, and the remainder will go to fill up the regulars and the guard and their reserves. Most of the national guard will be sent to New Mexico, Texas and other southern states for winter training and then over to France in the spring, to reënforce the regular army troops already there and to be sent within the next few months.

SENATOR JAMES H. LEWIS, of Illinois, after a conference with the president last week, issued this statement in regard to peace rumors afloat at the national capital: "I do not quote the president, but do say for myself that when the true signs of peace based on the principles for which America went into this war shall appear, the president will be the first to treat with them; but when they shall come disguised as peace—only to serve the further cruelties of war—and the betrayal of America, Woodrow Wilson will be the last to be caught. The country will hear from the president on peace or war just as soon as truth or any new actual conditions call for him to take congress and the people into his confidence. He will allow the American people to lose no right nor suffer any wrongs his diligence would prevent." The Illinois senator told the president he believed congress could adjourn September 1st. There is a quite general belief that Germany's peace hints are not made in good faith, but mainly for the purpose of delaying the United States' war preparations and to give Germany a time to catch its breath.

RAILROADS of the United States gave 16 per cent more freight service in May, 1917, than in the corresponding month a year ago, with virtually the same number of cars and locomotives, according to a statement made public by Fairfax Harrison, chairman of the railroads war board. This is interpreted, the statement pointed out, as "a gratifying indication of the extent to which the railroads of the United States are making effective their efforts to produce greater transportation efficiency to aid in winning the war. Actual returns just compiled," the statement said, "are from railroads having 173,105 miles of line. The reports show that these lines in May last year gave service equivalent to carrying 25,426,845,011 tons of freight one mile while this year they carried 29,522,870,109 tons one mile, an increase of 16.1 per cent.

THE health of Alexander F. Kerensky, Russia's man of the hour, is a matter of grave concern to his friends and associates, according to members of an English delegation which has just returned from Petrograd. Premier Kerensky's health was none too good when he took office and the strain since has been not only constant, but probably heavier than any other statesman's in the world today. His friends say that only his tremendous will power and nervous energy have kept him going so long. Those who have seen the Brilliant Russian leader in the last few weeks describe his face as being haggard and drawn and his figure emaciated, his voice still strong and vibrant, but speech marred by frequent coughing, his eyes brilliant, but not with the brilliance of ruddy health. "If Kerensky can only hold out," is the phrase more and more frequently heard among his friends and admirers, indicating their dread of his physical collapse and what that would mean to the destinies of free Russia.

OUT of one detail of 1,350 wounded men sent for special treatment to a London hospital suffering from crushed and broken bones, 1,000 were able to return to active duty at the front, according to Maj. G. E. Goldthwaite, an orthopedic surgeon of the United States army medical reserve corps, on his return from Europe. Major Goldthwaite is one of the twenty American medical officers who have been in France and England observing and studying new methods of treating wounded. He said he returned to the United States to recruit surgeons who could be given the advantage of similar study in order that the American army when it gets into action may have the benefit of the modern treatment of wounds from its own surgeons. Major Goldthwaite added that were it not for the successful method of treating wounded now being practiced it would be better to let the men die rather than to allow them to recover and continue life the cripples they would be under usual conditions.

IT IS stated in Vatican circles that the Pope's impartial attitude toward official Germany is undergoing a change. The Pope is reported to regret greatly the action of Germany in connection with the deported Belgians. The new attitude appears to have been adopted after the fall of Dr. von Bethmann-Hollweg, the former Imperial Chancellor, who, just before his resignation, wrote what now is apparent was a farewell letter to the Pope, thanking him for his forbearance and favors and calling attention to the fact that the Chancellor had always tried his best to grant the Pope's demands regarding prisoners. Although an absolute break with Germany is not expected at this time it is certain that the Belgian deportations are daily making more difficult the maintenance of relations. The Pope's personal position is also uncomfortable owing to the fight made by Anglo-French and Belgian Catholics, who long have claimed that the Pope was surrounded by German and Austrian influences.

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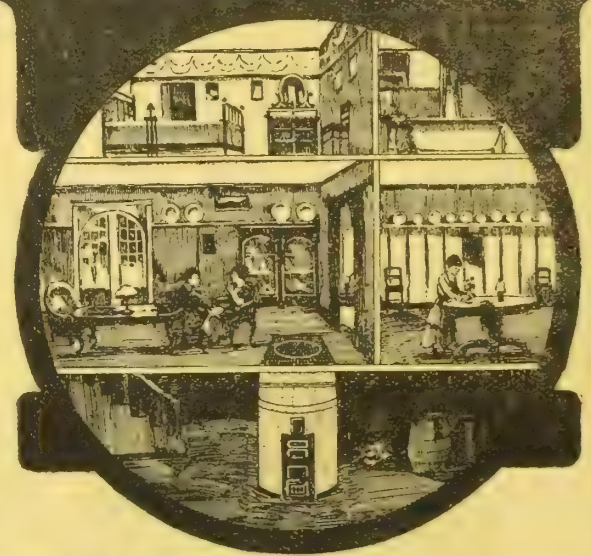
THERE'S a lot of difference between "Mueller Pipeless" and just "pipeless". The Mueller Pipeless Furnace is a *real* furnace, of exactly the same construction as the old reliable Mueller line, only without pipes or flues. It is the result of 60 years' experience in the building of heating systems of all kinds, and it has behind it the Mueller name and reputation.



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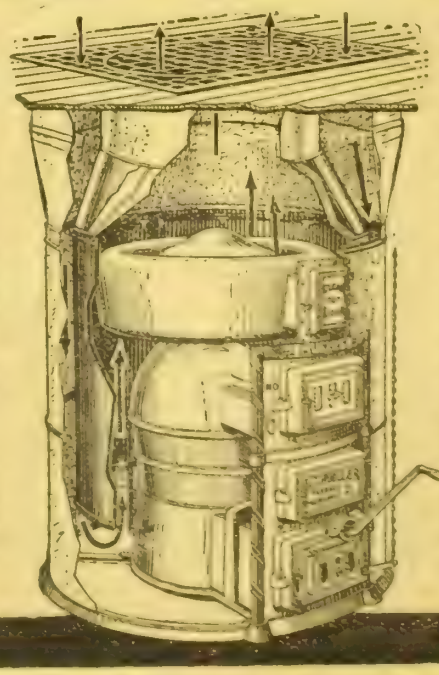

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The Wisconsin Farmer

THURSDAY, AUGUST 16, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

SAVED FROM THE CITY.

A FEW weeks ago I told the story of the young man who had gone away from the farm to the city, full of hope and promise, and how he returned to the old home, in a pine box, to be carried to his last resting place by strange hands. I gave the story as it actually happened, only adding the moral that the boy who is tempted to leave the old farm and seek a home among strangers might well pause to think of the friends he is giving up and the danger he runs of living his days, and long nights, in a back-hall bedroom, not knowing the person in the next room. Perhaps it might not be amiss to reprint my summing up of the story:

What the country gives to the city and what it all too often gets back are the two extremes of life and health, happiness and good intentions. Wherever a man's heart is, wherever his friends are, wherever his home has been when he was happiest, there should he see to it that death finds him, rather than in strange places, among those who know him not and care nothing for him. Remember this, when the lure of the city enters your veins, for there are things far more worth striving for and possessing than worldly riches and a place in the busy world, which all too soon forgets.

My reason for printing these words again is to recall the subject to your minds so that you will understand (and appreciate, as I do) this letter from a Wisconsin farm mother. It is one of the finest testimonials to my work in this heart-to-heart council of ours that I have ever received. Let me print it in full:

Dear Mr. Pierce:—I am a busy mother and don't have much time to read, but I always take time to read your articles. The one about boys leaving the farm and going to the city and the return of the one in the cheap box came at just the right time to be a big help to me.

We have seven boys and the oldest will be nineteen in July. He has a cousin the same age who went to the city last fall. He is an only son and his father needs him on the farm, but he thinks he can have a better time in the city. He came home to spend Easter with his people and he got our oldest boy wild to go with him back to the city. We need him so much because he works the farm while his father and brother sixteen years old work at carpenter work all summer trying to get the cows, horses and farm machinery paid for. We only started farming three years ago and there is so much to buy, and it costs so much to keep a big family fed and clothed. The boy wanted to go and thought we didn't need him. I talked to him a little and then read him your piece and said, "That is true, Grant, every word." After that he went on with his work and chores and has not said a word about the city since.

Thanking you so much for that piece, I am your friend trying to raise some good farmers.

I thank the kind Providence which endowed me with the ability to write, and gave me such a splendid reading circle, for this opportunity to keep at least one farm boy from being lured to the city, with its pitfalls and dangers, its vices and temptations. Sometimes I wonder if what I write is doing any good, after all. Then a letter, such as this, comes to me and I am inspired to keep on, buoyed up by the thought that two or three among the hundreds of thousands who read my words may be benefited and thus it is all worth while.

IN DAYS LONG GONE BY.

I HAVE always maintained that the most interesting story in the world is the personal narrative of the man who has succeeded, whether he be farmer or merchant, doctor or mechanic. Of course, I prefer the story of the man who has grubbed success out of the soil, who has undergone hardships on a homestead, or has turned an abandoned farm into a money-making institution, or has fought his way up in the cornfield or feed lot until he stands out prominently as one of the leading farmers or stockmen of his community.

I propose to print such stories every little while. I find them inspiring and I believe most of my readers do, also. Whether we have life ahead of us or behind us, we cannot but be thrilled by the story of men who have won success on the farm. If we are young, it is an inspiration; if we are old, it is a recollection. Such a story is the one which Mr. S. S. Spangler, of Milan, Missouri, a valued subscriber, has to tell this week, in this fashion:

I am always much interested in your page, but recently it has seemed rather more interesting than usual, if possible. Your writings seem more like a private talk with one's own family or very close friend. Your career is another case of building better than you know. These letters of success have caused my mind to wander back to my boyhood days when I was a mere lad, not yet in my teens, being a member of a rather large family, living on a little rough farm in the grain belt. The struggle for existence was a rather stony trail. It seems about the steepest place in the trail was when I was about nine years old and my oldest brother thirteen. The brother between us became an invalid and my father's time was all, or nearly all, taken up with his care, and the burden of farm work fell to us boys. How well do I remember that raising corn and selling it was the order of the day and 16 to 20 cents was the market price, delivered. Oh, yes, we had a span of old gray mares to do farm duty, and, as a side issue, we raised a pair of colts as well, to be marketed usually at weaning time to help along with the revenue and pay interest on the purchase price of one of these mares that was still unpaid. Well, hauling corn in the fall was a part of our routine work, with the old mares with a linch-pin wagon with a homemade elm box. Sometimes when we were to be in town noon time we were allowed 10 cents to buy crackers and cheese to stave off our hunger. The price of a hotel meal was out of the question. But this was not so bad as to be chided about our team and outfit. One of the worst chagrins of all was to tie our poor team by the side of some of our more prosperous neighbors' big, fat teams hitched to a painted thimble-skein wagon that was just then coming into use. It was then and there I made up my mind that when I became a man I would own as good horses as anybody, and I pass it up whether I have made good the vow or not.

It was in 1877 that father decided to try his fortune in the West and to my mind it was the right move under the circumstances. The following year I worked four months and three days for $41 and at the day of settlement I took my employer's note for the pay, drawing 10 per cent interest. I then secured a place gathering corn and feeding 100 cattle at 40 cents per day. After I had held this job two or three weeks one evening after supper my employer asked me to come to his private room, which I did on tiptoe and trembling, for I was sure I was to be dismissed for some possible misunderstanding of my work, for I was the kid among five or six other hired men. But to my great surprise my employer greeted me kindly and informed me I was to have my wages raised. You may imagine my surprise and I left that room with a firmer determination to do my best. Since those early trying days I have employed a good many boys and men myself and it has always been my pleasure to see as many as possible become landlords themselves and there have been more than a few who have reached the goal.

I think it was Robert Louis Stevenson (one of my favorite writers) who said that the most interesting story in the world is the story of the man next door. We could easily paraphrase it to read "the man on the next farm." Why go abroad and ramble through castle halls and hobnob with royalty when there is so much romance in the life of the man we pass on the country road or talk with across the dividing fence? There is more inspiration in the life of such a man than in the lives of hundreds of the conventional, artificial rich and noble. Give me the story of the man who has shouldered a shovel or pitchfork, who has walked in the moist furrow, who has "done his bit" to wrest a living from Mother Nature, and I am well content to let the city stories, with their false glamor and artificiality, go by.

A GOOD DEED.

I DO not intend this article as a defense of, or an apology for, the railroads or any other large corporations. I am printing it because I find pleasure in recording instances of big-hearted generosity whenever and wherever they may be found. There is so much that is sordid and mean in the world, we should lose no opportunity to chronicle and discuss the instances where the milk of human kindness nourishes the cockles of the heart.

I believe this incident proves that there is a new spirit manifest in many business circles today; a spirit which realizes that there is something more to business than the gathering together and the hoarding of many dollars; a spirit which takes cognizance of the worth of the humblest man. But I do not need to make much comment; the story speaks for itself. Here it is, as a subscriber sends it to me:

Fred Falley was a farmer living three miles west of Topeka, adjoining the Union Pacific railroad. He started last month with his wife and three-year-old son in a motor truck to take a load of vegetables to town. Although the engine was whistling and the bell was ringing so other travelers on the highway heard and stopped, Falley drove directly in front of a Union Pacific train. He and his wife and son were killed and the truck destroyed.

They left a family of six children, ranging from the oldest daughter, Vera, to a baby eighteen months old. Their little farm had a mortgage of $2,299 against it. Teams and implements were mortgaged for $500 and the truck struck by the engine had recently been purchased for $825.

The daughter, Vera, and her fifteen-year-old brother decided to keep the family together and to continue to operate the farm. Neighbors promised to help them. They did raise about $500 and then a storm struck the neighborhood.

R. W. Blair, general attorney for the road at Topeka, had an investigation made, but when the coroner's jury found the railroad without blame he considered the matter closed. Then he learned of the plight of the six fatherless and motherless children and told E. E. Calvin, president of the road.

Calvin at once dictated a letter ordering the two mortgages on the Falley farm lifted, a new motor truck purchased and the funeral expenses of the children's father, mother and brother paid. The check just sent amounts to $3,764.

A few years ago, under the old "public be d——d" attitude assumed by many of our large railroad men and corporation officials, such an incident would have been impossible. There is an old Persian proverb to the effect that the "cheapest thing in the kingdom is that which men hold most dear:" their lives. That proverb is becoming less applicable in America every year. We are in the midst of war, which is exacting a frightful toll of human life; yet never was life held in such high esteem, never were we all striving to save life to such an extent.

I will not go so far as to say that there are not railroads and other big corporations which would not take political and economic advantage of the farmer if they had the chance. I am not saying that we should abandon our suspicious attitude altogether, in considering their pleas and demands. But I am saying that it does one good, in this heated season, to read and to reflect on such a story as I print herewith. Out on the farm we look at things in a larger way than they do in the city. We have a better chance to see the good there is in people, deep covered though it may be by conventionality, artificiality and assumed gruffness. Let us look at incidents such as this and reflect that the world is getting better after all, that charity is still in our midst, that the neighborly spirit is still manifest even in the hearts of the busiest and the gruffest and that there is a brotherhood between the farmer and the city man which is growing stronger and more enduring every day.

COLLEGES AND SUCCESS.

MY RECENT article on the value of a college education—rather, that a college education is not an absolute necessity to success—has brought a host of letters. Most of the writers seem to hold the same opinion that I do, namely, that while a college education is valuable and greatly to be desired, if the means are forthcoming, no young man (whether he aspire to be farmer or to follow some city occupation) need give up hope because college doors are closed to him.

One of the most interesting of the many letters received comes to me from Mr. M. Gorges, of Colwich, Kan., who opens up the question of whether or not our state agricultural colleges educate the boys and girls away from the farm. I shall print Mr. Gorges' letter exactly as it came to me:

Allow me to say that your editorials in the past have put the hope into me that some day people of this country will wake up to the fact that theories and possibilities do not count at the end, but actual results. Your article "Education and the Farmer" ought to be passed over the entire country. A college education will undoubtedly benefit the young man that uses it on the farm in connection with observation, but without this it is worse than useless. We have no statistics to prove what the college education does for the good of the farming interests and must, therefore, be guided by our observations. I personally know nine young men who graduated at Manhattan, Kan. Of these there is one that remained on the farm. Of the forty or fifty other farm boys that graduated at other colleges not a single one ever returned to the farm. Now when we consider that the farm is being deprived of its help at an alarming rate we should try and keep those boys who fail to show a natural tact or inclination for something else on the farm. If the farm land in Kansas today would have to be tilled as it should be one-third of it would grow up in weeds for the want of efficient farm help.

Those of my readers who have positive data on this subject will confer a great favor on me by writing and sharing their knowledge with us. Are the agricultural colleges making better farmers, or fewer farmers? There are two sides to every question; let us have this one discussed, pro and con, not merely giving our personal opinions, but backing these opinions up with information and reports. What boys and girls in your neighborhood have been educated away from the farm by the agricultural college; what boys and girls have been returned to the farm better able to carry on the work? Will you share your information with me, so that we can discuss the matter intelligently and accurately?

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Money Value of Manure.

A comparatively small percentage of farmers are in a position to purchase farmyard manure so that it may not seem to be an important matter to know just what is the actual cash value of manure. However, it is interesting from another standpoint because more or less manure is produced on every farm. The Missouri station has been working on this problem for many years and some very interesting results have been gathered.

Beginning about ten years ago this station began applying eight tons of manure per acre to soils in different parts of the state. In every instance the manure was plowed under in preparing ground for corn. The corn was followed by oats and this in turn followed by wheat and this crop was seeded down. None of the crops that followed corn received any manure or any fertility. Land receiving this kind of treatment produced ten and one-half bushels more corn per acre, five and one-half bushels more wheat, four bushels more oats and about 7,000 pounds more hay than did similar land that received no manure.

With these increased returns in mind it is an easy matter to compute the actual cash value of the manure applied. The ten and one-half bushels of corn would be worth approximately $20 at the present time, while the value of the increase in the wheat would be nearly $12 and the oats $3. In addition, there is a very large increase in the amount of hay produced, so that on the basis of present values the eight tons per acre would increase the value of crops during the rotation period more than $50 per acre.

The conclusion to be drawn from these results is simply this, that every pound of manure that it is possible to save should be saved, because in these piping times with prices for farm products far above the average, every load of manure is actually worth $6 or $7.

The Wheat Situation.

While economy in foodstuffs and particularly wheat is being preached on all hands, it is hard to make any individual citizen feel his personal responsibility in the matter. The loaf of bread or two which he can save a week appears so pitifully small, like a raindrop in the ocean's depths, that it hardly seems worth while to make the effort. Yet the nation is only the individual citizen written large, and it is only by individual effort that any saving can be made.

A few figures may serve to bring home to our readers a little more clearly what not only the United States but the whole world is facing. For the most part the allies must depend on the United States and Canada for their wheat supplies. Russia and Roumania are out of consideration, so far as any great help is concerned, as a result of military conditions and internal dissensions. British India and Australia, with their long hauls, can help little, owing to the shortage of ocean tonnage as a result of the submarine menace. South America is more likely to be importing wheat rather than exporting it because of crop conditions. That leaves the matter principally up to North America.

In round figures the United States and Canada now have the prospect of about a billion bushels of wheat, of which this country's supply is composed of about 100 millions of "carry over" and 650 millions of this year's crop, while Canada has no "carry over" and only about 250 million bushels in prospect. The crop prospects might, of course, be further reduced by bad weather here and in Canada, but at present a billion bushels is a fair estimate of the total supply.

Now by the strictest economy North America may be able to get along this year on half a billion bushels for her own consumption. Then nearly 100 million bushels must be saved for seed and fully 50 million bushels for a safe "carry over." This leaves only 350 million bushels for export to Europe, which will have to take its chances with the submarines, by which it is likely to be further diminished. But even if every bushel of the 350 million that the United States and Canada may have to spare were to be safely landed in Europe it would still be scarcely more than half what is needed there. France, England and Italy alone, even by the most rigid economy, can hardly get along with less than half a billion bushels.

In other words, under the best of conditions the United States and Canada cannot supply more than 50 per cent of our allies' needs. Where and how to get the other 50 per cent is the problem which is troubling Mr. Hoover and his assistants at Washington. It is the patriotic duty of every citizen to make this task as light as possible. This can be done by substituting corn meal for wheat flour where possible, by eliminating all waste of bread in the kitchen and by keeping one's personal consumption within the minimum amount absolutely necessary. The women of the country are waking up to the situation and there is no doubt that they will do their part in this general economy. It is the men of both city and country whose appetites need curbing if the United States is to do its full share in supplying the world's bread basket.

The Farm Grain Elevators.

Present conditions point to a large crop of corn this fall and consequently to the need of considerable additional crib room. Suppose you have a good crib, but that it is only about half large enough to house this year's corn. By simply making the old crib about twice as high as it is now the cost of enlarging would be nominal. The only thing necessary would be to raise the roof, put in enough additional studding and outside wall and the job would be completed. Of course, you could not fill such a crib with the scoop, but an elevator and dump would do the job and save you a lot of labor.

The saving in the cost of the crib construction, together with a saving of half a cent a bushel for husking, will go a long ways toward paying for an elevator and dump. Once you have the elevator on the place you will find many uses for it besides unloading corn. It will run your small grain into the granary, put your shelled corn up into a high bin from which the corn will run down into the wagon when you are ready to sell or feed it.

The dump and elevator is one of the many useful inventions that are helping to make the farmer more and more independent of high-priced hired help. The old style corncribs and granaries are out of date today and should not be built. They are too costly per bushel capacity. The foundation, floor and roof, particularly in the case of a crib, are expensive compared with the framework and they cost no more for a crib twenty feet high than for one with half that elevation.

It is getting so nowadays that huskers are not very fond of shoveling corn into a crib; they consider it a back-breaking job and prefer to husk for men who own elevators at a lower price per bushel. They would rather spend an hour a day in the field husking than to put that time in at shoveling. Picking ears in the field is easier work than shoveling them into a crib with a scoop.

There are other advantages accruing from the use of an elevator and dump, one of which is the opportunity it offers for selecting seed ears as the corn passes up the elevator. While this is not the best way to select seed, the fact remains that fully 90 per cent of the farmers do not gather their seed till husking time and when selection is thus deferred the elevator offers an excellent opportunity to pick out the best ears from the whole crop.

Nearly every farm is now provided with a small gasoline engine, so there would be no extra expense for power in installing an elevator. Even if a small engine had to be purchased it can be used for so many things, such as pumping water, cutting wood, running the washing machine, cream separator, etc., that its cost need not all be charged against the corncrib.

Selling Grain or Feeding Live Stock.

There is at the present time a wide discrepancy between grain prices and live stock values. Every pound of pork made with corn at its present value will be sold at a loss, and cattle that are being finished on grain will net the owner a loss also. Recently our attention was called to an instance where a stockman who had not sold a bushel of grain for forty years had marketed 10,000 bushels of corn at $2.10 per bushel, his reason for this being that the corn could not be fed to live stock without involving him in a heavy loss. The Ohio station has just published a review of an experiment conducted ten years ago in which the cost of gains made on fattening steers is computed on the basis of their present values. It cost $22.11 to produce 100 pounds of gain when steers were fed on ensilage valued at $6.25 and corn at $1.40 per bushel. These steers did not net more than $11.50 per hundred, so that buying corn and feeding on the basis of these prices would lead to bankruptcy.

We do not like to contemplate this situation, because in the end it will be most disastrous if it should result in any marked cutting down in the numbers of our cattle, sheep or hogs. We need live stock to make a balanced agriculture and possibly before a twelve-month period rolls around grain and live stock prices will be on a par. Looking ahead for a five or ten-year period, it must inevitably be brought about that the live stock feeder or breeder who maintains the soil at a point of maximum production and who rotates grain crops sensibly with meadows and pastures is bound to be at the head of the game. While grain is at its present high level special effort should be made to utilize every pound of roughage that is produced. In other words, cut down the amount of grain fed and supplement with cheap materials. Keep the breeding herd intact, because the pendulum will swing the other way and in due time meat products will be relatively high as compared with grain.

If a sensible program is carried out this fall there will be more corn fodder shocked than ever before and with the new silos that have gone up this year there will be a big acreage converted into ensilage. It would be safe to predict that there will be a satisfactory market for well-cured baled shredded fodder and the farm revenue could be added to in thousands of instances by putting into the shock a considerable area at the proper time in the fall and shredding it after it has become dry.

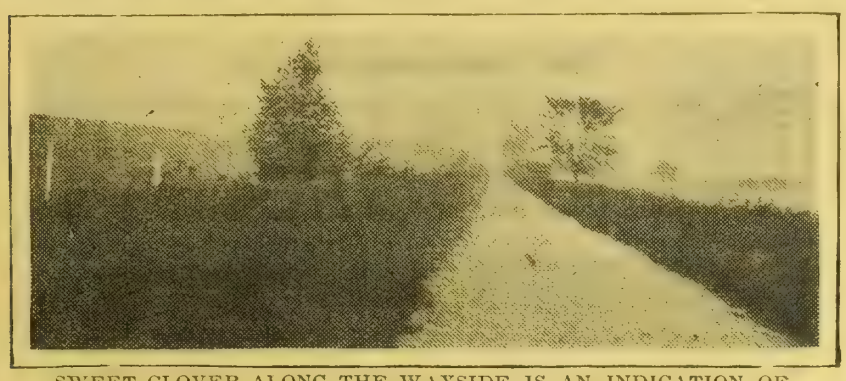
Pleasure riding in motor cars should be curtailed to economize in the use of gasoline. That is the warning sent out to the country by the petroleum committee of the Council of National Defense, stating that the nation faces a gasoline shortage. What made the statement of unusual significance was the fact that A. C. Bedford, head of the Standard Oil Company, is chairman of this committee. In telling of the oil and gasoline shortage the statement says: "In view of the abnormal conditions confronting the nation by reason of the war, it is peculiarly important that the country should understand the serious situation now prevailing in the petroleum industry. This country is producing crude oil at the rate of about 300,000,000 barrels a year, but it is using it at the rate of 335,000,000 barrels a year. The amount of crude oil in storage, all grades, May 1, 1917, was 165,688,797 barrels. The country is absorbing the entire current production and drawing very rapidly upon its reserve supplies."

The annual meeting and picnic of the Ozaukee County Breeders' Association will be held at Falls Park, Grafton, on Sunday, August 26th. The meeting is being held this year on Sunday on account of the fact that farmers are short of help and cannot afford to give up any other day.

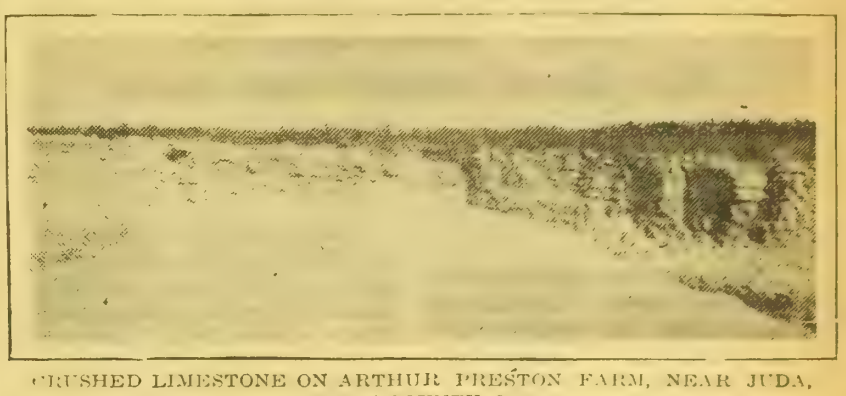
"ALFALFA" GRABER---LIME EVANGELIST

Wisconsin Farmer Editor Spent a Busy, But Very Profitable, Day With Emergency Food Agent in Green County.

A DAY with "Alfalfa" Graber in Green county, Wisconsin, is work for the visitor and pleasure for L. F. Graber, Green county emergency food agent. When in May this year the college of agriculture at Madison began placing emergency food agents throughout the state Professor Graber was offered and accepted with joy the position of food emergency agent for Green county, the biggest alfalfa county in the state. There are 28,000 acres of alfalfa in Green county, and at least 28,000 answers on alfalfa stored away in Mr. Graber. Having made alfalfa his particular study for many years, nothing could suit Mr. Graber better than going to Green county and working over the troubles and learning more about the peculiarities of alfalfa growing.



SWEET CLOVER ALONG THE WAYSIDE IS AN INDICATION OF ALFALFA SOIL.

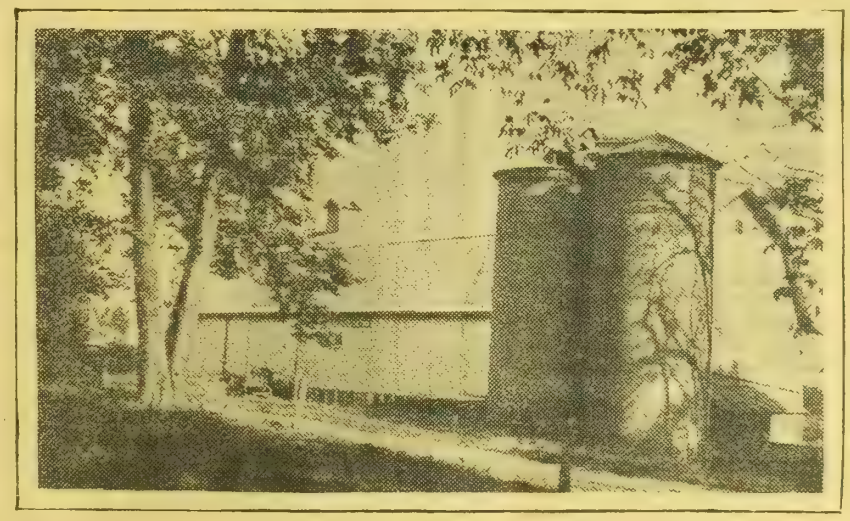


CRUSHED LIMESTONE ON ARTHUR PRESTON FARM, NEAR JUDA, GREEN COUNTY, WIS.

The study of alfalfa has brought Mr. Graber into close company with limestone and its use as a fertilizer. He is firmly convinced that the day is not far distant when limestone will be applied to the farms as regularly as manure. Ninety per cent of the difficulties of alfalfa raising in Green county are due to a need of lime in the soil and keeping the stand by having Grimm alfalfa instead of the common variety and because there is yet no definite understanding of how late alfalfa can be cut and survive the winter. Alfalfa should not be cut later than the first of September, and it should not be pastured if it is desired to maintain a stand. Where plenty of lime is used on the soils that are sour and the hardy Grimm variety is sown a stand of alfalfa has every chance of living from four to seven years and yielding heavily each year.

We learned all this as we were starting out on our trip and passing various fields of alfalfa, some poor, some good. The first farm visited was Frank Burt's, near Albany. Here Mr. Graber showed us the first proof of the effect of lime on corn. Mr. Burt planted a strip of alfalfa on lime soil three years ago and compared it with some alfalfa on unlimed soil. Good results were obtained from the alfalfa that was limed, but the unlimed part of the field proved an utter failure and in order to have the use of the land this strip located right in the center of a large field was plowed under with the poor stand. There has been corn on this large field for two years, and this year again the portion which had been limed shows up so well that a person unacquainted with the field can tell to the row where the lime was applied and where no lime was used. The illustration shows the difference in size of the stalks. The stalks were selected with great care. An average-size stalk was taken from the limed and unlimed portions. A very conservative estimate would place this increase in yield of corn alone at from fifteen to twenty bushels more per acre, due directly to the application of lime.

After looking over Mr. Burt's excellent crop of young Duroc Jersey hogs we visited the farm of E. E. Brewer, of Albany. Mr. Brewer wanted to know what caused the poor stand of alfalfa in one of his fields. So the litmus test was applied to the soil, but as the soil did not show acid it was discovered after a little questioning that part of the field had winterkilled the year before and the answer was: "Sow more Grimm alfalfa."



E. E. HAVERMAN'S BARN, GREEN COUNTY, WIS. SILOS ARE MANY AND LARGE IN GREEN COUNTY.

Mr. Brewer has a good herd of grade and pure-bred Holsteins with the pure breds in the majority.

Milk production is the chief source of revenue for most Green county farmers, and the pure-bred sire is coming more and more into his own every year. However, most of the dairy stock is still grade stuff, and very few herds have a bigger per cent of pure breds than grades. Cow-testing associations are also not numerous in Green county. The only testing association up and coming is the Monticello Cow-Testing Association. Associations in general are very few in the county. There are no breed associations or farmers' clubs as in other counties. The cheesemakers' and dairymen's association, milk producers' association and the cow-testing association are really the only farmer organizations in the county.

Fred Dettweiler showed us an excellent stand of Grimm alfalfa standing alongside of a poorer stand of common alfalfa. The difference between the Grimm and the common alfalfa is not in its yield or in its growing qualities, but merely in the wintering habits of the Grimm. The Grimm begins to hibernate earlier than the common varieties. A common sight in the fall is the activity of an alfalfa field just before the cold weather sets in. With the common variety this is a usual occurrence. This extra growth which the common varieties make in the last few weeks of warm weather render them more susceptible to the first frosts of the winter. With the Grimm variety it is more likely that the plants will not show much growth after the last cutting. It is like the fruit tree that buds and then is caught by the frost, suffering injury which requires several seasons from which to recover. The Grimm variety is not in danger of this in the same measure.

Mr. Graber never fails to preach the value of lime. Green county is so rich in limestone that it is hard for one to understand why the soil in any locality should become sour. However, the lime evangelist, as he is being known, points out that many years of cropping, and especially grain farming, have depleted the lime content of the first six inches of soil until there is no more calcium left in the top layer which is available for plant growth. On the average three tons of lime will correct the acidity of the soil. Lime, as a rule, does not show up the first year. The second year when alfalfa makes its most rapid growth is the year when it needs lime badly. One ton of alfalfa takes from the soil 100 pounds of lime. That is the reason it is all the more necessary for lime to be applied abundantly. That is also the reason why on sour soils alfalfa which showed a good stand with the nurse crop will in the second year of its growth, which is really the first year that it produces hay, get what Mr. Graber calls the yellow jaundice. The limestone required by the growing alfalfa is not present in the soil. The roots of the alfalfa have not penetrated deeply enough into the subsoil to avail themselves of the lime contained in the lower layers of the soil. But even though alfalfa will stand the second year and be abundantly supplied with lime it cannot be expected to pass the winter safely when the crop is cut too late in the season. It also cannot be expected to pass the winter as well if the seed used has been of the common variety instead of the hardy variety.

On the farm of Mr. Dettweiler we also saw the difference between the Turkestan variety and the common alfalfa. Two fields sown three years ago side by side show that the Turkestan is also a hardy variety in spite of the fact that the United States Department of Agriculture has repeatedly warned the farmers against using this seed. The Turkestan also has the characteristic of not making a very large growth after the last cutting. The common variety growing right next to it on Mr. Dettweiler's farm has made an excessive growth after the last cutting and froze out the following winter, while the Turkestan variety today shows an excellent stand and is yielding heavily.

Most of the farmers in Green county are abundantly supplied with lime

FRANK BURT FOUND STALKS FROM LIMED GROUND HAD TEN INCHES THE BEST OF IT.

C. E. BREWER HERD, GREEN COUNTY, WISCONSIN.

ANOTHER SAMPLE OF STALKS FROM LIMED AND UNLIMED SOIL.

OIL BANKING

How shrewd motorists save money

WHEN most car owners were novices, strong words made strong impressions.

But today the roads are toured by millions of veterans. These veterans have learned how to test words. They know how to prove or disprove claims.

If you are a veteran you know this: An oil that burns up rapidly or breaks down quickly cannot be really cheap. Though it may be low-priced by the gallon, it is bound to prove high-priced by the mile.

You know that a wrong-bodied oil raises your gas consumption. Instead of saving your oil pennies it eats up your gas dollars.

You know that wear and tear on the metal parts means, some day, a heavy bill which the low price per-gallon can never wipe out.

In recent years no oils have made such steady progress toward a dominant place in the market as Gargoyle Mobiloils.

Why?

Because now-a-days the great bulk of lubricating oil is sold to automobile veterans—men who have learned that gasoline saving depends largely on thorough piston-ring seal—who know that the piston-ring seal depends solely on the *body and character* of their lubricating oil.

Because the veteran knows that an oil which uses up rapidly is not lubricating properly.

Because the veteran automobilists of today know that the higher price per gallon of Gargoyle Mobiloils means a lower cost per mile in operating expense.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and Complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Marine Engines.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

CORRECT AUTOMOBILE LUBRICATION

Explanation: The four grades of Gargoyle Mobiloils, for gasoline motor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of	1917		1916		1915		1914		1913	
CARS	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (8 cyl)			A	A	A	A				
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)					A	Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	A	A	A	A						
Auburn (4 cyl)			A	A	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc	
Cadillac						Arc	Arc	Arc	Arc	
" (8 cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
I H C (air)					B	A	B	A	B	A
I H C (water) (2 cycle)			A	A	A	A	A	A	A	A
I.H.C (water) (4 cycle)			A	Arc						
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (6 cyl)	A	A								
" Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	A
King					A	A	A	A	A	A
" (8 cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Kissel Kar	A	Arc	A	Arc	A	Arc	A	A	A	A
" " Com'l	A	Arc	A	Arc	A	Arc	A	A	A	Arc
" " (Mod. 48)			A	A	A	A	A	A		

Model of	1917		1916		1915		1914		1913	
CARS	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Kissel Kar (12 cyl)	A	A								
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
McFarlan	A	Arc	A	A	A	Arc	A	A	A	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (6 cyl)			A	A						
Moline									A	Arc
" Knight	A	A	A	A	A	A	A	A		
Monroe	A	Arc	E	E	A	Arc				
Moon (4 cyl)					Arc	Arc	A	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard					A	Arc	A	Arc	Arc	Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" [illegible]	Arc	Arc	Arc	Arc	Arc	Arc				
" [illegible]	A	Arc	A	Arc	A	Arc				
Pierce-Arrow	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Pierce-Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)			A	A	Arc	Arc				
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Saxon	E	E	E	E	E	E	E	E		
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" " (8 cyl)	A	A	B	A						
Stephens	Arc	Arc	Arc	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	Arc	Arc
Velie					A	Arc	A	Arc	A	Arc
" [illegible]	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Willys-Knight	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	A
Willys-Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" [illegible]	A	A								
Wisconsin	A	A	B	A	B	A	A	A		
Westcott	Arc	A								
Wichita	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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Specialists in the manufacture of high grade lubricants for every class of machinery. Obtainable everywhere in the world

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stone of a very high test. Arthur Preston, near Juda, has on his farm limestone testing 98 per cent pure. He intends to apply 200 tons during the coming year on his fields. Eight other men of the neighborhood are going together and will crush during the coming months all the lime necessary for their fields. The charge for this limestone will be limited to the cost of running the crusher, which is being lent to them free of charge.

Charles Kohli, of Monroe, had on the day we were there a carload of air-slaked lime which he was going to put on his fields. This carload is one of many due to Mr. Graber's urging for more lime on every sour acre in Green county.

There comes a time of night, however, when it is no longer polite to call on people, and that is the time when "Alfalfa" Graber, lime evangelist, considers quitting time, does a few more hours' work at the office and calls it a day. We were glad he did: We would hate to follow him for a month.

Waukesha Holstein Breeders

Hold Great Summer Picnic at the Fred Pabst Farm, Near Oconomowoc, August 2d.

THEY are always doing something new in Waukesha county, or, if they can't find something new, they do the old thing in a bigger way than it has ever been done before anywhere else. This time it was the summer picnic of the Waukesha county Holstein breeders held at Pabst Stock Farm at Oconomowoc on August 2d.

ON THE BEAUTIFUL GROUNDS OF MR. PABST'S ESTATE THE CROWD FOUND SHADE AND COMFORT.

It was the biggest and best-natured crowd of county breeders and their families that we have ever seen congregate in honor of the Holstein cow. Starting with the trip over the Pabst farm in the morning and ending up with the sale of the Red Cross calves donated by the association for this purpose the day was an unqualified success. The beautiful grounds of Mr. Pabst's home were turned into a picnic place for the 1,500 or more visitors. Between 500 and 600 automobiles were parked on the grounds. All day long the chefs were busy supplying the hungry crowd with things to eat and the refreshment stand had a never-ending stream of thirsty ones to supply. And it was all free.

PROF. A. C. OOSTERHUIS GIVING A COW DEMONSTRATION AND LECTURE.

Following the noon meal Prof. A. C. Oosterhuis, of the college of agriculture, gave a cow demonstration, emphasizing the milk-producing characteristics of the true Holstein cow. Wm. Moscrip, of Lake Elmo, Minn., had been scheduled for this, but, as he was unable to appear, Mr. Oosterhuis was called upon, and proved a very able substitute.

The main speaker of the day was Mr. Hugh G. Van Pelt, of Kimball's Dairy Farmer, Waterloo, Iowa, whose

[illegible] IS LISTENING TO FEEDING TALK AT WAUKESHA COUNTY HOLSTEIN PICNIC.

talk on "How to Feed the Dairy Cow" was listened to with more than ordinary interest. Mr. Van Pelt had a vital subject to talk upon, and the interest of the breeders was manifested in the close attention the speech received. According to the speaker, the essential part dairying is playing in the world has been proved more strongly than ever by the fact that since the war began the infant mortality among the warring nations not able to obtain a full supply of milk as in normal times has been appalling. Of all the babies born in Serbia since 1914, 90 per cent have died, due for the most part to a lack of milk. Lack of feedstuffs has caused many of the warring countries to slaughter the dairy cattle. Now these same countries admit that this was a serious mistake. The United States is doing a similar thing now in many of her dairy districts, and sooner or later government action will have to be taken in order to prevent disaster. Thirty per cent of the dairy cattle in the New England states are reported to have been slaughtered within the last five months. Twenty per cent of the milk cows in the corn belt have likewise been consigned to the shambles. To a certain extent this amount represents unprofitable cows, but beyond a certain limit it will mean more than merely getting rid of unprofitable producers. There is danger of much of our good dairy stock being slaughtered for beef simply because high prices at the stockyards, together with high prices for feeds at home, are making small dairymen forget the grave times we are living in.

"Utilize all feed and keep books on every cow by weighing her milk and weighing her feed out to her," are rules which the dairymen of today cannot overlook. As Americans we are wasteful in our methods of feeding, according to Mr. Van Pelt. We would rather be careless than bother about an extra few pounds of milk or conserving a few pounds of feed. However, a little loss in milk flow from every cow and a waste of several pounds of feed each day represent a big loss in the aggregate. We are careless with the sires we use, careless with the feeds and careless in securing results from such feeding.

The greatest lessons of all times can be learned from the cow herself. "Take one cow and feed her for one year as she should be fed," advised Mr. Van Pelt. "Study her closely and in twelve months' time any man with an average mind can learn how to care for a herd in the proper manner. Starting with a cow that is about to freshen, her owner should give her from six to eight weeks of good care before calving, during which time she should be dry. It is easier to keep a cow in good condition than to get her into condition. Bran and ground oats make an excellent feed, together with linseed meal, for bringing the cow into proper shape to deliver her calf and start her lactation period properly. After freshening just because a cow gives large amounts of milk is no reason why she should be overfed. Gradually her feed should be increased in proportion to her yield and the cow taught to consume more and produce more. Increasing the grain ration a half pound every other day until the maximum is reached and then slowly decreasing the feed in case the cow is being fed too heavily at the same rate of one-half pound every other day will work wonders in increasing production and decreasing feed costs. All changes, however, in the feeding of a cow should be gradually made.

"Unless you weigh feed and milk you have no business to be in the dairy game in these days of high feed and close figuring," said Mr. Van Pelt. "Weighing the feed does not require the same amount of labor and attention that feeding the entire herd from several bins and by guess does. A feed sheet made out by the herdsman or the owner of the dairy can be followed by any boy or man able to read figures. The feed box on a shelf overhead of the cow enables the milker or anyone around the barn to feed the cows quickly by giving half of the weighed ration at night and the last half in the morning."

The summer silo and commercial feeds are coming into their own, according to Mr. Van Pelt. There was a time when the winter silo was looked upon as essential, but today the summer silo has become fully as important. It is in the summertime when most herds are neglected and underfed because they are "supposed to be on pasture." Big returns from increased production are always forthcoming where summer silage is fed in addition to the pasture at hand. Utilizing waste feeds, as cornstalks not put into the silo, was also advocated by Mr. Van Pelt. By soaking the cut stalks in scalding water and molasses overnight the cornstalks will make a palatable feed and help reduce the cost of roughage in the dairy. "Fortunate is the man who has a winter silo, more fortunate the man who has both, but unfortunate, indeed, is the man who has no silo to conserve his corn crop this winter, and attempts to feed dairy cows without silage."

Following Mr. Van Pelt's address Waukesha's new county agent, J. E. Stallard, was introduced to the breeders. Mr. Stallard, in a short address, thanked the breeders for the welcome that was accorded him and immediately got down to business by calling attention to the barley stripe which has been found in a great number of fields throughout the state this year. This disease, similar to the grain smuts, can be prevented by giving the seed the formalin treatment.

Two Red Cross calves were auctioned off by Mr. Love, and sold for $250 and $300, respectively. Brookvale Burke, an excellent heifer, went to Burton Smith, banker-farmer, of North Lake, for $300. This calf was from the herd of Mr. Dave Howell, and her mother sold at the Waukesha sale for $500. The other, a bull calf from the herd of H. E. Reddelin, of Oconomowoc, was equally well bred and a splendid individual. It went to E. J. Goetsch & Sons, of Watertown, for $250. The bidding was lively, and Mr. Love made the best of it. Both calves were given for this purpose by the Waukesha County Holstein Breeders' Association, and the funds will all go for the Red Cross work and be credited as a donation from the Waukesha breeders.

A band engaged by the Oconomowoc business men for the occasion played from morning until night. It was a great picnic and the Waukesha breeders and their secretary, W. L. Baird, and Mr. Pabst are entitled to a vote of thanks.

The Hillsdale Cheese Factory, in Barron county, was organized only a few years ago with twelve patrons and a very modest output. They bought cheese boxes a few at a time, but now they are buying them in carload lots. The second week in July this factory shipped as its product for one week 9,200 pounds of cheese, for which a check for $1,985.12 was received. The factory receives about 8,000 gallons of milk daily.

A strong argument against allowing manure to accumulate around the barn is that it becomes a breeding place for flies, which spread disease germs.

Here's a Still Better Willard

Every part of your electrical system must be made leak proof by *insulation*.

Inside your battery is the most important insulation of all—that which separates the positive from the negative plates, for this prevents the battery from "short circuiting," and thus putting the whole system out of commission.

In the Still Better Willard, the insulation is made of durable, acid-resisting threaded rubber.

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Variations in Cream Tests.

There is probably no one thing in connection with commercial dairying which causes as much uneasiness among patrons as the variation of the test of cream sold to receiving stations and creameries. This variation may not only result in patrons being dissatisfied but also causes the buyer of the cream uneasiness in maintaining harmonious relations with the patrons.

The complaint of test variation often is on account of a patron not having a full understanding of the causes which affect the density and percentage of fat in cream. It is the policy of all reputable creameries that their employes be very careful to secure accurate results in sampling and testing. Unless the sample represents a fair average of the cream delivered the test, while correct of the sample, will not be a correct test of the cream delivered. The first requisite, therefore, for a correct test is an accurate sample.

It must be well understood by patrons who have observed the workings of the cream separator or who have tested the cream themselves with hand farm testers that there is a variation in the percentage of fat in the cream. A variation of from 5 to 8 per cent in test with no change in the cream screw is not at all unusual and this difference is chargeable to the varying condition of the machine from time to time. But I have known of instances where there was a variation of from 8 to 15 per cent, due to careless handling of the separator, milk or cream.

The variation of the speed of the bowl of the separator causes a difference of from 2 to 15 per cent in test of the cream, depending on the variation of the speed. The variation in steadiness of the bowl makes a wide difference, depending on the amount of vibration. The amount of flush water used makes a difference as great as 10 per cent in extreme cases and from 1 to 5 per cent in ordinary cases. The temperature of the milk makes a difference of from 1 to 5 per cent, greater variation being caused in extreme cases. Acid developed in the milk will have an effect on the density of the cream. This is not the case when separating is done at milking time, but when the night's milk is held until morning or vice versa, as is the case on some farms. As the separator bowl clogs the cream will gradually become thicker until the cream will not flow.

Another cause of variation in test is imperfect straining of the milk before separating. The milk should always be strained through a fine wire strainer into cans. Over the receiving can a piece of closely woven cotton cloth should be placed. For convenience this can be fastened with a strap around the can. This will catch all sediment and will give the separator clean milk. If the separator is fed unevenly or if at any time during the run the inlet should be clogged with dirt so that the bowl does not take the full inflow of the milk wide variations in test of cream must be expected.

Some users of separators may sometimes state that their cream screw has not been changed in years and that their cream ought to test now as it did years ago. The fact that the screw has not been changed is good reason why the test of the cream should not be the same as when the separator was new. With use the cream screw wears off and takes the cream farther from the center of the bowl and, therefore, produces a thinner cream. Thick cream is produced by drawing the cream from the center of the bowl and thin cream by drawing from a point nearer the outside.

If the bowl is not washed properly after each operation this will also affect the test. If the openings are not all clean and free from dirt the capacity is affected. The separator bowl removes substances which no system of straining will remove and if this matter is allowed to remain in the bowl even for an hour after finishing the run it is an ideal breeding place for millions of the worst kind of bacteria.

Under average farm conditions it is impractical to operate the separator in such a way as to secure an absolutely even density of cream, but every care should be used to obtain as even work as possible. The patron of a creamery can at little expense secure his own tester and its use will better satisfy him regarding the treatment he receives and also give him insight into many things of considerable worth. The man who knows the most about his business is always the best satisfied.

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Mission of the Cornstalk.

To the Editor:—Every year the man who is in the dairy business comes face to face with the problem of "getting through to grass." Sometimes this man of the dairy lives in one part of the country, sometimes in another. The country is so big that always somewhere there are those who feel the pinch of the failing haymow or the empty silo when it comes along toward spring.

This year is no exception to the general rule, except that the outlook is more universal than usual that many will have to be very economical of feed if they get their stock through to the early grass of 1918 in the best condition to do business for another year. Here is where the conservation of all possible cattle foodstuffs will play an important part.

The loss of feeding value in the United States through the medium of wasted corn fodder is a most serious one. Thousands of tons of good stalks lie on the ground and do little good. They make good fertilizer, it is true, but how much more worth while it would be to save them and feed them and then apply the droppings from the cattle which eat them to the land! Two great ways may be suggested of saving the cornstalk, so that it may fulfill its mission of helping to winter the stock of our farms. First, they may be shocked and left in the field to be drawn and fed as needed. To get the most good from stalks cared for this way it is my opinion that they should be cut up with a machine left on the floor or in big boxes until they begin to heat and soften. Little feeding value will then be lost. The cows like these stalks and by feeding some grain with them, supplemented by at least one ration a day of timothy or clover hay, we have a feed that brings the best of results.

The other way of preserving these stalks is to cut them into a silo. I doubt if all our farmers, even in this up-to-date period of dairy farming, fully appreciate the worth of the silo. Not yet have all come to know and understand that corn cut even after the ears have been husked and stored in a silo will come out a most delicious feed for dairy stock. Practically nothing is lost when we care for corn this way. We have the ears in the crib and the stalks in the silo, and every particle of the corn plant is saved and made to do its part in meeting the problem of the long winters of our northern climate. Well for us all when we do come to see how greatly worth while it is to build silos and store our corn in them. Dairy farming without a silo is not as easy as it might be. So my plea now is that every farmer who can should at once put up a silo and give the cornstalk a chance to fulfill its mission.

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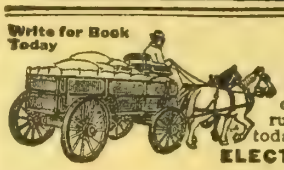

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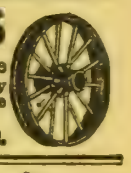

Cooling Milk on the Farm.

To the Editor:—If there were any way of figuring up the losses to the farmers of this country through spoiled milk it would astonish the most unresponsive of us. We know that now and then we have a can of milk go bad through heat. It touches us a little bit. We use the milk for the hogs or other stock, pass it along and forget it. But this is a big country. Such losses of high-priced milk and cream aggregate large, and almost always there need be no such loss at all.

On our own farm we have lately put in a cooling tank that serves a very good purpose. We had a milk house that we used a good many years ago when we made up our milk at home. Digging down in one end of this, having first taken up the board floor, we filled in with gravel and small stones till we had a good foundation. On the top of this we set up our forms of plain boards for the reservoirs we had in mind. The tank as it is now is about five inches thick, three feet deep and seven or eight feet long, the bottom being about a foot below the surface.

Through the middle of this tank, dividing it into two equal parts, is a partition, leaving the compartments about four feet in length and two and a half feet wide. Around the top of the cement sides we put a wooden strip wide enough to fully cover the cement and keep it from being chipped off when the cans are lifted over into the tank.

We might have it rigged so that water could be pumped into the tank, but so far the boys bring it in by hand. From the ice house on the other side of a partition through the house we get our ice when the weather is hot enough so that it is needed. As a rule, the water in our well close by the milk house stands at about forty-five in summertime, which serves to cool the milk down at most times of the year. There is room in each of the compartments to set four cans of milk, and a neighbor who helped us put the tank in brings his milk down to be cooled. We

worked together, also, in putting up the ice, lightening the work for us all round.

We have a conical tin device, with a long handle attached to the upper end and a number of holes in the cone part, for stirring the milk and getting the animal heat out. This long handled cooler, if I may call it so, helps very much about reducing the temperature of the milk. With an arrangement of the sort I have described it is almost impossible to have spoiled milk. It is our own fault if we do.

All who furnish milk either for the local creamery or for shipment to distant cities may have just as good a cooler as ours, and the expense is not great. Any farmer with thoughtful mind and willing to follow directions may do the work. E. L. V.

Cow-Testing Reports.

New Holstein Association.

To the Editor:—Our highest average goes to Rudolph Paulsen, whose herd of ten cows, composed of four grade Holsteins, four natives and two grade Durhams, averaged 1,289.4 pounds of milk and 44.3 pounds of butter fat. The banner cow for the month was a grade Guernsey, owned by H. J. Duecker. She produced 1,509.1 pounds of milk and 60.3 pounds of butter fat. F. H. Voland, a Holstein breeder, owns the champion milk cow, she producing 1,768 pounds in thirty days, which contained 58.3 pounds of butter fat. During June the price for butter fat at cheese factories ranged from 53 to 60 cents per pound, the condensery paying $2.50 per hundredweight for 4 per cent milk. Our forty-five-pound list for the month ending June 30th is as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Fred Hass					
Lota, G. H.	11	3-2-17	1186.8	3.8	45
Daisy, G. H.	12	3-3-17	1143.8	4.0	45.7
Edward Hass					
Sally, G. G.	4	10-17-16	699.4	6.6	46.1
A. Wieting					
Bloomy, G. H.	7	3-23-17	1429.5	3.9	55.7
Gust Weber					
Daisy, G. H.	10	12-21-16	1608.2	2.8	45.1
Walter Fluhr					
White Leg, N.	10	4-5-17	1069.1	4.4	47.0
Edward Jochimsen					
Spottie, G. H.	6	5-20-17	1431	3.4	48.6
Hugo Libke					
Pride, G. H.	5	11-23-16	1296.2	3.9	50.5
Ann, G. H.	7	11-19-16	1424.7	3.7	52.7
Carrie, G. H.	5	11-4-16	1120	4.2	47.0
Nellie, G. H.	6	3-24-17	1424	4.2	59.8
Fannie, G. H.	4	5-22-17	1228.5	4.2	51.5
Martha, G. H.	6	3-2-17	1736.7	3.2	55.5
Flora, G. H.	4	3-22-17	1245	3.9	48.5
George Mattes					
Lady, G. G.	6	4-12-17	1099.6	4.1	45
F. H. Voland					
Bloomy, G. H.	10	3-13-17	1768	3.3	58.3
F. F. Thielke & Son					
Gypsy, R. G.	9	3-10-17	1019.9	5.3	54.0
Mary, G. G.	13	1-6-17	1102	5.1	56
Brindle, G. G.	9	11-30-16	834.8	6	50
Meta, G. G.	9	11-26-16	1038.7	4.7	48.8
Lottie, G. G.	3	5-25-17	1161.3	4.7	54.5
Charles Raquet					
Florie, G. H.	7	3-4-17	1427.2	3.2	45.6
Bessie, G. H.	8	2-19-17	1346	3.5	47.1
Jersey, G. J.	9	3-26-17	1115.7	4.2	46.8
A. F. Meiselwitz					
Jessie, N.	4	2-5-17	1034.3	4.6	47.5
Daisy, N.	10	1-13-17	1137.3	4.6	52.3
Guernsey, N.	10	12-16-16	1005.1	4.9	49.2
Lily, G. G.	2	3-20-17	916.2	5.1	46.7
John Kuhn					
Daisy, No. 1, G. H.	8	1-15-17	1287.3	3.6	46.3
Blessie, No. 4, G. H.	8	12-23-16	1384.7	3.7	51.2
Daisy, No. 2, G. H.	5	12-31-16	1365	3.5	47.7
Jack, G. H.	4	4-15-17	1429.3	4	57.1
H. J. Duecker,					
Marquard, G. G.	9	1-28-17	1053.1	4.3	45.2
Jennie, G. G.	9	5-28-17	1239.7	4.8	59.5
Ladysmith, G. G.	9	3-26-17	1116.8	4.4	49.1
Annie, G. G.	5	4-25-17	1509.1	4	60.3
Garris, G. G.	9	1-23-17	989.2	4.7	46.4
Rola, R. G.	5	5-2-17	940.5	4.9	46
Erick Vorpahl					
Jennie, N.	5	1-18-17	1033.3	4.4	45.4
Back, G. G.	11	4-16-17	1301.5	4.4	57.2
Bessie, G. G.	11	2-21-17	1190.2	4.1	48.7
Rud. Paulsen					
Schimmel, G. H.	4	3-10-17	1138.2	4.3	48.9
Bessie, G. H.	9	4-5-17	1460.2	3.6	52.5
Shortie, G. H.	7	3-16-17	1069.3	4.4	47
Brownie, G. D.	8	1-1-17	1058.4	4.9	51.8
Butter Cup, G. D.	7	3-20-17	1209.7	4.3	52.0

WANDER NELSON, Official Tester.
EDW. HASS, Sec., Calumet Co.

In Barron County.

To the Editor:—The Rice Lake and Cedar Lake Association, Barron county, had sixty-eight cows under test in June, of which forty-six produced forty pounds of fat or over, fifteen made fifty pounds or over, and six had records of sixty pounds or over. A. M. Chrislow, had the high cow for the month with 1,830 pounds of milk and 73.2 pounds of butter fat. The June record follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B. fat
Cedar Lake Farms					
No. 14, G. G.	4	Jan.	1120.9	4.6	54.30
No. 18, G. G.	4	May	1251.6	4.8	60.06
No. 21, G. G.	5	Apr.	1411.3	4.7	66.33
Hans Kringle					
Spottie, G. H.	5	Apr.	1296.0	3.9	50.54
Will Thalke					
Beauty, G. H.	6	Mar.	1569	3.3	51.78
Lottie, G. H.	7	Mar.	1179	4.0	47.16
Jacob Ivacina, Jr.					
No. 12, G. H.	2	May	1140	4.4	50.16
Ed Yager					
Florence Mer De Kol, P. B. H.	7	Mar.	1335	3.4	45.39
Frank Roubal					
No. 6, G. H.	6	May	1290	3.9	50.31
No. 8, G. H.	5	May	1164	4	46.56
John Powell					
Josie, G. J.	5	May	1110	4.1	45.51
A. G. Rhodean					
Daisy, G. D.	9	Apr.	1110	4.5	49.95
Carl Schmeling					
Helena W. J., P. B. H.	9	May	1440	4.2	60.48
A. M. Chrislaw					
Barron Florence De Kol, P. B. H.	6	Mar.	1503	3.4	51.10
Phebe Paul P, P. B. H.	13	May	1293	3.6	46.50
Thyralmal J., P. B. H.	4	May	1830	4	73.20
Barron Pauline, P. B. H.	3	Mar.	1344	3.4	45.70
Belle Beauty of C. V., P. B. H.	4	Jan.	1377	3.6	49.57
Maid W. D. J., P. B. H.	6	Dec.	1431	3.4	48.65
W. H. Cockerell					
Queen of Brill, P. B. J.	4	Mar.	921	5.4	48.73
Fourth of July, G. J.	9	Dec.	933	5	46.65
Mrs. F. D. Stout					
Surprise of L. P., P. B. G.	5	Dec.	954	5.2	49.60
Delight of L. P., P. B. G.	4	Nov.	1011	5.6	56.95
Langwater C., P. B. G.	5	Feb.	1323	5	66.15
LaBelle D. C., P. B. G.	11	Jan.	1011	5.3	53.58
Daisy P., P. B. G.	11	Feb.	1173	4.6	53.96
A. T. Johnson, No. 7, G. J.	6	May	1172.5	5.2	60.97

FRED J. WALDMAN, Official Tester.

Reedsburg Association.

To the Editor:—A registered Holstein, owned by E. H. Koenecke, headed the list in the Reedsburg Association for July. Out of 388 cows tested, twenty-nine produced forty pounds of butter fat or better. The forty-five-pound list for July follows:

Owner, name and breed	Lbs. milk.	P.C. fat.	Lbs. b'fat
E. H. Koenecke			
Pia, Registered Holstein	1353	5.2	70.4
Mulley, Grade Holstein	1435	3.8	54.5
W. J. Paff			
No. 4, Grade Guernsey	1270	5.4	68.6
H. W. Meyer			
Juty, Grade Holstein	1460	4	58.4
Lina, Grade Holstein	1107	5.2	57.6
Geihart Schuette			
No. 4, Grade Guernsey	1237	4.3	53.2
F. J. Montgomery			
No. 12, Grade Holstein	1500	3.4	51
No. 5, Registered Pole	1299	3.8	49.4
No. 10, Grade Holstein	1181	4	47.2
F. J. Hibner			
No. 1, Grade Holstein	1458	3.5	51
Conrad Kruse			
Little Black, Grade Holstein	936	5.4	50.5
Albert Gluth			
Blackey, Registered Pole	958	5	47.9
Hazel, Grade Holstein	1128	4	45.1

WALLACE J. CUMMINS, Official Tester.
E. H. KOENECKE, Secretary.

Waukesha Guernsey Association.

To the Editor:—Mr. C. F. Spaulding, of Oconomowoc, a member of the Waukesha County Guernsey Cow-Testing Association, in June had eight cows which averaged 35.49 pounds of butter fat. The next herd was that of Wm. Steele, Jr., who had nineteen cows averaging 33.28 pounds. The forty-five pound list for June is as follows:

Owner, name and breed.	Age.	Lbs. milk.	Lbs. fat.
Wm. Steele, Jr.			
Grade Guernsey	7	1237.1	68.04
Grade Guernsey	7	1191.5	51.18
Grade Short-horn	8	1004.7	50.24
Grade Short-horn	8	1120.9	46.51
Goodhand Kingston			
Grade Guernsey	9	1548.7	66.59
Walter Kemper			
Grade Guernsey	7	1124.2	56.21
Sam Hooper			
Grade Guernsey	8	1328.5	55.80
Orlin Craig			
Grade Guernsey	4	917.3	51.37
D. W. Jones & Son			
Grade Guernsey	6	1003.2	50.16
Grade Jersey	5	767.9	47.60
J. M. Harvey			
Pure-bred Guernsey	8	1002.0	49.10
Alvin Basse			
Grade Short-horn	12	1066.2	49.05
Mrs. J. D. Mitchell			
Grade Guernsey	9	937.5	48.28
C. F. Spaulding			
Grade Guernsey	5	854.3	47.65
L. J. Wendt			
Grade Guernsey	6	947.8	46.92
W. A. Freehoff			
Grade Guernsey	10	946.2	46.84
Earl Roberts			
Pure-bred Guernsey	6	1031.3	45.89
Walter Hardiman			
Grade Guernsey	9	1205.0	45.79
A. J. Hodgson			
Grade Guernsey	5	1033.4	45.47
C. F. Spaulding			
Grade Guernsey	3	770.8	45.43
Warren Gerritts			
Grade Guernsey	5	780.4	45.26

F. E. FOX, Secretary.

Alto Cow-Testing Association.

To the Editor:—The highest cow for the month in the Alto Cow-Testing Association was a Grade Jersey owned by Bert Kastein. Her record was 1,029 pounds milk, 5.6 per cent fat and 27.6 pounds butter fat. The forty-five-pound list follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. B'fat.
J. H. Kastein					
No. 3, G. J.	6	12-31-16	763	5.9	45
Ed Bruns					
No. 27, G. J.	12	1-14-17	1101	5	55.1
J. W. Kastein					
No. 3, G. J.	6	6-8-17	1243	4.4	54.7
No. 4, G. J.	5	6-15-17	1029	5.1	52.5
J. B. Kastein					
No. 2, G. J.	8	5-2-17	1271	3.6	45.8
B. Kastein					
No. 5, G. J.	6	6-25-17	1209	4.2	50.8
No. 21, G. J.	8	5-8-17	1141	4.4	50.2
J. W. Steisel					
No. 4, G. D.	5	5-22-17	1125	4.0	49.5
Mrs. Theo. Kastein					
No. 7, G. G.	5	6-20-17	1159	4.6	53.3
James Vossekuil					
No. 4, P. B. J.	6	3-24-17	924	4.9	45.3
Jake Kamphuis					
No. 9, G. D.	7	2-6-17	1004	4.5	45.2
B. Kastein					
No. 8, G. J.	7	3-27-17	1029	5.6	57.6
No. 9, G. J.	9	6-11-17	1051	5	52.6

Highest cow for month, Grade Jersey, Bert Kastein, owner: 1029 pounds milk; 5.6 test; 57.6 lbs. butter fat.

F. L. CUENOT, Official Tester.

How the American housewife can help win the war by making bread containing chiefly other ingredients than wheat flour is contained in a letter written to Mrs. Lon O. Hocker by Miss Josephine T. Berry, Mrs. Hocker's sister, says the St. Louis Globe Democrat. Miss Berry is dean of the home economics division of the University of Minnesota. Miss Berry's letter says that it is interesting work to discover or invent new breads for the purpose of saving wheat. "All of the mixtures save from 25 to 50 per cent of the wheat flour and this sort of thing must be done, for otherwise we can't ship any wheat abroad. If we can persuade our American people," continues the letter, "to use less wheat and more corn meal, rolled oats, rice and barley, and, in some places potatoes, we may somewhat broaden the diet and lessen our dependence upon wheat. You will find bread made with corn meal, with rolled oats and with rice especially delicious."

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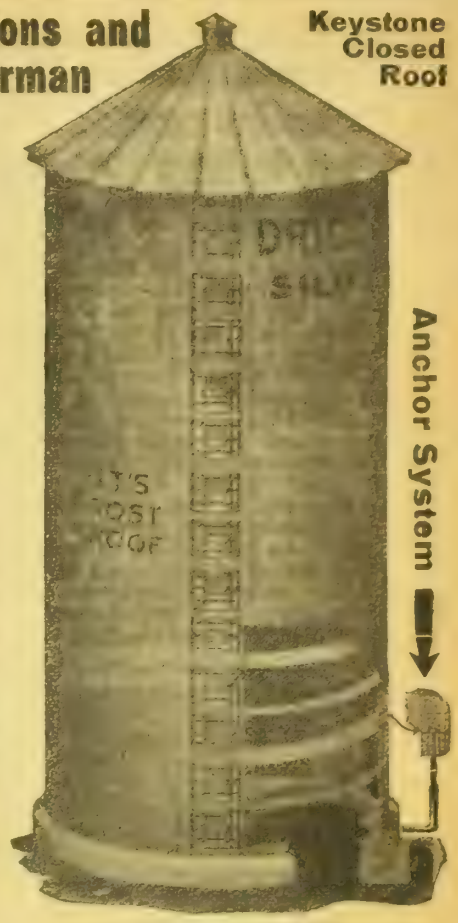

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DRICO SILO, COMPLETE
It Will Be Displayed at The State Fair.

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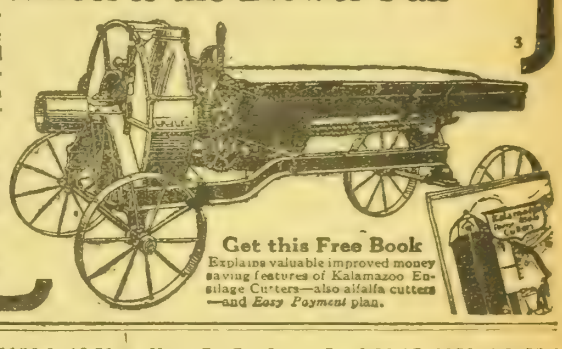
ALFALFA & ENSILAGE CUTTERS

Before you buy an ensilage cutter, find out all about the *Kalamazoo*—the *only* cutter on the market having a center shear. The Kalamazoo has an unbreakable malleable knife *wheel*—not a knife cylinder. Two knives are constantly cutting toward *center*—absolutely no side-thrust. No wasted power. This center-cutting knife wheel delivers a steady, even flow of ensilage to the blower—clogging is absolutely impossible. Another big feature—

The Knife Wheel is the Blower Fan

You can't realize what a power saving this means until you see a Kalamazoo in operation. All wearing parts are easily adjustable. Cutting adjustment is on shear bar only. This makes adjustment of knives simple and easy compared with other cutters.

Get a Kalamazoo—save power—save cutting cost—feed your herd on less acreage. "Do your bit" by helping produce America's biggest saleable crop.



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Explains valuable improved money saving features of Kalamazoo Ensilage Cutters—also alfalfa cutters—and *Easy Payment* plan.

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IS TOO valuable for dairy feed. Besides it is unpatriotic to feed human food to cows when **Unicorn Dairy Ration** costs much less and will make more milk. Unicorn is used by three Agricultural Colleges and the best breeders everywhere. It contains no filler of any kind. It's all pure good grain feeds. Send for information and free copy of Cow-tester's Manual with useful tables, etc.

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TABER LINED SILO

Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.

The latest improved Silo. A woodstave Silo; choice of lumber. Entire Silo creosoted. Special paint for outside. Acid-Proof Lining for coating inside after erection. The finest door and door frame on the market.
Special Galvanized Steel Octagon Roof—best manufactured.

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Manufactured by
TABER LUMBER CO., KEOKUK, IA.
ESTABLISHED 1865
AGENTS WANTED IMMEDIATELY.

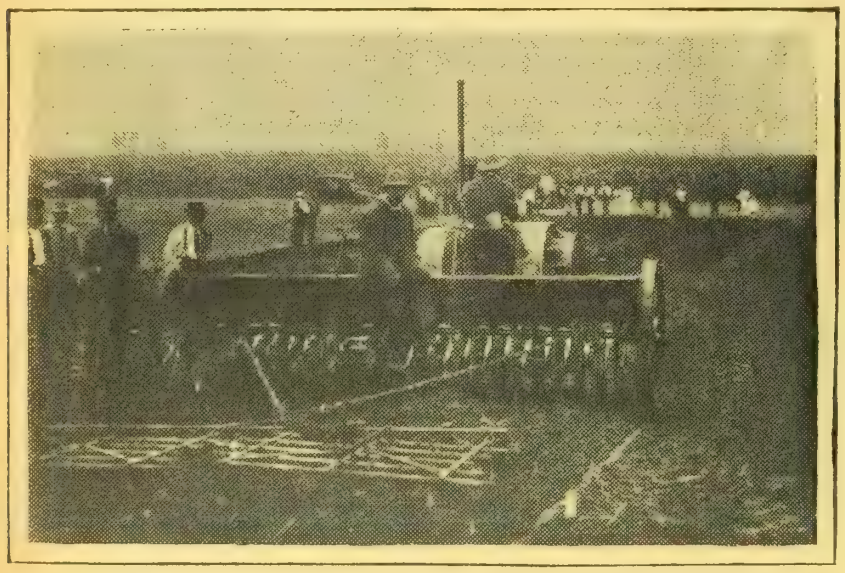
Silos for Immediate Delivery.

A MORE important time was never known for building silos. Prices of feed being so high it's your duty to help save your entire feed crops. You can only do this by using a silo. We have a few left for quick delivery. Write for free booklet and full information. Tung-Lok Silo Co., Kansas City, Mo.—Adv.

Tractor Demonstration at Fremont, Neb.

(Continued from page 1.)

Thomas over the tractor. "As I see it," said the owner of this 440-acre farm, "there is but one thing to do and that is for me to get rid of some of my horses. I have sixteen head that I can put into the harness and, believe me, it takes some grain to carry them through the work season. When corn was worth from ½ cent to 1 cent a pound I never took a second thought when I dumped ten or twelve ears into the manger at a feed, but now that it is worth 4 cents a pound it seems like pure money. My big horses eat as much as eighteen and even twenty pounds of grain a day when they are at hard work and when I see these tractors plowing an acre of ground on two gallons or two and one-half gallons of kerosene I am convinced that the work is being done cheaper than I can do it with horses. It looks to me as if I could handle my land with one of these outfits and eight of my horses, because in that case I would have two four-horse hitches and four two-horse hitches during the corn cultivation season. When I am convinced that the tractor will last and not smash to pieces easily and not require expensive repairs then I am ready to invest."



THE TRACTOR PULLS BOTH DRILL AND HARROW WITH EASE.

The rain that fell early last week, which for a time was so depressing to the officials in charge, proved, after all, to be a blessing in disguise. It held up the work of plowing for a time, but with twenty-four hours soil drying the tractors were all again in the field. Those who have taken it upon themselves to fight the coming of the tractor have dwelt upon its helplessness in a wet soil, and true it is that the tractor tends to mire down on land that is saturated. Gradually, however, it has been demonstrated that there is little advantage in working a soil while it is in this condition, because it tends to pack it and greatly injure its physical texture. Where plowing is to be done with the tractor there will be real advantage in allowing the soil a reasonable time to dry out after heavy rainfalls, but in most cases this time can be easily more than made up. The ten-hour day is not the limit for the tractor, so that, after all, those who oppose the tractor because of its inability to work in wet soil make little headway with their arguments. It is amazing how the big drive wheels will get toe hold under all conditions and the work last week following the heavy rains convinced thousands of visitors that an inch or two inches of rain does not necessarily tie up the work of soil tillage for a long period.

EVEN THE CORN CULTIVATOR-TRACTOR WAS AT WORK AT FREMONT.

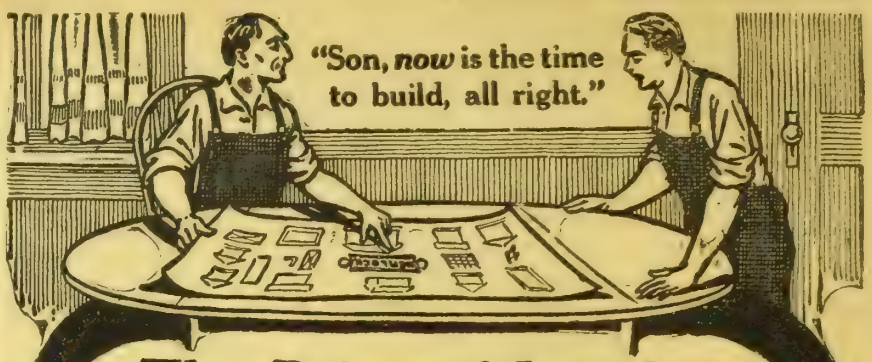
If there was keener interest taken in the tractor this year than ever before, this was possibly due in part to the farm labor scarcity that producers are facing. Thousands of farm workers will soon be called upon to take up military duties, and substitutes for them on the farm are not available. Production must be maintained nevertheless. Indeed, production will be increased if one may judge by the determination shown by those who feel the responsibility that is now placed on the shoulders of food producers. Under these circumstances the tractor shows up in its most favorable light. The fact that one man with a tractor having power enough to pull three plows can turn under anywhere from 100 to 150 acres during the ordinary plowing season is in itself enough to convince those who are short of man power of the practicability of the internal combustion engine in the field. This solution of the labor shortage problem is making strong appeal to the corn grower as well as to the individual who specializes in small grain, and the fact that nearly 70,000 tractors have been put into use in 1917 furnishes ample proof that the experimental stage has passed and that the novelty has worn off. Carburetor troubles that were so prevalent a few years ago have largely been solved and, while the individual who is an expert machinist will find much in his favor when he comes to handle a tractor, yet the farm boy has proven himself equal to the emergency. Indeed, where it has been tried out it has been found that power farming makes stronger appeal to the young men than horse farming, so that in the end the coming of the tractor may have something to do with adding to the attractiveness of farm work and farm life.

Credit is due to the tractor manufacturers, their representatives, and to the progressive citizens of Fremont for the manner in which the tractor show was put on and for the way the crowds were handled. Pres. J. B. Bartholomew, of the tractor men's association, has been enthusiastic in his efforts to show the farmers the real merits of the tractor, while much of the detail work in managing the show has fallen upon the shoulders of A. E. Hildebrand, who was everywhere in evidence during the show, attending to marking the fields and placing the machines. The Fremont demonstration has outgrown the fondest expectations of its originators, but the men who inaugurated it have capacity to handle even bigger things. It is quite a trick for a city of 7,000 or 8,000 people to take care of many thousands of visitors who attend the annual tractor show. But everything considered, Fremont did very well. Private homes were opened for visitors and reasonable rates charged for rooms. A very large number of citizens put their private cars into taxi service in order to help accommodate the crowds. Those who were connected with the management of the show and the handling of the crowds merit the commendations which were heard upon all sides.

The following list includes the names of manufacturers of tractors and plows who took part in the demonstration last week:

Advance-Rumely Thresher Co., Inc., Laporte, Ind.; Albaugh-Dover Co., Chicago, Ill.; Albert Lea Tractor & Mfg. Co., Albert Lea, Minn.; Allis Chalmers Mfg. Co., Milwaukee, Wis.; Aultman & Taylor Mchy. Co., Mansfield, Ohio; Avery Co., Peoria, Ill.; B. F. Avery & Sons, Louisville, Ky.; C. L. Best Co., San Leandro, Cal.; Buckeye Mfg. Co., Anderson, Ind.; Bull Tractor Co., Minneapolis, Minn.; Bullock Tractor Co., Chicago, Ill.; J. I. Case Plow Works, Racine, Wis.; J. I. Case Threshing Machine Co., Racine, Wis.; Cleveland Tractor Co., Cleveland, Ohio; C. O. D. Tractor Co., Minneapolis, Minn.; Collins Plow Co., Quincy, Ill.; Common Sense Gas Tractor Co., Minneapolis, Minn.; Dauch Mfg. Co., Sandusky, Ohio; Dayton Dick Co., Quincy, Ill.; Deere & Co., Moline, Ill.; Dunham Co., Berea, Ohio; Electric Wheel Co., Quincy, Ill.; Elgin Tractor Corporation, Elgin, Ill.; Emerson-Brantingham Co., Rockford, Ill.; Farm Horse Traction Works, Hartford, S. D.; Gile Tractor & Engine Co., Luddington, Mich.; Grain Belt Tractor Co., Minneapolis, Minn.; Grand Detour Plow Co., Dixon, Ill.; Gray Tractor Co., Minneapolis, Minn.; Hansmann Mfg. Co., Long Prairie, Minn.; Hart-Parr Co., Charles City, Iowa; Holt Mfg. Co., Peoria, Ill.; Huber Mfg. Co., Marion, Ohio; International Harvester Co. of America, Chicago, Ill.; Interstate Engine & Tractor Co., Waterloo, Iowa; Joliet Oil Tractor Co., Joliet, Ill.; Kardell Tractor & Truck Co., St. Louis, Mo.; Kinnard Haines Co., Minneapolis, Minn.; La Crosse Plow Co., La Crosse, Wis.; La Crosse Tractor Co., La Crosse, Wis.; John Lauson Mfg. Co., New Holstein, Wis.; Lyons Atlas Co., Indianapolis, Ind.; McIntyre Mfg. Co., Indianapolis, Ind.; Minneapolis Steel & Mchy. Co., Minneapolis, Minn.; Monarch Tractor Co., Watertown, Wis.; Moline Plow Co., Moline, Ill.; New Age Tractor Co., Minneapolis, Minn.; Nilson Tractor Co., Minneapolis, Minn.; Oliver Chilled Plow Works, Omaha, Neb.; Parlin & Orendorff Co., Canton, Ill.; Parrett Tractor Co., Chicago, Ill.; Peoria Drill & Seeder Co., Peoria, Ill.; Peoria Tractor Co., Peoria, Ill.; Pioneer Tractor Co., Winona, Minn.; Rock Island Plow Co., Rock Island, Ill.; Roderick Lean Mfg. Co., Mansfield, Ohio; The Russell & Co., Massillon, Ohio; Stinson Tractor Co., Minneapolis, Minn.; Velie Motors Corporation, Moline, Ill.; Vulcan Plow Co., Evansville, Ind.; Waterloo Gasoline Engine Co., Waterloo, Iowa; Four Drive Tractor Co., Big Rapids, Mich.

Recently the Farmers' Equity Elevator & Warehouse Co., of River Falls, shipped two carloads of wool to Chicago. The wool brought 63 cents per pound, the highest price ever paid at River Falls. One farmer marketed two loads of wool and received $1,800. Another farmer got $1,000 for one load.



The Price of Lumber

Now is the time for the farmer, above all others, to build! He has the job of feeding *the world* and he needs more buildings, more granaries, more dairy houses, hog houses, poultry houses than ever before.

At the same time, by good fortune, his bushel of grain, his ton of hay, his pound of butter-fat **will buy more lumber than ever.** Compared with the prices of other things, "Old Faithful"

HEMLOCK Is Cheap Now!

Many things have gone up more in one year than "Old Faithful" HEMLOCK has gone up in ten years, and nothing has done much better for its producers than farm products. The Farmer is pretty nearly President of the World today. So don't forget that you buy your lumber not with dollars but with what you raise.

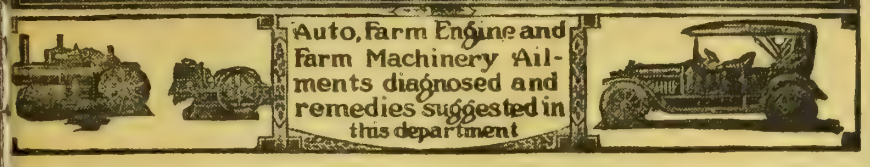
Build what you need now of "Old Faithful" HEMLOCK and you get a BARGAIN.

Tell us what you want to build, give your lumber dealer's name and we'll give you experts' working **PLANS FREE.**

THE HEMLOCK MANUFACTURERS
(of Wisconsin and Northern Michigan)
Offices, 300 F. R. A. Building Oshkosh, Wisconsin

We spread the good news about "Old Faithful" HEMLOCK but we do not sell it. Get it from your Local Lumber Dealer.

FARM MECHANICS



Questions and Answers.

Retreading Tires.

I would like to know if it would be dvisable to cut the tread out of old res and cement these treads on other res to make them wear longer. What ind of cement would be required for his purpose?

Answer.—This is sometimes done. tubber vulcanizing cement is used. 'he old tread should be vulcanized to he tire. A vulcanizer and special orms are necessary in order to do the ob properly. Some automobile or re repair shops make a specialty of his work.

A Small Tractor.

I have a six-horse-power Ellis en-ne that I would like to make into a actor. The speed of the engine is bout 800 R. P. M. Would this engine ave power enough to pull a plow? If , how low must it be geared to pull twelve-inch plow five inches deep? intend to use binder wheels for driv-g. The engine is a kerosene or gaso-ne engine. Which fuel would be best use and give the most power? If is outfit has not enough power for owing, what other implements would pull successfully?

Answer.—This engine should pull a 'elve-inch plow five inches deep un-ss the conditions are unusually hard. ear it down to two or two and one-lf miles per hour. This engine ould also pull a cultivator, a mower similar implement successfully. ou would probably get a little more wer out of gasoline, but the differ-ce would be small and if your en-ne will really burn kerosene success-lly it would be better to use kero-ne.

Ford Wiring Diagram.

Please publish a diagram showing wiring of the Ford ignition system. I should cut off one-eighth of a

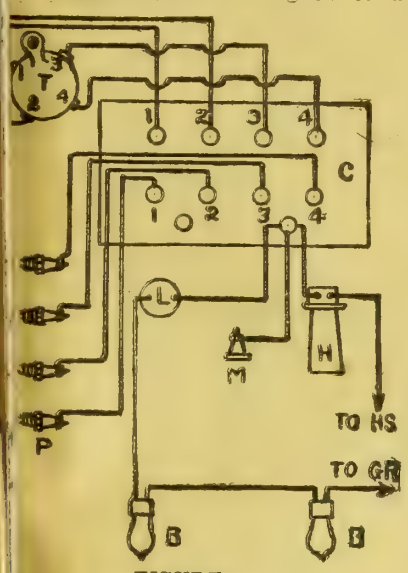


FIGURE 1.

nd from each piston, would the mo-have more power or the car be e speedy?

nswer.—Ford engine pistons are light as it is practical to make m with safety. The lighter the on the greater the power of the motor, other things being equal; also the faster the engine will run. It is doubtful if two ounces off each piston would make a very noticeable differ-ence.

Figure 1 is a wiring diagram of the Ford electric system complete. T is the timer, C the coil box, L the light-ing switch, M the magneto terminal, H the horn, P the plugs and BB the light bulbs. HS refers to the horn switch and GR to the ground connec-tion on the frame or radiator.

Pistons Stuck.

Could you advise the proper treat-ment of an auto engine in which the pistons have stuck? The car runs now, but heats quickly and does not seem to get oil properly.

Answer.—Remove the cylinders and examine the cylinders and pistons. If they are badly scored the only thing to do is to have the cylinder rebored or ground and fitted with new pistons and rings. If the scratches are not very deep polish off the high places with emery cloth. If the rings are scratched new rings should be used. Examine the lubricating system and make sure that the cylinder is getting enough oil; not too much, as too much will cause carbon trouble. After reassembling the motor, run it under light load for the first hundred miles, in order to give the new sur-faces in the cylinder a chance to wear in before a heavy load is put on the engine.

Determine if possible why your en-gine heats quickly, as the heating was probably responsible for the pistons sticking. Defective lubrication, a loose fan belt, carbon in the cylinders, running with the spark too late, run-ning with too rich a mixture and run-ning for long periods in low gear are the common causes of overheating.

Three-Horse Evener for Wagon.

Some time this spring you gave us a cut and dimensions of a three-horse doubletree for a wagon. It was mislaid. Would you please publish it again?

Answer.—We are publishing a sketch of this evener in Figure 2. SSS are ordinary singletrees. D is a short doubletree. T is a tripletree. I is a heavy iron strap bolted across the rear end of the wagon tongue. One end of the strap is turned up and the chain, C, fastened to it. The other end of the chain is fastened to the tripletree at a point distant from the

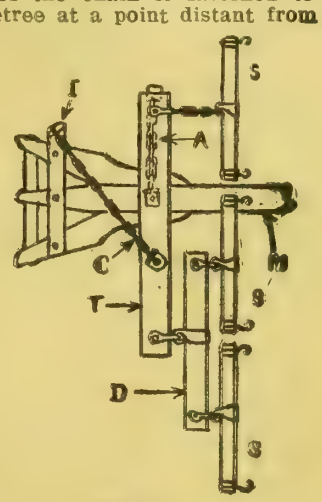


FIGURE 2.

doubletree clevis one-third the dis-tance between the doubletree clevis and the singletree clevis. The chain, A, has one end fastened to the end of the tripletree and the other to the under side of the tongue, as shown in the figure. This chain prevents the tripletree from crowding over. The hitch may be shortened by mounting D on top of T.

The chains should be made of three-eighths-inch or seven-sixteenths-inch rod. D should be made of hardwood two inches thick and four inches wide. It should be thirty-six inches long for twenty-eight-inch singletrees, or forty-two inches long if thirty-six-inch sin-gletrees are used. T should be made of hard wood, two inches thick and five inches wide. If twenty-eight-inch singletrees are used, T should be fifty-two inches long, or sixty-eight inches long if thirty-six-inch singletrees are used. All holes should be drilled three inches from the end of the tree. It is well to reënforce the ends by binding them with strap iron.

The Tractor You've Been Looking For

THE Allis-Chalmers is the ideal all-work tractor for the average size farm in this section of the country. It has ample power and wastes none in propelling unnecessary weight. It will do your plowing, disking, dragging, drilling, harvesting and hauling better, faster and cheaper than horses. It is always ready for pumping, corn shell-ing, sawing, feed cutting, silo filling and all other belt work.

Easy to Get at Every Part

The simple design and construction of the Allis-Chalmers Tractor make it easy to grind valves, take up bearings and make repairs and adjustments without loss of time.

The minimizing of vibration, due to the one-piece, steel, heat-treated frame, and the perfect balance of reciprocating parts, make for long life. There are no bolts or rivets to work loose—frame cannot sag under heaviest strains.

The special Allis-Chalmers radiator insures perfect cooling under all loads. There is no instance on record of an Allis-Chalmers Tractor overheating.

The tractor is absolutely dust-proof—an-other reason for its long life. No dust or grit can possibly get into bearings or vital parts. This tractor has behind it the Allis-Chalmers name and reputation of 60 years as a leader in the building of high grade machinery—ask your banker.

Uses Gasoline or Kerosene

Write for complete illustrated description and specifications of this wonderfully eco-nomical and efficient machine.

ALLIS-CHALMERS MFG. CO., MILWAUKEE, WIS.

DISTRIBUTORS:

H. A. Dougherty Motor Co., Kansas City, Mo.
Southwestern Supply Co., Little Rock, Ark.
Consigny Motor Truck Co., Des Moines, Ia.
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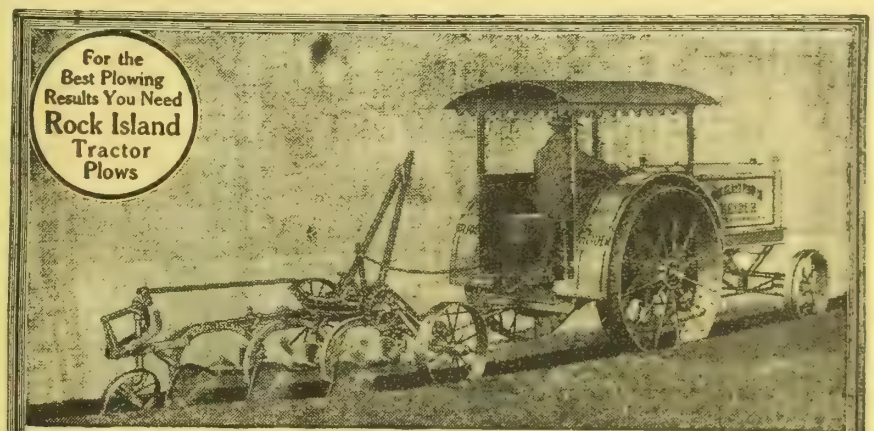
Lininger Implement Co., Omaha, Neb.

ALLIS-CHALMERS 10-18 H.P. FARM TRACTOR



Get Your Engine's Longest Life Through Friction Drive

YOU put no undue strain on your engine by careless handling of the clutch. You cannot strip the gears—nor can you start the load with those sudden jerks which invite break-ages and repair bills. You get the full power of the heavy duty four cylinder engine melted into a flexible flow through the friction drive. That's why the

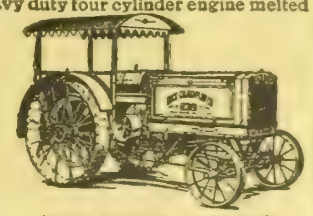
Heider

9-16 Made and Sold by Rock Island Plow Co. 12-20

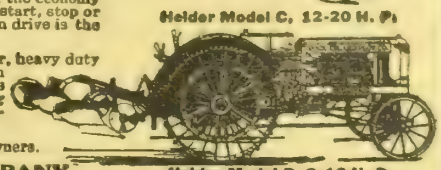
has made a remarkable record for low upkeep cost. "My re-pair costs were less than 40 cents for the past year" says an owner. Think of the ease, the convenience and the economy of using such a tractor. Touch one lever to start, stop or reverse. Owners say that this Heider friction drive is the greatest feature ever built into a tractor.

Standard four wheel construction—four-cylinder, heavy duty Waukesha Motor. Heider construction has been making good for over nine years. Backed by its own experience and sixty-two years of building Rock Island Farm Implements and their reputa-tion in all parts of the world.

Write for our catalog and a few letters from owners.



Heider Model C, 12-20 H. P.



Heider Model D, 9-16 H. P.
Sold with or without plows attached. Plows controlled by one foot lever. Automatic power lift.

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Heider Tractors Burn Kerosene or Gasoline Fuel

LF-OILING WINDMILL
With INCLOSED MOTOR
ng OUT DUST and RAIN – Keeping IN OIL
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L SUPPLY HENISHED ONCE A YEAR

Constantly Flooding Every Bearing With Oil, Makes It Pump In The Lightest Breeze And Prevents Wear

BLE GEARS — Each Carrying Half the Load
Every feature desirable in a windmill in the
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AUTO EXPERTS WANTED

BY the Government as Truck Drivers, Mechanics and Engineers. This train-ing may keep you out of the trenches. Steam and Gas Engineers and Mechanics are also needed everywhere at home. Learn in the best equipt school. Write for big catalog.

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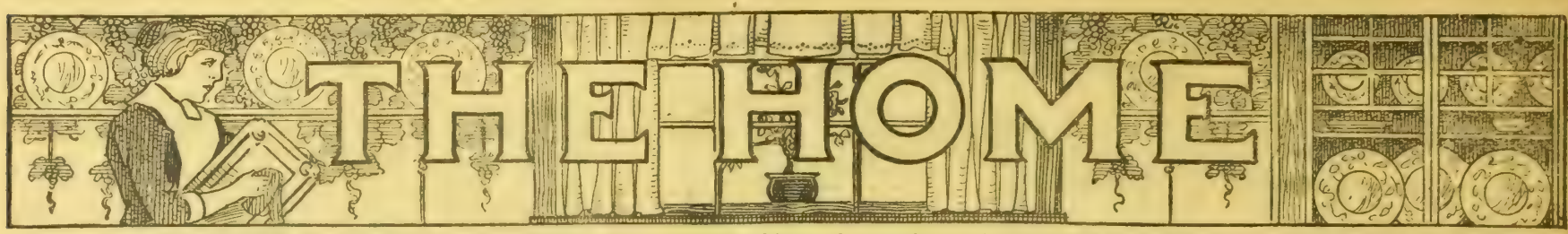

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Pickles.

There have been numerous requests for pickle recipes and a few of our readers have complained that they are unable to keep cucumber pickles either canned or put down in brine. The first essential in successful pickle making is that all materials empl yed be of the very best. The products to be pickled should be fresh and absolutely free from blemish, and the best grade of spices and vinegar should be used. Agate or porcelain-lined kettles are the safest to use in pickling operations and wooden spoons for mixing are preferable. Many excellent pickle makers add a little fresh grated horseradish to every jar of pickles. This prevents mold and at the same time keeps the pickles crisp and gives them a good flavor.

Cucumber Pickles.—Select medium-sized cucumbers, wash thoroughly, cover with salt water and let soak twenty-four hours. Then wash and pack in jars. Heat vinegar, sweetened and spiced to taste, boiling hot and pour over the pickles. Put caps in place on the jars and let stand until the next morning, then pour off the vinegar, heat and pour back over the pickles. Do this three days in succession, sealing the jars the third day. Be sure that the vinegar is of the very best. The pickles should be crisp and tender.

Mustard Pickles.—One quart chopped onions, one quart chopped cucumbers, two quarts chopped green tomatoes, one head chopped cabbage or cauliflower, six chopped green peppers. Salt and let stand over night; then boil until tender, make a dressing of three quarts good vinegar, six cups sugar, one-fourth ounce tumeric, four teaspoonfuls celery seed, one-half pound ground mustard, one cup flour. Rub dry ingredients together, stir till smooth in vinegar and boil until it thickens (two or three minutes). When cold pour over the cold vegetables and seal in warm jars. The mixture will thicken somewhat after standing a few days.

Cauliflower Pickles.—Divide a large head of cauliflower into pieces, wash and boil, with a dozen white button onions, in salted water until about half done. Drain the cauliflower and onions and add a dozen dill pickles cut into half-inch cubes. To two quarts of vinegar add two cupfuls of sugar, two teaspoonfuls of celery seed and one teaspoonful of mustard seed. Bring the whole to a boil. Mix together three-fourths of a cupful of flour, a quarter of a pound of ground mustard, a tablespoonful of tumeric powder and enough cold water to make a paste. Add this mixture to the boiling vinegar and continue the boiling five minutes longer, then add onions and cauliflower, reheat and seal.

Chutney Sauce.—Select twelve green, sour apples, two green peppers, six green tomatoes, four small onions, one cup seeded raisins, one quart of vinegar (if strong, dilute), two tablespoons salt and two cups brown sugar. Remove seeds from peppers, add tomatoes and onions, chopped fine; raisins, spices, sugar, salt and vinegar. Put on and let simmer slowly for about three-fourths hour. Then add the apples and cook until they are tender, but not mushy. Put in bottles and seal. Delicious relish for meats.

Sweet Mixed Pickle.—One peck firm green tomatoes, one dozen onions, one dozen green peppers, one cupful salt, one pound sugar, one-half cupful grated horseradish, one tablespoonful ground black pepper, one tablespoonful ground mustard, one tablespoonful whole white mustard seed, one tablespoonful celery seed, vinegar. Chop green tomatoes, onions and peppers together, after adding the salt. Let stand over night to drain. Put in a porcelain kettle with sugar and seasonings. Cover with vinegar and boil gently for one hour.

Oil Pickles.—Slice 100 medium-sized cucumbers. Cover with strong brine and let soak three hours. Wash with cold water. Add three pints white onions (which have previously been soaked in water with a small piece of alum), three ounces white mustard seed, one ounce celery seed, two ounces white pepper, one pint olive oil. Mix and cover with cold vinegar. Seal in jars.

Dill Pickles.—Take medium-sized cucumbers. Let them stand in water overnight or twenty-four hours. Remove, wash and dry. Put grape leaves on the bottom of a stone jar, then pack in a layer of cucumbers very solid and cover with dill and cherry leaves. Repeat this process, being sure that the cucumbers are packed in solid and that plenty of dill is used. When the jar is full, cover with dill, cherry leaves and grape leaves; some horseradish may be added. For a two-gallon jar mix one-half cupful coarse salt, one cupful vinegar and one gallon of water until the salt is dissolved. Pour over the cucumbers, place a plate on top and a weight on top of the plate. It is essential that cucumbers be held down solid. Do not put into a cool cellar for ten or twelve days. Remove pickles as needed, replacing weight each time.

Piccalilli.—Six red peppers, six green peppers (hot peppers), six onions, six green tomatoes, one small head cabbage. Put onions on and let come to a boil, then drain off water, remove seeds from peppers. Then chop peppers, onions, tomatoes and cabbage and grind through a meat grinder. Put in kettle and to each quart add one tablespoon of mustard, one tablespoon of sugar and one tablespoon of salt. Pour over sufficient vinegar to cover. Let come to a boil, then put in cans. Will keep all winter and makes a very delicious relish.

Cucumber Salad.—Eighteen green cucumbers peeled and sliced, not too thin. Sprinkle with a handful of salt and let stand one hour. Then drain and to this add six large onions chopped fine, one quart of vinegar, one cupful sugar, one teaspoonful cinnamon, one teaspoonful tumeric, two teaspoonfuls mustard seed, one-half teaspoonful each celery salt or seed, ginger and black pepper. Mix all together and let boil up once. Then put in jars and seal.

Use Your Nose or Eyes—Not Your Tongue.

One cannot use too much care or caution in handing and storing poisons and chemicals in the home. The writer's attention has just been called to a recent case in which a lady caught up a bottle of what she supposed was a face lotion, poured some into her hand and rubbed it on her face. It was not face lotion, but carbolic acid. Luckily, none of the acid got into her eyes, but her face and hands were badly burned. The writer has known of several similar cases, as when a barber applied carbolic acid instead of bay rum to a customer's face; and when another person took a mouthful of ammonia water instead of tooth wash. All of these accidents, and most of those of like character, resulted from haste, and from carelessness in storing, labeling or handling dangerous substances.

Many plans have been suggested for avoiding mistakes of this kind, such as having containers of special form—three-cornered, corrugated and screw-top bottles; pins thrust through cork; tiny sleighbells tied to the bottle; and many similar devices. Every person in a household should either fully understand what chemicals are kept in the house, where they are kept and how they should be used, or should not be able to get at such chemicals at all.

Have every bottle of medicine, and every dangerous chemical, no matter how often or much it is used, in a distinctive substantial container with a proper and permanent label. Make it impossible for children to get at or into the medicine closet. Leave nothing about by which children can possibly get poisoned or injured. Never drink or take anything in the dark! Never guess at the character of a substance! Find out what it is before you use it, or let it alone. Never use tablets or capsules left lying about loose without proper container and label. Look twice at everything you use from a bottle or medicine box. Use your nose and your eyes and not your tongue.—[C. E. Vail.

Canned Tomato Sauce or Puree.

Since tomatoes contain a very high percentage of water it often is desirable to can only concentrated tomato products. This is true especially when cans or jars are difficult to obtain. A delicious concentrated tomato sauce may be made and canned as follows, says the United States Department of Agriculture. Small or broken tomatoes and large tomatoes unsuitable for canning whole may be used in this recipe.

Cut the tomatoes into fairly small pieces and add a large-sized onion chopped and one cup chopped sweet red pepper to one gallon tomatoes. Cook until tender. Put through a sieve and add a mixture of one-third salt and two-thirds sugar in proportion of one teaspoonful to each quart of the mixture. Cook until the consistency of ketchup, stirring constantly. Pack hot into sterilized jars or bottles. Adjust rubber and cap—place the containers on a false bottom in a vessel of water sufficiently deep to reach almost to their tops and allow to remain at a boiling temperature for twenty-five minutes. Remove jars from the water bath and tighten the lids immediately.

Bread Dumplings.

To the Editor:—I always read the letters in the Home department, and as I get many good recipes I will tell Mrs. H. L. how I make my bread dumplings.

When I put my bread in the pans I take a small piece of dough about the size I would use for a biscuit or bun. I pull it out quite thin and flat and then put in a few slices of apple with a small piece of butter and a little sugar and cinnamon, and bring the dough up around it, pinching the sides all together so the juice will not run out. Then I put them in a steamer, being sure not to cover the holes, as the dumplings rise like bread or biscuits and spread. I let them rise about the same time as for biscuits and then steam half or three-quarters of an hour over a pan of water. I place a clean tea towel or bread cloth over them and a tight cover over that, weighted down. The cloth takes the steam so the dumplings do not get soggy. Do not remove the cover while they are steaming.

Of course, the dumplings are small and I usually serve two to each person. Serve with cream and sugar.

Mrs. G. D. S.

To Take Out Grass Stain.

Miss V. M. S. writes:

Will you please tell me how to get grass stain out of a white garment? I did not notice the stain until after the garment had been washed and although I have tried several things I am unable to remove it.

You should be able to get the grass stain out of your white garment by soaking in alcohol and then washing with naphtha soap and warm water. Sometimes an application of molasses or a paste of soap and cooking soda, left on overnight, will remove grass stain. Ammonia water is good for a fresh stain, but since you have washed the garment it may not be effective in this case.

Brussels Sprouts.

To the Editor:—I wonder if any of the readers can tell me how to cook Brussels sprouts and how to put it away for winter use. Would also like to know if cauliflower can be prepared any other way for table use than pickling. I would like to know how other housekeepers use these two vegetables.

Mrs. J. C. M.

Is a Dress Form Helpful in Sewing?

To the Editor:—I am a young housekeeper and like to do my own sewing, but have a great deal of trouble fitting my dresses. I have been thinking of getting a dress form, but I want to be sure it will be a help to me before I make the investment. I have heard some say that they are all right and others have said that they are not. I wonder if any of our readers have used a dress form and if it has proved to be a success or a failure. I am anxious to get one if it will make my sewing easier. Was thinking of getting one of the adjustable kind. Will not someone who has had experience with a dress form tell me whether they can be depended on or not?

Subscriber.

THE YOUNG FOLKS

Member of Junior Red Cross Society.

Dear Younk Folks:—I am a little girl nine years old. I have been reading the letters in the Young Folks' column and I want to write, too. We live on a small dairy farm and have lots of cows and calves, chickens and pigs and different kinds of pets. We have a mother dog that raised four nice pups this spring. We sold three and kept one for a watch dog.

We have been having good times this vacation, for we took several nice trips in the car and are planning to go to the lakes and spend a few days fishing and swimming.

My three sisters and I belong to the Junior Red Cross Society. We children have raised over $90 altogether by having tag day and some entertainments. We are also making pillows, wash cloths and other things for the soldiers in the hospitals.

I will close with a riddle. What table has no legs?

Dorothy.

Has a Fine Garden.

Dear Young Folks:—I am a girl twelve years old and live on an eighty-acre farm six miles from town. I have written once before to the Young Folks, but did not see my letter, so I will try once more. I read all the letters and think they are fine.

I think Emma's story about Metta and the prince was a good one. I wish some of the other boys and girls would tell some stories.

Have any of the girls a little garden of their own? I have and I take good care of it. There is not a weed in it. I have onions and did have radishes and turnips, but we have eaten nearly all of them. I have some potatoes, too.

Mama and I together have raised about 100 little Brown Leghorn chickens. Our biggest chickens are big enough to fry. We have had one mess of fried chicken.

Opal.

Lives on a Big Ranch.

Dear Young Folks:—I am a boy twelve years old. I live on a 2,200-acre ranch. Papa and grandpa own many cattle. We milk thirteen cows. I have two brothers and two sisters. We have a little dog named Woodie. He is as white as snow.

I like to read your letters very much and hope you children will always keep the letter page full. This is the first time I have ever written you a letter.

Harold.

A Literary Society.

Dear Young Folks:—I live on a farm of 120 acres. I am thirteen years old and am in the eighth grade. I hope you will enjoy reading my letter.

Last November our school formed a literary society and every Friday we have a meeting or a program. At one of our meetings we voted upon the name, colors, flower, motto, yell, poem and song of our school. The name we chose was "Happy Hollow." The colors are purple and gold, the flower is a violet and the motto "More haste less speed." Our yell is "Yip, zip, boom hum, Happy Hollow! Here we come." The name of the poem is "Memories of Happy Hollow," and the name of the song is "Happy Hollow." The poem was written by one of the boys and I wrote the song.

I like to go to school. I expect to graduate next year.

Kenneth.

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2189—A jaunty blouse. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3¼ yards of 27-inch material for a 36-inch size.

1960—Dress for misses and small women. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires 4½ yards of 44-inch material for an 18-year size.

2193—Two up-to-date dress accessories. Pattern is cut in 3 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42 inches bust measure. Size medium requires 1¾ yards of 36-inch material for No. 1 and 1⅛ yards of 27-inch material for No. 2.

Waist 2163-Skirt 2179—A smart combination. Waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3¼ yards of 36-inch material for a medium size. Skirt pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅛ yards of 44-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2174—A simple dress for school or play. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2½ yards of 27-inch material for the dress and 1½ yard for the guimpe, for a 4-year size.

2167—Girls' "cover all" apron. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. Size 10 requires 2½ yards of 27-inch material.

1521—A trim and popular suit for other's boy. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2⅜ yards of 36-inch material for a 4-year size.

2188—A smart style for afternoon or home wear. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5⅜ yards of 44-inch material for a 36-inch size.

2176—A simple dress for school and home wear. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 1¾ yards of 27-inch material for the guimpe, and 3½ yards for the dress, of 36-inch material, for a 10-year size.

2009—A comfortable and an attractive lounging robe. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 6⅝ yards of 44-inch material for a 34-inch size.

1805—A simple practical ladies' apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 3¼ yards of 36-inch material for a medium size.

1991—Girls' dress in overblouse style, with guimpe. Pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 1¾ yards of 36-inch material for the dress, and 1½ yards for the guimpe, for a 12-year size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for August 19, 1917.

Finding the Book of the Law.

LESSON TEXT—II Chronicles 34:14-33.

GOLDEN TEXT—I will not forget thy word.—Psa. 119:16.

I. The Book of the Law Found (vv. 14-17). 1. The occasion (v. 14). It was found while the work of repairing the temple was going on. At what part in the temple we do not know; perhaps in the treasure house, for it was found while bringing out the money to pay for the repairs. Perhaps this was in or near the ark, for the law was usually kept in or by the ark.

2. By whom (v. 14.) Hilkiah, the high priest, was the finder. It is strange that the high priest was ignorant of the place where the law was found. It is a sad comment upon the moral and spiritual condition of priests and kings, since they were appointed guardians of God's law. It is, however, always true that when one does not want to have his life ordered by the Bible he will put it out of his sight. The disappearance of the Bible from our homes, and the neglect of it in our study, is a certain sign of evil in our lives. Be assured, however, that though the law of the Lord be removed from our sight it shall sooner or later come before us to judge us. God has declared that his Word shall not return unto him void, but shall accomplish that whereunto it hath been sent.

3. Its disposition (v. 16). Hilkiah gave the law to Shaphan the scribe, who delivered it to the king along with his report as to the disposition of the money which had been collected.

II. The Book of the Law Read (vv. 18, 29, 30). 1. To the king (v. 18). This was a most impressive scene, the king listening to the reading of the law of God. It was the proper thing to do, for those appointed by God to rule over the people should be anxious to know the will of God concerning them. The pious king, believing in it as God's Word, was anxious to know God's thought concerning the nation. His interest became intense, as he was made conscious of the apostasy of his people from God's law. His chief anxiety was to know what was God's purpose as to the nation in view of their idolatry. It is a sensible thing to make oneself intelligent as to his responsibilities, even to know what judgments shall befall those who have turned from God. One should know the worst while there is time yet to escape his wrath, for repentance is the only door of escape from perdition.

2. To the people (vv. 29, 30). At the direction of the king the priests, elders and all the people were called together to hear God's Word read. This was as it should be. People have a right to hear what God has to say to them as well as the king. To keep the people ignorant of the Word of the Lord is a great crime. The crying need of the age, with all its boasted knowledge, fine church equipment and cultured ministry, is for the Word of God to be brought to the ears of the people.

III. The Effect of the Reading of the Law. (vv. 20-28; 31-33). When God's Word is intelligently read and understood there is bound to be an impression made.

1. The king rent his clothes (v. 19). The man who will honestly listen to the reading of God's Word will be brought to his knees, for he will be convicted of sin, and will take the place of self-abasement before the Lord. The king first saw his own sins and confessed them. It is a good sign when one sees his own shortcomings and failures, and not primarily those of others.

2. The king made inquiry of the Lord through Huldah the prophetess (vv. 22-28). His supreme motive in this inquiry was to find out whether there was some way to avert the awful judgments which were impending, as set forth in the Word of God. After all, the human heart instinctively turns from threatened woe to inquire whether there is not a way of escape Alongside of the flaming, thundering Sinai was placed the Levitical system of offerings. Law and grace are not far removed. The law becomes our schoolmaster to bring us to Christ. Through Huldah the message came that God had taken account of all their sins and that judgment must fall, but Josiah would be spared the sight of all God's visitation of wrath. The penitence of the king turned aside God's wrath from himself, but the nation would be obliged to suffer for its awful apostasy.

3. The king made a covenant (vv. 31, 32). This was to the effect that he would walk in the commandments of the Lord. He also made the people stand to this covenant. He no doubt acted from the sincerity of his heart.

4. Further reforms (v. 33). Josiah now reached out as far as the national boundaries, took away their abominations and made Israel to serve the Lord their God. The fact that the book of the law was found implies that it had been lost. The way it had been lost is not definitely set forth, but numerous ways may be suggested. The Bible is a lost book to many professing Christians today, maybe through lack of interest in it, willful neglect or neglect through the stress of life's business and pleasures. May we not each one inquire as to whether our Bibles are lost?

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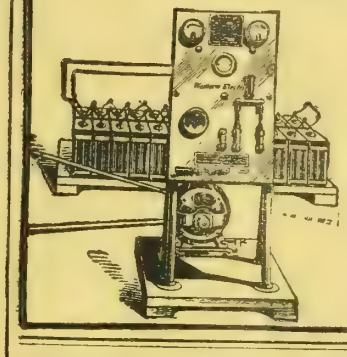

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LEGAL DEPARTMENT

SUBSCRIBERS who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention, inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delaying printed answers, those to whom it is important to receive an immediate reply by mail, should remit $1.00, addressed as above. All inquiries must be signed if they are to receive attention.

Law Questions.

Trespass by Dog—Damages.

A Wisconsin Subscriber.—A lives just across a public road from B's place in Wisconsin. A keeps a dog which is continually trespassing on B's place, and it scratches up beans and other things growing there. B has asked A to keep his dog shut up, but A refuses to do so. Has B a right to kill the dog?

Answer.—B has no right to kill the dog, but he can recover damages from A for all injury done by the dog on his premises.

Mortgage and Interest.

A Subscriber, West Allis, Wis.—My father owned property in Wisconsin and died without making a will, leaving seven children, one of whom died shortly after father's death. It now appears that this child gave a mortgage on his one-seventh of the estate left by our father. Is said mortgage valid in law, and can it be collected with interest thereon?

Answer.—The mortgage is valid in law, and can be collected with whatever interest is provided for by the terms of the mortgage.

Division of Partition Fence.

A Subscriber, Brookfield, Wis.—My neighbor and I own adjoining farms, and the division line runs to a public road. In measuring this line to divide the fence between us my neighbor measured up to the fence along the roadway, and I measured to the middle of the road. Which one is correct?

Answer.—Your neighbor is correct. The actual partition fence extends to the road fence, and not to the middle of the road. Each one is required by law to build half of the actual partition fence.

Partition Fence—Fence Viewers.

A Subscriber, Medford, Wis.—A man owns forty acres of land adjoining my farm. This man does not use his land for farming, as it is all timber land. There is no fence between his land and mine and my cattle bother the neighbors. Can I compel him to build half of a partition fence?

Answer.—You can compel the owner of the forty acres to build half of the partition fence. Call upon the fence viewers of the town to meet and order him to construct his part of the fence and they will do so.

Defective Bridge Work.

A Subscriber, Pekin, Ill.—Last fall a small concrete bridge was put in on the road over a creek close to our house and a concrete floor was put in the bed of the creek under the bridge, but by mistake the floor was laid two feet higher than the bed of the creek. We have tile drains from the house and fields which empty into the creek about ten feet from the bridge above it, and these tile drains become obstructed by back water on account of the high concrete floor. Can we compel the township to lower the floor?

Answer.—The proper course for relief in this matter is to apply to the commissioners of highways.

Terms of Written Order Binding.

A Dairy Company, Loyal, Wis.—We signed an order to a stock food company in Minneapolis for a quantity of stock food compound, amounting to $87, agreeing to pay same without any reduction for any reason within thirty days, 2 per cent discount being allowed if paid within ten days. At the bottom of said order, in very fine print, among other things it stated as follows, viz.: "This order is not subject to cancellation, neither are the goods consigned, but are sold outright and cannot be returned without instructions from us. No written or verbal agreement on the part of our agent is binding on us. I have read carefully all the terms and conditions in this order and agree to be bound by them." We signed under, but did not read the fine print quoted. The agent wrote in pencil on the order as follows, viz.: "I hereby agree to coöperate personally selling goods at this point until this order is sold," and signed his name thereto. The agent stated that we were to have no competition in the local field. We signed the order on the strength of the agent's promise and statements. We find that the food company has an agency in this town, established more than a year ago, and the agent has failed to keep his promise to help us sell the goods. Are we obliged to keep the goods and pay for them?

Answer.—Under the terms of the order you signed you will have to keep the goods and pay for them. The agreement of the agent does not relieve you. The fact that you did not read the fine print on the order does not relieve you. No person should sign any kind of a paper without reading all of it.

No Pay For Blunder.

A Subscriber, Park Rapids, Minn.—A rented his farm to B and told him where the division line was between said farm, and the adjoining farm. In the spring B plowed across the line on the adjoining farm. Can he collect pay for the same?

Answer.—He cannot recover any pay for plowing on the adjoining farm.

Trespass on Unfenced Land.

A Subscriber, Cambridge, Wis.—(1) What is the law of Wisconsin about driving cattle along a public road where the road is not fenced? (2) Where land is not fenced from a public road, can the owner recover damages in case animals driven along the road trespass on his land?

Answer.—(1) The driver of the cattle must exercise due care to prevent cattle from trespassing on land and if he does so the landowner cannot recover damages if the cattle go upon his land. (2) The landowner cannot recover damages unless he can show that the driver of the cattle was negligent and careless.

Wages of Hired Man—Replevin.

A Subscriber, Black River Falls, Wis.—A contracted with B to do some work for him, and hired C and others to help him do the work. A paid all the men by orders on B, and B cashed all the orders except one for C, which he refused to pay until C finished the work for B according to the agreement. Meanwhile A bought personal property from C and paid him cash for it, and when A went to get the property C refused to let him have it until A paid C for the work. (1) Can C hold A responsible for his wages? (2) How can A get the property he bought from C?

Answer.—(1) As C was hired by A, C can hold A responsible for the payment of his wages. (2) When A bought the personal property from C and paid him cash for it, the title to the property passed to A, and as owner of it, he can bring a suit of replevin against C for the property and recover the same by law.

Lien for Labor.

A Wisconsin Subscriber.—B contracted with A to build a certain building for him for a certain price. The contract was verbal. B then hired C to help him do the work, and when they had almost completed the building, A concluded to not have it entirely finished, and paid B most of the contract price, retaining only enough to finish the building, and both were satisfied, but B did not pay C for his work on the job and now C demands that A shall pay him for his work and threatens to put a lien on the building for the same. Can C do this and if he does, what can A do?

Answer.—If C gave A written notice that he was employed on the job within thirty days after he did his first work and filed with the clerk of the district court copy of such notice and a statement of his claim within sixty days after he did his last work he has a lien on said building, and can enforce the same against A, and the only thing for A to do is to pay C for his work. But if C failed to give notice and file same with his claim he has no lien and A is not required to pay him.

Mother's Pension.

A Subscriber, Brodhead, Wis.—(1) Under what conditions can a woman get a mother's pension in the state of Wisconsin? (2) Where a mother has two little children, and her husband has left her, in the same town, how much pension can she get and how would she proceed to get it?

Answer.—(1) When a mother is unable to support and properly care for her children she can obtain aid from the county, which is commonly called a mother's pension, although not called by that name in law. (2) In such a case the mother should present to the juvenile court or the county court a petition stating the facts and showing that she is unable to properly care for her children and asking for county aid. After hearing the matter the court will grant the mother such aid for the support and care of her children as it deems just and right, not exceeding $12 per month for one child and not exceeding $4 per month for the other child, but may temporarily increase these amounts in case of sickness or other unusual conditions.

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Live Stock Exhibited at Early Wisconsin Fairs.

To the Editor:—Down to the early seventies the only cattle given premiums at the county fairs of Wisconsin were Durhams, Devons, natives, grades and crosses. Kenosha and Walworth counties held fairs in 1850, and Waukesha county claims to have held a fair eight years earlier; at the Walworth county fair two Durham bulls were exhibited and sold. They had been brought from western New York by Josiah Brooks. Bull "Herod" brought $210 at auction and the other animal sold for $150. County societies offered premiums for Durham and Devon cattle, as they were the only cattle of known breeding in the state. As a rule the cattle department was divided into a division for working oxen, one for milk cows, and fat steers. The white-faced beef animal, the Hereford, was given premiums at the Racine county show of 1857 and an Ayrshire cross-bred animal had been exhibited at the Green county fair three years previous. The dairy breeds began to enter the county show rings about 1869, when a class of Swiss cattle was placed at Fond du Lac; the next year a pure-bred Ayrshire was exhibited at the same show. The Jersey made her appearance in 1875, and the Guernsey in 1882, although they had been preceded by their sister breed, then called the Alderney, but now known as a branch of the Guernsey aristocracy. Holstein cattle were shown at Kenosha in 1880, and Polled Angus were exhibited at the same place two years later. The Red Polled breed appeared in the premium awards at the Richland county fair of 1887, while the Dutch Belted stock was shown at Elkhorn in 1911. Such was the history of the cattle at our early fairs, according to the accounts published in Wisconsin newspapers, beginning with the time when oxen were still beasts of burden and the horse a gentleman's animal.

The first classes for horses offered at the early fairs were divided more as to sex, age, and use than as to breeds. The first horses were probably descendants of the old Conestoga and French Canadian horses. By 1850, new blood had been introduced into the state in the form of the English thoroughbred (or the so-called "blood horse") and through that beautiful little Morgan horse with which our grandfathers were so familiar. Spirited horses of the two breeds appeared both on the track and in the show ring. The counties of central and southwestern Wisconsin were very much taken up with the thoroughbred, while the Morgan was in evidence at practically every county show in the state by 1860. About ten years later the farmers began to demand that they have heavier animals to replace the Morgan and Hambletonian "horse of all work." The latter term was inclusive enough to refer to all animals of sufficient speed to hitch to the family carriage and carry their owner with fair speed and safety. "Louis Napoleon," a French draft horse, was exhibited at the Walworth county fair of 1870; a number of Clydesdale stallions were shown at Beaver Dam in 1874, and at the Green county show of the next year. The Percheron horse, which has since proved to be the most popular draft horse in the state, was given the ribbon at the fair at Monroe in 1880. The fair records show that the coach breeds were first exhibited at Wisconsin county fairs during the early eighties. A Cleveland bay stallion was on the grounds of the Columbia Association during the show of 1885, a French coach animal was shown at the Grant county fair four years later and a Hackney stallion won the blue at Monroe in 1894. The large importations of draft horses into the country during the early nineties caused the Shire stallion, "Herculaneum," to win the sweepstakes at the Richland county fair of 1892, and a Belgian to be exhibited at Lancaster four years later. Throughout the history of the county fair in this state, the standard-bred horse was exhibited at every exhibition, gradually gaining prestige until the bubble burst in 1893 and the fabulous prices vanished, forcing many breeders to sell out.

At the time of the Morgan and thoroughbred introduction at the first Wisconsin county shows, sheep were exhibited under two department divisions, one for the short-wooled breed and one division for the long-wooled animals. In 1850, the Saxon and Merino breeds appeared at the Kenosha County Fair; in 1857, classes for Leicester, French Merino and Spanish Merino sheep were offered at Racine, Southdowns appearing at Waukesha the same year. The Cotswold was first exhibited at the Elkhorn fair of 1870, and the Oxford Down, Hampshire and Shropshire soon found classes open to them at the majority of Wisconsin fairs. The most popular breeds in the state at the present time are the three last-named breeds and the Southdown mutton animal. The above record shows that while the early settlers were very much in need of woolen clothes, it does not explain why they were slow to introduce pure breeds of sheep.

At the early fairs very few swine were exhibited, and we find mention of the fact that the few hogs in the country were very inferior, some having been driven from Illinois at an early date. Probably the first swine of pure breeding to be brought into the state came to Grant county in 1847 from Albany, N. Y. Classes for the Suffolk, Essex and native breeds were placed at the Green county exhibit of 1854. Chester White hogs were shown at the Grant county exhibition of 1857, and another large-type white hog, the Victoria, was exhibited at Elkhorn in 1887. The Poland China, Duroc Jersey and the Yorkshire swine were found to be the leading swine at the Kenosha fair of 1883. At the present time the lard type including the Berkshire, Chester White, Poland China and Duroc Jersey are the most popular breeds in the state.

Such then is the history of the appearance of the several breeds of live stock as they made their entry into the records of the agricultural societies of Wisconsin and as the county newspapers published the award of premiums. Glen W. Vergeront.

In and Around Wisconsin

The Jersey breeders of Sauk county met Saturday, July 28th, and organized the Sauk County Breeders' Association, electing the following officers: President, Ed. A. McGilvra, Baraboo; vice president, Frank E. Brimmer, LaValle; secretary-treasurer, W. L. Bible, Lime Ridge.

J. A. Roberts, of Oconomowoc, Wis., will judge at a number of fairs in Wisconsin this fall, and will also accept a few appointments in other states. His present engagements include St. Croix Falls, Portage, Elroy, Waupaca, Mauston, Wausau, De Pere and Elkhorn. Mr. Roberts has been an exhibitor of stock for several years, and has a wide acquaintance among exhibitors in several states. He is familiar with conditions and cattle in Waukesha county, from which so many good cattle have been shipped.

Five enterprising settlers living in Chippewa county have organized what is probably the first land-clearing association ever formed in this state. These men have purchased coöperatively a stump puller and will construct a Conrath piler. They expect to work together, spending at least one week on each man's farm. They own adjoining farms, and propose to clear their land ready for the plow and for crop production through this coöperative effort. Wisconsin's whole program of land clearing and its plan of making ready for settlement its vast cut-over tracts is gaining the close scrutiny of the federal government. The officers of the Federal Farm Loan Bank, of St. Paul, which is concerned with the occupation and use of the idle acres of the states of Michigan, Wisconsin, Minnesota and the Dakotas, were in Holcombe last week inspecting the work done by the University of Wisconsin and its coöperators in demonstrating easier, cheaper and better ways of land clearing. They spent considerable time familiarizing themselves with the possible uses of this reclaimed land and appraising the loan values of its prospective farms. After a tour of a large section typical of the state's empire of brush land and a careful inspection of the coöperative land-clearing project, the members of the board, which includes E. G. Quamme, of North Dakota; Ben F. Faast, of Wisconsin; H. K. Jennings, of Michigan; A. H. Turretin, of Minnesota, and W. S. Harris, of Minnesota, expressed confidence in the future of the northern counties and paid high tribute to the work being done to speed up the clearing and settlement. "Wisconsin is pointing the way by attempting to settle scientifically its unoccupied acres," declared one of these federal bankers. "If the work started a year or more ago is continued along the same rational lines the citizens of this state will have opportunity to know not only what are the methods of stumping which are most economical of time, money and effort, but will also have the scientific information on land value before, during, and after the process of land clearing which is necessary to establish loan values." He and the members of the bank were accompanied on the trip by a delegation of regents from the University of Wisconsin.

Build up the Herds.

To the Editor:—Recently a close student of business affairs and market conditions in general made the statement that 20-cent beef would come within a few months. When you stop to think about it beef is not selling as high on the hoof as either pork or mutton. With the requirements that have been placed on the beef supply it would seem that a higher price for beef at the present time would be entirely appropriate. Think of a leading packer advocating at least one meatless day each week in order that the supply might be adequate to meet the demand. And yet in a recent interview J. Ogden Armour is quoted as having advocated this practice. I refer to it here merely to call attention to the recognition of the acute shortage of beef.

The entrance of this country into the war will increase the consumption of meat. The food products of the farm will be relied upon to a larger and larger extent as we progress in this world conflict. With this condition actually upon us the certainty of higher values placed upon beef-breeding stock should determine breeders to strengthen rather than deplete their herds. The situation offers something more than opportunity to enlarge profits; it involves an obligation to assist in maintaining the food supply.

Breeding cattle have been selling for the future. It seems certain that prices must advance and production increase in order to maintain anything like the proper ratio to consumption.

Losses in live stock have been heavy in the Northwest, due partly to the excessive snowfall of the winter and partly to the late spring. There is one consolation the ranchmen have and that is that they will realize as much for the hide as they did for the entire animal a few years ago. Leather requirements are now an important item in the value of the animal, but only an item.

If breeders generally will incline to strengthen their herds, both in the matter of quality and numbers, they will be acting on a safe basis. An abundance of rough feed should be produced that the herd may be maintained at the least expense. Consumption of corn as human food steadily increases and is emphasized by the present shortage of the wheat crop. It is time to pay particular attention to pastures and meadows, that every acre may produce as near the maximum as possible. American products are being drawn upon as never before in the world's history and it appears that these requirements will increase rather than decline. Every phase of the situation offers encouragement to the man who is producing good cattle. His advantage is everywhere recognized. He should make the most of it.

The American Short-horn Breeders' Association is encouraging all identified with the production of Short-horns to increase rather than deplete their herds; to bring the standard to as high a state of efficiency as possible and in so doing to contribute their part in providing an ample food supply. That the profits assured fully warrant the action seems clear to even the most casual observer.

F. D. Tomson.

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WISCONSIN.

Calumet County.—Rye and wheat crops are fine and most of the acreage has been cut. Barley has been harvested also. The acreage of these crops is nearly the same as last year. Oats are turning white. Clover is a good crop and the acreage is somewhat larger than that of last year. The corn prospects do not look promising. There is more young stock in this county than there was last year. A number of milk cows died this spring, which cuts down production.—Joseph Buchinger.

Crawford County.—Rye, barley and wheat have been harvested and oats are now being cut. All grain crops are above the average and far ahead of those of last year. With the coming of warm weather corn has made excellent progress. Some fields have formed ears. Prospects are favorable for a bumper crop if frost does not come too soon. Hay is heavy and the weather is favorable for putting it up. Potatoes, beans, cabbage and tomatoes look fine. Pastures have held out well and live stock are in good condition.—H. H. Stuckey.

Chippewa County.—Most of the hay crop is harvested and weather conditions have been favorable. The yield ran from one and one-half to three and one-half tons per acre. Heavy rains have fallen during the last few days and pastures are good. Potatoes are a much better crop than last year. Corn looks well, but some of it is a little backward. A heavy crop of rye has been harvested. Wheat is the best it has been for several years. Barley is good. The pea factory has closed a very successful year, with a production of 1,300,000 cans. Sugar beets and tobacco look fine. Oats are being cut and a heavy crop is reported.—Ernest Neitzel.

Douglas County.—Haying is about half done and indications point to a crop about 30 per cent below that of last year. No grain has been harvested, but the prospect for small grain is the best it has been for several years. Wheat is very promising. The average yield of all small grains will be about 20 per cent above that of a normal crop. Corn looks fine, prospects being more favorable than they have for the last three years. Farmers have been sowing a large acreage of root crops, to furnish feed.—B. N. Stone.

Dunn County.—We have had some very hot weather which has pushed the corn along rapidly. Haying is nearly finished. Barley and rye are in the shock and some oats have been cut. Small grain is good, but not quite up to expectations. The milk flow has dropped off considerably because of flies and heat. Potatoes are fine and gardens look well. Many farmers are building silos to save the soft corn and meet the high cost of feed.—Jas. A. Smith.

Florence County.—Grain is in normal condition, but has not yet been harvested. Hay on old meadows will average one and one-half tons per acre and on new meadows two and one-half tons. Feeding operations are increasing. The fruit crop is very light in this county, but gardens are normal.—Phil Kelmes.

Iowa County.—Hay made a good average crop and it is now up in good shape. Grain harvest has commenced and an increase in yield of about 5 per cent over the average is promised. Corn is backward, but in sections where rain has fallen it has gained in growth wonderfully. This county has suffered from a damaging drouth. Pastures are gone. The second growth of clover and alfalfa are poor and corn, potatoes and late garden stuff are drying up. The milk flow has decreased about 25 per cent and on account of the high prices farmers are not trying to maintain it.—Art. G. Hoskins.

Juneau County.—Haying is nearly finished. The crop was large and most of it went up in good shape. Wheat, rye and barley are harvested and these crops are above the average. Oat harvest has just commenced and the prospects are favorable for a good yield on high ground, but on low ground the outlook is poor. Corn made a great gain in the last week. Potatoes are very good.—C. W. Hale.

Langlade County.—The hay crop is harvested and will average about one and one-half tons per acre in yield. The rye crop is better than it was a year ago; some has been cut. Winter wheat is well filled. The barley and oats were injured by hot winds recently. Corn is growing fine and shows good color. Gardens are growing well. Live stock show fine condition. Pastures are holding out well and stock are getting no other feed. Eggs are scarce and some farmers are buying them.—M. C. Parsons.

Marquette County.—Corn has grown fine for the last few days, but still is about three weeks late. Rye is good, but thin. Oats are doing well and will make a good crop. Potatoes have a very good stand. Tame hay yielded heavily. Marsh hay was thin. Pastures are getting short and the milk supply is decreasing.—J. W. Williams.

Medford County.—Favorable weather Oats and rye look well. Haying is in with local showers have pushed crops. full swing and new meadows are yielding fairly well, but the old meadows are making only half a crop. Wheat is poor, but rye looks fine. Potatoes never looked better. Live stock are in fine condition. There are plenty of horses for sale cheap, but they are heavy, weighing about 1,600 pounds. Spring hogs are scarce and sell from $10 to $12 a pair. Sheep and lambs are doing fine. Wool sells for 50 cents a pound.—E. H. Dehne.

Outagamie County.—The season is late, but haying is well under way and the crop is fine. Clover especially is very good. Grains of all kinds are uniformly good, but it is too early to tell how well they will fill. Hot weather may diminish their yield. Corn is very backward, the best of it is only commencing to tassel. Much of the crop on wet soil was stunted in growth. Potatoes were never better and every nook and corner seems to be planted to them. Strawberries and cherries were immense this year. Potatoes will soon be at $1 a bushel. Pastures are good and dairymen are reaping just rewards with cheese at 22 cents a pound. Many farmers are leaving creameries to patronize cheese factories. No mill feed is required for feeding. Banks are full of idle money.—R. T.

Pierce County.—Hay made a good yield of fine quality. Rye and barley are in the shock. Rye will yield from twenty-five to thirty bushels per acre, and barley from thirty to thirty-five bushels. Oats were injured to some extent by hot weather, but the same weather helped the corn wonderfully. However, unless the weather remains very favorable we will not get much sound corn. Potatoes never looked better. A severe storm of wind and rain passed over a part of this county on August 4th, sweeping down the nncut grain, so that a large part of it will have to be cut one way. thus increasing the work of harvest.—G. K. Moore.

Price County.—Most of the timothy and clover crops have been put up and their quality is excellent. The average yield is about two tons per acre. Rye and barley are getting ripe and look promising. Oats will average about thirty bushels per acre, the same as last year. Corn is growing rapidly, but still is late. All live stock are doing well, but pastures are getting short because of lack of rain.—G. F. Glissendorf.

Rusk County.—The hay crop is about half harvested and the yield is exceedingly good on the new seeding, but on the old somewhat light. Corn has made a great advance in the last few days of hot weather. It looks as if a full crop would mature. Small grain will be better than it has for many years. A larger acreage of potatoes than usual has been planted and conditions were never more promising for a bountiful yield. Milk cows are producing well and beef cattle are in the pink of condition.—T. M. Thomas.

Taylor County.—Pastures are fair and live stock are in good condition. A recent rain saved the potatoes and small grain, because they were suffering badly from drouth. Potato bugs are not bad this season. Haying is done and a bumper crop has been put into the barns and stacks. Rye is getting ripe and promises a good yield. Barley is turning and at present looks very good. Oats will make a bumper yield if no drawback occurs. Potatoes look fine and root and garden crops are above the average.—J. C. Hoffman.

Washington County.—Haying is nearly completed and the yield and quality are much better than they have been for several years. The second cutting of alfalfa is at hand and if weather remains favorable for another week it will yield greater than the first cutting. Winter grains and barley are being cut. Wheat and rye will yield better than last year and barley will be a very good crop. Oats will require about two weeks yet in which to mature. Corn is nearly a month late. Gardens and fruit are in fine condition.—M. P. Salter.

Waukesha County.—A big crop of hay has been put up in fine condition. The weather favored all but the very early cutting. The second crop of alfalfa was better than that of last year. Barley is good, but the stripe disease will cut down the yield in some fields. Oats look well, but some disease is affecting it. Corn is developing ears, but lags behind the season. Live stock of all kinds are doing well. Pastures are good. The dairyman who meets high prices this year will have to get more than $3 a hundred for his milk. Fruit has been very plentiful.—W. J. Mann.

Wood County.—Hay was put up in fair shape, considering the wet weather which came at haying time. Rye and oats are nearly all harvested and promise good yields. Corn made a rapid growth during the warm weather, but is holding back just now because a cool spell has come. It is beginning to tassel and develop ears. Fruit and gardens still look well. All live stock are in good condition. Farmers are weeding out the poor milk cows and selling them for canners.—Fred E. Weber.

More Sheep By All Means.

To the Editor:—It is a bit interesting to learn that certain grades of wool are selling in this country at $1 a pound, and even twice that is quoted for some exceptionally choice lots. If anything would impel a man to stop and think of the possibilities of sheep at the present time, it seems to me that should.

Many sheep go to the shearer bearing six pounds of wool. This may be given, indeed, as a pretty fair average for the sheep of the United States. It would be an interesting experience to wrap up a single fleece and receive in return for it $6. When before in times of peace has such a thing been known?

Very many ewes produce for their owners two good lambs in a single season. It is a very poor lamb that does not bring for meat $5. This for one lamb would bring the annual return from a single ewe up to $11. Twin-bearing ewes would swell this to $16 for the season.

By farmers who have had experience with both sheep and cows, it is calculated that one may maintain eight sheep on what would be required for one cow. That is, for eight good sheep, feed enough would be consumed to support one cow. Now, the average cow will make not more than $50 for her master. With prices for feed and help where they are now, scarcely that figure could be reached. But place it at $50. Eight sheep properly cared for should give back to their owners, according to wool quotations, $48 for wool alone; and if they had one lamb each we could add $40 for the lambs, making $88; while the twin-bearing ewes would bring that up to $40 more. Now, I know this may seem a rosy statement to the man of the hard head, so let us divide the price for wool by two and leave it at $3 for the eight sheep, or $24 for the eight. Add to this the $40 for lambs and we still have $64 from the sheep, as against $50 for the cows, with the chances at least $20 better for the twin-bearing ewes.

And the best of this is that there is far less work connected with getting the wool and the lambs than there is with the cows. We need to be very attentive to the wants of the sheep for a few weeks when the lambs are due to come. After they get fairly started, we do not have much trouble for the season. While this is true, we must milk our cows twice a day and be to much other expense for care and maintenance.

It is not best that all farmers should go out of dairying and take up sheep. I never thought it paid to go to extremes in anything. A steady gait is always best. But I do think every farmer who is situated so that he can do so should add some sheep to his farm animals. It will be many years before sheep will be down very low. Present conditions indicate a trend the other way. He will be a wise farmer who invests in some sheep, providing he is a lover of sheep and has a farm that is adapted to the sheep industry. E. L. Vincent.

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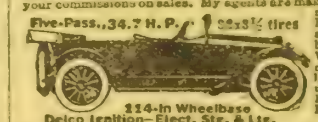

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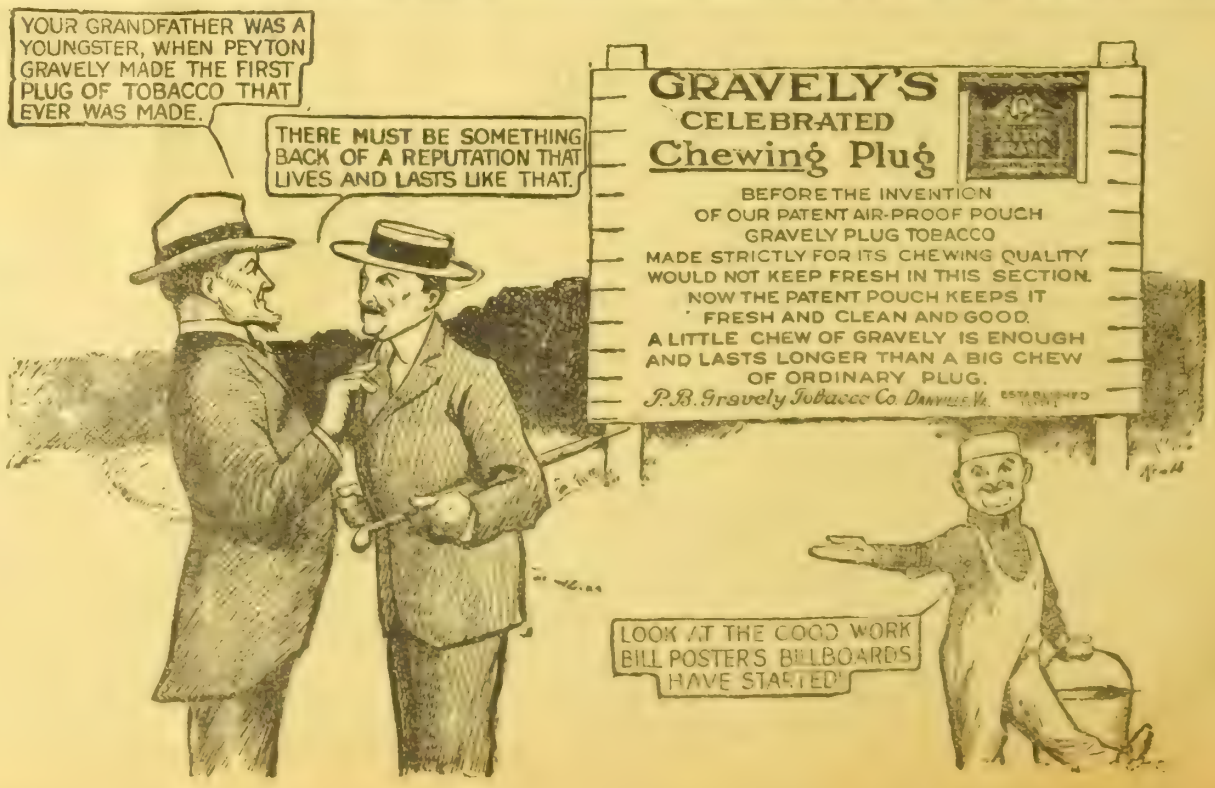


Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Herefords in Wisconsin.

THOSE who are of the opinion that cattle other than dairy breeds have no place in Wisconsin agriculture may be surprised to learn that there is a herd in Grant county numbering 109 head of pure-bred females. This does not include about 40 high-grade cows that furnish steers and heifers for the feed lot. L. M. Scott & Sons, Bagley, Wis., have a herd of Herefords that are a credit to the breed. Their farm, known as the Maple Glen Stock Farm, consists of 800 acres, is one of the most beautiful farms in Grant county. No doubt there are many farmers in Grant county that did not know there was such a large herd of good Herefords within its bounds. Maple Glen Herefords, during the past few months, have been shipped to the two Dakotas, Montana, Michigan, Illinois, Iowa, and, of course, Wisconsin has taken several. Just at this time the imported bull, Curly Boy, is offered for sale. This bull is five years old and is being sold for no fault, but there are some 30 heifers in the herd sired by him, and, as there are two other herd bulls on the farm, this fellow can be spared. He is a half brother to the noted Renown, that recently sold in the Blue Ribbon sale at Kansas City for $2,300. He will weigh right at 2,400 pounds and could be made to weigh 3,000. His breeding is given in the advertisement that appears on page 18. This is no ordinary bull, but the critical breeder that is particular when buying herd bulls is the customer that the Scotts are looking for. Let them describe this bull in detail. Their address is L. M. Scott & Son, Bagley, Wis., located about 40 miles up the river from Dubuque.—Adv.

Lee Eastman, of Lancaster.

MOST everyone in Grant county knows the genial Lee Eastman, and everyone in the state that takes any interest in Polands has heard of Dobson & Eastman. With this issue Lee Eastman makes his debut to our readers as a Poland China breeder. We do not mean to infer that the firm Dobson & Eastman is no more—that will be the same as ever, in charge of that efficient hog man, Burley Dobson. Mr. Eastman has recently purchased 275 acres, and when he gets through with the improvements on this farm it will be "some place." Don't be misled and think he is in the "game" for fun, for he is on the job personally, and we are glad to say that the Polands that he has and the spring pigs that he is offering will compare with the best of them. Those that attended the Madison sale will remember that Mr. Eastman bought some of the best. Spring boars are being offered sired by several of the good boars of the state, and at this time are being priced reasonably. All the hogs on this place are cholera immune. We are glad to recommend the Eastman Polands. He can ship you pigs that will give satisfaction. Mr. Eastman is in the game to stay, and it behooves him to send out boars that will make future customers. Write him for further information. See advertisement on page 19.—Adv.

McDonald Has Wonderful Poland Exhibit.

J. D. McDONALD, North Bend, Wis., will show a herd of big-type Poland Chinas this fall that, we feel safe in saying, will be the greatest show herd of big-type Polands ever seen at the Wisconsin State Fair. Notice the advertisement that appears on page 19 in this issue. Mac expects to make this his banner year. He will show hogs that will certainly be a credit to the breed and to the state of Wisconsin. He has a wonderful lot of spring pigs that he is shipping now, and he will also have some good sale pigs at the different fairs. If you don't buy before make it a point to see the McDonald Polands at some of the fairs where he exhibits. Mr. McDonald has claimed February 6th for a bred sow sale. It is the ambition of this breeder to put up an offering of big-type sows the equal of any ever sold in the Northwest. Mac has the goods and he should be able to make a great sale. —Adv.

Joins the Chester Advertisers.

WITH this issue of The Wisconsin Farmer, Carl Hickcox, Spring Green, Wis., a breeder of Chester Whites, starts an advertisement in which he calls attention to the March and April pigs that he has for sale, boars and gilts. The pigs are sired by Prince Triumph A., he by old Prince Triumph, and Little Wonder 42049 by Little's Style. There is a good litter by Guy's Comet, he by White Prince. The dam of this litter was the top sow in the Burlington sale last winter, she being sired by Eagle Chief, out of that good sow, Sister No. 1. The dam of another good litter is a daughter of old Dollar Mark. Mr. Hickcox has a good lot of pigs that are well grown, and he can send you boars and gilts that he guarantees will give satisfaction. You will make no mistake if you correspond with this breeder before you buy. Please mention this publication. See advertisement on page 18.—Adv.

Fred Matthes, Duroc Jerseys.

FRED MATTHES is one of the recent additions to the Wisconsin Duroc Jersey ranks. He is located at Viola and we believe he is a comer in the Duroc game. He has a good litter by Pathfinder 2d and two litters by son of Cherry Chief Wonder, out of dams by Cook's Defender. One litter by King the Col. Again, a son of King the Col. We will have more to say about this herd later.—Adv.

Produce Pork With Less Feed.

SINCE Geo. D. Sprain & Sons, West Salem, Wis., started to raise pure-bred Durocs they have found that they could produce pork at less cost than when they kept the same number of "ordinary" hogs. We don't mean to infer that they pork all of their produce, but feed is figured just the same. They have simply found out that the better the hog the easier the keeper." Three good boars head this herd of pure-bred Durocs, namely, Grand Model 17th, a son of the noted Grand Model, the three times champion. Grand Model 17th is the only Grand Model boar that we know of in Wisconsin. Illustrator Special is one of the best yearlings in the state. He was sired by the grand champion, Prince Illustrator, out of a Col. Gano dam. Royal Top Col. is sired by Put's Top Col. The Sprains can sell you boars not related to anything you may have in your herd. We have seen a good many boars that this firm has sent out, and they have made friends. No firm gives a better guarantee. See page 18.—Adv.

John Pellett & Son, Viola, Wis.

THE above firm breed and sell Chester White swine, Jersey cattle and Collie dogs; so if you are in the market for any of the above breeds, don't forget the name. Just now they offer Chester Whites, and, having recently seen this herd, we do not hesitate saying that they have some pigs that will certainly please their buyers. Mr. Pellett took in some of the important Iowa sales last winter, where some of the best sows were sold, and made some purchases. One sow has a litter sired by Wm. A Wonder, in which is some herd-boar material. Another good litter is sired by the Anderson boar, Chief Filmore. These pigs are of later farrow, but, age considered, are as good as any on the farm. The boar in use in the Pellett herd is sired by the noted Crandall boar, Schoolmaster, and he has sired some unusually good pigs. This firm is in a position to sell you a boar and a couple of gilts that are unrelated and at a price that is consistent with breeding and quality. Write them. See page 18.—Adv.

Hoover Select—Ideal Combination.

THE above-named boars are the attraction on the L. J. McBain Chester White farm at Bloom City, Wis. This name is not new to Wisconsin Farmer readers. Bloom City is in Richland county, and Mr. McBain's shipping point is Viola. Hoover Select is sired by Demonstrator, he by Combination Rex. His dam is by Controller. This boar is a spring yearling, and there are many good things about him. The other boar is Ideal Combination, a son of the noted sire, Combination 2d. There is also a good litter by Paddy 2d, he by Paddy by Schoolmaster. The best litter on the farm is out of a daughter of Iowa Boy, the big boar that was used in this herd for several years. Mr. McBain has over 50 pigs of March, April and May farrow and fom this number he will be glad to fill your order. Communicate with him and please mention The Wisconsin Farmer. See page 18.—Adv.

The Salter Red Polls.

WE have just received the following letter from J. W. Salter & Sons, Unity, Wis., advising that they continue to enjoy a good Red Poll cattle business: "We are selling and growing Red Polls all the time. Our recent sales have been to Fred Bauch, Birnamwood, Wis.; Henry Necker, Cadotte, Wis., and Jos. Rabb, Auburndale, Wis. Each of these men bought a good bull. We have eight choice heifers coming two years old, and we will sell two or three of these, bred or open, as purchaser wishes. We also have four bulls that are ready for service and they are from exceptionally heavy milking dams. We have, coming on, the best bunch of calves we ever raised." The reason the Salters make good sales is because they give value received. Write them for Red Poll literature. See this page. —Adv.

Shea's Good Durocs.

WHEN it comes to raising Duroc Jersey pigs Dennis Shea, Melvina, Wis., can produce the goods. He has some 160 spring pigs and, numbers considered, no breeder has a better lot. They are sired by good boars and out of some of the largest brood sows to be found in the state. Dennis can fill your order and satisfy you. The breeding is the very best. Notice his advertisement on page 18 in this issue and write for further information. Mention The Wisconsin Farmer, please.—Adv.

Short-horn Congress and Sale.

DUE to a mistake the dates for the Short-horn Congress, show and sale under the management of the American Short-horn Breeders' Association at Chicago next winter, have appeared in our columns as February 25th to March 1st. These dates are wrong, as the time for this big event will be from February 18th until February 22d inclusive.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Tile Draining the Land.

To the Editor:—The past season of early wet weather and later dry weather has been ideal for bringing out the inadequacy of our ditching systems. People usually live about up to their knowledge of things. Improvements only come when the necessity for or the importance of improvement is borne in upon them. Almost all of the instruction given in our farmers' institutes and other sources of information has been devoted to the method by which the drainage sysems are to be installed. To me, as a user of tile drains, by far the most important consideration is to understand the full benefits to be derived and when these are understood the rest will come easy.

We do most willingly and intelligently the things the importance of which we understand. It seems to me, then, desirable that attention be called to some of the numerous benefits to be derived from a complete system of drainage. The most important, as also the most apparent, is the lengthening of the season.

This is accomplished first by enabling the farmer to get into his fields to plow and to plant earlier. We all should recognize that the longer the growing season the larger crops of anything it is possible to produce. The tremendous yields of stuff reported in some of our southern states is due to good conditions of soil and long growing season.

All experienced corn growers have found that the early corn is usually by far the most productive and the quality infinitely superior and hence any man who is held out of his field by reason of bad drainage is living much behind his opportunity. The sunshine over his fields could much more advantageously be used in warming up the soil than in licking up the excessive moisture which is holding him from his field.

Also, this same evaporation, made necessary by poor drainage, shortens the season because the very process of evaporation is a cooling one. Drainage must be accomplished that the least amount of water be removed by evaporation. Corn is a semi-tropical plant and we must do what we can to bring about suitable conditions.

The season is lengthened by the giving off of latent heat in the rainwater that is allowed to enter the soil and then flow off as soil water.

Where a soil is water logged and this water run off, no such advantage accrues. Just how much benefit is derived from this source is difficult to determine, yet when we realize the tremendous amount of latent heat in water and further that there is a difference in temperature, often of several degrees, in the water that flows from the soil in the spring and the water that flows out through the drains, we know that the heat of the water has been imparted to the soil. Where water is enabled to flow into the soil and out through the drains air will follow and occupy interstices. Though the circulation is slow, it is considerable and the soil soon responds to the influence of the warm air in the early spring.

The influence of good air circulation in the soil, caused by good tile drainage, accounts for the extra early warming up of the soil more than any other agency. My mixing with different farmers leads me to conclude that only a small per cent of them really realize these things as they actually are, but when these considerations are fully realized I am sure that farmers will look upon drainage as an investment and the sure means of paying off the mortgage, and, rather than farm wet land, land that is not paying for its keep, the farm will be bonded to drain itself.

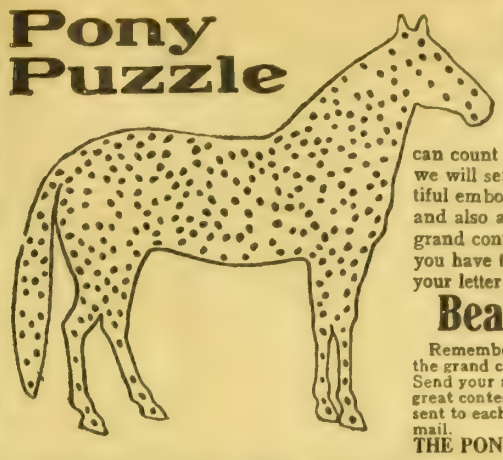
In going about we can all see patches here and there in fields that are unproductive simply because they are water logged. When they do dry out they become so hard that they cannot be worked to advantage, thus they lie idle three years out of four usually. The extra crops on this good land will more than pay the bill of drainage in a few years and the land be in still better shape for making more money.

Let's look about and see if there are any spots in our fields that need this work and if so apply the remedy and watch the result. Subscriber.

A four-horse gang plow with two twelve-inch bottoms will cover about 4.12 acres in a day of 9.6 hours, according to records at the Missouri College of Agriculture. A three-horse sulky with a fourteen-inch bottom will plow about 2.5 acres a day and a two-horse fourteen-inch walking plow will break about 1.75 acres a day. These figures apply when the ground is turned to a depth of six inches. When plowing eight inches deep the area covered is from one-fifth to one-fourth acre less.

A silo on the farm will make one acre of corn feed twice as many cattle, if the crop is cut for silage instead of being harvested for grain.

Pony Puzzle



Count the Dots and Win a Prize

Here is a Shetland pony covered with dots. By being careful any boy or girl can count the dots on this pony. If you can do this we will send you as a prize, a packet of five beautiful embossed postcards lithographed in rich colors, and also a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland Pony. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

Beautiful Pony Given

Remember the pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in this great contest. In case of a tie for the pony one will be sent to each person so tied. Full particulars by return mail.

THE PONY MAN Dept. 22 3 Des Moines, Iowa

TOO LATE TO CLASSIFY.

Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see

J. W. SALTER & SONS Unity, Wis.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

HEREFORD CATTLE.

HEREFORD BULL FOR SALE

Imp. CURLY BOY 426258

Calved February, 1912. 2,400 lbs. Sire, Cornice by Coronet. Dam, Curly 53d 425920 by Huntsman. Bred by G. H. Bray, Herefordshire, England. Imported by the late Geo. Leigh. Have 30 of his heifers in herd. Write.

L. M. SCOTT & SONS Bagley, Wis.
(On Mississippi river, 40 miles north of Dubuque.)

MEET US AT THE FAIRS

WE WILL SHOW A HERD OF HEREFORDS pleasing to the eye. See our herd bulls and breeding cows. See the young bulls we have for sale. Will sell a three-year-old and a senior yearling. Let us send you a list of the fairs where we show.

WALTER BROS. - - - - - - - - - Chippewa Falls, Wis.

GUERNSEY CATTLE.

BROAD RIPPLE FARMS

GUERNSEYS FOR SALE

SERVICEABLE YOUNG BULLS and bull calves; **A. R. Cows** in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.

GEO. W. BROWNE, Prop. Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.

F. E. FOX - - - - - - - - - - Waukesha, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write

FOX BROTHERS - - - - - - - - - - Waukesha, Wis.

YEARLING GUERNSEY BULL

READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Woeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. BREITICK GREENVILLE, WIS.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.

W. M. KNIGHT,
Eagle, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write

H. HOLT & SON Oconomowoc, Wis.

Boys! Boys!

Get a "Bing-Bang" Gun Free

This is one of the greatest novelties of the season. The "Bing-Bang" Gun is good for 1000 Hot Shots, does not cost a cent to operate, and is absolutely harmless. You can have all kinds of fun with one of these "Bing-Bang" Guns. If you get one, every boy in your vicinity will want one too.

All you need to do is to write a letter and say *"Please send me one of your 'Bing-Bang' Guns and tell me all about the American Junior Automobile that you are going to give away."*

As soon as I receive your letter I will mail you a "Bing-Bang" Gun and send you full information about the American Junior that I am going to give to you or some other little boy or girl. Please enclose 3c in stamps in your letter to pay postage and cost of mailing the Gun. I have given away many automobiles and I want to tell you how you can get one for your own.

Address your letter to Pres. Junior Auto Club, Dept. 125, Popular Bldg., Des Moines, Iowa.

Orion Col. S.

EVERY time we see Orion Col. S., the good Duroc boar in the W. C. Jenkins herd, Bangor, Wis., the better we like him. We consider him one of the three top aged boars in the state. Orion Col. S. is big, has a wonderful back, great depth and a good head and ear. He has his faults, of course. Did you ever see one that was perfect? But his good qualities offset his poor ones. He comes from a line of breeding that is standard—it has made good for years. He is sired by Col. S. Jr., going back through The Professor to Ohio Chief. The dam, Opal Orion, was by Orion Chief, one of the greatest sow sires of all times. Orion Col. S. is great by inheritance. See him at Milwaukee with the good sows that go to make up the Jenkins herd.—Adv.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — **WRITE YOUR WANTS**

Emory C. Meltz GUERNSEYS Appleton, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS

Females and Bulls for Sale

Write the following breeders:

J. B. Ahlers.....West Bend, Washington County
C. S. Arnold.....Holcombe, Chippewa County
Edward Bennett.....Black Earth, Dane County
J. O. Baker.....Wagner, Marinette County
Byron Curran.....Taylor, Jackson County
L. F. Bigelow & Son.....Brooklyn, Green County
J. W. Martin & Son.....Gotham, Richland County
Wm. Radke.....Black Earth, Dane County
J. W. Salter & Sons....Unity, Marathon County
L. C. Underwood.....Avoca, Iowa County
J. F. Wulff.....Grafton, Ozaukee County
Wm. Wulff.....Grafton, Ozaukee County
Henry Zeigler.....Middleton, Dane County
John A. Curran.....Sechlerville, Jackson County
Lars J. Lee.....Cambridge, Dane County

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.

L. C. UNDERWOOD AVOCA, WIS.

HEADQUARTERS FOR

RED POLLED CATTLE

THREE PRIZE-WINNING BULLS for sale, ready for service. Come and see them or write.

J. W. SALTER & SONS Unity, Wis.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

Wis. Live Stock Auctioneer

Let me conduct your sale

Call or write me at
BRIDGEPORT - - - - WISCONSIN

LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l Sch ool of Auctioneering.** 40 N. Sacramento Blvd., Chicago, Illinois, Carey M. Jones, Pres.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

I. E. STICKELMAN

CLARINDA, IOWA

SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

DUROC JERSEY SWINE.

QUICK SALES SMALL PROFITS — DUROCS

THE GILTS AND BOARS that I have for sale will please the most critical. Let me convince you. "Big with Quality."

MIKE STOEHR - - - - - - - Viroqua, Vernon County, Wisconsin.

FIELD MEN, who have seen the best pigs in the Northwest, say that my Duroc spring pigs—number considered, 140—are the best they have seen.

DON'T FORGET

PATHFINDER 2D by PATHFINDER,
COL.'S CHOICE by KING THE COL.,
PAL'S DEFENDER by LEE'S DEFENDER,
MY HERD BOARS.

It's a pleasure to ship boars that please.

DENNIS SHEA MELVINA, WIS.
Near Sparta.

For My Duroc Boar Sale October 17

I'LL SELL BOARS that my old customers can use. As an attraction I will sell INVESTOR JR., a yearling son of Shank's Investor and "some boar." Will also sell spring pigs by Investor out of the sow that topped Shank's sale. Boars by DREADNAUGHT, he by Illustrator. Boars by PROUD CHIEF JR., by Cherry Chief. No matter what breeding you have you can use some of these boars.

L. F. ATWATER Bangor, Wis.

W. W. Goodrich Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

Grand Model 17th Illustrator Special Royal Top Col.

THREE REAL DUROC BOARS.

Spring boars. Spring gilts.
Your business will be appreciated.
"Your $ worth for every $ spent or every $ back."

GEORGE D. SPRAIN & SONS,
WEST SALEM, WIS.

CHESTER WHITE SWINE.

CHESTERS EXTRAORDINARY

BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.

WM. F. BUTTS Evansville, Wis.

RAINY DAY

By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write

WALTER GEORGE Evansville, Wis.

100 TO 130 POUNDS

WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.

B. H. BABCOCK Evansville, Wis.

CHAMPION CHESTERS

THE GREATEST prize-winning herd of the Northwest. 100 spring pigs "for your approval." Our success has been due to satisfied customers. We are glad to serve you.

H. A. DERENTHAL Wykoff, Wis.
EAST SIDE STOCK FARM.

BIG TYPE O. I. C. and Chester White Swine

FOR SALE—Special prices for the next thirty days on all spring boars. All sold except just a few that we are keeping so we can furnish pairs no kin. Get our catalog of our champion.

HARRY T. CRANDELL & SON, Cass City, Mich.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.

CARL HICKCOX R. 3, Spring Green, Wis.

CHESTER WHITES

OFFER spring pigs, either sex, sired by WM. A. WONDER, CHIEF FILMORE and SCHOOLMASTER 38TH, whose sires are the most popular boars of the present day. Add new blood.

JOHN PELLETT & SONS Viola, Wis.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.

L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

J. A. DOERR

VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

MAKE MONEY

BUY A CHESTER boar of me and improve your herd. Best breeding; well grown.

ART. G. HOSKINS Dodgeville, Wis.
(Mile west of city.)

CHESTER WHITES

Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

KIRST CHESTERS

THEY SATISFY—Correspondence invited. (N. W. and St. Paul Railroads.)

A. L. KIRST Tomah, Wis.

GRANT CO. CHESTERS

FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.

JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.

ADOLPH NUTTLEMAN West Salem, Wis.

DUROCS

You've heard of our big sows. Boars from them are now on sale.

Shipped on approval if you wish.

RILEY MARTINY & SON BARABOO, WIS.

AT MILWAUKEE

SEE

ORION COL. S.

Sire—COL. S. JR.
Dam—By ORION CHIEF

WILL also have some great brood sows to show. Inspection invited. Spring pigs for sale.

W. C. JENKINS BANGOR, WIS

DUROCS

FOR SALE—Four fall boars, 3 fall gilts, not bred, and a few spring pigs; pedigree furnished.

HAROLD RUDE Edmund, Wis.

Grant Co. DUROCS

THE GILTS AND BOARS I have for sale will please. Some of the most popular breeding. Satisfaction guaranteed.

ROY HORSFALL Mt. Hope, Wis.

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STRETCH DUROC BOARS—March and April farrow, ready to ship ON APPROVAL.

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FROM CLARENCE GEORGE, EVANSVILLE, WIS., make good for others. They will for you. Write for details.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

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WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

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"Breeding with Individuality."
Guaranteed to please.

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OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.

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DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

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Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelie Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

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A BULL THAT WE GUARANTEE to be right in every respect and just as we describe him or no sale. He is straight, good size, well built, nicely marked, more white than black and throws light-colored calves; whose eleven nearest dams have good A. R. O. records. Sire's dam, Princess Mercedes Riebe at four years made 26.39 lbs. butter and 561.50 lbs. milk; at two years, 667.39 lbs. butter and 17,400.70 lbs. milk for one year. Sire's grandam at four years made 18.23 lbs. butter and 474.10 lbs. milk and 909.91 lbs. butter and 21,611.70 lbs. milk for one year. The dam of this bull made nearly 21 lbs. butter at three years of age; her dam made 16 lbs. butter at two years of age and her dam made 16.60 lbs. butter. If you are in need of a bull come and see this one, or write for a tabulated pedigree and price to Mountain Ash Stock Farm.

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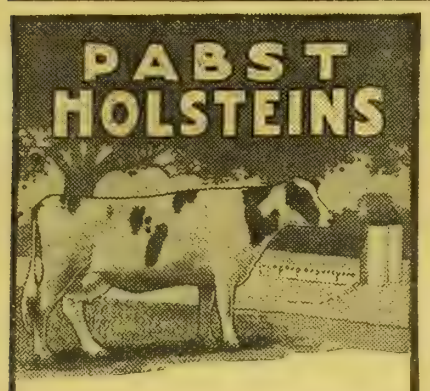

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OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

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REGISTERED HOLSTEIN FRIESIAN—Will soon freshen, bred to Sir Johanna De Kol 19th, which weighs 2,500 lbs.; has 10 A. R. O. daughters. The calves from these cows will be worth the price that you pay for the cows. Don't let this opportunity slip by. It's the greatest bargain offered in 1917.

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AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

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RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

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FORTY SHORT-HORN STEERS ... North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,925.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.

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Double treated, and we record them. They will be worth $30.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs.

They are **from the most noted families of the great breed,** sired by **Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo,** whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by **Long Expansion, a 900-lb. two year old,** and **Pawnee Wonder, a 1,000-lb. son of A Wonder.**

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Oxfords Polands

Big strong rams that will please.

P. N. COLLINS

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SHORT-HORNS

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"Grant County."

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FOR UALITY AND UANTITY WRITE

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I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.

Camel Hill Stock Farm

W.W. UACKENBUSH, Melrose, Wis.

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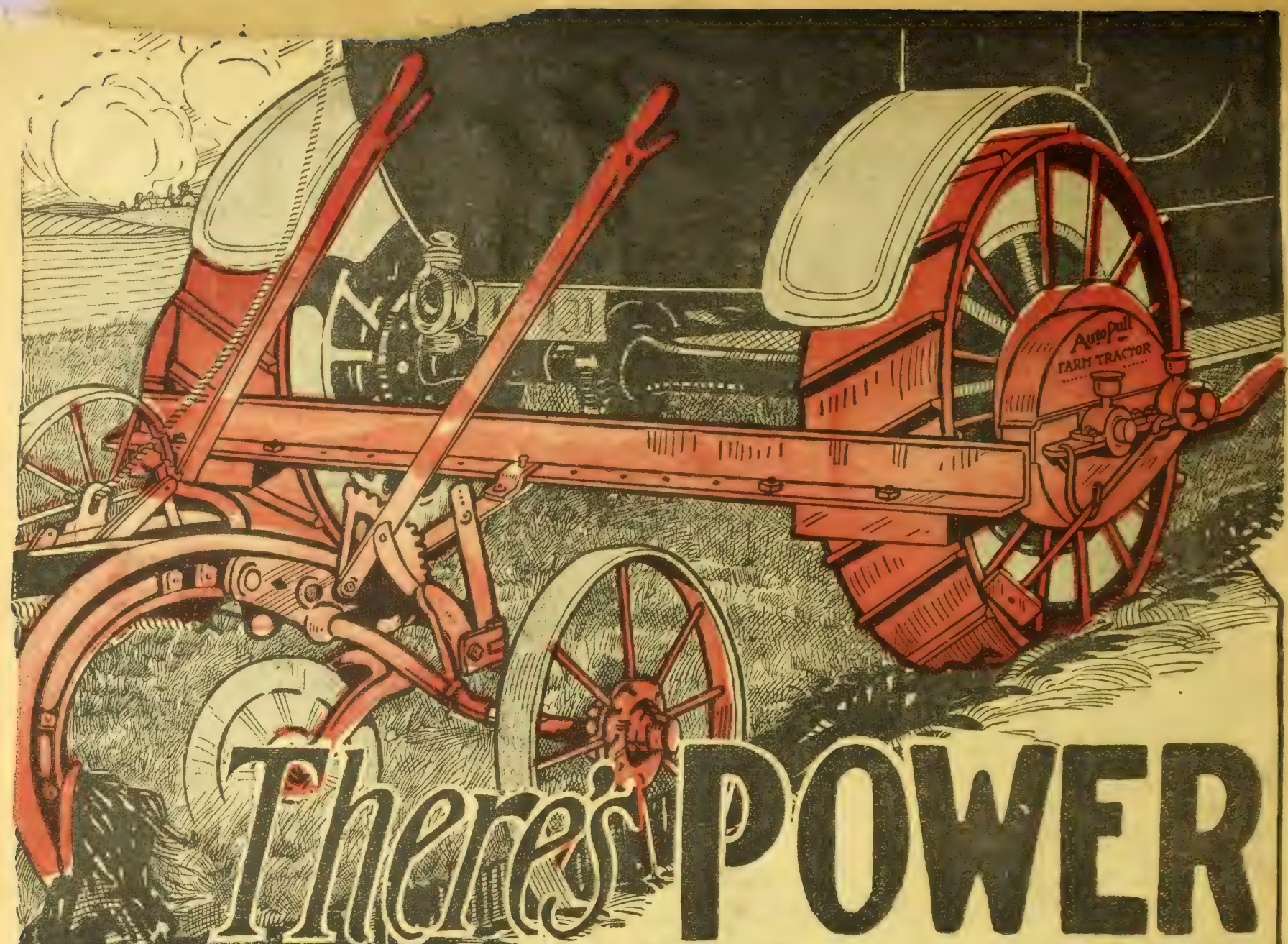

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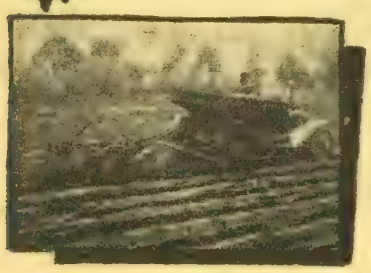

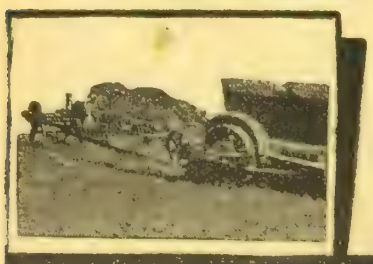

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THE WISCONSIN FARMER

VOL. XLVI. NO. 34. THURSDAY, AUGUST 23, 1917. WHOLE NO. 1856

Success With Hogs, Cattle and Corn

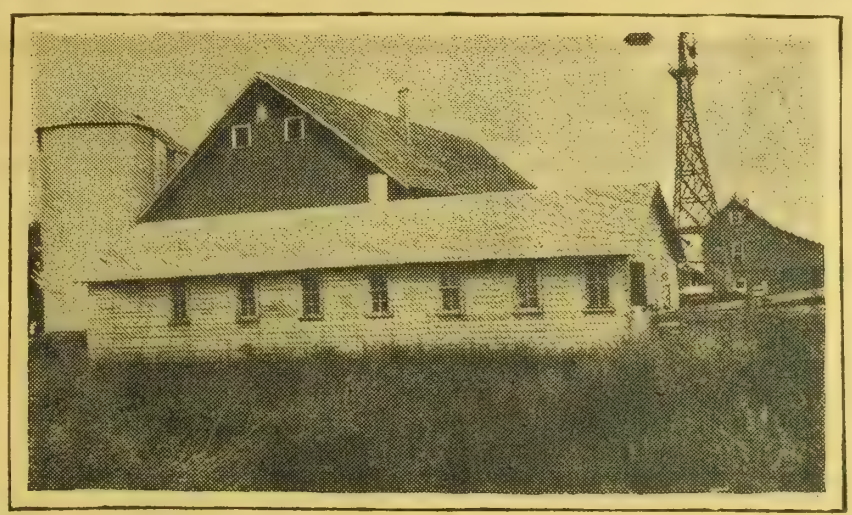
MAKING 15 per cent on an investment for three years in succession is good business. Making this percentage through farming without any special windfalls or freak luck is out of the ordinary. However, this is the record Riley Martiny and son, Pierce, of Baraboo, can point to with pride and satisfaction.

The Martiny combination is corn, hogs and dairy cattle. All the corn raised on the farm is prospective seed corn. That not fit for seed purposes is fed to the cattle and hogs. The hogs are Duroc Jerseys and the cows Guernseys. Being pure bred the surplus stock of both cattle and hogs command better prices than grade stuff, and being Martiny raised they are in greater demand and worth more dollars than the average pure bred. The hog end seems fair to outdistance the cattle and corn end of the business within a few years, but the hogs will have to prove first that they can make as much money for the farm by themselves as the three main enterprises of the farm now combined do.

Though Mr. Martiny has been farming for a great many years there has been more joy and pleasure in the work since the son, Pierce, has been able to take an active part in handling the live stock end of the farm. Ever since his ninth year Perce has shown an especial aptitude for the live stock work. He began by accompanying stock to the fairs at that age, and since that time—13 years—has missed only one state fair. The father encouraged this love for live stock on the part of the boy at every opportunity, and he has had the satisfaction of seeing the list of ribbons for firsts and grand championships accumulate until the total prizes won represent better than $2,000 in cash.

The arrangement was made years ago that the care of the cows and the hogs should fall to Pierce and the care of the fields to Martiny, Sr., or, as Mr. Martiny puts it, "Out in the field, I am boss; around the barn, Pierce is boss."

"Around the barn" includes about 24 head of cows and about 100 head of Durocs besides the poultry which forms a smaller, but nevertheless very profitable enterprise. The hogs are favored by Pierce because he has had wonderful success with them. While the spring crop this year was below normal, all that lived are thriving and putting on weight at a clip which will make state fair winnings highly possible. Anyone can feed a hog for a time and show wonderful results in gains per day. However, to feed a pig from weaning time until show time, get it into highest possible condition and still have a healthy hog after it is all over, is the work of a master. Neither do all the hogs feed alike. A man must know hogs in order to be able to choose intelligently. A March pig weighing 160 pounds the first week in August is doing right well. A March pig that weighs 200 pounds at the same age is doing better than it really wants to. It is the feeder behind that pig who knows his business and who knows which hog to choose who is really responsible for the extra gain. There are several such instances to be found on the Martiny farm which show that Pierce has learned his business well. Not all things are the result of feeding and selection, however. Much of the feeding qualities of a pig is bred into it. Realizing this, young Martiny keeps his weather eye open all the time for the royally bred sows and sires in the Duroc world. Only the highest types are used for the mating for the litters and only such families as Lee's Defender, Golden Model IV, Royal King and Chief Invincible, are admitted to the High Banks herd. They have to be Marion Wonder bred or equally well bred to get in. To look over the spring crop of this year will make the ordinary man's eyes stick out and the lover of Durocs say a few things in praise in spite of himself.



THE HOG HOUSE BUILT FOR SPRING FARROWING

With the cows the income from the milk aside from the sale of the surplus stock is considerable each year. During the last year 16 head of cows averaged 438 pounds of butter fat in the testing association. The nearest herd averaged 318 pounds of butter fat per head for the year.

In March of this year the herd average was 57 pounds of butter fat per head, the highest average in the state for any association herd. The cows are stabled the year around. It is another point Mr. Martiny considers a money-maker. With no pasture to worry about the upkeep of the fences is no longer an item. Fences are scarce on the High Banks farm, and this will be found an added advantage when, as Mr. Martiny considers now, a tractor will be brought on the place next year to further cut down the cost of farm operations. A summer silo has made it possible to feed the cows in the barn the year around. "I have lost in former years the price of a silo each summer by the falling off in milk because of poor pasturage," said Mr. Martiny. Fifteen pounds of alfalfa, 15 pounds of silage plus the grain ration given each cow in accordance with her yield of milk, form the ration during the summer. As a soiling crop or green feed a little alfalfa is cut each day and fed to the cows. This does not require a great amount of labor, as the alfalfa is cut with a machine and loaded on the wagon with the loader. A little bit each day of this green feed, however, goes a long ways toward keeping up the summer production. It was this problem of keeping the cows milking heavily during the summer months which first gave Mr. Martiny the idea of stabling his cattle. He figures that he has gained by this the use of 30 acres ordinarily required for pasturing 24 cows. In a good season 20 acres of pasture might be enough. Now he uses these acres formerly devoted to pasture for growing corn and grain and he feeds his cows on considerably less than 20 acres, does it with about the same amount of labor and receives much more milk. Seven acres of corn will yield all the silage necessary for summer feeding. Additional acres will furnish the hay required. The total acreage of the farm, however, can be devoted to the raising of crops without wasting a lot of land on pasture. Mr. Martiny built his first silo nine years ago. That was a winter silo, but from it he gained the idea, and he proved it by trying it out, that a summer silo would pay equally as well. When he was ready to discontinue his pasturage he erected a second silo, which he uses as a summer silo.

With a few exceptions all the cattle are pure breds. Years ago when Mr. Martiny first started farming the Durham cattle were popular in various parts of the country. To the credit of those representatives still remaining in the herd it must be said that their records have proved that there are exceptions to every rule. The production of these cows has been extremely high. Some of the best records that have been

(Concluded on page 5.)

THE SEED CORN HOUSES AT HIGH BANKS.

SILOS ARE IN USE THE YEAR AROUND.

CURRENT EVENTS

POPE BENEDICT made a peace proposal to the warring nations last week, but it is extremely doubtful if anything tangible will result. England and France are suspicious of Germany and Austria, the latter being a strong Roman Catholic country, and believe that while the pope is acting in splendid good faith he is being made a catspaw by the central empires, which are willing to talk peace, now that the tide of war seems to be running against them. The pope would have the sovereignty of Belgium and Rumania restored and that portion of northern France which is in the hands of the Germans restored to the French, leaving the question of Alsace-Lorraine (the French provinces taken from France as a result of the war of 1870), Poland and the Italian provinces which Italy wishes to reclaim from Austria left to arbitration after the war. It is expected that President Wilson will join with our European allies in rejecting the pope's peace terms, as all the countries fighting Germany wish to insure the end, for all time, of the imperialistic and militaristic aims of the kaiser and his advisers. In closing his appeal for peace the pope made this eloquent appeal: "Incline your ears, therefore, to our prayer. Accept the fraternal invitation which we send you in the name of the Divine Redeemer, the Prince of Peace, reflect on your very grave responsibility before God and before man. On your decision depends the repose and the joy of innumerable families, the life of thousands of young people; in a word, the happiness of a people for whom it is your absolute duty to obtain their welfare. May the Lord inspire your decision in conformity to His very holy will. May God grant that while meriting the applause of your contemporaries you will also obtain in the future generations the splendid name of pacificators. As for us closely united in prayer and in penitence with all those faithful souls which sigh for peace, we implore for you the light and counsel of the Divine Spirit."

AMERICAN troops participated in the fighting on the French front for the first time last week, according to war dispatches. To what extent they participated has not been disclosed, but a newspaper cable from England reported that wounded American troops were arriving at the hospitals there. It is currently reported that the United States has about 100,000 men in France, under command of General Pershing. The troops have been given intensive training behind the lines for some weeks and are probably now in good condition to take their place alongside the seasoned troops from France, England, Canada and the other English possessions. General Haig, in command of the English troops, has been conducting a determined offensive movement for the past week, making good gains on the German lines, bringing the city of Lens (held by the Germans for over two years) into danger of recapture. Dispatches from Russia state that the former czar, his family and most of the members of his household, have been exiled to Siberia. The czar, his wife and his children, have been kept captives ever since he was dethroned, but the provisional government now believes that he should be removed still further from the royal chair which he once occupied. Just what the Russian army has been doing for some days past has not been disclosed, but at last reports Kerensky seemed to have the situation fairly well in hand.

THE food administration bill having passed both houses of congress, been signed by the president and Herbert Hoover having been appointed food administrator, the work of making price inflation impossible has begun in earnest. The food administration is prepared to take over the entire 1917 wheat crop if necessary to stabilize prices throughout the year. It formed a $50,000,000 corporation with all of the stock held by the federal government, to buy and sell wheat at the principal terminals. The movement was the first of a series to be taken to reduce the price of bread. Millers already have agreed to put themselves under voluntary regulations and are working out with the food administration a differential of profits. Distribution of flour by wholesalers and the baking of bread will be taken up next. The hope of the food administration is to establish a scale of prices from the farm to the grocery store, eliminating undue profits and ending speculation. The maintenance of a standard price for wheat, its officials believe, is the first and most necessary step. In announcing formation of the wheat corporation, the food administration also made known the personnel of a committee which will fix a price to be paid for this year's wheat yield, and the names of thirteen men who will act as purchasing agents for the corporation at terminals.

THE entire 687,000 men composing the first increment of the army draft forces will be under training early in October. Under orders issued last week the first 30 per cent of the quota of each district will begin entrainment for cantonments September 5th; the next 30 per cent, September 15th, and another 30 per cent, September 30th. The remaining 10 per cent will be mobilized as soon after that date as possible. The plan to assemble the new forces in three increments distributes the task of furnishing supplies and equipment through September. It will also prevent serious shortages in any camp, and will give the new officers from the training camps time to familiarize themselves with their duties gradually before responsibility for a great body of men falls on them. The order means that about 12,000 men will reach each of the sixteen cantonments soon after September 5th. They will first be examined physically by army doctors and finally accepted or rejected. This will take some time and the men will have to be furnished with temporary quarters and rations while awaiting examination. If the full quota were assembled at one time great confusion would result.

EXPRESSING confidence in the soundness of the character of the Russian people for self-government, Elihu Root, head of the special diplomatic mission to Russia, denounced the part played in that country during its time of peril by "men corresponding to the Industrial Workers of the World here, the extreme socialists and anarchists with whom the German agents made common cause." Col. Theodore Roosevelt, likewise declared that "organizations like the Industrial Workers of the World are criminally aiding German propaganda in this county," adding: "Let us make those who oppose obstacles to the success of the war feel that they are unhung traitors." He further said that "until the United States has placed 5,000,000 men in the fighting line we will have no right to consider ourselves as standing level with Canada in this fight for democracy," and advocated the putting of American soldiers "in masses on whichever front they are most needed."

EXTENSIVE reductions in passenger train service in addition to those already made are soon to go into effect in the Middle West. Between March 1st and July 15th, the railroads in this territory effected a saving at the rate of almost 7,000,000 passenger miles a year in passenger train service, according to a report made recently to the railroads' war board by R. H. Aishton, president of the Chicago & Northwestern Railway and chairman of the central department committee. The total reductions already made and those soon to be put into effect in this territory amount to over 12,000,000 passenger miles. The states included in the central department are Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, West Virginia, Wisconsin and Colorado. The reductions made in the central department will result in saving 500,000 tons of coal a year, which is made available for other purposes.

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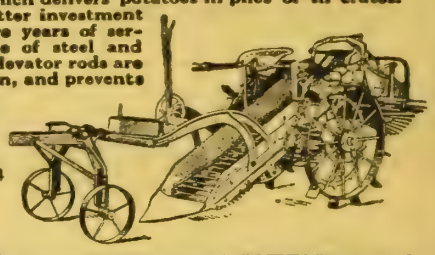

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In and Around Wisconsin

An average of sixteen carloads of cherries a day was shipped from Door county during the busy harvest of fruits in the peninsula this season. Some of the shipments went as far as Winnipeg, Canada, on the north and Oklahoma City on the south. The quality of the fruit was excellent, the cherries being large and of good flavor. Nearly 3,000 pickers were busy picking the late crop.

The Land-Clearing Special is continuing its work and the schedule for the balance of the season is as follows: Hines, Douglas county, August 20th-25th; Brill, Barron county, August 27th-September 1st; Phipps, Sawyer county, September 3d-8th; Washburn, Bayfield county, September 10th-15th; Mercer, Iron county, September 17th-22d; Merrill, Lincoln county, September 24th-26th; Rhinelander, Oneida county, September 27th-29th; Phelps, Vilas county, October 1st-6th; Laona, Forest county, October 8th-13th.

Within the past year the dairy department of the Wisconsin College of Agriculture has received 583 requests for men to fill important positions. Of the total number, 183 were wanted for buttermakers, twenty-four for helpers in creameries, fourteen buttermakers and ice cream men, 176 cheesemakers, sixteen combined butter and cheese makers, twelve ice cream makers, four cow-testing association officials, six city milk inspectors, thirty-five condensed milk factory assistants, eight dairymen, three traveling men, seven assistants in oleomargarine factories and twenty-five instructors in dairy schools. Mr. E. H. Farrington, head of our dairy school, can secure a good position for any young man who will become proficient in any line of dairying. There are not nearly enough good men in the dairy business. Good men are the kind of men who will be able to stop leaks and losses. A saving of 25 cents a day on fuel, 10 cents a day on oil, 10 cents a day on salt, 5 cents a day on color and $1 on butter fat, in handling milk at cheese factories and cream at butter factories, will mean $500 to $1,000 a year saved.

There is considerable interest in western and northwestern Wisconsin in the Stocker and Feeder Show at South St. Paul September 20th and 21st. Over $3,000 in prizes are being offered and complete information may be secured by writing to George K. Tietema, the secretary, South St. Paul, Minn.

It has been suggested that farmers may get a good price for any old metal which they have on the farm and that it is now a good time to sell old worn-out machinery which is past fixing up for use. An enormous amount of good metals might be secured in this way which would be of service to the nation and incidentally bring returns to the man who has this metal to sell. It is best to be real sure what the metal is worth, as many buyers will try to get it for less than it is worth if they can. Ask some reliable dealer whom you can trust what ought to be paid for old iron before negotiating a sale.

The attention of breeders is directed to the closing of entries for cattle and horses at the Wisconsin State Fair on August 24th. Entries giving name and registry number of animal must be made on or before Friday, August 24th, and should be accompanied by an entry fee of $2 and payment for the number of stalls required. Entries must specify owner's name and postoffice address, and name, sex and breed or description of animal with registry number. No animal can be entered in the name of any other than a bona fide owner or owners. The department of horses is in charge of Supt. W. K. Caldwell, Morrisonville. He is very optimistic regarding an excellent showing in this department. This is true also of the department of cattle, which is in charge of Supt. H. W. Claflin, Muskego. The cattle exhibit at the state fair this year will be the most comprehensive in the history of the state fair, judging by the inquiries and early entries made, according to Superintendent Claflin.

The Wisconsin Cheese Producers' Federation in Sheboygan county, with headquarters and storage plant at Plymouth, is increasing its business. During the first seven months of 1916 this association handled 4,523,116 pounds of cheese, and in the first seven months of 1917 this was increased to 5,447,430 pounds. The increase is 924,234 pounds. During the first seven months of 1916 the sales of this company amounted to $734,041.50, while during the first seven months of 1917 this had increased to $1,317,725.90. The increase of receipts is due partially to the amount of cheese handled and particularly to the increased price. The showing for this important coöperative enterprise is regarded as very satisfactory.

Aldebaran Farms, owned by Stephen Bull, Racine, Wisconsin, recently donated a pure-bred Ayrshire bull calf to the Red Cross fund, the proceeds to be donated to the local unit at Racine. About $600 was secured for the calf under the plan which was adopted for disposing of the animal. A number of our breeders have donated valuable animals for the Red Cross, and in almost every instance the patriotic impulses of the buyers have resulted in a big price being paid for the animals donated. This method of donation not only results in a good fund for the Red Cross, but it has started many people to thinking about the value of good breeding stock. Every time a well-bred animal gets into new hands the live stock industry of this state has made a distinct gain. It profits us some for the big breeders to raise fine stock and sell the same at fancy prices, but it is when this good blood is introduced into new herds that we begin to reach the larger benefits as a live stock state.

The Wisconsin Farmer

THURSDAY, AUGUST 23, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

IS FARM LIFE SORDID?

I AM delighted to find my women readers writing most entertainingly in regard to my quotation from a recent magazine which I called a libel, inasmuch as it pictured farm women as being "a worn and dreary lot, living a skimmed-milk existence," and showing "blue-white, glassily perfect false teeth" when they smiled. I was prepared for a large number of interesting letters, but I will admit I was not prepared for some, which declare, in most positive terms, that the picture is not a libel—that it is all too true. When I tell you that the strongest letter of commendation comes from a prosperous and progressive Wisconsin neighborhood, where the farm woman, if any place in all the world, should be happy and contented and well cared for, you will be as much surprised as I am, I feel sure.

There are two sides to every controversy—I know that. But I cannot bring myself to agree with the magazine writer who pictured the farm women as being "ignorant and terribly lonely, with the dumb, lack-luster eyes that bespeak monotony." Rather do I agree with Mrs. E. J. Briggs, of Arbela, Mo., who writes me a wonderfully interesting and to me convincing letter, championing the farm women, as follows:

Your criticism in a recent number of your splendid paper of the author who characterized the lives of farmers' wives as sordid and tragic was read with much interest, for I had just finished reading a story in which it seemed to me the author had taken especial pains to make the lives of the moderately well-to-do people of whom she wrote sordid and ugly.

There is too much written of the ugly side of life, enlarging on the discomforts of moderately circumstanced people in general and of farmers in particular. It gives a wrong impression to readers who do not know farm life and, what is far worse, it sometimes causes young people on the farm to become discontented.

We have a friend who was born and raised in a city, an eastern city at that, who visits us occasionally. All she knew about farm life was what she had read. That she had most amazing ideas is shown by her being surprised that we had "lanes," as she called them, running right past our door so that we could run our cars or vehicles close and not have to walk far to get to them. Also, she was chock-full of lectures on sanitation, how to avoid monotony, etc., but we led her such a strenuous life showing her the sights of the farm, calling on and receiving calls from our neighbors, rushing to the county seat in the car, and other (to us) everyday occurrences that she forgot to deliver them and ended by saying we were wonderful, wonderful.

So I say all hail to the author who will write the wonderful story of the Mississippi valley folk and give us our just place. Life is not tragic and sordid anywhere only as the individual makes it so, and least of all is it tragic and sordid on the farm.

Mrs. Briggs has handled her material admirably, in my opinion. I am going to send a copy of her letter to the magazine which printed the article to which I took exception a few weeks ago and to the grain-belt author who was guilty of writing it.

I would be unfair, however, if I did not print a characteristic letter from those who believe the picture was no libel, but true to life; that the farm woman here in the grain belt is in a sorry way, after all. Such is the letter from a woman who asks to be known only as "A Wisconsin Farmer's Wife," and who writes me in this manner:

I have just read the article entitled "A Libel on Farm Women," and while I bless you for the optimism and chivalry that prompted it, I want to tell you, from a woman's viewpoint, the description taken from the magazine stands true. That's the reason the criticism cuts deep—it's true. You can go into any small-town store and see the same thing any day—women worn with hard, unappreciated toil at the washboard (maybe, "when we can afford it," he will get a washing machine), dragged with child-bearing, up the tenth day, for if she has the good fortune to have a helper it is expensive, and, anyway, the helper is to provide the meals and comforts for the husband and the hired man, (the mother and baby being a side issue), one-sided from lugging calf pails, swill pails, water pails and the omnipresent baby.

In the fall maybe they go to town with the poultry, which she has trailed through wet grass to feed and care for when every bone in her body ached. The simple purchases are made—for the children mostly—while the toil-worn hands run lovingly over the pretty ribbons and inexpensive dress, feasting the heart-hungry soul on the silken texture and soft colors. But the children must have warm underwear and shoes and stockings, for they have to go so far to school. Maybe if there is anything left there is a wrapper or cheap hat for mother; oftener not, for "by the time I get around to all of them I'm thankful if I have enough." And when it is time to go home he says, with a cigar in one corner of his mouth and an odorous breath: "By gosh, it don't pay to bring the old woman to town too often, it's too expensive; have to bring a lumber wagon to take her stuff home in, I guess." And the weary little woman in a raincoat, with an old sweater under it for warmth, and a faded scarf over her head, smiles wanly at the antiquated joke, climbs wearily in, without assistance, and goes—home? Yes, God bless the woman's soul, for it is home. Bare of beauty except that of cleanliness, lacking conveniences, the well forty rods from the house, the cistern outside, the woodpile open to snow and rain. And outside stand the hay loader, the binder in a corner, the corn planter and side-delivery rake likely where last used, along with the cultivator.

There are other homes, of course, but don't you ever dream that this picture is overdrawn in thousands of homes. And in the end, what? Dragging illnesses, operations and the tired body laid away—glad to go, to lay down the burden. "The children are old enough to do for him," the neighbor women say under their breath. Is it right? Is it just? Where is the remedy? There is none till man is made over again.

My Wisconsin correspondent is a splendid writer, but I fear she is carried away by her ability and does not really mean all she says. She is too much like a lawyer arguing a lost case to the best of his ability, being true to his oath to defend the accused to the very end, but knowing full well that his case is a hopeless one and that he does not himself believe all he is saying.

I want more letters on this subject; I will print the best of them. But you must know, in advance, that while I will print an occasional letter such as this last one above, I do not believe the situation is as black as it is painted, or that the writer thereof really means what she says. I will admit, right in the beginning, that if the matter is ultimately left to me, I shall find the magazine accusation a base libel, and champion the farm woman with the last breath of my body.

"HERE LIES A MAN."

NOW that the gospel of efficiency—of making every minute and every ounce of energy count to the limit—is being preached on all hands, especially to the farmer, I believe that this little prayer, which I have clipped from a newspaper, will be appropriate reading. The newspaper from which I clipped it states that it occupies a prominent place on the wall of a large wholesale house in the city. It would be just as fitting to have it prominently displayed in every farm home. It sums up the need and the duty of the hour admirably. See what you think of it:

Teach me that sixty minutes make an hour; sixteen ounces one pound, and 100 cents $1.00. Help me so to live that I can lie down at night with a clear conscience, without a gun under my pillow and unhaunted by the faces of those to whom I have brought pain. Grant that I may earn my meal ticket on the square, and that in earning it I may not stick the "gaff" where it does not belong. Deafen me to the jingle of tainted money and the rustle of unholy skirts. Blind me to the faults of the other fellow, but reveal to me my own. Guide me so that each night when I look across the dinner table at my wife, who has been a blessing to me, I will have nothing to conceal. Keep me young enough to laugh with my children. And when comes the smell of flowers and the tread of soft steps, and the crunching of wheels out in front, make the ceremony short and the epitaph simple: "Here lies a man!"

I do not believe that much, if any, comment on my part is necessary. The prayer is a little gem. Personally, I have always been a great admirer of those fervent supplications which Robert Louis Stevenson (one of my favorite authors, by the way) wrote while he was a resident of the South Sea island to which he had been exiled because of the tuberculosis, from which he was a sufferer. When a man knows that the hand of death is near him and can write as splendid prayers, full of thanksgiving and hopefulness, as Stevenson wrote, it does not matter what his creed or church, he is imbued with the real religious spirit. I am going to print one of the best of Stevenson's prayers:

We beseech Thee, Lord, to behold us with favor, folk of many families and nations gathered together in the peace of this roof, weak men and women subsisting under the covert of Thy patience. Be patient still; suffer us yet a while longer;—with our broken purposes of good, with our idle endeavours against evil, suffer us a while longer to endure, and (if it may be) help us to do better. Bless to us our extraordinary mercies; if the day come when these must be taken, brace us to play the man under affliction. Be with our friends, be with ourselves. Go with each of us to rest; if any awake, temper to them the dark hours of watching; and when the day returns, return to us, our sun and comforter, and call us up with morning faces and with morning hearts—eager to labor—eager to be happy, if happiness shall be our portion—and if the day be marked for sorrow, strong to endure it.

If any of my readers know any equally good prayers, to be fit companion pieces to these two, I wish they would send them to me. The nation is imbued with the religious spirit in the great crisis which confronts us today, as never before. This being the case, the prayers which I print herewith seem to me to be unusually timely.

PASS THE CORN BREAD

I AM delighted to see the progress which is being made these days in what we might well call, for lack of a better name, the "johnnycake revival." Here, for instance, is the New York World, one of the largest and best newspapers in our largest city, suggesting to its readers, as a slogan to be posted conspicuously in every American kitchen and dining room: "Eat corn meal and beat the submarines." And here, too, is Collier's, our national weekly, going into more than a million homes, adding: "We can't see that there's anything the matter with corn cakes in peace time, either." It certainly looks as though the leaven were beginning to work.

After all, why not a revival of lye hominy, johnnycake and some of the other toothsome and economical edibles of the day when we all enjoyed better health than we do now, in these overly prosperous times of highly seasoned foods bearing high-sounding French names? Why not a return to the simple life, when we ate to live, rather than lived to eat, and when the community health was better, on the general average, than it is nowadays, notwithstanding all the inventions and discoveries of science? You can't make me believe there is any meal which the most efficient exponent of domestic science can concoct today (untiring as are these teachers and splendid as are their menus) which comes so near to filling the bill for every member of the household (from the growing boy, with apparently unlimited capacity and appetite, to the toothless and doddering granddad) as the corn pone which my mother made for our family, back in the dear old Ohio home of fondest boyhood memories. Covered with gravy or saturated with maple sirup—ah, there was a dish fit for an American, than whom no king is greater or more deserving of the best things this world produces. I abhor war, I abominate the thought of it, but if war shall result in carrying us back to the days of rugged, honest, unaffected, wholesome simplicity, it will have had a value which no man can compute in dollars and cents, but which can be measured, in life and happiness and health, none the less.

Why not a corn revival, now that we are called upon to share our stock of wheat with the world—a stock none too large at best, in view of the poor condition of winter wheat? Corn is available for human food in the form of meal, hominy, starch and prepared breakfast foods. I am informed by millers that 15 to 20 per cent of corn meal can be mixed with wheat flour to make a palatable and a nourishing bread, supplementing the corn bread (pone, johnnycake or whatever you choose to call it) which is already a popular and a rib-covering dish in so many of our rural homes. Corn bread well covered with gravy, maple sirup, sorghum or New Orleans molasses—have we not here something which will not only put to rout the high cost of living, but will give us better bodily vigor and cause us to sit down to the table with no jaded appetite, but eager to partake of one of the best and most palatable dishes ever devised by human hands? I am glad, indeed, that the johnnycake revival is on—that other men are speeding it by word and deed. Here, for instance, is a tribute and a testimonial which I find in one of our smaller grain-belt newspapers. Read it and reflect on what you are missing if your table does not offer this toothsome edible:

We're eatin' johnnycake these days, several times a week. Don't understand how we ever let the johnnycake habit of our childhood get away from us. We advise you to get the johnnycake habit, too. There's something about the good, golden corn bread that you'll never get in white bread, or whole wheat bread, or rye. There's a roughness to the tongue and the palate that, the diet experts tell us, puts roughness in the bone and sinew of the human chap—such roughness, or robustness, as we need these days. But you don't need that excuse to worship before the shrine of johnnycake—good old johnnycake, like mother used to make.

"Eat corn meal and beat the submarines:" Mush, johnnycake, hominy, cornflakes, and so on; by doing this shall we not be fighting against tyranny and injustice, while at the same time renewing our bodily vigor, giving our system the simple food it needs and clearing our brains of fogs and headaches? A nation nourished on corn bread has little to fear from the tyrant. Will you join in pushing the campaign along?

James M. Pierce

THE WISCONSIN FARMER

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BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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How Should Milk Prices Be Figured?

In many districts in Wisconsin whole milk is sold by the "3 cents a point method." For example, the price is fixed per hundred pounds on the basis of milk testing 3.5 per cent butter fat, and deviations from this standard are met by allowing 3 cents for each additional .1 per cent and subtracting 3 cents for each .1 per cent decrease. The system apparently aims to reward the man who produces milk with a high fat content, but in reality it favors the production of low-testing milk. The price per pound of butter fat in the milk of poor quality is appreciably higher than that paid for butter fat in rich milk.

This will seem strange to many who have not made a study of the situation, because men interested in the dairy industry everywhere have advocated raising high-testing cows. They maintain that since butter fat is the most valuable part of milk, dairy animals should be bred that have the characteristic of high fat production.

But the "3 cents a point method" discourages such work. Take, for example, this illustration: When milk testing 3.5 per cent butter fat brings $2.15 a hundred, and 4.5 per cent milk would be worth $2.45, allowing 3 cents for each .1 per cent above the standard of 3.5. One hundred pounds of 4.5 per cent milk would contain 4.5 pounds of butter fat and the standard milk would contain 3.5 pounds. By figuring the price per pound of butter fat, we find that the fat in the higher testing milk brings 54.4 cents per pound, while that in the lower testing milk brings 61.4 cents, giving a difference of 7 cents per pound of butter fat in favor of milk with a 3.5 per cent test. Now suppose the test falls 1 per cent below standard. For such milk 30 cents would be deducted from the standard price of $2.15, making it worth $1.85 a hundred. This milk would contain 2.5 pounds of butter fat worth 74 cents a pound. Thus it may be seen that the lower the test the higher the price per pound of butter fat. Of course, these figures disregard the value of skim milk, but this would have no bearing on the fact that the system encourages production of low-testing milk.

While the price standard as now used has many conveniences for cheese factories and condenseries and can be easily calculated, still it operates against some phases of the dairy industry. In the first place, it fosters breeding of low-testing animals—cows that produce large quantities of thin milk. To breed and feed cows with a high fat production is difficult and expensive, and unless the dairyman receives pay for his extra labor and expense, he will not go to the trouble.

Furthermore, this method encourages watering and diluting. Four hundred pounds of milk testing approximately 4.5 per cent would be worth $9.80, when the price of milk testing 3.5 per cent is fixed at $2.15 and 3 cents is allowed for each additional .1 per cent. Now if 100 pounds of skim milk is added the 500-pound mixture would test 3.6 per cent and would be worth $10.90. This simply means that the "3 cents a point method" puts a value of $1.10 a hundred on skim milk when it is used for diluting 4.5 per cent milk.

Buyers who pay according to this system have intended to be fair. They have used it because it was simple and easy to figure. But because of the way in which percentages operate, a premium is put on butter fat in milk of inferior quality. Possibly a more satisfactory method could be worked out by some of the testing associations, so that prices would favor the producer of high-testing milk, rather than discourage him as they now do.

The Profit From a Silo.

There are hundreds of cases where farmers will testify that they were able to pay for their silo in one year by the saving of hay alone. One such instance is that of Fred Dettweiler, of Monroe, Wisconsin, who runs his 160-acre farm as a dairy farm. Five years ago he was short of a hay crop for his cattle, and, being without a silo, carefully figured the expense of erecting one as compared with what it would cost to buy the necessary hay for his herd on the market. The figures he arrived at showed that it required twenty tons of hay to winter his herd and produce the usual amount of milk. Hay was then quoted at $22 a ton. He erected a silo for considerably less than the sum required to purchase hay, fed his herd all winter until May 30th, and instead of buying twenty tons of hay he only had to purchase one ton. Not only did he have the silo itself left after the season's feeding was over, but he produced more milk during that winter than ever before.

It is easy enough to figure out the cost of the silo as compared with the cost of buying roughage and to see the advantage of the silo in feeding for milk production. Mr. Dettweiler incidentally has added other improvements to his place by the same process of figuring. Where formerly 265 acres were required by Mr. Dettweiler and his father to milk and care for thirty producing cows he has since proved that 115 acres will raise all the necessary feed that these cows will require for milk production and the amount of milk produced not only equals the former annual yield but shows an increase of several hundred pounds.

Wisconsin Farmers Get Better Acquainted.

The Wisconsin Farmer is in receipt of a letter from Mr. Geo. Service in which he gives us some interesting information concerning a trip which twenty farmers of Oneida county recently took through Winnebago county. The farmers from up-state were personally conducted by Mr. W. D. Juday, county agricultural agent of Oneida county. Mr. Juday's work as county agent has attracted more than state-wide attention. His purpose in arranging the trip was to have the Oneida county farmers see some examples of what they might be able to accomplish in dairying. It was a trip planned for the live stock farmer, and the dozen automobiles which carried the party speeding over the roads of Winnebago county were arranged for by Mr. G. A. Sell, emergency food agent of the Winnebago County Council of Defense.

Such a trip, arranged for the purpose outlined, is certain to be highly commended. Those who visited Winnebago county gained some valuable information and pointers on feeding, on barn arrangement and ventilation, breeding and caring for dairy stock, etc. What is more to the point, several temporary options were taken on pure-bred sires and also on heifer calves, which will be shipped to the northern county. Mr. D. S. Bullock, of the agricultural extension service, gave several talks on the different herds visited.

At the farm of Ed Race at Winneconne, the party saw the results of building a herd of 100 head of good cattle in eight years, and saw a gasoline engine unload hay two forks at a time. A little later at Omro, Jerry Egan's entire herd of pure-bred Holsteins, bred in six years, was inspected. That night prominent business men of Oshkosh and members of the county council, including John Thompson, the chairman, and G. A. Buckstaff, now agricultural member of the State Council of Defense, banqueted with the party at the Elk's Club.

In the last few years Wisconsin breeders have begun to ship a good deal of stock outside the state. This is because outsiders have recognized the value of this breeding stock and have been willing to pay better prices for it. Most good patriotic Badger breeders would prefer to see good breeding stock remain right here in our own state. There are a number of the newer sections of the state which might well afford to organize parties to visit farms where our old established herds have been developed. We will not undertake to say what the ultimate result of the trip arranged for by Mr. Juday may be, especially if the good cattle upon which options were taken, are all placed on Oneida county farms.

Feeding Unthreshed Oats With Ensilage.

One of our subscribers asks for information regarding the practicability of feeding unthreshed oats in conjunction with ensilage, his purpose being to avoid the expense of threshing. Unfortunately this subscriber does not state whether he proposes to feed dairy cows, fattening steers or stock cattle. He estimates that it would cost him 11 cents a bushel if he threshed and ground the grain and he is of the opinion that by feeding it whole in the sheaf he can save a considerable part of this expense.

Under certain conditions it is entirely practicable to feed oats in the sheaf, but this plan applies particularly to idle horses or even work horses. When it comes to feeding dairy cattle or fattening cattle the situation is somewhat different, because in that case good judgment must be used in determining the relative proportions of grain and roughage to feed. If considerable ensilage is fed along with unthreshed oats the cattle will very quickly acquire the habit of eating off the heads of the sheaves and rejecting the straw unless, of course, they are put on a limited ration, and in that case dairy cows will not give a very good account of the feed that is consumed. It requires so much grain and roughage to maintain an animal and it involves a dead loss in feeding dairy cows or fattening cattle to simply feed enough grain and roughage to maintain the animals.

On the other hand, when the plan of full feeding is followed the stockman should know exactly what he is feeding. In order to do that he must have his grain and roughage separate. It is true that in the case of ensilage the two are mixed, but the proportion of corn to the roughage is so limited that accurate allowance may be made for the amount of grain in each hundred pounds of ensilage. Oat straw is by no means as palatable as ensilage and if sheaf oats should be fed in anything like liberal quantities most of the roughage would be wasted.

When to Cut Cane.

One of our subscribers asks for information concerning the proper time to cut amber cane. It is his intention to use the cane in the form of roughage for cattle and he naturally desires to obtain from his crop its maximum feeding value.

Cane fodder, unlike millet, does not become woody and indigestible as it matures. On the other hand, the proportion or percentage of sugar in the stalk greatly increases with maturity and for that reason there is a real advantage in allowing the crop to stand until the seed is hard. It is desirable, of course, to cut the fodder before it is nipped by the frost, as the fodder will rapidly deteriorate after freezing, but so long as it is matured nicely and remains fresh and green let it alone.

By allowing the seed to ripen the yield of actual nutrients per acre is not only increased, but the crop is more easily handled after it is cut. Early cutting means that one must deal with a product that is very succulent, one that dries out slowly, requiring a long time to cure out. On the other hand, later cutting and greater maturity will mean that the problem of curing will be greatly simplified. Of course, in any event, a good deal of weight must be dealt with, but it is surprising how quickly cane will cure in favorable weather. If it is cut with the mower and left on the ground for a week or ten days it will then be in condition to be put into shocks so that it will cure out without molding and without waste.

Success With Hogs, Cattle and Corn.

(Continued from page 1.)

made on the place have been made by the grade stock. No cow remains on the place, however, unless she shows that she can earn her keep and a profit besides. For seven years Pierce has been taking the yield of each cow and weighing it carefully and figuring production against the cost of feed. As long as these cows can show that they are on the right side of the ledger there is no reason for disposing of them just because they are grades. The plan is to have the entire herd pure bred and under official test of the national Guernsey association in a short time, however.

In the field where Mr. Martiny runs things the most notable work that is being done is with seed corn. About 60 acres are in corn this year. The Golden Glow variety of corn has proved a heavy yielder on the High Banks farm. For two years Mr. Martiny has held the state record for yield of corn per acre with a record of 121½ bushels from a single acre. The secret, besides careful selection of the seed corn, is in the handling of the ground and proper rotation. The

RILEY MARTINY'S HEIFER, FOUR TIMES CHAMPION IN 1916 SHOW CIRCUIT.

rotation followed by Mr. Martiny consists of two years of corn, one year of small grain and one year of clover and timothy meadow. Plenty of manure is added once every three years and oftener if possible. Lack of manure caused Mr. Martiny to quit sheep raising as a chief enterprise many years back, and he accordingly got into dairying because of the greater yield of manure for his acres. The greatest care is being taken to have a high-testing, high-yielding corn each year. When the corn that has been carefully planted and cultivated is ready for the harvest, about the third or fourth week in September, huskers are sent through the field, who husk the corn, throwing it into the fourth row always as they go along. Mr. Martiny then follows up the huskers and selects the seed corn from the crop as it is lying on the ground and other wagons follow to carry away the remainder to the bins for feeding. The corn selected for the seed is placed in the drying houses built especially for this purpose. These houses are constructed with three bins to each house. The new corn enters the first bin, where it remains in a layer two feet deep to dry out, and passes from there to a second, and later to a third bin. Underneath the slat flooring of these bins a stove is located which throws off enough heat to dry the corn rapidly. In the last bin it remains until it is ready for shelling. The fire is kept up continually until January, giving cold weather no opportunity to injure the germ and lower the vitality in any way by freezing. As the corn is shelled the final selection is made and all ears which do not show a proper filling out at the tips and the butts and which lack in other essentials as seed ears are thrown out. The best stock is kept for home use for the next season's crop of seed. The corn usually tests around 98 per cent, according to the university tests. Yields from Mr. Martiny's Golden Glow have been not only heavy in bushels but also in amount of fodder. A record was made on High Banks farm for silage corn several years ago when four acres completely filled a silo 14 by 37. As this seemed impossible to Mr. Martiny and his friends the land was measured with great care and found to be exactly four acres. However, Mr. Martiny would rather have silage from corn not so thick, as corn less coarse will make a higher grade of silage.

Though Mr. Martiny is farm raised, he did not have a cent when he started 23 years ago other than the money he had earned himself. As a young man he put in seven years on the railroad, and after saving a little money he rented the present place, with the exception of a few acres, for the first year at the rate of $3 an acre. It took him four years to get started with live stock, and for a good many years after that even his chief income was from the grain raised on the farm. Sheep and hogs for market purposes later on proved quite profitable, and a little thinking and more hard work did the rest. The problem of supplying the soil with fertilizer induced Mr. Martiny to get rid of his sheep and go into dairy cattle. From grade stuff he went to pure breds, both in cattle and hogs, and instead of raising market stuff he now raises breeding stock. He was one of the first in Sauk county to see the advantages of the silo.

The hog barn became too small last year and a new building was put up 24 by 60, well lighted and ventilated, which will take care of 14 sows during farrowing time. Another barn is to follow this year somewhat larger which will replace the old barn and take care of the surplus.

RILEY MARTINY'S FARM HOME IS MODERN IN EVERY RESPECT.

White Wyandotte and Leghorn chickens and a few turkeys form a very profitable side line. The 10 turkey hens bring, besides a crop of young turkeys, about $100 by the sale of eggs, and the chickens average well over $50 per month for eggs alone.

A new house recently built by Mr. Martiny is unique in that it has been built entirely from lumber found on the farm. Oak and birch trees found on the place were sawed into lumber for building purposes and the entire house erected for the cost of approximately $1,200. The same house today could not be built for less than $6,000. It is built on modern plans with large and airy rooms, toilets, running water and heat. The house is wired for electric lights, which will get their power from the Kilbourn line as soon as this is completed. But in every way the home of Riley Martiny is as comfortable as a home can be made.

Minnesota Barley Yields.

Four loads of improved Minnesota 105 barley threshed at University Farm a few days ago gave a total of 101 bushels. According to exact records, the yield was fifty-one bushels to the acre. This barley was raised for seed purposes and will be distributed after being carefully cleaned and graded at the market price plus a sum sufficient to cover the cost of cleaning and grading. The Minnesota Experiment Station is endeavoring not only to develop new varieties and strains of grains and other products, but it is seeking to grow sufficient seed from improved varieties to enable the farmers of the state to get a start at growing the same improved grains.

It's the kind that is built for all around work on the average sized farm. It makes no difference what condition you're up against on your farm, the Turner Simplicity will do the work—and what's more, do it at a big saving over any other method.

You need a tractor—you settled that in your mind some time ago—the only question that puzzled you was to pick the right one for your particular conditions—some were too heavy, some too light and some couldn't be used economically for other work. The Turner Simplicity Tractor has demonstrated its ability time and again to do the heaviest, as well as the lightest kind of work. It's the tractor you want.

Standardized design—built on most approved and tried out principles. Best materials used. Light in weight but of unusual strength. A Waukesha Tractor Motor gives it abundant power for plowing, discing, harvesting, hauling big loads or for heavy belt jobs—and it's light enough for the small jobs, too. It will deliver 2,000 pounds constant pull at draw bar. Easily operated by its simple control. Has single gear-shift lever—similar to your automobile. Working parts operate in bath of oil and are positively protected from dust and dirt. Equipped for either kerosene or gasoline. A quality tractor with 17 years of manufacturing experience behind it.

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Tear out this ad, write your name and address on the margin and mail for descriptive literature. Mark a cross under the Simplicity Farm Engine and Feed Cutter if interested in these products.

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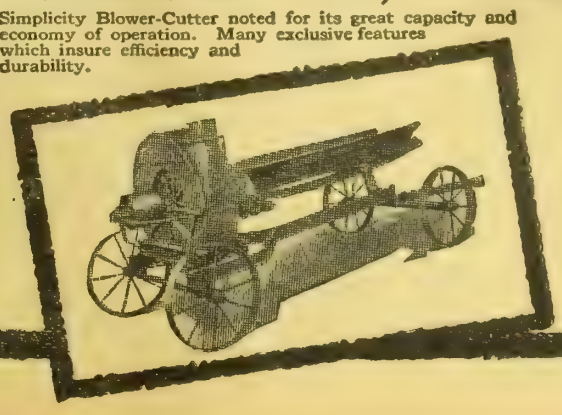
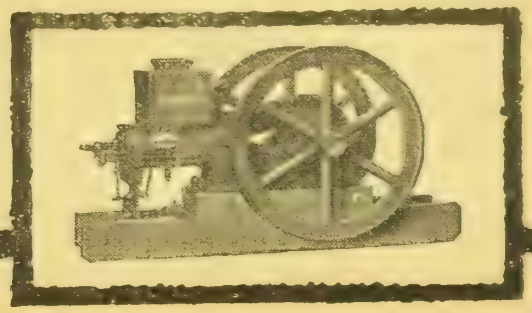
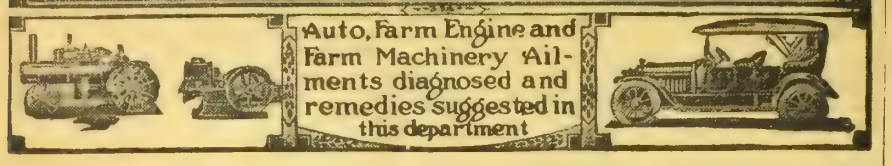
Simplicity Blower-Cutter noted for its great capacity and economy of operation. Many exclusive features which insure efficiency and durability.



New Simplicity kerosene engine. Throttling governor insures smooth running. Special carburetor provides perfect mixture. Burns kerosene without smoke or carbon.



FARM MECHANICS



Questions and Answers.

Gas for Balloons.

How can I make a liquid that will generate a gas for filling model dirigible ballons?

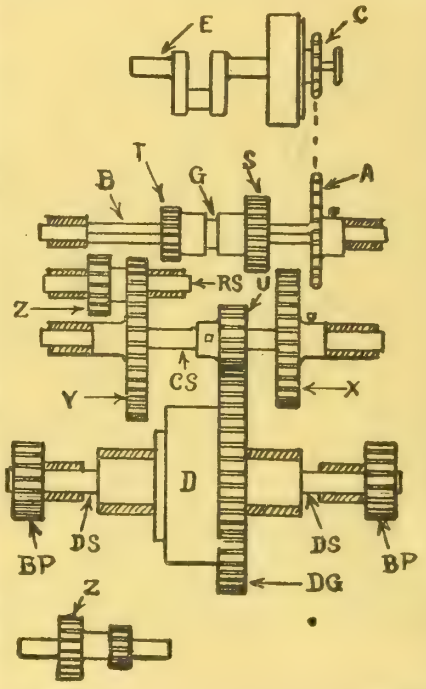
Answer.—Hydrogen is the best gas for filling balloons. Hydrogen may be obtained by pouring muriatic acid on zinc, the gas given off being hydrogen and the liquid remaining being zinc chloride, which makes an excellent soldering fluid. Hydrogen mixed with air is highly explosive. See that all the air is out of the balloon before attaching it to the hose from the bottle containing the zinc and the acid; also see that enough gas is generated to fill the bottle and drive out the air before attaching the hose to the bottle.

Three-Speed Gearing for Tractor.

I have an eight-horse-power Cushman engine. It has a clutch and a sprocket wheel next to the pulley. I want to use it on a tractor. Would I have to have a differential, and if so, how can I make one? I want the tractor to have three speeds; two forward and one reverse. How could I make a transmission? I have plenty of sprockets and cog wheels to make it myself, and I would like to have your opinion as to how to make it. The transmission and differential parts bother me the most. Please give diagram and state how many cogs each gear should have.

Answer.—You will require a differential unless you make a three-wheel machine having but one drive wheel. This is not an unusual construction. We doubt that you would be able to make a differential. You had better buy one of some tractor manufacturer or obtain one from an old tractor.

The figure shows the arrangement of a three-speed transmission. There are many possible arrangements of transmission gearings. In the figure, E is the engine crankshaft and C is the engine sprocket on the clutch. B is a square shaft, turned round at the bearings. A is a large sprocket keyed to shaft B. ST is a sliding gear, shifted by a fork in groove, G. The shaded sections on all the shafts represent bearings. RS is the reverse shaft and gear, which is shown by itself at the lower left-hand corner of the figure. CS is the countershaft, fitted with gears, U, X and Y, all of which are keyed to the shaft. D is the differential. DG the differential gear, DS DS the differential shafts, BP BP the bull pinions. The differential shaft is mounted so that the



small end of the reverse gear meshes continually with gear Y on the countershaft, and the large end of the reverse gear meshes with the end T of the sliding gear in the reverse position. On low speed, T meshes with Y. On high speed, S meshes with X. As it is necessary to go into low gear in order to reverse, the above transmission is not of the selective type; this is no serious disadvantage, however. If you prefer to build a three wheel machine to avoid the use of a differential, DG in the figure becomes the bull gear on the drive wheel. Without knowing what gearing you have, we can only give you an approximate idea of how many teeth each gear should have. With thirty-six-inch diameter drive wheels, the drive wheels should make twenty R. P. M. This is about the right speed for plowing. On high gear, your tractor should make four to five miles per hour. Too high a speed will soon shake it loose when traveling over rough roads, or even fairly smooth roads if they are hard. If your engine runs at 500 R. P. M., the bull pinion, BP, should have four times as many teeth as the bull gear with which it meshes. This would make the differential shafts run at eighty R. P. M. DG should have three times as many teeth as U. The countershaft would then make 240 R. P. M. Y should have twice as many teeth as T, S and X being nearly the same size. Sprocket A should have a few more teeth than C. If your engine runs at 750 R. P. M., A should have one and one-half times as many teeth as C.

In case you build a single drive wheel machine, arrange the gears as follows: The bull gear should have four times as many teeth as U, Y should have twice as many teeth as T, and X should have the same number of teeth as S. A should have three times as many teeth as C.

Battery or Wiring Defective.

I have a 1915 Maxwell touring car equipped with a six-cell twelve-volt storage battery. It is giving me trouble. The battery is down, and will not take a charge. Is it possible that it can be rebuilt? If not, what make of battery would wou advise buying? Also, when the battery is out of the car, the lights will not burn from the magneto.

Answer.—It may be that your trouble comes from loose connections, defective wires, or a defective generator. Examine the wiring first and see that the wires are in good condition and that all the connections are tight; also that the wires are connected correctly. If these are O. K., write to the manufacturer of your battery as to where is the nearest service station, and to the advisability of sending the battery to the service station for repairs. A storage battery often does not last three years in automobile service. Any of the storage battery companies advertising in this paper are reliable.

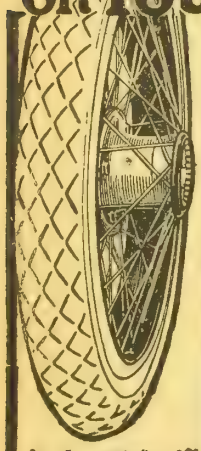
Spot Light on a Ford.

Would you please tell me how to put a dash light on a Ford car? What size bulb must I use? Could I fix it so that I can use a two-candle-power, six-volt bulb? Is the Ford magneto strong enough to run a spot light having a 6-8-volt, twenty-two-candle-power light? My car is 1916 model.

Answer.—It is not advisable to run any lights from the Ford magneto except the two headlights. The magneto will stand some overload and would take care of two eight-volt two-candle-power dash lights. Wire from the magneto terminal on the back of the coil box to th dash lamp switch, which you will have to purchase. From the switch, wire to one light; from that light to the other light; and from the second light run a wire to the frame of the car, grounding it securely on the frame. A single six or eight-volt light would probably burn out. Anyway, a twenty-two-candle-power light is more than the magneto should be expected to handle in addition to the headlights. Even if the magneto were not injured by the excessive load, the lights would be very dim except at high speeds.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 12.

SAVE 40% ON YOUR TIRES



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31x3 1-2	10.55	11.60	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.55
31x4	14.75	16.60	3.70
32x4	15.05	16.85	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.55	4.00
35x4	17.00	18.60	4.50
36x4	17.20	18.65	4.30
34x4 1-2	21.65	23.65	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
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MR. FARMER FORD OWNER. Here's gas engine power for your farm—reliable as your good Ford engine, portable as your Ford car. Guaranteed to produce 8 horse gas engine power. Attaches to front of your Ford without use of jack, nuts, bolts or screws. Does not interfere in any manner with your Ford for touring. More convenient to use and move around than gas engine. Retails for only $22.50, less than one-sixth the cost of 8 horse power portable gas engine. Write us today

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It looks better, fits better, is four or five times stronger and will last longer than the present harness. The price is the same.

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It took eight and one-half years to perfect it.

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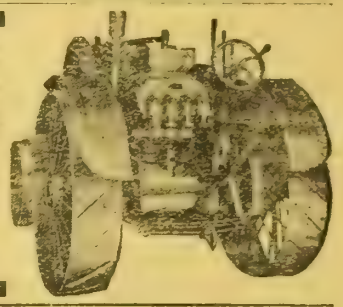

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Harvest Season Is Well Advanced

Badger Crops Average Well in Yields—Small Grains Are Excellent—Hay Produced Abundantly in Some Sections—Live Stock Sold Off Closely.

Barron County.—Hay crops were put up in fine condition. Alfalfa has been cut the second time and for both cuttings will average two and one-half tons per acre. A good crop of barley has been harvested. It will make from thirty to forty bushels per acre. Wheat will make twenty bushels, and rye about thirty bushels. Farmers are depending upon pastures entirely for feed. Hogs are sold off very closely.—Wm. Bartlett.

Burnett County.—Small grains filled out in good shape on account of the late rains and cool weather. The hay crop is short and meadows that have never been cut before were cut this year. Potatoes and all garden truck are fine. Pastures are fair and cattle are fine, although flies are very bad.—A. G. Peterson.

Brown County.—Haying is nearly finished and a good crop of hay has been put in the barns. The second crop of clover is growing well. Barley harvest is nearly finished. The crop is not as good as it should be. The oat crop is beginning to ripen. The corn crop has very poor prospects. Potatoes are good, but the bugs are numerous. The milk flow has fallen off considerably. Farmers in this section are turning their attention to dairying. War is the all-absorbing topic and many of the boys are being taken away.—S. J. Shannon.

Crawford County.—Haying is nearly finished. The new seeding of clover was good and timothy was fair on some fields, but on others it was not so good. Winter wheat, rye and barley are all harvested, and threshing has commenced. Oats are being harvested rapidly and the yield will be heavy. The yields of small grain will be above those of last year. A corn crop is assured if frost does not come before September 15th or October 1st. Garden truck is good and young stock are growing rapidly. Cattle feeding is increasing and dairying is increasing.—George Ashbacher.

Dunn County.—Hay harvest is finished. Clover will average from one to two tons per acre. The old seeding is not as good as the new. Grain harvest is well under way with wheat much better than last year. Both winter and spring wheat will average from twenty-five to thirty-five bushels per acre. Oats promise from forty to sixty bushels per acre The corn crop is very late and will probably make a poor crop. Potatoes are excellent and will yield much better than last year. Gardens are good and cows are doing well on pasture.—E. A. Finley.

Dorr County.—Haying has just been finished. The acreage and also the yield per acre is the largest we have had for years. The first part of the crop was damaged to some extent by rain. Harvesting of rye and barley, also winter wheat is in progress. give promise of a good yield. Oats are backward. Peas will be short on account of the heat and dry weather. The corn crop is in fine shape and with a favorable fall will make a good idea. We are harvesting Montezuma cherries and they are the finest we have ever grown.—L. E. Birmingham.

Eau Claire County.—Haying is done. There is not much clover, due to winterkilling. Clover and alfalfa averaged about one and one-half tons per acre each. Barley is cut and oats are about half harvested. The yields are about the same as those of last year. Very little rye is raised here. Corn is doing fine; many fields are just tasseling. Cattle are in good condition, but milk cows are falling down in milk production. Hogs are thin on account of the high price of feed.—C. A. Koll.

Green Lake County.—Weather conditions have favored harvesting and with the exception of barley all small grain crops are better than they were last year. Tame hay has yielded heavier than usual and the crop was harvested in good condition. Corn has been making slow progress because of cold weather. Early potatoes are very good, but most of the early apples are of poor quality.—G. B. W.

Juneau County.—A good crop of hay has been cut, but some of it was damaged by wet weather. Grain harvest is well advanced and the yields are fine. Oats and wheat will be considerably better than last year's crops. Pastures are excellent for late summer. No live stock are on feed.—J. H. McNown.

Kewaunee County.—An average hay crop of very fine quality has been harvested. Barley, rye and fall wheat are now ripe. Spring wheat and oats are excellent. Recent rains have helped gardens, root crops and pastures. Cattle look fine and corn is now making splendid growth. The apple crop will be short.—Fred Lutz.

LaCrosse County.—The hay crop is of good quality and shows up better than it did last year. No threshing has been done, but from indications grain crops will be better than they were last year. Corn has made rapid growth and looks fine, but needs favorable weather to mature it. Feeding operations are not as extensive as usual.—S. H. D.

LaFayette County.—Most of the small grain is cut and in the shock. Oats made about forty or forty-five bushels per acre, barley, from thirty to thirty-five bushels. Haying is nearly all done. The new seeding was unusually heavy. Old meadows were somewhat light. Most of the hay was put up in good condition. The weather has been perfect for curing hay. A good rain has helped the corn crop very much. Pastures, late potatoes and gardens also benefited by it. Pastures are quite short and cows have not produced as well this year as last.—W. F. Pease.

Ozaukee County.—On account of hot, dry weather the crops are very good. Hay crops are about the same in quality and yield as those of last year. Oats look well, but barley is not so good as it was last year. Corn and potatoes are good. Pastures are dry and short. Live stock are fair and feeding operations are increasing to some extent.—N. J. M.

Polk County.—Haying is finished and some timothy is being cut for seed. The hay crops, especially the new meadows are very good. The grain crops show good quality. Corn is growing well, but needs warmer weather. The pickle harvest is on and the yields are not more than ordinary. Live stock are in good condition.—Wallace Fountain.

Portage County.—Practically all the hay is in the barn. The yield was the greatest we have had for several years. Clover averaged between one and one-half and two tons per acre. Timothy was slightly less. Most all the hay went up without getting wet. All rye and barley are cut and show good quality. They will yield 25 per cent better than the average yield for the past year. Oats were greatly damaged by strong winds in July; many fields were bent down and some lodged. Very little oats have been cut, but the yield promises to be better than that of last year. Corn is twenty days late, but looks well and is growing rapidly at present. Dairymen are economizing on feed, but the majority are still feeding some concentrate in addition to pasture. Very little of the feed supply for the winter has been purchased. Live stock are in good condition, but fewer in numbers than they were last year.—Arthur H. Peterson.

Price County.—Haying is nearly done. The new seeding made about one ton per acre and the old meadows about one-half a ton. Wheat, barley, rye and oats show prospects of good yields. A good rain on August 7th saved the meadows, which were burning up, besides pushing the corn and potato crops along. Live stock are in fair condition, but will suffer from poor pasture soon. Farmers predict that much live stock will be shipped from here on account of the poor hay crop and high price of feed generally.—J. W. Fox.

Richland County.—The hay crop is good with a yield of about two tons per acre. Oats are very good, but barley is only fair. Oat cutting has just commenced, but some of the fields are quite green yet. Fruit is plentiful.—E. C. Stewart.

Sauk County.—Clover is yielding about 20 per cent heavier than last year. The quality is above the average as weather conditions were right most of the time. Wheat and barley are harvested, but much of the oats was delayed by rains. Rye also is harvested. There are considerable lodged oats. All small grains promise to yield heavily. The geater part of the corn crop is behind the average of recent years. Potatoes look better than they did last year Apples appear stunted, but there are lots of them. Live stock are in good condition, as pasttures are holding out well.—Richard F. Klemm.

Sheboygan County.—A bumper crop was harvested. The corn crop is far behind normal. We are not having enough warm weather to insure a crop of silage to say nothing of ripe corn. Harvesting of rye and winter wheat has been progressing rapidly and good yields of both crops are promised. Oats should yield heavily where lodging has not occurred. Recent rains have refreshed the pastures and cows are picking up in milk production. Cattle on the second crop of clover in the meadows are doing especially well.—M. J. Hoppert.

Taylor County.—Haying is done and the crop is from 5 to 10 per cent short. Oats and barley will hardly be normal. The harvest has already commenced. Corn is poor and will not make anything but silage. The weather has been too cool for it. Gardens are good. Potatoes are doing well. Pastures are fair, but need rain. Dairy cows are in good condition. Few hogs are raised in this county.—John E. Miller.

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Wisconsin Poultry Show.

James G. Halpin, secretary of the Wisconsin Poultry Association, announces the dates of the annual show this year as January 7 to 11, 1918. Messrs. Hackett and Wells will be judges. The show will be held at Madison, and will be one of the big poultry events of the year.

Advice to Stockmen.

It can hardly be doubted that farmers and owners of live stock generally, as well as poultry raisers, are not living up to their privileges in the way of getting advice on live stock and poultry ailments from those competent to give it. This thought is suggested by the broad invitation that is given in the advertising of the Dr. Hess & Clark preparations which are being advertised in this paper. In their booklets, distributed free through their dealers, and in many of their larger advertisements, the invitation is given substantially as follows: "Should you at any time have a sick or injured animal or any poultry trouble concerning which you would like to consult a competent veterinary surgeon, write Dr. Hess and he will send you a prescription and letter of advice free of charge." The only condition is that a two-cent stamp for the reply be enclosed by the inquirer. Dr. Gilbert Hess is a doctor of veterinary science of long standing, has written numerous veterinary books, and is competent to give specific direction and advice on all animal ailments. You do not have to be a user of the Dr. Hess preparations in order to obtain this free veterinary service, and are not placed under any obligations whatever. All that is necessary is to write fully all the particulars and symptoms, so as to convey to Dr. Hess an intelligent idea of the trouble, and enclose the 2-cent stamp, and a personal letter of advice will reach you promptly. This service will enable you to save veterinary bills. It will give you direct, positive and disinterested advice. By availing yourself of it you may be able often to save the life of an animal because you do not wish to call in a local veterinarian. The service is open to any reader of this notice. Direct letter either to Dr. Gilbert Hess personally or to the Dr. Hess & Clark Information Boreau, Ashland, Ohio.—Adv.

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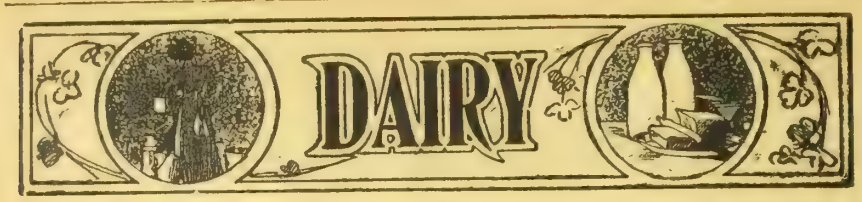

The Age of Dairy Cows.

In the life of the dairy cow, as in that of every other thing that lives, there are three natural periods. These are indicated by the terms growth, maturity and decline. Productiveness does not begin until the first period is well advanced. This is largely preparatory. Toward its close the productive powers are rapidly developed and the cow becomes a source of income. During the period of maturity the cow is at her best and for a few years from the time it is reached she ought to yield her owner a large profit. At the close of this period a downward movement begins. At first this is slight, but it will go on until it comes to an end with the total failure of the productive functions of the cow or their destruction with her death.

A cow may more than pay her way for some years after the period of decline begins, but if she lives she will eventually reach the age limit of profitable production. Of course, she should be disposed of before this point is reached, for, though she is not yet a source of expense, she is taking room and care and is consuming feed that would be much more profitably consumed by a younger animal.

But it is not always an easy matter to determine just the best time to dispose of an aged cow. The natural basis for judgment on this point is the number of years she has lived. And this is an item that should be carefully considered even though she appears to have failed but very little. Yet when taken by itself this test is not decisive and it may be very misleading, for to a considerable extent the term age has only a relative meaning. As far as usefulness is concerned some cows are as old at eight years as others are at fifteen. Consequently each individual must be judged by herself.

There is something to be said in favor of keeping a good cow considerably beyond the close of her period of maturity. If the dairy business is to be continued cows must be kept. If those which have passed the time of their best possible performance are disposed of, others must be obtained to take their places. In this exchange there will be more or less risk. Judging from the past the owner of an old cow can tell what she is likely to do in the future. If he exchanges her for a young cow he cannot be nearly as sure what returns she will make. If the young cow is in a healthy condition, well developed and from high-class dairy cattle there are, of course, strong probabilities that she will do well. And yet there is some wisdom in the remark of a dairyman who said that he would rather have a good cow than a good cow's calf. There can be no question as to the merits of a cow that has been thoroughly tested and has proven to be good, but there will be some uncertainty regarding what kind of a cow her calf will become.

On the theory that "a bird in the hand is worth two in the bush" it would not seem best to turn off a first-class cow as soon as the least waning of her powers is discovered. On the other hand care must be taken not to keep her too long. Just when she ought to be disposed of will depend largely on her vigor, the condition of her teeth, her appetite and digestion and on whether she has been highly fed or has recently had a serious illness.

And even though the cow appears to be strong and well if she is kept after she has passed her prime she will need more careful attention and more liberal feeding than she required in her earlier years. Yet neither this nor anything else can restore the degree of vigor and capacity that she has lost. The most that can be accomplished is to somewhat retard the natural progress of her decline. Her value for feeding when she is retired from the dairy will decrease. For awhile, perhaps for years, she may pay well for all that is done for her, but she will be exposed to the perils which inevitably come with advancing age.

Soon after an animal passes the period of maturity changes which are gradual, but which will surely be progressive, set in. The bones become weaker, the circulation of the blood is less active, nerve force is diminished and the danger of accident and the liability to disease of various forms increases in a marked degree. And this item of present and ever-increasing risk should be carefully weighed when considering how much longer an aged cow can profitably be kept for use in the dairy.

Dairy Labor Difficulties.

Owing to the amount of labor required to conduct a dairy farm as it should be conducted, there is often a tendency to neglect some of the work whenever there is the slightest pressure from demands of other things. On every dairy farm these times come with more or less frequency and where the farm does not possess too much available labor it is quite a problem to get the work done properly and on time. In order to obtain economical returns we endeavor to get along with a limited amount of labor. When the pressure becomes too great there must be an inevitable loss occasioned by neglect of some part of the work. The less system that is being used on the farm the greater the opportunity for loss, and the same might also be said of conveniences.

Since we usually limit the amount of labor available it is necessary to safeguard our work as much as possible by planning and by the arrangement and availability of our conveniences. Choosing the easiest and quickest methods of performing our regular work without detracting from the profit of the season is one of the fundamentals of economical production. Always to do our work in the most laborious fashion only turns us into slaves and when this stage is reached we can never really enjoy our calling as a good dairyman will.

Many are the difficulties that continually crop up in the handling of a dairy farm and one needs to have an eye focused on the principles which go to make the business of dairying most enjoyable and this can be done to the best advantage by such planning as will not necessarily lessen the amount of work really accomplished, but which will systematize and lighten it to such an extent that it is only very exceptional conditions that would cause even a temporary neglect of some part of the work.

Keeping the Separator in Good Order.

All users of cream separators who haven't tested their skim milk for butter fat recently should make this test at once, for it is probable that they are not getting as much butter fat from their milk as they can and should obtain. Cream separators, like all other kinds of machinery, sometimes get out of adjustment. When the separator is in good working order not more than .02 of 1 per cent of fat ought to be found in the skim milk, but there is no question but that on a great many farms .05 of 1 per cent of fat is left in the skim milk and this means a heavy waste.

If the separator is not skimming as close as it ought to, see whether it is standing level or not. If it is not standing level it must be leveled up. A separator cannot be expected to do good work unless it stands perfectly level. The bowl must be in balance. If it vibrates while in operation clean skimming cannot be obtained. If a level is not at hand one suitable for the purpose can be had by filling a glass vial nearly full with water.

It may be that the machine is not being turned in accordance with the directions of the manufacturer. If the bowl does not revolve at the speed it should a portion of the butter fat is certain to be left in the skim milk. If the separator is being operated by hand it is well to check up occasionally to see whether the handle is being turned the proper number of times per minute.

If all the above-mentioned conditions are as they should be and still the machine is not doing good work it will be necessary to look elsewhere for the trouble. Sometimes the cream outlet becomes clogged or partially closed. If this is the case it can readily be seen that less cream will flow through the outlet per minute than if it were larger. The result will be a thicker cream and the chances are that the skimming will be much less perfect than would otherwise be the case. Everyone who uses a separator knows that the percentage of butter fat in the cream can be regulated by turning the cream screw either one way or the other. By enlarging the opening the cream becomes thinner and by reducing it the cream becomes thicker, that is, the cream will contain a larger percentage of butter fat.

Some separators will not skim effectively when the cream contains as much as 40 per cent of butter fat or more and the only way one can tell whether his machine is one of that kind or not is by testing the skim

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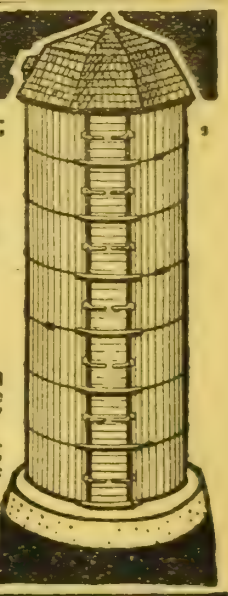

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milk. A Babcock testing outfit should be on every dairy farm, but in the absence of this the proper thing to do is to take a sample of the skim milk to a neighbor who has a tester or to the creamery and have it tested there. If one is not a regular customer of the creamery he may have to pay for the testing, but the cost will be nominal and should not be considered, for it pays well to know exactly whether or not all the butter fat is being gotten out of the milk.

Langlade Holstein Meeting.

To the Editor:—Langlade county Holstein men held their annual summer picnic as an automobile excursion to leading Holstein farms of and near the county on August 5th. Sixteen auto loads made the trip. Visits were made to Geo. Wunderlick's Bear Lake Farm, to Dr. Harrington's, Hogarty Holstein Farm and to the Dells of the Eau Claire River. Mr. A. C. Oosterhuis, of the college of agriculture, gave a splendid address on dairy type at the formal part of the meeting held at the Harrington farm.

Holstein breeding is still in its early stages in Langlade county. About seventy-five farmers own pure-bred sires. Only about half a dozen or more own pure-bred females. Interest is growing, however. Many farmers are awakening to the importance of using better sires. One by one they are discarding the grade or the scrub and replacing it with a pure bred. Those owning a pure bred when buying the second one insist that he come from dams with a record of production.

The county Holstein breeders' association is doing its bit to awaken interest. Likewise the work of the cow-testing association is fostering a keener desire for better stock. It was very apparent from the attention paid to Mr. Oosterhuis' address that Langlade county farmers are anxious to learn about the dairy cow.

Cheese factories never had a bigger run than during the present summer. Four new factories were built this spring and three of this number received up to and better than 5,000 pounds of milk per day as their maximum run. The new cheese warehouse built at Antigo early in 1917 took in thirteen carloads of cheese during July, mostly Langlade county product.

Encouraged by the development of the cheese industry, Hirt Bros., of Deerbrook, are planning to install cheese box machinery in one of their mills.

Langlade county, with its fertile soil and splendid pastures, has ideal conditions for dairy development. Farms average small in size, ninety-one acres per farm, to be exact, making dairy farming practically a necessity for assured profits. Whether he will or no every farmer will be compelled by force of circumstances to resort to better methods of breeding. High cost of feed, scarcity of help, mean that the farmer can no longer afford to breed to a poor bull, not even to a poor pure bred. The poor cow offspring of inferior breeding can no longer be given a place in his barn. The accurate methods of the cow-testing association must replace the guesswork methods still practiced on too many of the farms of the county. The several breeders' associations and the cow-testing association are the leavening influences which are destined to bring about permanent improvement.

F. G. S.

Value of Skim Milk for Pigs.

Addressing a crowd of 5,000 at the second annual picnic of the Manitowoc County Dairy Advancement Association on Sunday, August 5th, at Silver Lake, Prof. G. H. Benkendorf, of the college of agriculture, University of Wisconsin, said Wisconsin easily ranks first as a dairy state; this is due to several reasons, chief among them being the climate, the soil and the fact that Wisconsin is settled by people who are willing to milk cows. In 1909 we ranked first in butter and cheese. According to data available in 1914, we were a very close scond in condensed milk. About a year ago there were thirty-seven condensing factories in the state, but that we now have fifty, owing to the rapid development of that industry during the past two years.

Professor Benkendorf devoted considerable time explaining how a farmer can determine the relative value of skim milk on the farm, when fed to pigs. The well-known "Gurler" method was discussed. Mr. Gurler is one of the leading dairy men of the whole United States and his method is very simple, namely, skim milk is worth as much a hundred as corn is a bushel. For example—if corn is worth 60 cents then skim milk is worth 30 cents; if corn is worth $1.80 then skim milk is worth 90 cents.

The "Hoard" method, named after Ex-Governor Hoard, is based on the fact that a hundred pounds of skim milk, when fed to pigs, will produce five pounds of pork. When in combination with corn or barley in the proportion of one pound of corn or barley to three pounds of skim milk, the results are very much better, being about six pounds per hundred pounds of skim milk. In other words, it is easy to determine the value of skim milk by multiplying the price of hogs on the hoof by five or six, as the case may be. For example, if hogs are worth 14 cents per pound, six times 14 cents equals 84 cents.

It has been determined many times by the leading experiment stations in America that whey is worth one-half the value of skim milk.

The average composition of milk and its products is as follows:

	Water	Fat	Casein and albumen	Milk sugar
Cows milk..	87.17	3.69	3.55	4.88
Skim milk ..	90.30	.10	3.55	5.25
Whey	93.38	.32	.86	4.79

From the foregoing data the speaker said it was plainly evident that whey was a feed of considerable value. In 100 pounds of whey there were nearly five pounds of milk sugar and about eight-tenths of one pound of albumen and casein. The speaker said that the white of eggs is a good example of albumen. Professor Benkendorf then referred to experiments made at the Canadian Agricultural College, which were the same as results obtained at Madison. In these trials whey was fed to pigs with the following results: 481 pounds of mixed grain when fed alone produced 100 pounds of gain; 303 pounds of mixed grain with 1,398 pounds of whey produced 100 pounds of gain.

In other words, 1,398 pounds of whey saved 178 pounds of grain, which proves that 785 pounds of whey was worth 100 pounds of grain. From results like these it is very plain why the feeding authorities claim that whey is worth about one-half the value of skim milk.

That there is not much danger of an overproduction of meat for years to come was emphasized by the speaker. Citing an investigation it showed that the number of beef cattle in the United States decreased 30 per cent between the years 1907 to 1914, while during the same time the population increased 14 per cent.

Fill Your Silo As You Cut

Run your own filler, from day to day, as is convenient, with the

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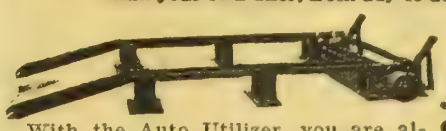

Just back car onto runway—No jacking up, nothing to attach.

With the Auto Utilizer, you are always ready to put your corn into the silo **just when it ought to go in,** instead of having to let it lie around after cut, getting full of dirt and rotting while you wait your turn with the filling crew. The Auto Utilizer will save its cost on the first year's filling. That's what users say. Let us send you their say-so.

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Car stands level and runs exactly as it does on the road. Positively no strain on its construction or working parts.

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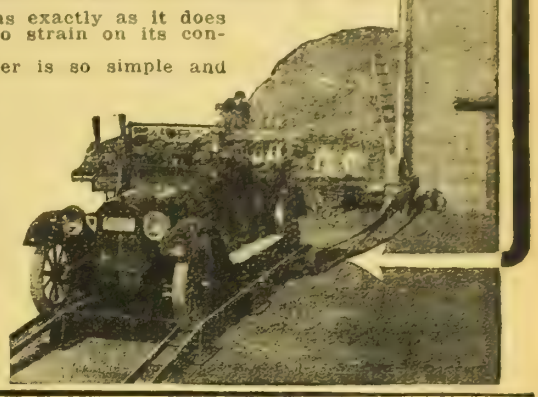
Ask your dealer if he has seen it—if he is going to demonstrate it. Send today for complete descriptive literature.

THE AUTO UTILIZER CO.
Dept. W.F. Burlington, Wis.



Sweet Clover as a Soil-Improving Crop.

Unlike many legumes, sweet clover will make a good growth on soils too depleted in humus for profitable crop production. The effect of the large, deep roots in opening up the subsoil and providing better drainage is often very noticeable in the spring, as the land upon which sweet clover has grown for several years will be in a condition to plow earlier than the adjacent fields. The roots are often one-eighth of an inch in diameter at a depth of three feet, and they decay in five to eight weeks after the plants die. The holes made by the roots are left partly filled with a fibrous substance which permits rapid drainage. The roots add much organic matter to the layers of soil below the usual depth of plowing, while those in the surface soil, together with the stubble and stems, when the crop is plowed under, add more humus than possibly any other legume which may be grown in short rotations. Not only does this crop add organic matter to the soil, but in common with other legumes it has the power of fixing atmospheric nitrogen by means of the nitrogen-gathering bacteria in the nodules of the roots.—[Bulletin.

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$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. **Guaranteed a lifetime.** Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

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Fox River Valley Association.

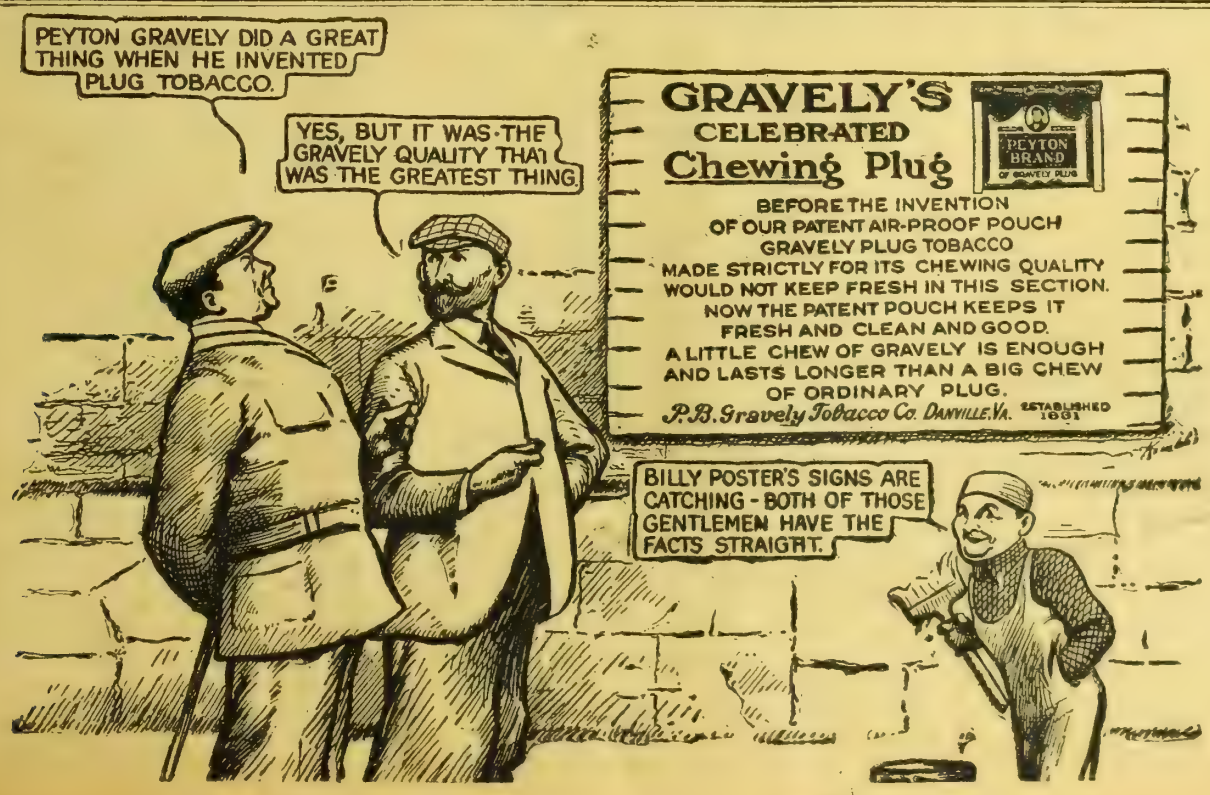
To the Editor:—The forty-five-pound list in our association, the Fox River Valley, for the month ending August 10th, is as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. fat
O. Meulemans					
Rose, G. H.	6	6-9-17	1858	3.3	61.2
G. Zitlow					
Topsy I, G. H.	7	6-9-17	1608	3.2	52.1
Topsy II, G. H.	3	4-13-17	1224	3.8	46.5
Lina, G. H.	6	2-24-17	1233	4.0	47.3
John Kloehn					
Betsy, G. H.	6	3-23-17	1094	4.2	46.0
Chas. Schmidt					
Thickneck, G. G.	8	5-23-17	1002	5.0	50.1
J. Nachers					
Jane, G. H.	5	6-20-17	1140	4.1	46.7
Fred Tess					
No. 1, G. G.	7	3-15-17	1109	4.4	48.8
No. 9, G. G.	2	5-20-17	1252	4.0	50.1
O. Huebner					
Tillie, G. G.	3	6-24-17	923	7-1	65.5
Belle, G. G.	5	7-8-17	1221	4.4	53.7
Daisy, G. G.	6	5-20-17	1584	3.7	58.6
Ella, G. Dur.	7	3-26-17	1261	3.8	47.8
John Geybold					
Maple, P. B. H.	2	7-2-17	1187	4.0	47.4
F. Zick					
Rose, P. B. H.	9	5-29-17	1593	3.2	51.0
Fred Harford					
No. 8, P. B. H.	7	4-17-17	1203	4.0	48.1
No. 11, P. B. H.	7	2-20-17	1152	4.1	47.2
No. 13, P. B. H.	7	3-8-17	1176	4.2	49.3
No. 16, P. B. H.	5	2-19-17	1314	3.6	47.3

F. A. GAISER, Official Tester.
MOWRY PHILIPS, Secretary.

Silos for Immediate Delivery.

A MORE important time was never known for building silos. Prices of feed being so high it's your duty to help save your entire feed crops. You can only do this by using a silo. We have a few left for quick delivery. Write for free booklet and full information. Tung-Lok Silo Co., Kansas City, Mo.—Adv.



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THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Sauerkraut.

Mrs. S. is seeking information about preserving the surplus from her garden. She writes:

I have read about putting up beans the same as kraut. I must confess that I do not even know how that is done. Will you please give me this information, as I have an abundance of both? So far I have always been a failure at putting up anything, and I am very anxious to know how to dry, can and preserve for winter use.

Here is an excellent recipe for making homemade sauerkraut: Select nice heads of cabbage, remove outer leaves, halve heads, remove core and slice with knife or cutter. Thoroughly clean and scald a three to five-gallon stone jar. Place in the bottom of the jar a layer of cut cabbage four or five inches deep and sprinkle lightly with salt. Salt should be used at the rate of one pint to twenty-five gallons of cabbage. Tamp until juice begins to show on top. Use end of block of wood with handle attached for this purpose. Repeat the process until the jar is filled to within four or five inches of the top, tamping each time thoroughly. Cover the surface with cabbage leaves and place a cloth over this. Cut a board to fit loosely for cover and weigh down with stones. If kept at a temperature of 75 or 80 degrees fermentation will likely be complete in a month, when the kraut will be ready for use.

A liquor should appear over the surface of the kraut after the second day. If it does not appear, then add more weight and pour in enough brine to cover the top. Every other day remove the scum which collects on top of the brine until it no longer appears. When fermentation is complete store kraut in a cool place.

Mrs. S. and others who want to take care of garden and orchard surplus, should write to the department of agriculture, Washington, D. C., for the various bulletins issued by the government on the subject of food preservation in the home. These include bulletins on canning, drying and preservation by fermentation, and very complete and definite instruction is given therein.

Ways of Cooking String Beans.

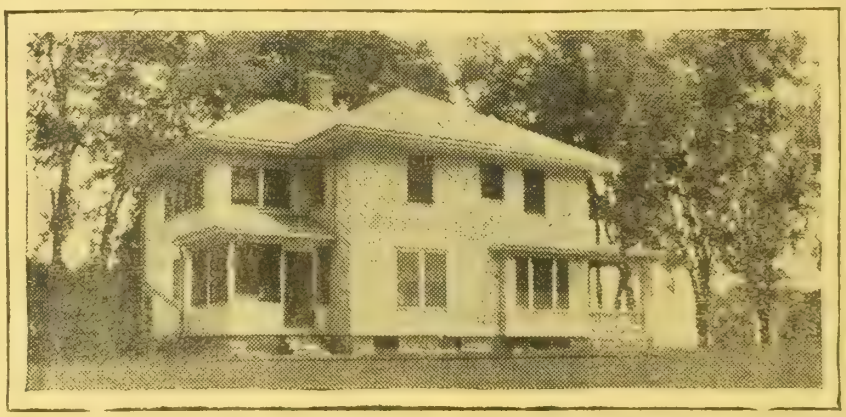
To the Editor:—I wonder if Mrs. H. L., who asked for new ways of cooking string beans, has ever tried cooking them with carrots and seasoning well? They are fine. Another good way is to cook them till tender in salted water, drain and cover with a good salad dressing. Chopped peanuts may be mixed with them for a change when making into salad if liked by the family. Used in this way they take the place of meat. Steamed tender and covered with a sweet spiced vinegar they make fine pickles, or they may be mixed with small onions and pickled. Another way is to cook in salted water until tender, drain, then add plenty of butter and pepper and fry slowly until thoroughly seasoned, but not brown. Cooked with a slice or two of bacon or fat pork of any kind they will usually be relished, thickening the liquid with flour when the beans are tender. String beans cooked with sweet corn make a dish fit for a good American.

And don't neglect to can a plentiful supply for winter use. I am canning now by the one-period cold-pack method, and the beans are fine in appearance. The only thing difficult about this method is the name. I have simplified all the processes as much as possible, and am well pleased with the result. Have also canned Swiss chard greens with the stems separate as a vegetable, as well as beet greens, small beets and cauliflower so far this season. I wash and dress the vegetable as for cooking, place in a clean, thin cloth (I use an inner sugar sack), place in boiling water from five to ten minutes, lift out and immediately drop into a pan of cold water. Lift from this to a pan. Now pack into jars and add the salt (a level teaspoonful to a quart), fill the jar with boiling water, put cover on loosely and set in the wash boiler on a cloth with cloths between the jars. I have the water come up about half way on the jars. This water is kept boiling steadily for the required time. I can several kinds at a time and remove each kind when it is done. Cauliflower takes one hour, beets an hour and a half, beans and greens two hours. The jars are removed one at a time and covers tightened. With the care taken in canning fruit as to tight caps, etc., no one need hesitate to try vegetable canning.

Ivy Fisher.

A Farm Home That Fulfills Its Mission.

THE modern farmhouse is built with an eye to beauty, comfort and convenience. The ideal farm home cannot be built without a certain definite knowldge of practical housekeeping and family needs. The man who undertakes to erect a home for his family will find that a little knowledge of some phases of household science will be a tremendous asset. The farmer builds the house, but the farmer's wife does the housekeeping, and, therefore, each should take an active part in perfecting the plans.



THE LARGE, SCREENED PORCH AND OUTSIDE ENTRANCE TO BASEMENT ARE FEATURES THAT WILL APPEAL TO FARM WOMEN.

The accompanying illustrations show the result of such a combination of effort. This particular house is the pride of the farmer who built it and the joy of the wife who presides over his household. Every member of the family, even to the hired man, was taken into consideration when the plans were made.

Notice the spacious screened porch at the rear. Off this opens a commodious wash room furnished with lavatory with hot and cold water. Here the men can wash without entering any part of the house proper or in any way interfering with the household. The hired man's room, also, is located so that it can be reached without passing through any of the family living rooms. This is an advantage that many a hired man will appreciate as well as many a housewife.

SPACIOUS WINDOWS INSURE PLENTY OF SUNLIGHT FOR EACH ROOM

The lessening of the housewife's work was one of the main considerations in the planning of this house. She has every convenience from running water to electric lights and a vacuum cleaner. She does not have to carry in or out a single drop of water; there are no lamps to clean or fill; the vacuum cleaner does the heavy cleaning of rugs and carpets; and Monday has no terrors for her—the well-equipped laundry takes care of that. Her kitchen is a marvel in its completeness. Linen closets and store closets are conveniently located. The bathroom is completely equipped, even to shower bath.

And when this farmer and his wife planned their home they thought about the two little boys and the little girl who are growing up there. For them, as well as for themselves, they made it beautiful within and without. With a thought for their health they made a sleeping porch and many broad windows for fresh air and sunshine; with a thought for their pleasure they made a roomy attic for rainy-day romps and revels; they built a fireplace for winter-evening coziness; they built shelves for books—in fact, they included everything that makes for convenience, and comfort, for contentment and happiness.

There is more to building a house than putting the lumber together, and this beautiful home is surely convincing evidence of the satisfying result of careful thought and planning on the part of farm families.

THE YOUNG FOLKS

One Eye, Two Eye, Three Eye.

Dear Young Folks:—I am a girl twelve years of age and I am going to school with my little brother. I like to go to school very much and I am in the seventh grade.

I like the story called "One Eye, Two Eye, Three Eye," and I will tell it to you.

Once there was an old woman who had three little girls named One Eye, Two Eye and Three Eye. They were called these names because One Eye had only one eye, Two Eye had two eyes, and Three Eye had three eyes. The old woman didn't like Two Eye because she was like other people, and she made her work out in the field all day with a little goat, but she let One Eye and Three Eye play all they wanted to.

Two Eye could get nothing to eat all day except one crust of bread. One day when she was very, very hungry she sat down in the field and tried to eat her crust, but it was too hard to eat, and she began to cry. Then she heard someone say, "What are you crying for?" She looked up and there stood a fairy.

"Oh," said Two Eye, "my mother doesn't like me, and she only gives me this hard crust to eat."

"Well," said the fairy, "whenever you are hungry just say, 'Little table, spread,' and see what happens." Then the fairy vanished and poor little Two Eye was so hungry that without waiting a minute she said the words that the fairy had told her to. And the next minute a table stood before her all covered with good things to eat. There was bread and butter and sauce, potatoes, pudding, apples, oranges, meat, cookies and lemonade to drink.

Two Eye ate all she wanted and was wondering what in the world to do with the table and the food she had not eaten when she noticed a slip of paper pinned to the tablecloth. This slip said that when she was through eating and didn't want any more all she had to do was to say "Little table, away." So Two eye repeated the words, and the table vanished.

Of course when Two Eye went home that night she was not hungry and her mother wondered why she did not eat her crust of bread. Every night it was the same way—Two Eye would not eat her crust. So finally her mother told One Eye to go out in the field with Two Eye and watch her to see what she did. One Eye promised to go and the next day she followed her sister and Two Eye wondered at it because she never had wanted to come with her before.

When dinner time came Two Eye sang a song and One Eye fell asleep. While she was asleep Two Eye said "Little table, spread," and ate all she wanted. Then she said "Little table, away," and when One Eye awoke she did not know what had happened and they went home because it was getting dark.

When they got home their mother took One Eye into the bedroom and asked her what Two Eye had done, and One Eye had to tell her that she had fallen asleep when Two Eye sang a song, and she had not seen what happened.

So the next day the old woman sent Three Eye to the field with Two Eye. When dinner time came Two Eye sang her song again and Three Eye shut her two eyes and went to sleep, but she kept her one eye open so that she saw what happened and that night she told her mother. It made her so angry that she killed the goat that Two Eye tended in the field.

Two Eye went under a shade tree and began to cry and her good fairy came again and asked her what was the matter. "Oh," said Two Eye, "my mother has killed the goat, and now I cannot go to the field any more and can have nothing more to eat."

But the fairy said, "Never mind, little Two Eye. Run back home as fast as you can and plant the goat's heart and see what happens."

Two Eye ran back home and did as the fairy had told her, and in the morning a great big tree with golden apples had grown up where she had planted the heart. One Eye and Three Eye said it was their tree, but Two Eye said it was hers.

Pretty soon a man went by and her naughty sisters made Two Eye go and hide. The man came in and asked for some of the golden apples, but they could not get them for him. He asked them if they had another sister and they said, "Yes, but she went away and hid herself." Then he called Two Eye and when she came she got six apples for him. He was so pleased with her that they were married and were very, very happy.

The old woman and her other two girls got so poor that Two Eye had to give them food and clothing. And after a while they got very much ashamed of the way they had treated her and she forgave them.

Esther.

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Send 10c in silver or stamps for our up-to-date 1917 spring and summer catalog, containing over 550 designs of ladies', misses', and children's patterns, also some points for the needle. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

Waist 2182-Skirt 2181—A smart dress, suitable for many occasions. Waist pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. The skirt also in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. For the entire dress for a medium size it will require 6 yards of 36-inch material. Two separate patterns, 10 cents for each pattern.

2165—Juniors' dress, with sleeve in either of two lengths. Pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 4¼ yards of 44-inch material for a 14-year size.

1592—Dress or apron with bloomers for girls. The pattern comprises both, and is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires for a 6-year size, 3¼ yards of 27-inch material, with 2¼ yards for the bloomers.

2034—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 8 yards of 36-inch material for a 36-inch size.

1639—A dainty dress for party or best wear. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 6 requires 3⅛ yards of 44-inch material, with 1⅜ yards of 27-inch material for the bolero and collar.

2172—A new and popular style. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium will require 6¼ yards of 48-inch material.

2166—Boys' "overall" or play suit. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 1¼ yards for the blouse and 2⅛ yards for the overalls, of 27-inch material, for a 3-year size.

2001—Ladies' house dress, with or without back yoke, and with sleeve in either of two lengths. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅜ yards of 36-inch material for a 36-inch size.

2164—A practical popular garment. Pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium requires 4 yards of 36-inch material.

2194—Ladies' Guimpe, with sleeves in either of two styles. Pattern is cut in 7 sizes; 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¼ yards of 36-inch material for a 36-inch size.

2183—A dainty dress for the little miss. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires for a 6-year size, 1½ yards for the guimpe, and 2½ yards for the dress, of 27-inch material.

2177—Ladies' maternity skirt. Pattern is cut in 7 sizes: 24, 26, 28, 30, 32, 34 and 36 inches waist measure. Size 26 requires 3⅞ yards of 44-inch material.

Kitchen Sink Should Be Durable and Convenient.

Kitchen sinks should be durable, non-porous, easily cleaned and at a convenient working height.

Any cleaning powder or soap that contains a rough scouring agent is a poor article for cleaning sinks. Kerosene cuts grease. It should be applied with a cloth. When followed by soap and water it is particularly effective.

Enameled iron sinks are durable and will last for years with proper care. They should not be cleaned with abrasive cleaning powders, as the enamel will wear off and cause a roughened condition. A sharp blow will chip the enamel and cause rust to attack the exposed iron foundation. These sinks come in a variety of styles, making it possible to get them in almost any dimensions and with or without drain boards.

Soapstone sinks are less expensive and are desirable where much dirty work is done. The soapstone, however, absorbs grease and wears away by constant scouring.

Copper and German silver sinks are attractive, easily cleaned and sanitary. Because of the cost these sinks are seldom found in kitchens, but are satisfactory in butler's pantries for dish washing purposes.

The average sink should be from thirty to thirty-six inches in length, twenty inches wide and eight inches deep. The drain boards should be at least twenty-four inches long and if there is but one, it should be on the left side. The drain board made of the same material as the sink is the most desirable, but a hard wood such as oak, ash or hard maple, may be substituted.—Rebecca Bartholomew.

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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson For August 26, 1917.

The Captivity of Judah.

LESSON TEXT—II Kings 25:1-21.

GOLDEN TEXT—As I live, saith the Lord God, I have no pleasure in the death of the wicked.—Ezekiel 33:11.

Many years after the kingdom of Israel was taken captive by the Assyrians, Judah was carried away to Babylon. Judah's captivity was in three stages, covering about twenty years. The first deportation was while Jehoiakim was king. Daniel and his friends went into captivity at this time (Dan. 1:1-6). The seventy years captivity dates from this time. The second deportation was while Jehoiakim reigned. Most likely Ezekiel was carried away with this second company (Ezekiel 1:1-2). The third deportation, some twelve years after the second, is the one described in our lesson. At this time the greater part of the nation was removed to Babylon. Only the poor and unimportant were left. Jerusalem itself was destroyed at this time.

I. Jerusalem Besieged (vv. 1-3). Zedekiah owed his kingship to the king of Babylon (chapter 24:17), who appointed him to the throne after the removal of Jehoiakim. His name was changed from Mattaniah to Zedekiah. He was not a good man (24.19). Though having his position by the will of the king of Babylon, he rebelled against that king. He thought that by the aid of the surrounding nations, especially Egypt, he could throw off the yoke of Babylon. Jeremiah counseled submission, but the king refused. Nebuchadnezzar came in person with all his host and laid siege to Jerusalem, even building forts against it (v. 1). This siege lasted for about a year and a half. For a while during that period the Chaldean army withdrew because of the appearance of Pharaoh's army (Jer. 37:5). Shut off from help from without, the Jews soon were famishing for want of bread. The horrors of this famine were awful. For a description of it one should read the book of Lamentations. Mothers ate their own children (Lam. 4:10). The richest, even ladies in silken robes, wandered about searching for scraps in the dung heaps (Lam. 4:5-10). Their tongues clave to the roofs of their mouths, and their skins were dried up. Added to these horrors were murderous fights between parties among the Jews. Some wanted to surrender; others insisted upon holding out.

II. Zedekiah's Flight (vv. 4-7). At length the city was broken up, and the king and his warriors fled by night. His thought was to escape to the country beyond the Jordan. The Chaldean army overtook him, scattered his army, and carried Zedekiah to Riblah, where Nebuchadnezzar had his headquarters. Here judgment was passed upon him. In his trial it was shown that his solemn oath of allegiance to the Chaldeans had been broken, thus showing himself a traitor (II Chron. 36:13). As a punishment for his treachery his own sons were slain before him, his eyes put out (v. 7), and he himself carried to Babylon, where he remained a prisoner till his death (Jer. 52:11). In this we have a marvelous fulfillment of prophecy (Ezekiel 12:3), which says that Zedekiah shall be taken to Babylon and die there and yet not see the city. He could not see it because his eyes were out. Let us learn from this that that which God says will surely come to pass, even though we cannot explain its details.

III. The Destruction of the City (vv. 8-10). Not only were the people taken captive, but the city itself was subjected to the utmost rigors of war. They plundered the house of the Lord, the palace and the houses of the rich, and then consigned them to the flames (v. 9). They even broke down the walls of Jerusalem (v. 10) and massacred many of the people (Lam. 2:3, 4).

IV. Disposition of the Inhabitants and the Contents of the Temple (vv. 11-21). 1. The inhabitants (vv. 11, 12). They were divided into two classes, those who had deserted to the Babylonians during the siege and those who were found inside of the city at the time it was taken. Many doubtless deserted to the Babylonians during this siege, as even Jeremiah was arrested on this charge (Jer. 38:13). The poor of the land were left to be vine dressers and husbandmen. The wealthy and influential were taken away, as they would be of value to the conquering nation; besides they would be a menace if left behind. The poor were left because pauper captives would be a burden.

Besides it was very undesirable for the land to lie in waste, as then they could not exact tribute from it. To that end encouragement was given by the Babylonians, as "vineyards and fields" were given to the poor.

2. The contents of the temple (vv. 13-21). From the temple which had been twice plundered before (II Chron. 36:7, 10), such of gold, silver and bronze vessels as still remained were taken, even the great pillars of the molten sea. The captives and the treasure were delivered to Nebuchadnezzar at Riblah, where more than threescore of men were killed (vv. 19-21).

Oliver the Choice at Fremont

At the National tractor demonstration at Fremont, Oliver tractor plows and other Oliver products were drawn by forty-two different tractors. The same reason that caused sixty-five per cent of the tractor manufacturers not making plows to pull Oliver products in order to secure the best results from their tractors is the reason why you should insist upon an Oliver implement for use with your tractor.

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FARM WANTED

WANTED to hear from owner of good farm for sale. Give cash price and description. Write **JOHN H. OAKS, 432 Main St., Oshkosh, Wis.**

GOOD FARMS in a good country. Always sure crops; no destructive storms. Good bargains are yours by writing Geo. C. Rice, Webster, Wis.

Janesville Has Fine Fair.

The Janesville big fair came to a close August 17th, having been one of the most successful ever staged by this association. Even though threshing was in full swing, the attendance was the largest they have ever had. The racing cards were especially attractive and several of the races had a field of twelve and fourteen horses. Weather conditions were ideal and everything was conducive to a grand fair. Exhibits were about as usual, though the automobile show was extraordinary. One of the novel features of the fair was the giving away of milk on Wednesday, Milk Producers' Day. The Kee & Chappel Co., of Janesville, had a large tent on the grounds and on this day they served glasses of milk free to all those who cared for a drink of milk. The fact that over 400 gallons of whole milk was passed out in this manner goes to show that many took advantage of this company's donation. The live stock show was not as large as last year, though there was a good showing of all breeds. The Short-horns led in number and many creditable animals were shown. The sheep show was the best ever seen at this fair. All exhibition stock was in good condition this year. Many that felt they could not afford to fit their stock this year stayed at home, but those that did show had their stock in nice condition. Nothing happened to mar the week and the Janesville big fair is fast becoming one of the leading district fairs of the country.

The Short-horn show was the best on the grounds. Fewer undesirable animals were on exhibition than ever before. The feature in this division was the excellent herd owned by J. E. Kennedy, of Janesville. He is headed for the big fairs and has a wonderful herd of cattle. He was the heavy winner in this division. The Hereford show was light, W. Rott, Wonowoc, Wisconsin, being the only exhibitor. The showing of Holsteins was lighter than at some of the previous shows, though there was a good showing of this popular dairy breed. The two championships went to John L. Fisher, who had a very creditable showing. The Guernsey exhibits were made up of the Rock County Guernsey Breeders' Association and L. P. Martiny, Chippewa Falls, Wisconsin. Mr. Martiny is showing a very fine herd, which will be shown at the big eastern and western fairs. He won both championships and most all of the firsts. Two herds made up the Jersey show, W. W. Knight, Eagle, Wisconsin, winning the majority of the prizes. There was a good showing of Durocs, there being over thirty spring boars competing in one class Riley Martiny & Son, Baraboo, Wisconsin, were the heaviest winners. E. H. Parker & Son showed the grand champion boar. Three herds were represented in the Poland China classes. L. P. Martiny, Chippewa Falls, and Louie Reese, Brooklyn, divided the prizes quite evenly. There was a nice showing of Chesters, the competition being furnished by B. F. Babcock and Wm. F. Butts, of Evansville, and Chas. Rogers & Sons, Union Center. Babcock and Butts had a very fine showing of pigs and the competition was keen throughout.

Breeding For Exhibition.

To the Editor:—I find that many farmers have the idea that exhibition poultry are not profitable producers. I have found it to be the opposite, at least, with Buff Orpingtons. The Standard-bred Buff Orpington is essentially a practical fowl. The Standard calls for a full-breasted, deep-bodied bird of good length and a long, level keel, broad back of good length and width carried to the tail. Standard weights are: Cock, ten pounds; cockerel, eight and one-half pounds; hen, eight pounds; pullet, seven pounds.

As long as we stick to the Standard in our selection of breeding birds we will have a most practical fowl. The Buff Orpington is a great winter layer, a first-class setter and mother, and as a market fowl is unsurpassed.

A great many breeders have made the mistake of breeding considerably over Standard weight. By doing this they lose on the egg yield, the mothers are too clumsy as mothers, and they are too coarse and apt to be too leggy to top the market as a table bird. My experience has been that my most typical Orpington birds have been my most profitable, from the eggs and market standpoint, as well as the fancy.

The breeder that can combine with this Orpington type the proper shade of buff with strong undercolor and more of the inner fancy points, such as proper color of eye, beak and earlobes, combs of good shape and free from side sprigs, legs free from feathers, stubs, etc., than his fellow breeders, is the man that wins at the shows and the successful breeder of exhibition Buff Orpingtons. All of these last-named points have nothing to do with the practical side of the breed, but make them pleasing to the eye as well as profitable.

If I were about to start breeding exhibition Buff Orpingtons, I would take in a few of the largest shows in my vicinity and spend all my time studying the winners, thereby fixing in my mind the proper Orpington type and shade of buff to breed to, at the same time getting acquainted with as many of the breeders as possible and getting all the pointers possible from them. I would then go to the breeder I had the most confidence in and who breeds his winners, not buys them, and buy a trio of birds mated by him, or a couple of settings of eggs from his best hens for my foundation stock.

They will not be perfect birds, as the perfect bird has not yet been produced. But if they are mated properly the male will be strong, where the females are weak. For instance, if the male is a little long legged and short in the back with the tail carried too high, the females will be a little low down with nice, long backs and low-tail carriage. If the females are a little weak in color of eye and have gray in the wing the male should be especially strong in these points, etc. But when it comes to color, do not mate a dark bird with a light female and expect good results. Procure as near the proper shade of buff in both sexes as you can afford to buy.

You can perfect your strain better by line breeding than by introducing new blood in a haphazard way each year. Do not breed any closer than cousins. For a few years go back to the same breeder for new blood and tell him just what points your birds are weak in, so he can send you birds strong in those points. Then later on if you see another breeder's birds that you like especially well, that, as a strain, are strong where yours are weak, buy a bird or eggs from him and mate carefully with yours, keeping strict track of the progeny by marking the little chicks with a toe punch, so that when they are developed and should not come up to your expectations, you can discard the whole lot without damaging your strain. On the other hand, if they should develop the qualities you are looking for you can infuse the blood into your entire strain, thereby improving it.

It is a great game and the more you study it the more interested you become in the race to produce the perfect bird. At the same time, you are doing your share in the improving of the general utility flocks of the country.

Selling your big, husky cockerels that fall short on the exhibition points to farmers improves their flock, just as the pure-bred sire is doing in every branch of live stock breeding.

S. D. Seymour.

Milwaukee Co., Wisconsin.

Feed the Fighters! Win the War!
Harvest the Crops! Save the Yields!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy. While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

THE COMBINED FIGHTERS IN FRANCE AND FLANDERS
AND THE COMBINED HARVESTERS IN AMERICA
WILL BRING THE ALLIED VICTORY NEARER

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kansas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

Help Your Canadian Neighbors When Your Own Crop Is Harvested

Canada wants 10,000 Harvest Hands to take care of the

13 MILLION ACRE WHEAT FIELD

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

GEORGE A. HALL 123 Second St., Milwaukee, Wis.
Canadian Government Agent

FARMERS' MARKET

Wanted—For Sale—To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

EXTRA GOOD BARGAINS—120 acres level cut-over land; clay loam soil; log buildings; spring brook; 2½ miles to cheese factory; $1,800. 80 easily cleared, $1,400. 40, school on corner, $500. Good 40-acre farm with stock and crop, $1,800. Well-improved, 80-acre farm with stock and crop, $5,500. Half cash. Bargains with easier terms on application. The E. L. C. Co., C-M, Dept. 10, Merrill, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

ARE YOU GOING TO BUY LAND?—Send for our new free list, state map and pictures of our choice dairy and grain farm bargains. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin.

320 ACRES—Good buildings, all cultivated and fenced. Three miles; good town; nice grove. Write for description. Dvorak, Wyndmere, N. D.

SEVERAL choice Waukesha county farms for sale. W. P. Walsh, Waukesha, Wisconsin.

HOW MUCH DO YOU WANT for your farm? Write C. Mohler, Box 453, Chicago.

HOLSTEIN-FRIESIAN CATTLE.

REGISTERED HOLSTEIN BULL, 10 months old; two of his dams averaged 105 lbs. milk in one day and 40.67 lbs. butter in seven days, officially; $150. Wisconsin Live Stock Association, Appleton, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

ALFALFA SEED.

ALFALFA SEED—$8.00 per bushel. Good purity and germination but dark color. Better grades for more money. Write for samples and prices. Henry Field, Shenandoah, Iowa.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection. $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

HELP WANTED.

WANTED—One or two men for general farm work by year; 200-acre farm; milk six cows; up-to-date equipment. Hans Herzog, Libertyville, Ill.

PERCHERON STALLION FOR SALE.

PURE-BRED imported Percheron stallion, Eutopia (69032) 50785. Price reasonable. Address H. A. Bender, Route 3, Cambria, Wis.

POULTRY AND PET STOCK.

FOR SALE—S. C. RHODE ISLAND REDS
GOOD BREEDERS from exhibition and trap-nested laying stock. Write for prices.
WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets, from choice laying strain. Chas. Schmit, Hortonville, Wis.

WISCONSIN STATE FAIR AND TRACTOR DEMONSTRATION
MILWAUKEE
SEPT. 10.11.12.13.14.15
THE EXPOSITION BUILT TO HELP UNCLE SAM IN THE PRESENT TITANIC WAR BY ENCOURAGING INTENSIFIED PRODUCTION AT HOME.
1,500 FEET OF TRACTORS; 1,200 ACRES FOR DEMONSTRATIONS ALONG ELECTRIC RAILWAY FROM FAIR GROUNDS. SPECIAL ELECTRIC TRAINS TO DEMONSTRATIONS DURING MORNING HOURS.
MAMMOTH MACHINERY EXHIBIT.
BEST IN LAND OF CATTLE, HORSES, SHEEP, SWINE AND DAIRY. AGRICULTURAL AND HORTICULTURAL PRODUCTS, WOMEN'S WORK AND FARM BOYS AND GIRLS' WORK.
MAMMOTH POULTRY EXHIBIT IN NEW $25,000 BUILDING EQUIPPED AT COST OF $3,000
MARVELOUS FOOD, HEALTH AND MARKET SHOW.
GREATEST AUTOMOBILE SHOW IN AMERICA IN 1917-104,000 SQ FEET OF AUTOMOBILES.
ALL DAY, EVERY DAY, UNEQUALLED PROGRAMS OF CLEAN, HIGH CLASS ENTERTAINMENT, INCLUDING LOUIS GERTSON, KING OF BIRD MEN, IN MIDAIR STUNTS AND TWENTY-FIVE CIRCUS AND VAUDEVILLE ACTS. FLIGHTS OF THREE BALLOONS AT ONCE WITH PARACHUTE JUMPS.
FIFTEEN BANDS AND ORCHESTRAS.
GORDON'S $10,000 WAR SPECTACLE IN FIREWORKS EVERY NIGHT, TOGETHER WITH ENTIRE DAY PROGRAM OF ACTS, INCLUDING GERTSON IN STARTLING AVIATION STUNTS.
FOUR DAYS OF HARNESS RACING INCLUDING TWO $5,000 STAKES SEPT. 10.11.12 AND 13.
TWO DAYS OF SENSATIONAL AUTOMOBILE RACING BY TWENTY STARS OF THE AUTO RACING WORLD, INCLUDING THE WORLD'S CHAMPION SEPT. 14 AND 15.
YOU CAN'T SEE AND FULLY APPRECIATE THIS GREAT SHOW UNDER THREE DAYS. COME PREPARED TO STAY.
DAYS-50¢ NIGHTS-25¢

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Founding an Excellent Short-horn Herd.

ADVOCATES of Short-horns will be pleased to learn that an excellent herd is in the making at Portage, Wis., owned by Daniel H. Grady, one of the foremost lawyers in the state. His beautiful "Arlington Stock Farm," one of the finest half sections in the state, is located near Poynette. The buildings are substantial, yet not elaborate. Mr. Grady recently purchased the J. N. Tittemore herd, established some 12 years, containing some of the most noted cows known to the breed. Mr. Tittemore did not advertise as his cattle would warrant, and we are safe in saying that many breeders of this state and the Northwest never heard of the Tittemore Short-horns. Mr. Tittemore purchased Premier, at a long price, after he won first at Iowa. Premier died about 30 days ago, after 13 years of hard service. Premier was a son of old Choice Goods, out of Lad's Goldie by The Lad For Me. Mr. Grady has secured several daughters of Premier. Those that are acquainted with the popular Short-horn blood lines will appreciate the following cows secured by our lawyer friend: Village Maid 45th, out of imported Village Maid by Bapton Coronet; Red Lady 40th by Morven, a Bruce bull. The sire of her dam was Wanderer Gift by Wanderer by Old William of Orange. Seraphine is by Emperor 2d, out of Sarepta 5th by Knight of Orleans, tracing to imported Sorrel by Roan Gauntlet. The following animals are represented in this pedigree: Pride of the Isles, Champion of England, Lord Sackville and Roan Gauntlet, giving to this cow one of the finest Secret pedigrees ever written. There are two daughters and one granddaughter of Golden Queen out of Imp. Princess Alice, by the famous Duthie undefeated bull, Field Marshal. The sires appear in this pedigree as follows: Premier, White Sultan, Imp. Golden Crest, Golden Knight, Imp. Craven Knight and Field Marshal—can you beat it? Old Anoka Broadhooks, a daughter and granddaughter, were also purchased. In her prime Anoka Broadhooks was perhaps the best known show cow in the United States. She is by Ceremonious Archer. There are four Princess Royals, four Marr Missies, four Cruickshank Secrets, two Victorias, two Roan Ladys, one Bridesmaid, one Duchess of Gloster, and one Miss Ramsden in this herd. Barring accidents, many good things will come from this herd in the future.—Adv.

Abundant Pulling Power on the Farm.

A POWERFUL tractor can be made out of a Ford car at moderate cost with the Auto Pull tractor attachment. Here is a chance to get cheap power on the farm and to reduce the number of horses eating high-priced feed. Your car will not be damaged at all—after the heavy work is done the attachment may be removed in a few minutes' time and the car is again ready for pleasure driving. Every attachment is geared down to relieve strain on the car and transfer every ounce of power into pulling force. No parts have to be removed from the car in making connections—not even the fenders or the back wheels. Farmers who buy the Auto Pull make no mistake. It has many exclusive features which you should learn about. Even if you have no car, but expect to get one, learn about the Auto Pull anyway and plan on cutting down your power costs. A new book, "Farm Power Facts," tells all about the Auto Pull and contains much valuable information about power farming. You may obtain it free by writing at once to the Auto Pull Tractor Company, 1182 First National Soo Bldg., Minneapolis, Minn. A full-page advertisement of this attachment appeared in last week's issue of The Wisconsin Farmer.—Adv.

High Banks Farm and Their Durocs.

WE do not claim to be prophets, but Riley Martiny & Son, Baraboo, Wis., sure have the goods when it comes to Durocs They will be at Milwaukee with a herd, and we predict that they will be near the head of the class, if not the leaders. Every spring boar they have on the farm is for sale and while they do not advertise boars that sell at $25 they do advertise and sell boars that cost more because they are worth it. We all know that the best are the cheapest in the long run. Any kind of a boar is going to cost more this year, so why not add a little more and get some of the best that money and scientific feeding can produce? The Martiny boars weighed, August 1st, from 180 to 200 pounds, and they were not overdone. Of course, they have boars that were farrowed in April that are not so heavy and can be purchased with less money. They will describe the breeding, if you are interested, and will be glad to correspond with you. They have about 20 boars for sale, and we are frank in saying that they are as good as we have seen in the Northwest this year. Visit their pens at Milwau- and La Crosse. See page 15.—Adv.

Hughes' Short-horns.

MILKING Short-horns of the high-producing strains are advertised for sale on page 16 by Wm. Hughes & Son, Waukesha, Wis. They have a well-selected herd of well-bred individuals, that are of excellent type. One very noticeable feature of their cows is their good udder development and their fine, soft, pliable hides and silky hair. These factors, though seemingly unimportant for the production of milk, are invariably indication of good production ability. A bull that will improve the pedigrees and production of your next crop of calves can be secured here. See page 14.—Adv.

Spotted Poland China Exhibit.

A NEW exhibit of swine, the Spotted Poland China, will be seen this year at the Iowa, Kansas, Nebraska, Missouri, Illinois, Michigan, Indiana and Ohio State Fairs and also at the National Swine Show at Omaha. This exhibit will be quite an attraction to swine breeders everywhere, and every effort is being made to have a good exhibit of first-class animals. This class is being promoted by the fair boards in the different states in connection with the National Spotted Poland China Record Association, the newest record association in the United States, and one promising much assistance to the Spotted Poland China breed and the swine industry in general. This association asks you to write their secretary-treasurer, Fred L. Obenchain, Bainbridge, Ind., for their interesting and instructive breed paper, The Spotted Poland China Journal, their by-laws, a list of their members' names and a button bearing the likeness of one of their choice animals, all of which are free for the asking. Their annual association sales of animals, representing something like 100 herds from the East and West, will be held at Crawfordsville, Ind., October 19th and at Kalona, Iowa, October 29th. Address Fred L. Obenchain, Secretary, Bainbridge, Ind., for catalogs, and other information. See page 15.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale, Burlie Dobson, secretary, Lancaster, Wis.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Shanks' Duroc Sale.

On August 14th W. N. Shanks held his annual fall Duroc Jersey sale at Worthington, Minn., resulting in an average of $160.10 on 47 head. Shanks' herd boar, Investor, made a decided hit with the large number of breeders in attendance. The boars by Investor were eagerly sought for and the good sows bred to him were appreciated. Investor is truly one of the real, big-type breeding boars of the country and those who will be fortunate enough to have Investor pigs for sale need not worry about a profit. The top sow again went to Wisconsin, she being a litter sister to the sow that topped the winter sale, also going to Wisconsin. W. C. Jenkins, Bangor, Wis., was the buyer, paying $380 for this good daughter of Lady Top Notcher 6th, bred to Investor. One of the fall boars by High Model sold to F. Christianson, Fairmont, Minn., for $505. The top spring pig was a son of Investor, going to Masden & Ayler, Granden, N. D., at $385. There was a large crowd of breeders present, and the result of the sale was very satisfactory. We follow with a complete report. Colonels Kraschel & Duncan sold the offering:

Sows.—No. 1, A. Obermarr, Worthington, Minn., $145; 2, W. C. Jenkins, Bangor, Wis., $380; 3, Geo. A. Romey, Melvin, Ia., $140; 4, J. A. Fey, Edgerton, Minn., $280; 5, J. A. Fey, $215; 6, Smith Bros., Worthington, Minn., $135; 7, H. Geistie, Forest, Minn., $125; 8, O. A. Reeves, Brewster, Minn., $115; 9, F. W. Year & Son, Melvin, Ia., $130; 11, O. A. Reeves, $110; 10, Blom Bros., Bricelyn, Minn., $105; 12, Pallesen Bros., Fulda, Minn., $150; 13, A. G. Fisher, Randolph, Ia., $220; 14, J. R. Conway, Westfield, Ia., $180; 15, R. E. Steele, Falls City, Neb., $95; 16, G. A. Cooper, Boyden, Ia., $90; 58, A. T. Martin, Sac City, Ia., $300; 59, E. A. Thompson, Carroll, Ia., $310; 60, O. S. Larson, Logan, Ia., $205.

Boars.—No. 17, W. C. Quinn, Lamberton, Minn., $125; 18, W. S. Barnes, Tabor, Ia., $180; 19, J. A. Irwin, Huntington, Ia., $90; 20, O. A. Reeves, $80; 21, C. Herbert, Rock Rapids, Ia., $105; 22, Masden & Ayler, Branden, N. D., $385; 23, J. R. Stofren, Humboldt, S. D., $135; 24, D. C. Cox, Fairmont, Minn., $140; 25, Dan Nystrom, Worthington, Minn., $215; 26, J. W. Brown & Son, Stewartville, Minn., $160; 27, M. Anderson, Cottonwood, Minn., $125; 28, S. O. Smalling, La Porte City, Ia., $105; 29, S. I. Anderson, Frost, Minn., $120; 30, Robt. Townsend, Ashton, Ia., $265; 31, Frank North, Vail, Ia., $100; 32, H. P. Cook, Luverne, Minn., $135; 33, Mr. Mohr, Monroe, Neb., $145; 36, Cannon Bros., Huntley, Minn., $80; 38, F. Christianson, Fairmont, Minn., $505; 39, Clyde Young, Allen, Neb., $175; 40, Mike Hogan, Worthington, Minn., $70; 43, S. I. Anderson, $85; 45, S. I. Anderson, $85; 46, R. L. Smith, Luverne, Minn., $65; 48, Blom Bros., $200; X, L. D. Long, Luverne, Minn., $75; XX, Fred Year & Son, $75.

SUMMARY.

28 boars	$4,095;	average	$146.25
19 sows	3,430;	average	180.52
47 head	7,525;	average	160.10

Ailing Animals.

Warts on Teats.

I have a fine three-year-old cow which has warts all over her teats. They are long and in the way when milking. Could you tell me what to do for them? She will not be fresh until next spring.

These are often very troublesome, yet they may be greatly benefited or entirely removed by smearing them thickly after each milking with pure olive oil. If they persist they may be cut off with a sharp pair of scissors and the sore touched with a stick of lunar caustic. They may now be oiled and the caustic repeated as demanded to prevent their renewed growth.

Sunburn.

Would like to have you tell me what the trouble is with my pigs and a remedy for same. I have them on rape pasture and feed them whey and water and about fifteen quarts of ground wheat and rye a day, about half and half, also slop from the house. The trouble with them is they are sore across the front shoulders and get a kind of dry scab on it which seems to act like scratches on a horse. They are also getting these sores back of their ears. It affects the old pigs as well as the small ones. I feed the spring pigs (twenty-four of them) about eighteen to twenty quarts of wheat and rye, half and half, ground, and about one pound of oil meal in about ten gallons of water.

Your pigs are probably troubled with sunburn. About all that can be done is to shield them from the direct light of the sun. If the inflammation is severe, cooling antiseptic applications may be applied.

Hog Thrift
Sprinkle or spray Dr. Hess Dip and Disinfectant about pens, feed troughs and yards and give your hogs a chance. Use it the year round. It will give them clean, healthy skins, free from lice and free from disease. That means better growth—more pounds of high-priced pork. Disinfect the barns and poultry houses. Also use it about the house, in the sick room, in sinks and cesspools to destroy disease germs and establish health conditions.
Dr. HESS & CLARK
Ashland Ohio
DR. HESS DIP and DISINFECTANT

DON'T CUT OUT A Shoe Boil, Capped Hock or Bursitis FOR ABSORBINE

TRADE MARK REG. U.S. PAT. OFF.
will reduce them and leave no blemishes. Stops lameness promptly. Does not blister or remove the hair, and horse can be worked. $2 a bottle delivered. Book 6 M free.
ABSORBINE, JR., for mankind, the antiseptic liniment for Boils, Bruises, Sores, Swellings, Varicose Veins. Allays Pain and Inflammation. Price $1 and $2 a bottle at druggists or delivered. Will tell you more if you write.
W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

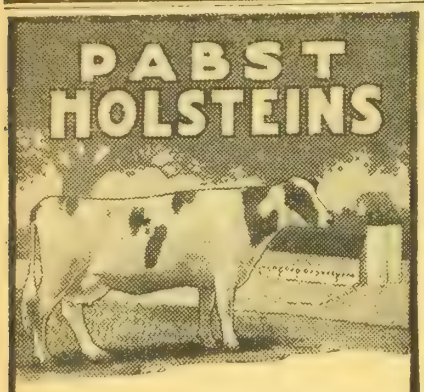
KENDALL'S SPAVIN TREATMENT
The old reliable remedy for curb, splint, bony growths, ringbone, spavin or other lameness. 40 years of remarkable results. $1 a bottle, 6 for $5. At all drug stores. Ask for Free Book, "Treatise on the Horse."
Dr. B. J. Kendall Co., Enosburg Falls, Vt.

HOLSTEIN-FRIESIAN CATTLE.

Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.



Are playing an important part in the development of the Holstein Breed in America. There are over 300 head in this State Accredited herd.

We sell bull calves at a price ranging from $150 up. Send for list.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc Wisconsin
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Percherons, Belgians, Shires,

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POLAND CHINA SWINE.

100 BIG-TYPE POLAND CHINA SPRING BOARS AT $30.00 EACH

Double treated, and we record them. They will be worth $30.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs. They are **from the most noted families of the great breed,** sired by **Giant Jumbo 2d, the 700-lb.** year-old son of **Giant Jumbo,** whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by **Long Expansion, a 900-lb. two year old,** and **Pawnee Wonder, a 1,000-lb. son of A Wonder.**

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. **Buy your boar now and save from $20 to $50.** Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or **return your money.** Come and see our herd, one of the greatest **in America,** as well as one of the most up-to-date, pure-bred stock breeding establishments.

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YOUR PICK FROM 104 farrowed in March and April. The big kind that are easy feeders. The pigs are well grown and will please you. Twenty-five years a Poland China breeder. Write.

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WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain herd."

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IF YOU WANT THAT KIND—WRITE ME. Have a fine lot of spring pigs of the best breeding and well cared for. They must please. Also Short-horns.

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FOR QUALITY AND QUANTITY WRITE

BIG-TYPE POLAND CHINAS

I bought the best—you get the benefit. Boars and gilts for sale. Pairs and trios.

Camel Hill Stock Farm

W.W. UACKENBUSH, Melrose, Wis.

THE UTMOST IN POLAND CHINAS

DOBSON & EASTMAN Lancaster, Wis.

SPRING AND FALL BOARS OR SOWS. Sows bred to farrow in September. Everything is cholera immune. Will ship now or deliver at the State Fair, Milwaukee. The important item this year is ORDER EARLY.

EXTRAORDINARY Poland Boars

"Master's Giant" "Orange Wonder" "Young's Big Joe"

One of their Sons Should Head Your Herd

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GILTS AND BOARS by A'S BIG ORANGE, one of the best producing boars ever in the state. His pigs are BIG, yet are easy feeders. Every one from a big litter. I try to please.

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PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

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THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write

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THREE REAL DUROC BOARS.

Spring boars. Spring gilts.
Your business will be appreciated.
"Your $ worth for every $ spent or every $ back."

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FIVE DANDIES

ANY ONE of these five Duroc boars will make friends and customers for me. These are the tops, they are offered first.

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Let me convince you that all BIG POLANDS are not rough and course.

SEE a boar that weighs 1,100 pounds. Two aged sows that weigh over 800 pounds each. Fall gilts that weigh over 500 pounds. Spring pigs that weigh 250 pounds.

YOU can raise the same kind if you buy the proper foundation---Let me quote prices.

Meet me at Hamline, Milwaukee, Chippewa Falls, La Crosse, or Omaha.

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Big strong rams that will please.

Sows bred to farrow this fall—gilts and boars. Best big types.

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EXTRAORDINARY DUROC JERSEY BOARS

WE OFFER SPRING BOARS that are as good as can be found anywhere. Our sows were sale toppers and they raised boars that are TOPPERS. Buy a "herd improver." Good enough to ship on approval.

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YOU HAVE HEARD about ORION COL. S., my good Duroc herd boar. He will head my sow herd at Milwaukee and La Crosse and I want you to see this great son of COL. S. JR., and the good sows to which he has been mated.

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THE GILTS AND BOARS that I have for sale will please the most critical. Let me convince you. "Big with Quality."

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THE HOME OF BIG DUROCS

AS USUAL

I'LL BE AT MILWAUKEE, La Crosse and Omaha and I WANT YOU TO SEE THE BEST HERD OF DUROCS I EVER SHOWED. See the BOARS AND GILTS THAT I SELL OCT. 17TH.

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BANGOR WISCONSIN

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FIELD MEN, who have seen the best pigs in the Northwest, say that my Duroc spring pigs—number considered, **140**—are the best they have seen.

DON'T FORGET

PATHFINDER 2D by PATHFINDER, COL.'S CHOICE by KING THE COL., PAL'S DEFENDER by LEE'S DEFENDER, MY HERD BOARS.

It's a pleasure to ship boars that please.

DENNIS SHEA MELVINA, WIS.
Near Sparta.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

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FOR SALE—Four fall boars, 3 fall gilts, not bred, and a few spring pigs; pedigree furnished.

HAROLD RUDE Edmund, Wis.

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WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

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BOARS OF MARCH FARROW by CRIMSON LAD 179333 out of mature sows. Good bone—high backs—easy feeders. We guarantee satisfaction.

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DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars.
"Breeding with Individuality."
Guaranteed to please.

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OFFERS DUROC JERSEYS—March and April farrow, well grown and well bred. Good pigs at a reasonable price. Write.

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BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the pigs have been well grown. I'll ship pigs that make customers.

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POLAND CHINAS AND GUERNSEYS—Buy your herd boar now from the coming great Big Bone Wonder that weighs 850 lbs. now and is headed for 1,000 lbs. by next fall, and other equally good boars. Young bulls of Glenwood breeding of all ages.

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CHESTERS EXTRAORDINARY

BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.

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By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write

WALTER GEORGE Evansville, Wis

100 TO 130 POUNDS

WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.

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CHAMPION CHESTERS

THE GREATEST prize-winning herd of the Northwest. 100 spring pigs "for your approval." Our success has been due to satisfied customers. We are glad to serve you.

H. A. DERENTHAL Wykoff, Wis.
EAST SIDE STOCK FARM.

BIG TYPE O. I. C. and Chester White Swine

FOR SALE—Special prices for the next thirty days on all spring boars. All sold except just a few that we are keeping so we can furnish pairs no kin. Get our catalog of our champion.

HARRY T. CRANDELL & SON, Cass City, Mich.

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CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.

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OFFER spring pigs, either sex, sired by WM. A. WONDER, CHIEF FILMORE and SCHOOLMASTER 38TH, whose sires are the most popular boars of the present day. Add new blood.

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"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.

L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

J. A. DOERR

VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

MAKE MONEY

BUY A CHESTER boar of me and improve your herd. Best breeding; well grown.

ART. G. HOSKINS Dodgeville, Wis.
(Mile west of city.)

CHESTER WHITES

Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

KIRST CHESTERS

THEY SATISFY—Correspondence invited. (N. W. and St. Paul Railroads.)

A. L. KIRST Tomah, Wis.

GRANT CO. CHESTERS

FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.

JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.

ADOLPH NUTTLEMAN West Salem, Wis.

The Truth About Tractor Lubrication

By Those Who Know

THEORY has its place in any scientific equation. But for everyday purposes we must rely on practical experience. Recommendations by the Standard Oil Company must be correct, not only in theory but backed up by practical, every-day experience under working conditions.

Your tractor pulls a terrific load. The working temperature of your engine is extreme, whether you burn gasoline or kerosene for fuel.

You must have an oil that will maintain its viscosity under any and all conditions. If it doesn't, metal will touch metal and there is trouble—serious trouble—more expensive than your lubricating oil for several seasons will amount to.

Crookston, Minn., June 28, 1917

To Whom It May Concern:—

Considerable advertising has been done by a great many Oil Companies, stating the amount of saving, etc., which could be made through the use of high priced lubricating oil, and as I am the owner of a Big Four—four cylinder—30-60 Gasoline burning tractor, I was interested in finding out whether high price had anything to do with high-quality, so decided to have a test made.

June 26th I filled my engine crank case with an oil retailing in Crookston at 65c per gallon when purchased in barrel quantities, and which is the oil recommended by the company manufacturing it to be the proper oil for summer use in a 1915 model, Big Four 30-60 tractor.

I ran the tractor myself, pulling the same load under exactly the same conditions as those previously encountered while using Stanolind Gas Engine Tractor Oil, and although there was practically no difference in the weather temperature, it only took two hours work pulling a 30-inch, Model A, Russell Elevator Grader until the temperature of the cooling system had risen 50° higher with the 65c oil than when using Stanolind Gas Engine Tractor Oil.

It is needless to say that with this difference in temperature of the cooling system more gasoline and lubricating oil was used. I, therefore, feel that I can conscientiously recommend Stanolind Gas Engine Tractor Oil, even though it is much cheaper in price, to all operators of Big Four 30-60 Gasoline Burning Tractors.

My tractor was purchased during the season of 1915, and since that time to date I have plowed 1800 acres, broke 475 acres, and have pulled a heavy road grader more than 800 miles in the construction of roads. I have never found it necessary to overhaul the motor as the compression is good and the tractor has plenty of power.

With the exception of one barrel of lubricating oil, I have never used other than Stanolind Gas Engine Tractor Oil manufactured and sold by the Standard Oil Company of Indiana, which is selling today at 29.4c per gallon F. O. B. Crookston.

Yours very truly,

[Signed] E. A. McCOY.

A High-Priced Oil Does Not Mean The Best Oil

There are lubricating oils on the market which sell for double the price of Stanolind Gas Engine Tractor Oil, Standard Gas Engine Oil and Polarine.

But these latter oils are made by the Standard Oil Company (Indiana) and for that reason can be, and are sold, at a low price.

They are made especially for tractors. They are the results of exhaustive and extensive research work on the part of the most complete assemblage of lubricating experts who have devoted their lives to the solution of lubricating problems.

These men recommend Stanolind Gas Engine Tractor Oil for tractors using kerosene; Standard Gas Engine Oil for tractors burning gasoline—and Polarine in various grades for tractors having high speed motors.

They Say—

that these oils add power and life to your motor; that they are of great durability and economical in use; that they lubricate thoroughly even the remotest reciprocating surfaces, reducing friction to a minimum; that they maintain their viscosity even under extreme heat conditions to practically the same degree as the so-called heavy oils.

What Leading Tractor Builders Say—

The International Harvester Company recommends Stanolind Gas Engine Tractor Oil for their tractors. J. I. Case Threshing Machine Company recommends Stanolind Gas Engine Tractor Oil for their tractors, as do numerous other manufacturers recommend one or the other of these superior lubricating oils for their respective tractors.

And the letter from Mr. E. A. McCoy of Crookston, Minn., at the left, needs no comment. If you go to a physician you accept his diagnosis—you don't dispute the judgment of a lawyer on legal matters. Accept the united recommendation of the largest manufacturers of tractors, of the largest refiners of oil, of the best petroleum research men, and an enthusiastic tractor owner.

Made, Recommended and Guaranteed by the

STANDARD OIL COMPANY
(Indiana)

72 W. Adams St. Chicago, U. S. A.

Table of Tractor Specifications and Cylinder Oils Recommended

Key S. G. E. Standard Gas Engine Oil; G. T. Stanolind Gas Engine Tractor Oil; Pol. Polarine Oil; H. P. Heavy Polarine Oil; E. H. P. Extra Heavy Polarine

Advance Rumely—		
Oil Pull	30-60	G.T.
"	15-30	G.T
Gas Pull	15-30	G.T.
All Purpose	8-16	G.T.
"	12-24	G.T.
Allis-Chalmers	10-18	H.P.
Allwork	12-25	G.T.
American	20	S.G.E.
"	60	S.G.E.
" Oil Tract.	20-35	G.T.
Andrews	10-20	Pol.
A & T	18-36	E.H.P.
A & T	25-50	E.H.P.
A & T	30-60	E.H.P.
Avery	5-10	H.P.
"	8-16	H.P.
"	12-25	E.H.P.
"	18-36	E.H.P.
"	25-50	E.H.P.
"	30-60	E.H.P.
Baby Johnson	27-29	Pol.
Bates	10-20	G.T.
"	16-30	G.T.
Bates Steel Mule	30	H.P.
Beeman-Garden	4	G.T.
Best	75	G.T.
Big Bull	7-20	S.G.E.
Boring	10-20	G.T.
Brillion	25	S.G.E.
Buckeye, Jr.	8-16	Pol.
Buckeye	40	G.T.
Case	10-20	H.P.
"	12-25	H.P.
"	20-40	G.T.
"	30-60	G.T.
Caterpillar	45-85	G.T.
"	75-90	G.T.
Champion	16	S.G.E.
Chase	15-35	H.P.
"	15-25	H.P.
C.O.D.	18-25	G.T.
Common Sense	15-25	Pol.
Creeping Grip	20-12	G.T.
C.T.4	16-32	Pol.
Dakota No. 1	35-55	Pol.
" No. 3	40-45	Pol.
Denning	10-18	H.P.
Dill	28-47	Pol.
Eagle	12-25	G.T.
Emerson L	12-20	H.P.
" Big 4	20-35	G.T.
" Big 4	30-55	G.T.
" Reeves	40-65	G.T.
Fairmont	24	G.T.
Farm Horse	15-26	S.G.E.
Farmer Boy	35	Pol.
Farmobile	12-20	Pol.
Farquahr	4-30	G.T.
"	4-40	G.T.
Fitch	25	G.T.
Gray	20-35	S.G.E.
"	15-25	S.G.E.
Hackney Auto Plows	20-25	S.G.E.
"	15-20	S.G.E.
Happy Farmer	8-16	S.G.E.
Hart-Parr—		
Little Devil	22	G.T.
Crop Maker	27	G.T.
Oil King	36	H.P.
Steel King	40	H.P.
Old Reliable	60	H.P.
Hoosier	5-18	Pol.
Huber	20-40	G.T.
"	35-70	G.T.
Hume	20-30	Pol.
Hume Jr.	12-18	Pol.
I. H. C.—		
Mogul	8-16	G.T.
"	12-25	G.T.
Titan	10-20	G.T.
"	15-30	G.T.
"	30-60	G.T.
Imperial	40	G.T.
Ingeco	10-20	G.T.
Iron Horse	15-25	Pol.
K-C	20	Pol.
Kinnard	15-25	G.T.
Knox	40	Pol.
K-T	12-25	Pol.
Lausen	15-25	H.P.
"	22-35	H.P.
Lawter	40	S.G.E.
Leader	12-18	S.G.E.
Leader, Jr.	9-15	S.G.E.
Leader	25-40	S.G.E.
Lion		S.G.E.
Little Oak		H.P.
Louisville Avery	10-20	G.T.
Maytag	25	Pol.
Minneapolis	15	S.G.E.
"	20	G.T.
"	25	G.T.
"	40	G.T.
Moline Universal	6-12	G.T.
Morton	60	Pol.
New Age	10-18	Pol.
Neverslip	15-30	S.G.E.
Nilson	30	H.P.
Olin	18-35	G.T.
Paramount		Pol.
Parrett All Pur.	10-20	Pol.
Peoria	9-20	S.G.E.
Phoenix		S.G.E.
Pioneer "30"	30-60	E.H.P.
" Jr.	20-45	E.H.P.
" Pony	15-30	G.T.
Plow Boy	10-20	S.G.E.
Prairie Dog	25	Pol.
Rock Island Heider	10-20	G.T
Russell	12-24	S.G.E.
"	20-40	S.G.E.
"	30-60	G.T.
Sandusky	38	S.G.E
Simplex	15-30	S.E.G.
Simplicity	25	G.T.
Smith	10-20	S.G.E.
Standard-Detroit	10-20	Pol.
Stewart	40-60	H.P.
Straddle Row Universal	35	Pol.
Strait, Model 2		Pol.
" " 3		Pol.
Strite		S.G.E.
Sullivan	8-10	G.T.
Tom Thumb	20-12	G.T.
Twin City	15	H.P.
"	25	H.P.
"	40	H.P.
"	60	H.P.
Waite	5-10	G.T.
Wallis (Cub)		G.T.
Waterloo Boy	12-24	H.P.
Wolverine		G.T.
Yuba		G.T.

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 35. THURSDAY, AUGUST 30, 1917. WHOLE NO. 1857

Thirty Years With Brown Swiss.

IN SPITE of the advances of the other dairy breeds during the last ten years, the Brown Swiss breed is still being backed by a loyal group of breeders in different states of America. These breeders pinned their faith on the Brown Swiss cow many years ago, and they refuse to believe that the merits of this breed of dairy cattle will forever go unnoticed. Their conviction that the day will also come when Brown Swiss cattle will be numerous and in demand is based on various strong points which they point out with convincing confidence.

One of the most successful and also one of the pioneer breeders of Brown Swiss cattle is H. W. Ayers, of Honey Creek, Wisconsin. It is more than thirty years since Mr. Ayers bought his first cow. Through a mistake a Brown Swiss cow from an Illinois herd had been included in a shipment of cattle to the stockyards where Mr. Ayers had just finished unloading some stock of his own. A commission man called his attention to the lone Brown Swiss in the bunch and offered the cow to Mr. Ayers for something less than $100. That was a high price for a dairy cow in 1885, but Mr. Ayers took her home and a year later sold a bull calf from this cow for $75. That woke him up to the fact that dairying meant money and pure breds gave bigger returns than scrub cattle. Later on he sold a heifer for $50 and then decided to go into the breeding of dairy cattle on a bigger scale. He went back to Illinois and bought three registered heifers and a bull calf for what was then considered stupendous prices and some time later purchased a whole herd of registered Brown Swiss cattle from another Wisconsin breeder.

Mr. Ayers' success in the show ring is known to every cattle man who has made the circuit.

The actual showing of the cattle has always been entrusted to Monte Ayers, who has had charge of the herd for a great many years. It is his round, jolly face that most breeders are familiar with. Monte is a cousin of H. W., and his interest in Pleasant View Farm ends with the cattle. But he takes pride in the accomplishments of the dairy which is his in part. The show-ring record of the Ayers Brown Swiss herd is a long one. One animal alone brought sixty-five championships and grand championships to the farm in five years. This was the bull, Zell, imported in dam from Switzerland and bought by Mr. Ayers at the age of six months. The entire Ayers herd shows a uniformity of breeding. The Brown Swiss cow which we usually see has about her a certain coarseness in the head and horns and a somewhat unnecessarily large frame. The bones seem extremely heavy. There is nothing of all this in the Brown Swiss cow at Pleasant View Farm. From the very first the Ayers boys have kept their eyes on the dairy end of the business altogether. Years ago when the fairs made no special class of the Brown Swiss cattle, but simply grouped them as dual-purpose cows, many breeders accepted this judgment of the fair boards to mean that they should try to breed both beef and dairy qualities into the same animal. Mr. Ayers makes no claim for a dual-purpose animal. He has bred for more than thirty years for refinement of bone and refinement of head and in the horn. Looking over the young stuff and the mature cows this point of quality is the most striking thing one notices. Refinement shows all over the body, in the handling of the skin, the straightness of lines, the clean-cut appearance around the head, and, though the horn is large, it is not coarse. The cattle are allowed approximately six weeks between drying up and calving time. The average weight of a mature Brown Swiss cow ranges right around 1,400 pounds. Cows are never bred to come in before they are two and one-half years old at Pleasant View Farm. This is done so the cattle will keep their size and not become smaller through early breeding after a few generations. Alfalfa and clover hay, together with a mixture of barley, bran and other concentrates, form the herd ration, which is dished out in proportion to the yield and the size of the cow. Monte Ayers does not believe in a strict one pound of grain to three and one-half pounds of milk ratio. He insists that each cow requires according to size and the amount of work she does either a large or a small ration. Some cows will even produce more with less feed than on a larger ration. The herdsman must determine this from previous experience and close observation of each animal. Two other dairy breeds have, according to Mr. Ayers, received a fair trial on the farm, but their performance as a herd did not equal that of the Brown Swiss, and—[Concluded on page 12.]

GROUP OF BROWN SWISS HEIFERS ON THE H. W. AYERS FARM, HONEY CREEK, WISCONSIN.

THE AYERS HERD OF BROWN SWISS CATTLE ON PASTURE.

MASTER'S CUMA, A GOOD EXAMPLE OF AYERS' TYPE OF BROWN SWISS.

BROWNEY A. C., BROWN SWISS HEIFER BRED BY MR. AYERS.

MASTER'S CROCUS, A BROWN SWISS HEIFER OF REFINEMENT AND TYPE.

FARMERS' MARKET

Wanted--For Sale--To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

THOUSAND-ACRE live stock and grain farm in middle Georgia, well adapted for cattle and hogs, healthy section, rich land, fine climate. Grow two crops each year. Will farm on shares five to ten years proposition with reliable man. This farm managed right will make man of small means independent. Former owner, now deceased, made nice fortune raising live stock. Would consider selling half interest. Party would be required to invest $2,500 in live stock. References given and required. Address E. T. Nottingham, Owner, Thomaston, Ga.

EXTRA GOOD BARGAINS—120 acres level cut-over land; clay loam soil; log buildings; spring brook; 2¾ miles to cheese factory; $1,800. 80 easily cleared, $1,400. 40, school on corner, $500. Good 40-acre farm with stock and crop, $1,800. Well-improved, 80-acre farm with stock and crop, $5,500. Half cash. Bargains with easier terms on application. The E. L. C. Co., C-M, Dept. 10, Merrill, Wis.

ALABAMA ALFALFA LAND, Demopolis Section—No part of America equal of this in the great combination of alfalfa, corn, velvet beans and grass. Rolling lime land, fertile, healthy country, artesian wells, tick free. Lands are cheap, quality considered. Full information and photographs. C. C. Clay Alfalfa Land Co., Demopolis, Ala.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

WE WANT every homeseeker to investigate Central Wisconsin. Send for our land list and state map of our choice Central Wisconsin dairy and grain farm bargains. Pictures of all our farms sent free. Write today. Graham's Land Office, Marshfield, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

165-ACRE FARM—Good land, good buildings, 47 miles from Chicago, 14 miles south of Gary, Ind. $140 per acre. J. W. Sherburne, LeRoy, Ind.

GOOD FARMS in a good country. Always sure crops; no destructive storms. Good bargains are yours by writing Geo. C. Rice, Webster, Wis.

PORTABLE ENGINES.

ONE 12 H. P. United Engine Co.'s portable gasoline engine, friction clutch, pulley, $275. Two 9 H. P. Lambert portable engines with friction clutch, pulleys and Webster magnetos. These are new engines, fully guaranteed and will be sacrificed to obtain space for fall goods. John Dorsch & Sons, 209-211 Wells St., Milwaukee, Wis.

HOLSTEIN-FRIESIAN CATTLE.

REGISTERED HOLSTEIN BULL, 10 months old; two of his dams averaged 105 lbs. milk in one day and 40.67 lbs. butter in seven days, officially; $150. Wisconsin Live Stock Association, Appleton, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

PERCHERON STALLION FOR SALE.

PURE-BRED imported Percheron stallion, Eutopia (69032) 50785. Price reasonable. Address H. A. Bender, Route 3, Cambria, Wis.

ALFALFA SEED.

TIMOTHY SEED—$4.00 per bu. High purity and germination, first class in every way. Timothy-alsike mixture, $4.50 per bu. Satisfaction or your money back. Henry Field, Shenandoah, Ia.

RYE—Wisconsin pedigree No. 1. Write for prices. A. H. Buehler, Baraboo, Wis.

AGENTS WANTED.

BIG MONEY selling Milwaukee Shock Absorbers for Ford cars. Territory going fast. Write today. Milwaukee Shock Absorber Co., Milwaukee, Wis.

SALESMEN WANTED.

SALESMEN WANTED—Owing to draft and enlistment we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

STANCHIONS.

ROY SWING STANCHION—Good enough for the best stable and price low enough for the poor man; none better. Ask for booklet describing them. Manufactured by Roy Brothers, East Barnet, Vt.

FURS.

SIBERIAN FUR FARM, Hamilton, Canada, breeds foxes, marten, mink, ermine, skunks and black Siberian hares. Information and price list free. Write address plainly.

WANTED—GOATS, HONEY, SORGHUM, CHICKENS.

WANTED TO BUY—Milk goats, extracted honey, sorghum and chickens. Wm. Dietz, R. R. 2, Rockford, Illinois.

CURRENT EVENTS

FEW, if any, tangible results of the pope's appeal for peace are yet in evidence. The allied governments which are fighting Germany propose to send separate answers and President Wilson is expected to draw up a strong document, which will be most notable among his official state papers. The allies' replies will probably all be along the same line, but couched in different terms. While the allies are a unit against accepting any peace now which does not put an end forever to Germany's militaristic ambitions and tendencies, Germany and Austria are said to look favorably upon the peace plan. Prince von Hohenlohe-Schillingfuerst, Austrian ambassador at Berlin, delivered a peace talk at the German emperor's birthday reception at the embassy. He said that the day of peace could not longer be far distant and that the good sense of the people fighting Germany and Austria must soon knock aside the statesmen who were barring a way to peace. He added that meanwhile the central powers, who were not fighting to make annexations by violence, would not drop their weapons a second before the allied governments abandoned their piratical aims. Each side is suspicious of the other, so that little can be done until one or the other makes a real opening and announces a plan in detail of what they will accept or what they will grant. In the meantime the armies in the field are fighting as hard as ever and the loss of life continues frightfully heavy.

AUTHORIZATION to issue bonds and certificates totaling $11,538,945,460 at one time is provided in the new war budget bill embodying recommendations of Secretary McAdoo. In addition authority to float a $7,538,945,460 4 per cent bond issue to care for a previous $3,000,000,000 and a future $4,000,000,000 allied loan authorization, the secretary desires power to issue additional certificates of indebtedness to the amount of $2,000,000,000 and an equal amount of war savings certificates in a form available to small investors. If these new bonds are issued, as planned, a portion of them will be used to retire the recent liberty loan, the new bonds to draw a higher rate of interest, but to be subject to taxation, netting the investor about the same as the first liberty loan. It is expected that everyone who subscribed to the recent loan would take an equal, or greater, amount of the new loan, just transferring their subscriptions. The government is going to need an immense sum of money for the war and to loan to its allies in the next year and the people must expect to have several bond issuances and to have many demands upon their purses and bank accounts.

UNDER the authority conferred upon him by the food-control bill, President Wilson has fixed coal prices for every mine in the United States. This will insure a reduction of prices in most parts of the country and give to the people greatly-needed relief from a situation which was rapidly becoming intolerable. Prices were set on cost of production on estimates furnished by the federal trade commission after months of exhaustive investigation. The country is divided into twenty-nine districts and every producer in a district will market his output at the same price. The president named no agency to carry out the provisions of his order, but is expected to appoint soon a coal administrator who will be given entire control of the coal industry. Rumor names President H. A. Garfield, of Williams College, as the man. Mr. Garfield now heads a committee named by the president to fix a government price for wheat. His work will end before September 1st, when the wheat committee probably will be dissolved. The prices named for run of mine coal in the large producing districts average slightly more than $2. In a few districts they are below that figure, and in the western territory they are higher. Washington state is highest, with $3.25. Already, the largest firm of retail coal dealers in the country has announced a reduction in price, ranging from $1 to $1.80 a ton, which will save the coal buyers of the territory served by this company hundreds of thousands of dollars before the winter is at an end.

THE legislative program remaining for the extra session of congress has assumed such definite form that leaders express hopes of vacation about September 15th or not later than October 1st. Included in the program for disposal within the next three or four weeks are: The $2,006,000,000 war tax bill. A new war budget authorizing about $7,500,000,000 in bonds, probably at 4 per cent, for further loans to the allies and to retire the $3,000,000,000 of 3½ per cent bonds already authorized, and providing for $2,000,000,000 worth of certificates of indebtedness and a like amount of small denomination war savings certificates. A deficiency appropriation measure aggregating between $6,000,000,000 and $7,000,000,000 now being prepared by the house appropriations committee. The administration trading with the enemy bill which passed the house July 11th. The administration measure for insurance of soldiers and sailors. The Webb export trade bill, peace resolutions, in the senate espionage act and several minor measures. Most of the measures, leaders believe, can be disposed of while the war tax bill is in conference.

MOST of the record-breaking corn crop will be past the point where frost can damage it at the average date of the first killing frost, in spite of the fact that the crop is from ten to fifteen, and in places even twenty days later than the average at this season of the year in central and northern districts, says a Washington report. Reports said the Kansas crop was recovering from the effect of the drouth to a surprising extent, due to recent rain. Warmer weather was decidedly favorable for corn in all central and eastern sections during the last week, but lack of rainfall was being felt to some extent from Iowa eastward. Harvesting of winter wheat was nearly completed last week and yields continued good. Plowing for the next winter wheat crop is progressing under very favorable conditions of the soil in the southwest. Spring wheat and other grain harvesting is making satisfactory progress in most northern sections of the country, and the yield in North Dakota and Montana is better than was expected.

CHANCELLOR MICHAELIS, of Germany, informed the main committee of the reichstag that Germany would not reply to the papal peace note until she had consulted her allies. Dr. Michaelis added that in view of the fact that Germany had previously repeatedly and positively indicated her readiness to enter peace negotiations the vatican's appeal, of course, is looked on with sympathetic approval. Germany, however, could not again offer peace in face of the summary rejection of previous proposals and continued declarations by the entente that no peace is possible until the central powers are defeated and crushed. He said Pope Benedict's proposal was spontaneous and not at the request of the central powers.

MAJOR GENERAL PERSHING, the American commander of the forces in France, declares that the war can be won only by hard and forceful blows delivered by a well-trained American army working in conjunction with the allied armies. Deploring the lukewarmness of the American people in regard to the war, General Pershing adds: "Every man, woman and child should support the administration in its determination to arm and equip the American army and to keep up its morale and that of the allied armies. The war will not be won by talk or by subscribing to the Red Cross. The American people must come to a full realization of what the war means. It can be won only by striking hard and forceful blows, and not otherwise."

Now Cook Swatted Rooster.

"Swat the rooster week" is past and now it's up to mother to cook the rooster that father has swatted. And rooster meat need not be tough meat, either, if it is cooked correctly, says the home economics division at Ames, Iowa.

Hang the dressed fowl up for several days before cooking to soften the fibers, but be careful it does not spoil. Long, slow cooking in moist heat is best for meat that is likely to be tough. The fireless cooker is the best for this. Add one or two tablespoonfuls of vinegar to the water to help soften the fibers. If more rooster meat is on hand than can be used at once, and if the supply of cans is not short, can the surplus meat by the cold pack method for winter use.

Do not always serve boiled rooster; vary the dish. Mix the meat with crumbs, seasoning and eggs and make "rooster loaf," similar to meat loaf. Make croquettes or chicken pie or jellied chicken. Many good recipes can be found, using either gelatin or the chicken aspic to set the stock for this latter. Make a scalloped dish, using chopped meat, rich and gravy.

In case the roosters have not yet been swatted, it is best to separate them from the flock and feed them on a mash of ground oats, bran, shorts and tankage moistened with sour milk. This will help soften the flesh.

SAVE MONEY

See Page 13

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets, from choice laying strain. Chas. Schmit, Hortonville, Wis.

LANDS AND HOMES FOR SALE

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F, Farm and Real Estate Journal, Traer, Iowa.

375 ACRE FARM FOR SALE

DOUGLAS COUNTY, WIS.—School house, railroad station adjoining farm. Eleven miles from best markets in Wisconsin. Modern house, good buildings. No trade. Favorable terms to right party. Excellent opportunity to secure good farm at reasonable price. Write for full particulars. **N. C. NISSLY** Dallas Center, Iowa

FARM WANTED

WANTED to hear from owner of good farm for sale. Give cash price and description. Write **JOHN H. OAKS, 432 Main St., Oshkosh, Wis.**

Feed the Fighters! Win the War!

Harvest the Crops! Save the Yields!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy. While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

THE COMBINED FIGHTERS IN FRANCE AND FLANDERS AND THE COMBINED HARVESTERS IN AMERICA WILL BRING THE ALLIED VICTORY NEARER

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kansas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

Help Your Canadian Neighbors When Your Own Crop Is Harvested

Canada wants 40,000 Harvest Hands to take care of its

13 MILLION ACRE WHEAT FIELD

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

GEORGE A. HALL 123 Second St., Milwaukee, Wis.
Canadian Government Agent

The Wisconsin Farmer

THURSDAY, AUGUST 30, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

THE WEST IS AWAKE.

I HAVE already expressed my views on the charge all too often made by easterners that the Middle West is not awake to the seriousness of the war situation and is not alert in its response to the call of patriotism. I have pointed out how thousands of farmers responded to the call of Uncle Sam for ready money and bought Liberty Bonds in large quantities. I have told of whole rural mail routes which subscribed liberally to the Red Cross fund. I have told of the eagerness with which farmers have set about to make this a bumper crop year, no matter whether the government guarantees a minimum price for our products or not. I may not have told, but most of you know, how the boys from the farm are making up a large proportion of those who have been enlisting in our army and navy for many weeks past. My friends, the Middle West was never more awake, never more alert.

Do not take my word for this alone. Let me reprint something I read just the other day. It was written by a grain-belt writer, Mr. Henry J. Allen, of Kansas, and appears in one of our great national magazines, Collier's Weekly. Mr. Allen has heard the same charge which I have heard and finds it as unfounded as I have so often declared it to be. Here is the vigorous way he disposes of it:

Every day we go to the train and see some of our best young men off to training camps, or to the East, and we very well know that some of them are starting upon the long adventure. There is no holiday spirit in the air. There is no need of anything more to wake us up. There is no call for any more patriotic meetings. We didn't want the war; it is not popular now with us, but we are not organizing any protests. The West is not complaining.

I have lived in the Middle West many years. I have seen it under every form of trial—grasshoppers and drouth and prairie fires, populism and usury and mortgage foreclosures. I have seen it excited to the highest degree and sullen to the lowest. But I have never seen it just as it is now—eager, strong, resolute, realizing the full measure of its responsibility, realizing the cost, but not counting it. With a mingling of French fervor and English sobriety it is getting ready to go the limit in every form of service left to our initiative or to the command of the government. Until the heroic throbbed again in us, we did not realize how tired we were of being fat and rich and ineffectual. Every day we find men who are childishly glad to realize that the vision of the fathers is yet in us, that sturdiness, latent through the years, has not departed from us.

Mr. Allen has stated the situation admirably. We did not want the war, it is not popular with all of us now, but we are confronted by a duty which none of us propose to shirk, even though we may long and work and pray for the day to come quickly when it shall no longer be ours. We are indeed raising bumper crops; we are indeed sending the flower of our young manhood to fight under the colors on foreign shores. We shall continue to make our fields yield to their utmost, even when the day shall have come when our boys and young men are no longer demanded. We are far from being asleep, far from being indifferent to the needs and the duties of the hour. I firmly believe that patriotism—the real, simon-pure brand that sees and considers the needs and the problems of the future as well as of today—is more nearly at white heat here in the Middle West than anywhere else in all the country. We have no selfish ends to attain here, we seek no personal advancement or enrichment; we are resolved to do whatever shall be demanded of us to keep honor and righteousness alive in the world. Until the day when Peace shall fold her wings over a world which has laid down its arms we shall continue to do our duty, hard though it may be at times, even to the greatest of all sacrifices: our own life and the lives of those most dear to us.

A GOOD START.

ABOUT this time last year I was explaining the workings of the new federal farm-loan law to my readers and predicting that if it were given a fair trial it would be found deserving. The law was approved a year ago last month and the members of the federal farm-loan board were appointed a year ago this month. The law has not really been in effect, so far as the farmer's ability to get much money thereunder, for a year, however, because it was not until late in the spring that loans were actually made. But enough time has elapsed to show that the law will eventually be a big boon to farmer-borrowers and that the hopes of its framers and sponsors are likely to be fulfilled.

I am advised by members of the federal farm-loan board that something like twenty-five farm-loan associations are being chartered daily, each association representing nearly $50,000 worth of loans. These loans are very evenly distributed throughout the nation. Farmers in states of high land values, where interest rates have been low in the past—such states as those of the grain belt, for instance—are making use of the system to an even greater extent than was expected. During July, for instance, loans to the amount of $536,400 were approved in Indiana. Now, the farm-mortgage debt of Indiana is only about one-third that of Wisconsin and one-fourth that of Iowa, while the interest rates are lower there than in either of these two states. It seems to me that when low-interest states, such as Indiana, take advantage of the new law to such an extent, it is bound to work out to the advantage of farmers in the states where higher rates are charged and where the aggregate farm-mortgage debt is larger.

My Washington correspondents advise me that in the last two and one-half months more than 800 farm-loan associations have been chartered, representing total loans of approximately $40,000,000. Additional associations now being organized will run the total of loans applied for the first year far beyond the $100,000,000 mark. This is but a small percentage of the total four-billion-dollar farm-mortgage debt of the United States, but a good start is being made and I look to see the law become still more effective before another year has passed.

BACK TO BUCKWHEAT.

WHEN we stop to consider that our buckwheat yield last year was only one-half what it was fifty years ago (I am comparing the government's 1916 and 1866 crop reports), while last year's price per bushel was almost double the price of the 1866 crop, we may well ask if the grain-belt farmer is not overlooking a possibility here. Our nation, and the world at large, is turning to substitutes for bread. Why not a return of the good old days of buckwheat cakes; not the thin, sole-leather imitation that masquerades as the genuine nowadays; but the real, old-time, golden-brown, genuine buckwheat cake flooded with country butter and maple sirup? I find that I cannot possibly do the subject justice myself; let me quote a better writer, as I find him giving expression to what I would like to say, in a recent issue of the Kansas City Star:

Not many of the younger generation ever saw buckwheat growing, for the acreage is limited, and even buckwheat griddle cakes are a rarity. But the old settler leans back against the store front and recalls when buckwheat cakes were on nearly every table the winter through and when a young woman who couldn't mix a good buckwheat batter wasn't considered "fitten" to wed and take charge of a household.

"Buckwheat cakes and Injun batter makes you fat, and makes you fatter," hums Old Settler, harking back to the days of fifty years ago when that was a popular song in Missouri.

Buckwheat cakes and maple sirup!

Not the kind of maple sirup they make nowadays, though. No, siree. Not that sort of stuff, thin enough to fill a fountain pen with, but maple sirup boiled down until it was thick as bees' honey. Take a buckwheat cake hot from the griddle, fat, thick, brown, light; spread it with country butter that melts as it touches; then upend the sirup jar over it and let the thick, amber colored fluid trickle down until every bubble hole on the cake is swimming full of hot butter and sirup, and——

"Hush your mouth," exclaims Old Settler. "There was nothing so good, unless it was hot buckwheat cakes and bees' honey."

One beautiful feature of growing buckwheat is that its bloom is peculiarly rich in honey of a high quality, as good as clover honey, and, Old Timer says:

"When you planted buckwheat you killed two birds with one stun; you grow'd the buckwheat to make the cakes and the honey to eat on 'em both at once."

There is a practical as well as a poetic and gastronomic side to buckwheat raising. I am indebted to Mr. Jewell Mayes, secretary of the Missouri State Board of Agriculture, for the information that buckwheat does best on sour lands and on lands poisoned with cockleburs, morning-glories, cotton weeds and the like. It will not only smother them out, but it pays something like $15 to $25 an acre while it is doing this good work. Yet the fact remains that here in the grain belt, where we produce two-thirds of all the oats of the nation, more than one-half of all the corn, almost one-half of all the wheat and two-fifths of the hay, we grew last year but one-twentieth of the buckwheat. This, too, in the face of the fact that last year's crop brought 40 cents a bushel more than the 1915 crop, passing the dollar mark for the first time in our national history.

When a crop is so valuable both in dollars and in satisfied appetites, is there not every reason why we should consider it in laying out our plans for another year? Even the younger generation, which never knew the real "buckwheat cakes and Injun batter" should give heed. Because we have never yet seen Heaven is no reason why we should not long for the day when this rapture shall be ours.

MONEY VS. HAPPINESS.

MY READERS will recall that the Wisconsin farm woman who wrote me such an interesting and touching letter, telling of her endeavors to get out of the tenant rut, expressed the hope that her husband could secure a position as cow tester. A number of those who have written to me, giving this woman advice or the results of their own efforts to get ahead, have suggested that this position would take the husband away from home much of the time and that this is a factor to be seriously considered. Better make less money and keep the family united is the keynote sounded over and over again.

Let me quote a portion of a letter written by Mr. J. N. Shirley, of 116 South Emerson Avenue, Indianapolis, Ind., who owns several hundred acres of fine farm land and seems very anxious to give this Wisconsin couple a chance on one of his farms. Mr. Shirley has this to say about the cow-testing position in this particular case:

This woman says something about cow testing. Don't encourage her and her husband in this direction. Such work takes the husband from home and means travel, boarding and clothing expenses that can be avoided at home. Besides, cow testing and "on-the-road" work cannot be followed well in one's declining years. Tell this woman and farm boys and girls to stay on the farm; tell them to become experts in something they want to follow all their lives and not have to learn a trade or take up a life of drudgery after they have spent the best of their lives on the road or in the office or machine shop and finally are displaced by younger men or women who, in their turn, will be kicked out when their most active days are over. Almost every day I hear some city or traveling man say he expects to be a farmer some day—just as soon as he gets able to buy and equip a farm, in other words, when he gets to be a millionaire. Suppose he were a millionaire, he could not farm after spending most of his life selling goods or testing cows. David could not use Saul's armor, and a dry goods clerk or a doctor don't make a good farmer in his old age; neither does a retired farmer make much of a success as a city business man, and I am sure he is like a fish out of water if he does nothing in the city.

Mr. Shirley's point is well taken; farming is every bit as much a profession as the law or journalism; it must be studied scientifically and followed with the closest care if success is to be won. No man can turn to farming in his old age or ill health and expect to make a success out of it without determined attention and the most conscientious study and hard work. The day of "only a farmer" has passed, never to return. Successful farming is now a fine art, a fact testified to by those who have succeeded and those who have failed alike.

Another letter which is along somewhat the same lines, although giving more detailed information as to the work of the cow tester, comes to me from Mrs. O. Wharam, of Mason City, Iowa, and is as follows:

In reading over the interesting things you have to tell us I came across the letter from a Wisconsin lady, asking about the work along the line of cow testing. As we have had a tester at our place, what I know may be of some little service to them. The work, part of it, is not hard. It is mostly tending to business that counts. The testing is done with a testing machine that may be bought from most fair-sized hardware supply places. But if a testing association is formed I think they would see to getting the machine and the directions for use. The men that we employed came once a month and received $1.25 per cow when there were fewer than twelve cows, and $1 per cow when there were more. That was for the inexperienced man. Those who had a regular state college dairy education, of course received more, because they knew just how much of each grain to feed to make a good ration that would make the cows produce more milk and cream. I believe the first one got $50 and his board and room. You see it means being away from home all the time unless the farms are close together.

After all, will it make toward greater happiness and freedom if the financial income is materially increased, but the father is taken away, a great part of his time, from his brood of loved ones? Better a united family, around a table laden only with the bare necessities, than a divided family surrounding a table groaning with delicacies. The chair of an absent one, as the family gathers around the dinner table, far more than offsets a few more (or many) dollars added to the family income. Think of these things when you are tempted to accept work which takes you away from home for a long time. After all, there is more to this life than money, necessary as it is at all times.

James M. Pierce

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Save the Corn Fodder.

There will be a serious shortage in the supply of hay until the 1918 crop is available. In some localities dairy farmers have pooled their interests and undertaken to buy hay in the West in hundred-ton lots, but they are finding that hay producers are holding back and it is very difficult to make purchases. Exorbitant prices were paid for hay last spring by some dairymen before cattle were turned to grass, and the crop will be much shorter this year than it was in 1916.

Under the conditions, it may be expected that more corn fodder will be put into shape for winter feeding this fall than ever before. Indeed, it is not too early to lay plans for cutting and shocking a big acreage. Those who have silos have no cause to worry, as their problem is easily solved. Where a supply of ensilage cannot be put up the next best thing is to cut at least part of the corn crop just after the lower leaves begin to turn and put into large shocks. The corn binder should be used to the limit this year and binder owners should be generous in renting out their machines. The majority of those who put considerable fodder into shock will doubtless feed it out directly from the shock, but with grain high in price this is not always an economical way of feeding.

If weather conditions are at all favorable corn fodder will dry out sufficiently in a month or five weeks after being put in shock so that it may be shredded and stored in a mow or put into a stack. Shredded fodder does not deteriorate much if it is not wet at time of shredding and there is real advantage in separating the grain so that one may know exactly what he is feeding. Horses and cattle will come through the winter in good shape on shredded fodder and a very small amount of grain. Not a pound of tame hay should be fed wherever it can be avoided, and let it be remembered that those who propose to buy hay for their work horses next spring may be sadly disappointed. A supply of good fodder will save the day and the amount that will be made available will be determined during the next month or six weeks. Fortunately, the corn crop is heavy this year and a few acres will furnish an enormous amount of feed, and there is not a corn-producing farm in the entire Central West on which at least part of the crop should not be either put into the silo or saved to be fed out in the form of dry fodder.

Buying Feed Co-operatively.

The Milk News, of Chicago, official organ of the Milk Producers' Association, advises its members to look carefully into the matter of buying feeds coöperatively. The season is on when such winter feeds as are needed should be bought or contracted for later delivery. It is announced that the New England Milk Producers' Association is planning to make feed purchases on a coöperative basis. The Davenport, Iowa, Cow-Testing Association, through its officers, has served notice on each member to make up a list of his feed needs for the winter, so that bids may be asked for and the feeds secured in large shipment at as low a cost as possible.

It has been demonstrated by Mr. Moss, in Waupaca county, and by several other of our cow testers and county agents, that a saving may be made on winter feeds by buying in bulk. The bulk purchase accomplishes two good results: It saves money to the individual buyer and it also leads many to use needed elements in their rations which they might otherwise fail to use. As an individual buyer a farmer-dairyman finds it impossible to fill out his feeding ration as he knows it should be filled out. As a coöperative buyer he will feel that he is able to do so.

The whole tendency of the times is to cut down expenses and the dairyman must look to his business needs in this respect. Buy concentrates in carload lots wherever possible. Milk prices are high and will be higher, but feed prices have soared in proportion and these things must be taken into account.

While the dairymen of other states are giving most serious consideration to the feeding cost problem, Wisconsin dairymen should also be on the alert. When the cow tester or the county agent comes along and advises carload purchases, discuss the matter with him seriously. Let him show why it is advisable to feed a well-balanced ration and how such feeding will increase production. In most cases, however, at this time, it is scarcely necessary to prove the value of correct feeding. The bugbear is the cost. This cost may be greatly reduced by buying coöperatively. In many cases there are good reliable dealers who can cut prices down a whole lot if they can have big orders—say several carloads. Talk with them and get their prices on the feed needed. In communities where there are no organizations someone can take the lead and several neighbors can go in shares on the purchase of a car of such feeds as are needed. The matter is at least well worth investigating, and while we are all talking and preaching coöperation here is a place where communities can put it into practical operation to their advantage.

The Fairs Offer Much Better Value.

The Wisconsin State Council of Defense has advised that our people save time and money by keeping away from cheap and worthless carnival attractions which are being offered in a few places in this state. Inasmuch as it is the purpose of the State Council of Defense to conserve the resources of the state during the war the suggestion is well taken. Why waste money on inferior amusements which are, to say the least, degrading? It is much better to spend the same time and money attending a good county or district fair, or the big Wisconsin State Fair at Milwaukee. Fairs are educational and instructive and they furnish just as much entertainment and amusement as any cheap carnival and this entertainment and amusement is of an infinitely higher quality. Why not enjoy the cleaner classes of entertainment furnished by the fairs? The average good county or district fair with an admission fee of 25 to 50 cents gives more for the money than a dozen carnivals offer.

War times make us think. We want to get the worth of our money on every implement or tool that we buy. We insist upon good value when we purchase an automobile. If we are buying land we want to look it over and find its weak spots—pick out the unproductive acres and subtract enough from the price per acre to make up for these weak spots. In these times we study the foods which go upon our tables to the end that we may get a maximum of value for the money expended. Further than this we are learning to study the value of feeds given to live stock, so that we may get every dollar possible in productiveness from their costs. Under such circumstances is it not fitting that we see whether we are getting our money's worth when it comes to entertainment? There are too many worth-while sources of amusement for us to waste time and money on the cheap carnival which has little to offer save the immodest suggestions of the "barker" on the outside. These suggestions are seldom, if ever, made good once the ticket taker has gotten us under the tent. When we stop to think of it the authorities, under the wise laws of our state, could not permit many things which the "spieler" tries to make us believe are going to happen inside the tent. In no case should the authorities allow either the "barker" or what he pretends to promise to exist.

Right now is a good time to decide to take in the county or district fair. And we must not forget the big state fair at Milwaukee. We repeat that an exposition of this kind offers far greater value for the admission price than any class of entertainment which we can think of. Why not get our money's worth this year by dropping out the cheap shows and planning to be present with all the family at the fairs?

Tax on Dogs.

Wisconsin live stock farmers are interested in the proposed tax on dogs which is to come before the congress of the United States. The following letter to Senator Robert M. La Follette, of Wisconsin, is self-explanatory:

I understand that there was an attempt made to incorporate in the federal revenue bill, while before the finance committee of the senate, a provision for a tax on dogs; that the finance committee failed to act in the matter and that now an attempt will be made to have such an amendment attached to the bill on the floor of the senate.

I wish to urge upon you my approval of such a measure. This very idea occurred to me just recently by seeing the number of dogs running about the country.

These worthless creatures are not only eating up a vast amount of food that should go toward feeding humanity, but are also a public nuisance. The rambling dog has been the curse of the sheep industry, not only in Wisconsin, but of the whole country.

Take my own particular case: I have never been without sheep since I have been farming and sheep have been kept on this farm for sixty years. During the past fifteen years I have spent a lot of time and money breeding up a fine flock, but last spring I decided to sell out and did so. The main reason was this: Sheep had become very valuable and I had a lot of money invested in that flock and I did not feel that the flock was ever secure, but was liable to be destroyed at any time. Hence I sold the sheep. This same complaint comes from every state in the Union and is a reflection upon the thoughtfulness of our statesmen.

If a dog is worth anything he is worth paying a tax on and if he is not worth paying a tax on then let us make soap grease out of his worthless carcass and give his food to starving humanity.

I would suggest a federal tax of $3 per head (that is a few cents a week only) and any animal that is not worth that amount is better dead than alive.

I know of a number of families in this community who keep a worthless cur hanging around the front door and the wolf is hanging around every other door and window.

I feel that this is an unusually opportune time to strike this nuisance and at the same time raise a much-needed revenue.

Thanking you for past favors and trusting that you will see this matter as I do and will use your influence to have such a provision incorporated in the pending bill, I am,

F. R. CONSTANCE.

Mr. Constance is one of our progressive breeders and there will be hundreds of breeders and raisers of sheep in this state who will back him up in the sentiments which he has expressed. Mr. Constance is an official of the Wisconsin Live Stock Breeders' Association.

Plan Big Wisconsin Potato Show.

A potato show, such as will fairly represent the big crop in Wisconsin this year, will be held at Madison, Wisconsin, November 19th-24th. This is the first time that the Wisconsin Potato Growers' Association, at least in recent years, has arranged to hold its annual meeting and show in a southern Wisconsin city. The last show was held at Eau Claire and the one prior to that at Marinette, and the last one before that at Grand Rapids. This time it is hoped to secure not only the usual attendance from the commercial potato growing centers of the state, but also a liberal attendance from central and southern Wisconsin, which have not previously had a very large representation at the show. Growers, retailers and the railroads, and, of course, the Wisconsin College of Agriculture, are all planning to make this the most important potato show ever held in the state and The Wisconsin Farmer can promise that the people of this section will have an opportunity to see potatoes which will make their eyes open up real wide.

Officers of the Wisconsin Potato Growers' Association do not plan to neglect the potato-growing centers. On the contrary, they are arranging for automobile tours from these centers to Madison. More than twenty counties of the state will have competitive exhibits at this show. As usual the Wisconsin Potato Show will set the pace for the nation. Those who attend the national show have said in years past that it has nothing on the Wisconsin show.

Several committees have been appointed to coöperate in a strong effort to make the 1917 show a record breaker. The committee on transportation is composed of A. L. Fisher, traveling freight agent of the North-Western Line, chairman; George Wallace, of Eau Claire, representing the Omaha Line, and J. H. Judge, of Madison, representing the Chicago, Milwaukee & St. Paul Railroad.

The advisory committee on management will be composed of K. L. Hatch, director of agricultural extension, chairman; Dean H. L. Russell, director of Wisconsin Experiment Station; C. P. Norgord, commissioner of agriculture; E. L. Luther, superintendent of farmers' institutes. The reception and entertainment committee includes Burt Williams, chairman; Howard D. Piper, L. L. Ords and Julius Klueter. The publicity committee includes Andrew W. Hopkins, agricultural editor of the University of Wisconsin, chairman; F. B. Swingle, associate editor of The Wisconsin Agriculturist; William H. Wiseman, associate editor of The Wisconsin Farmer; W. T. Evjue, Wisconsin State Journal; H. F. Rookwood, Madison Democrat; Fred L. Holmes, representative of press associations. T. L. Bewick, of the college of agriculture, will have charge of the boys' and girls' club work and contests.

Of course, there will be more detailed announcements of this big potato show in later issues of The Wisconsin Farmer, but it is well to keep the dates, November 19th-24th, in mind, and plan early to attend the show and get as much benefit out of it as possible.

Pork From Food Waste.

The National Department of Agriculture is stimulating meat production in every possible way and is putting forth special effort to induce stockmen to utilize products that ordinarily are partially or wholly wasted. In a recent press bulletin on the subject the department says:

Even though the hog furnishes the most meat for a given amount of feed and will produce it in the quickest time, this meat should be produced mainly from food wastes and not from good grain that would furnish food directly to man. The great economy in pork production comes from the fact that pigs furnish a food by-product from these wastes and do not need the high-grade feeds that beef cattle must have.

Wastes on farms and in the towns make good hog feed; by-products from canneries, bakeries, fisheries, packing plants and the like can be utilized as hog feed and to better economic advantage than in any other way. Dairy wastes are particularly valuable as hog feed and promote rapid growth with a good money return for every gallon fed.

The farm orchard furnishes large quantities frequently, and not all at one feed. Garden wastes, tops of vegetables, culls of all sorts, even weeds are readily eaten, and such as may not be eaten will be worked over, going into the bedding and adding to the manure.

Kitchen wastes are an excellent source of food for hogs, but should be kept at a minimum, because practically all food prepared for man's use should be eaten by him.

It goes without saying that in the case of a farm located a considerable distance from a central market the waste products available would include only those that are produced on the farm. Ordinarily skim milk and buttermilk are utilized to the limit, regardless of the price of grain. Very often, however, there is a waste from the garden and from the orchard. While summer and fall cull apples

have no great amount of feeding value, it is surprising what growth a bunch of shoats will make when turned into an orchard where there is considerable grass in addition to the fallen apples. They will not fatten, to be sure, unless fed grain at the same time, but they will lengthen out and it puts stretch into them so that later on a pound of grain fed will do the maximum amount of good.

Where fields are fenced hog tight there is always considerable good picking in stubble land. It matters not how carefully a crop is harvested, there is some waste left and pigs will make better use of this than any other class of animals. They literally get it all and it amounts to something this year when grain is worth 3 or 4 cents a pound.

Wisconsin Farmers and the Coal Situation.

The average farm family in Wisconsin is more dependent on coal than any other one thing for comfort and health this winter. So far as the other necessities of life are concerned, the Wisconsin farm family comes more nearly being self-sustaining than any other in the country. But with the blizzards sweeping across miles of open snow, and the mercury trying to crawl through the bottom of the thermometer, coal is the only thing which can insure comfort, if not life itself, to the people on the farms of Wisconsin. For this necessity they are entirely dependent on others, so that its price and supply are of vital importance to every reader of The Wisconsin Farmer.

Wisconsin is one of the states that produces no coal. She must look to others for this necessity, in exchange for the dairy products and other foodstuffs which she produces in such abundance. For that reason The Wisconsin Farmer has been viewing with growing alarm the failure of the state to secure a sufficient reserve supply of coal, even at the existing high prices. With winter coming on and the coal bins on thousands and thousands of farms unfilled, this alarm was fully justified.

So The Wisconsin Farmer has welcomed the active participation of Governor Philipp and the State Council of National Defense in the conferences of thirteen midwestern states which have been held in Chicago during the last few weeks. Governor Philipp took a prominent part in these meetings and presented the claims of Wisconsin for consideration in a manner that won the coöperation of the representatives of all the coal-producing states, when he declared:

> Wisconsn is primarily interested in having a sufficient supply of coal this winter and next in a reasonable price for what she is able to get. She has got to have it and you gentlemen from the coal-producing states must see that it is furnished us in adequate amounts. We will pay a good fair price for it gladly, and in return you can call on us for our vast store of food products, with which we will help feed this country and the nations of the earth. But coal we must have and we are going to have if there is any power in this country to get it.

As a result of the first conference a memorial was sent to President Wilson, urging that immediate and vigorous steps be taken to provide for increased coal production, for its proper distribution and for reasonable prices, and within a few days the president responded by fixing maximum prices for coal at the mines in the various coal-producing states. These prices are merely temporary, until further investigation can be made. Following this another conference of thirteen states was held at Chicago and steps were taken that may lead to further reductions, as it was generally felt that the prices named by the president were in many cases rather more than liberal to the coal operators.

As to exactly what constitutes fair prices to the coal operators and to the public is a delicate question, but The Wisconsin Farmer has no hesitation in saying that they should be considerably below those which have existed during the past few months and probably even below those named by the president. In any conflict between the public welfare and personal interests of the coal operators and dealers there is no question but that the former is paramount and that, especially in times of war, state and federal governments have the right to use every possible means for the public's protection under the exercise of their "police powers."

The Wisconsin Farmer hopes that it will not be necessary for the government to take such drastic steps as to seize the mines and operate them, in order to secure fair treatment for the consuming public, but, if it does become necessary, we certainly trust that the government will not hesitate to do so. The individual is powerless to protect himself in such matters and he must look to the protecting arm of the government as his only means of defense.

The Wisconsin Farmer's representative at the Chicago conferences felt that there was no question about the earnestness of the representatives of the various states present, or their determination to go the limit, if necessary, to see that the people of the country were fully protected in their right to "life, liberty and the pursuit of happiness" so far as their fuel supply is concerned. We are glad that the state administration in Wisconsin is so thoroughly alive to the needs of the hour and can assure Governor Philipp and his associates that all of their efforts in this direction will be fully appreciated by the men and women on Wisconsin's farms and gladly supported in the editorial columns of The Wisconsin Farmer.

Work the Soil to the Limit.

A reduced fertility supply will be one outcome of the present cropping program because every man is using his best endeavors to excel all former records. We have in mind one instance where an eighty-acre field was plowed up this spring after being in grass for forty years, the owner's purpose being to do his level best to add to the grain supply of the world.

An Illinois subscriber, in the following communication, outlines a plan that will, if carried out, bring the soil to its limit in production:

In developing methods to get the best possible returns from a small farm of forty to eighty acres or even less, I have found it necessary to give careful attention to soil conservation. Long years ago I became a firm believer in the feasibility and practice of double cropping, but this system will soon exhaust the soil, unless a thorough application of manure is provided every year, and an intelligent scheme of rotation is adopted.

Either in operating a small dairy, or raising stock for market, one must be prepared to feed through frequent periods of summer drouth. This is absolutely necessary if the milk output is maintained on a basis that will fulfill contracts and bring in the cream checks regularly. Corn comes late in the summer and fall, and in addition to this the winter supply of hay must be provided. Summer feeding seems to be of ever-increasing importance in dairy districts. Then the growing scarcity, or advancing value of land constitutes another question. It needs little argument to show that we ought to improve our farming lands, if possible, accomplish as much on forty acres as formerly we did on eighty or one hundred.

I have always secured practical results by sowing rye for fodder. This is ready to cut and put away late in May, and it can be followed with millet, late corn, cane, feterita, or a dozen different things. Then you come face to face with the problem of soil exhaustion. It would not be wise at all to repeat that process regularly without something put back, and lots of something. Yes, manure is good, but how about getting enough? It can be seeded to clover following the millet, and it should be devoted to clover for a couple of years. Then after that it is fit for almost any crop. If the clover cannot be successfully seeded in the fall, then don't let the soil lie bare, but sow to rye so as to not waste any elements, and plow early and sow the clover with a nurse crop of oats in the early spring.

When a field has produced corn for two seasons, it is proper then to seed to oats and clover, or if you have manured the soil sufficiently, the clover may be left out and the oats followed by late fodder corn, with rye following this. This gives the land a pretty severe trial, but what are we keeping the land for, and had we not just as well work the soil to its full limit? Two years with clover and good applications of manure will give it strength to do lots of work, and I think we are not doing our duty unless we work it to the limit, both ways. Feed the soil liberally and crop it heavily.

The present dry season here in southern Illinois is affording another test of dairy principles. It becomes more and more apparent that alfalfa will have to become the mainstay of dairymen who are not provided with silos, but don't put off getting the silo too long.

Pastures are getting poor here and if the weather continues dry long in many cases the cattle will be consuming the fodder planted for next winter.

GETTING TOO WARM FOR THEM.

But even the farmers who have a good sized alfalfa field must push forward on intensive lines. They need the greatest possible diversity consistent with reason, and this they can best secure by giving intelligent study to the system of double cropping and practical rotation, and this is only the duty of every farmer. Are we going to do it and reap good harvests in future years, or will we just plug along and find our farms soon about gone?

This subscriber might have gone one step further and recommended the application of artificial fertilizer. The supply of manure made available each year is only enough to fertilize a very small percentage of our total crop area and after we have used the manure to the limit and clovered the land as much as is practicable there are still great possibilities ahead that may be realized as a result of applying the kind of artificial fertilizer that is best adapted to one's land. Potash is literally off the market, but we have an almost unlimited supply of phosphoric acid, so that in working the soil to its full limit we will fall short of the mark in many instances if we lose sight of the fact that it is possible to greatly increase production and to increase the profit in a given crop by using phosphorus in one form or another.

Sowing Winter Wheat in Corn.

If the shortage in the world's wheat supply is made up in 1918 it will be necessary to increase the acreage sown this fall enormously. At the present time oat stubble is being turned under and the farmers of the corn belt show every indication that they are heeding the cry of the nation for more wheat.

The stations are giving detailed instruction in regard to the preparation of the seed bed for wheat, and in so doing attention is being given mainly to the handling of ground that has produced a crop this year. Very little is being said regarding the practicability of sowing wheat between the corn rows. Wheat sown in this way will not, under ordinary conditions, yield as heavily as if sown alone on a well-prepared seed bed. Nevertheless it is sometimes possible to obtain a yield of thirty or even thirty-five bushels per acre from a crop seeded in corn.

Other things being equal, corn land that is used for wheat should be fairly free from weeds, otherwise it is almost impossible to get anything like a uniform stand. If robust weeds fill the row it will be difficult, even with a seeder especially designed for the purpose, to cover the seed, and the result will be a thin stand. On the other hand, where the ground is fairly clean a one-horse drill may be driven so that the rows of wheat will not be more than six or seven inches from the corn hills and every grain will be covered. It is generally advisable to sow half the seed in one direction and the balance in the opposite direction so that a smaller part of the ground will be missed. This is important, because weeds will make a rank growth on bare ground and unless a fairly good stand is obtained a weedy crop may be expected next year.

It should be remembered that under unfavorable conditions in so far as winterkilling is concerned wheat seeded in corn will sometimes come through the winter and spring in better condition than the crop sown on specially prepared soil, for the simple reason that the old cornstalks tend to catch the snow, furnish a certain amount of shade so as to delay thawing out in the spring and as a result, as said before, the danger from winterkilling is lessened. It follows naturally that in a heavy crop of corn growth will be much slower in the fall than it will be in the case of wheat sown on a well-prepared seed bed, and for that reason it should be put in anywhere from ten days to two weeks earlier than is the custom ordinarily. Except in those regions where the Hessian fly is doing damage, there is no objection to early sowing, and a good, vigorous top and root will be important factors in bringing the crop through the winter in any event.

Those who do not have one-horse drills and yet who desire to put part of their corn land in wheat may resort to broadcasting methods, covering the wheat with a one-horse cultivator, or by using the one-section harrow. By all means go over the field lengthwise and crosswise in order that every kernel may be covered. Seed wheat is high in price and there should be no waste this year in the seeding.

The state fair is the people's university. This year the fair at Milwaukee will be held September 10-15. The preparations made for the fair eclipse all former records and it is hoped that the attendance will do likewise.

WISCONSIN STATE FAIR AND TRACTOR DEMONSTRATION
MILWAUKEE
SEPT. 10.11.12.13.14.15
THE EXPOSITION BUILT TO HELP UNCLE SAM IN THE PRESENT TITANIC WAR BY ENCOURAGING INTENSIFIED PRODUCTION AT HOME.
1,500 FEET OF TRACTORS; 1,200 ACRES FOR DEMONSTRATIONS ALONG ELECTRIC RAILWAY FROM FAIR GROUNDS. SPECIAL ELECTRIC TRAINS TO DEMONSTRATIONS DURING MORNING HOURS.
MAMMOTH MACHINERY EXHIBIT.
BEST IN LAND OF CATTLE, HORSES, SHEEP, SWINE AND DAIRY. AGRICULTURAL AND HORTICULTURAL PRODUCTS, WOMEN'S WORK AND FARM BOYS AND GIRLS WORK.
MAMMOTH POULTRY EXHIBIT IN NEW $25,000 BUILDING EQUIPPED AT COST OF $3,000
MARVELOUS FOOD, HEALTH AND MARKET SHOW.
GREATEST AUTOMOBILE SHOW IN AMERICA IN 1917-104,000 SQ FEET OF AUTOMOBILES.
ALL DAY EVERY DAY UNEQUALLED PROGRAMS OF CLEAN, HIGH CLASS ENTERTAINMENT, INCLUDING LOUIS GERTSON, KING OF BIRD MEN, IN MIDAIR STUNTS AND TWENTY-FIVE CIRCUS AND VAUDEVILLE ACTS; FLIGHTS OF THREE BALLOONS AT ONCE WITH PARACHUTE JUMPS.
FIFTEEN BANDS AND ORCHESTRAS.
GORDON'S $10,000 WAR SPECTACLE IN FIREWORKS EVERY NIGHT, TOGETHER WITH ENTIRE DAY PROGRAM OF ACTS, INCLUDING GERTSON IN STARTLING AVIATION STUNTS
FOUR DAYS OF HARNESS RACING, INCLUDING TWO $5,000 STAKES SEPT. 10.11.12 AND 13.
TWO DAYS OF SENSATIONAL AUTOMOBILE RACING BY TWENTY STARS OF THE AUTO RACING WORLD INCLUDING THE WORLD'S CHAMPION SEPT. 14 AND 15.
YOU CAN'T SEE AND FULLY APPRECIATE THIS GREAT SHOW UNDER THREE DAYS. COME PREPARED TO STAY.
DAYS 50¢ NIGHTS 25¢

Small Grain Yields Above Normal

Early Threshing Reports Favorable for Rye, Barley and Oats—Corn is Still Backward, But Improving—Hay Below Normal.

WISCONSIN.

Adams County.—The rye harvest is completed and some threshing has been done. The yield will be better than it was last year. The oat harvest is nearly completed and this crop promises a much better yield and better quality than last year. Tame haying is done; the crop was damaged some by rain at curing time. Corn is three weeks late and does not promise more than half of a good crop. The dairy business and feeding operations are on the decline because of the high prices of feeds.—W. B. Barnes.

Appleton County.—The hay crop will be very good. Common clover and alsike wlil make about two and one-half tons per acre. Alfalfa made a better second crop than it did a first crop. Oats have not been harvested, but promise from fifty to seventy bushels per acre. They will make a better crop than they did last year. Wheat will make a fair crop. Barly shrunk somewhat on account of hot weather at ripening time. The corn crop is doing nicely, although somewhat backward. Gardens and fruit are good.—Harry Lepplu.

Buffalo County.—Most of the grain is in the shock and threshing has begun. Oats are heavy and yield much better than they did last year. Corn is backward, but potatoes are promising a good yield. Pastures are doing well. Farm labor is scarce and most of the hired help has gone to the city. —J. W.

Burnett County.—The clover crop on newly seeded ground made a yield of about two tons per acre. Alfalfa did a little better than this, but in general the hay crop will not be more than half normal. Oats will make an average yield. Winter wheat and rye will make fair yields. Spring wheat suffered from drouth in July and will make only a medium crop. Corn is holding its own at present. Many farmers are selling off their stock on account of the high price of feed and cattle will be scarce before long.—Erick H. Johnson.

Clark County.—Haying is nearly done and the crop is making approximately 80 per cent of a normal yield. The clover yield was good, but rains at curing time injured the quality. Most of the oat crop is harvested. High winds which followed the intense heat of a few weeks ago damaged the oat crop so that it will be about 87 per cent normal. Corn has grown wonderfully during the last two weeks and in some localities will make a splendid crop. Throughout the county, however, the yield will be about 50 per cent normal. Gardens are fine, but the apple crop is not as large as was expected.—Louis Buddenhagen.

Crawford County.—Recent rains have improved the pastures and helped the corn. A good corn crop is assured if frost holds off. The hay crop is fair with the exception of the first cutting of alfalfa and most of it has been put up in good shape. Threshing is now in progress and wheat, oats and barley are making big yields. Vegetables of all kinds are more plentiful than ever before. Fruit is scarce and high priced. As usual the dairyman is prosperous and happy. There are not many beef cattle and the hog crop is light. There will be a big increase in the wheat, oats, barley and corn crops this year.—A. M. Laird.

Door County.—Just harvested a very large crop of hay in this vicinity. Potatoes are looking good to the present time. Bugs have been extremely bad this year. Rye is a good crop. The dry weather hurt the peas 30 per cent and they will not fill well. Pastures have been good and all cattle look fine. Corn is very backward and will only be used for silos or feeding out of the shock.—J. A.

Douglas County.—Most of the hay is up. The quality is good. Weather conditions have been ideal for haying. The yield will be above half as large as that of last year. Small grains are looking fine. Potatoes are good, but need rain. This is also true of garden stuff. The dairymen are undecided as to what to do. The hay crop is short and feed will be so high in price that the business will not be profitable unless the price of milk is at least $3 a hundred.—J. N. Ottun.

Dunn County.—Threshing has just begun in this locality and indications point to a small grain yield considerably greater than that of last year. Corn is still backward. Potatoes will yield a normal crop. Pastures continue good and live stock are in good condition.—J. D. Miller.

Fond du Lac County.—Grain is nearly all harvested and threshing has commenced. The yield of barley will be rather light. Oats are better than they were last year. Corn is doing well and with a reasonably late fall will mature fairly well. Apples and other crops are promising well. Potatoes are plentiful and good in quality. Pastures have become quite dry and cows are not producing well unless they receive silage. Feed prices at present are such that farmers are not buying much, but will rely on their own corn and hay.—C. A. Williams.

Grant County.—Hay was an excellent crop in this locality. Harvesting is about all done and most places threshing has commenced. From all reports, oats and barley are exceptionally good. Corn is looking fine, but it is still late and needs a good fall. Gardens have been fine and fruit is fairly good. As far as I know there is no disease among live stock.—Al Vesperman.

Iowa County.—The harvest is well under way. Most of the grain is stacked and threshing machines are beginning work. The oat crop will average about fifty bushels per acre. Barley is very good. Corn looks well, but is late. Early potatoes are turning out well. Hay made from two to three tons per acre.—J. M. Blotz.

Jackson County.—The harvest has just ended. Small grains gave a good yield of high quality. Oats lodged badly. Potatoes are very promising. Corn is still improving rapidly, but has not yet reached normal. Pastures are good. The hay crop was one of the largest ever made in this section.—P. W. Jones.

Juneau County.—Clover made from one and one-half to two tons per acre of good hay. But the rain hindered harvesting. Tame hay made about two tons to the acre of fair quality. Grain cutting is nearly done. Oats will make sixty bushels per acre, winter wheat about thirty bushels, spring wheat about twenty-five bushels and barley about thirty-five bushels to the acre. Corn has made good progress in the last month and a good fall will make good corn. Fruit is scarce on account of heavy wind storms and blight. The number and condition of cattle are normal. Feeding operations are not increasing. Dairymen are feeding crops raised on the farm.—C. E. Haskins.

Lincoln County.—Haying is done and a big yield is in the barns. All grains are good, but barley was damaged to some extent by hot winds. The yields of all grains will be above the average. Cattle are healthy. Very little feeding is in progress. Pastures are very good. Potatoes will make a big crop. Gardens are good.—G. A. Patterson.

Manitowoc County.—Hay has made an excellent yield and shows good quality. Winter wheat has all been harvested. All grain crops are above normal except barley, which was hit hard

A Large Wisconsin Farm Family.

John Walker, of Dane County, Does Not Need to Fear the Farm Help Problem as it Affects so Many Nowadays.

CLOSE economy in small things, hard work and a faith in the earthly reward of the laborer have made it possible for John Walker, of Mendota, Dane county, to become not only an owner of a farm but also to be able to rear and support an unusually large family besides.

Sixteen children have been born to the Walkers and all are strong and healthy with hardly a sick day against any one of them. They range in ages from Walter, 22, to Albert, three years old. Walter is married and is not living with the folks now. Genevieve, 21, is also married. John, 20, and Joseph, 19, shouldered the musket for Uncle Sam a few weeks ago and are now with the regulars. The others are all on the farm, though, and help to raise the crops.

Mr. Walker came to America from England about twenty-eight years ago and for several years worked on farms in Dane county. After marrying he rented a place and by hard work and careful saving earned enough to purchase the 119-acre farm he is living on now. Not all the land is tillable; in fact, the greater portion of it is marsh, but Mr. Walker manages to make a few acres do the work of many. The main source of income is tobacco. Of late years, however, raising plants of all kinds under glass for the early trade in the spring has paid exceedingly well. The tobacco fields yield each year about $200 per acre and as there is no expense for outside labor the money all stays in the Walker family. This year about fifteen acres have been devoted to the tobacco crop and prospects for a good yield were seldom better.

"Watching the pennies" has been one of the maxims Mr. Walker adopted early in life and he has successfully adhered to it all these years. Without being a hardship to anyone in the family this rule has made it possible for the Walkers to live comfortably and enjoy themselves besides paying for the farm and laying in a neat sum each year at the bank.

The children have everything they wish for. As each becomes old enough to attend school they not only finish the grades but also attend high school.

No serious illness of any kind has been a visitor to the Walker home to necessitate doctor bills or worry. Whenever one of the children shows the least sign of being ill Mother Walker is right on the job with some old-fashioned but effective prescription to shoo the symptoms away. Thus far she has been successful in each instance. The Walkers also believe in "an apple a day keeps the doctor away" and for this reason a small orchard is given every opportunity of doing its best.

Mr. Walker does not think of retiring. He is satisfied with earning his living and that of his family on the farm. With a few cows to furnish milk and a garden for vegetables and some hogs for meat he is convinced that though times may be hard and perhaps the general living conditions still worse than they are there will always be enough to eat for the man willing to work and watch for the foolish leaks so many households neglect to see. The little sums amount to a much larger figure than many of us imagine.

Mr. and Mrs. Walker have been married for twenty-three years. Mrs. Walker is American born.

MR. AND MRS. JOHN WALKER AND FAMILY OF SIXTEEN CHILDREN.

"Money Saved is Money Earned"

See Page 13

Read the advertisements in "The Farmers' Market" on page 2.

by the recent hot spell. Corn has made excellent progress since the favorable weather began. Potatoes, cabbage and other garden truck are fine. Pastures are getting short and as a result the flow of milk is falling off. Rain would help vegetation at this time.—Edward E. Straka.

Marinette County.—Crop prospects are excellent in all lines except corn, but a long fall will make a fair corn crop. The hay yield was above average and conditions for putting it up were much better than usual. The second crop of clover was retarded by dry weather, so that it will not be as heavy as the first crop. Potatoes are unusually fine and no late blight has appeared. Oats are being cut in the southern part of the county and a fair yield is promised. Hot winds in July damaged the peas to considerable extent. Pastures are good and many silos are being erected in this section, which will insure a prosperous dairy business. The county agricultural school has been conducting a cow-testing association and 550 cows have been tested. Berries have been a fair crop and there are a few apples. Hogs and calves are making fine growth.—W. E. Morton.

Oneida County.—Most of the hay crop is harvested. It made 80 per cent of a normal yield. Small grains are ripening. Oats are turning rapidly. Rye is already cut. In general the small grains will be better than they were last year. Recent heavy rains helped the potato crop about 25 per cent. A record yield is looked for. Many farmers treated the potato seed this year and sprayed with Bordeaux mixture. Warm weather during the last few weeks has improved the corn crop. Pastures are in good shape and look well.—Chas. H. Jewell.

Shawano County.—Hay crop has been good. The first crop is practically all harvested and put up in good shape. The second crop of clover is doing well. The hay crop is equal to a year ago and there is more being cut in marshes that were never cut before. Barley, rye, winter and spring wheat are unusually good. Wheat never looked better or of better quality than we have this year. Oats on heavy land is down; on the lighter soils it is A-1 quality and an average crop. Oats are much better than a year ago. Corn is doing well. We will have a good crop for silage. The chances are that on the lighter soils the crop of corn will ripen. Gardens were never better or more of them. The fruit crop, such as apples and plums is fine—more than average crop. Pastures continue good, owing to frequent rains. Potatoes and root crops will be excellent, according to present indications. They have never looked better. According to present indications, many fields will produce from 200 to 300 bushels of potatoes per acre.—M. J. Wallrich.

Wood County.—Most of the hay has been put up in good shape. The meadows of timothy and clover mixed made about one and one-half tons per acre. Oats are about half harvested and promise a big crop—perhaps 25 per cent greater than last year. Rye is normal on light soil and better than normal on heavy soil. The small acreage of wheat in this county is good. Barley made a normal yield. Corn is late, but growing well and if frost holds off we will get 70 per cent of a crop. All garden crops are good. Live stock are healthy, but few cattle are on feed. Farmers are giving attention to dairying, but in spite of the high prices for milk and cream there is little profit in the business at this time because of the cost of feed and labor. However, it keeps up the fertility of the land.—P. B.

The 1917 Wisconsin State Fair

Some Splendid Improvements Have Been Made Since the 1916 Exposition—Tractor Demonstration an Important Feature.

IMPROVED grounds and buildings, better and bigger live stock exhibits and an unexcelled array of farm machinery of every kind will make the 1917 State Fair, September 10th-15th, the best exposition ever held in Wisconsin.

This year's fair marks the third year that the exposition has been under the direction of the state department of agriculture. Many needed improvements have not been added heretofore because of the department's plan of cutting down the expenses for improvements as much as possible. However, this year the ground will appear in a new garb. The fourteen horse barns at the north end have been repaired, re-roofed and repainted so that they are now ready for housing the horse exhibit and perhaps part of the overflow from the cattle exhibit. The live stock pavilion has also been repainted.

LIVE STOCK PAVILION ON WISCONSIN FAIR GROUNDS.

The need of proper drainage on the ground has been apparent to the visitors of former fairs for a good many years. This year the fair patrons will no longer be able to find the creek which ran through the sheep barn and the center of the grounds. It has been enclosed in a concrete flume and low portions of the grounds filled in so that all the space can now be used. The management has arranged for space to park 20,000 cars on the fair grounds free of charge.

A new $25,000 poultry building has been erected with 16,000 square feet available for exhibits of poultry, pigeons and pet stock. This department is under the direction of George W. Hackett, of North Freedom, one of the well-known poultry men of the state. The new building will make it possible for Wisconsin to rank well up in the list of big poultry shows in the United States.

New fencing around the fair grounds has been added and the old board fence done away with.

One of the strong points in the handling of the exhibits of every kind by the secretary of the fair, Mr. Oliver Remey, has been to place each department under an expert. The cattle, horse, swine and sheep departments have been made especially strong this year and $5,000 added to the premium list over last year, making a total of $46,116 to be distributed in the form of cups, trophies and cash prizes among the winners. The entries have thus far exceeded those of last year, which was considered the banner year of state fairs.

Industrially the fair has also been augmented so that it ranks higher than other fairs in general in this respect. The tractor show in particular has always been a feature of the Wisconsin fair not to be found at any other state fair. Wisconsin is the only state which has taken care to provide her citizens with a demonstration of the use of the tractor for farm purposes. This year, above all other years, the tractor ought to prove a strong attraction. Owing to the present shortage of labor, which in all probability will increase as the war proceeds, farmers will do well to give the tractor their attention. More than 1,000 acres of ground have been set aside a short distance from the fair grounds for the practical demonstrations in plowing and tilling the soil. The mornings will be given over to the field demonstrations. In the afternoon the tractors will be on exhibition on the grounds on the space reserved for this exhibit. Proper arrangements have been made for the transportation of the crowds to the ground where the field demonstrations will be held.

Other lines of machinery, including all forms of barn equipment, will be on exhibition also. Every sort of labor-saving device will be demonstrated.

A new department established this year will be that of health, markets and food. This will be under the direction of Fred W. Luening, formerly deputy health commissioner of Milwaukee.

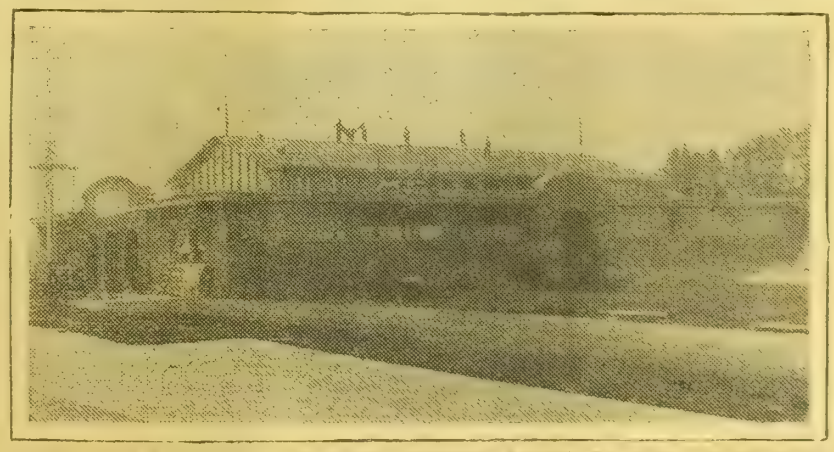
A food demonstration exhibit, dealing with "war" breads and different substitutes for wheat flour breads, will be conducted at the request of Food Administrator Hoover and under the direction of the State Council of Defense, state food conservation bodies and other special organizations with emergency powers that may have been created. Coöperating with these will be the agricultural college and organizations interested in food conservation. Different exhibits dealing with milk, fats, fruits and vegetables will also be prepared. This exhibit, which is in fact a government exhibit, is a part of the official message which Mr. Hoover desires to place before the people, a part of the campaign of food conservation already started. One reason why Mr. Hoover is obtaining the coöperation of the Wisconsin fair in this matter is because reports had come to him of many food conservation campaigns conducted in various parts of the country which are not based on solid principles.

Children's Day will be one of the features of the fair. A boys' and girls' camp under the direction of Prof. Thomas Bewick, of the University of Wisconsin, who is also the government representative in this work in the state, will be established. During the 1915 and 1916 state fairs the farm boys and girls showed great interest in this work. The boys and girls are taken care of during the entire week under ideal conditions. The Boys' Band, of Beloit, consisting of fifty young musicians, will head the parades of farm boys and girls. On Children's Day 30,000 youngsters will sing "The Star Spangled Banner," led by the Boys' and Girls' Department and the combined bands and orchestras of the fair.

The auto show, conducted by the Milwaukee automobile dealers, showing the products of 100 factories will exhibit in the automobile building. The show is larger this year than in previous years and the building, 150x350 feet, will hardly accommodate the many cars that are to be shown. The 1918 models of eighty Wisconsin dealers and exhibitors will be shown for the first time in the state at this show. Every automobile manufactured and sold in the state can be seen here. Two hundred models of the latest types of passenger cars and commercial vehicles will make up the exhibit. Factory experts will be on hand for the purpose of answering questions and demonstrating the engines in the different makes and types of machines. At this show the automobile owner is able to obtain more information of every kind than it is possible to get from the local dealer. Special decorations have been a feature of the automobile building each year and the 1917 show will not fall behind any in this respect. A band has been engaged to furnish music during the entire week of the show.

Clean and wholesome entertainment of a general nature has also been provided. In accordance with the rule laid down by the department of agriculture when it took over the state fair, nothing of the immoral has been allowed to creep in to offend the patrons. The Wisconsin Federation of Women's Clubs endorsed the performances of last year after carefully investigating each entertainment on the grounds. They will be asked to do so again this year.

It is gratifying to note the improvements that have been made in every department of the fair since the management has been put on a business basis.



THE NEW POULTRY BUILDING COSTING $25,000 ON THE WISCONSIN FAIR GROUNDS.

Eggs that have been washed or allowed to get wet spoil much quicker than those which have been kept dry. Moisture removes the gelatinous substance that covers the shell and helps to keep out air and bacteria. A dirty egg will keep better than a washed one. The best way is to provide clean, protected nests for the hens and gather the eggs regularly. Then they may be kept both clean and dry.

Farm Sanitation

Will Increase Your Profits by Keeping Live Stock and Poultry Healthy.

Kreso Dip No. 1

Easy to Use. Efficient. Economical. Kills Sheep Ticks, Lice, Mites and Fleas. Helps Heal Cuts, Scratches and Skin Diseases.

Prevents Hog Cholera.

Experiments on live hogs prove that a 2½% dilution of Kreso Dip No. 1 will kill virulent Hog Cholera Virus in 5 minutes by contact.

We Will Send Free Booklets on

The treatment of mange, eczema or pitch mange, arthritis, sore mouth, etc.;
How to build a hog wallow which will keep hogs clean and healthy;
How to keep your hogs free from insect parasites and disease.

WRITE FOR THEM.

Kreso Dip No. 1 in Original Packages.

FOR SALE BY ALL DRUGGISTS.

PARKE, DAVIS & CO.

Department Animal Industry.

DETROIT, • • MICH.

Important Announcement

See Page 13

Read the advertisements in "The Farmers' Market" on page 2.

HOOVER'S WORD TO FARMERS

Administrator of American Food Supplies, Through More Than 100 Farm Editors, Takes His Appeal Direct to the Farmers of the United States.

THE government of the United States plans to make farming a safe, profitable business within the duration of the war. Knowing that many questions have arisen in the minds of farmers since the passage of the food law, and that rumors of price fixing, government control, etc., have to some extent been misunderstood and thus shaken confidence, Herbert Hoover, administrator of the food law, appeared last Saturday in Chicago before 100 farm paper editors, for the purpose of a heart-to-heart talk on the subjects in which farmers of the country are most interested. Mr. Hoover spoke freely and frankly. He answered without reserve all questions put to him. He asked the editors of farm papers to make the government's position with reference to food administration and control plain to their readers. It was the first time since his acceptance of the important post of food administrator, that Mr. Hoover had left his official duties and gone out to talk to the people. He feels that the work of his department must be made plain to the producers upon whom the government must now depend for help. It was, of course, impossible to call all the farmers of the country together for a talk. So he called all the editors of farm papers representing 12,000,000 readers and the editors agreed to explain his position, which is, of course, the position of the government, to their readers. The articles which will be published in the next few weeks in all the farm papers of America will call forth from their readers new questions. Mr. Hoover wants to answer these questions, too, and he only asks that producers of the country reserve their decision upon important matters until they are in possession of the facts. The Wisconsin Farmer has agreed to help secure facts for its readers, and when this article has been read, if there still remain perplexing questions in the mind of any reader, such reader is invited to direct his question to the editor, and an answer will be secured direct from the department. Mr. Hoover and his associates have agreed to help in this work.

In the first place Mr. Hoover explains that the food problem now characterized as acute, would have arisen in this country even if we had not entered the war. The diversion of millions of men from peaceful pursuits in Europe to war duties has resulted in a loss of 525,000,000 bushels of grain annually. Mr. Hoover and his associates have figured out that it is absolutely necessary for America to export 200,000,000 bushels of wheat and 400,000,000 bushels of other grains, if our allies are to have sufficient food. Our normal export, he says, is 78,000,000 bushels of wheat and 40,000,000 bushels of other grain. Thus it will be seen that we must furnish Europe with three times as much wheat and ten times as much other grain as we have exported in normal times. These facts create a condition which would have been a serious problem to America had we not entered the war and imposed upon ourselves the added moral obligation of fighting alongside of our allies by furnishing them with the most important munition of war-foods. It is of small importance relatively that Australia and India and the islands of the seas can furnish millions of bushels of grain. Under present shipping conditions it may be impossible to get this grain to Europe where it is most needed. America is closest to the allied armies—to our own armies at the front—hence it devolves upon us to carry most of the burden of food supply.

But the grain shortage tells only a small part of the story. Since the war started three of our allies alone in Europe have destroyed 30,000,000 head of live stock. In all of Europe there is a deficiency of 120,000,000 head of live stock. Europe has reduced the consumption of meats as much as possible, but still the shortage of meat and animal fats increases alarmingly. This means, in Mr. Hoover's judgment, and the judgment of his associates, that we must stimulate the production of live stock—in fact, Mr. Hoover asserted that these conditions must revolutionize farming in this country to the end that meat and fat production will be our greatest agricultural industry. Instead of a nation of grain farmers, we must become to a much greater extent a nation of live stock farmers. It will take many years after the war is over for Europe to recuperate its live stock losses. Even when the soldiers may go back to the fields they will become first grain farmers for the reason that they will not have the stock to utilize rougher feeds.

There is to be no attempt on the part of Mr. Hoover or his associates to fix the price of meats. Mr. Hoover said in the outset that the government must depend upon volunteers to stimulate production of meat and fat supplies. It is absolutely necessary for the government and the food administrator to have the confidence of the producers. A great deal has been said about fixing meat prices. Mr. Hoover said that the government has no power to fix meat or other prices. It is a mistaken idea that Hoover is a dictator and that he will attempt to run things with a high hand. In a democracy like ours, he says, no such thing is possible. The work of the department does not contemplate the fixing of meat prices, although the department does hope to stimulate production of meat and to get cheaper meat for the masses of people. This will be accomplished not by cutting off the profits of the producer, but by eliminating the waste between the producer and the consumer. Packers have met in conference and will undoubtedly agree upon the most rigid economies in handling meats from the time they leave the farm until they reach the table, or the ships for export. Men who have made millions in packing are now willing to cut those profits down to a minimum. In the near future we may expect to have a schedule of live-stock prices which will be commensurate with corn and other feed prices. The speculators must go. In a time of national emergency the government has no intention of simply urging the farmer to produce more and then sacrifice more than the middlemen and consumers must sacrifice. In fact, the whole great aim of food administration is to equalize the situation to the extent that the farmer-producer shall be well paid for his extra work and the consumer and our fighting armies and those of our allies shall receive meats and fats at the least possible cost.

All grains follow wheat in the markets of the world, hence the government's action on wheat is a fair indication of what the farmer may expect. The government will set a minimum price on wheat, which it is expected will be $2 or $2.10 per bushel, the price to be fixed as to central markets and graduated as to outside stations and elevator points and also as to grades according to the grading system of the department of agriculture. Every farmer will know just what the government will pay for wheat at any elevator in the United States. The government does not require any farmer to sell his wheat at the fixed price. If anyone wants to pay the farmer more than the fixed price, he may do so. If any farmer wants to sell at less than the government prices, he may do so, but this is, of course, ludicrous. Mr. Hoover objects to the words, "fixing the price." Price fixing in this case simply means that the government will buy at a stated price for a stated period of time, all the wheat which the farmers of this country will offer. It makes no difference how much wheat is raised, the price will be the same. It makes no difference how little wheat is raised, the price which the government offers will be the same. If the war should end in a month the government will continue to pay the price which it has fixed on wheat for a year to come, and all conditions usually affecting the market will be disregarded. The wheat situation elicited many questions from Mr. Hoover and he answered them all "open and above board." The first question asked was whether the government was not in effect reducing the price of wheat. Mr. Hoover said that on the contrary the government is not only putting wheat on a stable foundation for the period of a year, but that it is actually advancing the price to the farmers of the country. A few people will not understand this statement when they consider the $3 per bushel and higher wheat quotations of the past few months. But Mr. Hoover makes it plain, and we can all understand it if we stop and consider. Most of the 1916 crop was sold at less than $1.50. Much of it was sold at around $1 a bushel. But a large part of the bread made from the 1916 crop was made from $3 wheat—not $3 which the farmer got, but $3 and over which the speculator got. What the government is actually doing is eliminating that extra $1.50 per bushel or over. From and after the date that the government starts buying wheat at a fixed price, bread will be made from wheat which will cost the millers what the farmers get for wheat, plus the added handling cost, which is nominal when applied to bushels. Last year the farmer got $1 to $1.50 a bushel for wheat and the workmen of our cities bought bread on the basis of twice that cost for wheat. While the majority of farmers will actually receive 50 to 60 cents or more per bushel for 1917 wheat than for the 1916 crop, the makers of bread will get flour made from wheat which cost the millers on an average of 50 cents to $1 a bushel less than the first six months of 1917. Asked what assurance we may have that the millers will not take advantage of the situation and extort high prices for flour, Mr. Hoover quoted verbatim from a contract with the millers of the country. This contract provides that there shall not be a greater profit made on flour than 25 cents a barrel, nor a greater profit made on mill feeds than 50 cents per ton. The government hopes and expects through this administration of the food supply to give the farmer more for his wheat and get cheaper bread for the workingmen and soldiers. The millers' contract above referred to means cheaper flour, and furthermore, it will mean a readjustment of prices on milling feeds. Our dairy districts will be affected by this readjustment, especially on bran, which, it is apparent from the plans outlined, must be cheaper. For bran will come from $2 wheat (or approximately that), and the profit will not exceed 50 cents a ton, whereas many of us have bought bran during the past year from $3 wheat, with no limitation on the profit which the miller might add should he see fit. It is only fair to presume that the miller has caught the spirit of the times and added profits proportionate to those which have been added in other lines.

But what is to prohibit men paying a little more than the government prices for wheat and getting control of the supply and then selling it at any price which may suit them? The government has looked out for this. In fact, it appears that the eagle eye of Mr. Hoover has searched the innermost recesses of this wheat and general food problem. No man will be allowed to keep wheat in elevators more than thirty days. The government may keep wheat as long as it likes. Private concerns will not be allowed to hold wheat for speculative purposes. The government, of course, is not interested in speculation, but wants wheat for food for our home folks and our armies in the fields. No private individual can afford to buck the elevator movement proviso of the wheat control scheme. The government has considered everything and decided that a certain price is fair for wheat—fair to the farmer and fair to the millions who must have bread. The government is protecting the farmer against a glutted market. It has been this glut every fall that has run the price of wheat down. Our normal shipping capacity to handle grain from the Atlantic seaboard has been cut about one-third. This means that wheat will pile up in elevators all over the country this winter and the government proposes to control this wheat in elevators, to the end that the speculator may not have any chance at it—"not even a crack where he can poke his nose in," as Mr. Hoover remarked. The board of trade, to use another Hooverism, has been "interned for the war" and there are many who believe that it may never again be opened.

Mr. Hoover wants it understood that he has had no connection with the work of the price-adjusting board, which has been busy trying to establish a fair price on wheat for the year to come. "I have not, nor will I suggest what is a fair price," he said. There is a general opinion that the price will be about $2, and for the sake of convenience that figure has been used in this article. While addressing the farm editors in Chicago Saturday a statement was handed to Mr. Hoover to the effect that wheat had been fixed at $2.10. Mr. Hoover said he had no idea whether this was the government's established price or not.

Farmers are, of course, interested in cost of things they have to buy just as much as working men are interested. Mr. Hoover was asked whether the government will take a hand to protect the farmer as a consumer just as it is endeavoring to protect working men in the industries of the country, as consumers. Mr. Hoover replied that no favorites are to be played. He says there is no general panacea accepted by the food administration department for any existing evils. The hope is that the department will be able to cope with problems as they come up and settle them with satisfaction to the greatest number. The government, however, will not ask the farmer to work for poor pay any more than it will ask ammunition makers to work for poor pay. The government is endeavoring to put farming on a stable basis, unaffected by crooked speculators and market manipulators. The government is looking into the sugar situation and Mr. Hoover says that sugar will be reduced 1½ cents a pound, to 6½ cents, which will mean a saving of $30,000,000 in three months. The government has approached the wheat price on the basis of an increase of 140 per cent of the pre-war price. It expects to reach an agreement whereby suagr will be furnished at 40 per cent advance of the pre-war price and coal at not to exceed 90 per cent over the pre-war price.

Farming, in the judgment of Mr. Hoover, is not only to be a stable profitable business within the duration of the war but for many years after the war. It is his opinion that war prices, or nearly war prices, will continue for a long period of years, even though there may be some retarding effects on certain lines of industry after the war. The government feels that in a free country like this its plans must be agreed to and concurred in by the farmers, to make them successful. The conditions such as exist under German system, will not be undertaken in America. In Germany a superintendent of a given district parcels out the seed, tells each farmer just what he shall plant, and takes possession of the crop when it is harvested. In return the farmer is

(Continued on page 16.)

6½ to 10%

on your money

See Page 13

WANTED—For cash, one to buy a well-bred herd of Herefords. If you have a herd and [illegible] that you think will interest a [illegible] buyer, address [illegible], Waterloo, Ia.

Dairy Interests at the Fair.

Dairy displays are annually growing in interest and in proportion at our state fairs and expositions. From early in the summer until midwinter state fairs, sectional fairs or dairy shows are being held. It would seem that there is a dairy display within easy access of every man who is in any wise interested in any phase of the all-important industry.

Among the first impressions and at the same time one of the lasting impressions that a visitor gains is that dairying is a big, imposing and important industry. In the value of the animals, in the attractiveness of the exhibits and in the businesslike ability of the owners, the dairy division often exceeds the horses, beef cattle or hogs.

A dairyman may rightly term a trip to the fair a vacation. True, he is likely to spend most of his time with the dairy stock. However, he will do this through pure interest and not as in a sense of duty and will secure enjoyment therefrom. Herein lies the benefit and the pleasure of a vacation. He is relieved of the routine of the labor of his farm and barn. The very interest of the show arouses in him a feeling of pride and satisfaction in his business. This enables him to return to his home the better to enjoy his work and the better to get results gratifying to himself.

The dairy business does not permit one to see all of a large show in one day. It is too much a matter of details and important aspects. At one time there existed a type of state fair visitor who believed that he could see everything on the grounds during the forenoon of one day and could take in the races during the afternoon. Returning home late in the evening, he invariably felt that he had seen everything, yet it is to be doubted if any single lasting impression was carried away by him. The real open-minded progressive dairyman may not the first half day get through the barn where his favorite breed is sheltered. He is likely to spend several half days in the show ring watching carefully the judging. Hours and possibly days are spent in the manufacturing or in the machinery section. Silos and silo machinery claim his attention and perhaps he gets an idea concerning a new type of gate or other farm equipment as he studies the immense amount of commercial products on display.

Naturally a dairyman's chief interest centers around the cows. He studies the type of the great cows of the breed of his fancy and enjoys it immensely. He compares the show ring record with the record made at the home barn. There is an art and a science to fitting and showing dairy cattle. The dairyman who hopes later to show cattle of his own studies carefully the methods and manner of fitting and exhibiting as practiced by prominent and successful exhibitors. The thoughtful dairyman invariably is studying the methods of breeding as is shown in herds prominent in the winnings. Scarcely without exception when a dairyman wins in the classes for older stock he likewise gathers in numerous ribbons with his younger animals. To learn the secrets or the hard sense used to secure marked results encourages and helps any breeder of dairy cattle.

Dairymen meet old friends at the fair and are constantly making new acquaintances. Should a poll be taken of dairymen who visit fairs regularly it is probable that the majority would say that in meeting their friends and acquaintances lies one of the most enjoyable features and benefits of attending the fair. They visit and swap ideas and compare methods and directly and indirectly help and encourage each other.

Just as the dairy section of fairs has grown in proportion so has the interest of visitors grown. Dairying now constitutes one of the main lines of interest of fair goers. The dairy show is full of information and inspiration. The question no longer is, "Can I afford the time and expense necessary to attend the fair or dairy show?" but, "Can I afford to not attend the fair or dairy show?" Successful breeders and dairy cattle and successful, up-to-date dairymen have been persistent fair goers. Doubtless it pays in dollars and cents and in recreation.

Richland County Holstein Meeting.

To the Editor:—The Richland County, Wis., Holstein-Friesian Breeders' Association held their annual summer picnic August 14th at the home of H. A. Brace, near Lone Rock. The attendance was large, coming from three counties, and many new members joined, some from adjoining counties, until such time as their own county may organize a similar association.

Following a sumptuous repast, which, of course, always comes first at a picnic, Prof. G. C. Humphrey, of our state university, delivered an address, and then, going to the barns, demonstrated how to judge a cow and also the use of a score card.

Mr. R. R. Runke, emergency agent for Richland County Council of Defense, also addressed us on the subject, "Breeding and Feeding Holsteins," giving many excellent ideas as to how the dairyman can produce a more balanced ration on his farm without purchasing so much mill feeds at this time of almost prohibitive prices.

The ladies were highly interested in a discussion led by Mrs. C. C. Fries, of Richland Center, Wisconsin, on economy and method of canning. Mrs. A. T. Rundell gave a very interesting and instructive talk on the Red Cross Society and its world-wide work. The only feature to mar the pleasure was the fact that the day was altogether too short. A. H. Button, Sec.

Tighten the Cream Screw.

To the Editor:—Unless you have the cream screw set to skim a cream testing 30 to 35 per cent fat, every skimming will cost you money.

Many a Wisconsin dairyman loses from $50 to $100 a year because he skims less than a 35 per cent cream. Every pound of butter fat you sell, in cream testing less than 35 per cent (the ideal for high quality butter), is costing you money through the skim milk you lose.

You are paid not for the actual weight of your cream, but for the butter fat it contains. Result: 286 pounds of cream testing 35 per cent contains as many pounds of butter fat as 500 pounds of cream testing only 20 per cent. And the 35 per cent cream saves you 214 pounds of skim milk, worth 75 cents a hundred, in that case worth $1.60, for feeding calves, pigs and chickens.

Every skimming of cream that tests under 35 per cent costs you money. And it's so needless—so easily preventable. Just turn your separator cream screw in a little. A slight turn inward will increase the richness of the cream. You may be obliged to try two or three times before the screw is regulated just right.

Wisconsin annually sells about 500,000,000 pounds of cream to butter factories. If this cream tested 20 per cent and the test were increased to 35 per cent, about 200,000,000 pounds of milk could be saved—skim milk worth $1,500,000 as feed, the equivalent of a million bushels of corn.

Rather worth saving isn't it? Consequently the man who skims a rich cream makes money for himself and at the same time performs a patriotic service.

Keep more skim milk on the farm. It helps eliminate waste and the elimination of waste is patriotism.

Dairy Dept., College of Agriculture.

Alban and New Hope Association.

To the Editor:—The forty-five-pound list of the Alban and New Hope Association, Portage county, for the month ending August 4th, is as follows:

Owner, name and breed	Age	When fresh	Lbs. milk	Per cent of fat	Lbs. b'fat.
F. A. Nace					
Wisconsin Lass Aggie, Reg. Holstein	10	5-26-17	1350	4.0	54.0
Second Grade, Grade Holstein	7	4-30-17	1155	3.9	45.0
Colantha, G. H.	6	10-16	990	4.6	45.5
M. J. Bestul					
Whiteface, G. H.	5	3-15-17	1102	4.3	47.4
Whiteface 2d, G. H.	5	6-1-17	1314	3.6	47.3
Colantha, G. H.	5	6-2-17	1114	4.3	47.9
M. O. Wrolstad					
Goldie, G. Ays.	5	5-21-17	1200	4.1	49.2
C. E. Ericksen					
Whiteface, G. Gur.	9	3-3-17	1211	4.8	58.1
Rolin, G. Gur.	9	2-29-17	965	5.1	49.2
Carl A. Hole					
Gr. Gur.	.	5-10-17	1200	4.2	50.4
Alfred L. Brekke					
Snokum, G. H.	9	3-10-17	1209	4.0	48.4
Anton B. Brekke					
Selina, R. H.	7	5-10-17	1445	3.6	52.0
Otto Halvorsen					
Beauty, N. H.	8	5-27-17	1252	4.5	56.3
M. J. Wrolstad					
Grade Guernsey	10	1-10-17	1004	5.4	54.2
Grade Guernsey	3	4-26-17	952	4.8	45.7
Grade Guernsey	3	11-16-16	696	6.8	47.3
Grade Guernsey	5	6-1-17	915	5.2	47.6

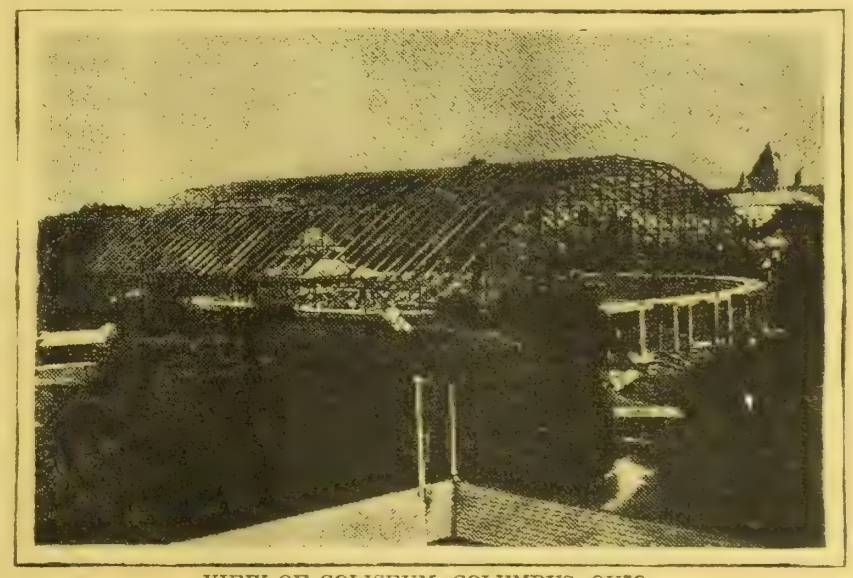
M. E. SMITH, Official Tester.
M. J. WROLSTAD, Secretary.

Wood County Association No. 2.

To the Editor:—The following is the list of forty-five-pound cows in Wood County Association No. 2 for the month of July:

	Age.	When fresh.	Lbs. B'fat.
Joseph Gerlock			
Nellie, Native	9	4-15-17	57.99
Nigger, Native	8	3-25-17	46.13
Thomas Thompson			
Johanna Wib., R. Hol.	10	5-28-17	46.11
E. E. Royce			
Veeman, R. Hol.	8	3-19-17	60.34
Bess, R. Hol.	6	1-8-17	46.81
Maggie, R. Hol.	7	5-4-17	48.22
Nannett, R. Hol.	3	6-11-17	56.78
Wm. Schimmelpfennig			
Eva, G. Durham	5	2-12-17	50.19
Ed. Dexheimer			
Swiss, G. B. Swiss	4	6-14-17	48.80
Wm. Schmidt			
Black, G. Hol.	7	6-5-17	45.12
Mrs. C. Seubert			
Reddie, G. B. Swiss	6	5-8-17	55.09
Wilmer Drollinger			
Moose, G. B. Swiss	4	6-30-17	60.02
George Ariens			
Lily, G. Guernsey	6	3-25-17	45.93
Flossie, G. Guernsey	4	5-19-17	46.72
Chas. Krocker			
Stub-teat, G. Hol.	5	6-30-17	50.24
C. F. Schroeder & Sons			
Milda, G. Hol.	9	6-10-17	61.64
Fred Jones			
No. 6, G. Hol.	6	4-20-17	46.24
Ralph Heidrich			
Annie, G. Hol.	3	6-18-17	45.25
Ole Heggelund			
Primas, G. Jersey	13	11-5-16	54.55
E. E. Miner			
Black Buck, G. Hol.	6	2-15-17	47.99
Alfred Willett			
Loretta, G. Jersey	6	11-20-16	45.16
Bessie, G. Jersey	8	5-10-17	52.71
Wm. R. Burbopp			
Dolly, G. Guernsey	8	11-15-17	48.76
May, G. Guernsey	4	6-8-17	45.22
Minnie, G. Guernsey	5	3-5-17	46.90
Jacob Pelmarsch			
Rosy, Native	9	4-25-17	45.35
A. C. Vanscoyk			
Spot, G. Hol.	4	5-30-17	51.59
Walter Maxwell			
Little Spot, G. Hol.	5	5-7-17	45.51

CLAREL STOWE.



VIEW OF COLISEUM, COLUMBUS, OHIO.

The 1917 National Dairy Show, which will be held at Columbus, Ohio, from October 18th to 27th, will be housed in this new concrete, steel and brick structure 325 feet long by 202 feet wide. The show arena is 200 by 100 feet. This building has a seating capacity of 6,200 and can be made to seat 15,000 by utilizing the ring. It will be lighted by the most modern system of direct and indirect lighting that has yet been developed. The cost of this structure will be in excess of $200,000. Before being built, the architect of this building, Mr. H. C. Holbrook, visited every coliseum in the United States, so that it may be said to be the last word in this type of construction.

Sell Your CORN

and buy Unicorn Dairy Ration for much less money and get three times the milk value of corn or oats. Unicorn is pure, healthy, economical. It helps wonderful records for yearly production from 11,000 to 15,000 pounds average for the whole herd. Send for information and free copy of useful Cow-Testers' Manual at once. Free upon request.

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Non-Shrinkable—Practically Everlasting, Rot-Proof, Worm-Proof, Storm-Proof, Acid-Proof.
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CORN HARVESTER Self Cutting for cutting Corn, Cane and Kafir Corn. Cuts and throws in piles on harvester. Man and horse cute and shocks equal to a corn binder. Sold in every state. Price only $22 with fodder binder. The only self gathering corn harvester on the market that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "3 years ago I purchased your Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Huggins, Speermore, Okla. "Works 5 times better than I expected. Saved $40 in labor this fall." Roy Apple, Farmersville, Ohio: "I have used a corn shocker, corn binder and 2 rowed machines, but your machine beats them all and takes less twine of any machine I have ever used." John F. Haag, Mayfield, Oklahoma. "Your harvester gave good satisfaction while using filling our Silo."—K. F. Ruegnitz, Otis, Colo. "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.
PROCESS MFG. CO. Salina, Kansas

Only Two Weeks More
See Page 13

Ireland's farmers this year have produced a wheat crop 53.8 per cent larger than last year and 137.1 per cent more than the average crop for 1911-15.

PIPELESS CALORIC FURNACE

"Let Me Tell You About My C

Mr. F. S. Plasterer of Huntington, Ind., is a manufacturer of more than local fame. He has a wide acquaintance throughout northern Indiana, and is used to the best in his home.

LET US START WITH THE RECEPTION HALL—THE THERMOMETER SHOWS 72

Mr. Plasterer has permitted us to tell his own story of the Caloric Pipeless Furnace:

"My house has nine rooms and a bath. It was always difficult to heat it satisfactorily. We had a big baseburner in our living room, another one upstairs, a range in our kitchen, grates and gas heaters in our bathroom and the hall. Even then some of the rooms were too cold to be habitable during the winter months, and we shut up several of them.

"One day I was visited by an agent for the Caloric Pipeless Furnace. He told me he could heat my house. I didn't believe him, but when he undertook to explain the principles on which this furnace worked I became interested, and I later ordered one.

"That was one of the best things I ever did, because the comfort we have enjoyed every year since then has more than counter balanced the low first cost.

OUR FRIENDS SAID THE LIVING ROOM WOULD GET TOO HOT—THE THERMOMETER TELLS A DIFFERENT STORY

"But my neighbors didn't think I was doing a good thing. Several called on me and told me they thought I was foolish to try to heat a large house with one register. One neighbor said he would make an engagement with me for the first day the temperature was below zero and bring blankets with him to keep our family warm. We invited him to dinner that day and showed him every room in the house warmer than seventy degrees, and the furnace not running at full blast.

"If you will come with me through my home I think I can convince you that the Caloric heats the house very comfortably. Let us start in with the reception hall. It has two big windows, and the stairway runs up from it, and yet you can see by the thermometer that it is seventy-two degrees warm. All winter this hall has been very comfortable, and I tell you it means something to a man to come in from the cold streets to a house that is warm all the way through.

"Right at the side of the entrance hall is our parlor with three big windows. We have used it all winter without closing the doors, and it has been just as warm as the entrance hall.

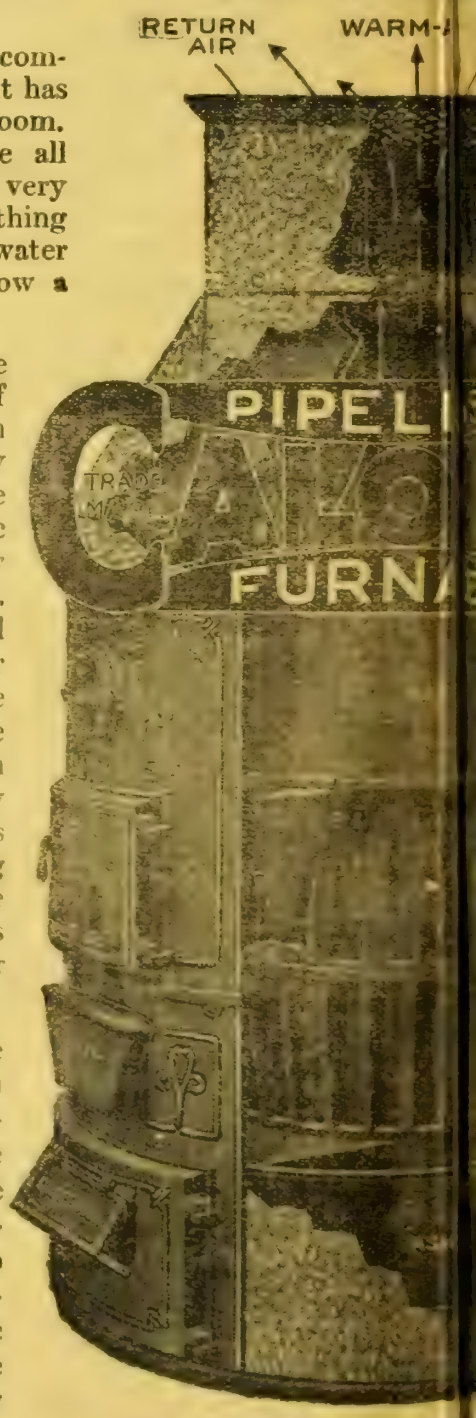
"You can look through the doors of the parlor into our living room, where the register is. Our friends told us that the living room would be unbearably hot and the rest of the house cold, but the thermometer tells a different story.

"A door from this living room communicates with the kitchen, and it has another door from the dining room. We have used only a gas range all winter, and the kitchen has been very comfortable. We haven't had anything freeze, and the terror of freezing water pipes that used to be ours is now a thing of the past.

"You can see from the picture of the dining room that it has a big bay window. Before we put in the Caloric this bay window was always cold. Mrs. Plasterer did not dare put her plants in it, and the unlucky one of the family that sat with back to the bay window at meals wanted something more than house clothes. Now it is a favorite place for the cat.

"Now, let's take a look at the upstairs. The room I show you here is a large bed chamber with a big bay window. It faces the northwest, and whenever the wind came from that direction in the winter time my wife and I felt the necessity for more covering; in fact, sometimes we had to get up and go into one of the other rooms. You know our Indiana weather is cutting and our house faces the river, so that when the wind swept up over the ice it seemed to go right through the window panes. Now my wife's taste for flowers can be

THAT BAY WINDOW USED ALWA A FAVORITE PLACE F



The Original Patented F

THE MONITOR STOVE and RANGE CO

PIPELESS CALORIC FURNACE

PIPELESS CALORIC FURNACE

Caloric Pipeless Furnace"

E COLD—NOW IT'S CAT

s Furnace

gratified in any room in the house and our bedroom always has some beautiful plants.

"The hallway through the center of the upstairs seems to act as a runway for the heat. We leave the doors of the other bedrooms open and they are very comfortable; in fact, my daughters, who prefer a cold room, close these bedroom doors in the afternoon so that their sleeping chambers will be cool.

"At the far end of the hall is the bathroom. In the long winter nights, with the thermometer way down, this is always comfortable, and we have never had any possibilities of frozen water pipes. I refer to those frozen water pipes again because it was a pretty serious matter when we had two baseburners, a kitchen range and two oil stoves trying to heat the house

"Then, there is another feature that Mrs. Plasterer says is worth as much to her as anything else. We have a big attic over the whole house, and on rainy days and in cold weather this is where we hang our family washing. We just open the door leading to the attic stairway, and the furnace does the rest. It is so clean that the clothes are never dusty and never marred by coal smoke as they used to be when we had the stoves.

"Now that I have shown you where we live, let's go down and look at the furnace. I want you to see how little room it takes, and how we can use our cellar. The furnace keeps the temperature just above freezing. This enables me to lay in a nice stock of vegetables and fruits when prices are comparatively low, and to carry them through the winter with the perfect assurance that they will keep well.

"Another thing I like about the furnace is the cleanliness. The ashes and dust in handling the furnace are less than what I used to take from one of my baseburners. Nor have we any trouble with this furnace smoking. So the house is easily kept clean.

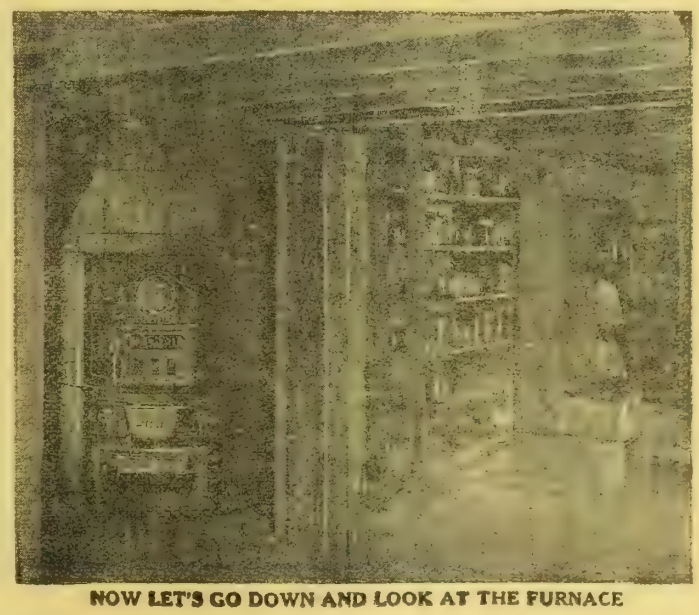
"You see I haven't a big coal bin. When I had the two baseburners I used to buy for them and the kitchen range fifteen to eighteen tons of coal, and I want to tell you that it was some job to carry that coal upstairs and to carry the ashes down. Now I reach from the furnace to the coal bin with my shovel and I put the ashes out of the window at the side of the furnace. It isn't any work at all.

"Besides, and this will be good news to the people who are thinking of furnaces, I don't burn as much coal by forty per cent. It is a very unusual winter that would require me to use nine or ten tons of coal. In fact, since the furnace was in, I have never reached that amount.

OUR BEDROOM—THIS ONCE COLD BAY WINDOW IS NOW A PLACE FOR FLOWERS

"Then I had another experience. In a building operation I had to remove a lot of piling that had been used to make a platform. The boys were going to burn that up, but I had a saw and I had this cut into chunks and stored in my cellar. Pretty nearly all of the winter I fired the furnace on this wood, that otherwise would have been wasted, and the fire kept just as well as it did with the coal. In fact we burn all kinds of trash in this furnace.

"Do you wonder, then, with my house comfortable at less than two-thirds of what it used to cost me in money, and less than one-third of what it used to cost me in labor, I am enthusiastic about the Caloric? To my mind it is the one best buy in heating devices, and I wouldn't be without mine for ten times its cost."



NOW LET'S GO DOWN AND LOOK AT THE FURNACE

Mr. Plasterer is not alone in this opinion of the Caloric Pipeless Furnace. We have hundreds of customers who will tell you stories equally as interesting.

You needn't suffer the inconvenience of stove heating another winter. The Caloric can be installed in any house, and the one register will not cut into your walls or make it necessary for you to incur a big bill for redecorating or replacing plaster and woodwork.

Perhaps there is a Caloric dealer in your town. See him. He will show you the furnace, explain to you why it is so successful and tell you about our strong guarantee. If you don't know him, write to us and we will send you our booklet, "Progress," that explains why the Caloric is so superior.

PANY ESTABLISHED 1819 2529 GEST STREET CINCINNATI, OHIO

PIPELESS CALORIC FURNACE

SUBSCRIBERS who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention, inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delaying printed answers, those to whom it is important to receive an immediate reply by mail, should remit $1.00, addressed as above. All inquiries must be signed if they are to receive attention.

Law Questions.

Death of Mortgaged Horse.

A Subscriber, Madison, Wis.—A owned a horse, and B had a mortgage on it, and the horse died. Will A have to pay B for the horse?

Answer.—The mortgage on the horse was given to secure the payment of a note or other debt which A owed to B. The death of the horse did not cancel such note or debt and A still owes the same to B and B can compel A by law to pay the amount of the note or debt.

Adjoining Lands—Tile Connection.

A Subscriber, Walnut, Ill.—A and B own adjoining farms in Illinois, B's land being on the higher ground. A tile drained his farm with four-inch tile. Has B a right to tile his farm with eight-inch tile and connect same with A's tile when the four-inch tile will not carry off all the water?

Answer.—B has no right to connect his eight-inch tile with A's four-inch tile without A's consent, and A can prevent him from doing so and disconnect the tile if he does.

Rental Contract—Liability.

A Subscriber, Fairfax, S. D.—B rented a store building from A for one year with the privilege stipulated in the contract that if B wished at the expiration of the year to continue he could have the building for a longer period for more than one year after the first year expired. (2) B sublet the building to C and D, each to pay $10 per month and this contract ran over the second year. B made an assignment before the year expired. Are C and D required to pay their part of the rent?

Answer.—(1) The contract was binding for only one year after the first year expired. (2) C and D are liable for the rent they agreed to pay.

Drainage—Injunction.

A Subscriber, Bunker Hill, Ill.—A and B own adjoining farms in Illinois. A's farm is on the higher ground, and slopes gradually towards B's farm. A public road is between the two farms. A tiled a portion of his farm to the road, and the water crosses the road through a culvert into a small draw on B's farm, which draw was previously farmed by B, but A's drainage water has made it too wet for cultivation. Has A a right to so discharge his drainage water and if not how can B prevent it?

Answer.—We are of the opinion that A has no right to so discharge his drainage water and that B can procure an injunction from the circuit court to prohibit A from doing so.

Private Road.

A Subscriber, Wheeler, Wis.—A owns three forties of land in Wisconsin, and has owned and worked it for thirty years. This land is eighty rods from the public road and A has to pass over B's land to go to the public road. A bought from B a right of way over B's land and the township board laid out a road for A thereon. B wanted a high bridge on the road so that cattle could go under it from one field to another. A was to put up the frame of the bridge and the town was to plank the floor of it. A built the bridge and asked the pathmaster to furnish a man to do scraping, but he refused, saying the road had not been established by petition and was not a legal public road. Can A compel the town to grade this road and work it?

Answer.—A cannot compel the town to work or grade said road, because it is merely a private road for A's use and not a public road.

Horse Trade—Stallion Service.

A Subscriber, Beloit, Wis.—More than a year ago, I traded a bay mare for a gray mare. Both mares were supposed to be with foal at the time of the trade. The man who owned the gray mare, and I, agreed in the trade that each one should pay the service fee of the stallion, for the colt he got. The bay mare had a colt in May, 1916, the gray mare did not have a colt. Who is required to pay the stallion service fee for the bay mare?

Answer.—According to your contract, the man you traded with should pay the service fee for the bay mare that had a colt, but it is doubtful if you can collect it by law, as the contract was merely verbal. Your trade had no effect as to the owner of the stallion to which the bay mare was bred. The owner of said stallion can collect the service fee from you and not from the other man.

Trees Near Division Line.

A Subscriber, Necedah, Wis.—A and B own adjoining farms, which are separated by a partition fence twenty rods long. A has large trees on his side of the fence and the branches extend over and above B's land and so shade it as to hinder the growth of crops on a strip twenty feet wide along the entire line. Has B a right to cut off the branches?

Answer.—B has a lawful right to cut off the branches of the trees exactly at the division line and throw said branches over on A's land.

Conditional Deed to Child.

A Subscriber, Champaign, Ill.—I wish to deed to one of my children a farm of 160 acres in consideration that it shall pay to me and my wife $3 per acre every year as long as we live, stating in the deed that such payments are to be made on the first day of July every year at a certain bank specified in the deed. Would such a deed protect me and my wife in case the child would fail to make the payments?

Answer.—Such a deed would not protect you and your wife in case the child would fail to make the payments. A conditional deed could be made to protect both of you. We advise you to employ a good, reliable lawyer to prepare such a deed, as it requires skill and care to do so.

Shade of Tree on Another's Land.

Mr. Chas. Weinkamf, Mukwonago, Wis.—My neighbor owns a lot of land adjoining mine on the south, and a maple tree stands on his land just inside the division fence. It is not near his house, and is not a pretty tree. The limbs of it overhang my ground, and I cannot raise anything on it under the tree, as it shades my ground most of every day. What can I do by law about it?

Answer.—You cannot compel your neighbor to cut down the tree, but you have a right to cut off the branches which extend over your land exactly at the division line and throw the branches over on his land. This is all you can do. You cannot get rid of the shade nor recover damages on account of it.

Notes—Deed—Mortgage.

A Subscriber, Medford, Wis.—(1) When is a promissory note outlawed in Wisconsin? (2) If interest on a note is kept paid up, when would such note be outlawed? (3) If a person owes a note, and has no property either real or personal, can the note be collected? (4) If a person has property and gives a note, and afterwards deeds his property to his wife or some other person, or gives a mortgage on his property, can the note be collected?

Answer.—(1) Six years after it is due. (2) Same time. (3) It cannot. (4) When a person owes money on a note and deeds away his property to his wife or other person or gives a mortgage for the purpose of avoiding the payment of the note such deed or mortgage may be set aside and the property taken to pay the note.

Thirty Years With the Brown Swiss Breed.

(Continued from page 1.)

that is the reason there are now and have been for thirty years and always will be, according to both Monte and H. W., Brown Swiss cows on Pleasant View Farm.

But not only in the show ring has the Ayers herd distinguished itself. A glance over the records of the various cows shows that their production compares favorably with that of any other breed of cattle both in milk and butter fat. Merney, one of the Ayers cows and one of the first cows of the Brown Swiss breed to have a record, produced as a four year old 10,503.9 pounds of milk and 417.6 pounds of fat. As a five year old she increased this to 13,653.7 pounds of milk and 554.49 pounds of fat. As a mature cow she was again put on test and produced 14,674.7 pounds of milk and 596.9 pounds of fat. She was sired by Mac Watch, one of the famous bulls of the breed. A daughter of Merney is Merry Merney, whose record as a five year old is 15,679.5 pounds of milk and 628.86 pounds of fat. A granddaughter of Merney, Merry of Allanhurst, has a record of 14,371.3 pounds of milk and 578.87 pounds of fat. A sister of Merney is Ion, with a record of 10,660.6 pounds of milk and 451.98 pounds of fat.

Another cow of the Ayers herd was one of the first cows brought onto the place. Her name is Alpha Girl, with a record of 12,989.7 pounds of milk and 534.85 pounds of fat as a three year old. A sister to her, Lady Farrand, has a record of 14,376 pounds of milk and 581.86 pounds of fat. Flora Duwire is another of the big yielders that the Ayers herd can boast of. Her record is 16,538.1 pounds of milk and 649.42 pounds of fat. Azure has a record of 14,236.6 pounds of milk and 531.94 pounds of fat. She is by the bull, Junker, an imported animal with a record for high-producing offspring. Molly P., a sixteen-year-old cow, produced under test 13,564.4 pounds of milk and 512.79 pounds of fat. She had fourteen calves, and of this number only two were bulls. She was bred and raised on the farm from one of the early cows of the herd. One of her daughters is now eleven years of age and has produced in that time nine healthy calves, every one a bull. Mr. Ayers called attention to this fact, as it is often said that when the grandam and the dam show a majority of their calves to be heifers the offspring will tend to produce heifers also. The heifer calves produced by this old cow have ranged from the extreme production of nine bull calves in eleven years to about half and half.

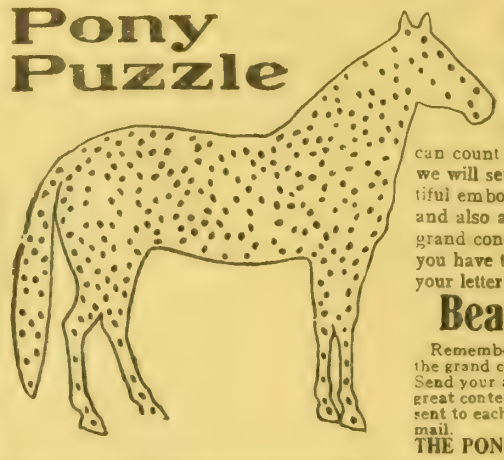
A dirty calf pail is one of the chief causes of scours in calves. If the pail is not cleaned out thoroughly after each feeding, the residue sours and becomes a medium for the growth of millions of bacteria. When these bacteria get into the digestive tract of the calf they cause trouble. For this reason it may be strongly urged to clean out the calf pail after each feeding and if possible sterilize it, so that bacteria cannot find a place to lodge and flies will not use it as a breeding place.

The federal farm loan board in its first year of service has put machinery for coöperative banking in every state. At present the rate of growth is about twenty-five new associations daily, each association representing about $50,000 in loans.

HIDES TANNED.

LET US TAN YOUR HIDE—Cow [illegible] skins for coat or robe. Catalog [illegible] Crosby Frisian Fur Co., Rochester, N. Y.

Pony Puzzle



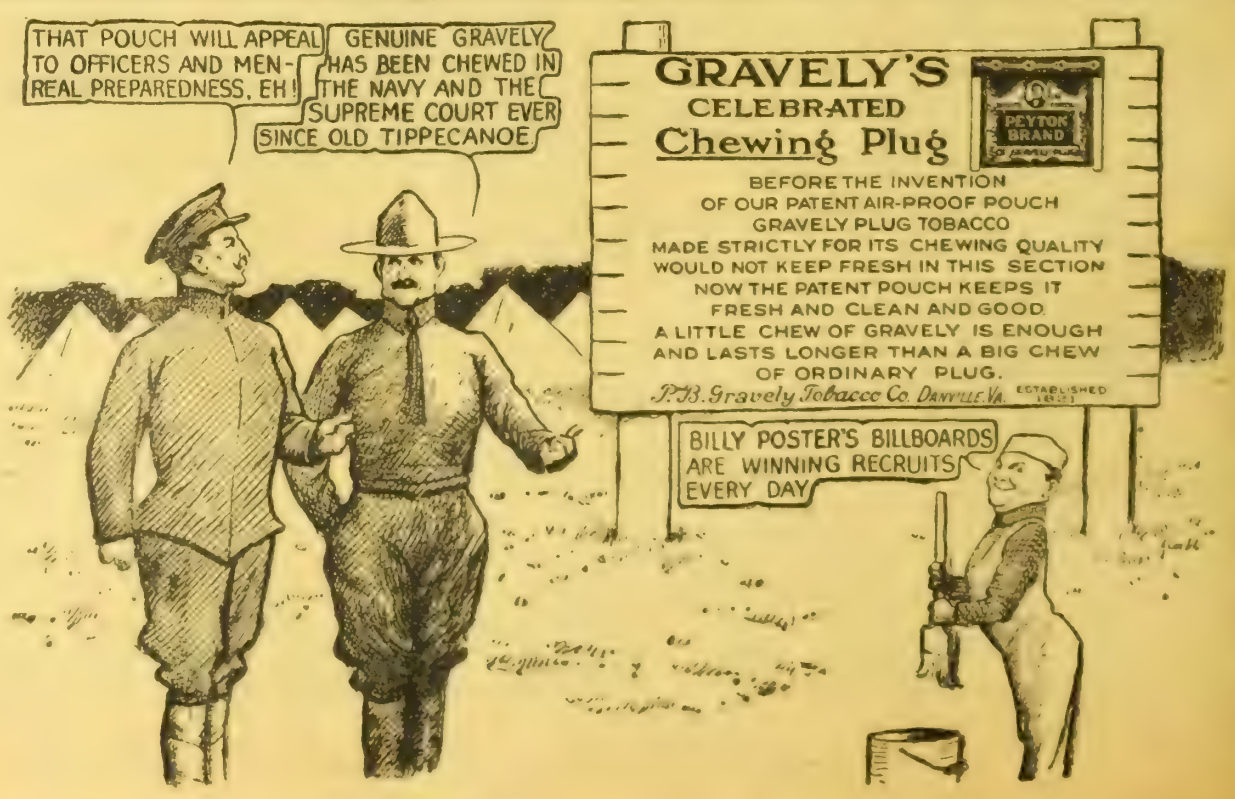
Count the Dots and Win a Prize

Here is a Shetland pony covered with dots. By being careful any boy or girl can count the dots on this pony. If you can do this we will send you as a prize, a packet of five beautiful embossed postcards lithographed in rich colors, and also a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland Pony. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

Beautiful Pony Given

Remember the pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in this great contest. In case of a tie for the pony one will be sent to each person so tied. Full particulars by return mail.

THE PONY MAN Dept. 22 3 Des Moines, Iowa



Equipment for Farm Sheep.

Adequate Protection for Flock of Sheep Is Possible at a Very Moderate Cost.

EQUIPMENT for raising sheep on farms need not be expensive, say specialists in the U. S. Department of Agriculture. Elaborate and expensive structures do not insure economy in management and are not essential to the welfare of the flock. In mild latitudes, little housing of any sort is needed, but, where winters are longer and more severe, some protection from storms is required. Under such circumstances, the buildings in which it is proposed to house the sheep should be dry, well ventilated and free from drafts, but no special provisions for warmth are required.

Where the flock contains 100 or more ewes, it is desirable to provide a separate building for it. Smaller flocks can be cared for in sections of barns which contain other stock. In Farmers' Bulletin 810, Equipment for Farm Sheep Raising, a new publication of the U. S. Department of Agriculture, a number of plans are given for different kinds of sheep barns, and also for such other equipment as pens, feeding troughs, hurdles and fences. A good supply of feed racks, grain troughs, etc., says the bulletin, can be provided at a small expense.

Because of the wide differences in climatic conditions under which sheep are raised, it is impossible to recommend a particular type of building for universal use. A few fundamental principles, however, should be followed, no matter what type of building is to be constructed. In the first place, the site should be dry and well drained. Ample yard space should be available adjacent to the main barn or shed, and it is desirable that this should have a southern slope with sandy soil. If, too, the sheep barn is located conveniently to the farmhouse or to other barns, much time will be saved in the performance of routine labor. This is important, because through a part of the year the flock requirs many times a day.

In planning a barn, it is well to remember that shade and protection from heat are necessary for sheep, and that these cannot always be obtained in pastures. The building that is cool in summer, therefore, will often give greater comfort to the animals than they can obtain out of doors. More important requisites, however, are dryness and light. Sheep cannot possibly thrive in quarters that are damp or dark. In fact, the flock should be shut in only during storms. One square foot of window to each twenty square feet of floor space is considered necessary. The windows should be placed at a height to insure a good distribution of light and, in particular, of direct sunlight for the lambing pens during the period the ewes are lambing.

The ewes suffer greatly if confined in poorly ventilated pens. It is, therefore, necessary to provide some means of securing fresh air without creating drafts. Where the building is very large with numerous doors and windows, it is sometimes advisable to build one or two partitions from floor to ceiling. By opening muslin-screen windows on the side opposite to that from which the wind is blowing, fresh air can be admitted without causing drafts. In very cold sections or where lambs are to arrive in the winter months, specially arranged outlets of foul air and inlets of fresh air will be necessary.

Level and well-drained clay-surfaced floors are cheap and satisfactory, the only objection to them being that they do not exclude rats. For alleys and feed rooms concrete floors are required.

In the bulletin already mentioned is a discussion, accompanied by drawings, of the plan of a barn intended for the exclusive use of sheep, designed to meet the needs of those permanently engaged in sheep raising on a large scale. The working drawings and bills of materials for this and for the other buildings discussed in the bulletin may be obtained from the office of public roads and rural engineering, department of agriculture, Washington, D. C. As the supply of the drawings for free distribution is limited, however, it is expected that only those will apply for them who are seriously contemplating building.

The building referred to has eight large pens, each capable of holding twenty ewes, allowing twelve square feet of floor space and fifteen inches of rack space for each ewe, and a small pen for the accommodation of four or five bucks. The partitions between the pens are formed by movable feed racks, so arranged that the attendant can walk down the center to distribute feed. Storage space for fifty-five tons of loose hay or straw is provided in the mow, and for 1,100 bushels of grain in the storage room on the second floor. This is enough feed, with the exception of silage, it is said, to carry for a period of five months all the sheep that can be put in the barn. The silo should have a capacity of thirty tons. The estimated cost of such a building with materials and labor obtainable at prices prevailing in May, 1916, should be approximately $2,400. These figures do not include feed racks, and the bulletin is careful to state that they should be considered only as a rough guide, because it is impossible to state exactly what the prices of material and labor will be in any locality. The amount of farm labor employed is also an important item in the total expense of construction.

Another set of drawings shows a combination horse, cattle and sheep barn, designed to accommodate ten horses, five cows and sixty-three sheep. Still another design calls for a simple type of closed sheep shed, which is especially adapted for farms in which the main barn has large feed capacity, but not sufficient floor space for the live stock. Allowing twelve square feet of floor space per animal, this shed will hold twenty-six sheep. This shed affords good protection for sheep under any condition and may be used for winter lambing if the width is increased from sixteen to twenty feet. This will enable detachable lambing pens to be set up next the wall and still leave room for a feeding rack for the other ewes.

The bulletin also discusses in detail with illustrations a number of designs for grain troughs, feeding racks, fences, hurdles, lamb creeps, and other equipment. Growers are cautioned that fences that will exclude dogs should be used, although a less expensive fence would suffice for the sheep themselves.

Hogs that are bothered with lice consume more feed for a pound of grain than those free from lice. Dipping or spraying will get rid of the lice and thus save feed. The advantage of this will be at once evident if a comparison is made between the cost of material and labor for dipping or spraying and the price of feed saved.

Studebaker

Prices of all cars advance September 15th

The FOUR Touring Car will be increased from $985 to $1050

The SIX Touring Car will be increased from $1250 to $1385

THE costs of materials and labor used in the manufacture of automobiles have been, and are, steadily increasing.

Studebaker uses only the highest grade materials throughout their car, including chrome-nickel and vanadium steels, genuine hand-buffed leather and other materials of the highest quality.

A year ago Studebaker made huge purchases and placed long-term contracts for materials, making it possible to continue the present low prices while other manufacturers of cars in the Studebaker class have already advanced their prices.

But the popular demand for Studebaker cars is rapidly exhausting the materials purchased at old prices, and therefore, prices of all models will have to be increased on September 15th.

It is an invariable Studebaker policy to subordinate price to quality — quality must always be maintained.

You will probably never have another opportunity to buy, for so little money, such a powerful, durable, accessible roomy and comfortable car.

Every Studebaker car is guaranteed for a full year from date of purchase.

BUY NOW—SAVE MONEY

Four-Cylinder Models

	Present Prices	Prices Sept. 15
Roadster	$ 985	—$1025
Touring Car	985	— 1050
Every-Weather Car	1185	— 1250

All prices f. o. b. Detroit

STUDEBAKER

Detroit, Mich. South Bend, Ind. Walkerville, Ont.

Address all correspondence to South Bend

Six-Cylinder Models

	Present Prices	Prices Sept. 15
Roadster	$1250	—$1385
Touring Car	1250	— 1385
Touring Sedan	1700	— 1850
Coupe	1750	— 1850
Limousine	2600	— 2750

All prices f. o. b. Detroit

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Farm Women and the Liberty Loan.

There are thousands of women in the Middle West who are operating their own farms and making money at it, and there are thousands upon thousands of other farm women who provide themselves with a modest income of their own through the marketing of their poultry products, their butter, and the surplus of the orchard and garden, either fresh or canned. Some of these farm women have used the money so earned to supplement the family income and others have tucked it away in the bank and allowed it to accumulate against the proverbial rainy day. All of them have worked hard for the money they have earned and, being naturally cautious, not many of them have cared to risk their savings in any sort of investment. Now, however, a safe place for the investment of these savings is offered by the United States government in the second liberty loan. In fact, it is anticipated that the savings of the farm women will become an important factor in the success of the war.

The time for the second issue of the liberty loan has not yet been definitely determined, but it is certain to come before the close of the year. The season has been a profitable one for the farms and those farm women who have laid aside a nice sum of money could not hope to find a better use for it than the purchase of liberty bonds for the following reasons:

Liberty bonds are United States government bonds, guaranteed by the resources of the government of the United States, the richest and most stable nation in the world.

Liberty bonds pay a higher rate of interest than do savings accounts. In the first issue of the liberty loan the bonds pay 3½ per cent interest. The interest is payable in half-yearly installments.

Liberty bonds belong to the woman who buys them. Without her consent they cannot be transferred to the ownership of any other person. If, however, she wishes to raise money on them, she will find them the best security on the market. If she wishes to sell a liberty bond, she may dispose of it at the market valuation. Most government bonds sell at higher than par value, and liberty bonds are government bonds.

Liberty bonds are also certificates of the American citizen's desire to help the United States provide food, shelter and maintenance for the soldiers, sailors and marines who are fighting our war. There are two ways by which a government may raise money, by bond issues and by taxation. Taxation offers the citizens of the country no more immediate returns than does fire or burglar insurance. Bonds pay interest, as well as insure national protection.

That is why purchase of the bonds of the second liberty loan is the farm woman's chance to help herself and her country. The women of the farms of France saved the credit of that land after the German victory of 1871. They bought government bonds, and made their country financially secure and themselves financially independent. Now is the time when the farm women of the United States may do as well for their country and for themselves by buying, to whatever extent they can afford it, liberty bonds when the second liberty loan is announced by the secretary of the treasury.

Frying in Deep Fat is Most Economical.

If rightly done frying in deep fat is more economical than frying in a small amount. When fried in deep fat, the food does not, according to a member of the home economics department of the University of Wisconsin, absorb as much fat and so is more easily digested.

Fats for frying should be tried out ("rendered"). Beef drippings, lard, various commercial frying fats or even mutton fat may be used if they are carefully clarified. (To clarify, melt fat, add potato cut in thin slices and cook until slices are brown and crisp.) Mutton fat may be used for frying foods which are to be served hot, as potatoes, croquettes, meat balls, fish and similar foods. It hardens on cooling and, therefore, is not good for cooking foods, such as doughnuts and crullers, which are served cold.

Fat that has been used for frying fish, if it is carefully clarified, may be used for frying other foods.

Fats should not be allowed to become too hot during the frying process, because this not only wastes the fat but makes it unpalatable. For frying foods which have been previously cooked—meat balls, croquettes, potato balls—the fat should be hot enough to brown a one-third-inch cube of bread in sixty seconds.

Drain fried food carefully over the kettle of fat and then on soft, unglazed paper. Use enough fat to float the food, but be sure that the kettle is not too full.

A deep, heavy saucepan or kettle should be used for frying in deep fat. A small iron kettle called a Scotch kettle is most desirable. This is not easily upset and holds the heat. When fat has become very much discolored by repeated usings, do not throw it away, but use it for making soap.

Take Drying Precautions.

Drying of fruits and vegetables, although a simple and easy process, will result in failure unless certain necessary precautions are taken, points out the drying expert at Iowa State College. He emphasizes the facts that:

There must be a good, free circulation around a product while it is drying.

With products that are blanched, start the drying immediately after the blanching process or spoilage may result.

When peas become sticky during drying, it indicates that they are drying too slowly and may spoil. This often happens when sun drying is used during bad drying weather or when they are dried in a place with poor air circulation.

Place products for drying thinly on drying trays.

When artificial heat is used, take care the product does not become scorched or dry too hard.

In storing, never use air-tight containers until the product is thoroughly conditioned, that is, allow it to dry for several days by placing in a sack or open container, or the product may mold in storage.

Ham Baked in Dough.

To the Editor:—Last winter I saw an inquiry about how to bake a ham so that it will have a hard crust on it. I am not a cook and not a woman, but I can cook meats and hams. I am a butcher by trade and when I learned the trade it was different from what it is now. A man had to learn the trade from one end to the other, slaughtering, making sausage, tending shop, cleaning casings, cooking hams, etc. I will give you herewith my recipe for hams:

To bake a ham (smoked) make a dough of flour and water (nothing else) so it can be rolled out like biscuit dough, but make it thinner. Have the dough rolled out about an eighth of an inch thick and lay your ham, rind down, on the dough. Have the dough large enough so that it will completely cover the ham. You can season with garlic or spices over the top of the ham. Do not use too much garlic, as it will be too strong, and it should be chopped fine. Now fold your dough over the ham and press together so the juices stay in. Bake in a moderate oven one hour to three pounds of ham. Do not remove the crust until the ham is cold.

For boiled ham boil one hour to three pounds of ham. Put on the fire in cold water, otherwise your ham may crack open. Do not allow the water to boil, for that will make the ham dry. The water should only simmer. Use hams from young hogs. The best weights are from nine to twelve pounds, not heavier. Leave in the water until the ham is cold and you will have a nice, juicy, well-cooked ham.

Henry W. Ulman.

Corn in Place of Wheat.

To the Editor:—I have received so much help for years from this department I am ashamed to say this is my first contribution. I thought perhaps as wheat flour is so high in price you would like to know of ways to use something in place of it. Here is a recipe for corn oysters that we like very much: One cupful of sweet corn, shaved from the cob (not cooked), one cupful of sweet milk, and flour enough to make a thin batter. Salt to taste. Drop by spoonfuls in hot lard and serve while hot.

Another of my favorite recipes is johnnycake made from corn before it is ripe. As soon as corn can be shelled or rubbed from the cob, grind just enough to make a johnnycake the size you want. I use my food chopper to grind the corn. For the johnnycake use one cupful of sour milk, one teaspoonful of soda, one egg, salt, and enough of the ground corn to make a thin batter. Bake the same as any johnnycake.

Will someone tell us all about samp? How ripe should the corn be and how do you make it? What do you do with it after it is made? I have heard old people talk about samp, but never learned how to make or cook it.

Aunt Em.

Recipes.

Danish Pudding.—Two cupfuls white sugar six eggs, one tablespoonful flour, one cupful melted brown sugar, one and one-half quarts boiling milk, two teaspoonfuls vanilla. Beat the eggs well without separating the yolks and the whites. Pour the sugar into them and after mixing thoroughly, stir in the flour. Have the melted brown sugar ready on the stove and pour the egg mixture into it, stirring well all the time; pour this into the boiling milk in a double boiler and leave until it thickens. To make firmer, set in the oven in a pan of hot water, as in baking custard. Let cool and add vanilla. Chill or freeze as desired and serve with or without whipped cream.

Green Tomato Mincemeat.—One peck green tomatoes, one peck apples, three pounds sugar, one and one-half cupfuls chopped suet, two tablespoonfuls allspice, three tablespoonfuls cinnamon, two tablespoonfuls ground cloves. Wash, pick over and chop the tomatoes in small pieces. Peel apples and cut in small pieces. Place tomatoes in a colander, pour boiling water over them three times, draining well. Put all ingredients in a preserving kettle and simmer slowly until tender.

Watermelon Pickles.—Ten pounds watermelon rind, one quart vinegar, two pounds sugar, one-half ounce whole clover, one-half ounce cinnamon stick. Cube the rind, peel and remove all red part and let stand in cold water several hours. Boil in water till clear. Remove from liquid, drain and place in large porcelain vessel. Boil vinegar, sugar and spices ten minutes and pour over the rind. For three days drain off this liquid, heat and pour over the rind. Seal in sterilized jars.

Butterless One-Egg Muffins.—Two cupfuls flour, one teaspoonful salt, four teaspoonfuls baking powder, two tablespoonfuls sugar, one egg, one-half cupful milk. Sift together flour, salt and baking powder. Beat up egg with sugar until very light and creamy. Add milk and pour into the flour mixture Bake in well-greased tins.

THE YOUNG FOLKS

Snookums Adopts a Family.

Dear Young Folks:—I enjoy reading your letters very much and hope you will enjoy mine. I am ten years old. I live on a farm five miles from town. We have an old cat named Snookums. One time she had two kittens and an old hen killed them. Not very long after that we found a nest of young rabbits. We brought them to the house and put them in a box and put old Snookums in with them. She was very proud of the seven little rabbits and stayed in the box with them night and day and tried very hard to raise them, but they only lived about ten days. Now she feels it her duty to help raise her two grandchildren, and brings them up a half-grown rabbit every day.

Ramona.

Would Like to Have the Young Folks' Help

Dear Young Folks:—I have been reading your letters and want to write to you. I am a girl of eight and I live in the suburbs of a big city. We have forty acres of fruit and, oh, how I would have enjoyed having all the Young Folks help me pick strawberries, raspberries, blackberries and plums this summer.

Little Lila, I will try making some of your butterscotch candy some day. It sounds like it must be good.

There is a little girl next door that I play with. I would like to know some new games that two can play. Can any of the Young Folks tell me one?

Lucile.

Likes to Ride His Bicycle.

Dear Young Folks:—This is the first letter I have ever written to you and I hope you will like it. I am a farm boy and live on a 160-acre farm. We have fifty pigs, twelve horses, twenty-four head of cattle, and milk three cows. We have nine geese and about 300 little chickens.

For pets I have three cats and one dog.

I have a bicycle and when the roads are good I like to ride it.

I am ten years old and am in the sixth grade.

Carl.

Her First Letter.

Dear Young Folks:—I have never written to your page before, but I am going to now. I like to read your letters very much.

I am thirteen years old and I passed the eighth grade examination when I was eleven years old, but I have never gone to high school yet.

I sew all of my own clothes. I can crochet, tat and cook. I feel sorry for poor Vesta, as I know how she feels, for my mother is dead too. But I have a stepmother who is awfully good to me.

Georgia.

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2219-2202 — Ladies' costume. Waist 2219 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure, and requires 4⅛ yards of 36-inch material for a 36-inch size. Skirt 2202 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. Size 24 requires 6½ yards of 36-inch material. The skirt measures about 2⅜ yards at the foot. Two separate patterns, 10 cents for each pattern.

2201—An attractive one-piece dress. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. It requires for a 16-year size, 5¼ yards of 44-inch material.

1969—Girls' dress, with sleeve in either of two lengths. The pattern provides a chemisette for high neck finish. The pattern is cut in 4 sizes; 6, 8, 10 and 12 years. Size 8 years requires 3 yards of 44-inch material.

1799—A practical, easily made apron. Pattern is cut in 3 sizes: Small, medium and large. It will require 4¾ yards of 36-inch material for a medium size.

2203—A serviceable model. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 6¼ yards of 44-inch material, with ¾ yard of 27-inch material for the cap.

2036—Ladies' dress, with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7¼ yards of 36-inch material for a 36-inch size.

2023—Girls' guimpe with sleeve in either of two lengths, and with neck high, or in "V," square or round outline. Pattern is cut in 5 sizes; 6, 8, 10, 12 and 14 years. Size 12 years requires 1⅞ yards of 36-inch material.

2220—Girls' dress. Cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 years requires 3¼ yards of 44-inch material.

2222—Union suit with or without sleeves, for men and boys. Cut in 6 sizes: 28, 32, 36, 40, 44 and 48 inches breast measure. Size 36 requires 2⅞ yards of 36-inch material without sleeves. With sleeves, it requires 3⅛ yards of the same width.

2212—Girls' dress—Cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 requires 3½ yards of 44-inch material.

2051—Boys' Russian suit. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2½ yards of 44-inch material for a 5-year size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson For September 2, 1917.

The Shepherd of Captive Israel.

LESSON TEXT—Ezekiel 34.

GOLDEN TEXT—The Lord is my shepherd, I shall not want.—Psa. 23:1.

With the complete subversion of the kingdom of Judah, the national consciousness was largely crushed and the people were without heart for the common affairs of life. Ezekiel, though born in Jerusalem, prophesied in Babylon near the river Kebar. The object of his prophesying was to encourage the captives by placing before them God's promise of their return to their own land. His name signifies, "God will strengthen," which is very appropriate to the mission which in the providence of God he was called upon to fill.

I. Israel's Faithless Shepherds Denounced. (vv. 1-10). These false shepherds included the kings, princes, judges and priests. Ezekiel points out that the captivity was because of sin, but he shows that the greatest guilt obtains with reference to these leaders. They were placed in the position to care for and protect the sheep. The following indictments are brought against them:

1. They fed themselves instead of the flock (v. 2). They were essentially selfish. They ministered to themselves instead of the sheep. Too many today are filling public offices for the sake of private gain. Sometimes even ministers are found who are more concerned about themselves, their pleasures and profits, than they are about the souls of the people who support them.

2. They were cruel (v. 3). They were not only mere hirelings, guilty of looking after themselves, but they actually behaved like robbers, preying upon the flocks. All are guilty of this same sin who use their influence and power to the disadvantage of others. In the theocratic kingdom such behavior was peculiarly obnoxious, as the rulers and ministers were representatives of Jehovah himself. The minister and public officer today is acting in his capacity for God, not for himself, therefore, he should make the cause of heaven his chief concern.

3. They neglected the diseased, wounded, wayward and lost (vv. 4-6). As a result of their selfish cruelty the sheep were without food; therefore exposed to disease; had no bond of unity, were exposed to the ravages of wild beasts. God's flocks are in many places thus suffering and dying because they have not been fed. God's judgments are against such (vv. 7-10)

II. The Faithful Shepherd. (vv. 11-16). The Shepherd here is none other than Jesus Christ. The wonderful blessings here described will be realized by Israel in millennial times. This blessed condition will be ushered in by the second coming of Christ. How sincerely all should pray, "Thy kingdom come." When the true Shepherd comes:

1. He will seek his lost sheep (v. 11). Though they have gone astray through wilfulness on their part, and neglect on the part of faithlesss shepherds, Jesus will seek them out and save them. To save the lost was his peculiar mission (Luke 19:10).

2. He will rescue them from the power of their enemies (v. 12). God's sheep have real enemies and they have fallen into the enemies' hands, but the Faithful Shepherd is able to deliver them. "No one is able to pluck them out of his hands" (John 10:28, 29).

3. He will bring them back to their own land (v. 13). Poor, scattered Israel shall one day (may it be soon!) be brought back to their own land. This is the one unmistaken sign by which we may know the beginning of the end of this dispensation. Be assured that it is not wars, nor pestilences that mark the sign of the close of this age, but the movements of Israel.

4. He will feed them (vv. 14, 15). "I will feed my flock, and I will cause them to lie down, saith the Lord God. I will seek that which was lost, and bring again that which was driven away, and will bind up that which was broken, and will strengthen that which was sick; but I will destroy the fat and the strong; I will feed them with judgment."

5. He will seek that which was lost (v. 16). That which has been driven away he will seek and bring it back again.

6. He will heal them from weakness and suffering (v. 16). All the wounds which Israel has received these many centuries shall be healed.

III. The Golden Age (vv. 23-27). The vision of the world as it now is, is most disheartening. It is midnight darkness. In this blackness we wonder why God does not interpose. We wonder how he can be silent. While midnight is upon us we are hopeful, for we see the bow of God's promise of better things flung across the sky. This present order shall disappear before the new. In that new order:

1. Jesus Christ, David's Son, shall be king (vv. 23, 24). This new era of blessedness can only come into realization when God's Son shall establish his kingdom upon the earth.

Distribution is the world's greatest problem. Since the beginning of history the earth has produced each year many times the amount of food to supply every inhabitant in abundance. Nevertheless, there have been great famine and suffering. The trouble is lack of proper distribution. One region surfeits in plenty, while another starves. Wonderful as our system of commerce and transportation is, there is still much improvement to be made.

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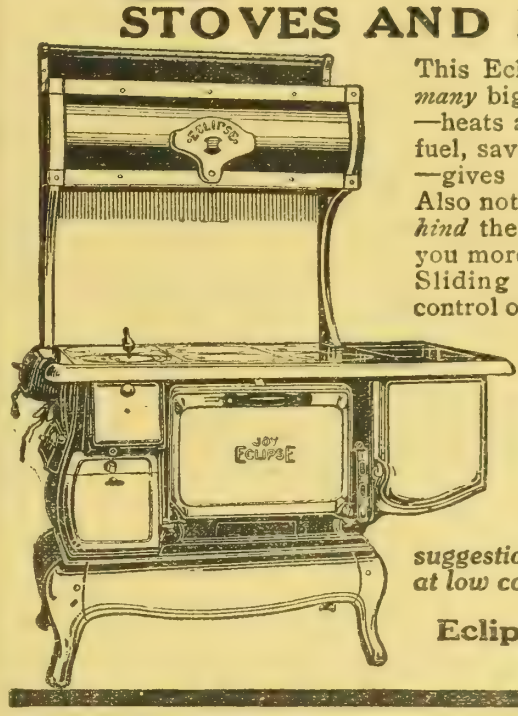

This Eclipse JOY is the range with *many* big features. Hot-all-over top —heats all six lids. Saves money in fuel, saves time in getting up meals —gives you more cooking surface. Also note that the smoke pipe is *behind* the splasher back, which gives you more room for cooking utensils. Sliding damper gives you perfect control of the oven. Beautiful design, smooth finish with or without white enamel splasher back and oven door front. Made of cast iron—guaranteed never to rust out and are slow to wear out.

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Questions and Answers.

Bicycle Headlight.

I have a bicycle headlight that runs fromh two dry cells. Do you think I could make it give more light by running it from four dry cells instead of two? How strong a bulb would it require?

Answer.—Naturally, you could obtain more light from four dry cells than from two. Use a two-candle-power, four-volt lamp if you connect the lights in series, that is, carbon to zinc. If you connect the lights in series-multiple, two in series, use a two-volt, two-candle-power bulb. If you connect all the zincs together and all the carbons together, in other words, if you connect the cells in parallel, use a one-volt, two-candle-power bulb.

Speed of Engine.

What rate of speed is easiest on an auto engine like the Ford engine? What effect has speeding or underspeeding on an engine?

Answer.—The higher the speed the greater the wear on the engine. A possible exception to this rule might be in climbing a hill in high instead of shifting into low gear when the pull has become so great that the engine almost stalls. In this case, the damage might come from straining the crankshaft by the heavy pull. The trouble most likely to result from speeding is the pounding out of the bearings, due to the hammering action of the pistons and connecting rods. This hammering action is greatly increased at high speeds. The only possible trouble from running slow is carbon trouble. At high speed the spark plugs keep cleaner.

Bosch Magneto.

Will you kindly give me the address of the firm that makes the Bosch magneto? I have a Ford car and am using a Bosch magneto on it. While on one of my trips, I lost the switch key, and am not able to purchase one in my home town. Is it advisable to use a Bosch magneto on a Ford engine?

Answer.—The Bosch Magneto Co. are located at 227 W. 46th St., New York City. Write to them at the above address and they will refer you to their nearest service station. The Bosch magneto is a high-grade magneto, and should give good service on a Ford car. The Ford ignition system is quite satisfactory, and it is questionable as to whether or not to use any other system on this car. The Ford Company suggest that owners write to the Ford Co., as to what not to put on a Ford car, the company taking the stand that the car is all right as it is. Nevertheless, many owners prefer to use shock absorbers, other ignition and lighting systems and other Ford type accessories.

A Reversing Switch.

Would you please publish a sketch showing how to make a reversing switch to run an electric motor off of two or more dry cells?

Answer.—The principle of the reversing switch is the same for both

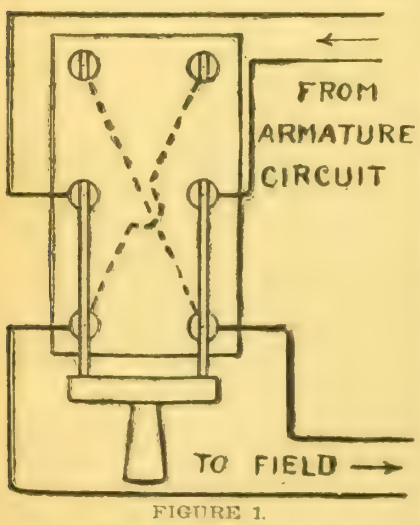

FIGURE 1.

large and small motors. A reversing switch is an ordinary two pole, double-throw switch, wired as shown in Figure 1. The dotted lines represent wires connecting the corner poles diagonally. These wires remain in position all the time and are usually connected on the back of the switch.

Engine Overheats.

I have a 1913 Model Ford car. If I run this car about five miles at twenty so much that the water will boil. What is the reason it does this? I have cleaned out the carbon, washed out the radiator, washed out the crank case, and kept the spark advanced to the proper place. I have a master vibrator, and it sets as it should be, but still the engine heats What more can I do?

Answer.—Keep your fan belt tight and the fan bearings oiled and in good working order. Giving the fan blades a little more twist might improve the cooling capacity of the fan. Run with as lean a fuel mixture as possible, as too much gasoline will make a motor to overheat. The Ford engine has some tendency to heat, due to its high compression. Do not expect too much of your car. While twenty miles per hour for five miles is not an excessive speed, still it puts a pretty good pull on the engine and some heating may be expected. A loose fan belt will cause a motor to heat sooner than anything else except a tight bearing.

Plowshares Split at Point.

I have been having a little trouble with plowshares splitting at the point. Will you tell me how to sharpen them to prevent this?

Answer.—Your plowshares appear to be made of iron. Heat the point to almost a white heat and quickly hammer out the point in order to weld the fibers of the iron together.

Moving a Lever by a Magnet.

How can I pull a lever over six inches by an electro magnet? Can I make a magnet strong enough to do this? I wish to move this lever from a distance, using electricity to move it. How would you suggest? A pull of about twenty pounds is required at the end of the lever.

Answer.—Magnetism travels with difficulty through air. Six inches is quite a distance to draw a weight of twenty pounds. While the size of a magnet is more or less of an experiment, our rules for calculating the size of magnets would lead us to be-

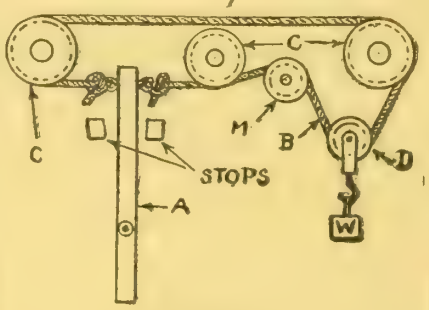

FIGURE 2.

lieve that a magnet strong enough to fulfill the above conditions should have a soft iron core, two and one-fourth inches in diameter, bent horseshoe shaped, the legs of the shoe each being eighteen inches long. Each leg of the shoe should be wound with No. 14 double cotton-covered wire, enough wire being used to make a layer three inches thick. A high enough voltage must be used to force ten amperes through the coils. Instead of placing the magnet at the end of the long lever, it would be better to use a short lever. If your lever were shortened so that one inch of travel would be sufficient, you could probably use a magnet only one-sixth as large as the above.

Probably the most successful manner of operating the lever would be by an electric motor controlled from a distance by a switch. In Figure 2, A is the lever; B is a cord attached to the end of the lever and running around the idler pulleys, CC, all the pulleys being grooved to guide the rope. M is a grooved pulley on the electric motor. A weight, W, suspended from a pulley, D, keeps a tension on the cord. The amount of friction between the motor pulley and the cord can be regulated by varying the weight W. The friction should be great enough to move the weight easily, but should not be great enough to stall the motor when the lever hits the stop. The motor can be reversed by means of a reversing switch in the field circuit.

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Hoover's Word to Farmers.

(Continued from page 8.)

supplied with tickets which permit him to secure certain allotments of food for himself, his family and his stock once or twice daily. Such a system cannot be adopted in a free country like ours. "Every document of the food administrative department is open to the inspection of every American citizen," said Mr. Hoover. "We have absolutely nothing to conceal. America is engaged in a war where there are four matters of prime importance. One is money, another ships, another armies and another food. Our business is to see that the food is supplied."

Americans will be urged to eat less wheat and more potatoes. At this time the government has no intention of fixing a price on potatoes. But Mr. Hoover said that arrangements are perfected whereby the government will help, through federal reserve banks, to take care of potato paper, and, furthermore, to provide warehouses for storage of potatoes to the end that the market may not be glutted this fall. This is likely to result in a more stable price all the year around. Onions are to have the same attention from administrators of the food department.

There will be no government order to stop the killing of any class of live stock, but farmers will be urged to preserve young stuff which will become good breeding stock, and also to save the best females from slaughter. The report that there will be a general order against killing lambs and veal calves, Mr. Hoover says, is entirely erroneous.

Corn is not for the present included in the government's price offering plan. The theory is that corn follows wheat, and government food administrators expect to make a stable market by offering a fair price for all wheat farmers may have to sell. Mr. Hoover said that eventually there may be a commission to fix a fair price on hogs, but nothing is contemplated along that line as yet. The tendency, as before stated, is for the packers to volunteer to cut their profits to a minimum, and this will tend to hold up hog prices, and at the same time offer the working men and armies cheaper pork.

Agricultural implements, of course, must be furnished to the farmers of the country just as muskets and bullets must be furnished to the armies. Mr. Hoover says that an effort will be made to prove to proper government departments that steel is needed by implement makers and that at fair prices. It is the general belief that implement makers will be given steel at or near the price which the government pays, in which event there need be no fear of exorbitant prices on farming machinery.

Mr. Hoover believes that the armies of the country, in so far as possible, should be recruited from non-producing labor. He did not say that the active working farm owner or hand on a farm should be exempt from war service, at least for the present, but many farm editors read that into his rather guarded utterances. At all events, Mr. Hoover knows that we cannot produce the maximum of crops and live stock which the nation and our allies must have, if our farm boys, who are skilled labor in this industry, are taken away to war.

The government will not, at least for the present, interfere with the cheese and butter industry, but Mr. Hoover stated that he will make a strenuous effort to get a larger amount of cheese across the water to our allies.

Herbert Hoover is a clean-cut, clear-eyed, bright-minded man just past forty. He stands over six feet, talks plainly and distinctly, though with soft and well-modulated tone. He has a wonderful memory and an almost unbelievable capacity for detail. He gives an instant impression of sincerity and this impression grows as one talks with him. He serves the country without pay, and his associates work on the same basis. [illegible] and assistants in the food [illegible] live department get salaries.

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Gathered by Representatives of The Wisconsin Farmer.

Guernsey Dispersion.

LAST week we had the opportunity of looking over the Woodend Farm Guernsey Herd, which is to be dispersed September 19th and 20th at the Minnesota State Fair Grounds, commencing at 10 o'clock each day. There are over 40 head of A. R. cows in the herd, animals selected with the idea of building up a herd possessing size, good markings and consistent high-producing tendencies giving a rare opportunity to select foundation stock. The herd is also on the Minnesota accredited list, a guarantee against buying animals affected with tuberculosis. There are 30 daughters of Cora's Governor of Chulmark, that has 40 A. R. daughters, two over 700 pounds. Ten offered have A. R. records; two of them over 600 pounds. First Dawn of Woodend, 606.98 pounds, is a beautiful cow now on retest and had produced 408.54 pounds on her 181st day. She has a calf in the sale sired by Imp. Valentine Squire. Here is a calf worthy of investigating farther. Arabella of Woodcrest 2d, a class C cow with 482.10 pounds, is also on retest with 219.04 pounds in 115 days. She is likewise a striking individual. The three herd bulls now in use are Imp. Valentine Squire 28093; their May Rose bull, the second highest May Rose bred bull in America, and Imp. Major of Vimiera. Imp. Valentine Squire is out of the great Island cow, Valentine 3d 7514 P. S. She has the distinction of holding the highest record made on the Island of Guernsey, 783.10 pounds fat. She carried a calf seven months and 20 days during her test. She is likewise the dam of Imp. Sailor Boy, that sold for $1,700 at auction. Besides being a phenomenal producer and breeder she likewise has a matchless show record, as she has won many first prizes on the Island, including first prize and champion cup, also challenge cup for best cow in the show, Guernsey Farmer Show in 1914 and first and champion cup, reserve and Douglas cup and winner of challenge cup for best cow in the show R. G. A. and H. S. show, Whitsuntide King's cup, July 20, 1915. Imp. Valentine Squire, therefore, has license to be an exceptional sire. He is a large, showy individual with good style, possessing great depth and good carriage. We were greatly impressed with his get and have every reason to believe he has a great future. May Rose King 2d 13130 is a good individual, though different in type. He is splendidly marked and his get are very promising, especially those out of daughters of Imp. Cora's Governor of Chulmark. There are a number of excellent bull calves as well as yearling heifers and two-year-old heifers to be included in this offering. Write for catalog to Dr. M. B. Wood, Mankato, Minn. See advertisement on page 20.—Adv.

Champion Chesters of the Northwest.

THE biggest mistake a man can make this year is to put off buying that boar until late this fall. Owing to the high prices now paid for pork, breeders are castrating all boars that are not really high class in every respect. There was a natural shortage of pigs the past spring and this, together with the close culling, is going to make a scarcity of breeding boars this fall. Breeders report good sales and it behooves the man that wants good stock to buy early. H. A. Derenthal, Wyckoff, Minn., has one of the select Chester herds of the Northwest, in fact his Chesters have won more coveted prizes in the Northwest than any other. Good sows grace the herd and they are mated to boars that have demonstrated their superiority in the show ring and as sires of pigs that have been winners. It costs but a little more to get the real good ones and you will be proud of your purchase when the boar you buy arrives at your farm. The Derenthal Chesters will be exhibited at Hamline and La Crosse and your inspection is invited. In the meantime communicate with the owner and please mention The Wisconsin Farmer. See page 18.—Adv.

Whitmore Brothers' Recent Purchases.

WE have just received a letter from Whitmore Brothers, Lyons, Wis., stating that they have just purchased an under a year boar sired by Duke Champion 12th 206780, that is a litter mate to the 1916 grand champion sow. The name of their new boar is Handsome Champion 4th and was bred by E. J. Barker. They also have purchased a spring pig sired by Superb Emblem, one of the best sons of Superbus. Whitmore Brothers also state that their show herd has rounded up in good shape and we, therefore, predict that they will be heard from in the winnings at the various fairs this fall. The breeding and individuality of their herd is of a high order and their young boars sired by their famous herd header, Aldow Climax, should suit even the most discriminating buyers. See page 20.—Adv.

Some Great Chesters.

B. H. BABCOCK, Evansville, Wis., has a bunch of spring pigs that are rippers. To make a long story short, they are as good as any we have seen this spring. They are sired by King Kole by Chief Keokuk. This breeding is well known to Chester White men. One of the best litters is out of a Col. Huffy dam. Col. Huffy was by Col. Kent by White Rock. There is a fine April litter by the above boar out of a J. R.'s King dam. There are also some good pigs in this herd by Pay Streak. Mr. Babcock has some real good sows in his herd and they are producing the right kind. He recently showed his pigs at Janesville where he won his share of the prizes. We feel sure that our readers that wish to buy a Chester White boar can find what they want in this herd. See page 18.—Adv.

A Good Lesson for Beginners.

IN the fall of 1916 a herd of Durocs was exhibited at the Janesville Fair. This was the first time this firm had exhibited hogs of this breed and when they left home they thought they had Durocs "better than the other fellow." After the judging was completed at Janesville last year they found that they didn't even have hogs that could "get in the money." The junior member of the firm in question was not satisfied to be a follower. He realized that they didn't have the type or the breeding that produces winners and he made the remark, "We'll be back next year with Durocs that can win," and they did. The subject of this sketch is Riley Martiny & Son, Baraboo, and their doings of the past year are well known to the readers of The Wisconsin Farmer. They sold their original herd and last winter bought six of the best bred sows they could find. This is the important fact that we wish to bring out. They bought the best sows and started right. They realized that a few extra dollars for foundation stock was, in the long run, economy. Getting down to the present time the result of adventure proved satisfactory beyond expectation. During the past week they showed Durocs at the Janesville Fair, where they didn't get a look in last year and won in the following classes against the usual Janesville competition: First on aged boar; first on aged sow; first and second on yearling sow; first, second and third on boar pigs; first and second on sow pigs; first on aged herd; all firsts and seconds in the futurity and the grand champion Duroc sow of the show. The motive of this field note is not necessarily to boost the Martiy Durocs, but to show what can be done with good seed stock and proper care. What they have done others can do and if many of the Duroc breeders of the state of Wisconsin would sell off some of their inferior and cold-blooded brood sows their advancement as Duroc breeders would be far greater than it is at the present time. With pork at $18 per hundredweight this is the opportune time to clean house. Think this over. Then act! See advertisement on page 19.—Adv.

Morehouse Again.

FRANK H. MOREHOUSE, Lancaster, Grant county, Wisconsin, starts his usual boar card with this issue. Morehouse is the fellow that has those good Poland Chinas and he sure has the good ones again this year. Last year he sold some 50 spring boars; this year he will have about 25 to sell, besides a few good gilts, so those that want the Morehouse Polands will have to order early. His pigs are by Big Ben H., a good son of the Illinois boar, Big Ben. Other good ones are by Big Type Jim, a son of Jim Crow, the sire of the winners at Milwaukee last fall. Big Type Jim, by the way, is out of Big Type Bess, the sow that topped the Madison sale last winter. The sows in the herd are of the best big-type breeding, such as A Wonder, Goldengate King, Black Orange, Perfect Wonder, etc. We like to refer our readers to this herd of Polands, for Frank has good hogs and is absolutely on the square. His pigs must please and be as represented or you get your money back. Notice the advertisement that appears on page 19, and write for details.—Adv.

Notice the Short-horn Advertisements.

IF you want to buy a Short-horn bull or a few females notice the men who have cattle of this breed that are advertisers. If a man has Short-horns that amount to anything he will advertise them and get them in herds that will do him some good. The other class of breeders are satisfied to sell them to anyone they can and at almost any price they can get. It is a general rule that you will find the best stock in the advertised herds. Scotch Short-horns, Scotch-topped Short-horns and milking bred Short-horns are advertised in The Wisconsin Farmer by dependable breeders. This publication is glad to recommend their herds.—Adv.

Rock County Short-horn Association.

A RECENT inspection of some of the Short-horn herds in Rock county, Wisconsin, finds them coming through the summer in fine condition. The pastures have been good and the young stuff, especially, is doing fine. All the breeders report good demand for their stock, though there is not a great deal for sale at this time. Many of the breeders have young stock coming on that will be old enough to sell this fall. Some good young bulls will be offered during October. If you wish information relative to this Short-horn association, write J. E. Kennedy, Janesville, Wis. See page 18.—Adv.

Sir Bess Ormsby Mercedes.

WE have just had a letter from Geo. H. Comings, president of the Silver Springs Farm Co., Eau Claire, Wis., saying: "The calf you advertised has been sold. He went to Mr. Emil Haigh, Alma, Wis. The best we can do now is to book calves sired by Sir Bess Ormsby Mercedes, to be shipped when about a month old. There has been a wonderful sale business." The bull that is mentioned in the letter above is a fine individual of the very best breeding. His sire is Sir Pietertje Ormsby Mercedes 37th by Sir Pietertje Ormsby Mercedes, which is out of that great cow, Pietertje Maid Ormsby. The average of the records of this young bull's dam and sire's dam is 559.85 pounds milk and 28.11 pounds butter in seven days. He is a good bull and we feel confident that he is going to make a worthy sire. This firm will book your order for a bull calf out of their yearly record cows. Write them at once. See page 20.—Adv.

Model Major 2d at Milwaukee.

IF you want to see a Poland China boar that will actually weigh 1,000 pounds, three years old and without a wrinkle or crease on his body, see Model Major 2d at the Wisconsin State Fair. We don't believe there is a better aged Poland China boar in this state, but that point will be decided at Milwaukee. We will say that we have never seen a boar of his age that is as smooth. This boar is owned by E. W. Hendricks, Hazel Green, Wis., and Ed will be on the job to meet all his old friends and make new ones.—Adv.

The Date—October 2d.

ON the above date the Grant county Poland China breeders will hold their second boar sale at Lancaster, Wis. For this sale 30 spring boars and 10 open spring gilts have been listed. The tops from the several good Poland China herds in the county have been selected for this herd, and, as a representative of this paper has recently seen this offering, we are glad to recommend it to prospective buyers. Don't forget the date and watch future issues of this paper for detailed announcements.—Adv.

Quackenbush at Melrose.

WE wish all the readers of this publication that are interested in Poland Chinas could see the good herd on the farm of W. W. Quackenbush, Melrose, Jackson county, Wisconsin. He has some wonderful brood sows and they farrowed and raised some fine pigs this spring. These boars and gilts are for sale and they represent some of the best, well-known herd boars of the Northwest. If you are going to buy a boar or a gilt we gladly refer you to the above breeder. See page 19.—Adv.

Polands at Bangor.

R. MEINKING, Bangor, Wis., is too well-known as a Poland China breeder to need much comment at this time. We simply wish to say that the pigs he has for sale are in fine condition and we do not hesitate to suggest that you let Mr. Meinking tell you what he has for sale at this time. The pigs are sired by a litter mate to the yearling boar that will be heard from at Milwaukee. Bear this in mind. See page 19.—Adv.

A Competent Auctioneer.

ANYONE planning a sale this fall will be able to secure an entirely competent auctioneer by writing Chas. W. O'Neill, Bridgeport, Wis., whose advertisement appears on page 18 of this issue. Mr. O'Neill is acquainted with the live stock auctioneering business and knows how to sell stock for the highest prices. He can conduct your sale to your entire satisfaction. Write him about your plans today.—Adv.

Grant County—Angus Headquarters.

WHEN you see an Angus, think of Grant county, for the best cattle of this breed to be found in Wisconsin are in Grant county. There are many bulls and heifers for sale just at this time ad if you will write to Walter J. Steinhoff, Platteville, Wis., he can tell you all about the Grant County Angus Breeders' Association, and just where you can buy what you are looking for. See page 19.—Adv.

Homestead Farm Durocs.

M. H. O'KEEFE & SONS, Waunakee, Wis., can supply your wants in Durocs. They raised a nice lot of March and April pigs and are pricing them worth the money. Anyone that knows this firm is acquainted with their honesty and integrity and if this reputation coupled with good breeding stock is worth anything to you we hope you take advantage of it. See page 19.—Adv.

At Kilbourn, Wisconsin.

JULIUS PETERSON is located at the above town and he is the Poland China breeder that has those two good boars, sons of Blue Valley Quality and [illegible] Colorado [illegible] and he can sell you [illegible] sired by [illegible] they are picked [illegible] ment on page [illegible].—Adv.

M. V. Miller's Poland Sale.

A SPLENDID offering of 40 big type Poland Chinas will be sold at public auction by M. V. Miller, Lawler, Iowa, on Sept. 26th. Ten fall boars by Long Jumbo are good, lengthy, [illegible] backed fellows. Twenty spring boars and ten gilts make up the balance of the offering. These spring pigs are the tops of the crop raised this year. Mr. Miller has not spared expense in getting together his breeding stock. His herd boar, Timm's Wonder, is a great yearling by Fessey' Timm by Big Timm and the dam is by A Wonder and grandam by Long King, making him one of the very best bred boars of the breed. He is breeding beyond expectations. Mr. Miller's pigs are not fat, but they show length, bone and smoothness. One exceptionally good boar pig is by Timm's Wonder and out of Lady Nelson by Long Nelson 2d. A good boar pig is by Big Bob and out of a Big Master dam. Full particuars will appear later. Write for catalog, mentioning this paper.—Adv.

Owens' Poland China Sale.

G. W. OWENS, Lawler, Iowa, will hold his annual Poland China sale on Oct. 17th. About 40 head of spring boars and gilts, the best he has ever raised, will be offered the public. They are sired by the two great herd boars, I am Baron and Blue Valley, Jr., and one litter by Big Prince. Belle 2 has three great boars by Blue Valley, Jr. The Big Price litter of nine are hard to equal. The I Am Baron pigs are extra good. Mr. Owens offers to pay the expenses of anyone who attends his sale and is disappointed in the offering. Write for catalog, mentioning this paper.—Adv.

S. G. Courteen, Milwaukee, Wis.

MR. COURTEEN has recently decided to sell one of his herd bulls, Bob Rilma's Superior, whose dam is Imp. Belle Daisy Sarnia by Galaxy's Sequel. We had an opportunity of inspecting this bull about three weeks ago and consider him an exceptionally good individual. He is good size, well [illegible] easily handled and should attract the attention of a number of Guernsey breeders on the market for such an animal.—Adv.

Drewelow Bros.' Polands.

ON OCTOBER 23d Drewelow Bros., New Hampton, Iowa, will hold their annual sale of big type Polands. They sell 40 head of good spring boars and gilts all by Orphan Pawnee by Schug's Great Orphan by The Big Orphan. Keep this sale in mind. Get on the mailing list for a catalog. Mention this paper when writing.—Adv.

Jas. Derivan, Fox Lake, Wis.

THE above Poland China breeder is well known in this state and enjoys a good business in breeding and selling hogs of this breed. He can fill your order now, if you want a boar or a gilt and we are glad to recommend this herd. See advertisement on page 19.—Adv.

Fall Boars and Gilts.

HAROLD RUDE, Edmund, Wis., is offering for sale at this time four fall boars, three fall gilts—not bred and spring pigs. If Durocs of the above ages will interest you write Mr. Rude for further particulars. See advertisement on page 19.—Adv.

SALE DATES.

Short-horn Cattle.

Oct. 31, [illegible] L. W. Mc Donald, [illegible]
Nov. 1, [illegible] Ill.
Dec. 1, [illegible] Wis.
Feb. 18-22, [illegible]

Duroc Jersey Swine.

Oct. 17, L. F. [illegible] Bangor, Wis.
Jan. 8, [illegible]
Jan. 9, F. M. [illegible]
Jan. 10, W. [illegible]
Jan. 22, [illegible]
Jan. 29, [illegible] Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, [illegible]
Feb. 1, [illegible] Wis.
Feb. 12, D. R. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. [illegible] S. D.

Poland China Swine.

Sept. 22, [illegible] Ill.
Sept. 24, [illegible]
Sept. 26, M. V. Miller, Lawler, Iowa.
Oct. 2, Grant Co. P. C. Breeders' Assn., [illegible]
Oct. 3, Burlie Dobson, secretary, [illegible]
Oct. 15, Henning & Pharis, Belvidere, Ill.
Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 18, Dissmore [illegible] Mo.
Oct. 23, Deewelow Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, [illegible]
Feb. 8, Bee Line, Mt. Carroll, Ill.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. [illegible]

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Burns, Walter [illegible]

Hampshire Breeders Meet.

The Hampshire Breeders' Association will hold its annual meeting in the swine pavilion on the state fair grounds September 12th. This session will be held in connection with the general swine meeting. Important matters will be taken up, particularly in relation to the sale that will be held this winter. All persons who are in any way interested in breeding Hampshire hogs should plan to be in attendance at this meeting.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 291, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Ward St., Omaha, Neb.

JERSEY CATTLE.

CONSTANCE

JERSEY CATTLE—Jersey herd in the accredited list. Two splendid young bulls for sale.
DUROC JERSEY HOGS—Best of breeding and individuality. Everything guaranteed to please. Spring pigs for sale.
RED OAK STOCK FARM,
F. R. Constance & Sons, Props., Waupaca, Wis.

News of the Sale Ring.

McKerrow & Sons Co. Sale.

The sale of Shropshire and Oxford sheep held by the Geo. McKerrow & Sons Co. at their farm at Pewaukee on August 15th, was successful in every respect. There were a large number of out of state buyers for the show sheep, but on account of the rush of harvest time not so many buyers for the field sheep were in attendance as expected. The Shropshires were sold first. The first lot sold was the choice of three noted rams—Senator Bibby II, Senator Bibby 111, and Bibby Sensation. T. F. Jones, of Iowa, was the successful bidder and selected Bibby Sensation at $460. This ram is a wonderful type and was well worthy to top the sale. The other two rams were reserved for service at McKerrow Farms. The yearling Bibby ram secured by Messrs. Arthur Broughton & Sons, and W. F. Renk & Son at $400 is especially noteworthy as the ideal type of a prepotent sire. Perhaps the most lively bidding of the sale developed on the pen of four lambs by Bibby Champion. It finally developed into a duel between J. C. Andrews, of Indiana, and C. E. Willson, of Minnesota. The latter secured all four of them at $150 each, a record price for four lambs, the get of one sire. The 94 Shropshires averaged $114. Twenty-seven bred at McKerrow Farms and sired by Senator Bibby and Bibby Champion averaged $108. The Oxford sale immediately followed. J. C. Williamson, of Ohio, was the heaviest buyer. W. W. Niven, of Montana, secured the top price ram at $285. The list of buyers follows:

SHROPSHIRES—RAMS.

McKerrow's Bibby Sensation, T. F. Jones, Everly, Ia., $460; Senator Bibby XIV, Chas. Francis & Son, New Lenox, Ill., $205; McKerrow's Buttar's 442, Wm. Wrigley, Jr., Lake Geneva, Wis., $165; McKerrow's Bibby 389, T. F. Jones, $155; McKerrow's Bibby 390, E. M. Morrow, Glenwood, Minn., $130; McKerrow's Bibby 2, Arthur Broughton, Albany, Wis., $400; McKerrow's Bibby 3, Wm. G. Miles, Evansville, Wis., $300; McKerrow's Bibby 4, No. Dakota Experiment Sta., Fargo, N. D., $220; McKerrow's Bibby 5, T. F. Jones, $275; McKerrow's Bibby 7, H. D. Eddingfield, Mt. Pleasant, Ia., $215; McKerrow's Bibby 6, A. C. Sinner, Chalco, Neb., $195; McKerrow's Bibby 9, Herbert E. Powell, Ionia, Mich., $155; McKerrow's Bibby 8, T. F. Jones, $90; McKerrow's Bibby 648, T. F. Jones, $100; McKerrow's Buttar 651, Jess C. Andrew, West Point, Ind., $310; McKerrow's Buttar 649, Ira R. Leach, Durham, Mo., $100; McKerrow's Buttar 650, T. F. Jones, $95; McKerrow's Buttar 652, Anoka Farms, Waukesha, Wis., $90; McKerrow's Buttar 654, J. A. Feurt, Jameson, Mo., $95; McKerrow's Buttar 656, Anoka Farms, $90; McKerrow's Buttar 657, Ray Tener, Pleasantville, Ia., $95; Senator Bibby 16, Geo. Allen & Sons, Lexington, Neb., $210; McKerrow's 3353, Earl Cook, Plainville, Wis., $60; McKerrow's 3183, H. S. Bryan, Redding, Ia., $70; McKerrow's Bibby Champion II, J. W. Thrall, Picketts, Wis., $60; McKerrow's 3112, C. E. Willson, Minneapolis, Minn., $65; McKerrow's 3368, So. Dakota College, Brookings, S. D., $70; McKerrow's 3258, W. T. Hoyt, Rosendale, Wis., $55; McKerrow's 3346, Hugh R. Jones, Picketts, Wis., $65; McKerrow's 3342, W. J. Nankenman, Beardsley, Minn., $60; Hawthorn Farm 61, E. M. Shroyer, Millgrove, Ind., $70; Hawthorn Farm 74, Enoch Perry, Milwaukee, Wis., $65; Senator Bibby XV, Univ. of Minnesota, Minneapolis, Minn., $195; Senator Bibby IX, R. C. Yohe, Allerton, Ia., $110; Bibby Champion III, Iroquois Farms, Cooperstown, N. Y., $125; Senator Bibby X, R. F. Whitney, Eldorado, Wis., $55; Senator Bibby XVII, Jesse Billings, Fergus Falls, Minn., $55; McKerrow's 3225; A. Prasse & Son, Lena, Ill., $61; McKerrow's 3235, Geo. Zillig, De Soto, Wis., $75; McKerrow's 3223, Joseph Jennings, Lees Summit, Mo., $100; McKerrow's 3224, Lewis Lewellin, Waterloo, Wis., $120; Hawthorn Farm 139, Walter Lewis, Lake Beulah, Wis., $50; Hawthorn Farm 148, Boyd Dickenson, Lake Geneva, Wis., $50.

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McKerrow's Bibby 386, T. F. Jones, $180; McKerrow's 3382, Clarence Willson, $180; McKerrow's 3309, Wm. Wrigley, Jr., $100; McKerrow's Bibby II, T. F. Jones, $220; McKerrow's Bibby 13, Clarence Willson, $215; McKerrow's Bibby 10, John F. Weaver, Pewaukee, Wis., $200; McKerrow's Bibby 12, H. D. Eddingfield, $195; McKerrow's Bibby 14, Wm. Wrigley, Jr., $80; McKerrow's Bibby 15, Wm. Wrigley, Jr., $80; McKerrow's Bibby 36, T. F. Jones, $75; McKerrow's Bibby 23, Iroquois Farm, $110; McKerrow's Bibby 45, Iroquois Farm, $110; McKerrow's Bibby 38, Iroquois Farm, $110; McKerrow's Bibby 400, Claude V. Herrman, Steward, Ill., $110; McKerrow's Bibby 48, Iroquois Farm, $70; McKerrow's Bibby 18, Wm. Wrigley, Jr., $80; McKerrow's Bibby 34, Claude V. Herrman, $100; McKerrow's Bibby 37, Wm. Wrigley, Jr., $75; McKerrow's Bibby 396, Iroquois Farm, $70; McKerrow's Bibby 40, Iroquois Farm, $70; McKerrow's Bibby 395, Wm. Wrigley, Jr., $55; McKerrow's Bibby 43, Wm. Wrigley, Jr., $65; McKerrow's Bibby 25, Wm. Wrigley, Jr., $55; McKerrow's Bibby 41, Claude V. Herrman, $70; McKerrow's Bibby 35, Wm. Wrigley, Jr., $65; McKerrow's Buttar 679, Iroquois Farms, $110; McKerrow's Buttar 675, Iroquois Farms, $125; McKerrow's Buttar 659, Iroquois Farms, $110; McKerrow's Buttar 682, Iroquois Farms, $110; McKerrow's Buttar 684, J. B. Conley, Verndale, Minn., $75; McKerrow's Buttar 658, Iroquois Farms, $60; McKerrow's Buttar 664, Iroquois Farms, $60; McKerrow's Buttar 683, Wm. Wrigley, Jr., $55; McKerrow's Buttar 665, Claude V. Herrman, $90; McKerrow's Buttar 673, Iroquois Farms, $60; McKerrow 3413, Claude V. Herrman, $100; McKerrow 3440, J. B. Conley, $85; McKerrow 3406, Wm. Wrigley, Jr., $80; McKerrow 3674, Fox Bros., Seviersville, Tenn., $90; McKerrow 3414, J. W. Thrall, Picketts, Wis., $80; McKerrow 3612, Clarence Willson, $150; McKerrow 3672, Clarence E. Willson, $150; McKerrow 3673, Jess C. Andrew, $80; McKerrow 3614, Howard McLain & Son, Lima, Ohio, $80; McKerrow 3613, Clarence E. Willson, $150; McKerrow 3611, Clarence E. Willson, $150; McKerrow 3533, H. H. Pond & Son, Minneapolis, Minn., $80; McKerrow 3530, Jess C. Andrew, $95; McKerrow 3532, Jess C. Andrew, $95; McKerrow 3519, Iroquois Farms, $55.

OXFORDS—RAMS.

Alkstone Bat, J. C. Williamson & Son, Xenia, Ohio, $245; Haptonian A., W. W. Niven, Manhattan, Mont., $285; McKerrow's 3502, W. T. Deatherage, Brighton, Ill., $155; Dobbin 49, J. C. Heideman, Montevideo, Minn., $100; McKerrow's 3396, Husten & Son, Eagle, Wis., $65; McKerrow's 3551, Howard B. Petty, Mt. Carroll, Ill., $55; McGill's 544, Wm. Hochhausen, Glenhaven, Wis., $50; Knapp's 300, John Cunningham, Corydon, Ind., $35; Cunningham Beauty A., Sumner Drisko, Addison, Me., $60; Petty 50, W. D. McGill, Menomonee Falls, Wis., $55; Simpson 79, John Cunningham, $35; A. S. & S., Sidney Phillips, Eldorado, Wis., $35; Arkell 2876, So. Dakota College, Brookings, S. D., $75; Arkell 2854, J. C. Heideman, $75; Arkell 3014, Will Jones, Wild Rose, Wis., $40.

EWES.

McKerrow's 3013, J. C. Williamson & Son, $95; McKerrow 3132, A. J. Mohr, Bloomer, Wis., $70; McKerrow 3136, Samuel Breese, Venedocia, Ohio, $65; Shaw's Norfolk Duchess, C. E. Tuffley, Boscobel, Wis., $40; Toston Siol 3205, Husten & Son, $50; Toston Siol 3204, J. C. Williamson & Son, $45; Toston Siol 3203, J. C. Williamson & Son, $55; W. Dobbin 46, J. C. Williamson & Son, $90; W. Dobbin 44, C. C. Croxen, West Liberty, Ia., $115; McKerrow's 3423, F. H. Gurney, Earlville, Ill., $110; McKerrow's 81, J. C. Williamson & Son, $100; McKerrow's 3669, No. Dak. Experiment Sta., Fargo, N. D., $80; Shaw's Norfolk Duchess 47, Donald Asay, Mt. Carroll, Ill., $60; McKerrow's 3671, J. C. Heideman, $85; McKerrow's 3489, No. Dakota Exp. Sta., $75; Nelson's 13, Husten & Son, $35; Nelson's 10, Geo. W. Knapp, Fennimore, Wis., $40; W. Dobbin 47, Adolph Prasse & Son, $45; Nelson's 15, Geo. W. Knapp, $40; McKerrow's 3604, J. C. Heideman, $65; McKerrow's 3603, No. Dakota Exp. Sta., $45; McKerrow's 3601, J. C. Heideman, $67.50; McKerrow's 3703, Donald Asay, $32.50; McKerrow's 3602, John Meider, Menomonee Falls, Wis., $45; Petty 74, Donald Asay, $60; W. Dobbin, J. C. Williamson & Son, $30; 42, J. C. Williamson & Son, $30.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.
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HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
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JERSEYS
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STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

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When in need of a HERD BULL see
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100 BIG-TYPE POLAND CHINA SPRING BOARS AT $30.00 EACH

Double treated, and we record them. They will be worth $30.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs.

They are from the most noted families of the great breed, sired by **Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo,** whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by **Long Expansion, a 900-lb. two year old,** and **Pawnee Wonder, a 1,000-lb. son of A Wonder.**

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. **Buy your boar now and save from $20 to $50.** Boars will be high and scarce this fall.

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PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

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"KING THE COL" "PATHFINDER" "LEE'S DEFENDER"

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IF YOU KNOW pedigrees you'll appreciate these blood lines. Individually, I have one of the best herds in the state. Good boars are going to be hard to find when the breeding season opens. For next month I will sell boars from $40 to $75. Gilts reserved for my sow sale Jan. 30th. Correspondence invited

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Spring boars. Spring gilts. Your business will be appreciated. "Your $ worth for every $ spent or every $ back."

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ANY ONE of these five Duroc boars will make friends and customers for me. These are the tops, they are offered first.

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WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

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SEE a boar that weighs 1,100 pounds. Two aged sows that weigh over 800 pounds each. Fall gilts that weigh over 500 pounds. Spring pigs that weigh 250 pounds.

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Sows bred to farrow this fall—gilts and boars. Best big types.

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YOU HAVE HEARD about ORION COL. S., my good Duroc herd boar. He will head my sow herd at Milwaukee and La Crosse and I want you to see this great son of COL. S. JR., and the good sows to which he has been mated.

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MODEL KING Sire High Model Dam by King the Col.

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30 Duroc boars and 10 gilts by the above sires sell

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A few of Investor and Dreadnaught breeding you can use.

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DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

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THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

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DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

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I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

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WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain herd."

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See the Old-Fashioned Spotted Poland China Exhibit

AT THE STATE FAIRS in Iowa, Ohio, Nebraska, Indiana, Michigan, Illinois, Missouri, Wisconsin, Kansas, Oklahoma, Amarillo, Tex.; National Swine Show, Omaha; Annual Association Sales, Kalona, Iowa, Oct. 29th, and Crawfordsville, Ind., Oct. 19th. Ask for a copy of our breed paper and other free literature.

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Size Quality

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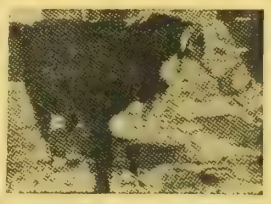

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Imp. CURLY BOY 426258

Calved February, 1912. 2,400 lbs. Sire, Cornice by Coronet. Dam, Curly 53d 425920 by Huntsman. Bred by G. H. Bray, Herefordshire, England. Imported by the late Geo. Leigh. Have 30 of his heifers in herd. Write.

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130 Head of Large, Fine, Woodend Farm Guernseys at Auction Sept. 19th-20th

At the Minnesota State Fair Grounds, Hamline, Minn., commencing at 10 o'clock each day

This is the Greatest Opportunity Ever Offered Guernsey Breeders in the West

Because, the herd was founded and maintained 14 years to keep and not to sell.

Because, it was culled carefully and only the best retained for use.

Because, practically all of the cows have A. R. records, these go to 654 lbs.

Because, practically all of the heifers are out of A. R. cows.

Because, practically all of the young bulls are out of A. R. cows.

Because, the herd is accredited free from tuberculosis by the Minnesota State Board.

Because, there are 30 daughters of Imp. Cora's Govenor of Chulmark who has 40 A. R. daughters, two over 700 lbs., ten of these we offer have A. R. records and two of them over 600 lbs.

Because, there are fine imported cows with records.

Because there are three of the highest class service bulls that money could buy.

Because, there are sons and daughters of these bulls.

NOW WHAT ELSE COULD YOU ASK FOR?

The herd is the property of Mr. A. C. Loring, of Minneapolis, Minn. Take Como-Harriet cars from either St. Paul or Minneapolis—the cars stop at the Pavilion. Write for catalog, which will tell you the rest, to

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BROAD RIPPLE FARMS
GUERNSEYS FOR SALE

SERVICEABLE YOUNG BULLS and bull calves; **A. R. Cows** in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.
GEO. W. BROWNE, Prop. Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.
F. E. FOX - - - - - - - - - - - Waukesha, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write
FOX BROTHERS - - - - - - - - - - - Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

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SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.
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READY FOR SERVICE. Sired by Auricular King of the May and out of a granddaughter of Voeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
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Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
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A FEW WELL-BRED YOUNG BULLS — Hanson Farm — **WRITE YOUR WANTS**
Emory C. Meltz **GUERNSEYS** Appleton, Wis.

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16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

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WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

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A 27.81-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 20.20 lbs. butter. She has a 30-lb. daughter and a 25-lb. dam. A little more black than white; well grown and of exceptionally good conformation. Born February 1, 1917. For pedigree and further information, address
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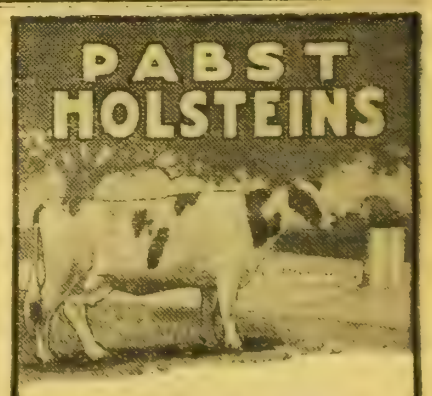

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THE WISCONSIN FARMER

VOL. XLVI. NO. 36. THURSDAY, SEPTEMBER 6, 1917. WHOLE NO. 1858

GOOD BEEF FROM WISCONSIN

Being a Few Pertinent Observations From the Blue Grass Section in Iowa County Where Good Stock is Raised.—By John L. Tormey.

WISCONSIN has done so much in the dairy business that the mere mention of live stock in the Badger state causes one to think of dairy cattle. The dairy interests have been well advertised, and the breeding of pure-bred dairy animals has proved lucrative to the state. In the face of the above facts, it may appear new to some that there is some of the best land in the state devoted to the growing, grazing and finishing of steers. There is a section of the southwestern part of the state around Mineral Point, Belmont and Dodgeville that is devoted largely to making beef.

Some of this land cannot be bought for $200 an acre. While much of it is rolling, large areas of it are level, and some of it reminds one of the corn-belt land of Iowa. The land is high, of limestone origin, well drained, and produces the best blue grass in Wisconsin, and as good blue grass as can be found anywhere. South and west from Mineral Point the land is quite rolling, and much of it can be devoted only to grazing. The ridges and the bottoms are well adapted to the growing of corn, oats or barley and clover. The best crop of clover that I saw this year was on a piece of drained bottom land on the farm of Mr. Louis Graber, of Mineral Point. Sufficient corn is raised to fill the silos, and the most of the progressive steer men in this locality are firm believers in the value of silage as the chief asset in wintering their cattle. Besides this, most of the men raise some hogs and have corn enough to feed the hogs.

IN A SOUTHWESTERN WISCONSIN BLUE GRASS PASTURE.

In this section are located the Marrs, Polskils, Grabers and Fishers, who do not raise many cattle, but scour the country to get the best of well-bred cattle that money can buy. Cattle are either bought in the fall and fed over the winter to be sold off the grass the spring following, or they are contracted for delivery about May 1st. Three-year-old cattle are preferred, or if younger cattle can be bought they are kept over until they harden into mature cattle and sold at the age of three years, weighing 1,400 or 1,500 pounds. It was from this vicinity that George Marr sent to Chicago last fall a load of heavy cattle that sold on the market for $12.40 per hundred. Blue grass and good cattle turned the trick. The cattle had to be good or Marr wouldn't have had them.

Mr. Graber tells me that land in his section of the district is about $25 to $40 per acre higher than similar land in some other sections of Iowa and Lafayette counties. When asked why, he said, "Everybody in this section wants land here and they can't bring any more land in." This is a pretty good explanation for the high price of land. Early in August Peter Polskil sent to Chicago the poorest load of his fifty head of big cattle. These cattle averaged 1,526 pounds in Chicago and sold for $13 per hundred and were the first load of 13-cent cattle out of Iowa county. Mr. Polskil has some big cattle. The big cattle left at home will average over 1,600 pounds and many of the steers will weigh 1,800 pounds right off the grass. Polskil is one of the heaviest operators around Mineral Point and always has good cattle.

THE SHORT-HORN IS POPULAR WITH MANY BEEF BREEDERS.

North of Mineral Point is a section of Iowa county that is known as the Bloomfield district, and in this section we find the Kellys, Skillicorns, Penhallegons, Pellows, Callows, Jewells and Thomases. These men brought with them from the United Kingdom the love and the eye for good cattle, sheep and horses. Extension work was not necessary to show them the value of good stock, and that it paid them always to keep only the best. No grade or scrub sires are allowed on these farms, and the land is too high priced to carry poor animals. The elder Jewell, for example, never went back on the Cotswold sheep, and has for over fifty years had some of the best sheep of the breed in Wisconsin, which is saying a great deal, when we consider the name of Harding in Wisconsin and in national Cotswold circles. The Jewells have also stuck to pure-bred Herefords and have made them pay. These facts alone show how faithfully and religiously they have stuck to their heritage from England. Irving Jewell, the active man in the business now, says his land cannot be bought for $200 per acre, and I wouldn't blame him for turning down the offer. It is a beautiful district. No drainage is necessary, there is no sand to bother, no sour lowlands to sweeten, no boulders to trouble. Beautiful homes, surrounded by nice groves, and in some cases beautiful hedges abound. It is a fine neighborhood to live in. What more should a man want?

Considerable corn and clover are raised in this section and practically all of the farms have silos. This testifies to the progressiveness of the men in the district, and it is throughout this district that they make use of considerable cottonseed meal in carrying cattle through the winter with silage as the heavy part of the ration. These men realize that a period of no gain is a losing period in feeding operations and they want the cattle to gain consistently through the winter. In some cases, cottonseed meal is fed throughout the winter, but in other cases the feeding of it is limited from three to six weeks previous to going on grass. This gets the cattle used to feed higher in protein and the change to the rich protein grass is less noticeable to the steers. Besides carrying on the pure-bred business, the Jewells also handle quite a number of steers and now have on hand some good cattle which they have carried over the winter, and have made them gain all winter long on a ration made up principally of silage. For dry roughage they fed oat straw, and in connection with the silage the cattle ate the straw up clean. Men who feed silage to cattle in the winter notice that there is a craving for dry roughage, and the appetite of the cattle for dry roughage is oftentimes as well satisfied with straw as with hay. Jewell's cattle were also fed about a pound of cottonseed meal daily in addition to the straw and silage. As spring approached the allowance of cottonseed meal was increased slightly and dispensed with entirely when the cattle were put on grass.

It was from the Bloomfield section that the first $12 cattle on the Chicago market came. Cattle had sold for over $12 on the market, but they were show cattle; and it might be mentioned that three cattle were sold by Ernest Graber, of Min-

(Concluded on page 12.)

A GOOD REPRESENTATIVE OF THE WISCONSIN GRASS FAT STEER.

CURRENT EVENTS

PRESIDENT WILSON'S reply to Pope Benedict's peace note is an emphatic declaration that the United States cannot consider any peace terms which do not mean an end to German autocracy and militarism. The president's note is dignified, yet extremely forceful, and bids fair to be one of the most historic state papers of the century. The president shows that he is not averse to an early peace, that he hopes and shall work for it, but he does not believe that a peace now will settle matters, that they can only be settled finally and positively when a quietus is put upon Germany's ambition to rule the world. He aserts, in most positive terms, that he cannot trust the kaiser's word or accept it as a guarantee for anything. The meat of his answer is found in these sentences: "The purposes of the United States in this war are known to the whole world—to every people to whom the truth has been permitted to come. They do not need to be stated again. We seek no material advantage of any kind. We believe that the intolerable wrongs done in this war by the furious and brutal power of the imperial German government ought to be repaired, but not at the expense of the sovereignty of any people—rather a vindication of the sovereignty both of those that are weak and those that are strong. Punitive damages, the dismemberment of empires, the establishment of selfish and exclusive economic leagues, we deem inexpedient and in the end worse than futile, no proper basis for a peace of any kind, least of all for an enduring peace. That must be based upon justice and fairness and the common rights of mankind. We cannot take the word of the present rulers of Germany as a guarantee of anything that is to endure unless explicitly supported by such conclusive evidence of the will and purpose of the German people themselves as the other peoples of the world would be justified in accepting. Without such guarantees, treaties of settlement, agreements for disarmament, covenants to set up arbitration in the place of force, territorial adjustments, reconstitutions of small nations, if made with the German government, no man, no nation could now depend on."

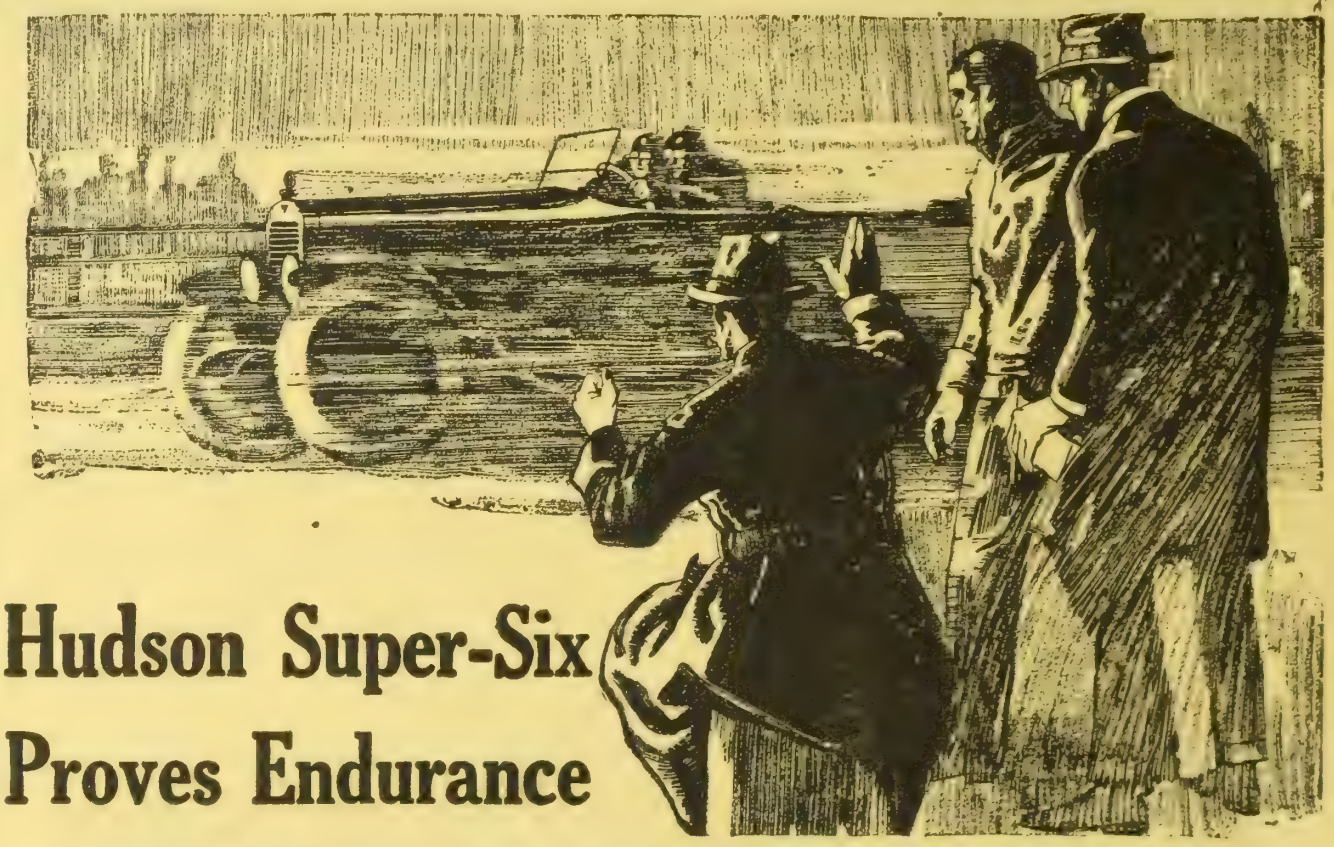
PRESIDENT WILSON has approved estimates of the navy department for the expenditure of an additional $350,000,000 for new destroyers to combat German submarines. The department has never made public the number of destroyers now building or the additional numbers contemplated in the new project. It is known, however, that when vessels now under construction have all been completed, which will be during 1918, the navy will have a destroyer force comparable to that of any power, while the new project will give the United States the strongest destroyer flotilla in the world. Navy designers have already worked out a standard type of destroyer on which the quantity production machinery will be employed. The new boats probably will not differ from the latest thirty-five knot, oil-burning type ordered for the navy. The vessels will be faster and more seaworthy and give more room for their crew than any now in commission. There is a general belief that if the seas could be rid of the German submarines it would not be long until Germany could be brought to her knees. As long, however, as she can inflict so much damage at sea she will continue to fight on, no matter what may be her temporary losses on land

ENGLAND, the arch enemy of Germany, must be beaten down at whatever cost, Emperor William told his troops while on a visit to the Flanders front last week. An official statement issued in Berlin says the emperor addressed deputations from all detachments which have had a share in meeting the British attacks. He said he felt impelled to express his thanks and his full recognition of the heroic gallantry shown by the troops from all parts of Germany in the hard fighting of the last week. The emperor referred to the marked contrast between the German and Anglo-French points of view, and continued: "It is in God's hands when, in his wisdom, he will give us victory. He has taught our army a hard lesson and now we are going to pass the examination. With the old German confidence in God we shall show what we can do. The greater and mightier the problem the more gladly we shall grapple with it and solve it. We shall fight and conquer until the enemy has had enough of these struggles. All Germans have realized who is the instigator of this war and who is the chief enemy—England. Everyone knows England is our most spiteful adversary. She spreads the hatred of Germany over the whole world, filling her allies with hatred and eagerness to fight."

TWO billion dollars may be added to the total bonds to be authorized at the present session of congress, making a total of approximately $21,000,000,000 available to the government during the fiscal year ending June 30, 1918. Secretary McAdoo has confided to members of the ways and means committee the extraordinary expenses to which the government is being put and the manner in which the fabulous amount asked is to be spent, a major part of it to go to the allies as loans. It is unofficially reported that the war is costing the United States $1,000,000 a minute. "It now seems probable," reports Democratic Leader Kitchin, "that the total amount of money needed for the fiscal year will be about $19,000,000,000. This estimate covers about $7,000,000,000 for loans to the allies, $3,000,000,000 of which already has been provided; $1,300,000,000 for current expenses, exclusive of war, leaving about $10,000,000,000 for war expenses. Included in the war estimate is $176,000,000 for the new insurance bill and $1,000,000,000 for the shipping board. The $21,000,000,000 would be raised as follows: Bonds for allied loans, $7,000,000,000; pending revenue bill, $3,000,000,000; war certificates, $4,000,000,000; bonds for domestic purposes already authorized, $2,000,000,000; proposed new bonds, $2,000,000,000; war saving certificates, $2,000,000,000, and regular revenue, $1,300,000,000."

WHILE the United States is at war with Germany, official declaration to that effect having been made by congress last April, war has never been declared between the United States and Austria, notwithstanding the fact that Austria is Germany's chief ally. That Austria may soon declare war on the United States now seems likely, because of the fact that this country is loaning money to Italy, which is one of Austria's main enemies, the Austrian armies having suffered severe defeats at the hands of the Italians within the last few weeks. At the same time, Austria is proving to be but a poor ally for Germany and there is repeated evidence that it would welcome an early peace. A dispatch from Copenhagen, Denmark, last week, asserted that an Austria which is literally crying for peace, which has discarded any thought of territorial expansion and is even willing to buy its way out of the war by territorial sacrifices on the Italian front and in Galicia; an Austria of frequent food riots, unable to last through another winter of war; an Austria whose population would rise in revolution if any reasonable peace offer were rejected by the government is pictured by a highly educated Austrian who has arrived there from Vienna. Austria has suffered severely in the war and is undoubtedly about ready to cry "quits."

THE fact that the United States is the first nation to answer the pope's peace letter is taken as evidence that the allied powers, fighting Germany, look upon President Wilson as their official spokesman and that their answers to Rome will follow the general tenor and nature of President Wilson's forceful answer. It is generally acknowledged that there is now no room left for compromise and that the allied nations must fight Germany to the limit, or until that country overthrows its military masters, a consummation which President Wilson believes is possible. A press dispatch from Washington adds these details: "Active exchanges have been in progress between the president, Secretary Lansing and the entente powers, mainly through the American diplomatic representatives abroad, regarding the answer to be made to the pope's proposals ever since they were delivered to the various foreign offices. It seemed by common consent that to America was confided the heavy responsibility of framing and delivering the first of the replies. The propriety of this course was apparent from the consideration of the fact that every one of the entente premiers and foreign ministers who had spoken publicly on the subject of peace had turned to the language of President Wilson's historic address to congress and his other public utterances on the subject, as disclosing their own conceptions of the proper basis of peace negotiations. And even more potent than this consideration was the conviction that America was best fitted of all nations to deal what it was hoped would be the death blow to autocracy of the Germanic type." The president has made his position plain. It remains now to organize, drill, arm and equip an immense army with which to back up the word of the commander-in-chief.



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For one hour, a fully equipped phaeton with top and windshield up and carrying five passengers, was sent at top speed. It averaged 70.74 miles an hour and established the best time for such a performance with a stock car. The test, officially observed by the American Automobile Association, was one of the many similar tests to prove endurance.

It was not a preconceived campaign of tests that we set out to make. Each test was thought sufficient in itself. But just as the giant is surprised as he realizes the ease with which he accomplishes each feat that he had felt would try his strength, so the Super-Six has so easily met every test that more trying and abusive trials have been devised.

We were sure that in the 24-hour test a stock chassis would break all previous records. But no one thought it would go 347 miles farther than any other car had ever gone in 24 hours. The Super-Six covered 1819 miles. It broke all records for a traveling machine.

So, too, when a seven-passenger Super-Six set out from San Francisco for New York it was with confidence that it would lower the time of all other transcontinental runs. It did so by 14 hours and 59 minutes. Then because the run had been made so easily and without special planning, the car was turned around and raced back to San Francisco. In the return trip it also did better than any other automobile had ever done in crossing the continent in either direction. Hudson's round trip required 10 days and 21 hours.

There is hardly any quality of a car that is so important to the buyer as that of endurance. Safety, comfort, reliability, low maintenance cost are all dependent upon endurance.

Every quality of motor car satisfaction is dependent upon power acceleration, speed and endurance. And every Hudson test proves that in these respects there is no car that equals it.

Convincing as the official records are, there is still further proof that no other car has to offer equal advantages. These proofs are furnished by 37,000 Hudson Super-Six owners. They have added their experiences to the official tests.

Others Have Increased Their Prices—Not Hudson

Other makers are now announcing price increases which bring the former $1,200 and $1,300 cars into the Hudson class. Until present material supplies are exhausted Hudson prices remain unchanged. So you can get for a limited time a Super-Six at a price not influenced by present high material costs. When the present allotment is exhausted then Hudson, too, must go up in price.

There are eight body types. The 7-passenger phaeton sells at $1,650 at Detroit.

HUDSON MOTOR CAR COMPANY, DETROIT, MICHIGAN

The Wisconsin Farmer

THURSDAY, SEPTEMBER 6, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

SOME STATE FAIR THOUGHTS.

I HAVE always held to the opinion that our various state fairs were educational factors second to none, that attending them was money well invested. I am more firmly of this opinion this year than ever before.

I attended the Iowa State Fair at Des Moines last week. I hope to be present at several of the other fairs here in the grain belt within the next few weeks. The Iowa fair always opens the grain-belt circuit. This week we are having state fairs in Nebraska and Minnesota. Next week come Wisconsin, South Dakota and Illinois, with the free state fair at Topeka, Kan.; to be followed, in quick succession, by the fairs at Hutchinson, Kan.; Sedalia, Mo., and Oklahoma City. We are exhibiting to the world the fruits of our labors this year, and the world cannot but applaud, for never were these fruits more abundant, never did they testify more eloquently to our efficiency.

We have about completed harvesting and threshing the heaviest oat crop we have ever produced. I have received letters from subscribers, within the last few days, telling of fields which threshed out 100 and even as high as 115 bushels to the acre. From Kansas comes the news that all records for acre production of winter wheat have been broken this year. The corn crop in the same state seems to have been saved by the recent rains. Iowa and Illinois are still hopeful of bumper corn crops. I have seen it estimated that the increase in the oat and corn crop in Iowa alone this year would pay the year's interest on the nation's two-billion-dollar Liberty Loan. Never were the prospects better for the live stock farmer; never were our dairy products in such demand or bringing such good prices. Whichever direction we look, the sunlight of prosperity is shining full and strong upon the farmer. Is it not fitting, therefore, that we should stop from our labors for a few days, mingle with our fellow workers and look at the results of our handiwork, as they are exhibited in pen and in case, in stall and on counter, at our various state fairs?

A new thought comes to me at this year's fair in overwhelming manner. That is the thought of the splendid patriotism rampant in the Middle West, and especially among our farmers. At Des Moines last week they ran the most beautiful banner the world ever saw aloft on a 125-foot flagstaff, while 5,000 soldiers stood at attention beneath it and 30,000 farmers and town folks cheered the banner to the echo, as it was flung to the breezes immediately in front of the grandstand. That banner was Old Glory. Immediately below it, on the tall flagstaff, they hung the British flag and the tricolor of France—bleeding yet triumphant France, to which goes out the love and sympathy of every one of us. These three beautiful silken banners topped everything on the grounds; they dominated the fair. There were thousands of smaller flags to be seen, the stars and stripes were everywhere. It is the same this week at Lincoln and Hamline. It will be the same next week at Madison, Springfield, and so on. We have flung Old Glory to the breeze, not only in America, but in Europe, and we are sustaining it by our bumper crops. We have sent an army of fighters abroad, but we have retained another army of fighters at home; men who fight in the field and feed lot to give the world bumper crops, that the world may be fed and clothed, soldiers alike as skilled, as well trained and as necessary as the men who go to their deaths in the trenches of Europe and in gallant charges across No Man's Land. We honor the flag, we salute the soldiers in their khaki uniform; equally should we salute the farmers who sustain this flag and those soldiers; equally should we honor the farmer's banner: the waving corn and oats and wheat. These are some of the things of which I thought as I looked at the flags in Des Moines last week and talked with soldier and farmer, brothers now in a service which would fail if it were not for the devoted, sacrificing service of both.

Our state fairs were always worth what they cost the individual who attended them; they are worth more this year than ever before. They display our prowess with the plow and the hoe, with the pitchfork and the separator; but they do not stop here. They display our patriotism, our determination to fight the good fight until He who rules us all and doeth all things well shall upraise His hand, and millions of fighting men shall fall upon their faces and make obeisance to Him and the everlasting, glorious, conquering peace which He typifies. If ever there was a year when the farmer may well be proud of the fair which exhibits his handiwork, and may well afford to attend that fair and mingle proudly with his fellow men, it is this year.

PROSPERITY AND PEACE.

WITH cattle bringing $15.50 and hogs $20 on the Chicago market last week; with old corn selling for $2 a bushel and this year's crop likely to bring 85 to 90 cents on December delivery; with oats ranging from 60 to 65 cents and fields yielding double their average, running as high as 100 to 115 bushels to the acre; it certainly does look as though the sun of prosperity were shining full and strong on the grain-belt farmer nowadays. With such topnotch prices it is difficult to recall the day and the prices of which the newspaper "poet" tells in the jingle:

I remember, I remember,
The quondam price of corn;
'Twas fifteen cents a bushel in
The state where I was born.
And well the eggs I used to hunt
With rapture in the hay;
Ah, me, nine cents a dozen then
Was all they brought in pay.

There is going to be plenty of ready cash in the grain belt this fall. Bank deposits are heavier than they have been for many years; there are more individual accounts than ever before. If only the awful war over in Europe could be brought to a speedy and permanent end, with what thankful hearts and well-filled pocketbooks would we approach this year's day of thanksgiving. Let us hope for such a peace, let us pray for it, let us work for it, what time is given to us from our labors of harvesting and storing the splendid crops which the good Lord has granted to us out of His wonderful goodness and mercy.

THE HEART OF A FARM MOTHER.

I HAVE given you my ideas on the possibilities of an early peace. You know how I hope and pray for it; how I would work, night and day, to bring it about, were it dependent upon my efforts. You know that I abhor war. You know that I have cried out, time after time, against sacrificing the flower of our young manhood upon the altar of Mars; how I have worked to have the farm boy exempted from the draft. All these things must by this time be plain to those who do me the honor to read what I write.

Yet while I abhor war and cry aloud for an early peace (in agony, at the thought of the suffering of millions of my fellow citizens) I believe that we have a duty to perform now, a duty which must be performed at whatever personal cost. That duty is to prepare for what may prove to be the inevitable; an armed conflict in which millions of boys from the farm and from the city may give up their lives. By preparing while there is yet time we are not minimizing the chances of an early peace, we are not prejudicing our hopes of arbitration; we are merely taking precautions (as one insures his farm home or barn against fire) while there is ample time.

With this brief preamble, or personal note, I am going to print a couple of letters received within the last few days from devoted "mothers in Israel" who have been called upon to kiss their children and their kin goodby, possibly never to see them again, yet who have kept shining faces turned toward their soldier boys and have heroically bade them go forth and fight the good fight, though the end may be deep down in a muddy, rat-infested trench in a foreign land. These letters breathe the heroic spirit of American motherhood. They are magnificent letters. I am proud that the women who wrote them are numbered among those who read what I write, that they belong to our family circle. Let the letters speak for themselves. Here is the first, as it comes to me from Mrs. N. A. Torgerson, of Mt. Sterling, Wis.:

Dear Mr. Pierce:—How gladly would we keep our sons at home! I am the mother of six boys. All except one, the youngest, a lad of thirteen, could enter the army. I am and always shall be a republican, so you see President Wilson received no support from my voters of four. But when he declared war and issued his call for volunteers my sons, all of them farmers, some hired help and one owning a farm, asked my advice as to entering the army.

"What would you do, mother, if you were a man?"

You can't tell how hard it was for me to tell those boys what I would do.

"Be true to your conscience, boys, and do what it tells you. Also be true to your country and God," I answered.

"But would you enlist, mother?"

"I would, for a drafted soldier never commands the respect that a soldier does who voluntarily gives his service to his country."

So four out of the six enlisted. The oldest did not pass, although he tried three different times to enlist. This was because of his false teeth, and he says he can hardly forgive the United States for turning him down. The youngest of the four, who was only eighteen, did not pass the examination owing to an undeveloped chest, but says he will try in South Dakota where he went to work. The other two passed the examination at Milwaukee and never came back. They are in different locations. One is at Fort Bliss, Texas, and the other, after being sent from Jefferson Barracks, Mo., to Columbus, N. M., spent about six weeks there in the desert and then was sent to Fort Riley, Kan., where he now is training in the cavalry.

I may never see my boys again, but I shall live in hopes that I will. Hope is all that keeps me up, and the love of my country and the Star Spangled Banner—long may it wave o'er the land of the free and the home of the brave.

I may add that I am a woman of fifty-four years. My husband is an invalid, not able to make a living for us, but I would not have my boys do any different. The second youngest, who is working at what he can get to do on the neighbors' farms, says, "Now that I am seventeen I shall enlist in the navy this fall after the farm work is done."

In giving my boys to my country I think I have not lived my life in vain.

I read that letter through blinding tears. How horrible, indeed, is war when it breaks up such a family as this, when it entails such a terrible sacrifice! And yet how heroically inspiring is this letter; how it makes the heart beat faster just to read it! But let me give you the other letter. It comes to me from Mrs. A. E. Gibbs, of Shepherd, Mich.:

Dear Mr. Pierce:—Let me tell you how the members of my family feel about serving their country. My husband's father enlisted in the service, leaving several small children at home for his loyal wife to raise as best she could, for they were very poor. He was the first volunteer from his township. He went through the civil war and came back to a long and useful life, and when he died, at the age of ninety years, he left for us an example worth following.

My own father, together with all of his brothers, went into the service of the United States when only seventeen years old, and although terribly wounded within two months of his enlistment, he recovered and was twice reënlisted. He is still living, at the age of seventy-two, and if his country could use him he would still be at her service. Another member of our family, the only son of his mother, and she a widow, went at the first call to the colors and never came back. But his mother, had she had more sons, would have sent them forth without a protest. We have many others of our near kin who have offered themselves on their country's altar, and of the mothers and sisters and daughters not one of them has ever offered one word of complaint or done one thing to stay them.

My sons are yet too young to serve, but I have a daughter whom I have raised in the right way. Today she is fully expecting her young husband to be called into the service. She has two small children that she will have to support as best she can. But not one plea for exemption from her! "If his country needs him we will not stand in his way," she says.

I take my little sons in my arms and together we sing, "We'll rally 'round the flag, boys, rally once again, shouting the Battle Cry of Freedom." And I tell them, "Boys, when Uncle Sam needs you, be on the spot," and they say, "Mother, we will."

Do you think I love my boys less than that mother whose letter you published? Before God, I believe that this is the only right way, for only in the path of duty and service is there to be found self-respect and a clean conscience.

And one word more—President Wilson didn't get us into this war. As a matter of fact, he kept us out of it till some of us were getting ashamed for our country. Prussian militarism got us into it and the only way we will ever get out of it is to fight our way out, with God's good help. It is going to need men, and where are we to get them if the wives and mothers of this land do not make the sacrifice?

What shall I say in way of conclusion; what need I say? Is it not like painting the lily, like refining pure gold, to make any comment? There is an unstudied eloquence about these mothers' letters which no writer, however many his tricks of rhetoric, could ever hope to equal. Do you not join with me in being proud that the grain belt, that the farm, has such noble mothers, that our great Middle West breeds such heroic daughters? The blood of the devoted pioneers is in their veins. Whether it be peace or whether it be war, the battle cry is sounded by these mothers; the last note will not die away until righteousness and honor and justice are once more enthroned among us, never to be dethroned again. I am proud of these women; I honor them with all my heart. May the great sacrifice not be demanded of them. May their sons and kin come marching home to them, to kneel at their feet and kiss the hems of their skirts—just homage to women to whom nothing is too great a reward, who desire nothing more than to have "their boys" back again in the family circle.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Price of Wheat Fixed By President Wilson.

A price of $2.20 a bushel for the 1917 wheat crop was fixed by President Wilson last week on the recommendation of the wheat price committee headed by Dr. H. A. Garfield. This will be for No. 1 northern spring wheat delivered at Chicago. This is a compromise price between the $2.50 asked by representatives of producers who appeared before the price-fixing committee and $1.84 recommended by representatives of labor.

The price for the 1917 crop is 20 cents higher than that named for the 1918 crop by congress in the food control bill. In a statement accompanying the announcement of the price President Wilson declares it is the hope of the food administration and his own wish as well that the fixing of the price will stabilize the market and keep prices within moderate bounds for all transactions during the coming year. Three things were regarded as important by the committee, namely, the fact that the United States is at war, the need of encouraging the producer, and the necessity of reducing the cost of living to the consumer.

Naturally the price will not be the same for all grades of wheat and so far as possible the value of the various grades has been determined by the committee. The value of No. 1 dark, hard winter wheat is placed at $2.24; yellow winter, $2.16; soft red winter, $2.18; dark northern spring, $2.24; red spring, $2.18; amber Durham, $2.24; red Durham, $2.13. No. 2 of each grade will be three cents less, No. 3 six cents less and No. 4 ten cents less than the prices enumerated above.

The basic price of these various grades will be paid at such markets as Chicago, Galveston and New Orleans, while the markets at Kansas City and Omaha will be five cents per bushel less than basic; at Duluth and Minneapolis three cents less; St. Louis two cents less. With these fixed values in mind, wheat growers throughout the country can readily determine what the price will be at their own shipping point, as freight rates are constant factors and the dealer's profit will be practically fixed.

The prices referred to are, of course, fixed on government purchases only, the food administration through its wheat corporation, expecting to control the market without difficulty. The corporation will make all government and allied purchases and has under consideration plans to buy for millers. As it serves as a broker between the terminal markets and the flour mills, the corporation will become purchaser of virtually all of the country's wheat crop. Price boosting will be prevented by the fact that the storage of grain in elevators longer than thirty days is prohibited. There is nothing in the new rulings to prevent the grower from keeping his own wheat just as long as he likes, but the supply cannot be cornered, owing to the regulation referred to which prohibits storing.

Under the stimulus of an assured price—a price that we believe will be considered by the majority of wheat growers as a fair one—the acreage of winter wheat seeded this fall should be greatly increased, particularly in those regions where the crop is known to yield well. While the price of seed is high, it is nevertheless true that a large amount of seed per acre is not required, the exact amount ranging from four to seven pecks per acre. On thin land five pecks will answer every purpose, while more than six pecks per acre is seldom required. In case of winter-killing, land is still in ideal condition for oats or for corn and in that case the only loss will be the investment in the seed, which will be partly made up by the beneficial effect of the tillage on the crop that is seeded in the spring of 1918.

This Is the Time to Go into Live Stock.

In this issue Mr. John L. Tormey gives our readers a very interesting article on beef production in southwestern Wisconsin. He uses the bluegrass section of Iowa county as a setting for his article. In the light of world events greater attention must be given to live stock. The men who have been farsighted enough to see this and have developed good herds for breeding purposes or good pastures for feeding will certainly be "in clover" the next few years, even though their farms are heavy with blue grass. The demand for cattle in the next five years will be unprecedented in the world's history. At frequent intervals The Wisconsin Farmer has called attention to the shortage of beef cattle in our own country and the fact that other countries of the world cannot make up the shortage. Every argument which we have ever made in favor of raising more beef cattle; in fact, more good live stock of all kinds, still holds good. The only difference between the present-day argument and that which we made before the war is that 120,000,000 head of live stock have been permanently removed from the world's supply since the war started. A cow's hide is worth almost as much as the carcass was in days which not very old men can remember. While tons of literature is being sent broadcast through this country urging the production of more grain, we stop, not to discourage the increase in grain production, but to urge with all our strength the production of more live stock. Now is the time when individuals who have never made a specialty of live stock raising should branch out in so far as their land and financial resources will allow, into raising "more and better live stock." The quoted phrase just used has been borrowed for the occasion from the Wisconsin Live Stock Breeders' Association. It is the slogan of that association, and we wish it might be possible to emblazon it deeply upon the mind of every reader of this paper. Get into the live stock business if you have to start small, but start with a determination to grow up in the business. If you have a dairy herd and a scrub bull, plan to give the scrub bull his ticket of leave. Introduce better sires no matter what division of live stock you may have chosen as your favorite. To raise better live stock is just as important—even more important—than to raise more live stock.

Ensilage From Hailed Corn

A subscriber calls attention to the fact that his corn was considerably damaged by a hailstorm on August 24th. The leaves are pretty well stripped off and the ears are bruised to some extent. The question is, would it be safe to put this corn in the silo and thus save at least part of the crop? It is stripped so badly that it will not produce enough grain to be worth saving, but the parts of the leaves, stems and ears that are left would help out in supplying roughage this winter provided there is no great danger involved in feeding the product.

We do not believe that any better use can be made of corn that has been injured by hail than to put it in the silo. It should be allowed to stand, however, until it begins to approach maturity, which means until the lower leaves begin to turn brown. It is quite likely that this crop looks rather sick at the present time and there may be a temptation to cut it too early, but in that case it would be exceedingly succulent, and the ensilage made from it would be strongly acid. By allowing it to approach maturity the amount of acid that will form in the ensilage will be greatly reduced and the product will be improved just to the extent that it cures properly without the development of too much acid.

The ears on some of this corn may sour and mold and in that case a good quality of ensilage would not result. However, it will in all probability be three or four weeks between the time of this hailstorm and the period of putting it in the silo and if at that time the amount of moldy corn is not large it will be safe to fill the silo. The point is simply this, that immature ears will constitute so small a part of the total crop that one may safely run the risk of converting a product that would otherwise be completely wasted into material that has some feeding value.

Mr. Hoover Has Hard Job.

Who would like to be in Herbert C. Hoover's shoes? Do many of us have an idea what administrating the food supply of a nation means.

The working men say they cannot stand the increased cost of living. The farmers say they must have higher prices for foods because land is higher priced, implements are higher priced, labor is higher priced when obtainable, etc.

As near as we can figure it out Mr. Hoover's job is to satisfy both sides. It is up to him to so arrange matters that everyone can live while the war is going on. Mr. Hoover freely admits that the farmer must make good profits on his work and investment. He just as freely admits that it is next to impossible to accomplish anything in the way of successful food administration without the coöperation of the farmer. While he is trying to show the farmer that everything is going to be all right and that it is safe for him, the farmer, to raise every ounce of food possible, and while he is promising the farmer that he will get good prices and that farming will be safe and profitable, along comes the working man and grabs Hoover by the coat tail, figuratively speaking, and shouts, "I am getting the worst of it!"

Mr. Hoover is starting out on his big job by trying to do the one thing that is likely to please both sides—and that is to effectually stop speculation in foodstuffs. High prices for food never did the farmer any good if the high prices went to a chosen few who cornered the food supply when prices were low. So Mr. Hoover is smart enough to see that he must stop all unreasonable profits between the farm and the table. To do this he has to accomplish almost an economic revolution. Hoover is setting out to accomplish in a few weeks the greatest marketing feat of all history. If he does what he hopes to do his work will be the marvel of the times, strenuous as they are.

A few men are trying to make us believe that it is right to make a dollar a bushel profit on wheat from the time it leaves the farmer until it reaches the miller. We all know that it is not right and never was right and it remains for a war emergency day to open the eyes of those who have authority to this injustice which has been practiced on the farmer for years. If Mr. Hoover can stop unjust profits, due to speculation and pirating on American food supplies he can get much cheaper food for the working man and the soldier without injuring the farmer a bit. Who knows but what the economic innovations introduced by Hoover may revolutionize the distribution of foods for as long a time as any of us shall live?

In the judgment of The Wisconsin Farmer, Mr. Hoover deserves commendation for his determination to keep no secrets from the people. He has said that there is not a paper of any character in his department which is withheld from the public. "Any farmer who wants to see or know anything about the food administration department is welcome to the information any time," said Mr. Hoover at Chicago. "We have not one single secret from any part of the people covering any phase of our work."

More Food Agents for Wisconsin.

According to the food bill recently passed by congress, county emergency food agents will be available for every county in Wisconsin. All but twelve counties are now supplied, each with a county emergency agent or agricultural agent. Thirty-three emergency agents now paid through the state or county funds may be transferred to the federal service as soon as the different counties comply with the regulations imposed by the federal department of agriculture. Emergency food agents are to be retained for the period of the war only and are not to be confused with the county agricultural agent. Of course, it is hoped that emergency food agents will administer their work so well that farmers will demand county agents after the war is over.

According to the agreement of the State Council of Defense and the extension service of the college of agriculture emergency food agents will not be forced upon any county where they are not wanted. We would suggest, however, that our readers in local communities unite in requesting the services of an emergency food agent for every county. Such requests should be forwarded to the State Council of Defense at Madison or to K. L. Hatch, assistant director of the agriculture extension service, also of Madison.

Last spring the Wisconsin College of Agriculture sent nearly a score of its faculty members and extension workers into various counties as emergency agents. Reports to The Wisconsin Farmer show that these men have done valiant service. It would be a fine thing if Wisconsin could be 100 per cent efficient on this matter of emergency food agents.

Feeding Hogs in the Field.

To filthy feeding quarters may be attributed many ailments that the hog falls heir to. Every man has time and again seen cases where corn was literally shoveled into a mudhole for the hogs, and of course under those conditions it could not be eaten without an enormous quantity of mud gaining entrance into the intestinal tract. If there are germs in the mud, and there usually are, they find lodgment in the animal's system and do the most possible harm. Feeding floors in a measure solve the problem, particularly if these are kept flushed or cleaned off during periods of wet weather. One of our subscribers in the following communication outlines the system of feeding in the field, which he commends very highly.

Even if there is a regular feeding floor for hogs I find it convenient, handy and healthy for the animals to feed them through the fall and early winter months in some one of the small fields near the house. The equipment and management of such feeding is simple, the hogs grow and fatten rapidly, and all the waste of husks and cobs, and the manure, are left well scattered as the feeding season advances.

I first fell on this field plan of hog feeding because of two reasons. The first was because I had no place in pens or small lots to feed, but what would get very filthy and muddy in a short time. The second reason was that I found that by hauling out loads of corn and feeding each load in a new and fresh place in a six-acre field I could avoid feeding most of the time where there was an accumulation of mud and filth and the waste and manure would be well distributed over the ground without hauling. The small field was getting quite deficient in both fertility and humus. In the course of a couple of seasons, after I had fed all over the field, I found it thoroughly manured and ready for a fine crop of Irish potatoes.

I found this manner of hog feeding very satisfactory in most ways, but I discovered something new and added that to the plan. It was the addition of a large, light feeding floor. I made it so it could easily be dragged from one spot to another, and sixteen by twenty feet in size. This floor in position, I then by the use of an old wagon drawn alongside of it fed the hogs on it. It was necessary about twice a week to slide the floor over a little more than its width and also to frequently sweep it off. With such a floor moved regularly I had always a clean place to feed and the manure and waste was left well distributed.

This plan is certainly to be commended for those who do not have good clean feeding quarters. Corn may be fed on grass land if a new place is selected every time without killing out the grass, and there is the advantage of distributing the fertility there and then. In some localities

farmers are quitting the hog business for two reasons. In the first place they claim that corn is too high compared with the price of hogs and, secondly, they regard the hog as wasteful from the standpoint of maintaining fertility. If a considerable part of the feeding is done in the field then the latter objection to hog raising is overcome and it is quite worth thinking about. Of course, after all, the big factor is that of feeding under sanitary conditions and certainly no conditions could be more favorable than those found out on the open in a nice, clean pasture.

We Have Scarcely Begun to Save.

Our people have not yet made a good beginning in the matter of cutting down waste and conserving food. At the same time that Mr. Herbert C. Hoover was telling farm editors in Chicago recently of the urgent necessity of saving every possible pound of human and animal food, thousands of people in the city of Chicago were wasting food with reckless abandon. In one room of the Sherman House Mr. Hoover was saying that 120,000,000 head of live stock had been removed from the world's supply in three years' time. In other rooms of this same hotel on the same day people were ordering and eating big, thick, juicy steaks and meats of all kinds. Perhaps it is nearer to the truth to say that they were giving big orders for meat and eating about one-half of it. They are not content with three square meals a day; thousands of people of Chicago must have a midnight, after-the-theater lunch. This lunch, which in most cases is a big meal, is taken on at hours of the night or morning when good, honest farm folks are fast asleep. It is apparent that people generally have not yet come to realize that there is an actual necessity of conserving food. The campaign through the papers has accomplished something, but the American people are too prosperous to accept the note of warning that before long we are going to be short on "grub." They read the warning, but they do not believe it. Even the high prices have failed to diminish the oversupply of food that people put into their stomachs. Unfortunately, it is not the hard-working class which gets the quantity and quality of food.

As a nation we are on a war basis, but as individuals a great many of us fail to realize it. To such, who are unable to control their appetites, the pinch will come all the harder when it does come. We are inclined to believe that, if as a nation we are careful of the food supply, there will be a-plenty. This country has by no means obtained the maximum of production.

Badger Farmers Worry Over Labor Shortage.

In another column of this issue will be found resolutions passed by the farmers of Pierce county who met in convention at the court house in Ellsworth, having been called together by Assemblyman Hanson. These resolutions raise again the farm labor problem in this state. The Wisconsin Farmer is inclined to believe that the farmers of Pierce county are sincere in the resolutions whch they have passed.

We cannot conceive that their sole purpose is simply to keep the boys from joining the army. There may be some that imagine the farm labor problem is used as an excuse. But such do not understand that for a number of years there has been a constant drain in rural communities of the young people and more especially the young men. Just at this time labor is scarce in all states and the young man who has been used to hard work is in a position to command a good salary almost anywhere. In a county like Pierce there are no large towns. The county has actually lost in population in the last ten years. We believe that there is a large measure of truth in the claim that it will be almost impossible to conduct farming operations on an efficient basis in this county if the full quota of young men drafted are taken in the army. The first draft might not result so seriously, but when it comes to the second, third and fourth call, the available farm labor will be cut down to such an extent as to make the situation a very serious one.

Farm paper editors and others interested in agriculture throughout the country are worried more over the farm labor problem than they have been willing to admit. Several suggestions are offered to remedy the situation. One is that the boy labor of the country be utilized, and that all boys between sixteen and twenty-one years of age be mobilized for farm work. Those that advance this theory admit that the boys should have a year or more apprenticeship before they will be able to accomplish much as farm hands. There are others who believe it will be possible to recruit farm labor from the unemployed in each state, and that this should be done by conscription by the government. The fault of this system is that we would be taking our skilled labor from the farm and putting unskilled labor in its place.

Mr. Hoover says we must produce more. He lays emphasis on increased production of live stock. Experienced workmen are needed to accomplish this. Facing as we do a labor shortage to begin with, it is a very serious question how many of the actually working young men on farms the government can afford to take into the army at this time.

Urges Tiling of Land.

The following communication has been received from a man who has just had his first experience in tilling wet lnad:

I have had an experience this season in tiling out my eighty-acre farm that I want to relate for the benefit of Homestead readers who might be similarly situated. The soil is a clay loam with a clay subsoil, and it is almost level, but there is plenty of fall for drainage. When the season was favorable I have always raised a good crop, but in years like 1915 I didn't raise half a crop, due to the fact that the soil was wet and cold late in the spring. This spring I was persuaded by a man who does considerable tile draining to put in a system of drains. It was necessary to run one eight-inch tile diagonally across part of the eighty acres and a seven-inch tile through another part of the land. These were used as mains into which the laterals were emptied. After these were put in we decided that four-inch tile were large enough in most instances, so I bought 10,000 fours and 500 fives. Most of the work was finished up by the time I got the small grain in, so that I really have had the benefit of the tiling this season.

What was the result? We had just enough rain in this locality to keep land similar to mine good and soggy during the latter part of April and in May, but the growth of my crops was never impeded and even in the lowest parts of the field the oats and the corn remained vigorous and healthy. My oats threshed out fifty-two bushels per acre and while the crop was generally good in our locality I have two or three neighbors who got less than thirty bushels per acre, and I have no hesitation in saying that on my land I harvested 500 bushels more oats than would have been harvested had no tiling been done.

I have one forty-acre field of corn and while I cannot estimate at this time what the yield will be, I can only say that the growth is uniform, it is well eared and there is a splendid stand. There would have been many acres of this field completely drowned out if I had done no tiling, but as it is there is not a waste foot in the field and I believe if conditions are normal for another month the crop will average sixty bushels per acre. Land of this character would not have yielded more than thirty bushels per acre had it not been tiled, so I feel that I am ahead 1,200 bushels of corn and 400 or 500 bushels of oats.

My whole tiling bill, including the cost of the tile, the labor and boarding the men, was $950, so you can see that this is a case where the tiling actually paid for itself in one crop's increase. I do not know how many thousands of dollars I have lost in past years in handling this wet land, but in all it would amount to a lot of money. My neighbors who have done no tiling have taken a special interest in my crop and I think there will be a great many carloads of tile buried next year and I am thankful to have had the good fortune to have started the movement.

The results obtained in this case are very striking, indeed, and particularly so when one considers the value of grain. Those, however, who have had experience in handling tiled land will not be surprised at the statement that the tile in this case paid for itself in one year. Taking the seasons as they come and go, we believe it would be safe to say that two years out of five the beneficial effect of tiling would be as striking as in this case. Not only on level land, but even in cases where the land is rolling a few strings of tile will take sourness out of the soil quicker than anything else. Where it is possible to do so it is always advisable to put in a thorough system of tiling right from the start, but, on the other hand, it is entirely practicable, if there is an outlet, to tile out the worst spots in the beginning and supplement the system from time to time. A close study of the crop in any field will very quickly reveal where the tile is needed and those who do not have faith enough in the draining of land to sink a considerable amount of money at one time are surely justified in getting their wet places drained. A hundred bushels of corn will buy a lot of tile and we have no hesitation in repeating that on certain types of soil no investment will pay as large dividends as that involved in the removal of water by tile drainage.

THE PAUL REVERE OF TODAY.

Possibilities of the Small Farm.

One of our subscribers, who is at the present time an employe on a dairy farm, asks for information concerning the practicability of making a good living for himself and family on a twenty-five or thirty-acre farm. He has in mind making dairying his main work and refers to the fact that he would, of course, build a silo, and the question with him is whether on such a small acreage one could divide up his crops and plan his work so that there would be a reasonable margin of profit at the end of the year.

The carrying out of this program is entirely practicable and the degree of success attained will depend wholly upon the ability of the owner. Plenty of instances could be cited where individuals have been eminently successful in farming a small acreage on the dairy plan and it is possible to handle it so that it will carry one cow per acre. Some grain will have to be purchased, to be sure, and the area of pasturage would be limited, so that reliance must be largely placed on ensilage during a considerable portion of the year

Some hogs should be raised every year, because on a place of this kind, which, presumably, will be fenced hog tight, they will convert waste products into revenue. By using forage crops for the growing pigs and for the old sows relatively cheap pork can be made.

The horse item is important on a farm of this size and in starting in it would be the essence of wisdom to purchase a pair of good drafty brood mares. These mares would on the average raise at least one colt a year, and if they are of the right stamp these colts will go a long way toward paying the feed bill of the work horses. Of course, it goes without saying that poultry should also have a place on a farm of this character, and in all likelihood one of the laying breeds will produce more real profit than the heavier general-purpose breeds. Small fruit and vegetable growing should also receive attention and if there happens to be a good market near at hand a nice revenue can be obtained from these sources. All in all, we have no hesitation in saying that the right kind of a hustler can take a farm of this kind and make it net him through a series of years just as much money as many quarter sections are returning to the owner. It is a question of intensive rather than extensive farming.

Business men and farmers of Waterford, Racine county, have arranged to entertain the business men of Racine September 19th. In a sense it is a reversal of the old order of things, for this time the country people are inviting the city people out for a day's entertainment. The spirit which prompts this interchange of relationships is commendable.

As secretary of the Wisconsin Live Stock Breeders' Association, Andrew W. Hopkins, agricultural editor of the University of Wisconsin, has forwarded the following telegram to David F. Houston, secretary of agriculture:

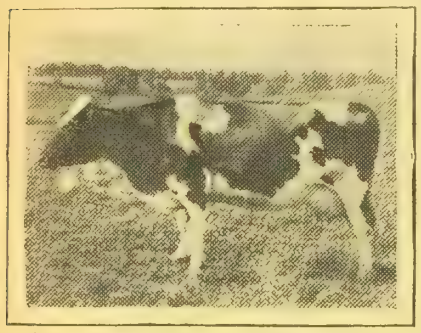
Accept congratulations upon selection of Glover and Hill to committee to mobilize nation's live stock industry. Why not have Wisconsin's important sheep, swine and beef interests also represented?

And sure enough, why not? Wisconsin has splendid men who could represent these interests and who would do efficient service for the government in this hour of need.

Buying Bull on Partnership Plan.

Better Stock Available if Several Good Breeders Will Pool Their Bull Funds—How It Works in Waukesha County, Wis.

WHEN Dave J. Howell took over his father's farm twelve years ago he took over with it a herd of scrub cows, a red bull and an idea that there was money in dairying with scrub cows. After trying out the cows, the bull and the



Brookvale Ormsby Netherland, with record of 27.33 pounds butter in seven days.

idea for four years and not being able at the end of that time to locate the longed for and expected profits he decided that the idea of scrub cattle being profitable was wrong, that the red bull was no good for a dairy farm and that the calves from scrub cows were no better than the bull. He had not lost faith in dairying, but he realized that profits from dairying call for dairy cows and dairy sires, but especially dairy sires.

He had his mind made up to buy as nearly the best sire as his cash would

Johanna Korndyke Countess, dam of $2,150 heifer sold at Waukesha sale.

allow. The scrubs had not made him overly rich. Being short on cash and long on expensive ideas has ruined the plans of a great many men. Mr. Howell soon learned that the good ones cost money—much money, and he wanted a good one or none at all. So he hit upon the plan of a bull partnership, wisely figuring that the money of two people would go twice as far, buy twice as good a bull and give the same satisfaction as if purchased by one person.

This plan has worked out so well that in the eight years he has been in

Berty Netherland Piebe occupies the stall of a former scrub cow.

the pure-bred business he has never owned a bull independently, yet at the same time the calves at Brookvale Farm can boast of better ancestors than the young stuff on many an older establishment.

When the red bull was disposed of, Hillvale Sir Ormsby, a Holstein, took his place. His sire, Sir Ormsby Hengerveld De Kol, did not have the reputation then which he enjoyed later on, and Dave and his brother Henry were able to buy Hillvale Sir Ormsby at a figure within their reach. The daughters of Sir Ormsby started soon after to make records somewhat out of the ordinary. One of his granddaughters, Duchess Skylark Ormsby, is now holding the world's butter record, 1,506 pounds. Hillvale Sir Ormsby proved himself a worthy member of the family during the time he was at Brookvale. Most of the cows in the herd were still grade cows at that time, but the calves from the first cross milked far heavier than their dams. A few records were made by calves from registered cows which had been sired by Hillvale. The best of these was 27.33 pounds of butter in seven days, made by Brookvale Ormsby Netherland. Other records well above twenty pounds followed. When the first crop of calves had grown to breeding age it became necessary to get a new herd sire. The bull, Hillvale Sir Ormsby, had increased in value through the performance of his daughters and the daughters of his sire and he was sold for some $500 more than the purchase

Maplecrest King De Kol 2d, purchased for $1,000 by Howell, Muckleston Bros. and Wm. Swartz.

price. Pure breds were beginning to show profits.

This time the choice fell on Maplecrest King De Kol 2d, a sire coming from a long line of producing ancestors, and the price was $1,000. Again the partnership plan made it possible to purchase an animal which might seem too high priced to the individual breeder. Muckelston Bros. and William Swartz were the partners. During this time other records were being made by the offspring of the first bull. Another purchase was soon made by the same partners and a still higher price paid for the bull, Pabst Blackberry Korndyke. This bull is sired by Korndyke Segis Johanna, a $12,500

Woodcroft Perfection, $5,000 bull purchased by Mr. Howell in partnership with Aitken Bros., Baird Bros., Muckleston Bros. and S. A. Baird & Son.

bull by Johanna McKinley Segis, a forty-pound bull, and out of a thirty-eight-pound dam. The price paid for him, $1,600, was well worth while.

The latest move of Mr. Howell was to purchase an interest in a $5,000 bull calf, Woodcroft Perfection, tracing far back to high-producing cows and closely related to a host of record animals. Woodcroft Perfection is owned jointly by Aitken Bros., Baird Bros., S. A. Baird & Son, Muckelston Bros. and Mr. Howell, all Waukesha breeders.

The wisdom of the partnership plan, which enables Mr. Howell to have highly bred sires at the head of the

Pabst Blackberry Korndyke, purchased for $1,600 by Mr. Howell, Muckleston Bros. and W. Swartz.

herd, has proved itself again and again. Sales of animals have been numerous and the prices received have been good indications of how other breeders regard the stock bred and raised at Brookvale. The better the ancestors the higher the price. At the recent sale of the Waukesha breeders three head from Mr. Howell's herd

The owner of a pure-bred herd feels a pride in looking over his cattle which the owner of a scrub herd cannot possess.

Powerful as Five Horses

Costs Less than Four Horses

Here is the kind of a tractor you've been looking for—one that not only plows, but does ALL farm work that horses can do, besides supplying power for belt work. Not a big, heavy, cumbersome tractor, that plows while your horses loaf and eat, then leaves the rest of the work for your horses to finish; but a tractor that does EVERY job a horse can do—does it better—faster—easier and cheaper.

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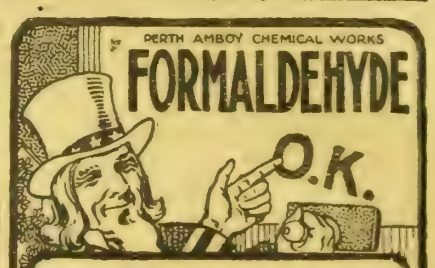

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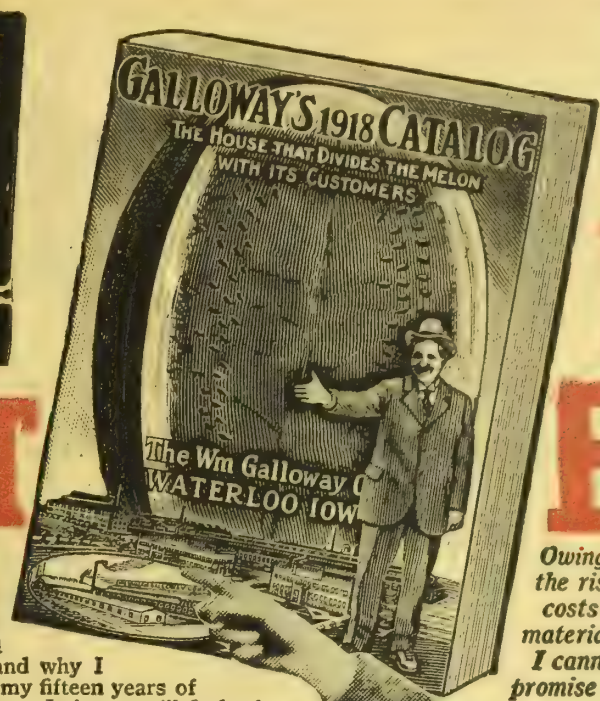

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Owing to the rising costs of materials I cannot promise my present low prices to last.
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I built this vast manufacturing business on the plan of no lost profit between manufacturer and user. I cut out all waste from the raw material to the finished product and from the time the product leaves the maker's hand until it gets to the actual consumer. I built the first really high quality Gas Engine and sold it direct from the factory at a most reasonable price—the same with Separators, Engines, Tractors, etc.

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Buy on 180 Milkings Test Let this 90 day working test prove its worth on your own farm. Be certain it's the separator you want before you decide to keep it. Note how sturdy and strong—how easy it is to wash and clean—how close it skims—and a hundred other separator points that mean so much to you in dairy profits. Write today for book.

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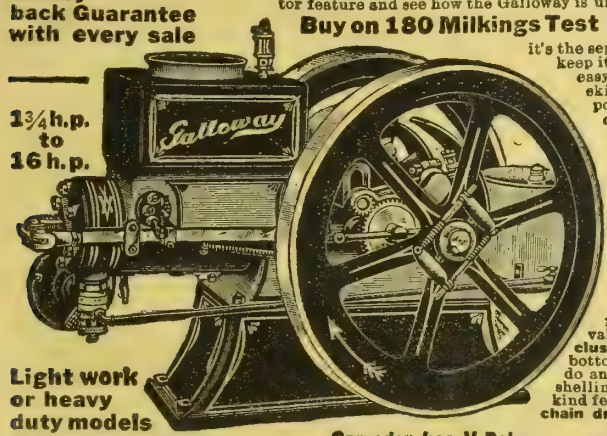

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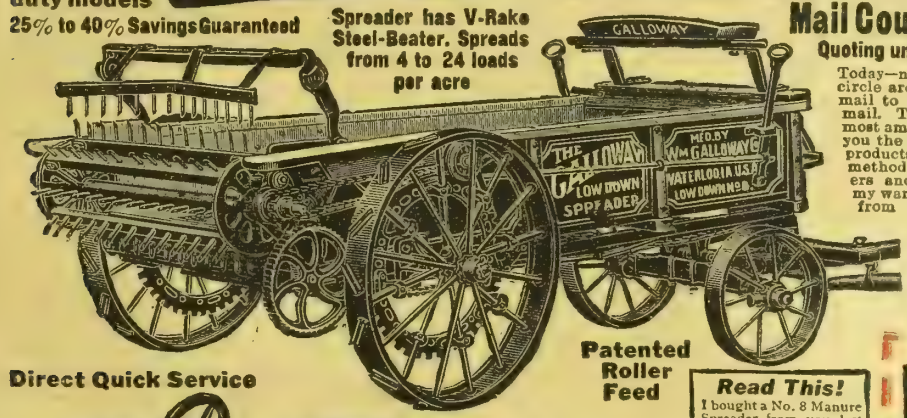
Here for 1918 is my greatest spreader triumph. It's my master model—the best I ever built since I made my first spreader. See what these features mean on your field in actual work—proof that the Galloway is the spreader you want. It's low down—with light draft. Two horses handle it anywhere without killing the team. Has wide spreading V-rake—strong beater teeth that tear the toughest clumps into shreds and makes possible even and easy spreading. The patented roller feed—the reason for its light draft—is an exclusive Galloway Feature and one that you would gladly pay $25.00 more to get—but costs you nothing extra on the Galloway. The patented automatic stop, uniform clean-out push board are other important features that spell real spreading efficiency with the Galloway. Write for my big 1918 Book and get the story complete. Send for the Book NOW—use the coupon.

Spreader has V-Rake Steel-Beater. Spreads from 4 to 24 loads per acre



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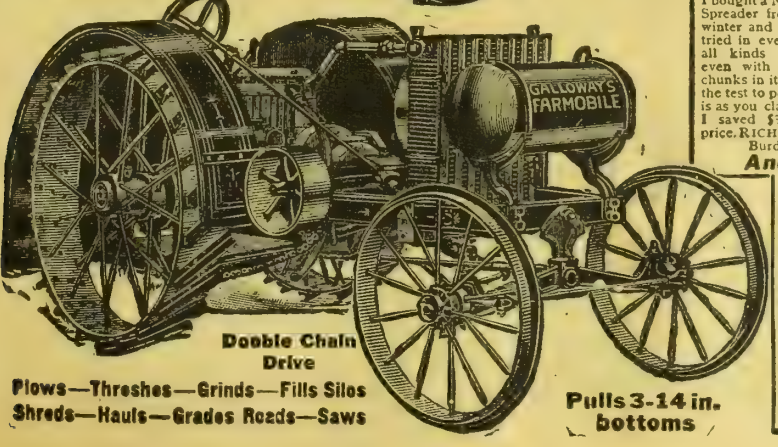

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I bought a No. 8 Manure Spreader from you last winter and it has been tried in every way with all kinds of manure, even with big frozen chunks in it and it stood the test to perfection. It is as you claim it to be. I saved $30.00 on the price. RICHARD DAVIS, Burdett, Kansas.

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I have run gasoline engines of different makes for the past seven years. I find the 16 h. p. Galloway the simplest, most powerful and best governed engine I ever saw run, and $225.00 cheaper. Henry Wenhem, Milton, Wis.

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averaged $1,050. The highest price realized was $2,150, incidentally the highest price paid in the sale ring for a dairy cow in Wisconsin.

About twenty-five animals are milking all the time. A milking machine has been in use on the farm for the last three years and has never made the owner the least trouble of any kind. The test cows are milked by hand until they finish their weekly or monthly test. The rest of the lactation period they are milked with the machine the same as any other cow in the barn. Not one case of garget, sore teats or damage to the udder in any way has occurred since the milker has been installed. According to Mr. Howell, the big mistake usually made with milking machines is that the new owner will expect a cow to be milked perfectly dry by the machine. This is not reasonable, in his estimation. Following up the machine and seeing for yourself how the cow is getting along is necessary at any rate and the stripping takes but little time. The milker does not fit every cow alike, but most cows let down the milk fully as readily with the mlker as when milked by hand. The fact that one or two cows will not get used to machine milking is not enough to disqualify it. All of Mr. Howell's cows except two do as well with the machine as with hand milking.

Even during the period of scrub dairying Mr. Howell had found the silo indispensable. He put up a silo the same year he took over the farm. In the following winter he had enough surplus to haul a few loads to town occasionally while his brother with the same acreage and with no more cattle, trying to do without a silo, found himself short before the winter was over. The demonstration, however, convinced the brother of the merit of the silo and he put one up the next year.

About 160 acres of land, part of it recently made tillable through drainage, furnish the crops for the herd. There are three silos on the farm and in another year Mr. Howell plans to barn feed the year around. The pasture land will be put under the plow to produce more feed for the growing herd.

In improving his herd Mr. Howell did not get rid of scrubs with one grand flourish. That would not have been wise. Instead he proceeded gradually and he has only this year come down to the last grade cow.

The herd sire, however, must be a pure-bred dairy sire in order to produce heifers able to milk abundantly over long periods. From grade cattle to pure-bred cattle is a big step, but most people, once they have seen the wonderful improvement a good dairy bull will bring about in a herd, do not hesitate to continue the work of herd improvement until the entire herd has become pure bred. It pays to do so.

Canning in Wisconsin Forty Years Ago.

To the Editor:—I have been greatly interested, and at times greatly amused, at the canning directions that have been published in the papers, magazines and bulletins the past few months for the benefit of the women of Wisconsin. I wonder if these "experts" realize that there are tens of thousands of capable housekeepers in Wisconsin who can "can" from beginning to end of the canning season without looking at directions of any kind.

I can remember forty-five canning seasons in Wisconsin. My earliest recollection is of my mother's big brass preserving kettle that was always polished until it shone like gold. It was well worth a day of good behavior and several errands to have the first chance at that kettle on preserving day.

Canning would commence on the old home farm very much in this way: We boys would be following father to the house at dinner time of a glorious day toward the end of June. As we approached the house we would hear father chuckle and then say, "Boys, mother has a job for us." The "job" would be two or three heaping pails of green gooseberries standing on the porch, and on each of those gooseberries was a little green stem and a brown blossom that had to be pinched off before the canning could commence. After dinner had been eaten father would draw back his chair and say in his cheery way, "Boys, we must give mother a lift with her berries." Father never used tobacco and the time for his "noon smoke," as he called it, was always spent in reading or in doing some little job about the house. He would pick up a pail of the waiting gooseberries and, seating himself comfortably, would commence cleaning them, a signal for everyone to get busy. After half an hour or so father would get up, saying, "Well, mother, we will help you again after supper."

After supper when the chores were all done the whole family would be out on the porch and everybody would be cleaning gooseberries. Very soon some remark by one of the younger children would start mother to telling about "when she was a girl." Mother came to Lafayette county in 1840, when there was no fruit but that which grew wild and there were many interesting stories about "berrying" and "plumming" in those early days. The long evening would pass quickly and just as it began to get dark and the first little head began to droop sleepily someone would announce with a shout, "All done," and then what a scampering for bed.

Next morning the cleaned berries would be canned for winter pies and sauce. From then on until after frost had come, every week, and sometimes it seemed almost every day, there was something from garden or the orchard that had to be canned, or pickled, or preserved. Some days there would be a table covered with glasses of bright-colored jellies. Father would always take one up and hold it upside down to see if it would drop out and mother would always smile because it never did. At last would come the day when mother would proudly say, "My canning is all done. Come down in the cellar and see how nice it looks." And then, with father and mother in the lead, the whole family would go trooping down to see that wonderful display of preserves, canned fruits and vegetables, jellies, catsup, pickles with a dozen different names and I don't know what. Just such a cellar full of condensed goodness as has been duplicated in 10,000 Wisconsin cellars every fall since.

Teach Wisconsin women canning! Well, did you ever! A. P. J.

Ergot in Rye.

To the Editor:—Ergot in rye is the disease which is shown by black, horn-like bodies that come in place of the kernels. These may be about the size of a kernel or several times as large. The ergot threshes out with the grain and cannot be perfectly removed by the fanning mill. The ergot with the seed is the main source of trouble for the next crop. The unaffected rye kernels do not carry the disease.

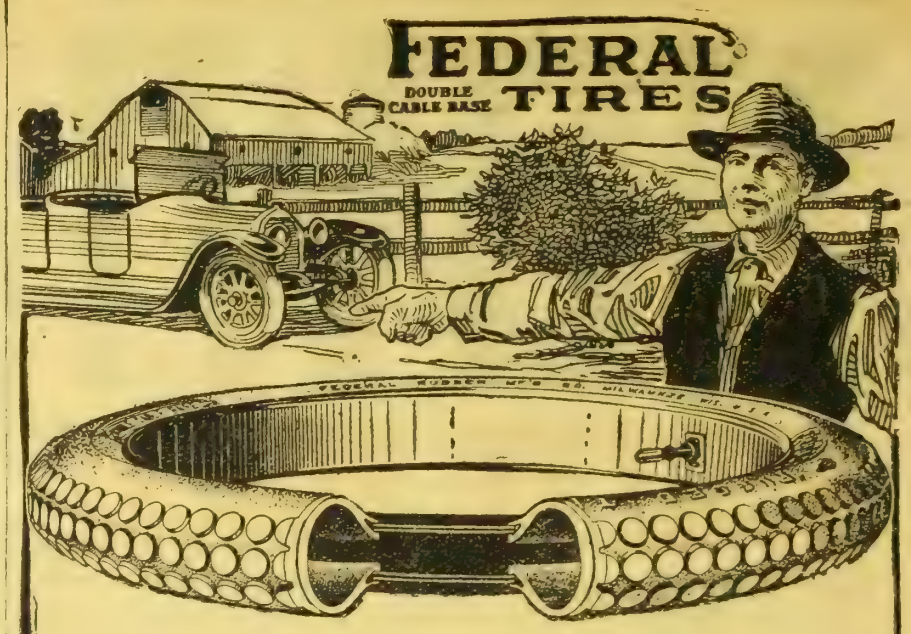
Ergot is lighter than rye and will float in a salt solution in which rye will sink. Clean the seed as thoroughly as possible with a fanning mill. Then separate out the remaining ergot as follows: Make a salt brine of about 20 per cent strength, i. e., dissolve forty pounds common salt in twenty-five gallons water or in that proportion. Have this solution in a tub, barrel or other suitable container. When the salt is well dissolved pour in the rye slowly and stir vigorously at the same time. The ergot and light seeds will rise to the top and the sound rye kernels will sink to the bottom. Skim off the ergot or add rye until the solution runs over the side of the tub carrying with it the ergot when assisted by hand or skimmer. If the ergot does not float strengthen the solution by adding more salt and stirring until it dissolves.

A convenient arrangement is to have two tubs or half barrels, one set above the other, so that the overflow containing the ergot will fall into the lower tub. Cover this lower tub with cheesecloth to catch the ergot and let the solution run through so that it can be used over again. It is good as long as it lasts. When the ergot is all out pour off the solution and dry the grain by spreading out on a floor or canvas. Sow at once or dry thoroughly and store. There is nothing about this treatment which in any way injures the grain for milling or feeding purposes.

Ergot also occurs on a number of wild grasses, such as quack grass. Therefore, these grasses should be kept mown down or pulled up around fields to prevent the disease from spreading to rye.

Ergot does not live over winter in dry grain in storage so that old seed is safe to sow without treatment.

Ergot poisoning is dangerous to live stock, frequently causing abortion. —[Wisconsin Station.



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Up hill or down, through ruts and holes, and the worst kind of going, those tires stay on the rims, and give perfect traction.

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Cow-Testing Reports.

From Richland County.

To the Editor:—Please publish report of our Buena Vista Association. Mr. J. W. Martin took honor for high cow with 59.9 pounds of butter fat and only one-tenth of a point over the second high cow owned by Mrs. J. E. Schmitz. Mr. Martin's Red Polled cow is a granddaughter of the famous Red Polled bull, Corporal. The forty-five-pound list for the month ending August 1st follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Dale Davis					
No. 6, G. H.	.	4-10-17	1200	3.9	46.8
No. 8, R. H.	5	4-23-17	1628	3.1	50.5
J. W. Martin					
No. 9, R. R. P.	9	4-18-17	1873	3.2	59.9
No. 13, R. R. P.	.	3-31-17	1562	3.1	48.4
No. 5, R. R. P.	6	3-18-17	1326	3.6	47.7
C. G. Keys					
No. 14, R. H.	3	.....	1290	3.6	46.4
No. 7, R. H.	.	.....	1132	4.1	46.4
Mrs. J. E. Schmitz					
No. 13, G. H.	3	6-14-17	1329	4.5	59.8
J. L. R. McCollum					
No. 18, G. J.	4	5-15-17	1308	4.0	52.3
No. 11, Dur.	14	.....	1426	3.3	47.1
Robert Clements					
No. 4, G. H.	5	4-15-17	942	4.8	45.2

L. E. BOBER, Official Tester.

Value of Summer Silage.

To the Editor:—During the month of August 621 cows were under test of which thirty produced forty pounds of more of butter fat. It is seldom that one herds holds all the honors of a month, but Harry Veith's herd of grade Holsteins claim the highest average of butter fat for the herd, the high cow for the month and the greatest number of forty-pound cows. The herd average was 990 pounds of milk and 37.2 pounds of butter fat. The high cow gave 1,364 pounds of milk, testing 3.9 per cent and running 53.1 pounds of butter fat. Seven cows in this herd produced better than forty-one pounds of butter fat. Mr. Vieth feeds summer silage. At the end of our fourth month of testing twelve unprofitable cows been disposed of, three pure-bred sires bought to replace scrubs, three pure-bred heifers bought, three separators repaired, and one member has erected a modern dairy barn and another is building a silo. Our forty-five-pound list for August follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Roy Nichols					
Native	6	7-25-17	973	4.7	45.7
G. Baumbach					
Native	6	6-15-17	849	5.7	48.3
H. H. Veith					
Grade Holstein	6	1-5-17	1141	4.3	49.0
Grade Holstein	6	4-11-17	1364	3.9	53.1
Grade Holstein	6	3-7-17	1209	3.8	45.9
Grade Holstein	6	2-23-17	1234	3.9	48.1
LaRue & Mitchell					
Grade Jersey	5	5-6-17	1053	5.0	52.6
W. Brandau					
Grade Guernsey	12	6-7-17	1240	3.8	47.1
C. Roberts					
Native	5	9-14-17	954	5.0	47.7
G. Batzel					
Native	7	7-10-17	952	5.1	48.5
G. Hefferman					
Grade Jersey	5	6-30-17	846	5.6	47.3
Grade Jersey	.	7-11-17	873	5.3	46.2

C. P. CHRYSLER, Official Tester.

In Jackson County.

To the Editor:—The following table gives the names and records of the cows in the Alma Center Asociation which have produced more than forty pounds of butter fat or 753 pounds of milk during the period of thirty days ending July 25, 1917:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
H. J. Edwards					
Mandy, G. H.	13	9-16-16	753	5.5	41.4
Silver, G. H.	4	12-15-16	990	4.8	47.5
E. W. Hawley					
Queen, G. G.	7	5-11-17	1171	4.3	50.3
Chubb, G. G.	3	4-6-17	970	4.4	42.6
Dolly Dimple, Grade Guernsey	4	11-17-16	985	5.1	50.2
R. Kunzelman					
Flossie, G. G.	6	3-23-17	961	5.2	49.9
Chas. Schmeck					
Grade Guernsey	5	4-10-17	908	4.8	43.5
P. Held					
Belle, G. H.	4	3-20-17	1236	3.4	42.0
Dolly Dimple, Grade Guernsey	6	3-20-17	1080	3.8	41.0
R. W. Biffs, Jr.					
Biffs No. 4, G. H.	4	5-12-17	1398	3.2	44.7
H. Derrance					
No. 2, G. H.	6	6-10-17	1085	3.8	41.2
No. 7, R. D.	6	6-15-17	1094	3.9	42.6
No. 13, G. D.	5	6-15-17	930	5.0	46.5
W. M. Merrill					
Bl. Spott, G. H.	8	.....	1089	4.4	47.9
Beauty, G. J.	8	.....	939	4.8	45.0
M. Abend					
No. 5, W. Br.	2	6-28-17	1053	4.1	43.1
No. 7, W. Br.	3	6-10-17	1365	3.5	47.8
No. 9, G. H.	6	6-4-17	1365	4.0	54.6
F. B. Jones					
Mess, G. J.	6	12-10-16	883	4.7	41.5
Dusky, G. J.	6	8-7-17	1302	5.8	75.5
R. Mary, G. J.	3	7-6-17	1072	4.3	46.0
Sally, G. J.	5	1-25-17	808	6.7	58.1
Grace, R. J.	5	3-14-17	982	5.2	41.0
G. A. Dunn					
White, G. G.	4	4-19-17	1103	4.0	44.0
E. J. Fryer					
Julia, G. H.	3	7-3-11	1209	3.5	42.3

CHARLES J. STAUBER, Official Tester.
JAY DUDLEY, Secretary.

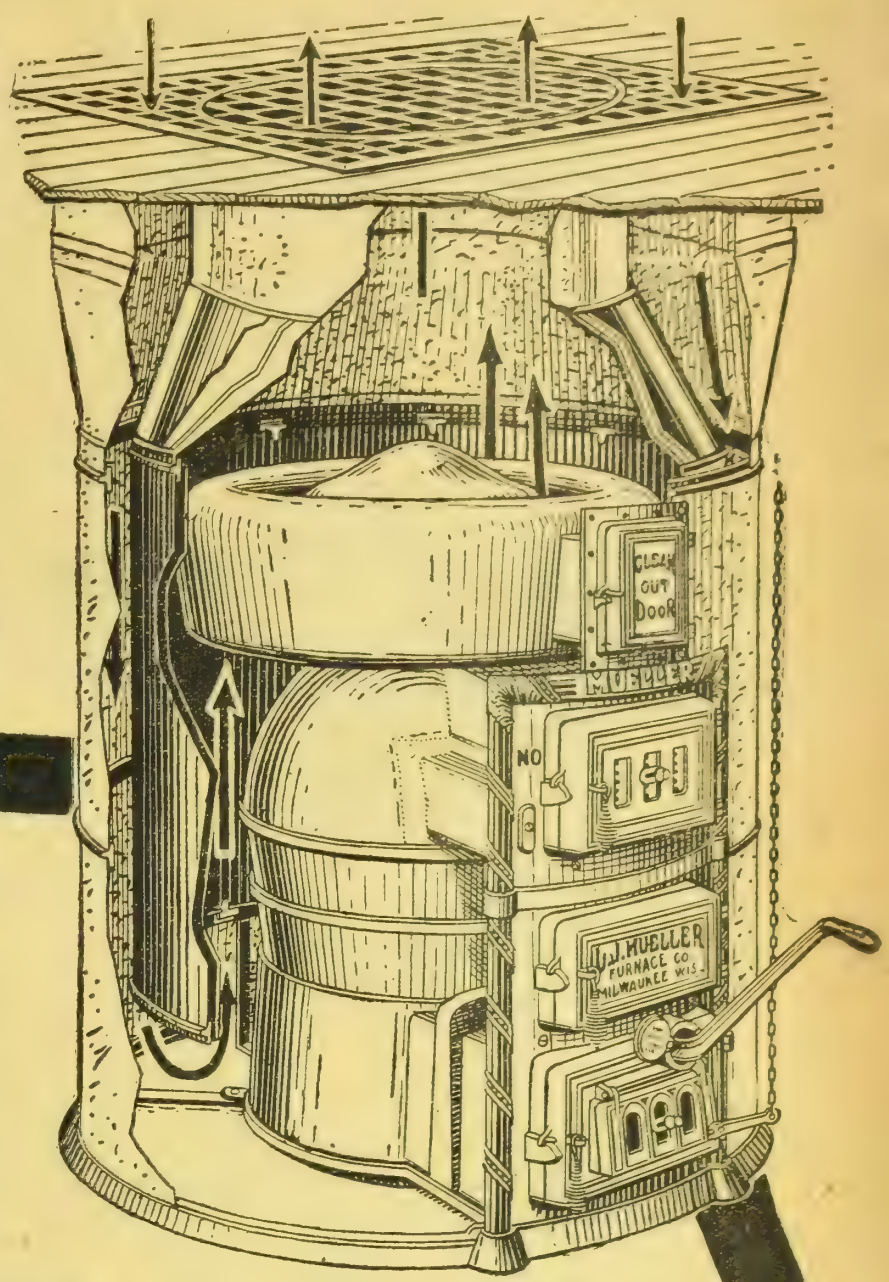
In Walworth County.

To the Editor:—The forty-five-pound list in the Geneva Association for the month ending July 31st follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Lucien Curtis					
Reddie, G. G.	10	12-24-16	639	10.1	64.5
Whiteface, G. H.	5	5-4-17	1048	4.9	51.4
Ora P. Taylor					
Lilly, R. J.	4	3-29-17	1004	6.0	60.2
Lassy, R. J.	5	4-28-17	818	7.0	57.3
Erma, R. J.	4	11-6-16	868	6.0	52.1
Valentine, R. J.	3	3-13-17	936	5.4	50.5
A. G. Palmer & Sons					
Chase, R. H.	6	5-28-17	1510	3.5	52.9
W. E. Palmer					
Queen 2d, R. H.	2	5-10-17	1652	3.2	52.9
Wm. Ross					
Belle, G. H.	2	12-18-16	632	7.7	48.7

F. W. DRAKE, Official Tester.
LEO D. DUNLAP, Secretary.

Fitted Especially for Pipeless Heating—not merely a pipe furnace with the pipes left off



THIS picture shows exactly how the Mueller Pipeless Furnace is equipped so as to give the greatest efficiency and economy in pipeless heating. The warm air rises direct from the furnace within the inner casing or jacket and ascends through the circular register which is enclosed within the square. This warm air rises and circulates throughout all the rooms of your house. The simple law of physics—that warm air rises and cold air falls—is familiar to every school-boy.

As this warm air becomes cooler it falls to the floor and descends through the outer or square part of the register into the outer casing or jacket of the furnace, and thence into the inner compartment, where it is reheated by coming in contact again with the heated casting.

Pipeless heating is an assured success. It places the comforts and advantages of furnace heat within the reach of many who prefer to heat their homes by this simple method.

But it is not possible to derive satisfactory results in pipeless heating by merely using a pipe furnace with the pipes left off. The remarkable success of the Mueller Pipeless Furnace has been due to the scientific skill with which it is fitted for pipeless service.

The Mueller Pipeless Furnace is of exactly the same construction as the old reliable and well known Mueller Furnace, but without pipes or flues and with the special casings which equip it for pipeless work. The entire furnace is of solid cast iron, the radiator is one piece, the grates are of the triangular duplex pattern, the ash pit is large and high and the triple jacket is rust-proof.

It is a real furnace, the result of 60 years of experience in the building of heating systems of all kinds, and it has behind it the Mueller name and reputation. It has the unequalled heating efficiency and fuel economy of the nationally known Mueller warm air, hot water, steam and vapor systems.

MUELLER PIPELESS FURNACE

Thousands of dwellers in stove-heated homes are installing the Mueller Pipeless. It frees them from the discomforts and disadvantages of putting up and taking down stoves in the different rooms every spring and fall, and of carrying fuel into the different rooms and lugging ashes from them.

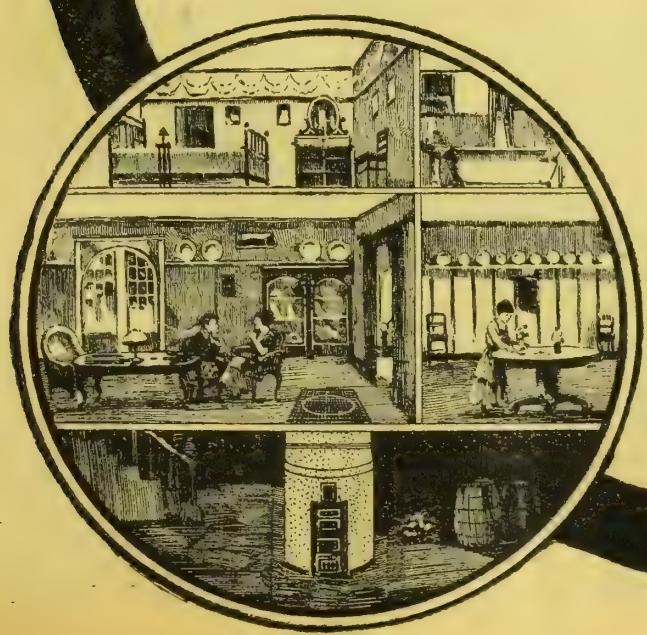
It enables them to enjoy the comforts and conveniences of furnace heat without the expense of tearing up the walls to put in pipes, and in homes in which the installation of a pipe furnace or other heating system would be impractical.

It heats the entire house from one central heating plant located in the cellar, where it belongs, out of sight and out of the way, yet doing its work quietly and efficiently.

The Mueller Pipeless Furnace furnishes a constant supply of moist, warm air which continually circulates through all the rooms, keeping them at a comfortable temperature. It burns hard or soft coal, coke or wood, and saves 35% in fuel.

It is quickly and easily installed and is especially adapted for houses having small or partial cellars. Even if there is no cellar at all, it is an easy matter to dig a pit large enough to accommodate it. It does not heat the cellar—does not prevent the storage of fruits and vegetables.

Thousands of homes were kept warm and comfortable during the unusually cold winter of last year by the Mueller Pipeless Furnace.



The Mueller Pipeless Furnace is the ideal heating system for thousands of homes, but there are homes of certain types for which other systems are better adapted. Our heating experts will advise you, free of charge and without obligation on your part, whether the Mueller Pipeless Furnace will give you greatest comfort and convenience in your home or whether some other system is best for you. Their advice will be entirely unprejudiced, since we manufacture all types of heating systems.

Write and tell us of your requirements, or mail this coupon for our interesting booklet about pipeless heating, with name of nearest dealer who can tell you all about the Mueller Pipeless.

L. J. Mueller Furnace Company, 204 Reed Street, Milwaukee, Wis.

Makers of Heating Systems of All Kinds Since 1857

This Coupon will solve your Heating Problem for you

Mail the Coupon NOW!

L. J. MUELLER FURNACE CO.,
204 Reed Street, Milwaukee, Wis.

Gentlemen:

Please send me your booklet about Pipeless Heating. I have _____ rooms to heat.

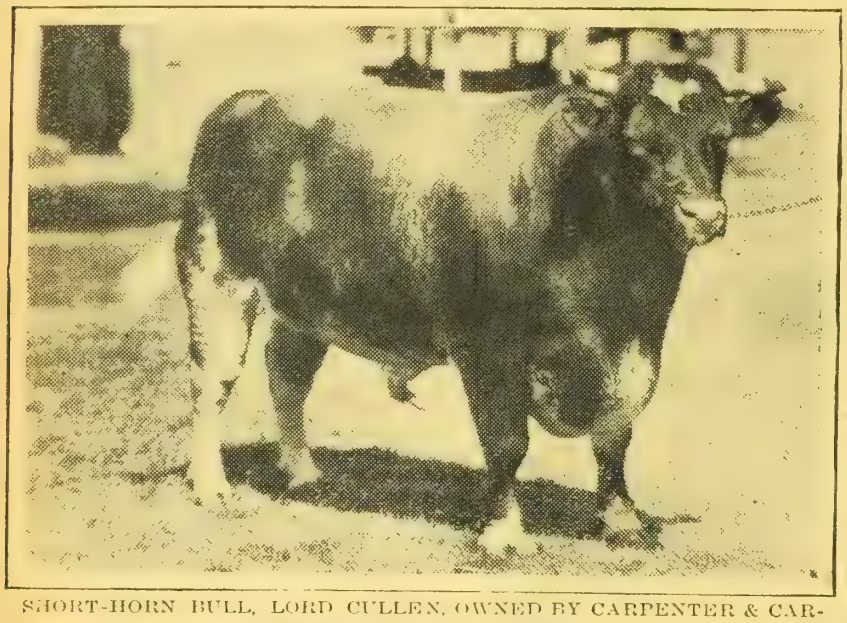
Name _____

Post Office _____ State _____

Badger Live Stock at Iowa Fair.

Advance Showing at Big Iowa State Fair Last Week Makes a Creditable Record for Wisconsin Breeders.

WISCONSIN live stock breeders who exhibited at the Iowa State Fair this year succeeded in bringing home a good share of the blue ribbons and sweepstakes prizes. In the dairy cattle show they furnished some of the best herds, a fact that was fully demonstrated when the awards were made. The Iowa fair begins the live stock show circuit in the Middle West and comprises one of the largest stock exhibits in the country. Breeders from several states are among the exhibitors, and competition is always very keen. For this reason Wisconsin breeders may justly be proud of their winnings.



SHORT-HORN BULL, LORD CULLEN, OWNED BY CARPENTER & CARPENTER, BARABOO, WIS.

The strongest Wisconsin showing was made in the Ayrshire cattle by the herds from the Ferndell Farms, of Ladysmith, and the Adam Seitz farm, of Waukesha. All the purple ribbons except one went to the Seitz herd. Cavalier's Roseberry was made senior champion bull and Cavalier's Lord Stuart junior and grand champion bull. In the female sweepstakes, Imp. Oldhall Beauty won the senior and grand champion ribbons. Although the Ferndell Farms did not get into the sweepstakes, they captured a good number of other prizes on individuals of exceptionally high quality.

In the Jersey division, W. S. Dixon & Son, Brandon, Wisconsin, and Chas. A. Peterson, Rosendale, Wisconsin, secured well in the list of awards. Oxford Majesty Maid, a junior yearling heifer of the Dixon herd, pushed into the sweepstakes class and took the junior champion heifer trophy. In addition to this prize, twenty-seven other trophies were taken by the two herds mentioned, in classes that were closely contested from start to finish. The Jersey show was of high quality, and, although no larger in number of entries, was considered by many to be superior to the showing made in Des Moines a year ago.

Ira Inman, of Beloit, Wisconsin, was the only exhibitor of Brown Swiss cattle at the Iowa fair. His herd of sixteen head was in excellent condition and would undoubtedly have won heavily even with strong competition. The aged bull, Lot of Lake View, that was made senior and grand champion, is an especially good animal of splendid size and type.

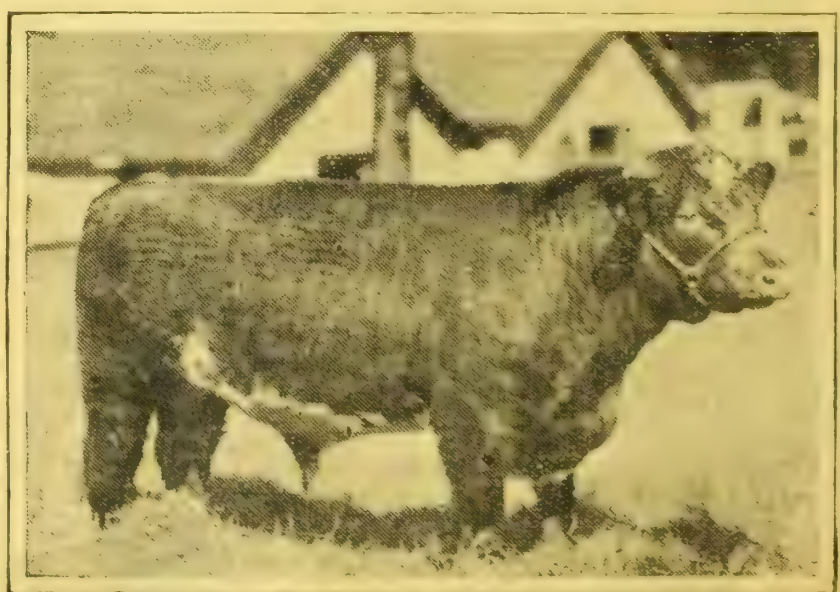
In the beef cattle ring several good herds upheld Wisconsin's reputation. They were all Short-horns, there being no Hereford entries from the Badger state this year. Among the exhibitors were Anoka Farms, Waukesha; Carpenter & Carpenter, Baraboo; Eben E. Jones, Rockland, and J. E. Kennedy, Janesville. Thirty-one prizes, not including sweepstakes, were taken by these four exhibitors, among which were four firsts, five seconds and four third prizes. In the sweepstakes, Carpenter & Carpenter took senior and grand champion female trophies on Maxwalton Queen, an aged cow of wonderful Short horn character, style and carriage. Many observers thought that the junior futurity bull calf, Anoka Champion, of the Anoka Farms, should have been given more attention in the contest for junior champion, which might have credited another purple ribbon to Wisconsin. As it was, the Badger state may well be proud of its place in the Short-horn showing.

R. Connor Co., Auburndale, Wisconsin, were big winners in the Shire division of the horse show, carrying away thirteen prizes, including two championships. Dray King Fashion, the three-year-old filly of the Connor stud, was an outstanding winner and captured the junior and grand champion ribbons in the female sweepstakes. Connor Company was the only exhibitor from Wisconsin in the horse show.

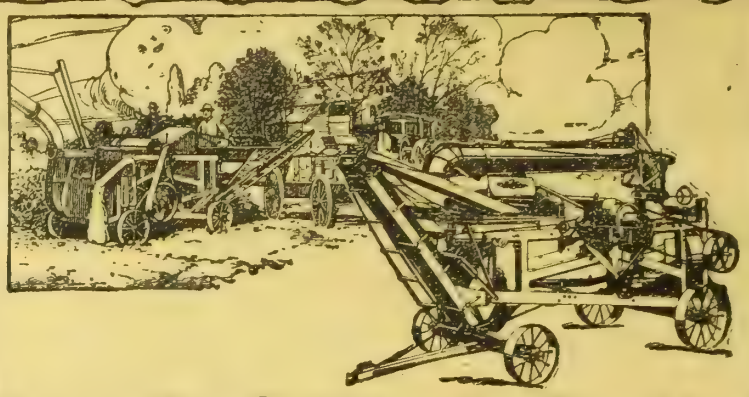
In the swine show there were no Badger state entries.

The showing made by Wisconsin breeders at Des Moines this year is entirely creditable to them, especially so considering the fact that fitting for the show ring is a big task this year when feed and labor are scarce and excessively high priced. It is hoped that this good showing will be continued and improved upon as the fair season advances.

SENIOR AND GRAND CHAMPION AYRSHIRE BULL, CAVALIER'S LORD ROSEBERRY, OWNED BY ADAM SEITZ, WAUKESHA, WIS.



FIRST-PRIZE SENIOR BULL CALF, ANOKA CHAMPION, OWNED BY ANOKA FARMS, WAUKESHA, WIS.



Corn Profit Nearly Doubled

NOW is the time to place your order for a **Deering** or **McCormick** husker and shredder.

The corn will soon be ready for harvesting. The ears must be husked — by hand or by machine.

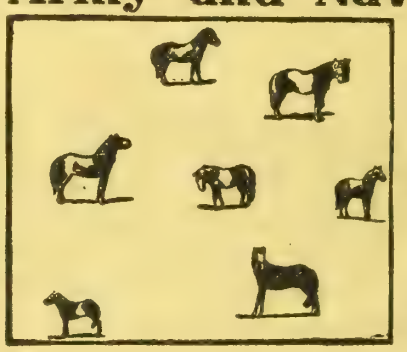
The cost of husking is about the same either way. If anything, the husker and shredder does a better job of husking, and besides, at no extra cost, it shreds the two to three tons of stalks, leaves and husks that grow on every acre and blows this valuable shredded stover under cover, to be used during the winter as a first-class substitute for high-priced hay.

Three sizes of **Deering** — 2, 4, and 6-roll, and four sizes of **McCormick** — 4, 6, 8, and 10-roll, give you a chance to select a size suitable to your corn crop. The larger sizes can also be used for custom work. Capacities range from 150 to 1,000 bushels per day. The power required ranges from 6 to 25 Mogul kerosene H. P.

Every feature that makes for efficiency, economy and safety is contained in these machines. This year a **Deering** or **McCormick** husker and shredder will pay well on any corn-raising farm. Get your order in early. Write us at the address below for complete descriptions.

International Harvester Company of America
(Incorporated)
CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

Army and Navy Packet for You



If You Solve this Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, a packet of five beautifully colored Army and Navy postcards showing our gallant boys in action. These cards are new and novel, every one a beauty. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing. We will also send you a certificate for 1500 free votes in our grand contest for a beautiful Shetland pony.

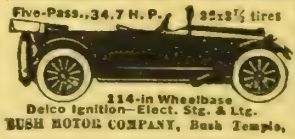
Fine Pony Given Away

Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Write me today.

THE PONY MAN Dept. 118 Des Moines, Iowa

Driver Agents Wanted

Drive and demonstrate the Bush Car. Pay for it out of your commissions on sales. My agents are making money. Shipments are prompt. Bush Cars guaranteed or money back. Write at once for my 48-page catalog and all particulars. Address J. H. Bush, Pres. Dept. 9-BI



BUSH MOTOR COMPANY, Bush Temple, Chicago, Illinois

FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

ALABAMA ALFALFA LAND. Demopolis Section—No part of America equal of this in the great combination of alfalfa, corn, velvet beans and grass. Rolling lime land, fertile, healthy country, artesian wells, tick free. Lands are cheap, quality considered. Full information and photographs. C. C. Chase Alfalfa Land Co., Demopolis, Ala.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

165-ACRE FARM—Good land, good buildings 47 miles from Chicago, 14 miles south of Gary, Ind. $140 per acre. J. W. Sherburne, LeRoy, Ind.

GOOD FARMS in a good country. Always sure crops; no destructive storms. Good bargains are yours by writing Geo. C. Rice, Webster, Wis.

HOLSTEIN BULL FOR SALE.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

REGISTERED Holstein bull, ready for service. Three of his dams average 106 lbs. milk in one day and 34.75 lbs. butter in seven days officially. Price $100. R. M. Harriman, Appleton, Wisconsin.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

PERCHERON STALLION FOR SALE.

PURE-BRED imported Percheron stallion, Eutonia (69032) 50785. Price reasonable. Address H. A. Bender, Route 3, Cambria, Wis.

TIMOTHY SEED.

TIMOTHY SEED—$4.00 per bu. High purity and germination, first class in every way. Timothy-alsike mixture, $4.50 per bu. Satisfaction or your money back. Henry Field, Shenandoah, Ia.

SALESMEN WANTED.

SALESMEN WANTED—Owing to draft and enlistment we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

SPAN OF MARES FOR SALE.

FOR SALE—One span mares, 6 and 8 years, 3,000 lbs., sound and steady workers. For sale or trade for pure-bred or high-grade Holstein cattle. Also have a pair of three year olds, one gelding, one mare. Anton O. Olsen, B. R. Falls, Wisconsin.

HELP WANTED.

WANTED—Experienced farm hand. State wages. John J. Mueller, Montfort, Wis.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets, from choice laying strain. Chas. Schmit, Hortonville, Wis.

A RANCH BARGAIN—3,680-acre ranch, Lincoln County, Neb., on main line U. P. R. R., 4 miles from loading station. 600 acres cultivated, well improved. A money maker. $12.50 per acre. Terms. Henry H. Genau, No. 1317 South 31st Street, Omaha, Neb.

STOP! LISTEN!—90-acre, imp. farm, $1,500; terms; free list. McGrath, Mountain View, Mo.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Few Poultry Foods Contain Protein.

"We cannot procure the meat rations needed in our village stores," says a valued reader of this paper. "Could we use a poultry condiment in the feed to take the place of beef scraps? Our stores keep ——— powder and insist that it is fully as good as the beef scraps. In the meantime, can you tell me where to get a dependable brand of beef scraps?"

There is not a particle of protein in the article mentioned. Beware of condiments masquerading under the guise of feed. Oftentimes serious trouble results from overstimulating the egg organs. This is not to be understood as condemning all poultry powder. Some of it is very good for certain things, but not as a feed; rather as a stimulant or appetizer.

The hen is a meat-producing fowl, and to produce eggs with anything like a profit she must have meat in some form or the equivalent to furnish protein. Fowls that have free range can garner their own meat ration in the form of insects that do harm to our crops. The writer has a pretty intimate acquaintance with a flock that follows the plow, disk harrow and cultivator, up and down every row, devouring the grubs which we do not want and turning them into perfectly good eggs that we do want.

In the case that all meat is withheld in some form the hens will lay through the natural laying period and quit. At an experiment station a couple of years since, it was found that when fed some form of meat the hens returned a net profit of nearly $1.50. When the meat was withheld the loss was something like 30 cents each.

This condiment question brings to mind a happening of some fifteen years ago. A young man, who was something of a dreamer, read that for $1 he could buy "poultry secrets" which would instruct him how to make his hens lay at any and all times of the season and on a minimum of feed. He sent his dollar and carefully read the "instruction book."

The hens were to be fed some kind of drug one day and then to alternate with something else the next, and a lot more such rot. As the big fellow happened to be the writer's brother, we knew all there was for it was to let him run the length of the rope. He did. The result was one of the worst disgusted boys you ever saw.

Many times oviduct trouble can be traced to this very thing, as well as abnormal eggs, infertile eggs and so down a long line of disasters. To produce an egg the hen must have the elements that compose an egg. There is a certain amount of protein in grain, but not enough; there must be too much grain consumed to get the required amount, which is both a waste and not conducive to health. Milk takes the place of meat, but a great deal is required, comparatively speaking, to give the balance. However, milk in any form is splendid for fowls and the surplus can be utilized to no better advantage than for laying hens and growing chicks.

Your grocer, grain dealer or meat market should be able to procure the beef scraps for you. The catalog houses, whose yearbooks fill a corner of the living room, can supply you, but we have had a complaint lately that the stuff procured from them was not satisfactory. Have never patronized them in this line, so cannot say positively. About the best place we can recommend is a wholesale poultry supply dealer or poultry supply house. The latter sends out literature and you may procure anything in the chicken line from an incubator to a chick feed, and meat scraps as well.

Sanitation in Stables.

F. B. Hadley, of the Wisconsin College of Agriculture, in Bankers' Bulletin No. 49, gives the following regarding sanitation in stables, yards and pastures:

Nearly all disease-producing germs are effectively killed by sunlight.

Feed boxes should be kept clean and sweet by prompt removal of waste and occasional washing with liquid disinfectant.

Remove soiled bedding from stables each day. A well-bedded, clean animal will not only thrive better, but will also sell for a better price.

There should be frequent application of air-slaked lime to previously well-scraped barn floor.

Provide adequate drainage of barnyard paddocks and open pens, and see that wallow holes are filled in.

Drinking water should be pure and fresh and supply plentiful. Yellow, green scum which appears on troughs in summer is not of itself harmful, but it may catch and hold dangerous microbes. Empty out the water and thoroughly scrub the trough with 5 per cent solution of blue vitriol (copper sulphate) from time to time and this vegetable growth will be killed.

Keep pastures well fenced.

The eggs and grubs of many internal parasites of animals, such as stomach worms, are passed out and lodge in stable manure. This is particularly true of sheep. Therefore, pastures should not be top-dressed with sheep manure when they are to be used for grazing these animals the following season. The long continued pasturing of one class of animals upon the same pasture or overstocking is a certain way to infect stock with parasites which are injurious and which may cause death.

Several varieties of plants that are poisonous to live stock grow in wild pastures and are sometimes seen in tame grass pastures. In Wisconsin the scouring rush, water hemlock and wild cherry are the most common. When there is plenty of feed, animals exercise considerable discretion in selecting what they eat, but when forage is scarce they will consume plants that would otherwise be refused. Experience shows that poisoning occurs most often when cattle and sheep are changed from dry feed to pasture.

To prevent poisoning and to reduce the danger from bloat which is likely to occur when a sudden change is made from a dry ration to pasture, or from a poor pasture to a better one, or from grass to clover or alfalfa, a full feed of dry roughage should be given before turning out the stock; then allow them to remain on the pasture for a short time only each day for a week.

The practice of rotating pastures is recommended as a means of controlling parasites. Moreover, by supplementing the permanent pastures with green forage crops whenever possible, both live stock and pastures may be kept in better condition.

Bogs and swamp holes in pastures should be tile drained or fenced off, because they act as breeding places for harmful germs of various kinds and animals often become mired in them and are not found until exhausted or dead from their efforts to get out.

The very common practice of using the pasture as a burying ground or rotting place for the carcasses of animals cannot be too strongly condemned. The best way is to burn carcasses. However, burying is safe if a hole at least six feet deep is dug and the remains are well covered.

Look For the

"A Perfect Trench at One Cut"

BUCKEYE Traction Ditcher

At Your State Fair

It's a marvelous machine. Makes "a perfect trench at one cut," true to grade and ready for tiling. 100 rods to 150 rods a day with a "Buckeye" is not uncommon.

If you have wet land, the Buckeye Traction Ditcher will drain it quickly and cheaply. If you are looking for a profitable business--spare time or full time--contract ditching with a "Buckeye" will net you $10 to $20 a day clean money.

THE BUCKEYE TRACTION DITCHER will be demonstrated at the following State fairs:

Indiana, Indianapolis, ... Sept. 3 to 7
Minnesota, Hamline, ... Sept. 3 to 8
Wisconsin, Milwaukee, ... Sept. 10 to 15
Kansas, Topeka, ... Sept. 10 to 15
Michigan, Detroit, ... Aug. 31 to Sept. 9
Canadian National Exhibition, Toronto, Ont., Aug. 25 to Sept. 10.

Competent representatives will demonstrate the machine and explain it fully.

The Buckeye is adding to National and individual wealth by reclaiming thousands of productive acres annually. Can it help you?

Write for our bulletin, "Dollars in Ditches"--or get it at the fair.

The Buckeye Traction Ditcher
1718 Crystal Ave. Findlay, Ohio

NOTICE

The *Walsh* Harness has **NO** buckles, **NO** snaps, **NO** billets, **NO** loops, **NO** holes in the straps and **NO** wear on the straps.

It looks better, fits better, is four or five times stronger and will last longer than the present harness. The price is the same.

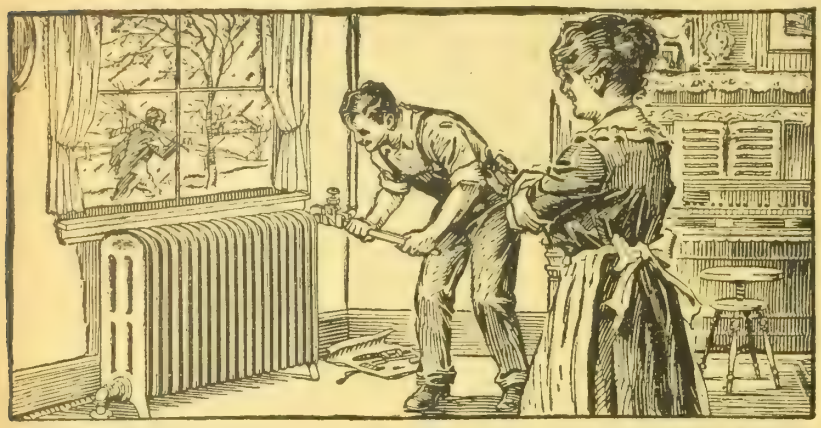
It will fit any horse from 800 to 1800 pounds, is made to stand heavy work and will last about **thirty-five (35) years.**

It took eight and one-half years to perfect it.

The *Walsh* Harness will be shown on a team at the Wisconsin State Fair (in the center of the grounds.)

WALSH HARNESS CO., Milwaukee, U.S.A.
A Wisconsin Corporation

IDEAL heating makes a home out of a house



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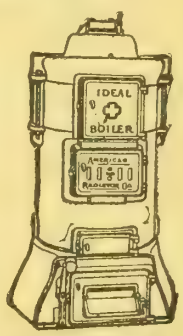
***Any fuel anywhere* can be burned with greatest heating results.**

The IDEAL heating outfit will last forever. We have never heard of one wearing out. Repair bills are unknown and the attention is so slight for getting plenty of heat day and night that you will wonder why you do not have to look after it more than once a day.



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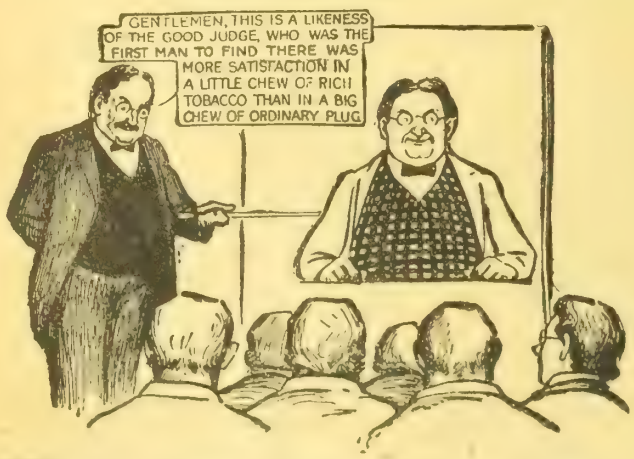
PREPAREDNESS LECTURE



THIS war is awakening men to the truth about a lot of things besides Preparedness—and chewing tobacco is one of them. Soldiers are strong for W-B Cut and the facts are right before you. These shreds are *all* tobacco, no gummy sweetening—*rich* tobacco—more sap in the leaf than in ordinary tobacco by a long shot. That's why it's so satisfying and so economical—a little bit goes a long way.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

Good Beef From Wisconsin.

(Continued from page 1.)

eral Point at that figure previous to the sale made from the Bloomfield section by H. J. Kelly. To Mr. Kelly go the signal honors of having the first large bunch of cattle that ever sold on the open market for beef for $12 per hundred. The bunch of thirty-five cattle were about equally divided between Herefords and Short-horns, and were sold in Chicago in November, 1916. A few words about the treatment of these cattle will show that Wisconsin blue grass is useful in making good cattle, and that it is possible to make good cattle without spending too much money on high-priced feed.

The cattle were native Wisconsin-bred cattle bought in Grant county in the fall of 1915, weighing about 1,000 pounds. They were pastured until the winter set in. During the winter they were fed about thirty pounds of silage per head daily and what mixed hay they would eat. About three weeks before going on grass they were given a ton of cottonseed meal and were turned onto grass about May 1st. Mr. Kelly allows about two to three acres of pasture per steer. The last sixty days before marketing, the steers were given corn—first green fodder, then snapped corn and later husked corn. They were on a full feed of corn in about three weeks. For the first thirty days of the feeding period they were on grass, and during the second thirty-day period they were given clover and timothy hay and all the corn they would eat. At the time of selling they weighed 1,505 pounds, making an average gain of about 500 pounds per head for the year.

Turning south at the Sunnyside school, on the military road between Cobb and Montfort, one breaks into one of the finest pieces of farming land in Wisconsin. Men with foresight got into this section at an early date and the land has remained in the hands of good workers. While some of this land was early cropped heavily and crops were cashed, the soil has been rejuvenated in recent years by more carefully worked-out rotations and by raising and feeding live stock. In this section are the farms of Thomas, Heuer, Dieter, Trankle and Gruenenwald's. Some of these farms that some years ago would not raise profitable crops are now growing good crops of clover, corn, oats, and, in some cases, wheat. Liming has been resorted to in some places and more lime will be applied in the near future.

The operations of George Chamley might be taken as those of a typical beef cattle man in this section. Later we will have something to say about the operations of some of the men who raise their cattle and market fat steers that have never been on but one farm. It would be safe to say that George lives on an ideal stock farm. The home farm consists of 399 acres of gently rolling land less than a mile east of the village of Livingston on the Chicago & North-Western Railroad. In addition to this, the Chamleys have 200 acres of pasture and hay land west of the village of Livingston. This year on the home farm George has 110 acres of corn and, unlike many of the farmers in Iowa county, he has plenty of help and can keep four or five cultivators going in the corn all the time the weather permits. The corn shows the good treatment, too. Sixty acres, at least, of this corn will be put into the two concrete silos (one 20x36 and the other 20x38) which Mr. Chamley considers the most indispensable buildings on the farm. He says he couldn't raise anything on the same amount of land to grow the same amount of feed.

There is no hard-and-fast rule in the operations as to time for buying and selling, although it is intended to raise as much on the farm as possible so as to winter all the cattle for grazing at least part of the winter. The aim is to get the cattle some time from the first to the middle of February if possible, though this may vary. The cattle are then fed on hay and silage and sometimes a little cottonseed meal until about the first to the middle of May, when they are turned onto the grass. This year Mr. Chamley had, all told, 186 head of steers on hand. Of these, eighteen were hay-fed cattle bought in Chicago late in January. Being somewhat plain in quality, they were fed on grass and shipped out about the first week in August, the aim being to avoid competition with the western cattle. In one pasture of 160 acres were sixty three-year-old cattle, and in this lot were fifty head of branded Wyoming cattle bought in Omaha in February. These cattle are well-bred White Faces, and will get a corn finish from October 1st to November 15th. By that time Mr. Cham-

A FEW OF THE BIG ONES IN THE THOMPSON AND MASTERS PASTURE, LINDEN, WIS.

ON THE JOHN BLOTZ FARM, IOWA COUNTY.

ley expects them to weigh 1,500 pounds and they ought to sell well, because they have the quality and smoothness. Unless compelled by breaks in the market to run these cattle into the winter they will get no silage, and unless silage is fed they will get no cottonseed meal.

The general system as explained by Mr. Chamley is to buy in January and February sometimes locally in the fall, if there is grass and feed to carry the cattle over the winter. He likes to get about 100 days of winter feed on the cattle—hay and silage and cottonseed meal being the principal feeds. By buying in the winter, Mr. Chamley gets the grass shrink out of the cattle, and he is not paying for any soft waste which shrinks away. The cattle are generally lighter in the middle of winter than they are in the fall. Hogs are allowed to follow the cattle, and by the system about 100 hogs are raised on the farm and marketed annually.

East from Mineral Point is located what is known as the Waldwick Prairie. Here are located some of the best cattle men in southwestern Wisconsin. The land is more rolling than in the Bloomfield and Livingston sections, but not so rolling as some of the sections west of Mineral Point. Good crops of corn can be raised, but in many places there is not much tilling of the soil done, pasturing cattle being the principal use to which much of the land is put. The system is not different from that practiced near Mineral Point. The aim of those actively engaged in the cattle business in this section is to get the cattle at a time of the year when cattle are cheap. Provision is made to winter as many cattle as possible. At the present time the labor problem is solved, but increasing prices for land and ever-rising taxes are forcing the people to consider the question of getting more feed off the land. This will in time decrease the amount of land devoted to pasture, and will cause the owners of the land to cast about for crops that will return more feed per acre. While silos are not very common in the Waldwick section, the question of building silos is receiving attention, and they are going up rapidly.

In this section of the country live the Jacksons, Whites, Rosses and Harkers, who own considerable land and turn off good cattle. Mr. R. G. White, of Waldwick, had a load of cattle on the Chicago market August 20th that were good enough to bring $13.50 per hundred in the face of a run of 30,000 cattle. This demonstrates the value placed upon Wisconsin grass-fat cattle by the Chicago buyers.

Around Linden and Mifflin, Wisconsin, are also good cattlemen. Logan Thompson, of Linden, is considered one of the best cattlemen in the district, and this year has on hand a load of heavy cattle that should bring a high figure at Chicago. Thompson is a stickler for quality and a firm advocate of the use of silage in making winter gains.

It remained for Grant county, though, to send out the record-breaking grass-fat cattle so far this fall. It falls to the credit of Grant county also that the cattle were produced there and had never left the county until sold to go to Chicago. This load of sixteen cattle were fed by Griswold Brothers, of Livingston. They were bought in Grant county last September around Patch Grove and Platteville, weighing around 1,000 pounds at about $100 per head, carried over the winter on silage, cottonseed meal and hay, and were sold off the grass the week of August 15th at $225 per head. In Chicago they averaged about 1,650 pounds each and sold for $14.50 per hundred.

It is estimated that there are at least 1,000 cars of good cattle on grass in the southern part of Iowa county. Good prices for fat cattle are holding these men in the steer game, although in many places the cattlemen have been replaced by dairymen. Scarcity of good feeding cattle in the sections where they could once be obtained is one of the perplexing problems confronting the cattle men. Feeders can be obtained at the central markets, but this involves two freight charges and two shrinks, which are expensive.

The grass-fat cattle from the Mineral Point section are the best grass cattle that go to Chicago.

Pierce County Farmers Resolve.

It Is the Sense of Farmers' Meeting at Ellsworth That Young Men Are Sorely Needed at Home to Work on Farms.

THE question of farm labor is agitating many good Badger farmers and especially those whose boys or hired men are subject to conscription. A meeting to consider this subject was held Saturday, August 18th, in the court house at Ellsworth, Pierce county, and Assemblyman C. E. Hanson was chairman of the gathering. A committee was named to visit the district board at Ashland and present to this board the farmers' needs along labor lines. This committee was given a courteous reception at Ashland and advised that their representations would be given serious consideration. In stating the object of the Ellsworth meeting, Assemblyman Hanson said that the gathering was not met for any unpatriotic purpose. Mr. Hanson announced that a United States marshal was present in town and was probably in the audience, and that inasmuch as the farmers had nothing to conceal he hoped the marshal would come to the front where all could see and hear him. Pierce county farmers claim they are in worse position from the labor standpoint than farmers of other sections of the state, by reason of the fact that the county has lost population in the last ten years and the male population of conscription age is low because so many young men have moved away to the cities. The resolutions passed by the meeting are as follows:

United in our love for America, we are convinced that we can serve our country by urging upon those who control the reins of government, the adoption of the following resolutions and policies:

Resolved, That this is a war of endurance. Men and money are important, but food counts the most. Soldiers who fight must eat. So must their dependents at home. The world must be fed.

Every acre of unharvested crop or the inability of the farmers to secure the greatest possible returns from their farms on account of a shortage in farm help will deprive many mouths of food, aid the enemy and lessen our chances of success.

That since the farmers in response to the call of the government have increased their acreage of productive crops to the utmost necessary for the maintenance of the military establishment, or the effective operation of the military forces, or the maintenance of the national interest during the emergency, they find it necessary more than ever to retain their present help to operate and manage their said farms.

Resolved, That since the male population of military age in Pierce county is far below the average as compared with the other counties in the state and nation, and since the entire county has decreased nearly eight per cent during the last ten years, due to the fact that the young men are leaving the farm for the city, the farmers have found it difficult to manage their farms and will find it more so unless they can retain their present help, and that the taking of the farmers of military age, who have spent their entire lives on the farm and who have become skilled and accustomed to farming and dairying, results in a direct material substantial loss in the effective operation of the agricultural industry, the only industry in Pierce county, but in spite of this and against the promises of the press, our young men are being drafted without discrimination. As we are informed, only two farmers out of 54 were discharged from military service. If this percentage continues, the farms will not produce what they should, for the reason that unskilled help will have to be called upon or drafted in order to carry on the management of our farms:

Wherefore, We request the following:

1. That the district board of division No. 2, for the western district of the state of Wisconsin, investigate the economic conditions of this county and other counties of the said district as it is the duty of each district board to ascertain by its own methods the existing conditions and ascertain as near as possible the labor supply available in this district.

2. That if farm help will have to be drafted to take the place of those who are called, why not, instead, leave those on the farm who have spent their entire lives in the occupation of farming and get the greatest possible efficiency?

J. F. Larson, Chairman.
E. J. Fitzgerald, Secretary.
Oscar J. Gilbertson.
L. H. Place.
Wm. Hintzman.

In publishing these resolutions passed by a representative company of farmers, The Wisconsin Farmer has no thought of arousing any feeling against the draft. The resolutions were signed by 164 farmers. They insist that they will not be able to raise maximum food supplies demanded of them by the government, and urged upon them by the several governmental departments, if their supply of labor is curtailed by taking boys away to war. The farmers believe that maximum production is not possible with unskilled and untrained labor.

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You can put the TURNER SIMPLICITY tractor in the field and know that it will do your plowing, discing and harvesting just as dependably as a team of horses—and much quicker and cheaper.

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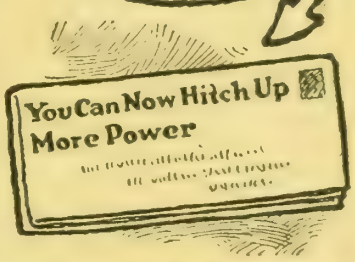
Tear out this ad, write your name and address on the margin and mail for big, three-color tractor folder. Mark a X under other products, if interested.



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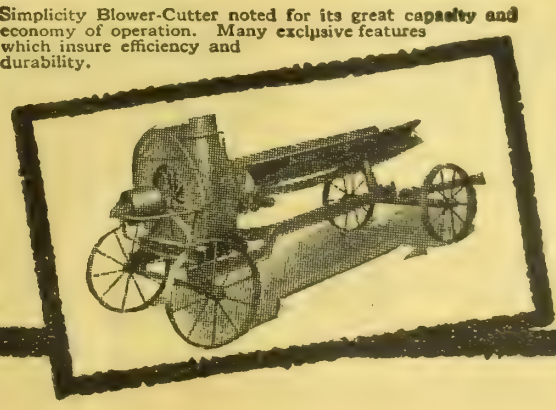

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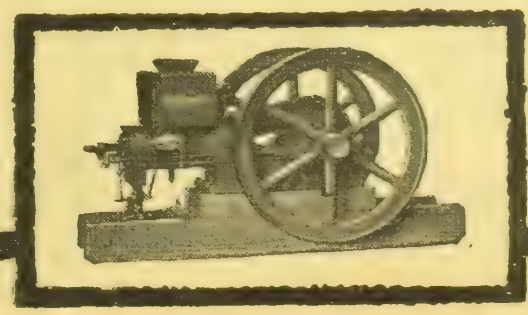

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Insures fresh air—plenty of it—in any building where installed. Scientifically designed—draws in fresh, pure air constantly. Steel throughout. Strong. Durable. Can't rot or rust. Write for booklet.
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VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Warts on Cow's Teats.

Can you tell me any way to remove or cure warts on the teats of milk cows?

These can oftentimes be removed or helped by a few applications of olive oil. This should be applied after milking. If this fails they should be cut off with a sharp pair of scissors and the wound touched with a stick of lunar caustic.

Mastitis.

I have a cow about eight years old which every few weeks has trouble with one quarter of her bag getting caked. The teat seems to be closed up and the milk is not good for several days. It has been that way since the first of April.

This seems to be mastitis and probably of an infectious nature. We would advise you not to use the milk from her, at least when affected.

Rheumatism in Pigs.

On the farm where I am working the small pigs have a peculiar disease. Their leg joints swell and they get lame. Their eyes get sore and sometimes burst out of the head. What is the cause? Also, quite a few cattle have watery sore eyes. Some have a white covering form over the eyeball and I believe they go blind. Is it pink-eye?

The leg swelling may come from rheumatism or may even be due to injury caused by pigs and old hogs piling up in sleeping quarters. These pigs should have the best of care and quarters and too many should not be allowed together. The eye trouble in the pigs and cattle seems to be some form of pinkeye. About all that can be done where large numbers are affected is to inject some antiseptic wash, such as boric acid, in saturated solution into the eye. There is danger of a number of the animals losing their eyes with this disease.

Simple Mastitis.

We have a cow, lately fresh, which we bought. This cow has a caked udder caused by not being properly milked. Three of the teats milk freely, but can only get a few drops from the other one.

If this quarter is caked and hard it may be there will be abscess formation and if abscess forms it will have to be treated by a veterinarian. If it is in a simple state of inflammation, however, several applications of camphorated oil and frequent milkings will probably bring results.

Scab.

Could you give me any advice concerning a sort of itch on my six-weeks-old Short-horn calf? I noticed it first about a week ago when I saw that the upper part of the skin seemed to split open and sort of peel off, leaving the under surface exposed and tender and sometimes bleeding. It seems to be spreading quite fast, although it heals but slowly. It started first on the shoulder and is spreading to different parts. Am enclosing a specimen of the discarded skin which comes off the patches. A few days ago I noticed that the same itch is starting on one of my two-year-old heifers. Have not given any treatment so far. Am feeding calf s' im milk and the heifer is in pasture. The calf has the range of the pasture also.

From the appearance of the patch of skin sent in letter we would judge there was some one of the scab mites present. We would advise you to have this calf and any other affected animals examined by a competent veterinarian and he may be able to find mites present, in which case he could help administer proper treatment.

Destroying Worms in Hogs.

To the Editor:—We would like to give the hog raisers who read The Iowa Homestead our formula for pigs infested with worms. Dozens of farmers and breeders from different states have asked for it and so far all are getting good results. For several years we lost too many pigs at weaning time with worms. We tried everything we heard of, but nothing did us any good till we fed this formula. The first time we fed it was three years ago. We lost less that year than before feeding the formula. Two years ago we lost still less and last year our loss was very small. This year we have no signs of worms.

The formula is as follows. Santonin, two and one-half grains; areca nut, one dram; calomel, one-half grain; sodium bicarbonate, one-half dram. This amount constitutes one dose for one pig that weighs fifty pounds. Larger or smaller hogs should be fed in proportion. Feed should be withheld for twelve to eighteen hours before giving the mixture.

It is sometimes necessary to repeat the dose in eight or ten days. The medicine should be dissolved in water or milk for six to ten hours before feeding, and then fed in a good thin slop. Care should be taken that each one gets his share and no more. None should be left in the troughs. Keep the pigs on a clean, dry floor for twenty-four to thirty-six hours and feed their regular feed of loosening feed. After thirty-six hours take all straw, litter and worms and burn them. Then disinfect the floor. It may be necessary to do this for two or three years before the farm is free from worms. Dobson & Eastman.

Grant Co., Wisconsin.

Be sure to feed silage fast enough to prevent mold and deterioration in the silo. Otherwise sickness and loss in stock will follow. The top layer should be removed to the depth of one inch daily in wintertime. This would amount to 350 pounds from a twelve-foot silo, 500 pounds from a fourteen-foot and 700 pounds from a sixteen-foot silo. If silage is fed at a rate of forty pounds a day to dairy cows, these amounts would supply respectively nine, twelve and seventeen head of cattle.

MAN—To wear one suit, get an agent; big pay, easy. Banner Tailoring Co., Dept. 738, Chicago.

Today's Housewife Decreases the Cost and Increases the Joys of Living

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TODAY'S HOUSEWIFE is the new title of Today's Magazine with which has beeen consolidated The Housewife. The new magazine, *Today's Housewife*, is bigger, brighter and better than either was alone. Every issue of *Today's Housewife* will afford you and your entire family many hours of pleasure and in addition the inspiration and encouragement that always make both present and future brighter. In brief, *Today's Housewife* is the homemakers' magazine of both helpfulness and happiness.

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Send 10 cents for the large, attractive October issue or better still send 75 cents for a year's subscription or $1.00 for a two-year subscription. All your money back on request if you decide after receiving three issues that *Today's Housewife* is not worth at least twice the price. We know you will love the new *Today's Housewife* with its fashions, fancywork, stories, etc. Address

TODAY'S HOUSEWIFE, Farm Dept., CANTON, OHIO

IMPORTANT—If your Church or Club or School needs money, be sure to send a postal request for Free particulars of our famous Fund-Raising Plan

A Bumper Oat Crop in Wisconsin

All Small Grains Are Yielding Well—In General Hay Has Done Well—Live Stock Are Thrifty in Spite of High Feed Prices.

WISCONSIN.

Adams County.—A light frost visited this section on the night of the 24th, but no damage was done. Grain crops are all harvested and threshing returns indicate a normal crop. Buckwheat will be good if frost holds off for a while. Pastures are good on the lowland, but on high land they are not so good on account of drouth. Potatoes look promising. Cattle on pasture are in good shape.—Louis Wollert.

Burnett County.—All grain is in the stack, but no threshing has been done. Pastures are dry and brown. Farmers are selling off all cattle that cannot be wintered. Corn has done well and will make good silage if it does not ripen. Potatoes are fine and will yield well. The weather has been too dry for a second crop of hay.—Fred Larson.

Chippewa County.—Grain is ready for threshing and some has already been threshed. Oats are making about fifty bushels per acre, barley about thirty or forty bushels. Corn is looking much better than it did a few weeks ago and will be all right for silage. There will not be much seed corn. The potato crop looks fine and is still growing. Garden truck is fairly good. Live stock show good condition, but pastures are getting short.—Gustave E. Rheingans.

Clark County.—A slight frost occurred on the 24th, but did no damage to growing crops. Threshing has commenced with a little better than an average run of grain. Potatoes are showing signs of rot. All live stock are in good health. Dairy cows are giving a good flow of milk for this time of year.—Fred Ackerman.

Grant County.—Most of the grain is being threshed out of the shock this year. Oats are making from sixty to seventy bushels per acre. Corn has not done well recently on account of dry, cold weather. Potatoes will make a fairly good crop. Pastures are getting dry and short. Live stock are in good health, but feeding operations are decreasing. There will be only a few varieties of apples.—P. R. Stoffel.

Iron County.—Old meadows will make about 65 per cent of a normal hay yield and new meadows about 85 per cent of one. Pastures are good and rainfall is plentiful. Potatoes look well and if frost holds off we may expect a big crop. Cattle on feed are increasing. Farmers in the neighborhood of Hurley have built a creamery which is expected to be in operation in another month. The apple crop is about 25 per cent normal. All live stock are doing well and there is no disease.—H. P.

Kewaunee County.—Barley is all cut and will be a fair crop. Oats are being cut in some sections of the county. Corn for silage will make about 60 per cent of a normal crop. Pastures are very short on account of the drouth and there will be a reduction in the milk flow. The new seeding of clover looks fine. Quite a number of new silos are being put up in the county. Cattle, hogs and horses are thrifty.—W. C. Katel.

Lafayette County.—Hay went in in extra good shape, since the weather was very favorable for harvesting. Oats are a bumper crop. The threshing which has been done shows very heavy yields of all small grains. Corn is doing well, but needs rain. More silos were built this year than ever before. Potatoes are a good crop and all garden truck is above the average. Live stock of all kinds are thrifty. Pastures are getting dry.—W. J. Martin.

Marinette County.—This section is having more rain and cool weather than it should have at this time of year. Pastures are fine. The second crop of clover is not as heavy as usual. Oats are nearly all cut and a good yield is promised. Spring and winter wheat and rye are all good. Corn is doing nicely, but needs several weeks more of warm weather. Early potatoes made a good yield. Late potatoes look well. There is about the usual number of cattle and horses, but hogs are scarce. Many silos are going up, as well as barns, machine sheds and granaries. The apple crop is short.—W. B. Sanderson.

Monroe County.—With good weather threshing is progressing rapidly. Grains are turning out well in both yield and quality. Many cows are going dry now because farmers here milk them in the winter. The creamery does not get as much cream as it did in the summer.—D. J.

Pierce County.—All harvest work is done and threshing is in progress. More shock threshing is being done this year than usual. Rye is making from eighteen to twenty-five bushels per acre, barley from thirty-five to forty-five bushels and oats from sixty to ninety bushels. Corn will need all of September in which to mature. The nights are too cool at present. Potatoes are doing well, some fields have been blighted. Pastured are short and fewer stock will be wintered this year than usual. Hogs are scarce and in poor condition.—T. B. Eaton.

Oconto County.—Haying is done and the crop is good. Grains are about half cut. Oats are very good and barley is making about an average crop. Corn looks fine. Potatoes are looking well and there will be a big yield of them. Pastures are a little short, because the ground is dry. The apple crop is very poor.—M. J. Hinker.

Outagamie County.—A splendid crop of hay was secured in fine condition. All grain crops are good, especially oats. Corn is backward and will require all of September in which to mature. Potatoes never were so good or the area planted so large. People are even beginning to talk of 25 and 50-cent potatoes. Pastures and new seeding were never better at this season. Fruit is abundant. Threshing will begin this week. Stock buyers who travel through the country say we never had so promising a year for good crops all around. Live stock are healthy. Dairying is the chief business here and farmers keep a good cash balance in the banks. Hogs and pigs are not plentiful and they need more corn for fattening. Old cows and calves are going to market. Little cattle feeding is in progress.—Peter Tubbs.

Taylor County.—Oat cutting is in full swing and the crop promises to be a good one. Rye also is good, but barley will make only half a crop. Potatoes never were better. The second hay crop is poor and only a little of it will be cut. Pastures, grass and meadows are good. Live stock look well. The hay crop in general will be about three-fourths normal, but the quality will be good. Garden truck is excellent. The horse market is poor. Milk cows are scarce and high priced. Sheep are scarce and selling for high prices. As soon as rain and cooler weather come in farmers will begin fall plowing.—E. H. Dehne.

Trempealeau County.—This county has banner crops of all small grains as well as hay. Threshing is in progress and many farmers are shock threshing while the weather is fine. Corn is fine and will make a fair crop, although not a heavy one. Potatoes and other vegetables are good. Pastures are rather dry, but farmers can soon turn stock into the fields. Rain must come before much fall plowing or planting can be done. Tobacco looks fine and commands a good price.—C. G. Kremes.

Walworth County.—The weather is dry and cool most of the time. Corn needs more warmth and a late fall in which to mature. Threshing has begun. Oats, barley and rye are yielding well. Some of the wheat is only half a crop due to the rust. Pastures are getting short and look brown.—Arthur Ewing.

Washburn County.—Harvesting of small grain is done. All grains are good. The hay crop was good and potatoes promise a big yield. Corn is very backward and should have no frost during September. Three successful coöperative creameries are having a good first year. Pastures are short and many cattle are going to market. Greater interest in pure-bred stock, coöperative buying and live stock shipping associations are three progresive movements for 1917. A rather heavy white frost occurred on August 24th, but did little harm.—John W. McCulloch.

MINNESOTA.

Mower County.—All crops are good except corn, which will require five or six weeks more in which to mature and make even half a crop. Wheat is yielding thirty bushels per acre. Oats are making as high as sixty bushels per acre and their quality is good. Pastures are holding out well. Cattle look well. Hired men are hard to get.—Walter H. Martin.

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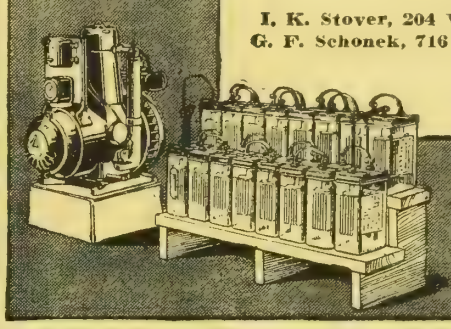

Be sure to see the DELCO-LIGHT exhibit at your State or County Fair

The Dane County Fair.

Dane county's annual fair and live stock exposition, held August 28th-31st, proved what her sponsors wished it to be, "The fair of fairs." Excellent weather helped to bring the crowds. The highest attendance was estimated at 25,000 on Madison Day.

The live stock show was good in every department. Beef cattle, dairy cattle, hogs, horses and sheep were entered. Cost of feed and scarcity of labor caused many breeders who had made entries to withdraw at the last moment.

In the beef cattle Short-horns predominated. Gerald Arnold, of Galesville, Wisconsin, took besides eight other firsts the grand championship for bull of any age on Richmond Villager. Rogers & Sons, of Union Center, took championship on their aged herd and were awarded grand championship honors for female any age on Clover Leaf Myra. Six other firsts also went to the Union Center breeder. Dan Grady, of Portage, was awarded first prize on aged cow.

One herd of Polled Durhams exhibited by Boynton Bros., of Janesville, had things to themselves, as they were the only representatives on the grounds. Only one herd of Herefords was entered, the Rott herd of Wonewoc, but they were excellent representatives of the breed. The owner expects to finish up the circuit this year at the International in Chicago with enough ribbons to his credit to make expenses.

In the dairy cattle exhibit Holsteins were present in greater numbers than the other breeds. John L. Fisher, of Janesville; Kirkpatrick Bros., of Reedsburg, and F. B. Fisher & Son, of Evansville, were the exhibitors. Kirkpatrick Bros. landed six firsts and the grand championship honors on the bull, Senator Johanna White, a splendid individual. F. B. Green & Son also came away strong and received grand championship honors on female any age. John L. Fisher received seven firsts, showing up well both in the male and the female classes.

Jerseys were represented by W. M. Knight's herd from Eagle, Wisconsin, and Guernseys by L. P. Martiny's herd from Chippewa Falls.

The swine exhibits were good for each breed represented. John L. Fisher, of Janesville, came out an especially heavy winner in the Duroc Jerseys. Five firsts, besides grand championships for boars and sows, came to him. Showing against him was the excellent herd from O'Keefe & Sons, of Waunakee.

In the Poland China class three exhibitors, L. P. Martiny, of Chippewa Falls; Madson & Son, of Madison, and John F. O'Brien competed. Mr. Martiny got away with five firsts, O'Brien with one and Madson & Sons with seven besides the championship for boar and sow. There was some excellent competition, but the grand championship honors were never in doubt.

In the Chester White, Walter George and Charles Rogers & Sons, of Union Center, furnished the competition. The latter got away with four firsts, while Mr. George took three firsts and grand championship on his herd boar. Grand championship honors for sows went to Rogers & Sons.

In the Hampshires two exhibitors, A. L. Damon, of Richland Center, and J. C. Wixom & Sons, of Milton, showed some excellent individuals. The Damon herd got away with most of the honors, securing eight firsts to Mr. Wixom's one. In a competition between the Hampshires, Berkshires and Chester Whites, Walter George was awarded grand championship on his herd boar and Rogers & Son similar sonors for the best sow. The Berkshires were represented by Leslie O'Brien, of Madison. Professor Jas. G. Fuller was the judge.

The sheep exhibit this year was an especially large one and of excellent quality, W. G. Miles, of Evansville; M. F. Hogan, of Waunakee; W. F. Renk, of Sun Prairie, and E. Crall & Son, of Evansville, Wisconsin, were the exhibitors. The Crall flock consisted of forty-eight head and they were representatives of every breed except the Southdown and Shropshire in the exhibit. Twenty-two firsts were the total winnings, with five championships for the various breeds besides. Mr. Renk showed some exceptionally well-bred Shropshire rams. Honors were divided up pretty evenly among the exhibitors, but competition was fairly keen in every respect. Mr. Renk's yearling ram put up a good fight for the championship against the Miles ram recently purchased for $300 at the McKerrow sale.

In the draft horse classes some good specimens of Percherons, Clydesdales and Belgians were entered. Grand championship honors, however, for the best stallion any age and best mare any age went to the Belgians. They were exhibited by E. W. de Bower, of Dane, Wisconsin, who has an excellent string of Belgian horses.

Free attractions and the horse races were of the highest class, the racing program being especially good. Machinery exhibits and educational exhibits were plentiful and better than in previous years.

Rye sown early, say before September 10th, with favorable weather conditions will make considerable growth in the fall. In a leaflet sent out by Mr. R. A. Moore and Mr. E. J. Delwiche it is noted that such rye fields may be pastured with cattle, but care should be taken to keep animals off the land in wet weather. Winter wheat should not be pastured, as a rule, as the growth is needed to protect the roots from frosts and freezes of winter. Many a good field of winter wheat has been spoiled by fall pasturing.

The government will take a hand to help the farmers dispose of apples and potatoes this winter to the best advantage. A campaign of education to interest our people in using more potatoes and less wheat bread is likely to cause a greater demand for potatoes and help to keep the price up so that the farmer will make a profit on spuds, notwithstanding the big crop.

THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Happy Homes Built Around Living Room.

By Laura B. Breese, Department of Farmers' Institutes of the University of Wisconsin.

The living room of today was the parlor of yesterday. Now it is the room in the home where the family circle gather "to live together." Then it should be a most comfortable and inviting room—a room that by virtue of its charm will "draw" the family members into it.

It may have, as the center of interest, a large fireplace of brick, one that will permit of the burning of wood or coal—for these fuels lend a cheer and glow and crackle good to witness and to inspire.

There is no reason why the furniture for this room should be in "sets" of sofa, rocker and chairs, all alike. Such sets are hard to use without giving an appearance of awkwardness and stiffness. Odd pieces of harmonious or the same wood make a pleasing selection. All furniture for this room should express firmness, comfort and delight.

Better get the pieces good as they can be afforded, with one piece fitting with the other, rather than purchase a number of cheap pieces at once. A cheap piece gives satisfaction but once—only when we pay the bill.

We want a couch and chairs in the living room that are comfortable rather than formal, serviceable rather than showy.

We need a table large enough to hold a few books, magazines and a reading lamp. A table rather plain in type, and so built that there will be no danger of children upsetting it.

Bookcases, either portable or built in, should be part of this room's furnishing—their shelves filled with the best books of interest to each of the family members.

A piano, and perhaps a victrola, are necessary for this living room, for music uplifts and inspires and will create a bond of sympathy between all members of the family.

The color for a living room preferably should be an unobtrusive one, and one that will not soon become uninteresting. Tones of brown, or green, or rich old rose are safe and pretty for this room, which will be occupied so much of the time.

Few pictures and ornaments are needed. Better have a few good ones than a dazzling number of these. One or two good pictures of meaning and truth upon the walls will be more attractive and useful in the room than a number of small ones of inferior study. Pictures, like books, are silent teachers in the home and may have a subtle and refining influence upon the family. Choose them with this thought and aim in mind.

Winter Goodies.

It is a wise housekeeper who converts part of the summer fruits into winter "goodies" to fill the call for candy or "rush order" desserts. Fruit paste so common in the tropics is little known in America. Old-time Virginia housekeepers put up peach and damson "leather," a similar product.

These pastes make a delightful dessert served with cream cheese or nuts. They can be used to garnish cakes, custards and platters of cold meat or eaten as a candy.

Fruit paste is made by boiling down fruit pulp, adding sugar, and drying out slightly:

Peach Paste.—Cook peaches tender and rub through colander after draining off juice (this can be bottled and used as a fruit sirup). Allow one-half pound of sugar to one pound of fruit. Cook over slow fire till very thick. Pour paste out in thin sheet on flat dish or marble slab which has been rubbed over slightly with salad oil. Place in sun or draft for two days, covered to protect from insects. It should be dry enough not to be sticky, but by no means hard or leathery. Cut paste in fancy figures or in any way desired, place on wax paper, sprinkle with granulated sugar, stand in draft two days more. To store, dip again in granulated sugar and pack in boxes or jars like candy with layers of paper between.

Damson Plum Leather.—"Damson leather," as it is known in Virginia, is made without straining, the skins left in dried as above. The sheet of leather is then sprinkled with granulated sugar, rolled like a jelly roll, and cut into slices. Dip these slices in granulated sugar and pack in jar.

Apple Conserve.—One pound apples to three-fourths pound sugar and one-half pint water. Simmer apples, quartered and peeled, in sirup till clear. Dry in sun till no longer sticky. Roll in granulated sugar and pack in tin boxes or glass jars, in layers with wax paper.

Damson Plum Conserve.—Four pounds plums, three pounds sugar, one pound shelled nuts, two oranges, one pound raisins. Remove the seeds and chop the plums. Peel the oranges and slice thinly one-half of the peel. Discard the other peel and the seeds. Mix chopped plums, orange pulp, sliced peel, sugar and raisins. Cook all together rapidly until bright and thick as jam. Add nuts five minutes before removing from the fire. Remove from fire, cool, and pack into jars.

Fancy Variations.—These are only a few suggestions; there are endless varieties and combinations that can be worked out with these pastes. Use different fruits or pastes, dry partly, and arrange in layers like layer cake. Or vary the layers by adding finely cut citron, candied peel or blanched nuts. With apple pastes different colorings and flavors can be used. Where fruit is abundant, fancy packages of these pastes might be put up for Christmas presents or church bazaars.

Inexpensive Dress Form.

To the Editor:—As I am a reader of your good paper and like to "help the other fellow" when I can I will reply to "Subscriber," who wishes to know about a dress form.

I have been a dressmaker for many years and used different kinds of forms. I am now on the farm, having recently moved from down "south in Dixie." To make an inexpensive dress form get a body form such as merchants use for displaying waists. Get a medium size, say thirty-six-inch bust measure. It should cost about 75 cents. Have someone who is handy with carpenter's tools make a pedestal about thirty-one inches high when finished. Attach this to the bottom of form. At the lower end of pedestal put two crosspieces and on the four ends fasten casters. When finished it should measure, from waist line to floor, about the medium skirt length. When the carpenter work is done, make a plain waist of muslin (or clean flour sacks will do). Fit the muslin waist to yourself, then put it on the form and fill out all looseness with cotton, straw or excelsior. Then put on a discarded petticoat or dress or skirt and you have your form ready to use.

I have in mind a sewing stunt that may be helpful. When sowing seams that need to be stayed, use a loosely twisted cord instead of a strip of goods. I always use old-fashioned "tidy cotton," the coarsest number, No. 8. It spreads as the needle goes through and does not show through thin material. It presses flat so the seam is smooth. The strip of goods makes the seam heavy.

I hope my letter may help someone, because I may want to come again seeking advice about farmer housekeeping. Mrs. H.

Brussels Sprouts.

To the Editor:—I am a stenographer in the city of Cincinnati, Ohio, and, having had a few spare minutes, I picked up your magazine and saw the inquiry of Mrs. J. C. M. regarding Brussels sprouts, and since I know how mother fixes them I thought perhaps I might be able to help her out in this.

Of course, you must wash them off and see that no worms are on them. Leave them whole and boil them just as you do cabbage. When they are well cooked you can make a cream or butter sauce for them. I am sorry that I cannot answer the rest of Mrs. J. C. M.'s questions, but hope that this one will help her. Let me assure you that I think Brussels sprouts cooked in this way are delicious. They are rather expensive up here and we don't have them very often. So if you can have them often I sure do envy you.

Did you ever try using the stems of cauliflower as a salad? Just cut them up in squares and boil until soft. Then make any kind of dressing for them. This is good, and saving as well.

Helene Tuxworth.

Would Not Be Without Dress Form.

To the Editor:—I have been a silent reader of the Home page for some time and enjoy it very much. I would like to tell the subscriber who wanted to know about dress forms that I have had one for over a year. I like it very much; in fact, I would not be without one now. My dress form is adjustable. There are a great many people who do not like a non-adjustable dress form and there are also people who do not like the adjustable ones. If one makes the right selection in buying a dress form I am sure she will be as pleased as I was the first dress I made on mine. Mabel.

Recipes.

Chocolate Pudding.—One pint milk, two eggs, one-fourth cupful fine, dry bread crumbs, one and one-half squares chocolate, scant half cupful sugar, one-eighth teaspoonful salt, eight baked apples, one egg white, one tablespoonful sugar. Soak the crumbs in the milk for thirty minutes and then add the chocolate and scald. When the latter is melted, add the sugar and salt, and pour onto the eggs, which should be slightly beaten, and cook for fifteen minutes in a double boiler. For the top dressing, sift the apples and beat the egg white stiff. Add to the latter the apple pulp and the tablespoonful of sugar, and beat together until fluffy; heap over the pudding and serve very cold with or without cream. A few drops of vanilla may be added to the chocolate custard if desired.

Corn Fritters With Whole Wheat Flour.—Two cupfuls whole ground wheat flour, three teaspoonfuls baking powder, one teaspoonful salt, one and one-half cupfuls cooked corn cut off the cob, one and one-fourth cupfuls cold water, one teaspoonful shortening. Mix the flour unsifted, baking powder and salt thoroughly together, add the corn, and the cold water gradually to form a drop batter. Stir in the shortening melted. Drop by spoonfuls into fat heated very hot. Drain on paper.

Potato and Onion Omelet.—Season a quart of mashed potato with three tablespoonfuls of bacon fat, a teaspoonful of salt, a little pepper, and a half cup of hot milk. Add two cups of boiled onions, chopped fine, and beat until light, then spread smoothly in a frying pan containing two tablespoonfuls of bacon fat and cook until well browned. Fold and turn on a hot platter.

Fruit Puffs.—One pint of flour, two teaspoonfuls of baking powder and one-half teaspoonful of salt. Sift all together, then rub in one tablespoonful of shortening and stir in enough sweet milk to form a thick batter. Put a tablespoonful of this batter into buttered cups until one-half of the batter is used. Place on it any kind of fruit, fresh or canned, put a spoonful of batter on top and steam for twenty minutes. Serve with sugar and cream or with a sauce made of the fruit juice.—Delia.

THE YOUNG FOLKS

Bess, the Milkmaid.

Dear Young Folks:—I am a great story teller and I am going to tell you the story about Bess, the milkmaid. You have all heard the old saying, "Don't count your chickens before they are hatched." Well, that is what this story is about.

Once there was a little girl named Bess who worked on a farm. One day her master gave her a pail of milk and she put it on her head and started to market to sell it.

On the way to market she thought what she could buy when she sold the milk. She said to herself that she could buy some eggs and a chicken and then the chicken could hatch the eggs. She would sell the chickens and buy a new hat, a dress and a jacket. "And then," she said, "I can go to the fair and look as fine as anyone in my new clothes. Baxter will come to meet me, but I will just put up my head, like this—" and she put up her head and down came the pailful of milk and spilled on the ground.

So she lost her new hat and dress and jacket, and she went home crying and saying to herself "Don't count your chickens before they are hatched."

Agnes.

A Little Traveler.

Dear Young Folks:—This is my second letter to the Young Folks' page. I enjoy reading the letters very much. I am visiting in Wisconsin now, but my home is in Iowa.

I am on a farm of 240 acres. We have eight horses, forty-three head of cattle and twenty-two sheep. We have thirteen lambs and they are awfully cute. One of our horses is twenty-nine years old and we still use her.

I have been across the Mississippi river eight times and across the Missouri twice. I went to Colorado Springs two years ago. We visited in Manitou and I tasted the iron and soda water while there and, oh, it was very bitter. My sister graduated from college in Colorado Springs that year and I went to the commencement.

I have three canaries, four cats, three goldfish and a dog for pets. I have a cow, also.

I can crochet and tat, but I have done very little this summer. We take sewing at school and once every year we have an exhibition of our work.

We girls play basketball at school. We enjoy playing tennis and croquet, also.

I send my best regards to the Young Folks. Betty.

Has a Playhouse.

Dear Young Folks:—I live on a 320-acre farm nine miles from town. I am twelve years old and in the eighth grade. I have three brothers and four sisters. We have two miles to go to school, but we drive an old horse and it does not seem far.

We have had a lot of fun through the vacation. We have a playhouse and we have a good time in it. We have two small puppies and we put them in a doll buggy and they go to sleep.

I like to go to school and I expect to graduate in the spring. Mary.

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Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

1950—A new ladies shirt waist. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¼ yards of 44-inch material for a 36-inch size.

2225—Ladies dress. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 6⅛ yards of 44-inch material. The dress measures about 2⅞ yards at the lower edge, with plaits drawn out.

2210—A dainty dressing sack. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires for a 38-inch size 3⅜ yards of 36-inch material.

1987—Ladies' house gown or negligee. The sleeve is finished at elbow length, with a shaped cuff. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 7 yards of 44-inch material for a 38-inch size.

2209—Girls' dress. Cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 12 requires 4½ yards of 44-inch material.

2015—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 4¼ yards of 44-inch material for a 10-year size.

2198—A jaunty dress. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. Size 10 will require 4¾ yards of 36-inch material.

2207—An ideal work dress. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires for a medium size, 6¾ yards of 44-inch material.

1967—Ladies' comination corset cover and drawers. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards of 36-inch material for a medium size.

1806—A simple, natty suit for mother's boy. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 2¾ yards of 44-inch material for a 4-year size.

1823—Girls' dress, with sleeve in either of two lengths, and with round or square neck outline. Pattern is cut in 4 sizes: 1, 2, 4 and 5 years. It requires 2⅜ yards of 44-inch material for a 4-year size.

1883—A good, sensible ladies' apron. Pattern is cut in 3 sizes: Small, medium and large. It requires 4¾ yards of 36-inch material for a medium size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for September 9, 1917.

Benefits of Total Abstinence.

LESSON TEXT—Daniel 1.

GOLDEN TEXT—But Daniel purposed in his heart that he would not defile himself with the portion of the king's meat, nor with the wine which he drank.—Daniel 1:8.

The book of Daniel, with the great prophecies, fulfilled and unfulfilled, is one of the most interesting and important in the Bible. Without a grasp of the prophecies of this book it is absolutely impossible for one to know the New Testament and the times in which we live. Daniel gives an outline of the entire period of time from the passing of supremacy to the Gentiles in Nebuchadnezzar to the final overthrow of the Gentile dominion, to the establishment of the millennial kingdom. The course, character and end of Gentile dominion are given. It is that period known in Scriptures as the "times of the Gentiles" (Luke 21:24).

The book of Daniel falls into two parts: Part I (chapters 1 to 6), in which the prophet appears as the divinely chosen interpreter of dreams; part II (chapters 7 to 12), in which the prophet appears as the mouthpiece of God, setting forth in visions, not dreams, the times of the Gentiles. The book is written in two languages, Hebrew and Aramaic—chapter 1:1-2.3 and chapters 8 to 12 (Hebrew); chapters 3:4-7:28 (Aramaic). The part which concerns the Hebrews was written in their own tongue and the part which concerns the empires of the world is written in their tongue

I. Daniel's Home Leaving (vv. 1-4). He was carried away to Babylon by Nebuchadnezzar in the first siege of Jerusalem. This was a great trial for his own heart. He seems to have been about fourteen years of age.

II. Daniel's Trials and Difficulties (vv. 5-13). It was the custom for the best of the captives to be selected and trained for service in the land of captivity. They usually selected those of the royal house for such training.

1. Change of name. Among the Hebrews names were given to children, which were significant. Daniel means "God is my Judge." The significance of the name then was that all problems of life were submitted to God for decision. This was the secret of Daniel's life. This purpose of his parents seems to have been instilled into his very life and being. So thoroughly did he imbibe this spirit that in all things he made God arbiter of his plans and purposes. The object no doubt in the change of name was to obliterate his national and religious connection and identify him with the heathen people. The king of Babylon evidently liked Daniel's appearance and scholarship, but was averse to his religion. It is the same today. Nations and individuals are perfectly willing to recognize and utilize the scholarship and efficiency of Christian ministers and missionaries, but are not willing to embrace their religion.

2. His conscience tested (vv. 5-8). It was with reference to the king's meat and the king's wines. It is ever to be borne in mind that conscience is the groundwork of human character. It is the law which must be followed. No doubt Daniel was taunted and laughed at for his fidelity, just as all men and women today who are loyal to their convictions must experience, for all who will live godly in Christ Jesus shall suffer persecution.

3. His religious life. This involved his refusal to eat meat and drink wine which was contrary to his teaching. Also it involved his praying three times a day.

III. His Success (vv. 14-21). 1. Physical health (v. 15).

Godly and temperate living pays. The king's meat and wine would have been pleasant to the palate, but would have meant compromise of conscience.

2. Mental growth (v. 20). He was ten times superior to his comrades. It is always true that those who abstain from indulgence in the use of wine have clearer minds and are mentally better equipped for their work than those who indulge.

3. Social. Daniel stood before the king. No higher position of honor could have been given him.

4. Temporal. He became president of The College of Wise Men and prime minister of the nation. This position he continued to hold through several dynasties.

5. Spiritual (v. 17) Because of Daniel's loyalty to God, Nebuchadnezzar's dream was revealed to him and he was giving visions sketching the whole history of the world.

IV. The Secret of His Success. The following may be set down as the things which made Daniel successful:

1. He was conscientious. If we would succeed in the world, let us see to it that in all things we live in good conscience.

2. Loyalty to God. He made God the judge of everything that pertained to his life. No pleasure was indulged in or problem disposed of without its submission to God.

3. Decision of Character. With him that which had been submitted to God and was shown to be right before God, was the law of his life.

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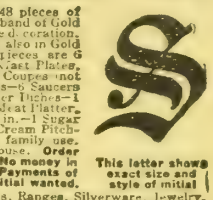

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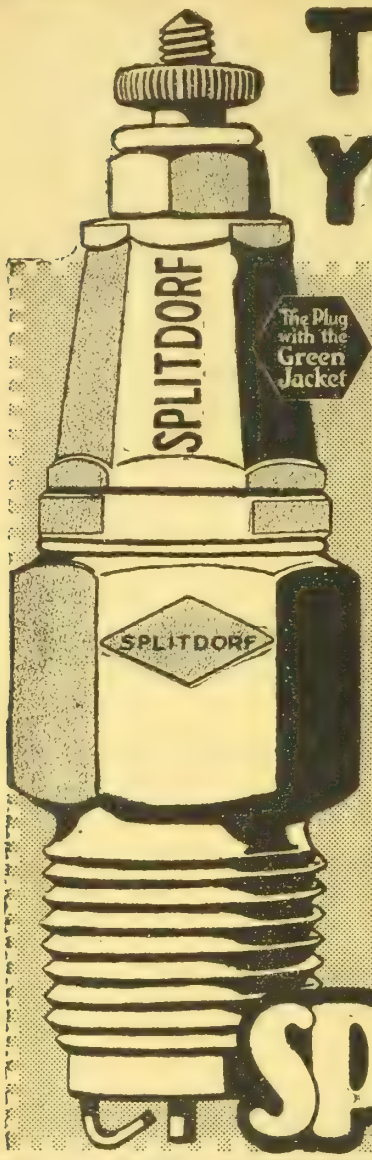

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You probably need a mixer for concreting on your place—most farmers do. The Sheldon is the ideal mixer for the farm. Light and easily portable, durable, low-priced. You'll find it will prove a mighty good investment. Write for special offer.

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Tells how to build your own mixer by using the *Free Plans* which we send with our iron parts. Also shows full line of built up machines. Two styles, hand and power. Will mix 2 1-2 cu ft. a minute. Keeps 1 to 6 men busy. Chain drive, self-tilting dump, all parts guaranteed. Write today for catalog and special offer. Geo. C. Sheldon, Pres.

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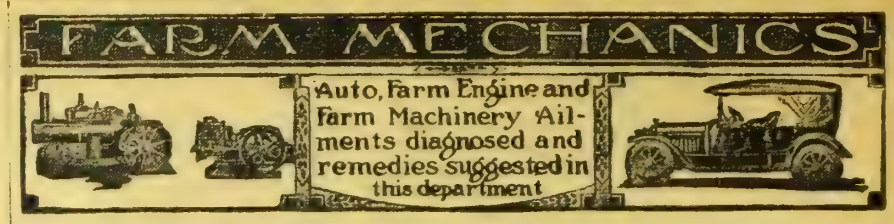

Tractor Repair Service.

At a meeting held at Fremont, Nebraska, during the tractor demonstrations, many letters were read from farmers all over the Middle West, describing their success or difficulties with various tractors. While the general tone of the letters was favorable, it was nevertheless clearly brought out that the tractor used may suffer serious loss due to a breakdown in the middle of the plowing season, and that a well-organized repair service must be developed by the manufacturer before he can entirely satisfy his customers. The success of the Ford, the Overland and other well-known makes of automobiles has been due in a great measure to the ease with which the owners can obtain repair parts, and the same rule will doubtless hold good when it comes to tractors. The company with a large number of branch houses carrying a complete line of repairs will have an immense advantage over the firm that is not in a position to furnish repairs quickly. And, regardless of how well constructed a tractor may be, repairs will be necessary sooner or later. It is only a question of whether the farmer can phone in to his dealer and have his tractor running next day, or wait a week during the busy season while the dealer writes to the factory for a spare part, which the factory is in no hurry about sending. Every dealer should carry all the usual repair parts, and any part whatever should be obtainable on twenty-four hours' notice. The farmer should insist on this when buying his tractor. He should not only consider the tractor itself, but he should also consider the ability of the company to keep him going. It is going to be considerably up to the farmer as to what service he gets, and he should go after this point strong.

The letters referred to above also brought out another point well worth considering. In one case where the tractor had been a dismal failure so far as the plowing season was concerned, due to a breakdown, the owner appeared to still be well satisfied with his machine. The manufacturer of his machine had given him such prompt and courteous attention that he was well satisfied and willing to give the machine another trial. A little courtesy on the part of both the dealer and the farmer will be a great aid in developing the tractor. The maker and dealer need the farmer's help to improve the design; the farmer needs the coöperation of dealer and maker in order to get the most out of the machine. The farmer who goes up in the air and threatens to sue for damages the first time anything goes wrong is at best a poor loser. Yet all manufacturers are hampered to some extent by this class of trade. The thing to do is to all pull together; and if the tractor has not yet reached perfection, help put it there.

Questions and Answers.

Motor Overheats.

I have a Chevrolet light six car, 1915 model. I am having trouble with it overheating on drives of forty to fifty miles, driving at the rate of twenty to twenty-five miles per hour. It has no water-circulating pump. Is it practical to put one on? Will it help? I get from ten to twelve miles on a gallon of gasoline. Could I do better if the motor would not run so hot?

Answer.—It is possible that you are running on too rich a mixture, which would account for your large fuel consumption and also the overheating. This would also be indicated by a sooty smoke coming from the exhaust; and if you were to remove the exhaust pipe and allow the engine to exhaust into the air the flame will be red if you are using too much gas and blue if the mixture is correct. Running with the spark too far retarded, or with a loose fan belt, will also cause overheating. Wash out the radiator and see that the cylinder water jackets are not filled with mud and lime. It would be practical to install a water pump, but it should not be needed and a pump is more or less a source of trouble, especially in winter, when it is almost sure to freeze.

Power for Arc Lamp.

How strong a generator is required to run an arc light in a moving picture machine? Would an 800-candlepower gasoline light be strong enough? How many candlepower is an arc light?

Answer.—An ordinary arc light is about 375 candle power, and consumes about one-half kilowatt of electrical power. We have never heard of a gasoline light being used for a motion

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picture machine. For portable outfits where electricity is not available a calcium light is generally used. This light is produced by heating a calcium oxide bar—a substance that is almost pure lime—to a brilliant white heat by the flame of an oxyhydrogen blowpipe. The oxygen and hydrogen are purchased in steel tanks.

Rings Leak.

I have a 1914 Model Buick car, B36. The compression seems to be getting low, as it does not pick up readily. I want to put in "leak-proof" piston rings. Should I put more than one to the piston? If only one ring is used, in what groove should it be placed? What size piston rings does this engine require? How can I grind the valves of a Buick motor? Is there any way to tell if the piston rings are worn out without taking the cylinders off?

Answer.—You can tell whether your rings leak or not by removing the breather pipe from the crank case and listening while someone cranks the motor over, placing your ear close to the opening. If the rings leak seriously you can hear the compression blow through. To test for leaky exhaust valves, remove the exhaust manifold, place the ear near the exhaust port and have someone crank the motor, making sure that the spark is off so that the motor cannot fire. The intake valves may be tested in the same manner.

The surest way to remove carbon is to take the cylinders off and scrape the carbon out. Many garages are now equipped with apparatus for burning carbon out without removing the cylinders. Considerable carbon may be removed by putting a tablespoonful of kerosene in each cylinder when the motor is to stand idle for several days. The kerosene will loosen the carbon and it may then be blown out by accelerating the motor rapidly a few times.

To grind the valves remove the valve cage from the cylinder and then remove the valve from the cage. Clean the carbon off the valve and valve cage. Put some valve-grinding compound, thinned with oil so that it will run slightly, on the valve seat. A good grinding compound is made by mixing emery flour and oil. Rotate the valve on the seat, using a very light pressure and only turning the valve about a quarter of a turn back and forth. Lift the valve from the seat every few turns. A valve can be ground in about ten minutes unless it is in very bad condition. To test the grinding of the valve, make fine chalk marks all around the seat crosswise of the seat. Place the valve in the cage and very slightly rotate it, using a little pressure. If the valve is perfectly ground all the chalk marks will be rubbed off.

When replacing rings it is best to replace all the rings on the piston. As old cylinders are generally more or less worn it is best to determine the size as follows: File a stiff iron wire, not less than one-eighth of an inch in diameter, pointed on the ends, the point being about one-sixteenth of an inch in diameter. File it to an exact length so that it just touches both walls of the cylinder when placed in the cylinder crosswise. Send this gauge to the dealer and order rings for a cylinder of that diameter. Less than half a thousandth part of an inch can easily be detected by such a gauge.

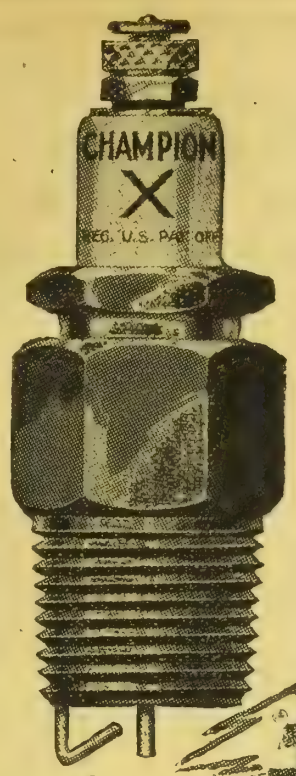
How to Solder.

Please tell me how to properly tin a soldering iron; also how to solder successfully as a beginner.

Answer.—Properly tinning the iron is the first step toward successful soldering. To do this, file the point of the iron where you wish to tin it nice and smooth. Obtain a piece of tin about six inches square and bend it V-shape. In the bottom of the V, put some solder and sal ammoniac. Heat the iron in a clean fire, such as the blue flame of a gasoline torch or a coke or charcoal fire. It should be heated just hot enough to melt solder easily, as too high a heat will prevent the tin from sticking. Then rub the hot iron in the tin and sal ammoniac and the tin will stick to the iron nicely. When heating the iron to solder, be careful not to heat the iron too hot. As soon as the tinning on the point of the iron begins to turn blue, the iron should be removed from the fire. The iron should be kept hot enough to melt the solder easily, though, as a cold iron makes a rough job.

The success or failure of soldering depends to a great extent upon how the surfaces to be soldered are prepared. They should be scraped or polished bright, as solder will not stick to dirty, rusty surfaces. Then the surfaces should be given a wash with soldering fluid, and, if practical, heated to near the melting point of solder, after which apply the solder, rubbing it on the surfaces with the hot soldering iron. If the solder is inclined not to stick, apply a little more soldering fluid to the joint with a small, stiff brush. One of the best soldering fluids is made by dissolving as much zinc as possible in muriatic acid. While the zinc is dissolving, a gas is given off that is explosive if ignited. A prepared soldering paste may be purchased if desired. As a rule, better results can be obtained from the above soldering fluid than from the paste.

If the soldering iron becomes overheated, the tinning can often be saved by dipping the iron in cold water. The wire form of solder is the more convenient, but is more expensive than the stick solder. A good solder for iron, tin and copper plates is half tin and half lead. Aluminum cannot be soldered with ordinary solder. A special aluminum solder is required, and it must be handled in a manner very different from ordinary solder. To solder cast iron, brighten and clean the surface carefully, wash it with a solution of blue vitriol, which will give it a light copper plate; then heat quite warm and apply the solder.



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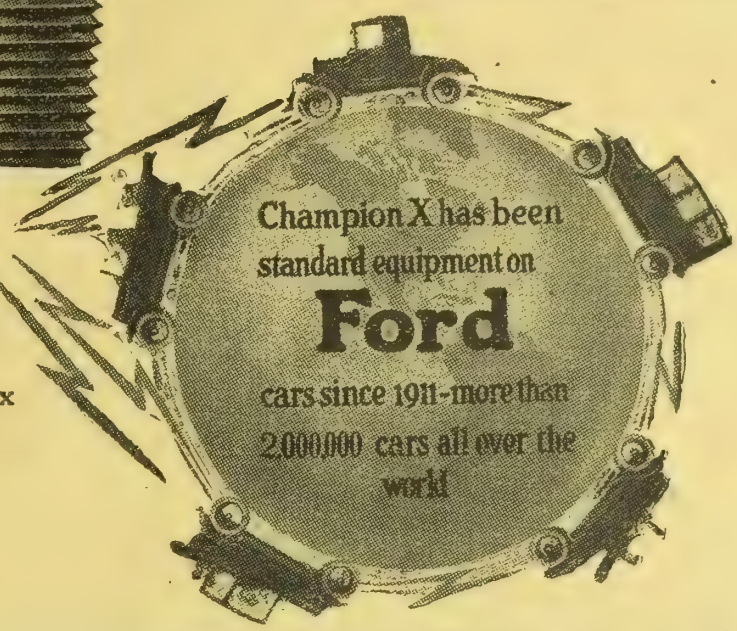

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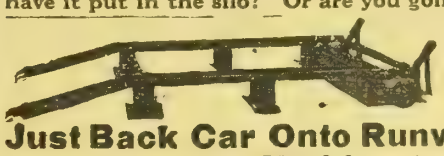

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The Auto Utilizer will cut your corn and blow it up into your silo just as fast as you can get it fed into the filler. It enables you to fill your silo the right way—cut as the corn is ready, fill a few feet, let it settle and then fill some more. With it you can meet every power requirement on your farm.

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Make Your Ford Do Your Gas Engine Work—

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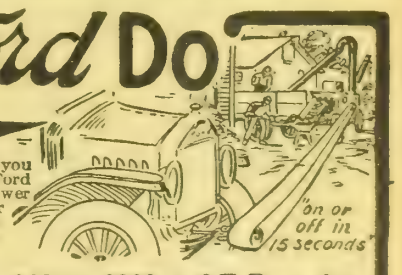

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Collected by Representatives of The Wisconsin Farmer

Attention, Swine Breeders.

NO doubt most of the pure-bred swine breeders of the state will be at the state fair for at least one day, and if it is only possible to be away from home one day, let that day be Wednesday. On Wednesday night at eight o'clock during fair week a joint meeting of the different swine breed associations will be held in the swine pavilion and it is important that as many breeders as possible be present at that time. The motive of this meeting is to talk over the feasibility of holding swine sales at Madison during the coming winter and to decide on a date that would be satisfactory to all concerned. If you find it impossible to attend this meeting, tell some of your neighbors or fellow breeders your disposition in the matter. If you are in favor of a combination sale, similar to the one held at Madison last winter, and you cannot be present write the secretary of your state association and let him know that he can depend on your cooperation and also advise him how many sows you wish to consign to the sale. This will help materially toward the success of this meeting. The average breeder in the state does not appreciate the amount of work that falls on the secretary, of an association of this kind. He has accounts to keep, collect dues—and, by the way, it is some job to get this small sum from many of the breeders. He has many letters to write in answer to information wanted from young breeders. In fact there are a hundred other "little" things that he must attend to. You breeders don't think much about this, but the secretary's time is just as valuable as yours, yet he does all this extra work for the good of the breed, and without any pay. If he makes one little error he gets censored for it, but no doubt he has written some of the men reading this article many letters asking for information, and you have not even showed the courtesy of a prompt reply. Do your part and we are sure the secretaries of the various swine breed associations will do theirs. —Adv.

Breeding Hampshires for Sale.

DELLBROOK FARM, Richland Center, Wis., is offering for sale a fine lot of breeding Hampshires, which will please the most particular buyer. The Dellbrook herd comprises more than 200 head with the following well-known boars: Dellbrook Lad, Messenger Boy and Progressive Kidd. The latter boar was reserve grand champion at the 1916 fairs. Leading boars of the breed are named in the breeding of the sows, so that the highest quality is maintained in the herd throughout. Hampshires are recognized as economical pork producers on pasture and should be particularly valuable at this time when grain prices rule high. If you want a good purchase and a square deal write at once for prices and descriptions, addressing Mr. A. L. Damon, of Dellbrook Farm, Richland Center, Wis., and mentioning The Wisconsin Farmer. See advertisement on page 22.—Adv.

Big Type Jim.

THE above is the name of the Poland China boar pig that was first in class and first in the futurity at Wisconsin and he was "some boar." O. C. Olson, Strum, Wis., bought this boar at a good figure last fall and although he was unfortunate in losing this boar this spring, Mr. Olson was fortunate in getting a fine lot of pigs sired by him. In all he has around 100 head of pigs farrowed in March and April. He has six litters sired by Big Type Jim, out of daughters of Mc's Chief, the grand champion Poland China boar of Wisconsin in 1916. He also has a good litter by the good boar, Model Major 2d. Olson also has 16 sows bred to farrow this fall. If you want some good spring pigs write O. C. Olson and he will try hard to send you a boar or a gilt that will please you. Please mention The Wisconsin Farmer when writing. See page 23.—Adv.

R. C. Church, Elkhorn, Wis.

WE believe that R. C. Church has the largest yearling Duroc boar in the state if he had been fitted. He is sired by Great Chief, that in turn was a son of Cherry Chief, one of the greatest sires of recent years. This boar has wonderful underpinning, a fine arched back and plenty of stretch. He is a real 1,000-pound prospect. The cry now is for big types and this boar should certainly increase the size of any herd. His pigs show that they will be big and if you want that kind get in touch with the above breeder at once before the tops are all sold. When writing mention The Wisconsin Farmer. See page 23.—Adv.

Wm. Hauk, Cassville, Wis.

WE were pleasantly surprised when we saw the Poland China hogs that Wm. Hauk has raised this spring. He raised about 50 head and he has sorted out a dozen boars and the same number of gilts that are suitable to ship on mail orders and we are glad to say, that they should give satisfaction. The pigs are sired by Hauk's Orange, a son of Mc's Big Orange, and one litter by Matchless Wonder. Their dams are sired by Monster Big Bone and Wisconsin King. We recently made a trip among the breeders of Grant county and will say that Wm. Hauk's pigs are good in every respect. His price is certainly very reasonable—write him. See page 23.—Adv.

Secures Great Holstein Bull.

KIRKPATRICK BROS., Reedsburg, Wis., have recently added to their Holstein herd the good bull, Senator Johanna White, and he is a wonderful individual. He is out of a 31-pound dam with a yearly record of 1,146-pounds. This bull will be used on the daughters of King Pontiac Korndyke Champion, which is a son of a 31-pound son of King or the Pontiacs. This should make a good cross and should help this good herd materially. Owing to the fact that they have so many daughters of the last-mentioned bull in the herd, they cannot use him to advantage any longer and he is being offered for sale at a very reasonable figure. Investigate this good breeding bull. If you want some choice cows with A. R. O. records write for information relative to the cows this firm has for sale. They are bred to Senator Johanna and will calve this fall. They are good cows and are being sold for no fault. Their price is from $175 to $200 and they will certainly please the man that sees them. They will weigh 1,500 pounds or more and if this is the kind of registered Holsteins you are looking for, this firm can fill your order to your satisfaction. A part of the herd was on exhibition at the Dane County Fair where they won several firsts and also had the grand champion bull. Their herd will be on exhibition at Watertown and Milwaukee. Make it a point to see this firm or communicate with them. Don't forget to mention The Wisconsin Farmer. See page 21.—Adv.

Frost's O. I. C. Hogs.

WHEN S. D. & B. H. Frost, Kingston, Mo., succeeded their father in breeding O. I. C. hogs they started with a foundation well laid by one of the breed's foremost breeders. At the World's Fair held at St. Louis, they showed Jackson Chief, a boar bred by their father, winning grand champion. In 1913 and 1914 they showed at various state fairs, winning 86 ribbons, including several grand champion prizes. Gage's Leader headed the show herd and was returned a champion. Triumph was shown in 1914 and returned a grand champion. Other champions that have done service in the herd were O. K. Mikado II, and Mitchell 37750. They also showed the under year champion sow, Bridget III, and have six of her daughters in their herd also descendants of all their show boars. Leader, by Gage's Leader, is retained. Very few such mellow-fleshed boars are found and best of all he sires that kind. A Combination-Wonder bred boar that promises to make a half-ton boar is also in service. He, too, is a good one. The 30 spring pigs left in the herd are by these boars. There are good ones among them, boars and gilts. About 100 summer pigs are doing fine and as many more are due soon. The spring pigs and summer and fall pigs are being priced right. See page 22 for their advertisement and do not delay placing your order if you want some of these good O. I. C. hogs.—Adv.

Hampshires and Shropshires—W. F. Renk & Son.

W. F. RENK, Sun Prairie, Wis., is one of the real sheep men of the state and he has one of the best herds in the state. He has a breeding herd and does not make a practice of going out each year and buying his show sheep. He has a winning herd and his winnings have been made on sheep of his own breeding. The fact that Mr. Renk has been selected to judge the Shropshires at the Chicago International next winter speaks very highly for him as a judge of sheep. Just at this time he is offering for sale Hampshire and Shropshire yearlings and ram lambs. Individually they are suitable to head the best of pure-bred flocks. If you are interested in either of the above breeds you will be interested in what W. F. Renk & Son can tell you about their flocks. Sun Prairie is located near Madison. Write them at once for prices and description of the rams they have for sale. Note their advertisement that appears on page 21 of this issue.—Adv.

Guernseys and Durocs a Good Combination.

ALLIC S. KNUDSON, Brodhead, Wis., is well known as a breeder of Guernsey cattle and Duroc Jersey swine. Just now he offers some excellent yearling bulls from A. R. dams and by A. R. sires, that will please the most critical. In Durocs he will sell boars or gilts at a reasonable figure if taken at once. In a later issue we will have more to say about this herd, breeding, etc., but in the meantime you can write Mr. Knudson and he will go into details about the breeding and individuality. See page 23.—Adv.

The Old-Fashioned Spotted Polands.

THE exhibits of Spotted Poland China swine being made at the leading state fairs this fall is attracting much attention. The annual association fall sales will be held this year at Crawfordsville, Ind., October 19th and Kalona, Iowa, October 29th. Comprehensive literature regarding the Spotted Polands can be secured by addressing the association secretary, Fred L. Obenchain, Bainbridge, Ind. Kindly mention this paper when writing. See page 23. —Adv.

The Great E. C. Schroeder Herd.

A DAY on the E. C. Schroeder farm recently gave us another opportunity of viewing a remarkable long-distance record work which is in progress at this farm. It is commonly known that the E. C. Schroeder establishment scarcely has an equal when it comes to size, individuality, breeding and seven and thirty-day records, and semiofficial yearly work. While looking over the herd, we were shown a number of splendid cows which were the dams of bulls heading herds in the state of Wisconsin. It will be remembered that Mr. Erickson has a son of Spring Brook Bess Burke 2d, a 38-pound cow, that is also the dam of King of the Ormsbys, a young bull sold last year to the Alamuchy Farms, New Jersey, for $10,000. Such noted herds as Wm. J. Gillette, Rosendale, Wis.; J. J. Reid & Son, Oconomowoc; Mrs. Maria Gunderson & Sons, Oconomowoc; George Schuster, Mukwonago; Charles Wlil, Menomonee Falls; W. H. Reed, Palmyra; all have sires from this noted herd, as well as many minor herds throughout the state. The most sensational animal at the Schroeder farm at present is a four-month-old calf out of a two-year-old daughter of Spring Brook Burke 2d; this calf is sired by John Irwin's noted herd sire, which gives ths young animal the strongest possible backing, including great seven-day work, semiofficial yearly backing that cannot be equaled, as well as size and individuality that is of the very best. The dam of this calf is, in our estimation, the best animal Mr. Schroeder has ever bred and is unquestionably the finest two year old we have ever had the opportunity of inspecting. When you remember the phenomenal record of the E. C. Schroeder farm in the show ring in the fall of 1914, you can form some conception of the quality of the dam of this calf. —Adv.

Who Wants Hampshires?

FOR the benefit of those interested in Hampshire swine, we wish to call your attention to the advertisement of A. L. Damon, Richland Center, Wis., that appears in this issue. Mr. Damon has, we think, the largest herd of this breed in the state and it is made up of the most popular blood lines known to the Hampshire breed. For instance the herd boar, Dellbrook Lad, is sired by Messenger Boy, said to be the greatest show and breeding boar the breed has ever produced. Mr. Damon has pigs for sale sired by Dellbrook Lad. Progressive Kid is a son of Mose Messenger, a boar that was a grand champion wherever shown last year. Some choice pigs in this herd are sired by Progressive Kid. The sows in the herd are by such boars as Bunn's Pattern, a grand-champion boar of note. Messenger Boy and Cherokee Lad are second to none as sires as well as Cherokee Pattern. This is a wonderful array of breeding and if you want to buy a trio of pigs you can get the right start from this breeder. If you want a few good sows that will farrow within the next months, write for information. Mr. Damon had some 200 spring pigs and f you want Hampshires, Damon is the man to buy from. Mention this paper when writing. See page 22.—Adv.

J. H. Williams, Waukesha, Wisconsin.

WE learned the other morning while looking over Mr. Williams' herd that he has decided to sell several of his most promising young cows. We, therefore, recommend these animals to breeders who are looking for something exceptional. They are the kind which should be used for foundation purposes, as they are from high-producing dams and possess superior individuality. It will be remembered that Mr. Williams gave a splendid account of himself at the fairs a few years ago and he made the statement that the animals previously referred to are as good individuals as he ever bred. We are confident that if they were shown this fall that it would take something extraordinary to defeat them. Two of these heifers are by his noted May Rose bull, Rata's King of the May. Mr. Williams has a good number of his daughters in the herd and is so well pleased with this particular strain that he wishes to continue in the same line of breeding in order to increase the standard of his herd. Breeders looking for something out of the ordinary would do well to get in touch with Mr. Jones concerning these great heifers. —Adv.

Fred G. Matthes, Viola, Wis.

IN Durocs the above breeder will ship you boars and gilts that he guarantees to please you. He has a good litter by Pathfinder 2d, a son of Pathfinder, and out of a Lee's Defender-Marion's Wonder dam. Two litters are sired by a son of Cherry Chief's Wonder, the sire of Tommy Doyle. Their dam is by Cook's Defender. Another litter is by King the Col. Again by King the Col. Matthes will describe his pigs just as they are and he will guarantee you will find them just as represented. See page 23.—Adv.

Grahamholm Holsteins, Rochester, Minn.

WHILE visiting the Grahamholm herd recently we were entertained most courteously by Mr. Boynton, who has had charge of this herd for many years. There are several things which impresses one very forcibly when looking over this herd. First, is the good judgment used in selecting herd sires. Another is the splendid condition of the herd sires. Another is the splendid condition of the young stock in the herd. We have not had an opportunity of seeing calves in better condition any place than was witnessed at the Grahamholm farm. There are also a number of very outstanding cows in the herd which have much to do with the high quality of young stuff on the farm. The two herd sires which impressed us most were Sir Winana Beets Segis, a good individual son of King Segis, and the sire that is very prepotent, as shown by his offspring. And Segis Johanna Grahamholm, the noted show bull that was first-prize aged bull, senior and grand champion at the Minnesota State Fair in 1914. We believe that this bull is looking much better now than he did then, as he has developed more capacity and has well developed in splendid shape. It has been stated by an eminent judge that there is not a bull in the country today that could defeat him in the show ring. The cows that we noted with particular notice were Griselda Inka, a 28-pound cow, that is not only a high producer, but a very choice cow. Arcady Pontiac Nazli Mercedes, Barbetta Orleans De Kol and Skylark Ormsby Hengerveld, as well as Pauline Govers De Kol 2d, are animals that would claim attention in any herd. Mr. Boynton stated that they would sell a yearling son of Pauline Dovers De Kol 2d that has a 30-pound record and we are in a position to know that this young bull is practically a faultless individual and should claim the interest of breeders in a position to use such a sire.—Adv.

Note the Breeding in the Madson Herd.

WITH this issue those old reliable breeders of Poland Chinas, M. Madson & Sons, Madison, Wis., start their advertisement calling attention to their spring pigs that are now ready for shipment. The Madsons never had a crop of pigs sired by better big-type bred boars than they are offering this year. Big Pfander, the sire of some of the pigs is by King of Wonders, one of the best boars ever used in Iowa. Defender is by the good Minnesota sire and show boar, Choice Expansion, and the pigs by this boar are great and he is some boar himself. Big Bone Bob is by Big Ben one of the leading big boars in Illinois. Big Buster is by Big Carver. With this assortment prospective buyers should be able to choose a line of breeding that they most desire. Write them for any information you desire. They will sell boars or gilts. Don't forget to mention The Wisconsin Farmer. See page 23.—Adv.

Floyd Selck, Hanover, Wis.

THE above Duroc breeder showed a good litter of spring pigs at the Janesville Fair that were in the money and they were good in every respect. Mr. Selck has about 25 head of March and April gilts for sale. They are in nice condition and the price he asks is only a little over the present market price. The pigs are sired by King's Defender's Equal, he by the Wisconsin Champion, King Defender. Mr. Selck also has some sows in his herd by the same sire as King Defender. He also has a good sow of Chief's Col. breeding. One sow is out of the dam of King Defender, so you can see, that he has a champion line of breeding. He can't use his herd boar to advantage any longer and he is also for sale—here is a good boar for someone. Write this breeder for details and please mention this publication. See page 23.—Adv.

The Marquart Short-horns.

IT IS hardly necessary for us to say much about the Marquart Bros., of Milton Junction, Wis., as breeders of milking Short-horns. Anyone that is interested in this breed is acquainted with what these boys have done in the past few years. The fact that they now have a few bulls for sale is enough said. We only have to advise our readers that "Marquart offers milking bred bulls." Their reputation as breeders does the rest. They have recently purchased a bull in the East to use in their herd. He is sired by Duke of Clarence 3d by Oxford Record, a noted show and breeding bull in England. The dam, Daisy Joy 2d, was imported by H. E. Teuer, of New York, and is now in his wonderful herd. Get in touch with the Marquart Brothers and let them give you details about the young bulls they have for sale. See page 22.—Adv.

Chesters by the Hundred.

HARRY T. CRANDELL & SON, Cass City, Mich., has one of the largest Chester White herds in the country and it is headed by grand champion boars. Crandell has sold boars to head some

Feed the Fighters! Win the War!
Harvest the Crops! Save the Yields!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy. While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

THE COMBINED FIGHTERS IN FRANCE AND FLANDERS AND THE COMBINED HARVESTERS IN AMERICA WILL BRING THE ALLIED VICTORY NEARER

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kansas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

Help Your Canadian Neighbors When Your Own Crop Is Harvested

Canada wants 40,000 Harvest Hands to take care of its

13 MILLION ACRE WHEAT FIELD

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

GEORGE A. HALL 123 Second St., Milwaukee, Wis.
Canadian Government Agent

Gordon's $10,000
"Modern War"
Spectacle in Fireworks

A feature of every night program--Monday, Tuesday, Wednesday, Thursday and Friday at the

Wisconsin State Fair

DON'T MISS IT

TOO LATE TO CLASSIFY.

HILLSIDE HOLSTEINS

SENATOR JOHANNA WHITE, 31-lb. herd bull. Four A. R. O. cows for sale, bred to freshen this fall. Price $175 to $250. Several heifers and young bulls, from A. R. O. dams. Write for detailed description.

KIRKPATRICK BROS. - - - - - - - - Reedsburg, Wis.

of the best herds in the country and he can sell you a boar that will give satisfaction. It is to your interest to get his sale catalog. Kindly mention The Wisconsin Farmer when writing for information. See page 22.—Adv.

The Fennimore Durocs.

READERS of this paper are familiar with the fact that 10 of the best Duroc sows sold in Wisconsin sales last winter were purchased by breeders living near Fennimore. The men were fortunate in raising good litters and Wm. Edge, of Fennimore, is offering boars that will compare with any we have seen in the state. Will is a good feeder and caretaker and his boars have more size than those found in the average herd this year. His herd represents the most popular breeding, namely, Cherry Chief, Crimson Wonder Again, High Model and The Professor. His boars will be shown at several of the county fairs in the western part of the state and if you want to see good boars that can be bought worth the money, watch for them at the fairs. If you don't see them, write him for details and prices. His advertisement appears in this publication and we are glad to recommend the Durocs from this herd. See page 23.—Adv.

Union Center Chesters.

FOR those that want to buy fast, just write Chas. Rogers & Sons, Union Center, Wis., relative to their Chester Whites. They have about 50 head of March, April and May pigs that they want to sell at once and the price they are asking for them is far below their worth, but they are priced to sell, so get busy if interested. The boars and gilts are all right, and will give satisfaction, in fact they guarantee them to please you. The Rogers are well known as Short-horn men, having shown and raised cattle of this breed for a number of years. Their herd bull, Collynie Archer, is sired by Village Baronet, a son of Villager. His dam is a good Violet Bud cow. His cattle were heavy winners at the Dane County Fair, competing with other good herds of the state. When you want Chesters or Short-horns, remember this herd. When writing please mention The Wisconsin Farmer. See this page.—Adv.

Hauk Bros., Cassville, Wis.

HAUK BROS.' name is familiar to cattle men, as they are breeders of Angus cattle and have one of the best herds in the state. Just now they are offering Poland China boars which are in keeping with the reputation they have established as Angus breeders. The 14 boars that they are offering at this time are sired by Hauk's Orange, Timm Wonder, a son of the champion, Big Timm and Mac's Big Bone. The dams are sired by Monster Big Bone and Waterloo Giant, a son of Wisconsin Giant. The Hauk pigs have been well grown and at the price they are asking, they will certainly please their buyers. We are glad to recommend this herd, for we know the Hauk boys will stand back of their stock. Write them and say you saw the advertisement in The Wisconsin Farmer. See advertisement on page 23.—Adv.

YOUR CHANCE

50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.

CHAS. ROGERS & SONS Union Center, Wis.

SHROPSHIRES AND HAMPSHIRES

YEARLING RAMS, ram lambs. The Renk guarantee with every sheep. Write

W. F. RENK & SON Sun Prairie, Wis.

Higgins at Gotham.

REMEMBER that Isaac Higgins, Gotham, Wis., is the Duroc breeder that went to some of the best known herds last year and bought some sows of the most popular blood lines of the breed. Their produce is for sale and if interested you should write him. See page 23.—Adv.

Wm. M. Jones, Waukesha, Wis.

MR. JONES has just returned from the W. W. Marsh herd of famous Guernseys. Waterloo, Iowa, in search of a herd sire. The question of selecting a herd sire for a herd that has reached the development of that of Mr. Jones' herd is no easy matter, and is one of the most difficult problems a breeder has to face because the future progress of the herd is greatly influenced by the choice of the sire. Some men blindly stumble on to a sire that makes them famous while many breeders who have endeavored to choose wisely have nevertheless chosen an animal that pulled down the standard of their herd. In view of these facts we are not surprised at the cautious manner Mr. Jones has taken in selecting a bull that was worthy of his herd. Mr. Jones has been honored this fall by being invited to judge Guernseys at the Minnesota State Fair, which is a compliment to his skill as a judge and his integrity as a breeder.—Adv.

Gray at Mt. Hope.

EVERYONE in Grant county and many outside that county know Abe Gray, the fellow that breeds the Chester Whites. He sells a lot of them each year and if you are going to want a boar or a gilt write A. L. Gray, Mt. Hope, Wis. See page 22.—Adv.

SALE DATES.

Poland China Swine.

Sept. 22, Bert Irwin, Mt. Carroll, Ill.
Sept. 24, E. W. Hendricks, Hazel Green, Wis.
Sept. 26, M. V. Miller, Lawler, Iowa.
Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 15, Henning & Pharis, Belvidere, Ill.
Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Oct. 23, Deewelow Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

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Also catalog of field and farm seeds with samples of alfalfa, clover or other seeds. Mention what you need. Lowest prices for highest quality.

GALLOWAY BROS. & CO., Box 3 Waterloo, Iowa

JERSEY CATTLE.

CONSTANCE

JERSEY CATTLE—Jersey herd in the accredited list. Two splendid young bulls for sale. **DUROC JERSEY HOGS**—Best of breeding and individuality. Everything guaranteed to please. Spring pigs for sale.

RED OAK STOCK FARM,
F. R. Constance & Sons, Props., Waupaca, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.

W. M. KNIGHT,
Eagle, Wis.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.

P. G. WARMINGTON Honey Creek, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.

E. E. WYATT TOMAH, WIS.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write

H. HOLT & SON Oconomowoc, Wis.

SALE DATES.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 19, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Rock County Breeders' Sale, Janesville, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 11.

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

Wis. Live Stock Auctioneer

Let me conduct your sale

Call or write me at

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LEARN AUCTIONEERING At World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in five weeks. Write today for free catalog. **Jones Nat'l School of Auctioneering,** 40 N. Sacramento Blvd., Chicago, Illinois. Carey M. Jones, Pres.

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FARMINGTON, MINN.

THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

I. E. STICKELMAN

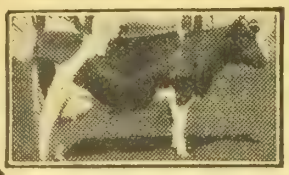
CLARINDA, IOWA

I SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Charlton, Iowa.

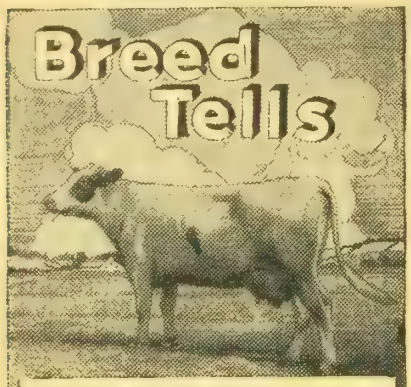
HOLSTEIN-FRIESIAN CATTLE.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.



Pabst King Hengerveld is offered for sale by the Pabst Stock Farm.

Pabst Hengerveld Colanthus produced almost a ton and a half of milk in June, 1917. A Twice 30-lb. cow.

King Pontiac Champion, Pabst's senior herd sire, is one of the world's most noted Holstein—Friesian bulls.

Pabst King Hengerveld is a product of this noted sire and dam.

Get pedigree and price from

PABST STOCK FARM

(Breeders, Not Dealers)

OCONOMOWOC, WIS. BOX R

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER Sheboygan Falls, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

JOHN NORTH Kilbourn, Wis.

GOING FAST

SONS OF Sir Hengerveld Korndyke Ormsby, whose dam, Pietertje Maid Ormsby, made 35.56 in 7 days and 145.66 in 30 days and whose full sister has 1,255.62 butter and 25,418.3 lbs. milk in a year. We are now offering one born May 18, 1917, from an 18.25 lb. 3-year-old granddaughter of King of the Pontiacs. Calf is dark in color and a splendid individual. Write now for price, pedigree and photo to

WALCOWIS FARMS,

N. DICKINSON & SON Lake Geneva, Wis.

A 28.31-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 21.20 lbs. butter, second dam 17.50 lbs. butter. The bull is a little more black than white. Well grown and a good individual. Born January 27, 1916. For pedigree and further information address

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Olathe-Holsteins

HERD SIRE—Sire Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,

Geo. H. Comings, Pres. Eau Claire, Wis.

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GEO. A. WILSON Neillsville, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

JOHN L. FISHER JANESVILLE, WIS.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

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DELLBROOK FARM

HAS THE BEST IN HAMPSHIRES.

GOOD BREEDING
GOOD SIZE
GOOD INDIVIDUALS

HERD BOARS and gilts for sale at all times. Send for catalog.

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CHAMPION CHESTERS

OF THE NORTHWEST

HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The boars I now offer are suitable to head the best herds. We cater to particular buyers.

EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. - - - Wykoff, Minn.

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BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.

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By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write

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100 TO 130 POUNDS

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FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.

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FOR SALE—Special prices for the next thirty days on all spring boars. All sold except just a few that we are keeping so we can furnish pairs no kin. Get our catalog of our champion.

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FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs; the kind that won 86 prizes in five state fairs, tracing to the grand champion, Jackson Chief. Leader, a son of a champion, and Cotton Ball, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write. S. D. & B. H. Frost, Kingston, Mo.

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MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.

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VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

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OF EITHER SEX, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write

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IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

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Dinas Farm's MILKING SHORT-HORNS

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HEREFORD BULL FOR SALE

Imp. CURLY BOY 426258

Calved February, 1912. 2,400 lbs. Sire, Cornice by Coronet. Dam, Curly 53d 425920 by Huntsman. Bred by G. H. Bray, Herefordshire, England. Imported by the late Geo. Leigh. Have 30 of his heifers in herd. Write.

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D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

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SERVICEABLE YOUNG BULLS and bull calves; **A. R. Cows** in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.

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A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.

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IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write

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OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,

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2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

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SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.

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Emory C. Meltz GUERNSEYS Appleton, Wis.

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OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

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READY FOR SERVICE. Sired by Auricular King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

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Headquarters for

RED POLLED CATTLE

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Double treated, and we record them. They will be worth $30.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs. They are from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo, whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. Buy your boar now and save from $20 to $50. Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd, one of the greatest in America, as well as one of the most up-to-date, pure-bred stock breeding establishments.

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DON'T TAKE WHAT'S LEFT, buy your POLAND boars and gilts early. Choice pigs by BIG TYPE JIM and BIG BEN H. They must please YOU and be as represented or your money back. Write me.

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12 GILTS—POLANDS—10 BOARS—Sired by Timm Wonder, Hauk's Orange and Matchless Wonder. Strictly big-type and guaranteed to PLEASE YOU.

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I CAN SHIP you POLAND CHINAS with quality and size. The best big-type breeding. Write.

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PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

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DUROC JERSEY SWINE.

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Sons of These Duroc Boars Head My Herd

IF YOU KNOW pedigrees you'll appreciate these blood lines. Individually, I have one of the best herds in the state. Good boars are going to be hard to find when the breeding season opens. For next month I will sell boars from $40 to $75. Gilts reserved for my sow sale Jan. 30th. Correspondence invited.

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THREE REAL DUROC BOARS.

Spring boars. Spring gilts. Your business will be appreciated. "Your $ worth for every $ spent or every $ back."

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FIVE DANDIES

ANY ONE of these five Duroc boars will make friends and customers for me. These are the tops, they are offered first.

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WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

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DUROCS—Springs pigs out of sows of the most fashionable breeding by noted boars. "Breeding with Individuality." Guaranteed to please.

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HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PEANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.

M. MADSON & SONS — Also Dual Purpose Short-horn Bulls. — R. 4, Madison, Wis.

BIG-TYPE JIM

First Prize and Futurity Winner at Milwaukee, 1916.

100 POLAND CHINAS FOR SALE 100

MARCH AND APRIL FARROW. Have six fine litters out of daughters of MAC'S CHIEF, the Wisconsin champion, 1916. Pigs by BIG TYPE JIM. 16 sows bred to farrow this fall. I can fill your order. Try me.

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ORANGE WONDER 235901—FARROWED SEPT. 6, 1913

BROWN'S BIG ORANGE 235899 — ELLERBROEKS LADY A 446562

BIG ORANGE 235899 — LADY GIANTESS 545554 — A WONDER 143421 — MISS YOUNG W'DR 365976

A COMBINATION of the greatest big-type Poland breeding, backed up by individuality. Orange Wonder boars will please YOU.

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FOR UALITY AND UANTITY WRITE W.W.

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UACKENBUSH (Jackson Co.) MELROSE, WIS.

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Big strong rams that will please.

Sows bred to farrow this fall—gilts and boars. Best big types.

P. N. COLLINS

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BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

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SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

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PROUD CHIEF JR. Sire Cherry Chief Dam by Proud Col.

P. S. WONDER Sire C. W. Again Dam H. A.'s Queen

MODEL KING Sire High Model Dam by King the Col.

ILL. KING Sire Illustrator Dam by Proud Col.

30 Duroc boars and 10 gilts by the above sires sell

WEDNESDAY, OCTOBER 17

A few of Investor and Dreadnaught breeding you can use.

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DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

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THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

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The Martiny Durocs are Winners

AT THE Janesville big fair our spring pigs won every first and second in the futurity and open classes. We also had the grand champion sow. If you want to raise DUROCS THAT CAN WIN, buy from Martiny. Better get your order in NOW, otherwise MEET US AT MILWAUKEE.

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DUROCS

FOR SALE—Four fall boars, 3 fall gilts, not bred, and a few spring pigs; pedigree furnished.

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I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

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"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.

"The Utmost in Polands." "Grant County."

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ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write

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WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain herd."

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See the Old-Fashioned Spotted Poland China Exhibit

AT THE STATE FAIRS in Iowa, Ohio, Nebraska, Indiana, Michigan, Illinois, Missouri, Wisconsin, Kansas, Oklahoma, Amarillo, Tex.; National Swine Show, Omaha; Annual Association Sales, Kalona, Iowa, Oct. 29th, and Crawfordsville, Ind., Oct. 19th. Ask for a copy of our breed paper and other free literature.

Fred L. Obenchain, Secy.-Treas., Bainbridge, Ind.

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.

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Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.

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THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write

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WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

HORSES.

Percherons, Belgians, Shires,

Ton stallions ready for heavy stand, also yearlings and two's. Young fillies, also mares with colt by side and bred again. All registered. 100 individuals of first rank for sale.

Fred Chandler, R. 7, Chariton, Iowa.

DUROC JERSEY SWINE.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write

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Durocs Will Make You MONEY

MY HERD BOAR is a WHALE and is sired by GREAT CHIEF by the famous sire, CHERRY CHIEF. I'll quote you prices on spring pigs that will open your eyes. Try me.

R. C. CHURCH — Elkhorn, Wis.

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MARCH PIGS, $40 UP—Sired by KING DEFENDER'S EQUAL by the WISCONSIN CHAMPION. For sale also, price $200. Write for description.

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THE GILTS AND BOARS I have for sale will please. Some of the most popular breeding. Satisfaction guaranteed.

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Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

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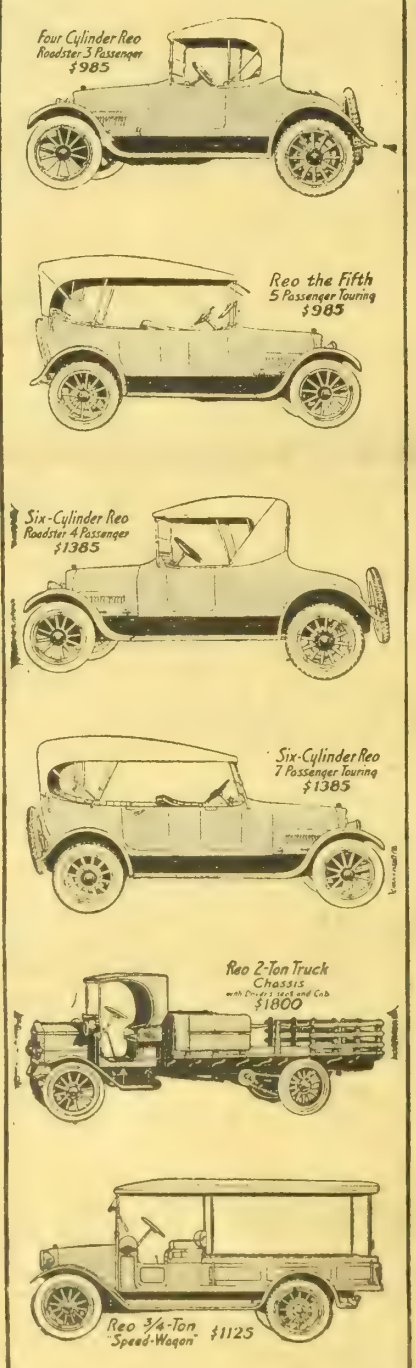

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Reo Quality is Uniform in all Reo Models

AND REO QUALITY at Reo Prices and backed by the Reo guarantee, constitutes "The Gold Standard of Values"—each model in its class.

WE SHOW HERE SIX Reo Models, comprising Fours in Touring and Roadster types; Sixes in Touring and Roadster; and the two Reo Commercial Vehicles — the 3/4-Ton "Speed Wagon" and 2-Ton "Heavy Duty" Truck.

IN THIS ADVERTISEMENT we have space only for a brief paragraph pertaining to each Model—lest you forget the line is so complete that you can find the car you desire, in the type you prefer, and in a Reo.

REO THE FIFTH, "The Incomparable Four," is America's most famous automobile. Standard in practically its present form for now eight seasons—"going on nine." At its present price, $985, this car is verily "A gold dollar for ninety cents."

TO REO THE FIFTH more than to any other, is due the movement that is now so apparent—the return to the Four-cylinder type in all cars listing at less than $1000.

THE FOUR IS THE ULTIMATE type in that price class. Economy of upkeep, as demonstrated by this Reo model, has done much to prove the superiority and ruggedness and economy of the Four in that class of car where the buyer must count the cost and yet demands the service and the roominess.

THE FOUR ROADSTER is the handsomest model of its type you'll see on the road—at any price. And, for the present, you can get it for $985 and freight from the factory.

OF THE SIX ROADSTER the same is true, plus the extra luxury it affords the owner at the extra cost—$1385 f. o. b. Lansing.

THESE TWO ROADSTERS are of similar design and identical construction, and are conceded to be the handsomest cars of the type—price aside.

FOR THE FAMILY that needs a car of greater capacity than five and yet of moderate upkeep, the Reo Six Touring Car—also $1385 for the present—knows no equal.

NO MATTER WHAT YOU PAY you cannot obtain a 7-passenger car of better design; one that represents sounder engineering; more experience; better materials and workmanship than enter into the making of this Reo Six.

THAT'S A BROAD CLAIM, but we make it unhesitatingly—and you know that the word of Reo passes at par everywhere.

OF THE REO MOTOR TRUCKS the same is true. The 3/4-Ton "Hurry Up" Wagon at $1,125 (chassis $1050); and the famous 2-Ton Reo "Heavy Duty" Truck at $1800—each is the leader in its own class—demand greatly in excess of factory capacity.

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THAT'S WHY WE SAY "Reo Quality is Uniform in all Reo Models," the uniform over demand for all Reo models justifies the statement.

ORDER NOW if you'd have your Reo soon. Present prices obtain only from day to day, and are subject to increase without notice.

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More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 37. THURSDAY, SEPTEMBER 13, 1917. WHOLE NO. 1859

Minnesota Fair a Record Breaker

MINNESOTA is producing great crops this year. But it does not propose to stop with this. It is taking steps to conserve these crops, so that none of the hungry shall go unfed. One could not spend a half hour on the state fair grounds at Hamline last week without being impressed with the fact that conservation was ranking alongside of production and patriotism. "Hooverize, eat more vegetables;" "Several apples a day will save wheat and meat;" "Help win the war by conserving wheat;" "The kitchen is one key to victory"—so on and on read the signs everywhere, teaching the willing people of a great state to share the bumper products of their herds and fields with those who are in need or who must be sustained in order that the world may be kept safe for democracy. Production, Patriotism, Conservation—these were the keynotes sounded over and over again at Hamline last week. Minnesota is producing splendid crops this year; they are bringing good prices. But the state does not stop here. The flags of all the seven great allies fighting the Teutonic nations flew from the immense grand stand, topping everything on the grounds. Old Glory flew from every other building, thousands of flags waving a greeting to the crowds below. Five hundred soldiers, members of the First Minnesota infantry, were encamped on the grounds and gave daily exhibitions, guard mount, manual of arms, and so on. The patriotic show at night, showing the manner in which modern warfare is conducted, gave these soldiers a chance to display their efficiency and aroused loyal cheers from the thousands who witnessed it. But this was not all. Production will not suffice, if there is to be waste later. Minnesota is going to economize not only on money, but on food and the things which sustain life, both in peace and in war. That was the great lesson at Hamline: That a great people are not really and truly great until they become absolutely unselfish, thinking of others more than they think of themselves. If the 1917 Minnesota State Fair leaves any one big, overwhelming impression on the minds of the visitors it will be this: Save, save, save.

The management was extremely fortunate in having splendid weather for the big opening day. The result was that all attendance records were smashed. When the gates closed Monday night it was found that 116,555 people had passed through during the day, 23,978 more than had attended the corresponding day last year and 15,763 more than had passed through the turnstiles the biggest day prior to that, which was Labor Day in 1912. Never had the Twin Cities turned out such crowds; never had the trains and automobiles brought so many farmers, from all over Minnesota and from the neighboring states of Wisconsin, Iowa and North Dakota, for the Minnesota State Fair is in reality a sort of northwestern exposition, showing not only the agricultural productions of one state, but of many; not stopping with farm products, but taking in all manner of industrial exhibits and showing what it has been which has made the wheat belt such an empire and what there is behind the empire today to prove that it is a stable one, subject to no revolutions. "War and agriculture's preparations to meet it" was the reason offered by Sec. Thomas H. Canfield for the record-breaking crowds the opening day. "Everybody wants to see the soldiers, the military demonstrations and the other war-time features of the program," he added. The management was hopeful of an attendance passing the 400,000 mark before the close of the gates for the week. If this figure is reached it will mean that 33,000 more people visited the fair this year than ever attended before in any year. And, what is more to the point, the fair was so much bigger and better than usual, it deserved the record-breaking attendance.

ALL RECORDS FOR ATTENDANCE WERE BROKEN MONDAY, LABOR DAY, WITH AN ATTENDANCE OF OVER 116,000.

Minnesota is a great agricultural state already, the annually recurring fairs prove this. But it does not propose to rest on its oars. Ranking first in the Union in the production of barley, second in wheat and butter, third in oats, rye and flax and tenth in corn, it proposes to keep on with its agricultural efforts till no state shall surpass it in anything. There was a new slogan around Hamline last week. It ran in this fashion: "4,000,000 people and $2,000,000,000 production of our farms in 1925." Minnesota has mapped out a big program; it may not get it all accomplished in eight short years, but there is a determined citizenhood behind it. Enthusiasm is contagious at Hamline; one gets to using superlatives after a few days there. But there is hardly any superlative which is not possible to a state which made the splendid display that Minnesota made at Hamline this year.

The agricultural building was better filled with interesting products and exhibits this year than ever before. It gave a kaleidoscopic review of what Minnesota has done the past year. To begin with, there were the county exhibits, twenty-one altogether, the following counties having well-arranged and convincing exhibits showing their agricultural wealth and possibilities: Morrison, Chicago, Todd, Washington, Red Lake, Wadena, McLeod, Renville, Dakota, Olmsted, Cottonwood, Sibley, Nicollet, Beltrami, Cook, Kittson, Lake, Becker, Mahnomen and Hubbard. No state pays more attention to county exhibits than Minnesota, the result being unusually effective this year. Then there were the splendid exhibits of school work. Minnesota has good reason to be proud of its educational supremacy. It has five normal schools, 230 high schools, 200 consolidated rural schools, 243 graded schools, 463 semi-graded schools and 8,000 rural schools. Its unrivaled school fund is now larger than that of any other state in the Union, while the royalties on iron ore will, within thirty-five years, increase it $50,000,000. Eventually the fund is expected to reach $200,000,000. With this immense amount of money, judiciously expended, Minnesota has forged ahead in an educational manner in such a way as to make the state rank second to none. The school displays in the agricultural building this year were good evidence of the splendid results being achieved. The public schools and the University of Minnesota deserve credit for what they are accomplishing and for the splendid showing they made at Hamline, an exhibit as instructive as it was interesting. The displays of farm products raised by the Indians in the state, the parcel post exhibit and the booths of the state department of weights and measures, the state grain inspection and weighing department, and the state board of immigration were likewise interesting and instructive. There is no building on the grounds which better repays frequent extended visits than Agricultural Hall.

Minnesota never took more interest in gardening, or expended more energy on it, than it has this year. The result was in evidence on every hand in the Horticultural Building. Box after box of apples testified to the fact that, while Minnesota has never taken high rank as an apple state, there is a better time coming soon. A rather diminished crop around the lake region is more than offset by a splendid crop of apples in the southern part of the state this year. Varieties are being found which will do well in various parts of the state, to the extreme northern line,

(Continued on page 6.)

CURRENT EVENTS

THE first of the conscript, or national army, assembled at their respective camps, or cantonments, last week, on call from the war department. They are the vanguard of the new army of 600,000 men which Uncle Sam will train for possible service in France, to be sent overseas after the former state guards, now in the federal service, have been sent across. The grain-belt army camps (at Des Moines, Battle Creek, Rockford and Fort Riley) all saw men coming to them without any military training whatever, their names having been drawn on June 5th and the exemption boards having found no reason why they should be excused from military service. The various cantonments where they are to be trained are not all completed, but work is being rushed as rapidly as possible, so that by the time snow flies all the men should be in camp and quite comfortably situated. In the meantime the guards are being rushed to Long Island and other eastern points to be prepared to go across to Europe in a few weeks. General Pershing has moved his headquarters to the actual fighting line and it will not be many days before the first American troops go into action, if, indeed, such is not the case by the time these words are read. The United States has gone into the war and is now about ready to make its showing.

PRESIDEN WILSON, practically every member of congress and the diplomatic representatives of the nations allied with the United States against Germany honored the men who are drafted for army service by a notable procession, review and demonstration in Washington last week. The men drafted from the District of Columbia marched with regularly trained soldiers and sailors and were given the place of honor in the line. A press account of the parade gives this picture of the president and his associates in the parade: "The president of the United States, head erect, chest thrown out, eyes forward, marched today at the head of the most impressive parade ever seen in the streets of Washington, leading America's new army into the war against Germany. Behind the president, for the first time in history, congress also marched in honor of the men of the new national army, who began to mobilize last week in every community of the United States. Although the celebration here was directly a tribute to a thousand stalwart young men drafted from the District of Columbia, the president and congress took this occasion to make it one of Godspeed to all young men of the nation about to plunge into the vortex of the world conflict." The parade was so long it took two hours to pass the stand, where the president reviewed it after marching on foot for much of the distance himself.

THE day before the soldiers of the new army were summoned to leave for their training camps President Wilson issued this greeting to them: "To the soldiers of the national army: You are undertaking a great duty. The heart of the whole country is with you. Everything that you do will be watched with the deepest interest and with the deepest solicitude not only by those who are near and dear to you, but by the whole nation besides. For this great war draws us all together, makes us all comrades and brothers, as all true Americans felt themselves to be when we first made good our national independence. The eyes of all the world will be upon you, because you are in some special sense the soldiers of freedom. Let it be your pride, therefore, to show all men everywhere not only what good soldiers you are, but also what good men you are, keeping yourselves fit and straight in everything and pure and clean through and through. Let us set for ourselves a standard so high that it will be a glory to live up to it and then let us live up to it and add a new laurel to the crown of America. My affectionate confidence goes with you in every battle and every test. God keep and guide you! Woodrow Wilson." The eyes of the United States, and of the whole world, will be upon this new army, for upon its success or failure depends the success or failure of the war in Europe. France has about reached the limit of her man power, Russia is but a poor ally at best, so it is to the United States that the anti-Teutonic forces look for success, if it is to come. Six months will be devoted to whipping the men into shape, so that early next spring they should be going abroad, unless present plans fail.

PLANS for purchasing and storing in Chicago 1,000,000 bushels of potatoes for use after January 1st have been started by the middle western section of the national food administration. The potatoes are to be sold to consumers at cost, the price to be fixed after all expenses, including interest on the capital required to finance the deal, have been determined. According to the plans, the working capital for starting the project will be advanced in the form of a loan by the city of Chicago, the sum necessary to make the first purchase to pay freight being estimated at $200,000. The federal reserve board already has approved a plan by which warehouse receipts on potatoes stored under certain specified conditions may be used for collateral for loans at federal reserve banks. After the first lot has been purchased and safely stored away a loan may be made on the warehouse receipts and more potatoes bought. The process could then be repeated until the entire million bushels are in storage.

INDICATIONS that the United States intends to ration the northern European neutral countries in the strictest fashion were seen in the admission that the exports administrative board had disapproved of an arrangement suggested by the Dutch minister and the Belgian relief commission for division between Holland and Belgium of the nearly 100 Dutch grain cargoes held in American ports. The exports board, it was learned, will let no food cargoes go to European neutrals for at least two months, or until the American government has ascertained its own food requirements for the year and the size of crops to be harvested. All of the neutrals, it is held, can feed themselves without difficulty until this information is available. The United States wishes to know also the size of the 1917 crops in the neutral countries. It was made clear that the United States has no intention of letting neutrals go hungry, but emphasis was laid on the fact that the government feels its fist obligation is to the American people and to the allies.

MAJOR GENERAL PERSHING declares in connection with the plans for the coming winter that the people of the United States must learn the meaning and value of patience and not expect that the expeditionary forces landed in France can be rushed immediately to the front line trenches. To put an inadequate, insufficiently supplied force into actual combat, he said, would merely be making a mistake which the Germans unquestionably have hoped and expected the United States would make. It is the determination rather that when America does take her place in the line shoulder to shoulder with the other allies next year, she will be fully prepared to go through the summer campaign and make the Germans feel the full weight of her military power. "We came into the war without an army," said the general. "We always have been a peace-loving people, and undoubtedly the great majority of us hoped we should be spared war. So now we must build an entire new organization and build it so big and so strong that we can take our place along with our allies, who already have had three years' time and experience."

POPE BENEDICT has not given up hopes of restoring peace to Europe, notwithstanding the declination of his tentative proposals by President Wilson. Upon receipt, and translation, of the president's message the pope is said to have remarked on the "lofty sentiments expressed and also the kindly, humane spirit and manner" used by the president in rejecting the vatican's proposals, but as to the answer received he was unable to repress his disappointment that his efforts as yet were unsuccessful to check the war. It is not yet known whether the pope will make immediate answer to certain points in the note or wait until all the powers have replied and then give the same general answer to all. However, it is certain that the pope is daily preparing an immense amount of documentary testimony to prove that his principal points are those already admitted or agreed to by all the belligerents. The point emphasized in President Wilson's note that no one can have faith in the honor of the German rulers or accept their signatures to a peace treaty is a problem that has focused the attention of the pontiff. It is evident that he is not content to cease his peace efforts, but will continue their discussion in further notes, probably for the next four or five months until he shall gain ground or else become satisfied that the task is hopeless. It has been suggested that by such a method the pope might reach with the warring nations a preliminary ground of discussion and might eventually become represented at the final peace conference.

Courier of Soldier and Civilian

Our troops are now on the firing line in France. While at home every instrumentality of our government and private industry is being urged at top speed to insure victory. The telephone is in universal demand as courier, bringing to the front men and the materials of war.

From the farms the telephone courier brings foodstuffs; from the mines the telephone courier calls forth metals; from the factories this courier gathers manufactured products. The telephone courier leads troop and supply trains to the front; summons fighting flotillas and transports; and, in fact, leads practically every contributing unit of supply to the firing line.

At such a time, when the government is straining at its task and every industry is loyally contributing its energy, this national courier is constantly being used to call up the reserves. It is at the base of every contributing activity.

The right of way must be given to the military for the direction of troops and to the government for the marshaling of endless supplies. To do this, and also make the telephone serve all other needs, both patriotic and private, all must economize.

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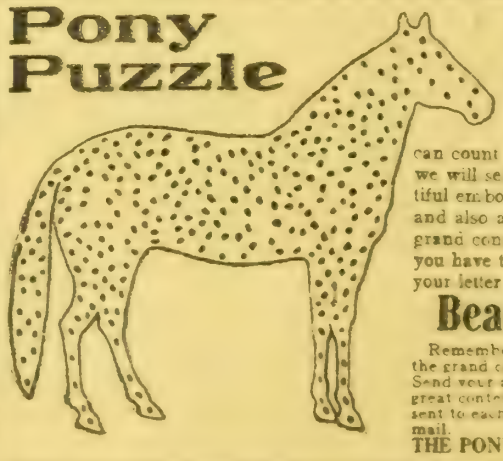

Count the Dots and Win a Prize

Here is a Shetland pony covered with dots. By being careful any boy or girl can count the dots on this pony If you can do this we will send you as a prize, a packet of five beautiful embossed postcards lithographed in rich colors, and also a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland Pony. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

Beautiful Pony Given

Remember the pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in this great contest. In case of a tie for the pony one will be sent to each person so tied. Full particulars by return mail.

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Kirstin One-Man Stump Puller instantly gives you a GIANT'S POWER—makes you master of any stump! Many Kirstin owners pull stubbornest stumps in 4 to 10 minutes!—AS CHEAP as 6 CENTS per stump!

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Why have stumps when you can now pull them so easily, quickly and cheaply?

Amazing Offer To prove these claims, we will ship you any size or style Kirstin on THIRTY DAYS' FREE TRIAL—**not one penny in advance.** Return it if not pleased. If pleased, pay low price in **small monthly payments.** Kirstin Pullers as low as $50. One-man style or HORSE POWER—all sizes. Three year guarantee with each machine.

Write! Don't endure stumps any longer. Send postal now for most valuable Stump Puller Book ever published—pictures—prices—terms—letters from Kirstin users and all about our **Special Agent's Proposition**—all Free. Write!

A. J. KIRSTIN COMPANY
450 Ludington St., Escanaba, Michigan

Langlade Potato Show.

To the Editor:—Langlade county will have a potato show this fall. The date is November 14th. This was decided on at a meeting of the officers of the Potato Growers' Association held at the office of county representative on Monday evening. Silver cups and cash prizes will be given on the seven leading varieties recognized by the state Potato Growers' Association.

There will also be a silver cup and cash prizes on potatoes grown by school children.

The place of holding the show has not been decided on, but will probably be in some hall or vacant store building on Fifth avenue. Several of the strongest available speakers on potatoes will be invited to be present to give talks.

An attractive musical and literary program is planned for the evening of the show. To secure the fullest cooperation of potato growers of the county a special committee consisting of the following men was appointed: Anton Follstad, Elcho; Henry Diercks, Bryant; Adam Guenthner, Rolling; Oscar Nelson and W. J. Kiesaw, Antigo.

F. G. Swoboda.

The Wisconsin Farmer

THURSDAY, SEPTEMBER 13, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

LIBERTY BONDS ABOUT READY.

I AM asked by many of my readers when the Liberty Bonds, to which they subscribed liberally a few weeks ago, will be delivered to them. I believe I am safe in saying that about the first of October they will receive their much-coveted bonds, testifying to their ability and willingness to help their country in its hour of peril. The situation is a little involved, however, as I shall attempt to show, briefly.

The day on which this was written (Thursday, Sept. 6th) the lower house of congress passed a new war-credits bill, authorizing the issuance of over eleven billion dollars in bonds and certificates. This is in addition to the seven billion dollars authorized some months ago. Included in this new authorization are over seven billion dollars' worth of new government bonds, to pay war expenses. These new bonds are to bear 4 per cent interest, instead of the 3½ per cent interest which the first issue of Liberty Bonds bear. Of this seven billion dollars' worth of new bonds, two billion dollars' worth will be for the purpose of retiring the bonds authorized by congress in the spring and which the farmers of the grain belt bought so liberally.

Let me try to make the matter a littl plainer. When the government announced its $2,000,000,000 issue of 3½ per cent Liberty Bonds, it promised that if bonds bearing higher interest were issued during the war these Liberty Bonds should automatically have their interest rate increased until it became equal to that borne by the later bonds. Now, the government proposes to issue 4 per cent bonds, so all those who subscribed to Liberty Bonds will receive 4 per cent instead of 3½ per cent, which means they will get $5 a year more on each $1,000 than was promised or expected. In order to simplify matters the government may exchange the new 4 per cent bonds for the 3½ bonds which were bought by the people, but which have not been delivered to them as yet. These bonds are now being engraved and delivery is promised on or about October first. By that time, however, it is highly probable the new issue will be ready to announce and within a few months new bonds will be given by Uncle Sam for the first Liberty Bonds, bringing ½ of 1 per cent more to the investors. Already, what are known as "interim certificates" have been issued, a sort of substitute for the real bonds, and these are being distributed to those who have paid for their bonds in full. I have received my certificates for the amount I have paid in full and have only to exchange these certificates, at the bank, for the real bonds when they are finally engraved and distributed, in three or four weeks now.

I realize the proposition is a little involved, but two things are certain: the bonds, in some form, will be distributed shortly; and Uncle Sam is going to pay back more than he promised, when we bought the Liberty Bonds of him a few weeks ago. We not only performed a patriotic duty whole-heartedly, but we made an unusually good financial investment at the same time.

PATRIOTISM IN THE POCKET.

I READ a sentence the other evening which struck me as containing much sound sense. It was this: "Good financing can not win a war, but modern wars can not be won without good finance." I do not think the author intended this to be an injunction to our bankers and financiers only; it is applicable to us all. In the end, the war will undoubtedly be won by the nation or group of nations which finds its money and its credit unexhausted. Therefore, it behooves us all to guard our finances well these days, for thereby we are performing a patriotic duty. The farmer is receiving good prices for his products; he should exercise unusual care in the expenditure of his money and see to it that not a cent is wasted on any unwarranted extravagance or frivolity. The times are good, they are far from being hard; yet a nation of spendthrifts would be a nation disloyal, remember that, please.

FARM LIFE NOT SORDID.

I KNEW when I printed the extract from the magazine article asserting that farm life is sordid, and the letter from the Wisconsin farm woman admitting it, that I surely would receive a great number of letters. I was not prepared, however, for such an avalanche.

Great as the number has been, I have read each one with interest and only wish I could print them all. They have proved two things to me: First, that the women folks on our farms do me the honor to read what I write; second, that they can write better letters than the men folks. Never in all my career as a newspaper publisher (and I have been working at it for well on toward fifty years) have I received so many good letters as have come to me from farm men and women within the last few months, letters on such subjects as the war, the hopes of early peace, the necessity of exempting farmers from the draft, the nobility and happiness of farm life, and so on. I want to say that there is more genuine, uplifting, ennobling thought emanating from the farm today than from any other part of our entire country. I am proud, indeed, to be the recipient of these letters.

But I did not intend to take up so much time and space in introducing two letters I want to print this week. They are both on this question, "Is farm life sordid?", both written by women and both on the same side, namely, that farm life is far from being sordid, except as we make it so for ourselves. Let me quote first from a splendid defender of farm life, in general, and farm life in Kansas, in particular, Mrs. W. C. Wilcoxen, of Ford, Kan., a most charming correspondent from whom I hope to hear often, on various subjects. Mrs. Wilcoxen writes me as follows:

Ford, Kan., R. F. D. 1, August 31, 1917. Dear Mr. Pierce:—I have read with interest the article, "A Libel on Farm Women," and the letters it called forth, and I would very much like to add my few words.

I live in southwestern Kansas, on a grain farm; have lived in this community since my marriage seven years ago, and feel that I know conditions of the farm woman's life well enough for my opinion to be sound.

As for the charge that farm women are ignorant, that is ridiculous. Of the women of this community, at least half were teachers before their marriage, many were high school graduates, a few college graduates and all take pride in keeping up with the current events of the world.

We work hard, it is true, but no harder than our husbands. I doubt very much if you could find a dozen women in our county who wash with a washboard. A washing machine is considered as much a part of the necessary home equipment as a dish pan, and many of us have power washers with a gasoline engine to run them. On this farm, and those adjoining, the women of the farm are no more expected to milk, feed the calves and hogs than they are to go to the field to plow.

We, most of us, have large families, but when our babies arrive we have help as long as we feel we need it, though most of us are strong enough by reason of right living that we do not need help more than a few weeks; and quite often there is a trained nurse whose sole duty is to take care of mother and baby.

The farm women here are dressed as well as the town dwellers. I know one woman who has borne ten children. Her husband is a large farmer and employs much help. The wife does most of the work, employing help only during the busiest seasons, and when she has a small baby, yet that woman is one of the best looking and best dressed women of the neighborhood in which she lives.

Of course, I do not say that all this is true of farm wives everywhere, for I do not know, but I do know that it is true of southwestern Kansas. However, I think the Kansas man must be more chivalrous than many others, for I notice that the wives of many farmers who move here from other states have much more outside work to do than the rest of us, at first, but they soon fall into the customs of the rest of the country.

It is my belief that families like that pictured by "A Wisconsin Farmer's Wife" would be the same, wherever they were placed, whether their lot fell on the farm or in the city. With such a husband, how much better off would she be in the city?

It is human nature that makes life sordid or happy, not merely environment.

I can only say, briefly, in passing, that I wrote Mrs. Wilcoxen thanking her for her good letter and informing her that I had four sisters, each one of whom was a country school teacher, two of whom married farmers, so that I appreciated the situation in her community, where school teachers abound in such number. It is impossible to think of farm life being sordid when the percentage of literacy is higher here in the agricultural heart of America than anywhere else in all the nation, when prosperity is at such high tide among our grain-belt farmers, and when such splendid letters can be written by those who lay no claims to being talented above their neighbors.

But let me quote another letter, from another farm woman, Mrs. W. H. Chumbley, of Indianola, Iowa, an equally good and convincing letter, as follows:

Indianola, Iowa, R. F. D. 5, Sept. 1, 1917. Dear Mr. Pierce:—I am a farm woman past three score years and believe that I have a right to speak. I was born and raised on a farm. I was educated in the rural schools and taught in the rural schools. I married a young farmer and from the day of our marriage our slogan was, "He that worketh not neither shall he eat." We always have worked to each other's interests, whether it was in the house or out of doors. Our home was happy from the beginning, although there were discouraging times, but always we kept in mind the old proverb, "There is no excellency without labor." Thirteen children have blessed our home and eleven of them have grown to manhood and womanhood, the youngest now being seventeen years of age.

In raising my family I had a small amount of hired help. I have always done my own work, including washing, cooking, gardening, sewing, canning, knitting stockings and mittens for the children until they became large enough to help themselves, and many times found time to help someone else. And at no time in my forty years' experience have I found farm life sordid. I have always raised my own chickens and marketed my own eggs and produce. The money was used to cover the needs of the family, and at no time did my husband ever question how I spent my money. He has confidence in my judgment that I would spend it wisely, and we have worked on until we now have in our possession 280 acres of land. It consists of three farms and was vacated by people who found other pursuits. We always felt sorry to see the neighborhood depopulated, but we thought to keep up the farms and buildings and maybe sometime our own children or someone else might occupy them.

I do not say that I have done better than anyone else, but I have done better than some. But had I my life to live over I could profit by the many mistakes. I can say, as Zacharias did, "If I have taken from any man by false accusations I will return unto him four-fold." A good many people think farm life is sordid because they are not able to keep up with the people who have worked a lifetime and are able to own their automobiles and have all of the modern conveniences in their homes. And while these inventions are good, I find the old proverb that "Contentment with Godliness is great gain" and take pleasure in doing whatever my hands find to do. We have never owned an automobile, not because we could not afford one, but for several reasons; one, that they are expensive and dangerous and, in most cases, they are a hindrance to the progress of a farm rather than a help, as in many instances the farm work is left undone in order to get the time for a ride in the automobile. We raise horses, lots of them, some for all kinds of work, draft horses for the heavy work. If we want to go to town or visit our neighbors we have our driving team.

The thing that farmers are most in need of today is high thinking in their homes. By high thinking I mean the big things of life, character, kindness, intelligence, virtue and respect for all that is pure and noble.

A short time ago some people made us a visit who were our neighbors thirty years ago. In the time that had passed since we were neighbors we have built houses and barns, grown groves and orchards on the same ground where they had tilled the soil. We gave them a bounteous dinner in the house for the old people and had a table set under the trees for their children and our grandchildren, and all signified they had a good time and we enjoyed a good visit with old neighbors once again. Our children are scattered from Canada to Colorado, but we still have our reunions once a year. The old extension table is at its full capacity and not one has forgotten his old place at the table, and when we count we still have the "bakers' dozen," thirteen. The blessing returned, the joy begins and lasts from one reunion to the other, as they return year after year and the children rise up and call us blessed. I cannot see how farm life is sordid.

There is little that I can, or need, say in comment or conclusion. We cannot read such letters and not be convinced. Poverty may exist in isolated sections of our fertile, productive grain belt; but not in one-millionth degree as much as in our cities. There may be farm homes which lack the necessary conveniences and comforts, but for every one such farm home I can show you a hundred thousand in our cities. If there are any who doubt my statement I can take them, in my automobile, within fifteen minutes' ride of where I am writing, to such scenes of poverty and squalor as no farmer or farmer's wife ever imagined possible; men, women and children huddled together like rats, in miserable quarters, with insufficient air and clothing, not knowing where the next meal is to come from, unless charity supplies the deficiency. And, remember, too, this is in a grain-belt city, not in one of our large eastern cities, where such scenes would be multiplied and magnified a hundred times over.

Mrs. Wilcoxen was right, indeed, when she said that it is human nature which makes life sordid or happy, not merely environment. The shiftless ones on the farm would be the shiftless ones in the city, dependent upon charity for food and shelter. We succeed within ourselves, as well as through persistent and well-applied effort. Happiness and success are mental attributes, as well as material accomplishments. The eye sees what it is trained to see; the brain thinks what it is trained to think. Let us make our eyes see the good and beautiful; let us make our brains think the ennobling and uplifting. Then, indeed, shall sordidness disappear from our hearts and our midst.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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THE WISCONSIN FARMER, Madison, Wisconsin

Food Administration in Wisconsin.

Magnus Swenson, of Madison, chairman of the Wisconsin State Council of Defense, has been named federal food administrator for this state. The appointment has been made by Mr. Herbert C. Hoover, who is national food administrator. Mr. Hoover and his associates dislike the word "dictator," and insist that their work is administrative rather than dictatorial. For the purposes of administration, as we understand the food control organization, Mr. Swenson becomes Mr. Hoover's special agent for Wisconsin. In fact, he is Wisconsin's Hoover, with all the power and obligations imposed upon the food administration by the recent acts of congress. Manifestly it would be impossible for Mr. Hoover to understand fully the duties of food administration in each state of the Union, and it becomes necessary for him to have a state food administrator in this, as well as each of the other states.

Following the oath of his office taken recently in Washington, Mr. Swenson attended a conference of state food administrators. Upon his return to Madison he made public the following interview:

The federal food administrator of the state is clothed with all the power provided by the new food law, and is expected to assist the administration in enforcing this law within the state. In doing so, however, it was the wish of Mr. Hoover that we should appeal to the patriotic coöperation of those engaged in the distribution of food supplies, to try to stabilize rather than disturb conditions. On the other hand, we were instructed to spare no one who for personal gain would hoard food or speculate in foodstuffs, or exploit the people in this time of war, when we should all be united for the purpose of helping the country. In such cases we were told to use all the drastic powers that were conferred upon us by the food administration, in conformity with the food law. Where certain dealers charge exorbitant prices they will be placed under a federal license which may be taken from them upon evidence of unfair dealing. No leniency will be shown toward food speculators. They will be compelled to sell at a reasonable profit or the government is prepared to take over all foods which are stored to force an increase in price or for purposes of speculation. Aside from this such conduct is liable to punishment by fine or imprisonment, or both.

One of the most valuable suggestions made at the conference was that the different state food administrators should keep each other advised as to the lack or excess of certain foodstuffs so that our public markets could be supplied direct and give the poor people a chance to buy the needed food at the lowest possible price. As an example of this, Louisiana has a large surplus of plantation sugar, which is all sold to the sugar trust. This can be obtained direct from the planter at a much lower price than the refined sugar and is as good or better for many household purposes. They have a large surplus of rice which is selling in Louisiana for $1.20 a bushel, or 2 cents a pound, while they need butter, cheese and potatoes, and an exchange of these commodities of which we have a large surplus would be of mutual benefit.

Administration of food supplies should not be too hastily condemned. The Wisconsin Farmer advises its readers to give Mr. Swenson a fair and square trial. We do not claim that his work will satisfy everyone. We do believe, from what knowledge we have been able to gather, that it is the sincere purpose of the government to give the farmers of this state, and of every state, a fair deal. Once we are convinced to the contrary we will have no hesitancy in saying so. Our patriotic support of the government does not extend to the point where we are tongue-tied in the event we see anything which deserves criticism. But war times are unusual times. It is necessary that we go out of our way to try and help the government. The spirit of criticism, just because this is a free country and we have a constitutional right to criticise, should not be fostered or encouraged. One of the first instances of interest on the part of the food administrator in Wisconsin is the advice to farmers not to let the big potato crop of 1917 get into the hands of speculators at too cheap a price. Potatoes, considering the world market and the world demand, are worth more money than some speculators have been offering for them. The government has already planned to issue through the federal reserve banks, potato certificates, and to help with the storage problem by securing storage houses. The aim of the government is to prevent the big crop now coming on from falling into the hands of men who will pay the farmer a small price and then turn around and rob the people who must buy potatoes for food. Furthermore, the food administrators will endeavor to educate people all over the country as to food value of potatoes and thus secure greater consumption. More than that, it will be possible to ship millions of bushels of Wisconsin potatoes into states where there is a small potato supply and where the price is better than it is here at this time. If the government by such administration can get fair prices for the growers and still hold down the price to the consumer, will it not accomplish a great deal toward helping both? Farmers should do all in their power this year to keep their product out of the hands of speculators. If some buyer comes along and says that the market has been "shot to pieces on account of the heavy crop," and wants to buy up potatoes or onions or any other crop at a low price, beware of him. Be sure that the price he quotes is right. It will take only a day or two to write to Mr. Swenson, at Madison, stating your case. Both Mr. Hoover and Mr. Swenson very much prefer that unusual cases be taken up with the government administrators. Mr. Hoover has said that the business of administrating the food supply is an open book. There are no secrets from anyone.

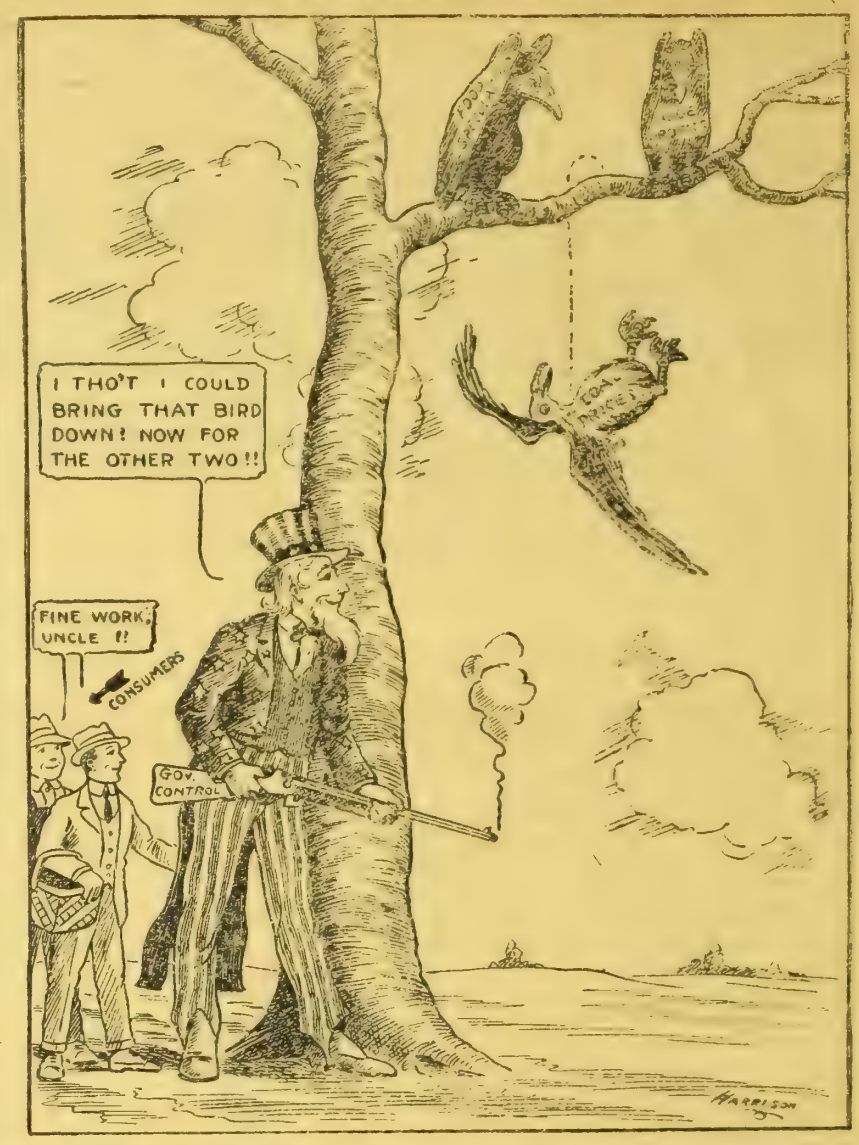
Corn Substitutes For Hogs.

It is especially desirable to save high-priced corn wherever this is possible and the national department of agriculture is making a special effort to disseminate information in regard to ways and means of feeding live stock in such a way as to effect a saving of corn. This matter is dealt with recently in connection with the feeding of hogs, it being especially desirable that stockmen, wherever possible, should find something with which they can make good gains on their hogs without confining them to a straight corn ration.

Attention is called to the fact that ground oats have three-fifths the feeding value of corn and they, therefore, can be substituted for corn profitably when a pound of ground oats costs two-fifths less than a pound of corn. It is not recommended that oats compose more than two-thirds of the ration during the early part of the feeding period and the proportion of oats should be gradually reduced until during the last four or five weeks when this grain is omitted altogether. Barley, when ground or soaked, can be substituted entirely for corn. When both feeds can be obtained at the same price per pound barley should be used. Barley, when costing nine-tenths as much as corn per pound, can be substituted for corn in the ration. As it is a hard grain it should be ground or soaked. If ground it is somewhat doughy in its nature and cannot then be fed dry to advantage, so that it is necessary to compound it into a slop.

There are many other products that can be used to advantage and even millet has three-fourths of the feeding value of corn. Wheat shorts or middlings can be substituted for corn even if the cost of this product is one-tenth greater than the cost of corn. This is due to the fact that it is rich in flesh-forming material. Generally speaking, it is better to feed middlings in supplementary quantities owing to the fact that it is somewhat heavy and pasty in its nature. In some localities weed seed waste from elevators is obtainable and this product has a feeding value equal to two-thirds that of corn. It goes without saying that this kind of material should be ground, well soaked or cooked before being fed.

A GOOD GAME SEASON.



Firm the Soil for Winter Wheat.

We desire to have a last word on the question of preparing the seed bed for winter wheat. There will be a larger acreage than usual seeded this fall and as seed is high in price it is exceedingly important that every condition be made ideal for the wintering of the crop. We have called attention several times to the urgent necessity of having a firm seed bed and in discussing this phase of the subject we have called attention to the advantage under a great variety of conditions of plowing the soil reasonably deep.

We find that in many parts of the Central West stubble land has been very hard and lumpy and much plowing has been done at a heavy labor cost. We have seen many five-horse outfits in the field pulling a one-furrow, sixteen-inch plow, and plowing under those conditions is, of course, expensive. Many a man has become discouraged over the difficulty of the task, but now that most of the acreage is plowed we believe that there will be general rejoicing because recent rains have made it possible to work the seed bed down into splendid condition. The big, stubborn clods that were left on the surface after plowing have been melted down by the rains and, fortunately, advantage has been taken of the conditions in most cases to use the harrow freely at a time when it would do the most good. Even the roller has been brought into play and this will smash the clods. In certain cases it will pay to even use the disk in order to cut to pieces the lumps that have been turned under. The surface may appear to be in good shape and yet the lower soil may not be in the best of condition and that is why it is frequently advisable to use the disk in order to make the plowed land fill in compactly on the bottom of the furrow slice.

Those who have never had experience in growing wheat can scarcely be made to realize the importance of taking special pains in getting their soil firm. More than any other feature it will prevent winterkilling, as a porous soil seems to contribute to heaving out of the roots, whereas a firm soil much more effectively maintains an embedded condition of the roots.

Where there is no danger of injury from the Hessian fly, reasonably early sowing is advisable, because there is a clearly defined advantage in having good top and good root development. However, if our decision were between the matter of sowing early or delaying a week or ten days in order to get the seed bed in better condition we would choose the latter. An extra harrowing or two will mean an increased yield next year, particularly so if the winter should be severe and the spring backward.

Hogs in the Cornfield.

Thousands of hogs will be finished this fall in the cornfields, this plan being followed in many cases because it will be the cheapest and best method of harvesting part of the corn crop. The plan is entirely practicable because not a kernel of corn need be wasted, nor will the hogs get off feed if they are accustomed to the corn before being turned in. In the following communication one of our subscribers who has had some practical experience in hogging down corn makes some good suggestions:

I like the plan of fattening hogs in the cornfield. It saves much labor, the hogs do exceedingly well, and the litter and manure is left to be plowed under. To get the best benefits from all such waste I want the ground plowed late in autumn, turning every-

thing under to decompose by spring. The humus added to the soil from the stalks and litter is as great for future crop production as the manure from the hogs.

Now, I favor feeding some of a crop of corn by turning the hogs in the field to do their own harvesting, but my plan is to keep the large hogs in one section of from two to four acres. This restriction is brought about by running a temporary strong wire fence across a field. As soon as the bulk of the corn is eaten run another string of the fencing across the field, taking as much space as at first.

When this is done, give the new section to the fattening hogs and then turn in the sows and pigs and small shoats to thoroughly glean all corn left from the ground so none goes to waste. I arrange the area of ground to correspond to the number of hogs, as it is poor economy to allow hogs to feed over too much space. The best that can be done, they waste too much grain. Confined as stated, and the waste eaten by the shoats, all do finely and there is great economy in the feeding.

The idea suggested here of using the old sows as gleaners after the best of the corn has been taken out is eminently practicable. Those who have never had experience in hogging down corn are apt to make the mistake of turning in a bunch of growing pigs along with the old sows that are in the herd. These lean, hungry creatures will simply devastate a cornfield, particularly if they are turned in before the grain has become quite hard. The best results will be obtained by turning in the spring pigs and keeping the old sows back in the pasture. If no part of the corn is lodged, it may be necessary for a time to cut down with a corn knife a few hills of corn every day, but in due time spring pigs weighing from seventy-five to 100 pounds will acquire the habit of knocking down their own corn. On the other hand, the old sows knock down entirely too much, so that for a time it is scattered on the ground and some of it even may be completely lost by becoming incorporated in the soil. It may be a little troublesome to keep the pigs away from the sows, but in the end it will pay and pay well, particularly so this year when grain is high in price and there is urgent need for using every available kernel.

Danger in Pasturing Young Clover.

Already there has been a heavy loss of spring-sown clover in various parts of the corn belt, this loss being due in some cases to lack of moisture and others to grasshoppers. Many cases have been reported to The Wisconsin Farmer where fields that looked well when the grain crop was removed are now absolutely bare and an examination reveals the fact that all the plants have been devoured by grasshoppers. However, from other sections comes the report that newly seeded clover looks well and many persons are banking on their new meadows for fall pasture. In view of this, a word of caution may be in order and a communication touches the point. He writes:

Overpasturing during the fall is a fruitful cause of failure with the clover crop. Many farmers who have succeeded in getting a good growth of young clover cannot resist the temptation to turn their stock onto it after harvest, allowing the animals to eat it down as close as they can. This is a great mistake, as the young plants need all their leaves at that time to gain strength for the next season's growth, as well as to protect them from being winterkilled. If there is any danger of the clover becoming so far advanced as to form heads, it would be better to run a mowing machine over the field, setting it to cut as high as possible so as not to injure the crowns of the clover plants. By removing the dividing board the cut grass will be spread even over the field. The ground is thus cleaned of weeds which may have sprung up since cutting the grain, and a mulch is formed which will aid in protecting the young clover plants during the winter. After the grain has been removed it pays to turn a few hogs or other stock into the field for a week or ten days in order that the waste grain may be gleaned; but don't pasture the young clover continuously from that time until late in the fall if a good growth of clover is wanted the following spring.

A good stand of clover is so important in the rotation that no man can afford to take a chance on killing out his crop because of the value that he can obtain from it as fall pasture. A good growth of top is needed for winter protection and, furthermore, if growth continues right up until freezing weather this means that the root will be more vigorous than will be the case where the new clover is cut in the fall. While clover is a comparatively sturdy plant and requires at least two years to go through all its life periods, it is nevertheless weakened when it is cut back the first year and excepting in rare instances where it blossoms we believe that it is better to let it alone so that the crop affords its own protection against the severe elements of winter and spring.

Cutting and Shocking Green Fodder.

One of our readers asks for information concerning how he should handle fifteen acres of corn that was planted late. This field was in full tassel August 31st, but conditions will have to be rather unusual if it matures. The question, therefore, is whether this fodder should be cut and shocked while it is still very green, or, on the other hand, should it be allowed to stand just as long as possible in order that the product may more nearly approach maturity? Mr. Carter fears that the product is liable to be frosted and thus very greatly impaired in its feeding value. He asks if green corn will cure out properly in the shock and when cured will it make a satisfactory feeding product. He has a considerable supply of hay in addition to this fodder, but as he is heavily stocked at this time it is naturally the wish to have as much good roughage as possible.

Under ordinary conditions it pays to allow late corn fodder to stand just as long as possible before cutting it. One can even afford to take the chance of having it frosted rather than to cut it too early, because in any event the freezing of fodder only slightly impairs its feeding value if it is cut and put in the shock soon after.

Two or three things must be kept in mind in handling a crop of corn fodder where the product is not converted into ensilage. One is weight per acre, and the largest possible weight is obtained by cutting the crop just after the lower leaves begin to turn brown. In the second place, a certain stage of maturity is desired because the fodder cures out better when put in the shock. Sappy, immature fodder will be so greatly reduced in weight by the curing process that the yield per acre will be very small, and while the product will be palatable, yet there will not be enough of it to justify the practice of cutting too early.

Retain and Improve the Breeding Herds.

If any of our readers are seriously considering selling off some of their breeding stock because of high grain prices they should think twice before taking steps in that direction. During the three years prior to the war our meat exports amounted to 494 million pounds annually. During the year ending June 30, 1916, we exported 1,339 million pounds, or nearly three times as much as during the pre-war period. European cattle, hogs and sheep have been decreasing at an alarming rate since the war began and they will continue to decrease as long as it lasts.

Though cattle have increased by 7 million head in the United States during the past three years, according to government statistics, and hogs have increased by 6 million head, our sheep have decreased to the extent of 3 million, but these comparatively large increases of cattle and hogs are insignificant as compared with the decreases that have taken place in Europe. Statistics show that the world's supply of cattle has decreased by 28 million head in the last three years, that the decrease in hogs amounts to 32 million and in sheep to 55 million head.

It is difficult to realize what this enormous sacrifice of live stock means. Europe has been consuming more meat since the war began because her armies have to be well fed and the millions of women who have taken the places of the men in field and factory, and who as a result are performing more severe labor than heretofore, have also been obliged to eat more meat. Furthermore, it will be remembered that the demand for meat during the last few years of the pre-war period was increasing faster than the supply, owing to the fact that the standard of living the world over was gradually being raised.

The enormous decrease in live stock referred to above not only means a shortage in meat, but also in dairy products, wool, hides and fats. It is a certainty that the world's herds of cattle, hogs and sheep cannot be restored to the pre-war basis half as fast as they have been reduced and the demand for meat products will no doubt be almost as great after the war as it is now because people will have to work more strenuously than ever in order to restore the devastated fields, factories, railroads, bridges, as well as whole cities. There will be an abundance of work and an abundance of people needing work. All will be busy, all will need to eat, and they will need meat more than ever to perform the arduous tasks in getting the machinery of production and transportation in motion.

In view of these conditions it requires no prophet to foretell that live stock prices the world over will be high for fifteen or twenty years to come, regardless of when the war closes. To sell off good breeding stock, whether of cattle, hogs or sheep, at the present time would look like a serious mistake. Let the American farmer not only maintain the number of live stock he now owns, but if possible let him increase his herds and by all means improve his breeding stock.

It is a self-evident fact that scrub stock cannot be made to pay with the present high level of grain prices, and cheap feedingstuffs cannot be expected for many years to come. Men with pure-bred herds of cattle, sheep and hogs will find an unusual demand for their surplus as soon as the war comes to a close, because every European country will have to build up new herds and the breeders of those countries will be looking for the best stock available, and a very large part of this will have to be found in the United States. There is a harvest ahead not only for the breeder of pure-bred stock, but also for the producer of cattle, hogs and sheep for the market. Stick by the breeding herds, for they are certain to remain profitable.

Federal Farm Loans.

We are reminded by the federal farm-loan board that it completed its first year of service on August 7th, and that farmers are taking advantage of the farm-loan act as rapidly as the land banks can take care of their demands. For many months the board devoted its time to organization work and the location of the twelve land banks, so it has really been approving loans for only a few months. So far the loans that have been approved aggregate 40 million dollars and over 800 farm-loan associations have been chartered. At the present time an average of twenty-five farm-loan associations are being chartered daily and the average association is borrowing $50,000, so the government is making arrangements for making loans to the extent of a million dollars a day.

As farmers come to more thoroughly realize the benefits of this cheap money which they can obtain from the land banks, no doubt the organization of farm-loan associations will be more rapid; in fact, the farm-loan board estimates that before the end of 1917 it will have made loans aggregating 100 million dollars or more. There are now over 200 federal farm loan appraisers in the field who are placing valuations on farms as rapidly as they can get to them, and the board has actually paid out to farmers the sum of five million dollars. Comparatively few farmers realize what this farm-loan act has in store for them and how much they will be benefited thereby if they organize farm-loan associations and take advantage of it.

The total farm debt in the United States amounts to about four billion dollars, and statistics show that the average rate of interest paid on this sum before the farm-loan act was passed was 7.4 per cent. If all these loans were transferred to the federal farm-loan system the farmers of this country would save annually 100 million dollars in interest. Besides, they would never have to worry about their mortgages falling due, because a loan made under the federal farm-loan system never falls due. It is paid off on what is known as the amortization plan, at the rate of 1 per cent a year, and at that rate it takes thirty-six years to pay off the entire debt. The interest rate is only 5 per cent and the paying of 1 per cent toward liquidating the debt makes a total of 6 per cent, which is still 1.4 per cent less than the average rate paid before this act went into effect, and that 6 per cent includes both interest and principal. Under the old system the average farmer paid 7.4 per cent for thirty-six years and still did not have his indebtedness reduced 1 cent; that is, he would still owe the original principal, but under the federal farm-loan system he can pay 6 per cent annually and at the end of thrty-six years he owes nothing; that is, the original indebtedness plus interest will have been paid in full by that time.

Those farmers who have money to invest will find that the farm-loan act will benefit them just as much as those who desire to borrow money. The land banks issue bonds against the farmers' mortgages. These bonds bear 4½ per cent interest and are exempt from all taxation. They are as safe as government bonds; in fact, nothing can be safer than these land bonds. They are, therefore, a fine form of investment. Bonds can be purchased in denominations as low as $25, so they are available to anyone who desires a safe form of investment for his surplus money. These bonds are very much in demand, as they are now selling rapidly at 101 1-8 per cent; that is, at a premium of 1 1-8 per cent.

Not only are farmers in states where interest rates on farm mortgages are high taking advantage of the federal farm-loan system, but so are also the farmers in states like Iowa, Indiana and Illinois, where land is high priced and interest rates relatively low.

The Potato Situation.

According to the latest government estimate, the potato crop—including Irish and sweet potatoes—will yield 553 millions bushels or 200 million bushels more than last year and 130 million bushels more than the average for the past five years. Of Irish potatoes alone the estimate for this year is 467 million bushels or 142 million bushels more than last year and about 100 million bushels more than the average for the past five years. Care should be taken not to flood the market with this big crop at digging time or the price is apt to fall so low as to compel growers to sell at a price that is below cost of production. This would not only be hard on the farmers, but also it would discourage planting a full acreage next spring. It is, therefore, to the interest of the government to see to it that a reasonable price be maintained.

Potato growers in the East recently held a conference at Boston, Mass., in which the whole potato situation was carefully studied and a plan of action pertaining to gradual marketing was outlined and agreed upon. The following plan was suggested and mapped out:

1. Marketing of only one-third of the crop at harvest time; another third to be marketed in ninety days or be placed in storage and later distributed as demand affords opportunity; the remaining third to be stored by the grower and marketed throughout the year.
2. All potatoes to be graded with care, taking out culls, cuts, cracks and any that are bruised. It was recommended that a wire screen grader be used—one and seven-eighths-inch mesh for oblong tubers and two-inch mesh for round ones. Graded stock then to be placed in good two-bushel sacks—115 pounds to the sack—and the sacks sewed tightly so as to prevent shucking and bruising.
3. Increasing the load in each railroad car from the normal 30,000 pounds to 45,000 or 50,000 pounds. That these cars be unloaded within twenty-four to thirty-six hours of their arrival at destination.
4. That municipalities and other bodies provide storage for as large quantities as possible at the peak of the harvest.

Facilities for financing stored potatoes was provided through the federal reserve banks, so that farmers may obtain ninety-day loans from the reserve banks through local member banks of the reserve system at a rate not to exceed 6 per cent. New England growers have already begun to take advantage of this provision. Unless a large proportion of this year's crops is put into storage for some time, profitable prices can hardly be expected to be maintained.

Minnesota Fair a Record Breaker.

(Continued from page 1.)

and the 3,400 members of the Minnesota Horticultural Society are confident that it will not be many more years before Minnesota ranks as one of the leading ten, or even half dozen, apple states of the Union. Certainly the display was a good one this year, conditions considered. The vegetable display was equally deserving. The Minneapolis and the St. Paul truck gardeners' associations carried on a spirited rivalry, as usual, St. Paul winning out this time. The displays were large and varied and showed a high- quality throughout. Especially was there much attention paid to the potato exhibits and to the potato possibilities of the state. The university experts pointed out, by striking exhibits and placards, that while the potato yield in the state is less than 100 bushels to the acre, on the average, it can be materially increased by controlling the insect pests and diseases which have cut down the yield in the past. They announced that spraying potatoes with Bordeaux for seven years resulted in an increase of sixty-three bushels to the acre; the use of seed plots from which to secure good, tested seed resulted in an increase of forty-four bushels to the acre; and that one man has earned as high as $40 a day by selecting and disinfecting seed potatoes. The following advice was given the farmer who wishes to make his potatoes yield better and is not afraid of a little work: Secure good varieties, select good soil and seed, disinfect the seed, spray the vines, rotate the crops and store the potatoes properly. If this is done there is no reason why Minnesota cannot and will not take much higher rank in the potato world. Further advice was given to store all root crops in a cool place, covering them with sand or leaves and to store pumpkins and squash in a dry, warm room. The gist of the advice given by the horticultural experts over and over again was this: The state can, and should, produce more, but of what is produced a still greater amount should be marketed properly and conserved by every possible effort.

The important part which women play in production and conservation, in preparing the nation not only for war but for those economies at home upon which the success of the war depends, was emphasized over and over again at this year's fair. Never was there so much interest manifest in home economics as now. This was particularly noticeable in the Women's Building and the section of the Agricultural Building given over to the work of boys and girls and farm women. The canning demonstrations and the bread-making contest aroused the greatest interest imaginable. Three thousand Minnesota girls are members of the various bread-making clubs and the competition is keen. Nor is it only the white bread to which prosperity has accustomed us, for there were demonstrations in making both potato bread and liberty bread, this latter being made of three-fourths wheat flour and one-fourth other cereal. "Help win the war by conserving wheat" and "The kitchen is one key to victory" were signs prominently displayed. Farm women mingled with the girl demonstrators and the agricultural college teachers and talked proteins, calories and energy value with an intelligence that shows how effective the campaign of the food conservation committee has been. One of the best displays of canned food and methods of conservation was that of the Home School for Girls at Sauk Center. These girls had canned vegetables, fruits, dried meats and a box of smoked fresh-water fish that attracted much attention. Economy in the home was the watchword everywhere. Over in the Women's Building there was a striking exhibit showing how much more cheaply a girl or woman can make clothing for herself than she can buy it ready made or have it made by a dressmaker. Any number of articles were shown, together with the actual making-cost at home. Something new and very attractive was the exhibit of modish clothes on live models, put on by the university extension service, called an "educational fashion review." The idea was to show both town and farm women what clothes were proper and best to wear on various occasions and how to wear them to get the best effect. The state has recognized at last that it is as important to teach people to dress in taste as anything else.

Minnesota has twenty-five cow-testing associations in active and successful operation. Hence, the exhibit at Hamline last week was timely as well as convincing. A dozen cows, belonging to members of the Stillwater Cow-Testing Association, were exhibited, with placards showing their production, the cost of their feed and their net money profit. The two extremes were Molly 2d, whose sire was a pure-bred Guernsey and whose dam was a grade Short-horn, which made an average profit, for a six-year term, of $122.16, her net profit last year being $174.40, and scrub No. 152, whose net profit was only $2.01 for the year. In between these two were grade Holsteins which returned net profits for the year of $62.45, $86.81 and $107.96; registered Holsteins which returned profits for the year of $102.02 and $100.10; a pure-bred Guernsey which cleared her owner $122.16 and grade Guernseys the net year's profit of which were $58.11, $59.26, $69.39 and $163.22. One cow exhibited, Charity by name, shows that it does not pay to mix breeds, she having a registered Holstein for a sire and a Jersey for a dam. Her net annual profit was only $6.25. This cow-testing exhibit was not only of interest as showing that it pays to weigh the product and keep books, but it went a long ways toward proving the ten points which the association heads believe absolutely true of their associations: That better methods of feeding make the rations more economical; that better care of the cows results in increased production; that a sire of better breeding is brought into the community by the association; that more silos and comfortable barns result; that the cows are freshed in the fall; that there is less loss in butter fat in skimmed milk; that the associations establish a value on cows according to their efficiency; that boarder cows are eliminated; that feeds are bought in large quantities and cheaper and that the associations attract buyers to the communities where they are located.

Minnesota made 6,320,394 pounds of cheese in 1916, receiving therefor $1,074,466.98. It was altogether proper, therefore, that a splendid display of cheese should be made this year, as well as of butter. Prize winners were announced by Supt. Andrew French, as follows: Walter Olson, Hawick, Minn., with a score of 96, led in the hand separator class, and Charles Gramith, of Waconia, was the winner in the whole milk class, each receiving a gold watch. Mrs. August Dundeen, Forest Lake, scored 93 and won the prize in the farm dairy butter class. W. Andrist, West Concord, won first place on American cheese, with a 97 score. Other prizes were: Brick cheese, Gottfried Meyer, Verndale, Minn., score 95; Swiss cheese, H. Moegger, West Concord, 97; best display of cheese, E. G. Hammer, Zumbrota, Minn.

Over eighty acres of ground were required to house the farm implement exhibits. Never were there so many time-saving and labor-saving devices exhibited. Forty kinds of tractors and over a half hundred models of automobiles were exhibited, arousing the most intense interest, proving that farmers are the best customers the machinery factories have nowadays. Machinery Hall was a busy place at Hamline, with every prospect that sales will be heavier the next year than ever before in the history of the state.

No fair in the Central West has equalled the record of Minnesota in the emphasis that has been placed by the management upon the importance of the implement display. It was the first fair of the entire list of fairs to house the principal exhibits, thereby making inspection agreeable to visitors regardless of the character of the weather. Improved machinery will take an even more important part in the agriculture of the future than has been the case in the past, and the management of Minnesota fair has been farseeing in the encouragement that has been given to manufacturers.

THE CATTLE SHOW.

The Gopher state always has a good cattle show. They expect 4,000,000 people and $2,000,000,000 annual production of various articles by 1925. Evidently cattle—both beef and dairy—will be expected to play their part in making the great northwestern commonwealth turn over her great stores of latent wealth to help feed the world. Interest seems to be well divided between the producers of milk and the producers of meat. One interest is as important as the other, and Minnesota has plenty of room for both. The fair management has always been progressive and has the spirit of the pioneer. It is an honor to show cattle at Hamline and this year cattle breeders who showed there have one of the best possible advertisements. Every animal on the grounds had been tested for tuberculosis previous to the fair and all were free from the disease. This rule was made by the fair association and there was no backing down from the rule. The pavilion was brilliantly decorated with flags of the allied nations in profusion and a band from Winnipeg deserves mention for its ability to furnish good music. All things helped to make the cattle show a good one. A unique feature of the show was a prize of $50 offered by the Minnesota Holstein Breeders' Association for the best county display of Holsteins. This was won by Washington county.

Short-horns.—Minnesota always has a good show of the good, old cosmopolitan breed, and keen interest always centers around the judging. Several of the entries at Des Moines appeared at Hamline and there met some new contenders from Minnesota, Wisconsin and South Dakota. Good Short-horns are not new in the Gopher state and the exhibits get better every year. Keener contests may have been staged, but poor animals were never fewer than this year. Craven Knight, from the Leslie Smith & Sons herd appeared on the scenes and defeated Maxwalton Amateur after considerable deliberation on the part of Dean C. F. Curtiss. Craven Knight defeated Royal Choice 2d, Herr Bros. & Reynolds' blue ribbon two-year-old bull for senior champion honors, but fell before Villager's Coronet for grand championship honors. Windsor Belle 23d, Kennedy's two-year-old heifer was made senior champion heifer, defeating Baroness Lady 7th, from the same herd for this honor. In the senior yearling heifer class, Miss Lovely, the bearer of the blue at Des Moines, was slated to win here, but met defeat when she met Violet Maid 8th, a smoothly turned and well-finished heifer from the Eliason herd. Violet Maid 8th was given the purple for grand champion honors. Money was quite well divided between Minnesota, Iowa and Wisconsin exhibitors.

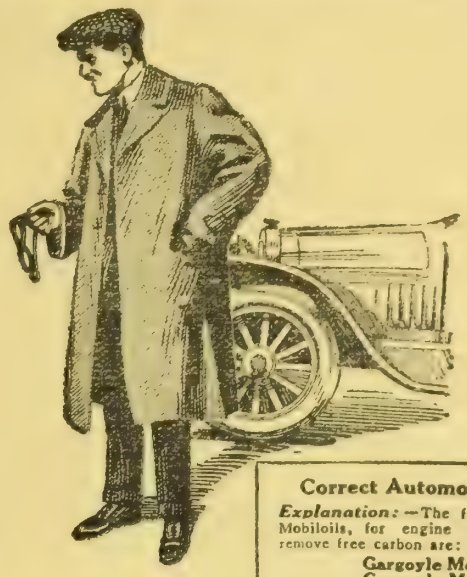
Exhibitors.—Anoka Farms, Waukesha, Wis.; G. D. Arnold, Galesville, Wis.; Cleverburn Farm, Colo, Iowa; S. G. Eliason, Montevideo, Minn.; P. J. Fosse, St. Cloud, Minn.; Wm. Herkelman, Elmwood, Iowa; O. F. Henkel & Son, Kenyon, Minn.; Herr Bros. & Reynolds, Lodi, Wis.; Jackson & White, Hurley, S. D.; Eben Jones, Bangor, Wis.; J. E. Kennedy, Janesville, Wis.; Alex Mitchell, Jasper, Minn.; C. A. Oldson, Wall Lake, Iowa; Smith & Son, Leslie, St. Cloud, Minn. Judge, Dean C. F. Curtiss, Ames, Iowa.

Bull 3 years or over (2 shown), 1st Smith & Sons on Craven Knight, 2d Kennedy on Maxwalton Amateur; 2 years and under 3 (3 shown), 1st Herr Bros. & Reynolds on Royal Choice 2d, 2d Mitchell on Aldsworth Reformer, 3d Fosse on Heir Apparent; senior yearling (5 shown), 1st Uppermill Farms on Villager's Coronet; 2d Jackson & White on Dale Villager, 3d Herr Bros. & Reynolds on Ruby's Knight, 4th Henkel & Son on Crown Marshall, 5th Mitchell on Lavender Cumberland; junior yearling (12 shown), 1st Smith & Sons on Royal Cup, 2d Eliason on Gold Bug; 3d Oldsen on Moerness Hallmark, 4th Jones on Collynie Cumberland, 5th Smith & Sons on Lothian Lodestar, 6th Henkel & Sons on Standard Marshal, 7th Smith & Sons on Wizard of Nacmoor, 8th Fosse on Ashburn Sultan, 9th Smith & Sons on Balnakyle Brigadier; senior calf (15 shown), 1st and 3d Anoka Farms on Anoka Champion and Royal Stamp, 2d and 9th Eliason on Sunrise and Superb Lad, 4th Kennedy on Scottish Royal, 5th Uppermill Farm on Villager's Cardinal, 6th Herr Bros. & Reynolds on Master Bapton, 7th Jackson & White on Laird of Avondale, 8th Mitchell on Selected Cumberland; junior calf (9 shown), 1st and 8th Herr Bros. & Reynolds on Master Mariner and Brawith Master, 2d Anoka Farms on Rosebud Champion, 3d Mitchell on Cumberland Lavender, 4th and 5th Eliason on Superb Archer and Cumberland's Seal, 6th Cleverburn Farm on Orange Stamp 2d, 7th Henkel & Son on Marshal's Type, 9th Smith & Sons on Premier Knight.

Cow 3 years or over (4 shown), 1st Kennedy on Baroness Lady 7th, 2d Jones on Verbena of Oakdale, 3d Uppermill Farm on Cuckoo Beauty, 4th Fosse on Miss Myrtle; 2 years and under 3 (5 shown), 1st Kennedy on Windsor Belle 23d, 2d Smith on White Princess, 3d Herr Bros. & Reynolds on Woodburn Rosemary 2d, 4th Mitchell on Highfield's Parsley 6th, 5th Fosse on Lady Dorothy; senior yearling (11 shown), 1st and 3d Eliason on Violet Maid 8th and Lady Clara 9th, 2d Kennedy on Miss Lovely, 4th Herr Bros. & Reynolds on Goldie's Ruby, 5th Jackson & White on Lustre's Lass, 6th Smith on Maid of Orange, 7th Jones on Victoria Cumberland; junior yearling (11 shown), 1st Claverburn Farm on Sunny Maid 10th, 2d and 3d Uppermill Farm on Villager's Graceful 2d and Villager's Graceful, 4th Eliason on Miss May 5th, 5th Herr Bros & Reynolds on Village Belle 2d, 6th Henkel on Lindman Princess, 7th Smith on Marion 4th, 8th Jones on Collynie Belle, 9th Smith on Roan Blossom; senior calf (14 shown), 1st Jackson & White on Urbandale Duchess, 2d and 7th Anoka Farms on Fanny Anoka and Columbia Anoka, 3d Smith & Sons on Broadhooks Queen, 4th and 9th Eliason on Lady Clara 11th and Augusta of Northcote, 5th Herr Bros. & Reynolds on Averne 15th, 6th Uppermill Farm on Villager's Maurine, 8th Mitchell on Missie 2d; junior calf (18 shown), 1st and 6th Anoka Farms on Augusta Anoka 5th and Clipper Anoka 7th, 2d and 4th Uppermill Farm on Villager's Lassie and Villager's Clara 7th, 3d Kennedy on Oak Lawn Alice, 5th Herkelman on Lady Mildred, 7th Claverburn Farm on Princess Waterloo 4th, 8th Jones on Hillshade Marvel.

Senior champion bull, Smith & Sons on Craven Knight; junior and grand champion bull, Uppermill Farms on Villager's Coronet; senior champion cow, Kennedy, on Windsor Belle 23d; junior and grand champion cow, Eliason on Violet Maid 8th; graded herd (5 shown), 1st Kennedy, 2d Smith & Sons, 3d Herr Bros. & Reynolds, 4th Mitchell, 5th Fosse; young herd (7 shown), 1st Uppermill Farms, 2d Eliason, 3d Herr Bros. & Reynolds, 4th Smith & Sons, 5th Jones, 6th Mitchell; calf herd (10 shown), 1st Anoka Farms, 2d Eliason, 3d Uppermill Farm, 4th Jackson & White, 5th Herr Bros. & Reynolds, 6th Mitchell; get of bull (9 shown), 1st Eliason, 2d Uppermill Farm, 3d Anoka Farms, 4th Herr Bros. & Reynolds, 5th Alex Mitchell, 6th Jones; produce of cow (6 shown), 1st Eliason, 2d Jackson & White, 3d Mitch-

PARKER & SON'S GRAND CHAMPION DUROC JERSEY BOAR, KING ORION.



We Protest

Now and then we meet a man who says with some enthusiasm, "I am using Gargoyle Mobiloil and it works fine."

To our great disappointment we sometimes find that this friend is using the wrong grade for his engine.

We are too jealous of the results which can be secured from the proper use of Gargoyle Mobiloils to allow this careless practice to go on without a protest.

Naturally, because of their sheer *quality*, Gargoyle Mobiloils are bound to show good *lubricating* results. But we are aiming to furnish more than protection to the moving parts.

For this reason, we annually determine through our Board of Engineers, which *grade* of Gargoyle Mobiloils is best suited to each make and model of car.

The man who fails to use the *grade* of Gargoyle Mobiloils specified for his car stands to lose some of the greatest benefits which the oils offer him.

For example: Gas consumption depends a great deal on the piston-ring seal. The piston-ring seal depends solely on the "body" and character of the oil used.

In a given engine, oil of the very highest *quality* may be of wrong *body* for proper piston-ring seal. The result then is waste of gas and power with each piston stroke.

To assure your securing best results will you please look at the partial Chart at the right and see if you are using the correct grade for your car. If not, in justice to your own engine, will you, please, insist on being supplied with the correct grade.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of troubles with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Marine Engines.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the Red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY, Rochester, N. Y., U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Detroit New York Philadelphia Minneapolis Boston Chicago Indianapolis Pittsburgh Kansas City, Kan. Des Moines

Correct Automobile Lubrication

Explanation: —The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A." "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Co.'s Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of	1917		1916		1915		1914		1913	
CARS	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" " (8 cyl)			A	A	A					
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)					A	Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Auburn (4 cyl)			A	Arc	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac						Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Cunningham					Arc	Arc	Arc	Arc	A	A
" (8 cyl)	A	A	A	A						
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
Hal-Twelve	A	A	A	A						
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Hudson		Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (6 cyl)	A	A								
" com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Kissel			E	E	E	E				
" Com'l	A	Arc	A	Arc	A	Arc				
Kelly Springfield	A	A	A	A	A	A	A	A	Arc	Arc
King					A	Arc	A	A	A	E
" (8 cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Lozier	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" (Mod. 48)			A	A	A	A	A	A		
" (12 cyl)	A	A								
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. M)	A	Arc	A	Arc						
" (Mod. MW)	A	Arc								
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
McFarlan	A	Arc	A	A	Arc	A	A	A	A	Arc
Marmon	A	A	A	A	A	Arc	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	Arc	A	Arc	A	Arc
" (22-70)					Arc	Arc				
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8 cyl)			A	A						
Moline-Knight									A	Arc
" Knight	A	A	A	A	A	A	A	A		
Moon (4 cyl)					Arc	A	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard					A	Arc	A	Arc	Arc	Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Paige					A	Arc	A	A	A	E
" (6-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36 & 38)	A	Arc	A	Arc	A	Arc				
Pathfinder	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
" " Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)			A	A	Arc	Arc				
Renault (French)			A	Arc	A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Richmond	Arc	Arc	Arc	Arc	A	Arc	A	Arc	Arc	Arc
Riker	E	E								
Saxon	E	E	E	E	E	E	E			
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Simplex	A	A	A	A	Arc	Arc	Arc	Arc	Arc	Arc
Stearns-Knight	A	A	B	A	B	A	B	A	A	A
" (8 cyl)	A	A	B	A						
Studebaker	A	Arc	A	Arc	Arc	Arc	A	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	Arc	Arc	Arc
Velie (4 cyl)				A	Arc	A	Arc	A	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A								
Willys-Knight	A	A	B	A	B	A	A	A		
Willys Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

Electric Vehicles: For motor bearings and enclosed chains use Gargoyle Mobiloil "A" the year round. For open chains and differentials, use Gargoyle Mobiloil "C" the year round.

Exception: For *winter lubrication* of pleasure cars use Gargoyle Mobiloil "Arctic" for worm drive and Gargoyle Mobiloil "A" for bevel gear drive.

ell, 4th Jones, 5th Smith & Sons, 6th Fosse.

Herefords.—White face lovers saw a good show at Hamline—good herds coming from Missouri, Minnesota and South Dakota. Quality and condition were much in evidence throughout all the classes. Extended comment is not necessary, as the top animals from the Yost herd appeared at Des Moines last week. Mr. J. H. Van Natta passed judgment on all classes in his usual able manner. Yost won most of the blues in classes and all the championships. Ardmore had no difficulty in taking the senior purple and defeated Duke Real 8th, the junior champion, for grand champion honors. Dorothy Donald 6th was made senior and grand champion female. Bonnie Doris, fifth-prize senior heifer at Des Moines, won the blue over Dorothy Hampton 23d, her stable mate which was given the blue and junior purple honors at Des Moines last week. Bonnie Doris was made junior champion at Hamline. Yost won all the blue in the group classes. Bereman, Sorenson, Biehl & Sidwell and Pettigrew all made good shows and came in for one or two blues in the single classes.

Exhibitors.—L. L. Anderson, Balaton, Minn.; Biehl & Sidwell, Queen City, Mo.; Jas. H. Bereman, Aurora, Ill.; Clinton Falls Nursery Co., Owatonna, Minn.; Giles E. Pettigrew, Flandreau, S. D.; W. H. Phipps, Atwater, Minn.; C. P. Sorenson, Balaton, Minn.; Robt. G. Waldron, Byron, Minn., and W. L. Yost, Kansas City, Mo. Judge, J. H. Van Natta.

Bull 3 years or over (2 shown), 1st Yost on Ardmore, 2d Pettigrew on Lord Generous; 2 years and under 3 (2 shown), 1st Bereman on Perfect Donald 2d, 2d Yost on Woodford 1st; senior yearling (3 shown), 1st and 2d Yost on Duke Real 8th and Fairfax 3d, 3d Pettigrew on Lelition; junior yearling (8 shown), 1st Anderson on Fairbanks, 2d Yost on Arranmore, 3d Phipps on Rupert's Improver, 4th Sorenson on Standard Lad 11th, 5th Bereman on Parader Perfection; senior calf (7 shown), 1st, 3d and 4th Bereman on Donald Disturber, Albany Columbus and Don Disturber, 2d and 5th Biehl & Sidwell on Annabel's Disturber and Earl Disturber, 6th Pettigrew on March Ion; junior calf (4 shown), 1st and 2d Biehl & Sidwell on Neal Disturber and Billy Disturber, 3d Yost on Beau Champion, 4th Sorenson on Beau Disturber 1st.

Cow 3 years or over (4 shown), 1st Yost on Dorothy Donald 6th, 2d Bereman on Dolly Fairfax, 3d Pettigrew on Nora S., 4th Waldron on Adell; 2 years and under 3 (4 shown), 1st Pettigrew on Standard Lady 17th, 2d Bereman on Prince Lass Britisher, 3d Yost on Belle Perfection 56th, 4th Clinton Falls Nursery Co. on Benita 19th; senior yearling (5 shown), 1st and 2d Yost on Bonnie Doris and Dorothy Hampton 23d, 3d Sorenson on Standard Lass 1st, 4th Pettigrew on Musada Gem, 5th Clinton Falls Nursery Co. on Aralia 4th; junior yearling (7 shown), 1st Yost on Bonnie Princess, 2d and 3d Bereman on Columbia March On and Prince Lass Columbus, 4th and 6th Sorenson on Standard Lass 3d and Standard Susie; senior calf (10 shown), 1st and 2d Yost on Bonnie Madeline and Bonnie Easter, 3d Bereman on Disturber's Fairy, 4th and 6th Sorenson on Disturber Pet and Dainty, 5th Biehl & Sidwell on Amy Disturber; junior calf (6 shown), 1st and 3d Bereman on Verna Disturber 2d and Begonia Wilton, 2d Yost on Bonnie Augusta, 4th Biehl & Sidwell on Bell Disturber, 5th Pettigrew on Queen Tow, 6th Waldron on Delia Donald.

Senior and grand champion bull, Yost on Ardmore; junior champion bull, Yost on Duke Real 8th; senior and grand champion cow, Yost on Dorothy Donald 6th; junior champion cow, Yost on Bonnie Doris; graded herd (3 shown), 1st Yost, 2d Bereman, 3d Pettigrew; young herd (3 shown), 1st Yost, 2d Sorenson, 3d Pettigrew; calf herd (6 shown), 1st Yost, 2d Bereman, 3d Biehl & Sidwell, 4th Sorenson; get of bull (5 shown), 1st Yost, 2d Biehl & Sidwell, 3d Sorenson, 4th Pettigrew; produce of cow (5 shown), 1st Yost, 2d Bereman, 3d Sorenson, 4th Pettigrew.

Aberdeen Angus.—Doddies made a good showing at Hamline despite the fact that they were not numerous. Congdon & Battles and C. D. & E. F. Caldwell furnished the top animals and captured most of the firsts and seconds, although good showings were made by two South Dakota exhibitors. Blackcap Bertram had no difficulty in taking blue in class and both senior and grand champion honors. Caldwells also had junior champion honors on a junior calf. Queen Milly of S. D., from the same herd, won the senior and grand champion female honors, the junior purple going to Congdon & Battles on Queen of Rosemere 5th. Caldwells won the blues in all the group classes.

Exhibitors.—Berry & Redfield, Hurley, S. D.; C. D. & E. F. Caldwell, Burlington Jct., Mo.; Congdon & Battles, Yakima, Wash., and John Lakings & Son, Hurley, S. D. Judge, W. H. Peters.

Bull 3 years or over (2 shown), 1st Caldwell on Blackcap Bertram, 2d Congdon & Battles on Knight of Rosemere; 2 years and under 3 (3 shown), 1st Congdon & Battles on Cherokeer, 2d Berry & Redfield on Blackwood Eric, 3d Caldwell on Blatant; senior yearling (1 shown), Congdon & Battles on Knight of Rosemere 2d; junior yearling (2 shown), 1st Congdon & Battles on Quality Lad of Rosemere 3d, 2d Berry & Redfield on Black Peer 2d; senior calf (6 shown), 1st and 2d Caldwell, 3d Congdon & Battles on Yakima Prince, 4th and 6th Berry & Redfield on Black Pudding Bob and Blackcap Jester, 5th Lakings & Son on Coy; junior calf (3 shown), 1st Caldwell, 2d Congdon & Battles on Yakima Black 4th, 3d Lakings & Son.

Cow 3 years or over (5 shown), 1st, 3d and 4th Caldwell on Queen Milly of S. D. 3d, Pride of Autumn and Esthonia 12th, 2d Congdon & Battles on Quissy of Meadowbrook, 5th Berry & Redfield on Blackbird Rose; 2 years and under 3 (4 shown), 1st and 4th Congdon & Battles on Kensington Lady E. and Pride of Rosemere 9th, 2d Berry & Redfield on Enamma 3d, 4th Congdon & Battles on Pride of Rosemere 9th; senior yearling (3 shown), 1st Caldwell on Esthonia 15th; 2d Berry & Redfield on Honey Dew, 3d Lakings & Son on Lake Dale Meta 4th; junior yearling (5 shown), 1st and 4th Congdon & Battles on Queen of Rosemere and Blackbird of Rosemere, 2d Caldwell on Blackcap Echo 3d, 3d Berry & Redfield on Evergreen E., 5th Lakings & Son on Lake Dale Blackbird 3d; senior calf (6 shown), 1st and 4th Caldwell on Blackbird 226th and unnamed, 2d Congdon & Battles on Pride of Rosemere 20th, 3d and 5th Berry & Redfield on Kensington of Momedale 40th and Edrina's Betsy 4th, 6th Lakings & Son on Lake Dale Betty 4th; junior calf (4 shown), 1st Congdon & Battles on Barbara of Rosemere, 2d and 4th Caldwell, 3d Lakings & Son on Dara Wren 2d.

Senior and grand champion bull, Caldwell on Blackcap Bertram; junior champion bull, Caldwell on unnamed; senior and grand champion cow, Caldwell on Queen Milly of S. D.; junior champion cow, Congdon & Battles on Queen of Rosemere; graded herd (2 shown), 1st Caldwell, 2d Congdon & Battles; young herd (2 shown), 1st Caldwell, 2d Lakings & Son; calf herd (2 shown), 1st Caldwell, 2d Congdon & Battles; get of bull (3 shown), 1st Caldwell, 2d Congdon & Battles, 3d Lakings & Son; produce of cow (3 shown), 1st Caldwell, 2d Congdon & Battles, 3d Lakings & Son.

Galloways.—Twenty-five cattle shown by Isaac Lincoln and H. & G. Croft, judged by W. H. Peters, of Fargo, N. D., constituted the Galloway show. Lincoln won all but three of the firsts in the bull classes and all of the firsts in the female classes. Croft had grand champion bull and Lincoln won all of the other purples and all of the blues in the group classes.

Exhibitors.—H. & G. Croft, Bluff City, Kan., and Isaac Lincoln, Aberdeen, S. D. Judge, W. H. Peters.

Bull 3 years or over (1 shown), 1st Croft on A. Carnot; 2 years and under 3 (1 shown), 1st Lincoln on General; senior yearling (1 shown), 1st Croft on Rex of Greenbush; junior yearling (1 shown), 1st Lincoln on Brusiloff; senior calf (3 shown), 1st and 2d Lincoln on Milford L. and Falcon L., 3d Croft on Frolic of Greenbush; junior calf (1 shown), 1st Croft on Eirod of Greenbush.

Cow 3 years or over (4 shown), 1st and 3d Lincoln on Fatema of L. F. and Beatrice of L. F., 2d Croft on Little May 2d of L. F.; 2 years and under 3 (2 shown), 1st Lincoln on Mandy, 2d Croft on Meadow Queen; senior yearling (3 shown), 1st and 2d Lincoln on Lady Florence 5th and Maud 5th, 3d Croft on Evelyn of Greenbush; junior yearling (2 shown), 1st Lincoln on Florence 6th of L. F., 2d Croft on Gwendoline 3d; senior calf (3 shown), 1st and 2d Lincoln on Meta May L. 6th and Marth L. 6th, 3d Croft on Vina of Greenbush; junior calf (3 shown), 1st and 2d Lincoln on Betty L. and Beatrice L. 7th, 3d Croft on Silvia of Greenbush.

Senior champion bull, Croft on A. Carnot; junior champion bull, Lincoln on Milford L.; senior champion cow, Lincoln on Fatema of L. F.; junior champion cow, Lincoln on Lady Florence 5th; grand champion bull, Croft on A. Carnot; grand champion cow, Lincoln on Fatema of L. F.; graded herd (2 shown), 1st Lincoln, 2d Croft; young herd (2 shown), 1st Lincoln, 2d Croft; calf herd (2 shown), 1st Lincoln, 2d Croft; get of bull (2 shown), 1st Lincoln, 2d Croft; produce of cow (2 shown), 1st Lincoln, 2d Croft.

Red Polled.—The showing of Red Polled cattle at Hamline this year lacked the numbers of former shows made by this breed in recent years. Quality among the top cattle was much in evidence. Jean Du Luth Farm made its usual strong showing and most creditable showings were made by John A. Curran and E. E. Novak. Jean Du Luth lost only one blue in classes. The aged bull class revealed Paul, who easily won the blue and later defeated Proctor Knott 4th for senior purple honors. Paul is showing in good form and a contest arose between him and Pilot Lee, a son of Teddy's Best and Pear, for grand championship honors. Pilot Lee is a junior yearling and Mr. Grout says he is the bull they have been praying for at Jean Du Luth Farm. Pilot Lee is not showing in as high flesh as Paul. He has great length and natural thickness and was finally made grand champion bull. A better prospect for the welfare of the breed would be hard to find. In female classes five good cows appeared. Lady Golden, the world's champion three-year-old, was showing with an empty udder, which detracted from her usually good showing form. Jean Du Luth Betty, a dry cow, near to calving, showed in good form. She is smooth, is a wonderful handler, has good depth and length and not only won blue in her class, but the purple for senior champion honors. Eva Falstaff 4th, shown by Curran, was one of the best type cows in the ring, but fell to second place because of a bad quarter. Jean Du Luth Betty was defeated for grand champion honors by the junior yearling heifer, Jean Du Luth Bamby, a heifer of unusual promise.

Exhibitors.—John A. Curran, Sechlerville, Wis.; Jean Duluth Farm, Duluth, Minn., and E. E. Novak, New Prague, Minn. Judge, Andrew Boss.

Bull 3 years or over (2 shown), 1st Jean Du Luth Farm on Paul, 2d Curran on Prince Luna; 2 years and under 3 (1 shown), 1st Jean Du Luth Farm on Proctor Knott 4th; senior yearling (1 shown), 1st Jean Du Luth Farm on Paul Junior; junior yearling (2 shown), 1st Jean Du Luth Farm on Pilot Lee, 2d Curran an Marham 2d; senior calf (4 shown), 1st Jean Du Luth Farm on Jean Du Luth Pacemaker, 2d Curran on Fellows, 3d and 4th Novak on Lakeview Peter and Lakeview Dan; junior calf (4 shown), 1st and 3d Curran on O. G. W. Wilson and Brilliant Lad, 2d and 4th Novak on Lakeview Ernest and Lakeview Martin.

Cow 3 years or over (5 shown), 1st and 3d Jean Du Luth Farm on Jean Du Luth Bettie and Lady Golden, 2d and 4th Curran on Eva Falstaff 4th and Daisy's Girl; 2 years and under 3 (2 shown), 1st Jean Du Luth Farm on Liza Again, 2d Curran on Isâbel; senior yearling (3 shown), 1st Jean Du Luth Farm on Jean Du Luth Bonny Belle, 2d and 3d Novak on Lakeview Hope and Lakeview Dauntless; junior yearling (6 shown), 1st and 2d Jean Du Luth Farm on Jean Du Luth Bamby and Jean Du Luth Bonny Zita, 3d and 4th Curran on Popular Lassie and Bessie; senior calf (4 shown), 1st Jean Du Luth Farm on Jean Du Luth Delight, 2d and 3d Curran on Irene and Dona's Ruth 2d, 4th Novak on Lakeview Fanella; junior calf (2 shown), 1s and 2d Jean Du Luth Farm on Jean Du Luth Fancy and Gipsy Maid.

Senior champion bull, Jean Du Luth Farm on Paul; junior and grand champion bull, Jean Du Luth Farm on Pilot Lee; senior champion cow, Jean Du Luth Farm on Jean Du Luth Bettie; junior and grand champion cow, Jean Du Luth Farm on Jean Du Luth Bamby; graded herd, 1st Jean Du Luth Farm, 2d Curran; young herd, 1st Jean Du Luth Farm; calf herd, 1st Jean Du Luth Farm, 2d Curran; get of bull, 1st Jean Du Luth Farm, 2d Curran, 3d Novak; produce of cow, 1st Jean Du Luth Farm, 2d Curran.

FAT CATTLE.

Exhibitors—Claverburn Farm, Colo, Ia.; C. D. & E. F. Caldwell, Burlington Junction, Mo.; Congdon & Battles, Yakima, Wash.; Eben A. Jones, Rockland, Wis.; John Lakings & Son, Hurley, S. D.; C. P. Sorenson, Balaton, Minn.; Herr Bros. & Reynolds, Lodi, Wis.; W. I. Yost, Kansas City, Mo. Judge, Andrew Boss, St. Paul, Minn.

Steer, spayed or martin heifer, 2 years and under 3 (5 shown), 1st, 4th and 5th Claverburn Farm on Improver, Ben and Doc, 2d Herr Bros. & Reynolds on White Velvet, 3d Lakings & Son on Lake Dale Prince; 1 year and under 2 (6 shown). 1st Sorenson on Standard Lad 4th, 2d Caldwell on Luckily, 3d Herr Bros. & Reynolds on Lightning Flash, 4th and 6th Claverburn Farm on Bobby and Johnny, 5th Lakings & Son on Lake Dale Dick; calf (9 shown), 1st Yost on Liberty Bond, 2d Caldwell on Kiahoga, 3d Herr Bros. & Reynolds on Benefactor 2d, 4th Jones on Hillshade Laddie, 5th Lakings & Son on Lake Dale Harry, 6th Congdon & Battles on Doc Yak, 7th Lakings & Son on Lakedale Harry.

Champion steer, Yost on Liberty Bond; steer herd (3 shown), 1st Herr Bros. & Reynolds, 2d Claverburn Farm, 3d Caldwell.

DAIRY CATTLE.

Holsteins.—Black and white cattle are favorites among Minnesota farmers where milk production occupies the center of the stage. Some of the best herds in America are located between the Mississippi and the Red River of the North. An agreement on the part of the "big fellows" leaves the showing to lesser lights. Even so, a better show was staged at Hamline than appeared in 1916. Sensations were not numerous, although the aged bull class was quite spectacular and brought out five good bulls at the top; and if there was a sensation in the show, it appeared in Sir Pietertje Ormsby Mercedes 14th, a deep, massive bull with lots of scale, high at the withers, strong in the heart and plenty of style. Dutchland Aggie Tidy Prince is a good bull in any company. Far Oaks Sir Violet Ormsby, a junior calf from the Culver herd, took the junior purple, but grand champion honors were easily conceded to the senior bull. The aged cow class brought out 13 good cows. Springbrook Darkness, blue ribbon cow at Des Moines, met new company at Hamline and fell to fourth place. Shilling Colantha Belle, blue ribbon cow at Grand Forks, was placed first in class and given the senior purple ribbon. Grand champion honors, though, were generally conceded to Edenwold Aggie Bess, the senior yearling heifer from the same herd and a real promising heifer.

Exhibitors.—Alfred Berglund, Albert Lea, Minn.; Brown Bros., Hartford, S. D.; V. S. Culver, Stillwater, Minn.; Wm. Jeans, Withrow, Minn.; Marloy & McCargar, Mankato, Minn.; Mayowood Farm, Rochester, Minn.; S. F. Ruble, Albert Lea, Minn.; Rogers & Kolliner Co., Stillwater, Minn.; A. F. Wendtland, Good Thunder, Minn. Judge, J. L. Smith, Spokane, Wash.

Bull three years or over (7 shown), 1st Marlow & McCargar on Sir Pietertje Ormsby Mercedes 14th, 2d Rogers & Kolliner Co. on Dutchland Aaggie Tidy Prince, 3d Culver on Peibe Laura Ollie Homestead King, 4th Mayowood Farm on Johanna Oneline Grahamhelm Lad, 5th Berglund on Buffalo Allerton Beets; 2 years and under 3 (2 shown), 1st Culver on Far Oaks Sir Ormsby Johanna, 2d Jeans on W. R. Korndyke Veeman; senior yearling (3 shown), 1st Mayowood on King Aaagie De Kol Grahamhelm, 2d Wendlandt on Mutual Paul Champion, 3d Jeans on W. J. Skylark; junior yearling (3 shown), 1st Jeans on W. R. Skylark Burke, 2d Wendlandt on Piebe Champion Boy, 3d Brown Bros. on King Johanna Segis Pietertje; senior calf (11 shown), 1st Jeans on Sir Ormsby Korndyke Pietertje, 2d and 3d Mayowood on Johanna Glenda Lad and Mercedes Ondine Jewel, 4th and 5th Rogers & Kolliner Co. on Dallas Hengerveld De Kol and Dallas Colantha Johanna Lad; junior calf (4 shown), 1st and 2d Culver on Far Oaks Sir Violet Ormsby and Far Oaks Sir Ormsby Champion, 3d Rogers & Kolliner Co. on Dallas Peitertje Lad, 4th Jeans on Willow Ridge King Clothilde Prilly.

Cow 4 years or over (13 shown), 1st, 2d and 5th Rogers & Kolliner Co. on Shilling Colantha Belle, Shilling Colantha Langtry and Madison Jennie Friend, 3d Wendlendt on Victoria Perfecta De Kol, 4th Culver on Springbrook Darkness; 3 years and under 4 (4 shown), 1st Berglund on Daisy Manor Cornucopia De Kol, 2d Wendtland on Pietertje Perfecta 3d, 3d Rogers & Kolliner on Eona Aaggie Tidy; 2 years and under 3 (9 shown), 1st Rogers & Kolliner on Edenwold Johanna De Kol Lilith, 2d and 3d Culver on South Side Inka De Kol 2d and Far Oaks Ideal Ormsby, 4th Mayowood Farm on Pietertje Perfection Soo, 5th Brown Bros. on Laverta Mantema Gerben; senior yearling (8 shown), 1st Rogers & Kolliner on Edenwold Aggie Bess, 2d Mayowood Farm on Johanna Ondine Soo, 3d Culver on Far Oak's Skylark Ormsby, 4th Ruble on Bessie Skylark De Kol Galis, 5th Berglund on Daisy Allerton De Kol; junior yearling (6 shown), 1st Rogers & Kolliner on Dallas Friend Madison Jennie, 2d Mayowood Farm on Johanna Woodcrest Ruth, 3d and 5th Culver on Far Oaks Lily Ormsby and Far Oaks Harriet Ormsby, 4th Brown Bros. on Laverta Canary; senior calf (15 shown), 1st Rogers & Kolliner on Rose Eona Aggie Tidy, 2d Mayowood Farm on Johanna Tritomia Mercedes, 3d Jeans on Woodcrest Echo, 4th Culver on Far Oaks Miss Ormsby Rue, 5th Ruble on Beauty Skylark De Kol Galis; junior calf (9 shown), 1st Culver on Pelagie Wayne Roy Apple King, 2d Rogers & Kolliner on Shilling Pieterje Prilly, 3d Ruble on Doris La Polka Boon, 4th Culver on Far Oaks Madeline Ormsby, 5th Mayowood Farm on unnamed.

Senior and grand champion bull, Marlow & McCargar on Sir Pieterje Ormsby Mercedes 14th; junior champion bull, Culver on Far Oaks Sir Violet Ormsby; senior champion cow, Rogers & Kolliner on Shilling Colantha Belle; junior and grand champion cow, Rogers & Kolliner on Edenwold Aggie Bess; grade herd (5 shown), 1st Rogers & Kolliner, 2d Culver, 3d Berglund, 4th Mayowood Farm, 5th Brown Bros.; young herd (4 shown), 1st Mayowood Farm, 2d Culver, 3d Ruble, 4th Brown Bros.; calf herd (4 shown), 1st Mayowood Farm, 2d Culver, 3d Ruble, 4th Brown Bros.; get of bull (5 shown), 1st Mayowood Farm, 2d Culver, 3d Rogers & Kolliner, 4th Ruble, 5th Brown Bros.; produce of cow (7 shown), 1st Mayowood Farm, 2d Berglund, 3d Marlow & McCargar, 4th Brown Bros., 5th Rogers & Kolliner.

Jerseys.—Minnesota and Wisconsin contributed to make a high-class show of island cattle at Hamline. Larger shows have been out in the Gopher state, but there was a lot of good stuff shown this year, 72 head taking part in making the competition keen. Competition was especially strong in female classes. Gamboze's Vellum's Majesty was placed first in class and made senior and grand champion bull to the satisfaction of those about the ring. The junior yearling, Rose's Elmhurst Jolly, was given the junior purple ribbon. All the female champion honors went to Wisconsin. Oxford Lena's Lass is a good type and annexed senior purple honors. Quite a contest developed over junior purple honors, the test centering between Oxford Togo's Jolly and Cupid's Oxford Panola. The decision went to the former, who was also made grand champion female of the breed.

Exhibitors.—C. R. Brackett, Long Lake, Minn.; W. S. Dixon, Brandon, Wis.; H. L. Elliot, Hopkins, Minn.; Jas. J. Grathwol, Excelsior, Minn.; J. W. Love, Wayzata, Minn.; C. J. Morck, Kenyon, Minn.; M. D. Munn, St. Paul, Minn.; Ruby Plank, Wayzata, Minn.; Chas. A. Peterson, Rosendale, Wis.; Geo. T. Slade, White Bear Lake, Minn.; H. C. Wagner, Excelsior, Minn.; Mrs. J. D. Anderson. Judge, C. T. Graves.

Bull 3 years or over (4 shown), 1st Munn on Gamboze's Vellums Majesty, 2d Dixon on Sultana's Oxford Rosette, 3d Morck on Noble of New [illegible] 4th Anderson on Emmet's Bobby; 2 years and under 3 (5 shown), 1st [illegible] on Ibsen's Chief, 2d Munn on Medora's Raleigh, 3d Love on Jolly's Eminent Boy, 4th Elliot on Combination Noble Judd, 5th Slade on Noble Prince Jolly; senior yearling (2 shown), 1st Peterson on Marguerite's Jolly King, 2d Love on Eminent Combination [illegible] calf (6 shown) 1st Dixon on [illegible]'s Oxford Togo, 2d Slade on Noble [illegible] Jolly, 3d Peterson on Chief Beauvoir, 4th Brackett on Princess Dandy Noble, 5th Grathwol on Donna's Noble Prince; junior calf (6 shown), 1st and 4th [illegible] on Noble Cacent and Rosinwette Plymouth Lad, 2d Peterson on Western King's Glory Lad, 3d Munn on Majesty's Mermaid's Lad, 5th Dixon on Oxford Unas Togo.

Cow 4 years or over (9 shown), 1st Dixon on Oxford Unas Lass, 2d [illegible] 4th on Columbia, 3d Munn on [illegible] Odell of H. S. F; 3 years and under 4 (3 shown), 1st Peterson on Ibsen's Pearl, 2d and 3d Munn on [illegible]'s Harriet and Burmb's Helen; 2 years and under 3 (5 shown), 1st [illegible] on Mon Plaisirs Goldin 2d, 2d Peterson on Glory's Pearline, 3d and 5th Munn on Burmb's Freda and Combination's Coulisse, 4th Dixon Cowslip's Brightness; senior yearling, [illegible] (4 shown), 1st and 3d Munn on Golden Fern's Tri-

Riding On Air

TWO of the transportation wonders of this age came in with the 20th century, the Wright aeroplane and the Firestone air-filled tire. It was in 1900 that Orville and Wilbur Wright designed their first flying machine, an invention destined to revolutionize the arts and sciences, in peace and war.

It was in 1900 that H. S. Firestone organized the Firestone Tire Company which, in 17 years, has brought to present perfection the tire that bears his name. He foresaw that on the rubber tire hung the future usefulness of the motor car, for pleasure or work, and Firestone creative and executive genius set about its development. Today the Firestone Tire represents that development in its most desirable combination, lightness with strength, reliability with speed. Firestone Non-Skid gives you travel-insurance, a certain grip with a massive body supporting it. Firestone rubber gives easiest possible riding with that protection to mechanism so vital in today's efficiency.

Public recognition has increased Firestone sales to an unparalleled height in five years. Result, volume of production which, with "know-how" and saving in manufacture and sales, brings down the price to you. Your dealer and the nearest Firestone Branch unite to give you the maximum of prompt, economical service.

Masters of Transportation

IN the hands of Orville and Wilbur Wright, the experimental "glider" developed into the first successful flying machine.

On the 9th of September, 1908, at Fort Myer, Virginia, U.S.A., Orville Wright made the record-breaking flight of 45 miles in 1 hour, 14⅜ minutes.

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ungs and Tunas Lady Alice, 2d Dixon on Oxford Togo's Beauty, 4th Peterson on Oxford Glory Laverne; junior yearling (6 shown), 1st Munn on Combination Fox Carnation, 2d Morck on New Leland's Buttertub, 3d and 5th Dixon on Majesty's Oxford May, 4th Peterson on Glory's Oxford Belle; senior calf (12 shown), 1st and 4th Dixon on Oxford Togo's Jolly and Courisse Maj. Oxford; 2d Slade on Cupid's Jolly Pride, 3d Elliott on Mayflower's Cupid Pride, 5th Peterson on Chief's Glory Laverne; junior calf (17 shown), 1st Slade on Cupid's Oxford Panoa, 2d and 3d Love on May Mortland and Majesty's Queen, 4th Brackett on Dandy's Cora, 5th Dixon on May Oxford Majesty.

Senior and grand champion bull, Munn on Gamboze's Vellum's Majesty; junior champion bull, Wagner on Rose's Elmhurst Jolly; senior champion cow, Dixon on Oxford Unas Lass; junior and grand champion cow, Dixon on Oxford's Togo Jolly; graded herd (2 shown), 1st Dixon, 2d Peterson; young herd (1 shown), Dixon; calf herd (4 shown), 1st Slade, 2d Love, 3d Dixon, 4th Brackett; get of bull (4 shown), 1st Love, 2d Dixon, 3d Brackett, 4th Peterson; produce of cow (8 shown), 1st Brackett, 2d Dixon, 3d Peterson, 4th Elliott, 5th Wagner.

Guernseys.—The Guernsey show was an exclusive Minnesota affair and a good one—not large, but good, and 100 per cent better than any previous show made by Minnesota exhibitors. There was certainly a sensation in the Guernsey classes. Ladysmith Cherub, the champion at the dairy show last fall, is showing in still better form and is trained to the letter. He was the outstanding animal by far and was conceded senior and grand championship honors from the start. Caribou Romulus, a senior calf shown by Caribou Farms, was given the purple in the junior classes. The aged cow class showed eight good ones. There seems to be a tendency to play toward extreme quality, which detracts somewhat from the ruggedness one likes to see. Fanny of the Valles du Creux is not only a show cow, but demonstrates at the pail, making 704 pounds of fat for the year ending May 1st. Pearl's Dot, Tenney's two-year-old heifer, was made senior and grand champion female, junior champion honors going to Lady La Verne of Shorewood, a senior calf from the same herd. Wm. Jones, of Waukesha, Wis., passed upon the Guernseys and selected them with great care nad deliberation.

Exhibitors.—A. W. Bragg, Albert Lea, Minn.; Caribou Farms, Saginaw, Minn.; Jean Du Luth Farm, Duluth, Minn.; John P. Nelson, Stillwater, Minn.; Cyrus J. Ott, Albert Lea, Minn.; Victor Stiehl, Albert Lea, Minn.; W. R. Sweet, Albert Lea, Minn.; D. D. Tenny, Crystal Bay, Minn.; Wildwood Farm, Albert Lea, Minn. Judge, Wm. Jones, Waukesha, Wis.

Bull 3 years or over (4 shown), 1st Tenney on Ladysmith Cherub, 2d and 4th Jean Du Luth on Starlight's Excelsior and Austerlitz, 3d Stiehl on Roshampton Crossus; 2 year and under 3 (2 shown), 1st Caribou Farms on Caribou King Albert, 2d Jean Du Luth on May Rose Searchlight; senior yearling (4 shown), 1st Tenney on Sequel's Chesney Farms, 2d Jean Du Luth on Golden Noble of the Lakes; junior yearling (4 shown), 1st Tenne yon Sequel's Duke of Shorewood, 2d and 3d Jean Du Luth on Brilliant of Clara Cooper Farm and Lady Gree's May King of Jean Du Luth, 4th Skaar on Adeline's Perfection; senior calf (5 shown), 1st and 4th Caribou Farms on Caribou Romulus and Caribou Masher, 2d Jean Du Luth on Queenie's Austerlitz, 3d Nelson on Howard of Fairy Falls, 5th Stiehl on Navarinos Bob of Maplewood; junior calf (6 shown), 1st and 3d Jean Du Luth on Le Roy Starlight of Jean Du Luth and Frias Chene of Jean Du Luth, 2d Tenney on Altheas Pride of Shorewood, 4th Caribou Farms on Caribou Captain, 5th Nelson on Oliver of Fairy Falls.

Cow 4 years or over (8 shown), 1st Jean Du Luth Farm on Fanny of the Vallee du Creux, 2d and 6th Caribou Farms on Sequel's Maid of Schuylkill and Sequel's Maid of Beauty, 3d, 4th and 5th Tenney on Rosette of Marais Farm, Althea of Sarnia and Cora of Gerar; 3 years and under 4 (2 shown), 1st Jean Du Luth Farm on Jean Du Luth Coronet, 2d Caribou Farms on Caribou Celosia; 2 years and under 3 (5 shown), 1st and 2d Tenney on Pearl's Dot and Ma Chere Procris, 3d Caribou Farms on Pearl of Greenlodge, 4th Ott on Ivadell Mar of Wildwood, 5th Jean Du Luth Farm on William's May Rose; senior yearling, dry (6 shown), 1st and 2d Jean Du Luth Farm on Gree's May Rose and Chene's May Rose, 3d Caribou Farms on Caribou Berta, 4th, 5th and 6th Wildwood Farm on Lessing on Pine Ridge, Frosty of Pine Ridge and Primo of Pine Ridge; junior yearling (4 shown), 1st and 4th Caribou Farms on Caribou Rachel and Caribou Pulios, 2d Tenney on Bell Boy's Lassie of City View, 3d Jean Du Luth Farm on Jessican of Jean Du Luth; senior calf (10 shown), 1st Tenney on Lady La Verne of Shorewood, 2d Stiehl on unnamed, 3d Caribou Farms on Caribou Mary, 4th Jean Du Luth Farm on Mosrose of Jean Du Luth, 5th Skaar on unnamed; junior calf (5 shown), 1st Tenney on Pearl's Golden Secret Girl, 2d Jean Du Luth Farm on Marathon Rose Queen, 3d Bragg on Martha's Ruby Sequel, 4th Skaar on unnamed, 5th Caribou Farms on Caribou Channoute.

Senior and grand champion bull, Tenney on Ladysmith Cherub; junior champion bull, Caribou Farms on Caribou Romulus; senior and grand champion cow, Tenney on Pearl's Dot; junior champion cow, Tenney on Lady La Verne of Shorewood; graded herd (5 shown), 1st Tenney, 2d Caribou Farms, 3d [illegible] Du Luth Farm [illegible] 1st Jean Du Luth Farm, 2d Caribou Farms; calf herd (2 shown), 1st Caribou Farms, 2d Jean Du Luth Farm; get of bull (3 shown), 1st Jean Du Luth Farm, 2d Caribou Farms, 3d Wildwood Farm; produce of cow (2 shown), 1st Tenney, 2d Caribou Farms.

Ayrshires.—The Ayrshire show was made up by an exhibit from the Ferndell Farms, of Ladysmith, Wis. They were presented in good form and could have stood strong competition.

Milking Short-horns.—There was an unusually good showing of milking Short-horns made this year at Hamline. In the bull classes especially there was marked improvement over last year's exhibit, and the display excited much favorable comment and did the milking Short-horn interests a great deal of good in Minnesota. Hartford Welfare is a bull of the right sort. He has scale and great length without losing quality and Short-horn character. His son, Welfare's Champion, still a calf, defeated him for championship honors. Imported Christmas Rose is a cow of correct stamp. She swings a good udder, has good length and depth and retains the good old roan color and the straight lines that stamp her as a Short-horn. She had no trouble capturing the purple in female classes.

Exhibitors.—Finley McMartin & Son, Claremont, Minn., and Otis Herd, Willoughby, Ohio. Judge, Andrew Boss, St. Paul, Minn.

Bull 2 years or over (3 shown), 1st McMartin & Son on Hartford Welfare, 2d and 3d Otis Herd on British Prince and Corporal Clay; 1 year and under 2 (2 shown), 1st McMartin & Son on Royal Welfare, 2d Otis Herd on Corporal Peach; under 1 year (3 shown), 1st and 2d McMartin & Son on Welfare Champion and Bella Boy 6th, 3d Otis Herd on British Star.

Cow 3 years or over (4 shown), 1st and 3d Otis Herd on Christmas Rose and British Imp. Rose; 2d and 4th McMartin & Son on Meadowrill and Roan Maud 2d; 2 years and under 3 (3 shown), 1st and 2d Otis Herd on Glenside Lass and Rose Clyde, 3d McMartin & Son on Iris 2d; 1 year and under 2 (6 shown), 1st, 2d and 3d Otis Herd on Lady of the Glen, Winsome Lady and Loobagh Darling; under 1 year (4 shown), 1st and 3d McMartin & Son on Roan Maid 5th and Lucy Hartforth, 2d and 4th Otis Herd on Lady Maggie and Lady Rose.

Grand champion bull, McMartin & Son on Welfare's Champion; grand champion cow, Otis Herd on Christmas Rose; graded herd (2 shown), 1st Otis Herd, 2d McMartin & Son; young herd (2 shown), 1st McMartin & Son, 2d Otis Herd; calf herd (2 shown), 1st McMartin & Son, 2d Otis Herd; get of bull (2 shown), 1st McMartin & Son, 2d Otis Herd; produce of cow (2 shown), 1st Otis Herd, 2d McMartin & Son.

THE HORSE SHOW.

Horse shows have been larger at Minnesota and in some of the classes better animals have appeared in the past. The show this year was characterized, however, by absence of tailenders, and all would have stood well in more competition. The horse industry has always stood well in the Gopher state, but has never assumed the importance that it has achieved in her neighboring state. This is to be expected. Minnesota is still youthful as regards development. Iowa is a seed state. The night shows were well conducted and well attended. Wednesday evening especially brought out a good crowd from the twin cities. The University of Minnesota made strong showings in the Percheron and Clydesdale classes.

Percherons.—Percherons have always had a representative exhibit at Hamline and this year's showing was no exception. Exhibits were all furnished by Iowa and Minnesota breeders. Gopher state breeders made a strong show and came in for their share of the awards. Philix, from the Singmaster stables, again headed the aged stallion class, but failed to capture the purple. Keota Jalap looked better to David Fyffe and J. L. Edmonds, who passed judgment on all these classes. Both horses are worthy, but Philix is the draftier horse. The female classes disclosed some good Percherons. Sara Belle, Hurdcroft's yearling filly that won the futurity class, junior champion and reserve champion honors at Des Moines last week, was a strong contender for the purple, but not strong enough to defeat Fashion Vernon, a yeld mare shown by the University of Minnesota. The university's showing in the Percheron class was good. They won second in brood mare and foal class, second on filly foal and first and champion ribbons on yeld mare.

Exhibitors.—Chas. H. Babcock, Moville, Iowa; Finch Stock Farm, Fargo, N. D.; Hurdcroft Farm, Monticello, Minn.; Henry V. Nelson, Rochester, Minn.; J. D. Singmaster & Son, Keota, Iowa, and University of Minnesota, St. Paul, Minn. Judge, J. L. Edmonds, Champaign, Ill.

Stallion 4 years or over (7 shown), 1st Singmaster & Son on Phillix, 2d Babcock on Ivan, 3d Hurdcroft Farm on Kanton, 4th Finch Stock Farm on Mazas; 3 years and under 4, 1st and 4th Singmaster & Son on Keota Jalap and Eugene, 2d Hurdcroft Farm on Herber, 3d Finch Stock Farm on Grastón; Minnesota stallion 3 years or over (2 shown), 1st and 2d Hurdcroft Farm on Kanton and Mike; 2 years and under 3 (17 shown), 1st and 3d Singmaster & Son on Jock and Emerson; 2d Hurdcroft Farm on Promoter; 4th Babcock on Fernand; 1 years and under 2 (5 shown), 1st Singmaster & Son on Maplegrove Ledgermain; 2d Finch Stock Farm on unnamed; 3d and 4th Babcock on Wildair Jr. and Leheine; Minnesota stallion 1 year and under 3 (4 shown), 1st, 3d and 4th Finch Stock Farm on Roland, Wheeler's Pride and Superior; foal (3 shown), 1st Finch Stock Farm on unnamed; 2d and 3d Hurdcroft Farm on unnamed; five animals, property of one exhibitor (special), 1st Singmsater & Son, 2d Finch Stock Farm, 3d Babcock.

Mare and foal (5 shown), 1st Finch Stock Farm on Lumiere and foal, 2d University of Minnesota on Zanness and Ronzana, 3d and 4th Hurdcroft on Kasbah and foal and Cocotte and foal; Minnesota mare and foal (3 shown), 1st, 2 and 3d Hurdcroft on Kasbah and foal, Zona and foal and Cocotte and foal; yeld mare 4 years or over (2 shown), 1st University of Minnesota on Fashion Vernon, 2d Babcock on Betty; mare 3 years and under 4 (4 shown), 1st, 2 and 4th Hurdcroft on Pearl, Hillary Helix and Dorris, 3d Babcock on Odelade; Minnesota mare 3 years or over (4 shown), 1st, 2d and 3d Hurdcroft on Kasbah, Hillary Helix and Dorris; filly 2 years and under 3 (4 shown), 1st and 3d Babcock on Libelle and Majorette, 2d Henry V. Nelson on Hesther, 4th Finch on Irma; filly 1 year and under 2 (5 shown), 1st, 2d and 4th Hurdcroft on Sara Belle, Monticello Maid and Kionotte, 3d Babcock on Minnie; Minnesota filly 1 year and under 3 (2 shown), 1st Finch on Irma, 2d Hurdcroft on Kionotte; filly foal (3 shown), 1st Babcock on Queen, 2d University of Minnesota on Ronzana, 3d Hurdcroft on Unnamed; Minnesota stallion or filly foal (2 shown), 1st and 2d Hurd.

Champion stallion, Singmaster on Keota Jalap; champion mare, University of Minnesota on Fashion Vernon.

Get of stallion (2 shown), 1st Hurdcroft, 2d Babcock; produce of mare (2 shown), 1st Babcock, 2d Finch; breeder's group (1 shown), 1st C. H. Babcock.

Percheron Society Specials—Stallion 3 years or over, bred and owned by exhibitor, 1st Singmaster on Keota Jalap, 2d Babcock on Scheiner; stallion under 3 years, bred by exhibitor, 1st and 3d Singmaster on Maplegrove Ledgermain and Jock, 2d Babcock on Wildair Jr; mare under 3 years, bred and owned by exhibitor, 1st Hurdcroft on Sara Belle, 2d and 3d Babcock on Majorette and Minnie; champion mare, bred and owned by exhibitor, Hurdcroft on Sara Belle, reserve Babcock on Marjorie; five stallions, owned by one exhibitor, 1st Singmaster on Lagos, Philix, Keota Jalap, Jock and Nandau, 2d Finch on Mazas, Mike, Graston, Superior and Unnamed, 3d Babcock on Ivan, Scheiner, Fernand, Wildair Jr. and Schriner.

Belgians.—The Belgian show was much smaller than the 1916 show, and while all shown were worthy animals, the tops were not in keeping with those of last year. The show was made up principally by exhibits from the Finch and Lefebure stables. The best plums of the show went to the Finches. Hurcle, a big, toppy chestnut, with plenty of scale, thickness and Belgian stamp, was first-prize aged and champion stallion of the show, with Duke of Elmwood, Lefebure's first-prize two-year-old, as reserve champion. Clarion du Balcan, a yearling son of Anna du Balcan, that stood first at Des Moines in a large class of yearlings, was apparently lost by the judges and placed third in class and below some not ranking well at Iowa. Finch's brood mare, Deusy, a fine, big bay mare, was made champion female.

Exhibitors—Finch Stock Farm, Fargo, N. D.; H. Lefebure & Sons, Fairfax, Ia.; A. F. Noltimier & Sons, St. Paul Park, Minn., and Frank P. Shekelton & Sons, Lawler, Ia. Judge, David M. Fyffe.

Stallion 3 years or over (2 shown), 1st Finch on Hurcle, 2d Lefebure on Bonnot de la Courte; 3 years and under 4 (3 shown), 1st Shekelton on Reavedore, 2d Lefebure on Indigene, 3d Noltimier on Osanan; Minnesota stallion 3 years or over (1 shown), Nontimier on Asanan; stallion 2 years and under 3 (8 shown), 1st and 4th Lefebure on Duke of Elmwood and Echelen, 2d and 3d Finch on Marlborough and Pershing; 1 year and under 2 (5 shown), 1st Finch on Jupiter's King, 2d, 3d and 4th Lefebure on Expert, Clarion du Balcan and Fairfax Jean; Minnesota stallion 1 year and under 3 (3 shown), 1st, 2d and 3d Finch on Walker's Best, King and Buiscant; stallion foal (1 shown), 1st Lefebure on Fairfax Bunny.

Mare and foal (1 shown), 1st Finch on Deusy; yeld mare, 4 years or over (1 shown), 1st Noltimier on Sarah; mare 3 years and under 4 (2 shown), 1st Lefebure on Radius 4th, 2d Noltimier on Abby; Minnesota mare 3 years or over (2 shown), 1st and 2d Noltimier on Sarah and Abby; filly 2 years and under 3 (5 shown), 1st Lefebure on Nannette 2d, 2d, 3d and 4th Finch on Jupiter's Bella, Jupiter's Crevette and Jupiter's Mae; filly 1 year and under 2 (3 shown), 1st Lefebure on Lola's Betty, 2d and 3d Finch on Jupiter's Maud and Jupiter's Leota; Minnesota filly 1 year and under 3 (3 shown), 1st, 2d and 3d Finch on Jupiter's Crevette, Jupiter's Mae and Jupiter's Leota; filly foal (2 shown), 1st Lefebure on Fairfax Pudge, 2d Finch on Unnamed.

Champion stallion, Finch on Hurcle; champion mare, Finch on Deusy; get of stallion (2 shown), 1st Finch, 2d Lefebure; produce of mare (2 shown), 1st Lefebure, 2d Finch.

Clydesdales.—The Clydesdale show at Hamline was small, but poor representatives of the breed were absent. Quality prevailed and animals were brought out in good condition. Barron Bros. made the strongest showing. The Pinnacle won first in the aged class and also took the purple. Euphemia Walls, also owned by Barron Bros., was given the blue in yeld mare class and defeated Sweet Marie, shown by E. A. Jones, for champion honors. Sweet Marie has an abundance of quality and Clydesdale stamp, but lacks the substance found in the older mare. Barron Bros. won two blues and E. A. Jones one blue in the group classes. The University of Minnesota won second on yeld mare and second on three-year-old stallion.

Exhibitors.—Barron Bros., Elkton, S. D.; E. A. Jones, Bangor, Wis.; Rich F. Jones, Lake Crystal, Minn.; J. D. Slater, Winnebago, Minn., and University of Minnesota, St. Paul, Minn. Judge, David M. Fyffe, Columbus, Ohio.

Stallion 4 years or over (3 shown), 1st Barron Bros. on The Pinnacle, 2d Slater on Chief of Green Hill, 3d E. A. Jones on W. J. Bryan; 3 years and under 4 (3 shown), 1st R. F. Jones on Allworthy Baron, 2d Barron Bros. on The Harvester, 3d University of Minnesota on Sir Rollo; Minnesota stallion 3 years or over (1 shown), 1st University of Minnesota on Sir Rollo; 2 years and under 3 (2 shown), 1st Barron Bros. on Arcadia Prince, 2d E. A. Jones on Trooper's Baron; 1 year and under 2 (3 shown), 1st and 2d Barron Bros. on Davidson's Heir and Arcadia Edward, 3d E. A. Jones on Lloyd George; foal (2 shown), 1st R. F. Jones.

Mare and foal (4 shown), 1st and 3d E. A. Jones on Lady May and Grove Girl, 2d R. F. Jones on Lady of Lake; Minnesota mare and foal (1 shown), 1st R. F. Jones on Flora of Redwalls; yeld mare 4 years or over (2 shown), 1st Barron Bros. on Euyhemia Walls, 2d University of Minnesota on Minnesota Princess; 3 years and under 4 (2 shown), 1st E. A. Jones on Sweet Marie, 2d Barron Bros. on Elmona; Minnesota mare 3 years or over (2 shown), 1st R. F. Jones on Lady of the Lake; 2 years and under 3 (4 shown), 1st and 3d Barron Bros. on Arcadia Flower and Primrose, 2d E. A. Jones on Silver Bell, 4th R. F. Jones on Princess Abella. year and under 2 (4 shown), 1st, 2d and 4th Barron Bros. on Arcadia Rose, Myreen and Flower of Arcadia, 3d F. F. Jones on Rose Longmore; Minnesota filly 1 year and under 3 (2 shown), 1st R. F. Jones on Princess Abella; filly foal (2 shown), 1st E. A. Jones on Sweet Rose.

Champion stallion, Barron Bros. on The Pinnacle; champion mare, Barron Bros. on Euyhemia Walls.

Get of stallion (3 shown), 1st and 3d Barron Bros., 2d E. A. Jones; produce of mare (3 shown), 1st E. A. Jones, 2d and 3d Barron Bros.; breeders' group (2 shown), 1st Barron Bros., 2d E. A. Jones.

Shires.—The Shire show was made up of horses from the farms of R. Connor & Co. and the Finch Stock Farm. Connor & Co. won practically all the blues, but lost the purple on mare. Many of the exhibits could have well stood more competition.

Exhibitors.—R. Connor & Co., Auburndale, Wis., and Finch Stock Farm, Moorhead, Minn. Judge, David M. Fyffe, Columbus, Ohio.

Stallion 4 years or over (1 shown), 1st Connor & Co. on Royal Patch; 2 years and under 3 (1 shown), 1st Connor & Co. on Lumberman's Dray King; 1 year and under 2 (1 shown), 1st Finch Stock Farm on Fargo Pride; foal (1 shown), 1st Connor & Co. on Boro's Fuchsia.

Mare and foal, mare to count 50%, foal 50% (2 shown), 1st Finch Stock Farm on Kinsman Hazel and foal, 2d Connor & Co. on Fuchsia Boro's Fuchsia and foal; 3 years and under 4 (2 shown), 1st and 2d Connor & Co. on Dray Queen Star and Dray King Fashion; 2 years and under 3 (1 shown), 1st Connor & Co. on Queen of Fashion.

Champion stallion, Connor & Co. on Royal Patch; champion mare, Finch Stock Farm on Kinsman Hazel; get of stallion (1 shown), Connor & Co. on get of Salt Dray King; produce of mare (2 shown), 1st Connor & Co. on produce of Dunsey Fashion, 2d Finch Stock Farm on produce of June Beau-

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ty; breeder's group (1 shown), 1st Connor & Co.

Draft Geldings and Mares.—Exhibitors.—Henry J. Bardin, Minneapolis, Minn.; L. S. Donaldson Company, Minneapolis, Minn.; Finch Stock Farm, Moorhead, Minn.; Rich F. Jones & Sons, Lake Crystal, Minn.; A. F. Noltimier & Sons, St. Paul Park, Minn.; Twin City Hardwood Lbr. Co., St. Paul, Minn.; The Dayton Co., Minneapolis, Minn., and American Linen Supply Co., St. Paul, Minn. Judge, J. L. Edmunds, Champaign, Ill.

Gelding or mare 4 years or over (4 shown), 1st, 2d, 3d and 4th Bardin; 1 year and under 2 (2 shown), 1st Noltimier & Sons on Bess, 2d Jones & Sons on Bell; champion, Bardin.

Morgans.—Exhibitors.—A. G. Maier, Atwater, Minn.; Bertha Maier, Atwater, Minn.; Morgan Horse Co., Plainfield, Ia. Judge, A. S. Thompson.

Stallion 3 years or over (3 shown), 1st A. G. Maier on DeJarnette Jr., 2d Bertha Maier on Allen Franklin, 3d Morgan Horse Co. on Montgomery; 1 year and under 2 (2 shown), 1st A. G. Maier on Glen DeJarnette, 2d Morgan Horse Co. on Joe Fahrey.

Mare and foal (1 shown), 1st A. G. Maier on Princess and foal; 3 years or over (5 shown), 1st Morgan Horse Co. on Daisy Ranes, 2d and 3d A. G. Maier on Princess and Frances; 2 years and under 3 (2 shown), 1st A. G. Maier on Pansee DeJanette, 2d Morgan Horse Co. on Emaline; 1 year and under 2 (2 shown), 1st A. G. Maier on Princess Fairy, 2d Morgan Horse Co. on Evangeline; stallion or filly foal (1 shown), 1st A. G. Maier on Princess White Foot.

Champion stallion, A. G. Maier on DeJarnette Jr.; champion mare, A. G. Maier on Pansee DeJanette; get of stallion (1 shown), 1st A. G. Maier; produce of mare (2 shown), 1st Morgan Horse Co., 2d A. G. Maier.

THE SWINE SHOW.

With the exception of Chester Whites, every breed showed a falling off in numbers at the Minnesota Fair this year. But if the exhibits were smaller, quality was better throughout. In the Berkshires marked improvement was noticed in the hogs entered. There was less criticism on the lengthy animals, lacking depth and width or the deep, wide hogs lacking length. The same is true of the Chester Whites. Several years ago the short, chubby type of Chester White was more in evidence at the shows. This year every animal in the ring proved that the breeders have been getting away from this type and are aiming to raise a long, stretchy, but deep indivdual of the medium big type. The Chester Whites had the largest representation on the grounds in numbers of hogs. Every one of the exhibitors had animals entered in nearly every class. Especially worthy of mention is the fact that the pigs shown were bred by the exhibitors themselves. This made the futurity a complete success. In the under-year class competition was especially keen. Minnesota men are proud of the showing made in this year's futurity and are confident that in another year or two they will have as heavy a show as Iowa. Duroc Jerseys were better in quality than in previous years. Minnesota breeders did not have things all their own way in Durocs, as in the Chester Whites. Wisconsin breeders, L. F. Atwater and W. C. Jenkins, of Bangor, and E. H. Parker & Son, of Janesville, took a mighty slice of the prize money. W. C. Jenkins took first money in the aged boar class on Orion's Col. S. L. F. Atwater was first on the senior boar pig, Jack Orion 3d, and the junior boar pig, Model Wonder, and E. H. Parker, grand championship on the senior yearling boar, King Orion. Jenkins also was first in the aged and yearling sow classes. Grand championship sow was Art's Choice Again, owned by Reeve Bros., of Hampton, Iowa. Poland Chinas were shown with success by Wisconsin breeders. J. F. MacDonald, of North Bend, took grand championship on the senior sow, Miss Price 4th. She weighs 900 pounds, but is all quality in spite of her size. The MacDonald entries were especially typey, a junior sow pig, Wisconsin Lady, gives every indication of making it interesting for other entries next year. Scarcity of competent help and the high prices in general were given credit for cutting down the number of erhibitors this year. With few exceptions all hogs were well fitted, but it was evident that several of those entering their pigs did not begin as early as usual to fit their show stuff and consequently did not come out as well. The breeders took advantage of the difference between fitting the hogs to the limit and fitting them just good enough to win. There was no wasting of high-priced feed. General satisfaction on the part of the breeders with the decision of the judges is also worthy of mention. D. A. Gaumnitz of South St. Paul, Henry Dorr, of Remsen, Iowa, and H. W. Mumford, of Urbana, Ill., worked rapidly, but with the scrupulous care of the good judge whenever honors were in any way in doubt.

Poland Chinas.—An especially strong showing in quality, but a falling off in numbers of hogs shown marked the Poland China show at Hamline this year. Type and quality were more in evidence throughout. All the classes were close and Judge Henry Dorr had to get down to fine points in many cases to pick the winner. Wisconsin was represented by L. P. Martiny, of Chippewa Falls, and J. D. MacDonald, of North Bend. Of the two, MacDonald received the big money and he cut in for a good share of the money in all classes besides winning grand championship on the senior sow, Miss Prince 4th, a splendid example of the big Poland type. Kritzeck Bros., of Howard Lake, won grand champion honors on their aged boar, Big Prince Equal. The Poland Futurity proved a lively competition, though H. O. Tellier, of Farmington, got away with the big end. On one litter which was the only four pigs he had fitted for the show he won more money than any other breeder has heretofore won in a futurity.

Exhibitors.—John Devany & Son, Montrose, Minn.; Alva Farrell, Montrose, Minn.; Gerlich & Barker, Mankato, Minn.; J. M. Glasier, St. James, Minn.; J. W. Graham, Howard Lake, Minn.; Will Halling, Rochester, Minn.; Kritzeck Bros., Howard Lake, Minn.; Wm. McCoy, Rochester, Minn.; J. D. MacDonald, North Bend, Wis.; L. P. Martiny, Chippewa Falls, Wis.; A. E. Riehl & Son, Preston, Minn.; H. O. Tellier, Farmington, Minn.

Aged boar (3 shown), 1st Kritzeck Bros. on Big Price Equal, 2d MacDonald on Mc's Chief, 3d Devany on Mons Orange 4th; senior yearling (3 shown), 1st MacDonald on Oakwood Big Model, 2d Riehl on Riehl's Big Knocks, 3d Halling on Golden King, junior yearling (8 shown), 1st Graham on Black Cloverdale, 2d Riehl on Riehl Chief Jumbo, 3d MacDonald on Oakwood Giant, 4th Glasier on Black Orange, 5th McCoy on Exmore Pride; senior pig (7 shown), 1st Kritzeck on Big Price 3d, 2d MacDonald on Mc's Long King, 3d Glasier on Glasier's Jumbo, 4th Martiny on Long Giant, 5th Graham on Peter the Great; junior pig (18 shown), 1st MacDonald on Mc's Chief Price, 2d and 3d Tellier on Exmore Jumbo 3d and Exmore Jumbo 4th, 4th Martiny on Big Bone Jr., 5th Martiny on Big Bone Chief.

Aged sow (7 shown), 1st MacDonald on Miss Price 4th, 2d Farrell on Orange Maid, 3d Martiny on Miss Smooth Wonder, 4th Devany on Sievers' Choice, 5th Martiny on Major Hadley's Molly; senior sow (4 shown), 1st MacDonald on Mc's Giantess, 2d Graham on Graham's Best, 3d Martiny on Big Johanna, 4th Halling on Petunia Que; junior sow (5 shown), 1st Gerlich & Barker on Great Prospect, 2d and 5th Graham on Winning Queen and Lady Big Bone, 3d MacDonald on Houcherdale Girl, and 4th Martiny on Big Beauty; senior pig (12 shown), 1st Kritzeck on Black Lady Price, 2d and 5th Riehl, on Long Pollie 4th and Preston Giantess, 3d Martiny on Golden Gate Mabel, 4th Glasier on Lady Jumbo; junior pig (17 shown) 1st and 3d MacDonald on Wisconsin Lady and Miss Choice, 2d and 4th Tellier on Exmore Empress 4th and Exmore Empress 5th, 5th Martiny on Miss Big Bone.

Senior and grand champion boar, Kritzeck on Big Price Equal; junior champion boar, Kritzeck on Big Price 3d; senior and grand champion sow, MacDonald on Miss Price 4th; junior champion sow, Kritzeck on Black Lady Price; aged herd (3 shown), 1st Graham, 2d MacDonald, 3d Martiny; breeder's aged herd (2 shown), 1st Graham, 2d MacDonald; young herd (8 shown), 1st Kritzeck, 2d MacDonald, 3d Glasier, 4th Martiny, 5th Graham; breeder's young herd (8 shown), 1st Kritzeck, 2d MacDonald, 3d Glasier, 4th Martiny, 5th Graham; get of boar (7 shown), 1st Kritzeck Bros., 2d Tellier, 3d MacDonald, 4th Graham, 5th Glasier; produce of sow (7 shown), 1st Kritzeck, 2d Tellier, 3d MacDonald, 4th Graham, 5th Martiny.

Poland China Futurity—Senior boar pig (3 shown), 1st Kritzeck on Big Price 3d, 2d Glasier on Glasier's Jumbo, 3d Graham on Peter the Great; junior boar pig (14 shown), 1st and 2d Tellier on Exmore Jumbo 3d and Exmore Jumbo 4th, 3d and 8th Graham on Grand Price and Long Price, 4th and 7th Glasier on Jumbo's Master and Jumbo's Wonder, 5th Kritzeck on Equal Big Price, 6th Devany on A Jumbo; senior sow pig (8 shown), 1st and 5th Kritzeck on Black Lady Price and Miss Lady Price, 2d and 4th Riehl on Long Pollie 4th and Preston Giantess, 3d Glasier on Lady Jumbo, 6th Graham on G.'s Walkover; junior sow pig (13 shown), 1st and 2d Tellier on Exmore Empress 4th and Exmore Empress 5th, 3d and 4th Kritzeck on Lady Big Price and

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big Price Best; 5th and 8th Riehl on Wonder Lady A. and Wonder Lady B., 6th Devany on Lady Jumbo 1st, 7th Graham on Lady Great; junior litter 1 (8 shown), 1st Tellier, 2d Kritzeck 3d Graham, 4th Devany, 5th r, 6th Riehl, 7th McCoy, 8th Hall-

Duroc Jerseys.—Fewer animals but higher quality marked the Duroc Jersey showing of this year's fair. Poorly fitted stuff was entirely absent. The big money was won by Wisconsin breeders, L. F. Atwater, W. H. Jenkins and E. H. Parker & Son getting the majority of the prizes. All firsts except honors for under six months classes, as junior sow pig and the futurity classes, to which outside breeders are not eligible were won by the Wisconsin men. The blue for senior yearling sow went to Reeves Bros., of Hampton, Ia., and she was later made champion and grand champion without argument. L. F. Atwater took most of the firsts in the herds and group classes. In the aged sow class, an 800-lb. sow shown by W. C. Jenkins took first money. E. H. Parker & Son landed grand champion honors in a walkaway on their senior yearling King Orion. King Orion is a son of Orion Cherry King Jr., the grand champion at Omaha in 1916, who recently sold for $3,500. King Orion was easily the outstanding hog of the show. He is the big type, long and stretchy, and has the necessary depth and width to balance up his size. The futurity was a district futurity and not a state futurity, only ten breeders entering. As twenty are necessary to make it a state show only half the money went to those district winners. Some of the under six months stuff was too highly fitted in the opinion of the judge to be able to carry the weight now or in the future without breaking down of pasterns. On the whole, the hogs were good in their feet.

Exhibitors.—L. F. Atwater, Bangor, Wis.; J. J. Cain, Skyberg, Minn.; John Hartle & Son, Owatonna, Minn.; W. C. Jenkins, Bangor, Wis.; C. F. Johnson, North Branch, Minn.; Fred E. Johnson, North Branch, Minn.; E. H. Parker & Son, Janesville, Wis.; Reeve Bros., Hampton, Iowa; F. S. Vanderhyde, West Concord; P. J. Fosse, St. Cloud, Minn. Judge, Prof. H. B. Mumford, Urbana, Ill.

Aged boar (2 shown), 1st Jenkins on Orion Col. S., 2d Cain on J. C. Illustratre; senior yearling (4 shown), 1st Parker on King Orion, 2d Atwater on Proud Chief Jr., 3d Fosse on I Am Golden Model, 4th C. F. Johnson on Big Grand Model; junior yearling (8 shown), 1st Vanderhyde on Long Wonder, 2d Parker on Principal 17th, 3d C. F. Johnson on Sensational King, 4th and 5th Fosse on Cherry Kingdom and Royal Defender; senior pig (7 shown), 1st Atwater on Jack Orion 3d, 2d and 3d C. F. Johnson on Tip Top Col. and Ringmaster, 4th Fosse on P. J.'s Defender, 5th F. E. Johnson on Hidestretcher; junior boar pig (12 shown), 1st Atwater on Model Wonder, 2d Cain on Minn. Illustrator, 3d and 5th Vanderhyde on Futurity King and Futurity Col., 4th Hartle on Model Gano.

Aged sow (3 shown), 1st and 3d Jenkins on Lady Topnotcher and Golden Tattle Tale, 2d Atwater on Marion Lady; senior yearling (5 shown), 1st Reeve Bros. on Art's Choice Again, 2d and 3d Atwater on Dinnie Queen and Proud Helen 2d, 4th Jenkins on Queen Crimson, 5th Fosse on Cherry Queen 31st; junior yearling (7 show), 1st and 3d Atwater on Queen Is High and Model Goldie, 2d Jenkins on Tattle Tale I Am 1st, 4th Johnson on Miss Rose, 5th Fosse on Crimson Golden Pride; senior pig (8 shown), 1st and 3d Atwater on Duchess 2d and Duchess, 2d and 4th Jenkins on Princess Tattle Tale and Lady Tattle Tale; junior pig (12 shown), 1st and 4th C. F. Johnson, 2d and 3d Atwater on unnamed and Chief's Queen, 5th Vanderhyde on Fancy's Actress.

Senior and grand champion boar, Parker on King Orion; junior champion boar, Atwater on Model Wonder; senior and grand champion sow, Reeve Bros. on Art's Choice Again; junior champion sow, Atwater on Queen is High; aged herd (4 shown), 1st Atwater, 2d Jenkins, 3d Fosse, 4th C. F. Johnson; young herd (6 shown), 1st Atwater, 2d C. F. Johnson, 3d Jenkins, 4th Cain, 5th Vanderhyde; breeder's young herd (6 shown), 1st Atwater, 2d C. F. Johnson, 3d Cain, 4th Vanderhyde, 5th Hartle & Sons; get of boar (7 shown), 1st Atwater, 2d C. F. Johnson, 3d Jenkins, 4th J. J. Cain, 5th Vanderhyde; produce of sow (8 shown), 1st Atwater, 2d C. F. Johnson, 3d Jenkins, 4th Cain, 5th Vanderhyde.

Special offered by American Duroc Jersey Swine Breeders' Assn. Herd under 1 year (3 shown), 1st Vanderhyde, 2d C. F. Johnson, 3d Foss; special Duroc futurity, spring boar (5 shown), 1st, 4th and 5th Cain, 2d and 3d Vanderhyde; spring sow (5 shown), 1st, 2d and 3d C. F. Johnson, 4th Vanderhyde, 5th Cain; Duroc litter (5 shown), 1st and 5th Johnson, 2d and 4th Cain, 3d Vanderhyde.

Chester White.—Probably the largest show of Chester Whites ever exhibited at a Minnesota fair was on hand this year. The numbers shown and the quality of the hogs was far in advance of anything exhibited previously. The strongest classes were in the aged sows and under year classes. In the latter 18 pigs were shown which were so nearly alike that it took considerable time for the judge to decide on which to hand the ribbons to. Minnesota breeders had things pretty near their own way throughout. They won everything in the classes under six months of age. There was an improvement in the type of Chester Whites. Instead of the short chubby type commonly seen around the circuit a few years ago, every individual this year showed ideal medium big type with more stretch and length to it. The excellency of the entries in the various classes was especially apparent in the young herd, get of boar and produce of sow classes. Here eight breeders showed their own bred stuff in one of the best competitions ever held. Grand champion boar was Chief Wykoff, owned by G. N. Smith, but bred by H. A. Derenthal, who ran him a close race for the honor. The grand championship sow was Highland Pride 4th, owned by W. T. Barr.

Exhibitors—Louis Anders, Jackson, Minn.; W. T. Barr, Ames, Ia.; Henry Bless & Sons, Wells, Minn.; H. A. Derenthal, Wykoff, Minn.; L. A. Howe, St. James, Minn.; J. Johnson, Sleepy Eye, Minn.; D. H. Lewis, Senesco, Ill.; Fred Luchsinger, Lake Elmo, Minn.; Wm. C. Scheibe, Burlington, Wis., and G. M. Smith, St. Charles, Minn.

Aged boar (7 shown), 1st Lewis on Prince Again, 2d and 4th Bless on William 2d and Leader, 3d Howe on King's Best, 5th Anderson on C. Booster; senior yearling (4 shown), 1st Barr on Highland Improver, 2d Lewis on Elmo Duke, 3d Derenthal on Minnesota Wonder, 4th Luchsinger on Elmo Boy; junior yearling (6 shown), 1st Smith on Chief Wykoff, 2d Derenthal on Fritz, 3d Barr on Pershing, 4th Lewis on Elmo Don, 5th Scheibe on Guy's Comet; senior pig (13 shown), 1st and 2d Smith on Wykoff Lad 1st and Wykoff Lad 2d, 3d Lewis on Model Prince 1st, 4th Derenthal on Ot. Lad, 5th Scheibe on Royal Thompson; junior pig (17 shown), 1st Derenthal on Big Cal, 2d and 3d Smith on Wykoff Lad 3d and Wykoff Lad 4th, 4th Howe on Famous, 5th Bless on William H.

Aged sow (12 shown), 1st and 4th Barr on Highland Bell and I. N. R. Maid 3d, 2d Derenthal on Wykoff Queen, 3d Anderson on C. Della, 5th Smith on Hanks 3d; senior yearling (5 shown), 1st Barr on Leonara Gem, 2d Johnson on Queen, 3d Derenthal on Empress, 4th Smith on Lenora Goods 7th, 5th Lewis on Mamie; junior yearling sow, 1st Derenthal on Prince 2d, 2d Smith on Smith's Jr. Lady, 3d and 4th Barr on Hiland Frankie 2d and Leonara's Prize, 5th Anderson on C. Bell; senior pig (16 shown), 1st and 3d Barr on Hiland Pride 4th and Hiland Pride 3d, 2d Johnson on Eliza 1st, 4th Lewis on Princess 1st, 5th Howe on Victoria Lady; junior pig (18 shown), 1st Derenthal on Callaway's Lady 1st, 2d and 5th Smith on Wykoff Lady 2d and Wykoff Lady 1st, 3d and 4th Johnson on Queen Marlo 3d and Queen Marlo 4th.

Senior champion boar, Smith on Chief Wykoff; junior champion boar, Derenthal on Big Cal; senior champion sow, Barr on Hiland Bell; junior champion sow, Barr on Hiland Pride 4th; grand champion boar, Smith on Chief Wykoff; grand champion sow, Barr on Hiland Pride 4th.

Aged herd (3 shown), 1st Barr, 2d Derenthal, 3d Bless, 4th Anderson, 5th Lewis; breeders' aged herd (4 shown), 1st Barr, 2d Derenthal, 3d Anderson, 4th Lewis; young herd (8 shown), 1st Derenthal, 2d Barr, 3d Johnson, 4 Howe, 5th Anderson; breeders' young herd (8 shown), 1st Derenthal, 2d Barr, 3d Johnson, 4th Howe, 5th Anderson; get of boar (9 shown), 1st Barr, 2d Derenthal, 3d Smith, 4th Johnson, 5th Howe; produce of sow (8 shown), 1st Derenthal, 2d Smith, 3d Johnson, 4th Barr, 5th Lewis

Chester White Futurity—Special boar (12 shown), 1st Derenthal on Big Cal, 2d and 3d Smith on Wykoff Lad 3d and Wykoff Lad 4th, 4th and 6th Howe on Famous and Star, 5th Bless on Wm. H., 7th Anderson on Grant; special sow (14 shown), 1st Derenthal on Calloway's Lady 1st, 2d and 5th Smith on Wykoff Lady 2d and Wykoff Lady 1st, 3d and 4th, Johnson on Queen Marlo 3d and Queen Marlo 4th, 6th and 7th Luchinger on Choice I Am and Choice Model; special litter, 1st Derenthal, 2d Smith, 3d Johnson, 4th Howe, 5th Luchsinger, 6th Bless, 7th Anderson.

Hampshires.—All-around improvement marked the showing of Hampshires this year. The individuals showed up better in their feet. Fewer animals showed the weakness in pasterns, which has been a criticism of the Hampshires in former years. There was more uniformity in the herds shown. The animals had size, yet thickness, which is necessary to produce a lard hog. Exhibitors have gotten over the idea of claiming bacon type quality for the Hampshire hog and the exhibits showed this in every class. While the bacon type requires length of body, it also requires thickness; when these two go together the lard type hog results. The showing of Clayton Messenger was the best that has been seen at the Minnesota fair for many years in the opinion of D. A. Gaumnitz, who judged all classes.

Exhibitors.—Clayton Messenger, Keswick, Iowa; Morris & Colbourne Mt. Vernon, S. D., and Zupp & Weber, Blue Earth, Minn. Judge, D. A. Gaumnitz.

Senior yearling boar (2 shown), 1st Messenger on Peerless Boy; 2d Morris & Colbourne on Traveler; junior yearling (4 shown), 1st and 3d Messenger on Hawkeye Star and Pilot Boy 2d, 2d Morris & Colbourne on Dakota Lookout; 4th Zupp & Weber on Oza Tonka Lad; senior pig (2 shown), 1st and 2d Messenger on Liberty Loan and Sioux Lad 2d; junior pig (6 shown), 1st and 3d Messenger on Scottish Lad 11th and Scottish Lad 12th, 2d and 5th Morris & Colbourne on unnamed; 4th Zupp & Weber on Lookout Perfection.

Aged sow (6 shown), 1st and 2d Messenger on Sioux Queen 3d and Lady Dawson 4th; 3d and 4th Morris & Colbourne on Ann and Myrtle; 5th Zupp & Weber on Miss Edith 3d; senior yearling (3 shown), 1st and 2d Messenger on Mayflower Lady 2d and Mayflower Lady 1st; 3d Zupp & Weber on Perfection 3d; junior yearling (5 shown), 1st and 2d Messenger on Lady Steele and Flora, 3d Morris & Colbourne on None Such Lookout, 4th and 5th Zupp & Weber on Miss Jane and Miss Oza Tonka; senior pig (4 shown), 1st and 2d Messenger on Sioux Lady and Sioux Lady 2d, 3d Morris & Colbourne on M. & C. Choice 1st.

Senior and grand champion boar, Messenger on Peerless Boy; junior champion boar, Messenger on Scottish Lad 11th; senior and grand champion sow, Messenger on Sioux Queen 3d; junior champion sow, Messenger on Sioux Lady; aged herd (3 shown), 1st Messenger, 2d Morris & Colbourne, 3d Zupp & Weber; breeder's aged herd, 1st Messenger; young herd (3 shown), 1st Messenger, 2d Morris & Colbourne, 3d Zupp & Weber; breeder's young herd (3 shown), 1st Messenger, 2d Morris & Colbourne, 3d Zupp & Weber; get of boar, 1st Messenger, 2d Morris & Colbourne, 3d Zupp & Weber; produce of sow, 1st Messenger, 2d Morris & Colbourne, 3d Zupp & Weber; special American Hampshire Swine Record Association trophy, Zupp & Weber.

Berkshires.—Only two herds were shown in the Berkshires, both from outside of Minnesota. The Brae Burn Farm, of Lake Forest, Ill., divided honors fairly evenly with Whitmore Bros., of Lyons, Wis. The Brae Burn herd was superior on sows and the Whitmore herd on boars. The senior and junior champion sows showed particularly good type. They had the points of the good feeding animal, long and deep bodied and smooth skinned. Several individuals showed the faults common with Berkshire hogs. While the demand is for a long-bodied hog, this often results in upstanding, slower maturing animals being bred. On the whole, however, Judge D. A. Gaumnitz, of So. St. Paul, pronounced the show of good quality.

Exhibitors.—Whitmore Bros., Lyons, Wis., and Brae Burn Farm, Lake Forest, Ill.

Aged boar (1 shown), 1st Whitmore Bros. on Aldoro Climax; senior yearling (2 shown), 1st Brae Burn Farm on Brae Burn Rival Emperor; 2d Whitmore Bros. on Berryton's Artful Rival; junior yearling (4 shown), 1st and 2d Whitmore Bros. on Climax Premier 2d and Aldoro Rival, 3d and 4th Brae Burn Farm on Brae Burn Master Rival 6th and Brae Burn Lee 2d; senior pig (3 shown), 1st Whitmore Bros. on Handsome Champion 4th, 2d and 3d Brae Burn Farm on unnamed; junior pig (4 shown), 1st and 3d Brae Burn Farm on unnamed; 2d and 4th Whitmore Bros. on Flossie's Aldoro 4th and Sallie's Duke.

Aged sow (4 shown), 1st and 2d Brae Burn Farm on Brae Burn School Mistress and Brae Burn Dutchess, 3d and 4th Whitmore Bros. on Rival's Fair Duchess and Joe's Lister; senior yearling (3 shown), 1st and 2d Brae Burn Farm on Brae Burn Grand Duchess and Brae Burn Grand Duchess 2d, 3d Whitmore Bros. on Artful's Matchless Lass; junior yearling (4 shown), 1st and 3d Brae Burn Farm on Minnesota Missie and Brae Burn Model Lady, 2d and 4th Whitmore Bros. on Aldoro's Black Girl and Aldoro's Black Girl; senior pig (3 shown), 1st and 3d Brae Burn Farm on unnamed, 2d Whitmore Bros. on unnamed; junior pig (4 shown), 1st and 3d Brae Burn Farm, 3d and 4th Whitmore Bros.

Senior champion boar, Whitmore Bros. on Aldoro Climax; junior champion boar, Whitmore Bros. on Handsome Champion 4th; senior champion sow, Brae Burn on Minnesota Missies; junior champion sow, Brae Burn Farm on unnamed; grand champion boar, Whitmore Bros. on Aldoro Climax; grand champion sow, Brae Burn Farm on Minnesota Missies; aged herd, 1st Brae Burn Farm, 2d Whitmore Bros.; breeder's aged herd, 1st Brae Burn Farm, 2d Whitmore Bros.; young herd, 1st Brae Burn Farm, 2d Whitmore Bros.; breeder's young herd, 1st Brae Burn Farm, 2d Whitmore Bros.; get of boar, 1st Brae Burn Farm, 2d Whitmore Bros.; produce of sow, 1st Brae Burn Farm, 2d Whitmore Bros.

Yorkshires.—Yorkshires were fewer in numbers also, but like the other breeds they were higher quality throughout.

Exhibitors.—B. F. Davidson, Menlo, Iowa; Harry J. Devine, Mapleton, N. D.; W. B. Lawrence, Donald, S. D. Judge, D. A. Gaumnitz, South St. Paul, Minn.

Aged boar (2 shown), 1st Davidson on L. F. Fashion, 2d Lawrence on L. P. Evensides 6th; junior yearling (5 shown), 1st and 2d Devine on L. P. Notable and L. P. Master 2d, 3d Davidson on Oak Ladge Sardis, 4th and 5th Lawrence on B. P. Jack 7th and B. P. Corrector; senior pig (2 shown), 1st Davidson on Deer Creek Lee 6th; junior pig (6 shown), 1st and 2d Davidson on Deer Creek Vernon 6th and Deer Creek Highclass 12th, 3d and 5th Lawrence on B. P. Jack 10th and B. P. Corrector 2d, 4th Devine on unnamed.

Aged sow (5 shown), 1st and 2d Davidson on Deer Creek Martha 5th and Deer Creek Classy Lass 5th, 3d and 4th Devine on Lake Park Verbena and Beauty 2d, 5th Lawrence on B. P. Princess; senior yearling, 1st Lawrence on Wild Rose Lassie 7th; junior years-

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ling (3 shown), 1st Devine on L. P. Miss Hollingworth, 2d and 3d Lawrence on B. P. Princess 10th and B. P. Princess 9th; senior pig (5 shown), 1st and 4th Devine on The American Beauty 33d and The American Beauty 32d, 2d and 3d Davidson on Deer Creek Rena 5th and Deer Creek Rena 6th, 5th Lawrence on Princess 21st.

Senior champion boar, Davidson on L. P. Fashion; junior and grand champion boar, Davidson on Deer Creek Lee 6th; senior and grand champion sow, Davidson on Deer Creek Martha 5th; junior champion sow, Devine on The American Beauty 33d; aged herd (3 shown), 1st Davidson, 2d Devine, 3d Lawrence; breeder's aged herd (1 shown), Lawrence & Son; young herd (3 shown), 1st Davidson, 2d Devine, 3d Lawrence; breeder's young herd (3 shown), 1st Davidson, 2d Devine, 3d Lawrence; get of boar (3 shown), 1st Davidson, 2d Devine, 3d Lawrence; produce of sow (3 shown), 1st Devine, 2d Davidson, 3d Lawrence.

Boys' and Girls' Pig Club.—The third annual Boys' and Girls' Pig Club contest, held at the Minnesota State Fair this year, proved the popularity of this plan to interest Minnesota young folks in hog raising. More than 1,000 members distributed among 50 different counties entered the contest this year and the best 50 of the 1,000 competed for the state prize and the breed association prizes at Hamline, September 3d to 8th. Quite a number of girls had entries and a few of these showed that boys are not the only ones able to feed pigs successfully, but fed by boy or girl the pigs were uniformly well fitted. Many individuals might have won honors in the big classes. For this work, boys and girls between the ages of 10 and 18 are eligible. Hogs of any breed may be fed and fitted, but the pigs must be under seven months of age when shown. County contests are held at the county fairs, and where this is impossible the county agent decides which pigs are eligible for the state show. Cash prizes are offered by the state fair association and the Duroc Jersey and Poland China Record Associations. The Chester White association this year offered to the winners in the Chester class, a Chester White pig to each of the six highest contestants. These pigs, though they belong to the winner, must be entered the next year. The Chester White people are so well satisfied with the results that next year they have agreed to furnish a pig to each of the 10 best boys or girls. The champion hog of the show was a Yorkshire, fed by Theo. Hanson, of Graceville, Minn. Miss Mildred Pentz, of Faribault, won second prize in the Chester White class and fourth in the bacon class. She received a pure-bred Chester White pig from Julius Johnson, of Sleepy Eye, Minn. D. A. Gaumnitz, of So. St. Paul, judged the hogs. In charge of the work is L. H. Fudge, of the Minnesota Agricultural College. Only Minnesota boys and girls are eligible. The winnings: Bacon class (9 shown), 1st Theo. Hanson, Graceville; 2d Red Lake Falls entry; 3d A. Mosbak, Askov; 4th Carl Roise, Madison; 5th A. Carlson, Detroit; 6th Richard Bacon, Hastings; 7th Otto Dagill, Bejou; 8th L. Driscoll, E. Grand Forks. Lard class (41 shown), 1st Alec Crowe, Dassel; 2d Reinhardt Borgess, Waldorf; 3d Cecil Ryan, Cedar; 4th Mildred Pentz, Faribault; 5th Lester Strong, West Concord; 6th Lloyd Champine, Sherburn; 7th Royal Davis, St. Peter; 8th Russell Seath, Albert Lea. Grand champion hog of contest, a Yorkshire, fed and fitted by Theo. Hanson, Graceville, Minn., prize $30.

Breed association winners.—Duroc Jerseys, $50 pro rated among all entries (14 shown), 1st Cecil Ryan, Cedar; 2d Lester Strong, West Concord; 3d Wallace McKay, Delhi; 4th Dorothy Fosse, St. Cloud; 5th Bert Johnson, St. Cloud; 6th Raymond Wellner, Fairfax. Poland China, $40 prize (hogs must be registered), 1st Alec Crowe, Dassel; 2d Royal Davis, St. Peter; 3d Robt. Jude, Maple Lake; 4th Robt. Coleman, Elbow Lake; 5th Herbert Kannenberg, Renville. Chester White (one pig given as prize to six exhibitors), 1st Reinhart Burgess, Waldorf; 2d Mildred Pentz, Faribault; 3d Russell Leath, Albert Lea; 4th Raymond Lucksinger, Lake Elmo; 5th Grie Anderson, Jaconson; 6th Chester Marr, Adrian.

SHEEP.

The sheep show this year was considered by all, the best seen at a Minnesota Fair since 1911. Nine breeds of sheep were represented with each class showing heavy entries. Minnesota breeders came in for their share of honors, but Wisconsin and Iowa offered successful competition in most of the classes. The Shropshires, as usual had the largest representation. J. P. Ring, of Rogers, Minn., made the strongest showing with this breed, but Clarence Wilson, of Minneapolis, won grand championship honors on the ram, Richend Blanchard. In the Cotswold class, A. W. Arnold, of Galesville, Wis., and Richards & Richards, of Lodi, Wis., made a clean sweep. In the Southdowns, J. P. Ring, J. C. Heideman, both of Minnesota, and E. L. Bitterman, of Mason City, Iowa, divided the honors. In the Oxfords, Devons, Richards & Richards and A. J. Mahn, of Bloomer, took the prize money. Mohr was the heaviest winner. E. Crall & Son, of Evansville, Wis., showed successfully in the Hampshires, Cheviots and Lincolns. W. Woodard, of Bloomer, Wis., was able to take a considerable number of ribbons in the Shropshire and Southdown classes. Thos. G. Paterson, of St. Paul, judged the fine wool and H. Noel Gibson, of Dundee, Ill., all other breeds. There were about 500 sheep on the grounds this year and fuller classes were, therefore, shown in every breed exhibit.

A Good Hay Crop Harvested.

Good Yields of Oats Reported—Potatoes Above the Average in Acreage and Yield—Corn Rather Backward.

WISCONSIN.

Buffalo County.—Hay was a good crop in this locality and pastures have been fair. Oats are all stacked and some threshing has been done. The yield is from 50 to 60 bushels per acre and the grain is good. Potatoes are fine and most farmers have raised more than the usual supply. The corn crop promises to be a good one unless injured by early frosts. Gardens are good. Fruit of all kinds is scarce.—James G. Bates.

Calumet County.—The hay crop this year was fine. The yield per acre is about the same as last year. Oats are pretty heavy and long in straw. The yield per acre is about the same as last year. Barley is long in straw, but is very light. Rye and wheat are nearly all harvested and threshed. Garden stuff is nearly all dried up and we are sprinkling every day so ours will not dry up. Corn is back yet. There is a lot of live stock raised this year. Dairymen are making out good this year.—Joseph Buchinger.

Chippewa County.—The hay crop was very good this season, yielding from one to three tons per acre, with an average of about the same as last year. Quite a lot of clover is being left for seed, both second crop and first crop. Oats are averaging around 50 bushels per acre. Some farmers are getting up to 70 bushels per acre. Oats are better than last year and very heavy quality. Rye was good, threshing from 35 to 60 bushels per acre, with an average of about 45 bushels per acre. Potatoes are now being dug and the crop is good; will average around 225 bushels per acre. There will be a good crop of corn harvested this fall. A light frost froze some in the low places, but in the main the crop is good. The condensory has now started and paying $2.50 per 100, but the farmers will not deliver until $3 is paid.—Ernest Neitzel.

Door County.—The hay crop this year was the largest for the past five years. The harvest of grain is just about finished. The acreage is the largest for the last five years. Oats and peas are turning out fine. Corn is coming on fine the last few days and with a favorable fall will have some fields that will ripen. Most of the farmers are raising wheat enough for their own use.—L. E. Birmingham.

Dunn County.—Grain is all cut, and as far as threshing has been done, the yields are good. Buckwheat promises well. Corn is very late, although a crop of from 50 to 60 per cent normal is in sight. Rain must come soon in this section. Cattle look well and cows are keeping up production. Hogs are scarce. Silos are going up in this county and more farmers than usual are getting pure-bred bulls for their herds. The potato acreage is small, but all garden truck is plentiful.—Jas. A. Smith.

Iowa County.—Hay is of good quality and there was a good crop, showing an increase of at least 5 per cent over the last five-year period. Small grain is about half threshed and is turning out big and of an exceptional quality. Corn is poor in all sections of the county except the north, where they have a fine crop. Pastures are dead and there are no prospects of rain yet. Milk has dropped off far below the average and farmers, as a rule, are not feeding to keep it up. Fruit and gardens are only of a medium value.—Art G. Hoskins.

Iron County.—The hay crop was light, about 75 per cent of usual, averaging about one and three-fourths tons per acre. Small grain, mostly oats, about ready to harvest and is promising a good yield. Early potatoes are doing fine. Frost has done some damage to garden truck, also silage corn. Pastures are good and live stock in fine condition. Dairymen do not feed much high-priced feed at present.—J. A. Becker.

Juneau County.—Hay yield was average or above for this section, clover and timothy going from one and a half to three tons per acre. Small grain is nearly all in stack or threshed. Oats yielded from 40 to 80 bushels per acre, some winter wheat as high as 50 bushels per acre, and barley 30 to 50 bushels. Corn is very backward. The weather is cold and the ground too dry for plowing. Pastures are getting short. Live stock is normal. Early potatoes are good, but we need rain for the late ones.—C. W. Hale.

Marquette County.—Tame hay was a good crop. It went from a ton and a half to two and a half per acre. Marsh hay is light. There will be more acres of rye sown than last year. Rye went from eight to 30 bushels per acre. Oats went from 40 to 85 bushels per acre and would weigh 50 per cent better than the last five years. Some farmers are cutting the second crop of clover for hay, others are saving it for seed. Beans are a poor stand. Potatoes are fine, but it is too dry for all crops. Corn looks good in some fields, but it is all late. Wheat and barley are not growing much. Apples are poor, but gardens are fine. Live stock is all healthy, but fewer in number. Cows are falling off in milk.—J. M. Williams.

Portage County.—The hay crop this year was the best we have had for many years. Clover averaged about one and one-half tons per acre and timothy about one and a quarter tons. The oats were struck by a hot wave and some went down before the harvest, but anyway, better than the average for the last five years was harvested. Threshing is now in progress. Live stock is in good condition and farmers are contemplating buying feed. Much oats will be fed to dairy cows this winter. Fewer cows are fed this fall than last.—Arthur H. Peterson.

Price County.—The hay crop was an average one, about two tons per acre. Oats threshed out 40 bushels per acre. Corn was nipped by frost. Not much wheat is harvested in this section. Live stock is on the increase and in good condition. Potatoes are somewhat damaged by frost, so is garden stuff. The high cost of feed will not be felt here until cows are brought in from pasture.—C. F. Glissendorf.

Taylor County.—The hay crop is good. New meadows yielded at least three tons per acre. Old meadows not quite so good. The acreage was about the same as last year. The oat crop is very good. They are very heavy this year, about 10 per cent over last year. Barley is about the same as last season. Rye is good. What wheat was raised in this section looks good, also winter wheat is good. The corn crop will not amount to a great deal. Had a hard frost that caught the most of it. Potatoes will be an extra good crop this season, with increased acreage. Gardens are good, also all root crops and cabbage. Fruit is scarce in this locality. Pastures are fair so far. Stock is looking good. Dairy farms are not using a great deal of feed on account of high prices.—J. C. Hoffman.

Washburn County.—Weather continues dry, nights cool. Frost on the night of August 28th did considerable damage to crops on low lands. Corn is coming along fast, but fully two weeks late. Pastures are dry and short. Early potatoes are good, but it is too dry for the late-planted potatoes. Threshing is under way. Rye is not yielding up to former years. Spring grains are good. Good demand for cows at high prices. Hogs are scarce, as the spring crop of pigs was poor. Seed clover promises well, but acreage not large.—L. D. Gamhart.

Washington County.—Harvesting is completed and threshing has just commenced. The yield of all small grains in this locality will be better this year than for a number of years past. Alsike clover yield was very good in most places here. The third cutting of alfalfa will be nothing on account of no rain lately. Corn in this section will be poor, for it is only in the milk stage now and if it freezes early in September it will make nothing but silage. Potato prospects are very good. Early varieties yielding extra well and with a little rain the late crop will be large. Red clover for seed looks very promising. Apples are somewhat small and poor. Pastures are dried up all over this locality, so the flow of milk is small at present.—M. P. Salter.

Waukesha County.—Threshing from the field is the order of the day. Spring wheat will make from 20 to 35 bushels per acre, except where it was lodged by the heavy winds. Oats will make from 40 to 50 bushels per acre and barley also is yielding well. In some sections two good crops of alfalfa have been cut and a third will be ready soon if rain comes. Rain is needed for all growing crops, especially corn and potatoes. Cold weather and weeds have kept corn back. Hogs are scarce. Cattle sell at high prices and milk also brings a good price, but no more than it should. Hay crops were secured in good shape. A fine crop of small fruit was harvested, but apples turned out poor.—George Hodgson.

Waukesha County.—Hay was a good crop first cutting, but the second cutting of clover and the third cutting of alfalfa is very light. We are in need of rain to fill out the corn. Late potatoes will be less than half a crop if we do not get rain soon. Oats and barley were good, barley yielding about 40 bushels and oats over 70. Wheat did well where it was sown until near harvest, then it was touched with rust a little. There was no winter wheat around here. At the price of feed it will cost about $3 per 100 to produce milk this winter and the cow will have to be better than the average. The average cow is going to put her owner in the hole next winter if he feeds her.—W. J. Mann.

Wood County.—Hay was put up in fine shape, considering the wet weather at that time, making a good yield above the average. Oats are above the average yield for the last five years also, but will need to be, too, as the corn crop will be short if frost should come soon, as it will take all of three or four weeks yet to ripen most fields of corn. Gardens have done their best this year, but the fruit crop is small. Potatoes are very good. Feeding operations are decreasing here on account of high prices of feed.—Fred E. Weber.

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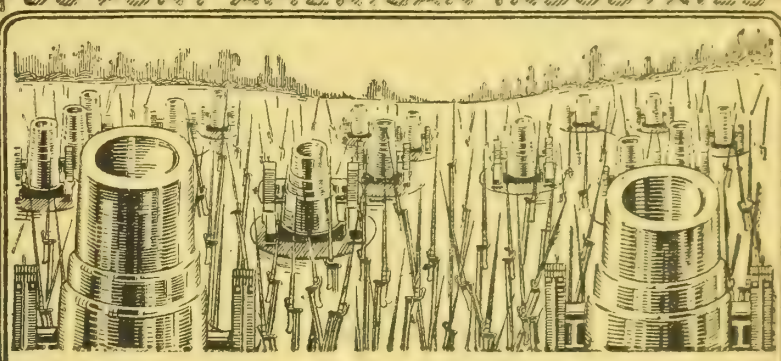

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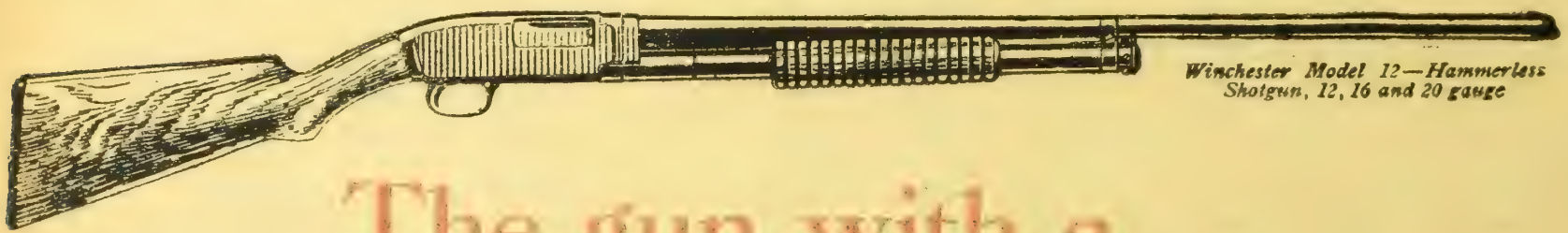

Winchester Model 12—Hammerless Shotgun, 12, 16 and 20 gauge

The gun with a dog's pointing instinct

A dog points by instinct. Its nose, body and tail come into line naturally—instantly. So with the hunter and his gun.

Armed with the right gun, he "points" it instinctively. If properly balanced, his gun comes up into line naturally, as easily as pointing a finger.

But if the gun is not right, if it has not been perfectly balanced in the shop, it won't work out well in practice, just as a dog, if not properly bred, will not work out well with its master in the field.

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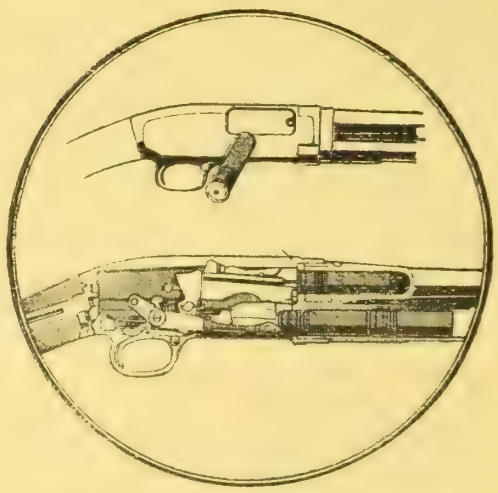

Quick feeder, sure ejector. Throws empty shells to the side, out of your way

Its balance enables you to get onto fast flying birds instantly. Pointed right, it never fails to bring down the game.

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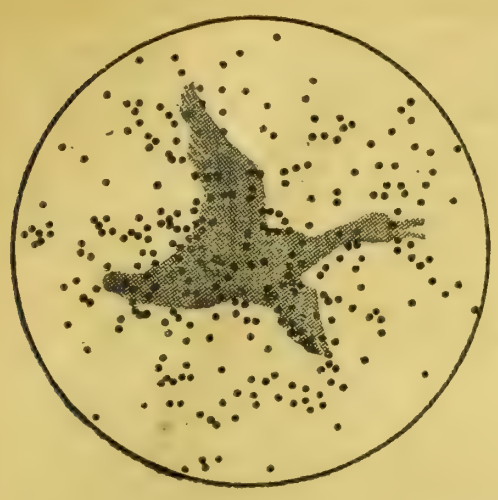
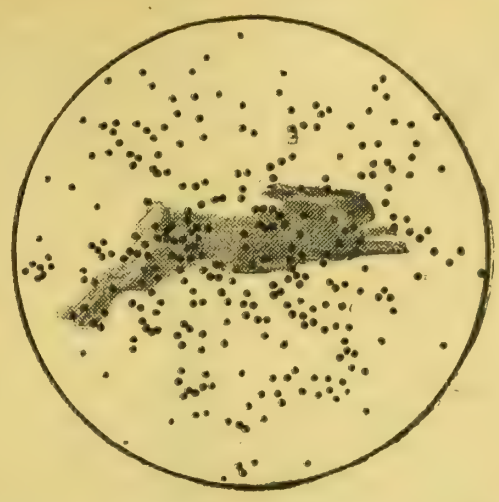
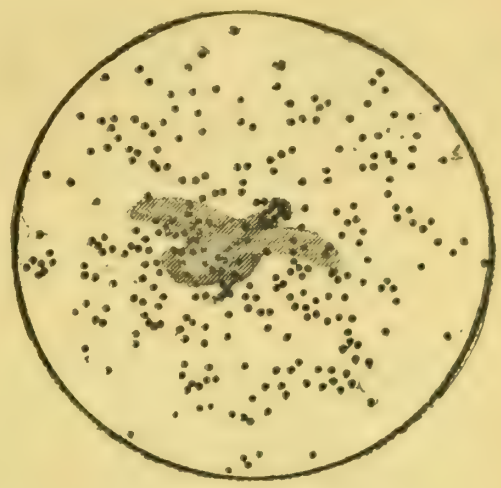
It is a triumph of guncraft. Nicely balanced, with its slim, graceful barrel, the Model 12 is a beautiful weapon, with a fascination about it that few sportsmen can resist.

WINCHESTER

World Standard Guns and Ammunition

Even spread, maximum penetration. Winchester shot pattern brings down the game.

The pattern that brings down the game

The remarkable game-getting pattern of the Winchester Model 12, shooting its own standard ammunition, is the result of infinite care taken in boring the barrel.

The barrel *is* the gun

Men who know guns realize that the accuracy and durability of a gun lie in the barrel. On the quality of the barrel depends the quality of the gun. There is absolutely no difference in the standard quality of the barrels on the highest and lowest priced Winchester guns. With Winchester, the barrel *is* the gun, and the single standard of quality has been attained only by the most unremitting attention to the boring, finishing and testing of the barrel. The same high quality of Winchester barrel is found on every gun made by Winchester. The great volume of guns sold makes this policy possible.

The Winchester barrel

The barrel of the Winchester Model 12 has been scientifically bored to micrometer measurements for the pattern it is meant to make. The degree of choke exactly offsets the tendency of the shot to spread. Until its pattern proves up to Winchester standard, the gun cannot leave the factory. The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that with proper care will last a lifetime. The Nickel Steel construction preserves the original accuracy forever.

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It is this care in manufacturing that has produced in the Model 12 a gun of unsurpassed game-getting qualities and whose grace, balance, beauty of lines, and never failing performances in the field have earned it the title of "thoroughbred of shotguns"—*the gun with a dog's pointing instinct.*

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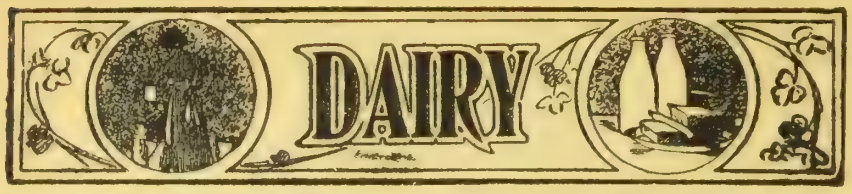

Mixing Feed With Brains.

Feeding dairy cows produces increasing numbers of perplexing problems. The high price of feed and its constant fluctuation is the big problem just now. Never has there been a time when it was so utterly inadvisable to lay down set rules for feeding. Feeds and combinations of feeds that today might be used to best advantage may tomorrow be absurdly expensive. With reference to grain does this particularly apply.

Two staple feeds have been the mainstay of dairymen and it will be well to put main reliance in them as heretofore. They are silage and alfalfa or clover. Silage must not be sacrificed because corn promises to be high for feeds that we shall buy on the market and there is no feed that will keep up the health tone of the dairy cow as will silage. We had best grant that the dairy cow must have silage as usual. Clover and alfalfa have yielded well this year and promise to be fairly normal in price. Consequently they may be used with great liberality to all dairy stock, especially dry cows and young animals.

With regard to grain we must grant that some concentrate is just as necessary as it ever has been. Successful dairying has never been conducted without grain. The problem is to feed for maximum efficiency in order that each pound of grain shall give the greatest returns in milk. The old plan of feeding one pound of grain for each three and one-half or four pounds of milk produced is very g[illegible] This is a time to study feeds and combinations of feed and prices of feed. A story is related that a young boy on whose farm feeding had not been successful stood watching a neighbor mix feed for his own herd that had always been profitable. The young man asked, "With what do you mix your feed?" The successful man replied, "Brains." Truly this is a time for the dairyman to mix his feed with brains.

Waupaca and Portage Holstein Breeders' Picnic.

To the Editor:—The annual picnic of the Waupaca and Portage County Holstein Breeders' Association was held at Ponderosa Farm, W. P. Kissinger, owner, near Waupaca, Thursday, August 30th. Fully 1,200 persons were present, Holstein enthusiasts from many miles around availing themselves of the opportunity of hearing the splendid program.

S. B. Bird, of South Barron, described the plan adopted by Holstein breeders near Fond du Lac for disposing of their surplus stock. The consignment sale was found to be the most satisfactory method and a two-day sale brings better results than a one-day sale. To make the sales a success and insure sufficient cattle it was thought best to include fourteen counties around Fond du Lac, so last spring plans were begun with this in mind. It was decided to have a pavilion 120 feet square with stall room on three sides and to incorporate for $25,000. Stock was sold to Holstein breeders in the fourteen counties and already, with only about half the territory canvassed, about $18,000 has been subscribed. At least three sales will be held annually and it is proposed to hire a sales manager permanently, his duties being to obtain sufficient entries and to aid the breeders in properly fitting their animals for the ring.

The building will be rented to other breed organizations when they wish to hold sales, and it is proposed to charge rent on the commission plan.

F. E. Paronto, of Waupaca county, next spoke favorably of the plan to include several counties in the sale circuit, for he said it was difficult to get sufficient animals consigned from one county to make a satisfactory sale, one which would draw buyers from other states.

A stock-judging contest for boys was of great interest and gave the crowd an opportunity to see four excellent cows and the same number of type bull calves from Mr. Kissinger's herd. The awards were made by Mr. Coyner, county agent of Portage county, and he ranked the boy judges in the following order: Myron Mather, Waupaca, first; Arthur Jorgenson, Waupaca, second, and Perry Miller, third.

A number of songs by Arthur Ritchie, R. J. Ritchie and Miss Ritchie were very well received.

R. T. Harris, of the department of dairy tests, gave an interesting talk emphasizing the value of the official test, both to the breeder and to the breed.

Dr. O. H. Eliasen, state veterinarian, urged the testing of cattle for tuberculosis and stated that at the present time in this state only 2 per cent of the cattle are tested regularly. He then explained the plan by which it is hoped to eventually rid the state of this disease. The first two counties which apply for a general "clean up" will receive an appropriation of $18,000 and more if necessary to pay for sending a force of men into these counties to test all the herds. When a county applies for this general testing it is necessary that the petition be signed by 50 per cent of the cattle owners in the said county. At the present time the various breed organizations of Waupaca county are cooperating to bring about the circulation of the petitions as soon as possible, in order that Waupaca will be among the first two to apply for the "clean up." D. R. Burnham, Sec.

Waukesha County Guernsey Association No. 1.

The herd having highest average for the month of July in Association No. 1, was that of Herman H. Wendt, Waukesha, 10 cows averaging 582.12 lbs. milk and 34.42 lbs. fat.

The next highest herd was that of Alvin Basse, 12 cows averaging 710 lbs. milk and 30.52 lbs. fat.

The highest herd average of our two associations here in the county was that of Mr. H. H. Wendt.

Owner, name and breed.	Age.	Lbs. milk.	Lbs. fat.
Goodhand Kingston			
Grade Guernsey	9	1415.7	72.21
Pure-bred Guernsey	7	508.8	47.31
Grade Guernsey	2	1055.9	46.99
J. E. Ingels			
Grade Guernsey	9	958.9	56.08
Grade Guernsey	7	932.5	44.76
Grade Guernsey	7	992.6	42.69
Herman Wendt			
Grade Guernsey	9	1087.3	55.48
A. W. Fox			
Grade Guernsey	7	1346.0	53.84
Grade Guernsey	7	892.8	44.54
Alvin Basse			
Grade Short-horn	12	1261.6	52.96
Grade Guernsey	6	1106.9	50.88
Grade Holstein	8	1032.0	40.76
D. W. Jones			
Grade Guernsey	6	1003.2	52.16
Grade Guernsey	11	1042.7	40.15
J. M. Harvey			
Grade Guernsey	6	929.5	46.01
Pure-bred Guernsey	8	856.3	45.81
Sam C. Hooper			
Grade Guernsey	8	1131.6	45.26
Grade Guernsey	6	742.9	40.12
Connell Brothers			
Grade Guernsey	4	929.5	44.61
Grade Guernsey	9	890.5	42.74
Grade Guernsey	2	594.7	41.68
L. J. Wendt			
Grade Guernsey	4	933.2	41.99
Orlin Craig			
Grade Guernsey	5	776.0	41.51

HARRY L. SNYDER, Official Tester.
F. E. FOX, Secretary.

New Holstein Testing Association.

To the Editor:—During the month of July 413 cows were tested in the New Holstein Cow Testing Association, Calumet county. Four hundred and seventeen cows have been entered for this year. Of these 236 are grade Holsteins, twenty-four registered Holsteins, eighty-seven grade Guernseys, twenty-eight registered Guernseys, two grade Jerseys, two grade Durhams, seven grade Short-horns and thirty-one natives or unknown ones. A herd of Holsteins owned by Hugo Libke produced as an average 990.4 pounds of milk and 39.4 pounds of fat during July. John Kuhn owns the champion cow for the month, a grade Holstein. She produced 1,271 pounds of milk and 67.3 pounds of fat as a four year old. A registered Guernsey two years old owned by H. J. Duecker is the champion in her class. She produced in one month 885.6 pounds of milk and 46.9 pounds of butter fat. Owing to the shortage of pasture and excessive heat during July, many herds fell short of what was expected. Consequently our forty-pound list, which contained fifty-seven cows, was much smaller than the previous month. The price of fat ranges from 54 to 62½ cents per pound for butter fat. Our forty-five-pound list for July follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Edward Hass					
Jessie, G. G.	4	6-2-17	922.5	5.0	46.1
A. Wilting					
Bloomy, G. H.	7	3-23-17	1234.5	3.8	46.9
Gust. Weber					
Daisy, G. H.	10	12-21-16	1426.4	3.3	47.0
Schimmel, G. H.	9	2-16-17	1356.3	3.6	48.8
Rud. Jochimsen					
Jennie, G. H.	7	3-23-17	1481.8	3.5	51.8
Hugo Libke					
Pride, G. H.	3	11-23-16	1059.0	5.0	52.9
Ann, G. H.	7	11-19-16	1355.2	3.4	46.0
Nellie, G. H.	6	3-24-17	1353.5	3.9	52.8
Fanny, G. H.	4	5-22-17	1307.7	4.1	53.6
Martha, G. H.	6	3-2-17	1407.2	3.3	46.4
Flora, G. H.	4	3-22-17	1137.0	4.0	45.4
F. F. Thielke & Son					
Lottie, G. G.	3	5-25-17	991.8	5.1	50.5
Chas. Raquet					
Lily, G. H.	9	5-20-17	1188.7	4.1	48.7
John Kuhn					
Jack, G. H.	4	4-15-17	1271.0	5.3	67.3
Daisy 2, G. H.	5	12-31-16	1271.3	3.8	48.3
Blessie 4, G. H.	8	12-23-16	1235.3	3.7	45.7
B. & W., No. 1, Grade Holstein	9	1-11-17	1142.0	4.0	45.6
H. J. Duecker					
Jennie, G. G.	9	5-28-17	1144.1	4.9	54.5
Ladysmith, G. G.	9	3-26-17	989.4	4.6	45.5
Annie, G. G.	5	4-25-17	1277.8	3.6	46.0
Rolla, R. G.	5	5-2-17	855.6	5.4	46.2
Eunice, R. G.	2	6-24-17	885.6	5.3	46.9
Redback, G. G.	8	7-1-17	1293.5	4.3	50.9
Erick Vornahl					
No. 4, G. G.	11	4-16-17	1100.8	4.3	47.7

NANDER [illegible]
[illegible] MASS., Secretary.

Waukesha County No. 2.

To the Editor:—The following are the forty-five-pound cows in Waukesha County Cow Testing Association No. 2 for July:

Owner, name and breed.	Age.	Lbs. milk.	Lbs. fat.
Walter Hardman			
Grade Guernsey	6	1224.2	56.31
Joseph Brandt			
Grade Guernsey	4	673.7	48.61
Wm. Steele, Jr.			
Grade Guernsey	8	[illegible]	[illegible]

The herd having the highest average for the month of July in Association No. 2 was that of Walter Hardman, 6 cows averaging 599.8 lbs. milk and 29.25 lbs. butterfat.

The next highest herd was that of Chas. Tempero, Pewaukee, 8 cows averaging 571.7 lbs. milk and 27.08 lbs. butterfat.

The highest cow for the month of Association No. 2 was that of Walter Hardman, grade Guernsey, 6 years old, 56.31 lbs. butterfat for the month. The highest individual record in Association No. 1 was that of [illegible], a grade Guernsey, 9 years old, [illegible] lbs. butterfat.

F. L. THOMSON, Official Tester.

Alto Association.

To the Editor:—The following is our forty-five-pound list for August:

Highest cow for month, grade Jersey, Rudolph Kastein, owner, 1,082 lbs. with 51.9 lbs. butterfat. Last [illegible] cows have nearly reached forty pound.

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Ed Bruins					
No. 27, P. B. J.	12	1-14-17	893	5.3	47.3
R. Kastein					
No. 19, G. J.	7	4-13-17	1082	4.8	51.9
No 21, G. J.	8	5-8-17	1035	4.4	45.5

J. H. EASTEIN, Secretary.

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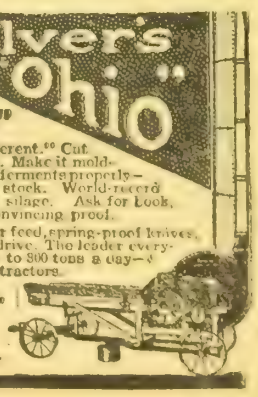

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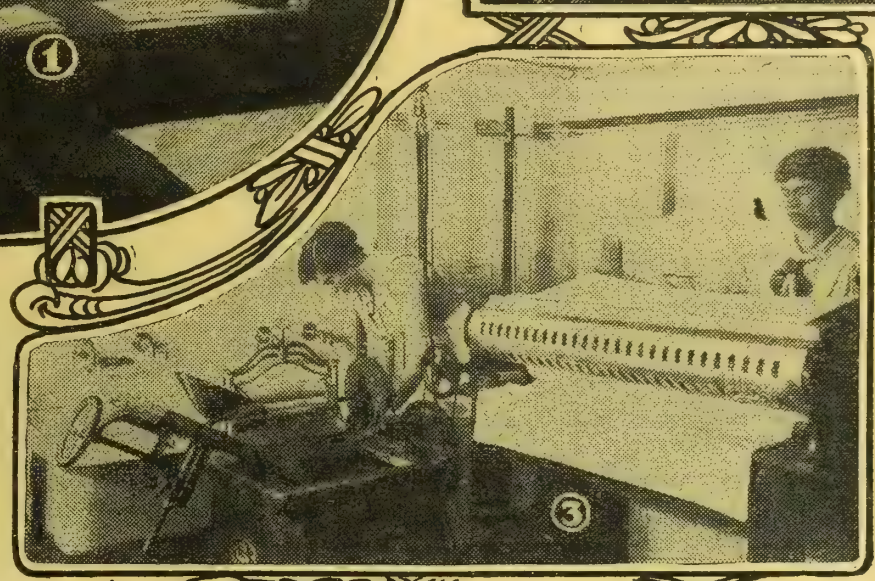
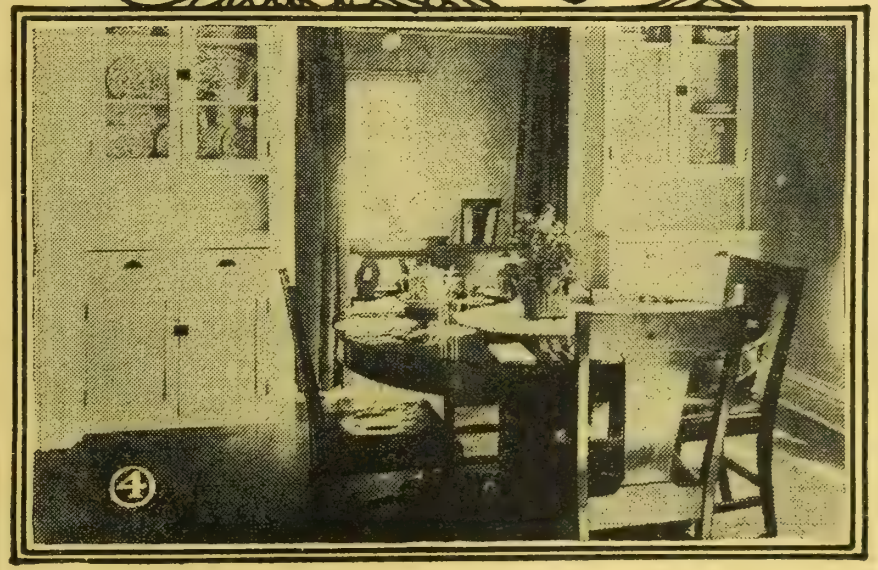
TRAINING GIRLS FOR SERVICE





(1) Domestic economy students learning home dressmaking. (2) How to furnish a home cheaply, simply and beautifully is a problem worthy of much study. (3) Power machinery in the laundry takes the drudgery out of washing. (4) In this practice dining-room students are taught to combine simplicity, beauty and utility.

SUCCESS in any line depends to a great extent upon the preparation one has made before taking up his chosen work, and upon the degree to which he keeps posted in the matter of up-to-date methods of conducting his business. If this is true of other occupations, why is it not true of housekeeping?

Colleges and universities are paying high salaries to experts who devote their entire time and attention to the solving of problems that beset the farmer and his wife. The farmer is taking advantage of this opportunity to learn newer and better ways of performing old tasks. He is attending short courses and institutes; he is sending his boy to the university to acquire up-to-the-minute knowledge of stock raising and general farm problems; and he and his boy together are putting this knowledge to practical use on the farm.

Why cannot the farmer's wife and her daughter do likewise? The same opportunity is afforded the farmer's wife as the farmer himself. The home economics department of the University of Wisconsin takes an active interest in Wisconsin farm women and girls and it is bending every effort to be of practical service to them in solving their household problems.

The instruction given in this department is not theoretical, for the girls are given practical experience in housekeeping, and this experience is gained under the most ideal conditions.

This does not mean that when a girl has finished her course in domestic economy and returned to her mother's home or started her own housekeeping establishment she will require a model house, expensive outfits and elegant furniture. No, indeed! It does mean, however, that if she must start in working in an inconvenient, poorly arranged house with no labor-savers to help her out she will know how to go about making improvements and little by little remodeling, rearranging, readjusting, until her ideal is reached. It means that she has learned the value of personal efficiency in running a modern household on economical lines. It means that she has learned the immense importance of even minor labor-saving appliances in their relation to her own health and strength. Perhaps she cannot with one wide sweep modernize her house from top to bottom, but she will know where to begin making improvements, and, moreover, she will have made a thorough study of the expenditure of the family income so that she will know how much she can afford for any one thing.

Personal hygiene is another phase of the girl's education that is given its full share of attenton, and this, certainly, is one thing that will stand her in good stead if she must take up heavy duties. Most of us know what to do when illness overtakes us, but how much better it is to know what to do to keep well. Instruction on how to live in order to keep perfectly fit physically should have a place in every girl's education. The strong, healthy girl is anxious to retain her bloom and vitality, and her less robust sister is more than anxious to improve her physical condition.

Many a housekeeper who has never had any previous experience is obliged to do her own sewing. And do it she does. Some find that they have a natural knack with the needle and, therefore, the usual difficulties are surmounted without any trouble. But alas for the girl whom nature forgot to endow with this gift, whose mother before her did not know how to sew, and who finds herself squarely up against it when she undertakes to make herself a gown. What a boon it would have been if she could have had a few lessons on how to draft patterns, how to use commercial patterns, how to cut her material to advantage; if she could have had a hint about the hundred and one tricks of the trade which make sewing less of a nerve-racking business. Not only do the girls in the home economics department study dressmaking, but they study textiles, color harmony in dress, and the appropriateness of different materials and styles for various wear. At the Minnesota State Fair the extension department of the University of Minnesota gave a practical demonstration of the value of such training. Frocks for different occasions were exhibited on live models. Simplicity was the keynote and those who viewed the gowns were favorably impressed with this proof that the American girl can make herself attractive and winsome with simple clothes made by her own hands.

The home economics student, when she has finished her course, not only knows how to keep house, but she and her fellow students and her instructors have worked out the best, the easiest and the most efficient ways of doing household work. She has learned to systematize her work and save her strength. She has studied housekeeping from a scientific standpoint. She has acquired some useful knowledge about how to build a home, how to buy for it and how to furnish it, not only beautifully but economically. She has learned food values so that she can prepare a meal for the family that will answer all the needs of the human body—just as her brother has learned feed values so that he can compound a balanced ration for the stock. If it is worth the farmer's time to learn how to feed his animals for best results, how much more is it worth the time of the farmer's wife and daughter to learn how to feed the family?

Housekeeping in all its phases, from building and furnishing the home to feeding and clothing the family is studied by home economics students with a view to the greatest efficiency and economy, and the making of the home beautiful and livable and helpful to right and happy living is not the least of the aims of this department.

It seems to us that every girl is entitled to this training. We do not mean to belittle the training she receives in her own home—the two go hand in hand and the one is doubly valuable through the influence of the other. Every girl longs to go to college and if she is domestically inclined she could not spend her time more happily or profitably than by taking a course in domestic economy. She will be learning lessons that will be of great benefit to her later on and at the same time she will enjoy to the limit the college atmosphere. We firmly believe that the farm mother and daughter can make as good use of a college training as can the farm father and son.

Plan Your Bulb Bed Now.

If you are planning to have a bed of tulips, hyacinths, jonquils or other bulb flowers for next spring you should begin thinking about it now, because next month is the time to make the bulb bed. The best place for these spring flowers is in some location where the bed can be used, after the bulb flowers have had their day, for other plants that do not root deeply. Phlox, petunias, geraniums or pansies can be planted in the bulb bed and when the season for them is over they can be removed without in the least disturbing the bulbs.

A few points should be remembered in planting bulbs. Always set the eye side up; the other end will show root fibers. A handful of sand around each bulb will keep away the worms. After the bulbs are all planted cover the bed with a thick layer of wood or leaf mold. Manure should never be used on the bulb bed, because it heats the soil so that the bulbs may sprout before the danger of hard freezing is past.

Tulips, hyacinths, crocus, iris, jonquils, narcissus, as well as some of the lilies, should be set out in October. Hyacinths should be set at least four inches below the surface and five or six inches apart. Jonquils and narcissus should be set at a depth of five inches and three inches apart. Crocus should be two or three inches deep and three or four inches apart. In the case of iris the bulbs should be three inches deep and eighteen inches apart, this distance being necessary from the fact that the iris multiplies rapidly.

There is immense satisfaction in a bulb bed. For one reason, once established, the bed takes care of itself for three years. After this length of time the bulbs will have to be divided to keep them from overcrowding and thus dwarf the blooms.

Pennsylvania Apple Butter or "Snitz."

Take perfectly sweet apple cider and boil down to one-half the quantity. Have your apples pared, cored, quartered or smaller. Cook the apples in the cider, in a large kettle, adding more apples and more cider as the mixture "boils down," to keep the quantity up. Cook until it thickens, stirring constantly all the time. Before taking the apple butter off, add sugar to taste, about forty pounds to one-half barrel kettle. Some use a little spice, such as cinnamon. When cooked too long the butter is dark. It is most appreciated when a rich golden red. The butter is generally put in stone or earthen crocks and the openings tied with waxed paper. When thoroughly cooked the apple butter should keep well all winter or longer. Should it show signs of fermentation it can be freshened by heating thoroughly again.

Making apple butter is a job "from sun to sun." It is generally made in a half-barrel copper kettle, over a wood fire. Constant stirring is necessary; also constant cooking. The apples are generally pared the night before and steeped in water in tubs.

To make a one-half barrel kettle of apple butter, upwards of a barrel of sweet cider can be used and a like quantity of apples.

Simple Test for Wool.

The laws of our country at present offer no protection to the purchaser of textile materials. If the price of "all wool, a yard wide" goods is paid and later it is found that the material is half cotton, there is nothing left for the purchaser to do but to enter it as "loss" in her profit and loss account. To be sure, there are any number of stores where the dealers are truthful about the textile materials handled, but nevertheless a knowledge of a few simple tests may not come amiss.

Sometimes sleazy, thin cotton material is made to look quite firm and attractive by the use of sizing or dressing. By rubbing a corner between the thumbs, the sizing is removed and the real quality of the material is apparent. In very thin materials the sizing may be detected by holding the cloth to the light. The starch will show between the threads.

An examination of the raveled warp and wool threads will often reveal much. Cotton fibers are short and broken ends of cotton threads will appear fuzzy. Linen fibers are long, and consequently broken ends of linen threads are more pointed than those of cotton.

Some woolen materials are "made over," that is, old woolen rags and short, broken fibers, and the clippings from broadcloth are used in its manufacture. Sometimes this can be detected by unraveling the end. The short fibers are loosened and fall out. —Beryl Dixon.

Recipes.

Creamed Carrots and Onions.—Four or five carrots, two medium-sized onions, one cupful milk, two tablespoonfuls butter, two tablespoonfuls flour, salt and pepper to taste. Wash, scrape and cut carrots into small pieces, slice onions, and boil together until tender. Make a white sauce with the milk, flour and butter; add salt and pepper. Drain carrots and onions and stir into the cream sauce. Serve hot.

Tomato Succotash.—Four large tomatoes, three large ears of green corn, one-half green pepper (chopped), one teaspoonful salt, one small onion (chopped), two tablespoonfuls butter, one tablespoonful sugar, one-fourth teaspoonful paprika. Fry the pepper and the onion in butter till soft. In the meantime have the corn cut from the cob and the tomatoes skinned and sliced, cooking together. Add to the latter the fried pepper and onion and the seasoning. Cook gently until a little thick, and serve at once.

Water Gingerbread With Whole Wheat.—One-half cupful molasses, one-half tablespoonful ginger, one-fourth teaspoonful salt, one-fourth cupful warm water, two tablespoonfuls shortening, one cupful whole-ground wheat flour, one teaspoonful soda. Sift ginger, salt and soda into the molasses, add the shortening melted, beat well, and add warm water and flour unsifted. Beat thoroughly and bake in a well-greased shallow pan in a moderate oven about twenty-five minutes.

Green Corn Pancakes With Whole Wheat.—Two cupfuls whole-ground wheat flour, one cupful cooked corn cut from the cob, one and three-fourths cupfuls water, three teaspoonfuls baking powder, one teaspoonful salt, one tablespoonful shortening. Mix the unsifted flour, baking powder and salt thoroughly together, all the corn and the cold water gradually until it forms a batter that will pour. Stir in the shortening melted. Beat well. Bake on a hot griddle.

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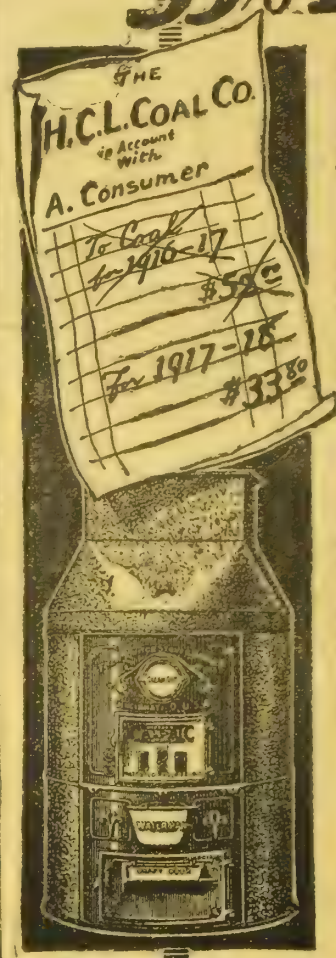

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THE YOUNG FOLKS

Loves Her Lark.

Dear Young Folks:—I am a girl thirteen years old and I will be in the fifth grade this year. I guess if you had not been to school for four years you would be in the fifth grade too. But I am going this year, because we have a housekeeper now and I do not have to stay at home. I have four little brothers and one sister. My sister is four years old. Her birthday is on the twenty-second of February. Two of my brothers are twins. They are five years old. I do our sewing, washing, ironing and baking. I have no mother to take care of me or of the others. I am nearly like Vesta, am I not?

I am going to tell you Young Folks about my pet lark. One day when I was sick I had my window wide open. I was eating breakfast when in came a lark. It flew around the room and then came down and perched on my shoulder. I gave it some bread crumbs and it ate them. Then I gave it some cool water. It had a nest on top of our clock and it flew to the nest with some crumbs. There were some little larks in the nest. I love my lark dearly and I love to see it feed the little ones.

I like to guess the riddles. Can you guess this one? How can you get the water out of a bottle without breaking the bottle or pulling the cork out?

Erma.

The Humming Birds Like Her Garden.

Dear Young Folks:—I am a little girl eleven years old. I will be in the eighth grade this term. I like to go to school and I have not missed a day for four years. We live two miles and a half from town and a quarter of a mile from the schoolhouse.

We have two pets, a dog and a cat. The dog's name is Trixy and the cat's name is Mew Mew. They are great chums and play together a great deal. They eat together out of one dish and sleep in the same box.

I have one sister and one brother. My sister is five years old and my brother is nine.

I have a garden of my own. There are a great many flowers in my garden—balsam, candytuft, nasturtiums, phlox, marigolds and Japanese morning-glories. Many humming birds visit my flowers and I think it is fun to watch them flit from flower to flower.

I like to read your letters and guess the riddles. I think the answer to Dorothy's riddle—what table has no legs—is the multiplication table.

Hazel.

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Dear Young Folks.—I would like to join your circle, as I enjoy reading your letters very much. I wrote to you once before, but did not see my letter in print so will try again.

I live on a 160-acre farm a mile and a half from town. I am twelve years old and in the seventh grade. This year our school organized a boys' and girls' club. I am in the poultry project and like it fine. I have twenty-six Plymouth Rock chickens.

I have a piano, but have not taken lessons yet, although I can play. I like to live on a farm because it is fun to ride horseback. I have a pony named Buck.

I like to guess riddles, so I will send one for you to guess. Four and twenty white sheep standing on a hill; now they go, now they go, now they stand still.

Frances.

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2200—A good dress for school or general wear. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3⅝ yards of 36-inch material for an 8-year size.

2032—A popular boys' blouse. Pattern is cut in 5 sizes: 8, 10, 12, 14 and 16 years. It requires 2⅜ yards of 36-inch material for a 10-year size.

2199—A charming negligee. Pattern is cut in 4 sizes: Small, 32 and 34 inches bust measure; medium, 36 and 38 inches; large, 40 and 42 inches, and extra large, 44 and 46 inches. Size medium will require 7½ yards of 36-inch material.

2216—A simple, popular model. Pattern is cut in 4 sizes: 14, 16, 18 and 20 years. Size 16 requires 6⅜ yards of 44-inch material. The dress measures about 3 yards at the lower edge. The sleeve may be finished in wrist length with a deep cuff, or in short length, with a shaped cuff.

2226—Girls' dress. Cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4½ yards of 44-inch material for a 10-year size.

2208-2211—Ladies' costume. Waist 2208 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 2211 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It will require 6 yards of 36-inch material for a 36-inch size, for the dress as illustrated. The skirt measures 2⅜ yards at the foot. Two separate patterns, 10 cents for each pattern.

2013—A practical ladies' apron dress. Pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 5 yards of 36-inch material for a 34-inch size.

2006—Ladies house dress, with reversible closing, with or without chemisette, and with sleeve in wrist or elbow length. Pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7⅛ yards of 36-inch material for a 36-inch size.

1978—Children's dress with sleeve in either of two lengths. Pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2½ yards of 36-inch material for a 4-year size.

2223—A practical, comfortable garment. Pattern is cut in 6 sizes: 1, 2, 4, 6, 8 and 10 years. Size 6 requires 1⅝ yards of 36-inch material.

1971—Ladies' dress. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 44-inch material for a 36-inch size.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for September 16, 1917.

The Fiery Furnace.

LESSON TEXT—Daniel 3.

GOLDEN TEXT—When thou walkest through the fire, thou shalt not be burned; neither shalt the flame kindle upon thee.—Isaiah 43:2.

I. The Occasion (vv. 1-7). The fact that God said to Nebuchadnezzar, "Thou art this head of gold" (2:38) was too much for him. Though he appeared to have been deeply impressed with Daniel's God, his pride got the better of him. As he grew great and became conscious of it, he grew proud. This moved him to set up a colossal idol of gold in the Plain or Dura to be worshipped by all the people of his realm. It was an attempt at self-deification. It combined with it a political move, the object of which was to weld together the various kingdoms and peoples into one homogeneous body. He inaugurated a religious festival, and called upon all the people to worship the image which he set up. He backed this demand by civil authority. The penalty for refusal to bow down and worship the image was to be cast into the burning fiery furnace. Imposing images are set up in many places, and men and women are being called upon to bow down and worship them. Some of these images are money, fashion, scholarship, worldly ambition, pleasures, etc., and woe be to those who will not worship before them.

II. The Behavior of the Hebrews (vv. 8-18). (1) The accusation by the envious spies (vv. 8-12).

Daniel's three friends had been promoted to positions of honor and responsibility. Certain Chaldeans whose envy had been excited by the promotion of these Hebrews, sought occasion against them. This they found when the Hebrews would not bow down to and worship the image. Envious eyes are always watching God's faithful ones. Had these Chaldeans been faithfully worshipping, they would not have seen the Hebrews.

(2) The King's rage (vv. 13-15).

He calls the Hebrews before him, questions them and gives them another chance. The offense was not serious—they were defying the authority of the one who had honored them in their promotion; it savored of ingratitude. After closely questioning them he gave them another opportunity to consider their position before consigning them to the fire. His supreme mistake was in the challenge he made to the God of the Hebrews. He seems to have forgotten entirely the confession he had made with reference to God (2:47).

(3) The courageous reply of the faithful Hebrews (vv. 16-18).

They replied without passion or fear. The peace of God filled their hearts. Their behavior is an expression of triumphant faith. "We are not careful to answer thee in this matter. If it be so, our God whom we serve is able to deliver us from the burning fiery furnace, and he will deliver us out of thine hand, O king. But if not, be it known unto thee, O king, that we will not serve thy gods, nor worship the golden image which thou hast set up." They courageously showed their contempt for death. They were not afraid to die, but were afraid to sin against God. They knew that to bow down before this image was to disobey and dishonor God. While they did not know what God would do, in the premises, they knew that he would do the right thing. These Hebrews were far away from home, exposed to the most severe temptation, but they saw their duty clearly set before them. God's law plainly settled it for them. They did not try to find an excuse to evade their duty, and seeing the way clearly they acted accordingly.

III. The Glorious Issue (vv. 19-30). (1) The harmless furnace (vv. 19-25).

The infuriated king ordered the heat of the furnace to be intensified, his most mighty men to bind the Hebrews and fling them into the fire. Though the heat was so intense that the soldiers who cast them into the furnace were slain, the Hebrews were seen walking loose in the fire without any hurt. Equally astounding was the fact that a fourth one was seen with them.

(2) The convinced king (vv. 26-28).

The spectacle was so wonderful that the king called the Hebrews together out of the fire. They came forth unharmed, for the fire had no power over their bodies; not even a hair of their heads was singed, their coats changed, nor the smell of fire upon them (v. 27).

(3) The king's decree (v. 29).

This was most foolish and wicked. Even a king has no right to kill people for not worshiping God.

(4) Promotion of the Hebrews (v. 30).

Their fidelity in this trying ordeal resulted in their promotion instead of downfall. May we learn from this that:

(a) God alone is Lord of the conscience. One's faith and worship should be determined by the individual before his God. No church, king or ruler has a right to interfere.

(b) We should meet religious intolerance by being obedient to God rather than man.

(c) God will support those who are faithful.

(d) We should prepare for fiery trials, and through them all be true to our conscience.

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The most practical heating plant used. Twenty years on the market. Saves 40 per cent on cost and 40 per cent on fuel. We manufacture five sizes suitable to heat from a small cottage to a large church, including our old reliable No. 40 Pipeless with 28-inch combustion chamber and all fittings, for

$86.00

Easy to install in an old or a new house. No cutting of walls. Cool basement. We also furnish regular piped furnaces and fittings when required. Save big money by getting our free catalog.

Bovee Furnace Works 204 W. 8th St. Waterloo, Iowa

FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

WISCONSIN FARMS—Any size you desire, from 160 acres and up, in any stage of cultivation. If you want a highly-improved farm with good buildings and in cultivation, we have it; or, if you want the raw land and do the improving yourself, we have that. Girton & Lyons, 705 Crocker Building, Des Moines, Iowa. Phone Walnut 2058.

ALABAMA ALFALFA LAND. Demopolis Section—No part of America equal of this in the great combination of alfalfa, corn, velvet beans and grass. Rolling lime land, fertile, healthy country, artesian wells, tick free. Lands are cheap, quality considered. Full information and photographs. C. C. Clay Alfalfa Land Co., Demopolis, Ala.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

FARM BARGAIN—One of the best farms on Rusk prairie. Good buildings, best soil, all cultivated, 2¼ miles from Rusk, 6 miles from Menomonie, Wis. Less than real value for quick sale. Frank Miner, Menomonie, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

165-ACRE FARM—Good land, good buildings, 47 miles from Chicago, 14 miles south of Gary, Ind. $140 per acre. J. W. Sherburne, LeRoy, Ind.

GOOD FARMS in a good country. Always sure crops; no destructive storms. Good bargains are yours by writing Geo. C. Rice, Webster, Wis.

FOR SALE—80-acre farm, good soil, good buildings, half under plow, 3 miles from good railroad town. Henry Lien, Hixton, Wis.

MARATHON COUNTY, WIS., improved and unimproved farms for sale. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

HOLSTEIN BULL FOR SALE.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

REGISTERED Holstein bull, ready for service. Three of his dams average 106 lbs. milk in one day and 34.75 lbs. butter in seven days officially. Price $100. R. M. Harriman, Appleton, Wisconsin.

HOLSTEINS AND GUERNSEYS.

HOLSTEIN AND GUERNSEY—High-grade young calves for sale. I also sell farm produce on commission. Ship me your poultry, apples, vegetables, anything. Prompt returns. E. Terwilliger, 289 Lake St., Milwaukee, Wis.

PERCHERON STALLION FOR SALE.

PURE-BRED imported Percheron stallion, Eutopia (69032) 50785. Price reasonable. Address H. A. Bender, Route 3, Cambria, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

SALESMEN WANTED.

SALESMEN WANTED—Owing to draft and enlistment we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

TIMOTHY SEED.

TIMOTHY SEED—$4.00 per bu. High purity and germination, first class in every way. Timothy-alsike mixture, $4.50 per bu. Satisfaction or your money back. Henry Field, Shenandoah, Ia.

STANCHIONS.

ROY SWING STANCHION—Good enough for the best stable and price low enough for the poor man; none better. Ask for booklet describing them. Manufactured by Roy Brothers, East Barnet, Vt.

POULTRY.

PURE-BRED POULTRY—Rose Comb Brown and both Comb White Leghorns; hens and cockerels, $1.00 each; Buff, Black and White Orpingtons, Silver Laced Wyandottes, Houdan and Runner Ducks, $1.50 each. Richard Wegner, Ladysmith, Wis.

RYE.

CHOICE high-yielding plump pedigree rye; recleaned and graded; reasonable price. Arthur Popp, Jefferson, Wis.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Poultry Need Dust Baths.

Dust baths are essential to the health of poultry. Fowls enjoy wallowing in them and sifting the fine dust through their feathers, which serves the purpose of killing lice and removing scales and scurf from the skin. Some provision for the dust bath should be made in every poultry flock. The easiest way is to secure a large, shallow box, open at the top and having close-fitting sides and bottom. It should hold six or eight inches of dust and have sides high enough to prevent the chickens from throwing the dust out. Some poultrymen favor a closed box, arguing that there is less scattering of the dust when the box has a top and small hole in the side for the fowls to enter. But a dust box should be exposed to sunlight, which disinfects and cleanses, and, furthermore, chickens are inclined to shake off the dust after they have come out of the box, thereby scattering it just as much as if the box were open. In order to get the direct rays of the sun, the dust box should be either on the south exposure of the poultry house or inside the house near a window where the sun can shine on it. Unless it is raised above the surrounding floor or ground, litter and other foreign matter will get mixed with the dust. For this reason an elevation of three or four inches is desirable. Short scantlings, nailed to the sides of the box near each corner and projecting downward the desired distance, may serve as supports to give the proper elevation.

Perhaps road dust has attained the widest popularity of any material for the dust bath. It may easily be obtained and proves effective, but can be improved on as a lice killer with the addition of fine sifted coal ashes. Dust kills lice by stopping up their breathing pores and the finer the dust the greater its effectiveness. When road dust is not at hand, sandy loam soil mixed with coal ashes serves the purpose admirably. Many poultrymen add to such a mixture a small quantity of insect powder, lime or tobacco dust, all of which aid in getting rid of lice. The essential thing is to make the dust mixture light, fine and dry as possible.

Destroying Poultry Lice.

Because the lice live, eat and breed upon the body of the fowls, means of eradication must be such as to reach them beneath the feathers. This is accomplished in two ways, by the application of powers which suffocate the lice, and by liquid preparations which stifle the lice with their fumes or kill by coming in direct contact with the parasites.

If fowls have easy access to a dusty earth wallow, they will keep themselves fairly free from lice, but eradication will not be entirely complete in the majority of cases. A good dust wallow may be made of equal parts sifted dry loam and coal ashes. Wood ashes should not be used, as they may bleach or burn the shanks and feathers.

For the eradication of lice quickly and complete, as upon show birds and sitting hens, it is usually necessary to work a fine, dusty powder into the feathers. The method of application is to hold the fowl with one hand by the legs, head downward, and work the powder into the fluffy feathers around the vent, on the body, under the wings and on the neck, with the free hand.

An excellent powder at low cost may be made as follows: To a mixture of three parts gasoline and one part of crude carbolic acid, stir in all of the plaster of Paris it will moisten. When enough plaster has been added, the powder will be dry, brownish pink in color, and have a pronounced odor of carbolic acid and gasoline.

A second application of the powder should be made at the end of one week to catch any lice that escaped the first dusting or had hatched from eggs in the meantime.

Sitting hens should be thoroughly dusted when eggs are placed under them and again at the end of the first and second weeks. This insures them being free from lice when the chicks are hatched.

To kill the lice upon chicks, dust the mother hen or paint the walls of the coop with some liquid lice killer or disinfectant as given.

Especial care should be taken to dust the male of the flock thoroughly, as the quickest way to spread lice through a flock is by means of a lousy male bird.

Leg Weakness in Growing Chicks.

We ran into a flock of chickens a short time ago that were big, overgrown fellows, large for their age, perfectly healthy, but the abnormally large bones were so soft that the flock was developing what is termed "leg weakness."

Inquiring into the matter, it was brought out that those chickens had been hatched in an incubator, kept in limited quarters where they were wholly dependent on their keeper for their feed, which consisted almost wholly of cornmeal, that was lacking in ash to give rightly proportioned bones, and the result was that they were soft and spongy, with the flock beginning to go to pieces.

This same principle applies not only to growing chickens but to the production of eggs. Mineral is necessary to produce an egg. In a measure, grain furnishes the mineral, but not in large enough quantities. An egg contains eight times as much ash as its equivalent in grain, and it is very evident that grain alone cannot furnish the right balance, as it would require eight times the amount of grain necessary for the needed ash that would otherwise be utilized, and the effect would soon show up in the egg production.

Some ash is furnished through the use of fresh vegetables, though not in large enough quantities. Beef scrap and cut bone are the most dependable sources of ash, with an abundance of milk as a good substitute. In the former, care should be taken to not feed too much, and green cut bone is easily tainted. It is preferable to buy from the grocer the granulated bone, which is always sweet. For laying hens in winter and chickens raised in limited quarters the ash must be supplied in some form.

Crushed oyster shells and limestone grit furnish this necessary element to a great extent and should be within reach of flocks, whether yarded or on range, at all times. Locality plays an all-important part in this. Some places afford all the lime and grit which the chickens need for the picking.

Few are the times we find chicks suffering from leg weakness when they range with the hen. Chickens brooded by artificial methods are troubled most, and unthinking people get the idea that it is caused from being hatched in an incubator, when really it has its foundation from wrong feeding; the things that the range chick hustles around and finds when at liberty with the hen is lacking and they, in one sense of the word, are starving.

The growing chick on the range has access to everything that forms bone and flesh, and it is a star at balancing the ration to be had for the gathering, coming up at night to get the grain ration for best results.

Feed the Fighters! Win the War!

Harvest the Crops! Save the Yields!

On the battlefields of France and Flanders the United States boys and the Canadian boys are fighting side by side to win for the World the freedom that Prussianism would destroy. While doing this they must be fed and every ounce of muscle that can be requisitioned must go into use to save this year's crop. A short harvest period requires the combined forces of the two countries in team work, such as the soldier boys in France and Flanders are demonstrating.

THE COMBINED FIGHTERS IN FRANCE AND FLANDERS
AND THE COMBINED HARVESTERS IN AMERICA
WILL BRING THE ALLIED VICTORY NEARER

A reciprocal arrangement for the use of farm workers has been perfected between the Department of the Interior of Canada and the Departments of Labor and Agriculture of the United States, under which it is proposed to permit the harvesters that are now engaged in the wheat fields of Oklahoma, Kansas, Iowa, North Dakota, South Dakota, Nebraska, Minnesota and Wisconsin to move over into Canada, with the privilege of later returning to the United States, when the crops in the United States have been conserved, and help to save the enormous crops in Canada which by that time will be ready for harvesting.

Help Your Canadian Neighbors When Your Own Crop Is Harvested

Canada wants 40,000 Harvest Hands to take care of its

13 MILLION ACRE WHEAT FIELD

One cent a mile railway fare from the International Boundary line to destination and the same rate returning to the International Boundary. High wages, good board, comfortable lodgings.

An Identification Card issued at the boundary by a Canadian Immigration Officer will guarantee no trouble in returning to the United States.

AS SOON AS YOUR OWN HARVEST IS SAVED, move northward and assist your Canadian neighbor in harvesting his; in this way do your bit in helping "Win the War."

For particulars as to routes, identification cards and place where employment may be had, apply to Superintendent of Immigration, Ottawa, Canada, or to

GEORGE A. HALL 123 Second St., Milwaukee, Wis.
Canadian Government Agent

AUCTION SALE—Having land in the West which I must give attention to, have decided to sell farm and personal property, at my farm, in town of Herman, 2½ m. so. of Lyndhurst, 4 mi. east of Tilleda, on Monday, Sept. 17. Good work team, weight 3,000; 12 head reg. cows and heifers; 4 bulls; all of the cattle are pure-bred, reg. Holsteins, all tubercular tested and vaccinated. Will also sell the farm of 160 acres; first-class buildings; good frame house; basement, barn, cemented, water works in barn for all stock, stanchions, concrete silo; all of late improvements; machine shed, chicken house, granary, wood shed, well and windmill. And all machinery. Lays on main road close to school, church and cheese factory. Telephone. Wm. Hoferman, R. 1, Box 18, Lyndhurst, Wis.

A SMALL FARM in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.&S.F.Ry., 1959 Ry. Ex., Chicago.

DRAINED CORN-WHEAT LAND

NO ROCKS, hills or swamps. Improved. $50 per acre up. Terms, one-fourth cash, balance 10 years, 5% interest. This year's crops will pay price asked for some of these farms. Write Box 216, Farley, Iowa.

HAVE SOME of the best farming lands, also diversified farms in the Northwest. Prices, $20 to $35 per acre, five to ten years, terms. One crop of wheat or flax under present government price pays for land. Write for information. Ryan Land Co., Leith, N. D.

POULTRY AND PET STOCK.

HOUNDS

COON, FOX, WOLF, RABBIT HOUNDS—PEDIGREED AND ELIGIBLE TO REGISTRY. Broke dogs sent on ten days' trial. Money back guarantee. Nice lot of puppies 6 to 9 weeks, ready for shipment now.
OTIS SLATER & SONS Oconee, Ill.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices.
WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns. $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

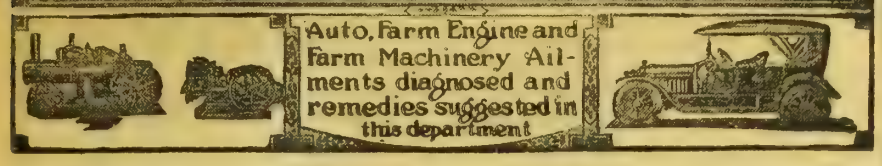
FOR SALE—Reg. and ped. Rufus Red Belgian hares from prizewinning stock. Satis. guar. or money ref. Hy. C. Hess, Box 39, Homestead, Ia.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets, from choice laying strain. Chas. Schmit, Hortonville, Wis.

HELP WANTED.

WANTED—Experienced farm hand. State wages. John J. Mueller, Montfort, Wis.

FARM MECHANICS



Questions and Answers.

Muffler Cut-Out.

Will a muffler cut-out give a car more power? Will it let the carbon out, or will it keep it in the cylinder?

Answer.—A muffler cut-out gives the car some additional power when running with the cut-out open. It is against the law in nearly all cities to run with the cut-out open, on account of the noise of the exhaust. With the cut-out open, some of the carbon will blow out of the cylinder that would otherwise remain in it. The difference is not very noticeable, however.

Making a Bean Thresher.

Will you please tell me how to make a bean-threshing machine that will run by a one and one-half horse-power engine? I want to fix the engine so that it will pull itself and the thresher. If the engine is not large enough, please tell me what size I need.

Answer.—We would be pleased to hear from any of our readers who have made a successful outfit of this kind. We woul dadvise the use of an engine having at least three horse power. The size of the engine would depend upon the capacity of the thresher.

Electric Tail Light.

Please publish a diagram showing the way to put an electric tail light on a Ford car.

Answer.—This is very easily done. Run a wire from the magneto terminal on the back of the coil box, or from your storage battery if you have one, to the tail-light lighting switch, which you may install on the dash. This may be an ordinary snap switch or a wall switch. From the other switch terminal run a wire to the tail light; and from the other tail light terminal run a wire to the frame and fasten it, making sure that it makes good metallic contact. Use rubber insulated lighting cable.

Magneto Out of Order.

I have a Bosch high-tension magneto, type ZEV. It produces a much hotter spark at one plug than it does at the other. When turning the magneto over by hand I can notice that it has a much stronger pull for one plug than it has for the other. I have been careful to adjust the platinum points, and they separate the same distance. What can I do to remove rust in the bottom of my gasoline tank?

Answer.—One of the ends of the cam operating the contact points of your magneto is worn. Unless you are expert on magneto repairing you had better send the magneto to the nearest service station for repairs. If you do not know where the nearest station is located write to the Bosch Company. We do not know of any method for removing the rust in your tank without injury to the tank, but you can slow down the rusting process by placing a strip of zinc in the bottom of the tank.

Kerosene Carburetors.

Please give me the addresses of all the manufacturers making kerosene burning devices for Ford cars. Are they successful? Will a gallon of kerosene give more mileage than a gallon of gasoline?

Answer.—There are at least three successful kerosene-burning carburetors for Ford cars. As to the merits of these, you better consult your local Ford garage man, who will be able to supply you with an outfit. You will probably obtain slightly less miles per gallon from the kerosene, though the difference will not be very noticeable. Theoretically, you should obtain more mileage from the kerosene, but the kerosene is harder to burn completely.

Three-Horse Evener for Wagon.

I am getting a great deal of useful information from the Farm Mechanics Department, but when it comes to three-horse eveners for a wagon, I think I have the best one. I enclose a sketch. Figure 1 is an iron bar, one-eighth inch thick, five inches wide, and twenty inches long. Figure 2 shows an iron bar one-eighth inch thick, one and one-half inches wide, and sixteen

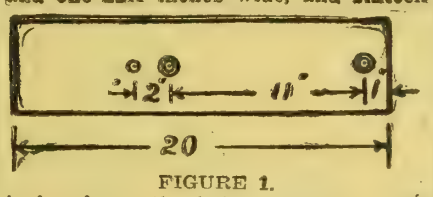


FIGURE 1.

inches long; the holes being one inch from each end. These parts and a chain are used in connection with an ordinary tripletree. The manner in which they are used is shown in Figure 3. In Figure 3, A is the tripletree, B the part shown in Figure 2, C the part shown in Figure 1, and D an ordinary clevis. The parts shown in Figure 1

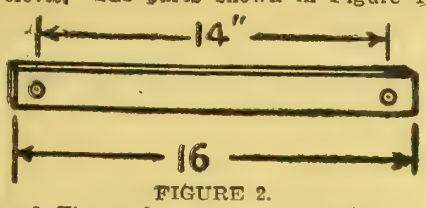


FIGURE 2.

and Figure 2 are bolted together by two plow bolts, the part shown in Figure 1 being countersunk so that the heads of the bolts are level with the surface. The part shown in Figure 1 goes above the pole, and the part shown in Figure 2 goes below the pole, as shown in the end view, Figure 3. A clevis, D, connects the tripletree with the part shown in Figure 1. A chain attached to the clevis is passed between the upper and lower parts of

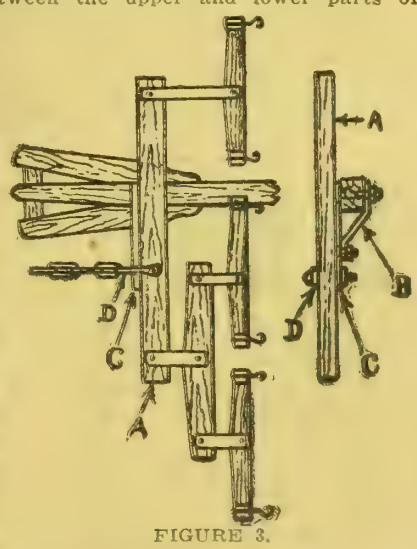


FIGURE 3.

the front axle and fastened to the rear axle, just enough slack being allowed so that the tripletree will not drag on the wheels. I have used this outfit for fifteen years and I know that it works well.

Answer.—We are pleased to publish the above letter, as we are sure it will be of interest to many of our readers. The fact that it has been used successfully for many years adds value to it. The writer of the above letter is giving others the benefit of his experience, and we would be pleased to hear from any of our readers who have good ideas which they have tried out successfully. The Farm Mechanics department is not only to help you out of trouble; it is a department for the exchange of ideas.

The description of the outfit is so complete that no further explanation is necessary, the principal dimensions being given. Any style of tripletree may be used.

Prest-o-Lite Candle Power.

What is the candle power of the one-half foot size of Prest-o-lite burner. Also what candle power is the three-fourths foot burner? Does the law require dimmers for Pret-o-lite lamps?

Answer.—The half-foot size will give thirty candle power; the three-fourths-foot size, forty-five candle power. Dimmers are required on Prest-o-Lite lamps the same as on electric lights.

Spark Plugs.

I would like to know if there is any difference between the spark plugs used on automobiles and motorcycles. What company makes the smallest spark plug? How many batteries does it require to work them?

Answer.—There is no difference between the plugs used on automobiles and motorcycles. There are three common sizes of spark plug in common use, the size referring to the thread rather than to the size of the body of the plug. These are known as one-half pipe, Metric and A. L. A. M. It is necessary to purchase a plug having the proper thread for the engine in which the plug is to be used. At least three dry cells are required to operate plug successfully unless the spark coil is exceptionally good. Five cells are commonly used for automobile work. A less number is used for motorcycles, as it is necessary to reduce weight. Special combination batteries are often used on motorcycles.

Belt Power From Ford Car.

I enclose cut of a belt attachment for a Ford car. This attachment operates a pulley in front of the car, driving the pulley by the starting clutch. How can the speed of the motor be governed while sawing wood or filling a silo? This attachment will develop eight horse power, while I only need five. Do you think that this outfit will hurt the engine or the front wheels of the car?

Answer.—The outfit should operate successfully without undue strain on the engine or car if the outfit is properly installed. Care should be taken to see that the pulley shaft of the attachment lines up properly with the crank shaft of the engine. There will be some wear on your engine, but not more than for a similar time spent on the road.

We know of no governor on the market for regulating the speed of the engine. A boy in the machine could work the throttle lever to regulate the engine speed to suit the load; or the throttle rod could be disconnected from the carburetor and a wire attached so that the operator could open or close the throttle from any desired point.

North America's 1917 wheat crop won't come within 400 million bushels of supplying the shortage of our European allies and neutrals, Herbert Hoover announced. As a partial remedy he suggested that every person in the United States use one pound less wheat flour per week—a reduction of 20 per cent from the present consumption. Substitute other cereals, of which there are plenty, he urges. If these cereals—corn, oats, barley and rye—are substituted in the American home, it will mean that "war bread" will become part of the American diet. Hoover suggested that this conservation "will be no privation to us and will reduce the privation of our allies." His estimate is based on normal consumption in a three-year period.

The Washington County Fair will be held this year at West Bend, October 1st-2d-3d. The West Bend News calls attention to the announcement of the twentieth annual fair held in West Bend in 1878. At that time there were twenty-six classes in the premium book, and now there are 107, not including the many prizes and cash premiums offered to school children. In 1878 the total racing purses amounted to $500 and in addition to trotting races there were foot races, sack races and a mule race as the "grand finale." Things have changed a great deal in Washington county since the twentieth and fifty-ninth county fairs, and the fair has kept pace with the general advancement in the county.

Exchange Places with

Your Wife—

IF YOU are not jolted around on the front seat as much as she is on the rear seat, it is because you can brace yourself with the steering wheel. You take the rear seat, she the front. Then you'll *know* that you ought to equip your Ford with a set of the

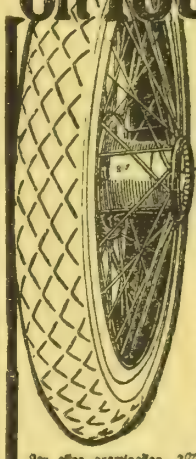
HASSLER **Shock Absorber** For Ford Cars

The Hassler makes both seats as comfortable as any $2,000 car. You'll feel the difference in the front seat as well as in the rear. Easier to hold the steering wheel. Easier to guide the car where you want it to go. No sudden jolts. No sharp rebound. No side sway. Cushions the car as well as the passengers. Lets tires last a much longer time; the extra mileage pays for it several times over. Over two hundred thousand sets in use.

Free Trial Offer See for yourself how much the Hassler would mean to your wife, your family, and yourself by letting us have a set put on your Ford for ten days trial. No money in advance. No obligation. No risk. Write today for Free Trial Blank and illustrated folder with letters from users. Address

ROBERT H. HASSLER, Inc. Dept. R 1 Indianapolis, Ind. Trade-Mark

SAVE 40% ON YOUR TIRES



3500 Mile Guarantee

Manufacturers of high-grade Tires sell us their surplus stock or over-production for spot cash. These Tires, actually firsts, are sold as blemished, at a REDUCTION OF 40%. Guaranteed

Size	Plain	Non-Skid	Tubes
28x3	$ 7.90	$8.25	$2.35
30x3	7.70	8.90	2.50
32x3	9.25	9.95	2.75
30x3 1-2	9.95	11.10	2.95
31x3 1-2	10.55	11.90	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.50
31x4	14.75	16.50	3.70
32x4	15.05	16.95	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.55	4.00
35x4	17.00	18.50	4.50
36x4	17.20	18.95	4.80
34x4 1-2	21.35	23.95	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.95	25.65	5.15
37x4 1-2	23.95	26.10	5.35
35x5	24.90	27.25	5.95
36x5	27.10	29.50	6.35
37x5	28.40	28.95	6.25

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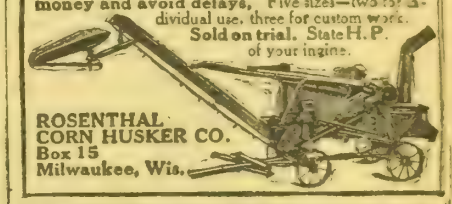

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When writing to advertisers kindly mention The Wisconsin Farmer.

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Actinomycosis.

I have a steer with a swelling between the two jawbones. This troubles him in swallowing and I would like to know what to do for it.

This is in all probability, if of some standing, lumpy jaw, or actinomycosis. It has probably taken on the form of an abscess and, if so, should be opened by someone familiar with such troubles. If a pus cavity is present and the pus is allowed to escape there will follow relief.

Scirrhus Cord in Pigs Following Castration.

After castrating my pigs bunches form after they are apparently healed. They are hard like a tumor and contain a little dried-up matter. Others here complain of the same trouble. These bunches grow until they are larger than one's fists. We want to know how to remedy this difficulty.

This condition is known as scirrhus cord and is one that is often seen. It is many times a botryomycotic infection and often comes about from faulty castration, causing poor drainage. The only remedy that gets immediate results is the complete removal of the growth. They can, however, if small, be split open freely and a caustic substance inserted into the mass. When the lump is removed surgically it should be done by someone experienced in the work.

May be Necrobacillosis.

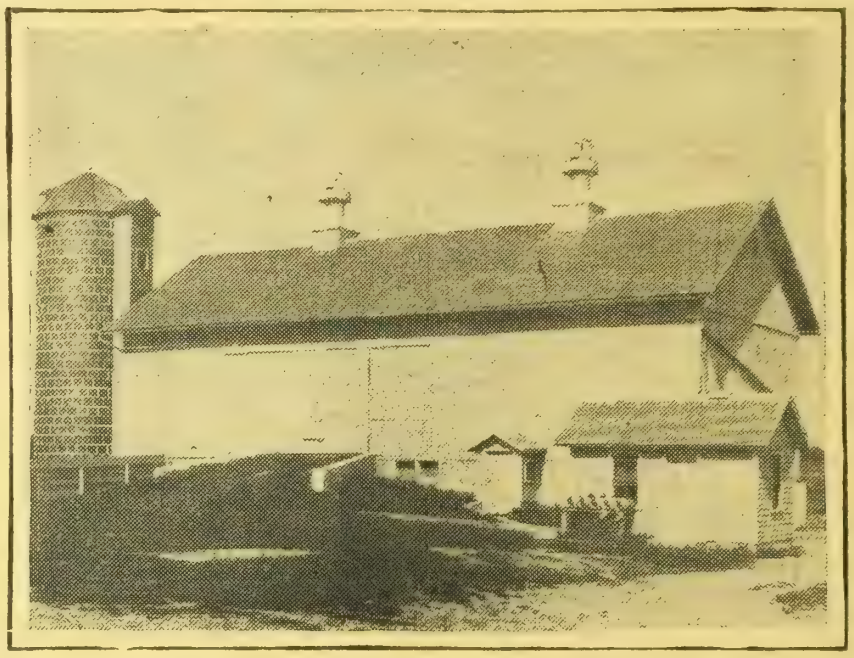
I have several pigs which have swellings on their legs. They are not very large and are just below the middle joint of the leg, both front and back in some. One or two have swellings on the foot joint. They appear to be painful and cause the pigs to limp. The pigs are in good health otherwise, and eat well. These pigs are three months old, on grass pasture with some grain. I would appreciate any advice you can give me.

The trouble may come from injury from pigs piling up or it may be some form of necrobacillosis. It is hard to say positively without an examination. In any event, we doubt if much can be done to relieve the condition.

Contagious Abortion.

I have a Holstein heifer, three years old, that has had one calf. I cannot get her with calf. She has come in heat regularly since she dropped her calf in January. My bull is a sure breeder. Other cows are losing their calves when they are six or seven months along. Can you tell me what the trouble is?

Since you speak of your cows losing their calves we are led to believe the trouble is of an infectious nature and, if so, this may account for your heifer not breeding. You should have the cooperation of some good veterinarian in ridding your place of abortion. This is quite a task, but much may be accomplished by persistency.



BARN AND SILO ON AUG. PABST FARM, WAUKESHA COUNTY, WIS.

Quality of Sugar Beets.

To the Editor:—Few sugar beet growers realize, particularly, that the quality of the crop depends very much upon the health of the sugar beet plant. A healthy plant has a bright green color. The presence of the green color of the leaf to a certain degree is due to the substance known as the chlorophyll. These greenlike bodies in the leaf play a very important part in the formation of sugar. The work of these bodies is to make plant food out of the raw materials.

One of the chief plant foods is carbonic acid gas. This gas comes from the lungs of animals. We can readily see the source of this plant food when it is known that all animals continually breathe out carbonic acid from their lungs. What is poisonous to man is an important food to plants. In fact, plants could not store up sugar nor could they even live without this food.

On very careful examination of some plants it will be observed that carbonic acid gas of the air passes through small openings found on the under side of the leaves. One will readily understand the necessity for growing a large, healthy leaf so as to furnish a large breathing area. However, large quantities of the gas are taken in by the leaves of the beet plant. Under the influence of the green chlorophyll bodies, the gas unites with water and forms a compound from which sugar is ultimately made. When the sugar has been formed in the leaves, it is then carried to the roots of the sugar beets by the downward flow of the sap. Later in the season the sugar in the beet root is deposited in cells all along the root which very closely resembles a honey comb in structure.

The sugar beet plant has gone to all this trouble of storing a considerable amount of sugar in its root. Did it do it for our benefit? Not entirely so. The sugar beet plant is a biennial, that is, it produces seed every second year of its growth. Should we harvest it the first year and store the sugar beet root in the cellar and then plant it the following spring, we would observe that it will again begin to grow. From the crown of the beet root (mother beet) a strong leafy stem is sent up. This stem bears the flowers which later will bear the fruit. Flowers will form at short intervals along the stem and its branches and are usually in clusters of four or five and below each cluster one notices a small bract. Quite frequently the seed does not ripen uniformly. If allowed to become too ripe considerable portions of it will shell and will be lost on the ground. J. F. Wojta.

Wisconsin Experiment Station.

It's Natural for a Hog to Wallow

Here's a good thing to do: Provide a wallow close to the feeding grounds to which add Dr. Hess Dip and Disinfectant. As the hogs pass back and forth from the wallow to the feed trough, the DIP will kill the lice and cleanse the skin, while the DRIP will destroy the disease germs and the worms that pollute the ground. That will mean a clean, healthy skin, freedom from lice, a safeguard against disease and larger, better porkers.

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Ashland Ohio

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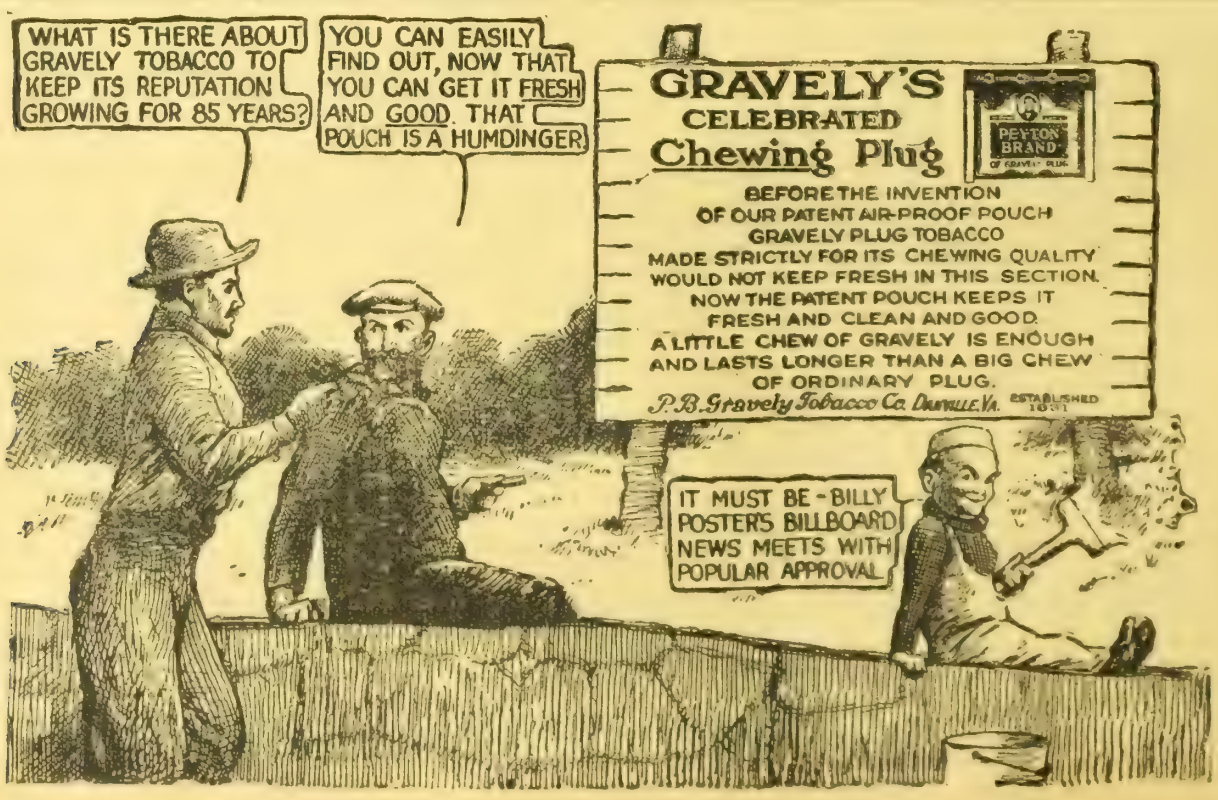


Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 20.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

M. V. Miller's Poland China Sale.

AN important sale of big-type Poland China swine will be held on September 26th by M. V. Miller, Lawler, Iowa. This is Mr. Miller's first annual sale and he has a good, useful offering. Mr. Miller has always bought the best seed stock obtainable and it is this class of Polands he offers. His present herd boar is Timm's Wonder, a splendid yearling with lots of bone and size and very smooth, but best of all he is proving a great sire. About half the offering is by him and includes the best pig on the farm. This boar pig is out of Lady Nelson, by Long Nelson 2d and is a great prospect for a herd boar. There is a good pig by Timm's Wonder and out of Big Wonder by Lingford's Choice. There is a good litter of 10 by the same boar and out of Wonder Lady by Miller's A Wonder. Timm's Wonder is a good enough boar that such enterprising breeders as Drewelow Bros., New Hampton, Iowa, paid Mr. Miller a long price for half interest in him. A good boar pig by Big Bob and out of a dam by Big Master is listed. There are also good pigs by Mouw's Smooth Jumbo and out of dams by Mouw's Big Bone 2d and Great Jumbo. A good litter is by Big Fashion and out of a dam by the Iowa grand champion, Grand Master. Forty head will be sold, 10 of which are fall boars by Long Jumbo by Black Jumbo and out of a dam by Reubel's A Wonder. There are 20 spring boars and 10 spring gilts, the tops of this year's crop. The pigs are not as fat as some, but they are in a good, thrifty condition and will do well for their buyers. No better bred offering will be sold and Mr. Miller is a straightforward, honest gentleman with whom to do business. You will get a square deal. We neglected to state that Timm's Wonder is by Fessy's Timm (by Big Timm) and out of a dam by A Wonder, second dam by Long King, making his pedigree as good as the best. Arrange to attend the sale. Write for catalog, mentioning The Wisconsin Farmer. See page 26. Send bids to T. P. Shreve, of The Wisconsin Farmer, in care of Mr. Miller.—Adv.

Did You Notice the Atwater Advertisement?

NOTICE the breeding of the Duroc herd boars that appears in the L. F. Atwater advertisement on page 25 of this issue. It's absolutely impossible to get breeding that is more popular at the present day. Take Proud Chief Jr., a champion himself and sired by the greatest of recent day sires—Cherry Chief, and out of a Proud Col. dam, the cross that has produced some of the great boars. P. S. Wonder is dead, but he lived long enough to produce the best pigs on the Atwater farm this year. It was expected that he would reproduce something great, for he was by Crimson Wonder Again, out of H. A.'s Queen. Model King is no "handsome being," but "handsome is as handsome does," and he does produce the good ones. Sired by High Model out of a King the Col. dam—enough said. Illustrator King was by the illustrious Illustrator, and had for a dam a daughter of Proud Col. When L. F. calls his sale on October 17th he will offer you breeding and individuality that will be hard to duplicate. It's a sale you can't overlook if you want herd-boar material. He has absolutely retained the best ones for this sale, so that everyone has an equal chance and will not have to take any culls. They are sure good, and The Wisconsin Farmer gladly recommends them to the critical buyer. Watch for our October 4th issue, which will contain the details.—Adv.

King Orion Grand Champion at Minnesota State Fair.

FOR some time past we have been talking about King Orion, for he is the best Duroc boar we have seen in the Northwest, and our judgment was substantiated at the Minnesota State Fair, where he was first in class and senior and grand champion Duroc Jersey boar. This is the good senior yearling boar owned by E. H. Parker & Son, Janesville, Wis. He will be shown at Milwaukee, where many of our readers will see him. He is a truly wonderful boar in every respect. Weighed 900 pounds, 75 inches long, 75 inches heart girth and 74 inches loin and has nine and three-fourths-inch bone, and no boar ever stood on better feet. In passing, we might add that he is a son of Orion Cherry King Jr., the grand champion boar at Omaha last fall that recently sold for $3,500. Keep your eye on King Orion, the grand champion.—Adv.

Waukesha County Guernseys.

WE were surprised while visiting the show herd of J. H. Williams, Waukesha, Wis., that Mr. Williams was offering for sale several of his choicest young cows. Two of them are daughters of Rhea's King of the May and one a daughter of Nancy Rose, containing a double May Rose cross. The daughter of Nancy Rose is a senior yearling and a strictly high-class show animal. It is doubtful if there will be any animals of her age at the state fair this fall that could beat her, while the two daughter's of Rhea's King of the May are out of a 568-pound cow of good conformation. These two daughters are nicely marked, possessing good lines, and are the kind that are good enough for the most discriminating buyers.—Adv.

Big Doings at Lancaster, October 2d.

TUESDAY, October 2d, is to be Poland China day in Grant county, Wis., for on that day the popular Poland breeders of that county will have for sale at Lancaster, top boars from their respective herds. A representative of this paper recently visited the various herds and saw the boars that have been picked for this sale. The tops of some 12 herds have been selected for this sale and we believe this to be as uniform a lot of good, big, growthy boars as we have ever seen listed for a sale. Even though feed has been high, the boys in Grant county have not neglected their Polands, and the boars and sows that have been cataloged for this sale will be a credit to them as breeders. If you will get a catalog of this sale and notice the blood lines contained therein you will see that there is a great variety of breeding. In this manner boars can be purchased that will not conflict with boars used in the past. We are not saying much about the gilts, for this is properly a boar sale, but if you want to see ten gilts "in a class by themselves" you can buy them in this sale. We won't mention the breeding of this sale offering at this time, but bear in mind that this offering is worthy of your patronage. There is no association in the state that is doing more for their chosen breed than the Poland breeders of Grant county. They are boosting the breed and producing boars that will improve the breed in this state. If you want a boar and cannot attend this sale in person send your buying instruction to T. P. Shreve, who will represent The Wisconsin Farmer at the sale. Send mail in care of Burlie Dobson, Lancaster, Wis. Write him at once for a catalog and mention this publication. See advertisement on page 26.—Adv.

The Cole Poland Chinas.

A. W. COLE, Lodi, Wis., has been breeding Poland Chinas for about 20 years, and for the past 15 years his ideal hog has been one that had plenty of length, strong bone to carry weight and conformation that denoted easy-feeding qualities. Mr. Cole has used good boars in his herd. King Victor 2d was by Fair Boy, a grandson of old Longfellow. King Victor was used before the above and some of the best sows in the Cole herd are by this last mentioned boar. He goes back to Best of All. Other good sows are of Major Hadley and Monarch breeding, as well as Big Bone. Mr. Cole had very good success with his spring pigs and he has a nice lot of boars and gilts to offer the public. His prices are certainly in keeping with the individuality. At this writing—September 2d—his spring pigs weight 160 or more, and they are in growing condition. The frame is there to carry over 200 pounds. Only a few of the breeders are offering bred sows for sale, and Mr. Cole is one of them. He has a few good sows bred to farrow in September that he is offering for sale. Write this breeder at once. See page 26.—Adv.

Old People's Home, Stoughton, Wis.

MR. O. C. Lee has decided to sell Briar Pietje Korndyke (140506) a three-year-old 26.57-pound son of Briar Butter Boy, that has 15 A. R. O. daughters. Mr. Lee states that the bull he is offering is a good individual, well marked and weighs about a ton. His ancestry unites the blood of some of the most noted animals of the breed. On his sire's side he traces to Pontiac Korndyke and De Kol 2d's Butter Boy 3d, in the third generation and on his dam's side he traces to Pietje 22d, a 31.62-pound cow that is generally recognized as one of the great cows of the breed. Every dam in this bull's pedigree is an A. R. O. cow with the exception of one, for three generations and she is the dam of two A. R. O. daughters. Write to Mr. Lee for further particulars. The bull is priced to sell quickly. See the advertisement on page 27.—Adv.

Will Howie's Jersey Herd.

WILL HOWIE, who is a son of Adelaide Howie, the well-known lecturer, and who is the possessor of one of the best Jersey herds in the state of Wisconsin, has been in business for himself since the dispersion of his mother's herd. The individuality of the cows in Mr. Howie's herd is much above the average, and he now has a number of heifer calves mostly sired by a son of Noble of Oaklands that are particularly fine and will be priced right. Anyone on the market for animals of this description will do well to write Mr. Howie for further particulars.—Adv.

September 24th at Hazel Green.

ON the above date E. W. Hendricks holds his annual Poland China boar sale at his farm near Hazel Green, Wis. Ed has the goods for this sale. His boars are not fat, but they have that extreme length and frame that is so desirable. First, there are 18 spring boars by that good sire, Black Jumbo, without a doubt one of the best sires ever used in Wisconsin. There are four dandies out of a sow by Long Bob. Four 1,000-pound prospects are out of Lady High Wnder, a granddaughter of the $600 Long Wonder 2d. One of the best pigs in the sale is out of an A Wonder bred sow. Four good ones out of Smooth Daisy by Smooth Wonder. One out of a daughter of Big Bug. One can't go wrong on these boars. Then comes 14 boars by Model Major 2d, the boar that will be talked about after the Wisconsin State Fair. Three of them are out of Gold Blossom by Spring Valley Gold. One real good boar out of a Black Jumbo sow. Two boars and three gilts out of Lady Jumbo 2d by Wonderful by A Wonder. Three boars and one gilt out of Long Giantess. One boar by Blue Valley Jr. by Blue Valley, one of the best and sure well bred. Two boars by Big Joe 2d by Big Joe. This will give you an idea of the blood lines—they couldn't be improved on. Ed is selling 30 boars and 10 gilts that will please you—the kind that make good. If you can't attend and want a boar or a gilt, send your instructions to T. P. Shreve representing the Wisconsin Farmer at this sale. Write at once for the catalog and mention this publication. See the advertisement on page 25.—Adv.

Higgins Ready for You.

ISAAC HIGGINS, Gotham, Wis., is now ready to fill your order. Mr. Higgins is the man that bought those good, well-bred sows last winter. They raised him good litters, but at his request we have not made much noise about them, for he wanted to wait until they had some size before he shipped them out. He wants them to go to head pure-bred herds, and he has carried them along with that view in mind. He now advises us that he has selected a number of boars that are suitable to head the best herds. He has some out of a Royal King dam. Others out of a Big Climax dam, others out of a Defender bred dam, etc. They are sired by Gano Model's Educator, a boar that carries the blood of Col. Gano, Golden Model 2d and old Educator. King Orion is the sire of one litter. Pal's Chief Col., a Pal's Chief-bred boar, is also the sire of some of the pigs. Mr. Higgins will also sell a few of his good gilts, and someone wanting some well-bred gilts to "sweeten up" their herd should investigate this herd of Durocs. Gotham is near Richland Center, on the Milwaukee railroad. If interested, get busy at once. Please mention The Wisconsin Farmer. Note the advertisement on page 25.—Adv.

Fewacres Farm, Wauwatosa, Wis.

WE were very much impressed with the prospects of the show herd which the Fewacres Farm is turning out this fall. While they have not as yet decided to show at the big shows following the Wisconsin State Fair there seems to be some likelihood of their doing so. We offer our prophecy at any rate that they will give a good account of themselves at the Wisconsin State Fair. Mr. Alfred Sersted, who has had charge of the herd on the farm ever since it was founded, has done splendid work in bringing it to its present state of perfection, and Mr. Underwood, the owner, has been fortunate in retaining the services of one who has had the ability and interest to build up a herd possessing both creditable register of merit work and show ring performance.—Adv.

O'Keefe Duroc Brings $221.

DON'T say that M. H. O'Keefe & Sons, Waunakee, Wis., haven't the goods in Durocs when one of their boar pigs sells for $221. "Red Messenger" was a Red Cross pig donated by the above firm to the Waunakee Red Cross Society. He was on exhibition at the Dane County Fair, held at Madison last week and was the center of attraction. The Red Cross Society sold tickets at 25 cents each, and almost everyone that passed the pen bought a ticket for the "good of the cause." Number 517, held by Elmer Levenhage, 212 E. Main St., Madison, held the lucky number. See page 25.—Adv.

Big Joe's Equal Sale.

IF you want long, stretchy, well-bred Poland China boars, get a son of Big Joe's Equal at Bert Irwin's, Mt. Carroll, Ill., on Saturday, September 22d. If you want some good fall gilts or tried sows bred to Big Joe's Equal you can get them at Bert Irwin's. Regarding Big Joe's Equal. He is one of the real good big-type boars in service today. A boar with a wonderful back, great depth, the best of bone and feet and the most important is that he is a good sire. We believe you will like this boar, as everyone else does. He is without a doubt one of the best sons of Big Joe. Several of the boars in the sale weigh 300 pounds, and are good herd-boar prospects. Irwin has a good sow herd, there being daughters of Big Joe, A Wonder, Big Bone, Big Defender, A King, Columbus, etc. This big-type breeding can't be improved on. Don't forget that this was the home of the $1,000 Oakland's Equal. There are a few boars in the sale by Bill's Chief and Cream City Jumbo. There will be 30 boars and six good fall gilts and four tried sows that are being offered as attractions. Every boar guaranteed a breeder and every sow guaranteed to farrow a litter or money refunded. Wisconsin breeders can well afford to attend this sale, for Bert has the goods. The good farmers can find boars to their liking in this sale. The catalog gives you the information you desire and is interesting reading—get one now. T. P. Shreve will represent The Wisconsin Farmer and mail bids should be sent to him if you can't attend in person. See the advertisement on page 24.—Adv.

Waukesha County's Forty-Pound Bull.

NATURALLY, as we called upon S. A. Baird & Son, Waukesha, Wis., the other day, we inquired for Woodcroft Perfection, the $5,200 bull calf that was purchased last spring at the Detroit sale by the following breeders: S. A. Baird & Son, Baird Brothers, Muckleston Brothers, Aitken Bros. and D. J. Howell, all of Waukesha. This calf has been kept in S. A. Baird & Son's herd ever since he came to Waukesha, and has been making a splendid growth. He has the appearance of making a large, rugged individual, possessing plenty of refinement and quality. His dam, it will be remembered, made 40.25 pounds of butter in seven days with 726.70 pounds of milk; 161.01 pounds of butter in 30 days and 3,013.40 pounds milk. This record was made at six years and at five years she made 37.41 pounds butter in seven days with 704.10 pounds milk. His dam also made 1,046.12 pounds butter in a year with 27,008.40 pounds milk. These records show that the dam of this calf is not only a phenomenal producer, but a consistent one as well, and that she has the constitution to stand up under such strenuous work for a long period of time. Breeders over the state having exceptional cows that are worthy of being bred to a 40-pound bull will do well to get in touch with the owners of Woodcroft Ptrfection, as he will soon be ready for light service.—Adv.

H. J. Fisk.

MR. FISK, who has been manager of the Fred Pabst Stock Farm, Oconomowoc, Wis., has recently decided to go into the government service and has, therefore, taken up the management of the Fort Leavenworth tract, Leavenworth, Kan. This tract consists of about 20,000 aces of land, which the government has decided to stock with dairy cattle. In fact a number of large buildings are already under construction and Mr. Fisk is now in the market for 100 high-class, pure-bred cows, as well as two exceptionally well-bred herd sires. We feel that Mr. Fisk is doing his country a great service taking the active management of so great an undertaking, and, while Wisconsin breeders regret seeing him leave the state, their best wishes follow him to his new work.—Adv.

Sorenson Has Choice Boars.

SOME time ago we called attention to the fact that John Sorenson, Willmar, Minn., had the best Duroc Jersey pigs we saw in Minnesota. The boars are now for sale. They are immune. The breeding is the very best, the pigs being sired by E. J.'s Crimson Wonder, the grand champion of Minnesota, 1916, and Big Wonder, the grand champion of Iowa, 1913. Mr. Sorenson sure has the goods for his customers this year. Not only has he champion boars, but no breeder in the state has better sows than Mr. Sorenson. As mentioned above, the boars are choice and the breeding the best, so get in touch with John Sorenson, Willmar, Minn. Please mention The Wisconsin Farmer.—Adv.

Rock County Short-horns.

REMEMBER Rock county, Wis., when in need of Short-horn cattle. More cattle of this breed can be seen in the above county than in any other county in the state. If you want cattle of the very best Scotch breeding, Rock county has them. If you want cattle that have milk records back of them, the many herds of milking Short-horns in Rock county will appeal to you. If you want

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

Scotch-topped cattle, Rock county is the place for you to visit. For information write the secretary, J. E. Kennedy, Janesville, Wis. See page 27.—Adv.

Burt Farms' Duroc Jerseys.

FOR over 20 years F. H. Burt, Brodhead, Wis., has been breeding Duroc Jerseys, and during this time has held to the large-bodied, heavy-boned, prolific type, without sacrificing breeding. Such breeding as Col. S. Jr., Pal's Col., Cherry King, Indiana King, and The Professor is prominent in this herd. While Mr. Burt seldom shows any stock himself, his ability to breed show stuff is proven by the success his customers have had when showing stock of his breeding. At present he is offering 50 March and April boars that will weigh from 180 to 220 pounds. These pigs are sired by Model Wonder 182445, he by Indiana King, Professor B. 148913, a grandson of The Professor, and Wonder Col 216085, a grandson of Cherry King, out of a Col. S. Jr. dam. Nine of these boars are out of a Pal's Col. dam, a boar recognized by the Duroc world as one of the greatest boars of his day. At his death, the Ohio College of Agriculture secured and mounted the body as a model of Durocs. Eighteen are out of Lee's Defender dams. As is well known this boar was several times grand champion at the Wisconsin and Minnesota State Fairs and stamped his progeny with size, bone and quality. Eighteen are out of Defiance dams, a half-ton boar of his own breeding. All the boars have been selected for breeding, merit and usefulness. These hogs are sold under a liberal guarantee, which it will pay the prospective purchaser to investigate. Write Mr. Burt at once, and please mention The Wisconsin Farmer. See page 25.—Adv.

Don't Say Wisconsin Hasn't Good Durocs.

READ the report of the Duroc show at the Minnesota State Fair last week and notice the "killing" made by Wisconsin breeders. Minnesota breeders won the futurity, for outside breeders were not eligible. Reeves Bros. & Mallory, of Iowa, had the champion sow and the first-prize sow pig was owned by a Minnesota breeder. Every other first and championship was won by Wisconsin breeders, either Atwater, Jenkins or Parker. McDonald and Martiny upheld the reputation of Wisconsin in the Poland China division. Keep it up, boys, and Wisconsin will soon gain the place she rightfullly deserves as a hog state.—Adv.

Harvey Little and Milking Short-horns.

HARVEY H. LITTLE, Evansville, Wis., always has a few young bulls on hand, for he has a large herd. If you want bulls out of dams that have records worthy of consideration, you should let Harvey send you a description. It is a treat to see the Little cattle. They are big and smooth and not like so many of the so-called, milking Short-horns. If you want information relative to one of the best herds in the state, write the above breeder. See page 27.—Adv.

Baby Beef.

HAVE you written Walter J. Steinhoff, the secretary of the Grant County Aberdeen Angus Breeders' Association, relative to the Angus bulls and females that are for sale? We have recently seen some very fine young bulls and heifers in Grant county that are owned by members of this association, and Mr. Steinhoff has this information ready for you when you write him. His address is Platteville, Wis., and he will be glad to tell you about the Grant county Angus that are for sale.—Adv.

Herefords.

DID you see the Hereford exhibit at the fairs this fall and did you see the cattle owned and exhibited by Walter Brothers, Chippewa Falls, Wis.? If you did you no doubt will appreciate the many good things we have said about this herd the past few months. For those that did not get to see this exhibit, we will say that they "have the goods," and if you want a bull that is right, get in touch with these breeders. See page 25.—Adv.

Village Mystic by Villager.

THOSE that are partial to the Villagers should be reminded of Village Mystic, the good roan Short-horn bull at the head of the C. J. Schoenfeld & Son herd at Fox Lake, Wis. He is a son of the noted Villager and is a worthy son of a great sire. The calves by this bull are good and this firm solicit your inspection. See page 27.—Adv.

Bulls, Cows and Heifers.

H. B. DRAKE & SON, Beaver Dam, Wis., have a large herd of Short-horns and are in a position to supply your needs in whatever you want. They have for sale cows, heifers and bulls at prices that will prove attractive to you. Write them if interested. See page 27.—Adv.

W. J. Bernd Short-horns.

DON'T forget W. J. Bernd, New Richmond, Wis., when you think of Short-horns. He has a good herd, headed by outstanding herd bulls, and we feel confident that if he has what you want to buy, it will be right in every way. Get in touch with him.—Adv.

SALE DATES.

Poland China Swine.

Sept. 22. Bert Irwin, Mt. Carroll, Ill.
Sept. 23. F. W. Hendricks, Hazel Green, Wis.
Sept. 26. M. V. Tiller, Lawler, Iowa.
Oct. 2. Grant Co. P. C. Breeders' Assn., boar sale. Burbie Dobson, secretary, Lancaster, Wis.
Oct. 15. Hoining & Pharis, Belvidere, Ill.
Oct. 17. G. W. Owen, Lawler, Iowa.
Oct. 17. Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Oct. 23. Derewlow Bros., New Hampton, Iowa.
Feb. 5. P. W. Young, Prosper, Minn.
Feb. 6. J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7. State Assn. Sale, Madison, Wis. Burbie Dobson, secretary, Lancaster.
Feb. 8. Bert Irwin, Mt. Carroll, Ill.
Feb. 8. Grant Co. P. C. Breeders, Lancaster, Wis. Burbie Dobson, secretary.
Feb. 22. Wm. Smiley & Sons, Altona, Wis.

Duroc Jersey Swine.

Oct. 17. L. F. Atwater, Bangor, Wis.
Jan. 8. Johnson Bros., Winnebago, Minn.
Jan. 9. F. M. Wadsburn, Lake Crystal, Minn.
Jan. 10. W. N. Shands, Worthington, Minn.
Jan. 22. Hugh Irwin, Ireton, Iowa.
Jan. 29. Dennis Shea, Melvina, Wis.
Jan. 30. L. F. Atwater, Bangor, Wis.
Jan. 31. Riley Martiny & Son, Baraboo, Wis.
Feb. 1. Rock County Breeders' Sale, Janesville, Wis.
Feb. 12. D. B. Smith, Mission Hill, S. D.
Feb. 13. Liew Bros., Platte, S. D.
Feb. 15. C. P. Dexheimer, Spencer, S. D.

Chester White Swine.

Feb. 6. Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Short-horn Cattle.

Oct. 31. Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1. Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1. Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31. Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1. Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Oct. 23-24. Lake Mills Holstein Sale, Lake Mills, Wisconsin.

That the unprecedentedly high price of corn is not due to abnormal holding of supplies by farmers is the belief of the department of agriculture, based on reports just received from crop correspondents in Illinois, Ohio, Kentucky, Iowa and Missouri. These states are typical of the great surplus white corn-producing region, the department declares, and their conditions indicate conditions throughout the corn-producing area. The investigations disclosed that farmers are holding only corn enough to insure their seed supply for next spring and to protect their live stock feeding interests until the production of a sufficient supply from the present crop is assured, and the stocks in their hands are much lower than normally. Among the conditions making for high corn prices, according to the department, are shortage of the 1916 crop and the "carry over" from 1915, increased exports, increase in the general level of prices and the increased numbers of live stock on farms.

BIG JOE'S EQUAL
POLAND CHINA BOAR AND SOW SALE
MT. CARROLL, ILL., SEPT. 22

30 BOARS sired by Big Joe's Equal, one of the best sons of Big Joe; 6 fall gilts bred to Big Joe's Equal; 4 tried sows bred to Big Joe's Equal; boars suitable for the good breeders; sows that will improve herds. Big Joe's Equal is one of the best 1,000-pound boars of today. Send mail bids to T. P. Shreve. Write for my catalog, mentioning The Wisconsin Farmer. Address

BERT IRWIN MT. CARROLL, ILL.

TOO LATE TO CLASSIFY.

BLODGETT
Short-horn Bulls for Sale
Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS.

SHEEP.

SHROPSHIRES AND HAMPSHIRES
YEARLING RAMS, ram lambs. The Best guaranteed with every strain. Write
W. F. RENK & SON Sun Prairie, Wis.

CHESTER WHITE SWINE.

CHAMPION CHESTERS
OF THE NORTHWEST
HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The herd boars are suitable to head the best herds. We cater to particular buyers.
EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. Wykoff, Minn.

GRANT CO. CHESTERS
FEBRUARY, MARCH AND APRIL PIGS ready to ship. The prices are reasonable.
JOHN P. VOGT, JR. GLEN HAVEN, WIS.

Ready for Business
CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTELMAN West Salem, Wis.

CHESTER WHITES
Pigs Ready—Order Now
A. L. GRAY MT. HOPE, GRANT CO., WIS.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

HAMPSHIRE SWINE.

DELLBROOK FARM
HAS THE BEST IN HAMPSHIRES.
GOOD BREEDING
GOOD SIZE
GOOD INDIVIDUALS

HERD BOARS and gilts for sale at all times. Send for catalog.
A. L. DAMON Richland Center, Wis.

ABERDEEN ANGUS CATTLE.

RAISE
BABY BEEF
ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters. 800 head of registered Angus cattle. Let us supply you with a herd or herd bull. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Association, Platteville, Wis.

LIVE STOCK AUCTIONEERS.

LEARN AUCTIONEERING At World's Greatest School and become independent with no capital required. Learn branch of the business taught in five weeks. Write today for free catalog. Jones National School of Auctioneering, 40-E Sedgwick Ave. Jones Block, Jones Inst.

H. O. TELLIER
AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED in pedigrees of Scotch breeds of cattle.

J. E. STICKELMAN
CLARINDA, IOWA
I SOLD THE RECORD HOG SALE in Wisconsin. Get your date NOW for next winter.

CHESTERS EXTRAORDINARY
BOARS by PAY STREAK, he by Hinshaw, a show boar and an excellent sire. They please. Your business appreciated.
WM. F. BUTTS Evansville, Wis.

RAINY DAY
By CALLAWAY FAVORITE—his pigs are GOOD. Buy Chesters for a rainy day. If you want boars write
WALTER GEORGE Evansville, Wis.

100 TO 130 POUNDS
WEIGHT of my March pigs July 1st. If you want big Chesters with good backs and feet and well bred, I have them. An order will convince you.
B. H. BABCOCK Evansville, Wis.

BIG TYPE O. I. C. and Chester White Swine
FOR SALE—Special prices for the next thirty days on all spring boars. All sold except just a few that we are keeping so we can furnish pairs no kin. Get our catalog of our champion.
HARRY T. CRANDELL & SON, Cass City, Mich.

FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs, the kind that won 86 prizes in five state fairs, tracing to the grand champion, Jackson Chief. Leader, a son of a champion, and Cotton Bell, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write.
S. D. & B. H. Frost, Kingston, Mo.

CHESTER WHITES
OFFER spring pigs, either sex, sired by WM. A. WONDER, CHIEF FILMORE and SCHOOLMASTER SMITH, whose sires are the most popular boars of the present day. Add new blood.
JOHN PELLETT & SONS Viola, Wis.

"HOOVER SELECT", "IDEAL COMBINATION,"
MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

J. A. DOERR
VIROQUA, WIS.
THE PIONEER CHESTER WHITE BREEDER.
I have been able to stay in the game because I gave value received. Past customers best advertisers.

MAKE MONEY
BUY A CHESTER boar of me and improve your herd. Pigs breeding; well grown.
ART. G. HOSKINS Dodgeville, Wis.
(Mile west of city.)

YOUR CHANCE
50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.
CHAS. ROGERS & SONS Union Center, Wis.

"HICKCOX"
CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

KIRST CHESTERS
THEY SATISFY—Correspondence invited. (N. W. and C. Pure Bredders.)
A. L. KIRST Tomah, Wis.

POLAND Price and Quality Meet CHINAS

AT

HAZEL GREEN, WIS., MONDAY, SEPT. 24, '17

The Home of Black Jumbo and Model Major 2d

I WILL SELL 18 boars by Black Jumbo out of dams by Long Bob, High Wonder, A Wonder, Smooth Wonder, Big Oakland and Big Bug. 14 boars by Model Major 2d, dams by Long Expander, Big Henry Ex, Black Jumbo, Wonderful, Blue Valley Jr. 8 gilts, litter mates to some of above boars. **My Best Offering.** Don't expect to find highly fitted boars; if you appreciate big, growthy, long boars with good features I have them. Study the pedigrees in my catalog. Send your bids to T. P. Shreve in my care. W. B. Duncan, auctioneer. When writing for my catalog kindly mention The Wisconsin Farmer. Address

E. W. HENDRICKS -:- HAZEL GREEN, WIS.

DUROC JERSEY SWINE.

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.

ISAAC HIGGINS (Richland County) Gotham, Wis.

QUICK SALES SMALL PROFITS DUROCS

THE GILTS AND BOARS that I have for sale will please the most critical. Let me convince you. "Big with Quality."

MIKE STOEHR - - - - - - Viroqua, Vernon County, Wisconsin.

Seeing Is Believing

YOU HAVE HEARD about ORION OOL. S., my good Duroc herd boar. He will head my sow herd at Milwaukee and La Crosse and I want you to see this great son of COL. S. JR., and the good sows to which he has been mated.

W. C. JENKINS - - - - - - - - Bangor, Wis.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

ALLIC S. KNUDSON - - - - - - - - Brodhead, Wis.

"KING THE COL" "PATHFINDER" "LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

IF YOU KNOW pedigrees you'll appreciate these blood lines. Individually, I have one of the best herds in the state. Good boars are going to be hard to find when the breeding season opens. For next month I will sell boars from $40 to $75. Gilts reserved for my sow sale Jan. 30th. Correspondence invited.

DENNIS SHEA (Near Sparta) Melvina, Wis.

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.

W. G. BARTHOLF Burlington, Wis.

LARGE TYPE

60 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

F. H. BURT :: Brodhead, Wis.

CHAMP. BRED DUROCS

MARCH PIGS, $40 UP—Sired by KING DEFENDER'S EQUAL by the WISCONSIN CHAMPION. For sale also, price $200. Write for description.

FLOYD SELCK Hanover, Wis.

PROUD CHIEF JR. Sire Cherry Chief Dam by Proud Col.

P S. WONDER Sire C. W. Again Dam H. A.'s Queen

MODEL KING Sire High Model Dam by King the Col.

ILL. KING Sire Illustrator Dam by Proud Col.

30 Duroc boars and 10 gilts by the above sires sell

WEDNESDAY, OCTOBER 17

A few of Investor and Dreadnaught breeding you can use.

L. F. ATWATER Bangor, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

McCLURG BROS. Viroqua, Wis.

Homestead Durocs

THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

M. H. O'KEEFE & SONS Waunakee, Wis.

DUROCS

FOR SALE—Four fall boars, 3 fall gilts, not bred, and a few spring pigs: pedigree furnished.

HAROLD RUDE Edmund, Wis.

W. W. Goodrich Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have 90 cows in the herd, headed by outstanding sires. We invite correspondence and inspection.

L. M. SCOTT & SONS :: :: Bagley, Wis. (Grant County.)

MEET US AT THE FAIRS

WE WILL SHOW A HERD OF HEREFORDS pleasing to the eye. See our herd bulls and breeding cows. See the young bulls we have for sale. Will sell a three-year-old and a senior yearling. Let us send you a list of the fairs where we show.

WALTER BROS. - - - - - - - - Chippewa Falls, Wis.

DUROC JERSEY SWINE.

The Martiny Durocs are Winners

AT THE Janesville big fair our spring pigs won every first and second in the futurity and open classes. We also had the grand champion sow. If you want to raise DUROCS THAT CAN WIN, buy from Martiny. Better get your order in NOW, otherwise MEET US AT MILWAUKEE.

RILEY MARTINY & SON Baraboo, Wis.

--- E. J.'s --- Crimson Wonder

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,

DUROC BOARS sired by above for the particular buyer.

JOHN SWENSON Willmar, Minn.

King Orion

WAS GRAND CHAMPION DUROC BOAR, Minnesota State Fair, 1917. Owned by

E. H. PARKER & SON Janesville, Wis.

SALABLE DUROCS

ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?

FRED G. MATTHES Viola, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

DUROC JERSEY SWINE.

Grand Model 17th Illustrator Special Royal Top Col.

THREE REAL DUROC BOARS.

Spring boars. Spring gilts.

Your business will be appreciated.

"Your $ worth for every $ spent or every $ back."

GEORGE D. SPRAIN & SONS, WEST SALEM, WIS.

Durocs Will Make You MONEY

MY HERD BOAR is a WHALE and is sired by GREAT CHIEF by the famous sire, CHERRY CHIEF. I'll quote you prices on spring pigs that will open your eyes. Try me.

R. C. CHURCH Elkhorn, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write

WM. EDGE Fennimore, Wis. "Grant County."

FIVE DANDIES

ANY ONE of these five Duroc boars will make friends and customers for me. These are the tops, they are offered first.

CLARENCE GEORGE Evansville, Wis.

Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

J. W. HIGGINS RICHLAND CENTER, WIS.

Grant Co. DUROCS

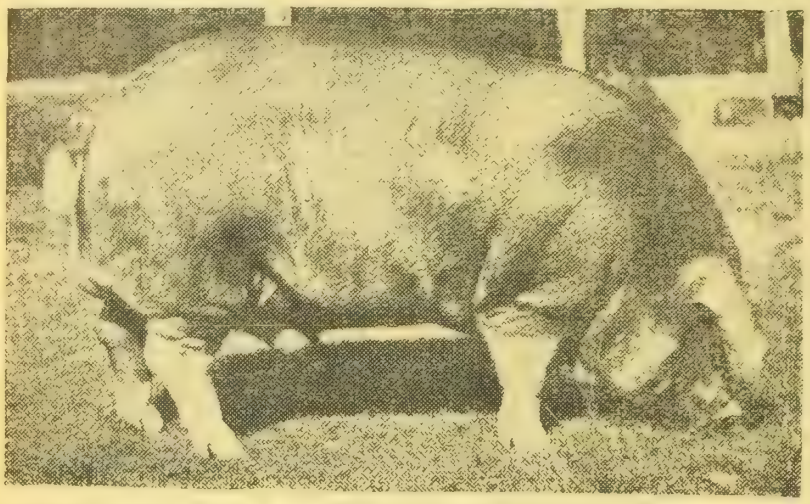
THE GILTS AND BOARS I have for sale will please. Some of the most popular breeding. Satisfaction guaranteed.

ROY HORSFALL Mt. Hope, Wis.

HORSES.

PERCHERONS, Belgians, Shires —One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings. FRED CHANDLER, R. 7, Chariton, Ia.

M. V. MILLER'S FIRST ANNUAL SALE
BIG-TYPE POLAND CHINAS
LAWLER, IOWA, SEPTEMBER 26



Timm's Wonder, one of the largest, smoothest, heaviest-boned yearling boars of the breed. Some great pigs by him in the sale.

40 HEAD, 10 fall boars, 20 spring boars, 10 spring gilts. The fall boars are a good useful lot with plenty of size and are sired by Long Jumbo by Black Jumbo. The spring boars are the tops of this year's crop of spring pigs and include 20 great herd boar prospects. A wonderful prospect is by Timm's Wonder and out of Lady Nelson by Long Nelson 2d. There is a good big boar by Big Bob, dam by Big Master. Other litters are by Mouw's Smooth Jumbo, Big Fashion, Miller's Baron, Miller's Chief and about half of them by Timm's Wonder. These pigs have not been crowded, but are in fine growing condition, are bred in the purple and are the right type. If you are interested in good Polands attend this sale and get some bargains. It is our first sale and we do not expect any high prices. **The entire offering is immune.** Write for catalog mentioning The Wisconsin Farmer. Auctioneers, H. S. Duncan, S. E. Johnson, R. Francis. T. P. Shreve will represent The Wisconsin Farmer. Address

M. V. MILLER **LAWLER, IOWA**

POLAND CHINA DAY
IN GRANT COUNTY
Tuesday, Oct. 2d, Lancaster, Wis.

30 SPRING BOARS--10 SPRING GILTS

NOTICE. The tops from 12 herds have been picked for this sale.

NOTE THE BREEDING

SONS AND DAUGHTERS of BIG BEN H, DOUBLE HADLEY, TIMM WONDER, BIG TYPE JIM 2D, A'S BIG ORANGE, HAUK'S ORANGE, etc. A sale containing extraordinary individuality. A sale worthy of your presence and patronage. T. P. Shreve will handle your mail bids if sent in care of the sale. Ira Cottingham, auctioneer. Now is the time to get a catalog. Write

BURLIE DOBSON, Sec'y Grant County Poland China Breeders' Association, Lancaster, Wis.

POLAND CHINA SWINE.

50 BIG-TYPE POLAND CHINA SPRING BOARS AT $40.00 EACH

Double treated, and we record them. They will be worth $40.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs. They are from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo, whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. Buy your boar now and save from $20 to $50. Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd, one of the greatest in America, as well as one of the most up-to-date, pure-bred stock breeding establishments.

W. H. COOPER Hedrick, Iowa

POLAND CHINA SWINE.

See the Old-Fashioned Spotted Poland China Exhibit

AT THE STATE FAIRS in Iowa, Ohio, Nebraska, Indiana, Michigan, Illinois, Missouri, Wisconsin, Kansas, Oklahoma, Amarillo, Tex.; National Swine Show, Omaha; Annual Association Sales, Kalona, Iowa, Oct. 29th, and Crawfordsville, Ind., Oct. 19th. Ask for a copy of our breed paper and other free literature.

Fred L. Obenchain, Secy.-Treas., Bainbridge, Ind.

MASTER'S GIANT Farrowed March 15, 1912

MONDAMIN MASTER 189261 — LYON CHIEF 156191
MABEL'S CHOICE 2D 425352 — GENTLE JESSE 387956; SMOOTH WONDER 2D 145501; MABEL'S CHOICE 289936

A BOAR with a perfect foot, back, head and ear. Said to be the smoothest 5-year-old Poland boar living. The fact that I have used him four years is proof that he is a meritorious sire. Do you want a boar pig?

P. W. YOUNG :: :: :: Box 100, Prosper, Minn.

FOR QUALITY AND QUANTITY WRITE

Boars and Gilts

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write

W.W. **UACKENBUSH (Jackson Co.) MELROSE, WIS.**

POLANDS

BIG-TYPE JIM

First Prize and Futurity Winner at Milwaukee, 1916.

100 POLAND CHINAS FOR SALE 100

MARCH AND APRIL FARROW. Have six fine litters out of daughters of MAC'S CHIEF, the Wisconsin champion, 1916. Pigs by BIG TYPE JIM. 16 sows bred to farrow this fall. I can fill your order. Try me.

O. C. OLSON - - - - - - - - - - Strum, Wis.

Oxfords Polands SHORT-HORNS

Big strong rams that will please. Sows bred to farrow this fall—gilts and boars. Best big types. What do you want?

P. N. COLLINS RIVER FALLS WIS.

MADSON & SONS' BIG-TYPE POLANDS

HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PFANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.

M. MADSON & SONS Also Dual Purpose Short-horn Bulls. R. 4, Madison, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.

R. MEINKING Bangor, Wis.

LIBERTY SPRINGS POLANDS

BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the pigs have been well grown. I'll ship pigs that make customers.

L. D. EASTMAN Lancaster, Wis. "Grant County."

Quality - Size Prepotency - Breeding

DON'T TAKE WHAT'S LEFT, buy your POLAND boars and gilts early. Choice pigs by BIG TYPE JIM and BIG BEN H. They must please YOU and be as represented or your money back. Write me.

F. R. MOREHOUSE Lancaster, Wis. (Grant County.)

Dobson & Eastman
LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.

"The Utmost in Polands." "Grant County."

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185 lbs. at 6 months

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PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

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12 GILTS—POLANDS—10 BOARS—Sired by Trick, Wonder, Hauk's Orange and Matchless Wonder. Strictly big-type and guaranteed to PLEASE YOU.

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SERVICEABLE YOUNG BULLS and bull calves; A. R. Cows in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.
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IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write
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YEARLING GUERNSEY BULL READY FOR SERVICE. Sired by Auricular King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
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OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,
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SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.
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SENATOR JOHANNA WHITE, 31-lb. herd bull. Four A. R. O. cows for sale, bred to freshen this fall. Price $175 to $250. Several heifers and young bulls, from A. R. O. dams. Write for detailed description.
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OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
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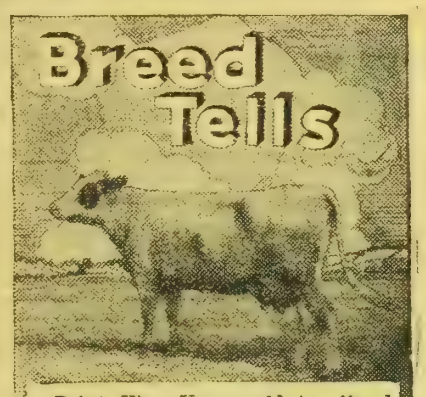
Old People's Home Stoughton, Wis.

OFFERS A 26.57-LB. 3-year-old Holstein bull for sale. **Briar Pietje Korndyke (140508)** is by Briar Butter Boy Korndyke that has 15 A. R. O. daughters and is out of Pietje Tyrania De Kol, 26.57 lbs., that is by Woodcrest Pietje (61 A. R. O. daughters). Five of these daughters have records above 26.57 lbs. Briar Pietje Korndyke is a good individual, well marked and weighs over a ton. His ancestors represent some of the most noted animals of the breed, including De Kol 2d's, Butter Boy 3d, Pontiac Korndyke and the great cow, Pietje 22d. This bull is priced to sell quickly. For more information write to
O. C. Lee Stoughton, Wis.



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AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
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THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
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BULL, BORN JANUARY 23, 1917; dam Daisy DeKol Ormsby 3d. Record 25.15 lbs. butter in 7 days; 612 lbs. milk. Her dam is a 21.07 lb. daughter of Sir Ormsby Heng. DeKol, who has 66 A. R. O. daughters. His sire is out of the 35.43 cow, Pontiac De Nijlander. The bull is mostly white, and a grand individual, the making of a good show bull. For pedigree and further information address
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FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 283 head, which sold for $55,025.39, averaging sightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.
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B. W. Little, JANESVILLE WISCONSIN

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D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

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CONSTANCE

JERSEY CATTLE—Jersey herd in the accredited list. Two splendid young bulls for sale.
DUROC JERSEY HOGS—Best of breeding and individuality. Everything guaranteed to please. Spring pigs for sale.
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JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.
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HOLSTEIN-FRIESIAN CATTLE.

Lake View Farm
Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,000 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.
FRED GURR :: :: Lake Mills, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57** lbs. His sire, Aaltje Sale Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

GOING FAST
SONS OF Sir Hengerveld Korndyke Ormsby, whose dam, Pietertje Maid Ormsby, made 35.56 in 7 days and 145.66 in 30 days and whose full sister has 1,255.62 butter and 25,418.3 lbs. milk in a year. We are now offering one born May 18, 1917, from an 18.25 lb. 3-year-old granddaughter of King of the Pontiacs. Calf is dark in color and a splendid individual. Write now for price, pedigree and photo to
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N. DICKINSON & SON Lake Geneva, Wis.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL ALGHIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.
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OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
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Eagle, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
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BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

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YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
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C. S. Arnold	Holcombe,	Chippewa County
Edward Bennett	Black Earth,	Dane County
J. O. Baker	Wagner,	Marinette County
Byron Curran	Taylor,	Jackson County
L. F. Bigelow & Son	Brock,	Green County
J. W. Martin & Son	Gotham,	Richland County
Wm. Rocke	Black Earth,	Dane County
J. W. Salter & Sons	Unity,	Marathon County
L. C. [illegible]	[illegible],	Iowa County
J. F. Wulff	Grafton,	Ozaukee County
Wm. Wulff	Grafton,	Ozaukee County
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Write breeders for

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RED POLLS

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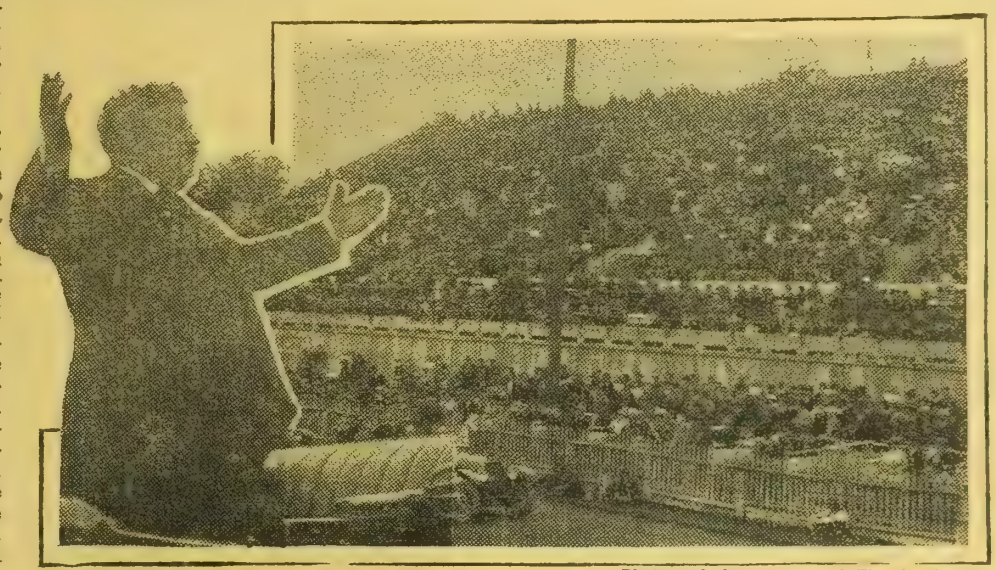
THE WISCONSIN FARMER

VOL. XLVI. NO. 38. THURSDAY, SEPTEMBER 20, 1917. WHOLE NO. 1860

Wisconsin Fair Is Improved.

THE state of Wisconsin furnished a good live-stock and agricultural exposition at Milwaukee last week and the attendance was good considering the weather. When we say that the state furnished this exposition we make the remark advisedly, because the state of Wisconsin is now back of the fair, in a financial way, and Wisconsin farmers, breeders, horticulturists and poultry raisers, in combination with the dairy products interests of the state, furnish most of the show. It was a Wisconsin fair, with few exhibitors from the outside. Illinois elected to hold its fair at Springfield the same week as the Wisconsin fair this year and the result of this change was that both Wisconsin and Illinois stockmen exhibited in their home state. Wisconsin has previously demonstrated that she can put up a good show without the aid of the outside world. As this is written the exact financial statement for the 1917 fair is not available, but it seems probable that Wisconsin will again be obliged to charge off a few thousand dollars to "expense for educational work." That is probably not the way the bill will read when it is finally audited at Madison, but that's what the deficiency on the state fair each year really amounts to.

There was marked improvement in almost every department of the fair. The live-stock show was not so large as usual, but it was a good show, and demonstrated Wisconsin's leadership in dairy cattle, both as to numbers and quality. The beef show, hog show, horse show and sheep are handled separately in this issue of The Wisconsin Farmer so it is unnecessary to go into detail here concerning them. Suffice it to say that better arrangements were made than usual for taking care of the stock show, especially in the hog and sheep divisions. Gradually the Wisconsin State Fair grounds is becoming a real exposition grounds even though for financial reasons it is necessary to make progress slowly. This year a $35,000 poultry building was added and it housed a $40,000 show. The grounds were well drained for the first time. Quite a little work was done toward decorating the grounds. When the rain came on Thursday it was apparent that soon it will be necessary to put in wider walks and more of them. The streets on the grounds should be wider and protected against the weather, either with gravel or some other pavement which will make it possible to keep out of the mud. But the good drainage system in use this year was a great help and these other things will undoubtedly be looked after later. The state has made $50,000 available next year for increasing the size of the grand stand. This grand stand is not for the racing crowds only, but is so constructed as to accommodate scores of exhibits. When completed the grand stand will easily care for several of the main departments of the fair, and this is the plan which the Board of Agriculture has in mind. Outside of the live-stock show the fair was more than usually complete in all departments. The automobile show was one of the biggest features this year. This show has been staged for three years in the old machinery hall. This year the hall was not large enough to accommodate the exhibit. An annex was put into use and fair visitors had an opportunity to see a high-class automobile show for a dime. In many respects this automobile show was the best that has been held in the country, outside the New York and Chicago winter shows. The decorations were artistic and the electrical effects at night added to the brilliancy of the scene. There were a larger number of closed cars shown than at any previous Wisconsin auto show. Interest was also shown in the automobile truck display, and right here it may be mentioned that farmers are casting their eyes very seriously toward the automobile truck. It is apparent that the time is not far distant when the truck and the tractor will gain great prominence as equipment for a Wisconsin dairy farm. Creameries and cheese factories in the state are looking into the merits of the truck as a vehicle for collection of cream and milk. The gardener appropriated the truck some time ago, but the average grain and live-stock farm is just beginning to realize its value. The success of the automobile show was due largely to the work of the Milwaukee Automobile Dealers' Association. These dealers conducted their annual booster tour this year as usual, previous mention of this tour having been made in The Wisconsin Farmer. They did some splendid advertising for the fair and incidentally, thousands of the state fair visitors this year came determined to spend a good part of their time in the automobile show.



—Photograph by courtesy of The Sentinel.

GOV. EMANUEL L. PHILIPP, IN PATRIOTIC ADDRESS BEFORE GRAND STAND CROWD AT WISCONSIN STATE FAIR.

Milwaukee has done a good deal to make the Wisconsin State Fair a success. Every year when the fair management faces a deficit, Milwaukee turns out en masse and helps to keep the deficit down as low as possible. The city has never been able to get satisfactory transportation service to and from the grounds. It is a long, slow ride, from Third and Grand, to West Allis, and by the National Avenue line the trip back to town seems interminable. The most vexatious thing, however, though in each individual case it may seem a small matter, is the extra two cents charged for the trip. The fare to the grounds from town is seven cents. There is probably no city in America where one may not ride farther for a nickel than the distance from Milwaukee, down town, to West Allis. But the Milwaukee street car management has never found it agreeable to knock off these two extra pennies. After the state fair visitor has ridden something over a half hour in a crowded car the conductor comes along with a tin box with slot-in-the-top arrangement. It reminds one of taking up mite-box collections for the missionaries, but we would not go so far as to suggest that the street car company has any heathen connected with its management. We will say, however, that the company should make the fare to the state exposition grounds a nickel, and also the company should adopt some modern system of collection of fares so as to avoid delays when the cars are crowded. If the state fair at Milwaukee ever gets a large crowd such as it really deserves, the out-of-date system of holding people back at the gates while the conductor makes change in pennies, will have to be done away with or the dissatisfaction on the part of visitors will be very great.

"No sane man likes war," said Governor Emanuel L. Philipp, in his patriotic address, delivered before a crowd of 12,000 people on State Day, at the Wisconsin fair. The governor then proceeded to say that the time has arrived when American interests demand the sacrifice of human life. The fact that we are at war, in the governor's opinion, should end discussion as to the causes of the war. There is now only one position for the American citizen to take and that is on the side of the country and our army. "The man who is not on our side is on the other side," said Governor Philipp. The governor showed that the agricultural interests of Wisconsin have risen to the emergency caused by the great war. Wisconsin has come to the front this year of food shortage, with the greatest crop in her history and Governor Philipp, himself a farmer and dairyman, with his own farm and his own cows, says that our Badger state will make an even greater showing in the year 1918.

A state fair is a sort of clearing house for all the various organized and individual agricultural and live-stock enterprises of the state. To the extent that Commissioner C. P. Norgord and his associates are able to make this clearing house representative of the state's productivity and progress along these lines, the fair will always be a success. The Wisconsin Farmer is especially pleased with the showing made this year in the county exhibits building, where the competition was keenest in the history of this show. Mr. E. L. Luther and his associates have done fine work. The poultry exhibit was more than state wide in importance. No state fair in the western circuit this year has been able to

(Continued on page 9.)

CURRENT EVENTS

ALTHOUGH not actually at war with Germany, Argentina is very near to that condition. Last week Secretary of State Lansing, made public a number of messages showing that the German minister to Argentina had taken advantage of the Swedish government (whether knowingly or unwittingly has not yet been disclosed) and had sent official messages, in cipher, to Berlin through Sweden and over Swedish official wires. These messages told of the sailing dates of Argentine merchant ships and suggested that they be torpedoed so effectively by the German submarines that no trace whatever be left of them. One of the German messages thus sent referred to the minister of foreign affairs in Argentina as an "ass." Sweden is supposed to be neutral, although its rulers are known to be friendly to Germany, the Swedish queen being a cousin to the kaiser. At the same time it is an unneutral and decidedly unfriendly act to allow its wires and privileges to be used by one of the combatants for any purpose, particularly so when it is against the welfare of the country where the ministry is located. It has been pretty well proved already that Germany kept in touch with affairs in both North America and South America by means of messages sent by the German minister through the Swedish ministry in Argentina, the German minister being unable to reach his government direct. To what extent Sweden has been guilty of collusion with Germany remains to be shown by subsequent developments, but the situation is critical, as it may result in Sweden joining openly with Germany and Argentina declaring war against Germany. At the close of the week, Argentina had contented itself with handing the German minister his passports and Sweden announced that it would not recall its minister to Argentina, who had been guilty of helping Germany out, as it was a personal affair of his, of which the government took no cognizance. Sweden's excuse was a lame one, at best, and developments of even greater importance are momentarily expected.

IF Argentina declares war against Germany she will be the second South American country thus to take action, Brazil having declared war some weeks ago. The chief advantage to the allies in the situation lies in the fact that the countries which thus declare war immediately seize the German merchant ships which have been interned in their harbors while friendly relations existed. By this means the fleet which carries ammunition and foodstuffs to the allies over in Europe is enlarged, for the German ships are immediately repaired and put into commission. Argentina, Brazil and Chile are the leading nations of South America and two of them have already taken a very definite stand against Germany's high-handed ways of running things, not only on the seas, but all over the world.

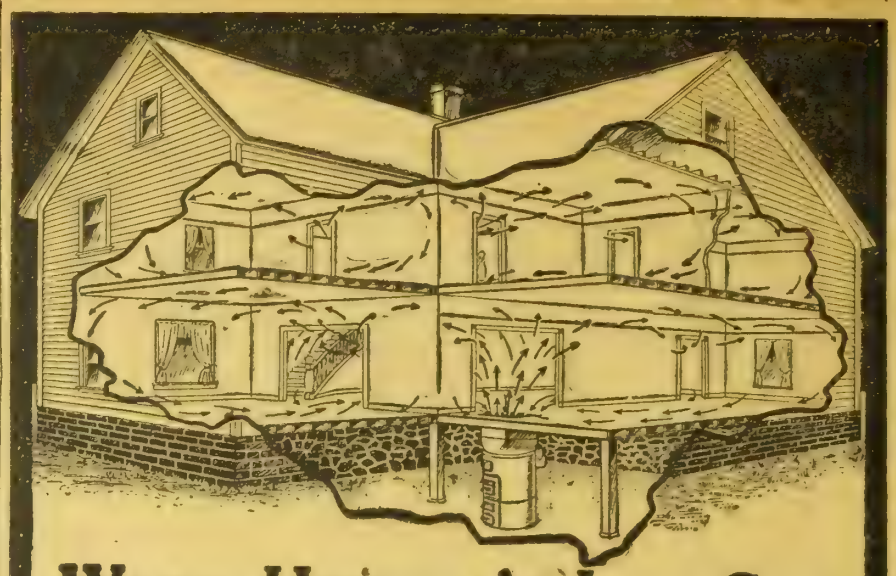
A VERY serious and threatening situation has existed in Russia for the past week, due to a counter revolution against the provisional government headed by General Korniloff, former commander-in-chief of the Russian armies. Premier Kerensky discovered that Korniloff, who is exceedingly popular, was proposing to set himself up as dictator. He lost no time in declaring Korniloff a traitor, but the latter likewise lost no time in marching his army toward Petrograd, the Russian capital. When within a few miles of the capital, however, he was defeated, so that at last reports the revolution seemed to be tottering. Torn and distracted by internal revolutions the Russian army is in no position or condition to make any showing against Germany, so the armies of the latter continue their victorious march through Russian territory, seriously menacing Petrograd itself. It is quite likely that the Russian capital will have to be removed soon, to prevent its falling into the hands of the Germans, who already have Riga. Russia is a great disappointment to the other allies and at this writing seems almost out of the war, so far as being of any actual help to the nations which are fighting Germany, Austria and Turkey.

HOPES that the German submarine menace may shortly be checked were revived by the issuance of the British official report early in the week. A marked decrease in the destruction of British merchant vessels is shown by the report. Twelve vessels of more than 1,600 tons and six of less than 1,600 tons were sent to the bottom, as compared with twenty in the large and three in the small category sunk the previous week. The statement shows that four fishing vessels also were lost. The above admiralty statement shows the smallest number of large British vessels sunk by mines or submarines since Germany last February began her intensified submarine campaign. Dispatches were received during the week showing that a flotilla of American vessels, convoyed by destroyers, was attacked, two American vessels being lost, and one of the German submarines being sent to the bottom by American gunners on the destroyers.

DRAFTING of all aliens in the United States except Germans, others exempt by treaty, and those countries allied with Germany, who have resided in this country one year, is proposed in a joint resolution passed by the senate and sent to the house. It is estimated that more than 1,000,000 aliens would be affected. Under the resolution by Senator Chamberlain, of Oregon, chairman of the senate military affairs committee, subjects of the allies or neutrals claiming treaty exemption, would be allowed to leave the country within ninety days. Inequalities of the operation of the draft law because of exemption of large proportions of aliens in many districts, were cited by Senator Chamberlain to show the need for his resolution. Amendments adopted would permit the use of aliens of Germany in this country for other than military purposes; would provide that in future drafts credit shall be given for the excessive proportion of aliens and provide against expatriation of Americans who have joined the allies.

THE war revenue bill—proposing the greatest single levy of taxes in the history of the world—was passed by the senate last week. The measure provides revenue totaling $2,411,670,000, an increase of $542,750,000 over the amount proposed in the bill as it was passed by the house. The difference between the house and senate provisions will be compromised by the conference committee of the two houses, but in any event the total revenue eventually provided will be more than $500,000,000 short of the $3,000,000,000 levy urged upon congress by Secretary of the Treasury McAdoo as the financial spokesman of President Wilson. After knocking out the consumption taxes on tea, coffee, sugar, and molasses, proposed in the house bill, the senate passed the measure by a vote of sixty-nine to four. The senators voting against it were Borah, of Idaho; LaFollette, of Wisconsin; Gronna, of North Dakota, and Norris, of Nebraska, all republicans. LaFollette and Gronna have led the little band of anti-war senators in opposing all war legislation, but Borah and Norris agreed with them that the bill does not impose sufficiently heavy taxation of wealth. LaFollette offered a substitute for the entire bill, proposing a $2,000,000,000 tax on war profits, higher income taxes, and a bonus to soldiers sent to France, which was defeated by a vote of sixty-five to fourteen. Stupendous as is the tax levy proposed by the senate measure, the prospect is that the administration will ask congress at the next session, which convenes in December, to increase still further the amount derived from direct and indirect taxation. The cost of the war is increasing by leaps and bounds and the administration and the democratic leaders in congress have agreed to levy $3 in taxes for every $7 raised by issues of bonds.

GERMAN barbarity reached a new height when Teuton aviators dropped bombs on an American hospital camp, killing one officer, three privates, and a patient and wounding ten others. The raids upon the hospitals were deliberate, says a newspaper correspondent over there. That the Americans might not forget, the Germans dropped German coins over the camp, as souvenirs. These souvenirs were pfennig pieces. The officer in command of the hospital unit, which suffered most in the raid, showed the coins. The survivors of the raid, indignant and bitter, all declared they believed the German pilot deliberately dropped the coins as "souvenirs" of his visit. The officers, men and nurses displayed real American spirit and heroism under the enemy bombardment. With bombs bursting about them, and men already wounded being torn by pieces of the exploding missiles, nurses hastened to their aid. Officers stood at their posts, men responded to every call upon them, and the first American units to be under enemy fire carried out the work they had to do with the utmost bravery.



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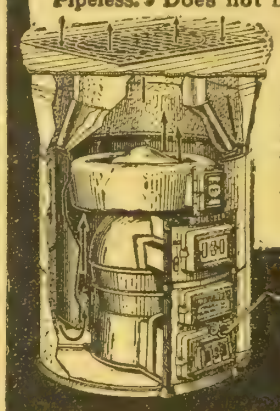

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L. J. Mueller Furnace Co., 204 Reed Street, Milwaukee, Wis.
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MUELLER PIPELESS FURNACE

Stump Pulling in Barron County.

For the past thirty-five years pine stumps ranging in size from twelve to sixty inches in diameter have been blocking the progress of the agricultural development of Upper Wisconsin counties. On the farm of Mr. Bedner, of Haugen, Barron county, the land-clearing demonstration conducted by the college of agriculture demonstrated practical and efficient means of removing stumps. Many farmers of that section visited the demonstration and frequently remarked how easily and quickly stumps can be removed by modern methods.

Very little land has been cleared in this community during the past few years. There has been no organized effort to get rid of the stumps. As a result of this demonstration this community undoubtedly will take hold of the stump problem, which should result in far more land being cleared this fall and next spring than has been the case during the last few years.

The work of the land-clearing special is to develop the best methods to use in the various localities in which they are operating. Four different types of stump pullers are on the ground. Dynamite is being used separately and in connection with the stump pullers. Just which one of the various methods in practice here is the cheapest has not yet been determined. The information gathered, however, will be available for the residents of this section so that they may have the value of the information gathered at this point.

One of the big problems which confronts the man who starts in to clear a tract of land is to get rid of the stumps after they are out of the ground. The homemade Conrath Piler, designed by Frank Conrath, of Conrath, Wisconsin, is solving the problem. In building this simple homemade device Mr. Conrath kept in mind the man with limited means and at the same time tried to design a piler which would pile the stumps in such shape that they would burn readily. Many farmers have suggested other uses than stump piling for this machine. It could be conveniently used at butchering time; or for stacking or elevating grain. On account of the present high price of iron and steel the parts necessary to make a complete piler will be between $40 and $50. This represents, however, the largest portion of the investment. If two or three farmers would go together and build a machine the amount of time saved in piling the stumps would soon cover its cost. Blue prints showing the construction of every detail necessary for the making of such a machine can be obtained by sending a request to the college of agriculture at Madison for blue prints showing the construction of the Conrath Piler.

The electric method of blasting stumps received a good deal of attention. The idea was new to many old hands who knew how to handle dynamite. The old method of putting all the charge in one spot, which results many times in leaving a considerable portion of the stump in the ground, is rapidly being supplanted by the newer method of electric blasting. By this method several shots placed around at various points underneath the roots of the stumps can be fired at one time. The lower grade of dynamite was used to demonstrate the feasibility of using a low-grade dynamite instead of the higher and more expensive grade.

The various stump pullers, together with their various attachments, came in for their share of interest. The tap-rooted stumps, which were very few on Mr. Bedner's place, are pulled by means of a root hook. This consists of a heavy hook which is fastened against the stump after the top has pulled off. The stump is then pulled in the usual manner by the tightening of the cable.

MAN—To wear fine suit, act as agent; big pay, easy. Banner Tailoring Co., Dept. 738, Chicago.

Conservation Bulletins.

The extension division of the Minnesota College of Agriculture is sending out three food conservation bulletins prepared for the state committee of food production and conservation.

One of these on farm dairy cheese by R. M. Washburn deals with the making of cheese on the farm as a means of saving great stores of skim milk which now go to waste.

Another on the storage of root crops on the farm by W. W. Cumberland, gives directions for proper storing of farm products for the winter.

A third, also by Mr. Cumberland, gives directions for the preparation of perishable farm products for market.

Copies of these bulletins may be had by addressing Office of Publications, University Farm, St. Paul, Minn.

The Wisconsin Farmer

THURSDAY, SEPTEMBER 20, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

AS THE SOLDIERS MARCH AWAY.

THIS week and in the weeks to come thousands of men—the flower of the grain belt's young manhood—will be leaving their farm homes at their country's call, to begin training for America's fifth liberty army. As their forefathers in 1776 turned from the plow and became the embattled farmers at Lexington, who fired the shot heard round the world for the cause of liberty; as their great-grandfathers in 1812 struggled for the freedom of the seas; as their fathers rushed forward in 1861 to preserve the Union and emancipate the slaves, and as their elder brothers in 1898 made their sacrifices on the altar of Cuban independence, so the young men of today turn from peaceful pursuits to suffer whatever sacrifices are needed to make this a better and safer world in which to live.

I see our farm boys, all over the grain belt, as they assemble to march away to do their bit for flag and country. I see their neighbors as they bid them God-speed, with ringing words of encouragement, with prayer and song. I see their hands waving from car windows at hundreds of stations, in response to the waving handkerchiefs and flags and the kisses thrown after them as their train pulls out. And then I see the hushed crowds which they leave behind on station platforms, the cheers checked by sobs, the handkerchiefs no longer waving, but pressed to eyes from which the tears that have long struggled with brave smiles for mastery, cannot longer be held back. I see the empty homes in the weeks to come, in which a son or a brother and in many instances a husband, is missing; where the prayers rise like a fountain night and day for the absent ones, and the vacant chairs at meal-time and family worship are symbols of the heart loneliness of the household. And I see the men taking up their duties of camp routine, doing whatever is set them uncomplainingly, courageously, cheerfully, because it is a duty which must be done.

And as I see these things I think to myself: "God help the enemies of a country that goes to war, not gaily, not boastfully, not vaingloriously, but seriously, tearfully, prayerfully!" The pomp and circumstance of other wars has gone, but in its place has come a spirit of grim determination, both in the hearts of those who go and those equally patriotic ones who stay at home, to help them by the work of their hands in the fields and the prayers of their hearts to accomplish the great task that is set before them.

As I think of these things a similar scene rises before my mind's eye. The hands of time's clock are turned back nearly sixty years for me, and I see my boyhood home in Ohio, the day my father left with his regiment, never to return. As though it were yesterday, I recall the mile and a half walk with my mother to the camp, for the last regimental prayer meeting on northern soil, the night before they went away, and my mother's bravery as the train pulled out next day, her outward appearance, like that of the Spartan mother, giving no signs of the bursting heart within. Nor can I ever forget the dark days that followed—the days of toil and the nights of worry, when our little home was sold by the sheriff after my father had fallen and was buried somewhere not far from Vicksburg; the weekly trips of a younger sister, with her little hand-cart, to the near-by tannery for our week's fuel supply of tan-bark; the little basement quarters where we lived for a time and from which I tramped long distances to work, to help support the family; and then the sudden attack of Morgan's Kentucky raiders, which all of us who were left—young and old—enlisted to repel. Most vividly stands out in bold relief, the day that the first soldier's body returned, with the flag draped round it, when the whole countryside gathered to do reverence to the fallen hero. Then came the days when the sight became a common one; when people ceased to gather from far and near to view the pine boxes piled, one above the other, at the railroad stations, and only the near and dear ones followed, to their last silent camping grounds, those who had laid down their lives that the nation might live.

I cannot bring myself to believe that such scenes and times as those of Civil War days will be repeated. It is a far different thing to face an alien enemy, removed by three thousand miles of water, than when brother meets brother, almost across their own door-yard. Nor am I yet convinced that all of the thousands of our farm boys, who will be called from the grain belt during the months to come, will be sent to Europe, or that it will be necessary for any large number of them to give the last full measure of devotion to the cause of liberty and peace. I cannot help but believe that when our nation's foes understand the spirit of America, when they see the vast preparations we are making, to throw all our weight into the balance, they will yield to the world-wide demand for an early dawn of that millennium of peace for which we fight; for that glorious day

When the war drum throbs no longer, and the battle flags are furled,
In the parliament of man, the federation of the world.

God grant that that time may come swiftly! But in the meantime I offer to our farm boys who are going forth to make their sacrifices for a realization of this hope, my hand, my heart and my prayers in gratitude for what they are doing. I know that, wherever duty may call these boys, they will respond in a manner to make us all proud, that they will uphold the best traditions of America, and that they will be an honor to themselves, to the nation and to the cause for which they fight.

To those they leave behind I extend my heartfelt sympathy, and also my congratulations, that their sons, husbands and brothers are made of the same stern, heroic stuff that has answered the call of duty in all ages and in all climes. My heart throbs with theirs, both in the anguish of the moment and in the pride with which they send their loved ones forth to battle for the right. I realize that this country will never again be the same for their going. Fourth of July will have a new meaning for us all in the future, and the stars in Old Glory will shine with an added luster for their going. And when peace with justice comes, we will receive them back to our farm homes and to the places which they left in the fields with all the honors, all the pride, all the thankfulness to which they are so richly entitled.

SAVING IN THE FARM KITCHEN.

I AM impressed more and more each day by the fact that the men and women of America—farmers and townsfolk alike—have resolved to conserve the food supply so that no one may know want. If there ever was a time when the good farm wife might be excused for thinking that she need not make use of every scrap and leftover it is now, for never were our fields yielding so abundantly. Gardens bloomed like the proverbial rose this year. Hardly a town family that was without its backyard garden, so that much of the usual demand on the farmer and truck gardener for fresh vegetables was lacking this year. But even this condition has not caused the thrifty, far-seeing farm wife to indulge in a particle of extravagance. She knows that a day of reckoning is coming, a day when a hungry world will cry piteously for food, unless all of us do our bit now, clean the plate and platter down to the last drop and crumb, and save for the future.

I wandered aimlessly, for an hour or so, through the buildings of the Minnesota State Fair week before last and what impressed me more than anything else were the number and the forcefulness of the signs urging people to conserve food and to use substitutes for meat and wheat. In the room devoted to cooking demonstrations—where bright-eyed girls were at work canning fruits and vegetables and baking bread—there were hourly lessons on household economies which cannot fail to have good effect. Why use wheat altogether for our daily bread, it was argued, when potato bread is equally nourishing and when liberty bread can be made of three-fourths wheat flour and one-fourth other cereal? "Help win the war by conserving wheat," "The kitchen is one key to victory"—so ran the signs, and there were few who passed through the room without looking at them intently, letting their truth soak in. "Several apples a day will save meat and wheat," read a sign elsewhere. And who has to be urged to eat a good, luscious red apple (someway, I always preferred the rosy-red apples to the yellow ones, not even excepting the Bellflower or the Grimes Golden)? "An apple a day keeps the doctor away," we used to be told, and now they say another apple or two a day will save the wheat for the soldiers fighting our battles over in France. With a good apple crop in prospect, in most of our grain-belt states this year, I fail to see why we should not have an old-fashioned winter of apple-eating such as we used to enjoy when I was a lad. Our apple crop bids fair to be good this year, save in northern sections of the grain belt, particularly in the lake regions. Why not a revival of apple-eating in the home, of the old-time festivals which had the apple and various apple games as the pivotal points? We will travel many and many a day before we find anything more pleasing to the taste or beneficial to the body than a good, rosy-red apple. Oranges, grapefruit, and so on, are not to be considered in the same class, in my opinion.

The truth is, the people are awake to the necessity of saving, both food supplies and money, this year, as never before. Business is good. Our farm products are bringing fine prices, in the main. Merchants tell me there is no let-up in retail business. At the same time, never were our individual bank deposits so heavy, on the whole. We are putting money away for the inevitable rainy day, perhaps even the day when the rain shall be one of shells from the enemy. We have produced bumper crops this year, but we are not stopping with this. We are making those crops go farther than they ever went before. A few weeks ago I printed a plea for a revival of corn bread in all its delectable forms: johnnycake, corn pones, and so on. This plea has been taken up by the daily papers. I find one urging it in this fashion:

> The government has asked us to eat corn bread one day each week and help save the wheat for the soldiers who are going to fight for us. It's a good suggestion.
>
> This whole country was pioneered on corn bread. The Pilgrim Fathers almost lived on it. Corn was the first crop planted in all the virgin soil as it was settled from the Atlantic out across the Alleghenies upon the broad prairies to the Rockies and beyond. Corn was a crop that would grow even in the uncleared forest of the Middle West. The pioneers used to deaden the trees by girdling and drop corn in hills in the unplowed soil and get a first crop that way.
>
> Sturdy men were reared on corn bread and venison. But in these days corn bread has fallen into disuse in the cities partly because wheat has been so cheap, and partly because women have forgotten how to make palatable corn bread.
>
> Let the cooking experts get busy now and tell us again how to make corn bread "like grandma used to make."

Liberty bread made of three-fourths wheat, corn bread, mush and milk, several apples a day—the prospect is not so discouraging; in fact, to me, it is even alluring. We are returning to some of the best articles of diet that the tables of us older men and of our fathers ever knew. We are getting away from some of the highly seasoned foods which have become fashionable because they were high priced rather than because we really liked them. Let us have simplicity at our dining table; plenty of good, wholesome food and every platter scraped and cleaned before we push our chairs back. By this means we shall learn a good lesson, which we have needed to learn lately, and we shall see to it that none of the world's people shall cry aloud for food and find their cries unanswered.

WHERE COURTESY SPRINGS FROM THE HEART.

WE ALL know that courtesy pays. It pays for itself in dollars and cents in the business world, and it pays for itself many times over in the feelings of good will and brotherhood it engenders. Like the quality of mercy, it is twice blessed, for it blesses him who gives and him who takes. It adds to the sum of human happiness and good cheer, things of which this topsy-turvy old world stands in sore need these days.

Last week I had this all impressed on my mind anew and realized that nowhere does whole-souled kindness and unfailing courtesy spring more from the heart than among the farmers. I was taking a long automobile trip in one of our grain-belt states and had occasion many times to stop at some farm house to ask a favor, and in every single instance the service proffered was greater than the one asked. No matter how busy the farmer or his wife, there was time to give the stranger what he wanted, seasoned with a cheery welcome and a God-speed that sent me on my way with more of the joy of living in my heart. No matter what the request, it was granted as if I were extending a favor in asking it, instead of receiving one. If it was an inquiry as to the right road to take, the route was carefully explained, with information as to the condition of the roads and the offer to go a short distance with me, if the directions were difficult to follow. If it was a drink of water that I requested, as likely as not buttermilk was offered also, or a bite to eat.

As I think back, I believe that this fine spirit of

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Wisconsin State Fair Finances.

Sec. O. E. Remey, of the Wisconsin State Fair, advises us that the deficit this year will be small, if any. It would be making a new record if the Wisconsin State Fair paid expenses. Last year the attendance was a little over 165,000 for the week. Thursday was the big day in 1916 with 63,705 paid admissions. Thursday would undoubtedly have made a new record this year but for the fact that rain fell steadily all Wednesday night and intermittently on Thursday. Notwithstanding this fact Milwaukee people turned out well and 46,465 admissions were recorded. The fair got a good start this year with an attendance of 46,334 on Monday, as against 43,848 on Monday a year ago. In 1916 the Tuesday attendance was 11,003 and this year it reached 18,738. Wednesday is State Day at the fair and the state program brought out 27,671 people in 1916 and 38,407 this year. With this steady gain the fair officials were quite hopeful of a financial success, but the rain Wednesday night cut down the attendance on Thursday to 17,000 less than it was in 1916. It is the usual story of bad weather. There is every reason to believe that the Wisconsin State Fair of 1917 would have netted a nice little surplus but for the middle-of-the-week rain. The official figures on the 1917 attendance are 189,184, or a gain in excess of 14,000 over 1916.

It is probable that the matter of a longer fair may be given serious consideration, and this may be practical for the reason that Wisconsin farmers and breeders are the chief exhibitors at Milwaukee, and the Badger fair does not have to wait until some other fair is over to start its own. With two additional days, or even with a Sunday fair (which, of course, would have the amusement features eliminated and be confined to concerts and inspection of exhibits) it might be possible to bridge over the small space between a loss and breaking even or a surplus. There are enough farmers within 100 miles of Milwaukee to make the Wisconsin State Fair a financial success and with the added attendance from the city, which gives loyal support, our state department ought to be able to put this fair over without a loss.

Price of Wisconsin Potatoes.

At this writing the exact damage done to the potato crop in Wisconsin by the recent frosts is not known, but estimates indicate that the crop may be cut down 8,000,000 to 10,000,000 bushels. It is not expected that the freeze of state fair week will cause any more damage than that. Whether the freeze will cause an actual loss to growers, to any appreciable extent, remains to be seen. Undoubtedly the shrinkage in total crop will cause a rise in prices, but just how much we cannot tell as yet. There is a splendid opportunity to use the smaller potatoes caught by the frost for seed. We refer to the tubers which would have been good sized and good stock if the frost had held back a couple of weeks, and not to the naturally small tubers on vines not caught by the frost. Frost-stunted tubers, though small in size, may make good seed if planted whole, and thus the loss caused by the cold snap may be minimized. The frost was not particularly early in the potato-growing sections but it caused damage because the season was late. The stock of tubers caught by the cold were in most cases disease free, and had they all matured Wisconsin would have had its biggest "spud" crop in history this year.

Pres. J. W. Hicks, of Prentice, was a visitor at the Wisconsin State Fair. He is head of the Wisconsin Potato Growers Association, and one of the best-known growers in the country. Recently he attended conferences held in Washington with Food Administrator Herbert C. Hoover. President Hicks says it is a mistaken idea that the government desires that the price of potatoes shall be run down to the extent that there will not be good profits on the 1917 crop. In common with many growers he has figured the cost of producing a bushel of potatoes in Wisconsin under present conditions and he believes this cost to be from 40 to 60 cents a bushel, depending upon labor conditions, cost of seed, condition of soil, treatment of soil needed and other items. A rumor that buyers were endeavoring to gather in a portion of this year's crop on contract at 30 to 50 cents was denied by Mr. Hicks. No buyers have been making any such foolish offers and they would not be taken seriously if they did. In the opinion of Mr. Hicks and other men of equal prominence in the potato world, the crop this year will sell at 75 cents to 95 cents a bushel or more. This estimate, based on a cost of 40 to 60 cents a bushel to produce, is the price which most potato men believe will be paid to the farmers. However, this estimate was made before the frost, which, as we have said, may change the situation to some extent by reducing the visible supply. It was The Wisconsin Farmer's guess, before we realized what a large crop Wisconsin might raise this year, that potatoes would sell at or around $1 a bushel. The farmer should get $1 a bushel or near that for this crop this year. If there should be a deviation from this price it should be upwards—not downwards.

The government apparently realizes fully that the farmer must have a fair profit on what he raises. Our state and federal departments of agriculture urged "more potatoes" and Wisconsin has delivered "more potatoes." For his big crop the Wisconsin farmer is entitled to good pay for his work just as all other lines of business are reaping good profits in these times. It is safe to say that the potato grower will not be any more grasping than some other people not engaged in farming, whom we might mention, would be.

Wisconsin Farmers Doing Their Part.

"Wisconsin has done her duty in every way in the present world crisis." This is the statement made by Governor Emanuel L. Philipp, in his State Day address to farmers at the 1917 fair. In referring to slanderous statements which have been published abroad relative to Wisconsin's position in the war the governor said:

I hope it is a matter of interest to you to know that in all the tasks placed on the states by the government Wisconsin has been among the first, if not the first, to respond. We were the first state to complete our registration and we registered 100 per cent of our estimated quota. In all the stages of the conscription process we have been among the first to do our work.

We have completed our National Guard. We enlisted 16,000 men—all we were allowed to enlist—and these men are all volunteers. Every demand made upon us has been promptly and patriotically met.

I ask these slanderous writers, in all candor, what has Wisconsin done, or failed to do, that she should be called traitorous? When the history of this war is written you need not fear that the historian will say that Wisconsin failed in any particular to fulfill every duty of a patriotic commonwealth. Wisconsin can be depended on to be with the national government in every effort made in the war, as she ought to be.

We have a hard task before us. We have raised 28,000 men. I can hear the rumble of another call. Within two or three months we may be forced to go to the people again and ask them for their sons. I do not know, and no one can tell, how often the call may come, but I am confident that if it be one call, or three, or ten, so long as there are young men in Wisconsin capable of military service the call will be answered if we have to take the last man.

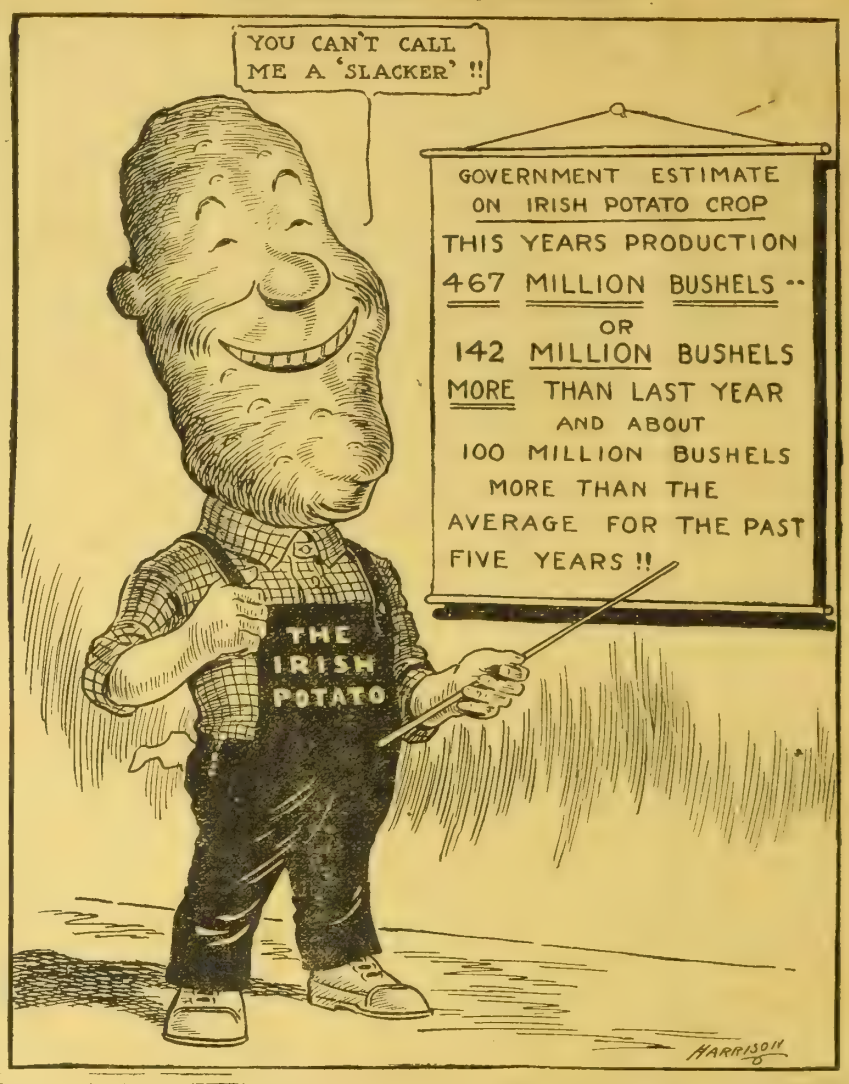
I wish especially to remind the farmers of their duty in this crisis. It is one thing to raise an army and another thing to feed it. No great battle was ever won with an empty commissary. It is the duty of the country to feed and clothe and care for the men who are in the field. It is equally a duty to feed those who stay at home. And it is also a duty to help to feed our allies, for unless we do so we make our own path so much the harder. It is important that every acre of land in the state that is fit for agricultural purposes be cultivated next year. We must not neglect a single acre.

I would admonish the householders to do their part in stopping waste. Every pound of bread or pound of meat that is wasted is taken from someone who needs it. I urge the farmer to make good use of the soil; to attend with the greatest care to his animal husbandry and to assemble his food products to the greatest advantage, and again I urge the householder to avoid waste in every way. I am afraid the time is not far away when we shall not always have all the things we should like to eat. But these conditions, if they come, must be met cheerfully, and if they are so met they will not be hardships. We can do much for the love of our country if we have that love, and I am sure that you have.

I hope that when we meet again next year it will not be necessary to discuss the war. I hope that the war will be over and the questions that have disrupted Europe will have been settled in the American way and that the people of Europe will see the birth of a new liberty, a new freedom, under which such conflicts will be forever impossible.

When the records of food production by states are figured up for 1917 Wisconsin will be able to prove conclusively that her farmers and dairymen have indeed done their part well. And Wisconsin farmers are determined to raise even greater crops and produce even more butter and meats, in 1918. We all hope with the governor that we may be able to meet under peaceful skies at the 1918 Wisconsin State Fair. In the meantime Wisconsin may be depended upon to help fill the pantries and commissaries of our country and our allies.

NO WONDER HE SMILES.



Phosphatic Fertilizer on Winter Wheat.

Experiments conducted at the Ohio station have resulted in the accumulation of data that indicate that it is a paying proposition to apply acid phosphate to land seeded to winter wheat. In Wayne county, Ohio, an application of 160 pounds of acid phosphate increased the yield eight bushels per acre, while in three other counties the increase ran from five to six and one-half bushels per acre. The result of twenty years of experimenting at the Ohio station indicates that an application of 160 pounds of acid phosphate may be expected to increase the yield of wheat anywhere from five to eight bushels. Even the application of 100 pounds of acid phosphate to wheat shows an average increase of four and one-half bushels per acre, and this would mean an increased income of $180 with wheat at $2 a bushel as the result of applying one ton of acid phosphate on twenty acres.

There has been a heavy demand for fertilizers during the present growing season and at times the supply was not equal to the demand. Acid phosphate costs at the present time approximately $1 per hundred pounds laid down at the farms of the corn belt. It may run as high as $1.25 per hundred, and in that case 200 pounds per acre would mean an expenditure of $2.50. An increase of one and a quarter bushels of wheat would pay the fertilizer bill and there is every possible reason to believe that if 200 pounds per acre are added there will be a margin ranging anywhere from four to seven bushels per acre of wheat over and above the amount required to pay for the fertilizer.

Of course, judgment is called for when it comes to the matter of applying commercial fertilizers. Soils that have been well rotated and manured will not be as much benefited as those that have been heavily farmed. There are thousands of cases in the corn belt where rotations have been interfered with on account of the clover killing out two or three years in succession, with the result that grain crops of one kind or another have been grown continuously. Under those conditions we have no hesitation in saying that an application of acid phosphate will prove to be a highly paying proposition. In some instances where land has not been clovered for many years a mixture of phosphate and ammonia might be still better. Of course, it will be higher in price, but in matters of this kind it is not so much what a fertilizer costs as what it will do when applied to the land.

There will be instances where men will be deterred from applying fertilizer to the wheat for fear the wheat might be winterkilled in the case of a bad winter or a hard spring. However, the fertilizer will not be wasted and it will be in the soil to produce just as good results if the land is put in corn or oats next year, as would have been the case with wheat.

FAMILY CIRCLE TALKS—By The Publisher.

(Continued from page 3.)

hearty hospitality and accommodation to others has grown among farmers, since I was a young man on the farm. I am sure that our intentions were of the best, but, as I now recall it, I suspect that our manner towards the stranger at our gates was at times a little bit abrupt and perhaps tinged with a feeling of suspicion. We had not traveled much, and what few strangers called, from time to time, were not, as a rule, the kind that inspired a feeling of confidence and hospitality. Our world was a little one and our lives necessarily narrowed by our limited horizon. Farmhouses were widely scattered and means of communication were slow. The stranger, who called at our door, was more than likely to prove a fake lightning rod agent, whose order blanks were apt to turn up at a bank later, in the form of ninety-day notes, or else he was a seed swindler, going through the country and duping the farmers with his wild promises of big profits from Bohemian oats. Coolness towards such travelers became a matter of self-protection with the farmer, who learned by bitter experience to restrain any natural inclinations which he might have had towards hospitality.

Today all that is changed. The automobile, the rural telephone and the free mail delivery have brought the world to the farmer's door. He travels widely and is accustomed to meeting men and mingling with them. The limits of his state are smaller to him than the boundary lines of my home school district were to me, in my earlier days. The average farmer today appreciates the dependence which every man has to place on his fellow men; he knows that the needs and troubles of others may, at any time, be his own, and that we are all our brothers' keepers. So he is willing and glad at every opportunity to pass along the courtesies which he has received from others and to keep good will and mutual helpfulness in circulation, knowing that these things even themselves up in the long run and that the greatest joy he keeps is the joy he gives away to others.

I noticed the other day that General Pershing has made a special request that the American soldiers abroad treat the people of our allies with the utmost politeness, consideration and respect. The American has had a reputation—that was not entirely undeserved—of brusqueness, amounting almost to incivility to strangers, and General Pershing is anxious that our men in Europe show the kindly people of foreign countries that we, too, have come to understand the ordinary decencies of life, which may be small in themselves, but which always make for good will and mutual understanding.

If my experiences with grain-belt farmers have been typical, and I believe they have, I am not afraid that America will have any occasion for shame over the conduct of her farmer-boy soldiers toward our allies, for they cannot help but have learned the value of kindness and courtesy that spring from the heart, by the examples which their parents have set them on the farm.

A MATTER OF BREEDING.

I DO NOT want my readers, especially my younger ones, to get the idea that I am preaching at them. Rather, I would have them think that we are a large and pleasant family circle counseling together, each having the right to a free expression of his or her opinions, I having the floor a little the oftener because of my age and gray hairs.

This being the situation—as I should like to have it, at least—perhaps it may not be amiss for me to reproduce a portion of a letter which I received from a woman subscriber who is an active worker in one of the splendid neighborhood clubs springing up throughout the grain belt in such large numbers. This correspondent of mine brings up a matter which we might well consider together for a few minutes. Let Mary Birr, supervising teacher of Oconto county, Wisconsin, speak first:

Oconto Falls, Wis., R. R. 2, September 12, 1917.
Dear Mr. Pierce:—In our neighborhood farm club is one of the finest groups of young people I have ever met anywhere, and I have been around quite a bit. They come from splendid homes, have high ideals, are willing workers and enjoy living.

Your paper is found in every home represented in the club. I read it with the greatest interest, as do also the club members. I have sometimes wished that in it you would publish short, readable articles on morals and manners. Not necessarily those possessed by the society man, but the plain, ordinary courtesies that every boy and girl wants to show, but does not, because he is not conscious of the fact that he doesn't. Country boys and girls, now grown, because of a dearth of reading matter in homes and poor teaching in home and school in regard to these little niceties, "queer" themselves when they go to cities or are in company outside of their circle.

The following are some of the failings:

Extremely loud talking on streets and in public places.

Not removing hats when entering homes or public places, such as a restaurant, hotel, etc.

Lack of the common courtesies toward members in the home, thoughtless of others.

Unduly cruel to animals under the least provocation.

There are many more. In spite of the many sterling qualities these boys and girls possess, being guilty of one or more of these mentioned is a handicap to their becoming the best possible or receiving the attention from the opposite sex which they otherwise would and are deserving of.

I know that "preachments" are not the best method of teaching these, but somehow they don't get it through stories, for they do not read many, nor have they them to read. Very truly, MARY BIRR.

I believe this is a matter of forgetfulness rather than of any inherent lack of breeding or individual discourtesy. So many of us are apt, at times, to forget or to overlook the little niceties of custom, both of speech and of action. It is so easy to say "thank you" and "please" and apparently quite as easy to forget to say them. Yet these little words mark the difference between a cultured, refined person and a boorish one. A lifted hat when a lady speaks or passes is only a little thing in itself, yet it reveals the character of the man as much as any one thing. A quiet, well-modulated voice, especially in public places, is a mark of refinement and good breeding; a loud, impatient tone is the opposite.

Some of my readers may think this is an unimportant thing. Far from it. We are judged by our appearances and our actions far more than we think. There is no reason under the sun why the farm boy should be a bit behind the town or city boy in this matter of little courtesies, but he often is. He is no less a hard worker, a faithful son or brother or a loyal citizen, and would be no less a brave soldier, because of this, but if we can impress people with our worth and increase our self-respect by a little action, which costs us nothing but a moment's thought, shall we not do it?

Observation will teach any of us what is proper and expected of us. We do not need books of decorum nor preachments from anyone. Let us see what other people (whom we instinctively know to be cultured and refined) are in the habit of doing, and model our own actions so that we may compare favorably with them and be known, throughout all our circle and wherever we may go, as a person of good breeding and refinement, capable of entering the best society any place and respected as one who is courteous to all people, even in the most minor and matter-of-fact relations

James M. Pierce

St. Croix Has Best County Exhibit.

TWENTY-TWO counties sent delegations in charge of a booth to represent them at this year's state fair. The number is somewhat smaller than last year, but there was closer competition among the counties for first honors than ever before. The exhibits showed a greater completeness, especially among the first eight, every phase of agriculture being represented. Prizes were announced on Friday, September 14th.

St. Croix county was awarded first prize on its exhibit and received the cup annually presented by the Milwaukee Journal for the best county exhibit. The St. Croix booth was in charge of T. M. Olson, county agent; A. H. Aune, county superintendent of schools, and George Rummle. To A. H. Aune probably belongs greatest credit for the showing made by St. Croix county. For many years Mr. Aune has had charge of the booth representing his county and, though the county has never ranked lower than sixth in the final placing, this is the first year that it has been awarded premier honors. In presenting the cup to Mr. Aune, E. L. Luther, of Madison, superintendent of county exhibits, made a short address mentioning the loyalty of Wisconsin farmers in the present crisis. Few sections of the United States have been as eager and as successful in complying with the government's request for greater food production. There is no need, according to Mr. Luther, for radical changes in our agriculture at the present time. If we intensify upon our present system of farming all the necessary foodstuffs for a hungry world can be produced without hardships for anyone. H. C. Campbell, assistant editor of the Milwaukee Journal, made a short address, calling attention to the idea which the Journal wishes to convey to the counties of Wisconsin through the medium of the cup. Stimulating friendly rivalry between counties for agricultural supremacy will tend toward greater production, which is the object.

The surprise of the morning, however, was the presentation of a full set of table silver to Mr. Luther by the twenty-two counties entered in this year's contest. The untiring efforts of Professor Luther have not escaped unnoticed by the agricultural people of the state and it took him so greatly by surprise he had very little to say with the exception of a few earnest words expressing his gratitude.

The best eight exhibits as placed by the judges are as follows: (1) St. Croix, (2) Woods, (3) Sauk, (4) Waupaca, (5) Ozaukee, (6) Langlade, (7) La Crosse, (8) Marathon.

The St. Croix booth was very tastefully arranged, each product being displayed to its best advantage. On a framework resembling the letter "M" six shelves had been filled with the best of St. Croix county products. On the bottom shelf garden vegetables of every kind were displayed, while the shelf above was given over to some splendid specimens of the different varieties of potatoes. On the tier above that the grains and farm seeds were neatly arranged in sacks, each properly labeled. Corn, samples of this year's crop, occupied a shelf of their own, as did also the apples. And finally there was the row given to grapes and strawberries of different varieties. On the walls around the booth the sheaf samples of grasses and grains occupied every available inch of space. An especially strong exhibit of grasses testified to the county's inclination toward dairying. St. Croix county boasts of the second largest creamery in Wisconsin, located at Baldwin. Cabbage and trucking in general is the most profitable in the southern part. Farther north dairying is uppermost. One hundred and forty silos were put up in the county in the two months just past, which added to the 1,068 already in the county, are a good indication that the farmers of St. Croix not only know but practice the principles of feed conservation. Special efforts are to be put forward to make the dairy interests larger with each succeeding year.

Wood County.

The Wood county booth was in charge of O. J. Leu, of Grand Rapids; Christ Witt, of Marshfield, and W. W. Clark, of Grand Rapids. The county exhibit was particularly strong in its clover and grass specimens and had a very complete assortment of grains, fruits and vegetables. Wood county people are proud of their dairy cows, claiming for the county all honors for the successful growing of cows, corn and clover. The experiment station at Marshfield has the support of nearly every farmer in the county, who use the results of the station to correct such mistakes of field management as the experiment station discovers and points out. Wood county potatoes are of good quality this year and out of danger as far as frost is concerned.

Sauk County.

Sauk county has been a regular exhibitor at the state fair and in 1914 won first honors and the cup. The exhibit this year was, as usual, high class, and, in the opinion of the judges, a close contender for first honors. Albert Wichern, of Baraboo, was the chairman of the committee. He was assisted by Henry Eschenbach, of North Freedom, and G. W. Davies, county superintendent of schools. Sauk county is especially strong in fruits, but also showed excellent specimens of grasses, grains, potatoes and vegetables. Sauk county is also beginning to raise prize corn. Beef and dairying are fairly well divided, with dairying gaining perhaps somewhat more rapidly than beef.

Ozaukee County.

The Ozaukee exhibit, adjudged the fifth best, was in charge of William Nero & Son, of Cedarburg. A particularly good exhibit of vegetables and grasses, including all varieties of clover, was a feature of this booth. Nearly every agricultural product of the county was displayed with the exception of the different grape varieties. The grain samples were very good. Ozaukee county is also going into dairying more with each year, better dairy stock replacing the scrub cattle as fast as this can be done without excessive strain upon the finances of the county's husbandmen.

Langlade County.

L. Freiburger, Max Swoboda, county agent; Will Wagner and George Marshall, all of Antigo, comprised the committee to represent Langlade county. They took good care of the county's interests, arranging a very creditable exhibit of the agricultural products. Langlade county people insist that they can raise nearly all crops on their soil with as much success as any other section. Though there is only a small per cent of the county under cultivation as yet, settlers are coming in steadily. Numerous creameries and cheese factories located in various parts of the county are an indication that dairying is on the increase. Clovers and grasses grow naturally well on the soil and the county exhibit proved this. Especially large samples of all varieties of the clovers attracted the attention of the passers by. Potatoes, vegetables and small grain were also of good quality.

Chippewa County.

Chippewa county had an exhibit under the care of W. E. Christiansen, of Chippewa Falls, and George Hipke, of Stanley. It was a good exhibit especially strong in potatoes and the grains. Oats were heavy this year and the samples in the Chippewa booth were evidence that the heads had

(Continued on page 24.)

Miss the Big Red Apples This Year.

Horticultural Department.—N. A. Rasmussen, Oshkosh, superintendent. Judges, J. G. Moore and L. G. Kellogg.

THE big red apple was missing at the 1917 Wisconsin State Fair. When Mr. Frederic Cranefield, secretary of the state horticultural society, discussed the subject of decoration of Horticultural Hall several weeks ago, he remarked that his exhibit would show a great deal of red. When the fruit was unpacked and set up for show it was discovered that the apples were not brilliantly colored as in former years. Apparently the slow season and the lack of sunshine at certain periods resulted in failure to color the fruit and give the exhibit the showy appearance that it has had in former years. But this was no fault of those in charge of the show. There was a splendid collection of fruits, flowers and garden stuff. Wisconsin has had a good year for small fruits and cherries and only the late apple crop has been a disappointment in quality. Following out its splendid campaign of conservation of the fruits of the state, the Wisconsin State Horticultural Society has urged careful selection of the apples raised, and, while a great many Wisconsin apples will not look as beautiful as the normal crop, they will serve well for food and fill their place in the food supply Wisconsin is furnishing to the nation this year. The year 1917 has been one of the greatest garden years in the history of the state—probably the greatest. Never before has so much good food from orchard and garden been canned, dried or otherwise preserved for the winter's use. Garden products have not run so much to the fancy stuff which would be suitable for exhibition at a state fair, as the good average run suitable for family table use. The orchards and gardens of the state will help supply the food shortage, and farmers as well as people in the towns and villages, have had a lesson in the value of small fruits and gardens which will stay with them for years to come. Wisconsin should have more fruit. No state in an average year can raise finer apples. While dairying with one cow to the acre, as pointed out by Secretary Cranefield, may net $100 an acre, and wheat may be depended upon to net $50 an acre a year, apples with 75 trees to the acre, assuming the trees are properly selected and properly cared for, may easily net $500 an acre. Cherries can be depended upon to produce $300 to $600 an acre each year. Small fruit will pay well and there should be more of it in Wisconsin. Wisconsin is third in the Union in the production of cranberries, and a display of berries was shown at the fair as usual.

A few of the horticultural department awards follow:

Best display of apples not to exceed twenty varieties—1st A. K. Bassett, Baraboo; 2d Amo Meyer, Cascade; 3d J. H. Cooper, West Allis; 4th William Toole & Son, Baraboo; 5th Great Northern Nursery Co., Baraboo; 6th D. E. Bingham, Sturgeon Bay.

On best display confined to ten and five varieties, Bassett, of Baraboo, also won first. S. M. Roney, of Baraboo, won third on best display of ten varieties, and G. H. Townsend, of Madison, sixth. Townsend won third on best display of five varieties and William Toole & Son, of Baraboo, won fourth on this same classification.

The best plate of Ben Davis apples was shown by William Toole & Son, of Baraboo. Other firsts on plate displays were as follows, the list not including all, but those which had been judged when this was written:

Best plate of Alexander, A. K. Bassett, Baraboo.

Best plate Beautiful Arcade, D. E. Bingham, Sturgeon Bay.

Best plate Delicious, Balgheim Bros., Twin Bluffs.

Best plate Dudleys, J. E. Hauser, La Crosse.

Best plate Fameuse, T. T. Haack, Brookfield.

Best plate Gano, A. N. Kelley, Mineral Point.

Best plate Grimes Golden, Virgil J. Dawson, Franksville.

Best plate Golden Russet, A. K. Bassett, Baraboo.

Best plate Jonathan, A. K. Bassett, Baraboo.

Best plate Maiden's Blush, R. G. Dawson, Franksville.

Best plate McIntosh, A. K. Bassett, Baraboo.

Best peck Northewestern Greenings, A. K. Bassett, Baraboo.

Best peck Plum Cider, A. K. Bassett, Baraboo.

Best peck Wealthy, Great Northern Nursery Co., Baraboo.

Best barrel Duchess, A. K. Bassett, Baraboo.

The display of other fruits was up to the average and in some departments better than usual. In competition for the best collection of pears, W. J. Moyle, of Union Grove, won first; R. G. Dawson, of Franksville, second, and John H. Cooper, of West Allis, third. William Toole & Son, Baraboo, had the best collection of plums. In competition for the best collection of grapes, not to exceed fifteen varieties, John Reis, of Twin Bluffs, won first; A. K. Bassett, of Baraboo, second, and Balgheim Bros., of Twin Bluffs, third.

The following is the list of Wisconsin exhibitors in the fruit section of the horticultural exhibit:

Arpin Cranberry Co., Grand Rapids; Balgheim Bros., Twin Bluffs; D. E. Bingham, Sturgeon Bay; Belle Lake Cranberry Co., Mather; Bennett Bros., Waterford; Bonnie View Cranberry Co., Tomah; A. K. Bassett, Baraboo; John H. Cooper, West Allis; R. G. Dawson, Franksville; Virgil J. Dawson, Franksville; Mrs. E. M. Goelzer, Oakwood; Great Northern Nursery Co., Baraboo; John F. Hauser, Bayfield; T. T. Haack, Brookfield; J. H. Hearding, Delafield; L. B. Irish, Baraboo; J. J. Ihrig, Oshkosh; A. N. Kelley, Mineral Point; J. F. Lyon, Elkhorn; Amo Meyer, Cascade; W. J. Moyle, Union Grove; O. O. Potter, Warren; Palmeter & Turtle, Valley Junction; Melvin O. Potter, Grand Rapids; John Reis, Twin Bluffs; S. M. Rooney, Baraboo; Mrs. C. E. Strong, West Allis; William Toole & Son, Baraboo; G. H. Townsend, Madison; Chelcie Treet, Valley Junction; A. F. White, Brookfield; S. N. Whittlesley, Cranmoor; H. J. Zilmer, Pewaukee.

N. A. Rasmussen, of Oshkosh, was superintendent of the horticultural exhibit and his work in this particular was very satisfactory. Mr. Rasmussen is an experienced fruit grower, whose articles in The Wisconsin Farmer have made him well known to the readers of this paper.

The Grain Show at Wisconsin Fair.

THERE were "new faces," figuratively speaking, among the premium winners on agricultural products, including grains and potatoes, at the Wisconsin State Fair. A few of the old winners were represented, but they did not succeed in "cleaning the platter," as they have so frequently done in former years. The new situation augurs well for the success of the fair—not but what the men who took so large a per cent of the premiums in former days deserved all they got, but a wider distribution of blue and red ribbons indicates that the state is adding to its honor roll of good corn, wheat, rye, oats and potato growers.

The oats crop, winter and spring wheat, and rye and barley, were all good this year, with abundant yields in practically every corner of the state and excellent quality of grain. Samples of wheat, especially the prize-winning sample of white winter wheat, shown by A. Selle, of Thiensville, Wisconsin, we believe as good a peck of wheat as was ever exhibited at the state fair. Other small grain samples were also excellent. There was practically no showing of 1917 corn, owing to the late season, though St. Croix county, well up toward the northern part of the state, showed some this year's corn. St. Croix county, and Dane county, the crop experts and weather men tell us, have about the same length of growing season, and St. Croix county is as well adapted to corn as many of the counties farther south. The prizes offered on corn, except for corn on the stalk as noted, cover selections from the 1916 crop, and the awards were as follows:

Best 50 ears Wisconsin No. 7, Silver King—1st Otto Wolf, La Crosse; 2d Robert Ward, Fort Atkinson; 3d H. J. Block, Burlington; 4th A. N. Kelly, Mineral Point.

Best 50 ears Golden Glow, Wisconsin No. 12—1st R. H. Lang, Jefferson; 2d J. Weilinga, La Crosse; 3d E. J. Leibenthal, West Allis; 4th J. Van Loon, La Crosse.

Best 50 ears No. 8, early yellow dent—1st H. J. Block, Burlington; 2d Robert Ward, Fort Atkinson; 3d J. A. Haas, Ellison Bay; 4th F. J. Lindley, Fox Lake.

Best 10 ears Golden Glow, W. Weilinga, Galesville.

Best 10 ears No. 8, Noyes Raessler, Beloit.

Best 10 ears Silver King, H. Brewer, Hudson.

Best 10 ears Murdock's Dent, J. Weilinga, Midway.

Best Corn on Stalk (1916)—No. 8, F. J. Lindley, Fox Lake; No. 12, J. Weilinga, Midway; No. 7, F. J. Lindley, Fox Lake.

Best peck white winter wheat, A. Selle, Thiensville.

Best peck red winter wheat, A. O. Popp, Jefferson.

Best peck spring wheat, Bennett Bros., Waterford.

Best peck pedigree rye, A. O. Popp, Jefferson.

Best peck pedigree No. 1 oats, H. E. Krueger, Beaver Dam.

Best peck oats, any other variety, H. E. Krueger, Beaver Dam.

Best peck oats, No. 5 pedigreed, H. N. Whitehead, Rockland.

Best peck Kherson, J. L. Krause, Beaver Dam.

Best peck barley, Anton Bohl, Beaver Dam.

In the potato division new names and new prize winners were the general rule and not the exception. Upper Wisconsin for the first time took practically all the prizes and the showing of potatoes was the best, though small, that has ever been seen at the state fair. The best peck exhibits of potatoes of the several standard varieties were as follows:

Rural New Yorker, J. A. Haas, Ellison Bay.

Green Mountain, J. H. Hauser, Bayfield.

Triumph, Herman Schoenick, Enterprise.

Burbank, Mrs. Charles Parsons, Antigo.

Early Ohio, L. S. Jacobson, Mole Lake, Forest county.

Early Rose, Herman Schoenick, Enterprise.

Irish Cobbler, Fred S. Campbell, Three Lakes.

The Machinery and Tractor Show.

MACHINERY HALL" was back in form again this year at the Wisconsin State Fair and this very important feature of any agricultural exposition bids fair to again have its just share of attention. The list of exhibitors was larger than usual this year, considerably larger than last year, and the demonstrations of power machinery added a great deal to the interest of the show. The tractor show put on in connection with the machinery department of the fair was a success, though Thursday, the day when a special program was arranged for, was wet and rainy and the crowd of farmers was disappointing. Only the smaller tractors pulling two bottoms were demonstrated at Milwaukee. The tracts plowed were small and did not permit of as good work as the tractor really can do. That there is a great deal of interest among farmers in power farming was shown by the fact that several thousand on Wednesday followed the tractors some distance from the ground, and remained until the plowing exhibition had been completed. Twenty-eight companies had tractors entered in the demonstration. This demonstration, however, was not under the auspices of the National Implement and Vehicle Dealers' Association, as was the demonstration held at Fremont this year and at Madison last year. For that reason a large number of the leading makes of tractors were not included in the demonstrations at Milwaukee. Mr. C. I. Griffith, of Madison, assistant to Frank White, of the engineering division, Wisconsin College of Agriculture, was superintendent of the demonstrations. Many gardeners and truck farmers living within twenty or twenty-five miles of Milwaukee, were interested in the demonstration of garden tractors.

It is important today to make a careful study of farm machinery and to enlist the help of such tools and implements as will mean a saving of labor.

> FARMERS
> Visit the Demonstration of
> TRACTORS
> and
> MILKING MACHINES
> These Machines Save Man Power and
> KEEP MEN ON THE FARMS
> State Council of Defense

Placards posted about the grounds read as in the accompanying panel.

The placard expresses the sentiment of Wisconsin farmers who are more than ever at this time anxious to make every possible use of machinery and equipment to help them in their farm work. No one advises a wholesale buying of machinery for every farm, but it is highly advisable that each farmer consult his individual needs and equip his farm or dairy with such machinery and tools as will add to his production and profits. The following is the list of machinery and tractor exhibitors at the 1917 Wisconsin State Fair:

Asmuth & Davis, Evansville, Wis.; E. E. Heath, Madison, Wis.; Louis Kirsch, Antigo, Wis.; Sieverkropp Engine Co., Racine, Wis.; G. M. Watters Mfg. Works, Minneapolis, Minn.; Keystone Lubricating Co., Chicago, Ill.; Oliver Chilled Plow Works, Milwaukee, Wis.; Badger Light Machine, Platteville, Wis.; D. J. Carpenter, Milwaukee, Wis.; Safety Spark Set Co., Elkhorn, Wis.; Highway Trailer Co., Edgerton, Wis.; A. F. Klingman Mfg. Co., New Holstein, Wis.; P. J. Downes Co., Minneapolis; Beeman Tractor Co., Minneapolis, Minn.; Milwaukee Trailer Co., Milwaukee Wis.; Whitesel Automatic Wire Stretcher Co., Omaha, Neb.; John Gallagher Co., Madison, Wis.; Salisbury Mfg. Co., Milwaukee, Wis.; Hirsch Bros. & S. L. Allen Co., Madison, Wis.; Madison Tent & Awning Co., Madison, Wis.; Schmidt & Stork Wagon Co., West Bend, Wis.; Dane Manufacturing Co., Dane, Wis.; A. C. Wolf, care New Idea, Waukesha, Wis.; Farmers Barn Equipment Co., Two Rivers, Wis.; Rassmann Mfg. Co., Beaver Dam, Wis.; Atlas Engineering Co., Milwaukee, Wis.; Milan Northrop, Beloit, Wis.; Anderson Vehicle Co., Fond du Lac, Wis.; Western Steel & Iron Works, De Pere, Wis.; Bergland Concrete Mixer Co., Deerfield, Wis.; Eagle Manufacturing Co., Appleton, Wis.; Wisconsin Tractor Co., Stevens Point, Wis.; P. P. Brueckbauer, Bloomington, Ill.; The Auto Utilizer Co., Burlington, Wis.; John G. Kelley, Waukesha, Wis.; Regal Oil-Gas Burner Co., Milwaukee, Wis.; Louden Machinery Co., Fairfield, Ia.; Whirlwind Concrete Mixer Co., La Crosse, Wis.; Smith Form-A-Tractor Co., Chicago, Ill.; The Avery Co., Madison, Wis.; Cyclone Fence Co., Waukegan, Ill.; Trenam

Tractor Co., Milwaukee, Wis.; The John Lauson Mfg. Co., New Holstein, Wis.; Bean Spray Pump Co., Lansing, Mich.; Lawrence Auto Power Co., St. Paul, Minn.; Monarch Tractor Co., Watertown, Wis.; Moline Plow Co., Moline, Ill.; Rock Island Plow Co., Rock Island, Ill.; McFarland & Westmont Tractor Co., Sauk City, Wis.; Fairbanks Morse Co., Milwaukee, Wis.; G. H. Poor, Milwaukee, Wis.; Swartz Electric Co., Indianapolis, Ind.; Western Electric Co., Chicago, Ill.; Reineman Hardware Co., Burlington, Wis.; J. I. Case Threshing Machine Co., Madison, Wis.; Wood Tire Silo Co., Sheboygan Falls, Wis.; The Tures Mfg. Co., Milwaukee, Wis.; Official Mfg. Co., La Crosse, Wis.; J. P. Stanton, Waukesha, Wis.; Lindsay Bros., Milwaukee, Wis.; International Harvester Co., Milwaukee, Wis.; Wills Mfg. Co., Mendota, Ill.; James Mfg. Co., Fort Atkinson, Wis.; E. F. Elmberg Co., Parkersburg, Ia.; Mullins Mfg. Co., Brillion, Wis.; Wisconsin Stable Equipment Co., Oconomowoc, Wis.; H. M. Hardgrave, Madison, Wis.; Hercules Gas Engine Co., Evansville, Ind.; J. G. Steward, Milwaukee, Wis.; J. Dorsch & Sons, Milwaukee, Wis.; Humane Stanchion Works, Baraboo, Wis.; King Ventilating Co., Owatonna, Minn.; The I. B. Rowell Co., Waukesha, Wis.; Walsh Harness Co., Milwaukee, Wis.; Western Silo Co., Des Moines, Ia.; Evinrude Motor Co., Milwaukee, Wis.; Lauson-Lawton Co., De Pere, Wis.; S. Freeman & Sons Mfg. Co., Racine, Wis.; Mitchell Mfg. Co., Milwaukee, Wis.; Milwaukee, Reliance Boiler Works, Milwaukee, Wis.; Milwaukee Air Power Pump Co., Milwaukee, Wis.; Clemens & Gingrich Co., Grand Rapids, Mich.; Dallman & Cooper Supply Co., Fond du Lac, Wis.; Buckeye Traction Ditcher Co., Milwaukee, Wis.; Drew Carrier Co., Waterloo, Wis.; Western Utilities Co., Milwaukee, Wis.; Johnson & Field Mfg. Co., Racine, Wis.; Sheldon Mfg. Co., Nehawka, Neb.; Gehl Bros. Mfg. Co., West Bend, Wis.; Turner Mfg. Co., Port Washington, Wis.; Sandwich Mfg. Co., Sandwich, Ill.; Appleton Mfg. Co., Batavia, Ill.; Walter Cool, Distributor, Chicago, Ill.; Rosenthal Corn Husker Co., Milwaukee, Wis.; National Fire Proofing Co., Chicago, Ill.; Whitewater Brick & Tile Co., Whitewater, Wis.

Wasted Effort in Dairying.

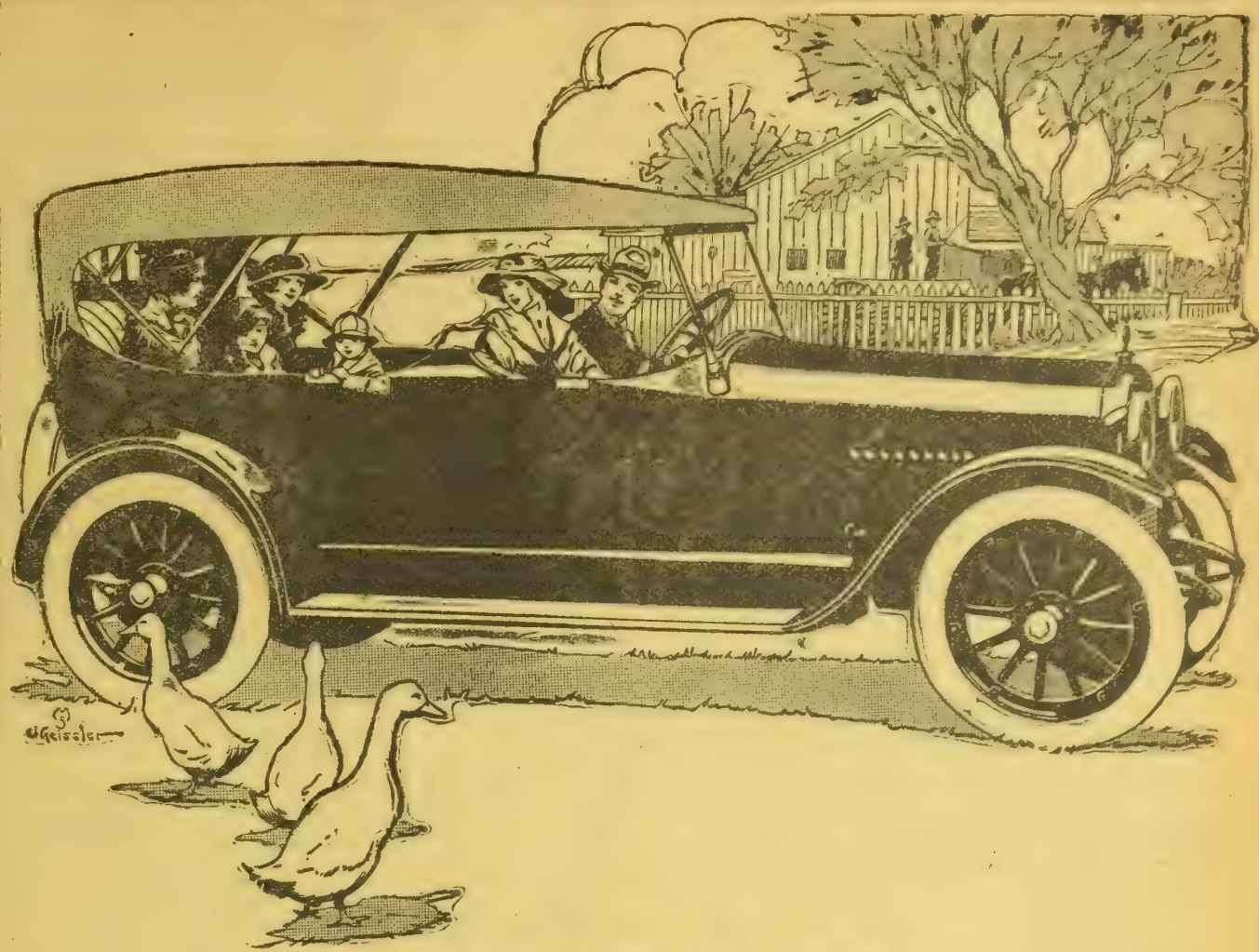
In this time of stress and hurry it might pay well if darymen could stop and take a good, square look at themselves. In so doing each might for the time being consider himself to be a temporary receiver or efficiency expert for his own particular farm and business and for the dairy business in general. This latter is suggested because it is through united effort that greatest progress must come.

The circumstances that prompts this suggestion was the observation that four milk delivery wagons passed the writer's home in ten minutes one morning and doubtless do so every morning. It is also probable that other dairymen make daily deliveries, because not half the homes within the block were supplied by the four wagons mentioned above. On those four wagons were four men and a boy. Big, strong men were doing the work of driving the delivery horse or were carrying the pint milk bottles to the kitchen door and returning with light milk bottles.

Surely if dairymen could observe that condition as did the writer they would set about for a remedy. One thing observed which might lead to a possible remedy was that every customer gave tickets in return for milk or cream. Since that was the case and since every ticket has been purchased and paid for in advance it is obvious that some centralized delivery system could be devised. Certainly there is no competition gained in each dairyman having his own wagon. It is the satisfaction given by the milk in the home that constitutes the real competition. A central depot at which each retailer may deliver his milk each morning to be taken out by the one cooperatively hired delivery man would doubtless cheapen the product to the consumer and increase the profit to the retailer.

Circumstances of prices for milk and wages paid to labor are going to force many changes. It is highly probable that in case united delivery systems cannot be arranged that cheaper help can be used on the wagon. Young boys are being constantly given greater responsibilities than are required to deliver milk and to collect tickets. Girls have proven efficient and take delight in doing this work. Milk delivery methods constitutes one of the big leaks in the business through which money is wasted for the producer and for the retailer. Dairymen who will make effort to stop this waste will doubtless increase their profits. In this they deserve the best coöperation the public can give.

Ask your neighbor to subscribe for The Wisconsin Farmer.



PAIGE

The Most Beautiful Car in America

The Final Test of Quality

IT IS a matter of record in fifteen of the principal cities that Paige used cars bring a higher price—proportionate to first cost—than any other American automobiles.

And here, after all is said and done, is the final test of quality.

A used car has been "through the mill." Its motor and all of its working parts have been subjected to constant strain.

Its "finish" has been knocked off—*if it will come off at all.*

Its gears, its rear axle and its transmission have endured the punishment of day-in and day-out pounding. All of its weakness is plainly evident—and likewise its *strength.*

The used car either stands before you a broken down, dispirited "has been"—or a strong, robust champion of many battles—ready and eager for all the service that man can give it.

That, we repeat, is the final test of quality.

And in this test the Paige stands supreme. *After fifteen, twenty-five, thirty-five thousand miles of service, there is still enough GOODNESS left in a Paige to command the record price in used car markets.*

Frankly, now, is there anything that we could tell you about our product that would be more convincing? Could you have any better guarantee that a Paige is all that we claim it to be—all that you could possibly expect it to be?

As to the selection of a model, this is simply a matter of your own personal requirements.

In our line you will find a seven-passenger car, a five-passenger car and two roadsters. You, alone, can make a choice, but please remember that you can't make a *mistake.* For all of these models are Paiges—blood brothers of the same strain. That is the really important thing.

But don't lose any time. See your Paige Dealer today. Let him give you the kind of demonstration that will definitely settle your automobile problem, and place your order while we can still promise early deliveries.

Paige prices range from $1330 to $3230. There are sixteen distinct body styles including Limousines, Town Cars, Sedans and Coupes. No handsomer line of enclosed vehicles can be found on the market.

PAIGE-DETROIT MOTOR CAR COMPANY
207 McKinstry Avenue, Detroit, Michigan

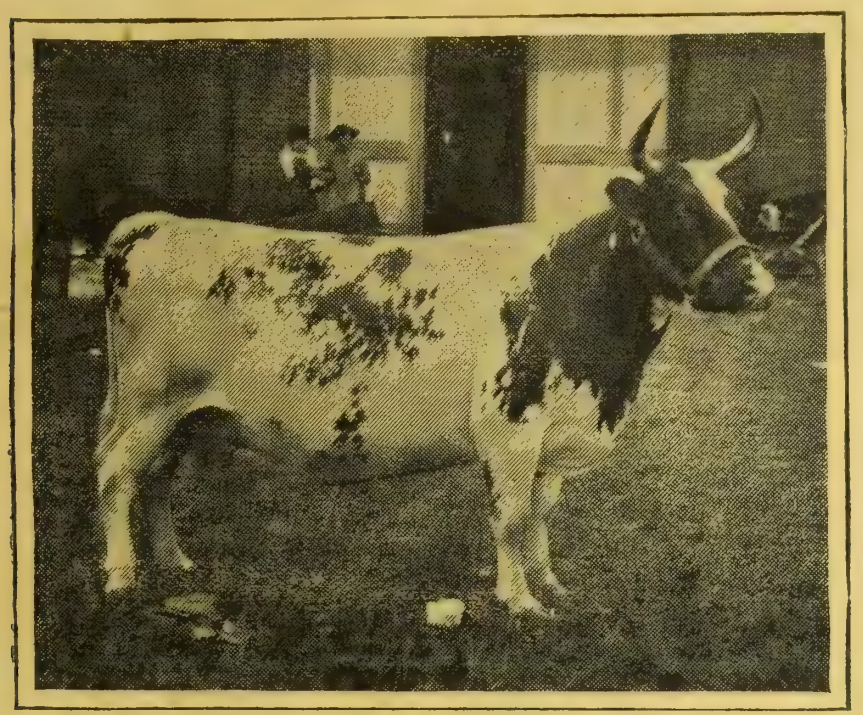
Winners at Wisconsin Fair.

1—Anoka Farms' grand champion Short-horn bull, Anoka Champion. 2—Hurdcroft's first-prize futurity winner, Sara Belle. 3—Martiny's senior champion Guernsey cow, Wahtawaso of Chippewa. 4—Lamb's champion Percheron stallion, Keota Idea. 5—Van Etta's grand champion Ayrshire bull, Bargenock Rising Star. 6—Harvest Farms' first-prize two-year-old Percheron mare, Jennette 1st. 7—Underwood's grand champion Jersey bull, Pennithorp's Raleigh. 8—Culver's grand champion Holstein cow, Springbrook Darkness. 9—Rust Bros.' first prize senior yearling Holstein bull, Sir Ida Lotta Hengerveld. 10—Inman's grand champion Brown Swiss cow, Sara May. 11—Robinson's grand champion Hereford bull, Maple's Lad 61st. 12—Goodhand Kingston's grand champion Guernsey cow, Raider's Butterwick of Muskego.

Wisconsin Fair Is Improved.

(Continued from page 1.)

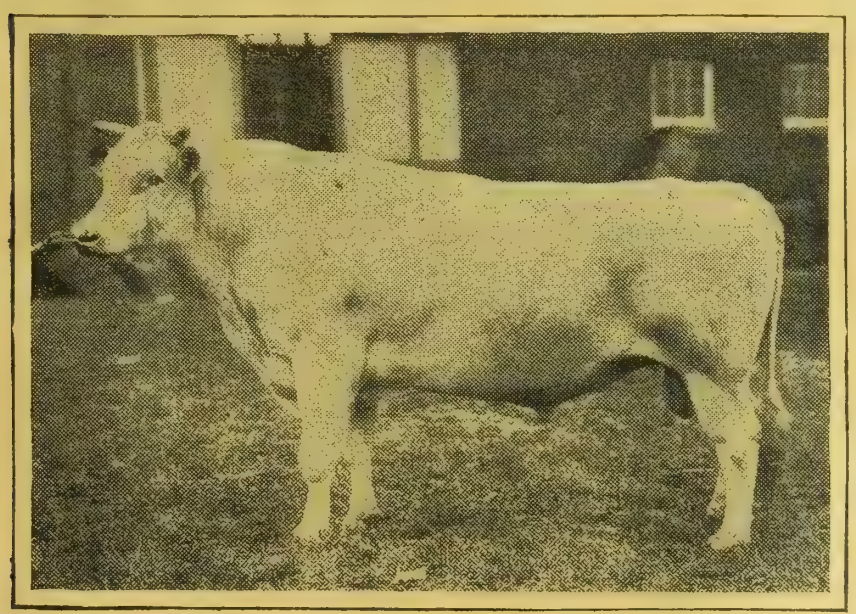
make such a showing of poultry, and this show alone in another year should attract thousaids of people annually to Milwaukee. Mr. C. W. Hackett is to be congratulated on the success of this show. The junior fair, comprising the work of boys and girls in the state, was well managed and the number and quality of exhibits showed wonderful progress. The work undertaken by Prof. T. L. Bewick has developed into a big thing for the state and for the boys and girls who are enlisted as competitors. A new meaning was placed on cow-testing work by the exhibit shown under the direction of Messrs. Searles and Negley, of the dairy and food department. The government and state are now both lending financial assistance to this work. The automobile show was an eye-opener. B. J. Ruddle, of Milwaukee, was superintendent. The educational exhibits under direction of Prof. G. W. Davies, of Sauk county, are worthy of more than passing mention. Mr. N. E. France, of Platteville, was present with his exhibits of bees and fine Badger honey, and it is difficult for us to estimate the good which Mr. France has been able to accomplish along this line through the annual exhibit at the state fair. N. A. Rasmussen, of Oshkosh, is a thorough and painstaking fruit grower and he makes a good superintendent of that department. J. A. Chinnook, of Hudson, was superintendent of machinery on the grounds, but Mr. A. W. Kalbus, connected with the Wisconsin Department of Agriculture, was largely responsible for the increased number of exhibits and the excellent management of the show. Amusements, as usual, were in charge of Mr. Thomas Saxe, of Milwaukee, one of the best-posted amusement men of the country and a superintendent who takes special interest in the Milwaukee fair because he lives in Milwaukee and wants to see the fair a success. The superintendents of live stock divisions, all of whom did excellent work, were as follows: Horses, W. K. Caldwell, of Morrisonville; sheep, Ira M. J. Chryst, of Hudson; cattle, H. W. Claflin, of Muskego; swine, James Dillon, Mondovi. Our old and trusted friend, Fred Marty, of Monroe, was in charge of the dairy products show and this is about "nuff said." Mr. O. E. Remey has made a good secretary, working tirelessly for the success of Wisconsin's fair.



SENIOR CHAMPION AYRSHIRE COW, OWNED BY FERNDELL FARMS, LADYSMITH, WIS.

DAIRY CATTLE.

Owing to the scarcity of competent labor, the high prices of food, and the general unrest manifest throughout the country, it is not surprising that the various dairy breeds were not as strongly represented as they are some years. It was rather more of a surprise to see so many breeders have nerve enough to come out under the existing circumstances. Enthusiasts of the various breeds should feel indebted to these men for the effort they have made to make the dairy show at the Wisconsin State Fair as creditable as it was. The Jersey men put up the best show, as there were four good herds represented. Most of the honors were keenly contested, which made the judging work of special interest to the spectators. To our way of thinking, a breed can get no better or more efficient advertising than to stage a top-notch, hotly contested show at the state fair where people from all over the state have an opportunity to meet and make breed comparisons. The Holstein exhibitors likewise put up a good show, as there were seven herds represented. A number of the classes brought forth some very high-class animals. Two full herds of Ayrshires represented the breed to good advantage and in some instances, the decisions were very close. The disappointment of the dairy show was the poor showing made by the Guernsey people. One could hardly realize why this should be ,when there are so many splendid Guernsey herds within a few miles of the fair grounds. Brown Swiss interests were represented by one herd, though not the well-known Ayers herd that has been at the Wisconsin State Fair for so many years.



SECOND-PRIZE HOLSTEIN BULL, SENATOR JOHANNA, OWNED BY KIRKPATRICK BROS., REEDSBURG, WIS.

Holstein-Friesians.—One of the foremost classes in the Holstein-Friesian show was the aged bulls. Sir Pietertje Ormsby Mercedes 14th, sired by E. C. Schroeder's famous herd bull, Sir Pietertje Ormsby Mercedes, and shown by Marlow & McCargar, was senior and grand champion bull. This animal was easily the outstanding animal of the show. Kirkpatrick's bull, Senator Johanna, that stood second was also a fine individual and bred by one of Wisconsin's leading breeders, P. H. Schafer. The dam of this bull has a seven-day record of 31.07 pounds butter and a semiofficial yearly record of 1,146.78 pounds butter. Rueben Klofonda had three prize aged bulls and first-prize bull two years and under three. Mr. Klofonda's two-year-old bull is an exceptionally handsome individual, the kind that would look good in any company. John G. Fisher took junior championship on Sir Fau de Hol, a beautiful senior calf. Mr. Fisher also took first prize in the three-year-old cow class and produce of one cow. Rust Bros. took second prize again with their splendid cow, Ida Lotta 5th. Unfortunately this animal has never been shown at the Wisconsin State Fair in her best condition. Last year she was milked down and this year she was dry. Nevertheless, she is a great cow and worthy of much more recognition than she has received. Rust Bros. took first in junior bull calf class, four cows in milk, and second in aged herd. Van der Schaaff took second in class four cows in milk, third in young herd and second in three-year-old cow class. V. S. Culver took more first prizes than any of the exhibitors and also had the grand championship cow, Springbrook Darkness. Culver took first prize in most of the group classes, as well as the female classes. His herd, indeed, made a very creditable showing.

Exhibitors—Rust Bros., West Allis, Wis.; Rueben Klofonda, Racine, Wis.; R. F. Weymouth & Son, Plainfield, Wis.; Chas. Van der Schaaf, Sparta, Wis.; V. S. Culver, Stillwater, Minn.; Kirkpatrick Bros., Reedsburg, Wis.; Marlow & McCargar, Mankato, Wis.; T. E. Anderson, Tunnell City, Wis.; John L. Fisher, Janesville, Wis.

Bull 3 years or over, 1st Marlow & McCargar on Sir Pietertje Ormsby Mercedes 14th, 2d Kirkpatrick Bros. on Senator Johanna White, 3d Klofanda on North Star Parthenea Sir Beets, 4th Van der Schaaf on North Star Cornucopia Sir Beets, 5th Weymouth & Son on Sir Korndyke Piebe Jewell, 6th

Tractor Tests

Conducted at Fremont, Neb.

July 26 to August 2, 1917, by the Agricultural Engineering Department of the University of Nebraska

Prof. L. W. Chase in Charge

A series of interesting tractor tests have just been made. Every farmer may now know facts.

The object of the experiments was to determine under actual farm conditions the amount of fuel required and the rate of doing various field operations, and to study the quality of the work done. Also the effect of different depths of plowing in the same field.

The tests were not of a competitive nature, but were made with the object in view of observing tractors in actual farm work so that all farmers might have actual figures.

The tests were made with Case tractors operating standard farm equipment, under the auspices of the Department of Agricultural Engineering of the University of Nebraska, directed by Prof. L. W. Chase, assisted by Prof. O. W. Sjogren, Mr. Louis Runnels and Mr. Ray W. Carpenter.

For Free Distribution

A bulletin has just been published covering twelve tests. This is the first authoritative statement of its kind.

It shows the equipment used, the kind of fields, the different operations. Of chief interest to all farmers is the fuel consumption and cost per acre. Much of this information has hitherto been speculative. Now it is down in black and white. It shows the advantages of Case tractors.

Some of the Data

Each test is complete. Different size tractors are used. Some tests are for plowing at different depths. Some are for spike-tooth harrowing and disking, drilling, etc.

Kerosene was used, and based on a cost of 8½ cents per gallon, the cost per acre for plowing under different conditions and depths is shown. These are exact figures—not estimates. The temperature was 100 degrees in the shade—but the heat, however, had no effect on the operation of the tractors in any way.

Send for Your Copy

This bulletin created a sensation at the Fremont Tractor Demonstration. All farmers have been waiting for conclusive figures. Case, the leader for 76 years in power farming, now sets a new pace. No farmer should fail to get this bulletin.

Copies are free. Merely send us your name and address, asking for "The Tractor Tests Bulletin," and a copy will be forwarded at once—without charge. The first edition is just off the press. So don't delay—write today.

J. I. Case Threshing Machine Company, Inc.
FOUNDED 1842
631 Erie Street, Racine, Wis.

CASE

Do You Know What Sunshine Means To Your Pigs

Direct sunshine on the pen floors is absolutely necessary if you want to save Winter pigs. It kills germs—warms and dries the air—brings life, health, strength to pigs. It SAVES AND MAKES MONEY FOR YOU. CHIEF SUNSHINE HOG HOUSE WINDOWS are used by thousands of hog raisers—investigate.

FREE—New Swine Record and 4 Blue Prints—Write for our gift—complete new system for Swine Records—convenient, satisfactory. Also 4 FREE plans of most modern improved hog houses.

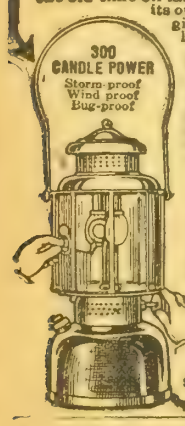
CHIEF SUNSHINE HOG HOUSE WINDOWS

The most valuable feature of modern hog house equipment. Roof windows that INSURE sunshine on the pigs in Winter. Most serviceable and satisfactory windows made—recommended by veterinarians and thousands of practical hog men. Made of steel for PERMANENT service. Can't rot, rust or wear out. Cannot leak. Storm-proof. Never need repairs or paint. Outlast wooden windows 3 to 1—cost no more. Easy to install in old or new hog houses.

SHRAUGER & JOHNSON
300 Walnut St. Atlantic, Iowa

A Match-Lighting Gasoline Lantern!

No torch needed. Lights with a match like the old time oil lantern but makes and burns its own gas from common gasoline, giving a brilliant, steady, white light of 300 candle power.



Most Brilliant Light Made

Brighter than the brightest electric bulb. More light than 20 oil lanterns. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lantern. The

Coleman Quick-Lite

No wicks to trim—No globes to wash. No dirt or grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger if tipped over in straw. **Guaranteed Five Years**—will last a lifetime.

If your dealer can't supply, address our nearest office for Catalog No. 28

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TOWER'S FISH BRAND REFLEX SLICKER

Waterproof Absolutely.

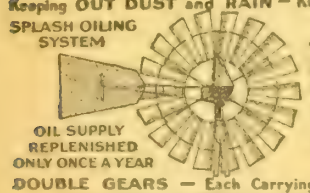
It's loose fit and "good feel" put you at ease on any job that turns up.

SATISFACTION GUARANTEED

A. J. TOWER CO. BOSTON.

TOWER'S FISH BRAND

SELF-OILING WINDMILL
With INCLOSED MOTOR
Keeping OUT DUST and RAIN—Keeping IN OIL



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Every feature desirable in a windmill in the AUTO-OILED AERMOTOR
Gasoline Engines — Pumps — Tanks
Water Supply Goods — Steel Frame Saws
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ANYONE HAVING INFORMATION that will lead to the whereabouts of Samuel Johnson, 17 years old, blue eyes, light hair, about 5 feet, 8 inches, tall, who left Madison about three weeks ago, will receive a reward by notifying R. Johnson, 1213 Madison St., Eau Claire, Wis.

Rust Bros. on Portage Pauline King, 7th Culver on Peibe Laura Ollie Homestead King, 8th Rust Bros. on Johanna Pontiac De Kol; 2 years and under 3, 1st Klofanda, 2d Far Oaks Sir Ormsby Johanna; senior yearling, 1st Rust Bros. on Sir Ida Lotta Hengerveld, 2d Anderson on North Star Lady Vera Beets; junior yearling, 1st Fisher on King Segis Pontiac Isaac; senior calf, 1st Fisher on Sir Fan De Kol, 2d Anderson, 3d Van der Schaaf, 4th Rust Bros. on Sir Aaltje Salo Mechthilde Johanna, 5th Rust Bros. on Sir Inka De Kol Liemokge, 6th Culver on Far Oaks Sir Star Ormsby, 7th Kirkpatrick Bros. on King 8 Pontiac Ormsby; junior calf, 1st Rust Bros. on Sir Aaltje De Kol Pontiac, 2d Klofanda on Racine Piebe, 3d and 4th Culver on Far Oaks Sir Ormsby Champion and Far Oaks Sir Violet Ormsby, 5th Kirkpatrick Bros. on Sir Aaggie Pontiac Korndyke, 6th Fisher on Sir Korndyke Segis,

Cow 4 years or over, 1st Culver on Springbrook Darkness, 2d Rust Bros. on Ida Lotta 5th, 3d Klofanda on Colantha Piebe of Elm Court, 4th Dr. Loyal Klofanda on Yeslet De Kol of Riverside, 5th Kirkpatrick Bros. on Helena of Wayside, 6th Rust Bros. on Ida Lotta Hengerveld, 7th Van der Schaaf on Korn Canary Kishie De Kol; 3 years and under 4, 1st Fisher on Tyranea American Ivy, 2d and 3d Van der Schaaf on Dido Enterprise Segis and Queen of Enterprise Stock Farm; 2 years and under 3, 1st and 2d Culver on Far Oaks Ideal Ormsby and Southside Inka De Kol 2d, 3d Rust Bros on Altje Salo Netherland Hengerveld, 4th Van der Schaaf on Queen Segis Canary, 5th and 6th Kirkpatrick Bros. on Korndyke Pontiac Nell and De Kol Pontiac Grace Fayme, 7th Fisher on Pledge De Kol Fisher; senior yearling, 1st Culver on Far Oaks Skylark Ormsby, 2d Fisher on Bessie Pietertje Fisher, 3d and 4th Van der Schaaf on Enterprise Segis Dido and Queen Segis Enterprise, 5th Kirkpatrick Bros. on Clover Pontiac Ormsby, 6th Rust Bros. on Altje Salo Rosella May 2d; junior yearling, 1st Culver on Far Oaks Lily Ormsby, 2d Fisher on Pansy Fan Careme, 3d Culver on Far Oaks Harriet Ormsby, 4th Kirkpatrick Bros. on Dairy Dats Ormsby, 5th Rust Bros. on Altje Salo Netherland Pontiac 3d; senior calf, 1st Culver on Far Oaks Miss Ormsby Rue, 2d Fisher on Johanna Fan Fisher, 3d Culver on Far Oaks Parthenea Ormsby, 4th Fisher on Valdiva Fan Ormsby, 5th Kirkpatrick Bros. on Jewel Maid Johanna, 6th Van der Schaaf; junior calf, 1st and 2d Culver on Pelagie Wayne Rag Apple King and Far Oaks Pauline Ormsby, 3d and 4th Fisher on Juliana Pietertje Fisher and Juliana Pietje Fisher, 5th Culver on Far Oaks Mandlene Ormsby, 6th Rust Bros. on Altje Salo Mechthilde Johanna.

Senior and grand champion bull, Marlow & McCargar on Sir Pietertje Ormsby Mercedes 14th; junior champion bull, Fisher on Sir Fan De Kol; senior and grand champion cow, Culver on Springbrook Darkness; junior champion cow, Culver on Far Oaks Skylark Ormsby; get of sire, 1st Culver, 2d Fisher, 3d Rust Bros., 4th Van der Schaaf; produce of cow, 1st Fisher, 2d Klofanda, 3d Culver, 4th Rust Bros., 5th Van der Schaaf, 6th Kirkpatrick Bros.; aged herd, 1st Culver, 2d Rust Bros., 3d Kirkpatrick Bros., 4th Van der Schaaf; young herd, 1st Culver, 2d Fisher, 3d Van der Schaaf, 4th Rust Bros., 5th Kirkpatrick Bros.; 4 cows in milk, all owned by exhibitor, 1st Rust Bros., 2d Van der Schaaf, 3d Fisher.

Jerseys.—The senior and grand champion bull was Pennithorp's Raleigh, shown by F. B. Underwood. This bull is a well-known animal in the Jersey world and has stood at the head of H. W. Claflin's herd, Muskego, Wis., for several years. He is a bull possessing remarkable capacity and general dairy temperament and has to his credit many outstanding sons throughout the state. W. H. Dixon & Sons took junior and grand championship female honors on Oxford May Maid, a junior yearling of exceptional style and finish. Chas. A. Peterson took first on heifer two years and under three with Glory's Pearline. She was unquestionably one of the nicest females of the show. The aged cow honors went to W. M. Knight, a young breeder, who has been developing a splendid herd. His first-prize aged cow was Combination Golden Lady, a cow of good size, one that bears the external indications of a producer. First honors in the aged herd and four cows in milk classes went to F. B. Underwood. The Jersey breeders were the only ones to award premiums for cows possessing official records. This shows they are anxious to encourage breeding of animals possessing both type and production.

Exhibitors.—W. H. Dixon & Sons, Brandon, Wis.; F. B. Underwood, Wauwatosa, Wis.; W. M. Knight, Eagle, Wis.; Chas. A. Peterson, Rosendale, Wis.

Bull 3 years or over, 1st Underwood on Pennithorp's Raleigh, 2d Knight on Noble's Fenwick, 3d Dixon & Sons on Sultana's Oxford Rosette; 2 years and under 3, 1st Peterson on Ibsen's Chief, 2d Knight on Treal's Noble of Oakland; senior yearling, 1st Dixon & Sons on King's Oxford Maid, 2d Peterson on Marguerite's Jolly King; junior yearling, 1st Underwood on Frederic's Lord of Fewacres, 2d Knight; senior calf, 1st Dixon & Son on Gaumlet's Oxford Togo, 2d and 3d Peterson on Sultan's Noble Oxford and Chief Beauvoir, 4th Underwood on Fewacres Alonzo, 5th Underwood, 6th Underwood on Few Acres Bill Bradley; junior calf, 1st Knight, 2d Peterson on Western King's Glory Lad, 3d Dixon & Son on Oxford Una's Togo.

Cow 4 years or over, 1st Knight on Combination Golden Lady, 2d and 3d Underwood on Distinction Oxford Bell and Financial Leah, 4th Dixon & Son on Oxford Una's Lass; 3 years and under 4, 1st Underwood on Financial Quadale, 2d Underwood on Noble's Financial Meg, 3d Peterson on Ibsen's Pearl, 4th Knight on The King's Son's Girlie; 2 years and under 3, 1st Peterson on Glory's Pearline, 2d Underwood on Noble's Hephyibah, 3d Dixon & Son on Cowslip's Brightness, 4th Underwood on Lynnewood Marjorie, 5th Knight on Oxford's Queenie Princess; senior yearling, 1st Knight on Eminents Gafly Belle 2d, 2d Dixon & Son on Oxford Togo Beauty, 3d Peterson on Oxford's Glory Laverne; junior yearling, 1st Dixon & Son on Oxford May Maid, 2d Peterson on Glory's Oxford Belle, 3d Underwood on Frederic's Lady Marjorie, 4th Dixon & Son on Oxford May Maid, 5th Knight on Volunteer's Lotty 2d; senior calf, 1st Dixon & Son on Conliss May Oxford, 2d Underwood on Fewacres Lady Maude, 3d and 4th Peterson on Chief's Glory Laverne and Trimy's Oxford Togo, 5th Dixon & Son on Oxford Togo Jolly, 6th Underwood on Fewacres Lady Lucretian; junior calf, 1st Knight on May of Oak Grove 2d, 2d Peterson on Harbinger Belle, 3d Dixon & Son on May Oxford Majesty, 4th Knight on Trial's Massey's Princess.

Senior and grand champion bull, Underwood on Pennithorp's Raleigh; junior champion bull, Dixon & Son on Gaumlet's Oxford Togo; senior champion cow, Peterson on Glory's Pearline; junior and grand champion cow, Dixon & Son on Oxford May Maid; get of sire, 1st Dixon & Son, 2d Knight, 3d Peterson; produce of dam, 1st Dixon & Son, 2d Peterson; aged herd, 1st Underwood, 2d Peterson, 3d Knight, 4th Dixon & Son; young herd, 1st Dixon & Son; four cows in milk, all owned by exhibitor, 1st Underwood.

Jersey Specials, Cows having register of merit record for one year, under 4 years, 1st Knight on The King's Son's Girlie; 4 years or over, Dixon & Son on Distinction's Oxford Belle; get of sire, 1st Dixon & Son, 2d Knight; breeder's young herd, 1st Dixon & Son; exhibitor's herd, 1st Underwood, 2d Peterson, 3d Knight, 4th Dixon & Son; produce of cow, 1st Dixon & Son, 2d Peterson; grand champion female, exhibited by her owner, who must have been her owner for 1 year or over, Dixon & Son.

Guernseys.—Exhibitors: Goodhand Kingston, Muskego, Wis.; L. P. Martiny, Chippewa Falls, Wis.; Hill, Welles & Lawson, Rosendale, Wis. The Guernsey show was a disappointment, as none of the old show herds of the state were represented. The burden of representing the breed fell upon a couple of comparatively recent beginners. May King Vrangue of Ingleside was senior and grand champion bull, now owned by Hill, Welles & Lawson. Martiny exhibited the junior championship bull, senior champion cow and most of the first-prize animals in the female classes. Kingston, however, took the grand championship female honors with Raider's Butterwitch of Muskego. He also took first in young herd.

Bull 3 year or over, 1st Hill, Welles & Lawson on May King Vrangue of Ingleside, 2d Martiny on Captain Cedric, 3d Kingston on Moss Raider of Muskego; 2 years and under 3, 1st Martiny on Dairydette; senior calf, 1st Martiny on Begonia's Masher of Chippewa, 2d Kingston on Moss Raider Prince of Muskego, junior calf, 1st and 2d Martiny on Stranford Gold of Chippewa and Wahtawaso's Stranford, 3d Kingston on Moss Raider's Conqueror of Muskego, 4th Martiny on Verona's Dasher of Chippewa.

Cow 4 years or over, 1st Martiny on Wahtawso of Chippewa, 2d Kingston on Imp. Chywoone Erica; 3 years and under 4, 1st Martiny on Jeanie of Chippewa Falls; 2 years and under 3, 1st Martiny on Stranford's Verona of Chippewa; senior yearling, 1st Kingston on Raider's Butterwitch of Muskego, 2d Kingston on Raider's Irene of Muskego; junior yearling, 1st Martiny on Hiawatha of Chippewa; senior calf, 1st Martiny on Stranford's Buttermaid of Chippewa, 2d and 3d Kingston on Raider's Surprise of Muskego and Raider's Minnie of Muskego; junior calf, Delbert Fox, 2d Martiny on Stranford's Valley City of Chippewa.

Senior and grand champion bull, Hill, Welles & Lawson on May King Vrangue of Ingleside; junior champion bull, Martiny on Stranford's Gold of Chippewa; senior champion cow, Martiny on Wahtawso of Chippewa; junior and grand champion cow, Kingston on Raider's Butterwitch of Muskego; produce of cow, 1st Martiny, 2d Kingston; aged herd, 1st Martiny; young herd, 1st Kingston, 2d Martiny.

Ayrshires.—Exhibitors: James Van Etta, Lima Center, Wis., and Ferndell Farms, Ladysmith, Wis. These two herds made a good showing for the breed, with James Van Etta getting a little the better of the argument. The most striking animal of Van Etta herd were Bargenoch Rising Star, senior and grand champion bull, that was shown by Adam Seitz last year, Madison of Cloverdale, a particularly handsome calf and Cloverdale's Cavalier, junior and grand champion female. In the Ferndell herd the most attractive animals were May of Hillcoft, senior champion cow, Silver Pet of Ferndell, first-prize three-year-old cow, Ferndell's Felicity, second-prize two-year-old female, their first and second-prize junior yearling heifers and their first-prize junior bull calf. Judging from the representatives of the Ferndell herd shown this year the herd must be making rapid progress in its development.

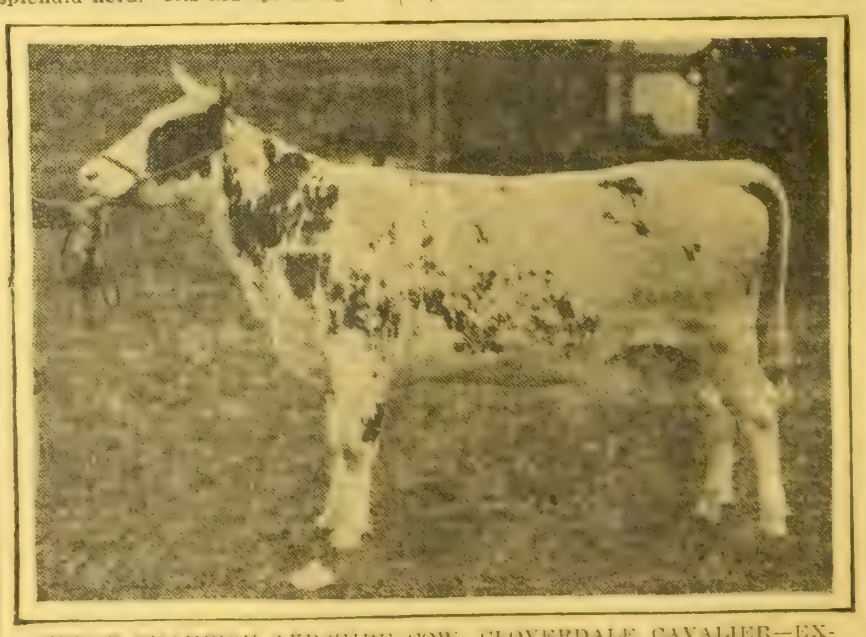
Bull 3 years or over, 1st Van Etta on Bargenoch Rising Star, 2d Ferndell Farm on Ferndell Victor; 2 years and under 3, 1st Van Etta on David of Lessnessock; senior yearling, 1st and 2d Ferndell Farm on Ferndell's Trust and Ferndell's Credit; junior yearling, 1st and 2d Ferndell Farm on Ferndell's Arrogance and Ferndell's Loyalty; senior calf, 1st Van Etta on Madison of Cloverdale, 2d and 3d Ferndell Farm on Ferndell's Just Right and Ferndell's Sultan, junior calf, 1st and 4th Ferndell Farm on Ferndell's Scotchman and Ferndell's Three of a Kind, 2d and 3d Van Etta on Cloverdale's Liberty Bond and Cloverdale's Ringmaster.

Cow 4 years or over, 1st Ferndell Farm on May of Hillcroft, 2d, 3d and 4th Van Etta on Mayflower of Rock Ridge, Grace of Ritchfield and White Lily of Meadowbrook; 3 years and under 4 1st Ferndell Farm on Silver Pet of Ferndell, 2d and 3d Van Etta on Rose Winny and unnamed; 2 years and under 3, 1st and 3d Van Etta on Primrose of Alderveran and Alderveran Rosemary, 2d and 4th Ferndell Farm on Rerndell's Felicity and Ferndell's Hope; senior yearling, 1st Van Etta on Cloverdale's Cavalier Flecle, 2d Ferndell Farm on Ferndell's Promise; junior yearling, 1st and 2d Ferndell Farm on Ferndell's Fidelity and Ferndell's Mode, 3d and 4th Van Etta on Cloverdale Lady Bountiful and Seal of Cloverdale; senior calf, 1st and 3d Van Etta on Cloverdale's Pep and Cloverdale Joan, 2d and 4th Ferndell Farm on Ferndell's Good Enough and Ferndell's Wondering Girl; junior calf, 1st and 2d Van Etta on Rhyllis of Cloverdale and Beauty of Cloverdale, 3d and 4th Ferndell Farm on Ferndell's Regina and Ferndell's Lassie.

Senior and grand champion bull, Van Etta on Bargenoch Rising Star; junior champion bull, Van Etta on Madison of Cloverdale; senior champion cow, Ferndell Farm on May of Hillcroft; junior and grand champion cow, Van Etta on Cloverdale's Cavalier Flecle; get of sire, 1st Van Etta, 2d Ferndell Farm; produce of dam, 1st Van Etta, 2d Ferndell Farm; aged herd, 1st Van Etta, 2d Ferndell Farms; young herd, 1st Van Etta, 2d Ferndell Farm; 4 cows in milk, all owned by exhibitor, 1st Van Etta.

Brown Swiss.—Ira Inman, of the Brown Swiss Breeder's Association took up the banner this year, as our familiar Brown Swiss exhibitor, who has come regularly to Wisconsin for many years was conspicuous by his absence this year, though we noted him slip into the ring upon several occasions and jockey one of Mr Inman's animals into first position. Mr. Inman had, on the whole, quite a creditable herd.

Dairy Short-horns.—The Otis Herd, of Willoughby, Ohio, made the only exhibit of milking Short-horns, which were judged by Prof. Andrew Boss, of Minnesota. They were a very good lot and showed some good types of this class of cattle. The two-year-old bull, British Prince, was made senior



JUNIOR CHAMPION AYRSHIRE COW, CLOVERDALE CAVALIER—EXHIBITED BY JAMES VAN ETTA, LIMA CENTER, WIS.

and grand champion, and the junior yearling, Corporal Peach, was given the purple in the junior class. Christmas Rose, the aged cow, was given senior and grand champion females honors, the junior honors going to the junior yearling heifer, Loobagh Darling.

BREEDING CATTLE.

Short-horns.—A short time ago, Wisconsin grass fat steers, weighing better than 1,600 pounds, sold on the Chicago market for $16.50 per hundred. Many good sales of Wisconsin steers have been made in Chicago this summer. In addition to the good price paid for beef, men in Wisconsin are milking Short-horn cows that are producing better than 300 pounds of butterfat annually. The worth of Short-horn cattle on the open markets is the reason for the popularity of the old cosmopolitan breed in the Badger state. And their popularity was well testified to in the showing made at West Allis on Wednesday and Thursday. The Short-horn show was conceded by all unbiased people to be the banner exhibit made by any breed of cattle. Practically all of the animals shown were from Wisconsin herds, and they can put up as good a show of Short-horns as are to be found in any state. Two Iowa exhibitors came in for the competition and cut some of the melons with the home breeders. Taking the Short-horn show all in all, and it might be said to represent the energy of the Wisconsin breeders. Prof. E. A. Trowbridge, of Missouri, tied the ribbons and was kept working in all classes for almost two days. The aged bull class brought forward three good bulls, two of which had met before at Des Moines. Maxwalton Amateur had been slated to win, because he stood well above Lord Cullen in Des Moines. Lord Cullen is a massive bull, but carries his weight well. Maxwalton Amateur is smooth, and a bull of great quality, and it was a surprise to most of the onlookers when he was put into second place. Lord Cullen was made senior champion bull, but failed to annex the grand champion honors, which went to Anoka Champion, the senior calf, that has been winning the blue in his class at the fairs where shown this fall. In the female classes, Maxwalton Queen won easily in class and captured one more grand purple, defeating Fanny Anoka, the senior heifer calf, for final honors. Among the bull classes, the senior bull calf class made the best showing. In the female classes, there were quite a number of very attractive showings. The group classes attracted much attention.

Exhibitors—Gerald D. Arnold, Galesville, Wis.; Anoka Farms, Waukesha, Wis.; Carpenter & Carpenter, Baraboo, Wis.; Claverburn Farm, Colo, Ia.; Dexter Gray, Milton, Wis.; Herr Bros. & Reynolds, Lodi, Wis.; Eben E. Jones, Rockland, Wis.; J. E. Kennedy, Janesville, Wis.; C. A. Oldsen, Wall Lake, Ia. Judge, Prof. E. A. Trowbridge, Columbia, Mo.

Bull 3 years old or over (3 shown), 1st Carpenter & Carpenter on Imp. Lord Cullen, 2d Kennedy on Maxwalton Amateur, 3d Arnold on Richmond Villager; 2 years old and under 3 (2 shown), 1st Herr Bros. & Reynolds on Royal Choice 2d, 2d Arnold on Village Coronet; senior yearling bull (2 shown), 1st Herr Bros. & Reynolds on Ruby's Knight, 2d Carpenter & Carpenter on Collynie Cullen 2d; junior yearling (6 shown), 1st Oldsen on Inverness Hall Mark, 2d Jones on Collynie Cumberland, 3d Carpenter & Carpenter on Collynie Type, 4th and 5th Herr Bros. & Reynolds on Master Gwen and Master Seaman, 6th Gray on Greyhurst Stamp; senior calf (10 shown), 1st, 2d and 7th Anoka Farms on Anoka Champion, Merry Stamp and Royal Stamp, 3d Claverburn Farm on Royal Diamond, 4th Kennedy on Scottish Royal, 5th Gray on Whitehall Selection, 6th Arnold on Cumberland Barmpton; junior calf (7 shown), 1st and 4th Herr Bros. & Reynolds on Master Mariner and Brawith Master, 2d Anoka Farms on Rosebud Champion, 3d Claverburn Farm on Orange Stamp 2d, 5th and 7th Carpenter & Carpenter on Collynie Royal Knight and Collynie Cullen 10th, 6th Arnold on Choice Governor.

Cow 3 years old or over (6 shown), 1st and 5th Carpenter & Carpenter on Maxwalton Queen and Imp. Viola 7th, 2d Jones on Verbena of Oakdale, 3d Kennedy on Baroness Lady 7th, 4th Herr Bros. & Reynolds on Snowdrop 2d, 6th Arnold on Roan Lilly; two-year-old heifer (5 shown), 1st Carpenter & Carpenter on Collynie Mysie, 2d Kennedy on Windrow Belle 23d, 3d Gray on Village Belle 8th, 4th Herr Bros. & Reynolds on Woodburn Rosemary, 5th Arnold on White Beauty; senior yearling (8 shown), 1st Kennedy on Miss Lovely, 2d Carpenter & Carpenter on Anoka Clipper 3d, 3d and 4th Herr Bros. & Reynolds on Goldie's Ruby, and Rare Gift, 5th Arnold on Ann of Lancaster, 6th Jones on Victoria Cumberland, 7th Gray on Village Belle 11th; junior yearling (6 shown), 1st Claverburn Farm on Sunny Maid 10th, 2d Carpenter & Carpenter on Collynie Averne, 3d Gray on Village Belle 13th, 4th Herr Bros. & Reynolds on Village Belle 2d, 5th Jones on Collynie Belle, 6th Arnold on Meadowview Flower; senior calf (9 shown), 1st and 3d Anoka Farms on Fanny Anoka and Columbia Anoka, 2d Herr Bros. & Reynolds on Averne 15th, 4th Arnold on Meadowview Keepsake, 5th Jones on Hillshade Duchess, 6th Dexter Gray on Miss Lavender, 7th Carpenter & Carpenter on Collynie Gift 3d; junior calf (10 shown), 1st and 5th Anoka Farms on Augusta Anoka 5th and Clipper Anoka, 2d and 4th Jones on Hillshade Beauty and Hillshade Marvel, 3d and 6th Kennedy on Oaklawn Alice and Oaklawn Annie, 7th Claverburn Farm on Lovely Diamond.

Senior champion bull, Carpenter & Carpenter on Lord Cullen; junior and grand champion bull, Anoka Farms on Anoka Champion; senior and grand champion cow, Carpenter & Carpenter on Maxwalton Queen; junior champion heifer, Anoka Farms on Fanny Anoka.

Aged herd (4 shown), 1st Carpenter & Carpenter, 2d Kennedy, 3d Herr Bros. & Reynolds, 4th Arnold; young herds (5 shown), 1st Herr Bros. & Reynolds, 2d Jones, 3d Arnold, 4th Gray, 5th Carpenter & Carpenter; calf herds (5 shown), 1st Anoka Farms, 2d Herr Bros. & Reynolds, 3d Carpenter & Carpenter, 4th Claverburn Farm, 5th Jones; get of sire (7 shown), 1st Anoka Farms on get of Crystal Stamp, 2d Herr Bros. & Reynolds on get of Master Ruby, 3d Carpenter & Carpenter on get of Lord Cullen, 4th Jones on get of Collynie Sultan, 5th Gray on get of Archer Stamp; produce of cow (4 shown), 1st Carpenter & Carpenter on produce of Clipper 9th, 2d Jones on produce of Pearl Cumberland, 3d Arnold on produce of Sissy Ann, 4th Gray on produce of Village Belle 4th.

Herefords.—Herefords were few in numbers, but strong in quality at Wisconsin. J. C. Robinson & Son, of Evansville, made their usual classy showing, and competition was given to the show by the herd of Wencle Rott, of Wonewoc. The most of the controversy, though, lay between members of the Robinson herd which captured most of the blues and purples, losing only one of the blues where they competed, and the purple ribbon on junior champion bull, which went to Rott's senior yearling, Repeater 41st, that is the making of a good bull. Senior and grand champion honors went to Maple's Lad 61st, Robinson's three-year-old bull. In the female classes, senior and grand champion honors went to Maple's Lass 68th, the junior honors falling to the junior yearling heifer, Maple's Lass 82d, both from the Robinson herd. Professor Trowbridge judged the cattle and expressed himself as well pleased with the show.

Exhibitors—J. C. Robinson & Son, Evansville, Wis.; Wencle Rott, Wonewoc, Wis. Judge, Prof. E. A. Trowbridge, Columbia, Mo.

Bull 3 year or over (2 shown), 1st Robinson & Son on Maple's Lad 61st, 2d Rott on Lady's Real; senior yearling (2 shown), 1st Rott on Repeater 41st, 2d Robinson & Son on Maple's Lad 82d; junior yearling (3 shown), 1st and 2d Robinson & Son on Maple's Lad 93d and Beau Welcome, 3d Rott on Young Harris; senior calf (3 shown), 1st and 2d Robinson & Son on Maple's Lad 97th and Maple's Lad 102d, 3d Rott on Rex 3d; junior calf (3 shown), 1st and 2d Robinson & Son on Maple's Lad 107th and Maple's Lad 108th, 3d Rott on Rex Perfection.

Cow 3 years or over (3 shown), 1st Robinson & Son on Bonnie Dee, 2d and 3d Rott on Sly Lass and Miss Repeater 40th; 2 years old (3 shown), 1st and 2d Robinson & Son on Maple's Lass 68th and Maple's Lass 57th, 3d Rott on Lady Fairfax 3d; senior yearling (3 shown), 1st and 2d Robinson & Son on Maple's Lass 73d and Maple's Lass 69th, 3d Rott on Lady Real 4th; junior yearling (2 shown), 1st Robinson & Son on Maple's Lass 82d, 2d Rott on Bonnie Lass; senior calf (3 shown), 1st and 2d Robinson & Son on Maple's Lass 85th and Maple's Lass 87th, 3d Rott on Gay Lass; junior calf (1 shown), 1st Rott on Miss Elmyra.

Senior and grand champion bull, Robinson & Son on Maple's Lad 61st; junior champion bull, Rott on Repeater 41st; senior and grand champion cow, Robinson & Son on Maple's Lass 68th; junior champion cow, Robinson & Son on Maple's Lass 82d; aged herd (2 shown), 1st Robinson & Son, 2d Rott; young herd (1 shown), Robinson & Son; calf herd (2 shown), 1st Robinson & Son, 2d Rott; get of sire (2 shown), 1st Robinson & Son on get of Bonnie Brae 8th, 2d Rott on get of Rex; produce of dam (2 shown), 1st Robinson & Son on produce of Gosimer 11th, 2d Rott on produce of Harris Princess 59th.

Aberdeen Angus.—Congdon & Battles, of North Yakima, Wash., had the only show of Doddies at the Wisconsin show. This herd is too well known to need any comment, and it is to be regretted that the Angus interests of the state of Wisconsin were not better represented at the show. The Congdon & Battles herd has been making the Wisconsin show for many years and deserves compliments on furnishing a representation of the breed to Wisconsin state fair visitors. They, of course, won all the ribbons and took all the championships.

Polled Durhams.—Boynton Bros., of Janesville, Wis., furnished the entire show of Polled Durhams. This herd has made good strides and wonderful improvement in the past few years, and were brought out in good enough shape to have welcomed competition. Prof. Andrew Boss judged the classes and awarded senior and grand champion bull honors to the two-year-old bull, Silver Mist. The senior calf, Lead On, was made junior champion. In the female classes the aged cow, Blue Bell was made senior and grand champion—the junior honors going to the junior yearling heifer, Valley View Queen.

Red Polls.—One herd of Red Polled cattle, shown by John Curran, Sechlerville, Wis., made up the entire show of this breed. He filled all the classes, and was awarded all the champion ribbons. This herd stood well in some of the classes at Hamline last week and would have stood competition at Wisconsin. Prof. Andrew Boss placed the awards.

Baby Beef Contest.—Nine calves were shown in the baby beef contest. The calves were all brought out in good shape, the top calves being in especially good order. The awards were placed by Mr. J. N. Chamberlain, Beloit, Wis., as follows:

1st, C. Elwyn Thompson, Lake Geneva, Wis., Hereford calf; 2d Lee Jewell, Mineral Point, Wis., Hereford calf; 3d Harold Hall, Edgerton, Wis., Angus calf; 4th Harry McCann, Janesville, Wis., Short-horn calf; 5th John McCann, Janesville, Wis., Short-horn calf; 6th Geo. Schofield, Edgerton, Wis., Short-horn calf; 7th Kitchell Sayre, Edgerton, Wis., Short-horn calf; 8th and 9th Richard Roberts, Sun Prairie, Wis., Short-horn calves.

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FAT CLASSES.

Grade or Cross Breds.—Steer 2 years and under 3 (4 shown), 1st and 3d Claverburn Farm, 2d E. W. Graber; steer 1 year and under 2 (5 shown), 1st Claverburn Farm, 2d E. W. Graber, 3d Herr Bros. & Reynolds; steer under 1 year, 1st Herr Bros. & Reynolds, 2d Claverburn Farm, 3d Condon & Battles; steer herd, 1st Claverburn Farm, 2d Herr Bros. & Reynolds, 3d E. W. Graber; champion steer, Claverburn Farm on the two year old.

HORSES.

Percherons.—Percherons were not numerous, but were of good quality at the Milwaukee show. Wisconsin exhibitors furnished most of the show, which was strengthened by a strong showing made by Hurdcroft Farm, of Minnesota, and Shekleton & Sons, of Iowa. In the aged stallion class Honorable Baccarat was defeated by the toppy and drafty Keota Idea, that was considered good enough to carry off the champion stallion honors. Sara Belle was again good enough to capture futurity honors, and to be champion mare bred by exhibitor, but was defeated for champion honors by her stable mate, Pearl, the first-prize three-year-old mare. This decision was hardly in keeping with what was expected after the good showing made by the young mare at Des Moines and Hamline. Wisconsin exhibitors made a good showing, Harvest Farms Co. making an especially good show in the group classes. The showing of most of the classes dragged and it would add much to the character of the horse show if a little better understanding of the rules could be obtained, and if a little more snap in getting animals into the ring would prevail.

Exhibitors.—W. J. Bernd, New Richmond, Wis.; B. F. Babcock, Eleva, Wis.; H. Harrison, Spring Green, Wis.; Harvest Farms Co., Bayville, Wis.; Hurdcroft Farm, Monticello, Minn.; H. L. Houser, Mondovi, Wis.; Wm. Hurtley, Mondovi, Wis.; Francis Lamb, South Byron, Wis.; Frank P Shekelton & Sons, Lawler, Iowa; Whelandale Farms, Mondovi, Wis. Judge, S. F. Guttenstein, Milwaukee, Wis.

Stallion 4 years or over (4 shown), 1st Lamb on Keota Idea, 2d Hurtley on Honorable Baccarat, 3d and 4th Shekleton & Sons on Dudie and Illet; 3 years and under 4 (4 shown), 1st Hurdcroft Farm on Herbert, 2d, 3d and 4th Harrison on Theodore, Peerless and Grant; 2 years and under 3 (4 shown), 1st Hurdcroft Farm on Promoter, 2d and 4th Harvest Farms on D'Artignan and Captaine, 3d Bernd on Canton; 1 year and under 2 (5 shown), 1st Lamb on Gildroy, 2d Babcock on Iritus, 3d and 5th Harvest Farms on Vidette and Chevalier, 4th Whelandale Farms on Honorable Rex.

Brood mare with foal at side (1 shown), Hurdcroft Farm on Kasbah and foal; mare 4 years or over (1 shown), Hurdcroft Farm on Kasbah; 3 years and under 4 (5 shown), 1st, 3d and 4th Hurdcroft Farm on Pearl, Dorris and Hillary Helix, 2d and 5th Harvest Farms on Grace and Winifred; 2 years and under 3 (4 shown), 1st, 3d and 4th Harvest Farms on Jeanette, Petite and Felice, 2d Houser on Peerless; 1 year and under 2 (7 shown), 1st and 4th Hurdcroft Farm on Sara Belle and Koinette, 2d Harvest Farms on Nanette, 3d Lamb on Leverette 2d; foal (1 shown), Hurdcroft Farm; get of sire (1 shown), Hurdcroft Farm on get of Bresselieu; produce of dam (1 shown), Harvest Farms on produce of Pride.

Champion stallion, Lamb on Keota Idea, reserve, Hurtley on Honorable Baccarat; champion mare, Hurdcroft Farm on Pearl, reserve, Hurdcroft Farm on Sara Belle.

Special Percheron Futurity Prize.—Percheron colt foaled in 1916 (4 shown), 1st Lamb on Gildroy, 2d Babcock on Iritus, 3d and 4th Harvest Farms on Vidette and Chevalier; Percheron filly foaled 1916 (7 shown), 1st, 4th and 5th Hurdcroft Farm on Sara Belle, Koinette and Monticello Maid, 2d, 6th and 7th Harvest Farms on Nanette, Eleanor and Eunice, 3d Lamb on Leverette 2d.

Wisconsin Percherons.—Stallion 4

(Continued on page 19.)

Cow Points Shown By Contrast.

Cow-Testing Exhibit at the Wisconsin State Fair Was Educational and of Great Interest to Visiting Dairymen.

THE cow-testing association exhibit at the fair grounds this year was one of the most important features of the live stock show. Living demonstrators of the soundness of the testing association plan were on hand, in the form of the best five cows that have completed their year's work in the eighty-three cow-testing associations in Wisconsin. An exhibit of two dairy sires, a good one and a poor one, and several ordinary looking cows with out of the ordinary production records made it plain to the visitors what cow-testing associations will do for the dairyman.

"Ima Failure," a pure-bred Holstein cow standing by the side of Lucy, a grade Holstein, each with their yearly work tabulated on a card above their stalls, formed the strongest argument in favor of testing. "Ima Failure" made during her year's work only 2,466 pounds of milk and 83.3 pounds of fat. Her work brought no profit, but resulted in a loss of $14.80 for her owner. For every 72 cents' worth of product her owner had to feed her $1 worth of grain and grasses. She was a pure-bred, but in this case her ancestry seemed not good enough to overcome her poor individuality as a producer of milk and butter fat. On the other hand, Lucy, of only grade origin, made for her owner, Herman Vetter, of Calvary, a profit of $198.12. Looking at the two cows without any knowledge of their actual performance, one would give the pure-bred animals an even chance of producing fully as much as the grade animal. In this case "Ima Failure," on top of her pure-bred ancestry, had most of the points which we look for in an animal of the dairy type. It is possible that she cannot be made to yield largely and profitably as a dairy cow should, but it is more likely that her feed and care had much to do with her low record. But the point is that no one can tell without the scales and the Babcock tester whether the feed put into a cow is bringing the results in dollars and cents which the owner has a right to expect. As this is the foundation of cow-testing work, the point is well illustrated in the case of these two cows.

The wonderful growth of the association work in the state, notably so during the last four years, is well worth mentioning. From ten associations in 1909 the membership has increased to eighty-three in 1917. The first ten associations included 3,840 cows. Today 40,700 cows are being regularly tested each month and checked up on their production. Noel Negley and H. C. Searles, the field men for the Wisconsin Dairymen's Association, are not satisfied, however, and never will be satisfied until they have located a cow-testing association in every dairying community in Wisconsin. The exhibit they show each year at the fair will undoubtedly do more towards converting the skeptical than any other thing yet attempted.

The five best cows among the 40,700 for the year were on exhibition in the barn. There were a few animals that ranked higher in actual fat production for the year, but since their owners did not care to exhibit, the prizes and the honors went to the next in line. First prize went to Lucy, already mentioned in these paragraphs. Second to her was Helena of Wayside, a pure-bred Holstein owned by Kirkpatrick Bros., of Reedsburg. Helena gave 13,940 pounds of milk yielding 605 pounds of fat and resulting in a profit of $203.84 over feed cost. She returned $3.46 for every dollar spent on her for feed. Third honors went to Fritz, a grade Guernsey owned by H. J. Duecker, of Kiel. Fritz gave a profit of $299.58 over the price of the feed, yielding 11,194 pounds of milk and 583.6 pounds of fat. She returned for every dollar spent on her $4.03 profit. Next in line was Canary Jewel Gem, a pure-bred Holstein owned by D. Cornue, of Zenda. Her output of 17,583 pounds of milk and 548.2 pounds of fat brought a profit of $203.75. Fifth was Fall Breeze Beauty Second. She is owned by A. G. Palmer & Son, of Lake Geneva. Her 15,449 pounds of milk and 544 pounds of fat paid for her feed and yielded a profit of $117.43 besides.

Lucy, feature of cow-testing exhibit. Owned by Herman Vetter, Calvary, Wis. Record 16,355 pounds of milk, 691.7 pounds of butter. A grade cow bought for $40 three years ago, and made valuable by cow-testing records.

The profits are not necessarily an indication of what the cow is able to do, as there is a wide variation in the cost of feeding and the method used by various owners in arriving at the final figures. With some associations coöperative buying has cut down the expense for all concentrated feeds to a minimum, while with others buying by the single ton has run the cost up to a considerable figure. The basis on which the prizes were given to the above-named owners was on the fat production of the cows. That is the reason some of the profits of the cows in second and third place appear larger than the first prize animal can show.

Numerous signs and posters about the barn called attention to the vital facts of successful dairying. Questions on these posters directed to the cow owner were intended to set the visitor to thinking. "Cows are mostly better or worse. Which are yours?" "What is the use of having good cows when the ration is wrong?" "Pure breds, but how good? Registration papers are not enough." These and many others around the building served to indicate what the testing association can do towards making dairying profitable.

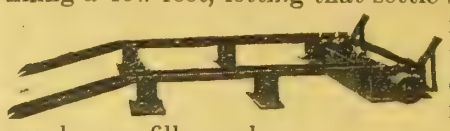
Over one stall was this poster, "$1.25 made $150. My owner, C. E. Binning, of Fond du Lac, offered me for sale a year ago for $50. He could not sell me, so he put me in the cow-testing association and this is what I did for him during the past year: Milk, 7,737 pounds; fat, 487.9, valued at $229.31; cost of feed, $79.06; profit over feed, $150.25. It cost $1.25 to discover me. Is it not a good investment? Signed, Mary Grade Jersey, age five."

Another sign read, "'I'll sell you. You are no good.' That is what my owner, Otto Ziehlke, of Rosendale, said. But a cow-testing association was organized and this is what I did for him last year as shown by the records: Milk, 7,570 pounds; fat, 363 pounds; value of fat, $150.78; cost of feed, $56.58; profit over feed, $94.20. Signed, Grade Holstein." Below each

The large pile of boxes represents cheese produced by Lucy, champion at cow-testing exhibit. Small pile shows cheese produced by a cow that looked good, but was short on delivery of milk.

How Will You Fill Your Silo?

You can fill it the right way, cutting as the corn is ready, filling a few feet, letting that settle and then filling some more much or little at a time, till the job is done. That is the right way, and if you have a filler and an

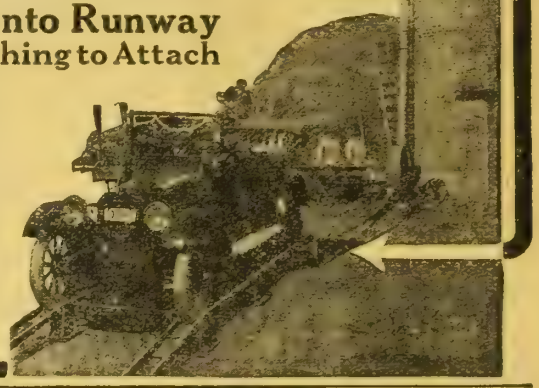


AUTO UTILIZER

you'll be independent of filling crews, neighborhood helping round-ups and all the usual grief connected with silo filling. With it you can meet every power requirement on your farm.

Just Back Car Onto Runway
No Jacking Up-Nothing to Attach

Car stands level and runs exactly as it does on the road. Positively no strain on its construction or working parts. Because the Auto Utilizer is so simple and everlastingly strong, it's the only practical means of using a car for farm power. Unit construction makes it easy to move about. All steel and iron. Only two simple revolving parts—running in long Hyatt Roller Bearings. Find out all about it and you won't do without it. Ask your dealer if he has seen it—if he is going to demonstrate it. Send today for complete descriptive literature.



THE AUTO UTILIZER CO.
Dept. W.F. Burlington, Wis.

THE NEW 1918 MODEL DAIRY QUEEN

60 Days Trial $39 AND UP
Satisfaction Guaranteed

New Enclosed All-Gear Drive, No Chain; Close Skimming Sanitary Bowl, Easily Cleaned; Splash-Oiling System, Light Running; Low-Down Tank—Simple, Durable, Sanitary. The RIGHT Separator at the Right PRICE. Sold DIRECT to You.

Quickly pays for itself by cream saved. Notice position of tinware, height of supply can, comfortable position of operator. No stooping, no reaching over milk can. Side delivery of milk and cream away from operator.

MONTHLY PAYMENTS. $5 down—$5 per month. Made in 350, 500, 650 and 900 lb. capacities and sold direct at manufacturer's low prices. Write today for free catalog and monthly payment plan.

Makers of separators exclusively for 16 years—since 1902
DAIRY CREAM SEPARATOR CO.
1470 WASHINGTON ST. LEBANON, IND.

Only $2 Down
One Year to Pay!

$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

ALBAUGH-DOVER CO. (12)
2158 Marshall Blvd. CHICAGO
100,000 now in use

sign stood the cow referred to, contentedly chewing her cud.

Further along in the barn two dairy bulls, both pure bred, stood side by side. Over the stall of the one was a sign, "This bull increased herd production." Over the stall of the other, "This bull decreased herd production." The one had poor ancestry and consequently could not sire dairy cows that would yield profitable amounts of milk and butter fat. The other bull was a splendid individual of the dairy type, with good length of body, exceptional depth and a high quality throughout. His pedigree showed him to be the offspring of high-producing dams on both sides. Several blue ribbons testified to the fact that the dairy judges had found him an individual of the type worthy of heading a herd. Another placard showed that his offspring were capable of producing high amounts of butter fat. A list of seven or eight cows which had successfully entered the National Guernsey Association because of their records were sired by him. The other bull, the unprofitable one, not only lacked the ancestry but also showed none of the points which the dairyman requires his herd sire to have. He was small in size for his age and lacked dairy quality. None of his offspring showed ability to produce milk in large amounts.

In looking over the various cows on exhibition in the barn and especially the pure bred, "Ima Failure," visitors were inclined to pronounce offhand judgment and seeing points in favor or against the cows which, in reality, did not exist. Several recognized dairymen, in looking over the cows, were certain that even such an animal as the Holstein heifer, Ima, could be made to yield milk in large enough amounts and at low enough cost to produce a profit. A great deal depends upon the feed and care of a cow, and, while one man may be able to feed a cow profitably when another is unable to do so, it stands to reason that one bad year will in most cases convince the owner that it is no longer worth while bothering with those animals that did not show a profit. That is the purpose of the cow-testing association.

Extra Poultry Space All Taken.

New $35,000 Poultry Building at Wisconsin Fair Fails to Provide Room For Great Collection of Badger Birds.

WITH more than 4,000 birds entered at the state fair poultry show this year, the new $35,000 building just completed has already proved too small to take care of the needs. Many of the bird fanciers were forced to "double up" on coops, as there otherwise would have been no room to take care of them all.

The show was not only the largest but also the best ever held on the fair grounds. New exhibitors were undoubtedly attracted because of the advertised increase of space for showing and also because of a complete revision which had been made in the premium list. There were only a few outside exhibitors from Iowa, Illinois and Minnesota, the rest all hailing from various sections of this state.

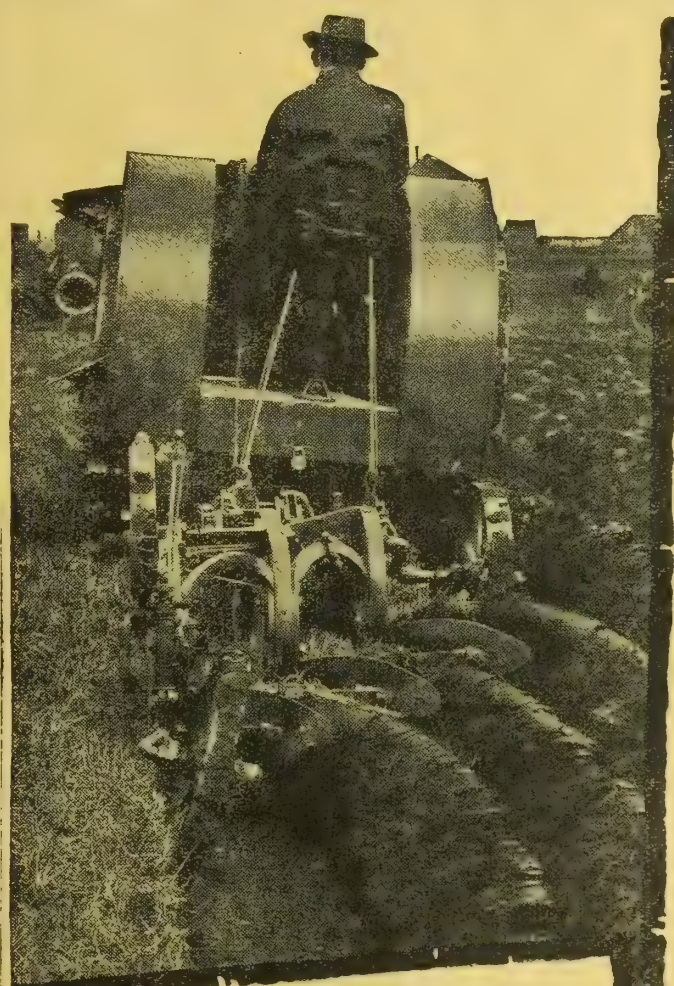
One of the heaviest classes was that of Barred Rocks. The White Rocks also formed an outstanding exhibit, H. W. Halbach, of Waterford showing the best stock. Several of the birds entered by Mr. Halbach have been winners at Madison Square Garden, New York City, and were not for sale there, even at the offered price of $250 a bird. Wm. Bell, of Arlington, showed some splendid Single Comb Leghorns of the white, black and brown varieties and won most of the moneys in these divisions. Chanticleer Farm, of Oconomowoc, gave Mr. Bell a close race, however, in the Single Comb White Leghorn, and won especially heavily on their Single Comb Rhode Island Reds. Winnebago Poultry Yard, of Omro, also were heavy winners in the Rhode Island Red division. The stock from the Winnebago Yard is uniformly good from year to year. Exhibits by members of the Milwaukee Poultry Breeders' Association were also in on the prize money. John F. Marvin, who is secretary of this association, came out well with his White Orpingtons and J. E. Schaefer, who is president, was a steady winner in the Single Comb White Leghorns. Polish birds were shown by W. A. Hoyt, of Whitewater, and E. J. Roberts, of Fort Atkinson. In the Silver Wyandotte classes R. J. Porter, of Muckwanago, was a heavy winner, while Charles Prei, of Waukesha, came out well in the White Wyandottes. An especially strong contender in various classes was W. E. Hathaway, of Jefferson.

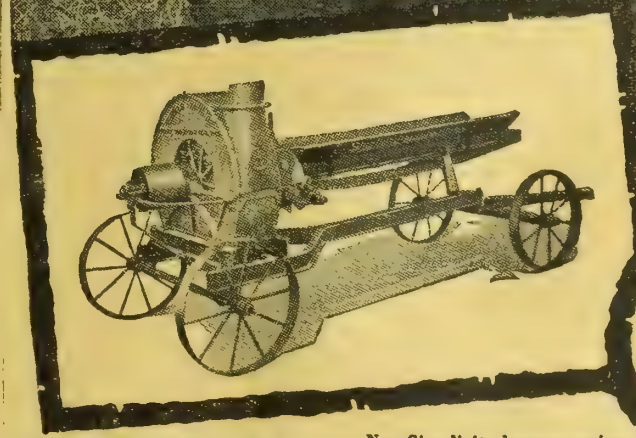
A feature of the poultry building was the water fowl exhibit located in the center of the building. Excellent specimens of Egyptian geese, wild ducks, pin tail ducks, green-winged teal and mandarin ducks had been secured to make the exhibit as complete as possible. E. E. Lawrence, of Token Creek, near Sun Prairie, furnished several swans.

The show was highly satisfactory in the opinion of both officials and the poultrymen, but it is evident that more space will be needed next year to accommodate this rapidly growing department of the state fair. As the building is now arranged there is no room to spare. A small office located at each end is the only space which is not occupied by pens and coops. There is no place at all for demonstrating useful apparatus for the poultryman, no room for concessions of any kind. There is also a great need for a catalog to help the stranger as well as the exhibitors in securing information on entries and addresses of those showing. However, these are only small points compared to the essential feature, viz., the success of the show. No one attending a show of the size and quality of the state fair poultry show would complain in any way of its success. The exhibitors of pigeons and poultry were:

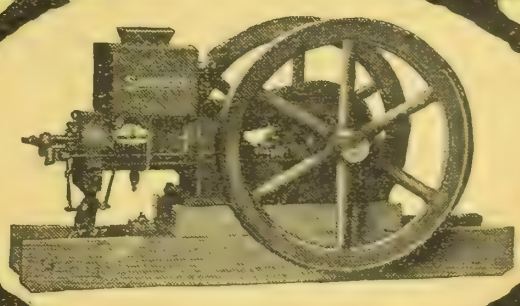
F. J. Alricht, Waterford, Wis.; E. L. Barnes & Sons, Milton, Wis.; Wm. Bell, Arlington, Wis.; E. A. Berg, Chesterton, Ind.; Oscar Bohling, Lake Beulah, Wis.; A. W. Bucherd, Beloit, Wis.; Edwin Boldt, Milwaukee, Wis.; Wm. Beckman, West Allis, Wis.; A. V. Ruth, Sullivan, Wis.; C. E. Brown, Lake Beulah, Wis.; Richard & Berkham, Milwaukee, Wis.; Roland Benedict, Bristol, Wis.; Geo. Beckman, Jefferson, Wis.; Joseph Barber, Marathon, Wis.; Mrs. E. E. Boyd, Racine, Wis.; Chanticleer Farm, Oconomowoc, Wis.; Donald E. Cors, Whitewater, Wis.; John Conrad, Hales Corners, Wis.; James Clemens, Kansasville, Wis.; H. A. Davis, Dodgeville, Wis.; Herman G. Dittmar, Milwaukee, Wis.; Amy Dobberphul, North Milwaukee, Wis.; Walter Dobberphul, North Milwaukee, Wis.; W. W. Day, Janesville, Wis.; Geo. Dance & Sons, Waukesha, Wis.; W. H. Eldridge, Plymouth, Wis.; Geo. A. Ellis, West Allis, Wis.; Wm. Freise, La Crosse, Wis.; Otto G. Fiske, Wauston, Wis.; Dr. J. A. Frendenberg, Markeson, Wis.; W. L. Fuhrman, West Allis, Wis.; Roland Firchel, Milwaukee, Wis.; Wm. French, Fond du Lac, Wis.; John J. Flad, Madison, Wis.; J. A. Geumsich, Milwaukee, Wis.; E. O. Geumsich, Milwaukee, Wis.; Paul Garhard & Son, Milwaukee, Wis.; Edw. Gufinhagen, Milwaukee, Wis.; O. A. Hanser, Hartford, Wis.; Fred W. Hilgen, Cedarburg, Wis.; E. A. Hamilton, Oconto Falls, Wis.; E. A. Hartle, Owatonna, Minn.; W. F. Hopkins, Troy City, Wis.; Hoyt McDonald, La Crosse, Wis.; Frank Helinski, Milwaukee, Wis.; L. & M. Heinken, North Freedom, Wis.; W. E. Hathaway, Jefferson, Wis.; W. A. Hoyt, Whitewater, Wis.; LeRoy L. Heinlaben, La Crosse, Wis.; H. A. Halbach, Waterford, Wis.; H. W. Halbach, Waterford, Wis.; Mrs. O. Heilinski, Milwaukee, Wis.; J. E. Jenseon, Kenosha, Wis.; F. W. James, Waukegan, Wis.; Johnson & Congreve, Chicago, Ill.; Henry Jung, Milwaukee, Wis.; C. E. Judson, Wauwatosa, Wis.; S. J. Killipp, Waukesha, Wis.; J. F. Kern, Milwaukee, Wis.; Walter Kirtz, Milwaukee, Wis.; Kissell Bro., Milwaukee, Wis.; Chas. Koeppen, Milwaukee, Wsi.; Clarence Kunz, North Milwaukee, Wis.; Fred Krinkey, Beloit, Wis., Lee C. Kyburg, Honey Creek, Wis.; H. W. Kratz, Zion City, Ill.; R. J. Love, Waukesha, Wis.; V. R. Lynch, Washota, Wis.; Chas. D. Love, Waukesha, Wis.; F. M. Love, Waukesha, Wis.; J. R. Love & Sons, Waukesha, Wis.; James Livington, Milwaukee, Wis.; C. G. Loeber, West Allis, Wis.; L. B. Larson, Milwaukee, Wis.; James McGregor, Milwaukee, Wis.; John F. Marvin, Milwaukee, Wis.; John C. Meyer, Oconto Falls, Wis.; Fred G. Meyer, Cedarburg, Wis.; Rudolph Mehl, Milwaukee, Wis.; L. McCarter, Appleton, Wis.; Jimmie M. Murray, Albany, Wis.; Wm. Marold, Sheboygan, Wis.; E. J. Nelman, Cedarburg, Wis.; North Side Bantam Yards, Milwaukee, Wis.; Orpingtonia, Milwaukee, Wis.; Dr. H. J. Ochs, Mukwonago, Wis.; R. J. Porter, Mukwonago, Wis.; Robt. Pribbenow, Arlington, Wis.; Charles Prei, Waukesha, Wis.; A. F. Poltl, Hartford, Wis.; Geo. H. Prest, Wauwatosa, Wis.; Arthur Quade, West Bend, Wis.; J. W. Russell, Mauston, Wis.; Rex Bantam Yards, Milwaukee, Wis.; A. R. Rice, Waverly, Ia.; M. J. Rhan, Green Bay, Wis.; E. G. Roberts, Ft. Atkinson, Wis.; H. C. Schwoch, Milwaukee, Wis.; Geo. Stirdevant, Sheboygan Falls, Wis.; A. P. Schennian, Manitowoc, Wis.; Burt Shaw, Elizabeth, Wis.; Otto A. Schroeder, Milwaukee, Wis.; Walter Schwister, North Milwaukee, Wis.; E. J. Scharper, Milwaukee, Wis.; Geo. Scharper, Milwaukee, Wis.; F. B. Stevens, Hartland, Wis.; S. E. Sonneman, Watertown, Wis.; J. Shannon, Appleton, Wis.; F. S. Schlitz, Hales Corners, Wis.; F. F. Tindall, Waterford, Wis.; A. & E. Tarbox, Yorkville, Ill.; Erwin V. Vanselow, South Milwaukee, Wis.; C. A. Wagner, Milwaukee, Wis.; Winnebago Poultry Yards, Omro, Wis.; Winnebago Bantam Yards, Oshkosh, Wis.; A. L. Wussom, Milwaukee, Wis.; A. Wold, West Allis, Wis.; J. E. Zeigler, Milwaukee, Wis.

The pigeon exhibit was also especially heavy, more fanciers than usual entering the various classes.





Simplicity Blower-Cutter noted for its great capacity and economy of operation. Many exclusive features which insure efficiency and durability.



New Simplicity kerosene engine. Throttling governor insures smooth running. Special carburetor provides perfect mixture. Burns kerosene without smoke or carbon.

The Tractor You Buy

IT must be a tried-and-proved tractor—one that will do things not only when on exhibition, but day in, day out, right through the year.

Dependability is the main thing—a balky tractor is worse than a balky horse. The Turner Simplicity tractor is thoroughly dependable. It's built on approved principles, consequently you need not expect defects to appear in construction or design. You can use the

TURNER Simplicity

for plowing, discing, harvesting, hauling, and belt work. It's an all-around tractor for the average size farm. Works in any kind of soil—not afraid of wet fields or heavy clay. It's called "the light tractor with the heavy pull" because it does the work of heavier tractors, yet doesn't have the excess weight. For that reason you can use it on small jobs economically.

Has Waukesha tractor motor, Hyatt Roller Bearings—standard design throughout. Three-point suspension gives it flexibility. Turns short, has simple gear-shift control. Burns kerosene or gasoline. All working parts are enclosed in dust-proof cases and run in a bath of oil. A quality tractor built by the makers of the well-known Simplicity farm engine.

Tear out this ad, write your name and address on the margin and mail for descriptive literature. Mark a cross under other products, if interested.

TURNER MANUFACTURING CO.
115 LAKE STREET PORT WASHINGTON, WIS.

Holstein Breeders in County Tour

Walworth County Breeders Spend Enjoyable Days on the Holstein Farms of Waukesha County.

THIRTY-EIGHT automobiles carrying 171 passengers and representing the Walworth County Holstein Breeders' Association, journeyed to Oconomowoc and vicinity in Waukesha county Thursday, August 30th. In addition to the Holstein breeders there were included in the party Mr. and Mrs. Malcolm G. Gardner, of the Advanced Registry Offices at Delavan; Superintendent Buell, of the State School; Sales Manager Merrick and several other Delavan citizens, County Agricultural Agent L. L. Oldham, Ben Bachhuber and L. W. Swan, of Elkhorn.

The day was ideal for such a trip and barring the dust, not an unpleasant incident occurred. Very few cases of trouble developed with the cars en route and these few were immediately cared for by the trouble men who accompanied the party from Troy Center. The soil in the region of Dousman and Oconomowoc seemed very dry. The pastures appeared dried up; corn and potatoes apparently were suffering and land seemed too dry for plowing, thus delaying the seeding of winter crops. Someone said that this vicinity had not received rain since the first week in July.

Leaving East Troy about 9:45, the party went direct to George A. Schuster's, at Mukwonago. Mr. Schuster was on hand and took personal charge of the crowd. He was proud of the fact that the farm had eight thirty-pound cows—the state record for any one farm. He pointed out for our attention the $2,100 cow purchased last spring and her stablemates—most of them daughters of King of the Pontiacs and purchased at the famous Stevens Bros. sale held in New York some months ago. What is more enjoyable than the sight of a body of breeders critically looking over the living models of a successful fellow breeder, feeder and owner? Mr. Schuster is all of these and his performances prove it.

A group of Waukesha breeders headed by "Bill" Beard were on hand at Schuster's ready to escort them on to Dousman. A write-up of the trip would not be realistic without mention of the Alps-like hills and the Glacier National Park-like scenery traversed in the vicinity of Eagle.

At 12:20 the first car pulled up at the Wisconsin Masonic Home at Dousman. Here Superintendent and Mrs. Walker, formerly of Delavan, had made preparations for the serving of the picnic lunches, cream and coffee. Too much cannot be said in appreciation of the hospitality of these good people who did all in their power to make everyone comfortable. Both Mr. and Mrs. Walker met many of their old Delavan acquaintances and exchanged greetings with them.

With all feeling much refreshed, the autos rambled on to the Pabst Farms Nos. 1, 3 and 5. Mr. Pabst, the owner, met the party and personally conducted the pilgrimage through his domain. The Pabst Farms are always an interesting stopping place. They were of particular interest to this party because of the fact that they are the home of so many of the black and white breed and this party was a Holstein affair. The $12,000 calf purchased from the E. H. Dollar sale held in New York and being groomed for herd sire, was the chief attraction. This calf is a half brother to Rag Apple Korndyke 8th, sire of the famous $53,000 calf sold to Mr. Field at the recent Stevens Bros. sale. He is certainly bred in the purple and is bound to make Holstein history in Wisconsin.

Talking about history, the test barn on Farm No. 3 is an archive of more than passing note. Here are found the animals that will herald the future successors of Mr. Pabst as a breeder and feeder. With so many splendid daughters of King Pontiac Champion coming into milk in the near future, it would seem that Mr. Pabst's successors are assured.

Our party viewed most of the 400 head, the matchless buildings with their clean, sanitary, well-lighted accommodations, the sixty-foot silos with the seventeen-foot water tanks on top, the whole standing like two silent sentinels of prosperity, ever guarding the paunches of these soldiers of the dairy, the marl-covered floors and the bins of phosphate, both materials being daily incorporated in the farm manure to keep up the fertility of the land—these and other features were observed and carried back home in the minds of the interested to be used later when opportunity afforded.

Leaving the Pabst Farm, the tourists headed for Carnation Farms. Ten miles on a good highway leading directly through the quiet, clean, pretty little city of Oconomowoc, and passing along one of the numerous beautiful bodies of water which contribute so much in Nature's way to this famed region of Wisconsin passed all too quickly.

"The Home of Contented Cows" is the way the advertisement reads. This phrase precisely describes the first glimpses the party had of the seventy head of black and whites housed in the big, spacious, old-fashioned round barn. Space does not permit a detailed account of this farm. Suffice it to say that we all marveled at the fine individual, well-marked, productive looking progeny of Johanna McKinley Segis, the splendid condition of the cows and herd sires, the clean, sanitary surroundings of the calves, and the general neatness on all sides. The animals, young and old alike, radiated the hygiene of their environment. A battery of silos—five in number—was one of the noteworthy sights. These structures emphasized the wisdom and good judgment of the owners and once again appeared as the silent guards of the dumb, who are at all times ready to back up the men who are back of the men in the trenches.

The party disbanded here, some going straight to town, others winding their way through the pretty lakes. As night drew near all of them wound their way homeward. The trip was talked over and its attractive features visualized in the minds of all. It will never be forgotten—rather will it be stored in that most wonderful of storehouses—the human mind's memory.

WALWORTH COUNTY BREEDERS AT PABST SOCK FARM, WAUKESHA COUNTY.

See page 26. Read The Farmers' Market advertisements. There may be a bargain there for you.

Hauling Road Gravel By Teams and Tractors.

Records were recently kept very carefully of the cost of hauling gravel for some main roads in Minnesota, which show the value of horse and mechanical traction under similar conditions. About twenty-two miles of road had the gravel distributed over them by teams and about 3.6 miles were covered with gravel hauled by a caterpillar traction outfit. Itemized cost records were kept so carefully that the results of these two methods of hauling can be compared.

Using teams it was found that the cost of loading and hauling a cubic yard up to one-half a mile ranged 57 to 94 cents per mile. Where the hauling was one-half to one mile the cost per mile ranged from 30 to 48 cents. Where it was from one to one and one-half miles, the cost was 23 to 35 cents, and where it was between one and one-half and two miles the cost per mile was 22 to 28 cents. The detailed figures show that the cost depended largely upon the efficiency of the men engaged in loading the wagons. These loading costs varied from 7 to 25 cents per yard. The least figure was obtained by making the teamsters help in the shoveling and the highest figure was due to an excessive amount of frost and firewater.

The tractor outfit consisted of a gasoline-driven caterpillar tractor, the type of machine upon which the design of the British army tanks is based, seven three and one-half-yard spreading wagons, a fifty-yard storage bin and a loading machine. The work was complicated by a very heavy grade at one place. The best that could be done here was to haul four cars across private land and then go back and haul the remaining three cars across this rough ground. A full train was then made up and hauled the remaining two and one-half miles. The total average haul was about three miles. As the work progressed another gravel pit was opened where these grades did not exist and the hauling was done more easily. On the first part of the work the average cost was 15.4 cents per yard per mile and on the latter part it was 15.41 cents.

The engineer who reported these figures, Orrin J. Kitt, has stated that with a more powerful tractor and a loading outfit of greater capacity, a much lower operating cost could have been obtained with the tractor outfit. It is his opinion that with proper equipment, mechanical traction of this type is much cheaper than hauling by team. There are also other advantages which he has summed up as follows: By applying the gravel in two courses with a tractor the gravel is rolled without additional cost and the road is ready for travel as soon as the tractor leaves it. Furthermore, by loading the gravel into a bin, thence into wagons and finally dumping it on the road, the material is better mixed than when it is shoveled directly from the bank into the wagons which dump it on the roads.

The Checking of Corn.

To the Editor:—I believe there is no piece of farm machinery that is so little understood by the average farmer as our common check-row corn planter. I am operating one that was highly recommended, but I simply cannot make it check correctly; neither can the agent of whom I purchased it. All over the country where a good check is found there will be many poor ones. If you can give us farmers some definite and understandable information along this line the same will be highly appreciated by the big majority of corn-belt farmers who take your practical journal. By way of uncovering the cloudy points, won't you please discuss the following questions?

Should you run a tight wire, a medium wire or a loose wire. All methods are recommended by different dealers and agents. Should you throw your wire over before stretching or just carry it over? What do you mean by the "drag" of the wire? How much is it and in what direction?

What is meant by "behind the button" and how do you determine it? Do you simply lay your wire on the ground behind your planter and dig up your corn? If you are planting two inches behind button with a tight wire won't your corn be about four inches out of check?

If you check with a loose wire won't the drag of your wire be much more than with a tight or medium wire?

Please explain why raising or lowering the tongue in its slot adjustment will throw the corn ahead or behind the botton.

Should not the distance behind the button be determined by the tension of your wire, that is, if I am planting one inch behind with a tight wire should I not plant two or three inches behind if I am running a loose wire?

L. E. Pennewell.

Fine Cheese and Butter Exhibits.

Drum Swiss Classes Largest Ever Exhibited at Any Dairy Products Show in Wisconsin—Quality of Dairy Products Excellent.

Dairy Department—Fred Marty, Monroe, superintendent. Judges of butter, Prof. C. E. Lee, Madison; N. W. Hepburn, Urbana, Ill.; G. H. Benkendorf, Madison. Judges of foreign cheese, G. Marty, Madison; J. Lehnherr, Monroe. Judge of milk and cream, Donald R. Mattson, Madison. Judges of American cheese, E. L. Alderhold, Neenah, Wis.; A. T. Bruhm, Madison; J. D. Cannon, New London, Wis.

WISCONSIN is keeping up the quality of her dairy products as evidenced by the good showing at the state fair at Milwaukee last week. There were 225 entries in the cheese exhibit and over 100 tubs of butter, and there were few which failed to receive favorable mention because of the fact that they scored too low. Superintendent Fred Marty and his assistants arranged the dairy products exhibit in attractive style. The showing of drum Swiss cheese was the feature of the show, there being thirty-six drums as compared with twenty-five, the record number exhibited at any previous Wisconsin State Fair. In total quantity the cheese exhibits exceeded that of last year, but there were a few less entries than last year. There are now almost 2,200 cheese factories in Wisconsin and the number is increasing each year. It is noticeable that the number of creameries is not increasing, but on the contrary has fallen off to some extent. This is due to the fact that cheese will bring, in most cases, a larger immediate cash return on milk than can be realized from the sale of cream. Farmers of the state have not all come to the point as yet where they will take into serious consideration the feeding value of skim milk. The butter exhibit this year was about the same size as last year. Below are given the high scores on butter and the several classes of cheese:

Creamery Butter—M. Mickelson, Westby, score 96; Tony Kroyer, Basco, score 96.

Cheddar, Flat or Daisy Cheese—Emil Boeing, Woodstock, 97.16; Carl H. Schneider, Heller, 97.16; Math Meyers, Stanley, 97.16.

Young America, Longhorn or Print Cheese—A. C. Worth, Appleton, 96.33.

Brick Cheese—George Schram, Beaver Dam, 96.75.

Drum Swiss Cheese—Fred Glauser, South Wayne, 98.25.

Block Swiss Cheese—Otto Urban, Riley, 98.25.

Limburger Cheese—John Weiss, Bellville, 98.

Other scores in butter and the several cheese classes are as follows:

Creamery Butter.—Robt. S. Anderson, Northland, 94.83; Chester Bishop, Whitewater, 95:50; L. L. Bolstead, Basco, 95.50; John H. Bogert, Stoddard, 92.66; J. A. Betthauser, Oakdale, 92; Ed T. Bolstead, Stoughton, 93.50; Chris Back, Luck, 95.83; R. W. Butler, Amery, 95; R. J. Brigham, Whitewater, 95.66; Walter Christensen, Klevensville, 93.16; Chas H. Cartweight, New Richmond, 93; W. L. Campbell, Steuben, 92.66; R. C. Cleves, Pola, 95.50; C. J. Chapin, Sheridan, 95.16; Odin Christenson, Nelsonville, 92; G. A. Doldenhauer, Montello, 92.33; H. M. De Golier, Louden, 92.83; Val Droessler, Louisburg, 91.50; W. J. Dehn, Fennimore, 92.83; E. A. Danielson, Grantsburg, 92.66; Rudolph J. Else, Johnson Creek, 92.50; S. E. Enockson, Falun, 93; Albert Erickson, Amery, 95.33; C. G. Fostveldt, Wild Rose, 91.33; Joel Gilbertson, Medford, 92.50; Otto Hankom, Cutler, 93; W. L. Hanson, Brooks, 91.66; T. J. Hanlon, Prescott, 92; Hoie D. Harrison, Clear Lake, 95.50; F. H. Harnes, Waverly, Iowa, 95.83; Frank O. Hearn, Melrose, 90.66; August M. Hein, Hull, Iowa, 95.33; Lewis M. Hansen, Waupaca, 91.83; Maurice Hansen, Iron River, 95.83; John Hinkamp, Waupun, 92; Emil Holverson, Nye, 92.50; L. H. Hoppe, Rio Creek, 94.16; H. E. Jahnke, Florence, 92.50; M. Johnson Co., Kilbourn, 91.66; W. H. Kubat, Marshall, 94.66; W. L. Karker, Brill, 91.16; E. O. Klemm, Manitowoc, 90.50; Fred Kutz, Johnson Creek, 92.50; Tony Kroyer, Basco, 96; Henry Kipp, Cambridge, 91.33; Julius Kretzschmar, New Lisbon 92.33; H. C. Koenig, Plain, 93.33; Pedar Kristensen, Cushing, 94.66; Sylvester M. Koller, Soldier's Grove, 92.50; A. P. Lund, Nashotah, 94.50; A. H. Lindow, Medford, 92.33; B. J. Lindvig, Milltown, 95.33; G. N. Marvin, Black River Falls, 92.16; Fred Maso, Jr., Fennimore, 92.66; M. Mickelson, Westby, 96; Wm. Michaelson, Arkansaw, 93; John Mogensen, Wyocena, 94.16; John E. Mattson, St. Croix Falls, 95; Harry D. Nichols, West DePere, 92.83; George B. Nelson, Luck, 95.33; Lewis Olson, Galesville, 92.66; Arthur A. Olson, Oshkosh, 94.66; Louis Peterson, Bonduel, 91.66; E. J. Peschke, Fair Water, 94.66; Herman R. Ponto, Montello, 92.50; John H. Quale, Planteville, 91.83; John Rassmussen, Mantoma, 93.50; Racine Pure Milk Co., Racine, 94.66; Jos. Rupiper, Waterford, 93; F. S. Root, Rudolph, 94.33; H. F. Rucknagel, Seymour, 93.50; Robt. Ruhland, Lomira, 95.50; A. J. Rivard, Emerald, 95; G. W. Schroeder, White Creek, 92.33; John Schuller, Fond du Lac, 95.16; John Sundin, Lime Ridge, 90.50; Walter Schmidt, Manitowoc, 90.50; Wm. Sieger, Chaseburg, 93.16; C. G. Sipert, Franksville, 95.50; G. M. Stewart, Mazomanie, 91.66; G. P. Sauer, Cedarburg, 95; And. J. Swanberg, Trade Lake, 93.16; Lorenz Tarnutzer, Mazomanie, 91.16; Homer Townsend, Chetek, 93; Homer E. Tait, Turtle Lake, 95.50; Alfred B. Thareson, Grantsburg, 92.33; Wm. F. Thyn, Bloomer, 93.25; John Vigen, Frederic, 92.16; Wm. Warnke, Kingston, 92.16; F. J. Warner, Rosholt, 92.83; J. A. Warnke, Princeton, 94.16; Henry Wolfram, Ft. Atkinson, 94.16; J. C. Ward, Ft. Atkinson, 93.50; Albert E. Will, Ft. Atkinson, 95.66; F. C. Yates, Gleason, 91.33.

Dairy Butter.—Camilla Anderson, Weyauwega, 92.66; Mrs. D. Danielson, Black River Falls, 92.33; Nathan Dickinson & Son, Lake Geneva; Mrs. J. H. Pilgrin, North Milwaukee, 92; Mrs. Chas. Parsons, Antigo, 91; C. C. Thompson, Black River Falls, 91.16; C. J. Ward & Sons, Ft. Atkinson, 90.83.

Cheddar, Flat or Daisy Cheese.—H. W. Austin, Richland Center, 92.33; Emil Boeing, Woodstock, 97.16; Harry Benecke, Denmark, 91.50; P. C. Battes, Bear Creek, 92.66; Ernest Boll, Sheboygan, 90.33; Louis J. Blahnik, Kewaunee, 93.83; Louis Conklin, Seymour, 93.83; Frank D. Donn, Wooco, 92.66; Robert Engel, Fremont, 95.50; C. M. Engelbretson, South Wayne, 91; Emil W. Ehlert, Thorp, 92.66; Wm. J. Frank, Manitowoc, 92.33; Henry J. Gerondale, Merrill, 91.16; Geo. L. Coss, Stitzer, 91.33; Louis Grimm, Manawa, 92.66; Arnold Grimm, Manawa, 92.83; J. C. Gibbs, Muscoda, 96.16; C. E. & F. A. Goodrich, Lone Rock, 92.50; Lee Groom, Muscoda, 90; C. R. Guth, Forestville, 93; Clarence Haigh, Greenwood, 92; Otto Hrabik, Luxemburgh, 93.33; Andy Huggler, Fennimore, 92.50; E. F. Hrudka, Peshtigo, 91.50; Jos. Hensler, Marshfield, 96.33; J. A. Hernke, Hilbert, 92.50; Fred J. Harder, Hillbert, 93.50; Aug. Ipren, Cobb, 91.83; Aug. Janssen, Mineral Point, 92; A. W. Johnson, Stanley, 90.33; H. A. Kuschel, Merrill, 93.50; E. O. Klemm, Manitowoc, 9166; Reuben W. Kalk, Sheboygan Falls, 92.66; H. A. Kalk, Sheboygan Falls, 94; Kielsmeier Co., Manitowoc, 91.16; Ervin Keesow, Appleton, 93.83; Albert Koopman, Jr., Grafton, 92; Fred Kalkofen, Greenwood, 92.33; Herman Kalkofen, Greenwood, 92.83; George W. LaRa, Gratiot, 97; Ralph W. Leeseberg, Suring, 93; Arthur A. Miller, Antigo, 92.83; Fred Moser, DeForest, 90; Math Meyers, Stanley, 97.16; J. C. Martinson, Cadott, 90.83; Ed Maedke, Stanley, 93.66; Wm. F. Naulin, Loual, 92.66; Fred N. Nussbaumer, Waldo, 92.66; D. E. Norleen, Abbotsford, 91.50; Abe Nelson, Mineral Point, 95.66; A. C. Nelson, Boardman, 96; Anton E. Nysse, Neenah, 92.83; H. J. Olin, South Kaukauna, 91.83; Arthur B. Perkins, Boyd, 92.66; E. W. Pingel, Wittenberg, 92.83; A. F. Peterson, Appleton, 93.16; Emil H. Peters, Boyd, 94.16; Wm. Right, Richland Center, 96.16; L. L. Rudersdorf, Plattsville, 90.83; N. L. Ropp, Stevens Point, 93.33; August Romang, Athens, 93.16; L. F. Roesler, Hortonville, 95.16; William Steiger, Withee, 92.83; G. H. Scannell, Eden, 92.50; Henry Schneider, Edgar, 93.16; Carl H. Schneider, Heller, 97.16; Wm. E. Schradter, Holcombe, 93; A. J. Schulte, Marshfield, 93.50; H. C. Schneider, Kewaunee, 94.16; O. R. Schwantes, Clintonville, 93.50; R. M. Schmitz, Unity, 96.66; Anton Schiller, New Holstein, 93.33; G. J. Steinhart, Algoma, 92.50; Norbert P. Strobel, Lomira, 93.66; Leonard A. Tracy, Viroqua, 93; Tom Troxel, Avoca, 93.83; C. A. Voigt, Chili, 93.33; W. S. Walsh, Fennimore, 93; Otto Weyer, Manitowoc, 94.16; A. C. Worth, Appleton, 96.83; Ed C. Williams, Hudson, 92.33; Arnold Zastrow, Stetsonville, 94.

Young America, Long Horn or Print Cheese.—A. J. Blabnik, Kewaunee, 94.16; Ernest Boll, Sheboygan, 92.33; Mrs. O. Dix, Auburndale, 93.66; F. A. Fenner, Rice Lake, 94.33; C. E. & F. A. Goodrich, Lone Rock, 92; J. A. Hernke, Hilbert, 92.50; Fred J. Harder, Hilbert, 93.50; Raymond Johannig, Plymouth, 93; H. A. Kalk, Sheboygan Falls, 94.50; David D. Kurth, Brandon, 92.16; Reuben Kalk, Sheboygan Falls, 94.50; Albert Koopman, Jr., Grafton, 92.16; Ervin Keesow, Appleton, 95; Ed Maedke, Stanley, 91.83; Math Meyer, Stanley, 95.50; Fred Nussbaumer, Waldo, 93.33; H. W. Quad, Kewauskum, 93.50; N. L. Ropp, Stevens Point, 94.66; Peter A. Schmitz, Lone Rock, 92; Rud Schoenrock, Marion, 92.50; A. J. Schulte, Marshfield, 94; Elmer H. Ter Maat, Plymouth, 92.33; Oscar A. Vorehting, Sheboygan, 94; Otto Weyer, Manitowoc, 94.83; A. C. Werth, Appleton, 96.33.

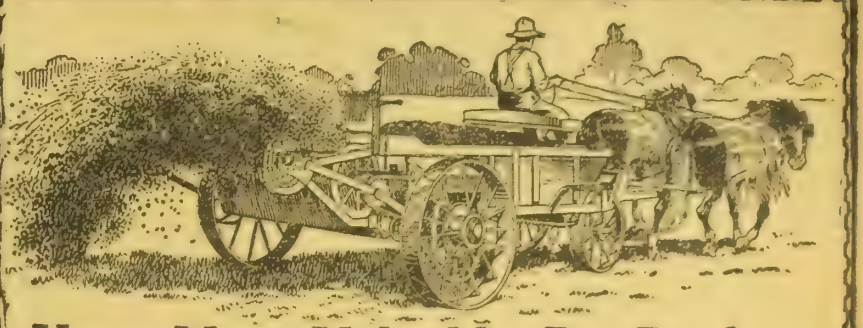
Brick Cheese.—Christ Abbuehl, Clear Lake, 92.50; Abraham Blatter, Hartford, 93; Henry Bolliger, Monroe, 92; Christ Bigler, Clayton, 91.75; Badger Cheese Co., Monroe, 94.75; E. W. Buntwick, Cambria, 94; Alfonso Carolfi, Monroe, 96.25; G. F. C. Dobbratz, Randolph, 93; Frank Ehinger, Ridgeway, 94.50; August Eppler, Burnett Junction, 92; Jacob Hiniger, Beloit, 92.25; Fred G. Kuenzi, Beaver Dam, 92.50; Robt. Kohli, Knowles, 92.25; Jack Leaberhair, Argyle, 92.50; Fred Nass, Ixonia, 94.50; Otto Ohrmudt, Randolph, 92; Aug. H. Raether, Watertown, 92.50; Otto Ray, Argyle, 93; Geo. Schram, Beaver Dam, 96.75; Anton Sutter, Cambria, 96.50; Carl Stocker, Juda, 91.75; Oswald Schneider, Appleton, 94.75; Fred Schuler, Morrisonville, 92.75; Ernest Wenger, Blanchardville, 93; Hans Widmer, Rosendale, 92.25; Harry Weaver, Beaver Dam, 94; John Zahler, Mt. Horeb, 93.50; Arnold Zumbach, Monroe, 94.25.

Drum Swiss Cheese.—Jacob Aeschliman, Woodford, 91.75; Ast Bros. Cheese Co., Dodgeville, 93; Hans Amport, Woodford, 92; Fred Baertchi, Albany, 91.75; Frank Brand, Monroe, 91.12; John Blickenstorfer, South Wayne, 90.25; Anton Banz, Winslow, Ill., 97.75; Emil Baumgartner, Monroe, 94.25; Badger Cheese Co., Monroe, 92.50; Robt. Emmenegger, Gratiot, 93.75; Emil Forster, Barneveld, 93.25; Ernest Fenz, Woodford, 92.25; Joe Guegler, Ridgeway, 94.50; Fred Glauser, South Wayne, 98.25; Alex Hoerburger, Gratiot, 96; E. E. Hasley, South Wayne, 95; Martin Koller, Ramona, 94.25; Charles Krucker, Darlington, 94; Gottfred Loosli, Browntown, 91; Arnold Lauber, Woodford, 91.25; Joseph Lauber, Woodford, 92; John Muggler, Browntown, 91.75; Joseph Meyer, Brodhead, 93.50; Alois Niederberger, Argyle, 91.50; Albert Oertig, Argyle, 92.75; Aug. Ruesch, Gratiot, 97.37; Rudolph Schaller, Barneveld, 91; Alex Schaller, Barneveld, 91.75; Herman Schoepfer, Hollandale, 90.25; John Schmitz, Monroe, 95.50; Jacob Tuescher, Darlington, 95.50; Christ Ubert, Monroe, 92; Gottfred Vogel, Monroe, 94; Otto Wirz, Ramona, 95.50; Jacob Walser, Woodford, 92.12; Ed Wittmer, Monticello, 94.

Block Swiss Cheese.—Carl Amport, Blue Mounds, 92.25; John Amport, Mt. Horeb, 94; Adolf Boyser, Barneveld, 94; Badger Cheese Co., Monroe, 94.25; Nick Engelbert, Spring Creek, 92; Nic Freitag, Monticello, 92; Joe Gugler, Ridgeway, 95.37; Jacob Heiniger, Newark, Beloit, 91.37; Adam Hefty, Darlington, 92.50; August Miller, Monroe, 92.62; Math Marty, Darlington, 91.50; Werner Ryser, Barneveld, 93; Fred Rufenacht, Monroe, 93.50; John Stricker, Monticello, 90.25; John Schaefer, Darlington, 93.25; Otto Urban, Riley, 98.25; Frank Waltie, Barneveld, 94.25; Rudolph Waltie, Barneveld, 92.50; Adolf Wysscrod, Verona, 94.75.

Limburger Cheese.—Badger Cheese Co. No. 6, Monroe, 97.25; Badger Cheese Co. No. 127, Monroe, 95.75; Badger Cheese Co. No. 58, 94.50; John Diem, Monroe, 92; Fred Gilgen, New Glarus, 96.25; Ernest Haessig, Monticello, 94.75; Otto Haefli, Monticello, 92; Friedrich Kehrli, Beloit, 91; Johannes Rechsteiner, South Wayne, 91.25; Ernest Regez & Son, Blanchardville, 92; Ernest Regez & Son, Blanchardville, 94; Carl Schiess, Clarno, 91.75; John Weiss, Belleville, 98; Matt Weidmann, Woodford, 90.50.

Miscellaneous Cheese.—Jacob Bierstecker, Little Chute, first; French Cheese Co., Browntown, first; A. H. Kempen, Oconto, second; Ed J. Scray, DePere, third.



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MP

For Over 50 Years The Mark of Good Implements

High Quality Butter at Wisconsin Fair.

To the Editor:—The quality of the butter entered at the Wisconsin State Fair was of unusual high quality. It was open for inspection in the large refrigerator in the Dairy Building. It is doubtful if an exhibit of Wisconsin butter of such uniform high quality and workmanship was ever entered at a contest at this season of the year.

The average score placed upon the butter from ninety-nine factories was 93.12, with twelve tubs that received a score of 95 to 96. Another lot of twenty-six tubs received 93 to 94.88, with only five entries scoring below 90. When butter of this high quality is entered from various sections of the state it reflects credit upon an industry which holds a prominent place among all of our agricultural activities. It represents coöperation of the producers, factory operators and the makers.

Good butter is the result of handling at the various creameries nothing but milk and cream produced under sanitary conditions and manufactured in well-equipped creameries and in charge of trained men. The making of butter, the kind that always satisfies the consumer, is not an accident, but the result of care and skill from the cow to the consumer. Wisconsin factory men are beginning to realize that these long prices must be backed by quality and that the tainted article has no place on the table under the name of Wisconsin creamery butter.

A few tubs were of rather poor quality and lowered the average score. These lots of butter were made in factories receiving cream that was slightly tainted. One tub was made from fairly good quality of raw material, but the quality of butter was injured by the maker adding lime to the cream before it was churned. While the cream was being pasteurized it was treated with the so-called purification method. All of this had a detrimental effect on the flavor and aroma of the butter.

The time will come when a law will be enacted prohibiting the renovating of cream unless the product is so labeled. This must be done to protect the manufacturers of butter who use the untainted product.

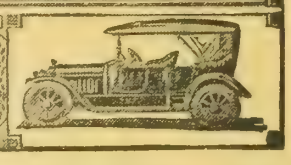
The judges of butter were C. E. Lee, assistant commissioner; Professor Benkendorf, University of Wisconsin Dairy School, and N. W. Hepburn, University of Illinois. G. L. Weigle.

Wisconsin Dairy and Food Com.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 26.

FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department



Questions and Answers.

Motorcycle Facing.

I have a four-horse-power belt-driven motorcycle. The leather facing on the engine pulley burns off. Please tell me of some facing that will not burn off.

Answer.—Try a raybestos facing. Any garage should be able to supply you with it. Raybestos is made of asbestos, containing a small amount of rubber and interwoven with small copper wires. It resembles heavy canvas. It is much used for brake and clutch linings.

A Spark Knock.

I have a Model T Ford car that has run about 5,000 miles. When I advance the spark to the fifth notch, the engine runs all right; but when I advance the spark more than this, it makes a clicking noise. This is noticed most when running from fifteen to twenty miles per hour. When running from twenty to twenty-five miles per hour, I do not notice the clicking so much; and sometimes it disappears entirely. This clicking noise is somewhat annoying, and any information you can give me as to how to stop it will be appreciated.

Answer.—The clicking noise is probably a spark knock. It can be avoided by not advancing the spark too far. Using a heavy lubricating oil should lessen the trouble. Your pistons probably fit the cylinders too loosely; slightly larger pistons should eliminate the trouble.

Starter Trouble.

I have a Briscoe car and the lighting system is not working. It will start the motor. It will light the car O. K. when the car is idle, but the automatic indicating switch fails to release when the battery is not charging. This is what caused the trouble. The battery ran down, and upon the advice of the garage man, I ran the car with the switch giving a clicking sound. Soon I found that the switch was burnt out. I had the battery recharged and a new switch put on, but still it will not work. When the switch burnt out, did the wiring on the motor burn out too?

Answer.—Your motor is probably all right. Examine the wires and see that they are in good condition. Possibly you have a ground or short circuit somewhere. If you are not absolutely sure of the wiring connections, write to the manufacturers for a wiring diagram. If possible, have a competent electrician to examine the starting system. It is difficult to say where the trouble is without actually testing the various parts of the system.

Oiling Motorcycle.

I have a single-cylinder Merkle motorcycle, four and one-half horse power. It will run on the stand and answer the throttle instantly; but when running on the ground, does not pick up well. It seems to want to stop; works hard, and finally stops. Let it rest again for a short time, and it will run again for a while. What is the matter? I have read that the best way to give oil to an old engine cylinder is to mix the oil with the gasoline. If so, in what proportion should they be mixed?

Answer.—A carburetor adjusted to run well idle does not always run well under load. Your carburetor adjustment is probably the cause of at least a part of your trouble.

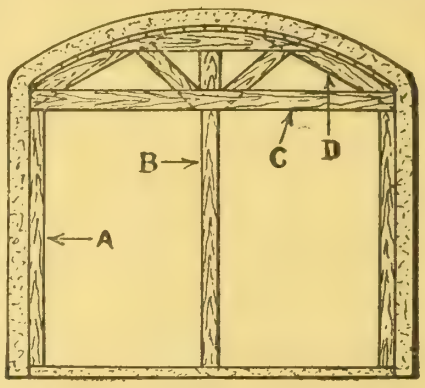
We would not recommend feeding the oil with the gasoline except in two-cycle motors. For old engines use an oil with a very heavy body. Too light an oil will work up past the rings of an old motor and cause ignition trouble. Some of your trouble is on this account. When you while the oil drains off the gs; then the motor will run

Building a Cave.

I am to build a cave for some friends; and, not having much experience on such work, I am going to ask a few questions. Would tile be better than solid concrete? Which would be the more frost proof? Which would be the least expensive? Which the more durable? How are the roofs built on either; and are they safe from collapse?

Answer.—The hollow tile walls would be more frost proof than the concrete. The concrete is probably the more durable, but either should last a lifetime. Which would be the ensive would depend upon local conditions and could only be told by figuring the cost of materials, forms and labor. Either construction if properly done should be entirely safe from collapse.

No forms are needed for building the walls with hollow tile. A top view of the forms for concrete walls is shown in Figure 2. All the small shaded sections like E are the ends of 2x4's set vertical, the lower end being sharpened and driven into the



FIGUURE 1.

ground. The 2x4's are stayed at the top by the crosspieces, F G, which may be made of almost any size lumber. Boards one inch thick placed inside the 2x4's hold the cement. Each pair of outside and inside 2x4's are wired together about every two feet so as to keep the concrete from bulging them out.

For putting on the roof either of concrete or tile, a wooden form shown in

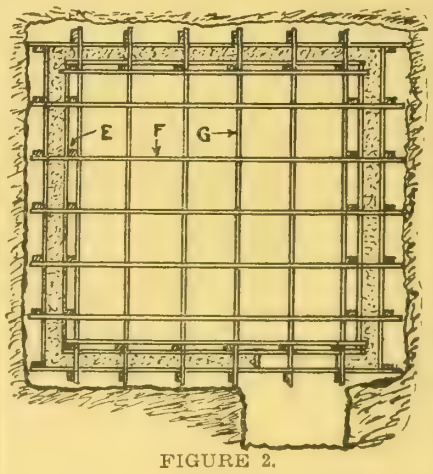


FIGURE 2.

Figure 1 must be used. C and D are usually made of 2x6's and A and B of 4x4's. These forms are placed about two feet apart and boards placed over them to support the cement or tile. A special shaped tile may be obtained for forming the arch. For concrete, the rise of the arch should be at least one-eighth of the width. The forms should not be removed for four days after the cement is poured. A good mixture for the concrete is one part cement, four parts fine, sharp sand and four parts coarse gravel or broken rock not over two inches square. The roof should be six inches thick and the walls not less than eight inches.

Setting Slide Valve.

Would you pleace advise me how to set the steam valve gear and slide of an "Advance" steam engine?

Answer.—The following instructions are taken from the "Advance" instruction book:

Proceed in the following manner to locate the two dead center positions of the crank pin. Make a small mark with a sharp prick punch on the front of the engine frame between the crank disk and engine crosshead, and about six inches from the disk. With one point of a pair of compasses in this mark, and the crank pin about three inches above the center line, make a mark on the edge of the disk with the free end of the compasses. Also scratch a line on the guides at the end of the crosshead. Now turn the crank pin below the center line until the crosshead returns to the line on the guides and make a mark on the disk with the compasses as before. The engine must be turned in the direction it is to run, so as to take up any lost motion. Make a point on the disk half way between the two compass marks. With one point of the compass in the mark on the frame, turn the crank pin toward the center line until the free end of the compass will just enter the half-way mark on the disk. The crank pin will then be on dead center. For locating the opposite center, repeat the operation.

Having centered the engine, it is customary to place the crank pin on the center nearest the cylinder, place the reverse lever in the center notch, and turn the reverse gear on the crankshaft until the crank pin of the reverse gear shaft is on its center nearest the crankshaft or away from the cylinder. Estimate this position by the eye. Tighten the screws on the reverse gear on the crankshaft slightly and temporary. Then as a preliminary in the operation, set the screws that are in the top and bottom of the stop plate so that they will project inward about half an inch from the lugs on the stop plate. Then move the reverse lever down until the reverse box strikes the screw in the bottom of the stop plate, and fasten the reverse lever in that position. Now, with the engine still on the position nearest the cylinder, set the valve stem with the edge of the valve even with the edge of the port in the valve seat, or so that the valve just covers the port; then tighten the screws slightly that hold the valve to the valve stem. Then, with the engine still on the same center, move the reverse lever in the opposite direction until the reverse box strikes the screws in the top of the stop plate, and fasten the lever in that position. If the edge of the valve does not return to the edge of the port, or if it laps by the edge of the port, make a mark on the valve seat even with the edge of the valve. Make another mark half way between the edge of the port and the first mark; loosen the screws in the reverse gear on the crank shaft, and turn the gear until the edge of the valve stops at the mark just made. Then tighten securely the screws in the reverse gear on the crank shaft. The gear is now supposed to be properly located.

Loosen the valve on the stem and set it so that there will be about one-thirty-second of an inch opening between the edge of the valve and the port, this opening being called "lead." Fasten the value securely on the stem, the engine still being on the center nearest the cylinder. Then place the crank pin on the opposite dead center. The reverse lever being in the top notch, the engine should be turned "over" when centering it. If the lead is now found to be more than one-thirty-second of an inch, turn the set screw into the lug at the top of the stop plate until the proper lead is secured. If the lead is less than one-thirty-second of an inch, turn this set screw out. Then tighten the jamb nut on the set screw.

Now, put the reverse lever in the bottom notch, and turn the crank pin a few inches below the center and return it to the center. This is done in order to remove the slack in the reverse gear. If the lead is found to be more or less than one-thirty-second of an inch, move the set screw in the bottom of the stop plate in or out as described above. The valve being now properly set, all set screws should be securely tightened. When the steam pressure is one hundred pounds or more, the dogs or catches on the quadrant should be located. Under no circumstances should the set screws in the top or bottom of the stop plate be disturbed for the purpose of taking up lost motion; take up any lost motion by adjusting the dogs.

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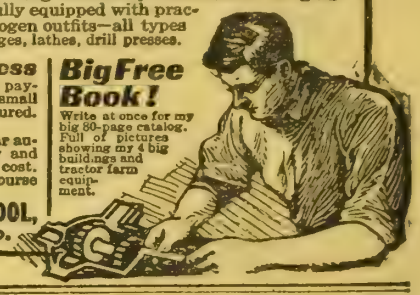

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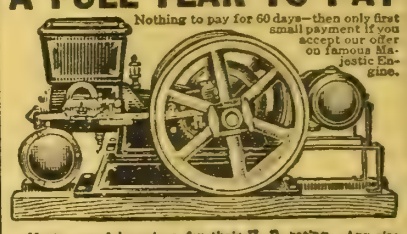

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See page 26. Read The Farmers' Market advertisements. There may be a bargain there for you.

Junior Show at the State Fair.

Young People's Fair Was a Great Feature of the Wisconsin Exposition at Milwaukee Last Week.

A FEATURE of the Wisconsin State Fair this year was the boys' and girls' individual and club contest work, directed by Thos. L. Bewick. This department was new at the 1916 state fair. Considerable interest was manifested, however, in it last year and it was determined to more completely organize the department for the 1917 fair.

There were thirty-one boys' and girls' clubs represented on the fair grounds, with a total of about 300 club members actually enrolled. Superintendent Bewick is also in charge of boys' and girls' club work throughout the state as special representative of the college of agriculture. He now has enrolled about 9,000 boys and girls in organized clubs. There are about 25,000 doing some sort of agricultural project work under his direction.

The boys' and girls' department of the Wisconsin State Fair might properly be called the Junior Fair. There are entries of all sorts of agricultural products and special contests, both for individuals and clubs, under the following classifications: Corn, potatoes, calves, pigs, poultry, garden, canning, sewing, baking and fruit growing. The club winners in these contests this year are as follows:

Corn—Linn Junior Farmers' Club.
Potatoes—Bayfield Club.
Calf—Portage County Juniors.
Pig Club—La Crosse County Agricultural School, Onalaska.
Poultry—Sun Prairie High School Club.
Garden—Linn Junior Farmers' Club.
Canning—Linn Junior Farmers' Club.
Sewing—Sun Prairie High School Club.
Baking—Sun Prairie High School Club.
Fruit—Sun Prairie High School Club.

The boys and girls had regular agricultural and garden exhibits, arranged somewhat after the order of the booths in the county exhibit building. The prizes were awarded for these booths in the following order:

First—Linn Junior Farmers' Club.
Second—Green Bay West High.
Third—Worth While Club.
Fourth—Bayfield Club.
Fifth—Sun Prairie High School Club.
Sixth—Edgerton High School Club.
Seventh—Pewaukee Club.
Eighth—Milwaukee Club.

One angle of the boys' and girls' work has to do with judging of live stock. On State Day at the fair sixty boys were engaged in the live stock judging contest. It was a spirited contest, and demonstrated the fact that these boys have had good training. The markings awarded to the boys under the several classifications are as follows:

Horses—Robert Gray, Milton, 98; Harold See, Onalaska, 96; Foster Claflin, Mondovi, 94; Carl Praeger, Pewaukee, 94; Harvey Woodward, Wausaw, 94; George Massey, Walworth, 92.

Beef—Robert Morton, Darien, 94; Earl Massey, Walworth, 92; Lovell Blocke, Janesville, 79; Russell Turton, Sun Prairie, 79; Charles Rodle, Onalaska, 77; Robert Gray, Milton, 63.

Sheep—Earl Massey, Walworth, 98; Francis Cunningham, Janesville, 96; Russell Turton, Sun Prairie, 94; Emil Virchow, Sun Prairie, 88; Walter Renk, Sun Prairie, 86; Kitchell Sayre, Edgerton, 86.

Dairy Cattle—George D. Searset, Onalaski, 99.6; N. K. Paul, Janesville, 98; Walter Renk, Sun Prairie, 98; Harvey McCann, Janesville, 96; Lovell Blocke, Janesville, 96; Ed. J. Overton, Beloit, 96; Elmer Dutton, Janesville, 96; F. H. Roepke, Seymour, 96.

Hogs—George S. Searset, Onalaska, 96.8; Ed. J. Overton, Beloit, 96; M. K. Paul, Janesville, 95.2; K. Sayre, Edgerton, 95.2; Francis Cunningham, Janesville, 92; Harvey McCann, Janesville, 91.

As will be noted by the markings, the judging contests were very close. Five were tied for third place in judging dairy cattle and three of these are students of Prof. Allen B. West, of Rock county, who has been doing some excellent agricultural work.

The junior live stock exhibit was exceptionally good, especially in the calf and pig classes. There were forty-nine calves shown. The La Crosse County Agricultural School exhibited fifteen, the Sun Prairie high school eight, Portage County Junior Calf Club six, and the Edgerton high school six; the balance were chiefly individual entries. The Guernsey and Holstein calf classes compared favorably with such classes in the open ring. A Guernsey calf, shown by Delbert Fox, of Waukesha county, was awarded the championship for dairy heifer of any breed. The champion pure-bred bull calf was an Ayreshire exhibited by Emmett Howe, of Sun Prairie.

There were about seventy pigs shown by the junior. The La Crosse County Agricultural School exhibited twenty-seven, Sun Prairie high school fourteen, Lancaster Club six, the Edgerton high school six and the Pewaukee Club five. A Poland China, exhibited by Ralph Dobson, of Lancaster, was grand champion sow of any breed, and a Duroc exhibited by Harold Henke, of Janesville, was grand champion boar, any breed.

A total of 300 birds were exhibited in the junior poultry show, including 150 shown by Sun Prairie high school, seventy by the Oconomowoc Junior Poultry Club, ten by the Pewaukee high school, ten by the West High School of Green Bay, ten by the La Crosse Agricultural School and fifty miscellaneous.

There is considerable talk of petitioning the department of agriculture for a special building to house the junior exhibits.

SUN PRAIRIE HIGH SCHOOL AGRICULTURAL EXHIBIT.

PRIZE-WINNING BOOTH OF LINN JUNIOR FARMERS' CLUB, WALWORTH COUNTY FAIR.

Keeping the Stallion Vigorous.

Plenty of exercise, good ventilation, light, and proper care throughout the whole year are necessary for the vigor and health of a stallion. Exercise tones the muscles, stimulates the circulation and digestion, gives strength and vitality to every tissue and every organ of the body. Good, honest work is the best kind of exercise for stallions. Some owners find it practical to work them in pairs while others find it more satisfactory when a stallion is worked with a gelding or pregnant mare.

Utmost care is necessary in working stallions. They are big, strong and willing, but are usually soft and fat from lack of exercise. Consequently they must not be given hard work at first. One should begin with light work—only a few hours each day—gradually increasing the work until the stallion is able to do daily a full day's work. A half day's work during the breeding season is beneficial. Aside from the economy resulting through such work the stallion will become stronger, more vigorous, more tractable, easier to control, and more agreeable to handle, as well as a better breeder. Of course, the owner must use his judgment about special cases.

The proper amount of exercise given will make the question of feeding the stallion less troublesome. How to feed is more important than what to feed. The stallion should be fed three times a day regularly and at the same time each day. Plenty of pure, clean, fresh water should be provided. The problem of proper ration will depend largely on the feeds available, upon those that are home grown, as well as upon the consideration of the amount invested in the stallion. A good, wholesome ration should be selected and enough should be fed to keep the stallion in fairly good flesh, but not too fat. During the breeding season one should aim to keep him gaining a little each day.

The place where the stallion is kept should be flooded with sunlight, and properly ventilated. Sunlight and fresh air are the best and cheapest disinfectants we have, but avoid drafts. Dr. W. C. McCampbell.

Progress of Wisconsin Schools.

Educational Exhibit at State Fair Reflects Good Work Done in the Rural Schools Throughout the State.

THOUGH there were fewer schools entered in the educational exhibit this year, each booth showed more quality and all-around completeness than has ever before been the case. Excellent specimens of penmanship, designing, map making, sewing, cooking, rope splicing and knot tying, and a hundred odd things children are learning in our schools today were on exhibition.

Rural, grade and high school exhibits and two exhibits from county training schools for teachers more than filled the space allotted to the educational showing. Everything from the kindergarten, with color work and paper mounting, to the county training schools, featuring manual training, sewing and construction work, was of the highest class. G. W. Davis, superintendent of the exhibit, pronounced every one superior to previous entries.

There were five entries in the rural school, Miss Dora Thomas, of Dodgeville, carrying away the prize because of the better workmanship and a more attractively displayed exhibit. Two city high schools exhibited, Manitowoc and West Allis, and both showed some

MISS ELEANORE KESSLER, BARABOO, WIS.
Had highest average in spelling, arithmetic and penmanship contest.

excellent work in every department, West Allis especially so in the manual training work. The two cities did not compete against each other, as they were entered in different classes. Two county training schools were entered for honors in the training school class, Columbia county taking first prize over Sauk county by a narrow margin.

The city school exhibit of cooking, baking and dried and preserved fruits showed up especially well. Basket work and construction work in general was excellent.

An exhibit which attracted much attention was entered in a special class for the best original work by young Inar Ebbe, of Marshfield. This consisted of a miniature reproduction in wood of a large type locomotive and also an excellent reproduction in wood of a seven-passenger touring car. The drawings for the locomotive were made by this thirteen-year-old boy last January when an engine happened to become stalled in front of his father's farm. Young Ebbe reproduced the engine on paper and immediately set to work to build a likeness in wood. The details were carried out so perfectly that passers-by gave it fully as much attention as any of the exhibits in the building. Being the work of a boy it is all the more remarkable and the prize awarded for the exhibit was fully earned by Inar.

The annual contest in spelling, arithmetic and writing conducted in connection with the educational work was won by Eleanore Kessler, of Baraboo, against a field of thirty-four county champions. For this contest only grade children from one-department rural schools and two-department graded schools in the state are eligible.

Preparations are made by the teachers of these schools during the school year and eliminations are made either in the school contest or in the contest conducted at the county fairs. One pupil from each county is in this way chosen to represent his or her section at the annual state contest. Though forty qualified, only thirty-four counties sent representatives to uphold the county's honor this year. The work is divided into three sections, spelling, arithmetic and writing. The pupil receiving the highest percentage in each of the three is awarded the gold medal. In the spelling contest Florence Ketchum, of Grand Marsh, was first with a grade of ninety-six; Luella Walter, of Oshkosh, second, with a grade of ninety-four, and Eleanore Kessler, of Baraboo, third, with a grade of ninety. In the writing contest Luella Walter was first with a grade of ninety-two, Eleanor Kessler, second, with a grade of ninety, and Irene Schoenborn, of Milwaukee, third with a grade of eighty-five. In arithmetic Eleanore Kessler won first, Luella Walter second and Florence Ketchum third. The averages showed thirteen-year-old Eleanore the best and she was declared the winner of the medal.

The pupils entering the final contest at the state fair are the guests of the fair board during their stay and they receive transportation to Milwaukee and back to their home town in addition. In ages the contestants ranged from ten to sixteen years. The general average for all the pupils was very satisfactory.

The secretary of agriculture has announced the apportionment of $14,500,000 of federal funds to be used in the fiscal year ending June 30, 1919 by the several states for the construction and maintenance of rural post roads. Wisconsin is allotted $382,707.20. This is the third apportionment under the act, $4,850,000 having been appropriated for the fiscal year ending June 30, 1917, and $9,700,000 for the fiscal year ending June 30, 1918.

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Wisconsin Harvest Well Along.

Hay and Grain Crops Made Abundant Yields in Most Sections—Oats Did Especially Well—Live Stock Show Thrifty Condition.

WISCONSIN.

Crawford County.—Weather has been cool for the last week with a frost on the 10th, but did very little damage. Early planting of corn is about out of danger of frost, but late planting needs good weather until October 1st. Threshing is nearly all finished. Oats yield from 50 to 70 bushels per acre. Winter wheat about 25 bushels per acre. Spring wheat from 18 to 20 bushels. Barley 40 to 50 bushels. Rye, 15 to 20 bushels. Hay on old meadow averages about a ton and a half per acre. New seeding, two to two and a half tons. Fruit is not as good as expected and the season for garden truck is about over in this locality. Cattle feeding is decreasing. Dairymen are prospering. The pasture has been good.—George Ashbacher.

Grant County.—Hay was fine this year. It yielded better than last year. Small grains were exceptionally good. Oats was a big turnout. Wheat and barley also were good, considerably better than we have had for several years. Corn is looking good, only it is away late and would need an awfully good fall ot make anything. Gardens have been good and most fruits plentiful. There is no disease among live stock in this vicinity so far.—Al Vesperman.

Green Lake County.—Oats, rye and wheat are yielding from 10 to 40 per cent more than last year and are of a superior quality. Barley is averaging not as well as last year. The hay crop has averaged about 1½ tons per acre and has mostly been put up in good condition. The acreage is about normal with last year. Corn, late potatoes and some garden truck have been badly damaged by frost. Feeding operations are about normal, but somewhat later than usual on account of the scarcity of feed. There has been very little mill feed fed to dairy cattle.—G. B. W.

Kewaunee County.—A small percentage of the grain is still in the shock and threshing has begun. Barley is running below the average. Wheat, oats and rye are turning out fine. Corn is late, but is developing nicely and if frost holds off, will be a good crop. Recent rains have freshened pastures, gardens, potatoes and the root crops. Dairy cows are looking well, in fact all stock looks healthy. The plowing and working of ground for fall grains has begun. Soil is in excellent condition.—Fred Lutz.

La Crosse County.—The yield of wild and tame hay has been much larger than usual. Small grain crops are slightly less per acre than usual while the acreage was greater than last year. Much of the corn crop is unmatured and frost on the night of the 9th inst. did considerable damage to corn and late garden crops. Much damage has been done by blackbirds to fields of corn near rivers and marshes.—S. J. Dawson.

Marinette County.—Another year's good crops are again nearly harvested. The hay crop will average up well with former years both as to quality and quantity, the season being all of two weeks later than usual, which did not permit an early enough cutting of the first crop to insure a good start for the second and the weather also not being very favorable the second cutting will not come up to an average crop. All small grain is good. Oats are lightly colored on account of rain in the shock. Threshing has begun. Potatoes look good, still nice and green, no blight appearing. Considering the cold weather, corn has made a fair growth, but is very green and most of it will not mature. Pastures are still good and live stock is doing nicely. Very little feed at the present prices is being bought by dairymen just now. The second crop of clover is being pastured to a considerable extent instead.—H. B. Pederson.

St. Croix County.—The hay crop was fairly good, but not equal to the 1916 crop. The yield will probably average one and one-half tons per acre. The oat crop was the best in many years, possibly 45 bushels per acre, and the quality is exceptionally good. The corn crop does not promise well. The weather has been chilly and the corn is two or more weeks late. The stand is good, but the stalks somewhat shorter than usual. However, two or three weeks of fine weather without frost will insure an average crop. Gardens have never been better, but the fruit crop is not large. Feeding operations will not amount to much owing to the high price of feed. People do not think it will pay to fatten cattle and hogs on $1.50 corn. There are fewer hogs than last season and shoats are much lighter than usual at this time of the year.—Stephen Everson.

Sauk County.—The hay crop in this vicinity was by far the largest ever harvested in recent years, insuring plenty of cheap roughage for next winter's use. Heavy frost the night of September 9th killed corn, potatoes and all vegetables. Practically all corn was still in the milk stage and silo filling will now have to begin. Potatoes showed every promise of the heaviest yield in years, the frost damaging crop prospects at least one-third. More farmers than usual stacked their grain this year and little threshing so far around here on which to base estimates of small grain yields.—Richard F. Klemm.

MINNESOTA.

Goodhue County.—The hay crop has been harvested and is of fair quality and about the usual quantity. There is a little second hay crop left to be put up. The wheat crop is good, both quantity and quality, but fewer acres than in normal years, owing to the failure of last year. Early potatoes are good but few. Late potatoes suffered from dry spell and are small, will yield from 50 to 125 bushels per acre. Garden truck is good, but far behind time owing to cool weather. The yield will depend on frost. Oats are good, 20 per cent better than last year. Barley about ten per cent better. Stock and hogs are few and thin owing to lack of pasture and corn. There is a good stand of corn and if the frost does not touch it, the yield should be large. It will take four to five weeks more to mature it, as it is just in the milk or roasting ear stage. The dairymen are facing a bad proposition. Feed is too high to buy and sell the product at a proper price. Several milk dealers are planning to sell their cows and quit before winter.—Otto W. Kobshorn.

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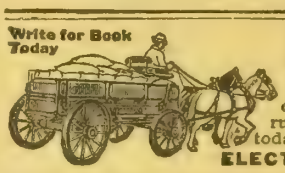

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Wisconsin Fair Is Improved

(Continued from page 11.)

years or over (2 shown), 1st Lamb on Keota Idea, 2d Hurtley on Honorable Baccarat; 2 years and under 3 (3 shown), 1st and 3d Harvest Farms on D'Artignan and Captain, 2d Bernd on Canton; 1 year and under 2 (3 shown), 1st Lamb on Gildroy, 2d Babcock on Iritus, 3d Harvest Farms on Vidette.

Mare 3 years and under 4 (2 shown), 1st and 2d Harvest Farms on Grace and Winifred; 2 years and under 3 (4 shown), 1st and 3d Harvest Farms on Jeanette and Petite, 2d Houser on Peerless; 1 year and under 2 (4 shown), 1st, 3d and 4th Harvest Farms on Nanette, Eleanor and Eunice, 2d Lamb on Leverette 2d.

Percheron Special.—Stallion under 3 years, bred and owned by exhibitor (2 shown), 1st Harvest Farms on D'Artignan, 2d Lamb on Gildroy; champion stallion, bred and owned by exhibitor, Harvest Farms n D'Artignan; mare 3 year or over, bred by exhibitor (2 shown), 1st and 2d Havest Farms on Grace and Winifred; mare under 3 years, bred and owned by exhibitor (4 shown), 1st Hurdcroft Farm on Sara Belle, 2d Harvest Farms on Jeanette, 3d Houser on Peerless; champion mare, bred and owned by exhibitor, Hurdcroft on Sara Belle; best five stallions, Harvest Farms; best three mares (2 shown), 1st Hurdcroft Farm, 2d Harvest Farms.

Clydesdales.—Speaking of Clydesdales, one always strikes a good show at Wisconsin, and this year was no exception. Three of the state's best breeders brought representative samples of their studs, and made the show at West Allis, one of the best exhibitions of the breed seen on the circuit this fall. George Hutton, of Madison, passed upon the classes in his usual able manner to the satisfaction of all, and expressed himself as well pleased with the show, and stated that it was better than last year's show which is saying a good deal. The show was really high class, and was marked by the absence of poorly fitted animals and poor quality was not present. The champion stallion was found in the three-year-old class, when Badger King, shown by W. L. Houser was led out. Badger King is certainly a promising stallion. He has lots of substance, is a good mover, and is built right near to the ground. Sired by King Norman and out of Lady de Bathe, he possesses the right blood lines to make him good. The champion mare came from the McLay stables, Bucklyvie Lady, the aged mare, defeating the rest for this honor. Sweet Marie, shown by Jones, made a good showing, and won her class, but had hardly the substance of the senior mare. The three Wisconsin exhibitors have made wonderful advancement in bringing out a real good bunch of Clydesdales.

Exhibitors—W. L. Houser, Mondovi, Wis.; E. A. Jones, Bangor, Wis.; McLay Bros., Janesville, Wis. Judge, George Hutton, Madison, Wis.

Stallion 4 years or over (2 shown), 1st McLay Bros. on King's Buckler, 2d Jones on W. J. Bryan; 3 years and under 4 (2 shown), 1st Houser on Badger King, 2d McLay Bros. on King's Baron; 2 years and under 3 (3 shown), 1st Jones on Baron's Trooper, 2d and 3d McLay Bros. on El Ray and King's Signet; yearling (4 shown), 1st and 2d McLay Bros. on King's Joy and King's Messenger, 3d Jones on Lloyd George, 4th Houser on Parallel; foal (3 shown), 1st and 3d Houser on Peerless Fortune and Perfect Fortune, 2d McLay Bros.

Brood mare and foal (8 shown), 1st and 5th McLay Bros. on Lady Edgar and Melba, 2d Jones on Lady May, 3d and 4th Houser on Laura and Fannie; mare 4 year or over (5 shown), 1st and 5th McLay Bros. on Bucklyvie Lady and Florentia, 2d Jones on Lady May, 3d and 4th Houser on Laura and Fannie; 3 year and under 4 (4 shown), 1st Jones on Sweet Marie, 2d and 3d McLay Bros. on King's Baroness and Viola, 4th Houser on Black Flossie; 2 years old (3 shown), 1st and 2d McLay Bros. on Jessamine and Sweet Briar, 3d Jones on Silver Bell; yearling (2 shown), 1st Houser on Molly Darling, 2d McLay Bros. on King's Delight; foal, (5 shown), 1st and 3d Houser on Parewinkle and Poinsetta, 2d McLay Bros., 4th Jones on Diamond Lassie.

Get of sire (3 shown), 1st Jones, on get of Young Criterion, 2d McLay Bros. on get of King Norman, 3d Houser on get of Prince Fortune; produce of dam (3 shown), 1st Jones on produce of Maud Trooper, 2d McLay Bros. on produce of Mabel Marshal, 3d Houser on produce of Perfection; champion stallion, Houser on Badger King; champion mare, McLay Bros. on Bucklyvie Lady.

Futurity.—Colt foaled in 1916 (4 shown), 1st and 2d McLay Bros. on King's Joy and King's Messenger, 3d Jones on Lloyd George, 4th Houser on Parallel; filly foaled in 1916 (2 shown), 1st Houser on Molly Darling, 2d McLay Bros. on King's Delight.

Clydesdale Specials.—Stallion 3 years or over (2 shown), 1st Houser on Badger King; stallion under 3 years (1 shown), McLay Bros. on King's Joy; mare 3 years or over (3 shown), 1st McLay Bros. on Bucklyvie Lady; mare under 3 years (3 shown), 1st McLay Bros. on Jessamine.

Shires.—Two stallions owned by Robert Hardy, Waukesha, Wis., constituted the entire showing of English cart horses at West Allis. West Mill Conquering Duke won the blue against Scipio, and was given the purple for champion stallion.

Belgians.—Frank P. Shekleton & Sons, Lawler, Iowa, showed the three-year-old stallion, Reavedore, which was the only Belgian horse shown at Wisconsin.

THE SWINE SHOW.

Poland Chinas.—The Poland China show this year was hardly as good, either in quality or numbers, as heretofore, though in nearly every class were individuals of special merit. The show was the largest of the swine department and a good-sized crowd watched the placings. Both of the champion prizes were taken by J. D. McDonald on his aged entries. L. P. Martiny and Thos. Holmes captured the junior championships on sow and boar respectively, the Martiny entry being the senior pig winner, while the favored Holmes boar was the junior pig entry. Henry Dorr, of Remsen, Iowa, tied the ribbons and gave very general satisfaction, though the ringside differed sharply with him in the placing of the first prize in the junior yearling boar class, the Dobson & Eastman entry being a favorite. The E. W. Hendricks entry in the aged boar class was also very popular with the onlookers. However, the placing, as a whole, was very satisfactory and there were no sore spots at all. The show of the big blacks demonstrated that they have won a permanent place in the hearts of the Badger state farmers.

Exhibitors.—Ed Hendricks, Hazel Green, Wis.; J. F. Diley, Rush Lake, Wis.; Dobson & Eastman, Lancaster, Wis.; Thos. Holmes, Lancaster, Wis.; W. H. Esterly, Whitewater, Wis.; J. D. McDonald, North Bend, Wis.; L. P. Martiny, Chippewa Falls, Wis.; L. E. Pease, Wales, Wis.; N. Kintz & Son, Berlin, Wis.; W. G. Barthold, Burlington, Wis. Judge, Henry Dorr, Remsen, Iowa.

Aged boar (3 shown), 1st McDonald, 2d Hendricks, 3d Martiny; senior yearling (2 shown), 1st McDonald, 2d Pease; junior yearling (4 shown), 1st McDonald, 2d Dobson & Eastman, 3d Kintz, 4th Martiny; senior pig (8 shown), 1st and 2d McDonald, 3d Pease, 4th Dobson & Eastman, 5th Martiny; senior futurity pig, 1st and 2d McDonald, 3d Pease, 4th Dobson & Eastman, 5th Martiny, 6th McDonald; junior pig (23 shown), 1st Holmes, 2d McDonald, 3d Martiny, 4th Diley, 5th Dobson & Eastman, 6th Martiny; junior futurity pig (23 shown), 1st Holmes, 2d McDonald, 3d and 6th Martiny, 4th and 7th Diley, 5th Dobson & Eastman, 8th Holmes.

Aged sow (5 shown), 1st McDonald, 2d and 3d Martiny, 4th McDonald, 5th Kintz; senior yearling (3 shown), 1st McDonald, 2d Martiny, 3d Kintz; junior yearling (5 shown), 1st and 2d McDonald, 3d Martiny, 4th and 5th Kintz; senior pig (11 shown), 1st Martiny, 2d McDonald, 3d Dobson & Eastman, 4th Martiny, 5th McDonald, 6th Kintz; senior futurity pig, 1st and 4th Martiny, 2d and 5th McDonald, 3d Dobson & Eastman, 6th Kintz; junior pig (21 shown), 1st, 4th and 6th McDonald, 2d and 3d Martiny, 5th Diley; junior futurity pig, 1st, 4th and 5th McDonald, 2d, 3d, 6th and 7th Martiny, 8th Dobson & Eastman.

Aged herd, 1st McDonald, 2d Martiny, 3d Kintz; young herd, 1st McDonald, 2d Martiny, 3d Diley, 4th Dobson & Eastman, 5th Kintz; get of sire, 1st McDonald, 2d Martiny, 3d Dobson & Eastman, 4th Holmes, 5th Diley; produce of dam, 1st Martiny, 2d McDonald, 3d Holmes, 4th Kintz, 5th Dobson & Eastman; futurity litter, 1st Martiny, 2d Holmes, 3d McDonald, 4th Diley, 5th Dobson & Eastman, 7th Esterly.

Senior champion boar, McDonald on McChief; junior champion boar, Holmes on M.'s Big Ben; grand champion boar, McDonald on McChief; senior champion sow, McDonald on Miss Price 4th; junior champion sow, Martiny on Golden gate Mable; grand champion sow, McDonald on Miss Price 4th.

Durocs.—The Duroc show at Milwaukee this year was not as large as last year, but the quality was outstanding in most every class. Many of the smaller breeders did not show this year, no doubt, due to the fact that feed was so high. The aged classes were strong and competition was keen throughout. Fisher was winner again this year in the aged class on King Defender, the grand champion of 1916. Parker showed the outstanding boar of the show in King Orion, the recent champion at the Minnesota State Fair and he was also made grand champion of Wisconsin. He is, without a doubt, one of the greatest champions ever seen at the Wisconsin State Fair. Atwater showed a wonderful "under year" boar in Jack Orion. Atwater made the killing in the sow classes, winning all championships. Martiny was the heaviest winner in the pig classes, winning in the open classes and the futurity. The silver trophy given by The Wisconsin Farmer to the breeder winning the most points in the futurity was won by Martiny, having 47 points, Atwater came second with 35 points. In all the show was very successful in every respect and many sales were made at "long" prices.

Exhibitors.—L. F. Atwater, Bangor, Wis.; Riley Martiny & Son, Baraboo, Wis.; John L. Fisher, Janesville, Wis.; E. H. Parker & Son, Janesville, Wis.; W. G. Bartholf & Son, Burlington, Wis.; W. C. Jenkins, Bangor, Wis.

Aged boar (4 shown), 1st Fisher, 2d Bartholf & Son, 3d Martiny & Son, 4th Jenkins; senior yearling (2 shown), 1st Parker, 2d Atwater; junior yearling (3 shown), 1st Parker, 2d Fisher, 3d Jenkins; senior pig (6 shown), 1st Atwater, 2d Fisher, 3d Jenkins, 4th and 5th Bartholf; junior pig (21 shown), 1st, 4th and 5th Martiny, 2d and 3d Parker, 6th Atwater; futurity class, 1st, 4th and 5th Martiny, 2d and 3d Parker, 6th, 7th and 8th Atwater.

Aged sow (6 shown), 1st and 2d Atwater, 3d Jenkins, 4th Martiny, 5th Bartholf; senior yearling (3 shown), 1st Atwater, 2d Jenkins, 3d Bartholf; junior yearling (7 shown), 1st, 4th and 5th Atwater, 2d and 3d Jenkins; junior pig, open class (18 shown), 1st and 4th Martiny, 2d, 3d and 5th Atwater; futurity (18 shown), 1st, 4th and 6th Martiny, 2d, 3d, 5th and 7th Atwater, 8th Bartholf; futurity litter, 1st and 3d Martiny, 2d and 5th Atwater, 4th Parker, 6th and 7th Bartholf, 8th Fisher.

Aged herd, 1st Atwater, 2d Jenkins, 3d Martiny, 4th Bartholf; young herd, 1st Atwater, 2d Martiny, 3d Jenkins, 4th Fisher, 5th Bartholf; young herd bred by exhibitor, 1st Atwater, 2d Martiny, 3d Jenkins, 4th Fisher, 5th Bartholf; get of sire, 1st Atwater, 2d Martiny, 3d Jenkins, 4th Fisher, 5th Parker; produce of sow, 1st Atwater, 2d Martiny, 3d Jenkins, 4th Fisher, 5th Parker.

Senior and grand champion boar, Parker on King Orion; junior champion boar, Atwater on Jack Orion; senior and grand champion sow, Atwater on Proud Helen 2d; junior champion sow, Atwater on Model May 2d.

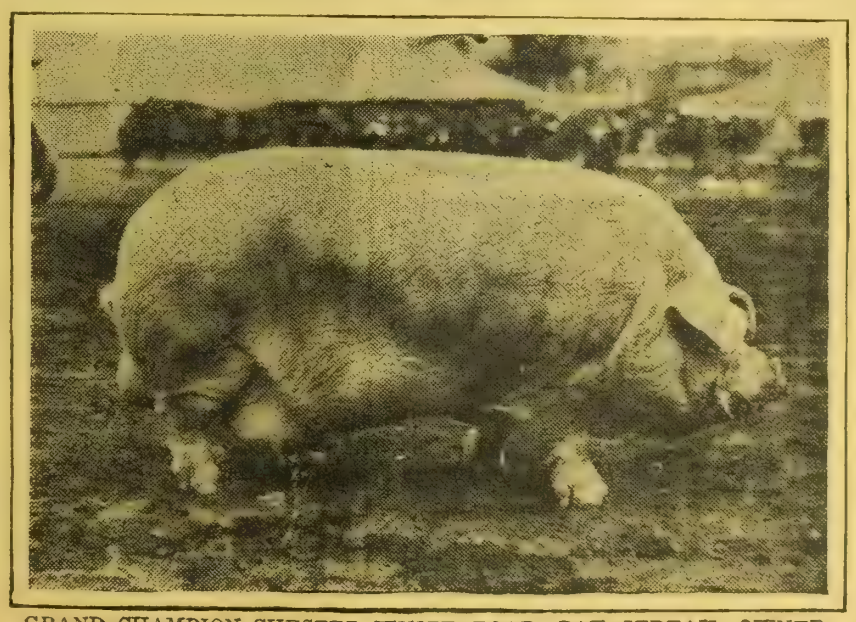
Chester Whites.—There was a fine showing of Chester Whites and, with the exception of one herd, they were blooming. The competition was keen throughout and most of the classes were well filled. The Chester men had the best aged sow class of any breed on the grounds and are to be congratulated. Butts showed Pay Streak again this year and succeeded in winning grand championship on him. Derenthal showed a very typey gilt with size and quality that was made junior champion. We believe we are safe in saying that the showing of Chesters was the best ever seen at the Wisconsin State Fair and it goes to show that this popular breed continues to gain on the other breeds. No breed has made the advance that the Chester White breed has, in the last few years. Most breeders need a little more size in their herds, for as in all breeds, the cry is for the big ones that have the quality. The Chesters have the quality and when they get a little more size they will certainly have the ideal type.

Exhibitors.—W. C. Schiebe, Burlington, Wis.; Wm. F. Butts, Evansville, Wis.; B. H. Babcock, Evansville, Wis.; A. J. Adams, Litchfield, Mich.; W. H. Barr, Ames, Iowa; H. A. Derenthal, Wykoff, Minn. Judge, W. F. Harris, Morganfield, Ky.

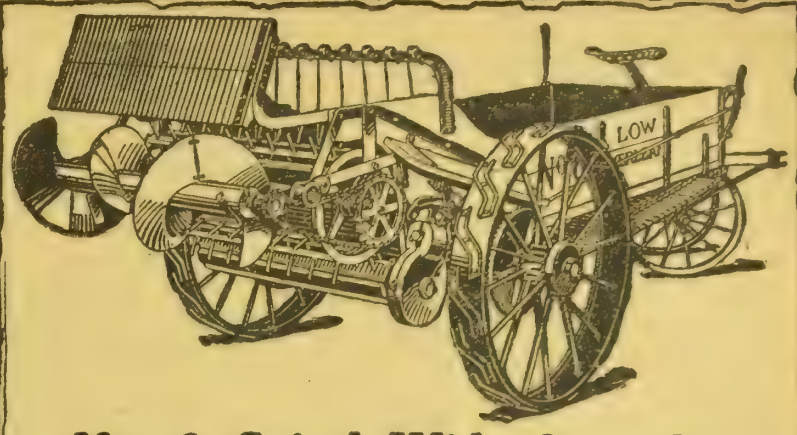
Aged boar (3 shown), 1st Butts, 2d Schiebe, 3d Adams; senior yearling (3 shown), 1st Barr, 2d Derenthal, 3d Adams; junior yearling (4 shown), 1st Derenthal, 2d Barr, 3d Schiebe, 4th Adams; senior pig (6 shown), 1st Barr, 2d Butts, 3d Schiebe, 4th Derenthal, 5th Adams; junior pig (10 shown), 1st Derenthal, 2d and 5th Butts, 3d Barr, 4th and 6th Schiebe.

Aged sow (7 shown), 1st and 2d Barr, 3d and 4th Derenthal, 5th Adams; senior yearling (4 shown), 1st Barr, 2d Derenthal, 3d Adams, 4th Schiebe; junior yearling (6 shown), 1st and 2d Barr, 3d Derenthal, 4th Schiebe, 5th Adams; senior pig (10 shown), 1st and 2d Barr, 3d and 4th Derenthal, 5th Schiebe; junior pig (10 shown), 1st Derenthal, 2d and 3d Schiebe, 4th and 5th Butts, 6th Barr.

Aged herd, 1st Barr, 2d Derenthal, 3d Schiebe, 4th Adams; young herd, 1st Barr, 2d Derenthal, 3d Butts, 4th Schiebe, 5th Adams; get of sire, 1st Barr, 2d Derenthal, 3d Butts, 4th Schiebe, 5th Babcock; produce of sow,



GRAND CHAMPION CHESTER WHITE BOAR, PAY STREAK, OWNED BY WILLIAM F. BUTTS, EVANSVILLE, WIS.



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The **New No. 8** Spiral Wide Spreader and other **Low Corn King** and **Low Cloverleaf** Spreaders will go onto thousands of farms before the close of the year. They are all light-draft, low-loading, easy-handling, built of steel—and satisfactory. We have an idea one of them would stand a good chance of going onto your farm if you were fully posted. At any rate it will pay you to write us for catalogues. Write the address below.

International Harvester Company of America
(Incorporated)
CHICAGO U S A

Champion Deering McCormick Milwaukee Osborne

1st Derenthal, 2d Barr, 3d Schiebe, 4th Babcock, 5th Adams.

Senior champion boar, Butts on Pay Streak; junior champion boar, Barr on Longfellow; grand champion boar, Butts on Pay Streak; senior champion sow, Barr on Lenora's Gem; junior champion sow, Derenthal on Callaway Lady 1st; grand champion sow, Barr on Lenora's Gem.

Berkshires.—The Berkshire showing this year was not large, there being three herds competing, but the individual excellence was far in advance of anything seen at Milwaukee in recent years. Whitmore Bros. had an excellent showing of big useful "Berks." They do not raise the "show yard" kind, but are breeding for production rather than the fine points that formerly won in the show ring. Brae Burn Farms and Geo. E. Kelley had excellent herds well fitted and came in for their share of the prizes. Whitmore Bros. showed a wonderful boar for the championship, one of the oustanding boars of the swine show. Brae Burn Farms had a fine showing of sows and won all championships.

Exhibitors—Brae Burn Farm, Lake Forest, Ill.; Whitmore Bro., Lyons, Wis.; Geo. E. Kelley, Mineral Point, Wis.; La Crosse County School, Onalaska, Wis. Judge, Henry Dorr, Remsen, Ia.

Aged boar (2 shown), 1st Whitmore, 2d Kelley; senior yearling (2 shown), 1st Brae Burn Farm, 2d Whitmore; junior yearling (6 shown), 1st and 2d Whitmore, 3d and 5th Kelley, 4th Brae Burn Farm; senior pig (3 shown), 1st Whitmore, 2d and 3d Brae Burn Farms; junior pig (7 shown), 1st, 2d and 5th Whitmore Bros., 3d and 6th Brae Burn Farm, 4th La Crosse County.

Aged sows (5 shown), 1st and 2d Brae Burn Farm, 3d Kelley, 4th and 5th Whitmore Bros.; senior yearling (3 shown), 1st and 2d Brae Burn Farm, 3d Whitmore Bros.; junior yearling (7 shown), 1st and 2d Brae Burn Farm, 3d and 4th Whitmore Bros., 5th Kelley; senior pig (4 shown), 1st and 2d Brae Burn Farm, 3d Whitmore Bros., 4th Kelley; junior pig (9 shown), 1st, 4th and 5th Whitmore Bros., 2d and 3d Brae Burn Farm, 6th Kelley.

Aged herd, 1st Brae Burn Farm, 2d Whitmore Bros., 3d Kelley; young herd, 1st Brae Burn Farm, 2d Whitmore Bros., 3d Kelley; get of sire, 1st Brae Burn Farm, 2d Whitmore Bros., 3d Kelley; produce of sow, 1st Brae Burn Farm, 2d Whitmore Bros., 3d Kelley.

Senior and grand champion boar, Whitmore Bros. on Aldoro Climax; junior champion boar, Whitmore Bros.; senior champion sow, Brae Burn Farm on Brae Burn School Mistress; junior champion sow, Brae Burn Farm on Brae Burn Rival Lass; grand champion sow, Brae Burn Farm on Brae Burn Farm Mistress.

Hampshires.—Exhibitors: A. L. Damon, Richland Center, Wis.; W. W. Vaughn & Son, Burlington, Wis.; La Crosse County School, Onalaska, Wis.

Aged boar (2 shown), 1st Damon, 2d Vaughn; senior yearling (1 shown), Vaughn; junior yearling (1 shown), Damon; senior pig (3 shown), 1st Damon, 2d Vaughn, 3d Kelley; junior pig (3 shown), 1st and 2d Damon, 3d La Crosse Co.

Aged sow, 1st Damon, 2d Vaughn, 3d Damon; senior yearling, 1st Vaughn, 2d and 3d Damon; senior pig, 1st Vaughn, 2d Damon, 3d Kelley; junior pig, 1st, 2d and 3d Damon.

Aged herd, 1st Damon, 2d Vaughn; young herd, 1st Damon, 2d Vaughn, 3d Kelley; produce of sow, 1st Damon, 2d Vaughn, 3d Kelley.

Grand champion boar, Damon on Dellbrook Maloy; grand champion sow, Vaughn on Pearl.

Spotted Polands.—Mr. A. S. Booco, Jeffersonville, Ohio, showed the only herd of Spotted Polands and had entries in every class and incidentally won all prizes.

THE SHEEP SHOW.

The sheep show at the fair this year was pronounced by judges and flockmasters alike, as the strongest show thus far seen at any fair. Both the mutton and the fine wool breeds were represented by higher quality animals and a greater number of entries than usual. J. C. Duncan, of Lewiston, N. Y., judged the mutton breeds and John E. Webb, of South Fort, Ind., the fine wools. The fine wool breeds put up an especially strong show with plenty of quality to make the prizes worth while to the winners.

R. D. Williams, of Xenia, Ohio, was the heavy winner in the American Merinos, while Watson Lovett, of Zanesfield, Ohio, won most of the firsts in the Delaines Merinos. Orth & Mathews, of McGuffy, Ohio, won heavily in the Rambouillet classes with F. S. King Bros., of Laramie, Wyo., competing strongly and successfully for every place in the class. Sheep men from outside of Wisconsin had the best of the argument in the fine wools, but in the mutton classes the Wisconsin breeders were the big winners. Smith Bros., of Union Center, made a strong fight for Wisconsin for the fine wool breeds.

Like the fine wool show the mutton show was also of superior quality with well-filled classes in every division. Judge Duncan stated without any reservations that the Wisconsin show has brought together more quality sheep and a greater number than any show so far held. The Wisconsin classes make it possible for the new sheep men of the state to come in on the prize money and there is no doubt that this is the reason why the entries were heavier than usual. Also, professional show men are in this way prevented from taking all the moneys hung out in the competition. But even in the open classes the Wisconsin men were the heaviest winners.

The Shropshire class was the big show, as usual. Honors went to Arthur Broughton & Son, of Albany, who won every first with the exception of first place on ewe lamb, which went to Clarence Wilson, of Minneapolis. William Renk, of Sun Prairie, was a consistent contender, as was also W. G. Miles, of Evansville, but they could not claim better than third and fourth places.

In the Oxfords, Richards & Richards, of Lodi, won first place on their yearling ram and ram lamb, but were beaten for championship by the aged ram owned by A. J. Mohr, of Bloomer. Championship ewe was owned by Smith Bros., of Union Center.

In the horned Dorsets, C. G. Cherry, of Xenia, Ohio, won grand championship on his yearling ram, but E. Crall & Son, of Evansville, took the honors in the ewe championship, as well as most of the other firsts in this class. Mohr was a runner-up for honors all the way through.

In the Cheviots A. W. Arnold, of Galesville, won championship for ram and ewe and had things his own way pretty much in all classes. Smith Bros. and Crall made active competition for every first, but Arnold's entries were uniformly superior.

In the Southdowns Arnold was again a winner, but V. G. Miles was first in all but the yearling ewe and champion ewe classes. Smith Bros. had to be content with third honors all the way through.

Hampshire honors went to Walnut Hall Farms in the open classes with Renk running a close second all the way through. In the Wisconsin classes Renk won heavily and he was also awarded the special prize offered by the American Hampshire Association for best flock, consisting of one ram, two yearling ewes and two ewe lambs. Miles was a close second to Renk, while Arnold did not do as well here as with the other breeds.

In the Cotswold class Arnold was the strongest winner, with Richards & Richards putting up a good fight for honors. The Cotswold show was a strong one.

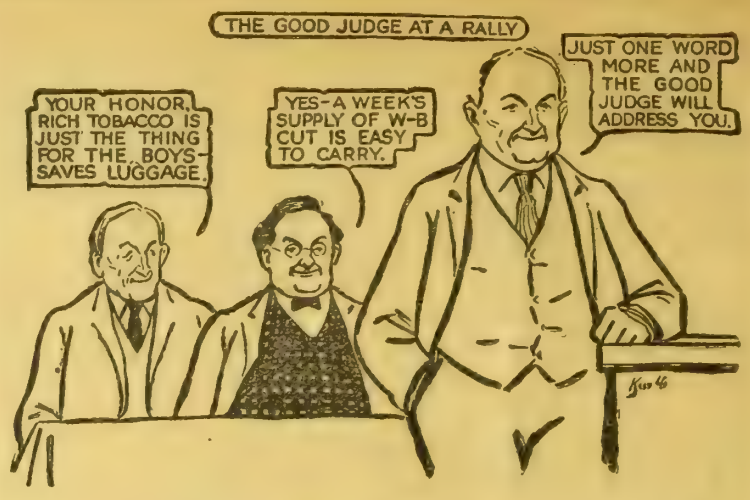
The Lincoln prizes were pretty well split up between Wilson, Crall and Arnold.

The sheep exhibitors were: Orth & Mathews, McGuffy, Ohio; A. W. Arnold, Galesville; H. H. Cheney, Xenia, Ohio; A. Broughton & Son, Albany; C. G. Cherry, Xenia, Ohio; E. Crall & Son, Evansville; Dobson & Eastman, Lancaster; J. C. Ellis & Son, Evansville; M. F. Hogan, Waunakee; H. Jewell & Son, Mineral Point; F. S. King & Sons, Laramie; Watson Lovett, Mansfield; V. G. Miles, Evansville; A. J. Mohr, Bloomer; Wm. Renk & Sons, Sun Prairie; L. M. Rooney, Baraboo; S. R. Smith & Sons, Union Center; M. Trener, West Allis; Walnut Hall Farm, Donerail, Ky.; R. D. William, Xenia, Ohio; Clarence Wilson, Minneapolis; Richards & Richards, Lodi.

GRAND CHAMPION POLAND CHINA SOW, MISS PRICE 4TH, OWNED BY J. D. McDONALD, NORTH BEND, WIS.

GRAND CHAMPION DUROC SOW, PROUD HELEN SECOND, OWNED BY L. F. ATWATER, BANGOR, WIS.

CHAMPION RAM AND EWE, WISCONSIN FAIR—OWNED AND EXHIBITED BY ARTHUR BROUGHTON, ALBANY, WISCONSIN.



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For 100,000 Cattle 200,000 Sheep!

THERE is 9 months' grazing every year on the luxuriant and nutritious native grasses of the Free Open Range surrounding the farm lands in the

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This pasturage is **Free** to the Northern farmers who have bought and are buying at our low prices on easy terms. On these lands two or three cultivated crops are grown in the same fields each year. We believe this to be the greatest opportunity in America for the stock raiser and general farmer. Mild winters, ample rainfall, productive soil, healthful climate.

Learn about it. Send for the big, **Free** book, **"Where Soil and Climate Are Never Idle,"** full of facts and photographic illustrations. Write for it **Now.**

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FOR SALE—90-A. imp. farm, $1,500, terms; good crops; list. McGrath, Mountain View, Mo.

132 ACRES, three miles from Brunswick; improved; $90. G. W. Rucker, Brunswick, Mo.

See page 26. Read The Farmers' Market advertisements. There may be a bargain there for you.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Hominy Grits.

"You don't eat grits or rice?"

The Vermont woman shook her head.

"Well, what do you put your gravy on?" was the puzzled question of the southern woman.

Food economists must answer this if meats stay at present prices. For average Americans will have to learn to use meats as the Italians do, largely for the flavor. Then the something cheap to put your gravy on is necessary. Grits makes an ideal "something," and, moreover, is a corn product and so a patriotic food.

In the far South hominy grits is a breakfast dish, a dinner dish or a supper dish. It goes well and quickly with bacon or hash for breakfast. Sometimes a southern child will stir into his grits a soft-boiled egg, making a complete meal. Usually it is eaten with gravy or butter.

To cook hominy grits, wash thoroughly, allowing three cups of water to one cup of hominy. Salt water to taste. Cook in single boiler until hominy begins to thicken. Then set on back of stove or on asbestos mat and cook slowly until done. Hominy needs about an hour's cooking. It burns very easily. It is much improved by beating in half a cup of milk just before dishing up. The pan in which hominy has been cooked should be put to soak in cold water at once. If hot hominy is poured into a deep dish it can be turned out when cold, cut in slices and browned or fried like mush. Fried hominy is usually served with duck. It is also an appreciated addition for breakfast.

Baked hominy grits may be used as a dinner dish like a vegetable. Cook one cup of hominy as directed above. While hot stir in one well-beaten egg and enough milk to make a very thick batter, and a little bacon fat. Bake in deep dish until firmly set. Time depends on depth of dish. Serve with spoon from dish. Baked hominy, toast and bacon is a most satisfactory breakfast.

Those who wish to try out hominy are advised not to serve it as a breakfast food with milk and sugar. It is too starchy to be satisfactory; it needs the flavor of the meat or egg. Serving it as a breakfast food will only prejudice the family against a really valuable food product.

Dry Roasting Ears for Winter.

By drying the corn on the cob instead of cutting it off you can have roasting ears for midwinter menus. And it isn't the least bit of trouble, either.

Select the corn in the proper roasting-ear stage, remove the husks, blanch the ears in boiling water from eight to ten minutes, then plunge in cold water and dry. The blanching tends to set the milk in the corn and gives it a better color when dry.

Dry the ears the same as you do the corn when it is cut from the cob, by placing on trays in the sun or in an artificially heated atmosphere. Be careful that the corn does not sour in drying. When thoroughly dry, place in sacks or open containers until conditioned. Then tight containers may be used. For protection against worms, heat the corn in the oven at 14 degrees Fahrenheit for five minutes as soon as taken out of the drying trays.

When the corn is wanted for use it is soaked and then cooked the same as fresh roasting ears.

Dressing Up Old Furniture.

Most varnished furniture in the course of time needs serious attention and most furniture is varnished. Sometimes the varnish can be rubbed down with boiled linseed oil and pumice stone, giving a duller polish, but more often the varnish should be removed. To do this, get a prepared varnish remover. Apply to surface with a brush, let stand about thirty minutes. Apply the second time, let stand fifteen minutes, scrape off with putty or case knife or steel scraper. Another application of remover which can be wiped off with a cloth may be necessary. Then sandpaper surface, using medium to fine paper. Then rub down with oil and pumice stone, wiping off all oil and polish, using a woolen cloth. The piece can then be waxed, using a mixture of turpentine and beeswax or floor wax. It is better to rub down with oil several times before applying wax.

This gives a beautiful finish to old mahogany or walnut and brings out the beauty of the wood. Many an old piece could be made a thing of beauty by this treatment.

So much furniture is finished in golden oak and is unpleasantly shiny. Try refinishing a piece and see how it improves the looks. It may need a coating of stain to even up the color where it has been scraped.

Any furniture finished in a wax or fumed surface should be rubbed down with oil a few times a year to preserve the finish. Be sure and wipe off all superfluous oil. Some of the most beautiful old English furniture never had any other finish but frequent treatments of linseed oil.—[Nellie M. Kilgore.

For Mrs. H. L.

To the Editor:—A lady who signed her letter Mrs. H. L. asked for different ways of cooking cabbage. Sometimes I put it through the food grinder, using the coarse knife, and then fry the same as potatoes. Another way is to grind as for frying, then boil until tender and dress with sweet cream, salt and pepper. Our folks think it is fine prepared in this way.

Mrs. H. L. also wanted to know how to roast an old hen so that the meat will not be dry. She should first boil it until she can pierce the meat with a fork. Then proceed the same as wtih a young fowl. The broth that the chicken was cooked in is fine for dampening the dry bread used to stuff it. When I cook an old rooster I let it boil for half an hour, then pour off the water and replace it with fresh. The meat is as sweet as that of a hen when cooked in this way. Mrs. C. G.

The Pride of Our Hearts.

The little twins at the left are Josephine and Catherine Rybolt, daughters of Mr. and Mrs. Willis Rybolt. They are caught with the evidence that they are "bottle babies" and their plump little bodies and happy faces are proof that it agrees with them. Next comes Cecile Vivian Brady. You can see she is a dear little lady, and her mother, Mrs. Harlan Brady, says she is as healthy and as sweet as a baby can be. The Buster in the center is William Georgie Bernaw, and he confides to us in a letter that his aunts and uncles think he is "some kid." We would just like to tell those same adoring aunts and uncles, though, that William Georgie had to have grandmother help him write his letter. Clifford Carl Hansen comes next. The weather was warm when Clifford had his picture taken—and we are glad of it, for we can tell from the looks of him that there are kiss-inviting dimples in each of his elbows. And to balance things up we have another pair of twins at the right—boys this time. They are Ralph and Raymond Hylik. They believe in having a good time and they couldn't get the mischief out of their eyes long enough to have their pictures taken.

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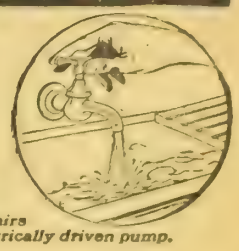
Electricity on the farm brings more than safe, bright lights; it brings a farm hand that never sulks or grumbles, one that will work 24 hours a day, every day in the year—a hired man that will never quit.

You talk about the scarcity of good farm labor. Consider this: electricity will turn the grindstone, the cream separator and the churn, without a pause for dinner or a stop for sleep. It will clean the house, wash and iron the clothes, wash the dishes, cool the home, and do a score of other irksome household tasks. *It's better than the best hired help you ever had!*

And you can get electricity easily. You can buy a Western Electric plant and use your own gas engine to run it. It's as easy to take care of as the Western Electric farm telephone in your home. Back of it is 40 years of electrical experience, a national distributing organization with stocks in 35 cities, and an agent in your territory.

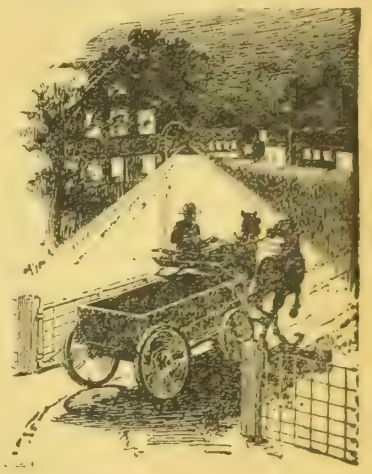
When you buy a Western Electric Plant you can get Western Electric lamps, motors, pump, cream separator, iron, washing machine, vacuum cleaner—in fact, almost every kind of electrical appliance built especially for this service. Have your whole electrical outfit a Western Electric.

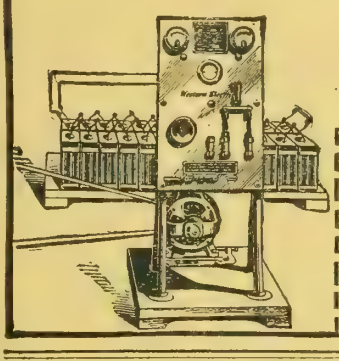
Just mail the coupon for a copy of "Brightening Up the Farm"



Running water upstairs and downstairs with an electrically driven pump.

The constant speed of the electric motor means better separation of the cream.





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INCORPORATED
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114 Third Street, Minneapolis, Minn.

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Please send me illustrated booklet, No. WF-3, "Brightening Up the Farm."
Name_____
P. O. Address_____
State_____ County_____

Canning Cabbage.

I wonder if you can tell me how to can cabbage? My early cabbage is going to rot and, as we like fresh cabbage would like to save it. One can buy canned cabbage at the stores and I don't see why we cannot can it at home.—Mrs. T. E. M.

Cabbage may be canned by exactly the same method as that described on this page for pimento peppers. Doubtless you have canned other kinds of vegetables and should have no trouble at all with your cabbage.

Pimento Peppers.

Will you please give me a recipe for canning pimento peppers?—Mrs. S. G. W.

Pimento peppers are as easily canned as any other vegetable. After the

SOME ATTRACTIVE YOUNGSTERS REFERRED TO UNDER THE ABOVE TITLE "THE PRIDE OF OUR HEARTS."

SUGAR 4 cents

Best Family Patent FLOUR $8.50 Per Bbl

(WITH ORDER)

Read every word of this advertisement. It shows you how to **Save Money** on groceries. Our Grocery Bargain Catalog is included **free** with your first order. Economy is the national watchword. We desire to serve you better, save you money, and assist in this great campaign by eliminating the sending of catalogs promiscuously. We eliminate waste and **save you money,** by sending our catalog **only** to those who can prove to use that they are interested in saving money on their grocery purchases. **Money back if not more than pleased.**

Here Is Our Plan

Send us $2.99 for the following Trial Order and we will then know that you mean business, and we will include with your order our Bargain Grocery Catalog and Monthly Bargain Bulletins in which you will find big grocery bargains and save many dollars.

$2.99

Grocery Assortment, E-18

Approximate Retail Price	Approximate Weight, 19 lbs.	Our Wholesale Price to You
$0.50—5	lbs. Pure Cane Granulated Sugar	$ .20
.12—1	Large Size Package Quaker Oats	.06
.08—1	Package Uneeda Biscuits	.02
.08—1	Bar Ivory Toilet Soap	.03
.15—1	Can Campbell's Tomato Soup	.08
.07—1	Bar Kirk's Flake White Laundry Soap	.02
.07—1	Bar American Family Soap	.02
.25—1	Can Sardines, LaParis Brand, French Style, smoked and spiced, fried in best oil. Very appetizing	.14
.90—2	lbs. Moneyworth Brand Coffee	.70
.80—1	lb. Tea, highest grade, uncolored, Japan	.57
.50—1	lb. Guaranteed Baking Powder	.39
.39—1	Bottle Family Concentrated Bluing, 4-ounce bottle, equal to one gallon ordinary bluing	.23
.60—1	lb. Pure High-Grade Breakfast Cocoa	.33
.50—½	lb. Pure Ground Cinnamon	.30

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When you receive these groceries call in your friends to examine them, and **if you do not all agree the groceries are entirely satisfactory in every way, and just what you expected to get, and at much lower prices than you can get elsewhere,** if you do not find you have saved money, simply return the entire shipment to us and we will immediately refund your money.

For reference as to our responsibility, we refer you to The Independent State Bank, Chicago, or any financial reporting agency.

DON'T FORGET: We do not send our Bargain Catalog until we receive your trial order, nor do we sell a part of the order, nor any one article mentioned in the list separately. The Ford plan of selling automobiles is our plan in selling groceries. We serve all well by serving all alike.

Why continue to pay big prices and unnecessary profits to dealers when you can buy better goods from us at nearly half the prices you pay elsewhere?

Rush your trial order by return mail. It will put you on our permanent list of careful grocery buyers. It will bring you our catalog and our bargain bulletins. Strike the first blow today in the battle against increasing grocery costs.

Repeat orders from all customers—speaks volumes for the reliable bargains we offer. **"We Do Not Substitute."** All orders filled exactly as represented.

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GENTLEMEN—For the enclosed $2.99 you may send me your special Trial Bargain Assortment Catalogue of grocery bargains and future Bargain Bulletins as issued. This order is given with the understanding that if I am not perfectly satisfied, the entire order may promptly be returned to you and you will at once refund my money plus all transportation charges and postage. State whether you want order by express or freight.

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NOTE—The above firm is thoroughly reliable and will do exactly as they advertise. You are perfectly safe in ordering from them. (Signed) INDEPENDENT STATE BANK OF CHICAGO

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 26.

peppers are cleaned you proceed in the same way as in canning wax beans or okra. Blanch in live steam for five to ten minutes, then dip quickly in cold water. Pack in hot, sterilized jars or tin cans and add boiling water until the jars are full. Add one level teaspoonful of salt to each quart. Put rubbers and caps of jars in position, but do not seal tight. Seal tin cans completely. Sterilize in water bath for 120 minutes, counting from the time the water begins to boil.

To Take Print Out of Flour Sacks.

Will you please tell me how to take the print out of flour sacks? I have about thirty that I would like to use if I could get them clear and white.—Mrs. M. W. P.

The print may be taken out of flour sacks by boiling them in lye water. Shake the sacks thoroughly to rid them of as much of the flour as still adheres to them, then wash clean in clear, cold water. When all the flour is washed out, put in the boiler in which the lye water is already prepared. Use lye in the proportion of about a teaspoonful to a gallon of water. If the print does not all disappear with the first boiling, repeat the operation.

Helpful Hints.

Putty will mend pails and tubs made of paper pulp. Fill the hole or crack full of putty, cover with a piece of cloth and paint over it.—[Mrs. M. W. P.

Clean the smoked mica in the stove with vinegar.

Two tablespoonfuls of white cracker crumbs will take the place of an egg in pumpkin or squash pie.—[Mrs. M.

Plant some parsley in a flower pot and set it in a sunny window. It will grow nicely and you will have parsley throughout the entire winter.

Discoloration on enamelware will disappear if scoured with vinegar.

To bake potatoes in record time, pour boiling water over them before placing in the oven. This not only saves time in cooking but improves the flavor of the potato.

Recipes.

Baked Omelet.—Three eggs, three tablespoonfuls bacon fat, one-half cupful crumbled stale bread, three tablespoonfuls hot water, one teaspoonful salt, one-eighth teaspoonful pepper. Brown the bread in the bacon fat, separate the eggs, beat the whites stiff and the yolks until creamy. Add the hot water to the yolks, stir in the seasonings and the fried bread, and fold in the egg whites. Pour the remaining fat into a heated baking dish, transfer the mixture into it and bake for twenty minutes in a quick oven.

Fried Carrots.—Scrape the carrots, boil in salted water. When done cut in two lengthwise, roll in flour and fry a light brown.—R. S.

Ham Bone With Vegetables.—For two people use a half head of cabbage, cut in two, two small turnips, two carrots, four potatoes and one beet. Put in a kettle in which a ham bone or some bacon has been boiling for a quarter of an hour. When done place the cabbage in the center of a platter, slice the meat and arrange with the other vegetables around the cabbage.—Mrs. S.

Brown Rice and Codfish Cakes.—One-half cupful shredded codfish, one tablespoonful minced green pepper, one tablespoonful minced onion, one and one-half cupfuls cooked brown rice, salt and pepper to taste. Freshen the codfish for ten minutes; drain, and add to the rice. Stir in the onion and the green pepper, which should be cooked until soft in some savory drippings, season and form into flat cakes. Roll the cakes in flour and fry on a griddle. Serve with white sauce.

Fried Mush With Hashed Meat.—Mold, slice and fry corn meal mush and lay the slices closely side by side on a hot platter. Chop the remnants of a roast with one green pepper from which the seeds and membranes have been removed, season to taste, heat very hot in enough of the gravy to moisten thoroughly, and arrange in a thick layer on the fried mush.

Potato Soup.—Take six medium-sized potatoes, one onion and four slices of bacon cut into small pieces. Season with salt and pepper and cook until the potatoes are soft enough to mash with a spoon. Then add a pint of milk. Just before serving add the well-beaten yolks of two eggs and a tablespoonful of chopped parsley.

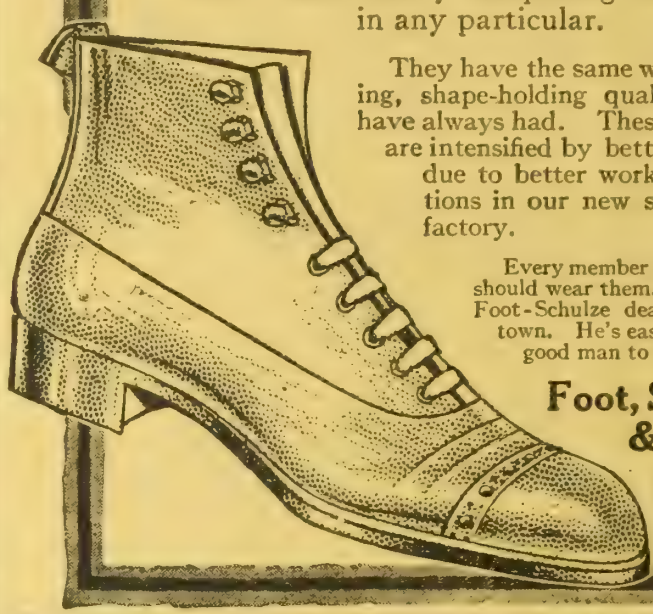
Real Economy

THIS MARK ON THE SOLE DENOTES QUALITY

Foot-Schulze Footwear will do its bit to help you beat the high cost of living.

Here's how: Foot-Schulze Shoes will give you long and satisfactory service; they will cut down the yearly cost of shoes.

They are better made shoes. No attempt has been made to meet the rising cost of materials by cheapening these shoes in any particular.



They have the same wear-resisting, shape-holding qualities they have always had. These qualities are intensified by better making due to better working conditions in our new sun-lighted factory.

Every member of the family should wear them. Go to the Foot-Schulze dealer in your town. He's easy to find; a good man to know.

Foot, Schulze & Co.

Saint Paul.

THE YOUNG FOLKS

A Nice Trip.

Dear Young Folks:—I am a little girl nine years old and I am in the fifth grade at school. I take music lessons and like it very much. I am in the second grade in music.

Shall I tell you about a trip I took last fall? My father, mother, sister and I went, and the rest stayed at home. We went to Milwaukee, Wis., first. My brother lives there and he was at the depot. He is married and has two little boys. We had lots of fun. We went to Washington Park and we went riding with some friends in a big seven-passenger car. We stayed there about a week and then went to Chicago, where my sister lives. She also has two little boys and we had great fun riding in my brother-in-law's Ford truck. While we were in Chicago we went to Lincoln Park. I wish all the Young Folks could see the animals and birds there. We stayed in Chicago about two weeks and then went to Sterling, Ill., for two days and then came home.

I'M WASHING MY CAR JUST LIKE DADDY DOES HIS.

I have another brother who lives two miles from our home and he has two little boys. You see I have a lot of nephews. Irene.

A Party.

Dear Young Folks—Hello, boys and girls! I am a farmer's girl, twelve years old. I live on a farm of eighty acres.

I will tell you about my party that I had a few evenings ago. There were eleven of us. We played blackman, hide-and-seek, needle's-eye, and several other games. When we were through with the games I served ice cream and cake. We had several contests that were very interesting.

I read your letters every week and am much interested in them. Here is a riddle for you. What is a hot time? Elsie.

Bovee's Pipeless Furnaces

Sold at Manufacturer's Prices

The most practical heating plant used. Twenty years on the market. Saves 40 per cent on cost and 40 per cent on fuel. We manufacture five sizes suitable to heat from a small cottage to a large church, including our old reliable No. 40 Pipeless with 28-inch combustion chamber and all fittings, for

$86.00

Easy to install in an old or a new house. No cutting of walls. Cool basement. We also furnish regular piped furnaces and fittings when required. Save big money by getting our free catalog.

Bovee Furnace Works 204 W. 8th St. Waterloo, Iowa

Wants to Be a Dressmaker.

Dear Young Folks:—I am writing to you for the third time and this time I hope to see my letter in the paper.

I am in the seventh grade at school and hope to enter the high school later on. I have one sister and three brothers. My sister goes to school with me.

I can crochet a little and I like to sew. When I am older I wish to become a dressmaker. What do you want to be when you are grown up, Young Folks?

I think Lela is a good little girl who helps her mother with the work. I do all I can to help mother.

Guess my riddle, Young Folks. Which is the oldest tree in England? Mabel.

Will Live With Grandma This Winter

Dear Young Folks:—Mama said I could write you a little letter because I am so interested in the Young Folks. I am a little girl eight years old. This winter I am going to stay with grandma and go to school. We live on a farm seven and one-half miles from town and two miles from school and mama thought that too far for me to walk.

I have two little brothers, Joe and Keith. Joe is six years old and Keith is ten months old. Joie helps papa harness the horses and I help mama wash dishes and keep the house nice and clean. I helped mama dress chickens for the harvesters, too. Letha.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Enclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

2192—A jaunty coat for girls. This model has inserted pockets in pouch effect. Pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires, for a 14-year size, 4½ yards of 54-inch material.

2217-2218—Ladies' costume. Waist 2217 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 2218 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 8 yards of 27-inch material, for a medium size, for the entire dress. The skirt measures 2⅛ yards at the foot. Two separate patterns, 10 cents for each pattern.

1934—A natty suit for mothers' boy. Pattern is cut in 4 sizes: 3, 4, 5 and 6 years. It requires 3⅛ yards of 36-inch material for a 5-year size.

1973—Dress for misses and small women. This style may be made with the sleeve in wrist or elbow length. Pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5⅝ yards of 44-inch material for an 18-year size.

2204—A dainty dress for mother's girl. The sleeve may be short with a cuff, or in wrist length, finished with a heading. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. Size 8 will require 3½ yards of 44-inch material.

1948—Girls' overblouse dress, with guimpe, having sleeve in either of two styles. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 1¾ yards of 27-inch material for the guimpe, and 3⅜ yards for the dress, for an 8-year size.

1954—A popular style. Ladies' one-piece dress. The belt is finished with a smart pocket, which may be omitted. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 7½ yards of 36-inch material for a 36-inch size.

2041—Girl's underwaist and drawers. Pattern is cut in 6 sizes: 2, 4, 6, 8, 10 and 12 years. It requires 1 yard of 36-inch material for the waist, and 1¼ yards of 36-inch material for the drawers, for an 8-year size. Ruffles on drawers will require 2½ yards of edging, 3½ inches wide.

2213—A popular style. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 3 yards of 36-inch material.

2205—A practical work garment. Pattern is cut in 4 sizes: Small, 32 and 34 inches bust measure; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46. Size medium requires 6⅛ yards of 36-inch material.

2042—A new "cover all" apron. Pattern is cut in 4 sizes: Small for 32 and 34 inches bust measure, medium for 36 and 38 inches bust measure, large for 40 and 42 inches bust measure and extra large for 44 and 46 inches bust measure. It requires 5½ yards of 36-inch material for a medium size.

2215—A new riding skirt. Pattern is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires 5 yards of 44-inch material for a 24-inch size.

If You Have Running Water in Your Home, You Are Ready For

"Standard" Plumbing Fixtures

THE next step, after installing a water system, is the addition of a labor-saving Kitchen Sink, a Bath Tub, Laundry Trays—real plumbing *comforts* that belong in every home whether it be new or made over.

"Standard" fixtures for Bath, Kitchen, Laundry, represent long experience in manufacture, great variety of styles to select from, and assurance of *service* as rendered by our branches in all principal cities and by leading plumbers everywhere. Demand "Standard" fixtures.

Look for the "Standard" Green and Gold label. Talk to your plumber in any nearby town about the line that is "Standard" in name and fact. Write today for a copy of "Standard" Plumbing Fixtures for the Home."

Standard Sanitary Mfg. Co.
Dept. 207 Pittsburgh

A Copy of This Book to You FREE

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for September 23, 1917.

Daniel in the Den of Lions.

LESSON TEXT—Daniel 6.

GOLDEN TEXT—The angel of the Lord encampeth round about them that fear him, and delivereth them.—Psalms 34:7.

I. Daniel the Prime Minister of the Hedro-Persian Empire (vv. 1-3).

Daniel's sterling worth brought him to the front and kept him there. The new king was quick to discern his merits and to give them recognition by placing him at the head of affairs in his kingdom.

II. An Occasion Sought Against Daniel (vv. 4-9).

(1) The Reason of—Envy. To have this foreigner placed over them aroused the jealousy of the presidents and princes of the empire, so they set about to have him removed. The presence of envy shows inferiority. One never envies those below him. It is hard to forgive those who have outstripped us and left us behind in the race of life.

(2) The Failure (v. 4). Daniel's official record was blameless. Not even an error could be found of which they could accuse him. Though he was without fault he had to suffer. Those who excel in any line are sure to suffer in some way. It is true in business, the home, the school, politics and religion.

(3) The Wicked Plot (vv. 5-9). Not being able to find any fault, they trumped up a charge against him on the ground of his foreign religion. They were not careful about the method employed, just so their end was attained.

III. Daniel's Noble Confession (vv. 10-13). Though Daniel knew that the wicked decree was signed, he knelt before God three times a day as usual. He went quietly about his affairs, attended to his regular devotions, because he trusted God. There is always a marked silence about heroism. Weak men bluster, but strong men have little to say. Daniel continued his usual habit of prayer, even though it was a violation of the civil law, because he knew that God's law was first. When the laws of earth conflict with the laws of heaven there is but one thing to do; that is, to obey God rather than man.

IV. The Foolish Decree Executed. (vv. 14-17). The king was greatly displeased with himself (v. 14) and diligently sought to deliver Daniel, but he was helpless (v. 15). The proud ruler was a slave. Laws which change not are self-condemnatory, foolish, positively wicked. The king was weak for fear of others, which is utter wickedness. Daniel was cast into the den of lions (v. 16) and a double seal placed upon the den. (V. 17). They were not content with the king's seal alone, which shows that one rascal will not trust another. The king's words, "Thy God, whom thou servest continually, he will deliver thee," to Daniel were a poor excuse, but they were the best that he could offer to his conscience.

V. Daniel Delivered (vv. 18-23).

(1) The King's Sleepless Night (v. 18). Doubtless Daniel was more comfortable in the den of lions than the king in his palace. His quietude is a picture of the safety and peace which are the portion of those who trust God and do his will. This is a sample of what faith can do. "Thou wilt keep him in perfect peace whose mind is stayed on thee, because he trusteth thee."

(2) The King's Question (v. 20). In the morning the king called to Daniel in the den of lions saying, "Is thy God able?" This is always the question of the unbelieving heart. The believing heart says, "Our God is able."

(3) Daniel's Answer (v. 22). "My God has sent his angel." Angels are God's ministering spirits. "The angel of the Lord encampeth round about them that fear him, and delivereth them," (Psalm 34:7.) Many times no doubt our lives are preserved because we are guarded by God's angels. Not even a sparrow falls to the ground without the Father, and the very hairs of our heads are numbered, so we ought to expect the mouths of the lions to be shut against us.

(4) Daniel Removed From the Den (v. 23). There was no manner of hurt upon him. The reason was that "he believed in his God." The same reason is why the garments and hair of his companions were not even signed.

VI. Doom of Daniel's Accusers (v. 24). They were cast into the den of lions "and the lions had the mastery of them, and brake all their bones in pieces or ever they came at the bottom of the den."

VII. Darius' Decree (vv. 25-27). He decrees that in all arts of his kingdom men of all peoples and tongues should tremble and fear before the God of Daniel.

VIII. Daniel's Prosperity (v. 28). Though Daniel's enemies perish, he goes higher and higher in the kingdom, even continuing into the reign of Cyrus. In all our trials and testings we should not be moved, for there is a righteous and just God in heaven, and nothing can occur without him.

North America's 1917 wheat crop won't come within 400 million bushels of supplying the shortage of our European allies and neutrals, Herbert Hoover announced. As a partial remedy he suggested that every person in the United States use one pound less wheat flour per week—a reduction of 20 per cent from the present consumption. Substitute other cereals, of which there are plenty, he urges. If these cereals—corn, oats, barley and rye—are substituted in the American home, it will mean that "war bread" will become part of the American diet. His estimate is based on normal consumption in a three-year period.

St. Croix Has Best County Exhibit.

(Continued from page 5.)

filled well and the crop weighed out heavier than usual. Chippewa has not been showing for several years. The exhibit was distinguished from others by mounted deer heads above the booth and tastefully arranged culinary specimens. Fruits of twenty odd varieties helped to make this county's booth one of the attractive booths in the show. Chippewa county people intend to put forth an extra effort to increase the yield and quality of the potato crop during the coming year, and for this reason they have engaged J. W. Hicks, president of the Wisconsin Potato Growers' Association, to lend counsel and advice to growers.

Waupaca County.

Ed Blocke, together with his brother, H. W. Blocke, and Mr. Fred Schoenick, took proper care of Waupaca county, putting up a very creditable booth to represent the county's agricultural interests. Potatoes are naturally the biggest product and an especially strong show was only to be expected. In every variety shown Waupaca ranked among the best entered in the contest. Certified seed was long ago adopted by many Waupaca potato growers and this fact is responsible to a large extent for the excellence and uniformity of the crop. Next to potatoes Waupaca county farmers are paying much attention to dairymen. Clovers and grasses essential to the successful feeding of sows and the production of milk, play a vital role with the farmers. The committee carried no advertising matter, insisting that land in Waupaca county sells without much effort.

Clark County.

Ten million pounds of dairy products out of Clark county during the last year is ample evidence that Clark county farmers are aware of the profits which may be made in dairying. M. E. Wilding, of Neillsville, John Ver-Keilen, of Thorpe, and William Creed, of Unity represented the county. Their presence in the booth did much to make Clark county known all the more to the hundreds of visitors who stopped to ask questions about the various products displayed. There is only 20 per cent of Clark county under cultivation, yet the showing made with the products from the tilled acres compares well with anything seen at the fair this year. The exhibits lacked completeness for successfully competing for first honors.

Lincoln County.

A. H. Cole, county agent of Lincoln county, Hall S. Brooks, A. T. Curtis and Robert Kelinschmidt, the committee representing Lincoln county at the state fair, displayed the county's products to good advantage. Potatoes, clover, alfalfa and garden products were well selected and fully representative of Lincoln county's productiveness in crops of all kinds. No gold dollars grow on bushes in Lincoln county more than anywhere else, but the man willing to work and seeking a favorable community in which to settle, is advised by the Lincoln county men to investigate the opportunities awaiting him. Beans and peas are also grown with profit by farmers of this section, with dairying, of course, receiving the attention due it from every county in our great dairy state.

La Crosse County.

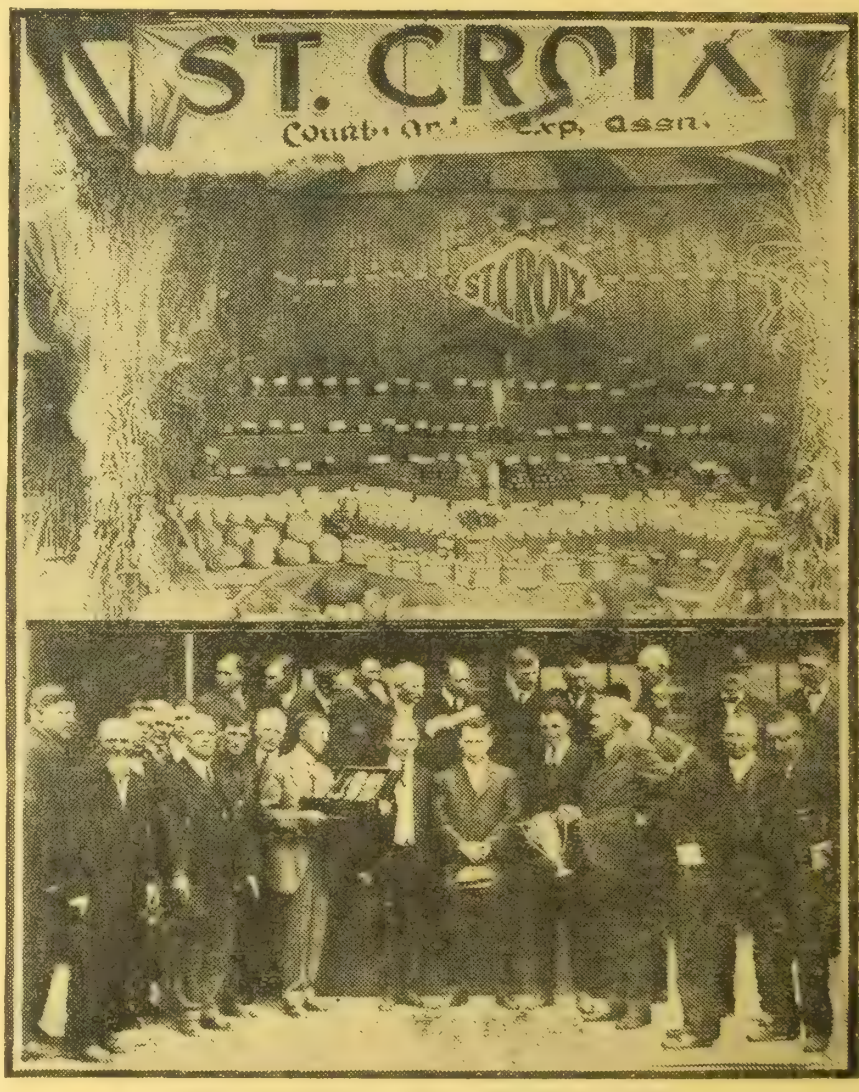
As usual, La Crosse county came to the front in all departments of the state fair with interesting exhibits. The county booth was in charge of T. H. Campion, superintendent of the La Crosse County Agricultural School; B. F. Oltman, county superintendent of schools, and W. E. Spreiter, connected with the county agricultural school. La Crosse is one of the best corn counties in the United States, from the standpoint of quality. Here are located breeders of corn and small grains who take infinite pains with their work and who are able to make a good showing in the keenest contests on grains held in the country. Early potatoes and peas form another profitable enterprise of La Crosse county farmers and three canning factories have all they can do to take care of the county's output of peas. The men in charge of the booth are satisfied that their county's record in agricultural work coupled with unexcelled shipping facilities will make the county one of the most profitable in the state for general purpose farming.

Ashland County.

Especially blessed with a soil rich in the elements necessary for luxuriant growth of the useful grasses, Ashland county naturally tends towards dairying. Holstein cattle are becoming more numerous each year and the usual step from grade to purebred cattle is taking place at the present time on a large scale. Alex Gingles, of Ashland, C. E. Post, county agricultural agent, H. B. Minton, of Mellen, and O. G. Anderson, of La Point, displayed the products of Ashland farms to the best advantage. A full grain exhibit showing some excellent samples of wheat, rye and oats proved that all the feed necessary for the dairyman, even to growing corn for silage and graining purposes, is available to the settler, if he will raise it.

Sawyer County.

Specialists in potato raising and proud of it, Sawyer county through its representatives, C. P. West, county agent, and George Christiansen, of Exeland, brought to the Wisconsin state fair one of the best "spud" exhibits of the show. Accompanying the potato display there was a good exhibit of grasses grown in Sawyer county, proving that the farmers of this live upper Wisconsin county can change from potato growing to any type of farming they may be inclined to follow, when potatoes for any reason prove no longer profitable. At present, however, they lay claim to being one of the state's biggest potato counties and able to take care of a big crop each year through proper storing. Corn and grain samples shown in the booth compared favorably with any samples brought from the same sections of the state as did also the vegetables and fruits.



PRIZE-WINNING COUNTY EXHIBIT BOOTH.
Group of exhibitors surrounding: E. L. Luther, superintendent, who was presented a silver set, and H. C. Campbell, of the Milwaukee Journal, presenting Journal Cup to the winner.

Bayfield County.

F. Dunnebecke and D. H. Parkinson, both of Mason, represented Bayfield county, with the first exhibit which has been brought from this county, which borders on Lake Superior. Only 15 per cent of Bayfield county has to date been put under the plow, though every acre of the stump land will produce large and profitable yields of clover, grains, corn for silage and fruits. This exhibit was not long on ornamentation, but the quality of stuff was good, and anyone could see that Bayfield county fields will deliver the goods. The gentlemen who represented the county this year said that they learned a lot about making up an exhibit and they expect to come to Milwaukee next year "loaded for bear," as the old saying is. Several fine samples of grain were borrowed from the experiment station, but the grain was raised in Bayfield county.

Marathon County.

In the heart of the clover belt Marathon county is especially favored by nature with luxuriantly growing grasses which make the county the logical spot for dairying. George S. Cook, of Unity; Fred Bandy, of Wausau; J. D. Christy, of Schofield; L. H. Cook, of Wausau, and A. Paronto, of Mosinee, formed the committee in charge of the Marathon county booth. They displayed the agricultural products of Marathon county to good advantage. A good exhibit of the grains, vegetables and grasses was made, but the strong competition this year made it impossible for Marathon to repeat her record of 1915 and 1916, when the county was awarded first place over all others. This section is fast becoming the leader among the dairy counties of the state.

Oneida County.

Though Oneida county did not place in the money, F. T. Coon, Arthur Taylor, W. D. Juda, Wm. Gilligan and E. S. Shepherd, all of Rhinelander, put up a very creditable exhibit to display Oneida county products. Good specimens of grasses, including the many varieties of clovers, samples of potatoes, grains and vegetables were well selected and exhibited. With plenty of streams in the county and a soil rich in the elements necessary for growing the clovers and grasses, Oneida county has every opportunity of becoming a leader in dairying. Prizes for potatoes have been coming regularly to Oneida county farmers at the various shows and this year also splendid samples of the various varieties were on hand to add strength to the exhibit. Oneida county is coming back next year determined to win a place well up in the line.

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Taylor County.

Taylor county's committee consisted of Max Back, Julius Roloff and L. Ramm, all of Medford. The booth under their care was well arranged, showing especially good samples of grasses and vegetables. Potatoes were of excellent quality throughout. Only 25 per cent of Taylor county is under cultivation and there is room enough for all who wish to make Taylor county their home. Taylor county is going into dairying more and more, as the soil yields bountiful harvests of grass and clover and grains. Fruit samples showed that Taylor county can raise small fruits successfully as well as all other crops necessary in profitable farming. Especially cheap gains are made from pasturing beef steers on the rich acres of Taylor county. Good samples of cabbage and corn were on display in the booth.

Kenosha County.

Kenosha county was taken care of by Wm. Luke and Griffith Richards, county agent, both of Kenosha. Kenosha county is especially strong on truck farming, and had an excellent display of garden vegetables, corn and potatoes. Though not as fortunate as the northern counties in having naturally rich soil for clover and grass production, a splendid exhibit was nevertheless shown of the different clovers that grow in the county. Potatoes and fruits were also represented by well-selected specimens. Some especially good cabbage was also shown here.

Milwaukee County.

The Milwaukee county exhibit was under the supervision of the Milwaukee County Agricultural School. The exhibit, directly in charge of C. D. Adams, E. Little and P. J. Kelly, showed a very complete line of vegetables and field crops, though it is certain that with greater care perhaps a good many specimens shown could have been improved upon. The Milwaukee county farmers are for the greater part, at least, interested in trucking. However, there is some big-type farming practiced in the county and some excellent field crops are produced. The samples of grain showed up fairly well.

Forest County.

Forest county, strong on potatoes, roots and clover, had a very complete exhibit in these divisions. The samples of clover were particularly good, though many of the other divisions, such as fruits and vegetables, were not complete. Whatever products were shown, however, were of high quality. John Swenehart, county agent; Grant Faulkner, of Crandon; Henry Mundt, of Crandon; L. S. Jacobson, of Mole Lake, and A. A. Trojahn, of Laona, were the committee repre-

senting Forest county. Less than 1 per cent of Forest county is under the plow and the showing made must be considered good. There are only 400 farms in this county. Dairying is destined to be one of the chief industries when the county can be considered a fairly well-settled community.

Racine County.

Racine county, represented by Almos Piper, of Racine; Martin Herzog, of Corliss, and E. A. Palley, of Rochester, had a well-put-up exhibit, especially good in the truck or vegetable end. The central and western portions of the county are given over to dairying and general farming, while the eastern portion is strictly devoted to trucking. Corn and small grain, however, are of good quality, as are also the potatoes. The exhibit was not as complete, however, and not of the quality, especially in the grasses, to compete successfully against the winning counties.

Outagamie County.

Outagamie county was represented by P. W. Silberwood, of Oneida; Mike Mack, of Shiocton, and W. F. Wolf, of Appleton. The garden and fruit exhibit was especially good, as the Shiocton cabbage country is especially fertile and well given to trucking in general. During the marketing season and lasting for approximately five weeks, the Shiocton district markets a train load of cabbage a day. The southwestern portion of the county is given over to potato raising, while in the northern section, with Appleton as headquarters, dairying is the main industry. The Fox River Valley has made quite a reputation for itself in this respect during the last few years. Grasses do well in the county.

Iowa County.

Iowa county had a very neatly arranged exhibit under the care of Jesse Van Etta, county superintendent, Dodgeville; Otto Oimoen, Barneveld, and J. A. Brunker, of Ridgeway. Iowa county is famous as a beef-raising section, but grain crops are grown successfully, as has been proved time and again at the grain shows. The exhibit had good samples of grain and corn in it, as also of potatoes and vegetables. However, the fruits and vegetable classes were not complete, which is always a point against the exhibit. Iowa county became famous two years ago at the Panama-Pacific Exposition, when the championship for the best ten-ear sample of corn went to J. A. Brunker, of Ridgeway.

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Guernsey Breeders Are Active.

Association in Waukesha County Has Become Interested in Cow-Testing Work—Heifer Donated to Red Cross Work.

WAUKESHA county is steadily forging to the front in dairying, and, as usual, the Guernsey breeders are working harmoniously together to advance the interests of the popular breed which they represent. Guernsey breeders are realizing more and more the importance of keeping animals which are paying propositions and animals which are "star boarders" are being replaced with "profit producers."

At the last annual winter meeting of the Waukesha County Guernsey Breeders' Association, the members present were much inspired by a talk given by Prof. H. C. Searles, Fond du Lac, Wisconsin, on cow-testing associations. Much enthusiasm was shown by members present over the new proposition and many promises were received from breeders that they were desirous of taking up the new work. In a few weeks the first cow-testing association was organized, and the first tests were taken in March. This organization consisted of men who owned only Guernseys and who were members of the county Guernsey association. Other farmers soon realized that the cow-testing association was a means of increasing the production of the animals, for it secured better care for the animals on test and better feed was fed. In order to accommodate the men who wished to enlist in this important work of eliminating the unprofitable cows, a second association was organized, and, like the first one, consisted of only Guernsey cows, and the work was started on July 1st.

The county was then divided into two sections, the northern and southern sections. There are twenty-eight members in the northern section, which is in charge of Mr. Frederick Thomson, of Virginia, and twenty-five members in the southern section, which is in charge of Harold E. Snyder, Chicago, Illinois. Both testers are giving the best of satisfaction and the members visited are well pleased with the work done by them. Of no less importance is the satisfaction the breeders are receiving by knowing what their Guernseys are able to do. The milk is weighed after each milking, thus giving an accurate report for each month.

During the month of June there were forty-nine cows that produced forty pounds or more of butter fat for the month. The highest cow for the month was a grade Guernsey owned by Wm. Steele, Jr., Pewaukee, having a record of 1,237.1 pounds of milk and 68.04 pounds of butter fat. The next highest was also a grade Guernsey owned by Goodhand Kingston, Waukesha, with a record of 1,548.7 pounds of milk and 66.59 pounds of butter fat. The herd having the highest average of butter fat for the month was that owned by C. F. Spaulding, Oconomowoc, eight cows averaging 646.9 pounds of milk and 35.49 pounds of fat. The herd of Wm. Steele, Jr., Pewaukee, ranked second, with an average of 33.28 pounds of butter fat for nineteen cows.

After a cow has finished her year's work, her owner will be presented with a certificate showing the record made by her during the year. This certificate will be signed by the president and secretary and the tester.

At their sale next month, announcement of which will be made in the columns of The Wisconsin Farmer, a special feature will be the sale of a beautiful Governor of the Chene heifer, donated by George W. Browne, of Waukesha, and shown in the accompanying illustration. The proceeds from the sale of this desirable heifer will go to the Red Cross. The heifer is known as Red Cross Lady No. 74661. The sire of Red Cross Lady is Imp. Governor's Whimsome No. 26189, who was first prize and senior champion male at the Wisconsin State Fair in 1916, also sired first prize heifer calf, junior and grand champion female at the Wisconsin State Fair in 1916. He is a son of Governor of the Chene. His dam has a record of 775 pounds butter fat on the Island of Guernsey. The dam of Red Cross Lady is Imp. Bonita 3d of Les Bordages, 46428, who is a daughter of Governor of the Chene and of Bonita of Les Bordages. This makes Red Cross Lady a double granddaughter of Governor of the Chene. She is a heifer that would add dignity and grace to any herd and was born January 5, 1917. A goodly sum is looked forward to from the sale of this heifer, as the Governor of the Chene breeding is one of the best of the Guernsey breed, Governor of the Chene having more daughters in the Advanced Registry than any other sire of the Guernsey breed. The heifer is a splendid individual and should appeal to the most critical buyer.

The Waukesha County Guernsey Breeders' Association is one of the strongest organization of its kind in the United States and is steadily increasing in number, now having a membership of 168 at the present time, all of which are in good standing. Any member not paying his dues for one year is removed from the list and is not reinstated until all dues in arrears are paid.

The demand for Guernseys during the past few months has been exceedingly good, several carloads of cattle having been sent to Kansas, Iowa, etc. Buyers have been here making purchases of both pure breds and grades from Washington, Tennessee and other states, and all are looking forward for a still better market this coming fall.

RED CROSS LADY 74661, DONATED BY GEO. W. BROWNE. OF WAUKESHA COUNTY, TO THE RED CROSS.

Walworth County Patriotic Picnic.

To the Editor:—To Walworth county, Wisconsin, goes the honor of holding the largest community gathering in Wisconsin and perhaps in the Middle West this year. Actual count showed a total of 1,175 automobiles, averaging five to the car, parked on the grounds. Most of those present came by this modern mode of travel. However, those from close at hand walked, while those from a distance came by train.

The eighty-acre grove on the Tilden farm, near Delavan, was certainly a wise choice, for notwithstanding the heat of the day and the absence of a breeze, the crowd moved back and forth within the limits of abundant shade. Platform events, such as pie-eating contests, pillow fights, toe wrestling, nail-driving contests, clothes pinning contests, etc., attracted the older folks, while the pony races, running races, tugs of war, free-for-all matches and general sports caught the attention of those interested in the more exciting.

Band concerts by the Elkhorn and Sharon concert bands furnished the instrumental amusements, and Prof. E. B. Gordon, of the department of music of the state university, led the crowd in singing patriotic songs.

Mr. A. J. Glover, editor of Hoard's Dairyman, gave the only talk of the day. He chose for a subject, "Patriotism on the Farm." The enthusiastic audience interrupted him on many occasions with handclapping and cheers, so interested were they in his utterances. Mr. Glover has become a national figure and those fortunate enough to hear him carried home some lasting thoughts of our position in the present crisis.

This community and patriotic gathering of 7,000 was held under the auspices of the Walworth County Federation of Clubs, an organization perfected last winter by the county agricultural agent and the county superintendent of schools. Twenty clubs are enrolled as members—fifteen of them farmers' clubs, neighborly clubs and community clubs; the remainder are civic and commercial associations in the five towns of the county. The club spirit, as manifested by the attendance at this picnic is an indication of the feeling of patriotism and good will that exists between the town and country in Walworth county. Few, indeed, are the citizens who do not belong to some club and membership is freely interchanged.

L. L. Oldham.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Poultry Not Always Profitable.

Conditions alter circumstances, and, although poultry can be kept at a profit even at the abnormally high prices of grain, it requires close figuring and business management. Poultry products are high, but the last few weeks have witnessed the price of corn jump from $1.50 to $2.23 per bushel, and that extra 75 cents just about sounds the death knell for many small flocks where practically all of the feed must be purchased.

One woman has a flock of two dozen hens on a couple of back lots, which gives a very nice range for them. At certain intervals of the day they are turned out on the street, where they get all the grass, as well as seeds, etc., that they wish. This flock has been laying very well through the summer, but are nearing the molt, and if the feed which is purchased from a farmer who brings it into the yard, happens to be slow in arriving at a busy time, the hens take revenge by quitting off short and taking their own time in starting up again.

It is a pure-bred flock, and the owner naturally is reluctant to dispose of it. She asked us in all candor what she should do, and to the best of our knowledge, she was advised to sell all of the two-year-old hens and keep only the best of the yearlings for a start another season. Something like a half dozen. If she had been successful in raising some early pullets this season, disposing of all the heavy hens, there might have been a fighting chance to come out even; as it is, the manner in which she feeds, having little or no knowledge in the selection, it would cost her very nearly $2 each to keep those hens until they lay again, which would be next spring.

Even though the hens in question have passed their best laying age, she was earnestly urged to sell to someone who could winter them at not too great a loss, coming out even next summer when the hens could be turned on the range of some farm. We should heed the crying need of foodstuff and not sacrifice a single producer that can be made to do its part in this worldwide calamity. Before we should sell a hen to the butcher that we cannot make pay out, better far to give her to someone who can either keep her at a profit or else who can afford to keep her anyhow, until such time that she can do her part, so long as she evens up in the end.

This is diverging from the subject somewhat, but a cow at this place is so hard to milk that she is a nuisance as a dairy cow, though otherwise she is excellent. Fortunately, she has a goodly per cent of Short-horn blood and so when she comes in within a couple of months she will be given her own calf to raise, as well as the best calf we can buy—one that would go to the shambles, and that should be kept either as a future cow or that will be worth while for beef as a yearling. The purely dairy males, unless for breeding purposes, are not worth the feed it requires to raise them.

Another woman bought 100 baby chicks and raised the greater part of them. That was last season. About forty-five hens are being kept in a small pen without shade, adequate feed, enough water, nothing of sanitation or comfortable sleeping quarters. It is about the dirtiest, most distressed-looking bunch of fowls we have ever seen. They laid a limited number of eggs through the natural laying season, quit the job, and are running up and down that miserable pen like caged animals. The humane society should take those poor chickens over and place them in good homes where they could do their mite in producing eggs.

It may be said that these are exceptional cases and do not apply to the farm flock. It is the exception and not the rule. At the same time, in a way, it has a bearing on the farm flock. One enterprising farmer, whose chickens are much more than just a sideline on his farm—rather one of the main crops—is planning more closely than ever to make his hens pay out. "They must do better yet for the feed consumed," he said, "or there will be a loss; no need to think that farmers can keep chickens for nothing, and instead of 250 layers this winter, there will be 150, and they have got to bring in an income as large as the other flock did last year or out they go!"

This from a loyal man, who would do much for the cause of his country, but who understands that unless a hen produces the equivalent for the feed consumed, she is a slacker and no good to him or to her country.

Hens Fail to Deposit Eggs.

Mrs. P. E., Wisconsin, is experiencing a rather rare trouble with her flock of hens, and the following is a brief summary of her letter:

I am hoping this letter will find the right stopping place, as I wish to ask through this paper the reason why my hens go on the nest day after day and do not lay any eggs. I killed one of them and found the small egg yolks turned to hard, dark lumps.

The immediate trouble is caused from diseased reproductive organs. The data on this subject is comparatively small, but it has been found that lowered vitality is the prime cause, which may be brought about in different ways, just as it may be brought about in a person.

Cold and roup are often responsible for this trouble. If it were a person we would say that the cold "settled" in those organs, when inflammation sets in, possibly resulting in gangrene of the ovary, when the small yolks are in a state of decomposition—rotted, in fact. The hen may not die from the trouble, but she is impaired for further usefulness; she will lay no more eggs, and besides, she will invariably become rundown and not get back to normal weight.

The disease does not necessarily take this form, varying with the condition of the organs. Sometimes we find an egg that is infertile; indeed, 20 per cent is about the average of infertile eggs tested from an incubator. Again an egg may be abnormal; ill-shaped, too large, too small, poor texture of the shell, and similar defects could be traced to abnormal reproductive organs. When tempted to use such an egg for incubation, just consider that the hen which laid that egg was not really healthy, and don't do it.

Selling off a flock of fowls is little short of a tragedy, but there is no cure, and the sooner the die is cast the better and the sooner you will begin all over again with, let us hope, better results.

Cleaning Up Waste Places in the Fall.

"I would not know how to do good farming without sheep," declared George McKerrow, of Wisconsin, one of the best and most widely known sheep breeders of America, upon a recent visit to the food administration in Washington. "Why?" he continued. "Because my sheep use up the wastes of the farm. They clean up the grass, weeds, brush and gleanings, and in so doing turn into cash what otherwise would be lost."

Mr. McKerrow knows sheep and his knowledge comes from a broad experience gained in fifty-one years of breeding them. His is a story filled with romance, faith and devotion to an ideal that covers a span of years from the time an eight-year-old farmer lad, who had saved his pennies and nickels and bought an aged ewe, which in turn produced two ewe lambs, down to the present when thousands of sheep "eliminate the waste" on his 2,300 acres.

"'Sheep," said Mr. McKerrow, "make the most economical gains of any kind of live stock because they clean up the odds and ends. They are particularly useful on the farm in the fall of the year, for they turn into mutton the things that otherwise would not be used. At the same time they save the feedstuffs that would be given them if they did not have access to these other things."

After harvest, Mr. McKerrow's sheep are turned into the oats fields for a few hours the first day, an hour or two longer the second day, and the time gradually increased until at the end of a week they have complete possession of the fields. The lambs are permitted to enter the corn before it is cut and they clean up on the weeds and lower corn plant leaves. The lambs do not pull down the lower ears of corn as do the sheep. Roots are grown for the cattle and sheep on Mr. McKerrow's place, and after the larger roots are hauled into storage for winter use, the sheep are turned into the field and eat the smaller ones that remain. Both the sheep and lambs are turned into the aftermath of the meadows and this brings them into winter quarters in good condition.

Another profitable practice on this farm is that of plowing up fields that become weedy afttr harvest. These fields are sown to rape and turnips, and later the sheep are turned in. They eat the rape and turnip tops with relish and will later hollow the meat from the turnip, leaving but a shell.

Mr. McKerrow has found that a frequent change of pasture is beneficial to the sheep. A 36-inch woven wire fence in 20-rod lengths is moved about, thus preventing the too short cropping of the grass, and furthermore reducing the internal parasite plague to a minimum. Water is also an important consideration, and ewes particularly should have water the same as dairy cows.

One of our subscribers, Mr. J. Houghland, calls attention to the fact that if you sow sunflower seeds along the fence rows you will get splendid returns and all the trouble it will be will be that of planting and gathering. Ordinarily this strip of land is wasted entirely, but in this way it can be made to produce heavily and every farm can use to advantage considerable sunflower seed.

POULTRY AND PET STOCK.

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HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Yon, Stoughton, Wis.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets from choice laying strain. Geo. Schmitt, Hortonville, Wis.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

RYE.

CHOICE high-yielding plump pedigree rye; recleaned and graded; reasonable price. Arthur Popp, Jefferson, Wis.

LEGHORN HENS.

FOR SALE—Will sell all or part of 200 White Leghorn hens; yearling stock; many of them fit for show room. Oak Dale Farms, Austin, Minn.

FARM LANDS.

A FEW MONEY MAKERS—80-acre farm with 25 acres under cultivation, and a guaranteed yearly rental income of $400; price $5,000. $1,500 cash. 80-acre farm with stock and crop; price, $3,700. 120-acre farm, good log buildings; price, $3,600. 40 or 80 acres cut-over land, with stream; price, $15 per acre. Write for details. The Ev. Luth. Colonization Co., No. D-M, Dept. 10, Merrill, Wis.

WISCONSIN FARMS—Any size you desire, from 160 acres and up, in any stage of cultivation. If you want a highly-improved farm with good buildings and in cultivation, we have it; or, if you want the raw land and do the improving yourself, we have that. Girton & Lyons, 705 Crocker Building, Des Moines, Iowa.

ALABAMA ALFALFA LAND, Demopolis Section—No part of America equal of this in the great combination of alfalfa, corn, velvet beans and grass. Rolling lime land, fertile, healthy country, artesian wells, tick free. Lands are cheap, quality considered. Full information and photographs. C. C. Clay Alfalfa Land Co., Demopolis, Ala.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

SPLENDID SHEEP PROPOSITIONS—1,180 acres rolling clover belt land, joining spring-fed lakes, 1 mile from railway station; price, $8 per acres. 626½ acres at $8.50 per acre. 440 acres at $9 per acre, half cash. The Ev. Luth. Colonization Co., C-M, Dept. 10, Merrill, Wis.

BUY A FARM and pay as you go. Write for our easy payment plan before you buy. Rich, chocolate loam soil. Close to railroad towns and all conveniences. We are owners. Booklet free. UPPER WISCONSIN LAND CO. (Land and Townsite Owners), Ladysmith, Wisconsin.

SPECIAL BARGAIN—160 acres, 3 miles from Warrens, Wis. 100 acres farmed, balance timber. Soil, sandy clay loam. Good buildings. 70 apples trees. $4,000. Have other lands. Want agents. J. H. Alexander, Warrens, Wis.

HAVE TWO GOOD FARMS for rent or will sell one to right party on easy terms. When you write, tell me if you have stock and if you like the stock business. M. A. Peoples, Ladysmith, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

118 ACRES, Green county, Wisconsin. Near town milk condensory. $60 per acre, $1,500 cash, long time balance. Box 534, Warren, Ill.

MARATHON COUNTY, WIS., improved and unimproved farms for sale. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

FLORIDA FARM lands, two to three crops; flowing wells. Write for particulars. T. B. Stinson, Palaltea, Fla.

BEST improved and unimproved Marathon county farms. J. G. Wolf, Wausau, Wis.

HOLSTEIN BULL FOR SALE.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

REGISTERED Holstein bull, ready for service. Three of his dams average 100 lbs. milk in one day and 34.75 lbs. butter in seven days officially. Price $100. R. M. Harriman, Appleton, Wisconsin.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

SALESMEN WANTED.

SALESMEN WANTED—Owing to draft and enlistment we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed; Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection. $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

TIMOTHY SEED.

TIMOTHY SEED—$4.00 per bu. High purity and germination, first class in every way. Timothy-alsike mixture, $4.50 per bu. Satisfaction or your money back. Henry Field, Shenandoah, Ia.

BLUE RIBBON HAMPSHIRES.

BLUE RIBBON HAMPSHIRES for sale. I have the bunch of young pigs, from six to ten weeks old, priced at $10 each while they last. Write G. Johnson, Oconto Falls, Wis.

GASOLINE TRACTOR.

GASOLINE TRACTOR—12-horse gasoline, portable engine and one two-roll husker. M. B. Murbridge, Waupun, Wis.

CARE OF AUTOMOBILE.

Look Over Car Frequently and Take Nothing For Granted—Avoid Using Too Much Lubricating Oil—By J. Peters.

TAKE care of your auto. It costs too much money to neglect it. Look over your car after every trip and keep the nuts tight. If anything rattles, fix it up. It is so nice riding in a car that does not make any noise. Watch your oil closely. Do not get too much oil in your crank case, as too much oil will cause your engine to carbon up quicker. Most cars have a gauge and the dealer will tell you to keep oil so high. But don't; use about a fourth less and you will find that your engine will work better and not carbon so easily.

Do not drive as though you were on the race track. Your car will last longer. Learn to run your car smoothly. Avoid jumps up and down wherever you can, or slow down. Be sure and grease where the hard oil cups are. Turn one-half once a month or every three weeks.

Watch your wheels. If they become a little loose, take off the cap and turn the nut up until it does not have any side play. Care must be taken not to make them too tight. If this is taken care of, you will not burn out your bearings. Grease front wheels about every 500 miles by simply filling cap with good hard oil and turning them back on next. Oil your springs and keep them oiled. You will find that it rides easier, also you will not be in so much danger of breaking your springs, as they must slide on each other at every little high spot in the road. If they are rusty, take the time to take them apart and rub the rust off with sandpaper. Grease them with a thin coat of hard oil and graphite and your time will be well spent.

Now a few don'ts: Don't race your engine. Don't open your carburetor all at once when starting out. It is hard on gears. Don't pull your car hard with the spark advanced. Don't change gears without taking out your clutch. Don't use your brakes on a slippery road. Use low gear and your car will hold the road better. Don't use too much oil. Don't monkey with your carburetor. Let it alone. If it needs to be looked after, see an expert. Don't run on a flat tire. Follow the maker's instruction and you will get best results. Don't run races and land in the ditch and get killed. Leave that part to the war. Don't use well water in your radiator; use soft water. Don't try to overhaul your motor yourself; let somebody do it that knows how to fit up bearings. It is no easy job. Have your valves looked after twice a year. It will pay you, as you will have more power and less gas. Put new rings on the pistons once a year, for they wear off and you lose compression, meaning loss of power.

Saving Potatoes in the Pit.

Tubers May Be Kept in Good Condition if Drainage Is Provided and Frost Excluded---Cost of Pitting Small.

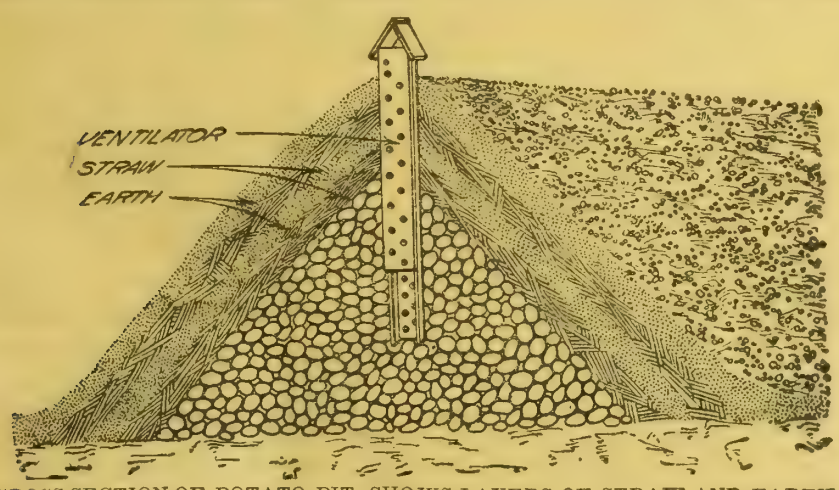
POTATOES may be successfully stored in pits if provided with good drainage and given sufficient covering to insulate them against external heat and cold. The first consideration is a well-drained site or one which can easily be provided with good drainage.

The depth of the excavation may vary from practically nothing to two feet or more. It is usually not advisable to excavate more than six inches. The shape of the pit should be long and narrow rather than square.

The size is dependent to a certain extent on the quantity to be stored. It is not advisable to store too large a quantity in one pit, just as it is inadvisable to store too large a quantity in a bin or house.

In preparing the pit for the reception of the potatoes it is desirable to place a light layer of straw on the floor to protect the tubers from direct contact with the soil. The tubers should be piled in a ridge of inverted V shape. When piled in this way a greater area of the pile is exposed to the air, and at the same time when covered it sheds rain much better. Before covering the pile, or, in fact, before the potatoes are piled, it is desirable to make some provision for ventilation to take care of the moisture given off in respiration.

The potatoes are best insulated against cold and heat by covering with alternate layers of straw or hay and soil. The first layer should consist of straw, adding only sufficient soil to prevent injury to the tubers from exposure to light or frost. The object is to cool off the tubers and as soon as possible get rid of the moisture resulting from the sweating process. As the weather grows colder more straw should be added and then a layer of soil. With the approach of winter weather another heavy layer of straw should be put on and an additional layer of soil. The two layers of straw and the soil are usually a sufficient protection, but in sections where the winter temperatures drop to 20 degrees or more below zero an extra layer of each will be necessary. Each layer of straw when compacted should be approximately six inches thick. The final layer of soil may be six to eight inches deep, depending upon the amount of rain and snow likely to fall during the storage period.



CROSS SECTION OF POTATO PIT, SHOWS LAYERS OF STRAW AND EARTH.

Ventilation may be provided by means of a wooden flue, the lower end of which extends almost to the bottom of the pit, while the upper end projects well above the covering. The ventilating flue should be provided with a wooden cap to prevent the entrance of rain or snow, but at the same time it should be so constructed that it can be closed entirely during extremely cold weather. If the required attention be given to the preparation and protection of a pit of this sort, one can be reasonably certain that the tubers will keep in almost perfect condition until spring. The objection to the pit is that the potatoes stored therein are not always accessible during the winter.

Ask your neighbors to subscribe for The Wisconsin Farmer.

Cow-Testing Reports.

Association Members Progressive

To the Editor:—Records somewhat lower than last month due to those troublesome pests, the flies. To Henry Harman goes the honor of having the best herd. His 13 cows average 975 pounds of milk and 40.1 pounds of fat. The members of our association are helping to conserve the nation's food supply, and withholding feed from cows which are unable to convert this feed into butterfiat profits. Since the association was first organized April 25th, twenty-four cows have been discovered which were not "doing their bit." Twenty-nine of the farmers in our association believe that it is worth while to weigh milk daily. Of the 34 members of our association all except two have silos, and six have two silos each. Four have milking machines, and several have tractors. Nearly all have automobiles. Most of the members have patent stanchions in their barns and water before their cows. The patriotic cows in our association enrolled in the Army of the Commissary and producing 45 pounds of butterfat or better as their "bit" towards the nation's food supply, covering the month ending August 25th, follow:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Henry Harmann			
Pearl, G. G.	1323	3.9	51.9
Nina, G. H.	1386	3.7	51.2
Mary, G. H.	1238	4.1	50.7
Mabel, Native	1180	3.6	42.4
Trixie, G. G.	982	4.2	41.2
John Jacobosky			
Spot, G. H.	1144	4.4	50.3
Henry Runke			
Darky, Native	1069	4.5	49.1
Clissy, G. G.	926	4.6	42.5
Mups, G. G.	759	4.6	40.2
E. W. Heuer			
Skinny, G. R. Poll	822	5.7	46.8
Geo. Feuerstein			
Peggy, G. H.	1116	4.1	45.7

FRED PFUEHLER, Official Tester.

Butter Fat Lost in Skim Milk.

To the Editor:—The annual meeting of the Baraboo Cow Testing Association was held at the Y. M. C. A. building, August 2d. The meeting was called to order by W. H. Babcock, secretary of the Sauk County "Y," who helped to organize the association for the coming year. Ernest Kenzleman was elected president and Walter Rodeweld secretary and treasurer. Ernest Henrichs was chosen tester. At present the association has 480 cows under test, and for the coming year the association has been put on the $2 basis. Skim milk has been tested for all members of the association. It was discovered that one farmer was losing 510 pounds of butter a year and at 42 cents a pound this would run up to $214.20. The skim milk was testing .03 when it should test .09. The following is the 45-pound cow list for August:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Ernest Hanger			
Grade Holstein	1299	4.2	54.6
Grade Holstein	1056	4.4	46.5
Registered Holstein	1188	3.8	45.1
F. R. Marquardt			
Native	1138	4.5	51.2
Ernest Kunzelman			
Grade Holstein	1255	4.0	50.2
L. L. Case			
Grade Jersey	837	6.0	50.2
W. H. Sherman			
Grade Holstein	1494	3.2	47.8
Ed McGilvra			
Registered Jersey	740	6.3	46.6
Walter Pierce			
Registered Short-horn	1085	4.2	45.6
Howard Briscoe			
Grade Jersey	918	5.0	45.9
F. W. Zantow			
Registered Short-horn	1128	4.0	45.1

ERNEST HENRICHS, Official Tester.

Reedsburg Association.

To the Editor: Three hundred and thirty-six cows were tested in the Reedsburg association, Sauk county, in August, 15 of which made better than 40 pounds of butterfat. Pia Young Susie De Kol again won the honors. A larger number of fall cows are now dry, which accounts for our short list. The condensary paid $2.30 per hundredweight for 4 per cent milk in August and has raised the price for September, which makes milking cows a little less tiresome. Our 45-pound list for August follows:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat
E. H. Hoenecke			
Pia, R. H.	1541	4.0	61.6
H. W. Meyer			
Juty, G. H.	1389	3.6	50.0
Gerhart Schuette			
No. 4, G. G.	1119	4.2	47.0
Albert Gluth			
Hazle, G. H.	1063	4.3	45.7
W. J. Paff			
No. 4, G. G.	1032	4.4	45.4

WALLACE J. CUMMINS, Official Tester.

Scandinavia Association.

To the Editor:—The Scandinavian Cow Testing Association completed its four months' work August 31st. Out of 500 cows on test 461 are included in this month's records, with 21 qualifying for the 40-pound list, and seven reaching the 45-pound mark. A grade Guernsey captured the honors this month. The cow is owned by Emil Hotz. She won a race with the champion of the previous three months by producing 1,364 pounds of 4.5 per cent milk, or 61.4 pounds of butterfat. Two carloads have been purchased for our members through the local Farmers' Produce Company. The grade Guernsey herd of Johan Vig had the highest average butterfat production. Eleven cows in this herd averaged 32.4 pounds of butterfat. Four cows were sold as unprofitable and one registered bull replaced a former scrub sire. Pasture is fairly good, but quite a few members are feeding grain. The following is the list of cows which succeeded in reaching 45 pounds the past month:

Name, owner and breed	Age.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
T. J. Trinrud				
Beauty, G. H.	8	978	4.7	46.0
K. B. Knutson				
Queen, G. G.	2	880	5.4	47.5
Otto Gunderson				
Colantha, G. H.	8	1259	4.4	55.4
B. M. Ellingson				
Lynrose, G. H.	5	1302	4.0	52.1
S. D. Shambeau				
Champion, G. H.	4	1147	5.0	57.4
Johan Vig				
Leona, G. G.	6	1064	4.8	51.1
C. A. Hotz				
Daisy, G. G.	5	1364	4.5	61.4

H. R. BREWSTER, Official Tester.

Winnebago County Association.

To the Editor:—The following is the 45-pound cow list for the Winnebago Cow Testing Association for the month ending August 31st:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
N. A. Rasmussen					
May Bee, G. G.	5	6-3-17	1170	5.4	63.1
Ed Race					
No. 21, G. H.	7	4-9-16	1361	3.8	54.4
H. Mosely					
Bessie, G. G.	8	3-20-17	1175	4.3	50.3
Vinland Hope,					
P. B. G.	4	5-10-17	1010	4.7	47.4
Maid, P. B. G.	4	3-15-17	797	5.7	46.0
M. A. Rolph					
Jersey, G. J.	3	2-16-17	648	7.6	48.6

ARTHUR B. ARTHELS, Official Tester.
E. L. BUNSON, Secretary.

Crated Holsteins at Wilson's.

GEO. A. WILSON, a Holstein breeder of Niellsville, Wis., is a son of R. R. Wilson, and men posted on the history of this breed in America know of Mr. Wilson, Sr., as being one of the original breeders. He bought his first bull in 1876 whose number was 295. The first cow was Sylph 162. Geo. A. has 12 cows in milk at this time all good producers, with plenty of scale. The present herd bull is Plainview Sir Johanna Clothilde, a good son of Plainview Johanna Fayne, that has 20 A. R. O. daughters. The grandsire, Sir Johanna Aaggie Fayne, has 25 A. R. O. daughters. The dam has a four-year-old record of 23.19 and has three A. R. O. daughters. This bull is assisted by Duke Pietertje Korndyke Ormsby 8th. His sire's two nearest dams average 33.04 pounds butter in seven days. His dam has a 25.93-pound record and has four 30-pound sisters. He traces to Pietertje Maid Ormsby and Sir Johanna De Kol. Mr. Wilson has some young bulls for sale and they are priced worth the money. It will pay you to communicate with the owner at once.—Adv.

In skimming a hundred pounds of 35 per cent cream, fifteen more pounds of skim milk is kept on the farm than when the same amount of 20 per cent cream is taken. This saving can be accomplished by a turn of the cream screw, and at present feed prices is well worth the effort required. More skim milk on the farms also means more calves raised to furnish meat and milk for all. Milk producers are paid for the butter fat in cream, not for the water and other constituents. This makes it advisable to skim a rich cream, so that as much valuable skim milk as possible may be saved for feeding purposes.

KENDALL'S SPAVIN TREATMENT

The old, reliable remedy you can depend on for Spavin, Curb, Splint, Ringbone or lameness. Thousands have proved it invaluable. Get a bottle from your druggist. Price per bottle $1.6 for $5. "Treatise on the Horse" Free at druggist or from Dr. B. J. KENDALL CO., Enosburg Falls, Vt., U. S. A.

ALFALFA
GET OUR BOOK on ALFALFA
Also catalog of field and farm seeds with samples of alfalfa, clover or other seeds. Mention what you need. Lowest prices for highest quality.
GALLOWAY BROS. & CO., Box 3 Waterloo, Iowa

DYNAMITE AT WHOLESALE PRICES
CLEAR YOUR IDLE LAND of stumps and boulders this fall. High prices of farm products make this ideal time for clearing. We will sell you dynamite direct at 19c per lb., delivered at your railroad station in 200-lb. lots and over. Ton lots, 17½c per lb. All material guaranteed and guaranteed. For full particulars address
CONSUMERS POWDER COMPANY.
Lock Box 297 Chicago, Ill.

ARE YOU GOING TO BUY LAND?
IF SO, GET A COPY OF OUR JOURNAL FIRST.
It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F, Farm and Real Estate Journal, Traer, Iowa.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Don't Overlook Grant County, October 2d.

LEST you forget, we call your attention once more to the Poland China sale that will be held in Lancaster, Grant county, Wis., Tuesday, October 2d. This is an important sale, due to the fact that there are so many desirable animals to be sold. We gladly recommend the offering, for we feel confident that attending breeders will not be disappointed. The breeding is, in most part, of the best and most popular big-type breeding. Some of the best boars in the sale will be sired by Big Type Jim 2d, he by Jim Crow, the boar that sired the futurity winners at Milwaukee last fall. Big Ben H., the sire of some, is by the noted boar, Big Ben, the boar that sires the big ones. The good boars sired by Timm Wonder will be attractions. This boar is sired by Big Timm and out of an A Wonder dam. This popular breeding does not need comment. A.'s Big Orange is a Big Orange-bred boar and has sired some ripping good boars. You will be pleased with his get in this sale. Hauk's Orange is a son of A.'s Big Orange. Double Hadley is the good yearling that won first in his class at the Wisconsin State Fair this fall. Taking breeding and individuality into consideration, you cannot help but be impressed with this offering, could you but see it. The boars are big, and have the other good points so necessary in herd-boar material. It is only natural that one should find a good bunch when only the tops are picked from some 12 herds. If you don't want boars, remember they are selling some gilts that we venture to say are better than what you have at home. Try to be present, but, if you can't, send your instructions to T. P. Shreve, in care of Burlie Dobson. Write the latter at Lancaster, Wis., for one of the catalogs. See page 30.—Adv.

M. V. Miller's Poland China Sale.

M. V. MILLER, Lawler, Iowa, will hold his first annual sale of big-type Poland Chinas on September 26th. Forty head, consisting of ten fall boars, 20 spring boars and ten spring gilts make up the offering. A good share of the spring pigs are sired by the herd boar, Timm's Wonder, a splendid son of Fessy's Timm and he is one of the largest, smoothest, heaviest-boned yearling boars in the state and is proving a sire of outstanding merit. A few good herd-boar prospects sired by him are listed in the sale. Other litters are sired by Mouw's Smooth Jumbo, Big Fashion, Miller's Baron and Miller's Chief. Mr. Miller has always purchased the very best breeding stock obtainable and the blood lines of his offering will bear the closest inspection. His pigs are not as well grown as some, but they are in good, thrifty condition and every buyer will be well pleased with his purchase. There will be a great outcome in every pig sold in this sale. A few extra good high-class herd boar prospects are listed. Anyone looking for a good, useful, well-bred Poland China should arrange to attend this sale. If you cannot attend the sale, send a bid to T. P. Shreve, representing The Wisconsin Farmer. See page 30 and write for catalog, mentioning this paper.—Adv.

Waukesha County Guernsey Sale.

THE Waukesha County Guernsey Breeders' Association has announced October 31st and November 1st as the dates for their two-day consignment sale to be held this fall. October 31st will be devoted to the selling of pure-bred males and grade females—cows and heifers. This will be the second time in the history of the association that the public will be offered a chance to purchase some of the choice young pure-bred males of the country, and grade cows that are good producers. All animals will inspected by a committee of three previous to the sale, and only such animals as will be a credit to the sale, consignor and purchaser, will be accepted. It is the desire of the association to hold a sale that will eclipse all other sales held in he past. Animals of special merit and individuality, that have shown that they have good producing qualities, will be put up and sold to the highest bidder. The auctioneers will be R. B. Hellen, Jefferson; J. R. Love, Waukesha; R. L. Benjamin, Waukesha, and C. H. Beaumont, Honey Creek, Wis.—Adv.

J. Fisher & Son, Eastman, Wisconsin.

THE "Crated Hog," J. Fisher & Son's trade-mark, will appear in The Wisconsin Farmer regularly from now on It is hardly necessary for us to say anything about Mr. Fisher as a breeder of Chester Whites, for we doubt if there is any man in the Chester business in the state better known than Mr. Fisher and we are sure that no other breeder sells as many hogs as this pioneer Chester White breeder. The fact that Mr. Fisher has been breeding and selling hogs for over 30 years should be proof that he "gives value received." His spring pigs are all sold, but he has 75 September pigs that will be shipped when three months old. Orders for these pigs are being booked at this time, so if you will want something of this kind later, get your order in now. Write J. Fisher & Son, Box 13, Eastman, Wis., and please say you saw the advertisement in The Wisconsin Farmer. See page 31.—Adv.

Diley With the Big Types.

J. F. DILEY, Rush Lake, Wis., has been breeding Poland Chinas for about twenty years and his name is familiar to all Poland men in the state, for he has been a director of the Poland China Record Association for some time, as well as secretary of the state association until last winter. No breeder in the state, or for that matter the United States, is more honest in his dealings than Mr. Diley. He has sold many hogs in Wisconsin and the Northwest and we have yet to hear of a dissatisfied customer. Many are of the impression that this breeder raises the medium types and this has been true, but he is now in the big-type game with both feet and he sure got away right when he bought Smooth Big Bone A 2d, a son of the boar Sievers sold for $1,125, who in turn is a son of the 1914 Iowa champion, Smooth Big Bone. It would be hard to write a pedigree that contains breeding more in the limelight at the present time. Consistent with this breeding is the individuality—he is a worthy son of a worthy sire. Mr. Diley had some good pigs sired by him at the state fair and while they did not carry enough flesh to show to advantage they had the frame and points that go to make real boars at maturity. Goldengate Columbus is another boar being used. He is by the well-known Columbus Pan and out of a daughter of Goldengate King. Mr. Diley has three boars of this litter for sale. Mr. Peterson, of Kilbourn, is using a litter mate to these boars in his herd. From this mention you can realize that he has the big-type breeding. The sows are equally well bred and the boars being offered are good in every respect. We are glad to recommend this herd. Note the advertisement on this page, and write Mr. Diley for details.—Adv.

Holstein Calves—$25.

WAUKESHA COUNTY, WIS., needs no introduction as a dairy center and there are many high-grade Holstein cows in this county that furnish milk for the cities. The men that own these dairies are in it for the milk production and do not care to raise calves, as they wish to sell all the milk. In view of this fact J. A. Roberts, Oconomowoc, Wis., contracts for these calves and sells them to his customers at $25 each, and he pays the express to your station. These calves come from good, healthy herds, for this is imperative when the owners are selling milk for city consumption. Mr. Roberts has shipped many calves to bankers throughout the country, and they in turn give them to farm boys to promote the dairy industry in their respective districts. Mr. Roberts is an excellent judge of live stock and a pedigree student. He has a wide acquaintance throughout the state, for his services are in demand during the fair season as live stock judge. You cannot help but be interested in his proposition, so write Mr. Roberts immediately. See page 29.—Adv.

Constance of Waupaca.

WE recently spent the day at the Red Oak Farm, located near Waupaca, Wis., and owned by F. R. Constance. Mr. Constance has a good herd of Jersey cattle, and, by the way, they are on the accredited list, and Duroc Jersey hogs. Just at this time he has a good bunch of spring boars that he is offering for sale. They are sired by a good son of Lee's Defender, and he also has a good litter by the Minnesota champion, King Orion. There are some good boars in this litter and they are for sale. We are glad to recommend Mr. Constance, for we know that he will not send you a boar unless he feels that it will give satisfaction. His Durocs must please you or there is no sale made. If you are in need of a Jersey bull, he has them of the very best breeding. Don't forget Constance and write him for details relative to the stock he has for sale. See page 30.—Adv.

Pure-Bred Holstein Sale.

IN THIS issue on page 29 John G. Voss, of Elkhorn, Wis., announces a dispersion sale of pure-bred registered Holstein cattle, to take place at Burlington, Wis., September 25th. There are twenty-one head offered in this sale, including thirteen females, seven bull calves, and one herd bull coming two years old. The cattle are all young with the exception of one nine-year-old twenty-pound cow. This is a good bunch from which to make selections, and the herd is in good condition and the stock of good type. Write to John G. Voss, Elkhorn, Wis., at once and get sale lists and look up the pedigrees on these cattle. Please be sure to mention The Wisconsin Farmer in your letter.—Adv.

How Do You Like This?

HAVE you heard of the Tulloch Farms, Genoa, Wis.? If you have not it's time you get this name fixed in your mind, for there is a bull in this herd that is being mated to wonderful cows and the results should put his herd in the front ranks of the Holstein fraternity. The bull in question is Rag Apple Pontiac, without a doubt one of the best bred sires in the Middle West. He is sired by Rag Apple Korndyke, the $5,000 son of Pontiac Korndyke, and the sire of Rag Apple Korndyke 8th, the $25,000 bull that in turn sired the $53,200 bull calf. How can that be improved on from the sire's side? Now notice the dam's breeding: The dam, Dairy Maid Butter Girl 2d, a 30-pound daughter of King of the Pontiacs, from a 25-pound daughter of Butter Boy 3d, and a 28-pound cow, thus she is not only a 30-pound cow, but carries 62½ per cent the same blood as K. P. Pontiac Lass, the former world's record cow that made 44 pounds. Read the above carefully, for only a few bulls have an equal pedigree. How would you like to have a few cows safe in calf to this good bull? Several females are now being offered for sale bred to Rag Apple Pontiac. Each cow either has an A. R. O. record or is out of an A. R. O. dam. They are right and guaranteed in every way. Even though you get a great line of breeding backed up with the individuality, the prices asked for these females is very reasonable. Write Tulloch Farms, Genoa, Wis., for further information. See page 29.—Adv.

A Very Popular Cross.

IT would seem that the King Pontiac Champion and Korndyke Segis Johanna cross was very popular with the buyers of calves this season. Coming close on the heels of the announcement of the sale of Pabst King Champion, that is the son of Korndyke Segis Johanna to the Agricultural College, of North Dakota, comes the announcement of the sale of Pabst Korndyke Mechthilde Segis to Mr. Bert Millson, Taylor, Wis., who is going to use him for his own pure-bred herd of high-bred cows. He is out of Pabst Queen Mechthilde that has a record of over 25 pounds. She is by King Pontiac Champion that has 60 A. R. O. daughters. This Korndyke Segis Johanna and King Pontiac Champion cross is attracting wide attention from the producers and some record-breaking cows are expected from this line of breeding.—Adv.

JOHN VOGT, JR., breeder of Chester White swine, Glen Haven, Wis., writes: "I am all through threshing and am ready for the fall trade. I have had a good business for the summer. I have thirteen outstanding March boars left and some gilts that weigh 150 pounds and a fine lot of April boars. Now, if you want a good boar or a few gilts, send in your order before you are too late, for I treat a man white. That is my motto." See advertisement on page 31.—Adv.

NEXT WEEK'S SALE PROGRAM

Monday, September 24 — Poland Chinas, E. W. Hendricks, Hazel Green, Wis.

Tuesday, September 25 — Holstein-Friesians, John G. Voss, Elkhorn, Wis.

Wednesday, September 26 — Poland Chinas, M. V. Miller, Lawler, Iowa.

SALE DATES.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson, secretary, Lancaster, Wis.
Oct. 15, Henning & Pharis, Belvidere, Ill.
Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 17, Dissolution Sale, Gerlich & Barker, Mankato, Minn.
Oct. 23, Deewelow Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, State Assn. Sale, Madison, Wis. Burlie Dobson, secretary, Lancaster.
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 8, Grant Co. P. C. Breeders, Lancaster, Wis. Burlie Dobson, secretary.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Rock County Breeders' Sale, Janesville, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.

Chester White Swine.

Feb. 6, Combination Sale, Wm. T. Butts, Walter George and B. H. Babcock, Evansville, Wis.

Short-horn Cattle.

Oct. 27, Freman & Rippey, Glenwood, Mo.
Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Oct. 23-24, Lake Mills Holstein Sale, Lake Mills, Wisconsin.

Our Farm Help Column

HELP WANTED.

Married man experienced in all kinds of farm work desires position on farm. Address Box 168, Waltham, Minn.

WE WANT MEN

To sell or buy our Guaranteed Nursery Stock.
To the Salesman: Steady job, good pay. Write us.
To the Buyers: Send for free colored circular.
The Coe Converse & Edwards Co., Wisconsin's Largest Nursery, Fort Atkinson, Wisconsin.

JERSEY CATTLE.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
W. M. KNIGHT, Eagle, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & R. T. Wiegand, Cleveland, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT TOMAH, WIS.

RED POLLED CATTLE.

Headquarters for
RED POLLED CATTLE
When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

TOO LATE TO CLASSIFY.

BIG-TYPE POLANDS

SMOOTH BIG BONE A 2D.
Sire Smooth Big Bone A $1,125, by the champion, Smooth Big Bone.
GOLDENGATE COLUMBUS.
Sire Columbus Pan dam, by Goldengate King.
MY HERD HEADERS.
OFFER 25 SPRING BOARS sired by the above and every one out of a big-type sow. Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.
J. F. DILEY :: :: :: RUSH LAKE, WIS.
(Shipping point, Waukau on Milwaukee Railway.)

Dispersion Sale

of Pure-Bred, Registered

Holstein-Friesians

Burlington, Wis., Sept. 25, '17

One Mile From Either Depot

Twenty-One Head
13 Females 7 Bull Calves
1 Herd Bull Coming 2 yrs. Old

The owner, Mr. W. E. Longmore, has sold his farm and these cattle, with some good grades, also four horses and usual farm machinery, will be struck off to the highest bidder on above date. Cattle are in ordinary herd condition, good type and all young with exception of one, the foundation cow, a 20-lb. cow, which is nine years old.

Send for sale list and look them up in your herd books. You will find **excellent** blood lines. Write

John G. Voss Elkhorn, Wis.

GUERNSEY CATTLE.

BROAD RIPPLE FARMS

GUERNSEYS FOR SALE

SERVICEABLE YOUNG BULLS and bull calves; **A. R. Cows** in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.
GEO. W. BROWNE, Prop. Waukesha, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write
FOX BROTHERS - - - - - - - - - - Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.
F. E. FOX - - - - - - - - - - Waukesha, Wis.

REG. GUERNSEY BULL CALVES

OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,
LABELLE KNOLL FARM Oconomowoc, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

GUERNSEY GRADES FOR SALE

SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.
H. N. LONGLEY Dousman, Wis.

A FEW WELL-BRED YOUNG BULLS — The Haviem Farm — **WRITE YOUR WANTS**
Emory C. Meltz GUERNSEYS Appleton, Wis.

SHEEP.

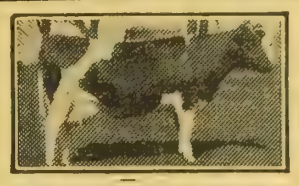
SHROPSHIRES AND HAMPSHIRES

YEARLING RAMS, ram lambs. The Renk guarantee with every sheep. Write
W. F. RENK & SON Sun Prairie, Wis.

HOLSTEIN-FRIESIAN CATTLE.

HILLSIDE HOLSTEINS

SENATOR JOHANNA WHITE, 31-lb. herd bull. Four A. R. O. cows for sale, bred to freshen this fall. Price $175 to $250. Several heifers and young bulls, from A. R. O. dams. Write for detailed description.
KIRKPATRICK BROS. - - - - - - - - Reedsburg, Wis.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

Pabst King Hengerveld is offered for sale by the Pabst Stock Farm.

Pabst Hengerveld Colanthus produced almost a ton and a half of milk in June, 1917. A Twice 30-lb. cow.

King Pontiac Champion, Pabst's senior herd sire, is one of the world's most noted Holstein—Friesian bulls.

Pabst King Hengerveld is a product of this noted sire and dam.

Get pedigree and price from
PABST STOCK FARM
(Breeders, Not Dealers)
OCONOMOWOC, WIS. BOX R

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.
TULLOCH FARMS Genoa, Wis.

$25.00 HOLSTEINS $25.00

WAUKESHA COUNTY high-grade calves. Either sex, shipped to your station, express prepaid, safe arrival and satisfaction guaranteed. Order now.
J. A. ROBERTS Oconomowoc, Wis.

A 28.44-lb. BULL

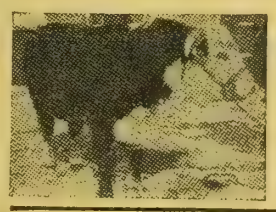
THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43-lb. cow, Pontiac De Nijlander. His dam has a junior four-year-old record of 21.46 lbs. butter in 7 days. She has a 17.50-lb. yearling daughter. The bull is a black, well grown and of exceptionally good conformation. Born November 25, 1916. For pedigree and further information, address
A. M. ANDERSON WHITEWATER, WIS.

REGISTERED HOLSTEINS for sale, cows and heifers due to freshen this fall. Also heifer and bull calves sired by a yearling record son of Dutchland Colantha Bell Boy 7915C. Estate of Otto Volkmann, Juneau, Wis.

HORSES.

PERCHERONS, Belgians, Shires —One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings. **FRED CHANDLER, R. 7, Chariton, Ia.**

HEREFORD CATTLE.



HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have 90 cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS :: :: Bagley, Wis.
(Grant County.)

MEET US AT THE FAIRS

WE WILL SHOW A HERD OF HEREFORDS pleasing to the eye. See our herd bulls and breeding cows. See the young bulls we have for sale. Will sell a three-year-old and a senior yearling. Let us send you a list of the fairs where we show.
WALTER BROS. - - - - - - - - - Chippewa Falls, Wis.

Old People's Home Stoughton, Wis.

OFFERS A 26.57-LB. 3-year-old Holstein bull for sale. **Briar Pietje Korndyke (140506)** is by Briar Butter Boy Korndyke that has 15 A. R. O. daughters and is out of Pietje Tyrania De Kol, 26.57 lbs., that is by Woodcrest Pietje (61 A. R. O. daughters). Five of these daughters have records above 26.57 lbs. Briar Pietje Korndyke is a good individual, well marked and weighs over a ton. His ancestors represent some of the most noted animals of the breed, including De Kol 2d's, Butter Boy 3d, Pontiac Korndyke and the great cow, Pietje 22d. This bull is priced to sell quickly. For more information write to
O. C. Lee Stoughton, Wis.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.0 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

Lake View Farm Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,000 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.
FRED GURR :: :: Lake Mills, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER Sheboygan Falls, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER JANESVILLE, WIS.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

CRATED BULLS

HOLSTEINS of good breeding, good individuals. Priced cheap. Write
GEO. A. WILSON Nielsville, Wis.

DUROC JERSEY SWINE.

KING ORION

GRAND CHAMPION; Minnesota; grand champion, Wisconsin; son of Orion Cherry King Jr., grand champion at Omaha. We have Duroc Jersey boars for sale. Enough said.

E. H. PARKER & SON :: :: :: Janesville, Wis.

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.

ISAAC HIGGINS (Richland County) Gotham, Wis.

QUICK SALES SMALL PROFITS DUROCS

THE GILTS AND BOARS that I have for sale will please the most critical. Let me convince you. "Big with Quality."

MIKE STOEHR - - - - - - Viroqua, Vernon County, Wisconsin.

Seeing Is Believing

YOU HAVE HEARD about ORION COL. S., my good Duroc herd boar. He will head my sow herd at Milwaukee and La Crosse and I want you to see this great son of COL. S. JR., and the good sows to which he has been mated.

W. C. JENKINS - - - - - - - - - Bangor, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.

JERSEYS—Herd in the accredited list. Young bulls for sale.

F. R. CONSTANCE & SONS, Waupaca, Wis.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

ALLIC S. KNUDSON - - - - - - - - - Brodhead, Wis.

S S

"KING THE COL" "PATHFINDER" "LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

IF YOU KNOW pedigrees you'll appreciate these blood lines. Individually, I have one of the best herds in the state. Good boars are going to be hard to find when the breeding season opens. For next month I will sell boars from $40 to $75. Gilts reserved for my sow sale Jan. 30th. Correspondence invited.

DENNIS SHEA (Near Sparta) Melvina, Wis.

PROUD CHIEF JR. Sire Cherry Chief Dam by Proud Col.
P. S. WONDER Sire C. W. Again Dam H. A.'s Queen
MODEL KING Sire High Model Dam by King the Col.
ILL. KING Sire Illustrator Dam by Proud Col.

30 Duroc boars and 10 gilts by the above sires sell

WEDNESDAY, OCTOBER 17

A few of Investor and Dreadnaught breeding you can use.

L. F. ATWATER Bangor, Wis.

--- E. J.'s ---
Crimson Wonder

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,
DUROC BOARS sired by above for the particular buyer.

JOHN SWENSON Willmar, Minn.

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.

W. G. BARTHOLF Burlington, Wis.

DUROCS

I NOW HAVE APRIL BOARS for sale. My prices are reasonable, the quality and breeding is good. Pedigrees furnished.

HAROLD RUDE Edmund, Wis.

SALABLE DUROCS

ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?

FRED G. MATTHES Viola, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, public kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

F. H. BURT :: Brodhead, Wis.

DUROCS
GILTS BOARS

MAR. AND APRIL FARROW, sired by three choice boars. We guarantee satisfaction. Order now.

GEO. D. SPRAIN & SONS, West Salem, Wis.

Durocs Will Make You MONEY

MY HERD BOAR is a WHALE and is sired by GREAT CHIEF by the famous sire, CHERRY CHIEF. I'll quote you prices on spring pigs that will open your eyes. Try me.

R. C. CHURCH Elkhorn, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

McCLURG BROS. Viroqua, Wis.

Homestead Durocs

THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

M. H. O'KEEFE & SONS Waunakee, Wis.

FIVE DANDIES

ANY ONE of these five Duroc boars will make friends and customers for me. These are the tops, they are offered first.

CLARENCE GEORGE Evansville, Wis.

Particular Breeders

DUROCS of Cherry Chief, Royal King, Orion Cherry King Jr., Chief Advancer breeding. Write. Good blood for good breeders.

J. W. HIGGINS RICHLAND CENTER, WIS.

Please mention this paper when writing

POLAND CHINA DAY
IN GRANT COUNTY
Tuesday, Oct. 2d, Lancaster, Wis.

30 SPRING BOARS--10 SPRING GILTS

NOTICE. The tops from 12 herds have been picked for this sale.

NOTE THE BREEDING

SONS AND DAUGHTERS of BIG BEN H, DOUBLE HADLEY, TIMM WONDER, BIG TYPE JIM 2D, A'S BIG ORANGE, HAUK'S ORANGE, etc. A sale containing extraordinary individuality. A sale worthy of your presence and patronage. T. P. Shreve will handle your mail bids if sent in care of the sale. Ira Cottingham, auctioneer. Now is the time to get a catalog. Write

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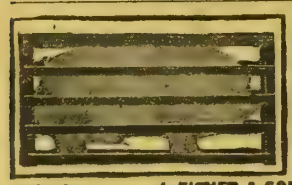

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THE WISCONSIN FARMER

VOL. XLVI. NO. 39. THURSDAY, SEPTEMBER 27, 1917. WHOLE NO. 1861

Beauty and Service Combined

How One Family Worked Out the Farm Home Problem to Their Complete Satisfaction.

FOR the benefit of a number of our readers who have asked for farm-home plans The Wisconsin Farmer presents herewith some facts regarding a new farmhouse which we have visited this summer.

This farm home, as will be noted by the illustrations shown, was just about completed when the writer visited it. It will be possible to make the place much more attractive by cleaning up the lawn and leveling up the driveways.

The illustrations shown herewith were taken on a beef and hog farm in an adjoining state, but the general farm equipment of this home will be of interest to Wisconsin readers, regardless of whether they have been making their profits from dairying, grain farming, beef cattle, hogs or along other lines.

To begin with, the cost of the structure shown in the accompanying illustration was a little in excess of $8,000. With the rise in prices of building materials since this farm home was contracted for, it is likely that the cost may be increased somewhat. The owner of this beautiful new home was forced to build on account of the fact that his former comfortable home was destroyed by fire. Under the circumstances it was natural that he should be interested in making the new home as nearly fireproof as practicable. To this end he put on a tile roof, which, of course, added considerably to the expense. The exterior walls are stucco on metal lath, and danger of fire catching from sparks has thus been reduced to a minimum. The building material selected also gives the exterior of the house a substantial and solid appearance.

Architects today are getting away from the old-fashioned porch running along one side or two sides of the farmhouse. At first glance many of us old-timers will think that the porch has been eliminated from this farm home, and if this was the case, we would certainly be sorry to see it. For we cannot forget the many happy evenings and Sundays we have spent sitting in the shade of an old vine-covered porch. But everything which the old-fashioned porch offered is also provided for in the building which we are discussing. However, instead of calling it a porch in this new, modern farm home, the architect speaks of a solarium, which, in common language, means sun parlor. This sun parlor will be noticed in the accompanying illustration at the east side of the house. It is surrounded by north, east and south windows and covered with a tile roof, which harmonizes in appearance with the roof on the main part of the house. This house faces the north and the sun parlor is completely encased with windows, which may be replaced with screens in the summertime. The screens are made to cover the entire window opening and not just one-half, as is the case with the other windows in the house. It will be seen that this large sun parlor extending almost the full length of the east side of the house and ten feet in depth provides a delightful outdoor living room. And mother and the girls will easily recognize the possibility of furnishing this sun parlor with rugs, couches and settees, so that the whole family may get enjoyment out of it. But in the winter this sun parlor may be closed in by windows and it may be heated the same as any other room in the house. In this particular case, the entire house is heated by a hot-water system, and when the windows are put on in this sun parlor, the temperature may be brought up to any degree. On sunshiny days in the winter, "Old Sol" through the windows on the east and south floods this enclosed porch with his brightest, warmest rays, and here is where we get the decided advantage over the old-fashioned open porch.

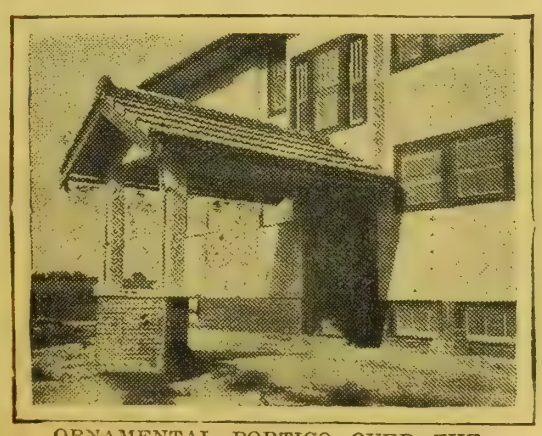
There are many interesting features about this new modern home. It is not altogether likely that many of our readers will desire a house just like it, but they may get some good ideas from studying the accompanying diagrams, showing the floor plans of the cellar, the first floor and the second floor, and also from some of the built-in features. The house would look quite barren in front and at the west side if there were nothing whatever in the way of a porch or entrance way. To obviate this, a modern entrance has been provided on the front (north side) and a driveway entrance at the west. Entrance to the main floor from the front is by way of a cement terrace, extending along the front side of the house. This is illustrated by one of the accompanying pictures. From this terrace one enters a covered porch—a place where our visitors may shake off the snows of winter from their feet. The real purpose of this small porch, however, is ornamental rather than for service, as there is a commodious vestibule just inside. To the left as one enters the house there has been provided a spacious built-in closet for outer garments. Encased in the door of this closet is a full-length plate-glass mirror which gives the ladies a splendid opportunity to examine their attire and headdress before leaving the house. This is only an instance of the careful consideration given by the architect in his effort to provide convenience for this modern farm home.

The portico at the east of the house is a covering for the automobile driveway and is a protection from weather in going in and out of vehicles coming to and from the house. This portico is also ornamental, and, like the front porch, has a tile roof. To those who are in search of convenience and comfort as well as elegance, this plan of a farm home should be especially attractive. The house will always be warm, not only because it is substantially built, but because it is equipped with a fine heating system, hot-water radiation being provided for in every room. It is also equipped with an electric lighting system which furnishes light for the house and barns and also heat for the electric iron

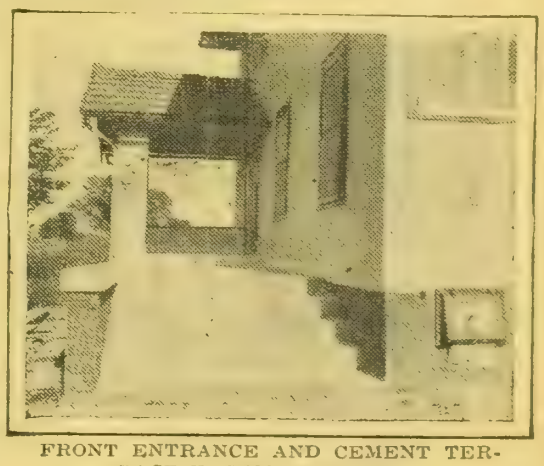
(Concluded on page 6.)

A LITTLE DIFFERENT FROM THE OLD-FASHIONED FARM HOME, BUT IT HAS ALL THE COMFORTS AND MORE.

Library College of Agriculture University of Illinois



ORNAMENTAL PORTICO OVER THE AUTOMOBILE DRIVEWAY.



FRONT ENTRANCE AND CEMENT TERRACE FACING THE ROAD.

CURRENT EVENTS

BY a vote of twenty-three to one the senate of Argentina declared for the breaking off of relations with Germany. As soon as the lower house takes similar action—and this is almost a certainty—another nation will be added to the long list of Germany's avowed enemies. Germany has endeavored to remain on friendly terms with Argentina, but to no avail. It was only a fortnight or so ago that she apologized for the sinking of an Argentine merchant ship, saying that it was a mistake, monetary amends would be made and that German submarine commanders had been ordered to respect the Argentine flag henceforth. A few days later Secretary of State Lansing made public the official messages which prove that the German minister to Argentina had used the Swedish cable facilities to instruct Berlin to sink Argentine ships, without leaving a single trace of them, and calling the Argentine minister of foreign affairs a "notorious ass." The duplicity of Germany and the connivance of Sweden were thus disclosed and Argentina could hardly keep neutral any longer. Accordingly, the declaration of war. Sweden has not yet squared itself and a break between Argentina, the United States and Sweden is not out of the question. All over the world there is coming to be a realization of the fact that the desperate German government will stop at nothing and the lines are being drawn still closer. Germany and Austria are now at war with fully a score of countries the world over, while the only countries which have allied themselves with the Teutonic nations, since the outbreak of the war, are Turkey and Bulgaria, both minor ones.

APPROXIMATELY one-half of the 687,000 men of the new conscript or national army have now reached their camps and are ready to begin training. Last week saw 40 per cent of the entire number following the first lots to the cantonments, special trains running all over the country to get the conscripted men to their proper places. There was no confusion, but little delay and wonderfully little grumbling and complaining, all things considered. The men of the new army are cheerful, they are well housed, well fed and well officered, and they are ready to do whatever Uncle Sam demands of them. In a statement the war department says the enormous task of obtaining equipment and supplies for the army is moving satisfactorily. Some of the men of the national army may be only partially equipped for some time after they are mobilized and no attempt will be made to furnish them with full war equipment until the eve of their departure for Europe. Some civilian clothing, such as overcoats, will have to be used for a time, as the clothing industry has not yet caught up with its work. Some of the conscripts will be used to fill out the quotas in the national guard or former state troops, the great majority, however, to be drilled as separate units in the sixteen huge army camps prepared for them within the last few weeks. By next spring the United States will have almost 2,000,000 trained men in its army and will be ready to make a showing in the field.

THAT there can be no peace until the last German has been driven from the soil of France and outraged Belgium, was the ringing declaration of Elihu Root, former secretary of state, in a public address at Chicago last week. Mr. Root was the head of the American commission which visited Russia recently to pledge American assistance to the armies and government of that nation. "The men who are speaking, writing and printing arguments against the war now and against everything that is being done to carry on the war are rendering more effective service to Germany than they ever could render in the field with arms in their hands," declared the former secretary of state, amidst cheers. "It is impossible to resist the conclusion that the greater part of them are at heart traitors to the United States. As time goes on and the character of these acts becomes more and more clearly manifest, all who continue to associate with them must come under the same condemnation." Samuel Gompers, America's chief labor exponent, occupied the same platform with Mr. Root and pledged labor's support to carry the war through to the end.

RETAIL coal prices will be announced from Washington, for all sections of the country, this week or next. Some time ago the president fixed the prices which can be charged for coal at the mine. Since then the fuel administration has been working on a schedule which the retailers can charge, varying according to local labor conditions, distance to be hauled and so on. In the meantime, continued export of coal to Canada in large amounts through great lakes ports at the expense of the northwestern states will be checked immediately by the fuel administration. Dr. H. A. Garfield, the fuel administrator, requested the exports administrative board to permit no more coal to be shipped out of the country except under licenses and asked that no licenses be granted unless they are approved by the fuel administration. Coal has been moving toward lake ports in large quantities for some weeks, under an order issued by Robert S. Lovett, the government's director of priority of transportation, directing that fuel shipments be given preference over other freight. The purpose of the order was to supply the Northwest with an abundance of coal before the winter season closes shipping on the lakes. Complaints coming to Dr. Garfield that much of the coal going to the lakes was not reaching the northwestern states prompted an investigation which revealed that a great part of it was reaching Canada. While Canada has been piling up a reserve store of coal the Northwest is threatened with a shortage this winter which, it is declared, may force industries to close down.

SPEAKING before the conference of consumers and producers, which was held at St. Paul, under the auspices of the National Nonpartisan League, United States Senator A. J. Gronna, of North Dakota told of unsuccessful efforts of certain members of congress to have included in the national food bill the product of other industries with those of the farm. The only tangible result achieved by the food bill thus far, he said, was the fixing of the price of wheat. It was an injustice, he asserted, to have singled out the farming industry for control and regulation. "When the food bill was before the agricultural committee of the senate," Senator Gronna said, "steel, iron, copper and all other products were placed in it for regulation. We had oil included, and poor old John D. might have had to go hungry, so we had to take oil out. We had powder in the bill, but the du Pont Powder Company, with its $80,000,000 of war profits, had to be taken out. What I cannot understand is why the farming industry should be the only one singled out for this sacrifice of war." Senator Borah, of Idaho, and Representative Baer, of North Dakota, were other prominent speakers.

HERBERT C. HOOVER, the food administrator, speaking on the world food situation, declared that starvation would win the war and the side best able to organize its resources for food production and conservation would come out victor. "The food situation of America and the allies is such," said Mr. Hoover, "that the neutral countries of northern Europe cannot hope to get food from the United States unless they expect to furnish equivalent service in other directions to the common pool against Germany. Food has, since the war began, gradually assumed a larger place in the economics, the statesmanship and the strategy of warfare. The allies are blockading the food from Germany and the surrounding neutrals are under great pressure to export their supplies both ways. The Germans are trying to starve the allies by sinking the food ships and all governments are faced with reduction of consumption, stimulation of production, control of prices and readjustment of wages. The winning of the war is largely a problem of who can organize this weapon."

MEN summoned for service under the draft and who have been denied discharge by local district boards because of dependents, have still a means of appeal where they can show there has been error or misapplication of the law in their cases. On such a showing, governors of the states to whom appeal may be taken are authorized to request local boards to reopen cases. There is no appeal to the president, however, except where exemption has been sought on the ground of industrial employment and denied by the district board. The rulings communicated to state officials make this clear in the following language: "The only cases in which there is a right to appeal to the president are cases of claims for exemption or discharge based upon engagement in industry or agriculture. Further than this it is impossible to go. If any of the millions of individual cases within the original jurisdiction of local boards are to be considered in Washington, then all ought to be open to consideration. This is impossible. Therefore, administrative authority will not address itself to particular cases in the jurisdiction of local boards. The president has directed the war department to decline to discuss cases pending before local or district boards or entertain any communications, suggestions or statements concerning the appeal for exemption."

THE $7,000,000,000 war deficiency bill carrying huge appropriations for the army, fortifications and shipping board, passed the lower house of congress last week by an unanimous vote. The bill, the largest supply measure in the country's history, now goes to the senate where prompt action is expected. It directly appropriates $4,830,000,000 and authorizes contracts for $2,314,000,000 additional. The big items include: Shipping board, $635,000,000 cash, as part of the board's construction program limited to an aggregate of $1,749,000,000; fortifications, $1,495,000,000 appropriated and contracts authorized for $975,000,000 more; naval emergency fund, $100,000,000; war department emegency fund, $100,000,000; construction of additional torpedo boat destroyers, $225,000,000, to start a $350,000,000 program. Transportation of the army and its supplies, $350,000,000; army subsistence, $175,000,000; quartermaster's supplies $100,000,000; clothing and camp equipage, $350,000,000; horses, $30,000,000; barracks and quarters, $49,000,000; medical department, $100,000,000; engineer department, $105,000,000; ordinance stores ammunition, $39,520,000.

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OUR LEGAL DEPARTMENT

THIS department is edited by a practicing lawyer who has had years of experience at the bar. He will give accurate and reliable answers to all legal questions when they are of sufficient importance to be of practical interest to any considerable number of our readers. Subscribers who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delaying printed answers, those to whom it is important to receive an immediate reply by mail should remit $1.00, addressed as above.

Law Questions.

Divorce—Custody of Children.

A Wisconsin Subscriber.—A man got a divorce from his wife in Wisconsin, and the lawyers and judge of the court gave the custody of their children to the wife. Can the man after a few years take the children away from the wife?

Answer.—The man could not take the children away from the wife unless he would get an order from the court permitting him to do so, and such order would be difficult to obtain.

Division of Wife's Estate.

A Subscriber, Sisseton, S. D.—A was a widower and had three children and he married B, and they have two children. A owned two lots and B owned a house and lot. They traded all this property for a farm in Iowa, the deed being made to B. B died without making a will. (1) Can the three children of A by his first wife get my share in said farm? (2) How will said farm be divided, according to the laws of Iowa?

Answer.—(1) They cannot, being not of kin to B. (2) A would get one-third of said farm and the two children of A and B would get the other two-thirds divided equally between them.

Hired Man's Wages.

A Subscriber, Stiles, Wis.—On April 9th I hired a man to work for me, and agreed to pay him $35 per month provided he worked for six months. He worked three months and then quit without any good reason, when I was away from home, and went to work for a neighbor at higher wages, when the hay harvest was about to begin. Can he compel me to pay him $35 per month for the time he actually worked?

Answer.—He cannot compel you to pay $35 per month, as he violated his contract, but he can compel you to pay whatever his work was actually worth, deducting therefrom what you were damaged by his quitting work.

Obstructing Watercourse.

A Subscriber, Gillett, Wis.—My neighbor owns a farm adjoining mine, and on lower ground. A watercourse runs through both farms. My neighbor closed up this watercourse with sand and stone, which causes the water to back up on my farm, and it has already drowned out part of two ten-acre fields. My farm is on the line between two towns and I have applied to the officials of both towns for relief, but they will not do anything. What can I do about it by law?

Answer.—Neither of the towns has any power or authority in the matter. You can bring a suit for damages against your neighbor, also asking for an injunction preventing your neighbor from obstructing the watercourse. This is your only legal remedy. If you can prove in court the facts stated by you the court will give you the proper relief.

Settling With Heir.

A Subscriber, Edwardsville, Ill.—My husband was one of ten heirs, inheriting a farm of 120 acres in Missouri. When his parent, who owned the farm, died many years ago, the farm was valued at $2,000. My husband bought out all the other heirs but two—for the price of $50 per share. One of the two heirs has left the country and has not been heard of for many years. The other is a nephew, and a year ago he demanded $100 for his share, but he now asks $200 for it, claiming that real estate has advanced in price. We think his price is too high. Five years ago tenants burned down the house by an overheated stovepipe and no house has since been built. My husband has paid all taxes for twelve years and expenses of fences. If he does not buy the share of the nephew, can the nephew bring suit and have the farm sold to get his share? What would you advise us to do?

Answer.—The nephew can bring a suit in the circuit court of the county in Missouri where the land is located for partition of the land. As his share is only one-tenth, the land probaby could not be divided so as to set off his share, and in such case the court would order all the land sold and then divide the proceeds, giving the nephew his share in money. Such a suit would be expensive to your husband, so it would be better to pay the nephew his price, rather than have a lawsuit.

The Wisconsin Farmer

THURSDAY, SEPTEMBER 27, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

FARMERS APPEAL TO THE PRESIDENT.

I AM advised that fully 1,000 conscription cases have been appealed to the president, many of them involving the question of farm-labor exemption, many of them filed by grain-belt farmers. I await the adjudication of these cases with the greatest interest. There is no question in my mind but that several of our district exemption boards here in the grain belt have failed completely to grasp the agricultural situation as it exists today, when nothing is more important than that our food production should "be fostered, encouraged and inflated," as Secretary of War Baker admirably expresses it. Exemption claims of farmers have been turned down time after time, apparently regardless of the effect upon crops this year and next. Men whom I confidently believed to be big enough to grasp the situation in its entirety, whom I felt sure would solve the problem of the hour in such a manner that agricultural production would be stimulated instead of retarded, have either displayed indifference to the nation's needs or have woefully failed to see where justice and the best interests of all concerned depend. I am glad, indeed, that there remains the right of appeal from the decisions of these boards to the president himself; I sincerely hope he will give every case the careful, prayerful consideration it deserves, so that justice may be done to all.

I am advised that the farmers whose claims for exemption have been denied have been ordered to report at the army camps while their appeals are pending with the president. However, in most cases the district exemption boards have been fair enough to postpone the drafting of farmers until the last contingent is ordered to report, enabling them to continue the all-important work of gathering corn, sowing winter wheat and completing the crop work of the year. The last of October will probably see these men called to the colors, but that is much better than if they had been ordered to the cantonments last week, as fully one-half of the entire number in the nation was. The president has announced that he will not allow any political "pull" to influence him in deciding these appeal cases, that they will be decided on the affidavits and evidence actually introduced before the district boards. This means that the farmer stands a fair show with the town man and that every case will be decided on its merits.

In this connection I want to congratulate Representative Shouse, of Kansas, on his determined efforts to secure the exemption of farmers as a whole. He has written exceedingly strong letters to President Wilson and Secretary of War Baker and has given the matter the widest publicity, urging at all times that the exemption of farm labor is most important. I regret to find that neither the president nor the secretary of war agrees wholly with Representative Shouse, witness a portion of the war secretary's last letter to him, as follows:

> It is self-evident that the draft must, to some extent, interfere with all industry, since to withdraw from the labor supply of the nation something more than a million men is bound to create some interference. In an agricultural community this interference will be felt by agriculture. The extent to which it will be felt is to be determined by the district board, and upon this determination the decision in individual cases must, to some extent, rest. The district board of Kansas has, no doubt, made this survey. Using its just judgment and discretion it has addressed itself to individual cases.
>
> I have no doubt that, in refusing discharges in some cases, it has interfered to some extent with agriculture, but I equally have no doubt that this interference was necessary. No one could consistently urge that we should make a blanket exemption of persons engaged in agriculture. To do so would simply double, treble or quadruple the tax on the labor supply of other industries. We must adjust, but we cannot protect absolutely. I venture to say, however, that the tax is not creating a general situation of very great hardship. Figured out in mathematical terms, it results in the taking of perhaps one man out of thirty-eight men engaged in agriculture. Often that one man is able to present his case of individual hardship in such a way that the conclusion may be drawn, on superficial examination, that the same condition exists in general and that agriculture is so affected in general. I cannot believe that this conclusion should be drawn.

I sincerely hope and earnestly trust that the president will decide the appeals of farmers in such a manner that our production will not suffer and that the district boards will see the error of their ways and change their methods in the future. We may not be able to win the war without an army in the field; assuredly, we cannot win it without an army in the furrow and feed lot.

THE RELICS OF YESTERDAY.

I HAVE visited several of our grain-belt state fairs the last few weeks. All have their points of excellence and superiority. I was impressed at Des Moines, for instance, by the patriotic display, the marching of thousands of Iowa troops, the flying flags, the eagerness of "the boys" to get to the front. At Hamline the thing which impressed me most was the movement to teach the people of Minnesota to conserve their food supply, to use substitutes for wheat and meat, to make every particle of food go to the very limit. At Lincoln I marveled at the progress Nebraska is making in the production of foodstuffs, particularly in the vegetable line, and at its advance as one of our leading hog states. At Milwaukee I found new evidence of Wisconsin's supremacy as a butter and cheese-producing state and I applauded the work of the boys and girls in the field, feed lot and kitchen; marvelous to one who has not kept posted on the progress of our junior farmers. At Springfield I found many things of interest, but the thing which riveted my attention most was not the splendid exhibit of stock or of grain, but the exhibit of those things which marked the day when Illinois was young, when it was newly snatched from forest and wilderness, evidence more eloquent than any words could possibly be of the splendid advance that magnificent state has made in a single generation.

I do not believe that it is well to live in the past too much. I believe the present is the golden age. At the same time, I think we make a serious, a costly, mistake if we close our eyes and stop our ears to the story of the days gone by. I am old in years, perhaps, for the three score years and ten of the prophets will soon be mine; I hope, however, to be always young in heart and spirit. It is this combination of yesterday with today which I believe makes the spirit of the grain belt, the spirit that nothing can conquer or daunt, the spirit that makes us attempt even the impossible. We have the advantage of seeing how much has been accomplished in the lifetime of one man, it cheers us up to attempt still greater things, we know that what has been done can be done again, and so we strive onward and upward and attain pinnacles which are beyond the reach of other men.

This was the thought which came to me as I spent hour after hour inspecting the exhibit of pioneer relics at the Illinois State Fair a fortnight ago. There was the fine old woman working the spinning wheel, just as my mother worked it a half century ago, her dear voice lifting up the words of "Greenland" as she whirled the wheel and spun the wool with which to clothe her large family. There were the hundred and one things which I had seen, or used, in my own home or the home of our neighbors, things which our fathers had brought across the Alleghenies and the Ohio to help them hew a foothold in the new country, which now, to some of us, seems old. I cannot name them all, a few will have to do: a shaving horse of 1825, an ox yoke of 1859, a grain cradle of 1840, a loom made in 1820, a pair of hames made in 1835, a flail ninety years old, a sausage grinder of 1840 and a sausage cutter of 1830, a plow used in 1820 which took six yoke of oxen to pull, a well sweep used for fifty-five years by a pioneer now eighty-two years old, the tar bucket that hung under the prairie schooner, torches used in Lincoln's presidential campaign of 1860, and so on and on; worn and discolored by time now, but eloquent mementoes of a splendid day when men fought the good fight to make the grain belt great, when women cheered them on with their kisses and prayers, and when children vowed to take up their father's work and never to stop until this country was, in very truth, the land of the free and the brave.

It is well that our state fairs should show our horses and our hogs, our wheat and our corn, our cakes and our babies, our automobiles and our tractors. These are the things of today. But do not forget the things of yesterday, from which these material blessings of today sprang. Let us honor the pioneers while they are still with us; let us display to the youth of today the things with which our fathers and their fathers wrought. The mementoes of the early days of the last century do indeed have a place in the state fairs of today; they are memories to the old, inspirations to the young.

THE PRICE OF COAL.

I AM in receipt of a letter from a good friend and subscriber, Mr. A. M. Wilsey, of Sheldon, Iowa, which brings up a subject of vital importance just now, one which I believe we may well afford to discuss together. That subject is the price of coal. Let Mr. Wilsey introduce the matter with his letter to me:

> Dear Mr. Pierce:—I notice in your paper of September 12th a cartoon showing Uncle Sam with gun in hand with which he has just shot and brought down a bird labeled "Coal Prices." There are many people here who have bought lately and have paid $12 and $12.50 for hard coal and from $8.50 to $9 for soft coal, who would like to have you explain the meaning of that cartoon.

Perhaps if I explain in the beginning that our cartoon sort of anticipated the situation we will make a fairer start. Coal prices have not been reduced, to the consumer, as yet, but there is good evidence that they will be reduced within a few days. In fact, Dr. Garfield, who has been appointed by the president to attend to this matter and who is a son of the late President Garfield, announced this very week that retail prices for coal will be fixed for every community in the country within the next fortnight. It is good newspapering to print the news first; hence our cartoon, shortly after the president had fixed the price of coal at the mines, but before the actual price to the consumer had been announced.

It will not be very long now before we start up the range, fireplace or furnace and prepare for the coming of grim winter. The coal situation therefore becomes important. We will do well if we are able to secure a sufficient supply this winter, at almost any price, in my opinion. There are unusual demands. For instance, here in the grain belt we have four army camps or cantonments, each one consisting of from 2,000 to 3,000 separate buildings, housing from 30,000 to 45,000 men. These must all be heated, while, at the same time, the homes from which these soldiers came must continue to be heated as usual, for most of the men left families behind them. This increases the demand. Factories are running night and day to supply army needs; more coal is needed. Our train service must remain unimpaired, if the troops and their supplies are to be moved about the country as the exigencies of the occasion demand. Never was there a time when the conservation of coal was so important. Never was there a time when the wood lot on the farm was worth so much. We must save coal and wood this winter if we are to win this war; fuel is every bit as important as food and clothing.

This, of course, does not justify the coal dealers in raising prices, as so many have done. Many of them are guilty of such unpatriotic conduct as to subject them to the deepest censure. When they take advantage of the people's needs and of an exceptional situation to raise prices arbitrarily they are guilty of the most reprehensible practices and should be condemned by all men. But there is another side to the question; the coal dealers are not altogether to blame. I asked one of them to state his side of the case and he did so, as follows:

> I am not a prophet nor the son of a prophet, and am not in a position to say whether coal will be higher in price than it is now. I know this, however, that the price at the mines of Illinois, Kentucky and Pennsylvania coal has advanced. The price of Iowa coal at the mines has advanced about 25 per cent. The increase in cost of Iowa coal is due largely to the fact that last April the miners were given an increase of 20 to 25 per cent. Patrons of eastern coal have discontinued its use on account of the high price, and are now buying Iowa coal and this has created a new demand for Iowa coal and you will readily see what this will mean if we have an early cold spell.

Now, the relief for the situation comes just here: the government is going to license coal dealers and fix a price at which coal can be sold. No dealer can sell a pound of coal who does not have a government license; nor can he charge a cent more than the government allows. But the government does not propose to establish an arbitrary price for the entire country. It is investigating local conditions all over the grain belt; the cost of mining and hauling, the probable supply of coal in the mines, and so on. When the government price is fixed it will be based on all these things.

James M. Pierce

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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Wisconsin Whole Milk Prices.

Those who felt that milk at $2.30 per hundred pounds had touched a high spot will begin to think that there "is no limit" now that they have a look at the demands of producers for the product this winter. The Madison or Milwaukee resident who found milk raised to 10 cents a quart, and the old 8-cent rate abolished, thought he was coming into an era of high prices for sure. Reports from Dane county producers and also from other sections indicate that $3.54 is to be the price asked by producers, and this is more than $1 a hundred pounds higher than the maximum for the past few months.

The producer feels that he is justified. He looks at the price of hay, of grain and of labor, and sees these things increased in greater proportion than the increase which he asks in the price of whole milk. He feels that in the readjustment, due to changing conditions, he is not getting any the best of it.

Furthermore, the producer finds that the general world scarcity of foods affects the market for milk. If Wisconsin dairymen and farmers were producing twice as much milk as they are today they could still get a high price for the milk. Milk is so valuable as a food that it naturally commands a high price. It is a substitute for meat and meat production has fallen off to an alarming degree. Every day we read about the millions, even billions of dollars which are appropriated by congress to help win the war. If we think of this money as an appropriation for guns and bullets alone, we are entirely mistaken. Purchase of food and clothing supplies will use up a big percentage of these vast sums. Our own people are not only clamoring for food, but more than 100,000,000 European allies and neutrals also want us to help feed them.

Shall we howl at the farmer or dairyman who expects an advance in the products of his farm proportionate to the advances in cost of production and in cost of things which the farmer is obliged to buy? Do those who rail at 14-cent milk realize the difference in the price of hay, grain and labor, from what it was in 1913, the first year preceding the war? Do they also stop to consider that milk is not advancing in price, its value as a food product and the cost of producing it considered, more than are other food products and not nearly so much as the advance in price of many manufactured products? Shall we say that the producer of raw materials, such as milk, shall be subject to all the advances which affect his business, and be allowed no fair advance on his own produce, so that he may keep his profits up to a reasonable level?

Dairymen are paying $50 to $100 a month for help which only a few years ago cost $20 to $40 per month. And a dairy farm cannot be run without competent labor. Some predict that hay may be worth as high as $30 a ton this winter. Concentrated feeds have doubled in price since the war started. Where is the farmer going to land if he has to pay the boosts in costs and fails to keep pace with them on the other side of his ledger?

Many dairymen would like to furnish good milk for city deliveries at 5 cents a quart if they could do so and make a profit on it. A recent investigation in Madison shows that it costs more money than that to produce milk and place it in the hands of the local distributor. As to the costs of distribution the farmer cannot be expected to worry. But the cost of production, and his own profit he must take into consideration, hence he asks, and we believe he should receive, $3.54 for standard test whole milk this winter.

The condition of the market is such that farmers are not obliged to interest themselves in local distribution. Condenseries have sprung up all over Wisconsin in the milk-producing centers. These condenseries will take all the whole milk they can get and they will pay the prices asked. As one dealer expresses it, it is in the power of the local producer to take the butter and cream off the local markets. Condensing factories are now making arrangements to call at farms and get milk, and the charge for this service, which will help solve the farmer's labor problem, is very reasonable. The consumers of milk in local communities are compelled to realize that they are up against a condition and not a theory. Injustice on the part of the farmer can only be shown by proof that the farmers are accruing exorbitant profits under the prices asked. The men who produce milk are not afraid of any such investigation. Many of them would have more backbone to stand up for good prices if they really knew just what it costs them to produce whole milk.

Think Before You Slaughter a Cow.

From a London agricultural weekly we learn that 2,000,000 acres of pasture land in England and Scotland are to be plowed up and put into grain. This can have but one meaning and that is that the number of live stock has become so depleted that pasture fails to have its former value in the general work of producing food. So long as good pastures sustain dairy cattle or beef cattle, it is doing its part toward producing food, but when live stock have been killed to meet food emergencies, then the logical thing to do is to plow up the pastures and make the soil produce grain. There is no room for idle acres at this time in England, and the continuance of the war for any length of time will place the United States on the same intensive basis so far as the production of food is concerned.

This report as it affects conditions in England and Scotland only reflects a general condition in the European countries engaged in war. We have previously called attention to the fact that 120,000,000 head of live stock have been destroyed since the war started. This indicates that millions of acres formerly pasture land are available for grain and vegetable crops.

But who is to fill the breach caused by this tremendous loss in live stock? The world must and does look to the American continent to make up, in so far as it may be possible, the shortage created by the general slaughter of stock in Europe. When we consider that we are failing absolutely to make up this shortage, but on the contrary are running rapidly toward a shortage of our own scarcely less appalling, the importance of conserving our live stock resources and producing more is apparent. It is said that in seven months we have slaughtered 26 per cent of our dairy cattle. High prices offered for meat and high prices charged for feed have been responsible. But not a single good producing dairy cow, that can make a profit, even though small, either by milk production or producing calves, should be killed in this country—certainly not while we are facing the crisis which confronts our country today. To kill a good profitable dairy cow is little short of a crime against our government. To kill an ordinary cow, when she has the capacity for producing as much or more food every year as her carcass is worth is wrong—not only a wrong against the government and the people who must eat, but a wrong policy for the owner of the cow. One of our best agricultural authorities strongly objects even to the slaughter of the unprofitable cows, on the grounds that a cow which does not give a great deal of milk may be mated with a good bull and produce a good calf which may have transmitted to her, through the sire, good production qualities. The Wisconsin Farmer has always advised that the "boarders" should be gotten off the farm, but we believe that this is a time when even ordinary cows should be kept in the herd, and that it should be only in the case of most unusually poor scrubs that the animals should be slaughtered for beef, and the possibility of raising more calves lost forever.

No one should understand that we depreciate the value of cow testing, or that we would recommend for an instant that cows be kept without regard to their producing qualities. It is well to know the record of every cow. It helps to establish her value. Study the effects of feeds on production of individuals, but think well before any cow which will pay her way, and perhaps a little more, is consigned to the block.

Cost of Clearing Wisconsin Stumps.

The Wisconsin Farmer is indebted to several prominent men, whose names we do not need to mention, for information on the cost of clearing stumps. One of these gentlemen, who has had considerable experience along this line, writes as follows:

Inasmuch as there are no two 40 acres of land alike, it is pretty hard to answer definitely the question of land clearing, for instance, on hardwood land that is five or six years old. This would depend entirely on how well the particular piece of land had been pastured. If the land had been well pastured, so as to keep the sprouts down, the stumps ought to be pretty well rotted in five or six years, and the cost of clearing very small—we will say $7.00 to $10.00 per acre.

If the land was not well pastured, the stumps would not rot so fast and the cost would probably range from $13.00 to $15.00 per acre. This is all assuming, of course, that the land was seeded down when the timber was cut off and the brush cut down.

Pine, as you know, does not rot, but if well pastured, the stock tramps around the roots and I have seen whole fields where the stumps are all practically on top of the ground. This is particularly true of clay soil as on clay soil there are no tap roots to the timber, the roots being very near the surface of the land and heaving out more or less every spring when the frost is coming out.

We have cleared pine land here in Clark county at costs varying from $15.00 to $30 per acre, depending on the number of stumps to the acre. This work was done several years ago when the tackle was crude compared to the modern $150.00 stump puller, and as you know, our pine stumps here stood pretty thick—far above the average.

I have maintained that it does not cost the settler a nickel to clear good hardwood land. The timber left on the land (cordwood, bolts, etc.) will net the settler a profit in addition to the cost of removal—in most cases enough to buy clover and timothy with which to seed the land. The hay cut from the land, or the value of pasturage, will more than offset the interest on the investment, so it is a matter of time rather than dollars and cents in clearing hardwood land.

All of the land being cleared here is done by the settler in a small way. That is, he pulls out a stump or two whenever he has the time; consequently he would not be able to give any reliable information as to costs, doing the work in this way. In the localities we are now farming, the timber is practically all hardwood, and settlers are not bothered with pine stumps to any extent.

In our next issue we will quote from others who have had practical experience in land-clearing costs in the Upper Wisconsin counties. Doubtless, before many weeks have passed it will be possible to get definite land-clearing costs from the college of agriculture, as a result of the work done this summer and fall by the Land-Clearing Special, under direction of Prof. F. M. White.

Organize Bull Associations

A dairyman who owns fifty or sixty cows, if he gets a bull worth the money, can better afford to pay $800 to $1,000 than $150 to $200. The high-priced bull will improve the herd so much more than the cheaper animal that he will be the cheaper of the two in the end. The man with five to ten cows, however, can hardly afford to pay a thousand dollars for a bull, first, because, as a rule, he hasn't the money to invest in such an expensive animal; and, second, because at the end of two years when his heifers are ready to be bred, the bull must be disposed of and another one purchased to take his place, and when it comes to selling a bull that has been in use for two years or more by a small farmer it is impossible to sell the animal at anything like what he is worth.

On the other hand, a bull that has been in service for two years and has demonstrated himself to be a good breeder and an animal capable of transmitting his good qualities is more valuable than a younger, untried bull, but the public will not pay the price for him. The man who is willing to pay for such a bull doesn't know that the small five or ten-cow man has such an animal and the result is that high-priced bulls are practically out of the question for the small dairy unless he does what he ought to have done many years ago—organize bull associations and every two years exchange bulls with the members of his association, thus securing for the original purchase price of one bull the use of five bulls for a term of ten years.

Quite a number of bull associations have been formed in recent years in Wisconsin, Michigan and other states, but the movement is by no means general. These bull associations are composed of from ten to eighty farmers, depending upon the size of their herds and the distance at which they live from each other. These associations are usually divided into five blocks of from two to eight farmers each. After an association has been organized and divided into blocks, as mentioned, a committee of the best cattlemen in the association is appointed to buy the bulls needed, say five. They visit the best breeding establishments and pick out the number of bulls required, all belonging to the same breed. Each block of farmers then secures one bull; each bull remains in the block to which it has been assigned for two years. Then the bull from block No. 1 is turned over to block No. 2 and the one in block No. 2 to block No. 3, and so on. Another exchange is made at the end of two more years. By the time the bulls have served for two years in all the blocks it can readily be seen that ten years will have passed, meaning that for the original cost each block of farmers has had the service of a first-class bull for a period of ten years.

Under such conditions small farmers can afford to buy bulls from high-producing ancestors that have plenty of individual merit and that will increase the productive power of the heifers raised and the herds as a whole 100 per cent in ten years. It takes no mathematician to figure this out. A first-class dairy bull of good individuality coming from a dam and a grandam with high milk and butter fat records, may be expected to add from sixty to 100 pounds of butter fat a year to the production of his heifers from the original cows, and when the next good bull is used on those heifers there will be another increase of from forty to seventy-five pounds of butter fat per year. The third, fourth and fifth crosses of good blood will not show quite such large increase, but if the bulls have been well selected and the heifers have been equally well selected, and the poor ones have been weeded out from time to time, it is reasonable to expect the resulting herds to average from 400 to 500 pounds of butter fat a year and that is fully 100 per cent better than the average herds now produce.

We have entered a period of high grain prices and because of that better milk producers must be raised if dairying is to remain as profitable in the future as it has been in the past. The reason for this is that milk and butter fat prices will probably not advance as much as the price of feedingstuffs have advanced, and also because land values are bound to increase on account of high-priced grain and all other farm products. Scrub cattle will have no place in the future. The man who insists upon raising scrubs for dairying or beef production will be forced out of the business. He will not be able to maintain himself unless he has a big bank account and is willing to draw upon it year after year until it has been exhausted.

Each bull can take care of from thirty to eighty cows, depending upon the number of cows in the herds that happen to belong to each block. The larger the number, of course, the more economical the plan. This will also have the effect of increasing the num-

ber of cows owned by the members of the association, because they are bound to meet with much greater success under this plan than on the old basis of using any kind of scrub bull for the mere purpose of getting the cows to freshen once a year.

What applies in this respect to dairy farmers applies with equal force to men raising beef cattle on a small scale. The beef producer needs the very best beef bulls he can secure, just as much as the dairyman needs the best dairy sires. The problem of raising beef at a profit under present conditions, and they will undoubtedly remain for many years, requires efficient cattle—cattle that will produce a maximum of beef from a minimum of grain and roughage.

A short time ago a number of farmers of Ripley county, Missouri, who are raising beef cattle, realized this point and organized bull associations, and sent a committee to purchase the kind of bulls desired. This committee secured no less than two carloads of Hereford and Red Poll sires and a few registered females to be used as a starter for gradually breeding up pure-bred herds. These men are to be congratulated upon having taken this advance step and we trust that many farmers in our territory will follow suit, irrespective of whether they are raising dairy or beef cattle. The better the bulls that are used and the more thought and attention that is given to selecting heifers from the best cows in the herd and weeding out of unprofitable individuals, the larger will be the profit, the greater the satisfaction, and the better for the community in which the work is being carried on as well as for the country at large.

How One Wisconsin Club Got Its Start.

A great many of our readers ask us questions something like this, "How shall we start a farmers' club?"

Perhaps many will be interested in how a woman started the Country Efficiency Club, in Walworth county. Here is the story as told to us, also by a woman:

Our club was organized by a woman, active in club life before coming among us. We were all busy women, the same as other rural women. This woman missed the social and intellectual intercourse of her neighbors. She was especially fortunate in being asked to join most of the city clubs near by. These clubs were delightful, but she had a feeling that if her neighbors were only members, she would be happier. Failing to interest her neighbors in these clubs she thought about it a great deal while about her duties. One day the thought came to her to invite her neighbors in to spend the afternoon with her. Acting upon this thought, she went to the telephone and called up many in the neighborhood, inviting them to bring samples of their favorite cookies and little cakes wtih recipes for same to her home the following afternoon. Nearly twenty responded. The hostess served coffee. The afternoon was passed in discussing and exchanging recipes. This meeting proved so enjoyable that it was unanimously voted to continue these meetings, which was done with increasing interest.

At first only a president and secretary seemed necessary. As the society grew, it became obvious that a simple constitution and by-laws were a necessity. A program was prepared for each meeting and given while each worked on her sewing. The first year a committee of three planned all the programs and furnished all the material. So far this year a committee of six has served two months, changing at the end of that time to six others.

It was the idea of the club to work out a plan best suited to the needs of the whole club. Through all the club meetings, music has had a prominent place, both instrumental and vocal.

Red Cross sewing has taken the place of sewing of each member.

At the close of each meeting, a cafeteria lunch was served. Each lady brought sandwiches and little cakes or cookies for herself and her guests. The hostess served coffee or lemonade and a salad dish. In this way, refreshments were not hard to serve and added to the sociability of the gathering.

The president of the club at this time is Mrs. George Pounder, Delavan, Wis.; secretary, Miss Louise Pounder, Delavan, Wis.; treasurer, Mrs. Warren Hull, Delavan, Wis.

The point which appeals to The Wisconsin Farmer is that this splendid organization came into being in such a simple way. How easy it would be for any woman to call in a company of her neighbors for an afternoon, and what is more natural than that these women, once they are gotten together and have a chance to talk over their mutual interests, should want to meet regularly every week or every two weeks and discuss important events in their everyday life. What the women have done in this instance the men could also do, but, as usual, we will have to give a woman the credit for originating the idea.

The Toll of Tuberculosis.

In the 1916 Yearbook the secretary of agriculture reports that the estimated annual loss from tuberculosis in the United States amounts to $25,000,000 in cattle and hogs. The losses are about equal in the two classes of live stock. This is a deplorable condition when it is a well-recognized fact that this loss could be very greatly reduced, if not almost entirely avoided, provided the proper precautions against the disease were taken.

By reducing the loss in cattle a corresponding reduction in the loss of hogs would automatically be brought about, because hogs contract the disease from drinking milk from tuberculous cows or from rooting in the manure from such animals. That it is possible to very greatly reduce bovine tuberculosis has been shown by the results obtained in Minnesota during the past few years, where a system of inspection has been in use and reacting cattle have been slaughtered. For example, eight years ago 36.8 per cent—over one-third—of all pure-bred cattle tested in Minnesota reacted to the tuberculin test, while last year only 1 per cent reacted. Furthermore, of 25,725 grade and pure-bred cattle tested for tuberculosis in Minnesota 3 per cent reacted. One reason why Minnesota has been so successful in handling this disease is because the state pays 75 per cent of the appraised value of all cattle condemned for slaughter. There is, however, a limitation placed upon the value at which cattle may be appraised amounting to $60 for grades and $150 for pure breds. These values are low as compared with present market prices, but they served fairly well a few years ago; at any rate, the results that have been obtained under this system have brought splendid returns and Minnesota stockmen are generally well satisfied.

Many Minnesota breeders of registered cattle who started to clean up several years ago by testing their herds once a year now have what are known as accredited herds, that is, herds in which no reacting animals have been found in two successive annual or three successive semi-annual tests. The number of these accredited herds amounts to no less than seventy-seven and this will undoubtedly increase at a rapid rate as breeders whose herds have been freed from the disease become more careful about buying stock from herds not so accredited.

Tuberculosis is a disease found principally among cattle in cold climates because of close stabling during the winter season in such localities. It is also found in dairy herds to a greater extent than in beef herds, first, because the drain upon the system of a cow giving a heavy flow of milk is much greater than upon one giving just enough to support her calf and to that extent the disease-resisting power of the animal is lessened; second, the economical production of milk requires warmer quarters during the winter season than are needed by beef cows that are normally dry during that period.

With the present scarcity of beef and dairy products, the importance of conserving our breeding stock is apparent. It is equally evident, also, that the producer of beef and pork for the market who finishes his stock on high-priced grain, cannot afford to lose any of his ripe animals because of disease when this in a large measure could be avoided. But there is another and even more important side to this question. Bovine tuberculosis infects man and produces human tuberculosis. This infection is brought about through drinking the milk of tuberculous cows or eating cheese and butter from animals thus infected. No doubt millions of children have in the past contracted this terrible disease from contaminated dairy products and from them has spread to other millions of human beings.

A great deal of misunderstanding concerning the nature of tuberculosis still exists. We have heard farmers

THE VILLAIN STILL PURSUES.

claim that the feeding of certain classes of feed, as silage or moldy hay, produces the disease; others hold that it is brought about by colds or severe spells of sickness in the case of humans, but all such suppositions are erroneous. Tuberculosis is a germ disease; it is produced by a germ and one germ only—bacillus tuberculosis by name. It is true that when an animal is in a weakened condition from disease or lack of proper feed, and its natural disease-resisting power is reduced, comes in contact with the germs of tuberculosis it succumbs to their attack much more easily than when it is enjoying normal health and its system is able to put up a strong fight against the germs. This, however, is quite a different matter from colds "running into tuberculosis," as so many put the matter. No matter how severe a cold a person may have, if there are no germs of tuberculosis about to invade the system of the patient the disease will not be contracted. In other words, tuberculosis is not a spontaneous disease; it can come only from the specific germ, bacillus tuberculosis, infecting the animal body. Germs or bacteria are plants. One tuberculosis bacteria can be produced only by another bacteria of the same kind, just as a wheat plant can be produced only by a kernel of wheat.

Baby Beeves Pay Out on $2 Corn.

An interesting report recently appeared in the Chicago Drover's Journal giving the record made by Mr. Henry Hortenstine, of Moultrie county, Illinois, in feeding 105 yearling steers. These steers were marketed last week, weighing an average of 963 pounds and they sold for $17.50 per hundred pounds, the highest price ever paid for baby beeves. In describing the manner in which these baby beeves were handled, the Journal says:

The cattle were bought at the S. M. S. ranch last November and cost the Hortenstine Brothers $36.30 per head laid down at their farm. They averaged about 365 pounds at the time. They arrived at the farm on December 9th and were immediately put in the feed lot on a ration of twenty-five pounds of silage, seven pounds of clover hay and four pounds of corn per day per head. On March 1st the corn ration was increased to ten pounds per head. On May 1st the silage ration was cut out and the cattle put out on forty acres of blue grass and clover and timothy pasture.

On July 1st the cattle were allowed to run to a self-feeder and ate about eighteen pounds of shelled corn and one and one-half pounds of cottonseed meal. This ration was maintained until the cattle were marketed. The last sixty days the cattle were in dry lot, clover and timothy hay being substituted for the pasture.

The Hortenstine Brothers have been in the baby beef business for several years, and for the past two years they have topped the baby beef market. They have 110 S. M. S. calves ordered for fall feeding. This is the highest price obtained for calves bearing this brand and the brothers are going to feed more of the same calves this year.

Mr. Hortenstine, in commenting on the record he made with these baby beeves, said that while his corn did not cost him $2 per bushel, yet if all the corn consumed by these young cattle were computed at $2 per bushel, the returns would pay for the corn and in addition pay a handsome profit.

Feeding Horses Economically.

A good ration for a 1,000-pound horse at moderate work is eight pounds oats, two pounds cottonseed meal and fifteen pounds straw. If your horses are not accustomed to cottonseed meal don't suddenly start feeding them two pounds a day, but get them accustomed to it gradually. One-fourth of a pound a day is enough to start on. This may be increased by one-fourth of a pound a day or every two days, as may seem desirable until the two-pound limit has been reached. To feed straw with oats alone will not prove economical, because in order to maintain a horse in good condition on such a ration a very heavy feed of oats would be required and the additional oats would cost more than two pounds of cottonseed meal. Two pounds of cottonseed meal of the best quality—the kind carrying from 41 to 43 per cent of protein—contains about .75 of a pound of digestible protein, and that is as much as is contained in seven pounds of oats. This shows the relative value of these two feeds from a protein-carrying standpoint and also why this cottonseed meal supplement can be used to excellent advantage with oats and straw as a horse feed.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Beauty and Service Combined.

(Continued from page 1.)

and power for the sewing machine and vacuum cleaner.

Our farm mothers and daughters would certainly be pleased with a house which has such a cellar as has this one. Provision is made for a good-sized vegetable room, another room for the storage of canned fruits, etc., a coal room, a boiler and furnace room and a laundry. Adjoining the laundry room is a large drying room, where the clothes may be dried by artificial heat in inclement weather. The laundry is equipped with a combination water heater, laundry stove, built-in tubs and a washing machine run by electricity. Soiled linen and clothes from the upper floors are deposited in the laundry by means of a large chute, and this saves a great deal of running up and down stairs.

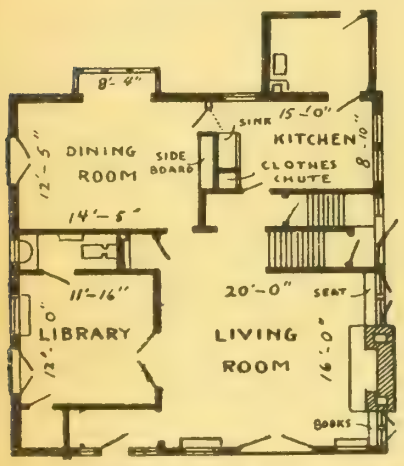
It would take too much space to try to describe all the rooms in the house. In arranging the interior considerable space has been saved by the dining room's built-in sideboard and the built-in bookcases surrounding the firplace in the living room. In the vestibule adjoining the kitchen there is a built-in well refrigerator. The house is finished in natural woods, highly polished, with hardwood floors. If members of the family desire to sleep out of doors, they can either utilize the sleeping porch upstairs or the solarium, and with these two large rooms the outdoors sleeping accommodations are sufficient for a large family. This house is equipped with a modern bathroom with tile floor. The tile floor is a little extra frill which was unnecessary, but adds to the appearance of the bath and also makes it easier to clean.

There was quite a little building done in the summer of 1917 on farms throughout the grain belt and a good many new farm homes were erected in Wisconsin. Notwithstanding the increased cost of building materials, it seems that a great many new farm homes will be erected in 1918. Farm products are going to bring a good price, and, while it is going to cost more to build, there will be a very large number of our dairy farmers who will have more money to spend.

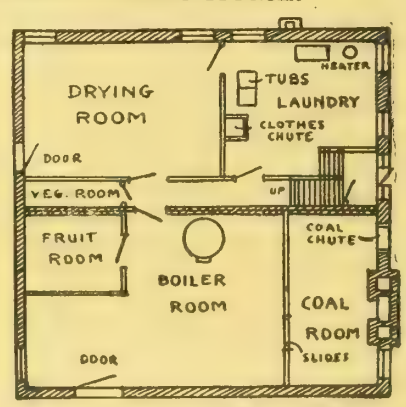
The owner of the place where this new farm home was erected has apportioned his expense on farm buildings and equipment so that all of his money was not spent in one department. We find some farms where there are excellent barns, but a poor farmhouse. A great many of our readers have believed that it is best to build the barns and other buildings first and the house later. Of course, this is on the theory that the barn is a profit-maker and eventually the farm home can be erected from the profits accrued from the barn, its occupants and contents. The comparatively new barn on the place which we have been describing is shown by the illustration included herewith. A fine new silo has also just been erected. Having equipped his place with a splendid barn and a good, durable silo and having erected such a beautiful new farmhouse as we have undertaken to describe, what is more natural than that this farmer should also have a new automobile? This automobile is shown in one of the accompanying illustrations, standing in the barnyard. The car had been on the place only three days when this picture was taken.

A GOOD BARN, NEW SILO AND STANDARD AUTOMOBILE HELP COMPLETE A GOOD FARM'S EQUIPMENT.

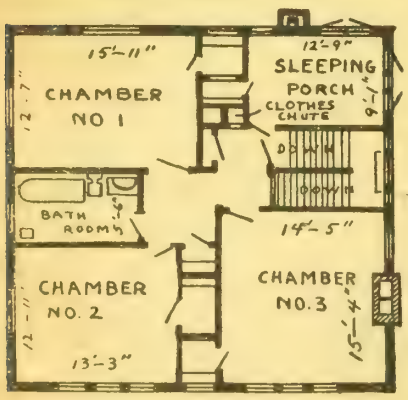
SUGGESTIONS FOR MODERN FARM HOME.



FIRST FLOOR PLAN



BASEMENT PLAN 1/8 INCH = 1 FT



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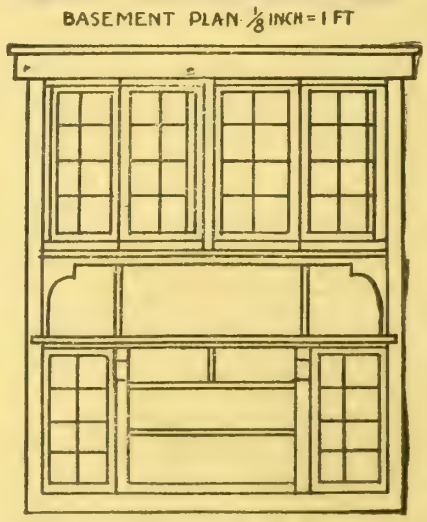
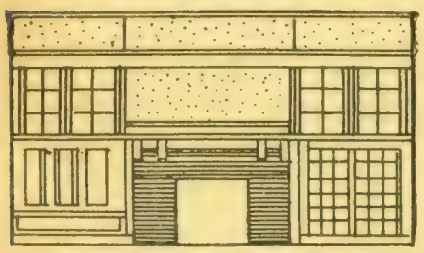
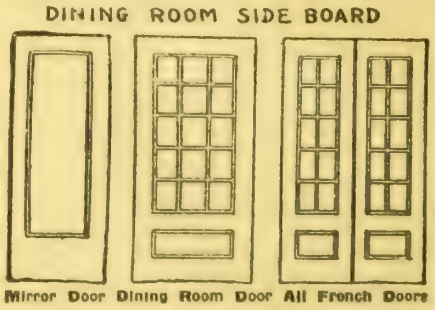


DINING ROOM SIDE BOARD



WEST END OF LIVING ROOM



Mirror Door Dining Room Door All French Doors

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Judging Contest at Swine Show.

Success of Contest Assured—Its Influence Will be of Far-reaching Benefit to the Swine Industry.

RECOGNIZING the importance of interesting college students in the various breeds of improved swine, the management of the National Swine Show, which is to be held in Omaha, October 3d to 10th, has inaugurated a students' judging contest. This contest is open to all agricultural colleges in the United States, and it is to be hoped that as many as possible will avail themselves of this opportunity to gain the education that the show affords.

The committee in charge has been hard at work securing appropriations for the prize money and enlisting the college judging teams for participation in the event. Their efforts have met with good success and the prospects are that there will be about eight colleges represented from as many different states and the prize fund of $600 will be oversubscribed. The appeal for funds has met with a liberal response from the packing interests, the records and the swine papers.

The effect of this contest cannot but be of far-reaching benefit to the swine industry. The hog has long been the backbone of the meat producing business, but until now has been little appreciated as such. It is planned to provide desirable entertainment for the teams and to see to it that importance of the swine industry in American animal husbandry is properly put before the men, that they may have a better conception of this great American industry. The influence that these men will have on their return to the farms or to the fields of activity that bear a direct influence on our live stock development will be one that will tend to give the hog his justified share of the prominence that is now accorded the beef steer and will give to him the prestige that is so justly his.

The contest will be held on Wednesday, October 3d, commencing at 9 o'clock a. m., and will be in charge of the students' judging contest committee, of which N. M. Gordon, editor of the Duroc Bulletin, is chairman and Ray Davis and Bob Hill, field secretaries of the American Poland China and National Duroc Jersey Record Associations, are members. The event promises to be one of the leading attractions of the show. For further information parties interested should address N. M. Gordon, Room 630, Transportation Bldg., Chicago.

Recent gathering of Oneida county and Winnebago county farmers who met to discuss dairy conditions, feed values, etc., and to look over the good dairy cattle in the Fox river valley. This picture was taken on the Ed Race farm.

Wisconsin's Clover Crop in Danger.

To the Editor:—Will there be clover seed? The prevailing high prices of stock feeds is going to cause farmers more than ever before to cut the second crop of red clover for hay. This is going to mean that clover seed will be high priced or not obtainable at all.

It will be a calamity not to have clover seed. Remember that from clover Wisconsin gets its nitrogen fertilizer, the most expensive and most needed fertilizer.

It will be a calamity in dairy Wisconsin not to have any clover on the farms for feed. Timothy is hard on the soil and is the most expensive and poor dairy feed. It furnishes very little nitrogen from which cows can make milk, and if farmers feed timothy and expect to get much milk they must buy immense quantities of bran, oil meal and other very high-priced feeds.

Farmers, save some second crop clover for seed. You need the seed on your own farm, and if you have any for sale it will bring a good price.

E. L. Luther,
Supt. Farmers' Institutes.

Milwaukee purchased Liberty Bonds representing $35 per capita. The state at large, outside of Milwaukee, bought only $9 worth per capita.

Stock Show at Superior, Wis.

Minnesota and Upper Wisconsin Breeders Bring Out Some Good Stock—By Edward Vaugh, Superintendent of Dairy Cattle.

ONE of the strong features of the Tri-State Fair at Superior, Wisconsin, was the stock exhibit. During the season many new barns were built and everything is in fine shape to take care of stock of all kinds. The stables are very light and sanitary.

The Guernsey exhibit was probably the strongest of any, four herds competing for honors. The battle was waged between the Jean DuLuth Farm, of Duluth, Minn., and Caribou Farms, of Saginaw, also of the North Star State, with Edward Vaughn, of Poplar, Wisconsin, and the Douglas County Work Farm vying for honors.

The aged bull class was led by Starlight Excelsior, a splendidly formed bull, who has been some thirty times champion, and he was closely followed by his half brother, Austerlitz.

In the bulls two years old and under three, Caribou Farm had an easy winner with King Alberta.

Among the bulls one year old and under two and found the junior champion, Golden Noble of the Lakes, who was later made grand champion of the Guernsey show. He is a splendid bull, straight in his lines, with a wonderfully clean-cut shoulder.

Among the younger bulls there was strong competition in all classes.

Fanny of the Vallee Du Cruex was winner over barn mate, Jean Duluth Coronet, who is showing this year in a three-year-old form, and was later made senior and grand champion. Fanny had just come from the Minnesota State Fair, where she won first prize in strong competition.

The junior yearling heifer class, Jessica of Jean DuLuth, who was later made junior champion female, won over Edward Vaughn's Bunty Belle by a close margin.

The Tri-State Fair, of Superior, brought out the strongest competition of the season outside of the Minnesota State Fair.

The awards were made by Prof. Geo. C. Humphreys, of Madison, Wisconsin, who selected his type with great care and followed it very closely throughout the entire judging.

All group prizes were won by Jean DuLuth Farm, with the exception of produce of cow, which was won by Edward Vaughn, of Poplar.

The Holstein exhibit was by far the best ever seen at the Tri-State Fair, there being keen competition between the herd of A. N. Newell, Butternut, Wisconsin; H. E. Utley, Wrenshall, Minn.; H. E. Smith, Barnum, Minn., and William Kemmis, Borea, Wis.

The aged bulls as a class were not especially strong, Newell's Sir Ormsby Phoebe Burke winning, as the Utley bull, Woodlawn King Segis Cornucopia, had gone lame and was badly out of form, but among the younger bulls a great deal of quality and merit was shown.

In the class for bulls one year old and under two the Utley Farm showed their new purchase, King Pontiac Spofford Konigan, a very growthy fellow of splendid lines, but not in the best of show form. He was much larger than his opponents and rather too growthy to appear to the best of advantage, and blue was later tied on Wiley Taylor's Korndyke Segis, with Smith's King Ragapple Colantha winning second place.

The class for cows three years old and over brought some splendid matrons. And Newell's Miss Elinore Mercedes, being in better form, captured the first prize over Utley's Mattowee Jaska De Kol, a splendid cow with a perfectly formed udder.

The best typed Holstein cow in the class was Daisy Korndyke Clothilde, and but for a weak front quarter which had evidently recently been injured, might easily have been made grand champion. She was a cow of wonderful type and bore evidence of having a splendid udder.

Both grand champion cow and bull went to A. N. Newell.

Throughout the Holstein exhibit was good and a credit to the breed.

The ribbons were tied by Prof. Geo. C. Humphreys, of Madison, Wisconsin.

The Red Poll exhibit made by the Jean DuLuth Farm was comprised of their prize winners which have been shown in western Canada this season. This herd has practically made a good, clean sweep this season, including the Minnesota State Fair.

Guernseys—Exhibitors: Jean Du Luth Farm, Duluth, Minn.; Caribou Farms, Saginaw, Minn.; Edward Vaughn, Poplar, Wis.; Douglas County Work Farm, Superior, Wis.

Bull 3 years or over, 1st and 2d Jean Du Luth Farm on Starlight's Excelsior of J. D. and Austerlitz, 3d Vaughn on Queen of Ardell; 2 years and under 3, 1st Caribou Farms on King Alberta, 2d Jean Du Luth Farm on May Rose Searchlight; 1 year and under 2, 1st Jean Du Luth on Golden Noble of the Lakes; 2d Jean Du Luth Farm on Brilliant of C. C. Farms; senior calf, 1st Jean Du Luth Farm on Queenie's Austerlitz, 2d and 3d Caribou Farms on Caribou Romulus and Caribou Masher; junior calf, 1st and 3d Jean Du Luth Farm on LeRoy Starlight and Friar Chene, 2d Caribou Farms on Caribou Captain.

Cow 3 years or over, 1st and 2d Jean Du Luth Farm on Fanny of the Vallee Du Cruex and Jean Du Luth Coronet, 3d Caribou Farms on Sequel's Maid of Beauty; 2 years and under 3, 1st Jean Du Luth Farm on William's May Rose, 2d Caribou Farm on Pearl of Green Lodge 2d, 3d Vaughn on Betty of Poplar; senior yearling, 1st and Jean Du Luth Farm on Chene's May Rose and Gree's May Rose, 2d Caribou Farms on Caribou Berta; junior yearling, 1st Jean Du Luth Farm on Jessican of J. D., 2d Vaughn on Bunty Belle, 3d Caribou Farms on Caribou Rachael; senior calf, 1st and 2d Jean Du Luth Farm on Mosrose of Jean Du Luth and Panope of Jean Du Luth, 3d Caribou Farms on Caribou Mary; junior calf, 1st Jean Du Luth Farm on Marathon Rose Queen, 2d Caribou Farms on Caribou Charmont's, 3d Douglas County Farm on Georgiana Barbara.

Senior champion bull, Jean Du Luth Farm on Starlight's Excelsior of All; junior and grand champion bull, Jean Du Luth Farm on Golden Noble of the Lakes; senior and grand champion cow, Jean Du Luth Farm on Fanny of the Vallee De Creux; junior champion cow, Jean Du Luth Farm on Jessican of Jean Du Luth; breeder's herd, 1st Jean Du Luth Farm, 2d Caribou Farms, 3d Vaughn; get of sire, 1st Jean Du Luth Farm, 2d Caribou Farms; produce of cow, 1st Vaughn, 2d Caribou Farms.

Holstein-Friesians.—Exhibitors, A. N. Newell, Butternut, Wis.; H. B. Utley, Wrenshall, Minn.; E. H. Smith, Barnum, Minn.; Wm. Kimmis, Borea, Wis.

Bull 3 years or over, 1st Newell on Sir Ormsby Phoebe Burke 6th, 2d Utley on Woodlawn King Segis Cornucopia; 2 years and under 3, 1st Newell on Sir Johanna Fayne Mooie; 1 year and under 2, 1st Utley on Gaylord Korndyke Segis, 2d Smith on King Ragapple Colantha, 3d Utley on King Pontiac Spofford Konigan; senior calf, 1st Utley on Alvena Jaska Cornucopia; junior calf, 1st Kimmis, 2d Newell, 3d Utley.

Cow 3 years or over, 1st Newell on Miss Elnora Mercedes, 2d Utley on Mettowee Jaska De Kol, 3d Smith on Daisy Korndyke Clothilde; 2 years and under 3, 1st Utley, 2d and 3d Smith on Harvest Bonnie Agatha Pontiac and K. S. P. Daisy Korndyke; senior yearling, 1st and 2d Utley on Netherland Queen Snowball and Blue Label Rose Nudine, 3d Smith on Lilith Colantha Pietertje; junior yearling, 1st and 2d Utley on Changling Glitka Burke and Miss Johanna Korndyke Torchlight; senior calf, 1st Newell on Queen Elnora Mercedes, 2d Utley; junior calf, 1st Newell on Johanna Phoebe Burke.

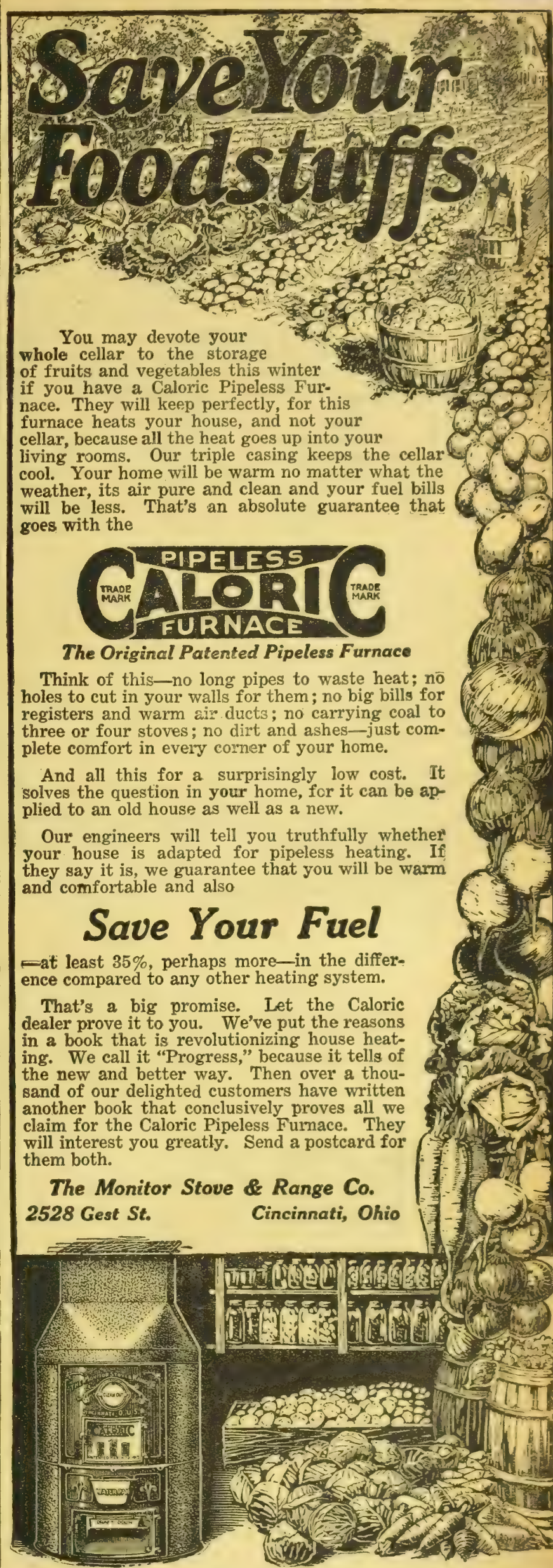
Senior and grand champion bull, Newell on Sir Ormsby Phoebe Burke 6th; junior champion bull, Utley on Gaylord Korndyke Segis; senior and grand champion cow, Newell on Miss Elnora Mercedes; get of sire, Newell; produce of cow, Utley; breeder's herd, 1st Newell, 2d Utley.

E. E. Wyatt, of Tomah, Wis., exhibited his excellent herd of Jersey cattle. There was no other herd in competition. Maiden's Varsity King was grand champion bull and Euphemia's Pauline, the grand champion cow.

The Jean Du Luth Farm, Duluth, Minn., exhibited its fine herd of pure-bred Red Poll cattle, there being no competition. The grand champion bull prize was awarded to Pilot Lee, and the grand champion cow to Lady Golden.

There was one herd of pure-bred Herefords, owned by Walter Bros., Chippewa Falls, Wis. Maple Lad 91st was grand champion Hereford bull and Martha was grand champion Hereford cow. It was a good show notwithstanding the lack of competition.

Honey is a delightful and economical substitute for sugar that has all the delicious flower sweetness added to it. It is free from adulteration when delivered to man and for that reason is in many ways better than sugar. It may be used in canning, baking and on raw fruits, in addition to being used as a spread on bread. If you do not have a swarm on the farm it is advisable, in most cases, to get one. See that it goes into winter in good condition and next spring be ready to care for other swarms.



FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Valve-in-Head Motors.

Suppose there were two motors, both the same size and everything exactly alike, except that one was the valve-in-head type and the other the L-head type. Which would deliver the more horsepower? Which would consume the more fuel?

Answer.—Under the above conditions the advantage would be with the valve-in-head type, both as to power and fuel consumption. The valve-in-head motor would not only use less fuel but it would deliver more power. Such conditions are not often obtained in practice, and the carburetor adjustment usually has more to do with the power and fuel consumption of a motor than the type of motor.

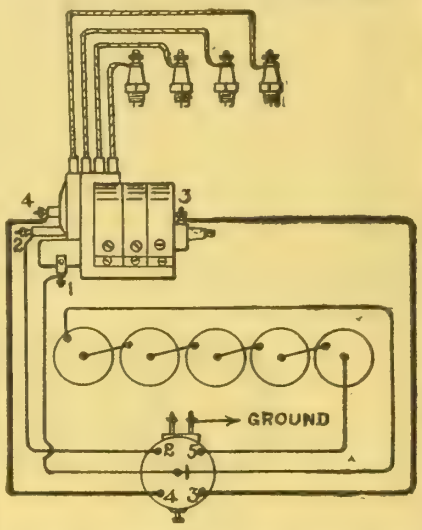
Motor Hard to Start When Cold.

I own a 1914 B36 touring car. It is very hard to start when cold, but when it is warmed by the sun, it starts readily. Is it carburetor trouble? Please tell me how to place the throttle and spark levers. It won't make even one explosion when cold. I can make but ten or twelve miles per gallon. The car is equipped with a Model L Schebler carburetor. Please tell me how to adjust the same so as to run more economically. Does it do harm to use a heavy oil in the Buick car? What causes the gears to make a grinding noise when running in low, intermediate and reverse, while it runs without making a sound on high?

Answer.—Your starting difficulties are more likely due to poor compression and faulty ignition than to carburetor adjustment. Poor compression would also account for the low mileage per gallon of gasoline. See that the spark plugs are clean; if the compression is poor, have the valves reground. If this does not improve the compression you will need new rings; or possibly the cylinder will have to be rebored. When starting the motor, open the throttle about half way and retard the spark only enough to keep the motor from kicking back. Close the choke valve for a few turns, and then open the valve. Find out by experiment just how long it is advisable to leave the choke valve closed when starting. If it is closed too long the mixture will be too rich and the motor will not start.

To adjust a Schebler carburetor, screw down the screw over the air valve so that the valve seats firmly but lightly; turn the needle valve to the right until it is closed; do not screw the needle valve in too tight, as the seat might be injured. Then turn the needle valve to the left four complete turns and prime the carburetor. Open the throttle about one-third and start the motor. Close the throttle slightly and retard the spark. Adjust the needle valve one notch at a time so that the motor runs evenly and hits on all cylinders, having made sure that your spark plugs are in good condition. Adjust the throttle lever screw so that the motor throttles down to the desired speed.

After getting a good adjustment with the motor running idle, do not change the needle valve adjustment again, but make the intermediate and high speed adjustments on the dials. Adjust the pointer on the first dial about half way. Advance the spark and open the throttle so that the roller on the track below the dials is



in line with the first dial. If the motor then back fires, turn the pointer toward the figure 3. If the mixture is too rich turn the pointer back toward 1. Make your high speed adjustment on the other dial in the same manner.

Heavy Mobiloil or oil of similar grade is all right for a 1914 Buick. Your sliding gears are worn. These gears are not in mesh in high speed, hence no noise on high speed.

Trouble With Number One Cylinder.

I noticed an article in your Farm Mechanics Department about trouble with the number one cylinder of Ford cars, due to the oil at the front end of the motor causing poor ignition. I have had a lot of experience with this trouble, and can give some advice that may help some. The first thing to do is to see that the front spring of the car is not sagging down, allowing the front end of the motor to hang low. There should be not less than four and one-half inches clearance between the axle and the spring clips at the middle of the spring. If this happens to be all right, about the best thing to do is to remove the piston and file or turn a groove under the bottom piston ring deep enough to catch the surplus oil; the groove should be V-shaped with the lower side almost square with the piston and the upper side sloping so as to almost meet the edge of the bottom ring. Four holes should be drilled through the sloping side of the groove to allow the surplus oil to drain back into the cylinder. I have treated several Ford cars, also other cars, in this manner and have always met with good success. One 1914 Ford has made 90,000 miles and has never had an oily plug since this treatment.

Answer.—We wish to thank the writer of the above letter. His suggestion is in line with good engine practice, many engine manufacturers grooving their pistons as he suggests. This trouble seems to be one of the most common with Ford cars, and the above advice should be of value to many of our readers.

Charging Battery From Ford Magneto.

Is it advisable to use a storage battery for lights on a 1917 Ford car? Is the magneto strong enough to recharge the battery?

Answer.—The Ford magneto cannot be used to recharge a storage battery. An attempt to charge a battery from the Ford magneto usually results in the magnets of the magneto being demagnetized. If you wish other lights on the car the best way is to have installed a starting and lighting outfit. There are at least three successful outfits on the market, the approximate cost of each being $100. Or you might install a generator and battery charger, running the charger from the fan belt. If you have electric current and your own charging outfit, you could run your lights from a storage battery alone; it would be rather expensive to run from the battery alone if you have to hire the battery charged. The connections are quite simple. For your present lights, disconnect the wire from the magneto terminal on the coil box to the lighting switch, and connect a wire from the battery to the lighting switch. Ground the other battery terminal. If your battery is six volts, you would have to use three-volt bulbs. If you wish to use six-volt bulbs with a six-volt battery, run the wire from the battery to one terminal of each lamp and ground the other terminal of each lamp. Wire the dash light and tail light in the same manner that the two headlights are wired.

Engine Out of Balance.

I come to you for information as to my Foose twelve-horse-power gas engine. It has a nine-inch bore and twelve-inch stroke. The flywheels weigh 1,500 pounds. I have mounted this engine on a very strong truck, but it vibrates so badly when running that I have to take off the wheels and put the engine on the ground. Even then, I have to brace it well to keep it from working back and forth. The timing and valve action are all right. What horse power should this engine produce? Are the flywheels too heavy? This engine has balance weights on the crankshaft. Is there such a thing as an engine getting out of balance?

Answer.—An engine might get out of balance, due to a slight springing of the crank shaft. A single cylinder engine cannot be balanced perfectly. It should be balanced so as to run well at rated engine speed. The best running balance for a single-cylinder engine can best be found experimentally. Place a piece of putty at different points on the inside of the flywheel rim, and note the effect on the running of the engine. You will probably find that two pieces of putty placed about one-fourth the way around on each side of the center opposite the crank pin will cause the engine to run much smoother. The amount of putty can be found by experiment. When running the engine with putty on the rim of the wheel, do not stand in line with the wheel, as the putty might fly off. Having determined the location and amount of putty necessary to balance the engine, weigh it and fasten an equal weight of iron or lead on the inside of the flywheel rim at the proper location by means of rivets or screws. The weight of your flywheel is all right for stationary work. Your engine should develop at least its rated horse power; it would probably develop eighteen horse power if in good condition.

ing 13 years of a life sentence.

SAVE CORNSTALKS OR FACE FEED FAMINE, SAYS EXPERT

CHICAGO, Aug. 23.—Farmers save your corn stalks or face a fodder shortage this winter.

This was the warning sounded here today to midwest farmers by J. B. Lamson, agricultural expert for the Chicago, Burlington & Quincy Railroad.

Warning!

Hay, generally, is scarce and high priced. Now especially you should make full use of your corn fodder by *preparing* it for barn feeding—which gives *twice* better results than shock feeding. If your hay is short, corn fodder will take its place. If you have hay, *cash in* at high prices and use corn fodder. With an Appleton you can get *thousands of pounds of fodder per acre* from your corn—besides saving the labor of hand husking. Increases feed value of corn crop at least 25%. Cuts or shreds stalks, leaves and husks, while husking ears. The original successful husker; so strong and simple that first models, made years ago, still give good service.

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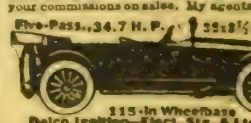

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32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.55
31x4	14.75	16.60	3.70
32x4	15.05	16.85	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.55	4.00
35x4	17.00	18.60	4.50
36x4	17.20	18.65	4.30
34x4 1-2	21.65	23.65	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
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Elkhorn Fair Makes New Record

Walworth County Agricultural Society Will Have Surplus Again This Year—A Few of the Live Stock Winners.

THIS year's Walworth County Fair, held at Elkhorn, September 18th to 21st, proved the biggest ever of the sixty-eight years of fairs held in this county. For the four days Samuel Mitchell, the secretary, estimated 80,000 people visited the grounds. The Walworth fair is one of the two fairs in the state which is able to show a balance to the good after all bills are accounted for. Last year's surplus of $7,649 will be surpassed this year.

Officials of the fair are ever anxious to improve the various departments and this year an increase of 40 per cent in the premium list for cattle had the desired effect of bringing out many new breeders in spite of high prices and labor shortage.

Last year's record of the swine department was not quite equaled this year, fewer animals being shown. Better than 200 pigs were entered, however. The exhibitors were Heck Bros., of Lyons; W. G. Bartholf, of Burlington; Geo. Lasch, of Lyons; Wm. Wrigley, of Lake Geneva; W. H. Esterley, of Whitewater; C. D. Smith & Co., of Rockford, Ill.; Philipps Bros., of Delavan; Gant's Farm, Delavan; Roy Church, of Elkhorn; Walter Besecker, of Delavan; O. B. Coates, of Elkhorn; Ralph Wiswall, of Elkhorn; W. Sheibe, of Burlington; Whittmore Bros., of Burlington; Vaughn & Son, of Spring Prairie; Walter Knilans, of Richmond, and Chas. S. Dunbar, of Lauderdale.

The champion of the Durocs was Gant's boar, King Defender. This boar was easily the largest and best quality hog on the grounds and he was, therefore, made grand champion in the sweepstake class. Champion sow of the Durocs was shown by Bartholf. Champion sow of the Polands was owned by Heck Bros., and she was later on made grand champion of the show. Champion boar and sow of the Chester Whites went to Sheibe. In the Berkshires Whittmore Bros. had everything to themselves as did Vaughn & Son in the Hampshires.

The sheep exhibit was the largest ever on the ground with 162 head entered. Three Walworth county breeders exhibited this year, where last year of ninety-eight sheep entered not a single one was owned by a Walworth county man. The sheep exhibitors were Wm. Wrigley, of Lake Geneva; E. Crall & Son; W. S. Miles; J. C. Ellis, all three of Evansville; H. G. Hogan, of Waunakee, and Vogt & Son, of Lake Geneva.

In the Oxfords Crall was the heavy winner. In the Hampshires everything went to Miles, while in the Lincolns, Cheviots and Dorsets Crall got away with the big money. In the Southdowns Miles had things his own way, as also in the Rambouillets. In the Merinos Crall again was the only exhibitor.

The cattle exhibit was not as large in the beef department as in other years, but each breed showed excellent specimens of more than average quality. J. E. Kennedy, of Janesville, was the only exhibitor of Short-horns, while Boynton Bros., of Janesville, showed a large herd of Polled Durhams. Baby beef exhibitors were C. E. Thompson, Lake Geneva and Leslie Foster, Sugar Creek. Thompson's Hereford heifers took the money.

In the dairy cattle an extra large showing of Holsteins was was made. More breeders from Walworth county showed cattle than ever before. In the Holsteins it was strictly a county exhibit, not a single outside breeder showing. J. G. Voss, R. Minshall, M. Westphal, W. E. Palmer, Ben Bachhuber, H. and G. Weaver, Earl Pierce and H. Donaldson, all of Elkhorn; Crites Bros., Honey Creek; H. Peck, East Troy; A. G. Palmer, Lake Geneva; Whittemore Bros., Lyons, were the exhibitors. Crites Bros. were first on aged bull; A. G. Palmer first on two-year-old bull, bull calf, heifer calf and breeder's young herd; W. E. Palmer was first on aged cow, heifer two to three years old, heifer calf and aged herd; H. Peck first on yearling bull and Earl Pierce first on heifer one to two years old.

The Guernseys were next in numbers, four breeders showing. Goodhand Kingston, of Waukesha; Tilden Farms, of Delavan; Roy Sanders, of Elkhorn, and the Rock County Guernsey Breeders' Association were the exhibitors. Tilden Farms were first on bull calf, two-year-old heifer and aged herd. Rock County Guernsey Breeders' Association first on two-year-old bull and yearling bull. Kingston first on aged cow, yearling heifer, heifer calf and breeder's young herd.

The Jerseys were shown by Orin Day, of Janesville, and Alfred Olson, of Elkhorn. The prizes were divided fairly evenly, but Day's herd showed in all classes and consequently received the greater number of ribbons.

Jimmie Van Etta, of Lima Center, brought his excellent herd of Ayrshires. As he was the only exhibitor he had things all his own way.

The horse show was not as large as usual, but excellent draft type was shown by Floyd H. Lean, of Elkhorn, who was the only winner in the Clydesdale. Will Belman, of Delavan, won everything in the Percheron and also showed Belgians with Alfred Olson, of Elkhorn.

In the poultry building 2,000 birds were on exhibition. The largest exhibitors on the ground were W. W. Hoyt, of Whitewater, with 700 birds. E. G. Robinson, of Ft. Atkinson, had 350 birds, while Lee Kyburz, of Honey Creek, had 117.

One of the features of the fair was the large machinery display. Automobiles were also on exhibition in great numbers. There was less of the amusement end than usual, but to all appearances a "pike" is not the feature which will make or unmake a fair. It is gratifying to know that a county fair can be made as attractive through its educational and industrial features as the Elkhorn fair proved it can be made.

Judging Days at Dairy Cattle Congress.

Those who expect to attend the big dairy cattle congress to be held October 1st to 7th at Waterloo, Iowa, will be interested in knowing just when the different breeds of cattle will be judged. The schedule has been made out and is as follows: October 1st—afternoon: Ayrshire and Brown Swiss bulls. October 2d—morning: Ayrshire and Brown Swiss cows; afternoon: Ayrshire and Brown Swiss groups and championships and Holstein bulls; evening: Presentation of Ayrshire and Brown Swiss diplomas and trophies. October 3d—morning: Holstein cows; afternoon: Holstein groups and championships and Jersey bulls; evening: Presentation of Holstein championships, diplomas and trophies. October 4th—morning: Jersey cows; afternoon: Jersey groups and championships and Guernsey bulls; evening: Presentation of championships, diplomas and trophies. October 5th—morning: Guernsey cows; afternoon: Guernsey groups and championships; evening: Presentation of Guernsey championships, diplomas and trophies.

One of the interesting features in connection with the congress this year will be a calf-club exhibit by the boys and girls of one of the clubs formed last spring by the Iowa State Dairy Association. Calves were purchased by this association and sold to over 100 boys and girls in Blackhawk county. These calves will all be on exhibition at the congress, where they will be judged and prizes awarded to those making the best showing.

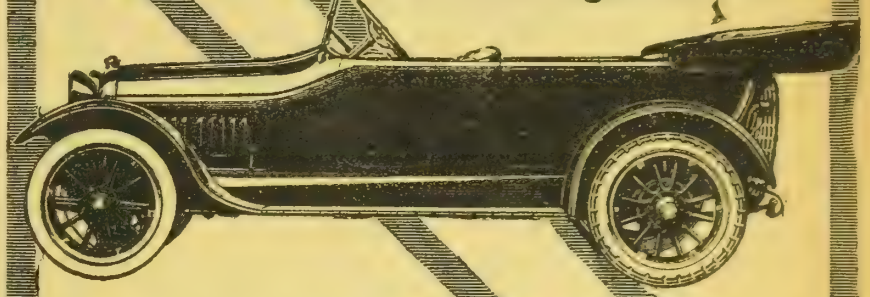
The price which the government will pay for the 1917 wheat crop has been fixed at $2.20 for No. 1 northern at Chicago. No. 2 wheat will be purchased at 3 cents less per bushel, No. 3 at 6 cents less and No. 4 at 10 cents less. Mixed wheat will bring 4 cents less than the price of the predominating grade. These prices are for wheat delivered at Chicago, and at other points the crop will be worth transportation and commission charge somewhat less, depending on the transportation and commission charges.

The hum of silo fillers may be heard on many farms at this time, and the owners of these farms are not worrying a great deal about an early frost.

Velie

Your Velie is an Investment

THERE is no better, saner business proposition in any field at the present moment than the Velie Biltwel Six. There is thorough motor car value in this new product of the great Velie factory. The car is a business need—and no other shows the Velie values for the money. Its long service—its remarkable records, are due to such features as the Velie Special Red Seal Continental motor, Timken axles, long underslung springs, automatic ignition.



Act Now and Save!

The present schedule of production just about covers present Velie prospects. You can get your Velie now—but there is no telling how long materials will be available or how long present material prices will hold. You are money ahead by buying your Velie now—at $1185. Seven other Velie Body Styles include 2 and 4-passenger Roadsters, Cabriolet, Coupe, Sedan, Brougham and seven-passenger Touring—at prices from $1165 to $2300.

Velie Motors Corporation
132 Velie Place Moline, Illinois
Builders of Automobiles, Motor Trucks and Tractors

BIGGER-BETTER MORE POWER

In and Around Wisconsin

Milk is selling at retail in Tulsa, Okla., for 15c a quart; in Los Angeles, Cal., 14c; Little Rock, Ark., 15c; Burlington, Iowa, 14c.

A clover field of seventy-five and one-half acres on a farm owned by C. A. Taylor, Barron county, produced seed worth $4,169, or an average of more than $50 an acre.

The annual Dairy Cattle Congress will be held at Waterloo, Iowa, October 1st-7th. The entry list to date indicates a larger show than usual, and last year broke all previous records. The show will be well worth the time it takes to attend it.

RALPH DOBSON, LANCASTER, WIS., WINNER BOYS' PIG CONTEST AT MILWAUKEE—GRAND CHAMPIONSHIP ON POLAND CHINA GILT.

A conference of all the committees and others directly interested in the sixth annual potato show to be held this year at Madison, will convene at the college of agriculture, Madison, September 28th. At that time the complete program for the show and the Wisconsin Potato Growers' Association's annual meeting, will be arranged.

A new plant is being established at Rhinelander, Wisconsin, to utilize potato by-products. The factory will turn out potato flour, potato flakes, potato stock food, starch, mucilage powder and other products. This plant is being moved from Arlington, Virginia, to Rhinelander, and will be established in the old Wabash Screen Door factory. H. G. Gore, a representative of the federal department of agriculture, is aiding in establishing the institution, which will be controlled by local capital.

At a meeting of the Waukesha county council of defense, the emergency food agent, Mr. E. H. Otis, and the county agricultural agent, Mr. J. E. Stallard, the following resolutions were unanimously adopted:

First by education of the farmers to realize the necessity of raising all dairy-bred heifer calves, and also increasing the number of sheep and hogs, not only as a profit to themselves, but in so doing will be rendering their most loyal service for our federal government and her allies.

Second by protecting the dairy cow, her progeny, and product, pending the high war prices on grain required as dairy feed (that must be fed to cows to have them produce milk), the farmer dairymen must recognize the minimum cost of whole marketable milk as produced at three ($3) dollars per hundred pounds.

Believing this view is fairly representative of our most loyal farmers acquainted with the dairy cow, and the common tendency to sacrifice her by slaughter, we respectfully submit the above for your consideration.

Not only may these resolutions be regarded as a forerunner of dairy conservation, but also as indicating the sentiment of men connected with dairying relative to what milk is worth under present conditions. It is apparent that milk must bring an even better price than it has been bringing the past year, notwithstanding the fact that the 1917 prices have established new records. But milk at $3 a hundred and more is a cheap food—very cheap compared to other substances of equal food value.

Pierce Martiny, of Riley Martiny & Son, Baraboo, Wis., winner of Wisconsin Farmer Duroc Futurity trophy, 1917 Wisconsin State Fair. He won forty-seven points, first on boar, first on sow pig and first on litter.

A number of Wisconsin farmers are planning to attend the National Dairy Show to be held in Columbus, Ohio, October 17th to 27th, inclusive. Every foot of available space in the $250,000 coliseum will be utilized for the various departments of this show. Machinery of all kinds, adaptable to dairy farms, creameries and cheese factories will be on exhibition. In addition, there will be exhibits of tractors, trucks, pleasure cars, feed and forage, etc. In the barns will be over 1,500 head of cattle, representing the Holstein, Jersey, Guernsey, Ayrshire and Brown Swiss breeds. On the morning of October 22d, there will be a mass meeting of the representatives of the dairy industry. On the afternoon of the same day Mr. H. H. Kildee will judge Jerseys; on the morning of October 23d Mr. Robt. Scovell, C. L. Hill and W. A. McKerrow will judge Guernseys; on the morning of October 24th Mr. W. S. Moscrip will judge Holstein-Friesian cattle, and Thursday afternoon at 2:00 o'clock Mr. Will Forbes will judge Ayrshires and Mr. H. G. VanPelt will judge the Brown Swiss herds. From the standpoint of the number of cattle exhibited and the quality, the 1917 dairy show will undoubtedly eclipse anything of the kind ever held in this country. A strong effort is to be put forth to lessen the slaughter of dairy cattle for beef. One authority says that 26 per cent of the dairy cows in the United States have gone to the slaughterhouse in the past seven months. If these figures are true and if such a condition should continue a shortage of milk and dairy products is inevitable. Facing food shortages in the world as we do today, such gatherings as the National Show at Columbus, Ohio, and the International Show to be held later in Chicago, Illinois, are of inestimable importance.

Meatless Day, Tuesday, and Wheatless Day, Thursday, recommended in special proclamation by Magnus Swenson, state food administrator, were quite generally observed in the cities of the state the first week. In Madison nearly all the cafes left meats of all kinds off the bill of fare on the first Tuesday after the proclamation. Even the railroad dining halls eliminated meats. Vegetable soups, cheese, peanuts, fruits, macaroni, eggs and fish were the chief substitutes. In Milwaukee on Wheatless Day the leading hotels and cafes substituted corn bread, corn cakes, rye bread, etc., for wheat bread. Practically no objection was offered on the part of patrons. In a few places the sign "meats for working men only" was seen on Meatless Day. To what extent the proclamation of the food administrator was observed in the country it is difficult at this time to say, but no doubt the meals on Tuesday and Thursday are being rearranged so that the proclamation will be complied with. By leaving meat off the menu once a week and wheat products once a week, millions of dollars' worth of these foods may be saved. To the extent that the recommendations are observed, we will begin to understand just how much our people realize that we are on a war basis.

Roads Good 365 Days a year mean more to the farmer now than ever

Barberton-Greenwich Road, 1½ mile west of Lodi, Ohio, in Medina County. Built by Elyria Construction Co., Elyria, Ohio.

FARMERS living on concrete paved roads have no fear that bumper crops will fail to bring them prosperity. They can market every day of the year in all kinds of weather. Concrete roads are 365-day-a-year-roads. The difference between mud roads and concrete roads is the difference between crops rotting on the farm and crops on the way to the world's markets when prices and demand are best.

Railroads have more than they can do now.

Concrete roads and motor trucks make the farmer largely independent of the railroad. Now, more than ever before, will the farmer value good roads if he has them, and regret their absence if without them.

Be sure you know what a concrete road is.

Concrete is made of portland cement, sand and pebbles or crushed stone, and water. It is hard and durable, rigid and unyielding. Concrete is the material used in building concrete dams, factories, bridges, and big engineering works like the Panama Canal requiring great solidity and strength.

CONCRETE ROADS
Their Advantages
No Mud—No Dust
No Ruts—No Holes
No Slipping
No Skidding
Easy Hauling
Smooth Riding
Long Life—Safety
Always Ready for Use
Low Maintenance
Moderate Cost

Concrete roads are not costly to build. They are cheap to maintain. Write for a free copy of Bulletin 136. You, Mr. Taxpayer-Farmer, can have the kind of roads you demand. You will demand concrete roads when when you read this.

PORTLAND CEMENT ASSOCIATION
Offices at
ATLANTA, CHICAGO, DALLAS, DENVER, INDIANAPOLIS, KANSAS CITY, MILWAUKEE, NEW YORK, PITTSBURGH, SALT LAKE CITY, SAN FRANCISCO, SEATTLE, WASHINGTON, D. C.

CONCRETE FOR PERMANENCE

Home Storage of Vegetables.

Conservation of Perishable Products Important This Year Above All Others—Will Economize on the Non-Perishable Materials.

WITH proper storage space and proper handling many of the common garden vegetables may be safely stored for winter use. The conserving of the garden vegetables for winter use is important enough during the ordinary years, but this fall this phase of the home garden is drawing more attention than ever before. By saving a quantity of our vegetables for future use we will be going just that much further towards conserving our non-perishable foods for next season.

In the home there is no better place for storing vegetables than the cellar of a house which does not contain a furnace. If a place in the cellar can be partitioned off under an unheated room, so much the better. Furnace-heated houses can have no suitable place for storing vegetables, unless a special vegetable cellar room or cave be prepared, well partitioned off, or better, outside the foundation walls under a porch or with a roof of its own. No furnace flues or steam or hot water pipes should go through a vegetable storage. Unless a temperature of 40 degrees Fahrenheit can be secured for the most of the storage period it is not wise to try to store many vegetables.

Outside caves may be built cheaply for more or less temporary use, or may be made of concrete, clay blocks or brick, to last a lifetime. Home caves should have doors at one end only, because with doors at both ends it is almost impossible to avoid freezing in severe weather. The cave door should be well fitted and there should be a hatchway or door over the steps leading down to the cave door. A ventilator should be provided in the roof at the back end. A sewer tile with the bell end up makes a very good ventilation flue. A concrete or brick floor, especially in the center, is desirable. In some cases a drain tile is needed to carry off the seepage.

Caves may be entered from the house cellar, or, in many other cases, from the porch. It sometimes is dangerous to open up a small outside cave in cold weather. If entered from the outside the cave should be as near as possible to the kitchen door.

Where used railroad ties or similar material can be secured, a very good cave may be built at small expense as follows: Dig a hole about five feet deep, as wide as the length of a tie and as long as desired. Set ties at intervals of two feet along the sides like posts; on top of them place ties for a plate; behind them, next to the earth, place boards or brush to hold back the dirt, and on top of the plate put a solid roof of the best ties, provide a doorway and doors at one end, and cover the top with straw and a sloping roof of earth.

There are two kinds of pits—those not frost proof and those which are frost proof.

For vegetables which are not injured by being held in frozen condition during winter, shallow pits, or better, a barrel or box set into the ground, may be used. The earth should be molded around the box, barrel or pit to prevent surface water from running in. They may be harvested after freezing weather begins, stored in convenient piles and covered to protect them from repeated freezing and thawing. They should not be stored until the ground is frozen and then they should be frozen solid and put away in the pit. The idea is to keep them continuously frozen or to have very few and gradual freezings and thawings. The box or barrel should be covered first with a piece of burlap or carpet, then with a mouse-proof board cover, and finally with straw or similar material. When taken from the pit the vegetables may be thawed out overnight in cold water, after which they often may be kept in ordinary storage for a considerable length of time.

Pits for keeping vegetables cold and free from frost are not very reliable unless great care and thoughtfulness be used, but they are cheap and have a useful place where caves or cellars are not to be had. It is usual to dig a trench about two feet deep, as long as needed, and up to four feet wide, and in it to place the vegetables in a pointed pile and to cover them with a foot of straw and then with a layer of six to eight inches of earth. It is still better to put on a layer of straw with a light covering of earth, and then later more straw and earth as the weather gets colder. This makes two dead-air spaces. At first in the fall the top is left covered only with the straw to allow ventilation and avoid heating. Later the earth covering is made complete. In severe weather the whole pit and the ground near it may be covered with manure. Those who do not have straw may use instead the strawy manure supply for the next year's garden, protecting the vegetables by covering them first with newspapers and earth, or they may use leaves or lawn clippings.

Pits are entered by chopping a hole through the frozen earth at one end, large enough to reach or crawl into, and afterwards keeping the hole stuffed most carefully and deeply with straw or old sacks or both.

Sand boxes in cellars or caves are desirable for certain vegetables.

Shelves in an upstairs room or in a dry cellar near the furnace are well adapted for the storage of certain vegetables.

Potatoes are best stored in covered barrels or small bins. In crates or shallow piles they lose much moisture and shrivel. They must not be stored in piles that are too large, because they heat and may keep poorly or sprout in the center of the pile. No potato should be more than four feet from air. Care should be taken to keep earth out of the potatoes, as much of it in any one place in the pile may prevent ventilation and cause heating and rotting. A few potatoes in a cold cellar are far more apt to freeze than those in a large pile.

Potatoes should be kept absolutely dark to prevent greening by light. Freezing destroys potatoes. No potatoes should be purchased for storage that are dug after the ground is crusted with frost, because it has proven impossible to sort out frosted potatoes. All those touched by frost will spoil, one after another. Do not buy potatoes in sacks that show wet places due to a frosted potato.

Potatoes and many other vegetables that require a storage room should not be too dry or too well ventilated. In some cases a damp earth floor or the sprinkling of the floor helps keep vegetables crisp. It is in this respect that pits excel.

Cabbage is not injured by moderate frost. Late varieties, perfectly sound and not too ripe, are the only ones fit for storage. To wrap cabbages in paper and to leave on the outer leaves keep them crisp. For use after Christmas, most cabbage is best stored frozen solid in a pit. It will stand some freezing and thawing. For use after March, cabbage should be stored as kraut.

Onions need to be thoroughly cured when harvested. Dryness is a first requisite. They should be kept cold as well as dry. A well-cured onion should be firm and not readily dented at the base of the tops by the tip of the thumb when held in the hand. Onions are best for storage if topped about one and one-half inches long. They will stand very little freezing and thawing.

Beets, turnips, kohlrabi, winter radishes, carrots and rutabagas are best stored in sand in cellars or caves, or in pits; or in tightly covered boxes or crocks. The object is to keep them cold and to prevent evaporation. Kohlrabi must be tender when stored.

Squashes, sweet potatoes and pumpkins must be well ripened and cured. They must be free from bruises. They are best kept on shelves in a very dry place. They need not be kept especially cool.

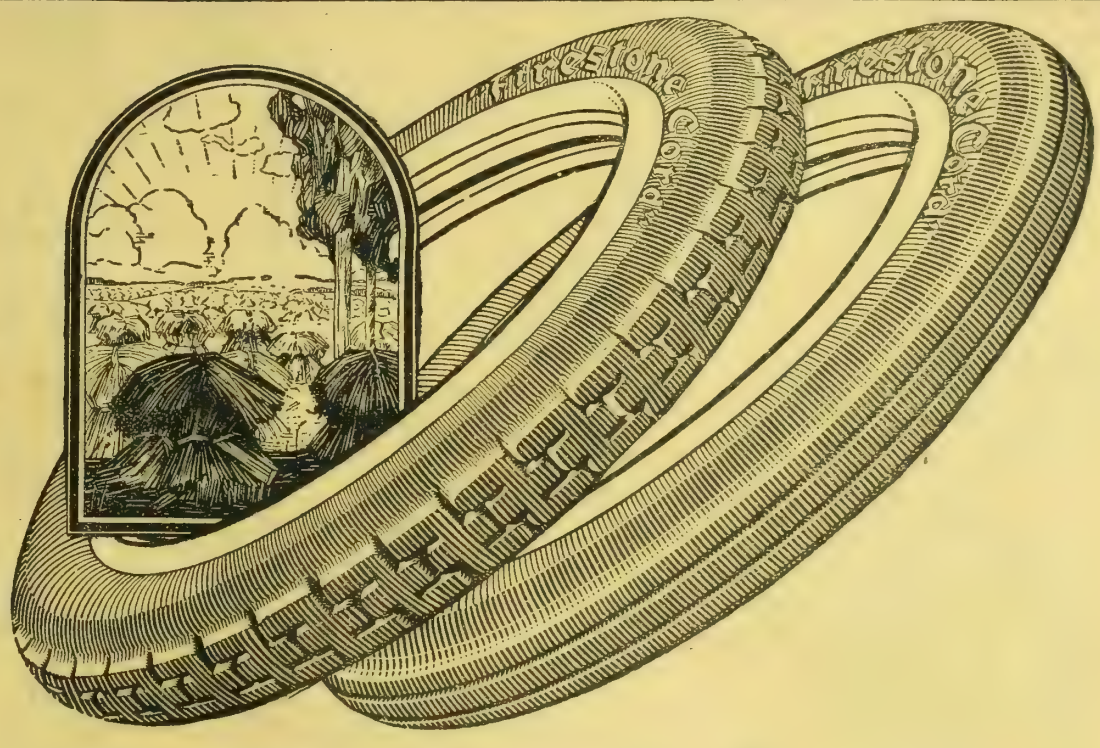
Parsnips, parsley, vegetable oyster and horseradish may be kept in the ground where grown all winter, but as too much freezing and thawing destroys them they should be covered again. These vegetables may be stored as suggested in section 4, but the way to have them available all winter and to keep them most crisp is to hold them frozen. The pit method is recommended as best for these vegetabes and cabbage.

Celery, endive and head lettuce may be rooted in earth in a cellar or cave, and with occasional watering, may be kept until about Christmas time. Turnips, winter radishes and other vegetables also may be stored with the roots planted in sand or earth.

Garlic should be thoroughly cured as onions, or it may be braided by the tops into strings, which are hung up in dry places for curing and storing.

Ground cherries or husk tomatoes may be stored for some weeks in the husk in thin layers in a dry place, free from frost.

Tomatoes may be kept until about Thanksgiving by bringing the well-matured green tomatoes or the vines with the tomatoes on into the cellar or cave in the fall. Most of the tomatoes will ripen and be most acceptable as soon as they color up. The tomatoes may be placed on shelves or in boxes, and the vines may be hung up.—[C. L. Fitch in Iowa Agriculturist.



The Nation's Resources

THE same reason and judgment that makes us conserve national values in the earth, the mine and forest, governs the wise car owner in his choice of tires. This ever-growing demand for the most for the money is testing to capacity the Firestone factory. A careful use of your financial resources is bound to make you a Firestone user.

Test Firestone Super-size Cord Tires. Note their response and road grip; their smooth going. Count the saving in fuel; keep track of the mileage. Your business judgment watching Firestone performance will leave you no choice.

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Firestone
Cord Tires

Here's a Real War Cow.

John Ballback, Jr., Milwaukee county, Wisconsin, sends The Wisconsin Farmer a picture of a real war cow. This picture is reproduced herewith. It was taken September 3d, and shows a cow with three of her own nice calves at foot, and all the calves doing nicely. While we are talking about big production and helping to win the war by providing more food, this bossy, belonging to J. Lampke, Milwaukee county, Wisconsin, has certainly done her "bit." The owner of the cow with his son, Norman, is seen in the picture. When the calves were born the smallest weighed twenty-six pounds, the next in size thirty-six pounds and the largest thirty-eight pounds. The mother is a Durham cow and has always proved worthy of her place in the dairy barn.

COW AND TRIPLETS BORN IN MILWAUKEE COUNTY, WISCONSIN.

Eighth Dairy Cattle Congress.

The important part which the dairy industry plays in the nation's welfare will be demonstrated more forcefully than ever before at the eighth annual Dairy Cattle Congress, to be held October 1st to 7th, inclusive, at Waterloo, Iowa. A large number of new features, demonstrations and exhibits have been planned to show that it is a patriotic duty for every dairyman and farmer to produce the largest amount of dairy products in the most economical manner.

The exhibition space for machinery, dairy supplies and equipment is being reserved by manufacturers from every section of the country. Those who are interested in equipping their homes and farms in the most up-to-date manner will find everything they want in the exhibition halls or on the grounds.

The Dairy Cattle Congress is for all dairymen, creamerymen and farmers. It is for those who are interested in better dairy conditions not only in the Mississippi Valley but throughout the nation. Its prize money is open to all breeders in the world and the man who enters cattle will be pleased not only with the treatment accorded him but also with the success both in the ring and in the stable.

Be sure to feed silage fast enough to prevent cold and deterioration in the silo. Otherwise sickness and loss in stock will follow. The top layer shoud be removed to the depth of one inch daily in wintertime. This would amount to 350 pounds from a twelve-foot silo, 500 pounds from a fourteen-foot and 700 pounds from a sixteen-foot silo. If silage is fed at a rate of forty pounds a day to dairy cows, these amounts would supply respectively nine, twelve and seventeen head of cattle.

In Barron County.

To the Editor:—Seven hundred cows under test last month. A grade Guernsey owned by Cedar Lake Farms was high cow for the month with 1,411.1 pounds of milk and 66.3 pounds of fat. Our forty-five-pound list for the month ending August 31st follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
John Harlow					
No. 2, G. G.	4	May	1013.7	5.0	50.69
Jacob Svacina					
No. 6, G. H.	7	Feb.	1057.1	4.6	48.63
Carl Schmeling					
Nellie G. H.	5	June	1286.5	3.6	46.31
J. L. Powell					
Maud, P. B. J.	5	Dec.	917.6	5.8	53.2
A. M. Crislaw					
Theodora G. J. P. B. H.	4	May	1317.5	4.0	52.7
Will Thacke					
No. 6 G. H.	7	Mar.	1106.7	4.8	53.12
Cedar Lake Farms					
No. 2, G. G.	13	June	1411.7	4.7	66.35
No. 18, G. G.	4	May	1111.0	4.8	53.36
No. 21, G. G.	5	Mar.	1336.5	4.5	60.13
Lone Pine Farm					
Langwater Clarity, P. B. G.	5	Feb.	1190.4	4.8	57.14
Delight, P. B. G.	4	Nov.	926.9	5.3	49.62
Lady Enid, P. B. G.	4	Feb.	833.9	5.7	47.53
Parson, P. B. G.	9	July	858.7	5.6	48.09
Tilling Bros.					
No. 3, G. H.	5	July	1289.6	3.7	47.7

F. J. WALDMAN, Official Tester.

Chilton Association.

To the Editor:—The following is the forty-five-pound list of the Chilton, Calumet County Association, for the month ending September 1, 1917:

Owner, name and breed.	Age	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Salm Bros.					
Grade Holstein	8	3-22-17	1342	3.5	46.97
Grade Holstein	8	7-8-17	1469	3.7	54.35
Grade Holstein	4	6-9-17	1453	3.2	46.49
Oscar Pilling					
Grade Holstein	8	6-25-17	1435	3.5	50.22
Pilling Bros.					
Grade Holstein	4	10-31-17	1202	4.0	48.08
Mich. Gruber, Jr.					
Grade Holstein	4	7-10-17	1426	3.9	55.61
John Salm					
Grade Holstein	6	5-26-17	1172	4.0	46.88
Arthur C. Peik					
Grade Holstein	8	5-27-17	1674	3.2	53.54
Louis McGrath					
P. B. Guernsey	11	5-18-17	914	4.8	43.87
P. B. Guernsey	4	4-25-17	1085	6.3	68.35
P. B. Guernsey	9	12-31-16	1116	7.4	82.58
Grade Jersey	6	1-25-17	759	6.0	45.54
P. B. Guernsey	2	6-11-17	806	6.2	49.97
Frank Nennig					
Grade Holstein	10	4-19-17	1082	4.2	45.44
Joseph Koehler					
Grade Guernsey	9	4-6-17	939	5.3	49.77

By the OFICIAL TESTER.

The Byron Association.

To the Editor:—The Byron Association, Fond du Lac county, finished its first month September 10th, with 540 cows under test, representing thirty herds, and it is expected that there will be 600 cows listed in another month or so. Fred Stump, is president; A. E. Tulledge, vice president, and Flint Jones, secretary and treasurer. Please notice our sixty-two-pound record to start with. The forty-five-pound list for the month follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Paul Schwefel					
Grade Holstein	6	4-2-17	1277	4.1	52.0
Albert E. Tulledge					
Holstein	7	3-2-17	1197	3.8	45.0
Frank Holland					
Grade Holstein	6		1407	4.4	62.0
Grade Holstein	6		1088	3.9	42.0
George Schwartz					
Grade Jersey	7	11-28-16	986	4.8	47.5

ERWIN H. STUCKERT, Official Tester.

BLACKLEGOIDS

A RELIABLE PROTECTION FOR CATTLE AGAINST BLACKLEG.

NO DOSE TO MEASURE.
NO LIQUID TO SPILL.
NO STRING TO ROT.

Each Blacklegoid is a measured dose of vaccine ready for use.

DON'T TAKE CHANCES.
VACCINATE WITH BLACKLEGOIDS.
SIMPLEST, SAFEST, SUREST.

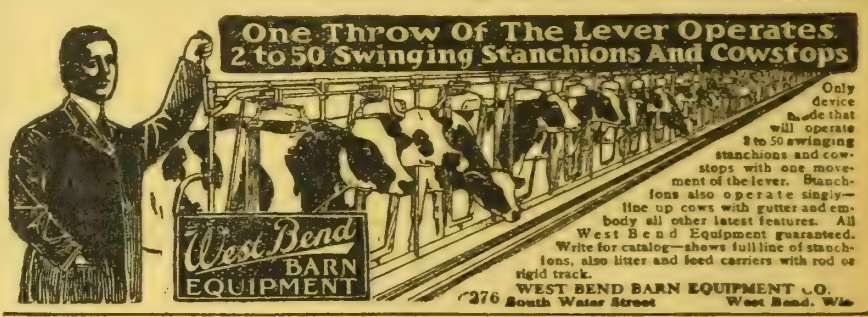
Write for Free Booklet to
Department Animal Industry of
PARKE, DAVIS & CO.
DETROIT, MICH.

What Is Unicorn?

It is a dairy feed containing three times as much protein and fertility as corn. It contains no human food.

It will pay you to sell most of your corn and oats and use Unicorn in your dairy ration. We have the highest records for milk production of any dairy feed. Send for free copy of Cow Testers' Manual of tables, etc., also interesting records of cows.

Chapin & Co., Dept. H-12
Chicago, Ill.



Last Chance!
Magazine Bargains

Only a Few Weeks Left at These Prices

Most clubs below will advance in price within the next 30 days because of the increased cost of paper, ink, labor, etc. You have only yourself to blame if you fail to select and order your club of favorite magazines immediately. Do it now.

People's Popular Monthly McCall's Magazine Today's Housewife	$3.00 N. S. Value For Only $1.25	McCall's Magazine Ladies' World Today's Housewife	$3.60 N. S. Value For Only $1.50
Youth's Companion Little Folks Today's Housewife	$5.60 N. S. Value For Only $3.00	Ladies' World Today's Housewife Modern Priscilla	$4.20 N. S. Value For Only $2.00
Youth's Companion Pictorial Review Today's Housewife	$5.60 N. S. Value For Only $3.50	People's Home Journal McCall's Magazine Today's Housewife	$3.60 N. S. Value For Only $1.50
McCall's Magazine Today's Housewife People's Home Journal	$3.60 N. S. Value For Only $1.50	Modern Priscilla Woman's Home Companion Today's Housewife	$4.80 N. S. Value For Only $2.75
Mother's Magazine Little Folks Today's Housewife	$4.80 N. S. Value For Only $2.25	Woman's World McCall's Magazine Today's Housewife	$3.60 N. S. Value For Only $1.25
People's Home Journal Today's Housewife Ladies' World	$3.00 N. S. Value For Only $1.50	Home Life People's Popular Monthly Today's Housewife	$2.40 N. S. Value For Only $1.00
People's Home Journal Plain and Fancy Needlework Woman's World Today's Housewife	$4.20 N. S. Value For Only $1.50	Pictorial Review Modern Priscilla Today's Housewife	$4.80 N. S. Value For Only $2.75
People's Home Journal Pictorial Review Today's Housewife	$4.20 N. S. Value For Only $2.25	Little Folks People's Home Journal Today's Housewife	$3.00 N. S. Value For Only $1.75
Woman's World Plain and Fancy Needlework Today's Housewife	$3.60 N. S. Value For Only $1.10		

Send Your Order Now to

Today's Housewife, Canton, Ohio

Reports of Good Yields Continue.

Wisconsin Oat Crop Averages High—Hay Turned Out Well—Frosts Hurt Corn in Many Sections—Silo Filling Is Pushed at Full Speed.

WISCONSIN.

Buffalo County.—Threshing is all done in this vicinity. Barley yielded from 25 to 26 bushels per acre. Oats 30 to 55 bushels an acre and wheat 20 to 35 bushels an acre. The frost has done quite a little damage to the corn and also other truck. Hog cholera has set in and quite a few farmers are vaccinating. Plowing is slow progress, as the ground is too dry. Clover is being cut for seed and a good yield is expected. Fruits are all ripe and plentiful.—J. W.

Burnett County.—Both the tame and wild hay crop is very short. Timothy from one to two tons per acre. Clover about the same; alfalfa two to three tons per acre. Wild meadow grass from 1½ to 2 tons per acre. Grain gives a good yield. Wheat 16 to 38 bushels per acre; oats from 40 to 80 bushels; barley, 34 to 40 bushels, and rye, 25 to 32 bushels per acre. Corn froze down entirely on the 8th and 9th and much corn had not dented yet. With some care it can be saved for fodder. Potatoes will not be as good as expected on account of the killing frost too early. As I stated in a former report feeding of stock is curtailed on account of the high price and shipping of stock is on a great increase from this locality. The numbers are diminishing, but the health and growth is normal. Dairy business normal on account of the price per pound for butter fat.—Erick H. Johnson.

Clark County.—The second crop of clover is being harvested and averages somewhat lighter than the first crop. The whole hay crop has done better than it did last year. Oats are making about forty bushels per acre. Corn was badly frozen on the 9th and 10th and less than 50 per cent of the crop was far enough advanced to make good silage. Fruit was damaged to some extent by hard frosts. Pastures are low and many farmers are feeding to keep up the milk flow. The demand for milk is good and herds are increasing in number.—Louis Buddenhagen.

Douglas County.—Clover and mixed hay average about one ton to the acre. This is about half the yield of last year. Wild oats or upland hay run about three-fourths ton per acre. The oat crop did well. Wheat has not been cut. Gardens were hurt by frost on the 9th and 10th. Some farmers are selling dairy cows because they fear the scarcity of hay and high prices.—J. N. Ottun.

Door County.—Frost on the 10th and 11th did not do any damage in this vicinity. Pastures have been good because of plenty of rain. Potatoes will make a good crop. Threshing has begun and the grains are turning out fairly well, except peas, which are about 25 per cent short. Apples will not be as good as usual this year.—John Aznoe.

Dunn County.—Killing frost on the 9th of this month found very little corn advanced enough for seed ears. High pressure silo filling on every hand. Late potatoes were damaged 25 per cent. Small grain appears to be at least 20 per cent better than a year ago. The entire season has been especially favorable to live stock.—J. D. Miller.

Jackson County.—Weather has been very favorable for threshing and the yields of all grains are satisfactory. Quality is high. Hay has yielded an average of 1¾ tons per acre for the county and the quality is average. Second crop is extra good. The ground is too dry for good plowing and it has made hard work getting in the rye and wheat. Silo filling will be in full swing the coming week.—P. W. Jones.

Juneau County.—The hay crop was good. June clover went 1½ tons to the acre. Timothy about the same. Wild hay about 2 tons. This will average with last year's crop and for the five-year average. Of course, there are some exceptions. Oats are going about 40 bushels to the acre; spring wheat about 25 bushels; winter wheat about 30 bushels; barley about 35 bushels and rye about 12 bushels. Now, this is machine measure, of course. Corn is cut 80 per cent of crop by the frost. Buckwheat about 80 per cent and potatoes about 50 per cent. The frost did some damage to the gardens, such as tomatoes, squash, pickles and all tender stuff. Stock in healthy condition and being fed roughage of the farm. Some dairymen are feeding on a small scale such as they raise.—C. E. Haskins.

Lafayette County.—The hay crop this year is below normal in quantity but above in quality. More straw than ever seen before. Oats yielding 60 to 90 bushels. All other small grain proportionately high. Corn on all lowland badly frosted and those who have silos are filling with the frosted corn. Corn not hurt by frost promises a fair crop. Potatoes will be a good crop.—W. J. Martin.

Lincoln County.—All crops are good. Threshing is well under way and the grain shows excellent quality. Oats are averaging about forty bushels per acre, wheat about thirty bushels and rye from twenty to thirty bushels. Barley was damaged to some extent by hot winds, but still is a fair crop. Hay did well this year, averaging about two tons per acre. Fruit and gardens are good. All cattle are healthy.—G. A. Patterson.

Manitowoc County.—Threshing is now the order of the day. Winter wheat and rye have done well. The yield has been above the average, the berry being plump and heavy. Oats and barley are not up to expectations as the yield was a little low and light in weight, especially barley, which failed the most. Corn has picked up some, but not enough to make a full crop. Pastures are picking up after the recent rains and few warm days and as a result live stock are doing well. Feeding operations are about the same as last year. Milk flow has diminished very little since pastures are in fair condition. Farmers are now busy sowing wheat and rye. An increased acreage will be devoted to these crops. Potatoes and garden truck are doing well and are up to expectations, as weather is favorable for their growth.—Edward E. Straka.

Outagamie County.—In regard to the hay crop would estimate about two tons of hay per acre, which is a trifle higher than for the last five years. Its acreage was about the same as last year's. Oats are very good and high average. About the best in five years' average, yielding about from 50 to 75 bushels per acre of good quality. Wheat crop is of small average in this locality. A little below average in yield running from 20 to 24 bushels per acre. Barley is a fair average crop, yielding from 30 to 40 bushels per acre. Not so good in quality. Some wheat shrunk in the berry due to excessive heat just at the time of ripening. Corn crops hurt by early frost. Very little ripe corn in this locality. Fruit and garden truck hurt by early frost. Feeding cattle or beef stock is not done very much in this locality. No feed of any kind stored for winter use.—Harry Lepplu.

Oneida County.—A heavy frost on September 11th froze all vegetation. Threshing is under way and small grains are yielding well. Corn is going into the silos, the crop being about 50 per cent normal at the tme of the frost. Early potatoes are being dug and a good crop is reported. Late ones also promise well. Live stock are in good shape, although pastures are getting poor.—Chas. H. Jewell.

Trempealeau County.—Hay averaged from one and one-half to two tons per acre. Some of the second crop was cut for seed and lots of clover is being used for seed. All grains were good this year. Oats averaged about fifty bushels per acre, barley about forty-five bushels, wheat twenty-five bushels and rye about twenty bushels. All corn was killed by frost on September 9th. Only in the earliest fields will there be seed for next year. Potatoes are the best they have been for several years. Pastures are all dried up and most of the farmers are feeding ensilage. The ground is so dry that plowing cannot be done. Most farmers will put in rye and wheat this fall.—J. L.

Winnebago County.—All hay turned out well. Better than last year and also better than an average of previous five years. There is very little threshing done yet and the yield of all grain varies in different parts of the county, running from a total failure to very good. Corn has had a narrow escape so far, the frost of the 9th and 10th inst. running in streaks, some of corn escaping entirely, other fields badly frostbitten. Corn would have been a poor yield at best. Apples a total failure except a few Wealthies. Garden produce fairly good, but so late that a great deal will be destroyed by frost. Farmers are reducing their stock on account of feed. Hogs scarce. No disease general among stock.—Seymour L. Smith.

Wood County.—Threshing is nearly done. Oats are yielding much better than normally, in most cases, making between twenty-five and seventy bushels per acre of good heavy grain. Rye is running from six to thirty-five bushels per acre. Buckwheat is scarcely normal on account of frosts. Corn suffered from frost, but most of it is in the silo. Early potatoes are good, but late ones are only half a crop. Pastures are short and the milk flow is decreasing. Prices are so high that farmers are not inclined to do much feeding. Hogs are scarce and high in price.—P. B.

Cows or Veal Calves.

To the Editor:—Anybody can see through a hole in the wall. It ought not to be necessary to bring any argument to prove that when we sell a calf for veal, that puts an end to all hope of its ever growing into a cow. The calf that is made into meat is a dead calf. No cow from that source. On the other hand, a calf saved and raised will in due time become a member of the dairy herd.

There has been some talk on the part of city folks of shutting down on the purchase of veal on account of the high price demanded, and I am not at moderate values with occasional exceptions. The general average has been entirely satisfactory to the sellers in view of the conditions that have prevailed. But this range of values will be regarded as too conservative sure but a boycott of that kind might be a good thing, not from the standpoint of the consumer, but because of the need of more cows.

What is the effect of this wholesale killing of calves for veal in this country? A single sentence will answer that question in great part: Soaring prices for boots and shoes, harnesses, chairs with leather bottoms, seats for automobiles, belts of leather, in fact, for everything into which the construction of leather enters. Milk is every day climbing up in price to the consumer; butter and cheese are following; meats of all kinds are practically prohibitive, and, finally, people are suffering more than we know from lack of wholesome dairy products and all because of the disposition to slaughter the calves and sell the good cows.

In the United States there are 6,000,000 fewer cows now than we had fifteen years ago and the dearth is all the time increasing. What is going to be the outcome of all this? More suffering, more poor health on the part of old folks and little children, and, finally, less money for dairy farmers, for we are ruining our own source of revenue.

Only one sort of a calf ever should be slaughtered as long as the present stringency lasts, and that is the calf that has no promise in him when he comes to the age of maturity. Even bull calves should be saved until the country's need of good sires has been supplied. Inferior bull calves might be disposed of, but the choice ones ought to be kept. There is good money in growing really desirable male calves for dairy purposes. By advertising a little it is always possible to sell any surplus stock we may have.

We may all of us be benefactors on a small scale in this matter. There is in the hearts of most men a desire to be of some service to their fellows. Because we cannot found libraries and establish and endow colleges we are not to feel that there is nothing for us to do. Save and grow a calf! That helps to make the world a bit happier and better! It is a source of pride and satisfaction to have the calf we save a good one and that makes the world still more happy and a better place to live in. E. L. Vincent.

A SMALL FARM in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices. Easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Ind. Com'r, A.T.&S.F.Ry., 1959 Ry. Ex., Chicago.

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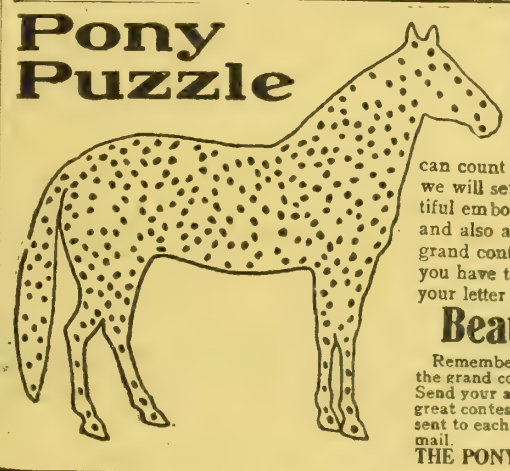
Pony Puzzle



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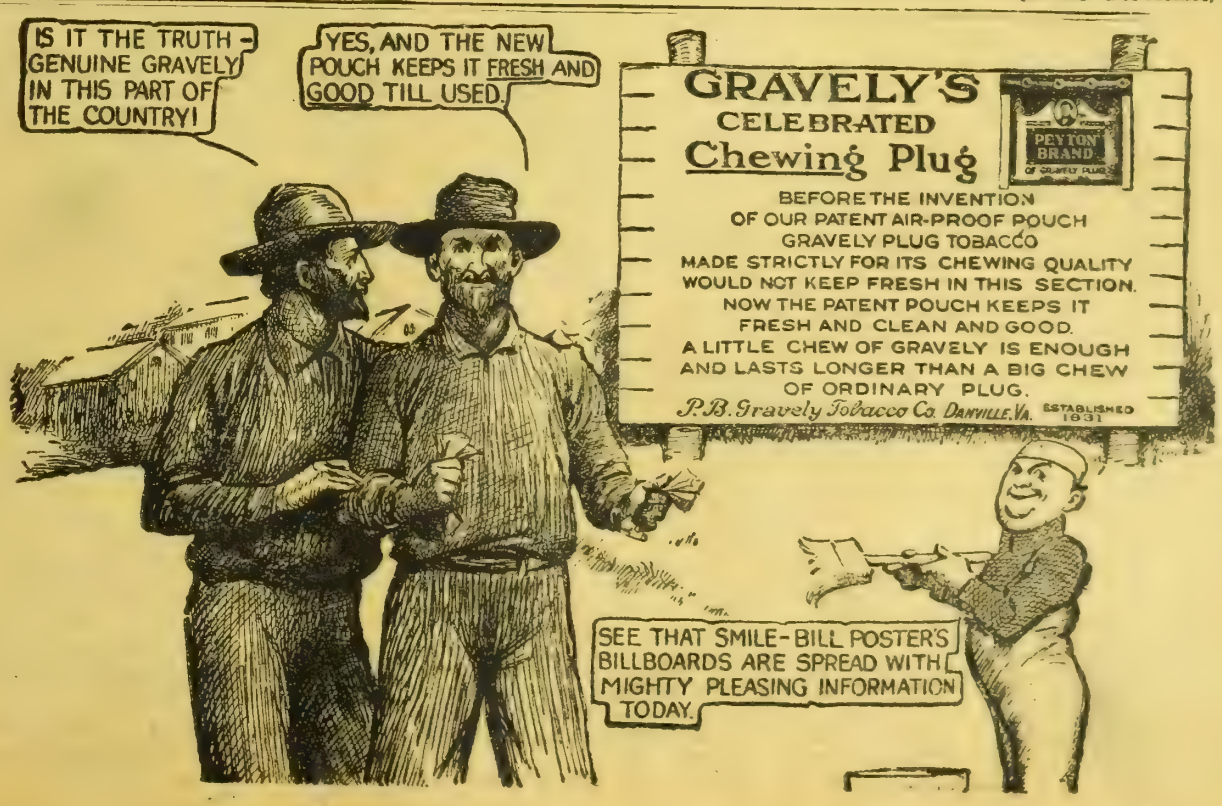


Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Potatoes in Bread Making.

The pressure of war conditions has brought to light the value of potatoes in bread making, both in England and America. As an economy in England potato flour was mixed with wheat and a peculiarly delicious bread resulted. In this country potato flour is not available to the average housewife, and the United States Department of Agriculture has, therefore, devised recipes for the making of bread with simple, plain boiled potatoes mixed with the wheat flour.

This bread is said to be not only a complete success from the economy standpoint, where potatoes are cheap and plentiful, but to supply an attractive novelty in the household menu, and a welcome variation from the usual bread monotony. It has a rich brown crust, is tender and elastic, and the flavor is preferred by many to the bread made wholly of wheat. It contains more moisture than ordinary bread, and, therefore, has longer keeping qualities.

Potato Bread, Straight Dough Method—To make four one-pound loaves take three pounds boiled and peeled potatoes, two and one-fourth pounds bread flour, one and one-half level tablespoons salt, three level tablespoons sugar, two cakes compressed yeast, four tablespoons water. Wash thoroughly and boil in their skins about twelve potatoes of medium size. Cook them until they are very tender. Drain, peel and mash them while hot, being careful to leave no lumps. Allow the mashed potato to cool until lukewarm. To three pounds (five solidly packed one-half pint cupfuls) of the mashed potato, add the yeast, which has been rubbed smooth in a cup with three tablespoonfuls of lukewarm water. To get all the yeast, rinse the cup with the remaining tablespoonful of water and add this also to the potato. Next add the salt, the sugar, and about four ounces of the flour (one scant half-pint of sifted flour). Mix thoroughly with the hand, but do not add any more water at this stage. Cover the mixing bowl to avoid the formation of a crust on top and place out of the way of drafts to rise, where the temperature cannot fall below 80 degrees F., or be much higher than 88 degrees F. Where the housewife has no thermometer she should see that the dough in all the risings is kept moderately warm, but not up to blood heat. Any water used in mixing the dough should be moderately warm, but by no means hot. This sponge, if kept at the proper temperature, should, after two hours, become quite light.

To this well-risen sponge, which now will be found to be quite soft, add the remainder of the flour, kneading thoroughly until a smooth and elastic dough has been formed. The dough must be very stiff, since the boiled potato contains a large amount of water which causes the dough to soften as it rises. Do not add water to the dough unless it is absolutely necessary to work in the flour. Set the dough back to rise again until it has trebled in volume, which will require another hour or two. Then divide the dough into four approximately equal parts, reserving a tiny lump weighing two or three ounces for an "indicator." Shape the sample into a ball and press it into the bottom of a small tumbler with straight sides. The glass should be slightly warmed. Note the volume of the ball of dough in the tumbler and mark the glass at twice this volume.

Mold the four portions into loaves and place in greased pans which have been slightly warmed. Place the glass containing the "indicator" besides the pans and let all rise, under proper temperature, until the "indicator" shows that it has doubled in volume. Then place the loaves in the oven and bake in a good, steady heat for forty-five minutes.

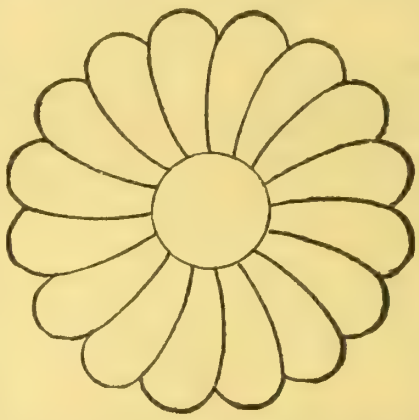
To test oven for the right degree of heat, a convenient test will be to put a teaspoonful of flour in an earthen dish in the oven. If this flour becomes light brown evenly throughout in five minutes' time, the oven is right for bread beaking. If the flour scorches in that time, the oven is too hot.

Potato Bread—Sponge Method.—To make four one-pound loaves take three pounds of boiled and peeled potatoes, two and one-fourth pounds of good bread flour, three level tablespoonfuls of sugar, one and one-half tablespoonfuls of salt, one cake of compressed yeast, four tablespoonfuls of water. Boil, peel and mash the potatoes as directed in the straight dough method. In the evening take one and one-half pounds, or two and one-half solidly packed half-pint cupfuls, of the cool mashed potato, add to it the salt, four ounces of flour (one scant half-pint cupful) and the yeast rubbed smooth with the water, reserving one spoonful to rinse the cup. In the morning add the remainder of the potato, the sugar, and the rest of the flour. Knead thoroughly until a smooth and very stiff dough is formed. After working the dough set it to rise according to the directions given for the second rising under the straight dough method. Thereafter handle the dough exactly in the same way as is given under the straight dough method.

Potato Bread Rolls.—To make one dozen small rolls take eight ounces boiled and peeled potatoes, six ounces sifted flour (two tablespoonfuls powdered milk, added to dough, will improve quality of rolls. Milk itself or cream may be used, but they will increase liquid content), one-third cake compressed yeast, three-fourths level teaspoonful salt, two tablespoonfuls of lukewarm water, two tablespoonfuls of sugar, two tablespoonfuls of butter. Boil, peel and mash the potatoes as directed for bread making. Add, in order, to this the salt, the powdered milk (if used), the yeast rubbed smooth and mixed with the water, and lastly two tablespoonfuls of flour. Let this mixture stand at a temperature of about 86 degrees F. until the dough begins to collapse. Add to this sponge the butter, the sugar and the remainder of the flour and, if necessary, enough more flour to make a very stiff dough. Knead thoroughly until a smooth dough which is no longer sticky has been formed. Set back to rise again, and when the dough has trebled in volume, knead lightly, form into small balls and place, not too close together, in greased pans. Allow to rise until double in volume, as shown by the "indicator," and bake twenty minutes in a moderately hot oven.

Daisy Pattern for Quilt.

The evenings are getting long and out will come the quilt blocks. The



daisy pattern makes a most attractive quilt, the daisy being made of yellow on a white ground and with a brown center.

Packing the School Lunch.

Many kinds of lunch boxes, pails and baskets are now on the market. The chief advantage of most boxes and pails is that they are made of metal and can, therefore, be easily cleaned and scalded to keep them in safe condition. Some boxes have the advantage over pails that they can be folded when empty and strapped with the school books. Baskets are ventilated and for this reason suitable for carrying moist foods which are likely to spoil. There is no reason, however, why small holes cannot be punched in metal boxes or pails to let in the air. Baskets can, of course, be washed or scalded, but not so easily as metal containers, and they should be frequently cleansed. There should, in fact, be no part of any food container that cannot be cleaned. For this reason the simplest boxes and baskets are often better than the more elaborate ones with compartments in which to keep dishes, knives, forks and spoons. With the increase in automobile travel, well-constructed boxes and baskets which can be easily cleaned have come on the market with compartments for keeping food hot or cold and for holding liquids. These are, of course, suitable only for children who ride back and forth, and particularly suitable where several lunches are put up in one household.

The precautions which must be taken to keep foods clean and safe differ with circumstances. In dusty seasons they should be wrapped particularly well. In hot weather the use of soft, moist foods in which molds and bacteria are most likely to grow rapidly should be avoided. Although chopped meat moistened with a dressing of some kind makes a good filling, such foods are less desirable in hot weather than slices of meat, peanut butter or other foods less liable to spoil.

Paper napkins or the somewhat heavier paper towels of much the same size are very useful for packing lunches, and, like paraffin and parchment paper, may be obtained at a low price, particularly if bought in rather large quantities. If no provision is made in the school for serving lunches, an extra napkin, either of paper or cloth, should be put in the basket, to be spread over the school desk when the lunch is eaten. Napkins can be made out of cotton crepe at a cost of a very few cents each. The crepe may be bought by the yard, and should be cut into squares and fringed. Such napkins have the advantage of not needing to be ironed.

In packing the lunch basket put at the bottom the things least likely to crush, and wrap the sandwiches, etc., into neat parcels, not all in one. Paper cups; jelly tumblers with covers, which can now be bought in several sizes; bottles with screw tops, such as those in which candy and some other foods are sold; and small jars such as those in which some goods are sold by druggists, can all be used for packing jellies, jams and honey, as well as other soft foods, such as stewed fruits, custards and cottage cheese. When clean and in good condition, empty receptacles of this kind can be saved for use in the lunch basket.

A few bills of fare for basket lunches follow, which may help in deciding what is satisfactory for the purpose. Many others equally good could be suggested:

1. Sandwiches with sliced, tender meat for filling; baked apple, cookies or a few lumps of sugar.
2. Slices of meat loaf or bean loaf; bread and butter sandwiches; stewed fruit; small frosted cake.
3. Crisp rolls, hollowed out and filled with chopped meat or fish, moistened and seasoned, or mixed with salad dressing; orange, apple, a mixture of sliced fruits, or berries; cake.
4. Lettuce or celery sandwiches; cup custard; jelly sandwiches.
5. Cottage cheese and chopped green pepper sandwiches or a pot of cream cheese with bread and butter sandwiches; peanut sandwiches; fruit cake.
6. Hard-boiled eggs; crisp baking-powder biscuits; celery; brown sugar or maple sugar sandwiches.
7. Bottle of milk; thin corn bread and butter; dates; apple.
8. Raisin or nut bread with butter; cheese, orange; maple sugar.
9. Baked bean and lettuce sandwiches; apple sauce; sweet chocolate. —Bulletin.

To Help the Housewife.

If gruel for the sick is whipped to a froth with the egg beater and served in a pretty cup it will prove most tempting to the invalid.

If stamps stick together run a warm iron over them. The glue will soften, allowing the stamps to be easily separated.

Beating cakes encloses bubbles of air, which is one of the secrets of light cakes; stirring stirs them out.

To remove automobile grease or any dark, heavy grease from washable fabric, apply a small piece of butter and rub in well, then wash with soap and rinse.

The washing of pans and kettles will not involve half the labor if done immediately after using.

In ironing a garment on which hooks are sewed, care should be taken not to close the hooks. This can be prevented by placing flannel or anything soft beneath the hooks.

THE YOUNG FOLKS.

Likes to Work in the Field.

Dear Young Folks:—I am going to write you a letter and I do so want to see it in the paper. I have always wanted to write to you since I started to read the letters. I wish I had read

CAUGHT THEM COMING AND GOING.

the letters sooner, but when we first began to take the paper I did not see them. I think our column is very interesting.

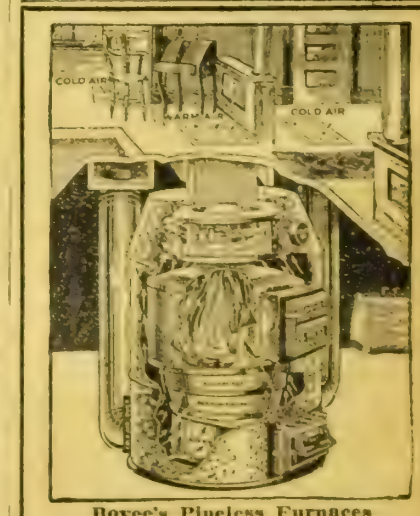
I am twelve years old and am in the eighth grade this year.

I like to work out in the field with the men and horses. I have always told papa he should buy a pony for me because I like horses so well.

I agree with Esther that the story about "One Eye, Two Eye, Three Eye" is a good one.

Now here is a riddle for you to guess. What is the keynote to good manners?

Esther.



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2026-2025—A splendid style for business and home wear. Waist pattern 2026 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 36-inch material for a 38-inch size. Skirt 2025 is cut in 7 sizes also: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 5⅜ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2206—A pretty and practical set. Pattern is cut in 4 sizes: 1, 2, 3 and 4 years. The dress requires 2½ yards of 36-inch material, the slip requires 1½ yards, and the drawers require 1⅛ yards, for a 3-year size.

2214—A trim style for the school girl. Pattern is cut in 3 sizes: 12, 14 and 16 years. Size 14 requires 5⅛ yards of 36-inch material.

2197—A natty suit for mother's boy. The trousers are straight and with side closing. Pattern is cut in 4 sizes: 2, 3, 4 and 5 years. Size 4 will require 3¼ yards of 36-inch material.

2224—Ladies' dress. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires for a 36-inch size, 6 yards of 44-inch material. The skirt measures 2⅜ yards at the foot.

2221—An ideal undergarment. Pattern is cut in 4 sizes: Small, 32 and 34 inches bust measure; medium, 36 and 38 inches; large, 40 and 42 inches, and extra large, 44 and 46 inches. Size medium requires 3⅝ yards of 36-inch material.

1822—Ladies' house or porch dress. Pattern is cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5½ yards of 44-inch material for a 36-inch size.

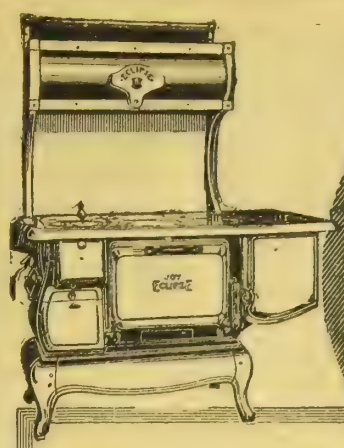
2196—A new and practical apron model. Pattern is cut in 4 sizes: Small, 32 and 34 inches bust measure; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46. Size medium will require 4⅛ yards of 36-inch material.

2065—Ladies' skirt in raised waistline. Pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅜ yards of 44-inch material for a 24-inch size.

1993—Girls' one-piece dress, with sleeve in either of two lengths. Pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3¼ yards of 44-inch material for an 8-year size.

2007—Girls' one-piece dress, with sleeve in wrist or elbow length. Pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3¾ yards of 36-inch material for a 6-year size.

2062—Ladies' waist with sleeve in either of two lengths. Pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 2½ yards of 44-inch material for a 36-inch size.



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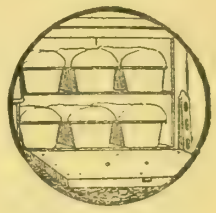

Big Oven, 20 inches Deep, Perfectly Square

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for September 30, 1917.

The Goodness and Severity of God.

(Review.)

LESSON TEXT—Daniel 9:3-19.

GOLDEN TEXT—The Lord is merciful and gracious, slow to anger, and plenteous in mercy.—Psalms 103:8.

A profitable way to spend the hour would be to make a study of Daniel's prayer as recorded in the lesson assigned for our reading today, and have the lessons of the quarter as illustrations of the goodness and severity of God. Announcement of the plan may be made the Sunday before, and the different lessons of the quarter assigned to different members of the class to tell how they bear upon the topic of the lesson for this week. A broad analysis of Daniel's prayer is as follows:

I. Confession of the Nation's Sins (vv. 3:15). The circumstances of this prayer were extraordinary. The crisis was so serious that Daniel sought after prayer to the Lord with fasting, sackcloth and ashes. In his confession the people's sins are placed in contrast with God's righteousness. He acknowledges that their sorrows and sufferings justly belong to them. Daniel, the holy man against whom there is no record of wrongdoing, includes himself with his people.

II. Supplication for Mercy and Forgiveness (vv. 16-19). He pleads for God's anger and fury to turn away, and his remembrance of the Holy City and his chosen people. The Lord's honor was at stake. He confesses that Israel had no merit, were utterly destitute of righteousness, and pleads consideration on the ground of covenant relationship.

Another way to conduct the review would be to ask different members of the class to report on the different lessons by giving the vital and central teaching of each. The following are suggested as vital teachings of the several lessons:

Lesson 1. God is absolutely holy, therefore, those who have been sanctified by fire from the heavenly altar are qualified for his service.

Lesson 2. He who turns away from the Lord shall be judged by the Lord.

Lesson 3. In Hezekiah's reformatory work the Passover Feast was restored, showing that the only way to get people to turn to God is to gather them around the cross of Christ—the atonement by blood.

Lesson 4. Though our unfaithfulness and cowardice have shamefully humiliated us, we should turn to God in prayer.

Lesson 5. God's gracious invitation is extended to all without money and without price.

Lesson 6. No matter how wicked one may have been in his apostasy from God, if he sincerely repents, God will be found of him.

Lesson 7. Regardless of one's age and experience, God can use him in doing mighty work if he will but open his heart unto him.

Lesson 8. The Word of God found and read will mightily convict of sin, and transform one's life and environment.

Lesson 9. God's predictions as to the captivity of Israel were fulfilled to the letter. Nothing shall fail of that which God has said he will do.

Lesson 10. Jehovah is the shepherd of captive Israel, and will surely gather them out from their wanderings and save them.

Lesson 11. One should be unflinchingly loyal to God under all circumstances.

Lessons 12 and 13. God is able to deliver those who trust him, from fire and from wild beasts.

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FARMERS' MARKET

Wanted--For Sale--To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

A FEW MONEY MAKERS—80-acre farm with 25 acres under cultivation, and a guaranteed yearly rental income of $400; price $5,000, $1,500 cash. 80-acre farm with stock and crop; price, $3,700. 120-acre farm, good log buildings; price, $3,600. 40 or 80 acres cut-over land, with stream; price, $15 per acre. Write for details. The Ev. Luth. Colonization Co., No. D-M, Dept. 10, Merrill, Wis.

FOR SALE—240-acre cattle ranch, twenty miles from California line. One of the most beautiful valleys of southern Oregon. Ideal location. No long, bitter, cold winters or intensely hot summers. Price $5,000. An exceptional opportunity for a cattle man. Address Owner, H. M. Henderson, 85 Main St., Oshkosh, Wis.

WISCONSIN FARMS—Any size you desire, from 160 acres and up, in any stage of cultivation. If you want a highly-improved farm with good buildings and in cultivation, we have it; or, if you want the raw land and do the improving yourself, we have that. Girton & Lyons, 705 Crocker Building, Des Moines, Iowa.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 3. North Western Lumber Company, Land Department, Stanley, Wis.

SPLENDID SHEEP PROPOSITIONS—1,180 acres rolling clover belt land, joining spring-fed lakes, 1 mile from railway station; price, $8 per acre. 626½ acres at $8.50 per acre. 440 acres at $9 per acre, half cash. The Ev. Luth. Colonization Co., C-M, Dept. 10, Merrill, Wis.

BUY A FARM and pay as you go. Write for our easy payment plan before you buy. Rich, chocolate loam soil. Close to railroad towns and all conveniences. We are owners. Booklet free. UPPER WISCONSIN LAND CO. (Land and Townsite Owners), Ladysmith, Wisconsin.

HAVE TWO GOOD FARMS for rent or will sell one to right party on easy terms. When you write, tell me if you have stock and if you like the stock business. M. A. Peoples, Ladysmith, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

118 ACRES, Green county, Wisconsin. Near town milk condensory. $60 per acre, $1,500 cash, long time balance. Box 534, Warren, Ill.

MARATHON COUNTY, WIS., improved and unimproved farms for sale. Free list and map. Wm. Albrecht, Jr., Wausau, Wis.

FLORIDA FARM lands, two to three crops; flowing wells. Write for particulars. T. B. Stinson, Palaltea, Fla.

HOLSTEIN BULL FOR SALE.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

REGISTERED Holstein bull, ready for service. Three of his dams average 106 lbs. milk in one day and 34.75 lbs. butter in seven days officially. Price $100. R. M. Harriman, Appleton, Wisconsin.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

LEARN TELEGRAPHY.

HUNDREDS OF YOUNG MEN and young ladies are needed as telegraph operators, stenographers and bookkeepers. Write for catalog. Barry's Telegraph Institute, Minneapolis, Minn.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

LEARN TELEGRAPHY—Positions guaranteed. Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection. $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

GASOLINE TRACTOR.

GASOLINE TRACTOR—12-horse gasoline, portable engine and one two-roll husker. M. H. Mugridge, Waupun, Wis.

RYE.

CHOICE high-yielding plump pedigree rye; recleaned and graded; reasonable price. Arthur Popp, Jefferson, Wis.

LEGHORN HENS.

FOR SALE—Will sell all or part of 200 White Leghorn hens; yearling stock; many of them fit for show room. Oak Dale Farms, Austin, Minn.

STANCHIONS.

ROY SWING STANCHION—Good enough for the best stable and price low enough for the poor man; none better. Ask for booklet describing them. Manufactured by Roy Brothers, East Barnet, Vt.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information. THE HOMESTEAD COMPANY Engraving Dept. Des Moines, Iowa

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Crookedness in the Poultry and Egg Business.

To the Editor:—Our experience has been such as to give a better idea of humanity as a whole. From the thousands of eggs shipped each season, as well as the cockerels and breeding pens, not more than ten cases in the quarter century have they showed up dishonorable. What other business could say as much? About half of the adverse happenings were from people who were starting up in the business, thinking they could prey upon their customers, as well as work their poultrymen from whom they purchased, for eggs—more eggs—because the others did "not hatch."

Now, contrary to popular (?) opinion, those men did not stay in the business long enough to beat anyone. They just simply played out the first season before they had given the business a very black eye. One overbearing fellow in particular, who had procured a lot of literature, telling what he would have for sale the next season, proceeded to "work" each poultryman for a second sitting of eggs, claiming that the first sitting did not produce a single chick. He accidentally got his people mixed, and wrote to us at the end of two instead of three weeks, asking, demanding, another lot for hatching. He was very demurely informed that, "I entirely forgot to say that it requires eggs from our ranch three weeks to hatch!"

That season finished that embryo breeder, just as any other business that is a fraud is soon wound up. The backbone of the industry is the farm people, who keep good stock and sell poultry and eggs to other farmers who wish superiority in size and production for the market. One man, a farmer, who with his wife drove twenty miles for cockerels to head his market flock, said: "We have just sold 150 cockerels on the market, and cockerels like these will give a gain of a pound each on our young stock next season, and 150 pounds is worth something with chickens selling for 17 cents a pound."

It is not advisable to start up in enormously high-priced stock or eggs, but it does pay and pay well to get a start of pure-bred fowls; such may be had at a very reasonable figure, and for purely utility purposes will make good. A dandy flock of Reds that we have in mind are practically pure, although they contain a small per cent of alien blood. So long as this flock is being crossed with pure-bred males of their own kind all is well.

Here is an illustration of the other side of it. A neighbor has a flock of grade Rocks that are making good in the same way. A near-by schoolhouse is the common ground for both flocks of poultry, and the Red hens hatched a few of the grade Rocks, making a grade-Red-grade-Rock cross, and the result would be deplorable if there were many individuals of this kind. One cockerel was in the lot, and it was not much of anything. It had the color of the Rocks—or rather an imitation color—a long, slim body that might have run back to the jungle fowl, much smaller than the others of the same age; in fact, it was a very good type for the time that fowls were not yet domesticated and must use their wings and legs to get away from wild animals, instead of going into the frying pan. This is exactly what comes of crossing and recrossing breeds.

To keep from crossing grade fowls, someone must make it a business to keep his flock pure; there are many such, right on the farm which is the best place on earth to grow chickens with lots of stamina and "pep." To say that many earnest farm men or women would sell single-comb fowls for rose comb, or vice versa, would sort up a flock of crossbreds and sell the light individuals to one inquirer and the darker ones to another, is not in reason. Once in a while even a good strain of fowls will throw an off-colored bird, and especially if it be a comparatively new breed that is yet in the establishment.

We once grew a white turkey from one of the best established strains of the Bronze variety this country ever knew. It was not a fraud, either. It was only that it happened in the panic of '97 when corn sold for 16 cents and we had no more gumption than to think that we could keep one of our own young males to breed from, and the flock has irrevocably gone to pieces through mistaken economy. This much inbreeding would be all right in a flock of chickens of similar merit, but turkeys will not stand for it. Not a youngster in that lot was worth keeping over, so the splendid flock that had taken us almost all our life to build was gone.

We have no need for $30 eggs even at half price; we do need—the country needs, the breeder of pure-bred poultry, where we can get stock to keep up the farm flocks of our land. These breeders, in turn, go to the larger breeders of pure-bred poultry—the "fancier," if you please, which does not mean a gambler, but one who is artist enough to breed pretty nearly true to standard and who sells his stock, comparatively speaking, for their value. Each and every one of the poultry people are needed; each has his place in the world, which is just as legitimate, just as honorable a calling as any other. Subscriber.

Habits and Vices in the Poultry Yard.

To the Editor:—Egg-eating is probably the most objectionable of all bad habits. It is a habit generally brought about by overcrowding, lack of exercise, lack of proper shell-forming material and often improperly constructed nests.

Low-down nests are also sometimes the cause. To prevent egg-eating, make the fowls exercise for practically all the feed they get. Do not overcrowd, allowing four or five square feet of floor space for every fowl; provide plenty of oyster shells and grit; locate nests in a dark and secluded place, raised several feet above the floor, so they will have to fly and climb to get to the same. They like it better where they have to go way up and hide. Guard against having and leaving broken eggs around so they can find and eat them, as this often develops a taste for eggs. Also the feeding of egg shells without breaking them up often leads to this objectionable habit.

Perhaps the surest way of curing the habit of egg-eating is by cutting the guilty party's head off, if she is known, but, of course, if many have the habit they can be sold on the market. If they remain in the flock others are sure to get the habit and make bad matters worse. Soft-shelled eggs are caused from lack of lime, and that is one fruitful source of egg eating. Thus it is easily seen that if they have plenty of lime in some form they will not get the habit this way.

It is a noticeable fact that most all bad habits are started in the wintertime when fowls are more or less confined, and the litter is insufficient. Provide a litter, loose and dry, of straw at least eight inches to a foot deep.

Another vice confined and overcrowded poultry, lacking exercise and food, often fall prey to is the feather-eating and feather-pulling habit. Some will get the vice of just pulling feathers from their own body and throwing them down. Others will pull them out and swallow them, and still others will pull them from other members of the flock and either eat them or throw them down.

This is a most aggravating habit or vice when it once gets thoroughly started in a flock, and one which in a short while will greatly damage the general appearance of the flock. Often it leads to drawing blood, and pecking at the sore places and some in the end turn cannibals.

Free range stock seldom contract this habit, and if they do contract it, it is because they are lacking something in their ration. If you should happen to have such in your flock of fowls, make them work all day long for everything they get. Feed them plenty of animal food in some form or other. Beef scraps are good. Milk is excellent. Green cut bone and blood meal is good.

Do not forget the regular feeding of green food daily, because very often a lack of the same brings on the above vices.

Another way of stopping this bad vice is by anointing the feathers about the picked area with an ointment made by adding a tablespoonful of aloes to a cupful of lard, rubbing the same well together. After one or two bitter doses of feathers thus treated the birds will usually stop pulling and eating the feathers.

It is really annoying to have two or three specimens in a flock that get so far along as to seemingly select one member that is physically below the others, and commence pulling the feathers and making the skin bleed and then peck at them till they tear the skin and begin to eat the flesh, and finally kill the bird. I have seen just that condition in a flock. It is needless to say that once a fowl contracts such a habit or vice there is no remedy for same. They should be sold at once and all other members of the flock that have had part in the crime sold also, for they are never profitable after they commence that.

There is just one way to handle such and that is to so handle the flock that they will not get such habits and vices; but in case they have, then the next best thing that can be done should be at once pursued.

No such flock is profitable, for they are not receiving the treatment that it takes to make a flock of hens profitable. Subscriber.

LOW PRICE LAND! HIGHLANDS OF LOUISIANA

Low price land that will yield bountiful returns in high priced grain crops and live stock—that is the great chance offered you in the

Mild, sunny winters; ample rainfall; two and three crops annually on same ground; free, open pasturage nine months every year. The big, FREE book, *"Where Soil and Climate Are Never Idle,"* tells all about it, and is a revelation to Northern farmers. Send for your copy NOW.

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POTATOES WANTED. Write what you have to offer. C. C. Clemons Produce Co., 128 Grand Ave., Kansas City, Mo.

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MAKES THE LAZY HEN LAY

"The Tale of a Lazy Hen" is the title of a new book, which tells how to make your hens lay every day in the year. Everybody, no matter if you raise one chicken or a thousand, should send for this FREE BOOK. *Write for it at once.* It's absolutely FREE.

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POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS: prize winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns. $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

APRIL hatched Single Comb Buff Leghorn cockerels and pullets, from choice laying strain. Chas. Schmit, Hortonville, Wis.

Ailing Animals.

Scabies in Cattle.

I have some cattle which for the last few winters have been bothered with a sort of itch on their necks. They rub themselves until the hair comes off. What can I do for them?

It is very probable that your cattle are infested with the scab mite of one kind or other. After careful cleansing of parts affected, and if possible after clipping hair, apply a 5 per cent solution of creolin or lysol. A 5 per cent tobacco decoction may also be used. These applications should be washed off in three days. Disinfection of the stables and fittings is naturally also necessary in order to secure success.

Warts on Teats.

I have a bunch of cows that have little warts on their teats. When I first noticed them one of the cows seemed tender on the teats and would sometimes kick. I could see no cause for it, but in a short time the small warts came out and soon more of the cows started the same way. This was about two years ago. Now almost every cow we are milking has it.

These are often very troublesome, yet they may be greatly benefited or entirely removed by smearing them thickly after each milking with pure olive oil. If they persist they may be cut off with a sharp pair of scissors and the sore touched with a stick of Lunar Caustic. They may then be oiled and the caustic repeated as needed to prevent renewed growth.

Live Stock and Commercial Notes.

Harness Display at State Fair Claims Attention.

THE Walsh harness exhibit at the Wisconsin State Fair in Milwaukee created a great deal of interest among farmers and teamsters who are on the lookout for good, serviceable harness. It showed some of the latest developments of the harness industry, which were the result of an idea that took nearly nine years of careful study and effort to perfect. Parts of ordinary harness that usually wear out most rapidly were eliminated in the Walsh harness—that is the secret of the idea. Where there is friction there is wear and destruction, and friction is most common around the buckles, snaps, billets, loops and holes in the straps. To eliminate this friction, Mr. Walsh of the Walsh Harness Co., Milwaukee, Wis., developed a harness which is without buckles, snaps, billets, loops or holes. It gives 100 per cent wear from the leather, yet is even easier and handier than ordinary harness. Any size horse, from 800 to 1,800 pounds can wear it satisfactorily. It is a wonderful outfit, but costs no more than other kinds. Farmers and teamsters who were not at the state fair should learn about this improved harness. Full information can be obtained by sending a card to The Walsh Harness Co., Milwaukee, Wis., and mentioning this paper.—Adv.

Calf Sold to North Dakota.

THE agricultural college of North Dakota has just purchased the bull calf, Pabst Korndyke Champion 182. Though this bull is very fashionably bred, breeding alone did not sell it. He is an exceptional individual, light in color, absolutely straight top line with great length and capacity. He was born in February of this year and is by the Pabst herd sire, Korndyke Segis Johanna, that is by Johanna McKinley Segis, a son of King Segis and out of Pontiac Lady Korndyke with a record of over 38 pounds, by Pontiac Korndyke. The dam of this bull is Pabst Champion, said by Mr. Pabst to be one of the handsomest cows on the Pabst Stock Farm. She has a record of 38 pounds in seven days and a two-year-old record of 583 pounds of butter and over 13,000 pounds of milk in 365 days. The dam is by King Pontiac champion, that has over 60 A. R. O. daughters and the second dam has a three-year-old record of 29 pounds, and is by Gem Pietertje Paul De Kol 3d. The dam is now running on yearly test and it is expected she will make a large record.—Adv.

The Kennedy Short-horns.

THE Oak Lawn Farm herd of Scotch Short-horns were blooming at the state fair and many coveted prizes were brought home by this herd. The Kennedy herd is far better known by having been exhibited at the various state fairs. This being the first year that Mr. Kennedy has shown, he did remarkably well and it shows that he had great foresight in making his purchases. As we have said on previous occasions, he has one of the greatest herds of Scotch Short-horns in America. If you want a bull of the same caliber, write J. E. Kennedy, Janesville, Wis., and please mention this publication.—Adv.

SALE DATES.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Oct. 2, Grant Co. P. C. Breeders' Assn., boar sale. Burlie Dobson; secretary, Lancaster, Wis.
Oct. 15, Henning & Pharis, Belvidere, Ill.
Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 23, Deewelow Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Oct. 27, Freman & Rippey, Glenwood, Mo.
Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Nov. 1, Herr Bros. & Reynolds, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Oct. 23-24, Lake Mills Holstein Sale, Lake Mills, Wisconsin.

JERSEY CATTLE.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
W. M. KNIGHT, Eagle, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

JERSEYS

COWS AND HEIFERS, register of merit breeding. One or a carload. I am a breeder, not a dealer.
E. E. WYATT TOMAH, WIS.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

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AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

TOO LATE TO CLASSIFY.

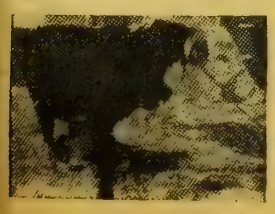
RAMS
Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

HEREFORD CATTLE.

HEREFORDS

LET US QUOTE you prices and describe the young bulls we have for sale. The thick, quickly fleshing kind that suit. We invite inspection.
WALTER BROS. Chippewa Falls, Wis.



HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have 90 cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS :: :: Bagley, Wis.
(Grant County.)

HOLSTEIN-FRIESIAN CATTLE.

A KING SEGIS BARGAIN

THE Grahamholm Farm is offering a 29.23-pound yearling grandson of King Segis that is nicely marked and that contains 25 per cent the same blood as Segis Payne Johanna, the only 50-pound cow, and Francher Farm Maxie, the only 46.84-pound four and one-half year old. This young bull is a show animal and is out of a great producing cow having a 29.23-pound record at 12 years, 27.85 pounds at seven years, and 580 pounds butter in a year. She also has four A. R. O. daughters, including a 28.26-pound cow. $400 will buy him. Write for further particulars before it is too late.
W. J. BOYNTON, Mgr. Route 1, Rochester, Minn.

Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby, Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

HILLSIDE HOLSTEINS

SENATOR JOHANNA WHITE, 31-lb. herd bull. Four A. R. O. cows for sale, bred to freshen this fall. Price $175 to $250. Several heifers and young bulls, from A. R. O. dams. Write for detailed description.
KIRKPATRICK BROS. - - - - - - - - Reedsburg, Wis.

Old People's Home
Stoughton, Wis.

OFFERS A 26.57-LB. 3-year-old Holstein bull for sale. Briar Pietje Korndyke (140508) is by Briar Butter Boy Korndyke that has 15 A. R. O. daughters and is out of Pietje Tyrania De Kol, 26.57 lbs., that is by Woodcrest Pietje (61 A. R. O. daughters). Five of these daughters have records above 26.57 lbs. Briar Pietje Korndyke is a good individual, well marked and weighs over a ton. His ancestors represent some of the most noted animals of the breed, including De Kol 2d's, Butter Boy 3d, Pontiac Korndyke and the great cow, Pietje 22d. This bull is priced to sell quickly. For more information write to
O. C. Lee Stoughton, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275, the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

Lake View Farm
Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,000 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.
FRED GURR :: :: Lake Mills, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, Aaltje Johanna 28.57 lbs. His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
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16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

Pabst King Hengerveld is offered for sale by the Pabst Stock Farm.

Pabst Hengerveld Colanthus produced almost a ton and a half of milk in June, 1917. A Twice 30-lb. cow.

King Pontiac Champion, Pabst's senior herd sire, is one of the world's most noted Holstein—Friesian bulls.

Pabst King Hengerveld is a product of this noted sire and dam.

Get pedigree and price from
PABST STOCK FARM
(Breeders, Not Dealers)
OCONOMOWOC, WIS. BOX R

A 27.81-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43-lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 20.20 lbs. butter. She has a 30-lb. daughter and a 25-lb. dam. A little more black than white; well grown and of exceptionally good conformation. Born February 1, 1917. For pedigree and further information, address
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FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.
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RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
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FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER JANESVILLE, WIS.

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WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write W. C. KENYON & SONS, ELGIN, ILL.

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HOLSTEINS of good breeding, good individuals. Priced cheap. Write
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50 BIG-TYPE POLAND CHINA SPRING BOARS AT $40.00 EACH

Double treated, and we record them. They will be worth $40.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs. They are from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo, whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.

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Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd, one of the greatest in America, as well as one of the most up-to-date, pure-bred stock breeding establishments.

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SMOOTH BIG BONE A 2D.
Sire Smooth Big Bone A ($1,125), by the champion, Smooth Big Bone.
GOLDENGATE COLUMBUS.
Sire Columbus Pan; dam, by Goldengate King.
MY HERD HEADERS.
OFFER 25 SPRING BOARS sired by the above and every one out of a big-type sow. Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.
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Big strong rams that will please.
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SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write

W.W. UACKENBUSH (Jackson Co.) MELROSE, WIS. POLANDS

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GRAND CHAMPION CHESTER WHITE BOAR, MILWAUKEE. Offer spring boars sired by PAY STREAK. Order now and get the pick.
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OFFER spring BOARS and GILTS sired by the above CHAMPION. Also a large assortment of fall pigs, either sex. 200 head to select from.
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BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
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HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PFANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.
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RED POLLS

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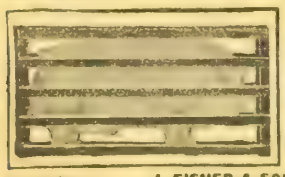

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185 lbs. at 6 months

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SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

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"PATHFINDER"
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FIRST PRIZE DUROC BOAR, Minnesota State Fair. Will be mated to some of the best sows in Wisconsin. Have some spring boars for sale. Inspection invited.

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Fennimore Durocs

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50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

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Silver Trophy
WON BY
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GILTS
BOARS

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GUERNSEY CATTLE.

BROAD RIPPLE FARMS
GUERNSEYS FOR SALE

SERVICEABLE YOUNG BULLS and bull calves; **A. R. Cows** in calf and bred heifers. We now have about twenty cows on A. R. work. Write for particulars.

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IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write

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A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.

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OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,

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SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.

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2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

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Gustav Pabst, Prop. **Fred Southcott, Mgr.**

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OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

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YEARLING GUERNSEY BULL READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

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SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.

AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

OAK LAWN SHORT-HORNS

YOU SAW MY CATTLE at the state fairs and have read the report of my winnings. I have young bulls of the same breeding for sale.
"Scotch Short-horns of Quality."

J. E. KENNEDY :: :: :: **Janesville, Wis.**

DUROC JERSEY SWINE.

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire

ROY HORSFALL **Mt. Hope, Wis.**
"Grant County."

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HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.

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DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

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I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

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ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?

FRED G. MATTHES **Viola, Wis.**

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L. R. SIEBECKER **Baraboo, Wis.**

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AND Scotch-topped Short-horn bulls for sale; bulls 10 to 15 months old. Boars sold worth the money for next 30 days. **OAKWOOD STOCK FARM, J. D. Beetham, Lancaster, Wis.**

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MARCH PIGS, $40 UP—Sired by KING DEFENDER'S EQUAL by the WISCONSIN CHAMPION. For sale also, price $200. Write for description.

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WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.

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Short-horns
MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.

HARVEY H. LITTLE **Evansville, Wis.**

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address

H. B. DRAKE & SON **BEAVER DAM, WIS.**

BLODGETT
Short-horn Bulls for Sale

Scotch or milking strain. Write

C. E. BLODGETT **MARSHFIELD, WIS.**

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SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.

C. J. SCHOENFELD & SON **Fox Lake, Wis.**

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write

RICHARD MAURER & SONS **Fox Lake, Wis.**

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

HORSES.

PERCHERONS, Belgians, Shires—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings. **FRED CHANDLER, R. 7, Chariton, Ia.**

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THE WISCONSIN FARMER

VOL. XLVI. NO. 40. THURSDAY, OCTOBER 4, 1917. WHOLE NO. 1862

CO-OPERATION IN WISCONSIN

THOSE who may be inclined to be discouraged as to the progress of coöperative enterprises in Wisconsin will be able to take heart from information gathered by B. H. Hibbard and Asher Hobson, of the Wisconsin College of Agriculture. Wisconsin now has more than 2,000 coöperative companies, of which the most important are the creameries, and the most numerous the cheese factories. Farmers have become interested in marketing to the extent of organizing and conducting all sorts of enterprises, and that they know enough to "look after their own business" is shown by the fact that they now have breed associations, cheese factories, creameries, fruit exchanges, granges, insurance companies, laundries, milk-selling oompanies, produce companies, telephone companies, tobacco warehouses and live-stock shipping associations. Wisconsin farmers operate 2,070 concerns with $62,646,000 volume of business, distributed as follows:

Kind of business.	No.	Volume.
Creameries	380	$19,100,000
Produce and feed	98	14,936,000
Cheese fact'ries	718	14,490,000
Live stock	124	9,700,000
Merchandise	57	2,500,000
Insurance	214	958,000
Fruit	6	500,000
Telephone	471	454,000
Laundry	2	8,000
Total	2,070	$62,646,000

The above represents the actual coöperative enterprises wherein the product offered for sale is owned coöperatively, but it does not include, as the gentlemen above referred to point out in their statement, organizations and groups of farmers who handle business coöperatively but own their properties and products individually. Classed under this latter heading may be included groups of farmers who purchase carload lots of feed, and those who sell live stock by consignments to a single sale. No account is taken either of the efforts of the county agents or the experiment stations to market community products in bulk, such as seed grain, potatoes, etc., or those who coöperate in the ownership of limestone crushers, handling hemp, etc. A considerable number of groups own bulls or stallions. When all of these active coöperative enterprises are combined it will be seen that Wisconsin stands well to the front rank of those states where a special effort has been made to further coöperation among farmers.

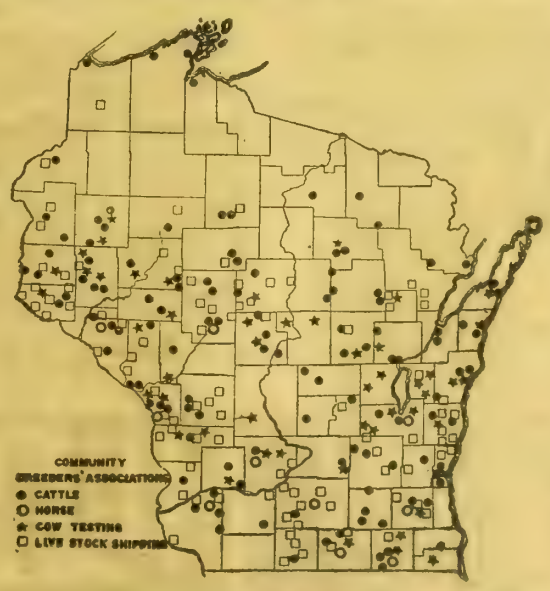
A PRODUCE COMPANY'S PLANT AT EAU CLAIRE, WIS.

Organizations not directly engaged in business are doing a great deal to further coöperation in Wisconsin. There are fifty-five grange organizations in Wisconsin with over 2,200 members. In 1875 the grange reached its fullest development in Wisconsin with 500 locals and 17,000 members. However, all but four of the present active grange societies were organized since 1905, indicating that while the work of this society had a setback, it has taken on new life and is now in a growing condition. The location and number of grange societies by counties is as follows: Rock, three; Bayfield, one; Ashland, three; Iron, six; Vilas, one; Oneida, eight; Lincoln, three; Langlade, ten; Forest, one; Florence, eight; Marinette, four; Oconto, one; Outagamie, two; Winnebago, four. Most of the granges are in the northern and northeastern part of the state. The list as shown was completed up to and including the year 1916 and the number has been increased since that time. The grange offers club work and serves the purpose of a farmers' club, and also takes up all affairs of interest to the farmers of any community. Two granges own stores and others do buying and selling to a limited extent. The grange is a strong educational force for coöperation.

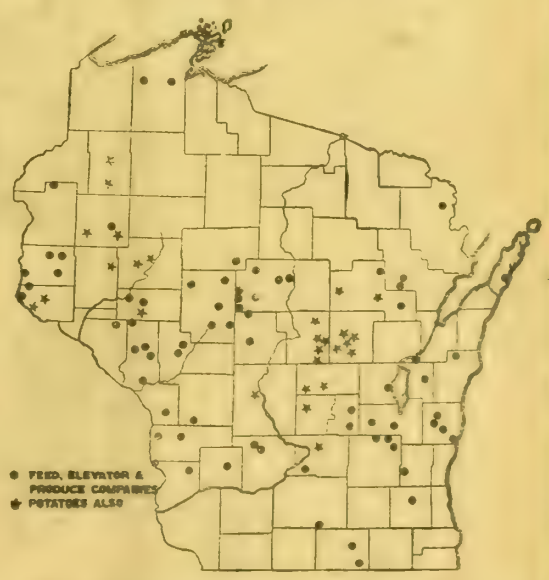
A much larger organization than the grange, in point of number of members, is the American Society of Equity, which, according to latest records secured by Messrs. Hibbard and Hobson, had 400 societies in Wisconsin and about 12,000 farmer members. Ten per cent of the equity societies have women's auxiliaries. The equity organization has been persistent in boosting all coöperative enterprises and has gone to the extent of fathering large packing plants, storage houses, warehouses and elevators. It has a number of shipping associations, buys and sells coöperatively in many places, and in all cases lends

(Continued on page 10)

WISCONSIN HAS MORE THAN 2,000 CO-OPERATIVE COMPANIES.



THE LIVE-STOCK ASSOCIATIONS ARE WELL DISTRIBUTED OVER THE STATE.



FEED, ELEVATOR AND PRODUCE COMPANIES NUMBER NINETY-EIGHT.

CURRENT EVENTS

PLOT after plot, in which Germany stands accused as the culprit and the villain, are being bared by official Washington. A week or two ago it was shown how the German minister to Argentina was sending important war news to Berlin through messages transmitted by the Swedish ministry. Last week, Secretary of State Lansing made public a letter exposing the plea of Count Von Bernstorff, former German ambassador to the United States, for $50,000 to influence congress against war just at the time when Germany was proposing to renew unrestricted submarine warfare. Disclosures were made tending to show that certain men and newspapers preaching against preparedness and war had been receiving money from Germany, either directly or indirectly, and that their action was thus corruptly influenced. About the same time Secretary Lansing made public an official report showing how Germany had "shamefully abused and exploited" the protection of the United States by secreting in the German legation at Bucharest after the American government had taken charge of Germany's affairs at the Rumanian capital, quantities of powerful explosives for bomb plots and deadly microbes, with instructions for their use in destroying horses and cattle. Fifty-one boxes were taken from the ground in the garden. Fifty of them contained a cartridge filled with trinitrotoluene saturated with mononitrotoluene, among the most powerful explosives known, one-fifth of each of one being sufficient to tear up a railroad track. In the other box were bottles of liquid found to be cultivations of the microbes of anthrax and glanders. It bore a seal showing it came from the German consulate at Kronstadt, Hungary, and inside was found a typewritten note in German saying: "Inclosed (4) phials for horses and (4) for cattle. To be employed as formerly arranged. Each phial is sufficient for 200 head. To be introduced, if possible, directly into the animals' throats; if not, into their fodder. Please make a little report on the success obtained." Germany has been accused of fighting by means of poisoned candy and poisoned wells heretofore, but no proof so apparently conclusive has been made public as that given out by Secretary Lansing, in regard to actions in Rumania.

BOTH Austria and Germany have replied to the overtures of the pope, stating that they are ready to discuss peace terms, as proposed by him. Austria goes much further into detail than does Germany and her reply has a note of sincerity which is sadly lacking in the case of Germany's. There is ample evidence that Austria, long ago tired of the war and sees in a continuation of it great possibility of the dismemberment of the empire. That she would welcome a peace, with honor and without much further delay, is quite generally conceded. In replying to the pope, the Austrian emperor stated that he was willing and ready to accept most of the pope's proposition, saying: "With deep-rooted conviction we agree to the leading ideas of your holiness that the future arrangement of the world must be based on the elimination of armed forces and on the moral force of right and on the rule of international justice and legality. We, too, are imbued with the hope that a strengthening of the sense of right would morally regenerate humanity. We support, therefore, your holiness' view that the negotiations between the belligerents should and could lead to an understanding by which, with the creation of appropriate guarantees, armaments on land and sea and in the air might be reduced simultaneously, reciprocally and gradually to a fixed limit, and whereby the high seas, which rightly belong to all the nations of the earth, might be freed from domination or paramountcy and be opened equally for the use of all. Fully conscious of the importance of the promotion of peace on the method proposed by your holiness, namely, to submit international disputes to compulsory arbitration, we are also prepared to enter into negotiations regarding this proposal." It is said that the pope will shortly address another peace letter to all the belligerent powers, notwithstanding the rebuff he has received from President Wilson and the spokesmen of the other anti-German allies.

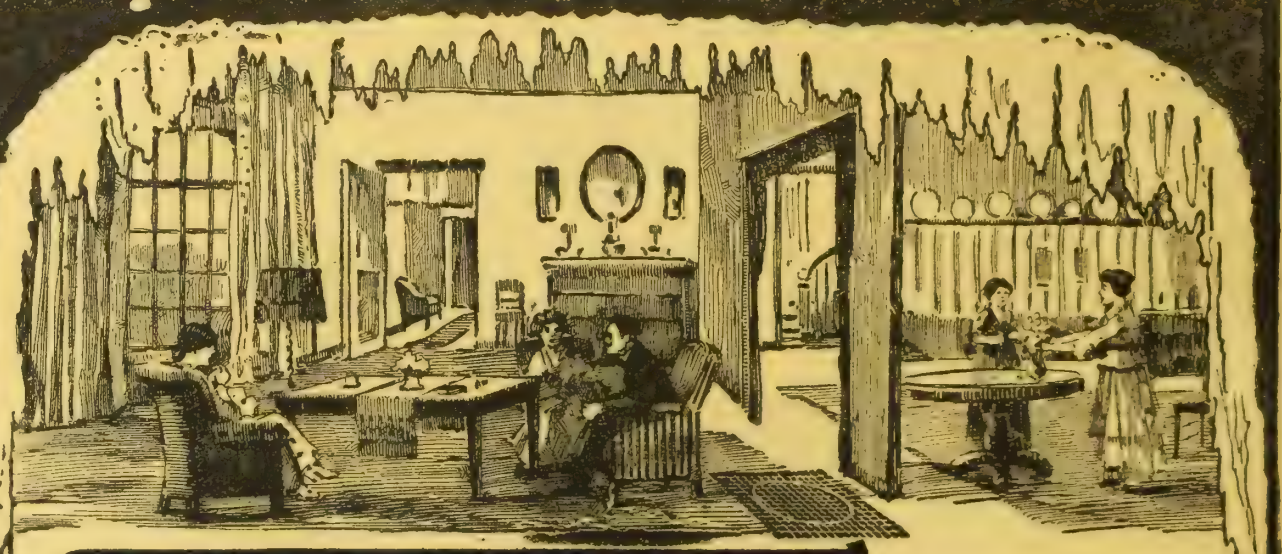
STEEL prices in the United States were cut in half last week by President Wilson, who approved a voluntary agreement made by the steel men with the war industries board. Notwithstanding the sweeping reduction, it is said that the steel men will still make a handsome profit, so high had the prices been forced up before the government took a hand at price fixing. The general public as well as the American and allied governments, will share in the reductions, which go into immediate effect, and the agreement provides that producers shall not reduce wages. The prices will obtain until January 1, 1918, to be revised then if investigation shows they are inequitable. The entire output of American steel plants will be distributed under supervision of the war board, which, exercising the powers of priority of transportation given the government by congress, will apportion it in a way best to meet the country's war requirements. The price agreement was reached after months of negotiations between steel producers and government officials. The prices were based on cost of production estimates made by the federal trade commission after an investigation conducted at the president's direction. Steel is an absolute necessity at present and the steel men had the country and the government literally by the throat when they forced prices up and maintained them there, making fabulous fortunes out of the nation's need. The government is fixing prices on all commodities, step by step, and won a great victory when it brought steel men to time.

BOTH houses of the Argentine congress have voted overwhelmingly to break diplomatic relations with Germany. The Argentine president is doing all that he can to prevent war between the two countries, but it looms up more imminent every day. Peru and Uruguay are also considering breaking with Germany, because of the Argentine situation and the sinking of merchant ships of practically all the South American countries involved. The biggest surprise of the week, however, was the statement that Mexico might join the United States and South American nations against Germany. This report was brought to this country by an American who has large interests in Mexico. He said indications had been pointing to such a move by Mexico for the past month. The suppression of anti-American papers in Mexico, said to have been controlled by German interests; the change in attitude of Gen. Alvaro Obregon, Gen. Francisco Murguia and other prominent Mexican officials and the request for a loan to Mexico were some of these indications of Mexico's attitude toward the United States and the allies, he said. General Obregon now is making a tour of the United States, accompanied by an American army officer. Although he holds no official title with the Mexican government, he is considered the strongest man in Mexico, next to President Carranza. The embargo of foodstuffs to all but allied countries has begun to make itself felt in Mexico and there is a strong demand in the north to have Mexico align itself with the allies in order to have the food embargo lifted. The German sentiment in the north has been waning for the last month and a more friendly American feeling has taken its place. Diplomatic disclosures by the United States showing the perfidy of German diplomats in Argentina and Mexico have also had the effect of turning public sentiment in Mexico to the allies, the American said.

PERHAPS as a result of the terrific drive of the British and French in Belgium, forcing the Germans back along a long line, the kaiser is reported as now favoring the surrendering of Belgium and even its partial restoration at German expense. There are the usual strings to the offer, however, the main ones being that Belgium must allow Germany to maintain commercial supremacy in Belgium and that the Belgian government must be run to suit the German idea of things, demands which will hardly be granted by the Belgian government or the government of the allied nations. While the kaiser is thus flirting with peace the allies continue to make good ground gains. The British artillery has been shelling the positions to be attacked for days and the infantry has gone "over the top" with determination, which stopped at nothing, the result being important gains. In the meantime, the French have forced the German crown prince back at Verdun, so that the past week has been one of good gains for the allies at the expense of the Germans.

IMMEDIATE wage increases of from 20 to 70 per cent were demanded by the country's coal miners, it was announced after a preliminary meeting of operators and miners' representatives of the central competitive field in Washington to discuss a general wage readjustment. The demands were formulated by the miners' representatives. There is every indication that the mine owners will refuse flatly to meet them, first, on the grounds that they are too high, and second, that the recent fixing of coal prices by President Wilson will not permit of any increase. The increases asked, while stipulated for the central field, comprising Ohio, Indiana, Illinois and western Pennsylvania, will serve as a basis for the entire country and if they are granted, would have to be met by other districts. The mine operators declare that it is utterly impossible to grant the miners' demands, with the price of coal as fixed recently by the government. Conferences are to be held with Dr. Garfield, fuel administrator, and there is a possibility that the government may advance the coal prices so that the miners may be paid more for their work.

The Mueller Pipeless Furnace Keeps Our Whole House Warm

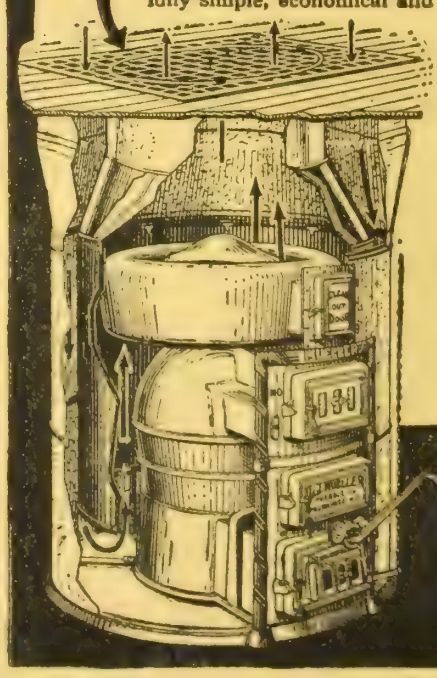


THAT'S the testimony that came last winter from thousands of homes in the coldest parts of the United States—and last winter gave all heating systems an unusually severe test.

The Mueller Pipeless Furnace kept thousands of homes warm and comfortable at less cost and with less trouble and work than they ever had before. And next winter thousands more homes—new and old—will be heated with this wonderfully simple, economical and efficient heating system.

The discovery that it is not necessary to have pipes to conduct the warm air to the different rooms—that it will go there just as quickly without any pipes at all—has enabled these thousands to enjoy the comforts and conveniences of furnace heat in their homes at small cost for installation and without the necessity of tearing up the walls for pipes or flues.

No more putting up stoves in the fall and taking them down in the spring—no more carrying coal to the different rooms and lugging away ashes—no more space taken up by stoves—no more heating the house in spots. The Mueller Pipeless Furnace keeps all the rooms at a comfortable temperature because it maintains a continual circulation of warm air throughout the entire house.



It is just about as easy to set the Mueller Pipeless Furnace in place in the cellar as to go through the annual ordeal of "putting up the stoves". And when the Mueller Pipeless is once installed it is there to stay. There is just one heating plant, and that is in the cellar, where it belongs, out of sight and out of the way, yet doing its work perfectly.

Interesting Book About Pipeless Heating, Free

The Mueller Pipeless Furnace is a *real* furnace of exactly the same construction as the old reliable Mueller line, only without pipes or flues. It is the result of 60 years' experience in the building of heating systems of all kinds, and is backed up by the Mueller name and reputation.

The entire furnace is of solid cast iron, the radiator is one piece, grates are of the triangular duplex pattern, the ash pit is large and high and the double jacket is rust-proof. The Mueller Pipeless saves 35% in fuel—burns hard or soft coal, coke or wood.

You should know all about this new and improved method of heating homes. Just tear out this advertisement, write your name and address on the margin and mail to us for interesting illustrated booklet, and name of nearest dealer who can tell you all about the Mueller Pipeless.

L. J. Mueller Furnace Company, 204 Reed Street, Milwaukee, Wis.
Makers of Heating Systems of All Kinds Since 1857

MUELLER PIPELESS FURNACE

The Wisconsin Farmer

THURSDAY, OCTOBER 4, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

INJUSTICE TO THE FARMER.

I AM in receipt of a letter from a subscriber telling of a typical case of army drafting, wherein agricultural production cannot fail to be hampered and retarded by the action of the examining board. A young farmer was drawn for army service. A short time ago (before there was any prospect of his being called to the colors, however) he bought 200 acres of farm land. He had been working toward this goal for many years, first as a hired hand, subsequently as a share tenant, saving every cent he and his wife could earn. The farm still has a mortgage of $880 on it and when the young man left for the army cantonment, to which the examining board insisted he should be sent, there were 150 tons of uncut hay, fifteen acres of undug potatoes and thirty acres of standing grain. He asked for exemption, on the grounds of a dependent wife and of agricultural production, but it was denied him. Unless the neighbors turn in and help (and they have about all they can do for themselves) the crops will go to waste and it is doubtful if even the interest on the mortgage can be paid, let alone anything on the principal. Here certainly, as the facts are told to me, was a case warranting exemption.

It is such cases as this (to be found on every hand, here in the grain belt) which give point and weight to the urgent plea made to the president last week by the Federal Board of Farm Organizations, a federation of national farm associations which was formed shortly after the outbreak of the war with Germany as a means of giving the farmer a voice in national affairs. The plea is signed by such representative men as C. S. Barrett, of Union City, Ga., president of the Farmers' National Union; J. W. Shorthill, York, Neb.; Charles McCarthy, Madison, Wis., and Gifford Pinchot, Milford, Pa., former head of the forestry service of the national government. I cannot print the plea of these men, representing 2,000,000 organized farmers, in full, much as I should like, but here is the gist of the argument as they made it to the president:

Agriculture is the only great industry now undermanned as compared with the standards existing before the war. Many industries want additional help. Agriculture actually has less. The shortage of farm labor is cutting down the productive powers of American farms. Transportation companies, contractors and industrial plants offer for labor prices higher by far than any farmer can pay and still produce food for the consumer at reasonable rates.

Farming is a highly skilled occupation. Trained farm labor cannot be replaced to advantage by untrained men, women and boys. Furthermore, the common necessity to make the farm laborer, whoever he may be, a member of the family circle still further restricts the availability of strangers. The return to the farmer is far below that to men equally skilled in any other occupation, while the special risks he runs from weather, insects and diseases are greater than theirs by far. Therefore, men who leave the farm seldom return to it.

Official figures taken from the school census of the state of New York show that in June, 1917, there were 16,000 fewer farm hands on the farms of New York than there were in June, 1916. On March 1, 1917, the farm labor supply in the United States as a whole, as reported by the Bureau of Crop Estimates, was 15 per cent below normal, which means that one in every seven productive farm workers had then been taken away from the farm. The situation is worse today.

Because the world is short of food, the government has asked the farmers, as a patriotic service, to increase their product. In answer to the call, the farmers have done, and will do, their best. But already a large proportion of the farms are undermanned, and the process of depletion proceeds unchecked. America is making the same mistake that England made, instead of learning from her experience. We believe that it is against the national interest and safety, as well as against the purpose of the law and the government, to let this drain go on.

What we seek is a more perfect administration of the purpose of the act to protect the essential occupations. We ask you to see to it that farm laborers and farm owners may be kept or placed where they may serve the nation best.

The situation demands prompt and effective action on the part of the government. There is growing unrest and dissatisfaction on the farms, based, in great part, upon the well-founded belief that the purpose of the government is not carried out. The organized farmers of America look to you to set this matter right. They await anxiously the news, and they will consider carefully the nature of your action for their relief.

If the president will investigate as he should, and as I hope he will, he will find the situation even worse than outlined herewith. There are thousands of cases such as I have set forth in briefest detail above, and surely this means that many members of the exemption boards utterly fail to comprehend the intimate relationship that exists between large production and the supply of effective farm labor. If farmers themselves could have been more largely represented on these boards, so disastrous a situation could not have occurred. Shall the food crops of this farmer and of tens of thousands like him be wasted and the nation's supply of foodstuffs be thus materially reduced by enforcing a policy which includes in the military draft many of our most effective farm workers? The members of exemption boards should consider only the great national need and, wherever possible to do so, allow the farmer to remain at his tasks.

TIN-CAN POVERTY.

THERE is a subject which I think we might well discuss together this week and which, for lack of a better name, I shall term "tin-can poverty." I refer to the shiftlessness of some farmers' wives, who allow their own fruit and vegetables to go to waste, in summertime, and then are obliged to buy canned goods, at the store where they do their trading, in wintertime.

I cannot possibly bring the matter to your attention in a better way than to quote from the splendid letter I received this week from Mr. R. F. Johnson, proprietor of Maple Leaf Farms, Assumption, Illinois. Mr. Johnson lives in town and operates his farms by means of hired help. He pays these men $10 a week and gives them house and garden, two quarts of milk daily, one-half of all the poultry they raise (he furnishing the breeding stock and feed) and one-half of all the fruit, provided it is for their own use and not to sell. On these fair and really generous terms some of his help do not appreciate their opportunity. On the other hand, however, some do. It is the story of a representative of each class which Mr. Johnson tells about in his letter to me, a letter which I shall have to shorten a little, although I would like to print it in full, were it not so long.

Mr. Johnson called on two of his hands recently. At the house of the first he found a pile of tin cans that had been emptied and thrown out. The yard was littered up, weedy and unkempt. Mr. Johnson goes on to say:

I did not pretend to notice the conditions, but asked the woman how her poultry was doing and she informed me that she was through trying to raise any poultry on the shares, as it would take all she raised to make up the original number of breeders. I asked her how she was coming on with her canning and she told me she was not going to can anything, for it would all spoil in moving and they did not intend to stay in the country unless wages were better. I visited a while with her and she sat down on the doorstep and told me her whole history and that of her husband, and how hard it was for a poor man to get ahead. I believe if I had stayed she would be going yet.

Mr. Johnson left this woman, and went to call at his other farm. What a contrast! I cannot cut out a word of what he has to say about this second woman and the efficient manner in which she went about her housework. Here is the picture:

This second woman was flying around like a "hen on a gridiron" and singing like a lark. She came to the door with a smile on her face and asked me if I wouldn't come in. I went in and sat down and, say, she was too busy to stop and talk. She kept on washing out the clothes; she has four little ones, the oldest just starting to school. I did not notice any cans around the house and asked her where they kept the empty cans. She remarked that it was precious few cans she ever had and what she did have she used by cutting the top out clean and hammering them down and making flower pots, grease cans, poultry fountains and so on, out of them. She said she had been over to the other woman's and got a sackful, a week or two before, to pot some plants. I asked her if they never used any canned goods and she said, "Sure we do, but we can it ourselves." Then I told her that I would just like to know what plans and preparations she had made for the coming winter. I will give you a list of some of the things I found in the cellar, as she gave them to me, and these all grew on that farm; some of them put out by her, and both women had the same opportunity to get these things.

First she had the following canned or preserved: Asparagus, rhubarb, spinach, peas, beans, apples, canned apples, dried apples, apple sauce, apple jelly, apple preserves, cherries, canned and preserved, plums, canned, preserves and butter, also jelly, pears, cucumbers, mixed pickles of several kinds, blackberry preserves, canned jelly and some "bounce" strawberries, sunshine preserves and canned raspberries, beets, tomatoes, gooseberries, cauliflower, currants, kraut, mangoes, grapes, grape juice and so on and on. I asked her what else she was going to can and she said that there would be the sweet corn, succotash, late plums and pears and a good many things. She laughingly said that she could find something to can every day if she chose. I asked her what she expected to get from her garden for winter, for it was a "crackerjack," no weeds, to speak of, and well tended. She showed me parsnips, carrots, cabbages, turnips, potatoes and among the potatoes were squashes and pumpkins, a lot of them. She said she would put them all away for pies and if they showed signs of spoiling she would can them.

I asked her about her chickens and she right there stopped all washing, threw a bonnet on her head and said, "Come on, I want to show you some chickens." Well she had seventy-six Buff Orpington hens to start with in the spring. She has kept us in eggs all summer and she said she had over 400 chickens. They were simply beautiful, all fine and fat, and she had caponized about thirty-five that she shut in an old outbuilding and was feeding them separate. They were for our Christmas eating, she informed me, but I am of the opinion that her share will be sold and she will buy flour or a hog, perhaps, with them, although she never said.

Don't you see the significance now of the term "tin-can poverty?" Here was one family raising practically everything they needed to eat for all the year around and paying for what little they had to buy with their surplus produce. And here was another family shiftlessly letting stuff go to waste in season and falling back on canned goods, bought at the store, in winter. Surely, a yard littered up with rusted tin cans is a yard of poverty, no matter what the farm may yield, for there is a poverty of resourcefulness and efficiency, as well as a poverty of funds.

This second woman deserves to succeed, and she will. She is making her husband happy and contented. She is rearing her brood of four little ones in the right way. It will not be long before that family is owning a place of their own, and I do not doubt but that Mr. Johnson will be only too glad to help them when the time comes. The other family will never own a home, unless there is a complete change. So, after all, discuss the hired help and the farm tenant problem as we may, it is the man (rather, it is the woman) who counts most and upon whom everything depends. All our theories and beliefs vanish into thin air before an efficient man or woman who is determined to get ahead.

"Tin-can poverty" I shall always consider it; poverty of the soul as well as of the mind; a poverty, I fear, of the heart as well.

ANOTHER LIBERTY BOND DRIVE.

A NEW Liberty Bond drive is on this month, in the country as well as in the city. Uncle Sam is in need of more money; he has turned to the farmer and the town dweller, asking them to loan him the amount he wants—three billion dollars. I sincerely trust that the farmers of the grain belt will respond as unanimously and as generously as they did when the first bond drive was made, last summer.

I realize that many of my readers will say, "Well, old Uncle Sam is spending a lot of money; what is he doing with all this that we loan him?" I can only reply that he is spending it to organize, arm and equip the two million men he proposes to have in the field by next summer, and is loaning it to his allies in Europe. I am advised that up to the first of this week the United States had loaned two and one-half billion dollars to Great Britain, France, Italy and the other European countries which are fighting the Teutonic nations. Of course, this immense sum (one-half of all the Liberty Bond issuance already made and the one now being made) is to be repaid when the war is ended, at a rate of interest higher than that which Uncle Sam is paying for the money he gets from you and me. This leaves one-half of the two Liberty Bond issuances to be spent for actual war preparations on our part. We who have enjoyed exceptional prosperity the last few years, who have been granted a stable government under which to live and to work, who have profited by high prices and big yields, are now asked to loan our money to Uncle Sam, at a good rate of interest and with a positive guarantee of repayment. Those of us who can afford it should buy another Liberty Bond, by all means. Some may not be able to buy, though their patriotism is as great as those who do buy. But where there is ready money in the bank or in immediate sight, from the sale of our crops, I want to recommend most earnestly the purchase of as many Liberty Bonds as can be taken. The government is hopeful that 8,000,000 people will respond to its call; that the bonds will be taken by the small investors instead of the large ones, so that all may have a hand in winning the war by loaning their money.

I think I pointed out a week or two ago that these new bonds are to bear 4 per cent interest, instead of 3½, the rate of the first issue. The government is working out a plan by which they may be bought in denomination as low as $5, on the installment plan. Bonds of $50 and $100 will be issued as before, and these will doubtless prove to be the

(Concluded on page 6.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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Shall We Send the Young Folks Away to School?

About this time of the year in many Wisconsin homes the matter of sending the boys or girls away to school is discussed. Probably last year it was agreed that "next year John or Susan or both should go." But since then has come the war and labor has become scarcer and all the young folks are needed pretty badly at home. Perhaps the boy has enlisted or been drawn in the conscript army. Things are rather shaken up and out of kilter. In such a time it is quite important to weigh matters carefully, and the school problem should be placed in the "important" column.

It is The Wisconsin Farmer's belief that schooling is even more important just now than it was before America entered the world war. Thousands of young men who would be in school for the next year or two or until the war ends (we will hope it will not be even that long) will miss many months in schooling which most of them will never have an opportunity to make up. Preference may be given in many places in life after the war to returned soldiers. The young man who stays at home, either because he has not been drawn, or because he is not physically able at this time to meet army requirements, should by all means keep up with school life. Following the present conflict of arms will come a commercial conflict and in that peaceful warfare education will be a determining factor for success or failure. The war is proving the power of science, and peace will find science even more firmly in the saddle. Don't keep any children or young men or young women out of school this year unless it is absolutely necessary for the support of dependents. One of the sacrifices of the war will be bearing a little heavier burdens of farm work and responsibility. It is unfair to that boy or girl growing up into young manhood or young womanhood to deprive them of an education, even though it might help solve a labor problem if they were kept out of school.

Science has touched farming as it has touched warfare. The young farmer of tomorrow must know more than his father has known, and in order to meet the changing conditions he will have to get out and brush with the world. The practical knowledge which he gets from working with father is invaluable. If it is necessary to withhold from the boy who is to be a farmer either the practical knowledge gained on the farm, or scientific knowledge which he will get in school, sacrifice the latter. But most of our Wisconsin farmers are in good enough circumstances that they can afford to give the boys and the girls both the home and the school advantages. And this latter course is the ideal one to gain the happiest future for our young people.

Send the boys and girls away to school as usual this year. Our "Ag" school at Madison should be as well filled this year as in former years. There is a better opportunity today for men who graduate in any of the various departments of the college of agriculture than there has ever been, in case the boys want to leave the home farm. But we do not advise them to leave the home farm by any means. The best success usually lies in gaining some knowledge of what the world has learned by experience, as well as what experience can teach in our home community, and then remaining in the old home neighborhood or on the old farm and "building even better than our fathers."

Four-Dollar Milk and Why.

In the light of advancing prices for whole milk the consumers claim to have a right to some information. Naturally the dairyman-farmer is in a much better position if he can show that he will make only a fair and reasonable profit on milk at proposed winter prices than if he takes the attitude that he "charges the price just because he can get it." Milk even at $3.50 a hundred pounds has not yet reached a high price when we consider it in the light of its food value. As throwing some light on the present situation and particularly on the cost of producing milk under present conditions and present food prices we quote from a letter to The Wisconsin Farmer, signed by C. H. Potter, chairman of the milk board, of the Milk Producers' Association in the Chicago dairy district. Mr. Potter writes:

Our association met in joint convention with one delegate from each local and a full board of directors, numbering nearly four hundred, on the 21st day of September, and decided upon a price for October of $3.42 per hundred pounds delivered to country plants, and $2.54 per eight-gallon can delivered, F. O. B. Chicago, for milk testing 3.5, an additional three cents for every point above 3.5 and a deduction of three cents for every point below.

A rule was also passed giving the milk board a right to adjust the price for the remaining five months of the winter period, providing they do not fix any price below four dollars per hundred pounds. If the milk cannot be sold for that the milk board is directed to call another convention for the purpose of adjusting the price.

Figures upon which we are basing our cost of production, or rather the formula that we are using, is furnished us by Prof. F. A. Pearson, of the College of Agriculture, Urbana, Ill. Mr. Pearson has prepared a rough estimate of the corn, silage, hay, bedding and labor necessary in the production of milk per hundred pounds upon the average dairy farm from a survey made covering production of over one thousand cows. Grain, 44 pounds; silage, 188 pounds; hay, 50 pounds; bedding, 39 pounds; man labor, 2.42 hours. Mr. Pearson states that there are other costs included in the production of milk, but he thinks that cows should be given credit that will offset these other charges, such as manure and increase in stock. Taking this basis as given us by Professor Pearson for figuring the cost of production of milk anyone knowing the price of feeds can figure out the cost of milk production near enough to base values upon, and then add what is already fixed as a reasonable profit, ten per cent above cost. Anyone can figure for themselve what farmers should get for milk.

If grain is sold for $50 a ton or 2½ cents a pound, we hav $1.10. Silage is selling at $6.00 a ton or 3-10 of a cent a pound, we have 56 cents for silage. Hay at $20, we have 50 cents for hay. Bedding at $10, we have 20 cents for bedding. Labor, 75 cents. Total, $3.11, cost of production for one hundred pounds of milk. At a reasonable profit of ten per cent we have $3.42.

This plan of figuring milk values seems to be an equitable one. Under the plan milk will, of course, vary in price at different seasons of the year according to the variance of feed costs. This is a fair way to look at it from every standpoint. There may be those who will say that feed costs are figured on the market values of feeds rather than the cost of production of feeds. Silage may be selling at $6 a ton, but no one will argue that it cost $6 a ton to produce it. In fact, this is a much higher valuation than is usually given on silage in figuring feed costs. However, the dairyman-farmer has a right to figure feed costs at the market value of feeds. If he cannot do this there is no incentive to market his feeds through the dairy cow. He would be as well off to sell the feed, save the labor and trouble connected with dairying, and take a good rest for the winter. Too many people in figuring milk costs fail to take into consideration the actual labor costs. It is not simply the labor of the hired help which is to be taken into consideration. The owner of the herd is entitled to labor charges for his services and this is a legitimate labor cost in the production of milk.

No one will claim that 10 per cent is an exorbitant profit on the expense investment in producing milk. When milk values are figured out on the basis herein described by Mr. Potter (and this basis will be used for the Wisconsin associations in the Chicago district) it is plain to all of us that $4 per hundredweight milk is in sight. We expect feeds to advance as soon as winter sets in and it is a simple matter to take a table of feed costs, apply it to the average feed production necessary to produce milk, and arrive at or near the actual cost of producing milk. If this rule is carried out rigidly in January and February milk may sell even higher than $4 per 100 pounds.

Under the old system of stationary milk prices for the winter months the dairyman-farmer failed to realize on increased values of feeds raised on his farm. He sold milk, too often, in January, based on October feed costs. The thing which producers generally in the country are demanding is that when food or feed prices are raised they shall participate in the advance. Under this system of basing milk prices monthly on current market values of feeds, the farmer shares in the advances in feeds instead of all this advance going to the speculators. This is right and we are glad to see the dairyman-farmers of the Chicago district come to their senses on this plain business proposition.

Cost of Clearing Wisconsin Stump Land.

One of the best posted implement dealers in Upper Wisconsin, who very modestly requests The Wisconsin Farmer to withhold the use of his name, sends us the following letter following up our previous editorial discussion of the cost of clearing stump land:

No accurate figures can be given as to the cost per acre for clearing stump land. A contractor would be able to do but little, and previous experience and knowledge of the conditions would govern the cost of clearing land. Even if he were equipped with modern stump-pulling machinery, explosives must be used in connection with the stump puller in order to do good and effective work.

The settler, as a rule, has but little money to pay a contractor for clearing land and in my opinion the expense per acre would be more than the ordinary settler could stand.

A contractor might be able to make a living in some sections where there are farmers who have sufficiently improved their lands to bring them a revenue that would warrant the hiring of the work to be done, but as a rule the settler prefers to work at clearing lands at spare times or at times when it is most convenient for him to do so.

The usual method is to brush the lands and with the use of a jumper or spring tooth harrow scratch off the soil between the stumps and put in clover or timothy and turn cattle into pasture. This brings in a revenue at once and helps to support the settler and his family. By the use of a jumper, or even a mattock, the settler can plant potatoes in hills between the stumps, and with the unusual productions of the soil, from a peck to one-half bushel of potatoes can be gathered from these hills that always find a ready market at good prices.

In the wintertime the settler can work at cutting of cord wood, bolts, etc., and at the same time he improves his land and gets a good return for his labor. A good first-class stumping outfit that will cost from $125 to $200 should be in the field ready for work and when the weather is not of a kind that will permit the field work, a few hours can be put in to good advantage in pulling stumps and it is surprising how much land can be cleared for cultivation if the settler but takes advantage of the existing conditions and is not afraid of good hard work.

This letter brings us back again to the notion that the real practical way is for most settlers to clear their own land. Colonization companies may clear large tracts and sell these tracts as improved farms, but the profits made in clearing come largely from individual effort and the utilization of spare time. Most successful farmers in Upper Wisconsin have started in a small way and grown up with the country. As our contributor outlines, they have been able to make a good living for themselves and families as they went along. The opportunities today are perhaps greater than ever before, as labor is scarce in the woods and wages are high, comparatively. The settler who builds up his own farm out of the timber land is in nine cases out of ten a better farmer, once he gets his land in shape, than the man who comes in and buys a large tract of cleared land. As in all other walks of life we appreciate the things which we get by hard work, so it is in clearing land for an Upper Wisconsin farm. There is a good deal of satisfaction in looking out over an eighty or a quarter section and saying to yourself, "She's a dandy and I made her myself."

Wisconsin Fair Broke Even.

The Wisconsin State Fair of 1917 just broke about even on expenditures and income and this is a better record than has been made for many years. In fact, there is every reason to believe that this is the turning point, and that the grade has been made and in years to come we may expect to see the reports recorded on the profit side of the ledger.

It was a rather tough job which Commissioner C. P. Norgord and Sec. O. E. Remey took hold of over two years ago when they attempted to straighten out the Wisconsin State Fair and put it on a business basis. Fortunately these men had the backing of Gov. Emanuel L. Philipp, who determined that the fair ought to be made to amount to something or abolished. Successes are not easily born out of repeated failures, but that is just what was necessary to do in the case of the Wisconsin State Fair. The first move made was to arrange for stated appropriations and the consent of the legislature was not only secured for these appropriations, but arrangements were made whereby the governor might call upon the "emergency funds" to fill up the gaps between receipts and expenditures. These arrangements gave the workers confidence in their proposition. Administration of the state fair business has continued to be economical, but the commissioner of agriculture has known that the bills which he incurred would be paid. The secretary has not been obliged to blush or stammer when presenting the claims for the state fair, as he knew the state of Wisconhin was back of him and would make his promise good. It was a wise move on the part of the legislature when it was decided that the board of agriculture and the active executives in charge of the fair should have a real chance.

For the future we may expect slow but steady progress at West Allis until all doubts as to the bigness of our fair shall have been done away with. There is a great deal of needed work yet on the grounds. A prominent member of the Wisconsin Live Stock Breeders' Association suggests that a rearrangement of the fair grounds would be a great help. It would seem to be altogether advisable to separate the midway attractions and the "hot dog" tents from the agricultural and live stock features of the show. Give the visitors at the fair elbow room between the horticultural and the dairy building, and more elbow room betwen the dairy building and the poultry building, and still more breathing space between the dairy building and the county exhibits building. The park space on the fair grounds has not been utilized to lend dignity to the chief buildings and the agricultural features of the fair. The large space near the entrance and the larger space across the race track might well be used for many of the things which are crowded into the center of the grounds, and this would give space and a distinctive setting to the buildings in which the chief exhibits are housed. The secretary has been hampered by a small upkeep appropriation and the fact that it has been impossible to get surplus receipts which could be put back upon the grounds for these purposes. But the buildings which we have named, together with the cattle barn, judging pavilion, sheep and hog barns, comprise a very attractive group, provided they can be properly set off by rearrangement of the grounds.

The Wisconsin Farmer is advised that 104 tractors were sold on the fair grounds at Milwaukee. This is a great record considering the few companies which exhibited. One company is said to have sold better than $10,000 worth of tractors. Machinery men had their eyes opened at the Wisconsin fair and we believe that machinery exhibits will be larger in the future. The machinery men have permitted the automobile men to steal their thunder at the state fairs and the automobile men have cashed in on the change. Farmers like to see machinery exhibits, especially when these exhibits demonstrate something. If the war

continues until after another state fair, the 1918 exhibition should have a great "farm labor saving show," which would demonstrate the value of numerous devices now available for cutting down labor costs on farms.

Needless Creamery Machinery.

To be tied for first place in the butter scoring with a score of 96 is a matter of high satisfaction to a buttermaker. It speaks well also for the patrons. Without the raw material in the very best of condition good butter cannot be produced.

At the state fair Tony Kroyer, of Basco, Wisconsin, was one of the two to be tied for first place. In the case of Kroyer we know that his patrons delivered him a fair, perhaps somewhat above the average, clean raw material. Good workmanship and clean methods on the part of Kroyer did the rest. He used no machinery or method which is not applied in the average Wisconsin creamery. Perhaps he knows his business just a little better; perhaps, also, he is a little more careful, but aside from that his methods are the same that are within the reach of every buttermaker in the state.

There is another buttermaker we know of who in years gone by used to score between 92 and 94 in the monthly contests. At the recent scoring his butter was scored 83 by one judge and 89 by another, giving him a score of something like 86 and a fraction. The creamery represented by this buttermaker has in recent months installed a machine which is at present being sold in all parts of the state and is known as the purifying machine. Its makers claim that with it a 92 per cent butter can be produced from below-average cream. They insist that a poor raw material can be made into first-class butter. Be that as it may, the creamery in question receives a good raw material. It needs no purifying before being made into butter. Nevertheless directors and buttermakers agreed that the machine would be a good investment. It cost the creamery $1,300 to put this machine into the factory. With the machine goes the advice to use neutralizers to help the cream. All that the machine does is that it purifies the air which is pumped through water and incorporated in the cream. The air of the ordinary factory ought to be clean enough and is clean enough when things are run right and a good grade of raw material is available as it was at this creamery. The lime method, however, is called upon to help out the purifier, and that is where the damage really comes in.

The big centralizers, creameries that draw their supply from long distances, make use of the lime method and purifying machine because their raw material is not always of the highest quality. Experienced men know to a fraction what is good and possible to do and the product these factories turn out is a fairly good product considering the raw material. When, however, centralizing methods are introduced into the small creamery nothing but evil can result. Using the lime method and the purifier to make a good product better is like calling upon a doctor to make a healthy person healthier. It can't be done. The inexperienced man of the small creamery resorting to the lime method can do naught but damage to the patrons' product, as in the case of the small creamery there is very little raw material which is not of fair quality and arrives at the factory in good condition. Most creameries have all their product in the vat by 2:00 o'clock in the afternoon. There is no chance for any great amount being soured as in the case of the centralizers.

For $1,300 a mighty strong educational campaign could be carried on among the patrons of the factory, new equipment purchased to replace the worn-out and out of date machinery in the factory, and the buttermaker himself obtain a whole lot of useful instruction at the dairy school which would make it possible for him to produce only the highest quality butter from the already satisfactory raw material.

These machines are being sold throughout the state at present and many creameries having no necessity for such expensive equipment and no reason for neutralizing their cream are investing their money. Before any patron allows his directors to vote in favor of such additional equipment let him investigate thoroughly and he will come to the conclusion that for the average coöperative creamery receiving a high grade raw material such investments are a waste of money and an unjustified reflection on the cleanliness of the patrons' cream and milk.

An Appeal to Dairymen.

Those who are milking low-producing cows and who are indifferent in matters pertaining to feeding are finding it extremely difficult to make dairying pay. Some of them are contemplating selling their cows and going out of the dairy business. A poor cow, one that does not produce more than the average cow—140 pounds of butter fat a year—is a big liability in these days of high-priced feed, but one capable of producing 250 pounds a year is still profitable. Better cows are needed now and they must be found if dairying is to be kept up. Sell the cows that are unable to pay for their board under good treatment and buy others to take their place. You will be better off with one cow capable of producing 250 pounds of butter fat a year than with any number of 150-pound cows. Better have a small herd of profitable cows than a large one with half of the cows incapable of earning board.

Do not go out of the dairy business, for the demand for dairy products will be greater than ever this year, and it is quite possible that commercial feedingstuffs will become cheaper, because of the embargo that has been placed upon the shipment of feedingstuffs from this country to neutral countries from which in turn these products were re-shipped to Germany. Since this embargo on feedingstuffs went into effect Holland has ordered the slaughter of half a million cows because there will be no feed for them. This means that we ought to increase the dairy cows in this country enough to make up for Holland's loss. Milk is one of the most important food products in times of war, as has been demonstrated in Europe where hundreds of thousands of small children have died for want of milk to properly nourish them. The great importance of the dairy cow has never been so clearly understood as it is now, and it is the duty of farmers and dairymen to do all in their power to improve their milk cows and keep up their herds to the present numerical standard and increase their size if possible.

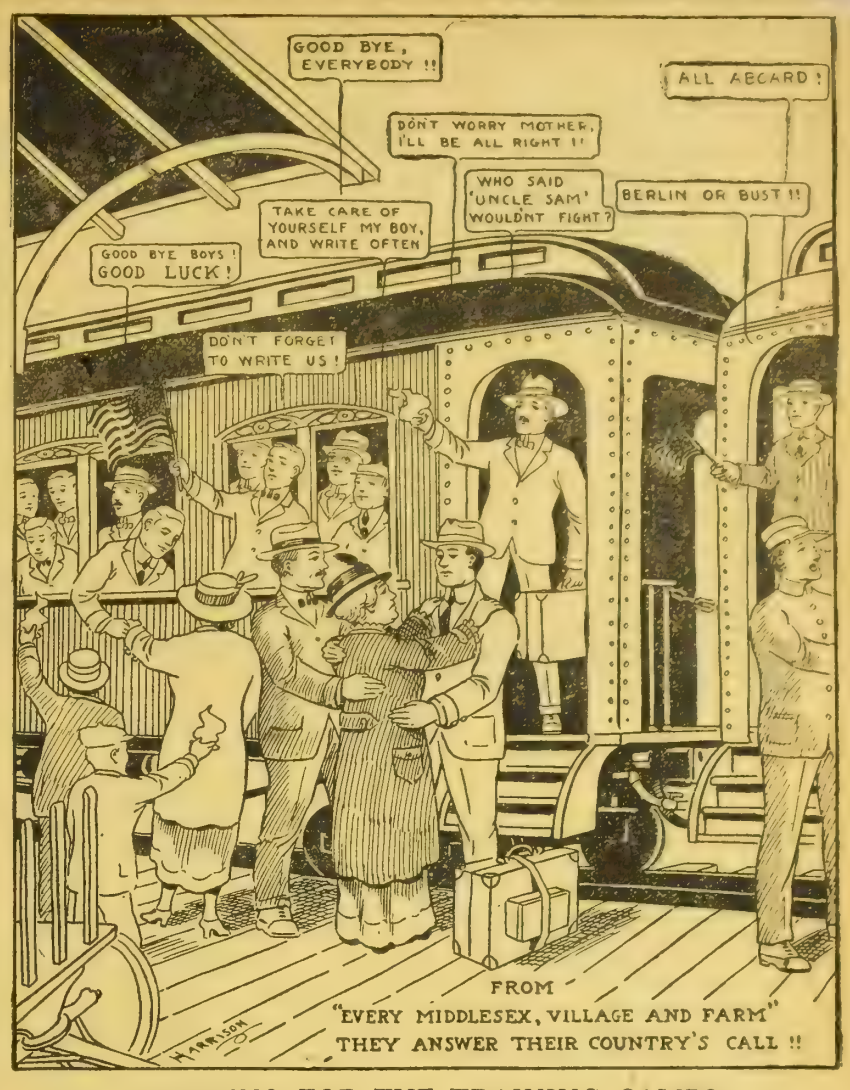
Below we print an appeal from the central committee of the dairy industry war council, which will be of interest at this time:

Save your cows and heifers. Every farmer owes it to his country to save every productive dairy cow and her promising female offspring. By so doing you can help feed the nation, save its children, and above all, help to sustain the sons of the nation in their heroic effort in behalf of world freedom and right. Do not sell your cows for slaughter. Remember in this time we all must make some sacrifice, fulfill some duty. The sons of the nation are doing their share; you on the farm can do yours by maintaining the production of milk and thus contribute to the food supply of the allies. Remember that you can produce no food on the farm more important than milk. Remember no nation can exist and maintain its physical and intellectual vitality and energy without milk. Butter fat is absolutely essential to the existence of our nation. Butter, cheese and ice cream are among our most wholesome and necessary foods. The supply of these vital foods depends entirely upon you, and the nation appeals to you to sustain this supply by keeping your dairy cows on your farm.

Use good sires. You can aid yourself and help by increasing the production of your cows; this can be done by improving the quality of your cows by the use of well-bred dairy sires. Every pound of milk added to your production is clear profit to you and patriotic help to your country. Breed up and produce more. Do not breed down and produce less.

Help by exercising care in handling your dairy products. You can help the nation and yourself by exercising every care in handling the product of your cows. Avoid loss and unnecessary waste by the use of clean utensils and keeping the products in clean, cool places. A moment's attention by you may save the life of a child or a soldier. The food department of the government will render you every possible service in production and distribution, both in the cost of feeds and the marketing of your products.

It is all very well to urge farmers not to kill any cows regardless of their worth for milk production, because every pound of milk that can be produced will be needed while the war continues, but the farmer who can get more for his raw grain than for the dairy products produced therefrom is not likely to continue to perform the arduous work of caring for a herd of cows for nothing and even lose cash money by doing it. For that reason we believe it is better to advise getting rid of the boarder cows and thus improving the average production of the herd. Stay by the good cows and breed more of that kind as fast as possible, but get rid of the boarders.



STARTING FOR THE TRAINING CAMPS.

Use Butter in Wisconsin Farm Homes.

No one has a greater right to make free use of milk, cream and butter in his daily diet than the farmer. He is the producer of these nutritive forms of human food. In our state dairying plays a more important part than any other branch of agriculture. We are in a sense very much dependent on a good market for these products. It is our duty to encourage the market by demonstrating that we believe in our own wares. For the greater part our dairymen do this. They make intelligent use of milk, cream and butter on the table, for they believe what they preach through such organizations as the National Dairy Council and many others that are interested in creating a more active market for dairy products. Most dairymen believe that the most economical food for the home is milk in its various forms. They encourage at every opportunity the education of the city consumer to this end. They further attest to their belief by using milk and butter fat in the home wherever advisable. They do nothing to create distrust on the part of the city consumer towards the dairy dishes. They are true dairymen.

There are others, however, who also milk cows for profit. They enrich themselves through an active sale of dairy products. They use the same market as the other dairymen. They subscribe to every request for the advancement of milk and butter fat prices. They hold that dairy products are not properly appreciated by the buying public. They want the best price, the best market, the biggest profits. They believe that butter is the best of foods. But lo and behold! In their own home they use, not butter, but "oleo." They are oleo dairymen. Their actions do not encourage city consumers. Their example is bad. It is a harm to the dairy business. Butter is cheap in price, selling too cheap altogether, but not cheap enough that they would use it. No, "oleo" is cheaper. Though they produce the butter fat, and though they clamor for higher and higher prices—to which the honest dairyman is entitled—they brand themselves as selfish and small, as skimpers in the eyes of those who buy their product. Truly such dairymen have no right to ask for higher prices, for they are a menace to the whole dairy business. Over the whole land dairymen, honest and convinced of the righteousness of their claim that dairy products are nature's cheapest food, are subscribing money to carry on the advertising campaign which will enlighten the public. The results of this campaign benefit the entire industry. Greater demand makes larger returns possible. People do not hesitate to pay more for a product once they are convinced of its high value as a food. The "oleo" dairyman undoes much of the work of his brethren every time he buys a pound of "oleo." Is it fair to the other dairymen to purchase "oleo" when one is manufacturing butter fat?

In a little town of a certain county in our state the groceryman does not handle butter. There is no call for butter. His trade is mostly with the men farming through that section. These men farm and keep cows and sell butter fat. Yet they buy and eat "oleo." The "oleo" business of the merchant is a brisk one. This seems so utterly inconsistent that the indignation of the true dairyman knows no bounds.

The case is very much as though someone went to the factory of a highly praised and highly priced automobile in order to buy at first hand the machine in question. He would not be very likely to buy if he discovered the maker of the machine used a cheaper machine because he wished to save the few dollars' difference in price.

Why should the city consumer be expected to pay higher prices for dairy products now or at any future time when he sees the producer of these products using substitutes?

Ask your neighbor to subscribe for The Wisconsin Farmer.

Another Liberty Bond Drive.

(Continued from page 3.)

most popular ones. There is no safer investment (outside of farm land) and I hope to see the farmers of the grain belt respond to the limit of their ability. "Buy a Liberty Bond" will be heard from ocean to ocean, throughout all of October. Do not turn a deaf ear; answer to the limit of your financial resources:

Uncle Sam issues the summons to clench for him,
Fight with the glorious British and French for him,
Out on the firing line, out in the trench for him—
Dig!

Uncle Sam issues the summons to sow for him,
Feed our brave allies, defeating the foe for him,
Out in the field with the plow and the hoe for him—
Dig!

Uncle Sam issues the summons to lend for him,
Help our great allies, the billions to spend for him,
Reach in our pockets 'way down to the end for him—
Dig!

James M. Pierce

Wisconsin Cabbage Growers, Attention.

To the Editor:—After conference with Mr. Hansche and other members of the Wisconsin Hollander Cabbage Seed Growers' committee, it has been decided to hold the annual meeting for discussion of the season's results and field inspection on Saturday afternoon, October 6th. We will meet at the Chickory Road schoolhouse, Racine, on the M. R. K. interurban line south of the city at 1 o'clock. Dr. L. R. Jones, the originator of the yellows-resistant strain of cabbage, will be present to lead the discussion on cabbage diseases and their control. Prof. H. F. Wilson, of the economic entomology department, will also be present to answer questions regarding control of cabbage insects. After an informal discussion we will go to several friends where experimental and demonstration work has been conducted. The results this season are very satisfactory, showing the ability of Wisconsin Hollander to resist the yellows disease, but at the same time making it plain that continued selection is necessary to improve and fix the type. The selection of yellows-resistant kraut strains of All Season and Brunswick are also very satisfactory. Many cabbage growers also raise onions and will be glad to see the demonstration fields where onion smut has been controlled by using formaldehyde this season. When the cabbage harvest is over I will send you another letter asking for yields and number of heads saved for seed. If I can be of any assistance in selecting heads for seeds, please let me know. R. E. Vaughn.
Asst. Prof. Plant Pathology, Wisconsin Station.

LET ME HELP YOU GET AHEAD

F. D. Hennessy
Pres. & Gen. Mgr.

What wonderful opportunities there are today for any man, young or old, who likes machinery and yet how hard it is to awaken these men to this fact. Why do you hesitate?

AUTOMOBILE and TRACTOR WORLD CRYING for HELP

There is absolutely not a single chance to fail. Think of it—not a chance of failure, if you are properly trained. Costs you less than your first month's wages to be properly trained and takes but seven weeks at this complete automobile and tractor school. Takes a little ambition and determination, I know; but if you haven't got either of these, you never will succeed in anything.

JOBS AT $75 TO $300 MONTHLY

The whole world is a field for a man trained in the Gas Engine business. Every day we have calls for help. Located in one of the cleanest and most progressive cities in the country. Over 20,000 square feet of floor space filled with latest equipment. Every instructor from myself down has had years of experience teaching the Gas Engine business.

Everything Simplified — Everything Thorough
Everything Complete — Everything Practical
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Complete Tractor Course included without extra cost.

Mine is the lowest price complete Gas Engine course in the country. Mail in attached coupon for free book.

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Biggest and Best in The Whole Northwest
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Gentlemen: Please send me illustrated book and full particulars of your school.
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Address
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UPPER WISCONSIN

The Land-Clearing Conference.

Rhinelander, in Oneida county, was selected by the forces in charge of the Land-Clearing Special, now on the last lap of its tour through Upper Wisconsin, as the best location for demonstrating the possibilities of early development by the aid of modern methods of stumping. For this reason the representatives of all organizations interested in clearing up the large tracts of rich stump land were invited to come to Rhinelander on September 28th and see the work now being done under the direction of Prof. F. M. White, of the college of agriculture. The demonstrations lasted all day and consisted in pulling and blasting stumps, piling stumps, cracking stones and blasting for drainage.

The two stump-pulling companies on the grounds did some good work. No attempt was made to do feats impossible for the settler to repeat. The A. J. Kirstin Company demonstrated very satisfactorily the horse power and the one-man machine. The LaPlant-Choate Company, of Iowa, pulled three stumps in four minutes and ten seconds and freed the cables. These can be repeated by any settler under the same conditions, after he has become better acquainted with machinery and has the working knowledge which comes to a man after a few weeks in the field. It was proved by demonstration that a rapid pace can be maintained on large stretches. One machine pulled, some time ago, eighty-two stumps in two hours and fifty-three minutes, an average of two minutes and ten seconds to the stump. However, the records, while very gratifying, are not the thing these people are primarily interested in. Proving by actual work the ease and rapidity with which stumps can be removed day after day under all conditions is what concerns them most. While accurate figures on the cost are also being compiled, no results will be given out until the trip has been completed.

Blasting stumps and cracking rock and land drainage by the use of dynamite was shown by the E. I. du Pont de Nemours & Company expert, Mr. A. E. Mathewson. The use of dynamite in land clearing is not advocated by these people as the only effective means. Dynamite can be the only means and at times is the only means of clearing, but on nearly all occasions the use of dynamite and a stump puller is a good combination.

Splitting stumps before pulling or after can only be done by dynamite. Large stumps cannot be hauled after they are out of the ground unless they are split with the aid of powder. Thus the combination of puller and powder will very materially decrease the cost per acre for powder and the amount of labor for the operation of the puller.

Several types of pilers were working to dispose of the stumps pulled and blasted in the demonstrations. These pilers are being tried out in order to determine how they can possibly be improved and cheapened. The pilers can be constructed at home and the necessary bolts, pulleys and cables secured for a nominal sum. Improvement has been made in the Conrath piler and the LaPlant-Choate trip. As the stump is swung into the pile a simple trip releases the chain holding the stump and the boom swings back ready for another load. There is less tangling of chains and trouble in releasing the load now.

In the ditch blasting a stretch of thirty feet of dirt under water was blown out and a perfect ditch established. One-half pound sticks of 40 per cent dynamite set two feet deep every eighteen inches and connected in series was the powder necessary to make a ditch four feet wide on top and sloping evenly to a depth of two feet. Greater distances can be blown at the same time with the proper connections.

After watching the work all day, the visitors gathered in the Oneida Hotel for an informal meal and discussion of the problems confronting northern Wisconsin. Speakers of the evening were B. E. Walters, secretary Wisconsin Press Association, Mosinee; J. L. Sturdevant, president Wisconsin Daily League, Wausau; R. E. Choate, LaPlant-Choate Company, Cedar Rapids, Iowa; Fred J. Allen, dairy commissioner of the North-Western Railroad; T. A. Hoverstad, agricultural commissioner of the Soo Lines; F. S. McCabe, industrial commissioner of the Omaha & Northwestern; Prof. F. M. White, in charge of the Land-Clearing Special; A. E. Mathewson, expert of du Pont de Nemours & Co.; Prof. K. L. Hatch, of the college of agriculture, Madison, Wisconsin, and E. O. Brown, banker, of Rhinelander.

The speakers emphasized one after another the three points essential towards a successful campaign for settling the stump lands of northern Wisconsin. The three points vital to the building up and development of agriculture in this section are: Cheap money, good settlers and coöperation of bankers and farmers, and farmers among themselves. Cheap money is not common in northern counties; settlers are coming slowly because of this and coöperation is behind cheap money and the bringing of large numbers of settlers willing to go through the first years of hardships. Stumping machines and dynamite are no use to a settler if he cannot buy them. Cleared land is no use to the settler unless he is able to prepare it and seed it. Living is likewise made nearly impossible without live stock. To give the settler the opportunity of purchasing machines, powder, seed and live stock makes rapid development possible. To withhold or make it difficult for the man just starting to buy these things retards development. Railroads are interested in early development of this country because it means profits for them. They are willing to help in forming land-clearing clubs and give time, money and men to bring settlers. They are doing it now. They are looking ahead to the time when farming must form the essential part of northern Wisconsin's wealth. Cities have been created by the lumber business. Men, hundreds and thousands, have made their living from sawing and cutting lumber, but the day is already here in certain sections where lumber is exhausted and agriculture must be the source of wealth.

Prof. F. M. White spoke of the results of the work as far as these could be given out. The trip has brought about a closer coöperation among the manufacturers of land-clearing machinery. It has caused more men of the trained professions, more engineering ability, to give stump-pulling problems time and earnest thought. It has shown that Wisconsin's stump lands can be cleared cheaply and quickly providing settlers can obtain some working capital. It has shown the absolute necessity of banker-farmer coöperation. Federal farm loan bank officials have been convinced of the merit of applications for loans on cut-over lands and a general alleviation of financial conditions is likely. The big results of these demonstrations, however, will not be apparent until later, when the data gathered will have been sorted and worked over into an intelligible analysis of cost of land clearing under various conditions.

The United States Bureau of Crop Estimates places the number of silos in this country at 400,000 and their total capacity at 31,000,000 tons. It is believed, however, that this number is increasing very rapidly, perhaps as much as 10 per cent yearly.

DU PONT AMERICAN INDUSTRIES

America Must Feed the World

Europe is hungry. Ground, once farms, is now a raging battlefield. Women and children are starving. Millions of mouths cry out for food.

The loss of each food ship is a tragedy. But the idle acres of America could grow more food per year than all of the enemy's ships can destroy.

Every Idle Acre Helps the Enemy

Hinder rations and you hinder victory. Other ships and more food must take the place of those destroyed.

Clear—Plow—Plant

Remove the stumps and boulders—drain the swampy places. Cultivate every available acre of land. Bumper crops are essential. Don't let abor shortage hinder you.

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RED CROSS FARM POWDER

will help one man do the work of many men—cheaper—better—quicker.

GET OUR BIG BOOK FREE

Learn the secret of easy clearing and drainage—the quick way—the labor saving way. Find out how Du Pont Red Cross Farm Powder will not only save you labor but will improve your soil. Let bigger, better, heavier crops be your slogan. Write now for your copy of

The Giant Laborer No. 35 F

E. I. du Pont de Nemours & Company
Wilmington, Delaware

Storing Vegetables for Winter.

Wisconsin's Big Crop of Roots and Vegetables Need to Be Well Cared for This Winter—By J. G. Moore, Wisconsin Station.

THE places in which the home gardener may store his crops successfully are house-cellars, or caves and pits. All of these are not equally well adapted for storing all kinds of vegetables, but for a majority of kinds will answer the purpose very well. Where more than one type of storage is available greater success will be had if in selecting the storage the storage requirements of the vegetable and the time it is desired for use are taken into consideration.

The house-cellar is by far the most frequently used storage place of vegetables grown in Wisconsin gardens. If it does not contain a furnace and the temperature does not fall below the freezing point, there will be little difficulty in keeping the vegetables well into the following spring. If, however, there is a furnace in the cellar, then the difficulties of successful storage are greatly increased. In such cellars a small portion, preferably well removed from the furnace, should be partitioned off. The storage room should possess at least one window which will make temperature control easier. The tighter the partition fits the better. As the storage room probably will be quite permanent, it is advisable to exercise considerable care in constructing the partition. An insulated wall or a double wall with a dead-air space between is to be preferred. A heavy cement wall is satisfactory. A single board wall is not to be recommended, but a storage room with such a wall gives better results than storing in the same room with the furnace. The storage room should preferably have a dirt floor. Proper storage of vegetables requires a certain amount, but not too much moisture. A cement floor is too dry.

Outdoor cellars are usually preferable to house-cellars, providing they are so constructed as to prevent freezing of the vegetables and are so located and built as to be of easy access during the winter. Some gardeners have an entrance to their outside cellars through the house cellar. This overcomes the most objectionable feature of the outside cellar—gaining access to the cellar during bad weather. The outside cellar eliminates any unpleasant odors indoors due to decaying vegetables.

The three chief essentials of successful storage are—sound vegetables, proper temperature, proper moisture. With certain vegetables maturity and ventilation are also of prime importance. Many people overlook the first of these storage requirements. Careful selection should be made of all vegetables to be stored. Soundness should include freedom from disease conditions likely to cause rot, and from mechanical or insect injury which provides an entrance for rot organisms or favorable conditions for their development. It is not the loss of the affected vegetable which is so important, but the fact that decay once started may destroy a considerable portion of the stored crop. The importance of soundness, however, does not stop with the selection of sound specimens. It includes careful handling during the storing process. All of us handle fruits which are to be stored with the utmost care, but practically disregard the bruising of vegetables. While the results are not so marked in the case of vegetables, often much of the loss in storage may be traced directly to rough handling.

The best temperature for storing vegetables may vary considerably for different kinds. There are two fairly well defined limits for most vegetables. The temperature should not be so low that the vegetables freeze. It should not be so high as to encourage premature growth. High storage temperature is also more favorable to the development of most rot organisms; therefore, with most vegetables the desired temperature is one close to the freezing point. Some vegetables, as cabbage, will stand slight freezing without injury, but it is usually safest to maintain the temperature of the storage room at not less than 31 to 32 degrees Fahrenheit. Vegetables will keep well at somewhat higher temperatures, 34 to 36 degrees, but only in the case of squash and pumpkin is a relatively high temperature to be preferred.

Large losses occur in storage because of improper moisture supply. The greater part of these losses is due to lack of sufficient moisture. The moisture content of all vegetables is high. When placed in a dry atmosphere they lose moisture very rapidly and with it their quality. With the exception of onions, squash, pumpkins and dry seeds, as beans, a relatively moist atmosphere is desirable. Excessive moisture is injurious, as it furnishes favorable conditions for rot. The aim, therefore, with most vegetables, is to keep the surroundings sufficiently moist to prevent wilting.

DON'T STORE THIS KIND—INJURED VEGETABLES DO NOT KEEP WELL IN STORAGE.

Good ventilation is desirable for the best storage. It helps to regulate temperature and moisture, removes foul odors and may help to prevent decay.

Proper maturity influences storage. With some crops full maturity is necessary, with others slightly immature specimens store best, while with some the stage of maturity makes little or no difference.

The Holland or Danish Ballhead type of cabbage is best for storage, although Succession, Sure Head, Flat Dutch and other varieties of the mid-season type store fairly well. The essentials of satisfactory storage are low temperature, moist atmosphere, no hard freezing, absence of excessive moisture and good ventilation.

For cellar storage the stems and outer leaves are removed and the heads wrapped in several thicknesses of newspaper or in heavy paper. Occasionally it is stored in boxes and covered with sand. When stored by this method, it is particularly desirable to keep the temperature near the freezing point to prevent premature growth. Some store by suspending the plants by the roots from the ceiling.

Several somewhat different pit or trench methods are employed. A common one is to use a trench six to eight inches deep, wide enough to accommodate three heads and sufficiently long to hold the amount to be stored. The trench may be lined as for storing other vegetables. Only the outer leaves of the cabbage are removed and the roots are left intact. Place them head down in the trench and bring the roots together. Straw

Saved—

7 gallons of fuel and 10 quarts of oil in plowing 16½ acres through scientific tractor lubrication

Two successful farmers of Parshal, N. D., own a 30-60 h. p. tractor of prominent make.

They formerly used oil costing 38c per gallon. Now they find it cheaper to pay about twice as much for Gargoyle Mobiloils. Why?

Because a careful field test of Gargoyle Mobiloil "B" as specified for their tractor showed a saving of 7 gallons of fuel and 10 quarts of oil in plowing 16½ acres.

In condensed form here was their test:

With Gargoyle Mobiloil "B"

Ground plowed, 16.5 acres
Oil consumption, 12 pints
Fuel consumption, 28 gals.

With Competitive Oil

Ground plowed, 16.5 acres
Oil consumption, 32 pints
Fuel consumption, 35 gals.

The engineer reported in part, "The reason we made such a good showing on fuel was on account of efficient lubrication—plus a *more perfect piston-ring seal* while operating on Gargoyle Mobiloil "B".

"This is more easily understood when I state that a cloud of vapor was constantly issuing from the breather holes (in the crank case) while the engine was operating on competitive oil, this being due to gas leaking past the piston rings and consequently being wasted.

"While operating on Gargoyle Mobiloil "B" this vapor was not noticeable..... In addition the tractor handled the load more easily."

You ask:

"Can I too show similar savings if I change to Gargoyle Mobiloils?" A natural question.

Gargoyle Mobiloils used as specified on tractors have never yet failed to show lowered oil and fuel consumption when comparatively tested with other oils.

This year progressive American farmers are striving for increased production and lowered costs. Unless you are using Gargoyle Mobiloils, the chances are that you now waste in part your fuel and oil.

The Chart below is today recognized as the scientific guide to correct Tractor Lubrication.

Gargoyle Mobiloils are put up in 1- and 5-gallon *sealed* cans, in *sealed* 15-30- and 55-gallon steel drums, and in wood half-barrels and barrels.

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. For information kindly address inquiry to our nearest office.

Write for Correct Lubrication booklet containing complete Chart and other valuable data.

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Mobiloils

A grade for each type of motor

CORRECT TRACTOR LUBRICATION

Explanation:—The four grades of Gargoyle Mobiloils for tractor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "BB"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the tractor indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc.

MODELS OF TRACTORS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter
Albaugh-Dover (Square Turn)	BB	A	BB	A		
Allis-Chalmers	BB	A	A	A	A	A
All Work	B	A	B	A	A	A
Andrews	B	B	A	A		
Aultman-Taylor	D	A	A	A	A	A
" " (18-36)	BB	A	A	A		
Avery	B	A	B	A	B	A
" (5-10 HP)	A	A	A	Arc		
" (Louisville)	BB	A	BB	A	BB	A
Bates Steel Mule	D	A				
Best	B	A	B	A	B	A
" (8-16)	A	A	A	A		
Big Bull	D	A	B	A	A	A
Big Four	A	A	A	Arc	A	Arc
Bower City	D	A	B	A		
Buckeye (Ohio)	DD	A	B	A	B	A
" (Indiana)	BB	A	BB	A		
" " (Giant Baby) (Indiana)	B	A	B	A		
Case	B	A	B	A	B	A
" (9-18)	A	A				
" (10-20)	A	A	A	A		
" (12-25)	BB	A	B	A	B	A
" (20-40)	BB	A	B	A	B	A
Chase	BB	A	B	A	A	A
Common Sense	BB	A	A	A	A	A
C. O. D.	BB	A	A	Arc	A	Arc
Corn Belt	BB	A	B	A	B	A
Creeping Grip	BB	A	B	A	B	A
Emerson-Brantingham	A	A	A	Arc	A	Arc
Farm Horse	B	A	B	A		
Flour City	B	A	A	Arc	A	Arc
" " (Heavy Duty)			B	A	B	A
Ford (Minneapolis)	BB	A	B	A		
Gas Pull	B	A	B	A	B	A
Grain Belt	BB	A				
Gray	BB	A	B	A	A	A
Happy Farmer			B	A		
" " (Model B)	B	A				
Hart Parr	B	A	B	A	B	A
Heider	BB	A	B	A	A	A
Herbert	BB	A				
Holt Caterpillar	B	A	B	A	A	A
" " (Model 45)	BB	A	BB	A		
" " (Model 18)	BB	A				

MODELS OF TRACTORS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter
Huber	BB	A	B	A	B	A
Hume	BB	A	B	A	A	A
Imperial Forty	B	A	B	A	B	A
Ingeco	A	A	A	A		
Joliet			A	A	A	A
K. C. Prairie Dog	BB	A	B	A	A	A
Kinkead	BB	A	B	A	A	A
Lion	BB	A	B	A	A	A
Little Chief	BB	A	BB	A		
Little Giant	BB	A	A	A	A	A
Maytag	BB	A	BB	A		
Minneapolis	B	A	B	A	B	A
Mogul	BB	A	BB	A		
" (8-16)	A	A	A	A		
Moline Universal	BB	A	BB	A		
Nichols & Shepard	BB	A	A	Arc	A	Arc
Nilson	BB	A	B	A	A	A
Oil Pull	B	A	B	A	B	A
Parrett	BB	A	A	A	A	A
Peoria	BB	A	A	A	A	A
Pioneer	B	A	B	A	B	A
Plow Boy	BB	A	BB	A		
Plow Man	BB	A	BB	A		
Pontiac	B	A				
Reeves "40"	B	A	A	A	A	A
Rumely	B	A	A	A	A	A
" (8-16)	BB	A	BB	A	BB	A
Russell	B	A	A	Arc	A	Arc
" (Little Four)	BB	A				
Sandusky	BB	A	A	A	A	A
Sexton	BB	A				
Simplex	B	A	A	Arc	A	Arc
Standard	BB	A	BB	A		
Steel Mule			B	A	A	A
Strait	BB	A	B	A	A	A
Sweeney Iron Horse	BB	A	A	A	A	A
Titan	BB	A	BB	A		
Tom Thumb (4 cyl)	BB	A	A	A		
Twin City	B	A	B	A	A	A
" " (Model 15)			A	A	A	A
Waltis (Cub)	B	BB	A	Arc	A	Arc
Waterloo Boy	A	A	B	A	B	A
Wichita	BB	A				
Wisconsin	BB	A				
Yuba	BB	A	A	A	A	A

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Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

Domestic Branches: Detroit, Boston, New York, Chicago, Philadelphia, Kansas City, Kan., Minneapolis, Des Moines, Pittsburgh, Indianapolis

Invest in One of These!

WHEN corn was selling for 50 cents a bushel, one of our dealers made this offer to a skeptical farmer: "Use this manure spreader to top-dress 20 acres of your 40-acre corn field, putting on eight loads to the acre. Leave the other 20 unmanured as you meant to do with the whole 40. I will take the difference in the yield between the two 20's for the spreader." The farmer agreed, thinking to get his spreader at a low price.

The 20 on which he used the machine produced 512 bushels more than the other 20. He paid the dealer $256.00 for the spreader—a great deal more than its present selling price. Today, higher prices would make that difference about three times $256.00!

You simply cannot afford to be without a spreader when it will pay for itself like that. Hand spreading is out of the question. You want the manure pulverized and spread evenly, not dumped out in big lumps unevenly.

Now that we have added the New No. 8 Spiral Wide Spreader to the Low Corn King and Low Cloverleaf lines, we are in a position to suit any farmer. The No. 8 machines are for the average small farm, very light draft, narrow boxes, spiral wide spread (regular). Our big No. 6 machines—Corn King, Cloverleaf and 20th Century—are "whales for work", easy handling and loading, steel construction, light draft. With the No. 6 spreaders you may have the efficient disk wide spread (regular) or the new spiral wide spread (special).

Here is a spreader for every farm. This year, of all years, you need one. Write us for full information.

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Get this auto free of cost, and enjoy a cool, refreshing drive every evening. Take your friends out, too---they will be delighted. With an auto distant friends will be as neighbors. I have already given away dozens of automobiles. You might as well have one, also. If you live in the country or in a town under 10,000, YOU can get this brand new, latest 1917 model, OVERLAND TOURING CAR OR A BIG SUM OF MONEY WITHOUT COST, as a reward for a few week's easy, spare-time work in your own community. You need no experience--nor money. My offer is open to everybody--men, women or older children. Your name and address on a postcard will bring full particulars free. ACT QUICKLY, BECAUSE TIME IS SHORT--WRITE TODAY!

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Break up the stumps with Farm Powder

A *pulled* stump is hard to handle. Getting rid of it is just as big a job as the pulling. *Blast* it out and you can carry it away like firewood. "Most stump pulling machines are too expensive and unwieldy," says U. S. Farmers' Bulletin No. 150. Use

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THE SAFEST EXPLOSIVE
The Original Farm Powder

and save money, time and labor. Punch a hole under the stump, load, fire, and the job is *done!* The shattered roots come out free of earth, the soil is loosened for yards around—ideal for crops.

Atlas Farm Powder is made especially for farm use. It is the cheapest farm hand for blasting stumps and boulders, digging ditches and many other kinds of work. Sold by dealers near you.

Send for "Better Farming" Book—FREE

"Better Farming" (illustrated) tells how you can grow bigger crops by blasting the subsoil, how you can bring orchards into bearing two years earlier, and how Atlas Farm Powder replaces expensive labor. Sent free for Coupon.

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or litter may be used to cover the heads with a shallow layer of earth put over it. As colder weather approaches increase the earth covering. It is not necessary to cover deep enough to prevent frezing, as slight freezing does not injure cabbage stored in this way. The trench method permits of removing the heads as they are needed without disturbing many of those to be left.

Pit storage is essentially the same, except the pit is usually round and somewhat deeper. In some cases in pit storage, a portion of the stems and the roots are removed. Cabbage is sometimes stored in trenches with the roots down, but under Wisconsin conditions this method is probably not as satisfactory as the one outlined above.

The essentials of successful onion storage are fully matured, well-cured bulbs; dry atmosphere; good ventilation, and a relatively low temperature. Onions will stand some freezing if they are not handled while frozen, but it is better to keep the temperature somewhat above the freezing point.

Onions to be stored are commonly harvested in August and September. When the tops are dead and shriveled and the outer skins of the bulb dry, the onion is ready to harvest. Harvesting may be hastened somewhat by breaking over the tops. On large areas it is accomplished by running a barrel or light roller over them. The tops may be broken over when they begin to turn yellow.

The bulbs are pulled, thrown into windrows, and allowed to cure for a few days. They should be stirred occasionally, exercising care not to bruise them. As soon as well dried, so that the tops rattle when the bulbs are handled, they should be taken inside. If the weather is unfavorable during the harvesting period, onions may be cured in a well-ventilated room, having a dry atmosphere. Curing indoors requires a much longer period than outdoor curing under ordinary conditions.

After the bulbs have been thoroughly cured, the tops should be twisted or cut off not closer than one inch from the bulb. Too close topping results in premature sprouting.

At this time discard for storage purposes all bulbs which are soft or which have thick "necks," as they will not store well.

Onions are commonly stored in crates or bags, as they permit better circulation of air and there is less danger from moisture accumulation.

Mature, disease-free tubers; moist atmosphere; freedom from frost and a low temperature insure successful potato storage. Care should be exercised in storing to discard any potatoes which have been frosted in the field. Any of the types of storage previously discussed are suitable for potato storage providing the above conditions are maintained.

Beets, carrots, rutabagas, turnips and winter radishes demand about the same storage conditions. The leaves of root crops should be removed before storage. Do not top so close as to break the skin of the vegetable. Temperatures near the freezing point and relatively large amounts of moisture are necessary. These crops probably suffer more from insufficient moisture in storage than most other crops. Loss of moisture means lost quality and texture and a practically worthless product. If stored in a cellar, packing in sand in boxes or placing in piles and covering with sand will help overcome the difficulty. The sand should be moistened from time to time. Do not get it too wet. Just sufficiently moist to prevent wilting is the desired condition, which can be readily determined by examining the vegetables occasionally. In cellars with earth floors the moisture may be supplied by applying to the floor. In cellars with cement floors, some keep the atmosphere sufficiently moist by placing water in tubs or putting it on the floor. A large evaporation surface is best when these methods are used. These vegetables may also be stored in pits, but must be covered sufficiently to prevent freezing.

Salsify (vegetable oyster or oyster plant) and parsnips may be stored as other root crops. They are not injured by being frozen and, therefore, need less attention as regards too low temperatures. It is advisable to leave at least a portion of these crops in the garden for early spring use. They are even better in the spring than when harvested in the fall. There is quite a common belief that parsnips left in the ground over winter develop poison-properties. Such is not the case, however. Parsnips so handled may be used without any ill effects until they become too woody to be edible.

Law Questions.

Berries in Road Belong to Farmer.

A Subscriber, Mukwonago, Wis.—Have the people of a town or city in Wisconsin a right to go into the country and pick the berries along a road fence in front of a farmer's place, and can such farmer rightfully order them away, and compel them to go?

Answer.—The town or city people have no right to pick berries in the roadway in front of a farmer's place. Such berries belong to the farmer and he can lawfully order such people away and compel them to go.

Drainage Over Another's Land.

A Wisconsin Subscriber.—A purchased a lot of land in Wisconsin from B. Before A bought the lot, C had made a ditch along one side of the lot and across it. Every year the water in the ditch washes away the soil and the ditch becomes wider. Can A compel C to fill up the ditch?

Answer.—If there was no binding contract between B and C which authorized C to maintain the ditch across the land A can apply to the court and obtain an injunction against prohibiting him from running water across the land.

Wife's Separate Property.

A Subscriber, Withee, Wis.—A married woman owns a farm in Wisconsin, and her husband operates it. The cattle raised on the farm, came from cows bought with the farm products, and horses on the farm were obtained in the same way. No bargain was made between husband and wife about the matter. Does this live stock belong to the wife?

Answer.—By the law of Wisconsin all the rents and profits of the wife's farm belong to her as her separate property. Hence the live stock bought with products of her farm belong to her. These two people should make some sort of a bargain about the operation of the farm.

Drainage of City Lots.

An Illinois Subscriber.—I own two lots in an Illinois city, which have good fall for drainage. The three lots below mine were drained by the city with fifteen-inch tile that empties into an open ditch and the owners were at no expense for such drainage. The alley joining my lots above was drained by the city with fifteen-inch tile. A four-inch tile would be sufficient to drain my lots. (1) Am I required to pay the entire cost of draining my lots with large tile? (2) Can either I or the city be compelled to drain my lots at all?

Answer.—(1) The drainage of lots in the city is controlled and regulated by city ordinance and not by the law of the state, hence you will have to examine the city ordinances on the subject, in order to ascertain your rights in the matter. (2) See also city ordinances for answer to this question.

Permit to Carry Revolver.

Mr. T. A. Gustafson, Fort Dodge, Iowa.—(1) Can anyone get a permit or license to carry a revolver for protection in Iowa, and if so, where and how may one obtain such permit or license? (2) What is the law regarding the carrying of a revolver out of sight, in Iowa?

Answer.—(1) Permits to carry revolvers may be given by any of the following officers, viz., the chief of police in cities of the first and second class and other cities having chiefs of police. In counties and villages where there is no organized police force the sheriff or mayor may issue such permits. Said officers are required to issue such permits to all peace officers and such other persons who, in the judgment of said officials, should be permitted to go so armed. Mining companies, banks, trust companies, railroad and express companies may obtain a general permit for their employes while on duty. No such permit shall be granted to any person unless the applicant shall make personal application therefor to the proper officer, and state his full name, residence and age, place of business, place of employment or vocation, and the nature of his business. (2) It is unlawful for any person to carry a revolver concealed upon his person, except as above set forth, and no person under fourteen years of age is allowed to carry firearms of any description.

Ask your neighbors to subscribe for The Wisconsin Farmer.

Milk Producers' Problems.

To the Editor:—I wish to state that the farmer or milk producer is facing very serious problems at the present time. With the scarcity and high price of farm help, also the high price of feeds, and the uncertainty as to the future price of feeds and help, the farmer is entitled to a price equal to the cost of production plus a fair percentage for profit; about 10 per cent.

It is the duty of every American farmer to produce milk as cheaply as possible at this critical time, but we should not be expected to produce milk or any other farm product at cost.

We, as farmers, as well as other business men, should add a certain per cent for profit.

Capital invested, interest, insurance, losses, repairs and all other things pertaining to the farming business should be figured in.

The dealers and city people appear to think that the farmer has nothing to do but pull in the money. Now, my dear city brother and sister, too, do not deceive yourself. Do not think if you have to pay 14 cents per quart for milk that the farmer is robbing you.

It has been demonstrated that at the present price of feeds it costs very close to $3.50 to produce 100 pounds of milk, or about 7 cents per quart. The other 7 cents will be distributed between the middlemen, who deal it out to you.

The following is a schedule whereby every producer can do his own figuring. It has been prepared by one who is considered the best authority in the United States today.

Amount of feed and forage entering into average herd cost of milk production per hundredweight of milk:

Grain	44 lbs.
Silage	188 lbs.
Hay	50 lbs.
Bedding	39 lbs.
Man labor	2.42 hrs.

Can you buy a balanced ration of grain for less than 2¼ cents per pound?

Is not your silage equal in feeding value to your grain? Hay 1 cent per pound; bedding $8.00 per ton; and labor 25 cents per hour?

Figure it out. Add 10 per cent and note the result.

Can you produce it for less? If so, do your bit. If you cannot, ask more. I think you are legally entitled to it.

Geo. W. Hull.

Walworth Co., Wis.

Lower rates and a revision of tariff rules for the transportation of live stock on virtually all the railroads have recently been requested in a complaint filed before the Interstate Commerce Commission by the Texas National Live Stock Exchange, an allied organization. The complaint asserts that present tariffs and classifications are unjust and unreasonable. Every large stock shipper and receiver in the United States is represented in this complaint.

The advice has been given to cut soy beans when three-fourths of the leaves have fallen and most of the pods have turned color. If cut earlier they are difficult to cure and if later there is a loss of grain from shattering of the pods.

The Missouri Experiment Station has found a valuable use for straw in top dressing wheat. In experimental tests, wheat covered with straw started out vigorously in the spring and made a better yield than that which was left uncovered.

News of the Sale Ring.

E. W. Hendrick's Poland Sale.

Ed Hendricks held held his second Poland China boar sale at Hazel Green, Wis., on the 24th, selling 39 head. There were only a few gilts—six—and the 33 boars averaged a little over $56. Ed did not have his boars fleshy enough to bring their value. He sold some good, stretchy boars that will no doubt grow out well for their buyer, but to get the most money they must carry the flesh. Buyers often make the remark that they would just as soon buy them thin, but the same men will pay a little more for the same animal if he is well covered. The top was $115, that amount being paid by J. F. Sweeney, Vista, Iowa, for a good, big, long, high-backed son of Black Jumbo. Wm. Urdenberg, Prairie du Chien, Wis., paid $105 for a litter mate to the above boar. Black Jumbo is still a favorite of the crowds for what he has done. Model Major 2d made a hit on his great individuality and what he is doing. Hendricks has a great pair of herd boars. W. B. Duncan sold the offering. We follow with a list of those selling for $50 or over:

No. 1, Phil Runde, Sinsinawa, Wis., $70; 2, Jos. Berringher, Epworth, Wis., $80; 5, Geo. Seiple, Julien, Ia., $85; 8, Henry Burgess, Shullsburg, Wis., $90; 9, Leo Apel, Apple River, Ill., $80; 11, J. F. Sweeney, Vista, Ia., $115; 12, Wm. Urdenberg, Prairie du Chien, Wis., $105; 13, F. E. Copperdoll, Stockton, Ill., $95; 14, L. F. Bortling, Platteville, Wis., $75; Wm. Fleege, Sissinawa, Wis., $75; 18, H. G. Efferding & Son, Belleview, Ill., $60; 24, Joe Ruden, North Buena Vista, Ia., $52.50; 28, Fred Weymeier, Polo, Ill., $57.50; 35, F. S. Schmidt, Dubuque, Ia., $75; 36, Loes Bros., Cascade, Ia., $57.50.

Irwin's Poland Sale.

The fall sale of Poland Chinas held by Bert Irwin at Mt. Carroll, Ill., September 22d was well attended. No high prices were realized, the top for boars being $102.50, that amount being paid by W. J. Yeager, Lena, Ill., for a son of Big Joe's Equal. The ringside agreed that M. Madson & Sons, Madison, Wis., secured the bargain of the sale at $97.50, a son of Bill's Chief by Mouw's Chief. Bill's Chief is a half brother to the grand champion boar of Illinois this year. M. Williams, Mt. Carroll, Ill., paid $155 for a sow and litter, and she was a good buy at that figure. The 25 boars averaged $58, and, in view of the fact that they were not in high flesh and as well grown as they might have been, this was a good average. We follow with a list of those selling for $50 and over:

No. 1, J. L. Sleick, Lanark, Ill., $90; 5, W. J. Yeager, Lena, Ill., $102.50; 7, W. L. Helsinger, Lanark, Ill., $67.50; 8, F. J. Brodway, Milledgeville, Ill., $55; 11, Madson & Sons, Madison, Wis., $97.50; 17, P. Gard, Thompson, Ill., $55; 20, John Freeman, Mt. Carroll, Ill., $52.50; 24, Geo. Martin, Shannon, Ill., $52.50; 31, John Hansen, Rochelle, Ill., $75; 43, Fred Handle, Mt. Carroll, Ill., $80; 42, Chas. Miller, Savanna, Ill., $70; 41, D. Sisseler, Mt. Carroll, Ill., $80. Sows—38, M. Williams, Mt. Carroll, Ill., $155; 39, C. R. Forest, Miles, Ia., $95; 40, W. R. Huston, Mt. Carroll, Ill., $100; 32, 33, 34, 35, Clarence Lang, Chatwick, Ill., at $77.50 each.

Miller's Poland China Sale.

M. V. Miller, Lawler, Iowa, held his first annual sale of Poland Chinas on September 26th and made the satisfactory average of $52. J. B. Galbraith topped the sale on No. 31, a good fall yearling boar, at $105. No. 8, an outstanding March pig by Timm's Wonder, sold to Drewelow Bros. at the low price of $100. The hogs were well bred and will make their purchasers plenty of money. H. S. Duncan did the selling. A list of sales follow:

No. 1, J. E. Shannon, New Hampton, Ia., $42.50; 2, R. L. Doore, Dougherty, Ia., $92.50; 3, L. G. Smirl, Hawkeye, Ia., $40; 4, G. W. Owens, Lawler, Ia., $52.50; 5, A. M. Russell, New Hampton, Ia., $62.50; 7, Jos. Dixon, Madison, Wis., $50; 8, Drewelow Bros., New Hampton, Ia., $100; 9, 10 and 11, John McGinn, Delmar, Ia., $47.50 each; 12, H. Finnigan, Lawler, Ia., $50; 13, John McGinn, $47.50; 19, T. H. Murray, Crystal Lake, Ia., $45; 21, A. L. Belschner, Hawkeye, Ia., $47.50; 23, H. O. Adams, Fredericksburg, Ia., $52.50; 24, 26, 27, John McGinn, $47.50, $52.50, $52.50; 28, W. H. Nelman, Fredericksburg, Ia., $42.50; 31, J. B. Galbraith, Dougherty, Ia., $105; 32, M. T. Lyden, Cresco, Ia., $47.50; 33, A. M. Russell, $45; 34 E. S. Hunt, Fredericksburg, Ia., $47.50; 35, John McGinn, $65; 36, L. Zipse, Lawler, Ia., $45; 37, J. Schlick, Worthington, Ia., $45; 38, F. Messerer, Sumner, Ia., $85; 39, M. T. Lyden, $45; 40, J. F. Nolan, Decorah, Ia., $65.

Co-Operation in Wisconsin.

(Continued from page 1.)

its influence strongly to coöperative marketing in its various developments. Equity societies are distributed in Wisconsin by counties as follows: Adams, two; Ashland, two; Barron, ten; Bayfield, three; Brown, one; Buffalo, fifteen; Burnett, ten; Calumet, ten; Chippewa, eleven; Clark, thirteen; Crawford, six; Dane, twenty-one; Dodge, five; Door, one; Douglas, two; Dunn, two; Fond du Lac, two; Grant, four; Green, two; Green Lake, two; Iowa, two; Jackson, nine; Jefferson, one; La Crosse, four; Marathon, seventeen; Marinette, one; Milwaukee, one; Monroe, seven; Oconto, seven; Outagamie, four; Ozaukee, nine; Pierce, sixteen; Polk, eight; Portage, one; Price, nine; Racine, one; Richland, eleven; Rock, one; Rusk, six; St. Croix, seven; Sauk, one; Sawyer, one; Shawano, six; Sheboygan, thirty-five; Taylor, three; Trempealeau, six; Vernon, sixteen; Walworth, one; Washington, thirteen; Washburn, five; Waukesha, eleven; Waupaca, two; Waushara, one; Winnebago, three, and Wood, eight. Equity societies outnumber farmers' clubs in Wisconsin more than two to one. It is a rather interesting fact that in counties where the farmers' clubs are strongest the American Society of Equity, at least in several instances, is weak.

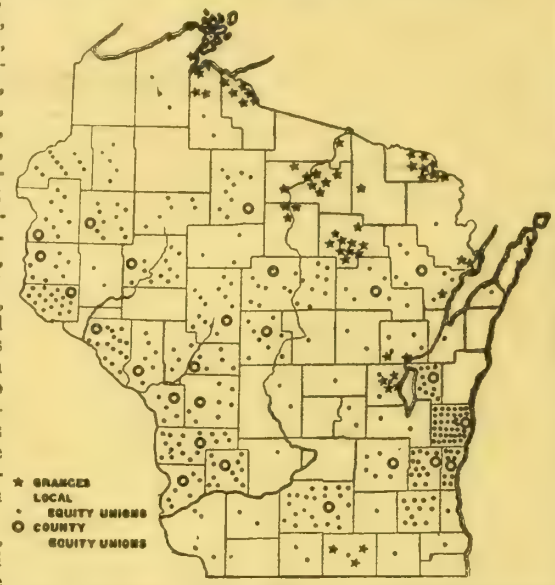
Coöperative creameries, numbering 380 out of a total of 835 creameries in the state, for the most part pay better prices to the farmer for butter fat. For the year 1914 coöperative creameries paid an average of 32.44 cents per pound for butter fat and for the same period privately-owned creameries paid an average of only 29.56 cents. This would seem to be argument enough in favor of the coöperative creamery. Two-thirds of the coöperative creameries limit dividend payments to 6 per cent.

While coöperative creameries are widely distributed over the state, the 718 coöperative cheese factories are chiefly confined to Green, Iowa, La Fayette, Dane and Sheboygan counties. In the Limburger and Swiss cheese districts 78.5 per cent of the factories are operated coöperatively.

Across the central portion of the state are a number of coöperative feed, elevator and produce companies, about 100 in all. The average volume of business done in 1915 by these companies, according to Mr. Hibbard's estimates, was $132,000, and most of the companies carried on this business on capital ranging from $5,000 to $10,000. Out of sixty-three companies reporting, fourteen had a membership of over 200, three between 175 and 200, three between 151 and 175, three between 126 and 150, three between 101 and 125, fourteen between seventy-six and 100, eight between fifty and seventy-five and fifteen less than fifty.

Of 120 live-stock shipping associations in Wisconsin, membership ranges from thirty to 330 or 400. This business has been developed to a high degree in Pierce county. In one year these 120 associations shipped 8,500 cars of stock valued at $8,500,000. Farmers themselves, in reports made to the college of agriculture, estimate that they save 50 to 85 cents per hundredweight by shipping coöperatively. In some communities these associations handle practically all the live stock shipped.

Four coöperative packing plants in Wisconsin have a combined capital of $1,600,000, with 11,300 members. These coöperative enterprises have brought forth new problems too numerous to discuss in this article. In a general way it has been found that the packing companies lack sufficient capital. It has been expensive to sell the stock needed to furnish funds for operating the business. Promoters have realized heavily in the way of profits from this sale of stock, and this profit has, of course, been paid by the farmer members, but has not been available for the business. Mr. Hibbard says that it is a regrettable fact that coöperative enterprises should be obliged to start out in business with but 75 to 80 per cent of the money subscribed and paid in, available for actual business needs. He also says that "as a rule it is safe to await the organization of farmers' companies until the farmers do not have to pay such high prices to someone to persuade them to buy the stock." The Wisconsin Farmer has given its readers, without any prejudice on our part, a great deal of information on coöperative packing plants. It remains to be proved whether the operation of these plants will be sufficeintly remunerative that the stock may be brought up to par.



THE GRANGE AND EQUITY ORGANIZATIONS OF THE STATE.

Of the six fruit exchanges in Wisconsin, the Cranberry Sales Company is the largest with an annual business of $180,000. There is a great opportunity in Wisconsin for further coöperation on the marketing of fruit.

The following table gives a good idea of the business of coöperative tobacco-selling companies in Wisconsin:

CO-OPERATIVE TOBACCO-SELLING ORGANIZATIONS.

NAME	Location	Capitalization	Value of share	No. of members	When organized
Farmers' Equity Warehouse Co.	London	$ 4,000	$ 25	56	1906
Stoughton Equity Warehouse Assn.	Stoughton	3,000	50	30	1910
Gays Mills Equity Warehouse Assn.	Gays Mills	6,000	25	55	1910
Farmers' Warehouse Co.	Viroqua	(†)	None	60	1907
Atlas Tobacco Co.	Sun Prairie	3,000	50	27	1915
*Edgerton Farmers' Warehouse Co.	Edgerton	15,000	100	130	1915
Total		$31,000	....	358	....
Average		5,166	....	59	....

*This is a stock company, but the stock is distributed about equally among 130 farmers. †Rent warehouse.

The following figures, prepared by Messrs. Hibbard and Hobson, show the activities of seventy-eight breeders' associations in Wisconsin in 1915:

ACTIVITIES OF SEVENTY-EIGHT COMMUNITY BREEDERS' ASSOCIATIONS, 1915.

KIND	Number reporting	Total No. of members	Aver. No. of members per assn	No. of cattle inquiries received by secretary	Av. No. of associations conducting: Sales	Contests	Cooperative purchasing
Holstein	32	1,330	41	712	9	12	6
Guernsey	28	962	34	588	3	11	3
Jersey	18	363	20	142	6	7	1
Total	78	2,655	31	1,472	12	30	10

Cow testing, now carried on under about eighty-five active organizations, is one of the most flourishing forms of coöperation in the state. This branch of community work is growing rapidly as the fruits of its activities become more apparent. The average number of cows in associations in the state in April, 1917, was 452 and the average number of members, twenty-nine. The average cost of testing each cow per year is $1.19.

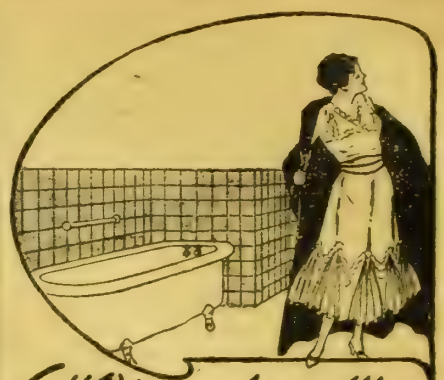
There are fifty-seven farmers' coöperative stores in Wisconsin, not including the Farmers' Store Company, of Bloomer, with its ten branches. Total business for these stores is $2,500,000 annually. The average capitalization is $14,800. Sixty-five per cent of these stores started since 1910. Out of thirty-nine stores reporting, four had over 200 stockholders, four had less than fifty, twelve had fifty to seventy-five stockholders.

Coöperative laundries have been established at River Falls and Milltown and both these have been discussed in The Wisconsin Farmer. The Milltown Coöperaitve Laundry has ninety rural and eleven city stockholders. The River Falls Laundry has eighty-two rural and 156 city stockholders.

There are now 214 mutual insurance companies in Wisconsin organized by farmers. The first one was organized at Newton, in 1860. Covering a period of five years, $122 was collected by town mutuals for every dollar paid for losses, and during the same period (1911 to 1915, inclusive) an average of $235 was collected by stock fire insurance companies for every dollar they paid out in losses. The town mutuals paid an average of 82.3 per cent of their premiums in losses, while stock companies paid an average of only 42.6 per cent of premiums collected, for losses.

For the year 1915 476 mutual telephone companies reported to the railroad commissioner. A total of 334 of these companies had a revenue of less than $500 annually and 268 of these companies were coöperative. The average number of subscribers to these companies was twenty-six. The average receipts of these companies was $200 and the average expense $175. In 1915 there were 244 companies in the state having revenues of $500 to $1,800 per year, and sixty-four of these were mutual with an average of 138 subscribers each. Of the larger companies having revenues of over $1,800 annually, 225 in all, only forty-seven are utual.

Professor Hibbard sounds a warning against the professional promoter of coöperative enterprises. He cites the case of promoted creameries back in 1900, the coöperative society having been promoted to accomplish the sale of machinery rather than to help the farmer. One fatal mistake was in establishing creameries in many neighborhoods where there was not sufficient cream to keep the plant in operation. A large per cent of the money put into these creamery plants was wasted and the failure of many of these plants is doubtless responsible for Wisconsin being second to Minnesota today in the number of coöperative creameries. Minnesota developed its dairying later and profited to a considerable extent by Wisconsin's experience. In Minnesota the college of agriculture published posters warning farmers against clever promoters who worked under the guise of helping the farmer to secure coöperation. In the case of the packing plant at La Crosse, promoters, according to reports, took upwards of $37,000 from subscribers to the stock, and in addition disposed of an old property for $122,000 which ought to have been bought at a much less figure. Altogether farmers of Wisconsin, according to Mr. Hibbard's figures, have paid out about a quarter of a million of dollars to men whose chief service was persuading the farmers that they should part with the money.



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If you want to know the "Why" of high-grade gas engine construction, send your name and address, today, to the Witte Engine Works, Dept. 2711, Kansas City, Mo., or 2711 Empire Bldg., Pittsburgh, Pa.—Adv.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 20.

Calculating Bushels of Corn in Crib.

Simple Rules May Be Used in Ascertaining Capacity of Both Circular and Square Cribs.

AN ESTIMATE of the number of bushels of corn in a crib is often desirable in buying or selling this grain, or in determining the quantity of it which is on hand for feeding. Although weighing gives the most accurate results, it requires a good deal of time and labor, and, therefore, the method of calculating the number of bushels from the crib measurements has been found more satisfactory in most cases.

To find the contents of a crib, measure in feet the width, length and height of the crib as indicated in the drawing in Figure 1, taking care when measuring from the outside of the crib to make allowance for the thickness of the crib walls. Furthermore, if the crib is not full, be sure that the height to which the corn fills the crib is measured instead of the total height of the crib. The next step is to multiply by one another the measurements just found, in order to get the number of cubic feet in the crib. Then calculate the number of bushels by multiplying by four and dividing by ten. The last two operations give the same result as dividing by two and one-half, which is the number of cubic feet in one bushel of corn.

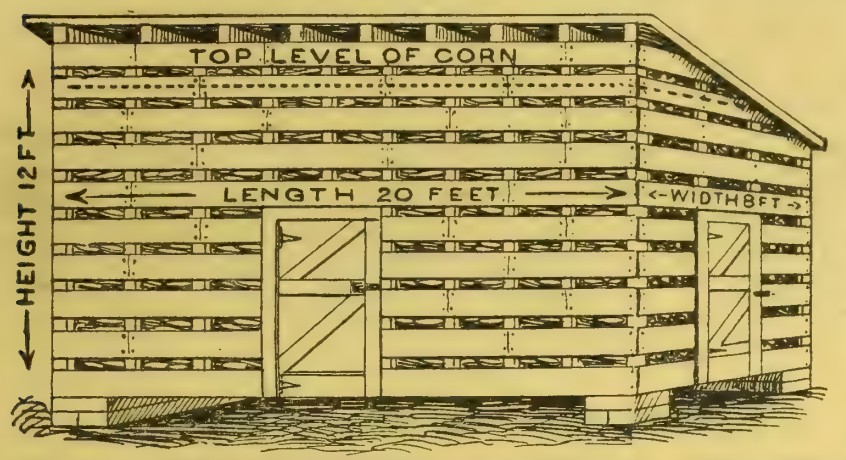

FIGURE 1.—CORNCRIB SHOWING MEASUREMENTS FOR DETERMINING NUMBER OF BUSHELS OF CORN IN IT.

Using, for example, the crib with the measurements as given in Figure 1, we may apply the foregoing rule thus: First, multiplying the width by the length, we get eight times twenty or 160; then multiplying by the height we get 160 times fourteen or 2,240, the number of cubic feet in the crib. Multiplying this number by four gives us 8,960, which divided by ten equals 896, or the number of bushels of corn in the crib.

The foregoing method can be used only when the crib has square corners. For a circular or cylindrical crib, measure the height to which the crib is filled with corn; then the diameter of the crib, which is the distance from a point on the wall, through the center, to a point on the wall directly opposite. This measurement is indicated in the drawing in Figure 2. To calculate the quantity of corn, multiply the height by the diameter; then multiply by the diameter again; next, multiply this figure by eleven and divide by thirty-five. The result is the number of bushels of corn in the crib. The calculations for developing this rule are somewhat complicated, but they are not necessary in applying it, and for most purposes the procedure just given will be found easy to use and accurate. Care must be taken, however, not to measure the height of the whole crib if the corn does not completely fill it, but to measure only the actual height to which the volume of corn reaches.

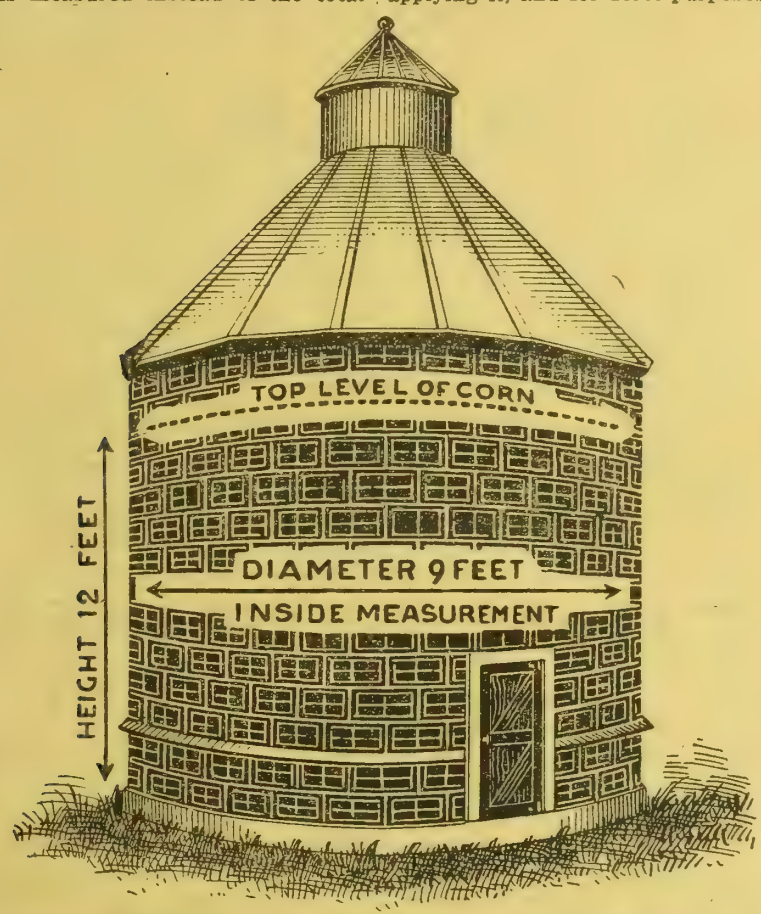

FIGURE 2.—CIRCULAR CORNCRIB SHOWING MEASUREMENTS FOR DETERMINING NUMBER OF BUSHELS OF CORN IN IT.

We may now apply this rule in determining the number of bushels of corn in the crib shown in Figure 2, which has a diameter of nine feet and contains a volume of corn twelve feet high. Multiplying twelve by nine we get 108; mutliplying by nine again we get 972. Then this figure multiplied by eleven gives us 10,692, which divided by thirty-five equals 305, the number of bushels of corn in the crib.

The foregoing methods are used for determining bushels of clean, shucked corn. If snapped corn is cribbed with the husks on, it is necessary to deduct one-fifth for husks from the number of bushels as determined above.

This is done by dividing the total of bushels by five and subtracting the resu" from this total number. In the case of the circular crib shown in Figure 2, we have a total of 305 bushels. Dividing this number by five we get sixty-one, and subtracting sixty-one from the total of 305 we get 244 bushels. This is the amount of snapped corn equal in bulk to 305 bushels of shucked corn. Of course, it is only an approximate amount, since the husks vary so much in size and bulk that an accurate estimate for all cases is impossible.

The Dairy Barn.

To the Editor:—One of the most difficult tasks which confronts the dairyman is that of keeping the dairy barn in proper condition, as the cows must necessarily spend much of their time within doors. The dairy barn cannot be kept in a healthy condition without regular attention and upon this, to a very great extent, the successful production of milk and butter depends. The two things necessary are to keep the animals in perfect health and to produce a plentiful flow of wholesome milk, and to this end the sanitary arrangements require to be kept in order, and they need cautious supervision.

The first essential in a good dairy barn is that it shall be well ventilated and no one must fall into the error of believing that cows will do well in close quarters provided that they are well aired in the daytime by means of the open doors and windows.

It is beneficial to air the barn thoroughly by day and open doors and windows have the effct of brightening up and refreshing the inside of the barn in a wonderful manner, but this is not enough, and no barn in which cows are kept is complete without a proper system of ventilation.

The cow is an animal which enjoys fresh air as much as any of the animals on the farm, and perhaps she is the one which suffers more than any other in both health and milk yield from confinement in ill-ventilated quarters.

Drafts in the dairy barn are, of

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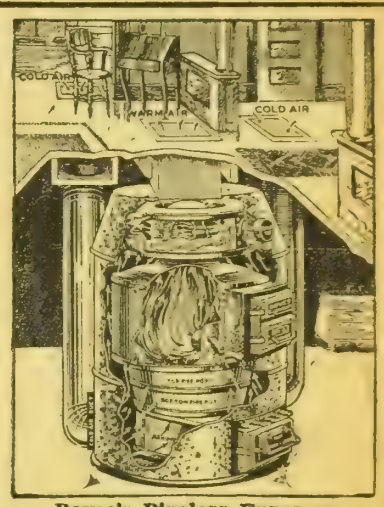

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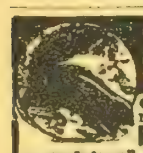

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course, undesirable and must be provided against, for winter use, by a system of overhead ventilation; thus the air can be kept sweet and pure without the least danger of injurious drafts, and the same system can be made to serve to keep the air pure and fresh on hot nights in summer.

The inside of the walls of the dairy barn need attention, both in the fall and spring.

It is important that the surface of the walls be kept smooth, and there should be no crevices in which insects and germs of disease can find harborage. Then they should be thoroughly whitewashed with a strong adhesive mixture of lime. It is not sufficient to do this only as high as a man can conveniently reach, leaving the upper portion looking black and hideous. A ladder should be brought into use and the job done thoroughly.

Many people seem to confuse the meaning of the words "ventilation" and "drafts," and the upshot is that they suffer openings to remain in the walls, roofs and windows, with the idea that this is a safe way of ventilating the barn.

Then comes the flooring of the barn for the best comfort of the cows and the most profitable production of milk. Many are the methods of making the dairy barn floor. Some think dirt is all right, and it is for the comfort of the cows, but, oh, my! what a loss of manure. Some think plank flooring best, but a floor can hardly be made tight enough to hold the liquid manure. Some say concrete is not healthy for the cows to stay on, but if plenty of good, soft bedding is used, I know from experience that no ill results will follow. Then all the liquid manure is saved.

I use lots of straw or any other good, dry litter that is not too full of weed seeds on my concrete floors, and sprinkle ground rock phosphate over the surface daily, and have found this the best method of flooring and handling the manure.

We might as well just get down to business and fix the barn up in shape for the winter season that is rapidly approaching. And you will feel so much better to know that your cows are housed in comfort and health and that you are using the greatest economy in utilizing the manure.

This manure saving is not to be slighted if we take into consideration the fact that our acres must be kept up to a high state of production, and it, therefore, resolves upon us to use the best known methods of saving and preserving the manure. During the process of decomposition the manure makes the rock phosphate available for crops, and you will be surprised at the results following an application of such manure. Subscriber.

Silo Filling in Full Progress.

Larger Area of Corn for Ensilage—Potato Yields Average High—Small Grains and Root Crops Are Good.

WISCONSIN.

Baraboo County.—Threshing is about finished with the exception of the buckwheat. Buckwheat was frosted and will not yield more than ten bushels per acre. Other small grain yielded well. Oats were heavy. Corn was frosted and there will be little if any mature ears. Potatoes were not damaged much and promise to yield heavily. Live stock is generally looking fine, but pigs will be marketed early and will be of inferior quality on account of the shortage and high price of corn.—A. H. Buehler.

Bayfield County.—Second crop clover is ready for cutting and shows about one-third less than normal yield. Corn which did not get the early frost will ripen if given two weeks more of good weather. Silos are being filled with what corn was frozen. Oats are a very good yield, as are all the small grain crops. Peas and beans show an exceptionally good yield. Apples are about half normal yield. Root crops are very good, especially rutabagas. Potatoes show a very good yield and in this section were not hurt by early frost. Farmers are cutting down on their milking herds to just what cattle can be fed on their feeds this winter. Mostly cull stock is being moved, however, and will prove a direct benefit to the section. County Agent Brubaker is receiving the whole-hearted support of farmers in the county.—W. E. Plant.

Chippewa County.—The crops for this year are almost completed except corn and potatoes. The hay crop averaged about one ton to the acre. The oat crop was good this year, with about fifty bushels to the acre. Barley was fairly good, with about fifty bushels to the acre. The corn crop was hit by a heavy frost and is no good for ear corn. The potatoes are turning out well, from 150 to 200 bushels to the acre. Fruit was good this year, but some of the garden truck got hit by the frost. The live stock is a little poor this fall, as the pastures are very short.—Gustave E. Rheingans.

Grant County.—The hay crop in this locality is one-fourth short for the reason that there was one-fourth more corn planted. Oats and barley were good, barley yielding sixty-five bushels to the acre and oats as high as seventy-five bushels to the acre. Some hay yielded three tons to the acre. Corn has been frosted to the extent of 50 per cent. Apples are of a very poor quality. Potatoes will make only a fair crop and pasture is quite short for the reason that the grasshopper have been very bad. Cattle feeding is on the decrease in this locality. Stock is in good health.—P. R. Stoffel.

Kewaunee County.—Harvesting is over and threshing is in full swing. Barley and oats are light in certain sections while peas and wheat are yielding well. Pastures are very short and quite a few cattle are marketed. Plowing has started, but the ground is very dry. Quite a few farmers have bought tractors mostly the 10-20 horse power and farmers are well satisfied with same. Corn for silage is very short and most of the silos will not be full this year. About the usual number of pigs will be raised this year. The acreage of winter wheat and rye will be about the same as last year. Potatoes will be a good crop.—W. C. Katel.

Marinette County.—Threshing is nearly all finished in this vicinity and in most instances showed a good yield of small grain. Cool weather and early frost fixed the corn on most farms so that very little of it will do to crib. Potatoes are not yielding as heavily as usual, but better than last year. Beans will be a very short crop. While some farms had a heavy stand of hay, in most instances, and especially on the older farms, the crop was short of normal. Very little clover left for seed, as the first cutting came late. Gardens did well, but have very few apples. About the usual number of live stock except hogs. Except in high producing herds grain feed is away out of proportion to prices received for dairy products, so dairymen are cutting down on the grain rations.—W. B. Sanderson.

Oconto County.—The hay crop is comparatively good this year, the average yield being one and one-half to two tons per acre. The oat crop is fair, with an average yield of 50 bushels. Potato crop is good, but have not begun to harvest yet. We expect about 200 bushels per acre. Frost did damage in some parts. There won't be much ripe corn, but a great deal of fodder. The fruit crop is far below the a erage this year.—Wm. J. Hinker.

Outagamie County.—The hay crop was unusually good and secured in excellent condition. One and a half tons to the acre is a fair average, much better than last year or a five-year average and oats compare favorably with the hay with an average of forty bushels to the acre. Wheat and barley also good. Not much winter wheat raised. Corn in bad condition and very little matured. Silo filling now in progress. Many silos erected to save the corn fodder. Frost the 10th inst. played havoc with the corn and while some fields would be ruined, adjoining fields would be scarcely touched. Corn has been held in cold storage all summer. Just stood still. Garden truck also was badly damaged by frost. Potatoes fairly good. Grocers now pay 50 cents per basket. Some cabbage rotten. Pastures fairly good and cheese and butter at high mark. Nothing doing in mill feeds. Too high. Apples none too good. Poor quality.—Peter Tubbs.

Racine County.—Hay was a good crop in this county, yielding about two tons per acre, which compares very well with the average. Barley yielded about thirty bushels per acre and oats about fifty—very near the general average. Wheat generally did not yield well and is of rather poor quality. Corn is late, but still growing, having escaped the frost except on low ground. From one to two weeks are required yet to produce ripe corn. The potato crop is good. Cabbage is a fair crop, but very late. Indications are that the price will be good. Pastures are poor and milk production is falling below normal. Due to the high price of feed, fewer cattle are being fed.—Chas. Jeffery.

Sheboygan County.—We have had no bad frost so far. Fine weather during the past few weeks has done a great deal toward boosting the late corn. There should not be any serious lack of corn to fill every silo to capacity, but there will be little corn husked. Silo filling has not been started. Threshing is going on rapidly. Yields are only average. One farmer reported 300 bushels of winter wheat from six acres, but his case is an exception. Barley stripe is reported as affecting 95 per cent of all barley fields in the country with a decrease of 10 per cent in yield of grain. A group of farmers met with the county council of defense to consider the desirability of getting a county agricultural agent under the provisions of the Hoover bill. We need a good man of that kind, and hope to have him a permanent asset—not merely for the period of the war.—M. J. Hoppert.

Taylor County.—Threshing is in full swing. Oats are yielding from 50 to 75 bushels per acre. Barley and wheat are poor crops. Winter and summer rye are good crops. Frost hit corn and potatoes hard, but a good crop of potatoes is expected, as most of them were well matured before the frost. Lots of winter rye will be put in this fall. Not much second clover hay will be cut. Grass and pastures are good and all stock looks fine. Horses are plentiful and cheap. Fall plowing has started. Roads are in good condition.—E. H. Dehue.

Trempealeau County.—Grain in this section is yielding well and is of excellent quality. Corn is very light crop. There is no ripe corn of any importance. Pastures are very dry. Very little plowing done or winter grain sown as yet. Farmers are busy filling silos and threshing, which is about all they can do until the much needed rain comes.—Carl G. Kremer.

Washburn County.—Severe frost the 11th and 12th damaged corn, clover for seed and potatoes. There will be some seed corn and considerable soft corn for immediate feed. Small grains are yielding well. Cutting corn and silo filling are the principal activities.—J. W. McCulloch.

MINNESOTA.

Mower County.—Hay is a good crop. There is a good crop of second-crop clover being cut for hay, as it is not filling for seed. Shock threshing is mostly done. Oats are good, some weighing 33 pounds stricken measure. Wheat is good. The corn crop got a black eye. None was out of the way of frost on September 10th, when we had a hard frost. It will be poor feed. Apples are a good crop; in fact, a drug on the market. Feeding operations are on the decrease in this section. Dairymen are looking at the high price of feed with a shudder.—Walter H. Martin.

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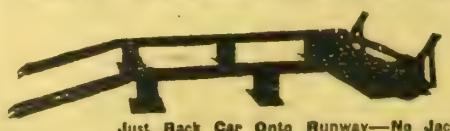

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Bankers and Farmers Fraternize.

First Annual "Mixer," Held at North Lake, September 18th, Was Forerunner of Other Similar Sessions.

UNDER the auspices of the North Lake, Wisconsin, Farm Management Club, whose leading spirits are Prof. D. H. Otis, of the college of agriculture, and Burton M. Smith, president of the North Lake Bank, some 4,000 people gathered at the Hans Nelson Farm, about a half mile out of North Lake, Waukesha county, on Tuesday, September 18th, for the first annual "banker-farmer mixer." It was an all-day affair. Most of the people brought their lunches, while others were supplied from the stands erected on the grounds.

Left to right—W. M. Post, president Wisconsin Bankers' Association; George D. Bartlet, secretary Wisconsin Bankers' Association; President Van Hise, Wisconsin University; Dean H. L. Russell, College of Agriculture; D. H. Otis, emergency food agent, Waukesha county; J. E. Stallard, county agricultural agent, Waukesha county.

For the program speakers were secured from the college of agriculture, from the state bankers' association and from Waukesha county.

BALL GAME BETWEEN THE BANKERS AND THE FARMERS.

In the morning J. E. Stallard, county agent for Waukesha county, and Professor Otis, of the college of agriculture, spoke to the visitors. Professor Otis placed great emphasis on efficient coöperation. He urged particularly that advantage be taken of present organizations in effecting saving of feed and live stock. Local breeders' associations, cow-testing associations and the various agricultural clubs of a county can be made more useful to the members if proper steps are taken to obtain the greatest benefits. When the meeting was thrown open for discussion S. A. Baird, of Waukesha, suggested that committees be appointed by Burton Smith on soils, crops, live stock, farm management, boys' and girls' club work and demonstrations. These committees are to work hand in hand with the county agent in order to bring about a greater perfectness of county agricultural work. Every one of these branches will be pushed so as to increase Waukesha county's farm efficiency to the limit.

In the afternoon W. M. Post, president of the State Bankers' Association, spoke, as did also Dean Russell, of the college of agriculture. The dean made an earnest plea for cutting down waste, preventable waste, on the farm. He emphasized eradication of diseases of live stock and crops in particular. Smuts can be prevented from injuring the grain yield by proper treatment in the spring before seeding. Diseases are to a great extent preventable, providing the necessary precautions are taken in regard to sanitation in the barns, the use of serums and the application of disinfectants. The dean also urged school attendance for the youth of the country. Never before in the history of the world has science in all branches of industry and agriculture been called upon in such a big way as in this war. If the war continues more learning and education are necessary. If the war ends we must pay attention to science in order to keep our place as a leader in agriculture and in industrial fields.

President Van Hise, of the University of Wisconsin, representative of our national food administrator, Mr. Hoover, spoke to the visitors on economy and conservation. Great care must be taken to preserve every bit of available foodstuff fit for human consumption. Every product of our farms must be carefully guarded so that it may help to supply a hungry world at some future date.

MRS. LOUISA SIMS, 92 YEARS OLD, WHO ENJOYED THE "BANKER-FARMER MIXER."

Geo. D. Bartlett, secretary of the State Bankers' Association, ended the program with a short address.

Following the speaking amusements for everybody were in order. The bankers found among their organization enough men to form a baseball team willing to battle the farmers. The game lasted three innings and was won by the bankers, but that's natural, for no one ever heard of a banker losing. However, the farmers took it in good spirit and decided three innings were enough. Dean Russell and W. M. Post acted as umpires during the game.

There were races for the girls and women. Booths containing innocent amusements with nigger babies and nigger dolls were also present. A band was on the job throughout the day.

Much of the credit for the success of the picnic was due to the booster tour organized by the farm management members several days before the picnic. With automobiles and a band these men toured the county advertising the coming event. There were 400 automobiles parked on the ground during the day, and quite a few remained for the separate dances given in the evening to the young folks and the older people.

The farm management members, the agricultural committee of the county board of supervisors, D. H. Otis, J. E. Stallard and Burton M. Smith, had the coöperation of everyone in the county, but to them belongs the credit for the idea and for the extent to which the affair proved a success. The picnic will be repeated each year in different towns of the county.

The advantage of field selection of seed potatoes should be realized as well as field selection of seed corn. Before the vines are dead a stake may be placed by the vigorous, promising plants; then when the potatoes are dug if the tubers on the marked vines are good they may be saved for seed. Since not all plants that look well produce satisfactorily, more vines should be marked than will be needed in order that only the best producers may be selected.

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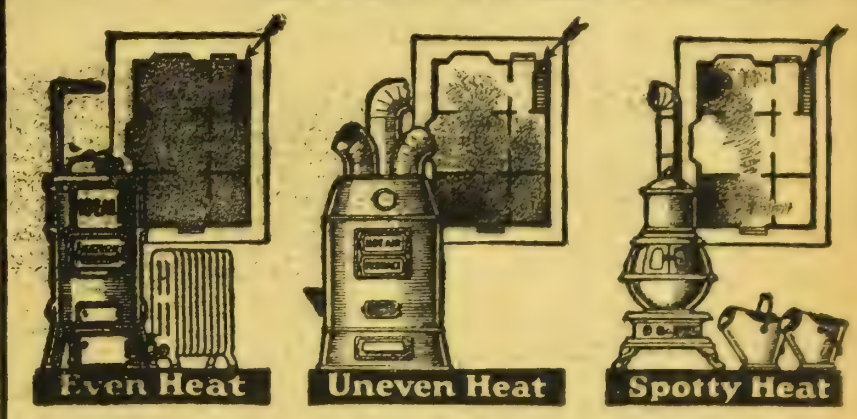

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Questions and Answers.

Cost Per Mile to Run Auto.

What is the average cost per mile to run a Ford car, also a six-cylinder Buick? Expert opinion on this subject would be interesting to many. By cost per mile is meant the cost of gasoline, oil, tires, repairs, etc.; also interest on investment and depreciation.

Answer.—A friend of the writer, a traveling man who uses his car in his work, estimates his cost per mile at 2½ cents. He has a Ford car. The average cost per mile for a six-cylinder Buick is about 3½ cents.

Ford Engine on a Truck.

I have an old Ford engine that I want to mount on trucks and use as a portable farm engine to saw wood, run a small silo filler, etc. Is this possible? If so, at what speed should the engine run to prevent overheating, and what size belt pulley should I use?

Answer.—Run the engine at 1,000 to 1,200 R. P. M. Use a pulley eight inches in diameter with a five-inch face. This idea is practical and your engine should give you considerable service.

Magneto Weak.

I have a 1912 Ford car that will not start by cranking, but starts easily by pushing and letting in gear. A year ago I had it rebored and fitted with new pistons and leak-proof rings. I have new coils and a good K. W. vibrator. I also have a new timer. I have cleaned out the carbon. It has always run with electric lights. Is the magneto weak? It runs perfectly when started. Would the "Philbrin" ignition system help any?

Answer.—The Philbrin system would not help any if the magneto is weak, which appears to be the trouble. The insulation on the windings of the magneto has become oil-soaked and rotten. You can obtain new windings mounted on a plate from the nearest Ford agency. It is possible that the magnets have lost part of their magnetism, though this is not likely.

Building a Light Auto.

I have several parts of an automobile, and I would like to know if it would be practical to build a light car out of them. I have a single-cylinder engine that develops about eight horse power. The gears consist of two speeds forward and one reverse. I have the front axle and front wheels; the rear wheels and the differential. I do not have the housing for the differential and axles. Would it be possible to make one? I would also like to get a light frame. Do you know of a company that could furnish a light frame suitable for these parts?

Answer.—You can make the frame out of hard wood, oak preferred. Many of the earlier automobiles used wooden frames successfully. The pressed steel frame came into use more on account of the manufacturers' convenience than because it was superior to the wood frame. You will find it a difficult problem to make a differential housing unless you have a good supply of tools. The usual way is to make a wood pattern of the part that supports the differential; have a casting made; machine the castings for the bearings; braze in the tubes that carry the axles; and then braze on the brake drum supports. You might be able to obtain a second-hand housing for your car.

Magneto Trouble—Oil in Crank Case.

I have a Model F Buick car that runs all right on batteries, but when switched on magneto it stops. What could be the trouble? Does dampness ruin a magneto. Is the engine supposed to have oil in the crank case? I have a seven-feed oiler on it.

Answer.—Evidently your magneto is out of order. A good magneto should stand considerable moisture, though there is always a possibility of trouble when the magneto is wet. The trouble is generally due to moisture getting into the distributor box and short-circuiting the high-tension current. The remedy is to remove the cover of the distributor box and wipe out the water. It may be necessary to leave the cover off for half an hour to allow the box to dry out. When removing the cover of the box be careful not to injure the carbon brush.

Most engines having forced feed oilers are not supposed to carry oil in the crank case; at least not enough oil so that the rods dip into it. This is particularly true of horizontal engines. A good rule is to use as much oil as possible without causing carbon trouble. Too much oil will cause a smoky exhaust, the smoke being light colored.

Packing Blows Out.

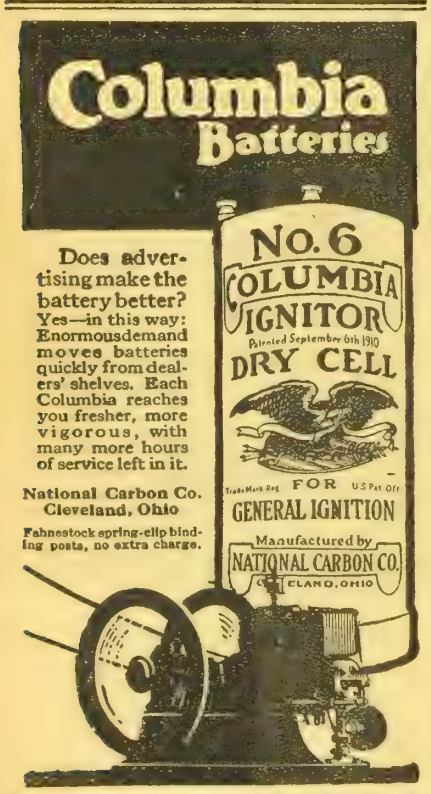
I have a gas engine with which I am having trouble. The packing blows out at the cylinder head. The head bolts on with four bolts. I am sending you a sample of the packing I am using. I always scrape off all the old white lead and put new white lead on the packing and let the engine stand several days before using. I have the timer set so that the engine fires on dead center. The valves are timed right. It always blows the packing out at a small place from one-eighth of an inch to one inch long. It seems to burn out.

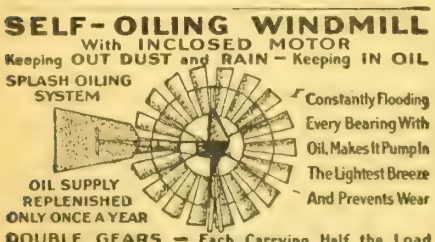
Answer.—The packing referred to above is a well-known make of asbestos packing interwoven with copper wires. This makes an excellent packing where the surfaces clamped together are fairly rough. It is not so good on narrow surfaces. It cannot burn out, the burned appearance being due to carbon from the motor. A packing known as "Permanite" would be better for the service referred to above. Permanite is a packing composed largely of asbestos bound together with a small amount of rubber. It may be purchased in sheets about one-sixteenth of an inch thick, the most suitable thickness for a cylinder head gasket. As a last resort you might rough up the head of your cylinder with a centerpunch, taking care not to break the casting. This is a crude way to remedy the trouble, but it usually gives results. If the surface of the cylinder and cylinder head are very smooth and fit each other very well a gasket made from a sheet of soft copper could be used.

Protection Against Lightning.

I have become interested in lightning conductors. I note that when the telegraph and telephone companies wish to make their country poles immune they drive a six-foot rod into the ground and nail a common wire against the post up to within six inches of their wires, and then connect the wire to the rod, being careful to make a good connection. They use the same method to protect their telephones in houses; they just nail a common wire against the side of the house; one end of the wire being about six inches from the telephone wire and the other end connected with a rod driven into the ground. From this it seems to me that if a common building in the country were provided with several fairly heavy wires connected permanently with wet ground, such a building would be just as well protected against lightning as though it was provided with a set of commercial lightning conductors costing $150. Am I right?

Answer.—Undoubtedly the method you suggest would give the building considerable protection. The real value of any lightning rod is a disputed point. The general belief at





present is that the best protection for a building is several heavy copper cables connected to the eve troughs and metal comb of the building. When lightning strikes a wire it runs along the wire and leaks off at many places, so that the current is not concentrated in one circuit. When it strikes a building it takes the easiest path to the ground; if this path is an iron wire the current may be strong enough to melt it. A copper wire will carry about eight times as much current as an iron wire of the same size without melting.

In protecting telephone poles it is common practice to allow the ground wire to extend six inches above the top of the pole. There are many forms of lightning arresters in use on telephones.

Measuring Hay Stacks.

Will you please publish a standard rule for measuring hay in round stacks?

Answer.—Hay in the stack weighs about eight pounds per cubic foot. Figure 1 shows the cross section of a round stack. A is the height of the straight part of the stack; B is

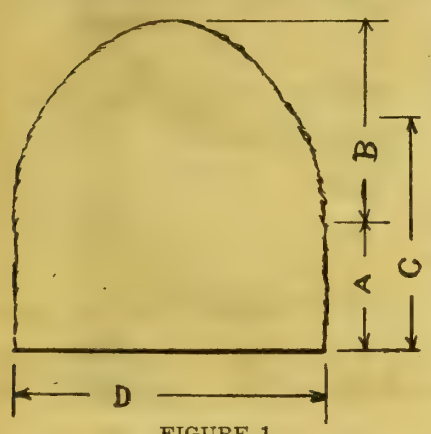


FIGURE 1.

the height of the slanting part; C equals A plus one-half of B; D is the diameter of the stack at the base. The volume of the stack in cubic feet equals .7854 times the diameter times the height C times the di-

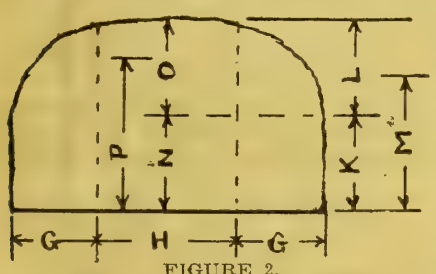


FIGURE 2.

ameter; all dimensions being in feet. The volume times 8 divided by 2,000 gives the weight in tons.

To find the volume of a long stack rounded at the ends, as shown in Figure 2, take the lengths, G, each equal to half the width of the stack. The two end parts, if placed together, would form a stack like the one shown in Figure 1, and the volume may be found in the same manner. For the middle part, P equals N plus two-thirds of O. The volume of the middle part equals the width of the stack times H times P. The total weight in tons equals the volume of the middle part plus the volume of the two ends; and this sum multiplied by 8 and divided by 2,000.

Cylinder Lacks Power.

We have a Model T Ford touring car. Number 1 cylinder has very little power. We have had it examined by an expert. He said that the coil and timer are all right. He put in a new spark plug and cleaned the carbon out of the cylinders, yet it has not much power. Could the spark plug cord be burnt out, or could loose connections on the cam shaft cause the trouble? The car runs better at twenty miles per hour than at slower speeds.

Answer.—Remove the spark plugs from all but No. 1 cylinder and crank the motor over to try the compression in No. 1 cylinder. If the compression is poor, this is probably the cause of the trouble. Poor compression may be due to leaky valves, bad piston rings or a scored cylinder. You can tell whether the valves leak by removing the exhaust and intake manifolds and listening at the exhaust and intake ports while someone cranks the motor. Before doing this, remove the spark plug wires so that the motor cannot start. You can see whether or not the cylinder is scored by removing the cylinder head and looking into the cylinder.

It may be that No. 1 cylinder is getting too much oil. A tighter fitting piston and good rings would remedy this difficulty. See that the push rod on No. 1 cylinder is of proper length.

Wiring a Motorcycle.

I have an Excelsior motorcycle with a coil with three wires running from it. I cannot get them connected so as to get the motor started. I use three batteries with it. Could you please tell me how to connect them so as to get results?

Answer.—Connect the carbon of one cell to the zinc of the next. From the remaining carbon terminal run a wire to the engine and ground it on the engine under a nut or bolt head, making sure that the wire makes a good metallic contact with the engine. From the other battery terminal run a wire to the coil to the terminal marked "Bat." From the coil terminal marked "Ground" run a wire to the timer of the engine. From the other terminal of the coil run a wire to the spark plug. If the coil terminals are not marked you may have to experiment to find which is which. Usually the spark plug terminal comes out at a porcelain insulating tube.

Winter Storage of Vegetables.

To the Editor:—An unusually large amount of garden truck has been grown this season. Special emphasis has been placed upon the fact that the surplus should be of winter vegetables.

The next problem is the storage of this material for winter use.

The two important factors of storage are temperature and moisture.

The advent of the hot-air furnace, while a great advantage in many ways, has made the home storage of vegetables all the more difficult.

In the furnace-heated home the tendency is to have the basement too warm and the air becomes very dry, causing the vegetables to lose their moisture and to become tough. While this is true with root crops, certain other crops are favored by these conditions.

Beets, turnips and carrots may be stored in earth or sand. Place a layer of the sand on the bottom, then a layer of the roots, repeating until the box is filled. The sand should be damp, but not wet. Store in the coldest part of the cellar. About 20 to 25 degrees below living-room temperature is ideal for these crops. When the sand dries out give a light watering. If used in quantity it is well to store each kind in a separate box. If attention is given to the watering these crops may be held through the winter in fine condition even in a furnace-heated basement.

Another plan is to replant the roots in boxes. Cut the tops back and place near a window in a warm part of the cellar. Here they will reroot and form new tops. The tops may be cut back from time to time and used for salads and greens.

Onions require a cool, dry place. It is well to spread them when first brought in so they will cure out thoroughly. Squash and pumpkins store best in a dry place at about living-room temperature.

A sunken barrel makes an ideal storage place for cabbage. Place the barrel where the drainage is good. The top should stand three or four inches above the surface. When severe weather comes on cover the top with manure. Cabbage and the various root crops may be pitted. If this is done too early, while the earth is still warm, they are likely to decay badly. Pit storage also has the disadvantage of being inaccessible in winter. It is often impracticable to open up the pit for considerable intervals and at just the time when the vegetables would be most appreciated.

A. T. Erwin.

A convenient water supply in the home will lighten housework more than any other household improvement and it saves much time and wearisome labor. Installing a water system in the farmhouse is a small expense to the farmer when compared with the drudgery that it spares his wife.

A Paying Business for You

Are you looking for one? Here it is--contract ditching with a Buckeye Traction Ditcher for farmers and land owners who find hand ditching too slow and costly.

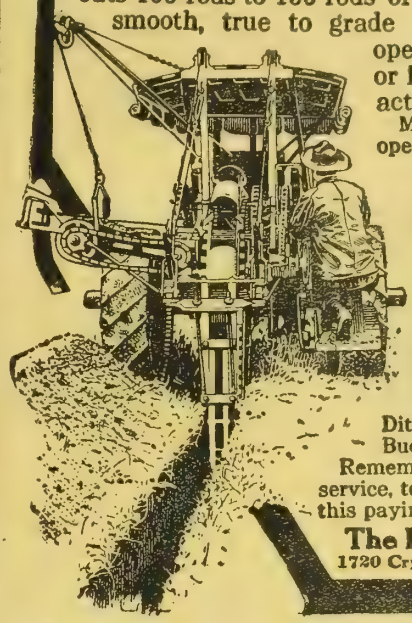
Hundreds of thousands of acres of rich land need only under draining to make them immensely productive. Why shouldn't you set free a part of this wealth, and incidentally enrich yourself also? The

"A Perfect Trench at One Cut"
BUCKEYE Traction Ditcher

Machines built in a range of sizes for different needs

Apron wheels give ample support in swampy ground

cuts 100 rods to 150 rods of ditch a day--every foot clean, smooth, true to grade and ready for tile. You can operate winter and summer--in frost or hardpan--and as a rule do all the actual digging yourself.



Mr. Wiles, of Plymouth, Mich., who has operated successfully for some years, writes:

"I bought the Ditcher three years ago, principally to tile my farm, and have tiled it completely. Have done enough outside work to more than pay back the price of the machine and all expenses, so my tiling cost me nothing. On one job I dug 80 rods in 4 hours, and on another 160 rods in 9 hours. Have not paid out $10 for breakage."

Now, this is concrete evidence and should convince you. We have other letters--many of them--equally to the point and will be pleased to send you our book of facts--entitled "Dollars in Ditches"--which gives some wonderful Buckeye records.

Remember our Service Department is at *your* service, to help you establish yourself firmly in this paying business. Write us today.

The Buckeye Traction Ditcher Co.
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See page 20. Read The Farmers' Market advertisements. There may be a bargain there for you.

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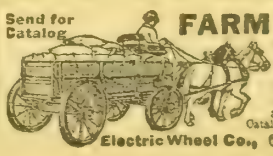
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Cost of Keeping a Dairy Cow.

A cow survey has been carried on in some of the counties of Ohio by Prof. O. Erf, connected with the department of dairying of the Ohio State University. This survey shows quite conclusively the cause for decrease in production—cows were being slaughtered or sent outside the state. Ohio is the center of a rich dairy section and contains a very great number of high-producing cows, so there has been a great demand for dairy cattle from that section just as there has been from the state of Wisconsin. While conditions are not identical in Ohio and Wisconsin, as Wisconsin has much the best of it in the way of grass, the conclusion reached by Professor Erf are somewhat illuminating. Professor Erf speaks of the labor problem as a great hardship on the dairymen in Ohio. Their sons and good hired help have been taken for service for their country, and it has been necessary to pay more for labor. This problem can only be solved, according to Professor Erf, by the consumer paying more for milk. Added costs to the consumer must be commensurate with the increase in price of feed and labor.

The following is an itemized statement of cost of keeping a cow in a well-managed herd under sanitary conditions:

Feed.—Concentrates: Two thousand one hundred and forty pounds at $46 per ton, $49.22. Concentrates are charged at the market price plus hauling.

Dry roughage: Hays, 3,800 pounds at $12 per ton, $22.80; stovers, 370 pounds at $6 per ton, $1.11; total, $23.91. Market price of hay is charged minus baling and hauling if grown on the farm. If purchased, the market price of baled hay plus the price of hauling to the farm. Cost of stovers is the market value as estimated when bought and sold among farmers.

Succulent roughage: Silage, 6,950 pounds at $6.50 per ton, $22.60. Silage is charged at the rate of the market price of corn, plus the stalk and cost of soiling, plus the interest on and depreciation of silo.

Pasture: Four months at $3 per months, $12. It is very difficult to determine the value of pasture on account of the great variation in the nature of the feed which it supplies. Cows must be on good pasture if a good flow of milk is to be maintained, and if it is not good it must be supplemented with feed. Hence if good land or large areas are used, it is necessary to charge a good rate for pasture.

Labor.—Productive labor: 1. Feeding; included those operations necessary to get feed from storage, such as throwing down hay or silage and the carrying and mixing of grains according to the individual requirements of each cow. 2. Milking, ninety hours; just that operation at the rate of six cows per hour. 3. Driving cows to and from pasture to yard, four hours; stabling, six hours; putting cows from yard to stanchion and tying before milking, untying and driving out after milking. 4. Cleaning stables, nine hours; not only removing manure to pit, but also liming and whitewashing. 5. Cleaning and sprayig, 4.5 hours; keeping cows in sanitary condition which entails the labor of brushing of cows and wiping of udder and protecting as much as possible from flies by spraying. One hundred and twenty-seven hours at 18 cents per hour, $22.86.

Handling milk: 1. Carrying from cows to cooler or separator, eleven hours. 2. Cooling or separating, sixteen hours. Twenty-seven hours at 18 cents, $4.86. Hauling milk, twenty-eight hours at 18 cents, $5.04.

PORTAGE COUNTY CALF CLUB AND EXHIBIT—CHAMPIONS IN JUNIOR WISCONSIN STATE FAIR.

EDWARD DOBIE, FIRST-PRIZE HOLSTEIN, BOYS' CALF CLUB, WISCONSIN STATE FAIR.

Delbert Kingston and Waukesha first-prize heifer, boys' and girls' calf club, second-prize heifer Wisconsin State Fair.

Managerial labor	Hrs.
1. Selecting, buying and selling cows	9
2. Buying and hauling feeds	3
3. Compounding rations	2
4. Buying and installing equipment	1
5. Care of equipment	6
6. Attending sick cows, disinfecting	5.5
7. Breeding cows	1
8. Finding market for milk	2.5
9. Attending dairy meeting	3.5
10. Reading dairy papers	3
Total number of hours	36.5
At 18 cents per hour	$6.57

Labor is based on twelve hours per day, twenty-nine days per month, which at the present time is very economical labor. This will undoubtedly have to be increased in a short time to be in proportion to similar work in other lines.

Horse labor: Thirty hours at 15 cents. Horse labor includes the hauling of milk from the farm to the station and the hauling of feed. Total labor cost, $43.83.

Other Costs.—Depreciation on cows, $8. For example, let us appraise a cow four times: First, at beginning of production, $80; next, at maturity, $120; when she has passed her maximum production, $100; and when of value only for beef, $60. Since the increase in value from $80 to $120 was at expense of production, she costs $120. The cow sells for $60; hence a loss of $60, to be distributed over her years of lactation.

Interest on cow	$6.00
Taxes	1.40
Injury risk	1.60
Veterinary service, drugs, disinfectants	3.48
Cost and loss of tuberculin test	2.00
Mortality loss other than tuberculosis	1.90
Calf loss	2.10
Building and Equipment—	
1. Interest on barn	$3.00
2. Interest on fences	1.60
3. Interest on milk house	.72
4. Interest on machinery	1.20
5. Interest on ice house	.67
6. Interest on yard for cows	2.40
7. Taxes and insurance	1.44
8. Depreciation in value of barn	1.20
9. Depreciation in value of fences	1.80
10. Depreciation in value of milk house	.60
11. Depreciation in value of ice house	.18
12. Depreciation in value of machinery	3.20

Barns are estimated to be valued at from $50 to $60 per cow, which makes as cheap a structure as can be used in the production of milk which will meet the sanitary requirements. The average good barn costs about $220 per cow. There are fancy barns which cost from $2,000 to $3,000 per cow. Fences and machinery are estimated on the same economic basis.

Repairs	$3.60
Bull service	3.65
Supplies—	
Bedding	$2.50
Oil	.40
Manure reinforcement	.40
Ice	1.30
Soap	.24
Gasoline	1.20
Kerosene	.69
Salt and condiments	.62
Cow-testing associations	1.50
Managerial ability and business risk	9.00
	$221.66

Managerial ability is estimated at the minimum of a man's ability to increase the production of a cow above the average. A man who raises the producing capacity of a cow from 4,000 to 5,000 pounds if milk is worth $2 per hundred his managerial ability is worth $20. The same is true in regard to the care of the cow and economy in feeding. His ability to secure the maximum price for milk and his qualifications for buying the best feeds at a minimum cost are also factors. Business risks depend to a certain extent upon the size of the dairy. This charge has been eliminated in these tables.

Value of manure	$19.00
Value of calf	8.00
	$27.00
	$194.66

The average cow under these conditions produces 5,500 pounds of milk.

5,000 pounds per cow: Cost to produce per cwt	$3.89
6,000 pounds per cow: Cost to produce per cwt.	3.53
5,000 pounds per cow: Cost to produce, per gal.	.34
5,500 pounds per cow: Cost to produce, per gal.	.30
6,000 pounds per cow: Cost to produce, per gal.	.28

Our dairymen should read these figures and compare them with their own costs, if they have kept the same in such form that they are suitable for comparison.

When writing to advertisers kindly mention The Wisconsin Farmer.

THE BEAVER DAM FAIR.

Most Creditable Live Stock Exhibits and an Attendance That Would Be Creditable for a State Fair.

DODGE COUNTY'S annual fair, held at Beaver Dam, September 24th to 28th, was a good one. More than 70,000 people attended during the five days. Visitors came by automobile from every township within thirty miles of Beaver Dam.

The live stock exhibits this year were just a bit lighter than usual, but the herds and flocks included many individuals fit to enter successfully in stronger shows.

The hog show was fully as large as last year, but in some of the breeds not as high in quality. H. B. West, of Ripon, showed Victorias and Berkshires and had no competition. In the Durocs, W. W. Bird, of Cambria, and Perry F. Goodrich, of Burnett, showed together. In the Chester Whites some very good hogs were shown. E. W. Kuehlman, of Beaver Dam, and Chas. Rogers, of Union Center, took care of the ribbons about equally. The Poland China show brought out some large, rangy individuals, well bred and developed. James Derivan and C. J. Schoenfield, of Fox Lake, and Emil Nitschke, of Burnett, were the exhibitors. Derivan won first on the two-year-old black sow, Black Ball by Black Jumbo, and first and second on sow with litter. Nitschke was first on boar in the six months and yearling classes, while Schoenfield took the ribbon on aged boar.

The sheep were well represented. Over 150 animals were entered by Brogden Farins, from Rush Lake, and Smith Bros.' farm. These breeders showed in the Rambouillet, Dorset, Oxford, Cheviot, Hampshire, Lincoln and Shropshire classes, dividing honors fairly well. Edward Leltzner, of Sun Prairie, came out well for the first season in the ring. He showed Shropshires.

Dairy cattle were shown by eight breeders. Boynton Bros., of Janesville, were on hand with their excellent herd of Poland Durhams and had things all to themselves. Guernseys were only represented by one breeder, J. H. Beirus & Sons, of Oakfield. Brown Swiss were shown by Mrs. A. H. Clark, of Fond du Lac. Mrs. Clark has a splendid herd, well bred and a good deal better developed and taken care of than the general run. Only two or three Jerseys were on hand. These were entered by W. Fredrich and C. Knup, of Beaver Dam. The Holsteins had the biggest representation with three herds on the grounds. S. C. Stanchfield and C. M. Corcoran, of Fond du Lac, and Fred Henke, of Beaver Dam, were the exhibitors. Stanchfield won first on aged herd, Henke on aged bull and cow and Corcoran on junior bull. All told, honors were fairly and evenly distributed. Professor Oosterhuis, of the college of agriculture at Madison, judged the dairy classes. Only Short-horns were entered in the beef cattle classes. They were exhibited by Chas. Rogers, of Union Center; H. B. Drake, of Beaver Dam, and C. J. Schoenfield, of Fox Lake. Rogers carried away most of the honors with the balance divided between Drake and Schoenfield. George Hutton, of Madison, did the judging.

Pure-bred draft horses were not up to usual in numbers. Butler Babcock and Sam Bushke, of Beaver Dam, showed Belgians. Honors went to Babcock in most of the classes. Percherons were entered by Francis Lamb, of South Byron; William Possin, of Chester; Schoenfield & Sons, of Fox Lake; Sam Bushke and Emmons Blaine. The ribbons were placed by George Hutton and fairly well split up among all. James Derivan, of Fox Lake, showed a Clydesdale filly.

Beaver Dam has an opportunity of increasing her live stock department in numbers and in quality. The accommodations are fair, but not what they will be when the buildings that are being planned are a reality. The new hog barn is a dandy. A new sheep barn will be erected this year. A new machinery shed ought soon to follow. Though every available foot of floor space in this building was used, the exhibit was small.

Side shows of every kind occupied much space on the grounds—too much so for a modern fair.

Educational and industrial exhibits need not be the only attractions, but they should predominate.

Keeping the Separator in Good Order.

All users of cream separators who haven't tested their skim milk for butter fat recently should make this test at once, for it is probable that they are not getting as much butter fat from their milk as they can and should obtain. Cream separators, like all other kinds of machinery, sometimes get out of adjustment. When the separator is in good working order not more than .02 of 1 per cent of fat ought to be found in the skim milk, but there is no question but that on a great many farms .05 of 1 per cent of fat is left in the skim milk and this means a heavy waste.

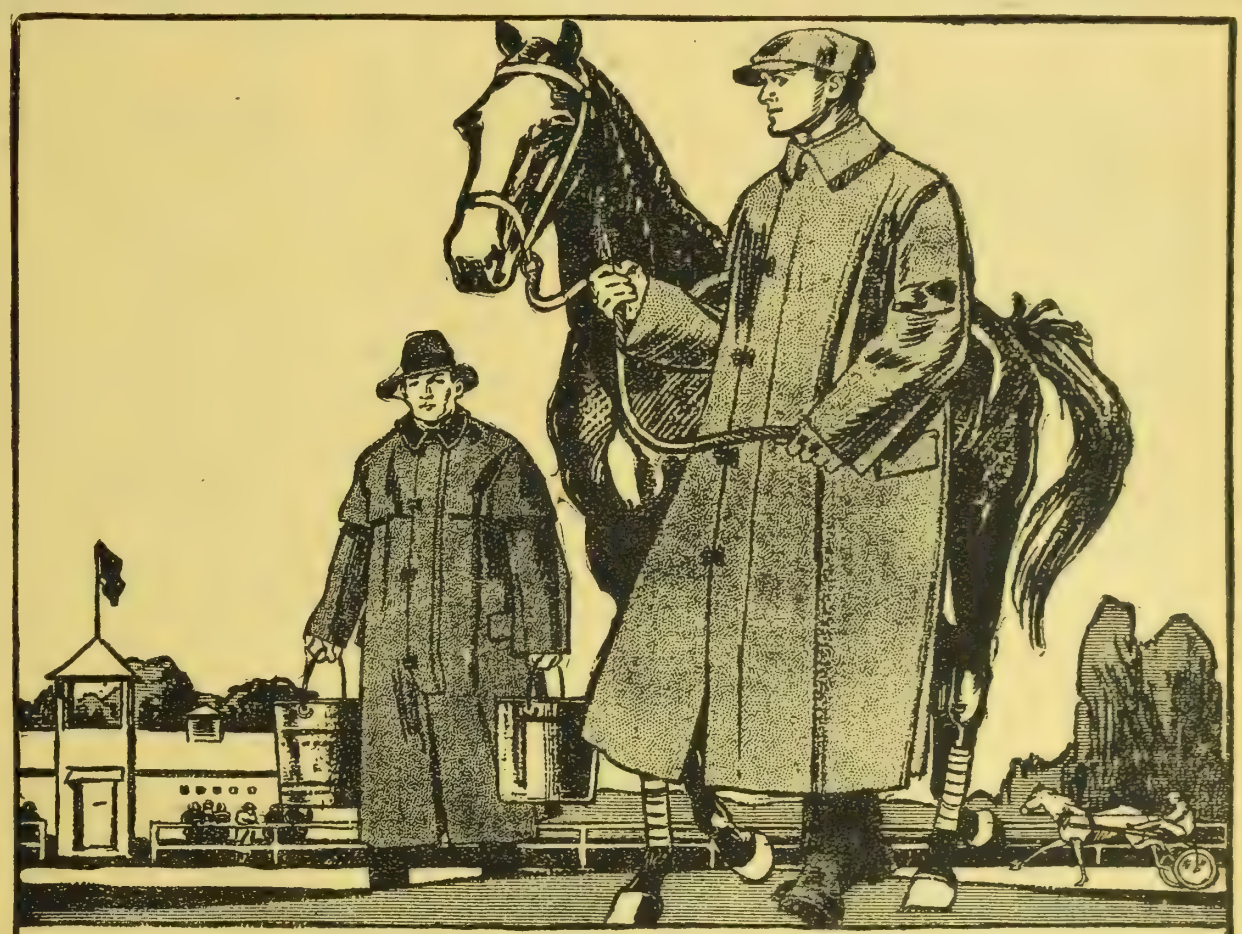
If the separator is not skimming as close as it ought to, see whether it is standing level or not. If it is not standing level it must be leveled up. A separator cannot be expected to do good work unless it stands perfectly level. The bowl must be in balance. If it vibrates while in operation clean skimming cannot be obtained. If a level is not at hand one suitable for the purpose can be had by filling a glass vial nearly full with water.

It may be that the machine is not being turned in accordance with the directions of the manufacturer. If the bowl does not revolve at the speed it should a portion of the butter fat is certain to be left in the skim milk. If the separator is being operated by hand it is well to check up occasionally to see whether the handle is being turned the proper number of times per minute.

If all the above-mentioned conditions are as they should be and still the machine is not doing good work it will be necessary to look elsewhere for the trouble. Sometimes the cream outlet becomes clogged or partially closed. If this is the case it can readily be seen that less cream will flow through the outlet per minute than if it were larger. The result will be a thicker cream and the chances are that the skimming will be much less perfect than would otherwise be the case. Everyone who uses a separator knows that the percentage of butter fat in the cream can be regulated by turning the cream screw either one way or the other. By enlarging the opening the cream becomes thinner and by reducing it the cream becomes thicker, that is, the cream will contain a larger percentage of butter fat.

Some separators will not skim effectively when the cream contains as much as 40 per cent of butter fat or more and the only way one can tell whether his machine is one of that kind or not is by testing the skim milk. A Babcock testing outfit should be on every dairy farm, but in the absence of this the proper thing to do is to take a sample of the skim milk to a neighbor who has a tester or to the creamery and have it tested there. If one is not a regular customer of the creamery he may have to pay for the testing, but the cost will be nominal and should not be considered, for it pays well to know exactly whether or not all the butter fat is being gotten out of the milk.

When frost has nipped the sweet potato vines the potatoes should be dug and stored before the sap in the frozen stems has time to pass down into the potatoes. Otherwise they will be injured and have a tendency to rot when stored.



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THE HOME

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Economical Use of Meat.

There are many ways in which the cheaper cuts of meat may be used and thus reduce the butcher's bill. This is not so big an item with those who can furnish their own meat as it is with those who must depend on the local meat market. But even those who have their own fresh beef may make the less desirable cuts palatable by careful preparation.

In purchasing the cheaper, and often tougher cuts of meat instead of the choicer cuts, a housewife is losing little, if any, nutriment, provided, of course, the proportion of bone to meat is no greater than in the more costly kinds. She rather is sacrificing only texture or flavor or ease of preparation for the sake of cheapness; and, if she wishes to produce dishes as palatable as those made from expensive meats, must expend more care on preparing, flavoring and cooking. For instance, if the cheaper steaks are purchased, they may be rendered reasonably tender by the well-known method of pounding the meat. The juices and flavors of such steaks will be retained more satisfactorily if flour is sprinkled over them during the pounding process and so worked into the fibers on the surface. If it is then well browned in butter, covered with water and allowed to cook slowly until the water has all disappeared, it lacks nothing for tenderness and is most palatable as well.

Making a tough steak tender by pounding. The sprinkling of flour helps retain the juice.

Another common method of utilizing the tougher meats is to grind them and form into balls which may be broiled like steak. Cheap cuts of meat also may be cooked slowly with vegetables or dumplings in a casserole or other thick-walled baking dish which can be covered, the juices thereby being retained.

Whatever the quality of the meat, there will be trimmings and scraps, such as fat, bones, gristle, etc. The fat, of course, may be tried out, and the trimmings, gristle and bone boiled slowly and used for soup stock.

An important way in which the amount of money expended for meat may be lessened is by preparing relatively small quantities of meat in such a way as to extend the flavor to other and cheaper foods. In using meat so as to extend the flavor it may be ground and combined with rice, bread crumbs, etc., to form croquettes; made into pies with relatively large quantities of pastry; cooked with dumplings; served in the same dish with gravy and starchy foods, such as spaghetti or rice; ground and used with bread crumbs or other materials as a stuffing for vegetables such as tomatoes and green peppers; or cut thin and wrapped around a stuffing of bread crumbs, rice, vegetables, etc.

Of course, these methods of using left-over and cheap meats are familiar to most of our readers and the only point we wish to make is that when meat is scarce and high in price we might make use of these recipes a little oftener and set our tables just as well, too.

Women Field Workers in England.

Official reports of the work of women in England that have just reached the United States show how much a matter of course these war-time activities of women have become.

One report tells of the establishment of rest rooms for women who work in the fields in various parts of England.

The rooms are being supplied with newspapers, magazines and writing material, and are places where women can bring their food and obtain a cup of tea at cost. Stockings, shoes and skirts are kept in stock, so that women workers drenched by the rain in the fields, can dry their clothes in comfort.

One report says that most of the women workers are giving satisfaction. "It would be absurd to pretend that every woman who has volunteered to take up the work on the farm has proved satisfactory," reads the official statement, "but most of them are giving satisfaction even though they may not be quite as efficient as the men whose places they are doing their best to fill."

It is reported that the women who are working as hay balers are especially efficient.

She Is Doing "Her Bit."

To the Editor:—Some time ago you gave some directions for making light bread by substituting corn meal for part of the wheat flour. I wonder how many of the Home page readers tried it. I did and I want to tell you how pleased I am with the result. We are being urged all the time to conserve the wheat supply and it seems to me this is one way that we women can show our patriotism. I never heard of a farmer's family that didn't eat lots of corn bread, but the light bread made with part corn meal is different and you can use it all the time, instead of occasionally as you do regular corn bread.

I make my bread just as I always do, setting the yeast at night. I make the yeast of all wheat flour and then in the morning when I mix up my bread I use a fourth corn meal and three-fourths wheat flour. When you use corn meal you cannot mix your bread quite so stiff as you do with wheat flour or the bread will be dry and chaffy.

I was a little dubious the first time I made it for fear my family wouldn't like it, but they did, and for two or three months we have had nothing else. Once when I didn't have any corn meal in the house on baking day I made the bread entirely of wheat flour and, "Mother, where is the corn meal?" greeted me when I put it on the table. Corn meal bread isn't a war ration with my family—it is a treat.

I am sure that all the Home page readers will like bread made this way if they will try it and I am glad to tell how much benefit I have had from the hint.

Now that I am writing I want to get something else off my mind, too, that I have been thinking about. I am anxious to do "my bit" in these war times and I am doing a little—a very, very little compared to all that must be done—in the way of knitting. I also hunted up some old bedspreads and took them to town with me and left them with the Red Cross chapter. It wasn't much, but they seemed glad to get them. It seems they use them, in combination with other materials, to make pads to stop the flow of blood and keep down the odor when the wounded are first taken off the battle field.

But what I wanted to say was, why can't we all write, for the benefit of others, what we are doing as "our bit?" I think it would be most interesting to know what the others are doing and we might all get hints that would help us. I know that in some country communities the ladies get together and knit or do other things and have a nice, social time besides, but in my neighborhood we haven't any such organization and those of us who have time for any work at all are doing it individually. I should like so well to know what others are doing.

A Patriot.

Pennsylvania Scrapple.

Scrapple, "liverwurst" or "ponhaus," so called in various parts of Pennsylvania, is generally made from the waste parts of pork, at pork butchering time.

Take 200 pounds whole hogs' heads, fifty pounds hog livers and hearts, fifty pounds beef head meat, or other cheap beef; 120 pounds corn meal, ten pounds buckwheat or rye flour, spices, as marjoram, sage, thyme, pepper, etc., four pounds; salt, ten pounds. Liquor in which meat is cooked, an amount equal to total weight of combined solids.

Pig's feet, skins of fresh pork, the trimmings of fresh hams and shoulders and other waste pieces of pig meat can be used.

Clean the hogs' heads and feet thoroughly; remove the eyes, ear tubes, etc.; split the heads and cut out the teeth and turbinated and ethmoid bones, to eliminate the nasal mucous discharge; wash the meat thoroughly and cook until the meat falls off the bones; remove the bones and run the meat through a grinder; return the meat to the cooking kettle along with the liquor in which it was cooked; boil again, and while boiling add the meal, stirring constantly. When it is thick, add the spices and salt and cook until thoroughly done. Pour into shallow pans and allow to cool.

Scrapple will keep probably three weeks in a cool place. But it is too good to keep. Its season is cold weather.

Recipes.

Poppy-Seed Cake.—One and one-half cupfuls sugar, three-fourths cupful butter, three-fourths cupful milk, three-fourths cupful poppy seed, two cupfuls flour, two teaspoons baking powder, four eggs. Pour the milk over poppy seed and let stand overnight. Cream butter and sugar, add milk and poppy seed, then flour and baking powder. Last of all beat the whites of the eggs and then pour in the other mixture.—Edna.

Nut Cake.—One-half cupful butter, one cupful sugar, two eggs (well beaten), one-half cupful milk, one and one-half cupfuls flour, one and one-half teaspoons baking powder, three-fourths cupful nut meats chopped fine. Bake in sheet with cocoanut filling.—Mabel C.

Quince Preserves.—Four quarts or eight pounds quinces, five pounds sugar, one quart water. Pare, quarter and core the quinces. Boil the fruit in clear water until tender, but not broken. Drain carefully. Make a sirup of the sugar and water by boiling twenty minutes. Put in the fruit and let simmer one-half hour. Put in jars and seal. The parings and cores may be used for jelly.

Citron Preserves.—Select a good-sized citron, cut in half-inch slices, peel and remove seeds, then cut in small pieces and weigh. To one pound of fruit add three-fourths pound of sugar. Put in the preserving kettle, cover with water and cook slowly for about three hours or until the fruit is tender and the sirup thick. About half an hour before removing from the stove add two lemons, sliced very thin, with seeds removed. Put in air-tight jars and seal.

Diced Liver.—One pound liver, one pound bacon, salt and pepper. Cover the liver and bacon with water and simmer gently (do not boil) for two hours, or until perfectly tender. Take from the fire, drain off all water, and cut the meat into small pieces. Return these to the fire and cook for ten minutes, season with salt and pepper, mixing freely that all may brown evenly and lightly. Serve on strips of toast, moistened in the liquor in which the meat was cooked. Chili sauce should be served with this dish.

THE YOUNG FOLKS

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

God's Girls.

I think God took a patch of blue
To make your baby eyes;
They are so much alike, the two—
God's babies and God's skies.

I think God took a robin's call
To make your baby words;
I cannot tell your song at all
From music of the birds.

I think God took a woodland rose
To make your baby lips;
They are pink petals like to those
The honey merchant sips.

I think God took a bit of sun
To make your baby curls—
Of all his treasures, ev'ry one,
God makes his baby girls!

—Douglas Malloch in Woman's World.

A Girl From Down South.

Dear Young Folks:—I live on a farm of forty acres one mile from school. We are thirty miles from the Gulf of Mexico, and I have been there twice. We are close to the Mexican border, which is the Rio Grande river.

I am fourteen years old and in the seventh grade at school. I have one sister, Ella, and four brothers. Two of them, Carl and Harry, are serving in the U. S. A. Motor Truck Co. 21, and are stationed in Georgia. My other two brothers, James and Richard, live in western Kansas.

Elsie.

Another Recipe.

Dear Young Folks:—I have felt that I would like your cozy little corner, so today I picked up enough courage to write to you. We haven't any cats or dogs for pets, but we have two little pigs. I live on a farm with my brother.

How many of the girls like to bake? I do, for one. I will send you a recipe for "snow cake." One-half cupful butter, one cupful sugar, one and one-half cupfuls flour, one-half cupful sweet milk, whites of four well-beaten eggs, one teaspoon baking powder, one teaspoon flavoring.

I want to ask you a riddle, too: What is it that has a head and no tail?

Blanch.

Do You Know This Song?

Dear Young Folks:—I always read your letters, but I have never written to you before. I am fourteen years of age and am five feet four and one-half inches tall. I am a freshman in high school this year. We live on an eighty-acre farm two miles from town. I like farm life much better than town life.

If any of the Young Folks has the song, "Young Charlotte," which begins "Young Charlotte lives on a mountain side," will you be kind enough to send the words in to our department? It is an old song that my grandmother used to sing when she was a girl, and I would like very much to have it, because I do not know all the words.

Neola.

Found a Little Rabbit.

Dear Young Folks:—I am a boy ten years old and live on a forty-three-acre farm. I had a little brown bantam hen and one Sunday the lightning killed her and almost got me, too. I was in the barn.

Well, I am going to tell you about my little pet rabbit. We were putting up hay and a little rabbit ran out in front of the rake. One of the men tried to put it down my neck. I took it to the house and made it a cage. One hind leg was broken and the other one was scratched. I bandaged them up and fixed a cotton bed for it. One morning it got loose and I never saw it again.

J. L.

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Waist 2252-Skirt 2251—A smart gown. The waist pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. The skirt pattern in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. A medium size will require 5 yards of 44-inch material for the skirt and bolero, and 2¾ yards for the waist. Two separate patterns, 10 cents for each pattern.

1944—Girls' one-piece dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. Size 8 will require 2¾ yards of 44-inch material.

2246—Ladies' dressing sack, with sleeve in either of two lengths. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 3¾ yards of 36-inch material.

2255—A pretty seasonable model for mother's girl. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 6 requires 1¼ yards for the guimpe, and 3¾ yards for the dress, of 27-inch material.

2230—A simple, but stylish dress. The pattern is cut in 3 sizes: 16, 18 and 20 years. Size 16 will require 6¼ yards of 36-inch material.

2242—Girls' one-piece, plaited dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 requires 4⅜ yards of 44-inch material.

1955—Ladies' overall apron, with sleeve portion in either of two lengths. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. It requires 6½ yards of 36-inch material for a 38-inch size.

1875—A popular coat suit for the growing girl. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4¼ yards of 44-inch material for a 12-year size.

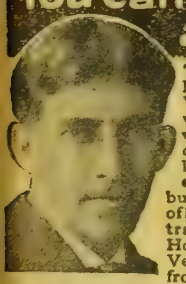
2076—A unique and attractive skirt style. The pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It requires 3⅜ yards of 44-inch material for 24-inch size.

2098—A smart, one-piece dress. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3 yards for the guimpe and 5⅝ yards for the dress, of 36-inch material, for a 36-inch size.

2241—A practical house dress with long or short sleeves. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 5⅝ yards of 44-inch material.

1919—Ladies' shirtwaist. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¾ yards of 36-inch material for a 36-inch size.

You Can Do as Well as This Man



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International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for October 7, 1917.

Psalms of Deliverance.

LESSON TEXT—Psalms 85 and 126.

GOLDEN TEXT—They that sow in tears shall reap in joy.—Psalms 126:5.

These Psalms breathe the spirit of the true patriot. The Psalmist sees his afflicted country suffering for the sins of the people, prays for their restoration to the Divine favor, and with the eagle eye of faith anticipates the joyful day of spiritual and temporal blessings because of restoration of the Divine favor. Doubtless such patriotism would be pleasing to the Lord on the part of us all.

Psalm 85.

I. Praise for Mercies Received (vv. 1-3.)

Praise is given for

(1) Deliverance from Captivity (v. 1). He had in mind the specific mercies of a given time; perhaps it was one of the oppressions of the Philistines from which they had been delivered.

(2) Forgiveness of Sin (vv, 2, 3).

"Thou has forgiven the iniquity—covered all their sin." God's restoration was the proof that he had pardoned. Great indeed was the sin of Jacob, but God's forgiveness was greater. He is peculiarly a God of mercy. Having forgiven the sins his anger is taken away. He stayed his hand from the judgment which would have justly fallen, to show his mercy.

II. Prayer for Restoration From Backsliding (vv. 4-7).

He knew how worthless the outward blessings of the Lord would be unless the people inwardly turned to the Lord. He, therefore, besought the Lord to give them the greater blessing, that of a change of heart. Without the change of heart forgiveness would be futile. A change of heart can only be by God's help.

(1) That God would turn the hearts of his people toward himself (v. 4).

Knowing the people's utter helplessness to turn to God, he cried out to God to save them by turning them to himself. He knew that God's anger could not turn from the people as long as they were impenitent.

(2) That God would take away the very remembrance of their sins (vv. 5-7).

(a) The ending of his anger (v. 5). The desire seems to be that he would wipe out the very marks of his displeasure by not longer allowing punishment to be meted out to them.

(b) The return to the people's joy (v. 6).

Their joy could only be realized through a revival from God. The Psalmist now becomes more bold in his requests.

(c) Shall show them mercy (v. 7).

"Make it visible," is his cry. God's judgment was most real. His desire is that his mercy would be just as real.

III. Exultant Anticipation (vv. 8-13).

Having spoken the sentiment of the repentant people, the poet expresses confidence of the Lord's response. So faithful is God that those who sincerely pray to him can go forward with the assurance of petitions granted.

(1) "He will speak peace" (v. 8).

He knew that a gentle answer would come, but its continuance would depend upon the fidelity of the people. Turning to folly would provoke again his wrath.

(2) Will bring his salvation near (v. 9).

Only as his salvation was near could glory be in the land.

(3) Devise a way by which "mercy and truth," "righteousness and peace," may be united (vv. 10, 11).

He did not suggest a way. He may not have known it. Faith now sees the way in Christ. In him such a union has been blessedly effected.

(4) The land shall become fruitful (v. 11).

When sin is removed, temporal prosperity shall follow. Earth's barrenness is due to sin. When the curse is removed fruitfulness shall follow.

(5) Righteousness shall be the guide of his people (v. 12).

In that golden, glad age God's righteous ways will leave a track in which his own may walk with security.

Psalm 126.

I. The Fact of Zion's Deliverance (vv. 1, 2).

(1) By whom (v. 1). The Lord.

(2) Effect of (vv. 1, 2.)

(a) The people were scarcely able to believe it. So sudden and unexpected was their deliverance that it seemed to them as a dream. They expressed their feeling in joyful laughter.

(b) The heathen noted their deliverance as marvelous, and ascribed it to God (v. 2).

II. The Song of the People (v. 3).

They ascribed their deliverance to the Lord and expressed their gratitude in singing God's praise.

III. The Prayer (v. 4).

The people cried to God to visit their restoration with fruitfulness, even as the streams from the South spread out and make a country fruitful.

IV. The Promise (vv. 5, 6).

Though the people were still obliged to suffer the consequences of their sins, they were encouraged to go on in sowing though in tears, as the reaping would bring joy.

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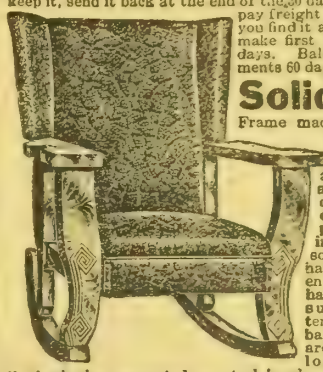

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BREEDING EWES FOR SALE—Now is the time to buy before they go higher. Wool and sheep are going to be higher in price and stay high. John Blanchard, Columbus, Wisconsin.

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LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

GASOLINE TRACTOR.

GASOLINE TRACTOR—12-horse gasoline, portable engine and one two-roll husker. M. H. Mugridge, Waupun, Wis.

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FOR SALE—Will sell all or part of 200 White Leghorn hens; yearling stock; many of them fit for show room. Oak Dale Farms, Austin, Minn.

HAMPSHIRE PIGS.

HAMPSHIRE PIGS—Dandies, $8 to $10 each, either sex. Also registered Holstein bull calf priced to sell. H. R. Tuttle, Oconto Falls, Wis.

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DUROC PIGS—Gilts and boars, Regulator breeding. Best bunch of pigs I ever raised. Farmers' prices. Arthur Popp, Jefferson, Wis.

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In and Around Wisconsin

Beekeepers of St. Croix, Dunn, Pierce and Eau Claire counties have arranged to organize what will be known as the Northwestern Wisconsin Beekeepers' Association. Mr. J. D. Millar, of Dunn county, was chairman of the preliminary meeting.

The 1917 crop of potatoes is being sold in the commercial districts to potato buyers at 75 cents to 90 cents a bushel, depending upon the grade of stock. There will be more grading of potatoes in Wisconsin this fall than ever before. But as a general rule, the stock is of good quality, though not so large as in former seasons. The frost of September 10th and 11th stunted potato growth and there will be many small tubers—some so small that they may have to be fed to the hogs.

A call has been sent out for labor in the potato fields of the commercial growing districts. In some cases the schools are being closed for a time so that the boys can help to dig the potato crop. According to County Agent Coyner, farmers of Portage county must have help in the fields or lose several hundred thousand dollars' worth of potatoes. All school boys in Portage county who assist in harvesting the potatoes will be given full credit for school work during the time they have spent on the farm. In other sections school will be dismissed for several days, and in some places business men and clerks will get out and help with the harvesting.

The Edgewood Stock Farm, located near Burlington, Wisconsin, and owned by C. Roy McCarnna, some time ago procured the services of Fred Merrill as manager. Mr. Merrill is well known throughout the dairy world as a pleasing and forceful extension worker and has a large acquaintance among the big men in the dairy industry. For the past six years Mr. Merrill has been an active worker and has had opportunity to study dairy conditions in twenty-five different states. Three years were spent with the federal dairy division and three years with the DeLaval Cream Separator Company. In addition to being the active manager of the Edgewood Stock Farm, Mr. Merrill will be publicity man for the Wisconsin Condensed Milk Company. Already his efforts along this line have been quite marked among the patrons of this creamery. Timely circulars have been printed which contain condensed, practical information written in clear and impressive language. Mr. Merrill has also been collecting some valuable data with reference to the condition of the herds of their patrons. Several important discoveries have been made from this data. First is the large number of milk producers not using a pure-bred sire and the relatively large number of farmers attempting to produce milk from cattle not bred for milk production. It is Mr. Merrill's purpose to make the Edgewood Stock Farm a service station for the patrons of this company. He is buying up stock continually so as to have on hand at all times good, reliable cattle for sale, both grades and pure breds. A good pure-bred Holstein herd will also be kept. They now have at the head of their pure-bred herd Downing Pontiac Butter Man, the grand champion bull at the Wisconsin State Fair in 1916, and King Pontiac Segis Veeman, a twenty-nine-pound son of King Segis Pontiac Count.

The convention committees arranging for the 1917 State Potato Show at Wisconsin, October 19th to 24th, met at Madison, September 28th. Reports to these committees indicate a large attendance at the state show. There will be at least twenty county exhibits competing and a very large display from the commercial concerns. The sessions will be held in the live stock pavilion on the university campus. More complete announcement of the program will be made later.

Throughout Wisconsin many rural patriotic meetings will be held this winter. In some counties the councils of defense have already arranged programs which will include meetings in practically every town. Some of these meetings are under the auspices of organizations and others will simply be the old-fashioned schoolhouse and town hall rallies. Undoubtedly there never has been such a time to develop patriotic speakers since the civil war as there is now. The transportation facilities now afforded farmers makes it certain that these meetings will draw large audiences and create great enthusiasm.

The Land-Clearing Special in Upper Wisconsin will wind up its work this month. The demonstration at Phelps, Vilas county, with Oscar Gunderson in charge of local arrangements, closes October 6th. Another demonstration will be held at Laona, Forest county, October 8th to 10th, and another at Merrill, Lincoln county, October 11th to 13th. Mr. John Swenehart is making arrangements for the Forest county demonstration and Mr. A. H. Cole for the Lincoln county demonstration.

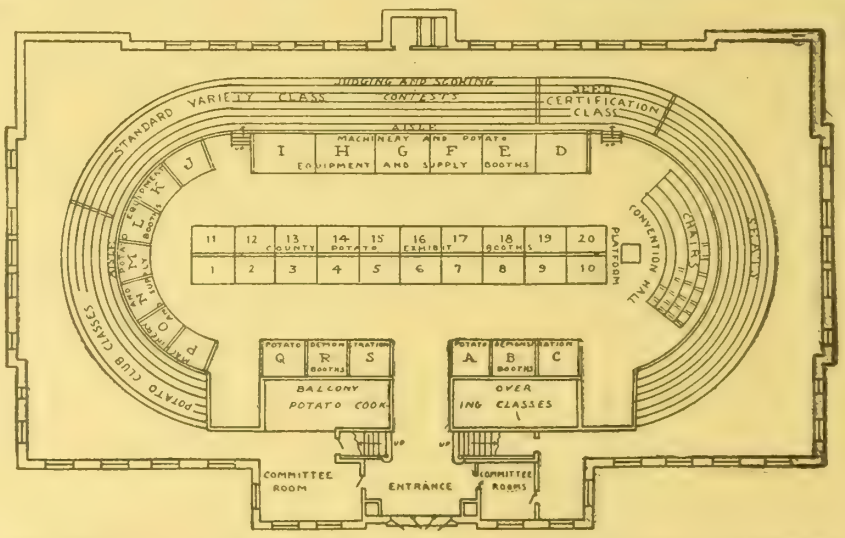

DIAGRAM OF FLOOR SPACE IN STOCK PAVILION, MADISON, WHERE STATE POTATO SHOW WILL BE HELD NOVEMBER 19TH TO 24TH.

The Milk Producers' Association at Janesville recently met and agreed that the $3.42 per hundredweight price set on milk for the dairy district was a fair price. The meeting endorsed the Liberty Loan, urged farmers to save all their heifer calves instead of selling them for veal, and favored constructive work to put the dairy business on a better basis. A survey of the county last June showed about 6,000 cows in Rock county and the producers' association is urging more cows as a remedy for the present high milk prices. Some of the members of the association recommended $4.13 as an October price on milk.

Wisconsin was well represented at the annual meeting of the American Poultry Association last week in Milwaukee. The association expects to make a nation-wide campaign for bigger poultry production. In this campaign a great deal will be expected of Wisconsin. There will be about eighty poultry shows in Wisconsin this winter, and thirty-seven or thirty-eight of these receive state aid. This convention passed resolutions urging the federal government to fix the price of the 1917 corn crop at not to exceed $1.20 per bushel. This was in the interest of reasonable priced feed for poultry. The fact that the government has fixed the price of wheat has led many to erroneously believe that the food administrators can also fix the price of corn. There has been no law passed that will permit a price-fixing on corn. However, it is possible that congress can be appealed to to pass such a law.

A special series of lectures on animal disease control has been arranged for by Dr. F. B. Hadley, of the Wisconsin College of Agriculture, department of veterinary science. The first lecture, September 29th, by Dr. A. S. Alexander, inaugurates the following program:

October 6th—Causes of infectious diseases, Dr. F. B. Hadley.

October 13th—The agents which spread infectious diseases, Dr. Alexander.

October 20th and 27th—Natural protection against infectious diseases, Dr. Hadley.

November 3d and 10th—Artificial protection against infectious diseases, Drs. Alexander and B. A. Beach.

December 1st and 15th—Disease control through water supply, feeds, disposal of carcasses, by Dr. Alexander.

January 12th and 26th—Live stock sanitary laws, quarantine, and the accredited herd plan, E. G. Hastings and C. P. Norgord, state live stock sanitary board, Dr. Hadley.

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FARMS WANTED with stock, etc., to trade for good Milwaukee property. FOR SALE—Square, first-class truck farm near city. $7,300 cash; owner sick. G. Boxhorn, 511 Twenty-sixth Ave., Milwaukee, Wis.

WANTED TO HEAR FROM OWNER of good ranch for sale. State cash price, full particulars. Address, mentioning this paper, D. F. Rusk, Minneapolis, Minn.

WANTED—Experienced farm hand. State wages. John J. Mueller, Montfort, Wis.

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POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

The Late-Hatched Chick.

Last August, a man who is a poultry crank proper, purchased a trio of S. C. Buff Leghorns at a fair where they were being shown. Pretty little creatures they were, too. Much interest was manifest in the pen of fowls, which, aside from being very attractive, were the first of the kind in that vicinity.

The purchaser thought it might be a good plan to pen the birds and raise for the next season. They were July hatched pullets, and began to lay heavily in January. The poultryman was a trifle uneasy, thinking that as the stock had been hatched so late they might bring weakling chicks. Such was not the case. From the number hatched, there was not a single loss.

The care was of the best, the later hatches being brooded by hens in a shady, secluded place away from the larger flock; if the season was dry, beef scraps were given, probably to even up the scarcity of bugs. So successful was this man that he made the mistake of advising all who were within sound of his voice to "hatch the late chick—it is a money-maker!"

It was one of the few clashes between the fancy end of the business and the utility side; usually they go hand-in-hand. The next statement he made explained the situation: "To make winter or spring shows, one may have young birds at the proper stage of development. The plumage of the late chick does not become faded as that of the earlier hatches. I would advise setting a few late hens as a starter; they will please you."

It is just possible that any of the breeds could be hatched at the right time to be at their very best at show time. Indeed it is one of the advantages in the show room to have the young stock just reaching maturity. Never again is a pullet in the same bloom as just before she lays her first egg.

The small, nervous breeds may be hatched late and come out whole, because they mature early, and besides, they are a warm climate fowl, and do better through the hot dry months than through the early cold, damp weather, such as our all-purpose breeds weather and grow rapidly. The Mediterranean breeds could more nearly be likened to the prairie chicken and the quail, in this point.

For the larger breeds, unless for a show specimen, alone, nothing runs a flock down and out sooner than to raise from the late-hatched pullets, for a few generations. They are smaller, as well as immature, and it does not require much figuring for a farmer to understand how it is. It is not from the smaller stunted colts that we raise our horses—far from it. Poultry is on exactly the same principle.

The late-hatched chicken has a place in the farm, though, but not to be hatched and coddled. It is when the hen sits out and hatches off a brood on her own account and hies away to the fields where they wax large and fat on waste material; grain, seeds and injurious insects. Many times such chicks hatched in August will outgrow the June chick that required much care as well as feed.

The cockerels of such hatches make dandy fries late in the fall and winter, while the pullets begin to lay in the spring at the time when the other hens are falling off, and getting broody. It is not advisable to use their eggs for incubation; neither is it necessary. The eggs of the late hatches rarely, if ever, are aas large as those of the matured birds, but they are mighty handy for culinary purposes, when the others are needed for incubation. Especially is this true when eggs are sold for hatching, and not enough to spare for home use.

For the most part, the fancy, so-called, and the utility go together, one being a complement of the other. We need the purely professional poultryman who makes it his sole business to raise pure-bred stock. We do not need the birds that are hatched to be pampered, and made to appear what they are not. A bird is worth exactly what it will bring over the block, or what it is worth to keep up the stock that is to go over the block. The primary reason for raising poultry is the meat and eggs it produces.

Poultry Business Not All Smooth Sailing.

To the Editor:—I am taking six different poultry papers, and I find so many different opinions given in them that it is worth while to think them over and compare statements made therein. All seem to agree that we should try to raise 100,000,000 more pounds of poultry this year than we did last, so that we can feed our population and foreigners with more animal food than we did last year. I see that some of them are advising the amateur to go into the chicken business and do his bit for his country. It says that eggs for hatching can now be purchased for half price, on account of the lateness of the season, and the eggs that were $20 and $30 a setting can now be purchased at half those prices.

My advice to the amateur is this, to go slowly in raising chickens, or trying to raise them, with the cost of feed as high as it now is. Should he, however, conclude to take hold of the business I would advise him to go to some farmer who has good stock and buy eggs from him, as he could get them at market price, and should he be unsuccessful with his hatches, he would not be out a great deal for his first cost.

I see that some of our universities are offering to send out bulletins to aid the beginner as much as possible, but you cannot raise chickens nowadays on bulletins. With wheat above the $2 mark and corn at $3 a hundred and oats 70 cents a bushel it would cost a person a great deal to feed his chickens, and it is all the professional chicken raiser can do to make both ends meet in the chicken business at the present time.

I also see that many recommend the city folks to keep a dozen hens in the back lot and feed them the table scraps to support them, while another writer says that there must be no table scraps during these hard times. One writer says that there are $700,000,000 wasted in the kitchen every year. If a person undertook to follow all that is given in the poultry papers he would soon be a candidate for the poor house. Thirteen years in the poultry business has taught me that in order to succeed with poultry a man must use a little gumption in the matter. In short, he should at least use good common sense in the matter.

There are so many that try to do the impossible when they go into the chicken business that they fail badly. Some think that all that is necessary is to hatch chickens and then they take care of themselves. Hatching is the easiest part of it, and the test comes in raising them to a month old, when they are generally safe if cared for properly.

In purchasing eggs for hatching purposes from those at a distance it is often the case that but few of the eggs hatch on account of the rough treatment they receive at the hands of the express company.

Again we find that the person ordering does not get what he ordered. Last March I ordered a setting of eggs from a prominent Red breeder and they were to be rose comb, but every chicken is a single comb, and, while rose-comb birds sometimes throw a single comb or two, I never before knew them to throw all single combs. I once remarked to a gentleman that I thought that there is more crookedness in the chicken and egg business than in any other and he said "except the nursery business" and, as he was handling nursery stock, I thought that he might know about it. It is surprising how much dishonesty is shown by many poultry advertisers, and I speak from the experience I have had with such. Three weeks ago one of our leading merchants ordered some Buff Orpington eggs and when the eggs hatched he had one black chick and he offered to make me a present of it. There must have been something wrong in the breeding pens of that breeder. I have known of persons who kept both light and dark Brahmas, and once a hen stole her nest and hatched out twelve chicks, half of them marked as light and the other half dark and he told me that he sold the ones that were light for that breed and the others for dark. Is such a thing right to the buyer?

I might give scores of cases that I have known, but time will not permit, but I would say that I believe that there is more rottenness in the poultry business than in any other. I think in many cases that the buyer is as dishonest as the seller. I have no stock to sell, or anything that I care to part with in the way of chickens, but I believe in giving every man a square deal. The golden rule should be followed.

James Lowrey.

Straight Answers to Timely Questions

What is Pratts Poultry Regulator?
A positive tonic and conditioner for poultry of all kinds and ages. *A health-builder and health-preserver.* Not a food.

What does it contain?
Roots, herbs, spices, mineral substances, etc. Each ingredient performs a certain duty. The combination spells "health insurance."

What does it do?
Pratts Poultry Regulator makes and keeps poultry healthy, vigorous and productive. It sharpens the appetite, improves digestion and circulation, hastens growth and increases egg-production. *It saves feed* by preventing waste due to poor digestion. *It prevents disease* by keeping the birds in condition to resist the common ailments.

Has it been fully tested?
Yes! In general use for nearly fifty years. The *original* poultry conditioner. Imitated, but unequalled.

Does it give general satisfaction?
Positively! *Satisfaction guaranteed or money refunded.* Test it at our risk. Increased egg-production will prove that "Pratts makes hens lay."

How is it best used?
Daily, in small quantities. For adults, a tablespoonful daily for 10 birds. Younger stock in proportion. Mix with dry or moist mash.

What does it cost?
Nothing, because *it pays big profits.* One cent a month per hen is the *investment* required.

Where can I get it?
From 60,000 Pratt dealers. There is one near you. Direct from the manufacturer, prepaid, if your dealer can't supply you.

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HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

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RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Yea, Stoughton, Wis.

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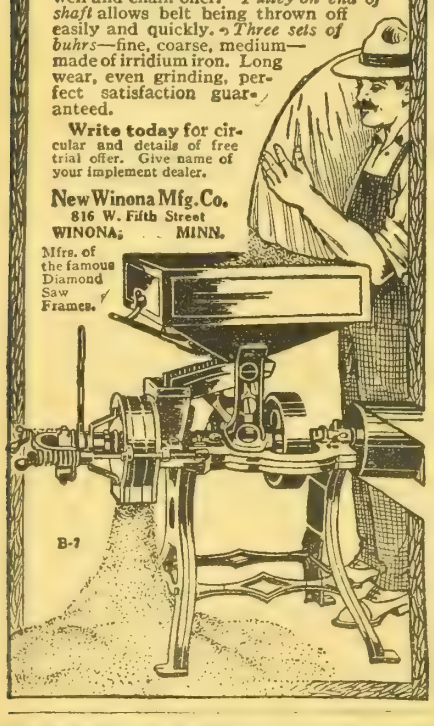

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Wisconsin Cows Drafted to Service

Forty Thousand of Them Were Called for Service Last Month—By Noel Negley, Special Organizer Wisconsin Dairymen's Association.

ALTHOUGH man, the master of the world, has compelled himself to register and to serve wherever he can render the most service, almost 1,800,000 Wisconsin cows, hirelings and servants of man, serve or "slack" at will and thus lower the efficiency of the nation in the present struggle.

Some cows can best serve humanity by converting feed into milk, some by converting feed into beef, while about all that some others can do is to convert feed into fertilizer. Labor, money, precious food, all to make only refuse at a time when the country is in need of all the labor, all the capital, and all the food that America can produce.

At present over 2,500 Wisconsin dairymen have registered their cows under the selective service law by enrolling them in cow-testing associations, where, after taking monthly examinations for one year, they can be easily placed in the positions where they can render the most service to humanity. It is no crime for a dairy cow to convert feed into beef, but it is a crime if she converts feed into beef unprofitably under the guise of a dairy cow.

During the month of August, 101 cows were rejected as physically and temperamentally unfit to serve in the milk producing ranks, and were assigned to the butcher, or interned for the period of the war. Special honor should be given the 5 per cent of the cows tested which made over forty pounds of fat during the month—especially so, in view of the fact that this was an unusually low producing month.

Not only are these men demanding that their cows be efficient, but they insist that the machinery also be efficient, and also are having their cream separators examined each month. Fred Cuenot, of the Alto association, reports stopping a leak of $2.86 a month by repairing a cream separator. C. P. Chrysler, of the Leon Valley association, reports the repairing or replacing of three separators. Fred Waldman, of the Rice & Cedar Lake association, reports that two of the separators in his association were found to be "lazy" and they were equipped with new bowls.

Many of these 40,000 cows examined last month are not efficient because they are handicapped by their owner's methods. To determine just where the responsibility lies, many of the dairymen are using milk scales and weighing the milk of each cow at each milking. During the past month three members of the Muscoda association have bought milk scales. Fred Pfuehler, of the Wolf River association, says that twenty-nine of his members see the advantages of daily milk weighing and have bought $106.50 worth of milk scales since the association started three months ago.

J. T. Toolajian, of the Winchester association, believes that "Cleanliness is next to Godliness" in the dairy as well as elsewhere, and has made arrangements to have each of the barns in his association whitewashed. The association will buy a spraying machine and start the movement for clean and light barns early in October.

"To aid in any way in promoting the interests of the dairy farmer" might be called the cow tester's creed. Another way that he can be of service is to test the soil for acidity, especially where legume crops are to be grown. The Dodgeville association has bought a Truog soil tester and now Louis Bober, of the Lone Rock association, writes that its members would like to buy an outfit and test soil as well as cows.

That the scrub bull cannot stand the present-day strain of competition in efficiency is shown by the sale of scrubs and their replacement by pure-bred animals. Last month four scrub bulls were sold and replaced with pure-bred animals. When the cow-testing association comes in the pure-bred and bred-for-production bulls come with it and the scrubs go out.

Beef prices are high, but that is not the only reason why one tester reports the sale of three pure-bred cows for beef. The reason is that these three were no good at the pail and the owner was too honest to sell them for dairy purposes. May the number of men, with the backbone that this man has shown, increase!

F. G. Soboda, county representative, and secretary of the Langlade Cow-testing association, writes: "I took a buyer out to see some grade Jerseys belonging to one of our members who has been in the association three years. The buyer got four cows at $125, $135, $150 and $165, respectively. A dairy cow is seldom sold for more than $100 in this section. Had these cows not been tested, I am sure the member would have been satisfied with $85 a head for them."

An investment of $1.25 brought one member $100. Harvey Little, Janesville, says: "The cow-testing association records of my herd increased the price I received for my bulls $100 per head."

Why not receive good prices for the surplus stock? The cow-testing association will tell their value in a language that everyone understands.

To let the people of the state know what cow-testing associations are doing, exhibits were held at the state fair and the following county fairs: Green, Portage, Langlade, Sauk, Polk, Chippewa, Waupaca and Fond du Lac. R. E. Kirsch, of the first association in Crawford county, is planning an exhibit at the Gays Mill fair. These exhibits attract great interest among the dairymen, and will result in more associations or continued membership in the present associations.

An annual report is of value if it tells something worth while that has been done. If nothing has been done it is better to keep the "Annual Report" under cover. But a cow-testing association never fears to publish an annual report. Excellent reports have been received lately from the Langlade county, Rosendale, and Monticello associations.

SUMMARY WISCONSIN AUGUST REPORTS.

Association	Tester	No. of 40-pound cows	Fat production of high cow	Breed	Owner
Alma Center	C. J. Sauber	15	58.8	Gr. G.	E. W. Hawley
Alto	F. L. Cuenot	11	51.9	Gr. J.	Rudolph Bastein
Avoca	Bessie Lipsitz	9	57.8	Grade	John Bridgeman
Baraboo	Ernest Hinricks	19	54.6	Gr. H.	Ernest Hanger
Barron	S. McBrayer	23	56.4	Gr. G.	Dickson Bros.
Bear Creek	John G. Coleman	11	50.3	Native	B. Jorgenson
Black Earth	John Uebersetzig	2	43.3	Gr. J.	Wm. Sawle
Bloomer & E. P.	E. P. Kinney	11	50.6	Gr. H.	Chippewa Asylum
Bloomfield	Julius Ausen	4	48.1	Gr. H.	Fred Kundert
Brookfield	Charles Humble	28	68.1	Gr. H.	Scheibe Bros.
Cambridge	C. C. Jackson	5	50.8	Grade	Joe Hoeness
Cedar Grove	Herbert Molter	22	55.3	Gr. H.	Will Nyhol
Chilton	Jessie Wolf	35	82.6	Gr. G.	Louis McGrath
Clintonville	E. A. Hammen	22	64.3	Native	Herman Scholl
Dodgeville	George Springer	7	65.8	Gr. H.	W. L. Huson
Door	George Thull	30	55.8	Gr. H.	John Komken
Dunn No. 1	C. D. Wetmore		90.3	Gr. H.	Frank Ney
Dunn No. 3	G. C. Ogle	20	56.1	Gr. G.	Roy McDonald
East Fond du Lac	M. H. Duel	33	71.7	Gr. H.	Herman Vetter
Empire	R. A. Boyd	6	57.4	Reg. H.	S. C. Stanefield
Gays Mills	R. C. Kirsch	3	44.7	Native	O. H. Walker
Geneva	F. W. Drake	9	47.9	Reg. H.	W. E. Palmer
Granton	Geo. W. Ehlert	27	61.6	Reg. H.	Henry Lawson
La Crosse	G. D. Scarseth	14	52.0	Gr. G.	Kippel & Berg
Langlade	John Reckinger	36	65.7		Schroeder Bros.
Leon Valley	C. P. Chrysler	30	53.1	Gr. H.	Harry Veitch
Manitowoc	J. E. Bowstead	57	61.5	Gr. H.	John Pinter
Maple Grove	Marlin Frihart	6	52.2	Gr. G.	Ed Munch
Mondovi	B. F. Wood	16	57.2	Gr. H.	Dell Pace
Mukwonago	Harry Hooyboer	1	52.9	Gr. H.	Eugene Burnell
Muscoda	O. L. Garrison	30	70.6	Gr. S. H.	Martin Anderson
Neenah	A. H. Martin	5	49.3	Gr. H.	A. H. Steffensen
New Holstein	Nauder Nelson	57	67.3	Gr. H.	John Kuhn
Outagamie	Chas. Maas	29	53.8	Gr. G.	A. G. Bensentz
Ozaukee	W. L. Kalmerton	14	68.1	Gr. G.	Frank Salter
Reedsburg	Emanuel Peterson	14	61.6	Reg. H.	E. H. Koenecke
Rice & Cedar Lake	F. J. Waldman	25	66.4	Gr. G.	Cedar Lake Farms
Rock	G. R. Brannon	11	58.5	Gr. G.	Geo. Benash
Rosendale	D. C. Phillips	8	53.0	Gr. D.	F. Lawson
Sauk Prairie	E. E. Clingman	4	45.4	Gr. H.	M. Moely
Scandinavia	H. R. Brewster	21	61.4	Gr. G.	E. A. Hotz
Shawano	C. M. Rydberg	10	53.3	Gr. H.	John Horsens
Spring Green	J. M. Garrett	16	79.2	Gr. H.	Henry Lins
Stanley	W. C. Johnson	18	59.6	Gr. H.	F. J. Mitchell
Tigerton & W.	T. Gjermundson	5	45.0	Jersey	J. J. Klovdhal
Walworth	A. H. Otto	10	59.5	Gr. H.	T. Pearce
Waukesha	C. A. Cook	13	52.7	Reg. H.	Dr. G. S. Love
Waunesha-Guer. No. 1	D. A. Greene	23	72.2	Gr. G.	Goodland Kingston
Waupun	F. J. Redmond	6	63.0	Reg. H.	Fletcher Bros.
Winchester	J. H. Toolajian	3	46.9	Grade	Elmer Thompson
Winnebago	Arthur Barthels	8			N. A. Rasmussen
Wolf River	Fred Pfuehler	20	64.5	Gr. G.	Henry Harmann
Wood No. 1	J. L. Williams	17	55.5	Gr. H.	A. Osenga
Wrightstown	F. A. Gaiser	16	50.0	Gr. G.	O. Huebner

Grow Up the Best Heifer Calves.

To the Editor:—Throughout the entire country there is a great shortage of milk cows. It has come about by the big demand and the high prices offered by butchers and shippers for all kinds of calves for veal. As a rule, it is very difficult to judge the young heifer calves as to what they may develop into as milkers. The thing to do is to choose all the best-appearing ones, grow them up to three to five years of age, and then after two or three calves have been dropped decide if they are profitable for further use as milk stock.

Such as prove undesirable can then be fattened for beef. If they are smooth and well fattened the price for them as beef stock will well pay for growing them. There is such a great demand for milk, sold fresh or to condenseries, and an unlimited market for cream, butter and cheese, that if the number of milk cows was very largely increased there would be no break in the present prices. The future is rich in promises for a continuous fine price for all milk products and almost universally farmers who only keep a few cows can very profitably double up on the present number they are keeping.

With the silo, plenty of clover hay, some grass and the straw and fodder that all farms can or are producing, the calves can be cheaply grown into cows, and when they become fresh milk can be produced at such figures that fine profits will result. All this can be done, too, without materially interfering with the present arrangement of the farm stock or crops. So I advise both buying and producing on the farms a great many extra heifer calves, and growing them to be milk cows.

W. A. G.

YOU PAY NOTHING EXTRA

to have your horses shod with Capewell nails. You do avoid the risk of having cheap imitation nails used—

You do have assurance that the nails will hold the shoe—

But it costs you not a penny more because Capewell nails sell at a fair price and all shoers can afford them. Ask for the Capewell.

THIS CHECKED HEAD — OUR TRADE MARK

TOO LATE TO CLASSIFY.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address

B. F. SCHAUB Honey Creek, Wis.

CHESTER WHITES

40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.

L. A. SCHULTZ R. 1, Poynette, Wis.

WHITE PLYMOUTH ROCKS, winners at the Wisconsin State Fair. A choice lot of cockerels for sale. Buy early and get the best. Everything sold on approval. A. F. Pelz, Hartford, Wisconsin.

THE LIVE STOCK MARKET

Union Stockyards, Chicago, September, 29.—The final week of September was one which will hold a high place in live stock history. With cattle receipts on an extraordinary heavy basis and hog receipts correspondingly light, prices have gone through the natural changes which are to be expected under such conditions. During the first half of the week there were three cattle to every hog at the ten principal western markets, a condition which probably never before existed at this season of the year. Cattle receipts at these points on Monday totaled 173,000, the Chicago run leading the list with a total of 42,377, the third largest local run on record, while Kansas City reported 39,000. Omaha hung up a new yard record by about 1,000 head when 24,500 arrived, and St. Paul also exceeded their previous high mark by nearly 1,000, when 20,300 showed up there. Tuesday's run in the West swelled Monday's total by 99,000 and made a new record two-day total, while Wednesday's run was curtailed considerably, only 64,000 being reported. The three-day run figured up to 335,000. In direct contrast to these figures, the hog supply at seven western markets for three days showed a total of only 113,00 head against 201,000 for the same period last year.

Killers have labored under the heavy cattle receipts all week, and, although the market has declined rather sharply, prices have, in reality, been extremely well maintained taking supply figures into consideration. Sharp breaks were logical and the only wonder is that they were not much larger. Such a glut as the Chicago market has gone through this week always brings back the desired agitation of equal distribution of marketings on the five days of the week. The piling up of such an enormous supply as the country has done the first three days this week simply gives buyers an added advantage which they would not possess had the supply been more evenly distributed.

Climatic conditions are the main cause of the heavy runs. No beef famine is suggested by the figures but they are hardly representative of the exact conditions. Cattle breeding has, without doubt, been on the increase, but to no such proportion as the figures indicate. The high feed bill working hand in hand with bad weather conditions has done more to increase marketings than any other factor. Thousands of cattle are being sent to market prematurely west of the Missouri river owing to the drouth, and with the culling out process taking place in dairy herds in all sections in response to the high prices, the future supply appears doubtful.

Hog receipts showed the results of the clean-up process which took place early in the season and the market responded well to the light runs. Prices advanced by 10@15c jumps until a $19.70 top was reached on Friday and the trade confidently expects a return of the $20 quotation in the very near future. The present miniature movement of hogs to the market showed a distinct inferior quality and indicated that the dregs of the porcine population were being gathered on the strength of the prices. Pigs, being healthy, are being conserved, and no heavy run of new hogs is possible before January. Present prices are at new high levels of a year ago.

Barring strictly prime grades of long-fed beeves and fancy yearlings, the beef steer market shows sharp losses when compared with last week. Even the best grades were shaded a bit from a week ago, but the scarcity of that kind tended to keep them in a class by themselves on the market. Trade was irregular, but a general decline of 50@75c took about 75 per cent of the crop. Packer buyers discriminated strongly against heavy steers which were a little below the top grade, and a good many sellers quoted declines of $1@1.50 on these. A strictly good handy-weight kind found the readiest outlet, but even these failed to escape the declines brought about through oversupply. Proportion of native beef steers eligible to sell above $17, was small, by far the long end of the crop being of plain quality. A new high point was reached for yearlings on Wednesday when 41 head of prime Illinois-fed Angus averaging 1,039 pounds, reached $17.65, the former record being $17.50, but these were in the specialty class and were not a criterion to the general market. The week's top on heavy cattle was $17.85 scored on Monday, this being only 5c under last week's record. On the midweek session bulk of all beef steer sales were at a range of $10@15.50 against last week's range of $10.75@16.50. The long end of the crop comprised common and plain grades of grass steers, selling largely at $8.50@11, while a lot of medium to good light short feds cashed at $11.75@13.75, good to choice corn-fed beeves landing at $13.75@16, and only something in the choice to prime classes being quotable to $17 and above.

Of the 42,300 cattle which arrived Monday, 15,000 were western rangers, and outside markets reported a proportionately large supply, indicating strongly that drouth conditions on the ranges are tending to speed up marketings. But for the drouth and the high feed bill, a large proportion of the range cattle at present coming to market would be kept another year. Although prices broke under the big supply, the market gave a good account of itself, everything considered. The mere fact that sellers were able to clear such an excessive supply each day, even at the declines noted, was indicative of the tremendous demand for cheap beef. Local supply for the half week was 28,000 against 20,000 last week. Declines of 50@60c were general for the rank and file of western steers which went into the killer outlet, the better grades selling at $13 and above, escaping with smaller losses, and the steers with feeder quality, which meant minus horns, finding less declines. Prime Canadian beeves from Alberta, averaging 1,500 pounds, sold at $16, but those were in a class by themselves, and a good kind of Montanas cashed at $14 with the big end of the Texas-bred stuff from the Northwest cashing at $9.50@11.25. Those at $8.50@9.50 were inferior to plain. Good to choice western cows sold at $8@9 and some at $7 were of fair class, while a canner and cutter grade cleared downward to $6.25.

In the butcher cattle trade prices were largely 50@75c under last week's close, choice grades of heavy cows and prime corn-fed heifers being the only fortunate classes to escape. There was a fair call all week for good to choice heifers selling at $8.75 and above, but below that point, and for the plainer grades, selling at $7.50 and below, it was a dull, draggy market. Cows of big weights were scarce. Some sold up to $8.50@9, which looked no more than 25c under a week ago, but plain and medium grades, going at a range of $7.50@9, were weak, while the low-priced cows had just decent action. The medium sorts were at all times hardest to clear. The bull market declined 25@50c under a good supply and weak demand. Strong-weight bolognas of good quality sold largely at $7@7.25, with prime heavies up to $7.50, while the fair qualitied light weights had to sell around $6.85 and lower, the common kinds going from $6.50 down. Prime yearling bulls and choice butchers were scarce and sales were made up to $10 and higher.

Stocker and feeder supply was heavy all week, the western run yielding a large proportion and there being a profusion of light plain 600 to 800-pound stuff from Wisconsin and Minnesota. There was strong demand for the good to choice grades and these showed little change from last week, but demand for the under grades was not equal to supply and declines of 25@40c were noted. The country is coming into the market strongly for feeding stock to consume the new corn crop and prices show a substantial advance over a month ago, but prospective purchasers have little to fear when the wide range between feeder and fat cattle prices are considered. Prime fleshy feeders sold up as high as $12, but few cattle went countryward above $10, this price taking a choice 700 to 900-pound kind. A plain class of stockers sold at $7.25@7.50 and a good grade at $8@8.50. Stock calves were on a $7.50@8.25 basis and good to choice yearlings were worth $9@9.75.

The course of the hog market has been much like the sensational advance of two months ago. During the first five days of the week the local run was less than 56,000, making an average of less than 12,000 per day. That the country is short of hogs is now a foregone conclusion and with countrymen holding on to their healthy pigs and under weights, there is no possible chance of an oversupply before the year is out. Receipts during the last month have been just about enough to supply fresh meat demands, and packers are having to unload coolers to make up the deficit. The country is closely conserving the crop even in the face of the advancing prices and the opinion is general that a sharp break would have more effect in bringing a good-sized run than further advances. Brave forecasters around the yards are looking for the return of the $20 hog within a few days, but forecasting under such conditions is accompanied by danger to the reputation of the forecaster. The advance has been a steady one, each day being 15c higher than the previous one until on Friday a $19.70 top has been reached and the market stands generally 75c@$1.50 higher than a week ago. The good demand from packers has caused the heavy and mixed packing grades to show the longest advances, thereby narrowing up the spread which has been extremely wide for the past four months. Very few hogs are selling at present below $18.50, the bulk of the packing grades going at $18.70@19 and the bulk of the better grades landing from $19.15@19.60. Shippers have taken very few hogs, but local demand from packers and city butchers has been enough to absorb the crop. Most of the common to good mixed packing sold at a range of $18.50@19.10, with a lot of poor to good heavy packers at the same prices. A range of from $19@19.30 took fair to choice medium-weight hogs, while fair to good butchers sold largely at $19.20@19.50, a prime, selected, medium-weight butcher class going at $19.60@19.70. Common to good light shipping hogs landed mostly at $19@19.35, with light, 140 to 180-pound grades from $18.50@19.10. Old packing sows were slow sale at $17.50@18.30.

A demoralized meat trade in the East and liberal supplies at all points have combined as a bearish influence on the lamb market early this week, though some reaction was noted toward week-end, and prices are closing unevenly 15@35c per cwt, lower than a week ago. Choice feeding lambs show the least loss, although, for the first time this season, there is a wide spread between choice and the weighty undesirable feeders. Best fat range lambs are going on killing account from $17.50@17.75, with lss desirable kinds from $17@17.25. Choice light-weight feeders are going to the country up to $17.75@18, though weighty kinds are selling anywhere from $17@17.50. Bulk of the native lambs selling from $17.25@17.50 at the close yesterday. Sheep, owing to acute scarcity, have been practically immune to decline, the few coming selling on about the same basis as a week ago. Good to choice ewes from $11.25@11.50, with fat aged wethers quotable at $12.25@12.75 and good to choice fat yearlings at $13.75@14. There have been no feeding sheep available on this week's market of consequence, but they are nominally quoted as follows: Good to choice feeding yearlings, $13.25@13.75; good to choice aged feeding wethers, $12@12.50, with feeding ewes from $9.50@10.50, depending on their condition. Breeding ewes are selling anywhere from $12.75@16, according to ag weight and quality, with the supply much short of demand.

Your Government Wants You to Raise More Live Stock

Government officials have found, by careful investigation, that there is a very serious shortage of live stock in this country. They state that unless farmers RAISE MORE HOGS, SHEEP AND CATTLE, especially now that we must feed our own soldiers and help feed those of our allies, famine conditions may result. YOU WANT TO DO YOUR "BIT"—DO IT RIGHT NOW. Increase your live stock at once. It will pay you well. You are bound to get

Higher Prices — Bigger Profits

But, don't forget that WORMS are the greatest enemies of live stock—greatest "profit-consumers." They cause 90% of live stock losses. Never before has it been as necessary to feed a good worm destroyer and conditioner as RIGHT NOW, and the best and cheapest remedy—one that is guaranteed—is SAL-VET, the old reliable live stock conditioner and worm destroyer. It costs but 2½¢ per month per head of hogs or sheep—horses and cattle a trifle more. It not only gets rid of the worms, but tones the blood, aids the digestion and makes stock thrive faster—KEEPS them healthier and SAVES feed.

"When I ordered the SAL-VET I had eight pigs that were at a standstill; they had not gained a pound in two months, and were four months old at the time. I fed SAL-VET as directed and the worms came from them by the dozen, some of them ten and twelve inches long. They have gained more in the sixty days than they did in the entire four months. SAL-VET also cleaned out an old horse on which I had tried several kinds of medicines." R. K. COWARD, New Paltz, N. Y.

You can't afford to be without SAL-VET. It is the cheapest, safest, surest preventive against losses and pays big profits on its small cost. Ask your dealer about it; if there is none in your locality, write us. A postal brings a valuable live stock book, just issued, free. Send for a copy today.

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THE FEIL MFG. CO., Chemists

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Blacklegoids

NO DOSE TO MEASURE.
NO LIQUID TO SPILL.
NO STRING TO ROT.

BLACKLEGOIDS are small pills. Each pill is an accurate dose of blackleg vaccine.

BLACKLEGOIDS are easily administered—simply inject them under the skin with a vaccine injector.

TAKE NO CHANCES.

Don't wait until your calves become infected. This means certain loss—there is no *cure* for blackleg. Vaccinate now—before the deadly disease shows itself.

THE COST IS SMALL.

BLACKLEGOIDS are economical. The expense is trifling compared with the loss you are liable to sustain if you do not use them.

ORDER THROUGH YOUR VETERINARIAN OR DRUGGIST.

Write for free booklets on Blackleg, with full information about Blacklegoids.

PARKE, DAVIS & CO.

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KENDALL'S SPAVIN TREATMENT

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Known for 40 Years as Kendall's Spavin Cure

A New Name

But the Same Old Reliable Remedy

FARMERS and horsemen everywhere will be glad to know that this change is in the *name only*—that there is no change whatever in the famous old-time formula that has rendered such remarkable service in horse ailments—Bone Spavin, Ringbone, Splint, Curb, Sprains and Lameness—by the counter-irritant method.

Whether you get Kendall's under the old label or the new, the quality and efficiency is the *same* old reliable—with a 40-year-old reputation.

Get it of your druggist—$1.00 per bottle—six for $5.00—and ask for book "Treatise on the Horse"—or write

DR. B. J. KENDALL CO.
Enosburg Falls, Vt.

SELDOM SEE

a big knee like this, but your horse may have a bunch or bruise on his ankle, hock, stifle, knee or throat.

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

will clean it off without laying up the horse. No blister, no hair gone. Concentrated—only a few drops required at an application. $2 per bottle delivered. Describe your case for special instructions and Book 8 M free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful Swellings, Enlarged Glands, Wens, Bruises, Varicose Veins; allays Pain and inflammation. Price $1 and $2 a bottle at druggists or delivered. Made in the U. S. A. by

W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Notes on the Atwater Fall Sale.

ON October 17th L. F. Atwater will hold his second fall sale at his farm near Bangor, Wis. We saw this offering on September 21st and we are glad to report that L. F. is selling some of the best herd-boar prospects that we have seen listed for a sale this fall. Not every one, of course, is suitable to head the best registered herd of Duroc Jersey sows, but there are about 15 that, in any of the western sales, would be "killers," etc., the big kind, up well on legs, good, high backs with good feet and sired by good, well-advertised boars. We can't mention all of them in this limited space, but there are a few that we want you to become interested in if you are going to buy a herd boar. Investor Jr. is listed as an attraction. Now we will be frank and say that we do not think this boar will be the top of the sale, but we do believe that he is the best herd boar prospect in the sale, if someone gets him that will grow him. He is thin in flesh, and as he is of the big type many that are accustomed to the short-legged, short-bodied kind will not like this boar. The demand is for the big ones, and the man that lands this boar will make a real buy. He is sired by Investor and was bred and raised by Sam Eagle, of Illinois, the breeder that bred Investor. The first-prize boar pig at Minnesota will be one of the contending boars for high honors, and he is certainly entitled to that position, for he is a wonderful pig in every respect. One of the best pigs in the sale is sired by Dreadnaught, an Iowa boar bred by Dr. Still, and a son of Illustrator. The dam is a daughter of Walt's Top Col. out of a Jack's Friend dam. Proud Chief Jr., Atwater's Cherry Chief-Proud Col. bred boar, is the sire of some of the best, and P. S. Wonder's boar pigs were winners at the fairs. Two boars, and one that is outstanding, are by Investor out of the Lady Top Notcher sow that cost $310 last winter. These boars should be in demand and competition should be keen between the particular breeders. In our next issue we will have something to say about the dams, but then you know the sows have made the Atwater herd. Be sure and get the catalog and "study your lesson" well. Try and be at the sale, but if that is impossible send your buying instructions to T. P. Shreve, field man for The Wisconsin Farmer, in care of L. F. Atwater. When writing for catalog, please mention this publication. See advertisement on page 26.—Adv.

Write Quackenbush, Melrose, Wis.

W. W. QUACKENBUSH, Melrose, Wis., is the man that has those good, big-type Poland Chinas, and we want to suggest, to the man that wants a boar or a few gilts that he write this breeder at once. Mr. Quackenbush has some of the best sows in the state, the dams of the pigs he has for sale. He is not going to hold a sow sale, so the gilts are being offered as well as the boars. Many of you breeders are going to be short on sows to breed this fall, so this is your opportunity. He has the goods. Don't be afraid of them. Mention The Wisconsin Farmer, please. See page 27.—Adv.

The Neeseman Polands.

AUG. NEESEMAN, whose postoffice is Warren, Ill., but who lives in Wisconsin, is offering some Poland China boars that he guarantees will please you. They have the size and stretch that is needed in youngsters and they carry the very best of breeding. Good boars are going to be scarce the last of this month, so if you are going to buy a boar do not wait too long. Communicate with the above breeder and let him quote you prices and description. Mention The Wisconsin Farmer, please. See page 27.—Adv.

Silver Spring Farm.

GEO. H. COMINGS, president of the Silver Spring Farm Co., Eau Claire, Wis., makes a specialty of of selling Holstein calves. This firm supplies milk for the city, and while they take good care of their calves they do not wish to bother with them longer than necessary, and for that reason the prices quoted on the bulls are very attractive. One of the best bred bulls in Wisconsin heads this herd and many of the cows have A. R. O. records. If you want Holstein calves write the above firm. See page 25.—Adv.

Evansville Breeders Claim February 19th.

THE Evansville, Wis., Chester White breeders, Wm. F. Butts, B. H. Babcock and Walter George, claim February 19th for their winter sow sale. This will be during "Swine Week." Evansville is near Madison, and the Chester men can attend this sale and then get to Madison at 3:30 or in plenty of time to attend the banquet. Keep this date in mind.—Adv.

J. J. Cain Sells, October 30th.

J. J. CAIN, Skyberg, Minn., sells Duroc boars and gilts October 30th. Cain is the man that raised that great boar, Giant Invincible, that he sold during the Iowa State Fair to Jake Waltemeyer for $2,500. Some pigs by this boar sell on the above date. Watch this paper for details of this sale.—Adv.

Underwood's Red Polls.

DON'T forget L. C. Underwood, Avoca, Wis., when in need of Red Polls. He has one of the good herds of the state and many of his cows are in the A. R. list. As secretary of the Wisconsin Red Poll Breeders' Association he is in a position to give you any information you may wish to have relative to the "double deckers." When writing please mention The Wisconsin Farmer.—Adv.

Owens' Poland China Sale.

ON OCTOBER 17th G. W. Owens Lawler, Iowa, will hold his annual sale of big-type Poland Chinas. As usual, he has a splendid offering and well grown. His pigs are sired by I Am Baron, his sensational big-type herd boar and one of the largest in the country and a sire of exceptional merit, and his other herd boar, Blue Valley, Jr., by Blue Valley Quality by Blue Valley and out of a dam by Miller's Choice. The largest spring boar that the writer has seen this year is one sired by Blue Valley Jr., and out of Belle B. by A Wonder A. There are three boars and one sow in this litter and they are tops. The one boar pig especially is one of the greatest prospects of the year. There is a litter of six gilts and three boars by Big Price, the Minnesota and South Dakota champion, and out of a dam by King Expansion, that are extra good and are very even. There is an extra good litter by I Am Baron and out of a good brood sow, Big Lady. One extra good gilt is by I Am Baron and out of Nemo P. by King Giantess. This is a straight-bred gilt and very desirable. Mr. Owens will pay the car fare of anyone who attends the sale and is disappointed in the offering. We will have more to say next week. See this page and write for a catalog, mentioning this paper.—Adv.

Rock River Valley Holsteins.

WHILE talking to the owner, John D. Hetts, Fort Atkinson, Wis., the other day about the herd, he sounded the keynote of its performance by saying that "we do no claim the world's record, but we do claim a world of records. The average semiofficial yearly record of all the cows tested in our herd is 16,800 pounds milk and 711 pounds butter." When you consider the fact that this average includes two year olds as well as the other junior classes up to mature cows and that few herds in the state have made more yearly records than this one, some conception of the significance of this average can be formed. The grand old foundation cow, Fannie L. De Kol, is in many respects the greatest cow in Wisconsin. She is a show cow, a producer, and a reproducer of A. R. O. show cows. She has 11 A. R. O. daughters which is the world's record and her blood has been conspicuous in many of the noted Holstein shows for many years. Mr. Hetts always has a good lot of bull calves on hand from this large herd so that it would pay you to come to his farm and look them over when in need of a sire. See advertisement on page 25.—Adv.

Dan P. Jones' Holstein Sale.

ON page 25 of this issue will be found the advertisement of Mr. Dan P. Jones, of Cambria, Wis., announcing a dispersion sale of purebred Holstein cattle at the farm two and one-half miles from Cambria on Tuesday, October 9th. There will be sold at that time 15 head of pure breds in addition to five superior grades. All animals in the herd have been tuberculin tested and they are able to give good account of themselves as milkers. At the same time Mr. Jones will sell nine head of good, heavy draft horses and a fine assortment of farm machinery. Wisconsin Farmer readers should keep this sale in mind, as it may prove to be an ideal opportunity to obtain some good Holsteins at reasonable prices.—Adv.

Those Grant County Chesters.

THESE good boars of any breed are getting scarce and if yu are going to need a boar this fall you had better get busy at once. John P. Vogt, Jr., Glen Haven, Wis., raised a large number of spring pigs and we feel sure that he can sell you a boar worth the money. He is not asking long prices and those wanting good, serviceable boars should write Mr. Vogt. See page 27.—Adv.

Du Rocks Du.

IF YOU want to buy Durocs—gilts or boars—we want to refer you to W. A. Webb & Sons, Poynette, Wis. They have a nice assortment and we guarantee you will get a square deal at their hands. Would suggest that you get your order in at once, for during this month many boars and gilts are going to change hands. See page 26.—Adv.

Collins at River Falls.

JUST now would be a good time to buy one of those Oxford rams being offered for sale by P. N. Collins, River Falls, Wis. He has some big sheep with an excellent fleece and they will give satisfaction. Mr. Collins also has Poland Chinas for sale, either sex, and is in a position to supply your wants. Write him. See page 27.—Adv.

Siebecker at Baraboo.

LET L. R. Siebecker, Baraboo, Wis., tell you about the Durocs that he has for sale. He will quote you prices on his boars and gilts that will appeal to you. He has them to sell, and if you want to buy we are sure you can get together. Mention The Wisconsin Farmer, please. See page 26.—Adv.

H. B. Drake & Sons—Short-horns.

THE above firm located at Beaver Dam, Wis., have been breeding Short-horns for years and have shipped cattle to many states. They are prepared to fill your order for a bull or females at most any time. Get in touch with them when needing Short-horns. See page 25.—Adv.

O. I. C. Hogs.

FROST'S O. I. C. hogs have won numerous prizes at leading shows and the pigs S. D. & B. H. Frost, Kingston, Mo., are offering descend directly from the best of these winners. See page 27 for their advertisement and kindly mention this paper when writing them.—Adv.

Whitmore Bros.' Berkshire Winnings.

AS predicted some time ago Whitmore Bros. made a good showing at the fairs this fall. Their junior herd boar, Handsome Champion 4th (239339) was first and junior champion at Minnesota and first at Wisconsin State Fair and their senior boar Aldaro Climax (212190) sired by Aldaro Premier 3d (132360) and out of Climax Duchess 10th (168188) was first, senior and grand champion at the Minnesota State Fair and the same at the Wisconsin State Fair. This hog was also grand champion at the Wisconsin State Fair two years ago. Whitmore Bros. are now offering yearling and spring boars and spring gilts for sale. Address Whitmore Bros., Lyons, Wis. See advertisement on this page.—Adv.

The North Holsteins.

JOHN NORTH, Kilbourn, Wis., can fill your order if you want Holsteins. He maintains a good-sized herd, and there are several other herds in his neighborhood that he can draw from. He can supply you with bulls or heifers and at a reasonable figure. If in need of something in Holsteins let Mr. North quote you prices. See page 25.—Adv.

Short-horn Sale Canceled.

HERR BROS. & REYNOLDS, Lodi, Wis., have canceled their sale of Short-horn cattle announced for November 1st at Chicago.—Adv.

Boar Week Oct. 8 to 13

Gant's Farm Durocs, Delavan, Wis. The home of the real 1,020-pound grand champion boar,

KING DEFENDER

DURING this week we will sell you a spring boar for $50 that will bring a tear to your eye. We have spring boars sired by Pathfinder (the mighty), Orion Cherry King Jr., the Omaha grand champion, and six other noted boars. Aged and yearling boars by Illustrator and Cherry Chief. Come and make your own price. Nobody to bid against you but ourselves, and we want to sell. Opportunity knocks—nobody else does.

GANT'S FARM **DELAVAN, WIS.**

G. W. OWENS' BIG-TYPE POLAND SALE LAWLER, IOWA, WEDNESDAY, OCT. 17

50 HEAD OF THE REAL KIND

ALL are spring pigs, and boars and gilts are both extra good. They are sired by I Am Baron, my great herd boar, recognized as one of the breed's best, Blue Valley Jr. by Blue Valley Quality by Blue Valley, and a litter of six boars and three gilts that are big and good by the Iowa and South Dakota champion, Big Price. Their dam is by King Expansion, a litter brother to Again Expansion. Belle B. the dam of I Am Baron, has three boars and one gilt by Blue Valley Jr. that are extra and one of the boars is the largest spring boar to be sold this year. See him. He is a wonder. I have the goods and know it and to back my judgment will pay the fare to and from the sale to anyone who is disappointed in the offering. Send bids to auctioneers in my care. G. H. Burge and S. E. Johnson auctioneers. Address for catalog, mentioning this paper

G. W. OWENS **LAWLER, IOWA**

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

HEREFORDS

LET US QUOTE you prices and describe the young bulls we have for sale. The thick quickly fleshing kind that suit. We invite inspection.
WALTER BROS. Chippewa Falls, Wis.

Kindly mention this paper when writing

TOO LATE TO CLASSIFY.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.
JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

SALE DATES.

Duroc Jersey Swine.

Oct. 17, L. F. Atwater, Bangor, Wis.
Oct. 30, J. J. Cain, Skyberg, Minn.
Oct. 31, F. S. Vanderhyde, West Concord, Minn.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Oct. 15, Henning & Pharis, Belvidere, Ill.
Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 23, Deweelow Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Oct. 27, Freman & Ruppey, Glenwood, Mo.
Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Oct. 23-24, Lake Mills Holstein Sale, Lake Mills, Wisconsin.

DISPERSION SALE

of Pure-Bred Registered

HOLSTEIN-FRIESIANS

Two miles and a half from town of

CAMBRIA, WISCONSIN

TUESDAY, OCTOBER 9TH

15 HEAD of pure breds and 5 head of fine grades. The owner, Mr. D. P. Jones, has sold his farm and these cattle with 9 head of good, heavy draft horses and the usual farm machinery will be struck off to the highest bidder.

All cattle in fine condition.

HERD TUBERCULIN TESTED

Send for sale list. Address

DAN P. JONES, Cambria, Wis.

SHORT-HORN CATTLE.

OAK LAWN SHORT-HORNS

YOU SAW MY CATTLE at the state fairs and have read the report of my winnings. I have young bulls of the same breeding for sale.
"Scotch Short-horns of Quality."
J. E. KENNEDY :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

Short-horns

MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

SHORT-HORNS

OF EITHER SEX, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. BERND New Richmond, Wis.

WORLD'S FAIR HERDS

SHORT-HORNS. POLAND CHINAS.
OFFER heifers and bulls by VILLAGE MYSTIC by Villager-good. SOWS bred for fall farrow. We please our customers. Write or visit.
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

Wis. Live Stock Auctioneer

Let me conduct your sale

Call or write me at
BRIDGEPORT - - - - WISCONSIN

HOLSTEIN-FRIESIAN CATTLE.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, Aaltje Johanna 28.57 lbs. His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

HOLSTEIN-FRIESIAN CATTLE.

PABST QUALITY BULL CALVES

From
A HERD OF OVER 300

$100 and up

PABST STOCK FARM

(BREEDERS, NOT DEALERS)
Oconomowoc, Waukesha County, Wis., Box W

A KING SEGIS BARGAIN

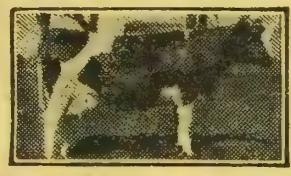
THE Grahamholm Farm is offering a 29.23-pound yearling grandson of King Segis that is nicely marked and that contains 25 per cent the same blood as Segis Fayne Johanna, the only 50-pound cow, and Francher Farm Maxie, the only 46.84-pound four and one-half year old. This young bull is a show animal and is out of a great producing cow having a 29.23-pound record at 12 years, 27.85 pounds at seven years, and 580 pounds butter in a year. She also has four A. R. O. daughters, including a 28.26-pound cow. $400 will buy him. Write for further particulars before it is too late.
W. J. BOYNTON, Mgr. Route 1, Rochester, Minn.

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

HILLSIDE HOLSTEINS

WE HAVE TEN REGISTERED COWS for sale and one heifer. All cows have A. R. O. records but one; some due to freshen soon. Prices, $150 to $300. Extra large cows, good dairy type.
KIRKPATRICK BROS. - - - - - - - Reedsburg, Wis.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.
EMMONS BLAINE, Prop. Lake Mills, Wis.

REGISTERED HOLSTEINS

FOR SALE—Cows and heifers due to freshen this fall. Also heifer and bull calves sired by a yearly record son of Dutchland Colantha Bell Boy 79156.
Estate of Otto Volkmann Juneau, Wis.

Lake View Farm Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,900 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.
FRED GURR :: :: Lake Mills, Wis.

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.
JOHN L. FISHER Janesville, Wis.

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK,** Secy. & Treas., Reedsburg, Wis.

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.
L. V. GARVENS R. 12, Brookfield, Wis.

$25—HOLSTEINS—$25

WAUKESHA COUNTY high-grade calves. Either sex, shipped to your station, express prepaid, safe arrival and satisfaction guaranteed. Order now.
J. A. ROBERTS Oconomowoc, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

CRATED BULLS

HOLSTEINS of good breeding, good individuals. Priced cheap. Write
GEO. A. WILSON Mellville, Wis.

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.
TULLOCH FARMS Genoa, Wis.

A 28.31-lb. BULL

THE ABOVE IS THE AVERAGE RECORD for his dam and sire's dam. His sire is out of the famous 35.43 lb. cow, Pontiac De Nijlander. His dam has a four-year-old record of 21.20 lbs. butter, second dam 17.50 lbs. butter. The bull is a little more black than white. Well grown and a good individual. Born January 27, 1916. For pedigree and further information address
A. M. ANDERSON WHITEWATER, WIS.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ida Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142685, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER Sheboygan Falls, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

DUROC JERSEY SWINE.

L. F. ATWATER'S FALL SALE
AT THE
"HOME OF BIG DUROCS"
BANGOR, WISCONSIN
Wednesday, Oct. 17, 1917

40 HEAD OF BOARS AND GILTS

Including 30 of the best boars to be sold in the Northwest this fall. Featuring boars of breeding new in Wisconsin.

INVESTOR JR.

A yearling son of Investor, one of the best herd boar prospects I ever sold; fall boar by the old champion, Lee's Defender; the first-prize boar pig at Minnesota; all of my show boars, sired by the junior champion, Proud Chief Jr.; some by the great breeding boar, P. S. Wonder; two spring boars by Investor; two by Dreadnaught, and some by Model King and Illinois King. The dams: Proud Helen 2d, the grand champion at Milwaukee; Rising Star 2d, full sister to Defender Queen, the grand champion of 1916; Ohio Nellie by Walt's Top Col. ($175 sow), the top sow of the Shanks sale ($310), and daughters of King the Col., Col. Gano and Lee's Defender. Never before have I offered the public such an array of popular blood lines. Am selling 10 gilts, including my futurity gilts. Be sure and write for a catalog of this sale. I. E. Stickelman, auctioneer. Mail bids should be sent to T. P. Shreve, field man for The Wisconsin Farmer. Address

L. F. ATWATER BANGOR, WISCONSIN

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.

ISAAC HIGGINS (Richland County) Gotham, Wis.

KING ORION

GRAND CHAMPION, Minnesota; grand champion, Wisconsin; son of Orion Cherry King Jr., grand champion at Omaha. We have Duroc Jersey boars for sale. Enough said.

E. H. PARKER & SON :: :: :: Janesville, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.

J. W. HIGGINS :: :: :: Gotham, Wis.

ORION KING

I HAVE JUST PURCHASED the best spring boar sired by the grand champion, KING ORION, to head my herd of Durocs. Will have gilts for sale bred to ORION KING. Just now have a few good boars for sale. Write me.

MIKE STOEHR :: :: :: Viroqua, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well grown boars for sale. Guaranteed to please YOU.

JERSEYS—Herd in the accredited list. Young bulls for sale.

F. R. CONSTANCE & SONS, Waupaca, Wis.

--- E. J.'s ---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913, DUROC BOARS sired by above for the particular buyer.

JOHN SWENSON Willmar, Minn.

ORION COL.S.

FIRST PRIZE DUROC BOAR, Minnesota State Fair. Will be mated to some of the best sows in Wisconsin. Have some spring boars for sale. Inspection invited.

W. C. JENKINS Bangor, Wis.

GUERNSEY CATTLE.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

ALLIC S. KNUDSON Brodhead, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write

FOX BROTHERS Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.

F. E. FOX Waukesha, Wis.

REG. GUERNSEY BULL CALVES

OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,

LABELLE KNOLL FARM Oconomowoc, Wis.

GUERNSEY GRADES FOR SALE

SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.

H. N. LONGLEY Dousman, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS

Emory C. Mellz GUERNSEYS Appleton, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wis.

YEARLING GUERNSEY BULL READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. BREITRICK GREENVILLE, WIS.

DUROC JERSEY SWINE.

"KING THE COL" "PATHFINDER" "LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

This gives me the very best breeding. Offer spring boars with size, with quality, with stretch. They cost more, but they are worth it. The "ordinary" boars went to Chicago—if you want GOOD DUROCS write me. Gilts reserved for my sale, January 29th.

DENNIS SHEA Melvina, Wis. (Near Sparta)

DUROCS
GILTS
BOARS

MAR. AND APRIL FARROW, sired by three choice boars. We guarantee satisfaction. Order now.

GEO. D. SPRAIN & SONS, West Salem, Wis.

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.

R. C. CHURCH Elkhorn, Wis.

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.

W. G. BARTHOLF Burlington, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write

WM. EDGE Fennimore, Wis. "Grant County."

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

F. H. BURT :: Brodhead, Wis.

Homestead Durocs

THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

M. H. O'KEEFE & SONS Waunakee, Wis.

DUROC BOARS

AND Scotch-topped Short-horn bulls for sale; bulls 10 to 15 months old. Duroc boars, $20.00, buys the best of them. OAKWOOD STOCK FARM, J. D. Beetham, Lancaster, Wisconsin.

DUROC JERSEY SWINE.

Silver Trophy
WON BY
Martiny's Durocs

IN THE OPEN CLASS and the Futurity we won: First, fourth and fifth on boar pigs; first, fourth and fifth on sow pigs; first and third on litter. These winners and their litter mates are for sale. Buy from a winning herd. Gilts reserved for our sow sale, January 31st.

RILEY MARTINY & SON, Baraboo, Wis.

SALABLE DUROCS

ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?

FRED G. MATTHES Viola, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire

ROY HORSFALL Mt. Hope, Wis. "Grant County."

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.

CLARENCE GEORGE Evansville, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

McCLURG BROS. Viroqua, Wis.

CHAMP. BRED DUROCS

MARCH PIGS, $40 UP—Sired by KING DEFENDER'S EQUAL by the WISCONSIN CHAMPION. For sale also, price $200. Write for description.

FLOYD SELCK Hanover, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

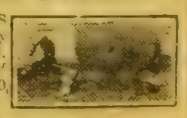
W. W. Goodrich
Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

HAMPSHIRE SWINE.

DELLBROOK FARM
HAMPSHIRES
Home of the grand champion boar,
DELLBROOK MALOY

OFFER spring BOARS and GILTS sired by the above CHAMPION. Also a large assortment of fall pigs, either sex. 200 head to select from.



"The Best in Hampshires."

A. L. DAMON Richland Center, Wis.

POLAND CHINA SWINE.

50 BIG-TYPE POLAND CHINA SPRING BOARS AT $40.00 EACH

Double treated, and we record them. They will be worth $40.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs. They are from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo, whose sire was the 1,055-lb. Maid's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. Buy your boar now and save from $20 to $50. Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd, one of the greatest in America, as well as one of the most up-to-date, pure-bred stock breeding establishments.

W. H. COOPER, HEDRICK, IOWA.

POLAND CHINA SWINE.

LIBERTY SPRINGS POLANDS

BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the pigs have been well grown. I'll ship pigs that make customers.
L. D. EASTMAN Lancaster, Wis.
"Grant County."

Where Champions Originate

AT MILWAUKEE—First on aged boar, senior boar, junior boar, fall boar. First on aged sow, senior sow, junior sow and spring pig. Grand champion boar and sow. We won more prizes than any other breeder. Buy your boar from the Champion Herd of Polands.
J. D. McDONALD :: :: :: North Bend, Wis.
(Bred sow sale February 6th.)

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

MASTER'S GIANT ORANGE WONDER, YOUNG'S BIG JOE

THE GREATEST TRIO of Poland boars doing service in one herd. I CATER TO PARTICULAR BREEDERS. Boars for registered herds. Correspondence invited.
P. W. YOUNG :: :: :: Box 100, Prosper, Minn.
Bred Sow Sale, February 5th.

BIG-TYPE POLANDS

SMOOTH BIG BONE A 2D.
Sire Smooth Big Bone A ($1,125), by the champion, Smooth Big Bone.
GOLDENGATE COLUMBUS.
Sire Columbus Pan; dam, by Goldengate King.
MY HERD HEADERS.
OFFER 25 SPRING BOARS sired by the above and every one out of a big-type sow. Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.
J. F. DILEY :: :: :: RUSH LAKE, WIS.
(Shipping point, Waukau on Milwaukee Railway.)

CHESTER WHITE SWINE.

CHAMPION CHESTERS OF THE NORTHWEST

HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The boars I now offer are suitable to head the best herds. We cater to particular buyers.
EAST SIDE STOCK FARM, H. A. Dorenthal, Mgr. - - - Wykoff, Minn.

Oxfords Polands SHORT-HORNS

Big strong rams that will please.
Sows bred to farrow this fall—gilts and boars. Best big types.
What do you want?
P. N. COLLINS RIVER FALLS WIS.

YOUR CHANCE

50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.
CHAS. ROGERS & SONS Union Center, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

CHESTER WHITES

Pigs Ready—Order Now
A. L. GRAY MT. HOPE, GRANT CO., WIS.

FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs; the kind that won 86 prizes in five state fairs, tracing to the grand champion, Jackson Chief. Leader, a son of a champion, and Cotton Ball, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write. S. D. & B. H. Frost, Kingston, Mo.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
J. FISHER & SON
Box 13 Eastman, Wis.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

For Sale at Market Price

REGISTERED Chester White boar, one year old. Son of grand champion boar at state fair, 1917.
KIRKPATRICK BROS. Reedsburg, Wis.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

CHESTERS

BIG, STRETCHY, HIGH-BACK BOARS—Guarantee them to please the buyer or no sale. Will also sell some choice gilts. Priced for quick sale.
A. L. KIRST Tomah, Wis.
(St. Paul or N. W. R. R.)

JERSEY CATTLE.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75, Shipped on approval.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.
W. M. KNIGHT,
Eagle, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

RED POLLED CATTLE.

Headquarters for
RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

"PAY STREAK"

GRAND CHAMPION CHESTER WHITE BOAR, MILWAUKEE. Offer spring boars sired by PAY STREAK. Order now and get the pick.
WM. F. BUTTS Evansville, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
WALTER GEORGE Evansville, Wis.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. G. HOSKING Dodgeville, Wis.
Mile west of town.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

GRANT CO. CHESTERS

FEBRUARY, MARCH AND APRIL PIGS ready to ship. The price is reasonable.
JOHN P. VOGT, JR. GLEN HAVEN, WIS.

FOR QUALITY AND QUANTITY WRITE

Boars and Gilts

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write
W.W. UACKENBUSH (Jackson Co.) MELROSE, WIS.

POLANDS

MADSON & SONS' BIG-TYPE POLANDS

HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PFANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.
M. MADSON & SONS Also Dual Purpose Short-horn Bulls. R. 4, Madison, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write
WM. F. ACKERMAN GLEN HAVEN, WIS.
"Grant County."

Quality - Size Prepotency - Breeding

DON'T TAKE WHAT'S LEFT, buy your POLAND boars and gilts early. Choice pigs by BIG TYPE JIM and BIG BEN H. They must please YOU and be as represented or your money back. Write me.
F. A. MOREHOUSE Lancaster, Wis.
(Grant County.)

BEST EVER

WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain herd."
WM. SMILEY & SONS Albany, Wis.

BIG-TYPE POLAND CHINAS

BOARS AND GILTS, March and April farrow. Also sows bred for September farrow. Reasonable prices.
A. W. COLE :: R. 1, Lodi, Wis.

Dobson & Eastman

LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.
"The Utmost in Polands."
"Grant County."

$35 to $50

12 GILTS—POLANDS—10 BOARS—Sired by Timm Wonder, Hauk's Orange and Matchless Wonder. Strictly big-type and guaranteed to PLEASE YOU.
WM. HAUK "Grant County" Cassville, Wis.

GUARANTEED POLAND BOARS

WE CAN SHIP you big-type boars that will give good satisfaction. Try me with an order.
AUG. NEESEMAN Warren, Ill.
(Farm in Wisconsin.)

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.
LOUIE REESE Brooklyn, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

SHEEP.

RAMS

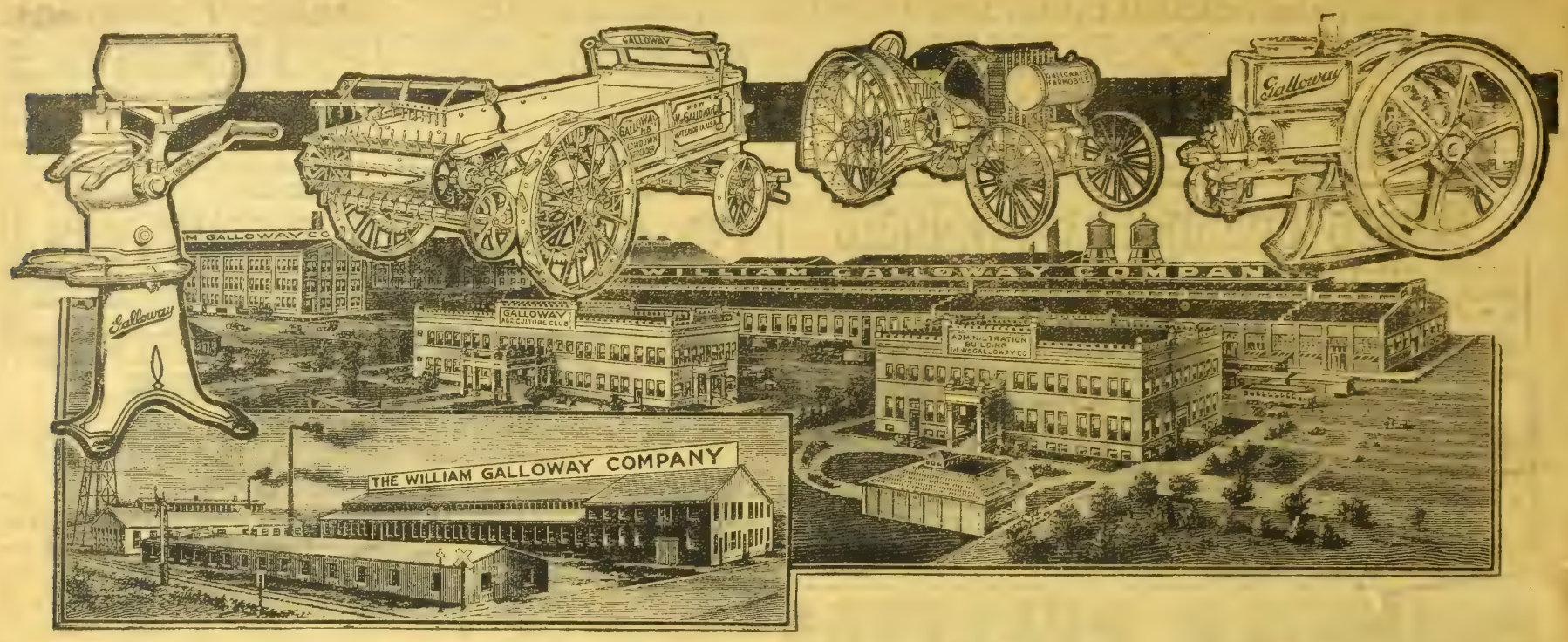
Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

SHROPSHIRES AND HAMPSHIRES

YEARLING RAMS, ram lambs. The Renk guarantee with every sheep. Write
W. F. RENK & SON Sun Prairie, Wis.

PURE-BRED Oxford ewes and rams from prize-winning stock, for sale. Address R. J. Diny, R. 10, Kaukauna, Wis.



Buy direct—for less!

Don't pay two and three prices for your implements when you can buy direct from my factories for just one price and save that difference in cost!

You know Galloway

You have heard of Galloway of Waterloo, the man who saves the farmers of this Country a million dollars every year. I have met and shaken hands with thousands of my farmer friends at fairs, public sales, and in my factories at Waterloo. My great big institution was built upon faith the farmers have in me. I won their confidence because I give them a **square deal.** My motto has always been and always will be **"better goods for less money"** or I don't want your business. Besides I guarantee absolute satisfaction after a field trial or your money is instantly refunded and freight paid both ways.

You owe me one order

Now then, why is it that there are still some who know me—are certain that what I say is so—who have failed to take advantage of my quality goods at lowest prices. Don't let habit and prejudice stand in your way and prevent you from sharing in my million dollar saving. Let me prove to you what I have been telling you in the farm papers for the past nineteen years is so. Let me show on your own farm that the quality of Galloway Implements is just what I say it is. Your neighbor has bought from me. You know he is satisfied. He told you about it. Why don't you take his word. Buy your spreader, engine or tractor from me and enjoy the same advantages he does. You are convinced that my goods are right, that my prices are right, so why hesitate. If you have bought Galloway implements and are satisfied, why don't you buy again.

Why my prices are lower

I get letters from my farmer friends, all of the time, who have bought spreaders, engines, separators or tractors from me, telling me how satisfied they are and what a big amount of money I have saved them on the price. They say they cannot understand how Galloway can do it when the same kind of high grade implements are selling from 25 to 35% more. My prices are lower because I sell direct to you from my factory at the very lowest manufactured price based on a great volume of business. In the face of rising costs everywhere I am keeping prices down.

What buying direct means

Buying direct from the factory means much to you farmers if you only realized it. It is a great big privilege that is not always understood by everyone. Suppose for instance, you had a friend who worked in some Separator Factory and he offered through his influence to sell you a machine off of the floor at the **factory price,** wouldn't you jump at the chance. Well that's just exactly what buying direct from me means. It means that there is no one that comes between you in getting your implement. That's Galloway's million dollar saving. Every Galloway separator, spreader, engine, etc., comes straight from the factory floor to you complete at only a small factory price. That is the reason that Galloway prices are lower for the same grade of high grade goods.

Dividing the melon

You notice on my catalogs from year to year a picture of a watermelon always divided in half. "Dividing the melon" is a phrase used by big corporations when they divide the profits. It means the same to you, because dividing a melon with Galloway means dividing the profits with you farmers, enabling you to buy **direct from the factory.** Nobody comes in for a share of this melon but you, which you get in the shape of big savings when you buy from me. This year the farmers' share will amount to a one million dollar saving.

My masterpiece engine

For 1918 I guarantee the biggest saving on the best engine I ever built. My new models are built of the finest materials by skilled workmen. Every part is alike, standardized and interchangeable. It is positively unsurpassed by any engine on the market today. This I know because I have tested them all. Develops away above regular horse power. Has a big bore, long stroke, heavy weight, ideal type for farm power. Valves in head like the best automobile engine. Burns any kind of fuel and is very economical in fuel cost. Has large, heavy counter-balanced fly wheels. Special Oscillating magneto supplies fat spark. Needs no batteries. Has make and brake ignition. Never misses. Is easily started. Requires no cranking. The entire engine is absolutely fool proof, and is scientifically and accurately constructed.

Separators with every new feature

My new sanitary model is in a class by itself. It is absolutely beyond compare for its remarkable skimming, sturdy construction and lasting service. Because I name a low price, do not compare it with low priced separators. Stand it along side of the ones that sell for 25% to 30% more. This test will give you a clear understanding of the wonders of my new sanitary model and the great big tremendous saving it offers you. You can test it for 90 days on your farm. For 180 milkings you can use it and see for yourself how it skims, how easily it operates, how superior it is from other separators and how its features mean so much to your dairy profits.

New Spreaders

Satisfaction Guaranteed or Money Back. My $25,000 bond backs every sale.

My new No. 8 low down spreader is a master stroke in spreader construction. Here's what you get in this master model for 1918. It's low down; does not break your back to load it. Has extra light draft. Two horses can handle it on any field without killing the team. Has wide spreading V rake and strong beater teeth that tear the toughest manure clumps into tiny particles that makes spreading easy and thorough. Has patented roller feed and patented automatic stop. Uniform clean-out pushboard—indestructible steel tongue. Will spread from four to twenty-four loads per acre. You are missing the best in a Spreader if you buy before you investigate the Galloway and you will lose money besides.

Tractors with Power

If tractors were all standardized, they would follow closely the lines of the Galloway. My new 12-20 model is built for general all around farm work. It is as scientifically and carefully constructed as an automobile. Has twenty-one sets of Hyatt roller and ball bearings which save the engine power for the draw bar and the pulley—where the power is wanted and needed most. Dynamometer test of the Galloway show it takes only 15½% of the engine's power to propel the tractor without implement. Think of that. 85½% of the power developed is used for actual field work. Compare that with other tractors that only give 50 to 60% of the engine's power to field work. Has four cylinder motor built on valve-in-the-head principle—is water cooled. Has patented power saving transmission. Will pull three 14" bottoms eight to nine inches deep in clover or timothy sod. Besides plowing, discs, harrows, runs thresher, fills silo, shreds, can pull 28" grain separator, saws, grades roads, can be used for pumping plant.

Write for my new Book

Send for this great book. It's my only salesman. I guarantee it to be the greatest money saving book you have ever had in your hand. Throw off prejudice and habit—join in and get your share of Galloway's million dollar saving. Times are prosperous I know, but you can just as well save money in prosperous times as in hard times. Money saved is money earned. I urge you to let me send you this book. Read it thoroughly, learn what Galloway can do for you in the way of saving you money on the highest grade of separators, tractors, engines, spreaders, and other farm implements. Read in this book my life story—how I started this business nineteen years ago and built it up surely and strongly, until to-day it's the largest business of its kind in the world—making farm implements and selling direct from the factory. Remember my policy. I take all the risk. I guarantee satisfaction or your money back. I give you immediate service and prompt shipment from the great chain of Galloway factories or immense warehouses at Council Bluffs, St. Paul, Chicago, Kansas City. Send me a postal tonight for this wonderful money saving book. You lose money if you hesitate.

Please mention implement in which interested. This is important.

Wm. Galloway
President

Wm. Galloway Co.

37 Galloway Station
WATERLOO, IOWA

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 41. THURSDAY, OCTOBER 11, 1917. WHOLE NO. 1863

Dairy Cattle Congress

SENIOR AND GRAND CHAMPION HOLSTEIN BULL, OWNED BY IOWANA FARMS, IOWA.

JUNIOR CHAMPION BROWN SWISS HEIFER, OWNED BY IRA INMAN, WISCONSIN.

JUNIOR AND GRAND CHAMPION AYRSHIRE BULL, CAVALIER'S LORD STUART, OWNED BY ADAM SEITZ, WISCONSIN.

DAIRYING made a great forward stride last week at the seventh annual Dairy Cattle Congress, Waterloo, Iowa, when a new record of attendance was made for that institution and a new standard of excellence set for the live stock and other exhibits. No dairy show of better quality has been held in this section of the country. This year a keen interest in the dairy industry was evident at every turn. Farmers from nearly every part of eastern Iowa came in their cars to see the show, some of them traveling two or three hundred miles in making the trip. One delegation of about forty farmers, headed by E. J. Trosper, agricultural agent, came all the way from northeastern Missouri by automobile to attend the congress and gain information on the dairy industry. In addition, large numbers came on trains and the local attendance was heavy throughout the whole period of the congress. During the first five days nearly 50,000 persons passed through the entrance gates.

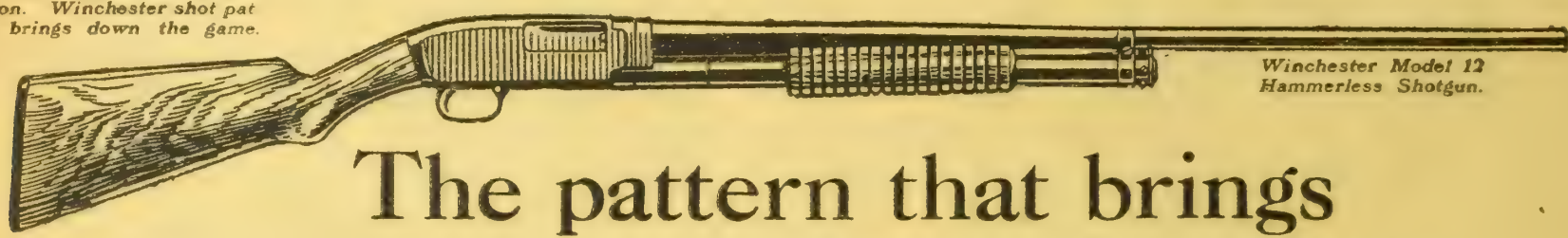
Efficient management has done much to make the Dairy Cattle Congress a success. A stock company, composed of enterprising business men in Waterloo and the surrounding territory, look after the finances and E. S. Estel, of Waterloo, the state dairy expert, has charge of the general management. The systematic arrangement of the cattle judging program and the care in following it out are especially worthy of favorable comment, and the location of the buildings and judging arena is also a point in the show's favor. The cattle barns stand adjoining the arena on one side, so that exhibitors can get their animals to and from the show ring with little loss of time. Opposite these barns and on the other side of the arena is exhibitors' hall where the manufacturers' exhibits and booths of organizations are housed. Beyond this extends the automobile hall and various tent exhibits. Such a compact arrangement makes it very easy for visitors to find their way from one place of interest to another.

Waterloo is especially well fitted for the home of the Dairy Cattle Congress. The surrounding

(Continued on page 6.)

A FINE GROUP OF BLACK AND WHITE CATTLE AT WATERLOO.

Even spread, maximum penetration. Winchester shot pattern brings down the game.

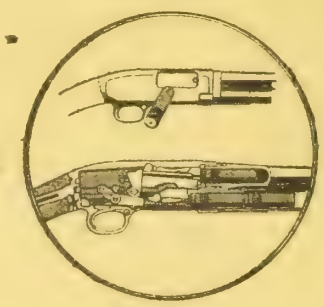


Winchester Model 12 Hammerless Shotgun.

The pattern that brings down the game

A perfect pattern may thoroughly cover the bird, but it's the high velocity of the shot charge that insures a kill. A game-getting gun must throw an *even* pattern with lots of steam behind it.

The Winchester Model 12 Repeating Shotgun is designed and bored to *bring down the game*. Its pattern shows a perfectly distributed shot spread with maximum penetration. That's why it is the choice of sportsmen everywhere.



Quick feeder, sure ejector. Throws empty shells to the side, out of your way.

The gun for every sort of wild fowl shooting

Whether you're snap shooting at upland plover or trying a long shot down in the blind, there is a gauge and a bore of the Winchester Model 12 that will give you the pattern you want. This master shotgun meets every kind of bird shooting requirement.

The Winchester Model 12 is beautiful in design, light in weight, simple and sure in operation. It points like your own arm. It can always be depended on to plant its charge *closely, evenly* and *strongly* at the range its choke adapts it for. It works smoothly in whatever position it is held. For those who prefer a hammer action gun, we have made the Model 97. It is built on similar lines to the Model 12, but with hammer action.

The barrel *is* the gun

Men who know guns realize that the accuracy and durability of a gun lie in the barrel. On the quality of the barrel depends the quality of the gun. There is absolutely no difference in the standard of quality of the barrels on the highest and lowest priced Winchester guns. With Winchester the barrel *is* the gun and the single standard of quality has been attained only by the most unremitting attention to the boring, finishing and testing of the barrel.

The Winchester barrel

The barrel of the Winchester Model 12 has been bored to micrometer measurements for the pattern it is meant to make. The degree of choke exactly offsets the tendency of the shot to spread. Until its pattern proves up to Winchester standard the gun cannot leave the factory. The Nickel Steel construction preserves the original accuracy forever.

The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that, with proper care, will last a lifetime.

What (P W I) means

This mark on the barrel means *Viewed and Proved Winchester*. This stamp stands for Winchester's guarantee of quality, with 50 years of the best gun-making reputation behind it.

Every gun that bears the name "Winchester" and that is marked with the Winchester Viewed and Proved stamp has been fired many times for smooth action and accuracy, and has been fired with excess loads for strength. At every stage of Winchester manufacture, machine production is supplemented by human craftsmanship. It is a *test and adjustment process.*

It is this care in manufacturing that has produced in the Model 12 and Model 97 guns of unsurpassed game-getting qualities that have won the name of "The Perfect Repeaters" among wild fowl hunters.

Write for details of Winchester shotguns, rifles and ammunition

The Winchester catalog is an encyclopedia on shotguns, rifles and ammunition. Every hunter should have one. It gives detailed specifications of the Model 12 and Model 97 and describes at length the principles on which every one of the world famous Winchester shotguns and rifles is built. Write today. We will mail you a copy free, postpaid.

WINCHESTER REPEATING ARMS CO.
Dept. W X-2 New Haven, Conn.

Winchester Model 97 Hammer Shotgun

Take down Repeating Shotgun. Made in 12 gauge, weight about 7¼ lbs.; in 16 gauge, weight about 7¼ lbs. The favorite with shooters who prefer a slide forearm repeating shotgun with a hammer.

WINCHESTER

World Standard Guns and Ammunition

The Wisconsin Farmer

THURSDAY, OCTOBER 11, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

GILT-EDGED FARM MORTGAGES.

HERE in the grain belt we realize that a farm mortgage is the soundest investment there is on the market. I am glad to see that this knowledge is finally reaching the financial centers in the east. It has taken them a long time to find out the truth, for the memory of the days of wild-cat and careless farm mortgage flotation has lingered long and unpleasantly in the minds of the men who lost money two or three decades ago. To-day a grain-belt farm mortgage ranks alongside a government bond; there is nothing safer, more certain of returns or more to be recommended to the investor.

This matter was recalled to my attention by an article in the Literary Digest, a high-class publication. The article records a conversation, in which a Wall street broker, who has not been west of the Alleghenies since the Chicago World's Fair, asks a grain-belt banker, "What are these western farm mortgages? One of my customers wants to put some money in them, but I never heard of anybody buying them. Aren't these the same things that went to pot back in the populist days?" The grain-belt banker lost no time in setting his Wall street friend right. It was not difficult to figure it out on paper, briefly but convincingly. Here is what he had to say on the amount of farm-mortgage indebtedness and agricultural credit in general. He tabulated his facts, in order that they might be grasped more readily:

Value of American farms, $40,000,000,000.
Value of annual farm output of food and other raw materials, $10,000,000,000.
Public investment in long-time loans (mortgages) on the $40,000,000,000 worth of farm property, $3,500,000,000.
Seasonal short-time credit granted by banks to farmers on the security of the $10,000,000,000 harvest, $2,000,000,000.
Total agricultural credit, $5,500,000,000.

After these figures had been digested, the grain-belt banker made up a second set showing the owners of the farm mortgages, as follows:

Two hundred and twenty life insurance companies own $700,000,000 farm mortgages.
Eighteen thousand banks (state banks, trust companies and savings banks) own $750,000,000.
Private investors, estates, trustees, colleges and other institutions, both American and foreign, have $2,000,000,000 invested in these loans on farm lands. Of this $2,000,000,000, about $500,000,000 has been sold through the medium of the banks, while the remaining $1,500,000,000 has been arranged either through the agency of farm mortgage banking houses or directly between lender and borrower.

I am glad to know, as the Digest declares, that the Wall street man, accustomed to thinking in hundred-million-dollar units, readily grasped the significance of these statistics, although he was amazed to find that an investment market of such huge proportions had been developed beyond the confines of the eastern financial center. His next inquiry was naturally as to the safety of farm mortgages, and the grain-belt banker cited these facts:

Investment houses that have been in business for half a century, lending money to farmers on the security of land under cultivation, report that they have never lost a dollar of principal or interest for any customer.
The insurance company having the largest investment in farm mortgages ($100,000,000) states that it has never been able to discover a more desirable channel in which to invest its funds.
Universities and other institutions that for many years have been placing all or part of their endowment funds in farm mortgages report that they have suffered no losses, and know of no safer way to obtain their income.
The banks of one of the smaller eastern states, that have invested nearly fifty millions of their depositors' funds in western mortgages, have made but one loss in thousands of transactions extending over many years.
The best test of the soundness of farm mortgages as investments is that hundreds of millions of dollars of them are held by our most conservative institutions—savings banks, trust companies and life insurance companies.

I am glad of the opportunity to reprint these facts, for we should know and appreciate them ourselves, as well as publish them broadcast to the world. The farmer who wishes to place a mortgage on his farm is not a supplicant for financial aid; he is giving the man with money the best opportunity he could ask to invest that money wisely, safely and profitably. There is no longer any reason to be ashamed of the fact that we have a mortgage on our farm, for mortgages spell success and prosperity, when the money they raise is judiciously expended for enlarging our farming operations. Nor is there longer any reason to believe that the banker or the investor is doing us a great favor when he grants us a loan on our farm property. He can find no better possible use for his surplus funds. The coöperation between farmer, banker and investor, which has caused farming to forge ahead so marvelously here in the grain belt in the past, is certain to be still more effective and productive once the facts which the grain-belt banker told the Wall street broker, and which I have reprinted here, become still more widely known.

SENDING FARM BOYS TO ARMY CAMPS.

THE latter part of this month will find several thousand more farm boys leaving home for the national army camps, there to be trained as soldiers. What conditions will they find there, what would they better take with them, how long will they remain there? These and other questions are being asked in thousands of farm homes these days, witness this letter which I have just received from Mrs. Robert Bowden, Elmwood Farm, Ayrshire, Iowa:

Dear Mr. Pierce:—I am coming to you for advice. Our only boy will soon leave for Camp Dodge. Can you please tell us what clothing he should take with him? He has plenty of wool underwear, wool shirts and all other clothing. Some tell us one thing and some another. Can he take a suitcase? Can he return his clothes home? Please tell us just how to fix him out so he will not be cold.

I cannot close my letter without saying that I would like to clasp your hand and say, "God bless you" for the little sermons you have given us about the draft taking our farm boys. How on earth are we going to furnish food for our allies? Here in our neighborhood the farms are stripped of young men. We have a good, productive farm, well improved. Our only boy is all we had to work this farm. His father is past 63, cannot work much on account of rheumatism, while I am 55. We are left to get along as best we can and depend on such help as we can find, and that very poor. Our boy regrets that he ever asked for exemption. I read where General Crowder says "Farm boys will be shown no favors." Bless me, farm boys never asked for any favors; they were told they were needed to produce more foodstuffs. On a farm adjoining ours an only boy is called; his father is obliged to give up the farm; he is past 60. This is the case all over the grain belt; old men and cripples are left to do the work. Either these high officials do not realize what it means to farm without these boys or they must think the war will end before another crop is raised—God grant that it does! I was disappointed in our exemption board. They certainly do not understand how things are going.

When I come to the camp to see my boy I shall come out to see you. I know you are a good man; you seem to know how we mothers feel. May you live long to continue this good work.

There is a solemnity about this letter which calls for the best reply I can make. Mrs. Bowden's words are a benediction; there is a note to them which brings back the sound of my own sainted mother's voice. Would that I might comfort this good mother, and all others in her plight, as they fix up their boys to send them away to the army camps, so that their hearts would quit aching and peace would come to their troubled minds! I fear I am not equal to the task.

In answer to the questions of this good mother, however, and the others who have written me on the same subject, I would say that the boys should be sent to the army camps with sufficient clothing to do them for a few weeks; warm, comfortable clothing which will suffice until the necessary stores can be had from the government. I have seen thousands of these national army soldiers in the last month; the government has been able to equip them with army hats and shirts, but the trousers are not yet forthcoming. If my boy were going I should tell him to wear a good warm suit (not his best, if that is a Sunday, go-to-meeting one) nor his worst (if that is a pair of overalls and jumpers) which may be thrown away, if desired, after the government uniform is had, but which is good enough to make him feel at ease when he goes to town with his fellow soldiers. In brief, wear a comfortable suit and after the uniform is furnished, either throw the old clothes away or return them by express or parcel post to the waiting mother. The officers allow the men to return their clothes after the uniforms are had; no one need worry as to that. Along with comfortable clothing, be sure to equip the boys with necessary toilet articles: tooth brush, tooth powder or paste, brush and comb, and so on. Suit cases may be brought as desired.

I have personally visited two of the great national army camps situated in the grain belt within the last month. I have talked with hundreds of boys from the farm. I intend to publish an article, on this page, within the next two or three weeks, describing conditions exactly as I find them. I hope you will watch for this article; I believe it will be interesting, not so much because of the way I shall write it, but because of the interesting facts I have to set forth. Perhaps some worried mother may find solace in my words; perhaps I may dry the tears of some who mourn. At any rate, will you wait and watch for the article? I can promise it to you some time this month, I feel sure.

TEMPTING THE SOLDIER BOYS.

I AM in receipt of a letter from a subscriber, Elvie McLucas, of Redfield, Iowa, which brings up an interesting subject, one on which my readers may differ very materially, but which we might well discuss together for a time. The subject is the propriety of sending cigarettes and tobacco in its various forms to our soldier boys over in France. Let me print the letter in full, just as it comes to me:

My Dear Mr. Pierce:—Sometimes I wonder whether we mothers ought to burden you with our troubles, but it seems at times we have no other refuge. This wonderful question of food conservation has made me wonder many, many times why so much is being said about the housewife's extravagance. She is told she must economize more and more, while not one word is said to our men and, I am sorry to say, to some people who call themselves women, against the use of tobacco. It cannot be honestly stated that this habit benefits a single individual, and our public school-teachers have been teaching the children in the schools and we have been teaching our own children in our homes for years the evil effects of tobacco on the system. It is hard on the nervous system, as well as ruining the digestive organs. And look at the filth, the disagreeable part of it—spitting and puffing away millions of dollars' worth of the stuff. There are thousands and thousands of acres that might be growing something that would be of some material value as food and they are used for that foul stuff. Not one word do we hear against its use, but instead we are sending shiploads across to our dear boys who need better and more substantial things.

I see the Red Cross is planning to give our boys a Christmas present and is recommending pipes, tobacco, cigars, cigarette paper. Now I wonder what my boy would do with that stuff. He has always been a very clean boy that way and I would just feel terrible to think my life work had been in vain, and I surely would feel so if he came home puffing and spitting his life away. I think it a terrible shame to put temptation in their way under those circumstances. We are sending the cream of our nation and we want to make them as happy as possible, but let us encourage cleanness as well as patriotism. We know sin doth lurk there. It takes many a dollar that we might use for foodstuff.

Arouse mothers to the situation. Please do not think I am not patriotic, for I love the dear old flag and my native land, but I am so anxious for the dear, precious boys that are laying down their lives for us. I hope I have made my side clear and it will bear fruit to His name and glory.

ELVIE McLUCAS.

Many of my readers already know my general views on this subject. I have closed the advertising columns of all of my farm papers to cigarettes; I simply will not allow them to be offered to the youth of our farms through any coöperation on my part. I think we will all agree that from a physiological standpoint, if none other, the cigarette is an evil and a growing menace to our nation. It should be condemned by every clear-thinking, clean-living person. As to whether our condemnation should extend to tobacco in its other forms, I fancy there will be quite a difference of opinion. What is one man's meat is another man's poison; some men have "tobacco hearts," others have not; we cannot lay down a hard-and-fast rule which will be accurate in the case of all tobacco users. If a pipeful of good tobacco would keep one of our soldier boys over in France from getting homesick, if it would make him a better fighter, a braver man, a more courageous crusader for democracy, I would say: Give it to him. If it were a temptation, which he had turned his back upon while at home, but which he might not be able to resist with his comrades looking on, I would say: Keep it from him. It is a trite saying, but true, nevertheless, that circumstances alter cases, so do they alter temptations.

My correspondent must not overlook one important fact: The Red Cross and other kindred charitable organizations are not confining their gifts to cigars and cigarettes; there will be various presents, for every one. There will be good things to eat in the Christmas boxes; candies and jellies, preserves and cookies, and so on and on. There will be sweaters—for a million women are knitting night and day for the soldier boys—and trench comforts of all kinds. The boy who does not want the cigar or cigarette, to whom it is a temptation which he seeks to shun, will find other things in the Christmas box. And, after all, he is not going to

(Concluded on page 5.)

THE WISCONSIN FARMER

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THE WISCONSIN FARMER, Madison, Wisconsin

Wisconsin Cabbage and Onion Growers Meet.

A sort of experience meeting covering experiments and scientific investigation in cabbage and onion culture which have been conducted in southeastern Wisconsin for the past several years, was held Saturday afternoon, October 6th, at farms in Racine and Kenosha counties. There were in attendance a large number of local growers who have had charge of the distribution of Wisconsin Hollander disease-resistant cabbage seed and, in addition, a number of field men representing pickling and packing concerns, a company of interested farmers and truck growers, and representatives of the Wisconsin College of Agriculture. In brief, it was found that the new strain of cabbage has withstood inroads of yellows and other cabbage diseases prevalent in the district. The value of the new disease-resistant strain was the more apparent because an examination of check rows of the common varieties grown in the same neighborhood showed that in almost every case there was a heavy loss resulting from disease.

There were about 1,000 acres of Wisconsin Hollander planted in Racine county this year and the 300 pounds of seed needed for this area was distributed through a local committee, including such well-known men as W. J. Hansche, A. J. Piper, S. B. Walker and F. B. Swingle, of Racine; Henry Brush and Will Thompson, of Kenosha, and W. J. Miller, of Summers. A report made to the meeting by A. D. Selby, of the Ohio station, was that the Wisconsin Hollander strain has made good under tests in that state.

Successful test selections of kraut cabbage made by the college of agriculture from the Brunswick and All Seasons varieties were also inspected by the party. Several heads of these resistant strains will be stored this fall and used to produce seed next year. Seed of the improved kraut varieties will not be ready for general distribution before the spring of 1919.

In answer to questions relative to checking the cabbage worm, which has been unusually severe this season, H. F. Wilson, insect specialist at the college of agriculture, stated that in view of the high prices and great scarcity of Paris green and arsenate of lead it might be advisable to substitute calcium arsenate for these next year.

This insecticide is to be used for chewing insects on vegetables only. It has been found injurious to the foliage of fruits, some declare, and for this reason cannot be recommended as a general substitute. Experiments with calcium arsenate at the college of agriculture this summer have been successful in checking the cabbage worm.

Growing cabbage on marsh soils was discussed by W. W. Weir, field agent of the state soils laboratory, who has been conducting some coöperative tests of this sort in the vicinity of Kansasville.

Interesting work with formaldehyde solutions applied at time of seeding in checking onion smut ravages were noted by the visitors. A fourteen-acre field near Racine was inspected. The area in this field which did not receive treatment yielded three bushels, while an equal area in which the seed was sown in with formaldehyde solution produced nearly thirteen bushels of good onions.

The formalin was obtained at wholesale prices and authorities say its use represents all the difference between profit and loss in the crop. Onion smut is practically new in this district, but seems to be spreading. The use of formalin advocated as a result of trials by the college of agriculture, seems to offer a ready means of stopping it in time to save the industry from possible loss.

Protection Against Gas in Silo.

Three men employed upon Wisconsin farms have met death within the past few days as a result of carbonic acid gas generated in silos filled with freshly cut immature corn. Officials of the Wisconsin Industry Commission say that this is the first record that they have ever had of deaths on farms caused by gas in silos. The cases were immediately referred to chemists at the college of agriculture and these chemists have made the following report:

In silo filling there is always a possible danger from carbon dioxid gas. This gas is always generated in partly filled silos during an intermission in the work, and may accumulate in sufficient quantity to prove fatal to life.

The possibility of danger from this gas may be ascertained by lowering a lighted candle into the pit before anyone enters it to tramp down the silage. If the light continues to burn in all parts of the silo human beings can live in the same atmosphere, but if the candle is extinguished it means death to one entering the pit.

A door opened low down in the silo will allow the gas to pour out. Directing the blower from the silage cutter into all bottom parts of the silo for a time, and pouring in a lot of newly cut silage will soon stir up the air. This fresh circulation of air will tend to drive out the poison quite rapidly. Then another candle may be lowered into the silo as a final precaution before going in to resume work.

The accidents this year have no doubt come as a result of efforts to hurry silo filling to accommodate the corn partially damaged by frosts. The precautions suggested by the chemists at the experiment station are so simple that it would seem to be unnecessary to have any further trouble along this line.

Wisconsin Cows Require Grain.

The following letter from Ernest Hinrichs, official tester of the Baraboo Cow-Testing Association, Sauk county, Wisconsin, is illuminating in regard to feeding grain to cows in the late summer and early fall, where pastures are short:

During the month of September the Baraboo Cow-Testing Association had only twelve out of 262 cows which produced more than a pound of butter per day tested. The advisability of feeding high-priced grain to cows has been the most-discussed question. The pastures are entirely gone. Thus a cow which freshens now has nothing to eat except what is fed to her. Everyone has seen the disadvantage of having cows freshen in midsummer. The following was noted: When a cow freshened and was not fed grain she dropped anywhere from ten to eighteen pounds per day. When a cow freshened and was fed ten pounds of grain per day, she held her flow and in many cases increased it. Now 4 per cent milk is worth 52.44 per cwt. and 1,500 pounds of milk would be worth $36. Ten pounds of grain at 3 cents would be worth 30 cents. Thus it is readily seen that a cow may pay for her high-priced feed and also hold up in milk until fall when it is cooler and there is more feed. It was also noted that when a cow freshened and was not fed grain for two or three weeks and then was fed grain, she did not increase in milk in proportion to feed as she would have done directly after calving. A stripper cow may not pay for her feed directly from the sale of her product, but she must not be allowed to run too low in flesh because this will decrease her ability to produce in the following lactation period.

Herd averages of fat have been lower where grain was not fed even with the milk flow almost cut in two (compared with the previous month) than where grain was fed. Here the fat of the herd average increased over the previous month along with the lower amount of milk. This shows that the condition of the animal has an influence upon the test. Cows of late have had all they could do to maintain their body, let alone giving a twelve to fourteen-quart pail full of milk twice a day, or even more.

Mr. Hinrichs' letter not only gives us some light on the cost of producing milk this season and the necessity for higher prices for milk and milk products if the farmer is to make a fair profit, but we believe the tester might have gone further and urged more summer silage. Those dairymen who have had the foresight to build an extra silo and save its contents sealed, for the summer following the fall in which the silage is put up, will obviate a great deal of the high cost necessary if grain is to be fed to keep up the milk flow. It is apparent that the general consuming public does not understand all the difficulties and particularly all the expense which is incident to late summer milk production, especially in a season when pastures late in the summer are below the average owing to dry weather. The encouraging feature of Mr. Hinrichs' letter is that grain can be fed at a profit, even though the prices are high, and if silage had been provided for these cows which freshened in the late summer or fall, the expense could have been cut down a good deal. The extra silo, it would seem, will go a long ways toward protecting the farmer-dairyman against high feed costs. In case the late summer and early fall develops wonderful pastures, as it does in many years in the Badger state, the silage is not lost, but can be kept to feed with grains after the pastures have been eaten off or cut down by cold weather. Silage can most certainly be provided at less cost than grains, and anything which will cut down the amount of grain needed will certainly add to the dairyman's profits. But in any case it is best to keep up the milk flow even if grains must be fed. The higher the price of grain the more the farmer must have for his milk.

Wisconsin's Great Showing on Grains.

For the tenth successive time in competition with leading grain growers of the United States and Canada Wisconsin has won the world's championship on barley. The latest competition was at the Soils Product Exposition held at Peoria, Illinois. The winning sample of barley was exhibited by Wm. Bell, Arlington, Wisconsin. This barley was in competition with barley grown in the best irrigated lands of the country and by men who have for several years been trying to wrest the championship from the Badger state. Wisconsin has never failed to win championship on barley wherever it has exhibited. This is certainly sufficient grounds for claiming the world's championship on this grain. C. P. Norgord, commissioner of agriculture, writing concerning the Wisconsin exhibit at Peoria, gives The Wisconsin Farmer information as follows:

Wisconsin also won first on spring wheat and winter wheat in competition with the great wheat states of the West. This is a reminder that Wisconsin was once one of the leading wheat states, and indicates what it can do when it again places emphasis on this crop. The samples submitted were presented by H. E. Krueger, of Beaver Dam.

The fact that Wisconsin is one of the two greatest potato states in the Union, and probably first in quality and standard varieties, was recognized by five first prizes and three second prizes on six of the recognized leading varieties of potatoes in this world's competition. Samples were submitted by F. S. Campbell, of Three Lakes, and H. L. Brooks, of Tomahawk.

Wisconsin also won first on clover seed, field peas, blue joint, second on timothy, sweet clover, orchard grass and durum wheat.

Wisconsin also won the $75 prize for the best display from an individual farm, through the display from the farm of H. E. Krueger, of Beaver Dam.

The Wisconsin exhibit was in charge of B. G. Packer, director of immigration, Wisconsin Department of Agriculture, assisted by H. E. Krueger.

In addition to these products of the soil, a splendid display was presented of opportunities and accomplishments of Wisconsin along lines of general live stock and dairying.

Special emphasis was placed upon the Wisconsin sheep industry, and particularly the great opportunities of sheep in Upper Wisconsin, especially for the great sheep ranchers now being crowded out of the West by settlement. This exhibit formed an excellent opportunity for favorable comparison between the well-watered regions of Wisconsin and the central states and western plains.

Wisconsin has made good on its pedigreed grains. In the quality and agricultural value of its whole exhibit at Peoria, it excelled. It stands first in dairying and well in other agricultural industries, because it has abandoned the many useless varieties of soil products and live stock. It has selected a few of the best and best adapted, and through its experiment stations and its breeders, it has greatly improved this limited number of varieties and classes.

These facts bring again forcibly to our attention the importance of the seed business in Wisconsin. While a few farmers have recognized their opportunities along this line the great bulk of grain growers do not yet appreciate the profits which they might make if they would raise and sell more seed. The Wisconsin Farmer strongly recommends to its readers a careful investigation of this phase of farm work.

The White Grub Situation in Wisconsin.

The May beetles or June bugs, as they are quite commonly called, were abundant in southern Wisconsin the past spring and Mr. J. J. Davis, a special representative of the federal department of agriculture, has recently conducted an exhaustive survey in Rock county to determine the prevalence of the white grub. In an open letter to readers Mr. Davis says the following:

The May beetles were abundant the past spring and as a result the white grubs, so destructive to crops in 1915, may again be expected next year. Possibly not in as great abundance as in 1915, because the past cold, late spring retarded the beetles' activities, but nevertheless sufficiently abundant to warrant emphasizing the probability of injury to corn, especially when planted on timothy ground. The beetles prefer to lay their eggs in ground covered with vegetation, hence timothy ground may be expected to contain grubs which will be destructive next year. Small grain stubble ground, especially wheat stubble, which bore a good growth the latter half of May this year, may contain grubs. Corn ground kept cultivated during the flight of May beetles last spring is not likely to contain small grubs since the beetles avoid such ground for laying eggs. Ground intended for corn next year, especially if it was in timothy, small grain or blue grass the past spring, should be examined to determine whether or not the grubs are present, and this can be done by plowing a few furrows through the field and carefully watching for the small grubs or by digging a few feet of ground in a half dozen places in the field. These examinations should be made within the next few days if possible, for the grubs will soon be going deeper and below the plow line, and care should be taken to examine closely, for the grubs are now quite small and easily overlooked; and further, the soil examined should be thoroughly broken up as the small grubs are frequently in cells in the clods of earth.

Ground containing small grubs should not be planted to corn or potatoes next year for these crops are most susceptible to grub injury. Crops which cover the ground, especially such as small grains, are least likely to be injured by grubs and should be planted on grub-infected ground in preference to corn.

Where it is possible pasture hogs in fields infected with grubs before the grubs go deep, and especially when the field is being plowed. If the infested field is near the buildings, chickens will destroy large numbers of the grubs if permitted the run of the field.

When corn is planted on corn ground care must be taken to eliminate this possibility by the proper cultivation in spring.

Our readers will do well to give careful attention to the suggestions contained in Mr. Davis' report. Our county agents are recommending a careful inspection of soil and careful plowing as main factors in the fight against these pests.

May Fix Hog Prices.

As a representative of Herbert Hoover, federal food administrator, Gifford Pinchot, of Washington, D. C., held a conference at Waterloo, Iowa, last week with representatives from many corn-belt states with a view of ascertaining whether in their opinion, in order to insure a large increase in pork production, it would be advisable to fix a price on hogs. He presented the same question before several thousand farmers and breeders at the American Royal at Kansas City last Thursday. He stated that if in the opinion of the producers it would be desirable to fix a price on pork, he would recommend that the price be fixed in terms of corn, suggesting that not less than fourteen bushels would be a fair quantity for the production of 100 pounds of live weight of hogs.

It was stated that the farmers gathered at Waterloo passed resolutions favoring the proposed plan, and when an informal expression on the same subject was taken at Kansas City, only one dissenting voice was heard.

Mr. Pinchot explained that an increased acreage of wheat is already

FAMILY CIRCLE TALKS BY THE PUBLISHER

(Continued from page 3.)

win very great battles, no matter how many of the enemy he puts to rout, if he cannot conquer his own evil tendencies and overcome the temptations which are bound to beset him. If he is the right sort of fighter he will silence the voice of the enemy that tempts, as well as the voice of the enemy that taunts. Is this what you think on the subject? Write me, so that we may counsel together while there is yet time.

DOING HIS BIT FOR UNCLE SAM.

I TOLD the story last week of a young farmer whom I thought should have been exempted from army service, because of an impending mortgage on his farm and the further fact that when he was sent away he left 150 tons of uncut hay, fifteen acres of undug potatoes and thirty acres of uncut grain. I want to tell another story this week, an altogether different one; that of a young farmer who might have been exempted, but who declined to take advantage of any loophole and is now heroically doing his bit for Uncle Sam.

Something like a year ago my attention was called to the fact that there was a young farmer, living in northern Iowa, who was making quite a success as a wireless telegraph operator, keeping in touch, in his farm home, with the entire outside world, by means of a wireless outfit which he had devised and erected himself. Nor was he a bit selfish, for he had erected a large bulletin board, by the side of the road, and on this board, far out in the country, he posted the daily weather forecasts and the important news happenings of the world, just as they are posted on the bulletin boards of the daily newspapers in the large cities. People driving along the road were surprised to find themselves in touch with Europe, America and all the world, thanks to the ingenuity and the generosity of this young farm boy, who had studied wireless telegraphy through textbooks, at home, until he had mastered the subject.

I had an article written about this young farmer and his work and it attracted much attention when printed in my papers. He wrote a letter of thanks for the things we had said about him and I considered the incident closed. But last week the mail brought another letter from him. He has quit his peaceful Iowa farm, has closed up his amateur wireless station for the war and is serving Uncle Sam as a naval reserve. Let me print a portion of his recent letter, written from the naval training station at Manistique, Michigan:

Dear Mr. Pierce:—I have not had the pleasure of writing to you for some time and the last time I did write I never thought that when I addressed you again I would be in Uncle Sam's Naval Reserves on active duty, but here I am and enjoying myself. I like the work and it is very instructive. You know I always was eager to learn. People cannot say that I was a slacker, as you know I have a farm in dear old Iowa, 150 swarms of bees and a wife and two children. I would doubtless have been exempted, but I owe Uncle Sam a good deal and I'm trying to pay him back a bit. My wife is with me now, as are also the two children, and if nothing happens to the contrary they will be here until the end of the year. After that, who knows? My father is running my farm and managing the bee yard.

I happen to know that the youngest child of this farmer is less than a year old; there is every reason to believe that he could have been exempted, had he been drafted. But he owed a debt to Uncle Sam and he set about to pay it, without ever a thought of whether he could avoid payment or not. He is a magnificent example of the heroism and the unselfish patriotism dominant throughout the rural sections of the grain belt today. I honor this young man, Archie Banks by name, and earnestly, prayerfully hope that while he is paying his debt to Uncle Sam the good God will shield him from all harm and will send him back, after the war, to a united family, around an unharmed hearth, to enjoy long life and great happiness. That he asks to have this paper sent to him while he does his bit on board Uncle Sam's warships is a compliment which I appreciate highly. He proposes to keep in touch with the farm life which he has quit and I shall endeavor to aid him all that I can. Many and many a boy is going out from the farms of the grain belt these days, to the national guard camps, the national army cantonments, the naval training stations, even to French battlefields. But when the war is over—hasten the day!—they will return, for grim-visaged war will have shown them, as nothing else could, how dear are the fields and the furrows of home—home, sweet home.

James M. Pierce

assured for next year and that he had confidence that the cattlemen would produce every pound of beef they possibly can. There is a tremendous need for more pork and more fat, especially the latter, and hogs have decreased 10 per cent since last year and at the present rate of marketing another 10 per cent reduction in the number will occur by January 1, 1918. Furthermore if our allies are to continue to fight, and we are to feed our soldiers across the water, we must not only make up for the reduction in the number of hogs in this country, but we must furnish Europe with 15 per cent more hog products than we have done during the past year. To do this it is absolutely essential that a very great increase in pork production be brought about, and in as short a time as possible.

According to the statement of Mr. Pinchot of fixing hog prices on the basis of fourteen bushels of corn per 100 pounds of live weight of hogs, when corn is worth $1.25 a bushel, the price of hogs would be fixed at $17.50 per 100 pounds. There is no question but this would be a fair price for the farmer. On this basis he could sell his corn at market prices to his hogs, get paid for his labor in producing the pork, and secure a fair profit besides. There is also no question but this plan would be the best for the government, because it would insure increased production.

The Horse Situation.

Some interesting facts have recently been presented by Mr. Wayne Dinsmore, secretary of the Percheron Society of America, on the work-horse situation in the United States as well as in Europe. Mr. Dinsmore calls attention to Food Commissioner Hoover's statement that there has been an actual increase in the number of horses in Germany and in Great Britain since the war began. In the former case it is due to the fact that many horses have been taken from Belgium, northern France and Russia, while in the case of Great Britain the increase is due directly to importation. There has been a decrease in France of 914,000 head between 1913 and 1916.

Turning to the United States, Secretary Dinsmore reports 21,126,000 horses on hand January 1, 1917. In the twenty-eight months ending January 1, 1917, 805,422 horses were exported. In spite of this large export trade there were almost as many horses in the United States the first of January, 1917, as there were on the same date in 1915, due to breeding operations. Referring to horse values and their relation to type, Secretary Dinsmore says:

The supply of heavy horses is limited. The best informed men estimate that of our twenty-one million head, less than a million are real draft horses, weighing over 1,600 pounds; and the demand for these efficient workers is such that they are holding their own in cities and increasing in popularity on farms. There is every reason to believe that the demand for drafters will continue to exceed the supply for at least twenty years yet.

With a view to obtaining the most accurate data possible on horse production, questions were recently sent by the Percheron Society to representative breeders throughout all parts of the United States. Replies were received from 277 prior to the issuance of this letter, and we take this opportunity to thank those who coöperated with us in this inquiry.

Reports from these men on conditions in their own localities show that there has been a marked reduction in the number of mares bred in 1917. While some localities have bred nearly all available mares, this is not generally true, and it appears that not more than 40 per cent of the mares old enough to breed have been bred this season. The number of stallions in service is considerably less than in 1916. This is further confirmed by reports from twelve stallion boards, which reveal a decrease of 625 pure bred draft stallions, and a total decrease of 3,209 stallions all told, which is a tremendous reduction for one year.

Sixty-eight per cent of the men report very few surplus horses good enough for sale for war or other purposes, on hand in their localities. Horses ranging from 1,000 to 1,200 pounds are reported to be selling from $90 to $125 average; horses from 1,200 to 1,500 pounds at from $140 to $175 average, and horses over 1,500 pounds at from $200 to $250 average.

Eighty-nine per cent of the correspondents report no horses that will mature at 1,700 pounds or over, or that there are very few; only eleven per cent report over twelve such horses in their communities. This bears out the repeated declarations of market men and horse buyers, who insist that there are very few real draft horses in any section. This, taken in conjunction with the price—$250 to $300 on the heavier horses—is ample evidence of our urgent need of more big horses. There is no incentive to produce small horses; every reason to produce more real drafters.

Importations have practically ceased. Only 64 Percherons have been imported in 1917. One leading importer has publicly stated that the American bred horses he has bought in the last three years have developed far beyond his expectations. He further says that he can buy better American bred horses here now than the horses he formerly obtained in France. His purchases confirm his statements. Other importers are gradually coming to the same position. It is, however, necessary for dealers to purchase horses at younger ages, and to provide separate pastures—an acre or more—to prevent the young stallions from injuring each other sufficiently to impair sales.

Consideration of all the facts we have painstakingly gathered leads to but one conclusion. There is a shortage of draft horses, which is not likely to be fully supplied for at least twenty years. Draft stallions are scarcer than they were and will be in demand to make more draft horses, out of mares that are 1,400 pounds or over. Horses weighing over 1,500 pounds, if sound and right, are bringing approximately $100 per head more than those under 1,200 pounds, and are averaging $225 or better. Prices are steady or stronger in nearly all instances. Young stock especially should be well cared for. Grain can be saved in some degree by giving all the oat straw, corn fodder and alfalfa colts will eat, but even with this allowance foals and yearlings should have daily at least three-fourths of a pound of grain per each hundred pounds live weight.

The time to keep up horse production is when the average man wants to quit. It pays in the long run.

While this is not the breeding season, it is quite in order to emphasize some of the points brought out by Mr. Dinsmore. The day of the light horse has passed forever and no man can afford to spend his time and waste his feed on a horse that will only bring a hundred dollars as a five year old. The same amount of care and practically the same amount of feed will produce a horse worth anywhere from $200 to $300. In spite of the coming of the tractor and the motor truck it appears now that there is likely to remain an important place for the drafter in our agricultural and industrial system and, this being the case, men with good, sound 1,400 or 1,500-pound mares are in a position to do their farm work economically and at the same time raise drafters at a profit.

Wisconsin Dairymen's Meeting.

The forty-sixth annual meeting of the Wisconsin Dairymen's Association will be held at Janesville, Wis., November 20th, 21st and 22d. The Wisconsin Farmer has just received this advice from Paul C. Burchard, Fort Atkinson, Wis., secretary of the association. The meeting will be held a little earlier than usual this year and in a locality which is convenient to our best dairy interests. There should be a very large attendance at Janesville, and The Wisconsin Farmer hopes to see this the most successful convention ever held in the state. The Wisconsin Dairymen's Association has given other sections of the state opportunity to attend its meetings in the last few years, and this year the session is being brought down close to the southern line for the benefit of the southern counties. Our readers should bear the dates in mind and plan to take advantage of the feast of good educational and practical dairy matter which will be offered on the program at Janesville. Let's smash all attendance records of this association this year.

New Clover Requires Good Top for Protection.

There has been some disappointment over the condition of the clover crop seeded last spring. For a time there was a splendid promise of a satisfactory stand and up to the middle of July the prospect was most encouraging. Two weeks later there was a different story to tell, because then the dry weather began to pinch and this, in combination with grasshoppers, meant the complete loss of many fields. In most cases this stubble land has been plowed and put in wheat, but nevertheless the loss of the clover means that the rotation has been disturbed, necessitating the carrying out of a severe cropping plan.

Those who were fortunate enough to save their meadows should not be unmindful of the fact that severe pasturing is almost as injurious as the siege of weather in July and August. There is always a temptation to turn the cattle into the stubble land that has been seeded down and, while we are not absolutely opposed to a certain amount of pasturing, we have observed too many instances of the crop being absolutely destroyed by pasturing to be enthusiastic about grazing new clover.

A good development of top means a sturdy root system and just as soon as the leaves and stems are nipped off in grazing there and then is the vigor of the root system impeded so that it is not in condition to face the winter and endure hardship. Where a new meadow is fenced hog tight one may usually effect a considerable saving of grain by turning the hogs in during the fall months. If the hogs are fed a grain ration daily they will not be hard on the clover and yet they may consume enough of this rich legume forage to save considerable grain, while, in addition, the clover will contribute to bounding good health and thrift. If the rooting habit develops it will have to be stopped by ringing the hogs, because a bunch of hogs can do an enormous amount of damage to a clover field in a very few days after they acquire the rooting vice. Cattle graze much closer to the ground than hogs and for that reason the latter are much to be preferred in the clover fields, and a few weeks of grazing may still leave plenty of clover top to catch the snow and to protect the root system.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Dairy Cattle Congress.

(Continued from page 1.)

territory comprises a rich agricultural section in which dairying stands out as a big feature. Prominent dairy herds of the country are in this territory, including the Guernsey herd of W. W. Marsh, the Holstein herd of the Messer Farms Co., and the Ayrshire herd of Wm. Galloway. The manufacture of dairy equipment in Waterloo also adds much to the local interest in dairying. Then combined with these advantages is the fact that Waterloo has a population of boosters. The whole town gets behind its enterprises instead of leaving it for a few loyal persons. This was demonstrated in the big home-coming parade held on the second day of the congress. More than 30,000 people lined the streets to see the parade which was composed chiefly of floats of manufacturers, merchants, schools and social organizations. Each float showed that considerable time and effort had been spent in its preparation.

The big feature of the congress was the dairy cattle show. Representative herds of the Middle West came into keen competition, and, although fewer cattle were on the grounds than at the 1916 show, still judges and dairymen agreed without hesitation that this year's show was better because a superior lot of animals were displayed. It was a quality show throughout and the winners of this show that go to the National Dairy Show at Columbus, Ohio, next week, will undoubtedly make a name for themselves there.

The next feature in point of interest, if we may judge by the number of persons gathered about them, were the exhibits of farm and dairy equipment. All local concerns at Waterloo were represented in full force and in addition many national manufacturers had elaborate exhibits on the grounds. Milking machines, cream separators and barn equipment claimed special attention from the dairy farmers. Eight milking machine companies had their product out for inspection, with attachments complete and power turned on, so that the operation of the apparatus could be closely observed. Cream separator demonstrators in charge of their exhibits were kept busy throughout the day explaining with the aid of assembled machines and loose parts the way in which cream is separated from skim milk by mechanical power. In the barn equipment line, many new labor-saving conveniences were on display—litter carriers, feed troughs, calf and bull pens, automatic steel cow stanchions and individual self-filling watering troughs. Every inch of display space in exhibitor's hall was sold out and more was called for than could be furnished.

Among the other prominent lines displayed were gas engines, farm lighting plants, feed mixers, corn shellers, feed grinders, tractors and the common farm implements. In the automobile hall seventeen exhibitors had space. There were cars for every kind of service and the care with which the exhibits were arranged made this show a beautiful one indeed.

The educational side of the congress was well handled in the pure food, cow-testing and hog-cholera exhibits. The pure food work was conducted by the Iowa Food and Dairy Commission. Their booth in exhibitor's hall was lined with charts explaining the need of sanitation in handling foods and showing the nutrient value in various foods, such as milk, butter, cheese, bread, meat and vegetables. Samples of milk were on display taken from nine dairies in each of twelve cities in Iowa. This milk was scored on the basis of odor, flavor, style of package, bacteria count, sediment, fat and solids not fat. Cedar Rapids had the best lot of milk with a score of 89.54 per cent perfect; next came Des Moines with 78.60; Marshalltown, 72.92; Waterloo, 71.51, and Mason City, 71.43.

The cow-testing exhibit showed the advantage of testing cows and discarding the poor ones. Ten cows were in the exhibit, each having a different capacity for milk production. The most profitable cow was a pure-bred Jersey with a record of 12,429 pounds of milk or 742 pounds butter fat a year. Her product was valued at $328.75 and her feed cost was $142.91, thus making a difference of $185.84 for her owner. The most unprofitable cow was a pure-bred Holstein which produced 3,359 pounds of milk or 140.3 pounds of butter fat a year, worth $63.31. Since her feed cost was $65.34 there was a difference of $2.03 which it cost her owner to keep her in the herd. This, of course, does not show that one breed is better than another, since there were high and low-producing cows of several breeds in the exhibit, but it shows that even the pure-bred cows must be tested and that cows which cannot keep up a reasonable production must be discarded in order to make the herd pay a good profit.

The hog cholera exhibit showed specimens of normal and diseased organs of a hog affected with hog cholera. Sections of the heart, skin, lymph nodes and intestines were placed under glass so that the diseased tissue could be readily studied side by side with healthy tissue. On the charts which accompanied the exhibit were instructions on handling the disease. The outstanding measures mentioned for its control were vaccination, quarantine and sanitation on the farm and coöperation and organization in the community.

Patriotism ran high at the cattle congress, as evidenced by the liberal donations and generous bidding at the Red Cross auction sale which extended through nearly a day and a half of the show week and brought in more than $2,000 to the organization. Among the donations were a tractor, gasoline engine, town lot, two loads of hay, more than 100 head of poultry, live stock of different kinds, vegetables and canned fruit. A registered calf from the Waterloo Jersey Farm sold for $500, which was the highest price obtained at the sale. One calf was sold five times, the purchasers in the first four instances donating the calf back to the Red Cross. In every case the selling price of the calf was $82.50. During the sale, W. W. Marsh, M. L. Bowman, Rev. J. R. Macartney and Rev. F. W. Court, all prominent men of Waterloo, made stirring speeches explaining the work of the Red Cross and urging the support of the people to this cause.

Among other works of patriotism were those of food production by the boys' calf club and the Waterloo Vacant Lot Canning Club. The calf club was organized by the Leavitt & Johnson Bank, of Waterloo, in order to stimulate interest in the raising of dairy cattle among the boys, and a contest was held to determine who could raise the best calf in a stated period. This contest ended during the cattle congress. Each boy received a grade calf which he was to feed and care for. One hundred and nineteen boys in the contest had their calves on exhibition during the show week and prizes were awarded to the winners on the last day. The vacant lot canning club had a complete exhibit of garden truck and canned fruit at the show, which had been raised during the summer at the response of the president's call for the patriotic conservation and production of food. Many of the products were of unusual size and quality and demonstrated what can be done in gardening on a small scale if a little thought and attention are given to it.

THE CATTLE SHOW.

Holsteins.—The Holstein show was pronounced by far the best that has been seen on the circuit this year and it is not too much to say that it was one of the strongest shows ever seen at Waterloo. Every class was uniformly strong in quality, scale and type. Eleven exhibitors entered a total of 89 animals. Iowana Farms were the heaviest winners of the show, winning all championships and grand championships. The Messer Farms ran them a close race in every class with the other prizes pretty well divided among the remaining exhibitors. In the bull classes the outstanding individual was the Iowana bull, Oak De Kol Ollie Homestead. He won both senior and grand championship honors in close competition with the Minnesota bull owned by Marlow & McCargar. The Iowana bull had it on the Minnesota sire in masculinity and scale. In the two-year class of bulls Iowana Farms again won the honors after a hard tussle. The first three animals in this class were all bred by Oak De Kol Ollie Homestead and a more uniform lot would be hard to find. The calf classes were equally strong, Messer Farms winning on the bull calf six months and under 12 and Iowana Farms in the under six months class. The aged cows showed nothing spectacular, although all animals were large types individuals with plenty of quality. Iowana Farms won first on Fryslan Waldorf. This cow has a record of 898 pounds of butter fat for a yearly record. She also won the Holstein-Friesian Breeders' Assn. honor for cows having official record begun at two years and under five, and was made senior and grand champion of the show. In the four year olds Jewel Walker Gerben of Cedarside, owned by Messer Farms, was first. In the three year olds Bracelet Clothilde Korndyke, owned by Larsen, of Dike, Iowa, had it over the others in quality and some in scale. The two-year-old class was sensational, showing some of the nicest heifers seen at the Waterloo show. In openness of frame, scale, quality and development these heifers were outstanding. Messer Farms won first and second in this. In the senior yearling and junior yearling classes strong, straight, typey animals predominated. The senior and junior calf classes also brought out a uniform lot of individuals with exceptional scale and quality, the promising mammary development of the winners being especially remarkable. In the groups the feature of the show was the get of sire class won by Iowana Farms on the get of the champion bull, Oak De Kol Ollie Homestead. Prof. H. H. Kildee, of Minnesota Agricultural College, judged the show with the exception of the two-year-old bull class, which was judged by Will Forbes, of Waterloo, as Mr. Kildee was instrumental in purchasing one of the Oak De Kol bulls for Iowa State College and which was shown in that class.

Exhibitors—Ira E. Brown, Laporte City, Iowa; U. S. Culver, Stillwater, Minn.; Geo. Hathaway, Independence, Iowa; H. A. Houck, Jessup, Iowa; Iowa State College, Ames, Iowa; Iowana Farms, Davenport, Iowa; H. O. Larsen, Dike, Iowa; J. C. Marlow & Geo. McCargar, Mankato, Minn.; Messer Farms Co., Waterloo, Iowa; Maxwell Farms, Waterloo, Iowa; Edwin Wilcox, Wyoming, Iowa. Judge, H. H. Kildee, St. Paul, Minn.

Aged bull (4 shown), 1st Iowana Farms on Oak De Kol Ollie Homestead, 2d Marlow & McCargar on Sir Pietertje Ormsby Mercedes 14th, 3d Culver on Piebe Laura Ollie Homestead King, 4th Larsen on Leda Fobes Korndyke Prince; three year old bull (1 shown), Messer Farms on King Segis Iowana Ormsby; two year old (7 shown), 1st, 3d and 4th Iowana Farms on Iowana Mercedes Homestead, Iowana Fryslan De Kol and Iowana James Fayne, 2d Iowa State College on Iowana Homestead Watson, 5th Messer Farms on King Segis Pontiac combination, 6th Wilcox on La Polka Mercedes Pietertje Lad, yearling (4 shown), 1st and 4th Iowana Farms on Iowana Burke Fayne and Iowana Cornucopia Fayne; 2d Messer Farms on Korndyke Pontiac Ormsby, 3d Houck on Sir Fayne Nutula Polkadot, senior calf (10 shown) 1st Messer Farms on Segis Lad Pontiac Korndyke, 2d Hathaway on Star Segis Pontiac, 3d Maxwell Farms on K. S. P. De Kol Triania, 4th and 5th Larsen on Sir Korndyke Clothilde Fornim and King Segis Pontiac Clothilde De Kol; junior calf (8 shown), 1st Iowana Farms on Iowana Ocean Hawtipe, 2d Messer Farms on Prince Korndyke Segis Ormsby, 3d and 5th Culver on Far Oaks Sir Violet Ormsby and Far Oaks Sir Ormsby Champion, 4th Maxwell Farms on unnamed, 6th Brown on King Segis Stuyvesant Grahamholm.

Aged cow (6 shown), 1st and 6th Iowana Farms on Fryslan Waldorf and Liddisale Echo Hengerveld, 2d Culver on Springbrook Darkness, 3d Larsen on Drosky Sadie Vale Cornucopia, 4th Maxwell Farms on Lady Lyons Beets, 5th Messer Farms on Japka Korndyke De Kol; four year old (2 shown), 1st Messer Farms on Jewel Walker Gerben of Cedarside, 2d Iowana Farms on Iowana Rue De Kol Burke; three year old (4 shown), 1st Larsen on Bracelet Clothilde Korndyke, 2d and 4th Iowana Farms on Iowana Rose and Iowana Jane, 3d Messer Farms on Aaggie Gerben Netherland; 2d, two year old (8 shown), 1st, 2d and 4th Messer Farms on Nellie Segis Pontiac, Eudora Pontiac Colantha, Velma Walker Segis of Cedarside, 3d and 6th Culver on South Side Inka De Kol and Far Oaks Ideal Ormsby, 5th Iowana Farms on Iowana Fayne Cocoms; 18 months and under two years (10 shown), 1st Iowana Farms on Edenwold Aaggie Boss, 2d and 6th Messer Farms on Gracia Johanna Segis of Cedarsale and Jewel Walker Segis Pontiac, 3d Culver on Far Oaks Skylark Ormsby, 4th Larsen on Fornim Harlog Rauwerd, 5th Maxwell Farms on K. S. P. Lilly McKinley; 12 months and under 18 (9 shown), 1st Larsen on Fornim Aaggie De Kol, 2d and 4th Messer Farms on Eudora Maid Pontiac Ormsby and Ormsby Buffalo Mercedes 2d, 3d and 5th Iowana Farms on Iowana Rue Burke Colantha and Iowana Homestead Pietertje; senior calf (13 shown), 1st and 2d Messer Farms on Larky De Kol Pontiac Segis and Nell Hengerveld Segis, 3d Maxwell Farms on Rag Apple Ormsby Hengerveld, 4th Iowana Farms on Iowana De Cola Ollie, 5th Culver on Far Oaks Miss Ormsby Ray, junior calf (9 shown), 1st Culver on Pietertje Wayne Rag Apple King, 2d Iowana Farms on Iowana Waldorf Coronis, 3d and 5th Messer Farms on Miss Johanna Segis Korndyke and Queen Ormsby Johanna Segis, 4th Maxwell Farms on unnamed; cow having official yearly record begun at 5 years or over, Messer Farms on Japka Korndyke De Kol; cow having official yearly record begun at 2 years under 5 (4 shown), 1st, 2d, 3d and 4th Iowana Farms on Fryslan Waldorf, Iowana Rose, Iowana Rue De Kol Burke and Iowana Jane.

Senior and grand champion bull, Iowana Farms on Oak De Kol Ollie

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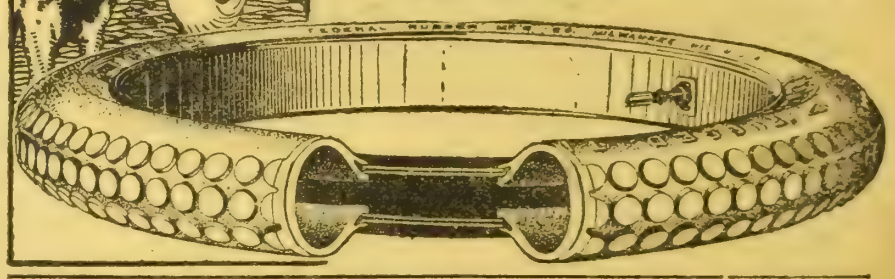

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Homestead; junior champion bull, Iowana Farms on Iowana Burke Fayne; senior and grand champion cow, Iowana Farms on Fryslan Waldorf; junior champion female, Iowana Farms on Edenwold Aaggie Bess; exhibitor's herd (5 shown), 1st, Iowana Farms, 2d and 4th Messer Farms, 3d Culver, 5th Larsen; breeder's young herd (5 shown), 1st Messer Farms, 2d Iowana Farms, 3d Larsen, 4th Culver, 5th Maxwell Farms; calf herd (4 shown), 1st Messer Farms, 2d Iowana Farms, 3d Culver, 4th Maxwell; R. B. Young's special cup, bull and two heifers under one year won by Messer Farms; get of sire (8 shown), 1st Iowana Farms, 2d, 3d and 5th Messer Farms, 4th Larsen; produce of cow (6 shown), 1st and 2d Messer Farms, 3d Larsen, 4th Iowana Farms, 5th Culver; advanced registry cow, won by Messer Farms; dairy herd (2 shown), 1st Messer Farms, 2d Iowana Farms.

Jerseys.—Quality was the outstanding feature of the Jersey show. Five herds, totaling 70 animals, gave the lovers of the Jersey breed plenty to look at. Championship honors in the female classes in at least two cases went to cows that had proved their ability to make records. The senior and grand champion cow, Manor's Noble Queen, has an R. O. M. record of 10,625.3 pounds of milk and 702.71 pounds of butter. The four-year-old cow, Stockwell's Noble Wonder, has a three-year-old record of 456.12 pounds of butter. Both cows are owned by E. C. Lasater, the great Texas Jersey man. The champion and grand championship honors in the bull classes went to Longview Farm, of Lees Summit, Mo. Both the grand champion and the junior champion bull were excellent specimens of the breed. In the aged bull class Thompson Farm Sans Oloi might have placed higher than third had he been better fitted. An especially strong line-up of heifers, every one of which had extremely good quality, gave Judge C. H. Staples, of Baton Rouge, La., plenty to do. However, the judging was consistent throughout, the smaller, higher-quality animals getting the preference over animals with plenty of scale, but somewhat off in type and quality. The difficulty of breeding an animal free from beefiness and at the same time with plenty of size was shown in several instances. Several individuals showed too much beefiness to be truly representative of the Jerseys. Most of these animals had the weight, but lacked length and depth which the Jersey breeder expects when these two qualities are emphasized.

Exhibitors—E. C. Lasater, Falfurrias, Texas; Longview Farm, Lees Summit, Mo.; Myrtle E. & Earl F. Pyle, Clarksville, Ohio; Will Thompson, Jesup, Iowa; F. D. Underwood, Wauwatosa, Wis.; J. P. Brown, Parkersburg, Iowa. Judge, C. H. Staples, Baton Rouge, La.

Aged bull (4 shown), 1st Longview Farm on Viola's Majesty's White Sox, 2d Lasater on Raleigh's Oxford Prince, 3d Thompson on Thompson Farm Sans Aloi, 4th Underwood on Pennithorpe's Raleigh; three year old (1 shown), Lasater on Mon Plaisir's Majesty of F.; two year old (2 shown), 1st Longview Farm on Warder's Chieftain, 2d Lasater on Adan's Noble of Texas; yearling (5 shown), 1st and 4th Longview Farm on Poet's White Heart and Hope's Financial Raleigh, 2d and 5th Pyle on Sans Aloi's Niece's King and Fox, 3d Lasater on Bright Eminent Lad; senior calf (6 shown), 1st and 4th Longview Farm on Chief Raleigh and Jolly Snowstorm, 2d and 6th Lasater on Carnation's Village Knight and Oxford's Majesty of La Mota, 3d Pyle on Richmond King, 5th Underwood on Fewacres Lord Alonzo; junior calf (3 shown), 1st Longview Farm on Emily's Poet, 2d Lasater on Easter's Combination, 3d Pyle on Stockwell.

Aged cow (7 shown), 1st, 2d, 4th and 5th Lasater on Manor's Noble Queen, Martha You'll Do, Majesty's Lady Wave of F. and Majesty's Champion Oonan, 3d Longview Farm on Fairy Lad's Wolff, 6th Underwood on Distinction's Oxford Bell; four year old (2 shown), 1st Lasater on Stockwell's Noble Wonder, 2d Longview on Golden Fern's Silver Thread; three year old (6 shown), 1st Longview Farm on Raleigh's Eminent Buttercup, 2d Underwood on Noble's Financial Meg, 3d and 4th Lasater on Constance of Falfurrias and Majesty's Fairy Victress; two year old (6 shown), 1st and 2d Lasater on Rochette's Noble Alice and Eminent Lad's Island Star, 3d Underwood on Noble Hephzibah, 4th Longview Farm on Fontaine's Pretty Maiden, 5th and 6th Pyle on Martell's and You'll Do's Mayflower; senior yearling (7 shown), 1st and 2d, Lasater on Cowslip's Favorite Fern and Vixen's Oxford Charlotte, 3d and 4th Longview Farm on Raleigh's Golden Kittie and Raleigh's Young Fontaine, 5th Thompson on Hallowe'en's Beautiful Fox; junior yearling (7 shown), 1st Lasater on Great Scott's Brightness, 2d and 3d Longview Farm on Fontaine's Nema and Gay Lady Raleigh, 4th and 5th Pyle on Silver You'll Do and Oakland Lady; senior calf (6 shown), 1st Longview Farm on My Rosary, 2d, 3d and 4th Lasater on Aldan's Oxford Fontaine, Aldan's Noble Gleenie and Village Knight's Jessica, 5th Underwood on Fewacres Lady Maud; junior calf (6 shown), 1st, 2d and 5th Longview Farm on Raleigh's Velvet, Raleigh's Oxtivity and Chieftain's Flora, 3d and 4th Lasater on Great Scott's Eminent Fancy and Great Scott's Noble Queen; cow having official yearly record begun at 5 years or over (3 shown), 1st and 2d Lasater on Manor's Noble Queen and Raleigh's Island Star, 3d Longview on Fairy Lad's Wolff; cow having official yearly record begun at 2 years, under 5 (7 shown), 1st, 3d and 5th Lasater on Stockwell's Noble Wonder, Constance of Falfurrias and Majesty's Champion Oonan, 2d and 4th Longview Farm on Undulata Nena and Fontaine's Pretty Maiden.

Senior and grand champion bull, Longview Farm on Viola's Majesty's White Sox; junior champion bull, Longview Farm on Poet's White Heart; senior and grand champion cow, Lasater on Manor's Noble Queen; junior champion cow, Lasater on Great Scott's Brightness; cow with official record, Longview Farm on Viola's Majesty's White Sox, butter 702.71, milk 10,625.3 pounds; exhibitor's herd (3 shown), 1st and 3d Lasater, 2d Longview Farm; breeder's young herd (3 shown), 1st and 4th Longview Farm, 2d and 3d Lasater, 5th Pyle; calf herd (2 shown), 1st Longview Farm, 2d Lasater; get of sire (6 shown), 1st and 2d Longview Farm, 3d Underwood, 4th Lasater, 5th Pyle; produce of cow (6 shown), 1st Lasater, 2d Thompson, 3d, 4th and 5th Longview Farm; advanced registry cow, Lasater; dairy herd (5 shown), 1st and 3d Lasater, 2d Longview Farm, 4th Underwood, 5th Pyle.

Guernseys.—The Guernsey exhibit was equal in quality to previous shows, especially so in the top places. In numbers it was not quite as good as last year, but the 10 exhibitors entered approximately 70 animals for the various prizes. The heaviest winner of the show was W. W. Marsh, of Waterloo, Iowa, with D. D. Tenney, of Crystal Bay, Minn., showing much of the same blood as the Marsh herd, running a close second. The judging of the Guernseys did not proceed as smoothly as in the other breeds and was full of surprises to breeders and visitors alike. Considerable sideline discussion resulted from the placing of Ladysmith's Cherub in second place in the aged bull class. Imp. Kenilworth Gold had neither the scale, the depth nor the straightness over the rump that the Tenney bull showed. Several other placings were also decidedly questionable. Nevertheless the show was a good one, splendid males, heifers and aged females being entered. In the division for cows with official yearly record begun at two years and under five the five first cows had the exceptional records quoted above and all of the eight cows entered in this class had with their type the production records to justify their presence. Most of the winners at least will travel to Columbus to take part in the great National showing.

Exhibitors—Rookwood Farm, Ames, Iowa; Dairyland Farm, Storm Lake, Iowa; John Ebels, Holland, Mich.; Iowa State College, Ames, Iowa; C. L. Kerr & Son, Manilla, Iowa; D. D. Tenney, Crystal Bay, Minn.; W. W. Marsh, Waterloo, Iowa; Mountain Bros., Des Moines, Iowa; Kansas State Agricultural College, Manhattan, Kan. Judge, J. J. Hooper, Lexington, Ky.

Aged bull (3 shown), 1st Marsh on Imp. Kenilworth Gold, 2d Tenney on Ladysmith's Cherub, 3d Kerr on Dairymaid's Pride of Mapledell; two year old (3 shown), 1st Mountain Bros. on Cherub's Winner, 2d Ebels on L'Aiglon of Bon Ayre, 3d Dairyland Farm on Regal of Waveland; yearling (5 shown), 1st Kansas Agricultural College on Langwater Benefactor, 2d and 3d Marsh on Imp. Harfield and Imp. Kitchener's Express, 4th Tenney on Sequel's Duke of Shorewood, 5th Dairyland Farm on College Star's Dairyman; senior calf (6 shown), 1st Marsh on Dairymaid's Memento, 2d Rookwood Farm on Rookwood Cherub, 3d Yoder on Lily's May King, 4th Dairyland Farm on Gov. of Ames, 5th Ebels on Dora's King of Butternut Hill; junior calf (6 shown), 1st and 4th Marsh on Pine Blossom's Cherub and Lady Mary's Cherub, 2d Tenney on Althea's Pride of Shorewood, 3d and 5th Dairyland Farm on Primrose Holden and Barbi's Holden.

Aged cow (7 shown), 1st, 3d and 5th Tenney on Imp. Althea of Sarnia, Imp. Dairymaid IV of the Duvaux and Imp. Rosette of Marais Farm, 2d and 4th Marsh on Hayes Express VII and Imp. Hayes Express V; four year old (3 shown), 1st and 2d Marsh on Imp. Hayes Express IX and Imp. Hayes Golden Cherry 12th, 3d Ebels on Lizette

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There is a dealer in your town that will supply you with Dr. Hess Poultry Pan-a-ce-a for your flock. It's to help your poultry through the moult—it's to start your pullets and moulted hens to laying, otherwise he will refund your money. Packages, 25c, 60c and $1.25. 25-lb. pail, $2.50; 100-lb. drum, $9.00. Except in the far West and Canada.

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Heed Your Nation's Call!

Cultivate Montana's Vast Acres

Wilson Urges Farmers to Aid With Big Crops

WASHINGTON, April 10.—President Wilson today sent the following letter to the National Agricultural society, in session in the New Willard hotel:

"Gentlemen: At the present moment it is our plain duty to take adequate steps that not only our own people be fed, but that we may, if possible, answer the call for food of other nations now at war.

"In this greatest of human needs I feel that the American farmer will do his part to the uttermost.

"By planting and increasing his production in every way possible, every farmer will perform a labor of patriotism for which he will be recognized as a soldier of the commissary adding his share to the food supply of our people.

(Signed) "WOODROW WILSON."

"It's Up To the American Farmer"

From the Chicago Examiner

The supreme need of the allied democratic nations is food. In Montana there are millions of acres of rich virgin land awaiting the plowshare to convert them into food producing areas.

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In the quality of its grains and yield per acre Montana stands first—yet land there can be bought at reasonable prices. There is not another State in the Union where a day's work or a dollar spent in agricultural enterprise will bring such large returns and amid living conditions which are so uniquely delightful.

By investing over twelve million dollars for the electrification of its line across the state, the *"St. Paul Road"* has answered the question, "Can I safely invest in a Montana farm?"

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of Butternut Hill; three year old (1 shown), Marsh on Imp. Hayes Mabel; two year old (7 shown), 1st and 2d Marsh on Hayes Express XI and Figtree of the Prairie, 3d and 4th Tenney on Machere Procris and Pearl's Dot, 5th Ebels on Lady Red of Butternut Hill; senior yearling (4 shown), 1st Marsh on Cherub's Lily La Pine, 2d Dairyland Farm on Princess of Ames, 3d and 4th Ebels on Nancy of Butternut Hill and Dora Bess of Butternut Hill; junior yearling, (5 shown), 1st and 2d Marsh on Imp. Hayes Golden Cherry 15th and Imp. Hayes Golden Cherry 16th, 3d Tenney on Bell Buoy's Golden Lassie of City View; 4th and 5th Ebels on Annie of Butternut Hill and Polly of Butternut Hill; senior calf (8 shown), 1st, 2d and 4th Marsh on Imp. Rose des Houards of the Prairie, Cherub's Daisy of the Prairie and Elberon's Express of Prairie, 3d Iowa State College on Cherub's Rouge of Ames, 5th Tenney on Lady La Verne of Shorewood; junior calf (6 shown), 1st and 2d Marsh on Imp. Golden Cherry of the Prairie and unnamed, 3d, 4th and 5th Tenney on Deanie II of Shorewood, First Lady's Maid and Pearl's Golden Secret Girl; cow having official yearly record begun at five years or over (2 shown), 1st Dairyland Farm on Frances Rose of Fairview, 2d Ebels on Nancy of Lyndon Heights; cow having official yearly record begun at 2 years, under 5 (8 shown), 1st and 2d Marsh on Imp. Hayes Mabel and Imp. Hayes Express 9th, 3d, 4th and 5th Tenney on Imp. Althea of Sarnia, Cora of Gerar and Pearl of Pomeroy.

Senior and grand champion bull, Marsh on Imp. Kenilworth Gold; junior champion bull, Marsh on Dairymaid's Memento; senior and grand champion cow, Marsh on Imp. Hayes Mabel; junior champion cow, Marsh on Imp. Rose des Houards of the Prairie; cow with official record, Marsh on Imp. Hayes Mabel; exhibitor's herd, 1st Marsh, 2d Tenney, 3d Dairyland Farm, 4th Ebels; breeder's young herd, (2 shown), 1st Marsh, 2d Ebels; calf herd (3 shown), 1st Marsh, 2d Tenney, 3d Ebels; get of sire (4 shown), 1st Marsh, 2d Tenney, 3d Dairyland Farm, 4th Ebels; produce of cow (5 shown), 1st and 2d Marsh, 3d Tenney, 4th Dairyland Farm, 5th Ebels; advanced registry cow (2 shown), 1st Marsh, 2d Ebels; dairy herd (3 shown), 1st Marsh, 2d Tenney, 3d Ebels.

Ayrshires.—Quality was more in evidence in the Ayrshire show this year at the Dairy Cattle Congress than it was in 1916, although there was a small decrease in the number of head shown. This year 50 head were led into the ring and every animal was a credit to the breed. Six head was the largest showing in any one class, but the placing resolved itself down to such close points that the contest was full of interest throughout. James G. Watson, of Braden, Vt., who tied the ribbons, pronounced the showing one of splendid quality and uniformity. In the sweepstakes classes, Bargenoch Rising Star, of the Van Etta herd, came to the front as senior champion. He is an outstanding dairy bull of fine type and quality and succeeded in winning both the senior and grand champion ribbons at Waterloo last year. This year, however, he lost the grand championship to the junior champion, Cavalier's Lord Stewart, a Seitz bull, which as a yearling showed great conformation and dairy type. In the female honors, the stylish aged cow of Adam Seitz, Imp. Oldhall Beauty 8th, took the senior and grand champion purples without great difficulty. Good Gift's Nona, a senior yearling heifer of the Galloway herd, was made junior champion. She is a heifer of good character and quality, but lacks the style of the older cow. Taken as a whole the Ayrshire show was a decided success, in spite of the fact that it fell somewhat below last year's record in point of numbers.

Exhibitors—William Galloway, Waterloo, Iowa; C. H. Peverill, Waterloo, Iowa; Adam Seitz, Waukesha, Wis.; James Van Etta, Lima Center, Wis. Judge, James G. Watson, Brandon, Vt.

Aged bull (2 shown), 1st Van Etta on Bargenoch Rising Star, 2d Galloway on Auchenbrain Good Gift; two year old (2 shown), 1st Seitz on Cavalier's Lord Roseberry, 2d Galloway on Cavalier's Merry Lad; yearling (1 shown), Seitz on Cavalier's Lord Stewart; senior calf (4 shown, 1st Seitz on Cavalier's Beuchan Lindsay, 2d Van Etta on Madison of Cloverdale, 3d Peverilll on Enid's Good Gift, 4th Galloway on Lucius Good Gift; junior calf (4 shown), 1st and 4th Seitz on Cavalier's Rising Archer and Cavalier's Beuchan Silver Tips, 2d Van Etta on Cloverdale's Ringmaster, 3d Galloway.

Aged cow (6 shown), 1st and 2d Seitz on Imp. Oldhall Beauty 8th, and Imp. Hillhouse Maud 2d, 3d and 4th Van Etta on Grace of Ritchfield and White Lily of Meadowbrook, 5th Galloway on Oldhall Sarah of Scotland Farm; three year old (1 shown), 1st Van Etta on Rose Winnie, 2d and 3d Seitz on ——— and Imp. Blackbyres Lady Walker, 4th Peverill on Lessnessock Carlton; two year old (5 shown), 1st and 5th Galloway on Nona Spencer and Rose Good Gift, 2d and 3d Seitz on Cavalier's Lady Mary Stuart and Cavalier's Maud 2d, 4th Van Etta on Rose May of Aldebaran; senior yearling (4 shown), 1st and 4th Galloway on Good Gift's Nona and Good Gift's Clemie, 2d Van Etta on Cavalier's Fleckie, 3d Seitz on Wanderer's Narcissus; junior yearling (3 shown), 1st and 2d Seitz on Cavalier's Lady Bountiful and Cavalier's Kilnford Dorothy, 3d Van Etta on Cloverdale Lady Bountiful; senior calf, 1st, 2d and 3d Seitz on Cavalier's Beuchan Queen, Cavalier's Kilnford Bell, 3d and Cavalier's White Lady, 3d Van Etta on Cavalier Cloverdale's Violet, 5th Galloway on Lady Ethel Good Gift; junior calf (6 shown), 1st Seitz on Cavalier's Kilnford Lily, 2d and 3d Van Etta on Cloverdale's Cream Pot and Phyllis of Cloverdale, 4th and 5th Galloway on Minnie Good Gift and unnamed; cow with official record begun at 5 years or over (3 shown), 1st Seitz on Imp. Oldhall Beauty 8th, 2d Van Etta on White Lilly of Meadowbrook, 3d Galloway on unnamed; cow with official record begun at 2 years and under 5 (1 shown), Seitz on Imp. Hillhouse Maude.

Senior champion bull, Van Etta on Bargenoch Rising Star; junior and grand champion bull, Seitz on Cavalier's Lord Stewart; senior and grand champion cow, Seitz on Imp. Oldhall Beauty 8th; junior champion cow, Galloway on Good Gift's Nona; exhibitor's herd (3 shown), 1st Seitz, 2d Galloway, 3d Van Etta; breeder's young herd (2 shown), 1st Seitz, 2d Van Etta, 3d Galloway; calf herd (3 shown), 1st Seitz, 2d Van Etta, 3d Galloway; get of sire (4 shown), 1st and 3d Seitz, 2d Galloway, 4th Van Etta; produce of cow (4 shown), 1st Galloway, 3d Van Etta, 2d, 4th and 5th Seitz; advanced registry cow (1 shown), Seitz; dairy herd, 1st Seitz, 2d Van Etta.

Brown Swiss.—A keen battle between two veteran breeders made up the show of Brown Swiss cattle at the Dairy Cattle Congress this year. Thirty-two head were exhibited from the herds of Hull Bros., of Painesville, Ohio, and Ira Inman, of Beloit, Wis. Prof. S. S. Gillette, of Ames, Iowa, who tied the ribbons, found the classes unusually close, although Hull Bros., in the end got a little the best of the contest. While in numbers the various classes were lacking, yet no fault could be found with the quality of the animals displayed and the showing was particularly uniform throughout.

Exhibitors—Hull Bros., Painesville, Ohio; Ira Inman, Beloit, Wis. Judge, L. S. Gillette, Ames, Iowa.

Aged bull (2 shown), 1st Hull Bros. on Dick of Lake View, 2d Inman on Lot of Lakeview; two year old (2 shown), 1st Hull Bros. on McCoy H., 2d Inman on Johann College Boy; yearling (2 shown), 1st Hull Bros. on Bogel's College Boy, 2d Inman on Flora Duwire's Grand Son; calf (5 shown), 1st Inman on Jessie's Lot, 2d, 3d, 4th and 5th Hull Bros. on unnamed, Supreme Lake View, Kololo of Lakeview, Mercedes of Lake View.

Aged cow (4 shown), 1st and 3d Hull Bros. on Swiss Valley Girl 7th and Lottie G. D., 2d and 4th Inman on Alice Hanson and Jessie J.; three year old (1 shown), Hull Bros. on Ruth Wilson 2d; two year old (3 shown), 1st Hull Bros. on Swiss Valley Girl 9th, 2d and 3d Inman on Hilda's Butter Girl and Virginia K.; yearling (4 shown), 1st and 4th Inman on Rock River Girl and Lady Trilby, 2d and 3d Hull Bros. on Vera of Lake View and Dorothy Downer of Lake View; calf (6 shown), 1st, 3d and 5th Inman on Lottie Brown, May Maiden and True Blue, 2d and 4th Hull Bros. on Belle of Lake View and Katie of Lake View; cow with official record begun at 5 years or over (2 shown), 1st and 2d Hull Bros. on Swiss Valley Girl 7th and Lottie G. D.; cow with official record begun at 2 years, under 5 (2 shown), 1st Hull Bros. on Swiss Valley Girl 7th.

Senior and grand champion bull, Hull Bros. on Dick of Lake View; junior champion bull, Hull Bros. on Bogel's College Boy; senior and grand champion cow, Hull Bros. on Swiss Valley Girl 7th; junior champion cow, Hull Bros. on Swiss Valley Girl 9th; exhibitor's herd (3 shown), 1st Hull Bros., 2d and 3d Inman; breeder's young herd (2 shown), 1st Hull Bros., 2d Inman; calf herd (2 shown), 1st Inman, 2d Hull Bros.; get of sire (3 shown), 1st and 3d Hull Bros., 2d Inman; produce of cow (4 shown), 1st and 3d Hull Bros., 2d and 4th Inman.

Upper Wisconsin.

Cost of Clearing Wisconsin Land.

To the Editor:—Knowing that I am familiar with the handling of dynamite, many people in this neighborhood ask me what it costs to blast stumps and boulders.

I recently blasted twenty-two large boulders and twenty-four large stumps with forty-three pounds of 40 per cent dynamite. The stumps ran from six inches to three feet in diameter. The charges ranged from one pound to four and one-quarter pounds of dynamite. The cost of the dynamite, caps and fuse was $12.60.

For the stumps three feet in diameter I found it advisable to divide my charge into two parts placed under different sections of the stumps in order to get a cumulative effect. To do this, however, requires the use of a blasting machine and electric blasting caps, because fuse, even if cut into two exactly equal lengths, will not burn down to the charge in exactly the same time. If the first charge goes off an instant ahead of the other one the second charge is very apt to be blown out or the tamping around it loosened so that the effect of it is lost.

In blasting the boulders, I place my charges in holes drilled into the rocks. This method requires more time, but saves dynamite. This is proven by the fact that I broke the twenty-two boulders with three pounds of dynamite, fifteen feet of fuse and twenty-two blasting caps. Henry Ruzek.

Wisconsin.

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Hudson, A. J. Samson
Humbird, F. A. Shute.
Hustler, F. M. Norton.

Iduna, John C. Hovre, R. F. D. Ettrick.
Ingram, W. M. Ellingson.
Iola, Iola Coop. Merc. Co.
Irma, J. A. & R. E. Schulz.
Iron River, Farmers Coop. Merc. Ass'n.

Jump River, C. J. Boeckler & Sons.
Junction City, C. Tufta.

Kendall, Gammon & Co.
Kewaunee, Wis., J. Lipsky.
Kennedy, S. R. Berg.
Klondike, Wis., G. J. Stodola, R. F. D. Coleman.
Knapp, Knapp Mercantile Co.
Knox Mills, K. O. Knutson, R. F. D. Brantwood.

La Crosse, Anderberg & Rice.
La Crosse, A. O. Morkved.
La Crosse, W. G. Moss.
Ladysmith, Fritz Dry Goods Co.
Ladysmith, R. March.
Ladysmith, W. M. Vaughn.
Ladysmith, Volkman Bros.
Lake Nebagamon, Chas. Larson.
Lakewood, Lakewood Mercantile Co.
Laney, Stanley Mastey, R. F. D. Pulaski.
Langlade, A. J. Wood.
Laona, A. S. Casterton.
Lawrence, R. A. Fuller, R. F. D. Westfield.
Levis, Ludwig Person, R. F. D. Osseo.
Lewis, A. J. Campbell.
Lindsay, August Walters.
Little Chute, J. A. Gloudemars.
Little Falls, Little Falls Merc. Co., R. F. D. Amery.
Loyal, B. Picus.
Luck, Paul Lomo.
Lynxville, Miss M. J. Stephens.

Manitowoc, Joseph Buchner.
Manitowoc, Karnofsky & Rhode.
Maple Grove, Wm. Reinhart, R.F.D. Fish Creek.
Marion, Engler & Dedolph
Marion, Schroeder Bros.
Marshfield, Chas. Foth, R. R. No. 4.
Medford, Medford Coop. Co.
Melrose, O'Heara & Co.
Menomonie, Swenson & Berndt.
Menomonie, E. C. Waller.
Merrill, J. C. Angelbeck.
Milan, Milan Store Co.
Millston, R. & E. Bunde.
Milltown, Jensen Mercantile Co.
Minoqua, Bolger Bros.
Minong, Brovan & Gilbert.
Moeville, Alfred Larson, R. F. D No. 3, Ellsworth.
Mondovi, Wm. Helwig.
Montello, N. Borenstein.
Moon, Denison & Coerper, R. F. D Mosinee.
Mosinee, J. C. Knoedler.
Mt. Sterling, Iverson & Son.
Mount Tabor, B. F. Sherman.

Nashville, J. F. Spark.
Nellsville, A. Unger.
Nellsville, C. C. Wasserburger.
Nekoosa, F. J. Korbal.
Nelson, Geo. Hanson.
Nelsonville, Sorbye & Loberg.
Neshkoro, Robert Wegenke.
New Centerville, Louis Hemness, R. F. D. Baldwin.
New Holstein, [illegible]
New Richmond, The Daylight Store.
New Richmond, E. A. Glover.
New Richmond, McCarty & Higgins.
Newry, Newry Far. Alliance, R.F.D. Cashton
North Crandon, Cook & Stein.
North Menomonie, Martin Monson.
Nye, C. S. Johnson.

Oconto Falls, A. W. Smith.
Odanah, J. S. Stearns Lumber Co.
Ogema, Dahl Bros.
Olivet, J. V. McCardle, R. F. D. Spring Valley.
Ontario, Ontario Merc. Co.
Osceola, Demulling & Leisch.
Osceola, Henry Hershman.
Osseo, M. J. Gilbert.
Osseo, S. H. Van Gordon & Son Co.
Owen, F. Michkowski.
Oxford, Farmers Exchange Store
Oxford, J. Rochstein.

Park Falls, Cohen & Conlins.
Park Falls, Wm. Rabanawish & Sons.
Parrish, A. Hurlbut Lumber Co.
Pensaukee, A. M. Moe.
Pepin, John A. Lawson.
Peshtigo, Ellison & Holm.
Pigeon Falls, H. A. Jacobson.
Plainfield, F. J. Luce & Co.
Plainfield, Patrick Bros.
Plum City, Wm. Johnson.
Polar, Robert P. Schmidt.
Polley, Nye, Lusk & Hudson Co.
Polonia, The Omernik Co.
Porcupine, F. Biles, R. F. D. Pepin.
Potter, Alves-Harms Co.
Prairie Du Chien, Cecka & Robejsek.
Prescott, F. Eichmann.
Price, Price Mercantile Co., R. F. D. Fairchild.
Princeton, O. R. Luedtke.
Princeton, Nickodem Bros.
Pulaski, A. Goska.
Pulaski, Jos. E. Matecki.

Red Granite, F. T. Venanzio.
Reedsville, Hugo Rahn.
Reeve, F. W. Halliday, R. F. D. Clayton.
Rhinelander, P. F. Seibel.
Rib Lake, F. Niggemann & Co.
Rice Lake, Jacobson Mercantile Co.
Rice Lake, Sockness & Nordenfoss.
Ridgeland, Ridgeland Coop. Merc. Co.
Riplinger, Arthur Bosma & Co.
Riplinger, F. Riplinger & Sons.
River Falls, C. T. Ritchey.
River Falls, H. N. Wiger.
Roberts, A. E. Hafer.
Rock Elm, W. C. Condit.
Rock Elm, Rock Elm Coop. Co.
Rockland, O. M. Honstad.
Rosendale, C. E. McCumber.

Sawyer, Goettelman-Warner Co.
Saxon, Arthur Auger.
Seymour, Adolph & Heling.
Seymour, W. Castersen & Co.
Sheldon, H. C. Brown & Son.
Shell Lake, Shell Lake Merc. Co.
Shennington, J. E. Meier.
Sheridan, P. H. Martin.
Shiocton, R. D. Fisher.
Sister Bay, Mrs. W. Bunda.
Sister Bay, Liberty Grove Produce Co.
Sobieski, F. A. Peplinski.
South Range, M. B. Christenson.
Sparta, J. J. Mason Co.
Spirit, C. P. Hanson.
Spring Valley, S. J. Fox Company.
Spruce, Echtner Bros., R. F. D. Lena.
Spruce, J. Kopel, R. F. D. Oconto Falls.
Stanley, Peterson & Aasgaard.
Stanton, George I. Roy, R. F. D. New Richmond.
Stetsonville, Erickson & Evenson Co.
Stevens Point, Kaminski & Kardach.
Stevens Point, N. L. Kitowski.
Stevens Point, C. G. Macnish Co.
Stevens Point, A. Ringness.
Stevens Point, Philip Rothman & Co.
Stevens Point, F. F. Shipply.
Stevens Point, J. Worzalla & Sons.
Stockholm, Charles G. Swanson.
Stratford, M. E. Kieffer.
Strum, Dahl & Mathison.
Sturgeon Bay, Chas. Greisen.
Sturgeon Bay, Miller Clothing Store.
Summit Lake, Chas. A. Snowden.
Superior, Gunderson Bros. Company. 1503 5th St.
Superior, Johnson & Tousberg Co.
Superior, J. Larson, 1827 Iowa St.
Superior, Nelson & Storey.
Superior, Pease Hdw. Co.
Superior, Peters & Malchow.
Superior, Roth Bros. Co.
Svea, A. Williams, R. F. D. Hager City.

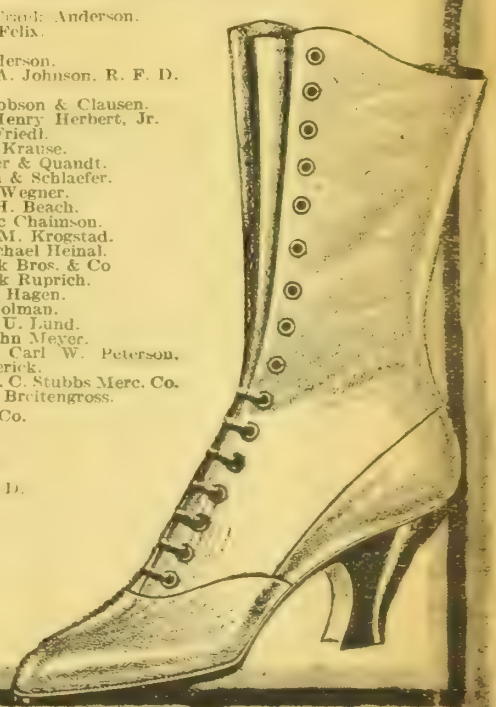
Tamarack, Wis., C. L. Boleng.
Thorp, J. Klouda.
Thorp, Thorp Mercantile Co.
Tigerton, Herman Mueller.
Tioga, R. D. Ingham.
Tomah, D. Cash.
Tomahawk, D. C. Jones.
Tony, Christman Bros.
Trade Lake, Gustafson & Gustafson.
Trade River, Charles Anderson, R. F. D. 1, Wolf Creek.
Trego, F. E. Partosic.

Ubet, Taylor & Vold, R. F. D. Nye.
Unity, Unity Merc. Co.

Valders, L. Commings Co.
Valley, Eastman & Rose.
Van Buskirk, Frank Anderson.
Viroqua, M. J. Felix.

Wabeno, O. Anderson.
Wanderoos, J. A. Johnson, R. F. D. Nye.
Washburn, Jacobson & Clausen.
Waumandee, Henry Herbert, Jr.
Wausau, John Friedl.
Wausau, F. W. Krause.
Wausau, Mueller & Quandt.
Wausau, Porath & Schlaefer.
Wausau, C. H. Wegner.
Wautoma, W. H. Beach.
Wautoma, Isaac Chaimson.
Wentworth, J. M. Krogstad.
West Bend, Michael Heinal.
West Bend, Pick Bros. & Co
Westboro, Frank Ruprich.
Westby, Otto J. Hagen.
Westby, O. I. Holman.
West Salem, J. U. Lund.
West Salem, John Meyer.
West Sweden, Carl W. Peterson, R. F. D. Frederick.
Weyerhauser, J. C. Stubbs Merc. Co.
Wheeler, A. H. Breitengross.
Whitehall, Jahr & Kongsgaard.
White Lake, Yawkey-Bissell Lumber Co.
Whitelaw, Fred F. Hagenow.
Wild Rose, Oscar A. Holt.
Willard, John Zapler.
Wilton, P. J. Rice.
Winegar, Vilas County Lumber Co.
Wonewoc, Ole Hanson & Son.
Woodville, Morgan Bros.
Wrightstown, Wm. Van Beckum

York, Thompson Bros., R. F. D. Hixton, Wis.



Foot-Schulze & Co.
St. Paul

Trapping Season Is Approaching

Wisconsin Open Seasons as Fixed by Last Legislature—A Good Chance to Have Some Sport and Make Some Money.

A NICE bit of money is in store for the farmer who has the time to do a little trapping this winter. The open season for capturing the fur-bearing animals in Wisconsin is only a few weeks distant. The exact dates for trapping wild animals in each county were established by the last legislature. A copy of these dates is printed below.

In looking over last year's records of one fur house which buys skins in Wisconsin, many cards showed large payments to certain shippers within short periods. Most of these shippers to which this fur house makes payments are not professional hunters or trappers. They are for the greater part men and boys from the farms who have made the sport serve as a means of not only paying hunting expenses, but at the same time paying them well for the time spent in the work. One fellow who makes out especially well each season is a farmer during the summer, but in the winter he hires enough help so that the farm can get along without his services and he puts in all his days trapping. He makes a good bit of money each year.

Wisconsin furs are eagerly sought by the raw fur houses. There is something in the covering of the wild animals of this state which makes them superior in quality. The price lists of all concerns regularly show Wisconsin furs equal or higher in price to those of any other state. Muskrat and coon from this state are rated as the best in the world.

Dealers prefer the muskrat, raccoon and fox furs. However, the skunk, mink and muskrat, being more numerous, form the heaviest part of the season's trade. Then there are squirrels and rabbits in most counties in plenty, but the furs of these animals do not bring any prices on the market.

There is plenty of trapping going on in Wisconsin each year as the records will show. Within a radius of ten miles of Madison one dealer alone purchased $15,000 of raw furs last season. More than 50,000 shippers sell to this house.

There are certain provisions in the law which make it unlawful to use any other means than traps in capturing the animals. The methods of taking fur-bearing animals as defined in the fish and game law enacted this year are as follows: (1) No person shall hunt any fisher, marten, mink or muskrat with the aid of any spear, gun or dog, disturb or molest any raccoon den or tree for the purpose of capturing the raccoons, or any muskrat house, beaver house or beaver dam; or set any trap or traps at any time within 500 feet of any beaver house or beaver dam. (2) The owner or occupant of any land, and any member of his family may without license hunt thereon rabbits at any time, and squirrels during the open season therefor. (3) Except as provided in sub-section (2), no person shall have in his possession or under his control, or use, for hunting rabbits, any ferret, snare, trap or any device or contrivance designed or used for the purpose of driving rabbits out of their holes or dens. The owner or occupant or any person upon written request of the owner or occupant of any land in the county of Door may use a ferret thereon for hunting rabbits.

The prices for furs on certain animals are low in the fall, higher in midwinter and best towards spring. However, the average from skunk furs will run from $1 to $7 graded according to size and condition of the fur and the age of the animal. Raccoons will bring from $1 to $7 based on size and weight of the fur. Minks bring the lowest price when the fur is pale and the best price when the fur is dark and extra large. Muskrats are quoted according to size and the season of the year. Foxes will run as high as $900, for black and silver fox.

Most houses have their price lists which they send to the shippers each month. The house pays express.

The trapping supplies are not out of reach of anybody, as for the muskrat the single-spring trap with a spread of four inches can be purchased for a little over $1 a dozen. The trap for mink and coons is somewhat larger and runs right around $2 a dozen. For foxes and frequently for coons, coyotes, etc., a double spring trap is used with a five and one-fourth-inch spread of jaw and weighing two pounds. These cost about $4 a dozen.

The close season for wild animals is established for each variety. No person, according to the law, shall hunt or trap at any time other than the open season listed beneath, nor trap, kill or capture animals in excess of the number designated opposite each variety in the column headed "bag limit." The table published herewith is taken from the fish and game law. Complete copies of this law can be obtained by writing to the state conservation commission, Madison.

WISCONSIN TRAPPING SEASONS.

Kind of Animal and Locality	Open Season	Bag Limit
(1) Moose, elk	None	
(2) Deer:		
(a) Any deer in the velvet or in the red or blue coat, in any county	None	
(b) Any deer in the counties of Adams, Brown, Buffalo, Calumet, Columbia, Crawford, Dane, Dodge, Door, Dunn, Fond du Lac, Grant, Green, Green Lake, Iowa, Jefferson, Juneau, Kenosha, Kewaunee, La Crosse, Lafayette, Manitowoc, Marquette, Milwaukee, Monroe, Outagamie, Ozaukee, Pepin, Portage, Racine, Richland, Rock, Sauk, Sheboygan, Vernon, Walworth, Washington, Waukesha, Waupaca, Waushara, and Winnebago	None	
(c) Any deer not specified in paragraph (a) in any county not specified in paragraph (b)	Nov. 21 to Nov. 30.	One each year.
(3) Bear	Nov. 10 to Dec 1...	No limit.
(4) Beaver, otter	None	
(a) Beaver in Price, Rusk and Sawyer counties as stipulated in subsection (5) of section 29.59	Dec. 1 to Dec. 31. 1917 and 1918....	No limit.
(5) Fisher, marten, mink, skunk	Nov. 15 to Feb. 1...	No limit.
(6) Muskrat:		
(a) In the counties of Polk, Barron, Rusk, Price, Lincoln, Langlade, Forest, Marinette, Florence, Iron, Oneida, Vilas, Ashland, Washburn, Sawyer, Burnett, Douglas, Bayfield	Oct. 25 to April 20..	No limit.
(b) In other place	Oct. 25 to April 10..	No limit.
(7) Raccoon	Oct. 15 to Jan. 1....	Five each day.
(8) Squirrels of any variety	Oct. 15 to Jan. 1....	Five each day.
(a) In Dodge, Kenosha, Racine, Waukesha, Washington, Ozaukee, Milwaukee counties	None	
(9) Rabbit.		
(a) In Columbia, Crawford, Door, Grant, Iowa, Jackson, Juneau, Monroe, Outagamie, Pierce, Polk, Richland, Rusk, Sauk, Sawyer, Sheboygan, and Winnebago counties	All year	No limit.
(am) In Dane county	Oct. 1 to March 1..	No limit.
(b) In Dodge, Jefferson, Kenosha, Ozaukee, Racine, Walworth, Washington and Waukesha counties	Nov. 1 to Jan. 1....	Five each day.
(c) In Clark, Green and Wood counties	Oct. 15 to Feb. 1....	Ten each day.
(d) In any other place	Sept. 7 to Feb. 1....	No limit.

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CURRENT EVENTS

THE war tax bill, designed to raise approximately two and one-half billion dollars by taxation within the next year, was signed by President Wilson last week. It affects every citizen in the country, raising the prices of almost everything needed from the cradle to the grave. Among the most important taxes are those on incomes (4 per cent above the annual income of $3,000 for single persons and $4,000 for married), a 3 per cent tax on automobiles (to be paid by the manufacturer), raising the letter postage rates to 3 cents an ounce with post cards going for 2 cents instead of 1, increasing the rates on newspapers and magazines, 8 per cent tax on the price of railroad tickets, $8 for every $100 of the premium of a life insurance policy and so on. It is expected that the increase in first-class postage will raise an additional $70,000,000 in the year, while the second-class mail will add $6,000,000 and the munition manufacturers tax will raise $25,000,000. The new tax touches directly or indirectly the pocketbook of everybody in the country, through taxes on incomes, excess profits, liquor, tobacco, soft drinks, passenger and freight transportation, proprietary medicines, chewing gum, amusements, musical instruments, talking machine records and many other things. A bitter attack on the zone system for second-class mail was made by Senators Smoot, of Utah, and Hitchcock, of Nebraska. Senator Smoot said passage of that part of the bill was the greatest mistake the senate had made in many generations, and gave notice that he would move to repeal the zone system at the next session of congress. Calling attention to the fact that second-class mail, under the new system, may be sent to Siberia, Australia and Canada at lower rates than it can be sent to Washington, Oregon, California, Utah and the other western states, Senator Smoot, asked: "What right have you to penalize the people of these states simply because they do not happen to live near the great centers of publication?"

HAVING been bombed repeatedly by aeroplanes, the English public is insistently demanding reprisals. Heretofore, the English authorities have absolutely refused to massacre women and children in German towns and cities, as the Germans have done in England, but last week Premier Lloyd George announced that Germany would be paid back, for its aeroplane raids, with compound interest. Already several hundred lives have been lost in London and English coast towns by means of these air raids and the injured are three or four times the number of the killed. The worst of it is that so many of the victims have been women and little children, killed at school, in their homes and walking or playing in the streets. The English were driven to the use of liquid fire and gas in fighting, having refused for quite a time to use these weapons against their enemies, and now it may be that they will be obliged to use aeroplanes to kill noncombatants as the Germans have done. Last week French aeroplanes started making reprisals, bombing two German cities twice, with what havoc remains to be told. While this is going on, General Haig is launching another terrific drive against the Germans in northern France, making ground gains, but at a heavy cost in human life. Winter will soon set in and little can be done then until spring, by which time the United States forces in the field will be a factor not to be scorned even by the haughty kaiser.

SPEAKING at Toledo, Ohio, Secretary of the Treasury William G. McAdoo declared that the failure of a single issue of government bonds would be worse for America than a disaster upon the field of battle. "A few days ago, he said, "I read the following manifesto issued in Berlin by the League of German Municipalities: 'If money talks, the president of the United States may learn by October 18th, when the subscription lists close, that the echo of the new war fund given by the German people will have drowned out completely the clamor of unending protests which his reply to the pope has given stimulus.' Let us meet that challenge by a subscription to our second liberty loan on the 27th day of October, nine days after the close of the German loan, which will make clear to the German military despotism that America marshals not alone her brave soldiers upon the field, her invincible navy upon the high seas, her industries throughout the length and breadth of this land, but as well her entire financial resources."

AUSTRIA continues to make overtures for peace, it being plainly evident that she, at least, has had all the war she desires. The Austrian reply to the pope's peace overtures was considered as sincere even by Austria's enemies. She has followed this up, within the last few days, by this public declaration by her prime minister of foreign affairs: "The millions who are fighting in the trenches or behind the lines wish to know why and for what they are fighting. They have a right to learn why peace, which the entire world desires, has not yet come. When I was appointed to my post I utilized the first opportunity to declare openly that we did not want to oppress anyone, but, that on the other hand, we would not suffer any oppression and that we were prepared to enter peace negotiations as soon as our enemies accepted the standpoint of peace by agreement." He went on to assert that just as soon as the freedom of the seas was firmly established no nation would longer be in need of a great fleet, but could disarm its maritime forces. The standing armies of the nations would be needed longer, he maintained, but he added that the pope's appeal for universal disarmament was not a mere dream, but might be brought about some day. There is a growing conviction that Austria is tired of its bargain with Germany and would gladly welcome a chance to stop fighting, so long as the empire is maintained.

LABOR troubles on the Pacific coast and the western mountain states will be investigated by a special commission, headed by Secretary of Labor Wilson, appointed by President Wilson to represent him personally. The commission will leave soon and probably will spend several weeks in the West, conferring with labor leaders, employers, I. W. W. agents, state governors and others who can shed light on past disagreements or exert influence for future industrial harmony. The president in his announcement said he is anxious to learn the truth of the charges of injustice made by employers and labor men against each other and to work out some fair basis for avoiding the interferences of labor disputes with industry during the war. The present strikes in Pacific coast shipbuilding plants, which the federal shipping board is trying to settle to avoid further delay in its shipbuilding program, is only one phase of the situation to be investigated. It is understood special attention will be given to charges of American Federation of Labor officials that employers in Arizona have encouraged and even financed I. W. W. activities for the sake of discrediting the labor movement among miners and other employes. Recent deportations of workers also will be the subject of inquiry.

UNLESS some new outbreak of submarine activity develops, many officials are satisfied that the situation is fairly well under control. Encouraging results have been obtained through convoying of fleets of merchant craft, the loss having been reduced to less than one-half of 1 per cent. The employment of smoke screen, kite balloons and other detection devices also has shown good results and progress is being made with the reduction of smoke from merchantmen and by painting ships to make them almost invisible at a distance through a periscope. The "smoke box," a device to be thrown overboard from a vessel when a submarine appears, has proved highly successful in some cases. A great smoke rises instantly when the chemicals in the box come in contact with the water and under the screen the vessel has opportunity to change her course. Experimenting continues with many other devices. Thomas A. Edison is still at work on investigation to which he devoted himself at the outbreak of the war.

TANNERS and wholesale leather dealers in New York City estimated the other day that more than 1,000,000 sole leather hides and about 300,000 hides suitable for "uppers" are being held in storage warehouses at the orders of packers, importers and speculators, who are "holding out" for a higher market. The warehouses are literally bursting with hides. The demand for storage space is so much greater than the supply that the storage companies are leasing all the adjacent properties they can get and some are actually refusing to receive any further consignments of hides until they can enlarge their facilities. Although the prices for shoe leather hides are higher today than ever before known—more than twice as high as they were in 1908—the companies dealing in hides refuse to sell at these prices, and the tanners and brokers who supply the shoe manufacturers who have orders for the United States army are having difficulty in filling the orders.

ALL shipments of coal into Canada from American lake ports were ordered stopped by Fuel Administrator Garfield, to divert coal from these ports to meet fuel shortage in the Northwest. The order also directs that producers shall fulfill contracts for delivery of coal to Lake Erie ports for trans-shipment, directs all handling agencies to expedite shipments and forbids the reconsignment of such coal to any points either in the United States or Canada other than the Northwest. Dr. Garfield thus brought to an abrupt end a situation that for weeks has been drawing bitter protests from the northwestern states. The coal shortage there is acute and will become far worse unless the supply flows steadily from now until lake navigation closes about two months hence.

GOVERNOR NEVILLE, of Nebraska, has been appointed colonel of the new Seventh regiment, Nebraska National Guard Reserve, now in process of formation, and has stated that he will resign as governor as soon as the regiment is called for service. The appointment was made by Acting Governor Howard, during the governor's absence at Washington. In accepting the appointment as colonel, Governor Neville said he would serve, feeling it to be no less than his duty to do as he has been urging others to do in the nation's defense. Governor Neville, who is thirty-three years old and the youngest governor in the United States, has had six years' schooling at St. John's Military School at Annapolis, having graduated therefrom in 1905. While at this school he was recognized as a captain in the school regiment. He is known as one of the best rifle and shotgun shooters in Nebraska and has won a number of trophies at state shooting tournaments.

DIRECTION of the campaign to raise a war camp community recreation fund of $3 for every soldier and sailor has been undertaken by John N. Willys, automobile manufacturer, of Toledo, Ohio, who will have associated with him men of national prominence in nearly every city of the country. In announcing Mr. Willys' appointment the commission on training camp activities of the war and navy departments made public a letter from President Wilson expressing appreciation of his willingness to serve and wishing the work every success. The fund will be used to provide hospitality and wholesome recreation for the enlisted men in communities adjacent to training camps. Six or eight weeks will be devoted to the campaign and leaders in the movement hope to have the fund oversubscribed in that time.

THE necessity of encouraging the farmers to raise three times as many hogs this year as they did last year was emphasized by Herbert Hoover in addressing a food supply conference composed of members of the Pennsylvania committee on public safety and others interested in the food problems. "We are sending abroad more hog products at the present time than we produce," he asserted. As the war grows older the necessity for self-denial will be more severe and more difficult, Mr. Hoover said; but he did not believe that the country would come to food cards and tickets. "Our sense of right," he declared, "will enable us to conserve to such an extent as to enable us to avoid such drastic resources."

The Instant Summons

"Instant, through copse and heath, arose
Bonnets and spears and bended bows;
* * * * *
As if the yawning hill to heaven
A subterranean host had given."

The whistled summons of Roderick Dhu, the hero of Scott's "Lady of the Lake," caused his Highland warriors literally to spring from the earth. Ere the echo died away, from behind bush and rock emerged the loyal and ready clansmen. In armed silence they awaited their chieftain's bidding and typified his might.

Today the Commander-in-Chief of our nation's armed forces and the resources behind them, can, by lifting the telephone receiver, instantaneously set in motion all the vast machinery of warfare, munitions, transportation and food conservation.

Like the Scottish mountaineers, the American people must stand in loyal readiness to perform any service in furtherance of the nation's high aim. Such a spirit of co-operation and sacrificing of individual interests can alone make certain the accomplishment of the great task to which our country is committed.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Organization is necessary in the local community. The farmers' club can very well be the starting point in such an organization. It will develop the coöperative spirit through acquaintanceship and a greater unity in thought and purpose. It has been found best to let the farmers' club be an educational and social organization. Then let the members who are interested in the same thing get together and form a business organization. The farmers' club can often secure entertainments, as well as speakers versed in farming, medicine, law, finances, etc., to address them, thus bringing information that the individual farmers could not secure. There is another source of information that the individual farmer does not always use and that is the information and experience developed by the different farmers in the community. In the farmers' club this information can become the common property of all. There are so many advantages to be derived from the farmers' club that there should be one in every farm community.

Since farm machinery has advanced so much in price the matter of looking after implements during the stormy season this winter is of more than usual importance. Wherever it is possible arrangements should be made to house implements. Before the implements and tools are put away they should be oiled and the bolts tightened. A good coat of paint will also help. Use bridge paint for the metal parts of machinery.

Reports Show a Good Harvest.

Threshing Now Completed in Many Counties and All Reports on Small Grain Yields Are Very Optimistic.

WISCONSIN.

Buffalo County.—Threshing is well under way and the returns are good, both in quality and quantity. Corn is badly damaged by early frost. Not more than one-half a crop is expected, and that of inferior quality. Those who have silos have saved a part of the crop for ensilage. Early potatoes are good, but the late ones did not mature on account of the frost. Beans and garden truck were also badly injured by frost.—James G. Bates.

Calumet County.—There is not much threshing completed in our locality yet, but the yield of oats, barley, rye and wheat is about the same as last year. There is plenty of corn for ensilage and the silos are nearly all filled, but there is no corn ripe. There is only one farmer in our locality whose corn was not hurt by the frost. The potato crop is about 50 per cent more than last year and for the last few years. There is a lot of second crop clover and also a lot of clover seed. There are a lot of apples this year. The garden stuff is nearly all frozen, but we got some through by covering it up every night. Grapes are ripe and are plentiful in our locality and very good.—Joseph Buchinger.

Crawford County.—Threshing is all finished in this locality. Grain of all kinds turned out well, far ahead of the last two years in yield and quality. About 90 per cent of the corn crop is out of danger of frosts and the other will be in a week. We did not have any frost in this section, but farther back from the river frost did considerable damage. It would be hard to place any average yield on the potato crop, as few have been dug, but by all appearances they should turn out well, also of good quality.—H. H. Stuckey.

Douglas County.—Small grains are yielding well in this community. Wheat will go all the way from twenty to thirty bushels of a good quality, oats from forty to fifty bushels and barley from thirty to thirty-five. There will be no mature corn in this section of the county, as we have had several killing frosts. Potatoes are a good crop and are above the average for the last five years by 25 per cent. They are yielding from 100 to 200 bushels per acre, according to conditions of soil and care.—B. N. Stone.

Dunn County.—Harvesting is completed. Silos are being filled. A killing frost cut off corn prospects and the supply of ripe corn is small, although this section did better on corn than most places in the north half of the state. Potatoes are a fair crop. Buckwheat is fair. Garden stuff is fairly good. Cattle are in reasonably good condition. Milk cows are showing a decrease in milk. Hogs are few but good here, although fat hogs will be few. Weather has been quite warm since the frost. Some rye has been sown around here.—Jas. A. Smith.

Florence County.—Threshing is completed now and oats averaged thirty bushels to the acre, barley twenty-five bushels. Spring wheat averaged ten bushels to the acre. The potato crop is less than last season. Corn is an entire failure.—Phill Kelmes.

Iowa County.—The small grain yield for 1917 was good. Sixty bushels of oats per acre has been reported from many fields, with some above that. On an average I think fifty bushels to the acre a very safe estimate. Barley, wheat and all other grains turned out better than an average yield. Corn is about the same as last year, but below the ten-year average by many points. A great many fields will not yield a bushel of corn fit for the crib. Potatoes are far ahead of last year and a good average yield. Pastures are very poor, with rough feed none too plentiful.—Art G. Hoskins.

Juneau County.—Threshing about two-thirds finished. The quality of the grain is good. Some winter wheat yielded as high as fifty bushels per acre, thirty bushels being about the average. Oats yielded forty to seventy-five bushels and barley twenty-five to fifty. A hard frost on the 9th and 10th of September killed corn and buckwheat. Potatoes are now mature, but not enough dug to give an estimate as to yield.—C. W. Hale.

Marquette County.—Corn in some places is badly hurt by frost, while others are green. Some corn is dented, but there will be lots of soft corn this fall. Some have started to fill their silos and more will start soon. Potatoes are a very good crop. No one has started to dig late potatoes yet. Beans are very poor around here. Some clover has been cut for seed, but most of it is too green and some have cut it for hay. Part of the rye is sown, but the rest will be late and will be sown on bean, corn and potato ground. More acres will be sown this fall. Stock of all kinds is very high—hogs $16 to $18 per hundred, lambs $15, sheep $6 to $9. Rye is $1.85 per bushel, bran $2 and shorts $2.50.—J. M. Williams.

Portage County.—Threshing in this section is about all finished and all grains averaged well. Oats were cut down in quality some by the hot winds, but yielded about thirty-five bushels per acre. Rye was good quality and very heavy, averaging about twenty bushels. Corn all froze the latter part of September and now about 98 per cent of it is in silos. It had just started to dent when it froze and so will make fairly good silage. Very little corn is raised for finishing, but most silos were filled. The potato yield is about 80 per cent better than last year and about 20 per cent below the average for the last five years.—Arthur W. Peterson.

Polk County.—The weather continues very dry and mostly cool. Very little plowing has been done. Some second crop clover has been harvested—about a ton per acre. Threshing is going on now. Oats are yielding from forty to sixty bushels per acre, extra quality; wheat fifteen to twenty-five bushels, not so good; barley around forty bushels, very good; rye thirty to forty, good. Corn all froze September 10th. Very little is fit for seed. A great deal has been put into silos, but it was mostly too green for first-class silage. Potatoes are being dug. Early Ohios are very good, Rurals and Green Mountains fair, Burbanks not so good. The first three named yielded 150 to 200 bushels per acre. Late planted potatoes are poor because of dry weather. Dairy men are feeding very little grain—too high priced. Pastures are poor. There will be an abundance of rough feed. Good hay is selling for $15 a ton loose. Gardens are mostly good. Root crops are not so good, because of dry weather.—P. F. Amery.

Price County.—Oats threshed out thirty-five to forty-five bushels per acre and the quality is good. Potatoes go from 100 to 150 bushels per acre and good quality. Corn was almost all killed by frost before maturity. It has already been put into silos or shocked in the fields.—C. F. Glissendorf.

Shawano County.—Most of the corn has been harvested into the silos. Some has been and is being cut for fodder. Not to exceed 15 per cent of the corn will ripen, owing to the early frost, but the corn has produced a great quantity of silage. Hay has been more than a normal crop; the same is true of barley, rye and wheat. Oats are about 80 per cent crop. Potatoes will exceed anything we have had here for years, both in quantity and quality. Live stock looks fine, but owing to the want of corn for feed much of it will be disposed of. Little feeding operations will be carried on in this neighborhood.—M. J. Wallrich.

Washington County.—Grain threshing is just completed and all small grains yielded better than for a number of years past. I think thirty-five bushels per acre would be a good average yield for winter wheat, from sixty to sixty-five for oats. The best rye would average forty bushels per acre and barley about thirty-five bushels. The quality of all grain is very good. Corn in this locality is all off this season. The fodder is very short and none of the corn will mature enough for husking. Frost has done but little damage in this section so far. The potato yield will be twice as great, or very nearly so, this year than last. Red clover for seed is just being harvested and I think it will yield about the same as former years. The apple yield here is smaller this year than last.—M. P. Salter.

Waukesha County.—Threshing is well along and the yield is good, also the quality of the grain. Corn is not matured, but will make good ensilage. The frost only touched the lowlands. The potato crop is much better than last year, but is not better than an average if as good. Some fields are very thin and yield light, while in patches they are good and yield heavy. The new seeding is very good. Alfalfa is the best we ever had in this county. I know a field of Grimm with fifteen pounds sown to the acre that is about as thick as could stand and was twelve inches high when the barley was cut off the field.—W. J. Mann.

Wood County.—All small grains threshed were of good quality and better as to quantity than last year or for the last five years. Oats averaged about thirty bushels per acre and rye about fifteen bushels. There were only a couple of fields of wheat in this section and they yielded about twenty bushels per acre. The corn is all going into silos, as the heavy frost in September killed it for ripening. I have seen none in this locality that will harden enough to make corn for anything more than feeding hogs. Potatoes will make a good crop, making better than they have for a number of years.—Fred E. Weber.

Manitowoc Association.

To the Editor:—The Manitowoc County Cow-Testing Association reports 425 cows tested during the thirty days ending September 15th. Fifty-seven of these produced over forty pounds of butter fat. John Pinter is owner of the highest producing cow, which yielded 1,281 pounds milk, testing 4.8 per cent making 61.5 pounds butter fat. M. G. Laughlin has the highest producing herd. His ten grade Holsteins produced an average of 42.53 pounds of butter fat. The forty-five-pound list for the thirty-day period ending September 15th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
M. Loughlin					
No. 1, G. H.	8	3-3-17	1147	4.1	47.0
No. 2, G. H.	7	3-15-17	1132	4.5	50.9
No. 6, G. H.	4	4-5-17	1209	4.0	48.4
Bryan Mullins					
No. 1, G. G.	10	5-25-17	1324	3.4	45.0
No. 14, G. G.	9	4-15-17	1283	3.6	46.2
Joe Gintner, Jr.					
No. 4, G. G.	6	5-20-17	1246	4.4	54.8
Adolph Klann					
Butterfloss, G. G.	8	1-3-17	870	6.0	52.2
Joe Brennan					
Belle of Indian Creek, Reg. Guernsey	10	6-27-17	1268	3.9	49.5
Queen of Nettle Hill, Reg. Guernsey	6	6-8-17	1091	4.2	45.8
Cream of Nettle Hill, Reg. Guernsey	4	5-11-17	1032	4.5	46.4
Patrick Cahill & Sons					
No. 9, G. H.	7	2-7-17	1138	4.5	51.2
No. 12, G. H.	8	2-9-17	1487	3.5	52.0
No. 15, G. H.	8	2-14-17	1419	3.8	53.9
No. 17, G. H.	8	11-22-17	1224	3.8	46.4
No. 20, G. H.	10	3-2-17	1304	3.6	46.9
No. 21, G. H.	11	5-28-17	1393	3.5	48.8
Adolph Otto					
Piebe Estata De Kol, Reg. Holstein	8	8-31-17	1356	3.5	48.1
Chas. Standinger					
Nelly, G. H.	4	7-14-17	1767	2.7	47.7
Pritzl, Native	7	7-8-17	1395	4.0	55.8
John Pritzl					
Clematis, R. G.	5	7-7-17	837	5.4	45.2
Frank Gresl					
Princess, G. H.	7	3-8-17	1409	3.8	53.3
Torris Geraldson					
Canary Michthilda Princess, Reg. Holstein	5	1-25-17	1062	4.8	51.0
Wm. Kelley					
Babe, G. H.	8	3-15-17	1063	4.5	47.8
Lady, G. H.	10	1-7-17	1014	4.7	47.6
John Pinter					
Mully, G. H.	11	6-3-17	1281	4.8	61.5

J. E. BOWSTEAD, Official Tester.
GEO. W. KIEL, Secretary.

In Calumet County.

To the Editor:—The high herd for August, owned by H. J. Duecker, consisting of twenty-two Guernsey cows, averaged 808 pounds of milk and 38.7 pounds of butter fat. Four hundred and three cows were tested in this association during August. The highest producing cow for the month is also owned by H. J. Duecker. She is a grade Guernsey and produced in one month 1,492.3 pounds of milk and 61.1 pounds of butter fat. Twenty-eight cows produced forty or more pounds of fat and five more than fifty pounds. Our forty-five-pound list for August is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Emil Ehlenbeck					
May, G. H.	8	7-9-17	1756.0	3.0	52.6
Hugo Libke					
Fannie, G. H.	4	5-22-17	1191.0	3.8	45.2
Martha, G. H.	6	3-2-17	1397.3	3.3	46.1
John Ramminger					
Spottie, G. H.	4	7-10-17	1544.6	3.2	49.4
Chas. Raquet					
Florie, G. H.	7	3-4-17	1211.9	3.7	45.8
H. J. Duecker					
Dummy 2, G. G.	4	8-1-17	960.0	5.2	50.3
Marquard, G. G.	9	1-28-17	958.2	4.8	45.9
Jennie, G. G.	9	5-28-17	1080.4	4.7	50.7
Redback, G. G.	8	7-1-17	1492.3	4.1	61.1
Vivian, R. G.	3	7-24-17	1128.7	4.6	51.9
Rolla, R. G.	5	5-2-17	847.1	5.8	49.1
Eunice, R. G.	2	6-24-17	888.7	5.2	46.2

NANDER NELSON, Official Tester.
EDW. HASS, Secretary.

Orion Cherry Col.

RUNDE BROS., Cuba City, Wis., are recent additions to the Duroc Jersey ranks of Wisconsin and they such have a good start. In the first place they bought a "real" boar to head their herd—a son of Walt's Top Col., out of an Orion Cherry King dam. They have named him Orion Cherry Col. He is a fall boar—a year old this fall and is one with extreme size, wonderful thickness the best of bone and feet and a rainbow back. They have a nice lot of fall pigs sired by him and they are for sale. They also have some good spring gilts for sale. Keep this boar in mind, for we believe he is a "comer." Note the advertisement that will appear in The Wisconsin Farmer each issue and if you are interested in the purchase of Wisconsin's good boars, write the above firm. See page 31.—

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Sanitary and Odorless on ten days
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No more outside back yard inconveniences. No chambers to empty. No sewer or cesspool. Chemical process dissolves human waste in water. No trouble. Kills disease germs. Prevents flies, filth and bad odors of outhouse. A real necessity for old, young or invalids. Preserves health.

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LAND for little money, yet land that will produce highly profitable crops of corn, oats and other grains, in an ideal live stock region. Here is your chance—in the

HIGHLANDS OF LOUISIANA

Mild winters, ample rainfall, good soil, healthful climate, 9 months open pasture every year. Farms on easy terms. The Northern man's opportunity! The big, FREE book, "Where Soil and Climate Are Never Idle," tells all about it. Investigate—get **your** copy now!

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MAKE YOUR SURPLUS EARN 7%

INVEST YOUR SURPLUS at 6% to 7% where the principal is safe and interest certain. Long or short-time loans wanted in amounts up to $5,000. Backed by assets that will bear the closest investigation, and known favorably by every farmer in America! Investigate yourself or through your lawyer. Your money will be secured by Iowa corn belt farms, if you like, and you can collect interest any time. The ideal investment for retiring farmers as it gives them privilege of getting their money when they want it, dealing direct with the borrower and a million-dollar farmer. No handling fees to pay. Interest net to you. H. E. KIESTER, Lock Box 537, Waterloo, Iowa.

SMALL FARM in California will make you more money with less work. You will live longer and better. Delightful climate. Rich soil. Low prices, easy terms. Sure profits. Hospitable neighbors. Good roads, schools, churches. Write for our San Joaquin Valley illus. folders, free. C. L. Seagraves, Asst. Gen'l. Pass. Agt. A.T.&S.F.R.R., 1959 Ry. Ex., Chicago.

FARMS WANTED with stock, etc., to trade for good Milwaukee property. FOR SALE—5-acre, first-class truck farm near city, $7,300 cash; owner sick. G. Bochera, 511 Twenty-sixth Ave., Milwaukee, Wis.

GOOD CROPS, 40-acre valley farm, $985, terms. Free list. McGrath, Mountain View, Mo.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

FOR SALE—Jackson county, Wisconsin, 225-acre farm, 203 acres cultivated, balance farm watered, pasture extra good, clay soil, fine 9-room house, large basement, barn, large granary, garage, other buildings, school 40 rods, 2 miles Hixton, main state road, old settled country, all improved. Price $100 per acre. Address owner, H. E. Burton, Hixton, Wis.

HARDWOOD cut-over land, silt loam, clay subsoil. Not sandy or gravelly. Close to towns. Good roads. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 9. North Western Lumber Company, Land Department, Stanley, Wis.

BLUE GRASS PASTURE FARM—260 acres, southwestern Wisconsin. Will pasture 100 head cattle, plenty water, half tillable, balance timber, 5 miles from station. Real snap. Price $50 per acre. Cash $3,000, balance terms. E. C. Amann, Prairie du Chien, Wis.

FOR SALE—160 acres 4 miles McIntosh, S. D., near school; under fence; garden and hog pasture fenced. 85 acres cultivated, more can be. Running water; fair buildings; well. Plenty feed. Terms. Write Lock Box 125, McIntosh, S. D.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FLORIDA FARM lands, two to three crops; flowing wells. Write for particulars. T. B. Stinson, Palatka, Fla.

WANT TO RENT a farm, 40 to 80 acres, around Milwaukee, Wis. Jindrich Miller, Goodrich, Wis.

KODAK FINISHING.

KODAK FINISHING—Let experts finish what your kodak began. We finish one roll (only) six exposure film, any size, furnish six select prints for 25c with order. Better pictures from each exposure. Fewer failures from each roll or money cheerfully refunded. T. V. Moreau Co., 620 Nicollet Ave., Minneapolis, Minn.

GROCERY STOCK FOR SALE.

FOR SALE—Good grocery store in a thriving industrial city, southern Wisconsin. Doing fine business, ready to retire. If interested in store or any other line of business, write and I will submit descriptions of some of my southern Wisconsin business opportunities. J. C. Genske, 255 Main St., Kenosha, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

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TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

HUNDREDS OF YOUNG MEN and young ladies are needed as telegraph operators, stenographers and bookkeepers. Write for catalog. Barry's Telegraph Institute, Minneapolis, Minn.

LEARN TELEGRAPHY—Positions guaranteed. Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

BREEDING EWES.

BREEDING EWES FOR SALE—Now is the time to buy before they go higher. Wool and sheep are going to be higher in price and stay high. John Blanchard, Columbus, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection. $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

LEGHORN HENS.

FOR SALE—Will sell all or part of 200 White Leghorn hens; yearling stock; many of them fit for show room. Oak Dale Farms, Austin, Minn.

DUROC PIGS.

DUROC PIGS—Gilts and boars. Regulator breeding. Best bunch of pigs I ever raised. Farmers' prices. Arthur Popp, Jefferson, Wis.

WHITE ROCK COCKERELS.

FOR SALE—White Rock cockerels. Fishel strain. 5 to 7 pounds. $3 to $5 if taken now. Erwin Eckert, Markesan, Wis.

REGISTERED JERSEY BULLS.

FOR SALE—Two young registered Jersey bulls. Strong, thrifty fellows. J. A. Martin, Lancaster, Wisconsin.

HOUNDS AND SPANIELS.

HOUNDS and water spaniel pups, 9 months old. Cheap. Schneider, Lebanon, Wis.

BLUE ORPINGTONS.

BLUE ORPINGTONS—Stock for sale, reasonable. John Unander, Freeport, Ill.

NEW FOUNDLAND DOGS.

PURE-BRED NEWFOUNDLAND PUPS for sale. Henry S. Lanzkamp, R. 3, Potosi, Wis.

Sun Prairie Girl State Champion

High School at Sun Prairie, Dane County, Wins State Championship at Junior Fair for Third Time.

FANNIE STIMSON, CHAMPION GIRL WISCONSIN STATE FAIR.

F. J. HOLT, PRINCIPAL SUN PRAIRIE HIGH SCHOOL.

AT THE 1915 and 1916 Wisconsin State Fairs the little village of Sun Prairie, Dane county, was brought into prominence by reason of the fact that her high school carried off state championship honors. It was considered quite a record for the same school to take such honors two years in succession, and many people interested in education and agriculture expressed the wonder that more high schools in Wisconsin did not offer Sun Prairie closer competition. At the state fair this year there was a general desire on the part of visitors to see the Sun Prairie high school agricultural exhibit. The exhibit was there, and it was a splendid one. A picture of the agricultural booth and some facts regarding the club contests have previously been published in The Wisconsin Farmer. But the "Junior Fair" of 1917 was much more interesting than those of former years because other high schools came in to compete with Sun Prairie in almost every classification on the premium list. Notwithstanding this added interest in the work and the increased number of exhibits Sun Prairie in 1917 won the championship for the third successive year. In addition to this, Miss Fannie Stimson, a pupil at the Sun Prairie high school, was awarded state championship in girls' work. At the time this was written the state champion boy had not been decided, owing to the close competition. Frank Bihlmayer and Walter Rake, both of the Sun Prairie school, stood very high in the number of winnings, and Frank Bihlmayer is one of the three high-school boys of the state still being considered for champion boy at the 1917 state fair. Miss Stimson was captain of the Sun Prairie high school girls' team, which included her sister, Helen, and Adaline Krugman. This team won first place in canning, first in sewing and first in baking, and, in addition, second in public demonstration work. Each of these girls, in turn, won many individual prizes and Miss Stimson, being the largest individual winner, was able to carry off the state prize. The Sun Prairie high school boys and girls are hoping that one of their boys will yet be named state champion boy, and if this should happen Sun Prairie high school would clean up all the honors with championship school, championship girl and championship boy.

Sun Prairie exhibited the grand champion dairy bull and calf shown at the state fair by Emmet Howe, and, although no prize was given, the judges in conversation made the statement that this animal was the best individual calf among all the sixty which were exhibited. Sun Prairie exhibited at the state fair eight calves, fourteen pigs and 150 chickens. For the eight calves shown eight ribbons were awarded; the fourteen pigs won ten ribbons, while in the poultry department one-half of all the prizes awarded went to Sun Prairie high school. The Sun Prairie high school record in club work shows first in baking, first in canning, first in poultry, second in pigs, second in corn, second in fruit, second in garden, third in potatoes and fifth in calves.

In the judging work of sheep the boys won third, fourth and fifth places in competition with sixty-five boys, while in dairy cattle Walter Renk was awarded second place and in beef cattle Russell Twiton third place; in fruit judging Sun Prairie boys won third, fourth and fifth places. The grand prize from the Shropshire Association of Wisconsin may be awarded to Walter Renk, having won first on reason and when the decision is given it is expected that this boy may be the winner of the special $100 membership. During the past two years Mr. L. Schreiber, F. Carlson and A. Williams have had charge of some of the class work in agriculture, while Mr. F. J. Holt, principal of the institution, has done the field and extension work and organization of rural communities and state fair projects.

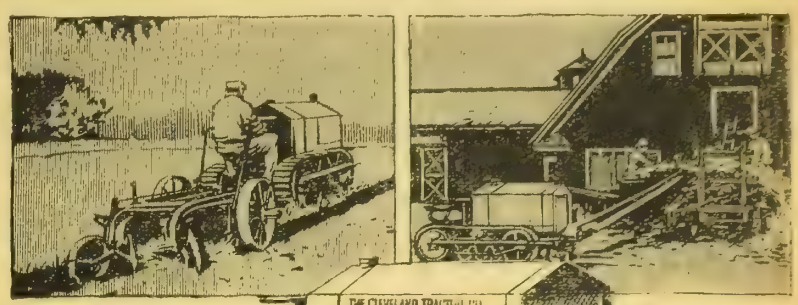
Sun Prairie high school has the hearty coöperation of all the people in what is known as the Greater Sun Prairie Community, a section covering eight miles in all directions with Sun Prairie as the hub. The Sun Prairie school sends its teachers and pupils to various rural schools and organizations for practical demonstration. As a result the number of pupils entered in agricultural work at the Sun Prairie high school has increased in two years from 65 to over 100. In 1915 six boys went to the state fair with the Sun Prairie high school exhibit. In 1916 the number was increased to thirty-three boys and girls. In 1917 forty boys and girls from the Sun Prairie school camped on the Wisconsin State Fair grounds and took part in the various contests. Mr. F. J. Holt, principal of the school, and his teaching staff and patrons believe in extension work of all sorts and instead of waiting for the boys to come to school, takes the school to the boys, and thus interests them in educational work so that their desire is to get more and they come to secure all the information which books can afford, and which practical work in the school can give. During the past year the boys have constructed and operated a new greenhouse, made seed beds, cold frames, pigs and poultry colony houses, conducted mock auctions, built silos and the like, and the work will continue along these practical lines.

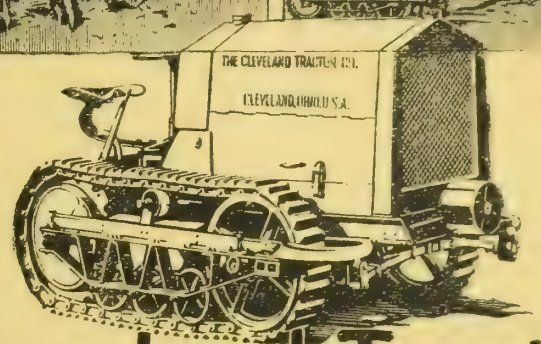
The farming communities have taken up the work of growing better corn and standard varieties of potatoes, due in great part to the interest aroused in the boys and girls by their attendance in school.

The winnings of this school this year were greater than at the fair of 1916 in number of premiums won, but the total amount of cash is slightly less, due to the fact that the premiums were reduced in amount, and no grand champion premium was awarded.

During the year speakers were secured from the University of Wisconsin and other sources, who met with the people of the Greater Sun Prairie Community and instructed them in growing and judging various kinds of grains and vegetables. This resulted in closer coöperation of school and community. The agricultural work is combined with manual training in every way possible, and the boys learn the use of the tools for farm work, and will construct many useful farm implements, such as non-sagging gates, wagon boxes, watering troughs, etc.

Every boy and girl, even though they are in agricultural work, must also take work in science, English, history and mathematics, so that the education is not all one-sided, but is many-sided, and tends to make a broader-minded individual of every person completing the course.





Cleveland Tractor
Geared to the Ground

Now—More Than Ever—You Need Fast Work—Highest Efficiency

Horses are scarce—labor scarcer.

Yet America expects you to produce a bigger yield than ever.

Only faster work and higher efficiency will do it.

You need the Cleveland Tractor. Up-to-date farmers in all sections of the country are finding it just the fast-working, economical implement they must have.

The Cleveland plows—and plows beautifully—at 3½ to 4 miles an hour. *Think of it.* Such speed used to be considered out of the question.

It actually means doing the work of three good 3-horse teams and 3 men in the same time—*and at a greater saving in actual money.*

Eight to ten acres a day! And every foot plowed better than you can do it with horses and men!

Hauling only two plows the Cleveland is not only easier to handle than the heavier three-plow machines, but works much quicker and covers more ground.

This same speed so useful in plowing can also be applied to harrowing, harvesting, hauling the manure spreader or any of the many hauling jobs you have. The Cleveland gives you 12 horsepower at the drawbar—plenty for all your work.

Because it travels on its own tracks the Cleveland can go anywhere—up or down hill, across ditches, through loose sand, gravel or thick mud.

The Cleveland is the first general purpose tractor. It is the invention of Rollin H. White, the famous motor truck engineer. Every part is selected for strength and long wear. Gears are identical with those found in the finest trucks. All are protected by dustproof cases.

The Cleveland gives you 20 horsepower at the pulley belt—ample power for cutting ensilage, sawing, pumping, running the binder head, or any stationary engine farm work.

It is small (only 52 inches high) and light (weight 2750 pounds). So you can get unusual economy.

And here's another very important advantage. *The Cleveland steers by the power of its engine.* Just a light touch on the wheel and it goes in the desired direction. It will turn in less than a 12-foot circle.

We are flooded with orders for the Cleveland Tractor and cannot promise immediate deliveries. We advise ordering now for delivery in the spring.

Write now for complete information and the name of the nearest Cleveland dealer. Address Dept. B-Z, or use the coupon.

$1185
f. o. b. Cleveland

CLEVELAND TRACTOR COMPANY
Cleveland, Ohio

Cleveland Tractor Co.
Dept. B-Z,
Cleveland, Ohio
Please send me full information about the Cleveland Tractor.
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City_____
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FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Gears Rattle.

I have a Saxon roadster, the engine of which has never given me any trouble; but it does have a rattle or clicking noise in the timing gears. If I hold the shaft going to the Atwater-Kent distributor, the noise ceases at once. Can you tell me what to do to remedy it?

Answer.—Your gears have lost motion between the teeth, due either to the teeth being worn or the bearings of the gear shafts worn. The trouble is not serious excepting for the noise. The first thing to do is to replace the worn bearings. If this does not tighten the gears sufficiently it will be necessary to use new gears to quiet the motor.

Engine Overheats.

I am writing to you about my Ford engine. The carbon has been removed from the cylinders and the radiator has been cleaned, but it boils the water when I only run a minute. The garage man here does not seem to know what is wrong. It is in good running order except that it boils the water.

Answer.—First, see that the fan belt is tight and that the fan is in good working order, the bearings being well oiled. A loose fan belt is one of the most common causes of overheating. Keep the radiator full. See that the motor has plenty of oil, keeping the oil level between the two pet cocks on the flywheel casing. Too high an oil level will cause carbon trouble, and carbon will cause overheating. Too rich a gas mixture will have the same result. Make sure that the transmission bands are not adjusted tight enough to drag.

Lining Up the Front Wheels of an Auto.

How can I tell when the front wheels of my auto are in alignment?

Answer.—Figure 1 shows a pair of front wheels removed from the frame of the car. WW are the wheels, A the

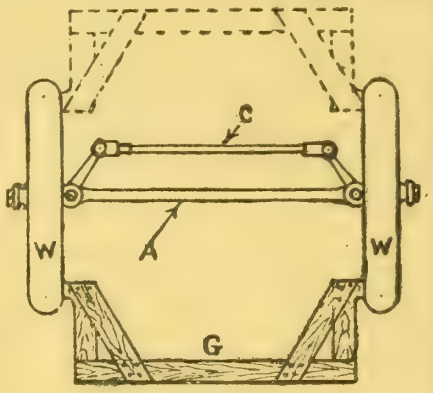

FIGURE 1.

axle, C the rod connecting the steering arms and G a gauge or tram to measure the distance between wheels. If the axle has been removed from the frame as shown in the figure a straight rod would be all that is necessary. When the axle is under the car, a U-shaped tram like the one shown is necessary, as it is impossible to run a

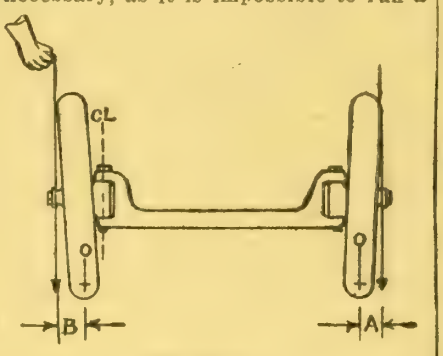

FIGURE 2.

rod straight across. The tram may be made of light boards nailed together as shown; or it may be made from an iron rod bent so as to clear the frame of the car. The distance between the rims of the wheels should be the same at front and rear. Some authorities prefer to make the distance in front about half an inch less than at the back, the object being to allow for the spring of the parts when the car is running.

Figure 2 shows a front view of the axle. The wheels should be inclined as shown, the distance A being equal to the distance B. For perfect steering the line CL through the center of the king bolt should pass through the center of the tire at the ground. Few cars are made so that this is possible. Referring again to Figure 1, if the wheels are too far apart at the front, lengthen the connecting rod C.

Engine Knocks at High Speed.

What causes my 1914 Ford engine to heat severely even on short drives? I keep plenty of oil and water in it, and run with the spark well advanced. When driving at over twenty-five miles per hour, there is a severe cracking noise somewhere on the car as if something were striking against a piece of iron. When the engine slows down, this stops. Can I run electric lights from the magneto? I have prest-o-lites at present, but would get electric lights if I could use them.

Answer.—Your first question is answered under the heading "Engine Overheats." The Ford Engine, owing to its high compression, is liable to heat if any of the conditions referred to are not right. We were told by one owner that he had arranged his car so as to drop a few drops of water into the intake manifold whenever his car began to heat or pound from carbon. He claimed good results. With the poor fuel now on the market this might be a good plan.

The cracking noise is probably due to some rotating part hitting the side of the case, the most likely cause being a cam hitting the crank case side. At medium loads it would not hit, but at heavy loads the shaft might spring enough so that the cam would hit. In an old type motor having an aluminum crank case the writer has observed a crankshaft hit an oil pipe when the motor was under heavy load that the shaft cleared by three-sixteenths of an inch when running idle. There is not so much spring in the modern motor with the cylinders and crank case cast en bloc. The first thing to do is to locate the part that is producing the noise. This can usually be done by holding a sounding stick against various parts of the car while the engine is running under load, one end of the stick being held against the ear. The stick should be made of wood, about two feet long and the size of a lead pencil. The engine can be loaded by letting the clutch partly in with the brake on. The engine should not be run in this manner except for very short intervals, as the clutch might be injured. The inside of the case where the part is hitting will show a bright spot.

Ford cars made after December, 1914, have large magnets and may be safely used with electric headlights. Cars made previous to this date are sometimes equipped with electric lights run from the magneto, but the

Doing your chores after dark is when you need the American Dark Chaser. It gives 400 candle power light. Burns for less than half-cent an hour. When hung on a post, it lights the entire milking or feeding pen.

The American Dark Chaser is the dependable lantern for all times and all places. It is an economical necessity wherever a lantern is used. Absolutely safe. Can be taken any place you want a light. Wind cannot blow it out.

Ask your dealer to show you the American Dark Chaser or write for large circular that tells all about it.

American Gas Machine Co., 735 Clark St., Albert Lea, Minn.

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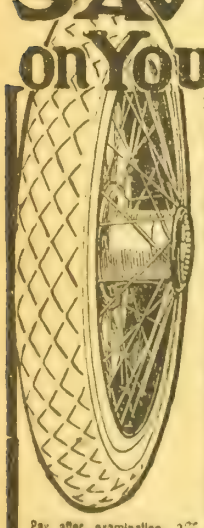

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30x3	7.70	8.60	2.80
32x3	9.25	9.95	2.75
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31x3 1-2	10.55	11.60	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.55
31x4	14.75	16.60	3.70
32x4	15.05	16.85	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.85	4.00
35x4	17.00	18.60	4.50
36x4	17.20	18.65	4.80
34x4 1-2	21.65	23.65	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
35x5	24.90	27.25	6.05
36x5	27.10	29.60	6.65
37x5	26.40	28.85	6.25

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We ship C. O. D., subject to inspection. When ordering state if Clincher, Q.D. or S.S. are desired.

ORDER TODAY—prices may jump. Full information on request. Address

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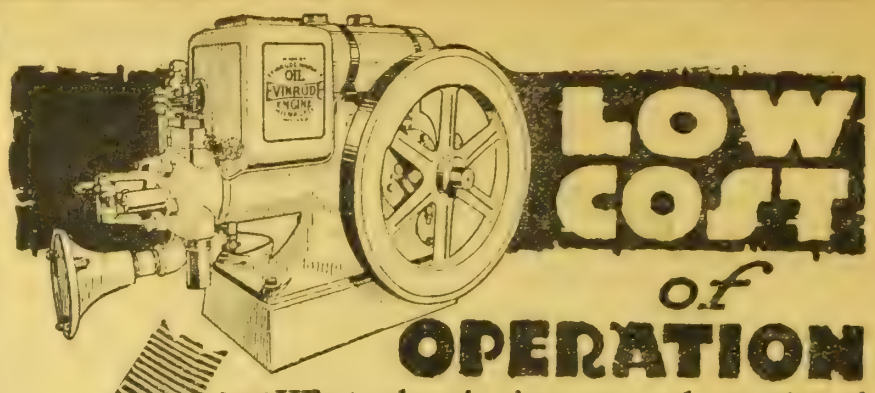

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THE steady price increase and scarcity of gasoline have demanded economy in farm power fuel.

The foremost feature back of this new farm engine is its proven economy. Constructed throughout for the perfect combustion of kerosene and fuel oils, it operates at a clear saving of *four-fifths* of the fuel cost—a saving so ample as to be a conclusive recommendation in itself.

However, other features of unusual merit have combined to make the

Starts and Runs on Kerosene, Fuel Oil or any Oil that Flows

EVINRUDE OIL ENGINE

(unconditionally guaranteed)

the final word in economical, simple and efficient farm power.

The usual maze of mechanism is lacking—no carburetor or mixing valve to become disarranged—no timer to get out of adjustment. Neither has it batteries, magneto, wiring, coils, spark plug or switches to provide the usual annoyance of faulty ignition.

An old principle—that high compression produces extreme heat—is employed for ignition. The fuel is introduced directly into the cylinder and never fails to ignite.

Starts and runs on kerosene, fuel oil or any oil that flows, even in the coldest weather. An engine of final simplicity, inherently smooth and pliant action, and capable of the heavy strains and grief of farm power demands, is placed within your reach.

We are sure you will be interested; at least allow us to send you a catalog.

DEALERS—*Responsible dealers are invited to write for full information as to exclusive territory.*

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702 Evinrude Block Milwaukee, Wis.

Also manufacturers of the Evinrude Detachable Rowboat and Canoe Motor.

FUEL OIL
KEROSENE
GASOLINE

Chart Showing Comparative Cost of Operation.

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Any ambitious, capable young man can make a success for himself, and if you will only prepare yourself, you will get work, because positions are open, waiting for competent men to do Auto and Electrical work.

The American Auto College develops your talent for a splendid, big paying trade. Our course has been enlarged with lots of new work—principles of Knight Motors, 8 and 12-cylinder Engines of new models, Tractors, new Starting Systems, Magnetos, Wiring, Coils, Welding, Brazing, Lathe work, Milling and Drill work, Tool making, Overhauling and Repairing, and all the newest, up-to-date Auto equipment.

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Tinker, repair men are left out as fast as good men are found to take their places. Garage men, letters and telegrams come to us asking for good men. Just prepare yourself and your future and success will be started. Think of the good time, and the money you can make.

LIFETIME OPPORTUNITY—It's up to you to be either a common, hard-working laborer or else learn a good business. Thousands of men will go into the Auto business within the next year. Be one of them. We want you to. Get started right away. Learn here where the opportunities are greatest and best, by our system of actual work in our large shops. No books used; we furnish tools. You do the work yourself. Our men learn easily and quickly because practical work is the best.

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The Coleman "Quick Lite" Lantern makes and burns its own gas from common gasoline. Gives brilliant light of 300 Candle Power. Just use a match to light. No torch required. No wick. No dirt. Storm and wind proof. Absolutely Safe. Can't explode—no danger even if tipped over. Guaranteed Five Years. See your dealer or write THE COLEMAN LAMP CO. Wichita. St. Paul. Toledo. Dallas. Chicago.

Ford Company does not approve of this.

Installing Magneto.

We have a six-horse-power Dempster stationary gas engine. It uses a make-and-break ignition system. I wish to put a magneto on it. Could this be accomplished successfully without disturbing the system now on the motor? Would not a low tension magneto serve the purpose? Would the magneto have to be insulated from its seat on the engine? Which drive would be the more practical, friction pulley, chain or gears? Would a make-and-break system spark at the right time for the magneto?

Answer.—It would be possible to install such a system. If you wish to avoid running on battery the easiest thing for you to do is to buy a low-tension magneto having a friction drive pulley, and run it from the flywheel. This will allow you to leave your present system just as it is. Connect your battery to the two poles at one end of a double throw switch. Connect the magneto to the other end terminals. Connect the middle terminals to the engine. Then you can start on battery and switch to magneto as soon as the engine speeds up. You could install a jump-spark system, replacing your igniter by a casting tapped out for a spark plug. You would then use a friction-driven, low-ttnsion magneto and a jump-spark coil having a vibrator. You would receive a wiring diagram with the magnete. You would find it difficult and expensive to install a high-tension magneto. The magneto would not have to be insulated from the engine.

Tightening a Ford Steering Gear.

How would you tighten a Ford steering gear that is loose? What causes Ford motors to get excessive fuel and oil supply in the front cylinder? Is this common to all Ford motors?

Answer.—Ford motors have the main oil supply pipe emptying out in the crank case at the front end. For this reason the motor is liable to get more oil in number one cylinder. There is no reason why this cylinder should receive more fuel than the others. The Ford Manual gives the following method of tightening the Ford steering gear:

Should the steering gear become loose, that is, so that a slight movement of the wheel does not produce immediate results, it may be tightened in the following manner: Disconnect the two halves of the ball sockets which surround the ball arm at the lower end of the steering post and file off the surface until they fit snugly around the ball. If the ball is badly worn, it is best to replace it with a new one. Also tighten the ball caps at the other end of the steering gear connecting rod in the same manner. If the bolts in the steering spindle arms appear to be loose, the brass bushings should be replaced with new ones. Excessive play in the front axle may be detected by grasping one of the front wheels by the spokes, and jerking the front wheels back and forth. After the car has been in service two or three years excessive play in the steering gear may make necessary the renewal of the little pinions, as well as the brass internal gear just underneath the steering wheel spider.

Law Questions.

Trespass by Cattle—Damages.

A Subscriber, Sheldon, Wis.—At the annual town meeting in our town, the people voted by acclamation to allow cattle to run at large, and that the owners thereof should not be liable for damages. They called a custom law. (1) Has such law any force or effect? (2) I keep my field fenced and my cattle fenced. Recently cattle which were at large broke into my field and did considerable damage. What steps can I take to compel my neighbors to keep their cattle off my place?

Answer.—(1) Such law has no force or effect. The voters at an annual town meeting have no legal power to exempt owners of cattle from liability for damages on account of trespass by their cattle. (2) If the fence about your field was a lawful fence you can sue the owner of the cattle for damages and recover whatever amount you can prove at the trial.

Levy of Highway Taxes.

Mr. Isaac F. Bradley, Lindsey, Wis.—Under the laws of Wisconsin, does the town board have the right to levy a tax of 1 mill in one district, 2 mills in another, and seven mills in a third district in a town, for repairing a road which was in bad condition? This road is fifteen miles from property which has the 7-mill tax, and inaccessible and never used by owner of said property. Can the town be compelled to refund the tax, and if so, what would be the method of procedure?

Answer.—The law of Wisconsin authorizes a town board of supervisors to levy a road tax of not less than 1 mill nor more than 7 mills on the dollar on the valuation of real and personal property in each superintendent district in the town. The board has the right to decide what the levy shall be in each district. The town cannot be compelled to refund taxes paid under such levies. The authority of the town board to so levy taxes is found in section 1239, Wisconsin statutes, 1915.

Law Helps Rid State of Many Scrub Sires.

To the Editor:—Twenty states, in addition to Wisconsin, which set the example in 1906, now have stallion enrollment laws.

New York enacted its stallion law since Wisconsin's last report was published. The other states having such laws are: California, Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Montana, Nebraska, New Jersey, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Utah and Washington.

By act of the legislature enrollment was on July 1, 1917, transferred to the state department of agriculture. Dr. A. S. Alexander remains in charge, with offices at the college of agriculture, Madison.

The effect of the stallion enrollment law in each state invariably has been to lessen unsound and grade and scrub stallions; to increase the numbers, quality and soundness of pure-bred sires; to discourage dishonesty in the registration and advertising of stallions, and make the use of pure-bred brood mares more general.

In Wisconsin the horse-breeding industry has been somewhat depressed during the past season, the consequence being that the total of 3,062 public service stallions in 1916 has fallen off 258 head. The horses of the state, however, have increased 3,000 head to a total on January 1, 1917, of 715,000 valued at $85,000,000.

Progress in the elimination of grade and scrub stallions has been satisfactory. Only eighty-five new grade and forty-eight scrub stallions were enrolled during the season, while 105 grade and fifty-seven scrub stallions were retired. Scrub stallions now number 260 compared with 673 in 1911.

Pure-bred stallions are gradually driving out grade and scrub stallions in Wisconsin. The percentage of pure-bred stallions now is 61.5 compared with 59.2 in 1916 and thirty-five in 1907. In twenty counties the percentage of pure-bred stallions now is over seventy and a material increase of pure-bred stallions has taken place from 1907 to 1917 in sixty counties out of the seventy-one counties of the state.

There is now in the state one stallion to 255 horses; one pure-bred stallion to 415 horses; one grade or scrub stallion to 661 horses; one pure-bred draft stallion to 502 horses, and one pure-bred light breed stallion to 2,535 horses. The pure-bred stallions of the state now number 1,723, grades 817 and scrubs 260.

An active campaign has been carried on during the year for the improvement of stallion advertising and more generally and conspicuously than ever before sires have been labeled "pure bred," "grade," or "mongrel or scrub" for the information of owners of mares. The inevitable result of such advertising and the spread of education will be the final elimination of all grade and scrub sires.

The pure-bred draft stallions of Wisconsin now include 1,089 Percherons, 162 Belgians, 71 Clydesdale, 61 French Draft and 40 Shires. Of the light breeds 221 are standard-bred trotters and pacers, 17 Morgan, 15 French Coach, 11 German Coach, 6 Hackneys, 3 Shetland, 4 Arabian, 4 saddle and 1 Welsh. There are also eighteen registered jacks. A complete register of stallions in service in the state on July 1st appears in Bulletin 283, a copy of which any resident of the state may secure while the edition lasts by writing to the college of agriculture or state department of agriculture, Madison.

Dr. A. S. Alexander.

Lower rates and a revision of tariff rules for the transportation of live stock on virtually all the railroads have recently been requested in a complaint filed before the Interstate Commerce Commission by the Texas National Live Stock Exchange, an allied organization. The complaint asserts that present tariffs and classifications are unjust and unreasonable. Every large stock shipper and receiver in the United States is represented in this complaint.

Do You Get 14,000 Miles from Tires?

MR. R. RAMSDELL, Cincinnati agent for a prominent make of tire, has driven his Ford 14,000 miles on one set of tires and they are still in good condition. He says that this unusually high mileage is due to the

HASSLER PATENTED Shock Absorber For Ford Cars

It takes the dead weight of the car and passengers off the tires and holds it on four conical springs, one at each wheel. The unevenness of the road produces only a gentle resilient motion instead of making the car bump along with the tires bearing the impact of every jolt and jar. Every Hasslerized Ford secures enough *extra* mileage from tires to pay for the Hassler every few thousand miles. Aside from the greater comfort the Hassler will give you, the saving in tires, upkeep and gasoline makes its use a matter of economy and good business judgment.

10-Day Free Trial Offer

Write today for Free Trial Blank and we will have a set of Hasslers put on your Ford without a cent of expense to you. Try them 10 days. Then, if you are willing to do without them, they will be taken off without charge. Don't ride without Hasslers simply because someone discourages you from trying them. Accept this offer and see for yourself. Over three hundred thousand sets in use. Write today—NOW.

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WITTE "Kero-Oil" Engines

Immediate Shipment—All Styles—2 to 22 H-P.—No Waiting—Big Factory—Big Output—Prices most favorable. Write for my terms and prices—Cash, Payments or No Money Down.—ED. H. WITTE, Pres.

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BY the Government as Truck Drivers, Mechanics and Engineers. This training may keep you out of the trenches. Steam and Gas Engineers and Mechanics are also needed everywhere at home. Learn in the best equipt school. Write for big catalog.

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Dependable Spark Plugs

The Guarantee Under the Hood!

The engine is the most important part of your car.

Everything else depends upon its efficiency.

No matter who built it, nor how many cylinders it has, it is just as efficient as its spark plugs permit it to be.

Why risk inferior plugs in *your* car?

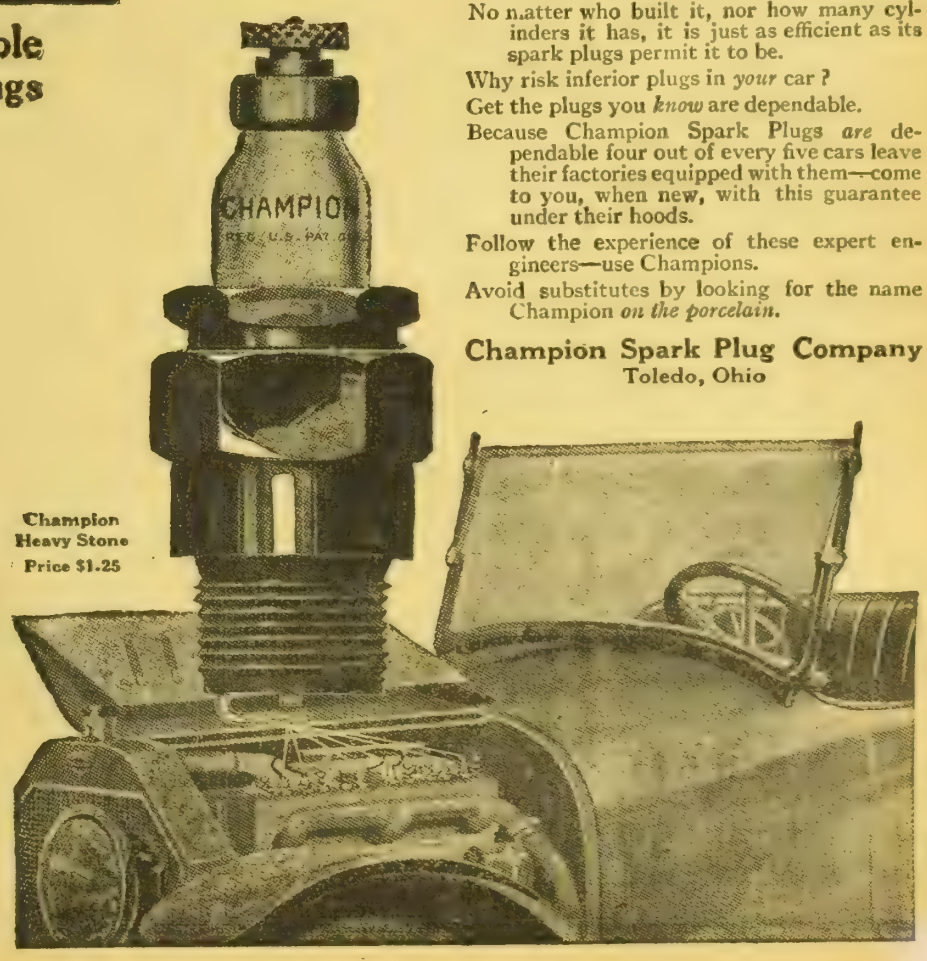
Get the plugs you *know* are dependable.

Because Champion Spark Plugs *are* dependable four out of every five cars leave their factories equipped with them—come to you, when new, with this guarantee under their hoods.

Follow the experience of these expert engineers—use Champions.

Avoid substitutes by looking for the name Champion *on the porcelain.*

Champion Spark Plug Company
Toledo, Ohio



Champion Heavy Stone Price $1.25

There is a Champion Spark Plug especially designed for every type of tractor, stationary engine, motor cycle, motor truck and automobile.

National Dairy Show

and Horse Fair

Columbus, Ohio
October 18 to 27

MORE
Cattle and Horses
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Farm Machinery
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Cattle Demonstrations
THAN AT ANY PREVIOUS SHOW

The Big Buildings of the Ohio State Fair

will be filled to overflowing with more useful machinery and products than the show has ever before contained.

A War-Ridden World Calls Loudly To the Dairy Industry For Food

War-time Problems will be discussed by the biggest men in America at the Dairy Mass Meeting on October 22.

The New Modern Coliseum
Makes Possible a Great Draft Horse Show, Night Horse Fair, Cattle Parade and other Features

This is the one National Dairy Show No Dairyman can Afford to Miss

Remember the Dates and Place

Columbus, O.
Oct. 18 to 27

DAIRY

At Northern Wisconsin State Fair.

To the Editor:—Seventy head of pure-bred Jerseys from Wisconsin met in competition at the Northern Wisconsin State Fair, held at Chippewa Falls, September 21, 1917.

Prof. G. C. Humphrey, of the Wisconsin College of Agriculture, chose the prize winners. He remarked, "This is the best showing of Jerseys I have ever seen in the state. Wisconsin should be proud of such a choice lot of Jerseys." Judging day was one of the beautiful, sunshiny September days that northern Wisconsin is noted for. Jersey breeders and enthusiasts encircled the ring. Enthusiasm ran high. Many of the classes were so uniform that it was difficult to pick the winners.

All of the exhibitors had the one idea in mind: To place the Jersey cow in the foreground and to convince others that she could combine beauty and efficiency and be the most economical producer of butter fat.

W. M. Knight, of Eagle, Wisconsin, came up from the Wisconsin State Fair with fourteen head, where he had taken "his share of blues." Mr. Knight has a herd of fifty head from which it is not difficult to choose prize winners. He has typey, island-bred stock, noted for their clean-cut head, straight top lines and excellent veining and udder development. Trial Noble of Oaklands heads the herd. He

DINAH'S PRINCE OF BROOKSIDE, OWNED BY HALL ESTATE, KNAPP, WIS.

is sired by Noble Oaklands; his dam is Trials Sweetbread, that has a record of 563 pounds and five ounces of butter.

E. C. Jacobs, of Elk Mound, showed ten head. Keepsakes Golden Lad 2d, from W. H. Clark's noted herd, stands at the head of his herd. He has the large American type in mind.

E. E. Wyatt, Tomah, Wisconsin, exhibited seventeen head. He has some choice young stock sired by his herd bull, Maiden's Varsity King. Mr. Wyatt has been showing at many of the prominent county fairs throughout the state this season and spreading the good news of more and better Jerseys.

The Hall Estate, of Knapp, Wisconsin, selected ten out of their large farm herd and made a fine showing. Maitland's Noble Prince heads the herd.

Smith & Powell, of Rice Lake, Wisconsin, showed nine head of good American-type stuff.

C. T. Colby, of Thorpe, Wisconsin, has an excellent farm herd. He exhibited a number of type yearling heifers. His herd bull is King Snowball.

PRIZES AWARDED.

Bull Three Years or Over—1st Knight on Noble Fenwick; 2d Jacobs on Keepsakes Golden Lad 2d; 3d Wyatt on Maiden's Varsity King. Noble Fenwick was an outstanding imported bull. The other two were American type. Six were entered in the class.

Bull Two Years Old or Under Three—1st Knight on Trial's Noble of Oakland; 2d Smith & Powell on Mary's Beauty Bean; 3d Wyatt on Harbinger's Chief. Three in the class, Trial's Noble of Oakland being a chip off the old block.

Bull One Year and Under Two—1st Hall Estate on Dinah's Prince of Brookside; 2d Wyatt on Euphemia's Pauline Varsity; 3d Knight on Fenwick's Hollie Boy. Dinah's Prince of Brookside was a typey youngster worthy of heading a good herd. Six entries in the class.

Bull Calf—1st Knight on Trial Noble of Oakland 2d; 2d calf owned by Hall Estate; 3d calf owned by Wyatt. Seven entries.

Cow Three Years or Over—1st Knight on Combination's Golden Lady; 2d Jacobs on Bessie Beautiful; 3d Hall Estate on Honor Maid of Brookside. There were twelve animals in line and the cow had to have the merits to get the ribbon. One of the best classes shown.

Heifer Two Years and Under Three—1st Jacobs on Lakeside Jewell; 2d Knight on Oxford Queenie's Princess; 3d Hall Estate on Eureka's Jersey Fawn. Six heifers in this class made a pretty picture.

Heifer One Year and Under 2—1st Knight on Eminent's Safety Bell 2d; 2d Smith & Powell on Viola Golden Jolly; 3d Knight on Volunteer's Lottie 2d. Eighteen entries were made and sixteen were led into the ring. Surely it was a sight to stir any man. What excellent prospects for a future herd. Mr. Knight and Messrs. Smith & Powell can feel justly proud to be able to get the ribbons in such a contest.

Heifer Calf Under One Year—1st Knight on Trial's Pretty Maid; 2d Hall Estate on Princess Abbess; 3d on calf

GIRLIE OF SUNNYSLOPE, OWNED BY C. T. COLBY, THORPE, WIS.

owned by Jacobs. Thirteen entries in this class made things interesting.

Aged Herd—1st W. M. Knight; 2d E. C. Jacobs; 3d Hall Estate. Six entries made an excellent showing.

Get of Sire—1st Knight on get of Trial's Noble of Oakland; 2d Jacobs on get of Keepsake's Golden Lad 2d; 3d Hall Estate on get of Maitland's Noble Prince. Six entries. This, without a doubt, determines the value of a bull. Trial's Noble of Oakland is a bull to be justly proud of.

Champion Bull Two Years and Over—Trial's Noble of Oakland.

Champion Bull Under One Year—Dinah's Prince Brookside.

Champion Cow—Combination's Golden Lady.

Champion Heifer—Eminent's Safety Belle 2d.

F. B. Kelsey, Tomah, Wis.

Cost of Producing Milk.

To the Editor:—There is considerable discussion now concerning the winter price for whole milk in northern Illinois and southern Wisconsin, comprising what is known as the Chicago dairy district. I submit the following which may be of some interest to you or your readers:

The winter price should be governed almost wholly by the price of feed during the winter months. Therefore, no exact figures can be given out in advance. I have prepared the following figures on the cost of producing 100 pounds of milk at present feed prices. The average cow produces between 5,000 and 6,000 pounds of milk per year, which is an average of somewhere around sixteen and two-thirds pounds per day or 100 pounds per day from six cows. The feed cost per day for six cows will be about as follows:

Forty-two pounds of ground feed, $1; 100 pounds of hay, $1.25; 200 pounds of silage, 50 cents; total feed cost, $2.75. Labor cost, 60 cents; total cost of producing 100 pounds of milk, $3.35.

W. H. Deneen.
McHenry Co., Illinois.

Manual of Milk Products.

Wm. A. Stocking the Author of Instructive Volume.

According to Wm. A. Stocking, the author of the recently published work entitled "Manual of Milk Products," the annual value of dairy products in the United States is more than $600,000,000. It follows, therefore, that the handling of these products makes an industry of great commercial and economic importance. More and more dairy products are being valued because of the food nutrients which they supply rather than luxuries to be used chiefly to please the taste. In preparing his new volume, comprised of nearly 600 pages, Mr. Stocking has aimed to give practical instruction to the end that those engaged in any branch of dairying who follow his teaching will adopt ony the best practices. The book is designed to meet the needs of students as well as men in commercial work. Some conception of the scope it covers will be obtained from a perusal of the following chapter headings, namely: Milk Secretion; The Chemical Composition of Milk; Factors That Affect the Composition of Milk; Physical Properties of Milk; The Testing of Milk and Cream; Market Milk; Certified Milk; Buttermaking; Cheddar Cheese; Fancy Cheeses; Farm Dairying; Condensed and Powdered Milk; Fermented Milk; Ice Cream Making; The Relation of Bacteria to Dairy Products. This volume is profusely illustrated and it should in the interest of better dairy products have a wide sale. The regular publisher's price is $2 and it is for sale by The Wisconsin Farmer at this price.

The advice has been given to cut soy beans when three fourths of the leaves have fallen and most of the pods have turned color. If cut earlier they are difficult to cure and if later there is a loss of grain from shattering of the pods.

At Last!

AT last! A perfect milking machine. Readers of the Iowa Homestead are hereby informed that, at last, they can get a milking machine that does the work safely and does it right. Those old objections to milking machines are now eliminated. This machine is

Shippart's Valveless
Hand Milker

Run by hand—just the thing for the farmer with 6 to 60 cows.

A child can run it—not as much work as pumping water — saves expense of power milkers — absolute simplicity. Controls like the hand—different for each cow. Just takes the milk out—valveless! The *milking machine question solved!*

Introductory Offer!

Dealer's discount direct to you:—price, for two units, $84.75—that's all for two units. *Not one cent of installation expense. Total cost of complete outfit—$84.75!* ¼ the price of others not as good. (Six months to pay if desired.)

30 Days' Free Trial!

Not a bit of obligation if you don't like the machine after the trial.

Write
For My Personal Letter!

explaining how I came to invent this machine; how, after working over cows for years, I hit upon the principle that's absolutely right.

It is high time now for the progressive farmer to investigate the milking machine question. My personal letter explains.

The Burton Page Co.
W. A. Shippert, Mgr.
Dept. L
1104 S. Wabash Av., Chicago

The Burton Page Co.
W. A. Shippert, Mgr.
Dept. L
1104 S. Wabash Av., Chicago

Dear Sir:—Without any obligations, please send me your personal letter explaining about your hand milker.

Name.....
Address.....
.....

Illinois Bankers Visit Wisconsin

Real Sights in Dairyland Greet the Eyes of Bankers Who "Came Up Out of Egypt" to Get Pointers.

MORE than 400 bankers and farmers from the "Egypt" country in southern Illinois came to Green county on a special train Wednesday, September 26th, to see at first hand the source of $4,000,000 worth of dairy products annually manufactured within twenty-four square miles of Wisconsin territory.

The "Egypt" country has during the last years become interested in dairying. Calf clubs have been started in every township with the result that an already growing enthusiasm has been speeded up still more. The Illinois counties represented by the visiting bankers and farmers were Fayette, Effingham, Marion, Franklin, Jackson, Randolph, Christian and Williamson.

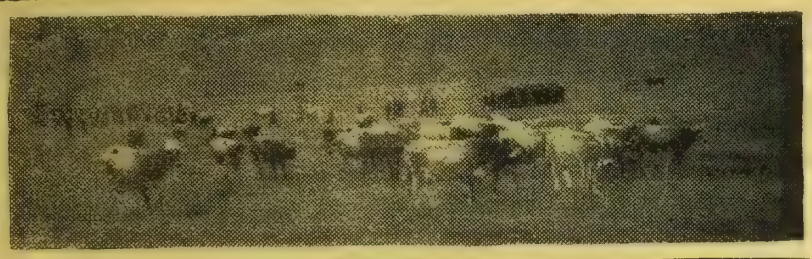
The inspiration and pilot for the visitors was Scott Mathews, formerly state dairy commissioner of Illinois, but now dairy commissioner of the Illinois Central Railroad.

The tour included farms, towns and factories. It showed the visitors not only what sort of cows are necessary to produce the enormous total of $4,000,000 worth of dairy products, but also the manner in which these cows have to be cared for, fed and housed.

The line of automobiles, which started out of Monroe early Wednesday included a good many Green county farmers who went along to answer hundreds of questions which constantly came up. Before starting on the trip the large Borden Condensery at Monroe was inspected. Then the farm of Jacob Aultman, a little ways out of Monroe, was visited. Mr. Aultman has a large herd of Holsteins and milks on the average of sixty to seventy cows the year around. The large, modern barn, with an abundance of light and ventilation, made a good impression on the visitors. The barn can house eighty cattle without crowding. On the far end two great silos testified to the owner's respect for King Corn as a dairy feed.

Next Burgy & Wittenwyler's Cheese Factory, on the Monticello road, was inspected. The factory has been making limburger cheese since 1877. Though conducted as a private enterprise for a good many years, it is now run on the coöperative basis. The output amounts to about five tons of limburger each month. It is typical of the 142 cheese factories located in the various townships of Green county. From twelve to twenty patrons furnish the milk necessary for the cheese making. Being run coöperatively, profits are divided according to the prices obtained by the sale of the products. There are over 2,000 farmers in Green county delivering milk to cheese factories and condenseries. Creameries are few and in nearly all cases they are part of the cheese factory. Each year the milk from 40,000 Green county cows is manufactured into products for human consumption. From the milk are made 13,000,000 pounds of cheese and nearly 27,000,000 pounds of condensed milk. A half million pounds of butter manufactured each year seems so out of proportion that it is hardly worth mentioning.

From the cheese factory the way led to Jacob Voegeli's farm on the other side of Monticello. Mr. Voegeli is of Swiss parentage and he has retained a liking for the Brown Swiss cattle. His herd of 100 head show that they are well bred and properly handled. The herd was out in the field and brought many an enthusiastic statement from the visitors as they carefully looked the animals over. From the pasture the crowd went to the barn, now nearly completed. This barn, costing all of $10,000, has every practical feature of equipment and sanitation. The principles of light, ventilation, warmth and sanitation have been particularly well taken care of. Silos on the hillside of the barn empty into the cow barn at a convenient spot. Dinner and a short program at New Glarus brought the first half of the trip to a successful close. A weak drizzle was not enough of a rain to spoil the trip.



JACOB VOEGELI'S HERD OF BROWN SWISS ATTRACTED ATTENTION.

From New Glarus the autos speeded over to Baltz Hoesly's farm on the road back to Monticello. The battery of four silos behind the barn showed what Mr. Hoesly thinks of silage in connection with dairying. Holsteins are the money-makers here. About forty head are milking at the present time, but this number is considerably increased during the winter months.

From Hoesly's to Monticello, where speeches were made, to Wittwer's cold storage plant and back to Monroe finished the day's program of seeing the various processes of cheese production. From farmer to factory to storage plant to the market is the route each pound of cheese must travel. In return for the cheese money is paid to the storage plant, to the factory, and to the farmer. For all these transactions banks and bankers are necessary. That is why bankers in all parts of the country are becoming more and more enthusiastic about dairying. Before a banker will do anything, however, he carefully investigates a proposition and so convinces himself of the soundness of the enterprise. It is safe to say that these Illinois men will go back to "Egypt" ready to lend money for dairy purposes to all deserving farmers without the least hesitation. T. C. Hefty, of the New Glarus Bank, in addressing the visitors at New Glarus, told how twenty years ago the total deposits of the bank after two years in the field amounted to only $30,000. Today two banks are doing business in New Glarus and from a radius of only six miles the total deposits are $1,000,000. Of this amount very little comes from the town of New Glarus, which has only a few hundred inhabitants.

BATTERY OF SILOS ON THE BALTZ HOESLY FARM.

There is money in it for those sections that have taken to dairying. Not only by the bank deposits, but also by the appearance of the farms, the stock and the buildings, is this evident. All during the trip herd after herd of fine cattle came into view grazing in the pastures along the road. Farm buildings were large and in good repair. Farm homes seemed more prosperous and comfortable. The impression this trip made on the "Egypt" crowd will not be without results.

After a comfortable evening spent in visiting at the smoker that had been arranged, the entire party left for Chicago, tired out, but with a vision of million-dollar deposits.

FAMILIAR HOLSTEIN CATTLE SCENE IN GREEN COUNTY, WISCONSIN.

Keeping Your Cows On a Business Basis

KRAUSE DAIRY FEED is a better business proposition for you than any combination of lower grade stuff. You feed for results and safety. You want a maximum milk yield and a healthy herd. Krause Dairy Feed will give you both. It has proved its sterling value for thousands of feeders.

It is a highly nutritious, easily digested and scientifically balanced ration which will give your cows exactly what they need for big, rich milk production without forcing.

Its formula was worked out under the approval of experts in two of the leading agricultural colleges. It is the result of long, successful experience in the manufacture of dairy feeds.

DAIRY FEED

Fed alone or with home grown products, KRAUSE DAIRY FEED is always a money maker.

Cows Thrive On It

KRAUSE DAIRY FEED contains the following ingredients: distillers' grains, gluten feed, cotton seed meal, wheat bran, malt sprouts, wheat middlings, brewers' grains, hominy feed, linseed meal and salt. These make a perfect mixture which your cows will relish and respond to immediately.

It's a waste of time and labor to mix your own feed when you can be certain of getting definite, positive results with this ideal dairy ration.

Sell Your High Priced Grains

Sell your high priced grains and use KRAUSE DAIRY FEED. Compare the costs and the results with any lower grade combination and you will find that you are saving and making money.

Free Sample

Write us at once for free sample and useful record book telling all about KRAUSE DAIRY FEED. Be sure to give name of your dealer.

CHAS. A. KRAUSE MILLING CO.
3705 BURNHAM ST. MILWAUKEE, WISCONSIN

Grinding Costs Cut In Two

One-half the Gasoline and one-half the time required by the best buhr mills are enough to grind your feed by the scientific roller process. You save both ways, if you have one of the famous

HOWELL *Roller Feed Mills*

No buhrs or stones to wear out—will last a lifetime. Do not heat feed. In use over a quarter of a century. 13 sizes—any capacity—a size for every engine. FREE—The Famous Howell Puzzle and our complete catalog. Write for them today.
R. R. Howell & Co., 3 Malcolm Ave. S. E., Minneapolis, Minn.

Unicorn Dairy Ration

A quality feed at the right price

It is a combination of the best feeds money can buy. Very high in digestible protein. The only prepared feed that contains Ajax Flakes. The highest quality and purest ration made. So proportioned that there is no waste. If it is *results* you are looking for in dairy feed, then you want to learn more about UNICORN. It brings results.

Write us for Cow Testers' Manual.

CHAPIN & CO.
P. O. BOX 815H. CHICAGO, ILL.

See page 12. Read The Farmers' Market advertisements. There may be a bargain there for you.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

A Small Flock Makes Good.

A flock of three dozen hens laid twenty dozen eggs last January, and thirty dozen in February. As the pullets began to lay in March, it was not possible to know how many eggs the hens alone produced, but the yield for that month was 115 dozen, and 130 dozen in April, which usually is the banner month for eggs. Only twenty-five chicks were lost through the hatching period and 300 lusty youngsters was the increase of the flock from the original three dozen hens.

The pullets were kept over, some of the cockerels used and the surplus sold on the market. Whether consumed or sold it is all the same; they were worth not less than 75 cents each, which is a very conservative estimate, and the pullets as yearlings, after having laid two summers, will be easily worth $1 each. Grain is high, but it is a safe estimate that farm poultry can be kept for 50 per cent less than where they are confined and must be fed at all times, much of which the range hen garners from the fields. Taking it all in all, it has been a paying proposition.

The foundation of success lies in the building for the fowls. The building is fourteen feet deep and twenty-eight feet long, facing the south, as all poultry houses should. The opening on the south is enclosed with windows, alternating with an open space covered with screen wire. These openings are left open through any reasonable weather, having curtains to roll down during storms. The windows even then keep the house well lighted.

The openings and the windows are situated fully a foot and a half from the floor, so that the draft will not strike the fowls. The dropping boards are placed on the north and east sides of the building, three feet from the floor, above which are the perches, eighteen inches between, giving plenty of space when cleaning the droppings from the boards. The perches are 2x4's, the wide side up, and all placed on a level. The dropping boards give much added space. Only for that there would need to be several feet partitioned off to keep the droppings from becoming mixed with the scratching material.

The walls back of the perches are lined with building paper to make it warmer, and there is a curtain suspended across the perches, not far from the fowls' heads, to keep the animal heat from going skyward. A very neat arrangement is in the placing of the nests. They are suspended under the dropping boards, sliding out like a drawer. There are round holes in the back of the nests where the hens may enter. It is the first time we have known of nests under the perches that proved wholly satisfactory. Usually it is such a nuisance to get down upon the ground and creep back to the nests. And besides, nests placed directly on the ground tempt fowls to eat their own eggs—what the roosters leave, which are not many, once they get the habit.

A self-feeder is placed in one corner of the house; it has three compartments, filled respectively with charcoal, grit and crushed oyster shells. A long trough is filled with a mash early in the morning, about what the fowls will eat in a short time. Tankage and milk supply the meat element, without which there would be a decrease of about half in the egg yield. At least this has been tried and found to be the case in an experiment.

Wheat, rye and oats are scattered in the litter after the mash is gone, and the hens are required to do some tall digging for it. Then, so that they will go to bed with full crops, corn is given in the evening. The hens have the run of the feed lots where the cattle stay only in snowy weather. They are never permitted to walk in the snow. "Cold feet" are bad for both hens and people.

Only in the very cold weather the water does not freeze in the house; in case it shows up with a thin skim of ice hot water is poured into it to keep a comfortable temperature for the fowls. This is a reminder of another experiment that was tried out last winter. Fowls that were laying a goodly number of eggs fell off half when the water was withheld.

An account is kept by marking the number of eggs each day on a calendar for the purpose, and then at the end of each month the account is registered in the farm account book kept for the purpose. Making a note on the calendar is very easy and done by many farm poultry people, but how many go a step farther and keep a farm account proper?

This is only a common farm flock kept on a rather small farm, as farms go in the central states, but the net profit is unusual. Far above the average. It is not advisable to change your plans if you are getting good results. Indeed, about the last thing to do is to make a radical change with poultry that is making good. However, no flock that is making a profit for its owner but that has some point or points that could be adopted by someone.

ONE MILLION DOZEN EGGS SHIPPED TO EUROPE

—Reports State Department of Agriculture. And George L. Dillingham, past master of the New Jersey state grange, predicts eggs will go to $1.00 a dozen.

Cash in on your hens. You can increase laying and improve the health of your layers with Sloan's Liniment, discreetly mixed with food. Write us for full directions and convincing testimonials of the effectiveness of this remedy in epidemics of roup, bumble foot and other poultry ailments. Instructions free.

At all dealers. 25c, 50c, $1.00.

Dr. Earl S. Sloan, Inc.
113 W. 18th Street
New York City

Sloan's Liniment

POULTRY AND PET STOCK.

HOUNDS

COON, FOX, WOLF, RABBIT HOUNDS—PEDIGREED AND ELIGIBLE TO REGISTRY. Broke dogs sent on ten days' trial. Money back guarantee. Nice lot of puppies 6 to 9 weeks, ready for shipment now. OTIS SLATER & SONS Oconee, Ill.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested extra stock. Write for prices. WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks. Chicago winners, great layers established 1892; eggs for hatching $1.50 15, $4.50, 50; $8, 100, prompt delivery and good hatch guaranteed. G. Earl Hoover R. 24 Matthews, Ind.

HATCHING EGGS: prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F. Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize winners all leading shows. Eggs $1.50 15, $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize winning Rhode Island Reds, $2 per setting; three settings for $5. Bildebrandt & Vea, Stoughton, Wis.

What Makes Poultry Pay? Does Your Poultry Pay?

Treat her right and she'll treat you right

Poultry is one of the best paying things on some farms; on others it is hardly considered worth bothering about. The difference is all in the thought and care given.

About the first thing the careful poultry raiser has to figure on is how to house his flock, whether large or small, in the most healthful and practical manner.

"Old Faithful" HEMLOCK Lumber

has been the farmer's stand-by for more than 200 years. Its price is right. It is light and easy to handle, easy to work and holds nails, paint or stain in great shape. Under proper conditions it lasts—oh, say 100 years. (You should worry, after that!) To get your eye on these facts, we have had prepared, by architects who know how, plans for modern poultry houses and other farm buildings which we will be glad to supply you free.

Free Poultry House Plans! Send for the new HEMLOCK booklet and use the PLAN COUPON which is in it. All you have to do is to present the coupon to your LOCAL LUMBER DEALER and he will supply you FREE with any one or two plans in our book which contains houses, barns, garages and small farm buildings. All plans are new and original and are drawn by architects who know the farmer's needs. If your lumber dealer hasn't the plans he can get them from us.

THE HEMLOCK MANUFACTURERS
(of Wisconsin and Northern Michigan)
300 F. R. A. Building Oshkosh, Wisconsin

If lumber dealer cannot supply plans, we will send direct. Poultry House or other small building 50c. House or barn $1.00.

The United States War Department has been granted the use of a huge factory and assembly plant in Cambridge, Mass., in which they will establish a large army supply base. The factory and plant are owned by Henry Ford, the manufacturer, and will be turned over to the war department about October 15th.

VETERINARY MATTERS

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Contagious Abortion.

Will you please tell me whether there is any sure cure for contagious abortion? I should like to have full information. Have you any faith in this anti-abortion serum that is recommended by many veterinarians?

Many remedies have been used in the treatment of contagious abortion with some degree of success, but there is no "quick, sure cure" for this disease. Anti-abortion serum has been used quite extensively with quite good results. Good serum from a reliable firm should be quite satisfactory.

Bloody Milk.

I have a cow which gives bloody, lumpy milk. She does not seem to have any pain when she is being milked and she is not sick in any other way. I have been rubbing camphor and lard on her udder, but it has done her no good. Will you please tell me what to do?

The condition you mention is caused by a disturbance in the udder and can usually be overcome by giving the cow a rounded tablespoonful of Glauber's salts every one to two days in feed. Also feed considerable wheat bran and salt every day. This milk should not be used for human food, but can be used for calves or pigs.

Stringy Milk.

I have a six-year-old Holstein cow that gives stringy milk. She has good Buffalo grass pasture and pure well water. She has been fresh perhaps a year and a half. The cream is especially stringy. There is no bitter taste. What can I do for her?

If this stringy milk does not come from one certain quarter begin treatment with one to one and one-half pounds of Glauber's salts dissolved in warm water and given as a drench at one dose. The amount should depend on the size of the cow. After a few days give the following: Glauber's salts, three parts; baking soda, two parts; common salt, one part. Mix thoroughly and give one heaping tablespoonful in feed once a day. Also feed laxative feed. This cow's milk may be greatly improved after she comes fresh again.

Netritis.

We have a cow that lost her calf at five months. We fear it is contagious abortion, so we want to fatten her a little and sell her for beef. However, she does not eat roughness to any extent and we do not see much gain on her with grain alone. She is very thin and weak and eats practically nothing except ground grain and ear corn. Can you give us a good tonic to stimulate appetite? She is over the calf trouble, as we had a veterinarian attend to that.

It was probably necessary for you to have the afterbirth removed from this cow. It is quite difficult in some cases to remove it and in doing so an inflammation of the womb develops (netritis) which causes the cow to become very thin and weak. She should have a powder composed of Glauber's salts, three parts; baking soda, two parts, and salt, one part. This should be thoroughly mixed and given in rounded tablespoonful doses once or twice a day in feed. Also feed one to two quarts of wheat bran twice daily and one tablespoonful of oil meal once a day.

A Wire from Uncle Sam

To Every American Farmer!

CLASS OF SERVICE DESIRED	
Fast Day Message	
Day Letter	
Night Message	
Night Letter	

Patrons should mark an X opposite the class of service desired; OTHERWISE THE TELEGRAM WILL BE TRANSMITTED AS A FAST DAY MESSAGE.

WESTERN UNION TELEGRAM

NEWCOMB CARLTON, PRESIDENT GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

Form 1206

Receiver's No.
Check
Time Filed

Send the following telegram, subject to the terms on back hereof, which are hereby agreed to

WASHINGTON, D. C. OCTOBER 1, 1917.

TO THE AMERICAN FARMER, EVERYWHERE, U.S.A.

NEVER IN THE HISTORY OF OUR NATION HAS THE AMERICAN FARMER HAD THE OPPORTUNITY TO REPEAT WHAT THE "EMBATTLED FARMERS" OF 1775 DID WHEN THEY "FIRED THE SHOT HEARD 'ROUND THE WORLD" WHICH STARTED THE REVOLUTIONARY WAR.

TODAY THE "CALL" IS NOT "TO ARMS" BUT, "TO BONDS" - A CALL FOR YOU TO BUY THE NEW LIBERTY BONDS - TO LOAN TO YOUR GOVERNMENT MONEY WITH WHICH TO PROTECT YOUR LIFE - YOUR HOME - YOUR HONOR AND LIBERTY, FOR WHICH YOU WILL BE PAID IN RETURN 4% INTEREST ON YOUR INVESTMENT. NO TRUE AMERICAN FARMER WILL FAIL TO RESPOND TO THIS CALL AND THEREBY AGAIN SHOW TO THE WORLD THAT THE AMERICAN "TILLER OF THE SOIL" IS STILL - TODAY - THE BACKBONE OF THE U.S.A.

UNCLE SAM.

What Will Be YOUR Reply?

Will you be a U. S. **backer**, or

Will you be a U. S. slacker?

To win this war it requires a vast amount of money, and if we don't win it, your home, your farm, your life, your rights, your liberty become subject to ruthless destruction.

To raise this money, your Government calls upon you for a loan. It does not ask you to give money — simply to lend it and in return gives you a U. S. Government Bond, the best security on earth, on which you draw interest, greater than bank interest, free from taxation, except inheritance and income surtax.

What Will Be Your Reply?

Here is an opportunity to show your patriotism and at the same time get on the Government's pay-roll.

Here is an opportunity for you to "do your bit" and show to the world that the American farmers are still the "backbone" of their country.

Here is an opportunity to say to your nation's enemies, in language none can fail to understand, that *"money talks"*— that America knows no defeat and that we intend to wipe militarism and despotism off the face of the earth and finally insure a lasting peace.

What Will Be Your Reply?

Do you know that the total value of the 1917 crops is estimated by Government officials at $17,000,000,000 — nearly six times the amount of "The Second Liberty Loan of 1917"?

Do you know that the increase in the value of the 1917 crops over 1916 is $2,000,000,000 — almost equalling this Second Liberty Bond issue?

Don't you think then, that the American farmers ought to "respond" liberally to their Government's call, especially when they get 4% interest on their investment?

What Will Be Your Reply?

You owe it to your country to "reply" with a subscription for as many bonds as you have money to spare.

You owe it to your country to "buy Liberty Bonds" as evidence of your patriotism.

You expect your country to "protect" your life, your home and your liberty.

Your country expects you to do your share toward that end by helping to maintain its credit by lending it your money in this critical hour.

What Will Be Your Reply?

The New Liberty Bonds will be issued in denominations of $50 and up. The total amount is $3,000,000,000 or more.

The interest rate is 4% paid semi-annually on Nov. 15th and May 15th. They can be paid for in installments: 2% on application; 18% on Nov. 15th; 40% on Dec. 15th; 40% on Jan. 15th, 1918. They are 25-year bonds, redeemable in ten years.

They carry a conversion privilege and can be changed for any higher interest bearing bonds issued at any succeeding time during the war.

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The subscriptions will start Monday, October 1st, and close October 27th.

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Send it in to the publisher of this paper and you will have answered your country's call loyally, patriotically and also answered YOUR NATION'S ENEMIES in a way that will bring peace the quickest and most lasting.

If you want to buy, say one $50 bond and wish to pay for it on the installment plan, you send with your Application Blank 2% or $1.00 then on Nov. 15th you remit the 18% or $9.00; on Dec. 15th you send $20.00 and on Jan. 15th, $20.00 making a total of $50. If you buy two or more bonds your payments increase two or more times.

Don't sit back—slacking—wishing for peace. Wishbones are mighty poor back-bones. YOU, the farmers, if worthy of being credited as the *"backbone of our nation,"* must furnish the backing.

Do It Now!

Application Blank for

New Liberty Bonds

The Wisconsin Farmer

Liberty Bond Dept. Madison, Wis.

I hereby subscribe for.....New Liberty 4% Bonds.
No. of Bonds

Enclosed find $..... (You can send amount in full or first payment of 2% of total amount of bonds subscribed for.)

Please have bonds sent to following name and address:

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County.....State.....

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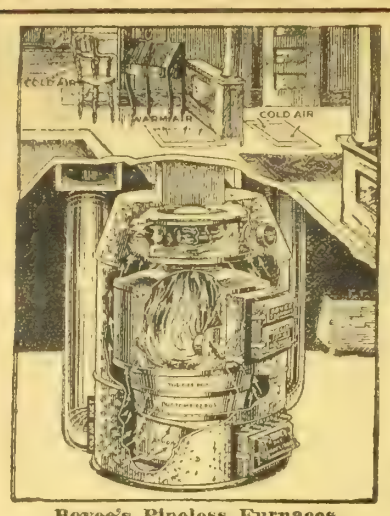

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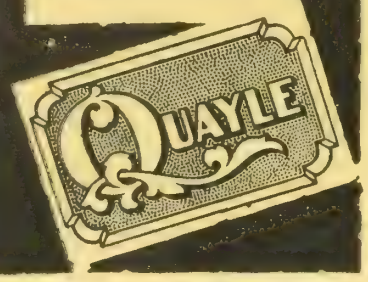

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Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Department, Wisconsin Farmer, Madison, Wis.

The Kind of a Kitchen Mother Always Likes.

Laura B. Breese, Department of Farmers' Institutes of the University of Wisconsin, Describes "Easy" Farm Kitchen.

The kitchen is the most important room in the house. Here mother must spend much of her time and unless care is taken too much of her energies.

Is it not of value to make this room most convenient to conserve the strength and time of the most precious member of the family? Too many mothers are slaves to the routine of kitchen work today—a part of the reason due to improper tools for work and inconveniently arranged equipment.

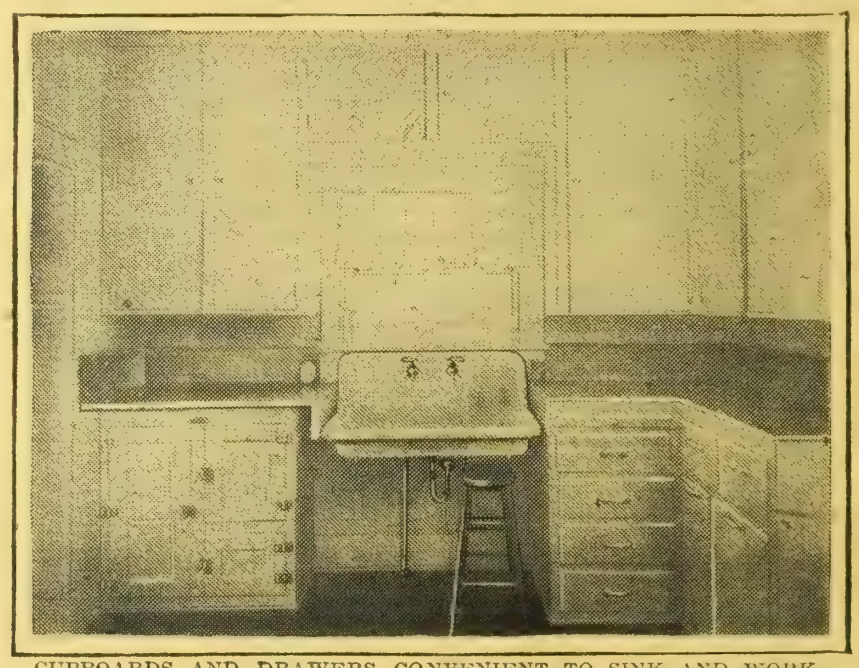
If women, working in such kitchens, registered their steps they would find they were walking many miles a day—and needless ones, too. No wonder night finds them foot-sore, weary in body and mind!

Think of the value to the family, if the kitchen work was accomplished in half the time and with half the energy sometimes expended! It would mean more time for mother with her children, more time for the story, the song and the games for them—for recreative changes for herself and for the coöperative work towards community betterment.

Sometimes the "easy" kitchens can be arranged for without much expense by drawing pieces related to each other together.

When preparing meals the work table, the stove and side table are needed, and steps can be saved by having these near together and in the order used. The dish is prepared at table, then the stove is needed next, and the side table next, in order to cool, dish up or garnish the food before sending to the dining table. If these pieces are arranged in this order there will be no retracing of steps required in that process of work.

For clearing away meals, the sink and cupboard for dishes should be near each other and the process of dish-washing carried on from sink towards cupboard. In a small kitchen the sink with an expansive table shelf attached is found very convenient in the center of the room. Many of the kitchens in the farm homes are large in floor area, and steps can be saved only by grouping the equipment in some manner as suggested above. The other part of these large kitchens (farthest from dining room) may be converted into a sewing corner or laundry, with the fitting equipment for either one concentrated there.



CUPBOARDS AND DRAWERS CONVENIENT TO SINK AND WORK TABLE SAVE MANY STEPS.

Small cupboards or shelves near each large piece, to keep the smaller utensils and supplies needed at each place, will be found great step savers. If a kitchen cabinet is not the table used, some cupboards for the dry supplies should be built over the kitchen table for convenience sake.

Stove lifters, asbestos mats, kettle covers, etc., should be kept on hooks or racks near the stove. Cleaning powders, soap, scrapers, etc., needed at sink will save steps, if kept on a shelf above the sink.

Arrangement of equipment is a great essential for making work easy and every housewife should decide what is the very best arrangement for her kitchen. Light and good ventilation are requisites in the kitchen mother likes best.

Dark rooms are depressing, gloomy and unsanitary. Lighten the walls and woodwork by using light color paint. Buff, pale green, tan, gray or creams are good kitchen colors.

Linoleum is the best covering for the floor; it looks attractive, is comfortable under the feet and is most easily kept clean. It will eliminate the back-breaking scrubbing for mother, who likes a spotless floor.

In mother's kitchen, let us have a chair to use at sink and table, when possible—and a comfortable easy chair for a few minutes' rest between pieces of work—a table with a few magazines and paper handy near her comfortable chair.

The housewife who accomplishes her work with the least expenditure of time, energy and sweet temper usually makes the best homemaker. It is only the foolish who can scoff at the wisdom of the housewife who undertakes to remove the drudgery from her housekeeping.

In mother's kitchen we want the running water and sewage disposal and the labor-saving equipment now available.

NINE-MONTHS-OLD TRIPLETS OF EDWARD McNEIL—TWO GIRLS AND A BOY.

Vinegar From Surplus Apples.

With proper care a good grade of cider vinegar may be made from all low-grade apples, except a few of the early summer varieties.

Only ripe apples should be used, because green apples are too low in sugar and are likely to make a weak vinegar. Wash only the dirty apples, because clean apples are covered with yeast spores that are needed in the alcoholic fermentation. Remove all wormy, rotten or moldy fruit, also sticks and leaves. Then the juice should be pressed out.

After pressing, the juice should be strained and run into kegs or barrels that have been thoroughly sterilized by steam or boiling water. Metal containers should never be used. All vinegar barrels should be washed out; the vinegar remaining may cause the juice to become too acid instead of forming alcohol. It is not advisable to add dry yeast to cause fermentation, as it is of little value. The yeasts on the skin and in the surrounding air are sufficient.

Fill the barrels about three-fourths full, lay on side and cover the bunghole with a double thickness of cheesecloth to allow air to enter and yet keep out dirt and insects. The barrels should be placed in a cellar or similar place with a rather uniform temperature between 45 and 60 degrees. Fermentation will be completed in from two to six months and will be alcohol or hard cider. From sixteen to twenty months will be required at 65 to 75 degrees temperature to change this to vinegar.

To Can Chicken.

I want to can some chicken and would like very much if you would give me directions for doing so.—Mrs. G. W. M.

Chicken to be canned may either be cooked and then packed in the jars or it may be packed in the jars while raw. In the latter case the sterilization period is one hour longer than in the former.

Kill the fowl and draw at once. Wash carefully and cool. Then if it is desired to first cook the meat, boil it until it can be removed from the bones. Pack in glass jars, fill jars with the liquid, which has been boiled down to one-half its original volume. Add one level teaspoonful of salt to each quart of meat. Place rubber and cap in position, not tight. Sterilize three and one-half hours in hot-water bath, three hours in water seal outfit, two and one-half hours in steam cooker at five pounds' pressure, two hours in steam cooked at ten pounds pressure. Remove the jars and tighten the caps.

By the other method the raw meat is cut in convenient sections, removing the bones, and packed in glass jars, adding one level teaspoonful of salt to each quart. Fill the jars with

boiling water and proceed in the same manner as described above, except that the sterilization period is one hour longer.

Advice About Fern Growing.

To the Editor:—In a recent issue there was an inquiry from a subscriber about the care of ferns. I have very good luck with mine and I am glad to give what information I can.

When potting the fern take some dirt from near the wood pile and put it in the oven. Let it stand until it gets so warm that you are sure all the germs and worms are killed. Then take it out and let it get cold before you put the fern in.

You should give the fern water once a week, and give it good and plenty when you do water it. Twice a year take some manure and soak in soft water (never use hard water) for about half a day. Then strain it and give the water to the fern.

When the leaves begin to die cut them out. When the water stands on top of the dirt do not give the fern so much water, because ferns have a resting time about two months a year.

Keep the fern where it can get all the sun, but never move it about, because it likes to stand alone and untouched. Never let the wind blow the leaves about.

Now if you will do as I have told you I am sure that you will always have good luck with your ferns. I have a fern that stands four feet up from the floor, but still many of the leaves lie on the floor.

Mrs. R. R. Richardson.

Cauliflower.

To the Editor:—A short time ago Mrs. J. C. M. inquired for ways to prepare cauliflower for table use.

We have it in our garden every year and find that it makes an excellent table vegetable. Break the head into small pieces and wash thoroughly, then put on to cook in plenty of cold, salted water. Allow it to simmer gently about twenty minutes, or until tender, then drain and season with butter and a little sweet cream and serve. Mrs. E. Sefton.

Recipes.

Hominy Pancakes.—One cupful cold cooked hominy, three-fourths cupful flour, one teaspoonful salt, one cupful milk, one egg. Mash hominy with a fork or force it through a potato ricer. Mix with it the flour sifted with the salt, add egg (well beaten) and milk. Drop by spoonfuls on hot greased griddle.

Sour Cream Pie With Dates.—Plain pastry, one cupful chopped dates, one cupful sour cream, one-fourth teaspoonful salt, one cupful sugar, one egg, one teaspoonful flour. Beat the egg well and add to it the sugar and flour mixed together; add the cream, dates and salt. Bake between two crusts.

Fried Cauliflower With Onion.—One head cauliflower, one onion, two tablespoonfuls fat. Cook a good-sized head of cauliflower in boiling salted water until tender. Drain and separate into flowerets. Brown the onion, minced, in the fat; add the cauliflower and cook ten minutes.

Oatmeal Macaroons. — Two tablespoonfuls butter, one cupful sugar, two eggs, two and one-half cupfuls rolled oats, two and one-half teaspoonfuls baking powder, one-fourth teaspoonful salt, one-fourth teaspoonful vanilla. Cream butter and half the sugar. Add beaten yolks of eggs and the remainder of sugar. Stir in the rolled oats mixed with baking powder, then the vanilla and carefully fold in beaten whites. Drop from teaspoon on buttered tins and bake. Make quite small, as they spread a great deal.

Escalloped Rice With Cheese.—Four cupfuls cooked rice, four cupfuls thin white sauce, one-fourth pound cheese. Mix white sauce with rice. Put alternate layers of this mixture and grated cheese in baking dish. Cover with bread crumbs and bake in moderate over until hot through and crumbs are brown.

Poverty is only contemptible when it is felt to be so. Doubtless the best way to make our poverty respectable is to seem never to feel it as an evil.—Bovee.

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THE YOUNG FOLKS.

Helped Tend 56 Acres of Corn.

Dear Young Folks:—I have enjoyed reading your letters very much. I am twelve years old. I have three brothers and three sisters. My baby sister is six months old. Her name is Minnie Joan. She carries the names of her two grandmothers.

I love to go to school. I have a good teacher and I love all of my schoolmates. We have a seven months' term.

I live on a farm. My papa owns 129 acres two and a half miles from town. My older brother and I planted and tended a 56-acre field of corn this year. Our oats crop was fair. Papa gave my older brother and me a two-year-old colt. We have her broken to ride, but papa says she is too young to drive. Her name is Bell. I hope there will be more letters from boys who live on the farm. Alvan.

Quite a Family of Dolls.

Dear Young Folks: I enjoy reading your letters very much and hope you will like mine. I am ten years old and go to school every day. My home is right near a lake and I spend most of my spare time rowing and fishing. My right home is in Minnesota, but I am staying with my aunt and uncle.

I love to play with dolls and I have three of them, Alice, Vivian and Bobby. I wish the young folks would write more stories and riddles. Here is a riddle: What belongs to yourself, but is used more by others? Lila.

Answers Frances' Riddle.

Dear Young Yolks:—I like to read the Young Folks' page very much. I live on a 140-acre farm five miles from town. I am nine years old and in the fifth grade. I have four brothers and three sisters. My oldest brother and sister are married. One of my brothers is a soldier and is in Texas.

I will give the answer to Frances' riddle: Four and twenty white sheep standing on a hill, now they go, now they stand still. I think it is the teeth. Minnie.

Has Many Pets.

Dear Young Folks:—I am a girl thirteen years old and in the eighth grade this year. I live on a 200-acre farm a mile from town. I go to school every day and have a mile to go.

For my pets I have a white rabbit named Nebuchadnezzar and two cats named Tom and Frank. I also have a white cow and calf. I have a great deal of fun with the cow. I can ride her and crawl all over her. Her calf is tame also. The cow's name is Snowball and the calf's name is Snowflake. Clarissa.

Loves Her Dog Dearly.

Dear Yolk Folks:—As I have never written to your page I am going to write now. I am a girl twelve years old. I am going to school and am in the sixth grade. I live on a 160-acre farm two and a half miles from town and a quarter of a mile from school. I have a pet dog and I love him very much. I feed him every day, bread and milk.

Erma asked the riddle, how can you get the water out of a bottle without breaking it or pulling the cork out. I think the answer is to push the cork in. Ruth.

I think that there is success in all honest endeavor, and that there is some victory gained in every gallant struggle that is made.—Dickens.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)
Lesson for October 14, 1917.

Returning From Captivity.

LESSON TEXT—Ezra 1.

GOLDEN TEXT—The Lord hath done great things for us; whereof we are glad.—Psalms 126:3.

Israel went into captivity because of her sins. The time of her disciplinary process was about to end, as its purpose was now accomplished: Namely, the cure of Israel's idolatry. Ever since the Babylonian captivity the Hebrew people have been worshipers of the one God. Monotheism has stood forth as a vital characteristic. The main reason for the Jews' maintenance of racial identity in spite of their national dislocation and the breaking up of their social ties, is the unity of their faith, around the one God.

I. The Proclamation of Cyrus (vv. 1-4).

(1) The Time of (v. 1). The first year of Cyrus; that is the first year after his conquest of Babylon.

(2) How It Was Brought About (v. 1). The Lord stirred up his spirit. The Lord often uses very unlikely agents in the accomplishment of his purpose. There is nothing too hard for him. He can readily use a heathen king to accomplish his purpose. He can find a way of approach to any heart. Likely Daniel was the agent used to bring the matter to the king's attention. Daniel was still the influential prime minister of Babylon. From his study of the prophecies of Jeremiah (Jer. 25:12; Isa. 45:1,; compare Daniel 9:2), he knew that the time was near for the return of the people to their own land, so he likely brought the matter to the attention of the king and persuaded him to thus favor his people.

(3)Its Contents (vv. 2-4).

(a) A confession of the true God (vv. 2, 3).

He acknowledges him to be the God

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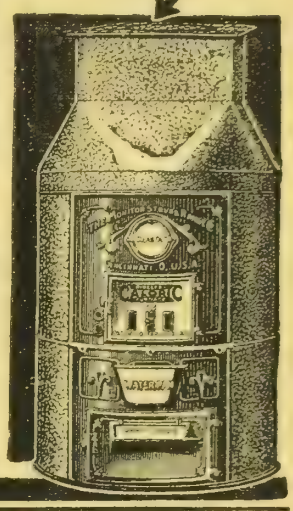

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TURN TO THE FARMERS' MARKET ON PAGE 12

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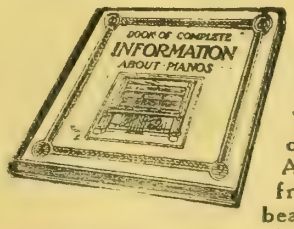

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of heaven, the Most High, the Supreme God, a God of goodness. He declared, "He has given me all he kingdoms of the earth," and that God had with authority laid upon him the charge of building him a house at Jerusalem.

(b) A Generous Permission to Israel (v. 3). All who desired to go up to Jerusalem and build the Lord's house were permitted to go. He even commanded the blessing of the Lord to be upon them.

(c) A Positive Coöperation (v. 4). None were obliged to go up, but a positive obligation was laid upon those who did not go up to render assistance to those who did. They were to aid in the building of the house of God by giving money, beasts and goods. It was more than a free-will offering, an obligation in addition thereto. The obligation was even wider than the people of Israel. The heathen were asked to render aid.

II. Response to the Proclamation of Cyrus (vv. 5, 6).

(1) By Israel (v:5). Strange to say the decree of Cyrus was not met with great enthusiasm. Only a small number, chiefly from Judah and Benjamin, returned (v. 5). For most of them it meant giving up business interests, for they had settled down to the regular callings of life. Besides the sacrifice of business interests it involved great risks as to the future. The entire company, including servants, was about 50,000 (2:64). Of this company we note the following divisions; first, chiefs of the fathers of Judah and Benjamin, that is magistrates; second, priests and Levites, leaders in religion; third, skillful artificers, head workmen.

(2) By Their Neighbors (v. 6). This response was apparently more hearty than that of the Jews themselves. Their neighbors gavev freely of gold, silver, beasts and goods. God had not only graciously disposed the heart of Cyrus toward his people, but they found peculiar favor from their neighbors, so that their wants were abundantly supplied.

III. Restoration of the Sacred Vessels (vv. 7-11). These vessels had been carried away to Babylon many years before. Little did Nebuchadnezzar realize that he would put into safe keeping the vessels which would be needed at this time. They were carefully numbered and turned over to the proper officers. Except for their desecration in Belshazzar's feast, they were none the worst for having been carried away. These were brought up to Jerusalem from Babylon.

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Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 650 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

Waist 2229-Skirt 228—A smart combinaton for business or home wear. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. A medium size will require girl. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. Size 6 will require 2¾ yards of 36-inch material.

1841—Boys' blouse, with yoke in square or pointed outline, and with two styles of collar. The pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years.

6⅞ yards of one material, 36 inches wide. Two separate patterns, 10 cents for each pattern.

2024—Ladies' house dress with sleeve in either wrist or elbow length. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7¼ yards of 36-inch material.

2231—A simple dress for mother's It requires 3⅛ yards of 36-inch material for a 12-year size.

2250—Set of underwear for boys. The pattern is cut in 5 sizes: 26, 28, 30, 32 and 34 inches breast measure. Size 32 quires 7 yards of 36-inch material for a 36-inch size.

2253—One-piece dress for junior. The pattern is cut in 3 sizes: 12, 14 and 16 years. Size 14 requires 4½ yards of 36-inch material.

1998—Dress for misses and small women. The pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 6½ yards of 36-inch material for an 18-year size.

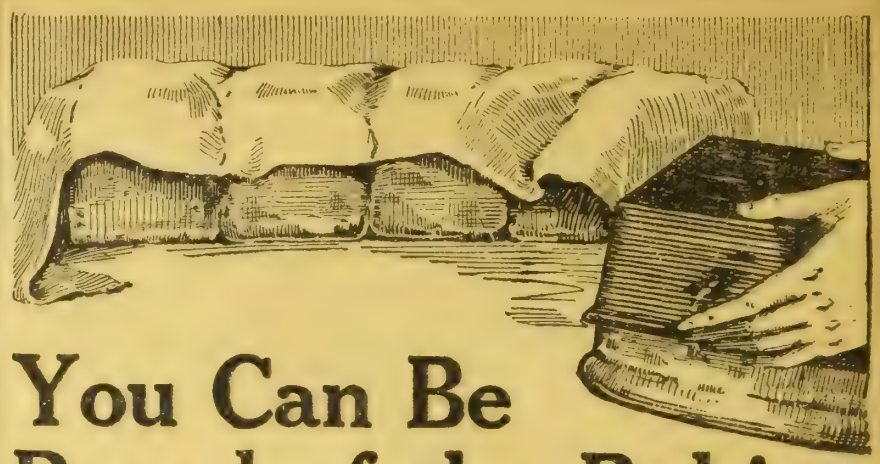
2256—A comfortable, stylish dress. The pockets may be omitted. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires 2⅞ yards of 36-inch material.

2257—A seasonable model. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 5¼ yards of 44-inch material.

2245—Ladies' slip. The sleeve may be omitted. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium requires 4½ yards of 36-inch material.

2234—A simple, practical apron. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large 44 and 46 inches bust measure. Size medium requires 4¾ yards of 36-inch material.

2085—A smart and popular model. The pattern is cut in 4 sizes; 6, 8, 10 and 12 years. It requires 2 yards for the guimpe and 3 yards for the dress, for a 6-year size, in 27-inch material.



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that you take out of the oven in an Eclipse JOY Range. All parts of the big oven get *even* heat. Fire box and flues are made in the *right sizes* to get the *most heat* from the least fuel. Can do an average baking with only *two* good sized sticks of cord wood. (Can use any kind of fuel.)

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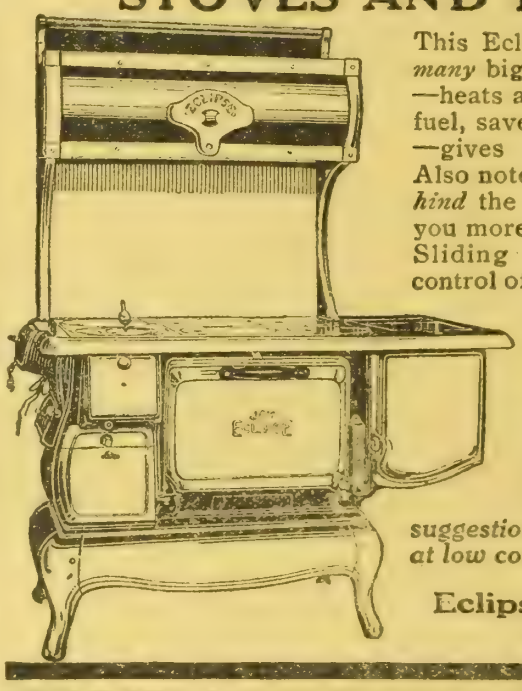

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Army and Navy Packet for You

If You Solve this Puzzle

Here are seven ponies in a pen. By drawing three straight lines you can put each one in a pen by himself. If you can do this we will send you as a prize, **a packet of five beautifully colored Army and Navy postcards showing our gallant boys in action.** These cards are new and novel, every one a beauty. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing. We will also send you a certificate for 1500 free votes in our grand contest for a beautiful Shetland pony.

Fine Pony Given Away

Remember the Pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in the great contest. In case of a tie a pony will be sent to each person so tied. Write me today.

THE PONY MAN Dept. 118 Des Moines, Iowa

Wonderful New Kerosene Light FREE

Beats Electric or Gas Light

We want one person in each neighborhood to whom we can refer customers. Takes very little time and no investment. The new Aladdin kerosene mantle light

Burns 50 Hours on One Gallon

common kerosene. No odor, smoke or noise, simple, no pumping up, no pressure, won't explode. Tested by U. S. Government and thirty-five leading universities show the Aladdin gives **three times as much light** as best round wick flame lamps. **Won Gold Medal** at Panama Exposition. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed. And think of it—you can get it **without paying out a cent.** All charges prepaid. Ask for our 10-day Free Trial Offer and learn how to get one **Free.**

AGENTS WANTED

MANTLE LAMP CO. 377 Aladdin Building, CHICAGO, ILL.
Largest Kerosene (Coal Oil) Mantle Lamp House in the World

POTATOES WANTED. Write what you have to offer. C. C. Greene Produce Co., 128 Grand Ave., Kansas City, Mo.

Hogging Down Corn Saves Labor

Better Gains Being Made by This Method of Harvesting Corn Than by Dry Lot Feeding.

THE practice of letting hogs harvest the corn crop has grown rapidly in favor within the last few years. No longer is it considered a lazy man's method. Progressive farmers have given it a trial and in a large number of instances, they have found it more profitable than harvesting the crop by hand and feeldng the grain on the ear. Practicaliy the only drawback is that in wet seasons some of the corn will get tramped in the mud and be wasted.

In order to determine definitely the advantage of hogging down corn and also to learn the value of different supplementary feeds, the Iowa Experiment Station has conducted a series of experiments along this line with spring shoats. From these experiments it has obtained results which show that hogs make better gains per bushel of corn when allowed to forage in the field than when given ear corn in dry lots. But the increased gain is not the only advantage, since there is a considerable saving of labor and expense ordinarily required in harvesting the crop and feeding by hand. In the experiment the cornfields that were hogged down lay on second bottom land with a fairly rich soil that produced about fifty bushels of corn per acre. A sufficient number of shoats were put upon the land to clean up the corn in about two months. Then, in order to serve as a check, another group of shoats were fed in a dry lot, receiving all the ear corn they would eat. The shoats averaged about seventy pounds each at the beginning of the experiment.

Since corn is not a balanced ration, both the field shoats and those in the dry lots were allowed an additional feed of meat meal, amounting to about 10 per cent by weight of their total ration. At the close of sixty days the field shoats had gained 1.23 pounds daily per head with an average daily consumption of 4.39 pounds of corn and about one-half pound of meat meal, while the dry-lot shoats gained 1.17 pounds daily with a consumption of 4.26 pounds of corn and one-half pound of meat meal, the corn in each case being figured on the basis of shelled corn. It will be seen that the field shoats consumed larger quantities of corn than the lot-fed shoats, but they made larger gains to offset it. This is best shown by figures on the amount of feed consumed per hundred pounds gain. For instance, it required only 356 pounds of corn and 41 pounds of meat meal to make 100 pounds gain in the field shoats, while it required 365.1 pounds corn and 43.7 pounds meat meal to make the same gain in the lot-fed hogs. With corn at $1.50 a bushel and meat meal at $90 a ton, this would be a saving of 45 cents per hundred in favor of the field shoats. In order to determine the value of a home-grown feed to supplement corn in place of meat meal, another group of shoats were put up in a cornfield in which soy beans had been sown with the corn. This combination did not produce the gains that the meat meal ration did, but it proved to be more profitable than feeding straight corn with no supplement. To make a suitable comparison, one group of shoats were allowed to run in the cornfield, but were not given any other feed. These shoats made an average daily gain of only .42 pound, while the shoats running in corn and soy beans made a gain of .82 pound. Each of these gains is much smaller than that obtained by using meat meal with corn, which it will be remembered, was 1.23 pounds. Thus we find that a supplementary fed makes the gains much more rapid and meat meal makes a better supplement for corn than soy beans sown in the same field. Figured on an acre basis, corn alone made 357 pounds of pork per acre, corn and soy beans made 505 pounds and corn supplemented with meat meal made 795 pounds per acre. Of course, the meat meal was not supplied by the field and this must be considered when figuring pork production per acre, but the point to be emphasized is the advantage of using a supplement in order to balance the corn ration.

Still another test was made in which rye was sown in the corn at the time of last cultivation, and the shoats were turned in after the corn became well dented. The hogs in this case received meat meal in addition to the corn and rye. With such a combination they made an average daily gain of 1.44 pounds, with an average consumption of 4.38 pounds of corn and about one-half pound of meat meal. The amount of rye eaten cannot easily be calculated, but these results when compared with those given above, in which corn and meat meal were furnished without rye, show that rye increases the rate of gain. There is danger, however, of cutting the corn yield by putting rye in the same field, which may result in a loss of feed produced per acre.

From the figures mentioned, it is evident that hogging down corn is an excellent means of harvesting the crop, producing very satisfactory pork gains if a good supplementary feed is added to furnish protein which the corn lacks. Several other supplements may be used which are probably just as good as the ones used in the experiment. Many farmers have found that rape produced big gains on shoats that have the run of the cornfield. There is this difficulty with rape, however, that a good stand is often hard to get. But in spite of the fact that it is not a sure crop, farmers have frequently reported splendid results with it. Rape may be sown right in the corn rows, or may be put in an adjoining field to be connected with the cornfield when the time is at hand for hogging down the crop.

Clover and alfalfa also make good pasture crops for hogs in the cornfield, but they cannot be sown in the corn to advantage. An adjoining field should be provided at seeding time. But whatever the supplement to corn may be it should have a relatively high percentage of protein in order to go well with the fat-forming nutrients in corn. Tankage, oil meal, shorts, skim milk and buttermilk, all are good, and their relative prices are about the only important factor in determining which should be used. But as a rule they are apt to be more expensive than home-grown feeds such as the pasture and forage crops previously mentioned.

With regard to the time of turning the hogs into the corn, various tests have indicated that the greatest yields of pork are obtained when hogging down begins just after the corn becomes well dented. If it begins earlier, the feeding value of the crop is not so great and consequently the hogs make smaller gains. The hogs should be put on full feed before the corn is ready, and if possible given some green fodder. This prevents danger of scours and other digestive troubles when they are turned into the field. At the beginning of the hogging down period some farmers have found it advisable to turn the hogs into the cornfield for only a part of a day at a time, keeping them in a dry lot for the rest of the time and feeding a little oats or some similar feed that will counteract the laxative effect of the green forage.

If the field is large, temporary fences will make the hogs do better work in cleaning up all the corn. The preference among farmers seems to be a twenty-six-inch woven wire fence, which may be tied fast to the cornstalks with binder twine. The ends, however, should be fastened to rigid posts and where the cornstalks are weak, stakes should be driven into the ground to support the fence. As soon as the corn is cleaned up in one area the fence may be extended farther into the field.

The number of hogs to put in the field depends on the time when it should be cleaned up. In the experiment about two months were required to clean up a fifty-bushel crop, the number of hogs averaging about twelve to the acre. But many farmers plan to clean up a field in about a month's time and then finish fattening the hogs in the feed lot. This practice works well, since the animals develop a ruggedness and constitution from foraging in the field that allows them to make big gains when put upon a heavy fattening ration. As a rule, twenty shoats weighing around 100 pounds each will clean up an acre of corn in a month. At the end of this time they ought to weigh nearly 140 pounds; then they may be brought up to 200 pounds in the feed lot in another month.

When properly managed the hogging down method will yield a very satisfactory return. In the experiment it will be remembered that corn in the field with a supplement of meat meal produced 795 pounds of pork per acre. At 19 cents it is worth $151.05. By subtracting from this figure $14.67, the cost of 326 pounds of meat meal used, we have $136.38, the return on hogging down an acre of corn. But the figures do not tell all the story, since the saving in labor and expense of harvesting the crop and the fertility returned to the soil are no small items in favor of this practice.

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Clear your stump land cheaply — no digging, no expense for teams and powder. One man with a K can rip out any stump that can be pulled with the best inch steel cable.

Works by leverage — same principle as a jack. 100 pound pull on the lever gives a 48-ton pull on the stump. Made of the finest steel—guaranteed against breakage. Endorsed by U. S. Government experts.

HAND POWER **K Stump Puller**

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Walter J. Fitzpatrick
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Have you tried Blasting?

Do you know that in the last year the farmers of the United States used *more than 10,000,000 pounds* of explosives for removing stumps?

That they are using greater quantities every year?

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If you have done no stump blasting it must be because you do not know how easy it is to use

Atlas Farm Powder
THE SAFEST EXPLOSIVE
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Our book, "Better Farming with Atlas Farm Powder," tells you all you need to know about all kinds of farm blasting. It shows how to prepare the charges. It tells how to load them under the stumps. It explains how to fire them. Anyone can use Atlas Farm Powder. Mark the coupon, get the book. Then you will be ready to go out and blast stumps without trouble or risk.

Dealers everywhere can get Atlas Farm Powder for you. Insist upon having Atlas, The Original Farm Powder. It is made especially so it will be safe. It does its work cheaper and better than ordinary explosives.

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General Offices: Wilmington, Del.
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This Stump Puller Sent FREE

Write! Don't endure stumps any longer. Get them out with a

Kirstin One-Man Stump Puller

One man alone pulls all kinds of stumps quick and easy. Get the book which tells how, also ask for very special offer. Don't Miss This.

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Think of it! To prove the wonderful, amazing work of the Kirstin One-Man Puller, we ship it anywhere **without one cent in advance,** on thirty days' free trial. No obligation to pay after trial. If pleased take a half year to pay or return at our expense and keep your money. Write for this

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Prices $50 and up. All types and sizes.

A. J. KIRSTIN COMPANY
452 Ludington Street Escanaba, Mich.

HAEGER Drain Tile Lasts Forever

Half the cost of draining land is labor cost. Why add to this by using inferior tile which breaks, clogging the drain and necessitating repairs? HAEGER Drain Tile is strong, straight and well-burned. No crumbling in the ground and little breakage in handling. Once laid the drain gives good service for a lifetime. Drain your swamp land—raise big crops next year—take advantage of high prices.

FREE BOOK—"FARM LAND DRAINAGE"—sent on request. Buy either direct or through your dealer. Look for the "DIAMOND H" mark.

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FARM LAND DRAINAGE

DRAIN TILE

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST.

It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F. Farm and Real Estate Journal, Traer, Iowa.

Good Grain and Short-horn Show

La Crosse Interstate Fair Draws Good Crowd and in Many Ways Is Best Fair Management Has Ever Held—By T. H. Campion.

FAVORED with a week of ideal fair weather the 1917 Interstate Fair at La Crosse broke all records for attendance. Thursday more than 20,000 people passed through the turnstiles. Not only in the matter of attendance was this fair a record breaker, but it was without doubt the best fair the management has ever staged. The exhibits throughout were splendid. While numbers may have been lacking in some departments, the quality was good. The racing was the best racing program seen outside of the state fairs this year. While an unusually large pike was in operation, the shows were of such a nature as not to offend. Good free attractions were provided, and a day at this fair was well spent.

As usual at La Crosse the display of farm grains and corn was immense. Potatoes and garden products showed up well, as did the township booths. The fruit show was strong, plenty of competition being evident. Here the fruit growers of Minnesota and Wisconsin have a chance to compete and Minnesota generally gets the better of the argument, Webster, of La Crescent, being the big winner this year.

The poultry department was the crowded department this year. Close to 1,800 birds were on exhibition. Roberts, of Ft. Atkinson, and Hoyt, of Whitewater, had a big list of entries.

The live stock exhibit was light in some departments, particularly the dairy cattle. The Short-horns were out in numbers, 165 head being shown. Competition was keen and no one herd had everything its own way. Carpenter & Carpenter got championship on cow and Herr Bros. & Reynolds on bull, being awarded junior and grand championship on their senior yearling. The only competition among the dairy herds was for the silver cup offered by the chamber of commerce of La Crosse for the best dairy cow shown. This trophy was won by a three-year-old Holstein heifer, owned by John Vanderploeg, La Crosse, Wisconsin. She well deserved the place given her, being a splendid individual.

The swine department was probably the best balanced of any of the live stock department. Five breeds were well represented, but the Duroc men brought out the best show and the keenest competition. Atwater was the big winner, winning most of the championships and all the firsts in the district futurity classes. J. D. McDonald got everything he went after in the Poland classes. Derenthal showed a good herd of big-type Chesters. The La Crosse county school brought out a splendid herd of Hampshires, and Whitmore Bros. represented the Berks with a good herd.

Atwater, showing Jack Orion, won the chamber of commerce silver cup for the best boar under one year, all breeds competing.

E. A. Jones, of Rockland, Wisconsin, showing a string of twenty-two Clydesdales, was the big noise in the horse department. Conrad Richards, showing a typey Belgian stallion, won sweepstakes for the best draft stallion.

There was a very fine display of automobiles of all the prominent makes ranging from the roadster up to the seven-passenger cars and limousines. This exhibit was housed in a tent along with the display of accessories. Sec. C. S. Van Auken paid the automobile a tribute when he said, "An idea of what the automobile is doing to build up the attendance at the La Crosse fair may be gleaned from the fact that there are 3,000 machines sold every year in a territory within fifty miles of this city. People residing in the rural communities find their greatest enjoyment in taking trips in their cars to view attractions in nearby places. As the Interstate Fair is the greatest attraction of the year in this community, they naturally come to La Crosse in the greatest numbers. No longer do fairs have to depend upon special trains and half-fare rates to draw crowds. The people come in their own machines, stay as long as they please, and go home when they choose. Every officer of the La Crosse fair takes his hat off to the automobile as the greatest fair booster in these times, although the trains are still helping greatly to bring outsiders to the exposition."

While the display of farm machinery was not up to the other years in number of exhibitors, the various kinds of farm machines were well represented. Much interest was shown in power machines for the home, also a great interest was manifested in milking machines. Tractors came in for their share of publicity and it was regretted by many that but one make of machine was shown.

La Crosse is ideally located for an agricultural fair and this year's exhibit proved that the fair under favorable conditions can be made a big success. We prophesy a bright future for this institution.

HORSES.

E. A. Jones, Rockland, Wis.; Wm. Plenge, La Crosse, Wis., R. R. 2; W. F. Miller, West Salem, Wis.; Markgraf & Son, Norwalk, Wis.; Otto Moos, Onalaska, Wis.; Henry Hauser, Onalaska, Wis.; Conrad Richards, Brownsville, Minn.; C. J. Sleer, La Crosse, Wis.; F. C. Goddard, La Crosse, Wis.

CATTLE.

Short-horns.—Herr Bros. & Reynolds, Lodi, Wis.; Carpenter & Carpenter, Baraboo, Wis.; E. E. Jones, Rockland, Wis.; Gerald Arnold, Galesville, Wis.; Gideon Marco, La Crosse, Wis.; J. L. Jones, Leon, Wis.; W. F. Hartley, La Crosse, Wis.

Red Polled.—John Curron, Hixton, Wis.

Herefords.—Valley View Farm, Ing. R. Thorsgaard & Sons, Westby, Wis.

Jerseys.—Curron Valley Farm, F. P. Curron, Taylor, Wis.; Milo Hill, Tomah, Wis.

Guernseys.—L. P. Martiny, Chippewa Falls, Wis.

Holsteins.—John Vanderploeg, La Crosse, Wis.

SWINE.

Polands.—J. D. McDonald, North Bend, Wis.; L. P. Martiny, Chippewa Falls, Wis.; Ferndale Herd, A. J. Anderson, Houston, Minn.; M. Cramer, St. Joseph, Wis.

Durocs.—L. F. Atwater, Bangor, Wis.; J. Thomas, North Bend, Wis.; W. Jenkins, Bangor, Wis.; Geo. D. Sprain & Sons, West Salem, Wis.; Mike Stoehr, Viroqua, Wis.

Chester Whites.—H. A. Derenthal, Wykoff, Minn.

Berkhsires.—Whitmore Bros., Lyons, Wis.; La Crosse County School, Onalaska, Wis.

Hampshires.—La Crosse County School, Onalaska, Wis.

SHEEP.

Wm. Renk, Sun Prairie, Wis.; A. J. Mohr, Bloomer, Wis.; A. Woodard, Bloomer, Wis.; A. W. Arnold, Galesville, Wis.; Gideon Morca, La Crosse, Wis.

In And Around Wisconsin.

A crop of potatoes was raised this year by the pupils of the Withee school on the school grounds. They harvested 140 bushels, which were sold at 85 cents per bushel. The money will be used for school purposes. The land was plowed free and implements were donated by patrons of the school.

The first farm-loan association in Dunn county, Wisconsin, under the new Federal Farm Loan Act was organized at a meeting held at Stout Institute recently. Ben A. Faast, of Eau Claire, vice president of the Federal Farm Loan Bank, of St. Paul, Minnesota, was present and addressed the farmers on the subject of rural credits. Application has been made for $37,000 in loans and it is expected that others will join and materially increase this amount.

A carload of cattle was recently shipped from Washburn, Bayfield county, Wisconsin, to the Farmers' Cooperative Packing Plant at New Richmond. This was the first shipment from Bayfield county to this plant. It is understood there will be several other carloads during the fall and winter. Washburn has a branch shipping association connected with the New Richmond plant and other similar associations are located throughout Upper Wisconsin.

F. J. Sievers, for several years superintendent of the Milwaukee County School of Agriculture, was recently appointed as head of the department of soils, Washington State College of Agriculture. Mr. Sievers served several years ago on the staff of the soils department of the Wisconsin College of Agriculture, of which he is a graduate. C. E. Fawcett, of the Racine County School of Agriculture, is now in charge of the Milwaukee county school and Earl A. Polley has succeeded Mr. Fawcett at Racine.

Reports come from most sections of the Wisconsin tobacco-growing area to the effect that the weather was favorable throughout September. Ideal conditions prevail for curing down the early harvest portions of the crop. Frost did a little damage. However, late tobacco as a whole has done very well. A few fields in the vicinity of Viroqua were damaged to some extent by the frost. Regardless of this damage the 1917 crop will probably bring in more cash than any crop in the last ten years.

The experiment station of University Farm, St. Paul, Minnesota, for the past three years has been conducting feed experiments in the raising of fall pigs under fairly favorable conditions only, including the entire litters, runts and all. R. C. Ashby, in charge of the swine division at the University Farm, has been in charge of these experiments and gives the following report:

Beginning weight per pig...	39.4 lbs.
Final weight per pig...	181.15 lbs.
Daily gain per pig.....	.99 lbs.
Grain required for 100 lbs. gain	458.00 lbs.
Pork produced per 56 lbs. grain fed	12.22 lbs.

In all 146 pigs were started on these feeding tests and 137 were marketed. Eight of the fourteen lots fed were self-fed, all feeds being dry. Three different rations were tried. The percentages of the ingredients consumed were as follows

1. Shelled corn, 81.47 per cent; shorts, 11.11 per cent; tankage, 7.42 per cent.
2. Ground barley, 81.45 per cent; shorts, 12.55 per cent; tankage, 5.99 per cent.
3. Shelled corn, 60.10 per cent; ground barley, 23.52 per cent, shorts, 9.07 per cent.

Summing up Mr. Ashby says that under Minnesota conditions the net cost of pork is higher with fall pigs than with spring pigs, though many factors affect the results. The margin of profit is not large, but it is reasonably safe. With good shelter and water available twenty-four hours a day, fall pigs will do well. The important facts are dry, comfortable beds, water above the freezing point whenever wanted, freedom from parasites and all the feed the pigs can use. More rapid gains can readily be secured by the use of skim milk or buttermilk. Whether these will be cheaper depends upon the relative costs of all the feeds used.

The Wisconsin Library Commission at Madison furnishes boxes of books called "traveling libraries" to groups of new settlers, and even to single families, under some circumstances. The library commission will, upon payment of postage, send any book by parcel post to any citizen of Wisconsin if he will write a letter, enclosing from 6 to 8 cents in stamps, postage depending upon whether or not the postoffice is within 150 miles of Madison. The title of the book wanted should be given, or at least the subject discussed.

Harlo J. Fisk, formerly manager of the Pabst Stock Farm, recently purchased about 100 head of pure-bred Holstein cattle in Dodge and Jefferson counties. The purchase was made for the federal government. Mr. Fisk is superintendent and principal of the vocational school for prisoners at Ft. Leavenworth, Kansas. It is reported that the minimum price paid for cattle which will go to the Ft. Leavenworth herd was $275, and that prices range from that amount to $1,000. All the animals purchased were cows or heifers except two herd sires.

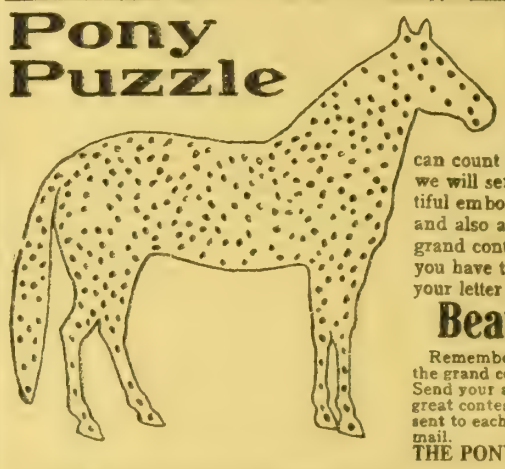
The food administration has figured that the allies to provide normal consumption will have to import this year 577 million bushels of wheat and 674 million bushels of other cereals. If North America is to supply this demand her normal export supply must be multiplied about twenty times.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 12.

WHEN you trim your outfit down to military bedrock, W-B Cut Chewing scores a bull's-eye. A soldier gets more from his pouch of W-B than from a bulky ordinary plug—rich leaf plump full of sap, *all* tobacco satisfaction, every shred of it. And the water-proof pouch keeps it clean and fresh in the pocket of his khaki.

Made by WEYMAN-BRUTON COMPANY, 1107 Broadway, New York City

Pony Puzzle



Count the Dots and Win a Prize

Here is a Shetland pony covered with dots. By being careful any boy or girl can count the dots on this pony. If you can do this we will send you as a prize, a packet of five beautiful embossed postcards lithographed in rich colors, and also a certificate for 1500 Free Votes in our grand contest for a beautiful Shetland Pony. All you have to do is to enclose a two cent stamp in your letter to pay postage and cost of mailing.

Beautiful Pony Given

Remember the pony will absolutely be given away in the grand contest which we will tell you all about. Send your answer at once so you can be entered in this great contest. In case of a tie for the pony one will be sent to each person so tied. Full particulars by return mail.

THE PONY MAN Dept. 22 3 Des Moines, Iowa

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Meet Him at Atwater's Boar Sale.

IF you want to meet any of the prominent Duroc Jersey breeders of Wisconsin and Minnesota attend the Atwater boar sale at Bangor, Wisconsin, Wednesday, October 17th. They are all there on that day, those that don't want boars go anyway just to "meet the boys" and those that want the real good boars go because Atwater raises the good ones. We expect to see the largest crowd ever on Atwater's beautiful farm. L. F. is selling a lot of boars that any breeder might well be proud of. They have been well grown, yet not overdone and look to be real herd-heading prospects. He has a grand variety of the most popular blood lines, and no matter what line of breeding you may have in your herd, we feel safe in saying that boars will be sold in this sale that will not conflict with anything you have. Take for instance the get of Proud Chief Jr. He is by Cherry Chief out of a Proud Col. dam. Some of you may have some Model King breeding, but if you have you know it is good stuff. We think Model King was the best breeding boar Atwater has had since Marion's Wonder. The older his get becomes, the better they are. His other boars have not had the chance as yet, that Model King had. No one ever gets too much of Crimson Wonder Again-H. A.'s Queen breeding, consequently P. S. Wonder stuff will sell without any urging. For the particular breeder that wants a future herd boar that will put his owner "on the map" he will be interested in Investor Jr., a son of Investor, a year old last April and "some boar." One of the kind that will get big, and his pigs are great, having those high backs with a lot of stretch. Here is one of the best prospects ever sold in an auction sale. Then there are the Investor spring pigs out of the Lady Top Notcher sow, and there are some good ones in this litter that will make boars worth owning. Dreadnaught boars are going to be the favorites of many and there are sure some good boars from this litter being sold. This boar was by Illustrator. Remember that all of the Atwater show boars (spring) sell in this sale. The gilts are real attractions and if you want to buy a gilt to grow out and raise your own brood sow, buy one of these open gilts and take care of her—she will make you money. If you have not received a catalog, get one at once. Perhaps some can't attend this sale and for their benefit you can send your bids to T. P. Shreve in care of Mr. Atwater. Your business will be handled in an honorable manner. Mention The Wisconsin Farmer when writing. See page 31.—Adv.

King Defender to New Home.

KING DEFENDER, the grand champion Duroc Jersey boar at the Wisconsin State Fair in 1916, has been sold by John L. Fisher, of Janesville, to J. D. Gant, of Delavan, Wis. King Defender is said to be the largest boar of this breed ever shown at this state fair, for he actually weighed right at 1,000 pounds. Mr. Gant has been searching for a boar for some time and we do not believe that he made any mistake when he purchased King Defender. This boar has never had an opportunity to show what he can do as a sire to any great extent. Mr. Fisher's best pigs are by him, but he was unfortunate in losing so many of his pigs early in the spring. In the Gant herd King Defender will be mated to some very good, well-bred sows and the feature of his winter sale will be sows bred to this good boar. Some are of the opinion that King Defender's pedigree is "cold blooded," but we wish to correct that idea. His sire, Ohio King, was by Albany Again, he by the well-known Albany, a popular show and breeding boar in his day. The dam of Ohio King was Cherry Chief's Girl by Cherry Chief. The dam of King Defender was by Defiance, he by Defender. It is true that King Defender is removed two times from Cherry Chief and old Defender, but every one can't have sons of the noted boars. Don't stand back a minute on account of the pedigree. See page 30.—Adv.

Nathan Dickinson & Son, Lake Geneva, Wis.

WHEN we visited the Dickinson Holstein herd several weeks ago we looked over a number of cows on test, including Iowana Mooie, that had been on test five days, giving about 80 pounds of 4.05 per cent milk a day; also Jettine, a 19.08-pound cow on retest, which was going at a clip which would greatly increase this record. The junior member of the firm, Boyd Dickinson, informed us that they had about 25 cows coming in this winter which they intended to put on A. R. O. work; most of this number will be two year olds and the cows in the herd which have not as yet completed yearly records. See page 29.—Adv.

Dobson & Eastman.

NO firm of Poland China breeders in Wisconsin is better known than Burlie Dobson and L. D. Eastman, Lancaster, Wis. They have shown swine of this breed for several years and have a following enjoyed by no other breeders in the state. Their Polands are immune and if you want a spring boar that will do you some good, write them. It is safe to order by mail from this firm. If you do not like the boar when you receive him, just let Burlie know and an adjustment will be made satisfactory to you. Mention this publication. See page 30.—Adv.

Fond du Lac Holstein Sale Pavilion.

WHILE interviewing F. J. Bristol, at Oakfield the other evening at his home, we were informed in detail as to the progress which the Holstein Breeders' Sale Company have made with reference to erecting a Holstein sale pavilion at Fond du Lac. This company is capitalized at $25,000, and $16,000 worth of stock has already been placed throughout the country tributary to Fond du Lac. It is the purpose of the company to draw from 14 different counties, which gives a large and fertile territory for the support of this institution. It will be remembered by a number of Holstein breeders throughout the state that Mr. Bristol made quite an extensive trip through the East last spring with the idea of looking over the best constructed sale pavilions throughout the East. A careful study was, therefore, made of the pavilions at Syracuse and Brattleboro. In the main the Fond du Lac pavilion will resemble the one at Brattleboro, being 120 feet square and two stories across the front. The upper story will be used for a dining room and kitchen and a small dormitory. The dining room will accommodate 200 people. Offices will be situated in front on the first floor, which will facilitate the selling of large numbers of pure-bred cattle to good advantage. The building will be equipped with electric lights, sewerage and city water and will be so situated, having a 500-foot siding on the Janesville division of the Northwestern line, that the ordinary troubles connected with shipping in and out at sale times will be eliminated. Fond du Lac is admirably situated inasmuch as there are eight railroad lines representing three companies operating in this town. No doubt the city of Fond du Lac appreciated this fact and saw the future business which will undoubtedly come to the city as the result of this enterprise, prompting it to donate such an admirable building site to the Holstein Sale Company. The stockholders have had a recent meeting at which directors were elected, for the purpose of conducting the business of the company. Ground will be broken for the pavilion this fall and it is expected that the building will be completed for the spring sale which will be held May 1st. It is the dream of this company to hold at least four annual sales, two in the spring and two in the fall. Judging from the many good herds represented in this vast territory to be drawn on by the Holstein Breeders' Sale Company we have no doubt but what their dream will be realized in the near future.—Adv.

C. L. Turner's Holstein Herd to be Dispersed.

MR. TURNER, of Springfield, Wis., has decided to sell his herd at private sale which consists of five females, having 25 per cent the same blood as Duchess Skylark Ormsby; three half sisters of Sir Skylark De Kol Ormsby; two daughters of Sir Johanna Wayne, that has 50 per cent the same breeding as Segis Fayne Johanna, so that these heifers have 25 per cent the same breeding as the only 50-pound cow. Mr. Turner also has a granddaughter of Homestead Junior De Kol; two daughters of Canary Mercedes De Kol and two daughters from these cows bred to King Peter. It is evident from the breeding already given that this small herd is one of quality and that it represents much of the best blood of the breed and the fact that they are also known to be producers should make them attractive to buyers on the market for this class of stock.—Adv.

Gray at Mt. Hope.

A. L. GRAY, Mt. Hope, Grant county, Wis., is too well known as a Chester breeder to need much introduction. He has been in the "game" for a good many years and has sold many hogs of this breed. We have seen boars all over the state bred by Mr. Gray and they seem to give satisfaction. He can sitisfy you—Write him. See page 30.—Adv.

Marquart's High-Producing Short-horns.

DON'T forget that Marquart Bros., Milton Junction, Wis., have one of the best herds of milking Short-horns in the state and just at this time they have for sale a number of very choice young bulls. They are sired by a bull that has made good and out of cows that have made up to 10,000 pounds milk in a year. These bulls will not be on hand very long, so if you are interested in good milking Short-horns, write the above firm at once. See page 27.—Adv.

Carnation Stock Farms at Oconomowoc, Wis.

THE Carnation Stock Farms just sold a 26-pound son of Johanna McKinley Segis out of a daughter of King Ormsby to Dr. Powell at Oregon, Ill. Breeders wishing to own a son of Johanna McKinley Segis will have to hurry, as there are only a few of these calves left. It is the purpose of the Carnation Farms beginning with the first of November to start about 60 cows on A. R. O. work; most of them are daughters of Beauty Pietertje Prince. There are also some daughters of Johanna McKinley Segis and Sir Ormsby Hengerveld De Kol included in this number. We were also informed that several more granddaughters of Johanna McKinley Segis and Sir Ormsby Hengerveld De Kol are included in this number. We were also told that several more granddaughters of Beauty Pietertje Prince have recently distinguished themselves. For instance, Lady Hiske Walker at four years made 34.62 pounds butter in seven days and Miss Valley Mead De Kol Walker at three years just finished a record of 36.81 pounds. Another one of these granddaughters owned by A. G. Courtelyou has made a record of 34.55 pounds. We also wish to call the attention of our readers to the two aged herd bulls on the Carnation Stock Farms that are being offered for sale. First is Forward Prince Segis 125061, a 33.25-pound grandson of Hengerveld De Kol and De Kol 2d's Mutual Paul. This animal is nicely marked and is of such conformation as to make him a desirable herd bull, from the fact that he combines high production and good individuality. The other bull is Ollie Johanna Sir Fayne, a noted prize-winning bull that has stood at the head of the Western Carnation Stock Farm for several years, which is situated at Seattle, Wash. This bull is a 31.10-pound son of Ollie Watson Prima Donna, one of the best cows in the noted Iowana herd. In our opinion this animal is second as an individual to none in the state and we believe that breeders on the market for this class of a sire would do well to get in touch with the Carnation Stock Farm at Oconomowoc, Wis.—Adv.

NEXT WEEK'S SALE PROGRAM

Wednesday, October 17 { Poland Chinas, G. W. Owens, Lawler, Iowa. Duroc Jerseys, L. F. Atwater, Bangor, Wis.

Raise More Beef.

THE live stock press and the government bulletins are telling you of the great shortage of beef producing animals. Some of the pessimists may think this is only newspaper talk, but when good authorities tell you of the national shortage you cannot but think there is something to it. There never was a brighter outlook for the beef producer and now is the time to get a good bull of easy-fleshing qualities. The Angus is a premier beef breed, and if you are interested in this good breed of cattle, write Walter J. Steinhoff, secretary of the Grant County Aberdeen Angus Breeders' Association, Platteville, Wis. There are some 800 head of registered Angus cattle in Grant county and the above secretary can tell you who has bulls for sale and also where you can get a few good females. Any information you want, write Steinhoff. See page 31.—Adv.

Write Floyd Selck.

FLOYD SELCK, Hanover (near Janesville), Wis., is offering Durocs that cannot help but please you. His spring boars are big, rugged fellows that have been well grown, and are the kind that give satisfaction. These boars are sired by a yearling son of King Defender and he is a good boar, weighing 600 pounds and, by the way, since Mr. Selck cannot use this boar to good advantage, he is also for sale. If you see the pigs sired by him, you would want him in your herd. Here is an opportunity to buy a tried sire or some good spring pigs. Write him at once. See page 31.—Adv.

Make Money.

THE above is the heading of the Art G. Hoskins, Chester White advertisement and it's a certainty that if you buy a good boar this fall you will make money. This breeder has good hogs of this breed and we know that he will give you a good deal and you will get your money's worth. Art is a good feeder and will not ship out a poor pig. His address is Dodgeville. See page 30.—Adv.

Ft. Atkinson Durocs.

W. W. GOODRICH, Ft. Atkinson, Wis., can sell you Duroc boars or gilts worth the money. He cannot take care of a large herd, and, as he has some fall pigs now he wishes to sell his spring pigs just as soon as possible. For that reason he is making prices that will be inducements for men wanting hogs of this breed. Write him and please mention this journal. See page 31.—Adv.

Owens' Poland China Sale.

ON OCTOBER 17th, G. W. Owens, Lawler, Iowa, will sell 40 head of Poland Chinas, all of spring farrow, consisting of 17 boars and 23 gilts. They are the tops of Mr. Owens' spring crop this year and are of the type that will develop into very large hogs. A good portion of the offering is by the great herd boar, I Am Baron by Baron and out of Belle B. by A Wonder A. A few litters are by Blue Valley Jr. by Blue Valley Again, one of the leading boars of the South, and he by Blue Valley, Mr. Walker's noted boar. There is a litter of three boars and one gilt out of Blue Valley Jr. and Belle B. and one of these boars is the largest spring boar the writer has seen this year. They are from a litter of 16. An exceptional litter is by Big Price, the Minnesota and South Dakota champion, and out of a dam by King Expansion, he full brother to Again Expansion, the Nebraska champion of 1914. Another good litter is by Blue Valley Jr. and out of a Giantess gilt, coming from the famous Giantess family so well known in Page county. A fine litter is by I am Baron and out of an 800-pound sow. A splendid April litter is by I Am Baron and out of Big Lady by Owens' Giant by Black Big Bone. There are five extra good gilts by Blue Valley Jr. and out of Owens' Type, a full sister to Owens' Kind. There will be one boar and one gilt by I Am Baron and out of Nemo P. by King Giantess 2d, coming from the famous Giantess family. Mr. Owens has one of the best offerings to be sold in Iowa and he has this year raised the best crop of pigs, size, quality and breeding considered, that he has ever had on the farm. Mr. Owens is a splendid stockman and knows how to breed and develop high-class Poland Chinas. He has the class of pigs that will please the discriminating breeder and he offers to refund the railroad fare both ways to any man who attends his sale and is disappointed in the character of the Poland Chinas cataloged for this sale. We know he will have no fares to refund for the reason that every man present will be loud in his praise of the offering. If you cannot attend the sale send a bid to Mr. Owens, or to either of the auctioneers, in his care. See page 30 and when writing for a catalog kindly mention this paper.—Adv.

The Derenthal Chesters.

NO doubt many of our readers saw the Derenthal Chesters at Milwaukee and if so we feel that they were impressed with the size and stretch. We have called attention several times to the good backs found in this herd and that is certainly a very important point. This herd is full of champions or the get of champions and this feature is worth considering when you are buying breeding stock. If you get the individual backed up with ancestors that have been winners and producers of winners, that is to your advantage. It will pay you to write H. A. Derenthal, Wykoff, Minn., and get his prices and description. We recommend this herd.—Adv.

Knudson Guernseys.

ALLIC S. KNUDSON, Brodhead, Wis., has some young bulls of serviceable age now for sale. They are very well bred, being sired by a son of the noted cow, May Rilma, and the dams have A. R. records or are out of A. R. dams. This herd of Guernseys will please you and if you will ask Mr. Knudson for a description of the bulls he has for sale, you cannot help but be impressed. Individually, they are good. Durocs are also offered, either sex and they carry the very best line of breeding. Remember the name and address and write at once and please say you saw the advertisement in The Wisconsin Farmer. See page 29.—Adv.

Inter-County Holstein Sale.

FRANCIS DARCEY, secretary of the Inter-County Holstein Sale Company, has recently informed us that the prospects for their two-day sale, November 7th and 8th, are the brightest and that the quality of the animals consigned this fall will be much above that sold in their sales heretofore. We were also glad to know that their new sale pavilion, which is 192 feet long, will be completed in time for the sale. We would suggest that anyone wishing further information regarding this sale or the consignments, that they get in touch with Francis Darcey at once, whose address is Watertown, Wis.—Adv.

Jas. Derivan, Fox Lake, Wis.

JAS. DERIVAN is well known as a Poland China breeder, especially in the northern part of the state. He has sold hogs all over the state and we have yet to hear of an unsatisfied customer. He has good breeding in his herd and his prices are in keeping with quality. We gladly recommend this breeder of big-type Polands. See page 30.—Adv.

Jerseys at Stubley's.

SOME time ago we had a feature story in The Wisconsin Farmer relative to the good Jersey herd owned by Fred Stubley, Black Earth, Wis. No doubt many of our subscribers read

this article and are acquainted with the Stubley herd through that article. We simply want to refresh your memory, for if you want cattle of this breed write Stubley. See page 29.—Adv.

Milford Meadows Stock Farm's Lake Mills Consignment.

MR. BLAINE has decided to consign 11 head to the Lake Mills Sale, October 23d and 24th, which will be a credit to his herd and which will not be a disappointment to buyers accustomed to look for good stock consigned from the Milford Meadows Stock Farm. Included in this sale are as follows: Comedia Hengerveld Queen a 25.53-pound daughter of the Milk and Butter King and out of a granddaughter of Hengerveld De Kol. She is an exceptionally promising young cow and is bred to the 31-pound bull, Canary Fobes Bessie Homestead; Johanna Ormsby Wayne De Kol, having a 24.76-pound four year old record, that is a half sister to Windsor Sweet Butter Maid, 33.49 pounds, and sired by Sir Ormsby Johanna De Kol. She is bred to Canary Homestead Oak De Kol, a 29-pound sire, having a 25 A. R. O. daughter, including a junior two year old with a record of 22.82 pounds; Daisy Johanna Segis, a three-year-old daughter of Johanna McKinley Segis, and out of a granddaughter of Colantha Johanna Lad and Paul Beets De Kol. This is a fine, straight heifer, and one of the best bred females in the sale. She was bred March 22d to Canary Fobes Bessie Homestead; Eva Mercedes Colantha, an A. R. O granddaughter of Colantha Johanna Champion, out of a 24-pound four year-old granddaughter of Paul 2d's Paul De Kol No. 2. She was bred May 23d to Mutual Fobes Longfield De Kol. These are a sample of the animals to be found in the Milford Meadows Stock Farm consignment. There are also included two cows bred to Lillith King of Rock, a young bull that topped the last spring sale at Lake Mills at $1,500. He is a son of King Segis Pontiac, a bull that has sired more high-priced bulls than any other sire living or dead.—Adv.

Reed's Lake Mills Consignment.

MR. W. H. REED, Palymyra, Wis., is consigning to the Lake Mills Sale, October 23d and 24th, several head from his choice Salma family, which has made his herd conspicuous by reason of the high records which several of its members have made. For instance, Salma Gewina De Kol is a three times 30-pound cow and in three years 11 months 28 days produced the following records: 25.90, 30.21, 31.05 and 30.59. Her per cent of fat was over 4.25. We have always been impressed with the performance of this cow, not only as a producer, but as a reproducer, as she has six daughters to her credit, several of which have already shown their high-producing tendencies. One of these heifers, for instance, Salma Gewina De Kol Segis, has 21 pounds as a junior three-year-old bull and will be consigned to the sale. The most noted animal of Mr. Reed's consignment is, however, an eight-months-old bull calf, out of Salma Gewina De Kol. He is a fine individual, nicely marked, and should easily be one of the features of the sale. Mr. Reed has also consigned a nice heifer calf from Salma Gewina De Kol Segis, a granddaughter, therefore, of the famous old cow, Salma Gewina De Kol. The 31-pound bull calf and Salma Gewina De Kol Segis are brother and sister to Salma Gewina De Kol 2d, a 24.70 two-year-old daughter of the old 31-pound cow. It is rarely that buyers have an opportunity to purchase at public sale some of the choicest individuals from a breeder's choicest family. However, this is just what will be presented to the bidders at the Lake Mills Sale when Mr. Reed's consignment is brought into the ring.—Adv.

Fisher's Lake Mills Consignment.

MR. FISHER has decided to sell 11 head at the Lake Mills Sale—one aged cow, three yearling heifers, six coming yearling heifers and one bull calf. One of the heifers is by King Alcartra De Kol Pontiac, a 36-pound bull, and out of a 22-pound three-year-old daughter of King Peter, that has 33 A. R. O. daughters. Her second dam has a 27-pound record and her third dam has a 26-pound record. An outstanding yearling heifer that won 1st in her class at the Rock county and Watertown fairs and second at the Dane county and Wisconsin state fairs, will also be in the consignment. Seven head of Mr. Fisher's show herd will be listed, which has some significance when it is recalled that Mr. Fisher's show herd captured junior champion bull honors, four firsts, five seconds, two thirds and two fourths at the Wisconsin State Fair. All of these animals with the exception of two were bred by Mr. Fisher. The four-year-old cow consigned is bred to Juliana King Repeater, a well-known sire of good stuff. See advertisement on page 28.—Adv.

Kirkpatrick Bros.' Holstein Sale.

KIRKPATRICK BROS., Reedsburg, Wis., have just written to us that they have sold their former herd sire, King Pontiac Korndyke Champion, to the Sauk County Farm, where there is a herd of 25 pure breds and 50 head of high grades. Kirkpatrick Bros. have retained all of the daughters of this bull in their herd, which they expect to test; twelve of this number are expected to freshen this winter, which are now a good-looking bunch of prospects for A. R. O. work. See page 29.—Adv.

Don't Wait to Buy That Boar.

FOR the next few weeks many boars are going to change hands. There is a natural shortage of spring boars and if you wait until the last minute to buy your boars you are going to be disappointed, for you will have to take what is left. With the present price of pork, and there is no reason why it should get very much lower, it behooves you to use the best boar you can buy. The slogan this year is "buy early."—Adv.

Beveridge's Lake Mills Consignment.

AS HAS been his custom for a number of sales past, Mr. C. M. Beveridge, Lake Mills, has decided to consign quality rather than quantity. One of the two animals he is consigning is a 33-pound bull calf sired by Canary Fobes Bessie Homestead 101266, out of a 31-pound daughter of Homestead Junior De Kol. Canary Fobes Bessie Homestead has stood at the head of the Milford Meadows Stock Farm herd for several years, so that his daughters will have an excellent opportunity to further demonstrate his greatness as a sire. He already has nine A. R. O. daughters, including a 28.18-pound three year old that is practically a perfect individual as well as a high producer. The dam of Sir Ormsby Homestead Butter Boy, the 33-pound bull calf, is Windsor Sweet Butter Maid, the record cow of Wisconsin for her age, having produced 33.48 pounds at five years, 27.69 at four years, 24.67 at three years and 19.50 at 26 months. Besides having this matchless performance at the pail to her credit she is a beautiful individual and sired by Sir Ormsby Johanna De Kol and out of a daughter of Pontiac Butter Boy. It is evident, therefore, that this young 33-pound bull comes by his individuality honestly and that it is pretty nearly a certainty that he will breed true to type. Breeders looking for a choice young herd bull combining nearly perfect individuality, excellent A. R. O. backing and line breeding that represents as good, if not the best, which Wisconsin Holstein breeders have yet produced, should make a careful study of this calf. Mr. Beveridge is also consigning a choice 25-pound cow Minita Ormsby De Kol, a fine individual as well as a three-quarter sister of Windsor Sweet Butter Maid, due to freshen at sale time. The date for this sale is October 23d and 24th. See page 28.—Adv.

Brunker's Annual Boar Sale, October 24th.

R. F. BRUNKER & SON, Ridgeway, Wis., will hold their annual sale of Poland China boars at their farm five miles south of the above town, on Wednesday, October 24th. For this sale they have listed about 40 head, a dozen of which are yearlings and the balance spring boars of March and April farrow. The Brunkers have never done any extensive advertising or showing, yet they have been breeding Polands for a good many years and have sold boars that have made good. They do not expect to get exceedingly high prices for their boars, but only ask a fair profit over and above what they would be worth for pork. No doubt farmers and breeders that are going to want boars within the next week or two can find something that will suit them in this sale. The breeding is of the best big type and in next week's issue we will tell you about the boars these pigs are sired by. In the meantime write for one of the catalogs and see if there is anything in that that looks good to you. If you find it impossible to attend the sale and wish to send bids, send same to T. P. Shreve, of The Wisconsin Farmer, in care of Mr. Brunker. Write now for the catalog and please mention The Wisconsin Farmer. Ridgeway is in Iowa county, on the C. & N. W. R. R. west of Madison. See page 27.—Adv.

An Indoor Toilet.

IT IS no longer necessary to have sewer, cesspool or plumbing in the home in order to modernize it as to toilet accommodations. Chemists have perfected a chemical that dissolves human waste, kills disease germs, and makes the toilet sanitary and odorless. The Kaw-Near Cabinet Co., 555 Kaw-Near Bldg., Kansas City, Mo., manufactures this chemical, also a handsome oak cabinet that can be installed in any home at very little cost without sewer or plumbing. It has no odor, can be placed in any room, hall or closet, and costs only 1 cent a week per person to use. It prevents flies, filth and makes the cold, unhealthful outhouse unnecessary. Anyone interested in modernizing their home should write for the liberal free trial offer and literature. See page 12.—Adv.

Liberty Spring Polands.

LIBERTY SPRING FARM is owned and operated by L. D. Eastman, Lancaster, Wis., and he is founding a herd of Poland Chinas that will be a credit to the state and Grant county. Mr. Eastman has a nice lot of spring pigs and they have had the best of care and if you will order a pig from this man it must please you or there is no sale. We are glad to stand back of this herd and the breeder. Get quotations and please mention The Wisconsin Farmer. See page 30.—Adv.

The Good Herefords.

IF you are a lover of the "Whiteface" just take a trip to Grant county, Wis., and see the L. M. Scott & Sons herd at Bagley. If you want to see 90 head of choice Herefords, the Scotts will certainly be pleased to fill your wants. They have them and they are headed by outstanding herd bulls. We know of no better place in the state to send you if you are in the market for a bull of this breed. Write and mention The Wisconsin Farmer. See page 31.—Adv.

Ackerman in Grant County.

WM. F. ACKERMAN, Glen Haven, Wis., is one of those good Poland China breeders of Grant county. He is one of the good breeders and takes care of his hogs, consequently when you visit his place you will find his pigs in a good, thrifty condition. If you want that kind and sired by one of the best breeding boars ever used in the state, write Mr. Ackerman relative to his A.'s Big Orange boars. See page 30.—Adv.

ATTENTION
MR. DAIRYMAN

Are you interested in PURE-BRED GUERNSEYS?
If so, come to WAUKESHA, WISCONSIN,

OCT. 31 AND NOV. 1

and attend our Eleventh Semi-Annual Sale of

PURE-BRED GUERNSEYS

The Waukesha County Guernsey Breeders' Association have selected 75 head of the very choicest pure-bred Guernseys to be offered October 31st. From the standpoint of individuality, type and breeding, the offering of this sale surpasses anything yet placed in the ring by the Waukesha Association. Among this splendid collection will be found the following offerings: Advanced Registry cows with records as high as 696 pounds fat; daughters from cows that have records equally as large, some larger, and sired by sires of reputation such as Governor of the Chene, Lord Yeksa, Rhea's King of the May, Governor of Myrtle Place 2d, etc. A superb collection of young heifers have been consigned, a large number of which are bred and safe in calf to such sires as Florham Victor (a son of Ne Plus Ultra), Royal Rose King of Edgemoor Westmoreland Squire (a son of the famous Governor of the Chene), Dairymaid's Nonpareil of Iowa (whose dam has a record of 825 pounds of fat). Several males of special merit will be offered October 31st, one whose dam has a record of 717 lbs. fat, another 568 lbs. fat, etc. **November 1st** is the date of the grade and pure-bred male sale. Be on hand to buy some of these excellent individuals. You cannot go wrong by buying one of our bred-for-production bulls. Start a foundation herd with these grades and a pure-bred sire. About 60 grades will be sold and 25 males. Be one of the lucky purchasers. Remember the sale of **Red Cross Lady**, the beautiful Governor of the Chene heifer that will be sold October 31st, proceeds of which sale will go for Red Cross purposes. Auctioneers, Colonels Love, Baily, Benjamin, Hellen and Beaumont. Write for illustrated catalog to

F. E. FOX, Sec'y WAUKESHA, WIS.
WAUKESHA COUNTY GUERNSEY BREEDERS' ASS'N

TOO LATE TO CLASSIFY.

OXFORD BUCKS, Duroc Jersey boars. Poland China boars and fall pigs. Inquire of Frank Vandervort, Tomah, Wis.

SALE DATES.

Duroc Jersey Swine.

Oct. 30, J. J. Cain, Skyberg, Minn.
Oct. 31, F. S. Vanderhyde, West Concord, Minn.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Sloanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 28, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martin & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dorheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butz, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Oct. 17, G. W. Owens, Lawler, Iowa.
Oct. 23, Dreweley Bros., New Hampton, Iowa.
Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Oct. 27, Freeman & Rippey, Glenwood, Mo.
Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short Horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Oct. 23-24, Lake Mills Holstein Sale, Lake Mills, Wisconsin.
Nov. 7 and 8, Inter-County Holstein Sale, Watertown. Francis Darcey, Sec., Watertown, Wis.
Nov. 16, Waukesha Co. Holstein Friesian Breeders' Asso., W. L. Raud, secretary, Waukesha, Wis.

TOO LATE TO CLASSIFY.

A HIGH-CLASS PRIVATE HOLSTEIN SALE

WE ARE OFFERING 5 daughters having 25 per cent of the blood of Duchess Skylark Ormsby, 2 daughters of Sir Johanna Fayne, who has 50 per cent of the same blood as Segis Fayne Johanna, the only 50-lb. cow, 1 granddaughter of Homestead Jr. De Kol, 2 daughters of Canary Mercedes De Kol, 2 daughters from these cows bred to King Peter, a noted A. R. O. bull of the Harvey breeding, and 2 heifers and 6 small bulls by an A. R. O. sire. It is evident that this small herd represents the best blood of the breed and offers an opportunity to buy some good stuff right.

C. L. TURNER Springfield, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.

W. H. S. RHODA Watertown, Wis.

DUROC BOARS

SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Proud right.

PHILLIPS BROS. Delavan, Wis.

DUROCS Boars [illegible] sired by Col. S. Defender 2d and Critics Model Jr. Address [illegible] The Wisconsin Farmer, Jesse A. Cantiff, Juneau, Wis.

RED POLLED BULLS of serviceable age for sale. Also young stock either sex. Clover Bell Stock Farm, Hartford, Wis.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

BRUNKERS' ANNUAL FALL SALE OF

Select Poland China Boars

SALE TO BE HELD AT FARM 5 MILES SOUTH OF RIDGEWAY AND 4 MILES SOUTH OF THE LAKE TO RIVER AUTO ROAD

RIDGEWAY, WIS., WEDNESDAY, OCT. 24, '17

11 CHOICE YEARLINGS, 24 MARCH AND APRIL SPRING BOARS

OUR breeding stock came from some of the breed's most noted herds. Most of the boars are sired by Tom Mc 249359, a Big Tom bred boar. They have no wrinkles, no creases, but they are smooth with heavy bone. We don't expect exorbitant prices and we know you will get your money's worth. There are very few yearling boars in the country and if you want good, big, strong boars, attend this sale. We will not try to give the breeding in this limited space, our catalog gives that and we have one for you if you'll write for same. If you can't come to the sale, let T. P. Shreve, field man for The Wisconsin Farmer, buy one for you. We guarantee his selection to please you. Send bids in care of the sale. Don't forget the date and that you have a cordial invitation to attend this sale.

R. F. BRUNKER & SONS, Box 49, RIDGEWAY, Iowa Co., WIS.

Arrangements for Potato Show.

To the Editor:—On Friday, September 28th, all convention committees appointed in connection with the convention of the Wisconsin Potato Growers' Association met at the agricultural college. The executive committee of the State Potato Growers' Association submitted a report on the convention exhibit and on the convention program.

The following counties have now made definite entry for the state show: Barron, Burnett, Brown, Bayfield, Chippewa, Forest, La Crosse, Lincoln, Langlade, Marinette, Oconto, Oneida, Price, Portage, Rusk, Sawyer, Vilas, Waupaca, Waushara and Wood. There remain as yet six doubtful counties who may enter, bringing the total of counties in competition up to about twenty-five. This exceeds the early estimate of the state association.

The potato growers' association also discussed with local committees arrangements for the exhibit of machinery, equipment and supplies. Several manufacturers sent representatives to Madison.

It is evident the exhibit capacity of the large pavilion will be taxed to hold the many commercial exhibits now arranged for.

The state association is coöperating with the above twenty-five counties in the installation of the most attractive booth exhibits. Madison people will be able to see the finest in quality and most attractive agricultural exhibit ever shown in the state.

The state association is able to announce also unusual interest in surrounding states and it is now evident that large numbers of visitors outside of Wisconsin will be in attendance.

The state association now has on the press an illustrated circular containing complete announcement of the convention and exhibit features.

The following Madison committee met with the executive committee of the State Potato Growers' Association at the Park Hotel on Friday evening and discussed plans and convention arrangements: Burt Williams, chairman; Howard D. Piper, L. L. Olds and Julius Klueter. The Madison committee was very enthusiastic over the coming potato show and plans are now under way to secure full and complete coöperation from Madison and the southern section of the state.

J. G. Milward.

Poland China Sale at Lancaster.

The Grant county Poland China breeders held their second boar sale at Lancaster on October 2d and it was a decided success in every respect. It was one of the best lots of spring boars we have seen go through a sale ring this fall. They were well grown with good conformation. The top of the sale was consigned by Tommie Holmes and sold to Tarr Bros., New Auburn, Wis., for $142.50. He comes from the litter that Holmes won on at Milwaukee. The average made—$64.50—set a new record for a boar sale in the state of Wisconsin. The Grant county boys are trying to give Wisconsin Poland-Chinas that will be a credit to their breed. Many big-type boars of the very best breeding are being used in Grant county and those who have the idea that Grant county is a hot-bed for the little, medium-type kind, are mistaken. As mentioned above, the boys sold a good bunch of boars and were deserving of a good sale. With a couple of exceptions, the gilts were not as good as the boars. The good gilts are being retained for the sow sale, which will be held in Lancaster, February 7th. Ira Cottingham sold the offering in his usual manner. We follow with a list of those selling for $50 or over:

No. 1, H. J. Kettler, Platteville, Wis., $55; 2, J. H. Clayton, Belmont, Wis., $85; 3, David Bohl, Fennimore, Wis., $57.50; 4, Bert Keen, Lancaster, Wis., $57.50; 6, Wm. S. Williams, Dodgeville, Wis., $75; 7, L. N. Bunt, Platteville Wis., $87.50; G. B. Goke, Platteville, Wis., $72.50; 9, Tarr Bros., New Auburn, Wis., $142.50; 10, Fred Buchner, Spring Green, Wis., $95; 11, Wm. Clayton, Belmont, Wis., $67.50; 13, J. Knudson, Livingston, Wis., $55; 14, E. Vyverberg, Specht's Ferry, Ia., $57.50; 16, Walter J. Steinhoff, Platteville, Wis., $60; 17, D. McWilliams, Shullsburg, Wis., $82.50; 21, E. A. Cairns, Mt. Hope, Wis., $67.50; 22, O. H. Kettler, Platteville, Wis., $50; 24, Griswold Bros., Livingston, Wis., $100; 25, F. A. Morehouse, Lancaster, Wis., $80; 26, Jas. Derivan, Fox Lake, Wis., $67.50; 27, John Hillary, Darlington, Wis., $75; 29, Joe Huntington, Darlington, Wis., $52.50; 30, Wm. Brant, Fennimore, Wis., $62.50; 31, C. E. Tuffley, Boscobel, Wis., $50; 36, Aug. Doeringsfeld, Fennimore, Wis., $57.50; 37, Clay Knapp, Lancaster, Wis., $57.50; 39, Albert Henry, Lancaster, Wis., $82.50; 40, Tony Udelhofen, Lancaster, Wis., $52.50; 41, Geo. Wunderlin, Potosi, Wis., $62.50. Gilts: 12, G. A. Walker, Lancaster, Wis., $52.50; 19, Albert Henry, Lancaster, Wis., $75; 20, A. Beaumont, Belmont, Wis., $60; 38, J. Teasdale, Darlington, Wis., $50; 42, A. Beaumont, $60; 43, Ben Goke, Platteville, Wis., $62.50; 36 boars brought $2,320, average $64.50; 8 gilts brought $420, average $52.50.

THE MARKETS.

Union Stock Yards, Chicago, Oct. 6.—Declines which followed in the wake of last week's big marketing of cattle (a record week's supply in the aggregate around the market circuit), had the effect of curtailing receipts somewhat this week. This served to check declines and made possible some reaction in values, but the trade was handicapped by the temporary surplus of beef in packers' coolers which the preceding week's liberal runs provided and compared with the declines shown last week on most all classes the recovery has been slight. Given moderate receipts next week, however, the trade is expected to show a much better tone.

Receipts of cattle at Chicago the first five days this week total about 61,600 head, compared with 90,241 for the like period last week and 62,501 a year ago. Prime long-fed yearlings, the only class of cattle that failed to share in last week's vicissitude, are holding firm at the best prices of the year and last wek's $17.65 yearling cattle top has been repeated this week. Such offerings, however, represent less than one load in a thousand in current marketings and with top grades of handy and heavy weights are no criterion of the trade. There have been no heavy steers here this week good enough to sell above $17.40 and that kind are still at least 25 cents lower than the recent high spot. Outside the specialties, however, most of the native beef steers are now selling 10@20c higher than the bad close last week, but outside of the qualified kinds of thin and light-fleshed steers of stocker and feeder grade, there are few steers in native cattle marketings that do not still show declines ranging from 50c@$1.00 from the high time two weks ago, and good weight $12.00 to $15.00 grades are off more. Western range cattle, on the other hand, which are getting a decided preference from killers over grassy and warmed-up natives, are generally 25@50c higher than the close last week. Inasmuch as demand is exceptionally broad from all sources, there is every reason to expect that declines will be followed by curtailed receipts and quick recoveries and an upward tendency is expected to predominate during the balance of the season.

Despite a liberal proportion of butcher stuff in this week's moderate receipts of cattle, the trade shows a decisive reaction. Canners, cutters and common to medium heifers are fully 25c above last week's low time, while on the rank and file of the good to choice cows and heifers the market shows 40@50c advance, and everything is meeting with exceptionally good outlet, with the exception of the common to medium heifers, which are rather slow sale. The bull trade has also "come back," and last week's decline of 25@40c, which was mostly on the fat bulls, has been regained and the trade is again in very satisfactory shape. The calf trade also shows decided improvement and common to medium calves, which are in liberal supply, have recovered last week's 50@75c decline, while vealers which did not suffer much decline last week, are higher than ever, and choice light vealers are selling up to $16.

Good to choice classes of stock and feeding cattle are fully steady with a week ago and continue to get a broad, active demand. The more common stocker grades, however, are moving slowly. Good to choice 950@1,100-pound feeders are selling at $9.50@11.00, with high-bred fleshy kinds that command killer competition, selling as high as $12.50; medium to good feeders of the same weights are selling from $9@9.50 and fair to medium grades from $8@8.75. Good to choice 600@800-pound stockers are selling readily from $8.75@9.25, with selected kinds as high as $10; medium to good grades are in liberal supply and selling at $7.75@8.75; common to fair, $7.25@7.75, with off-colored, light-weight, little cattle of the dairy breeders from $5@6 per cwt. for canner purposes, according to the flesh they carry.

TOO LATE TO CLASSIFY.

Drewelow Bros.' Annual Poland Sale
New Hampton, Iowa, October 23, 1917
40 HEAD---25 BOARS, 15 GILTS

ALL OF SPRING FARROW and sired by Orphan Pawnee by Schug's Great Orphan by The Big Orphan. One extra good litter by Orphan Pawnee and out of Darkness 5th (full sister to junior champion boar at Des Moines, 1912) by Krumm's Chief Price. The other dams are by Big Model, King Mastiff, Big Wonder, Baron and Big Black Orange. We have the money-making type of Polands. Write for catalog, mentioning The Homestead. G. H. Burg, auctioneer. Address
DREWELOW BROS. :: :: :: :: New Hampton, Iowa

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

OAK LAWN SHORT-HORNS

YOU SAW MY CATTLE at the state fairs and have read the report of my winnings. I have young bulls of the same breeding for sale.
"Scotch Short-horns of Quality."
J. E. KENNEDY :: :: :: Janesville, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312016 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

Short-horns
MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

BLODGETT
Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

WORLD'S FAIR HERDS

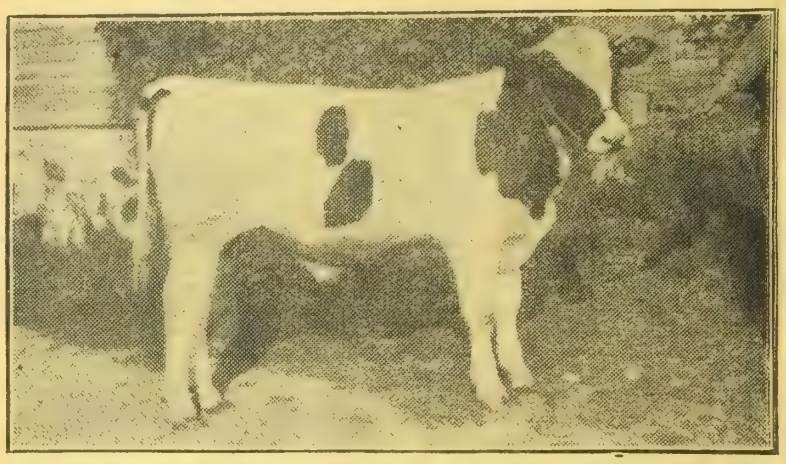
SHORT-HORNS. POLAND CHINAS.
OFFER boars and bulls by VILLAGE MAYOR [illegible] SOWS [illegible]
We please our customers. Write or visit.
O. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several good bulls from heavy MILKING DAM. Let me describe them.

SOME LAKE MILLS CONSIGNMENTS

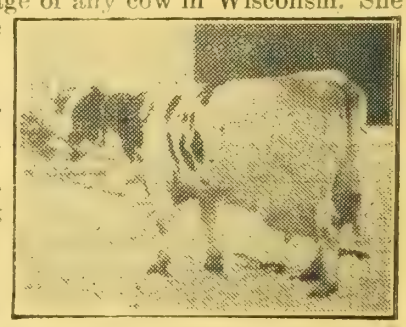
LAKE MILLS HOLSTEIN SALE OCTOBER 23-24



Beveridge's 33-Pound Bull

Sir Ormsby Homestead Butter Boy

is a handsome individual as shown by the illustration. Sire: **Canary Fobes Bessie Homestead (101266)** out of a 31-pound daughter of Homestead Jr. De Kol. Dam: **Windsor Sweet Butter Maid (174536)** 19.50 pounds at 26 months, 24.67 pounds at 3 years, 27.69 pounds at 4 years, and 33.48 pounds at 5 years. Has the largest record for her age of any cow in Wisconsin. She is by Sir Ormsby Johanna De Kol and out of a daughter of Pontiac Butter Boy. We are also consigning a 25-lb. cow, Minita Ormsby De Kol, a fine individual and a 3-4 sister of Windsor Sweet Butter Maid, due to freshen at sale time.



Look for field note in this issue for more detailed information concerning the 33-lb. bull calf.

C. M. Beveridge
Lake Mills Wis.

Hetts' Yearly Backing Consignment

John D. Hetts, of Fort Atkinson, Wis., is consigning some choice young stock from his high-producing herd, which has a semi-official yearly record that is hard to equal. **The average of all the yearly records made in this herd is 16,800 lbs. milk and 711 lbs. butter.**

Last spring Mr. Hetts consigned **Lilith King of Rock**, the beautiful 29-lb. son of King Segis Pontiac, that topped the sale at $1,500, and this fall he is consigning a **26-lb. son of King Segis Pontiac**, as well as another young bull whose three nearest dams average over 1,000 lbs. butter in a year.

John D. Hetts
Ft. Atkinson Wisconsin

Fisher's Consignment of Show Cattle

John L. Fisher, of Janesville, Wis., who exhibited the **junior champion bull** and took four firsts, five seconds, two thirds and two fourths at the Wisconsin State Fair this year, is consigning seven head of his show herd.

He is also consigning a fine daughter of **King Alcartra De Kol Pontiac**, a 36-lb. bull and a 22-lb. three-year-old daughter of King Peter, who has 33 A. R. O. daughters, including a 35-lb. cow.

Mr. Fisher is consigning an outstanding yearling show heifer and a four-year-old cow bred to Juliana King Repeater.

John L. Fisher
Janesville Wisconsin

Milford Meadows Stock Farm Consignment

Eleven head are consigned from our herd to the Lake Mills sale this fall, including **Comedia Hengerveld Queen (159027)**, a promising young cow with 25.53 lbs. at 4 years that is a granddaughter of The Milk and Butter King and bred to our 31-lb. herd sire, Canary Fobes Bessie Homestead.

Also **Johanna Ormsby Wayne De Kol (177756)**, 24.76 lbs. at 4 years, a daughter of Sir Ormsby Johanna De Kol and a half-sister to Windsor Sweet Butter Maid, 34.49 lbs.

Also **Nellie De Kol Artis 4th (169921)**, an A. R. O. show cow bred to our 31-lb. sire, and **Daisy Johanna Segis (276840)**, a three-year-old daughter of **Johanna McKinley Segis**, out of a granddaughter of Colantha Johanna Lad Paul Beets De Kol. This heifer is a splendid individual and one of the choicest things in the sale. She is bred to our 31-lb. sire.

Also **Eva Mercedes Colantha (164815)**, an A. R. O. granddaughter of Colantha Johanna Champion and bred to Mutual Fobes Longfield De Kol; **Aurora Ormsby Longfield (187282)**, an A. R. O. daughter of Longfield Sir De Kol, bred to the 31-lb. bull, and **Hettie Mercedes Homestead (137655)**, that has three A. R. O. daughters, including one with 31.17 lbs.

Our offering also comprises two daughters of **Canary Homestead Oak De Kol**, that has 25 A. R. O. daughters, one of them having 22.82 lbs. as a junior two year old; a daughter of **Canary Fobes Bessie Homestead**, that has a 28.18-lb. three-year-old daughter; and two cows bred to **Lilith King of Rock**, that topped last spring's Lake Mills sale at $1,500, a son of King Segis Pontiac.

Emmons Blaine, Prop.
Lake Mills -:- Wisconsin

Reed's Salma Consignment

We are consigning four of the best individuals from the choicest family in our herd. The 31-pound 8-months old bull calf out of our three times 30-pound cow, **Salma Gewina De Kol (126795)**, and sired by **Sir Korndyke Bess Pietertje (123100)** is the best bull we have ever bred. His dam made 25.90 lbs., 30.21 lbs., 31.05 lbs. and 30.59 lbs. in 3 years, 11 mo. and 28 days and has four heifers and a bull calf in the herd. His sire is out of a 22½-lb. 2-year old full sister of Bess Pietertje Ormsby Mercedes (33.15-lb. jr. 3 yr.) that is one of the greatest cows in the E. C. Schroeder herd. We are also consigning a 21-lb jr. 3-yr.-old daughter of Salma Gewina De Kol, 31.05 pounds and her heifer calf sired by Sir Korndyke Bess Pietertje. Also a bull calf from a 24.59-lb. 2-yr.-old half sister of the 31-lb. cow by same sire. See field note.

W. H. Reed Palmyra, Wis.

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use

at six months

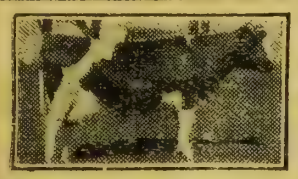
YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN

Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis.



Milford Meadows Stock Farm

OFFERS FOR SALE a very well-bred bull calf by Dutchland Creamelle Denver Prince (165048) that is better than a grandson of Colantha Johanna Lad and out of Canary Ormsby Johanna De Kol, a 28-pound three year old, 111.95 pounds in 30 days, which is practically a perfect individual. Write for extended pedigree. Other bull calves out of A. R. O. dams by same sire for sale.

EMMONS BLAINE, Prop. Lake Mills, Wis.

We Do Not Claim the World's Record, But We Do Claim a World of Records

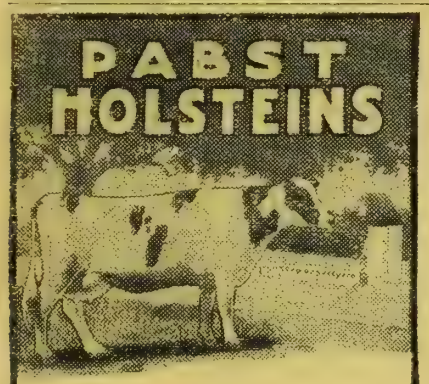
16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol**, one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS Fort Atkinson, Wis.

HILLSIDE HOLSTEINS

WE HAVE TEN REGISTERED COWS for sale and one heifer. All cows have A. R. O. records but one; some due to freshen soon. Prices, $150 to $300. Extra large cows, good dairy type.

KIRKPATRICK BROS. Reedsburg, Wis.



Are playing an important part in the development of the Holstein Breed in America. There are over 300 head in this State Accredited herd.

We sell bull calves at a price ranging from $150 up. Send for list.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc Wisconsin
Box F

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.

TULLOCH FARMS Genoa, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER Sheboygan Falls, Wis.

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.

L. V. GARVENS R. 12, Brookfield, Wis.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address

B. F. SCHAUB Honey Creek, Wis.

Considered from every angle PURE-BRED

HOLSTEINS

Are the Most Profitable Breed

They produce more milk and butterfat for less feed cost and less labor cost than any other breed. These facts are proven by comparison of statistics available on all pure-bred breeds. Write for information. It is free.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

Lake View Farm
Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,000 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.

FRED GURR Lake Mills, Wis.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

JOHN NORTH Kilbourn, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write W. C. KENYON & SONS, ELGIN, ILL.

CRATED BULLS

HOLSTEINS of good breeding, good individuals. Priced cheap. Write

GEO. A. WILSON Nielsville, Wis.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch**, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.

GEO. W. BROWNE, Prop. Waukesha, Wis.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

ALLIO S. KNUDSON Brodhead, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write

FOX BROTHERS Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.

F. E. FOX Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

YEARLING GUERNSEY BULL READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. BREITRICK GREENVILLE, WIS.

JERSEY CATTLE.

Jersey Bull Calf

DROPPED April 4, 1917; solid grey in color; sired by Pennithorpe's Knight 131926, first prize Wisconsin State Fair 1916. Pennithorpe's Knight is by Pennithorpe's Raleigh and his dam is by Gamboge's Knight. The dam of this calf is in Register of Merit Class A. A., with 449 lbs. of butter at 3 years 2 months of age. Price $75. Shipped on approval.

P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE: 1 register of merit cow, age 6 years; 2 yearling heifers; 1 bull, ten months old. Write for particulars or come and see them.

W. M. KNIGHT, Eagle, Wis.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.

FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write

H. HOLT & SON Oconomowoc, Wis.

HOLSTEIN-FRIESIAN CATTLE.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.

E. B. WATROUS Troy Center, Wis.

Olathe-Holsteins

HERD SIRE—Sir Beso Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.

JOHN L. FISHER Janesville, Wis.

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.

$25—HOLSTEINS—$25

WAUKESHA COUNTY high-grade calves. Either sex, shipped to your station, express prepaid, safe arrival and satisfaction guaranteed. Order now.

J. A. ROBERTS Oconomowoc, Wis.

REG. GUERNSEY BULL CALVES

OF SERVICE AGE—Grandsons of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent,

LABELLE KNOLL FARM Oconomowoc, Wis.

GUERNSEY GRADES FOR SALE

SIX GRADE HEIFERS from 11 to 18 months of age. All are well marked, well grown and from high-producing cows. Herd on state accredited list.

H. N. LONGLEY Dousman, Wis.

A FEW WELL-BRED YOUNG BULLS — The Hariem Farm — WRITE YOUR WANTS

Emory C. Meitz GUERNSEYS Appleton, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

W. G. JAMISON & SONS Appleton, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS

Females and Bulls for Sale

Write the following breeders:

J. B. Ahlers	West Bend, Washington	County
C. S. Arnold	Holcombe, Chippewa	County
Edward Bennett	Black Earth, Dane	County
J. O. Baker	Wagner, Marinette	County
Byron Curran	Taylor, Jackson	County
L. F. Bigelow & Son	Brooklyn, Green	County
J. W. Martin & Son	Gotham, Richland	County
Wm. Radke	Black Earth, Dane	County
J. W. Salter & Sons	Unity, Marathon	County
L. C. Underwood	Avoca, Iowa	County
J. F. Wulff	Grafton, Ozaukee	County
Wm. Wulff	Grafton, Ozaukee	County
Henry Zeigler	Middleton, Dane	County
John A. Curran	Sechlerville, Jackson	County
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Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see

J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.

L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

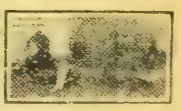
HAMPSHIRE SWINE.

DELLBROOK FARM HAMPSHIRES

Home of the grand champion boar,

DELLBROOK MALOY

OFFER spring BOARS and GILTS sired by the above CHAMPION. Also a large assortment of fall pigs, either sex. 200 head to select from.



"The Best in Hampshires."

A. L. DAMON Richland Center, Wis.

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

Wis. Live Stock Auctioneer

Let me conduct your sale

Call or write me at

BRIDGEPORT - - - - WISCONSIN

POLAND CHINA SWINE.

OWENS' ANNUAL SALE OF BIG-TYPE, BIG-BONED AND PROLIFIC

POLAND CHINA SWINE

Lawler, Iowa, Wednesday, Oct. 17, '17

40 HEAD, 17 boars and 23 gilts of March and April farrow. They are the top of our spring crop, the best we have ever offered. They are the real 800 and 1,000 lb. kind and if you are looking for size, length, bone and prolificacy you will find it in this offering. The sows are in the very best of breeding order and will do the farrow good. The largest spring pig to sell this year for his age is by Blue Valley Jr., a John Miller and T. E. Walker-bred boar. His dam is Belle B., the dam of I Am Bacon, the largest hog in northern Iowa for his age. He is out of a litter of sixteen. Another good litter by Blue Valley Jr., and out of Owens' Kind. Miss Countess has a good litter by Blue Valley Jr., the best bred Giantess sow living. Nemo P. is a good litter by I Am Bacon. Big Lady has an extra good litter by I Am Bacon. You will find real herd boars in this offering. The best litter to sell this year is by Big Price and out of Lone Bacon. Big Price was the Minnesota and South Dakota grand champion boar. Auctioneers, Geo. Burgt, J. Z. Wells and S. E. Johnson. Write for a catalog, mentioning this paper. Address

G. W. OWENS **LAWLER, IOWA**

POLAND CHINA SWINE.

MASTER'S GIANT
ORANGE WONDER, YOUNG'S BIG JOE

THE GREATEST TRIO of Poland boars doing service in one herd. I CATER TO PARTICULAR BREEDERS. Boars for registered herds. Correspondence invited.

P. W. YOUNG :: :: :: Box 100, Prosper, Minn.

Bred Sow Sale, February 5th.

Where Champions Originate

AT MILWAUKEE—First on aged boar, senior boar, junior boar, fall boar. First on aged sow, senior sow, junior sow and spring pig. Grand champion boar and sow. We won more prizes than any other breeder. **Buy your boar from the Champion Herd of Polands.**

J. D. McDONALD :: :: :: North Bend, Wis.

(Bred sow sale February 6th.)

FOR UALITY AND UANTITY WRITE

Boars and Gilts

POLANDS

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write

W.W. **UACKENBUSH (Jackson Co.) MELROSE, WIS.**

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

BEST EVER

WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain head."

WM. SMILEY & SONS Albany, Wis.

---

50 BIG-TYPE POLAND CHINA SPRING BOARS AT $40.00 EACH

Double treated, and we record them. They will be worth $40.00 on the market by the time you are ready for their service. Farrowed in last of February, March and April, the greatest lot of high-class pigs we have ever raised, long and deep bodied, heavy boned, nicely marked and good backs.

They are **from the most noted families of the great breed, sired by Giant Jumbo 2d, the 700-lb. year-old son of Giant Jumbo,** whose sire was the 1,055-lb. Mead's Halvor 1st; his dam sired by the 1,000-lb. and over Big Bone 2d, his grandam by Mouw's noted Big Jumbo. There is no bigger breeding. Others by **Long Expansion, a 900-lb. two year old, and Pawnee Wonder, a 1,000-lb. son of A Wonder.**

The dams are sows weighing from 600 to 800 lbs. and over, of the most intense big-type blood lines. **Buy your boar now and save from $20 to $50.** Boars will be high and scarce this fall.

Send your check right with the order, tell us the kind of a boar you want and we will send him or return your money. Come and see our herd. one of the **greatest in America,** as well as one of the most up-to-date, pure-bred stock breeding establishments.

W. H. COOPER, HEDRICK, IOWA.

MADSON & SONS' BIG-TYPE POLANDS

HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PFANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.

M. MADSON & SONS Also Dual Purpose Short-horn Bulls. R. 4, Madison, Wis.

BIG-TYPE POLANDS

SMOOTH BIG BONE A 2D.

Sire Smooth Big Bone A (81,125), by the champion, Smooth Big Bone.

GOLDENGATE COLUMBUS.

Sire Columbus Pan; dam, by Goldengate King.

MY HERD HEADERS.

OFFER 25 SPRING BOARS sired by the above and **every one out of a big-type sow.** Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.

J. F. DILEY :: :: :: RUSH LAKE, WIS.

(Shipping point, Waukau on Milwaukee Railway.)

Oxfords Polands

Big strong boars that will please.

Sows bred to farrow this fall—gilts and boars. Best big types.

SHORT-HORNS

What do you want?

P. N. COLLINS RIVER FALLS WIS.

---

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.

R. MEINKING Bangor, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write

WM. F. ACKERMAN GLEN HAVEN, WIS.

"Grant County."

BIG-TYPE POLAND CHINAS

BOARS AND GILTS, March and April farrow. Also sows bred for September farrow. Reasonable prices.

A. W. COLE :: R. 1, Lodi, Wis.

$35 to $50

12 GILTS—POLANDS—10 BOARS sired by Liberty Wonder, Hauk's Orange and Mammoth Wonder. Strictly big-type and guaranteed to PLEASE YOU.

WM. HAUK "Grant County" Cassville, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.

JULIUS PETERSON Kilbourn, Wis.

---

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.

HAUK BROS. Cassville, Wis.

"Grant County."

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.

ED W. HENDRICKS Hazel Green, Wis.

Dobson & Eastman

LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Reasonable. Also Oxford ram lambs.

"The Home of Polands."

"Grant County."

Quality - Size
Prepotency - Breeding

DON'T TAKE WHAT'S LEFT, buy your POLAND boars and gilts early. Choice pigs by BIG TYPE JIM and BIG BEN H. They must please YOU and be as represented or your money back. Write me.

F. A. MOREHOUSE Lancaster, Wis.

(Grant County.)

LIBERTY SPRINGS POLANDS

BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the sows have been well grown. Fall show pigs that make customers.

L. D. EASTMAN Lancaster, Wis.

"Grant County."

GUARANTEED POLAND BOARS

WE CAN SHIP you big-type boars that will give good satisfaction. Try me with an order.

AUG. NEESEMAN Warren, Ill.

(Farm in Wisconsin.)

CHESTER WHITE SWINE.

CHAMPION CHESTERS
OF THE NORTHWEST

HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The boars I now offer are suitable to head the best herds. We cater to particular buyers.

EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. - - - Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.

B. H. BABCOCK Evansville, Wis.

For Sale at Market Price

REGISTERED Chester White boar, one year old. Son of grand champion boar at state fair, 1917.

KIRKPATRICK BROS. Reedsburg, Wis.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.

L. J. McBAIN Bloom City, Wis.

(Shipping point, Viola.)

CHESTERS

BIG, STRETCHY, HIGH-BACK BOARS—Guarantee them to please the buyer or no sale. Will also sell some choice gilts. Priced for quick sale.

A. L. KIRST Tomah, Wis.

(St. Paul or N. W. R. R.)

J. A. DOERR

VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

CHESTER WHITES

OFFER spring pigs, either sex, sired by WM. A. WONDER, CHIEF FILMORE and SCHOOLMASTER 38TH, these sires are the most popular boars of the breed. Add new blood.

JOHN PELLETT & SONS Viola, Wis.

"PAY STREAK"

GRAND CHAMPION CHESTER WHITE BOAR, MILWAUKEE, 1916. Spring boars sired by PAY STREAK. Choice pigs and pedigrees pick.

WM. F. BUTTS Evansville, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.

WALTER GEORGE Evansville, Wis.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for the fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.

ART. G. HOSKINS Dodgeville, Wis.

Mile west of town.

POLAND CHINA SWINE.

HOW MANY?

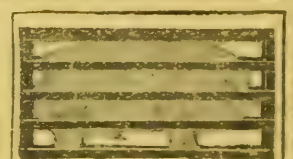
THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write

JAS. DERIVAN Fox Lake, Wis.

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.

LOUIE REESE Brooklyn, Wis.



CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.

Box 13 J. FISHER & SON Eastman, Wis.

CHESTER WHITES

40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.

L. A. SCHULTZ R. 1, Poynette, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.

ADOLPH NUTTLEMAN West Salem, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.

CARL HICKCOX R. 3, Spring Green, Wis.

YOUR CHANCE

50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.

CHAS. ROGERS & SONS Union Center, Wis.

CHESTER WHITES

Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs; the kind that [illegible] at the state fairs. Herd headed by Jackson Chief, Lester, a son of a champion, and Cotton Ball, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write.

S. D. & B. H. Frost, Kingston, Mo.

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write me what you need for your next breeding ram.

GEO. McKERROW & SONS CO., Pewaukee, Wis.

SHROPSHIRES AND HAMPSHIRES

YEARLING RAMS, ram lambs. The Renk guarantee with every sheep. Write

W. F. RENK & SON Sun Prairie, Wis.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal, 2, 3, 4 and 5 yr. old some, [illegible]

FRED CHANDLER, R. 7, Chariton, Ia.

DUROC JERSEY SWINE.

L. F. ATWATER'S FALL SALE

AT THE

"HOME OF BIG DUROCS"

BANGOR, WISCONSIN

Wednesday, Oct. 17, 1917

40 HEAD OF BOARS AND GILTS

Including 30 of the best boars to be sold in the Northwest this fall. Featuring boars of breeding new in Wisconsin.

INVESTOR JR.

A yearling son of Investor, one of the best herd boar prospects I ever sold; **fall boar** by the old champion, Lee's Defender; the first-prize boar pig at Minnesota; all of my show boars, sired by the junior champion, **Proud Chief Jr.**; some by the great breeding boar, P. S. Wonder; two spring boars by **Investor**; two by **Dreadnaught**, and some by **Model King** and **Illinois King. The dams:** Proud Helen 2d, the grand champion at Milwaukee; Rising Star 2d, full sister to Defender Queen, the grand champion of 1916; Ohio Nellie by Walt's Top Col. ($175 sow), the top sow of the Shanks sale ($310), and daughters of King the Col., Col. Gano and Lee's Defender. **Never before have I offered the public such an array of popular blood lines.** Am selling 10 gilts, including my futurity gilts. Be sure and write for a catalog of this sale. I. E. Stickelman, auctioneer. Mail bids should be sent to T. P. Shreve, field man for The Wisconsin Farmer. Address

L. F. ATWATER BANGOR, WISCONSIN

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.

ISAAC HIGGINS (Richland County) Gotham, Wis.

KING ORION

GRAND CHAMPION, Minnesota; grand champion, Wisconsin; son of Orion Cherry King Jr., grand champion at Omaha. We have Duroc Jersey boars for sale. Enough said.

E. H. PARKER & SON :: :: :: Janesville, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.

J. W. HIGGINS :: :: :: Gotham, Wis.

ORION KING

I HAVE JUST PURCHASED the best spring boar sired by the **grand champion,** KING ORION, to head my herd of Durocs. Will have gilts for sale bred to ORION KING. Just now have a few good boars for sale. Write me.

MIKE STOEHR :: :: :: Viroqua, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.

JERSEYS—Herd in the accredited list. Young bulls for sale.

F. R. CONSTANCE & SONS, Waupaca, Wis.

--- E. J.'s ---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,
DUROC BOARS sired by above for the particular buyer.

JOHN SWENSON Willmar, Minn.

ORION COL.S.

FIRST PRIZE DUROC BOAR, Minnesota State Fair. Will be mated to some of the best sows in Wisconsin. Have some spring boars for sale. Inspection invited.

W. O. JENKINS Bangor, Wis.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.

L. M. SCOTT & SONS (Grant County) Bagley, Wis.

DUROC JERSEY SWINE.

Silver Trophy
WON BY
Martiny's Durocs

IN THE OPEN CLASS and the Futurity we won: First, fourth and fifth on boar pigs; first, fourth and fifth on sow pigs; first and third on litter. These winners and their litter mates are for sale. Buy from a winning herd. Gilts reserved for our sow sale, January 31st.

RILEY MARTINY & SON, Baraboo, Wis.

DUROCS
GILTS
BOARS

MAR. AND APRIL FARROW, sired by three choice boars. We guarantee satisfaction. Order now.

GEO. D. SPRAIN & SONS, West Salem, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write

WM. EDGE Fennimore, Wis.
"Grant County."

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.

W. G. BARTHOLF Burlington, Wis.

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.

R. C. CHURCH Elkhorn, Wis.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

F. H. BURT :: Brodhead, Wis.

Homestead Durocs

THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write

M. H. O'KEEFE & SONS Waunakee, Wis.

SALABLE DUROCS

ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?

FRED G. MATTHES Viola, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire

ROY HORSFALL Mt. Hope, Wis.
"Grant County."

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.

CLARENCE GEORGE Evansville, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

McCLURG BROS. Viroqua, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

When writing to advertisers kindly mention The Wisconsin Farmer.

Walter Bros., Chippewa Falls, Wis.
HEREFORDS

CAN SELL YOU A BULL, well grown, well bred and well worth the money. Our bulls are our advertisers. Correspondence and inspection invited.

ABERDEEN ANGUS CATTLE.

RAISE
BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steuhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

DUROC JERSEY SWINE.

S S

"KING THE COL'
"PATHFINDER"
"LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

This gives me the very best breeding. Offer spring boars with size, with quality, with stretch. They cost more, but they are worth it. The "ordinary" boars went to Chicago—if you want GOOD DUROCS write me. Gilts reserved for my sale, January 29th.

DENNIS SHEA Melvina, Wis.
(Near Sparta)

Introducing Orion Cherry Col.

SIRED BY WALT'S TOP COL., dam by Orion Cherry King, an excellent Duroc herd boar, and a great pedigree. Fall pigs for sale.

RUNDE BROS. Cuba City, Wis.

DUROC BOARS

BIG, RUGGED FELLOWS, bred right and priced right. Yearling son of KING DEFENDER (600 lbs.) for sale. Write me.

FLOYD SELCK :: Hanover, Wis.

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.

JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

W. W. Goodrich
Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Detective Major (McKee), only boar in the state with this breeding. I guarantee to please.

DUROC BOARS

AND Scotch-topped Short-horn bulls for sale; bulls 10 to 15 months old. Duroc boars, $30.00, buys the best of them. **OAKWOOD STOCK FARM, J. D. Beetham, Lancaster, Wisconsin.**

STATEMENT OF THE OWNERSHIP, management, circulation, etc., required by the act of congress of August 24, 1912, of The Wisconsin Farmer, published weekly at Des Moines, Iowa, for October 1, 1917.

State of Iowa, County of Polk, ss.

Before me, a Notary Public, in and for the state and county aforesaid, personally appeared J. W. Wickham, who, having been duly sworn according to law, deposes and says that he is the Assistant Business Manager of The Wisconsin Farmer, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher—James M. Pierce, Des Moines, Iowa.
Editor—James Atkinson, Des Moines, Iowa.
Managing Editor—James Atkinson, Des Moines, Iowa.
Business Manager—James M. Pierce, Des Moines, Iowa.
Assist. Bus. Mgr.—J. W. Wickham, Des Moines, Iowa.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)

The Wisconsin Farmer Pub. Co.
James M. Pierce, Des Moines, Iowa.
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3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

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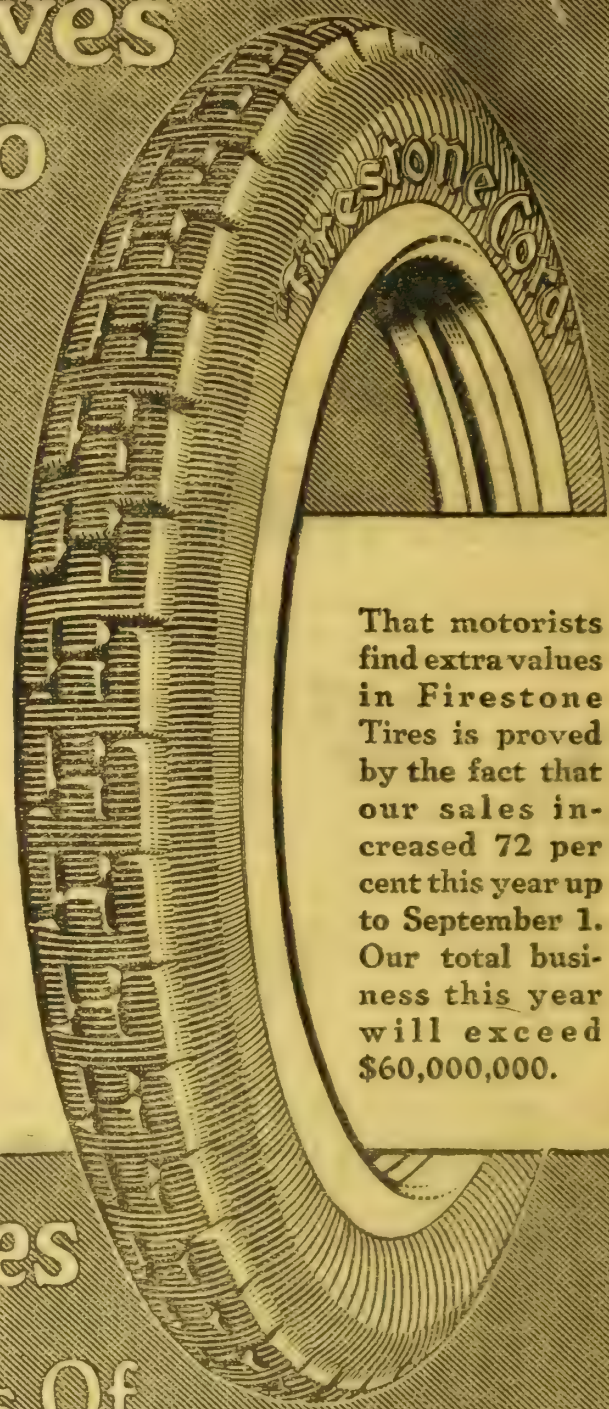
Louisa Bird Hyde Estate, Des Moines, Iowa.
Equitable Life Ins. Co., Des Moines, Iowa.

J. W. WICKHAM,
Assist. Bus. Mgr.

Sworn to and subscribed before me this 1st day of October, 1917. M. M. LOWMAN.
(My commission expires July 4, 1918.)
(Seal.)

Actual Service Gives Leadership To Firestone SUPER CORD TIRES



WITH numerous makes of cord tires contesting, the past year has witnessed the sharpest rivalry for Tire Supremacy that motordom has ever known.

In this contest the Firestone Super Cord rightly came into its acknowledged leadership, rightly because of the construction which is designed to produce strength, durability and flexible action.

The body of the Firestone Super Cord Tire is built of walls of stout cord, each cord imbedded in pure gum, no two cords ever touching to cause friction. The cushion (which is under the tread to absorb shocks and protect the inner body) is a thick layer of pure gum; the tread is tough and thick. The beads which hold the tire in the rim are specially reinforced. The sidewall is also reinforced, giving extra strength against rim-cut and raising the bending point of the tire safely high. More mileage at less cost. Users of Firestone Cord Tires are getting the highest average mileage enjoyed by car owners.

That motorists find extra values in Firestone Tires is proved by the fact that our sales increased 72 per cent this year up to September 1. Our total business this year will exceed $60,000,000.

New Fabric Tire Features Suggested By Success Of CORD CONSTRUCTION

Firestone FABRIC TIRES

have benefited by every feature of cord tire construction which can be used to advantage. THICK, TOUGH TREAD gives longer surface wear. MORE RUBBER BETWEEN LAYERS. Added protection against internal friction and greater resiliency. THICK CUSHION STOCK. Still more resiliency, protection against tread separation and stone bruise. REINFORCEMENT IN SIDE WALL. Greater strength at the bead. Firestone dealers will show you a cross section of the newest output of FIRESTONE FABRIC TIRES, explaining the features that add more miles to Most Miles per Dollar.

FIRESTONE TIRE AND RUBBER COMPANY
Akron, Ohio — Branches and Dealers Everywhere

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 42. THURSDAY, OCTOBER 18, 1917. WHOLE NO. 1864

Grades Not Good Enough

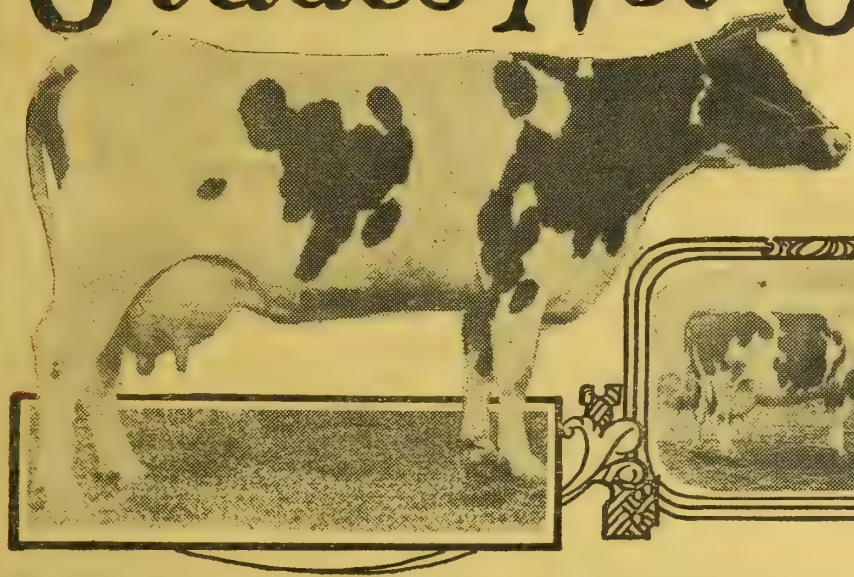


Illustration at the left shows Bluebird Homestead Aaggie Model, aged five years, 24.88 pounds of butter and average of eighty-three pounds of milk or 581 pounds in seven days. This cow, by Fobes De Kol Homestead by Homestead P. De Kol, has three daughters and two sons. Illustration just beneath shows four generations, from left to right as follows: Hengerveld Model Aaggie Grace, 24.5 pounds of butter, six years, four daughters and two sons; Duchess Aaggie Grace, twenty-six pounds butter, five years, four daughters, two sons; Bluebird Canary Duchess, not tested, one daughter.

SID BIRD, Fond du Lac county, Wisconsin, figures that he has made three important changes for the better in his life. He changed from city to farm when he was 21; he changed from beef cattle to dairy cattle a few years later, and he changed from grade dairy stock to pure-bred Holsteins. Each step was carefully considered before it was taken and each has brought profit and satisfaction with it.

Though farm born, Mr. Bird never had the opportunity to learn farming during the time when it is most easily learned—in the growing years—for his folks left the farm when he was 10 years old. In the little town to which they moved, the position of clerk and manager of the store led the way to business life. However, at the age of 21, the business end did not appeal to Mr. Bird, and, looking at it from any angle, he could find nothing attractive in the prospect of being a city man forever.

Friends and relatives gave him just one year to become tired of farming and convinced of his unfitness for the work. Instead, however, Mr. Bird was so satisfied at the end of the twelve months that he purchased more live stock and went into debt some more. The first revenues came from poultry. This led to greater things—beef cattle. While the beef end was profitable it somehow or other did not satisfy.

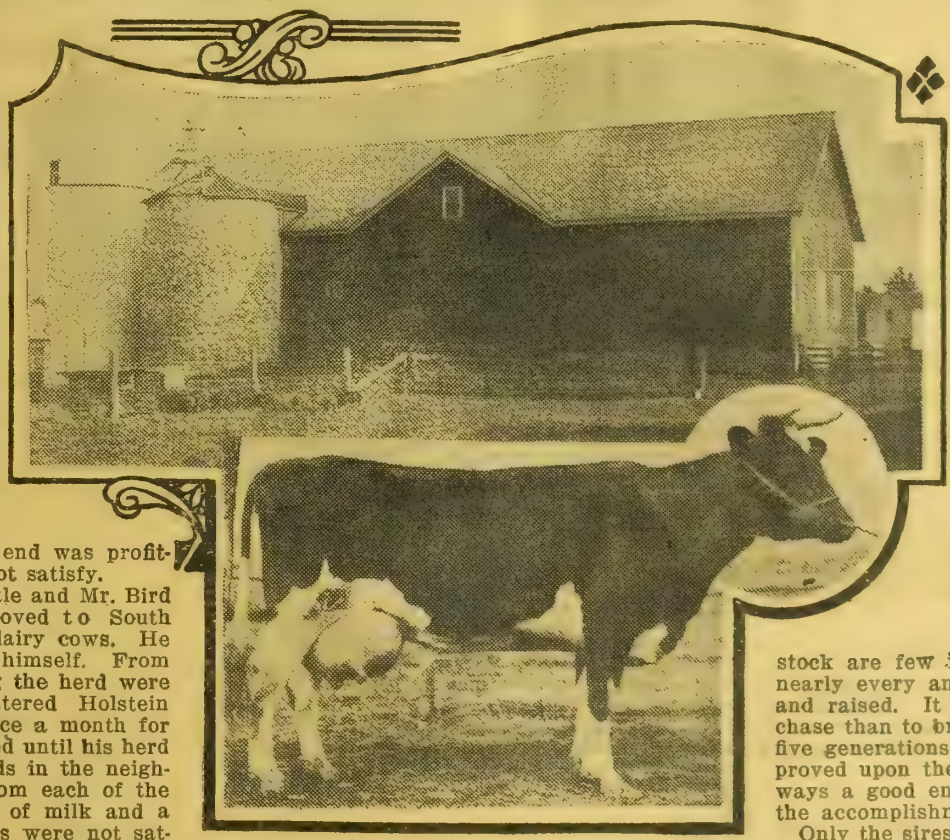
A few more years of beef cattle and Mr. Bird sold the farm he had and moved to South Byron and switched to grade dairy cows. He knew now that he had found himself. From the first his ideas of improving the herd were sound. He purchased a registered Holstein sire. He ran his own tests once a month for every cow and weeded and culled until his herd was one of the best grade herds in the neighborhood. His average yield from each of the grade cows was 15,000 pounds of milk and a calf each year. But the results were not satisfactory even then. Calves from grades do not sell as well as pure breds. His business training made him able to see that more dollars would come his way if he could invest money in higher-priced stock.

Pure breds were the answer. He purchased four two-year-old heifers from a well-established dairying community in the East, and with these laid the foundation for his present excellent herd. One of the four was killed by lightning soon after dropping her calf, so no record could be made from her. The others now have records of 29.09 pounds, 28.03 pounds and 24.5 pounds of butter per week, respectively.

There are 150 acres of land in the farm seeded to corn, oats, rye, alfalfa and clover. Sometimes barley is sown for a nurse crop. Clover is sown with alfalfa, giving a yield of clover the first year and alfalfa for the following years. Sometimes clover is sown separately with timothy for hay during the first year and pasture the next.

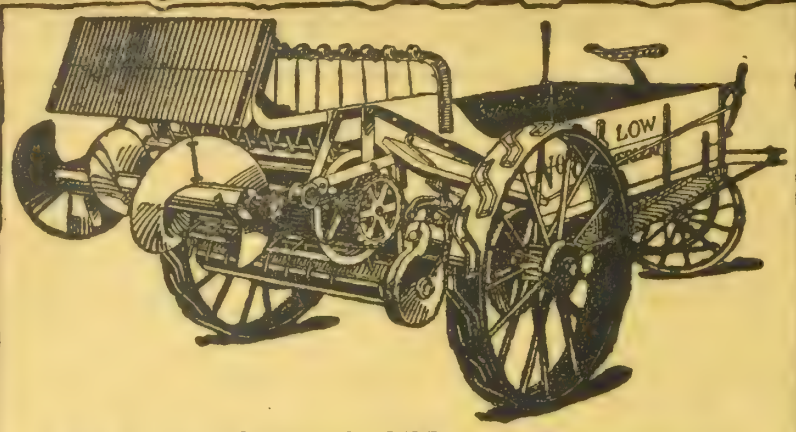
In choosing his herd headers Mr. Bird is extremely careful to select for size and type. If an animal has these two points the pedigree is looked up. If this is satisfactory on both the dam's and the sire's side, Mr. Bird will buy. If any of the three points is lacking the others can hardly be good enough to make up the one that is lacking. Especial consideration is given to the length from the hip to the pin bones and the manner in which the thighs are arched. Plenty of room for the udder is only possible where the thighs are clean cut and well arched. These two points are so uniformly present in the individuals of all ages of Mr. Bird's herd that the visitor cannot help noticing it. Excellent herds of home-bred stock are few in number. But on this farm, nearly every animal on the place is home bred and raised. It is often more advisable to purchase than to breed. But where a man has bred five generations of high-producing cows and improved upon the stock he started with, it is always a good enough reason for taking pride in the accomplishment.

Only the sires that have type, size and a satisfactory pedigree find a home at Mound Prairie Stock Farm. Mooie's Ormsby Count, herd header for the grades, was sold when the pure breds came because his dams and grandams had no rec-



Upper Picture—Rear view of Sid Bird's dairy barn, Fond du Lac county, Wis. Lower picture—Hilda Ormsby Grace, age five years, 560 pounds of milk, twenty-six pounds butter. By Moore Ormsby Count, out of Piebe Ormsby Duchess, twenty-nine pounds. Three A. R. O. daughters, two not tested.

(Concluded on page 17.)



No. 8 Spiral Wide Spreader

Latest in International Harvester Spreaders!

WE have added the New No. 8 Spreader—Spiral Wide Spread, Light Draft—to the **Low Corn King** and **Low Cloverleaf** lines. We are in a position to suit exactly any regular farmer, whatever his previous spreader experience may have been.

Grasp an opportunity to study the features of the No. 8, the spreader for every average farm, the lightest draft spreader made. No. 8 has the famous International spiral wide spread that has thoroughly demonstrated its success as a wide-spreader for all-around use. In addition, the **Low Corn King** and **Low Cloverleaf** lines provide you with your choice of larger capacity spreaders, with the regular disk-wide-spread (well-known wherever spreaders are sold) or with the spiral spread on special order.

The New No. 8 Spiral Wide Spreader and other **Low Corn King** and **Low Cloverleaf** Spreaders will go onto thousands of farms before the close of the year. They are all light-draft, low-loading, easy-handling, built of steel—and satisfactory. We have an idea one of them would stand a good chance of going onto your farm if you were fully posted. At any rate it will pay you to write us for catalogues. Write the address below.

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to get rid of the stumps by blasting," writes R. C. English, Port Matilda, Pa. "I had never used an explosive before and had never seen the work done. But I understood it thoroughly after looking at the pictures in your book. It is easy to blast stumps with

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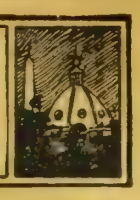
CURRENT EVENTS



THE national government is apparently doing all that it can to keep the price of foodstuffs and the necessities of life down to their present prices, so that they will not rise as the war progresses. The coal situation has already been handled and now a presidential proclamation has been issued compelling wholesale and retail dealers in most essential articles of diet to secure a government license, which will compel them to hold prices down to a set scale and not to elevate them at will to their own enrichment. Many small dealers are exempted, however, as also are farmers, who were especially excepted in the food control law. The commodities the sale of which is to be regulated by the government are as follows: Wheat, wheat flour. Rye, or rye flour. Barley, or barley flour. Oats, oat meal or rolled oats. Corn, corn grits, corn meal, hominy, corn flour, starch from corn, corn oil, corn sirup. Rice, rice flour. Dried beans. Pea seed or dried peas. Cottonseed, cottonseed oil, cottonseed meal. Peanut oil or peanut meal. Soy bean oil, soy bean meal, palm oil or copra oil. Oleomargarine, lard, lard substitutes, oleo oils or cooking fats. Milk, butter or cheese. Condensed, powdered or evaporated milk. Fresh, canned or cured beef, pork or mutton. Poultry or eggs. Fresh or frozen fish. Fresh fruit or vegetables. Canned peas, dried beans, tomatoes, corn, salmon or sardines. Dried prunes, apples, peaches or raisins. Sugar, sirups or molasses. Among the exceptions to those to whom the law applies are mentioned these: "Farmers, gardeners, coöperative associations of farmers or gardeners, including live stock farmers and other persons with respect to the products of any farm, garden or other land owned, leased, or cultivated by them." The government hopes by this licensing and price-fixing process to do away with suffering and hard times this winter and enable everybody to live at least as well as they have been accustomed to in the past.

WHILE Germany seems to be torn by internal political dissensions, and there is rumor of mutiny among German soldiers, the German troops on the western front continue to be pushed back by the British and French forces, which made good gains during the past week. These gains would undoubtedly have been larger had it not been for the extremely unfavorable weather, heavy rainfall interfering just as General Haig's troops were making the best gains of recent months. The difficulties under which the allied troops are laboring as they attempt to push the Germans out of northern France are shown by this report from the field of battle: "Shell holes had rapidly filled with water and ponds were to be seen in which a score of men might easily drown if they were unfortunate enough to fall down the slippery sides. Often a small pool of water covered a considerable shell hole. It seems inconceivable that men could work, much less fight over such ground. Yet the British soldiers and officers were carrying on steadily their operations. And in recent days they have often fought bitterly over just such territory as this. Yesterday's rain has turned the battle front into a quagmire and there could scarcely be more trying conditions for fighting. The soldiers encountered by the correspondent were cheerful notwithstanding the fact that they were drenched to the skin with the biting cold rain. At one place a number of men were singing lustily away at some popular song." Large numbers of German soldiers are being captured and the condition of the German troops is said to be lower than at any time since the outbreak of the war.

SOUTH AMERICAN countries are falling into line steadily with the United States and the anti-Teutonic allies. Argentine and Brazil severed diplomatic relations with Germany some time ago; last week Peru and Uruguay were added to the list. Peru broke because of the fact that a Peruvian ship had been sunk by the Germans. President Viera, of Uruguay, in his message to congress, declared that the Uruguayan government had not received any direct offense from Germany, but that it was necessary to espouse the cause of the defenders of justice, democracy and small nationalities. A British cruiser stopped an outward-bound Spanish steamship seven miles off the Uruguayan coast. The steamship was held up, it is supposed, in the belief that Count Karl von Luxburg, the former German minister to Argentina, who recently was given his passports, might be on board. One by one the nations of the earth are being mobilized against kaiserism until there are few countries the world over now which are not directly affected by the war.

WITH the adjournment of congress, a resume of this nation's war preparations was made, showing that much, indeed, has been accomplished. Today, after six months, more than a million men are in service. Millions more are registered for service, subject to call. Sixteen cantonment camps—cities each capable of housing 40,000 men—have been built at a cost of $150,000,000. Billions have been loaned the allies. There are now three times as many vessels in the navy as six months ago. The enlisted strength of the navy has increased from 64,680 to over 143,000 and other branches have increased from 300 to 500 per cent in personnel. Twenty naval training camps have been established and aircraft and projectile factories are being built. The airplane construction program assures the presence eventually of thousands of American aviators on European fronts. The shipping board has contracted for 433 ships already. Seized vessels are rapidly being put into service. Plans have been completed for three steel fabricating plants to cost $30,000,000. An operating department has been created sufficient to run 1,200 to 1,500 ships. Responding to international appeals for rapid ship construction on American ways, it is planned to build approximately 6,000,000 tons within the next eighteen months, and thereafter at least 6,000,000 tons a year. Railroads now are operating as one great system. Ships and troops are moving steadily from this side to France. This country today is spending approximately $2,000,000 an hour in all war expenditures. To meet these vast expenditures congress has authorized by tax and bond measures the raising of 20,000 million dollars.

THEODORE ROOSEVELT, speaking at a mass meeting in New York City, declared the only peace that will make the world safe for democracy must be based upon the complete overthrow of Germany and the dissolution of Austria and Turkey. Included in the program he outlined were a free Arabia and Armenia, Poland and Lithuania. "Continually we hear rumors of peace," he said. "I think the circulation of such rumors is injurious to America and to the cause of decency and democracy. We should make it clearly understood that the conduct of Germany has been such that we regard as enemies of mankind all people who would strive to bring about a peace based upon treating Germany, Austria and Turkey on the one hand, and the allies on the other, as standing on a footing of equality. The only peace that will make the world safe for democracy is a peace based upon complete overthrow of Germany and the dissolution of Austria and Turkey."

SWEDEN is in danger of being drawn into the war if she cuts off her trade with Germany, the special Swedish mission to the United States announces, but rather than take such risk she is prepared to endure sufferings and hardships. Declaring that the question of manufactured iron and iron ore exports to Germany is the stumbling block in the negotiations with this country for the release of commodities to Sweden, the mission gives details of these exports to show that Germany receives only a small percentage compared to the amount exported to the entente allies. Regarding iron ore exports, the statement says the Germans this year will receive about 2,000,000 tons less than they are entitled to under existing contracts, some of which were fifteen years old. It is asserted also that in 1911 a treaty was signed between Sweden and Germany, in which Sweden pledged herself not to make difficult or restrict iron ore exports to Germany. Sweden holds that this treaty cannot be broken without loss of self-respect and the respect of other nations.

WHETHER there will be a coal shortage in the United States this winter depends, Dr. H. A. Garfield, the fuel administrator, declared entirely on the extent of the demand, which has not been disclosed. "If our industrial development, from the war and other causes," said Dr. Garfield, "has grown beyond our 10 per cent increase in production over last year, then we must go short. We have no figures at hand to tell what that development has been." Dr. Garfield's statement was made in connection with an announcement of the lifting of the embargo on coal exports to Canada. Permission for shipments to go forward was given when it was found that they would not endanger the supply of the northwestern states. "This action was taken," it was announced, "because it is vital that Canada's war industries be kept going at full blast and in order that she may remain an effective ally of America in the war. The American Northwest will be properly supplied." Figures submitted to the fuel administration by the geologic survey, it was said, show that the United States is nearly a month ahead of last year's production at this time.

Tight concrete feeding floors effect a very large saving of fertility. It was found at one of the stations that the value of the manure from a 1,000-pound animal was $4.48 more in one year when the animal was kept on a good, tight floor than it was when left standing on earthen floors. This record was made not with one steer alone, but with fifty-eight steers. It is computed that the cost of concrete floor for one steer amounts to $4.50 so that the increase in the value of the manure alone would pay for the concrete floor, providing, of course, that the manure is taken to the field and used in the proper manner.

The Wisconsin Farmer

THURSDAY, OCTOBER 18, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

OUR DUTY TO OUR SOLDIER BOYS.

THERE are some things in connection with our war policies that are perfectly proper questions for argument and debate, but there are others which are not debatable. They are so self-evident that they are not open to question. One of them is the fact that those of us who are left at home should see to it that the families of the farmers who have been drafted into military service do not suffer.

It makes my heart fairly ache, as I read my daily mail, to learn of cases where farm families have been left in almost destitute circumstances because their head and their support has been called to the colors. I have often expressed my regret that the government has seen fit to further reduce our already too limited farm labor supply by drafting farmers for military service at this time, and every letter which I get telling of some big crop farmer, who must sell his live stock and close out his business, because he has been summoned for military duty, impresses on me anew the short-sighted national policy which I think the government is following. But at the same time, I know that, in the average case, the farmer's family will have sufficient to live on and that they will not want for the necessities of life while he is gone.

But there are many instances, especially in the families of farm hands and of young renters and, even more frequently, of laboring men in the cities and towns, where the family has acquired no surplus for a rainy day; where, no matter whether through poor management or indifference, they have led a hand-to-mouth existence, and the daily wages of the man is the sole support of the wife and children—perhaps of little babies. In such homes as these, absolute want for the bare necessities of life is staring them in the face and the wolves of cold and hunger are gnawing at the door. It is for such as they that my heart bleeds most.

General Plummer, who is the commanding officer at Camp Dodge, has called this matter to the attention of the councils of national defense in grain-belt states whose sons are preparing to do their bit for their country at various camps. As I happen to be a member of one of these bodies, I have had the privilege of seeing his clear-cut, plain statement of facts, such as one would expect an officer of his eminence and experience to write. It reads as follows:

Dear Sir:—A large number of letters are being received at these headquarters from the wives of drafted men, which indicate that many families are being left in a destitute condition. We are unable to release these men, under present conditions; and we are equally unable to determine how serious are the real conditions in these homes. It would be a great help to us if your state council of defense would appoint a responsible person, in each county of the state, to whom we could refer such cases for investigation and relief. We would like to have on file a list of such representatives of your organization by counties, with their addresses. Such relief as is given must for the present be local. Until these men are released from military service or congress shall arrange for a dependent allowance, the committees from which these men come will have to take care of them. But these people really in need should not be allowed to suffer. Contentment at home is just as necessary as contentment at camp if the morale of the men is to be kept at a high point. Your organization can perform a splendid patriotic service by enlisting the forces of the states, which are sending men here, to investigate and relieve all legitimate cases of need among the families of the men of the national army.

Very truly yours, E. H. PLUMMER,
Major-General Commanding.

I cannot understand how congress could have adjourned without making ample preparation for meeting just such unfortunate conditions as General Plummer describes, but I *can* understand fully that what he says about contentment at home being just as essential as contentment at camp, if the spirit and morale of our soldier boys are to be maintained at par. My friends, it is our duty—nay, it is our high privilege—to fulfill the obligation which congress should have discharged for the whole country. It is an individual responsibility that we have and we must meet it, no matter what the cost. These young soldier boys who are to be the backbone of our national army, are fighting your battles and mine; they are the defenders of our families and our firesides; they are the protectors of our herds and our farms. I can think of no form of ingratitude more base, no slacker more contemptible, than one who would let them sacrifice and suffer without doing everything in his power to relieve the worries and sufferings of those whom they have left behind.

I wish that every reader of my papers would consider himself a committee of one to investigate conditions in his community, among the families of those who have gone into the army; for, as General Plummer has pointed out, this service must, for the present, be a community one, until congress wakes up and does its duty by the boys in khaki and their families. Then if any reader finds cases of dire need and want in his community, which are not being properly relieved by local help, and will report them to me I will personally see to it that the matter is called to the attention of their state council of national defense and do everything in my power to provide relief. Tonight, in scores of thousands of farm homes throughout the grain belt, where these words will be read, families will sit down to a warm meal that would delight the appetite of the richest in the land. They will be warmly clothed and the whole house will hold comfort and cheer for every member of the family. When the family circle breaks up it will be to go to clean beds to sleep the sleep of comfort, if not of absolute luxury. Perhaps there will be an empty chair at the table and around the reading lamp, because of the absence of one who is doing his duty for his flag and country at some distant army camp. But he, too, will roll up in his army blanket with pleasant thoughts of home, knowing that although he is missed in the daily farm work and around the fireside, all is well with the home folks he left behind.

But there is another side to that picture, my friends. In many a home over this broad and fertile grain belt, mothers and little children will go hungry and cold to bed, weeping for the support of their husband and father, or their brother, who tramps a lonely beat on guard duty or tosses sleeplessly on his hard bunk, torn with the anguish of the thought that, because he is doing his duty, innocent loved ones at home are suffering. That man, my friends, is not a stranger to you and to me. He is our friend, our comrade, our brother, by whose sacrifices we shall live to enjoy our comforts and our prosperity.

Let us think of this tonight and start out tomorrow, resolving that we will do our part and not only give to Liberty Loans and Red Cross funds—for they must not be neglected—but give and give and give till it hurts, to keep that man's family from want and privation. And let us not give as one rendering charity; let us not contribute grudgingly, as one performing an unpleasant duty. But let us give as one meeting the high privilege of paying just a little interest on a debt of obligation, whose principal we can never hope to discharge, no matter how hard we try.

A TAX UPON US ALL

THE war revenue bill which congress passed and the president signed last week imposes a tax upon every one of my readers, even the little ones who tug at their mothers' skirts and are too young to understand what is told them. We must all do "our bit" to make up the billions of dollars which Uncle Sam needs to carry on the war.

I cannot go into the new tax law in all its details, for they are innumerable. It will have to suffice to mention a few of the more important and the more frequently encountered taxes. To begin with, on and after November 2d we shall all of us have to affix a three-cent stamp to a letter instead of a two, as we have done for years; moreover, postcards will demand a two-cent stamp instead of a one, as heretofore. I doubt if there is another provision of the new law which will affect more people of farms, towns and cities alike than this. We all of us write letters; we must all of us pay Uncle Sam more for taking them to their destination. I sincerely hope that this 50 per cent increase in postage will not cut down the personal letters from my readers to any degree whatever. There is no portion of my daily labors which I enjoy more than the opening and reading of the hundreds of subscribers' letters which come to me every day. Save your pennies for the increased postage, but write to me as often and as voluminously as you have in the past.

After the first day of November we will all of us have to pay a tax on railroad tickets, telephone and telegraph messages and premiums on new insurance policies. For telephone and telegraph messages costing over fifteen cents, a war tax of five cents is to be added. When we buy a railroad ticket to Chicago or Milwaukee, or even to the next town, we shall be obliged to pay the regular fare to the railroad company and eight per cent of the ticket's cost to Uncle Sam as a war tax. When we go to a theater in town we will be taxed one-tenth of the cost of the ticket for a revenue stamp; that is, in all cases, as I understand it, except moving picture houses, the proprietors of which have thus far shown an intention of paying the tax themselves rather than assessing it to their patrons.

After the first of December we will be obliged to affix a revenue stamp to express and parcel post shipments. And so on and on. Second-class postal rates (those which apply to newspapers and magazines) are to be greatly advanced (in some cases being made from four to eight times higher than now) on July 1, 1918, unless congress can be brought to see the error of its ways at the forthcoming winter session. All along the line of life and work (from the talcum powder which the mother uses on her infant, to the coffin in which we are buried) we will find the war tax looming up, causing us to dig down deep into our pockets.

We are in the thick of the greatest war the world has ever known, a war which is costing us many millions of dollars a day. The debt must be met somehow; Uncle Sam proposes to raise about one-half of it by taxes and the other half by bonds. These taxes will fall as heavily upon the farmer as the city man, but we must all of us remember that we are Americans first, last and all the time, and meet the duty of the hour in the big, frank, manly way it should be met.

SHALL THE FARMER BUILD NOW?

THE daily mail presents an interesting study to me. It brings me the opinion of many men and women on divers matters; it causes new subjects to arise in my mind and old ones to take on renewed interest; it is a never-fading kaleidoscope of views and reviews. But, in a larger sense, it is far more than all this; its greatest value is that it enables me to keep in close personal touch with my million-strong army of farm readers, and that, I take it, is the real test of successful journalism. No man can give sound, practical advice, week after week, year after year, who isolates himself from those he advises, who does not know what they think and feel, to what degree they can practice what he preaches. Therefore, the immense, incalculable value of the daily mail to me.

Sometimes the letters are so directly related, as they come to my desk, it is hard to realize it is merely a coincidence. One correspondent will commend me on something I have written and the next letter I open takes issue with me on the selfsame subject. One correspondent asks a question, the next letter presents an answer to that very question. And so on and on. Seldom, however, have two letters in the same mail been more closely connected than two which came to me one day this week on the highly important question of farm building. I was going through the letters (as is my custom) one by one, without regard to their possible contents. In the course of my reading this letter turned up, unsigned, save by the general name of "A Farmer and His Family," but so interesting I must break my rule against printing anonymous communications and give it to you, exactly as it came to me:

Tonganoxie, Kansas, October 1, 1917. Dear Mr. Pierce: What do you think of the advisability of building during these war times? We have been making extensive improvements on our farm during the last eighteen months and had just gotten ready for the last and most important, our house, when war was declared. What do you think of the advisability of our continuing our plans? We would be hard hit by the great increase in the price of all building materials, but we could manage it. We can live without the new house, but we need it badly. We are not so young as we used to be and we feel we ought to be getting the good out of a new house if we are ever going to build. We have been planning for this house for a great many years and never saw our way clear to build before. I am sure there are other farmers who will be interested in your answer. Will you please give it in your interesting department of personal views?

I was formulating my ideas on this very interesting subject as I picked up the next letter. Would you believe it, this letter gave the answer to the very question my Kansas correspondent asked, an answer which went further than any mere opinion of mine could have gone, for it gave facts and figures available only to the trade. The letter was written to me by the vice president of one of the largest retail lumber and building material firms in the grain belt and reads as follows:

Dear Mr. Pierce: The present time offers one of the greatest business opportunities for building ever known in farming districts, but it depends entirely on the farmer whether he takes advantage of these opportunities. Thus far, I regret to say, the farmer has not shown any great desire to build. In fact, it

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Wisconsin Seed Corn Situation.

Silos have been a salvation this year to a greater extent even than 1915 which still is well remembered by corn-belt farmers. One authority estimates that at least 50 per cent of all corn grown in Wisconsin will be siloed. The number of silos in the state has been greatly increased this year. There are now about 60,000 to 65,000 of these food houses in the state. Thousands of others have been erected in the months just passed. In general, the Wisconsin farmers are not seriously affected by the failure of corn to mature.

But there is always the question of seed for the coming year. What will we do to make sure of a crop next year? Wisconsin has been saving seed corn for the last three weeks and will continue the work until every farm is assured of a supply of seed for the 1918 crop.

At the head of the drive for a supply of good seed corn is Prof. R. A. Moore, of the College of Agriculture, and the 2,000 farmer members of the Wisconsin Order of Experiment Stations. For the greater part, the members do not await a request to harvest seed corn. The most of them know seed corn is essential and they are the first in the field, gathering the likely ears and drying them for seed purposes in attic or kitchen or seed house.

Besides the association workers, there are the county agents and emergency food agents, one to each county. These agents hold meetings in every township where good seed corn is procurable. They show what methods have been found to be the most efficient for harvesting seed corn and they call attention to the good and poor types of ears as determined by years of trials with seed corn at the experiment stations.

This year Professor Moore has enlisted the services of another party of workers and no doubt the results will show that his choice was a wise one. The school children will be appealed to through their teachers to gather all seed corn not yet selected on the home farm. Every district has one or more fields which have not been hit by the frost. Professor Moore says seed corn will be high. Any of the standard varieties cured and shelled will bring at least $5 a bushel and, where sold in the car, much more. Mr. Moore has written each county superintendent of schools a letter in which he says in part:

The Wisconsin corn crop is gradually reaching the seventy-five-million mark, and we are becoming recognized as one of the leading pure-bred corn states from the standpoint of yield per acre. Unfortunately, this year the cold summer and early frosts have been instrumental in killing a large portion of the corn of our state. We are threatened with the loss of much of our pure-bred corn which it has taken eighteen years' time to breed and disseminate. Through active efforts put forth by all concerned we will still be able to cure sufficient seed to supply all needs. Unless, however, we strike at once, and strike good and hard, our farmers will be obliged to plant southern-grown corn. At the present time in the state there are certain localities within each county where the frost has not yet taken the corn. All corn that has been harvested and put in shocks when husked will be found to contain good, sound seed ears. A great deal of maturing goes on after the corn is shocked. If farmers would only save at husking time these good, sound ears and cure the same in a drying room they would help materially in solving this great question of seed corn for the coming year's crop.

If the young people in the schools could be interested in this subject at the present time I know they would be helpful in saving a goodly amount of this corn. Even though a boy could save but ten bushels, it would mean at least $50 for him. If you could get out a letter at once to your teachers, having them make a statement to their schools in regard to the corn situation to the effect that any boy or girl who would save corn would be placed on a list and this list could be sent to the superintendent, who would turn it over to the secretary of the Experiment Association, he would then practically be assured that a sale would be found for his corn and the purchaser referred direct to him. It will be necessary to state the kind of corn. There will be sale for the common corn as well as the pure-bred varieties.

Immature corn will make good seed when selected before serious injury from frost has taken place. The corn in the shock may still be soft, but it must be dented. If hung in a room with plenty of ventilation and some heat, especially at night, the corn will dry out rapidly and after three weeks the heat can be discontinued. Overheating while the corn is moist is injurious to the corn. After the moisture has been expelled the corn should be hung in a dry room and unless completely dried it should not be exposed to zero weather. The College of Agriculture has found that the only proper places for curing seed corn are special corn-curing houses, kitchens, attics, furnace room, and any dry and well-ventilated room. Poor places are sides of buildings, windmills, fences, stables, bins of grain in granaries and all poorly-ventilated places.

Defending the Farmers of Wisconsin.

There was held recently in Madison a meeting of Badger citizens who represented the county councils of defense in a number of Wisconsin counties. An address of Geo. A. Buckstaff, of Oshkosh, Winnebago county, a former speaker of the Wisconsin assembly, is worthy of more than passing notice. Mr. Buckstaff is quoted as having said the following:

The farmer has come into his own and if a few of them at times are bumptious and unreasonable, what class of people is there in the United States justified in throwing the first stone?

But I would like to say a few words at this time on the question of production. In the mechanical industries, it has been found that the way to speed up production is to make it more profitable to the producer, both employer and employe to do so. Farmers are human, in fact more human perhaps, than a considerable portion of our city dwellers. To get more food production by the farmer, we must make it more profitable for him. That means extra money for extra effort, more money for hired help, and better conditions of living that he may compete in the labor market for the best class of labor. We must do less complaining at the high prices paid the farmer for his crop.

For those prices are brought about by world food shortage. The whole world is bidding for our food production while never before as a general proposition has the farmer marketed his crops except on a local market overflowing with food and a surplus exported in competition with all the world.

We have all had our ups and downs. If the farmer is up, let's rejoice that his prosperity means victory to the cause of democracy and better conditions for the farmer that can never be taken from him.

War times have always brought high prices. It is a peculiar thing that some people will rail more against 25 cents added to the normal price of a bushel of potatoes than they will against $2 or $3 added to the normal price of a pair of shoes. As this speaker has said, the government in war times offers inducements to practically every class of producer in order to stimulate production. In no industry in the country has there been greater necessity of "speeding up" on production than there has been in the agricultural industry. Is it fair to say that we will offer additional compensation to practically every line of industry in order to stimulate production and then turn around and insist that the farmer shall not have any higher price no matter how hard he works? Labor has been scarce for government work and the government has been willing to pay higher prices for labor and extra high prices for extra hours Labor is scarce on the farm and the farmer and his sons and wife and daughters are obliged to put in many additional hours to do extra-hard work. Is it any more than fair that they should have additional pay?

The farmer is not asking any more than any other class of workers are asking and up to date he has not been getting as much. We are told that the supply of various products is short and hence the price must be raised. In the same breath we learn that the supply of farm produce is short. This being the case, why in the name of heaven should not the prices on farm produce also advance?

The Wisconsin Farmer has maintained and still maintains that the price of farm produce in most instances has raised less in proportion than the price on practically everything the farmer has to buy. Of course, the farmer has a wonderful advantage in that he does not have to buy as many things as the non-producers have to buy. All the farmer asks and expects is a fair deal. If the country is to be wonderfully prosperous because of tremendous war orders, why kick about the farmer being wonderfully prosperous and why object to him getting a price for his produce commensurate to supply and demand?

Wisconsin People Still Wasteful.

In a recent issue of The Wisconsin Farmer we made the statement that the people of this state (and the same statement could be applied to every other state in the Union) had not yet begun to save. By this we mean they have in only a small way eliminated the tremendous waste which in the eyes of farmers in European countries makes us appear almost profligate. Our attention has been called to the writings of R. E. Roethe, of Grant county, quite well known in Badgerdom as the "walking" member of the general assembly. Mr. Roethe writes as follows:

Yes, sir, thousands of bushels of apples have gone to waste in Grant county this year—and so have, or will, also thousands of bushels of crabs, wild gooseberries, wild blackberries, wild plums, wild grapes, elderberries, hazel nuts, hickory nuts, butter nuts, walnuts. We know—because in our tramps through the fields and woods we have come across them—unpicked, ungathered lying on the ground, rotting, going to waste, of use to nobody. Just seems a shame! Why not utilize your autos in gathering up these supplies? The American people will have to learn to stop this awful waste in everything! You wouldn't believe it would you, that the uncut hay this year in this country would feed five hundred head of horses during the winter? Or that the grain that the binders could not secure because it was down so bad, and left there in the fields to rot, was enough to fill the biggest elevator in Minneapolis? Contrast this with conditions over in Europe where women and children gleaners carefully gather up every straw left remaining on the ground.

If enough hay is wasted in Grant county to keep 500 head of horses over the winter, what shall we say of the total amount wasted in seventy-one counties? Whatever portion of any crop may still be left unharvested should be gathered and it should be picked up slick and clean. Let us hope that the war will teach us not only to "farm the fence corners," but harvest the crop in the fence corners.

Yields Cut Down by Frosts.

Part of our Wisconsin 1917 crop, whereby the state expected to eclipse all previous records of crop yields, was curtailed by the frosts of September 11th and 12th. The government crop reporter at Madison, who works in coöperation with the Wisconsin Department of Agriculture, has estimated that the frosts caused a loss of over 15,000,000 bushels of corn. In an ordinary season we would have had a wonderful corn crop this year, but unfortunately the season was late. The frost was not earlier than usual and if the season had been normal the injury to the corn crop would have been small. Most of the corn will be raised in southern and central portions of the state and in some parts the crop was good. With our 60,000 silos in Wisconsin but little of the damaged corn will be lost.

About 14 per cent of the potatoes of the state were damaged by the same frosts. However, the estimated production is still nearly 58,000,000 bushels, which will be the largest potato crop that Wisconsin has ever had and will be worth, based on present market prices and prices a year ago, from $15,000,000 to $16,000,000 more than the 1916 crop.

The hay crop in the state is short a few thousand tons, but at present prices compared with those of a year ago, it is worth nearly $15,000,000 more money than the 1916 crop.

Wisconsin made a good gain in spring wheat this year, the total value of the crop raised being nearly $4,000,000 more than that of 1916.

The Badger barley crop is 1,800,000 bushels more than that of 1916 and the rye crop 1,215,000 more.

The tobacco crop has fallen off 3,500,000 pounds, according to the latest estimates, but the average price of 17 cents per pound for all grades of tobacco, including some slightly damaged by frost, is the highest average ever received for any tobacco crop raised in the state.

The frost damaged field beans and buckwheat and cut down the yield of late garden crops. In some of the northern counties the frosts seriously damaged a very large per cent of the corn.

Based on October 1, 1916, and October 1, 1917, prices for the crops raised in the respective years it is apparent that the 1917 crop is worth $50,000,000 or $60,000,000 more than the 1916 crop. This is exclusive of the added earnings of dairying, which many estimate at $25,000,000 and is also exclusive of the added earnings on farms in Wisconsin this year due to the increased prices on live stock. In brief, our crops would have been worth probably $15,000,000 more if we had not had the frosts, but we have done mighty well as it is.

Steel Prices and Farm Implement Values.

It is a well-known fact that implement manufacturers during the last year have had difficulty in obtaining a sufficient supply of materials to maintain normal production. A painstaking investigation made by The Wisconsin Farmer last April indicated that on the whole manufacturers would fall 25 per cent short in their output because of lack of materials. There is reason to believe that this record has not been exceeded. Under ordinary conditions there are 100,000 harvesters and binders sold annually and 80,000 corn planters. Plows, cultivators, wagons, harrows and implements of this class are manufactured and sold in like proportion, so that the farmer is vitally interested in implement prices because of the huge sum that he invests annually. In addition to the shortage in the supply of steel which manufacturers encountered they were obliged to buy steel products at an enormous increase in price. When the war broke out in 1914 bar steel and pig iron were low in price and many manufacturers had large stocks on hand so that they were able to keep down the price of implements until the spring of 1916. In most instances the advance in the price of implements did not take place for a period of six months after the advance in steel prices, so that purchasers, in most cases, obtained the advantage of contracts made for materials at lower than current prices.

Recently the government has taken a hand and as a result of its action an erroneous notion that implements will be cheaper has been spread broadcast over the land. There has been no reduction made in the price of steel products used by implement manufacturers. In 1914 steel bars sold for $23 per ton and the government has now fixed the price at $58 per ton. Steel shapes were worth $24 a ton before the war and the government's price on these is $60 a ton. Pig iron sold then for $13 a ton and its value is now fixed by the government at $33 a ton. These prices will prevail until the first of January next. The materials in farm implements that will be sold for spring delivery were purchased anywhere from six to ten months ago, so that there can be no reduction in price on account of any change in values of raw materials. Furthermore, when contracts were made last spring for materials to be used in the manufac-

Family Circle Talks by the Publisher

(Continued from page 3.)

is quite the other way. No matter what the general impression is, I am frank to say that the farmer is not building nowadays. He ought to build, because the price of building material, as compared with the price of farm products, is out of all proportions. Building material has advanced between 25 and 30 per cent; farm products have advanced, you know, probably 100 per cent. It only takes half the bushels of corn to build any sort of a building today that it took in 1914.

Here is the attitude of the farmer. He says to himself: "It's going to cost me a great deal more to build that house or barn or granary today than it is in a couple of years. I have been able to get along now and I'll just wait and save that money." He doesn't stop to think that when he does come to build, building material is going to be on pretty nearly as high a plane as to price, and the price he gets for his products is going to be very much decreased.

It seems to me that it would be a very opportune time for the farm papers that have the good of the country at heart, as well as the farmer, to advise in their editorials a "Build Now" campaign and state the facts honestly and squarely to the farmer. It is part of Hoover's conservation plan that the farmer should help store his products, so that all of the grain should not be put on the market at the same time, because the railroads cannot ship it and the warehouses cannot hold it. Therefore, it is up to the farmer to provide storage facilities on his own farm. Again, the hog house or the barn is the farmer's factory. It is his workshop. The present high prices of hogs and cattle necessitate decent, sanitary buildings. The small increased cost of these buildings can be more than made up in a year.

Won't you give this some thought and if you agree with me, give the subscribers of your papers your own ideas in your own original way?

With the subject thus forcibly brought to my attention I set to work, without delay, to figure the matter out from the farmer's standpoint. I am convinced in my own mind, as a result, that now is the time for the farmer to build, that he should delay as little as possible. Let me tell you why I have come to this conclusion.

I have before me, as I write, a picture of a comfortable, modern farmhouse, 28x36 feet in size, with full basement, two stories and a large front porch. In 1914 it took 1,774 bushels of corn to pay for the material in this house; today it requires only 679 bushels. Let me go still further. Three years ago this material cost the equivalent of 1,264 bushels of wheat, today only 556 bushels; three years ago it cost 3,000 bushels of oats, today only 1,940; three years ago it cost 2,340 bushels of barley, today only 1,086; three years ago it cost 1,641 bushels of rye, today only 823; three years ago it cost 148 hogs, today only 93. The price of farm products has advanced far beyond the price of building materials.

Let me cite another illustration, that of a good dairy barn, 52x48 feet in size. In 1914 it took forty-six hogs to pay for the material in this barn, today it takes only thirty hogs. How do I figure this? Let me show you. The builder advises me that in 1914 this barn cost the farmer $972 for materials, today it costs him $1,274, or $302 more. But in 1914 the average hog brought from $20.72 to $22.20, at $7.40 a hundred pounds; while today the average hog is bringing from $40.80 to $43.80, at $14.60 a hundred pounds. Figuring the maximum prices in both cases, forty-six hogs are bringing $2,014.80 today, where they brought only $1,021.20 in 1914. In other words, the forty-six hogs have increased in value $993.60, while the barn material cost has increased $302. The farmer can devote the same number of hogs to building this same barn today that he did in 1914 and still have $693.60 left over.

Let me go a bit further. In 1914 it required 1,567 bushels of sixty-cent corn to pay for the material in this barn; today, with old corn selling at $2 a bushel, it requires only 637 bushels. The same number of bushels sold now, as were required in 1914, will not only furnish the material for this barn at its increased cost, but will leave a balance for the farmer of $1,860. Now do you begin to see why I so heartily urge a building campaign for the farmer? Lumber and all building materials are high, that is true, but farm products are higher in proportion than building materials. I went to an old friend of mine, Mr. Fred W. Weitz, head of the firm of Charles Weitz's Sons, who was given the general contract, by the United States government, for building one of the sixteen big army camps of the nation, some 2,500 buildings altogether, erected at a cost of approximately $35,000,000. I asked Mr. Weitz especially as to the attitude of the lumbermen in the present crisis, as to whether they were meeting the situation in a big and patriotic manner, or whether they were attempting to hold up the government and the individual builder, as some are claiming. Here is what Mr. Weitz had to say:

Dear Mr. Pierce: In connection with lumber requirements for the sixteen national army cantonments, the prices at which the lumber was purchased was arranged for by the advisory board, under the supervision of Secretary of War Baker and three lumber associations, namely, the Southern Pine Lumber Association, the Douglas Fir Lumber Association and the Northern Hemlock Association, and the prices were invariably from $1 to $3 less than the prices at which the same association of shippers were furnishing lumber to the dealers in the near vicinity of the erection of the cantonments. This is evidence of magnanimity on the part of the lumber manufacturers and their loyalty to the government. Furthermore, the entire government order, amounting to 576,000,000 feet, although a tremendous order, does not amount to a great deal more than the amount of lumber annually exported to foreign countries previous to the war.

We have within the last ten days received orders from the war department for additional work at Camp Dodge requiring 2,000,000 to 3,000,000 feet of lumber, and the prices at which we are directed to purchase, and which have been agreed upon by the government and the lumber associations, are from 50 cents to $1.50 per thousand lower than the original purchases made in June of this year. The only reasons that I have as to why this lower price is made is because of the anticipated loss of export business during the next twelve-month period. As soon as the war is over this export business will pick up again and the prices of building materials are bound to rise then, because of the world-wide demand. In the meantime, much of the former export trade is being offset by the increased demands for army cantonments, such as we built for the government, and for troop quarters and Red Cross buildings in France. With the coming of peace and the resumption of our export business the price of all building materials is certain to rise. Any decline will be temporary at best, so that there is every reason for urging building now, especially for the farmer, rather than to wait in the hope of lower prices in the indefinite and far-distant future.

Very truly yours, FRED W. WEITZ.

I am going to investigate this subject still further within the next fortnight and shall give my readers the benefit of my research. This is a big, vital subject to all of us: Are we wasting money by building now, when prices seem high, or are we practicing poor economy by not building, now that farm products have advanced much more than building materials? Of course, there are other considerations: the happiness and health of loved ones, our own comfort, and so on and on. But from a purely dollars-and-cents standpoint I say, "Build now, or next spring at latest; to delay further is to lose money." Will those of you who have facts on the subject share them with us, so that together we may find out whether I am right or wrong? I know of nothing that we can discuss with more interest and profit as the winter settles down upon us and we begin to lay plans for the coming of another year of activity.

BUY A LIBERTY BOND.

I WANT to urge upon all my readers who can afford it that the next time they drive to town they call at their bank and either buy one of the new Liberty Bonds outright or sign the application card, pledging themselves to pay on the easy installment terms which the banks have arranged. The second Liberty Bond drive is on in full force throughout the entire country; it will come to an end a week from next Saturday. Therefore, no time must be lost.

The eyes of the world are upon America as we loan our money to Uncle Sam for the war. Especially are these eyes upon the farmers of the Middle West, for a direct appeal has been made to them to buy the new Liberty Bonds. Secretary McAdoo, head of the treasury department, was in the grain belt last week on a speaking tour. Here is the gist of the plea he made to farmers, urging them with all the power at his command to dig down deep into their pockets and buy to the very limit of their ability:

If we had submitted to the order of the German kaiser that we stop our trade with Great Britain, France, Belgium and Italy what would have happened? All the surplus of wheat of every farm in this state and every surplus bushel of grain on every farm in America would have found itself without a market. There would not have been sufficient demand at home to consume it. The Chicago wheat pit would have found itself in a panic; every farmer in this land who had wheat in his possession would have hastened to throw it upon the market, and, as the number of purchasers would have been insufficient to take the offerings, demoralization in prices would have set in. The price of wheat, instead of being $2 or $2.20 and $3 a bushel, as it has been, would have been probably 50 cents a bushel, or probably less. I want the farmers of this country to take a large part of this liberty loan. They can afford to do it. They have been benefited by the prosperity of this time as much as any other class, and I thank God they have benefited, because the farmer never has gotten any too much. But he has derived a proper benefit from the prosperity of the nation. He is as patriotic as any other class of people, but the value of these loans has not been brought to his attention.

The situation calls for prompt, determined and unanimous action. The national government is spending millions of dollars every twenty-four hours. So long as the war lasts, this expenditure is justified and must be continued. The money can only be raised in two ways: loans and taxes. The new war revenue bill (the important details of which I explain in another article this week) provides for raising approximately one-half of the war fund by means of taxes. One bond issue of $2,000,000,000 has already been subscribed by the people; the second issue of $3,000,000,000 must be subscribed, and oversubscribed, if the money upon which victory depends is raised, and raised in time. The farmer is not called upon alone to bear this burden. All classes of men are sharing it with him; the millionaire and the poor man, the white man and the black, men of all creeds and callings from ocean to ocean. But an especial appeal has been made to the farmer. I hope that appeal will not fall upon unhearing, unheeding ears.

You who have seen the fields upon which you labored bear fruit so abundantly, whose products of furrow and feed lot are bringing such good prices, who have enjoyed such exceptional opportunities to work with the certainty that nature would reward your labors and a just and stable government would protect you, who have seen the financial anchor of the nation in other times of stress and storm, shall this appeal for money be made in vain, at a time when men are giving of their life blood freely that the world may be saved for democracy, and truth and righteousness shall be enthroned over greed and tyranny? The Liberty Bond is only a "scrap of paper," such as the kaiser tore up when his troops invaded Belgium, but upon it depend the happiness, liberty and advancement of the world. Will you buy to the limit of your ability, buy until it hurts? Every dollar counts. I have seen it figured that the proceeds of one $50 Liberty Bond will purchase thirteen 13-pounder shells for destroying submarines; four 5-inch shells for the same purpose; one hundred pounds of smokeless powder; eighteen gas masks for a like number of soldiers at the front; enough coal to drive a destroyer one hundred and twenty miles; enough gasoline to drive a submarine destroyer one hundred and fifty miles; a sailor's uniform outfit; four months' subsistence for a soldier. All this for one acre of corn, an acre and a half of oats. Will you answer the call with a rattle of dollars, like the rattle of muskets in the hands of the embattled farmers at Lexington?

James M. Pierce

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ture of implements prices were lower than those now fixed by the government. This being the case, it becomes apparent at once that the effect of government price-fixing can by no manner of means reduce implement prices. The result would be to increase prices were it not for the fact that the large manufacturing companies have fixed their prices on the basis of the value of materials purchased in the spring of 1917. Under these conditions, therefore, a serious blunder will be made by those who delay buying implements that are needed because of the belief that they will be cheaper later on.

Our desire at this time is to simply present to our readers the unadulterated truth, namely, that prices on steel products as fixed by the government are higher than those paid by manufacturers last spring. Crop production can be maintained or even increased if producers are farseeing enough to properly equip themselves with tillage, seeding and harvesting implements. The military draft has already reduced the farm labor supply and this will in many cases result in discarding certain types of implements and putting in their place larger types. The two-horse must give way to the four-horse outfit because it is possible by choosing implements carefully to greatly increase the number of acres handled by one man. No man can afford to waste his time in fighting weeds if he is not equipped with the most modern kind of tillage implement with which to do his fighting. The important thing is to raise a big crop. To be sure, it will cost more in 1918 to raise it than ever before, but high prices for farm products are assured. Even with the high price of implements it requires fewer bushels of grain to buy an implement than it did in 1914 so that, after all, the producer is in ideal shape to outline for himself a program of production that will even eclipse the splendid record of 1917.

Higher Price for Serum.

Due to increased cost of production, hog cholera serum, made by the state for the protection of Wisconsin droves against disease, has followed the upward trend of pork prices.

Notice of a 50 per cent advance in the price of hog cholera serum to the pork producers of Wisconsin has just been issued from the office of F. B. Hadley, agricultural experiment station veterinarian.

In making public this change in prices, which became effective on October 10th, Dr. Hadley says:

Due to the great increase in the cost and keep of swine for use in the manufacture of hog cholera serum and virus, it becomes necessary to raise the price of the serum to one and one-half cents a cubic centimeter. Virus will be furnished free as heretofore.

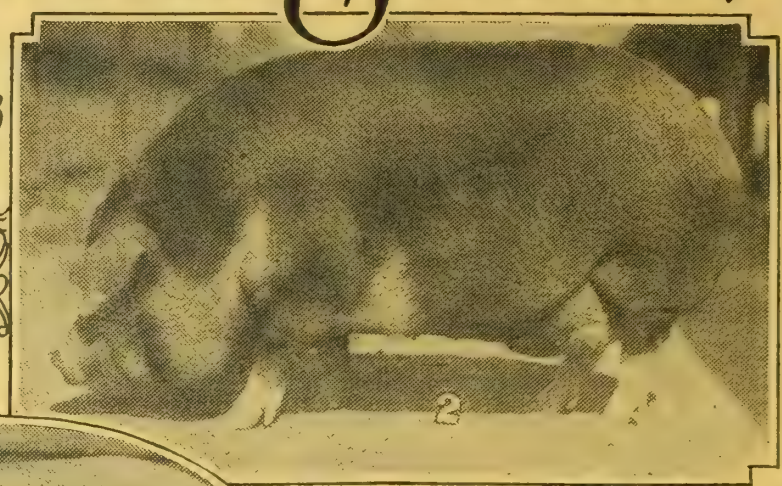
Legal authority for this action is carried in Chapter 458, Laws of 1917, which states that the regent of the university shall furnish the serum and vaccines necessary to immunize hogs against cholera, but shall be enabled to charge and collect for it at the actual cost of production.

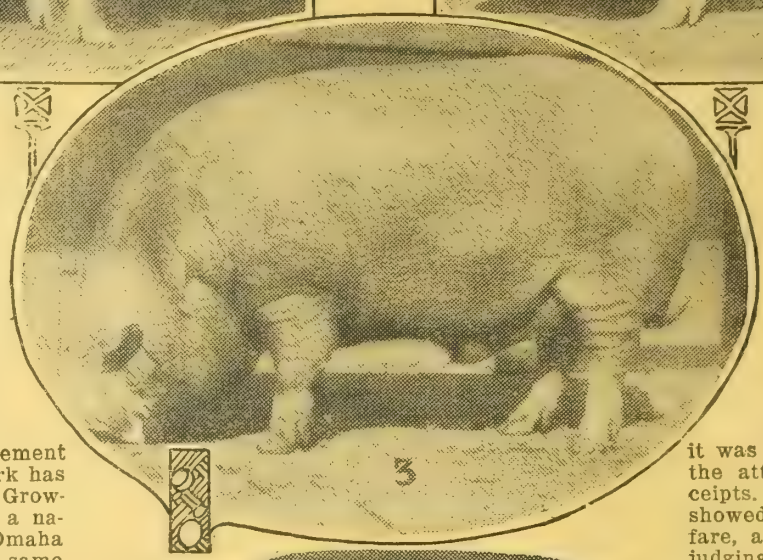
With the present prices for pork close to $20 a hundred pounds, few farmers in the state will feel justified in discontinuing the use of the protective serum because of an advance in price. This form of live stock insurance, successful stockmen declare, is cheap at the price, even if the cost is somewhat more than when hogs sold for $7.

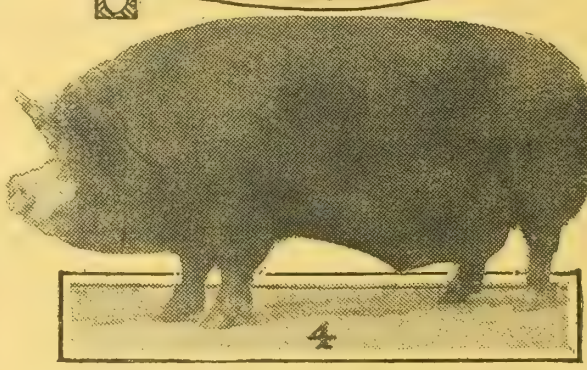
The agricultural experiment station is equipped with a new laboratory for the manufacture of serum, which makes it possible to turn out a strictly high-class product. Reports from farmers and veterinarians in nearly every county of the state show that in the hands of reasonably careful persons highly satisfactory results have been obtained following its use.

A sufficient supply of tested, highly-potent serum to meet the usual demands of this season is on hand.

National Swine Show







Grand champions at National Swine Show—No. 1, Swan's Duroc Jersey sow, Royal Critic; No. 2, Meharry's Poland China sow, Mc's Choice; No. 3, Boyer's Chester White boar, Prince Big Bone; No. 4, Brush's Berkshire boar, Baron Duke 201st.

NEVER before has the great American hog been held in so high esteem as at the present time. This esteem is directed to the common, everyday porker in the feed lot and pasture—the individual that is daily making the fat and the meat products for which the world is clamoring. If we are to bow to the feed-lot porker we must hold in special regard the pure-bred hog, because here we have the fountainhead of a mammoth industry. It is because the pure bred plays so important a part in the improvement of the porker that a great and useful work has been undertaken by the National Swine Growers' Association in the establishment of a national show. A beginning was made in Omaha in 1916 and the second event held in the same place October 3d to 10th eclipsed in many respects the record made a year ago. Not that the number of hogs was greatly increased, but, rather, that throughout all the classes in all the breeds there was a higher standard in quality and in real porcine merit. This year there were 1,460 hogs of all breeds in the pens as against 1,409 last year. The Hampshires led with 342 head and the Durocs took second place in numbers with 319 head. There were 281 Chester Whites in the pens this year and 246 Polands. The Berkshires numbered 182 and the Spotted Poland Chinas eighty. As there was no classification for Yorkshires but one herd was exhibited, but the owner, Mr. B. F. Davidson, of Menlo, Iowa, received many compliments on the superior character of his exhibit.

True it is that the number of entries at the National Show is eclipsed by some of the corn-belt state fairs and yet the National must be placed in a class by itself when viewed from the standpoint of quality. Every swine breeder knows that hundreds of sale hogs are in the state fair pens. These are not fitted for show, and breeders are simply using this legitimate means of disposing of their surplus stock. At the National there are no sale hogs to speak of, and practically every animal on exhibition is entered and shown. This year sixteen states were represented. Breeders from Colorado and California competed with those from Massachusetts and Kentucky, though, of course, the bulk of the entries came from Iowa, Nebraska, Illinois, Missouri and Kansas. The cream of the entries in all the leading fair circuits were in competition and well might it be said, as has been proved over and over again since the 1916 show, that a good rating at the National brings favorable attention and useful advertising to the breeder.

In most respects Omaha takes good care of the National, but there is still lacking, and it is a serious lack, a satisfactory judging pavilion. The small sale ring in the horse barns is but a makeshift whereby the judge often finds himself jostling with the crowd and with the herdsmen in searching for the good ones. The outside tent is but little better, as opportunity is not afforded for satisfactory inspection, nor is the arrangement fair to the judges. Should Omaha succeed in landing the third National Show the officers of the Swine Growers' Association should see to it that the show be located there only on condition that a satisfactory judging pavilion be erected. In this respect the National has entirely outgrown its clothes and it is unfair to exhibitors and to visitors to have the showing done under the conditions that prevailed last week. In cataloging the entries and in using the ring card system real progress was indicated and it was unfortunate that the numbering system was not carried out in the case of the Durocs and Berkshires. Where only exhibitors are allowed to enter the ring it is of great advantage if the visitor can have placed in his hands a catalog giving him the needed information about every entry. A start along right lines has been made and those in charge of the show this year were convinced that catalogs complete in every detail would be issued for the next show.

Much of the success of the National is due to the effort of the various breed associations through their officers. Mr. W. M. McFadden, president of the National Swine Growers' Association and secretary of the American Poland China Association, has spent much time in getting this show established. His work has been done with an eye single to swine improvement and he has succeeded in a marked degree in relegating to the rear the individual who proposed to use the National as a special means of bringing laurels to one particular breed over another. Sensible rivalry Mr. McFadden strongly commends so long as it leads to swine improvement, but a great show like the National can only succeed, in his opinion, when its officers serve with the purpose in view of working improvement in pure-bred hogs of all breeds. Through this means only will the common hog of the country become better adapted to the purpose for which he is raised. Breed superintendents were prepared to lead the strenuous life during the show, and they led it. Mr. R. J. Evans, secretary of the American Duroc Jersey Association, had charge of the reds. E. C. Stone, secretary of the Hampshire Breeders' Association, saw to it that the belted hog had a square deal, while F. F. Moore, secretary of the Chester White Record Association, safeguarded the interests of the Chesters and was responsible for the cataloging of the entries and for conspicuously dressing the attendants in charge. Mr. F. S. Springer, secretary of the American Berkshire Association, looked after Berkshire affairs, while C. E. Kurtz, president of the National Spotted Poland China Record Association, kept things in order for the Spotted Poland breeders. These various breed superintendents worked harmoniously with Mr. E. Z. Russell, general superintendent of the show, and, all in all, every event was carried through on time and in perfect order.

Holding the show over the second week proved to be a disappointing arrangement. As the Ak-Sar-Ben, the annual street fair, was to be in progress during the first four days of the show, it was hoped that the local crowd would swell the attendance and greatly increase the receipts. As it turned out, street fair visitors showed but little interest in the porker's welfare, and as a result the trailing out of the judging meant that breeders who inspected the work of the judges during the first part of the show had to remain almost a week to see the tasks completed. Hundreds of Poland China breeders were obliged to leave before the ribbons were tied on their favorite breed. This experience surely proves without further experimenting that all breeds should be judged simultaneously. Unjudged animals take on new interest from the standpoint of the visitor after the ribbons are tied and it may safely be assumed that breed superintendents in the future will see to it that all are given the same publicity.

A meeting of 500 swine breeders was addressed by Hon. Gifford Pinchot, assistant to Food Administrator Hoover, on the question of increasing swine production. There is, according to Mr. Pinchot, a decrease of 10 per cent in the number of swine in the United States at present, while to supply our allies with meats and animal fats an increase of 15 per cent is required—this over and above the normal supply. In round numbers, it will be necessary to increase the number of hogs 20,000,000 head, and in order to attain this desirable end Mr. Pinchot assured the stockmen that some sort of price-assurance plan would be worked out. While at the present time the food commission has no authority to fix prices on corn or meat products, it nevertheless has it within its power to grant conditional operating licenses to packers. Through this means it is hoped to make swine raising profitable during the period of the war regardless of the price of grain. As the selling price of hogs per hundred during the last ten years has been equal in value to 11.6 bushels of corn, it is the belief of stockmen generally that a ratio of 14 to 1 would be a sufficient incentive to greatly increase production. On this basis a 350-pound hog would afford a profit to the feeder over and above the cost of finishing him equivalent to the value of nine bushels of corn. At the meeting addressed by Mr. Pinchot the following resolutions were passed by unanimous vote.

To Honorable Herbert C. Hoover, United States Food Commissioner, Washington, D. C.

We, the members of the National Swine Growers' Association and other swine growers, in convention assembled at South Omaha, Neb., this 5th day of October, 1917, fully appreciate your calling on us in this national crisis for our advice and help, and we assure you of our hearty and patriotic support.

We fully appreciate the imperative need of an immediate and extraordinary increase in the production of live stock in this country, especially hogs, and to that end we respectfully make the following recommendations:

1. We endorse the methods for the increase of hogs and cattle as recommended to you on September 18, 1917, by "certain members of the live stock industry committee."

2. We endorse and join in the recommendations made to you by "representative swine growers of the corn belt in convention assembled at Waterloo, Iowa," on October 3, 1917.

3. In addition to our approval of the foregoing resolutions we desire to bring particularly to your attention the necessity for fixing im-

mediately in advance the prices of hogs for short periods at all principal live stock markets of the country, on the basis of cost of production during the entire feeding period plus a profit which will provide the necessary stimulant for the abnormal production desired and the need for making such prices effective.

4. There is grave danger that owing to the lack of definite information regarding the prices for live stock the whole campaign for increased production will prove a failure. We, therefore, cannot urge too strongly the necessity of prompt action on your part with definite assurances that remunerative prices will be paid.

5. And we further strongly recommend that the commission to be appointed to fix the corn and pounds of pork proportion, shall be largely composed of practical swine men.

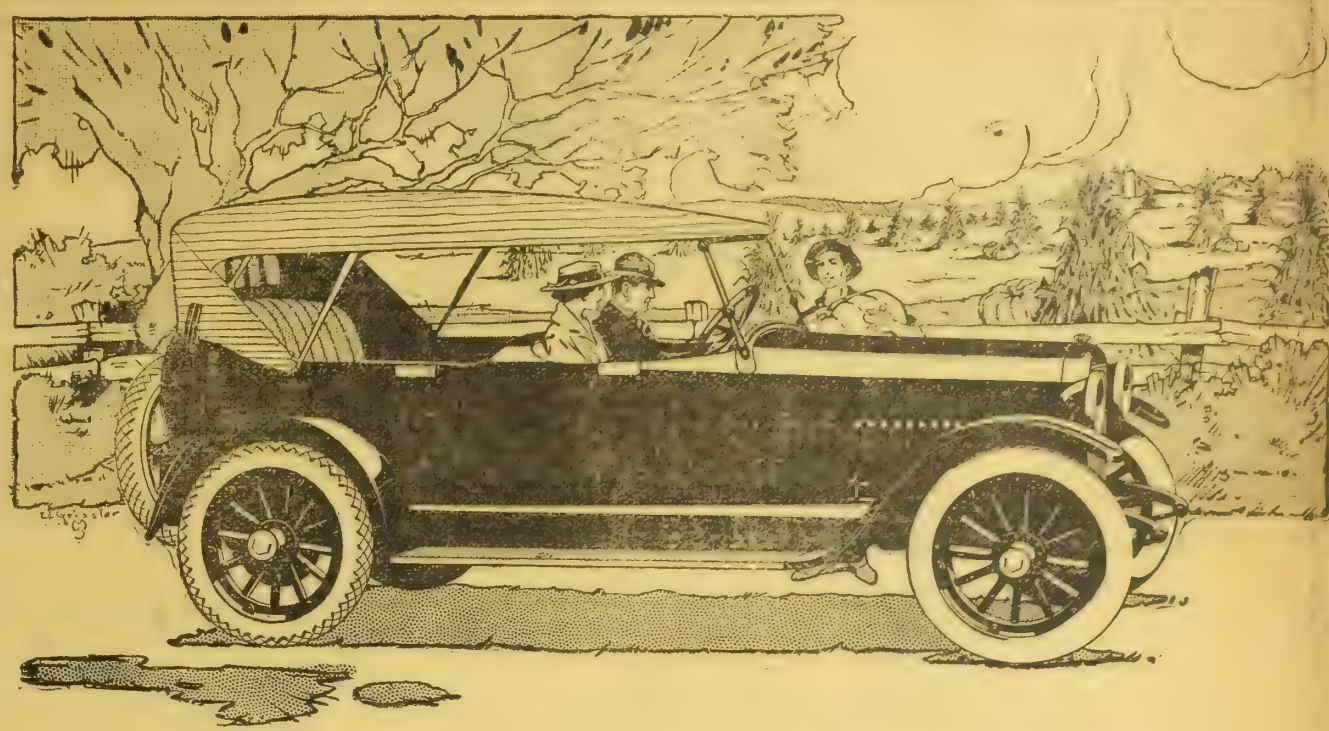
An interesting departure in a new field was the students' judging contest. Five agricultural colleges sent teams which emerged from the work—Nebraska, first; Missouri, second; Iowa, third; Kansas, fourth, and South Dakota, fifth. It was worth much to the boys as prospective hog men. Ten classes were placed and reasons given upon five. Six hundred dollars were donated by Omaha business institutions furnishing a nice prize list. The high individual was Ira Hepperley, of Norfolk, Nebraska, with C. L. Moran, of the Iowa team, second. Thursday evening the students and their coaches, swine show officials and other interested persons banqueted at the Castle Hotel. It was a much-appreciated meeting and an entire success.

The swine breeders' banquet has apparently become a fixed feature of the National Show, and well it might, as there is no more effective means of unifying the various interests than to get men who represent those interests around the same banquet board. As the Duroc Jersey judging had been finished the first week, the great majority of Duroc breeders had returned to their homes and as a result the banquet was not so well attended as in 1916. Those who took part in the program received hearty applause as they repeatedly proclaimed the high purpose of the National Show to be the improvement of the so-called farmer's hog. Those speakers who made an appeal for increased production were cheered to the echo and convincing evidence was presented then and there that swine breeders are prepared to greatly increase production whether a price-fixing program is carried out or not.

Plans were formulated last week for placing the National Show on a new and broader basis by placing a paid secretary in charge of its affairs. Instead of having a few hundred members, the National Swine Growers' Association should have a membership of thousands, made up not wholly of pure-bred breeders, but including alike those who raise and finish market hogs. The mammoth swine-breeding industry needs an organization that fittingly represents it. Just now there is the question of price-fixing to be dealt with and yet we find the great body of hog producers throughout the country entirely unorganized. There should be some way by which they can be given a hearing and the plans that the National has in mind may ultimately bring about the desired end. Sooner or later we must in some big way undertake to stamp out swine tuberculosis, as it is now costing the swine breeders an annual loss of millions. There are scores of problems to be dealt with, and, in the opinion of the majority who were present last week, these can be handled effectively only by thorough organization.

A REPORT ON THE JUDGING.

Duroc Jerseys.—The red hogs grow better steadily as generations come and go. Nowhere can the progress of the breed be better studied than at the National show. Difference of type were as prominent this year as last, but fewer objections were heard to the long-bodied, late-maturing Ohio sort. Jackson won a lion's share of the money. A few of his hogs could well be strengthened in the pasterns, but they are uniformly high backed, growthy, smooth and free from wrinkles. The shorter-legged type fared no better in the awarding of ribbons than last year. Aged boars were headed by a low-down, big hog, Economy 2d. He lacks the trimness and quality of most of the boars below him. Cherry King Orion had many favorites and a vote of the ringside would likely have made him first. While not highly fitted he is championship timber. The senior yearling top is a light red, upstanding arched back fellow. Jackson's second is of the same kind. The grand championship came to the junior yearling, a



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The cheap expenditures are never the wise ones. The near-wool clothing, the "marked down" shoes and the cut price harvesting machinery cost less to be sure—*in the beginning*.

But cheap clothing shrinks to boy's size in the first spring shower. The cheap shoes "wear out" after a few months of service and the cheap harvesting machinery fails you at the critical moments. So—in the long run—your cheap purchases become shockingly expensive.

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There are many cars that sell for less money than the Paige. We could readily build them ourselves if we considered that policy the best one. But we don't.

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We take just a little more time—just a little more care in selecting materials—just a little more pride in our work. And the result is a *real* motor car—not a makeshift or compromise.

Unless we are greatly mistaken, the Paige "Six-39" is just the kind of car that *you* want. It costs $1330 and it is worth every penny of the price.

If you are truly Economical—truly wise and careful—it will be the car of your choice.

Essex "Six-55" 7-passenger $1775; Brooklands 4-passenger $1795; Linwood "Six-39" 5-passenger $1330; Glendale "Six-39" Chummy Roadster $1330; Dartmoor "Six-39" 2 or 3 passenger $1330. All Prices f. o. b. Detroit. No handsomer line of enclosed vehicles can be found on the market.

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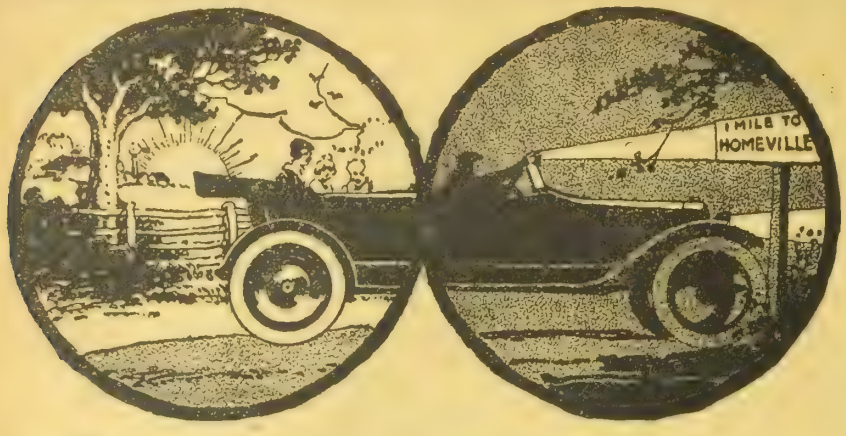

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"I Never Saw Corn Grow So Well"

This is what a South Dakota farmer, formerly a resident of Iowa writes. After seven years' experience he tells of his successful start and now established prosperity. His advice to those seeking to better their condition is—

"Come to South Dakota"

1916 government statistics show how the state is gaining in farm wealth—corn yielded 90,800,000 bu., wheat 25,011,000 bu., and other grains in proportion. The value of live stock production was $63,113,000.00.

South Dakota, while long on wealth, is short on people. More farmers are needed to develop her uncultivated fertile acres lying west of the Missouri river. Land costs are reasonable and large crops are assured.

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big, smooth, clean-boned, growthy pig. Jackson's senior pig was of the same type, but not so good on his feet. Wellendorf showed a smooth, good-footed, growthy pig for second. He could stand more flesh. Junior pigs were a strong class, the largest except the junior sow pigs. King's Col. Again Jr. is exceptionally big and real good except in the loin. Fred Swan's pig is one with the right outcome. Not so many aged sows were shown, but the quality of the class was strong. Fred Swan's Royal Critic was a universal favorite for the best purple. She is very smooth, good in the back and has the size. The East was in again with senior yearling sows. The three tops were of the same type and good. Joe's Orion Nellie 5th is big, smooth and right except on her feet. She beat a good-footed one in Mollie's Wonder 5th. Jackson had three good pigs to top the under year class and another for seventh. They were the high-backed, smooth kind. Junior pigs were a splendid class of big gilts. Only the very large, growthy kind got in the money. Jackson carried away all the blue ribbons for groups. In uniformity and quality he had them all stopped. He secured three out of four championships and had a remarkable herd to present to the judges.

Exhibitors: W. Applegate, Shelbina, Mo.; L. F. Atwater, Bangor, Wis.; J. R. Breed, Hydro, Okla.; C. F. Burke, Rocky Ford, Colo.; Brookwater Farm, Ann Arbor, Mich.; J. R. Blackburn, Ord, Neb.; J. W. Brooks & Son, Sedalia, Mo.; V. A. Briggs & Son, Seward, Neb.; Farley & Harney, Hampton, Neb.; H. S. Fain, Emmetsburg, Ia.; J. S. Golder, Oakland, Neb.; A. F. Hughes, Williamsburg, Ill.; I. Jackson, Tippecanoe City, O.; Dr. J. P. Jorgensen, Elkhorn, Ia.; T. Johnson, Camp Chase, O.; E. P. Johnson, Strasburg, Mo.; A. W. Lamb, Albion, Neb.; P. M. & B. F. Lott, Fairmont, Neb.; Moats Bros. & Co., Missouri Valley, Ia.; J. McGaughey, Wisner, Neb.; Mueller Bros., Cumberland, Ia.; R. W. Murphy, Dearborn, Mo.; C. W. Martin, Carroll, Ia.; Meridel Farm, Black Lick, O.; N. J. Nelson, Newman Grove, Neb.; W. Putman & Son, Tecumseh, Neb.; Reeve Bros., Hampton, Ia.; I. J. Swain & Sons, Malvern, Ia.; Smith Bros., Thompson, Mo.; M. Spencer, Audubon, Ia.; J. Symonds, Dunlap, Ill.; F. Swan, Missouri Valley, Ia.; Urbanside Farm, Waterloo, Ia.; G. Van Patten & Son, Sutton, Neb.; G. Van Sant, Sidney, Ia.; W. H. & A. D. Van Meter, Williamsville, Ill.; C. Wallace, Wisner, Neb.; Waltemeyer & Son, Melbourne, Ia.; Wellendorf & Son, Algona, Ia.; Wallace & Kuhl, Wisner, Neb.; C. A. Zellmer, Atlantic, Ia.; H. A. Deets, Kearney, Neb.; F. L. Crow, Hutchinson, Kan.; G. Gawely, Irwin, Ia.; E. P. Johnson, Strasburg, Mo.; H. E. Labart, Overton, Neb.; W. Sells, Sidney, Ia. Judge, Dean E. A. Burnett, Lincoln, Neb. Associate judge, W. A. Williams, Marlow, Okla.

Aged boar (14 shown), 1st Applegate on Economy 2d, 2d Golder on Critic's Protection, 3d Swan on Cherry King Orion, 4th Van Meter on Van's Orion Cherry King, 5th Nelson on Illustrator 2d I Am, 6th Deets on Deets' Illustrator 2d, 7th Burke on Burke's Good Enuf Again, 8th Urbanside Farm on Royal Gano; senior yearling (9 shown), 1st Johnson on Orion's Cherry Chief 2d, 2d Jackson on Cherry Friend, 3d Brookwater Farm on King Cherry King, 4th Lott on Russell's Model, 5th Crow on Potentate, 6th Jorgensen on Grand Model 44th, 7th Moats Bros. on Golden Chief Model, 8th McGaughey on Long Sensation; junior yearling boar (16 shown), 1st Jackson on Joe's Orion King, 2d Golder on King Orion Jr., 3d Waltemeyer & Son on Giant Invincible, 4th Spencer on Jack's Orion, 5th Smith Bros. on The Pal, 6th Johns on Cherry King Disturber, 7th Symonds on Critic's Chief, 8th Lamb on Crimson Wonder 7th; senior pig (20 shown), 1st Jackson on Orion's Cherry King 22d, 2d Wellendorf & Son on Aviator, 3d Jackson on Joe's King Orion, 4th Wallace on Wallace's Perfection, 5th Waltemeyer & Son on Oakdale Model, 6th Brookwater Farm on Brookwater Special, 7th Murphy on litter brother to Big Alley, 8th Atwater on Jack's Orion 3d; junior pig (33 shown), 1st Putnam & Son on King Col. Jr.; 2d Swan on Premier's Model, 3d Atwater on Model Wonder 2d, 4th Brookwater Farm on The Principal 20th, 5th Breed on King of Orion Cherries, 6th Golder on Critic's Headquarters, 7th and 8th Hughes on Chief of Sangamo 7th and Choice Col. of Sangamo 2d.

Aged sow (8 shown), 1st Swan on Royal Critic, 2d and 3d Golder on Jumbo Jennie 2d and Jumbo Jennie 3d, 4th Van Meter on Red Feather 2d, 5th and Jorgensen on Sensation Belle and Wonder Model, 7th Atwater on Maplehurst Lady 2, 8th Moats Bros. on Miss Golden Gano 2d; senior yearling (15 shown), 1st Jackson on Orion's Willetta 3d, 2d Brookwater Farm on Brookwater Protectioness, 3d Johnson on Oakland's Highland Maid, 4th Reeve Bros. on Art's Choice Again, 5th Jorgenson on Golden Pride, 6th and 7th Waltemeyer & Son on Grand Lady 24th and Grand Lady 66th, 8th Atwater on Proud Helen 2d; junior yearling (27 shown), 1st Jackson on Joe's Orion Nellie 5th, 2d Van Meter on Mollie's Wonder 1st, 3d Brookwater Farm on Brookwater Red Bud 10th, 4th Waltemeyer & Son on Grand Lady 76th, 5th and 6th Golder on Critic's Peach and Critic's Gayety, 7th Brookwater Farm on Brookwater Favorite 5th, 8th Waltemeyer & Sons on Great Wonder's Lady 8th; senior pig (24 shown), 1st 2d and 3d Jackson on Joe's Orion Lady 8th, Joe's Orion Lady 9th and Joe's Orion Lady 10th, 4th Brookwater Farm on Brookwater Lass D., 5th Breed on Queen the Col, 6th Van Meter on Lady Belle 10th, 7th Jackson on Joe's Orion Lady 30th, 8th Brookwater Farm on Brookwater Lass E.; junior pig (37 shown), 1st Putnam & Son on Miss King's Lady, 2d Breed on Queen Orion Cherry King, 3d Jackson on Joe's Orion [illegible] 5th Breed on Princess Orion Cherry King, 6th Putnam & Son on Miss King's Lady 82d, 7th Golder on Critic's Darling, 8th Brookwater Farm on Brookwater Fancy Lady 11th.

Old herd, 1st Jackson, 2d Golder, 3d Brookwater Farm, 4th Van Meter, 5th Waltemeyer, 6th T. Johnson, 7th Jorgensen, 8th Crow; herd bred by exhibitor, 1st and 2d Jackson, 3d Brookwater Farm, 4th Putnam, 5th Johnson, 6th Waltemeyer, 7th Brookwater Farm, 8th Crow; young herd, 1st Jackson, 2d Putnam, 3d Breed, 4th Brookwater Farm, 5th Golder, 6th Atwater, 7th Van Meter, 8th Hughes; get of sire, 1st and 2d Jackson, 3d Putnam, 4th Waltemeyer, 5th Breed, 6th Van Meter, 7th Brookwater Farm, 8th Golder; produce of dam, 1st Jackson, 2d Putnam, 3d Brookwater Farm, 4th Breed, 5th Atwater, 6th Golder, 7th Brookwater Farm, 8th Crow.

Senior champion boar, Jackson on Joe's Orion King; junior and grand champion boar, Jackson on Orion's Cherry King 2d; senior and grand champion sow, Swan on Royal Critic; junior champion sow, Jackson on Orion's King Lady 30th.

Nebraska State Board of Agriculture silver cup (best boar and three gilts farrowed since March 1, 1917, bred by exhibitor), Putnam & Son; Union Stockyards Co. trophy (best four boars bred and shown by one exhibitor), Jackson; Journal Stockman cup (best litter of four or more junior pigs owned and bred by one exhibitor), Putnam & Son; Twentieth Century Farmer cup (best four sows of any age bred and owned by one exhibitor), Jackson.

DUROC JERSEY FUTURITIES.

Junior boar pig, 1st Atwater on Model Wonder, 2d Brookwater on The Principal 20th, 3d Golder on Critic's Banker, 4th Hughes on Choice Col. of Sangamo 2d, 5th Brookwater on Brookwater Principal Jr., 6th Breed on Col. Cherry Chieftain, 7th and 8th Atwater on Model Wonder 2d and Queen's Proud Chief, 9th Hughes on Choice Col. of Sangamo 1st, 10th Brookwater on The Principal 23d; junior sow pig, 1st Golder on Critic's Choice, 2d Brookwater on Brookwater Fancy Lady 11th, 3d Atwater on Wonder May, 4th Golder on Critic's Maid, 5th Van Meter on Kitty Wonder, 6th Golder on Critic's Pet, 7th Van Meter on Kitty Wonder 2d, 8th Crow on Crow's Futurity Girl, 9th and 10th Brookwater on Brookwater Jam 20th and Brookwater Fancy Lady 12th; futurity litter, 1st Golder, 2d Atwater, 3d Brookwater, 4th Van Meter, 5th Brookwater, 6th Atwater, 7th Crow, 8th Brookwater, 9th Jorgenson, 10th Crow.

Poland Chinas.—The show was exceptionally good in some classes while others were hardly up to the standard set last year. The increase of 35 head was found mostly in the pig classes, which ranged from 16 to 34 head shown. Official weights this year gave an accurate measure where last year much speculation was to be heard. The aged boar class averaged well over 1,000 pounds, the heaviest being Caldwell's Big Bob, at 1,122. Several of the mature boars missed 1,100 by so few pounds that they could at home lay claim to the even figure. The first three aged sows averaged 827 pounds; Mc's Choice being the lightest because not in as high condition as the second and third. Pigs showed heavy weights. It was a big-type show in every respect with quality and firmness pronounced in nearly every hog driven into the ring. The first class brought out the heaviest hog on the grounds winner. Caldwell's Big Bob is a very strong-backed and good-footed boar for the weight he carries. King Jones is another big one at 1,079. A very active boar and well balanced in his make up. The straightest-lined boar of the class came in third. At 980 pounds as a two year old he is not short on weight, but looked small beside the two older boars. Of the five senior yearling's Meharry's was a good top. He is growthy, smooth, up on his toes and gave the aged boar a great run for the senior championship. The junior yearlings were disappointing. A much stronger lot appeared in this class last year. The tops of the list were good, but the remainder only average. Under a year pigs made up the deficiency in the class just before them. This was one of the best of the show. The first three are all growthy, good quality kind with an outcome to them. Junior boar pigs were the largest Poland class. The first pair are much alike, big, stretchy and good on their feet. The second shows wrinkles that the first has failed to develop. Aged sows were big and most of them firm and smooth fleshed. There was close competition between the first two, a pair of very breedy looking sows. Mc's Choice is more uniform in width, but nearly 50 pounds lighter than Big Wonder's Maid. Only good ones appeared in the senior yearling class. It showed the highest average excellence of individuals in the classification. Few faults are to be found with any of the eight money winners. Growth and stretch characterized the under 18 months class. They had the weight, but it was in frame and scale rather than too much fat. The senior pig class was strong both in numbers and quality. Bob's Giantess A. is long, smooth and a comer. Conrad's top of the junior pigs is a neat, smooth lady of good size. First, fourth and fifth are all from the same litter. Group moneys were well distributed. The futurity winnings of H. B. Walter & Son deserve mention. In calculating the points for awarding the Poland China Journal trophy this firm had 56, while the nearest competitor had made but 32. Championships were soon tied once the judges had given the senior boar ribbon to Caldwell's Big Bob. It was done only after much examination and debate. Judged by Crawford's comments

the second National Poland Show was a decided advance from the first.

Exhibitors—S. Y. Burks, Bolivar, Mo.; F. B. Caldwell, Howard, Kan.; I. J. Conrad, Melbourne, Ia.; W. E. Conrad, Melbourne, Ia., E. C. Caverly, Tolono, Ill.; P. Dawson, Endicott, Neb.; F. Dralle, Mission Hill, S. D.; W. J. Graham, Howard Lake, Minn.; W. J. Hather, Ord, Neb.; R. W. Halford, Manning, Ia.; N. C. Jensen & Sons, Exira, Ia.; Kritzeck Bros., Howard Lake, Minn.; J. Kramer, Elkader, Ia.; E. E. Marlow & Son, Wellsville, Mo.; B. F. Marmion, Farmington, Ia.; J. McDonald, North Bend, Wis.; J. E. Meharry, Tolono, Ill.; J. C. Meese & Sons, Ord, Neb.; H. C. McGath, Hoskins, Neb.; G. F. Marshall, Monroe, Ia.; H. H. Meyer & Sons, Fontanelle, Neb.; T. McMahon, Farragut, Iowa; J. O'Connell, Malcolm, Neb.; M. D. Porter, Vandalia, Mo.; C. M. Pederson, Dunlap, Ia.; F. Sievers, Audubon, Ia.; M. W. Sells, Randolph, Ia.; J. B. Stricklett, Kennard, Neb.; J. V. Slepicka & Son, Wilber, Neb.; O. E. Wade Rising City, Neb.; H. B. Walter & Son, Effingham, Kan.; P. W. Young, Prosper, Minn.; H. O. Williamson, Herman, Neb.; R. G. Paul, Marshalltown, Ia. Judge, Chas. A. Marker, Auburn, Ill.; consulting judge, Thos. A. Shattuck, Hastings, Neb.

Aged boar (7 shown), 1st Caldwell on Caldwell's Big Bob, 2d Sievers on King Jones, 3d Kritzeck Bros. on Big Price's Equal, 4th Young on Young's Big Joe, 5th McDonald on McChief, 6th Sells on Mammoth Nelson, 7th Marlow & Son on Buster; senior yearling (5 shown), 1st Meharry & Caverly on Big Jumbo Wonder, 2d Porter on Blue Valley King, 3d Stricklett on Kennard's Ursus, 4th Dawson on Nebraska Bob, 5th McDonald on Oakwood Big Model; junior yearling (12 shown), 1st Pederson & Son on King L, 2d Walter & Son on Big Wonder, 3d Dawson on Jumbo Chief, 4th Meese & Son on Master Jumbo, 5th Graham on Black Cloverdale, 6th Dralle on Long Big Bob, 7th McDonald on Oakwood Giant, 8th Williamson on Mouw's Pawnee Chief; senior pig (16 shown), 1st Slepicka & Son on W. A Wander, 2d Marshall & Son on Futurity Wonder, 3d Meese & Son on First National, 4th Slepicka & Son on Smooth Columbus, 5th McDonald on Mc's Long King, 6th Walter & Son on Long Wonder, 7th Dawson on Overland Columbus, 8th Meese & Son on Model Rex; junior pig (34 shown), 1st Walters & Son on Bob's Quality, 2d Caverly on Long Square Jumbo, 3d Meyer & Son on Giant Bos, 4th Walters & Son on Bob's Quality 2d, 5th McMahon on Nishna Bill, 6th Caverly on Big Wonder, 7th Conrad on Model Orange, 8th Walters & Sons on Bob's Quality 3d.

Aged sow (12 shown), 1st Meharry on M.'s Choice, 2d Sievers on Big Wonder's Maid, 3d McDonald on Miss Price 4th, 4th Meharry on Miss Orphan Wonder 1st, 5th Sievers on Bob's Model, 6th O'Connell on Big Bone, 7th Caldwell on Belle Wonder, 8th Dawson on Mouw's Lady Uhlan; senior yearling (10 shown), 1st Hather on Orphan's Big Type 2d, 2d Dawson on Robina 4th, 3d Meharry on Miss Choice 2d, 4th Meese & Sons on Queen Rex, 5th McDonald on Mc's Giantess, 6th Porter on Wonder Giantess, 7th Sievers on Long King Lady, 8th Walters & Son on Miss Jumbo Wonder; junior yearling (13 shown), 1st Jensen & Son on Model, 2d Hather on Orphan Queen 1st, 3d Sievers on Long Lady Wonder, 4th Meese & Sons on Miss Long Wonder, 5th Hather on Orphan Queen 2d, 6th Meharry on M's Pride, 7th Graham on Winning Queen, 8th Walter & Son on Bob's Climax; senior pig (23 shown), 1st Halford on Bob Giantess A., 2d Walter & Son on Wonder Beauty 2d, 3d Walter & Son on Wonder Beauty 3d, 4th Dawson on Uhlan Columbia Girl 2d, 5th Halford on Bob Giantess B., 6th Meese & Sons on Miss Long Wonder 2d, 7th Meese & Sons on Hesitation, 8th Dawson on Uhlan Columbia Girl; junior pig (20 shown), 1st Conrad on Orange Lady, 2d Meyer & Son on Bonnie Bos., 3d McGath on M.'s Lady Orphan, 4th Conrad on Orange Lady 2d, 5th Conrad on Orange Lady 3d, 6th Kritzeck Bros. on Lady Black Price, 7th Kritzeck Bros. on Lady Big Price, 8th Graham on Grand Lady Price, 9th Graham on Great Lady Price, 10th McGath on Orphan Mollie.

Aged herd (9 shown), 1st Meharry, 2d Sievers, 3d Caldwell, 4th Walter & Son, 5th Hather, 6th Meese & Son, 7th McDonald, 8th Dawson; young herd (9 shown), 1st Meese & Sons, 2d Dawson, 3d Conrad, 4th Meyer & Sons, 5th Hather, 6th McGath, 7th Graham, 8th McDonald; herd bred by exhibitor (9 shown), 1st Meharry, 2d Hather, 3d Conrad, 4th Meyer & Sons, 5th McGath, 6th Graham, 7th McDonald, 8th Kritzeck Bros: get of sire (13 shown), 1st Hather, 2d Walter & Son, 3d and 7th Meese & Son, 4th Conrad, 5th McMahon, 6th Wade, 8th Caverly; produce of dam (9 shown), 1st Hather, 2d and 6th Meese & Sons, 3d Walter & Son, 4th Conrad, 5th McMahon, 7th Caverly, 8th McGath.

Senior and grand champion boar, Caldwell on Caldwell's Big Bob; junior champion boar, Slepicka on W. A Wonder; senior and grand champion sow, Meharry on Mc's Choice; junior champion sow, Halford on Bob's Giantess A.

POLAND CHINA FUTURITIES.

Senior boar pig, 1st Marshall & Son on Futurity Wonder, 2d Meese & Son on First National, 3d Slepicka & Son on Smooth Columbus, 4th McDonald on Mc's Long King, 5th Walter & Son on Long Wonder, 6th Dawson on Overland Columbus, 7th and 8th Meese & Son on Model Rex and Long Wonder's Master; junior boar pig, 1st Walter & Son on Bob's Quality, 2d Caverly on Long Square Jumbo, 3d Meyer & Son on Giant Bos, 4th Walter & Son on Bob's Quality 2d, 5th Caverly on Big Wonder, 6th Conrad on Model Orange, 7th Walter & Son on Bob's Quality 3d, 8th Meese & Sons on Big Fraction, 9th Conrad on Big Futurity, 10th Caldwell on Black Big Bob; senior sow pig, 1st Walter & Son on Wonder Beauty 2d, 2d Walter & Son on Wonder Beauty 3d, 3d Dawson on Uhlan Columbia Girl 2d, 4th and 5th Meese & Sons on Miss Long Wonder 2d and Hesitation, 6th Dawson on Uhlan Columbia Girl, 7th Meese & Sons on Miss Long Wonder 3d, 8th Kritzeck Bros. on Miss Lady Price; junior sow pig, 1st Conrad on Orange Lady, 2d Meyer & Son on Bonnie Bos, 3d McGath on M.'s Lady Orphan, 4th and 5th Conrad on Orange Lady 2d and Orange Lady 3d, 6th and 7th Kritzeck Bros. on Lady Black Price and Lady Big Price, 8th and 9th Graham on Grand Lady Price and Great Lady Price, 10th McGath on Orphan Mollie; futurity litter, 1st Walter & Son, 2d Conrad, 3d McGath, 4th Caverly, 5th Graham, 6th Marlow, 7th McDonald, 8th Burks, 9th Caldwell, 10th Dralle.

Poland China Journal Silver Trophy, awarded for the highest number of points scored in the futurity classes, Walter & Son.

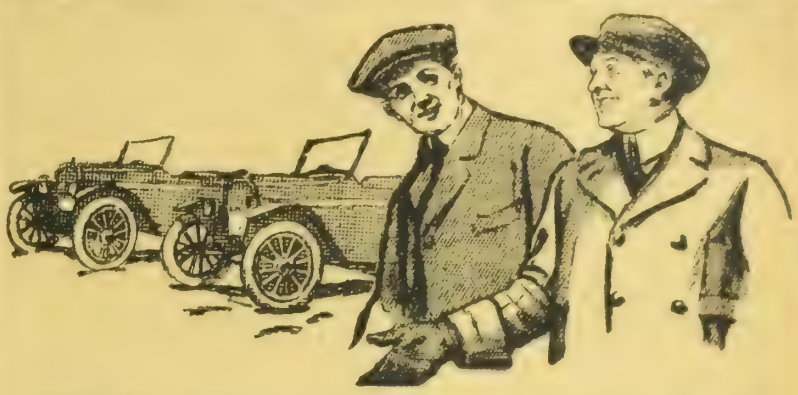
POLAND CHINA SPECIAL CUPS.

Nebraska State Board of Agriculture, Meyer & Sons; Union Stockyards Co., Walter & Son; Journal-Stockman, Walter & Son; Hotel Castle, Hather.

Chester Whites.—Most of the leading breeds of swine have passed through the days of adjustment from medium size hogs to big types. The Chester Whites are just beginning their pilgrimage. It will unquestionably be less of a struggle than it was for the Poland Chinas for the trail is broken and a few generations will show surprising results. The pioneers in the big-type Chesters are Boyer & Son, of Farmington, Iowa. Their Wildwood Prince stock proved to Chester White men that big type Chesters are as desirable as other large types and as easily possible. Seven hundred and thirty-five pounds is remarkable for a junior yearling, but when the animal has all the requisites to make a grand champion along with such surprising weight, it is truly wonderful. Prince Big Bone is the boar; first prize junior yearling and grand champion. The Chester White show was one of the most attractive this year, as it was last. Exhibitors appeared in white uniforms and wearing the catalog numbers of their entries. Visitors were much better able to follow the show than in other rings. It all advertises the white hogs and F. F. Moore and son Fred were given much credit for their capable managing of the breed show. Aged boars were a good indication of the strong classes to follow. Tony Evans is a good, smooth, well-balanced boar, but of nowhere the size for age of Odegaard's Wildwood Prince Jr. Many at the ringside favored the big boar, which was bred by Boyer & Son. He is a strong-boned, good-footed hog with few of the faults of the big-type sort. Feland, a new breeder, showed a great boar in Royal Wonder. There was not enough of him to take the senior championship away from the junior yearling. The last boar made a great show and promises much for the big-type era in Chester Whites. Brown's Model Select and Wm. A. 2d are very thick, low down and smooth. They might show more stretch, but have plenty of type. Hiland Lily 3d is a working sow, a point emphasized by the judges. She is very smooth with lots of quality and was not seriously threatened even when shown for the championship. Barr's senior yearling, Lenora Gem, is a very thick, well-fitted sow, but could stand a little more stretch of frame. Boyer's Big Beauty 2d has the edge in size over the Barr sow, but not in quality and smoothness. The junior yearlings were a strong class topped by good, smooth sows. Senior sow pigs were the biggest and one of the strongest classes. Crandall's gilt is thick, big and up on her toes. Barr's Hiland Pride 3d is a very symmetrical, smooth gilt not over large. She became junior champion when Crandall was unabel to show. Scottlea Prudence nicely topped the juniors; not as strong a class as the preceding. Next year will be more interesting to Chester White followers than this. The big type movement is started and its progress will be eagerly watched.

Exhibitors: B. M. Boyer & Sons, Farmington, Ia.; G. L. Emmert & Sons, Mason City, Ia.; W. P. Doolittle, Woodland, Mo.; A. G. Satyr, Stanhope, Ia.; R. E. Brown, Dunlap, Ia.; G. E. Smith, Little York, Ill.; J. L. Barber, Harlan, Ia.; Chas. Odegaard, Lake Preston, S. D.; W. T. Barr, Ames, Ia.; H. F. Fehner, Higginsville, Mo.; H. C. Crandall, Cass City, Mich.; Chas. H. Murray, Friend, Neb.; R. C. Scott, Nelson, Mo.; F. R. Clark, Friend, Neb.; W. E. Gaffey, Storm Lake, Ia.; P. H. Sheridan, Vail, Ia.; H. L. Bode, Friend, Neb.; W. Buehler, Sterling, Neb.; J. P. Coulson, Storm Lake, Ia.; W. L. Danforth & Sons, Storm Lake, Ia.; C. C. Paul & Son, Laurel, Ia.; F. M. Feland, Tipton, Mo. Judge, L. C. Reese, Prescott, Ia.

Aged boar (15 shown), 1st Barber on Tony Evans, 2d Odegaard on Wildwood Prince Jr, 3d Satyr on Combination's Defender, 4th Boyer on Rajah, 5th Doolittle on White Eagle Select, 6th Emmert on Anxiety, 7th Paul on White Rex, 8th Brown on Wm.'s Goods; senior yearling (7 shown), 1st Feland on Royal Wonder, 2d Barber on Eden Valley Chief, 3d Barr on Highland Improver, 4th Smith on Wonder's Defender, 5th Crandall on Arbo's Leader, 6th Sheridan on Amer Pioneer, 7th Murray on Ideal Chief; junior yearling (15 shown), 1st Boyer & Son on Prince Big Bone, 2d Barber on U. S. Perfection, 3d Crandall on Perfect Schoolmaster, 4th Smith on Preparedness, 5th Barber on Chester B., 6th Doolittle on White Eagle Van, 7th Barr on Pershing, 8th Doolittle on Jambalaya; senior pig (26 shown), 1st Brown on Model Select, 2d Emmert on Anxiety 3d, 3d [illegible]



TWO neighbors were talking. Both had new cars of the same make.

"You passed me rather easily on the hill yesterday," said the first. "It seems as though we should have been nip and tuck."

"So we should," replied the other—an experienced motorist. "Have you tampered with your carbureter?"

"No."

"What oil do you use?"

"Oh, any good 'medium' oil."

"Maybe that's the difference. I use Gargoyle Mobiloil 'A' as recommended for our cars in the Vacuum Oil Company's Chart of Recommendations."

"Well, that's a 'medium' oil, isn't it?"

"Yes. But 'medium' oils vary almost as much in body as they do in quality."

"But I don't see . . . . . ."

"Nor did I—some years back. But there *is* a difference. It's a difference in piston-ring seal. Of course you know there's a clearance between our cylinders, piston rings and pistons. The correct oil will thoroughly close this clearance. The power is then tightly sealed within the combustion chambers, preventing waste of gas and power past the rings. The force of a power explosion may be 300 pounds or over to the square inch. You can imagine how it shoots past the piston rings if they aren't thoroughly sealed with the correct oil.

You may ask, "Is the above an actual conversation?" No. It simply brings out an every-day condition.

Oftener than most motorists realize, power shortage can be traced back directly to poor piston-ring seal due to using oil of incorrect body, or poor quality

A change to the correct grade of Gargoyle Mobiloils often shows surprising results—increased power, gasoline economy and reduced oil consumption, to say nothing of reduced carbon deposit.

Write for new 56-page booklet containing complete discussion of your lubrication problems, list of trouble with remedies and complete Charts of Recommendations for Automobiles, Motorcycles, Tractors and Motorboat Engines.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

CORRECT AUTOMOBILE LUBRICATION

Explanation: The four grades of Gargoyle Mobiloils, for gasoline motor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc. The recommendations cover all models of both pleasure and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Abbott-Detroit	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)			A	A	A	A				
Allen	A	Arc	A	Arc	A	Arc	A	A	A	A
" (Mod. 33-34-35)					A	Arc				
Apperson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A						
Auburn (4 cyl)			A	Arc	A	Arc	A	A	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A						
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Cadillac							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	Arc	Arc				
Case	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers			Arc	Arc	Arc	Arc	A	A	Arc	Arc
" (Mod. 6-40)			A	Arc						
" (Mod. 6-30)	A	A	A	A						
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Cole			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (Mod. C)	A	Arc	A	Arc	A	Arc	A	A		
Detroiter	Arc	Arc	Arc	Arc	A	Arc	A	A	A	Arc
" (8 cyl)					Arc	Arc				
Dodge	A	Arc	A	Arc	E	E				
Dort	A	Arc	A	Arc	A	Arc				
Empire (4 cyl)	A	Arc	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc						
Federal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	Arc
Grant	A	Arc	A	Arc	Arc	Arc	Arc	Arc		
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Hudson			Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (Super Six)	A	Arc	A	A						
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
I H C (air)					B	A	B	A	B	A
I.H.C. (water) (2 cycle)			A	A	A	A	A	A	A	A
I H C (water) (4 cycle)			A	Arc						
Interstate	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Jeffery	A	Arc	A	Arc	A	Arc	A	A		
" (6 cyl)	A	A								
" Com'l	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
King					A	Arc	A	A	A	E
" (8 cyl)	A	A	A	A	Arc	Arc				
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" " Com'l	A	Arc	A	Arc	A	Arc	A	Arc	Arc	Arc
" " (Mod 48)			A	A	A	A	A	A		

Model of CARS	1917 Summer	1917 Winter	1916 Summer	1916 Winter	1915 Summer	1915 Winter	1914 Summer	1914 Winter	1913 Summer	1913 Winter
Kissel Kar (12 cyl)	A	A								
Lexington	Arc	Arc	Arc	Arc	Arc	Arc				
Locomobile	E	E	E	E	E	E	E	E	Arc	Arc
McFarlan	A	Arc	A	A	A	Arc			A	Arc
Marmon	A	A	A	A	A	A			A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Mitchell (8 cyl)			A	A						
Moline										Arc
" Knight	A	A	A	A	A	A	A	A		
Monroe	A	Arc	E	E	A	Arc				
Moon (4 cyl)					A	Arc	A	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	A				
National	Arc	Arc	A	Arc	A	Arc	A	A	A	A
" (12 cyl)	A	A	A	A						
Oakland	Arc	Arc	A	Arc	Arc	Arc	A	A	A	Arc
" (8 cyl)			A	A						
Oldsmobile			Arc	Arc	Arc	Arc	Arc	Arc		Arc
" (8 cyl)	A	A	A	A						
Overland	Arc	Arc	Arc	Arc	Arc		Arc	Arc	Arc	Arc
Packard					A	Arc	A	A		Arc
" (12 cyl)	A	A	A	A						
" Com'l	A	A	A	A	A	A	Arc			Arc
Paige					A	Arc	A	A	A	E
" (5-46)	Arc	Arc	Arc	Arc	Arc	Arc				
" (6-36 & 38)	A	Arc	A	Arc	A	A				
Pathfinder	Arc	Arc	A	Arc	Arc	Arc	Arc	Arc	A	Arc
" (12 cyl)	A	A	A	A						
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		Arc
" (8 cyl)	A	A	A	A						
Pierce Arrow	A	A	A	A	Arc	Arc	Arc	Arc		Arc
" Com'l	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	Arc	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		Arc
" (8 cyl)			A	A						
Reo	A	Arc	A	Arc	A	A	A	A		
Saxon	E	E	E	E						
Stearns-Knight	A	A	B	A	A	B			A	A
" (8 cyl)	A	A	B	A						
Stephens	Arc	Arc	Arc	Arc						
Studebaker	A	Arc	A	Arc	Arc	Arc	A			Arc
Stutz	A	A	A	A	A	A	A			Arc
Velie (4 cyl)					A	Arc	A	Arc		Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Westcott	Arc	Arc	Arc	Arc	Arc		Arc	A	A	Arc
White	Arc	Arc	Arc	Arc	A	Arc	Arc		Arc	Arc
" (15 valve)	A	A								
Wichita Knight	A	A	B	A	B	A	A			
Willys Six	Arc	Arc								
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, Rochester, N.Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches Boston, Detroit, Kansas City, Kan., New York, Philadelphia, Chicago, Minneapolis, Indianapolis, Pittsburgh, Des Moines

Wonder Prince, 4th Barber on Northern Spy, 5th Crandall on C. C. Schoolboy 17th, 6th Feland on Callaway Chief, 7th Crandall on C. C. Abe 2d Jr., 8th Brown on Brown's O. K.; junior pig (17 shown), 1st Brown on William A 2d, 2d Odegaard on Fancy Boy, 3d Scott on Scottlea Parson Proud, 4th Barr on Victor Boy, 5th Gaffey on Billy J., 6th Crandall on C. C. Schoolboy 18th, 7th Smith on Right Boy, 8th Odegaard on Shamrock.

Aged sow (20 shown), 1st Barr on Hiland Lily 3d, 2d Crandall on Perfection 5th, 3d Barber on Queen Iola, 4th Barr on Hiland Belle, 5th Barber on Wedding Belle, 6th Smith on White Miss, 7th Buehler on Dandy, 8th Smith on Fancy; senior yearling (9 shown), 1st Barr on Lenora's Gem, 2d Boyer & Sons on Big Beauty 2d, 3d Barber on Chester Queen, 4th Smith on Grace 1st, 5th Barber on J. L.'s Delight, 6th Crandall on Perfection Triumph, 7th Barr on Miss Lenora 3d, 8th Feland on Reese's Choice; junior yearling (18 shown), 1st Crandall on Perfection 1st Jr., 2d Smith on Lady Smith, 3d Barr on Highland Frankie 2d, 4th Brown on Volunteer Lady, 5th Gaffey on Lady Highland, 6th Buehler on Alfalfa Queen 3d, 7th Doolittle on Queen Sunbeam, 8th Smith on Model Maid; senior pig (23 shown), 1st Crandall on Perfection's Last, 2d Barr on Hiland Pride 3d, 3d Odegaard on Shamrock 1st, 4th Brown on Arline 1st, 5th Smith on Princess Lady, 6th Brown on Arline 2d, 7th Barr on Hiland Pride 4th, 8th Odegaard on Shamrock 2d; junior pig (17 shown), 1st Scott on Scottlea Prudence, 2d Smith on White Gem, 3d Barr on Miss Lenora A., 4th Gaffey on Highland Lass, 5th Smith on Miss White, 6th Barr on Miss Lenora B., 7th H. Crandall on C. C. Schoolgirl 10th, 8th Fehner on Tip Top.

Old herd, 1st Barber, 2d Barr, 3d Crandall, 4th Barber, 5th Brown, 6th Boyer, 7th Doolittle, 8th Smith; young herd, 1st Brown, 2d Smith, 3d Crandall, 4th Barber, 5th Gaffey, 6th Scott, 7th Odegaard, 8th Bode; herd bred by exhibitor, 1st Barber, 2d Barr, 3d Brown, 4th Smith, 5th Boyer, 6th Emmert & Sons, 7th Gaffey, 8th Odegaard; get of sire, 1st Barr, 2d Brown, 3d Smith, 4th Crandall, 5th Barber, 6th Boyer, 7th Barr, 8th Barber; produce of dam, 1st Crandall, 2d Barber, 3d Odegaard, 4th Smith, 5th Brown, 6th Scott, 7th Barber, 8th Odegaard.

Senior and grand champion boar, Boyer & Son on Prince Big Bone; junior champion boar, Brown on William A. 2d; senior and grand champion sow, Barr on Hiland Lily 3d; junior champion sow, Barr on Hiland Pride 3d.

Nebraska State Board of Agriculture silver cup (best boar and three gilts farrowed since March 1, 1917, bred by exhibitor), Brown; Union Stockyards Co. trophy (best four boars bred and shown by one exhibitor), Odegaard; Journal Stockman cup (best litter of four or more junior pigs bred and owned by one exhibitor), Scott.

Berkshires.—"The strongest Berkshire show I can recall in many years," was Judge Spicer's comment upon the exhibit. Berkshire men have a habit of coming farther to the National show than breeders of other hogs. Again this year both the Atlantic and Pacific coasts were represented and their exhibitors took away a nice share of the prize money. A wider range of territory is covered by the list of showmen than is the case in any other breed. More Berkshires and of better individual merit was the universal judgment upon the show this year. Not so many aged boars were driven out, but no serious faults were to be found with those presented. Baron Duke 201st became both the senior and grand champion. He is a thick, smooth fellow and as long as every Berkshire should be. Of very good type, he had little difficulty beating the junior champion. Corsa's senior yearling is a very thick, smooth boar and his junior yearling a high quality, trim, tidy kind. After the aged boar class was past the Illinois herd won every class on males. The senior pig became the junior champion. He is growthy, has very good bone and feet, but is quite inclined to wrinkle for an under year pig. Iowana Farms showed a good junior yearling in Iowana Royal 48th and a splendid pair of senior pigs in Iowana Baron 30th and Iowana Royal 52d. Junior boar pigs were one of the strong classes of the show again, topped by Corsa. Aged sows were seven in number and all good. The Brush sow went through to the grand championship. Although shown by a California exhibitor, she was bred by an Iowa breeder, Dean Curtiss, of Ames. Within three weeks of farrowing, she was not as heavily fed as others in the aged class, but is a wonderful sow in her length, smoothness and balance. Iowa Duchess 31st is another good one and would look well at the head of a class. Hood Farm's senior yearling is thick, smooth and exceptionally heavy in the hams. Their junior yearling is a very trim, tidy, clean-boned sow and still has made good size. Symboleer's Mistresspiece is good in every way, but a little disposition to settle on her hind pasterns. She was beaten for junior championship by the very tidy, attractive gilt of Townsend Farms.

Exhibitors: F. A. Brush, Santa Rosa, Cal.; S. Y. Burks, Bolivar, Mo.; W. S. Corsa, Whitehall, Ill.; Hood Farm, Lowell, Mass.; Iowana Farms, Davenport, Ia.; Jenkins Bros., Orleans, Ind.; R. C. Obrecht, Topeka, Kan.; Townsend Farms, New London, O. Judge, W. E. Spicer, Bushnell, Ill.

Aged boar (5 shown), 1st Brush on Baron Duke 201st, 2d Hood Farm on Longfellow's Double, 3d Corsa on Royal Superbus 2d, 4th Obrecht on Pathfinder 3d, 5th Iowana Farm on Iowana Rival Champion 3d; senior yearling (7 shown), 1st Corsa on Lassie's Matchless Emblem, 2d Brush on Mayfield Champ- [illegible] 3d Hood Farm on Successor's Cre- [illegible] 4th Townsend on Successor's Improver, 5th Iowana Farm on Iowana Rival 22d, 6th Burke on Frisky Duke 2d, 7th Obrecht on Improver's Baron; junior yearling (8 shown), 1st Corsa on Superb Fearnaught, 2d Iowana Farm on Iowana Royal 48th, 3d Corsa on Superba Fearnaught 2d, 4th Hood Farm on Longfellow's Double 2d, 5th Brush on Winona Lee Champion 6th, 6th, 7th and 8th Hood Farm on Longfellow's Double 3d, Longfellow's Double 4th and Longfellow's Double 6th; senior pig (15 shown), 1st Corsa on Symboleer's Jr. 2d, 2d Corsa on Symboleer's Jr., 3d Brush on Lincoln Rival, 4th Iowana Farm on Iowana Baron 30th, 5th Townsend Farm on Duke Bakham, 6th Iowana Farm on Iowana's Royal 52d, 7th Hood Farm on Longfellow's Double 7th, 8th Rogers Bros. on Royal Matchless 9th; junior pig (11 shown), 1st Corsa on Symboleer's Perfect, 2d and 3d Rogers Bros. on Majestic Matchless 5th and Royal Matchless 10th, 4th Townsend Farm on Champion's Masterpiece 6th, 5th Brush on Lincoln Lee Champion, 6th Corsa on Symboleer's Perfecto, 7th Jenkins Bros. on Superior's Invincible, 8th Iowana Farms on Iowana Rival 44th.

Aged sow (7 shown), 1st Brush on Rookwood Lady 100th, 2d Iowana Farms on Iowa's Duchess 31st, 3d Corsa on Rival's Hopeful Belle, 4th Hood Farm on Successor's Duchess 2d, 5th Iowana Farms on Iowana Lady 19th, 6th Brush on Wohler's Geromino, 7th Burks on Baron Duke's Lady 10th; senior yearling (11 shown), 1st and 2d Hood Farm on Successor's Lady 14th and Successor's Dolly, 3d Brush on Rookwood Belle 7th, 4th and 5th Iowana Farms on Iowana Lady 42d and Iowana Lady 41st, 6th and 7th Corsa on Master's Matchless Lady and Emblem Duke's Lady, 8th Iowana Farms on Iowana Lady 45th; junior yearling (14 shown), 1st Hood Farm on Longfellow's Double's Daughter, 2d Brush on Mayfield Lady 16th, 3d Corsa on Fearnaught Gem, 4th Brush on Princess Leader, 5th Hood Farms on Longfellow Double's Maid, 6th Rogers Bros. on Majestic Beauty 14th, 7th Iowana Farms on Iowana Rose 6th, 8th Corsa on Fearnaught Gem 2d; senior pig (14 shown), 1st Corsa on Symboleer's Mistresspiece, 2d Rogers Bros. on Matchless Belle 23d, 3d Corsa on Symboleer's Double Girl, 4th Brush on Mayfield Laurel 15th, 5th and 6th Jenkins Bros. on Superb Premier Duchess and Superb Premier Princess, 7th Iowana Farms on Iowana Belle 55th, 8th Hood Farm on Longfellow's Double's Bernice; junior pig (12 shown), 1st Townsend Farm on Champion's Blossom 3d, 2d Rogers Bros. on Majestic Girl 14th, 3d and 4th Corsa on Symboleer's Della and Symboleer's Della 2d, 5th Brush on Miss Villa's Laurel, 6th Iowana Farms on Iowana Peaceful 59th, 7th Corsa on Symboleer's Duchess 4th, 8th Rogers Bros. on Majestic Beauty 15th.

Aged herd (8 shown), 1st Hood Farm on herd headed by Longfellow's Double, 2d Corsa on herd headed by Royal Superbus 2d, 3d and 6th Iowana Farms, 4th Brush, 5th Corsa, 7th Burks, 8th Obrecht; young herd (9 shown), 1st Corsa on herd headed by Superb Fearnaught, 2d Iowana Farms on herd headed by Iowana Baron 30th, 3d and 5th Rogers Bros., 4th Hood Farm, 6th Corsa, 7th Jenkins Bros., 8th Iowana Farms; herd bred by exhibitor (8 shown), 1st Hood Farm on herd headed by Longfellow's Double, 2d Corsa on herd headed by Superb Fearnaught, 3d and 4th Iowana Farms, 5th and 6th Rogers Bros., 7th Burks, 8th Obrecht; get of sire (14 shown), 1st Hood Farm on get of Lord Premier's Successor, 2d Corsa on get of Symboleer 5th, 3d Iowana Farms on Ames Rival 51st, 4th Hood Farm, 5th and 6th Corsa, 7th Rogers Bros., 8th Iowana Farms; produce of dam (9 shown), 1st and 2d Corsa on produce of Matchless Sallie and Superbus Sallie, 3d Hood Farm, 4th and 8th Iowana Farms, 5th and 6th Rogers Bros., 7th Brush.

Senior and grand champion boar, Brush on Baron Duke 201st; junior champion boar, Corsa on Symboleer's Jr. 2d; senior and grand champion sow, Brush on Rookwood Lady 100th; junior champion sow, Townsend Farms on Champion's Blossom 3d.

Silver cup special (Board of Agriculture), Rogers Bros.; silver cup special (Union Stockyards), Hood Farm.

Gold watch offered by the Berkshire World to the herdsman who keeps his herd, pens and aisles in the best condition, awarded to N. D. Browning, herdsman for W. S. Corsa.

Spotted Poland Chinas.—This breed showed marked improvement over the show of 1916. Exhibitors were increased from two to five and entries from 33 to 80. Many good hogs were shown; some of the boars especially were wrinkled and rough, but improvement in the type and quality goes on rapidly. Some of the aged boars were a little plain and unfortunately one of the best of them was badly lamed. Aged sows brought out the best individual of the show, a remarkably smooth, trim matron from the Bock & Shirk herd. Among the pigs, the females were the highest in merit; some very smooth ones being shown. The average of individuals shows a long step forward in the Spotted Poland business. Soon they should be in a position to challenge other breeds now much larger in numbers.

Exhibitors—A. S. Booco, Jeffersonville, Ohio; Bock & Shirk, Hempton, Ind.; J. D. Gates & Sons, Ravenwood, Mo.; E. R. McKeefer & Son, Ossian, Ind.; G. W. Reeve, Rushville, Ind. Judge, Geo. H. Kirkpatrick, Utica, Ohio.

Aged boar, 1st Reeve on Duke of Fairland, 2d Gates & Sons on Spotted Mammoth, 3d McKeefer & Son on Mc's Pride, 4th Booco on Park Co. Choice, 5th Booco on Big Frank, junior yearling, 1st Gates & Sons on Gates' Leader, 2d Bock & Shirk on Lilly's Chief, 3d Booco on Lill's Longfellow; senior pig, 1st Booco on Bouncer, 2d McKeefer & Sons on Mc's Perfex, 3d Reeve on Dandy Lion, 4th Booco on Herbert's Pride; junior pig, 1st Gates & Sons on Gates' Wonder, 2d Reeve on Spotted Dude, 3d Booco on Michigan Boy 30th, 4th Bock & Shirk on American Boy, 5th and 6th Gates & Sons on Gates' Wonder 2d and Big Spots, 7th and 8th Booco on Michigan 33d and Michigan Boy 31st.

Aged sow, 1st Bock & Shirk on Queen Bess 2d, 2d Booco on Elizabeth, 3d Booco on Highland Queen, 4th Reeve on Vivian Martin, 5th and 6th Bock & Shirk on Packer's Model and Stockholm Margaret, 7th Booco on Silver Maid; senior yearling, 1st Reeve on Palmyra 1st, 2d Bock & Shirk on Underwood's Daisy, 3d, 4th and 5th Booco on Queen Laverne, Ohio Bess 2d and Lady Laverne; junior yearling, 1st

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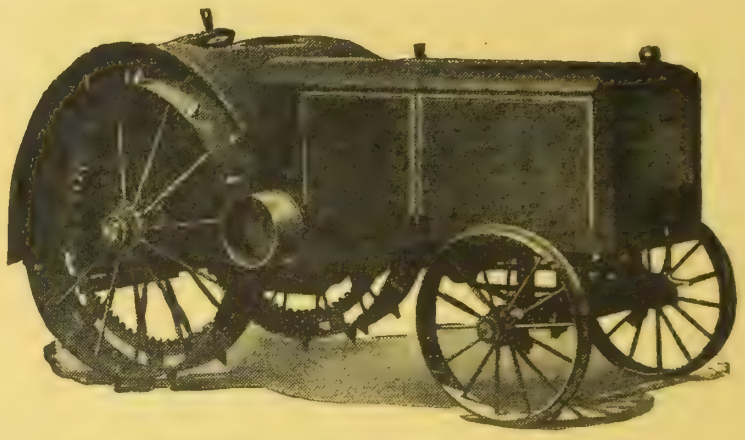

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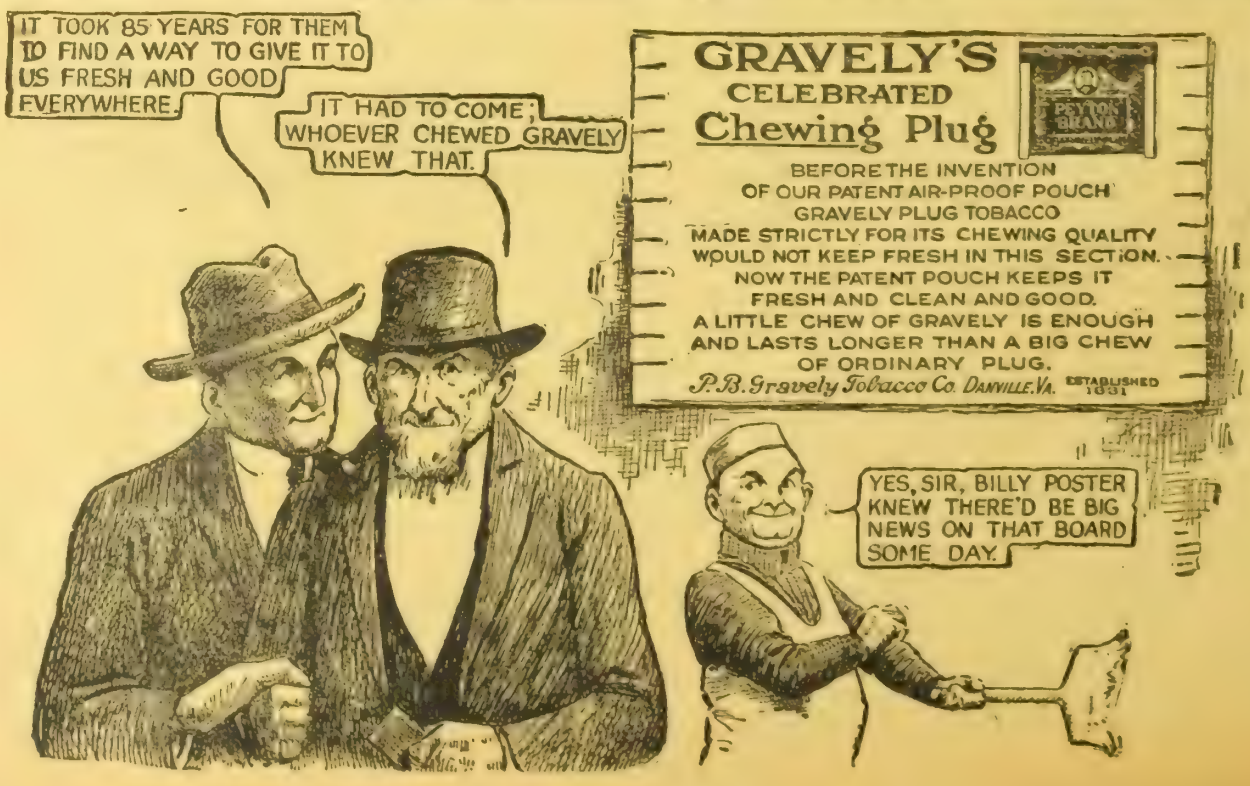

Booco on Lady Perfection, 2d, 3d and 4th Bock and Shirk on Beautiful Rose, Perfect Siss 7th and Ia Pearle, 5th and 6th Booco on Lady Perfection 2d and Lady Perfection 3d; senior pig, 1st Booco on Perfect Siss 10th, 2d Bock & Shirk on American Belle, 3d and 4th Reeve on Rellie and Duke's Pet, 5th McKeefer & Sons on Bertha C. 2d, 6th Reeve on Mellie, 7th Bock & Shirk on American Star, 8th Booco on Perfect Siss 11th; junior pig, 1st Gates & Son on Gates' Choice, 2d Bock & Shirk on Springtime 3d, 3d and 4th Reeve on Light Fancy and Dark Fancy, 5th McKeefer & Sons on Lottie E. 5th, 6th Gates & Sons on Gates' Choice 2d, 7th Booco on Lady Alice 4th, 8th Bock & Shirk on Springtime 4th.

Aged herd, 1st Reeve, 2d and 3d Bock & Shirk, 4th and 5th Booco; young herd, 1st Gates & Sons, 2d and 6th Booco, 3d Reeve, 4th McKeefer & Sons, 5th Bock & Shirk; herd bred by exhibitor, 1st and 3d Booco, 2d Gates & Sons, 4th and 6th McKeefer & Sons, 5th Bock & Shirk; get of sire, 1st and 7th Booco, 2d Gates & Sons, 3d Reeve, 4th and 6th Bock & Shirk, 5th and 8th McKeefer & Sons; produce of dam, 1st and 7th Booco, 2d Gates & Sons, 3d and 5th Bock & Shirk, 4th Reeve, 6th and 8th McKeefer & Sons.

Senior and grand champion boar, Reeves on Duke of Fairland; junior champion boar, Gates & Sons on Gates' Wonder; senior and grand champion sow, Bock & Shirk on Queen Bess 2d; junior champion sow, Booco on Perfect Siss 10th.

Union Stockyards Company Cup, best 4 boars bred and shown by one exhibitor, Gates.

Hampshires.—In numbers and in many classes in quality the belted hogs shown excelled the 1916 exhibit. The under six months boar pigs brought out the largest class, 40 head, shown in any breed. Judging was not completed until late in the show, Tuesday afternoon. The time awards were to be made had been well advertised and many breeders followed the judging until its completion. Some classes were below the standard set last year. Aged boars were 13 in number, but several of them added little of credit to the ring. The Senator was a good top, being a splendid type, thick, uniform, with good hams, but a trifle short in body. Schroeder's second was a boar showing less finish than the first. Capt. Silko had been spoken of as a strong contender for the top, but landed third. Along with the rest of the Silver herd, he has been a strenuous traveler this season and was a little off in his feet. Lewis headed the next class with a strong, thick-backed boar of good quality. A trifle more stretch would be to his advantage as he is medium in size. My Rambler is more growth but not so smooth. Lewis again topped the ring when eighteen junior yearlings appeared. His pig has smoothness and uniformtiy in good measure. Jones was first and third in under twelve months boars with a smooth, growthy pair which are litter brothers. Home Stake was lame in one front foot, but was good enough to hold the second pen. The strongest boar class was the junior pigs. Manley's Young Senator became junior champion. In size and smoothness he had the advantage over the pair Roberson had in second and third. Pigs lower down in the money were on a par individually with the tops in several other classes. Aged sows were a strong ring. Polly Lookout headed twenty good entries. She has size, smoothness and quality. Senior yearlings were the most classy of the female rings. The senior and grand champion, Roxy Lookout, is a splendid type—thick, uniform and up well on her pasterns. Wickfield Farm and Lewis both had three good sows in the money. F. F. Silver continued to win the blues until the junior pigs were brought in. His Cherokee Pearl is a thick, well-fitted sow, a trifle short in the middle. Lookout sired a good pair in Starlight and Twilight, smooth, well-fitted litter sisters. Lady Cherokee 1st was such a good type that she won the junior championship. With good feet, size and smoothness, she is a very pleasing prospect for the junior yearling class next year. Herds were a fine exhibit. Wickfield Farm and Messenger divided most of the first and seconds. Lookout sired the first get of sire. It was in all a strong show followed with much enthusiasm and boosting for the belted breed.

Exhibitors—C. S. Bratt, Arapahoe, Neb.; F. C. Cole, Thurman, Ia.; J. Finnell & Son, Hamburg, Ia.; H. C. Glissman, Oamha, Neb.; Hopley Stock Farm, Atlantic, Ia.; A. D. Jones, Litchfield, Neb.; D. A. Jay, Blakesburg, Ia.; J. R. Lewis, Renssalaer, Ind.; Clayton Messenger, Keswick, Ia.; C. L. Moore & Sons, Tremont, Ill.; E. N. Manley, Lyons, Neb.; E. L. McCoy, Rockport, Mo.; C. B. Nelson & Sons, Oakland, Neb.; C. P. Paulsen, Nora, Neb.; R. L. Pemberton, LeGrand, Ia.; V. Patterson, Fairmont, Neb.; C. O. Robertson, Rockport, Mo.; J. N. Summers, Malvern, Ia.; S. E. Saar, Henderson, Ia.; Wickfield Farm, Cantril, Ia.; M. Whitaker, Miami, Mo.; J. Wernet, Woolstock, Ia.; W. F. Yinkst & Son, State Center, Ia.; Carl Schroeder, Avoca, Neb.; J. S. Curren, Silver Creek, Neb.; W. E. Mitchell, Walnut, Ia. Judge, A. A. Goodenough, Morrison, Ill.

Aged boar (13 shown), 1st Manley on The Senator, 2d Schroeder on Harold, 3d Wickfield Farm on Captain Silko, 4th Paulsen on Cherokee Pattern, 5th Moore & Sons on Col. Lakeside, 6th Patterson on Manley's Duke, 7th Wickfield Farm on Lookout Chin Chin, 8th Lewis on Pacific; senior yearling (11 shown), 1st Lewis on Iowa Boy 5th, 2d Yinkst & Sons on My Rambler, 3d Messenger on Peerless Boy, 4th Saar on Palmer's King 10th, 5th Summers on Busy Jim, 6th and 7th Pemberton on Concillis and Sunny Brook Duke 3d, 8th Wickfield Farm on Lookout Perfection; junior yearling (18 shown), 1st Lewis on Boulder Duke, 2d Wickfield Farm on Wickware Favorite, 3d Manley on True Tipton, 4th Bratt on Budd, 5th Manley on Challenger, 6th Jones on Prince's Boy 3d, 7th Messenger on Hawkeye Star, 8th Roberson on Trade Mark; senior pig (19 shown), 1st Jones on General's Best 1st, 2d Hopley Stock Farm on Homestake, 3d Jones on General's Best 2d, 4th Finnell & Son on Finnell's Giant, 5th Wickfield Farm on Lookout Reminder, 6th Manley on Senator Again, 7th Messenger on Sioux Lad 2d, 8th Pemberton on Look Out Lad 2d; junior pig (40 shown), 1st Manley on Young Senator, 2d and 3d Roberson on Missouri Chief, and Missouri Lady, 4th Whitaker on Cherokee Ideal's Best, 5th Jones on General Jones Jr., 6th Manley on Nebraska Senator, 7th Cole on Sir Richard, 8th Yinkst & Son on Longfellow's Goal 20th.

Aged sow (20 shown), 1st Wickfield Farm on Polly Lookout, 2d Manley on Cecelia, 3d Lewis on King's Sister, 4th Messenger on Lady Dawson 4th, 5th Lewis on Lola C., 6th Messenger on Dorotha's Best, 7th Bratt on Ruth, 8th Lewis on Belva; senior yearling (13 shown), 1st Wickfield Farm on Roxy Lookout 2d, 2d Lewis on Venus 2d, 3d Lewis on Lady Malow, 4th Wickfield Farm on Lookout Girl, 5th Wickfield Farm on Fairy Wickware, 6th Lewis on Progressive Lass, 7th Messenger on Mayflower Lady 2d, 8th Schroeder on unnamed; junior yearling (27 shown), 1st Wickfield Farm on Cherokee Pearl, 2. Messenger on Lady Steele, 3d Messenger on Flora, 4th Lewis on Miss Dude, 5th Manley on Tipton Missie, 6th Wickfield Farm on Lookout Pearl, 7th Whitaker on Ruby, 8th Lewis on Belvia D.; senior pig (17 shown), 1st Wickfield Farm on Lookout Starlight, 2d Wickfield Farm on Lookout Twilight, 3d Messenger on Sioux Lady, 4th Messenger on Sioux Lady 2d, 5th Jones on Dixie Girl 2d, 6th Manley on Duke's Pride, 7th Manley on Duke's Rose, 8th Jones on Fannie's Beauty 1st; junior pig (39 shown), 1st Paulsen on Lady Cherokee 1st, 2d Manley on Senator Girl 2d, 3d Moore & Sons on Moore's Queen 1st, 4th Moore & Sons on Moore's Queen 2d, 5th Summers on Miss Ruth, 6th Cole on Miss Kate, 7th Cole on Marion, 8th Jones on Fair Beauty.

Old herd (13 shown), 1st and 5th Wickfield Farm, 2d and 7th Manley, 3d and 8th Messenger, 4th and 6th Lewis; young herd (12 shown), 1st Wickfield Farm, 2d Messenger, 3d and 4th Manley, 5th Jones, 6th Paulsen, 7th Cole, 8th Whitaker; herd bred by exhibitor (17 shown), 1st, 6th and 8th Messenger, 2d and 5th Manley, 3d Wickfield Farm, 4th Lewis, 7th Jones; get of sire (22 shown), 1st Wickfield Farm on get of Lookout, 2d Messenger on get of Messenger Boy, 3d Manley on get of Senator, 4th Wickfield Farm on get of Lookout, 5th Lewis on get of Dudie, 6th Manley on get of Gen. Tipton Again, 7th Messenger on get of Hawkeye Lad, 8th Wickfield Farm on get of Gen. Wickware; produce of dam (19 shown), 1st and 2d Messenger, 3d Lewis, 4th Moore & Sons, 5th and 6th Manley, 7th Paulsen, 8th Saar.

Senior and grand champion boar, Manley on The Senator; junior champion boar, Manley on Young Senator; senior and grand champion sow, Wickfield Farm on Roxy Lookout 2d; junior champion sow, Paulsen on Lady Cherokee 1st.

SPECIAL CUPS.

Nebraska State Board of Agriculture, Manley; Hampshire Advocate, Roberson; Union Stockyards Co., Roberson; Journal-Stockman, Paulsen.

The Ohio Station chemists have found that it is not correct to speak of soils that need lime as being "acid." So-called soil acidity is a condition brought about by the absence of lime, but the reaction ordinarily accepted as an indication of the presence of acids is not produced by acids but, as said before, by the absence of lime. If there should be any acid in the soil, these scientists say that it has little or no effect on the crop. A deficiency of lime in many cases accounts for a relatively low yield that is attributed to the presence of acids.

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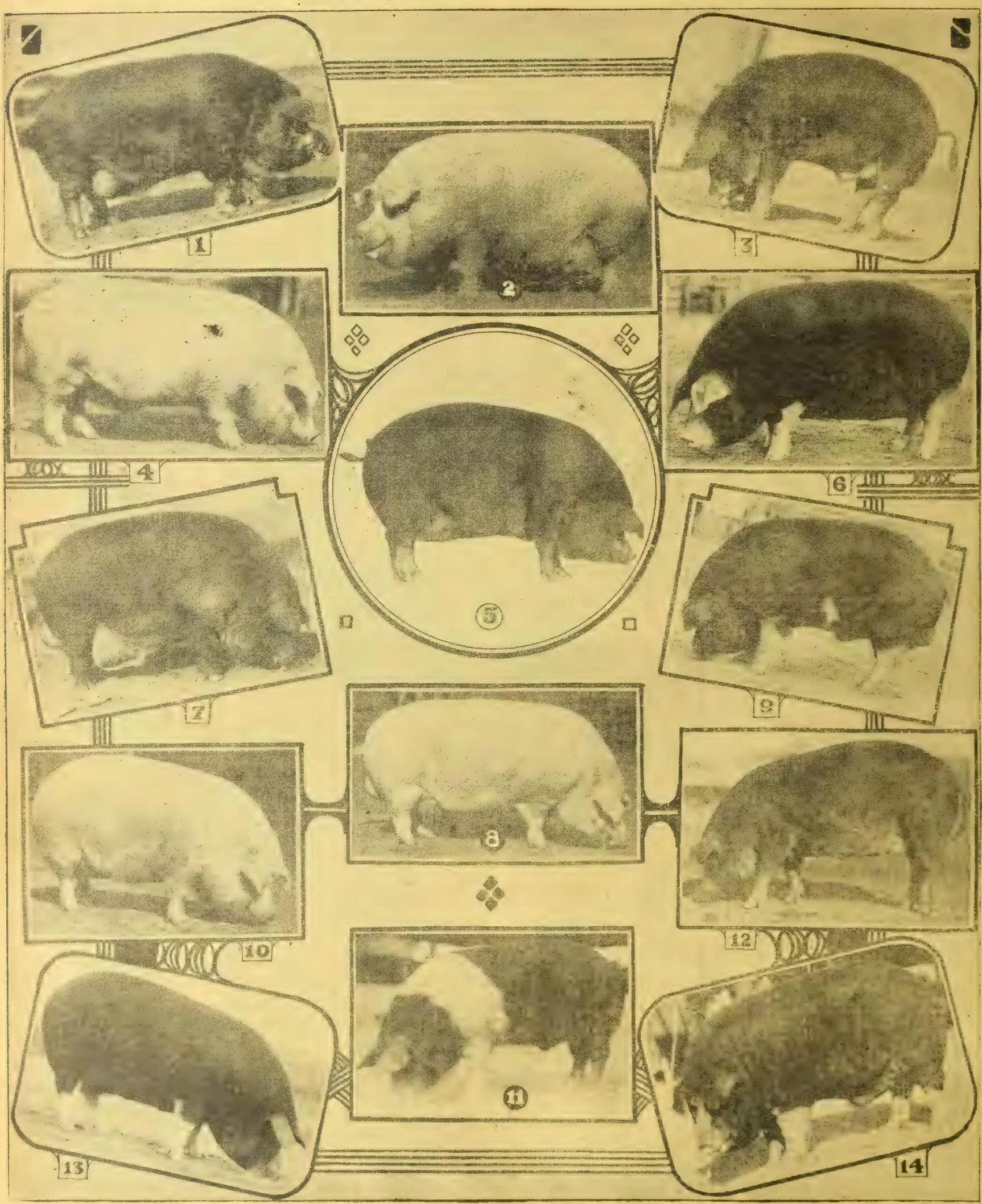


Photos by Morris.

1—Golder's second prize aged Duroc boar, Critic's Protection. 2—Barr's grand champion Chester White sow, Hiland Lily 3d. 3—Jackson's grand champion Duroc boar, Joe's Orion King. 4—Brown's junior champion Chester White boar, William A. 2d. 5—Jackson's first prize senior yearling Duroc sow, Orion's Willetta 3d. 6—Hather's first prize senior yearling Poland China sow, Orphan's Big Type 2d. 7—Applegate's first prize aged Duroc boar, Economy 2d. 8—Barber's first prize aged boar, Tony Evans. 9—Marshall & Son's second prize Poland China futurity senior pig, Futurity Wonder. 10—Barr's junior champion Chester White sow, Hiland Pride 3d. 11—Lewis's first prize junior yearling Hampshire boar, Boulder's Duke. 12—Putman & Son's first prize junior Duroc sow pig, Miss King's Lady. 13—Halford's first prize senior Poland China sow pig, Bob Giantess A. 14—Pederson's first prize junior yearling Poland China boar, King L.

In and Around Wisconsin

The United States Department of Agriculture and the food administration have taken steps to hold sufficient good wheat and rye seed to sow next year's crop. To this end an exemption will be placed upon the thirty-day storage limit on lots of grain examined by the seed committee and found to be good for use as seed. Such lots will be kept for seed purposes until the end of the next seeding season. Warehouse men and elevator operators in the spring-wheat belt are advised to send samples of grain which they desire to have for seed to Mr. W. S. Oswald, 326 Flower Exchange Bldg., Minneapolis, Minn., for examination.

Andrew Bidlingmeier, who delivers milk to the Otter Creek cheese factory in Sheboygan county, received within 95 cents of $700 as payment for his milk for the month of August. This comes near being a record for one month's milk checks.

The Dodge county council of defense has invited farmers of the county to provide them with a list of cows for sale and this list is to state the number and ages of these cows. The council of defense proposes to compile a list of cattle for same in the county in order that the demands of outside buyers for carload lots may be more conveniently met. The council of defense has also had calls for feed in carload lots, especially for oats and alfalfa hay.

Reports from sales of barley in Washington county show that farmers who raised barley this year will realize a good sum for their work. The two malt houses at Hartford and the grain elevators have been busy buying up barley and paying $2.80 per hundred pounds, which is $1.68 per bushel. The average yield in this section is about forty bushels, while in some sections it goes as high as fifty bushels per acre.

By act of the legislature the stallion enrollment was transferred July 1, 1917, to the United States Department of Agriculture, but Dr. A. S. Alexander still remains in charge, having been appointed director of horse breeding of the department. All enrollment certificates and licenses of public service stallions expire January 1, 1918, and must be renewed before April 1, 1918. Owners of stallions should apply at once for new blanks in order to receive new certificates dated January 1, 1918. Stallions not previously enrolled may be enrolled now for 1918. The first cost fee for certificate is $2 and for renewal, transfer of ownership or duplicate of certificate 50 cents. In 1917, 1,771 pure-bred and 1,077 grade and scrub stallions had licenses for public service, the percentage of pure-bred sires being 61.5, as compared with 35 per cent in 1907.

R. Baker, assistant secretary of the Wisconsin Live Stock Breeders' Association, furnishes The Wisconsin Farmer with a timely clipping from the Evansville (Wisconsin) Review as follows:

There is no animal more loved and more faithful than a dog. Yet dogs can be a nuisance and an injury unless carefully watched. Recently one of our citizens lost eleven fine sheep by the ravages of midnight prowling dogs. Being of a retired nature this citizen and his family made no public complaint, but bore the pain and monetary loss within their own circle. A conversation, however, brought out the story and the question arose if dogs should not be kept chained or muzzled when not out with their owners? That one night's depredations cost more to this law-abiding Evansville booster than the dog taxes of the whole city. Would it not be a good thing for the "city fathers" to consider this matter, enact protective laws and see that they are enforced? Pets should not be allowed to be pestiferous.

No matter how much we love the dogs we can't afford to let them kill the sheep.

At a recent meeting held in Calumet the Holstein breeders of the county organized a county association. The meeting was called to order by J. J. Garland, emergency agricultural agent. S. H. Bird, vice president of the Wisconsin Holstein-Friesian Association, spoke of the work of the Fond du Lac Breeders' Association. He said the demand for pure-bred cattle is constantly increasing and that there is a wonderful opportunity for Wisconsin breeders to make this state a market place for dairy foundation stock for the entire West. Dr. Royal Klofanda, of Brillion, spoke on the advantages of having a breeders' association in the county so that someone may be appointed to show visitors around to the various herds. In this way the time of the visiting buyers may be conserved. Furthermore, in a community that is organized the salable stock is listed so that the proper officer of the association may tell prospective buyers just about what they have to offer. The organization in Calumet county was perfected with the following officers:

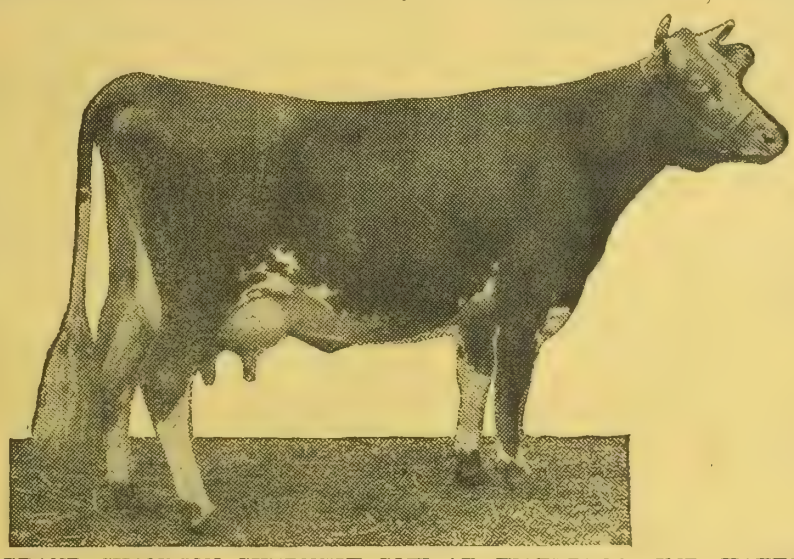
President—A. T. Hipke, New Holstein.
Vice President—Wm. Seybold, Forest Junction.
Secretary—Dr. Royal Klofanda, Brillion.
Treasurer—J. G. Finnegan, Chilton.
Director—John Pfingsten, New Holstein.
Director—Alex Pilling, Chilton.

Those present, who signed the constitution and became charter members, were as follows:

Wm. Koch, Jr., Brillion; Walter Tesch, Brillion; H. Merrill & Son, Chilton; J. H. Meyer, New Holstein, R. 1; H. M. Libke, New Holstein, R. 3; Rud Jochimsen, New Holstein, R. 3; Finnegan Bros., Chilton; Pilling Bros., Chilton; John Seybold, Forest Junction; O. H. Leverenz, New Holstein; C. G. Weber, New Holstein; Jas. G. Griem, New Holstein; Jos. Wenninger, Chilton; John Salm, Chilton ;H. A. Fiedler, Hayton; Wm. Knauf, Chilton, honorary member.

The members enrolled in this association own over 200 head of pure-bred Holstein cattle. Members with grade herds are permitted to join the association provided they use a pure-bred registered Holstein sire. The membership fee is $1 and the dues $1 annually.

Forward-looking farmers are making necessary repairs on their machinery before putting it away for the winter.



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UPPER WISCONSIN

Experience in Cleaning and Plowing Stump Land.

To the Editor:—A farmer living near Pine River, Minn., in the past four years has cleared and put under crop forty acres of land. He has done this largely with his own labor and such help as almost any farmer may employ. This season in addition to his farm work he is clearing and plowing ten acres on an adjoining farm of stump land under contract at $18 an acre.

The land being cleared at the price mentioned is cut-over Jack pine land that has about 150 stumps to the acre, averaging ten inches in diameter, and from 50 to 75 white oak grubs per acre. The trees were cut six years ago. There is practically no brush or second growth except the white oak grubs.

This farmer's clearing force consists of himself, his team of horses, a $130 two-horse stump puller, a town boy twelve years old to drive the team, and a fourteen-year-old boy from a neighboring farm. The town boy is paid $10 a month and his board and the farm boy $1 a day. The farmer, before going to his farm four years ago, had been a carpenter and contractor in the city for twenty years. When he went on his land it had no clearing. He commenced by making a thorough study of the problem of land clearing, and found the stump puller the best means of clearing land of small stumps.

I found this farmer in the field with his crew at 7 o'clock in the morning. He was pulling from thirty to fifty stumps and grubs an hour, counting in the time required to move the stump puller from one setting to another. He used a root plow for grubs, stumps that had decayed tops and burned-off stumps.

The stumps after being pulled were placed in small piles by hand mostly. One horse was used for dragging in the larger stumps. From ten to fifteen piles were made to the acre. From four to five acres were piled a day. When the stumps were dry they were burned. The plowing was done with a fourteen-inch plow and three horses. About one and a third acres were plowed a day.

This farmer cleared up and plowed an acre of cut-over Jack pine land in a little less than two days of his own labor, a little less than two days of his team, and a day and a half for each of the boys. The stump puller was second hand and the farmer estimated that it had probably cleared 300 acres of land in the neighborhood. Three pounds of dynamite were used per acre to blow out anchor stumps.

A. J. McGuire.

Agricultural Extension Division, University of Minnesota.

LAND CLEARING AND PLOWING CONTRACTED AT $18 AN ACRE BY H. E. HOLLINGWORTH, PINE RIVER, MINN.

JACK PINE TIMBER ON HOLLINGWORTH FARM, NEAR PINE RIVER, MINNESOTA.

Fall Plowing Preparedness.

To the Editor:—The time is at hand when the farmer and gardener on heavy clay soil should prepare for the next spring drive by carefully fall plowing his land. The results obtained on our clay experiment station have shown conclusively the need of fall plowing for all crops, but particularly for spring grain and peas. Land properly fall plowed can be sown just as soon as dry in spring and even before the frost is sufficiently out of the ground to plow. This enables the farmer to get in his wheat, barley, peas or oats real early, and with a minimum amount of work. Not only that, but winter freezing pulverizes the soil, making plant food more readily available. Spring-plowed land, on the other hand, is nearly always cloddy and in such shape that the growing crop has difficulty in obtaining the needed plant food supply.

Garden land and land intended for cultivated crops should also be plowed in the fall, for it often happens that spring rains so delay plowing that these crops do not go in in time. Manure can be applied on the plowed land either in winter or spring and carefully disked in.

Proper and timely plowing is the most important factor of success on the heavy soils. Therefore, it should command the crop growers' most careful attention. Coupled with this comes that of proper draining. Fields should be plowed in lands twenty-five to thirty-five feet wide with good dead furrows left to collect and carry away the surface water. These should be connected to some good outlet.

Be prepared, and fall plow your land.

E. J. Delwiche.

An Easy Pulling Road

EVERYBODY knows that it is easier to haul on a concrete road than on any less rigid surface. But few realize how great is the difference. This has been recently determined by tests made with a dynamometer by Prof. J. B. Davidson, Agricultural Engineer, University of California, made for the Good Roads Bureau of the California State Automobile Association.

A 3-ton load was hauled over various types of roads in the same locality on the same day, the same horses and drivers being used. The dynamometer recorded tractive pull in pounds per ton of load as follows:

	Pounds
Over a level, unsurfaced concrete road	28
Concrete base, ⅝-inch skin top asphaltic oil and screenings	49
Waterbound macadam, level, good condition	64
Concrete base, 1½-inch Topeka top, level, good condition	68
Gravel road, good condition, level	78
Earth road, fine dust, level	92
Earth road, stiff mud on top, firm underneath, level	218
Loose gravel, not packed down, new road, level	263

Remarkable showing for concrete—less than half the tractive force required over a good stretch of waterbound macadam, less than one-third that required on dirt or packed gravel, about one-tenth the pull required on loose gravel.

Concrete on Cameron Road, Hamilton, Co., Ind. Wm. H. Boeh, Engineer.

There are 30,000,000 horse-drawn vehicles in this country, most of them on farms, and 3,500,000 motor cars and trucks. The waste of horse power, of time, and motor fuel involved, not in poor roads, but in all roads less desirable for traction than concrete, is enormous. Besides this waste, the United States Office of Public Roads estimates that $200,000,000 per year is paid out indirectly for bad roads in extra cost of food. What is paid out for maintenance of roads that wont stay built is incalculable. It runs into hundreds of millions more. The excess consumption of gasoline is another huge item which motor car owners have to pay.

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Be sure you know what a concrete road is. Concrete is made of portland cement, sand and pebbles or crushed stone, and water. It is hard and durable. Concrete is the material used in dams, factories, bridges, and big engineering works like the Panama Canal requiring great solidity and strength.

Let us give you some interesting figures. Write for free copies of Bulletins Nos. 107 and 136.

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Increased Potato Yield.

As a result of the work of the agricultural committee of the Polk county council of defense the potato yield in the county has been greatly increased this year. Last May this committee discovered that there was a shortage of potato seed. The county agent found that a carload of good seed potatoes was held in storage at Osceola. A mass meeting of growers was held and these men agreed to pay for 229½ bushels of seed potatoes at the rate of $2.65 per bushel with the understanding that a bushel and one-half of seed should be returned for every bushel furnished for seed last spring. The agricultural committee of the council of defense bought the entire carload of 789¼ bushels and sold it out in small lots. This single action of the council of defense has increased the production in Polk county at least twelve to fifteen carloads.

Utilizing School Labor on Farms.

To the Editor:—Relative to the work of securing boy labor to help pick up potatoes on Saturday, I have done a little of this this fall, but not enough to make a splurge over it. Last Saturday I sent out about twenty boys, taking some out myself and had one of the business men take out some more. The men who got the help certainly appreciated the lift. Potatoes are a big crop in Langlade county this year; still the average farmer seems to have but little difficulty in getting the help he needs.

Some of our country schools closed for a week, others for two weeks during the potato-digging season. I think about 40 to 50 per cent of the schools had a potato-digging vacation.

I advertised in the papers that I would secure help on Saturday for all who applied, but received a very few applications. If the farmers had been in need of help they surely would have written me. The plan of closing schools I think was largely responsible for solving the problem. Another item has been the exceptionally fine weather we have had for the past three weeks, permitting farmers to dig without practically an interruption.

F. G. Swoboda.

County Representative Langlade Co., Wisconsin.

Forty-five farmers living in southern Dunn and eastern Pepin counties recently organized a cow-testing association which will be known as the Dunn and Pepin counties cow-testing association No. 4. The tester is Alf Honaas, a graduate of the Dunn County School of Agriculture, and who has also had one year's study at the Iowa State Agricultural College at Ames, Iowa. Julius Ausen, of Eau Claire, northern Wisconsin field man for the college of agriculture at Madison, and D. P. Hughes, principal of the Dunn county school, assisted in the organization.

Feeding Dairy Cows.

To the Editor:—There are two main factors which control the profitable production of milk and butter fat. One is the individuality of the cow, her adaptability for milk and butter fat production. It is a potential quality of each individual cow and depends entirely on her breeding. The second factor is the food, care and management given, which is entirely under the direct control of the dairyman and upon it depends to a great extent the profitable production of milk and butter fat, provided, of course, that the cow is of the right sort.

In a sense the dairy cow is a manufacturing plant and just as in the case of any other factory it is run most economically near its full capacity. There is an overhead expense, the maintenance ration, which goes on continually no matter how much the cow produces. This maintenance ration is largely fixed for each animal. In the case of a cow giving an ordinary quantity of milk this amounts to about 60 per cent of the food consumed. When the cow by more liberal feeding gives a large quantity of milk the maintenance ration amounts to 50 per cent or even less of the food eaten. Thus the importance of liberal feeding of the good milk and butter fat producer can readily be understood for economy in production.

To get the most profit from cows they must be fed a balanced ration. To get a balanced ration I find the following is very satisfactory: Corn silage, thirty pounds; alfalfa hay, twelve pounds; corn meal, five pounds, and ground oats, two pounds. This ration is for a cow weighing about 1,000 pounds and producing about thirty pounds of 4 per cent milk daily. Moreover, it is a home-grown ration and one that is grown on a great many farms.

Another good ration for a 1,000-pound cow is to give all the alfalfa hay the cow will eat, together with thirty-five to forty pounds of corn silage and an additional pound per day of either ground corn, corn and cob meal or corn bran for every four pounds of milk she produces. Light milkers should get a little less hay than heavy milkers. Moreover, heavy milkers should have in addition to the above-named ration a little wheat bran.

Still another excellent home-grown ration consists of alfalfa hay or cowpea hay, ten pounds; corn silage, thirty pounds; wheat bran, two pounds; corn meal, four pounds, and cottonseed meal, one pound. In the absence of alfalfa or cowpea hay, fourteen to sixteen pounds of nicely cured clover hay will give good satisfaction.

To feed cows economically they must be fed as individuals and not as a herd. This, of course, means that the feeder must determine just how much each cow can consume to the best advantage. Very frequently all the cows in the herd are fed exactly the same amount regardless of what the cow produces. Some cows are thus overfed while others do not get enough.

It is not exactly necessary to weigh out all the feed separately for every cow. This would be slow work where a number of cows are kept, but if we take 200 pounds of bran, 400 pounds of corn meal and 100 pounds of cottonseed meal and mix them thoroughly, then measure out a certain amount and weigh it we can with a standard measure apportion the feed just about as it should be. If, for instance, we use a can or pail which holds two pounds of the mixture there will be no difficulty in knowing just how much is being given to each cow. For instance, if three and a half measurefuls are given to a cow she will be getting seven pounds. If to another cow two and a half measurefuls are given she will be getting five pounds. Someone may ask why not have an eight-pound measure. In my opinion that would not be practical, as we would not be able to measure out smaller rations nearly as accurately as when we have a smaller pail.

Then for the silage we can have a basket which holds, say twenty pounds. With this it is very easy to give a cow thirty, thirty-five or forty pounds, as the case may be. For hay it is not long before the experienced feeder can determine after weighing several bunches just about how much he is giving to each cow. For instance, weigh out twelve pounds of hay. Then lift it carefully several times with the fork. After that there will not be much difficulty in getting pretty near to the twelve-pound mark when the hay is being distributed. If the hay is baled, as all hay should be, one can feed so many blocks after the amount desired has been weighed and will be giving just about the same amount at every feed.

It is quite essential to study each cow separately. We must know which one will consume twelve pounds of hay or twenty pounds. Each cow should get all she wants, that is, all she will eat up clean at every feeding period.

Still another important point is to feed regularly. It would seem that this matter has been harped upon so much that it does not need repeating, but one would be surprised upon going among dairymen to find how few are very careful about this. Particularly does this apply to farmers who keep a few cows and make the production of milk and cream a side issue. If cows are fed at stated intervals they will not be worrying for feed and in this way be reducing the amount of milk they produce. From one to three ounces of salt should be given each cow daily, or, better still, keep salt bricks in convenient places so that the animals can consume such quantities as the appetite demands.

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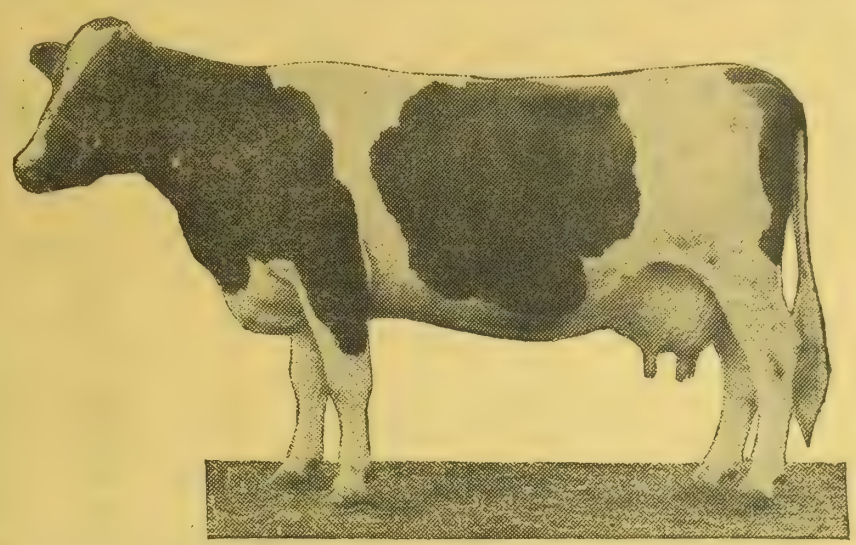

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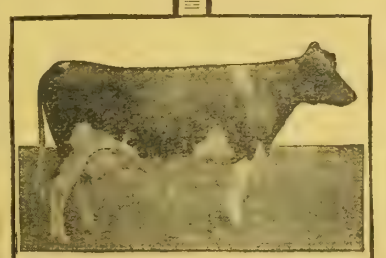

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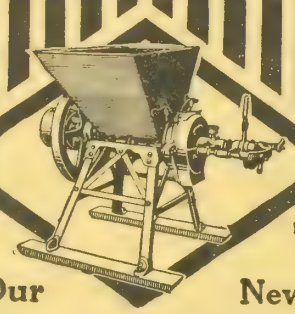

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I have a Flanders motor car that has a rear axle and transmission made by another company. It was made by the W. M. Company. Will you please publish the name and address of this company?

Answer.—Your axle was probably made by the Weston-Mott Co., of Flint, Mich.

Upright Boiler Placed Horizontally.

I would like for you to answer the following questions in your paper. If a small upright boiler were laid horizontally and suitable sides and firebox were made to fit so that the fire would first pass under the boiler and back through the flues; would there be any objection if the fires would pass over a handhole plate? Would this arrangement increase the horse power of the boiler, and how much?

Answer.—The above arrangement would not increase the capacity of the boiler noticeably. If the handhole cover is placed toward the front end of the furnace, there would be danger of the drawbolt burning off. The danger would not be so great if the handhole cover is at the rear of the furnace.

Blasting.

I have heard that a blasting machine can be made by using dry cells. Please publish direction at your earliest convenience.

Answer.—A blast may be ignited by dry cells in the following manner: Connect six or more dry cells in series. From one of the terminals run a wire to a switch; from the switch run an insulated copper wire to the powder and run another insulated copper wire from the other battery terminal to the powder. Remove the insulation for about one inch on the end of each wire and scrape the wire bright. Leaving the ends about half an inch apart, connect a very fine iron wire between them, wrapping the iron wire many times around the two copper wires so as to obtain good contact. Insert this iron wire in the powder, tamp the powder as usual, and, when ready to explode the powder, close the switch. The current from the batteries will heat the iron wire red hot. The longer the copper wires the smaller the copper wires and the larger the iron wire, the more the batteries required. It is best to put the outfit together and try it without any powder so as to make sure that enough dry cells are being used. If the iron wire melts, so much the better, but it must be heated red hot.

Ford Engine Misses.

My Ford engine is not working very well. It seems to miss or choke and then spit. I have tried a new carburetor and a new timer. I have all new valves, and have ground them in well; but nothing seems to help. What is the trouble?

Answer.—There are many things that could cause your trouble. The gas mixture might be too rich or too lean. One or more spark plugs might be dirty or have cracked porcelains. The coil vibrators might not be properly adjusted. There might be an air leak into the intake manifold or around the valve stems. The exhaust valve springs might be weak. Too great a clearance between the valve stem and push rod could cause the trouble. The spark plugs might have a gap too narrow or too wide.

Try your compression on each cylinder. If the compression is poor in any cylinder learn the cause. This might be leaky valves, poor fitting or worn-out rings, or a scored cylinder. Vary your gasoline mixture until you get the best mixture possible. See that the spark plugs are clean and in good order, and that the points are just far enough apart to pass a smooth dime between them. Squirt a little gasoline on the joints of the intake manifold and around the valve stems while the motor is running. If the motor speeds up or slows down there is an air leak that is causing trouble. Remove the cover of the coil box and notice the vibrators while the engine is running. See that they are all working properly. If your car is three years old the insulation on the magneto coils may have become rotten and new coils would then be necessary.

Engine Uses Too Much Gasoline.

What is the trouble with a Fuller and Johnson nine horse-power gasoline engine when it uses too much fuel? It has good power. It uses dry cells for ignition. Would a magneto be better? Would a weak intake valve spring cause the trouble? Will an old gas engine take more fuel than a new one? Would a different carburetor help?

Answer.—If your engine is fitted with a carburetor, the adjustment of the carburetor is probably at fault. If you have an intake valve operated by the suction of the engine a stiffer spring might stop the trouble. You can stiffen the spring by removing it and stretching it. Since you have good power, your ignition must be at least fair; the spark might be timed a little late, and this would cause an excessive use of fuel. While a good magneto is better than batteries for ignition, we would not advise you to make the change, as there would be considerable expense; and your battery ignition should be satisfactory. If the compression is good on all cylinders, an old engine should not take any more fuel than a new one. Write to the manufacturer of your carburetor for instructions as to adjusting it. If possible, give the size and model of the carburetor. If the carburetor has a cork float the float may have become "water-logged," in which case a new float should be used.

A Toy Steam Engine.

I am sending you a plan of a miniature steam engine that I would like to make; but first I would like for you to tell me whether it will work. In Figure 1, P is the piston rod, R the connecting rod, F the flywheel, C the crank disk, E the exhaust port and V the valve, operated by the U-shaped strap U. The plan is for the steam to come from the boiler and enter the cylinder until the valve shuts it off; then at the end of the stroke, the piston passes the exhaust port and the steam escapes. The momentum of the flywheel would carry the piston back, the same as in a four-cycle gas engine. Will it work? How can I make a piston that will not leak the steam?

Answer.—If the parts are well made and properly proportioned, this plan will work, but not very efficiently. The

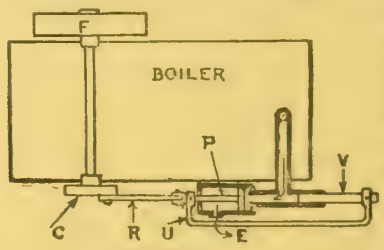

FIGURE 1.

power will all have to be obtained from the steam expansively. The valve should cut off the steam at half

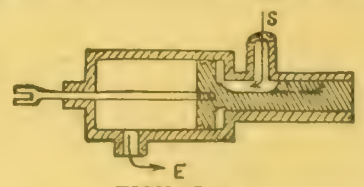

FIGURE 2.

stroke; the cylinder made rather long, and the exhaust port placed well to the end. A somewhat more simple arrangement is shown in Figure 2. Figure 3 shows the arrangement of an oscillating cylinder such as is often

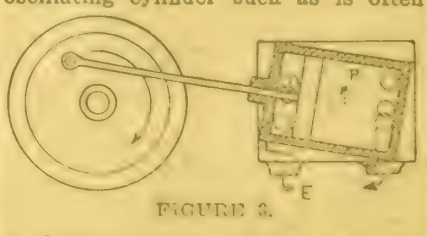

FIGURE 3.

used on toy steam engines. The cylinder is mounted on the side of the boiler near the top. It pivots about the pin, P. A hole is drilled at each end of the cylinder to admit and exhaust the steam. EE are exhaust

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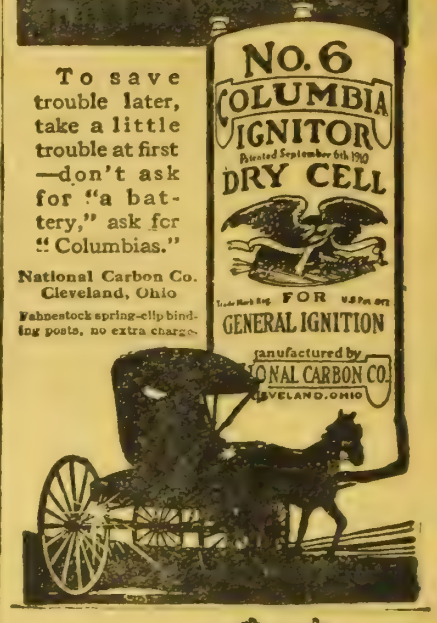

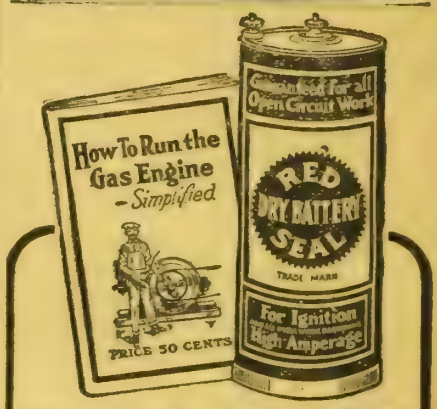

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ports. In one position, the steam escapes through the exhaust and is admitted at the other end. When the crank turns half way around the cylinder changes position so that the steam enters in the opposite direction.

Grades Not Good Enough.

(Continued from page 1.)

ords. Later on when his dam showed she was able to produce nearly thirty pounds of butter in seven days he was brought back and his offspring have been uniformly good. Then came a son of Homestead Jr. DeKol, then Canary Jessie Fobes, of noted ancestry, then a son of a thirty-one-pound bull was used, and finally Sir Colantha Fobes Homestead, now junior herd bull, by Hamilton Colantha Lad, twenty-eight-pound sire and out of Bertha Hamilton Gelsche, also a twenty-eight-pound cow. Sir Colantha Fobes Homestead's thirteen nearest dams average twenty-eight pounds, and he is out of Jessie Fobes Homestead Maude, twenty-pound three year old out of a thirty-one-pound daughter or Homestead Jr. DeKol.

Five generations are represented in the herd today. The accompanying picture shows four generations and is typical of the profitable side of pure-bred farming. Hengerveld Model Aaggie Grace, 24.5 pounds, has had four daughters and two sons so far. She was one of the foundation cows. Her daughter, Duchess Aaggie Grace, made a record of 26.5 pounds and had four daughters and two sons. The daughter, Bluebird Canary Duchess Grace, has a record of seventeen pounds as a three year old, and has two daughters, one of which, Bluebird Canary Grace Duchess, is shown in the picture. No records have been possible as yet with these last heifers.

All of the offspring of Mr. Bird's foundation cows have already made creditable records or are under test with good prospects of high records. Their names will soon be listed under the A. R. O., which will add much to their value. One cow purchased about ten years ago has increased to fifteen head, each offspring more valuable than the foundation cow was at the time of purchase. Not only milk, but also calves highly in demand have resulted from the purchase of this one animal. With pure breds the work is more profitable each year; with grades the profits are limited to milk and a standard price for grades. There is no limit in price with pure breds.

Mr. Bird has won not only the respect of Wisconsin Holstein men, but also of breeders from other states. He is vice president of the state association and is similarly honored by the national association.

Besides the Holsteins Mr. Bird raises pure-bred Berkshires and Scotch Collies. His boys are made owners of stock at an early age, and the interests of the farm are better taken care of because of this. Even Mrs. Bird, who helps with the pedigree work, can rattle off Holstein families with a speed that will trouble the pedigree experts to follow.

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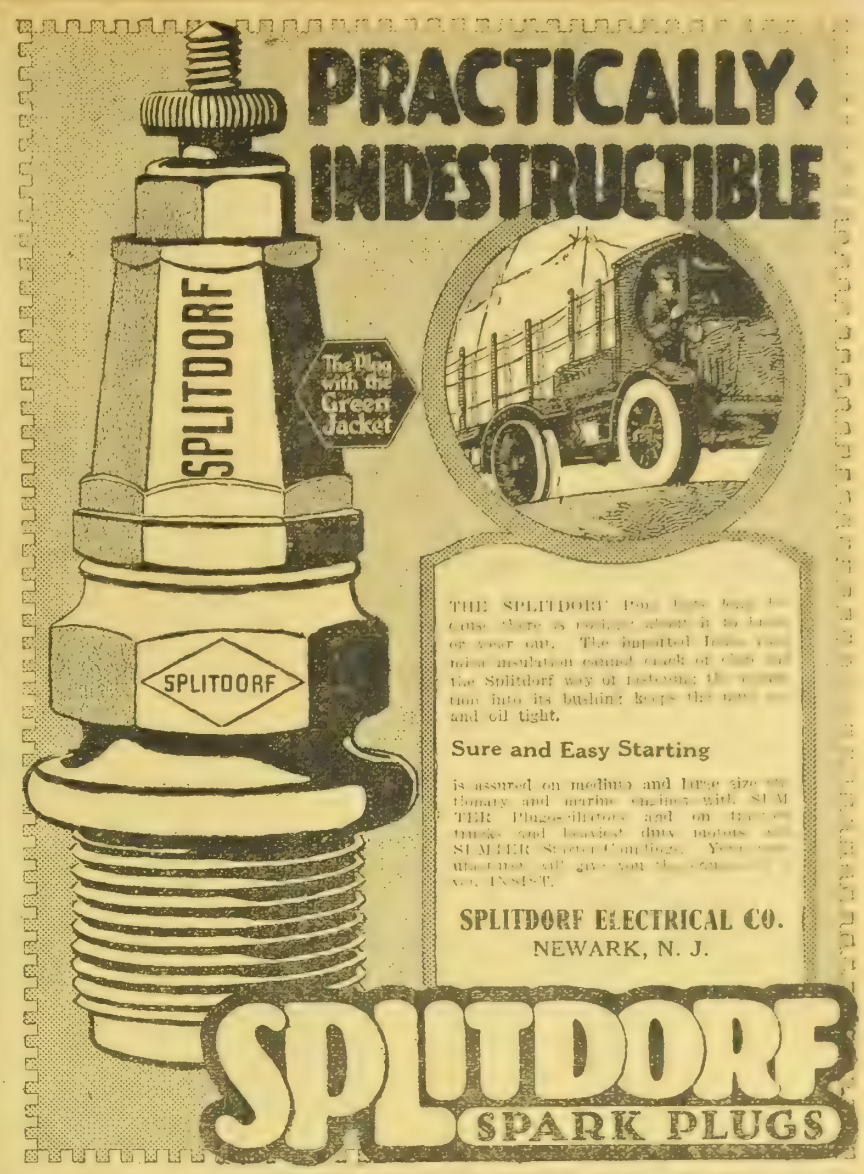

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Notice in Regard to Moisture in Cheese.

To the Editor:—On or about April 15, 1917, the legislature of this state amended the standard and definition for cheese, making American or Cheddar cheese containing more than 40 per cent of moisture adulterated cheese. Under the law the sale of adulterated cheese is made a misdemeanor punishable by fine or imprisonment.

This law has now been in force for about six months and we feel that the cheesemakers and factory operators have had ample time to become acquainted with the law and should now be in a position to meet its requirements. It is the intention of this department to see to it that the law is enforced and hereafter where American or Cheddar cheese containing more than 40 per cent of moisture is sold, prosecution will be brought.

George J. Weigle.
Dairy and Food Commissioner.

More on Cost of Producing Milk.

To the Editor:—In my judgment of figuring out the basis of present prices of feed, grains used in producing milk, including ensilage, hay and bedding and also man and horse labor costs and maintenance of herd, I would say that it costs $3.20 to produce 100 pounds of whole milk. I base this upon the average cost of feed and labor as these costs have been determined by experience in the cow-testing association in which my herd has been included. I am not taking into account a considerable amount for incidentals such as the upkeep for equipment and interest on investments, which I believe can be balanced off against the value of the manure and the value of the calf each year. I believe it is perfectly fair to do this. The following formula will help to arrive at the feed cost for 100 pounds of whole milk:

Forty-four pounds grain, 188 pounds ensilage, fifty pounds hay, 17 cents' worth bedding, 15 cents for maintenance of herd.

Add 10 per cent to this cost of production and you have what I believe is a fair winter price for whole milk.

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Fruits and Garden

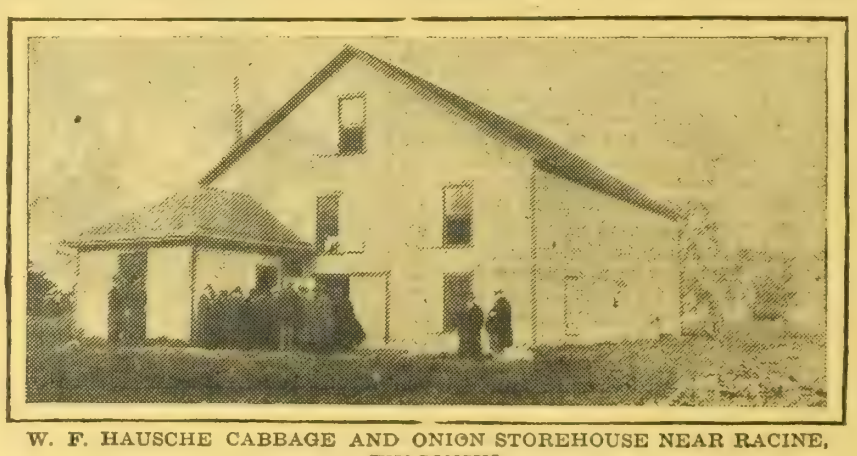
The Meeting of Cabbage Growers at Racine.

The annual meeting of the cabbage growers of Racine and Kenosha counties interested in the production of resistant varieties of cabbage took place at the Chickory Road schoolhouse Saturday, October 6th. These growers realized years ago that unless careful and painstaking efforts were not brought forward the cabbage industry of the two counties could not continue. The ene .y of cabbage in this section is a disease known as cabbage yellows. This attacks the roots of the cabbage plant either in the seed bed or within a short time after transplanting. Plants become stunted and the leaves turn a pale yellow. There are many other diseases which the cabbage grower has to contend with, such as black rot, soft rot, club root and blackleg. However, the cabbage yellows have done more damage than the others and are more difficult to control.

Through all the troubles and financial losses the growers of Racine and Kenosha counties have been forced to use every means possible of insuring themselves from loss. Neither seed treatment, rotation nor soil treatment has proved practical or effecitve. For a number of years now with the cooperation of Dr. L. R. Jones, of the university, these meetings held annually at Racine have proved of inestimable value in overcoming all obstacles of the cabbage growers. Since 1910 Dr. Jones has developed a disease-resistant cabbage which can be grown profitably in Wisconsin. Only two kinds of cabbage are acceptable to the growers of the state, the kraut and the winter storage cabbage. One has been developed and is known as the Hollander No. 8. Others are still being tried out.

USE OF SPRAYER HAS PROVED INVALUABLE IN CABBAGE DISTRICT.

During all the years of Dr. Jones' efforts to produce the resistant variety the growers have worked with him and assisted him in every way possible. They have formed a committee for the seed selection and distribution of this Hollander type which is in close touch with the experimental work done by Dr. Jones.



W. F. HAUSCHE CABBAGE AND ONION STOREHOUSE NEAR RACINE, WISCONSIN.

The yellows are a fungous disease which lives in the soil. Soil once infested by these fungi cannot raise cabbage again for a great many years. It has been known to affect the cabbage crop even after six or eight years in clover or other crops. Such soil is called "cabbage sick" soil. The picture shows one of the commercial varieties of cabbage seeded in one row of the field with only a few surviving heads. To the right and left the rows are producing well-formed heads weighing from five to ten pounds each. The center row did not have the resistant variety of cabbage planted and consequently the plants died after a few weeks in the field. From the remaining heads, which resisted the attacks of the disease, seed can be developed which will grow well even on "sick soil." That is the process Dr. Jones followed in his experiemnts.

There will be very little surplus seed this year. The growers, however, around the Racine and Kenosha district will have enough to supply their needs. The seed committee takes care that the local districts are supplied first and Wisconsin growers are given preference in the sale of the surplus.

At the meeting spraying came in for its share of discussion and it was the general opinion that more frequent applications during the season would be profitable and advisable. Iowa growers in the Muscatine district are known to spray as frequently as five times each season. The time to spray for the cabbage worm can well be gauged by the appearance of the white butterflies, which begin to lay their eggs about the middle of July. Within ten days the cabbage plants should be sprayed with a solution of two pounds of arsenate of lead paste or one pound of the powder to fifty gallons of water. Calcium arsenate applied at the same rate will perhaps prove considerably cheaper and fully as efficient. A "sticker" must be added to the spray to cause it to adhere to the plant. This usually consists of two pounds of soap added to each 50-gallon batch.

A. J. PIPER FIELD SHOWED NO DAMAGE FROM "YELLOWS."

The most interesting part of the day was the field trip. An inspection of the fields of cabbage and onions in storage brought out all the points discussed during the meeting. In one field was seen the result of black rot and yellows. The black rot can be controlled by seed disinfection, soaking the seed for twenty minutes in a solution of one part formaldehyde to 250 parts of water. This treatment will also prove effective against blackleg. Only a few of the plants in the field inspected, however, had succumbed to black rot or yellows.

Dr. Jones led the discussions and was ever ready with the right answer to such questions as came up.

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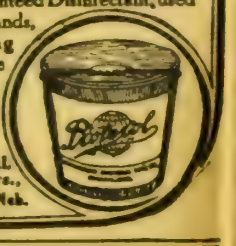

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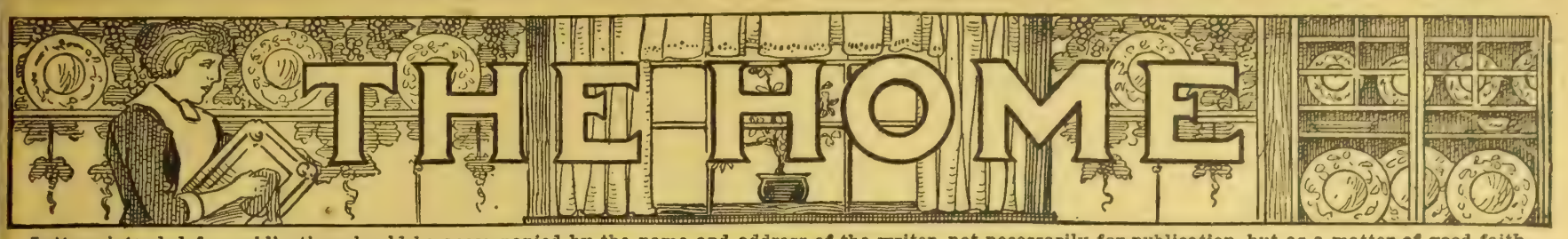

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How to Make Soups That Nourish.

Although clear soups, which are largely water, contain little nourishment, some thick soups, broths and chowders are literally a meal in themselves, according to the dietary specialists of the United States Department of Agriculture. Even a thin soup, taken at the beginning of a meal, by its warmth and pleasant flavor may stimulate digestion so that the heavier foods are more easily digested. The combination of soup and bread is pleasant and leads to the eating of more bread or crackers than would be consumed ordinarily. Appetizing soups also may be made often of materials which otherwise would be wasted. In this way such materials are made to contribute whatever food value they may have for the cost of the labor and fuel needed to prepare them.

One of the purposes which food serves in the body is to furnish energy for its muscular work, and one way of comparing the relative food value of different foods is to compare the amounts of energy which they furnish, or, as physiologists call it, their fuel values. A cup (i. e., one-half pint or a large soup plateful) of milk soup flavored with vegetables yields a little more energy to the body than the same amount of milk. A thick meat soup with pieces of meat and vegetables in it, a fish chowder, or a rich vegetable soup, such as cream of tomato, yields half again as much energy as the milk, while a thin soup like bouillon, consomme, or clear tomato soup, yields not quite two-thirds as much as the milk, and less than half as much as the thick soup or chowder. A generous serving of thick meat soup or fish chowder yields more energy than an ordinary portion of roast beef, and even a moderate helping of vegetable milk soup usually furnishes fully as much body fuel as a moderate-sized rib chop of lamb.

There are other things to be considered besides energy in connection with the food value of different kinds of food. One is the amount of the substance called protein, without which the body cannot build and maintain its tissues. Meat and milk soups contribute some of the needed protein. Meat, poultry, fish, eggs, milk, cheese, dried peas, beans and other legumes are the common foods in which protein is most abundant, though it also appears in fair amounts in the cereal foods, such as bread, breakfast foods, macaroni, rice and the like.

Since many of the protein-rich foods are among the most expensive of those in common use, it is especially important to make the fullest possible use of what is bought. Not all of the meat which we buy is suitable for use as such. The masses of fat which are trimmed off before cooking or are left on the platters may be saved, rendered and used in cooking, while the bones, gristle and other refuse parts find their best use in the soup pot where the long, slow cooking in water draws out the gelatin fat and other nutritive material they contain. This stock, as the resulting liquid is called, may serve as the basis not only of a great variety of soups, but also of gravies and sauces, and may be used for cooking vegetables, rice and similar foods. When it is used for soup, its flavor may be varied by adding various vegetables, such as carrots, onions, tomatoes, turnips and celery. It may be thickened with flour, bread crumbs or okra. Boiled rice, barley, macaroni and other pastes and croutons (small pieces of stale bread fried a delicate brown in deep fat) may be put in to increase the food value of soup and vary its appearance and taste.

Soup is not necessarily made from meat stock. Vegetable soups or purees are made by boiling potatoes, beans, peas or other vegetables until soft, mashing through a sieve and then heating with a little liquid (water, milk, soup stock or whatever seems desirable) and flavoring. Using left-over vegetables for such purees is an economical practice. Milk soups, which are really milk thickened and flavored with some vegetable, fish or other food to give flavor and perhaps thickened still more with a little flour or stale bread crumbs, are both nutritious and appetizing. They furnish also an excellent means of using up skim milk. Those who wish to bring down the cost of food should remember that skim milk, a cup of which contains as much protein as a cup of whole milk, is far too valuable a food to be overlooked.

In soup making it should not be forgotten that vegetables are necessary for keeping the body in health, because they are relatively rich in mineral matters and mild vegetable acid, and contain recently discovered substances without which the body processes seem not to be carried on properly. Since soups offer an excellent way of utilizing odds and ends of vegetables, and especially left-overs and parts which otherwise would be wasted, the use of vegetable soup is often a real economy. The fact that soups can be given so many and so varied flavors, are so easily made, so generally relished and make such palatable combinations with large quantities of bread and crackers, shows that they are very useful additions to the diet. Some recipes for soups, recommended by the government specialists, follow:

Scotch Broth.—Three pounds mutton, two tablespoons pearl barley, two tablespoons minced onion, two tablespoons minced turnip, two tablespoons minced carrot, two tablespoons minced celery, two tablespoons salt, one teaspoon pepper, one tablespoon minced parsley, three quarts cold water. Remove the bones and all the fat from the mutton, cut the meat into small pieces, and put it into a stewpan with the water, chopped vegetables, barley, and all the seasoning excepting the parsley. It will be found convenient to tie the bones in a piece of thin white cloth before adding them to the other ingredients. Bring the stew to a boil, quickly skim it and allow it to simmer for three hours, thicken with the flour, and add the chopped parsley.

Dried Fish Chowder.—One-half pound salt fish, four cups potatoes, cut in small pieces, two ounces salt pork, one small onion, chopped, four cups skim milk, four ounces crackers. Salt codfish, smoked halibut, or other dried fish may be used in this chowder. Pick over and shred the fish, holding it under lukewarm water. Let it soak while the other ingredients of the dish are being prepared. Cut the pork in small pieces and fry it with the onion until both are a delicate brown, add the potatoes, cover with water, and cook until the potatoes are soft. Add the milk and fish and reheat. Salt, if necessary. It is well to allow the crackers to soak in the milk while the potatoes are being cooked, then remove them, and finally add to the chowder just before serving.

Milk and Cheese Soup.—Three cups milk, or part milk and part stock, one and one-half tablespoons flour, one cup grated cheese, salt and paprika. Thicken the milk with the flour, cooking thoroughly. This is best done in a double boiler, with frequent stirrings. When ready to serve, add the cheese and the seasoning. The protein in this soup is equal in amount to that in five-sixths of a pound of beef of average composition; its fuel value is higher than that of a pound of beef.

Milk and Vegetable Soup.—One quart skim milk, one cup bread crumbs, or two large slices stale bread, small amount spinach or outer leaves lettuce (not more than four ounces), one small slice onion, salt. Cut the vegetables into small pieces and cook with the bread crumbs in the milk in a double boiler. If a large quantity is being prepared for use in a school, for example, put the vegetables through a meat chopper. In this case slices of bread can be ground with the vegetables, in order to absorb the juice.

Cowpea Soup.—One tablespoon butter or pork fat, one tablespoon finely chopped onion, one stalk celery, finely chopped, one cup dried cowpeas, salt. Soak the peas eight or ten hours in water enough to cover. Fry the vegetables in the fat, add the peas, in the water in which they were soaked, and cook (preferably in a double boiler) until the peas are tender. Put the mixture through a sieve and add water enough to bring it to the desired consistency. Reheat. If this soup is thickened with one tablespoon of flour mixed with a little water, the pea pulp will be prevented from sinking. Dried navy or lima beans, peas, soy (togo) beans, or other legumes may be used instead of the cowpeas.

Split Pea Soup.—One pint dried peas, four quarts water, one large onion, minced fine, four tablespoons sweet drippings or butter which gives a better flavor, three tablespoons flour, one tablespoon minced celery or a few dried celery leaves, one-half teaspoon pepper, two teaspoons salt. Wash the peas and soak them overnight in cold water. In the morning pour off the water and put them in the soup pot with three quarts of cold water. Place on the fire and when the water comes to the boiling point pour it off (throw this water away). Add four quarts of boiling water to the peas and place the soup pot where the contents will simmer for four hours. Add the celery the last hour of cooking. Cook the onion and drippings slowly in a stewpan for half an hour. Drain the water from the peas (save this water) and put them in the stewpan with the onions and drippings. Then add the flour and cook half an hour, stirring often. At the end of this time mash fine and gradually add the water in which the peas were boiled until the soup is like thick cream. Then rub through a sieve and return to the fire; add the salt and pepper and cook twenty minutes or more. Beans can be used in the same way as peas.

Mixed Vegetable Soup.—Three quarts water, one quart shredded cabbage, one-half pint minced carrot, one pint sliced potato, one-half pint minced turnip, one-half pint minced onion, one leek, two tomatoes, two tablespoons minced celery, two tablespoons butter or drippings, two tablespoons green pepper, three teaspoons salt, one-half teaspoon pepper. Have the water boiling hard in a stewpan and add all the vegetables except the potatoes and tomatoes. Boil rapidly for ten minutes, then draw back where it will boil gently for one hour. At the end of this time add the other ingredients and cook one hour longer. Have the cover partially off the stewpan during the entire cooking. This soup may be varied by using different kinds of vegetables.

Cabbage and Potato Soup.—One-half pint boiled cabbage, finely minced, three medium-sized potatoes, one and one-half tablespoons butter, drippings, or other fat, one teaspoon salt, one-fourth teaspoon pepper, one and one-half pints milk, whole or skim or milk and water, boiling hot. Peel the potatoes, cover with boiling water and cook until tender—usually thirty minutes; pour off the water and mash until fine and light. Add the cabbage, butter or other fat, and seasoning, then slowly add the hot milk or milk and water and boil up well. If a thinner soup is required the amount of milk or milk and water can be increased. If liked, an onion cut up fine and cooked in a little water may be added to the soup to give additional flavor, or grated cheese may be served with it. Kale, turnips, or a mixture of vegetables can be substituted for the cabbage, if desired, and this is a good way to use up left-over vegetables.

Onion Soup.—Two large onions or four medium ones, three level tablespoons fat, butter, or a mixture of the two, three pints boiling water, or water and skim milk (half and half), one and one-half teaspoon salt, one-fourth level teaspoon pepper, two tablespoons flour for thickening, if desired. Melt the fat and when hot put in the onions, which have been cut up fine; cook slowly until the onions are soft, then over a hotter

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fire until the onions are brown—but not at all burned. Add the boiling water or water and milk, thicken with the flour stirred up in a little cold water, if it is desired to give the soup a little more "body;" boil up well and serve. It is a common custom to pour the soup over pieces of browned bread before serving. A mild cheese, grated, is a good addition to the soup, particularly if it is made with water.

Sign the Food Administration Pledge.

During the week of October 21st to 28th a house-to-house canvass is planned to obtain signatures to the pledge of the United States food administration. Women who have sons in the army, navy and marine corps have organized in every state in the Union to assist in this work and it is hoped that every loyal woman above the age of sixteen will pledge herself to do her bit in the conservation of food.

Speaking of this movement Food Administrator Hoover said:

It is peculiarly fitting that the mothers of the men who are to fight the national battles should enlist for this vitally essential service. They are sending their sons forth to endure the supreme test of citizenship. They want their sons to return to them as soon as the peace of victory may be achieved. They will hasten the coming of the peace by the work they have undertaken. In no war in which the nation has engaged have the loyalty, devotion and self-sacrifice of American women ever failed.

In no other war have they had a greater opportunity for service than is offered in the movement for conservation of the nation's food supplies. Not only does the food administrator cordially welcome the war mothers into the ranks of its volunteer workers, but an equal welcome will be extended to the wives and sisters of our soldiers and to all other loyal women who will enlist for a service which President Wilson has said is more essential than any other which American women can render. The liberty loan must be subscribed and will be subscribed, but it would be useless to gather this money to prosecute the war if we failed to make sure of the food which will win the war and the lack of which will surely lose the war.

As Mr. Hoover says, American women have never failed to show their patriotism in practical service and self-sacrifice, and they will not be found wanting in this instance. The signing of this pledge will show to the food administration that there are thousands upon thousands of loyal American housewives who are ready to wage war on waste and do their utmost to conserve the food supply of the nation.

Saving Mothers.

More women fifteen to forty-five years of age die from conditions connected with childbirth than from any disease except tuberculosis. About 15,000 deaths from maternal causes occur annually in the United States, and the available figures for this country show no decrease in the maternal death rate since 1900. Maternal deaths are largely preventable by proper care and skilled attendance.

These 15,000 deaths do not measure the full extent of the waste. They are merely a rough index of unmeasured preventable illness and suffering among mothers. Furthermore, certain diseases of early infancy are closely connected with the health of the baby's mother and the maternity care she has received, and these diseases cause about one-third of all the deaths occurring among babies under one year of age. More than 75,000 babies die each year from this group of diseases because they do not have a fair start in life.

The life and health of the mother are in every way important to the well-being of her children. Breast feeding through the greater part of the baby's first year is his chief protection from all diseases, and mothers are much more likely to be able to nurse their babies successfully if they receive proper care before, at, or after childbirth.

The expectant mother should at once consult a physician. She should remain under supervision so that any dangerous symptom may be discovered as soon as it appears. She should learn how to care of herself, and she should have proper food and rest and freedom from anxiety. When the baby is born the mother needs trained attendance. A difficult maternity case is one of the gravest surgical emergencies. Many people do not seem to understand that in any case complications may arise which can be met safely by prompt and skillful scientific care, but which at the hands of an unskilled attendant may cost the life of mother or child or both. Even after confinement the mother needs continued supervision and rest until her strength has returned.

Thousands of mothers, both in city and country, do not have the essentials of safety, partly, perhaps chiefly, because they do not realize the dangers involved in lack of care or else accept the dangers as unavoidable. Many women are at present unable to obtain proper care, but when all women and their husbands understand its importance and demand it for every mother, physicians will furnish it, medical colleges will provide better obstetrical training for physicians, and communities will see to it that mothers are properly protected.

Little has been done as yet to show women that much of the waste of mothers' lives and health is unnecessary. Even less has been undertaken by communities to provide protection for them. Many communities which have studied their typhoid and tuberculosis death rates and have undertaken costly measures to reduce them have been heedless of the death rates among mothers. It is not strange, therefore, that since 1900 the typhoid rate for the country as a whole has been cut in half and the rate from tuberculosis has been markedly reduced, while the death rate from maternal causes has shown no demonstrable decrease.

Just how the importance of adequate maternity care is to be made plain to a community, and just how skilled care and instruction are to be made available for all mothers, are, of course, local questions to be considered by each community.

Difficulties are perhaps greatest in rural districts where the sheer inaccessibility of a physician is often added to the other elements of the problem. Here a public service with headquarters at the county seat, or other accessible town, would probably be the first step, placing at the service of every expectant mother a visiting nurse who is especially equipped to give her information about personal care and to watch for symptoms of trouble demanding medical advice. As such a nursing service develops, its headquarters might become, with the coöperation of physicians, a sort of maternal and child-welfare center to which not only expectant mothers but also mothers with babies could come for instruction, examination and advice. If no general hospital were conveniently near, a cottage hospital for mothers and babies might ultimately form a part of such a center.

A more general use of existing provisions for scientific maternity care and the extension of provisions for such care in all types of communities should serve to reduce the number of deaths among mothers and babies and to improve the health and general condition of children throughout the country.—[Children's Bureau.

An Orderly Desk Makes Correspondence Easy.

Why are social notes neglected? Why are family letters written with less and less frequency in many homes, till the old ties are almost broken? Why are business obligations overlooked and bills and receipts lost? Why are friendly letters a burden and old and valued friendships allowed to decline?

In many homes, these are the results of mere neglect in keeping at hand the materials for correspondence. If a frantic hunt through a badly disordered desk reveals only a few half sheets of paper and no envelopes, the impulse to write the letter that was just in the mind is checked. If, after being written, the letter has to wait several days for a stamp; if the envelopes do not fit the paper, or the ink is thick, or the bottle empty—and yet it is upon such trifles that friendship or family solidarity may depend.

The efficient desk does not require mahogany for its structure. It may be a drawer in a pine table, but it must contain an adequate supply of such essential materials as note and letter paper, envelopes to fit each, a supply of stamps, correspondence cards, ink, pencils, eraser, memorandum pad, rubber bands, with perhaps a tube of library paste, and some paper clips. If in addition there is a postal scale, a file for bills and a pocket or pigeonhole for unanswered letters a few minutes of spare time may be spent in getting a letter ready for the postoffice, rather than in a loss of nerve energy in a fruitless search for materials and conveniences. These are mere trifles, but home letters and the joys of friendship and business promptness and accuracy are no trifles.—[Virginia H. Corbett.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

A Bad Accident.

Dear Young Folks:—This is my first letter and I am going to tell you about a bad accident I had early last spring.

One day our teacher asked us how we would like it if she asked our director if we could have a day off to have a school picnic among ourselves down in the timber about two miles away from our school ground. We all agreed we would like to have it, so on Wednesday we went to the timber. We roasted marshmallows on large sticks over a bonfire and divided our dinners among us. After dinner we picked flowers and had a good time except that all were frightened about me.

This is how it happened. When we were roasting marshmallows one of children must have got a burning marshmallow against my dress when they pulled it from the fire. It set fire to my dress and burned it. One of the girls saw it and called, "Fire! Fire! Emma is afire!" When I heard that I was so frightened I didn't know what to do because it was on my back and I didn't know how to get it out. But my teacher and one of the girls fought it with their hands. I had an apron along and put it on over the dress. I was very much scared all that afternoon and did not enjoy it much. But it taught me never to roast marshmallows like that again.

Emma.

Is Going to Be a Teacher.

Dear Young Folks:—This is the first letter I have ever written you. I have been reading the letters for a long time and I like them fine. Sometimes there are not enough letters. Some of the letters are very interesting. I liked Hetty's letter and Vivian's.

I am a girl fourteen years old and I am four feet eleven inches tall. I have light hair and dark blue eyes. I am in the eighth grade at school. I expect to finish this year, and when I have finished the grades I am going to high school. I want to be a teacher.

My dog's name is Rover. He is yellow with a white stripe running down his face. He goes with me for the cows every morning and evening. I also have a pony named Maud. She has a white face and her hind legs are white. I take her to town sometimes and I ride her when I go for the cows.

I have two brothers, one eight and one six years old.

Clara.

Country Life for Her.

Dear Young Folks:—Well, I believe you will let this pussy have a corner on the children's page. I have never written to you before. I always read the children's page and I think it is very interesting. I am a girl thirteen years old and am in the eighth grade. I like my teacher fine.

I live on a farm of 640 acres. We have pigs, horses, cows, cats, dogs and chickens. I have a pet cat and dog. I would not give up country life for city life. We live about four miles from town. We have a car. We have to go a half mile for our mail and I ride a horse when I go.

I think the answer to Blanche's riddle, "What has a head but no tail?" is a nail.

Faithe.

Belongs to Pig Club.

Dear Young Folks:—I enjoy reading your letters, so I am going to write to you. I am twelve years old and in the sixth grade. I started to school when I was eight years old and I missed one year after I started. I joined the pig club this year. I have three brothers and two sisters. We have to walk three-quarters of a mile to school.

We live in the country and I enjoy country life. I have four pets, a dog and three cats. My largest cat's name is Polly and I love her. She has two kittens. The kittens' names are Floss and Jerry.

We have a man teacher at our school this year. He is very nice. I want to learn to cook. I wish someone would tell me how to make a chocolate cake. We have domestic science in our school this year.

Beulah.

Old October.

Old October's purt nigh gone,
And the frosts is comin' on
Little heavier every day,—
Like our hearts was that away!
Leaves is changing overhead,
Back from green to gray and red,
Brown and yeller, with their stems
Loosenin' on the oaks and e'ms'
And the balance of the trees
Gittin' balder in the breeze—
Like the heads we're scratchin' on!
Old October's purt nigh gone.

I love old October so,
I can't bear to see her go—
Seems to me like losin' some
Old home relative or chum—
'Pears like sorto' settin' by
Some old friend 'at sigh by sigh
Was apassin' out o' sight
Into everlastin' night!
Hickernuts a feller hears
Rattlin' down is more like tears
Drappin' on the leaves below—
I love old October so.

Can't tell what it is about,
Old October knocks me out!—
I sleep well enough at night—
And the blamedest appetite
Ever mortal man possessed—
Last thing et, it tastes the best!—
Warnuts, butternuts, pawpaws,
'Tlas and limbers up my jaws
Fer raal service, sich as new
Pork—spare-ribs and sausage, too—
Yit, fer all they's sompin' 'bout
Old October knocks me out.

—James Whitcomb Riley

There is a disposition on the part of some wheat growers to hold their wheat with the idea in mind that sooner or later the government will increase prices. Those who are pursuing this plan are unquestionably making a mistake, as the food administration was convinced before prices were fixed that they were high enough to stimulate production and to give the wheat farmer a satisfactory profit.

Tractor manufacturers report more orders in some regions than they are able to fill immediately. Farmers who have had one tractor are buying another. Such evidence indicates that the tractor is here to stay.

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2233—A popular boys' suit. The pattern is cut in 4 sizes: 3, 4, 5 and 6 years. Size 4 requires 2¾ yards of 36-inch material.

2247—Ladies' one-piece dress. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 5¾ yards of 44-inch material.

Waist 2239-Skirt 2235—A popular model. The waist pattern 2239 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. The skirt pattern 2235 in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. Size 36 bust measure will require 7⅛ yards of 44-inch material. Two separate patterns, 10 cents for each pattern.

1918—Chlidren's rompers with round collar or square neck outline, and with long or short sleeve. The pattern is cut in 3 sizes: 2, 4 and 6 years. It requires 3 yards of 36-inch material for a 4-year size.

1829—A smart frock for mother's girl. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3¾ yards of 36-inch material for an 8-year size.

2232—A simple one-piece dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 requires 5 yards of 44-inch material.

1909—A new coat dress for misses and small women. The pattern is cut in 4 sizes: 14, 16, 18 and 20 years. Size 16 requires 6 yards of 44-inch material.

2240—A simple dress for school or general wear. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 6 requires 2⅜ yards of 44-inch material.

1848—Girls' coat, with raglan sleeve. The pattern is cut in 7 sizes: 2, 4, 6, 8, 10, 12 and 14 years. It requires 2⅜ yards of 44-inch material for a 6-year size.

2083—A practical undergarment. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3½ yards of 36-inch material for a 36-inch size.

2227—Ladies' dress, with sleeve in wrist or elbow length. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 5⅝ yards of 36-inch material.

1990—Ladies' apron and sleeve protector. The pattern is cut in 4 sizes: 34, 38, 42 and 46 inches bust measure. Size 38 requires 5 yards of 36-inch material for the apron, and ⅜ yard for the sleeve protector.

International Sunday School Lesson

(By E. O. SELLERS, Acting Director of Sunday School Course.)

Lesson for October 21, 1917.

The Temple Rebuilt and Dedicated.

LESSON TEXT—Ezra 3:8-13; 6:14-18.

GOLDEN TEXT—Enter into his gates with thanksgiving, and into his courts with praise.—Psalms 100:4.

The remnant which returned had now become settled in their new homes. As it would be a considerable time before the temple could be rebuilt, arrangement was made for the religious life as early as possible, as religion was the very heart of the nation's life. They first set up the altar of the God of Israel (3:1-3) and offered burnt offerings thereon. They next revived the annual festivals (3:4-7) which had a powerful, unifying influence upon them.

I. The Appointment of Officers to Set Forward the Work of the Lord's House (v. 8, 9). Overseers were needed to direct this great work. Rubbish needed to be cleared away so the building operations could begin; timber needed to be cut in the Lebanon forests and floated down to Joppa; stones needed to be cut from the quarries; intelligent and consecrated men were needed to direct this work, as it was needful that it be done with the utmost expedition. The Lord's house demands the most systematic adjustment of its labors. Mere zeal will not make up for lack of intelligence.

II. The Foundation of the Temple Laid (3:10-13). This was done amid great rejoicing. The consciousness that the Lord's house was taking shape, even though the mere foundations could be seen, provoked great enthusiasm on the part of the people. Musicians were appointed to furnish music while the work was being done. Under the influence of music men will do better work, armies will march and fight better when bands are playing. While there was great joy, there was also mingled sorrow. This was on the part of the elders who had seen the former temple. The meanness of the present temple in comparison with Solomon's temple caused their praise to be drowned with their sorrow. These people belonged to that class who think nothing now is so good as in the former day. So completely were these voices commingled that the people could not discern the one from the other.

III The Building of the Temple Delayed by Opposition. (Chapters 4 and 5.) For a time matters went smoothly with them, but as soon as the work had taken such shape as to show that there was some prospect of success, the half-heathen Samaritans began to oppose them. No vital work of God will be allowed to go on without opposition. Satan resents and bitterly opposes all inroads upon the kingdom. These Samaritans sought to frustrate this work of God by:

(1) An Alliance With the Jews (4:2, 3). They wanted to bring the work in harmony with their own religious practices, as God's pure worship would be a constant rebuke to them. This is ever the way of the world, to seek to effect a compromise with God's children; but God's call is separation. "Come out from among them" (2 Cor. 6:14-18). Nothing so weakens God's cause as worldly alliance and compromise. There is but one answer to be given to such an offer of compromise. "Ye have nothing to do with us in building a house unto our God." We are in the world, but not of the world.

(2) Weakening the Hands of the People (4:4). Doubtless this included the withdrawal of supplies, the spreading of dissension among the workmen, and the employment of counselors against them.

(3) Letters of Accusation to the Persian King (4:6, 7). So severe was this opposition that the building was delayed for a term of years. These counselors succeeded in creating doubt as to whether Cyrus had ever issued a decree for their return. This wicked opposition resulted in the undoing of the opposers, for search was made and a copy was found. Darius confirmed this by his own decree, and directed that aid be given from the royal taxes so that the house of God might be built.

IV. The Temple Completed and Dedicated (6:14-18). The Prophets Haggai and Zachariah now appear, and by warnings, exhortations and entreaties stir up the people so that the work goes forward to a successful completion. Without their aid probably the work would never have been completed. Human nature at times needs to be cheered and urged forward. These prophets did not themselves work in the building of the walls, yet their work was of even greater importance.

It is generally found that this is so with the religious leaders today. The words of cheer and encouragement of the Christian minister are needed daily for those who labor in the building of the Lord's house. Were it not for them many would give up the struggle. When the building was finished it was dedicated to God with great joy. This was possible because they had builded and finished their task according to the commandment of the God of Israel. The service of dedication was much after the order of that of Solomon's temple, only on a less magnificent scale.

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BREEDING EWES FOR SALE—Now is the time to buy before they go higher. Wool and sheep are going to be higher in price and stay high. John Blanchard, Columbus, Wisconsin.

GUERNSEY BULLS.

FOR SALE—Registered Guernsey bull, Gipsy Captain, from Tristan of Saradale (18470) and Imp. Gipsy Girl of the Isle (28573). Five years old. Chas. Fagerness, Whitehall, Wis.

VISITING CARDS.

SOMETHING CLASSIC—50 visiting cards, your name and address printed in gold bronze, 25c postpaid. Makes an ideal Christmas present. R. Wiese, Atlantic, Iowa.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

RINGLET BARRED ROCKS.

DOOTOR'S big, beautiful "Ringlet" Barred Rock cockerels, on approval, $3 to $5 each. Winners. Heavy-laying strain. Dr. E. C. Higgins, Melrose, Wis.

EMERSON SULKY PLOWS.

FOR SALE—Emerson sulky plow having extra breaker bottom, completely equipped. H. A. Brager, Mount Horeb, Wis.

HOLSTEIN COW.

FOR SALE—Four young registered Holstein cows. Fine individuals. Due soon. Fred I. Cox & Sons, Omro, Wis.

JERSEY CALVES.

FARMERS' PRICES—Before Nov. 1st, Jersey bull calves, best breeding. D. W. Howie, Jr., Elm Grove, Wis.

SHETLAND PONIES.

FOR SALE—Blue ribbon Shetland ponies, $40 up. Howard Dwan, Browntown, Wis.

Veal and Heifer Calf Situation.

Opinion of Prominent Men Gathered by George C. Humphrey, Animal Husbandry Department, College of Agriculture.

STATEMENTS concerning the number of veal and heifer calves sent to market from Wisconsin farms are at variance. This is due to the difficulty of getting a complete census of all calves born, shipped and slaughtered at all points in the state. The short lifetime of veal calves would necessitate taking a census at frequent intervals if anything like an accurate number of calves produced annually or a true situation concerning the shipment and slaughter of calves in Wisconsin were to be secured. The following statements, however, concerning the slaughter of heifer calves are of interest:

In the spring of 1917, at Chicago, Illinois, to which point many Wisconsin calves are shipped, Mr. A. G. Leonard, president of the Union Stockyards & Transit Co., had a count made of calves received and in 5,000 calves arriving on the market, there were only thirty-one heifers. In another instance a count was made of 500 calves unloaded at Swift & Co.'s dock and not a heifer was found.

At the Milwaukee Stockyards a record of the receipt of calves was made for March and April, 1916 and 1917, and was as follows:

	March	April
1916	19,622 head	20,971 head
1917	22,546 head	26,364 head
Increase	3,280 head	5,393 head

Mr. R. H. Shields, manager of the Milwaukee Stockyards Co., states that in his opinion, based on actual observations, the receipts of calves from Wisconsin run 85 to 90 per cent male calves. He further states in a letter dated April 30, 1917, to R. Baker, assistant secretary of the Wisconsin Live Stock Breeders' Association, that there are several buyers on their market who purchase well-marked, well-formed and thoroughly sound heifer calves and ship them back to the country to be raised for dairy cows. A record of the purchase of such heifer calves for March and April, 1916 and 1917, is as follows:

	March	April
1916	146 head	271 head
1917	647 head	869 head
Increase	501 head	598 head

Mr. Shields further states that an interview with a number of parties who ship stock regularly to Milwaukee, indicates that the farmers are holding back a greater number of heifer calves than heretofore and also that where the shippers purchase heifer calves in the country they, in a great many instances, find an immediate sale for them without shipping.

Arthur Broughton, president of the Wisconsin Live Stock Breeders' Association, states that during the spring of 1917 on live stock shipping days at Brodhead and New Glarus, the farmers of Rock county purchased a large number of good grade dairy heifer calves with the object of raising them for dairy cows.

Mr. John LeFeber, Milwaukee, a member of the Dairy Industry War Council, states that he never could agree with those claiming that milk cows were going to the slaughterhouses at an alarming rate. He further states that he had a long talk with Mr. George Van Norman, a stockyard commission man, who says that he believes there are no more milk cows coming to the yards at the present time than there have been for the past three or four years. He believes that the present high prices for milk is incentive enough for every producer to keep every good cow milking under the most favorable conditions.

Our D. S. Bullock spent several days gathering information concerning the dairy cattle situation in the vicinity of Blanchardville, Wisconsin, and reports that farmers were raising as large a number of heifer calves as their feed conditions and facilities for housing them would permit. This condition has been observed by all of the members of the animal husbandry staff in many communities in Wisconsin.

Mr. N. A. Negley, engaged in organizing and supervising cow-testing associations in Wisconsin, recently called for a report from the eighty-three associations in the state on dairy farm conditions. He submits a partial report as follows:

A summary of the report from forty-seven cow testers who visit monthly 1,410 dairymen having 23,500 cows on test, shows the following:

In reply to the question: "Are there more heifer calves being sold for veal than formerly?" all of the testers reported "No."

In reply to the question: "Are there any good heifer calves from pure-bred bulls being sold for veal?" thirty-nine reported "No," four reported "Yes" and four reported "Few."

In reply to the questions: "Are any of your members going out of the dairy business because of feed prices and labor shortage? How many? forty-one reported "No," the balance reporting that six members had gone out of business and two were cutting size of herd.

Mr. Reid Murray, assistant state leader in agricultural extension service, spent a day at the Chicago Union Stockyards and one day at the Milwaukee Stockyards in August, 1917, and studied the calf situation. He reported that on the average he found one-fourth to one-third of the calves to be heifers. A considerable number of heifer calves were being picked up and sent back to the country. Dealers reported that they would secure heifer calves for anyone wanting them at $1 per hundred above veal prices.

At. Mt. Horeb, Wisconsin, in August, Mr. Martin, a live stock shipper, accounted for several well-marked Holstein heifer calves which were being sacrificed for veal, by saying that most dairymen had saved earlier in the season all the heifer calves they were in a position to raise and that, moreover, August calves were the most unsatisfactory to raise.

For the past three years the watchword in Wisconsin among institute and all extension workers has been, "Raise Better Dairy Calves." Farmers have been advised that it does not pay to raise poorly bred and poorly developed calves. The good prices that have been paid for high-grade and pure-bred dairy cattle ranging in age from young heifer calves to mature cows, have encouraged Wisconsin farmers to heed the above watchword.

County agricultural representatives, emergency food agents, community breeders' associations, the Wisconsin Live Stock Breeders' Association and the college of agriculture have been active in helping buyers from communities within the state and from other states, in locating cattle they desired to purchase. Approximately 28,000 head of cattle for dairy purposes were shipped from Wisconsin to other states in 1916.

In conclusion it may be said that the situation with reference to the attempt on the part of farmers of Wisconsin to raise a large number of heifer calves is more encouraging than ever before. If communities within the state or in other states will make their wants specifically known, it is believed that there will be very little difficulty in helping them to get into touch with any dairy heifer calves that are being put on the market because of surplus that dairymen may have and which it is impracticable for them to keep and raise.

International Entries Close Soon.

No Entries Allowed After November 1st.

A most satisfactory state fair season has been brought to a close and the next important item on the program is the International Live Stock Exposition which will be held in Chicago, December 1st to 8th. This exposition has been growing in importance and it has been proven over and over again that a ribbon captured there is of great value to any exhibitor. We believe that it is especially important that the number of entries be large this year. Meat products have never been so high nor has the interest in pure-bred stock been as keen as it is at the present. Certainly the International has effected improvement in the common stock of the country and at this time we call the special attention of our readers to the fact that the entries for the 1917 show must all be in by November 1st.

Those who desire to obtain copies of the preliminary classification or to obtain any information whatsoever regarding the International should write at once to the general superintendent, B. H. Heide, Union Stockyards, Chicago.

You Can Do as Well as This Man

This is H. A. Neumann the Lange man for Dodge Co., Wis. His sales for one month were $931.50, average per week $192.68. He is 27 years old; started two years ago, both he and his goods strangers in the territory, and has built up this splendid business of his own, selling Lange's Extracts, Spices, Teas, Coffees, Household Specialties and Veterinary Remedies direct from wagon to home. You can do as well. Let us give you actual figures of their sales. We will instruct you on every point, teach you how to sell and give you exclusive territory near your home. Our contract beats all others. If you're not making $200 a month, write us at once about our plan. We want men right now for Walworth, Columbia, St. Croix, Lafayette, Portage and Richland Counties, in Wisconsin.

The Lange Co., Dept. E. DePere, Wis.

The DAISY SPARK PLUG

The AUTO TROUBLE ELIMINATOR

Surpasses Anything Out

Spark Plug trouble is caused by the accumulation of carbon on the porcelain. The drawing, with opening showing ring on lower end of porcelain which is tossed up and down at every explosion, prevents carbon accumulation and missing.

MADE IN 1-2 IN. and 7-8—18 ALAM SIZES.

50 Cents, Prepaid. *AGENTS WANTED.*

WEBSTER IGNITION CO.,

6122 Virginia Avenue, ST. LOUIS, MO.

SUGAR 4c a Lb

Save from 30 to 50% on all your groceries by buying direct from us at wholesale prices. Cut out middlemen's profits. We guarantee quality absolutely. Write today.

Consumers Wholesale Grocery Co., Dept. 133 Chicago, Ill.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND RSED

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices. **WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.**

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

Cow-Testing Reports.

In Winnebago County.

To the Editor:—Our forty-five-pound cows for the month ending September 30, 1917, were as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
N. A. Rasmussen					
May Bee, G. G.	5	6-3-17	840	5.6	47.0
H. R. Mosely					
Rosy, G. G.	7	2-6-17	720	6.3	45.9
Delma, P. B. G.	7	8-8-16	1110	4.8	53.2

ARTHUR BARTHELS, Official Tester.
L. E. BRUNSON, Secretary.

High Prices Paid for Furs.

FARM boys can make money trapping and selling furs this winter. The demand will be strong for practically all kinds of pelts. It is essential, however, to get good traps and other equipment and to have a good market. Mason Fur Co., Inc., 114 Trappers Headquarters, St. Louis, Mo., is a good firm to deal with in this line. They pay high prices for skunk, coon, fox, mink, muskrat and other furs and hides and they furnish trappers' supplies to their customers at factory prices. This company will send free a price list of furs and hides, shipping tags and complete catalog of equipment to every farm boy or man who expects to do trapping this winter. Write for them at once, using the address given above. The advertisement appears on page 13.—Adv.

Have You Sawed Your Wood?

IF you have not sawed your wood, now is the time to do it. There is no way that a man can put up his wood as easily and cheaply as he can with a folding sawing machine. This machine has been on the market for a great many years. The machine is giving universal satisfaction wherever it is used. Taking into consideration the saving by the use of this machine it is one of the most economocal machines sold. Write to the Folding Sawing Machine Company, 161 W. Harrison St., Chicago, Ill., and ask them for a catalog which shows illustrations of the machine and gives many testimonials, from every state in the Union. See advertisement on page 16.—Adv.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Waukesha County Guernsey Breeders' Association.

THE eleventh annual sale of pure-bred Guernseys at Waukesha, Wis., will be held October 31 and November 1st. Seventy-five head of pure-bred females will be offered October 31st. These animals have been selected with the aim of making this sale a record breaker and to do this only animals of special merit both as to breeding and individuality have been accepted. Among the splendid offering will be found the following consignors: Charles L. Hill, who is offering 75 head of cows and heifers. There are cows among this number with records as high as 615 pounds fat. John L. Williams, who is offering six females of splendid May Rose breeding; George McKerrow & Sons Company, who are consigning eight females, daughters of Governor of the Chene, Governor of Myrtle Place 2d, being included; William M. Jones, six females, including A. R. cows with records up to 696 pounds fat; George W. Browne, 11 females in addition to a young bull, whose dam has a record of 717 pounds fat; Fruit Brothers, with an A. R. cow having a record of 649 pounds fat sired by Glenwood's Stranford; George Lawson with a son of Rhea's King of the May, out of a dam having 568 pounds of fat; Goodhand Kingston, two females, one with a record of 411 pounds of fat at two years; George Konrad with two females, including a granddaughter of The Conqueror 2d. Other consignors are as follows: H. Reidburg, L. J. Wendt, Crouch Bros., C. M. Harvey, F. E. Humriow, J. R. Love, C. J. Mitchael, Basse Bros., Earl Roberts, William Fisher, Connell Bros., F. C. Smith and Freehoff Bros. On November 1st 50 head of very high-grade cows and bred heifers will be sold. The grades offered are all very high class, well marked, good producers and should be valuable additions to any herd. Pave the way for a good foundation herd. They have all been carefully inspected and will be tubercular tested. One of the special features of the sale will be Red Cross Lady, a pure-bred Guernsey heifer, a double granddaughter of Governor of the Chene, that will be sold October 31st. The money received will be given to the Red Cross Society. She was donated to the Waukesha Association by one of its generous members, George W. Browne, Waukesha, Wis. Show your particulars write to F. E. Fox, secretary. See advertisement on page 28. —Adv.

Prairie View Stock Farm, Burlington, Wis.

W. G. BARTHOLF, proprietor, writes us that owing to the fact that he is unable to use Wisconsin Pathfinder, which is by Mighty Pathfinder, their junior yearling boar, to good advantage any longer, they are offering him for sale at a bargain. Mr. Bartholf also states that they have a good spring boar by King Orion and out of a Lee's Defender dam, that is surely a good one. It will be remembered that Mr. Bartholf's herd made a very creditable appearance at the Wisconsin State Fair this fall, as well as at the Elkhorn and Beloit county fairs. They are offering the first-prize boar pig at the Elkhorn and Beloit county fairs that won out over the first-prize boar pig at the Wisconsin Fair. This choice young boar is priced at $75 and is by Outlook Cherry King. They are also offering ten choice March pigs by Outlook Cherry King and Wisconsin Pathfinder. Farmers looking to get started right in Durocs should write to Mr. Bartholf with reference to these animals, as we were very well impressed with Mr. Bartholf's herd the last time we visited him. See advertisement on page 26.—Adv.

Pellett Has Good Chesters.

WE have just been advised that the Pellett Chesters were winners at the Inter-County Fair at Viola. Their good boar, Schoolmaster 38th, won in his class. They also won first on sow under two years, first on sow and litter and first on sow under six months. This Schoolmaster 38th is a good boar. He is a son of the well-known Schoolmaster, and he is breeding fine in the Pellett herd. The winners were sired by this boar. They offer for sale pigs sired by W. A.'s Wonder, grand champion of Iowa in 1915, and these are out of Sunny Side Ideal 101026. This is good breeding and many of the Chester men of Wisconsin could use a gilt or two from this litter to good advantage. The Pelletts register all stock they sell and guarantee satisfaction in every respect. We believe that if you place an order with them you will find the pig just as represented. Write them for further information, and in so doing kindly mention The Wisconsin Farmer. See advertisement on page 27.—Adv.

Inter-County Holstein Sale, Watertown, Wis., November 8th and 9th.

MR. FRANCIS DARCEY, secretary, has been successful in listing an exceptionally large number of high-class cattle to be sold at this sale. There are several better than 30-pound bulls to be consigned, 27 and 28-pound bulls and a large number of high-class females with very creditable A. R. O. records, as well as A. R. O. backing. For details concerning this sale we suggest that you write Mr. Francis Darcey, Watertown, Wis.—Adv.

Have You Noticed the Chester White Advertisements?

THE Chester Whites have gained immensely in the last few years. This condition is true in Wisconsin, as well as other states and if you will look at the live stock columns of The Wisconsin Farmer, you will see more advertisements of this breed than has ever appeared before in a Wisconsin publication—there is a reason—the breeders have the goods and they want to get their products out where they will advertise this good breed. The best herds of Chester Whites in the state are advertised in this publication; for instance, Babcock, of Evansville. He is a young breeder that had those good and big spring pigs at the fair at Milwaukee. He has the same kind at home for sale. Butts, of Evansville, is the owner of Pay Streak, the boar that was grand champion of Wisconsin—his get would be good property. Then there is Walter George, of Evansville, who has some of the best pigs we have seen this year. Art G. Hoskins, of Dodgeville, can sell you a boar that weighs over 200 pounds that will make your eyes water. Spring Green is where Carl Hickcox "hangs out" and while he don't ask as much money as some, he gives you value received. Hoover Select and Ideal Combination are the big noise at Bloom City, an inland town near Viola. L. J. McBain owns these two good boars and if you could see them you would want a boar sired by one of them. The fact that J. A. Doerr, of Viroqua, has been breeding Chesters for a quarter of a century should be recommendation enough for his product. John Pellet attended some of the high average sales last winter and bought some good sows. They raised good litters and if you want some new blood write him at Viola. John P. Vogt, Jr., is in Grant county and is one of the younger breeders. He expects his pigs to do most of his advertising and is located at Glen Haven. Adolph Nuttleman, West Salem, is one of our oldest advertisers and has one of the best mail order trades of any man in the state. The reason—his pigs satisfy. A. L. Gray, of Mt. Hope, also Grant county, is one of the old-timers and enjoys a flourishing business. He has a well-bred herd of Chesters. Chas. Rogers & Sons, of West Union, are better known as Short-horn men than they are for Chesters, but the latter will please you. Last, but not least, is J. Fisher & Son, Box 13, Eastman. Mr. Fisher has sold more Chesters than any man in the state and makes a specialty of selling his pigs at weaning time. Any of the above breeders will give you a square deal. See advertisements on page 27.—Adv.

Be at Ridgeway, October 24th.

ON the above date R. F. Brunker & Sons will sell about 40 Poland China boars at their farm, five miles south of Ridgeway, Iowa county, Wis. They are selling some big, useful, well-bred boars in this sale—yearlings and boars of spring farrow. Breeding boars are not plentiful this fall. The farmers are just beginning to buy and before the middle of December many are going to be unable to get the kind of boar that they should use. This condition was true last year. As a rule the farmer does not buy his boar until he is ready to use him and then all want boars at the same time. Get your boar early and don't take what's left. You will have better success too, if you buy your boar now and take him home so that he will get accustomed to his new surroundings before you start to use him. Brunker is selling boars that you can use and it will pay you to attend this sale. If you can't get away on October 24th, T. P. Shreve, who represents The Wisconsin Farmer at this sale, will gladly select something for you if you will advise him what you want and about what you want to pay. Send mail in care of R. F. Brunker.—Adv.

Boars All Sold.

WE have just been advised by Mike Stoehr, Viroqua, Wis., that he is sold out of Duroc boars of spring farrow. This is the man that owns Orion King, the best son of the grand champion, King Orion, and Mr. Stoehr will sell you a gilt now and keep her and breed her to his good boar. This is a good deal for the buyer and if you write now you will get the choice of his spring gilts. Stoehr has a good lot of sows, some of The Professor breeding and he has some good gilts out of these sows. Write him and please mention this publication.—Adv.

Cain's Giant Invincible Sale.

YOU have no doubt heard about J. J. Cain, the Duroc breeder, of Skyberg, Minn. He came "out of the brush" last year and "cleaned the slate" with his futurity pigs at the Minnesota State Fair last year. He went to Omaha last October and purchased a boar pig, namely Giant Invincible. This was the best yearling boar that we have seen this year. Mr. Cain thought him good enough to take to the Iowa State Fair. Upon his arrival he caused a sensation in Duroc circles. Several men tried to buy this boar, but Jake Waltemeyer was the only one that thought enough of Giant Invincible to give a check for $2,500. The fact that this veteran breeder and showman purchased this great boar should be an inducement for you to buy the get of Giant Invincible. Mr. Cain sells boars and gilts at Skyberg on Tuesday, October 30th. In this sale there will be 30 head sired by the $2,500 yearling—22 spring boars and eight spring gilts. Cain is selling some good pigs and the kind that will please the buyer. They are not carrying a lot of excess fat—they have good backs and feet and plenty of stretch, and there are boars in this sale just as good as their sire was at the same age. The dams are well bred. Several of them are out of sows that are line bred King of Cols. Breeders, if you don't need a boar, attend this sale and buy one or more of the gilts that are selling. If you don't want to keep them, put them in your winter sale bred to a good boar and we feel safe in saying you can double your money on them. Giant Invincible boars and gilts are going to be good property just the same as Great Wonder and Grand Model—you all know what you have to pay for the get of these boars. You will never have another chance to buy the get of this boar as cheap as in the Cain sale. Now is your opportunity. If you can't possibly attend this sale, send your buying orders to T. P. Shreve, in care of J. J. Cain, Skyberg, Minn. The catalog is interesting. Write for one at once and please mention The Wisconsin Farmer. Note the advertisement on page 26.—Adv.

NEXT WEEK'S SALE PROGRAM

Tuesday, October 23	Holstein-Friesians, Lake Mills Holstein Sale, Lake Mills, Wis. Poland Chinas, Drewelow Bros., New Hampton, Iowa.
Wednesday, October 24	Holstein-Friesians, Lake Mills Holstein Sale, Lake Mills, Wis. Poland Chinas, R. F. Brunker & Sons, Ridgeway, Wis.

Shea and His Good Durocs.

HAVE you written Dennis Shea, Melvina, Wis., about those good Duroc boars he has for sale? If you have not you are making a mistake, for Dennis has the goods. We have often written about this herd and we are glad to recommend the Shea Durocs, for he raises a class of hogs that give satisfaction and Dennis is absolutely on the square. Besides having them well grown, weighing from 175 to 280 pounds, they are smooth, with good feet and bone and they carry a line of breeding that no one need be ashamed of. Some of the good ones are sired by his Pathfinder boar, and every Duroc man has heard of Pathfinder. The best boar on the Shea farm is Col.'s Choice. This boar is big and smooth and his get have the same good qualities. He is a good son of King the Col. Then another good boar, though there are only a few boars for sale by him, is Pal's Defender, a son of Lee's Defender. Shea has some of the best, big sows in the state and boars out of these good sows sired by the above boars are no disappointment. Get in touch with this good breeder and please mention The Wisconsin Farmer. See advertisement on page 26.—Adv.

Orrin Hake, Jefferson, Wis.

MR. HAKE, who is one of the most progressive Holstein breeders in Jefferson county, is now using at the head of his herd a 29.15-pound son of King Pontiac Champion, an A. R. O. sire with 62 daughters to his credit, one of the best known A. R. O. bulls in the state of Wisconsin. The dam of Mr. Hake's bull, K. S. P. Dione, not only has a 29.15-pound seven-day record, but also has a 724.25-pound semiofficial yearly record. She is by King Segis Pontiac, that has 57 A. R. O. daughters and has sired probably more high-priced bulls than any other bull of the breed. The dam of K. S. P. Dione is sired by De Kol Second Butter Boy 3d, one of the great bulls of the breed, having over 118 A. R. O. daughters. Mr. Hake reports that the calf crop from this young bull is the most promising which he has ever had, so that he will soon be in a position to furnish some splendid bull calves at reasonable prices from his well-bred herd bull. See advertisement on page 25.—Adv.

Kirkpatrick Bros.' Recent Sale.

ORRIE KIRKPATRICK writes us that the Hillside Stock Farm, Reedsburg, Wis., which is owned by Kirkpatrick Brothers, has just shipped two of the ten registered Holsteins recently advertised in The Wisconsin Farmer. These two cows go to Green Bay and were the largest ever shipped out of Reedsburg, weighing 3,480 pounds. These cows were also bred to their senior herd sire, Senator Johanna White, that stood second in the aged bull class at the Wisconsin State Fair this fall. Senator Johanna White was bred by R. J. Schaefer, Appleton, Wis., and is a 31.07-pound bull out of one of Mr. Schaefer's best cows that also has a semiofficial yearly record of 1,146.78 pounds butter. The picture of this bull appeared in The Wisconsin Farmer in the report of the Wisconsin State Fair, which indicates the splendid type of animal he is. Kirkpatrick Bros. also have a number of other cows for sale that are bred to this splendid bull. See advertisement on page 25.—Adv.

Orion Col. S.

THE above son of the $2,500 Col. S. Jr. was first-prize aged boar at the Minnesota State Fair, Chippewa Falls and La Crosse. This is the good boar owned by W. C. Jenkins, Bangor, Wis. No man in the Duroc game has made such an improvement in his hogs during the past year as Jenkins. He now owns a herd of sows, numbers considered, that are second to none in the state, and they will be bred to Orion Col. S. for spring litters. The Lady Top Notcher sow that Jenkins recently paid $380 for is raising seven September pigs by the noted Investor. A few gilts will be offered for sale bred to Orion Col. S., and, as Mr. Jenkins only has a limited number of gilts that he will sell, he wishes you to place your order early. Let him quote you prices on these gilts. The demand for the get of this boar was keen this year, consequently he is sold out of spring boars. In writing, will you please mention this journal? See advertisement on page 26.—Adv.

Madson Buys Good Big-Type Boar.

M. MADSON & SONS, Madison, Wis., have added some good Polands to their herd during the past two years. They have bought some of the very best big-type breeding, in both sows and boars. Their most recent purchase was a spring boar in the Bert Irwin sale. They bought a son of Bill's Chief that is a half brother to Chief Defender, the Illinois grand champion and a son of Mouw's Chief. The dam of the Madson boar is Oakland's Choice by the $1,000 Oakland's Equal. This was a real herd-boar prospect, and, as the Madsons know how to feed and grow boars, we expect to see an outstanding boar in another year. Don't forget their spring pigs—either sex. We saw them some time ago and they will not disappoint you. Note what they are sired by and if you are going to want gilts or a boar write this firm at once and please mention The Wisconsin Farmer. See page 27.—Adv.

Some Good Boars Left.

E. H. PARKER & SON, of Janesville, Wis., had some 40 Duroc boars when the season opened, many of which were by the sensational King Orion, Wisconsin's greatest champion. Just at this time they have a dozen or more real good boars sired by King Orion. These boars are right in every way and will fill a mail order to satisfaction. They are out of sows sired by the champion Illustrator, Volunteer, daughters of the great Orion Chief, Marion's Wonder and Lee's Defender, and others. Besides spring boars sired by the grand champion, they have some good ones by Pal's Chief Col., a King of Cols. bred boar. Don't forget the Parker Durocs. You can't get better or more popular breeding—it isn't written and the stuff is good individually. We are glad to recommend the Parker prolific porkers. Write for details and in so doing, please mention The Wisconsin Farmer. See advertisement on page 26.—Adv.

Kirst Buys Herd Boar.

WE have just been advised that A. L. Kirst, Chester White breeder living at Tomah, Wis., has purchased a spring boar sired by Cardinal, a good son of old Chief Keokuk. His dam, Ladylike 29204, is sired by Highland Chief 23019. In this boar, Mr. Kirst has one of the best-bred pigs in the state. He advises us that he weighed 275 when he got him home, which is a good weight for a spring pig. This boar will be mated to the good sows and gilts in the Kirst herd. See advertisement on page 27.—Adv.

Good Offering of Poland Chinas.

ON October 23d Drewelow Bros., New Hampton, Iowa, will sell 40 Poland Chinas, 15 of which are gilts and 25 boars. The entire offering is of spring farrow, the pigs being sired by Orphan Pawnee, a good breeding son of The Big Orphan. The dams come from a number of the most noted herds of Poland Chinas in the corn belt. Some of the sows in the herd are direct descendants of state fair prize winners. This offering is backed up by a line

CARPENTER & CARPENTER'S

SCOTCH SHORT-HORN SALE

CHICAGO, ILL., Stockyards Sale Pavilion WEDNESDAY, OCT. 31, 1917

40 Head---Cows with Calves, Heifers and Bulls---40 Head

FEATURE OF FALL SALES: **Maxwalton Queen and Bull Calf,** the undefeated show cow of 1914, 1916 and 1917. The greatest show and breeding cow sold in recent years. Violet Maid 3d and bull calf, Collynie Mysie and heifer calf, Anoka Clipper 3d, Collynie Queen out of Maxwalton Queen, Collynie Mint Drop 2d and calf. This is only a few of the show cows and heifers. BULLS: Collynie Cullen 5th, a choice roan senior yearling; Collynie Archer by Village Baronet out of Violet Maid 3d; Collynie Cullen 6th, dam by Avondale; other good ones. Notice 50 per cent of the offering out of Avondale bred dams. There will also be a few Canadian bred heifers. **Everything of best Scotch breeding.** Jones, Reppert and Milne, auctioneers. Write at once for a catalog. Address

CARPENTER & CARPENTER **BARABOO, WISCONSIN**

of breeding that is hard to improve upon and the pigs are of the type and of the conformation that will please the breeder and farmer. See page 27 and write for a catalog, kindly mentioning this paper.—Adv.

McDermott's Short-horn Offering.

J. W. McDERMOTT, Kahoka, Mo., is consigning to the Carpenter and McDermott sale at Chicago, October 31st, 30 head of as good Short-horns as he ever sent through a sale ring. With but two exceptions they were all bred and by Mr. McDermott, and practically every one is either sired by or closely related to the great sire, Cumberland Marshal. Mr. McDermott has bred and shown many good Short-horns, and the lot that he will forward to the Chicago sale will rank with any that he has ever offered to the public. Some great young bulls are listed in this offering, among them Cumberland Repeater, one of the herd bulls, by King Cumberland. Cumberland Marshal 5th by Cumberland Marshal, out of a dam by Uppermill Omega, is a high-class youngster in any company. His half-brother, Cumberland Marshal 6th, will also bear the closest inspection from the man wanting all that is best in a bull. Some wonderfully attractive females by Cumberland Marshal will be offered, including Cumberland Rosemary, a sister to Village Marshal, the bull that is making so good a reputation at the head of the herd of Tomson Bros., of Kansas. There are no excuses to be made for any animal in the lot. They are a collection of honest Short-horns, not specially fitted for the sale, being offered in only moderate condition, but they are the kind that can be depended upon to give a good account of themselves, and they come from the herd of one of the country's most reliable and progressive breeders. You will make no mistake by attending this sale and buying some of these cattle. In the same sale Carpenter & Carpenter, Baraboo, Wis., will sell 45 head of outstanding good ones, the two lots making a total of 75 head, and comprising as choice an offering as has been put in front of the American buyer in many a day. Write today for the catalog to either Carpenter & Carpenter, Baraboo, Wis., or J. W McDermott, Kahoka, Mo. Kindly mention this paper when you write.—Adv.

Those Fennimore Durocs.

WHILE in Grant county recently we stopped off at Fennimore, the home of those good Durocs. The breeders are planning now to put up a good lot of bred sows in their first sale next winter. The exact date is not settled as yet, but it will be the week of February 11th, and from the present prospects they will have "the goods." We spent some time with W. C. Edge, who has one of the best herds around Fennimore and who owns W. C.'s Defender, the undefeated yearling boar of Grant Co. Mr. Edge showed this boar against all breeds at various fairs and we have been advised that he was a winner wherever shown. He is a good boar in every respect and is a 700-pound yearling. Edge is one of the best feeders and caretakers that we have met and we predict that he will soon have one of the best herds of Durocs in the state. He has boars for sale and solicits a portion of your business.—Adv.

Durocs at Lancaster.

WISCONSIN men have heard a great deal about Lancaster, for that is the headquarters of the Grant county Polands, but J. D. Beetham represents the Durocs in that vicinity. Just at this time he is offering spring boars at reasonable figures and if you get in early, you will get your money's worth. He also breeds Short-horn cattle and if you want a bull ready for service, he has two that he guarantees to please you in every respect. It will pay you to write J. D. Beetham, Lancaster, Wis.—Adv.

George McKerrow & Son's Company, Pewaukee, Wis.

THE McKerrows are, as is their custom, putting in eight females with unsurpassed breeding to the Waukesha County Guernsey Breeders' Sale; two are daughters of Governor of the Chene, two daughters of Myrtle Place 2d and others with equally good breeding. See the advertisement on page 28.—Adv.

Good Medicine Promotes Animal Health.

IT always pays to buy the best, particularly with medicines, either for humans, beast or fowl. When health is concerned, no expense should be spared to make the afflicted well and prevent the well from getting sick. All poultry or stock raisers should see that they have at hand a good tonic and medicine ready for instant use. It should be used in case of sickness, or better still, be given at every meal to enable fowl and beast to digest their food. Failure to do this is one of the greatest causes of disease among stock, as they will always eat more than is good for them and a tonic is necessary. One of the best-known poultry and stock remedy manufacturers is Dr. Hess & Clark, Ashland, Ohio. They prepare a complete line of poultry and stock foods, chief of which is Dr. Hess Stock Tonic and Dr. Hess Poultry Pan-a-ce-a. They also make Dr. Hess Dip and Disinfectant. The first two are essentially to remedy internal disease and tone up animal systems generally, while the latter two are to destroy vermin and the like. Dr. Hess Poultry Pan-a-ce-a and Dr. Hess Stock Tonic are made up of chemicals known to and prescribed by the best doctors of veterinary science for aiding the digestion and curing other diseases of stock and poultry. All of these preparations have been compounded by Dr. Gilbert Hess, a Doctor of Medicine as well as of Veterinary Science, and also a practical poultry and stock raiser. You have accordingly the benefit of both practical and scientific knowledge, as all of the preparations are results of his years of experience in practice. Dr. Hess & Clark also guarantee through their 28,000 dealers that, if their preparations do not do as claimed, your money will be returned by your dealer upon receipt of the empty packages.—Adv.

Illustrator Joe.

THE above is the name of the Duroc boar that is the sire of the good spring pigs that Phillips Bros., Delavan, Wis., are offering at this time. Illustrator Joe is sired by the champion, Illustrator, that sold for $2,000 and is out of a Joe Orion dam. This gives you a combination of breeding that could not be improved upon. The dams of the pigs for sale are sired by Pal's Premier, Cherry J. King, Taxpayer Model, Fancy Col., Cherry Chief and Lee's Defender. Good boars and gilts out of these sows should do you some good. They also have a yearling boar for sale sired by Cherry J. King, he by Cherry King, out of a sister to John's Combination. Write this firm for their prices and description of the spring boars and gilts that they offer. They have some good Durocs. In writing please mention The Wisconsin Farmer. See page 27.—Adv.

J. W. Williams, Waukesha, Wis.

MR. WILLIAMS is consigning six females to the Waukesha County Guernsey Breeders' Sale that are not only well bred, but high-class individuals as well. Several of this number are daughters of the great prize-winning bull, Rhea's King of the May. Mr. Williams is also consigning a prize winning bull, sired by Rhea's King of the May. See the advertisement on page 28.—Adv.

George W. Browne, Waukesha, Wis.

MR. BROWNE is consigning 11 females to the Waukesha County Guernsey Sale in addition to a dam that has a record of 717 pounds fat. The females include A. R. cows and daughters, as well as granddaughters of Rhea's King of the May and Governor Whimsome, a son of Governor of the Chene.—Adv.

William M. Jones, Waukesha, Wis.

MR. JONES is consigning six females, including A. R. cows with records, with 696 and 490 pounds fat and daughters of Lord Waukesha and Lord Yeksa. All of these females are bred to his junior herd sire, Yeksa Tops of Gold's Boy, that is from his noted cow, Yeksa Tops of Gold's Fanny, with 981.53 pounds fat, 19,794 pounds milk, a record that places this cow fourth in the production of fat and third in the production of milk in the breed. Yeksa Tops of Gold's Boy is one of the largest, most promising young Guernsey bulls that we know of and comes from a line of ancestry that can scarcely be surpassed. Cows bred to a bull of such merit should attract the attention of buyers looking for something out of the ordinary. See advertisement on page 28.—Adv.

"Speed Up" Your Stock

Turn the "slackers" into workers. Help the producers to do still better. Turn out lots of animal products at high prices. Cut feed costs and increase profits. Put your horses, cattle, sheep and swine in perfect physical condition with

Pratts Animal Regulator

the original guaranteed Stock Tonic and Conditioner

Producers and workers must be vigorous and healthy. Pratts Animal Regulator makes them so. Not a food, but a combination of tonics and conditioners mixed with the regular feed, which sharpens the appetite—assists digestion—regulates the bowels—purifies the blood—tones up the entire system—prevents waste of feed—insures health. Give Pratts a fair trial at our risk under these terms:—

Our dealer in your town has instructions to supply you with Pratts Preparations under our square-deal guarantee—*"Your money back if YOU are not satisfied"*—the guarantee that has stood for nearly 50 years.

569 *Write for 96 page book on the Care of Live Stock and Poultry, Free.*

PRATT FOOD COMPANY

Philadelphia Chicago Toronto

pratts

Carpenter & Carpenter's Extraordinary Short-horn Offering.

CARPENTER & CARPENTER, Short-horn breeders and showmen of Baraboo, Wis., and J. W. McDermott, of Kahoka, Mo., will have a wonderful lot of cattle to sell in their Chicago sale, Wednesday, October 31st. This will be Carpenter & Carpenter's first sale of Short-horns and for this event they have drawn heavily on their herd of show cows and heifers. The feature of this sale, in fact, the fall sales, will be the selling of the great show and breeding cow, Maxwalton Queen. This granddaughter of Avondale is one of the greatest show cows of recent years. She is an undefeated Short-horn cow, winning in 1914, 1916, 1917, and the man fortunate enough to get her will have one of the finest matrons of the breed. She sells with a bull calf at foot. A daughter of this cow sired by imported Lord Cullen also sells in this sale. Besides Maxwalton Queen there are other outstanding cows and heifers that have been winners in the Carpenter show herds of the past few years. There are several calves at foot sired by the imported Lord Cullen. Many of the females are safe in calf to Collynie Type, a son of Cumberland's Type. There will be nine bulls of serviceable age, any one of which is good enough to head choice herds of registered Short-horns. One of the good things in the bull line is an Augusta sired by "Cullen" out of Maxwalton Augusta. The important thing to do at this time is to get the catalog. You cannot help but appreciate these cattle after you see their breeding as listed in the catalog. As individuals, they will please the most critical. Write for this catalog to Carpenter & Carpenter, Baraboo, Wis., but remember that the sale will be held in Chicago. Watch next week's issue for a description of some of the outstanding bulls and females listed for this sale.—Adv.

McKerrow's Oxford and Shropshire Lambs.

IT HAS occurred to us that many of our readers may be of the opinion that George McKerrow & Sons Company, of Pewaukee, Wis., sold all of their yearling Oxford and Shropshire lambs at their recent sale which was held August 15th. This, however, is not the case, as Gavin McKerrow has just informed us that they have as nice a selection of yearling rams as they have ever had to offer at this time of the year. There are 25 yearling Shropshires all carrying the blood of noted sires; there are also a number of large ram lambs, that they are offering for sale. In Oxfords they have a nice lot of yearling rams in addition to 100 ram lambs. Selections can be made from this lot which would please the most critical. See the advertisement on page 28.—Adv.

TOO LATE TO CLASSIFY.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.

RALPH TRATT Whitewater, Wis.

SALE DATES.

Duroc Jersey Swine.

Oct. 30, J. J. Cain, Skyberg, Minn.
Oct. 31, F. S. Vanderhude, West Concord, Minn.
Nov. 8 and 9, Inter-County Holstein Sales Company, Watertown, Wis. Frances Darsey, Sec.
Nov. 9, Geo. F. Brooks, Suarta, Wis.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Irwin, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Nov. 6, Nathan Kintz & Son, Berlin, Wis.
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burke Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burke Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Oct. 31, Carpenter & Carpenter and J. W. McDermott, Chicago, Ill.
Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Oct. 31, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Pure-bred females.
Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

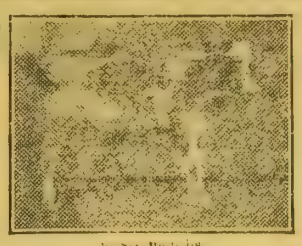
Nov. 16, Waukesha Co. Holstein-Friesian Breeders' Asso., W. L. Baird, secretary, Waukesha, Wis.

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use



at Six Months

YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN

Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis.

Milford Meadows Stock Farm

THE BULL CALF, recently advertised, out of our 28.18-lb. three year old, has been sold, but we have others just as good sired by our 29 and 3-lb. A. R. O. sires out of A. R. O. dams, with records up to 31 lbs. Write for a price list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with **11 A. R. O.** daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

HILLSIDE HOLSTEINS

WE HAVE TEN REGISTERED COWS for sale and one heifer. All cows have A. R. O. records but one; some due to freshen soon. Prices, $150 to $300. Extra large cows, good dairy type.

KIRKPATRICK BROS. - - - - - - - - **Reedsburg, Wis.**

Pabst Korndyke Champion
Son of Korndyke Segis Johanna,
Has just been sold to the North Dakota Agricultural College.

Pabst Korndyke Elder
Son of Korndyke Segis Johanna,
Similiarly bred on the dam's side,

IS NOW FOR SALE

Pabst Korndyke Elder was born March 3, 1917. His dam is Pabst Champion Elder. By King Pontiac Champion and out of Pabst Hengerveld Colanthus.

He is a splendid buy—just the bull calf you are looking for.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. **Box F**

HOLSTEINS

WATCH THIS SPACE.
WM. O'LEARY **Honey Creek, Wis.**

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.
JOHN L. FISHER **Janesville, Wis.**

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

Lake View Farm
Lake Mills, Wis.

OFFERS FOR SALE a son of a $6,800 Holstein bull that is a full brother in blood to a $50,000 bull. The dam of the calf for sale is a 16-lb. two year old, whose dam is a 24-lb. cow. Priced to sell.
FRED GURR :: :: **Lake Mills, Wis.**

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25.418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, **Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915.** Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

$25 Holsteins $25

WAUKESHA COUNTY high-grade heifer calves, six weeks old, from the very best high producing cows and registered bulls. Let me sell you a registered bull to head your herd. It will pay you.
J. A. ROBERTS, Cattle Expert, Oconomowoc, Wis.

HOLSTEINS

WATCH THIS SPACE.
MOSS BROS. **Troy Center, Wis.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH **Kilbourn, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.
L. V. GARVENS **R. 12, Brookfield, Wis.**

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB **Honey Creek, Wis.**

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) **Bagley, Wis.**

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

HOLSTEIN-FRIESIAN CATTLE.

A HIGH-CLASS PRIVATE HOLSTEIN SALE

WE ARE OFFERING 5 daughters having 25 per cent of the blood of Duchess Skylark Ormsby, 2 daughters of Sir Johanna Fayne, who has 50 per cent the same blood as Segis Fayne Johanna, the only 50-lb. cow, 1 granddaughter of Homestead Jr. De Kol, 2 daughters of Canary Mercedes De Kol, 2 daughters from these cows bred to King Peter, a noted A. R. O. bull of the Hartshorn breeding, and 2 heifers and 6 small bulls by an A. R. O. sire. It is evident that this small herd represents the best blood of the breed and offers an opportunity to buy some good stuff right.
C. L. TURNER **Springfield, Wis.**

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac** 174243. Sire **King Pontiac Champion,** Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**
ORRIN HAKE **Jefferson, Wis.**

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA **Watertown, Wis.**

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.
TULLOCH FARMS **Genoa, Wis.**

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS **Troy Center, Wis.**

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. **Eau Claire, Wis.**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER **Sheboygan Falls, Wis.**

TRIED HOLSTEIN SIRE

PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON **Neillsville, Wis.**

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. **Troy Center, Wis.**

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA **East Troy, Wis.**

Walter Bros., Chippewa Falls, Wis.
HEREFORDS

CAN SELL YOU A BULL, well grown, well bred and well worth the money. Our bulls are our advertisers. Correspondence and inspection invited.

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT **Lake Geneva, Wis.**

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON **Honey Creek, Wis.**

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT **Eagle, Wis.**

Burn Brae Jerseys

PRODUCTION plus **TYPE** bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON **Rosendale, Wis**

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY **Black Earth, Wis.**

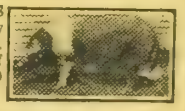
Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON **Oconomowoc, Wis.**

HAMPSHIRE SWINE.

DELLBROOK FARM **HAMPSHIRES**

Home of the grand champion boar,
DELLBROOK MALOY



OFFER spring BOARS and GILTS sired by the above CHAMPION. Also a large assortment of fall pigs, either sex. 200 head to select from.

"The Best in Hampshires."
A. L. DAMON **Richland Center, Wis.**

Brogden Farm

REGISTERED Hampshires, Oxfords and Shropshires, Lincolns, Dorsets and fine wool rams for sale.
BROGDEN FARM **Rush Lake, Wis.**

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

Wis. Live Stock Auctioneer

Let me conduct your sale

Call or write me at
BRIDGEPORT - - - - WISCONSIN

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

GIANT INVINCIBLE, the DUROC JERSEY BOAR $2,500

25 Spring Boars, 25 Spring Gilts Sired by Giant Invincible and J. C. Illustrator Sell at

SKYBERG, MINN., TUESDAY, OCT. 30

22 Spring Boars Sired by the $2,500 Giant Invincible, 10 Gilts by Giant Invincible.

15 Spring Gilts and 3 Spring Boars by J. C. Illustrator, the Sire of my Futurity Winners.

GIANT INVINCIBLE, the 700-pound yearling for which Jake Waltemeyer paid me $2,500 in cash.

THE boars are in fine condition for immediate service. Don't forget that GIANT INVINCIBLE is the real big kind and is going to be highly advertised from now on by his present owner. YOU buy a boar by GIANT INVINCIBLE and you get the benefit of the advertising. His pigs are going to be big with plenty of stretch and good backs. The dams are well bred and good breeding sows. I sell a few boars and gilts sired by J. C. ILLUSTRATOR, he by Illustrator out of a Cherry Chief dam. He sired my futurity winners last year and my show pigs this year. He is a great breeding boar and his pigs have made good for others. Am selling some good gilts by GIANT INVINCIBLE. Breeders should buy these for this breeding will be good property in another year. These spring pigs will not be in high flesh, they are in a good thrifty condition and can go right into service. Am selling boars good enough for the best herds. Gilts that will make big sows. **The best breeders will eventually want GIANT INVINCIBLE breeding. You can buy of me cheaper than Waltemeyer.** SKYBERG is 58 miles south of St. Paul on the Great Western, 70 miles west of Wabasha on the Milwaukee, and coming from La Crosse and Winona, change cars at Dodge Center. The best of railroad service to and from this sale for WISCONSIN buyers. WRITE AT ONCE FOR MY DESCRIPTIVE CATALOG and mention The Wisconsin Farmer. Send mail bids to T. P. Shreve, field man for The Wisconsin Farmer. H. S. Allen, auctioneer. Address

J. J. CAIN SKYBERG, Goodhue Co., MINN.

DUROC JERSEY SWINE.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS FOR SALE—Illustrator Special (yearling) by Prince Illustrator, dam by Col. Gano. Price $125 and shipped on approval. Also ROYAL TOP COL., GRAND MODEL 21ST and a big yearling by Lincoln Model. Each boar is a good breeder as our stuff will show. All young boars and guaranteed. YOU don't take any chance when you buy a tried sire. Write for details.
GEO. D. SPRAIN & SONS West Salem, Wis.

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

ORION COL.S., COL.S.Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
W. C. JENKINS Bangor, Wis.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: Brodhead, Wis.

Homestead Durocs

THEY SATISFY our customers and we'll be glad to prove this statement by filling your order. The best breeding. Write
M. H. O'KEEFE & SONS Waunakee, Wis.

SALABLE DUROCS

ONE LITTER by PATHFINDER 2D, two litters by son of CHERRY CHIEF WONDER, one litter by KING THE COL. AGAIN. What do you want in Durocs?
FRED G. MATTHES Viola, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

DUROC BOARS

AND Scotch-topped Short-horn bulls for sale; bulls 10 to 15 months old. Duroc boars, $30.00, buys the best of them. **OAKWOOD STOCK FARM, J. D. Beetham, Lancaster, Wisconsin.**

DUROC JERSEY SWINE.

A FEW DUROCS LEFT

I HAVE A FEW SPRING BOARS that were farrowed the last of March and in April that I wish to sell in the next two weeks. Don't forget that my late boars are better than many early ones. Priced for quick sale. Order now.
L. F. ATWATER :: :: :: :: Bangor, Wis.

RILEY MARTINY & SON

DUROC BOARS

A FINE ASSORTMENT—If you want spring boars that have been winners, or boars better than the ordinary, write us. If you are looking for common boars at a common price, we can't suit you. "Boars for the particular buyer." Good enough to ship on approval.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

KING ORION

Grand Champion Minn. and Wis. Fairs

SAY! If you are going to want a Duroc boar, get busy. Don't wait until you are ready to use him. We have a nice assortment, many by "KING" and out of Illustrator, Volunteer, Orion Chief and Cherry King's Rival dams. You can't beat this. Get this champion breeding.
E. H. PARKER & SON :: :: :: :: Janesville, Wis.

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.
ISAAC HIGGINS (Richland County) Gotham, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.
JERSEYS—Herd in the accredited list. Young bulls for sale.
F. R. CONSTANCE & SONS, Waupaca, Wis.

DUROC JERSEY SWINE.

"KING THE COL"
"PATHFINDER"
"LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

This gives me the very best breeding. Offer spring boars with size, with quality, with stretch. They cost more, but they are worth it. The "ordinary" boars went to Chicago—if you want GOOD DUROCS write me. Gilts reserved for my sale, January 29th.
DENNIS SHEA Melvina, Wis.
(Near Sparta)

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.
R. C. CHURCH Elkhorn, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire
ROY HORSFALL Mt. Hope, Wis.
"Grant County."

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.
JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

CHESTER WHITE SWINE.

CHAMPION CHESTERS OF THE NORTHWEST

HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The boars I now offer are suitable to head the best herds. We cater to particular buyers.
EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. - - - **Wykoff, Minn.**

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

OAK GROVE CHESTERS

BOARS good enough to ship on approval. I have just purchased a grandson of CHIEF KEO-KUK out of a HIGHLAND CHIEF dam. Gilts will be bred to this boar and shipped later. Let me quote prices. **A. L. KIRST, Tomah, Wisconsin.**

CHESTER WHITE BARGAINS—Am offering for sale Guy's Comet, a junior yearling half brother of Prince Again, the grand champion at Iowa and Illinois, 1917, and my fall boar, Royal Tomson, a son of Royal Blood. Also March and April gilts sired by Guy's Comet, and grand champion boar, Perfect Prince. Wm. C. Scheibe, Burlington, Wis.

J. A. DOERR

WAUQUA, WIS.
THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

"PAY STREAK"

GRAND CHAMPION CHESTER WHITE BOAR, MILWAUKEE. Offer spring boars sired by PAY STREAK. Order now and get the pick.
WM. F. BUTTS Evansville, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
WALTER GEORGE Evansville, Wis.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. G. HOSKINS Dodgeville, Wis.
Mile west of town.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

DUROC JERSEY SWINE.

DUROC BOARS

SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Priced right.
PHILLIPS BROS. Delavan, Wis.

--- E. J.'s ---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916,
BIG WONDER,
GRAND CHAMPION IOWA, 1916,
DUROC BOARS sired by above for the particular buyer.
JOHN SWENSON Willmar, Minn.

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.
W. G. BARTHOLF Burlington, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write
WM. EDGE Fennimore, Wis.
"Grant County."

Introducing Orion Cherry Col.

SIRED BY WALT'S TOP COL., dam by Orion Cherry King, an excellent Duroc herd boar, and a great pedigree. Fall pigs for sale.
RUNDE BROS. Cuba City, Wis.

DUROC BOARS

BIG, RUGGED FELLOWS, bred right and priced right. Yearling son of KING DEFENDER (600 lbs.) for sale. Write me.
FLOYD SELCK :: Hanover, Wis.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Canniff, Juneau, Wis.

ENGRAVING Halftones made from photos or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
THE HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

CHESTER ATTRACTIONS

GET A BIG-TYPE CHESTER BOAR, sired by my great breeding boar, SCHOOLMASTER 38TH. Some by W. A.'S WONDER, champion Iowa 1915. **The Aristocracy in Chesters.** Will sell boars or gilts. We register all stock sold and guarantee satisfaction. We invite inspection.
JOHN PELLETT & SON Viola, Wis.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
J. FISHER & SON, Box 16 Eastman, Wis.

W. W. Goodrich Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

CHESTER WHITES

40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.
L. A. SCHULTZ R. 1, Poynette, Wis.

YOUR CHANCE

50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.
CHAS. ROGERS & SONS Union Center, Wis.

CHESTER WHITES
Pigs Ready—Order Now

A. L. GRAY MT. HOPE, GRANT CO., WIS.

FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs; the kind that won 86 prizes in five state fairs, tracing to the grand champion, Jackson Chief. Leader, a son of a champion, and Cotton Ball, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write. S. D. & B. H. Frost, Kingston, Mo.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

POLAND CHINA SWINE.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

GUARANTEED POLAND BOARS

WE CAN SHIP you big-type boars that will give good satisfaction. Try me with an order.
AUG. NEESEMAN Warren, Ill.
(Farm in Wisconsin.)

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.
LOUIE REESE Brooklyn, Wis.

BIG-TYPE POLAND CHINAS

BOARS AND GILTS, March and April farrow. Also sows bred for September farrow. Reasonable prices.
A. W. COLE :: R. 1, Lodi, Wis.

$35 to $50

12 GILTS—POLANDS—10 BOARS—Sired by Timm Wonder, Hauk's Orange and Matchless Wonder. Strictly big-type and guaranteed to PLEASE YOU.
WM. HAUK "Grant County" Cassville, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

POLAND CHINA SWINE.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

MASTER'S GIANT
ORANGE WONDER, YOUNG'S BIG JOE

THE GREATEST TRIO of Poland boars doing service in one herd. I CATER TO PARTICULAR BREEDERS. Boars for registered herds. Correspondence invited.
P. W. YOUNG :: :: :: Box 100, Prosper, Minn.
Bred Sow Sale, February 5th.

Where Champions Originate

AT MILWAUKEE—First on aged boar, senior boar, junior boar, fall boar. First on aged sow, senior sow, junior sow and spring pig. Grand champion boar and sow. We won more prizes than any other breeder. Buy your boar from the Champion Herd of Polands.
J. D. McDONALD :: :: :: North Bend, Wis.
(Bred sow sale February 6th.)

FOR QUALITY AND QUANTITY WRITE

Boars and Gilts

POLANDS

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write
W.W. UACKENBUSH (Jackson Co.) MELROSE, WIS.

BIG-TYPE POLANDS

SMOOTH BIG BONE A 2D.
Sire Smooth Big Bone A ($1,125), by the champion, Smooth Big Bone.
GOLDENGATE COLUMBUS.
Sire Columbus Pan; dam, by Goldengate King.
MY HERD HEADERS.
OFFER 25 SPRING BOARS sired by the above and every one out of a big-type sow. Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.
J. P. DILEY :: :: :: RUSH LAKE, WIS.
(Shipping point, Waukau on Milwaukee Railway.)

Drewelow Bros.' Annual Poland Sale
New Hampton, Iowa, October 23, 1917

40 HEAD---25 BOARS, 15 GILTS

ALL OF SPRING FARROW and sired by Orphan Pawnee by Schug's Great Orphan by The Big Orphan. One extra good litter by Orphan Pawnee and out of Darkness 8th (full sister to junior champion boar at Des Moines, 1912) by Krumm's Chief Price. The other dams are by Big Model, King Mastiff, Big Wonder, Baron and Big Black Orange. We have the money-making type of Polands. Write for catalog, mentioning The Wisconsin Farmer. G. H. Burge, auctioneer. Address
DREWELOW BROS. :: :: :: :: New Hampton, Iowa

MADSON & SONS' BIG-TYPE POLANDS

HAVE A SPLENDID LOT of March and April pigs sired by DEFENDER by Choice Expansion; BIG PFANDER by King of Wonders; BIG BONE BOB by Big Ben; BIG BUSTER by Big Carver and Triumph. Our pigs win in the show ring. They have the length, bone, size and quality. Write your wants.
M. MADSON & SONS Also Dual Purpose Short-horn Bulls. R. 4, Madison, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write
WM. F. ACKERMAN GLEN HAVEN, WIS.
"Grant County."

LIBERTY SPRINGS POLANDS

BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the pigs have been well grown. I'll ship pigs that make customers.
L. D. EASTMAN Lancaster, Wis.
"Grant County."

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

SUPERIOR POLANDS

I BRED THE LITTER that won $109 at Milwaukee and the boar that topped ($142.50) the Grant county sale. I have boars of the same breeding and caliber for sale. Also gilts. WRITE NOW.
F. A. MOREHOUSE Lancaster, Wis.

CHANCE
Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

Dobson & Eastman
LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.
"The Utmost in Polands."
"Grant County."

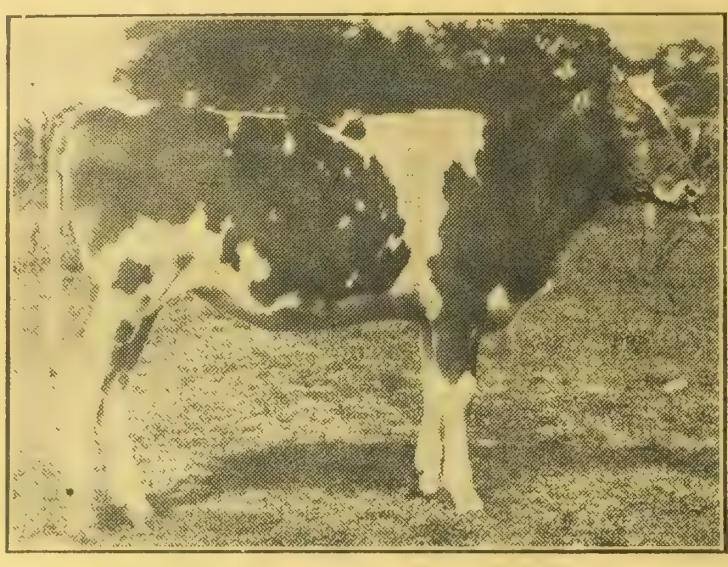
BEST EVER

WE ARE GLAD to advise our old and new customers that we are offering the BEST POLAND SPRING BOARS we ever raised. Buy from the "fountain herd."
WM. SMILEY & SONS Albany, Wis.

PRIZE-WINNERS AND PRODUCERS

AT AUCTION WAUKESHA, WIS., OCTOBER 31-NOVEMBER 1

75 HEAD OF REGISTERED GUERNSEYS



RED CROSS LADY 74661

THE WAUKESHA COUNTY GUERNSEY BREEDERS' ASSOCIATION will hold their ELEVENTH AND SEMI-ANNUAL Sale of PURE-BRED GUERNSEYS at WAUKESHA, WISCONSIN, OCTOBER 31ST and NOVEMBER 1ST. Seventy-five head of pure-bred females will be offered October 31st and these animals have been selected with the aim of making this sale a record breaker, and to do this only animals of special merit, both as to breeding and individuality, have been accepted. Among this splendid offering will be found the following consignments: Chas. L. Hill offers 25 head of very high-class cows and heifers, among them being A. R. cows with records as high as 615 lbs. fat, choice heifers bred to such sires as Itchen May King, Dairymaid's Nonpareil of Iowa (dam's record 825 lbs. fat), Florham Victor (son of Ne Plus Ultra), etc. He will also offer 5 bulls, backed by prize winners and large producers. John H. Williams offers 6 females of splendid May Rose breeding, several of which are daughters of a great prize winner, Rhea's King of the May. Also a bull who is a prize winner and sired by Rhea's King of the May. Geo. McKerrow & Sons Co. will consign 8 females, the breeding of which cannot be surpassed. Two of them are daughters of Gov. of the Chene, 2 daughters of Gov. of Myrtle Place 11th, and the others are equally as well bred. Wm. M. Jones' consignment consists of 6 females, including A. R. cows with records of 696 lbs. and 490 lbs. fat, and daughters of Lord Waukesha and Lord Yeksa. Geo. W. Browne offers 11 females in addition to a male whose dam has a record of 717 lbs. fat. The females include A. R. cows and daughters and granddaughters of Rhea's King of the May, and Gov. Whimsome (a son of Gov. of the Chene). Fruit Brothers are consigning an A. R. cow with a record of 649 lbs. fat, sired by Glenwood's Stranford. Geo. Lawson will offer a son of Rhea's King of the May and whose dam has a record of 568 lbs. fat. Goodhand Kingston offers 2 females, one with a record of 411 lbs. fat at 2 years. Geo. Konrad will consign 2 females, including a granddaughter of The Conqueror 2d, whose daughters have records of 928 lbs. fat, 710 lbs., 756 lbs. fat, etc. Other consignors will be H. Riedeburg, L. J. Wendt, Crouch Brothers, J. M. Harvey, F. E. Kummrow, J. R. Love, John L. Williams, C. J. Mitchell, Basse Brothers, Earl Roberts, Wm. Fisher, Connell Bros., F. C. Smith and Freehoff Brothers. ON NOVEMBER 1ST—50 head of very high-grade Guernsey cows and bred heifers will be sold. The grades offered are all very high class, well marked, good producers and should be valuable additions to any herd, pave the way for a good foundation herd. They have all been carefully inspected and will be tuberculin tested.

SPECIAL FEATURE—RED CROSS LADY

(See above illustration)

a pure-bred Guernsey heifer, a double granddaughter of Gov. of the Chene, will be sold October 31st. The money received will be given to the Red Cross Society. She was donated to the Waukesha Association by one of its generous members, Geo. W. Browne, Waukesha, Wisconsin. Show your patriotism and bid on her.

Auctioneers: Love, Baily, Benjamin, Beaumont, Hellen. Write for illustrated catalog.

WAUKESHA COUNTY GUERNSEY BREEDERS' ASS'N, F. E. FOX, Sec'y, WAUKESHA, WIS.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.
F. E. FOX - - - - - - - - - - Waukesha, Wis.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.
ALLIC S. KNUDSON - - - - - - - - - - Brodhead, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write
FOX BROTHERS - - - - - - - - - - Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

May Rose Bulls FOR SALE

MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

YEARLING GUERNSEY BULL
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OF SERVICE AGE, sired by grandson of "MAY RILMA," world's record cow. Farmers' prices. Apply Superintendent.
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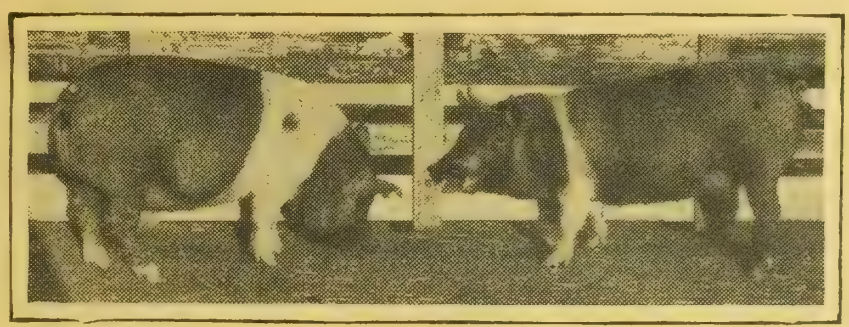
THE WISCONSIN FARMER

VOL. XLVI. NO. 43. THURSDAY, OCTOBER 25, 1917. WHOLE NO. 1865

Hog Feeding Experiments

ON ACCOUNT of the serious shortage of pork throughout the country and the difficulty which swine feeders are experiencing in using feedstuffs at present record-breaking prices there is great interest in swine feeding experiments which are being conducted at our several stations. Unfortunately the fact that hogs are worth more now than ever before has proved an incentive to selling rather than a stimulus to increase production. The situation now confronting the swine men of our country is clearly set forth by Dean C. F. Curtiss, of the Iowa Station. He calls attention to the fact that there is already a shortage of 8% in the hog crop. At the same time the allies are calling upon this country for a pork production 15% above normal. This means that there is great danger of falling 23% behind the production which we need to supply ourselves and our allies in the great world's conflict against Germany. Dean Curtiss urges every farmer to save as much breeding stock as possible and to forego the temptation to get immediate returns. F. G. Ashbrook, of the Bureau of Animal Industry at Washington, recently brought out before a group of swine breeders the fact that fats and oils are in great demand in Europe and of course the hog is one of the best producers of fat which we have. Thus it is argued that the production of hogs on farms is very closely linked with the success of our forces in the trenches. It is announced to be the opinion of leading packers that we must increase the number of swine or place pork over in the class of luxuries. The hog market has already reached such a point that it is at a proportionately higher level than the cattle market. Undoubtedly there would be many more sows in the country at present if the prices of corn and hogs were lower. It is estimated that tens of millions of pounds shrinkage could be met this year in the supply of pork that would go into the hands of packers. There appears to be very little danger of overproduction of pork, and packers and experiment station workers advise the farmers to prepare as many sows as possible for spring farrowing, since present indications point to a strong demand for spring pigs.

John M. Evvard was one of the chief speakers at Madison on the last swine week program. He has recently discussed the work of experimental feeding at the Iowa station, and The Wisconsin Farmer takes pleasure in presenting some of his later conclusions. One experiment deals with the problem of substitutes which may be used for corn when pigs are running on blue grass pasture and also when they are on rape. The substitutes tried were hominy feed, oat meal and standard wheat middlings. Four of the eight groups of pigs used were on blue grass pasture and four on rape. On blue grass the feeding period lasted 110 days and on rape ninety days. One group of pigs on blue grass received straight shelled corn in self-feeders, the second group hominy feed, the third oat meal and the fourth wheat middlings. The same system of rations was used with the four groups on rape. All groups received tankage in addition in order to supply protein to stimulate growth of bone and muscle.



CORN OIL CAKE REDUCES TANKAGE CONSUMPTION.

The pig on the left received corn, tankage and corn oil cake; the pig on the right, corn and tankage. The pig on the left gained more and ate twenty-six pounds less tankage per hundred pounds gain.

HOMINY FEED GIVES GOOD RESULTS.

The pig on the right received hominy feed and tankage on blue grass; the pig on the left, corn and tankage on blue grass; the pig on hominy feed made nearly as good gains as the corn-fed one.

BALANCED RATIONS PRODUCE LARGEST GAINS.

The pig on the left received corn alone; the middle pig received corn and tankage; the pig on the right, corn and a mixture of gluten feed and tankage.

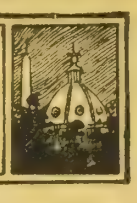
The corn-fed group of pigs on blue grass made an average daily gain per head of 1.19 pounds, those fed hominy feed 1.12 pounds, those fed oat meal .91 pound and those fed wheat middlings .93 pound. Besides the rate of gain the cost per hundred pounds of gain was figured as follows: For the corn-fed lot $13.55, for those fed hominy feed $14.40, for those fed oat meal $12.57, and for those fed wheat middlings $13.16. These costs were calculated on the basis of corn at $2 a bushel, hominy feed at $71.42 a ton, oat meal $50, standard wheat middlings $55, tankage $90 and block salt $20. By referring to the average daily gains, it may be seen that next to corn hominy feed produced the most rapid gains, but considering cost of gain it was the most expensive feed used. Although gains produced by oat meal and middlings were somewhat slower, they were also cheaper. Thus under the conditions of the experiment and when rapid growth is desired, hominy feed is the best substitute for corn.

On rape pasture the case is different. Here oat meal takes second place to corn by producing an average daily gain per head of 1.21 pounds as compared with 1.08 pounds produced by hominy feed and 1.06 pounds produced by wheat middlings. The corn-fed pigs made 1.25 pounds daily gain. The cost of gain per hundred pounds was $10.22 for the pigs fed oat meal, $14.48 for those fed hominy feed, $11.42 for those fed wheat middlings and $12.83 for those fed corn. In this case the cheapest gains, as well as the most rapid, were produced by oat meal. This experiment suggests that oat meal, which is a by-product of the oat meal breakfast food industry, should have a more prominent place in swine rations. The fact that it is a splendid supplement to rape is especially important.

Another experiment seeks to determine the value of gluten feed for young pigs on rape pasture. Several groups of pigs, averaging from forty-five to fifty pounds at the start, were fed for ninety days on different combinations of corn, gluten feed and meat meal tankage. Each group had free access to an unlimited amount of the ration allotted to it, the feeding being done in self-feeders. The group which received corn alone made an average daily gain per head of .84 pound and each 100 pounds gain cost $12.17. The group fed gluten feed alone made an average daily gain of .70 pound. However, their cost of gain was low, being only $11.18 per 100 pounds. When tankage was added to gluten feed, the average daily gain became .86 pound and the cost per 100 pounds gain increased to $12.89. When corn, gluten feed and tankage were all fed the average daily gain jumped to 1.25 pounds and the cost of gain became $12.93 per 100 pounds.

In still another experiment corn oil cake was used as a partial substitute for tankage. Six groups of pigs, averaging fifty pounds at the start, were fed for 110 days on a timothy-blue grass pasture.—(Concluded on page 10.)

CURRENT EVENTS



THE second liberty bond drive occupied the attention of the nation last week and this, to the exclusion of almost everything else. The first liberty bond issuance was for two billion dollars and was easily raised. This second issuance is for three billion dollars, the government to accept, in addition, one-half of whatever amount is subscribed in excess of that. These second bonds bear 4 per cent interest and will be given to holders of the first bonds, bearing 3½ per cent, just as soon as an equitable trading arrangement can be agreed upon. While it is impossible at this writing to tell what the ultimate subscriptions will be, there is good reason to hope that the entire three billion dollars will be pledged. The campaign was slow in opening, only one-third of the entire amount being raised in the first two weeks of the month's campaign. In this crisis, President Wilson issued an official proclamation setting apart Wednesday, the 24th, as liberty bond day, saying: "The second liberty loan gives the people of the United States another opportunity to lend their funds to their government to sustain their country at war. The might of the United States is being mobilized and organized to strike a mortal blow at autocracy in defense of outraged American rights and of the cause of liberty. Billions of dollars are required to arm, feed and clothe the brave men who are going forth to fight our country's battles and to assist the nations with whom we are making common cause against a common foe. To subscribe to the liberty loan is to perform a service of patriotism. The people responded nobly to the call of the first liberty loan with an oversubscription of more than 50 per cent. Let the response to the second loan be even greater and let the amount be so large that it will serve as an assurance of unequaled support to hearten the men who are to face the fire of battle for the United States. Let the result be so impressive and emphatic that it will echo throughout the empire of our enemy as an index of what America intends to do to bring this war to a victorious conclusion." The campaign closes Saturday night and the results will be announced in next week's paper.

LONDON newspapers publish a review of crop and food conditions in Germany, which they picture as rather black. They assert that a special investigation of the 1917 harvest, ordered by the German chancellor, disclosed that the yield will be 40 per cent lower than in normal years for wheat and 45 per cent lower for rye, oats and barley. The total harvest of wheat and rye amounts to 7,500,000 tons, compared to 13,000,000 tons in 1913. The shortage will be partly compensated from the Rumanian granaries. The reviewer considers that the food situation in Germany during the coming winter will depend mainly on the results of the potato harvest. At present potatoes are being delivered with fair regularity, but should frost, lack of labor or other reason cause a shortage in potatoes, it will spell disaster. The situation in Austria-Hungary, it is declared, is worse than in Germany. Shipments by the United States to neutral European nations are being curtailed and in some instances shut off altogether, in the hope of keeping foodstuffs from reaching the Germans. Every possible effort will be made to compel Germany and Austria to depend upon their own resources and not to secure foodstuffs from Sweden, Holland and other neighboring countries, as they have done for the past three years.

WM. J. BRYAN resigned from President Wilson's cabinet because he feared the president's policy was tending toward war. Notwithstanding this fact, however, he is among the leaders who assert that the president should be upheld in the present crisis and that every loyal American should do his part toward winning the war. Every American's paramount duty is to stand behind the president and congress and support "anything and everything our government does in this war," William J. Bryan told members of the New York Advertising Club. "The furnishing of money," said Mr. Bryan, "is one of the most important ways of supporting the government. Before we entered the war it was a matter of opinion and discussion, but it is no longer a question of opinion. It is time for action now." He declared he would make no complaint against high taxes as long as there are men giving their lives for the country. "I shall not put the dollar above the man nor property above blood," he said.

THE eastern states face a sugar shortage with no prospect of relief before late in November, when the new Hawaiian western belt crops arrive. In a statement forecasting the shortage, the administration again appealed to the American people to cut down their consumption of candy and sweet drinks and at the same time gave warning that retailers have received the stocks at prices recently agreed upon and the public should pay no more during the temporary scarcity in the east than it has been paying during the past thirty days. The shortage is due, the administration says, to the failure of the public outside of a few loyal homes to reduce consumption and the unusual exports to France in order that the French people may have their meager ration of sugar per person per month.

THE coal situation remains serious. The government's efforts to regulate prices have not resulted in the consumer getting his fuel supply any cheaper. The price has not risen, in many sections, but danger now of a miner's strike makes the outlook worse than for some time past. Threat to seize the coal mines and operate them on behalf of the government was made by the coal dictator, Harry A. Garfield, in telegrams to miners and operators of mines in Indiana, Illinois and Ohio, where strikes make a tie up of mines imminent. Dr. Garfield said he was fully prepared to carry out the threat contained in the telegrams. He said that under no circumstances would he permit a strike to tie up production in any of the large mines of the country, especially at a time when every ton of coal is needed to avoid a serious coal famine in the United States. "I am not attempting to judge who is at fault in the troubles that have led up to the threatened strikes," he said. "A strike would be in clear violation of the agreement made by the men to keep on working. Consequently it is up to them to go ahead and settle their difficulties after the war." It was understood that the threatened strikes in Ohio, Indiana and Illinois were not only serious because of the coal that they would tie up in the mines at which strikes took place, but also because of the fact that there was danger of the strikes spreading to Iowa, West Virginia, Pennsylvania and other states in the vicinity of those where the strikes are threatened.

EASTERN railroads, seeking relief from conditions which their executives assert are rapidly approaching the point where they can no longer operate with profit, indicated the form their efforts will assume, in a letter to the interstate commerce commission asking for a conference to consider rates not included in the advance allowed by the decision in the 15 per cent rate advance case last June. Indications are that the railroads have in mind filing applications for increased rates on a large number of commodities not already raised, if it should develop at the conference that the applications might meet with any measure of success. The commission, replying to the request for "a short informal conference," notified the roads that it would be glad to hear them at "a public session." The railroads of both the East and West maintain that the price of labor and of coal has risen so high that they are losing money at the old passenger and freight rates. Within the past two months the western roads have fallen below their banner figures of a year. Gross receipts have been much higher, but operating expenses have outstripped the increase.

HENRY FORD, the automobile manufacturer, is looked upon as the chief pacifist of the country, he having headed the Ford mission to Europe a couple of years ago in an attempt to get the soldiers out of the trenches by Christmas and to bring about world peace. But he sees the present situation must be met by other than pacifist methods. He contributed $5,000,000 and the Ford Motor Company made a similar contribution to the liberty loan. Ford's subscription was accompanied by a statement declaring that the United States in making war on Germany did the "best thing that ever happened for the world. Although there is not a man in the world more opposed to war than myself, I see that we must support our government to the limit in this war because our president is pledged to abolish future wars as far as possible," said Ford in his statement. It has been known for some time that enemies of the government have been attempting to spread propaganda among workmen in Detroit and elsewhere, to the effect that Ford was opposed to the United States declaring war on Germany. Ford's statement and his latest war contributions are expected to effectively crush these activities.

URUGUAY is one of the minor countries of South America, but it joins the world-wide war against Germany with great enthusiasm. At a great public meeting at the Uruguay capital last week, the president delivered a speech in which he reaffirmed the sympathy of Uruguay for the Belgian cause and the solidarity of the republic with the countries which are fighting for the cause of justice and right. "I know," said the president, "that you were anxious to occupy in this league of honor the place due to you for your lofty ideals, which suffered so cruelly through the insults offered to civilization when Belgian sovereignty was violated, when solemn treaties were openly disregarded, when the rights of neutral countries were ignored and when the regulating principles of the society of nations were derided. People of Uruguay, the hour has struck! We are no longer indifferent in the face of the formidable struggle in which justice and democracy are writhing under autocratic oppression. Thus is fulfilled the mission entrusted to me. I have proceeded in conformity with the inspiration of your lofty ideals. We now are in the league of honor."

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Special Triple Power Feature pulls biggest, toughest stumps easily besides gives long reach to clear two acres from one anchor.

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Asking for Tractors Out West.

An Enormous Demand for This Modern Form of Power to Take the Place of the Horse—By H. A. Crafts.

THE introduction of the gas tractor is working great changes in California and farm methods. These changes are especially observable in the plowing and cultivating of the land.

California has always been a land of the plow; especially of the gang plow. The early farms were of a very large individual acreage. These were the so-called "Bonanza" farms, a single one containing thousands of acres.

In 1850 the average size of the California farm was 4,465.6 acres. Today the average size is 316.7 acres, showing a great decrease, but at the same time demonstrating the fact that California is still a state of large farms.

These large farms have naturally demanded the employment of large forces in the way of machinery and motive power. The plows ran in gangs, and the gangs were pulled by teams of eight to twelve horses or mules.

Yet, with these big plows and big teams, the task of turning the soil was a laborious one, and the work performed of an unsatisfactory character. But no one troubled himself much about this so long as the land produced a big yield of wheat per acre and so long as wheat was high priced.

There came a time, however, when wheat raising became an unprofitable operation. That was when wheat fell in price and when the land, cropped to the cereal year after year with no rotation of crops or systems of fertilization, refused to yield as in the early days. In the 80's California was the leading wheat-producing state of the Union, but of late years it has fallen away down in the scale. In 1916 its wheat crop amounted to only 5,600,000 bushels.

But California is still a great grain-raising state, with barley the leading cereal cultivated. In 1916 its barley product amounted to 33,320,000 bushels, thus being first state in the Union in this crop.

So plowing is still one of the leading features of farm operations in the Golden State. But the tractor is revolutionizing this class of field work. The twelve-mule team is disappearing from her great grain fields, and the gas machine takes its place. Here, certainly, is a revolution in motive power.

Next, consider climatic and soil conditions and the change wrought in farm modus operandi.

Under the old plowing system the coming of the fall rains and the character of the winter and spring rains exerted a material influence upon plowing, sowing and cultivation. If the fall rains were late in coming, the plowing had to be deferred because the soil was so hard baked that it was entirely impracticable to attempt to turn it over. This delay would make winter plowing come in a bunch, and perhaps disarrange the whole season's work.

Then again, should the rains be excessive and the ground made too soft, plowing had to be deferred on account of too much moisture. But with the tractor as a propelling power there need be no delay, either by reason of no moisture or an excess of moisture. The work may go on rain or shine.

The farmer found still another soil condition—the existence of a plow hardpan, a bed made harder by each successive plowing year after year. Sometimes this hardpan lay five inches below the surface, sometimes three inches, so shallow had been the plowing from the date of the state's earliest farming.

This was a proposition that the mule team could not cope with. But the gas tractor plunges the plow well beneath it and rips it up regardless of thickness or density.

This deeper plowing also brings new and virgin soil to the surface and the crop yields are thereby increased, and in some cases doubled.

And this better control over his plowing lifts a heavy load from the shoulders of the farmer, not only making his daily labor easier but giving a better return from such labor.

The gas tractor is surely in demand in California. Manufacturers of the machine are springing up all over the state, yet some of the older concerns are from sixty to ninety days behind their orders.

Machines of many makes and sizes are being turned out, and a concentrated effort is being made to suit all kinds of farm, garden, orchard and vineyard conditions. The orchardist now has a machine with which he is enabled to plow up close to his trees without breaking a branch or barking a trunk. Even the vegetable and berry growers have their neat, trim little machines with which they may not only plow up their plots, but may plow and cultivate between hill and row.

A good dairy sire should be grown well from the day of his birth and not allowed to become stunted, as size is one of the important qualities for a dairy sire.

The Wisconsin Farmer

THURSDAY, OCTOBER 25, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

FARMERS ARE BUILDING NOW.

I PRINTED an article, on this page last week, suggesting the advisability of the farmer's building, now that farm product prices have risen so much higher than building material prices. The lumberman whom I quoted in that article expressed the belief that the farmer was not taking advantage of the exceptional opportunity as fully as he should; that the "build now" campaign was not, in fact, as yet fully under way. I did not take exception to what he said at the time, but I had my own personal opinion nevertheless. You cannot drive through the country, as I do, almost day after day, the entire year around, without being impressed by the fact that farmers are building new and modern homes in surprisingly large number. Old houses moved to the back of the new, modern, up-to-date structures, with all the conveniences and comforts; now and then three structures, typifying the three different stages of farm progress; these are sights which are to be seen in every part of the grain belt today. Farmers are learning that it pays, in dollars and cents, as well as in comfort and happiness, to build good homes and to enjoy good health.

This personal opinion of mine is borne out by the report which Mr. H. K. Jennings, secretary of the Federal Land Bank, of St. Paul, sends to me. This land bank serves the farmers of Wisconsin, Minnesota, North Dakota and Michigan. Mr. Jennings advises me that up to the first of October this bank had received applications from the farmers of these four states for loans in the sum of $15,896,700 and of that amount $7,423,600 had been approved. He adds this illuminating information:

It may be of interest to you to know that the purposes for which applications for loans are made can be classified as follows:
1.5 per cent to buy land.
3.3 per cent to buy equipment, fertilizer and live stock.
19.7 per cent for buildings and improvements.
75.5 per cent to pay debts.

Here we have the farmers of four of the most typically agricultural states of the Union spending one-fifth of the money they raise by farm-mortgage loans for the laudable purpose of erecting new homes and outbuildings and improving the old ones. This simply means that in the few months the new federal loan law has been in operation the farmers of Wisconsin, Minnesota, North Dakota and Michigan have spent something like $3,000,000 for new buildings out of the amount Uncle Sam loaned them, in addition to the many more millions spent for the same purpose out of the proceeds of this year's crops, and of loans made through other sources.

I believe the farmer is just as quick to see his opportunity as anybody, and that he is building today to a greater extent than any other man. I believe Mr. Jennings' report confirms my opinion. But I still want to hear from my readers who either built this past year or are contemplating building. Did you find that building materials had advanced as much as farm products; are you glad that you built; do you consider it a good investment? There are a hundred and one questions I should like to ask, the answers to which would be interesting to us all. Will you write me, so that we can discuss this subject during the winter months?

LOOSENING THE FARM PURSE STRINGS.

THE splendid manner in which the farmers of the grain belt are responding to the call for funds to carry on the war and to relieve suffering, both at home and on the firing line, is a matter of the greatest pride and joy to me. No other class of people is responding so liberally or so unanimously. The heart of the country is being touched as never before, while purse strings are being loosened in such a way as to prove for all time the patriotism and the generosity of those who till the soil for a livelihood.

Not only are the men and women who read my words, and their brothers and sisters throughout the entire Middle West, buying Liberty Bonds in large numbers, but they are contributing to the Red Cross, to the Y. M. C. A., and to the other worthy relief organizations in magnificent manner. I have received reports this week of rural communities where the farmers have met and have voluntarily decided to buy Liberty Bonds to the extent of $2 for every acre of their land holdings. This means that a man who farms 100 acres pledges himself to take $200 worth of Liberty Bonds, and so on. The campaign is being systematized, with splendid results.

Early in the great war our Canadian cousins on the farm set us a good example by establishing patriotic acres, the returns from which were given to the government. Thus, thousands of acres of wheat and oats were donated to the government to feed the Dominion soldiers across the seas. I am proud, indeed, to be able to report that grain belt farmers, in large number, have adapted this idea to the present needs and are contributing generously of their products, sometimes giving outright to the needy, other times contributing to Red Cross auctions and to community sales, the entire proceeds going to give the soldiers in the trenches some extra comforts or to take care of the needy whom the soldiers left behind.

I cannot tell of all these incidents, they are too numerous. But from a mass of letters showing the generosity of the farmer in the present crisis I am going to print one this week, written to me by my good and patriotic friend, Mr. A. J. Banks, of Montour, Iowa, proprietor of Columbine Stock Farm, as follows:

Dear Mr. Pierce:—The local branch of the Red Cross at Montour, on October 13th, demonstrated what a small rural community can do in the way of loyalty, when everybody works with a will to win. The farmers of the township and the residents of the town were solicited to contribute anything that would sell, the proceeds of the auction sale to go to the Red Cross. Their response was way beyond all expectations. The farmers brought in and donated calves, pigs, geese, ducks and chickens; bags of wheat, corn, oats, rye, barley and clover seed; potatoes, apples, grapes, plums, nuts and vegetables of all kinds; cord wood, fence posts and loads of cobs. The business men of the town donated liberally of goods from their stores; professional men put up their services; day laborers their work. The ladies were not to be outdone by the men, so they donated boxes of canned fruit, cakes galore, pies by the dozen and baskets of home-cooked stuff; also rugs, articles of clothing and fancy work. But the most prominent feature was the fact that almost every one of the 130 farmers of the township brought in from ten ears to a bushel of seed corn. All these things were auctioned off, the bidding starting at 2 o'clock and continuing until 5:30. The bidding showed an intense patriotic spirit; intrinsic value was not considered. The total receipts amounted to $500, which includes money contributions and the proceeds of the dinner which was served at noon.

Mr. Banks was too modest to state it, but I learned the fact from other sources; his good wife is secretary of the local chapter of the Red Cross and is entitled to much of the credit for the magnificent success of the affair. I believe in giving credit where it belongs.

Could anything be finer or more inspiring than this spectacle of a whole township uniting in generosity and philanthropy? Will it not bring the people closer together than ever, uniting town and country folk in sympathy and spirit as nothing has ever succeeded in doing before? It was magnificent; it warms the heart to hear of such a thing. I am proud, indeed, that it is my privilege to record it here, where we talk over so many things and come so close together in fellowship and friendly communion.

THE NEW INCOME TAX.

I WANT to call my readers' attention to the fact that the income tax law has been radically changed. Every married man who has an income, during 1917, in excess of $2,000, and every single man who has an income above $1,000, will be obliged to make a report to the government and pay a tax next spring.

This matter is highly important to farmers, not only because it is a new law, by means of which Uncle Sam proposes to raise a considerable part of the money he is spending for war, but likewise because of the fact that all too many farmers have failed or neglected to make a proper income tax report in the past, and the government is now diligently engaged in checking up on them and assessing penalties which would have been saved had the tax been paid when it was due. There are several points about the law which I want to explain, and it may be the means of saving money if you will read carefully what I have to say.

To begin with, it is the duty of the farmer (as well as the town and city man) to hunt up the internal revenue collector and report his income for the year. No man is exempt from paying this tax because the tax collector does not come after him. Because a farmer does not receive the proper income tax blanks from the government and is not dunned for his tax is no excuse for his not reporting and not paying. Therefore, every single man who makes above $1,000 this year and every married man who makes above $2,000 must report his income to the internal revenue collector for his district. If he fails to do so the government can, and in time will, assess a penalty which will materially increase the amount of the tax.

In the second place, those who have paid income tax in the past will find their taxes largely increased as a result of the new law.

Suppose a farmer, shortly after the close of the present year, sits down of an evening to figure out his income. It is sometimes difficult to arrive at this exactly, but the law requires the farmer to do it to the best of his ability, swearing to the truthfulness of his report. Let us assume that the books which he keeps, or the mental calculations which he makes, show that he has made $5,000 during the year, from grain and live stock sold, from interest on notes or mortgages which he may hold, and so on. Now, under the new law, he is entitled to deduct from this sum (in addition to the expense items for seed, repairs for machinery, and so on, and certain taxes, which he has deducted heretofore) $200 for each dependent child, under 18 years of age. Let us assume that the deductions for expenses, taxes and so on are $500 and that there are two children; here is a total deduction of $900, leaving $4,100 upon which taxes must be paid to the government.

There is due, first, the normal tax of 2 per cent on all above the $4,000 minimum which has prevailed for the past two years, in this case amounting to $2. There is due, second, a special war tax of 2 per cent on all above $2,000, in this case amounting to $42. The two sums added together make the total tax for the year $44. This sum must be paid to the collector of internal revenue by June 30th next year, or a penalty will be added, this penalty increasing with the length of time the tax remains unpaid.

I hope I have made myself clear. The farmer is being given a bad name in many localities because he has failed or neglected to attend to this income tax matter in the past. Special deputies are spending all their time checking up farmers' incomes and compelling payment, with the result that newspapers which continually belittle the farmer are printing the news broadcast, as though the farmers were trying to cheat the government and were disloyal in a time of financial need. You and I know this is not the case, but it is incumbent upon us all to learn the details of the law and abide by it strictly. Therefore, let me repeat: Immediately after the close of the year apply to the internal revenue collector of your district and secure the proper blanks; file your report by March 31st and pay your tax by June 30th. Otherwise you will have a penalty to pay, in addition to your tax, and you will be pilloried as a "slacker" by newspapers which go out of their way to picture the farmer in the worst possible light.

A BASE LIBEL ON THE FARMER.

IT is not often that I become literally too mad for words. I long ago learned that the man who best controls his temper, who keeps his voice steady, and who maintains absolute control over himself is almost sure to win in an argument. But, of course, there is a limit beyond which aggravation cannot go with impunity. That limit, in my case, is reached when I read what a Chicago banker, E. D. Hulbert, president of the Merchants' Loan and Trust Company, has to say of the farmer's alleged attitude in the present crisis. Let me print what Mr. Hulbert is quoted as saying, not because it is worth the space I give it, but simply to show how some people go out of their way to libel and malign the farmer:

The one weak spot in the situation is the attitude of farmers. They will neither buy Liberty Bonds, pay taxes, sell their produce, or fight. I have asked many out-of-town bankers who have called here about farmers paying taxes, and I have learned of but one instance in which a farmer has paid an income tax. They have profited throughout the entire period of the war, but are unwilling to help the government in any of the four ways mentioned.

The controller of the currency has estimated the gross income of the United States to be about $40-

(Concluded on page 6.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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In Calumet County.

The Wisconsin Farmer recently noted the organization of the Holstein Breeders' Association in Calumet county, the work being directed by Mr. J. J. Garland, emergency demonstration agent. On November 3d the Guernsey breeders of the same county will be organized and, while they are not so large in numbers, it is expected that a good organization can be perfected. Mr. Garland writes us that he is enjoying his work very much in Calumet county and that he finds it an ideal dairy country, a fact which needs no proof to those who have traveled through the county. Mr. Garland states some of the finest farm land in Wisconsin is situated in Calumet county. The assessed valuation of farms in the county is higher than any county in the state except Milwaukee, where, of course, it is influenced to a large extent by being close to a large city. The majority of cows kept in Calumet county are the Holstein-Friesian breed. Unfortunately up to this time only about one farm out of ten has a pure-bred sire. Here is an opportunity for plenty of missionary work and Mr. Garland and the associated breeders of the county are doing their level best to improve the situation. The work this winter in Calumet county will be conducted along the lines of interesting more dairymen in cow-testing associations and improvement of herds. Splendid work has been done in assisting the farmers of the county to lay aside their seed corn and fortunately the seed-corn situation is better in Calumet county than in many other sections of the state.

Calumet county farmers have not been very enthusiastic on the subject of county agents, but we feel that such a man as Mr. Garland may be able to prove the value of this system even in a fine farming neighborhood like Calumet county. We believe that the farmers of Calumet county will find it greatly to their advantage to coöperate with Mr. Garland in this work.

Facts About Meat Supplies and Prices.

Some interesting facts are presented by Swift & Company, packers, to questions submitted to them by the federal trades commission relating to meat supplies and prices. To begin with, it is pointed out that the wholesale price of meat has not risen in the same ratio as other commodities. Cattle—good, choice steers—were 25.6 per cent higher in June, 1917, than they were in July, 1916, while hogs were 59.8 per cent higher. Wheat went up 130 per cent in the same time, corn 112 per cent, potatoes 241 per cent and coal 172 per cent. Relatively, therefore, meats have been on a lower price basis than nearly all other commodities, this being due, according to Swift & Company, to the large supply available. That the prices of meat did rise to the extent mentioned was due to the unprecedented demand for meat products and to foreign buying. It is pointed out that those who ordinarily use meat sparingly have been earning so much money in the industries boomed by the war that they are buying meat more plentifully now than ever before and this in spite of the relatively higher prices that have to be paid for it. In 1914 the United States exported 140,000,000 pounds of beef and beef products, while in 1916 it amounted to 444,000,000 pounds. During the same time fresh pork exported increased from less than 3,000,000 pounds to 63,000,000 pounds, while cured pork products increased from 405,000,000 pounds to 920,000,000 pounds.

Referring now to the trade forces at work to prevent a rise in meat values corresponding to those in other products, this company finds that as a matter of fact there has been a great increase in the supply. Going back to 1911 the records show that the meat production of the United States in round numbers amounted to 20,000,000,000 pounds. The next year it dropped off three-quarters of a billion and in 1913 it increased slightly. The following year, that is, 1914, it dropped nearly 2,000,000,000 pounds compared with 1911, whereas in 1915 there was an increase of nearly half a billion pounds. Coming now to 1916 we find that the meat production of the United States was 24 1-3 billion pounds. These figures indicate that there was a larger per capita supply of meats in the United States in 1916 than ever before, and, furthermore, the actual number of live animals on the farms in 1917 showed an appreciable increase. These facts lead to the conclusion that increased production accounts for the failure of meat prices to advance as the prices of other commodities in general.

Facts were furnished the federal trades commission by Swift & Company to prove that the packer's margin is small, the claim being made that live stock at all times is worth to the packer only as much as it can be sold for after it has been converted into dressed meat and by-products. In 1912 Swift & Company made 70 cents per head net profit on cattle; in 1913, 77 cents; in 1914, $1.17; in 1915, $1.64, and in 1916, $1.65 per head. Last year the profit on sheep was 20 cents per head, while on hogs it amounted to 97 cents per head. For a five-year period the company's net profit on hogs was 58.5 cents.

Attention is called to the fact that the higher profits obtained by the packers in 1916 has been due to the rapidly advancing prices between the time of slaughter of animals and the time of selling meats. It is pointed out that when the tide turns and values begin to recede the effect on the profits will be just the opposite, that is, they will be reduced or turned into losses. This being the case, the additional profits that might be available for distribution among shareholders of the company are not distributed, but are carried as a reserve to take up possible losses in the future. It is stated most emphatically that the packer cannot control the demand for meats, nor does he have anything to say regarding the supply of live stock. Ninety per cent of fresh beef must be sold within two weeks from the time of slaughter, as it is simply chilled and not frozen. He knows what meat is worth at the time the animals are bought, but this is the only basis he has to go by. If a larger demand is anticipated than really exists the meat must be sold at a loss rather than to let it spoil. If the demand is greater than was anticipated, sufficient profit is obtained to absorb the losses when the demand falls off. On the whole, the packer's profit averages less than ½ cent a pound and this is given as a proof that prices are not manipulated so as to yield exorbitant profits. The record of the wholesale prices obtained for meats by the packer shows that the producer is paid approximately 90 per cent of the price received by the packer and from two-thirds to three-fourths of the final retail price.

Every man who has been in the business of stock raising for any considerable time knows that the curse of the whole business is the violent fluctuation in values, but, according to the statement made to the federal trades commission by this company, prices are based wholly upon the demand for meat products. There may be a big run on the Monday market and top prices paid, this to be followed by a smaller run on the Wednesday market and lower prices paid, due to the fact that, as claimed by packers, the high price paid on Monday, which must show up in the retail price, tends to cut down consumption, thus necessitating buying on a lower basis. In the past the packers have made little attempt to present to stockmen the real reason for violent fluctuations and doubtless they themselves are responsible for the prevailing notion that exists that the packer manipulates the market in order to make a big haul. It is a favorable sign of the times that the whole subject is brought out in the open and presented in such a way as to clear up the mystery regarding price fluctuations.

The Day of the Big Hog.

The constructive work of those pure-bred hog breeders who have been emphasizing the importance of scale is going to count in these critical times when there is such urgent demand for more animal fats and more meats. The national food administration is favoring the plan of making the 1917 pig crop heavier before marketing than has been the custom in the past. By adding anywhere from twenty-five to seventy-five pounds additional weight per head a market will be created for a great deal of corn and the supply of animal fats and meat products will be increased just to that extent. This matter is referred to in a communication from one of our subscribers, who, among other things, says:

> The peculiar conditions regarding hogs and corn, the first being rather short in number and the last promising to be very abundant, makes it apparent that it will be the most profitable thing hog feeders can do to try to make all the animals capable of large growth as big and as fat as possible.
>
> This will give the farmers a good place to use up considerably more corn than the ordinary plan of fattening their hogs, and very largely increase the total amount of pork for the world's teeming millions, both at home and abroad, who now stand greatly in need of it.
>
> Unless there is a government price set on both hogs and corn, establishing their values, as is the case with wheat, and such prices to a great extent so regulated regarding each other that they will be more equal in value when husking time arrives than present indications point, it is going to be the proper thing to do to feed the hogs abundantly and long, to secure the maximum of growth and fatness.
>
> This does not apply and it should not where a farmer's hogs are of the small-bone and quick-maturing breeds. Hogs of that class must be sold as soon as well fattened, no difference as to the lightness of weight.
>
> The big-boned and large-framed breeds now common can and should be fed to weigh from four to six hundred pounds, and it is desirable for all farmers possessing such stock to feed for great size and extra fatness.
>
> The real idea to be impressed upon the minds of hog feeders is to secure for the world's good enough of extra pork to make up for the shortage in the actual number of hogs the country is going to be able to put on the market.

It is fortunate, indeed, that pure-bred hog breeders have been doing effective work to pave the way for carrying out this particular program. A decade ago when the little, roly-poly hog was at the zenith of his popularity it would have been wasteful to attempt to greatly increase the weight of market hogs. They finished up around 250 or 275 pounds and after that gain would be too costly to justify putting it on. The modern hog is an entirely different proposition. He has stretch and he has bone enough to carry him to market under a heavy weight with no extra risk to run if an attempt is made to load him down with fifty or even a hundred pounds extra weight.

We sometimes fail to recognize the close connection between the pure-bred hog industry and pork production. However, as a breeder of grade hogs uses the pure-bred for crossing purposes, it follows naturally that the dominating pure-bred type will be the prevailing type among the grades.

Wintering Bees Under Wisconsin Conditions.

There are three ways of wintering bees and John Kneser, of Hails Corners, has tried all three of them with equal success. They are all good, but each one only when conditions are ripe for using that particular method.

The first important factor in the success of wintering bees is a good, strong colony. This can only originate when there is strong vitality in the queens from which the colony has come. At this time of the year, however, queens had better be left where they are, as the proper time for average beekeepers to attend to the queen end is during August. However, any beekeeper can, according to Mr. Kneser, see at a glance whether the colony is worth wintering or not. If upon removing the top of the hive no more than three frames are covered by bees it is a safe bet that it is not worth while wintering this colony unless another weak hive is added and the two consolidated.

"I winter my bees in three ways," said Mr. Kneser, "and for the most part I get them ready early the last weeks in October. The double-walled hives I keep out all winter in a protected place where no winds from the north and west can touch them. I leave with the hive between twenty and thirty pounds of honey for the bees to live on during the winter. There ought not to be much less than thirty pounds where the double-walled hives are left out all winter."

The double-walled hives are provided with two walls, the center of which is filled with tightly packed shavings. On top of the hives a burlap sack is placed and above it another sack filled with leaves or straw. The front is left open so that the bees can go out during the warm weather.

Single-walled hives can be kept in the cellar. The room may be the furnace room, but it must not be overheated. The best temperature for the bees ranges between 45 and 55 degrees. If the bees began to buzz in their quarters it is not a good sign. Dampness and drafts should not be allowed. Each hive should be provided with at least twenty pounds and preferably twenty-five pounds of honey. The single-walled hives are just what the name expresses—hives having only a single wall.

The last method of wintering bees, which is very successful and advisable where no cellar room is available, is the winter case method. The hive is simply placed in a box large enough to allow a space of three or four inches on each side and these spaces are filled with sawdust and leaves. The entire box is placed in a sheltered spot, possibly along a fence with cornstalks to protect the winter case from the north winds. An opening is left in front so that the bees can fly during the warm weather. To allow the bees to move about on top of the frames Mr. Kneser places a few sticks on top which hold up the burlap.

Mr. Kneser figures that 100 hives ought to produce $1,000 worth of product during a very good year. Beekeepers know, however, that the years when all hives will average that high are few and far between. There is a profitable side to the keeping of bees provided the marketing of the product and the care of the bees in general are properly attended to.

Nature's way is to dispose of the queen towards the end of August when she is killed by her hive and a new queen developed. Many beekeepers safeguard themselves from possible weak development of a colony through an inferior queen by taking away the queen and supplying the hive with one selected from an especially good strain.

These queens are from the best Italian strains known to beekeepers and are vigorous layers. The poor queen will stop laying early in the season, but the vigorous one continues until late in the fall. The following spring the old bees die off and the young ones take their place as producers. If now the queen stops laying early in the preceding year the death rate among the old ones will be heavier than the numbers of young bees developed. Thus the colony in the following fall will be weak and by next spring have really not enough workers to be called a colony.

Purchasing queens is the safest investment the general beekeeper can make. The average price of good queens ranges from 75 cents to several dollars. The South has developed a great many of the best queens available at present. It is a peculiar fact that, though trees, plants and crops of the South will not do well when transferred to northern states, with bees this is not the case. Southern queens

are very much in demand by northern beekeepers.

Mr. Kneser does not believe in planting any special crops for his bees from which to gather their honey. Buckwheat and alsike are very much preferred by the honey bee. Red clover is no good to the bees and Mr. Kneser believes that where conditions are not against alsike it would be a good thing to plant a seed mixture containing a good proportion of alsike. Likewise, where buckwheat can be used for chicken feed and other feed, the production of honey will be made easier for the bees when a field is planted to this crop. However, buckwheat honey being dark in color is rated as No. 2. For his purpose Mr. Kneser finds alsike and basswood honey mixed the most desirable and marketable product.

Senator Husting Killed.

United States Senator Paul O. Husting, of Mayville, Wisconsin, was accidentally shot, by his brother, while duck hunting near Rush Lake, Sunday, the 21st. According to the press dispatches, Senator Husting had sighted a flock of ducks and had called to his brother, Gustave, to shoot. The senator was in front, in the boat in which the two were located, and as his brother fired he arose, receiving the full charge of shot in his back. He was rushed to a near-by farmhouse and three physicians summoned, but death resulted in a short time, in the presence of his three brothers, E. A., Gustave and Peter.

Senator Husting was in his fifty-second year, having been born at Fond du Lac April 25, 1866. He attended the common schools of Fond du Lac and Dodge counties until his sixteenth year; then he worked in a general store, the postoffice, the railway postal service and then as a clerk in the office of the secretary of state at Madison. He entered the University of Wisconsin in 1895, passed the state bar examination and commenced the practice of law at Mayville. He was elected district attorney in 1902 and re-elected in 1904; in 1906 he was elected state senator from the thirteenth senatorial district and re-elected in 1908. In 1914 he was elected to the United States senate to succeed Isaac Stephenson.

Senator Husting was conceded to be one of the strong men of Wisconsin and in his death the state loses a faithful and efficient public servant. Governor Philipp will be called upon to appoint a senator to fill the vacancy until Senator Husting's successor can be elected.

Illinois Milk Production Costs.

Production figures are always interesting and, though the following two sets of data were gathered on farms in Illinois, conditions being so very similar they will be of interest to Wisconsin producers at this time. It is a mistake not to figure the cost of feedingstuffs at market price, no matter whether such grain or hay has been produced on the home farm or not. If they were to be purchased the market price has to be paid. The first set of figures signed "Dairyman" quotes silage somewhat high, but the value of this silage has been determined on the basis of mature corn. Wisconsin's corn this year, according to the crop reports issued by the state department of agriculture, is only 12 per cent normally matured and undamaged. The rest is either slightly damaged or very seriously so, besides being for the greater part mature. Silage from immature corn or immature and frozen corn, or frozen mature corn, has not the feeding value of undamaged, well-developed and mature corn silage. To make up for the deficiency in nutrients from poor silage it is necessary for the farmer to purchase additional concentrates which he must feed to the cows in order to maintain a maximum flow of milk. Thus the high price of first-class silage, while it cannot be applied to the immature silage, will nevertheless be represented in the feed bill under the caption of "additional concentrates" to make up for deficiency of nutrients in low-grade silage.

The second set of data was gathered on the farm of Governor Lowden, of Illinois, and has no doubt also attracted the attention of that official since its compilation. Illinois will do well to follow the course taken by Wisconsin dairymen in having a commission appointed to investigate the cost of production in their state. The man who owns cows knows the troubles of the dairyman.

Here are the figures:

Cost of production of 100 pounds of milk from a farm consisting of 150 acres. All fodder raised on the farm is sold off in milk. The average yield per cow for the year or 6,426 pounds produced for the year a total of 185,730 pounds. It takes two men 365 days at twelve hours per day to take care of these cattle, making a total of 8,760 hours. Average for every 100 pounds of milk produced is six and one-third hours at 16 cents per hour, making a total cost for labor of 70 cents per 100 pounds.

Amount of feed consumed per 100 pounds of milk: Corn, forty-four pounds at $56 per ton, it costing $1.23 per 100 pounds of milk. Ensilage. (Ensilage is based on seven tons of ensilage per acre. Seven tons of ensilage per acre will yield thirty-five bushels of corn, and at the rate that corn is selling now at $88 per ton the ensilage of the present time is named in the previous statement, $13.20.) Hay, fiifty pounds at $20 per ton, is 50 cents. Bedding, straw, thirty-nine pounds at $7.33 per ton is 13 cents for 100 pounds of milk.

Interest on money invested in cow, 10 cents per 100 pounds; insurance and tax on cow is 1 cent per 100 pounds; depreciation of cow 15½ cents per 100 pounds; barn rent, 7 1-6 cents per 100 pounds; keeping of bull, incidentals, lighting, medicine, veterinary, tools, heating water in winter, salt, etc., 6 cents per 100 pounds.

Total cost of producing 100 pounds of milk $4.14½.

Credits: Value of calf, 15½ cents per 100 pounds of milk; fertilizer, 3 cents, making a total of 18½ cents deducted from the $4.14½, leaving the total cost of milk $3.86 per 100 pounds.

Comparison of feeds on the first day of October, 1916 and 1917:

1916	1917
Corn, $28 ton.	Corn, $86 ton.
Bran, $23 ton.	Bran, $36 ton.
Gluten, $25 ton.	Gluten, $55 ton.
Oil meal, $32 ton.	Oil meal, $60 ton.
Hay, clover, $12 ton.	Hay, clover, $18 ton.
Alfalfa, $16 ton.	Alfalfa, $30 ton.
Sugar feed, $22 ton.	Sugar feed, $48 ton.
Cows, $90.	Cows, $140.
Labor, $28 month.	Labor, $40 month.
Land rent, $6.50.	Land rent, $8.

(Signed) Dairyman.

No one who will give careful study to these figures will argue that dairymen can produce milk at a profit at 1916 prices. But here is further evidence:

Prior to the breaking out of the war the dairy farmer for several years had from November to April received a price of about $2 per 100 for his milk. Since 1914 the price of things that cows eat have on the average more than doubled.

The average cow will give not to exceed 5,840 pounds of milk in a year, or sixteen pounds per day. To produce this milk she will consume in the wintertime approximately the following feeds per day: Thirty-three and one-third pounds of ensilage at $8 per ton equals 13.4 cents; alfalfa hay, twelve pounds at $25 per ton equals 15 cents; a ration of grain and mill feed, eight pounds at $46 per ton equals 18.4 cents. To take care of a cow will require thirty minutes of labor per day, which at 25 cents per hour equals 12½ cents, or a total feed and labor cost of 59.3 cents for sixteen pounds of milk, or $3.706 per 100 pounds, and 12½ cents per 100 pounds for delivery from farm to station, make $3.83.

Add 10 per cent for the farmer's profit and it makes the price $4.21 per hundred, and yet for asking $4 per hundred for milk for the coming five months we dairy farmers are called profiteers, threatened with jail and fines—all because we have done what every other line of business has done—namely, tried to advance the price of our product to a point that would at least cover the cost of our raw material.

The dairy farmer is neither a profiteer nor a man who desires to take advantage of war conditions. We simply ask a living price with a small profit, and until some of our accusers can prove the above figures are inaccurate or unfair we are going to continue to believe that $4 per 100 for the next five months is a fair price for the producer to receive for his milk.

J. T. Williams, Sterling, Ill.

It is apparent that the dairyman need have no fear of fair investigation of milk production costs.

HELP UNCLE SAM HELP YOU.

Fur-Bearers as Food Animals.

The fur season is here and it promises to be a profitable one for those who make a business of trapping these animals through the winter months. Thousands of farm boys who find trapping a delightful sport as well as a means of earning some money for themselves will be pleased to learn that reports indicate there will be a good crop of fur-bearers this season and that prices will also be good.

During the next six or eight weeks The Wisconsin Farmer will publish a number of articles by practical trappers that should prove interesting and helpful to those who have not had much experience in catching the various fur-bearers common to this section of country, and to which we invite the special attention of our boy readers.

While the flesh of several of the common fur-bearers has been used to some extent for many years, and by some considered a luxury, great quantities of valuable food is annually allowed to go to waste by throwing away the bodies after the pelts have been removed. Because of the present high price of meats and of the need for conserving every bit of food possible this should no longer be done. The muskrat, raccoon and opossum are quite commonly used for food, as are also other species, and it is to be hoped that every pound of flesh of these animals that are caught primarily for their pelts will be conserved this year. If remunerative markets cannot be found for the flesh it should be saved for home and local consumption and take the place to a considerable extent of pork and beef. The boy who catches too many of these animals to utilize them while fresh should urge his mother to can the meat for future use. It is as easy to can muskrat and raccoon as it is to can chicken and just as practicable. The utilization of the flesh for food will bring an additional profit to the trapper and at the same time give him an opportunity to be of service to his country by adding to the food supply of the nation.

Following is a recipe for frying muskrat as published by the United States Department of Agriculture in Farmers' Bulletin 396:

Wash the muskrat thoroughly and cut in quarters. Let it lie in salty water for an hour or more, then wash, dry with a cloth, and season. Dip the pieces in a prepared egg batter and dust them with flour or meal. Place the lard in a frying pan and let it get hot. Then put in the muskrat and fry very slowly for an hour. Prepare a gravy of milk, butter, flour and parsley and season it to taste. After it thickens pour it over the cooked muskrat.

Muskrat may also be roasted after first soaking in salty water to remove the gamy flavor which is objectionable to some people. In the publication referred to above there is also found a recipe for stewing the flesh of this animal, as follows:

Wash the meat thoroughly, cut it in pieces, and let it lie in salty water for an hour. Then wash again, put it in a saucepan, and season with butter, salt and pepper to taste. Let it simmer slowly and when nearly done put parsley and a little chopped onion into it. When entirely done thicken with a gravy of flour and water, as for stewed chicken.

Those who do not wish to use the flesh for home consumption in any way should correspond with fur dealers in regard to finding a market for it, concerning which they will be able to give helpful information. Ten years ago dressed muskrats retailed for 15 to 20 cents each on many eastern city markets, and, according to present prices of meats, they should bring considerably more nowadays.

A LAMP WITHOUT A WICK.

The Sunshine Safety Lamp Co., 311 Factory Bldg., Kansas City, Mo., has a new portable gasoline lamp which gives the most powerful home light in the world—a blessing to every home not equipped with gas or electricity. 300 candle power at 1 cent per night. This remarkable lamp has no wick and no chimney, is absolutely safe and gives such universal satisfaction they are sending it on Free Trial. They want one person in each locality to whom they can refer new customers. Take advantage of their free trial offer. Agents wanted. Write them today.—Adv.

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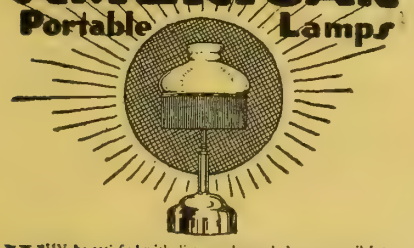

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FAMILY CIRCLE TALKS BY THE PUBLISHER

(Continued from page 3.)

000,000,000. Of this he estimates farm produce and animals to bring a gross return of about $17,000,000,000. The farmers, according to this estimate, are getting 42½ per cent of the country's income and giving nothing out of it. It is left for the government to raise taxes and sell its bonds to the remaining 57½ per cent, while the class which as a whole has profited most escapes any burden.

The farmer has been pampered by politicians until he seems to feel he is in a preferred class, and, as I said, he doesn't want to buy Liberty Bonds, he doesn't want to fight, and he avoids his income tax. It is about time the farmer should appreciate his position in the country and help do his part in a war as much for his benefit as for those who are putting up the money and doing the fighting for him.

It is hardly worth while answering such a libel, or giving facts to a man who would utter such a thing. But I feel that it would be wrong to let the matter go by completely scorned. I shall make my remarks brief, however.

I wonder what the eminent Mr. Hulbert will say to what Mr. A. J. Banks has to tell us today, in another column; how the rural community around Montour, Iowa (a town of 400 population), raised $500 in one day from the auction sale of produce contributed by farmers for the Red Cross work.

I wonder what Mr. Hulbert would say in regard to the action of the farmers of Washington county, Minnesota, who donated the products of an acre each (100 of them coming forward and offering to do it the very first day the matter was suggested) to the Red Cross.

I wonder what Mr. Hulbert would say in regard to the report I printed from my good friend, Mr. Frank Dunning, of Bedford, Iowa, a few weeks ago, showing that every farmer in a township covered by Mr. Dunning had contributed from $1 to $25 to the Red Cross, while one-fourth of another township contributed $369, all of the contributions, except two, being under $25.

I wonder what Mr. Hulbert would say to the fact that at the army cantonments here in the grain belt (at Des Moines, Rockford, Battle Creek and Riley), there are scores of thousands of farm boys who flocked to the colors without claiming the exemption which should have been granted them, drilling hours every day, eager to get into the trenches, and at the throat of kaiserism.

I wonder what Mr. Hulbert would say in reply to the hundreds of patriotic letters which come to me, week after week, from farm parents who put patriotism above even parental love and who offer their sons as living sacrifices on the altar of world-wide democracy.

I wonder what Mr. Hulbert would say if he knew that thousands of farmers had bought the first Liberty Bonds and that other thousands are buying the second Liberty Bonds today.

I wonder if Mr. Hulbert will ever be brought to realize that it is men like him who cause trouble and who are enemies to peace and prosperity and progress, simply because they pit class against class and draw unjust discriminating lines, without ever stopping to know whether they are right and just or not.

I wonder—oh, pshaw! the libel was not worth answering in the beginning, much less now. If I undertook to point out every place where Mr. Hulbert is wrong I would be busy until the grandchildren of the soldier boys now in trenches and camp were old and decrepit. It is a base, unfair, unjust, untruthful libel—so let it go at that.

THE CHIEF TROUBLE WITH ANONYMOUS LETTERS.

THERE is nothing that gives me greater pleasure than to be of service to my farmer readers. I feel that I am not doing my full duty, as a member of our family circle, unless I make every possible effort to help them with information, advice or anything that I may do to advance their interests. Especially do I enjoy the letters which the letter carrier brings to my desk by the score daily, with their interesting stories of deep human interest and their requests for this or that information or advice. It is only in this way that I can maintain the close personal touch with my readers which enables me to know what they are thinking and what they desire. I try to answer every such letter personally. Sometimes, when work is pressing especially hard, and the demands on my time and thoughts are too great for the limitations which human nature has imposed on me, it is necessary to delay reply, but sooner or later I intend to answer every such letter and to give my correspondents the best that I have to offer in their individual case.

Sometimes, however, my wishes in these matters are defeated through no fault of my own, when men or women writing me fail to sign their names. In most such instances they assume that I will answer their inquiries through the columns of my paper. Sometimes, however, their inquiries are received too late for the next issue, which means that there must be a delay of ten days before I can reply. Oftentimes the query is one in which they alone are interested and I cannot afford to give space in these columns to something of interest to only one out of tens of thousands of readers. In other cases the matter has already been answered in the paper and it is unfair to my other readers to occupy the space with a repetition of it. Again the question asked may require a much longer reply than I can afford to give space to, when there are so many other matters of importance and interest, of which I wish to treat. The result is that I am unable to render them the help I would enjoy giving if I knew whom to address.

An example of this lies before me in the form of a letter from Rock, Kansas. It deals with a matter on which I feel strongly and which I have discussed many times in these columns. But as I have other plans for continuing its discussion I do not care to go into it further at this time. However, I would be glad to write the author, giving him some personal information and advice, which might be of value. But, when I look for his name at the close, I find the letter signed "A Committee," and I am afraid that, efficient as are Uncle Sam's boys who handle the rural mail, they would find difficulty in delivering a letter so addressed.

There is no reason for anyone failing to sign their name to any letter they write me, provided they will mention the fact that they wish their name kept secret, if such is the case. An unsigned letter is always a disappointment—like reading a story up to the most important chapter, only to find that it is missing. In most offices anonymous communications receive short consideration and an early consignment to the nearest waste-paper basket.

I am sure the "Committee" at Rock, Kansas, and many others, who have signed themselves "A Friend" or "A Reader," have not thought of the matter in this light. I am not finding fault with them in any critical spirit, but merely suggesting that they can help *me* to help *them* if they will sign all future communications with their names and addresses, assured that I will guard their names and the contents of their letters in confidence, if they request it.

I want to hear from all my farmer readers; I want to keep in close touch with you; I want to know your problems and your viewpoint; for it is only in this way that I can realize my highest ambition of making my paper best serve your needs. So I wish you would always feel free to write me, knowing that if possible I will furnish you any information or advice desired, but realizing that to do so I must first know who you are and how to reach you.

CHRISTMAS BOXES FOR FARMER SOLDIERS.

I AM in receipt of a letter from the mother of a farm boy who is a member of Uncle Sam's army already in France. This mother is anxious to send her boy a Christmas box which shall contain all that he most needs and will most appreciate. She knows the things that he likes best to eat when at home, the things she always served him on his birthdays; such, for instance, as fried chicken, chocolate layer cake, stewed Jonathan apples, blackberry jam on thick slices of home-made bread, and so on. She knows, however, that it is impossible to send these good things from the farm to her son across the seas. She does me the honor to ask me what she should send; what I would send to my boy if he were fighting in the trenches over there.

I have put the question up to a number of soldiers, officers and men alike. Some of them have been abroad and know conditions through personal observation. Others realize what the situation will be when they reach there. They have suggested a splendid list of things for this particular farm mother's Christmas box. I believe their suggestions are so appropriate we can all afford to consider them. What is good for the farm boy in the army over in France is also good for the farm boy in the conscript army, the national guard, and all the branches of the service in this country. They will appreciate Christmas boxes from the old home as much as the farm boys across the seas. And while the home box for the boys who are likely to stay in camp for some time yet may contain perishables (such as home-cooked foods and fruit from the farm orchard) still this list, as I have compiled it from the suggestions of various army men, is good for all those who are planning a Christmas box for the soldiers anywhere. Here is the list:

Two or three pairs of socks; two or three large handkerchiefs; writing paper; envelopes and lead pencil; chocolate bar; can of vegetable soup; can of pork and beans or spaghetti; three or four packages of cigarettes; small box of cigars; chewing gum; peppermint; one pair leather shoestrings; one can of cocoa; candy; two or three small books, classics.

Some of these may seem frivolous, even undesirable, but I have compiled the list from the suggestions of many men. One of my farm correspondents took exception, a couple of weeks ago, to the sending of cigarettes to the soldiers. This is a matter for individual decision. So are the suggestions as to candy; if the boy who is to receive the Christmas box does not care for such things do not enclose them. Such articles as fruit cake (in cans), loaf sugar, seedless raisins or nuts may be substituted, according to the taste of the recipient. The important matter is to send him things that are useful and that he likes, proving that he has not been forgotten, that the folks back home, on the old farm, remember him and the gifts that make him happy.

One officer impressed upon me the fact that only small boxes should be sent, especially to the farm boys already in Europe or likely to be sent there soon; boxes not weighing more than three or four pounds. When the men are ordered to new quarters they cannot carry heavy boxes with them. Better a few well-selected things, which can be kept, used and enjoyed, rather than many things, which must be thrown away.

Christmas may seem like a mockery to some of us this year; Christ's birthday celebrated while the whole world is at war, but it is our duty not only to keep the home fires burning brightly for the boy whom we pray will come back to us, but also to cheer him up with every means at our command. Make Christmas as gladsome a day for the boys in trenches, camps and dugouts as our aching, bleeding hearts will permit us at a time when every hope and prayer is for early peace.

FALL IN THE GRAIN BELT.

FALL—and everywhere are sights and sounds of falling! The fall of leaves, silently sifting down through still air, or whisked from fast-baring branches by the winds that play fitfully through the painted woods. The fall of nuts, rattling down through the boughs to the stony bed of the brook below. The fall of golden ears, thumping against the throw-boards into the wagon boxes on many a hundred thousand prosperous farms. The fields are a dull gray monotone, through whose haze the distant shocks of corn look like the wigwams of departed spirits, come back from the happy hunting grounds to enjoy the Indian summer. The smell of smoke is pungent in the air, bringing back with a rush a hundred happy memories of childhood days and nights in bonfire time. In the woods the trees, which still retain their foliage, are all on dress parade, the hard maples aflame like beacon fires, against a green and gold background of elms, pines and oaks. The days are days of mellowness and the nights are nights of stars. The morning air has a nip and tang in it that sets that blood a-tingle and urges one on to the farm tasks that must be completed before "a wintry gray comes booming down the north wind, and the snow whisks and piles in mounds of whiteness, where the eddies come and go," as one of our grain-belt poets sang.

As the day wears on the kindly rays of the noon sun lend genial warmth and invite one to wander forth across the dry fields, or along the banks of the little stream, where the squirrels are as busy as bees, laying in their winter stores, while belated robins and flickers are bidding old haunts farewell for a six-months.

Nothing disturbs the still surface of the water, save now and then a fish, rising to seize an unlucky minnow, or a painted leaf, drifting down to meet its reflected image in a mirrored pool. From afar comes the cawing of a crow, while a solemn-visaged hoot-owl sits blearing and blinking in the beautiful autumn daylight. As the sun sinks to rest in a bed of scarlet, mauve and gold, behind the western hills, the moon and stars take up the watch and flood the earth with soft silvery light. A touch of frost creeps forth in the air again and the welcoming light of the fire indoors, with the odors of the evening meal, offer sure cheer and contentment at the end of a perfect day.

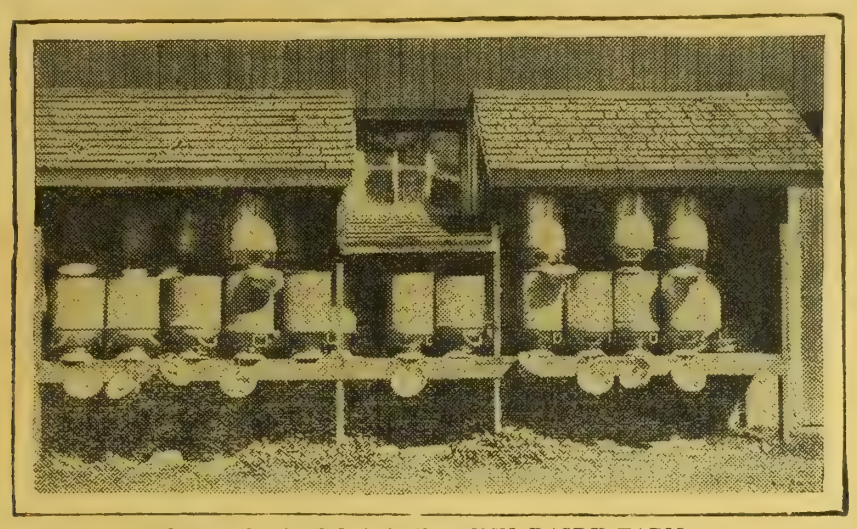
It is undoubtedly true, my friends, that the Lord might have made more perfect days and nights than those of fall on our grain-belt farms. But it is also just as undoubtedly true that He never did.

James M. Pierce

State Investigates Milk Production

Committee is Endeavoring to Get Information on the Cost of Producing Milk in Badger State This Year.

THE cost of producing 100 pounds of Wisconsin milk will be determined by a commission appointed by Governor Philipp last week after a conference with a committee representing the milk producers of southern Wisconsin. The dairymen have agreed to rest their case in the hands of this commission and abide by its findings plus a 10 per cent margin of profit as to the returns they are entitled to for their October milk.



MILK CANS ON A WISCONSIN DAIRY FARM.

The clamor of the public for action against the milk producers through the states of Indiana, Illinois and Wisconsin resulted in the action taken by various states against the milk producers' association and its members. On October 6th and 7th about 100 members and officers of the forty-four locals in Wisconsin affiliated with the Chicago Milk Producers' Association, were served with summons to appear at Racine on Friday, October 12th, to show why the state should not ask for an injunction "to restrain the organization from meeting, fixing prices and otherwise acting in an illegal manner in connection with the milk situation in Wisconsin." The milk producers at once appointed a committee, who waited on Governor Philipp in order to discuss the situation with him and determine if possible some other means of settling the controversy. The producers are certain that the figure asked, $3.42 for 100 pounds of milk testing 3.5 per cent fat, is not too high. It was not difficult, therefore, to obtain a vote for accepting this proposal of investigation. At the hearing at Racine the milk producers representing nearly all of the locals in the state voted unanimously to accept the price determined by the commission, plus a profit of 10 per cent for their October milk. The hearing conducted by the state's attorney was postponed until November 5th on the grounds that the producers had not sufficient time in which to prepare a defense. For their law talent the producers have engaged the firm of Kearney, Thompson & Myers, of Racine, with T. M. Kearney, Sr.; J. Page, of Elkhorn; Charles G. Riley, of Madison, and J. H. Pierce, of Janesville, to defend them.

The commission appointed by Governor Philipp was recently organized and consists of the following members: Dean H. L. Russell, Wisconsin College of Agriculture; Dean Davenport, Illinois College of Agriculture; Mayor T. W. Thiesen, Racine; Mayor J. A. Fathers, Janesville; Osmer B. Smith, Milwaukee, and five producers from the counties of Kenosha, Walworth, Waukesha, Racine and Rock. The farm members are: George Vincent, Kenosha county; George Elia, Racine county; Mortim Flack, Walworth county; L. House, Waukesha county; H. G. Bemis, Rock county. Another member of the commission is John Lefeber, Milwaukee, a milk producer.

At the first hearing the state's attorneys fought hard against a continuance of the case, but the point was decided against them. The state has been summoning a number of producers, both members of the association and non-members.

To all appearances Governor Philipp has the right view regarding the problem of milk production. While the country was never in greater need for a maximum output of milk, this case being pushed at this time can easily do more harm than good. Investigation will prove that the producers were not far from the exact cost when they estimated the price for October milk at $3.42. The volume of proof in favor of the dairymen is constantly growing. College men and bookkeeping producers have all come to the same conclusion, viz.: That milk costs approximately $3.50 per 100 pounds when a profit in favor of the farmer is figured. Jeopardizing our output of milk by trying to intimidate producers at this time seems to be a serious blunder on the part of the officials responsible for the investigation. The danger is that permanent harm may come to the dairy industry. Organization seems to have been the only effective weapon producers have been able to get hold of. The danger lies in the fact that there is such a good market at this time for dairy cows sold as beef. While we cannot agree that it is profitable or right for dairymen to sell their cows for beef during this war crisis, at the same time the temptation is very great if they can't be assured a reasonable price for milk which is produced. In any event milk production which should be increased will probably be decreased and the laws of supply and demand will settle forever the question of cheap milk.

Frank T. Holt, of Pleasant Prairie, Wisconsin, president of the Chicago Milk Producers' Association, has been a busy man since the start of the trouble. He has been asked to be at Chicago, Milwaukee and Madison and a dozen other places all at once. However, he has in some miraculous way managed to attend all conferences where his presence was necessary and is succeeding in keeping up the pace. Mr. Holt's popularity with the members was particularly noticeable at Racine, where he was given an ovation upon entering the court room. To talk with Mr. Holt for a few hours would convince many of those now eager to provide trouble for the dairymen that milk producers, the daily papers call them milk barons, are human beings with no desire to make living impossible for the wage earner or the city men and their families. It has Mr. Holt's opinion that any fair investigation, no matter by whom conducted, would prove that the prices asked for milk by the producers would agree very favorably with the $3.42 rate.

On the Wisconsin side, therefore, the milk situation has apparently quieted down. The producers will await the decision of the investigation committee and the state is content with giving the producers ample opportunity to prepare an adequate defense on the important action which would follow, should the state be successful in securing an injunction against the producers' association.

Meanwhile the consumer in most of the cities is paying from 10 to 11 cents per quart of milk, and in others 13 and 14 cents, with no opportunity of receiving a discount on the advanced prices should the price for October be fixed at $3 per 100 or $2.50. But the farmer must content himself with waiting for his money until the commission reports. It seems as though the consumer in the cities ought also to be benefited in proportion to the reduction that might occur. To date the dealers in Wisconsin have not been asked to reduce their prices, but everything in due time, perhaps some day the consumer will see a whole lot of things which at present he knows little or nothing of.

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Be at Cain's October 30th.

THE last Duroc Jersey sale to be held in the Northwest this fall will be at Skyberg, Minn., October 30th. On that date J. J. Cain (Futurity Cain) will sell around 40 head of spring boars and gilts and the feature of this sale will be the boars and gilts sired by the $2,500 boar, Giant Invincible, that Mr. Cain sold to Jake Waltemeyer. Try to get a gilt by this boar to grow out and keep in your herd. This breeding and reputation is good property. If you want a boar, you can get one in this sale that will please you. If you can't attend this sale, send your bid to T. P. Shreve, who will be at the sale in the interest of The Wisconsin Farmer. He would like to see some Giant Invincible stuff go to Wisconsin and will take care of your business in an honorable manner. Send mail in care of Mr Cain.—Adv.

When writing to advertisers kindly mention The Wisconsin Farmer.

UPPER WISCONSIN

Why Wisconsin Farmers Should Raise Sheep.

To the Editor:—In the first place Wisconsin is one of the most patriotic states in the Union. But we could give more aid if more sheep were raised. We need all the wool that we can get so that Uncle Sam can clothe our soldier boys in good warm, woolen clothing. This will help them to better stand all weather conditions to which they will be subjected.

Secondly, from the profit standpoint there is no animal that can outdo the sheep. They will help to increase the fertility of the soil. They can be kept on pasture that other stock will not eat. With wool from fifty cents to one dollar per pound and the high price of lambs at fifteen to twenty cents per pound it is certainly an easy way of getting money. I think if there were more sheep kept on the farms there would be less sending home to "Dad" for money.

Third, especially in upper Wisconsin they should be raised. Good cut-over land can be bought from fifteen to twenty dollars per acre; rutabagas and carrots can be raised to perfection, yielding six hundred to one thousand bushels per acre. Clover will yield from three to five tons per acre. With a very little grain this will make an excellent winter ration, while in the summer they will graze and help their owner develop this new fertile land. I believe there is no better opportunity for the young man of today than to raise sheep and open up a farm in upper Wisconsin.

A. J. Mahr & Son.

Chippewa county, Wis.

Taylor County Plowing Contest.

The annual Taylor county plowing contest was held September 21st at Westboro. This contest was inaugurated by County Agent R. A. Kolb, Mr Kolb conceived the idea that the contest would get the good plowing men of the county together and in the actual field operation these farmers would learn a great deal from each other. There were about 1,400 people in attendance at the contest this fall. The Medford band furnished music. Professor Galpin, of Medford, delivered an address on the value of farmers' clubs. There were eight contestants plowing in a field of old sod somewhat rough with more or less stone. Winners of the prizes were as follows: First, R. H. Aitken; second, Joseph Imbach; third, Chas. Kuchenbecker; fourth, Gunder Nelson.

The winner of first prize was given a bull, donated by the banks of Taylor county. The second prize winner received a sulky plow, donated by the people of Westboro, and the third a Tamworth boar, donated by Mr. Kolb. The fourth prize winner received a feed cutter.

Stock Shipping From Rusk County.

A carload of mixed stock shipped by the Ladysmith Shipping Association netted $2,027.09. There were thirty-five head of cattle, averaging 772 pounds, and they brought $6.83 per hundredweight. Included in the shipment were five small pigs, averaging 116 pounds, which sold for $17.25 per hundredweight. There are now about 150 members in the shipping association.

Snow in Rusk County.

On Tuesday, October 9th, there was a light fall of snow at Ladysmith, Rusk county. Then on Friday of the same week the thermometer was as low as 24 degrees above zero. Snow also fell in portions of upper Wisconsin on October 11th and 12th. Reports from potato fields not dug indicate the freeze was not serious enough to injure the crop. In the year 1916 snow came with a general storm on October 19th. Two years ago this same section was visited by snow on October 2d.

Harvest Season Nearly Finished.

Principal Crops in Wisconsin Have Been Gathered—Small Grains, Hay and Root Crops Yielded Well—Corn Suffered From Frost.

WISCONSIN.

Adams County.—Owing to late maturity of corn crop and extreme earliness of killing frost, the corn is knocked out of commission in this locality. Potato digging is begun and while the quality is very good the yield is disappointing, running from twenty-five to 100 bushels to the acre. Threshing is nearly completed with oats yielding about forty to fifty bushels per acre and rye about fifteen. Fall pasturage is good. Amount of stock on feed this winter will be small. A small acreage of winter rye has been sown.—W. B. Barnes.

Buffalo County.—The frost has done considerable damage in this locality; especially to corn and garden truck. The corn is very soft and isn't fit to be cribbed, as it will mold. Most people are letting the hogs run at large and some have cut it for shredding. Some seed has been picked of the earliest kind, but is not dented as it should be. Plowing is well under way and the winter wheat has been planted. Roads are very rough and muddy since the rain. Potatoes are most all dug and the yield is about normal.—J. W.

Clark County.—With few exceptions silos are filled. All corn was badly frozen, but many fields were well enough along to make good silage. Very little corn matured. The yield of hay will average about 90 per cent of a normal crop; oats about forty bushels to the acre; wheat and barley about 87 per cent of normal and potatoes above normal and of excellent quality. Herds are being held at original number or being increased in spite of high prices for feeding stuffs. Indications are that most farmers will depend upon their own grain largely for feeding purposes.—Louis Buddenhagen.

Crawford County.—Some corn was harvested before the recent frosts, but fully 75 per cent was frosted. Most of the crop will be soft. Silos are still being filled. Potatoes are yielding well. More buckwheat was grown than in other years and is a fine crop. The pig crop is light and beef cattle scarce. Cows are in demand at fair prices. Tobacco was a big crop, but hail and early frost did great damage to it. As a rule, farmers have had a good year and are ready to buy liberty bonds.—A. M. Laird.

Dane County.—All corn was frozen here October 5th. There was no ripe corn. People at once went to filling silos and cutting corn. Beans were cut 25 per cent. Potatoes also were all frozen hard. They were not fully grown, but the crop will be a fair one. Digging will commence as soon as the potatoes do not peel. Threshing is in full blast. The yield is only fair. Prices are good here.—John Azur.

Dunn County.—The corn crop in this county met with killing frost before it was advanced far enough for seed ears. That is the result on at least 95 per cent of the farms. Those who have corn developed enough for seed should, therefore, diligently save it. Thanks to the silo, this early killing of the crop has resulted in its saving to the extent that it will make fair silage. The few without silos have cut the crop and are feeding it whole to live stock for beef prospect. Quite a lot of feeding animals are being picked up for this purpose.—J. D. Millar.

Iowa County.—The corn crop was damaged to a great extent in this locality by the early frost which occurred about three weeks ago. The corn that was frozen at this time will make no corn to crib and people that had silos put it in them. Some fields on very high ground did not freeze at this time and there will probably be some corn to crib in this. The corn crop will be very light. I would think not more than one-third of what it should be. Potatoes are a good average crop. Hay was a good crop, yielding around two tons to the acre. Oats went about fifty bushels, and barley forty or forty-five. I think as a rule there will be more cattle wintered in this section than last year.—J. M. Blotz.

Juneau County.—About 5 per cent of the corn is out of danger. Ninety-five per cent of the corn was damaged by frost. All it was fit for was for silage and it was mostly all used for filling silos. The hay went about one and one-half tons to the acre; oats, forty bushels per acre; wheat, 25 bushels; barley, thirty-six bushels, and rye, ten bushels. Potatoes will go about 100 bushels. Live stock is normal in number and condition and will be fed principally on home-grown feeds.—C. E. Haskins.

Lincoln County.—Corn in this locality was almost a failure. In normal years it is raised principally for silos. The early frost this year made corn almost useless even for silos. All small grains were excellent in quality except barley, which was injured to some extent by hot winds. Oats averaged about forty bushels per acre; rye thirty bushels per acre; barley, twenty-five bushels per acre and spring wheat twenty to twenty-five bushels per acre. About the usual number of live stock are being kept. All are in healthy condition. Potatoes will average 125 bushels per acre.—G. A. Patterson.

Marquette County.—The corn crops in our section are about 50 per cent injured. The yield of potatoes is excellent and those that were not dug were damaged about 25 per cent by the frost. The number of stock is normal. The condition of stock is not normal on account of being cold and wet. The feeding operations for the winter will be normal.—Emil Dein.

Manitowoc County.—Silo filling is the order of the day. The corn crop for silage and fodder was not as good as last year and none of the corn ripened this year on account of the unfavorable season. Hay has been about a normal crop. The same is true of rye, peas, oats and wheat, while barley was below normal. Potatoes are a bumper crop both as to quantity and quality. Live stock looks fine, but owing to the high price of feeds, feeding operations will not be carried on extensively. Rye and winter wheat are up and doing well, despite unfavorable weather. We had no frost here until October 6th and have had several since. Threshing is not all done yet. Farmers are also harvesting their second crop of clover (when weather allows) of which there is a large acreage.—Edward E. Straka.

Oneida County.—The farmers are busy digging potatoes. The acreage was larger than usual and the yield was good. The prospects seem to be good for a big price again. All the small grain is threshed and the yield was normal. The second crop of clover is all put up. It has been awful cold here the past few weeks and it made it rather bad for those who were digging potatoes, as labor is scarce. Most of the farmers have been working with small crews. A late fall is hoped for so as to give everyone a chance to get the fall plowing done. The pastures are good and the cows are going down in the flow of milk.—Chas. H. Jewell.

Outagamie County.—The condition of the corn crop in this section is poor, as it has practically all been frozen quite early. Very small percentage of it is matured for husking. Practically 75 per cent of it is being put in silos. Very small percentage is standing in fields. Mostly all cut corn is very poor quality and not fit for market. Hay crop was very good in this locality, being of very choice quality from two to two and one-half tons per acre. Small grains have turned out very satisfactory. Barley ran from thirty to forty bushels; oats, fifty, sixty-five and seventy-five bushels per acre and of very good quality. Potatoes are very good quality and about 70 per cent of a crop. Live stock about normal in number. Condition very good in regard to health. Not much feeding in this locality.—Harry Lepplie.

Sawyer County.—Throughout this vicinity the corn crop was a total failure as far as grain is concerned and only a part of it was matured enough for good silage. Some fields have not been worth cutting even for silage. Small grains are yielding good. Oats have been running from fifty to sixty

(Concluded on page 19.)

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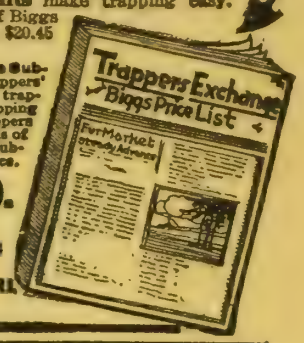

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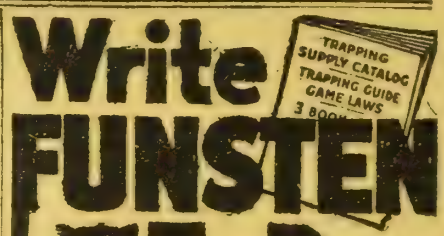

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In and Around Wisconsin

The Wisconsin Cheesemakers' Association will hold its annual convention at Milwaukee, January 9, 10 and 11, 1918. Gus W. Schiereck, of Plymouth, Wisconsin, is the secretary.

The Wisconsin sugar beet crop this year is estimated at 160,000 tons, as compared to 110,000 tons in 1916. Wisconsin is "doing her bit" in helping to increase the production of sugar.

W. L. Carlyle, formerly connected with the Wisconsin College of Agriculture, has recently resigned the position of dean of the Oklahoma Agricultural College. Mr. Carlyle will go to Canada, where he has accepted a position with a business house in Calgary.

Geo. Viebrock, of Polk county, recently took a load of twenty-one sacks of wheat to Osceola and sold same for $108.15. About the same time Jas. W. Moran took ten hogs to a packing plant at New Richmond and went home with a check for $466.12 in his pocket.

The Wisconsin Pea Growers' Company, with factories at Two Rivers, reports a good year notwithstanding the backwardness of the season. Six hundred and fifty acres were cultivated and employment was given to about 200 men, women and children during the season.

Grain elevators in Washington county have been paying $2.80 per hundredweight for the better grade of barley. This is $1.68 per bushel. Barley is reported to be a fair crop, the average yield being about forty bushels, while in some instances it goes as high as fifty bushels.

John Hug, of Washington county, had thirteen and one-half acres of clover this year from which he took 116¾ bushels of seed and sold in Hartford for $22.75 per bushel, making a total of $2,644.86. This is the largest check paid out at Hartford this year for clover seed and indicates the productive value of good land in Washington county.

The Holstein-Friesian Breeders' Association, of Fond du Lac county, has organized with a capital of $25,000. It is this association which plans to erect a $20,000 sales pavilion in Fond du Lac. The officers of the association are: President, T. H. Thackeray, Glenbeulah; vice president, John Puls, Hartford; secretary and treasurer, F. J. Bristol, Oakfield, and sales manager, S. H. Bird, South Byron.

The Bayview Community Club, of Bayfield county, recently launched an effort to bring a pea-canning factory to Washburn. Efforts will be made to secure contracts for at least 300 acres of peas for canning during the coming season. Professor Delwiche, of Ashland Experiment Station, attended the meeting of the club and an address was also delivered by V. E. Brubaker, county agricultural agent.

There is some talk of a beet sugar factory at Oshkosh. A tract of land has been secured and the option has been secured on machinery in a plant now located in a portion of the country where the plant was found to be unprofitable. It is proposed to make the Oshkosh plant coöperative, giving the farmers who raise the beets an opportunity to participate in the management and operation. Farmers of Brown, Winnebago, Outagamie, Waupaca, Fond du Lac and Calumet counties will be asked to lend their support to the new enterprise.

The farmers of Portage county, under the direction of County Agent J. A. Koyner, have arranged for a potato show to be held at Amherst, Wednesday, November 7th. The following varieties only will be recognized: Rural New Yorker, Irish Cobbler, Green Mountain, Early Ohio, Early Rose, Triumph, Gold Mine, Peerless and the best sample of any other variety. Under the rules of the exhibit potatoes must not be washed. There will be a bin-run exhibit and the tubers entered in this class must not be selected, but taken from the bin without picking over.

Ernest Grunst, of Oconto county, last week took thirteen bags of peas to the Falls Elevator Company, of Oconto Falls, and received in payment $157.66. There were thirty-four bushels and forty pounds in the lot, the price being $5.50 per bushel or 9 1-6 cents per pound. This is an exceptional good price. Although corn is not so good in Oconto this year, peas, oats and other crops were splendid and prices are exceptionally good.

The State Councils of Defense are endeavoring to remedy the seed corn situation. In most counties they are listing the names and postoffice addresses of farmers who have seed corn for sale. These lists are distributed among those who are short on seed corn and in this way the buyer and seller are brought together. Seed corn in many counties of the state will be valuable this year. We do not want any farmers to hold up any of their neighbors, but everyone should bear in mind that good seed corn this year is worth a good price.

Mukwonago Poultry Show.

The Mukwonago Poultry and Pet Stock Association have been awarded the official A. P. A. state show and will hold same in connection with their sixth annual exhibit, December 17th-21st.

Mukwonago has held very successful shows in the past and are putting forth special efforts this year. They have engaged Wisconsin's two well-known judges, Wm. A. Halbach and George W. Hackett. This in itself should draw a large entry. The exhibit will be held in the new Studebaker Garage just completed. The hall is large enough to coop 2,500 birds without crowding, and uniform cooping has been arranged for to accommodate that many birds. For premium list write R. J. Porter, secretary, Mukwonago.

The state meet of the Rhode Island Red Club of America will be held in connection with the above show. There will be large cash specials on the Red class, as well as two beautiful silver cups.

State Convention Announcement.

The annual convention announcement of the Wisconsin Potato Growers' Association has just been mailed from Madison.

Wednesday, November 21st, will be devoted to the Wisconsin seed potato trade. Thursday, November 22d will be devoted to sorting and grading standards. The Wisconsin Potato Shippers' Association will meet at Madison on the same day. Friday, November 23d, will be devoted to a discussion of Wisconsin plans for 1918.

The program has been arranged in order to give attention to these important problems during the forenoon sessions. The afternoon sessions will be more popular in nature, as the association is assured of a very large attendance of the public at the afternoon and evening sessions.

One of the most important sessions will be on Thursday, devoted to sorting and grading standards. Recently the Wisconsin Potato Shippers' Association adopted the grade standards as published in Document No. 7, United States Department of Agriculture. These grades will be put into operation during the present shipping season. Warehouses are now being equipped with the necessary screens. The state association desires, therefore, to give a complete demonstration of sorting and grading potatoes in accordance with Document No. 7.

The above subject is of special interest to the general public and considerable interest has already been manifested in the sorting and grading work to be demonstrated during the state convention.

Among the leading men to be present are the following:

E. P. Miller, of Albert Miller & Company, Chicago, Illinois, now with the United States Food Administration; Carl Vrooman, assistant secretary of agriculture, United States Department of Agriculture; O. H. Benson, United States Department of Agriculture; C. W. Waid, Michigan Agricultural College; C. L. Fitch, Iowa Experiment Station; Dr. H. J. Wheeler, Boston, Massachusetts; William Stuart, United States Department of Agriculture; representative railroad men from the Northwest; representatives of machinery, equipment and supplies; representative potato shippers and experiment station officials from all leading potato growing states.

Potato Experience Meeting.

Men who know potatoes from the eye to the heart and are familiar with potato plants from the tip to the root will stage a good-will experience meeting as part of the Wisconsin Potato Growers' convention at the college of agriculture in this city next month.

Experiment station workers, educators, railroad men, dealers and growers will mingle in making the meeting a success. Some of the men who have promised to be at the opening sessions of the Badger potato convention include E. P. Miller, Albert Miller & Co., Chicago; Lou D. Sweet, Denver, Colorado, president of the Potato Association of America; O. H. Benson, leader in boys' and girls' agricultural club work, United States Department of Agriculture, Washington, D. C.; Dr. H. C. Gore, bureau of chemistry, United States Department of Agriculture; C. L. Fitch, Iowa Agricultural College, Ames; Dr. H. J. Wheeler, former head of the Rhode Island Agricultural Experiment Station; C. W. Waid, Michigan Agricultural College, East Lansing, and Hon. Carl Vrooman, assistant secretary United States Department of Agriculture.

Keep the Cows.

A. J. McGuire, of the extension division of the Minnesota College of Agriculture, gives it as his opinion that prices for cows will be much higher next spring than they were last spring. Therefore, he urges farmers to keep their cows. Mr. McGuire says:

Last spring farmers in northeastern Minnesota bought common cows at from $75 to $125, and grade cows for as much as $175. Now, with a shortage of feed, cows are being sold from the same section of the state and many are going to the stockyards to be slaughtered. To sell a cow that you will need again next spring, or that will be needed in your neighborhood, will surely prove a loss. If the war continues, it is possible that the price of cows next spring will be double that of last spring. If you need all the cows and heifers you have, it is a public duty to keep them. A small farm in the timbered section of northern Minnesota without cows is almost without means of living for the owner, and surely without sufficient means of helping the country in the present emergency. You can buy hay this fall much more easily than you will be able to buy cows next spring. We believe it good business to mortgage cows, if necessary, to buy feed. A warm barn will save feed. Fix your barn so that the temperature will not get below freezing in the coldest weather.

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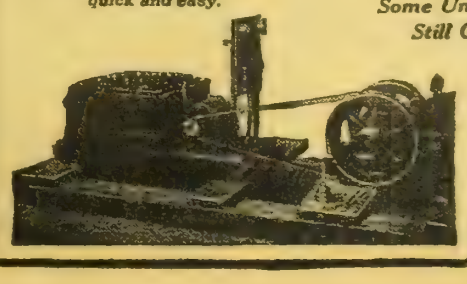

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A Shortage of Live Stock.

Problem of Reducing Home Consumption Must Be Faced—Waste Also Must Be Eliminated.

THE department of agriculture and the food administration desire to bring to the attention of stockmen and farmers the following general position as to the American and the world situation in food animals and the provisions which are broadly necessary from a national point of view.

One of the incidents of the European war has been the slaughter of large numbers of animals, and it is estimated that already the herds of Europe have been diminished by 28,000,000 cattle, 54,000,000 sheep and 32,000,000 hogs. An accelerated increase in this diminution of meat animals must take place in Europe from month to month as long as the war lasts.

We have two problems in meat supplies: The first is the task of supplying our own soldiers and citizens and helping feed the soldiers and citizens of our allies during the war; and to do this we must furnish larger supplies and must find these supplies for the present largely by reduction in our own consumption and waste.

The second problem is the one which we desire to bring particularly to the attention of the American producer, and that is: After the war, Europe, with diminished animals, and, therefore, diminished annual production of animal food, will require larger imports of meats during the years of recuperation, and will probably require the actual import of breeding animals. Therefore, in a broad way, the outlook to the American producer from now on and after the war will be, (a) a large demand for animal products, (b) a continuing necessity for meat and dairy animals to convert forage and grains not needed for human consumption into meats and dairy products.

The herds and flocks of the country can only be increased over a period of years, and the foundation for such an increase should be laid at once. Such increase is a national interest, and it must be made to the interest of the American producer.

Owing to the large measure of failure in roughage available in western ranges this year there must be either a reduction in western animals or their redistribution into the central and southern states where there is a larger amount of roughage and concentrates available than ever before. Therefore, if the roughage in the central and southern states is saved in an economical manner and if stocker steers, young cows, heifers and ewe lambs of good quality that will be marketed during the next ninety days from the western sections of the country are redistributed, these animals will have been saved and the foundation will have been laid for a material increase of our herds.

Some sections of our country are stocked to capacity with mother ewes, from which lambs are marketed at from seventy to eighty pounds weight. This is the most economic method of producing mutton, just as "baby beef" is the most economic method of producing beef, and the quality of both these meats is of the best.

What we need is more cows and more ewes producing the 700-pound calf and the seventy-pound lamb. We wish to restore the confidence of the farmer in his industry by convincing him that he will get a fair share of a fair price paid by the consumer and extending to him credit on a reasonable basis so he may be able to equip his farm for handling sheep, hogs and cattle successfully. Only by adopting the foregoing methods and principles can production be stimulated and the consumer protected.

Many of these same cattle will be required to re-stock the ranges from which they are now being moved, when normal range conditions return the coming year. The nearer to these ranges the cattle can be wintered the more freights will be saved, both coming out and going back, and the less tax upon the railroads.

It is essential for the future welfare of our nation that the supply of all meat animals be increased. This, not only from the standpoint of directly increasing the food supply of the country, but more live stock on the farm means more fertility in the farm; more fertility means larger grain crops produced at a less cost per bushel; more cheaply produced grain should mean cheaper bread to the consumer as well as more net profit to the farmer. Especially should the energies of the farmer be directed to increasing the sheep stock of the country. Clothing comes next to food as a necessity. Not only does the sheep meet the demand from a food and fertility standpoint, but for its wool for clothing, there is no substitute. Every interest that can make itself felt should advocate and encourage the establishing of flocks of sheep in proportion to size of farms in every section of our country. Every farmer should carry to its yearling form every heifer calf of both dairy and beef breeds and every ewe lamb that promises to have an economic future.

Every effort should be made to bring to maturity every heifer calf or ewe lamb whose breeding will give some assurance that it will convert its feed into either profitable meat or profitable dairy products.

State authorities should take immediate action to control the dogs whose depredations have made sheep raising on the farm so difficult a task.

It is equally desirable to increase hog production in this country by means possible. The increase in demand for pork products is no less than for cattle and sheep products. In this matter the expansion of existing herds is essential, and a redistribution of hogs from centers of less feed supplies to those of greater resources is necessary. Furthermore, the raising of pigs by suburban populations and the utilization of home garbage and perishables not otherwise useful is of double advantage to the nation.

The law that we are now operating under as to food control is conceived and administered in a desire to maintain remunerative and stimulative returns to the producer and to enable these products to reach the consumer with only a reasonable profit allowed for services rendered. Therefore, it is the object of the administration to eliminate unnecessary cost between producer and consumer.

Hog Feeding Experiments.

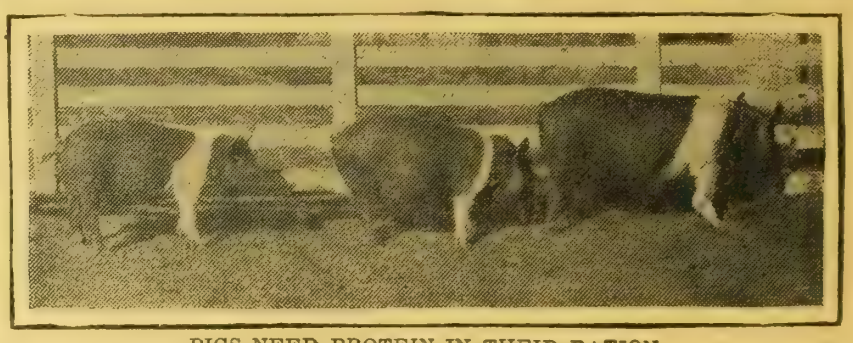
(Continued from page 1.)

Three of the groups received shelled corn and three hominy feed as a basis of their rations. One of the corn-fed groups received tankage in addition; another received a mixture of 25 per cent tankage and 75 per cent oil cake, and the third corn-fed group received tankage and corn oil cake in separate feeders. The same system of feeding tankage and corn oil cake was also employed in the case of the three groups receiving hominy feed as the basis of the ration.

At the end of the feeding period the pigs receiving corn, tankage and corn oil cake in separate feeders showed the best gains, averaging 1.38 pounds daily per head as compared with 1.11 pounds gained by the pigs fed corn and tankage without corn oil cake. When the corn oil cake and tankage were fed in a mixture the average daily gain was 1.22 pounds. Although the gains were better when the oil cake and tankage were fed separately rather than in a mixture, the cost per hundred pounds gain was slightly less when the mixture was fed. In the first case the cost was $13.67, while with the mixture the cost was $13.58. This was due to the fact that the mixture forced the pigs to use more of the cheaper oil cake and less of the expensive tankage. For the group fed corn and tankage without oil cake the cost per hundred pounds gain was $14.44. These costs show the advantage of displacing an expensive feed with a cheaper one.

Among the three groups receiving hominy feed as a basis of the ration, the best gains were made by the group receiving hominy feed and tankage without oil meal. They made an average daily gain per head of 1.23 pounds at a cost per hundred pounds of $14.40. The group receiving hominy feed and a mixture of corn oil cake and tankage gained 1.16 pounds daily per head at a cost per hundred pounds of $14.01. The third group receiving all three feeds in separate feeders made the poorest gain of 1.11 pounds daily at a cost per hundred pounds of $15.32.

The fact that corn oil cake did not produce an increase in gains when fed with hominy feed is due to the fact that hominy feed and corn oil meal have a large percentage of the same ingredients. The oil of the corn kernel lies in the germ largely and hominy feed contains as many corn germs as two and one-half times its weight in shelled corn. Thus both the oil cake and hominy feed are rich in oil and the corn oil cake does not add to a ration anything which the hominy feed lacks. The results of this experiment taken altogether show that corn oil cake is a valuable feed for fattening swine and when fed in a corn, tankage and oil cake ration, appreciably cuts down the consumption of tankage and thereby lowers the cost of producing gain.



PIGS NEED PROTEIN IN THEIR RATION.
The pig on the left received corn gluten feed alone; the pig in the middle, whole corn alone; the pig on the right, corn and tankage. Tankage furnishes protein necessary for growth.

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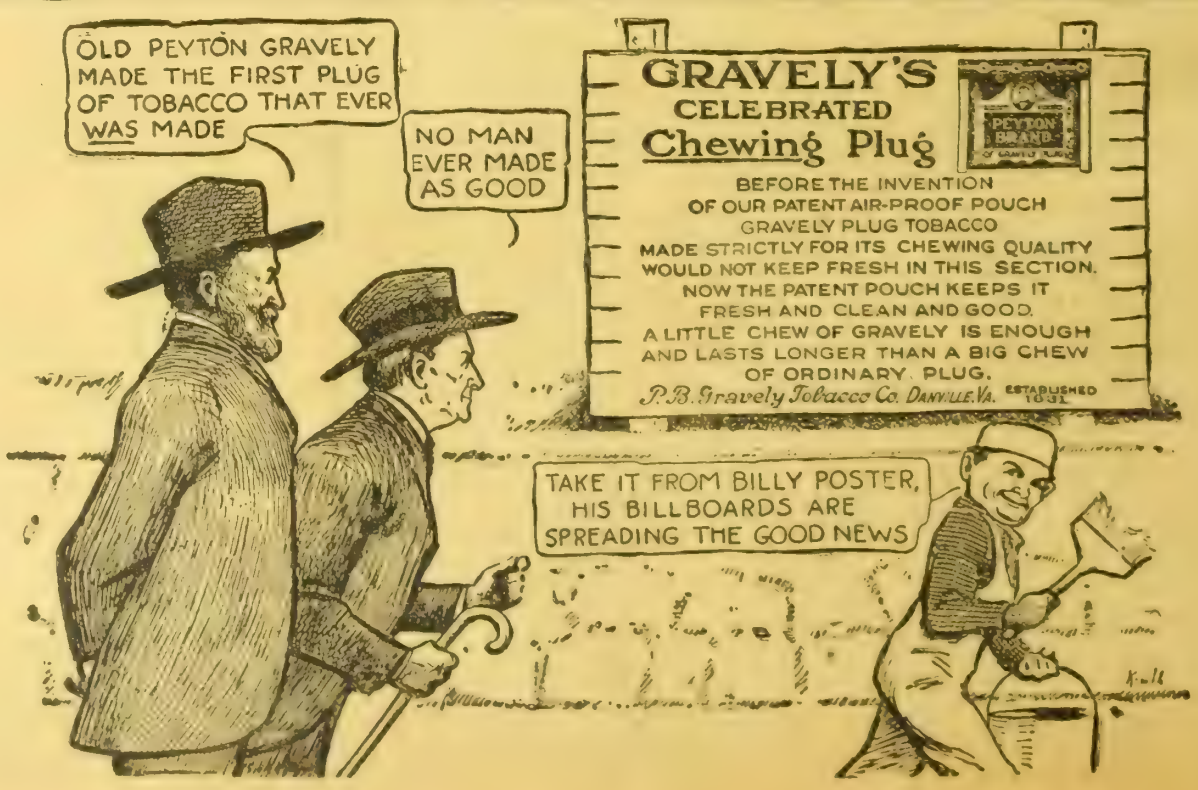


FARM MECHANICS

Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

R. P. M. of Fan.

How many R. P. M. will a fan make on a Model 79 Overland car when traveling at a rate of twenty miles per hour?

Answer.—The fan will run at approximately 1,500 R. P. M.

Reversing a Gas Engine.

Will a Ford magneto generate current when the engine is turned backwards rapidly? Would a reversible gas engine be of any benefit; one that would reverse automatically like a steam engine? What benefit would it be, and has there been any made yet?

Answer.—The Ford magneto should generate as well with the engine running backward as with it running foreward. A gas engine that would reverse when a lever is shifted would find a ready application to tractors and other machinery, including automobiles. We have never heard of such an engine being made. A two-cycle engine may be reversed by changing the position of the spark, but it is necessary to stop and start the engine in order to reverse it.

Care of Storage Batteries in Winter.

I have an auto with a Willard storage battery in it. What should I do with it if I do not use the car next winter? Can I handle it in some way so that I can use it next spring without having it recharged? What is the usual charge for recharging a battery?

Answer.—The easiest way is to leave the battery on the auto. The battery should be fully charged. A fully charged battery will not freeze at 40 degrees below zero if the specific gravity is above 1.240 as it should be. A battery gradually discharges itself; therefore, the battery should be given a small charge at least once a month; and a heavy charge is advisable in the spring just before putting the battery into steady use. Consult your nearest service station as to price for recharging. You can keep your battery in good condition by running your engine idle for an hour or two each month. The battery may be removed from the car and placed in the cellar, but even then it should be fully charged at the beginning and recharged every month.

Front Cylinder Misses.

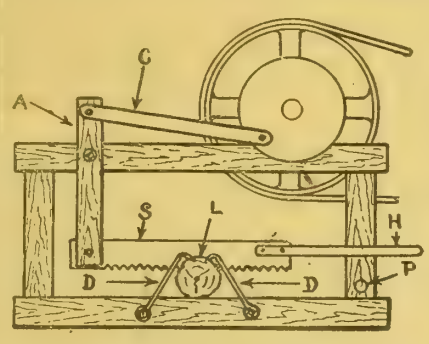
We have a six-cylinder Overland, Model 86, which misses on the front cylinder. It misses when the motor is cold or until the car has been driven for several miles when the weather is not warm, or when driving against a cold wind. The car is equipped with a Model R Schebler carburetor. The spark plugs are kept clean and the spark seems good. I have had the carburetor adjusted by an expert, but that did not help much. The motor pulls fine when warmed up, but sometimes when on an easy pull or after the motor speeds up after climbing a hill it starts to miss unless I close the throttle slightly for an instant. It will throttle up good when idle if the motor is warm, and is very powerful otherwise. I am using low-test gasoline, but why should this cause one cylinder to miss more than another?

Answer.—Any gas engine runs very much better when warm than when cold, as the fuel is more perfectly vaporized. The front cylinder being in the coldest location and far from the carburetor, is most likely to miss. If your trouble is very serious, look for an air leak around the intake valve stem and at the intake manifold gasket of the front cylinder. An air leak at these points could cause the front cylinder to miss without disturbing the others. The spark and carburetor are not to blame, as all the other cylinders would be affected; there might be a defective wire to the front plug or the plug might be cracked. Bad fitting rings in the front cylinder might cause the trouble.

Sawing Wood.

I am trying to figure out how I can arrange a cross cut saw so that I can operate it with my one-horsepower gas engine. If you can offer any suggestions, I would appreciate it very much.

Answer.—The figure shows the general plan of such an outfit, no attempt



being made to go into detail. The figure shows the side of a wooden framework with a log, L, in place. The log is kept from turning by the dogs, DD. The saw, S, is moved back and forth by the rocker arm, A, operated by the pitman, C, from a crank disk of a pump jack or other speed-reducing device mounted on the other end of the framework and driven from the engine. P is a pin projecting from the side of the frame. When the piece is sawed off the handle, H, on the end of the saw rests on the pin, P, and prevents the saw from digging into the ground.

Engine Stops When Hot.

I have a 12-25 Avery two-cylinder tractor equipped with K-W magneto and double bowl Kingston carburetor. I cannot get much work out of it. It starts easily when cold, but hard when warm. When pulling, it hits on both cylinders in perfect unison for about ten minutes; then dies down and stops of its own accord. I have the carburetor adjusted with two turns of the needle valve, both gasoline and kerosene; the motor seeming to work best without smoke or missing in this position. Have had a local repair man, but he cannot locate the trouble. If you can help me through your paper I would much appreciate it.

Answer.—It might be that your fuel becomes too hot before reaching the carburetor. If the fuel becomes hot enough to vaporize before passing through the needle valve it will not feed properly. Some kerosene tractors are having this trouble when operating on gasoline. Another possible cause of your trouble would be oil flooding the spark plugs and short-circuiting the spark. In this case one would expect to see light-colored smoke from the exhaust.

Ford Engine Heats.

I have a Model T Ford car. My engine heats so much that the water boils after I have run a few miles. My gas and spark are O. K. Changing them makes no difference. I have used three kinds of good oil, cleaning out the crankcase each time with a gallon of kerosene. I keep the oil up to the top pet cock. When the engine is hot, it turns over harder than when cold. It has run 800 miles. The engine always runs well except for heating. When hot it works harder. I keep the radiator full, and have cleaned it out. I use oil made for Fords. Any information you can give me will be helpful.

Answer.—Make sure that your fan belt is tight. A loose fan belt is the most common cause of overheating. As your car has run only 800 miles, the most probable cause is a tight bearing. The brakeband of the transmission may be adjusted too tight. To locate a tight bearing, take off the crank case bottom and loosen the bearing bolts one at a time, turning the crankshaft around each time and noting whether or not the loosening of the bolt frees the crankshaft. When the bearing that is causing the trouble is located, remove the bearing cap and put in a very thin brass or copper shim. A piece of thin, tough paper is sometimes used, but paper is not as good as metal, especially for rod bearings. The paper may soak up soft in the oil and wash out. Before putting on the crankcase bottom, examine each nut on the bearing cap and see that the cotterpins are in place and properly turned. To loosen the brakeband, remove the transmission case cover door and turn the adjusting nut to the left. The foot brake should be tight enough to stop the car immediately, but should not drag.

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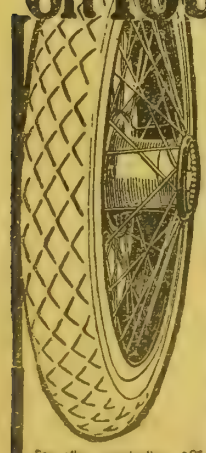

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31x3 1-2	10.65	11.60	2.90
32x3 1-2	11.50	12.95	3.00
34x3 1-2	12.15	13.35	3.55
31x4	14.75	16.60	3.70
32x4	15.05	16.85	3.80
33x4	15.75	17.20	3.90
34x4	16.10	17.55	4.00
35x4	17 00	18.00	4.50
36x4	17.20	18.65	4.30
34x4 1-2	21.65	23.65	4.90
35x4 1-2	22.70	24.70	5.00
36x4 1-2	23.05	25.15	5.15
37x4 1-2	23.95	26.10	5.35
35x5	24 90	27 25	6.05
36x5	27.10	29 60	6.65
37x5	26.40	28.85	6.25

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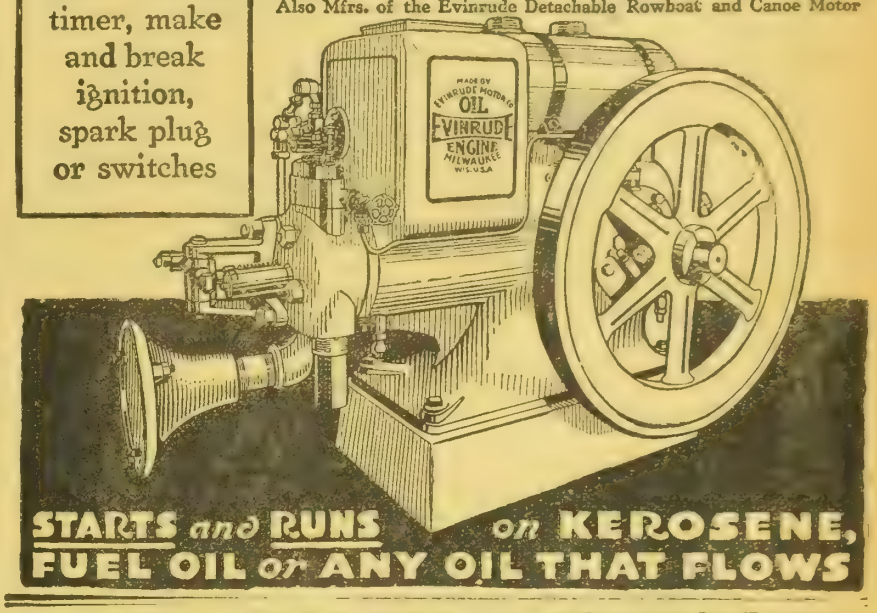

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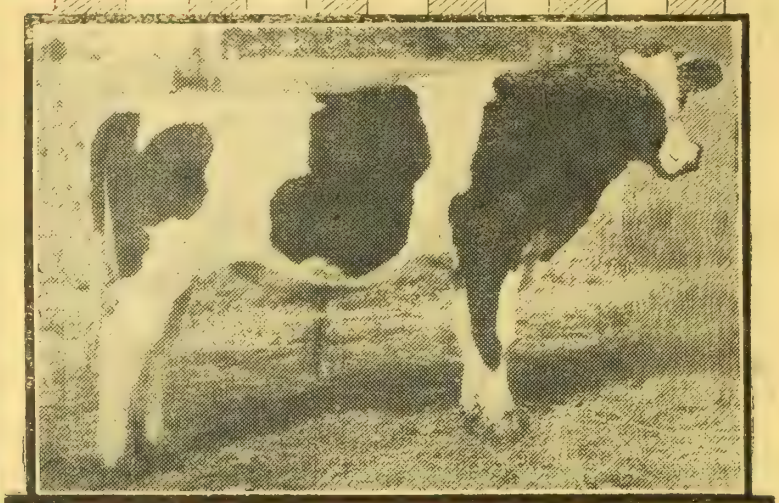
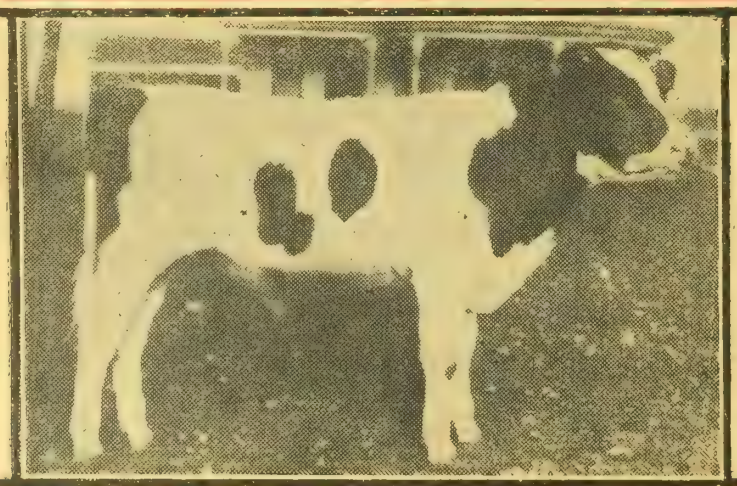


No. 1. Goldthorpe's 32.31-lb. bull. Consigned by John Goldthorpe, Milton Junction, Wis.



No. 2. Rhoda's 28.22-lb. bull. Consigned by Rhoda, Reed & Kruser.

Presents the Greatest Array of
O. Cows, and Heifers With A. R. O.

1 32-lb. Bull 2 31-lb. Bulls

Note the Following Consignments and Field Notices
ALL ANIMALS T

John Goldthorpe — Milton Junction, Wisconsi

See Cut No. 1.

Our 32.31-lb. bull should attract the attention of breeders looking for a hig class sire if individuality, records and breeding count for anything. His sire, Ki Korndyke Veeman Wayne, and dam, Houwtji Vale De Kol (147916), are both sho animals. His dam has made two records above 31.8 lbs. and has few equals as an i dividual. This 32.31-lb. calf is a fine individual, well marked and nearly ready f service. See field note.

Rhoda, Reed and Kruser — Watertown, Wisconsi

See Cuts Nos. 2, 3 and 7.

We are consigning our entire herd, consisting of 50 head, including a 31-lb. f brother of the 31-lb. calf Mr. Pabst is consigning, a 28.22-lb. bull, his dam, t two-year-old daughters of the noted show bull, Oak De Kol Ollie Homestead, 25.33-lb. junior four year old and our herd sire, Pabst Maple Crest King, who dam has over 800 lbs. in a year and 25 lbs. in 7 days. See our field note for mo particulars.

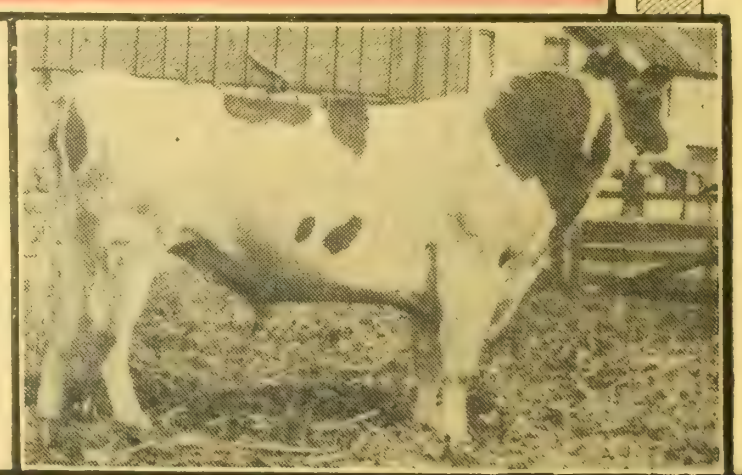
Edwin D. Gibbs — Fox Lake, Wisconsi

See Cut No. 5.

In our consignment you will find animals of show type that are capable of hi production. Lady Oakland, for instance, has been a consistent prize winner a is a granddaughter of Colantha Johanna Lad. See field note for full particula regarding our consignment.

Inter County Holstein Association

FRANCIS DA
Waterto



No. 3. King Pabst Pontiac Hengerveld (129297), born November, 1913. A full brother of Pabst's 31-lb. calf. Consigned by Rhoda, Reed & Kruser, Watertown.

No. 4. Hetts' 27-lb. son of King Segis Pontiac. Consigned by John D. Hetts, Fort Atkinson, Wis.

olstein Sale
own Wisconsin

-Record Bulls, Richly-Bred A. R.
king, Ever Offered By This Ass'n

28-lb. Bull 1 27-lb. Bull

ding the Sale on Pages 18 and 19 of This Issue.
ULIN TESTED

ed Pabst — **Oconomowoc, Wisconsin**

See Cut No. 8.

e are consigning Pabst King Colanthus, a 7-month-old 31.41-lb. bull calf, which e best 30-lb. calf we have yet consigned at public auction. He is an attractive idual sired by King Pontiac Champion (62 A. R. O. daughters), that is by the King of the Pontiacs and out of one of our greatest cows, Pabst Hengerveld nthus, that not only has 31.41 lbs. in 7 days, but 873 lbs. of butter and 20,714 of milk in a year. See our field note.

nn Hetts — **Ft. Atkinson, Wisconsin**
nn Jones — **Milton Junction, Wisconsin**

See Cut No. 4.

e are consigning a 27-lb. son of King Segis Pontiac and 6 heifers sired by na King Repeater (186484), a bull well known by the quality of his get. He rn is by King Segis Pontiac and out of Queen Juliana Dirkje, the former holder e world's yearly record for the production of butter at three and one-half s. These heifers are, therefore, sure to be good producers. See field note.

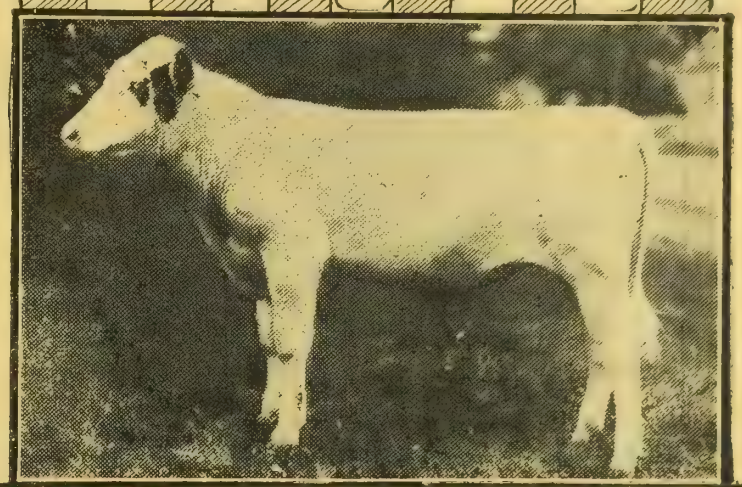
lin Brothers — **Clyman, Wisconsin**

See Cut No. 6.

ne of the best things in our consignment is a two-year-old granddaughter of estead Jr. De Kol and Sir Beets Cornucopia Netherland. She is a splendid idual and is due to freshen about December 1st. See field note for additional mation.

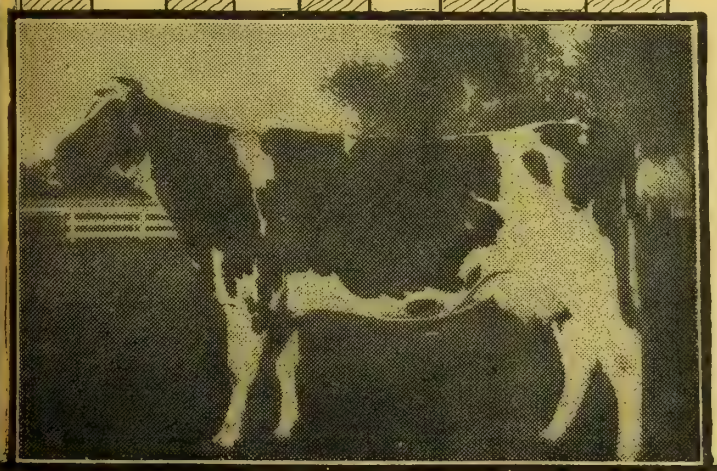
, Secretary
consin

Catalogs Ready October 20, 1917



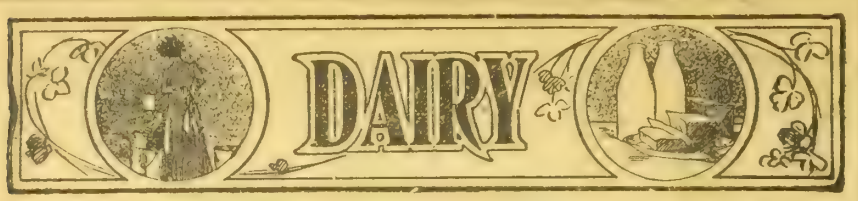
No. 8. Pabst's 31.41-lb. bull. Consigned by Fred Pabst, Oconomowoc, Wis.

No. 7. Rhoda's other daughter of Oak De Kol. Ollie Homestead. Consigned by Rhoda, Reed & Kruser, Watertown, Wis.



No. 5. Gibbs' show cow, Lady Oakland. Consigned by Edwin D. Gibbs, Fox Lake, Wis.

No. 6. Dolin Bros.' two-year-old granddaughter of Homestead Jr. De Kol. Consigned by Dolin Bros., Clyman, Wis.



Co-operative Creameries in Minnesota.

Our neighboring state of Minnesota is developing rapidly in dairying, although as yet it by no means comes up to Wisconsin in total figures. Minnesota, however, according to the latest available statistics compiled by the Minnesota College of Agriculture, has 850 creameries as compared to 835 in Wisconsin. While Minnesota has a few more creameries than Wisconsin, the volume of business per creamery is by no means as large as in this state. Minnesota leads us in the number of coöperative creameries, having, according to the latest available figures, 622 such enterprises, while Wisconsin has only 380. Minnesota has 189 individually owned creameries or creameries owned by stockholders, and thirty-nine centralizers. Freeborn county has twenty-seven coöperative creameries; Otter Tail county has twenty-six; Steele county has twenty-three; Martin county, eighteen; Faribault county, eighteen, and Polk, Stearns and Wright, seventeen each. Dairying is widely distributed in Minnesota and is being developed rapidly in the northwestern portion of the state in what is known as the Red River Valley. In all but eleven counties coöperative creameries produce from 40 to 90 per cent of the total creamery butter made. Minnesota stands first among the states in the number of proprietary creameries, but while 73 per cent of the creameries are coöperative, they make only 61.4 per cent of the total creamery butter. The centralizers do by far the largest business per creamery. Though few in number, they have nearly eight times as many patrons as the coöperative and make nearly seven times as much butter per creamery. The coöperative creameries, however, have an average of 25 per cent more patrons per creamery than the proprietary creamery and make 43 per cent more butter. According to a bulletin recently issued by E. Dana Durand and Frank Robotka, of the agricultural experiment station of the University of Minnesota, the patrons of coöperative creameries have each a slightly greater number of cows than those of the other classes of creameries. The difference in this respect is not nearly so significant as the difference in the number of pounds of butter fat discovered per cow. The lower amount of butter fat delivered per cow under the proprietary and centralizer creameries may be partly explained by the greater tendency of the patrons of these classes of creameries to shift their patronage or to divide it among several creameries, but it is more probably due to superiority of the cows contributing to the coöperative creameries.

In 1914 the cows contributing to the coöperative creameries delivered 7.55 pounds of butter fat per cow more than did those contributing to the proprietary creameries and 8.16 pounds more than those contributing to the centralizers. If this difference be assumed to be due wholly to difference in actual production per cow, then on a basis of 519,785 cows contributing to the coöperative creameries in 1914, this increased product per cow would represent a value of approximately one and a quarter million dollars. When converted into butter this quantity of butter fat would represent a value of $1,835,000.

Apparently the patrons of coöperative creameries take a greater interest in dairying than the patrons of the others. This results not only in the building up of higher-yielding herds, but also in a desire to deliver to their creameries a raw product of higher grade. Naturally the fact of ownership gives the patrons of the coöperative creamery a sense of pride in their association not experienced by those of other creameries. Another factor resulting in the production of a higher grade of raw material by the patrons of coöperative creameries is that they themselves reap the full benefit of the higher price obtained for the higher-grade product. Statistics show that the difference between the amount paid patrons per cow by coöperative creameries as compared with other creameries is relatively greater than the difference in the quantity of butter fat delivered per cow.

Coöperative creameries pay a larger proportion of their gross receipts to patrons than do the others. Of every $100 received, the coöperative creameries pay to their patrons $1.80 more than do the proprietary creameries, and $2.70 more than do the centralizers.

In the running expense per pound of butter made, the coöperative creameries make the most favorable showing, the cost being .11 cent less per pound of butter than that of the proprietary creameries, and .19 cent less than that of the centralizers. It will be observed that the cost of manufacturing is highest for the centralizers. The advantage gained by the centralizers through a more efficient utilization of equipment because of their large output is outweighed mainly by the cost of maintaining receiving stations and transporting the raw material long distances, weaknesses peculiar to this type of organization.

Of considerable interest are the figures regarding the amount retained per pound of butter made by the different classes of creameries. In coöperative creameries this amount represents the total used or set aside for maintenance, reserves, sinking and other funds and surplus. If the creameries run on a profit basis this amount, in addition to the above, also includes profits. The amount thus retained by the coöperative creameries is less than .6 cent per pound of butter made, or approximately $700 per creamery per year. The proprietary creameries retain .87 cent or nearly 50 per cent more per pound than the coöperative creameries. The average per creamery, however, is approximately $725. The centralizers retain nearly 1.1 cents per pound, or more than $9,000 per creamery. It is obvious that the coöperative creameries, by retaining only a relatively small amount per pound of butter for maintenance and reserves, and giving their patrons full benefit of all remaining receipts, are saving the dairy farmers of the state hundreds of thousands of dollars annually.

Of the twenty-six counties having three or more of the two classes of creameries, the coöperative and the proprietary, twenty-two show a higher price paid to patrons for butter fat by the coöperative creameries. The excess varies from .09 cent to 4.38 cents, it being less than 1 cent in nine of the twenty-two counties, from 1 to 2 cents in seven counties and from 2 to 4 cents in six counties. Where the proprietary creameries paid more than the coöperative creameries the excess was less than 1 cent in two of the four counties, and in only one county was it 2 cents or more.

Another Cumulative Record

To the Editor:—Rena Ross 2d, a ten- year-old Ayrshire cow, owned by Highland Farm, Bryn Mawr, Pa., has completed a five-year cumulative advanced registry record.

Beginning her test September 22, 1910, she has produced as follows:

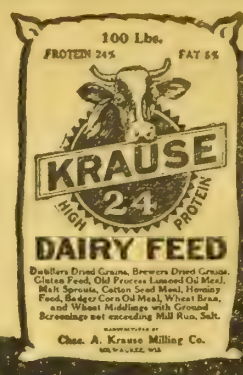
First entry 12,046 pounds milk, 467.80 pounds fat; second entry 12,321 pounds milk, 517.59 pounds fat; third entry 18,849 pounds milk, 713.56 pounds fat; fourth entry 15,411 pounds milk, 612.68 pounds fat; fifth entry 10,703 pounds milk, 411.25 pounds fat.

An average for five cumulative periods of 13,866 pounds milk and 544.57 pounds fat.

Rena Ross 2d is by Finlayston, sire of forty-three daughters in advanced registry, whose average for eighty-six entries is 10,440 pounds milk, 428.14 pounds fat, and out of Rena Ross, one of the greatest cows of the breed, with a record of 15,072 pounds milk and 642.86 pounds fat.

Records like Rena Ross 2d are attracting many new enthusiasts for the breed. J. G. Watson.

Extension Service.



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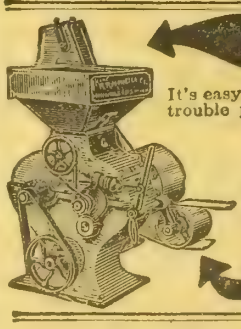
Used by itself or in combination with home grown products, it is a high-grade, big-yield dairy feed on which your herd will thrive and produce to its limit without danger. Safe—sure—profitable. Write at once for sample of KRAUSE DAIRY FEED and handy pocket record book Free. Give name of your dealer.

Chas. A. Krause Milling Co., 3705 Burnham St. Milwaukee, Wisconsin



A Mill The Boys Can Run

It's easy for the boys to save you money grinding your feed with the simple trouble proof, scientifically constructed mill. It's a good job for rainy days.

HOWELL *Roller Feed Mills*

grind twice as fast as the best buhr mills and require only half the gasoline. Will last a life time because there are no buhrs or other parts to wear out. *13 sizes, suitable for any size engine.*

FREE—The Famous Roller Mill Puzzle and complete catalog. Write now.

R.R.HOWELL & CO., 8 Malcolm Ave. S.E., Minneapolis, Minn.

Ailing Animals.

Thin Mane.

Please tell me the quickest way to make a horse's mane grow thick and long.

The growth of a horse's mane may be stimulated by frequent washings with salt water, one even tablespoonful to a pint of soft water.

Tumor.

I have a two-year-old mare colt and several times I have noticed that when she lies down a small bladder-like sack will protrude about the size of a hen's egg. This goes back after she gets up. Also at times it can be seen when she urinates. This colt was somewhat stunted when young, but she does not seem to be sick. I have only worked her lightly. I noticed this trouble first last spring before I broke her. Would it be safe to breed her in the spring?

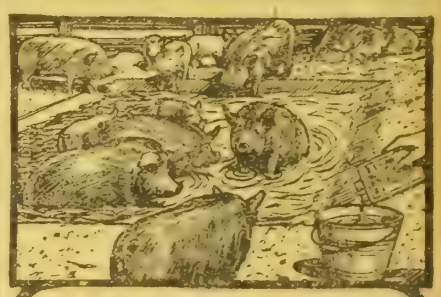
Your mare should have an examination by a veterinarian to determine the nature of the sack or tumor you mention. If only a small sack which can be opened and healed she may be bred without danger. However, have an examination before breeding.

Probably Granulated Eyelids.

I have a coming three-year-old colt which went blind last summer. Last winter his eyes seemed to be swollen. He was put to pasture early in the spring and about the 15th of July was taken out and fed oats and hay. Do wolf teeth cause blindness and would it do any good to have them pulled?

If your colt has been blind for a considerable length of time he will probably never regain his eyesight. If not blind now, with only a swelling of his eyelids, the sight may be retained. If the tear ducts are closed it will require special treatment by a competent veterinarian. If the lids only are swollen and the colt's eyeballs are not affected, his eyes should be bathed once or twice a day with the following: To one pint of hot soft water that has been boiled add as much boric acid as will dissolve. Then to three parts of this solution add one part of boiled soft water. If you do not get results, have a qualified veterinarian examine his eyes. There is no positive proof that wolf teeth cause blindness, yet it is best to have them pulled, for they are of no benefit to the horse and they will not be responsible if the horse goes blind.

"The hero of sheep husbandry is not the breeder of thousand-dollar rams, but the common farmer who answers the nation's appeal and buys twenty or thirty sheep to grow wool that the soldier boys in the trenches may be kept warm. Such farmers," says the American Sheep Breeder, "are patriotic citizens—soldiers for the common good. The shepherd who discourages these farmers and says 'it will not pay' is an enemy to his country and merits the lash of public scorn."



It's Natural for a Hog to Wallow

Here's a good thing to do: Provide a wallow close to the feeding grounds to which add Dr. Hess Dip and Disinfectant. As the hogs pass back and forth from the wallow to the feed trough, the **DIP** will kill the lice and cleanse the skin, while the **DRIP** will destroy the disease germs and the worms that pollute the ground. That will mean a clean, healthy skin, freedom from lice, a safeguard against disease and larger, better porkers.

Dr. HESS & CLARK
Ashland Ohio

DR. HESS DIP and DISINFECTANT

ABSORBINE ***STOPS LAMENESS***

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone, or similar trouble and gets horse going sound. It acts mildly but quickly and good results are lasting. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. $2.00 a bottle delivered. Horse Book 9 M free.

ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful Swellings, Enlarged Glands, Wens, Bruises, Varicose Veins; heals Sores. Allays Pain. Will tell you more if you write. $1 and $2 a bottle at dealers or delivered. Liberal trial bottle for 10c stamps.

W. F. YOUNG, P.D.F., 101 Temple St., Springfield, Mass.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

"As Ye Would."

If I should see
A brother languishing in sore distress,
And I should turn and leave him comfortless,
When I might be
A messenger of hope and happiness—
How could I ask to have what I denied
In my own hour of bitterness supplied?

If I might share
A brother's load along the dusty way,
And I should turn and walk along that day,
How could I dare,
When in the evening watch I knelt to pray,
To ask for help to bear my pain and loss,
If I had heeded not my brother's cross?

If I might sing,
A little song to cheer a fainting heart,
And I should seal my lips and sit apart,
When I might bring
A bit of sunshine for life's ache and smart—
How could I hope to have my grief relieved,
If I kept silent when my brother grieved?

And so I know
That day is lost wherein I fail to lend
A helping hand to some wayfaring friend;
But if it show
A burden lightened by the cheer I sent,
Then do I hold the golden hours well spent,
And lay me down to sleep in sweet content.

—The Christian Advocate.

Destroy the Crickets.

Black crickets which at this time of the year find their way into houses and storerooms are the enemy of curtains, rugs and clothing. So diligent are these pests in their work of destruction that they will ruin a garment in a single night.

The first chirp of a cricket that reaches the ears of the careful housewife should be a warning to her to find some means of destroying him and his fellows. The most effective method of doing this, particularly if the crickets are numerous, is to use a poisoned bait made of one pound of bran, one ounce of Paris green, three ounces of sirup, one-fourth of an orange, including the peeling, and one and one-half parts of water.

Mix the bran and Paris green thoroughly in a pan while dry. Squeeze the juice of the orange into the water and chop the remaining pulp and peel to fine bits and add them to the water. Dissolve the sirup in the water and wet the bran and poison with the mixture, stirring thoroughly so as to dampen the mash throughout.

Small amounts of the damp mash should be put in shallow pans or dishes and placed in the closets, behind or under heavy pieces of furniture, or any place frequented by crickets. In basements and cellars small portions of the mash may be placed behind boxes, under shelves and in the corners. The mash in the dishes should be kept moist by adding a little water and stirring, but it should not be sloppy. The crickets work mostly at night and, therefore, the poisoned mash should be distributed in the evening.

Uncooked vegetables, such as chopped carrots or potatoes, also make good cricket bait when strongly poisoned with arsenic or Paris green and distributed in the same manner as the bran mash.

Care should be exercised in the use of these poisoned baits, particularly if there are children in the house. If the bait is used in rooms which are in constant use it is a good plan to put the bait in place in the evening after the family has retired for the night and gather it up the first thing in the morning, so that there will be no danger of little fingers finding their way to the poison.

Value of the Country Church to the Community.

Hope, optimism, the silver lining to every cloud, form an aspect of church doctrine which no other agency has so consistently presented. In the midst of a hard, grinding occupation, filled with tyrannic necessities, the gracious interpretations of life through the rural church bring constant spiritual recuperation for the community from its ills, menaces, disasters and defeats. This realization of safety in the turmoil of work and disappointment is an achievement of community value.

The country church socializes the children from all the homes of the parish, not to mention the other members of the family. This is a great service to the country community to have provided a wholesome means of getting acquainted. The family in its little circle around the dining table and in the kitchen brings each child to know intimately two adults and several children—an invaluable apprenticeship to society; but these children need to know many other children from other types of homes, and the neighborhood church along with the neighborhood types is the means. Under auspices of good supervision, through the sacred stories of the race handed down in Bible literature, this acquaintance takes place.

The personality and talents of children and youths are developed in this process. A laboratory of life and varied accomplishment is furnished in the peculiar avenues of church organization. The symbolism of the church is a subtle education in itself, touching upon those relationships in life which are too delicate and sensitive for bald definition and crude instruction.

The pastor or priest is a community leader and interpreter of relationships between man and man, neighbor and neighbor. He is student of human life from the dim past to the present. He is the recognized community psychologist and sociologist. In this important role of an interpreter of life to the people of his parish, a resident pastor living among his people, year in and year out, knowing the locality, its land and its problems, gains an advantage of intimacy and confidence which no visitor or itinerant can develop, however brilliant he may be. The opportunity of knowing the minds and souls of his parishioners through a course of years, by close contact and studious observation, family by family, child by child, is a value hard to overestimate. The pastor can thus intelligently adjust his counsel to the individual from the point of view of both the family and the community.

In social movements of a public nature, the country clergyman is looked to for social wisdom. It is his social instinct and historic sense which helps select the worthy enterprise and pass up the futile. His enthusiasm for human values in life is a social force among a people whose economic occupations by necessity are intensely engrossing. Literature, reading, music, debate, discussion, play, sports, politics, government, in their manifold aspects touch the minister's professional career, just because he is a specialist on all the intricate relations of persons in the whole circle of living. Only by daily contact as a pastor, passing from home to home, touching soul after soul, shepherding his flock one by one, can the country clergyman reach a high standard of social influence. Mass movements in the country occupy a secondary place, a fact which handicaps the circuit-riding country preacher.

When, therefore, a country parish has no resident clergyman as pastor or priest, it loses nearly all the possible community values of a church leader. No stranger can fill his place. No touch-and-go ministrations can make up the lack. There doubtless are accumulating in our farm population, which is roughly about 35 per cent of our total American population, social losses due to the rural absentee pastor system.—[Bulletin.

Uncle Sam Tells How.

If summer fruits have stained your table linen, if Johnny upset the ink on your best rug, if your new black silk has acquired a grease spot, if Nancy's apron or Billy's blouse has met with an accident, let Uncle Sam tell you what to do. The United States Department of Agriculture has just issued a bulletin outlining methods for the removal of practically any kind of stain.

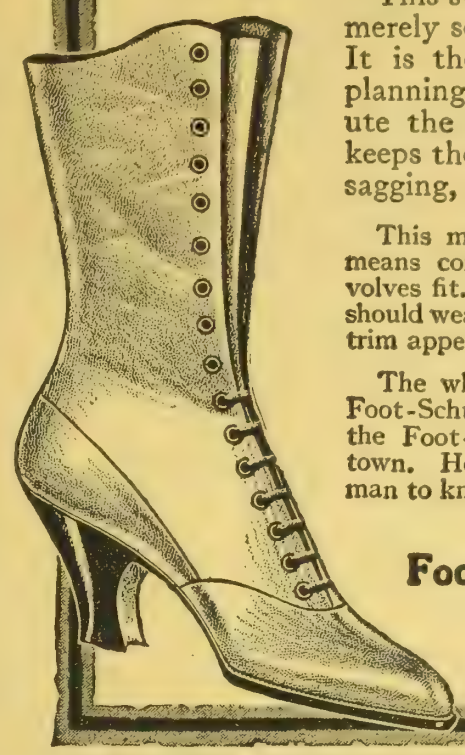
According to this bulletin, one of the first requisites in removing a stain is to know the kind of fabric which is spotted and, if possible, the nature of the stain. Some stain removers will give excellent results when applied to cotton or linen, but will prove unsatisfactory or even disastrous when used on silk or wool. Treatment which will remove certain kinds of stains immediately may cause other kinds of stains to become set.

Another important point in removing stains is to work while the stain is fresh. Cold or lukewarm water is usually the housewife's best bet for a first step, says this bulletin, if the nature of the stain is not known and if the fabric is not injured by water. Hot water should not be used until it

Foot, Schulze & Co. Saint Paul
THIS MARK ON THE SOLE DENOTES QUALITY

Style Life

Style in Foot-Schulze Shoes is more than merely on the surface. It is built in. It has staying power. It is long-lived. It is there as long as the shoes last.



This style endurance is not merely sound materials alone. It is the result of scientific planning of lasts which distribute the strain evenly. This keeps them from losing shape, sagging, running down.

This method of building shoes means comfort, too. For it involves fit. Shoes that fit as they should wear longest and retain their trim appearance.

The whole family should wear Foot-Schulze Footwear. Go to the Foot-Schulze dealer in your town. He's easy to find; a good man to know.

Foot, Schulze & Co.
Saint Paul

A Match-Lighting Gasoline Lamp!

Here it is—a match-lighting gasoline lamp! No torch needed. Lights with matches like the old time oil lamp—but makes and burns its own gas from common gasoline, giving a remarkably brilliant, steady, white light of

300 CANDLE POWER

more than 20 oil lamps. Far brighter than the brightest electric light and costs less than one-third of a cent per hour. Thirty times cheaper than electricity. Safer than the safest oil lamp. Cheaper than the cheapest candles.

Guaranteed Five Years
Will Last a Lifetime

The Coleman Quick-Lite

Safest lamp in the world—Absolutely no danger of fire or explosion. Fuel can't spill—no danger if tipped over. No wicks to trim—No globes to wash. No dirt, grease, smoke or soot.

The Quick-Lite Lantern

—fit companion to the Quick-Lite Lamp. Storm-proof, wind-proof, bug-proof. Absolutely safe. Can't explode. Roll it over in straw—no danger. Most powerful and most convenient light for farm or home use known. Ask your dealer about it.

Get the Genuine

Success invites imitations. Be careful, therefore to get the genuine Coleman Quick-Lite Lamps and Lanterns. If your dealer can't supply you write us direct, addressing nearest office for Catalog No. 28.

COLEMAN LAMP CO.
ST. PAUL, WICHITA, TOLEDO, DALLAS, CHICAGO.

$615 for this FIVE ROOM NATIONAL HOME

"National Homes are Practical Homes"

THE price of the above attractive and conveniently arranged home includes lumber, lath, shingles, doors, windows, nails, paint, tin work, hardware, building paper, plans and specifications. No extras. Pay in full when satisfied. 4 cents brings BIG PLAN BOOK. You buy direct from the

NATIONAL HOME BUILDING CO.
122 Citizens Bank Bldg., PORTLAND, OREGON

Bovee's Pipeless Furnaces

Sold at Manufacturer's Prices

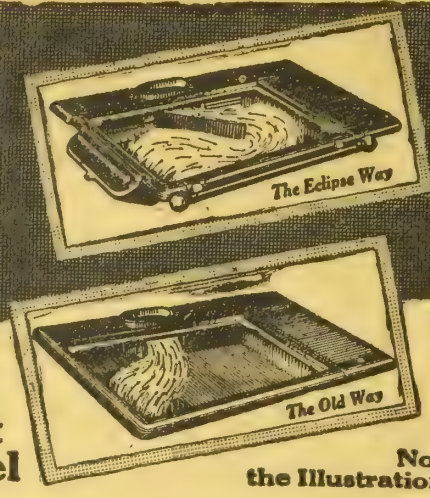
The most practical heating plant used. Twenty years on the market. Saves 40 per cent on cost and 40 per cent on fuel. We manufacture five sizes suitable to heat from a small cottage to a large church, including our old reliable No. 40 Pipeless with 28-inch combustion chamber and all fittings, for

$86.00

Easy to install in an old or a new house. No cutting of walls. Cool basement. We also furnish regular piped furnaces and fittings when required. Save big money by getting our free catalog.

BOVEE FURNACE WORKS
204 W. 8th St. Waterloo, Iowa

Cook All Over the Top

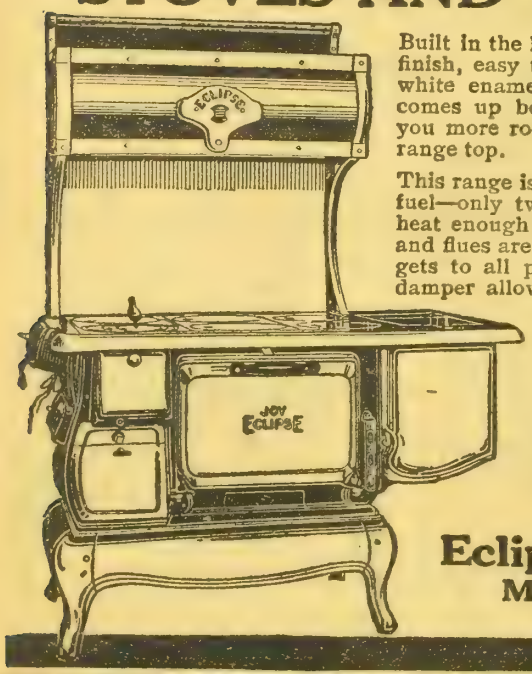


Get More Heat From Your Fuel

Note the Illustrations

THE ECLIPSE JOY RANGE sends heat under all cooking holes. Gives you a *hot top* with a *cool oven*. Saves money in fuel because you get *all the heat from all the fuel*. And this is just one of the *many* features in this popular style from our line of

ECLIPSE
STOVES AND RANGES



Built in the latest, popular design. Smooth finish, easy to keep clean; with or without white enamel splasher back. Smoke pipe comes up behind the splasher back—gives you more room for cooking utensils on the range top.

This range is a wonderful baker. Burns any fuel—only two sticks of wood will supply heat enough for average baking. Fire box and flues are balanced just right; even heat gets to all parts of the big oven. Sliding damper allows perfect control of the oven.

Eclipse Ranges are guaranteed never to rust out and are slow to wear out.

We have a book of practical recipes, giving many helpful suggestions for getting up meals at low cost. Write today for FREE copy.

Eclipse Stove Co.
Mansfield, Ohio

INDOOR TOILET
Placed in Your Home
Sanitary and Odorless on ten days
FREE TRIAL
No Money Down—No Deposit

ODORLESS

No more outside back yard inconveniences. No chambers to empty. No sewer or cesspool. Chemical process dissolves human waste in water. No trouble. Kills disease germs. Prevents flies, filth and bad odors of outhouse. A real necessity for old, young or invalids. Preserves health.

Costs 1 Cent a Week to Operate per Person.

Place in any room, hall or closet. No trouble to install. Guaranteed sanitary and odorless. Endorsed by thousands of users, doctors, sanitary experts, health boards, etc. Send today for free trial offer and literature.

KAWNEAR CABINET CO
556 Kawnear Bldg., Kansas City, Mo.

THE ORIGINAL CHEMICAL Indoor Closet
30,000 SOLD—FIFTH YEAR
More Comfortable, Healthful, Convenient

Eliminates the out-house, open vault and cess-pool, which are breeding places for germs. Have a warm, sanitary, odorless toilet right in your house. No going out in cold weather. A boon to invalids. Endorsed by State Boards of Health.

ABSOLUTELY ODORLESS
Put It Anywhere In The House

The germs are killed by a chemical process in water in the container. Empty once a month. No more trouble to empty than ashes. Closet absolutely guaranteed. Guarantee on file in the office of this publication. Ask for catalog and price

HOWE SANITARY MFG. CO. 11510 6th ST., DETROIT, MICH.
Ask about the Ro-San Washstand—Hot and Cold Running Water Without Plumbing

POTATOES WANTED. Write what you have to offer. C. C. Clemons Produce Co., 128 Grand Ave., Kansas City, Mo.

New KEROSENE LIGHT FREE
BEATS ELECTRIC or GASOLINE

Here's your opportunity to get the wonderful new Aladdin Kerosene Mantle light **FREE**. Write quick for particulars. This great free offer will be withdrawn as soon as some distributor starts work in your neighborhood. You only need show the Aladdin to a few friends and neighbors; they will want one. We give you years free for this help. Takes very little time, and no investment. Costs nothing to try it.

Burns 50 Hours on One Gallon

common kerosene (coal oil), no odor, smoke or noise, simple, no pumping up, no pressure, won't explode. Tests by U. S. Government and thirty-five leading universities show the Aladdin gives three times as much light as best round wick flame lamps. Won Gold Medal at Panama Exposition. Over three million people already enjoying this powerful, white, steady light, nearest to sunlight. Guaranteed. And think of it—you can get it without paying and a cent. All charges prepaid. Ask for our 10-day Free Trial Offer and learn how to get one free.

AGENTS WANTED

MANTLE LAMP COMPANY, 380 Aladdin Building, CHICAGO, ILL.
Largest Kerosene (Coal Oil) Mantle Lamp House in the World

is determined that the staining material is such that it will not be set by heat. Stains from meat juice, blood, egg, milk and other materials containing protein are set by hot water.

If the stains are of such a nature that they will not yield to laundering or sponging with water or with water and soap, it is necessary to use one or more of a number of chemicals. Besides water and soap the bulletin names as the substance most useful in removing stains, Javelle water, potassium permanganate solution, oxalic acid solution, ammonia water, carbon tetrachlorid, French chalk and cream of tartar, each of which may be used successfully, provided the right one is used at the right time.

Specific instructions for removing various stains are contained in this bulletin and anyone who has ever undertaken a task of this kind will readily see what an immense help such directions would be. Write to the United States Department of Agriculture, Washington, D. C., and ask for Farmers' Bulletin 861 on "The Removal of Stains From Clothing and Other Textiles."

Food Pledge Week.

Food Pledge Week, when all women over the age of sixteen will be asked to sign a pledge in the interest of food conservation, has been postponed until the week beginning October 28th, this for the reason that the dates formerly set, October 21st to 28th, conflicted with the final Liberty Loan week. This postponement will give those in charge of the arrangements another week in which to perfect their plans and it is hoped that not a farm home in the whole Central West will be missed in the canvass and that every woman in every home will respond to the call.

All letters from boys and girls to this department should be sent to office of The Wisconsin Farmer, Madison, Wisconsin.

The Dancing Shoes.

Dear Young Folks:—This is my first letter to you. I like to read your letters. I have three sisters and four brothers. Three of my brothers and one sister go to school. I am fourteen years old and in the eighth grade. I like fairy stories and I am going to tell you my favorite, The Dancing Shoes.

A king once had twelve daughters, and one was just as beautiful as another. These twelve beautiful daughters all slept in the large hall of the castle, where their beds stood side by side. Every night the door to the hall was locked and bolted by the king himself.

Now each princess had a pair of dancing shoes which were to be worn when they gave a ball; but it happened that no matter how many new pairs of dancing shoes he gave them, the next morning when he unlocked the door he found the shoes all worn out and full of holes.

There was not a wise man in the kingdom who could think how it happened, for all the windows and doors were so carefully bolted that no one could get in or out of the castle.

At last the king said that whoever would find where his daughters went in the night to dance and how they got out of the room, should have one for his wife. But the king also said that if anyone tried for three nights and then could not tell the secret of the worn-out shoes, he should give up his life. It was not long before a prince came to the kingdom who wished to try out the secret.

That night the young prince was placed in a room near the hall where the maidens slept, and a door was left open so that he could follow them if they should go away to dance.

As soon as the prince lay down it seemed as if lead had been placed on his eyelids. He could not keep awake, and the next morning the dancing shoes were worn out the same as before. The second and third nights the same thing happened, and then the prince was put to death without the least pity.

Now it happened that a poor soldier, who had been wounded and could not serve any longer in the army, was on his way to the town where the king and his daughters lived, when he met an old woman.

"Why are you going to the town?" she asked.

"I don't know," he answered, "but if I have no better luck, I may try to find out the secret of the king's daughters."

"That is not so very hard," said the old woman. "All you have to do is to keep awake, and if you do not drink the wine which they will try to give you, you will have no trouble."

Then, taking a little cloak from under her shawl, she said: "Here, I will give you this cloak, for I have no use for it. When you throw it over your shoulders it will make you invisible. By its aid you can follow the girls as they go to dance."

Her good wishes gave the soldier courage. He went before the king and told him he should like to try to find out the secret.

The soldier, in the evening, at bedtime, was led to the little room. When the king's daughters went to bed the eldest brought to him a goblet of wine; but the soldier had tied a sponge under his chin, so that the wine all ran into the sponge. Then he lay down, and after a little while he began to snore as if he were asleep.

When the twelve sisters heard him snoring they began to put on their beautiful dresses and dance for joy, all except the youngest, who said, "I don't know why it is, but I feel as though something were going to happen."

When the girls were all ready, the eldest went up to her bed and struck it gently. It began to go down until a flight of stairs was seen leading into the darkness.

All the girls went down one by one, and the soldier jumped out of bed and threw his cloak over his shoulders. Going down the stairs he trod on the dress of the youngest sister. She cried aloud, "What was that? Who was pulling my dress?"

"Don't be foolish," said the eldest princess, "your dress caught on a hook."

At the bottom of the stairs there was a green field, with a road running through it, with trees on both sides with silver leaves. The soldier broke off a branch to show the king. When the youngest girl heard the noise she said that there was something wrong, but all the rest of them called her foolish.

Farther on they came to trees with leaves of gold and then trees with leaves of diamonds. The soldier broke off a branch of each. Each time the youngest said that she was afraid, but the rest of the girls said it was a gun firing in their honor at the palace.

Before long they came to a lake, where there were twelve little boats, and in each boat sat a prince. As the maidens came up they took seats in the boats.

Now the soldier, unseen, took a seat in the boat with the youngest princess. As they rowed away the prince said, "I do not see why this boat rows so hard; I cannot keep up with the rest."

"Perhaps you are not so strong as they," answered the princess.

The soldier saw on the other side of the lake a castle, bright with lights, and he heard sweet music coming over the water. When all had landed they went to the ballroom, where the maidens danced with life and spirit. The soldier danced among them, unseen.

The maidens danced and danced till their shoes were quite worn out, then they were rowed again over the lake, the soldier going with them, unseen, as before.

As soon as they reached the shore the soldier ran up the stairway and jumped into bed. When the girls came up the stairs they heard him snoring very loudly, and the eldest said, "At least there is no longer danger from him."

On the second and third nights he went with them, and each night they danced until their shoes were worn out. On the third night he took a golden cup as proof of what he had seen.

The next morning he showed the king the branches and the cup and told his story. When the king had heard the story he sent for his daughters. The daughters said what the soldier said was true. The king asked the soldier which one of the twelve princesses he wanted for his wife, and the soldier answered, "As I am no longer young, I will take your eldest daughter."

So they were married and when her father died the soldier became ruler over the whole kingdom. Elsie.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Enclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

2254—A simple style for the little girl. The pattern is cut in 5 sizes: 2, 3, 4, 5 and 6 years. Size 4 requires 3⅛ yards of 36-inch material.

2238—Dress with bolero and with sleeve in either of two lengths, for misses and small women. The pattern is cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 6¼ yards for the skirt and bolero and 2⅝ yards for the waist, of 24-inch material.

Waist 2244-Skirt 2243—A stylish dress for afternoon or business. The skirt pattern 2243 is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. The waist pattern 2244 is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 2⅝ yards of 44-inch material for the waist, and 3¾ yards of 44-inch material for a 24-inch size for the skirt. Two separate patterns, 10 cents each.

2249—A simple coat and cap for the little one. The pattern includes coat and cap. It is in 4 sizes: 1, 2, 3 and 4 years. Size 2 requires 2 yards of 36-inch material for the coat and ⅝ yard for the cap.

1947—Ladies' house dress, with sleeve in either of two lengths. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅞ yards of 36-inch material for a 36-inch size.

1917—Ladies' dressing or house sack. The pockets may be omitted. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3 yards of 44-inch material for a 36-inch size.

2003—Ladies' dress. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 7¾ yards of 36-inch material for a 36-inch size.

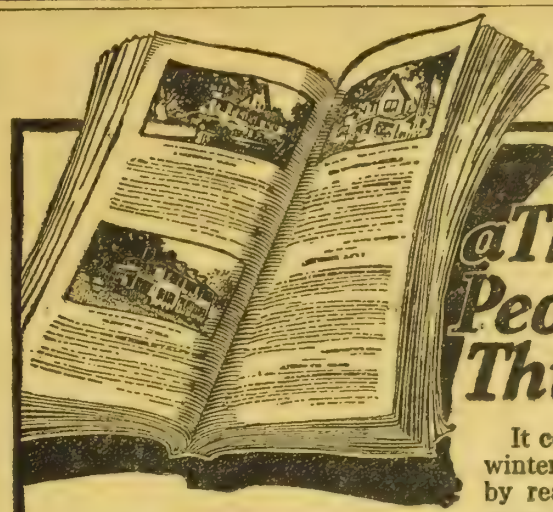
2237—A popular model. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 5½ yards of 44-inch material.

1793—A neat dress for mother's girl. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 3¾ yards of 44-inch material for a 12-year size.

1149—Children's night drawers, with gathered or straight lower edge, with long or short sleeve, and with either of two styles of neck finish. The pattern is cut in 5 sizes: 2, 4, 6, 8 and 10 years. It requires 3½ yards of 36-inch material for an 8-year size.

2236—Girls' blouse dress, with two styles of sleeve. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. It requires 4½ yards of 44-inch material for a 12-year size.

2248—Ladies' house gown or lounging robe. The pattern is cut in 4 sizes. Small, 32 and 34 inches bust; medium, 36 and 38; large, 40 and 42; and extra large, 44 and 46 inches. Size medium requires 7 yards of 36-inch material.



Over a Thousand People Wrote This Book

It contains a rare story of winter discomfort succeeded by real comfort; of big fuel expenditures cut down from 35% to 50%; of unusual conveniences made possible in old or new houses, churches, halls and business blocks.

When you consider the question of heating your home this fall, you should have it before you. It's the simple stories of people who have solved that question to their complete satisfaction by installing the

PIPELESS CALORIC FURNACE

The Original Patented Pipeless Furnace

They put in this furnace because of these remarkable guaranteed advantages:

1. Only one register is needed; no pipes in walls or basement.
2. It will heat your house comfortably and evenly.
3. The cellar will be cool enough to store fruits and vegetables all winter.
4. It will save you 35% of your fuel bill--some say more.
5. The firepot is guaranteed for five years.
6. It will burn any fuel.
7. Its heating principle is both scientific and healthful.

MEETS ALL CONDITIONS

The Caloric Pipeless Furnace meets all these conditions fairly and squarely. It is guaranteed by the oldest and largest manufacturer of warm air heating systems in the United States.

We want you to see this book, together with our "Progress" booklet, which describes the principle of Caloric heating. Ask your dealer, or write to us direct, and we will send you a copy of both by return mail.

The Monitor Stove & Range Co.
2535 Gest St. Cincinnati, Ohio

International Sunday School Lesson

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)

Lesson for October 28, 1917.

Ezra Returning From Babylon.

LESSON TEXT—Ezra 8:15-36.

GOLDEN TEXT—The hand of our God is upon all them for good that seek him.—Ezra 8:22.

An interval of some fifty years intervenes between the dedication of the temple and the journey of Ezra to Palestine. Some stirring events in the world occurred in this time which greatly helped the Jews. It was during this time that the episode of Esther's being made queen and the elevation of Mordecai occurred, which favorably disposed the Persian government tow rd the Jews. The time was auspicious for Ezra to make his request unto Artaxerxes. The supreme aim of Ezra was the restoration of the true worship of Jehovah, for it is evident that the work done by Zerubbabel had largely failed of its aim. In order that Ezra might be an efficient instrument in the hands of God for the accomplishment of this purpose, he "prepared his heart to seek the law of the Lord and to do it, and to teach in Israel the satutes and judgments" (7:10). There are three stages in the experience of every true teacher. First: to seek the law of the Lord. Second: to do it. Third: to teach it to others. The last is impossible without the first two.

The royal commission granted to Ezra embraced—

(1) The return of all whose free will prompted them to do so (7:13).

(2) Ezra's being given magisterial authority over the district "beyond the river" (7:25, 26).

(3) Exemption from taxation to the Levites (7:24).

(4) Conveyance of offerings from the king and his officers (7:15, 19).

I. Register of Ezra's Companions (1-14). Doubtless this is a representative list of those who joined Ezra. There is clear implication that the twelve tribes are represented among those who returned. (See 2:70; 6:16, 17.)

II. Ezra Sends to Iddo for Ministers for the Temple Service (vv. 15-20). Before the journey to Palestine was actually begun, Ezra gathered about him his companions who were to accompany him, to see whether they were representative. In this review he discovered that none of the sons of Levi were in the company. So he sent chief men to Iddo, who was doubtless the president of the school of the Levites, for ministers for God's house. In response to this appeal, 38 Levites and 220 Nethinims joined him.

III. Ezra Seeking the Guidance of the Lord (vv. 21-23). The journey was full of deadly perils. It lay through a region infested with Bedouin marauders. Ezra, fully conscious of these, and ashamed to ask help of the king, proclaimed a fast, in which in deep humiliation they sought the guidance and protection of God. This is a fine illustration of the independence, and yet dependence, of the men who fully trust God. His chief concern was for the honor of God's name. He had so confidently and repeatedly spoken to the king of the divine sufficiency that now to have asked for a guard of soldiers would cause him to blush with shame. In this critical hour they committed themselves to the care of Him who keepeth Israel. We should begin every journey, every undertaking, every new piece of work, every new day by seeking the direction of God. No friendship or business interest ever reaches its best unless God's hand be in it and upon it. We should not go anywhere, engage in any business or have any friendship upon which we may not ask God's blessing and aid. They sought this for themselves, for their children, and all their substance. They knew that as soon as they made God first his blessing would be upon them, and as soon as they forsook him his power would be withdrawn and his wrath would be upon them.

IV. The Treasure Committed to Twelve Priests (vv. 24-30). Combined with their faith in God, we find practical business sense. Honest, trustworthy, good men were selected (v. 28). To such only should be intrusted the Lord's money—gifts offered freely to the Lord by his people. Again, the money was carefully counted and weighed, and the amount set down. The men were held accountable at the end of the journey for everything intrusted to them. Men ought to be held to strict account for everything intrusted to them, to the very last cent. The men to whom this was intrusted were holy; the gifts were God's; they did not belong to any man; they were charged with the obligation to deliver these gifts before the chief priests.

V. The Safe Arrival at Jerusalem (vv. 31-36). The journey lasted four months. They carried with them millions of dollars' worth of treasure, through a region infested with marauding Bedouins, yet God delivered them from their hands. At the end of the journey they testified to the faithfulness of God in bringing them safely on (v. 31). The safe arrival at the end of each day's journey is due to the good hand of our God upon us. After resting three days, the treasure was brought into the temple and burnt offerings were made before the Lord Jehovah.

SUGAR 4c a Lb

Save from 30 to 50% on all your groceries by buying direct from us at wholesale prices. Cut out middlemen's profits. We guarantee quality absolutely. Write today.

Consumers Wholesale Grocery Co., Dept. 200, Chicago, Ill.

The ideal shoe should conform to the shape of the foot. It should be snug in the heel, broad in the toes, should fit well over the instep, have a flat, supple sole. The heel should be low and broad to serve as a base for the body.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

80 ACRES with stock and crop, only $6,000. New, attractive buildings in grove, silo, beautifully located on shore little lake. Nearly 40 acres field, few acres hardwood timber, rest all cleared. Heavy, productive soil and good surface. Only half mile school, 3 to inland town, 5 to railroad town with high school. TO INCLUDE HEAVY TEAM MARES, 6 YOUNG COWS, team colts, 3 heifers, 2 hogs, 40 full-blood Plymouth Rocks, crop, machinery, etc. Fine neighborhood. In hardwood timbered belt of Polk county, Wis., only 60 miles Twin Cities. Send for list personal property and complete description. Baker, D110, St. Croix Falls, Wis.

BE YOUR OWN BOSS—Get a farm home in rich corn and clover belt along new Soo Line, 50 miles St. Paul-Minneapolis. Landseekers all say, "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region, too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools, creameries everywhere. Prices $15 per acre and up, improved or wild, easy terms. MAP AND LIST FREE. Baker, N-110, St. Croix Falls, Wis.

REAL SNAPS—160-acre farm with good buildings and $3,000 worth of timber, 2½ miles from town, $6,000; 80-acre farm with stock, crop and all, $3,200; 80-acre farm with large clearing, $2,500; 40-acre farm with small clearing and buildings, $700; cut-over land, $10 to $20 per acre. Write for details to the E. L. C. Co., E-M., Dept. 10, Merrill, Wis.

GREAT CHANCE—$1,100 will handle 40, only 3 miles station, at snap price of $3,100. New 7-room house, 16x72 chicken house, barn, granary, corn crib, etc. About 18 acres field, 10 cleared. Fine clay loam soil. A REAL BARGAIN. COME AT ONCE. Baker, H-110, St. Croix Falls, Wis.

FOR SALE—4,000 acres cutover land just north of Two Harbors, Minn.; good agricultural land; 2 railroads and automobile road through it, $6 per acre; adjoining land retailing at $15 per acre. Description furnished to parties who mean business. L. W. Tulleys, Council Bluffs, Iowa.

WANTED—Offers on my timber lands in Carroll county, Arkansas. I have about 5,000 acres. Can be had in quantities to suit purchaser. Apply at once. D. T. Parsons, Eureka Springs, Ark.

80 ACRES, 2½ miles south of Warrens, best clay soil, good buildings, good orchard, price $6,000, easy terms. Fine old settled neighborhood. J. H. Alexander, Warrens, Wis.

40 OR 80 SUGAR MAPLE LAND—Timber will more than pay for it. Close to growing towns. Finest soil, $15 to $25 per acre. Small payment down. F. M. Doyle, Ladysmith, Wis.

$100 DOWN—Installment payments if desired. Fine 33, only $700. Level, good soil, 10 acres nearly ready to plow. Write or come. Baker, I-110, St. Croix Falls, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—110-acre agricultural stock farm, near St. Paul, into Wisconsin. Particulars. Write owner, Box 231, Botineau, N. D.

THREE GOOD FARMS FOR SALE—Write Chas. R. Setzkorn, cashier, Dairyman's State Bank, Arpin, Wis.

WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

KODAK FINISHING.

KODAK FINISHING—Let experts finish what your kodak began. We finish one roll (only) six exposure film, any size, furnish six select prints for 25c with order. Better pictures from each exposure. Fewer failures from each roll or money cheerfully refunded. T. V. Moreau Co., 620 Nicollet Ave., Minneapolis, Minn.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

LEARN TELEGRAPHY.

TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

HUNDREDS OF YOUNG MEN and young ladies are needed as telegraph operators, stenographers and bookkeepers. Write for catalog. Barry's Telegraph Institute, Minneapolis, Minn.

BREEDING EWES.

BREEDING EWES FOR SALE—Now is the time to buy before they go higher. Wool and sheep are going to be higher in price and stay high. John Blanchard, Columbus, Wisconsin.

LIGHTNING RODS.

LIGHTNING RODS that are guaranteed protection, $250.00 to find a building burned by lightning with our rods. L. F. Diddie Co., Marshfield, Wis.

HOLSTEIN BULLS.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

JERSEY CALVES.

FARMERS' PRICES—Before Nov. 1st, Jersey bull calves, best breeding. D. W. Howie, Jr., Elm Grove, Wis.

POULTRY AND PET STOCK.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

DOOTOR'S big, beautiful "Ringlet" Barred Rock cockerels, on approval, $3 to $5 each. Winners. Heavy-laying strain. Dr. E. C. Higgins, Melrose, Wis.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Kintz & Son Poland Offering, November 6th.

TUESDAY, November 6th, Nathan Kintz & Son will sell 40 head of big-type Poland Chinas at their farm near Berlin, Wis. For several years this firm has been breeding the medium types, but realizing that the big-types were the most profitable and the kind the public wanted, they "turned over" and during the past two years they have purchased some of the best sows money could buy, and the Wisconsin men that attend this sale are going to get the benefit, for you will have a chance to buy the produce. The sows they bought raised good litters that are sired by some of the most noted boars of the breed. For instance, Wonder's Wonder, a line-bred A Wonder. Some by Golden King, he a son of the well-known Goldengate King. Big Orange Equal is a combination of Big Orange and the $1,000 Oakland's Equal. Others represent Walker's Blue Valley breeding and there are two sows of Mouw's Jumbo breeding. It is all strictly big-type stuff and of the very best. We have attended several sales this fall, and with one exception the offering has been sold just in ordinary condition. While we believe the buyer loses money by not putting the flesh on his hogs, we are sure that the buyer profits by it. Take a boar that is in ordinary flesh when put in the breeding pen, he will often gain, but if you have one that is fat, he will get thin and often he is not sure until some of this flesh is taken off and when you have to rebreed you are dissatisfied with your purchase. The Kintz offering will not be fat, but are in nice condition for immediate service. The gilts and sows will continue to grow and if you want to put the meat on, you can do it as cheaply as Kintz. We want you to get one of the catalogs and study the breeding. We believe that this is going to be a good place to buy Polands. We hope he has a great sale and the stuff deserves it, but in as much as this is the first pure-bred hog sale of the big-type breeding in that vicinity, Mr. Kintz does not expect any record-breaking prices. For that reason we want to urge some of the older breeders of the state to attend or be represented at this sale and get some of this well-bred stuff. It will make you money in your winter sale. Get a catalog at once and please mention this publication when writing. If you can't attend in person, send T. P. Shreve your buying instructions, in care of Mr. Kintz. See page 19.—Adv.

Inter-County Holstein Sale.

THE Inter-County Holstein Sale November 8th and 9th, Watertown, Wis., is going to have the greatest array of high record A. R. O. Holsteins that has ever been consigned to this company. There will be three bulls above 31 pounds and a number of others, whose records approach the 30-pound class very closely. There are also going to be an unusually large number of choice individual A. R. O. cows, due to freshen near sale time. It will, therefore, pay all enthusiastic Holstein breeders throughout the state to pay close attention to this event and to send for catalog as soon as possible. Francis Darcey, Watertown, Wis., secretary of the Inter-County Holstein Sale, will be pleased to mail catalogs to you and furnish you with any other information concerning this sale that you may wish to know. See advertisement on pages 12 and 13.—Adv.

Dolin Bros.' Inter-County Holstein Sale Consignment.

DOLIN BROTHERS, Clyman, Wis., are consigning several head to the Inter-County Sale, including Jesse Fobes Myrtle Beets, a granddaughter of Homestead Junior De Kol and Sir Beets Cornucopia Netherland, two of the most noted sires of the Central West. This two-year-old heifer is a large individual, possessing conformation that is characteristic of this breed. She is practically a show heifer and we prophesy that there will be few in the sale that will surpass her as an individual. She is bred to King Segis Champion Rue and will be due to freshen about December 1st. It will pay buyers on the market for high-class individuals to take the trouble to look her up at the Inter-County Holstein Sale, November 8th and 9th. See pages 12 and 13.—Adv.

John Goldthorpe's 32-Pound Bull.

WE are consigning to the Inter-County Holstein Sale Company a choice 32-pound bull calf, nearly ready for service, out of his well-known cow, Houwtje Vale De Kol 147916, a cow that has few equals in the state as an individual and one that has produced 32.31 pounds butter in seven days, as well as a 31.82, with 618 pounds milk in seven days at five and a half years. We consider this cow as one of the finest individuals we know of, being a large, smooth cow possessing great capacity and a perfect top line, as well as having a well-placed udder of good texture. The sire of this 32-pound bull we are consigning is King Korndyke Veeman Wayne, also a show animal. This 32-pound bull calf, therefore, inherits a wealth of good individuality and judging from the present condition of this calf, we have every reason to believe that he will develop into the high standard set for him by his ancestors. He is a strong, vigorous calf, well marked and looks as though he would have good size and constitution that is so necessary in a masculine herd sire. This animal is not only the highest record calf consigned to the Inter-County Holstein Sale, but also comes from one of the best lines of ancestry that will be represented in the sale. See pages 12 and 13.—Adv.

NEXT WEEK'S SALE PROGRAM

Tuesday, October 30	Duroc Jerseys, J. J. Cain, Skyberg, Minn.
Wednesday, October 31	Short-horns, Carpenter & Carpenter, Chicago, Ill. Guernseys, Waukesha County Guernsey Breeders' Association, F. E. Fox, Secretary, Waukesha, Wis.
Thursday, November 1	Guernseys, Waukesha County Guernsey Breeders' Association, F. E. Fox, Secretary, Waukesha, Wis.

McDermott's Short-horn Offering.

TO the Carpenter-McDermott Short-horn sale at Chicago, Wednesday of next week, October 31st, J. W. McDermott, Kahoka, Mo., is contributing 30 head, probably the best lot he has ever offered in a public sale. Mr. McDermott has bred and exhibited and sold many outstanding Short-horns and the offering he will make at Chicago will add to his reputation. With the exception of two head they were all bred by Mr. McDermott, and represent an offering of Cumberland blood, the majority of the cattle being the get of Cumberland Marshal, the great sire that made such a notable reputation in the McDermott herd. There are also a few mature matrons in this offering that are in calf to this great bull. Two outstanding young bulls by this sire, Cumberland Marshal 5th, a winner at this season's shows and Cumberland Marshal 6th. Other good young bulls by a Choice Goods sire are also in the offering. These cattle will please the most discriminating buyer. If you have not already secured a catalog for this notable event write for one at once to Carpenter & Carpenter, Baraboo, Wis., or J. W. McDermott, Kahoka, Mo., as per the advertisement on page 21. Kindly mention this paper when writing.—Adv.

Waukesha County Holstein Sale, Waukesha, Wisconsin, November 16th.

W. L. BAIRD, secretary of the Waukesha County Holstein Breeders' Sale Company, is lining up some of the best bred Holsteins that have ever been consigned to their sale. Mr. Fred Pabst is consigning a 31-pound bull calf; Gustave Pabst is consigning practically a 30-pound calf; the Carnation Stock Farm is consigning a 26-pound son of Johanna McKinley Segis, as well as a son and daughter of Rag Apple Korndyke 8th, which is an example of the high-class animals that will be sold this fall at the Waukesha County Holstein Breeders' Sale. See page 20.—Adv.

A. L. Kirst, Tomah.

THE above breeder has a nice lot of spring boars that we are glad to recommend to prospective buyers of Chester Whites. They are very smooth. Good backs and feet and are in a fine, thrifty condition. Kirst will give you a good deal on a boar and some gilts and if you want a trio from which to get a start with this breed, write A. L. Kirst, Tomah, Wis.—Adv.

Edwin D. Gibbs' Inter-County Holstein Sale Consignment.

MR. GIBBS, of Fox Lake, is again consigning several very high-class animals that have distinguished themselves in the show ring as well as in the advanced registry. For instance, Lady Oakland has been shown at seven fairs and in that time was only beaten by one animal. She is a granddaughter of Colantha Johanna Lad, one of the well-known eastern herd sires. Mr. Gibbs is also consigning another high-class individual in Hilda Lassie, that would be a credit in anyone's herd. She is an A. R. O. cow and has a 24-pound junior four-year-old daughter. A choice yearling granddaughter of Colantha Johanna Lad out of a 24-pound junior four year old bred to a 33-pound bull is also included in his consignment. Also Grace De Kol Korndye, a large, strong type of Holstein with a 24-pound record that will freshen in December, being bred to a son of Colantha Johanna Lad. Mr. Gibbs is likewise consigning two yearling bulls with a lot of A. R. O. backing; one is a grandson of Colantha Johanna Lad out of a 24-pound cow having much A. R. O. backing; the other is nearly ready for service and sired by a 33-pound bull out of a 16.5 junior two year old. Every dam for four generations in this bull's pedigree has a creditable A. R. O. record. See advertisement on pages 12 and 13.—Adv.

Stapleton's Dispersion Sale.

ATTENTION is called to the Holstein-Friesian sale of Mr. Joseph Stapleton, which will be held at North Lake, Wis., November 10th. On that date 50 head of richly-bred Holsteins will be sold. Of this number 29 will be of milking age and a number of the cows are producing from 60 to 75 pounds per day at two milkings. In building up this herd Mr. Stapleton has emphasized high production and he has used the right combination in his breeding operations to attain that end. Those who are looking for something extra good should keep this sale in mind. For further information send to Joseph Stapleton, Waukesha, Wis. See advertisement on page 19.—Adv.

Don't Forget the Cain Duroc Sale.

THIS is our last opportunity to call your attention to the J. J. Cain Duroc boar sale at Skyberg, Minn., October 30th. This is the Cain herd [illegible]

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

ARE YOU LOOKING FOR THIS?

GOOD LAND at a low price in the Sunny Uplands of Louisiana; land that can be made to produce more, and at less expense, than the highest priced land in the North; land in an ideal climate where winters are like spring and summers are cooled by the delightful gulf breezes; long growing seasons; corn, cotton, winter oats, cattle, hogs, chickens, delicious fruits, potatoes, sweet potatoes, peanuts, beans, early and late garden truck, strawberries, etc.—an immense variety of products, including practically all grown in the North and many besides. Low-priced land near good, live towns and cities, with railroads running north and south, east and west; land having splendid possibilities for oil and located less than 100 miles from several of the largest oil refineries in the world. We have already sold more than 45,000 acres of this land. Price $20 to $30 per acre; easy terms. Write us for full information, or come and see us. Excursion rates. American Farm Land Company, DeRidder, Louisiana.

OWN MORE ACRES

Now is the time, when prices are high for all farm products, to plant more acres! Here is your opportunity: Low priced lands on easy terms, in a mild, healthful climate; good soil, ample rainfall, nine months open pasture each year, in the rolling, well drained

HIGHLANDS OF LOUISIANA

Investigate **NOW!** The big, **FREE** book, "*Where Soil and Climate Are Never Idle,*" illustrated with photographs, tells all about it. Send for it today. Low rate homeseekers' excursions first and third Tuesdays of each month.

Long-Bell Farm Land Corporation
416 R. A. Long Bldg., Kansas City, Mo.

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F, Farm and Real Estate Journal, Traer, Iowa.

A SMALL CALIFORNIA FARM earns more money with less work. Raise crops you know: alfalfa, wheat, barley; also oranges, grapes, olives, figs. Ideal for dairying, pigs, chickens. No cold weather; rich soil; low prices; easy terms; good roads; schools, churches. Enjoy life here. Write for our San Joaquin Valley, Dairying, Poultry Raising, Illustrated Folders, free. C. L. Seagraves, Industrial Commissioner, Santa Fe Ry., 1955 Railway Exchange, Chicago.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trapnested laying stock. Write for prices.
WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

LEGHORNS, TURKEYS, WILD DUCKS—We have a few R. C. White Leghorn ckls., 90c ea.; 2, $1.60; 3, $2.25. Just the thing to cross on your flock to secure resistance to cold, easy keeping and large egg production. Young White Holland turkeys, $3 each. Wild Mallard ducks, $1.50 ea. Island Poultry Yards, Oshkosh, Wis.

sale, as two-thirds of the offering is sired by this $2,500 boar. At the Omaha show this boar was third and shown in ordinary flesh. He is a great hog and the good breeders should have some of his get. Cain also sells gilts on the above date. Send your bids to T. P. Shreve. Skyberg is near West Concord, north of Dodge Center, Minn. —Adv.

Waukesha County Guernsey Breeders' Semi-Annual Sale.

THE Waukesha County Guernsey Breeders' Association will hold its 11th semiannual sale of registered Guernsey cattle at Waukesha, Wis., October 31st and November 1st. On October 31st pure-bred females will be offered and on November 1st grade females and pure-bred males will be sold. Chas. L. Hill, of Rosendale, offers 25 females whose breeding and individuality are the very best. They include A. R. cows with splendid records, such as Glenwood's Hazel, that has a record of 615 pounds of fat. Many young heifers are offered, being granddaughters or daughters of such famous sires as Glenwood's Reputation, Itchen May King, Princess Jewel and Governor of the Chene. Geo. McKerrow & Sons Company offer several splendid females of the very best breeding, tracing back to that wonderful sire, Governor of the Cheene. There are two daughters of this bull, one of them out of a 572-pound cow. John H. Williams has a very attractive offer of females of May Rose breeding, being daughters of Rhea's King of the May or granddaughters of this bull. He also offers the prize-winning son of Rhea's King of the May. Wm. Jones' consignment is rich in the blood of the famous Lord Waukesha and Lork Yeksa. He offers a daughter of Lord Waukesha with a record of 698 pounds. Geo. W. Browne's consignment includes 11 females of special merit, including a daughter of Rhea's King of the May and several granddaughters of this bull. Also a granddaughter of Governor Whimson, a son of the Governor of the Chene, and other splendid individuals. Fruit Bros., offer an A. R. cow sired by Glenwood's Stranford with a record of 649 pounds. E. S. Murdock offers his splendid herd of ten pure-bred females. Other consignors to the sale will be: J. M. Harvey, Basse Bros., F. C. Smith, Crouch Bros., L. J. Wendt, Geo. Konrad, Goodhand Kingston, Connell Bros., R. Riedeburg, F. E. Kummrow, J. L. Williams, J. R. Love, Chas. Mitchell, Wm. Fisher, Lawrence Blackwell, A. C. Eschweiler, Freehoff Bros., Earl Roberts and Roy Burton. Write at once to F. E. Fox, secretary, Waukesha, Wis., for catalogs. Please mention The Wisconsin Farmer in your letter. See page 22.—Adv.

Carpenter-McDermott Sell Superior Short-horns.

CARPENTER & CARPENTER, Baraboo, Wis., and J. W. McDermott, Kahoka, Mo., open a series of Short-horn sales to be held in Chicago, October 31st to November 2d. This will be Carpenter & Carpenter's first auction sale, and they are offering the public the best they have. It will be remembered that the initial purchases made by the Carpenters was the best that money could buy. They have added good cows to their herd each year until today they have one of the best breeding herds in America. In selling Maxwalton Queen they sell one of the greatest show and breeding cows produced in recent years. We doubt if Avondale ever sired a better female. This cow was a winner in 1914, 1916 and 1917, and was grand champion female at the great Iowa State Fair this year. Anoka Clipper 3d by Regal Stamp is one of the attractions. She is bred to Collynie Type, he by Cumberland Type. Collynie Mint Drop sells with a heifer calf at foot. A winner as a junior calf and grand champion female at Shreveport, La., 1916. Violet Maid 3d with bull calf at foot and bred to Collynie Type. There are several bull attractions. Collynie Cullen 5th is a roan by Lord Cullen and is out of the dam of the well-known Dorothy Mine. Collynie Cullen 6th is out of a daughter of Avondale. Daughters and granddaughters of Avondale predominate in this herd. Meritorious breeding and individual excellence have been combined to constitute an offering that will command the attention of the particular buyer. For catalogs mention this paper and address Carpenter & Carpenter, Baraboo, Wis., or J. W. McDermott, Kahoka, Mo. See page 21.—Adv.

Practical Oil Engine.

AN oil engine attracting much attention in the farm field is being manufactured by the Evinrude Motor Co., makers of the widely known Evinrude rowboat and canoe motors. This engine, a small, stationary super-Diesel type, burns kerosene and crude oils, offering relief to the farmer from the almost prohibitive prices of gasoline. It saves from 75 to 80 per cent the cost of operating the ordinary gasoline engine. Two sizes are now being manufactured, one and one-half and three horse power. Larger sizes will be added later. Write for catalog. Address Evinrude Motor Co., 703 Evinrude Block, Milwaukee, Wis. See page 11.—Adv.

Schoenfeld's Short-horns.

MR. C. J SCHOENFELD & SON, Fox Lake, Wis., have one of the up-to-date Short-horn herds and Poland China swine in the state. Their herd bull, Village Mystic, has proved himself a great breeder. He weighs over 2,400 pounds in breeding condition. They offer at present a large bunch of bulls and heifers at attractive prices. A good number of the bulls are ready for good hard service and are reds, roans and whites and their heifers will make big milking cows, just the kind for Wisconsin farmers to make money from. They will be pleased to have you make them a visit. See page 21.—Adv.

Consigning Their Entire Herd to Inter-County Holstein Sale.

MESSRS. RHODA, REED AND KRUSER are consigning their entire herd, consisting of 50 head, to the Inter-County Holstein Sale. The herd is headed by Pabst Maplecrest King 151413, a 25-pound bull, whose dam also has a semiofficial record of better than 800 pounds butter to her credit. This sire is a handsome individual and is out of one of the leading cows in the Fred Pabst well-known Holstein herd that has yet a bright future before her. Some of the most conspicuous individuals in the herd are as follows: A 31-pound bull, ready for service, out of Pabst Hengerveld Colanthus, a full brother to the 31-pound bull calf, which Mr. Pabst is consigning to this sale; a 28.22-pound, eight months old calf, sired by Pabst Maplecrest King and out of Marcade Marie, a 28.22-pound daughter of Canary Paul. Marcade Marie is an extreme individual of the high-producing type of Holsteins and is the kind of cow one should look for when selecting a herd sire. Also two daughters of Oak De Kol Ollie Homestead, the grand champion at the National Dairy Show at Springfield last year as well as the grand champion at the Waterloo Dairy Congress, 1917; two daughters of the 28-pound cow, Marcade Marie; one daughter of a 25.53-pound junior four year old; one daughter of a 22.75-pound junior two year old and her son by Pabst Maplecrest King; one daughter of a 19.05 junior two year old; one daughter of a 24.25-pound thirteen-year-old cow; also a full sister to a 28-pound cow. From the fact that Mr. Rhoda is a well-known judge of good individuality and that this herd is so well represented in the advanced registry, gives the public an exceptional opportunity to purchase high-class animals. See pages 12 and 13. —Adv.

Fred Pabst Inter-County Holstein Sale Consignment.

MR. FRED PABST is consigning Pabst King Colanthus 206276, born March 13, 1917, a 31.41-pound bull calf out of the great producing cow, Pabst Hengerveld Colanthus, that is unquestionably one of the best cows in Mr. Pabst's herd. She is a large, handsome individual as well as a high producer. At the age of four and a half years she made 31.41 pounds, averaging over 82 pounds of milk per day and continuing throughout the year with a production of 873 pounds of butter, 20,714 pounds of milk. As a junior two year old she was run on yearly work and made 560 pounds butter and 12,000 pounds of milk. The sire of Pabst King Colanthus is Pontiac Champion, whose daughters are making exceptional records, 62 of which have been admitted to the advanced registry. King Pontiac Champion is not only one of if not the leading A. R. O. sire in the state of Wisconsin, but is also by that famous bull, King of the Pontiacs, that has to his credit more A. R. O. daughters than any other bull of the breed, living or dead. He also has more 30-pound daughters than any other bull and so many other points of superiority that they are too numerous to mention. Pabst King Colanthus besides being royally bred and coming from a long list of distinguished A. R. O. ancestors is in addition an exceptionally fine individual, mostly white in color. We are of the opinion that this is by far the best individual 30-pound calf that Mr. Pabst has yet offered at public auction and should, therefore, be one of the leading attractions at the Inter-county Holstein Sale. See pages 12 and 13.—Adv.

Good Poland Boars.

L. D. EASTMAN, had some of the good boars in the Grant county sale. He has about a dozen boars that he picked out to fill the mail order trade that are good. These boars are immune and Mr. Eastman stands back of every boar with a liberal guarantee. If you want a few gilts he will sell some that will please you. He can sell you boars and gilts unrelated —write him.—Adv.

NEWS OF THE SALE RING

Atwater's Duroc Jersey Sale.

L. F. Atwater held his second sale of Duroc Jersey boars at his farm near Bangor, Wis., October 17th. He sold 32 boars at an average of $88.89 the highest average ever made on boars in Wisconsin. Seven gilts sold for an average of $90. Naturally, Atwater had the offering in the pink of condition and well grown and the men were there to bid on the good ones. The crowd was not large, owing to the rain, but those that weathered the inclement weather were there for business. The top boar was the Omaha futurity winner, a son of P. S. Wonder, that sold to the Fourhouse Farms for $340. Riley Martiny & Son bought one of the best herd-boar prospects in the sale when they got Investor Jr. for $200. This boar has a great outcome and is a proven breeder of worth. The top gilt was a daughter of Proud Chief Jr. and sold to Geo. E. Brooks for $170. It was a high-class offering in every respect, and was worthy of the average obtained. To I. E. Stickelman goes the credit of making the high average of the state on boars, as well as the record on sows, made last winter at Atwater's. We follow with a complete report:

1, Riley Martiny & Son, Baraboo, Wis., $200; 2, M. Anderson, Cottonwood, Minn., $110; 3, J. T. Cox, Lodi, Wis., $50; 4, J. T. Cox $50; 5, A. L. Hyzer, Storm Lake, Ia., $75; 6, J. W. Thomas, West Salem, Wis., $72.50; 7, Fourhouse Farms, Tyler, Minn., $340; 8, Wm. Magee, Fennimore, Wis., $87.50; 10, B. L. Rundell, Hammond, Wis., $100; 11, Emil Burmeister, Harmony, Minn., $160; 12, Geo. D. Sprain & Son, West Salem, Wis., $107.50; 13, Ludwig Larson, Bangor, Wis., $135; 14, W. C. Edge, Fennimore, Wis., $107.50; 15, Geo. McGinnis, Mitchell, S. D., $50; 16, C. G. Schroeder, Alma, Wis., $77.50; 17, Floyd Selck, Hanover, Wis., $100; 18, Roy Horsfall, Mt. Hope, Wis., $75; 19, Geo. Ruetten, Sparta, Wis., $42.50; 20, Ira Richardson, Bangor, Wis., $65; 21, Aug. Jandt, Bangor, Wis., $60; 22, J. T. Cox, $60; 23, J. T. Cox, $50; 24, A. L. Sweet, Warrens, Wis., $52.50; 25, Carl Piska, Bangor, Wis., $42.50; 26, Wm. Thomas, Ridgeway, Wis., $165; 27, Henry L. Jones, Cambria, Wis., $55; 28, J. T. Cox, $52.50; 29, Fred Weltmann, Guttenburg, Iowa, $52.50; 30, Wm. Roberts, Bangor, Wis., $50; 31, A. C. Cass, Viroqua, Wis., $57.50; 32, F. C. Vehrencamp, Bangor, Wis., $55; 33, Geo. Murray, Estherville, Ia., $100. Gilts: 34, Ames Bros., Weaver, Minn., $55; 35, Geo. Murray, $60; 36, Geo. E. Brooks, Sparta, Wis., $170; 38, Ames Bros., $65; 39, Ames Bros., $155; 40, Geo. E. Brooks, $75; 41, W. C. Edge, $52.50.

SUMMARY.

32	boars...	$2,842.50; average....	$88.82
7	gilts....	632.50; average....	90.00
39	head....	3,475.00; average....	89.00

Harvest Season Nearly Finished.

(Continued from page 8.)

bushels; barley, sixty to seventy bushels; rye, twenty to thirty-five bushels and spring wheat from eighteen to twenty-eight bushels per acre and of good quality. Some grain is still unthreshed. Potatoes are being dug, but are not coming up to expectations, while the few early varieties were from fair to a good crop, yielding 200 bushels per acre. The late varieties are running anywhere from seventy-five bushels to 150 or 160 bushels per acre, but of a good size and quality. Not much doing in the cattle line. With corn being a failure, feed will be short and everything is being sold that cannot be wintered through with the feed on hand. Prices on hay and feeds are too high to warrant buying for stock feeding.—Jens Chrenholdt.

Wood County.—Corn was badly frozen September 10th and 11th and is about 40 per cent of a crop and poor quality at that. Oats are not turning out at threshing as was expected, the heads being injured by grasshoppers as they were ripening, but it is above normal as to yield and quality, even for a period of five years. Wheat, not much is raised here, but what there is, is fairly good; more than usual sown this fall. It was injured about 15 per cent by grasshoppers. What is left has a fine appearance, so has rye. Hay is a normal crop. Potatoes are above normal. Live stock is normal and in good condition. None on feed for markets. Cost of feed is double the normal price.—Peter Brown.

Keep the hens in laying trim. Their "shells" are valuable food ammunition.

BIG-TYPE

POLANDS

Sell at

BERLIN, WIS., TUESDAY, NOV. 6, '17

40 head of the kind that are in demand.
Spring Boars and Gilts and Tried Sows.

Every Animal of Popular Big-Type Breeding

ONE boar, two gilts by the noted SMOOTH BIG BONE, one boar, one gilt by BIG ORANGE EQUAL. Four boars, two gilts by GOLDEN KING. Four boars, six gilts by WONDER'S WONDER. Six boars and three gilts by BIG JOE, others of BLUE VALLEY and MOUW'S JUMBO breeding.

The home of BIG JOE. No breeder in the state has a larger yearling. Sired by Ohio Giant by Disher's Giant by Big Ben.

Do you want big-type breeding? BIG BONE, A WONDER, BIG ORANGE, OAKLAND'S EQUAL, BLUE VALLEY QUALITY—can you beat it? We bought bred sows from America's best herds of BIG-TYPE POLANDS, and we offer the produce to Wisconsin buyers, in this, our first sale. T. P. Shreve, field man. Let him handle your mail bids. Ira Cottingham, auctioneer.

Study the pedigrees in the catalog and you'll want a boar or gilt from this sale. I'll send you a catalog with pleasure, if you'll write.

NATHAN KINTZ & SON BERLIN, WISCONSIN

Dispersal Sale

November 10

North Lake, Wis.

Dispersal of 50 Head of

Ormsby-Bred Holsteins

29 of milking age. A number of these cows are going from 60 to 75 lbs. a day on two milkings. Watch for next week's advertising.

JOSEPH STAPLETON

Waukesha Wisconsin

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

Walter Bros., Chippewa Falls, Wis.

HEREFORDS

CAN SELL YOU A BULL, well grown, well bred and well worth the money. Our bulls are our advertisers. Correspondence and inspection invited.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

HOLSTEIN-FRIESIAN CATTLE.

Lake View Farm

Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: Lake Mills, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

Farm Disinfectants.

THE necessity for keeping animal quarters healthful is every day receiving more attention. The agricultural colleges have taught us that many of the diseases which afflict live stock are due to germs, and that by taking proper care to keep the quarters in right condition a large proportion of these diseases can be avoided. Among the several preparations prepared by Dr. Gilbert Hess for use on the farm, perhaps not one is more highly beneficial than Dr. Hess dip and disinfectant. As the name implies, this preparation is both a dip and a disinfectant. As a dip, it has a large use for the treatment of scab in sheep, for destroying ticks and lice and for whatever purposes animals are usually dipped. Parasites, skin diseases, and filth and foul odors are costing farmers and stockmen enormous sums of money every year. By a little intelligent effort the greater part of this waste can be avoided. Dr. Hess dip and disinfectant is a powerful germ destroyer; it purifies the air and keeps down foul odors and smells. It makes animals' quarters healthful. No argument ought to be necessary to convince anyone of the usefulness of such a preparation where domestic animals are kept. Animal diseases are contagious and spread as rapidly as do those which afflict the human family. Destroy the germs of disease and you go far toward keeping contagion out of your herd. A great point in favor of Dr. Hess dip and disinfectant is its uniformity. A dip must be uniform in quality, because if it be stronger than what you used formerly, animals are liable to be injured; and if it be weaker, the solution may be altogether ineffectual and the dipping or spraying will have no beneficial effect. Dr. Hess dip and disinfectant is standardized, all the oils used in its compounding being tested to make sure that they contain the right amount of disinfectant and insecticidal properties. See page 14.—Adv.

SALE DATES.

Duroc Jersey Swine.

Nov. 9, Geo. E. Brooks, Sparta, Wis.
Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Nov. 6, Nathan Kintz & Son, Berlin, Wis.
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Guernsey Cattle.

Nov. 1, Waukesha County Guernsey Breeders' Association, Waukesha, Wis. F. E. Fox, Secretary. Grade females and pure-bred males.

Holstein Cattle.

Nov. 8 and 9, Inter-County Holstein Sales Company, Watertown, Wis. Francis Darcey, Sec.
Nov. 16, Waukesha Co. Holstein-Friesian Breeders' Asso., W. L. Baird, secretary, Waukesha.

HOLSTEIN-FRIESIAN CATTLE.

Pabst Korndyke Champion

Son of Korndyke Segis Johanna,
Has just been sold to the North Dakota Agricultural College.

Pabst Korndyke Elder

Son of Korndyke Segis Johanna,
Similiarly bred on the dam's side,

IS NOW FOR SALE

Pabst Korndyke Elder was born March 3, 1917. His dam is Pabst Champion Elder. By King Pontiac Champion and out of Pabst Hengerveld Colanthus.

He is a splendid buy—just the bull calf you are looking for.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

$400 Bargain

$400 WILL BUY a 29.23-pound grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON R. 1, Rochester, Minn.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA Watertown, Wis.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

TRIED HOLSTEIN SIRE

PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON Neillsville, Wis.

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. Troy Center, Wis.

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA East Troy, Wis.

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.
L. V. GARVENS R. 12, Brookfield, Wis.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB Honey Creek, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use

at six months

YOU MAY HAVE YOUR CHOICE

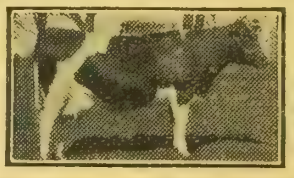
No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN
Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis.

Waukesha County Holstein-Friesian Breeders' Association Sale, November 16, 1917

20 high record pure-bred bulls, 55 well-bred females. Watch for ad next issue. Write to
WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS ASSOCIATION,
Department F. :: :: :: Waukesha, Wisconsin



SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. Lake Mills, Wis.

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

HILLSIDE HOLSTEINS

WE HAVE TEN REGISTERED COWS for sale and one heifer. All cows have A. R. O. records but one; some due to freshen soon. Prices, $150 to $300. Extra large cows, good dairy type.
KIRKPATRICK BROS. - - - - - - - - Reedsburg, Wis.

Modern efficiency standards set PURE-BRED

HOLSTEINS

ABOVE ALL OTHER BREEDS

Official tests have proven pure-bred Holsteins give more milk and butter-fat at a lower cost of production, with less "overhead" than any other breed. Write for the facts about the profitable breed. Free.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

A HIGH-CLASS PRIVATE HOLSTEIN SALE

WE ARE OFFERING 5 daughters having 25 per cent of the blood of Duchess Skylark Ormsby, 2 daughters of Sir Johanna Fayne, who has 50 per cent the same blood as Segis Fayne Johanna, the only 50-lb. cow, 1 granddaughter of Homestead Jr. De Kol, 2 daughters of Canary Mercedes De Kol, 2 daughters from these cows bred to King Peter, a noted A. R. O. bull of the Hartshorn breeding, and 2 heifers and 6 small bulls by an A. R. O. sire. It is evident that this small herd represents the best blood of the breed and offers an opportunity to buy some good stuff right.
C. L. TURNER Springfield, Wis.

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.
TULLOCH FARMS Genoa, Wis.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son Lake Geneva, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Sale Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ina Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write
WM. FENNER Sheboygan Falls, Wis.

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.
JOHN L. FISHER Janesville, Wis.

$25 Holsteins $25

WAUKESHA COUNTY high-grade heifer calves, six weeks old, from the very best high producing cows and registered bulls. Let me sell you a registered bull to head your herd. It will pay you.
J. A. ROBERTS, Cattle Expert, Oconomowoc, Wis.

HOLSTEINS

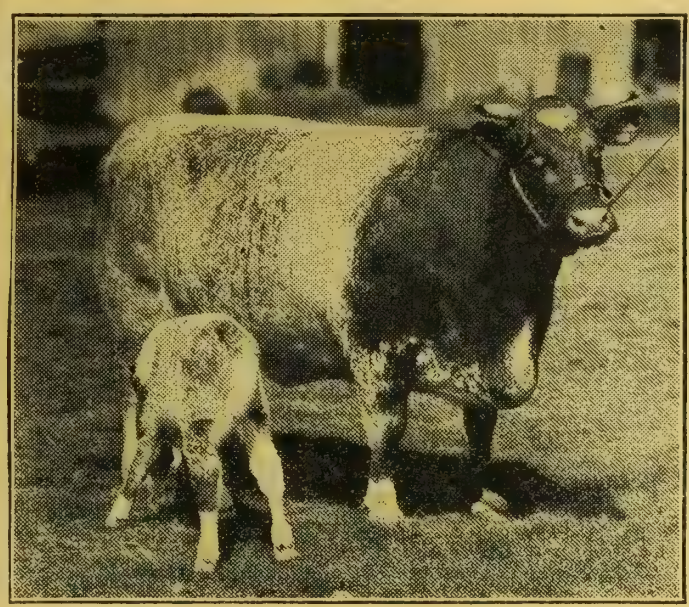
WATCH THIS SPACE.
MOSS BROS. Troy Center, Wis.

SUPERIOR SHORT-HORNS from TWO GREAT BREEDING HERDS

CARPENTER & CARPENTER
40 HEAD
BARABOO, WISCONSIN

70 Lots

J. W. McDERMOTT
30 HEAD
KAHOKA, MISSOURI



Maxwalton Queen and bull calf. A winner in 1914, '16, '17. Grand champion Des Moines, 1917.

UNION STOCK YARDS
CHICAGO, WEDNESDAY, OCT. 31

CARPENTER & CARPENTER will sell **Maxwalton Queen,** a feature of the season's sale. Practically their entire show herd has been included. Heifers and bulls of the most desirable breeding, cows with calves at foot. The get of imported LORD CULLEN and bred to COLLYNIE TYPE by Cumberland's Type. AVONDALE BREEDING PREDOMINATES. Several imported females—Mysie, Augusta, Clipper, Victoria, Wedding Gift, Rosewood—breeding of this caliber throughout. J. W. McDermott will sell 30 head, comprising the strongest and best bred lot of cattle that he has ever offered. All but two head were bred in his herd, and are strong in the blood of the great sire, Cumberland Marshal. Many of the younger things were sired by him, while the older females are in calf to his service. Some great bull propositions are in the offering, including Cumberland Marshal 5th, a winner in the season's shows, and a great prospect; Cumberland Marshal 6th, by Cumberland Marshal; Jealousy, by Good Count; Cumberland Repeater, one of the herd bulls, and other good ones. The females are a great lot, including both show and breeding material of the highest class. Get the catalog for this sale, one of the big events of the season. Address, mentioning this paper,

CARPENTER & CARPENTER, Baraboo, Wisconsin, or J. W. McDERMOTT, Kahoka, Missouri

Jones and Reppert, auctioneers. Attention is called to the sales of Carpenter & Ross and Leslie Smith & Son, at Chicago, November 1st and 2d, when 160 head of imported Short-horns will be sold.

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

OAK LAWN SHORT-HORNS

YOU SAW MY CATTLE at the state fairs and have read the report of my winnings. I have young bulls of the same breeding for sale.
"Scotch Short-horns of Quality."
J. E. KENNEDY :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

Short-horns
MILK BEEF

IF you want bulls out of 1,800-pound dams that give 8,000 to 10,000 pounds of milk, write me.
HARVEY H. LITTLE Evansville, Wis.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

CHESTER WHITE SWINE.

CHAMPION CHESTERS OF THE NORTHWEST

HERD HEADED BY CHAMPIONS and sons of champions. Brood sows have been champions or out of champions. The boars I now offer are suitable to head the best herds. We cater to particular buyers.
EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. - - - Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

CHESTER ATTRACTIONS

GET A BIG-TYPE CHESTER BOAR, sired by my great breeding boar, SCHOOLMASTER 38TH. Some by W. A.'S WONDER, champion Iowa 1915. **The Aristocracy in Chesters.** Will sell boars or gilts. We register all stock sold and guarantee satisfaction. We invite inspection.
JOHN PELLETT & SON Viola, Wis.

OAK GROVE CHESTERS

BOARS good enough to ship on approval. I have just purchased a grandson of CHIEF KEOKUK out of a HIGHLAND CHIEF dam. Gilts will be bred to this boar and shipped later. Let me quote prices. **A. L. KIRST, Tomah, Wisconsin.**

CHESTER WHITES

40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.
L. A. SCHULTZ R. 1, Poynette, Wis.

YOUR CHANCE

50 CHESTER March, April and May pigs, either sex, priced for QUICK SALE. Don't hesitate, they must go.
CHAS. ROGERS & SONS Union Center, Wis.

CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet,** a junior yearling half brother of **Prince Again,** the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson,** a son of **Royal Blood.** Also March and April gilts sired by **Guy's Comet,** and grand champion boar, **Perfect Prince.** Wm. C. Scheibe, Burlington, Wis.

J. A. DOERR
VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
Box 13 **J. FISHER & SON,** Eastman, Wis.

HAVE A FINE LOT

OF SPRING GILTS that I will sell at $30 and $35 for the best. Also have a fine lot of fall pigs that are old enough to ship, either male or female, at $20 each.
A. L. GRAY Mt. Hope, Wis.

FROST'S O. I. C.'S—30 spring pigs, 200 summer and fall pigs; the kind that won 86 prizes in five state fairs, tracing to the grand champion, Jackson Chief. Leader, a son of a champion, and Cotton Ball, a Combination-Wonder boar, head herd. Boars, pairs or trios. Come or write. S. D. & B. H. Frost, Kingston, Mo.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
WALTER GEORGE Evansville, Wis.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. Q. HOSKINS Dodgeville, Wis.
Mile west of town.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand. Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Ines Rosaire, 726 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS
Females and Bulls for Sale
Write the following breeders:

J. B. Ahlers	West Bend, Washington	County
C. S. Arnold	Holcombe, Chippewa	County
Edward Bennett	Black Earth, Dane	County
J. O. Baker	Wagner, Marinette	County
Byron Curran	Taylor, Jackson	County
L. F. Bigelow & Son	Brooklyn, Green	County
J. W. Martin & Son	Gotham, Richland	County
Wm. Radke	Black Earth, Dane	County
J. W. Salter & Sons	Unity, Marathon	County
L. C. Underwood	Avoca, Iowa	County
J. F. Wulff	Grafton, Ozaukee	County
Wm. Wulff	Grafton, Ozaukee	County
Henry Zeigler	Middleton, Dane	County
John A. Curran	Sechlerville, Jackson	County
Lars J. Lee	Cambridge, Dane	County

Headquarters for
RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

RED POLLED BULLS of serviceable age for sale. Also young stock, either sex. Clover Belt Stock Farm, Hamburg, Wis.

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

BREEDING EWES

100 CHOICE 4's and full-mouthed Colorado breeding ewes for sale, $14.50 a head.
O. A. JERRELL Mineral Point, Wis.

WE NOW OFFER

CHOICE RAM LAMBS in Shropshires and Hampshires, sired by prize-winning rams. Write us for prices and particulars.
W. F. RENK & SONS Sun Prairie, Wis.

SHEEP AND SWINE

OXFORD BUCKS, Duroc Jersey boars, Poland China boars and fall pigs. Inquire of Frank Vandervort, Tomah, Wis.

GUERNSEY CATTLE.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

EXTRA! EXTRA! EXTRA!

ELEVENTH ANNUAL SALE OF REGISTERED GUERNSEYS WAUKESHA, WISCONSIN OCTOBER 31--NOVEMBER 1

OCTOBER 31ST—SEVENTY-FIVE head of pure-bred Guernsey females will be offered at public auction, consisting of a splendid collection of advanced registry cows with records as high as 696 lbs. fat. Many daughters of A. R. cows will be included in this sale, sired by such well-known bulls as Governor of the Chene, Lord Yeksa, Rhea's King of the May, Gov. of Myrtle Place 11th; granddaughters of Princess Jewell, Lord Mar, Glenwood's Reputation, Governor of the Chene, etc.

The selection of young heifers is unusually good, many of them bred to reputable sires as: Florham Victor (a son of Ne Plus Ultra), Westmoreland Squire (a son of Governor of the Chene), Dairymaid's Nonpareil of Iowa (whose dam has a record of 825 lbs. fat), Governor of Myrtle Place 11th, etc. Several bulls of excellent breeding and type will be sold October 31st.

NOVEMBER 1ST—FIFTY head of high-grade Guernsey females will be sold. These grades represent producers. If you want to start with Guernseys, this is an excellent opportunity to purchase animals that will repay you in a very short time. TWENTY-FIVE head of PURE-BRED MALES will also be sold November 1st. If you wish to raise the standard of your herd, buy one of these bred-for-production sires and let him show you what he can do.

ALL the animals have been carefully inspected by a committee and they will be tuberculin tested previous to the sale date. No by-bidding is allowed and you are assured of a fair and square deal. Be with us on both days. For catalag, write

F. E. FOX, Sec'y WAUKESHA, WIS.

WAUKESHA COUNTY GUERNSEY BREEDERS' ASSOCIATION

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

GUERNSEY PEDIGREES TABULATED

A COMPLETE CARD SYSTEM makes it possible to add all A. R. work. Five generations. Fifty cents each.
F. E. FOX - - - - - - - - - - Waukesha, Wis.

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.
ALLIC S. KNUDSON - - - - - - - - - - Brodhead, Wis.

WOULD YOU BE INTERESTED

IN A REGISTERED GUERNSEY MALE, about nine months old, whose dam in an official test will finish with over 600 lbs. fat as a four year old? If so, write
FOX BROTHERS - - - - - - - - - - Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

May Rose Bulls FOR SALE

MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

GUERNSEYS

AT THE WAUKESHA SALE—I am offering a choice son of TRICKSEY'S GEORGE OF SUNNYSIDE 18355 (first at National Dairy Show), out of a large imported cow. Also have a few young bulls of same breeding for sale.
EARL ROBERTS Oconomowoc, Wis.

REG. GUERNSEY BULL CALVES

OF SERVICE AGE, sired by grandson of "MAY RILMA," world's record cow. Farmers' prices. Apply Sun Prairie, Wis.
LABELLE KNOLL FARM Oconomowoc, Wis.

LIVE STOCK AUCTIONEERS.

CHAS. W. O'NEILL

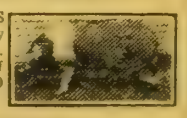
Wis. Live Stock Auctioneer
Let me conduct your sale
Call or write me at
BRIDGEPORT - - - - WISCONSIN

HAMPSHIRE SWINE.

DELLBROOK FARM HAMPSHIRES

Home of the grand champion boar,
DELLBROOK MALOY

OFFER spring BOARS and GILTS sired by the above CHAMPION. Also a large assortment of fall pigs, either sex. 200 head to select from.



"The Best in Hampshires."
A. L. DAMON Richland Center, Wis.

Brogden Farm

REGISTERED Hampshires, Oxfords and Shropshires, Lincolns, Dorsets and fine wool rams for sale.
BROGDEN FARM Rush Lake, Wis.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

DUROC JERSEY SWINE.

"KING THE COL" "PATHFINDER" "LEE'S DEFENDER"

Sons of These Duroc Boars Head My Herd

This gives me the very best breeding. Offer spring boars with size, with quality, with stretch. They cost more, but they are worth it. The "ordinary" boars went to Chicago—if you want GOOD DUROCS write me. Gilts reserved for my sale, January 29th.
DENNIS SHEA Melvina, Wis.
(Near Sparta)

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.
R. C. CHURCH Elkhorn, Wis.

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.
W. G. BARTHOLF Burlington, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write
WM. EDGE Fennimore, Wis.
"Grant County."

Durocs on Approval

WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.
M. H. O'KEEFE & SON Waukanee, Wis.

W. W. Goodrich

Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

Introducing Orion Cherry Col.

SIRED BY WALT'S TOP COL., dam by Orion Cherry King, an excellent Duroc herd boar, and a great producer. Fall pigs for sale.
RUNDE BROS. Cuba City, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

DUROC JERSEY SWINE.

WE SHIP DUROCS ON APPROVAL

This Guarantees You Satisfaction

THE ABOVE OFFER should convince you that the BOARS we have for sale are good, otherwise we could not ship on approval. Big-type with popular breeding: Chief Invincible, P. S. Wonder, Illustrator King, High Model, etc. We invite correspondence.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.
ISAAC HIGGINS (Richland County) Gotham, Wis.

A FEW DUROCS LEFT

I HAVE A FEW SPRING BOARS that were farrowed the last of March and in April that I wish to sell in the next two weeks. Don't forget that my late boars are better than many early ones. Priced for quick sale. Order now.
L. F. ATWATER :: :: :: :: Bangor, Wis.

KING ORION

Grand Champion Minn. and Wis. Fairs

SAY! If you are going to want a Duroc boar, get busy. Don't wait until you are ready to use him. We have a nice assortment, many by "KING" and out of Illustrator, Volunteer, Orion Chief and Cherry King's Rival dams. You can't beat this. Get this champion breeding.
E. H. PARKER & SON :: :: :: :: Janesville, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.
JERSEYS—Herd in the accredited list. Young bulls for sale.
F. R. CONSTANCE & SONS, Waupaca, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS FOR SALE—Illustrator Special (yearling) by Prince Illustrator, dam by Col. Gano. Price $125 and shipped on approval. Also ROYAL TOP COL., GRAND MODEL 21ST and a big yearling by Lincoln Model. Each boar is a good breeder as our stuff will show. All young boars and guaranteed. YOU don't take any chance when you buy a tried sire. Write for details.
GEO. D. SPRAIN & SONS West Salem, Wis.

--- E. J.'s --- CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913, DUROC BOARS sired by above for the particular buyer.
JOHN SWENSON Willmar, Minn.

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire
ROY HORSFALL Mt. Hope, Wis.
"Grant County."

DUROC BOARS

SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Priced right.
PHILLIPS BROS. Delavan, Wis.

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.
JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Canniff, Juneau, Wis.

ORION COL. S., COL. S. Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
W. C. JENKINS Bangor, Wis.

LARGE TYPE

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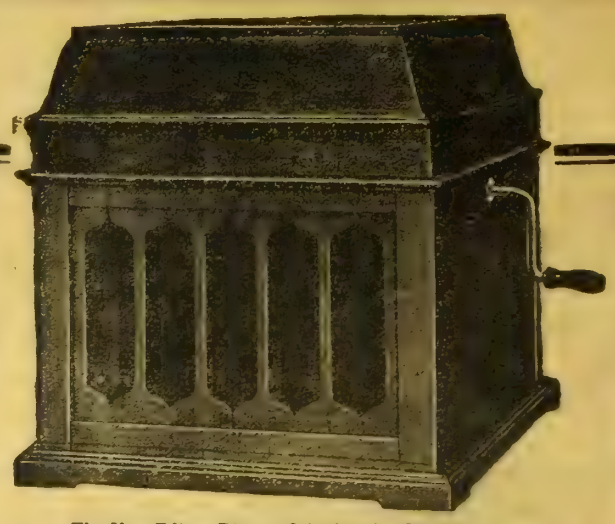

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I Love to Tell the Story
Dreams of Galilee

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Silver Threads Among the Gold
I'll Take You Home Again, Kathleen
Take This Letter to My Mother
Only to See Her Face Again
When You and I Were Young, Maggie

BANDS

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Cavalry Charge
Boston Commandery March
Blue Danube Waltz
Heart of America March
Garden of Roses Waltz
Passing Review—Patrol

PATRIOTIC RECORDS

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My Country, 'Tis of Thee (America)
We're Tenting To-Night
American Fantasie
Yankee Doodle

MARCHES

Dominion of Canada March
Boys of the Old Brigade March
Ben Hur Chariot Race March
Athol Highlanders' March
National Emblem March
Spirit of Independence March

MEDLEYS

Bonnie Scotland Medley
Medley of Country Dances
On Parade Medley
Fisher's Hornpipe Medley

INSTRUMENTAL SOLOS

Alexander's Ragtime Band (Banjo)
First Heart Throbs (Bells)
Dancing on the Housetop (Bells)
Carnival of Venice (Accordion)
Bonnie Scotland Medley with Variations (Xylophone)
Czardos (Harp)

VAUDEVILLE

Town Topics of Punkin Center
My Uncle's Farm
Insect Powder Agent
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Mrs. Clancy's Boarding House

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Don't Stop
Kentucky Babe
Tramp! Tramp! Tramp!
Sally in Our Alley
When the Roll Is Called Up Yonder

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THE WISCONSIN FARMER

VOL. XLVI. NO. 44. THURSDAY, NOVEMBER 1, 1917. WHOLE NO. 1866

Eleventh National Dairy Show

SCENES AT NATIONAL DAIRY SHOW.
1—Aged Jersey cow class. 2—Aged bull class, Holstein breed. 3—Guernsey heifer class, two years and under three.

REPRESENTATIVES of the government made it plain to the thousands of dairymen at Columbus, Ohio, last week that Uncle Sam must lean very heavily upon the herds and herdsmen of America for support during the world war. The eleventh annual National Dairy Show was held in the magnificent new coliseum on the Ohio State Fair grounds. In fact, the dairy show crowds helped to dedicate to the service of the live-stock industry this, another great, structure. From the standpoint of the building and grounds there are many who would like to go to Columbus again, but other events transpired which make it improbable that the next show will be held in the Buckeye state. Evidently the people of Columbus do not appreciate the greatness of such an exhibition as the National Dairy Show Association put on at Columbus this year, judging by the attendance last week. Surely there are thousands of farmers within a few hours' ride of Columbus who would have been glad to have attended the show had they understood what it was. But the weather was very bad on the big days when the world's pick of Jerseys, Holsteins, Guernseys, Ayrshires and Brown Swiss were brought into the ring. Ohio has for the most part very good roads, but cold, penetrating days with a light drizzle of rain or a snow falling most of the time are not conducive to overland travel. Hence there is some excuse for the small attendance in automobiles on the part of Ohio farmers. One cannot so readily find an excuse for the people of Columbus, a city of 275,000 people. These people should have attended by the thousands. Students should have been present en masse at this great show. But the people of Columbus seemed to look upon the dairy show as an opportunity to "rake in the shekels" and they proceeded on the theory that "opportunity knocks but once." Perhaps in another year Columbus would show greater appreciation of such a show with support which the show merited. There are those who believe that the policy of moving the show about each year is a mistake, and that the show would be stronger if firmly established in one city. As to next year's show, decision as to the place will be made probably in January. Chicago, Minneapolis, Milwaukee, Kansas City and St. Louis are candidates for entertaining the show, and we venture the assertion that any one of them will outstrip Columbus in local support. The East may also make a strong bid for the 1918 show, and the East knows how to appreciate a dairy show, as was shown at Springfield in 1916.

While Columbus offered poor support to the show, visitors from long distances came in as large numbers as was expected. There are many thousands of lovers of the dairy cow who will travel a thousand miles or two to witness the competition in classes in the National Dairy Show ring. The grain-belt states furnished a good part of the crowd and, as the award lists will show, a good part of the animals which carried away blue ribbons. The West has in times past bowed to the East in prize dairy cattle, but the West has made rapid progress, and with its abundance of grasses and grains and the rough feeds is sure to be the final center of dairying as an industry. This is not said in disparagement of those men who have worked for years in the East building up breeds of cattle which have furnished our foundation stock for western herds. Nor do we expect the western breeders to gallop away in the near future with all the ribbons offered. But the West will make its showing and from the vast number of her herds will come stock which she need have no fear of entering in any show ring. For volume of production, which is getting away from the purely sporting end of the business, the West must lead, and the great increases which the government is demanding in dairying must be made here on our hillsides and in the rich valleys of the grain belt. New York and New England and even Pennsylvania cannot add very materially to their dairy resources, though there will be a steady growth due to better feeding, better breeding and more careful work on the part of the dairyman. But New York and New England are close to their limits of feed production, and in times when much feed must be bought, and at prevailing prices, the chance for increasing the business is greatly reduced. But the grain-belt farmers can, almost every one of them, keep a few more cows. Almost every one of them can raise a little more feed to take care of these few more cows. The room for expansion of the dairy business is from Ohio west to the Pacific coast, and especially in the Mississippi valley.

A thought uppermost in the minds of the patriotic dairymen who visited this great show was that we must by every possible effort urge farmers not to kill dairy cows. Pres. H. E. Van Norman, from the Pacific coast, went so far as to say that not even should any of the poor, unprofitable cows be killed. This is a surprising statement, coming from the president of the greatest dairy show associa—[Continued on page 5.]

CURRENT EVENTS

THE liberty loan drive came to an end last Saturday night, with results which can hardly fail to convince the world that the American people are standing back of the administration with their money. The first loan was for two billion dollars; this second one was for any amount which could be raised between three and five billions. The minimum amount was far surpassed, the entire country rallying to the financial needs of the nation in magnificent manner. On Liberty Day, last Wednesday, a perfect torrent of subscriptions poured in on the treasury department, hundreds of millions of dollars being subscribed. Patriotic exercises were held all over the country; ex-President Taft, Wm. J. Bryan and all the leading members of the president's cabinet taking prominent parts. It developed that President Wilson had subscribed for $15,000 worth of the new bonds, having taken $10,000 worth of the first issue. Other men high in public life contributed in like manner, while millions of the common people dug down into their savings, to make good the slogan "A liberty bond in every American home." Practically one-half of the money which the government is raising by these bond issues is being loaned to its European allies, the other half going to put an efficient American army in the field. The American people have responded in a truly historic manner to Uncle Sam's plea for funds.

GENERAL HAIG, the British commander, and General Petain, the French commander, continue their terrific drives against the German lines in Flanders, making good ground gains and capturing thousands of prisoners and hundreds of guns. Notwithstanding the stormy weather, the operations have been carried on unceasingly, a terrific artillery bombardment inevitably preceding and accompanying the infantry charges. The moral effect upon the German troops can be imagined. There is good reason to believe that the efficiency of the Teutonic fighters is being weakened and that Germany is not nearly as strong as it was a year ago. Dispatches from Russia assert that the Russians destroyed sixteen German warships recently, most of them being topedo boat destroyers, but at least one German dreadnaught being disabled. A large number of German aeroplanes and Zeppelins have been shot down over England and France, so that the week has been one of material gains for the allies. Several of the Zeppelins which raided English coast towns were lost in fog flying over France and were brought down before they could return home. One Zeppelin was brought down intact, its crew of twenty or more men being captured. General Pershing, commander of the United States forces, was under fire in the trenches captured from the Germans last week, but there is no indication as yet that Uncle Sam's boys have taken a hand in the fighting.

LACK of coal is putting Holland on the verge of destitution. Factories have been shut down, thousands have been thrown out of work, railroad schedules may be abandoned, and it is feared there will not be enough coal to keep the pumps running that prevent large areas of the Netherlands from becoming inundated. Thus are parts of Holland as described in a letter just received by a prominent Chicago man from a friend at The Hague. Endless masses of German deserters are running away from Germany into Holland, according to the letter. The deserters are vicious and disorderly and thousands of them have been seized and put into camps. According to this man, America's motive for entering the war is not unknown by the Dutch people. America and her ideals are not as yet appreciated, but already have many champions.

UNDER an arrangement between the United States food administration and the Canadian food controller, large supplies of Canadian wheat are to begin moving at once by way of the great lakes to the eastern American flour mills, so that they may resume full capacity operations. The wheat will be purchased through the Canadian government at the same price as fixed for the American 1917 crop. Its coming will relieve pressure upon the American northwestern supply. Unless peace should intervene and the food administration come to an end there will be no change in the government purchase price of the 1917 harvest of wheat. This announcement was made recently by the food administration in denial of rumors current in some agricultural sections that the price was to be altered. In event of peace it was pointed out that large quantities of wheat now inaccessible in Australia and India would be available to the world's markets and the maintenance of the present American price would be highly unlikely.

LAST Sunday was a special day of prayer for the success of American arms, an official proclamation to this effect having been issued by President Wilson during the week. The president said: "Whereas, it behooves a great free people, nurtured as we have been in the eternal principles of justice and of right, a nation which has sought from the earliest days of its existence to be obedient to the divine teachings which have inspired it in the exercise of its liberties, to turn always to the Supreme Master and cast themselves in faith at His feet, praying for His aid and succor in every hour of trial, to the end that the great aims to which we dedicate our power as a people may not perish among men, but be always asserted and defended with fresh ardor and devotion, and, through the divine blessing, set at the last upon enduring foundations for the benefit of all the free peoples of the earth: Now, therefore, I, Woodrow Wilson, president of the United States, gladly responding to the wish expressed by the congress, do appoint October 28th, being the last Sunday of the present month, as a day of supplication and prayer for all the people of the nation, earnestly exhorting all my countrymen to observe the appointed day, according to their several faiths, in solemn prayer that God's blessing may rest upon the high task which is laid upon us, to the end that the cause for which we give our lives and treasure may triumph and our efforts be blessed with high achievement." Churches all over the land held special services and the day was one of memorable solemnity.

THERE is good reason to believe that both Bulgaria and Turkey are as tired of the war as Austria and are only held in line by the iron hand of the kaiser of Germany. Dispatches during the week stated that while the kaiser and King Ferdinand of Bulgaria were exchanging assurances of the unshakable loyalty of Bulgaria and Germany to each other and of the permanent nature of the alliance of the two countries, Bulgarian agents abroad were endeavoring to get into touch with the allied powers on the subject of peace and subsequent relations. Their efforts are declared to be inspired by apprehension that Germany and Austria-Hungary, particularly the latter, may not be overzealous in defending Bulgaria's interest at the peace conference, as well as by a desire on Bulgaria's part to escape from revolving in an exclusively German orbit after the war. The German attempt to maintain control of Bulgaria's single coal field has excited much unfriendly comment in Bulgaria, and Field Marshal Von Mackensen is charged with favoring the Rumanians at Bulgarian expense. Furthermore the press controversy in certain German and Austrian newspapers in which the Serbian claims to parts of Macedonia were defended apparently has left an indelible impression of distrust on Bulgarian public opinion, an impression which the public declarations of the German minister and the interchanges of cordial telegrams between German and Bulgarian statesmen seem to have been unable to efface. It remains to be seen whether Emperor William's trip, declared to have been undertaken with the purpose in view, will prove any more successful.

RATIONS now allowed the German people and the civilian population of the occupied portions of northern France and Belgium, details of which have just reached the food administration, are insufficient to maintain bodily health and vigor. The French and Belgians get considerably less than the amount apportioned to the German population, and they get no meat except bacon. As announced by the food administration, the weekly ration to the Germans, stated in terms of American housekeeping, amounts to sufficient flour to bake four and one-half pounds of bread; one-half peck of potatoes; a cupful each of beans, peas and oatmeal; one-half pound of meat, twelve dominoes of sugar, six individual patties of butter and an equal amount of other fats. In northern France the weekly ration allows sufficient flour for five pounds of bread; one-fifth of a peck of potatoes; one cupful of cereals; twelve and one-third ounces of bacon and lard, and ten dominoes of sugar. Here meat, butter and margarine are all replaced by bacon and lard. The allowance of flour and cereals are slightly increased, but the allowance of potatoes is less than half the German ration, while the allowance of sugar also is reduced. The ration for the civilian population in occupied portions of Belgium is similar to that of northern France, except bacon and lard are replaced by meat and butter.

THE country faced a serious sugar shortage last week, many cities not having any supply whatever, even for immediate needs. The shortage was particularly severe in the east, but the grain belt suffered as well. The authorities believe that the situation will be relieved shortly, as 200,000,000 pounds of Louisiana cane sugar are being rushed to the north. The shortage is caused by increased shipments to the European allies and food hoarding in this country. Federal secret service agents at Buffalo, N. Y., last week reported to Washington the discovery in a Buffalo warehouse of millions of pounds of sugar in bags and barrels labeled "top crust flour." Notations on the packages, it was said, indicated that the sugar had been coming into the warehouse over a period of several months. A federal agent who made a survey of the contents of the building estimated the amount of sugar at 150 carloads, or about 10,000,000 pounds. Around immense piles of sacks containing the sugar the federal agent said he found a screen of other articles, while some of the containers marked "top crust flour" actually had flour sprinkled over the outside.

RUMORS of mutiny among German soldiers and sailors and impending revolution in German industrial circles continue to bob up every little while. An official report on conditions in Germany received in Washington last week represents the situation to be more critical than at any time since the war broke out. The report could be summarized in this manner: "Germany's population wants peace, and the people declare it will be concluded in November, because a German victory by arms is felt to be impossible of realization. German workmen, stirred to a high pitch of discontent by the socialists, boldly state that they will leave the factories necessary for the conduct of the war if the war continues during the winter. In the meantime, German workmen are demanding increases of pay and a more liberal apportionment of food. Uprisings in several parts of the empire are taking place with ever-increasing frequency. In Berlin, soldiers participated in the disorders. In one demonstration twenty-five German soldiers were counted. The Franco-English aerial bombardments of German cities and towns are increasing the dissatisfaction of the masses with the war. At Essen bombs dropped from airplanes did enormous damage, some striking a circus during a performance for soldiers, at which 800 soldiers were killed."

Bluejackets will man and naval officers will command army transports hereafter. Officials believe this will insure more efficient operation of the ships, particularly in the war zone, where the strain on a crew is greatest and so lessen the risk of destruction by submarines. Decision to have the navy operate the transports is believed to have been hastened by the sinking of the transport Antilles, manned by civilians. It was pointed out that the highly trained and disciplined naval force is far more effective than a constantly changing civilian personnel. This is regarded as particularly true of the fireroom force, upon which a ship's speed largely depends. In anticipation of this agreement, the navy has been training men especially for the transport service and a large force is understood to be available now. Others will be trained as rapidly as possible, so that not only all existing transports can be manned, but also the new ones now building. These latter have been especially designed and will be much faster than the standard cargo vessels. They are planned for a speed of at least eighteen knots. The high speed will furnish one protection against submarines, but still another will be supplied in the ships themselves. They will be so constructed as to be safe against one torpedo and it is believed that probably two would not sink them.

Apples which are stored in the cellar should not be placed near potatoes or other vegetables, for the flavor may be spoiled.

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The Wisconsin Farmer

THURSDAY, NOVEMBER 1, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

PROGRESS OF FARM LAND BANKS.

I HAVE been rather curious lately to know how the federal farm loan law (concerning which I have written so often on this page) was working out, here in the grain belt. It is now about six months since the law went into actual operation, so far as obtaining loans is concerned, the time prior to that having been utilized in locating the twelve land banks and in devising the details of their administration. Along with most prospective patrons of the system, I was quite disappointed that the banks were not ready to make loans the first of March, a time when most farm obligations are made or renewed, but I look forward to next spring's proving the usefulness and practicability of the law most effectively.

I asked two of the federal land banks here in the grain belt just how the system was working out; choosing the northernmost and the southernmost bank, so as to be representative of the entire section. Mr. H. K. Jennings, secretary of the bank at St. Paul, which loans to farmers in Wisconsin, Minnesota, North Dakota and Michigan, advises me that up to October 1st that bank had received applications for loans in the sum of $15,896,700, and of that amount $7,423,600 had already been approved. I turned from Mr. Jennings' letter to the census report which I keep ready to my hand and I found that the farm-mortgage indebtedness of these four states, at the last federal census, amounted to $348,520,213. It took only a minute's figuring to show me that in the first six months of the new law's workings loans had been applied for to the extent of 4½ per cent of the total farm-mortgage indebtedness. At this ratio, by the time a year of actual operations has passed, almost one-tenth of the farm mortgage loans will be in process of transfer to Uncle Sam's new system, under which farmers obtain money at 5 per cent interest, for any term of years, ranging from five to forty.

This St. Paul report is duplicated by the one which comes to me from Mr. O. J. Lloyd, secretary of the federal land bank at St. Louis, which loans to farmers in Illinois, Missouri and Arkansas. Mr. Lloyd states that they have applications to the amount of $8,428,615, of which $3,500,000 has already been approved. Once more I turned to the census report, to find that the farm-mortgage indebtedness of these three states amounted, at last reports, to $237,306,381. Four per cent of this grand total has already been applied for under the new system. I believe we are safe in saying, the grain belt over, that loans are being asked to such an extent that, by the end of the first twelve months of actual loaning, practically one-tenth of the farm-mortgage indebtedness will have been transferred from insurance companies, banks and private investors to Uncle Sam's new land banks.

When we come right down to it, this is a splendid start and augurs well for the success of the system. People are always a bit slow to try a new thing; particularly when it is bound about by as much red tape as encumbers this new financial system. But I believe we have gone far enough already to verify my prediction that the new system is a success, that it affords a considerable measure of relief to farmers and will be eagerly taken advantage of by them.

CHARITY IN THE FARM HOME.

I HAVE always contended that country folks were more sympathetic, more charitable, than city people. There is room in the country for the sympathies to expand. There is not the frequent repetition of need to dull the sensibilities. There is an air of wholesomeness about country life which is lacking in the cities, and this wholesomeness affects the minds and spirits of the people.

I have had folks argue with me that farmers were slow to be aroused to the needs of the less fortunate, that they could not realize (living, as they do, in the midst of plenty) the suffering which existed elsewhere. I do not believe this. I know that no worthy cause has ever been presented by me, to the farmers who do me the honor to read what I write, without their response being prompt and generous. The trouble all too many city folks make is in not explaining the needs plainly enough to the men and women of the country whose aid they wish. They seem to think that all they have to do is to ask for charity and it will be forthcoming. This is a grievous mistake. We have systematized our charitable work nowadays, eliminating the unworthy and the unscrupulous. An appeal which cannot be explained and its merit proved, so that all will understand, is not worth heeding. But whenever a worthy cause is made plain to the folks of the country the response is immediate and generous to the limit of ability.

I do not know just why these thoughts have been coming to me, over and over again, the last few days. Perhaps it is because we are rapidly approaching the season of the year when the waste on our farms would feed many a hungry home in the city. Perhaps it is because the tales of heroism and suffering and sacrifice in the war are making us all a little more tender hearted, bringing the tears a little closer to the eye. The nation's heart beats quickly these days; we are all of us touched by emotions which have lain dormant in many for long years.

Perhaps, after all, unconsciously, I began to think over this subject after I read the splendid letter which a subscriber at Kanawha, Iowa, Mr. Irwin Anderson, wrote to me a few days ago. I am going to reprint this letter, without telling him about it, for I believe that it will open the eyes of many of us to the fact that whatever our lot in life we can help those who are less fortunate, that the possibilities of relieving suffering are present in every country home, no matter how humble. Mr. Anderson wrote:

Dear Mr. Pierce: I have been an interested reader of your good paper for some time. I am taking the liberty of asking a favor of you. Do you know the address of any charity organization which would accept some outgrown clothing? I have several pieces of children's garments that are of no use to me. We are poor people, so have nothing fine, but have seen the time such garments would have been very acceptable to us and I think they would be to others if I only knew who they were. I hope you may be able to give me this information.

I gave Mr. Anderson the names and addresses of several worthy organizations which will be only too glad to receive and to distribute this clothing. It may be the means of saving the lives of some little ones this winter, of cutting down the dread ravages of pneumonia, of shutting out the biting wintry winds from some little body. This, my friends, is real charity, the charity which will make the Recording Angel write the name of the giver high up on the celestial roll of honor. Charity does not consist alone in giving millions; the pennies oftentimes do as useful a work, judiciously distributed. A boxful of outgrown clothing from this farm home may do as much good, may relieve as much suffering, as anything John D. Rockefeller or Andrew Carnegie have done with their millions for a whole year past. I am proud that this family turned to me when they thought of the good they might possibly do. I am honored to be an agent in the relief of suffering. If I can serve others of my readers in a similar fashion I shall be pleased, indeed.

A MAN WHO LOVES NATURE.

IT HAS been several weeks since I last quoted from David Grayson, whose writings on homely rural topics I enjoy so much. I thought perhaps some of you might be tiring of Grayson, but I judge from the numerous letters I have received that none of you are. So I am going to quote a wee bit from him again this week; his last article in the American Magazine is too good to keep from you.

I often wonder if we who associate daily with Nature appreciate her enough. Some of her manifestations come, in time and through familiarity, to appear almost ordinary. We become so accustomed to the miracle of the seed and the harvest; to the artistry of the golden autumn leaf and the burning sunset; to the kaleidoscope of color and form and substance which Nature holds before our all too often unappreciative eyes. I believe that it is well now and then to turn from the visible contemplation of Nature's marvels to the written description of them; to read something that Ruskin or Grayson or some other nature lover has written, expressing in eloquent words the formless thoughts in our own minds. That is why I quote so often from David Grayson. He is not describing anything new, anything you and I have not seen. It is not as though he were picturing a newly found people in the heart of Asia or the wonders of Mars; he is telling us what we can see every day from our backdoor stoop, as we walk through furrow and feed lot, if only we will keep our eyes open. But it was Grayson I started out to quote, not myself, so here is the selection from his recent article in the American Magazine that I want you to enjoy with me:

Of all places in the world where life can be lived to its fullest and freest, where it can be met in its greatest variety and beauty, I am convinced that there is none to equal the open country, or the country town. For all country people in these days may have the city, some city or town not too far away; but there are millions of men and women in America who have no country and no sense of the country. What do they not lose out of life!

If one has drained his land, and plowed it, and fertilized it, and planted it, and harvested it—even though it be only a few acres—how he comes to know and to love every rod of it. He knows the wet spots, and the stony spots, and the warmest and most fertile spots, until his acres have all the qualities of a personality, whose every characteristic he knows. It is so also that he comes to know his horses and cattle and pigs and hens. It is a fine thing, on a warm day in early spring, to bring out the beehives and let the bees have their first flight in the sunshine. What cleanly folk they are! And later to see them coming in yellow all over with pollen from the willows!

It is a fine thing to watch the cherries and plum trees come into blossom, with us about the first of May, while all the remainder of the orchard seems still sleeping. It is a fine thing to see the cattle turned for the first time in spring into the green meadows. It is a fine thing, one of the finest of all, to see and smell the rain in a cornfield after weeks of drouth. How it comes softly out of gray skies, the first drops throwing up spatters of dust and losing themselves in the dry soil. Then the clouds sweep forward up the valley, darkening the meadows and blotting out the hills, and then there is the whispering of the rain as it first sweeps across the cornfield. At once what a stir of life! What rustling of the long green leaves! What joyful shaking and swaying of the tassels! And have you watched how eagerly the grooved leaves catch each early drop and, lest there be too little rain after all, conduct it jealously down the stalk where it will soonest reach the thirsty roots? What a fine thing is this to see!

So much of the best in the world seems to have come fragrant out of fields, gardens and hillsides. So many truths spoken by the Master Poet come to us exhaling the odors of the open country. His stories were so often of sowers, husbandmen, herdsmen; His similes and illustrations so often dealt with the common and familiar beauty of the fields. "Consider the lilies how they grow." It was on a hillside that He preached His greatest sermon, and when in the last agony He sought a place to meet His God, where did He go but to a garden? A carpenter, you say? Yes, but of this one may be sure: There were gardens and fields all about; He knew gardens, and cattle, and the simple processes of the land; He must have worked in a garden and loved it well.

Is that not fine, indeed? Is there not a freshness, an honesty, an appreciation of farming as the most noble and useful of professions in every word that Grayson writes? I like a man who can look about him on the things which are common, because of their frequent appearance and repetition, and make them appear as splendid and attractive as the unseen things of the imagination half the world away. What agriculture lacks nowadays is men of spiritual and mental vision, with power to ennoble country life in words and pictures so as to appeal to those who having eyes see not, who having ears hear not. I would be glad and proud, indeed, if I could do my little bit. Sometimes I wonder if a little that I write here on this page of mine may not perhaps be accused of being sentimental and impractical, of being a bit visionary, in fact. But when the letters come in to me—as they do so often—telling of some good that a little preaching of mine has done in some farm family, of ideals uplifted and ideas re-created, I think, perhaps, we need a little of this kind of farm teaching, as well as the more practical, workaday sort. One favor I have to ask of my readers, and that is this: Write me what you think of the subjects I discuss and the manner in which I treat them, suggest subjects to me, make this page yours as well as mine. In that way—and that way only—can we attain the real, working coöperation between publisher and reader which is my ideal.

FARM BOYS IN ARMY CAMPS.

A WEEK or two ago I promised to write an article descriptive of the manner in which the boys from the farm are being treated in the army cantonments here in the grain belt. I have visited two of these cantonments and have received reports from the others. The subject is a large one; I shall do the best I can with the limited time and space at my disposal.

To begin with, I do not believe that any farm mother or father need worry about the three most important things: Health, comfort and morals. Their boys are being well looked after. Conditions will improve as time passes, but, really, my friends,

(Concluded on page 15.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Wisconsin Implement Convention and Show.

A convention of considerable interest to farmers will be held at Milwaukee, December 12th, 13th and 14th. We refer to the annual convention and Implement Show to be held in the Milwaukee auditorium under the direction of the Wisconsin Implement and Vehicle Association. The exhibit of farm machinery at this meeting will be complete in every detail. In fact, there will be an exhibit of practically every sort of tool and implement which is used on the farm. The manufacturers of up-to-the-minute machinery have gone to considerable trouble to arrange for this exhibit and it is a splendid opportunity for farmers to look over their wares. F. R. Sebenthall, of Eau Claire, secretary of the association, advises us that all available space in the large auditorium has been spoken for. The high prices of farm implements will, of course, be a topic of great interest and the dealers of the state want to hear from the manufacturers on this subject and learn what these manufacturers have to say to justify the advance. One-half day during the convention is to be devoted to community building and increased farm production and one session will be a patriotic session with Hon. J. M. Whitehead, of Janesville, as speaker, representing the League to Enforce Peace. Mr. Moon, of Chicago, former general store owner in northern Indiana, and Mr. White, representing the Agricultural Publishers' Association, have consented to appear on the program. Every effort possible will be made to make the sessions not only profitable to the implement dealers, but to their visiting farmer friends as well. Mr. Sebenthall writes The Wisconsin Farmer as follows:

The farmers of Wisconsin are invited to attend the exhibitions at Milwaukee and also the sessions during the convention as the programs will be prepared to include such important topics as "Service From the Dealer" and outline policies for assistance that can be rendered to our farmer customers in helping to win the war by intense farming and increased production.

The editor of The Wisconsin Farmer enjoyed the sessions at Milwaukee last year and we hope that many of our readers will take advantage of the opportunities afforded by this convention and exhibit.

Wisconsin Farm Home Contest.

The farm home contest conducted during the summer months by the college of agriculture with a view of gathering the best ideas relative to farm home architecture came to a close some weeks ago, but the winners have just now been announced. The winning plans were chosen on the basis of making the home attractive and cozy without increasing materially the cost of the building. Saving steps for the housewife was one of the important factors the judges considered in making their awards.

The leaders of the contest as announced by the judges were Miss May L. Cowles, Madison; Helen H. Bennett, Interlaken, New York; Florence L. Kennard, Madison; Vera Lubeno, Trevor; F. J. Forward, Berlin; Mrs. Phebe W. Sawtelle, Madison; Russell Williamson, Spring Green; Mrs. F. F. Bowman, Madison; John Ostrander, Albany, and R. B. Chatfield, Weyerhauser.

A total of seventy-two separate house plans were considered by the judges in choosing the ten prize winners. The judges for the contest were Mrs. James Z. McLay, Janesville; Mrs. W. J. Dougan, Beloit; C. I. Griffith, department of agricultural engineering; Miss Amy L. Daniels and Miss A. L. Marlatt, department of home economics, University of Wisconsin.

Only men and women who were living or had lived on a farm were allowed to compete in the contest. The best ten plans will be used to obtain ideas for the building of the new farm home demonstration cottage, which is soon to be erected on the campus at the college of agriculture, Madison. This cottage will serve as a special place of study in household management and home planning for the home economics students. The building has been approved by the board of regents of the university and a committee consisting of President Van Hise, H. J. Thorkelson, Arthur Peabody, state architect, and Dean Russell, of the college of agriculture, will soon decide upon a favorable location.

The materials for the new cottage will all be donated if present plans do not fail. The Northern Hemlock and Hardwood Manufacturers' Association and the Portland Cement Association will furnish all the material for its general construction. Leading manufacturers of household equipment will help in fitting this building into a practical illustration of what a modern farm home can and should be without unnecessary expense.

Wood from the forests of Wisconsin will be used in the structure throughout. Where durability is expected and recommended cement will be used.

The interior of the cottage will be on plain and sensible lines. Furnishings and equipment will be for comfort as well as the saving of labor. The college of agriculture has secured the services of A. B. Roush, formerly with a commercial concern, who will in the future answer all inquiries on farm home planning.

Hog Fat as Important as Bullets.

According to Food Administrator Hoover, every pound of fat is as sure of service as every bullet and every hog is of greater value to the winning of the war that we are now waging than a shell. Mr. Hoover points out that in view of the European situation and the American shortage in hogs there is sure to be a high average price paid for pork products during the coming year and this should be assurance to stockmen that prices will be sufficiently high to make swine raising profitable.

In this connection it is interesting to consider the relation of cash revenue from the grain and the profit from hogs that have been fed on high-priced grain. The Iowa Agricultural College reports the case of J. D. McCray, who started out last spring with 105 pigs. Some of these pigs were of March farrow, some April, and others were farrowed in May. These shoats were sold recently at $19 per hundred and they averaged 227 pounds. It should be added that twenty-five of the lighter ones sold for $18.50 per hundred.

From May 23d to October 4th, the date of sale, they consumed 912 bushels of corn and forty sacks of tankage. This means that each shoat consumed practically eight and one-half bushels of corn and thirty-eight pounds of tankage. With corn at $2 a bushel and tankage at $4 a sack the total cost of the feed was $1,983.96. The pigs sold for $3,781.80. The difference between the selling price and the cost of the feed used between May 23d and October 4th amounted to $17 per head. This does not mean $17 profit, because there is not charged up against this account the cost of wintering the sows and their spring feed and care up until May 23d. The total weight of the pigs was 3,180 pounds on May 23d and at 19 cents a pound they would be worth $624.20. Subtracting this from the gross item as well as the feed bill we find that there is left a profit of $1,193.36, which is a little more than $11 per head. In addition to the grain these 105 pigs had access to six acres of alfalfa and if there is a deduction of $20 per acre for rent there still remains a profit of $10 per head.

This record was made under farm conditions and what one man can do with a healthy bunch of hogs another ought to be able to accomplish if he follows up-to-date methods. Feeding operations of the present time have been carried on largely with $2 corn, and here is a case where quite a satisfactory profit was realized on hogs sold at $19 per hundred.

We believe that the stockmen of the Central West are aiming to produce the pounds of fat and meat products that are now considered even more important than bullets and it is expected that the food administration will use its influence to see to it that no condition shall arise that will knock the bottom out of meat prices after the product has been made ready for market as the result of feeding high-priced grain.

Standardizing Wisconsin Farm Products.

E. L. Luther, superintendent of Wisconsin Farmers' Institutes, has contributed to a bulletin on the subject of standardization of products and this bulletin has been distributed by the Wisconsin Bankers' Association. In his bulletin Mr. Luther calls attention to the fact that many counties in Wisconsin valued at $20,000,000 exclusive of city valuations, enjoy no reputation for any product of sufficient superiority to entitle this product to a special market. Mr. Luther very rightly says that any manufactured product produced on such an extensive scale would be well-known all over the country. We quote from Mr. Luther's bulletin:

Suppose we had a factory valued at that much with 3,000 or 4,000 workers in it, each one of whom was free to turn out, according to his fancy, the product or products which the factory manufactured. If that were an implement factory, farmers would be unable to get two machines alike from that factory; the workableness of one machine would be no guarantee of another, and in disgust with factory-made machinery farmers would be using homemade rakes, forks, cradles, scythes and so on. The great factory would be a failure. It would have an impossible marketing problem on its hands.

So it is with agricultural production. The 3,000 farmers of a county often produce what the fancy of each one permits. Imagine the varieties of products and the various grades of quality of what he may be able to secure tomorrow. Farmers complain of their markets. Do you see why?

In the matter of live stock Mr. Luther finds that many inquiries are made for carload lots of certain types and breeds. He knows of a hundred inquiries along this line since March, 1917, and this points to the fact that there is a great market for the right type of dairy cattle. But at the same time a great majority of our farmers are still using scrub cows and grade bulls. Now if every farmer in Wisconsin would use a pure-bred bull of any one of the great dairy breeds, the production of live stock along dairy lines would approach standardization and all parts of Wisconsin would be receiving these inquiries for pure-bred stock. As it is now a community which is organized and becomes known for producing a given quality of stock gets the business and the rank and file of farmers who have just "cattle" to sell get no orders. Mr. Luther suggests the following:

Live Stock—Township breeders' organizations to use pure-bred sires of but one breed.

Cow Testing Associations—To produce only high producing dairy stock.

Tuberculosis — County organization under the new Wisconsin law makes it possible to clean up tuberculosis in whole communities.

These three moves will give us standard stock of a breed, high producing and disease-free.

While our creameries and cheese factories are getting closer to standardization of their work, Mr. Luther says we are still far removed from uniform quality and this is due to the fact that milk production is carried on under so many varied conditions. Community organization of milk production is needed and this writer suggests such improvements as high-producing cows kept in well-lighted and well-ventilated, clean barns, turned out into clean yards, fed upon hay free from weeds and upon silage free from ragweed, grazed in pastures free from weeds, milked by milkers who carefully groom themselves, and the milk handled by those who are careful with all utensils and separators and see that they are washed with each use. A dairy community should be organized so that these things are properly looked after and prevent one or two careless or indifferent persons from mixing in their product and making the whole second or third grade.

Mr. Luther says the potato growers of this state should become even better organized than they are and that farmers of whole communities should organize to produce a community crop of uniform quality. The southern states will take large quantities of northern-grown seed, but this seed must be certified, variety pure, disease free and graded.

This same system of organization should be carried out in the production of grains so that whole communities should raise pedigreed varieties. Communities should be organized for corn production so that our standard Wisconsin varieties of seed would not become crossed and would be well selected and kiln dried. Farmers' societies and coöperative enterprises will find it much easier to market a standard crop of known quality.

National Holstein Meeting.

The 1918 meeting of the National Holstein Association will be held the first week in June at Milwaukee. At a special meeting of the society held in Columbus, Ohio, during the National Dairy Show, this decision was reached, but not without considerable discussion. The final vote of the directors was five for Milwaukee and four for Waterloo, Iowa. By rights Wisconsin should have more of these national meetings. Our position in the dairy world entitles us to this recognition. In connection with the meeting at Milwaukee next June will be held a sale which will undoubtedly attract attention of breeders all over the world. At the sale held this year one bull calf brought the highest price ever paid for any animal. This is only an indication of the class which we are getting into. Holstein breeders throughout Wisconsin should lay their plans to attend the next meeting of their national association in Milwaukee. There is no doubt about Milwaukee taking care of the crowds in good shape. Now that Wisconsin has gained this recognition from the Holstein breeders the next step is to get the National Dairy Show for 1918. Surely Wisconsin would give the show better local support than it received at Columbus, Ohio, this year.

Breeding Ewe Lambs.

Because of the scarcity of sheep in this country and the tremendous demand that exists for mutton and meat of all kinds, in fact, well-informed, practical sheep men are recommending the breeding of all well-developed ewe lambs dropped in April or May. While this plan is not to be recommended as good practice from year to year, it is thought to be desirable so long as the sheep population must be increased as rapidly as possible in order to meet the demand for mutton in this country and abroad.

It isn't necessary, of course, to breed these lambs early in the season, but it is better to defer breeding as late as may be practicable, thus giving them a little more time to develop. The old and mature ewes can be bred early and the lambs a little later, thus prolonging the lambing season to a certain extent. Not all lambs will become pregnant, but from 70 to 80 per cent of them will if a ram is allowed to run with them when the proper time for breeding arrives.

In order that these young females may not have their growth seriously interferred with because of early breeding, it will be a good plan to feed them a little more liberally from now on than will be necessary with mature breeding stock. A little grain will be especially desirable during the winter season to keep them in a thrifty, growing condition. When breeding young stock that has not yet reached maturity, the fact must not be overlooked that more feed will be required per hundred pounds live weight than for mature animals, because allowance must be made for growth. When the dam must take care of its own body growth, as well as that of its fetus, one can readily see that it will need more feed than if its body were fully developed before breeding.

Family Circle Talks by the Publisher

(Continued from page 3.)

the government has done wonders in the short time it has had to prepare for these thousands of boys and men from city, town and farm. There was no precedent to go by; it was all in the nature of an experiment. Considering the drawbacks, I think the results so far achieved are splendid.

The soldiers are comfortable and healthy. There was delay, when the first contingents arrived, in securing uniforms, but that has been remedied. So far as I have observed, or can learn, every soldier now in camp has been provided with uniform and overcoat. Sometimes these clothes do not fit perfectly, but what does that matter; they are made of good, heavy, serviceable cloth and they are warm. The overcoats are regular ulsters, coming clear down to the men's feet, which are encased in good, sound, serviceable shoes, far better shoes than many of the men (both from farm and city) wore before Uncle Sam took to looking after them.

Not enough blankets have been received, in view of the unseasonable cold snap of last week, but I am informed that they are on the way and will reach all of the camps before zero weather comes. Nor are all the barracks heated as yet. Furnace heat has been furnished to only a few of the buildings, but some of the cantonments have supplied the deficiency with stoves. From Fort Funston the word comes to me that many of the barracks are as yet entirely unheated and the men are obliged to go to bed, at all hours of the day and early at night, in order to keep warm. There is no better commander in all the country than General Leonard Wood, who is stationed at Fort Funston, so I am sure this condition of affairs will be remedied as soon as possible.

The farm boys have an advantage over the city boys in the matter of health, for, as a general rule, they are stronger, more accustomed to outdoor life and better prepared for the army work. Naturally, there are cases at the camp hospitals; many cases at some camps. I know of one of these cantonments where something like 25,000 soldiers are now quartered. Last week there were about 500 men in the hospital. But most of these men were suffering from simple colds. The hospitals are well heated and the men stay there in preference to their cold or half-heated barracks. Even this is not a bad showing, for 25,000 men mean the equivalent of a town of 50,000, at least (counting the women and children in the ordinary city), and 500 cases of sickness, most of them light cases, with the patients simply staying at home from work or school, would not be many in a city of that size. There have been but one or two deaths, at most, at any of the camps. In all probability, there would have been as many fatalities, among as many thousands of men, at home. There are good doctors and surgeons at each camp. Uncle Sam needs strong men; he is going to do all that he can to conserve the health of those he has, rely on that.

Some of the men at these army camps complain of the food; most of the complainers are city boys, who miss their fancy dishes. The farm boys are pretty well satisfied, as a rule. There is plenty of good, wholesome, body-sustaining food. Many of the army cooks are new to the business; they send the potatoes to the table half done, at times, and the meat overdone. But they are learning quickly. The fare is substantial; lots better than many families, both in town and country, enjoy as a general rule. The soldiers lose no time, on their days out, in buying cake, pie, cookies, candy and other delicacies which they do not obtain enough of, to suit them, in the regular army fare, but this is the habit of young men the world over, in times of peace or war. There never yet was a college boy who did not raid the boarding house pantry or buy a "swell feed" at some restaurant every time he got the chance—and the money.

The men are allowed two afternoons off each week, being free to go to town or do whatever they choose, provided only that they report back on duty at a stipulated hour. Most of them go to the nearby town or city, attend theaters, shop, play pool, visit the movies or otherwise enjoy themselves in a perfectly normal and healthy fashion. The best of order is invariably maintained. Practically none of the big army camps of the nation are located near any town or city where intoxicating liquors are served, and there is little bootlegging going on. The social evil is an ever-present one, but greatly exaggerated. Most of the cities where the army camps are located have provided community and recreation centers, Y. M. C. A. reading and rest rooms and various other places where amusement may be had or young folks of the opposite sexes may meet and pass the hours. Morals matrons are provided in practically all the army camp towns and military police assist the regular city force in keeping order. I believe the social evil is grossly exaggerated. The soldiers are leading clean, upright lives in camp, just as they would at home; donning Uncle Sam's uniform has not changed their nature in this important respect.

The men are busy and, for the most part, happy. Here is their daily routine, as outlined to me by an officer in one of the large camps:

Monday, eight hours of drilling and one of physical exercise; at night, the Y. M. C. A. or an evening in barracks.

Tuesday, one hour of physical exercise and eight of drilling; at night, the barracks or the Y. M. C. A.

Wednesday, eight hours of drilling and one of physical exercise; at night, the Y. M. C. A. or barracks.

Thursday, one hour of physical exercise and eight hours of drilling; at night, the Knights of Columbus for a change, or the Y. M. C. A. or barracks.

Friday, the same.

Saturday, inspection, drill and the afternoon off.

Sunday, church and the rest of the day off.

Services are provided for Protestants and Catholics impartially; there are chaplains to look after the men's spiritual welfare, as well as doctors to look after their physical welfare.

I firmly believe that there is little for the farm mother or father to worry about, as yet. Once the men are trained and sent over to France it will be different, but so far the work lacks danger and can hardly fail to benefit the vast majority of the men, both physically and mentally. The other night some 4,000 of these new soldiers marched in review before ex-President Taft. Four weeks ago not one of the 4,000 had a uniform; 99 per cent of them had never drilled a minute. Yet they marched with the precision and efficiency of regulars; it made the tears come to my eyes to see how splendidly they are learning. Almost one-half of those boys came from the farm. Their heads were erect, their eyes bright, most of them smiled as the crowd cheered them to the echo. Mothers and fathers of the farm—your boys in the army camp are all right; remember them in your prayers, keep a stiff upper lip and pray to God that peace may come before they must go abroad to make the great sacrifice.

James M. Pierce

ELEVENTH NATIONAL DAIRY SHOW.

(Continued from page 1.)

tion in the world. There were those, of course, who disagreed with President Van Norman, and who insist that our dairy farmers are committing little short of a crime in running perfectly good high-priced feed through a cow which cannot produce enough milk to pay for her board. But there are always advocates of both extremes of any situation. The fact remains outstanding that killing dairy cows for beef is a sacrifice which neither the dairyman owner, nor his harassed government can at this time afford. There are approximately 22,500,000 dairy cows in the United States. This seems an immense number. But reliable estimates say that practically the same number have been slaughtered in Europe since this war started. Plainly during the present war, and undoubtedly for a long period following the war, we must be an export nation in such commodities as butter and cheese. Furthermore, when peace is declared, Europe will be obliged to rush into grain farming to produce food, and it will take a number of years to build up the dairy business to the extent that she can supply her own milk and dairy fats. Just at this time we are an enormous exporter of condensed milk, and this business bids fair to increase. In 1913 the United States exported 16,000,000 pounds of condensed milk, a relatively small amount when we consider the immense milk production of the country. But in 1916 the exportation of condensed milk had increased to 160,000,000 pounds, and 1917 will beat that record. Prior to the war about 1 per cent of the milk of this country was condensed, the figure of 1904 being 6,000,000 cases. In 1917 this had increased to 20,000,000 cases, an increase of 2 per cent of the raw milk of the country. And this tremendous increase has been recorded when local consumption of condensed milk, because of the high price, has decreased. The figures on the increased demands for butter and cheese are enormous, and this demand will increase so long as the war lasts and probably many years longer. As nearly as can be judged at this time there is nothing that can stop the increasing demand for dairy products except it would be the loss of so many ship bottoms that transportation of the products across the water would be impossible. With the demand for breeding stock which will come after peace is declared, and the United States is called upon to help replenish the slaughtered herds of Europe, there appears to be not the slightest chance that the dairy business will be overdone. For at least a decade, our best-posted men all agree, there is no possibility of producing too much butter fat, too much raw milk or too much butter or cheese. And this leads us to the question of prices for dairy products which at this particular time has been brought to public attention by the activities of the milk producers' associations of several states.

Everyone recognizes the enormous demand for milk and for the products of the dairy and everyone recognizes the high prices of feeds and the shortage of dairy cows. One authority has said that 26 per cent of the dairy cows of the country have been killed for beef since the war started—an almost unthinkable situation and one which should be remedied at once. But in handling this proposition we cannot overlook the man who owns these cows. He has money invested, labors from before dawn until the sun passes beyond the western horizon, and he battles with this high feeding cost problem. Of late years this farmer-producer has said that he has a right to organize and that his organization has a right to take all the production costs into consideration and to say what shall be a fair price for milk. The government—at least some of the representatives of the government—have said that such organization and such agreement to fix prices are unlawful, and these farmers have been spoken of as belonging to a new and monstrous trust, which proposes to abuse its powers by grinding high prices out of the public. Farmers have been classed as criminals by a city press which knows less about cost of production and distribution of milk than the devil knows about what transpires inside the pearly gates. On the program at Columbus was Milo D. Campbell, of Coldwater, Michigan, president of the National Milk Producers' Association. Officials of the government and of the National Dairy Show Association thought enough of Mr. Campbell to make him chairman of the conference on dairy marketing. If the government should decide to send all farmers in the country like Campbell to jail it would be necessary to build jails with capacities greater than the present army cantonments. Mr. Campbell's face and manner, even if one had not heard his speech, would clear him with any jury in America. We have it direct from Mr. Campbell, his own signed statement, read in the presence of government officials and men prominent in all lines of the milk industry, that the farmer milk producers of this country want just one thing—enough money to cover the cost of producing good milk, and a fair profit added. The farmers are willing to go even farther than that. They are willing to agree that the government shall investigate and determine the cost of producing milk, and that the representatives of the people in legislative bodies and the courts shall accord to dairymen just the same percentage of profits that they have said is just for other industries. This is no time, in the judgment of Mr. Campbell, for profiteering, either in milk or any other article. The National Milk Producers' Association cheerfully and patriotically bows to the x-ray of government investigation, asking that investigations be based wholly on the cost of doing business and a reasonable profit. Farmers believe that they have a right to organize. They have been criminally prosecuted because they have approached the subject and object of coöperation with less finesse than some other classes of society. But Mr. Campbell insists, and we believe he speaks the truth, that the farmers who produce milk are not criminals and have no intention to defraud. A marked change has occurred in the demands made upon farmers who produce milk. As Mr. Campbell expresses it, "they pile expenses on us and then want us to sell milk at the same old price." City boards of health have demanded a bacteria count, made by white-aproned and spectacled accountants. They expect the farmer to wear a white duck suit when he milks and "Bess must have a bath before she is approached with the milking stool and pail."

Housewives expect to get a bottle of milk or cream on short notice and they reserve the right to change their minds and also to break up one-sixth of the bottles used, and still think that these rights should not add anything to the cost of milk. In short, Mr. Campbell made his case so simple and plain, and he spoke with such evident feeling of patriotism that no one who heard him could imagine him or his associates a criminal class. If this is the type of men who make up the Milk Producers' Association, we have no fear of unjust milk prices.

But there was some sentiment in the Dairy Marketing Conference against the milk producer and some feeling that the power of organization has been misused and abused. President Van Norman, to whom we have referred, remarked that new-found power has always begotten abuses and that organizations which become drunk with such power have been compelled to submit to governmental regulation. The railroads and the labor unions were given as notable examples by President Van Norman. In the opinion of the speaker dairymen must recognize that there is a price which is reasonable. People will not pay a dollar a pound for butter, even though through organization power it might be possible to force the price to that figure. The market can be

"milked" too strong. Thus we find the oleomargarine business springing up and increasing at the rate of 100,000,000 pounds a year. In 1915 there was consumed in this country 150,000,000 pounds of oleomargarine, and in 1916 this had increased to 250,000,000 pounds. The consumption in 1917, according to present estimates, will reach 350,000,000 pounds.

Another subject of interest is waste in distribution of dairy products. Mr. George E. Haskell, of Chicago, president of the Beatrice Creamery Company, and an associate of Herbert C. Hoover in food administration, a man who has been donating much of his time free to the government, gave a mass of figures on costs of creamery operation. In brief, he says the present system of too large a number of creameries serves to rob the producer of just prices for his product and also to tax the consumer. The cost of operation of creameries located only a few miles apart is very high, compared to cost of operating fewer creameries with larger output. We refer to the cost of making and marketing a single pound of butter. Mr. Haskell n t only admits that the dairyman should receive more for his milk, and that the losses in manufacturing costs, in making butter, should be divided between the consumer and the producer, but he says the great increase in milk production which is absolutely necessary to keep up our food supply, must come from that section of the country where dairying is now incidental. This means that the increase must come in states like Iowa, Missouri, Kansas, Nebraska and the Dakotas, where the feed supply is normally heavy and the present number of cows per farm is small. We can expect some increased production in Wisconsin and northern Illinois, but these sections are producing a large per cent of the market milk in the West, and the urban population is increasing and will continue to increase more rapidly than the increase in volume of milk produced. Mr. Haskell believes that competition in milk buying in creamery districts should be eliminated to effect low cost of collection and distribution, and that manufacture of milk products must be concentrated.

GRAND CHAMPION HOLSTEIN BULL, OAK DE KOL OLLIE HOMESTEAD, OWNED BY IOWANA FARMS—NATIONAL DAIRY SHOW, 1917.

MINERVA BEETS, OWNED BY R. E. HAEGER, ALGONQUIN, ILL., GRAND CHAMPION HOLSTEIN COW.

SCENE IN ONE OF THE MACHINERY HALLS AT NATIONAL SHOW.

A comprehensive view of the cheese industry as it exists today was given to assembled farmers at Columbus by L. E. Carpenter, of the Phoenix Cheese Co., New York. Mr. Carpenter is a farmer and a cheese manufacturer. He expects cheese to continue at the present high level of prices. He estimates the world's losses in dairy cattle at 20,800,000, which is about one and a half million less than the number of dairy cattle in the United States. Others estimate European losses considerably higher. Factors which tend to increase cost of cheese-making are increased cost of feed, which gained 25 per cent from 1910 to 1914, and has increased another 40 per cent since 1914, increased value of cows, increased demands, especially for export, increased cost of labor and increased cost of upkeep of dairy cows. As an example of the reduced supply of milk in France, Mr. Carpenter quoted from a report which shows production decreased from two and a half gallons per capita before the war, to one gallon per capita at the present time. Furthermore, Mr. Carpenter says too many farms are passing to tenants, who do not farm effectively or economically, and who fail to raise enough grains, ensilage and roughage. The cheese industry has been hurt by the high prices of fluid milk. For instance, in 1912 fluid milk sold in New York for $1.70 per hundredweight, and milk sold to cheese factories netted $1.62 per hundredweight. To be sure, the farmer could make use of the whey from milk delivered to the cheese factories, but the experience is that only a few of them do so. Some authorities now claim that at present milk prices whey is worth 45 cents a hundredweight to feed to hogs. In 1913 fluid milk went to $1.90 in New York, and milk made into cheese netted only $1.50 per hundredweight. In 1914 fluid milk again brought $1.90 in New York and in cheese factories netted only $1 42. In 1917, date of October 1st, fluid milk sold for $3.25 in New York City and brought only $2.47 when made into cheese. Mr. Carpenter rapped the milk producers' organizations, and said that they are forcing milk too high. Present prices of milk, as urged by the producers' organizations, according to Mr. Carpenter, will make it necessary to charge such a high price for cheese that the consumer will take cheese off his bill of fare. The day of cheap cheese is a thing of the past, and only the present export trade is serving to keep up the demand.

Coöperation was the chief topic of the meetings held during the dairy show. J. P. Morley, of the Minnesota Coöperative Dairies Association, advanced ideas which set the farmers to thinking. Out of 2,014 coöperative associations in the state of Minnesota all but three are farmers' organizations. In all the efforts which have been made by the several states and the federal government to advance the general aims of coöperation, little has been done to promote coöperation among the consumers. The question arises, why this great movement, believed by many to be the ultimate salvation of high costs, should be confined so strictly to the producers. If the producer can coöperate to reduce producing costs, why cannot the consumer coöperate to reduce buying costs? Mr. Morley represents an association which handles the product of coöperative creameries. This association carries its butter directly into the Chicago and New York markets independent of the usual selling agencies and deals directly with retailers

GAMBOGE VELLUM MAJESTY, OWNED BY M. D. MUNN, ST. PAUL, GRAND CHAMPION JERSEY BULL.

At Last!

AT last! A perfect milking machine. Readers of the Iowa Homestead are hereby informed that, at last, they can get a milking machine that does the work safely and does it right. Those old objections to milking machines are now eliminated. This machine is

Shippert's Valveless

Hand Milker

Run by hand—just the thing for the farmer with 6 to 60 cows.

A child can run it—not as much work as pumping water — saves expense of power milkers — absolute simplicity. Controls like the hand—different for each cow. Just takes the milk out—*valveless!* The *milking machine question solved!*

Introductory Offer!

Dealer's discount direct to you:—price, for two units, $84.75—that's all for two units. *Not one cent of installation expense. Total cost of complete outfit—$84.75!* ⅓ the price of others not as good. (Six months to pay if desired.)

30 Days' Free Trial!

Not a bit of obligation if you don't like the machine after the trial.

Write, For My Personal Letter!

explaining how I came to invent this machine; how, after working over cows for years, I hit upon the principle that's absolutely right.

It is high time now for the progressive farmer to *investigate* the milking machine question. My personal letter explains.

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Dear Sir:—Without any obligations, please send me your personal letter explaining about your hand milker.

Name .....

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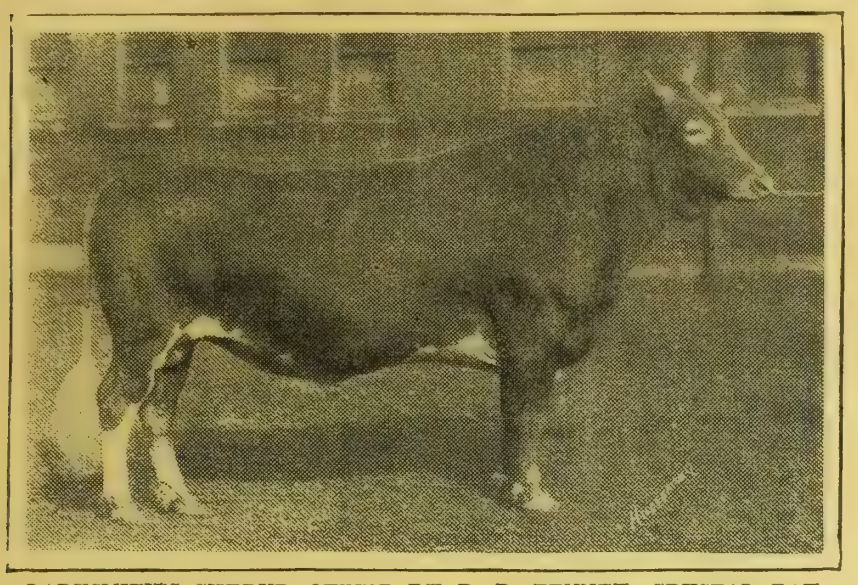
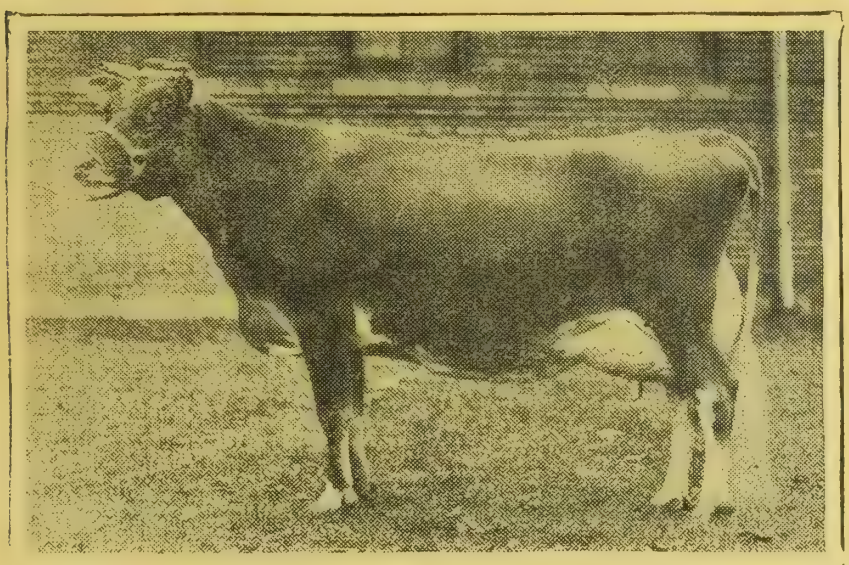
in these large centers. Mr. Morley has felt for several years that coöperative societies should carry their work one step farther. He thinks that producers in the urban centers should be urged to run small coöperative stores in many parts of the cities, and that these small stores should be owned coöperatively by the producers and should sell at cost such farm staples as butter, cheese, eggs, etc. His idea is for the farmers' coöperative societies to ship direct to the consumers' coöperative stores. This is eliminating the middlemen with a vengeance. The plan has never been tried to any extent with success. This does not mean that it could not be done. Another way is for the farmers to establish their own stores in the cities. This has been done, notably at Montreal, where the Quebec Agricultural Society of Cheese Makers has scored a notable coöperative success. This society represents 500 factories. It started in 1910, representing thirty factories. Auctions are held each week and lists of the produce for sale are furnished to all buyers. The society reserves the right to sell at prices offered, or to keep its products and sell in any other market available. A special representative is maintained in London to handle the products of this society. While it was originally intended to handle only cheese, this society now handles other farm products, all of which, like cheese, are graded and sold on the basis of quality. The company does a business in excess of $5,000,000 annually and George Cayer, general inspector of the department of Agriculture, Montreal, Canada, made a report of the work at Columbus. The society maintains a retail store at Montreal and sells all sorts of produce at less than the normal retail prices.



LADYSMITH'S CHERUB, OWNED BY D. D. TENNEY, CRYSTAL BAY, MINN., GRAND CHAMPION GUERNSEY BULL.



OXFORD MAJESTY'S GYPSY, OWNED BY L. V. WALKLEY, SOUTHINGTON, CONN., GRAND CHAMPION JERSEY COW.

These sidelights to the dairy show only reflected increasingly the brilliancy of the entire event. First and foremost of interest were the cattle, numbering 207 Jerseys, 135 Holsteins, 128 Guernseys, ninety-four Ayrshires and thirty-three head of Brown Swiss. These were the pick of the world's pure-bred herds. While most of the stuff shown was "over the head" of the average dairyman, lessons in production, care, feeding, cow testing, record work, making of dairy products and use of by-products were not lacking. The state of Ohio, coöperating with the dairy division of the federal department of agriculture, had a number of educational exhibits. The progeny of one bull and dam were shown, eleven in all, including daughters, granddaughters and great-granddaughters of the dam, all of these females being good producers and increasing in production down to the latest of the line. Peter Small, of Ohio, had owned the original bull, and after breeding this bull sold the animal for beef. The progeny of this bull developed into 600 to 1,000-pound cows, and what might his worth not have been had he been preserved to head other families and transmit his production qualities to other families such as the one shown? A good bull should not be disposed of too soon, or at too tender an age.

We have not looked upon Ohio as one of the top-notch dairy states, but she produced last year 307,570,755 gallons of milk. If this milk were placed in cans of ten gallons each and the cans set up side by side in a row, the line would reach 6,796 miles, a distance as far as from Columbus to Chicago, thence to Portland via the Twin Cities, thence to San Francisco and Los Angeles, and back to Columbus again via El Paso, San Antonio and New Orleans. Ohio produced last year 87,638,930 pounds of butter, and the pound bricks laid end to end would extend over a distance of 6,916 miles.

Milk samples submitted to a special committee were judged during the show. These samples were eight days old when judged and a few had to be cut down in points because of injury from disinfectants. The winner of the market milk prize was Benj. Sharpless, of West Chester, Pa., with a score of 98.8, and second place was awarded to Anton Moe, Duluth, Minn., score 98.5. Scores on market cream were: L. P. Bailey & Son, Tacoma, Wash., 98.5; Twin Oaks Farm, South Carolina, 98. On pasteurized milk the Milk Supply Co., Philadelphia, won first with a score of 97.4, and Harry Jones, Scranton, Pa., second, score 96.9. Nebraska won the gold medal for agricultural college classes with a score of 98.4 and Kentucky second and silver medal with a score of 98.1. The students' contests in judging dairy products did not bring out a large number of contestants, few of the colleges of the country being represented. South Dakota College of Agriculture won first on all classes. In judging all dairy products A. E. Miller, South Dakota, was first; Eli Duncombe, University of Nebraska, second; J. R. Shepherd, University of Nebraska, third; D. S. Kochheiser, Ohio State University, fourth; A. Thompkins, South Dakota, fifth, and S. V. Layson, South Dakota, sixth. Milk judging, with possible 3,000 points for perfect score, resulted as follows:

Kochheiser, Ohio, 2,907.5; Miller, South Dakota, 2,875; Shepherd, Nebraska, 2,855; Thompkins, South Dakota, 2,847.5.

Butter judging, possible 5,000 points for perfect score, resulted as follows:

Miller, South Dakota, 4,875; Duncombe, Nebraska, 4,830; Thompkins, South Dakota, 4,825; Shepherd, Nebraska, 4,805.

Cheese judging, with possible 4,000 points for perfect score, resulted as follows:

Duncombe, Nebraska, 3,727.6; Kochheiser, Ohio, 3,715; Shepherd, Nebraska, 3,677.5; Layson, South Dakota, 3,647.5.

The team judging resulted as follows:

Milk—1st South Dakota; 2d Nebraska; 3d Ohio.
Butter—1st South Dakota; 2d Nebraska; 3d Ohio.
Cheese—1st Nebraska; 2d South Dakato; 3d Ohio.
All Points—1st South Dakota; 2d Nebraska; 3d Ohio.

There is one feature of the National Dairy Show to which the writer cannot do justice in the limited space at command, and that was the machinery and equipment displays. Never before in the history of the industry has such a magnificent display of dairy equipment been gotten together. The barn equipment companies had big space, the separator companies, the milking machine companies, and the creamery supply and equipment companies. The visitors had an opportunity to learn about everything made for the creamery, the cheese factory, the dairy, and even of many things for the producers' homes. The information gained was not from inexperienced men, but from manufacturers and operators. Presidents and general managers of the large concerns were on the floor anxious to meet their old friends and to give any information asked for. Many dairy show visitors seemed as much interested in the manufacturers' displays as they were in the dairy cows and bulls. Two large buildings were devoted to dairy and creamery machinery, another to farm and barn equipment, another to automobiles, another to tractors and trucks, and additional space was provided for agricultural implements and mixed exhibits. The visitors had almost as

Which is Cheapest and Best Ration for Fattening Hogs?

Four Valuable Experiment Station Tests

Here is some mighty valuable information for hog raisers. Four instructive feeding experiments were conducted under the supervision of the Missouri and Kansas Experiment Stations at the St. Joseph, Mo., Stock Yards, to determine the comparative values of different rations for fattening hogs.

60 Cholera-immune hogs were selected and divided into lots of 15 each, as uniform in weight, quality and condition as possible.

The First Thing the Experts Did

Previous to starting this feeding test, the first thing the experts did was to get rid of the worms. They knew the importance of this step because no hog can thrive or fatten to best advantage unless free from these blood-sucking, feed-consuming, disease-breeding pests. They also knew that all hogs, unless previously treated, are always infested with worms. This is a very important point for you to remember—especially now when feed prices are so high.

Following is a result of the tests covering a period of 100 days:

Lot No. 1 with a ration of shelled corn and tankage (60% protein) made a total gain of 181.4 lbs., per hog and a net profit of $5.78 each.

Lot No. 2 with a ration of shelled corn and linseed meal (old process) made a gain of 147.2 lbs., per hog and a net profit of $3.95 each.

Lot No. 3 with a ration of shelled corn alone made a total gain of only 110.5 lbs., per hog and a net profit of only $1.88 per hog.

Lot No. 4 with a ration of shelled corn and skim-milk made a total gain of 190.8 lbs., per hog and a net profit of $6.53 per hog for the 100 days feeding. This lot made the greatest gain and the most profit.

No matter how YOU are feeding YOUR hogs, it is absolutely necessary, in order to get the cheapest and best results, that they are kept free from worms. You cannot afford to neglect giving them a good worm remedy like SAL-VET — the greatest, safest, surest and most widely used worm destroyer and conditioner — the cheapest and best worm remedy you can buy.

For only 2½c per month per hog you can keep your hogs free from worms, save feed, get faster gains, make maximum profits and avoid dangerous diseases, because healthy, worm-free hogs are less liable to contract fatal diseases. SAL-VET is not only best for hogs, but for sheep, horses and cattle.

"Please send us two barrels of SAL-VET at once. This is the best thing we have ever used. We use it for sheep, horses and over 100 hogs and find it all you claim."
A. J. LOVEJOY, Roscoe, Illinois.
Ex-Pres. International Live Stock Exhibit, Sec. Berkshire Breeder's Ass'n.

"My SAL-VET is all gone. Send me another barrel at once. $5.00 worth of SAL-VET saved me $10.00 worth of feed. My hogs, sheep, cows and horses are doing remarkably well. My experience has been that SAL-VET and worms cannot dwell together."
E. A. DONTRAGER, Fairview, Mich.

"I have been in the hog business for thirty years and have tried every known remedy for hogs, but have never found anything to equal your SAL-VET. It certainly does the work and is easy to feed. I fed it to little pigs, boars, pregnant sows and find it O. K. I'll never be without SAL-VET."
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good an opportunity to talk machinery and equipment as if they visited each of the scores of factories represented. Complete facts were given on construction of a dairy barn and illustration was made effective by models and machinery in motion. If one was interested in barn ventilation he could have the time of some of the best engineers in America on this important subject. All the fine points of every implement, tool and device which has been invented to help make the dairy business profitable and to conserve labor, were explained. Many of the booths were beautifully decorated. Some firms spent several thousand dollars each for space and decoration of booths. One firm employed the services of a decorator from Marshall Field in Chicago and presented a display which for richness and elegance has not been surpassed in any such exhibits we have ever seen. Electric lighting plants and gas engines, separators, milking machines, bottling machinery, bottle washers, complete creamery outfits, tractors, etc., were all seen in operation. Included in this display were booths devoted to the several commercial feed companies, and to the companies handling fertilizer products. Altogether these exhibits represented a panorama of the latest development in dairy equipment. These things make the present scope of the dairy business possible. And in these times of slack labor supply all available machinery which can help cut down labor costs is welcomed by the farmer and the dairyman.

The National Dairy Show came liberty bond week, and a patriotic spirit prevailed. On Wednesday, October 24th, a national and state holiday, the show visitors listened to addresses by Secretary Josephus Daniels, head of the navy department of our government, and Senator Pomerene, the senior senator from the state of Ohio. Both addresses were enthusiastically applauded. Herbert C. Hoover, food administrator, had hoped to be able to attend the show, but was unable to do so and sent G. Harold Powell, of his department, as his substitute. Mr. Powell addressed a mass meeting of dairymen in Memorial Hall, Columbus, October 22d. He reviewed the food situation somewhat along the same lines as given in this paper several weeks ago by Mr. Hoover himself. The latest figures on war losses show that Europe has slaughtered 28,000,000 head of cattle, 54,000,000 sheep and 32,000,000 hogs since the world carnage started. Before the war started the United States was an importer of dairy products. In the three years prior to the war the United States exported a little over 2 per cent of her condensed milk. In 1915 the production of condensed milk had been increased tremendously and 70 per cent of it was exported to our allies. In the three years prior to the war we exported 4,500,000 pounds of cheese and in the year 1916 we exported 66,000,000 pounds. In the three years prior to the war we exported about 4,500,000 pounds of butter and in 1915 we exported 26,000,000 pounds. These figures are strong proof that we must produce more in order to feed ourselves and the nations with whom we are joined in common cause. Mr. Powell explained the operation of the food law, declaring that the purposes of increased production are not merely idle talk, but that it is the intention of the government through its several departments to district the nation to the end that acreage will be increased, number of food animals increased, dairy products increased, and hoarding and speculation done away with.

The Columbus Horse Show was held in connection with the National Dairy Show. The evident purpose was to give some variety so as to stimulate local support. Some very good classes in the Percherons, Clydesdales and Belgians were shown. The Percheron classes were outstanding in number and merit. J. Crouch & Son, of Lafayette, Indiana, and Bell Bros., of Wooster, Ohio, had the largest number of entries. The stallion, Plata, owned by J. Crouch & Son, won the grand championship and Pet, a mare owned by J. Crouch & Son, was also a grand champion. Crouch's Lady Radisnor was junior champion mare. The Clydesdales were splendid in quality, though fewer in number, and the chief show was made by J. Leitch & Son, Lafayette, Illinois.

THE CATTLE SHOW.

Holsteins.—No one would doubt the growing popularity of the black and white cattle who saw the splendid showing made by the Holsteins at the National Dairy Show. Thousands of people gathered to see this particular event and it was well worth their time and money. Animals were led into the ring that are unsurpassed anywhere. Oak De Kol Ollie Homestead, the veteran show ring champion of Iowana Farms and winner of the senior and grand sweepstakes at the National last year, was among the lot and took the senior and grand championship trophies again this year. Many capable judges were willing to concede to him, after this year's victories, the honor of the world's greatest Holstein. Minerva Beets, the aged cow of the Haeger herd, was another star of the show. She also duplicated her record at the 1916 National by taking first in her class and senior and grand sweepstakes. Although the total number of entries was less than that of last year, the opinion of the ringside was that this show was at least equally as good as that of 1916. Mere numbers are not the chief consideration at a National Show. It should rather be a show wherein the best animals of the country, that have topped the classes in the local and state fairs come into final competition with one another. In this respect the National this year filled the bill splendidly, particularly in the Holstein breed. The West, however, took the big share of the trophies in spite of the good representation and strong competition from the East.

Exhibitors—Carnation Stock Farms, Seattle, Wash.; V. S. Culver, Stillwater, Minn.; Emblagaard Dairy, Marquette, Mich.; Galloway-Meser Farms, Waterloo, Iowa; R. E. Haeger, Algonquin, Ill.; Iowana Farms Davenport, Iowa; Iowa State College, Ames, Iowa; Lothian Riverode Stock Farm, Novelty, Ohio; J. C. Marlow & Geo. McCarger, Mankato, Minn.; Ohio Board of Administration, Columbus, Ohio; Peter Small, Chestertand, Ohio; E. L. Zehring, Germantown, Ohio; Oscar Zehring, Germantown, Ohio. Judge, W. S. Moscrip, North St. Paul, Minn.

Aged bull (6 shown), 1st Iowana Farms on Oak De Kol Ollie Homestead, 2d Marlow & McCargar on Sir Pietertje Ormsby Mercedes, 3d Haeger on Paul Calamo Korndyke, 4th Lothian Riverode Stock Farms on Pietertje Hengerveld Sir Korndyke, 5th Carnation Stock Farms on Hazelwood Sir Ormsby, 6th Galloway-Messer Farms on King Segis Johanna Ormsby; two year old (9 shown), 1st and 6th Iowana Farms on Iowana Mercedes Homestead and Iowana Fryslan De Kol, 2d Iowa State College on Iowana Homestead Watson, 3d Carnation Stock Farms on Mutual Lad Tritomia 2d, 4th Haeger on King Fan of Rock, 5th Galloway-Messer on King Segis Pontiac Combination 5th; yearling (6 shown), 1st Iowana Farms on Iowana Burke Fayne, 2d Galloway-Messer Farms on Korndyke Pontiac Combination, 3d and 5th Carnation Stock Farms on Hazelwood Ormsby Hengerveld and Laconner Pontiac Houwtje, 4th Haeger on King Segis Pontiac Bonheur, 6th Small on Meadow Holm Peep Hartog; senior calf (8 show), 1st and 6th Haeger on King Segis Pontiac Klaver and King Segis Pontiac Jessie, 2d Carnation Stock Farms on Matador Segis Walker Delma, 3d Galloway-Messer Farms on Segis Lad Pontiac Korndyke, 4th E. S. Zehring, 5th O. O. Zehring on Zehringhurst Pontiac Aaggie Lad; junior calf (12 shown), 1st and 4th Carnation Stock Farms on Matador Segis Walker 6th and Carnation Clementine Walker, 2d Galloway-Messer Farms on Prince Korndyke Segis Ormsby; 3d Haeger on King Segis Pontiac McKinley, 5th Iowana Farms on Iowana Ocean Houwtje, 6th O. O. Zehring on Zehringhurst Pontiac Pride.

Aged cow (12 shown), 1st and 6th Haeger on Minerva Beets and Princess Hengerveld 4th, 2d Iowana Farms on Fryslan Waldorf, 3d O. O. Zehring on Edith of Zehringdale, 4th Emblagaard Dairy on Nena Kaan Selah, 5th Carnation Stock Farms on Hazelwood Cinderella Butter Girl; four year old (6 shown), 1st O. O. Zehring on Lyonsdale Duchess Pontiac Segis, 2d and 5th Carnation Stock Farms on Hazelwood Alban Ormsby ad Nena Newman Cornucopia, 3d Haeger on Lily Pontiac Cornucopia, 4th Galloway-Messer Farms on Jewel Walker Gerben of Cedarside, 6th Lothian Riverode Stock Farms on Lothian Jeanie De Kol Korndyke; three year old (5 shown), 1st Carnation Stock Farms on Korndyke Model Hartog, 2d O. O. Zehring on Zehringhurst Lady Colantha, 3d Galloway-Messer Farm on Aaggie Gerben Netherland 2d, 4th Iowana Farms on Iowana Jane, 5th Haeger on Aconeth Lady Hengerveld; two year old (14 shown), 1st Haeger on Nancy Calamo Korndyke, 2d and 3d Galloway-Messer Farms on Nellie Segis Pontiac and Eudora Pontiac Colantha, 4th Carnation Stock Farms on Matador Mechthilde Verna, 5th E. S. Zehring on Zehringdale Johanna Lass, 6th Iowana Farms on Iowna Fayne Caronis; senior yearling (10 shown), 1st Iowana Farms on Edenwold's Aaggie Bess, 2d Haeger on Lady Calamo Hengerveld, 3d and 6th Galloway-Messer Farms on Jewel Walker Segis Pontiac and Delphia Segis Mercedes; junior yearling (8 shown), 1st Haeger on Tantalus Calamo Korndyke, 2d Carnation Stock Farms on Carnation Segis Queen, 3d and 4th Galloway-Messer Farms on Ormsby Buffalo Mercedes 2d and Eudora Maid Pontiac Ormsby, 5th and 6th Iowana Farms on Iowana Rue Burke Colantha and Iowana Homestead Ollie Walker; senior calf (11 shown), 1st Iowana Farms on Iowana De Kol Ollie 2d, 3d and 6th Galloway-Messer Farms on Nell Hengerveld Segis, Larky De Kol Pontiac Segis 2d and Bessie De Kol Johanna Pontiac, 4th Carnation Stock Farms on Carnation Skylard Segis, 5th Haeger on K. S. P. Eveline; junior calf (16 shown), 1st and 3d Haeger on Calamo Nancy Spofford and K. S. P. Bridget Korndyke, 2d and 6th Carnation Stock Farms on Laconner Pontiac Grant and Queen Tsussie Segis, 4th and 5th Galloway-Messer Farms on Queen Ormsby Johanna Segis and Miss Johanna Segis Korndyke.

Senior and grand champion bull, Iowana Farms on Oak De Kol Ollie Homestead; junior champion bull, Carnation Stock Farms on Matador Segis Walker 6th; senior and grand champion cow, Haeger on Minerva Beets; junior champion cow, Haeger on Calamo Nancy Spofford; exhibitor's herd (5 shown), 1st Haeger, 2d Iowana Farms, 3d Galloway-Messer Farms, 4th Carnation Stock Farms, 5th Lothian Riverode Stock Farms; young herd (4 shown), 1st Haeger, 2d Carnation Stock Farms, 3d Iowana Farms, 4th Galloway-Messer Farms; breeder's calf herd (5 shown), 1st Haeger, 2d Carnation Stock Farms, 3d Galloway-Messer Farms, 4th Iowana Farms, 5th Lothian Riverode Stock Farms; get of sire (8 shown), 1st Iowana Farms on get of Oak De Kol Ollie Homestead, 2d and 6th Haeger on get of Paul Calamo Korndyke and King Segis Pontiac, 3d and 4th Galloway-Messer Farms on get of King Segis Pontiac Combination and Hengerveld King, 5th Carnation Stock Farms on get of Matador Segis Walker; produce of cow (8 shown), 1st and 5th Haeger on produce of Nancy Spofford and Evelina Calamo Korndyke, 2d and 3d Galloway-Messer Farms on produce of Mercedes Johanna Ormsby and Eudora Maid of Pontiac 2d, 4th Zehring on produce of Edith of Zehringdale; advanced registry cow (2 shown), 1st Haeger, 2d Galloway-Messer Farms; dairy herd (5 shown), 1st Haeger, 2d and 3d Carnation Stock Farms; 4th Iowana Farms, 5th Lothian Riverode Stock Farms.

Jerseys.—The East has long claimed the distinction of producing the best cattle, but this year at the National, the West and South contradicted this claim by carrying away a good share of the prize ribbons. But they did not do so easily. The whole show of Jerseys was a royal battle in which the winners gained their places on close points. It is very likely that there never has occurred a closer contest in the live stock show ring anywhere than that which took place among the 207 Jerseys that were exhibited at Columbus. In the aged bull class the entire lot was a group of prize winners—every one would have been worthy of first place, so that it fell to the lot of Prof. H. H. Kildee, judge, to find out which was most worthy by considering in detail the closest points of excellence. The outcome of his work was to place the blue ribbon on Gamboge's Vellum Majesty, owned by M. D. Munn, of St. Paul, Minn., and to put Noble Sultan's Golden Fern, the hitherto undefeated champion of many shows, in second place. This was a sad shock to his owner, Mrs. Harry H. Galbraith, of Knoxville, Tenn., who entered the showring and with tears in her eyes caressingly stroked the neck of her beloved champion. When Colonel Munn, who is president of the American Jersey Cattle Club, saw that his bull had won he rushed into the ring and proudly kissed the animal on the forehead. Later the Munn bull worked his way to the place of senior and grand champion of the show. Interest in the exhibit of aged cows was quite as tense, although less dramatic as that of aged bulls. Twenty splendid cows were shown in this class, representing some of the highest types of milk producers in the world. As a fitting top to such a class came Oxford Majesty's Gipsy, a seven year old owned by L. V. Walkley, of Southington, Conn. This beautiful cow of wonderful character and style was later declared senior and grand champion cow of the show. Other classes, both male and female, were well filled and commanded great interest from the ringside. In the championship classes, three of the sweepstakes went to the Middle West, two to the East and one to the South. This is a good indication of the fact that the Middle West is coming to the front in the Jersey breeding business.

Exhibitors—Allen Dale Farms, Shelbyville, Ky.; Ayer & McKinnes, Meredith, N. Y.; Hugh W. Bonnell, Youngstown, Ohio; Black Belt Stock Farm, Marion Junction, Ala.; L. P. Bailey & Sons, Barnesville, Ohio; Mrs. Harry Galbraith, Knoxville, Tenn.; W. A. Griswold, Nashville, Tenn.; C. M. Gooch, Spring Hill, Tenn.; Hood Farm, Lowell, Mass.; J. E. Kelly, Xenia, Ohio; Ed S. Lasater, Falfurrias, Texas; Longview Farm, Lees Summit, Mo.; J. W. Love, Wayzata, Minn.; Mountain View Stock Farm, Benson, Vt.; M. D. Munn, St. Paul, Minn.; Mannsfield Hall Farm, Fredericksburg, Va.; Wildwood Farm, Dayton, Ohio; L. V. Walkley, Southington, Conn. Judge, Prof. H. H. Kildee, University of Minnesota, St. Paul, Minn.

Aged bull (13 shown), 1st Munn on Gamboge's Vellum Majesty, 2d Galbraith on Noble Sultan's Golden Fern, 3d Longview Farm on Viola's Majesty White Sox, 4th Lasater on Flora's Queen's Raleigh, 5th Allen Dale Farms on Buttercup's Golden Lad, 6th Mannsfield Hall Farm on Double Finance; two year old (6 shown), 1st Allen Dale Farms on Meadow Queen's Fairy Lad, 2d Lasater on Aldan's Noble of Texas, 3d Longview Farm on Warder's Chieftain, 4th Griswold on La Sente's Jolly Castor, 5th Black Belt Stock Farms on Peerless Jolly Fern, 6th Munn on Medora's Raleigh; yearling (9 shown), 1st Longview Farm on Poets's White Heart, 2d Galbraith on Golden Fern's Figgis Fox, 3d Allen Dale Farms on Bella's Fairy Boy, 4th Lasater on Bright Eminent Lad, 5th Galbraith on Prince of Dixie, 6th Kelly on Jolly Sea Lad; senior calf (25 shown), 1st Lasater on Carnation's Village Knight, 2d Longview Farm on Chief Raleigh, 3d Allen Dale Farms on New Year's Fairy Lad, 4th Kelly on Pilot's Noble o'Kellairn, 5th Hood Farm on Sophie's Improver, 6th Black Belt Stock Farms on Campanile's Golden Sultan; junior bull calf (10 shown), 1st Love on Golden Noble's Count, 2d Allen Dale Farms on Manilla's Butter Lad, 3d Longview Farm on Emily's Poet, 4th Lasater on Esther's Combination, 5th Kelly on Noble's Majesty o'Kellairn; 6th Black Belt Farms on Campanile's Golden Fern.

Aged cow (20 shown), 1st Walkley on Oxford Majesty's Gipsy, 2d Lasater on Manor's Noble Queen, 3d Hood Farm on Lass 89th of Hood Farm, 4th Walkley on Longfield Daisy, 5th Lasater on Martha You'll Do, 6th Allen Dale Farms on Fairy Lad's Pallas; four year old (11 shown), 1st Longview Farm on Golden Fern's Silver Thread, 2d Lasater on Stockwell's Noble Wonder, 3d Munn on Noble's Jolly Triumph, 4th Hood Farm on Sophie's Beth, 5th Allen Dale Farms on Harmony of Allendale, 6th Mountain View Stock Farm on Noble's Village Maid; three year old (7 shown), 1st Walkley on Imp. Darling Lassie, 2d Lasater on Constance of Falfurrias, 3d Longview Farm on Undulata Nena, 4th Lasater on Majesty's Fairy Victress, 5th Gooch on Gold Medal Vesta, 6th Allen Dale Farms on Knollwood's Fairy Gem; two year old (14 shown), 1st Black Belt Stock Farms on Golden Fern's Lady Den, 2d Lasater on Rochette's Noble Alice, 3d Allen Dale Farms on Clary's Fire Fly, 4th Galbraith on Goddington's Cowslip, 5th Lasater on Eminent Lad's Island Star, 6th Hood Farm on Sophie's Elberta; senior yearling (11 shown), 1st Allen Dale Farms on Fairy Lad's Fredie, 2d Lasater on Cowslip's Favorite Fern, 3d Kelly on Beauty Beatrice's Fairy, 4th Munn on Golden Fern's Triumph, 5th Longview Farm on Raleigh's Young Fontaine, 6th Lasater on Vixen's Oxford Charlotte; junior yearling (10 shown), 1st Lasater on Great Scot's Brightness, 2d Longview Farm on Fontaine's Nema, 3d Munn on Bonnie Belle's Mermaid, 4th Gooch on Raleigh's Kittie, 5th Allen Dale Farms on Gipsy Tipperary, 6th Wildwood Farm on Lady Noble Raleigh; senior calf (16 shown), 1st Allen Dale Farms on Fairy Glen's Frolic, 2d Longview Farm on My Rosary, 3d Lasater on Aldan's Oxford Fontaine, 4th Wildwood Farm on Noble's Rose Maid, 5th Griswold on Mona's Welcome Lass, 6th Lasater on Village Knight Jessica; junior calf (11 shown), 1st Galbraith on Noble Sultan's Starlight, 2d Kelly on Raleigh's Mazie o'Kellairn, 3d Longview Farm on Raleigh's Oxtivity, 4th Allen Dale Farms on Fontaine's Fairy Maid, 5th Black Belt Stock Farm on [illegible] Oxford Maid, 6th Lasater on [illegible] Scot's Noble Queen.

Senior and grand champion [illegible]

(Concluded on page 10.)

Produce Eggs at 17¢ a Doz.

The U. S. Dept. of Agriculture at the Experimental Farm, Beltsville, Md., during the past year has proven conclusively that if you make your hens LAY instead of allowing them to LOAF you should be able to produce eggs at a food cost of about 16¾c per dozen, even at present feed prices—AND YOU CAN MAKE THEM LAY.

You may not do quite as well as the Government's experts but you can come mighty close to it by mixing

Pratts Poultry Regulator

daily with a good egg-making ration, at a cost of one cent a month per hen. Do this and we guarantee your flock will produce the extra eggs that bring the big profits.

Pratts Poultry Regulator is a *concentrated tonic and conditioner*—not a food. It makes the ration *more effective, therefore cheaper.* It strengthens and tones up the entire system in a natural way—sharpens the appetite and improves digestion—enriches the blood—regulates the bowels—insures perfect health—makes the egg-producing organs do full duty—brings a profitable egg-yield.

Our dealer in your town has instructions to supply you with Pratts Preparations under our square-deal guarantee—*"Your money back if YOU are not satisfied"*—the guarantee that has stood for nearly 50 years.

266 *Write for 48 page book—Pratts Practical Pointers on the Care of Poultry.*

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FARMERS' MARKET

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The Wisconsin Farmer, Madison, Wis.

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REAL SNAPS—160-acre farm with good buildings and $3,000 worth of timber, 2½ miles from town, $6,000; 80-acre farm with stock, crop and all, $3,200; 80-acre farm with large clearing, $2,500; 40-acre farm with small clearing and buildings, $700; cut-over land, $10 to $20 per acre. Write for details to the E. L. C. Co., E-M., Dept. 10, Merrill, Wis.

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KODAK FINISHING—Let experts finish what your kodak began. We finish one roll (only) six exposure film, any size, furnish six select prints for 25c with order. Better pictures from each exposure. Fewer failures from each roll or money cheerfully refunded. T. V. Moreau Co., 620 Nicollet Ave., Minneapolis, Minn.

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TELEGRAPH OPERATORS IN DEMAND—One superintendent writes: "Can use 25 operators tomorrow." Ladies or gentlemen. Wisconsin School of Telegraphy, Oshkosh, Wis.

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POULTRY AND PET STOCK.

LEGHORNS, TURKEYS, WILD DUCKS—We have a few R. C. White Leghorn ckls., 90c ea.; 2, $1.60; 3, $2.25. Just the thing to cross on your flock to secure resistance to cold, easy keeping and large egg production. Young White Holland turkeys, $3 each. Wild Mallard ducks, $1.50 ea. Island Poultry Yards, Oshkosh, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

AIREDALE TERRIERS—The twentieth century all around dog. Good hunters, farm and watch dogs and pets. Puppies for sale. Dr. Z. W. Gilbert, Melrose, Wis.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

PEDIGREED AIREDALES—Registered 2-year-old matrons, $25; male puppies, $12; female puppies, $6. Willow Spring Farm, R. 36, Port Byron, N. Y.

DOOTOR'S big, beautiful "Ringlet" Barred Rock cockerels, on approval, $3 to $5 each. Winners. Heavy-laying strain. Dr. E. C. Higgins, Melrose, Wis.

FOX TERRIERS—Any age; best rat, pet, watch or skunk dogs; some bred females. T. H. Kaldenberg, Pella, Iowa.

SINGLE COMB White Orpington cockerels from prize-winning stock for sale. B. H. Ding, Kaukana, Wis.

EARLY-HATCHED Golden Wyandotte cockerels, $1.50, $3, $5. Norcliffe Farms, Aniwa, Wis.

60 VARIETIES FOWLS—Bantams. F. C. Wilbert, Grand Rapids, Mich.

HOLSTEIN BULLS.

REGISTERED Holstein bull, ready for service. Two of his dams averaged 108 lbs. milk in one day and 34.95 lbs. butter in seven days, officially. Price $125. Wisconsin Live Stock Association, Appleton, Wis.

FIFTY DOLLARS REWARD.

$50.00 REWARD offered for any information that will lead to the whereabouts of Samuel Johnson, 17 years of age, 5 ft., 8 in. tall, light hair, blue eyes, who left Madison about three months ago. Richard Johnson, Eau Claire, Wis.

TANNING.

LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

FOXES.

FOR SALE, at war-time prices, choice unrelated Northern Canada Silver Black foxes, in pairs. Reid Bros., Bothwell, Ontario, Canada.

GASOLINE ENGINE.

FOR SALE—One 10-h. p. Fuller & Johnson gasoline engine; first-class condition; price, $175. Foster Bros., Tomahawk, Wis.

CLOVER SEED.

WANTED—Good quality medium Red and Alsike clover seed. Send samples. Dadmun Brothers, Whitewater, Wis.

In and Around Wisconsin

The accompanying illustration shows the progress of construction of the Inter-County Holstein Breeders' Association pavilion at Watertown, Wisconsin. The picture was taken the latter part of September and the pavilion is now complete and in readiness for the Inter-County Holstein sale November 8th and 9th. The Inter-County Holstein Breeders' Association is incorporated for $5,000, divided into shares of $50 each, and these shares have been taken by leading breeders of Dodge and Jefferson counties. The association is recognized by railroads as an industrial corporation and one of the benefits of such recognition is that both railroads, the North-Western and St. Paul lines, make transfers without additional charge. This is quite an item to consigners, purchasers and others interested in the company or the sale. The building is situated a short distance from the North-Western station and this affords the handling of animals brought in for the sale or shipped out. This new sales pavilion is 192x50 feet and is a great improvement over the old arrangements for these sales on the fair grounds. The progressive people of Watertown donated $500 toward the building site and it is the intention of the Inter-County Holstein Breeders' Association to hold its annual and spring sales hereafter in this new sales pavilion.

NEW SALES PAVILION OF INTER-COUNTY HOLSTEIN ASSOCIATION, WATERTOWN, WIS.

Attention of our readers is called to the baby beef contest to be held at Madison, November 14th and 15th, under the direction of the Wisconsin Live Stock Breeders' Association in coöperation with the college of agriculture and several associations representing the beef breeds. This event is the annual round-up of Wisconsin boys and girls who have fed and exhibited their baby beeves at county and district fairs. A total of $544 will be offered in prize money. There are two classes—one for senior calves dropped since September 1, 1916, and one for junior calves dropped on or after January 1, 1917.

The American Short-horn Breeders' Association and the American Hereford Breeders' Association will add special prizes of 25 per cent to all premiums won at this show by Short-horns and Herefords respectively. Following the judging the animals placed will be sold and it is expected that representatives of all the leading packing companies will be on hand to make the bids.

John C. Robinson, Evansville, Wisconsin, has been acting as coach for the boys who have been developing baby beeves. The judge at the final round-up will be J. G. Imboden, Decatur, Illinois. Mr. Imboden will not only pick out the prize winners, but he will explain the baby beef proposition covering the essential points for a good feeder and the right covering and quality of flesh. The merits and defects of animals which bid close for first honors will be publicly stated. Seventy-two boys and seven girls have been entered for the round-up show and it is expected that between sixty and seventy calves will line up for the finals on November 14th. The Wisconsin counties which will be represented are: Buffalo, Columbus, Grant, Iowa, Pierce, Portage, Sauk, Richland Rock, St. Croix and Walworth.

The judging of the senior class will occur at 10 a. m. Wednesday, November 14th, and the judging of the junior class at 2 p. m. There will be a banquet at 6 p. m. and the sale of calves will occur at 9 a. m., Thursday, November 15th.

The committee of beef specialists who formulated the rules and have strict charge of the contests include these men: J. W. Martin, Gotham; W. L. Houser, Mondovi; J. C. Robinson, Evansville; R. E. Reynolds, Lodi; C. W. Thompson, Lake Geneva; J. L. Tormey, Madison; W. M. Connell, Menomonee Falls; Parke Gelbach, Lancaster; George Carpenter, Baraboo; R. Baker, Madison. G. E. Brainard will again act as superintendent of the show.

A few features of the Wisconsin Potato Growers' Conventiin, to be held in Madison November 19th-24th, have been announced. On Wednesday morning, November 21st, the session will be devoted to the Wisconsin seed potato trade. The afternoon session of the same day will be devoted to food administration and the program will be in charge of the State Council of Defense. Hon. Carl Vrooman, assistant secretary of agriculture, will speak Wednesday evening. Both the morning and afternoon programs of Thursday, October 22d, will be devoted to grading, shipping and developing problems. In the evening R. H. Aishton, president of the North-Western Railroad, will speak. The boys' and girls' potato club sessions will be held Friday afternoon, November 23d.

Buttermakers' High Scores.

The Wisconsin Buttermakers' Association held a meeting at Milwaukee, October 9th, 10th and 11th, in joint session with the National Creamery Buttermakers' Association. As usual, there was a fine exhibit of Wisconsin butter and the ten high scores were as follows:

1. L. L. Bolstead, Basco.....97.25
2. John E. Mattson, St. Croix Falls 96.00
3. B. L. Lindvig, Milltown.....95.50
4. F. M. Werner, Waterloo.....95.30
5. H. B. Hoiburg, Coon Valley..95.20
6. C. J. Jensen, Withee.....95.10
7. Harry D. Nichols, West De Pere 95.00
8. A. J. Rivard, Esmerald 95.00
9. John Morgensen, Wyocena...94.70
10. Arthur A. Olsen, Oshkosh....94.60

Average 95.365

The honor scores for Wisconsin buttermakers by districts were as follows:

Honor Prize—L. L. Bolstead, Basco.
State Prize—1st B. L. Lindvig, Milltown; 2d F. M. Werner, Waterloo; 3d H. B. Hoiburg, Coon Valley; 4th C. J. Jensen, Withee.

District Prizes—1st District, 1st John Morgensen, Wyocena; 2d J. F. Madison, Oconomowoc. 2d District, 1st Albert E. Will, Jefferson; 2d Rudolph Else, Johnson Creek. 3d District, Olof Larson, Gays Mills; 2d Harry Christenson, Tomah. 4th District, 1st H. Nichols, West De Pere; 2d Arthur A. Olsen, Oshkosh. 5th District, 1st Odin Christensen, Nelsonville; 2d T. J. Warner, Rosholt. 6th District, 1st Irvin Melsby, Durand; 2d H. B. Oaks, West Salem. 7th District, 1st H. E. Jahnke, Florence; 2d Crivitz Creamery Co., Crivitz. 8th District, 1st Chris J. Back, Luck; 2d H. D. Harrison, Clear Lake.

During the session of the convention a resolution of sincere congratulations and heartiest greetings was unanimously passed and forwarded ex-Gov. W. D. Hoard on the occasion of his eighty-first birthday.

"Drink buttermilk freely," says the U. S. Food Administration in its effort to encourage the use of dairy by-products. The use of buttermilk is largely a matter of habit. Southern cities consume almost as much buttermilk as sweet milk. The difficulty of keeping milk sweet has been largely responsible for the popularity of buttermilk as a beverage.

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Eleventh National Dairy Show.

(Continued from page 8.)

Munn on Gamboge's Vellum Majesty; junior champion bull, Longview Farm on Poet's White Heart; senior and grand champion cow, Walkley on Oxford Majesty Gypsy; junior champion cow, Lasater on Great Scot's Brightness; exhibitor's herd, (10 shown), 1st and 6th Lasater, 2d Allen Dale Farms, 3d Longview Farm, 4th Mrs. Galbraith, 5th Munn; young herd 1st Longview Farm, 2d Allen Dale Farms, 3d and 4th Lasater, 5th Black Belt Stock Farms, 6th Kelly; breeder's calf herd (5 shown), 1st Lasater, 2d Longview Farm, 3d Allen Dale Farms, 4th Wildwood Farm, 5th Kelly; get of sire (6 shown), 1st Walkley on get of Imp. Oxford Majesty, 2d Mrs. Galbraith on get of Noble Sultan's Golden Fern, 3d Allen Dale Farms on get of Fairy Glen's Raleigh, 4th and 5th Black Belt Stock Farms on get of Golden Fern's Noble P. S. and Campanile's Golden Fern, 6th Lasater on get of Royal Majesty of St. Cloud; produce of cow (12 shown), 1st Walkley on produce of Zulu's Lass, 2d Allen Dale Farms on Tring Park Frolic, 3d and 6th Longview Farm on Raleigh's Poet's Emily and Boulevard's Nena, 4th Lasater on Raleigh's Island Star, 5th Mrs. Galbraith on Noble's Hips; advanced registry cow with 2 of her progeny (4 shown), 1st Lasater on Raleigh's Island Star, 2d Bonnell on Hope You'll Do, 3d Munn, 4th Bailey & Sons on Theo's Bright Beauty; dairy herd (5 shown), 1st Walkley, 2d and 5th Lasater, 3d Allen Dale Farms, 4th Hood Farm.

Cow having official record begun at 5 years or Over (8 shown), 1st Hood Farm on Sophie 19th of Hood Farm, 2d Ayer & McKinney on Shermfield Owl's Eva, 3d and 6th Lasater on Manor's Noble Queen and Raleigh's Island Star, 4th Allen Dale Farms on Fairy Lad's Pallas, 5th Mannsfield Hall Farm on For's Dorcas; cow having official yearly record begun under 5 years (10 shown), 1st, 2d and 5th Hood Farm on Sophie 19th of Hood Farm, Lass 89th of Hood Farm and Sophie's Beth, 3d and 6th Allendale Farms on Knollwood's Fairy and Harmony of Allen Dale, 4th Bonnell on Sophie's Dolly Dimple.

Guernseys.—The Central and Far West figured conspicuously in the Guernsey showing at the National Dairy Show, and overshadowed the East to a considerable extent. The chief defenders of the Central West were D. D. Tenney, of Crystal Bay, Minn., and that veteran breeder, W. W. Marsh, of Waterloo. From the Far West came W. H. Dupee, of Santee, Cal., to contest the prominence won by the Central West at the National a year ago. Although Mr. Dupee, with his excellent herd of western champions, was a formidable rival, he could not stand the competition of the Marsh herd and therefore fell into second place with Mr. Marsh as the foremost exhibitor. He did, however, capture a number of enviable prizes, including the junior championship. The senior and grand championships in the bull classes went to Mr. Tenney on Ladysmith's Cherub, an aged bull bred by Mr. Marsh. Both senior and grand champion heifer came from the Marsh herd. The first was Imp. Princess Bergere, an aged cow, and the second, Imp. Rose des Howards of the Prairie, the winner of the senior calf class.

Exhibitors—Borden's Condensed Milk Co., Earlville, N. Y.; Chas. D. Cleveland, Eatontown, N. J.; C. F. Curtiss, Ames, Iowa; W. H. Dupee, Santee, Cal.; Alice R. G. Dalbey, Granville, Ohio; D. K. Este Fisher, Ruxton, Md.; Iowa State College, Ames, Iowa; O. C. Barber, Akron, Ohio; Lewis Farms, Winneconne, Wis.; Louis McL. Merryman, Cockeysville Md.; W. W. Marsh, Waterloo, Iowa; Parkwood Farms, Toledo, Ohio; Raemelton Farm, Mansfield, Ohio; Dr. M. L. Reed, Coal Valley, Pa.; A. W. Smith, Pataskala, Ohio; D. D. Tenney, Crystal Bay, Minn.; Wendover Farm, Bernardsville, N. J.; S. B. Walbolt & Son, Waterville, Ohio. Judges, C. L. Hill, Rosendale, Wis.; Robert Scoville, Taconic, Conn., and W. A. McKerrow, St. Paul, Minn.

Aged bull (8 shown), 1st Tenney on Ladysmith's Cherub, 2d Dupee on Imp. Itchen May King, 3d Marsh on Imp. Kenilworth Gold, 4th Borden's Condensed Milk Co. on Imp. Gleaner of Anna Dean Farm, 5th Smith on Prince Oscar of Anna Dean Farm, 6th Cleveland on Berrington May King; two year old (3 shown), 1st Black on Florham Squire, 2d Dupee on Royal Rose King of Edgemoor, 3d Merryman on Rutila's Patient King; yearling (10 shown), 1st Dupee on Hopeful of Edgemoor, 2d Marsh on Imp. Hartfield, 3d Marsh on Ladysmith's Bopeep, 4th Marsh on Imp. Kitchener's Express, 5th Dupee on Langwater El Durado, 6th Wendover Farm on May King's Best of Bedminister; senior bull calf (9 shown), 1st Marsh on Dairymaid's Memento; 2d Marsh on Cherub's Prince, 3d Dupee on Ultra King of Edgemoor, 4th Dupee on Admiration of Edgemoor, 5th Rookwood Farm on Rookwood Cherub; junior bull calf (7 shown), 1st Marsh on Pine Blossom's Cherub, 2d Tenney on Althea's Pride of Shorewood, 3d Dupee on Hazel's Nonpareil of Edgemoor, 4th Cleveland on Sunnybrook Adventurer, 5th Este Fisher on Cedartop's Chief, 6th Cleveland on Sunnybrook Representative.

Aged cow (12 shown), 1st and 4th Marsh on Imp. Princess Berger and Imp. Hayes Express 5th; 2d and 3d Dupee on Imp. Mildred 2d of les Godaines and Florham Dame, 5th Merryman on Clare of Poplar Grove 3d, 6th Tenney on Imp. Althea of Sarnia; four year old (7 shown), 1st Dupee on Imp. Donnington Goldie 5th; 2d, 3d and 5th Marsh on Imp. Hayes Express 9th, Imp. Hayes Express 8th and Kennworth Adath, 4th Tenney on Cora of Gerar, 6th Borden's Condensed Milk Co. on Vermont Girl; three year old (7 shown), 1st and 3d Marsh on Imp. Hayes Mabel and Bopeep's Marie of Iowa, 2d and 5th Dupee on Imp. Dawn of Sarnia and Caprice of Edgemoor, 4th Merryman on Molly of Gerar, 6th Raemelton Farm on Imp. Chrisma; two year old (7 shown), 1st and 2d Marsh on Figtree of the Prairie and Cherub's Rose of the Prairie, 3d and 5th Tenney on Pearl's Dot and Ma Chere Procris, 4th Dupee on Veda of Chicona, 6th Merryman on Governor's Lady Baltimore; senior yearing (9 shown), 1st Marsh on Cherub's Lilly La Pine, 2d Cleveland on Sunnybrook Mignonette, 3d Dupee on Carmenita of Edgemoor, 4th Merryman on Marguerite of Gerar, 5th Cleveland on Sunnybrook Primrose; junior yearling (9 shown), 1st and 2d Marsh on Imp. Hayes Golden Cherry 15th and Imp. Hayes Golden Cherry 16th, 3d Tenney on Bell Bucy's Golden Lassie of City View, 4th Dupee on Imp. Lady Roberts of Edgemoor, 5th Walbolt on Queen of the Maumee, 6th Merryman on Virginia of Gerar; senior calf (14 shown), 1st, 4th and 5th Marsh on Imp. Rose des Houard's of the Prairie, Elberton's Express of the Dairy and Cherub's Daisy of the Prairie, 2d Dupee on Wood Violet of Edgemoor, 3d Iowa State College on Cherub's Rose of Ames, 6th Tenney on Lady La Verne of Shorewood; junior calf (15 shown), 1st Dupee on Sweet Dame of Edgemoor, 2d and 3d Marsh on Imp. Golden Cherry of the Prairie and Golden Cherry of Iowa 2d, 4th Tenney on Pearl's Golden Secret Girl, 5th and 6th Dupee on Merry Lad of Edgemoor and Royal Queen of Edgemoor.

Cow having official yearly record begun at 5 years or over (4 shown), 1st and 3d Dupee on Imp. Mildred 2d of les Godaines and Florham Dame, 2d Marsh on Imp. Princess Bergere, 4th Merryman on Clare of Poplar Grove; cow having official yearly record begun under 5 years (8 shown), 1st and 3d Dupee on Imp. Donnington Goldie 5th and Imp. Mildred 2d of les Godaines, 2d, 4th and 5th Marsh on Imp. Hayes Mabel, Imp. Hayes Express 9th and Lady Dairymaid of Pinehurst; 6th Tenney on Pearl of Pomeroy.

Senior and grand champion bull, Tenney on Ladysmith's Cherub; junior champion bull, Dupee on Hopeful of Edgemoor; senior and grand champion cow, Marsh on Imp. Princess Bergere; junior champion cow, Marsh on Imp. Roes des Houard's of the Prairie; exhibitor's herd (5 shown), 1st Marsh, 2d and 4th Dupee, 3d Tenney, 5th Merryman; breeder's young herd (4 shown), 1st Dupee, 2d Marsh, 3d Merryman, 4th Cleveland; breeder's calf herd (3 shown), 1st Dupee, 2d Marsh, 3d Cleveland; get of sire (6 shown), 1st and 4th Marsh on get of Imp. Hayes Cherub and Hayes Kitchner, 2d Tenney on get of Ladysmith's Cherub, 3d and 5th Dupee on get of Imp. Itchen May and Ne Plus Ultra, 6th Smith on get of Oscar Prince of Anna Dean Farm; produce of dam (6 shown), 1st Marsh on produce of Imp. Ladysmith of the Isle, 2d Tenney on produce of Gerar Pearl, 3d and 5th Dupee on Merry Dance of Riverside Farm and Caprice of Haddon, 4th Marsh on Imp. Hayes Golden Cherry 8th, 6th Merryman on Edna of Gerar; advance registry cow with two of her progeny (1 shown), 1st Dupee; dairy herd (3 shown), 1st Marsh, 2d Dupee, 3d Tenney.

Ayrshires.—The females made a much stronger showing than the bulls in the Ayrshire breed at the National last week. They could hardly be improved upon, at least not from the standpoint of quality. The aged class in particular was a wonderful exhibit. Eleven head were led into the ring and it is doubtful whether such a good lot has ever before been shown. The prizes all went to the East, with the exception of the Seitz entry, which took fifth place. This was expected, however, since the East has always been the stronghold of this popular Scotch breed. Shewalton Main's Queen Imp., of the Strathglass Farm, Port Chester, N. Y., topped the class and later became senior and grand champion cow of the show. Will Forbes, Waterloo, Iowa, who judged the Ayrshires, declared she was one of the most wonderful cows he had ever seen. In the bull classes Imp. Howie's Mint Master, of Wendover Farm, won first place in the aged class, but was not at all popular with the ringside. He also won the senior championship, but met defeat in the grand champion sweepstakes before the junior bull, Cavalier's Lord Stuart, a yearling of the Seitz herd. A very commendable point in regard to the Seitz herd is that it has been put into show form by Mr. Seitz's breeding work and not by an attempt to search the country for show animals in order to buy up a prize-winning herd.

Exhibitors.—Wm. Galloway, Waterloo, Iowa; Glengarry Stock Farm, Hudson, Ohio; Henderson Ayrshire Farm, Hudson, Ohio; Iroquois Farm, Cooperstown, N. Y.; South Farm, Willoughby, Ohio; Adam Seitz, Waukesha, Wis.; Wendover Farm, Bernardsville, N. J.; Strathglass Farm, Port Chester, N. Y. Judge, Will Forbes, Waterloo, Iowa.

Aged bull (5 shown), 1st Wendover Farm on Imp. Howie's Mint Master, 2d and 3d Strathglass Farm on Hobsland Piecemeal Imp. and Hobsland Perfect Piece Imp., 4th Galloway on Auchenbrain Good Gift, 5th South Farm on Victor of South Farm; two year old (3 shown), 1st Seitz on Cavalier's Lord Rose, 2d Henderson Ayrshire Farm on Chapel Hill Fearnought, 3d Iroquois Farm on Netherhall Keystone; yearling (4 shown), 1st Seitz on Cavalier's Lord Stuart, 2d Strathglass Farm on Strathglass Monte Cristo, 3d Iroquois Farm on Iroquois Brother Alex, 4th Glengarry Stock Farm on Drummond's Champion of Glengarry; senior calf (6 shown), 1st Wendover Farm on Nancy's Mint Master, 2d Seitz on Cavaliers' Beuchan Lindsay, 3d Strathglass Farm on Strathglass Sir Spencer, 4th Galloway on Lucius Good Gift, 5th and 6th Iroquois Farm on Iroquois Scotchman and Iroquois Cinnamon; junior calf (6 shown), 1st and 5th Strathglass Farm on Strathglass Scottish Chief and Strathglass Good Hope, 2d and 3d Seitz on Cavalier's Rising Archer and Cavalier's Beuchan Silver Tips, 4th and 6th Galloway on Sir Douglass Peter Pan and Harry Peter Pan.

Aged cow (11 shown), 1st and 2d Strathglass Farm on Shewalton Main's Queen Imp. and Lochfergus Snow Imp, 3d and 6th Iroquois Farm on Auchenbrain Hattie 6th and Rainton Daisy 2d, 4th Wendover Farm on Imp. Hobsland Miss May, 5th Seitz on Imp. Oldhall Beauty 8th; four year old (2 shown), 1st and 2d Strathglass Farm on Otterhill Mina and Shewalton Main's Queen; three year old (6 shown), 1st Wendover Farm on Imp. Nether Craig Gay Lass, 2d and 5th Strathglass Farm on Fairfield Main's Jean 10th and Strathglass Constance, 3d Iroquois Farm on Burnside Spottie, 4th and 6th Seitz on Cavalier's Lady Martin and Imp. Blackbyres Lady Walker; two year old (10 shown), 1st Strathglass Farm on Netherhall Kirsty Imp, 2d and 5th Wendover Farm on Netherton Yellow Kate 4th and Ryanogue Lady Peggy, 3d Galloway on Nona Spencer, 4th Seitz on Cavalier's Lady Mary Stuart, 6th Iroquois Farm on Iroquois Auchnashelloch; senior yearling (10 shown), 1st and 6th Strathglass Farm on Strathglass Pride and Strathglass Burnside Pearl, 2d and 4th Wendover Farm on Ryanogue Twinkle and Ryanogue Miss May 2d, 3d and 5th Galloway on Good Gift's Nona and Good Gift's Clemie; junior yearling (6 shown), 1st and 3d Seitz on Cavalier's Kilnford Dorothy and Iroquois Brown Bess, 2d and 4th Wendover Farm on Ryanogue Peggy's Lady and Wendover Farm Spicy Lady, 5th Strathglass Farm on Strathglass Beauty, 6th Iroquois Farm on Iroquois Brown Bess; senior calf (8 shown), 1st, 4th and 5th Seitz on Cavalier's Kilnford Bell, Cavalier's Beuchan Queen and Cavalier's White Lady, 2d and 6th Strathglass Farm on Strathglass Swanny and Strathglass Cheerup, 3d Wendover Farm on Ryanogue Tumpany; junior calf (7 shown), 1st and 3d Strathglass on Strathglass Lady Pearl and Strathglass Bluebell 2d, 2d Seitz, 4th Galloway on Minnie Good Gift, 5th Wendover Farm on Barclay's White Flora 3d, 6th Iroquois Farm on Otsego's Clover.

Senior champion bull, Wendover Farm on Imp. Howie's Mint Master; junior and grand champion bull, Seitz on Cavalier's Lord Stuart; senior and grand champion cow, Strathglass Farm on Shewalton Main's Queen Imp; junior champion heifer, Seitz on Cavalier's Kilnford Dorothy.

Exhibitor's herd (5 shown), 1st Strathglass Farm, 2d Wendover Farm, 3d Seitz, 4th Iroquois Farm, 5th Galloway; young herd (3 shown), 1st Seitz, 2d Strathglass Farm, 3d Galloway; breeder's calf herd (3 shown), 1st Strathglass Farm, 2d Seitz, 3d Iroquois Farm; get of sire (6 shown), 1st and 3d Strathglass Farm on get of Hobsland Perfect Piece Imp and Netherhall True to Time, 2d and 5th Seitz on get of unnamed, 3d and 6th Galloway on get of Iroquois Otsego and Gay Cavalier; produce of cow (6 shown), 1st and 2d Seitz on produce of Beuchan Dorothy and Lady Mary Stuart, 3d Wendover Farm on produce of Ryanogue Lady Peggy, 4th Galloway on produce of unnamed, 5th and 6th Strathglass Farm on produce of Beuchan Lady Constance and Shewalton Main's Queen Imp.

Brown Swiss.—Two exhibitors made up the showing of Brown Swiss cattle at the National this year. They were well matched and put up a good contest in spite of the fact that a good number of entries was lacking. In the end, however, Hull Bros., Painesville, Ohio, succeeded in getting a little the best of the fight. Their well-known aged cow, Swiss Valley Girl 7th, won senior and grand championship in the female class. Hull Bros. lost, however, in the aged bull class to their competitor, Marshall & Sons, Leslie, Mich., who exhibited their aged herd bull, Stasis Boy of Sedgley. This animal later captured the senior and grand champion purples.

Exhibitors—Hull Brothers, Painesville, Ohio.; L. S. Marshall & Sons, Leslie, Mich. Judge, H. G. Van Pelt, Waterloo, Iowa.

Aged bull (2 shown), 1st Marshall & Sons on Stasis Boy of Sedgley, 2d Hull Bros. on Dick of Lake View; two year old (1 shown), Hull Bros. on McAvoy H.; yearling (2 shown), 1st Hull Bros. on Vogel's College Boy, 2d Marshall & Sons on Marcus; senior calf (3 shown), 1st Marshall & Sons on Boenna F. King, 2d and 3d Hull Bros. on Mercedes of Lake View and Kololo of Lake View; junior calf (2 shown), 1st and 2d Hull Bros. on Cinderella Boy and Supreme of Lake View.

Aged cow (4 shown), 1st and 3d Hull Bros. on Swiss Valley Girl 7th and Lottie G. D., 2d and 4th Marshall & Sons on Brownie F. and Nellie F.; three year old (4 shown), 1st and 3d Hull Bros. on Ruth Wilson 2d and Innis of Lake View, 2d Marshall & Sons on Beaut; two year old (3 shown), 1st and 3d Marshall & Sons on Minnie's B. and Buenna B., 2d Hull Bros. on Swiss Valley Girl 9th; senior yearling, 1st and 2d Hull Bros. on Betty of Lake View and Vera of Lake View, 3d and 4th Marshall & Sons on Valley Girl M. and Jackson Lady; junior yearling (1 shown), 1st Hull Bros. on Dorothy Downer; senior calf (3 shown), 1st and 2d Hull Bros., on Belle of Lake View, and Georgia Ann of Lake View, 3d Marshall & Sons on Buenna F.'s B.; junior calf (4 shown), 1st and 2d Marshall & Sons, 3d and 4th Hull Bros. on Hattie K of Lake View and Elsie of Lake View.

Senior and grand champion bull, Marshall & Sons on Stasis Boy of Sedgley; junior champion bull, Hull Bros. on Vogel's College Boy; senior and grand champion cow, Hull Bros. on Swiss Valley Girl 7th; junior champion heifer, Hull Bros. on Belle of Lake View; exhibitor's herd (2 shown), 1st Hull Bros., 2d Marshall & Sons; young herd (2 shown), 1st Hull Bros., 2d Marshall & Sons; breeders calf herd (2 shown), 1st Marshall & Sons, 2d Hull Bros.; get of sire (3 shown), 1st Hull Bros. on get of Reuben, 2d and 3d Marshall & Sons; produce of cow (3 shown), 1st and 3d Hull Bros. on produce of Swiss Valley Girl 7th and Edna of Lake View; 2d Marshall & Sons.

Law Questions.

Fourth of July a Working Day.

Mr. Herman Hendrickson, Radcliffe, Iowa—I have a man hired to work for me for one year He took a day off on the 4th of July, claiming it is a holiday, and he wants me to pay him wages for that day. Can he compel me to do so by law?

Answer.—He cannot. The law making the 4th of July a legal holiday does not apply to employers or employes. Unless it comes on Sunday it is a working day like any other week day.

Obtaining Private Road.

A Subscriber, Delton, Wis.—A owns a forty-acre tract of land adjoining a lake, in Wisconsin. B, a woman, owns a cottage on one corner of said tract, and has access to her cottage on the lake. Can she compel A to give her a road from her cottage to the opposite corner of his land, and thence to the main road?

Answer.—B can obtain such a road not less than two rods nor more than three rods wide in the following manner: B should file with the supervisors of the town an affidavit stating that she owns the land and cottage, describing same, and that it is shut out from all public roads by A's land, which surrounds it. The supervisors will notify the parties of the hearing on the matter so they may be present, and on proof of the facts stated in the affidavit, they will lay out a road for her and fix the amount of damages she is to pay A for the same and when she pays such amount, with costs, she will have the right to such road.

Lake Mills Holstein Sale.

The demand for heifers and cows not fresh or not due to freshen soon was not keen at the Lake Mills sale October 23d and 24th, though young bulls possessing high record backing and some of the choicest cows that were fresh or due to freshen shortly sold well. This sale demonstrated again very conclusively the fact that it does not pay to enter heifers in the rough to fall sales, owing to the scarcity of feed and difficulty in procuring satisfactory farm help. The most sensational and spectacular demonstration occurred when Charlie Beveridge sold his 33-pound bull. This calf entered the ring in the height of condition and was typical of the class of animals which Mr. Beveridge has been consigning to these sales for a number of years. This calf shot up to the $1,000 mark in a few minutes. John Goldthorpe, of Milton Junction, ran him up to $2,000. J. E. Jones, of Watertown, went as high as $2,250 and Baltz Hoesley, of Monroe, and Andrew Frank, of Fox Lake, fought it ought on the home stretch. Mr. Hoesley's last bid was $2,975 and Mr. Frank finally purchased the bull, rounding the figure out at $3,000. This sale is unquestionably the best one ever made at the Lake Mills sales for a bull of his age and we feel that both Mr. Beveridge and Mr. Frank are to be congratulated in the transaction. The next highest priced animal of the sale was the three times 31-pound bull calf consigned by W. H. Reed, of Palmyra. This calf, like the one Mr. Beveridge sold, was a practically perfect individual and should have brought more than $1,100. Mr. Reed, however, had the distinction of having the highest priced cow of the sale and his consignment of five head sold at a very satisfactory average, being considerably over $500. Lashbrook's 35-pound

(Continued on page 22.)

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Upper Wisconsin.

Plan to Increase Sheep Production.

Our readers in Upper Wisconsin will be interested in the meeting which was recently held at Bemidiji, Minnesota, the outgrowth of work which is being conducted by the Northern Minnesota Sheep Growers' Association. Representatives of bankers, press and commercial clubs met with the sheep growers. The plan which was finally adopted for the purpose of increasing the sheep and wool business in northern Minnesota may be carried out in almost any community in Upper Wisconsin. This plan is embodied in the following resolutions:

Resolved, That since the great world struggle in which this country is now engaged to establish democracy, safety and equal rights to all people great and small, this association pledges its unswerving support to the government of the United States. And we as an organization and as individuals pledge ourselves to crush the head of treason wherever and whenever it appears. There is absolutely no middle course. Our every act and every word must be in support of the cause for which we are fighting. Anything less would taint of treason. We condemn any utterance on public platform or in private life that tends to lend aid or comfort to the enemy.

It is imperative for all interests of the country to stimulate and increase the production of food and clothing to the very utmost. The shortage of animal products and breeding stock, together with the ever increasing demand for same, opens to the American farmer opportunities greater than ever before, and that both as a patriotic duty and as good business we as farmers and business men heartily endorse rapid development of the sheep industry in northern Minnesota.

First. Be it resolved, that an organization be now perfected to be known as the "Northern Minnesota Sheep Growers' Asociation," for the purpose of promoting the sheep industry in the counties of Itasca, Koochiching, Clearwater, Beltrami, Hubbard, Cass, St. Louis, Aitkin, Crow Wing, Wadena, Carlton, Becker and such other territory as may later be added to the association.

That such association have an executive committee of ten members, consisting of a president, a vice president, a secretary, a treasurer and six directors, to be chosen at large by the association at the annual meeting.

That qualification for membership in this association shall be residence in any of the counties included in the association, and the payment of annual dues of $1; also residents of Minnesota not included in the above territory upon recommendation of the executive committee and the payment of like annual dues.

Second. That said executive committee, besides being empowered to provide for membership dues, be also authorized to solicit and receive donations from commercial bodies and other sources for the purpose of providing funds to defray the necessary expenses of the executive committee at their special meetings and in carrying on a systematic plan of education and organization.

Third. That said executive committee be requested forthwith to plan and put into execution a system of organizing local groups, preferably centered around cities or villages where banking institutions can be interested in financing the matter of purchasing sheep and selling the same to actual farmers, under such plans and with much securities as shall hereafter be determined upon.

Fourth. That wherever such local groups can be organized, the farmers in such groups be enlightened as to the general plans, and that each group be urged to adopt and put into execution a plan somewhat as follows:

In each group an investigating committee of three or more men shall be formed, consisting preferably of men whose judgment is acceptable to the bankers providing the funds as hereinafter provided, and that the duties of such investigating committee shall be to ascertain the names of farmers worthy of trust who will want to purchase sheep under the method following, to wit:

It is recommended that each farmer purchase under these provisions not to exceed ten ewes, though this is flexible, being governed by special circumstances. That he pay as much thereon as he can afford without handicapping himself in the purchase of woven wire. That for such amount as he cannot afford to pay down, the farmer give a note to the bank secured by a chattel mortgage on the sheep purchased and the increase thereof. That if further security is desired by the banks, additional security be arranged as follows: The local business men form some kind of organization to guarantee to the bank the payment of all chattel notes, and that as many local business men as possible be urged to become such guarantors so as to minimize any possible loss they may sustain as such guarantors.

Fifth. That some plan be devised by said executive committee to have some competent person, either county agent, agricultural instructor or some general agent for the entire district, supervise the care of the sheep and instruct the farmers as to the proper care and handling of the sheep.

Sixth. That the executive committee take immediate steps to employ a competent person or persons to select and purchase suitable breeding ewes to fill the demands and requests for sheep as turned in by reports from the local groups to the central executive committee.

Seventh. That said central executive committee be urged to carry on a vigorous and systematic campaign of education, sending out speakers to the several communities to work up sheep sentiment.

Eighth. That said executive committee forthwith devise a system to be carried out by the local groups for providing suitable rams to be distributed among the flocks under such plans as may seem feasible.

Ninth. That said executive committee forthwith devise plans for the local groups, through their bankers, to purchase woven wire to the best advantage, having in view the saving effected through freight and prices on larger shipments.

Tenth. That the executive committee be urged forthwith to devise methods of community shipping and marketing of sheep and wool, providing dipping tanks, procuring the presence and services of competent sheep shearers, and carrying on other work of a coöperative nature.

Eleventh. That the executive committee appointed shall hold office until the next regular meeting, which shall be held at such time and place as shall be determined by the executive committee, and shall be instructed and authorized to draw up and submit at such meeting a set of by-laws for said association, and also a set of by-laws appropriate for the local groups to the end that such groups shall as far as possible be governed by a uniform system of by-laws.

Twelfth. That annual dues of $1 be invited and received today from those interested in the development of the sheep industry in northern Minnesota, such dues to cover the year 1918.

This plan had previously been submitted to a number of farmers and business men in the neighborhood and it also has the loyal support of Minnesota Experiment Station workers and such men as T. A. Hoverstad, agricultural commissioner of the Soo Line, and D. E. Willard, development agent of the Northern Pacific Railroad. With a central organization such as this and local groups such as are arranged for in the general organization plan it should be possible to arouse a great deal of interest in our own sheep industry. Inasmuch as the conditions in much of northern Minnesota are similar to those in parts of Upper Wisconsin the plan which has been worked out in our sister state may well be given some thought in Upper Wisconsin. There is no doubt but what we could raise many more sheep with profit to ourselves and we would at the same time be doing a patriotic service by adding to the nation's wool and meat supply.

A loss of live weight of hogs and waste of feed result from the practice of purchasing local hogs in small lots and holding them in local stockyards until a carload shipment is collected, according to specialists of the United States Bureau of Markets. They point out that at this and other seasons when runs are light, it often takes local buyers four or five days to assemble enough small lots for a carload. As facilities for feed and watering are inferior in small yards, the hogs make no further gains on their feed and often suffer actual loss of live weight. Local buyers, therefore, would do well to specify a certain day for the delivery of lots from the various farms and load and ship without holding. Farmers also could club together to make up coöperative carload shipments on regular week days, thus saving the margin lost in individual small-lot selling.

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FUR MONEY for YOU

Wisconsin Dairymen Hooverizing

Real Dairymen Are Not Losing Interest in the Good Old Dairy Cow —1,470 Herds Investigated—By Noel Negley.

TO SAVE all you can, to use most effectively all you save, to produce all you can, and that most efficiently, might be a good definition of "Hooverism" as it applies to the dairyman. Conservation in consumption of feed and labor, and efficiency in production of dairy products—but call it what you will, this is the doctrine taught by the Wisconsin cow testers and practiced by their members.

BESSIE LIPSTZ, FIRST WOMAN COW TESTER IN WISCONSIN. SHE TESTS THE COWS IN THE AVOCA TESTING ASSOCIATION.

BUYING FEED COOPERATIVELY IS BEING PRACTICED MORE EACH YEAR.

"Don't you know this is the worst community in the state?" is quite a common question in sections where we start to organize a cow-testing association. Yet when he really gets acquainted with his neighbor he finds him not much worse than himself, and that by working together they can put money in their pockets, joy in their work, and friendship in their hearts. That the real dairymen are not losing faith in the good old dairy cow is evidenced by the replies received from testers who have investigated the situation in 1,470 herds. In reply to the question, "Are any of your members going out of the dairy business because of feed prices and labor shortage? How many?" out of forty-nine replies forty-one testers report "No," the balance reporting that six members had gone out of the business and two members were cutting size of herds.

The "heifer calf savers" of the country need not worry about the situation in Wisconsin, and those who fear that dairymen are selling their herds and going out of business may as well begin to get afraid of something else, according to the reports on these conditions by forty-nine testers who have interviewed 1,470 dairymen having 25,000 cows on test. In reply to the question: "Are there more heifer calves being sold for veal than formerly?" every one of the testers reported "No." In reply to the question, "Are there any good heifer calves from pure-bred bulls being sold for veal?" forty-one reported "No," four reported "Yes" and four reported "Few."

What do the dairymen of Wisconsin think of the milking machine? Because of the keenness of the labor situation, dairymen may be interested to know how the problem is handled on many successful farms. Reports from 1,861 members of Wisconsin cow-testing associations show that 230 are now using milking machines, thirteen have had machines on trial, but have taken them out, and nine would prefer hand milking if good help could be secured at a reasonable figure. The reasons for discarding these thirteen machines are interesting: One member says he gets no service from the company and that the repairs cost too much; another discarded his because he did not like to strip after the machine. Four others thought they themselves were at fault rather than the machine. One member discontinued use of the machine because he and his two boys could milk faster by hand. Another says, after using the machine thirty days, "It's no good."

It is not to be expected that everyone would get along satisfactorily with a machine, but to have only thirteen members that are dissatisfied, four of which do not blame the machine, out of a total of 243 who have used them, makes one feel that the new hired man is a success. Out of the 243 who have machines, 230 members enthusiastically indorse them with such statements as these: Julius Bowe, Chilton, "I would give up dairying if I had to go without my machine." E. P. Kinney, tester at Chippewa Falls, says, "Ten of my members have machines and several more will be installed. They say they can do better milking in less time." Geo. Barthels, Mishi-

(Concluded on page 16.)

WISCONSIN SEPTEMBER COW TESTING SUMMARY

Association	Tester	No. of 40-pound cows	Fat production of high cow	Breed	Owner
Alban-New Hope	M. E. Smith	30	57.8	Gr. H.	Anton B. Brekke
Amherst-Nelsonville	M. Nelson	26	67.3	Gr. H.	Ole Borgen
Baraboo	E. Hinrichs	12	45.3	Gr. H.	Ernest Hanger
Bear Creek	J. Coleman	5	46.8	Reg. H.	Emil Fetzer
Black Earth	J. Uebersetzig	1	39.9	Reg. J.	Fred Stubley
Bloomfield	R. A. Power	2	44.8	Gr. H.	Fred Kundred
Brookfield	G. C. Tanner	23	62.7	Gr. H.	Scheibe Bros.
Byron	E. H. Stuckert	3	57.7	Gr. H	F. H. Holland
Cambridge	C. C. Jackson	0	38.8	Gr. H	E. E. Rockney
Cedar Grove	H. Molter	8	47.0	Gr. H.	J. Bloemers
Chilton	J. Wolf	15	50.2	Gr. H.	Alex O'Donnell
Dodgeville	G. D. Springer	5	52.2	Reg. H.	E. Berryman
Door	G. Thull	21	63.1	Gr. H.	L. F. Keough
E. Fond du Lac	W. H. Duel	11	58.4	Gr. H.	F. A. Lohse
Edgar-Marathon	H. Woodward	5	57.1	Gr. H.	Anton Volbard
Fox River Valley	F. A. Gaiser	99	53.5	Reg. H.	Chas. Crabb
Langlade	J. Reckinger	33	52.8	Gr. G.	Schroeder Bros.
Lindina	A. J. Hunsader	6	46.8	Gr. H.	H. H. Wells
Linn	H. Snyder	16	62.5	Gr. H.	Palmer Weter
Manitowoc	J. E. Bowstead	25	55.2	Gr. G.	Joe Brennan
Marshall	G. Krueger	3	60.4	Reg. H.	Henry Peck
Maple Grove	M. Frihart	3	55.9	Native	Ira Farley
Medford	A. T. Zeddies	7	46.2	Gr. G.	Wm. Ramm
Mishicot	E. H. Meineke	18	54.6	Native	Joe Jacquette
Mondovi	Benj. Wood	5	43.7	Gr. J.	A. R. Heck
Mukwonago	H. Hooyboer	6	55.5	Gr. H.	Ben Clark
Muscoda	O. L. Garrison	10	65.6	Gr. H.	N. L. Collard
New Holstein	N. Nelson	28	61.1	Gr. G.	H. J. Duecker
Outagamie	Charles Maas	18	51.6	Gr. H.	Lloyd Tubbs
Reedsburg	E. Peterson	9	46.8	Gr. H.	H. W. Meyer
Rice & Cedar Lake	F. J. Waldman	10	61.8	Reg. G.	Lone Pine Farm
Rock	G. R. Brannon	3	43.6	Gr. H.	James Murphy
Rosendale	D. C. Phillips	1	40.5	Gr. H.	H. A. Vollbucht
Sauk Prairie	E. E. Clingman	6	66.7	Reg. H.	A. E. Gruber
Scandinavia	H. R. Brewster	11	66.2	Reg. H.	S. D. Shambeau
Shawano	C. M. Rydberg	4	43.3	Gr. H.	John Horsens
Sheboygan	G. B. Towne	26	62.1	Gr. H.	Joe Oosterhuis
Spring Green	J. M. Garrett	1	41.4	Gr. H.	Albert Linz
Stratford	H. Woodward	12	47.4	Native	Geo. Butzke
Tigerton & W.	Theo. Gjemundson	2	44.1	Native	A. Grinstad
Walworth	A. H. Otto	4	53.5	Gr. H.	Sam Stunstra
Waupaca-Sheridan	D. Demsey	8	59.9	S. H.	W. H. Taggart
Westby	D. C. Kellicut	22	56.0	Reg. J.	C. H. Buxton
Winnebago	A. Barthels	6	53.2	Reg. G.	H. R. Mosely
Wolf River	F. Pfuehler	13	52.6	Gr. H.	J. Jacobosky

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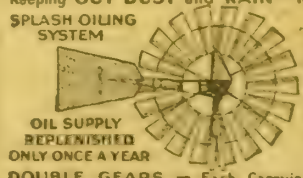

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Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Adjusting Stromberg Carburetor.

Give detailed instructions on the adjustment of the Stromberg carburetor of the Oakland eight-cylinder Model 50 automobile. What is the cause of difficult starting when there is plenty of gasoline in the float chamber? When the motor is cold, priming is necessary for starting. Why does the motor, when cold, choke down when the throttle is opened quickly? At very low speeds, the motor pops back in the carburetor, but it improves when warmed up.

Answer.—The Stromberg carburetor has a high speed and a low speed adjustment. The high speed adjustment is the small knurled nut over the air valve. The low speed adjustment is the large knurled nut under the air valve. To adjust this carburetor, proceed as follows: With the motor at rest set the high speed nut so that the spring above the valve is not only free, but has one-sixteenth of an inch end play. Adjust the low speed nut so that the valve is seated lightly. Start the motor after closing the choker valve in the air horn. Open the choker as soon as the motor has started. If the motor does not start after several turns, open the choker while cranking.

Do not adjust the carburetor until the motor is thoroughly warmed up. With spark detarded, adjust the slow speed nut up and down until the motor runs smoothly at low speed. To test the adjustment, open the air valve slightly by pressing on the top of the plunger above the valve. If the motor then speeds up the mixture is too rich, and the low speed nut should be screwed down so as to put less tension on the spring under the valve. If the engine dies down the mixture is too lean and the low speed nut should be turned to the right. Having properly set the low speed adjustment, do not change it while making the high speed adjustment. To adjust for high speed advance the spark to normal position and open the throttle gradually. If the motor backfires through the carburetor the mixture is too lean, and the high speed nut over the air valve should be turned to the left. If black smoke comes from the exhaust the mixture is too rich and the high speed nut should be turned to the right. Turning either adjusting nut up means a richer mixture; turning either nut down means a leaner mixture. If you have a hot-air pipe, open the shutter near the choke valve in summer and close it in winter.

When a motor is cold the gasoline does not vaporize readily and part of it condenses on the cold walls of the intake manifold. Therefore, more gasoline is required than when running after the motor is warmed up. This additional gas may be furnished for starting by priming the cylinders through pet cocks or by depressing the carburetor float so as to flood the carburetor if the carburetor is provided with this priming device. It is evident that your carburetor is adjusted for too lean a mixture and should be readjusted as outlined above.

Electrical Equipment of Automobiles.

Is it practical to place a storage battery in a Ford car for lighting and have it charged in town? Explain the action of the generator, storage battery and starter in a large car. Is the generator the same as a magneto, and is it driven by the engine?

Answer.—It is practical to light a Ford car from a storage battery charged from an outside source, but if the lights are used very much it will be found to be rather expensive.

The generator is a small electric dynamo. Its field may be either permanent or electro magnets, the latter being the usual practice. The armature of the generator is geared direct to the motor. The current from the generator flows to the storage battery, an automatic cutout being placed betwen the battery and the generator so that the current from the battery cannot flow back through the generator when the motor is stopped. The ignition system is connected to the battery so that it may be operated either from the battery or from the current direct from the generator. The starter is a small electric motor. It has a small gear on the end of the armature shaft that meshes with a large gear cut on the flywheel rim. Pressing on the starter button pushes the starter pinion into mesh with the gear on the flywheel and also closes a switch between the battery and the starter motor. As soon as the motor starts the starter pinion slips out of mesh so that the starter motor only runs while the motor is being started.

Some systems combine the generator and starter into one unit, but the present practice is to have both a generator and a motor. The generator is not the same as an ordinary magneto.

Care of Auto in Cold Weather.

The time of year has arrived when steps should be taken to protect the storage battery and radiator from freezing. The storage battery will take care of itself if kept properly charged, but even if the car is idle the battery sho 'd be given a light charge every month to make up for leakage and stir up the electrolyte. The temperature at which a battery will freeze depends upon the specific gravity of the electrolyte. The following table gives the freezing points for several specific gravities:

Specific gravity	Freezing point
1.050	27 degrees above zero
1.100	19 " " "
1.150	5 " " "
1.200	15 " below "
1.250	60 " " "

As the specific gravity of even a half-charged battery is above 1.200, it will be seen from the above table that there is no danger from freezing if the battery is kept well charged. The above table is taken from a chart published by the Willard Storage Battery Company.

If the car is to be in use during the cold weather an anti-freeze solution should be used in the radiator. A popular solution consists of 60 per cent water, 30 per cent alcohol and 10 per cent glycerine. This solution freezes at 8 degrees below zero. A solution of 20 per cent alcohol and 80 per cent water freezes at 15 degrees above zero. A solution of 50 per cent alcohol freezes at 15 degrees below zero. Alcohol evaporates more rapidly than water; therefore, use at least as much alcohol as water when re lling the radiator.

It is usually best to use a lighter oil in winter than in summer. When starting, run the motor slowly until it warms up and the oil begins to circulate well.

If the car is to be stored for the winter jack up the wheels so as to take the weight of the car off the tires. It is best to remove the tires, sprinkle them with sulphur or soapstone and wrap them with paper or canvas. They should be stored in a room where the temperatures will not be extreme.

Curing a Missing Front Cylinder.

Is it advisable to put a Stromberg carburetor on a Ford car? Perhaps there are different ways of fixing Ford cars when the spark plug in the front cylinder oils up and begins to miss. I have a Ford Model 1916 touring car which did this every twelve or fourteen miles. We got disgusted with it and finally changed the carburetor for a leaner mixture. This solved the problem for eight months, when the carburetor adjustment was accidently moved. Then it began missing again. Lately we have adjusted the carburetor back to the correct position and have installed a leak-proof ring in the lower groove of the piston. Since then it has not missed once, no matter how much oil is carried in the crank case.

Answer.—The Stromberg carburetor is a good carburetor. The choice of a carburetor is a matter of individual choice, as there are many good carburetors. It may be, as suggested above, that too much fuel as well as too much oil may be the cause, or part of it at least, of the front cylinder missing. Before taking out the piston and grooving it as suggested in a recent issue it would be advisable to make sure that the carburetor adjustment is correct.

Using a Small Steam Engine.

I have an old upright steam engine that has not been used very much. Is there any way that I could use this engine for a stump puller? The engine has two eccentrics. The cylinder is four inches diameter and the stroke is six inches. Can this engine be made to run a cross-cut drag saw like you recently illustrated?

Answer.—We do not believe that this engine could be used very successfully for pulling stumps. It would not be portable enough. It could be used for sawing wood, cutting feed, shelling corn, etc. If your valves are in good condition this engine should develop at least six horse power with eighty pounds of steam.

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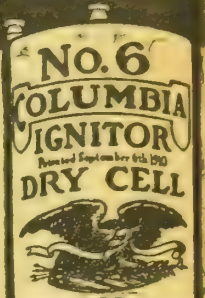

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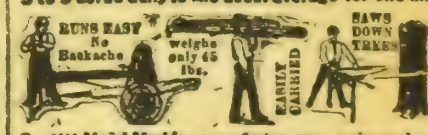

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WAUKESHA COUNT
WAUKESHA,

Cande De Kol Westview, 28 lbs. 7 days, 910 lbs. butter, 21,000 lbs. milk in a year and bred to Dutchland Creamelle Sir Ascalon. Consigned by S. A. Baird & Son, Waukesha, Wis.

A five-month-old 29.97-lb. son of Admiral Walker Prilly, whose dam had 32 lbs. and was the first cow in the United States to have five records above 29 lbs. Consigned by Gustave Pabst, Dousman, Wis.

QUALITY IS THE DISTINGUISH

The highest record young bulls from the best Waukesha county H R. O. cows—cows with records up to 28 lbs. in 7 days, 910 lbs. butter breeding is liberally represented, as indicated by the following briefs fr

S. A. BAIRD & SON — **WAUKESHA, WISCONSIN**

See Illustration No. 1.

We are consigning the best two A. R. O. cows in our herd, in addition to a son of Dutchland Creamelle Sir Ascalon. Cande De Kol Westview (see cut) is a grand individual and has 28 lbs. in 7 days, 910 lbs. butter and 21,000 lbs. milk in a year. Myretta Korndyke De Kol is likewise a splendid individual, having 24.78 lbs. in 7 days, 754 lbs. butter and 17,000 lbs. milk in a year. Both cows are due to freshen in December to Dutchland Creamelle Sir Ascalon, whose five nearest dams average 1,000 lbs. butter and 27,000 lbs. milk.

GUSTAVE PABST — **DOUSMAN, WISCONSIN**

See Illustration No. 2.

Our 29.97-lb. bull calf is by Admiral Walker Prilly, a 32-lb. bull that formerly stood at the head of the well-known Stephenson herd. His dam, a 32-lb. four year old, won $131.50 in association prizes and was the first cow in the U. S. to make five records above 29 lbs. The dam of our calf, Zerma Pride, has to her credit 29.97 lbs. 7 years, 27.54 lbs. 5 years and 20.15 lbs. 4 years. The three nearest dams of the calf average 30.22 lbs.

D. J. HOWELL — **WAUKESHA, WISCONSIN**

See Illustration No. 3.

We are consigning a choice 23-lb. two-year-old heifer by a 29-lb. sire bred to Maple Crest De Kol 2d due to freshen shortly after the sale. Also a 17-lb. three year old bred to the same sire and a 24-lb. son of Maple Crest De Kol 2d.

E. B. WATROUS — **TROY CENTER, WISCONSIN**

See Illustration No. 4.

We have decided to consign a young son of our state record junior four year old, Aaltje Johanna, 28.57 lbs., as well as 10 yearling heifers out of tested daughters of Aaltje Salo Johanna Pontiac, which carried 50 per cent of the blood of Segis Fayne Johanna, and a 16-lb. two year old and 21-lb. three year old bred to Hillvale Sir Ormsby.

J. C. WILTON — **EAGLE, WISCONSIN**

See Illustration No. 5.

We are consigning Daisy Sendt Korndyke 2d, a two-year-old heifer sired by Ideal De Kol of Rock that is a beauty and four young mature cows fresh about sale time. One of them produced 600 lbs. butter last year in the East Troy Cow Testing Association.

Consignors not heretofore mentioned are as follows: F. W. Andrews and C. J. Will.

SALE BEGINS AT

Terms and Conditions of Sale—All animals of breeding age are inspected for fitness by a committee of three. Culls and inferior an tuberculin tested, under the supervision of the Wisconsin Live Stock S jamin, auctioneers. S. T. Wood in box.

WAUKESHA COUNTY HOLSTEIN BREEDERS' ASSOCIATION

Two-year-old heifer of a 29-lb. bull, due to freshen shortly after sale to Maple Crest King De Kol 2d. A worthy Waukesha county sire. Consigned by D. J. Howell, Waukesha, Wis.

The 28.57-lb. bull calf of Aaltje Johanna, the state record four and a half year old, developed by Mr. Watrous, who is also consigning a 26.37-lb. bull calf and five yearling daughters of Aaltje Salo Johanna Pontiac. Consigned by E. B. Watrous, Troy Center, Wis.

Daisy Sendt Korndyke 2d, two-year-old heifer sired by Ideal De Kol of Rock, that is by Mutual Piebe De Kol and out of Ideal De Kol Wit, 24.43 lbs. 7 days, 569.95 lbs. butter in 263 days. Consigned by J. C. Wilton, Eagle, Wis.

HOLSTEIN SALE
VIS., NOV. 16

G FEATURE OF THIS SALE

in herds are consigned, as well as these breeders' choicest A. 1,000 lbs. milk in a year. Likewise the best and most popular he leading consignments:

) PABST — **OCONOMOWOC, WISCONSIN**

See Illustration No. 10.

ır 31.41-lb. bull calf we are consigning is one of the best bulls ave ever bred. He is a well-marked, handsome individual sired ing Pontiac Champion (62 A. R. O. daughters) and one of the ıg A. R. O. sons of the great King of the Pontiacs, that has more daughters and more A. R. O. daughters than any bull, living or The dam of our calf, Pabst Hengerveld Colanthus, is one of reatest cows in our herd, having 31.41 lbs. in 7 days, 873 lbs. r and 20,714 lbs. milk in a year.

IATION STOCK FARMS — **OCONOMOWOC, WISCONSIN**

See Illustration No. 9.

ır consignment includes a 26-lb. son of Johanna McKinley Segis an Ormsby-bred cow carrying 50 per cent of the blood of Sir by Hengerveld De Kol.

son and daughter of Rag Apple Korndyke 8th, from daughters ntiac Korndyke.

grandson of Colantha Johanna Lad from a 27-lb. three-and-one-ear-old daughter of the great show bull, Ollie Johanna Sir Fayne. females safely in calf to Beauty Pietertje Prince, the 32-lb. sire 28 A. R. O. daughters, 8 with records from 25 to 30 lbs.

D BROS. — **WAUKESHA, WISCONSIN**

See Illustration No. 8.

e 25.62-lb. cow, Jenny Segis De Kol Burke, that we are consign- one of the best things in our herd. She is now on semi-official work, about to finish with 750 lbs. butter, 18,500 lbs. milk, and d to King Superba, a 34-lb. bull, due to freshen in March.

KAYE — **WALWORTH, WISCONSIN**

See Illustration No. 7.

e are offering a 25.99-lb. son of King Pontiac of Brothertown, our ire, whose two nearest dams have a higher yearly average than vo nearest dams of any other Wisconsin bull. His two nearest average in 7 days, 38.53 lbs. We are consigning four choice A. cows, including a 25-lb. cow bred in June to our herd sire.

KLESTON BROS. — **WAUKESHA, WISCONSIN**

See Illustration No. 6.

27.14-lb. bull out of the former state record cow, Cornucopia Jo- Clothilde, 27.14 lbs. butter, 747 lbs. milk in 7 days, and by Crest King De Kol 2d, a 27.24-lb. bull, in addition to four fe- bred to Maple Crest King De Kol 2d, comprise our offering.

p Bros., H. E. Reddelien, Edgewood Stock Farms, Dan Le Bar

N a. m. SHARP

eed by the consignors to be breeders. Each animal consigned is are barred from entry. All animals over six months of age are Board, within 30 days prior to sale. Haeger, Love and Ben-

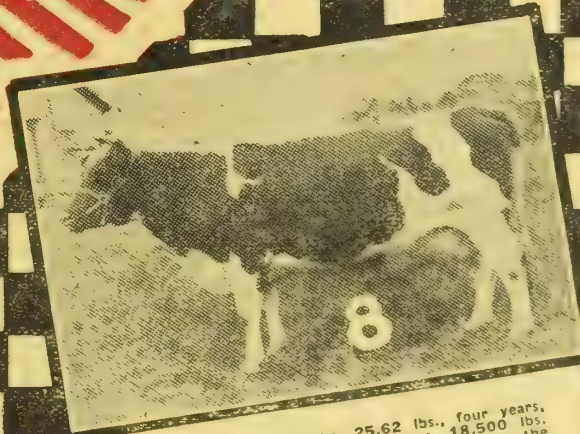
W. L. BAIRD, SECY., WAUKESHA, WISCONSIN

A 31.41-lb. son of King Pontiac, champion, and Pabst Hengerveld Colanthus, 31.41 lbs. 7 days and 873 lbs. butter, 20,714 lbs. milk in a year. Consigned by Fred Pabst, Oconomowoc, Wis.

A 26-lb. son of Johanna McKinley Segis, from an Ormsby-bred cow carrying 50 per cent of the blood of Sir Ormsby Hengerveld De Kol. Consigned by Carnation Stock Farm, Oconomowoc, Wis.

Cornucopia Johanna Clothilde, 27.14 lbs. butter, 747 lbs. milk in 7 days, former state milk record, is the dam of a nicely marked bull calf sired by Maple Crest King De Kol 2d (27.24 lbs.). Consigned by Muckleston Bros., Waukesha, Wis.

Here is a 25.99-lb. son of Pontiac of Brothertown, whose two nearest dams average 38.53 lbs. in 7 days and whose three nearest dams average 34.41 lbs. Consigned by A. P. Kaye, Walworth, Wis.



Jenny Segis De Kol Burke, 25.62 lbs., four years, now making close to 750 lbs. butter, 18,500 lbs. milk. Due to freshen in March to King Superba, the 34-lb. son of Milanhurst America De Kol. Consigned by Baird Bros., Waukesha, Wis

Wisconsin Dairymen Hooverizing.

(Continued from page 12.)

cott, "If I had to be without a machine I would not keep any cows."

The honors for the high-producing cow go this month to Ole Borgen, of the Amherst and Nelsonville Association. One of his five-year-old grade Holsteins made 67.2 pounds of fat. The fact that Mr. Borgen has been a member of the local association for the last three years is the main reason he has such high-producing cows. Production in all the associations was low, yet there were 493 cows out of 18,183 reported tested that produced over forty pounds of fat during the month, the average of these high cows being 52.9 pounds of fat.

The Langlade County Association in Upper Wisconsin has not only the high herd average for the state, but also the thirty-three cows producing over forty pounds of fat, and thus leads the state in this respect. A herd of grade Holsteins owned by Wm. Borcher has an average of 1,031.3 pounds of milk and 42.1 pounds of fat.

"Do all the good you can, for as many as you can, as often as you can" is the creed of Jack Coleman, tester in the Bear Creek Association. He keeps a list of all stock, machinery, etc., that each member has for sale or exchange and in this way during his monthly visits has been able to make a number of sales and exchanges of benefit to both the buyer and the seller. He is the middleman, but he does not take the middleman's profits, for he considers this is but one of the ways that a tester can be of value to the members of an association.

"They steal all they can when they test;" "That is how he makes the big overrun;" "He does the testing with a lead pencil;" these are some of the expressions heard in regard to the testing of milk and cream at the factory. But in sections where there are cow-testing associations there is seldom such complaint. The cheesemaker or the buttermaker can shift that responsibility to a disinterested and impartial person—the cow tester in the local cow-testing association. In many Wisconsin associations testers are now hired by the cheese factories to test the milk of the patrons, the plan giving the patrons an accurate test and relieving the cheesemaker of suspicion or criticism.

Present-day competition makes a strenuous race for the unfit. Feed prices and labor shortage are seeing to it that only the fit survive. Reports from associations show that last month forty-three low-producing cows could not stand the pace set by the "workers" and were sold to the butcher. In many communities these unprofitable and low-producing cows are not called "boarder" cows, but "guest" cows. During six months of the Wolf River Association thirty-one unwelcome "guests" were asked to leave.

Does it pay to feed grain?

Some dairymen say "No," others say "Yes," while most of them do not know. About 2,500 dairymen in Wisconsin can answer the question satisfactorily to themselves, because this number is in cow-testing associations and keep account of the feed consumed and the milk and fat produced. The milk record, the feed record and the Babcock test can answer the question. If the feed is not bought right the cows are handicapped to that extent. Many of the associations are buying feed in car lots. During the past month seventeen carloads of feed have been bought, Cambridge getting three; Door county, three; Fox River Valley, two; Shawano county, one; Waupaca and Sheridan, one; Wolf River, four, and Mishicot, three carloads.

In some cheese factory sections and about some condenseries we sometimes hear the statement, "I don't believe in the test," from men who believe that "ignorance is bliss." Yet many cheese factories are changing to the payment for milk on the fat content. Herbert Molter, tester in the Cedar Grove Association, tested at the condensery for the 240 patrons and they were paid on the test for the first time in the history of the concern.

The value of the cow-testing association is shown not only in the profit column, but in the fact that it makes the dairying an interesting business. Herman Snoyendor, of the Happy Valley Association, said, "After I joined the cow-testing association, I certainly had no trouble in getting the boys interested in the dairy business."

Some dairymen have difficulty in selling their surplus stock at satisfactory prices; especially is this true when the stock are all grades. However, if he has impartial records of feed cost and milk and fat production, he will have little or no difficulty. Herman Vetter, of the East Fond du Lac Association, says, "The cow-testing association records increased the sale price of my stock $20 per head."

BESSIE LIPSTZ, WISCONSIN'S FIRST WOMAN TESTER, OUT ON HER ROUTE.

Scandinavia Cow-Testing Association.

To the Editor:—Eleven cows qualified for the forty-pound honor roll in the Scandinavia Cow-Testing Association for September. Out of 504 cows on test 416 were passed this month. Eleven were sold as unprofitable and the remainder are standing dry. John Vig's herd of grade Guernseys held first place in herd production, having an average of 560 pounds of milk, testing 5.2 per cent and making 29.3 pounds butterfat per cow. A registered Holstein, Lady, captured all honors for high production with 1,778 pounds of milk, testing 3.7 per cent and making 62.2 pounds butter fat. Her stable mate, Champion, gave her a close race. This cow, Champion, holds the distinction of being a high cow for three months in succession. October 1st finds the majority feeding concentrates. We have started a movement to secure the community tuberculin test, as outlined in Chapter 508 of the laws of 1917. The forty-five-pound list for September follows:

Owner, name and breed.	Age.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
S. D. Shambeau				
Lady, R. H.	4	1788	3.7	66.2
Champion, G. H.	4	1233	5.2	64.1
Canary, R. H.	3	1242	3.7	46.0
Johan Vig				
Nellie, G. G.	8	1148	5.0	57.4

H. R. BREWSTER, Official Tester.

Wolf River Association.

To the Editor:—Since the Wolf River Cow-Testing Association, Kewaunee county, was organized last April with Fred Pfueler as official tester, thirty-one cows have been discarded as physically and temperamentally unfit. There are many cows would produce more if more generously fed. It is a business necessity and a patriotic duty of every dairyman to keep records of production and feed costs for every cow. The forty-five-pound cows for the month of September were as follows:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Henry Hartmann			
Pearl, Grade Guernsey	1173	5.5	64.5
Mary, Grade Holstein	1089	4.4	47.9
Nina, Grade Holstein	1222	3.9	47.6
Mabel, Native	1137	4.0	45.5
John Jakubovsky			
Spot, Grade Holstein	1096	4.8	52.6
Henry Wessel			
Bluhm, Native	1042	4.4	45.8
Stearn, Native	1074	4.2	45.1

Reedsburg Association.

To the Editor:—Following is the forty-five-pound list for the Reedsburg (Sauk county) Cow-Testing Association for the thirty-day period ending September 30th:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Conrad Kruse			
Korndyke, R. H.	1284	3.6	46.2
H. W. Meyer			
Lucy	873	5.2	45.4
Juty	1200	3.9	46.8

EMMANUEL PETERSON, Official Tester.
E. H. KORNECKE, Secretary.

The federal department of agriculture at Washington estimates that for a family of five, including two adults and three children, there should be stored for each month of the winter season the following: Irish potatoes, one bushel; carrots, turnips and parsnips (together) one-half bushel; canned vegetables, twenty-five quarts; canned fruit and preserves, twenty quarts. Multiply these figures by the number of months before next season's crop begins to come in and see whether your family is provided for.

A good dairy sire should be bred for production and capable of producing daughters better than their dams.

Ask your neighbor to subscribe for The Wisconsin Farmer.

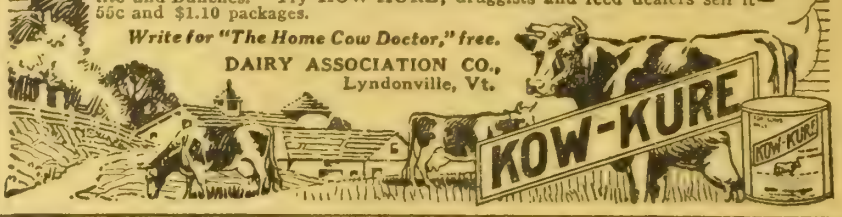
The Cow's Health—First of All

To think of the milk yield first and the cow's health afterward is putting the cart before the horse. Many "poor milkers" only need to have their systems working properly to become good producers.

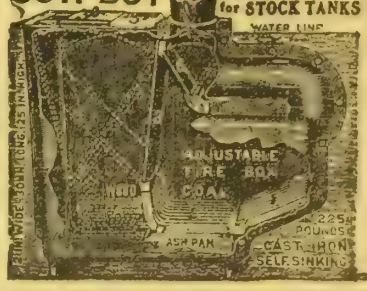
KOW-KURE, the great cow medicine, makes cows healthy and *keeps* them healthy. Working on the digestive and genital organs, it is a prompt, sure remedy for Abortion, Barrenness, Retained Afterbirth, Scouring, Lost Appetite and Bunches. Try KOW-KURE; druggists and feed dealers sell it—55c and $1.10 packages.

Write for "The Home Cow Doctor," free.

DAIRY ASSOCIATION CO., Lyndonville, Vt.



COW BOY SURE HEATER for STOCK TANKS



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"Purchased 3 of your Tank Heaters last Winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one." (Signed) W. H. PEW, Professor of Animal Husbandry, Iowa State College, Ames, Iowa

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NO LIQUID TO SPILL.
NO STRING TO ROT.

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We also make other types of feed grinders—and the famous "Diamond" saw frames. Write for folder, stating type and size of mill interested in. Also give name of your implement dealer.

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Girls' Club Work at the Potato Show.

Girls' club work will be represented at the largest state potato show ever held, November 19th to 24th, at Madison. For the first time in Wisconsin special prizes are to be awarded for the work of girls' clubs at a potato show. T. L. Bewick and Miss Elizabeth Amery, who are in charge of the state club work, are confident that much can be done to encourage not only greater interest in club work, but greater interest also in potato growing by giving the girls' clubs this opportunity.

Any school or club is eligible to enter. The work will be divided into two sections. First will be the exhibits and secondly there will be demonstrations. Prizes will be awarded in each to the winning club or team.

In the exhibits the best collection of ten kinds of cooked food made wholly or partly from potatoes or potato starch will win the prize. The aim is to show the large variety of uses potatoes and potato starch can be put to as a food. A bulletin previously issued by the college of agriculture, "Recipes for the Use of Potatoes and Homemade Starch," will serve as an able guide to the young cooks who wish to enter. All exhibits must be in place on November 19th by evening. There are special show cases provided for the exhibit where each group will be able to display entries to the best advantage.

As prizes $5 in cash will be awarded to the winner, $3 to the second prize and $2 to the third prize. All schools or clubs entering an exhibit, regardless of their ability to take first place, will receive one bushel of seed potatoes which are to be used in next year's club work.

In the demonstrations, teams of three girls with a leader will compete on the afternoons of November 21st, 22d and 23d at a time assigned by Miss Amery. All teams must appear clad in white aprons and caps with the club emblem or "Hoover outfits." They will demonstrate home starch making and cook at least one product showing the use of potato starch or cooked potato as a wheat substitute, besides showing the use of potatoes in soup, potatoes as vegetables or potatoes combined with meat or meat substitute. There will be plenty of utensils, such as stove, table and materials necessary for the demonstration furnished by the college.

The leader will be responsible for the team. The team will appoint one as a speaker and the other two members will demonstrate how the work is to be done. All work is to be planned so that it will be finished within an hour. Again all teams entering here irrespective of their other winnings, will receive a bushel of seed potatoes. A first prize of $3 and a second prize of $2 will be awarded to the winners.

The teams will be scored on the appearance of the members, neatness of dress, skill, arrangement of work, team work and the appeal they make to the crowd while demonstrating and speaking.

The innovation is praiseworthy and has every chance of being favorably received by the eager girl workers of the state provided the authorities give it every bit of coöperation and help that is needed.

Facts on Hemp Industry.

A. H. Wright, hemp specialist at the college of agriculture, who has just returned from an extensive tour of the hemp growing regions of Kentucky, Ohio, Missouri, Indiana and Washington, is convinced that Wisconsin's hemp industry is better protected and the producers more able to handle the crop than is the case in other hemp sections of the United States. Wisconsin has increased her hemp acreage from 1,200 acres in 1916 to 7,000 acres in 1917. This is because the Wisconsin growers have confined their greatest efforts at hemp production within rather restricted areas.

Community effort and the community spirit are essential to the successful growing of hemp anywhere. The scattering of the hemp acreage results in much loss through inability of obtaining help to handle the crop to advantage when it is necessary.

Wisconsin hemp, according to Mr. Wright, is for the greater part marketed as "rough hemp" and is bought

A. H. WRIGHT, HEMP SPECIALIST, WISCONSIN AGRICULTURAL COLLEGE.

by the eastern spinning mills located in Massachusetts, New York and other states. The 1916 crop ranged between 13 and 15 cents a pound on the market, but as the 1917 crop has not yet been broken and will not go on the market until spring no estimate of the 1917 price can be made.

There are four plants for the breaking and cleaning of hemp in the state. Each plant is located in the center of a rapidly increasing hemp section. Seven more plants have been planned besides the four already existing, which are respectively the Rock River Hemp Mills at Waupun, the Matt Rens plant between Waupun and Brandon, the Wisconsin Hemp Company at Brandon and the Badger Hemp Company at Fairwater.

Mr. Wright's trip to the hemp sections in the United States was made in the interest of the department of agriculture at Washington as well as the Wisconsin College of Agriculture. Considerable time was spent in investigating the revival of seed production in hemp center of Missouri. The question of seed is a very vital one to the hemp industry. Hemp plantations on muck lands were visible in Ohio and Indiana. Here the yield and growth is excellent, but a lack of thickness in the fiber makes the product less valuable commercially.

Wisconsin hemp growers have not been expanding more rapidly than advisable and for this reason their industry is on a much safer basis than is the case in other states. The old motto "Slow but Sure," according to Mr. Wright, is probably the best one our growers could have followed. Without proper preparations for putting in the crop and harvesting the product, hemp is easily an unsatisfactory enterprise. While the cost of putting in the crop ranges between $25 and $35, a good harvest handled without unnecessary losses ought to return gross approximately $100 per acre. Where this is the case hemp growing is worth while.

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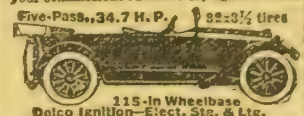

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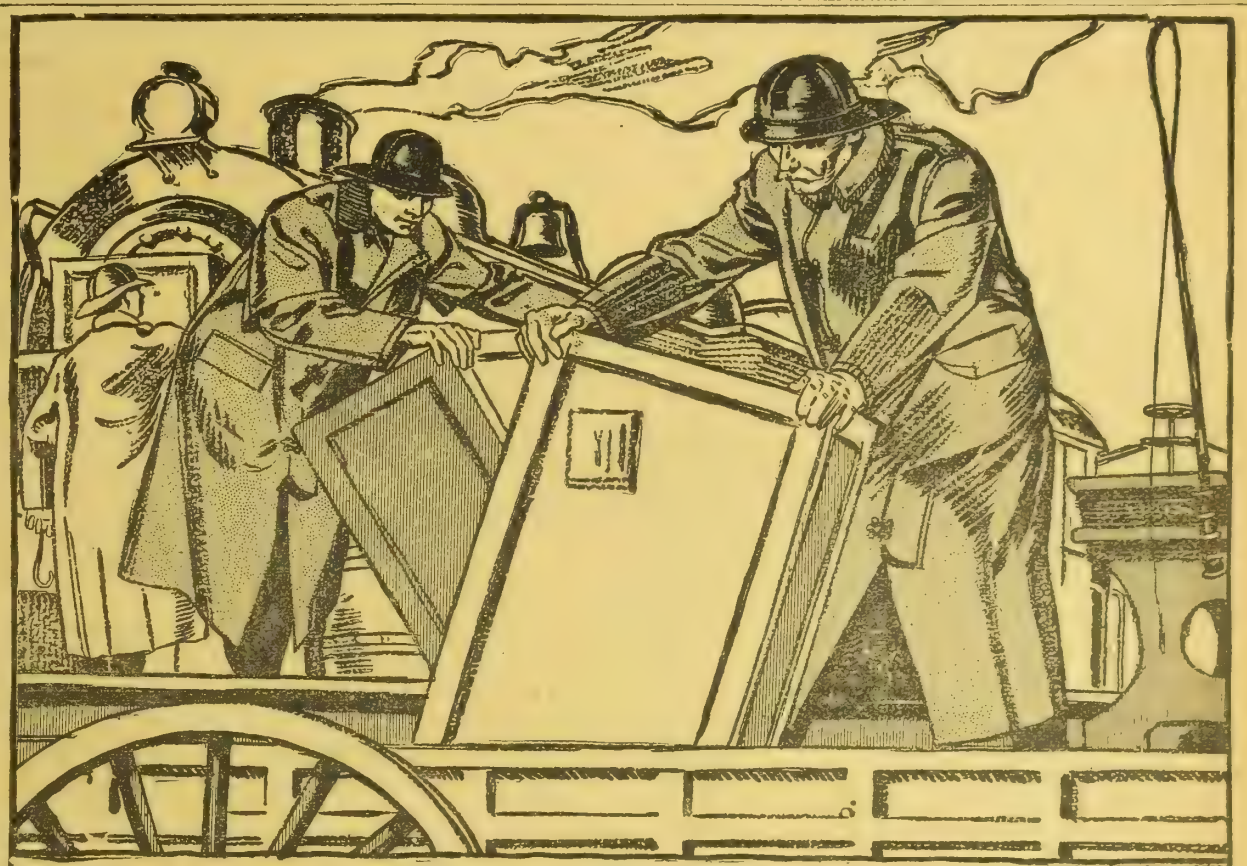

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Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

Home-Mixed Flours.

The use of flours which contain more or less bran is sometimes advisable both for the sake of the variety which they give to the diet and because of the mineral substances and growth-regulating substances these flours contain. Farmers' Bulletin 87, of the United States Department of Agriculture, "Bread and Bread Making," includes, in addition to white-bread recipes, a number for home-made bread from whole wheat or graham flour, from home-ground flour, from rye, rolled oats, etc. These are as follows:

Whole Wheat or Graham Bread.—One and one-half cups lukewarm milk, three tablespoons brown sugar, one and one-fourth teaspoons salt, three cups whole wheat or graham flour, one-half yeast cake.

Scald the milk, together with the sugar and salt. When lukewarm, add the yeast, mixing it first with a little of the milk. Add the flour, beat well, and let it double its volume. Beat it thoroughly, put into a pan, and let it rise. In a pan of standard size it should come nearly to the top.

The above recipe may be used in preparing bread from home-ground meal. There are many homes, particularly in the country, where the housewife can obtain unground wheat at moderate cost. If ground in the ordinary coffee mill, such wheat makes a coarse bread, not very light in texture, but of such good flavor that it may well be used occasionally to give variety to the diet. It is useful, too, in places where good bran cannot be obtained easily and where coarse breads are desired as a means of preventing constipation. In making such bread with a view to economy the housekeeper should compute what it will cost per loaf, including labor and fuel, as compared with other breads she makes. Skim milk instead of whole milk can be used; homemade yeast, either liquid or dry cake, is a possibility, and some might like the bread with less sugar or unsweetened. Another recipe which has been worked out follows:

Home-Ground Wheat Bread.—One and one-fourth cups water or skim milk, one and one-fourth teaspoons salt, one tablespoon sugar, three cups home-ground wheat flour, one-half cake dry yeast, or one gill liquid yeast.

Set a sponge at night, using half of the flour. In the morning add the rest of the flour, beat well, put into a greased pan, allow to rise until it doubles its bulk, and bake.

Corn Meal and Wheat Bread.—One and one-half cups milk, water, or a mixture of the two, one-half cake compressed yeast, or one and one-fourth cups milk, water or a mixture of the two, one-fourth cup liquid yeast, one and one-half teaspoons salt, one tablespoon sugar, butter (if used), one tablespoon, one cup corn meal, two cups wheat flour.

Pour one and one-fourth cups of the water over the corn meal, salt, sugar, and fat (if used), and heat the mixture gradually to the boiling point or nearly to it and cook twenty minutes. This cooking can best be done in a double boiler. The water is sufficient only to soften the meal a little. Allow the meal to cool to about the temperature of the room and add the yeast, mixed with the rest of the water (one-fourth cup), or the one-fourth cup of liquid yeast. Mold thoroughly, let rise until it doubles its bulk, make into a loaf, place in a pan of standard size, allow to rise until it nearly fills the pan, and bake forty-five or fifty minutes.

Rice Bread.—One cup lukewarm water, milk, or a mixture of the two, one cup uncooked rice, one and one-fouth teaspoons salt, one tablespoon sugar, butter (if used), one tablespoon or less, one-half cake compressed yeast, two cups wheat flour.

Steam the rice with one-half of the liquid until it is soft. This is done better in a steamer than in a double boiler, for the liquid is so small in amount that the rice does not become soft readily and the presence of the steam helps. Put the sugar, salt and fat (if used) into the mixing bowl and pour over them the remaining liquid (one-half cup). When the mixture has become lukewarm add the yeast and one-half cup of flour. Allow this sponge to rise until very light. Add the boiled rice, which should have been cooled until lukewarm, and the rest of the flour. This dough is so thick that some pressure is required to work in the last portions of the flour. Allow the dough to rise until it has doubled its bulk, form into a loaf, place in a pan of standard size, allow it to rise until it nearly reaches the top of the pan, and bake.

Rye Bread.—One quart milk, two tablespoons sugar, four teaspoons salt, two tablespoons butter, one cake compressed yeast, three cupfuls flour (one cup being wheat and the remaining rye).

Follow the directions for making wheat bread according to the short process until after the bread has been molded the second time. At this point the dough should be placed in a six-quart bowl lined with a cloth into which flour has been rubbed. When the dought has risen to the top of the bowl turn out on a hot sheet iron (a dripping pan inverted will do), over which one tablespoon of flour has been sprinkled, and put it immediately into a very hot oven. After ten minutes lower the temperature somewhat and bake for one hour. This recipe is a modification of an old German household method of making rye bread.

Rolled Oats Bread.—Two cups boiling water, one-half cup brown sugar, two teaspoons salt, one yeast cake, one-fourth cup lukewarm water, one and one-half cups rolled oats, five cups flour.

Dissolve the yeast cake in the lukewarm water. Pour the boiling water over the rolled oats, salt and sugar, and let stand until lukewarm; add the dissolved yeast and flour. Let rise until very light, beat thoroughly, and turn into two buttered bread pans. When the loaves have doubled their volume bake them an hour in a moderate oven.

Fireplace For the Farm Home.

The farmer who plans a new home should not forget that after awhile winter is coming and that he should make his home cozy by putting in a fireplace, suggests Dr. J. D. Walters, professor of architecture in the agricultural college.

Although the fireplace is said to be wasteful, requires much fuel and attention, and is dirty, says Doctor Walters, it has many points in its favor and should have a place in the living room of every farm home. It affords the only method of ventilating rooms successfully, except the electric fan.

The ancient fireplace was built of sandstone and brick and had a large enough opening not only for stove wood, but for huge logs. The modern fireplace is much smaller and consists of a cast-iron box, with a back made of fire brick. The top contains two air flues that can be opened or closed. All that the chimney maker has to do is to set the box in place and wall it in.

There are many different styles of mantels on the market, ranging in price from $15 to $150. A neat, well-constructed mantel of hard-burned brick costs but $15 and is as ornamental, if properly built, as one costing ten times that much.

Dr. Walters does not advise trying to heat the farmhouse with a fireplace alone. The best results will be obtained if it is used in connection with a hot air or water heating plant, as ventilation is not provided by these devices.

Cooking Dried Fruits and Vegetables.

The palatability of dried foods depends largely upon the manner in which they are prepared for serving. In the process of drying fruits and vegetables most of the water is removed. This water must be supplied in the process of preparation. The best way to accomplish this is by soaking the products several hours, such as overnight, before they are cooked. The product should always be cooked in the water in which it had been soaked, otherwise much food material will be lost.

In cooking dried fruits and vegetables the slower and longer the process the better the results. The long, slow cooking not only makes a much more plump and attractive looking product, but lends a better flavor.

Directions for cooking dried fruits and vegetables are summarized as follows:

1. Wash the product. 2. Soak several hours to replace the water which has been dried out. 3. Cook slowly several hours. 4. For fruits use as little water as possible and only a little sugar. 5. If it is a fruit which has a flat taste add a little lemon juice or a little cream of tartar. 6. Chopped nuts may be sprinkled in stewed fruit for variety and to increase the food value.

All letters from boys and girls to this department should be sent to office of The Farmer and Stockman, Kansas City, Missouri.

Will Make Money on His Calf.

Dear Young Folks:—This is the first time I have written. I live on a farm of 160 acres. I love to do farm work. This fall I helped my Uncle James haul grain to the elevator at Atkinson, about eight miles from home. We live in Eight Mile. It is called that because it used to be eight miles around the grove.

I have a Holstein heifer that I bought this spring. We got her when feed was short. We turned her on the road where the grass was long. She is big and fat and I expect to get a big price this fall when I sell her. I have four brothers and go one mile to school. I go to the same school as my grandfather. William.

A Nutting Party.

Dear Young Folks:—I am eleven years old, and in the sixth grade at the Miller School. I have two sisters who go to school and two at home. Helen, age 13, is in the eighth grade and agnes is in the second grade. Dorothy and Jane are not old enough to go to school.

We went to the timber this afternoon and got some papaws, hickory nuts, hazelnuts and walnuts. We have a patch of navy beans and expect to have enough to last all winter.

We took some cane to the sorghum mill and got some molasses made. It is real thick and good. My chores are gathering the eggs and getting in the wood. I like riddles. I will close with one. What is the answer? "O" on both ends and "hi" in the middle. Etta.

Anxious for Winter to Come.

Dear Young Folks:—I am a little boy six years old. I live on a 120-acre farm two mils from town. I go to school every day and am in the primer.

I have a pet cat which I named Joe. I have a little colt named Belle. Her mother's name is Pearl. I help my papa pick corn and I like it very much.

We have nine scholars at school. I am glad winter is so near because I like it very much. We have a large sled which my sister, brother and I can all ride on at once.

I like the riddles in the letters very much. I will ask one and then close this letter. What goes around the house and only makes one track? Little Red Head.

My School.

Dear Young Folks:—I am a little girl fourteen years old and I just entered high school this fall. I live on a 120-acre farm. I like to go to high school. There are about seventy scholars in ninth, tenth, eleventh and twelfth grades. About twenty-eight in the ninth grade. My studies are algebra, English, agriculture, music, spelling and domestic science and I like them all very well. Kester.

Uncle Serving Uncle Sam.

Dear Young Folks:—I have just finished reading your little cozy corner, and like it real well. I see that mostly girls write, and they are all about the same age. I am fourteen also. I think I will try Blanche's recipe some time when I bake a cake. I hope I only come out in the Young Folks' page as well as Alice did. I am the oldest sister of two brothers and two sisters.

I have an uncle serving "Uncle Sammy." I am going to see him next week. If this ever reaches the Young Folks I will be there and back. Since my letter seems somewhat longer than the rest, and it being only my first time, will close. Marie.

Recipes.

Rolled Oats Bread.—Scald one cupful rolled oats in one cupful boiling water and allow to stand one hour. Make a sponge of one cupful water, one cake compressed yeast, one teaspoon salt, two tablespoons molasses, two teaspoons shortening, three-fourths cupful flour. Add rolled oat mixture to sponge and then flour to make medium soft dough. Form into loaf and let rise to double its bulk and bake.

Salmon Loaf.—One can of salmon, four tablespoons milk, two eggs, two tablespoons melted butter or other fat, one-half cupful bread crumbs, speck of pepper, one-fourth teaspoon salt, one teaspoon chopped parsley. Rub butter into salmon, put crumbs into the beaten eggs, mix all together, season, steam one hour or bake twenty minutes. Serve with a sauce made of one cupful milk, two tablespoons cornstarch, one tablespoon butter, juice from the salmon, speck of salt. Cook until it thickens.

Corn Oysters.—To two cupfuls corn, chopped fine, add one well-beaten egg, one-fourth cupful barley flour, one tablespoon milk. Season highly with salt and pepper. Drop by spoonfuls (about the size of large oysters) and fry in deep fat, or cook on a well-greased griddle.

Sweet Potato Trifles.—Four boiled sweet potatoes, one cupful milk, one teaspoon sugar, one-half teaspoon cinnamon, juice of one lemon. Press potatoes through a ricer or colander. Mix thoroughly with other ingredients. Form the mixture in diamond shapes on a baking sheet and brown in a hot oven. Serve with chicken or turkey.

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1644—Children's rompers, with sleeve in either of two lengths. The pattern is cut in 5 sizes: 1, 2, 3, 4 and 5 years. It requires 3 yards of 27-inch material for a 4-year size.

1937—A charming junior dress for party, dancing and best wear. The pattern is cut in 3 sizes: 12, 14 and 16 years. It requires 3¼ yards for the dress and 3 yards for the overblouse, for a 14-year size, in 27-inch material.

1970—Ladies' kimono. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 5⅝ yards of 44-inch material for a medium size.

2054—Ladies' house dress, with sleeve in wrist or elbow length. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 5¾ yards of 44-inch material for a 36-inch size.

2100—Ladies' combination garment of corset cover and drawers. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 3⅞ yards of 36-inch material for a 36-inch size.

2258—A pretty waist. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 will require 3⅜ yards of 27-inch material.

2261—A smart gown for home or afternoon wear. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 requires 5⅛ yards of 46-inch material.

2262—A very smart style for the growing girl. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 4¼ yards of 36-inch material.

2273—A dainty set for dolly. The pattern, which includes all styles illustrated, is cut in 6 sizes: For dolls, 16, 18, 20, 22, 24 and 26 inches in length. The dress requires 1¼ yards of 27-inch material, the petticoat ½ yard, and the combination ⅝ yard for an 18-inch doll.

2279—An easily-made apron. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium will require 2½ yards of 36-inch material.

Waist 2283-Skirt 2282—A stylish costume. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. To make this costume in a medium size will require 8 yards of 44-inch material. Two separate patterns, 10 cents for each pattern.

2285—A chic dress for mother's girl. The pattern is cut in 4 sizes: 6, 8, 10, and 12 years. Size 10 requires 3½ yards of 44-inch material.

International Sunday School Lesson.

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)

Lesson for November 4, 1917.

Defeat Through Drunkenness.

(World Temperance Sunday.)

LESSON TEXT—I Kings 20:1-21.

GOLDEN TEXT—Let not him that girdeth on his harness boast himself as he that putteth it off.—I Kings 20:11.

I. Samaria Besieged (vv. 1-12.)

1. By whom (v. 1.)

Benhadad, the Syrian king, accompanied by thirty-two kings, came against Samaria. These thirty-two kings were not allies, but rulers over the neighboring cities—vassal princes.

2. Benhadad's message to Ahab (vv. 2-6).

He offered peace on the most abject and insulting terms. His demands meant more than the exaction of tribute. He overreached himself in this; thus defeating his purpose. He not only demanded tribute money, but the surrender of that which was most vital to Ahab's manhood and self-respect—his wives and children. He thus made a thrust at his tenderest spot. Many a man has been thus aroused to do his duty, who otherwise would have submitted to shameful indignities.

3. Ahab's reply (vv. 4, 7-9.)

His reply was tame and humiliatingly submissive. Perhaps, he thought it only meant the giving of tribute, which he was willing to do in face of Benhadad's overwhelming army. Conciliatory measures were regarded as most prudent. But the peremptory demands of the enemy repeated, awoke Ahab to his senses, and caused him to call together the elders of the land, who counseled against submission. Thus stiffened for the opposition, Ahab refused to make full compliance with his demands.

4. Benhadad's bluster and boasting (v. 10.)

The design of this was to strike terror into the hearts of the king and people. He vows that he will make Samaria a heap of dust, and that this dust will not be sufficient to fill the hands of his army, so overwhelming is the number of his host.

5. Ahab's answer by a proverb (v. 11.)

"Let not him that girdeth on his harness boast himself as he that putteth it off." This is a proverb full of points for all boasters. God's purpose may overrule all man's proud presumptions. "Man proposes, but God disposes." "Pride goeth before destruction, and a haughty spirit before a fall."

6. Readiness for the attack (v.12).

In the full confidence of victory, the Syrian king was giving a banquet to his princes. In the midst of this feasting, the command was given to invade Samaria. Incited by strong drink, he gave not attention to the striking proverb of Ahab. Many have gone to ruin because through the stupor of drunkenness, they have failed to heed proper warnings.

II. A Prophet Sent to Ahab (vv. 13, 14.)

Who the prophet was, we are not told, but why he was sent, is made clear. He brought from God a promise of victory which was to cause Ahab to know Jehovah. It is a marvelous display of God's goodness and grace. Israel deserved the most severe chastisement, but God promised victory for his own sake in order to make his glory known. The agency by which the victory was to be achieved, was the young men, an agency purposely feeble, that the victory might be seen to be of God.

III. Ahab's Victory Over the Syrians (v. 15-21.)

The army of Ahab was but a handful compared with that of the Syrian king (v. 15; cf. v. 10). Benhadad, with confidence in his superior numbers, ordered the young men of Israel to be taken whether they came for peace or war. He, with his princes, continued their drunken debauch. The young men struck right and left, creating great consternation. When the 7,000 reserves joined the young men, a general panic was produced among the Syrians. From the human side, the victory is accounted for by the drunkenness of the Syrians, but from the divine side, we see that God wrought for his own glory. Ahab pursued the Syrians with a great slaughter, but Benhadad escaped. Many have been the defeats which have come through drunkenness; defeats in morals, defeats in religion, defeats in business, defeats in physical endurance. The man who indulges even moderately, has reduced his opportunities of success very greatly. Most of the accidents by automobiles, railroads, etc., are traceable to the use of intoxicating liquors.

Few people, rich or poor, make the most of what they possess. In their anxiety to increase the amount of means for future enjoyment, they are too apt to lose sight of their capability for the present.—Leigh Hunt.

I am sure that it is a duty for all of us to aim at a just appreciation of various points of view, and that we ought to try to understand others rather than to persuade them.—A. C. Benson.

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Wisconsin's Seed Wheat Program

Improved Varieties Are Now Being Distributed —Hardiness Important as Well as Yielding Ability.

WISCONSIN will be better prepared to furnish first-class seed wheat to all who want it in 1918 than any other state in the Union. The pedigreed strains of hard winter wheat developed by the Wisconsin Experiment Station, with the aid of the 2,000 farmers belonging to the association of experiment station workers, have proved to be superior to all other varieties available. With rye the problem was not a difficult one, even this year. More than 150,000 bushels of seed rye were located by the station and called to the attention of all those desiring seed rye. This was the pedigreed rye, for the greater part, which has proved a heavy yielder and more profitable than other strains.

The wheat development at the experiment station was interrupted several years ago when most of the seed strains were killed by frost. This gave the project a serious setback and amounted practically to starting the entire work of the profitable strains over again. There has been developed during the last four years, under the direction of Prof. R. A. Moore, two heavy-yielding and adaptable types for Wisconsin soil, however, which are known as the Wisconsin No. 2 and the Wisconsin No. 408. The No. 2 wheat is the Turkey Red wheat and is, roughly speaking, more adaptable to counties south of a line extending across the state from Polk to Shawano county. North of this line the 408 or Bascsa wheat has proved the heavier yielder, and is, therefore, recommended.

When in July of this year the requests were made by the nation for a campaign to increase the wheat acreage in the United States, Wisconsin immediately set to work, and, though there was not enough of the pedigreed wheat in the state to supply even a small portion of our required acreage, there was an opportunity of firmly establishing the pedigreed variety for once and all by a system of proper distribution among men not necessarily members of the experiment association.

Here the bankers of the state, through their farmer-banker committee, offered Professor Moore their cooperation in placing the seeds through local bankers among farmers who were willing and able to carry out the plans of the station. One hundred banks came forward at the first request from Sec. George Bartlett for institutions to handle the seed wheat for their localities. Fully 100 more applied for the opportunity, and Mr. Bartlett, in order to save himself much trouble, wrote a second letter saying that no more could be supplied.

The next step consisted of obtaining from each farmer who applied for seed a pledge which obligated the farmer to report upon the condition of the resulting crop and to reserve the crop for seeding purposes only either for his own or some other grower's needs. The bankers distributing the seed are known as "official distributors" by the Wisconsin Bankers' Association, and the growers will be known as "official growers." The agreement in full reads as follows:

In consideration of being designated by the Wisconsin Bankers' Association as one of its "official growers" of Wisconsin pedigree hard winter wheat, I hereby agree with ..... of ..... that I will properly seed and care for ..... acres, with the seed wheat this day purchased through above bank; that I will report the yield thereof to said bank as soon as grain is threshed; and that I will not only keep such product separate from any other grain, but that I will use said product for seeding purposes the following year, either upon my own farm, or by selling it only to such Wisconsin farmers as will agree to keep the product thereof separate from any other grain until same is sold.

The price paid for the seed was $3.55 per bushel, which was $1 above the prevailing market price. Before any of the seed reached the official grower, however, the seed was tested at the state testing laboratory at Madison and the greatest care was exercised to prevent inferior seed from being distributed.

If all things go well and no damage comes to the crops through frost or otherwise this seed ought to yield, and will very likely yield, in the neighborhood of thirty bushels per acre. The 4,000 bushels distributed by the Wisconsin Bankers' Association will have yielded 80,000 bushels, which again will be used for seed, and after that no difficulty ought to be experienced by any Wisconsin farmer to secure plenty of first-class seed of these improved strains of winter wheat for seeding.

The plan that has been followed is the only sure means of keeping tab on the seed supply without incurring tremendous expense. The banker knows each official grower through frequent association with him. He is right there on the spot to hear the grower's complaint or witness his success. He is not likely to neglect his work, for it is a matter of pride with the banker and not financial remuneration. He is for this reason many times more dependable and efficient than the best traveling representative that could be employed. The bankers are entitled to the thanks of all agricultural interests in Wisconsin for doing this work and the farmers ought to be among the first to let them know of their appreciation.

WISCONSIN RED NO. 2 WHEAT—AVERAGE YIELD 38.5 BUSHELS PER ACRE.

Likes Well-matured Corn for Seed.

To the Editor:—I have three methods of drying seed corn. One method is to tie two ears together with the husks and hang them across a wire. Another method is to put them in a wire rack that has a separate compartment for each ear. These racks hold 100 ears each and are made by an Iowa firm. They are the best thing I have ever seen for drying out seed corn. The other method is to make a rack out of boards. Take a piece of board and saw off two pieces six inches long. Stand them up on end and then take strips 1x2 inches, four, six or eight feet long, and nail on each side of the upright end piece every twelve inches. Then just lay the seed ears crosswise on the 1x2 inch strips.

I would advise all farmers to gather and dry out enough seed to do their next year's planting just as soon as the corn has matured enough so it will not mold or shrivel up. Then if weather conditions are good, no hard freezes, and the corn dries out well, gather a lot more at husking time. Personally I would far rather have a seed ear that matures and dries out on the stalk, nature's way, if weather conditions are all right, than the early gathered seed that is dried out by artificial heat.

Some will say, "Why, if you gather any seed out of the wagon you cannot tell whether it grew on a good stalk or a weak stalk." Now, Mr. Editor, no man, living or dead, ever saw a genuine good seed ear grow on a poor, weak stalk. Corn does not grow that way. It takes a good strong stalk to grow a good seed ear. I never hang seed corn on the fence to dry, as that is like taking a man's shirt off and then have him sleep out of doors. Neither do I hang it in the sun. Either hang it in a driveway or in a corncrib or a regular seed room. I do not believe that seed corn is hurt by cold weather after it is dried out well if it is kept in a good dry place away from moisture. I would far rather have air-dried corn than fire dried. You can easily damage corn in fire drying it, especially if you start the fire too soon and get the seed corn too hot.

In conclusion, would advise all farmers to gather their seed corn at once, dry it out well and store it in a good dry place. And be sure the rats and mice cannot get to it, and also squirrels.

C. E. Russell, Warren county, Ill.

The Big Sensation at the State Fair

By common consent the most interesting exhibit at the State Fair was the

Walsh Harness

People came from all parts of the country to see it, compelling us to keep the exhibit open until dark nearly every night. Every visitor marveled at the enormous strength, simplicity and convenience of the Walsh harness—the harness that fits better, looks better, wears longer and is easier to put on, take off, or adjust than ordinary harness. The Walsh harness is made for hard work and will last about 35 years. Yet the price is the same. It's the only harness in the world that has

NO buckles, NO snaps, NO billets, NO loops, NO holes in the straps and NO wear on the straps.

Inquire immediately at your local dealer's about the Walsh Harness.

WALSH HARNESS CO., Milwaukee, U. S. A.

Save Half Your Shoe Money

Sizes 1 to 13 Heights 6 to 17 in.

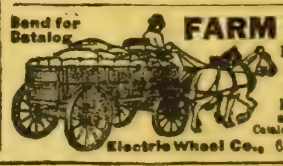
Wear Overland Aluminum Shoes They last twice as long as all-leather, rubber or wood-soled boots and shoes.

Water-Proof, Rust-Proof, Rot-Proof

Best leather uppers. Thick felt insoles. No metal touches you. Warm, comfortable, easy to walk in. Keep feet in good condition and prevent sickness. Best by test for all work in any weather. MONEY BACK if shoes do not meet with your approval. Write for FREE catalog which shows styles, gives prices and tells how to order. A postal brings it.

OVERLAND SHOE CO., Dept. 41 B, Racine, Wis.

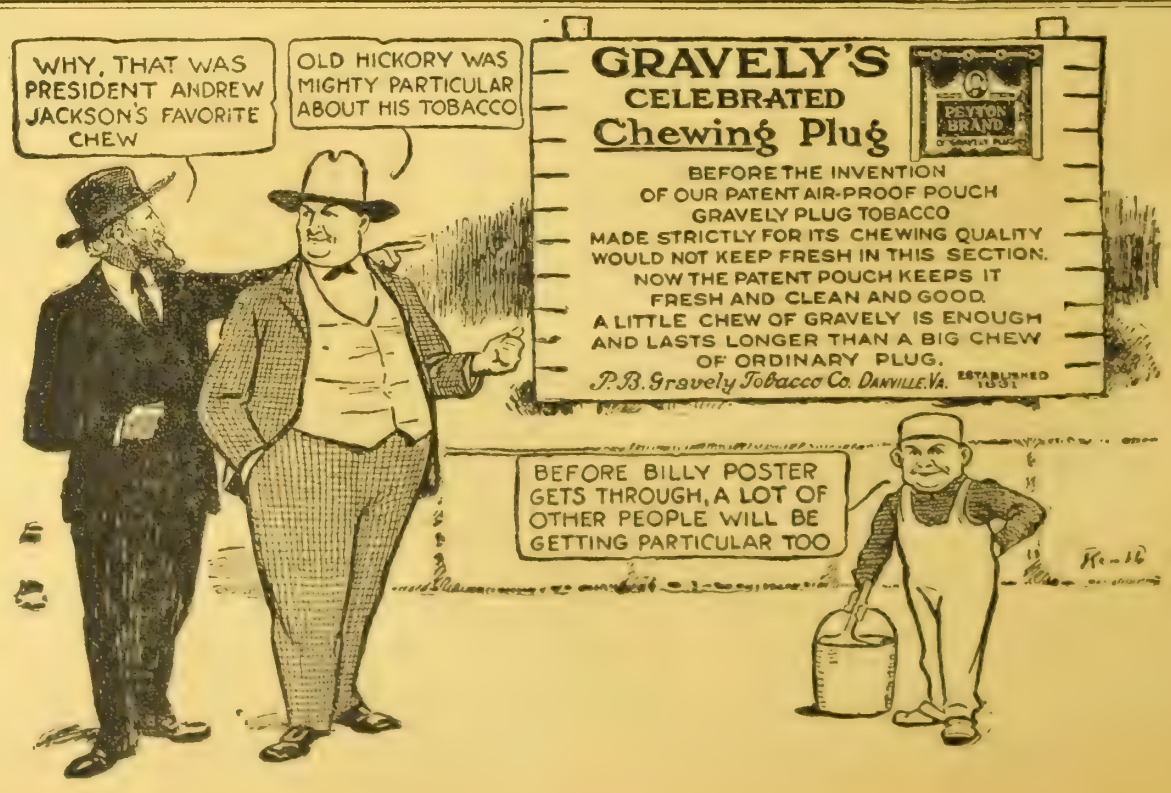
Send for Catalog



FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free.

Electric Wheel Co., 65 Elm St., Quincy, Ill.



Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Waukesha County Holstein Breeders' Association Sale, November 16th, Waukesha, Wisconsin.

THIS company has never been as fortunate as it is this fall in listing high-record animals with high-record backing. More A. R. O. cows as well as choice heifers from A. R. O. cows are included in this offering than ever before. The best and most popular breeding is represented quite plentifully among the various consignments—in short, the distinguishing feature of this sale is quality. All the high-record young bulls in Waukesha county will be offered for sale November 16th, and there are A. R. O. cows with records up to 28 pounds in seven days; 910 pounds of butter and 21,000 pounds of milk in a year. It is the purpose of the association to make these sales annual affairs where people can depend upon purchasing the best blood of the breed with safety. To this end the sale company has spent much time and effort in selecting animals from the most prominent herds throughout Waukesha county that would serve this purpose. Great care has also been taken to see that no culls or inferior animals be consigned. The terms and conditions in this sale are as follows: Animals of breeding age are guaranteed by their consigners to be breeders. Each animal consigned is inspected for fitness by a committee of three. Culls and inferior animals are barred from entry. All animals over six months of age are tuberculin tested under the supervision of the Wisconsin Live Stock Sanitary Board within thirty days prior to sale. Write to the Waukesha County Holstein Breeders' Association or W. L. Baird, Waukesha, Wis., secretary of the association, for catalogs or further information in regard to the sale.—See pages 14 and 15.—Adv.

Fred Pabst's (Oconomowoc, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Pabst this fall is consigning a 31.41-pound bull calf, born March 13, 1917, a full brother to the 31-pound calf, which will be sold at Watertown November 8th and 9th. These calves are sired by King Pontiac Champion, one of the best-known sons of King of the Pontiacs, a bull that has more 30-pound daughters as well as more A. R. O. daughters than any other bull of the breed, living or dead. King Pontiac Champion is also one of the leading A. R. O. bulls in the state of Wisconsin with a list of 62 A. R. O. daughters already to his credit. The dam of the calf consigned to the Waukesha County Sale is Pabst Hengerveld Colanthus, a cow that is unquestionably one of the greatest individuals in Mr. Pabst's large herd. In addition to producing 31.51 pounds of butter from 576.40 pounds milk in seven days, she has produced 873.56 pounds butter and 20,714.90 pounds of milk in a year. She has another semi-official yearly record to her credit of 563 pounds butter in a year and 12,380 pounds milk. The cut of this bull used in the double-page advertisement of the Waukesha County Breeders' Sale appearing in this issue will give a good idea of his individuality and markings.—Adv.

Baird Bros.' (Waukesha, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Baird Bros. are consigning one of their best A. R. O. cows when listing Jenny Segis De Kol Burke, a 25.62-pound four-year-old, now on some official yearly work and about to finish a record of 750 pounds of butter and 18,500 pounds of milk. She is due to freshen in March and bred to King Superba, a 34-pound bull, son of Milanhurst America De Kol, the first cow to have an official yearly record. She is recognized by many good judges as being one of the choicest cows in the noted Cabana herd. She also has the distinction of having held seven world's records at the completion of her official yearly record. The illustration of the cow in the double page advertisement in this issue indicates her individuality and enables one to form some estimate of the value of the calf she is carrying.—Adv.

Don't Forget Madsons.

MANY of our readers have seen the Madson Polands at the fairs the past several years and you know that they have produced winners. This year they did not show any hogs owing to circumstances that prevented same, but we will say without fear of contradiction that they have the best lot of pigs this year, they ever raised. They are the most uniform, growthy bunch we have ever seen on the Madson farm and we feel that they will please the prospective buyer. If interested in Polands—either sex—write M. Madson & Sons, Madison, Wis., and please say you saw the advertisement in The Wisconsin Farmer.—Adv.

Smiley Has a Few Good Ones Yet.

WE have just had a letter from Rob't Smiley saying that they have 15 Poland China boars left and some of these are among the best they raised this year. They have two sired by Big Bone Wonder out of a Big Timm bred dam. Two by Major Miller out of an A Wonder-bred dam. One real good one sired by Big Bone Jumbo. Some by Smiley's King, he by Goldengate King. We are glad to recommend this herd of Poland, for the Smileys will send you a boar that will please or none at all. Write Wm. Smiley & Sons, Albany, Wis.—Adv.

A. P. Kaye's (Walworth, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Kaye is consigning a handsome 25.99-pound son of his high-record bull, King Pontiac of Brothertown, a bull whose two nearest dams' average yearly record is higher than any other bull in the state of Wisconsin. His two nearest dams averaged 38.53 pounds of butter in seven days and his three nearest dams averaged 31.22 pounds of butter in seven days. The dam of the calf is Kayewood Molly Korndyke, that is by Colonel Douglas Korndyke, that has 23 A. R. O. daughters, five above 25 pounds and 11 others above 20 pounds. The dam of this calf likewise has a very creditable cow-testing association record to her credit, indicating her ability as a long-distance producer. Mr. Kaye has also consigned a 25-pound cow bred June 16th to King Pontiac of Brothertown. It will be remembered that this bull is a half brother to a number of the high-record bulls through the East, such as King Valdessa and King Dollar. Mr. Kaye's herd was second in the Walworth County Cow-Testing Association last year and produced an average of $120 per cow above feed cost, which we think is a remarkably good showing. Mr. Kaye is consigning several other A. R. O. cows of special merit and his consignment, therefore, is worthy of special inspection.—Adv.

NEXT WEEK'S SALE PROGRAM

Tuesday, November 6	Poland Chinas, Nathan Kintz & Son, Berlin, Wis.
Saturday, November 10	Holstein-Friesians, Joseph Stapleton, North Lake, Wis.

D. J. Howell and Muckleston Bros. (Waukesha, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Howell is consigning a 24-pound son of Maplecrest King De Kol 2d, out of a 24-pound daughter of Hillvale Sir Ormsby; also a two-year-old cow due to freshen shortly after the sale, out of a 23-pound cow and by a 29-pound bull and bred to Maplecrest King De Kol 2d; also 17-pound three-year-old cow bred to the same sire and due to freshen soon after the sale. Muckleston Bros. are consigning five head—four cows and a bull. The bull calf is from their well-known 27-pound cow, Cornucopia Johanna Clothilde, 27.14 pounds butter, 747 pounds milk in seven days, state milk record when made. The calf is sired by Maplecrest King De Kol 2d, a 27.24-pound bull. Muckleston Bros. are also consigning a 19-pound cow, having a 22.85 A. R. O. dam; another 19-pound cow out of a 20-pound dam and a 19-pound three year old out of the 27-pound cow just mentioned. These three females just described are all bred to Maplecrest King De Kol 2d. Muckleston Bros. are also consigning a two-year-old heifer by a 29.6-pound bull and bred to Pabst Blackberry Korndyke, a 31-pound bull by a 38-pound sire.—Adv.

Dellbrook Farm Hampshires.

A. L. DAMON, owner of Dellbrook Farm, Richland Center, Wis., has for sale, 50 Hampshire boars ready for service. They are sired by Progressive Kid, the junior champion of the Indiana, Illinois and southern fairs last year. Some by Dellbrook Maloy, the grand champion of Wisconsin this year. Look Out Lad's Best is also being used in this good herd. He is sired by the noted champion, Look Out Lad, a son of the $5,000 Look Out. These boars are priced for quick sale and satisfaction in every way, is guaranteed. Mr. Damon also has some 90 head of fall pigs priced from $12 up. If you are interested in Hampshires write Damon, for he has the best herd in the Northwest. In writing please mention this publication.—Adv.

Note the H. H. Smith Advertisement.

H. H. SMITH, Baraboo, Wis., starts his Poland China advertisement offering spring pigs of either sex. They are sired by a son of Big Tom, that was a winner in the western shows. Others are by King Wonder by Great Wonder, an A Wonder-bred boar. They are the big-type kind and will make big ones when matured. Write Mr. Smith for details and prices.—Adv.

Don't Overlook the Kintz Poland Sale.

MEN that have received the Nathan Kintz & Son's Poland China sale catalog cannot help but be impressed with the array of breeding as set forth in this booklet. Our attention has never been called to a Wisconsin Poland China sale that contained better or more popular breeding than that found in the Kintz sale. Smooth Big Bone, the sire of numbers 4, 5 and 6, is one of the best breeding boars doing service at the present time. Numbers 13 and 14 are by Big Orange Equal and out of a Big Jumbo dam—how's that for breeding? Another litter by Wonder's Wonder out of an Ohio Giant dam will be an investment. In this you get a combination of A Wonder and Disher's Giant. The catalog is full of these well-bred boars and gilts. Individually the offering is all right and will make good for the men that are fortunate enough to be the owners after the sale. This is the last boar sale of the season to be held in Wisconsin and the men that want big, growthy, big-type boars, should attend this sale or be represented. Breeders of this state should buy the gilts in winter sales and many of the breeders are going to be short on sale material. Kintz & Sons live at Berlin, on the line between Waushara and Green Lake counties and just over the line from Winnebago county. Try to attend this sale in person—the date is Tuesday, November 6th, but if you can't get away, let T. P. Shreve buy a boar or some gilts for you. The Kintz guarantee anything purchased on a mail bid to give satisfaction. Don't forget the date and place.—Adv.

30-Day Boar Bargains.

FOR the next 30 days L. P. Martiny offers Poland China boars at bargain prices. Most of these boars are sired by Big Bone Wonder, in our estimation, the best aged boar in the state of Wisconsin and it was only due to an accident that he was not exhibited at the state fairs. Mr. Martiny now owns one of the best herds of big-type Poland Chinas in the state. He did not mix things up by using a big-type boar on his medium-type sows, but sold out his sows that were not of the breeding that is in demand at the present time and bought the very best big sows of big-type breeding. Big Bone Wonder is in the 1,000-pound class and having been mated to the good sows in the Martiny herd, the spring pigs are above the ordinary. Mr. Martiny's Polands were winners at the fair this year, being the second biggest winner at Milwaukee. The boars that he has for sale are of the same caliber and breeding as those that won at the fairs. The man with the first order gets the choice. Order now and when writing please mention The Wisconsin Farmer.—Adv.

Wilton's (Eagle, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. J. C. Wilton, of Eagle, Wis., who has been doing some instructive breeding for a number of years, has decided to consign five cows to the Waukesha County Holstein Sale. One of these cows is Daisy Sendt Korndyke 2d, a two-year-old heifer of exceptional promise, sired by Ideal De Kol of Rock, that in turn is by Mutual Piebe De Kol and out of Ideal De Kol Wit, that has 24.3 pounds at five years with an average test of 3.98 per cent fat. She also has a record of 569.95 pounds butter and 12,836 pounds of milk in 263 days. Count Korndyke Segis, one of Mr. Wilton's former herd sires, is the sire of four other cows, due to freshen about sale time, which Mr. Wilton is consigning. This bull is by Johanna McKinley Segis and out of a 24-pound dam. One of the daughters of this bull is a particularly good individual, having produced 600 pounds butter last year under ordinary conditions while in the East Troy Cow-Testing Association.—Adv.

Short-horn, Shire and Shropshire Dispersion.

A GREAT offering of the above breeds will be dispersed at public auction on November 14th by Wm. Bennington and Clara E. Bennington, administrators of the Bennington estate, Volga, Iowa. The Short-horns are reared entirely on the luxuriant blue grass pastures on the farm and are in better flesh than those sold in most sales. Large, roomy, broad-backed, smooth matrons of true Short-horn character will be found in plenty in this offering. Heifers of the same type are listed. Those who do not know this herd will be agreeably surprised when they see the cattle. Extra good bulls of most fashionable Scotch pedigree have always been used here. The present herd sire sells in the sale. He is the splendid roan two-year-old, Conformation, sired by White Rock (by Whitehall Sultan) dam by Royal's Best, second dam by Imp. Royal Robin, third dam Imp. Clara 59th by Wanderer. The herd bull used before him was Master's Robin by Missie's Robin, dam by Imp. Fancy's Pride, third dam Imp. Missie 136th. The herd bull used previous to Master's Robin was Imp. Clipper's Czar, a Cruickshank Clipper, weighing 2,450 pounds. A number of the best broad-backed matrons in the auction are by this great imported bull. The Shires will meet with the approval of the most critical judges. Eleven are registered and include the seven-year-old imported roan stallion, Heckington Skipper, a ton stallion brought over by the Trumans. Nine registered mares of extreme size and bone, several of them roans by Imp. Heckington Skipper will please any dray horse admirer. Seven grade mares that are real drafters are listed. Forty Shropshires good enough for anyone including an imported ram, 20 ewes, three yearling rams and 16 lambs. The Benningtons are real stockmen and with that inherent instinct along with a naturally adapted stock farm they have accomplished wonders in developing the highest type of pure-bred live stock. See page 25 and write for catalog, mentioning The Wisconsin Farmer.—Adv.

Edgewood Farms, Incorporated.

THE Edgewood Farms incorporated, Pewaukee, Wis., are consigning two splendid bull calves to the Waukesha County Holstein Sale, November 16th. One of these calves is eight months old, sired by Pabst Pontiac Hengerveld De Kol, whose two nearest dams averaged 32.58 pounds. His dam also has the distinction of making two records above 31 pounds; one of them being made with 606 pounds of milk. The dam of this calf is Netherland Nora Johanna, that has a seven-day record of 18.74 pounds butter with 550.7 pounds milk. He is nicely marked, being about half and half, and his two nearest dams average 26.30 pounds, while his six nearest dams average 25.26. Their 11-month-old calf by the same sire and out of a half sister to the dam of the calf just described, has a record of 20.94 pounds butter with 552.5 pounds milk. His dam is also a granddaughter of Sadie Vale Concordia Paul. She is a large, strong, well-made cow, that produced as high as 87 pounds of milk while on test. The six nearest dams of this bull average 24.60 pounds.—Adv.

E. B. Watrous' (Troy Center, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Watrous is consigning a young son from his well-known junior four-year-old state record cow, Aaltje Johanna, 28.57 pounds butter in a week. He is also consigning five yearling heifers out of tested daughters of Aaltje Salo Johanna Pontiac, who carries 25 per cent of the same breeding as Segis Fayne Johanna, the only 50-pound cow. Mr. Watrous is likewise consigning a 16-pound two year old and 21-pound three year old bred to Hillvale Sir Ormsby, a proven sire whose offspring are producers. He has already a list of high-record daughters, one of them having a 24.75-pound two-year-old record that sold in last spring's sale for $2,125. A 26.37-pound bull calf out of Stardale Aaltje Posch will also be included in this consignment.—Adv.

Grunenwald, of Livingston.

L. E. GRUNENWALD, a Duroc Jersey breeder, of Livingston, Wis., has an advertisement in this issue offering spring boars for sale. They are sired by a son of the grand champion, Prince Illustrator. They are big, husky fellows and they are priced to sell. If you want a Duroc boar at a reasonable price write this breeder. His advertisement will not appear again. Please mention The Wisconsin Farmer when writing to advertisers.—Adv.

F. W. Andrews' (Mukwonago, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Andrews is consigning six head, including a 20-pound cow and two well-bred heifers, bred to a 29-pound [illegible]

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

breeder in Waukesha county and wishes to offer the public some of his choicest animals.—Adv.

S. A. Baird & Sons' (Waukesha, Wis.)

HIGH-CLASS consignment to the Waukesha County Holstein Sale, November 16th. S. A. Baird & Son, Waukesha, Wis., are consigning two of the greatest A. R. O. cows that have ever been offered for sale by this association. Cande De Kol Westview is recognized as being the best cow in their herd, having produced 28 pounds in seven days, 910 pounds of butter and 21,000 pounds of milk in a year. She is also the dam of an 800-pound cow and the great-grandam of a particularly promising two year old that made 12 pounds as a junior two. This heifer, by the way, is the dam of a young bull, consigned and sired by Dutchland Creamelle Sir Ascalom, a bull whose five nearest dams average 1,000 pounds of butter in a year and 27,000 pounds of milk. A half brother of the bull calf that was not any better as an individual than this calf at his age, sold at the Waukesha sale last spring for $1,250. It is evident, therefore, that this calf has great backing, having three exceptionally high-class A. R. O. dams on his dam's side as well as a world of high producers on his sire's side. The other A. R. O. cow, which S. A. Baird & Son are consigning is Myretta Korndyke De Kol, that has 24.78 pounds in seven days, 754 pounds butter, and 17,000 pounds milk in a year. She is also bred to Dutchland Creamelle Sir Ascalom. There is another point which we would call the attention of our readers to in connection with this consignment and that is animals coming from this herd have additional merit from the fact that S. A. Baird & Son are doing some of the best semi-official record work in the state and that animals coming from this herd will have an additional value by reason of this fact.—Adv.

Fred Wright, Milton Jct., Wisconsin.

ON account of the fact that Mr. Wright has recently sold his farm he has found it necessary to dispose of all of his live stock as well as feed and farm machinery, which he has on hand. We wish to call particular attention to the fact that Mr. Wright's Holstein herd is far above the average and that it really contains some of the best blood in the state, the blood of Mooie Mutual De Kol and Juliana King of Rock, which are two good sires that have done much towards making the John D. Hetts' herd and which has been prominent in many of the prize-winning animals at the dairy show for a number of years. The aged cows in this herd are due to freshen shortly after the sale, which will make them particularly attractive in view of the high prices which will be paid for milk this winter. The young stock in the herd is particularly fine, being good individuals naturally and in addition to this having had good care they present a fine picture. See advertisement for description of other live stock and machinery to be sold at this sale.—Adv.

Alfred Kirst Durocs.

ALFRED KIRST is well-known throughout Wisconsin as a swine showman of unusual ability. In 1916 he was in charge of the Atwater show herd, but he now has a farm of his own, a few real good Duroc sows and L. F. Atwater's daughter for a wife, so we expect to see a Duroc hog farm at Tomah that will produce winners in a short time. Alfred raised two excellent litters last spring and the boars from these litters are now for sale. They are sired by P. S. Wonder and Proud Chief Jr. Did you note what the boars by these sires sold for in the Atwater sale? You can buy them cheaper of Kirst. He knows these boars will please you, consequently he will send them to you on approval—no money in advance. If they suit you when you get them home send a check, if not send back the pig. No one could ask for more. Write Alfred E. Kirst, Tomah, Wis., and let him describe what he has.—Adv.

Stapleton Dispersion Sale.

ATTENTION of our readers is called to Stapleton's Ormsby-bred Holstein dispersion sale to be held at North Lake, Wis., Saturday, November 10th. Here is a tuberculosis-free herd to be placed upon the accredited list before date of sale. Joseph Stapleton has sold his farm and will dispose of his fifty head of Holsteins, including 30 registered animals and 20 high grades, 29 of milking age and most of them fresh. Our readers are asked to refer to Mr. Stapleton's illustrated advertisement on page 23 where a more complete description of some of the exceptionally good offerings in this sale may be found. For further information write Joseph Stapleton, Nashotah, Wis. We will be glad to furnish any additional facts concerning this splendid offering. Please be sure to mention The Wisconsin Farmer in your letter.

Gustave Pabst's (Dousman, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Pabst is consigning a 29.97-pound bull calf sired by Admiral Walker Prilly, a 32-pound bull that formerly stood at the head of the well-known Stevenson herd, and whose dam won $131.59 worth of the association prizes, besides being the first cow to produce five records above 29 pounds. The dam of the bull calf we are consigning is Zerma Pride, who has the following records to her credit: 29.97 pounds, seven years; 27.54 pounds, five years; and 20.15 pounds, four years. The record of his three nearest dams averaged 30.22 pounds butter in seven days. It is evident, therefore, that this calf comes from a line of exceptionally high producers, as his dam and sire's dam are especially strong cows as indicated from their ability to repeat their high performance so regularly.—Adv.

Rhoda, Reed and Kruser's Consignment.

A CONSIGNMENT of exceptional interest has been made to the Inter-County Holstein sale to be held at Watertown, Wis., November 8th and 9th, by Rhoda, Reed and Kruser. These gentlemen are consigning their entire herd of 50 head, including a four-year-old 31-pound bull, a 28-pound bull calf, their senior herd sire, whose dam has a record of 25 pounds in seven days and 726 pounds of butter in a year, two daughters of the grand champion National show Holstein bull, Oak De Kol Ollie Homestead, a 28-pound cow and two of her daughters, a 25.53-pound cow and daughter and other association record cows and their offspring. Thirty head of this consignment are cows and two-year-old heifers. The advertisement of Rhoda, Reed and Kruser appears on page 24 of this issue. Write Rhoda, Reed and Kruser, Watertown, Wis., for any further information desired concerning this consignment. Please mention The Wisconsin Farmer in your correspondence.—Adv.

Carnation Stock Farm's (Oconomowoc, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. The Carnation Stock Farms, of Oconomowoc, are consigning some of the most popular breeding to be found in the sale, including a 26-pound son of Johanna McKinley Segis from an Ormsby-bred cow carrying 50 per cent of the blood of Sir Ormsby Hengerveld De Kol; also a son and daughter of Rag Apple Korndyke 8th from daughters of Pontiac Korndyke, as well as a grandson of Colantha Johanna Lad from a 27-pound three-and-a-half-year-old daughter of the great show bull, Ollie Johanna Sir Fayne. Six females safely in calf to Beauty Pietertje Prince, a 32-pound sire with 28 A. R. O. daughters; eight with records from 25 to 30 pounds will also be listed in their consignment.—Adv.

H. E. Reddelien's (Oconomowoc, Wis.)

CONSIGNMENT to the Waukesha County Holstein Sale, November 16th. Mr. Reddelien is consigning five choice animals with excellent individuality; all of them choice young cows with records as high as 19 pounds at three years and bred to King Ormsby, a 28-pound son of Sir Ormsby Hengerveld De Kol. Sir Ormsby Hengerveld De Kol, in our estimation, is one of the greatest sires that has been used in Wisconsin. His get are uniformly good individuals, possessing the best of udders and producing with the best of the breed. King Ormsby has a splendid list of A. R. O. daughters with a high per cent of butter fat. Mr. Reddelien is also consigning an eight-month-old son of King Ormsby, who is an excellent individual, well grown and white in color.—Adv.

More Chesters at Tomah.

WM. C. KIRST, Tomah, Wis., is another one of the Kirsts that have the Chesters. Just at this time he has spring pigs for sale, either boars or gilts and at reasonable figures. They are out of sons or daughters of noted boars, such as Schoolmaster, Crandell's Wonder and Chief Keokok. He also has some June pigs for sale that you can buy right. It will pay you to investigate the Kirst Chesters and if you want a boar or a gilt, we know Will will send you a pig worth the money. Try him.—Adv.

DOPP BROS., Ionia, Wis., are consigning a yearling son of Beauty Pietertje Prince Ormsby, out of a 23.05-pound four year old, to the Waukesha County Holstein Sale, November 16th.—Adv.

MR. C. J. WILL, of Menomonee Falls, is likewise consigning two animals from his well-known herd to the Waukesha County Holstein Sale, November 16th.—Adv.

ED. HICKS, Springfield, Wis., is consigning five evenly marked yearling daughers of Rantok Hicks to the Waukesha County Holstein Sale, November 16th.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 9, F. M. Washburn, Lake Crystal, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Holstein Cattle.

Nov. 16, Waukesha Co. Holstein-Fresian Breeders' Asso., W. L. Baird, secretary, Waukesha, Wis.

Administrator's Dispersion Sale

OF SHORT-HORNS, SHIRES AND SHROPSHIRES

AT THE VOLGA STOCK FARM

7 miles southwest of Elkader, 13 miles northeast of Arlington and 3 miles northeast of

Volga, Clayton Co., Ia., Wed., Nov. 14

26 **SHORT-HORNS,** consisting of two bulls, including the roan two-year-old herd bull, Conformation, a Marr Clara by White Rock, dam by Royal's Best, second dam by Imp. Royal Robin, and 24 cows and heifers that for individual merit would compare very favorably with the best in any herd. A number of the heifers are by Master Robin, a Marr Missie by Master Robin, dam by Imp. Fancy's Pride. A number of big, beefy, broad-backed cows are by Imp. Clipper Czar, a 2,450-lb. bull of the Cruickshank Clipper family. No better cattle can be found in any sale than those to be sold here.

18 SHIRES, 11 of which are registered, constitute an offering that merits the attention of the very best breeders and horsemen. Imp. Heckington Skipper, a seven-year-old roan sire, sells and the colts by him are of exceptional merit. Nine registered mares, all young, and several by the above horse, are big, heavy-boned and attractive from any point of view. They are the kind that weigh a ton in condition.

40 REGISTERED SHROPSHIRES, consisting of one imported ram, 20 ewes from one to four years old, seven ewe lambs, three yearling rams and nine ram lambs, are of excellent merit and are the right kind.

10 MAMMOTH BRONZE TURKEYS will be sold. Everything must sell, to settle the estate. E. S. Johnson, auctioneer. Write for a catalog to either

Wm. Bennington or Clara E. Bennington, Admrs.

VOLGA - IOWA

Mention The Wisconsin Farmer when writing. All trains will be met at Volga, Elkader and Arlington.

Lake Mills Holstein Sale.

(Continued from page 10.)

calf did not hit any high water mark, as it only sold for $875. The fact that he was a little dark in color may have had something to do with his not bringing any more money. Very few of the good animals of the sale went out of the state and the bidding was not stimulated very much of the time by many of the out of state buyers. Following is a list of sales:

BULLS.

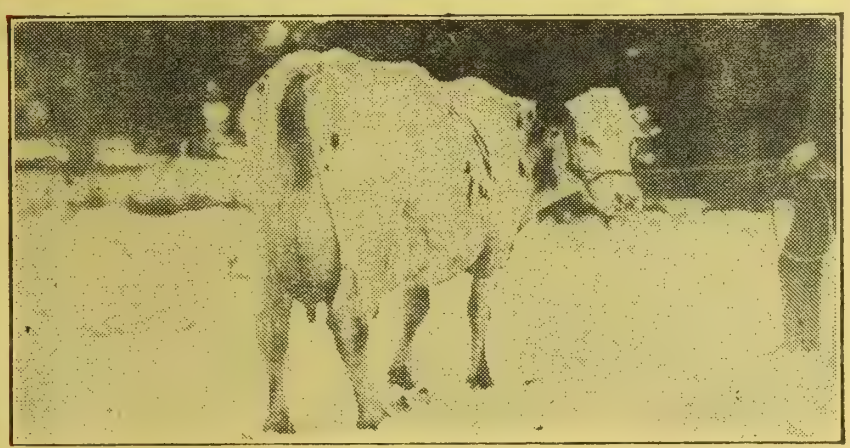
Count Paul Segis Pontiac, Mar., 1916; Wm. Bratz & Son, Brandon, Wis. $310
Johanna Clothilde Champion, Mar., 1916; C. F. Wright, Mantena, Ill. 325
Heilo Kappljne Tidy Prince, Mar., 1917; C. F. Wright 875
King Pontiac Thanatos, Jan., 1916; Herman Placke 135
King Paulinda Korndyke, Jan., 1917; Bridge 100
Sir Ormsby Fobes Homestead Butter Boy, Jan., 1917; Andrew Frank, Fox Lake, Wis. 3000
Sir Ormsby Homestead, Dec., 1916; J. F. Burbach, Friesland, Wis. 425
Sir Ormsby Oak De Kol, Nov., 1916; P. P. Stewart, Maynard, Ia. 355
Salma Sir Korndyke De Kol, Mar., 1917; Haselen Bros. 1100
Salma Korndyke Longfield, Mar., 1917; P. F. Kirley, Doylestown, Wis. 240
Racine Mercedes Beets, Feb., 1917; D. J. Howell, Waukesha, Wis. 175
Racine Bessie Johanna Piebe, Jan., 1915; Elam C. Buttles and Lewis Bros., Lake Beulah, Wis. 600
Canary Fobes Bessie Piebe, Feb., 1917; Frick & Hoesley, New Glarus, Wis. 135
De Kol Beets Johanna, Dec., 1916; John Bull, Cimarron, Kan. 100
———, Dec., 1916; H. H. Haston, Madison, Wis. 110
———, Dec., 1916; Frick and Hoesley 105
King Pontiac Gem, Oct., 1916; Aug. Doeringfeld, Fennimore, Wis. 300
King Repeater of Rock, May, 1916; D. W. Jones, Milton Jct., Wis. 285

FEMALES.

Groveland Cornucopia Korndyke, May, 1916; Geo. Williams, Oxfordville, Wis. 125
Juliet Colantha De Kol, Dec., 1911; Greenlaw & Thomas, Omro, Wis. 155
Pioneer Oaks De Kol Maggie, Jan., 1913; Kirkpatrick Bros., Reedsburg, Wis. 400
———, P. P. Stewart 120
Pioneer Oaks De Kol Sadie, Feb., 1913; Homer Dopp, Oconomowoc, Wis. 320
Mercedes Itaska Colantha, Jan., 1916; C. F. Wight, Mantena, Ill. 135
———, Nov., 1916; P. P. Stewart 100
Reka Mooie Coeln Queen, Oct., 1915; W. H. Mullen, Peebles, Wis. 135
Bessie Antje De Kol 3d, April, 1909; Wm. Braatz & Sons, Brandon, Wis. 225
Johanna Nina Aaggie Barbetta, May, 1915; Ferd Wieselman, Caledonia, Wis. 170
Johanna Nina Princess Barbetta, April, 1916; Ferd Wieselman 135
Letta Queen Colanthus 2d, Sept., 1913; E. M. Roser, Columbus, Wis. 100
Letta Mercedes, Oct., 1914; E. M. Roser 135
Tongo Susan Rue Pauline, Dec., 1916; Gramling Bros., Dousman, Wis. 100
Johanna Korndyke Belle, Oct., 1909; J. A. Sanderson, Cambria, Wis. 220
Mercedes Tatty Genevra, Dec., 1909; Alfred Bohl, Fennimore, Wis. 125
Daisy De Kol Mercedes Pietertje 2d Pet, Sept., 1908; John Bull 160
Lady Beauty, April, 1907; W. E. McCulloch, Morris, Ill. 135
Johanna Posch Genevra, Nov., 1915; C. F. Wright 130
Mooie Perfection 2d, Mar., 1915; W. W. Bird, Cambria, Wis. 210
Canary Paul Korndyke Homestead, June, 1915; Wm. Everson & Sons, Lake Mills, Wis. 140
May Bird Woodcrest Pietje Nig, Mar., 1916; Hans Hanson, Lake Mills, Wis. 145
Lady Walker Calamity De Kol, April, 1913; P. F. Gadden, Duncombe, Ia. 150
Lady Walker Fobes Homestead, May, 1916; S. E. Jones, Watertown, Wis. 100
Johanna Korndyke Beauty Pontiac, Nov., 1915; M. E. Hoffman, Bassett, Wis. 110
Goveland Beauty De Kol Pontiac 2d, Oct., 1914; Bridge 180
Nealie De Kol Artis 4th, Feb., 1911; W. L. Huson, Dodgeville, Wis. 410
Hettie Mercedes Homestead, Oct., 1909; P. F. Gadden 140
Daisy Johanna Segis, June, 1914; W. H. Mullen, Peebles, Wis. 340
Aurora Ormsby Longfield, Sept., 1911; Peter Daily, Long Prairie, Minn. 275
Comedia Hengerveld Queen, Mar., 1911; W. H. Mullen 460
Milford Edith Oak Sarcastic, July, 1914; Berg De Merit, Lake Mills, and W. H. Reed, Palmyra, Wis. (Resold to Jacob A. Hatz) 200
Milford Mink Gem Oak, Nov., 1913; W. H. Mullen 360
Eva Mercedes Colantha, Jan., 1911; B. W. Pabenhorst, Jefferson, Wis. 265
Johanna Ormsby Wayne De Kol, Oct., 1911; W. H. Mullen 310
Milford Primrose Longfield Fobes, Dec., 1915; John Bull 200
Edna Maplewood De Kol 2d, Mar., 1914; P. E. Gadden 155
Juliana Mary Chiron, Mar., 1916;

The above cows are mostly granddaughters of Sir Ormsby Hengerveld De Kol and are now milking from 50 to 75 lbs. a day. Snowball Ormsby Princess, 75 lbs.; Lily Ormsby Hengerveld De Kol, 55 lbs.; Calamity Dutchess Korndyke, 68 lbs.; Dora Hengerveld Dean De Kol, 65 lbs.; Dora Ormsby Hengerveld De Kol, 65 lbs.; Pet Douglass 2d, 60 lbs.; Early Dawn Ormsby Princess, 3 years, 50 lbs.

Note the firm udders of these three cows giving from 65 to 75 lbs. a day now on two milkings.



A sample of Mr. Stapleton's grade cows that is a grand type of milk cow, now giving 75 lbs. of milk a day.

Some of Mr. Stapleton's heifer calves out of granddaughters of Sir Ormsby Hengerveld and sired by Sir Magnet Fayne Homestead (165079).

STAPLETON'S ORMSBY-BRED HOLSTEIN DISPERSION SALE

NORTH LAKE, WISCONSIN SATURDAY, NOVEMBER 10, '17

THE herd is free from tuberculosis and will be placed upon the accredited list before date of sale. Having sold our farm it is necessary for us to sell our herd of 50 head of Holsteins.

There are 30 registered animals and 20 high grades. 29 are of milking age and most of them are fresh. Cows that have come in recently are giving from 50 to 75 pounds a day on two milkings. These cows are large, uniformly good individuals and mostly white in color.

There is one daughter of De Kol 2d's Paul De Kol. No. 2, 18 daughters from 1 to 5 years of Sir Ormsby Hengerveld De Kol 10th (83680) that is a half brother to the sire of the world's record cow, Dutchess Skylark Ormsby, and brother of Pietertje Maid Ormsby, another world's record cow. His daughters are large cows, weighing up to 1,000 lbs. and his dam is sired by a son of Pearl of the Dairy Joe De Kol and she has produced a 30-pound cow giving 102 pounds milk a day, besides three other A. R. O. daughters.

8 heifer calves are sired by a grandson of Fobes Tritomia Mutual De Kol, the sire of Jessie Fobes Bessie Homestead (34.95 lbs.).

This sale offers an excellent opportunity to secure cows and their daughters and granddaughters to develop for the advanced registry.

Will also sell three young teams of grade Percheron horses weighing from 3,000 to 3,200 pounds.

J. R. Love and R. S. Benjamin, auctioneers. Our farm is a mile out from North Lake.

JOSEPH STAPLETON, Prop.
NASHOTAH (POST OFFICE ADDRESS) WIS.

Rhoda, Reed & Kruser's

Pabst Maplecrest King (151413). Senior herd sire of the Rhoda, Reed & Kruser herd, to be sold at the Inter-County Holstein Sale. His dam has 25 lbs. 7 days, 726 lbs. butter and nearly 14,000 lbs. milk in a year.

Oak De Kol Korndyke (294037). 17-lb. junior two year old by Oak De Kol Ollie Homestead. Consigned by Rhoda, Reed & Kruser, Watertown, Wisconsin.

Consignment to the

Inter-County Holstein Sale

Nov. 8th-9th

Watertown, Wisconsin

WE are consigning our entire herd of fifty head to the Inter-County Holstein Sale, including a four-year-old, 31-lb. bull, a 28-lb. bull calf, one senior herd sire whose dam has 25 lbs. 7 days, 726 lbs. butter in a year; two daughters of the National Show bull, Oak De Kol Ollie Homestead; a 28-lb. cow and her two daughters; a 25.53-lb. cow and daughter, and a number of other A. R. O. cows and their offspring. Thirty head of our herd are cows and two-year-old heifers.

Wright's

Dispersion Sale

Milton Junction, Wis., Nov. 7th

FROM the fact that we have sold our farm, it makes it necessary for us to dispose of our Holstein herd, as well as other live stock and implements used in operating a 160-acre farm. Our Holstein herd consists of about 50 head, most of which are pure breds, containing the most popular blood of the breed. We have ten daughters of Mooie Mutual De Kol; one daughter of Sir Pontiac Korndyke, out of a daughter of Pontiac Korndyke, and ten daughters of Juliana King of Rock that has stood at the head of John Hetts' noted Holstein herd for several years, and whose get is well known by Holstein breeders throughout the state. Our present herd sire is Beauty Vale of Rock, that is out of Fanny Vale Mercedes, that has a record of 20 pounds in seven days and 722 pounds of butter in a year, made at three years and sixteen days of age. She has two A. R. O. daughters and is known as the best daughter of Fanny L. De Kol, a cow that has nine A. R. O. daughters, which is a world's record. Most of our cows are due to freshen shortly after the sale and will be in condition to produce a profitable flow during the winter. We are also selling five Percheron females, including one mare five years old, bred and foaled at the University of Wisconsin; two four-year-old mares, one two year old and one foal. We are also selling 30 acres of shocked corn, 300 bushels oats, hay that is left, Calfway milking machine, 11 brood sows and 71 pigs.

John D. Hetts **Sale Manager**

R. E. Haeger, Auctioneer

Harry Faville, Lake Mills, Wis. 285
Ellen of Glen Rose 2d, Oct., 1910; Jacob A. Hatz ... 330
Longfield Piebe, Dec., 1908; Jacob A. Hatz ... 350
Daisy Inka Heilo, Oct., 1913; S. E. Jones ... 220
Minita Ormsby De Kol, Nov., 1908; W. L. Huson, Dodgeville, Wis. ... 500
———, Fred Gurr, Lake Mills, Wis. 155
Plain View Johanna Ruth 2d, Feb., 1915; P. L. Gadden ... 135
Plainview Johanna Ruth 3d, May, 1916; Kirkpatrick Bros. ... 100
Plain View Johanna Lorie 2d, Jan., 1916; John Bull ... 110
Plain View Johanna Calamity 4th, Jan., 1916; Alfred Bohl ... 135
Plain View Johanna Esther, Oct., 1915; P. A. Lukken, Klevenville, Wis. ... 155
Plain View Johanna Violet, Aug., 1915; B. W. Rabenhorst, Jefferson, Wis. ... 190
Plain View Johanna Neta, Nov., 1915; W. H. Mullen ... 135
Plain View Johanna Segis 5th, Dec., 1915; Dr. J. O. Hervey, Milwaukee, Wis. ... 165
Salma Gewina De Kol Segis, Mar., 1913; W. H. Mullen ... 625
———, Sept., 1917; L. B. Simons, Sullivan, Wis. ... 310
Lady Johanna of Elm Court, May, 1910; W. O. Briggs, Briggsville, Wis. ... 210
Racine Lady Johanna, May, 1916; W. O. Briggs ... 140
Johanna of Elm Court, Sept., 1909; Dr. J. O. Hervey ... 305
Racine Inka Beets, Feb., 1917; W. H. Mullen ... 125
Racine Jahonna Beets, Jan., 1917; W. H. Mullen ... 235
Maple Johanna Ormsby 2d, May, 1916; F. B. Green, Evansville ... 110
Jessie Huntress De Kol, Aug., 1916; Dr. J. O. Hervey ... 155
Yeslet De Kol of Riverside, June, 1906; Fred Mahu, Caledonia, Wis. 145
———, N. L. Lashbrook, Northfield, Minn. ... 105
Sharpland Cleveland Fobes, Nov., 1916; S. E. Jones ... 155
Sharpland Korndyke Rue, Sept., 1917; Fred Wieselmann ... 140
Sharpland Mutual Friend 2d; Geo. Williams ... 100
Sharpland Paul Butter Girl, Dec., 1916; S. E. Jones ... 120
Canary Paul Butter Girl, Aug., 1913; John Bull ... 145
Colantha De Kol Gerben Segis, Jan., 1916; Jacob A. Hatz ... 180
Johanna Princess Clothilde Aaggie, Mar., 1916; W. L. Lashbrook, Northfield, Minn. ... 225
Geraldine Boon De Kol, Mar., 1907; John Bull ... 140
Jeanette Korndyke Rue, April, 1913; W. H. Mullen ... 265
Suse Homestead Rue, April, 1914; P. T. Gedden ... 170
Lady Cleveland Fobes, Feb., 1912;
A. R. Maxwell, Allenville, Wis. 275
Recreation Queen De Kol Clothilde 2d, Mar., 1913; W. L. Huson ... 410
Recreation Queen Onto Nagon Dean, Sept., 1914; Frick & Hoesley ... 170
Recreation Queen Ontona-Gon Segis, Mar., 1915; C. F. Wright ... 190
Recreation Queen Onto-Nagon De Kol, Mar., 1915; E. M. Roser ... 150
Highland Dora Dean, Mar., 1907; Peter Daily ... 170
Recreation Queen Segis De Kol Dean, Oct., 1916; C. B. Rutherford, Lake Mills, Wis. ... 130
Recreation Queen Clothilde De Kol, Nov., 1911; John Hills, Fort Atkinson, Wis., and Ben Berg, Lake Mills, Wis. ... 425
Recreation Beets Queen De Kol, March, 1917; Wm. Everson & Sons 145
Highland Clothilde Korndyke, July, 1917; E. H. Smith, Duluth, Minn. 120
Highland Clothilde De Kol, Feb., 1905; B. W. Rabenhorst ... 150
Recreation Queen Clothilde, Feb., 1914; E. W. Thomas, Allenville, Wis. ... 140
Recreation Queen Burke, April, 1914; P. A. Lukken, Klevenville, Wis. ... 220
Recreation Queen Pontiac De Kol, Dec., 1910; E. M. Roser ... 175
Recreation Queen Dean De Kol, Sept., 1915; E. M. Roser ... 140
Recreation Queen Beets Clothilde, Nov., 1915; P. A. Lukken ... 230
Recreation Queen De Kol, Jan., 1916; E. M. Roser ... 145
Recreation Queen Topaz Rue, Sept., 1915; W. L. Huson ... 190
Recreation Queen Topaz, Sept., 1915; P. F. Gedden ... 145
Recreation Queen Parthenea Veeman, Dec., 1911; C. B. Rutherford 165
Recreation Queen Pontiac, Nov., 1915; Harry Faville ... 195
Recreation Queen Topaz Burke, March, 1915; P. A. Lukken ... 180
Highland Parthenea Clothilde, Aug., 1906; E. H. Smith, Duluth, Minn. 205
Recreation Queen De Kol Clothilde, Nov., 1910; Jacob A. Hatz ... 300
Recreation Queen Pontiac Theia, Nov., 1912; John Bull ... 165
Parthenea Sadie Vale 2d, Feb., 1911; S. E. Jones ... 205
Sadie Canary Homestead, March, 1915; Fred Albrecht, Watertown, Wis. ... 405
Canary Fobes De Kol Hengerveld, April, 1915; Wm. Everson & Sons 175
Fayne Johanna Lily, Dec., 1909; Jacob A. Hatz ... 215
Segis Prescott Burke, Jan., 1908; Jacob A. Hatz ... 120
Pride Soldene Fobes De Kol, May, 1909; Dr. J. O. Hervey ... 310
———; C. P. Rutherford, Lake Mills, Wis ... 110
Zeffie Acme Homestead, Nov., 1914; E. M. Roser ... 170
Helen Brookside Pietertje De Kol, March, 1914; Jacob A. Hatz ... 180

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

HAMPSHIRE SWINE.

DELLBROOK FARM HAMPSHIRES

Home of Grand Champions

50 boars ready for service

PRICES slashed for quick sale. They are guaranteed to please. Pigs at weaning age, boars $12 and up, sows $15 and up. Write for catalog and pamphlet.

A. L. DAMON Richland Center, Wis.

Flossie Veeman Beauty, March, 1916; P. P. Stewart, Maynard, Ia. 185
Bessie Hillside, May, 1915; Jacob A. Hatz ... 145
Alta Buttercup, Nov., 1913; B. K. Rabenhorts ... 315
Princess Daisie Segis Burke, March, 1916; P. P. Stewart ... 135
Minnie Auk De Kol, June, 1917; Max A. Witte, Watertown, Wis. 210
Maggrath of Highland Netherland 4th, March, 1910; W. W. Bird, Cambria, Wis. ... 195
Pansy Fan Careme, Feb., 1916; F. B. Green, Evansville, Wis. ... 170
Fanny Pietje Careme, Dec., 1916; F. B. Green ... 100
Johanna Fan Duchess, Aug., 1916; C. A. Shephard, River Grove, Ill. 120
Piebe Bess 2d, April, 1913; C. H. Wright ... 335
Jane Alcartra De Kol Pontiac, April, 1917; W. F. Mullen ... 295
Johanna Segis Gem, March, 1914; Ferd Wieselman ... 250
Veronica De Kol Colanthus 3d, Nov., 1909; W. W. Bird ... 225
Queen Beauty De Kol Colantha, Nov., 1914; Otto Shinke, Jefferson, Wis. ... 205
Miss Sprig Segis, Jan., 1913; Robt. Mullen ... 325
Lady Madrigal Burke 4th, Nov., 1913; Homer Dopp ... 315
Lady Dio Madrigal, March, 1910; W. L. Lashbrook ... 515
Calista Pauline Segis, Dec., 1912; W. L. Lashbrook ... 495
Lady Hengerveld Repeater, May, 1917; Muckleston Bros. ... 115
Lady Bess Repeater, Dec., 1916; F. B. Green ... 100
Lady Mary of Rock, April, 1916; Grambling Bros. ... 12[illegible]

Walter Bros., Chippewa Falls, Wis.

HEREFORDS

CAN SELL YOU A BULL, well grown, well bred and well worth the money. Our bulls are our advertisers. Correspondence and inspection invited.

TOO LATE TO CLASSIFY.

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

FOR SALE

PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. A number of spring boars that will weigh [illegible] than 200 lbs., a few fine spring gilts and [illegible] choice September pigs, either sex, at $15 each, to be shipped when three months old.
O. P. COATES R. 4, Elkhorn, Wis.

Princess Jule of Rock, Feb., 1916; S. W. Faville ... 140
Jewel Bess of Rock, April, 1916; Fred Gurr ... 165
Aaggie Jewel of Rock, Dec., 1916; Fred Gurr ... 225
Jewel Craddock of Rock, April, 1916; Muckleston Bros., Waukesha, Wis. ... 145
Lily Jewel of Rock, April, 1917; Muckleston Bros. ... 145
Alcartra Jewel of Rock, Nov., 1915; John L. Fisher ... 195
Daisy Colantha Pauline De Kol 2d, Sept., 1910; S. E. Jones ... 250
Bessie Antje Alcartra, Jan., 1914; Cash Faville ... 220

SUMMARY.

18 head males sold for ..... $ 8,675.00
135 head females sold for 27,525.00
[illegible] head sold for ..... $[illegible]
Average, $[illegible].

BIG-TYPE POLANDS

Sell at

BERLIN, WIS., TUESDAY, NOV. 6, '17

40 head of the kind that are in demand.
Spring Boars and Gilts and Tried Sows.

Every Animal of Popular Big-Type Breeding

ONE boar, two gilts by the noted SMOOTH BIG BONE, one boar, one gilt by BIG ORANGE EQUAL. Four boars, two gilts by GOLDEN KING. Four boars, six gilts by WONDER'S WONDER. Six boars and three gilts by BIG JOE, others of BLUE VALLEY and MOUW'S JUMBO breeding.

The home of BIG JOE. No breeder in the state has a larger yearling. Sired by Ohio Giant by Disher's Giant by Big Ben.

Do you want big-type breeding? BIG BONE, A WONDER, BIG ORANGE, OAKLAND'S EQUAL, BLUE VALLEY QUALITY—can you beat it? We bought bred sows from America's best herds of BIG-TYPE POLANDS, and we offer the produce to Wisconsin buyers, in this, our first sale. T. P. Shreve, field man. Let him handle your mail bids. Ira Cottingham, auctioneer.

Study the pedigrees in the catalog and you'll want a boar or gilt from this sale. I'll send you a catalog with pleasure, if you'll write.

NATHAN KINTZ & SON BERLIN, WISCONSIN

POLAND CHINA SWINE.

Big-Type Poland China

SPRING PIGS, with size, length, bone and quality, sired by Mollie Jones Lad by Big Tom, also King Wonder by Great Wonder, two good producing boars. These pigs are in fine growing condition. Will make large ones. Call or write. "Bell phone."
H. H. SMITH (Sauk County) Baraboo, Wis.

I HAVE MOVED

TO WEST SALEM, Wis. (farm adjoins town), where I'll be pleased to show visitors the greatest herd of POLAND CHINAS in Wisconsin. Remember this change and when in this vicinity stop in. On the main line of the Milwaukee and Northwestern. First station east of La Crosse.
J. D. McDONALD :: :: :: :: West Salem, Wis.

MASTER'S GIANT
ORANGE WONDER, YOUNG'S BIG JOE

THE GREATEST TRIO of Poland boars doing service in one herd. I CATER TO PARTICULAR BREEDERS. Boars for registered herds. Correspondence invited.
P. W. YOUNG :: :: :: Box 100, Prosper, Minn.
Bred Sow Sale, February 5th.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

BIG-TYPE POLAND CHINAS

BOARS AND GILTS, March and April farrow. Also sows bred for September farrow. Reasonable prices.
A. W. COLE :: R. 1, Lodi, Wis.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

POLAND CHINA SWINE.

FOR QUALITY AND QUANTITY WRITE

Boars and Gilts

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write

W.W UACKENBUSH (Jackson Co.) MELROSE, WIS. POLANDS

BIG-TYPE POLANDS

SMOOTH BIG BONE A 2D.
Sire Smooth Big Bone A ($1,125), by the champion, Smooth Big Bone.
GOLDENGATE COLUMBUS.
Sire Columbus Pan; dam, by Goldengate King.
MY HERD HEADERS.

OFFER 25 SPRING BOARS sired by the above and every one out of a big-type sow. Three litter mates to Goldengate Columbus for sale. My guarantee is iron clad. Write me.
J. F. DILEY :: :: :: RUSH LAKE, WIS.
(Shipping point, Waukau on Milwaukee Railway.)

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Dobson & Eastman
LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.
"The Utmost in Polands."
"Grant County."

Buy
yOur
boAr
fRom
Smiley.
WM. SMILEY & SONS, ALBANY, WIS.
BIG-TYPE POLANDS

SUPERIOR POLANDS

I BRED THE LITTER that won $109 at Milwaukee and the boar that topped ($142.50) the Grant county sale. I have boars of the same breeding and caliber for sale. Also gilts. WRITE NOW.
F. A. MOREHOUSE Lancaster, Wis.

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write
WM. F. ACKERMAN GLEN HAVEN, WIS.
"Grant County."

LIBERTY SPRINGS POLANDS

BUY A LIBERTY SPRING BOAR or gilt and you can buy LIBERTY BONDS. Have a fine assortment of breeding and the pigs have been well grown. I'll ship pigs that make customers.
L. D. EASTMAN Lancaster, Wis.
"Grant County."

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

$35 to $50

12 GILTS—POLANDS—10 BOARS—Sired by Timm Wonder, Hauk's Orange and Matchless Wonder. Strictly big-type and guaranteed to PLEASE YOU. Write
WM. HAUK "Grant County" Cassville, Wis.

MARTINY Boar Bargains

Special price, a little over pork price, on

20 Big-Type Poland China Boars

Most of them by BIG BONE WONDER, a 1,000-lb. boar, and one of the best breeding boars in the U. S. These boars are of the same line of breeding as the litter that won first at the state fair. Also have a Hancher-bred yearling and a Golden Gate Giant fall yearling for sale that were prizewinners at the state fairs this fall. Order a boar and if he don't suit send him back and I'll refund your money.
L. P. MARTINY Chippewa Falls, Wis.

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.
LOUIE REESE Brooklyn, Wis.

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

GUARANTEED POLAND BOARS

WE CAN SHIP you big-type boars that will give good satisfaction. Try me with an order.
AUG. NEESEMAN Warren, Ill.
(Farm in Wisconsin.)

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Imperial Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 147 lbs. butter when 13 years old. His sire is a grandson of Boutilier, the highest record cow of the island. Three of his daughters have records certified for R. O. M. One of them, three quarters of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, as 2 year 1 month, and will make over 600 lbs. at the rate she is going. Write for price and pedigree.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams, age 2 weeks to 1 year old. Breeding Noble of Oaklands, Eminent and Raleigh. Write for pedigrees.
W. M. KNIGHT Eagle, Wis.

"CAMP BARKER FARM" JERSEYS—For sale a few choice young bulls of extra fine breeding, from Register of Merit cows. Noble of Oaklands, Pogis 90th of Hood Farm, Gentage's Knight and Golden Fern's Lad blood. For prices, pedigrees, description, address
I. Barker, Brookfield, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on one or herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of butter and sired by Stoutes's Emblem, a grandson of Sophie 19th, a son of Lass 10th, with 1,005 lbs. of butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bull calves in fall, sired by Dam's Yarsley King and a son of Golden Maid's Valentine. We are in King's blood.
FRED STURLEY Black Earth, Wis.

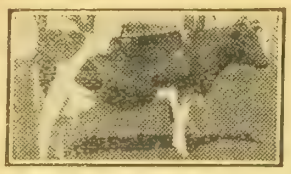
Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosie, 725 lbs. butter. Low extra-fine prices.
H. HOLT & SON Oconomowoc, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mule-foot pigs from prize winning herd. Stock of all ages for sale. Prices low. Chas. Thiessen, Lena, Ill.

HOLSTEIN-FRIESIAN CATTLE.



SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

HILLSIDE HOLSTEINS

WE HAVE TEN REGISTERED COWS for sale and one heifer. All cows have A. R. O. records but one; some due to freshen soon. Prices, $150 to $300. Extra large cows, good dairy type.

KIRKPATRICK BROS. - - - - - - - **Reedsburg, Wis.**

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with **11 A. R. O.** daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

Pabst Korndyke Champion
Son of Korndyke Segis Johanna,
Has just been sold to the North Dakota Agricultural College.

Pabst Korndyke Elder
Son of Korndyke Segis Johanna,
Similiarly bred on the dam's side,

IS NOW FOR SALE

Pabst Korndyke Elder was born March 3, 1917. His dam is Pabst Champion Elder. By King Pontiac Champion and out of Pabst Hengerveld Colanthus.

He is a splendid buy—just the bull calf you are looking for.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. **Box F**

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.

FRED GURR :: :: **Lake Mills, Wis.**

$400 Bargain

$400 WILL BUY a 29.23-pound grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.

W. J. BOYNTON **R. 1, Rochester, Minn.**

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. **Eau Claire, Wis.**

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.

GEO. A. WILSON **Nellisville, Wis.**

HOLSTEINS

WATCH THIS SPACE.

MOSS BROS. **Troy Center, Wis.**

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of **A. R. O.** dams with records up to 25.88 lbs.

EDGEWOOD FARMS, INC. **Pewaukee, Wis.**

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL, Whitewater, Wis.**

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25.418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

REGISTERED HOLSTEIN FEMALES

FOR SALE—In calf to RAG APPLE PONTIAC, a 30-lb. brother to the $25,000 bull. Priced reasonable.

TULLOCH FARMS **Genoa, Wis.**

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.

E. B. WATROUS **Troy Center, Wis.**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER **Sheboygan Falls, Wis.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

JOHN NORTH **Kilbourn, Wis.**

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address

SWOBODA BROS. **Troy Center, Wis.**

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.

JOHN L. FISHER **Janesville, Wis.**

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

HOLSTEINS

WATCH THIS SPACE.

ALBERT RHODA **East Troy, Wis.**

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch,** a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.

GEO. W. BROWNE, Prop. :: :: :: **Waukesha, Wis.**

DUROCS

BOARS and gilts for sale, sired by **TAX PAYER MODEL,** eastern breeding.

ALLIC S. KNUDSON

GUERNSEYS

SEVERAL bulls out of A. R. cows and by **A. R.** sires.

Let me describe in detail what we have for sale.

Brodhead, Wis.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.

RALPH TRATT **Whitewater, Wis.**

GUERNSEYS

AT THE WAUKESHA SALE—I am offering a choice son of TRICKSEY'S GEORGE OF SUNNYSIDE 18355 (first at National Dairy Show), out of a large imported cow. Also have a few young bulls of same breeding for sale.

EARL ROBERTS **Oconomowoc, Wis.**

May Rose Bulls FOR SALE

MAY ROSE and double **May Rose**-bred Guernsey bulls, ranging from 1 mo. to 1 year from **A. R.** dams with records up to **661 lbs. fat.** Also a few choice **A. R.** cows and heifers, near descendants of the great **Imp. King of the May.**

JOHN H. WILLIAMS **Waukesha, Wis.**

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.

GEO. O. LUCIA **Green Bay, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — **WRITE YOUR WANTS**

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

W. G. JAMISON & SONS **Appleton, Wis.**

HOLSTEIN-FRIESIAN CATTLE.

RUST BROS.

OFFER the richly bred Holstein bull, Sir Ina Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from **A. R. O.** dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.

W. H. S. RHODA **Watertown, Wis.**

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

Holstein Bulls for Sale

TWO YOUNG BULLS, from **A. R. O.** cows, well marked, good individuals. Priced right.

L. V. GARVENS **R. 12, Brookfield, Wis.**

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address

B. F. SCHAUB **Honey Creek, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman,** whose dam has given **10,700 lbs.** of milk and **437 lbs.** fat in a year. **Price right.** Send for pedigree.

W. L. BREITRICK **GREENVILLE, WIS.**

RED POLLED CATTLE.

OLD GLORY RED POLLS

WE are now offering bargains: 18 choice cows and heifers, both open and bred. Also 20 good young bulls. The kind that win at the pail as well as the show ring. Write or visit us. **CURRAN BROS., Sechlerville, Wis.** Railroad station, Hixton.

Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see

J. W. SALTER & SONS **Unity, Wis.**

RED POLLS

A FEW GOOD BULL CALVES from **A. R.** dams for sale from two to four months old. No more females for sale.

L. C. UNDERWOOD **AVOCA, WIS.**

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

RED POLLED BULLS of serviceable age for sale. Also young stock, either sex. Clover Belt Stock Farm, Hamburg, Wis.

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.

GEO. McKERROW & SONS CO., Pewaukee, Wis.

BREEDING EWES

100 CHOICE 4's and full-mouthed Colorado breeding ewes for sale, $14.50 a head.

O. A. JERRELL **Mineral Point, Wis.**

WE NOW OFFER

CHOICE RAM LAMBS in Shropshires and Hampshires, sired by prize-winning rams. Write us for prices and particulars.

W. F. RENK & SONS **Sun Prairie, Wis.**

DUROC JERSEY SWINE.

PRICED TO SELL

DUROC BOARS sired by ROY'S KING, he by the champion, Prince Illustrator. The boars are big, husky fellows and your price is mine. Don't hesitate, if you want a boar, write me, NOW.

L. E. GRUNENWALD **Livingston, Wis.**

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.

W. G. BARTHOLF **Burlington, Wis.**

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write

WM. EDGE **Fennimore, Wis.**
"Grant County."

ONLY A FEW, BUT GOOD—DUROC BOARS

SIRED by P. S. WONDER AND PROUD CHIEF JR. I'll ship them on approval—no money until you get your boar home—if he don't please ship him back. ORDER NOW.

ALFRED E. KIRST **Tomah, Wis.**

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.

M. H. O'KEEFE & SON **Waukesa, Wis.**

W. W. Goodrich

Ft. Atkinson Wisconsin

I HAVE DUROCS TO SELL—Either sex, sired by a son of Defender Major (McKee), only boar in the state with this breeding. I guarantee to please.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Cammiff, Juneau, Wis.

DUROC JERSEY SWINE.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: **Gotham, Wis.**

KING ORION

Grand Champion Minn. and Wis. Fairs

SAY! If you are going to want a Duroc boar, get busy. Don't wait until you are ready to use him. We have a nice assortment, many by "KING" and out of Illustrator, Volunteer, Orion Chief and Cherry King's Rival dams. You can't beat this. Get this champion breeding.
E. H. PARKER & SON :: :: :: :: **Janesville, Wis.**

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.
ISAAC HIGGINS **(Richland County)** **Gotham, Wis.**

WE SHIP DUROCS ON APPROVAL

This Guarantees You Satisfaction

THE ABOVE OFFER should convince you that the BOARS we have for sale are good, otherwise we could not ship on approval. Big-type with popular breeding: Chief Invincible, P. S. Wonder, Illustrator King, High Model, etc. We invite correspondence.
RILEY MARTINY & SON :: :: :: **Baraboo, Wis.**

A FEW DUROCS LEFT

I HAVE 12 OR 15 GOOD BOARS that were farrowed the last of March and in April that I wish to sell in the next two weeks. Don't forget that my late boars are better than many early ones. Priced for quick sale. Order now.
L. F. ATWATER :: :: :: :: **Bangor, Wis.**

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.
JERSEYS—Herd in the accredited list. Young bulls for sale.
F. R. CONSTANCE & SONS, Waupaca, Wis.

S S

Buy a Duroc
That has **O**utstanding quality.
But pay some **A**ttention to the breeding.
Bred right, fed right, p**R**iced right.
If you want them on approval will **S**hip that way.

DENNIS SHEA **Melvina, Wis.**
(Near Sparta)

SOW SALE JANUARY 29, 1918

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.
R. C. CHURCH **Elkhorn, Wis.**

--- E. J.'s ---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,
DUROC BOARS sired by above for the particular buyer.
JOHN SWENSON **Willmar, Minn.**

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.
JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE **Evansville, Wis.**

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. **Viroqua, Wis.**

DUROCS--BOARS--GILTS

OFFER A NICE ASSORTMENT of spring pigs, either sex, at reasonable prices. Some good June pigs for sale. Inquire
ROY HORSFALL **Mt. Hope, Wis.**
"Grant County."

Introducing Orion Cherry Col.

SIRED BY WALT'S TOP COL., dam by Orion Cherry King, an excellent Duroc herd boar, and a great pedigree. Fall pigs for sale.
RUNDE BROS. **Cuba City, Wis.**

The Draft Necessitates
A SACRIFICE

DUROC HERD BOARS FOR SALE—Illustrator Special (yearling) by Prince Illustrator, dam by Col. Gano. Price $125 and shipped on approval. Also ROYAL TOP COL., GRAND MODEL 21ST and a big yearling by Lincoln Model. Each boar is a good breeder as our stuff will show. All young boars and guaranteed. YOU don't take any chance when you buy a tried sire. Write for details.
GEO. D. SPRAIN & SONS **West Salem, Wis.**

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR **Viroqua, Wis.**

DUROC BOARS

SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Priced right.
PHILLIPS BROS. **Delavan, Wis.**

ORION COL. S., COL. S. Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
W. C. JENKINS **Bangor, Wis.**

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: **Brodhead, Wis.**

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS **POYNETTE, WIS.**

DUROC BOARS

BIG, RUGGED FELLOWS, bred right and priced right. Yearling son of KING DEFENDER (600 lbs.) for sale. Write me.
FLOYD SELCK :: **Hanover, Wis.**

Durocs on Approval

WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES **Viola, Wis.**

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER **Baraboo, Wis.**

SHORT-HORN CATTLE.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: **Janesville, Wis.**

HARVEY H. LITTLE
CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE **Evansville, Wis.**

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. **Milton Jct., Wis.**

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF **R. 19, Burlington, Wis.**

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS **Fox Lake, Wis.**

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON **BEAVER DAM, WIS.**

BLODGETT
Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT **MARSHFIELD, WIS**

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac** 174243. Sire **King Pontiac Champion**, Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**
ORRIN HAKE **Jefferson, Wis.**

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON **Fox Lake, Wis.**

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

SHORT-HORNS

OF EITHER SEX, sired by or bred to PRIZE-WINNING SCOTCH BULLS. Our cows have SIZE and are great milkers. A large herd. Write
W. J. BERND **New Richmond, Wis.**

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

ABERDEEN ANGUS CATTLE.

RAISE
BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

CHESTER WHITE SWINE.

BOARS! BOARS! BOARS!

30 CHESTER WHITE boars to sell in 30 days. Priced to sell and sell quickly. Simply write us and describe what you want—the boar must fill the bill. Remember, no herd of the Northwest has produced more champions. We solicit your business.
EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. **Wykoff, Minn.**

Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON **Viola, Wis.**

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX **R. 3, Spring Green, Wis.**

RAINY DAY

BY OALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
WALTER GEORGE **Evansville, Wis.**

FROSTS' BIG-TYPE O. I. C.'S

200 SUMMER and fall pigs, the kind that won us 86 prizes at five state fairs. Boars, pairs or trios, no kin. Registered free and priced to sell. Address
S. D. & B. H. FROST **R. 2L, Kingston, Mo.**

HAVE A FINE LOT

OF SPRING GILTS that I will sell at $30 and $35 for the best. Also have a fine lot of fall pigs that are old enough to ship, either male or female, at $20 each.
A. L. GRAY **Mt. Hope, Wis.**

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN **West Salem, Wis.**

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN **Bloom City, Wis.**
(Shipping point, Viola.)

CHESTER WHITES

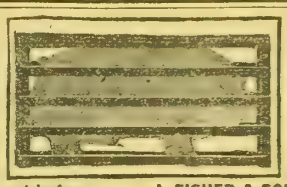
40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.
L. A. SCHULTZ **R. 1, Poynette, Wis.**

J. A. DOERR
VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. Q. HOSKINS **Dodgeville, Wis.**
Mile west of town.



CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalogfree.
Box 13 **J. FISHER & SON** **Eastman, Wis.**

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK **Evansville, Wis.**

Schoolmaster, Chief Keokuk, Crandell's Wonder Chesters

GILTS AND BOARS of the above breeding for sale, guaranteed to please YOU. All I want is a trial. Write me.
WM. C. KIRST **Tomah, Wis.**

CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet,** a junior yearling half brother of **Prince Again,** the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson,** a son of **Royal Blood.** Also March and April gilts sired by **Guy's Comet,** and grand champion boar, **Perfect Prince.** Wm. C. Scheibe, Burlington, Wis.

OAK GROVE CHESTERS

BOARS good enough to ship on approval. I have just purchased a grandson of CHIEF KEOKUK out of a HIGHLAND CHIEF dam. Gilts will be bred to this boar and shipped later. Let me quote prices. **A. L. KIRST, Tomah, Wisconsin.**

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

Winchester Model 12.
Hammerless Shotgun.

Why more duck hunters choose this model than any other

If there's ever a place where you need a gun that's a hundred per cent reliable, it's when you're down in the damp salt marshes after duck.

Whatever gun you may start with, if you keep on long enough, you will come around to the Winchester No. 12 Repeater. It is the favorite in the long run with old duck shooters.

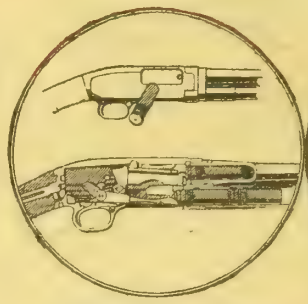
In the damp salt air of the seashore and swamps this gun never "gums." Under the most severe conditions it is a sure-fire, sure-to-work Repeater. It will not jam, catch, or fail to extract the empty shell. It "feels" right, "comes up" right, and *is* right. It works smoothly in whatever position it is held.

At the distance at which you get most chances at ducks, this gun shoots an effective uniform pattern of great game-getting penetration.

The pattern that brings down the game

The remarkable game-getting pattern of the Winchester Model 12 (or the Model 97 for those who prefer a hammer gun) shooting its own standard ammunition, is the result of infinite care taken in boring the barrel.

The right amount of choke for different loads has been worked out after exhaustive experiment. Result: a pattern that spreads out evenly — neither too scattered nor too bunched—and lands with lots of steam behind it.



Quick feeder, sure ejector. Throws empty shell to the side, out of your way.

Even spread, maximum penetration, Winchester shot pattern brings down the game.

The barrel *is* the gun

Men who know guns realize that the accuracy and durability of a gun lie in the barrel. On the quality of the barrel depends the quality of the gun. There is absolutely no difference in the standard of quality of the barrel on the highest and lowest priced Winchester guns. With Winchester the barrel *is* the gun and the single standard of quality has been attained only by the most unremitting attention to the boring, finishing and testing of the barrel.

The Winchester barrel

The barrel of the Winchester Model 12 has been bored to micrometer measurements for the pattern it is meant to make. The degree of choke exactly offsets the tendency of the shot to spread. Until its pattern proves up to Winchester standard, the gun cannot leave the factory. The Nickel Steel construction preserves the original accuracy forever. The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that, with proper care, will last a lifetime.

For those who prefer a hammer action shotgun, we have made the Model 97. It is built on similar lines to the Model 12, but with hammer action.

What (P W) means

This mark on the barrel means *Viewed and Proved Winchester.* This stamp stands for Winchester's guarantee of quality, with fifty years of the best gun-making reputation behind it.

Every gun that bears the name "Winchester" and that is marked with the Winchester Viewed and Proved stamp has been fired many times for smooth action and accuracy, and has been fired with excess loads for strength.

At every stage of Winchester manufacture, machine production is supplemented by human craftsmanship. It is a *test and adjustment process.*

It is this care in manufacturing that has produced in the Model 12 and Model 97 guns of unsurpassed game-getting qualities that have won the name of "The Perfect Repeaters" among duck hunters.

Write for details of Winchester shotguns, rifles and ammunition

The Winchester catalog is an encyclopedia on shotguns, rifles and ammunition. Every hunter should have one. It gives detailed specifications of the Model 12 and Model 97, and describes at length the principles on which every one of the world famous Winchester shotguns and rifles is built. Write today. We will mail you a copy free, postpaid.

WINCHESTER REPEATING ARMS CO.
DEPT. W X-3 NEW HAVEN, CONN.

HOME DEFENSE LEAGUES!

We have a Winchester for Country and Home Defense Leagues which is meeting with universal approval. Many Home Defense Leagues throughout the United States have already been equipped with this gun.

Winchester Model 97 Hammer Shotgun

Take-down Repeating Shotgun. Made in 12 gauge, weight about 7¼ lbs.; in 16 gauge, weight about 7¼ lbs. The favorite with shooters who prefer a slide forearm repeating shotgun with a hammer.

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World Standard Guns and Ammunition

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 45. THURSDAY, NOVEMBER 8, 1917. WHOLE NO. 1867

Wisconsin Needs Millions of Sheep.

National Wool Growers Co-operating With Wisconsin and Michigan Organizations Hope to Increase Live Stock on Millions of Wisconsin Acres.

A DETERMINED effort is being made to increase the production of sheep in Wisconsin and especially in that large area representing many millions of acres north of the line drawn east and west through the center of the state. In a general way this area is spoken of as upper Wisconsin, but the territory in which sheep raising may be profitable embraces even more than the so-called cutover lands. The first stimulus to greater sheep and wool production in Wisconsin came as a result of a conference held in Chicago in September when representatives of all of the lake states discussed the possibilities of sheep raising. This was followed by another conference, October 10th, at Menominee, Mich., which is directly across the river from Marinette, Wis. The third step in the campaign is to be taken at a meeting to be held at the Hotel Pfister, Milwaukee, Wis., Thursday, November 22d, and at this meeting there will be representatives from many upper and central Wisconsin counties and also from counties in the upper peninsula of Michigan.

In speaking of the possibilities of sheep raising in upper Wisconsin and upper Michigan, Mr. F. J. Hagenbarth, of Salt Lake City, president of the National Wool Growers' Association, after a week's inspection trip in this territory, stated at the Menominee meeting that Wisconsin and upper Michigan still have undeveloped some of the greatest sheep and live stock lands in the world. It is a well-known fact that the best stock and the best wool are grown in the colder countries. Sheep and cattle deteriorate in the warmer countries and this explains why Texas and other southern states send beef north to be invigorated and fattened.

Mr. Hagenbarth says that it is a mistake to think that the sixteen million acres of land in upper Wisconsin and Michigan, suitable for grazing, can never really become much of a corn country and he further believes that wheat is an uncertain crop. But when it comes to live stock these grazing lands offer no uncertainty and if the settler or farmer will put on an average of one and one-half sheep to an acre on half of the available land, with cattle in the low-lying tamarack swamps, this territory can easily take care of eight million sheep and upwards of a million head of cattle. This would create an asset in this territory of $150,000,000, on lands which today are not producing anything to speak of. What a wonderful opportunity to assist our government in these times of food shortage and what a tremendous opportunity for the undeveloped territory to not only add to its valuation, but also to add something like $100,000,000 annually to its gross earnings.

The question which naturally arises in the minds of those who are debating the question of putting sheep or other live stock on upper Wisconsin lands is whether or not the present demands are abnormal and whether profits would be reasonably assured following the stress of war times. This question is ably answered by Mr. Hagenbarth, who points to the fact that live stock is the salvation of agricultural countries. It has built up the British Isles and made Germany powerful. When live stock passes away from a country farm production passes also. According to Mr. Hagenbarth, sheep are much better than cattle as an investment. The returns from sheep, he says, are two to one on cattle on an area suitable for both. Sheep are more easily handled and furnish two crops, namely, wool and mutton. In America, today, there is a shortage of from 60 to 70 per cent of the wool needed for home consumption, to say nothing of what we could sell abroad if we had it. Under normal conditions the United States consumes 600,000,000 pounds of wool, and at the present we are producing a little less than one-half that amount. A great portion of the shortage could be produced in upper Wisconsin and Michigan.

SHEEP WILL THRIVE BETTER THAN ANY OTHER LIVE STOCK ON LAND OF THIS CHARACTER.

Following his tour of inspection and investigation of the availability of upper Wisconsin for live stock, Mr. Hagenbarth announced that our proposition is one of simple arithmetic. We know the rain shortage which exists in the West today. We know that stock must be taken to some new and suitable lands. It is well known that there is a surplus of breeding ewes available. Many old ewes, unable to cope with the outdoor rigors of winter in the West, can be had for Wisconsin farmers where they can be housed and fed during the winter where they will enjoy several years of usefulness. To try and develop a corn belt would be a mistake. Why not seize the absolute knowledge you have that Nature intended this to be the greatest sheep and cattle country in the world? Get right up close to the United States Department of Agriculture after you have formed yourselves into a harmonious organization here at home. According to Mr. Hagenbarth, the Department of Agriculture should be called upon to at once aid in placing ten million sheep in Wisconsin and Michigan. This will require raising $50,000 to $60,000 each year for five years. But the wool manufacturers of the country are interested, the packers of the country are interested, the lumber and land companies will help and so will the railroads. Strictly business principles should be adopted and it is Mr. Hagenbarth's advice that upper Wisconsin and upper Michigan go into this business on a large scale.

In suggesting the carrying out of these plans, Mr. Hagenbarth believes it would be wise to form development committees to make contracts with the present growers of sheep. Two or three men, competent to judge, should be sent into the West with power to buy. Some arrangement could be effected whereby the breeders could be offered free use of Wisconsin and Michigan land for three years, charged only taxes for the next two years and after that have an arrangement to begin paying the principal and interest. Such an offer should be an inducement to newcomers and would help to finance the settler who has little funds to put into land. Some arrangements must be made so that the settler can have money for development work. Mr. Hagenbarth suggests the organization of live stock loan companies to advance money for the purchase of sheep and cattle and take a chattel mortgage for protection. There are thousands of men in the West, sons of western cattlemen and sheep men, who will be glad to go into Wisconsin and take advantage of the right kind of opportunities. It will take the newcomers two or three years to arrange to take care of their sheep with hay from their own farms and some plan will have to be worked out to guarantee a settler a sufficient supply of winter hay at a fair price. It is not the idea of those connected

with this plan to enlarge the sheep industry that the work should be turned over to inexperienced settlers. On the contrary, they hope to interest men of wide experience and experiment station workers who have given the subject of sheep raising plenty of thought and attention. In connection with the campaign now in progress The Wisconsin Farmer has the privilege to publish some information on this subject furnished by F. J. Hogoboom, manager of the O. B. Parhan & Company sheep ranch at Westboro, Wisconsin, which throws some light on the cost of going into the sheep business:

A good two year old ewe will pay 20 per cent interest on $50 and I am selling them for $15. Our sheep sheared $5 worth of wool this year and they have lambs at side that are worth from $10 to $12 each and I have some that weigh $15 worth and they are running on $20 land and when it gets all grazed over well it will carry four ewes and their lambs to the acre and at that rate $20 land will pay $40 per acre per annum, and as to land clearing there is nothing that can beat them.

We have been here three years and we have about 800 acres cut off and the sheep have kept it sprouted so perfectly that the roots are entirely dead and anyone can come and see for themselves and need not take my word for it. I figure that 500 sheep are equal to a $40 man and keep the man mowing brush all summer and when the sheep get through the brush is killed and the man can commence the next summer where he commenced the summer before. In this manner a man can handle northern Wisconsin land and make money besides clearing his land. We have made money every summer here on this Westboro ranch and I suppose we have as rough a ranch as you will find anywhere in the state. I don't know of much more of importance and they need not take anybody's word for this; they can come and I will show them.

G. M. Mashek, residing about sixty miles from Marinette, Wisconsin, claims that new cut-over lands will support two or three ewes and their lambs per acre and that after it has been pastured for several years it will carry five or six of their lambs per acre. He places the cost of winter feed in the average Upper Wisconsin country at from $2 to $2.50 and says that lambs turned off clover pastures from cut-over lands will sell at the Chicago stockyards as grain-fed lambs. Mr. Mashek advises starting with western ewes and says that sheep will develop into better quality in the second and third year. In fact, sheep in the Great Lakes countries are always better two or three years after the original flock is brought from the West. Mr. Mashek had trouble with stomach worms in his herd of sheep imported to Wisconsin, but he says that the best proof he can have that the cut-over lands are free from this disease is that about six months later the disease had entirely disappeared. The impression that the old timber lands of Wisconsin are exceedingly cold in winter is erroneous. Those who have experimented with sheep both in Wisconsin and the western range country find that the losses are much less in Wisconsin. The sheep make their best gains after the first frost and until there is two or three inches of snow on the ground. Furthermore, this snow preserves the pasture and makes early feed in the spring. Before engaging in farming in Wisconsin Mr. Mashek worked out a set of figures indicating what the food production on various lines should be and he says his hopes and profits came nearer being realized in the sheep business than any other form of farming he attempted.

In and Around Wisconsin

Mr. J. J. Garland, formerly emergency food agent of Calumet county, has been appointed assistant emergency administration leader for the northern part of Wisconsin and will make his home for the present at Antigo.

Inspectors of the plumbing division, Wisconsin State Board of Health, report that farmers are greatly interested in sewage disposal plants. In three months the department responded to requests from 204 farmers for blueprints for sewage disposal plants.

Three Wisconsin men won prizes in the Bradley Knitting Company Sheep Club work, organized by this well-known concern located at Delavan, Wisconsin. C. Merrill, Hilbert, Wisconsin, was one of the grand prize winners. Ralph E. Crosby, of Belmont, and Thilo Boesch, of Mauston, Wisconsin, were also prize winners.

The Mike Reik farm, three and a half miles north of Hartford, Wisconsin, recently sold for $200 an acre, the total consideration being $28,000. This 140-acre farm is tillable except fifteen acres of heavy timber. There is a dairy barn 35x111 feet, one of the largest in the county. The farm was purchased by Rudolph Troller, who had been a tenant up to this year.

Mr. Herbert Hoover, national food administrator, has sent to prominent persons in districts where sugar beets are raised the following letter:

One of the most vital problems confronting this nation is that of procuring sufficient sugar to meet the requirements of our people and of the allied nations fighting our common battle. The production of cane sugar in this hemisphere can and will be increased to a limited degree. But we must rely upon the farmers in sugar beet producing sections of the country for a part of the needed supply. I, therefore, earnestly appeal to every farmer, so situated, to come to his country's aid in this hour of need. Without the coöperation of the American beet grower our task will be very difficult and our ability to respond to the calls to be made upon us for this very essential commodity will be curtailed. It is at least the duty of every beet grower to maintain in 1918 his normal acreage of sugar beets. It is his privilege to increase that acreage to the extent that a well-balanced production of crops will permit, and in this manner effectively demonstrate his patriotism.

It is estimated that Wisconsin increased its sugar beet production this year from 25,000 tons to 30,000 tons and those who engaged in the raising of beets made good profits.

The Green Lake Junior Poultry and Garden Club show was held at Green Lake, Friday, October 14th, in the high school building, under the direction of H. G. Brown, principal. T. L. Bewick, of Madison, was the chief speaker. There was a good display of birds and a fine garden display.

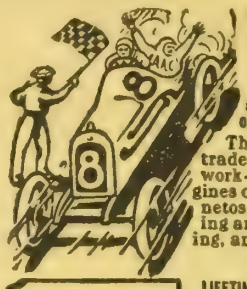
The Thirteenth Annual Poultry Show will be held at Oconomowoc, Wisconsin, December 12th to 16th. The judges will be W. E. Stanfield, Hillsdale, Michigan; D. E. Hale, Chicago; Harlo J. Fiske, Oconomowoc, and Clyde Terrill, of Oshkosh. The tenth annual poultry show will be held at Watertown, December 4th to 9th. Geo. W. Hackett, of North Freedom, Wisconsin, will be judge. Arrangements have been made to ship the birds direct from the show at Watertown to Oconomowoc.

The Racine and Kenosha county convention of the American Society of Equity was recnty held at Union Grove and support was pledged to the milk producers' association in defending their rights in court. Committees were selected for the purpose of forwarding farm products direct to the consumer at Milwaukee, these committees being selected by Mayor Hoam to sell the products to the consumers. Under the arrangement which is being worked out the consumer will pay no middlemen's charges and the only cost added to the farmers' charges will be freight and cartage.

The report which comes to us from Waukesha county does not look very much like the farmer is a slacker in buying liberty bonds. At pleasant Valley Farms and Spring Brook creameries in the town of Genesee $13,150 was subscribed to the second liberty loan and two-thirds of it paid in cash. These farmers subscribed $1,100 to the recent Red Cross campaign. The subscriptions run from $50 to $5,000, the largest subscription being made by Robert G. Morey, manager of the farms. A committee in Sheboygan county sold bonds in one day to ninety-eight farmers aggregating $10,350. This does not represent the amount taken by the farmers in the neighborhoods passed through, as many of them had already subscribed through local banks.

Our readers should not take chances on marketing stale eggs. A farmer in Portage county the other day disposed of a supply of eggs and was just in the act of accepting his money when a stranger, who had been an interested spectator, walked up and said that he intended to examine the eggs. It was discovered that this stranger was Geo. H. Eigenberger, inspector for the state food and dairy department. He examined a number of the eggs with a candle device and found 3½ per cent of them rotten. The farmer thereupon was escorted to the county judge who assessed against him $28.71 in fines and cost.

The fifteenth annual report of the Wisconsin Agricultural Experiment Association and the fifth annual report of the Alfalfa Order have been issued, compiled by R. A. Moore, secretary, and are ready for distribution to the members. This report contains addresses at the meeting at Madison last winter and reports of the experiment station work for the year 1916. Also gives a list of members of the experiment association and premium winners at the 1917 pure-bred grain show held at Madison in February.



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The Wisconsin Farmer

THURSDAY, NOVEMBER 8, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

LONGING FOR THE OLD WISCONSIN FARM.

I AM always glad to be all the help I can to readers of The Wisconsin Farmer. I consider that to be one of the duties and prerogatives of a publisher. If I have or can gain access to any information which will make my readers better farmers or which will advance Wisconsin agriculture to a still higher plane, I can assure you that I am yours to command. So far as lies in my power, no letter of inquiry will go unanswered.

With this brief introduction I want to present to you, this week, a letter which shows not only the manner in which I am called upon to render assistance, but the extent to which the minds of men in other callings and professions turn to farming, the eagerness of other workers to drop the tools of their craft in town or city and take up the plow and the fork out in the open country. Possibly there may be some here in "the family circle" who dream of the time when they can quit the farm for the city, leave farming for some other occupation. Let me show them how one reader of The Wisconsin Farmer longs for the good old days to return, when he was a farmer, and how he is taking advantage of every possible agency to get him back from the schoolroom to the great outdoor school of agriculture. This letter comes to me from a teacher:

Office of the Stephen Public Schools, C. L. Yule, director of agriculture, Stephen, Minn., October 22, 1917. Mr. James M. Pierce, publisher Wisconsin Farmer, Madison, Wis. Dear Mr. Pierce: You may wonder why I am writing you, a Wisconsin editor, from a far northern Minnesota town, but briefly, I am a Wisconsin man, born and raised on a west central Wisconsin farm and a graduate of the University of Wisconsin long course in agriculture. Teaching since 1914 has led me to this state. Now I wish to leave the teaching field and go back to farming. I would like some personal advice as to the borrowing of money through the federal farm land banks or elsewhere.

To state the case briefly: The land, sixty acres, which I wish to buy is located in Eau Claire county, is the best of clay loam, on good roads and with good markets and other features as to surroundings. All the outbuildings are usable, but the house is not much to mention. The land is worth about $100 an acre. Now, like many other men on a salary, I have been able to save little in town, with a small family. I expect to have cash to buy a team and the machinery, with possibly some stock, but not enough to pay for the land and houses. How much money could I borrow on the sixty acres, of $6,000 value? Could any additional money be secured for the purpose of erecting a house; that is, could the house be used as security? I am thinking especially of the long term whereby the interest and principal can be paid off together.

You may question the advisability of this course, but to be frank, I see no future in teaching. I admit also a desire to own something and gradually to build up a home. I do not fear the attempt, as to being able to apply myself, as I have been mostly on a farm; rented and worked this farm I want to buy four years previous to my university work, and in fact I went to the university to learn more about farming, live stock especially. What do you advise? C. L. YULE.

I wrote Mr. Yule a long letter, advising him to give up teaching and to return to farming, if that is where his heart leads him, for he has had the necessary experience and he will never be tempted away from the land again. I told him we would all welcome him back to Wisconsin; that The Wisconsin Farmer would do anything and everything it could to help him succeed. Then I told him about the workings of the federal farm loan law; how he must join with at least nine other farmers to form a borrowing association and must subscribe for 5 per cent of the amount of the loan he wished to make; how he could obtain as much as 50 per cent of the appraised valuation of the land ($3,000 in his case, probably) plus 20 per cent of the appraised valuation of the permanent, insured improvements thereon; and so on and on. All this took some time, but I was only too glad to render the service. We need men like Mr. Yule here in our state; men who have come to realize that farming is the most useful, honorable and satisfying of all professions; men who will stick to it, because they have learned that nothing else will give equal returns, in dollars and cents, and the satisfaction of doing good and necessary work.

I hope to be able to report, some time in the near future, that Mr. Yule has arranged the necessary loan, that he is again "one of us," back home in the Badger state. We have advanced a long way here in Wisconsin, but there still remains much to do. Production must be increased, farming conditions must be made still higher. It is men with brains and experience, such as this one, who will make our great state still greater.

ARMY CAMPS IN THE GRAIN BELT.

A SUBSCRIBER writes to ask me how many national army camps there are now in the grain belt, and where they are located. I take great pleasure in giving the information. Altogether, we have five such camps here in the Middle West, a large proportion of the soldiers there quartered being farm boys. Their location, names, and the states from which their troops come are as follows:

Camp Custer, Battle Creek, Mich.; soldiers from Michigan and part of Wisconsin.
Camp Dodge, Des Moines, Iowa; soldiers from Minnesota, Iowa, North Dakota and part of Illinois.
Camp Grant, Rockford, Ill.; soldiers from part of Wisconsin and part of Illinois.
Camp Funston, Fort Riley, Kan.; soldiers from Kansas, Missouri, Nebraska and South Dakota.
Camp Pike, Little Rock, Ark.; soldiers from Arkansas, as well as Louisiana, Mississippi and part of Alabama.

In addition to these five national army cantonments actually in the grain belt, companies of grain-belt soldiers have been sent to similar camps elsewhere. Thus, for instance, some of the Illinois troops are quartered at Camp Taylor, Louisville, as well as at Camp Grant and Camp Dodge; and the Oklahoma troops are quartered at Camp Travis, San Antonio, Texas.

All of the state guards have been sent from the grain belt to the South by this time, so that they can carry on intensive military training throughout the entire winter, without cessation because of blizzards or cold weather. I am printing the location of the troops in the national guard from the grain belt, for the convenience of my readers. These camps are altogether different from the ones in which the national, or conscript, army is located, as I named them above. The national guard troops from the grain-belt states are now quartered as follows:

Wisconsin guards at Camp McArthur, Waco, Texas.
Iowa guards at Camp Cody, Deming, N. M.
Illinois guards at Camp Logan, Houston, Texas.
Minnesota guards at Camp Cody, Deming, N. M.
Missouri guards at Camp Doniphan, Fort Sill, Okla.
Nebraska guards at Camp Cody, Deming, N. M.
South Dakota guards at Camp Cody, Deming, N. M., and Camp Greene, Charlotte, N. C.
North Dakota guards at Camp Greene, Charlotte, N. C.
Oklahoma guards at Camp Bowie, Fort Worth, Texas.
Kansas guards at Camp Doniphan, Fort Sill, Okla.
Arkansas guards at Camp Beauregard, Alexandria, La.

The grain belt has supplied its quota to all branches of Uncle Sam's fighting forces in magnificent manner. Over near Chicago, at the Great Lakes training station, are many farm boys learning to be sailors and marines. It is really surprising to me the manner in which our inland and fresh-water boys turn to the salt seas for their service. The navy is very popular in this part of the country.

We have done much in the last few months to disprove the charge that the Middle West is not awake to the seriousness or the need of the moment. The boys have gone from our farms literally by the thousands. Some of them are in our grain-belt camps yet; others in the South; others at camps on Long Island; others already in the trenches of northern France. But wherever they are, one thing is sure: They are our boys still, they are fighting the good fight, and we have splendid reason to be proud of them. Many a farm boy will be a hero, whose name will live long in history, before this awful war is at an end. Let us pray for their safe return and that the God of Battles will look after them as they go from our peaceful farms to fight for Uncle Sam and world-wide democracy.

SAVING FOOD IN WAR TIMES.

I AM in receipt of a splendid letter from Mr. H. C. McLean, R. F. D. 4, Marshalltown, Iowa, which not only presents a timely subject, but takes me back to my boyhood days and causes a host of memories to arise in my mind. Mr. McLean informs me that his education was obtained in a log schoolhouse, in Michigan, "in the fifties." My own was obtained in a log schoolhouse (the old Oak Grove school) in Ohio about the same time, so that I know exactly under what conditions he struggled. He writes a wonderfully good and clear hand and has the faculty of expressing himself plainly and pointedly. Perhaps, after all, the old log house education was as good—so far as it went—as any to be obtained nowadays in the most modern consolidated school. But that was not what I started out to say. I guess I can do no better than to introduce the subject by quoting a portion of Mr. McLean's letter to me, as follows:

Dear Mr. Pierce: What I want to write about is this, for the benefit of farmers and others: I have a small gas engine and small mill that does its own sifting, and I have been grinding my own wheat and what we call whole wheat flour, only the coarse bran is sifted out so we get what we call brown flour, and make bread, biscuit, breakfast food or mush and good pancakes. We have been living on this for nine years. I sell some flour to others, some in town. I live on my farm and we all have much better health than when we lived on fine flour with its adulterations, as there is but little else left in it but starch, and that is too much like paste and is said to be the predominating cause of so many operations and other diseases. I can make forty-two pounds of brown flour from sixty pounds of wheat. I think that is about ten pounds more than is made in fine flour, so there is a saving in wheat as the government wants to do. I can make a good quality of corn meal, also oat meal or flour, also barley and rye and buckwheat flour. If we would use more of these it would be another saving of wheat, as the government wants, and we would have better health. In civil war time mother had me browning barley for coffee and grinding it in the old mill between my knees because of high prices. I do it now in my power mill. It is an iron mill. Browned barley is a good substitute for coffee alone or mixed with coffee. I can grind chop feed or chicken feed. Nearly all the farmers in the corn belt have gas engines and can do as I do, and their health would be much better.

Nothing could be more timely than what Mr. McLean suggests. It is every bit as important to save foodstuff as it is to raise it. If we squander that which we have, even in abundance, we shall come to want in due time. The growing season on our grain farms is at an end; but the saving season has just begun. If we can obtain good, wholesome, nourishing, satisfying substitutes for our former articles of diet, and so increase the quantities of foodstuff to send abroad to our allies and to feed our own soldiers, we shall be doing our bit to "save the world for democracy" and to bring the war to an early conclusion. I have felt for a long time that the war may have at least one good result, regardless of how and when it terminates; it will end a great many of our useless and unjustified extravagances. We have become pampered by prosperity, spoiled by a sufficiency which has made us crave luxuries which we would be better without. I am sure that there are many articles of diet of the days gone by which would be better for all of us than some of the highly-seasoned, indigestible dishes which adorn our tables today. Mr. McLean has shown us how it is possible for us to save money and wheat and, incidentally, indigestion and doctor's bills.

His letter made me think very strongly of my own boyhood days, back in Ohio. During the civil war my mother gave us children (dependent upon her after my father met an untimely death fighting for the stars and stripes in the southland) foods at once palatable and appetizing, at which many of the younger generation of today would scoff, were not necessity to bring them to our tables again. I can recall, vividly and not unpleasantly, the "war bread" which we ate in those days, made of wheat (ground at the near-by mill) of corn meal and of potatoes. I am glad, indeed, that the government officials have found it worth while to publish many recipes telling how to make "potato bread." I have printed several of these in the Home Department of this paper within the last few weeks. If my readers did not see or save them, I will be only too glad to send them copies. But we need not stop with this. Mr. McLean tells of browning barley for a coffee substitute. My sainted mother browned rye for a coffee substitute, and a really palatable drink it made, too. Many a man or woman with a "coffee heart" could use these substitutes to their advantage, whether we have war or peace.

Let us help win the war by saving food, as well as producing it. Let us build ourselves up to the top notch of physical vigor by dispensing with the foods which are not good for us and using those which are nourishing and conducive to bodily and mental strength. We can learn many lessons from the war, even in the peace and quietness of the farm home. This one of saving food is far from the least of them.

LEND A HAND.

I DO not want to preach, I just want to talk a few minutes, on no particular text and with no certain end in view, but simply to tell you of a couple of incidents which have come under my

(Concluded on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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November and December Milk Prices.

Directors of the Milk Producers' Association for the Chicago district, who met at the Morrison Hotel in Chicago last Saturday, agreed to accept $3.22 for 100 pounds of milk during November and December. This is a reduction of 20 cents per hundred pounds from the October schedule. The new price is a compromise and a part of the agreement is that the dealers will furnish milk in the city of Chicago at 12 cents per quart until January 1st. Both sides made considerable concession. The milk producers were asking $3.71 as a minimum price for November.

Out of the fifty-nine directors who were present at the meeting, representing milk producers' associations, only four refused to stand and by so doing vote for the $3.22 price. One of these said that a thousand cows have been sold during the last week in his district and that the new low price means that many more will be sold.

The price agreed upon is lower than was expected. The Wisconsin commission, appointed by Governor Philipp, had, we are advised, agreed upon a somewhat higher price, but were holding their decision awaiting the outcome of the conference at Chicago last Saturday.

There seems now to be no doubt that the $3.22 per hundredweight price will stick for November and December. At least the farmer milk producers seem inclined to give it a fair trial. No one claims that this is the true price at which milk should sell under present production costs with a fair margin of profit added for the producer. Following the conference at Chicago Mr. Harry A. Wheeler, representing the federal food administration for Illinois, said that it must be understood that farmers have, by accepting the $3.22 price, made a contribution out of their receipts. He further said that if it can be shown that they lose money by this price, they will be reimbursed. Just what this means we are unable to say at this time.

Of course, the $3.42 price for October was based on old prices for corn and new corn will not be worth what old corn is worth.

Our advice to our readers in southern Wisconsin and northern Illinois is to accept the $3.22 price with good grace. Every milk producer should have his cost system in such shape that he will be able to show at the end of the month whether he lost money and how much. The government is not going to force farmers to produce milk at a loss and by giving the $3.22 price a fair trial for two months it will be possible to establish good and sufficient evidence whether or not the government was right in forcing the price upon us.

Milk has such a great value as food, and there is such a great demand for it that we feel confident the prices will eventually be adjusted so that the dairyman will make reasonable profits. Do not be discouraged by the new price and above all things do not rush dairy cattle to the block.

Another important event of the past week affecting dairy districts was the abolition of the Elgin butter market, which has fixed butter prices, just as the board of trade has fixed corn, wheat and oats prices, and the packers have fixed meat prices. The Elgin board will not operate until after the war, and it seems very probable at this time that the board may never be reopened. The request of Herbert C. Hoover, food administrator, that the Elgin board close, was complied with promptly. Other butter boards, which, however, do not have much influence on the market, and the cheese boards are still operating.

Wisconsin Farmers Not "Hoarding" Potatoes.

E. F. Kileen, chairman of the Waushara Council of Defense, resents a recent statement by one of the pig packers that Wisconsin farmers were hoarding their potatoes. This statement was made in the Milwaukee Sentinel in an interview published October 20th. Mr. Kileen calls attention to the fact that at that time farmers had not even harvested their potatoes, but were just beginning to work day and night to try to get the crop out of the ground. In Waushara county women and children were working in the fields as well as the men. Waushara county sent about 200 of her men, who usually dig potatoes, to the front to help dig trenches. There seems to be an idea among some people that the potato farmer should harvest his crop and rush it immediately to the closest market and get what he can for it. Alas, this idea does not prevail among those who are handling sugar and coal. It has come to our attention that just a few days ago tons upon tons of sugar were found in a Buffalo, New York, warehouse and the packages were labeled, "Top Crust Flour." To further carry out the deception those who had the misleading labels placed on the packages sprinkled a little fine flour on the outside. The farmers will market their potatoes in due time and there needn't be any fear about the crops being hoarded on the farms. As a matter of fact, few farmers have any provision for hoarding any considerable amount of potatoes. Those which are now being held by farmers are in the main being placed in temporary pits in the fields. Experience of years has shown that potatoes are sold from the time they are first ready for market until about the first of April. Speculators have always tried to get hold of as large a percentage of the crop as possible in the fall. People in the cities who will need potatoes in the winter and spring may rest assured that their food supply will be freer from graft if it is stored for a time on farms instead of kept in warehouses by speculators.

Naming a New Wisconsin Senator.

Gov. Emanuel L. Philipp on October 31st issued a statement on the Wisconsin senatorial situation in part as follows:

Insomuch as the term of service of the new senator, in any event, will be less than a year, the people may save the cost in money and avoid the turmoil and bitterness that would be injected into an election at this time if the legislature will authorize the governor to fill this temporary place by appointment.

I propose to call a special session of the legislature in the near future for such legislation as is necessary to meet the war emergencies, and I shall include a recommendation in the call asking for authority to fill the vacancy that exists now in the office of United States senator by appointment.

In order to forestall the argument that will be made that I have some political advantage in mind, either for myself or some friend, I will say that if it is my privilege to make an appointment I shall select the strongest man in the state whom I can induce to take the office. He will be a man who will stand with the national government in our present crisis and not a rank partisan politician.

Personal friends have expressed the wish and political enemies have expressed the fear, that I might be a candidate in case an election were held, or, as has been suggested by a few nervous politicians, that I might by legerdemain place myself in the office if the place is filled by appointment. In reply to all such statements I wish to say that I am not a candidate for the office of United States senator and do not wish the position for myself. The people elected me governor of this state and I propose to serve out the term for which they elected me. Furthermore, it is my judgment that I may render the people a service during the balance of my term that they need, and the privilege of which I do not wish to forego.

The federal constitution provides that vacancies in the United States senatorship from any state shall be filled by election or that the legislature of that state may have the authority to temporarily fill the appointment. Our Wisconsin legislature has never as yet delegated this authority to the governor. Governor Philipp asks that in the case of the present senatorial vacancy in Wisconsin he be permitted to fill the vacancy, which means that the man who is selected would be [illegible]r United States senator until the time the appointee or some other man would be elected by the people in November, 1918. A special election, the Governor says, would cost $200,000 or more and the man chosen would represent the people for less than a year.

The governor will ask for a special session of the legislature. At the time this is written he had offered no suggestions as to whom he might appoint. But he makes it clear that he does not propose to try and get the office for himself and this does away with the rumors that he might resign and secure the appointment.

Congress meets in Washington in another month and by the time it is in session or shortly after, under the governor's plan, it will be possible for Wisconsin to be represented with two senators. This would not be possible if a primary election and a special state election were required. If the general assembly should fail to adopt Governor Philipp's plan, a special election will be necessary.

Attitude of Food Administration Toward Hog Values.

Light on the much-mooted question of hog prices is shed by the message which follows, received from Joseph P. Cotton, chief of the meat division of the United States food administration:

The main purposes of the food administration as to hogs are four: To see that the producer, at all times, can count on a fair price for his hogs so that it will be profitable to him; to see that the farmer increases the number of hogs bred; to limit the profit of the packer and middleman, and to eliminate speculation. All these purposes are necessary because we must have more hogs, so that the ultimate consumer shall at all times get an adequate supply of hogs at the lowest feasible price. We shall establish rigid control of the packer. Fair prices to the farmer for his hogs, we believe, will be brought about by the full control which the food administration has over the buying for the allies, our army and navy, the Red Cross, the Belgian relief and the neutrals, which together constitute a considerable factor in the market.

The first step is to stop the sudden break in prices paid for hogs at the central markets. These prices must become stable, so that the farmer knows where he stands and will feel justified in increasing hogs for next winter. The prices, so far as we can effect them, will not go below a minimum of about $15.50 per hundredweight for the average of the packers' droves on the Chicago market until further notice.

We have had, and shall have, the advice of a board composed of practical hog growers and experts. That board advises that the best yardstick to measure the cost of production of the hog is the cost of corn. That board further advises that the ratio of corn price to hog price on the average over a series of years has been about twelve to one (or a little less). In the past when the ratio has gone lower than twelve to one the stock of hogs in the country has decreased. When it was higher than twelve the hogs have increased. That board has given its judgment that to bring the stock of hogs back to normal under present conditions the ratio should be about thirteen. Therefore, as to the hogs farrowed next spring we will try to stabilize the price so that the farmer can count on getting, for each 100 pounds of hogs ready for the market, thirteen times the average cost per bushel of the corn fed into the hogs.

Let there be no misunderstanding of this statement. It is not a guarantee backed by money; it is not a promise by the packers; it is a statement of the intention of policy of the food administration which means to do justice to the farmer.

With this promise from a department that has been able to make good in fixing values of other products it may be accepted by stockmen with but slight misgivings that hog values above referred to will be maintained. The effect should be to greatly increase the number of sows and gilts kept for breeding purposes.

Need of More Modern Conveniences in the Home.

Some 55,000 letters were sent out by the United States Department of Agriculture some time ago to crop correspondents with the idea in mind of obtaining information so that the department might in the future be of more service to farm women. Attention had been called to the fact that the farm women had been neglected, particularly by the national department of agriculture, and with the purpose in mind of obtaining facts in the case a direct appeal was made to women themselves. Replies came in from every state dealing with the problems and perplexities that had to be met by farm women. At this time we desire to quote from one of the department's correspondents living in the state of Michigan, who writes:

A man should be taught to encourage the wife. If she works hard, let her know he appreciates it; and when she gets a pretty hat or dress, let her know he admires it. A man could do many things to help the woman in many ways, so I would say teach the men.

If there is one place where the American farmer excels it is in getting the utmost out of his wife and family. He will not coöperate, but the combined work of self, wife and family produces a living that another man earns for himself and his family. When you see that same farmer's wife washing filthy towels after the baths of those dirty hired men, you must decide that no one who realizes the value of human brain and human labor could so misuse and misapply it. The trouble with the farm woman today is briefly this: She is not boss of her own job. The farm and home, the business and home, are too near together for the man to attend to the business and leave the direction of the home to the woman. Woman's natural place is in the home, but the farmer is so close to the home, the demands of the business are insistent and the farmer so needing help that he just naturally assumes control of all. On the farm she is the partner in the expenses of the farm. She is the partner when it comes to picking berries, cucumbers, etc., and the farmer doesn't pretend to grow stuff for the cannery unless he has a wife and children who can do the picking, etc. He cannot afford to hire it done.

The woman would not mind the work so much if she were working for something she needed or wanted, but when the hard-earned chicken money saved little by little goes to buy farm seed, pay the hired men or pay for

Family Circle Talks by the Publisher

(Continued from page 3.)

observation recently, from which I believe we may obtain a good lesson. Will you kindly bear with me a few minutes?

In my mail today there came a circular letter which I would never have read—my mail being so heavy and I so busy—had it not been that at the head of the page there was a picture of a sick man, writing in bed. The circular was offering a book for sale. It went on to state that the writer of this book had been sick, in bed, for twenty years. When misfortune befell him he was fixed as many farmers are—with perhaps enough to tide him over for a few weeks, months or possibly years, if exceptionally frugal. But the day came when all that he had laid aside was gone. He was slated for the poorhouse. Then it was that the determination came to him to prove to the world that a helpless invalid might be of some use, after all. He turned to the pen for a living and has kept himself alive, paid his bills and made himself useful to the world by writing helpful, inspiring articles and books from that day to this. I do not need the book he offers me now, but I shall buy it nevertheless.

The other day I heard of another interesting case. A farmer had two sons; one enlisted in the army several months ago, the other was drafted a few weeks ago. The father might have struggled along, gathered his corn crop and pulled through the winter, had it not been that he took sick shortly after the younger boy was taken away. Word of his misfortune spread through the neighborhood; the good-hearted farmers came from far and wide to pick his corn and get things shipshape for winter. When they had finished their work they went in to say goodbye to the man they had helped. They spoke cheerily, wished him well, offered to come again if he needed them. He, poor man, was speechless; he simply turned his face toward the wall and wept like a little child. He had found friends when they were most needed, some places where least expected.

It is a good old world, after all, and there is something for every one of us to do, no matter how humble our lot, how twisted our body, how circumscribed the field of our endeavors. Another invalid in the poorhouse would have meant more taxes for you and for me, another burden on the county. Instead, we have a useful man, doing a good work, proving that the world still has need of him. A hundred acres of corn unpicked might have meant a thousand soldiers lacking food, perhaps a battle lost, perhaps the destinies of an empire changed. Who of us can tell the far-reaching effect of any act, either of omission or commission?

I started with no text, I have gotten nowhere, yet it seems to me there is something in what I have written, that there is a moral to it, after all. I shall leave it to you to seek out. The season is upon us when there are many who need aid and comfort. The heart of the farmer has always been easily touched, his sympathies quickly aroused. Is there, in your neighborhood, a man or a woman who needs a bit of encouragement because they are struggling hard, fighting the good fight when apparently all the world is against them; is there a man or a woman who needs a helping hand, perhaps "a day in harvest?" I repeat, I started with no text, I have gotten nowhere; but I shall sleep better tonight, believing you will "lend a hand" wherever it is needed, that you will speak a kindly word for hoping ears to hear; there is something for all of us to do.

James M. Pierce

fertilizer, it is what wears her out. The farm man will cheerfully purchase what he thinks she needs, but he is a man and has a man's viewpoint. The farm man may be the best man in the world, but no man on earth can see a homemaker's job from a woman's standpoint. A man cannot be a housekeeper or homemaker, especially a man who is working with broad outdoor things. He cannot see the need of time given to cleaning, etc. To his mind the house doesn't need the care that a woman feels important.

Self-expression is the longing of every human heart, and a person who does not so express himself is a failure and life is a disappointment. The farmer expresses himself in the farm. You see many a farm where there is a cement floor in the barn to which he will point with pride—the cellar in the house awful. A sheep dip, but no bathtub; a fine buggy and a poor baby carriage. The farm woman is essentially a homemaker because she is a woman. Any farm woman who had simply her own housework to do with even some little chance to earn to buy the little things which she, not her husband, considers necessary, some little time to do the fancy work to decorate her home, some little choice about the expenditure of money, would be much more contented and happy. On many farms a hundred dollars in cash are not spent in the home in a year.

If the woman's brain can be used for the less strenuous labor of doing the banking and her strength for the lighter work, all well and good, it is what should be; but many a woman is bending over the washtub while her husband drives to town for a pound of nails. The men mean all right, but they are nearer to the primitive man than any other class of people in the world, and community opinion affects them least. You can't teach them by lectures, because you can't reach them; but if a man felt that he was judged by his home rather than his farm—by his wife's appearance rather than his driving horses, the farm woman would not today be overworked.

We think these conditions (absence of labor-saving devices) exist not because the men are selfish or indifferent, but because they do not realize how much time and strength these modern conveniences would save her.

But little comment is needed on this clear, forceful letter because it so ably describes the lot of one type of farm woman. Where there is neglect of the home and its affairs we believe it is in the main not due to selfishness or to indifference, but to the fact that those engaged in the farm work do not in many cases appreciate the real and pressing needs of the home. Many of our readers might find that the mere reproduction of this letter in The Homestead will in itself bring about a much-longed-for improved condition in the home. If it gives offense the individual who is offended concedes his own guilt there and then. We believe that the perusal of this letter will in due time work vast changes in the home environment of many Homestead readers.

Attend Wisconsin Potato Convention and Show.

The program of the sixth annual convention and show of the Wisconsin Potato Growers' Association, which will be held at Madison, Wisconsin, November 19th to 24th, has come to the editor's desk. The purpose of locating this convention in south-central Wisconsin, away from the commercial potato districts, is to interest a large number of farmers in the southern section of the state in a standard variety of market potatoes, in the modern methods of seed selection, seed treatment, cultivation, spraying and marketing. In our orchard and garden department this week some facts concerning the program, speakers and other features will be found. Our best word to farmers of southern Wisconsin is that they should take advantage of this splendid opportunity to learn some new things about the potato business. We have been growing hundreds of varieties of potatoes for a number of years in southern Wisconsin. In fact, there have been so many varieties that in most cases we really don't know what we have been raising. But our neighbors in central and upper Wisconsin have standardized the potato business and as a result they have a splendid market for the well-known varieties in which they are specializing. It is not to be expected that southern Wisconsin will become a potato country, and doubtless a county like Waupaca, for instance, will always lead in potato production over our southern dairy counties, but potatoes can be raised for market with profit in the southern portion of the state. It is just as easy to raise better potatoes and conform more nearly to what the market demands in potatoes, and by so doing get a better price. Pointers on these phases of the business and displays of equipment with addresses by the most prominent potato growers and specialists in the country will help to make the Madison program very enjoyable and profitable.

Conserve the Barnyard Manure.

It is a regrettable fact that very poor care is taken of that valuable by-product on the farm—manure. While no argument is needed to convince any intelligent farmer that barnyard manure is valuable, one cannot escape the conclusion that too little is known concerning the loss of fertility that takes place when manure undergoes fermentation while exposed to the leaching effect of rains. It is difficult to place a definite and exact value on a ton of well-preserved stable manure, but if we consider its content of plant food as having the same value as a like quantity of these elements in commercial fertilizer, its value is pretty high at the present time—about $4.50 per ton. There is another way of determining its value and that is by observing the increase in crop production due to a dressing of manure. On that basis it has a value of approximately $2.50 per ton when normal crop prices obtain

At the Ohio station, for example, wheat under continuous culture produced 11.85 bushels per acre this year, while wheat on similar land under a five-year system of rotation with the application of five tons of manure per acre produced 33.79 bushels—a difference in favor of the manure of 4.4 bushels per ton applied. At $2 a bushel for the wheat this gave the manure an exceedingly high value. In another field eight tons of manure applied to the 1917 crop, in a rotation of corn, oats, wheat and clover and timothy for two years, gave 37.46 bushels per acre as compared with 12.82 bushels under continuous culture without the addition of fertilizer of any kind. Here, then, there was a gain of 3.1 bushels per ton of manure applied. In still another field where eight tons of manure was applied per acre for wheat in a rotation of potatoes, wheat and clover, the yield was 50.79 bushels per acre as compared with 34.66 bushels in a similar rotation without manure. Here there was an increase of two bushels per acre due to the manure. In this latter case the same rotation of crops was followed in both fields, so the increase in the wheat yield was due entirely to the manure added. However, the wheat crop did not get all the value out of the manure, as it is a well-known fact that the effect of a dressing of eight tons of barnyard manure will be noticed on several successive crops.

Moisture conditions were very favorable at the Ohio station this year, which accounts for the exceedingly good showing made by the manured plots referred to. One should not expect to find quite such marked results every year, but the fact remains that manure is an exceedingly valuable farm product and it ought to be better taken care of than is usually the case.

The ideal way to handle manure so far as saving all its plant food is concerned is to spread it on the soil from day to day as it is produced, provided, of course, the land is reasonably level. When this is done losses due to fermentation and leaching are reduced to a minimum. On the great majority of farms this method is not practicable except during a part of the year. For this reason it becomes necessary to store the manure on most farms for a time, at least, and then haul it out when convenient. When it is allowed to lie exposed to the air in a layer over the barnyard, especially through the spring and summer months, the loss of fertility is amazingly large.

The Health of the Hog.

No farm animal can convert farm feedstuffs into flesh and fat as quickly as the hog and it is because of the mortgage lifter's past record in this regard that he is now looked to as the dominant source of the world's supply of fat. Mr. Hoover is, therefore, displaying wisdom when he appeals to the swine raisers of the country to speed up their record in the production of hogs. So far as this year's supply of bacon, hams, sides, shoulders and fat is concerned there is a definite limit to what can be produced, because we have only so many hogs as foundation material to work on. It will help greatly if those who ordinarily market their hogs at the weight of 250 pounds will carry them a little longer this year and finish them up, say at 300 pounds. This will create a market for just that much more corn and it will place the nation in a position to furnish more fat and more meat to our fighting allies.

In order that the best results may be obtained in feeding operations from this time on the factor of chief importance is the health of the hogs that will be finished during the next three or four months. First and foremost must be considered the cholera problem. This, in a way, is simple, and from another standpoint is complex. When cholera once enters a herd it means a loss of practically 90 per cent if no effort is made to head it off. On the other hand, if the first animal that sickens is quarantined, the disease promptly diagnosed and the serum treatment used before the balance of the herd have a high temperature, then it may reasonably be expected that 90 per cent of the animals will be saved. In spite of the fact that here and there men can be found who have had a bitter experience following the use of serum, this product stands today as the only agency that will effectively immune a hog against cholera. In view of the national shortage and also considering the high prices that prevail, every swine breeder should keep himself literally on edge in the outlook for this dreaded disease and handle it in accordance with the suggestion that is here given.

Then there is the question of internal and external parasites. These are the great enemies of thrift and the stubborn means of heading off rapid gains. A hog that is badly infested with worms will just about hold his own under a system of heavy feeding and all the time he is in ideal condition to contract cholera if he should come in contact with the germs. The presence of internal parasites may be quickly detected by the unthrifty appearance of infested animals. They will be dry in the hair, they will have a forlorn look and show very little interest in life generally. When a hog falls into this condition he needs looking after and it is not costly to test the matter out by using a good worm remedy. There are many commercial products on the market that have been well tested out and their use cannot be recommended too highly to those who may be persuaded that there are parasites in their herds.

There are skin diseases also to fight and lice a-plenty in many herds. These are the avowed foes of thrift and no swine breeder who wants to make rapid gains is justified in allowing lice to remain on his hogs for a single day. Spraying or dipping with a good coal tar product is effective, while the hog oilers operate most efficiently to this end. The louse cannot live in the presence of oil and, furthermore, the oil has a beneficial effect upon the skin in keeping in check mange and other skin ailments that are common.

In the matter of feeding it may be said that the most rapid and cheapest gains are not made on corn alone and for that reason our experiment stations recommend using some of the concentrated commercial feeds in order to bring up the proportion of protein in the ration. With prices of grain high swine breeders will resort this season more and more to the use of by-products. Feeding these means the saving of grain that can be used direct and wherever a hundred pounds of rich, palatable by-product can be made to save a hundred pounds of grain the saving should be effected.

BADGER FARMER'S MAIL BAG
FARM EXPERIENCES

Hogs Not Good Enough.

To the Editor:—I am firmly of the belief that Wisconsin farmers are raising too many hogs, but not enough good hogs. They are put on the market too light—not fed to a finish. On October 25th the receipts of hogs at the eleven principal markets were in round numbers 64,000 and for the week 305,000. Many of these hogs were light in weight. They could be easily made to weigh twenty-five pounds more and with little additional feed. One can readily see the great amount of increase in the pork production as one goes through the stockyards. He sees too many hogs that lack good breeding and good feeding. The Wisconsin farmer can greatly increase the profits in the production of pork by decreasing his breeding stock; first by having a brood sow that will raise nine or ten pigs, second, by making this sow produce two litters per year. The fall pigs coming the first of September can be easily wintered and put on the market in June or early fall when the market is good. The dairy farmer that has milk has the advantage, as he don't have to buy any of the high-priced feeds that go to make the bone of the pig. He will have less breeding stock to feed and more feed for the growing pig. Where the farmer only raises spring pigs he goes on the market in the fall when prices are down largely by the great rush of hogs and the eastern buyers are not then in the market, as they generally have their home supply for a while, consequently there is no competition at this time of the year and the packer too well knows that the rush of hogs is coming and a fall of prices will likely occur.

I mentioned the increase of the litter which is a very important one indeed, and this can be easily done, for large litters generally are developed by selections; thus a strain becomes developed that will invariably bring large litters. If your sows have not in the past been producing large litters, you should try and get a sow that you know from some breeder or nighbor that has such a strain and then by getting a sire of such a strain and by proper feeding and care you can increase your crop of pigs easily one-third or more. I am firm in my belief that a pig should weigh better than 200 pounds before he is placed on the market. At the present high prices of feed one must watch the little leaks and make the most of every opportunity to increase his profits by breeding only the best. I am not advocating all farmers to breed full-blooded hogs, but better hogs, and this can only be done in two ways—first, by breeding. This means a full-blooded sire, at least. Second, by better feeding and care. I feel that they should be together, as they become so closely allied that they soon become one and inseparable. Now one word to the man that intends to buy better stock or get a few registered sows or even a boar. Don't do it unless you make up your mind to give them full-blooded care and if you do this I assure you that you will never live to see the day to regret the money you spent and the extra time and labor.

The time is here for the farmer to double his efforts in increasing the pork production both for his country's sake and for profit to himself and family. If some of our boys are risking their lives for us, let us resolve to at least expend a little extra thought, time and labor to see that they have proper food and this can be done by farmers only, for remember every extra pound of pork, beef or wheat produced by us is helping to bring this war to a successful close so much sooner and bring our boys home.

Crawford Co., Wis. James Fisher.

Motor Cultivator for Corn.

To the Editor:—We have recently bought a motor cultivator, which is something of a new thing in this part of the country, and we have, of course, not had occasion to try it out as yet, but before buying we talked with a man who had used one in Oneida county all the past season and who was very much pleased with it. We would certainly have been tied up with farm work this year had it not been for our tractor, which for a time was doing the work of thirteen horses and four men and is now plowing close to eight acres in ten hours. It was because of the good work done by our machine, which is a 12-25, and because of the prospects of even worse labor conditions that we decided to buy a motor cultivator. We expect to get good results from the motor cultivator and thoroughly believe in machinery whenever it can be used to help out labor conditions. Stiles Farms.

Oconto Co., Wisconsin.

Demand Speculating Be Done Away With.

To the Editor:—I will try to give you my views on why Wisconsin farmers are not raising as many hogs to increase the production of pork. First of all, corn is too high to raise hogs profitably, corn selling for $2 per bushel and live hogs at present selling at Chicago market for $15.50 to $16 per hundredweight. The big packers know well enough the bulk of hogs are being sold from now until January 1st and when the packers have them purchased, I presume, up goes pork.

The experience we could see last year with the wheat when the speculator practically had all the wheat, then it went up to $2.50 and $3 per bushel, but none in the farmer's hands. Farmers are getting discouraged with such gambling and grafting. I am getting somewhat off my subject. Experiment stations say it takes about sixteen to eighteen bushels of corn to produce a 200-pound hog. Then corn at $2 would bring $33 and other feed, care and capital invested, etc., and that same hog would bring $30 at the present price.

Farmers in this vicinity will keep less than half of the brood sows that they kept last year. This will mean another decrease of pork production unless the government or food administrator will step in and guarantee a fixed price so the farmers will be sure to raise hogs at a profit for the coming year. This would need prompt action before the farmers have disposed of their brood sows, for hogs are the quickest producing meat animals and especially at this critical period of world meat shortage. On the other hand, it will mean high-priced pork for the consumer, but the farmer must be protected first, of whom it is expected to feed the world.

Labor is involved in this somewhat, more so in grain production and dairy products, for we have too many consumers and not enough producers. Farmers are raising only what they need for themselves, for with the drifting class of labor it is too uncertain and the speculator makes the money, so it's up to the government to step in and do away ith the board of trade and grafting. R. G. Stine.

Buffalo Co., Wisconsin.

Handling Alfalfa Crop.

To the Editor:—Regarding our 1917 alfalfa hay crop will say that it wintered in fine shape, and the first cutting was larger than we ever had before, the second cutting fairly good, the third cutting poor, yielding about one-third of a crop. This was due to the continued dry weather and grasshoppers. We cut our third crop early enough so that there will be a six-inch stand for winter protection.

We put up our hay crop with the side-delivery rake and the hay loader, and we unload the hay with slings. We use the tractor for pulling the wagon and the hay loader; use two wagons. One team takes the wagons to and from the field and we use another team on the hay rope. There is usually four working at the hay, one runs the tractor, one loads, one hauls the hay from the field and the other one mows the hay away. We average a load in the barn every half hour.

We put up our hay rather green and do not lose any leaves in the field. We spread the hay over the entire barn. By doing this the hay will cure better.

We have about thirty-five acres in alfalfa this year. This fall we seeded twenty-five acres to winter wheat, one and one-half bushels to the acre, which we will seed to alfalfa in the spring; will seed twenty pounds to the acre.

We feed both the horses and cows alfalfa hay. Even the cows that we run for Advanced Registry records get nothing but alfalfa hay and corn silage, and they all make from fifty to 150 pounds more butter fat than is required to make. Hiram Michels.

Fond du Lac Co., Wisconsin.

Ration for Dairy Cows.

To the Editor:—In my judgment the best formula for feeding dairy cows for the next three months in this section would be barley and oats supplemented with oil meal or bran or cottonseed meal, if silage is a part of the ration. Our oats and barley crops were excellent this year and, while the cost is greater than in other years, the increase is not in proportion to the increase in price. Of course, if a farmer must buy these grains the market price is the important thing to consider, but if he raises the grain I think he ought to feed it. The proportion of oats, barley, bran, oil meal or cottonseed meal will depend largely upon the kind of roughage the individual dairyman has to feed.

George C. Ogle,
Official Tester Dunn County Cow-testing Association.

Keeps Cows in Good Winter Condition.

To the Editor:—In regard to grain rations for dairy animals for the next three or four months, many farmers say that feed is too high to do much feeding this winter. Figuring silage at $6 per ton, alfalfa hay at $25 per ton brings the cost of roughage alone for thirty days to $6.75. The average grain ration figures out at $2 per hundred, by feeding one pound of grain daily to each pound of fat produced in seven days brings the cost of grain in the case of a cow producing thirty pounds of fat in a month to $4.20 plus $6.75 for roughage, which makes a total cost of feed $10.95. Figuring butter fat at 60 cents gives an income of $18, leaving a profit of $7.05 for thirty days above cost of feed. This is a narrower margin for profit than usual on account of high prices of roughage.

Equal parts of bran, gluten and oats furnish a fair grain ration for local conditions. Also bran, ground oats, dried brewer's grain and gluten, equal parts, give fair results.

The figuring out of a grain mixture varies some with each herd, depending on the condition of the herd and the feedstuff available on the local market.

The biggest profit gained from winter feeding is by keeping the cow in good condition so that she maintains her flow of milk and comes out in good condition in the spring; when she goes to pasture she gives a heavy flow of milk at once, otherwise it takes her two or three weeks to get started. A cow well wintered is half summered.

Fond du Lac Co., Wis. R. A. Boyd.

You'll Like This Arctic

It's light in weight, warm, comfortable,—a fine protection against snow and cold—and a wonderful wear resister.

It fits splendidly—easy on, easy off. It makes wearing arctics a pleasure as well as the best health insurance.

It's a Foot-Schulze leader. Our name is moulded into the sole. Insist on finding it—it is your protection.

There's a dealer in almost every town who can supply you. Look for him. It's worth while.

Foot, Schulze & Co.
Saint Paul

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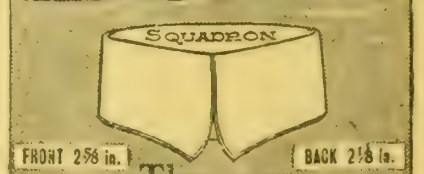


The new SLIDEWELL COLLAR that saves your neckwear

TROOPER
Same Style
Front 2⅜ in. Back 1¾ in.
The modified curves prevent cutting of your shirt.
Ask your dealer.
HALL, HARTWELL & CO.
TROY, N. Y.

SUBSCRIBERS who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention, inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delaying printed answers, those to whom it is important to receive an immediate reply by mail, should remit $1.00, addressed as above. All inquiries must be signed if they are to receive attention.

War Tax Stamps.

On and after December 1, 1917, U. S. stamps must be affixed to certain instruments in writing to raise taxes for war purposes. The stamp on a document must be furnished and attached by the party who makes or issues the document. The law does not require stamps on any government instrument, nor on stocks and bonds issued by coöperative building and loan associations, or mutual ditch or irrigating companies. A stamp must be initialed and dated by the person who attaches it to the document. Anyone who makes or issues a document requiring a stamp, without putting a stamp on it, is liable to punishment, and persons who issue fraudulent stamped documents are liable to penalties. The commissioner of internal revenue provides proper stamps and collectors of internal revenue in the various districts furnish them to banks that are government depositaries, where they can be obtained by persons who desire them.

The following instruments must be stamped, as follows, viz.: Bonds of indebtedness, 5 cents for each $100 or fraction; indemnity and surety bonds, 50 cents; capital stock issue, 5 cents for each $100 or fraction, and the stamps must be affixed to the stock books and not to the certificates issued; sales or transfers of capital stock, 2 cents per $100 face or market value; sales of produce on exchange for future delivery, 2 cents per $100 face value; drafts and checks, other than at sight or on demand, checks and promissory notes, 2 cents per $100 or fraction; conveyances, exceeding $100 and not exceeding $500 in value, 50 cents, and 50 cents for each additional $500 value; custom house entry, not exceeding $100, 25 cents, if more than $100 and not exceeding $500, 50 cents, if more than $500, $1; withdrawal from customs bonded warehouse, 50 cents; proxy, 10 cents; power of attorney, 25 cents; parcel post packages, 1 cent for each 25 cents transportation charge.

Law Questions.

Rights of Farmer—Lights on Vehicles.

Mr. W. F. Liebenstein, Cascade, Wis.—(1) Where nut-bearing trees are in the roadway through a man's farm, has the farm owner a right to gather the nuts, or has anyone coming along the road a right to do so? (2) What is the law of Wisconsin about carrying lights on a buggy or wagon at night?

Answer.—(1) The farmer has the exclusive right to gather nuts and no one else has any right to do so. (2) The law of Wisconsin provides for the carrying of lights on motor vehicles, but does not require lights to be carried on buggies or wagons drawn by animals.

Grafting Supervisor.

A Subscriber, South Range, Wis.—A supervisor of a certain town in Wisconsin, hired a man to work for him on his farm, for one dollar per day, and when said man was put to work on the roads, the supervisor agreed to pay him the same wages the town paid for like work, which was $2.75 per day. This laborer drove the supervisor's team working on the roads for the town, nearly all of the time and did very little work on the farm. Pay day for road work was every two weeks and the supervisor in turning in his team's time to the town board, represented the team as belonging to the laborer and he signed the checks and turned them over to the supervisor, who cashed them. This has been going on all summer. When the supervisor and the laborer settled, the supervisor paid the man $1 per day, and kept the other $1.75 per day for himself. What steps can be taken to compel the supervisor to refund this money to the town and what other remedy, if any, is there in the matter?

Answer.—A suit can be brought against the supervisor for the amount of money he wrongfully kept from the town and judgment obtained against him for the amount. Also a taxpayer of the town may make charges against him to the circuit judge and have the supervisor removed from office. Also the district attorney may proceed against him for embezzlement and have him tried, and, if convicted, sent to the penitentiary.

Colt Dead in Pasture—Liability.

A Subscriber, Neshkoro, Wis.—T wished to take in colts to pasture on his land. In May, 1917, K put a fine male colt in T's pasture. On October 7th, K went to get his colt and found it dead in T's pasture, but a short distance from the public road. It then seemed to have been dead for a week, and its body could easily be seen from the road. Can K compel T to pay for the colt?

Answer.—K can compel T to pay him the value of the colt, provided K can prove that the loss of the colt was caused by T's negligence or carelessness; otherwise, he cannot compel T to pay for the colt.

Division of Partition Fence.

A Subscriber, Bangor, Wis.—I own a farm in Wisconsin, and some of my neighbors who occupy adjoining farms are renters. The partition fences between my farm and the adjoining farms are in poor condition, and I wish to have them fixed up. I have had some difficulty in agreeing with the occupants of adjoining farms about which end of the partition fence I should keep in repair. I think if I stand on my own land facing the adjoining land, the end of the fence to my right hand is the part that I am lawfully required to keep in repair. What is the law of Wisconsin on this matter?

Answer.—The idea you have about how to divide a partition fence between farms of adjoining owners is very prevalent in the Middle West, but it is not correct. Owners of adjoining farms may agree upon how the fence is to be divided. Such agreement must be in writing signed and sealed and witnessed by two witnesses and recorded by the town clerk. If they cannot so agree, either one may apply to the supervisors of the town to view the premises and assign to each one the part of the fence which he must build and keep in repair.

Regulation of Slaughterhouses.

A Subscriber, Albert City, Iowa.—How near to a main traveled public road in Iowa can a person lawfully operate a slaughterhouse?

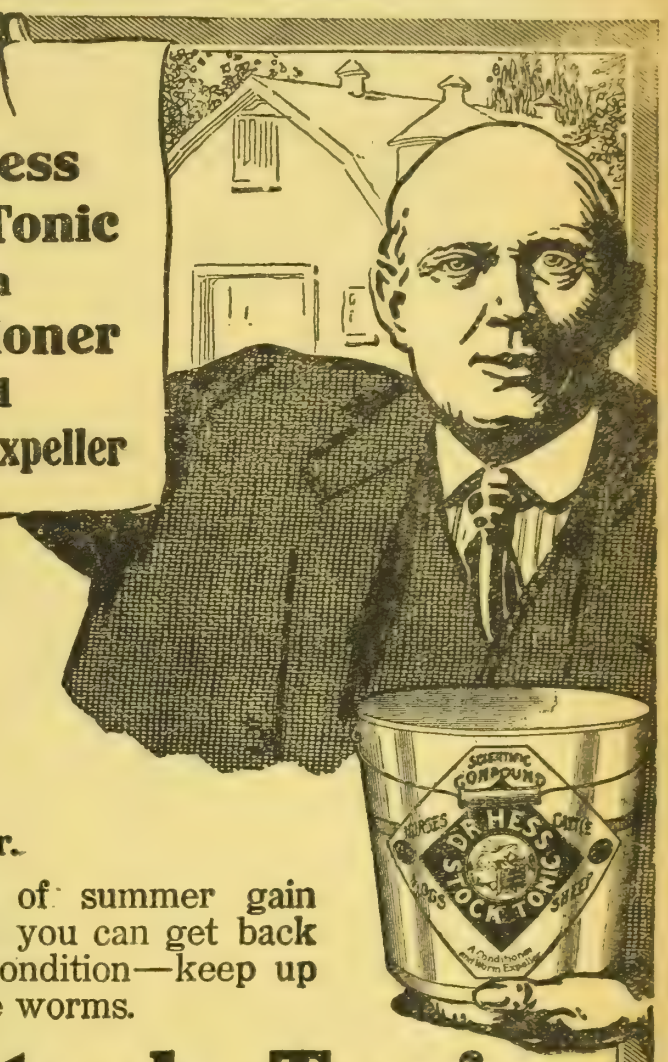
Answer.—The law of Iowa does not fix any distance for a slaughterhouse to be operated from a public road, but the law requires all slaughterhouses to be kept and operated in a sanitary manner—kept clean, and free from dirt, obnoxious odors, etc.

My Stock Tonic is never peddled.

25-lb. Pail, $2.00; 100-lb. Drum, $6.50.

Why Pay the Peddler Twice My Price?

Dr. Hess Stock Tonic is a Conditioner and Worm Expeller



Keep Your Animals in Condition

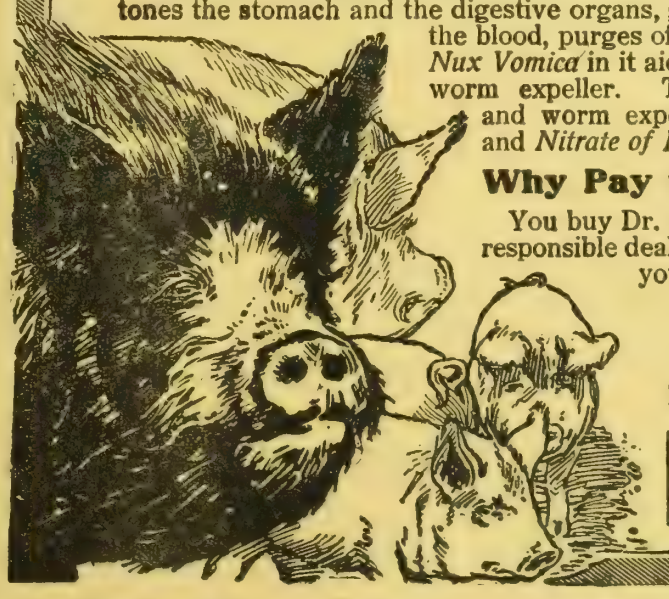
Now is when your stock need special attention because the change from pasture to dry feed is one of the most critical periods of the whole year.

You can lose more pounds of summer gain through November neglect than you can get back all winter. Keep up the good condition—keep up the summer thrift—keep out the worms.

Dr. Hess Stock Tonic

Drives Out the Worms. Makes Stock Healthy

Keep the animals' systems right and you need have little fear of disease. Stock Tonic tones the stomach and the digestive organs, gives better action to the bowels, improves the blood, purges of worms, and gives real life and vigor. The *Nux Vomica* in it aids digestion. *Quassia* is a true tonic and a worm expeller. The *Sulphate of Iron* is a blood builder and worm expeller. There is *Epsom Salts* for a laxative, and *Nitrate of Potash* to act on the kidneys.



Why Pay the Peddler Twice My Price?

You buy Dr. Hess Stock Tonic at an honest price from a responsible dealer in your town who is authorized to return your money if it does not do as claimed.

25-lb. Pail, $2.00; 100-lb. Drum, $6.50.
Except in the far West, South and Canada.
Smaller packages in proportion.

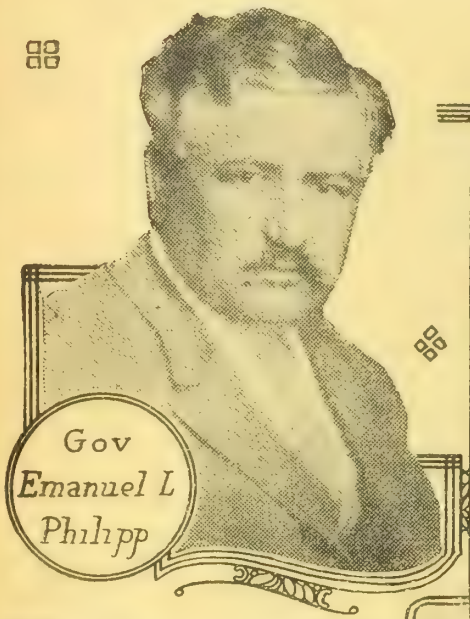
Dr. Hess & Clark, Ashland, Ohio

DR. HESS POULTRY PAN-A-CE-A
Will Start Your Pullets and Moulted Hens to Laying

Dr. Hess Instant Louse Killer Kills Lice

Defense Work in Rural Districts.

Information of Interest Relating to What the State Council of Defense Has Attempted, Through County Councils, to Accomplish in Wisconsin.



Gov Emanuel L Philipp

State Council of Defense.

GOV. EMANUEL L. PHILIPP
MAGNUS SWENSON, Chairman
JOHN G. D. MACK, Vice Chairman
FRED BROCKHAUSEN, Milwaukee
P. C. ELDRIDGE, Milwaukee
DR. J. S. EVANS, Madison
ORLANDO HOLWAY, Madison
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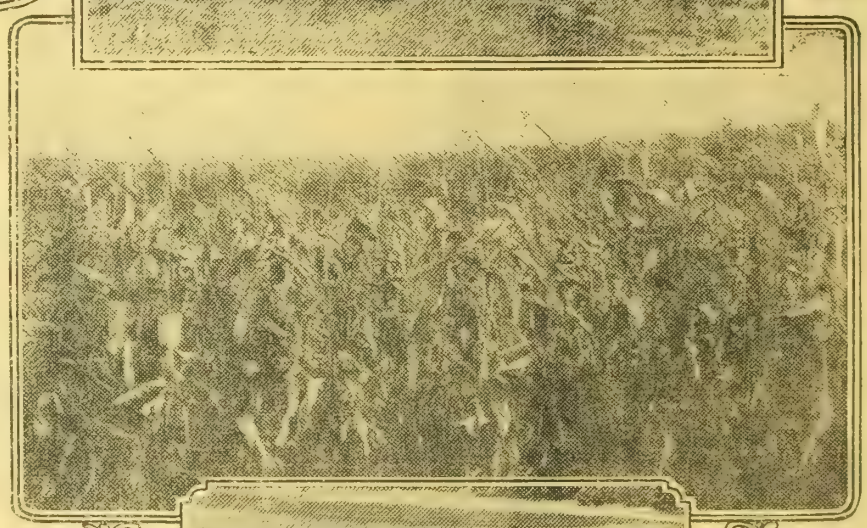
JOHN M. REESE, Dodgeville
A. T. VAN SCOY, Milwaukee
J. R. WHEELER, Columbus
ALFRED L. P. DENNIS, Sec'y Madison



SAMPLES OF WISCONSIN DEFENSE WORK. UPPER VIEW—PEDIGREED RYE. CENTER VIEW—CORN OF HIGH-PRODUCING STRAIN. LOWER VIEW—FIELD OF ADVANCED BREEDING, PEDIGREED BARLEY.

RECENTLY one of our readers asked us what the State Councils of Defense have done in the way of helping or attempting to help farmers. This gave The Wisconsin Farmer the idea of communicating with the secretaries of our county councils and asking them what line of work had been taken up. The letters which are herewith attached are a portion of those which we have received in response to our inquiries. Inasmuch as they relate the character of the work which has been going on in several counties and discuss many topics of general interest, we believe they will be well worth reading:

Clark County.

To the Editor: Our State Council of Defense has been sending out a number of circulars to our dairymen farmers. As you know, this is purely a dairy county. A considerable number of silos have been erected during the past summer, indicating that the circulars have had good effect along this line. One of the things we are aiming for is to educate the farmers to have their cattle, or part of them, freshen in the fall so as to assure an even flow of milk during the whole year.

The high cost of milk and its products has stimulated the industry in this county and the farmers are gradually increasing their herds, both in quality and quantity. Outside of the corn, the products of this year have been excellent.

For next year there are no definite plans except to follow out the same methods we have been using this year. We will need, however, seed corn next spring. A. L. Devos,
Sec'y Clark County Council of Defense.

Walworth County.

To the Editor:—Here is an idea of what our State Council of Defense in Walworth county has done:

We raised $5,000 early in May. We carried on twenty-one food campaign meetings during April and had an attendance of from 150 to 700. We established canning centers at Elkhorn and Geneva. The ladies have over 1,000 quarts of canned vegetables which they are holding for any emergency. Had twelve canning demonstrations under the direction of Miss Martin, woman member of the council. We distributed 5,127 bushels of seed potatoes, also some wheat and buckwheat. As a result of our silo campaign we now have 250 more silos than last year. Had a patriotic picnic at which 7,000 people were present. We have a boys' working reserve carried on under the direction of the secretary of the Y. M. C. A. Two thousand five hundred boys are enrolled. Established a labor bureau and hired seventy-seven men for the farmers of the county. In addition, we have an organization of business men who go out and help the farmers. Grant Harington,
Sec'y Walworth County Council of Defense.

Milwaukee County.

To the Editor:—As you know, Milwaukee county is not primarily an agricultural county, and our problem is one of distribution rather than production.

Last summer, under the general direction of the County Agricultural School, and with the cooperation of the City Department of Public Works, much vacant land in the city was plowed up and planted to gardens. These gardens were confined to individuals, but in the main were supervised by experienced men furnished by the agricultural school. While there were, of course, a good many failures, the results on the whole were most successful. Many persons obtained garden truck to store away for the winter in addition to what they got during the season. We shall extend this work even further next year.

We are now negotiating for the services of an agricultural agent for the county who will handle matters relating more directly to production, and who will keep in close touch with the farmers in the county. We have arranged to get the returns from the agricultural census taken by the State Department of Agriculture for our use in this work. Steps have been taken to get boys in the city schools released for part time in order to take instruction in agricultural work. The County Agricultural School and the city school board are coöperating with us in this matter. We hope in this way to train a body of young men who will be in a position to render emergency service to the farmers during the seasons of planting and harvest. Osmore R. Smith,
Sec'y Dept. of Public Welfare.

Iron County.

To the Editor:—The State and County Councils of Defense have worked wonders in Iron county toward the development of farms. Never before in the history of Iron county have the farmers taken more interest in development of their farms, both in the utilization of space and cultivation. Every foot of space has been utilized and results show a large income in the production of crops and live stock. Potatoes, our chief crop, promise to be a bumper crop and of good quality. In some localities in the county the yield of potatoes was harvested without a hitch, but in the vicinity of Hurley and Sax, in the northern part of the county, the early snow and cold weather have interfered with harvest and at the present time there are thousands of bushels in the ground covered with two to four inches of snow and crust. It is a serious situation and unless we have a change of weather it will mean a loss of probably 65 or 70 per cent of the potato crop for Iron county. In most localities the farmers are digging their potatoes from beneath the snow. This is a very strenuous job and very detrimental to the potatoes. The Burbank and Early Rose seem to mature here better than the Rural. No better potato ever grew than the Early Rose raised here last year. Farmers in this locality are going into stock raising very extensively, installing silos, etc. Stock raising is the coming thing because grass is plentiful, there is sufficient moisture, good water and plenty of undergrowth for protection of stock. Market good and prices at the top notch.
E. S. Hagen,

Sheboygan County.

To the Editor:—The Sheboygan County Council of Defense has been instrumental in putting into cultivation 1,800 acres of land in Sheboygan and immediate vicinity. Immediately the call came for gardening the vacant lots, we listed every foot of available territory in the city of Sheboygan and on the outskirts, which had not recently been cultivated. The Sheboygan Country Club presented us with five acres of their golf course, which were plowed and divided into twenty-four plots of ground 50x150 feet. The Crocker Chair Company, the Kohler Company, the Porcelain Enameling Association and the Vollrath Company rented big tracts of land for their employes. For the benefit of our town people we also conducted canning demonstrations and had public lectures on how to plant and cultivate. A. L. Summers,
Sheboygan county, Wis.

St. Croix County.

To the Editor:—The farmers of St. Croix county have been encouraged to build silos and this summer 160 have been erected and about 100 more started as soon as it was found that

(Continued on page 23.)

To the Outdoor Workers of America

Make sure that your feet are "U. S. protected" against the assault of wet and cold. Keep them warm and dry, comfortable and healthy in all kinds of weather by wearing

U. S. Rubber Footwear

There is a specially designed shoe for every outdoor worker—farmer or fisherman, miner or lumberman, stockman or dairyman.

This heavy service, double duty line offers a style purposely adapted for every kind of outdoor work. Reinforced where the wear is greatest. Built to baffle biting cold, rain and snow.

The "U. S. Seal" is the trade mark of the largest rubber manufacturer in the world. It is on every pair of this rubber footwear. It is your protection. It stands for comfort, long wear and economy. Look for the U. S. Seal and always ask for it.

For sale everywhere. Your dealer has the style of U. S. Rubber Footwear to meet your needs or can get it for you.

United States Rubber Company
New York

U. S. Rubber Footwear

UNITED STATES RUBBER COMPANY US RUBBER SYSTEM AND ASSOCIATED COMPANIES

CURRENT EVENTS

THE hopes of the allies for an early and a decisive victory over the Germans well-nigh vanished last week, when the Germans and the Austrians united to inflict a severe and almost crushing defeat upon the Italians, driving them out of the Austrian territory they had won at such great cost, and by so many months of fighting, and forcing them back into Italian territory. The Italians were confronted by a Teutonic army much superior in number and guns. General Cadorna, the Italian commander, is given credit for withdrawing his army in order, so that the defeat was not converted into a rout, but both sides agree that the Italians lost over 100,000 men, mainly as prisoners, and great quantities of guns, ammunition and supplies. Italy has been pecking away at the Austrian lines for a year or so and was having comparatively easy work, when all of a sudden the storm broke upon her and victory was turned into apparent defeat. The defeat has not disheartened the allies, however, as the man power of Germany is undoubtedly dwindling. French and British troops, and perhaps American, are being rushed from the western front to Italy and there is hopes of stemming the tide of defeat before Italy is completely crushed, as was the case of Russia when the Teutonic allies went after it in real strength. The new Italian premier issued this message to the world: "Let the enemy know—let the world know—that the Italians under the burden of their inexpressible grief at the sight of they country invaded, have made it a point of honor to sink all their internal differences so as to strengthen their will and energy in order that again our native soil may be consecrated by a victory which cannot fail us." Notwithstanding this assurance, Italy was in a bad plight last week and the allied hopes of early victory went glimmering.

STUPENDOUS preparations to muster every ounce of American man power and economic resources for the defeat of Germany will be the answer of the United States to the Teutonic victories over the Russian and Italian armies, which mean a prolongation of the war, according to Washington news writers. The following is said to be the official program as already talked over by President Wilson and his cabinet: Legislation by congress authorizing the expansion of the army to a maximum of 5,000,000 men. Lowering of the minimum draft age to nineteen and raising of the maximum draft age, possibly to thirty-five years. Examination of the second increment of 687,000 draft registrants, beginning in December, with a view to sending them to the training camps by early spring. Flotation of the third liberty loan, probably for $3,000,000,000, next February. A marked increase in war taxation, particularly on the profits of business. Legislation making it possible to restrict the manufacture of nonessentials and to concentrate the labor power of the nation on the production of ships and munitions. All hopes of an early peace have vanished, but the United States is in the war to stay and war preparations will be rushed to completion even sooner than was expected before the recent reverses of the allies.

GERMANY lost 6,000,000 men in the three years of war, according to a declaration in the reichstag by the independent socialist Ledebour. A report of his speech reaching Washington through Switzerland states that, contemplating the prospects of a fourth winter campaign, the socialist leader said: "You have not, evidently, gentlemen, an exact conception of what war means. We have had 1,500,000 dead, 3,000,000 or 4,000,000 wounded, of whom 500,000 are crippled for life, and 2,000,000 absolutely invalided. That makes altogether 6,000,000 men lost during three years." It is stated that official information confirmatory of these figures has been in possession of American officials for some time.

ONE HUNDRED THOUSAND manufacturers, wholesalers and other distributors of staple foods were placed under license by the government last week in a widespread campaign to reduce the price of living necessities or at least to keep them from raising any higher. The licensing will continue during the duration of the war. The food administrator estimates that when the lists are complete there will be about 100,000 licensees, including importers, packers, canners, manufacturers, wholesalers, commission men, brokers, auctioneers, storage warehouse men, together with retailers doing more than $100,000 business annually, which embraces mail order firms and chain stores. Small retailers will not be licensed, but they are subject to the provisions of the food law itself, which forbids speculation, hoarding and excessive profits. They also will be controlled through the licensing regulations controlling wholesalers, who will be required to cut off the supplies of dealers of any size and in any branch of the trade who exact exorbitant profits on the necessities of life. The licensed foods include beef, pork and mutton, fish, poultry and eggs, milk, butter, cheese, flour, sugar, cereals, lard, beans, peas, fruits, vegetables, several lines of canned goods and other products. The purpose of licensing are stated as follows: "First—To limit the prices charged by every licensee to a reasonable amount over expenses and forbid the acquisition of speculative profits from a rising market. Second—To keep all food commodities moving in as direct a line and with as little delay as practicable to the consumer. Third—To limit as far as practicable contracts for future delivery and dealings in future contracts." Eventually, smaller dealers will undoubtedly be brought under the system, so that, so far as humanly possible, no one can take advantage of another and raise prices unduly because of war necessities.

HARDLY had Brazil declared war against Germany, allying itself with the United States, before disclosures were made justifying its course. Sinister aims of Germany to overthrow the Monroe doctrine and gain a foothold in South America were divulged through publication by Secretary of State Lansing of two additional telegrams from Count Luxburg, the German charge at Buenos Aires, to the German foreign office. In these telegrams Count Luxburg urged the German government to send a submarine squadron to South American waters to intimidate the Argentine government, then threatening to break relations, explaining that the presence of such a squadron would "exercise a decisive influence on the situation in South America." Defiance of the Monroe doctrine was seen in the conviction expressed by Luxburg in one of his telegrams that Germany would be able to "carry through our principal political aims in South America," including the "reorganization of South Brazil." President Wilson welcomed Brazil into the ranks of the allies with this telegram to the Brazilian president: "Allow me, speaking for the people and the government of the United States, to say with what genuine pleasure and heartfelt welcome we hail the association with ourselves and other nations united in war with Germany of the great republic of Brazil. Her action in this time of crisis binds even closer the bonds of friendship which already united the two republics." Brazil has already seized the German ships interned in its ports and will do its share in carrying the war through to allied victory.

THE government last week took steps to restrict enterprises not essential to conduct of the war by forbidding use of open top freight cars on and after November 1st for transportation of material for roads and highways, theater construction and manufacture of pleasure vehicles, furniture and musical instruments. The restriction of nonessentials was imposed through an order, issued by Robert S. Lovett, priority director of the war industries board, prohibiting use of open top cars, excepting flat cars, for carrying any of the specified materials for private orders. Coal is exempted and the order does not apply to shipments for the government, or to shipments in closed box cars. The order is expected to provide early relief for the car shortage which has affected the transportation of "coal, coke, ore, limestone, sugar beets, sugar cane, sorghum cane and raw materials for use in the metal, sugar and fertilizer industries and other commodities necessary to the national defense and security." Heretofore, said Judge Lovett's order, the transportation of these materials has been hampered by insistence of manufacturers on cars for nonessentials.

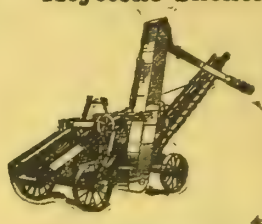
UNITED STATES government expenditures of $1,000,000,000 is the record which the month of October has established at the treasury department. The total, which includes loans to the allies, may exceed even this huge sum possibly by $100,000,000. The increase in the daily expenditures is greater at the present time than it was a month ago and is steadily growing. A $2,000,000,000 month, officials assert, is not far off. It may be reached with the retirement of short time treasury certificates—to be met out of liberty bond receipts by midwinter. Expenditures for the fiscal year thus far have reached the total of $3,446,659,764, of which $1,770,700,000—more than half—is represented by loans to the allies. These loans and the interest upon them are to be repaid by the borrowers and, therefore, do not represent actual expense to the American people.

IT IS an open secret that until America came into the war the method of financing our purchases there and the question of exchange were not only serious problems but, in my opinion, almost insoluble problems." This statement was made by Andrew Bonar Law, chancellor of the English exchequer, in an address in the house of commons introducing a vote of credit for $2,000,000,000. "I am glad to be able to take this opportunity of saying how much reason not only the British, but all the allied governments have for appreciating the very generous way in which the United States government has come to their assistance in financing purchases in America," the chancellor said, and added: "The fact that America has given generous assistance at times when she was incurring expenditure at a heavier rate than any of the allies I believe it my duty publicly to acknowledge." The chancellor said the expenditures of the army and navy exceeded the budget estimate by $2,500,000 daily. The average daily expenditure since the beginning of the financial year has been $33,240,000 or $6,150,000 above the budget estimate.

Three Useful Machines

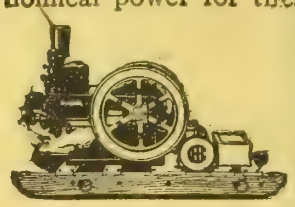
THREE International machines that will pay their way on any farm where there is corn to market or livestock to feed are:

Keystone Shellers, adaptable to large or small ears, shell hard or soft corn clean without cracking the kernels or crushing the cobs. There are eight styles in 1, 2, 4, and 6-hole sizes, with capacities from a few ears shelled by hand, up to 4,000 bushels per day.



International Feed Grinders, for grinding small grain, corn on the cob, or corn in the husk, come in three styles with regular or special plates, 6", 8", and 10" in diameter. Capacities from 5 to 30 bushels per hour take care of all ordinary requirements.

Mogul Kerosene Engines furnish steady, economical power for these and other farm machines. They are simple, reliable, satisfactory; operating on the fuel that is cheapest or most convenient to buy. Mogul kerosene mixers; built-in magnetos that make batteries unnecessary; enclosed crank cases; full equipment, ready to run; are features of all Mogul engines, from 1 to 50-H. P.



Equip your farm with a set of these three useful machines. See the local dealer or write the address below for complete information.

International Harvester Company of America
(Incorporated)
CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

Holding Seed Wheat.

Wisconsin farmers and dealers who have supplies of spring wheat suitable for seed purposes, and who wish to hold it for this specific purpose, will be exempt from the thirty-day storage limitation law now in force under the regulations of the Food Admnistration Grain Corporation—providing their claims meet the approval of field representatives now appointed for that duty.

Grain which is intended for bonafide seeding purposes may be held until the end of the next seeding season. To apply automatically to such specific lots of grain as the committee approves, blanket licenses granting the right to hold grain for more than thirty days will be issued to farmers and dealers of the Food Administration Grain Corporation.

Seed so held may not be sold for prices to exceed 15 per cent advance over the selling price of No. 1 wheat at the elevator or other point where it is stored.

The United States Department of Agriculture is urging operators of elevators and warehouses to coöperate fully in this endeavor to assure by means of this arrangement an adequate supply of high-grade seed wheat for use next spring. Only in special cases will the holding of winter wheat for use in the fall of 1918 be approved.

Under the specific regulations of the new seed stocks saving campaign a department whose duty it shall be to examine spring wheat and clover seed samples has been established at 320 Flour Exchange Building, Minneapolis, to cover the district included in the entire spring-wheat belt east of the Rocky Mountains. This belt is adjusted to include the Wisconsin spring wheat section.

The Minneapolis branch of the seed stocks committee will be in charge of W. L. Oswald, until recently a member of the field crops department, Minnesota College of Agriculture. To this office must be submitted all samples of seed grain intended to be held for sale as seed and thereby entitled to exemption from the thirty-day storage limitation.

A. L. Stone, state seed inspector, with offices at the college of agriculture, University of Wisconsin, has been asked to inform Wisconsin farmers about the provisions of the seed-holding regulation. Mr. Stone's office already analyzes samples of grain and grass seed under the state seed inspection law. Where the samples are from seed intended for sale a nominal fee is charged for taking germination and purity tests. Copies of these test results must be attached to the grain before it can be sold. Where the seed is intended for home use only and is not for sale no fee is charged.

"Unless seed wheat intended for sale is first submitted to the office at Minneapolis no license to hold it for more than thirty days will be granted," stated Mr. Stone. "Of course, after the Minneapolis office has examined the sample sent to them by a Wisconsin farmer, all the farmer needs to do then is to label the seed according to state laws and it is ready for sale. The movement is simply to organize the seed trade so that enough seed wheat and clover will be ready next spring."—[Wisconsin Experiment Station.

Storm Can't Blow It Out

HERE'S a 400 candle power hand lantern. Pure white light, wind-proof, storm-proof. Great for use around the house, barn, milking pen, feed lot and wherever a safe, portable light is needed.

American Dark Chaser

Costs less than 1-3 cent an hour to run. Nonbreaking mica chimney. Nowick. No smoke. Cleaned automatically. Finished in polished nickel plate. Ask your dealer or postal brings illustrated circular. Address

AMERICAN GAS MACHINE CO.
744 Clark Street
Albert Lea, Minn.

Write for Circular

See page 22. Read The Farmers' Market advertisements. There may be a bargain there for you.

Ask your neighbor to subscribe for The Wisconsin Farmer.

NEWS OF THE SALE RING

Waukesha County Guernsey Breeders' Two-day Sale.

The Waukesha County Guernsey Breeders' sale, which was held October 31st and November 1st at Waukesha, Wis., was in most respects a successful event. The sale of pure-breds on October 31st was entirely satisfactory. However, on November 1st, when the pure-bred bulls and high-grade Guernseys were sold, there was a noticeable slump in prices, especially when inferior animals were brought into the ring. Dry cows and two-year-old heifers did not sell well, and the average for the grades was not up to the sale held a year ago. During the two days there were about 160 animals sold. Seventy-eight pure breds averaged $325; 26 pure-bred bulls $116, and 56 grades $80 each. Grade cows due to freshen soon or giving a heavy flow of milk sold well, some of them bringing as high as $200. In the pure bred sale there were 22 animals that sold for $350 or more. Chas. Hill, Rosendale, Wis., consigned 13 animals that sold for $350 or above; J. H. Williams, Waukesha, consigned one cow that brought $525; Geo. W. Browne, of Waukesha, sold three head that averaged $592; Geo. McKerrow & Sons Co., Pewaukee, also sold three head that averaged $397; Wm. Jones' cow, however, was the sensation of the sale. Maria's Glenwood topped the sale at $2,500 and went to Geo. Hynicks, Lebanon, Pa. Mr. Jones also bought another cow for $600. The principal buyers of the real good stuff were R. S. Pope, Waupaca, Wis.; McCanna's Edgewood Stock Farm, Burlington, Wis.; A. P. Lovejoy, Janesville, Wis.; F. E. Fox, Waukesha, Wis.; Wayne Munn, Janesville, Wis.; Geo. Hynicks, Lebanon, Pa.; Benj. Omsrud, Stougton, Wis., and Reuben Erickson, Copas, Minn. H. C. Reinhold, East Petersburg, Pa., and C. D. Wolcott, Strawberry Point, Iowa, were the leading grade buyers at the sale. Red Cross Lady, that was donated to the Waukesha County Guernsey Association, was sold for $725 to R. S. Pope, Waupaca, Wis. Twenty-five dollars from this price was deducted for expenses and the remainder went to the Red Cross. The Waukesha County Association should be congratulated on having so generous a member as Mr. Browne, for he consigned one of the choicest heifers of the sale in order that this association should be well represented in this worthy cause. Following is a list of sales:

FEMALES.

Imp. Blondine of Edgemoor, Oct., 1915; Tom Woodman, Pawpaw, Wis. $250
Kentrover Dorothy, Nov., 1915; Geo. R. Boulden, Onawa, Iowa 150
Imp. McKerrow's Golden Noblesse, Nov., 1915; Tom Woodman 225
Park's Nancy, Oct., 1914; Tom Woodman 255
Imp. Brighton Peridot, Dec., 1913; A. P. Lovejoy, Janesville, Wis. 300
Golden Peridot of Edgemoor, Jan., 1916; A. P. Lovejoy 300
Park's Isabella Tilly, July, 1916; Reuben F. Erickson, Copas, Minn. 190
Imp. McKerrow's Governess Carterest, Sept., 1915; C. J. Templow, Pewaukee, Wis. 225
Imp. Dewdrop of Sarnia, July, 1913; Ben Omsrud, Stoughton, Wis. 230
Coventry Cora's Best, Sept., 1913; Powers Bros., Owen, Wis. 185
Belle of Troy Center, Aug., 1911; F. E. Fox, Waukesha, Wis. 155
Lizette's Beauty 2d's Daughter, Aug., 1916; John T. Whalley, Portland, Ore. 275
Imp. Dandelion of Sarnia, July, 1913; R. S. Pope, Waupaca, Wis. 525
Imp. Brilliantine of Edgemoor, Dec., 1915; A. P. Lovejoy 500
Imp. Mont Val Girl 4th, Feb., 1913; Wayne A. Mumm, Janesville, Wis. 270
Imp. Dusty of McKerrow Farm, June, 1915; Christ Jack, Weyauwega, Wis. 310
Leoparda of Lone Mound, May, 1908; R. S. Pope, Waupaca, Wis. 300
Flossie M., Nov., 1913; H. Hanna, Denison, Tex. 135
Double May Rose of Park Farm, Sept., 1915; Geo. K. Hynicks, Lebanon, Pa. 525
Glenwood's Pansy of Edgemoor, Aug., 1915; R. S. Pope 425
Tristan's Beauty, July, 1916; G. Kingston & Son, Waukesha, Wis. 300
Bernice D. of Hilly Beach, May, 1911; J. A. Butter, Milwaukee, Wis. 155
Troy Center Beauty 2d, Sept., 1908; G. D. Love, Waukesha, Wis. 220
Imp. Lily of LaCroix, Sept., 1913; Ben Omsrud 380
Valley Rose of Edgemoor, April, 1916; R. P. Dopp, Lake Crystal, Minn. 310
Imp. McKerrow's Clematis Governess, June, 1915; McCanna's Edgewood Farms, Burlington, Wis. 440
Dot of Edgemoor, May, 1917; McCanna's Edgewood Farms 200
June Morning, June, 1912; Powers Bros., Owen, Wis. 310
Park's Beauty Bella, March, 1915; John T. Whalley, Portland, Ore. 340
Imp. Dixie of Sarnia, March, 1913; Geo. F. Mattes 215
Lord Yeksa's Kate, March, 1906; Geo. K. Hynicks 600
Red Cross Lady, Jan., 1917; R. L. Pope ($25 for expenses and $700 to Red Cross) 700
Polly Winsome of Spring Farm, Dec., 1914; Edgewood Stock Farm 275
Glenwood's Hazel, June, 1908; F. S. Fox, Waukesha, Wis. 400
Imp. Kerrow's Governor's Fancy, June, 1915; Reuben T. Erickson. 350
Maria's Glenwood, June, 1910; Geo. K. Hynicks 2500
Sue's Fern of Fair View, March, 1915; Reuben T. Erickson 235
Directress of Edgemoor, Jan., 1916; Edgewood Stock Farm 350
Homestead Dora, March, 1910; A. P. Lovejoy 315
Butterwitch of Pomeroy, Dec., 1907 305
Sister Susie of Edgemoor, Oct., 1915; H. J. Bacchus, Kiel, Wis. 350
Imp. McKerrow's Palony of Le Briquiet, March, 1915; Edgewood Stock Farms, Burlington, Wis. 400
Park's Lima Girl, Jan., 1915; A. V. Bean, Vesper, Wis. 230
Olive's Ina, Feb., 1914; Edgewood Stock Farms 225
Imp. Creole of Sarnia, Aug., 1912; F. E. Fox 350
Imp. Flower Girl of Edgemoor, Oct., 1915; Ben Omsrud 355
Imp. Princess Jewel of Edgemoor, July, 1915; R. L. Pope 600
Imp. Governor's Lily, Aug., 1911; Edgewood Stock Farms 220
Sequel's Lily of Cedar Lawn, March, 1917; Edgewood Stock Farms 165
Wern's La Mollie, Aug., 1909; Thos. M. Harney, Galena, Ill. 215
Imp. Sequel's Nellie of McKerrow Farms, Dec., 1915; Edgewood Stock Farms 235
Plymouth Maiden of Broad Ripple, Jan., 1916; John T. Whalley 235
Vroni of Hilly Beach, May, 1912; Geo. McKerrow & Sons, Pewaukee, Wis. 175
Broad Ripple's Clover Blossom, July, 1916; Reuben T. Erickson 185
Baby Gloria, Nov., 1914; R. R. Schwartz, Troy Center, Wis. 125
Imp. Flora Belle of Edgemoor, Jan., 1916; W. A. Mumm 400
Hollyhock's Easter Hale Spot, April, 1914; R. L. Pope 400
Lorraine W., March, 1912; G. L. Gove, Waukesha, Wis. 205
Castello Daisy of Sunny Valley, March, 1916; John T. Whalley 300
Imp. Sunshine of Edgemoor, Dec., 1915; Frank Grimm, Almond, Wis. $205
Imp. Governor of Myrtle Place Second's Francine, Sept., 1914; Jno. T. Whalley 300
Faithful Girlie, Feb., 1912; Geo. D. Love, Waukesha, Wis. 150
Imp. Flower Princess of Edgemoor Feb., 1916; R. P. Dobbs, Lake Crystal, Minn. 300
Park's Rosa Queen, Aug., 1916; Jno. T. Whalley 200
Gipsy Love of Edgemoor, Jan., 1914; F. E. Fox 375
Easter Lily of Edgemoor, April, 1916; Fred Bobson, Hinsdale, Ill. 205
Laurel's Buttercup, April, 1911; A. P. Lovejoy 235
Queen Coraline, April, 1911; Geo. McKerrow & Sons, Pewaukee, Wis. 255
Queen Coraline's Lassie, Aug., 1913; Geo. McKerrow & Sons 150
Molly of Ashbourne, June, 1913; T. M. Harney, Galena, Ill. 195
Princess Mary of Edgemoor, Aug., 1916; R. L. Pope 200

BULLS.

Audacious of Edgemoor, May, 1916; McCanna's Edgewood Farms, Burlington, Wis. 450
Dora's Boy of Sunny Valley, Sept., 1912; R. L. Pope 650
Florham Victor, Nov., 1915; Alex Knudson, Brodhead, Wis. 300
Park Prince, Nov., 1913; Christ Soldner, Rushville, Wis. 260
——— June, 1917; A. W. Fox, Waukesha, Wis. 200
Broad Ripple's Ambition, June, 1916; E. A. Burns, Madison, Wis. 100
Dixie's Nonpareil of Edgemoor, Mar., 1917; Wilbur Vander Kalk, Hamilton, Mich. 145
Lord's Gentleman of the Loop, Dec., 1916; Oramel Hinkley, North Prairie, Wis. 120
Ramona's Governor of Hawthorne, Oct., 1916; Neil Mullins, Grand Rapids, Minn. 120
Broad Ripple's Golden Morning, Jan., 1917; A. E. Gray & Son, Waukesha, Wis. 120
Lucky Lassie's Glenwood, Oct., 1916; H. A. Kochler, Dousman, Wis. 105
Polly's Anchor, Aug., 1916; H. Riley, St. Paul, Minn. 175
Sequel's Boy of Sunny Slope, Aug., 1916; C. R. Guthrie, Waukesha, Wis. 125
Proud Prince of Edgemoor, Jan., 1917; W. E. Fisher, Wauwatosa, Wis. 205
Sequel Chene Governor, Jan., 1916; W. M. Hardiman, Pewaukee, Wis. 160
Tillybardin's Tricksey Lord, Nov., 1916; D. A. Adams, Waukesha 105
Felecia's Duke of Ochervoil Farm, June, 1916; Foster L. Staag, Thomson, Ill. 100
Violet's Harvest King, Nov., 1916; Barlow & McCrossen, Waupaca. 150
Moss Raider's Prince of Muskego, Dec., 1916; H. D. Maules, Dousman, Wis. 130
King's Hero of Sunnyside, Feb., 1917; H. Hartvig, Scandinavia, Wis. 150
Clarice's Pride of Edgemoor, Mar., 1917; W. C. Turner, Eagle, Wis. 100
Bully Boy of Broad Ripple, May, 1916; Geo. Johnson, Scandinavia 130
Lucassiene's Walter Sequel, Dec., 1913; Goodell & Blott, Mukwonago, Wis. 100

SUMMARY.

71 females $22,795
23 bulls 4,200
94 head 26,995
Average per head 287

Owens' Poland Sale.

G. W. Owens, Lawler, Ia., made a good sale of Poland Chinas on October 17th. The weather was very bad, yet an average of $52.75 was made on 40 head, all March and April pigs. It was a great offering. Mr. Owens always has the goods. I Am Baron made a great impression on the crowd sale day. G. H. Burge did the selling. A list of the buys follows:

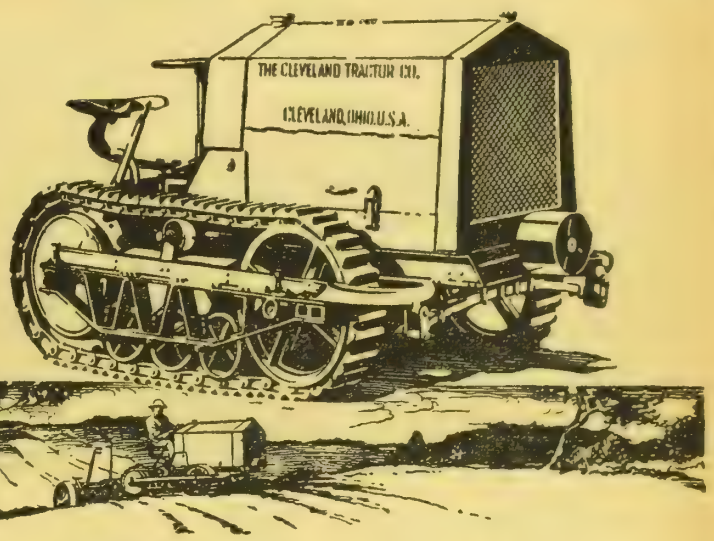
No. 1, M. G. Arnold, Strawberry Point, Ia., $75; 2, John S. Ehlick, Worthington, Ia., $62.50; 3, P. M. Anderson, Lathrop, Mo., $55; 4, O. K. Ramberg, Calmar, Ia., $65; 5, Ray S. Tilden, Elkader, Ia., $67.50; 6, C. E. Mullen, Waucoma, Ia., $60; 7, Lobert Linn, Clinton, Okla., $115; 8, Lobert Linn, $135; 9, Henry Lewis, Hartford, S. D., $75; 10, Charley Frey, Calmar, Ia., $90; 11, Alfred Magnus, Ridgeway, Ia., $77.50; 12, Louis Zipsie, Lawler, Ia., $70; 27, Nick Rieter, Worthington, Ia., $62.50; 21, Tom Pope, Waucoma, $57.50; 14, E. W. Hendricks, Hazel Green, Wis., $50; 18, John Hosch, Cascade, Ia., $47.50; 17, L. G. Smirl, Hawkeye, Ia., $45; 20, John Hosch, $47.50; 28, I. W. Wilson, Fredericksburg, $45; 29, L. G Smirl, Hawkeye, Ia., $45; 31, Nick Reiter, Worthington, Ia., $42.50; 34, C. E. Troy, Fredericksburg, Ia., $40; 33, John Zipsie, Fredericksburg, Ia., $37.50; 39, C. A. Laury, Fredericksburg, Ia., $42.50; 40, John Hosch, $42.50; 37, Will Corrigan, Fredericksburg, Ia., $37.50; 38, O. K. Ramberg, $37.50; 26, A. J. Harman, Lawler, Ia., $37.50; 25, Henry Burlmester, Sumner, Ia., $47.50; 24, W. H. Nieman, Fredericksburg, Ia., $42.50; 32, F. W. Maure, Fredericksburg, Ia., $37.50; 35, O. K. Ramberg, Calmar, Ia., $37.50.

Cain's Duroc Jersey Sale.

The result of the J. J. Cain Duroc sale at Skyberg, Minn., was very satisfactory. This was Mr. Cain's first sale, but since he sold Giant Invincible for $2,500 the demand for the get of this great boar has been keen. Many of the pigs in the sale were of April farrow. The breeders were there to pay the price, especially for Giant In-

(Continued on page 27.)

Cleveland Tractor



Prepare *Now* for Bigger Crops Next Spring

Forget the old routine. Adopt improved methods. That's the only way to solve your labor problems and boost production in 1918.

Munition plants and factories in general are working at top speed. They have steadily drained farm labor from the fields. Now the draft has taken many more men.

You must cut down on labor requirements. That is exactly what the Cleveland Tractor, the country over, is helping wide-awake farmers to do.

This wonderful little machine will do your work *better, faster, and at much less cost* than you can possibly do it with horses and men.

Hauling two 14-inch bottoms, it plows 3½ miles an hour—8 to 10 acres a day. That is more than you can do with three good 3-horse teams and 3 farm hands. And at this high speed the Cleveland Tractor turns over the prettiest job of plowing you ever saw.

Figure up the saving—not only in labor—but in time and good, hard cash.

In addition, the Cleveland enables you to plow when you need it and where you need it. Because it *crawls on its own tracks*, it can go over almost any soil at any time. That is something you can't do with horses and men. *Think of the extra yield that means.*

Moreover, the Cleveland does not pack your seedbed. It is light — only 2750 pounds—and has 600 square inches of continuous traction surface. No other tractor built exerts so small a pressure.

The Cleveland gives you 20 h. p. at the pulley and 12 h. p. at the bar — economical, dependable power to do your hauling and stationary engine work.

Rollin H. White builds the Cleveland Tractor with all the scrupulous care he put into the manufacture of motor trucks. He uses only the best materials—only the finest motor truck parts and gears. He has protected all gears with dirtproof, dustproof casings.

He has so designed the Cleveland Tractor that it *steers by the power of its engine*. Just a light turn of the wheel and the motor does the rest. Anyone can drive it. It will actually *turn in a 12-foot circle*—less than it takes to turn a team.

These are real advantages—too big and too important to be overlooked. There are others just as big. Combined, they make the Cleveland the biggest labor-saving, time-saving, money-making implement introduced into modern farming.

Prepare now for bigger, better crops next spring. Decide now to make the Cleveland earn money for you, as it is doing for hundreds of others.

We are so crowded with orders that we cannot promise delivery of new orders before January 1st. So it is necessary that you order now for delivery early in 1918.

Write to us today for full particulars and name of the nearest Cleveland dealer. Use the coupon or address Dept. AJ.

CLEVELAND TRACTOR COMPANY
Cleveland, Ohio, U. S. A.

CLEVELAND TRACTOR CO.
Dept. AJ Cleveland, Ohio

Please send me full information about the Cleveland Tractor.

Name _____
City _____
State _____

Fruits and Garden

Handling the Soy Bean Crop.

Rock County, Wisconsin, Farmers Gave a Great Deal of Attention to This Crop the Past Season.

WISCONSIN farmers are beginning to give the soy bean a try as a hay and forage crop for dairy cows and hogs. Its adaptability to almost all soil conditions and its satisfactory growth, even on wet soil, gives it every right to be considered a field crop.

L. S. Markham, county agent for Rock county, for this reason tried to emphasize the usefulness of the soy bean as a field crop during the silo meeting held in the county last spring.

Quite a number of dairymen tried out soy beans in various ways as a result of the interest stirred up during these spring meetings. The results of their trials have, in nearly all cases, been satisfactory, though in some instances frost killed the corn crop before it was fully matured.

A. S. Stauffer, of Beloit, raises grade and pure-bred Guernseys. He put in four acres of soy beans this season, sowing two acres in rows twenty-four inches apart and two acres drilled in for a hay crop. In both cases the seed was sown by a drill, but where the beans were sown in rows only every fourth hole of the drill was permitted to remain open, all the others being closed. Seeding in rows gave Mr. Stauffer an opportunity to cultivate the beans. He went over the field four times with the cultivator, stirring the soil and clearing out the weeds. The beans sowed in rows were harvested for seed and yielded between twenty and twenty-five bushels per acre in seed.

The two acres sown as a hay crop had no opportunity to be cultivated and grew not nearly as rapidly, nor did they yield as heavily as the cultivated acres. However, approximately a ton of vines and pods per acre were put up as hay.

The feeding value of the soy bean compares favorably with that of alfalfa and Mr. Stauffer finds his cows eating the soy bean hay quite as readily as the alfalfa. They clean up all of the stems that are not too hard and woody. When hay is cut at the right time, when the pods are well formed, the stems will not become too woody and the percentage of leaves lost in harvesting will be very small.

J. A. Craig, of Janesville, has always favored hogging down corn and this season sowed beans in portions of his field at the rate of two-thirds corn and one-third beans. As the corn was frosted, however, unusually early in the season, he put the beans and the corn into the silo to prevent loss of the crop.

J. H. Scofield, of Edgerton, and W. A. Dean, of Avalon, are two other dairy farmers who have planted soy beans and corn, but put the crop into the silo this year on account of the frost. Mr. Dean instead of planting the soy beans at the same time as the corn let the corn have a good start and then planted by hand planter.

Charles Boynton, of Avalon, has a system of harvesting his soy bean and corn crop with sheep and hogs. He allows the sheep to go into the field first and harvest the entire crop of soy beans and following this the hogs get their chance and finish up the corn. Incidentally Mr. Boynton is the only man in that section who is fortunate in having mature corn this year, as his fields were not affected by the frost to any appreciable extent. The sheep on the Boynton farm are next in importance to the splendid herd of Short-horns. The sheep are bought in the fall and turned into the field about October 1st. The ewes in the flock are bred at this time and will lamb in February. By July ewes and lambs will be ready for the market and they are sold, to be replaced next fall by another flock. The sheep do exceptionally well on the soy beans.

The results in Rock county with soy beans, while not extraordinary in any way, have at least proved that the question is well worth looking into. Dairymen and sheepmen will find soy beans an admirable crop to grow in the rotation, for it is a good yielder and brings a good return either in feed for live stock or when sold as seed.

SOWN BY DRILL AND NOT CULTIVATED—ABOUT 1,800 POUNDS TO THE ACRE. SOY BEANS ON A. S. STAUFFER FARM ROCK COUNTY, WIS.

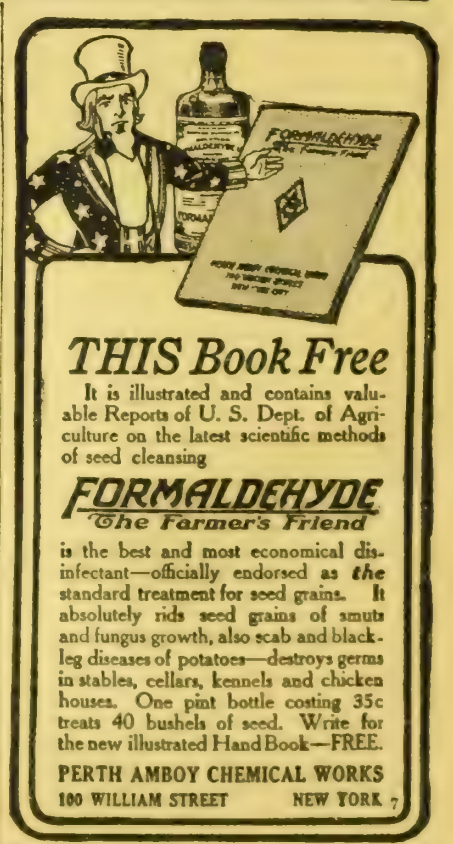
SOY BEANS SOWN IN ROWS ABOUT 24 INCHES APART. CULTIVATED FOR SEED. YIELD 20 TO 25 BUSHELS TO THE ACRE. A. C. STAUFFER FARM, ROCK COUNTY, WIS.

Value of the "Plant Doctor"

In an address before the Wisconsin Teachers' Association meeting at Milwaukee, Wisconsin, November 1st, Dr. L. R. Jones, of the Wisconsin College of Agriculture, gave some ideas about the pathologist. He said that 10 per cent of our food crops were killed by disease, blight, rusts, smuts, scabs and mildew. This year blight is reported to have taken one-third of the potato crop and prices are going up accordingly. All this means that plants are subject to epidemic of disease, just as our animals and as men, and the farmer and orchardist after growing his crop may be helpless to save it without the aid of the plant doctor.

The speaker illustrated the work that is done in Wisconsin, under the leadership of the college of agriculture, to prevent these losses in food crops. Examples were cited where spraying apples near Oshkosh reduced the scabby apples from over 90 per cent on unsprayed to less than 10 per cent on the sprayed trees.

The cherry leaf spot defoliates the trees so badly that in three years they may die. Spraying with either Bordeaux or lime-sulphur mixture has saved the splendid Door county cherries and it has also been shown that through sanitation by plowing under the fallen leaves checks the recurrence of the disease. Apple rust is another disease of Wisconsin orchards,



which, curiously enough, starts first on the native red cedar. To save the young orchards, especially of the Wealthy variety in the southern and western river valley regions of the state, it is necessary to exterminate the neighboring red cedars.

Seed disinfection, using formaldehyde solution, which has proven so successful for preventing oat smut, is now applied to barley not only for smut, but for certain leaf blights which are also seed-borne diseases and are reducing the stand in sections of southern Wisconsin by at least 10 per cent. The increasing importance of rye as a flour crop has demanded especial attention to this. Rye suffers from two diseases, smut and ergot. A process was perfected this last summer for immersion first in formaldehyde, then in 20 per cent salt solution whereby both of these infections are removed from the seed grain. Milling grain may also be treated with the brine if necessary to clean it from ergot.

A modification of the disinfection methods has been required in the case of onion smut. In onion culture the grower using high priced especially prepared land wishes to grow onions continuously year after year, but may be prevented because the smut germs from one crop live over in the soil to infect the seedlings of the next. This has been prevented by applying the formaldehyde solution through a drip attachment which wets the seed and soil in the furrow at planting time. In this way by a total investment of $5 per acre one Racine grower increased the value of his crop on an eleven-acre field over $3,000.

The greatest gain in proportion to the effort and investment comes from the use of disease-resisting varieties where these are obtainable, since this obviates the labor and expense of seed treatments or spraying. Such differences frequently occur in nature if one intelligently seeks them out, and by selection or hybridizing the plant breeder may increase and fix them. A conspicuous example of this is Wisconsin Hollander cabbage recently developed and disseminated under Wisconsin Experiment Station leadership. With cabbage growing the crop is handled intensively with only short rotation or none at all. The outcome is an accumulation of soil-borne disease germs, rendering the soil "cabbage sick" in considerable areas of Wisconsin, Illinois, Iowa, Indiana and the eastern states. All remedies failed until it was noted that even on the sickest soils certain individual plants survived. Applying the principle of the "survival of the fittest" these plants were saved for seed, which was again planted on sick soil and the selection repeated. The result is the perfection of resistant Wisconsin strains of cabbage, of which seed is now being grown in quantity to meet the needs of other states as well. The value of this in relation to the food supply is evidenced by the experience of many growers in southeastern Wisconsin during the last two years. Thus where common cabbage varieties on this sick soil may be yielding from one to three tons per acre, the selected strains are yielding from seven to nearly or quite twenty tons per acre. A ten-fold increase in yield is frequent in adjacent rows of the resistant as compared with common strains. This illustrates disease resistance as the most important line for future effort in plant disease control. The possibilities of such gain are beyond estimate.

Potato Growers' Program.

The Wisconsin Potato Growers' Association's sixth annual convention and show will be held in the university live stock pavilion at Madison, Wisconsin, November 19th to 24th. On Tuesday evening, November 20th, an address of welcome will be delivered by Hon. Geo. Sayle, mayor of Madison, and response by J. W. Hicks, president of the Wisconsin Potato Growers' Association. An address will also be delivered on standard American potatoes (illustrated) by Wm. Stuart, secretary of the Potato Association of America.

The subject for Wednesday forenoon, November 21st, is "Wisconsin Seed Potato Trade." This will include a discussion by eastern and western secretaries of associations and managers of potato warehouses and shipping associations. Potato disease control will be discussed by Dr. H. A. Edson, of the United States Department of Agriculture, and Dr. L. R. Jones, of the Wisconsin College of Agriculture. Field reports will be given by R. E. Vaughan, of the Wisconsin College of Agriculture.

On Wednesday afternoon, November 21st, Magnus Swenson, food administrator for Wisconsin and chairman of the state council of defense, will speak. He will be followed by E. P. Miller, of Chicago, who will speak as a member of the United States Food Administration. Miss A. L. Marlatt will speak as a member of the Wisconsin Food Administration.

Wednesday evening, November 21st, there will be a special musical program and an address by Hon. Carl Vrooman, assistant secretary of the United States Department of Agriculture.

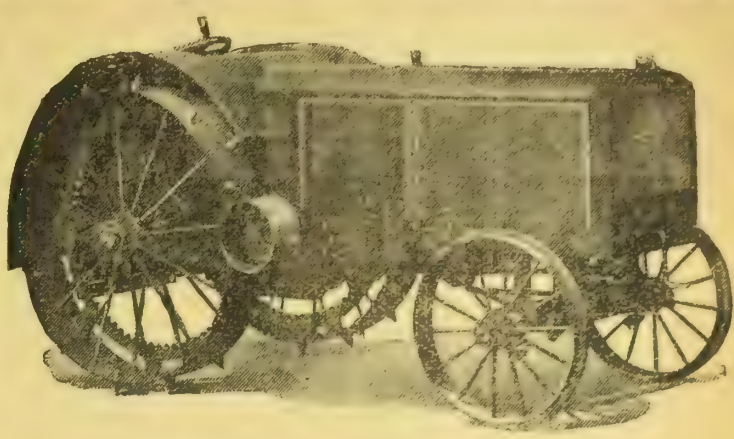
The recent proposed regulations for grading potatoes will be defined by C. T. More, of the bureau of markets, and their relation to the Wisconsin situation will be discussed by P. N. Peterson, secretary of the Wisconsin Potato Growers' Association. The shippers' problems will be discussed by E. F. McPike, of the Illinois Central Railroad.

E. S. Brigham, agricultural commissioner for the state of Vermont, will speak Thursday afternoon, November 22d, and in addition there will be addresses by G. D. Jones, Wausau, Wisconsin, and T. J. Newbill, who is interested in girls' and boys' club work under the United States Department of Agriculture.

R. H. Aishton, president of the Chicago & North-Western Railroad, will speak Thursday evening, November 22d.

The association business meeting will be held Friday morning, November 23d. Following this session Dr. H. C. Gore, of Washington, will speak. The potato judges' report will be made by C. L. Fitch, of Iowa, and C. W. Waid, of Michigan.

The closing session of the convention will be Friday evening, November 23d, and this will be devoted to potato club work which is to be carried on under the direction of T. L. Bewick, of Madison. The speakers will be Prof. T. J. Newbill, of Washington, and W. J. Lindeman, of the Michigan Agricultural College.



Your Tractor Must Have These Features

If you have considered buying a tractor you have decided that it must be a common sense machine—a tractor which is not an experiment but a proven success.

It must be the standardized, four-wheel, three-point suspension type, and be powered by a standard four-cylinder motor, which has proved to be the most successful tractor motor. The

Kerosene **TURNER Simplicity** Gasoline

is such a tractor. The special four-cylinder Waukesha Tractor Motor gives ample power for deep plowing or heavy belt work, yet will do the small jobs economically.

It has heavy duty Hyatt Roller Bearings—all working parts enclosed and run in oil—simple control—low center of gravity—short turn, and no side draft.

The Turner is light, yet has great strength—the ideal tractor for all 'round work on the general farm.

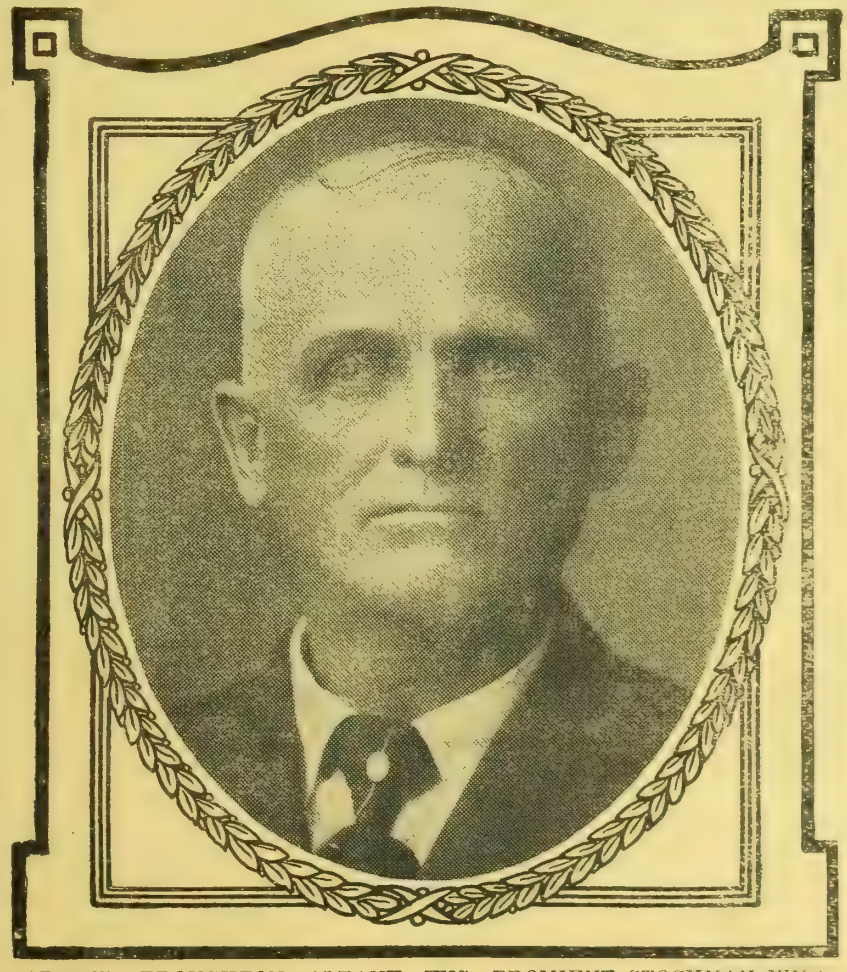
Write for prices and a full description of tractor.

TURNER MANUFACTURING COMPANY
119 Lake Street PORT WASHINGTON, WIS.

Well Known Sheep Man Dead.

Arthur Broughton, Wisconsin Stockman, Resident at Hickory Dale Farm for 60 Years, Died Tuesday, October 30th.

ARTHUR BROUGHTON, of Albany, Green county, Wisconsin, died October 30th on the same farm, known as Hickory Dale Farm, where he was born May 7, 1858. His father was of Scotch ancestry, a graduate of Williams College, and moved to Wisconsin in 1842, where he lived with the exception of two years, which he spent in the West. Hickory Dale, from its beginning to the present time, has been very largely devoted to the production of live stock, and particularly of sheep. Beginning in 1855 Mr. Broughton's father raised Merinos until 1881. At that time he added another breed to the flock, which in 1883 numbered 700. Both Merinos and Shropshires were kept upon the farm until 1891, when changing conditions induced Arthur Broughton, who then had charge of the place, to dispose of all of his fine-wool sheep and develop only the Shropshire breed. From that time to the present, Mr. Broughton has endeavored to develop his flock, which is known throughout the Middle West for its excellence, by the purchase of only superior rams. Many of these have been imported from England, having been chosen from the flocks owned by Minton, Mansell and Tanner, three of Britain's greatest flockmasters. Five years ago, or in 1908, Mr. Broughton took his son in the partnership with him, and the firm is now operating several farms on the edge of Green and Rock counties.



ARTHUR BROUGHTON, ALBANY, WIS., PROMIENT STOCKMAN WHO DIED OCTOBER 30TH.

Mr. Broughton had developed many prize-winning animals which won in keen competition at fairs and expositions. Mr. Broughton was a charter member of the Wisconsin Sheep Breeders' Association, and was its president for several years. He had been president of the Wisconsin Live Stock Breeders' Association and had been identified with important agricultural activities in Rock and Green counties, and also in connection with the Wisconsin College of Agriculture. In 1893 Mr. Broughton became acquainted with Dean Henry at a fair held at Camp Randall, and ever since that time Mr. Broughton had been a strong supporter of the college of agriculture.

For his conspicuous success and inspiring example as a Wisconsin farmer, the University of Wisconsin selected Mr. Broughton for honorary recognition. It was a selection which everyone felt was well merited.

The Midway cheese factory near Almena, Barron county, paid 77 cents per pound for butter fat for September. It was reported also that the Twin Town cheese factory, also in Barron county, paid 77 cents for September butter fat and that the Crescent cheese factory in the sam county paid 78 cents. For the month of September the Hillsdale cheese factory paid 60 cents per pound for butter fat and had forty-seven patrons who received more than $30 cash. There were twenty-three patrons who received more than $100 cash for their butter fat for the month of September.

UPPER WISCONSIN

Good Year in Marinette County.

To the Editor:—The farmers in this locality, all things considered, have never had a better year than the year 1917. Marinette county had less damage by frosts to corn than any other county in Upper Wisconsin. The frost damage, shown by reports sent out from the commissioner of agriculture at Madison, as affecting the corn was undoubtedly about correct, but, of course, the figures do not indicate the true conditions. In a county like Marinette where a great deal of new land is being farmed there is always a considerable amount of corn put in late for whatever feed it will make without any hope of it maturing to make hard grain. This young corn is, of course, always hit first when frost comes and a large percentage of frost damage to corn is accounted for in this way. Undoubtedly this is true to a large extent in many Upper Wisconsin counties. Furthermore, Upper Wisconsin raises its corn chiefly for silage and fodder. Frost damage does not mean that the corn will fail to make fairly good feed. The state map showing that Marinette county has 22 per cent injured corn (or had that about October 1st) I think is about correct. That is about the average percentage of corn used by Marinette county farmers for feeding beef cattle, hogs, etc., inclusive of matured grain used for seed. The matter of seed corn is gradually becoming very important in this section and a considerable amount of this 22 per cent of the corn crop represents pure-bred seed corn. This seed corn brings a premium above corn prices and has been the source of very good profits to several of our Marinette county farmers.

This county now has over 650 silos, 150 of these having been erected during the present year. This gives a fair idea of the amount of corn which goes into silos.

There was very little damage done to the potato crop from frost in this part of the state. Marinette has the greatest potato crop in five years and when prices are considered, I think it will turn out to be the most valuable crop of potatoes ever raised in the history of the county.

C. R. Gorman, one of our larger potato raisers, has harvested 10,000 bushels of Triumphs from sixty-five acres. In today's Chicago market these potatoes are worth about $1.25 per bushel, or $12,500. This means about $190 gross per acre. We don't think this is very bad for land that has been under the plow only a few years.

Regarding small grains, the yield in Upper Eastern Wisconsin was somewhat under normal. We only had three or four days of very hot weather in the county and that came just when the grain was filling and affected the yield. Nevertheless the yield was a fair one and with the present high prices means very good profit. When the many special crops, such as sugar beets, white navy beans, peas, strawberries, etc., are taken into consideration, it cannot be said too emphatically that Upper Eastern Wisconsin had a season this year of which it is proud.

I have left entirely out of consideration our live stock industry, which is mainly dairying. In 1913 state figures credited us with only five cheese factories and creameries. We really had more at that time, but I think the correct number was only seven. Marinette county now has thirty-two cheese factories and creameries—a gain of twenty-five in four years. Nothing that I could say could give you a good idea of how fast our dairy industry has been growing than this statement. It stands to reason that if the farmers here were not making money on the dairy cow they would not continue to increase their herds. We have thriving cheese factories in such new settlements as Middle Inlet, Wausaukee, Athelstane, Wagner, etc. Only a few years ago a dairy cow was a stranger to these parts of our county.

Referring again for a moment to frost damage, a Mr. Bates, of northern Illinois, was here recently looking up a location in our county, and he stated that the best corn he had seen in Wisconsin was in this section. He said the damage to corn in northern Illinois, where corn is relied upon as a principal crop, was more extensive for the most part than it was in Marinette county. Here we do not rely on corn as our principal crop, although it is very important for silage and fodder in connection with our dairy industry.

Such figures as we can obtain on our potato crop show that we will have a yield this year of well up to 875,000 bushels in Marinette county. No small part of these were raised on small garden plots in the cities of Marinette and Peshtigo and in the villages of the county as well as on small truck farms adjoining the cities and towns. Under present prices this means about one million dollars in cash for the potatoes that will be sold, not to say anything about the potatoes raised for home consumption.

Twelve years ago you could not possibly have picked up one entire carload of potatoes in any one district in Marinette county for shipment. Today something like 120 carloads are shipped annually from what we call "Our Crivitz District." This district includes the settlements of Loomis and the territory around Crivitz.

I have entirely neglected to say anything about our hay crop. Clover cut from two to four tons per acre in two cuttings. Timothy yielded from one and one-half to two and one-half tons per acre. Alfalfa turned out fairly good, cuttings from three to four and one-half tons in three cuttings. Pastures were excellent throughout the season and are still fine.

Many of our farmers took on a few sheep last fall when they saw prices on mutton and wool going up and they had some very profitable lambs to turn off this fall. The number is not large as yet, but many farmers are stocking up with sheep this fall.

Twelve sales of unimproved farms have been made at prices of from $80 to $140 per acre. In some cases these farms are the products of wild land sold at $18 per acre five years ago. These farms which two or three years ago we considered worth from $40 to $70 per acre have just doubled in three years. Howard I. Wood.

Marinette Co., Wisconsin.

Polk County Farmers' Clubs.

To the Editor:—The Polk County Fair Association offered a prize of $100 to induce the farmers' clubs of the county to make exhibits at the fair that was held here September 11th to 16th. The Federation of Polk County Clubs appointed a committee to take the matter up with the result that four farmers' clubs and two women's clubs made splendid exhibits.

A schedule patterned after the one used for the county exhibits at the state fair was prepared for the farmers' clubs and one for the women's clubs. It was decided in the beginning to divide the prize money equally, $50 for the men's clubs and $50 for the women's.

In addition to the prize offered by the fair association, the federation of clubs offered tasty banners for first, second and third place. No small amount of enthusiasm was shown by those taking part in the exhibits and a great deal of friendly rivalry was developed between the different clubs.

The Blue Bird Farmers' Club, of Deer Park, took first prize, leading the Interstate Park Club, of St. Croix Falls, by 40 points, which took second prize. The Trout Brook Prairie Club took third place.

The Polk County Women's Club took first in the woman's department, and the Trout Brook Prairie took second.

All who took part were well satisfied and went home determined to make a greater effort next year and several who did not try this year decided to do so next. P. F. Amery, President of the Polk County Federation of Farmers' Clubs.

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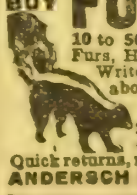
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Food Value of Dairy Products.

Farmers Cannot Afford to Sell Skim Milk off the Farm—By E. H. Farrington, of the Wisconsin Experiment Station.

THE important part which milk and other dairy products take in the food supply of the nation is not widely known or fully appreciated. Few people realize that about one-sixth of our food supply is milk and its products or that the butter we eat is worth nearly as much and sometimes more than the bread on which it is spread.

The 1916 wheat crop of 640,000,000 bushels was estimated to be worth $1,025,000,000, while the dairy products were valued at $830,000,000. A comparison has also been made with the gold mined in the United States for a year, and this was found to be worth $73,000,000 or $20,000,000 less than the value of the dairy products made in one state (Wisconsin) which was placed at $73,000,000 that year.

The rate at which milk is consumed is illustrated by the statement that in Wisconsin, which has about 2,000 cheese factories and 1,000 creameries, there is made 206,000,000 pounds of cheese and 131,000,000 pounds of butter in a year. If these factories run eight hours per day for 360 days the cheese is made at the rate of 570,000 pounds per day or 1,200 pounds per minute and the butter, which amounts to 360,000 pounds per day is made at the rate of 750 pounds per minute. This rate of manufacture is not fast enough, however, to keep up with the demand, as the census shows that during twenty years there has been an increase in population of 46.7 per cent, while during the same time the increase in butter production was only 34.4 per cent, while that of cheese was 24.9 per cent.

A great deal has been said and written about the tendency of our population to move from farms to cities. This is a large question which need not be discussed here, but the two following statements furnish a little evidence that may be of interest at this time.

A recent official statement of the Chicago Butter and Egg Board informs us that the September shortage in butter was 12,000,000 pounds, as compared with September of last year, and further that, "in many sections 25 per cent of the visible supply of milk cows has been sold to the packers and killed for beef."

I do not know the basis for this alarming statement, but at the time I read it I called up the man at our college who keeps posted on the work of the cow-testing associations in Wisconsin. He sent me the following information:

A summary of the reports from 47 cow testers who visit monthly 1,410 dairyman having 23,500 cows on test, shows the following:

Are there more heifer calves being sold for veal than formerly? All of the testers reported "No."

Are there any good heifer calves from pure-bred bulls being sold for veal? Thirty-nine report "No." Four report "Yes" and four report "Few."

Are any of your members going out of the dairy business because of feed prices and labor shortage? How many? Forty-one report "No," the balance reporting that six members had gone out of business and two members were cutting size of herd.

Whatever the situation may be in regard to selling cows to the packers, there is no doubt about its being the duty of every creamery operator in the country to do everything he can to encourage his farmer patrons to produce every ounce of milk possible. Selling dairy cows to the butcher at the present time is destroying one of the most valuable sources of income the farmer possesses, to say nothing of the duty to his family, his state and his country in doing what he can to contribute to the supply of our much-needed dairy products.

There are many ways in which the creamery operator may present this matter to his patrons. Some of the old, familiar arguments in favor of keeping cows are:

1. That dairying, especially selling cream or butter, increases the fertility of the soil, because, by raising crops and feeding them to the cows the fertilizing constituents of the soil do not leave the farm, as is the case when crops are sold in bulk.

The fertilizing constituents contained in a ton of butter are worth about 50 cents, while each ton of hay, corn, oats and some other crops when sold from the farm remove about $5 worth of fertility.

If the value of a ton of butter (now about $900) is compared with the value of a ton of hay, one will see that the soil of the farm will be much more exhausted and the income received will be much more reduced by selling hay and other crops from the farm than by selling cream and butter.

2. The waste land, such as the rocky hills, the marshes and the timber lots, can be pastured and the vegetation growing on them converted into milk if cows are given an opportunity to utilize these portions of the farm that otherwise would bring in no income.

3. The small cost of transportation of high-priced cream and butter as compared with many of the farm crops is an item of considerable importance to the farmer.

4. The dairy farm can furnish profitable employment for labor throughout the entire year, as the help used for raising crops in the summer may be retained for feeding and caring for the cows during the winter.

5. The steady, cash payments received for cream are certainly appreciated by every farmer, and doubtless this is one of the strongest inducements for the keeping of cows which will convert the feeds raised on the farm into high-priced cash products.

6. The especially high feeding value of skim milk, which at the present time is worth at least $1.00 per hundred pounds for feeding pigs, chickens and calves, is something that should appeal to every farmer who has an interest in his own welfare.

The two pigs shown on this page are photographs taken after these pigs had been fed for 100 days on two different rations. Both pigs were from the same litter and equally thrifty when weaned, each weighing about thirty pounds at that time. During the into the federal service and ceased to exist as a state organization. While federal service, it seemed wise to prowaiting for this transfer from state to 100 days of this feeding trial, one of them received grain and water and the other grain and skim milk in the proportion of three pounds of skim milk to one pound of grain.

At the end of the 100-day period the pig fed grain and skim milk weighed 165 pounds, while the pig fed grain and water weighed fifty-five pounds.

The skim-milk fed pig gained 135 pounds, while the pig fed without skim milk gained only twenty-five pounds.

Feeding experiments have demonstrated in recent years that there is no substitute for skim milk on the farm, and that dairymen cannot afford to sell it at any price if they want to develop normal and profitable calves, pigs and chickens.

Milk stands at the head of the list of human foods. It contains nutrition for infants, invalids and strong men; its different constituents supply the body with material to produce heat, muscle, bone and energy. There are practically no waste products in milk; 94 per cent of the energy it contains is absorbed by the human body. This is a very high figure when compared with other foods, and if this fact was more widely known and appreciated the annual consumption of milk per capita would be much higher than 290 pounds, which is the estimated figure per year at the present time, or about three-fourths of a pint per person per day.

In comparing different foods, specialists usually consider them under the following heads:

1. The amount of energy.
2. The kind of proteins.
3. The mineral constituents.
4. The presence or absence of the two unknown substances, called "vitamens."
5. The presence or absence of certain poisonous or toxic substances.

The energy in food is measured by the heat units or the calories of energy produced when a given quantity is burned.

The proteins have been found to differ in their usefulness as food, while the mineral constituents consist of a certain mixture which the body seems to need in assimilating food and keeping it in a normal healthy condition.

The vitamens are substances which it has been proved are absolutely necessary for the normal growth and development of the young. This has been shown by careful feeding experiments with young animals which were fed continually a ration containing no vitamens. In such cases the animals became stunted and even paralyzed by their diet, although it contained everything the animal needed except these important substances.

The toxic or poisonous substances which some foods contain make it impossible to use them except in very small quantities on account of the accumulation of these poisons in the system.

The selection of foods, therefore, is a matter of great importance and much study has been given to this question. It has been found that neither meat nor any of the single grain foods contain all the above-mentioned requirements in exactly the right amounts, and it is not safe to use any one of them exclusively as a

TWO PIGS FROM SAME LITTER, BOTH FED 100 DAYS.
At the left, pig shown was fed corn and water and weighs 55 pounds. Pig at right fed corn and skim milk and weighs 165 pounds.

Sore Teats—Their Prevention!

Do you know what the calf's tongue does to the teat *when he swallows?* Not one person in ten does. That is one reason why, here and there, a man is loath to give up hand milking.

Notice when *you* swallow—the back of your tongue strikes the roof of your mouth first and works forward till the tip touches. It's the same with the calf—in doing so his tongue relieves the teat of its *congestion* by massaging it from *tip to udder.* If this were not necessary, there would be some excuse for the milkers that just pull, pull, pull—or for those that massage in the *wrong* direction and those that massage in the right direction but in a *rough brutal* manner. Even hand milkers cannot relax and massage the teat—a fact which accounts for the usual increase in the yield of the herd when Empire Milkers are installed.

Examine the Empire Teat Cup. Notice how the gentle massaging is accomplished—more *gently* and *uniformly* than even that of the calf.

The facts are getting around: The wide and growing sale of the Empire Milker; the stories of success after success in dairies all over the country; its prestige among the men whose opinion carry weight.

Our factory is crowded to the limit. We advise prompt action. Go to your dealer without delay and tell him to place your order as early as possible. In some localities we have not appointed an Empire agent; our requirements are high and not every kind of dealer is permitted to represent the Empire Line—if there is none near you write for the Empire Profit and Prize Book and Catalog No. 56 and we will see that you are taken care of.

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$29 Buys the New Butterfly Jr. No. 2. Lightrunning, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.
30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.
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100,000 now in use

food, but trials have shown that milk satisfies all the needs of a perfect food and furnishes the most healthy nourishment and normal development of the body at the least cost.

Economy in buying foods is a matter of great importance and requires a knowledge of their composition as well as of their digestibility. The accompanying table illustrates the comparative value of a few foods based on their energy equivalents.

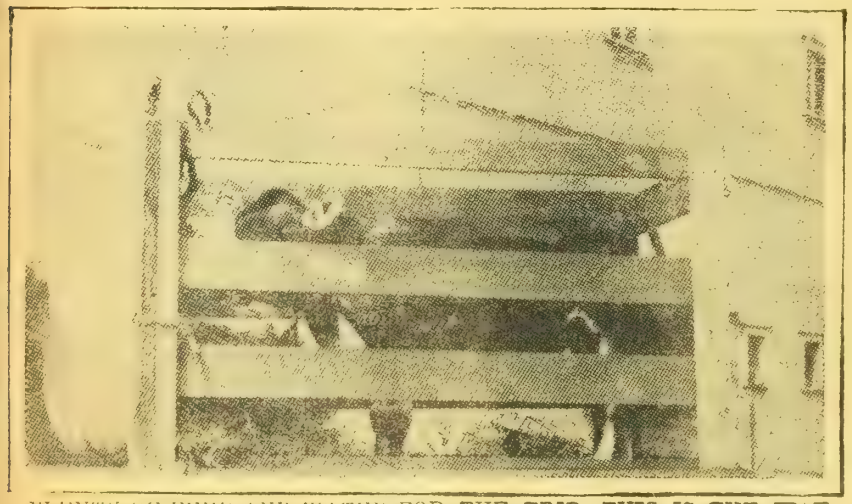
WHICH SHALL WE BUY?
Each of These Foods in the Quantity Shown, Has the Energy Value of One Quart of Milk.

Amt.	Food	*Price	Cost
1 qt.	Milk	9c qt.	9c
3-8 lb.	Rolled oats	7c lb.	2½c
2-5 lb.	Corn meal	7c lb.	3c
3-5 lb.	Bread	12c lb.	7c
2-5 lb.	Beans (dry)	20c lb.	8c
1-5 lb.	Butter	48c lb.	9c
1-3 lb.	Cheese	30c lb.	10c
1 1-3 lb.	Cottage cheese	10c lb.	13c
3 1-5 lb.	Apples	50c pk.	19c
5 2-3 lb.	Cabbage	4c lb.	22c
3-4 lb.	Beef (round)	33c lb.	25c
2-3 lb.	Sirloin steak	37c lb.	25c
1 1-10 lb.	Eggs (8)	40c doz.	27c
5 1-12 lb.	Tomatoes	10c lb.	65c

*Milwaukee retail market, August 27, 1917.

Shipping Dairy Animals.

Proper care on the part of the breeder in preparing a calf for shipment in order that the calf arrive at its destination without having suffered from lack of feed and water ought to be considered part of the sale price. This preparation for shipment has its beginning with the construction of the crate. The crate should be large enough so that the calf is able to lie down comfortably and enjoy some freedom of movement forward and backward in the crate.



PLENTY OF FEED AND WATER FOR THE TRIP—THIS IS THE WAY MONTE AYRES, HONEY CREEK, WIS., SHIPS HIS BROWN SWISS.

The crate should be strong enough so that its first trip will not be the last, for while it is being made it can just as well be made right.

The picture shows a crate which is built large enough for comfort and strong enough to make dozens of trips. In the front, it will be seen, a burlap sack filled with hay has been tied to the crate from which the calf can be fed along the route. On the top of the crate a bucket has been tied which will make it possible for the railroad men to water the calf at feeding time. The calf is sure of drinking from a clean bucket and of being watered when a bucket is thus sent along. Many a time those responsible for feeding the calf will not bother to look for something for the calf to drink out of unless they find the pail attached.

These little precautions will make a world of difference in the appearance of the calf upon its arrival. Instead of a starved, hungry animal the buyer gets a calf in good condition and he will feel just as enthusiastic over his purchase as he did at the time of viewing it or corresponding about it. The animal will look more like its picture and the buyer be better satisfied when these little accommodations are provided by the shipper.

Where only short distances are involved this will not be necessary, of course. However, all transfers from one railroad to another at junction points or cities require time and frequently delay the arrival of the calf by days.

The Producer's Point of View

To the Editor:—The rapid increase in cost of both feed and farm labor during the past year has necessarily increased the cost of producing milk. Very few farmers, however, know how to determine what milk costs them, and the question is so complicated that even experts will have great difficulty in calculating the cost for the farmers.

Some of the studies already made of this question suggest that feed is approximately one-half and labor one-fourth the total cost of keeping a cow.

Another rule that may be useful in calculations of this kind is the suggestion that one pound of grain mixture should be fed for each four pounds of milk.

Other good suggestions have been made, but the work which has been done indicates that each cow owner must necessarily calculate the cost of producing milk for his own farm.

General averages will not apply to every farm, because each one of the items entering into the cost of producing milk may have a different value at the different farms.

It is also a well-known fact that the same herd of cows may produce more milk at less cost one year than another, and this may be largely due to the kind of treatment the cows receive each year.

It has been noticed that good dairy cows fall short of what they might produce whenever they are not kindly treated, and when they are not protected from cold rains and stormy weather.

The manager of one of the largest city milk distributing firms in Chicago informs me that his firm finds it necessary to provide a surplus of milk because in certain localities where the cows are not well protected there is a great reduction in the amount of milk received from that locality whenever a storm or long spell of bad weather occurs.

Some owners of cows also fail to realize the economy of sufficient feed, and cut down the rations of their cows, thinking that in this way they are reducing the cost of the milk the cows produce.

In a general way the farms producing milk may be divided into three classes:

First, the so-called "general farm" where the cows are only a part of the farm activities. The products sold may be hay, grain, potatoes, pork, poultry, fruit and nearly all the farm crops. The cows furnish only a small part of the income from the farm. These farms undoubtedly produce a very large share of our milk supply.

Second, the "special dairy farm." In this case the cows are the most important part of the farm work. They are carefully selected. Records of the milk production are kept, and the entire attention of the farm owner is given to the raising of crops to feed the cows and to the supplying of conditions best suited for producing milk economically.

Third, the "intensive milk-producing farm." On farms of this kind the owner is trying to develop record-breaking cows and no expense is spared to obtain the reputation of owning cows that are leaders in the annual records of the dairy world.

When one considers the fact that our milk is produced on these three types of farms, it will be readily understood how complicated is the question of calculating the costs of producing milk.

A very important item, however, in milk production is the difference in the capacity of cows. This is illustrated by the following figures, which not only point out the facts that cows producing the least milk nearly always produce the most expensive milk, but the figures also furnish an outline for discussing this question with our creamery patrons.

TABLE I—A RECORD OF THREE TYPES OF COWS.
(Try substituting your own figures.)

Cow No.	1	2	3	Your cow
Milk per year pounds	3000	6000	10000	—
Cost of cow	$ 50	$100	$200	—
Value after 5 years	40	40	40	—
Expense Items				
Depreciation per year	$ 2	$ 12	$ 32	—
Labor	30	45	50	—
Feed	50	75	125	—
Taxes, interest, etc.	20	25	30	—
Sum of expense items	$102	$157	$237	—
Receipts (except milk)				
Calf	$ 10	$ 15	$ 20	—
Manure	10	15	20	—
Sum of calf and manure	20	30	40	—
Net cost of milk	$ 82	$125	$197	—
Milk per 100 pounds	2.73	2.11	1.97	—
Milk per quart	.055	.042	.039	—
Butter per lb.	.58	.42	.39	—

(Assuming four pounds butter and eighty-five pounds skim milk at 50 cents per 100 pounds.)

I have no doubt but someone may object to every figure in this table, and the criticism may be well defended, as it is practically impossible to obtain an average figure which will represent the cost of milk on all farms. This is a problem which each farmer must figure for himself.

There is another question which is of great interest to the creamery man just now, and that is the market price of butter as compared with the market price of milk and of cheese.

This is something on which he can figure the cost of making with considerable accuracy, and when he knows the price at which he can sell the butter, it is an easy matter to determine how much he can afford to pay for the milk.

TABLE II—A COMPARISON OF FACTORY PRICES FOR MILK, BUTTER AND CHEESE.

Milk	Butter		Cheese	
When 100 pounds milk (3.5 per cent) sells for	With 100 lbs. skim milk at $1.00 Should sell for	$0.50 Should sell for	With 100 lbs. whey at $0.50 Should sell for	$0.25 Should sell for
$1.60	$0.21	$0.32	$0.14	$0.16
1.80	.26	.37	.16	.18
2.00	.31	.42	.18	.21
2.20	.36	.47	.21	.23
2.60	.46	.57	.25	.27
3.00	.56	.67	.29	.31
3.20	.61	.72	.31	.33
3.40	.66	.77	.33	.36
3.60	.71	.82	.35	.38
4.00	.81	.92	.39	.43

100 pounds of 3.5 per cent milk will yield—

4.0 pounds of butter and 87 pounds skim milk or 9.5 pounds of cheese and 67 pounds whey.

Cost of making (per pound) butter 3 cents, cheese 2 cents.

E. H. Farrington
Wisconsin Dairy School.

The Creamery Operator's Opportunity.

To the Editor:—Most of our creameries in Wisconsin are so located that they happen to be one of the centers of information for the community. The creamery operator, therefore, has a great opportunity to influence the opinion of the locality in which he lives.

I hope every one of them is now improving this opportunity, for if there ever was a time when a man should be serious minded that time is here now. We must make sacrifices for the good of the entire neighborhood, community and country. We must control our selfishness more than ever before.

The time has passed when we can leave everything to our officers and office holders. Everyone who breathes the air of this free land of ours must think of his neighbor as well as of

The Great Milk Making Feed

KRAUSE Dairy Feed has made a top notch record as a milk producer. It is recognized by expert dairymen everywhere as a feed of the highest grade, on which they can always depend for increased milk production and healthy cows. It is a money-maker because it takes the place of high priced, home grown grains—saves time and labor of mixing—provides a better ration than any other combination and one which produces big and certain results.

Krause Dairy Feed

Krause Dairy Feed is made under a formula which has been approved by experts of two leading agricultural colleges. It contains distillers' grains, gluten feed, cotton seed meal, wheat bran, malt sprouts, wheat middlings, brewers' grains, hominy feed, linseed meal and a fraction of 1% of salt.

A Scientifically Balanced Ration

Each of the ingredients in Krause Dairy Feed has distinct and specific value. They are combined in such proportions as to produce a scientifically balanced ration which possesses maximum food and milk-making value—will keep your cows in perfect condition and produce a big milk yield without forcing. Your herd will relish Krause Dairy Feed and respond to it immediately.

Feed "Krause" this Winter

Sell your high priced grains and make Krause Dairy Feed your standby for fall and winter feeding. Fed alone or with any home grown stuff that does not bring a high market price, it is always a money maker. Compare the cost and results with any lower grade mixture and you will find you are saving money and making money.

Write for Free Sample

Write at once for free sample of Krause Dairy Feed, also useful pocket size record book. Be sure to give name of your dealer.

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himself, and he must do something for the general good.

Specific suggestions as to what each one of us may do need not necessarily come from others, but by keeping the thought of helpfulness in mind many opportunities to do something for the good of the cause will come to us.

There never was a time in our history when team work was so important as now. Each one of us must find a place somewhere in the line.

Our present prosperity and national comfort are the result of the unrestrained development of the good there is in freedom of action and in a common effort for the good of all and not for any one class in society. A spirit of helpfulness in everyday matters makes us all happy, strong and prosperous, and we should remember also that there is nothing too good for our soldiers. The sacrifice we may make at home must be great to even compare with what they have done and will do for us in the future.

One phase of the situation which confronts us all I think may be illustrated by the following story.

Once upon a time the members of a large and prosperous family decided that they would pack everything they had into a boat and seek a home on the opposite shore of the swift-running Niagara River. The place where they intended to cross was a few hundred yards above the brink of the falls.

The father and sons were provided with oars, while the mother and girls were given light paddles.

With this equipment and the strong faith they had in each other, they hoped to pull across the dangerous river. They knew that the current was swift and filled with whirlpools and hidden rocks, and that these might wreck the boat and carry the family over the falls to destruction.

After carefully considering the seriousness of the situation, they finally launched their craft and started across the perilous stream.

The boat made good progress; it reached the middle of the stream in safety and there seemed to be good prospects so long as every member of the family did his part that they would reach their destination, and the lives and property of the household would be saved.

It so happened, however, that while in midstream one of the sons, who, like all the other members of the family, owed everything he had to the care and protection given him by the home folks, and who had been grumbling more or less ever since the boat started, suddenly ceased pulling his oar. He refused to continue to help the boys and father in their struggle to save the family, claiming that even in midstream when the dangers were greatest he had a right to stop and discuss the advisability of undertaking the voyage; that he had the right of free speech and even when the boat was slowly drifting nearer the brink of the falls he dared to stop and criticise the decision of the majority of the family. He claimed the right to be heard and to be noticed by everyone regardless of the calamity that might befall the boat and its precious load. He denied the necessity of pulling together until the women and children were safely landed.

By this harangue he had attracted the temporary attention of every member of the family. In this respect he had accomplished his purpose, but what else had he done? I leave you to finish the story.

At the present time we are all in that boat and I hope every one of us will remember his duty to his family and act accordingly.

E. H. Farrington.
Wisconsin Dairy School.

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Bring Better Results at Less Cost

Help win the war! Your grain made into bread goes much farther to feed Uncle Sam's army than when made into meat or dairy products—and it brings you better profits.

Sucrene Feeds take the place of nearly all grain feeds. They are composed of materials known to possess high feeding value in protein, fat, carbohydrates, minerals, etc. Tested, proven and positively guaranteed in quality, and cost you less than any good ration you can mix yourself.

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Stop making milk at a loss. Sucrene Dairy Feed produces more milk at less cost than other feeds. *Here's the proof:*

Thos. Y. Hackett, one of the biggest dairymen in Salem County, N. J., writes: "I can honestly say that Sucrene has made me more money than any feed I ever bought. It produces larger quantities of milk at low cost, to say nothing of keeping the stock in best of health."

Cows enjoy Sucrene Dairy Feed because of the molasses and well-balanced variety of clean, wholesome grain products it contains.

Why use corn worth $50 per ton or more, when you can buy a standard, ready-mixed feed for less money and get better results because it is a scientifically balanced feed of guaranteed uniform quality?

Try Sucrene Dairy Feed. Order a ton from your dealer. If he does not handle it, write us his name and we will see that you are supplied.

Fill out and mail us the coupon today. Check the feeds in which you are interested.

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Dept. 38 Peoria, Illinois
(16 Years America's Leading Mixed Feed Specialists)

Please send me illustrated literature on feeds checked below: (38)
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- ☐ Amco Dairy Feed

My dealer's name.....
P. O......*State*.....
My name.....
P. O......*State*.....

At the Racine County School.

Agricultural School at Rochester Seems to Be in Flourishing Condition Notwithstanding the War Times.

THE Racine County School of Agriculture and Domestic Economy, located at Rochester, Wisconsin, is now in its sixth successful year. The pictures shown herewith give an idea of the ages of the young people who attend this school and also show their interest in live stock. When the school opened on September 24th this fall there was an enrollment of fifty students for the two-year course and, considering the shortage of farm help in southeastern Wisconsin, this is regarded as a very good attendance. It is expected this enrollment will be brought up to eighty the first week in December, when the winter course begins. This county school is trying out something new in the arrangement of courses and the plans are meeting with success. The courses offered include a two-year course in agriculture (eight months each year), a two-year course in domestic economy, one-year course for high school graduates and a two-year winter course in agriculture with fourteen weeks' work each winter.

The progress of this school is watched with considerable interest throughout the state. At one time the county agricultural school was looked upon everywhere with considerable favor. After the first interests in these schools they seem to fall back a little, but gradually they have come into public favor. At a county school, such as we find in Rochester, the entrance requirements for the regular courses is a common school diploma. Mature students are permitted to enter without a diploma if capable of handling the work. These agricultural schools do not compete with high schools, but now offer complete courses for farm boys and girls or others interested in agriculture. A big part of the student's time is spent in laboratory work in the school and on the 128-acre farm in connection with the school. A graduate of the two-year course may secure credit in high schools upon recommendation of the superintendent. The Racine county school faculty does a great deal of extension work throughout the country, such as laying out tile drain systems, judging at fairs and school exhibits, holding farmers' meetings and conducting canning demonstrations. Many talks are give at farmers' meetings. This school is also coöperated in the work of the county council of defense.

An annual event of importance is each February, and at this time lectures and demonstrations are given the three-day course for farmers held by men and women secured from the college of agriculture at Madison. Students at the Racine county school have a splendid advantage to study live stock and there are a number of head of pure-bred animals of the various breeds. The school is equipped with modern cattle and horse barns and has a tractor which is used in the fields and also for silo filling. The lower Fox river runs in front of the school grounds and the village of Rochester, where the school is located, provides a splendid atmosphere for an institution of this kind.

One important feature of the winter's work is the community lecture course. Students of the school are admitted each year at half price. The annual banquet and reunion of students is held each year on commencement day. Prof. E. A. Polley is the present superintendent of the school.

The county agricultural schools in the state are accomplishing a considerable amount of good, even though they are not at present very largely attended. They provide a rallying place for valuable extension work and also field for experimental work. Another great advantage is that there are always two or three well-posted men connected with these county schools, who will take an active part on programs arranged for farmers' meetings all around the county. Many of the young folks, who are developed into good farmers or good farmers' wives, have come from schools of this kind. These schools do not detract from the college of agriculture at Madison, but, on the other hand, should be feeders for the state school as academies are feeders for the universities.

Upper view—1917 graduating class at Racine County Agricultural School, Rochester, Wis. Center view—Judging draft horses at Racine County "Ag." School. Lower view—Pure-bred hogs on the school farm.

The comptroller of the currency has recently estimated the gross income of the United States to be $40,000,000,000. Of these he estimates farm produce and animals to bring a gross return of about $17,000,000,000. This means that farmers receive 42½ per cent of the total income of the country and they should buy, if this estimate is correct, 42½ per cent of the liberty bonds sold, provided they do their full share.

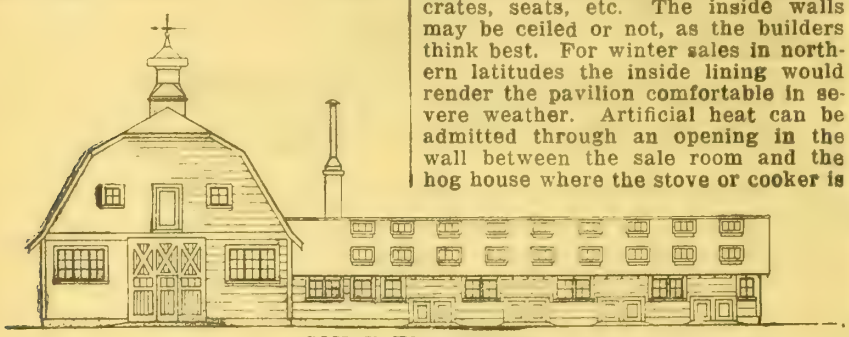
1918 Studebaker Almanac.

SINCE the publication of the first issue back in 1900, the Studebaker almanac has become an institution. Farmers look for it each year now and it is without doubt a most frequently consulted book in thousands upon thousands of farm homes in every part of the country. This year the almanac is mailed direct to the farmer from the South Bend factory, the lists of names being supplied by the Studebaker dealers in various localities.—

Public Auction Sale Pavilions.

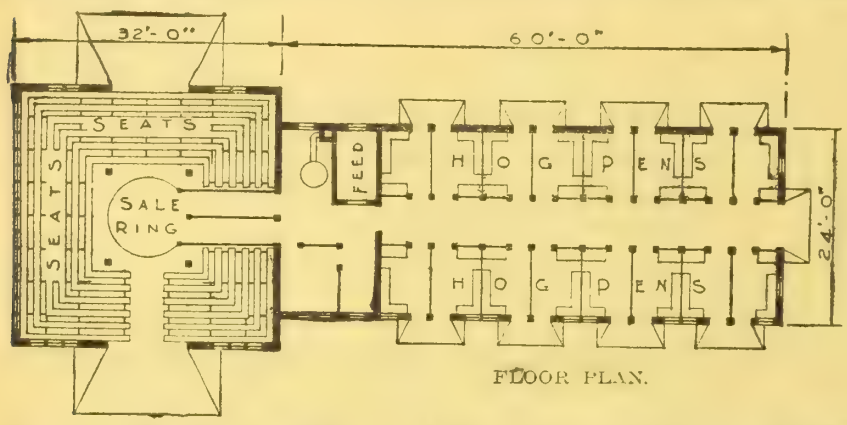
Is Practical to Combine Them With a Sunlit Hog House—A Most Convenient Arrangement for Pure-bred Stock Farms.

THE wide popularity of the public auction as a means of disposing of surplus stock renders the question of the right kind of a sale pavilion of live interest to many breeders. The plans we show here are loaned us by the department of farm architecture of the Gordon-Van Tine Company. The economy, convenience and good looks of the plan recommend it.



SOUTH ELEVATION.

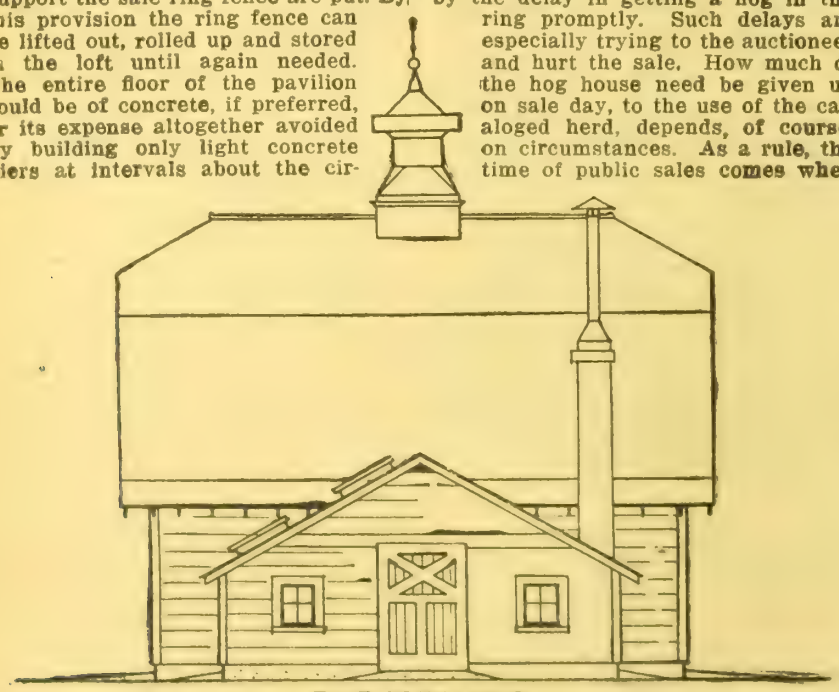
The pavilion is thirty-two feet square and ten feet high at the plate. It is designed to be bolted to a light concrete foundation raised twelve inches above grade. It will seat comfortably 300 people—though a good many more can find space if necessary. On sale day the entire floor space of the pavilion is taken up by the ten-foot circular sale ring and the seats. The seats are removable and when not in use may be stored in the loft of the pavilion and the building used for implements or other storage. The floor of the sale ring is of concrete in which openings are left into which the steel or wood posts that support the sale ring fence are put. By this provision the ring fence can be lifted out, rolled up and stored in the loft until again needed. The entire floor of the pavilion could be of concrete, if preferred, or its expense altogether avoided by building only light concrete piers at intervals about the circumference of the sale ring. These piers or footings would be brought up level with the floor grade and the ring fence posts set in them. Some such provision is necessary or the ring fence must be built new for each sale.



FLOOR PLAN.

The pavilion is well lighted by a continuous row of six lights, 8x14 windows on one thirty-two-foot length of the building—much of the other wall space is occupied by similar windows, which are set high in the wall so that the light enters above the heads of those seated inside. There is some glass in the large rolling doors at either end of the building. These doors are for a ten-foot opening. The ceiling height above the sale ring and the seats is eleven feet. There is a loft floor for storing bedding, shipping crates, seats, etc. The inside walls may be ceiled or not, as the builders think best. For winter sales in northern latitudes the inside lining would render the pavilion comfortable in severe weather. Artificial heat can be admitted through an opening in the wall between the sale room and the hog house where the stove or cooker is located. There are two built-up girders used to support the loft in the pavilion—the posts under these girders may be so placed that they do not interfere with the convenient use of the floor space. The long way of the building is east and west.

Combining the pavilion with the sunlit hog house saves lots of work and confusion on sale day. The floor plan shows the manner in which the hogs are gotten in and out of the ring on sale day. By dividing the passage way between the hog house and sale ring by a hurdle, as shown on the plan, a hog can be held in readiness to enter the ring immediately after a sale is made. We are all familiar with the annoyance sometimes caused by the delay in getting a hog in the ring promptly. Such delays are especially trying to the auctioneer and hurt the sale. How much of the hog house need be given up on sale day, to the use of the cataloged herd, depends, of course, on circumstances. As a rule, the time of public sales comes when the hog house is not in use as a farrowing house and available for the accommodation of the sale herd.



EAST ELEVATION.

The farrowing house shown is of popular modern type. A double row of windows in the south roof admit the sun's rays directly on the floor of each pen.

On March 1st, in latitude 42 degrees north, which is that of central Iowa, the sun shines continuously on the pen floors from about 10 a. m. until after 3 p. m. The earliest sunshine is admitted to the row of pens along the south wall through the windows in the side walls. The pens are six feet wide along a center feeding alley and eight feet deep. Ventilation is secured by opening each alternate roof window in the upper row, or a ventilating cupola with a damper may be employed. Each pen is provided with an outside door.

A modern plant of this kind would be a well paying investment on most farms in the corn belt. There is nothing about the buildings that is not practical and usable all the year around and their cost is within reach of anyone owning a herd of good hogs. Perhaps at no time in the last fifty years has the cost of providing the necessary farm buildings cost so small a part of the stock or grain they shelter as at present; measured into products of the farm, building material is low in price.

The Fate of the Unprepared

Among the remarkable events of this war no fact stands out more startlingly than the tragic sacrifice of Russia's unequipped soldiers.

The army has been victimized by intrigue and treachery. Guns were sent to the front without ammunition and ammunition without guns. Supplies were provided that when unpacked proved to be rubbish. Left stranded by communications that broke down under slight pressure the brave Russian troops hurled themselves again and again against foes perfectly prepared.

From the very verge of victory they doggedly fell back fighting with stones and clubs and iron bars, resisting heroically but ineffectively.

No thought can be more abhorrent to Americans than that of our boys ruthlessly slaughtered because of lack of equipment or support which it is the first business of us at home to supply.

Our Government, never before so powerful, is working prodigiously in the preparation of armies and means of warfare. Throughout the nation there is a unity of purpose that is piling on the altar of liberty every personal ambition and corporate gain.

Mines, factories, farms, shipyards, the counting houses and shops of every industry are laboring day and night to supply the sinews of war.

The Bell System is co-operating to mobilize production, transportation and communication, and is using its every energy to speed up American defense.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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One Policy *One System* *Universal Service*

HAEGER Drain Tile Lasts Forever

Half the cost of draining land is labor cost. Why add to this by using inferior tile which breaks, clogging the drain and necessitating repairs? HAEGER Drain Tile is strong, straight and well-burned. No crumbling in the ground and little breakage in handling. Once laid the drain gives good service for a lifetime. Drain your swamp land—raise big crops next year—take advantage of high prices.

FREE BOOK—"FARM LAND DRAINAGE"—sent on request. Buy either direct or through your dealer. Look for the "DIAMOND H" mark.

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Kirstin One-Man Stump Puller

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Cheapest Way to Clear Land

No horses needed—no extra help required—one man alone pulls all kinds of stumps quick and easy. The Kirstin holds record for lowest land clearing cost. New patented features give enormous strength and power. Four sizes—low prices—time payments—30-day try-out on your farm. Write today for big, new, free Kirstin land clearing book.

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IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F. Farm and Real Estate Journal, Traer, Iowa.

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POTATOES WANTED. Write what you have to offer. C. C. Clemons Produce Co., 128 Grand Ave., Kansas City, Mo.

Kindly mention this paper when writing.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Kindergarten Activities at Home.

The pleasures and benefits of kindergarten training are established facts, and children so situated that they cannot take advantage of this training are the losers thereby unless some systematic plan is worked out in the home. Many mothers of little children have found it practicable to do this, and have successfully carried on many of the activities of the kindergarten in their homes. One such mother, Mrs. Alice Wingate Frary, who was formerly a kindergarten teacher, gives some valuable hints concerning this home work. She says:

Why shouldn't children sing morning greetings to father and mother as well as to teacher? Even two year olds that I know can sing them and delight in doing so. The good morning songs to various members of the family, to the new day, to sun or clouds, sung while dressing, do much to create a sunny morning atmosphere. There are songs to accompany many of the home duties, besides a wealth of nature songs. At bedtime, the devotional spirit of the evening prayer may be enhanced by the singing of a child's hymn. Songs such as these can be found in "Games and Music of Froebel's Mother Play" and in other kindergarten song books. Any good library would have some of these, or it would be possible to buy copies through a book store.

A Kindegarten calendar may easily be made at home. For this purpose a sheet of white cardboard is ruled off into a sufficient number of blank squares for the days of the month. The children mark the calendar each day with a suitable emblem. Yellow circles should be provided for sunny days and gray for cloudy. Tiny umbrellas denote rain; a gray circle partly covered with white indicates snow. Advertisements furnish pictures for special occasions—a little church, a toy, a birthday cake, a Christmas tree, etc. The particular emblem is less important to the children than the pleasure they take in attending to the calendar regularly, and the fact that they are being helped to a realization of divisions of time. The card should be large enough to allow for a suitable picture for the month to be mounted outside of the ruled portion. Landseer's "Squirrel and Pair of Nut Crackers" may be used for the October sheet. Coreggio's "Holy Night" for December, Washington's or Lincoln's portrait for February.

Games train the senses at the same time that they afford keen pleasure. A mother can play many games with her child without interrupting her work. Dramatization is a wonderful stimulus to the imagination, and numberless stories lend themselves to this form of reproduction. "Barbara Fritchie" was enthusiastically played by the children of one kindergarten. A chair formed the patriot's house; she leaned over the back waving her flag solemnly; Stonewall led his army past; the dialogue was fervently spoken and the army marched on.

At one small boy's party, he and his father acted several Uncle Remus and "Just So" stories, to the delight of the guests. Of course, the spirited interpretation of a tale presupposes a close acquaintance with it.

The kindergarten, aiming as it does to relate the limited world of the small person to the larger world about him, to quicken his appreciation of parents and all world workers, to deepen his wonder and reverence for natural phenomena, is much more than a mere place of amusement. The home can be made more than this also.

While the stimulus of coöperative work and play is lost in the case of one or two children, still the small duties to be performed each day, the games and the songs will prove a source of profitable amusement to the little folks. They are given a chance to express themselves, every sense is trained and made keener, and their playtime is made to serve a double purpose by teaching them valuable lessons as well.

Clearing the Table.

It does not occur to many a housewife that much confusion and time may be saved in her kitchen by the exercise of a little thought in clearing the dining table and piling up the dishes ready for washing. Neatness and order in the pantry or kitchen depend upon the manner in which the table has been cleared, and the speed and ease with which the dishes are washed depend upon the degree of orderliness and system maintained.

Dishes should be separated and sorted as they are brought from the dining room, not piled promiscuously wherever a clear space can be found on table or shelf. Scrape the dishes carefully and put those of a kind in a separate pile. A rubber scraper may be employed in cleaning off the dishes, or soft paper is good for fine china and silver. Those dishes that have held milk or eggs should be rinsed with cold water immediately.

All clean dishes and left-over food should be put away at once, and salt and pepper shakers, sugar bowls, etc., should be filled when taken from the table.

Place the dishes on the draining board at the sink in the order in which they are to be washed. These may seem little points, but they will facilitate the washing of the dishes.

Sugar Trimmings.

First cross off soda fountain and ice cream treats.

Reduce candy consumption to an after-dinner bonbon.

Use fruit and nuts, candied honey or maple sugar for cake fillings.

Sweeten fruit drinks with honey or corn sirup.

If you must sweeten breakfast cereals, try figs, dates, raisins, sirup or a light sprinkling of maple sugar.

Use honey, corn sirup, dark sirup or maple sirup with hot cakes and in bread and muffins.

Try cakes that call for honey or sirup instead of sugar.

Tide over the sugar shortage by using now your jellies, jams, preserves and fruits canned with sugar.

Replace white sugar candies with sirup candies, or sweets made from figs, dates and raisins combined with nuts.

For desert serve a fruit salad of fruit omelet; cream cheese with honey or fine preserves; fruit desserts with honey or just enough white sugar to bring out the fruit flavor.

To Those Having Charge of Little Children.

A series of articles on the care and training of small boys and girls at home is being issued weekly by the United States Bureau of Education. They deal with such topics as understanding children, outdoor and indoor games and occupations, playmates, plays and toys, books, stories, pictures, music and pets.

The authors of the series are mothers who were formerly kindergarten teachers, and, therefore, well qualified, both from training and experience, to write on this important subject.

If you care to receive the articles as issued, send name and address with request to be put on the mailing list for Mothers' Articles, to the Kindergarten Division of the United States Bureau of Education, Washington, D. C.

Light Corn Bread.

To the Editor:—I would like to make inquiry of some of the good farm wives for a recipe for the good old-fashioned fermented light corn bread. Is it a lost art in these days? We are being urged to use more corn, and it has set me thinking of this good old bread. Perhaps someone can tell me how to make it. W. H. B.

Poisoning From Home-Canned Food.

Although reports have been widely circulated that home-canned fruits, vegetables and meats are causing a good deal of food poisoning, housewives need not lose their confidence in the stores of foods they have preserved for winter's use. There is every reason to believe that they are sound and wholesome, for authentic instances of food poisoning due to the use of home-canned products are exceedingly rare.

For the information of housewives who are everywhere deeply interested in this matter, the following facts about home-canned products are given out:

1. Poisoning due to home-canned

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The Original Patented Pipeless Furnace—

Are you, like the rest of "folks"—hunting ways and means to cut the "high cost of living?"

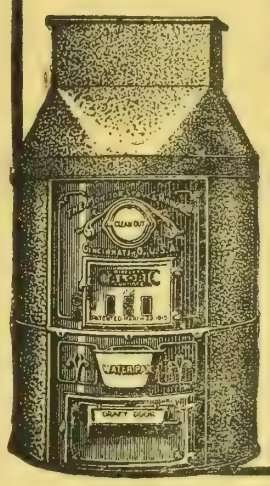
Well! here is an excellent starter. By installing the Caloric Pipeless Furnace you can lessen your annual fuel bill by a third or more and have a **much warmer home than ever before.**

We have hundreds of letters from enthusiastic users in all sections of the country that prove what we say beyond any question. Here is a sample letter:

"I always heated with hard coal at $45 and $15 for cooking and laundry, total $60. Last November I installed one of your No. 43 Caloric Patented Pipeless Furnaces and have heated six rooms and bath for $32.00. including cooking and laundry. We had a few days during the winter that were 18 to 20 degrees below and I had no trouble keeping seventy degrees upstairs and downstairs."

Why Not Have This Wonderful Furnace Yourself?

This is the furnace that heats through **one register.** It does away entirely with long heat pipes and sends its flood of warmth and comfort directly up to circulate without hindrance throughout the whole house. The farthest room feels its influence as much as the one in which the register is located, and a cool spot isn't to be found anywhere except in the cellar.



This is the most natural and healthful way of heating, and because the method is **direct,** it requires less coal, coke or wood—hence the great fuel saving advantages of the Caloric Furnace.

The Caloric may be installed in any home, new or old.

Let the Caloric dealer in your town tell you the whole interesting story. Also, let us send you our remarkable guarantee, startling in its direct assurance of your satisfaction.

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Foot-Schulze & Co. Saint Paul

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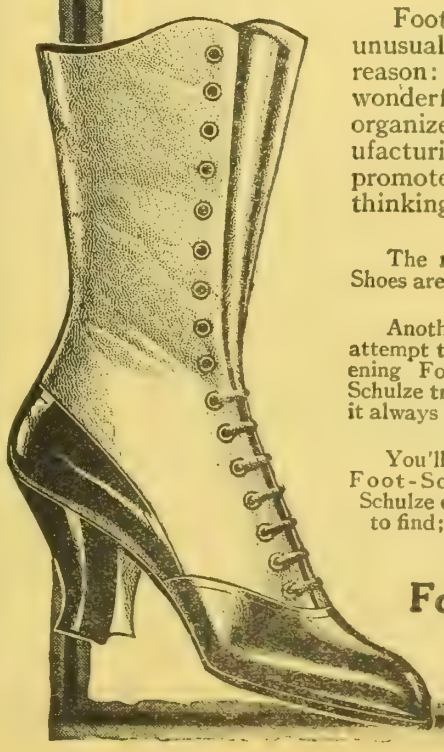
Value Counts—Not Price

What you **get** for your money is the important question now, especially when you buy footwear.



Foot-Schulze Footwear gives unusual value. Here's a logical reason: Our new, sunlighted, wonderfully equipped, efficiently organized factory makes our manufacturing more competent. It promotes better working, better thinking, better planning.

The net result is that Foot-Schulze Shoes are **made** better than ever.

Another reason is: We have made no attempt to meet the rising costs by cheapening Foot-Schulze Shoes. The Foot-Schulze trademark means just as much as it always has. It still is making friends.

You'll get surprising value, if you buy Foot-Schulze Shoes. Find the Foot-Schulze dealer in your town. He's easy to find; a good man to know.

Foot, Schulze & Co.

Saint Paul

THOUSANDS OF

American Housewives Helped Write This Wonderful Cook Book of

FAVORITE RECIPES

Edited by
MARION HARRIS NEIL

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Edited by Marion Harris Neil

the Famous Expert and Recognized Authority, who is also conducting in the columns of THE PEOPLE'S HOME JOURNAL

War-time Classes in Economics

Approved by the Food Administration

It stands to reason that a Cook Book compiled as this one has been with tried and tested recipes sent from every corner of the land, combining as it does the cream of a million kitchens, and the wisdom of a thousand cooks, edited by a famous expert, should surpass in usefulness and practicability any other cook book which may have preceded it. The Favorite Recipe Cook Book is without a peer and is undoubtedly the most complete and comprehensive ever offered to the public. Included in the list of subjects authoritatively covered are: Soups, Fish, Meat, Sauces, Entrees, Salads and Salad Dressings, Meat Substitutes, Cheese Dishes, Economical Dishes, Left Overs, Emergency Dishes, Sandwiches, Chafing Dish Recipes, Bread and Biscuits, Fireless Cookery, Invalid Dishes, Baby Dishes, Beverages, Desserts, Pudding Sauces, Pies and Pastries, Cakes, Icings and Fillings, Ice Cream and Ices, Fruits, Candies, Preserving and Canning, Table of Proportions, Table of Weights and Measures, Time Table of Cooking

FOOD CONSERVATION DISHES

We have included in this very up-to-date Cook Book a complete collection of Meat Substitutes to save the expense of meat without missing it from the menu. Economical Dishes—pages of them—that will provide many a delightful meal, at exceedingly small cost. How to use whatever is left over, and make it a substantial and pleasing part of the next meal, is fully told. There are dozens of unique Emergency Dishes, giving ready advice upon how to "prepare something in a hurry"—and do it so well that unexpected guests will be delighted! If baby's food does not agree, turn to the chapter on Food for the Baby, and learn what will agree. There are many dishes intended for invalids and a common-sense chapter on Preserving and Canning.

GIVEN

This wonderful volume of "Favorite Recipes" may be had without expense and will be sent post-paid to any reader of THE LADIES' WORLD who will send us one new two-year subscription (24 copies) to THE PEOPLE'S HOME JOURNAL at $1.50 for two yearly subscriptions at 75 cents a year, each one of which may be your own. Act quickly, our Edition is limited.

THE PEOPLE'S HOME JOURNAL

"A magazine for every member of the family" is a welcome visitor in more than 900,000 homes because the editorial contents of every issue are of unsurpassed excellence, including intensely interesting feature articles and a powerful COMPLETE NOVELETTE and gripping serial and short stories by celebrated authors, artistically illustrated by famous artists. The advice and practical assistance of the experts who edit the departments devoted to household problems will be found invaluable. Particularly the Department on WAR-TIME CLASSES IN ECONOMICS conducted by Marion Harris Neil and approved by the Food Administration and the Department of Agriculture, Washington. The other departments cover a wide range of subjects, including, among others, Mother and Child Interest, Home Development and Decoration, Fashions, Needlework and The Green Meadow Club, which is admitted to be the best page for children that is published by any magazine today.

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fruits very rarely if ever occurs. A few cases have been reported in the United States, but adequate proof is lacking in most. The acid nature of fruits makes it comparatively easy to sterilize them. Of course, imperfect sealing or carelessness at any stage may lead to molding or to "working." The contents of such jars should, of course, be discarded.

2. Vegetables, particularly beans, and corn, are more difficult to can than fruits. They do not contain much acid. Nevertheless, if directions are carefully followed, it will be unusual for the contents of a can to spoil. If one does ferment, or spoil, the housewife should be sure that it is destroyed, for it may cause serious illness if eaten. It is questionable if a can of vegetables ever spoils without the development of a decided taint which is easily detected.

3. An additional safeguard is also thrown about the use of canned vegetables in that they are generally heated before being served. The poisons which might develop in a spoiled can are completely destroyed and rendered harmless by boiling. There need never be the slightest fear concerning the use of canned vegetables, provided they are served hot. It is conceivable that tainted string beans, for example, might be used in salads without being heated and not be detected. The danger, even here, is certainly very slight.

In short, there is no good reason for alarm concerning the use of home-canned products. Millions of people are doing it in perfect safety. Use good judgment by discarding and destroying the contents of spoiled cans. If there is any question, heat before serving.

Recipes for Wheatless Days.

Barley Muffins.—One cup sour milk, one tablespoon sugar, one egg, one-half teaspoon soda, one-half teaspoon salt, two tablespoons melted fat, two and one-fourth cups barley flour, two teaspoons baking powder. Beat eggs, add sugar, salt and soda dissolved in a little cold water. Sift flour and baking powder together and combine with first mixture. Add the melted fat and beat well. Bake in well greased muffin pans until thoroughly done, about one-half hour, depending upon the size of the muffins.

Squash Pie.—One and one-fourth cups steamed and strained squash, one-third cup sugar, one-half teaspoon salt, one-fourth teaspoon each of cinnamon, ginger and nutmeg, one egg, one cup milk. Mix sugar, salt and spice, add squash, egg slightly beaten and milk gradually. Bake in one crust. If a richer pie is desired use one cup of squash, one-half cup each of milk and cream, and an additional egg yolk. For the pastry use two cups barley flour, one-half teaspoon baking powder, one-half teaspoon salt, one-third cup fat, water to make a stiff dough. Combine as for other pastry. This crust is particularly good for mince, apple, squash and pumpkin pie.

Recipes for Meatless Days.

Roast Rabbit.—Wash the rabbit with soda water. Lay in salted water for an hour. Stuff the rabbit with onion, celery or chestnut dressing and sew up. Line a baking pan with the following: One onion and one carrot cut up, a few cloves, whole pepper corns and one bay leaf. Rub rabbit with salt and pepper and lay it upon this dressing, putting fat here and there over the rabbit. Sift a little flour over the top and pour a cup of stock or hot water into the pan. Cover tight and roast, basting frequently. When ready to serve, put on a hot platter and garnish with slices of lemon and cranberry jelly or currant jelly.

Codfish Balls.—One cup salt codfish, two heaping cups potatoes, one-eighth teaspoon pepper, one egg, one-half tablespoon fat. Wash fish in cold water, and pick in very small pieces, or cut, using scissors. Wash, pare, and soak potatoes, cutting in pieces of uniform size before measuring. Cook fish and potatoes in boiling water to cover until potatoes are soft. Drain through a strainer, return to kettle in which they were cooked, mash thoroughly (being sure there are no lumps left in potato), add fat, egg, well beaten and pepper. Beat with a fork two minutes. Add salt if necessary. Dredge hands with flour, form into round, flat cakes about three-fourths inch thick; brown each side in a small amount of hot fat. Serve hot.

Baked Bean Soup.—Three cups cold baked beans, three pints water, two slices onion, two stalks celery, one and one-fourth cups stewed and strained tomatoes, two tablespoons fat, two tablespoons barley flour or one tablespoon cornstarch, one tablespoon Chili sauce, salt, pepper. Put the first four ingredients in a saucepan; simmer thirty minutes. Rub through a sieve add tomato and Chili sauce; season to taste with salt and pepper and bind with the fat and barley flour, or corn starch. Cook together.

THE YOUNG FOLKS.

Is Helping Uncle Sam.

Dear Young Folks:—I am eleven years old and live on an eighty-acre farm. My father has fifty head of cattle and six head of horses, also thirty head of pigs. We have two silos, a large red barn, also a large house. Last year we built a new cement garage for our car. Father raises apples and potatoes. We have 400 apple trees.

Are any of the Young Folks trying to help Uncle Sam win this great war? My parents have bought liberty bonds to help Uncle Sam. Gertrude.

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"Try, Try Again."

Dear Young Folks:—I have read your letters for some time and enjoy them very much. This makes the fourth time I have written and I have never seen any of my letters in print, but I am going to try once more. I believe in the old saying, "If at first you don't succeed, try, try again."

I have quite a few pets—eight cats, one dog and a pony. I like them all. I have three brothers and one sister. We live one mile from school.

I am going to ask a riddle: What has an eye, but no head?

Lulu Louise.

A Recipe for Beulah.

Dear Young Folks:—This is my first letter. Each week when the paper comes I read the letters from the Young Folks. They are very interesting, but I like the riddles and recipes the best of all.

I live on a farm of eighty acres. I do not go to school this year. I finished the state graded school last year, and now I am working hard on the farm. I think most of our Young Folks like the country better than the city, and I agree with them. We live about eight miles from town. We have a car. Almost every farmer around in our neighborhood has a car. In the summertime we take a ride almost every evening, but now it is getting colder, so we stay at home.

As I like riddles I will have to give the boys and girls of our page one to guess. What goes up when the rain comes down?

I am sending Beulah a recipe for a chocolate loaf cake. Beat to a cream one and one-half cups sugar and one-half cup butter; add two eggs, well

beaten, then one-half cup milk, one teaspoon vanilla; sift two cups of flour and two teaspoons baking powder together and mix with other ingredients. put one-half cup sugar, one-half cup milk and one and one-half squares chocolate in a saucepan and cook until chocolate is dissolved. Add to cake batter and bake three-quarters of an hour in a moderate oven.

Will someone please send me a recipe for a dark frosting? Susan.

OUR FASHION DEPARTMENT.

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Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

1266—Set of baby's one-piece long clothes with front closing. It will require for the sack, ¾ yard of 27-inch material. For slip, 2¼ yards of 36-inch material. For wrapper, 2¾ yards of 27-inch material. For barra coat, 1⅛ yards of 40-inch material.

1596—Ladies' house or morning dress. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6⅜ yards of 36-inch material for a 36-inch size.

1629—A popular "twenty-minute" apron. The pattern is cut in 3 sizes: Small, medium, large. It requires 5½ yards of 27-inch material for a medium size.

Waist 2097-Skirt 2076—A pleasing combination. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure, and requires 3⅛ yards of 36-inch material for a 36-inch size. The skirt is also in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure, and requires 3⅜ yards of 44-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2264—House coat for men. The pattern is cut in 7 sizes: 32, 34, 36, 38, 40, 42 and 44 inches breast measure. Size 38 requires 3⅛ yards of 36-inch material.

2269—A good dress for the growing girl. This pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 will require 3¼ yards of 44-inch material.

2270—A simple dress for mother's girl. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 3⅜ yards of 44-inch material.

2271—A simple, stylish model. The pattern is cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 4⅞ yards of 44-inch material.

2276—A smart style for the young miss. The pattern is cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 4¼ yards of 36-inch material.

2278—A set of pretty bags. The pattern supplies each of the three styles illustrated and is cut in one size. Each one requires 1 yard of 27-inch material.

2290—A unique and attractive style. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6 yards of 36-inch material.

2288—A charming negligee. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium requires 7¼ yards of 36-inch material.

International Sunday School Lesson.

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)

Lesson For November 11, 1917.

LESSON TEXT—Nehemiah 1.

GOLDEN TEXT—"Whatsoever we ask, we receive from him, because we keep his commandments, and do these things that are pleasing in his sight." —I John 3:22.

Some twelve or fourteen years after the revival of the worship of Jehovah under the administration of Ezra, Nehemiah led a company to Jerusalem to restore the city walls and civil authority. The walls and gates of the city had lain in ruins ever since they were broken down by Nebuchadnezzar. In this condition the remnant of the Jews who had gone back to Jerusalem were exposed to the dangers of assaults from the surrounding enemies. Not only was this exposure detrimental to the peace and comfort of the people, but it was a matter of severe reproach to them (v. 3). Nehemiah was a man of strong character. Though occupying a position of high honor and responsibility in the very center of the great heathen capitol, the desire to honor God was uppermost in his heart. He is an example to all young men, demonstrating to them that it is possible to be true to God regardless of the environment in which he may be compelled to live. In order for a man to thus stand, his life must be rooted in Christ, and these roots—our faith—must be watered and kept alive through vital communion with God in prayer and study of His Holy Word.

I. Nehemiah Learns of the Affliction and Reproach of the Returned Remnant in Jerusalem (vv. 1-4).

1. The time (v. 1). It was in a winter month, November or December, in the 20th year of Artaxerxes. He was engaged in the performance of his accustomed duties as cup-bearer to the king, when the news came to him of the deplorable condition of Jerusalem and the remnant who had gone there.

2. The occasion of (vv. 2, 3). The visit of Nehemiah's brother and certain men of Judah made it possible for him to inquire concerning the state of the remnant and the conditions of Jerusalem. They informed him that they were in great affliction and reproach.

3. The effect upon Nehemiah (v. 4). He was greatly moved by the story of the distress of his brethren. Though occupying a position of honor, and enjoying all that heart could desire, he keenly took the misfortune of his brethren to heart. He not only shed tears of sympathy, but took these burdens in prayer to God. This is the proper way to sympathize with the unfortunate. It is manly to weep with those in distress, and to pray for those who have need. Jesus wept over Jerusalem and prayed for his own. Nehemiah exhibited the spirit of true patriotism. The affliction and shame of his own people went close to his own heart. National and racial solidarity constitutes the real basis of patriotism. The reproach and affliction of a nation is the reproach and affliction of every member thereof.

II. Nehemiah's Prayer for Israel (vv. 5-11). We are taught that in the midst of affliction, we should pray. Nehemiah in this early time practiced this New Testament direction. A study of his prayer is most helpful.

1. It was earnest (v. 4). He fasted and prayed for several days. When men are willing to desist from food and turn aside from their occupations to pray to God, they are unmistakably in earnest. This is true fasting.

2. The ground of (v. 5). He plead covenant relationship and the faithfulness of God in keeping his covenant. It is a good thing always in our praying to plead thus with God. He is delighted when we come as children pleading for the things we need on the basis of our relationship to him.

3. Unselfish (v. 6). He has as his supreme object the welfare of Israel. His personal interests were not affected, either for better or for worse, by the condition of the Jews in Jerusalem. Many prayers do not count with God because they are self-centered.

4. Penitent (vv. 6, 7). He acknowledges that the state of Israel was due to disobedience to God's commandments and their corrupt dealings with God. So completely had he identified himself with his people that he included himself with Israel as having sinned.

5. The prayer of faith (vv. 8, 9). He believed the word which God had spoken to Moses touching his willingness to restore and bless his people, though he was obliged to severely judge them. In our praying, we should be able to point to some definite promise in God's word, as we plead with him. Faith takes God at his word, and holds him to it.

6. Definite (vv. 10, 11).

a. He pointed to the specific people, as those redeemed by God's powerful hand.

b. He asked that God would prosper his way and grant him mercy in the sight of the king. This was a part of wisdom on Nehemiah's part. Before going before men for consideration of important interests, we should ask God to prepare their hearts, so that they will listen sympathetically to our plea. This we should do in all things, and we can do it, when our own hearts are right, and we see the good of others and not that of ourselves.

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THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

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POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Mashes and Ground Grain for Poultry.

In his work on "Poultry Breeding and Management" Mr. James Dryden discusses the relative merits of ground and unground grain for poultry, and, in addition, specifies when each shall be used and also when the feeding of mashes is advisable. He says:

It pays to feed part of the grain ground. It is a saving of energy, and energy is furnished by the food; therefore, it will save food to grind some of the grain for the fowls. Ground food is more quickly digested and assimilated than whole. The hen can manufacture the eggs faster with ground food than with whole grain. Experiments by Wheeler showed that fowls having half their grain ground and moistened required 20 per cent less food to produce a dozen eggs than fowls having all whole grain. Fowls, however, relish the whole grain, or a large percentage of it whole. Probably one-third of the grain ground would be a safe limit to feed. The danger in feeding one-half or more of it ground would be that the fowls would be liable to lose appetite and not eat enough to fill the demand for heavy egg yield.

If fed heavily on wet mash in the morning, the fowls would gorge themselves and would not be as active the rest of the day as if fed a light feed of grain in the litter in the morning. A good feed of mash about an hour before going to roost, followed by a feed of whole grain, will give satisfactory results. In cold weather especially the practice of feeding whole grain liberally the last feed of the day is a good one. Whole grain will "stay with them" better throughout the long, cold night than mash, and keep up the heat of the body better. It will save feeding in the morning if at the last feed at night enough grain is thrown on the litter to more than satisfy the fowls, and leave some for them to begin scratching for in the morning. Where wet mash is fed the first thing in the morning, this should not be done. The writer prefers to feed the mash in the morning, just as soon as the fowls come from the roost, but to feed only as much as they will eat up readily, so they will go to work scratching in the straw for the whole grain. It is not so material at what time of the day the soft food is fed, as it is that the fowls be kept active and retain their appetites.

These observations come from an expert who has extensive practical and scientific knowledge of the subject and those who have not been well satisfied with their method of feeding can well afford to give heed to what is here said on the question of feeding mashes as well as ground and unground grain.

Wisconsin Dairymen's Convention.

The forty-sixth annual meeting of the Wisconsin Dairymen's Association will be held at Janesville, Wisconsin, November 20th, 21st and 22d. One of the most important topics to be brought out at this meeting will be the cost of milk production. Among the speakers are E. S. Brigham, J. B. Bain and R. C. Reed. Mr. Brigham owns and operates a dairy farm in Vermont and is commissioner of agriculture for that state. Mr. Bain is employed by the United States Dairy Division and for two years has been employed in investigating the cost of production of milk. Mr. Reed is largely responsible for the Michigan Producers' Organization. He is a breeder of Holsteins. The program for the Janesville convention is as follows:

Tuesday, November 20th.

First Session—10 A. M.

1. Address of Welcome—Mayor James A. Fathers, Janesville.
2. Response—C. H. Everett, editor Wisconsin Agriculturist, Racine.
3. President's Annual Address—Math. Michels, Peebles.
4. Cow-Testing Associations in Wisconsin—Noel Negley, Madison.

Second Session—1:30 P. M.

1. My Opportunity for Service—Bessie Lipsitz, Avoca. (Miss Lipsitz is the first woman cow tester in America.)
2. New Legislation and Plans for Eradication of Bovine Tuberculosis—Hon. C. P. Norgord, State Commissioner of Agriculture, Madison.
3. The Cow We Need for Profit—Geo. McKerrow, Pewaukee.
4. Men's and Boys' Cow-Judging Contest.

Third Session—8 P. M.

1. The Use of Milk as Food During the War—Miss E. L. Amery, College of Agriculture, Madison.
2. Relations of Producer and Consumer—Hon. C. E. Lee, Assistant Dairy and Food Commissioner, Madison.

Wednesday, November 21st.

First Session—10 A. M.

1. A State Milk Producers' Association—R. C. Reed, Secretary Michigan Milk Producers' Association, Howell, Mich.
2. Growing Legumes for the Dairy Herd—Prof. D. H. Otis, College of Agriculture, Madison.

Second Session—1:30 P. M.

1. Legumes as a Factor in Grain Conservation—J. B. Bain, U. S. Dairy Division, Washington, D. C
2. The Milk Producer and Co-operation—Hon. E. S. Brigham, Commissioner of Agriculture, St. Albans, Vt.

Thursday, November 22d.

First Session—10 A. M.

1. What Shall I Feed This Winter?—A. J. Glover, Associate Editor Hoard's Dairyman, Fort Atkinson.
2. The Law and the Milk Producer—Hon. Walter Drew, Assistant Attorney-General, Madison.

Second Session—1:30 P. M.

1. The Future of Dairying in Wisconsin—Charles L. Hill, Rosendale.
2. Barn Building and Ventilation—W. D. James, Fort Atkinson.
3. Soil Fertility and the Cow—Prof. W. E. Tottingham, College of Agriculture, Madison.

The regular program contains illustrations of the champion butter-producing cows of Wisconsin, and also records of cows in Wisconsin cow-testing associations that have produced over 450 pounds butter fat (562 pounds butter). Copies of this program will be supplied on request by Paul C. Burchard, secretary, Fort Atkinson, Wisconsin.

The Wisconsin Dairymen's Association has had special charge of cow-testing associations since their introduction in this state ten years ago, and in that time over 250 associations have been organized and over 130,000 cows have been tested for a year. On July 1, 1917, Wisconsin had eighty-three associations, more than any other state, that are putting the test of merit on 41,000 cows for 2,500 farmers.

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The Sunshine Safety Lamp Co., 311 Factory Bldg., Kansas City, Mo., has a new portable gasoline lamp which gives the most powerful home light in the world—a blessing to every home not equipped with gas or electricity. 300 Candle Power at one cent per night. This remarkable lamp has no wick and no chimney, is absolutely safe and gives such universal satisfaction they are sending it on Free Trial. They want one person in each locality to whom they can refer new customers. Take advantage of their free trial offer. Agents wanted. Write them today.—Adv.

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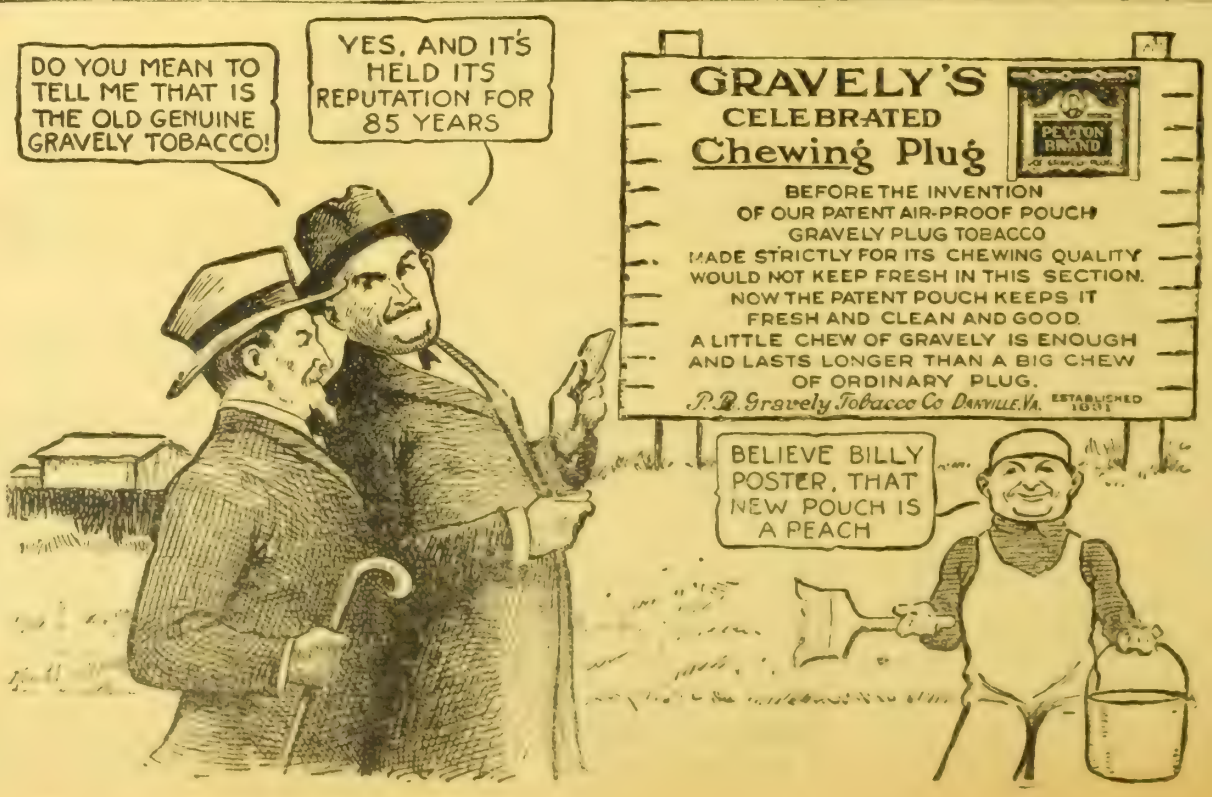

Defense Work in Rural Districts.

(Continued from page 8.)

the corn was largely frosted. We have encouraged our farmers to seed more winter wheat and rye. The live stock in our section is in fine condition and many of our farmers have bought pure-bred bulls. We have many fine herds in our county. Crops are all good except corn, which got hit by an early frost and still we believe it is better than was at first anticipated. A. S. Offerdahl,

Sauk County.

To the Editor:—Sauk County Council of Defense made a special effort to help the farmers of Sauk county to get help. This is a dairying county, with potatoes for a cash crop, and much hay, corn and oats are grown. To get in the crops was a serious problem for our farmers and the council did much to get labor for them. At all times the labor problem was acute and some hay suffered by reason of it. But what we lacked in labor the good Lord made up for in weather and the harvest was generally well taken care of.

As a rule, the potato crop on the farms is a little above normal in acreage. The principal increase comes through the planting of vacant lots and small patches in the cities and villages. The yield is not large, but it is uniformly good—about 100 bushels to the acre. And the quality is fine.

There seems to be small change in live stock from normal. The increase in dairy cows has been large, principally by the purchase of grades from other near-by sections. The price of butter fat, especially in creameries and local cheese factories, has been the cause of this influx of cows. Hogs are still in good demand, especially brood sows. Silos are full and the silage is reported as good, notwithstanding the early frost that did much damage to corn. Verne S. Pease,
Publicity Man.

Green County.

To the Editor:—The Green County Council of Defense was organized on May 4, 1917. At the time of its organization the purposes of the council were defined as "promoting the interests of preparedness." This preparedness, in a large measure, consisted of an increase in production of foods and food crops, and of taking an active interest in all affairs which tended toward helping the United States win the war.

The first step in this direction consisted of securing the services of Prof. L. F. Graber, of the Wisconsin Experiment Station, to act as emergency food agent. Professor Graber, acting in conjunction with County Superintendent of Schools J. N. Burns, held twenty alfalfa lectures and preparedness meetings in as many different parts of the county.

At these meetings the subject of alfalfa growing was the main topic discussed. Alfalfa is one of the biggest crops grown in this section, for, after all, Green county is primarily a dairy county, and an increase in alfalfa acreage means an increase in the production of the greatest human food, milk. One of the first things which Professor Graber found was that even in this great limestone country a large portion of the surface soil was too acid to produce alfalfa to the best advantage. He immediately took up the task of correcting this great fault.

At each alfalfa demonstration he secured the names of all men who wished to have their fields tested for acidity. Later on he visited these farms and by means of the Truog test, he was able to advise the amount of lime necessary to correct the sourness of the soil. More than 100 tests were made throughout the county. Samples of limestone were taken from all parts of the county, and a limestone grinder was put in operation to produce the limestone for neutralizing the sour soils.

Last spring, under the supervision of Superintendent Burns, 2,500 bushels of seed potatoes were brought into Monroe and distributed in five-bushel lots to growers throughout the county. Very good results were obtained from this plan of distribution. At present Mr. Burns is completing arrangements whereby the school children will be given the task of testing the next season's supply of seed corn.

The work of the council of defense has not been altogether along agricultural lines. For the selling of government liberty bonds, an organization was perfected, so that the help of every individual in the county was solicited. On the evening of Tuesday, October 23d, thirty patriotic meetings were held at schoolhouses in the country and sixty speakers were detailed to take charge of the work. The sale of bonds is increasing rapidly, and it looks as if Green county will at least come well over their minimum quota.

The plans for the coming year will be outlined at the next meeting of the council. The work of liming soils and of increasing alfalfa acreage, which is already 29,000 acres, will be continued. Seed corn curing demonstrations will be held and the council will assist in every way possible the work of the food administration.
James Lacey,
Emergency Food Agent.

Kenosha County.

To the Editor:—The State Council of Defense, through its labor bureau, has supplied Kenosha county farmers wtih laborers. They also have assisted the County Council of Defense in the location of a supply of potatoes, navy beans and buckwheat seeds.

The County Council of Defense, through its agricultural committee, has supplied farmers with 2,500 bushels of seed potatoes, fifty bushels of navy beans and fifty bushels of buckwheat at cost. The labor agent of the county council has placed 100 laborers on farms. The county council also held patriotic meetings in each town in the county for the purpose of increasing food production.

The farmers of Kenosha county have put forth every effort to increase food production this year. The acreage of spring wheat and navy beans was increased considerably. Small grains of all kinds were very good. The yields per acre, as well as the quality, was very much above normal.

The hay crop was quite light due to the killing out of clover and alfalfa seedings. The early potato crop was better than normal, but the late crop was not more than 50 per cent of a crop.

The cabbage crop was damaged considerably by the ravages of worms and grasshoppers. Many acres were also planted too late, so that the cabbage failed to mature. The best crop is just fair. The percentage of corn which will be put in the crib in Kenosha county this fall will be very low. Ninety per cent of the farmers will be unable to pick seed corn from their own fields for next year.

Farmers all seem to be anxious to milk cows this winter as indicated by the big demand and high prices paid for good cows. There seems to be increased interest in the sheep industry. Many farmers have thin hogs which they do not know what to do with, due to the shortage of hard corn and the extreme market price of corn.

A municipal market has also been established in the city so that the farmers may bring in their vegetables for ready sale. C. C. McNamara,
Sec. Kenosha Council of Defense.

Rusk County.

To the Editor:—The Rusk County Council of Defense has worked almost entirely upon two important phases of the food production campaign among farmers. Potatoes are our great food and cash crop. No county in the state excels Rusk in the production of fine spuds. For this reason we have held twenty-one meetings throughout the county in order that seed selection, variety standards and the treatment of seed to prevent common scab and black could be thoroughly discussed at all times. During the growing season every effort possible was put forth in the way of urging the farmers to spray the growing crop to prevent tipburn and sun scald and blight. It is safe to say that there was 25 per cent more spraying done throughout the county this year than ever before. During the digging season much information was disseminated regarding the storage of potatoes and a news letter touching on the prevailing price at the terminal market was sent out from time to time. The result has been that Rusk county is harvesting one of the cleanest and best crops of potatoes that has ever been harvested in this region. The crop is not the largest in yield, however. Several fields have averaged 310 bushels to the acre, but this is the exception and not the rule.

The potato work will be the main feature of the council's spring campaign. It is the plan of the Rusk County Council of Defense that at least 80 per cent of the seed put into the ground next spring shall be Rural New Yorker and Green Mountain varieties for the late crop and Triumph and Early Ohio for the early crop.

Three hundred and fifty children in the rural districts were supplied with seed of these pure varieties and a plan is being formulated to supply every school child in the county with a peck of pure seed next spring.

The live stock work has been devoted almost entirely to the organization of local cow-testing circuits, the selling of the poorer cows and the purchase of the grade dairy stock. Several carloads of unprofitable producing dairy cows have been shipped to the central market and five carloads of high-grade Guernseys and Holsteins have been imported. All of these cows are being tested with the view of keeping less but better cows throughout the county. At the present time the indications are that our farmers will have grown enough hay and silage to winter the stock now being held, and will be able to sell a considerable quantity of oats. A campaign is being conducted among our dairymen urging them to exchange some oats for gluten feed, oil meal and barley, in order that a more balanced ration can be fed.
G. M. Householder,
Rusk County Agricultural Agent.

Douglas County.

To the Editor:—Some people say that the state council has done nothing. It is my opinion that the suggestions of the State Council of Defense have been of some value.

The increase in acreage is 22 per

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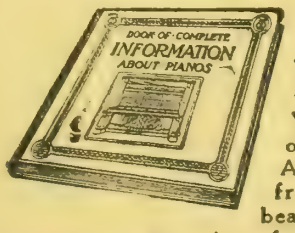

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THE WISCONSIN FARMER
Dept. W-4, Madison, Wis.

cent, due in part to the propaganda of our council, partly to natural development and in many cases directly because of the action of the county board in setting aside $5,000 for the use of the County Council of Defense in guaranteeing payments of notes used in the purchase of seed.

Twenty-eight new silos have been completed for this year's use. The silo campaign was considered a part of the defense activities.

In the campaign for fall rye and fall wheat the county exceeded its allotment—in the former by 15 per cent and the latter 25 per cent.

The potato acreage shows an increase of 40 per cent. Production in the city limits has been greatly stimulated. The cultivated acreage in the city of Superior in 1916 was 127 acres. This was raised to 327 acres during the present season. We believe this unusually large increase is due to the campaign for increased food production.

Eighteen hundred sheep, bought in Montana, have just arrived, are paid for, and now distributed among twenty-five farmers. It is possible that as many more will be brought in before long. These sheep are being placed on the cut-over lands which are not yet ready for the plow.

Town councils of defense, organized in all towns except one, are furthering these movements. Three federal farm loan associations have been formed in the county and two potato warehouses have been built this year. The stock is in good condition, but the high price of feed is causing a slight tendency to thin dairy herds. At present the necessity of fall plowing is being emphasized, both in the city of Superior and throughout the county. The results of the campaign are already apparent. J. P. Connor,

Lincoln County.

To the Editor:—The rural residents of Lincoln county were not at all lacking in interest in the organization and work of the defense council in this county. George Gibson, one of the county's most prominent and progressive farmers, was appointed the agricultural member of the council and has been active in the work of the organization continually.

The Lincoln County Council of Defense, during the months of June, July and August of this year, was very active in aiding the farmers in securing help, which was exceedingly scarce. Not only male help was sought for the farmers, but female help as well. Farmers were unable to secure men to help them with the farm work, and they would tell us that if we were unable to get any men for them to hire a girl to do the housework and their wives would assist with the work outside.

At the first meeting of the County Councils of Defense held in Madison the latter part of May, this year, it was strongly urged that the farmers be encouraged to plant at least a couple of acres of buckwheat, and it was stated that the state had a limited supply on hand which it would furnish at cost.

Several farmers in this county gave heed to this advice and as a result more buckwheat was planted in Lincoln county this year than ever before. One farmer was late in deciding on whether or not to plant buckwheat and about the first of July came into the office and wanted me to order a bushel of seed for him from the state. I immediately telegraphed for it and it was here the following day, coming by express. Of course, the telegram, express charges, etc., made the bushel quite expensive, but he had a good crop and is well satisfied that he went to the trouble and expense that he did.

County Agricultural Representative A. H. Cole is a hard worker among the farmers and has done much good work this year in increasing crop production. Mr. Cole has conducted many farmers' meetings throughout the county and has aroused the rural residents to the realization of the fact that winning the war depended on them to a very great extent.

During the month of June the defense council office sent out the crop report cards to every farmer in the county and almost without exception they were returned properly filled in.

In closing I wish to say that the farmers of the county, as a whole, have taken a very decided interest in the work of the local defense council and at every meeting there is always a goodly delegation present from the rural districts. Joe A. Chilsen,

Marathon County.

To the Editor:—The State Council of Defense has done much recently in Marathon county working through our county council. In the spring a campaign was inaugurated to increase the acreage and this was carried to the uttermost parts of the county with splendid results. In addition to this all the tillable land which could be gotten hold of free was given over to farmers who would agree to work it. A committee was appointed to purchase and ship in good seed for the farmers and this seed was sold to our farmers at cost. You will understand this was practically a failure in Upper Wisconsin. To secure enough good seed for a potato-growing section like this required time and money, but it was done and the results show that it was given free and in some cases will be paid for after the harvest this fall.

The members of each rural school district board in our county were appointed to assist in this work so that the council was in touch with every community and was able to do effective work. The labor problem received a great deal of attention at the hands of our committee and the council was able to give assistance in a number of places where needed. Boys, sixteen to twenty years of age, were released from school duties and placed on farms where they remained during the growing season and through the harvest time. The increase in crops in our country has brought on another problem, namely, providing suitable storage accommodations for the farmers in which to take care of their crops. This was done by our council of defense and farmers can store their crop at a very small cost in a place where the crops will be safe from freezing. Our county council has also thoroughly posted our farmers on the matter of registration for army service and furnished complete information as to what was necessary to be done and the proper methods for claiming exemptions. We have a county labor agent who may be consulted by farmers at any time and he will be glad to give assistance on short notice, if necessary, with his automobile squads of workers and in any way he can. We had a special tent large enough for a circus at the Marathon County Fair where all our rural visitors were supplied with information relative to labor, seed, lands and other subjects, and where the ladies gave exhibitions and lectures on various ways to can fruits and vegetables and we were especially well pleased to have such a large crowd of farmer's wives and daughters on hand each day. Our work in this county under the council of defense has largely been along this line, especially in furnishing pedigreed seeds at cost and listing up those who have more seed than they want so that this seed may be gotten into the hands of those who are short. We have strongly recommended the conservation of heifer calves and lambs and made every possible effort to assist farmers in getting good live stock.

Miss Emma Connolly was secured from the university extension department to give lectures and demonstrations in canning. A series of these lectures was given in Wausau and in addition a number of ladies made tours into the country working along this same line with great success. All this work was in charge of the lady members of the council of defense. Our council of defense has also arranged farewell receptions for our conscripted men and many of these boys come from our farms. E. B. Thayer.

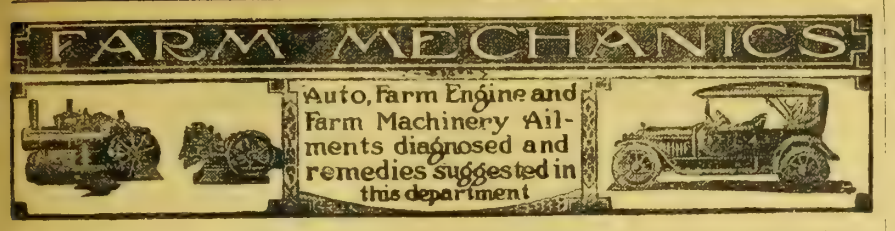
Marathon Co., Wisconsin.

In Dodge County.

To the Editor:—The Dodge County Cow-Testing Association in October had two cows producing forty-five pounds of butter fat or over. One was a grade Holstein belonging to Edward Rusch. She is eight years old, freshend in March and gave 946 pounds of 4.8 per cent milk, netting 4.8 per cent butter fat. The other was a six-year-old grade Holstein belonging to Carl Zimmerman. This cow freshened Septembr 29th, producing 943 pounds of 5.1 per cent milk netting 48.1 pounds butter fat.

Howard W. Fidler,
Official Tester.

Ask your neighbor to subscribe for The Wisconsin Farmer.



Questions and Answers.

A Coil for Make-and-Break Ignition.

I have a gas engine equipped with a Wizard low-tension magneto for make-and-break ignition. Would a good make-and-break spark coil strengthen the spark any by letting the current pass through the coil to the igniter?

Answer.—A good coil should increase the spark. If your magneto is not giving current enough, run it faster. Be sure that the insulation is good on your igniter. Possibly some of the current is leaking away through carbon on the igniter insulation.

Steam Vulcanizer Fluid.

Will you please tell me what solution is in the Vulcan steam vulcanizer? I have one that cracked at one of the plugs. When I got it fixed, the repair man poured the solution out, not knowing what it was.

Answer.—The solution was probably ordinary water. Steam has a certain temperature for every pressure. By using a steam gauge the temperature may be known and controlled so that the valcanizing may be well done. Vulcanizers are, therefore, filled with water for producing steam.

Making a Ford Speedster.

Is there any way to lower the frame of a Ford. I am thinking of making a speedster and I would like to lower the frame some way. Would a Ford engine pull any higher gear than three to one?

Answer.—The shape of the springs might be changed, making them flatter. The frame might be lowered safely about two inches by this change. As the Ford springs are directly over the axles crosswise it is not possible to swing the springs from the under side of the axles. It is doubtful that anything would be gained by using a higher gear ratio than 3 to 1, this ratio being about right for your purpose. The standard Ford gear ratio is 3,636 to 1. Racing cars have several extra sets of differential drive gears of different ratios, the most speedy ratio being determined by actual trial on the track.

Kerosene for Cooling.

I have read in your magazine a letter from a subscriber who states that in very cold countries kerosene is used in radiators to keep them from freezing. Is this true? Is it practical to use it even if it is possible? If it is, in what proportion should it be mixed? I want a mixture that will not freeze at a temperature of 30 degrees below zero.

Answer.—It is possible to use kerosene in place of water for cooling in winter. The practice has never met with favor on account of the possibility of fire and the injurious effect of the kerosene on the radiator hose. Anyone using kerosene for cooling should do so with caution. Doubtless some of our readers have tried the experiment, and we would like to hear from them as to what success they have had. The usual alcohol anti-freeze mixtures are not a success at much lower than 20 degrees below zero, as so much alcohol must be used that there is danger of fire.

Electro-Magnets.

Can more magnetism be produced in a coil four inches long than in a coil two inches long, the diameter of the cores being the same, the same number of layers of wire, and the same number of ampere turns per inch? How long should a magnet be to produce the most magnetism if wound with 1,500 feet of number 30 double cotton covered wire, the core being five-sixteenths of an inch diameter? Which would produce the more magnetism; two magnets, four inches long or eight magnets two inches long, the size and total amount of wire being the same in both cases? How is it that a wire twice as long and one-half the cross-section will consume only half as much electricity, and still the larger size wire will produce the more magnetism? Will a horseshoe or bar magnet last longer if it has a wire wound around it and current passing through?

Answer.—More magnetism would be produced in a coil four inches long than in a coil two inches long, the ampere turns per inch being the same. The magnet wound with 1,500 feet of wire should be about three inches long for maximum strength of magnetism. The eight magnets two inches long would produce the more magnetism, due to a lower core saturation. A large wire will not always produce more magnetism than a small one. The amount of magnetism depends upon the ampere turns, that is, the number of amperes flowing through the wire multiplied by the number of turns the wire makes around the magnet core. A wire twice as long and of one-half the cross section will only transmit one-fourth as much current at the same voltage.

Making a Blow Torch.

I have a pressure tank and a supply of hollow wire, a part of a gasoline lighting system. I would like some suggestion as to how I could make a burner to use with this tank to heat soldering irons, etc.

Answer.—You can use the pressure tank to hold the gasoline and the hollow wire to convey the gasoline to the burner. The burner itself you will find quite difficult to make. You could buy one from your hardware dealer. A burner of this kind requires a very fine needle valve which is impossible to make without special tools.

Tearing Down Hurt This Motor.

I have an eight-cylinder Oldsmobile car that has run beautifully for 9,000 miles. I thought on general principles that I should have the engine cleaned up and so I had the carbon taken out last week, but I don't seem to be able to get it back into its former smooth-running condition. The two front cylinders on each side don't seem to fire. I have examined the joints at the intake pipes and can find no leakage. I have had the carburetor taken off and it seems to be in good condition. I went to the Stewart Warner people and they tell me that my vacuum system is in perfect working order. I have repeatedly asked the mechanic if the ignition and distribution system was all right and he tells me that it is. My own honest opinion is that the fault is in the distributor. What is the trouble?

It is a mistake to take apart any engine that is running well. When a motor is first made the parts fit very closely together, making a good solid job. After the motor has been run for some time the different parts seat themselves perfectly in line with each other. Now, if the motor is taken apart, when the mechanic puts it together again, he cannot draw up the bolts exactly as they were in the first place. Therefore, the parts do not seat properly, and by the time they again wear in to a good seat they are smaller than at first and do not fit together as tight.

We do not believe that your distributor is at fault. The distributor handles high-tension current and does not regulate the timing of the motor, merely distributing the current to the proper cylinder. We would sooner think that the valve tappet adjustments are not properly made on the cylinders that are giving trouble. These should be examined and the same clearance given between the ends of all the valve stems and their respective push rods. The usual clearance is .003 of an inch, the thickness of a piece of newspaper. This clearance must be measured with the push rod in its lowest position.

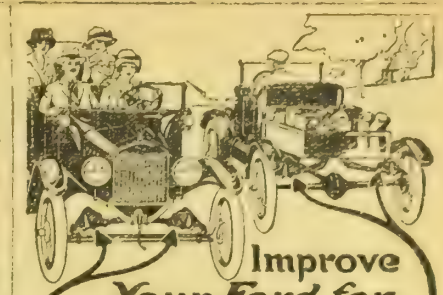
It may be that the mechanic did not properly grind the valves. Try the compression on all the cylinders. If the compression is weak on some of the cylinders, the valves probably need grinding unless the push rods are adjusted so high that they hold the valves off the seats.

It may also be that in taking the motor apart the rings have been disturbed so that they allow too much oil to work past. This would show up in dirty spark plugs. See that the spark plug points are adjusted to the thickness of a smooth dime; too wide or too close a gap could cause your trouble.

Some more points that should be examined if the trouble is not located are: The cam that operates the interrupter or breaker in the magneto or timer; the breaker points in the magneto, which should be smooth and fit together perfectly; and the fit of the valves in the valve stem guides on the intake side. Too loose a fit will cause a serious air leak.

Sometimes the rubber tube that leads from the top of the vacuum tank to the intake pipe will become frayed on the inside and the particles will plug it up. It is a simple task to examine this tube, and the trouble might possible be located there.

Many an animal has a fine pedigree, but is a poor dairy individual.



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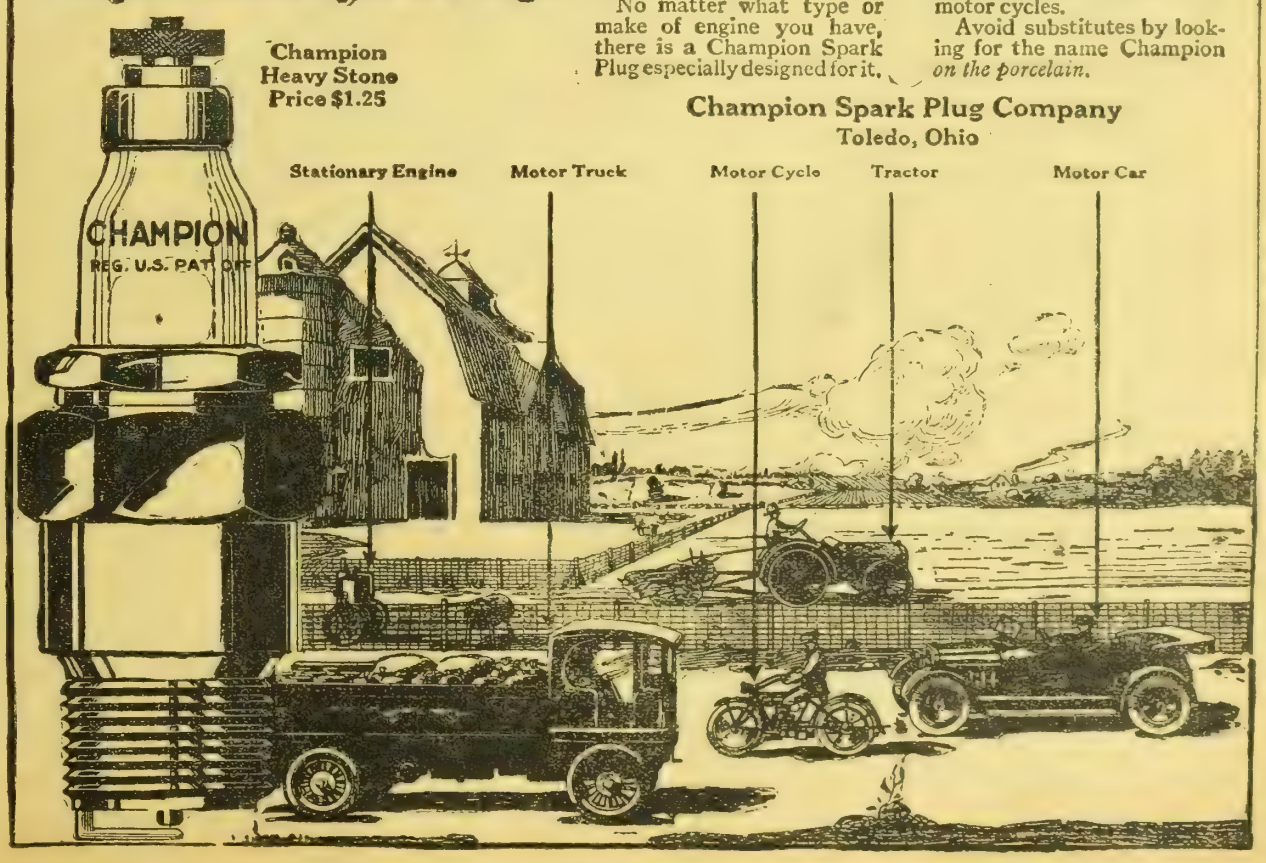

VETERINARY

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Lump in Udder.

I have a cow five years old that is getting small lumps in her udder. She got one last winter and now she has three. They are hard and about the size of small marbles. She came fresh in May and gives a good deal of milk, eats well, is fat and healthy. I would like to know what is the trouble with her and if it is safe to use the milk. If not, would the meat be fit to use if she is butchered?

Have this cow tested for tuberculosis. If she is free from this disease and a good cow otherwise, giving plenty of milk, she could be used for raising calves. The milk should not be used for human food. These lumps may or may not be due to tuberculosis. If not tuberculosis she could be fattened and butchered for beef.

Fistula of Withers.

I have a four-year-old horse that has a lump on his withers something like the fistula, but is farther back. It does not hurt him when I press on it. The lump has been present about two months. I opened it this morning and there was about a quart of yellowish matter discharge, no pus. I am using Creso Dip No. 1 as a wash, with a 90 per cent solution. I use a fountain syringe. After I wash it I use hydrogen peroxide. Now I would like to know what this is and what treatment should be used.

This lump is undoubtedly a fistula of the withers, caused by a bruise. Most fistulas can be cured, but require considerable time and treatment, and the treatment depends on the location, the different tissue affected, drainage, etc. If there is a veterinarian in your locality who is quite efficient in the treatment of fistulous withers he should be able to save you time and money in the treatment of this case.

Pneumonia.

I have recently shipped in 400 head of double treated stock pigs weighing about 135 pounds. I have had a larger death loss than usual. They seem to get gaunt, humped up, and have that "thoughtful" expression like cholera, but they do not scour like cholera. Sometimes they froth a little at the mouth just before or after death. I am hogging down corn and feeding packing house tankage, coal screenings and salt. I have done this for four falls and have never had this trouble before.

If your loss is very heavy an effort should be made to determine what is causing your loss. It is quite probably due to pneumonia from exposure in shipping or in their new sleeping places. In a herd of 400 hogs there are usually some crowded out, and these develop pneumonia. Hold postmortem on several that have just died or on very sick ones. Examine for pneumonia, worms and cholera. If the latter the matter should be taken up with the parties you purchased the hogs from.

Bull Nose in Pigs.

I have several pigs about four weeks old that have an eye trouble. The eyeball becomes covered with a film and then white matter appears, which at times almost forces the eye from its socket. It may attack both eyes and invariably leaves the pig blind and stunted. It is also contagious. Will you please tell me what can be done to stop the disease? Also, would dry slaked lime scattered about the pens be practically as a disinfectant?

These pigs are affected with necrobacillosis or bull nose. For treatment dissolve all the boric acid in soft warm water that it will hold and bathe eyes once to twice a day. The pigs and their mothers should have clean new quarters with no draft and plenty of bedding. If you cannot change their pens the old pens should be thoroughly cleaned and disinfected with compound Cresol solution, one part to thirty parts of water. This is better than air-slaked lime. If these pigs have small sore places on their faces and mouths it is a form of necrobacillosis. These sores are caused by the pigs biting each other and becoming infected. These sores should be washed with the above compound Cresol solution same strength.

Indigestion.

About three weeks ago I shipped in 225 head of western ewes. They are a fine, strong, healthy looking bunch of sheep from three to five years old. I think they came from Montana. A few days after we got them home we lost five and yesterday two more. They have been on good blue grass and timothy pasture. They are sick about two days or less, seem to suffer much pain, groan, and sometimes are inclined to lie on their backs. The lungs of all except one looked good. The intestines and pouch had a normal amount of food in them, but the small intestines seemed to be black. After taking the hide off, all over the hips and part way down the sides the flesh was black or bloodshot or else very yellow. When sick they seem very drowsy. I thought after the first few died it was caused by too sudden a change from dry feed to green. About two days before the last two died they were on an oat field that had a rank growth of green oats.

Sheep are quite subject to digestive disorders, especially when they have been shipped from other states and have a complete change of feed, and losses may occur many times under these conditions. Your feed may have been the best and this encourages them to eat more than they can digest. They should adapt themselves quickly to this feed and your losses cease. If you are still losing sheep a veterinarian should be called to investigate the possibility of an infectious disease.

Dry Dip Your Hogs
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The STANDARD Dry Dip
Rids the stock and premises of lice and other vermin. Kills cholera and disease-spreading germs.
Protexol is a concentrated, powder-form disinfectant, prepared especially for winter use. No solution to mix, no dipping. Simply sprinkle lightly on the stock and in their sleeping places.
Better than liquid dip; stronger, cheaper, easier to use, safer.
Avoid wetting your hogs. Protexol kills the vermin and disease without exposure or risks. Keeps your stock safe—makes quarantine unnecessary.
Keeps horses, cattle and calves free from lice. Effective for poultry houses and general uses.
A Standard, Guaranteed Disinfectant, used regularly by thousands, sold by all leading dealers. Sample free on request.
10-lb. pail, express prepaid, $1.80
Write us today.
STANDARD CHEMICAL MFG. CO., Sole Mfrs., Dept. K Omaha, Neb.

Tractor Demonstrations in 1918.

Committee Has Decided In Favor of One Big Event.

A meeting of the National Tractor Demonstration Committee was recently held for the purpose of determining the number and character of the tractor demonstrations that will be made next year. It was decided to have one big event, incorporating tests on fuel consumption in breaking, disking and other kinds of field work. Tests will be made on different types of traction wheels, wheel equipment and on tractive efficiency. These tests will include running wheels in the furrow on plowed ground and also on the unplowed ground. Special attention will also be given to testing out steering mechanism, and the efficiency of tractors at belt work will be demonstrated.

All in all, the demonstration is planned to give those interested more information as to fuel, traction and power than has been the case in the past. There will be one ten-hour plowing run designed to show the efficiency of a tractor on an all-day pull. The committee was given authority to sanction five other demonstrations conducted along the same general lines as those held in the past, but they will not include any tests.

The location of the big demonstration has not been assigned, but it was decided to hold it somewhere in the neighborhood of Detroit or Cleveland if suitable land can be found. It will require from 3,000 to 5,000 acres in adjoining fields to carry out the plans which the committee proposes.

A Food Training Camp.

International Live Stock Exposition so Designated by Hoover.

The International Live Stock Exposition, which will be held in Chicago, December 1st to 8th, has been recognized as a great educational factor in production and to this end it has been called by Mr. Herbert Hoover "a food training camp," and drafted into the nation's service. More and better live stock has become a military necessity and a national obligation and every possible means should be used to stimulate interest in this matter. The International Exposition has been a potent factor in the past in stimulating interest in better live stock. Tens of thousands of stockmen have attended annually where they have observed the highest type of meat and draft animals, carrying home with them the impressive lesson that the improved animal is the one to tie to.

Now that the exposition has been recognized as an arm of the government, advantage should be taken of its educational value by a larger number of stockmen than ever have attended in the past. The entries for this show closed November 1st and a report on the number of entries made will soon be forthcoming and furnished to our readers. There is reason to believe that the 1917 exposition will eclipse all former records in the character of the live stock that will be exhibited. We have passed through a successful state fair season and it is well known that our leading exhibitors have all been planning to end up the season at the International. In every class there will be a clash of blue ribbon winners and the contest will be one well worth witnessing.

Cleaning the Dairy Barn.

There is no time of the year that demands a more thorough cleaning up of the dairy barn than does the fall when the cows are brought in from the pasture fields. Scourges, such as tuberculosis and contagious abortion, greatly reduce the profits of the dairy business. The germ life which causes most of these troubles are harbored in the dust, cracks, crevices and cobwebs about the barns. A clean-up day is certainly in order at this season of the year.

There are two stages in thorough cleaning and disinfecting. First, all refuse and debris should be cleaned out, cobwebs and dust brought down, floors scraped and all litter removed. Unless this be done first fluids or liquids which carry the destroying agents into the cracks and crevices where the disease germs may be lurking will not strike the mark. The second stage of the operation consists in using a preparation that is a thorough disinfecting agent and applying it successfully. We usually use one of the standard advertised disinfectants. These give very pleasuing results when used according to directions.

Whitewash is very useful in two ways—it may act as a medium to convey a disinfectant and it also has disinfecting and purifying properties. Barns which are not painted would probably look better after a good application of whitewash and by putting in it a 5 per cent solution of crude carbolic acid or a 2 per cent solution of cresol would be an effective disinfectant, but there are other coal-tar products such as a cheap creolin which may be used with quite as good results. These preparations may be applied with a large brush, but this is rather a slow process and not an easy task when the whole barn is to be gone over. Most farms nowadays have some sort of spraying apparatus, but if one has no sprayer there is surely one in the neighborhood that may be borrowed for the purpose.

Where whitewash is being used strain the preparation through a fine sieve and apply with the hose, using as much force as possible. Cover every spot and get the liquid into every crack and crevice. After the operation is completed wash out the mangers and feed boxes. Sunlight is a great disinfecting agent. It is the cheapest one of all. Every dairy barn ought to have an abundance of fresh air and sunlight.

BLACKLEGOIDS

A RELIABLE PROTECTION FOR CATTLE AGAINST BLACKLEG.
NO DOSE TO MEASURE.
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Each Blacklegoid is a measured dose of vaccine ready for use.
DON'T TAKE CHANCES.
VACCINATE WITH BLACKLEGOIDS.
SIMPLEST, SAFEST, SUREST.
Write for Free Booklet to
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PROFITABLE HOGS
are the healthy ones; and the problem of the hog raiser is to keep them so.
For scours, thumps, distemper and other ailments, try Sloan's Liniment. Quickly effective and promptly relieves. Have it always handy. You will find many uses for Sloan's Liniment in your home.
At all dealers. 25c - 50c - $1.00. The $1.00 bottle has six times the amount of the 25c size.

Sloan's Liniment

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Short-horns, Shires and Shropshires at Auction.

WM. BENNINGTON and Clara E. Bennington, administrators of the Bennington estate, Volga, Iowa, will disperse their entire herds of Short-horns, Shires and Shropshires on November 14th. The sale will be held at the farm, 13 miles northeast of Arlington, seven miles southwest of Elkader and three miles northeast of Volga. Free transportation to the farm from the above towns will be furnished those from a distance. Twenty-six Short-horns of superior individual merit, including the two-year-old roan herd bull, Conformation, a Marr Clara by White Rock, he by the celebrated Whitehall Sultan, should elicit the attention of Short-horn breeders. In few herds can be found such big, broad-backed, beefy matrons as will sell in this sale. The Benningtons were always very particular in selecting herd bulls. The bulls used previous to Conformation were Master Robin, a Marr Missie by Missie's Robin, and Imp. Clipper Czar, an Imp. Cruickshank Clipper bull weighing 2,450 pounds. There will be 11 registered Shires, nine of which are mares. Imp. Heckington Skipper, a seven-year-old roan stallion brought out by the Trumans, is included, and a number of mares sired by him are listed. He is a proved sire of excellent merit and should go at the head of some band of pure-bred mares. Our readers looking for high-class Shires can find several ton mares in this auction if they were in sale fix. Seven big grade mares of the same type as the registered mares will sell. Registered Shire stallions have been used on this farm for 35 years. Forty Shropshires of proper conformation, consisting of 20 ewes, an imported ram, three yearling rams and some ewe and ram lambs will interest the breeder and farmer looking for good, thrifty, good-wooled Shropshires of proper mutton form. This sale is one of the most important held in northeastern Iowa in several years and breeders of the above breeds of live stock will be highly pleased with the offering. See page 30 and write for a catalog, kindly mentioning this paper.—Adv.

NEXT WEEK'S SALE PROGRAM

Wednesday, November 14 — Short-horns, Shires and Shropshires, Wm. and Clara Bennington, Admrs., Volga, Iowa.

Friday, November 16 — Holsteins, Waukesha County Holstein Breeders' Association, Wm. Baird, Sec'y, Waukesha, Wis.

Holstein Breeders, Take Notice.

BREEDERS of Holstein cattle in need of registered females possessing individual merit and backed up by breeding that has made history, should be interested in the Tulloch Farms Holstein herd at Genoa, Wis. Heading this grand herd of A. R. O. cows is Rag Apple Pontiac, a beautiful animal, sired by the well-known Rag Apple Korndyke, that in turn is the sire of the $25,000 bull, Rag Apple Korndyke 8th. The dam of Rag Apple Pontiac is a 30-pound daughter of the one and only King of the Pontiacs. No bull in the state can claim a better pedigree. A. R. O. cows, or daughters of same, safe in calf to this herd bull are for sale at reasonable prices. Two nicely-marked heifer calves are also for sale at a reasonable figure. The breeding of the cows and the fact that they are in calf to this good bull would justify sales at a long price, but Mr. Tulloch has prices on them that are very reasonable. You will be interested if you will let the owner describe what he has for sale. Individually each animal is guaranteed in every respect. Write and in so doing, kindly mention The Wisconsin Farmer. See page 29.—Adv.

Anoka Farms Short-horn Sale.

THE sixteenth annual offering of Short-horn cattle from Anoka Farms, Waukesha, Wis., will occur Saturday, December 1st, and there will be presented to the public the strongest lot of cattle ever offered for public appraisal at this noted breeding establishment. Fifty head will be sold, 33 females and 17 bulls, all under two years old and representing the very last word in popular blood lines and individual excellence. This lot of cattle was recently inspected by a representative of this paper and in coming issues some particulars will be presented regarding their outstanding excellence. A handsome photogravure showing every animal in the sale is being prepared and a copy of this, together with the catalog, will be sent to those who write Anoka Farms, Waukesha, Wis., asking for the same. Kindly mention this paper when you write.—Adv.

Force Feeding Pays.

IN these days of high prices for feed it does not pay to waste it on stock, or to keep them a minute longer than required to get them in condition for market. The quicker you fatten animales intended for slaughter, the greater profit for you. As it is the nutritive value of a food that counts, the greater part of it turned into meat the greater profit. From 30 to 50 per cent of food is wasted because the digestive organs are overtaxed and it cannot be assimilated and turned into meat. Now, if you can add something to aid the digestion, you increase the feeding value and decrease its cost. The only way to profit by raising stock is to push them ahead until they reach a certain point and then dispose of them at high market price. Dr. Hess stock tonic added to the food aids digestion and increases the amount of food turned into meat and at the same time wards off disease and keeps stock generally tuned up and in condition all the time. The cost is low compared to value received. A little goes a long way. Among the ingredients are nux vomica, a nerve tonic; quassia, an appetizer; iron, a blood builder; sulphate of soda, a laxative, and several other well-known chemicals. They are just the same as used by the compounder —Gilbert Hess, M. D., D. V. S.—in his years of veterinary practice. There are in the United States and Canada over 28,000 dealers carrying the line of Dr. Hess & Clark. This is as great a recommendation that their products are right as any testimonial. All of these dealers have been authorized to refund the money for any of their products if they do not do all that is claimed.—Adv.

Vanderploeg Holsteins—La Crosse.

JOHN VANDERPLOEG, R. 1, La Crosse, Wis., is offering for sale, some well-bred Holstein bulls from five to 12 months old. Mr. Vanderploeg has a good herd of 60 head, 40 of which are registered and the balance high grade. Besides the few bulls, he also has nine yearling and heifers calves for sale. These are grade, but are nicely marked and from good producing dams and being priced worth the money. These bulls and heifers are sired by King Pontiac Asia 12th and he is out of Queen De Kol Johanna 109234, that has a seven-day record of 29.70 pounds butter, 117 pounds in 30 days. She also has a two-year-old record of 22:17. He is sired by a son of King of the Pontiacs. Besides the above stock, Mr. Vanderploeg has a few registered heifers for sale that are safe in calf to the above herd bull. This stock is priced for immediate sale and if interested it is imperative that you write at once. See page 29.—Adv.

Mississippi River Herefords.

THE Middle West appreciates good Herefords and L. M. Scott & Sons, Bagley, Wis., have a herd worthy of your attention. They have some 90 head of breeding cows, headed by bulls of the very best breeding and individuality. The young bulls that they have for sale are suitable to head pure-bred herds. They also have some good rugged bulls ready for the range. This firm can supply you with Herefords, at a price that will demand your consideration. Get in touch with them at once and when writing, will you please mention this publication?—Adv.

Marquarts Have Milking Short-horns.

MARQUART BROS., Milton Junction, Wis., advise that they have their cattle in fine shape to go into winter quarters and that the young bulls they have for sale are in nice condition for immediate service. These breeders have the goods and if you want a bull out of a good producing dam and sired by a milking bred bull—get busy. See page 30.—Adv.

Herefords.

WALTER BROS., Chippewa Falls, Wis., have a herd of Herefords that they have every reason to feel proud of. They are glad to show their cattle and visitors are always welcome. They have some very fine young bulls for sale and if you are interested in this good breed of beef cattle, write or visit these breeders, at once.—Adv.

Hillside Holsteins.

REMEMBER the Kirkpatrick Bros., of Reedsburg, Wis., if you want to buy a good cow or a promising young bull. This herd has come to the front rapidly the past few years, because they have produced the goods. They raise good cattle, have A. R. O. records and sell at "let live" prices. Write them. See page 29.—Adv.

J. F. Diley.

THOSE in need of big-type Poland Chinas should write J. F. Diley, Rush Lake, Wis., one of the pioneer breeders of the state and for several years one of the directors of the American Poland China Record Asociation. We do not hesitate to recommend Mr. Diley and his Polands. See page 31.—Adv.

Eastman, of Lancaster.

L. D. EASTMAN, Lancaster, Wis., will be glad to send you a description of the Poland China boars he has for sale. They are sired by several different boars and he can sell you a boar that will not conflict with anything you may have in your herd. See page 31.—Adv.

Schoenfeld & Son.

C. J. SCHOENFELD & SON, live at Fox Lake, Wis., and for years have been breeding Short-horn cattle and Poland China hogs. If you want anything in their line write them for details and description. See page 30.—Adv.

Frank Jordan.

THE above Duroc breeder of Oregon, Wis., has for sale six tried sows from one to four years old, some gilts and spring boars. The sows are open and if taken at once will be sold cheap. Write him.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

News of the Sale Ring.

(Continued from page 11.)

vincible gilts and the men that bought them are fortunate, for this great boar has just been appreciated. Ames Bros., Weaver, Minn., bought some of the good gilts and they will be bred to Pathfinder Disturber, and sold in their winter sale. The top sow went to McCormick, of Iowa, for $217.50 and she was a wonderful gilt. The boars did not sell as high as the gilts and some great prospects were sold. Eight gilts by "Giant" averaged $135. Fourteen boars averaged $71. It was a good sale and the buyers and Mr. Cain were well satisfied with the day's work. H. S. Allen sold the sale. Complete report follows:

No. 1, A. H. Anderson, Montevideo, Minn., $90; 2, W A. Meyer, Castalia, Ia., $92.50; 3, D. W. Blanksma, West Concord, Minn., $90; 7, J. Swindoff, Guckeen, Minn., $72.50; 8, G. A. Simons, Bloom, Texas, $50; 9, John Swenson, Willmar, Minn., $60; 12, Ames Bros., Weaver, Minn., $80; 13, J. H. Emerson, West Concord, Minn., $62.50; 14, Jas. Hanger, Gary, S. D., $70; 15, G. Eliason, Montevideo, Minn., $65; 16, A. S. Anderson, Montevideo, Minn., $60; 17, S. J. Butts, Mason City, Ia., $55; 18, J. H. Emerson, $50; 19, John Swindoff, $60; 20, G. Eliason, $55; 50, E. H. Engel, West Concord, Minn., $92.50; 23, Riley Martiny & Son, Baraboo, Wis., $62.50; 24, Geo. Thompson, Aberdeen, S. D., $90; 25, Wood & Hodgson, Rushmore, Minn., $157.50; 26, Ames Bros., Weaver, Minn., $80; 27, I. F. Clark, Terril, Ia., $160; 28, Wood & Hodgson, $157.50; 29, C. S. McCormick, Oskaloosa, Ia., $217.50; 30, Ames Bros., $125; 31, Ames Bros., $100; 32, Gant & Son, Westfield, Ia., $82.50; 33, I. F. Clark, $120; 34, Fred J. Kuntz, River Falls, Wis., $80; 35, Ames Bros., $87.50; 36, Fred J. Kuntz, $65; 37, F. Christianson, Fairmont, Minn., $60; 38, Fred J. Kuntz, $62.50; 44, H. W. Mueller, River Falls, Wis., $62.50; 45, H. W. Mueller, $62.50; 46, F. Christianson, $60.

SUMMARY.

18	boars..	$1,257.50; average....	$ 69.00
17	sows...	1,740.00; average....	102.00
35	head...	2,997.50; average....	85.65

Carpenter-McDermott Short-horn Sale.

The Short-horn offering from the herds of Carpenter & Carpenter, Baraboo, Wis., and J. W. McDermott, Kahoka, Mo., at Chicago, October 31st, was well attended and the excellent lot of cattle offered was appreciated at good values by those present. Both Messrs. Carpenter and McDermott had drawn heavily from the best things in their herds in order to present an attractive offering possessed both of breeding and individual merit of the highest order. Much interest centered in the sale of the show cow, Maxwalton Queen, by Avondale, with a bull calf at foot by Imp. Lord Cullen and consigned by Carpenter & Carpenter. This magnificent cow went to B. F. Hales, Oak Park, Ill., for $4,200, the contending bidders being Bellows Bros., Maryville, Mo. At this price she holds the record for a Short-horn cow at public sale. Mr. Hales was a buyer of many of the top females in the sale, being a very important factor in the success of the sale. The top for bulls was $1,900, that price being paid by Alfred Swan, Dandridge, Tenn., for Cumberland Marshal 5th, a yearling son of the champion, Cumberland Marshal. This outstanding young bull came from the herd of Mr. McDermott and at the price was a decidedly conservative investment. The thousand-dollar mark was reached on fourteen animals. The cattle went to eight different states and many new names appear in the list of buyers, showing the ever widening demand for Short-horn cattle. The selling was done by Cols. Jones and Reppert in an excellent manner, assisted in the ring by "Scotty" Milne. The Carpenter & Carpenter cattle, 34 head, sold for $21,085, an average of $620. A number of young bulls not in condition to sell to best advantage kept the average down. Mr. McDermott sold 28 head for $23,250, an average of $830. The detailed sale list follows:

Consigned by Carpenter & Carpenter.

FEMALES.

Maxwalton Queen, calved 1912, and b. c.; B. F. Hales, Oak Park, Ill.	$4,200
Violet Maid 3d, calved 1907, and b. c.; G. C. Miller, Unionville, Mo.	425
Sultan's Strawberry, calved 1914, and c. c.; E. Ogden & Son, Maryville, Mo.	700
Anoka Clipper 3d, calved 1915; B. F. Hales	1,600
Miss Fame 2d, calved 1915, and c. c.; Lewis Harmon, Cornell, Mich.	200
Bonnie 3d, calved 1915; Jas. Caldwell & Son, Janesville, Wis.	500
Collynie Sultana, calved 1915; W. C. Faber, Pawpaw, Ill.	600
Eleanor, calved 1916; Lewis Harmon	325
Augusta Anoka 4th, calved 1916; Anoka Farms, Waukesha, Wis.	625
Mina Lass 30th, calved 1916; C. E. Blodgett, Marshfield, Wis.	350
Nonpareil Countess 17th, calved 1916; A. J. Fisness, Chippewa Falls, Wis.	300
Collynie Gift, calved 1916; J. W. McDermott, Kahoka, Mo.	600
Collynie Butterfly, calved 1917; Ewing Bros., Pontiac, Ill.	425
Collynie Lucy, calved 1917; B. F. Hales	675
Collynie Broadhooks, calved 1916; A. I. Fisness	550
Collynie Maggie 2d, calved 1917; Lewis Harmon	450
Collynie Augusta, calved 1916; G. H. Hoffman, Mackinaw, Ill.	675
Collynie Averne, calved 1916; Carpenter & Ross, Mansfield, O.	550
Collynie Queen, calved 1916; Kouger Bros., Aberdeen, S. D.	1,000
Florence 3d, calved 1916; Carpenter & Ross	475
Collynie Mint Drop 2d, calved 1916, and c. c.; E. N. Cross, Blountsville, Ind.	400
Collynie Missie, calved 1916; C. W. Fribley & Son, Bourbon, Ind.	475
Broadhooks Collynie, calved 1916; D. F. Brady, Bloomville, O.	475
Collynie Rosewood, calved 1917; J. H. Degginger, Albany, Mo.	925
Collynie Sultana 3d, calved 1917; Ohio State University, Columbus, O.	425
Broadhooks Lady, calved 1917; Anoka Farms	525
Collynie Best Again, calved 1917; A. I. Fisness	475

BULLS.

Collynie Archer, calved 1914; J. W. Temple, Serena, Ill.	275
Collynie Cullen 2d, calved 1915; F. L. Noel, Lake City, Ill.	625
Collynie Cullen 5th, calved 1916; Lewis Harmon	600
Collynie Cullen 8th, calved 1917; J. W. McDermott	800
Collynie Cullen 10th, calved 1917; C. W. Fribley & Son	150
Collynie Cullen 6th, calved 1917; C. W. Fribley & Son	550
Collynie Cullen 7th, calved 1917; J. H. Duggan, Kingsley, Ia.	160

Consigned by J. W. McDermott.

FEMALES.

Fair Gift 2d, calved 1917; J. R. Baby, Grigsville, Tex.	$1,225
Lady of Fashion 6th, calved 1911; Jas. Brown, Dundee, Ill.	375
Whitehall Rosa 3d, calved 1915; A. F. Steinmetz, Albia, Ind.	325
Ruberta Cumberland, calved 1916; E. C. Shibley, Amherst, O.	1,000
Ruberta's Countess, calved 1912; B. F. Hales	700
Golden Wreath 17th, calved 1913, and b. c.; C. W. Fribley & Son	1,550
Cumberland Star, calved 1914, and b. c.; J. W. Duggan	1,500
Golden Girl 9th, calved 1915; J. H. Degginger	1,075
Golden Girl 3d, calved 1912; B. F. Hales	[illegible]
Ruberta's Image 2d, calved 1916, and b. c.; C. C. Brown, Heyworth, Ill.	[illegible]
Lavender Flower, calved [illegible]	

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

International Live Stock Show

December 1st to 8th

UNION STOCK YARDS, CHICAGO, ILLINOIS

A Food Production Camp in the Service of the United States

Daily Sales of Pure-Bred Live Stock

RED POLLED SALE
Wednesday, Dec. 5, 10:00 a. m.
For particulars write H. A. Martin, Gotham, Wis.

GALLOWAY SALE
Thursday, Dec. 6, 9:00 a. m.
For catalog write R. W. Brown, Carrollton, Mo.

ABERDEEN ANGUS SALE
Wednesday, Dec. 5, 1:00 p. m.
For particulars write Chas. Gray, Union Stock Yards, Chicago.

SHORT-HORN SALE
Thursday, Dec. 6, 1:00 p. m.
For catalog write F. W. Harding, Union Stock Yards, Chicago.

HEREFORD SALE
Friday, Dec. 7, 1:00 p. m.
For catalog write R. J. Kinzer, 1012 Baltimore Avenue, Kansas City, Mo.

A Season of Instruction in the Art of Breeding and Feeding Live Stock Economically. Answer the Nation's Call and Put into Practice the Lessons this Exposition Teaches.

BRILLIANT EVENING SHOWS and a TRIP TO CHICAGO

LOWEST RATES ON ALL RAILROADS

Carl Brugger's Dispersion Sale

of his personal herd of

HOLSTEIN CATTLE

at his farm 4 miles east of FOND DU LAC, WIS.

TUESDAY, NOVEMBER 27, '17

50 HEAD, mostly cows and heifers bred for winter freshening to Model De Kol Burke Segis 86112, a 25-lb. bull of the noted Powell breeding. Catalogs ready November 15th.

S. H. BIRD, SALE MANAGER

H. E. A. OLSON'S HIGH-GRADE HOLSTEIN Dispersion Sale

BURLINGTON, WIS., NOV. 10

(Sale Commences at 12:30 Sharp)

100 HEAD

50 HEAD of milking age, 14 about ready to be bred, 12 due to freshen in April, 55 are daughters of Rag Apple Hijlaard (109759), that is by Rag Apple Korndyke De Kol that has 27 A. R. O. daughters, including a 30-lb. senior four year old, a 29-lb. junior four year old, a 28-lb. junior three year old and a 26-lb. junior two year old. We have used pure-bred sires of this quality for 25 years, so that the grades we are selling are practically pure-breds containing the best of blood lines. They are heavy milkers, a number of which are milking 60 lbs. a day with two milkings. Fifteen females are bred to a 20-lb. son of Sir Wayne Johanna De Kol and the rest to Rag Apple Hijlaard. Our farm, where the sale is to be held, is 4½ miles northwest of Burlington and 2 miles south of Honey Creek. Joe L. Walker, auctioneer.

H. E. A. OLSON, Prop., BURLINGTON, WIS.

F. Hales 1,025
Lavender Flower 2d, calved 1915; C. E. Blodgett 425
Marshal's Velvet 2d, calved 1917; Lewis Harmon 425
Whitehall Princess, calved 1913; B. F. Hales 1,075
Butterfly Lass, calved 1916; C. A. Branson, Cadiz, O. 375
Gainford's Missie, calved 1915; F. L. Noel 300
Emma Fair Goods, calved 1909; C. E. Blodgett 1,000
Fair Charity 3d, calved 1916; Wm. McConnell, Emington, Ill. 475
Greenview Buttercup, calved 1917; E. Ogden & Son 850
Athene's Countess, calved 1915; Morris Winn, Lucerne, Ind. 275
Gloster Queen, calved 1916; C. W. Fribley & Son 350
Scottish Rose, calved 1911; C. E. Blodgett 400

BULLS.

Cumberland Marshal 5th, calved 1916; Alfred Swan, Dandridge, Tenn. 1,900
Cumberland Marshal 7th, calved 1916; C. W. Fribley & Son 250
Scottish King, calved 1915; D. H. Highbarger & Son, Seward, Ill. 875
Cumberland Repeater, calved 1914; Lew Green, Indianola, Ill. 875
Lavender Marshal, calved 1916; C. W. Scholl, Arrowsmith, Ill. .. 325

SUMMARY.

50 females sold for $37,000; average $740
12 bulls sold for.. 7,335; average 611
62 cattle sold for.. 44,335; average 715

THE MARKETS.

Union Stockyards, Chicago, Nov. 3:—Live stock producers and feeders have been given plenty of reason to regain whatever confidence they had lost in these industries by a statement by Food Administrator Hoover strongly reaffirming a previous statement to the effect that the government has no intention to fix the price at which the farmer shall sell his stock and by the splendid action of the market. Nothing could be more effective in stimulating production at this moment than the latter. Every branch of the market is giving a good account of itself. Beef steers sold here the first half of this week as high as $17.50, hogs to $17.35. Despite a materially increased run of cattle over last week and a 15@25c decline from the mid-week high spot, fat cattle are steady and prime higher than a week ago and the general beef cattle trade is fully 60c@$1 higher than two weeks back. Hogs have advanced irregularly $1@1.75 within a week and fat lambs are 10 to 25c higher than at last week-end. As all feeds are high, the consumer cannot hope for materially lower prices for beef, pork or mutton, at least while the war lasts.

In a statement designed to reassure the producer, Food Administrator Hoover says: "This department has repeatedly stated that it has no intention to fix the price at which the farmer sells his stock. The food administration does, however, have the duty of directing export purchases of beef and pork products, and we propose to use that power to stabilize the prices and to support remunerative prices to the farmer."

MAXWALTON QUEEN, THE $4,200 SHORT-HORN COW SOLD AT THE CARPENTER & CARPENTER SALE TO B. F. HALES, OAK PARK, ILL.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

BREEDING EWES

100 CHOICE 4's and full-mouthed Colorado breeding ewes for sale, $14.50 a head.
O. A. JEWELL Mineral Point, Wis.

WE NOW OFFER

CHOICE RAM LAMBS in Shropshires and Hampshires, sired by prize-winning rams. Write us for prices and particulars.
W. F. RENK & SONS Sun Prairie, Wis.

FOR SALE—7 registered ram lambs; well wooled and good type. Farmer prices, $20 each, first draft. Get pick of bunch. Also 3 reg. ewe lambs, $20 each. S. E. Cottrill, Grand Rapids, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS

Females and Bulls for Sale

Write the following breeders:
J. B. Ahlers.....West Bend, Washington County
C. S. Arnold.....Holcombe, Chippewa County
Edward Bennett.....Black Earth, Dane County
J. O. Baker.....Wagner, Marinette County
Byron Curran.....Taylor, Jackson County
L. F. Bigelow & Son....Brooklyn, Green County
J. W. Martin & Son....Gotham, Richland County
Wm. Radke.....Black Earth, Dane County
J. W. Salter & Sons....Unity, Marathon County
L. C. Underwood.....Avoca, Iowa County
J. F. Wulff.....Grafton, Ozaukee County
Wm. Wulff.....Grafton, Ozaukee County
Henry Zeigler.....Middleton, Dane County
John A. Curran.....Sechlerville, Jackson County
Lars J. Lee.....Cambridge, Dane County

OLD GLORY RED POLLS

WE are now offering bargains: 18 choice cows and heifers, both open and bred. Also 20 good young bulls. The kind that win at the pail as well as the show ring. Write or visit us. CURRAN BROS., Sechlerville, Wis. Railroad station, Hixton.

Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

RED POLLED BULLS of serviceable age for sale. Also young stock, either sex. Clover Belt Stock Farm, Hamburg, Wis.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

TOO LATE TO CLASSIFY.

DUROC JERSEY BOARS

IMMUNIZED

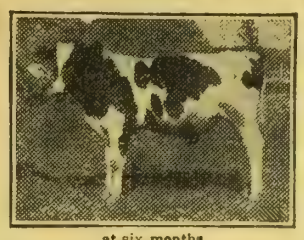
TO CLOSE THEM OUT WE ARE SELLING CHOICE 175 to 200-lb. boars for $40 each, satisfaction or money refunded.
JOHN H. BERRY & SONS Iowa City, Iowa

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use



at six months

YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN

Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis.

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol**, one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

Pabst Korndyke Champion
Son of Korndyke Segis Johanna,
Has just been sold to the North Dakota Agricultural College.

Pabst Korndyke Elder
Son of Korndyke Segis Johanna,
Similiarly bred on the dam's side,

IS NOW FOR SALE

Pabst Korndyke Elder was born March 3, 1917. His dam is Pabst Champion Elder. By King Pontiac Champion and out of Pabst Hengerveld Colanthus.

He is a splendid buy—just the bull calf you are looking for.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. **Box F**

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.

FRED GURR :: :: **Lake Mills, Wis.**

$400 Bargain

$400 WILL BUY a 29.23-pound grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.

W. J. BOYNTON **R. 1, Rochester, Minn.**

REGISTERED HOLSTEIN BULL

AND heifer calves sired by Pabst Canary Pontiac Champion 142885, and out of well-bred heavy-producing cows. Call and see our herd or write

WM. FENNER **Sheboygan Falls, Wis.**

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.

EDGEWOOD FARMS, INC. **Pewaukee, Wis.**

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL, Whitewater, Wis.**

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.

E. B. WATROUS **Troy Center, Wis.**

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

JOHN NORTH **Kilbourn, Wis.**

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13,094 lbs. fat in 7 days. Address

SWOBODA BROS. **Troy Center, Wis.**

11 HEAD OF SHOW CATTLE

AT THE LAKE MILLS SALE, to be held October 22d and 23d, I will sell ten Holstein cows and heifers and one bull that were prizewinners at the last Wisconsin State Fair.

JOHN L. FISHER **Janesville, Wis.**

Crites Bros.' Holsteins

WATCH THIS SPACE

HONEY CREEK WIS.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch**, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.

GEO. W. BROWNE, Prop. :: :: :: **Waukesha, Wis.**

DUROCS

BOARS and gilts for sale, sired by TAX PAYER MODEL, eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.

ALLIC S. KNUDSON - - - - - - - - - **Brodhead, Wis.**

HOLSTEIN-FRIESIAN CATTLE.

Make Prosperity **PERMANENT!**

Start now to build up a herd of money-making, mortgage-lifting PURE-BRED

HOLSTEINS

A Holstein herd is a paying, profitable investment. Pure-bred Holsteins give the largest yields of milk and butter-fat of any breed. They are persistent producers, vigorous and hardy. Write for free information.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.

KIRKPATRICK BROS. **Reedsburg, Wis.**

RAG APPLE PONTIAC

SIRE, Rag Apple Korndyke, sire of $25,000 Holstein bull. Dam, a 30-lb. daughter of King of the Pontiacs. A. R. O. cows and daughters in calf to him are priced reasonable. Also two choice heifer calves.

TULLOCH FARMS **Genoa, Wis.**

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac** 174243. Sire **King Pontiac Champion**, Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**

ORRIN HAKE **Jefferson, Wis.**

RUST BROS.

OFFER the richly bred Holstein bull, **Sir Ina Lotta Hengerveld 188663**, born **Aug. 18, 1915.** Ready for service. His dam, Ida Lotta Hengerveld, **at 3½** years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.

W. H. S. RHODA **Watertown, Wis.**

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. **Eau Claire, Wis.**

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.

GEO. A. WILSON **Neillsville, Wis.**

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.

L. V. GARVENS **R. 12, Brookfield, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

HOLSTEINS

WATCH THIS SPACE.

ALBERT RHODA **East Troy, Wis.**

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.

RALPH TRATT **Whitewater, Wis.**

GUERNSEYS

AT THE WAUKESHA SALE—I am offering a choice son of TRICKSEY'S GEORGE OF SUNNYSIDE 18355 (first at National Dairy Show), out of a large imported cow. Also have a few young bulls of same breeding for sale.

EARL ROBERTS **Oconomowoc, Wis.**

May Rose Bulls FOR SALE

MAY ROSE and double **May Rose**-bred Guernsey bulls, ranging from 1 mo. to 1 year from **A. R.** dams with records up to **661 lbs. fat.** Also a few choice A. R. cows and heifers, near descendants of the great **Imp. King of the May.**

JOHN H. WILLIAMS **Waukesha, Wis.**

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.

TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.

GEO. O. LUCIA **Green Bay, Wis.**

A FEW WELL-BRED YOUNG BULLS — *the Harlem Farm* — **WRITE YOUR WANTS**

Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.

W. G. JAMISON & SONS **Appleton, Wis.**

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by **Auriculas King of the May** and out of a granddaughter of **Yoeman**, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.

W. L. BREITRICK **GREENVILLE, WIS.**

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

HOLSTEIN-FRIESIAN CATTLE.

La Crosse Holsteins

FIVE registered bulls, 5 to 12 months; nine high-grade yearling and heifer calves. All sired by KING PONTIAC ASIA 12TH 137450, a 29.70-lb. grandson of KING OF THE PONTIACS. Will sell a few registered heifers in calf to this bull.

JOHN VANDERPLOEG **R. 1, La Crosse, Wis.**

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

JOHN L. FISHER **Janesville, Wis.**

A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.

MOSS BROS. **Troy Center, Wis.**

Administrator's Dispersion Sale

OF SHORT-HORNS, SHIRES AND SHROPSHIRES

AT THE VOLGA STOCK FARM

7 miles southwest of Elkader, 13 miles northeast of Arlington and 3 miles northeast of

Volga, Clayton Co., Ia., Wed., Nov. 14

26 SHORT-HORNS, consisting of two bulls, including the roan two-year-old herd bull, Conformation, a Marr Clara by White Rock, dam by Royal's Best, second dam by Imp. Royal Robin, and 24 cows and heifers that for individual merit would compare very favorably with the best in any herd. A number of the heifers are by Master Robin, a Marr Missie by Master Robin, dam by Imp. Fancy's Pride. A number of big, beefy, broad-backed cows are by Imp. Clipper Czar, a 2,450-lb. bull of the Cruickshank Clipper family. No better cattle can be found in any sale than those to be sold here.
18 SHIRES, 11 of which are registered, constitute an offering that merits the attention of the very best breeders and horsemen. Imp. Heckington Skipper, a seven-year-old roan sire, sells and the colts by him are of exceptional merit. Nine registered mares, all young, and several by the above horse, are big, heavy-boned and attractive from any point of view. They are the kind that weigh a ton in condition.
40 REGISTERED SHROPSHIRES, consisting of one imported ram, 20 ewes from one to four years old, seven ewe lambs, three yearling rams and nine ram lambs, are of excellent merit and are the right kind.
10 MAMMOTH BRONZE TURKEYS will be sold. Everything must sell, to settle the estate. E. S. Johnson, auctioneer. Write for a catalog to either

Wm. Bennington or Clara E. Bennington, Admrs.
VOLGA - IOWA

Mention The Wisconsin Farmer when writing. All trains will be met at Volga, Elkader and Arlington.

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. **The Short-horn is the breed for you.**
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

HARVEY H. LITTLE CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

HAMPSHIRE SWINE.

DELLBROOK FARM HAMPSHIRES

Home of Grand Champions

50 boars ready for service

PRICES slashed for quick sale. They are guaranteed to please. Pigs at weaning age, boars $12 and up, sows $15 and up. Write for catalog and pamphlet.

A. L. DAMON Richland Center, Wis.

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
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DUROC JERSEY SWINE.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Crimster Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Cornell, Janesville, Wis.

DUROC JERSEY SWINE.

INVESTOR JR. BY INVESTOR

BACHELOR GANO BY COL. GANO

DUROCS SHIPPED ON APPROVAL—Have some big, well-grown boars that must please you. A grand assortment of breeding. Sows bred to above herd boars will be sold in our sale, January 31st. Bear this fact in mind. Write us about boars.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.
ED PARKER & SON :: :: :: :: Janesville, Wis.
Bred Sow Sale February 1st.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

Higgins---with the Fashion Durocs

TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.
ISAAC HIGGINS (Richland County) Gotham, Wis.

CONSTANCE

DUROCS—Offer some well-bred, well-grown boars for sale. Guaranteed to please YOU.
JERSEYS—Herd in the accredited list. Young bulls for sale.
F. R. CONSTANCE & SONS, Waupaca, Wis.

S——S

Buy a Duroc
That has **O**utstanding quality.
But pay some **A**ttention to the breeding.
Bred right, fed right, p**R**iced right.
If you want them on approval will **S**hip that way.

DENNIS SHEA Melvina, Wis.
(Near Sparta)

SOW SALE JANUARY 29, 1918

DUROCS

I AM OFFERING spring boars and gilts, sired by Outlook Cherry King by Brookwater Cherry King, Wisconsin Pathfinder by Pathfinder and King Orion by Orion Cherry King Jr., at reasonable prices. Also three fall boars by Outlook Cherry King, that will weigh 425 lbs. or better. See my exhibit at the state fair, Elkhorn, and Beloit.
W. G. BARTHOLF Burlington, Wis.

Fennimore Durocs

NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write
WM. EDGE Fennimore, Wis.
"Grant County."

DUROC BOARS

SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Priced right.
PHILLIPS BROS. Delavan, Wis.

20 Duroc Jersey Boars

$40 TO $75 EACH—Call and see our herd or send us your order. Satisfaction guaranteed or money refunded.
JOHN H. BERRY & SONS, R. 6, Iowa City, Ia.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

ONLY A FEW, BUT GOOD—DUROC BOARS

SIRED by P. S. WONDER AND PROUD CHIEF JR. I'll ship them on approval—no money until you get your boar home—if he don't please ship him back. ORDER NOW.
ALFRED E. KIRST Tomah, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.
M. H. O'KEEFE & SON Waukanee, Wis.

Durocs on Approval

WILL SHIP you BOARS OR GILTS from $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

GEO. D. SPRAIN & SONS
WEST SALEM WISCONSIN

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

Chief Defender

BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.
R. C. CHURCH Elkhorn, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Mo.

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
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ORION COL. S., COL. S. Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
W. C. JENKINS Bangor, Wis.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: Brodhead, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

DUROC BOARS

BIG, RUGGED FELLOWS, bred right and priced right. Yearling son of KING DEFENDER (600 lbs.) for sale. Write me.
FLOYD SELCK :: Hanover, Wis.

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CHESTER WHITE SWINE.

BOARS! BOARS! BOARS!

30 CHESTER WHITE boars to sell in 30 days. Priced to sell and sell quickly. Simply write us and describe what you want—the boar must fill the bill. Remember, no herd of the Northwest has produced more champions. We solicit your business.
EAST SIDE STOCK FARM, H. A. Derenthal, Mgr. Wykoff, Minn.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalogfree.
J. FISHER & SON Box 13 Eastman, Wis.

Schoolmaster, Chief Keokuk, Crandell's Wonder Chesters

GILTS AND BOARS of the above breeding for sale, guaranteed to pleaee YOU. All I want is a trial. Write me.
WM. C. KIRST Tomah, Wis.

CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet**, a junior yearling half brother of **Prince Again**, the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson**, a son of **Royal Blood**. Also March and April gilts sired by **Guy's Comet**, and grand champion boar, **Perfect Prince**. **Wm. C. Scheibe, Burlington, Wis.**

OAK GROVE CHESTERS

BOARS good enough to ship on approval. I have just purchased a grandson of CHIEF KEOKUK out of a HIGHLAND CHIEF dam. Gilts will be bred to this boar and shipped later. Let me quote prices. **A. L. KIRST, Tomah, Wisconsin.**

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

"HOOVER SELECT", "IDEAL COMBINATION,"

MY CHESTER HERD BOARS—March, April and May pigs, priced according to age. 50 good ones.
L. J. McBAIN Bloom City, Wis.
(Shipping point, Viola.)

CHESTER WHITES

40 SEPT. PIGS, out of my best old sows and sired by Major 44941, winner of sweepstakes Columbia Co. Fair. These pigs are the lengthy and heavy-boned type and will be sold at a right price and satisfaction guaranteed.
L. A. SCHULTZ R. 1, Poynette, Wis.

BERKSHIRE SWINE.

WHITMORE BROTHERS have what you want in Berkshires. Spring pigs now ready to ship on approval. Address Whitmore Bros., Lyons, Walworth county, Wisconsin.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Ines Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

FOR SALE

PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.
O. P. COATES R. 4, Elkhorn, Wis.

Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON Viola, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 8, Spring Green, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
WALTER GEORGE Evansville, Wis.

FROSTS' BIG-TYPE O. I. C.'S

200 SUMMER and fall pigs, the kind that won us 86 prizes at five state fairs. Boars, pairs or trios, no kin. Registered free and priced to sell. Address
S. D. & B. H. FROST R. 2L, Kingston, Mo.

J. A. DOERR

VIROQUA, WIS.

THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. G. HOSKINS Dodgeville, Wis.
Mile west of town.

POLAND CHINA SWINE.

GRANT CO. POLANDS

YOU CAN ORDER a boar from me and know that you will be satisfied Every boar I ship IS GUARANTEED. Everything immune.
LIBERTY SPRINGS FARM,
L. D. Eastman, Prop. Lancaster, Wis.

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

Buy
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Smiley.
WM. SMILEY & SONS, ALBANY, WIS.
BIG-TYPE POLANDS

POLANDS

BOARS AND GILTS—Fed and bred big. Write me.
WM. HAUK Cassville, Wis.
"Grant County."

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.
C. E. NORTON Brooklyn, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

POLAND CHINA SWINE.

J. F. DILEY, RUSH LAKE, WIS.

Big-Type Polands

HERD headed by SMOOTH BIG BONE A 2D and GOLDENGATE COLUMBUS. Offer some very fine SPRING BOARS by the above sires out of CHOICE BIG-TYPE SOWS. The Diley guarantee with every boar—you can't lose.

McDonald's Champion Poland Herd

I HAVE SOME GOOD SPRING BOARS—some of them litter mates to my state fair winners. Some choice April boars out of the big sows for which my herd is noted. Buy from a winning herd. It adds prestige to your herd. Also FALL PIGS—can sell you one or more, not related. Write your wants.
J. D. McDONALD :: :: :: West Salem, Wis.
Bred Sow Sale February 9th.

Minnesota Premier Poland Herd

NOTED FOR OUR WONDERFUL TRIO of herd boars. We have sold boars to head the best herds. We have one for you.
Annual Sow Sale, February 5th.
P. W. YOUNG :: :: :: Box 100, Prosper, Minn.

FOR UALITY AND UANTITY WRITE

Boars and Gilts

POLANDS

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write

W.W **UACKENBUSH (Jackson Co.) MELROSE, WIS.**

Big-Type Poland China

SPRING PIGS, with size, length, bone and quality, sired by Mollie Jones Lad by Big Tom, also King Wonder by Great Wonder, two good producing boars. These pigs are in fine growing condition. Will make large ones. Call or write. "Bell phone."
H. H. SMITH (Sauk County) Baraboo, Wis.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

POLANDS

MARCH AND APRIL PIGS—The best I have ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Dobson & Eastman

LANCASTER, WISCONSIN

"ONCE a customer, always a customer" because our POLANDS give satisfaction. Let us ship you a boar. Immune. Also Oxford ram lambs.
"The Utmost in Polands."
"Grant County."

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

GUARANTEED POLAND BOARS

WE CAN SHIP you big-type boars that will give good satisfaction. Try me with an order.
AUG. NEESEMAN Warren, Ill.
(Farm in Wisconsin.)

MARTINY Boar Bargains

Special price, a little over pork price, on

20 Big-Type Poland China Boars

Most of them by BIG BONE WONDER, a 1,000-lb. boar, and one of the best breeding boars in the U. S. These boars are of the same line of breeding as the litter that won first at the state fair. Also have a Hancher-bred yearling and a Golden Gate Giant fall yearling for sale that were prizewinners at the state fairs this fall. Order a boar and if he don't suit send him back and I'll refund your money.
L. P. MARTINY Chippewa Falls, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write
WM. F. ACKERMAN GLEN HAVEN, WIS.
"Grant County."

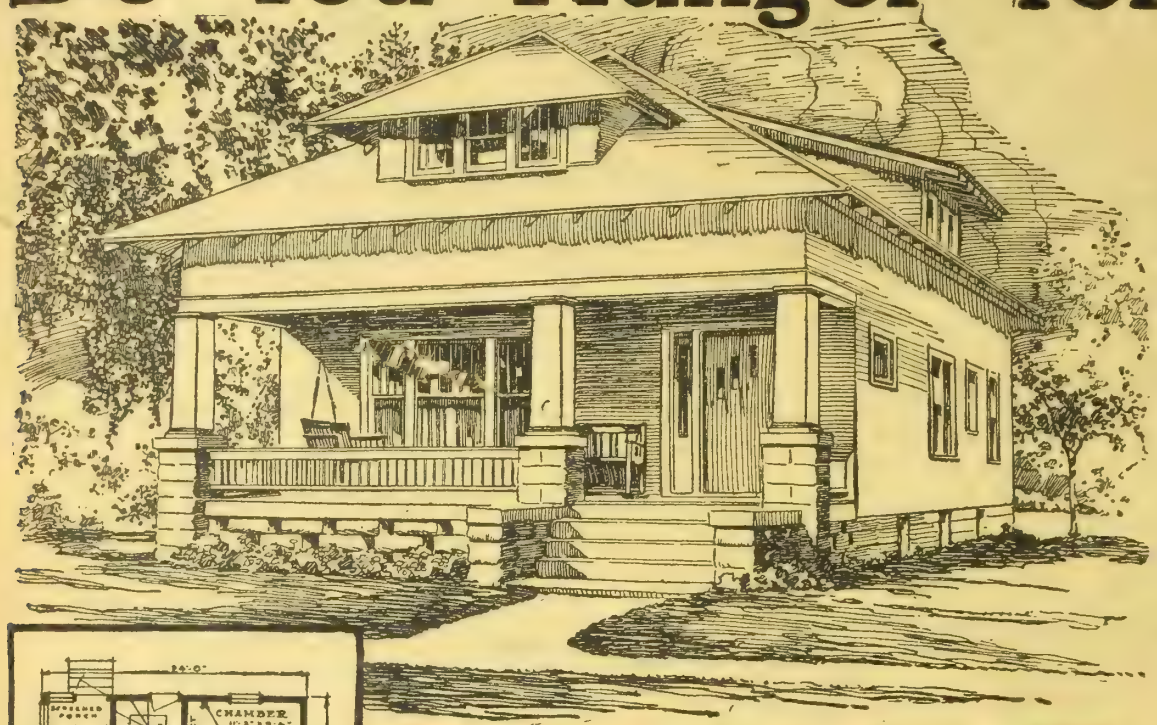
SUPERIOR POLANDS

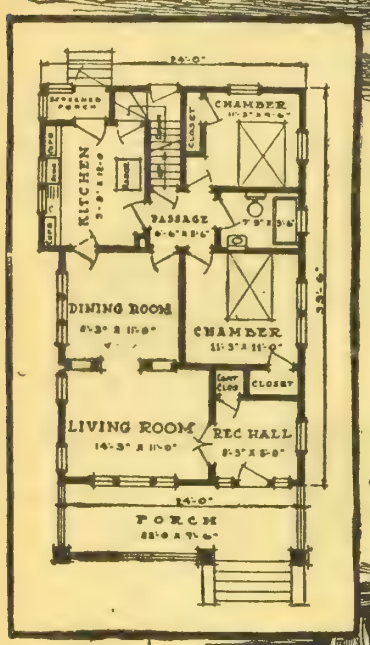
I BRED THE LITTER that won $109 at Milwaukee and the boar that topped ($142.50) the Grant county sale. I have boars of the same breeding and caliber for sale. Also gilts. WRITE NOW.
F. A. MOREHOUSE Lancaster, Wis.

REESE POLAND CHINAS

PIGS OF EITHER SEX, the best lot I ever owned. My gilts brought $100 each at Madison last winter. I sell good pigs at a "let live" price. Try me.
LOUIE REESE Brooklyn, Wis.

Do You Hunger for a Home?





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"The Permanent Furniture for Your Home"

Doors	Mantels
Windows	Window Seats
Window & Door Frames	Wall Panels
Storm Doors & Windows	Ceiling Beams
Screen Doors & Windows	Mouldings
Stairways	Porch Columns
Newels	Porch Rail
Sideboards	Porch Balusters
Colonnades	Everything in Woodwork
Bookcases	

THEN let us help bridge the pitfalls that lie between your desire and the proud possession of that home.

Your first step is to come to some definite decision as to the size and style of home you want. Right here you will find our Home Books of real service. Send for one—free.

After you have selected your plan you will want to choose your woodwork, the permanent furniture for your home. You want this woodwork to be suited in design to the style of house you build. Here again the Curtis Home Books will help. Look at the illustrations on this page. Notice how the long glass in the front entrance harmonizes with the long panes in the top sash of the windows. In the interior this feeling is maintained, but not monotonously, in the lines of the colonnade, in French doors, and in the trim.

So it is with every house shown in our Home Books. Every detail has been worked out carefully and completely. We have had our minds as much, too, on the ease with which the woodwork, especially in built-in furniture, can be kept clean.

The doors, windows, and other woodwork shown here are only suggestions. The Curtis dealer with his big Curtis catalog, filled with hundreds of designs, can show you other woodwork that goes as well with this style of house.

Yet this wide range of selection in CURTIS Woodwork is offered you without any of the delays and high costs of the special, made-to-order woodwork. They are known as Curtis Standard Designs, and your dealer can always get quick response to an inquiry and prompt shipment of an order. You can always tell CURTIS Woodwork, for every piece, large or small, bears this mark—CURTIS.

Go call on the Curtis dealer. He is our personal representative and will do all in his power and ours to help you build economically, speedily, satisfactorily.

THE CURTIS COMPANIES, SERVICE BUREAU, 1846-1946 South Second Street, Clinton, Iowa

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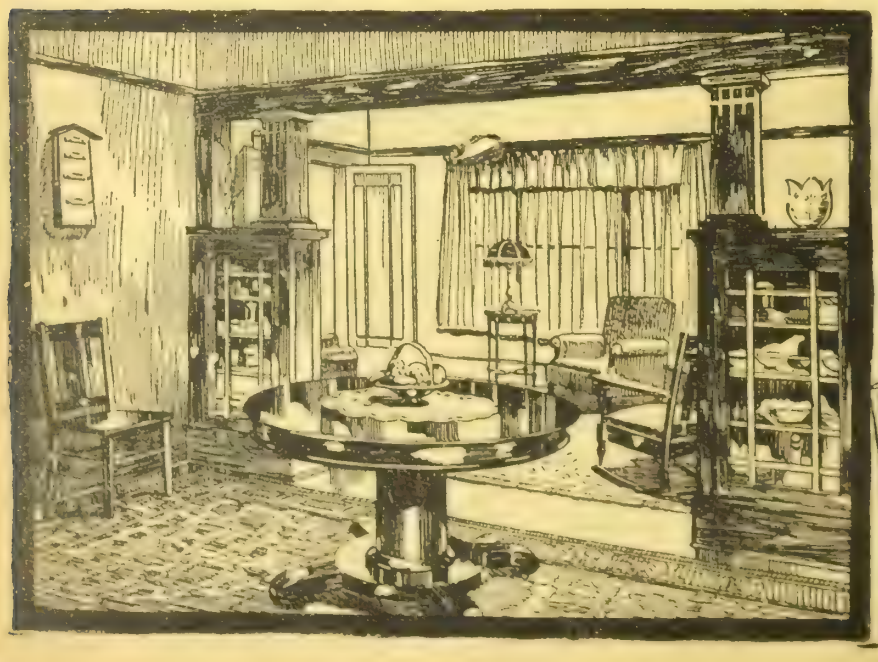
Eastern Offices at Pittsburgh and Washington

The makers of CURTIS Woodwork guarantee complete satisfaction to its users. "We're not satisfied unless you are."



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THE WISCONSIN FARMER

VOL. XLVI. NO. 46. THURSDAY, NOVEMBER 15, 1917. WHOLE NO. 1868

Report of Wisconsin Milk Commission.

Treats Costs and Distribution Problems and Recommends That the Legislature Investigate Making Distribution a Public Utility.

MILK is so necessary and important a food for all people that its price affects the general welfare of every community. From the standpoint of the consumer every possible effort should be made to reduce its cost to the lowest price compatible with justice to the producer and the distributor. The emergency in which this nation now finds itself has resulted in a widespread feeling that the general welfare must dominate the interests of any individual or class. Therefore, the committee has given primary consideration to this aspect of the problem. Last month the retail price of milk in the Chicago market jumped from ten to thirteen cents. To be warranted in these times, such an increase must rest upon absolutely justifiable grounds.

WISCONSIN'S MILK COMMISSION APPOINTED BY THE GOVERNOR.

Far side of the table, left to right—George Ela, producer, Racine county; L. Hause, producer, Waukesha county; John LeFeber, distributor, Milwaukee; Osmer B. Smith, Milwaukee Council of Defense; Mayor J. A. Fathers, Janesville; Dean E. Davenport, Illinois College of Agriculture; Dean H. L. Russell, Wisconsin College of Agriculture. Front of table, left to right—Mortimer Flack, producer, Walworth county; George Vincent, producer, Kenosha county; John L. Fisher, producer, Rock county; Mayor T. W. Thiessen, Racine.

The problem of finding a selling price for milk is not simply one of ascertaining the cost of production and distribution. That may be the price at which it should sell in order to pay expenses of production and delivery to the consumer, but whether he will take it at that price and how much he will take are entirely different questions.

The price which the consumer can afford to pay depends upon the food value of milk as compared with other staples, and which is far higher than is commonly supposed; it depends upon its peculiar value as food to the young, due to the fact that it contains specific substances that are indispensable to growth.

The price which the consumer will consent to pay depends not only upon its actual value, but also upon his attitude toward the price, and his habits of using milk; indeed, what may be called the psychology of the consumer is one of the large factors in the whole question. The consumer will take some milk at almost any price; he will take much more at a low price. If he calls for more than is produced he will have to economize in its use, and little or no harm will follow; but if he suddenly refuses to take the usual amount, waste ensues and the business is demoralized both for the producer and the distributor. The price at which milk will therefore sell, and sell freely enough for a normal supply to be consumed, is a composite of many elements, and a study of the prices for many years shows that they only roughly follow the cost of production. To determine what it actually costs to produce market milk is so complex a question, and one to which such a variety of honest answers can actually be made, that we have felt that reliance alone on cost data would fail to meet the real object of this investigation. There is no uniform cost at which milk can be made. The manufacture of milk cannot be standardized like the making of automobiles and put on a basis where the costs of production can be made uniform under conditions as they actually obtain. The farmer as a manufacturer is dealing not with inert materials that can be bought and handled as steel and fashioned in a machine, but with a living mechanism that is subject to all the variations of life itself.

Moreover, he has to contend with all of the forces of nature. His crops are subject to the blighting influence of storm and disease, so that his labor, however faithfully performed, may come to naught by reasons over which he has absolutely no control. This hazard factor must be paid for in some way. The costs of his raw materials therefore are subject to the widest possible variations. The silage put up this year by the Wisconsin farmer has cost much more than ever before. In many localities his hay crop has been so reduced that he is confronted with the condition that he must either sell some of his stock or purchase rough feeds at high prices. While the dairyman can and should be able to supplement his rough feeds by the addition of concentrates that will increase the milk flow, he cannot afford to produce milk for any considerable length of time if he is forced to buy coarse feeds at market prices. The concentrated feeds, such as bran, oil meal, and the like, which he is forced to buy in any event, have all advanced greatly in price during the past season and likewise the cost of labor. Not only is the wage $10 to $15 higher per month, but the cost of maintenance has sharply advanced. Under present conditions labor is now so scarce in the country as to make it a serious problem on many dairy farms whether present herds can be maintained without serious reduction in numbers.

The market milk producer is also obliged to incur additional expense to provide a reasonably uniform supply as between winter and summer. This compels him to engage in winter dairying when the

THE MAN IN THE PUBLIC EYE.

After all we must depend upon the farmer for the milk supply and it will pay to treat this producer right.

(Concluded on page 11.)

CURRENT EVENTS

AMERICAN soldiers shed their first blood in the fight for freedom and world-wide democracy, in the European war, last week. In an encounter with the Germans, three American soldiers of General Pershing's forces were killed, five were injured and twelve were captured. The Germans carried on a terrific artillery bombardment of the American trenches for hours and then charged with an overwhelming force, the evident intent being to frighten the American forces and to demoralize them. The American soldiers repulsed them with honor, however, carrying themselves splendidly under fire. The roll of honor of the American dead and wounded in this initial struggle is as follows: Killed—Private Thomas F. Enright; sister, Mrs. Mary Irwin, 6641 Premo street, Pittsburgh, Pa. Private James B. Gresham; mother, Mrs. Alice Dodd, 1001 West Ohio street, Evansville, Ind. Private Merle D. Hay; father, Harry D. Hay, Glidden, Iowa. Wounded—Private John J Smith; brother, F. D. Smith, Ludington, Mich. Private Charles J. Hopkins; brother, James W. Hopkins, Stanton, Tex. Private George L. Box; father, James L. Box, Altus, Okla. Private Homer Givens; father, William F. Givens, Cloverdale, Ala. Private Charles L. Orr; mother, Mrs. Sarah Regnell, Lyons, Kan. The grain-belt boy who was killed, Merle D. Hay, was a farm boy who enlisted at Des Moines, Iowa, less than six months ago. Among the captured are five more boys from the grain belt, as follows: Private Dewey D. Kern; mother, Mrs. Eva Tilton, Collins, Iowa. Corporal Edwin H. Haines; mother, Mrs. Elizabeth Haines, Woodward, Okla. Private Vernon M. Kendall; father, Sam Kendall, Moll, Okla. Private Herschel Godfrey; father, William C. Oberst, 709 Ridgeway avenue, Chicago, Ill. Private Harry Laughman; mother, Mrs. Ada B. Laughman, 461 Oakwood boulevard, Chicago, Ill. The soldiers have now had their baptism of fire and are ready to return the deadly attack in good measure.

THE American troops in France are reported as being eager for another encounter with the Germans, hoping to repulse them this second time with heavy Teutonic loss. Heavy rains have been falling for days, however, so that there has been little opportunity for much more than long-range artillery duels. Dispatches giving the details of the first fight in which the American troops participated state that it opened with a heavy artillery bombardment by the Germans. "Soon after the Germans to the number, according to the report, of 210 rushed through the breaches and wire entanglements on each side of the salient, their general objective barrage in the forefield having lifted for a moment. The Germans went into the trenches at several points. They met with stout resistance. Pistols, grenades, knives and bayonets were freely used. For many minutes there was considerable confusion in the trenches, the Germans stalking the Americans, and the Americans stalking the Germans. In one section of the trench an American private engaged two Germans with the bayonet. That was the last seen of him until after the raid, when a dead American was found on the spot. Another was killed by a blow on the head with a rifle butt from above." The fate of the men who were taken prisoners is not known, but measures are already being taken to send them food and hospital supplies. All the wounded are reported as doing well, although some of the wounds are quite serious.

NOTWITHSTANDING the fact that we are engaged in the greatest war the world has ever known and that American blood is being shed on a foreign shore, President Wilson calls upon the people of America to observe Thanksgiving this year, as usual. In his proclamation, issued last week, he says: "We have been given the opportunity to serve mankind as we once served ourselves in the great day of our declaration of independence, by taking up arms against a tyranny that threatened to master and debase men everywhere and joining with other free peoples in demanding for all nations of the world what we then demanded and obtained for ourselves. In this day of the revelation of our duty not only to defend our own rights as a nation, but to defend also the rights of free men throughout the world, there has been vouchsafed us in full and inspiring measure the resolution and spirit of united action. We have been brought to one mind and purpose. A new vigor of common counsel and common action has been revealed in us. We should especially thank God that in such circumstances, in the midst of the greatest enterprise the spirits of men have ever entered upon, we have, if we but observe a reasonable and practicable economy, abundance with which to supply the needs of those associated with us as well as our own. A new light shines about us. The great duties of a day awaken a new and greater national spirit in us. We shall never again be divided or wonder what stuff we are made of. And while we render thanks for these things let us pray Almighty God that in all humbleness of spirit we may look always to Him for guidance; that we may be kept constant in the spirit and purpose of service; that by His grace our minds may be directed and our hands strengthened; and that in His good time liberty and security and peace and the comradeship of a common justice may be vouchsafed all the nations of the earth."

WOMAN suffrage was victorious in the election in New York last week by an overwhelming vote. New York will be the fourteenth state in the Union to give women the right of ballot and the first state east of the Mississippi river (excepting Illinois, where partial suffrage prevails) to enfranchise women. In the same election John Purroy Mitchel, who has been mayor of New York City for the last four years, was defeated for reëlection by Judge Hylan, the Tammany candidate. Mayor Mitchel is one of the strong men in the democratic party and would have been a formidable candidate for the democratic nomination for president had he been reëlected. On the same day elections were held in Ohio and unless there are discrepancies that are not known at this time or unless the official vote varies to an extreme extent from the unofficial, state-wide prohibition in Ohio has carried by a majority of approximately 1,600. With every county in the state with two exceptions, complete and with a majority of the precincts in these two counted, a lead of 1,601 for prohibition was recorded. The vote with 5,727 precincts out of 5,756 showed 515,972 for prohibition and 514,371 against it.

AMERICANS responded to the call for a second liberty war loan by subscribing $4,617,532,300, an oversubscription, by 54 per cent, of the $3,000,000,000 asked and only $383,000,000 less than the $5,000,000,000 maximum fixed by the treasury. Tabulations completed eleven days after the close of the nation-wide bond selling campaign showed that every federal reserve district exceeded its quota, and 9,400,000 persons subscribed in the big war financing operation, which Secretary McAdoo described as the greatest ever attempted by any government. Half of the oversubscribed sum will be accepted, making the actual total of bonds to be issued $3,808,766,150. Ninety-nine per cent of the subscribers will receive the amount for which they bargained, all subscriptions for $50,000 or less being allotted in full, and those above that amount being pared down in varying proportions, ranging from a 90 per cent allowance on subscriptions between $50,000 and $100,000 to 40 per cent for the largest single subscription of $50,000,000.

AN immediate investigation of charges that coal operators and dealers are not carrying out the orders of the fuel administration fixing prices and governing distribution will be started by the department of justice. Orders have been prepared directing all federal district attorneys to study the fuel administration's regulations and to see that they are enforced. The directions will call for a careful sifting of charges and prosecutions wherever it appears that the law has been violated. Directors of the National Coal Association conferred with Dr. Garfield in an effort to find a solution for the shortage of cars and other transportation problems. Car shortage, Dr. Garfield was told, has cut production during the last ten days by 400,000 tons. The advisability of giving coal shipments priority in certain districts and the necessity for more efficient coöperation between railroads in handling coal shipments and empty cars was discussed. The National Coal Association is organizing a transportation department to assist the government and the railroads in relieving the situation.

THE Italian army was continuing to retreat before the victorious Germans and Austrians at the close of last week. An overwhelming force compelled them to do this, but at last reports they were retreating in order and were not becoming demoralized. It is expected that when they reach a favorable position they will make a stand and attempt to hold the Teuton's back until troops can be rushed to their aid from France and England. At last reports, however, the Germans seemed to be overwhelming the Italians just as they did the Russians. While this is going on the French, English and American troops are holding the western line tight and are even making good ground gains at the expense of the Germans. The manner in which this warfare in northern France is being carried on is well told in this dispatch from the front: "The French advance in pursuit of the Germans beyond the Chemin des Dames has attained an average of a mile and a half, the southern bank of the Ailette being reached everywhere. Altogether about eighteen square miles of territory have fallen into French hands. Many points in the line were bombarded by the German big guns during the French advance, especially in the neighborhood of Ailles, where numerous mustard gas shells somewhat delayed the progress of the French troops. The French are displaying the greatest prudence in their movements in consequence of the frequency of the caverns on all sides of the hills. As a result of this caution the troops, while going forward, discovered a number of traps for the unwary. In Cerny a steel helmet hung on a pole was found on examination to have an electric wire connection running into a mine which would explode in the event of the helmet being snatched away."

AN American mission landed in England last week on the eve of the opening of the first great war conference in which the United States will participate. Col. Edward M. House, President Wilson's personal friend and adviser, is the officially designated representative of the United States. He is accompanied by a staff representing every war agency in the United States, including Admiral Benson, chief of naval operations, and General Bliss, chief of staff of the army. In a statement Secretary Lansing emphasized the fact that this gathering is to be a war conference and nothing else, charged with mapping out a plan of campaign against Germany to "bring the conflict to a speedy and satisfactory end." There have been many indications that the conference was called at the request of the United States. In selecting its representatives, the United States has provided in advance against becoming involved in any discussion of peace terms or political questions. There is no diplomatic representative with the mission. The business at this time of every member of Colonel House's staff is war making and there can be no discussion of any matters not having to do directly with the prosecution of the war.

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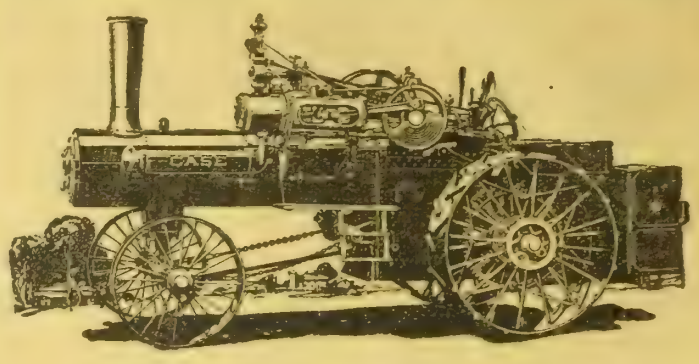

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The Wisconsin Farmer

THURSDAY, NOVEMBER 15, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

The Farmer and the Selective Draft.

I HAVE often expressed the opinion that the drafting of farmers for military service at this time is a mistaken, stupid and shortsighted policy, from the standpoint of national welfare, and a blunder for which we will all pay dearly before this war is over. It seems to me that the greatest obstacle in the way of a clear vision on this matter is that those who are opposed to such exemption start with the theory that a question of patriotism is involved. I have no patience with such an attitude, because it is based on a false assumption. I assume that every class of men in this country is equally patriotic—farmers, day laborers, professional and business men—and that the only thing to be considered is the welfare of the whole nation. I care nothing about the selfish advantage of any class or any individual in this connection; I am thinking only of the broader interests of the nation as a whole, which, I am proud to believe, all are willing and anxious to serve in the best way they can.

Modern warfare is a business proposition, and there are two things which will help the United States prosecute the present war to an early and victorious peace. They are man power in our armies abroad and producing power in our industries at home. The one is just as essential as the other. There is no need to send soldiers to the trenches unless they are supplied with arms, ammunition, clothing and *food*. I emphasize *food*, because it seems to have been somewhat neglected in the calculations of those who were responsible for the draft.

In order to keep history straight in this matter, a few fundamental facts should be remembered. When war was declared almost the first word that went out from Washington to the nation was that America's greatest and most pressing duty was that of feeding the armies and civilian populations of our own country and our allies. A great national campaign, in which federal and state governments joined, was started to encourage increased crop acreages and yields. Conferences of farm publishers with Secretary of Agriculture Houston, with Mr. Hoover and other government officials were held, which resulted in the farm press joining in the propaganda for increased crop production. President Wilson publicly expressed the belief that on the farmers hinged the fate of nations.

Farmers Respondedto Government's Appeal for Larger Crop Acreage.

The result of all this unprecedented propaganda for bigger crops was a largely increased crop acreage, especially in the corn-growing sections of the grain belt. This was done in spite of the fact that for years the farm labor supply had been ridiculously inadequate, and, where one man should have been caring for not more than forty or fifty acres of corn, the average farmer was attempting to handle nearly double that amount. The high wages paid by industrial concerns since the war started had drained the farming sections of a large part of their help, but the farmers of the grain belt figured that by working longer hours (already far too long, in most cases) and by pressing all possible help into service, even at high wages, they would be able to get through somehow and answer the government's call for more food—ever more food.

Then came the selective draft, with the accent on the *selective* feature, which was hailed as a wonderful advance over the draft of civil war days, because it would enable the government to put every man in the place where he would be of most service to the nation, keeping the munition workers and food producers at their work here, while calling for military service the non-producers of the country, who would not be missed at home. Exemption boards were appointed to choose between those who could best serve the needs of the country at home and those who could do their bit most effectively abroad, and the demands of agricultural necessity were included in the grounds for exemption. Up to this point, where theory ended and practice began, all was well and good, and the farmers of the nation went ahead with their work of preparing to harvest the largest crop acreage in the history of the government, which was to be their great contribution to the cause of liberty and democracy in the world.

It was when the boards of exemption began to act that the lie was given to all the propaganda that had been indulged in for increased crop production and the government entered upon the foolish and shortsighted policy which failed to discriminate between the producer and the non-producer, the worker and the loafer, the man who could best serve the country's needs at home and the one who could best serve them abroad.

How the Beautiful Selective Draft Theory Worked Out in Practice.

I will let a New York farmer tell how the selective draft worked out in practice, as stated in a letter to a widely read eastern metropolitan magazine. What he says of conditions in New York are typical of conditions, as I have learned them from a voluminous correspondence with my readers, throughout the grain-belt states. He writes:

I desire to direct your attention to the present procedure of promiscuously drafting farmers for the new Federal army. Last spring, when war was declared almost at the same time as the planting of crops, there was an hysterical panic to increase the agricultural production of the country, varying in its manifestations all the way from the planting of potatoes on the lawns of New York City to the exhortations of the President and his Cabinet to redoubled efforts on the part of the farming element. Even some of the "fire-eating" New York journals suggested that "conscientious objectors" be sent to the farms in lieu of military service. Everyone seemed unhesitatingly to agree that our agricultural interests had the honor of holding the key to the success of our military efforts. However, now that the harvest for 1917 is practically finished, the nation seems completely to have forgotten that another and still larger one will be even more urgently needed a year hence.

The report was persistently circulated at the time of the enactment of the selective draft law that the section on industrial exemptions was prepared primarily for the benefit of the agricultural and munition industries. What the attitude of the draft boards has been in regard to the exemption claims of munition workers is not known to the writer, but he has the best authority for stating that practically no respect is being shown to claims for exemption based on agricultural occupation. In central New York, the region best known to the writer, the claim of a farmer for exemption on the basis of having dependents, or for exemption on the basis of participation in the agricultural industry, not only receives no consideration from the exemption boards, but even subjects the applicants to personal ridicule and humiliation. I have received similar information from other parts of the state and from the Middle West, so it may be assumed that this procedure is somewhat general. The local exemption boards are constituted in the main by residents of cities and villages, and the district boards are almost entirely composed of city dwellers, with the well-known contempt of the townsman for the rural element. This traditional prejudice is allowed to obscure the broader interests of the nation.

Again, the exemption boards take the curious position that the greater the land holdings of the farmer, and, hence, the greater his importance to the agricultural industry, the less valid are his claims to exemption. Young men who are owners or managers of one or more large farms are naively directed by the exemption boards to "rent" their farms. They are not told, however, to whom they are to do the renting. With every available farmer and farm hand strained to the utmost exertion to handle the situation as it now exists, there is no one who can rent a farm without leaving vacant the one which he at present occupies. The specific land represented by every drafted farmer must of necessity be left to indifferent cultivation or be completely idle. There can, thus, be no doubt that unless the shortsightedness of the exemption boards can be curbed in some manner, the agricultural production of the country is bound to be seriously lowered in 1918 by the mere impairment of the working force available. To this must be added the psychological effect of this procedure upon the farmer, who is not so mentally obtuse but that he is able to see the injustice and inconsistency involved in urging him to greater exertion and the next moment proceeding to deprive him of the most indispensable and non-replaceable element in his equipment—MAN POWER—or even to take the farm owner himself, if he happens to be under thirty-one. It is inevitable that the farmers will be discouraged and disgruntled, and in either case will diminish their productive activity.

This procedure of the draft boards would be dangerous, even if the nation had just been enjoying "seven years of plenty;" it is little short of criminal when we are facing a desperate shortage of farm labor, food shortage, and the highest agricultural prices we have had since the Civil War period.

It is not to the point to argue that it is no worse for the farmer to be shot than the clerk. However true this may be from the standpoint of abstract logic or transcendental ethics, it is certainly a most specious argument from the standpoint of national economics in wartime. Nor is there any satisfaction in the thought that the farmer will have his grim revenge in contemplating a starving nation. Such an issue of the problem is too horrible and stupid to consider for a moment. Rather let us hope that the administration will not belie its words with its acts, and let us expect that steps will be taken to urge the farmers to more strenuous and enthusiastic exertions by causing them to feel that the nation regards them as an indispensable element in the war machinery, and not as the lowest and least essential rung in the industrial and military ladder of efficiency.

The theological cast of the administrative mind was evidenced by the section of the draft law exempting clergymen and divinity students. It is to be hoped, however, that Mr. Hoover, able man that he is, is not credited by the administration with the ability to duplicate the feat which Jehovah is credited with having performed for the Children of Israel in the Wilderness, or of that which is traditionally assigned to Elijah in perpetuating the meal and the cruse of oil for the widow of Zarepthah. The photographs of the President's cabinet which appear from time to time in the Sunday papers reveal a secretary of agriculture. Where is his influence directed in the present situation?

New York's Experience Duplicated Throughout the Grain Belt.

What the writer of the above letter has said of New York is equally true of Iowa, Illinois, Wisconsin, Minnesota, Nebraska, the Dakotas, Kansas, Missouri, Oklahoma and other states, where the stupid policy of refusing to exempt farmers will result in decreased yields, wasted crops and abandoned farms. It will be just as effective in diminishing the supply of foodstuffs which America could produce for our army and for our allies as the activities of many German submarines. It has made a mock of all the talk (in which I confess I joined) of increased crop yields, and it has dealt a blow at American military successes, not only this year, but in the pinching years to come, that will be felt as seriously as a shortage of ammunition in the blood-stained trenches of Europe.

I have tried to put myself in the place of those who were responsible for so colossal a blunder and to figure out by what processes of reasoning they have taken men who were producing on the farms of America and left the idlers in the city saloons and town pool halls. No one can take the place of the farmer on his farm, while anyone can take his place on the firing line. So I confess that I cannot understand why such a blow at our national strength was permitted in the house of well-meaning but foolish friends.

Perhaps the silliest apologies or excuses, that are offered in this connection, are those of idle theorists and irresponsible publicists, whose knowledge of farming conditions is limited to automobile trips through the country, who now and then arise sagely to remark that the farmer can rent his farm to someone else if he has to go to the army, or can hire some of the town loafers left behind, if his hired help is taken away. It is hard for anyone who knows farming conditions in the Central West to be patient with such silly suggestions. Renters are not hanging around looking for farms these days, and modern farming is a very specialized form of work. It requires brains and experience, as well as strength and brawn, to be successfully carried on. A green farm hand can do more damage with a team of horses or a tractor in an hour's time than he could make up by a year's work, and the average inexperienced youth of our cities and towns would be more of a nuisance on the farm than he was worth, even if it were possible to compel him to work, which it is often not. It would be just as practical to say that the farmer should run the doctor's office, while the latter was away, as to suggest that the farm work could be done by inexperienced and unskilled help.

Calling of Farmers for Military Service a Shortsighted Policy.

I might prove all the statements which I have made above by hundreds of letters, which I have received from farmers all over the grain belt, each telling its story of official folly on the part of those who are directing the nation's destinies in this critical hour, and from time to time I shall do so in these columns, using specific cases to demonstrate

(Concluded on page 8.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Winter Program for Wisconsin Institutes.

Farmers' institutes are being arranged for now by numerous counties. The program has not been completed as yet, but a tentative list of dates has been given out by E. L. Luther, superintendent of farmers' institutes, for the first and second weeks in December. All localities desiring institutes for their neighborhood must send in their petition to Mr. Luther at an early day. Institutes are of course arranged along certain routes to prevent unnecessary crossing and re-crossing of territory. The dates thus far worked out are: December 4th and 5th, Washburn, Wilson, Stockholm, Springbrook, Farmington and Grantsburg; December 6th and 7th, Bayfield, Baldwin, Waumandee, Hayward, Centuria and Danbury; December 11th and 12th, Mountain, Zachow, Dunbar, Klondike, Maribel and Wolf Creek; December 13th and 14th, Gillette, Cecil, Pembine, Lena, Rosiere and Evergreen.

It is very difficult for the department in charge of the institutes to promise an institute at a later date, as it often means a rearrangement of the entire schedule of future weeks.

Accounting Systems for Wisconsin Farmers.

Wisconsin cow-testing associations, having 2,500 members, are in position to show the values of farm bookkeeping and good business methods.

That these groups of farmers should put in systems of farm accounts if for no other reason than to let more people see the good they can do is what O. A. Juve, college of agriculture, University of Wisconsin, thinks should be given a trial as soon as possible.

The first step in giving the plan a trial would be for the cow-testing association members to meet and select some standard set of forms for general use. The method of keeping entries of the different deals taking place on the average dairy farm could then be explained by an authority. If possible, looking after the accounts and the work of keeping up interest among the members by giving suggestions or explaining problems as they occur might rest with the association's official tester. Many of these field men have some spare time to give to this important thing in their business—a thing, it is pointed out, which goes hand in hand with milk sheets and feed records as a vital index of conditions. Most testers would be glad to see the association business thus placed on a sound nd sane footing in all particulars.

Even should it be found impossible for the tester to direct the farm accounting within the circle, the hiring of an extra man, on full or part time, would in the end be profitable for the association. To show the sense of taking such a step, if found necessary, Mr. Juve points out that a modest salary paid to an accountant would mean far less spent in business administration than the ordinary commercial house deems absolutely necessary to success.

"For instance, suppose the bookkeeper could be obtained for $1,000 to $1,200 a year—this sum would represent only a small per cent of the total capital investment which the average Wisconsin cow-testing association has," said Mr. Juve, "showing the sum of $300,000 is easily a safe average to credit to such organizations, numbering from twenty to twenty-six members, many of them having modern barn equipment and milking purebred or high-grade cattle."

To produce the greatest, to save the most and to stop all small leaks is the goal sought in this work, and it is the foundation of Wisconsin cow testing. Some day, at no distant time, either, these farm bookkeeping circles will be formed and soon become a fixed part of the business—a needed side line to the "banishing of Badger boarders," the gentle operation which is now separating so many cow swindlers from the public feed trough.

Suggestions relative to trying out this scheme for advancing farm accounting into its true position through the state will be gladly received by Mr. Juve. Criticism and discussion are welcome.

President Wilson's Thanksgiving Proclamation.

IT HAS long been the honored custom of our people to turn in the fruitful autumn of the year in praise and thanksgiving to Almighty God for his blessings and mercies to us as a nation. That custom we can follow now even in the midst of the tragedy of a world shaken by war, an immeasurable disaster, in the midst of sorrow and great peril, because even amidst the darkness that has gathered about us, we can see the great blessings God has bestowed upon us, blessings that are better than mere peace of mind and prosperity of enterprise.

We have been given the opportunity to serve mankind as we once served ourselves in the great day of our Declaration of Independence, by taking up arms against a tyranny that threatened to master and debase men everywhere and joining with other free peoples in demanding for all the nations of the world what we then demanded and obtained for ourselves. In this day of the revelation of our duty not only to defend our own rights as a nation, but to defend also the rights of free men throughout the world, there has been vouchsafed us in full and inspiring measure the resolution and spirit of united action. We have been brought to one mind and purpose. A new vigor of common counsel and common action has been revealed in us. We should especially thank God that in such circumstances, in the midst of the greatest enterprise the spirits of men have ever entered upon, we have, if we but observe a reasonable and practicable economy, abundance with which to supply the needs of those associated with us as well as our own. A new light shines about us. The great duties of a day awaken a new and greater national spirit in us. We shall never again be divided or wonder what stuff we are made of.

And while we render thanks for these things let us pray Almighty God that in all humbleness of spirit we may look always to Him for guidance; that we may be kept constant in the spirit and purpose of service; that by His grace our minds may be directed and our hand strengthened; and that in His good time liberty and security and peace and the comradeship of a common justice may be vouchsafed all the nations of the earth.

Wherefore, I, Woodrow Wilson, president of the United States of America, do hereby designate Thursday, the twenty-ninth day of November next, as a day of thanksgiving and prayer, and invite the people throughout the land to cease upon that day from their ordinary occupations and in their several homes and places of worship to render thanks to God, the great ruler of nations.

In witness whereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done in the District of Columbia, this seventh day of November, in the year of our Lord, one thousand nine hundred and seventeen, and of the independence of the United States the one hundred forty-second.

WOODROW WILSON.

By the President:

Robert Lansing, Secretary of State.

Production and Price Uniformity for Potatoes.

Fall prices for potatoes in Wisconsin have been ranging from 80 cents to $1 per bushel in bulk. When so sold they give the farmer a fair return for his crop, as he is relieved of all further risks from frost or a breaking market.

The majority of our farmers are not in a position to put their entire time to hauling potatoes to market. Nor would it be well for them to do so. There are many other things to be attended to which require attention. The Department of Agriculture, however, calls attention to a very important point to be considered by those having potatoes on hand. According to Commissioner Norgord our tremendous crop of potatoes not only in Wisconsin, but in the United States, is bound to cause low prices unless the marketing of the crop is done more uniformly steady than has been the case in former years.

The normal crop for the United States in potatoes is around 350,000,000 bushels. Whenever the yield of our country exceeds this figure prices are apt to break either in the spring or fall, but particularly in the spring. The accompanying table shows this to be true with great regularity. In 1909 it will be seen a yield of nearly 400,000,000 bushels was harvested. Fall prices ranged from 20 cents to 58 cents per bushel and dropped in the spring to a range of 16 cents to 34 cents per bushel. The same was true in 1912, when the price dropped from 40 cents to 33 cents from fall to spring. The 1917 crop for the United States has been estimated at about 425,000,000 bushels after deducting all losses for frost and field rotting. The crop for Wisconsin is estimated at better than 35,000,000 bushels

	Chicago cash price per bushel, fair to fancy			
			Following	
Production Bushels	December Low	December High	May Low	May High
	1909			
389,195,000	20c	58c	16c	34c
	1910			
349,032,000	20	48	35	75
	1911			
292,737,000	70	100	90	200
	1912			
420,647,000	40	65	33	70
	1913			
331,525,000	50	70	60	90
	1914			
409,921,000	30	66	34	150
	1915			
359,721,000	53	95	80	110
	1916			
285,437,000	125	190		

The remedy for this depression of prices occurring either in the fall or during the spring months lies in the rearrangement of marketing practices. The farmer is entitled to use his own judgment of selling now or waiting for a bigger price in the spring. However, it is evident that the abnormally large supply of potatoes will force prices down sooner or later unless the present war situation, the demand of the American soldiers and of our allies, the shortage of wheat and the agitation for the consumption of more potatoes by the American households, can absorb this oversupply.

If the stream of potatoes going to market is fairly divided between fall and spring there is a chance of prices remaining stable. If too many potatoes are held in storage to be dumped upon the market in the spring the surplus will be too large to be absorbed and the price will drop. If a fair percentage of the potato crop is marketed this fall and the remainder stored over winter until spring perhaps this oversupply at one or the other season could be avoided. Prices would tend to remain uniform in accordance with the supply, which would then be uniform.

For the marketing of potatoes this fall there is some necessity of immediate action on the part of the growers. Cold weather will soon set in and make it impossible to haul potatoes to market. The shipping season usually closes down about the beginning or middle of December. Buyers become cautious lest the product they bought be frozen. They are not able to detect this until the potato has been in the storehouse for some time. Experience has taught them to be careful at certain seasons of the year in order to avoid large losses of this kind.

There is some advantage also for the grower if he can dispose of his crop at a fair price during the fall. He has then no longer the risk of storing the crop and he does not suffer the losses from accidents, frost or evaporation. The spring price for potatoes may or may not be better than the fall price, but in either case it is only wisdom to realize a small profit from part of the crop, rather than risk all in the hope of receiving unheard-of prices which rarely if ever materialize

About fifty to sixty-five per cent of the potato crop sold this fall with the balance kept in storage for next spring would be a fair proportioning of the year's harvest.

Soil Enriched by Keeping Dairy Cows.

One of our subscribers brings up the question of soil fertility and its maintenance in its relation to the main industry of the farm. He points out especially the change that is effected in soil productiveness on farms where dairy cows are kept. His letter follows:

Dairying is a constructive line of agriculture. Scarcely has there been a farm devoted to dairying which has not had its productiveness increased. In a certain corn-belt community notable for its poor soil and run-down farms there is one man who is securing fifteen tons of silage per acre. He is not only able to grow alfalfa while his neighbors believe it impossible, but is harvesting very handsome yields. Upon investigating the reason for the success of this man the answer was found to be very simple. The whole thing had been accomplished by twelve years of dairying. In the beginning the soil of the farm was no more productive than the other farms of the community. The return of manure to the field, the use of alfalfa and clover for hay and the pasturing of parts of the fields had accomplished very marked results.

Any good system of dairying will return more fertility to the fields than is taken from the soil. This is because there is scarcely a dairy that does not purchase some feed either concentrate or roughage and because the amount of fertility sold off in butter is very little and even in whole milk the fertility removed from the farm is conceivably small. Such is the case with special reference to chemical elements that go to make up fertility.

Humus, which is decayed and decaying vegetable matter, in the soil is greatly increased by dairy farming. In the manure this humus is returned to the fields in great abundance. Humus is very necessary to the soil. A field might have all the mineral elements of fertility in great abundance, yet were there no humus no production would be possible. The addition of humus to the soil has changed many a farm from the unproductive to the productive and profitable class. With dairying there is made available large amounts of manure which go to in-

crease the fertility and productiveness of the farm. In one of our western states where fruit growing is conducted on a very intensive scale and where land sells for as much at $1,000 per acre part of the farms of more progressive men is devoted to dairying in order that the fertility shall be kept up to a high state.

Those who contemplate entering the dairy business do well to consider the possibility of keeping up or increasing the fertility of the farm thereby. To many readers of your paper the matter of keeping up fertility is a new feature the necessity of which has not been made extremely apparent. Yet just as surely as farmers in eastern states have been forced to pay very careful attention to keeping up fertility and have spent large amounts of money in so doing so must our corn-belt farmers finally adopt some policy of keeping up the farm fertility. The forehanded man on our rich prairie soils will do well to consider this feature of the dairy business. Keeping up the fertility is a by-product of the dairy business yet it is worth hundreds and thousands of dollars to the dairy farms of our land. Those who stay in the dairy business regardless of the present strenuous conditions will in the future have a more fertile farm. Dairying is to be recommended for the great work that it does in keeping up soil fertility.

We have passed through a period during the last few months when there seems to be little direct profit in handling dairy cows and those who are apt to become discouraged over the matter should bear in mind some of the things pointed out by this subscriber. The gradual enrichment of the soil brought about by the restoration of fertility and the addition of humus-making material means greater production in years that follow, so that profits that may not appear to be immediately in sight are, after all, available, providing one will stay in the business so as to reap the benefit of soil enrichment.

Care of the Idle Tractor.

It is estimated that some 55,000 tractors passed into the hands of farmers in 1917. In most cases it was the first investment ever made by the purchaser in this form of power. As a result, much must be learned about the mode of operation and also about the care of the tractor when it is idle. On this point Power Farming comments as follows in a recent issue:

Usually when one buys an automobile his first thought is to have it properly housed. So the minute the ownership of a new machine is a certainty, up goes some sort of a shelter for it; usually a rather pretentious building as such buildings go. And so a moderate-priced machine may have caused another investment of well up to half its cost for suitable housing.

And that is all right! But what about the tractor? One can get a pretty desirable automobile for the cost of even a moderate size tractor; but does the tractor get the housing? Sometimes it does. More often it is run into any old kind of a shed; not infrequently it is left in the open to take care of itself

And yet a tractor will depreciate for lack of good shelter just as rapidly as an automobile. While the tractor has not the satin finish in its painted spots that an automobile has, it is just as highly developed a piece of mechanism, it needs just as much careful attention as the automobile does, and it should be kept in a well-lighted, roomy garage, with a cement floor. It is not only easy but pleasant work taking care of a machine when it is stored in a comfortable place to work in. The reverse is true in any other kind of a shelter, and the result is that the machine is allowed to wear out and deteriorate much faster because of the inconvenience of giving it attention than would be the case if it were properly housed.

We have already seen enough tractors standing in the field or in the yards about the buildings to convince us that there is need of agitation along this particular line. Though constructed mostly of steel parts, it must be remembered that the elements act as effectively in working destruction through the medium of rust as is ordinarily the case in destroying wood by rot. It is shortsightedness to invest in a tractor unless one is prepared to get service out of it ranging anywhere from seven to fifteen years, and this cannot be done if it stands outside month after month.

The United States Department of Agriculture experts have estimated that the war gardens of the United States have added more than $100,000,000 to the country's wealth. They at least have acquainted many with gardening and outdoor life who did not appreciate either before.

THE HOME GUARD PREPARES FOR RENEWED ACTIVITY

Official Statement—Indications today were for increased artillery action on the home guard front. General Hi. Costof Living's forces were expected to bear the brunt of the attack, with heavy losses in the rabbit division. This division is noted for its rapid retirements and the fact that it never surrenders. The morale of the home guard forces is said to be excellent and they are anxious to get into action.

BADGER FARMER'S MAIL BAG
FARM EXPERIENCES

Likes His Truck for Farm Use.

To the Editor:—I have used an automobile truck for the last six years and now find it to be practically a necessity in my farm work. I am able to use this truck practically the whole year round, but as I have also a team I find it more economical to use the horses at such times of the year when the roads are very bad either on account of snow or mud. It is usually the case that at such time of the year the horses are not busy and they need a little exercise anyway and it saves considerable wear and tear on the car to use them. I am now using a two-cylinder, one-ton truck and I am able to utilize it for all manner of hauling. A big part of my work is hauling fruit, but I have also hauled hogs and heifers in the truck. I find also that in returning from town there is always something to bring back as feed, building material, cement, etc. My truck also comes in handy for attending a picnic, fishing trip, or family reunions, as you can take a big load of truck along. I have carried as many as eighteen or twenty persons in my truck. If I had it to do over again and were buying a new truck I should get a car with more horse power. I would say this, that a farmer who has a truck should learn how to do repair work himself. This saves a considerable expense besides lengthening the life of his car. A. K. Bassett.
Sauk Co., Wisconsin.

FINDS TRUCK A PROFITABLE INVESTMENT FOR HIS FARM.

Mostly Dairying in Waushara County.

To the Editor:—This section of the country is not run very heavily with hogs just now and there are not a very great number of steers. Unfortunately the past three years the corn crop has been very light and the number of hogs around here is only about half of what it used to be, owing to the high price of grain and the shortage of the corn crop. We are depending now largely upon the dairy business and are attending to raising all our heifer calves and keep just enough hogs to eat up the skim milk and whey. Mostly ground oats and corn are used in the tankage. We have not done any hogging down corn in this neighborhood, but our corn is cut, shocked and husked and we use the stalks for feed, sometimes feeding them whole and again running them through the feed cutter. We feed the corn on the cob to hogs. Of course, a very large number of our farmers have silos and they put in their corn for winter feed of their dairy herd.
Henry T. Olson.
Waushara Co., Wisconsin.

Winter and Spring Wheat.

To the Editor:—I did not raise any winter wheat this last year, though I have had considerable experience with it in former years. I think the best crop can be gotten on clover. Plow the field right after the hay is off, then go over with the harrow twice or oftener, then leave the field until the last week in August and then work it up with a harrow and then sow one and a half bushels to the acre, and this will cover the ground nicely and will not be easily winter or frost killed. I raised this year spring wheat which went twenty-eight bushels to the acre, machine measure; by weight I think it would be three or four bushels more. I had a field of winterkilled alfalfa and manured and plowed it for corn. Clover sod would have been almost as good. I got a good crop of corn on this piece last fall and then plowed it in the fall. This last fall I went over it twice with the harrow and sowed one and a half bushels to the acre the first week in April. I got the above results. It takes a very good stand of winter wheat to beat it, and you don't need to be afraid of winterkilling. A. G. Oelke.
Green Lake Co., Wisconsin.

[Editor's Note.—Mr. Oelke says if any of our readers know a better way to raise wheat he would like them to tell it through the Mail Bag Department of The Wisconsin Farmer.]

Believes in More Hogs.

To the Editor:—It seems to me that there are a good many farmers in this part of the state who have not studied hog raising or feeding, especially feeding, but who have been inclined to fall in with the general plan of growing potatoes and raising cattle. Too few of our farmers have arrangements for hogs, although they are slowly beginning to realize that great profits can be made from hogs if they are properly handled. We are firm believers in having good hogs on a Wisconsin farm. Chas. E. Constance.
Waupaca Co., Wisconsin.

Don't Feed the Hogs too Much.

To the Editor:—I am a farmer born in the Grand Duchy de Luxemberg, Europe, and give you my view about feeding hogs. It will be a hard proposition to have heavier hogs this year with the soft corn we have, but at the same time I did not have any corn for the last three years that is matured corn. I think tankage at $90 a ton is too much money to invest and it will not pay. I had thirty-five old hogs on my farm during this summer and nothing but a good clover pasture to give them. I sent them to Chicago last Monday. They averaged 300 pounds and sold for $16.75 per hundred. I swilled them and fed them soft corn. I think regular feed, good care and a clean sleeping place are the main things about raising hogs. I think the man who has the help does better to not turn hogs in the corn and save the stalks. I would recommend anyone feeding young hogs to swill them and have good judgment about the corn given them, not to give more than they can eat. Give a good, clean sleeping place, plenty of salt and ashes and cut out all the tankage. However, I do not include oil meal in this. I have 135 shoats and I am not afraid but what I will have a good weight on them. Mike Mergen.
Grant Co., Wisconsin.

MEAT ON THE FARM

A PULLEY SHOULD BE USED IN HANDLING THE HEAVY HOGS

SAUSAGE MAKING AN IMPORTANT ITEM AT PIG KILLIN' TIME.

IN THE patriotic effort to conserve and increase the meat supply of the nation, there is a way in which the farmer can render valuable assistance and at the same time derive a decided benefit for himself. It consists in preparing the meat needed for his own use right out on the farm. By this plan he eliminates extra feeding and shrinkage entailed in marketing, he saves the extra work of hauling his animals to the packers and bringing the meat back to his farm, and without doubt he gets a much better quality of meat for his household at smaller cost. For these reasons farm butchering may be urgently advocated, especially this year when every economy in the use and handling of foodstuffs is of vital importance.

In most cases the slaughter of cattle is impractical on the farm unless several neighbors work together and each takes a share of the carcass, because the average farm does not have facilities for storing fresh beef. But practically every farmer can butcher a few hogs and cure the meat with such equipment as he already has on hand. Well-cured pork will keep for a long time, on some farms it is kept from one butchering to the next, and its flavor is even better than that of the fresh product. The tools and other equipment necessary for butchering and curing pork need not be elaborate. A six or seven-inch curved knife for skinning, a good butcher knife or six-inch sticking knife, a candlestick hog scraper, an ax or cleaver, a meat saw, a gambrel for hanging the animal by its hind legs, a twenty-gallon iron kettle for heating water and a scalding barrel make up the list. For convenience in scraping and cleaning the carcass a low table or platform like that shown in the drawing will be found desirable. The scalding barrel is leaned against the table or platform, so that the hog may be pulled onto the table easily after it has been scalded. A hook can be put in the animal's snout and one man can drag it onto the table. All of the equipment should be arranged as compactly as possible. For instance, if the water is heated in the iron kettle over an open fire near the scalding barrel, it will not have to be carried far and will have little chance to cool before it is used.

The first step preliminary to slaughtering consists in selecting animals that are in good health. It is not economy to butcher diseased or weakened animals, because the meat from them may cause serious sickness and the risk is not worth taking, no matter how high the price of pork soars. The next step is to withhold feed from the animals for from twenty-four to thirty-six hours. Perhaps the best way is to confine them in a comfortable pen with plenty of fresh water available. An animal allowed to rest and remain quiet under such conditions will make a much better colored and more attractive carcass than one which can move about and feed. Withholding feed empties the digestive tract and prevents danger of fermentation setting in at the time of killing. Keeping the animals quiet prevents a rise in body temperature and prevents a tendency toward souring of the meat, which sometimes occurs during the curing process.

A hog may be killed by sticking or shooting. Those who have had no previous experience may prefer to shoot the animal, using a .22 rifle. Sticking, however, is not difficult for two men if one will hold the hog while the other uses the knife, and it has the advantage of causing the animal to bleed more freely. In sticking the hog, let one man reach under the animal and grasp the fore and hind legs on the far side, then quickly turn the animal over onto its back and hold it there by the fore feet while the other man forces back the snout with one hand and uses the knife with the other. The knife should be thrust into the animal's throat just above the breast bone with the sharp edge upward and the point directed toward the root of the tail. A twist of the blade to the left cuts the arteries just inside the breast bone. Care should be taken to insert the knife straight or the shoulder cuts will be injured.

After the hog has bled thoroughly, it is dipped head upward into the scalding barrel. The scalding barrel should be filled about one-third full of water heated to a temperature of about 185 or 195 degrees Fahrenheit; if hotter than this the hair will set and cannot be easily removed, while if colder it will take much more time than necessary to do the scalding. Since a thermometer is not usually available, the right temperature may be reached by heating the water to very near the boiling point, then pouring it into the barrel and letting stand for a few seconds. When the temperature is right, from one-half to three-quarters of a minute should be sufficient time to loosen all the hair. Be sure to scald all parts uniformly. A shovelful of ashes or a tablespoonful of lye in the water will loosen dirt and scurf on the skin.

When scalding is finished, lift the carcass out of the barrel onto the scraping platform; then scrape off the hair from the feet and head first, since these parts are the hardest to clean. If the hair or scurf cannot be removed easily from any part, gunnysacks may be applied and hot water poured over them. Occasionally this method is employed to scald the whole hog. After the skin is well scraped, it is soaked with hot water and shaved with a sharp knife in order to remove all traces of hair and dirt.

The next step is to hang the carcass up. If the work is done in a shed it may be suspended from a rafter or beam, and if outdoors from the limb of a tree. A gambrel made of an old wagon singletree works splendidly if the ends are sharpened so that they may be inserted under the tendons of the hind legs of the carcass just below the hocks. If the rope from which the gambrel is suspended runs over a pulley, the carcass can be raised or lowered to any desired height, which is very convenient in dressing and cleaning. After hanging the carcass, wash it well and shave away any dirt that was missed in scraping. To remove the entrails, split directly through the joint between the hind legs with a butcher knife and cut down the belly line, taking care not to penetrate too deeply and thereby open the stomach or intestines. In cutting direct the left hand over the back of the knife blade and hold the sides of the blade with the first two fingers, so that the point cannot sink below the desired depth.

After the carcass has been opened, loosen the rectum and pull downward toward the stomach and intestines. Then pull up the gullet through the diaphragm and remove all the loose parts together, cutting the supporting tissues whenever necessary. Next, cut the breast bone with an ax or cleaver, just a little to one side of the middle, and remove the pluck, which consists of the heart, lungs, windpipe and liver. The gall bladder attached to the liver contains an offensive greenish fluid and must be cut away carefully without spilling this fluid on the meat. The carcass is now ready to cool for from twelve to eighteen hours. The best temperature for this is between 34 and 40 degrees, but a lower temperature must be avoided. If the hog's mouth is pried open with a block of wood the circulation of air and drainage of blood will be improved. Sometimes in hot weather the head is cut off just back of the ears and the backbone split with an ax or cleaver so that cooling will be more rapid. The gut fat attached to the intestines must be removed before it cools. Be sure to keep it separate from the leaf and back fat, since it has a strong flavor.

When the carcass has cooled thoroughly, lay it on a cutting table or block and remove the head and split the back if these operations have not already been done. Then cut through the carcass between the fourth and fifth ribs and remove the shoulders. These parts should be trimmed up carefully to the shape shown in Figure 1. The neck and rib bones are both removed in trimming and also all flesh down to the top of the shoulder blade. The lean trimmings should be placed in a convenient vessel and saved for sausage, while the fat is saved for lard. To remove the foot from the shoulder, cut the tissues apart just above the knee joint. Next remove the hams from the middle by making a diagonal cut beginning at each flank and extending toward the root of the tail, passing about two inches in front of the hip bones. Figure 2 shows this cut, while Figure 3 shows how the ham is trimmed up and the cut made just above the hock to remove the foot.

When this is done, remove the leaf fat from the middle piece and cut away the spareribs, leaving as much lean meat as possible with the

bacon and back strips. This improves the quality of the bacon. Now separate the bacon strip from the back strip by making a cut parallel with the backbone, so that one-third of the total side strip is left for the loin and fatback, while two-thirds is cut off for bacon. This, of course, is done on each side of the backbone. Trim the bacon strip to the shape shown in Figure 4, b, and separate the lean meat from the fat on the back strip, saving the lean meat for chops and roasts and the fat for lard.

The tongue is removed from the head by cutting the muscles at its base and pulling it loose with a sharp upward jerk. After this is done, remove the brain, ears, skin and snout and cut the head into quarters. The snout and ears may be saved and pickled with the feet. Then soak the meat left on the head in cold water over night to remove dirt and cut up finely to be made into head cheese.

When the various cuts are trimmed up properly, there is considerable lean meat left over in the trimmings that must be saved by making sausage. In fact, sausage making is a very important part of butchering. The procedure consists in taking three pounds of lean meat trimmings to every pound of fat, mixing thoroughly by chopping or running through a meat grinder and seasoning. To season, spread the mixture out on a flat surface and add one ounce of pure fine salt, one-half ounce of ground black pepper and one-half ounce of pure leaf sage, rubbed fine, for each four pounds of meat. Work the seasoning in well by grinding or chopping. Sometimes a little lean beef added to sausage improves its flavor. Since sausage usually is made in considerable quantities, pro-

Fig. 1—Pork shoulders: Untrimmed and trimmed with trimmings.

vision must be made for storing it. The most common method is to fry it down well and pack in air-tight jars or muslin bags that are made air tight by rubbing well with melted lard. Sausage packed in the muslin bags and then smoked for four or five hours takes on a very desirable flavor.

Next comes lard making. First, cut up all fat meat, except gut fat, into small pieces about one and one-half inches square and remove all the attached lean meat possible. Put the squares into a kettle containing a little water and cook slowly with frequent stirring. The water prevents burning, which would injure the flavor of the lard. When the cracklings or bits of lean meat turn brown and come

Fig. 2—Carcass of pork: Head, shoulders, middle, hams.

to the surface the lard is cooked. At this point, remove the kettle from the fire, let stand for a short time and then strain the melted lard through a muslin cloth into a large jar. If the lard is stirred while it is cooling, it will become smoother and whiter.

In order to keep the hams, shoulders and bacon strips until ready for use they must be cured. For farm conditions the brine cure has given best results. The dry cure takes a longer time, requires considerable labor at regular intervals in rubbing in the curing materials, demands more favorable conditions of temperature and moisture and gives less protection from insects and vermin. Therefore, only the brine method will be outlined here. The brine consists of eight pounds of common salt, two pounds of brown sugar and two ounces of saltpeter dissolved in four gallons of water. These proportions will cure

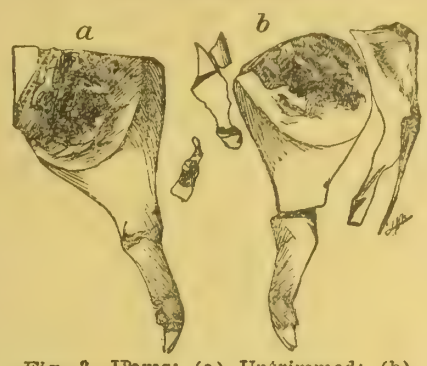

Fig. 3—Hams: (a) Untrimmed; (b) trimmed.

100 pounds of meat. In warm weather the mixture will have to be boiled in order to make it keep well, and if at any time it becomes ropy, the meat should be taken out and the brine boiled again. Before putting the meat in the brine, rub each piece thoroughly with salt and let stand over night. Then pack in a water-tight barrel, placing the hams and shoulders in the bottom with the skin side against the sides and bottom of the barrel and the bacon strips on top. Put a heavy weight on the meat to hold it down and then pour on the brine. The bacon strips should remain in the brine from four to six weeks and the hams and shoulders from six to eight weeks.

When the curing is finished, the meat is ready to be soaked. Smoking aids in preserving it and adds to its flavor. A smokehouse is the best place for this process, but oftentimes large boxes give first-rate results. The only requirement is that the boxes shall be large enough so that the meat may be suspended seven or eight feet from the fire to keep it from getting discolored. It is a good plan to hang the meat on pieces of No. 9 wire so that no two pieces can touch. Hickory wood makes the best fire for smoking because it gives a particularly good flavor to the meat, but any hard woods, such as maple or walnut, may be used, and some farmers re-

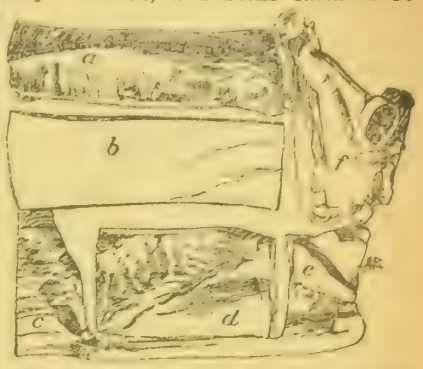

Fig. 4—Sides of pork: (a) Loin; (b) fatback; (c) spareribs; (d) bacon strip; (e) trimmings; (f) leaf.

port entirely satisfactory results with corncob fires. The fire should not flame up, but rather smolder in the nature of a smudge.

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Family Circle Talks by the Publisher

(Continued from page 3.)

my points. But here I merely wish to say, in a general way, that by just so much as the crops have been and will be cut down through the drafting of farmers for military service, by just that much has America's effectiveness in winning the war been diminished and just that much has been added to the useless load of the nation.

A wise man is one who learns by the experience of others, without having to pay the cost for such wisdom himself, yet the United States stubbornly refuses to learn from bitter English experience in the matter of food production. At the beginning of the war, when the business of war was new and it was men that were needed most to stop the onrushing German armies, voluntary enlistments in England resulted in tremendously depleting the farm labor supply, and it required the passing of one crop season to demonstrate the folly of such misplaced patriotism. Food production soon became as serious a question as soldier and ammunition production. Immediately England saw the error of her way and began withdrawing from military service men trained in agriculture. Directly production began to increase, and in 1917 England's crop acreage was 3,000,000 acres larger than in 1915. The same policy has been pursued in Canada, and the king's proclamation, establishing a real *selective* draft, is frankly based on agricultural necessity, in its preamble, which reads:

Whereas, By reason of the large number of men who have already left agricultural and industrial pursuits in our Dominion of Canada in order to join our expeditionary force as volunteers, and by reason of the necessity of maintaining under these conditions the productiveness or output of agriculture and industry in our said dominion, etc.

Who can doubt what the British and French food situation would have been today, had it not been that these governments have learned the lessons of experience in exempting farmers from military service! Their condition is bad enough at best, which adds to the burden which America must bear in furnishing them as well as our own people with foodstuffs, but excepting for the change in policy which they adopted they would now be hopelessly out of the war, while America faced the triumphant German armies alone. Let us learn from their experience instead of buying it for ourselves with American lives and misfortunes, when it may perhaps be too late.

Welfare of the Whole Nation the Only Thing Worthy Consideration.

Again I repeat that I am not asking for any special consideration for the farmer, as a class or as an individual, on sentimental or selfish grounds. He is no more entitled to consideration on those grounds than the business man or the day laborer. But what I am considering is the stern duty of winning this war; I am thinking only of the nation's interest; I am pleading only for the greatest good of the greatest number—for the army at the front and the families they leave behind—for our allies as well as for ourselves. It is when I think of these higher considerations; when I consider that it is going to take bread as well as bullets to win this war; when I realize that any man will make as good a soldier as the farmer, while no man can take his place on the farm, that I want to raise my voice in protest at thus crippling one of our chief sources of strength against the common enemy by the mistaken course we have pursued.

If the time should ever come when all the non-producers of the country, who either cannot or will not be of service at home, have been called to the colors, and more man power is needed in our armies, I shall be the last to raise my voice against calling on the farmers for military service. I believe that should that time come, the farmers of the nation will respond without being drafted, even as did the embattled farmers at Lexington, New Orleans, Appomattox Court House and San Juan Hill. Patriotism burns just as hotly in the breasts of American farmers today as it has in those other hours of national peril. They always have and they always will follow their chosen leaders in defense of our flag and our American ideals. But the important thing now, from the purely cold-blooded, business standpoint of modern warfare (for it is both cold-blooded and businesslike, if it succeeds) is that our leaders shall possess greater wisdom to direct the farmer's willing efforts along the most effective lines of national welfare. I pray that this increased wisdom may be granted before we blunder further to our cost.

LOANS FROM LAND BANKS.

I AM advised that on the first of October (almost six weeks ago) the four federal land banks here in the grain belt had actually approved loans, and furnished farmers the actual money, to the extent of $23,246,580. The manner in which this was divided between the four grain-belt land banks is as follows:

Wichita bank..	$8,643,245	Omaha bank. ..	$3,976,490
St. Paul bank..	7,423,600	St Louis bank.	3,203,245

The total amount of loans approved for the entire country, at that time, was $64,063,604. It will thus be seen that two-fifths of the patronage of Uncle Sam's new banks comes from the Middle West, the center of agricultural production.

These figures verify the statement I made a few weeks ago, that the new banks were taking up 4 or 4½ per cent of the existing farm mortgages. The farm-mortgage indebtedness of the ten grain belt states, at the last federal census, was $898,480,286. The new land banks have already actually loaned 3 per cent of this immense total, while applications for an equally large amount are still pending, to be examined and the loans actually made as time will permit.

I want to impress this one thing upon my readers: there is considerable red tape to the new law and it takes time to get loans. Most farm notes and mortgages are renewable or payable the first of March. It is not too early to begin organizing farm loan associations, as the law requires, and taking the necessary steps so that the money can be had from Uncle Sam, as desired, by the first of next March.

A REAL CHARITY.

A FORTNIGHT ago I printed the letter of a big-hearted farm woman who, while she had not enough of this world's goods to entitle her to be called rich, still had enough so that she could divide with the less fortunate. She offered to send outgrown children's garments which were no longer of any use to her, but which she thought would be of great help in many a home. Her idea was to have some charitable organization in the city distribute the garments, but it appears that there is need in the country, too. Witness this letter which I have just received and which I shall publish without name or address, in order not to embarrass the writer:

Dear Mr. Pierce:—We are real readers of your splendid paper. I saw in one of your articles where there was a woman had a few garments to give away to the poor. Now, we are poor, and since my boy went to the colors it is hard to get along, and it will be a great help to me if you will see her about sending these garments to me. I am feeble and have twelve children. Most of my children are young. If you will do me this favor I shall never forget it. My children have to go a mile and a half to a country school and they need clothing of all kinds badly.

I sent the name and adress of this farm mother to the one who had offered the outgrown clothing. I have no doubt but that by this time the two have gotten together—in spirit and charity, even if not in person—and that the surplus of one farm home has gone to make good the deficiency in another.

The country is prosperous, the farmers are making money; yet with the boys called to the colors in harvest time there may exist many cases of actual want, which we might relieve very easily and quickly. Will those of you who have an abundance of things which others might want write and tell me? Will those of you who need do likewise? I shall keep your identity hidden, save from those who relieve your wants and share their abundance with you. Let us all play Santa Claus to the needy and less fortunate, to the end that the spirit of Christ may permeate our lives, from one year's end to the other.

MERLE HAY, HERO.

I WONDER what that base libeler of the farmer, E. D. Hulbert, president of the Merchants Loan and Trust Co., of Chicago, will say, now that a grain-belt farm boy has been one of the first three American soldiers to be killed in France. You may recall that I paid my respects briefly to Mr. Hulbert a few weeks ago, after he was quoted as saying "the farmer doesn't want to buy Liberty Bonds, he doesn't want to fight and he avoids his income tax." The words were hardly cold before a boy who had quit his father's farm near Glidden, Iowa, enlisting in the regular army, at Des Moines, not six months ago, paid the great price, in human life, that the world may be made safe for democracy. Mr. Hulbert was in his luxuriant home, enjoying every comfort which money can buy; the farm boy was falling face forward in that shell-raked field known as No Man's Land, giving up his life that such as Mr. Hulbert might remain at home and enjoy peace, prosperity and the profits that accrue from war.

It makes my blood boil when I read such base libels against the farmer; it makes the tears flow from my eyes when I think of how Merle D. Hay, farm boy, died in France, partial payment of the debt we owe because Lafayette and Rochambeau brought their gallant Frenchmen to our shores, when the fires of liberty were about to flicker out, during the Revolutionary war, and, shoulder to shoulder with the farmers who fought at Lexington and Bunker Hill, made this world free forevermore. Merle Hay was "only a farm boy," but he leaves an imperishable name. He was far from home; he had dropped the plow handle for the rifle; the corn knife for the bayonet. Duty ordered him "over the top" of the sheltering trench and he went forth, in the same spirit that he had risen in the dim light of early dawn and had gone forth from his farm home to do the farm chores; that spirit of duty and devotion to detail which makes us so great and so rich as a people and as a nation. Merle Hay will never come back, but the spot where he fell "is forever America;" it is hallowed by American blood—the blood of a grain-belt farm boy.

Yet Mr. Hulbert, in his slippered ease, says the farmer will not fight. I hope he will drop a tear over the bier of Merle Hay and repent the words which are such a base libel, uttered at a time when there should be unity and patriotism from ocean to ocean.

A FARM MOTHER'S SACRIFICE.

I AM in receipt of a touching letter from a farm mother whose boy has been taken from her, but who cheerfully and prayerfully tries to do her best. The letter speaks for itself. The writer asks me to withhold her name, and I have done so, althought I think it deserves to be printed. She writes me as follows:

Dear Mr. Pierce:—I have been a reader of your fine paper for the past three years and always find something good in it. I thank you for the piece you wrote telling how the boys are treated in the army camps. I hope you will write other such articles and keep us mothers posted.

I wish you would publish this letter and try to find how many heartbroken mothers will join me in fasting one or two days each week. My darling boy left the fifth of the last month to join the colors and I fast every Tuesday and Friday and pray for him all the time. I have lots of work to do, but I pray while I work; pray for the war to end before our dear boys have to go to France. If our Lord fasted we can, too, and I do wish other mothers would join me. I would rather you would not print my name, for some might think I am foolish, but I love my darling boy and I do so want him back with me.

There is certainly nothing foolish about any sacrifice or self-denial which will either help the object of our love or assuage our own grief. In this case, fasting does both. The world faces a meat shortage; it is up to all of us to save, so that the boys in the trenches, field and training camps can have plenty of sustaining food. We are not yet upon a food-card basis, but we may be before the war is over. The government has asked us to save meat and wheat, and we know that every ounce which we save is going to relieve the situation in the army. Certainly, this farm mother is justified in fasting, on the ground of helping her own boy and his millions of fellow fighters.

On the other hand, aside from any religious symbolism attached to the fasting (I do not know the religious or denominational affiliations of my correspondent) there is a satisfaction which comes from a sense of duty done, of sacrifice made for loved ones, of a scourging of the flesh either for our sins or as expiation for the shortcomings of others. This good woman need not fear that any one will call her foolish; let her fast every Tuesday and Friday until her boy comes safely home to her; it will do her good and it will help the food situation.

May we hear from other farm mothers; will they write me from the depths of their hearts? I shall respect their wish to withhold their name, if they so desire. But cannot we make this a heart-to-heart meeting of real, true friends, each speaking freely and frankly, without fear of being called foolish, to the end that we may counsel together and help one another with suggestion and inspiration?

THE RIGHT TIME TO BUILD.

I CONTINUE to receive many interesting letters on the subject of the advisability of erecting new farm homes and outbuildings, now that the price of farm products has advanced so much more than the price of building materials. I am convinced that thousands of my readers realize that the opportunity is an exceptional one and are resolved to take advantage of it. As I pointed out, in a recent issue, farm products have advanced something like 100 per cent, while the price of building materials has advanced only about 25 or 30 per cent, so that it takes only one-half the number of bushels of corn or wheat to erect a new farm building today that it did a few years ago. I saw this matter of prices expressed most strikingly in a little paragraph in one of our large eastern magazines recently, in this manner:

A western manufacturer says that a buggy which twenty years ago could be purchased for $60, the equivalent of 300 bushels of corn, now costs $90, while the 300 bushels of corn at market prices will buy a buggy at $90, a farm wagon at $75, a suit of clothes at $20, a dress at $20, a baby dress at $5, a baby crib at $5, a box of cigars at $3, sugar at $10, tea $10, gasoline $100, lubricating oil $15—a total of $353.

While this applies to buggies, the same is literally true of farm homes, barns, silos, cribs, and so on. I doubt if there has ever been a time—not in my recollection, at least—when a bushel of corn or wheat, or a fat hog or steer, would buy so much that the farmer needs, from implements to modern houses with every convenience, as now. It is good economy to spend money at the time when the most can be bought for it. Will you take my advice, investigate this matter thoroughly and write me your experiences and observations?

James M. Pierce

The Dry Barn and Fresh Air.

Dodge County Farmer Installs Ventilating System and Gets Rid of Damp Atmosphere and Dripping in His Dairy Barn.

FOR a good many years Theo. Lehman, of Watertown, Wis., milked his cows in a damp cow barn into which little fresh air ever entered. His was a basement barn and for this reason the heat on the inside produced by the cows during the winter time caused a frost deposit to adhere to the stone walls. The result was a constant dripping of melting snow and a damp atmosphere at all times except when the windows and doors were thrown wide open. During the winter this was not possible owing to the cold and snow.

In 1916 Mr. Lehman decided to install a ventilating system in his barn to do away with the dampness and at the same time provide his herd of producing Holsteins with plenty of good clean air at all times. He did not make the mistake of expecting too much from his system nor was he satisfied with any kind of an installation, just so it resembled in form the ventilating systems on the market. He was careful to plan for adequate ventilation for the entire barn and to follow the dictates of common sense in attending to the system according to the seasons of the year and the prevailing weather conditions.

His success and his satisfaction are great after trying out the system during the past year. His neighbor, well acquainted with the troubles Mr. Lehman previously had in keeping his barn warm and providing fresh air for his stock, has this year installed a similar system in his barn with the full expectation of never regretting it. Neither one of the men has any doubt as to the profitableness of such a system. The health of all live stock is such an important factor for farm profits that the question of ventilation must naturally be taken up by the careful husbandman of today.

Mr. Lehman did not make the mistake of crediting his system with supernatural powers of self-operation. Even the 13-year-old boy who is helping his father in taking care of the dairy herd was eager to explain that on windy days the intake must be closed more than on the quiet days. The same is true when the cold weather commences. If on cold or windy days the fresh air intakes are allowed to be wide open the air entering the barn does so at a faster rate than it is possible for the cows to warm it with the heat which they exude from their bodies. All that the fresh air intake intends to do is to keep up a steady flow of pure air entering the barn at approximately the same rate at which the foul air is drawn up and out of the stable by means of the foul air flues and the ventilator on the roof.

Bad air sinks to lower level. The fresh air coming from above gradually mixes with warm air which naturally seeks the ceiling. This in turn becomes moisture laden and heavier and sinks lower, being replaced by new fresh air which comes in by means of fresh air pipes from the side of the barn. The foul air flues which are located at various points in the barn and about one foot distant from the floor, lead to the ventilator on the roof which draws up this foul air by means of the suction created by the winds which blow through the cupolas.

The first farm buildings which were in general use in the corn belt states in the early days were of necessity of a poorer type than we see at present. Cracks and crevices and ill-fitting doors and windows emitted enough air to ventilate the barn. Where no ventilation took place it did not matter much, either, for in those days stock was not held of such importance nor tended with as much care as in these days. Dairy stock in particular was of the moolie kind, with only here and there a pure-bred sire of a dairy breed. But Wisconsin has made gigantic strides in improving her agriculture during the last two decades. In her dairy work she has surpassed every other state in the Union and she bids fair to add to her laurels in other lines. The fact that Wisconsin has been so progressive in improving all types of agriculture and especially dairy stock is due in a large degree to hard-working and farsighted citizens of the soil. Wisconsin farmers have improved their acres faster and their stock more noticeably and successfully because they were ever willing to do the profitable thing a few years earlier than any other people.

With higher priced stock, higher yielding cows and higher bred sires have also come better and bigger buildings in which to house them. More and more the monster barns which are going up or which have been built during the last few years in Wisconsin are provided with an abundance of sunlight, concrete floors and modern barn equipment. More each year are also introducing modern systems of ventilation. Nearly all dairy barns in particular have some system of providing fresh air for the herd in winter quarters.

Ventilating systems have been greatly improved during the last few years and improve at a rate fully as fast as we have witnessed in all lines of agriculture. The makers of these systems have developed during the last few years after much study and expensive experimentation systems which will rid the dampest barns of all excessive moisture and insure a steady provision of fresh pure air at all hours of the day. It is not too much to say that in perfecting the ventilating systems these men have succeeded in supplying one of the few remaining essentials for successful dairying.

Years ago the laws were not as stringent in regard to the production of milk as they are today. Perhaps it would be better to have fewer laws and better ones instead of those with which we are burdened, but it is certain that what laws there are must be obeyed until they are repealed. One law in particular concerns itself with the importance of producing clean milk. This specifies that ventilation be considered more carefully in the construction of dairy barns. Unsanitary milk, it is argued, results from a lack of ventilation, which causes damp, unclean barns where the likelihood of contamination is greater than in clean, well-aired stables. Concrete floors and gutters and modern equipment cannot be considered the only essentials in the production of sanitary milk. Ventilation is as much necessary for correcting the bad air and drying out of the barn as feed is for the production of the milk. Sunlight can do a whole lot for drying up the ever-present accumulation of wet spots in the barn, but on bad days where no sun is shining the ventilating system will do it properly.

A large barn which is ordinarily kept warm when there are fifty cow stanchions in it during the year cannot be expected to be warm when only twenty-five cows make up the herd, even though it is supplied with the best ventilating system in the world. One cow can only heat a certain small space by her body. To expect a ventilation system to supply warmth is unreasonable. It is not meant to do this. It will conserve the natural animal heat of the cow to the best advantage while at the same time it is carrying off foul air and introducing pure air.

Sufficient foul air flues and fresh air intakes must be provided for each barn so that no one flue is overtaxed. Where these points are taken into consideration and the modern system operated with a little intelligence it will prove all its claims to the entire satisfaction of the most critical stockman.

About Aberdeen Angus Cattle.

Interesting Volume Recently Published by Association.

Under the title "Supremacy of Aberdeen Angus Cattle," there has recently been published by the Aberdeen Angus Breeders' Association an exceedingly interesting and valuable volume. It contains a large number of illustrations of noted Doddies, and, in addition, a number of valuable contributions by men who are regarded as authorities on the Doddie breed. Attention is given in this volume to breeding cattle as well as to prize-winning steers, and a comparison is made of the winnings of all breeds in the steer classes at the leading shows and expositions. This volume is beautifully printed and is worthy of a place in any stockman's library. The statistics of prize-winning animals given in this volume are exceedingly valuable and those who obtain a copy will have these at hand in permanent form. While the supply lasts one volume will be sent to each stockman who applies for it to Chas. Gray, secretary, 817 Exchange Avenue, Chicago, Illinois.

Work of the Naples Club.

To the Editor:—I am corresponding secretary for the Naples Social Club, Buffalo county, Wisconsin, and I will try to give you an outline of our work in this club. The first meeting this year was held in September and we had an exhibit of garden vegetables and products. It was a fine display. The display was kept for a week and then made into a booth, which was shown at our county fair. This booth won first prize, as well as a goodly number of compliments from the passersby. We hope to make this a special feature of our club work each year. In October we held our second meeting and at this time we discussed the second liberty loan and appointed a committee to have charge of the crow, gopher and sparrow contest, which we expect to carry on throughout the year. The club will offer prizes for the one killing the most during the year. At our next meeting the Y. M. C. A. boys are intending to give a minstrel show. We are considering the matter of doing quite a bit of coöperative buying this winter.

H. C. Seyforth,

Corresponding Secretary Naples Social Club, Buffalo Co., Wisconsin.

Bean Seed Prices High.

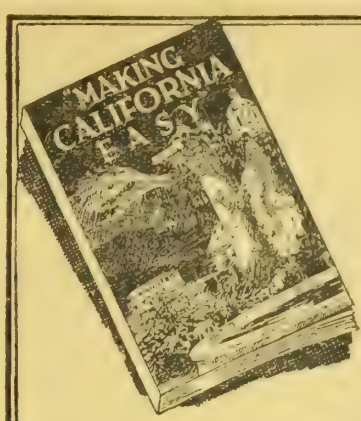
Although no large amounts of this season's bean crop are available at present, farmers and others who wish to plant beans next season are advised to get their seed supply as soon as possible and then dry it well during the winter.

"Beans would be too green now for seed, and would need to be thoroughly cured out in a dry, well-ventilated place," stated Henry Lunz, college of agriculture, University of Wisconsin, temporary food agent for Columbia county.

"Bean seed is bound to be high next spring, and the present average price of $9 a bushel of sixty pounds may not be the top notch to be reached," added Mr. Lunz.

"Farmers see the advantage of getting in a good supply of bean seed for themselves, and will get busy at it right away. Beans do not require the care in curing for seed that corn does, although they should be carefully sorted and kept dry."

According to men in the bean-growing regions of Wisconsin, the acreage planted to this crop last spring was large. The early snows of late October covered about half the crop, however, and the work of harvesting and threshing the beans will be delayed somewhat. In some places, authorities state, the value of the bean crop to be harvested will actually exceed the estimated value of the land on which it was grown.



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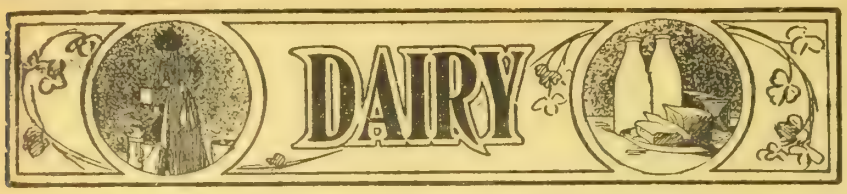

State Holstein Convention to Burlington.

At the meeting of its board of directors, held at Milwaukee, November 7th, it was decided to hold the next annual meeting of the Holstein-Friesian Breeders' Association of Wisconsin at Burlington. The meeting will take place on January 9 and 10, 1918. Headquarters will be at the Hotel Burlington. With the new interest aroused among the Wisconsin breeders by the decision of the Holstein-Friesian Association of America to hold its 1918 convention in Milwaukee next June, it is expected that the state meeting at Burlington in January will be the largest and most enthusiastic ever held by the state Holstein breeders.

At its meeting in Milwaukee the board of directors of the State Holstein Association also took steps toward making ready for the National Holstein convention to be held in Milwaukee next June. A committee on arrangements consisting of twelve members was selected to make every effort, and to coöperate to the fullest extent with the National Association, to make the convention the largest and best in the history of the National Association. The members of this committee are as follows: S. S. Cramer, Milwaukee, chairman; Fred Pabst, Oconomowoc; A. A. Schlesinger, Milwaukee; Wm. Everson, Lake Mills; W. L. Baird, Waukesha; M. J. Norton, Oconomowoc; W. J. Gillett, Rosendale; A. P. Kaye, Walworth; F. J. Bristol, Oakfield; J. P. Torrey, Kenosha; Emmons Blaine, Lake Mills; Geo. J. Schuster, Mukwonago.

C. J. Schroeder, Racine, secretary of the Holstein-Friesian Breeders' Association of Wisconsin, was delegated to direct the state publicity in connection with the national convention in cooperation with the director of publicity of the Holstein Association of America.

A big feature in connection with the annual June convention of the Holstein-Friesian Association of America is the sale of pure-bred Holsteins held on the two days following the convention. According to established custom, the breeders of the state in which the convention is held make all arrangements for the holding of this sale. Accordingly the board of directors of the state association also provided a committee to take charge of such arrangements. The members of this committee are F. H. Everson, Lake Mills, chairman; S. E. Jones, Watertown; S. H. Bird, South Byron.

Protect Cow's Teats and Udder.

Prevention of injury to cows' teats and udders is most important, says M. H. Reynolds, veterinarian, University farm, St. Paul, Minn. Injury may be caused by dragging over high door sills, by hurrying the cows from pasture when the udder is full, and by allowing them to lie on cold, bare cement floors. The teats, especially the hind teats of low-hanging udders, are sometimes injured between the cows' hocks and the floor when the cow rises.

If the injury is slight, there may be only a bit of dry blood on the end of the teat and the cow may be a little harder to milk than usual. Such cases usually heal promptly, but if the bruised end becomes infected the teat canal and the udder may become inflamed. Sometimes the end of the milk duct is permanently damaged. A severe bruise may result from a teat's being stepped on by a cow in a neighboring stall, while the cow is lying down, and if she jumps up suddenly actual tearing may result.

The treatment varies greatly according to the case. Conservative treatment will often save teats that are only slightly injured. Long continued bathing with hot water and gentle massage, if given early, will often open a closed canal. Much less damage may result from leaving milk in an injured quarter for twelve or even twenty-four hours than from an attempt to force open the end of an injured teat with a milk tube or probe. When teats are badly damaged a competent veterinarian should be called.

Repeated chiling of cows' udders, especially by washing and then exposing them to the cold air, often causes trouble, says Dr. Reynolds. The canal becomes partially blocked, making milking difficult. Small masses of flaky material appear in the milk. In some cases the end of the canal is partly or wholly closed by a scablike formation. Considerable irritation of the skin, particularly around the base of the teats, will usually be noticed. The remedy is, of course, a different method of cleaning the udder, in cold weather.

Cow Testing Reports.

Records on Cow-Testing Champion.

To the Editor:—I am sending herewith four months' record of Minnie, grade Holstein cow. She calved the 25th of June and I think milked considerably more the first of July than she did when I tested her on the 21st. I think the fact that she freshened in splendid condition with surplus soft fat was the principal reason, aside from the fact that she is a typical dairy cow, as are all of Mr. Ney's herd. The fact that she was on short pasture after the middle of August and Mr. Ney could get no rich protein grain, outside of the thirty pounds fed in August, explains the reason why she fell off at that time. As the grain will soon be in the market here we expect to be able to report a fine record for her by the end of the year. Mr. Ney has other cows capable of high records, one other, just freshening and although not at full flow of mik, making over sixty pounds at this time.

Chas. D. Wetmore.
Official Tester, Dunn County No. 1 Cow-Testing Asociation.

Month.	Testing day.	Number of days in test.	Number pounds milk per day.	Pounds milk per month.	Per cent of test.	Pounds of butterfat.	Price paid per pound.	Net value of product.	Days in pasture.	Lbs. of grain.	Value of roughage.	Value of grain.	Total value of feed.	Net profit per month.
July	21	31	60.7	1881	4.8	90.3	$0.425	$38.37	31	..	$1.50	.....	$1.50	$36.87
August	20	31	59.0	1829	4.3	78.6	.455	35.76	31	30	1.50	$0.85	2.35	33.41
September	19	30	39.0	1170	4.2	49.1	.48	23.56	30	..	1.50	.....	1.50	22.06
October	18	31	40.5	1255	4.0	50.2	.50	25.10	31	..	1.50	.....	1.50	23.65

51.35 lbs. of milk, 115.99 for butter fat, without skim milk. Male calf sold for $45 when four weeks old.

[Editor's Note.—In the compilation of cow-testing reports for July Mr. Ney's grade Holstein cow had the state record with 90.3 pounds butter fat. Her records for August, September and October are also shown herewith, together with the total value of her production, total cost of feed and net profits per month.]

In Taylor County.

To the Editor:—The highest cow in the Chilton Cow-Testing Association for the month ending October 28th is a grade Holstein owned by John Salm. This cow produced 1,473 pounds of milk, 61.82 pounds of fat. The forty-five-pound list for the thirty-day period ending October 28th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Arthur C. Peik					
Leita King, G. J..	9	2-21-17	834	5.6	46.70
Alex O'Donnell					
No. 9, G. H...	9	9- 1-17	1200	3.8	45.60
No. 13, G. H...	10	9- 3-17	1116	4.8	53.56
John Salm					
No. 30, G. H...	7	7-12-17	1473	4.2	61.82

JESSE C. WOLF, Official Tester.

Chilton Association.

To the Editor:—The Taylor County Cow-Testing Association has practically completed its first year's work. Of the forty who signed up last year only a few will not stay in for the coming year. When bran is $40 a ton and labor almost impossible to get it certainly does not pay to milk cows of questionable production. Don't be one of the farmers who labors all year on profitless cows for the sake of saving the association fee. Don't be one of those who fails to buy feed because he thinks it doesn't pay. Don't be one of those who just naturally stands off and declares that he doesn't believe in "book farming." When you join a cow-testing association you pay for service and you more than get your money's worth.

R. A. Kolb,
County Agricultural Representative,
Taylor county, Wis.

Winnebago Association.

To the Editor:—The forty-pound list of the Winnebago Cow-Testing Association for the thirty-day period ending October 31st is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Ed Race					
Gertrude Wayne Colanthe Fayne, P. B. H.....	6	10-22-17	1740	4.9	86.7
H. R. Mosely					
Heinnone, P.B.G..	4	3-14-17	790	6.0	47.4
Delma, P. B. G...	7	8-8-16	1058	6.3	66.1
Daisy, G. G.....	9	10-30-16	1209	5.0	60.0
Bessie, G. G.....	8	3-20-17	961	5.9	56.6
Ed Mackie					
No. 24, G. G.....	6	9-15-17	998	5.2	51.6

ARTHUR BARTHELS, Official Tester.

New Holstein Cow-Testing Association.

To the Editor:—During the month of September 388 cows were tested in the New Holstein Cow-Testing Association, Calumet county. H. J. Duecker carried off the honors for September. His twenty-one registered and grade Guernseys averaged 655 pounds of milk containing 33.7 pounds of butter fat. One cow of his herd is the champion individual for the month, for both milk and butter fat. She produced 1,321 pounds of milk and 52.8 pounds of fat. This is a very good record, considering the time of the year, when the change is being made from pasture to dry feed. Thirteen cows produced over forty pounds of fat in this month. Feed prices in September were as follows: Bran, $30.50; gluten, $50; linseed meal, $53 per ton, and oats, 60 cents a bushel. Prices for butter fat run from 56 to 65 cents per pound, the condenseries going slightly higher than the cheese factories. Our forty-pound list for the month ending September 30th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Joe Schmitz					
Wina, G. H.....	10	7-4-17	1182.0	3.5	41.3
Gus Weiser					
Schimmel, G. H.	9	2-16-17	1075.1	4.1	44.0
Hugo Lubke					
Nellie, G. H....	6	3-24-17	1230.7	4.1	50.4
Fanny, G. H...	4	5-22-17	1136.5	3.9	44.3
Martha, G. H...	6	3-2-17	1178.7	4.2	49.5
John Rammanger					
Spottie, G. H....	4	7-10-17	1274.2	3.3	42.0
George Mattes					
Mable, R. G.....	6	8-23-17	688.0	6.0	41.2
H. J. Duecker					
Jennie, G. G....	9	5-28-17	868.6	5.2	45.1
Yeskamine, R. G.	7	8-19-17	879.1	4.6	40.4
Redback, G. G...	8	7-1-17	1321.0	4.0	52.8
Vivian, R. G...	3	7-24-16	965.0	5.0	48.2
Eunice, R G....	2	6-24-17	723.2	5.9	42.6
Erich Vornahl					
No. 4, G. G. ..	11	4-16-17	975.0	4.6	44.8

NANDER NELSON, Official Tester.
EDW. HASS, Secretary.

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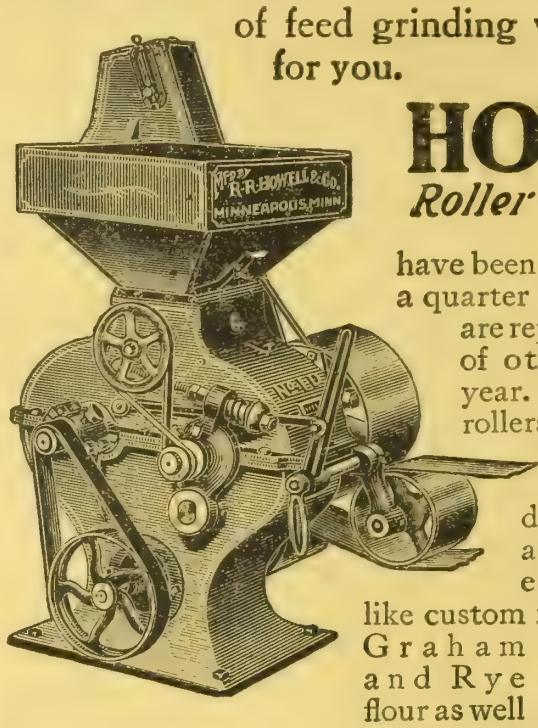

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Report of Wisconsin Milk Commission.

(Continued from page 1.)

costs of feed are actually much higher than is the case if he could produce the maximum supply on pasture in the summer. To this condition is added the expense of municipal regulations under which he must produce his milk to safeguard the public from disease.

These two latter conditions make it considerably more expensive to produce market milk than milk for creameries or cheese factories, and therefore justify a higher price being paid for fluid milk intended for city consumption than for that manufactured into dairy products.

In view of all these variable factors concerned in the cost of production, it is apparent that cost of making milk cannot be represented by a point, but is a range. In the more efficiently handled herds, this cost will be lower than the average, but many herds are contributing their quota to the market supply of every city that are below average efficiency. How many of these are necessary to produce an adequate supply will be based upon the public demands. It is certainly a fact that the price which is paid the producer must be above the average actual cost to all producers, in order to encourage a reasonable number of the less efficient to contribute their supply. Yet the public cannot be asked to support all of those who are producing at the highest costs of production.

An analysis of the facts presented to the committee showed that the price of $2.30 per hundred pounds which prevailed last August and September was too low for this period. During the past year milk has been sold in the Chicago market at a premium by those farmers who did not contract their output at the beginning of the season, showing that the terms of the contract were against the producer. Under such conditions, the farmer quite rightly feels that he has just cause for complaint, and it was this situation that had much to do with the final conclusion which resulted in setting the price of milk at $3.42 for October.

The sudden advance in retail price from 10 to 13 cents per quart brought into play the operation of a subtle but very important factor in the whole situation. Consumption dropped off at once. Not only from those who could ill afford to pay a 30 per cent increase in the cost of this essential food, but thousands of well-to-do people cut down their consumption, not to save the few cents per quart, but because they made up their minds to retrench in this matter. This is the inevitable result when retail prices of such a staple commodity fluctuate violently. The testimony of distributors is that custom lost in this way does not quickly come back even though the price may be reduced. It is this psychological factor that exerts a most important influence on the matter of retail price. Not only from the standpoint of general welfare of the public, but from that of the dairy industry, stability in retail price is highly to be desired.

The committee recognizes that the interests of both the public and the dairymen would be best subserved if it was possible to sell milk this winter in Chicago on a 12-cent basis, a reduction of one cent from October prices. This is no time for the energies of the people (either public or producers) to be spent in acrimonious discussion. We have a more important job before us right now than squabbling over the price of any single food and the last thing in our food supplies we can afford to cut out, especially with the young, is the milk supply. The committee directed its energies toward the problem whether a 12-cent milk was a possibility and whether in these times both the producer and distributor would be able and willing to make the necessary sacrifice to accomplish this result. We believe that stability in retail price will insure consumption of this food, which is yet the cheapest form of animal protein that we can use, that will in the long run be an advantage to the dairy interests of the state.

A tentative finding was finally reached by the committee in which it was agreed to allow the $3.42 figure for October (as this month had already passed) and to consider a $3.25 price for the coming month, if definite assurance could be secured from the Chicago distributors that the benefit would go to the consumer in the shape of a 12-cent per quart price. This proposition was communicated to the Chicago office of the Milk Producers' Association Thursday afternoon in order that they might have knowledge of the situation. Efforts were also made to reach the office of the Distributors' Association Thursday evening, but they could not be communicated with at that time.

The committee then decided to go to Chicago so that a personal conference could be had with the distributors. This was had on Friday forenoon, Mr. H. A. Wheeler, United States Food Administrator of Illinois, being asked to sit with the conference. Mr. Wheeler then stated that he had laid the matter before some of the directors of the Illinois branch of the association late the night before, and that a tentative agreement had been made with them on the basis of $3.22 for a two months' period, with the understanding that a commission would be appointed by the United States Food Administration which would fairly review the whole question as applied to the Chicago supply, and if upon such analysis it was later found that the price fixed for milk had led to any loss for November and December, either on the part of the producer or the distributor, these losses would be made good for these two months by an adjustment of the price over the next six months. If any adjustment is found to be necessary, manifestly it should be added not to January or February prices, when the actual cost of production is high, but to later months, in the spring, thus making it more likely that a stable retail price may be maintained.

This arrangement was finally agreed to by both the Wisconsin and Illinois representatives of the Producers' Association and was later accepted by the Chicago distributors, and is also approved by this committee.

If milk is to continue to occupy the advantageous position of being the cheapest form of animal protein, which it has for a long time enjoyed, then we must address ourselves to the task of studying more thoroughly than ever before the possibilities of effecting economies. These need to be studied on the part of both the producer and distributor. In spite of all the educational work that has been done there are altogether too many cows producing milk at too high a cost. It does not always follow that the largest producing cows are the most profitable. Much turns on the cost of the feed consumed. Milk can be expensively produced under high-grade conditions, as well as under poor conditions. But the important and necessary thing is to know where one stands. Accurate records are as necessary to know costs as the compass to know direction. While better feeding methods and better cows would undoubtedly raise many milk producers from the lower marginal group into a class where profits were increased, it is also true that the distributive processes need improvement with the view of lowering costs of production.

It has not been possible for a study to be made of the cost of distributing milk in cities, but it is common knowledge that the manner in which the business is conducted at present results in large overhead expenses that are duplicated in each bottling plant and that the cost of delivery is greatly increased by the multitude of small dealers who peddle a small quantity. In Milwaukee the aggregate mileage covered by all the milk delivery wagons is 5.7 times the total populated street mileage, although 45 per cent of the entire business is carried on by one company. In Worcester, Mass., Cance and Ferguson have just reported that the milk wagons travel probably ten to fourteen times the length of the populated streets.

The idea has already been advanced (see Governor's Tri-State Milk Com. Report, 1917, covering Pa., Md. and Del.) that "The distribution of milk should be carried on as a public utility, not only because of the economies in large scale distribution, but also because competition, as in railways and other public utilities, is ruinous if real, and worthless as a price protector to farmer and consumer if unreal." There are, of course, alternative propositions which might be considered which would make for reductions in distributive costs, such as municipal pasteurizing plants, coöperative delivery such as is now practiced in retail distributing.

It is not our purpose to attempt to decide whether these methods are to be recommended or not, but it is our belief that this problem is of sufficient moment so that it should engage early legislative attention and we recommend it to your consideration. Some aspects would require legislative sanction which might be given in case a special session was called this fall.

We shall doubtless do, in the next few years to come, many things for the public good which might not have come so quickly under more normal conditions.

The milk commission as appointed by Governor Philipp was made up as follows: H. L. Russell, chairman, Madison; E. Davenport, Urbana, Ill.; Mayor J. A. Fathers, Janesville; Mayor T. W. Thiessen, Racine; O. R. Smith, Milwaukee; George Ela, Racine county; J. L. Fisher, Rock county; M. C. Flack, Walworth county; G. E. Vincent, Kenosha county; L. W. Hause, Waukesha county; John LeFeber, Milwaukee.

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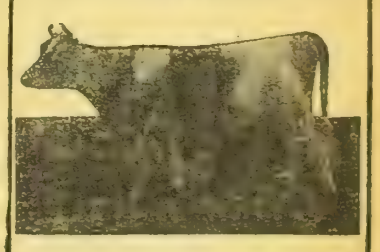
Semi-Official Year Test
29959.6 lbs. Milk 3.46% 1036.45 lbs. Fat



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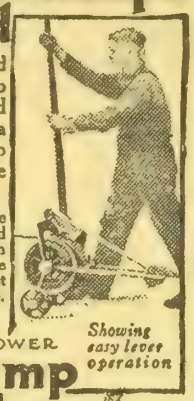

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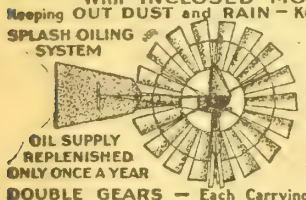

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Inter-County Holstein Sale.

The Inter-County Holstein sale, held at Watertown, Wis., November 8th and 9th, was generally conceded to be the best ever held under the auspices of this association. The facts for basing this assertion were not dependent upon phenomenal sales, although there were 14 head that sold for $500 or above, but upon the price of the average bred stuff sold. The young stock and heifers sold particularly well. One daughter of Oak De Kol Ollie Homestead brought $675 and another, $600. One hundred and seven head averaged $273.28 and eight animals sold for $600 or above. The principal buyers for the especially good stuff were Lisle Farms, Lisle, Ill.; S. E. Jones, Watertown; Milwaukee County Board of Administration, Wauwatosa; Harry Newell, Marion, Wis.; Chas. Anton, South Randolph and L. C. Birkenstock, Fall River, Wis. The Rhoda, Reed & Kruser consignment was the largest in the sale, and had much to do with the high average attained. The two two-year-old daughters of Oak De Kol Ollie Homestead, the twice National Dairy Show grand champion Holstein bull; the 31-pound four-year-old, King Pabst Pontiac Hengerveld, and also Pabst Maplecrest King, senior herd sire, used in the Rhoda, Reed & Kruser herd, as well as their 28-pound bull calf, sired by this bull, were features of the sale and are the class of animals which help to establish a favorable reputation for any sale compnay to handle. Mr. Pabst's 21-pound bull calf topped the sale at $1,250 and went to Lisle Farms. Mr. Howard Barker, who purchased for the Lisle Farms and who is in charge of the dairy work on this large Illinois farm, used exceptional good judgment at the sale by invariably buying the good stuff offered. It was he who purchased the two daughters of Oak De Kol Ollie Homestead, as well as a number of excellent daughters of Pabst Maplecrest King De Kol, an outstanding individual and a sire that has proven his prepotency through his offspring, which were sold through this sale. Goldthorpe's 32-pound bull sold for $810 to Swoboda Bros. The sale company took a few minutes the afternoon of November 9th to sell a Red Cross calf and raise money for this worthy cause. The Inter-County Holstein sale pavilion offered much more agreeable quarters for holding this sale than had been formerly used at the state fair ground and it is their intention on April 4th and 5th to hold another high-class, two-day sale. Following is a list of sales:

BULLS.

Pabst Maplecrest King, Mar., 1914; H. Lepier, Hartford, Wis. $600
King Pabst Pontiac Hengerveld, Nov., 1913; M. Dement, Lake Mills, Wis. 900
Pabst Hartog Belle Pontiac, Mar., 1916; Lilse Farms 400
———, Dec., 1916; S. A. Lee, Deerfield, Wis. 195
———, Jan., 1917; F. G. Ganthers, Pewaukee, Wis. 100
———, Mar., 1917; G. P. Noll, Mt. Horeb, Wis. 185
Fairlawn Pontiac Hengerveld, Nov., 1916; Ross Falconer, Rockford, Ill. 135
Pabst King Colanthus, Mar., 1917; Lisle Farms 1250
Houwtje Vale Korndyke, Dec., 1916; Swoboda Bros. 810
Champion Como of La Belle View, Mar., 1917; G. R. Rousseau 120
Aspirante Ormsby De Kol, Mar., 1917; E. Yolin, Watertown, Wis. 125
———, Feb., 1917; Milwaukee Co. 210
———, Feb., 1917; Werner Fisher, Mr. Vernon, Wis. 160
Johanna Twisk, Oct., 1916; H. B. Dolan, Inman, Wis. 320
Johanna Aaggie Twisk, Dec., 1916; Jas. Sparks, Irwin, Wis. 150
———, Jan., 1917; B. C. Olson, Arkdale, Wis. 100
Rock King Pontiac, April, 1917; Wribert & Kaddatz, Watertown, Wis. 400
Sir Beets Wayne Akkrummer, Jan., 1917; E. M. Baughman 165

FEMALES.

Marcade Marie Canary, April, 1912; S. E. Jones, Watertown, Wis. 680
Marcade Marie Pontiac, August Doubawa, Waterloo, Wis. 155
Fairlawn Marie Canary, June, 1916; Lisle Farms, Lisle, Ill. 275
Geraldine Pontiac Canary, Nov., 1914; S. E. Jones, Watertown ... 530
Dorinda Ormsby Canary, Jan., 1915; Harry O. Alton, Allenville, Wis. 225
Oak De Kol Pontiac, Jan., 1915; Lisle Farms 675
Oak De Kol Korndyke, Sept., 1914; Lisle Farms 600
———, Dec., 1916; H. N. Newell, Marion, Ia. 225
Zeffie Korndyke Jolie, July, 1912; G. A. Rousseau, Cecil, Wis. 380
Queen Snow Flake, Oct., 1906; Lisle Farms 250
Fairlawn Queen Snow Flake, April, 1916; Lisle Farms 285
——— July, 1917; Lisle Farms ... 195
——— April, 1917; Lisle Farms .. 230
Lady Van Beers Netherland, July 1903; G. Quinn, Richmond, Wis. 135
———, Jan., 1917; J. P. Torrey, Kenosha, Wis. 255
Kittie Aaggie Canary, Dec., 1913; Milwaukee Co. 255
Daisy Douglas Beauty 4th, Oct., 1907; Chas. Anton, Randolph, Wis. 300
Daisy Douglas Fobes, Nov., 1914; James P. Torrey, Kenosha, Wis. 340
———, Dec., 1916; Lisle Farms 205
Alma Ormsby Netherland, Oct., 1910; Milwaukee Co. 270
Fairlawn Zeffie Korndyke, Jan., 1916; Lisle Farms 305
Fairlawn Clothilde Pet, Jan., 1916; Lisle Farms 245
Fairlawn Pontiac Burke, Jan., 1916; Lisle Farms 265
Lady Jasamine De Kol Gerben, April, 1910; Jim Torrey, Kenosha 250
Fairlawn Netherland Canary, Mar., 1916; H. N. Newell 180
Fannie Belle Johanna, Sept., 1915; Milwaukee Co. 360
Jessie Belle Johanna, Oct., 1916; Harry Newell, Marion, Wis. 155
Penrhos Beauty, Mar., 1910; Lisle Farms 335
Wisconsin Piebe Oak 3d, Feb., 1915; E. E. Randall, Hustisford, Wis. .. 145
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SUMMARY.

19 head males sold for $6,765; 88 head females sold for $22,475; 107 head sold for $29,240; average per head, $273.28.

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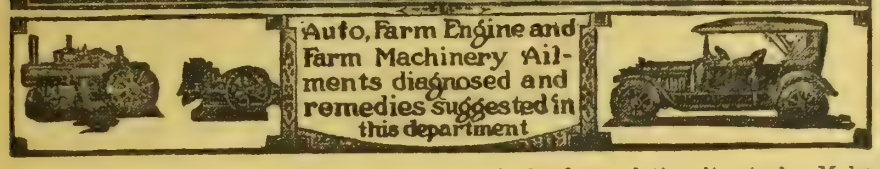
WALTER GEORGE, Evansville, Wis., is the man that owns Rainy Day and if you could see the pigs sired by this boar you would say that he is one of the good breeding boars of the state. The boars that George has for sale are long, stand up well, have good backs and are big. George's Chesters can be classed as near the big types as any we know of in this state. We wish you could see this good herd of Chesters. If you want a boar, just send your check. Don't worry about what you will get—he will be a good one or none at all. See page 22.—Adv.

FARM MECHANICS



Questions and Answers.

Setting Valve of Case Engine.

Please give instructions for setting the steam valve on a Case compound engine. What is the difference between a high-pressure compound and a low-pressure compound engine?

Answer.—We assume that your engine has the Woolf reverse gear; if we are mistaken, write us again or send to the J. I. Case Threshing Machine Co. for their book, "Science of Successful Threshing." The following instructions for setting the valve is taken from the above book. The setting of the valve for a simple engine is exactly the same as for the compound engine, both valves of the compound engine being moved by the same valve stem:

Before setting the valve it is necessary to find the dead centers of the engine. An engine is on its dead center when the piston has reached the extreme end of its stroke. At the crank dead center, the piston is nearest the crank shaft; the other dead center is called the head center. Case engines are usually set to run "under," that is, the top of the flywheel rim runs toward the cylinder. When timing an engine, the flywheel should always be turned in the direction in which the engine is to run, so as to take up the lost motion. Never turn the flywheel in the other direction; if you run past the mark, turn the wheel around until you come to the mark again.

Obtain a rod or heavy wire about twelve inches long and sharpen the ends. Bend the ends to form a U-shaped tram, the distance between the points being eight and three-sixteenths inches. Take up all lost motion in the connecting rod brasses, crank shaft bearing, and crosshead shoes. Turn the engine until the piston lacks about one inch of completing its stroke. Make a prick punch mark at any convenient place on the crosshead, insert one point of the tram in the mark and with the other end make a scratch on the engine frame to locate a second prick punch mark. The tram points should be the exact distance between the two marks and when the tram is applied, it should be nearly parallel to the piston rod. In the same manner, a mark should be made at any convenient place on the frame near the crank disk, so that the tram measures the exact distance from this mark to another mark made on the crank disk. Next, turn the engine in the direction in which it is to run until the crosshead comes back to same place. Place one leg of the tram in the mark on the frame near the crank disk, and locate another mark on the disk by the tram. When this is done, find the point midway between the two marks on the disk, and mark it clearly, destroying the other two marks. Find the other dead center in the same manner. Now, when the crank disk is turned around until the tram point drops into one of the marks on it, the engine will be on dead center. The flywheel is often used instead of the crank disk for locating dead centers.

The original setting of the valves of Case engines may be determined from marks on the engine. The eccentric hub and shaft are marked with a chisel so that the marks meet when the eccentric is in proper position. There are two marks on the valve stem, and they should be on top. When the reverse lever is at the rear end of the quadrant and the engine is placed on one of its centers, the distance between a mark on the stuffing box and one of the marks on the valve stem should be four and three-sixteenths of an inch, which may be measured by a tram.

If it is necessary to reset the valves, proceed as follows after having found the dead centers as given above. First, see that the reach rod from the reverse lever to the block guide is of such a length that the valve moves the same distance during a revolution of the flywheel in one direction that it moves during one revolution in the opposite direction with the reverse lever in the corresponding end notch of the quadrant. If valve travel is more for one motion than for the other, it shows that the reach rod is too long or too short. The length of the rod can be adjusted by taking the pin out of the lever and turning the fork end of the rod. Be sure to tighten the jam-nut.

See that the eccentric has its point of greatest throw nearly opposite the engine crank pin on all Case engines except the 110 horse power, on which the eccentric is in line with the crank pin. The movement of the valve when the lever is moved from one end of the quadrant to the other with the engine on dead center is called "slip." When the eccentric is properly located, the slip will be the same for both head center and crank center positions. The slip should be in the same direction that the lever is moved. If the slip is with the lever on one center and against it on the other dead center, the eccentric is not in the proper position, and should be rotated until the slip is the same direction as the motion of the lever for both dead centers. If it is impossible to get this, the pedestal is not the right height. Having determined approximately the position of the eccentric, clamp it temporarily with one set screw.

See that the pedestal is the correct height. The amount of "slip" indicates this, and if it be one-sixteenth for both dead centers, and in the same direction in which the lever is moved, the pedestal is the proper height. If the pedestal be too high, the slip will be more than one-sixteenth; if too low, the slip will be less or none at all; or, if very low, the valve will move in the direction opposite to the motion of the lever. The pedestal may be raised by placing shims of sheet iron between it and the frame. It may be lowered by taking out shims or dressing off the bottom of the pedestal.

When you know that the reach rod is the correct length; that the eccentric is in proper position and the pedestal the correct height, give the valve three-thirty-seconds inch lead on the crank end for the threshing motion. The slip of the valve, in throwing the lever over to the road motion, will reduce this lead by one-sixteenth, so that the leads will be nearly alike for the road motion. The lead should be obtained by adjusting the length of the eccentric rod, allowing the nuts on the valve stem to remain undisturbed. The valve is now properly set and the eccentric should be securely tightened.

The Toy Steam Engine.

I noticed in the Farm Mechanics Department a toy steam engine that drew my attention. In my opinion, it cannot run the way the valve is set regardless of whether it cuts off the steam at one-fourth, one-half or three-fourths of the stroke. For instance, if the steam is cut off at one-half the stroke, it is again let in when the steam is half way back on the return stroke. I made a steam engine myself when I was only fourteen years old, and you can bet that I had some fun with it. It was only a small one, made of four-inch gas pipe two feet long for a boiler; wooden plugs being pounded in the ends with a sledge hammer. The cylinder was single stroke, made from a nice smooth piece of brass tube from a round burner lamp, one end being plugged with wood. For the exhaust I filed a crack in the cylinder just at the end of the stroke. I used a common valve to which I riveted a piece of iron so as to form a handle. To this handle I connected a stiff wire to the crank shaft to operate the valve as shown by the sketch. It was in August and the watermelons were ripe when the news was spread to the neighbors of the invention, and no less than twenty-five boys came that night to convince themselves. Of course not one of them thought it was even possible to make a steam engine at home. That night we boiled seven boilers full of water! Four years later I made a larger steam engine with which we could run a one-hole corn sheller and have power to spare. If you care, I will give you a full description of it.

Answer.—From the number of letters we have received, we think that the interest in steam engines is not yet dead. We would be pleased to have your description of your larger engine. We are publishing the sketch of the small engine, and the above description is so complete that a further description is not necessary.

You are mistaken as to your engine being superior to the single-acting engine, the sketch of which we recently published. The action of these two engines is exactly the same. Your valve cuts off the steam at one-third or one-half stroke, as the case may be, and admits it again at almost exactly the same point on the return stroke; therefore, all the power you gain comes from the expansion of the steam.

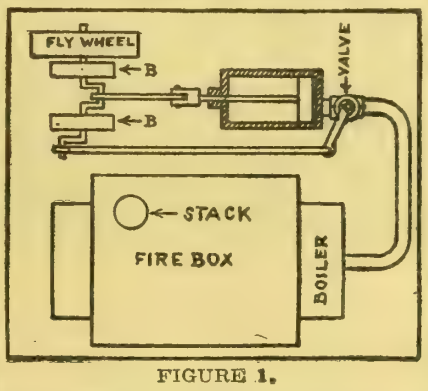


FIGURE 1.

An indicator card applying to either of these engines may be of interest to our steam engineers. See Figure 2. For the benefit of our readers who are not engineers an indicator card is a diagram, the distances up and down representing steam pressure in the cylinder and the length of the diagram represents the length of the piston stroke. In the diagram shown in Figure 2 we will assume that the piston begins its stroke at E at about sixty pounds pressure. As the piston travels the pressure is nearly constant until it reaches the point of cut-off where the valve closes. As the steam expands the pressure falls. When the piston nears the crank end of its stroke the exhaust opens—point G on the diagram—and the pressure falls very rapidly. At H the piston starts back on the return stroke and the pressure is only a few pounds above atmospheric, atmospheric pressure being represented by the straight line, MH. When the piston reaches the point, I, in the stroke, the exhaust valve closes and the piston begins to compress the steam in the cylinder; therefore, the pressure rises. When the piston reaches J the valve begins to open, and the pressure rises rapidly to nearly boiler pressure. The amount of useful work done is represented by the area enclosed by the solid lines. The dotted lines show how much more work would have been done if the valve were a good slide valve.

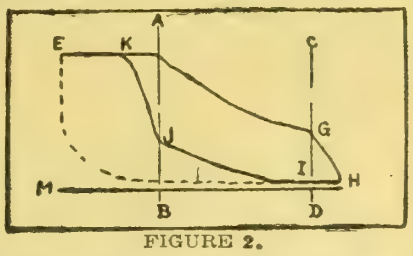
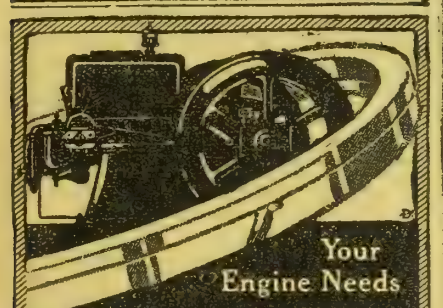


FIGURE 2.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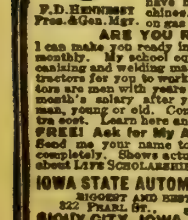
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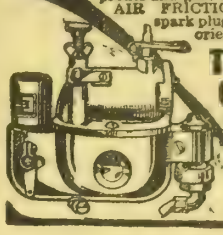
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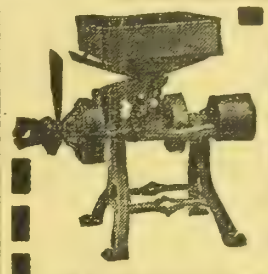
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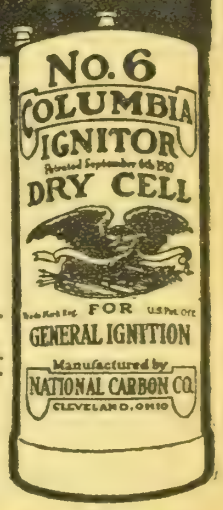

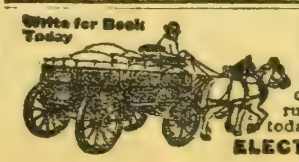
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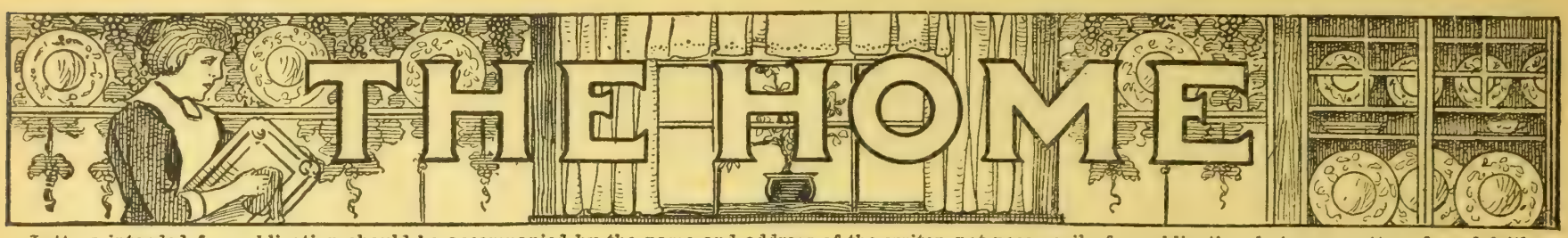

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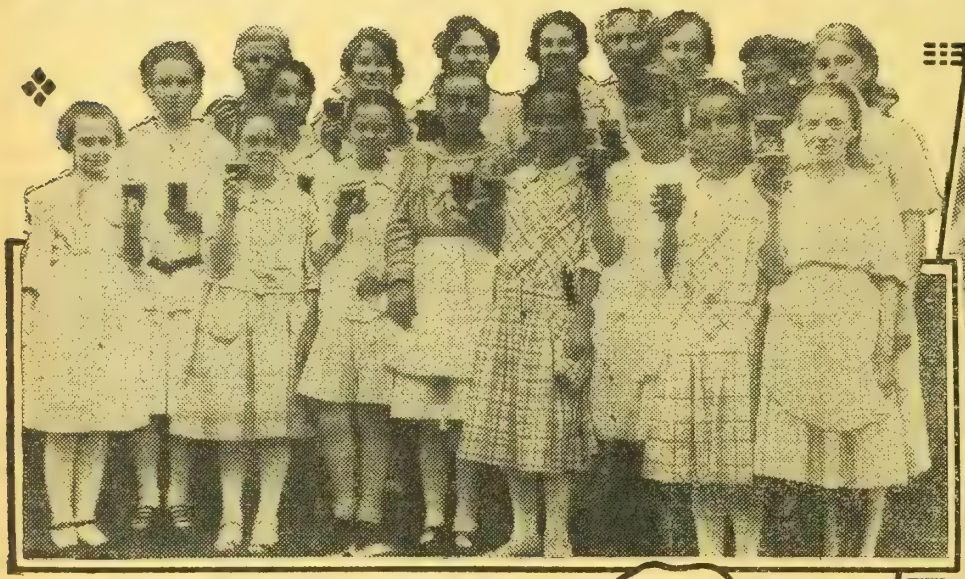
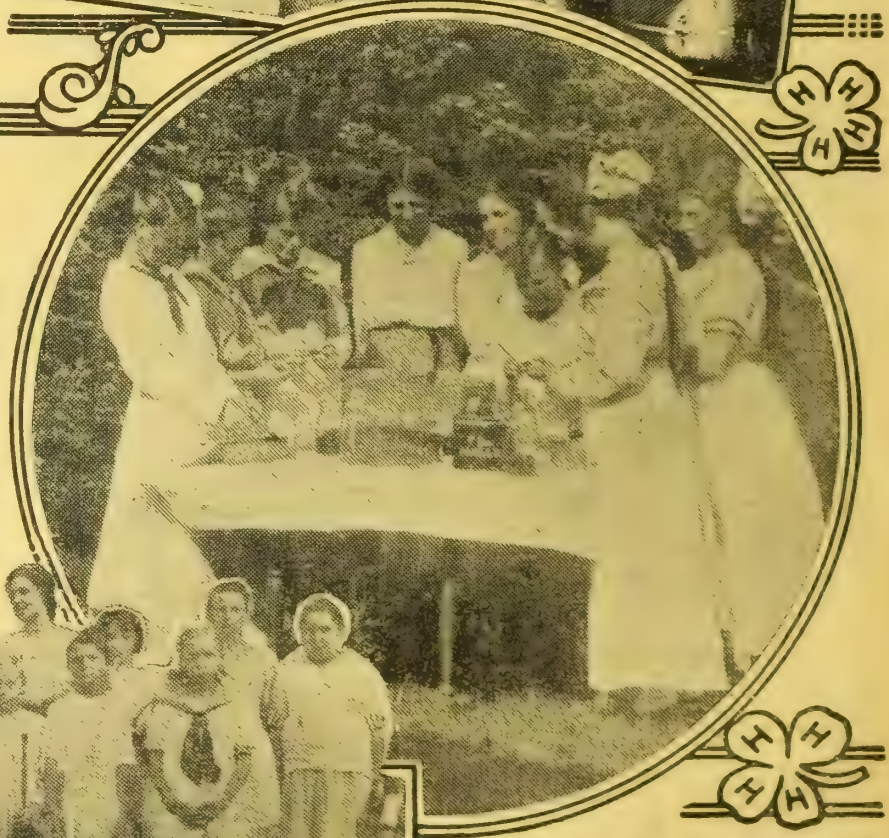
Girls Club Work in Wisconsin





ENTHUSIASTIC YOUNG COOKERS AND CANNERS.

Upper group at left—Royce School Canning Club, Beloit, Wis. Upper group at right—Bell Canning Club, Bloomfield, Walworth county, and their pressure cooker. Center group in oval—East Nelsonville Canning Club, Portage county. Lower group—Gaston School Canning Club, Rock county. The clover leaf design is the official National Boys' and Girls' Club emblem.

GIRLS' clubs will be taken care of in a new way this year by Miss Elizabeth Amery, who has charge of the girls' club work in Wisconsin. The splendid work which was done during the summer months by the hundreds of girls' clubs in the state has proved that interest in club matters is great providing the work can be made instructive and attractive.

The girls' clubs will be classified by Miss Amery according to clans. There will be a club for those having domestic science studies in the schoolroom, a club for those with no domestic science work in the school, and a club for older girls who have had at least one year in club work in the state and who have had instruction for one year in the arts of cooking and sewing and who have done home work.

The first of the clubs is the Homecraft Club. This club will hold regular meetings and have officers elected to conduct such meetings. The program of the work will be so arranged as to fit in with the school work in domestic science. They will be organized and ready when the spring work of gardening and canning begins. None of the work which they are asked to do is to be done at home out of school hours.

The second clan is to be named the Girls' Homecraft Club and will consist of girls between the ages of ten and eighteen years who have no domestic science work in the schoolroom. They will sign a project to do the work outlined in sewing, food emergency, gardening and canning which the club undertakes. During the months of November, December and January this work will consist of sewing. During February, March and April food emergency work will be practiced. From May to October gardening and canning will be the chief object of attention.

The club has at least six members and they elect officers to conduct the meetings. Each club will have an adviser, either a woman from the city or one of the teachers from the local school. This adviser will meet with the club, help to arrange the exercises, prizes, achievements and in general be active in arranging the work.

The third club will consist of older girls, possibly between the ages of twelve and eighteen, and will be known as the Wisconsin Homecraft Club. Younger girls will not be eligible because of the requirements which call for at least one year of domestic science work in the schoolroom, a year of cooking and sewing at home and a previous record in some club organization of good standing.

The work these members must do will be performed at home. A list of subjects is given out which will be followed in detail and each subject must be finished before a new one is undertaken. Achievements will be acknowledged by the state leader, Miss Amery. They will be known as honors and the recipients will have something to show for each honor that has been awarded.

So that each girl may be known according to the honors she has received Miss Amery has decided upon a uniform to be worn by the members of the club at their meetings. When a girl receives an honor in sewing she is entitled to wear an additional stripe on her uniform which will serve to establish her rank in the club according to her achievements. As one subject after another is passed an "apprentice" becomes a "craftsman" and finally a "master craftsman" either in sewing, cooking, gardening or canning.

This plan of rewarding each girl for work done by service stripes on her uniform shows the revival of the old craft guild system when people worked through various stages on a trade and

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finally emerged as master craftsmen, able to conduct a business of their own.

But in the first two clubs rewards will not be lacking for the industrious ones. There will be scholarships and various other forms of rewards, such as trips to Madison for a week with expenses paid and a good time assured.

The club movement is a worthy one and entitles those at the head the hearty coöperation of every parent in Wisconsin. It will teach the girl the simple household duties during the time when it is easy for the girl to learn, when it will be fun and not drudgery. During all the time she is learning the results in the form of clothes and foods will add to the wardrobe and pantry new and inexpensive things to wear and to eat.

There are 100 clubs now actively engaged in the work just described, but that is hardly anything to boast of in such a progressive state as Wisconsin. There ought to be a thousand.

International Sunday School Lesson.

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)
Lesson for November 18, 1917.

Nehemiah's Prayer Answered.

LESSON TEXT—Nehemiah 2:1-11.

GOLDEN TEXT—Ask and it shall be given unto you.—Matthew 7:7.

It was four months after Nehemiah learned of the desolation of Jerusalem that he had the opportunity to make known his request to the king. Just why he did not test the king's attitude toward him and his project earlier, we have no information. Perhaps there was no great function at which he was called upon to minister in this interval, or his turn of service had not arrived, or his duties were so exacting that no opportunity was afforded for him to unbosom his grief to the king.

I. Nehemiah's Request to the King (vv. 1-8). (1) Its occasion, v. 1. As cup-bearer he was ministering before the king. The cup-bearer was more than a mere valet. He entered very closely into the life's interests of the king, so that the inner life and spirit of the cup-bearer was known. It was expected of such servants that they manifest perfect happiness while in the presence of the king. To appear in his presence otherwise would likely be to the displeasure of the king. Nehemiah's sad countenance while thus serving awakened the king's suspicion. The matter was serious, for Nehemiah was afraid under the circumstances.

(2) The King's inquiry, v. 2. The king perceived that Nehemiah's countenance was sad, though he was not sick, and he knew that something extraordinary had come into the life of his cup-bearer.

(3) The effect upon Nehemiah, v. 2. His heart was filled with fear. He did not know but what this impropriety was so great as to cause his dismissal. His fear was more than that of losing his position; to be dismissed from being cup-bearer would mean the loss of an opportunity to present his request to the king; and, without the king's sanction and aid, his enterprise would fail.

(4) Nehemiah's tactful reply, v. 3. He seeks to conciliate the king by expressing a deep interest in the royal life and person. He says: "May the king live forever," and then tells that the cause of his grief was the desolation of the city where his fathers were buried.

(5) The contents of Nehemiah's request, vv. 5-8. (a) To be sent to Judah to build the walls of Jerusalem, vv. 5, 6. This request virtually meant to be granted a leave of absence from the Persian court and to be appointed military governor of that part of the kingdom of Artaxerxes. The king, doubtless, saw that such a move would be of particular benefit to his kingdom politically, owing to the strategic position of Jerusalem, between Babylon and Egypt. In the case of the breaking out of hostilities between these powers, to have a fortified city in Palestine would be of immense importance. At the king's request, a definite time was set for this leave of absence, v. 6. He remained in Jerusalem for twelve years. A side light on the king's gracious attitude toward Nehemiah is given in this: "The queen also sitting by him." She is not named, but in all probability it was Esther.

(b) For letter to the governors beyond the river v. 6. Doubtless the path of his journey was a dangerous one, and the travelers' safety depended upon having credentials from the king. These letters were more than mere credentials. They were orders for actually conveying him and his party to Judah. Ezra, years before, had desisted from asking a band of soldiers, but Nehemiah was free to ask such a favor. It was right in both cases, but not expedient in that of Ezra. Many problems are clear, if we distinguish between that which is lawful and that which is expedient.

(c) A letter of requisition for supplies of timber, v. 8. This timber was needed, first for the palace or castle, that is, for the fortress near the temple; second, for the walls and gates of the city; and third, for the king's official residence.

II. Nehemiah's Request Granted, v. 8. Nehemiah was a tactful diplomat. He exercised sound sense and prudence in all things, but he supremely depended upon God and prayed for God's disposal of the king's heart as he made his request known, v. 4. The king granted his request "according to the good hand of my God upon me," v. 8. He ascribes the success of his undertaking to God.

III. Nehemiah's Journey to Jerusalem, vv. 9-11. He journeyed from Shushan to Jerusalem under the protection of a military escort. This was of double value: protection and safety. When it was known that Nehemiah was undertaking this work with the consent of the king, Sanballat and Tobiah were greatly grieved. It always is a grief to the enemy when that which will further the interest of God and his people is being made to succeed. When he reached Jerusalem, he did not at once make his purpose known. He waited for three days and then viewed the situation at night.

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1652—Girls' dress, with sleeve in either of two lengths, and collar in either of two outlines. The skirt is a three-gore model. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 2¾ yards of 44-inch material for a 6-year size.

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2260—A very pretty dress for mother's girl. Pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 8 requires 3⅝ yards of 36-inch material.

2263—A unique and stylish model. The pattern is cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 5¼ yards of 44-inch material.

2274—A becoming model for mother's girl. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 3½ yards of 44-inch material.

2277—A good seasonable style. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6⅛ yards of 54-inch material.

2284—A smart set of neck accessories. The styles here illustrated are cut in 3 sizes: Small, 12 inches; medium, 14 inches, and large, 16 inches neck measure. Size medium requires for No. 1, ⅝ yard of 36-inch material, for No. 2, ¾ yard of 27-inch material, for No. 3, ⅝ yard of 36-inch material, for No. 4, ⅞ yard of 36-inch material.

Waist 2286-Skirt 2280—A pretty gown. The waist pattern 2286 is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. The skirt pattern 2280 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. To make this dress as illustrated will require 8¾ yards of 44-inch material. Two separate patterns, 10 cents for each pattern.

2287—Children's night drawers. If desired, the foot portions may be omitted. The pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. It requires 3 yards of 36-inch material for a 6-year size.

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Looking into Seed Corn Situation

Mr. J. W. Hicks, emergency demonstration agent of Chippewa county, has inaugurated a plan of coöperative distribution of the available supply of seed corn. He has asked every farmer in Chippewa county who has any good old seed corn, or any 1917 corn which may be good for seed, to apprise him of the fact, stating the quantity, variety and germination test of the old corn. Those who desire to purchase seed corn are also asked to notify Mr. Hicks. In this way the emergency agent will be able to get a correct line on the situation. If it is necessary to send outside for seed corn, as seems probable, he will know how much to send for and will be able to advise the varieties which should be purchased. It may be that this same plan, as Mr. Hicks is attempting to work out, is also being suggested by other emergency demonstration agents and county agents. If so, we strongly advise our readers to coöperate with the county man. Let the county agent know if you have some good seed corn, and also let him know if you haven't any. Part of his business is to help you out in this very important matter, and you will find that the county agent will be pleased to do it.

May Have County Agent.

Oconto county is seriously discussing the question of a county agent. The majority of the members of the county boar are successful farmers and the question is to come up for d - cision in the near future. There is a great deal of good land in Oconto county. Much of this is being taken by settlers, and these settlers can well profit by a county agent. Furthermore, there are a few pure-bred herd. being started in the county, and a good county agent would help to increase the number of pure-bred sires in the grade herds.

Brood Sow for Every Farm.

R. A. Kolb, agricultural representative of Taylor county, has written a letter to the farmers of the county calling attention to the grievous mistake which Germany and other European countries have made in slaughtering so many meat animals. Mr. Kolb writes that we ought to take a lesson from the experiences of the countries of the old world. We will face a meat and fat famine, too, unless we are very careful to keep up our herds and flocks and to increase them. There should be at least one brood sow to a farm, and brood sows should be kept four years. The farmer who sells a good gilt or brood sow may realize a good price, but, as Mr. Kolb puts it, he is "selling the goose that lays the golden egg." A brood sow can be wintered cheaply on clover hay, roots and cull potatoes with a little grain before farrowing time. Keep the brood sow and save her for spring litter. Mr. Kolb is starting out on the right track and his slogan is "A good sow on every Taylor county farm."

Jersey Breed in Langlade County

In Langlade county there are now fifteen members of the County Jersey Breeders' Association, and these men are having great success with the Jersey cow under Upper Wisconsin conditions. Jerseys were the first well-bred cattle brought to Langlade county. A railroad conductor by the name of Chas. Beattie, who owned a farm southwest of Antigo, was the first man to bring in Jersey cattle. It was in the early 90's that he secured his first grade Jersey and a few years later he bought a pure-bred sire and a pure-bred female. Forty dollars was paid for the sire and at that time this was considered a good price. Langlade county farmers and residents of Antigo bought cows and young stock from Beattie and as a result a number of new herds were soon started. Mr. Jos. Guenthner imported Jerseys from southern Wisconsin in the late 90's. With careful breeding and selection he and his wife built up the highest producing Jersey herd in the county. In 1915, under the management of Harry Guenthner, this herd averaged 381 pounds butter fat. The Jersey breeders' association of the county was organized in January, 1915. Jersey cows had been showing up well in the cow-testing associations. The monthly honor roll of forty-pound cows appeared regularly in the local papers and this helped to swell the interest in the Jersey, which always has a prominent place in these reports.

The second annual summer meeting was held in June, 1916, at the Chas. Schotte Farm. Pres. F. F. Showers, of the state association, in two addresses aroused further interest in the Jersey breed in Langlade county. Within a year after this meeting five splendid pure-bred sires were brought into the county. The annual reports of the testing association show $2, $2.50, $3 and sometimes as high as $4 earned from Jersey cows for each $1 expended for feed. This caused members of the association to feed liberally and splendid production records, up to 475 pounds butter fat, have since been the result. That Jerseys are persistent producers is proved by the records of several Langlade county cows, the records being available for a period covering three years:

Susie, owner Chas. Schotte:

	1914	1915	1916
Milk	4562.8	8424	8195.
Butter fat	259.1	466.3	478
Net proceeds	$34.48	$92.34	$100.95

Jennie, owner Henry Ings:

	1914	1915	1916
Milk	6932	7150	7186
Butter fat	399.9	453.2	423
Net proceeds	$80.31	$88.48	$100.57

Seven Up, owner H. Guenthner:

	1914	1915	1916
Milk	8115	8556	7649
Butter fat	399.5	429.7	364.1
Net proceeds	$67.20	$59.44	$70.28

Explanation of the great difference between the records of Susie for 1914 and 1915 is found in the fact that this cow was sick in 1914 and produced normally on but half her udder.

Winter Wheat.

To the Editor:—My experience is that the main things to do to get a good crop of winter wheat are to plow your land early, select the very best seed, drag the ground thoroughly and in the spring drag it again with a light drag. A good plan is to sow wheat in sod. Then it stands a better show in heavy frost. My wheat yield this year is about thirty bushels to the acre. John Kaatz.

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Ailing Animals.

Wormseed.

How much wormseed can I give a seven-months-old pig?

Wormseed itself is very seldom used in the treatment of hogs, but its active principle, santonin, is usually used instead. From three to ten grains may be given to a hog of seven months.

Bloody Milk.

Would like to know what is the matter with a cow I have. Once in a while her night's milk is bloody and when it stands leaves a sediment resembling brick dust. She appears well and has not failed much in the flow of milk. She runs on a pasture and is fed bran, shorts and alfalfa. Other times her milk seems all right. She is about four years old.

Feed less shorts and give one rounded tablespoonful of Glauber's salts in feed every one to two days. This milk should not be used for human food, but should be used for calves or pigs.

Swellings.

I have a mule with both hollows over his eyes swollen out nearly as large as a hen's egg, and two lumps behind the jaw bone on each side. One is about the size of a hen's egg, the other the size of a walnut. He also has a lump under his jaw about the root of his tongue. He is a little lame in the stifle joint in his left hind leg. Nothing runs from his nose or eyes. He seems to be all right every other way and has a good appetite. I feed him oats and good timothy hay.

In some cases these swellings can be reduced and in others not. Try tincture of iodine (pure) on these swellings once every one to two days, being careful not to get it in the eyes.

Scours.

My pigs are dying at the rate of two or three a day. They are about six weeks or two months old. We feed them all the oats, with some wheat in it, that they will clean up, and swill them with separator milk and ground wheat and oats. They also have some corn twice a day. Those that are not sick are fat and large for their age. Scours seems to be the cause of death. What can I do for them? I have been feeding lye, about one-fourth can to a barrel of slop, three times a week.

Scours in pigs may be due to irritating food or food too rich either for the pigs or their mothers if they are nursing them, or from the effects of cholera. An effort should be made to determine if the scours is due to cholera or not. If not, it is quite likely due to feed that does not agree with the pigs. It may be they are getting too much wheat in their ration. Also avoid any extra feed, lye, etc., at present. Do not let the pigs pile up in their sleeping quarters. Make each sow and her pigs sleep in a separate pen. Getting very warm and cooling suddenly may cause scours.

In And Around Wisconsin.

Ross N. Root, formerly tester for the Westby, Vernon county, Cow-Testing Association, is now with Uncle Sam's fighting forces. His present official title is Corporal Ross N. Root, Company A, Thirty-fourth Infantry.

Dane county now has four cow-testing associations, all of them having been organized since April, 1917, the month the United States decided to enter the war. These associations are known as the Pleasant Springs, Stoughton, Black Earth and Cambridge.

F. L. Aderhold, of the Wisconsin Dairy and Food Commission, judged the cheese at the recent National Dairy Show at Columbus, Ohio. A few of the high scores were as follows: American cheddar cheese, H. J. Kuschel, Coleman, Wisconsin, 98; Andrew Peterson, Lone Rock, Wisconsin, 97; brick cheese, Fred Moser, Wisconsin, 96½; creamery butter—whole milk, W. E. Redman, Minnesota, 96; creamery butter—hand separated, B. J. Linvig, Wisconsin, 95; dairy butter, C. F. Klinger, Connecticut, 94½.

Owing to unfavorable weather conditions the Equity Coöperative Packing plant at Fargo, North Dakota, will not be finished this year. It has been difficult to obtain machinery for the Equity plant and the farmers of North Dakota are quite disappointed that they will not be able to use their plant before some time next summer.

Apparently the sale of good farm land at high prices is not a spasmodic event in Washington county. We find reported again this week the sale of the Bernard Brierton farm near Mapleton. This is a 200-acre tract one mile from the village and sold for $32,000. This farm had been owned by Mr. Brierton or some member of his family for fifty years.

A meeting was recently held in the village hall at Milton, Rock county, to discuss the subject of hemp growing. Several farmers had visited Brandon, Fond du Lac county, and made investigation of the hemp business there. About 200 acres have been promised near Milton. To establish the necessary equipment for preparing hemp for market it is necessary to have at least 300 acres and it seems probable that this will be secured.

The annual convention of the State Horticultural Society will be held in Madison December 11th, 12th and 13th. "War Gardens for 1918" will be one of the main topics for discussion. Two officials of the United States Department of Agriculture will address the convention. Delegates from Illinois, Minnesota and Iowa will attend. Twenty-five speakers will participate, covering all important horticultural topics. Attendance is not confined to members and an invitation is extended to everyone in the state. For full information concerning the convention, membership in the society, etc., address, Frederick Cranefield, Secretary, Madison, Wisconsin.

At a meeting of a number of Calumet county Guernsey breeders, held in the court house, Chilton, Wisconsin, November 3d, an organization was effected with the following officers: Lewis McGrath, president; Herman J. Deucher, vice president; Royal Klofanda, secretary; Edw. Hass, treasurer. There are nine charter members who own approximately seventy-five pure breds and 150 grades. Mr. Ansrud, field representative of the American Guernsey Cattle Club, spoke at the meeting. The next session of the county club will be held December 8th, at which time talks on appropriate subjects will be given by the best speakers obtainable. A special drive will be made for new members and a campaign of advertising will be carried on.

This Prescription Saves Winter Pigs

Keep Your Horses Prepared

for work by having them well shod. There is one nail, The Capewell, which holds shoes long and holds them tight. Not the cheapest nail regardless of quality but the world's best at a fair price. See that your shoer uses "Capewell" nails—it pays.

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Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. $2.00 a bottle at druggists or delivered. Book 1 M free.

ABSORBINE, JR., for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. $1.00 a bottle at druggists or postpaid. Will tell you more if you write. Made in the U. S. A. by

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FARMERS' MARKET

Wanted---For Sale---To Exchange

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

VIRGINIA FARMS—Fifty-page catalog free, describing alfalfa, blue grass, stock, dairy and poultry farms. Good lands and prices right. Write today for catalog. Business established 1899. Albion Land Agency, Fredericksburg, Va.

80 ACRES, 50 clear, fair buildings, in German Lutheran settlement, close to cheese factory and school. Some machinery. $4,500. Easy terms. Geo. E. Ritger, Marathon, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—Have 80 and 160-acre farms, mile from city; must sell one and will rent the other; easy terms. H. V. Peoples, Ladysmith, Wis.

IF YOU WANT TO SELL or exchange your property, write me. John J. Black, 2 Main, Chippewa Falls, Wis.

HOLSTEIN BULLS.

REGISTERED HOLSTEIN BULL ready for service, 2 of his dams averaged 105 lbs. milk in one day and 40.67 lbs. butter in 7 days and 4 of them 37.52 lbs., officially. $200. Sent on approval. R. M. Harriman, Appleton, Wis.

LEARN TELEGRAPHY.

LEARN TELEGRAPHY—Positions guaranteed. Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

FOR A RAILROAD TRAINING attend the Wisconsin School of Telegraphy, Oshkosh, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

POLLED DURHAMS, SHORT-HORNS AND POLAND CHINAS.

REGISTERED—Four Polled Durham cows, guaranteed good milkers; four roan Polled Durham bulls, 6 months old; one Short-horn bull of serviceable age and Poland Chinas of both sexes. Meadowside Stock Farm, A. L. Best, Downing, Wis.

GASOLINE ENGINE.

FOR SALE—One 10-h. p. Fuller & Johnson gasoline engine; first-class condition; price, $175. Foster Bros., Tomahawk, Wis.

CLOVER SEED.

WANTED—Good quality medium Red and Alsike clover seed. Send samples. Dadmun Brothers, Whitewater, Wis.

TANNING.

LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

EMPTY FEED BAGS WANTED.

HIGH PRICES paid for old feed bags. Write Interstate Bag Co., St. Louis, Mo.

POULTRY AND PET STOCK.

GET THE BEST BREEDERS NOW—At reduced prices—cockerels and pullets. Pullets laying. Write your wants, I can furnish them from my seventy-one best breeds of land and water fowls. Satisfaction guaranteed. Henry Shoemaker, Box 425, Janesville, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

PURE-BRED POULTRY—Columbian Wyandottes, Buff, White and Black Orpington hens and cockerels. Both comb White Leghorn cockerels. Rouen ducks. $1.25 each. Richard Wegner, Ladysmith, Wis.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

1,000 S. C. White and Brown Leghorn year-old laying and breeding hens and cockerels. Bred for eggs. The American Poultry Plant, Collins, O.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS

GOOD BREEDERS from exhibition and trap-nested laying stock. Write for prices.
WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

BIG PROFITS NOW

In sawing lumber with our up-to-date saw mills. Make your engine earn money all year. Start now when the price of lumber is highest ever known, and the demand enormous. Don't miss the chance to make big money. Write for our FREE catalog C and prices.
R. R. Howell & Co., Mfrs., Minneapolis, Minn.

POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Farmer and Fancier.

To the Editor:—Like the church and the world, the farm poultryman and the fancier must be reconciled if we would do our best at either. The time has passed when anyone says "fancier" we cudgel up a mental picture of a chicken with beautiful plumage, offset by a weedy, willow-legged weakling, carrying a big comb and a score card that means little.

Almost any pure-bred fowl is all right for the farm, as Mr. Lawrey says in a recent number of this paper. But, you see, if a clean-legged chicken carries feathers between his toes, why he is not pure bred. And regarding the defective ears, well, that is a mistake, too. The writer knows from a trying experience, and it required many years to eliminate this very defect that crept into our flock from using a single pullet of this kind, that otherwise was very good.

"What difference does it make?" is insisted. Just this "difference:" Pure-bred poultry is the first thing that gave the world the industry that today has every other beaten for the investment. Our "practically pure" fowls came from this source, and only for the Standard of Perfection and the people who rise to its requirements, the pure-bred stock would soon degenerate and go to the "bow-wows."

The writer not long since happened to be sitting near a couple of farmers, neighbors of ours, who have been very successful. They have acquired lands, and one of them has a modern house with all of the conveniences to be found in a city home. They were talking about our farm adviser, who is an exceptionally alert, intelligent man for the situation.

The men themselves were "fit." They had done thus and so. Then, meaning their adviser, "I wouldn't pay a bit of attention to anything he says!" "'Me' neither!" grunted the other. "No one on this earth could do anything and pay any attention to his foolishness!" When, as a matter of fact, they had done the very things that the adviser is advocating today. Those misguided souls really think that they themselves thought first of how to seed alfalfa, build silos, rotate the crops, build up a dairy large enough to keep up running expenses at least, when it all came originally from the same source—the state experiment station.

This may seem like a roundabout way to illustrate, but it about tells it all. Just watch a poultry judge of today. Other things being equal, or nearly so, he will award the prize to the bird that carries either the heaviest meat-making points, or, if the egg breed, the one that gives promise of grinding out eggs galore. The pure-bred flocks are a part of, and not apart from, the farm.

Then there is another reason why we should keep to one type. The demand has never yet been filled for stock and eggs to head the flocks of farmers who raise commercial poultry. If kept right up to the standard and the owner will only advise people that he has a flock of pure-bred chickens that he is selling at from $2 to $5 each, and eggs for hatching at from $1 to $3 per sitting, he will have to buy his fries and eggs for Easter. We know, have tried it, and it seems to take a lot more when we must buy them.

Subscriber.

More on Milk Costs.

The Milk Producers' Association of the Chicago district recently asked Prof. F. A. Pearson, of the University of Illinois, to make a statement as to the approximate cost of milk production, based on facts worked out at the Illinois Agricultural Experiment Station. Professor Pearson made the following statement:

The department of dairy husbandry has prepared the following method of determining the approximate cost of milk production with a given set of facts under the conditions that usually prevail in the milk district tributary to Chicago. This method is based on data and represents approximately 1,000 cows.

Amount of feed and forage and labor entering into average herd costs of milk production per hundredweight:

Grain	44 lbs.	Bedding ...	39 lbs.
Silage	188 lbs.	Man hours.	2.42 hrs.
Hay	50 lbs.		

In addition to the above debits are horse labor, interest, buildings, equipment and miscellaneous costs. Credits not included are increased in stock manure and miscellaneous items. The studies indicate that the above debits not included are approximately offset by the afore-mentioned credits, and, therefore, both may be disregarded in making a practical rough estimate for the cost of production of milk. The desirability of this is obvious, as it minimizes the amount of calculations.

This data represents year costs from which the monthly price may be secured. The average price paid in the past per month for milk in the Chicago district is taken as an indication of the proper distribution of price by months to keep up the supply of milk.

The percentage deviation of the monthly price from the mean price as computed from average prices for the past ten years, is as follows:

Table 1—Percentage Deviation by Months from Average Price.

January	119.0	July	83.7
February	114.3	August	94.2
March	106.5	September ...	96.7
April	94.2	October	109.2
May	73.2	November ...	118.3
June	70.6	December ...	120.3

Example: Grain, $52.50 per ton; hay, $17 per ton; silage, $8 per ton; bedding, $7 per ton, and man labor, 22.5 cents per hour.

Grain, 44 pounds at $52.50.....	$1.15
Silage, 188 pounds at $8	.75
Hay, 50 pounds at $20.....	.50
Bedding, 39 pounds at $7.....	.14
Man labor, 2.42 at 25 cents.....	.60
	$3.14

From Table 1 will be noted using 100 per cent as average yearly price, that the October price is $109.2 per cent. The October price would then be $3.14 times 109.2 or $3.43 per hundredweight.

(Signed) F. A. Pearson.

It will be very readily seen that this gives the price of $3.71 for 3-5 milk for the month of November, and $3.78 for the month of December. When translated into the can price, gives $2.73 per eight-gallon cans, f. o. b. Chicago, for the month of November, and $2.78 for the month of December.

Farmers Warned of Oats Fraud.

The Minnesota Crop Improvement Association has received word of a seed salesman operating in southeastern Minnesota who is offering farmers seed of a new kind of oats "that will not lodge." The man is said to have persuaded not a few farmers to buy at exorbitant prices. C. P. Bull, secretary of the crop improvement association, warns the public against such traffickers.

The most fascinating thing about the deal is the price, $3 per bushel, and the contract plainly states that the verbal statements of agents are not to be relied upon. Everyone knows that there is no such thing as a variety of oats that will not lodge, when planted on rich or heavy soil, and when market oats are selling for from 50 to 60 cents there should be a good profit in selling at $3.

If the people would only realize that the experiment station could and would give valuable advice in regard to fake varieties, there would be fewer agents getting rich.

Protect trees and shrubs from rabbits now. Some of the wire or wood protectors are good. Burlap, paper, or even corn fodder, may be tied on with good results.

160 ACRE FARMS IN WESTERN CANADA FREE

Canadian Farmers Profit From Wheat

The war's devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and wheat at over $2 per bu. offers great profits to the farmer. Canada's invitation is therefore especially attractive. She wants settlers to make money and happy, prosperous homes for themselves by helping her raise immense wheat crops

You can get a Homestead of 160 a. FREE

and other lands at remarkably low prices. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to acre. Wonderful crops also of **Oats, Barley and Flax.**

Mixed Farming as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required for beef or dairy purposes. Good schools, churches, markets convenient, climate excellent.

There is now an extra demand for farm laborers to replace the many young men who have volunteered for service in war. The government is urging farmers to put extra acreage into grain. Write for literature and particulars as to reduced railway rates to Supt. of Immigration, Ottawa, Canada, or

GEO. A. HALL, 123 Second St., Milwaukee, Wis.
Canadian Government Agent,

SEE THIS LAND NOW

Are you a renter, dairyman, grain farmer, or do you desire to engage more extensively in the live stock business, and want what farmers from practically every State in the Union consider the best land in the best climate, with the best natural forage grasses? Then don't fail to go and investigate the

HIGHLANDS OF LOUISIANA

Northern farmers and their families are settling up and developing this new agricultural and stock raising district, taking advantage of the long season for crop-growing and pasture while the prices are low and terms easy — $25.00 per acre — $6.00 down — seven years to pay. Book **free**, illustrated, 64 pages, giving detailed facts. Send your name and address on a postal and get the book

"Where Soil and Climate Are Never Idle"
also low round trip excursion rates.

Long-Bell Farm Land Corporation
416 R. A. Long Bldg., Kansas City, Mo.

You Can Do as Well as This Man

This is H. A. Neumann the Lange man for Dodge Co., Wis. His sales for one month were $931.50, average per week $192.68. He is 27 years old; started two years ago, both he and his goods strangers in the territory, and has built up this splendid business of his own, selling Lange's Extracts, Spices, Teas, Coffees, Household Specialties and Veterinary Remedies direct from wagon to home. You can do as well. Let us give you actual figures of their sales. We will instruct you on every point, teach you how to sell and give you exclusive territory near your home. Our contract beats all others. If you're not making $200 a month, write us at once about our plan. We want men right now for Walworth, Columbia, St. Croix, Lafayette, Portage and Richland Counties, in Wisconsin.

The Lange Co., Dept. E. DePere, Wis.

Don't Wear a Truss

BROOKS' APPLIANCE the modern scientific invention, the wonderful new discovery that relieves rupture will be sent on trial. No obnoxious spring or pads. Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. **Sent on trial to prove it.** Protected by U. S. patents. Catalogue and measure blanks mailed free. Send name and address today

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UNIVERSITY OF SOUTHERN MINNESOTA, Dept. F. T. Austin, Minn.

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Save from [illegible] to [illegible] on your grocery bill by buying direct from us at wholesale prices. Cut out middlemen's profits. We guarantee quality absolutely. Send for our Grocery Price-Wrecking List today.

Consumers Wholesale Grocery Co., Dept. 237, Chicago, Ill.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Anoka Farms Short-horn Offering.

THE 16th annual offering of Short-horns at Anoka Farms, Waukesha, Wis., will take place Saturday, December 1st, at which time there will be offered 50 head, the superior of which, numbers considered, has never been in a sale ring. The 33 heifers and 17 bulls cataloged for the sale may well be called the last word in Short-horns. There have been many high-class offerings at Anoka, but in the coming sale all previous efforts have been outdone. A study of the catalogs reveals representatives of practically every Scotch tribe of note. Five are imported, four females and one bull, and balance are Anoka productions. The Harding establishment has always been looked upon as a fountainhead for the best bulls the breed affords and this year's offering pesents some remarkable bull propositions. The Short-horn bull sensation of this year, Anoka Champion, is a dark roan, sired by Sultan Stamp and belongs to the Autumn Queen tribe. He was first in class and futurity champion at Des Moines this year, first at Hamline and first and grand champion at Milwaukee. He is one of the greatest prospects ever bred at Anoka, and there is no herd in the country but what he would grace and give added strength to. An extra good young bull is listed in Royal Stamp by Crystal Stamp. He belongs to the Crocus family, and carries the Anoka stamp of excellence from end to end. In head, top line, depth, thickness and handling qualities he is all there. Merry Stamp by Crystal Stamp, is a white bull of much excellence, with quality and smoothness. Some good young bulls by Imp. Rusper Champion are in the sale. Clipper Perfection is out of a dam by Sultan Stamp, and will certainly suit any person looking for a red bull and a cracking good white calf will be found in Rosebud Champion, a Campbell Rosebud. This calf is exceptionally good, taken from any standpoint. Anoka Stamp by Regal Stamp is a good one, as is also Anoka Proud Star, a Secret, Nonpareil Crystal by Crystal Stamp, and so on through the entire list. A better quartered lot of cattle one will seldom find, as they are remarkable for their depth and thickness. A number of the calves in this sale have been entered at the International Live Stock Exposition, and will be shown there if the purchasers wish. The Anoka management has had prepared a very handsome photogravure showing every animal in this sale and one of these, together with a copy of the catalog will be sent to those who write for it. Address Anoka Farms, Waukesha, Wis., as per the advertisement on page 21. Kindly mention this paper when you write.—Adv.

Roberts Live Stock Bureau.

J. A. ROBERTS, the genial live stock judge located at Waukesha, Wis., has just launched a new business that he terms the "Roberts Live Stock Bureau." The business of this bureau is to buy and sell live stock on orders, and with the unlimited experience that Mr. Roberts has had, we feel confident that the new venture will prove satisfactory to all concerned. For several years Mr. Roberts has been filling orders for Holsteins and Guernseys and the only difference now, is that he is going to give all his time to this business and take in a bigger field by buying and selling all kinds of live stock. If you have registered or high-grade stock to sell or if you wish to buy, investigate this bureau. Mr. Roberts has 25 representatives and their business is to work in conjunction with Mr. Roberts. Their address is 2918 Michigan Ave., Chicago, Ill., and if you want further information address your correspondence accordingly. We gladly recommend Mr. Roberts.—Adv.

Merriman's Guernseys.

S. A. MERRIMAN, Fort Atkinson, Wis., is now offering for sale some choice pure-bred Guernsey cows as well as young bulls ready for service. These young bulls are from A. R. dams having completed very creditable tests. We have had the pleasure of looking over Mr. Merriman's Guernseys several times during the last six months and we consider that he has done some of the best A. R. work which has been accomplished in Jefferson county. Since his son, Clifford, has come home from the university much more interest has been taken in A. R. work, as Clifford has been devoting a great deal of his time towards this particular phase of boosting his father's herd. The last time we looked over the Merriman herd there were about ten as nice cows on A. R. work as we have seen in many a day. See page 20.—Adv.

Roy Horsfall, of Grant County.

ROY HORSFALL, Mt. Hope, Wis., (Grant county) bought one of the good boars in the Atwater sale, being sired by P. S. Wonder out of Proud Helen 2d, the grand champion sow at Milwaukee. This boar will be used on some good King the Col. and Defender-bred sows in the Horsfall herd and these will be offered for sale. If you are going to want a few gilts, Roy can fill your wants. He also has some fine fall pigs that he will sell worth the money, if taken at once. In boars he has a few left that he will ship out on order and guarantee satisfaction. We recommend this breeder. Write him and mention The Wisconsin Farmer.—Adv.

Grahamholm Bargains.

MR. W. J. BOYNTON, manager of the Grahamholm Farm, Rochester, Minn., has just written us that they are offering for sale Gover's Pauline Segis Grahamholm 185290. While visiting the Grahamholm herd a few months ago we had an opportunity of inspecting the individuality of this animal, as well as his sire and dam. This young bull was born February 22, 1916, and is a handsome individual, well grown and ready for active service. As indicated by the cut which is used in the advertisement now running it can be seen that he is also well marked. His sire, Sir Winona Beets Segis, is in our opinion one of the greatest herd sires that has been used in the Northwest. He is a worthy son of the great King Segis and has already to his credit 14 A. R. O. daughters, three of which are above 28 pounds. His dam, Pauline Govers De Kol 2d, is a remarkable cow, having produced 30.03 pounds butter from 569.50 pounds milk in seven days; 122.18 pounds butter from 2,442.50 pounds milk in 30 days, her average per cent fat for her 30-day record being 4 per cent. She also won the 32d association prize in 1914. Pauline Govers De Kol 2d also has three other good seven-day records besides the one mentioned; 28.36 pounds at 12 years; 27.16 pounds at eight years; 26.23 pounds at seven years. She is not only a phenomenal producer herself, but she has six A. R. O. daughters and one A. R. O. son and is a full sister to the Annie De Kol Butter Girl, a three times 30-pound cow that is one of the most conspicuous members of Mr. Powell's noted Model family. We believe that anyone looking for correct breeding, high A. R. O. backing, good individuality and desirable markings will find them all in this young bull which the Grahamholm Farm is now offering for sale.—Adv.

Attention, Chester White Breeders.

THOSE who wish to sell bred gilts or sows in the combination sale to be held in Madison, February 20th, should send in their entries at once. The sale is assured and it is very necessary to know how many entries there will be. It is impossible to say at this time how many each man can sell, but very likely each breeder will be allowed two entries. It is the intention to sell 50 head—there may be more entries than this number and there may be less. If so some of the breeders will be asked to consign more, or enough to make the 50 head. The important thing is to send in your entries at once. You don't need to send the breeding now. All they want to know at this time is the name of the breeder that wishes to list Chesters in this sale and whether he will have one or two to enter. At a later date they will ask you to send breeding, etc., on a form that will be sent to those that list their gilts or sows. No inferior sows will be accepted. This is a breed promotion sale and no animal will be accepted that will be a detriment to the welfare of the breed. It is impossible to say just what the expense of the sale will be, but this will be pro-rated among those selling and this will be around $10 a head. Send in your name at once—this is your sale, a breeders' sale, and you must do your part. Write A. H. Kuhlman, Juneau, Wis., or T. P. Shreve, Janesville, Wis., and your entries will have proper attention. This is the year to boost the Chesters. Will you do your part?—Adv.

Cole Offers Good Gilts and Fall Pigs.

WE have just had a letter from A. W. Cole, Lodi, Wis., in which he advises that he has had a brisk trade in Poland China boars and has sold down to five boars left. He writes that these weigh over 200 pounds and are good in every respect. He also offers 18 spring gilts, litter mates to the boars that have sold so rapidly as well as 30 good early fall pigs. You should be interested in some of these Polands and if you will write Mr. Cole and let him describe what he has, we feel that he can fill your wants satisfactorily. Mention The Wisconsin Farmer when writing. See page 21.—Adv.

Information Regarding the Madison Duroc Entries.

WE have just had a letter from J. D. Gant, in charge of the Duroc Jersey sale to be held at Madison, February 21st, in which he says that several of the breeders have neglected to advise him how many sows and gilts they expect to sell in this sale. He has enough entries now so that the sale is assured and if those that wish to enter this sale will advise him at once, it will help materially in making plans, etc. Write Mr. Gant at Delavan, Wis., and do this at once.—Adv.

J. D. McDonald at West Salem.

J. D. McDONALD is now getting settled in his new quarters at West Salem, Wis. No doubt many are familiar with the Stubbs farm where so many Guernsey cattle were bought and sold. If so you know just where McDonald is located. The farm is inside the city limits and a natural place for the good Polands and Holsteins owned by J. D. McDonald. Mac has a few good spring boars for sale and a couple of choice fall boars that were in his show herd during the past season. Mr. McDonald has also recently purchased a litter of ten pigs—five gilts and five boars—sired by the $6,600 Gerstdale Jones. These pigs are out of a sow that Wm. Wrigley, Jr., paid Peter Mouw $310 for. Mr. McDonald is reserving the gilts for his bred sow sale February 6th and also one of the boars that he wishes to use. The other four boars are offered for sale. There is not much difference in the five boars and any breeder in the state could well afford to use one of these boars. Gerstdale Jones is going to be well advertised and his get and breeding is going to sell at a premium and if you have some gilts to sell bred to a son of Gerstdale Jones, you will be able to sell them at a premium, which will more than pay for the boar. Mr. McDonald also has some very fine fall pigs and he is making a special price on pairs and trios if taken at once. Don't forget February 6th, the day of McDonald's winter sow sale. This will be his first sale and for this event he expects to catalog and sell the greatest lot of Poland China sows ever listed for a sale in the Northwest. We have no doubt but what it will be "some hog show." In the meantime write the owner relative to the boars he has for sale. Don't forget to address the letter to West Salem and not North Bend. See page 21 for advertisement.—Adv.

W. C. Scheibe's Chester White Winnings.

AT the Minnesota State Fair this fall Mr. Scheibe, of Burlington, took one first, three seconds, six fourths, one fifth, one sixth and two Wisconsin specials. At the Walworth County Fair he took 11 firsts, six seconds and three thirds, and at the Winnebago Fair, six firsts, six seconds and two champions. At the Beloit, Fair, Perfect Prince 37749 was placed champion boar over Pay Stretch, the grand champion boar of the Wisconsin State Fair. Mr. Scheibe now has spring boars and sows of the best type and breeding sired by Perfect Prince and Guy's Comet for sale. He also has a junior yearling boar that was fifth prize at Minnesota, third at Wisconsin, second at Elkhorn and first at Beloit for sale. Likewise Guy's Comet himself and Tomson's Model, a fall yearling is for sale. Mr. Scheibe has 45 fall pigs that will be for sale at weaning time. Readers looking for a chance to buy the correct type of Chester Whites will do well to get in touch with Mr. Scheibe, as we have seen his herd upon several occasions and know that they are worthy of the numerous prizes which they have won at the various state fairs this fall. See page 22.—Adv.

The Best Scotch Bulls in the State.

NO breeder in the state has a better lot of Scotch bulls for sale than J. E. Kennedy, Janesville, Wis. From time to time during the past year, the agricultural press has commented on the high-class herd of Short-horn cattle that Mr. Kennedy has congregated at Oaklawn Farm. We say again that no breeder has 40 head of Scotch cows that are better individually or better bred than the Kennedy herd. He has for sale a number of choice bulls. These bulls are mostly roans in color and are out of these great cows in the Kennedy herd. Many of them were in calf when purchased and some of these bulls are by the noted sires of the breed. If you want a Scotch bull, you need not go out of Wisconsin to find them just as good as grows. Write for further information and in so doing please mention The Wisconsin Farmer. See page 23.—Adv.

Grundy's Bates Short-horns.

A. T. GRUNDY & SONS, of Oshkosh, Wis., are offering bull calves nine months old and younger sired by Monarch 429070 and from good milking cows. Knowing the tendency of the Bates Short-horns, farmers looking for animals which are capable of producing both milk and beef we feel confident that you will find what you are looking for in Grundy & Sons' herd. See advertisement on page 23.—Adv.

Aberdeen Angus Sale.

AN important Aberdeen Angus sale will be held during the week of the International at the Union Stockyards, Chicago, Wednesday, December 5th. It will be managed by the American Aberdeen Angus Breeders' Association and the sale will include 40 head of the most meritorious animals ever cataloged by the association. There are 18 Blackbirds, seven Trojan Ericas, seven Prides of Aberdeen, four Queen Mothers, one Coquette, one Barbara, one Heather Bloom and one Easter Tulloch Margaret. Two of the Blackbirds are of the Blackcap branch and three of the Prides are of the K. Pride branch. The names of the consignors are as follows: Hobart Ames, Wm. R. Blake, Arthur Cecil & Sons, W. H. Cooper, Dwight Cutler, Clarence W. Eckardt, Escher & Ryan, John H. Fitch, John S. Goodwin, Harrison & Harrison, J. W. McClung & Son, J. & W. D. Mobley, Wm Phares, F. J. Roberts, D. K. Robertson & Son, J. Garrett Tolan, Julius Tudor & Son and Ed Watkins. There are ten bulls and 30 cows and heifers in the offering. Many of the cows have calves at foot. Several of the animals have not had an opportunity to compete for prizes. However, all possess show-yard merit. Illustrated catalogs are ready for distribution and those interested should apply at once to Chas. Gray, 817 Exchange Ave., Union Stockyards, Chicago, Ill.—Adv.

Write Derenthal for Chesters.

H. A. DERENTHAL, Wykoff, Minn., advises us that he is sold out of fall boars and March boars. He writes that he has some good April and May boars, with plenty of stretch and frame and plenty of size for their age. These are priced for quick sale. He has 32 head of these and they must be sold within the next 30 days to make room for the brood sows and fall pigs. Here is your chance to get a boar worth the money. We are glad to refer you to this firm, for they produce a type of Chesters that are in demand and that more people should try to raise—the big kind with quality, with good backs. Let Derenthal describe his boars to you. See page 22.—Adv.

Special Train to Harding Sale.

F. W. HARDING has arranged for a special train from Chicago to Waukesha, Wis., Saturday, December 1st, over the Chicago & Northwestern railroad. The train will leave Chicago at 8:40 a. m. arriving at Waukesha at 11 a. m. Returning will leave Waukesha at 5 p. m., reaching Chicago at 7:30. The time of departure is set so that connections can be made from nearly all trains arriving in the morning, so that parties from all sectios can attend the Short-horn sale at Anoka and return to Chicago in ample time for the International. Train will leave from the Nothwestern Station, Madison and Canal streets, Chicago.—Adv.

Constance's Duroc Boars.

MR. CONSTANCE, of Waupaca, has on hand a particularly fine lot of spring boars for sale sired by many of the leading prize winners of the breed—such as King Defender, that was grand champion at the Wisconsin State Fair in 1916—King Orion, grand champion Wisconsin and Minnesota State Fairs in 1917, and Mae's Long Defender, a splendid son of Lee's Defender, grand champion at the Wisconsin State Fair in 1914. Breeders looking for high-class spring boars will be sure to find them in the lot that Mr. Constance is now offering for sale. See page 22.—Adv.

Crites Bros.' Holstein Calf.

CRITES BROTHERS, Honey Creek, Wis., are now offering a bull calf sired by Portage Pauline King 73779. It will be remembered that Crites Brothers bought the senior herd sire of Pinehurst Dairy last spring at the Lake Mills sale. This animal was senior champion at the Elkhorn Fair this fall and is one of the good bulls of the state. It is the intention of Crites Brothers to do some testing this winter and we make the prophecy that it will not be long before they will be heard from in the Holstein world. See page 23.—Adv.

Grant County Angus.

REMEMBER, Grant county, Wisconsin, leads the state in beef cattle and especially Aberdeen Angus. Some fine herds of this breed are in the southwestern part of this state and if you want one or more females or a bull to place at the head of your pure-bred or grade herd, investigate the Grant county Angus by writing Walter J. Steinhoff, secretary, Platteville, Wis. He can tell you just where you can buy a bull or some heifers that will fill the bill. See page 20.—Adv.

Norton Polands at Brooklyn.

WE recently saw 15 very choice Poland China boars owned by C. E. Norton, Brooklyn, Wis. These boars are in fine condition, will average 200 pounds or more and will please the man that buys them. Their breeding is big-type, being of the Big Bone and Longfellow blood lines. We know these boars will please at the price Mr. Nor-

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 118 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

BERKSHIRE SWINE.

BERKSHIRE BOARS Ready for Service

Gilts Right to Breed

SIRED BY ALDOW CLIMAX, 1917 grand champion Minnesota and Wisconsin State Fairs. This advertisement will appear but once.
WHITMORE BROS. :: :: :: :: **Lyons, Wis.**

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) **Bagley, Wis.**

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

TOO LATE TO CLASSIFY.

FOR SALE

FIVE head of Shetland ponies: three mares in foal, two colts. Will sell one or more to a party, but prefer to sell entire herd to one man at once. Prices right.
CHET MILLER, JR. **R. 18, Evansville, Wis.**

ton asks for them. Write him if you need a Poland China boar. See page 21.—Adv.

Meinking Polands.

R. MEINKING, Bangor, Wis., is one of the "old timers" that has a big trade in Poland Chinas. We have no doubt but what he has sold as many pigs during the past three months as any breeder in the state. He has a trade worked up and sells to many men year after year. He sells them a good pig worth the money. A man could not be in one business 30 years and get by with it if he didn't give his customers value received. He breeds Polands—if you are interested in that breed write Meinking. See page 21.—Adv.

Short-horn Bulls for Sale.

IF you are in the market for a Short-horn bull, write W. J. Bernd & Sons, New Richmond, Wis. Just at this time they have several youngsters around a year old that are ready for immediate service. They are sired by Highland Sultan and Muchon Marshal, both International prize winners. The breeding is the best and the price is reasonable. Write or visit this good herd. Please mention The Wisconsin Farmer. See page 23.—Adv.

Babcock Has the Goods.

WE saw the boars that B. H. Babcock, Evansville, Wis., has for sale and we are glad to say that they are as good as any we have seen. If you want a good Chester White boar with good feet and a good back and well grown, do not be afraid to order from Babcock. They are good and if they are not as represented write this paper and we will see what the trouble is. The Babcock boars will please anyone. See page 22.—Adv.

Durocs at Delavan.

PHILLIPS BROS., Delavan, Wis., offer Duroc boars that come from a line of breeding that is most popular. They have a large assortment and if you place an order with them they feel that they can supply your wants to your satisfaction. Kindly write them and mention The Wisconsin Farmer. See page 22.—Adv.

Red Polls For You.

ARE you interested in Red Poll cattle? J. W. Salter & Son, Unity, Wis., will be glad to give you any information you wish to have relative to this good breed of cattle and if you wish to buy a good bull they have some for sale. Write them and please mention The Wisconsin Farmer. See page 23.—Adv.

Herrling's Duroc Trio.

MR. R. B. HERRLING, Glenbeulah, Wis., is offering two well-bred Duroc Jersey boars and one gilt for sale. Considering the individuality and breeding of these animals they should go quickly at the price at which Mr. Herrling is holding them. See advertisement on page 22.—Adv.

Walter George's Recent Purchase.

WALTER GEORGE, of Evansville, Wis., has just written us that he has purchased a $100 six months old boar at Guy Smith's sale that is an outstanding individual. We trust that this hog will develop into such an animal as will warrant Mr. George's present enthusiasm.—Adv.

Chief Defender.

DO you realize that Roy Church, Elkhorn, Wis., has one of the largest yearling Durocs in the state? His name is Chief Defender and he is sired by a son of Cherry Chief. Church offers boars that are sired by Chief Defender for sale at a reasonable price. See page 22.—Adv.

No Money in Advance.

F. H. BURT & SON, Brodhead, Wis., will sell you a Duroc boar on the "no money in advance" plan. They have a large number to select from

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT **Lake Geneva, Wis.**

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON **Honey Creek, Wis.**

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT **Eagle, Wis.**

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON **Rosendale, Wis.**

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY **Black Earth, Wis.**

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON **Oconomowoc, Wis.**

and if you want a boar of this breed, let them describe their plan to you. See page 22.—Adv.

Have You Written Kirkpatrick?

KIRKPATRICK BROS., Reedsburg, Wis., are offering some choice cows for sale. These are of the best Holstein breeding and either have good A. R. O. records or are out of A. R. O. dams. They can spare ten head and the price is from $150 to $300. It will pay you to investigate this herd. See page 23.—Adv.

WM. J. BURI, Lancaster, Wis., writes The Wisconsin Farmer that he would like a position as hired man on a farm where sheep are raised. Mr. Buri is married and has a family. He has been working in a shop for 20 years and would like to get out on a good sheep farm. Write Mr. Buri and be sure to mention The Wisconsin Farmer in your letter.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Association Sale, Madison, Wis. J. D. Gant, Secy., Delavan, Wis.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 20, State Association Sale, Madison, Wis. A. L. Damon in charge, Richland Center, Wis.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Association Sale, Madison, Wis. Burlie Dobson, Secy., Lancaster, Wis.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.

Dispersal of Carl Brugger's Personal Herd of Registered Holsteins

at Public Auction at his farm 4 miles east of

Fond du Lac, Wis., Tuesday, Nov. 27

50 Head of Registered Holsteins

25 COWS just fresh or to freshen before spring. Many with good A. R. O. records up to 23 lbs. as three year olds. These cows are bred to Model De Kol Burke Segis No. 86112, a 25-lb. bull of the noted Powell breeding, a bull of great breeding, size and individuality. Fifteen of his yearling daughters that for size, color and evenness of type are hard to beat. Also 10 of his baby sons and daughters. This herd was tested last March and again now and found perfectly clean. The sale will begin promptly at 11:00 in a heated building. Headquarters at Palmer Hotel. Automobiles will take buyers from hotel to the sale. Dinner will be served at the farm. Catalogs ready November 15th. Auctioneer, J. E. Mack. Address

S. H. Bird, Sale Manager **South Byron, Wisconsin**

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch,** a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: **Waukesha, Wis.**

DUROCS

BOARS and gilts for sale, sired by **TAX PAYER MODEL,** eastern breeding.

GUERNSEYS

SEVERAL bulls out of A. R. cows and by A. R. sires.

Let me describe in detail what we have for sale.
ALLIC S. KNUDSON - - - - - - - - - **Brodhead, Wis.**

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS **Oconomowoc, Wis.**

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. **Fred Southcott, Mgr.**

Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few choice cows.
S. A. MERRIMAN **Ft. Atkinson, Wis.**

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS **Appleton, Wis.**

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.
GEO. O. LUCIA **Green Bay, Wis.**

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — **WRITE YOUR WANTS**
Emory C. Meltz **GUERNSEYS** **Appleton, Wis.**

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by **Auriculas King of the May** and out of a granddaughter of **Yooman,** whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK **GREENVILLE, WIS.**

May Rose Bulls FOR SALE

MAY ROSE and double **May Rose**-bred Guernsey bulls, ranging from 1 mo. to 1 year from **A. R.** dams with records up to **661 lbs. fat.** Also a few choice A. R. cows and heifers, near descendants of the great **Imp. King of the May.**
JOHN H. WILLIAMS **Waukesha, Wis.**

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT **Whitewater, Wis.**

HAMPSHIRE SWINE.

DELLBROOK FARM HAMPSHIRES

Home of Grand Champions

50 boars ready for service

PRICES slashed for quick sale. They are guaranteed to please. Pigs at weaning age, boars $12 and up, sows $15 and up. Write for catalog and pamphlet.

A. L. DAMON **Richland Center, Wis.**

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI **R. 40, Bear Creek, Wis.**

POLAND CHINA SWINE.

MARTINY POLAND BOARS BARGAINS

SPECIAL PRICE—A little over pork. **Twenty Big-Type Poland China Boars,** many by **Big Bone Wonder,** one of the best breeding boars in the United States. Boars of same breeding as my first prize litter at state fair. Also have a Haneler-bred yearling and a Golden Gate Giant fall yearling for sale. Winners this fall. Order a boar. If he don't suit, I'll refund your money.
L. P. MARTINY :: :: :: :: **Chippewa Falls, Wis.**

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum **Peshtigo, Wis.**

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN **Fox Lake, Wis.**

POLANDS

BOARS AND GILTS—Fed and bred big. Write me.
WM. HAUK **Cassville, Wis.**
"Grant County."

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON **Kilbourn, Wis.**

ANOKA FARMS' SHORT-HORN OFFERING
WAUKESHA, WIS., DECEMBER 1

THE sixteenth annual offering of Short-horn cattle will be made at Anoka Farms, Saturday, December 1st, and at that time there will be presented to the public one of the most remarkable lots of Short-horns ever sent forward by a breeder on either side of the water. Fifty head will be sold, 33 females and 17 bulls, and no animal in the list leaves anything to be desired from the standpoint of either breeding or individual excellence. The cattle in the sale are an Anoka production, representatives of the blood of the great prepotent sires used in this herd, bulls that have been such important factors in the advancement of the Short-horn. Handled and developed with the unerring judgment and master handicraft that have made the names of Harding and Anoka the symbol for all that is best in Short-horns, wherever they are known, and that is throughout the world, they are fit representatives of this great breed of cattle. The bull offering this year is headed by Anoka Champion, the Short-horn bull sensation of the year. He was champion in the Short-horn Futurity at Des Moines, where he was also first in the open class; first at Hamline, and first and grand champion at Milwaukee. Sired by Sultan Stamp, he is one of the greatest bull propositions ever offered at Anoka. Royal Stamp, by Crystal Stamp, belongs to the Crocus family, and is the Anoka type, as is also Rosebud Champion, a white youngster by Imp. Rusper Champion. Merry Stamp by Crystal Stamp, a white calf; Clipper Perfection, a red youngster by Imp. Rusper Champion; Anoka Proud Star by Collynie Mine; Nonpareil Crystal by Crystal Stamp, are all the desirable kind, level, smooth, thick, with strong heads and a world of quality. In the offering of young bulls will be found material to suit any breeder who may be looking for the best. Any individual mention of the female portion of the offering is out of the question. So much quality and value are seldom if ever seen in a like number of cattle and the writer doubts if there is another herd that could produce an equal number of heifers with anywhere near the real value of this remarkable lot. Daughters of Crystal Stamp, Missie Sultan, Imp. Rusper Champion, Anoka Stamp and other sires of equal merit, belonging to the most popular tribes known to the breed, they are cattle of the highest type and quality, bred and developed under the hands of an expert. Anoka is famed for the excellence of its cattle and new strength will be added to the reputation of this great breeding establishment by the lot of Short-horns it will offer on December 1st. Ten of the older heifers in the sale will have been served by sale day to either Lavender Sultan or Masterpiece. This sale may well be called the opening of the 1917 International. Coming as it does on Saturday, the first day of the great exposition, it is a fitting forerunner for this greatest of live stock events. The Anoka management has prepared a handsome photogravure showing every animal in the sale and a copy of this, together with the catalog, will be sent to all who will write for it to Anoka Farms, Waukesha, Wis., mentioning this paper. Colonels Jones and Reppert will sell the cattle and those who attend the sale can leave Waukesha so as to reach Chicago early Saturday evening and be in ample time to attend the International Show. (Signed) Fred V. Johnson, Wisconsin Farmer Representative.

POLAND CHINA SWINE.

J. D. McDONALD
WEST SALEM, WISCONSIN

HAVE SOME CHOICE spring boars for sale. Same breeding as my WINNERS. Two fall boars that were winners. 75 fall pigs, special prices on pairs and trios.
GERSTDALE JONES ($6,600)
Have four good spring boars for sale by Gerstdale Jones—litter mates to one I am going to use. Buy one of these boars and get in the "front row." Let me quote prices.
Wisconsin's Greatest Poland Herd. :: :: Bred Sow Sale February 6th.

Minnesota Premier Poland Herd

NOTED FOR OUR WONDERFUL TRIO of herd boars. We have sold boars to head the best herds. We have one for you.
Annual Sow Sale, February 5th.
P. W. YOUNG :: :: :: Box 100, Prosper, Minn.

J. F. DILEY, RUSH LAKE, WIS.
Big-Type Polands

HERD headed by SMOOTH BIG BONE A 2D and GOLDENGATE COLUMBUS. Offer some very fine SPRING BOARS by the above sires out of CHOICE BIG-TYPE SOWS. The Diley guarantee with every boar—you can't lose.

SMILEY POLANDS

HAVE A FEW BOARS left that we ship guaranteed. Our reputation as breeders is behind everything we sell. Two good herds to draw from. We'll appreciate your order.
WM. SMILEY & SONS Albany, Wis.
(Sow Sale February 22d)

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Polands-Boars, Gilts, Fall Pigs

A FEW GOOD BOARS LEFT. Some well-grown spring gilts, will sell them open or breed them. Thirty early fall pigs, both sexes. Write us.
A. W. COLE Lodi, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.
C. E. NORTON Brooklyn, Wis.

Kindly mention this paper when writing.

POLAND CHINA SWINE.

Big-Type Poland China

SPRING PIGS, with size, length, bone and quality, sired by Mollie Jones Lad by Big Tom, also King Wonder by Great Wonder, two good producing boars. These pigs are in fine growing condition. Will make large ones. Call or write. "Bell phone."
H. H. SMITH (Sauk County) Baraboo, Wis.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

FOR UALITY AND UANTITY WRITE W.W

Boars and Gilts

SIRED by six noted herd boars out of sows that were sale toppers. Every one a big one and well grown. Let me describe what I have and you'll be convinced. Write
UACKENBUSH (Jackson Co.) MELROSE, WIS.
POLANDS

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

SUPERIOR POLANDS

I BRED THE LITTER that won $109 at Milwaukee and the boar that topped ($142.50) the Grant county sale. I have boars of the same breeding and caliber for sale. Also gilts. WRITE NOW.
F. A. MOREHOUSE Lancaster, Wis.

GRANT CO. POLANDS

YOU CAN ORDER a boar from me and know that you will be satisfied. Every boar I ship IS GUARANTEED. Everything immune.
LIBERTY SPRINGS FARM,
L. D. Eastman, Prop. Lancaster, Wis.

A's Big Orange

ONE of the best POLAND sires ever used in the state. You would agree could you see his get. The spring boars I offer are extraordinary. Every one from a big litter. Write
WM. F. ACKERMAN GLEN HAVEN, WIS.
"Grant County."

CHANCE
Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but bad friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

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LOWEST RATES ON ALL RAILROADS

CHESTER WHITE SWINE.

LAST CHANCE

FALL BOARS, March boars all sold. Offer April and May boars well grown and well bred. They must move AT ONCE, or they go to Chicago. Every boar must be sold by December 1st. Just let me know what you want, I want to sell quick.

CHESTER WHITES

H. A. DERENTHAL :: :: :: :: Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

FOR SALE

PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.
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Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON Viola, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

RAINY DAY

BY CALLAWAY FAVORITE, a noted Chester White boar. You will be pleased with the spring boars I have for sale. Write me.
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200 SUMMER and fall pigs, the kind that won us 86 prizes at five state fairs. Boars, pairs or trios, no kin. Registered free and priced to sell. Address
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THE PIONEER CHESTER WHITE BREEDER. I have been able to stay in the game because I gave value received. Past customers best advertisers.

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HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. G. HOSKINS Dodgeville, Wis.
Mile west of town.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
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BOARS good enough to ship on approval. I have just purchased a grandson of CHIEF KEOKUK out of a HIGHLAND CHIEF dam. Gilts will be bred to this boar and shipped later. Let me quote prices. **A. L. KIRST,** Tomah, Wisconsin.

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GILTS AND BOARS of the above breeding for sale, guaranteed to please YOU. All I want is a trial. Write me.
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CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet,** a junior yearling half brother of **Prince Again,** the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson,** a son of **Royal Blood.** Also March and April gilts sired by **Guy's Comet,** and grand champion boar, **Perfect Prince. Wm. C. Scheibe, Burlington, Wis.**

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A Trio of Durocs for Sale

WE ARE OFFERING a pair of good Duroc Jersey boars and one gilt for sale at prices that should move them at once. Write for particulars.
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DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
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HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
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DUROCS [illegible] sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Canniff, Juneau, Wis.

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BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

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PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier, also yearlings.
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CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mae's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
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TWO DECEMBER GILTS and two boars out of a ROYAL KING dam. March boars sired by THE ADMIRAL, others by KING ORION, PAL'S CHIEF AND CHIEF ADVANCER. THE BEST BREEDING KNOWN. THE BOARS I HAVE SELECTED ARE SUITABLE TO HEAD PURE-BRED HERDS. Will also sell gilts. Write or inspect.
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DUROCS SHIPPED ON APPROVAL—Have some big, well-grown boars that must please you. A grand assortment of breeding. Sows bred to above herd boars will be sold in our sale, January 31st. Bear this fact in mind. Write us about boars.
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"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.
ED PARKER & SON :: :: :: :: Janesville, Wis.
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DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
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SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
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DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

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NO BREEDER IN GRANT COUNTY has better boars to offer. Mine have been well grown and represent Cherry Chief, Crimson Wonder Again and Professor breeding. Guaranteed in every respect. Write
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THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
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BY GREAT CHIEF by Cherry Chief. One of the largest if not the largest yearling Duroc boar in the state. I have boars by CHIEF DEFENDER for sale. If you want the big type, write me.
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DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
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WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

ORION COL. S., COL. S. Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
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S——S

Buy a Duroc
That has Outstanding quality.
But pay some Attention to the breeding.
Bred right, fed right, pRiced right.
If you want them on approval will Ship that way.

DENNIS SHEA Melvina, Wis.
(Near Sparta)

SOW SALE JANUARY 29, 1918

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SIRED BY ILLUSTRATOR JOE, son of the $2,000 Illustrator, dam by Joe Orion, International grand champion. Out of sows by Pal's Premier, Cherry J. King, Taxpayer's Model, Fancy Col., Cherry Chief, Lee's Defender. All champions and kings of the breed. Priced right.
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IMMUNIZED

TO CLOSE THEM OUT WE ARE SELLING CHOICE 175 to 200-lb. boars for $40 each, satisfaction or money refunded.
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Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Mo.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
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WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
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Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

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BIG, RUGGED FELLOWS, bred right and priced right. Yearling son of KING DEFENDER (600 lbs.) for sale. Write me.
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"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
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SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
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THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
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WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
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BULL CALVES, nine months old and younger, sired by Monarch 429070 and from good milking cows. Write for particulars.
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SERVICEABLE Short-horn bulls, sired by Highland Sultan and Buchan Marshal, International prizewinners. Come or write.
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40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
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STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

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SHORT-HORNS—When in the market for cattle of this breed write
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Scotch or milking strain. Write
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OLD GLORY RED POLLS

WE are now offering bargains: 18 choice cows and heifers, both open and bred. Also 20 good young bulls. The kind that win at the pail as well as the show ring. Write or visit us. **CURRAN BROS., Sechlerville, Wis.** Railroad station, Hixton.

Headquarters for
RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS **Unity, Wis.**

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD **AVOCA, WIS.**

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A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

RED POLLED BULLS of serviceable age for sale. Also young stock, either sex. Clover Belt Stock Farm, Hamburg, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

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RAMS
Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

WE NOW OFFER

CHOICE RAM LAMBS in Shropshires and Hampshires, sired by prize-winning rams. Write us for prices and particulars.
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FOR SALE—7 registered ram lambs; well wooled and good type. Farmer prices, $20 each, first draft. Get pick of bunch. Also 3 reg. ewe lambs, $20 each. S. E. Cottrill, Grand Rapids, Wis.

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BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON **BEAVER DAM, WIS.**

HOLSTEIN-FRIESIAN CATTLE.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. **Eau Claire, Wis.**

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: **Lake Mills, Wis.**

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac 174243.** Sire **King Pontiac Champion,** Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**
ORRIN HAKE **Jefferson, Wis.**

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. **Reedsburg, Wis.**

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA **Watertown, Wis.**

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

La Crosse Holsteins

FIVE registered bulls, 5 to 12 months; nine high-grade yearling and heifer calves. All sired by KING PONTIAC ASIA 12TH 137450, a 29.70-lb. grandson of KING OF THE PONTIACS. Will sell a few registered heifers in calf to this bull.
JOHN VANDERPLOEG **R. 1, La Crosse, Wis.**

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON **Neillsville, Wis.**

Holstein Bulls for Sale

TWO YOUNG BULLS, from A. R. O. cows, well marked, good individuals. Priced right.
L. V. GARVENS **R. 12, Brookfield, Wis.**

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER **Janesville, Wis.**

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FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. **Troy Center, Wis.**

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

Carl Brugger's Dispersion Sale
of his personal herd of
HOLSTEIN CATTLE
at his farm 4 miles east of FOND DU LAC, WIS.
TUESDAY, NOVEMBER 27, '17

50 HEAD, mostly cows and heifers bred for winter freshening to Model De Kol Burke Segis 86112, a 25-lb. bull of the noted Powell breeding. Catalogs ready November 15th.

S. H. BIRD, SALE MANAGER

HOLSTEIN-FRIESIAN CATTLE.

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with **11 A. R. O.** daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

PURE-BRED
HOLSTEINS

Have won more prizes and established more records than all the other breeds combined

Pure-bred Holsteins are the choice of the experienced breeder and the amateur, whether he breeds for profit or the pleasure of winning blue ribbons, silver cups and prize money. Write for free information about this prize-winning, money-making breed.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS **Troy Center, Wis.**

RAG APPLE PONTIAC

SIRE, Rag Apple Korndyke, sire of $25,000 Holstein bull. Dam, a 30-lb. daughter of King of the Pontiacs. A. R. O. cows and daughters in calf to him are priced reasonable. Also two choice heifer calves.
TULLOCH FARMS **Genoa, Wis.**

$400 Bargain

$400 WILL BUY a 29.23-pound grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON **R. 1, Rochester, Minn.**

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL, Whitewater, Wis.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH **Kilbourn, Wis.**

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA **East Troy, Wis.**

Pabst Korndyke Champion
Son of Korndyke Segis Johanna,
Has just been sold to the North Dakota Agricultural College.

Pabst Korndyke Elder
Son of Korndyke Segis Johanna,
Similiarly bred on the dam's side,

IS NOW FOR SALE

Pabst Korndyke Elder was born March 3, 1917. His dam is Pabst Champion Elder. By King Pontiac Champion and out of Pabst Hengerveld Colanthus.

He is a splendid buy—just the bull calf you are looking for.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. **Box F**

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. **Pewaukee, Wis.**

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

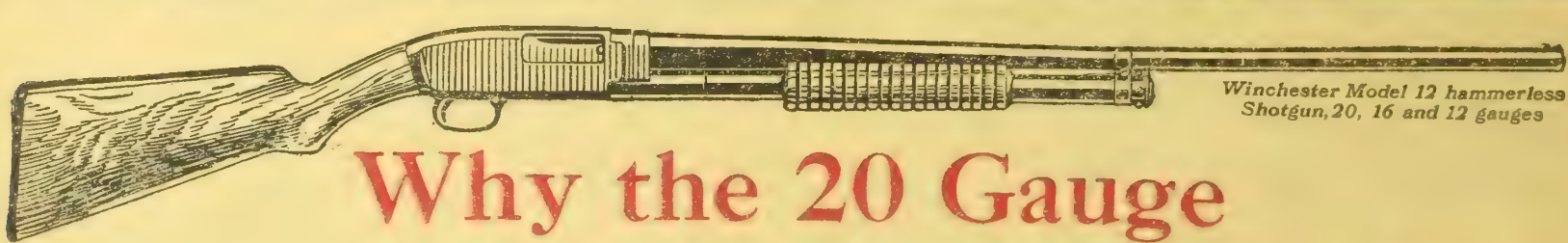
ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB **Honey Creek, Wis.**

A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. **Troy Center, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**



Winchester Model 12 hammerless Shotgun, 20, 16 and 12 gauges

Why the 20 Gauge is Gaining in Popularity

Back in the '90s the 10 gauge was the weapon that had the call among American sportsmen.

But as the game became scarcer, there came a better sense of sportsmanship. The 10 gauge yielded to the 12 gauge.

Today, hunters who are in it for "Sport's Sake" are taking to the light 20 and 16 gauges—the true sportman's guns.

When you carry a 20 gauge, you're *playing the game* and you *earn* every bird you bring down.

Quicker action and better pattern with the 20 gauge

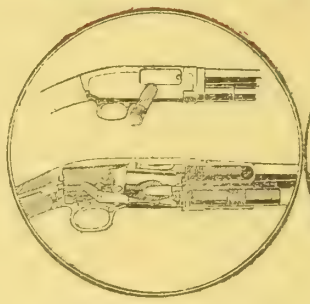
In the hands of a good shot, the 20 gauge has proved almost as effective a field gun as the 12 gauge. This is because in the first place, being lighter, it permits of quicker handling; you get onto your game faster.

Then, too, if you're quick, most of your shots at quail, snipe and prairie chicken will be at from 15 to 25 yards; at these distances the properly bored 20 gauge makes its best pattern, while the 12 gauge does not open up so as to give the shooter the full benefit of its larger load of shot until close to 40 yards.

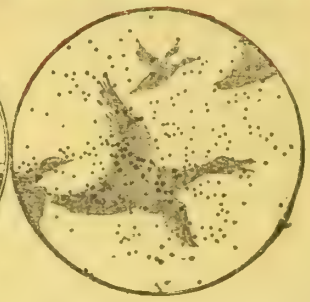
The 20 gauge then can give you as good a bag as a 12 gauge if you handle it fast and get onto your game quickly. It's a sportier gun to work with.

A gun that few sportsmen can resist

The nicely balanced Model 12, Winchester 20 gauge with its slim, graceful barrel is a beautiful weapon and has a fascination about it few sportsmen can resist.



Quick feeder, sure ejector. Throws empty shell to the side out of your way.



Dense, even, hard hitting, quick opening pattern of the Winchester 20 gauge.

It works smoothly in whatever position it is held.

A man who has used this Model 12, 20 gauge Winchester; or its duplicate in the Model 97, 16 gauge—for those whose prefer a hammer action gun—for a few days of shooting, finds it hard to go back to his heavier 12 gauge.

The barrel *is* the gun

Men who know guns realize that the accuracy and durability of a gun lie in the barrel. On the quality of the barrel depends the quality of the gun. There is absolutely no difference in the standard of quality of the barrels on the highest or lowest priced Winchester guns. With Winchester the barrel *is* the gun and the single standard of quality has been attained only by the most unremitting attention to the boring, finishing and testing of the barrel.

The Winchester barrel

The barrels of the Winchester Models 12 and 97 have been scientifically bored to micrometer measurements for the pattern they are meant to make. The degree of choke exactly offsets the tendency of the shot to spread. Until the pattern proves up to Winchester standard, the guns cannot leave the factory.

The Nickel Steel construction preserves the original accuracy forever. The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that, with proper care, will last a lifetime.

What (P/W) means

This mark on the barrel means *Viewed and Proved Winchester.* This stamp stands for Winchester's guarantee of quality, with fifty years of the best gun-making reputation behind it.

Every gun that bears the name "Winchester" and that is marked with the Winchester Viewed and Proved stamp has been fired many times for smooth action and accuracy, and with excess loads for strength. At every stage of Winchester manufacture machine production is supplemented by human craftsmanship. It is a *test and adjustment process.*

It is this care in manufacturing that has produced in these two light gauge models, guns that have won the admiration of all true sportsmen who follow *Sport for Sport's Sake.*

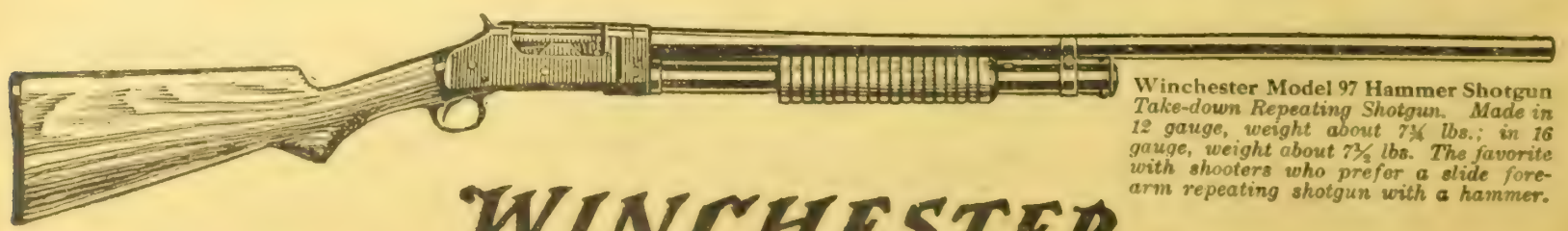
Write for details of Winchester shotguns, rifles and ammunition

The Winchester catalog is an encyclopedia on shotguns, rifles and ammunition. Every hunter should have one. It gives detailed specifications of the Model 12 and describes at length the principles on which every one of the world-famous Winchester rifles and shotguns is built. Write today. We will mail you a copy free, postpaid.

WINCHESTER REPEATING ARMS CO.
Dept. WX-4 New Haven, Conn.

Home Defense Leagues!

We have a Winchester for County and Home Defense Leagues which is meeting with universal approval. Many Home Defense Leagues throughout the United States have already been equipped with this gun.



Winchester Model 97 Hammer Shotgun
Take-down Repeating Shotgun. Made in 12 gauge, weight about 7¼ lbs.; in 16 gauge, weight about 7½ lbs. The favorite with shooters who prefer a slide forearm repeating shotgun with a hammer.

WINCHESTER

World Standard Guns and Ammunition

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 47. THURSDAY, NOVEMBER 22, 1917. WHOLE NO. 1869

Wisconsin Baby Beef Round-Up.

In the Ring at Baby Beef Show at Madison Last Week.

THE second annual baby beef contest under the direction of the Wisconsin Live Stock Breeders' Association, was held at the college live stock pavilion at Madison, November 14th and 15th. It was an excellent show. Improved in quality and quantity of entries by several hundred per cent over last year, it is deserving of all the praise that has been given it by breeders and visitors who attended the round-up. There were two classes this year with a total of forty-three entries. Senior and grand championship honors were carried off by Walter Hartman, of Lodi, whose Angus steer was, in the opinion of Judge J. G. Imboden, of Decatur, Illinois, the best-balanced all-around butcher type animal of the show. The junior championship was won by Ted Scott, of Bagley, on a Hereford steer, a well-fleshed, deep individual, carrying a large amount of high-priced meat, fine in bone and of good quality in every respect. The senior class had twenty-eight entries. It took the judge a long time to place each animal to his own satisfaction, but when the line-up was finally completed he started with the winner and proceeded right down the line, explaining in detail every one of the placings. The highest three animals in the senior class were an Angus and two Short-horn steers. The Short-horns were shown by Josephine Herr, of Lodi, and Alvin Morley, of Baraboo. There was considerable discussion on the side line regarding the placing of the first three animals, but Judge Imboden explained his stand in favor of the Angus to the satisfaction of all. The Short-horn steer fed by Miss Herr was without doubt the most highly fitted animal in the ring. However, the Angus would, in the opinion of the judge, dress out with less waste, because he carried more lean meat in the regions where the meat is high priced. There was just a bit of paunchiness about the Herr Short-horn steer, though he was without doubt unexcelled in the depth and width of body.

Fifteen prizes were hung out in both the senior and junior classes, ranging from $50 for the first prize to $10 for fifteenth place. In addition to this, the American Short-horn Breeders' Association and the American Hereford Breeders' Association added 25 per cent to all premiums won by Short-horn and Herefords at this show. The winners in the order of their placings in the senior class, were: 1st, Walter Hartman, of Lodi, Angus steer; 2d, Josephine Herr, Lodi, Short-horn steer; 3d, Alvin Morley, Baraboo, Short-horn steer; 4th, Ted Scott, Bagley, Hereford steer; 5th, Charles Skaife, Livingston, Short-horn steer; 6th, Will Radl, Lodi, Short-horn Steer; 7th, Lee Jewell, Mineral Point, Hereford heifer; 8th, Elwin Thompson, Lake Geneva, Hereford heifer; 9th, Charles Skaife, Short-horn heifer; 10th, Harry McCann, Janesville, Short-horn steer; 11th, Harold Lintner, Arlington, Short-horn steer; 12th, George Premo, Baraboo, Angus steer; 13th, Howard Roser, Baraboo, Angus steer; 14th, Florence Scott, Bagley, Hereford heifer; 15th, Wendell Kelley, Mineral Point, Angus heifer. Others showing in the senior classes who did not place in the money were Leslie Doe, Beldenville; Genevieve Kelley, Mineral Point; Henry Kurtz, Dane; John McCann, Janesville; Stanley Premo, Baraboo; Frances Martin, Bagley; Wayne Martin, Gotham; Kitchell Sayre, Edgerton; Ralph Seyforth, Mondovi; Clyde Taylor, River Falls; Roland Webb, Poynette; L. L. Foster, Elkhorn.

In the junior class fifteen entries gave everyone an opportunity to get in on the premium money. This class was on the whole more uniformly well fed and in higher condition than the senior class. Though the grand championship was won by the senior calf, the average of the junior class was better throughout than the average animal in the senior class. The champion of the juniors was a Hereford steer owned and fed by Ted Scott, of Bagley. In second place stood a large Short-horn steer fed by Will Radl, of Lodi. The master was hardly tall enough to reach the shoulder of his

Grand Champion Baby Beef Steer.

Fred Hartman, Lodi, Wis., and his prize-winning Angus steer. On the left in the picture is J. G. Imboden, Decatur, Ill., judge, and in the center W. L. Houser, Mondovi, Wis., who has done much to promote the baby beef contest.

(Concluded on page 7.)

CURRENT EVENTS

MORE American lives were lost in the fighting in northern France last week, but the particulars are meager. A German shell is said to have exploded in an American trench, spilling American blood. At the same time, the American soldiers secured at least partial payment for their loss of a week or so before. A dispatch from northern France had this to say of the encounter which an American patrol had with the enemy: "The American patrol, in which were some Frenchmen, arranged the ambuscade near the German lines on a shell ruined farm. After lying in the mud nearly all night the patience of the watchers was rewarded by the sight of a large German patrol, its number more than double that of the Franco-Americans. The Germans were permitted to pass, when the Americans and Frenchmen on their flank opened a hot fire from shell craters and other shelters where they were secreted. The Germans were taken completely by surprise and bolted, carrying with them their men who had been hit. The number of dead and wounded Germans is uncertain, but none of the men in ambush was hit by the bullets the Germans later sent in from a distance." America may expect a heavy casualty list before the war is over, for the enemy is determined to fight it out to the bitter end and is particularly enraged toward America, which it had never expected to enter the fray. There will be weekly loss of lives to report, undoubtedly growing in volume as the winter progresses.

AT last reports, the Austro-German army continued to win over the retreating Italians, who seem to be in a bad way. The Italians are said to be making a stand at the Piave river, with the historic and picturesque city of Venice but little over twenty-five miles away. The Teutons were pressing hard and while the Italians were making a gallant stand, they were being pushed back in a number of places. By this time the English and French reinforcements have undoubtedly reached the Italian line, so that a better showing may be made, but it cannot be denied that Germany has heartened Austria anew and has made a most determined assault against the enemy in a vulnerable spot. While this is the situation in Italy, matters are in a bad way in Russia, where a counter revolution has been in progress against Kerensky for some days past. There are many conflicting rumors, but it appears that the Kerensky government does not have the firm hold upon affairs that it had a month ago. It is to be expected that there will be numerous outbursts and revolutions, for freedom is a new gift to the Russian people and they will abuse it, as well as use it, until they become accustomed to the novelty. One thing seems certain and that is that Russia will be little or no help to the allies in their fight against Germany for some time to come.

THE United States is about to add several hundred thousand tons of shipping to the stream of ships carrying American troops and supplies to aid the allies. Negotiations with the northern European neutral nations and with Japan for tonnage have reached a final stage and the vessels obtained either will go directly into trans-Atlantic routes or will release American ships for this service. The European neutrals finally have agreed to turn over to the United States and the allies ships in exchange for foodstuffs that only America can supply. The quantities of food to be furnished will be determined later, but the neutrals have the assurance of the American government that they will be given enough to meet their necessary requirements. Japan will sell outright to the United States a large amount of tonnage now in the Pacific in exchange for steel shipments the Japanese are anxious to obtain to complete their merchant shipbuilding program. Negotiations with the Swedish mission were wound up several days ago. The amount of tonnage the United States is obtaining has not been made known, but there are in American ports now more than 400,000 tons of neutral ships, which will be put into some American service. Many of the ships will ply between American ports and South America, each releasing an American or British vessel for service through the war zone.

ONLY one British merchant vessel of more than 1,600 tons was sunk by mine or submarine last week, according to the weekly statement of shipping losses. This is the low record since Germany began her submarine campaign. Five vessels of less than 1,600 tons and one fishing boat were sunk during the week. Not since Germany began her intensified submarine campaign in February has the total number of British merchantmen sunk by mine or submarine been as small as the above admiralty statement shows. The previous low record was twelve merchantmen, eight of them of a tonnage in excess of 1,600, and four of less than 1,600 tons. The high crest of the wave of British merchantmen sunk was during the week of April 22d, when forty ships of 1,600 tons and over and fifteen less tonnage were sunk. The next high record was the following week when thirty-eight vessels of the larger and thirteen of the smaller category were sent to the bottom.

CONFIRMATION has been given by the German government itself to the often denied reports current for the past year that young girls of Alsace-Lorraine have been carried away from their homes and forced to labor for the German army. From Switzerland there came a cable report of the reply made by the German undersecretary for war to a complaint of an Alsatian deputy in the reichstag against mistreatment of these young girls. The government's reply took the form of an official communique, which in substance stated that the army administration had taken measures to assure the girls requisitioned in Alsace-Lorraine and actively employed in work at the front of the benefits of moral and religious supervision. Only 8½ per cent of the girls are less than seventeen years of age, the deputy was assured, and scarcely one-half of them have been subjected by force to work at the front.

CONFIDENCE that the American farmers can meet the burden of feeding this country and the allies was expressed by Secretary of Agriculture Houston in an address before the annual convention of the association of American Agricultural Colleges and experiment stations. Production, the secretary said, must be maintained, if not increased. The labor problem, Mr. Houston declared, is not an easy one, and to its solution the departments of agriculture and labor and state agencies are bending their best efforts. He outlined plans now being worked out for mobilizing labor for the farms from both the rural and urban districts and said that with alert and coöperative action by the farmers the situation could be met.

THE second national army, of approximately a million men, will be drawn according to classification by industry, number of dependents and so on, rather than by number, as was the first army. In order that the selective principle may be carried out to the fullest extent President Wilson has directed that all registrants be divided into five general classes. Classification will be started on or about December 15th and the new army will probably be drawn about the middle of February. The president asks that the old local boards be retained. These boards will receive the official questionnaires in the near future. They will then mail them to the registrants at the rate of 5 per cent a day; this will require twenty days. The division of registered men will give each man a place in the military, industrial or agricultural ranks; the call to the colors will be based on this official ranking. District court judges are designated to preside over a committee of lawyers in each community, who will give free and impartial advice to all men subject to the draft. These committees will have offices near those of the local exemption boards. Men called in the first contingent are not affected in any way by the new rules. Single men, without dependents, will be called first, leaving the married men to be selected later, those without children or dependents to be taken before those who have. Farm labor is not exempted, but it is put down on the list, so that it will not be reached in the first stages of the forthcoming draft.

IN declining the position of head of the new air ministry in the English cabinet headed by Lloyd George, Lord Northcliffe (the noted English editor who has been the head of the English war mission in the United States for several months past) pays a great tribute to the thoroughness with which the United States is carrying on its war preparations. Among other things he said: "Returning after five months spent in the virile atmosphere of the United States and Canada, I find that while these two countries are proceeding with their war preparations with a fervor and enthusiasm little understood on this side of the Atlantic; while the United States instantly put into operation conscription over which we wobbled for two years and is making short work of sedition mongers; while Canada has already given such proofs of thoroughness as the disfranchisement of conscientious objectors and the denaturalization of all enemy aliens naturalized within the last fifteen years; while we, for our part, are asking immense sacrifices from these peoples, there still are in office here those who dally with such urgent questions as that of unity of war control, eradication of sedition, mobilization of the whole man and woman power of the country and the introduction of compulsory food rations. May I also take this opportunity of giving warning about our relations with that great people from whom I come? We have had the tragedy of Russia, due to lack of allied propaganda to counteract that of the Germans. We have had the tragedy of Italy, largely due to that same enemy propaganda. We have had the tragedies of Serbia, Rumania and Montenegro. There is one tragedy which I am sure we shall not have and that is the tragedy of the United States. But from countless conversations with leading Americans I know that unless there is swift improvement in our methods here, the United States will rightly take into its own hands the entire management of a great part of the war. It will not sacrifice its blood and treasure to the incompetent handling of the affairs of Europe."

"To Those Looking for a Home"

Where they can establish themselves and in a few years have enough of this world's goods to take care of them in their declining years —

Grand Valley, S. D.

Dear Sir:—In reply to your inquiry, beg to say that I came to the Standing Rock Reservation in the year of 1910. While I am among the newer comers to this country, I cannot speak too highly of the possibilities of its future. My former home was in Boone County, Iowa, where land has attained a value that puts it out of the reach of a man of limited means. To those who are looking for a home where they can establish themselves, and in a few years have enough of this world's goods to take care of them in their declining years, I would say, Come to South Dakota.

This is truly an alfalfa country. All of my neighbors are raising this valuable forage plant to a greater or lesser degree, and without one exception, it is doing well.

Dairying can be successfully carried on in this part of the country. The grasses are as nutritious as can be found any place, and with the successful growing of alfalfa there is no reason why this will not be a great dairying district in time.

Garden truck of all kinds does fine. We have good water and cheap fuel, good neighbors and good schools and churches.

Yours truly,
(Signed) SAMUEL ELLSWORTH.

Come to
South Dakota

This is the opinion of Samuel Ellsworth, an Iowa man who, as his letter tells, moved from Iowa to Grand Valley, South Dakota.

Six years' experience, taken together, have convinced him that South Dakota is the country for him.

His letter, reproduced in full, is one of hundreds received and published in our *North* and *South Dakota book*, *sent free* to those interested.

South Dakota is a diversified stock and farming country that, as another letter puts it, is "hard to beat."

Garden truck also does exceptionally well—climate is ideal—short, mild winters allow stock to winter on the range.

While irrigation is not usual in South Dakota, in certain sections it has accomplished wonderful results. One farmer raised $750 worth of tomatoes on five-eights of an acre—twenty acres of potatoes brought $2,535—two acres of melons $486—five acres of sweet corn $450—cabbage averaged $400 an acre—cow beets for dairy feed ran 42 tons to the acre and sold for $10 a ton. In all, the 55 acre tract brought a gross return of $5,010.30. The complete story is told in the North and South Dakota book.

Chicago, Milwaukee & St. Paul Ry.

If you are looking for a home send for booklet and full information — address

GEO. B. HAYNES
General Passenger Agent
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613 Railway Exchange
Chicago

Short-Horn Stockholders' Meeting.

Session to Be Held During International.

The annual meeting of the stockholders of the American Short-horn Breeders' Association will occur Wednesday, December 5th, at the Congress Hotel, Chicago, at 7 p. m. Plans have been completed for the members to dine together, after which will follow a number of addresses, the election of officers and the usual business program. This arrangement cannot fail to contribute materially to the enjoyment of the occasion and to the prevailing good fellowship which is one of the distinct features in Short-horn unity and progress.

Never in the history of the Short-horn breed has such advancement been made as that achieved during the past six years. Never has the trade been as firm, the demand as widely distributed or the prices as consistent.

The annual receipts from registrations at the association's office have grown from $25,000 but a few years ago to approximately $175,000 for the current year. These rapidly growing receipts are being utilized for giving service to and promoting the interests of all who are identified with the breed.

In view of the enviable condition of Short-horn trade and affairs and the flattering prospects, the forthcoming meeting and dinner should prove a felicitious occasion.

Stockyard figures gathered by the food administration show that 73.3 per cent of the calves slaughtered at nine large packing points in this country during the first nine months of this year were males.

Without more meat and fat from America than the allies have received in the past three years they cannot remain in fighting trim.

ARE YOU A TENANT FARMER? Be an owner, not a renter! You can OWN a productive farm in a region of generous rainfall, mild winters, long growing season and healthful climate—and can buy it at very low prices and on surprisingly easy terms. Your opportunity is in the

HIGHLANDS OF LOUISIANA

Other Northern men now there, formerly owners as well as tenant farmers, are prospering on their own land, growing a great variety of staple crops. Investigate for yourself. Send for the big, FREE book of facts

"Where Soil and Climate Are Never Idle"

Then visit these lands. Low rate excursions from nearly all Northern points first and third Tuesdays of each month. ACT NOW!

Long-Bell Farm Land Corporation
416 R. A. Long Bldg., Kansas City, Mo.

100-ACRE FARM

IN TIOGA CO., N. Y.—Farm lays good; clay loam soil; produces as much as any land in the Northwest. 90 acres under plow. Creek-watered, natural grass pasture; big markets; lots of all kinds of fruit; good water; healthy climate; mild winters; good 8-room house, big basement; telephone; 2 big basement barns; ice house, hen house, hog house; half mile to school; close neighbors; on good road; R. F. D. Price, $2,500, $1,000 down, easy terms. A. L. WILKINS R. 1, Union, N. Y.

TAKE A Business Course

A TREMENDOUS DEMAND for trained young men and women. Salaries $900 to $1,250 per year. This school is known all over the Northwest for its superior training and ability to place its graduates. High school and teachers' courses. Also correspondence courses. Write at once for beautiful new catalog.

AUSTIN SCHOOL OF COMMERCE, Austin, Minn.

Want to buy corn, oats and hay. Name what you have, number of carsand prices wanted f. o. b. your station.
B. E. Miller, Carlton, Texas

The Wisconsin Farmer

THURSDAY, NOVEMBER 22, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

BORROWING FROM UNCLE SAM.

I AM not exaggerating when I say that I have answered hundreds of letters from subscribers, within the last few weeks, dealing with the federal farm loan law. It is quite apparent that many of my readers have either forgotten my explanations of this law, which I published about a year ago, or else they are more interested now that the law has been successfully tried out and their friends and neighbors are enjoying its privileges. Perhaps another general article on the subject might not be amiss.

To begin with, therefore, I might state that Uncle Sam has established twelve federal land banks, of which four are located here in the grain belt. The one at St. Paul loans to farmers living in Minnesota, Wisconsin, North Dakota and Michigan. The one at Omaha loans to farmers living in Nebraska, Iowa, South Dakota and Wyoming. The one at Wichita loans to farmers living in Kansas, Oklahoma, Colorado and New Mexico. The one at St. Louis loans to farmers living in Missouri, Illinois and Arkansas. It is impossible to borrow from any other than the bank for the district in which you live, so that my grain-belt readers should see into which group their state falls and apply to that bank, and not to any other.

The loans are made on farm-land security and its improvements only; personal credit and live stock collateral have absolutely nothing to do with the loan. Loans may be made for as much as 50 per cent of the appraised valuation of the land, together with 20 per cent of the appraised valuation of the permanent, insured improvements thereon. The loans bear 5 per cent interest and may run any length of time, from five to forty years. A portion of the principal is paid annually, with the interest, so that the mortgage is paid off gradually, on the installment plan. I have seen it figured that 1 per cent of the principal paid annually, with the interest, would wipe out the entire indebtedness in thirty-five years. Let us assume, therefore, that a farmer borrows $5,000. His interest, at 5 per cent, would be $250 a year. But if he pays 1 per cent more (or $300 a year, instead of $250) the loan will be paid off in thirty-five years and the mortgage will never come due at any one time.

There are certain restrictions to the law, certain red tape which must be unwound before advantage can be taken of it. In the first place, every borrower must join with at least nine other farmers to form a loan association. He must also subscribe to stock, in the association, to the extent of 5 per cent of his loan. Thus, if he borrows $5,000, he must buy stock to the amount of $250. This money will be returned to him, in full, when the mortgage is finally wiped out, so that it is in no sense a bonus or commission. Moreover, if he does not have that much ready cash before making the loan the federal land bank will simply deduct it from the amount it loans him. Thus, again, if the loan is to be for $5,000, the bank will take a mortgage for $5,000 and hand the borrower $4,750 ($5,000 less $250) and when the mortgage is all wiped out the other $250 will be returned to him, with whatever amount it has earned while the loan association has had it. Should any of the other farmer borrowers in the loan association become delinquent, and loss be sustained on this account, the other members are liable to 5 per cent of their loan. Inasmuch as the loans are made on only 50 per cent valuation and there is no better security in the world than a grain-belt farm, I do not look for this to happen very often, so it is not worth worrying over. But, should the worst happen, each farmer borrower would be liable for only 5 per cent of his own loan, or $250 in the case his own mortgage was for $5,000.

Land and improvement appraisals are made by farmers who are members of the loan association to which the borrower belongs. They know local conditions and values and usually make it easier for the borrower to obtain a large amount. Their appraisals are subject to review by the bank officials and must be approved before the loan is made. I understand, however, that their appraisals generally stand.

These, in merest outline, are the more important working details of the law. I am always glad to have my readers write to me on this or any other subject, but they would save time if they would write direct to the secretary of the federal land bank in the district in which their state is located, according to my list above. Ask for circulars giving detailed information, for application blanks and for suggestions. I have found these federal land bank officials to be courteous and obliging, and I believe my readers will, too. In the event they do not answer, or satisfactory replies cannot be had, do not hesitate to write to me. I am only too glad to serve you; my idea was that you could save time (which is valuable, if loans are desired quickly) by writing direct to the proper bank officials.

A CHOICE OF MASTERS.

ONE of the greatest difficulties that the public has suffered from, in attempting to secure its rights from the vast combinations of capital, which control the necessities of life and business, is that the latter are better paymasters and so are able to secure the services of the best brains and talents of the land, supplying them with plenty of funds, which are the sinews of war. Some of these hired servants of the corporations, after their best working days are over and they have amassed a competency, see a great light and espouse the people's cause, but they are never able to undo what they have done in their prime to oppose the principles of justice for the great mass of the people. Think of what such a giant intellect as Elihu Root might have accomplished for democracy and justice in this country had he held the views twenty-five years ago that he has expressed since he returned from his mission to Russia!

I do not know that we should blame these men greatly for taking the easier path, which leads to wealth and to social and political preferment, for they are naturally human. Perhaps it is the public—ourselves—that we should blame, because we have not made our cause equally attractive. At all events, what I had in mind to say here was that when we do find some outstanding genius, who puts aside the crown of corporation employment to serve the interests of the common people in their eternal struggle for justice, it warms the blood and renews one's faith in human nature.

I am reminded of this by the case of Hon. Clifford Thorne, of Iowa, who has perhaps done more for the shippers of this country in their efforts to secure fair rates and decent treatment from the railroads than any other man. I have the pleasure of knowing Mr. Thorne well and I regard him as the best informed man on transportation conditions and statistics of any in the entire country. He might just as well be drawing an immense salary from the railroad interests, whose plans and schemes for soaking the public he has upset time and again, but instead he has preferred to serve the public, first at a meager salary, as chairman of the Iowa State Railroad Commission, and now as counsel for the shippers before the Interstate Commerce Commission in the 15 per cent freight rate advance case being heard this week in Washington.

No one is so cordially hated by the railway interests of this country as Mr. Thorne. He has been assailed by them in every possible way, in the press and in such magazines as the Railway Age Gazette, but I have noticed that his critics always deal in glittering generalities, instead of getting down to concrete facts. It is just as well for them that they do so, for whenever they have attempted to deal with definite facts they have found themselves badly worsted in an unequal argument with him. Gradually they have learned that Mr. Thorne is a Tartar whom they had better not try to catch, and more than one railroad official, who has joined issues with him, has come off considerably like the boy who monkeys with the buzz saw.

Only a few days ago, on the eve of the hearing on the railroads' claim for a 15 per cent advance in freight rates, John Skelton Williams, comptroller of the treasury, gave out a statement advocating the granting of the increase. The extreme impropriety of the head of one department of the government attempting to outline to a judicial body its duty in a case before it, did not deter him from rushing in where angels would have feared to tread—a fact for which I suspect Mr. Williams is now very sorry.

His statement that the railroads were suffering from a decline of credit and of earnings brought an immediate reply from Mr. Thorne, who showed that railroad stocks have not declined from impairment of credit, but from a cause common to all stocks and bonds, excepting those concerned with war supplies, and that instead of decreased earnings the railroads were earning more today than ever before in their history, with one possible exception. He also called attention to something Mr. Williams had conveniently overlooked, namely, the fact that the railroads had been allowed to amass a thousand million dollars of surplus for such emergencies. Under these conditions he suggested the inadvisability of a government official urging upon other government officials the necessity of adding a burden on the shippers of the country amounting to an annual tax of 5 per cent on a billion dollars.

Mr. Thorne invited Mr. Williams to be present at the hearings on the case and to take the stand or to cross-examine the witnesses. Mr. Williams, however, had learned that discretion was the better part of valor in dealing with Mr. Thorne on railroad matters, and discreetly found that his duties demanded his presence at his office in the treasury department, where he belongs.

During this coming week Mr. Thorne will represent the coal-consuming public at an open hearing on the fuel situation in Iowa—the first open hearing at which the consumers will be represented, with the right to cross-examine the coal operators, held in the country, in spite of Mr. Thorne's efforts to secure such an unprejudiced investigation by the Federal Trade Commission.

It is the example of such young men as Mr. Thorne, who are giving of their brilliant talents to the public instead of to more appreciative and generous private interests, that leads me to believe that there is a new and finer spirit developing in this country and that the time is coming when such public service will be regarded as being just as much a patriotic duty as heroism on the battlefield.

CHARITY WELL WORTH WHILE.

WITH the aid of my big-hearted readers, I believe I am going to be able to accomplish some good in the way of relieving destitution in farm homes where the head of the family or the son has been called away to the colors, leaving the women folks to struggle along as best they can. I have already printed the letter from the charitably-inclined farm woman offering to send wornout children's clothing to whomsoever might need it and the letter from the farm woman who was in need of just such relief. One mail this week brought me two more letters, along the same lines. The first was offering to give, as follows:

Dear Mr. Pierce:—Please send me the address of someone to whom I can send outgrown common clothing, as my children have all grown up and I have some such clothing to give away. Please refer me to the best place to send them.

The other letter was asking for relief, as follows:

Dear Mr. Pierce:—I was reading in your paper about the woman that wanted to know of any charity that would be glad to get some outgrown clothing. I have four children (twin girls fourteen years old, one boy twelve years old and a little baby girl three years old) and I have to work very hard to support them, even have to do washing and ironing for others to keep them in school. Any time that you or anybody else could send me a box of clothes I would be very glad to get it.

I am not printing the name of either writer, because charity does not consist in boasting of our generosity or revealing our needs publicly. The name and address of anyone who offers clothing or who needs it will be given by me in a private letter to any interested party. Suffice it to say that I have already written to both women whose letters I have printed above, giving each the name and address of the other, in the hope that this apparently worthy case may be relieved without undue delay.

While I am on this subject, I want to print a splendid letter just received from Eva Lehman, of Woodland, Wis., as follows:

Dear Mr. Pierce:—I have read your article in the November 1st issue on "Charity in the Farm Home." There are many things on the farm, if people only knew where to put them, that would do many town people good, not alone the very poor, but those in moderate circumstances. The farmer is called wasteful, but he is not to blame. Often he does not know where to put it, nor can he sell it.

In the summer I heard a working woman say, "We cannot buy things, they are so high in the stores, and to go to the market for what we need costs us so much in time and carfare that the expense is as great as to buy in the grocery." I replied, "Will you pay express on a box if I will send it to you?" She replied that she would. There went into that box everything from the garden, wild grapes, apples, carrots, squashes, green tomatoes, potatoes, cabbage, everything packed in boxes or bags so they could not mix and jam. On the top was a bunch of bittersweet. I wish you could have seen

(Concluded on page 8.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Feeding Problems in Iowa County.

The Wisconsin Farmer has been hearing about some good meetings down in Iowa county, under the direction of John L. Tormey. At our request Mr. Tormey has written out for the benefit of our readers, some of the things he has been telling at cow-testing association meetings and other gatherings. Mr. Tormey writes as follows:

The meeting of the Dodgeville Cow-Testing Association held at the court house in Dodgeville, Saturday afternoon, October 13th, was not largely attended on account of bad weather and the exceedingly busy time of the year. However, about forty men were present and all of them seemed enthusiastic about learning more about feeding their live stock and growing more of their feeds on the farm. I spoke for a little while on some of the things to think about in feeding dairy cows at this time, emphasizing especially the necessity of safeguarding against drouth in the summertime. Mr. George Springer, the cow tester for the Dodgeville Association, had given me several of the things he had observed during the past summer. He noticed that the men who had silage to feed in the summer were more successful in maintaining the milk supply than those who relied entirely upon pasture. He also noticed that those who had alfalfa and clover hay to feed with silage during the dry weather were more successful than those who fed silage alone or pasture. Dry pasture grass is low in protein. Green pasture grass is rich in protein. This accounts for the falling off in milk on dry pasture and silage. I believe even when pastures are supplemented with silage that the silage and dry pasture ration needs to be supplemented with some feeding stuff higher in protein. My suggestions to the crowd were that a man should know pretty nearly how much feed would be necessary to carry his herd of cattle through the winter on liberal rations and he ought also to know about how much feed it would be necessary to buy before the winter is over. Buying now would be better than to buy later because feed prices will undoubtedly be higher as the winter advances. I also suggested the clubbing together of several farmers and ordering feed by the carload through the local feed dealer. This feed can generally be unloaded from the car to the advantage of both farmer and feed dealer. It is also a good idea to let the feed dealer do the ordering, because he can generally get the feed as cheaply as the club of farmers could get it themselves. Not only that, but if there is a little surplus feed left above what the group of farmers desire, the feed men can take it off their hands.

Professor Graber, of the college of agriculture, spoke on alfalfa. This subject is attracting a great deal of interest in Iowa county. High prices for hay and other feeding stuffs are beginning to cause serious thought on the part of the farmers. Mr. Graber emphasized principally the importance of lime on prairie soils in preparing the ground for growing alfalfa. The farmers were very enthusiastic. Many asked questions as to the death of their alfalfa and generally it was brought out that the death was due to sour soil. The great need of testing soils was strongly emphasized. Mr. Graber pointed out that the two great crops for the dairy farmer should be alfalfa and corn; the alfalfa for hay and the corn for silage. By the use of such a prolific crop as alfalfa it is possible to use less land for hay and more for pasture, a combination which would require less labor.

Such gospel will accomplish a great deal of good. Another informant tells us that practically all of the farmers who were present at the Dodgeville meeting have signed up for a farmers' institute to be held in Dodgeville the coming winter. Ex-Assemblyman Evans advises us that a great deal of interest has been aroused in these Iowa county meetings and that the farmers are anxious for more of them. Let the good work go on.

It is impossible to overestimate the importance of the alfalfa ensilage combination in dairy farming. Profit from milk production is realized only in those cases where the dairy herd is handled under what might be called high-pressure feeding. Mr. Tormey emphasizes an important point when he recommends the feeding of liberal rations during the winter months, because it is a well-known fact that a dairy cow, when she once falls off in her milk flow on account of irrational feeding, can never be brought up to so high a point in production again during that lactation period as if she had been kept constantly at her best. We feel sure that the work Messrs. Tormey and Graber are doing will accomplish much in the way of increasing production wherever their program of instruction is carried out by dairymen.

The Theory "Like Begets Like" in Breeding.

An interesting communication recently appeared in the Live Stock Journal relating to the important part which line breeding must play if pure-bred animals breed true to type. The matter is dealt with by W. G. C. Britten, who has previously been taken to task for his boldness in proclaiming that like begets like. In explaining his exact position in this matter Mr. Britten says:

My suggestion, after very careful study of results, is that like begets like in the vast majority of cases only when the back breeding of a particular animal is founded on line breeding—i. e., where there has been a concentration of blood in the pedigree, and this influences the animal to throw progeny like itself. But, supposing a particularly good-looking animal has been produced more or less by chance, then I contend that it is a gamble what type of progeny it will produce. He may throw back to any of his numerous ancestors or to all of them, and the result is a heterogeneous mixture.

Many breeders have the idea that if they have a certain defect in their cattle they have simply to buy and use a sire which is good in this particular respect and the fault will automatically disappear in the progeny. Whereas, unless careful choice is given to the selection of an animal which has been consistently bred from a strain that possesses the needed characteristic, the fault may be perpetuated and even increased, as the bull of their choice may have been a "fluke," and produced from animals which exhibited the very fault that they wish to eradicate.

The advice I wish to give to new breeders is not to buy any animal, however good it appears on the surface, without first carefully examining the full pedigree, and, if possible, gaining knowledge of the characteristics of its ancestors.

I can give numerous cases of splendid-looking animals, bred without any definite line or system, which have proved to be utter failures as breeders; but it is very seldom that this occurs in the cases of animals systematically bred.

With regard to the statement, "After all, who would dream of using any sire unless it was expected that his produce would inherit his good qualities or those of his ancestors, which he himself would be supposed to resemble?" I certainly agree that none would do so. But, unfortunately, a great many sires do not resemble their ancestors as they are supposed to do, neither do they produce animals like themselves, and often not even like their ancestors; and that is the whole point of my argument.

My contention is that the only way to insure that like begets like is to line breed, and thus concentrate such a large proportion of one strain of blood in the pedigree that a sire is almost bound to throw progeny of a similar type to his ancestors, and, therefore, like himself.

I may state that when in the United States I particularly studied their breeders' system of breeding, and in every case where line-breeding has been adopted the very best results were noticeable.

There is a growing demand from that country for our best females, which are needed to provide the necessary out-crosses under their system, and I venture to predict that the demand from that country will always be mainly for females unless our breeders adopt a similar system of breeding and produce a larger percentage of bulls that will keep alive the old adage "Like begets like."

Beginners will do well to ponder over the above paragraphs, because, as a matter of fact, a given type is much more easily and effectively fixed through the medium of line breeding than is possible where the breeding is done in an indiscriminate way. This does not necessarily mean in and in breeding, but it does signify the breeding of animals together that have similar blood lines. The expert who can predict accurately in advance the character of the progeny from a male animal does not base his prediction on the character of the individual himself alone, but takes into account his breeding. If he there finds a concentration resulting from breeding together meritorious related animals in producing this particular male, he is then reasonably safe in his predictions for the future.

Consider the Sire.

In the case of beef cattle early maturity is essential for profitable production, particularly on the farms of the corn belt where land is high in price and when the cost of feed is such an important item as it is at the present time. Pure-bred beef cattle, as everyone knows who has had experience along that line, mature earlier than scrubs. If we are to feed corn worth over a dollar a bushel to beef cattle, hay worth $20 a ton, and other feeds in proportion, we cannot afford to handle scrub cattle; they cannot be made to pay under conditions of that kind.

Never before in the history of this country has improved blood had such great value to the producer of beef as it has today. What is true of the beef sire is equally true of the dairy sire. Cows that are yielding only 150 pounds of butter fat a year, worth $60, are unprofitable. At present prices it costs every cent of that to feed a cow a year. It is the cow that yields more than 150 pounds that can begin to pay for taking care of her and yield a profit besides. We have too many mediocre cows and that is why so many farmers are getting disgusted with the dairy business and are selling out. Better sires must be used. It is wonderful what improvement a prepotent sire from high-yielding ancestors will bring about in a herd of grade or scrub cows.

An example of this is furnished by a dairy-bred bull at the Nebraska Experiment Station. Five of his daughters last year yielded 823 pounds of butter fat more than their dams. This excess production at 40 cents a pound had a cash value of $329. At that rate this bull, even when bred to only ten such cows as mentioned, would have a cash value of $5,490 because the extra income from his heifers would be equivalent to 6 per cent of the sum mentioned. It would not, of course, be advisable to buy such a high-priced bull for use on only ten cows, but when his service can be spread over a herd of 20 or 30 cows such a price would not be excessive; in fact, it would prove a profitable investment.

The point is that from now on we must make greater use of registered sires if beef and milk production is to be profitable in the future.

The Brood Sow's Care

WISCONSIN swine breeders are preparing now to put forth special effort to raise a big crop of hogs next year. The Food Administration proclaims the fact that we must raise 15 per cent more hogs than were raised in 1917 if the market demands are met. The attainment of this end depends upon the care given to brood sows during the winter months. The Wisconsin Farmer proposes a little contest, designed to stimulate interest in the subject and to aid those who have not been satisfied with their results in the past. To the writer of the best article on the topic, "Care of the Brood Sow During the Winter," The Wisconsin Farmer will pay $10 cash, and for the second best letter on the same topic a cash prize of $5 will be given. Remember that the winning of the war may depend upon the 1918 hog crop and, furthermore, hogs will be a good price. Every man who has been successful in raising good, strong litters year after year is competent to write on the above subject and this will greatly benefit fellow breeders.

More Money for Hogs.

On November 3d Joseph P. Cotton, head of the meat division of the food administration, announced a minimum price of $15.50 per hundredweight for hogs and a ratio making the value of 100 pounds of live weight of hogs equal to the value of thirteen bushels of corn. Now comes a report of the commission appointed by the United States Food Administration to investigate the cost of producing swine. This report, addressed to Mr. Hoover, is signed by John M. Evvard, chairman, Ames, Iowa; Lawrence P. Funk, Bloomington, Illinois; N. H. Gentry, Sedalia, Missouri; W. A. Williams, Marlow, Oklahoma; J. H. Skinner, Lafayette, Indiana; Tait Nutler, Memphis, Tennessee; E. W. Burdie, Herman, Nebraska.

Among other things this committee says:

We believe that definite, stimulative action is immediately necessary if the pork supply of the nation and the nation's allies is to be sufficient to meet demands.

There is a marked feeling of uncertainty evident on the part of the producer. This is manifest in the large number of unfinished hogs now going to market. There is a big tendency to market potential breeding stock—breeding stock that is essential to further increase. The feeling of unrest and uncertainty on the part of the producer is greatly accentuated by the recent marked drop in price of live hogs. First and above all, confidence should be instilled so that producers will feel that when their hogs are finished for market they will sell at a fair price—at least sufficient to cover the actual cost of production and a fair profit.

The best emergency method of stabilizing the market and preventing the premature marketing of light, unfinished pigs and breeding stock, we firmly believe, is to establish immediately a minimum emergency price for good to select butcher hogs of $16 per hundred pounds on the Chicago market. For the purpose of immediately stimulating production of swine for the next year, we recommend that a ratio be immediately established and announced at once, same to go into effect February 1, 1918. Steps should also be taken to prevent, as far as possible, any large or sudden change in process when they go from the minimum basis to the ratio basis. This minimum price should also apply to other markets and to other classes of market hogs with the usual or normal differentials.

Chicago is a basic market for corn and hogs. Therefore, we recommend that Chicago be used as the basis in any price stabilization and that adjustments of differentials, which may be found necessary in order to prevent any injustice against any section of market, be made by the food administration.

The present ratio, figured on a weighted average for late October, 1917, shows that on the basis of Chicago No. 2 corn and Chicago average hogs, that 100 pounds of average hog is selling for the low value of practically 8.8 bushels of corn; and at this time 100 pounds of average hog is selling for the current equivalent value of only 7.4 bushels of corn. It is easy to see and fully comprehend why there has been a marked decrease in production and why thousands of light, immature and unfinished hogs have been or are being rushed to market.

In the periods of heavy loss, the future production of the industry is threatened. Swine men cannot persistently stay in a losing game, even though they are intensely patriotic. They have taxes to pay and mouths to feed, and cannot be, financially speaking, good citizens in this terrible and costly war if they are engaged in a losing business.

The commission calls attention to the fact that it will require the value of 13.3 bushels of corn for 100 pounds of average hog to stimulate production and that a ratio of 14.3 bushels of corn to 100 pounds of hog must be decided on to raise production 15 per cent above normal, which is the increase necessary to meet market requirements.

Thoroughly rotted manure scattered over the lawn just before snow comes helps to keep the snow on over winter and also adds much needed fertility to the soil.

Milk Producers Ask Only Justice.

THE farmers of southern Wisconsin and northern Illinois, known as market milk producers in what is called the Chicago district, have been flagrantly maligned and abused because they have seen fit to ask for an advance in the price of market milk commensurate with the advance in the cost of production. It is easy to understand why the consumer in these times of high prices, is anxious to secure such a necessary food as milk at as a reasonable price as he can get it. Unfortunately, politics and the influence of the city press have entered to a large extent into this matter of fixing the retail price of milk in such cities as Milwaukee and Chicago. It seems to be very popular in Chicago for an attorney to jump up and down and crack his heels together and howl, "The farmers are robbing us!" It seems that a lawyer who will take this attitude can secure the applause of the city press. If he can go still further and threaten to indict a farmer or a bunch of farmers, then he is indeed a wonderful man and doubtless he can have his picture on the front page of the Chicago papers with encomiums as to his peculiar fitness for public service.

All questions relating to the price of such an important food product as milk should be decided on the basis of justice and this basis of justice should be extended to the three classes most interested in the production and sale of milk. These three classes are, first, the farmer who produces the milk; second, the distributor who takes the milk off the farmer's hands and carries it to the consumer's door; third, the consumer who pays for the milk and who must have it for food. Justice should be extended to all alike. Justice is a matter of principle and not politics. Justice must be based on facts and not upon oratorical pyrotechnics appealing to the prejudices of anyone of the three classes named.

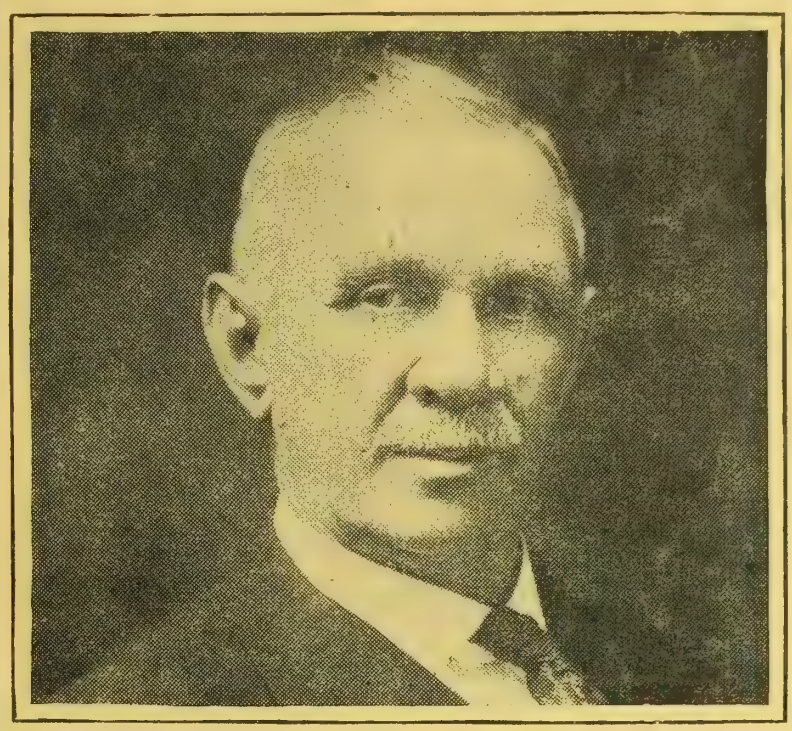
All through this controversy affecting the price of milk the farmer has been asking simply for justice based on facts. To accomplish this, milk producers have found it necessary to organize. These organizations have been by local groups, centralized by a general organization or federation, both the local groups and the federations being manned by officers owning cows and producing milk, or by men directly representing this producing class. This organization work among milk producers is of comparatively recent origin. It has been established without the finesse which has characterized similar organization work among the great capitalistic enterprises of the country. The organizations were honestly formed and with no intention whatever of doing any damage to anyone. If any mistakes have been made, they have been honestly made. When it so happens that all the condenseries and all of the market milk buyers are agreed as to what the price of milk shall be, the farmer feels justified in assuming that there has been some mutual understanding among these interests. He has further assumed, whether rightfully or wrongfully let the readers judge for themselves, that he might also have some rights which would permit him to talk over the subject of the cost of milk and the honest fair selling price which should be resultant of the accurate knowledge of this cost with the addition of a reasonable profit. To say that because farmers take this attitude they should be indicted and ignominiously hauled off to jail is an outrage on the criminal procedure of our commonwealths.

It is gratifying to note that since the recent agreement between government and state officials and milk producers in Chicago and Milwaukee the matter of indictments, according to report, is to be dropped. The Wisconsin Farmer assumes, and we do not believe that it can be established successfully otherwise, that the rank and file of milk-producing farmers are willing to produce market milk at cost plus a fair profit.

The flurry caused by the recent indictment of officials of the milk producers' association has blown over and we believe it is the aim and intention of the steadier heads of the National Food Administration to give the farmers of Wisconsin and Illinois a fair hearing on the cost of producing market milk. A price of $3.22 per hundred pounds has been established for November and December throughout the Chicago district. This price has been agreed upon by the producers with, however, the mental reservation that the price is too low and that it does not compensate the producer for his costs, all items included, and a fair profit added.

On this page will be found a letter directed to The Wisconsin Farmer at our editor's request, by Mr. Milo D. Campbell, president of the National Milk Producers' Federation. Mr. Campbell is an honorable farmer and milk producer with an honorable record of good citizenship and loyalty to his country, and he fairly represents the vast majority of those milk-producing farmers, who are members of the association of which he is the head. Our subscribers are asked to read Mr. Campbell's letter carefully. The matter of milk prices is now in the hands of our government and it is the duty of milk producers to furnish our government with reliable and accurate information as to the cost of producing milk and when this information is furnished we have every reason to believe that the government will take a broad view of the case and give to the milk-producing farmers that price for market milk to which they are fairly and justly and reasonably entitled.

From the Head of the Milk Producers' Federation.



Milo D. Campbell, Coldwater, Michigan.

Coldwater, Mich., Nov. 12, 1917.

TO THE EDITOR WISCONSIN FARMER:

I am glad to seize every opportunity offered, to place before the milk producers of the country the reason for temporarily lowering the price of milk in the city of Chicago, and in New York. There is now upon us the burden of a great war in which every loyal man must do his part. Most unjust and brutal criticism has been made against the men who own and milk the cows of this country claiming that they were seeking to profit by the war instead of doing their bit. While the farmers have steadfastly denied this, while they have offered all kinds of proof that their milk was costing them all they were charging for the same, unfortunately for them, their proof has been suppressed by the great metropolitan papers, while in flaming headlines, farmers and their organizations have been condemned to depths of infamy.

Months ago, at the request of Food Administrator Hoover, an investigation upon the cost of producing milk, was conducted by a committee appointed by Mr. Hoover. The farmers welcomed this investigation, but for undoubtedly sufficient reason this committee has never reported.

The farmers, however, have learned from sources reliable, that in every locality where milk is produced, it is costing more than is being charged for the same.

This is because of conditions over which the farmer has no control. War and the seasons are not his to change. He finds that corn (the cow's principal food) has increased in value from 70 cents per bushel to $2.23; that hay has gone from $10 a ton to $20 and labor on the farm from $1.25 per day to $3 and upward. He knows that his fields are worth much more to him for other purposes than in producing milk; that he can sell his cows for fabulous prices for beef, and he wonders why he should become the one lone altruist in the great food problem.

The price of milk to consumers has nowhere gone up 100 per cent. But with a raise of milk price in the cities, without a reasonable inquiry into the cause for the same, ambitious politicians, unadvised newspaper reporters, and influential, but selfish consumers, began a merciless warfare upon this one article of food. They brought out anti-trust laws, made many years ago for big corporations, and trained them on the farmers.

There had never been known a trust magnate who could not elude them. Not one in the U. S. was ever in jail a minute, under them, while a billion dollars of trusts and combines were forming. As a result they indicted a milk committee in Chicago, and tried to do so in New York. But there is not the slightest danger to the milk industry, and the result will be that the organization of milk producers' associations will be doubled if not increased five-fold in the next year.

But at the request of the Food Administration in Chicago and New York public hearings are soon to be had upon the cost of producing milk. The Food Administration promises to appoint a fair committee, before whom the milk producers, the distributors and the consumers may appear and be heard. The inquiry is to be upon the cost of production, for no sane or reasonable man could ask the farmer to sell milk at less than it costs him to produce it. To this cost is to be added the profit that the committee shall decide to be reasonable. This is all that the farmers have been asking since the war began.

In the meantime, and while the commissioners are making their inquiry, the price asked by the farmers, averaging about $3.71 per hundred, has been reduced for the months of November and December to $3.22 per hundred. But it has been agreed that in case the commission shall find that the farmer should receive more than $3.22 per hundred for the months of November and December, the difference shall be spread over subsequent months.

Practically the same kind of hearing and under similar conditions will be had in New York as in Chicago.

It should be observed by the purchasers of whole milk over the country, that the price of $3.22 per hundred is below the present cost of producing milk as found by experts who have investigated the matter.

In fairness to milk producers the condenseries and others who fix the price for these months, should be willing to be guided by the arrangement made by the Food Administration of the country and make the minimum price agreed upon by these authorities the price over the country.

The government is paying for evaporated milk a price that will warrant a much better price for whole milk than $3.22 per hundred.

The farmer who sells milk has placed his business squarely up to the government, and has invited the most thorough investigation. He has said that all he wants is cost plus a reasonable profit.

If every other industry would do the same thing, the consuming public and the government would have less cause for complaint.

MILO D. CAMPBELL,

President, The National Milk Producers Federation

Breeding the Cholera Hog.

To the Editor:—There has been hog cholera for the past forty years and it is of recent years more prevalent than twenty-five or thirty years ago. Now I will give you my opinion and experience and I am well aware that my opinion will not be popular with a certain class.

We have, in my opinion and experience, been breeding the cholera hog and we have got just what we have made. We have been breeding too young males and females, crowding too early maturity, until the present hog has no constitution. Your hat or cap will easily hold the offal (when I was a boy and father killed a hog he would send me to the house after the washtub). I, however, am not advocating more guts, but I do think the guts should exceed the brain of a hog at least. It does not make so much difference when it comes to men. Again, we have been doing too much inbreeding, or perhaps I should say line breeding, and today our hogs are a hothouse production, forced from the day they are farrowed until sold in the sale ring (I have reference now only to our breeding stock). People do not think that it pays to keep over our brood sows and male hogs, which is a great mistake.

Some twenty-five years ago I had a fine registered Poland China sow farrow seven pigs on January 2d, and the 20th day of June she gave me nine fine pigs and one of her January litter farrowed six fine pigs in October. Now that's going some.

My farm has forty acres of timber hog pasture with plenty of good water. I have owned the farm since 1880 and never had hog cholera on the place during that time (but understand we have quit raising three litters in ten months). Yes, we have had hog cholera all around us, and our nearest neighbor lost 200 at one time. We now have about 150 or more of spring pigs and they are husking ten acres of good corn and making a fine gain.

Hog cholera serum and other hog cholera remedies may be a good thing for those raising the hog cholera hog, but surely they have my sympathy.

Supposing a farmer had a fine house and it should catch fire through a defective chimney and he would extinguish the fire after considerable damage had been done, and in course of time he should have another fire (same cause) and again he would extinguish the fire after a certain amount of damage. Then go to town and buy more fire extinguishers and after he had the third fire he would go and buy a fire engine. Now, honestly, don't you think it would have been better if he had repaired his chimney and removed the cause? You know there is always a cause where there is an effect.

Again I say that we have made the cholera hog. As we sow so shall we reap. Ole Olsen.

BADGER FARMER'S MAIL BAG
FARM EXPERIENCES

Hog-Raising Methods.

To the Editor:—I am pleased that you have had some discussion by the farmers of the swine problem, as this will give a chance for the practical swine breeders and feeders to get in closer touch with the different methods of feeding and caring for the animals that have come to occupy such a prominent place not only on the farm, but as one of the nation's quickest of meat and fat producers. I think could the farmer be sure of a reasonable return for the feed and work he would put in the business he could increase the amount of live weight 40 and possibly 60 per cent. I mean by raising more hogs and making them weigh at least 300 pounds before marketing them. It is, in part, the uncertainty of the market that causes so many light hogs to be disposed of, but with so much talk of a government price of $10 per hundred, and the price of all kinds of feed and labor so high and hard to get at any price, you can readily see why the farmer disposes of his hogs all the way from 150 to 250 pounds.

Of course, in some places, as in my locality, the corn is very light, as a rule, having been badly frosted, which will cause a shortage in weight of hogs on most farms. Then, again, how to increase the number of hogs. Farmers must have feed for them and I think a good pasture is one of the best and surest ways of producing hogs, as it saves a great deal of grain. I also think the hogs are more healthy on pasture. I would not try to raise a bunch of hogs without a good pasture and plenty of it. There are several kinds and as many ways to have it. Of course, if one can have alfalfa he is indeed a lucky man, but as so many of us are renters and live where the land must be inoculated before it will grow alfalfa, we must use something else. Of course, there is nothing that is quite as good, but most of the landowners would not consent to the expense of getting alfalfa started just for a renter. Therefore, I woud suggest if we are to raise more pigs we should not keep more brood sows, but keep better sows and give them better care. By this method we could save and raise a larger percentage of the pigs that were farrowed, and by good care, also, we could have our sows farrow not one litter a year, but two litters. This is especially true with old sows. I have some that have raised two litters each year for the past three years and are better mothers every time they farrow.

I think the man who farms 160 acres should keep not more than ten good sows, either high grades or pure breds. He would do well to keep every sow so long as she does well and has two litters each year. This way he could raise, with good feeds and careful management, from 125 to 200 pigs a year. Of course, this cannot be done with haphazard methods. Nevertheless, it has been done and can be done almost any time if one only has the right kind of brood sows and does his part. He must start with a pure-bred boar. I always use a tried hog—one that will get large litters. This is most important. I never keep a sow, no matter how good an individual she may be, if she has less than twelve teats, or fourteen are better. Then she must prove that she cannot only produce a large litter, but must be able to take care of them after they are farrowed. This is most essential to success, as I find there are a great many sows that can and do farrow large litters of pigs, but cannot care for them afterwards.

As for concentrated feeds, I think they are too high at present to justify a farmer of small means taking the risk. But there is always room on every farm for a few more good milk cows. These will always pay a good profit on their feed and care if they are properly handled, to say nothing of the valuable feed one gets from the skim milk, and if one has plenty of this he can get along nicely without such high-priced feeds, especially when it costs from $70 to $90 per ton.

In regard to hogging down corn, this is a very good and profitable way so long as they are not allowed too large a field at one time, or it is not practiced too late in the fall, especially in the northern part of the corn belt, as it may be covered with snow and cause more or less of a loss.

Floyd Co., Iowa. Charles O'Neil.

Five Hundred Bushels to the Acre.

To the Editor:—The writer has recently become interested in the matter of potato production, especially along the lines of developing quality and quantity and to stimulate the growing in this district to get large yields and better quality. In order to be practical in this matter I took what I figured was two acres of black sandy loam, and by fertilizing and plowing this particular tract eleven inches deep and double disking six times and cross disking four times made the land thoroughly mellow and after subsoiling it in this way I planted it to Triumph potatoes. In order that I might have my figures accurate and not make any false estimate I had a civil engineer measure the piece and Mr. V. H. Paradis, the engineer employed, has made affidavit that there was 1.94 acres in the tract used. We took from this tract this fall a total of 979 bushels of very high-grade Triumph potatoes. These facts I am able to substantiate with an affidavit by A. C. Thomas, a resident of the city of Rice Lake, Wisconsin, who made this affidavit on the 18th day of September, 1917, and swore to same before J. B. Demarest, notary public.

Believing that this is as good or better a yield of potatoes than anyone in the state of Wisconsin will be able to show, I am in hopes you will publish this letter in The Wisconsin Farmer. If there are those who have any better yields per acre, let them come along with the information.

Rice Lake Wis. Orrin Ingram.

In Brown County.

To the Editor:—I believe considerably more wheat has been put in this fall than has been sowed for several falls previous. This is due to some extent to the movement for increased acreage of all crops and especialy to the movement for increased wheat acreage. But the thing that helped most toward the increased wheat acreage was the surprising yields of both fall and spring wheat which the farmers of this section had when they threshed out their crop this year. These yields have been so good that our farmers are rather encouraged in the growing of wheat and I look for still further inceases next spring, although it seems that the fall wheat for our county is to be preferred over the spring wheat. As near as I can estimate there have been 155 new silos erected in this county this year.

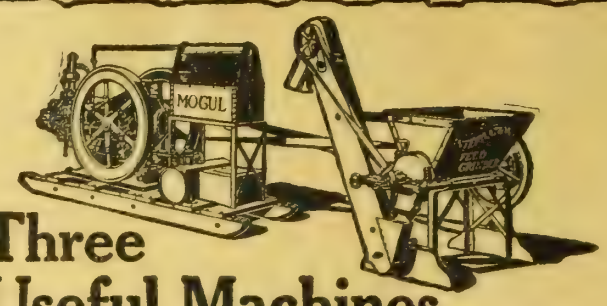
Brown Co., Wis. E. A. Carncross.

Ventilation Helps the Cows.

To the Editor:—You wrote me regarding barn ventilation. In 1902 I built my first barn 24x50, then I built a shed on the north side 14x50. It was three double boarded with matched lumber and paper between. It had no ventilation. I used to leave the door open that led out on the driveway and when it turned real cold and everything shut tight it got so damp it would just drip off from the ceiling. I did not like this way one bit.

I have a sister living on a farm in Scandinavia, so I was down there visiting and I saw quite a few barns with basements along the road that had ventilation, and I read about it in the farm papers, so I finally decided to raise my barn and put a concrete basement under it 38x50, eight foot eight inch ceiling. There are fifteen windows, and I put three and three windows together on the south side and two and two on the north, two on the west and three on the east end, and I put intakes between the windows in the casings, which made eight intakes 4x5 inches. And I have one galvanized ventilator sixteen inches with a cupola on the top. I have my cattle facing the wall. This leaves the ventilator behind the two rows of cows and the intakes in the front. My cows are doing one-third more in this barn and I feel quite satisfied with it all.

Rosholt, Wis. C. E. Erickson.



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Wisconsin Baby Beef Round-up.

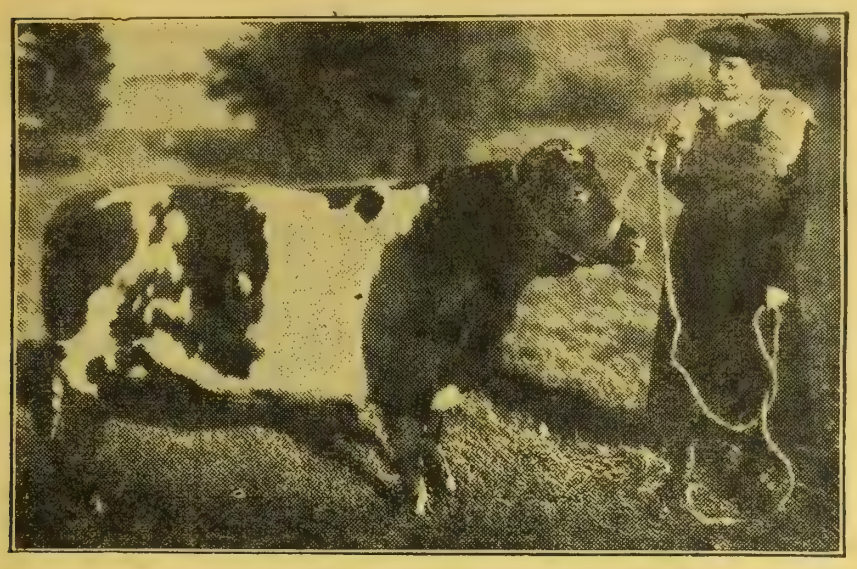
(Continued from page 1.)

animal and, though his father had to assist him here and there, he was just as proud as though he were doing it without any help.

The order of the placing was as follows: 1st, Ted Scott, Bagley, Hereford steer; 2d, Will Radl, Short-horn steer; 3d, Harry Feaster, Richland Center, Hereford heifer; 4th, Gailen Babcock, Eleva, Short-horn steer; 5th, Henry Kurtz, Dane, Short-horn steer; 6th, Roland Webb, Poynette, Short-horn steer; 7th, Harold Hall, Edgerton, Angus heifer; 8th, Wayne Martin, Gotham, Hereford steer; 9th, Walter Farmer, Gilmanton, Hereford heifer; 10th, Martha Kelley, Mineral Point, Short-horn heifer; 11th, Charles Whitworth, Mondovi, Angus steer; 12th, Ethel Feaster, Richland Center, Hereford heifer; 13th, Ralph Joyce, Jewett, Angus steer; 14th, Carl Bailey, Bloomington, Hereford heifer; 15th, George Schofield, Edgerton, Hereford heifer.

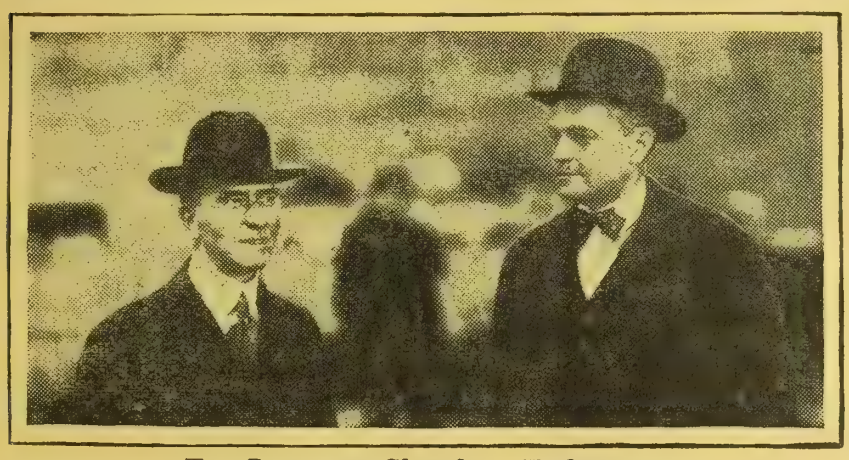
Six girls exhibited animals in the two classes and they attracted no little attention by the manner in which they handled their animals. Especially noteworthy was the way in which Josephine Herr attended the Short-horn steer she had in charge. Though the judging required several hours, there was never a minute when she permitted her steer to stand in a wrong position.

There was no dissatisfaction on the part of those who failed to place in the money or those who failed to land among the top. Everyone felt that their efforts had been appreciated and that the amount of training received and the knowledge acquired during the eight months or more in which they prepared the animals fully compensated them for all the trouble.



Girl Makes Splendid Record.

Josephine Herr and the Short-horn steer she fed for the baby beef contest. The steer was placed second in senior class.



Two Prominent Short-horn Enthusiasts.

On the left, A. C. Halliwell, of the Short-horn World, and at his right, Frank W. Harding, secretary of the Short-horn Breeders' Association of America.

John C. Robinson, Evansville

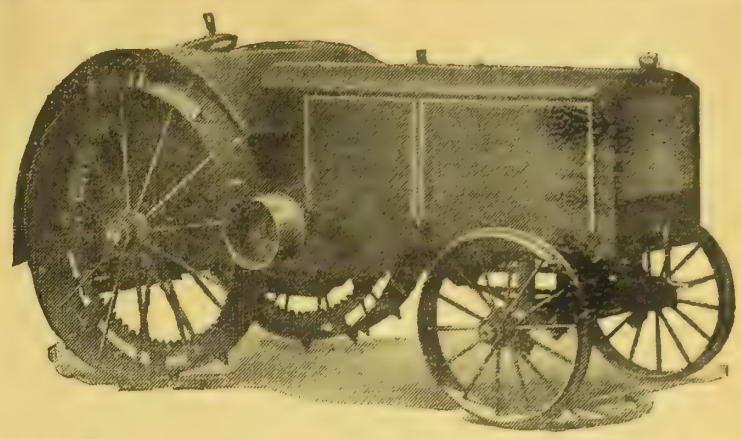
Field Adviser for Wisconsin Baby Beef Contestants.

Several of the exhibitors have been winners at their county fairs and as such were assured of a free trip to the coming International Live Stock Exposition at Chicago, December 1st to 8th, through the courtesy of A. G. Leonard, president of the Union Stockyard & Transit Company, Chicago, and Thomas E. Wilson, president of Wilson & Company, Chicago. These men offer each year to the boy and girl placing 1st and 2d in the baby beef show at their county fair a free trip to the greatest live stock show in the world. This year's delegation from Wisconsin will consist of the following winners: Harry McCann, Janesville; Harold Hall, Janesville; Lee Jewell and Bree Fitzsimmons, of Mineral Point; Ralph Joyce, Jewett; Daniel Harbeck, New Richmond; Walter Hartman, Lodi; Harold Lintner, Arlington; Elwin Thompson, Lake Geneva; Leslie Doe, Beldenville; Clyde Taylor, River Falls; Gailen Babcock, Eleva; Walter Farmer, Gilmanton; Charles Skaife, Livingston; Ralph and Lloyd Williams, Bancroft; Alvin Morley and Howard Roser, Baraboo; Ted Scott and Frances Martin, Bagley; Harry Feaster and Wayne Martin, Richland Center.

On Thursday, November 15th, the animals were sold at public auction. Most of the animals went to the packing houses at exceedingly good prices. The lowest price paid was 13½ cents per pound and the top was 23 cents. The packing houses represented were Swift & Company, Armour & Company, Plankington Packing Company, of Milwaukee, and the Madison Packing Company. Some of the animals will, on the basis of this sale, appear more valuable than others which placed higher in the judging. However, this is due to the greater weight of some animals which even at a lower price makes them approximately worth as much as the winners in dollars and cents. The animals and the prices are shown herewith.

SALE PRICES FOR BABY BEEF.

Owner	Buyer	Price per cwt.	Weight	Value
Roland Webb	Armour & Co.	$16.50	625	$103.13
Henry Kurtz	Armour & Co.	14.75	680	100.30
Carl Bailey	Armour & Co.	14.00	540	75.60
Will Radl	Reynolds Bros.	22.00		
Gailen Babcock	Armour & Co.	18.00	660	118.80
Martha Kelley	Plankington Co.	15.75	685	107.88
Kitchell Sayre	Plankington Co.	16.50	760	125.40
Harry McCann	Plankington Co.	19.00	815	154.85
John McCann	Plankington Co.	18.00	740	133.20
Clyde Taylor	Plankington Co.	14.25	845	120.41
Harold Hall	Swift & Co.	21.50	800	172.00
Ralph Joyce	Armour & Co.	18.25	765	139.61
Charles Whitworth	Armour & Co.	15.25	660	102.65
Wayne Martin	L. M. Scott	16.50	715	117.97
Walter Farmer	Madison Packing Co.	17.00	660	112.20
Ted Scott	Madison Paking Co.	19.25	740	142.45
Ethel Feaster	Armour & Co.	15.75	740	116.55
Charles Skaife	Swift & Co.	19.50	825	160.87
Wendell Kelley	Swift & Co.	17.50	815	142.62
Ted Scott	Swift & Co.	17.00	845	143.65
Will Radl	Swift & Co.	20.00	1000	200.00
Roland Webb	Armour & Co.	19.25	840	161.70
Henry Kurtz	Armour & Co.	15.00	860	129.00
Ralph Seyforth	Armour & Co.	16.25	825	134.06
Frances Martin	Plankington & Co.	20.00	910	182.00
Leslie Doe	Plankington & Co.	14.25	575	81.83
Leslie Foster	Plankington & Co.	13.50	860	116.10
Charles Skaife	Plankington & Co.	18.00	900	162.00
Harold Lintner	Plankington & Co.	19.00	890	169.10
Walter Hartman	Plankington & Co.	20.00	1030	206.00
Howard Roser	Plankington & Co.	19.00	835	158.65
Genevieve Kelley	Fred Stubley	16.75	890	149.07
Stanley Premo	Plankington & Co.	17.00	905	153.85
George Premo	Plankington & Co.	17.00	860	146.20
Wayne Martin	Plankington & Co.	18.00	925	166.50
Irving Jewell	Plankington & Co.	18.50	810	149.85
Irving Jewell	Plankington & Co.	18.50	845	156.32
Elwin Thompson	Plankington & Co.	18.50	765	141.52
Florence Scott	Plankington & Co.	18.50	905	167.42
Josephine Herr	Reynolds Bros.	23.00		
Alvin Morley	Reynolds Bros.	23.00		



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Family Circle Talks by the Publisher

(Continued from page 3.)

the letter I received. She said it was better than a Christmas box and more fun to see what they could do with what was in it.

Another party came from the city here with some friends in an auto and we filled the car with butternuts, apples, green tomatoes, wild grapes. We let them gather them themselves and the delight was more than pay for the trouble. One woman remarked, "You do not know what it means to get things we do not have to pay for, because we even have to buy our bittersweet in town."

There are old folks' homes that have to depend upon what is given them, there are many hospitals with free beds—places glad to pay charges on anything good we can send them. And there is many a housewife that could, if these places would furnish cans and sugar, make things for them out of what is wasted on the farms because of no market. The heavy winds this fall made many windfalls in apples that could have given fruit to many homes if one but knew of them. There were quantities of green tomatoes (because of the cold fall they did not ripen) that could have made nice relishes for anyone who could have used them. The farmer could not sell them and the city man paid $1.50 a bushel for them and sometimes more. Wild grapes grew in abundance this fall and would have made delicious cooling drinks for next summer if they had been gathered and bottled.

A good way to get things together is to have a county social. But box up the outgrown clothing, clean and nicely mended, and send to the Associated Charities. Be sure it is clean and mended.

All these are things we can give and are willing to give from the farm, but many do not know where.

EVA LEHMAN.

Here we have the way marked out for us to systematize our charitable efforts and to make them hit the mark. There is so much that we of the farm may do to relieve distress and suffering, both in town and on other farms at this time of the year. Shall we make this department of mine a sort of amateur associated charities organization to bring the needy in touch with the generous, those who lack in touch with those who have in abundance? May I count on your help?

THE GIFT OF PUBLIC SPEAKING.

I OFTEN think that one of the finest gifts granted to a man in public life is the happy faculty of knowing what is appropriate to say on a public occasion and how best to say it. Perhaps it is because I am conscious of my own deficiency as a public speaker that I admire this talent so much in others. At the period of life when most young men are studying the art of oratory I was working to help support our family, after my father had given up his life for the stars and stripes near Vicksburg. Later the demands of business deprived me of any opportunity to devote the time to acquiring the knack of public speaking which I have so greatly missed.

But, in spite of my own shortcomings along this line, I have formulated in my own mind three simple rules for successful public speaking. I suppose I have done this on the same principle that men who have never been successful themselves often write books for others on how to succeed. My three rules for public speaking are these: First, have something to say; second, say it; third, stop talking. If some of our statesmen would follow these three rules their audiences would be spared a lot of weariness, and the Congressional Record would be greatly reduced in size, without anything being lost to the sum total of human wisdom.

Abraham Lincoln was a master of knowing what to say, how to say it and what to leave unsaid, and his Gettysburg speech is one of the shining gems of pure oratory, because of its perfect simplicity, appropriateness and brevity. This same happy faculty of condensing a great deal into few words has been exhibited by General Pershing on more than one occasion, and never more effectively, it seems to me, than when he paid a visit to the tomb of Lafayette in France the other day. He was accompanied by a delegation of French and American dignitaries and the scene was set for a dramatic and notable event, of which General Pershing's tribute to what Lafayette's help meant to the United States in its struggling days of the revolution, was to be the chief feature.

It seems to me that his remarks, which consisted of just three words, caught the spirit of the occasion with a sense of the eternal fitness of things that amounted to an inspiration. Laying a wreath on the tomb he said, only this—

"Lafayette, we're here!"

That was all, but what a wealth of sentiment and meaning in those few words of soldierly simplicity! How much more fitting than a long-winded address for giving expression to what was in the hearts and minds of everyone present! What a delicate, tender acknowledgment of the fact that the young, weak nation, which Lafayette had helped in its struggles against oppression, was prepared in the days of its strength to repay the obligation, fourfold if need be, to his beloved but desolate France. It was as if he had quoted the poet's words:

Last come, we will be last to stay,
Till right has had her crowning day.
Replenish, comrades, from our veins
The blood the sword of despot drains,
And make our eager sacrifice
Part of the freely rendered price
Ye pay to save humanity—
Ye pay to make our brothers free.
See with what proud hearts we advance
To France!

I know of no better application of the three rules for public speaking, which I mentioned above, than General Pershing's words. They are worthy the best traditions of the American army and of American taste. If General Pershing is as good a military man as he would be a diplomat, our boys "over there" are in good hands.

A HANDBOOK OF PATRIOTISM.

THERE is nothing more inspiring to real patriotism than a realization of the glorious history which all Americans share—both native born and adopted sons and daughters. Sometimes I think we fail to appreciate what a wonderful heritage is ours. So much attention has been paid in our schools and colleges to a study of older countries, "to the glory that was Greece and the grandeur that was Rome," that we do not realize that the United States has filled its comparatively brief span of national existence with epoch-making events, that are worthy our admiration and commemoration.

This fact was brought home to me with new force the other day, as I glanced through the pages of a pamphlet entitled "Every Day a Patriotic Day," compiled and published by Senator J. M. Lindly, of Winfield, Henry county, Iowa. Senator Lindly has discovered that every day in the year is the anniversary of one or more interesting and important events in our nation's life, and he has prepared a calendar showing these events by days and months. In this manner occasions for special exercises of a patriotic character are easily suggested to schools, churches, farmers' clubs, fraternal organizations and other organizations.

In a stirring introduction to his pamphlet Senator Lindly calls attention to something which should stir the pride of every citizen of this country, no matter whether it is the land of his birth or of his adoption, when he says:

It might be well, under present circumstances, to call attention to the fact that the English speaking peoples have led the world in literature, science, invention, in the establishment of civil and religious liberty, and in Christian and benevolent activities. Blot out the English speaking peoples from history and you blot out the most brilliant constellation of literati, headed by Shakespeare, Milton, Tennyson, Longfellow and many others; you take from the world the railroad, the steamboat, the reaping machine, the great spinning inventions that made clothing beautiful and cheap, the telephone, the electric light and many of the greatest scientific discoveries. In a list of one thousand celebrities, compiled about 1886, including the whole span of history, from ancient times, Great Britain and Ireland led with 283 names, the United States with 248, making 531 names for English speaking peoples, being more than half the list. France came third with 139 names, Germany with ninety-five, Italy and Ancient Rome with ninety-four, Greece fifty-one, Scandinavian peoples eighteen, Holland seventeen, Spain fifteen, Austria-Hungary eight, etc. We are enjoying a priceless heritage that we must preserve inviolate.

Surely, my friends, such facts as these are worth remembering and should arouse us to an appreciation of the splendid birthright which is ours. Such institutions, such a history, are worth living for—yes, and worth fighting and dying for, if need be.

Senator Lindly is a busy man, with extensive banking, farming and commercial interests, and he deserves the gratitude of the public for taking time out of his busy life to drive home such a patriotic lesson. His pamphlet should be in the hands of every pupil in our schools and in every library. I might add, incidentally, that Senator Lindly has been one of the members of the last two sessions of the Iowa legislature who has stood firmly for the interests of agricultural Iowa, in advocating and voting for honest, economical and efficient government, and I want to express here the hope that the state may continue to have the benefit of his wise and patriotic services in general assemblies yet to come. The nation needs more such men as Senator Lindly in public life during the critical days just ahead.

A TRIBUTE TO THE COLT.

I LIKE to liven this page of mine, every little while, with a poetic gem, gleaned from every possible source. I am going to print one this week which has the Riley touch, although it was written by another; a poem which puts into words the love that wells up in many a farm boy's heart for the whinnying little colt, begging for a lump of sugar, rubbing his nose against his master's shoulder, as cute and as lovable a bit of life as ever drew breath. Here is the poem for your enjoyment:

Gosh, I like to git a-holt
Of a dad burn little colt!
Soft nosed, dish faced, big eared booger,
Beggin' fer a lump o' sugar
Or a piece o' apple core—
Reg'lar de'il he is, for shore!

Neck too short an' legs too long,
Back all wavy, short and strong,
Kinky tail—there! See 'm flip
That mischievous upperlip,
Fairly achin' fer a nip
Out o' baby's tender hide
When 'is daddy lets 'im ride!

You may doubt it, but, says I,
They's a twinkle in th' eye
Of a colt, when he sneaks up,
Softer footed than a pup,
Nuzzles off yer old straw hat,
Runs away as quick as scat!

Makin' faces at 's mother—
Al'ays up to sumpin'-nuther,
Ornery, but yit, confound 'im,
I jest love t' fool around 'im;
He's so careless an' high-strung
An' so—well, doggone it—young!

I wish my readers who find such poetic gems in their readings would send me a copy, or tell me where I can get them. We should all enjoy them together, while the long winter months soon coming make reading unusually delightful and entertaining.

James M. Pierce

Wisconsin Potato Yields.

The latest estimate by W. F. Callander, field agent for Wisconsin of the United States Department of Agriculture, shows that the total production of potatoes in the state this year is 36,400,000 bushels. This is the second largest crop in the history of the state. In 1914 nearly 38,000,000 bushels of potatoes were raised and the average yield per acre at that time was 124 bushels. The average yield per acre this year is 114 bushels. The following table shows the acreage per county, the average yield per acre and the total production for each county:

County	No. of acres	Average yield per acre, Bu.	Total production
Northwest District			
Barron	10,200	139	1,417,800
Bayfield	3,100	150	465,000
Burnett	4,450	115	511,750
Chippewa	10,000	145	1,450,000
Douglas	1,700	133	226,100
Dunn	6,300	124	781,200
Eau Claire	3,700	116	429,200
Pierce	2,100	126	264,600
Polk	3,900	162	592,800
Rusk	1,910	147	280,770
St. Croix	2,660	123	327,180
Sawyer	1,085	142	154,070
Washburn	2,530	114	288,420
North District			
Ashland	1,115	123	137,145
Clark	3,450	147	507,150
Iron	750	131	98,250
Lincoln	2,200	134	294,800
Marathon	7,900	145	1,145,500
Oneida	3,500	132	462,000
Price	1,810	147	266,070
Taylor	1,800	157	2,600
Vilas	875	148	129,500
Northeast District			
Door	2,885	145	418,325
Florence	588	143	84,084
Forest	1,354	123	166,542
Langlade	3,086	160	493,760
Marinette	4,500	140	630,000
Oconto	3,800	155	589,000
Shawano	5,100	148	754,800
West District			
Buffalo	1,503	139	208,917
Jackson	2,442	135	329,670
La Crosse	1,900	120	228,000
Monroe	2,900	120	348,000
Pepin	525	138	72,450
Trempealeau	1,900	123	233,700
Vernon	1,975	132	260,000
Center District			
Adams	8,700	76	661,200
Green Lake	2,545	97	246,865
Juneau	7,100	97	688,700
Portage	31,500	78	2,457,000
Marquette	5,500	98	544,500
Waupaca	19,000	110	2,090,000
Waushara	19,200	82	1,574,400
Wood	4,400	102	448,800
East District			
Brown	5,200	126	635,200
Calumet	864	113	97,632
Dodge	4,800	123	590,400
Fond du Lac	5,500	126	693,000
Kewaunee	1,283	121	155,243
Manitowoc	2,500	118	295,000
Outagamie	6,300	127	800,100
Ozaukee	2,450	107	262,150
Sheboygan	3,000	123	369,000
Washington	4,800	115	552,000
Winnebago	3,450	115	396,750
Southwest District			
Crawford	1,400	117	163,800
Grant	3,450	105	362,250
Lafayette	1,280	92	117,760
Iowa	1,200	109	130,800
Richland	1,360	138	187,680
South District			
Columbia	8,000	101	808,000
Dane	4,500	105	472,500
Green	1,300	90	117,000
Rock	3,800	101	383,800
Sauk	7,280	115	837,200
Southeast District			
Jefferson	1,810	117	211,770
Kenosha	1,715	92	157,780
Milwaukee	7,500	92	690,000
Racine	3,500	111	388,500
Walworth	3,690	99	365,310
Waukesha	6,200	121	750,200

The foregoing does not include the acreage planted to potatoes in city and village gardens, which, if included, makes an estimated acreage for the state of 319,000 acres, with an average yield of 114 bushels.

Sheep for Bayfield County.

A consignment of well-bred four-year-old Hampshire ewes was recently received in Bayfield county. These sheep were put out on farms near Maple, the purpose being to distribute the ewes to farmers who were anxious to get started in the sheep business. Mr. James Trumbull, of Superior, bought most of these sheep in the Dakotas and Montana.

Advice on Sheep.

The Wisconsin station advises buying ewes now. In fact, they should all be bought before December 1st. In tending sheep exercise the right care. Keep the sheep off low, wet lands and rotate pasture fields to avoid parasites. Corral sheep at nights to prevent losses from dogs. Shelter sheep from spring and fall rains and do not overlook available pasture lands. The "Shepherd's Calendar" should be secured from the Wisconsin College of Agriculture, Madison, Wisconsin, and tacked up in the sheep shed for ready reference.

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Questions and Answers.

Using Kerosene in Radiator.

Would it be advisable to use kerosene in the cooling system of a Ford car as an anti-freeze solution in place of alcohol and water?

Answer.—We do not advise the use of kerosene for cooling automobile engines, as there is some danger of fire and the kerosene soon ruins the hose.

Size of Propeller.

I have a four-horse-power motorcycle engine with which I wish to construct an ice boat, using a propeller. Would you please tell me the size and pitch of the propeller and the size of the pulley on the same, having a six-inch pulley on the engine?

Answer.—Make the propeller of laminated wood, having the center very strong and the ends about one-fourth of an inch thick. The propeller should be about thirty inches in diameter, the blades having a pitch of about 40 degrees. Use a six-inch pulley on the propeller with a six-inch pulley on the engine, the engine running at about 750 R. P. M.

Size of Dynamo and Motor.

What size of dynamo would I require to charge a battery of sufficient volts to drive a one-half horse-power motor? Would the motor be strong enough to drive a feed grinder that requires a three horse-power gasoline engine to operate it? Will the motor work well driving a pump jack? Please tell me the sizes of the battery, dynamo and motor required to drive the machinery mentioned.

Answer.—If the one-half horse power motor is run only for a few hours occasionally, a thirty-two volt, ninety ampere hour battery should be sufficient. If the motor is to be used several hours at a time when the generator is not running the battery should be thirty-two volt 12 ampere hours. Or a system of lower voltage could be used, with a greater ampere hour capacity. The generator should have a capacity of at least one-fourth kilowatt. It would be advisable to run the generator when the motor is running, though not absolutely necessary with the above size battery.

The one-half horse power motor would drive the pump jack, but the feed grinder would probably be too much of a load for it. A one-horse-power motor would be required, which could be operated by a one kilowatt generator. We should recommend for your requirements: One one-kilowatt generator, one one-horse-power motor, one one-half horse power motor and one thirty-two volt 120 mpere hour battery. Run the large motor from the generator and the small motor from the batter

Electric Equipment for Saw Mill.

I have a saw mill and I am running the same with a twenty-horse-power steam engine. It has not power enough. I would like to know whether I could get an electric dynamo and motor, and run the dynamo with the steamer. How many horse power would the electric dynamo develop by getting one large enough to make a full load for the steamer? Is one electrical horse power as strong as one steam horse power for mill work? Would it be cheaper to buy a new boiler and engine?

Answer.—You cannot increase your power by converting steam power into electricity; you will lose power instead. If your steam engine only develops twenty horse power, your electric generator could only produce about seventeen horse power, as some power is lost by friction, electric leakage, etc. If your generator delivers seventeen horse power to the motor, the motor cannot be expected to deliver more than fourteen or fifteen horse power to the belt. One electrical horse power is equal to one steam horse power; on account of its constant pull and ability to withstand overload, the electric motor is superior to the steam engine where electric power is available.

Whether or not you should buy a new engine and boiler will depend upon the condition of your engine. You might be able to considerably increase the power of your present engine by having the valve scraped to its seat and accurately set. If your engine is well built, you might be able to discard your present boiler and buy one for higher pressure steam, using your old engine and gaining more power from the higher steam pressure. Lagging the steam pipe and steam chest with asbestos or felt might add somewhat to your power.

Size of Pulley.

I want to mount my gas engine so that it will pull itself. The engine runs 450 R. P. M. and has a pulley twelve inches diameter and six inches face. The drive wheel that I am going to use is thirty-two inches diameter. Attached to the drive wheel is a twenty-eight-tooth sprocket. This sprocket is run by a chain from a seven-tooth sprocket on a jackshaft. What size pulley should I use on the jackshaft to make the outfit travel three miles per hour?

Answer.—With the above arrangement you would require a pulley forty inches in diameter on the jackshaft. It would be better to use a six-inch pulley on the engine and a twenty-inch pulley on the jackshaft.

Leaky Stay Bolts.

Can leaky stay bolts be riveted so that they will hold; or is it best to put in new bolts? How are new bolts put in?

Answer.—A leaky stay bolt may be calked so that it will hold if the bolt is not broken. Always have a heavy weight held tight against one end of the bolt while riveting the other end. Small leaks around a bolt may be stopped by pushing the metal of the plate up tight against the bolt by means of a blunt-pointed cold chisel or calking tool. If you are suspicious that the bolt is not in good condition, lay a straightedge on the plate both on the outside of the boiler and in the firebox near the bolt. If the plate is bulged the bolt should be replaced.

To replace a stay bolt, it is first necessary to remove the old one. To do this, drill a hole in the end of the bolt about two-thirds the diameter of the bolt. Drive a square plug in this hole and by means of a wrench on the plug, screw the bolt on through if possible. If this cannot be done, drill a hole in each end of the bolt as large as possible without injuring the threads in the plate. Then carefully clip the bolt out of the threads with a diamond-point chisel, avoiding injury to the threads of the plate. After removing the bolt it is best to retap the threads if a tap is obtainable, which is seldom the case on the farm. Screw in the new bolt, which should fit the threads tight, and saw off the ends of the bolt so that each end sticks out past the plate about three-sixteenths of an inch. Carefully rivet the ends over with a light hammer. Be sure to have a heavy weight against the other end of the bolt while riveting. Avoid putting a heavy strain on the bolt or on the plate while riveting. Hollow stay bolts, or stay bolts with the ends drilled are often used. The advantage of this is that when a bolt cracks, steam escapes and gives warning that the bolt is broken.

Three-Wheeled Race Car.

I have an old-style chain drive, two-cylinder Reo car which I am thinking of making into a three-wheeled racing car. I want to carry two passengers and travel from five to seventy miles per hour. Will this work?

Answer.—We do not consider a three-wheeled race car safe, as there is too much danger of its upsetting when turning a corner rapidly. Your engine is not designed for speed, and we doubt that your car would have power enough to pull two persons at 70 miles per hour.

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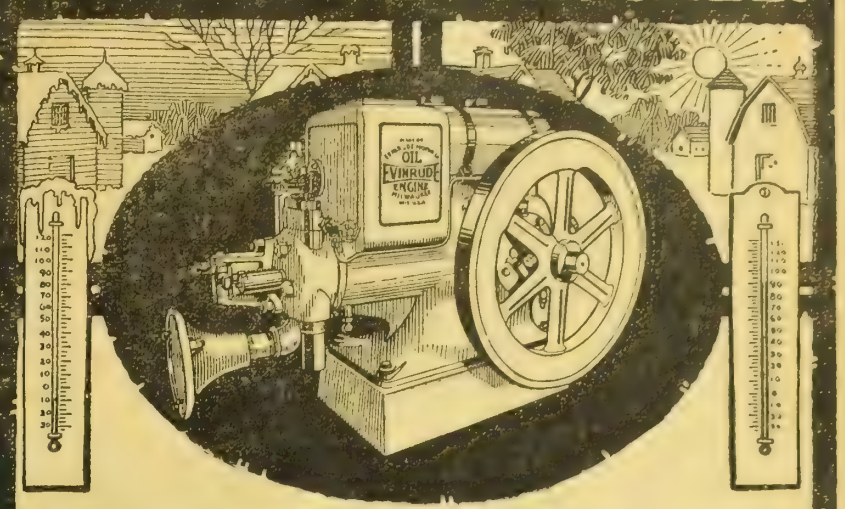

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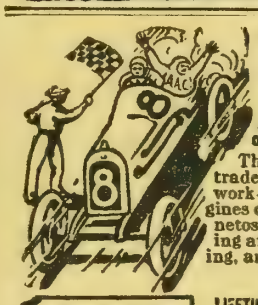

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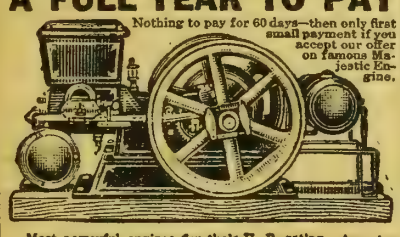

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UPPER WISCONSIN

Clearing Sandy Land of Stumps.

To the Editor:—About a year ago Mr. Alex Graham, of Gladwin, Michigan, bought forty acres of typical sandy white pine stump land about a mile out of that town. The land was covered with big pine stumps ranging all the way up to four feet in diameter and averaging about forty of them to the acre. After thoroughly investigating all the local agencies used for land clearing and drawing on his fund of knowledge attained from years of experience, Mr. Graham decided on the following methods to get rid of his stumps.

First he secured the necessary irons, chain and blocks to build a tripod stump puller (sometimes called steelyard type). He made the wooden parts himsef. Mr. Graham, however, determined to have a piling as well as a pulling arrang ment on his machine, so he made that attachment by simply extending the front leg of the puller tripod an additional seven feet beyond its junction with the other legs. By placing a block at the extreme end of this extension he was able to use the machine very effectively for piling as well as for pulling and thus did away with the bother of having two machines. The picture shows the chain threaded for piling. The lower block is the one used to lift the steelyard arm in pulling the stump.

Horses are used to operate the puller both for pulling and for piling. The two side legs mounted on wheels at the bottom are each twenty-one feet long and the front leg mounted on a skid is twenty-eight feet long. This type puller is very familiar to all people in stump sections and we will not go into detail as to its construction. Our interest lies chiefly in the method and cost of use.

Mr. Graham first uses a charge of from one to three pounds of dynamite directly under the center of the stump, exploded with cap and fuse, and then pulls the stump. He finds that the use of the explosives splits it, loosens the dirt from the roots, makes it pull easier and aso gives better chain holds. Then when pulled it is in pieces small enough to be handled with the piler.

The other picture shows the large windrow of blasted and pulled stumps which Mr. Graham has piled through the center of the field and the crop of beans growing on the cleared land plowed for the first time this year. These stumps are to be used for firewood. Mr. Graham operates a hotel in Gladwin and finds that he can quite materially lower his fuel cost by using stump wood in place of paying high coal prices.

The clearing of this land will not cost over $20 per acre and probably not that much. Mr. Graham has been offered more than double the original cost price of the land since clearing it. From quite an extensive study of conditions in the cut-over sections of Michigan, I am inclined to believe that the use of this type puller in connection with dynamite is about the most economical method that can be followed in getting rid of large pine stumps on the sandy lands of northern Michigan. On the clay lands a large number of farmers tell me that the use of dynamite alone is the most economical method. Guy G. Means.

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FURS

Advanced Registry and Improvement.

It is in the advanced register that dairy cows show their individual superiority. While it is a fact that any cow from pure-bred ancestry can be registered, it remains for the advanced register to separate the high producer from the low, to distinguish the meritorious from the inferior and to eliminate the unprofitable producer from the pure-bred herds of our country.

To those acquainted with advanced registry work it is sufficient to say that it consists of a record of a cow's production for a stated period of time under supervisory methods established by the record associations. Naturally rules vary somewhat and it would be inadvisable to reprint them at this time. Each man who has cows he would desire to have tested in accordance with advanced register rules had best write the record association with which his stock is registered or else write the dairy department of the agricultural college in his state. The record associations publish magazines at regular intervals or else publish reports that are interesting and helpful to any man, and these may be secured for the asking or for a samll fee.

Advanced registry tests are divided into four principal classes—one day, one week, one month and one year. Standards are established by which a stated amount must be produced in the particular length of time the test is to be run if the cow is eligible to registry. Those classes are subdivided according to the age of the cow on test. A two year old is not to be expected to produce as much as a mature cow and the rules are made in such a way that each is put on a fair basis of comparison and competition.

The advanced registry record in which there is the greatest interest shown is that made by the mature cow on a full year's test. Others are valuable, but there is a belief that the long record shows persistency, and inasmuch as the cow is on record through practically her entire lactation period her real merit as a producer is shown. World records on yearly tests have won fame to cows and to their owners and to the breed. For years the annual record hovered around 1,000 pounds of butter fat. Holsteins, Jerseys and Guernseys had their breed records and each had its famous cow which held world renown. Then almost with one accord records began to push upward. Cows made new world records to hold them for only a few days. So frequently were new records made that there was scarcely time to duly exploit the new queen of dairy production. There were those who believed that no cow would ever produce more than 1,000 pounds of butter fat in one year. That mark has been so badly overstepped that it is impossible to estimate the final limit of production.

We cannot expect every cow to approach the high mark set by a few, yet that fact need not lessen the value of establishing a record in every herd. There is probably no more helpful distinction that may come to any herd than to have every cow of a herd in the advanced register. Just as 1,000 pounds was once the goal for yearly record on phenomenal cows, so was 400 pounds arbitrarily set as a mark for a herd average. That average was finally reached and then began an effort to secure for every cow in the herd a record of 400 pounds or better. Now there are herds in which the 600-pound average seems possible of attainment.

The preparation of a cow for advanced registry test is as important as is the training of a race horse for the track. The dairyman experienced in advanced register testing will no more think of starting his cows on test without having all conditions right than will the race horse man start the fall circuit without months of strenuous preparation. A rest preceding calving is deemed necessary in order that the cows shall enter upon the test in the most vigorous manner possible. Eight or ten weeks is usually considered to be the proper length of rest. During this time it is well for the ration to be somewhat fattening, although this must not be overdone. This preliminary period is ideal for discovering the likes and dislikes of a cow's appetite. She must have foods that she likes or else she cannot be forced to her maximum production. The ordinary plain feeds are usually best. Bran, ground oats and corn meal fed with silage and alfalfa hay may be taken as a standard, allowing such deviation as market prices may justify.

The cow on advanced register requires special care and attention. A regular routine must be established. Feeding is to be done at regular intervals and milking time must not vary from the established periods. Usually the cow on advanced registry test is milked three times per day. However, there have been cows where they have been milked as many as six. For ordinary practical herd management three times are sufficient. In the amount of exercise practice has varied. However, in the majority of cases some exercise is provided. It not infrequently happens that the cow is allowed to be in an open lot or small pasture for three or four hours each day in warm weather or is in an open shed for an equivalent time during winter. On the other hand, cows have done very well when they had no exercise except what could be secured in a box stall. It is doubtless easy to permit a cow to take so much exercise that it would be detrimental. It is quite a common practice to blanket the cow during the test. However, public opinion is opposed to heavy blanketing and some record associations have voted that the use of more than one blanket on an animal during test shall be forbidden.

The belief that cows that freshen in the fall will produce the greatest records is adhered to quite generally. However, great records have been produced regardless of the time of calving. In the short tests especially do the owners desire their cows to be ready for the test during cool weather and very seldom will they attempt to make a short-time test in warm weather.

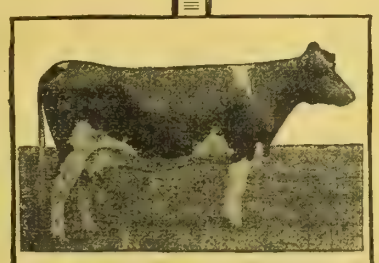
Tests must, obviously, be uniform in order to be of benefit to the public. With this in view and in order to remove from the public mind any suspicion of irregularity the record associations have provided that the state agricultural colleges shall supervise all testing within the state. When preliminary arrangements have been completed the college sends a competent man to supervise the test and to make correct report concerning same. Naturally there is expense to the owner of the cow. However, there is value received in this because of the information gained for his own use in prestige gained by having his cows in the advanced register. One young man who lives in a remote and almost inaccessible corner of his state has succeeded in putting twenty of his cows in the advanced list. He believes that he was entirely justified in all the expense necessary to do this and indications are that he will be repaid with enormous interest.

It is no longer enough to have or to buy cows that are pure bred. The time has come when the advanced register record is as essential a part of the qualification as is the tabulated pedigree. Advanced registry work is growing rapidly. It is well that this is the case, for it really is a "Register of Merit," as one record association terms it. Doubtless this line of work has been one of the greatest factors in the marvelous advancement our dairy breeding has made. There is nothing but commendation for it.

Community Effort in Dairy Breeding.

United effort is rapidly coming to hold a very important place in progressive dairy movements. It has been through united effort that the country of Holland and the islands of Guernsey and Jersey have produced the greatest breeds of dairy cattle in the world. The people of those lands have centered their efforts upon their particular breed and have not permitted anything to swerve them from advancement. One breed and high production of cattle within the breed is the motto and the practice that has put them to the forefront. In our own land we find localities where breeders have united to handle on their farms one particular breed and to push its interests to the front. This has resulted in making these localities famous as localities in which cattle of that particular breed could be found. The result has been that so far as the selling of pure-bred stock is concerned these localities have found sales more readily with less expense for advertising and satisfactory prices.

Community effort means standardization. It will do away with scattered effort and mixed breeding. Once the leading men of a community have adopted one particular breed of cows and have centered their energies upon it the other men of the community will follow just as soon as they are able to see the merits of coöperative work and also to see the merits of improved stock. It is a significant fact that in localities where the one breed standardized method has been adopted


Jolie Topsie De Kol, H. F. 149723
Age 5-11-12 (City of Cleveland, Owner)
Semi-Official Year Test
29221.5 lbs., Milk 3.52% 1032.37 lbs. Fat

Year tests that Count

These wonderful semi-official records are only a few of a large number of genuine high production tests made under normal conditions with UNICORN DAIRY RATION used as the entire or largest part of the grain ration. They are in no sense forced or freak records as shown by the normal fat percent and the perfect health of these cows and all herds fed on Unicorn Dairy Ration.

Abbie of Riverside,
Champion Guernsey of Michigan
Fred Gleason, Owner
14201 lbs. Milk 5.72% 813 lbs. Fat

Every breeder knows Ajax Flakes (made exclusively by us for years.) Conditions forced us to withdraw it from the market except as one of the ingredients of Unicorn. You will find Unicorn equally efficient as your ration or ration base.

If you have good cows that you want to make even better

Unicorn Dairy Ration

offers you the chance, without exta cost, in fact most likely at a considerable saving.

With an average cow we guarantee a reduction in the feed cost of you milk. Give them a chance - if fed right with Unicorn Dairy Ration they will surprise you.

Unicorn can be obtained by any dairyman or breeder east of the Missouri river no matter where located. Every bag is equally uniform and good no matter where you get it.

Write for information and *FREE* copy of Cow Testers' Manual.

Chapin & Co., Dept. H Chicago

Royalton De Kol Violet, H. F. 86460
Age 10 Years (H. A. McQuillan, Owner)
Semi-Official Year Test
29959.6 lbs. Milk 3.46% 1036.45 lbs. Fat

Follyland Nancy A. R. No. 5266
Best 2 year old in New York
Follyland Farm Guernseys
12270 lbs. Milk 5.81% 712.6 lbs. Fat

My New Big 1918 Book

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Again Tremendous Savings

Once more I come to you with my great offer of the highest grade implements at lowest manufacturer's prices. In the face of rising prices, my savings are more important to you than ever before. I still "divide the melon" and name low prices because I sell

Direct from Factory to You

Stop where you are if you are wasting money by paying two or three prices. Get my new 1918 Book and read why you can get the finest implement built at a saving of 25 to 35% and how I can do it. The whole secret is in my direct-to-you method. I sell you at the lowest manufacturer's price with only one small profit based on a tremendous business. My plan is, cut out all waste and lost profits between the actual maker and the actual consumer.

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Perfect skimmers. Easy to operate and clean. Runs true in perfect alignment always. Absolutely sanitary. Every drop of milk gets full skimming force of bowl—all working parts run in oil spray.

180 Milkings Test

Yes, sir! Try it! Test it—compare it for 90 days on your own farm. Make my new 1918 Sanitary Model prove by the work it does that it is the separator you want. It has them all beat for real separator efficiency. This 90-day test will prove it to you.

SPREADERS!

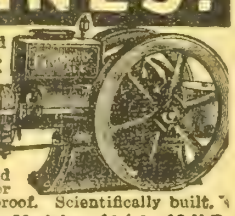
Wide Spreading V Rake—Low Down

Before you decide on any spreader at any price, find out all about my new low down model with its wonderful spreader features and real spreading efficiency.

HAS EVERY NEW IMPROVEMENT

New steel beater and wide spreading V-rake pulverizes and tears the manure to shreds. Patented roller-feed. Spreader is easier handled with two horses than others with three and four. Patented automatic stop and uniform clean-out push-board make spreading easier and more thorough. Tongue is of pressed steel—indestructible. Adjustable from 4 to 24 loads per acre. Has double chain drive direct from rear wheels.

ENGINES!



Develop way above rated horse power. Big bore, long stroke. Valves-in-head like fine auto engines—no lost energy. Uses any fuel. Large, heavy, counter-balanced flywheels. Make and break ignition, never misses fire, easily started—no cranking. Cylinder and water pot frost proof. Scientifically built.

Heavy or Light Work Models—1¾ to 16 H.P.

There is a Galloway engine for any farm work, from the light 1¾ pumping engine—the light work 4 h. p., 6 h. p.—the heavy duty 9 h. p. and 12 h. p.—to the big 16 h. p. Mogul engine for the toughest job you have. And I make them all in my own factories.

TRACTORS

12-20 Size

Burns Kerosene or Gasoline

The Galloway Tractor is the peer of all. No freaks, no frills—but an honestly built tractor for tractor work. Has anti-friction bearings—21 sets Hyatt roller and ball bearings.

Takes only 13½% of motor power to pull tractor—25 to 35% less than others.

DOES ALL FARM POWER WORK

Plows, discs, harrows, hauls, threshes, saws, grinds, shreds, grades roads, fills silos, pulls three 14-inch bottoms 8 to 9 inches deep in clover or timothy sod. Driver has control at all times. Does anything a 12-horse team or 20 h. p. engine will do.

WM. GALLOWAY President WM. GALLOWAY CO.
37 Galloway Station, WATERLOO, IA.

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that a large proportion of sales have been made to men in the locality who have seen the light of better practices and have decided to join hands with their neighbors. One man in commenting upon this has said, "The crying need is for unity of effort on the part of farmers whereby standard sorts of dairying cattle can be established in communities, in the place of multiplicity of varieties that now fill the landscape."

Racine-Kenosha County Milk Producers Meet.

It was a sort of harmony meeting which was held at Racine on Saturday, November 10th, and attended by about 500 members of Racine and Kenosha county producers' associations.

Frank T. Holt, president of the Chicago Milk Producers' Association, the parent organization, was in charge of the meeting. He stated at the opening that this was not a meeting for increasing the troubles of the consumer, but merely a gathering of the two county organizations, in order to straighten out to the satisfaction of the members the whys and wherefores of the November and December price for milk as fixed by the Wisconsin milk commission in conjunction with producers and distributors at Chicago. Thomas M. Kearney, senior member of the firm of Thompson, Meyer & Kearney, of Racine, was the chief speaker. He reviewed some of the vital points which the recent milk agitation has brought forth. The court hearing at Racine which has twice been postponed and which has for its object the dissolution of the milk producers' organization in Wisconsin, will, in the opinion of Mr. Kearney, not be pushed by the state in the future. He quoted letters from the governor and from Attorney-General Owen, in both of which assurance was given that the law regarding farmers' organizations, which at the present time is too stringent, will be amended at the next session of the legislature.

Mr. Kearney brought out also that the milk producers' association of Chicago appealed to the food administration as early as last August to consider the fixing of prices on all fluid milk. The administration at that time did not deem the milk problem of enough importance to warrant an investigation on their part. However, the last "milk war" has brought this about and the November and December prices of $3.22 per 100 pounds were agreed on only after the administration had promised to reimburse the dairymen supplying the Chicago market for all losses sustained on account of this lower price by assuring a liberal price on milk in the first six months of 1918.

An honest understanding is all that the producers desire, according to Mr. Kearney. There is no idea among the producers to take advantage of war conditions to force unreasonable prices. There is n t a disloyal h t in the localities involved in this agitation. "We are not afraid of court investigations; in fact, we welcome them. Grant us, however, all assistance and coöperation in this work," said Mr. Kearney. "That is all we ask."

In speaking of the suit, even though it might never be held, Mr. Kearney said: "Avoid all acts and statements which will prejudice your case. Your case is now before the food administration, which body is investigating from top to bottom all points of the controversy. Do not by any word or act bring about a situation which will influence the people or the courts against you."

Some of Mr. Kearney's other statements were: "There is a patriotic purpose behind the efforts of the producers in asking for an investigation." "The farmer need not pledge and repledge his loyalty to the flag during these times. He has responded wholeheartedly to the appeal of the government for more food. He has, in the case of the milk producers in particular, sought the government's help to establish a fair, living return for his product. He will continue to show his loyalty to the flag with his last dollar and his last drop of blood. The government does not expect him to work at a loss any more than a manufacturer of war material."

Attorney Riley, of Madison, and Assemblyman Vincent, of Kenosha county, spoke much along the same line, emphasizing in particular the great need of an early understanding between the public and the producer. Grain farming is to all appearances a better type of farming at the present time than dairy farming. Mr. Vincent is not at all convinced that dairying will not receive a severe setback because of the labor problem, which the dairymen must solve and are solving

60 Million Dollars to be Saved in Wages by the American Dairy Farmer in the first year of our Great War.

Military authorities agree with U. S. Senator McCumber that the war will put *five million Americans* into the trenches. Dairymen are asking themselves what they are to do for labor.

Selling the milk cow for beef doesn't appeal to the dairyman. He is not in the habit of dodging a problem.

EMPIRE MILKING MACHINES

In Canada, labor-saving machinery is solving it. Tractors, milking machines, gasoline engines are at work by the thousands.

What Canada buys is also significant. Take the matter of milking machines. Much attention is given to labor-saving and time-saving, economy of upkeep and long-wearing ability, but the important consideration is the welfare of the cow and her continuous Milk production.

This is what has made the Empire Milking Machine predominate. In less than two years, sales in Canada alone have trebled.

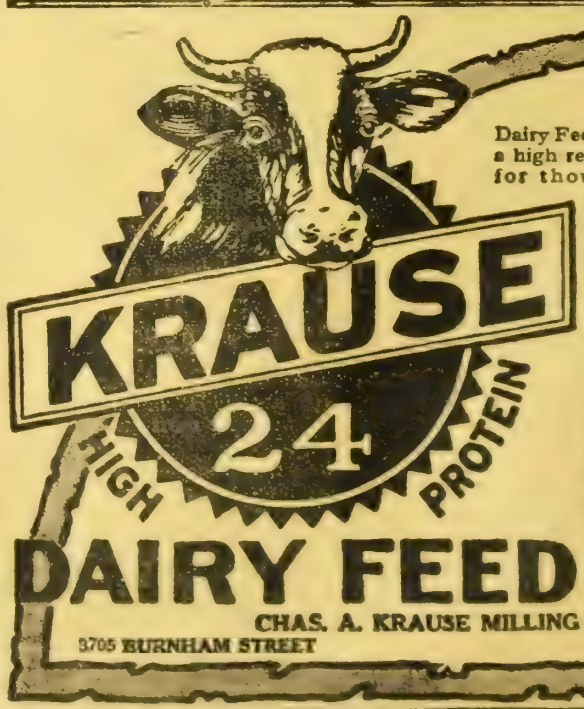
With the Empire Teat Cup, sore teats do not nor cannot result—between each two spurts of milk the teat is completely relaxed and massaged from tip to udder, precisely as when the calf milks, a fact which accounts for the usual increase in flow when Empire Milkers are installed.

With this practical Milker, many a 12-year-old boy or girl is replacing two hand milkers, at a saving per man of $600 a year. Before January 1st, Empire Milkers will have replaced over 100,000 hand milkers—a saving to dairymen of the United States of over $60,000,000 a year. What the figures will total at 1918 wages cannot even be conjectured.

With the Empire factory crowded to capacity, shrewd dairymen are getting their orders in for Empire Outfits while their dealers can take care of them. Do this without delay and write immediately for the Empire Profit and Prize Book and Catalog No. 56.

EMPIRE CREAM SEPARATOR COMPANY

Also Manufacturers of Empire Cream Separators, Gasoline Engines and Farm Electric Plants Bloomfield, New Jersey Chicago, Ill. Montreal, Can. Denver, Col. Toronto, Can.



THIS is the trade mark of Krause Dairy Feed—a feed that has made a high record as a milk producer for thousands of dairymen.

Krause Dairy Feed contains ten ingredients—each of which has distinct and specific values and they are so combined as to form a perfectly balanced ration.

This high grade feed will give your cows exactly what they need for big, rich milk production and keep them healthy and vigorous.

Feed "Krause" this winter and make more milk money. Write at once for free sample and useful record book. Give name of your dealer.

CHAS. A. KRAUSE MILLING CO.,
3705 BURNHAM STREET MILWAUKEE, WIS.

Only $2 Down
One Year to Pay!

$29 Buys the New Butterfly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 95 quarts per hour. Made also in five larger sizes up to No. 8 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

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with increasing difficulty each month. Mr. Vincent fears a great decrease in dairy cattle will take place during this winter and a consequent falling off in available fluid milk. The increase in the price of milk to the consumer would be in proportion. Adequate prices must prevail if men are to be expected to continue dairying.

The association pledged themselves to observe the warning of Attorney Kearney not to utter rash statements or commit acts which would jeopardize their position. The following resolution was also passed and the governor has already announced his intention of including a statement with special reference to farm organization in his message to the legislature which is to convene in extra session at Madison in December or January:

Resolved, That the Hon. Emanuel Philipp, governor of the state of Wisconsin, be, and he hereby is, petitioned to include in the statement of the purposes for which the proposed extra session of the legislature of the state is to be called, that of considering certain amendments to the statutes of the state relative to trusts and monopolies.

Meetings are also to be held in other counties of the state which have locals belonging to the Chicago Milk Producers' Association for the purpose of acquainting the members with the reasons for the reduction of the price from $3.42 in October to $3.22 in November and December. Incidentally great stress will be laid upon warning the members not to sell dairy cows for beef, as a better day for the dairymen will dawn in the near future.

International Judges and Judging.

Chicago International Live Stock Exposition December 1 to 7 Will Be Larger Than Ever—Judging Begins Promptly on First Day.

THE entry list of the International Live Stock Exposition is one of the longest in the history of the show. In number of exhibitors it exceeds that of any previous list by 20 per cent. The total entries are also the highest ever. The number of breeding Short-horns entered is 527 and fat Short-horns 78; breeding Aberdeen Angus, 199 and fat Angus 69; breeding Herefords, 465 and fat Herefords, 28; breeding Galloways, 82 and fat Galloways, 8; breeding Red Polled, 111 and fat, 9; breeding Polled Durhams, 69 and fat, 6. In the regular classes of grades and cross breds 124 entries have been made and fifty-five entries from boys' clubs.

In the horse department 334 Percherons, 225 Belgians, 181 Clydesdales, 84 Shires and 20 Suffolks have been entered. In addition to this the draft horse and harness class contains 56 entries.

In the swine department there have been entered 122 breeding Duroc Jerseys and 47 fats; 100 breeding Berkshires and 69 fats; 98 breeding Chester Whites and 48 fats; 66 breeding Hampshires and 47 fats; 51 breeding Tamworths and 6 fats; 32 breeding Yorkshires and 20 fats. In addition 63 head of hogs have been entered in the grade and cross-bred classes.

Judging will begin promptly on Saturday, the first day, at 9 o'clock a. m.

Following is a list of the judges of the various breeds, grades and cross breds, carload lots, etc.:

CATTLE.

Short-horns (breeding and milking)—Robt. Miller, Stouffville, Ont.; (breeding and fat)—W. A. Dryden, Brooklyn, Ont.

Aberdeen Angus (breeding and fat)—Dr. H. M. Brown, Hillsboro, Ohio.

Herefords (breeding and fat)—Joseph F. Green, Gregory, Texas.

Red Polled (breeding and fat)—Elliott R. Davis, University of Nebraska, Lincoln, Neb.

Galloway (breeding and fat)—G. E. Clark, Topeka, Kan.

Polled Durhams (breeding and fat)—Earl E. Robbins, Horace, Ind.

Grade and cross-bred and champion steers—J. J. Cridlan, Maisemore Park, Gloucester, England.

Carload fat classes (two year olds)—J. A. Crane, Union Stockyards, Chicago, Ill.

Carload fat classes (yearlings)—Thos. Murray, Union Stockyard, Chicago, Ill.

Short-fed special—Thos. Murray and J. A. Crane.

Carload feeder classes—Charles Brown, Flora, Ill.

Carload cattle (championships)—Wm. Leavitt, Union Stockyards, Thos. Murray, J. A. Crane.

Steers entered for slaughter—John Gosling, Kansas City, Mo.

Carcass cattle—Samuel T. White, Chicago, Ill.

SHEEP.

Shropshires (breeding and fat)—W. F. Renk, Sun Prairie, Wis.; J. C. Duncan (alternate), Lewiston, N. Y.

Hampshires (breeding and fat)—W. C. Coffey, Urbana, Ill.

Southdown (breeding and fat)—J. C. Duncan.

Lincolns (breeding and fat)—John T. Lethridge, Glencoe, Ont.

Cotswolds (breeding and fat)—Frank Brown, Carlton, Ore.

Dorset Downs (breeding and fat)—W. C. Coffey and H. H. Cherry (alternate), Xenia, Ohio.

Oxfords (breeding and fat)—J. C. Williamson, Xenia, Ohio.

Cheviots (breeding and fat)—G. W. Parnell, Fayetteville, N. Y.

Leicesters (breeding and fat)—Abram Easton, Freemont, Ont.

Rambouillets (breeding and fat)—J. P. Van Houten, Shoemaker, N. M.; Frank R. Cook, Belle Fourche, S. D.; John E. Webb, Southport, Ind.

Grade and cross-bred and champion—David McKay, Ft. Wayne, Ind.

Carload sheep—H. Noel Gibson, Dundee, Ill.

Carcass sheep—H. A. Phillips, Union Stockyards, Chicago, Ill.

SWINE.

Berkshires (breeding)—L. E. Ortiz, Bernardsville, N. J. Breeding and fat—E. J. Barker, Thorntown, Ind.

Poland Chinas (breeding and fat)—M. P. Hancher, Rolfe, Iowa.

Duroc Jerseys (breeding and fat)—W. T. Harris, Morganfield, Ky.

Hampshires (breeding classes)—Chas. Marker, Auburn, Ill. Fat classes—Harry Booth, Union Stockyards, Chicago, Ill.

Chester Whites (breeding classes)—J. W. Brendel, Zionsville, Ind. Fat classes—Harry Booth, Union Stockyards, Chicago, Ill.

Yorkshires (breeding and fat)—D. A. Gaumnitz, South St. Paul, Minn.

Tamworths (breeding and fat)—T. G. Scheer, Bethany, Ill.

Grade, cross-bred and champions—W. L. Carlyle, Stillwater, Okla.

Carload swine—W. H. Overman, Union Stockyards, Chicago, Ill.

Carcass swine—W. H. Tomhave, Pennsylvania State College, State College, Pa.

HORSES.

Clydesdales—Andrew McFarlane, Palo, Iowa; George Hutton, Madison, Wis.; Wm. Grant, Regina, Sask.

Percherons—C. F. Curtiss, Dean Iowa State College, Ames, Iowa; Harry McNair, Union Stockyards, Chicago, Ill.; Robert Graham, Toronto, Ont.

Shires—William Bell, Wooster, Ohio; C. F. Curtiss; Alex Galbraith, Edmonton, Alta.

Belgians—Eli Springer, Saginaw, W. S., Mich.; Harry McNair; W. H. Pew, Ames, Iowa.

Suffolks—R. P. Stericker, 845 Sheridan Rd., Chicago.

Drafters—C. F. Curtiss, Harry McNair, Robt. Graham.

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Build for permanence. Erect durable buildings that will stand as long as you farm and can be passed practically unimpaired to your children. You are laying up comfort for your later years when you build with

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Fire-safe, weather-proof and vermin-proof. The glazed walls are sanitary—easily cleaned down and will not absorb odors.

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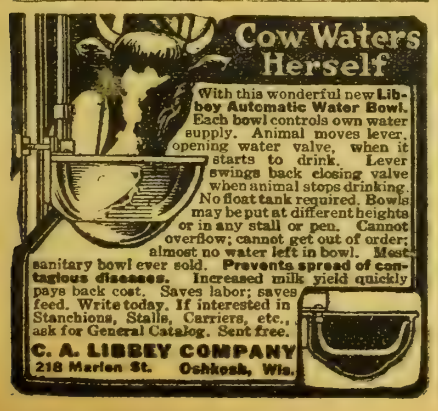

This Calf Pays Five Times Its Feed Cost

Raising calves on whole milk is out of date. It is throwing away good money—costs you from $30 to $40 to bring the animal to five months old. Sucrene Calf Meal saves you from $25 to $30 in feed cost—enables you to sell or use nearly all the cow's milk. The calf thrives better, grows faster, with less chance of setback or sickness. *Let us tell you why.*

Sucrene Calf Meal

The Most Perfect Calf Food Science Can Produce

It is unlike any other calf meal on the market. Contains ingredients not found in any other, but which the calf must have for health and growth.

Sucrene Calf Meal is the most perfect substitute for whole milk on the market because it contains soluble blood flour, a strong protein food and one of the most effective bowel correctives—prevents scours; bone meal, which builds up big, strong frames; soluble starch and malt flour, which supply the necessary sugar in the most digestible form—now generally prescribed by physicians for human babies in preference to milk sugar; dried skim milk, which contributes the rare and mysterious life-giving material known as "vitamine," absolutely necessary to the young animal's full development.

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Order a trial sack from your dealer. You will find it the best feed investment you ever made. If he does not handle Sucrene Calf Meal write us his name and we will see that you are supplied.

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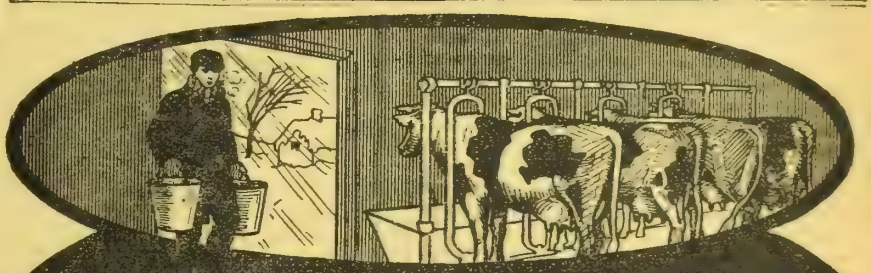

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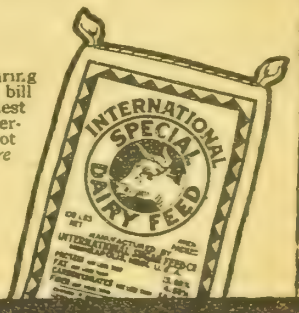
A ton of International will feed a cow six months and in that time *increase* the milk yield by a value of at least ten dollars. Yet it costs less than home grown feed.

Try a Ton Today

If you would keep your cows in prime condition during the "barn period"—if you would reduce your feed bill—if you would bring the milk production to its highest natural capacity, and keep it there—try a ton of International. Go to your local dealer today. If he does not sell it don't take a substitute. Write to us. *Be sure you get International.*



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POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Handling Poultry During the Winter Months

POULTRY raisers of Wisconsin are doing their part to increase the nation's supply of poultry. Nearly $15,000,000 worth of poultry products are produced annually in the state, and this could be greatly increased if the methods of feeding and caring for poultry carried out by our best breeders were imitated by beginners as well as by those who are succeeding only in a half-hearted way. In order to stimulate interest in the application of better methods all around, The Wisconsin Farmer at this time desires to institute a little contest. This paper will pay $5 to the writer of the best article on the subject, "Handling Poultry During Winter Months," and $2.50 for the second best letter on the same topic. In writing these letters simply outline somewhat in detail your own methods, and in so doing remember that you will greatly benefit other poultry raisers.

Poultry Comments and Suggestions.

To the Editor:—A few lines in behalf of farm poultry seems to be nearest my heart in these times of unrest and necessity of increased production.

Wonderful what poultry does on encouragement received at the hands of the average farmer. You can travel from farm to farm and the first thing you notice is buildings for stock. You find good barns, hog houses, etc., but where is the poultry house? Usually you can find them in machine sheds, straw piles, trees and everywhere for want of proper place to live during severe weather.

Some places have buildings well built, but they are everything but comfortable for hens. Poor ventilation, set behind other buildings or in an out-of-way place where sunshine does not reach it. A great many have cold cement floors, no litter or straw, although it is plentiful on the farm.

No dropping boards under roosts or proper nest boxes to lay in should they be inclined. Then comes one of the most serious mistakes, that is, overcrowding capacity of houses. This combined with the filthy condition is a great disease breeder and tends to unequal feeding chances. Consequently there is a loss in egg production. Another drawback is hatching from eggs taken from flock at large. This brings varied types and very unsatisfactory results in growing stocks. The real outcome is that poultry doesn't pay. Eggs are all colors, sizes and range along several grades on market, making the average price lower for producers. Boilers are seldom sold. Most people market only at the holiday seasons, overcrowding the markets and down go prices to the disadvantage of the poultry man and buyer.

I say first of all, have a little real enthusiasm for your poultry. A well-built, comfortable house built on some elevated point so as to be dry and out in open where a few south windows can get the sun and be opened for ventilation if weather permits. Some can be open all the time. I would use dirt floor, but haul in a few loads of gravel early in the fall so it can dry out thoroughy, then a foot of good clean straw every now and then. This structure does not need to be built like a refrigerator nor hothouse—the main thing is to be free from drafts and dry.

Now comes the start of your flock. Do not be too saving on your first investment. A good beginning is a great ways toward success. Get in correspondence with some of the best breeders of thoroughbred fowls, after you have decided on your favorite variety. Do not buy the cheapest—get the best you can afford. It takes but a pen or setting or two of eggs. This brings you up to the same standard of quality that breeders have attained by years of work. Study your breed and improve upon it as you would on your cows or horses. Generally you find market for the surplus males raised—first season to pay cost of original start. It is a pleasure for buyers to get a nice, uniform bunch of poultry on the market. Quality is great to promote better markets and prices.

A good way is to sell young cockerels when they reach broiler size (two to two and a half pounds). As a rule, they bring as much at this time of year as if you held and fed until maturity. The advantage is also in favor of hens and pullets. They get surplus pickings and room left by the marketed cockerels to make them early and better layers. In marketing hens do not hold until molt, as they are very thin and unfit for market during this time. Sell early any hens you do not wish to retain another season even though you get few eggs here and there. The difference in price is more than those few late eggs bring.

Feeding methods are many. The most necessary is to keep fowls busy during confining months. I use heavy grains for scratching feed so that they go well down in the straw and use the most of bulky feed in evenings so as not to make the fowls sluggish during the day. Do not overfeed. This is done as often as underfeeding. A uniform flock of one variety can be fed to much better advantage than when several varieties are kept together.

Many farmers say they have not time to spend on fowls. Let some of the boys and girls take hold of the poultry. Put the responsibility on someone. They will benefit by this and show you results.

Give your fowls an equal chance with other farm products and stock and you will see more dollars and cents on amount of investment than anything you have on the farm.

H. N. Borgeson.

Lac qui Parle Co., Minnesota.

According to official statement, the export of beans from Brazil to the United States and allied countries this year exceeds 12,000,000 bags averaging approximately 132 pounds each.

POULTRY AND PET STOCK.

FOR SALE---S. C. RHODE ISLAND REDS
GOOD BREEDERS from exhibition and trap-nested laying stock. Write for prices.
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ALL VARIETIES chickens, ducks, geese, turkeys, bantams and guineas; also eggs, incubators and brooders. Catalog free.
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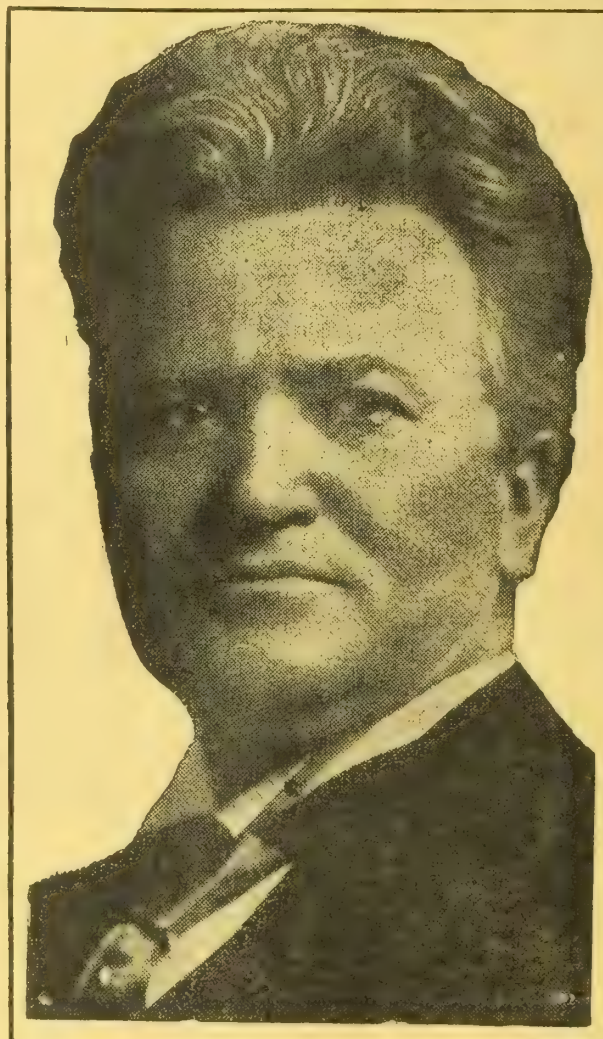
WE MUST BACK UP OUR BOYS



ROBERT M. LA FOLLETTE

THERE is, and of course can be, no real difference of opinion concerning the duty of the citizen to discharge to the last limit whatever obligation the war lays upon him.

Our young men are being taken by the hundreds of thousands for the purpose of waging this war on the Continent of Europe, possibly Asia or Africa, or anywhere else that they may be ordered. Nothing must be left undone for their protection. They must have the best army, ammunition, and equipment that money can buy. They must have the best training and the best officers which this great country can produce. The dependents and relatives they leave at home must be provided for, not meagerly, but generously so far as money can provide for them.

I have done some of the hardest work in my life during the last few weeks on the revenue bill to raise the largest possible amount of money from surplus incomes and war profits for this war and upon other measures to provide for the protection of the soldiers and their families. That I was not able to accomplish more along this line is a great disappointment to me. I did all that I could, and I shall continue to fight with all the power at my command until wealth is made to bear more of the burden of this war than has been laid upon it by the present Congress.—(From speech of Senator La Follette in United States Senate.)

Who is disloyal?

Do you know that the Metropolitan Press is lying about La Follette?

Do you know that La Follette has favored every bill to better the conditions of our soldiers and sailors since he has been in the Senate?

Do you know that he secured an appropriation of $2,000,000 for the benefit of soldiers and their dependents during the Mexican troubles?

Do you know he voted to increase the pay of our soldiers who fight in foreign lands in this war?

Do you know that he has favored every appropriation bill to maintain and support our army and navy in the present war?

Do you know that while opposed to the draft law in principle immediately upon its passage he advocated full obedience to the law?

Who is disloyal?

Do you know that La Follette fought the hardest fight of his life to make war profits bear a reasonable proportion of war taxes and to relieve the poor from the high cost of living.

Do you know that it was largely through his efforts that taxes on the poor man's breakfast table—on tea, coffee, cocoa, and sugar—was defeated?

Do you know the war profits of the steel corporation, of the leather trust, of the packing combine and the munition manufacturers?

Do you know why when the price of wheat was reduced by order of the Food Commissioner that flour and the baker's loaf remained as before and foodstuffs went up?

Do you know why war profiteers want to stifle free speech and the free press?

La Follette's Magazine for November will discuss all these topics truthfully and fairly. You want the truth. Then subscribe for La Follette's now.

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AGENTS WANTED AGENTS FOR LA FOLLETTE'S ARE MAKING BIG MONEY.

THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

The Weathercock's Meaning.

A weathercock that once was placed
A farmer's barn above,
Bore on it, by its owner's will,
The sentence, "God is love."

His neighbor, passing, questioned him,
He deemed the legend strange—
"Now, dost thou think that like a vane
God's love can lightly change?"

The farmer, smiling, shook his head.
"Nay, friend, 'tis meant to show
That 'God is love' whichever way
The wind may chance to blow."

Start a Community Library.

Look in your bookcase and see if you have the nucleus of a library. Perhaps you can find just four or five books which you consider good, but you have read those long ago. If there is no library in your community, those few books can start one. But perhaps you do not care to give the books away. That is not necessary, but just be willing to lend them.

Elect a literature secretary in some local club. Give him the list of books you will lend and when he has secured lists from all the members he can distribute printed or typewritten copies to everyone interested. When a neighbor wishes to borrow a book, he comes to you for it, but you send a record of it to the secretary. In this way the loss of books can be prevented.

If you are one who believes the high school children of today are not cultivating a taste for good literature, see what kind of books are in the library. If the school is small, it may be that only the classics which need study to be understood, are to be found in the library. Naturally the rest of the pupils' reading consists of the few best sellers circulated among themselves. In that case, send the teacher the list of books which the pupils may borrow from their neighbors.

If you feel that you and your neighbors should read some new books, here is a plan you can try. A certain club of twelve members decided to have a reading circle. Each member bought one book and read it. At the bi-weekly meetings these books were passed on until at the end of six months every member had read every book.

These plans may help you to help your neighbor and may prove a starting point for a library in your community.—[Mabel Hoddle.

Don't Neglect Children's Teeth.

The examination, dental treatment and daily care of the teeth are matters of the greatest importance for school children. All decayed teeth, whether temporary or permanent, should be filled or otherwise definitely treated. Malocclusion (ineffective meeting) of the teeth should be remedied and can be corrected in early childhood.

It has been recently demonstrated that (in addition to daily brushing) the (prophylactic) cleaning of the teeth of children every three to six months by the dentist or by a properly trained dental hygienist will prevent most of the decay of teeth which takes place.

It may be predicted with entire confidence that in the near future adequate dental care will be insured to all school children in the country as well as in the cities. No item in all the wonderful measures for the health care of the soldiers in the trenches of Europe is more significant than the treatment of the teeth provided by the automobile dentist offices used in France and other countries. Shall not our children in the country schools—future citizens, and, if necessity requires, defenders of our own republic—receive as good dental care as soldiers in war?

The establishment of effective habits of daily brushing and cleansing of the teeth is one of the most essential features in health teaching in the schools. Every child should have his own toothbrush, which is kept in a clean place and is used immediately after eating at least once, or, better, twice a day.

For cleaning the teeth, a good toothbrush with bristles that do not easily break or pull out, should be used. The teeth should be brushed, not only up and down and across, but also by rotary or circular motion from the gums of one jaw over the teeth to the gums of the other, and so round and round. In addition to the toothbrush, dental floss (waxed silk thread) should be used every day or two to remove the decaying food from between the teeth, where decay most often takes place. The best mouth wash is limewater, which may be used beneficially once a day to rinse the mouth.

To make limewater, place one-half cupful of finely powdered unslaked lime in a quart bottle. Allow to stand twenty-four hours and pour off the clear liquid into bottle to use for wash. This powder may be used for successive solutions until entirely dissolved. —[From Report of Committee on Health Problems in Education.

Women Dig Potatoes.

When the world war called the men of England and France from their duties and sent them into the trenches, the women of those countries proved their loyalty by stepping into the vacant places and filling them most efficiently. The women of America are doing likewise. In country and town, field and factory, women and girls are falling into line and are helping to carry on the activities that otherwise would suffer because of the army draft.

For instance, Upper Wisconsin has an unusually large crop of potatoes this year and so many young men have responded to the nation's call and are in the training camps that it was difficult to get help to harvest the crop. One of our readers, who visited this district not long ago, writes:

I have recently visited an eight-acre field of potatoes in Wisconsin where

THEY ARE DOING THE PART OF GOOD SOLDIERS.

women were doing their bit by digging potatoes and filling crates.

This field was wild land last spring. The stumps were pulled with a tractor and a tractor pulled the plow and the disk to get the land ready for the potatoes. And now they were getting 110 bushels of potatoes per acre and in order that the crop might be taken care of the women had offered their services and were doing good work digging and crating and storing in trenches that portion of the crop that could not be shipped at once.

Ten million women have signed the food pledge whereby they agree to put forth their best efforts in the conservation of food in their kitchens. That is going to be a big factor in winning the war. These women in the potato field are going still further. Rather than let this important crop go to waste for lack of help, they have gone to work with a will to save these thousands of bushels of potatoes. Moreover, they enjoy the work, as evi-

CRATING POTATOES FOR SHIPMENT.

denced by the accompanying reproductions of photographs. The example of these loyal, useful women should put to shame the slacker.

What Is Your Favorite Breakfast Dish?

To the Editor:—I have found a great many helpful things on the Home page and I am coming to its readers now for some special help. I would like to have some of the farm ladies tell us some of the good dishes they have for breakfast. Meat is so high and eggs are scarce just now, so that I find it a problem to have something good and nourishing and yet have a variety.

Following is a good supper dish: Two cupfuls beans, one-quarter pound of bacon, cut in small pieces, one teaspoonful soda. Boil together four hours. Then add one pint tomatoes, two large onions, one teaspoonful

SUGAR 4c a LB.

Only one of the hundreds of Sensational offers in highest-grade, guaranteed quality, staple groceries in our amazing new Price-Wrecking Catalog. To save all mailing expense and to avoid all waste distribution of this remarkable catalog, we send it ONLY to new customers who send us their order for the SPECIAL "Get Acquainted" assortment listed below. Catalog packed in every shipment.

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We positively guarantee the weight, quality and quantity of every article listed in our catalog. If you are not perfectly satisfied with the goods, return them and we will promptly return every cent of your money.

What Our Customers Say:

"Goods received, and they are all O. K. Will send another order at once."—Ed. A. Dehme, Prop. The Horicon House, Horicon, Wis.

"Groceries received in good shape and am well pleased with the goods. I consider that I have saved about $4.00. Will order more soon."—J. W. Chester, Kent, Ind.

"I received my order of groceries all right. They are fine—as good as any I have ever used."—R. Donovan, Lyndon, Wis.

"I received the goods all O. K. and am very well pleased with them, and will recommend them to my friends."—J. M. Pettigrew, Pendleton, Ind.

"Am very well pleased with your groceries and will order soon again."—Herman Palitz, Curtis, Wis.

"My order received and am well pleased."—Xavier Pinault, Champion, Mich.

"The groceries you sent me were fine."—Mrs. Orlando, St. Clair, Wis.

Stop paying exorbitant prices for groceries. National necessity demands that you buy carefully and waste nothing. The way to save money is to buy at grocery headquarters. Establish yourself with the great Consumers Wholesale Grocery Co. and cut the high cost of living. We buy all our goods in carload lots, and sell many articles for less than retail grocers pay for them.

Sugar 4 cents a pound; best Flour $9.60 per barrel with orders. Fill out the coupon and mail it with $2.53 today, sure. Your money back if you are not satisfied. Make your own selections for all future orders—large or small. Do not delay, but send at once.

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1.50	3 lbs. Our Special Blend Coffee	.96
.50	1 lb. Special Pure Baking Powder	.40
.40	½ lb. Black Pepper	.20
.40	½ lb. Cinnamon	.20
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Gentlemen—Enclosed please find $2.53, for which please send your Special Bargain Grocery Order and include free your new Price-Wrecking Grocery Catalog. It is understood that if I am not thoroughly pleased with the goods I receive I can return them and you will refund my money.

Name .....

Address .....

City ..... State .....

chili powder. Boil one-half hour. Salt to taste. Serve hot. C. B.

Vegetable Marmalades.

Vegetable marmalades or jams are made less expensively than fruit marmalades, because a less proportion of sugar is used and because the vegetable may be procured more cheaply. The extension department of the United States Department of Agriculture, coöperating with state agricultural colleges in the north and west, presents several suggested recipes for vegetable marmalades or jams, to be used the same as fruit products. The ingredients for some of these are shown below. In each case the mixture should be cooked slowly until it is thick and the ingredients are tender, and then packed in hot jars and sterilized.

Carrot Marmalade.—Two cups of ground carrot, one and one-half cups of sugar, two sliced lemons, and two teaspoons ground ginger root.

Carrot and Orange Marmalade.—Two cups of ground carrot, the juice of two lemons, the juice and grated rind of one orange, one cup sugar.

Carrot and Pineapple Marmalade.—One cup of ground carrot, one cup of shredded pineapple, one cup of sugar, one sliced lemon.

Pumpkin and Pineapple Marmalade.—One cup of pumpkin peeled and ground, one cup of shredded pineapple, two cups of sugar, one teaspoon of ginger; this to stand overnight in a granite pan or for several hours until the juice is extracted. Add the juice and rind of one lemon and cook as heretofore stated.

Ripe Tomato Marmalade.—Twelve medium-sized tomatoes peeled and thinly sliced, one and one-half lemons sliced, one and three-fourths cups of sugar; to be placed in stew kettle in layers, cooked in covered vessel until tender, and then to simmer until of right consistency.

Green Tomato Marmalade.—Two pounds of green tomatoes cut in cubes, two teaspoons of bruised ginger root in cheesecloth bag, two cups of sugar, two sliced lemons.

War-Time Recipes.

Duchess Soup.—One-half onion, two tablespoons fat, two tablespoons flour, three cups milk, three-fourths cup grated cheese, salt and pepper. Cook the onion in the fat until tender, but not brown. Add the flour, then the milk gradually. Cook until smooth, add seasoning to taste. When ready to serve, put one tablespoon of the grated cheese in each plate and pour over it the hot soup.

Rice Croquettes.—One and one-half cups cooked rice, one cup thick cream sauce, one-fourth teaspoon paprika, one teaspoon salt, one egg, one tablespoon milk, dried bread crumbs. Add cooked rice to cream sauce. Season and form into croquettes. Dip into beaten egg to which one tablespoon of milk has been added. Roll in crumbs and place in well-greased dripping pan. Brush croquettes with melted fat and brown in hot oven. Serve with cheese sauce. Barley flour may be used in making the cream sauce.

Oatmeal Cookies.—One-half cup butter, one-half cup sugar, one-half cup raisins (seeded and cut fine), one egg, two tablespoons sweet milk, one cupful raw oatmeal, one cup flour, one-half teaspoon baking powder, one-half teaspoon cinnamon. Add the raisins to the creamed butter and sugar, then add other ingredients. The dough should be quite thick. Drop from spoon on well-buttered tins. Bake about fifteen minutes.

Fig Layer Cake.—One-third cup fat, three-fourths cup sugar, two eggs, three teaspoons baking powder, one and one-fourth cups milk, two cups white corn flour. Soak corn flour in milk several hours. Cream fat and sugar, add well beaten eggs, then the soaked corn flour. Beat well, add baking powder, beat quickly and thoroughly and bake in two round tins in moderate oven. Before serving place fig filling between layers.

Fig Filling.—Cut figs into small pieces, add one-third cup sugar, one-third cup water, one teaspoon of lemon juice to one cup of chopped figs. Heat in double boiler or saucepan until soft and thick enough to spread. Place while hot on cake.

Barley Pudding.—Five cups milk, one-third cup barley meal, one-half cup molasses, one-half teaspoon salt, two tablespoons sugar, one teaspoon ginger. Scald the milk, pour this on the meal and cook in double boiler twenty minutes; add molasses, salt, sugar and ginger. Pour into buttered pudding dish and bake two hours in a slow oven. Serve either hot or cold with cream.

The true conquerors are often those whom the world calls the vanquished. —Max Muller.

THE YOUNG FOLKS.

Lives Near Army Camp.

Dear Young Folks:—I have never written before, but I have read your letters for a long time. I am a boy nine years old and in the fourth grade. I have two sisters. One is in high school. We live four miles from town.

My father has a Ford car. The longest trip we have made was 100 miles.

We live twenty-five miles from Fort Riley and Camp Funston. I wish all the young folks could see them.

I am going to raise a garden and cultivate corn next year. I have a collie dog named Bouncer. He can drive the cows and do other things.

I think the answer to Lulu Louise's riddle is a needle. She asked: What has an eye but no head? Can any of you guess my riddle? What is the oldest piece of furniture in the world?

Homer.

Answer to "Little Red Head's" Riddle.

Dear Young Folks:—I am eleven years old and am in the sixth grade at school. I go two miles to school. I have two brothers, one big brother and one just a little larger than I am. My oldest brother is in Oklahoma. There are just three of us children, one girl and two boys. We live seven miles from one town north of us and ten miles from another south of us. We live on an eighty-acre farm.

I like the riddles and I think I can answer "Little Red Head's" riddle. He asked: What goes around the house and only makes one track? I think the answer is a wheelbarrow. Here is my riddle. Three-sevenths of chicken, two-thirds of cat and one-half of goat.

Thelma.

Herded Cattle During Vacation.

Dear Young Folks:—May I join your circle? I have written once before and my letter was not printed, so I hope that I will see my letter in the paper this time. I can hardly wait for the paper to come. I always read the Young Folks' page when I go home from the mail.

I am a girl twelve years old and I live on a farm. We have forty head of cattle, ten horses and about 300 chickens. For pets I have a dog that I can hitch up, and a kitten.

I have about three-quarters of a mile to go to school. I am in the seventh grade. I like my teacher very much. I have one brother who has graduated from high school, and one sister who is in the eleventh grade. We didn't have school for two weeks on account of corn.

During vacation I had to herd cattle. I have a white horse and I ride him when I herd the cattle. His name is George.

Ella.

International Sunday School Lesson.

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)

Lesson for November 25, 1917.

A Psalm of Thanksgiving.

LESSON TEXT—Psalms 103.

GOLDEN TEXT—Bless the Lord, O my soul, and forget not all his benefits. —Ps. 103:2.

This Psalm is man's response to the goodness and mercy of God. It expresses the joy and gratitude of a forgiven sinner as he worships before God. There is too much in this Psalm for one to attempt to set it forth, so we must be content to display some of its most prominent notes.

I. Man's Entire Being Should Sing God's Praise, v. 1. The true worshipper praises God with every faculty of his being; his intellect, emotion, desires, affections all unite in praising Jehovah. The entire being responds in a song of harmonious praise. Some Praise God with their voices but not with their hearts; some with their intellect but not with their affections; some with their emotions but not with their wills. That praise which involves the entire being alone is pleasing to God.

II. The Benefits Granted, vv. 2-6. The Psalmist exhorts man not to forget all God's benefits. This seems to be needed now as well as then, for most of us are better at remembering our troubles and adversities, our losses and our sorrows, than we are at remembering our mercies and blessings. It would be a good thing for some of us to keep a record of the good things of life and see that, after all, our blessings outweigh our burdens. We have more days of sunshine than of clouds, more joys than we have of sorrows, more hours when we are free from pain than we suffer with pain. If God were as forgetful of us as we are of Him, life would be hard indeed.

(1) Forgiveness of Sin, v. 3. In forgiveness we are freed from the curse of sin and its blight and burdens are removed. We are not only forgiven, but we are healed of sin's disease; not only freed from the burdens of sin but of its effects, so that we do not go after the things of this world. To be saved for heaven means that we are saved from the world.

(2) Redemption, v. 4. We have been saved by Christ giving Himself as a ransom for our souls.

(3) Satisfaction, v. 5. When God redeems, he so thoroughly renews the man that the good things which he gets from God satisfy him. His blessings are so real that he finds satisfaction in God. Men and women of the world are reaching out after fleeting things. They are ever grasping after something, but are never satisfied. Not so with the redeemed soul; he finds absolute satisfaction in the things which God gives him. Worldlings may be satiated, but God's redeemed alone are satisfied.

(4) Executing judgment in behalf of the oppressed, v. 6. He is always on the side of the oppressed. God under-

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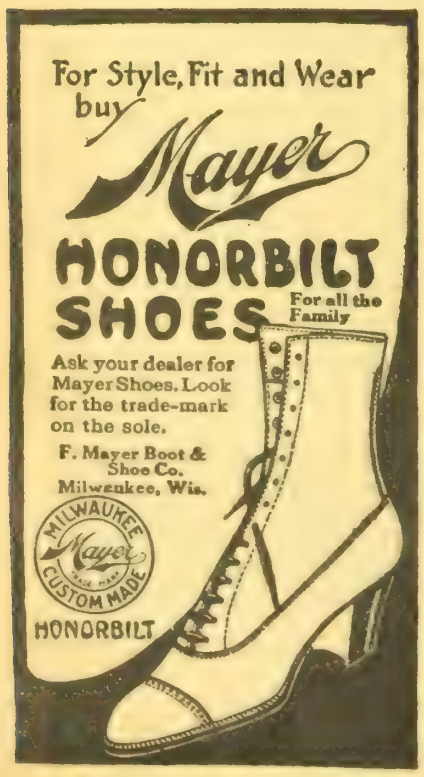

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THE WISCONSIN FARMER
Dept. W-4, Madison, Wis.

takes for his own, and sooner or later He will mete out justice to all. There is a reckoning day for the world coming. Those who have done evil shall suffer loss; those who have done good shall be rewarded.

III. Attributes of God for Which He Should Be Praised, vv. 7-18. These attributes have been displayed in God's dealings with his chosen people.

(1) Merciful and gracious, v. 8. He is slow to anger and plenteous in mercy. An example of his mercy is seen in the father of the prodigal son running to meet his son and kissing him. A very little thought will make very evident how God withholds his anger and waits patiently for an opportunity to extend his mercy.

(2) He will not always "chide," vv. 8-12. When God forgives he forgives forever. Men say they forgive, but how often they "chide" and "keep anger." God has not dealt with us according to our sins, for, as the heavens are high above the earth, so great is his mercy toward them that they fear him. So really has God forgiven us that our transgressions are as far removed from us as the East is from the West, an incalculable distance.

(3) He is compassionate and tender, vv. 13-14. This reveals God's fatherly heart. He fully knows our weakness. He does not deal with us as though we were strong. He knows how weak and fallible we are through the fall. It is consoling to know that God considers our "frame!" He knows that we are "dust."

(4) His Mercy is everlasting, eternal, vv. 15-17. Man is at best transitory, but God is eternal The one who rests his hopes in God is eternally safe. This should encourage us to lean not upon man but upon God.

(5) God is gracious to those who are in covenant relationship, v. 18. If we would enjoy these blessings revealed in God's attributes we must be God's children. His mercies are restrictive, only bestowed upon his own children.

IV. A Call to All the Universe to Praise the Lord, vv. 19-22. Since God is such a wonderful Being, He should have universal praise. His kingdom is over all; his Lordship should have recognition.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Enclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

1591—Ladies' night dress, perforated for sack length and short sleeve. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 4 yards of 27-inch material for the sack style and 7 yards for the gown style for a 36-inch size.

1974—Children's outdoor set, consisting of leggings and coat. The leggings extend to the waist line. The pattern is cut in 4 sizes: 2, 3, 4 and 5 years. It requires 3¼ yards of 44-inch material for a 4-year size.

2082—One-piece dress for misses and small women. The pattern is cut in 3 sizes: 16, 18 and 20 years. It requires 5¾ yards of 44-inch material for an 18-year size.

2121—A pretty dress for the school girl. The pattern is good for wash fabrics as well as for silk and cloth. It is cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 5⅛ yards of 32-inch material.

2259—A natty suit for the growing boy. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. Size 8 requires 3½ yards of 44-inch material.

2265—A pretty dress for mother's girl. The pattern is cut in 4 sizes: 2, 3, 4 and 5 years. Size 4 requires 2¾ yards of 36-inch material.

Waist 2266-Skirt 2267—A good business dress. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42 44 and 46 inches bust measure. Size 36 requires 3⅛ yards of 36-inch material. The skirt pattern is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure, and will require 3⅛ yards of 44-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

2268—A practical apron model. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. Size medium will require 4¼ yards of 36-inch material.

2272—A smart frock for mother's girl. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 4⅛ yards of 36-inch material.

2275—A new dress and hat for Miss Dolly. The pattern for this attractive design is cut in 6 sizes: For dolls, 16, 18, 20, 22, 24 and 26 inches in length. Size 24 will require 1½ yards of 27-inch material for the dress, and ⅝ yard for the hat.

2281—A neat house dress. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 6½ yards of 44-inch material.

2300—An attractive set of toy animals. The set includes a sheep, dog and pig. It will require ½ yard of flannel for the sheep, ¾ yard for the dog, and ⅜ yard for the pig.

Manitowoc County Association.

To the Editor:—The Manitowoc County Cow-Testing Association reports 425 out of 587 cows tested during the past month. John Pinter owns the highest producing cow, which yielded 52.4 pounds butter fat. Cheese factories paid from 64 to 68½ cents per pound of butter fat for September, plus a payment of from 5 to 13 cents per hundred of milk for whey fat. The condenseries paid 71 cents for butter fat during October and are now paying 75 cents or $3 per hundred of 4 per cent milk. Following is the 40-pound list of this association for the 30-day period ending November 10th:

Patrick Cahill & Sons					
No. 6, G. H...	5	3-24-17	959	4.2	40.3
No. 12, G. H...	8	2-9-17	1102	3.9	42.9
No. 15, G. H...	8	2-14-17	1095	4.4	48.2
No. 20, G. H...	10	3-2-17	1009	4.4	44.4
Joe Brennan					
Queen of Nettle Hill, Reg. Guernsey..	6	6-8-17	703	6.2	43.7
Cream of Nettle Hill, Reg. Guernsey..	4	4-11-17	766	5.9	45.2
John Pinter					
Mully, G. H.....	11	6-3-17	771	6.8	52.4
Torris Geraldson					
Canary Michthilda Princess, Reg. Holstein...	5	1-21-17	849	5.1	43.3
Adolph Otto					
Piee Estata De Kol, Reg. Holstein...	8	8-31-17	1473	3.26	48.0
Lady Oak Homestead, Reg. Holstein...	3	9-19-17	1335	3.05	40.7
Bryan Mullins					
No. 2, G. H...	9	7-15-17	1256	3.2	40.2
No. 1, G. G...	10	8-14-17	1160	3.6	41.7
No. 24, G. H...	7	9-16-17	1170	4.4	51.4

J. E. BOWSTEAD, Cow Tester.

Small Tractor Pulling Manure Spreader.

This is M. W. Roberts, of Fulton, N. Y., sitting on his 5-10 horse-power Avery tractor, which he purchased last spring. Mr. Roberts operates nine acres of truck land and grows celery, onions and lettuce. He used the tractor in plowing and fitting the ground for his crops and claims that he did the work more cheaply than could be done with horses. It required from eight to nine gallons of kerosene a day. He is now using his tractor to haul crops in loading cars. He is quite delighted with his investment because he has no horses to feed. His soil is muck land, but he uses extra rims and claims that he can get on the land just as quickly as with teams.

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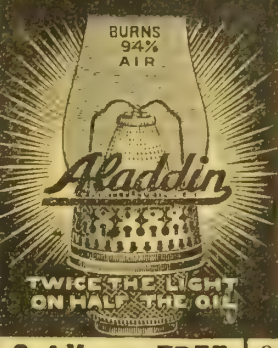

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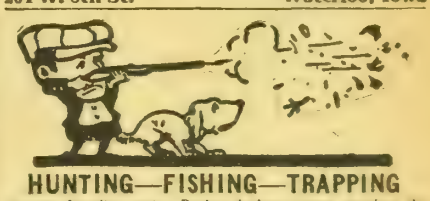

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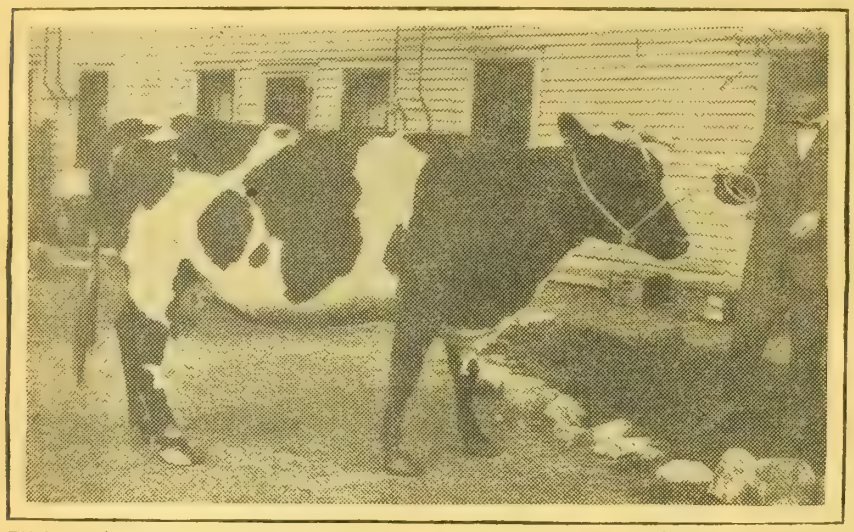
are your favorite sports. During the long winter evenings the National Sportsman Magazine with its stirring yarns and pictures of outdoor life and adventure will give you a real treat. It's the best magazine published for lovers of sport with rod and gun. Only $1.00 for a whole year. Send 10c stamps or coin for sample copy. Address

NATIONAL SPORTSMAN MAGAZINE, 259 Columbus Ave., Boston, Mass

In and Around Wisconsin

One hundred fifty carloads of both young and matured dairy cattle, including grades and pure breds, have been shipped to western buyers during the past year. This work has been conducted largely by county agricultural representatives, working through the headquarters office of the State Agricultural Extension Service and the Wisconsin Live Stock Breeders' Association. Consignments have been chiefly to points in Oklahoma, Kansas, Iowa, North Dakota, Minnesota, Oregon, Illinois, Texas, Colorado, Montana and Tennessee. Some of the men who have been identified with the transfer of this desirable Wisconsin dairy stock are L. M. Allen, passenger traffic manager of the Rock Island, who distributed pamphlets telling of the Badger breeding stock; E. F. Burton, dairy agent of Wyoming; E. G. Bennett, commissioner of dairying, Missouri; A. Castigliano, Italian consul, Minnesota, who bought stock for an Italian colony from Barron county breeders; L. A. Farrell and R. C. Shiflett, banker and county agent, respectively, Oklahoma; Bartlett Eastman, North Dakota; C. A. Hutton, Tennessee; Agricultural Extension Department, State University; C. M. Long, Pettis county farm bureau, Missouri; C. H. Eckles, College of Agriculture, University of Missouri; W. A. Posey, county agent, Iowa. The coöperation which has been possible along these lines has placed Wisconsin in a position where she has been able to contribute to the producing power of other less-favored regions. It has also saved fair to good dairy cows from the chances of slaughter as beef. It has relieved the dairy calf situation somewhat in cheese factory and condensery sections where farmers find it hard to raise calves at a profit. It has given the Wisconsin farmer a better price for good surplus stock. It has induced communities here and elsewhere to get together and standardize on some particular breed of dairy cattle.



This Winnebago County Cow Produced Last Year $100 Over Feed Cost and Was Sold on This Meritorious Record to a Tennessee Farmer.

Members of the Wolf River Coöperative Cow-Testing Association met recently at Algoma, Kewaunee county. It was decided by members of the association that in figuring the cost, silage should be placed at $4.00 per ton, which remained the same as was established by the organization last spring. The value of pasturage was also left as it was established last year, that is, $1.00 per month for wild pasture land and $2.00 per month for cultivated pasture land. The members of the association decided to make use of concentrated feeds, which will be purchased in carload lots through local dealers. The Cow-Testing Association has a committee which will keep in close touch with the members relative to their supply of feeds and when the supply runs low, new orders will be placed. It is the belief of dairymen in this section that it will pay to feed a certain portion of mill feeds notwithstanding the high prices.

A movement to promote more wool in the state has extended to Dane county and a number of merchants recently met in Madison and perfected an organization to encourage the farmer boys of the county to form sheep clubs.

Mr. R. A. Kolb, county agent for Taylor county, has advised farmers to make the best of the unfortunate situation as regards seed corn. His advice is to look around early. Even in the better counties of the state there is some seed corn taken from sandy sections. Mr. Kolb says, "Do not delay until it is too late in looking about for seed corn, but take the matter up at once, as those who wait till spring may find good acclimated seed corn almost impossible to get."

There is prospect for quite lively competition in the buying of milk in Kewaunee county due to the fact that the Van Camp Company are remodeling their old factory, formerly used for canning peas, and turning it into a condensery. This condensery will be a competitor for local cheese factories for the milk supply and according to reports farmers are somewhat undecided as yet as to whether it will pay them best to continue sending their milk to cheese factories or to become patrons of the condensery. It is argued that the condensery does not give full returns of the milk with a test of 4 per cent or better and there is considerable milk in Kewaunee county which comes up to this test. Another factor which enters into the situation is that in hauling to factories the farmers are given their whey, which is used for feeding hogs and which is generally considered to be worth 20 cents per hundred pounds. Most of those who figure the value of whey consider it worth more than that. Those who take their milk to the condensery have no returns in the way of by-product. One suggestion which has been made is that the farmer having cows with low butterfat percentages could possibly best afford to deliver to the condensery, while the high-test milk would bring better returns at the cheese factory. However, the problem of dividing the product in any particular form is rather an unsatisfactory one.

THE FARMERS' MARKET

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BEANS WANTED—Send samples, machine run or hand-picked navies, naming lowest price and quantity. C. O. Bashaw Co., Plymouth Bldg., Minneapolis.

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160 ACRES with sheep-tight fence, only 2 miles high school town; new hip-roofed basement barn, small frame house, drilled well; heavy clay loam, rolling, grass land, largely brush covered with scattered hard maple. Few acres plowed, lots more easily broken. Certainly a snap at $5,000. Easy terms. 46-inch woven wire fence all around. Baker, G110, St. Croix Falls, Wis.

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WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—Have 80 and 160-acre farms, mile from city; must sell one and will rent the other; easy terms. H. V. Peoples, Ladysmith, Wis.

A SIXTY-ACRE FARM, all fenced; fair buildings; bearing orchard, $2,800, $1,000 down, balance 5 per cent. French Rutter, Ferryville, Wis.

IF YOU WANT TO SELL or exchange your property, write me. John J. Black, 2 Main, Chippewa Falls, Wis.

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GET THE BEST BREEDERS NOW—At reduced prices—cockerels and pullets. Pullets laying. Write your wants, I can furnish them from my seventy-one best breeds of land and water fowls. Satisfaction guaranteed. Henry Shoemaker, Box 425, Janesville, Wis.

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HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

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1,000 S. C. White and Brown Leghorn year-old laying and breeding hens and cockerels. Bred for eggs. The American Poultry Plant, Collins, O.

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SALESMEN WANTED—Several neat appearing young men, aged 18 to 40, to travel and solicit business. Straight salary and expenses. No commission. Experience unnecessary, but must be hustlers. Call personally or write for details. Address Sales Manager, 809 Railway Exchange, Milwaukee, Wis.

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LEARN TELEGRAPHY—Positions guaranteed. Young men and women. Write Northwestern Telegraph School, Eau Claire, Wisconsin.

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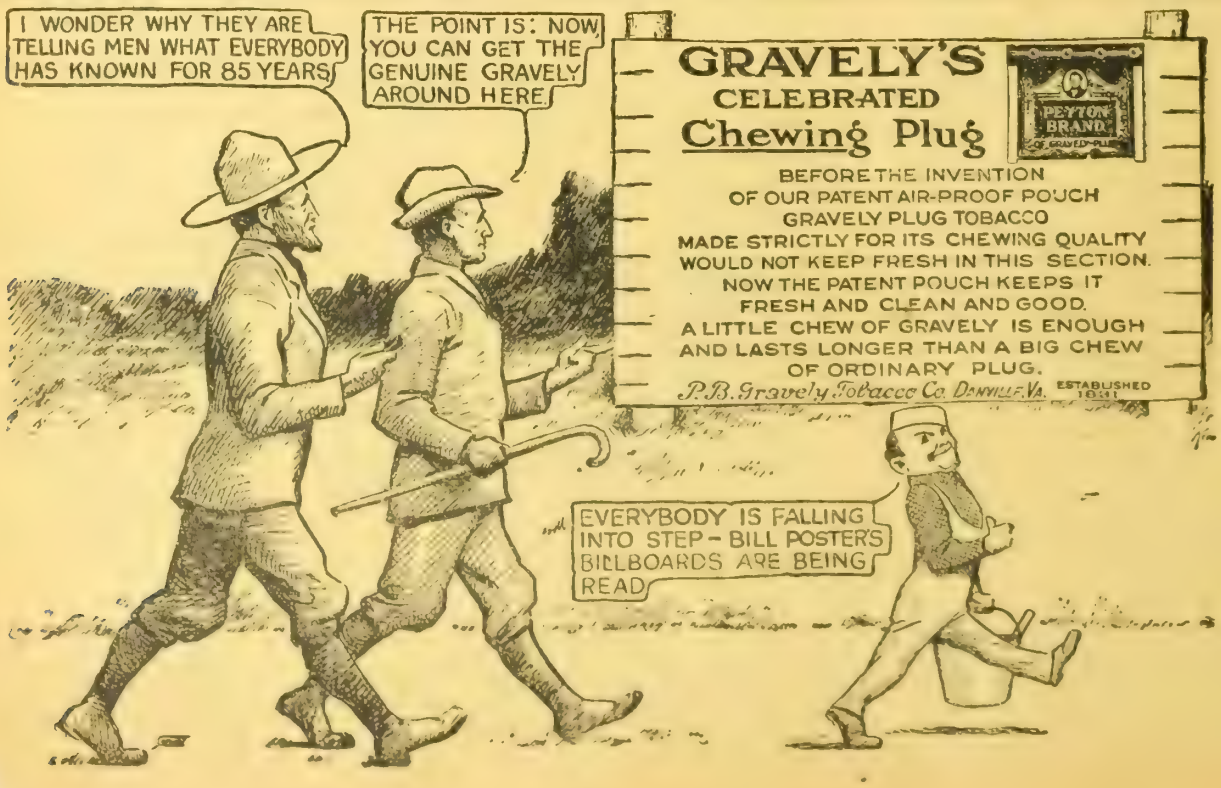

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Anoka Farms' Short-horn Sale.

THE 33 females in the Short-horn offering at Anoka Farms, Waukesha, Wis., Saturday of next week, December 1st, represents the last word in Short-horn breeding merit. Never before has so strong an array of heifers been put forward by this great breeding establishment and the writer doubts very much if an equal number of corresponding worth could be found in any herd in the country. In the list is Augusta Anoka, an outstanding proposition by Crystal Stamp, first at Minnesota and Wisconsin and second at Des Moines. She is a top proposition and has for a dam an imported cow that is a full sister to the bull that recently sold in the Argentine for $23,500. Fanny Anoka by Crystal Stamp was junior champion at Milwaukee, second at Hamline and third at Des Moines. Beauty Anoka 2d by Crystal Stamp, leaves nothing to be desired in individual excellent and her breeding is the best. Columbia Anoka by Anoka Stamp, is a good one in any company, as is Athene Anoka by a son of Village Denmark. Several outstanding daughters of Imp. Rusper Champion are in the list, among them Beatrice Anoka 3d, Missie Sultan 3d, out of a dam by Whitehall Sultan and Clipper Anoka 7th. And so it goes all through the list. Character, substance, quality, all backed up by the best of blood lines, make this lot of cattle one of extraordinary merit, viewed from any angle. They are a decided credit to the Short-horn breed as a whole and will give added prestige to the reputation of Anoka, as one of the great Short-horn breeding establishments of the world. Catalogs for this great sale, together with a handsome photogravure of every animal in the offering, can be secured by addressing Anoka Farms, Waukesha, Wis. Kindly mention this paper when you write. See advertisement on page 21.—Adv.

Peterson With Krause Milling Co.

THE Chas. A. Krause Milling Company, of Milwaukee, manufacturers of mixed feed, has secured the services of P. O. Peterson to represent them in the state. Mr. Peterson has had valuable experience in the dairy world. He is a graduate of the University of Wisconsin in the college of agriculture class of 1907, having specialized in animal husbandry. For a year after finishing his course he was a herdsman at the experiment station dairy farm. For one year he had charge of the advanced registry tests at the Hartwood Farm, Barrington, Ill., and for the past three years, he has been superintendent of the Edgewood Farm at Burlington. Mr. Peterson is one of the best posted young men along dairy lines in the state and is a member of the state Holstein Breeders' Association and also the milk producers' association. He should make an admirable representative for the Krause Milling Company, which is paying special attention to the manufacture of high-grade feeds for dairy cows.—Adv.

Jefferson County Guernsey Breeders' Association.

MR. H. A. MAIN, secretary of the above-named association, who is located at Fort Atkinson, Wis., writes us that this association is in a position to furnish buyers with high-class grade Guernseys of all ages as well as a number of pure-bred females and pure-bred bulls from exceptionally well-bred dams. No commission or livery expense is charged and inspection is requested. Over 100 herds of Guernseys are located in this vicinity and buyers for pure breds or high-class grades will do well to get in touch with Mr. Main, as he is in a position to know exactly what the association has to offer. See page 20.—Adv.

Boars by Taxpayer Orion.

ALLIC S. KNUDSON, Brodhead, Wis., is making special prices on his Duroc boars sired by Taxpayer Orion. These boars are of April farrow and the dams of most of them are by Valley G., a litter mate to the well-known Illustrator. Mr. Knudson will ship you a good, well-bred boar worth the money, and he advises us that he has shipped boars for 10 years and only had one returned, and that certainly speaks for his integrity. Get in touch with this breeder if you want a boar of this breed. Please mention The Wisconsin Farmer. See page 23.—Adv.

A Few Good Durocs.

L. F. ATWATER, Bangor, Wis., has a few Duroc boars on hand that he thought too good to "knife," and if you have not purchased your stock hog yet write L. F. and he will send you a boar that will fill the bill. They are of the same breeding as the boars that sold in the October sale for $85 average. They were farrowed a little later, though they are big for their age. Buy from the fountain herd.—Adv.

Kirst Has the Goods.

A WISCONSIN FARMER representative was in Tomah, Wis., a short time ago, and called on the various Kirsts around there, among them being Alfred E., the Duroc breeder. He has five boars that are "real ones." They will weigh 250 pounds or more and are absolutely right in every respect. The man that gets one of these boars will certainly be pleased. If wanting one, write quick, for there are only five for sale. See page 23.—Adv.

Keep Your Eye on J. F. O'Brien.

J. F. O'BRIEN, Madison, Wis., is getting together a good herd of big-type Poland Chinas, and is sparing no money when it comes to buying foundation stock. A Wisconsin Farmer representative recently spent the day on his farm a few miles from Madison. He owns a sow that would be a credit to any herd, namely, Great Prospect. This sow was first-prize junior yearling at the Minnesota State Fair this fall, is an April yearling, and weighs right at 700 pounds. We are safe in saying that she is the best yearling of the breed in the state. Mr. O'Brien also sent to the Mouw sale and bought Mouw's Black Maid 2d, and bred to Gerstdale Jones. Besides the above one of the good young sows is sired by Crow's Progress out of that grand old brood sow, Big Type Bess. At the head of the herd is Big Ben 2d, a yearling son of the well-known breeding boar, Big Ben. Assisting this fellow is a son of Blue Valley Timm Jr., out of a Columbus-bred dam. With this line-up, Mr. O'Brien certainly is started right in the Poland China business. He expects to buy a few more good ones bred to good boars of the best big-type backing. Keep your eye on Mr. O'Brien. He is headed in the right direction. See page 23.—Adv.

Ceylon Court Jerseys.

THE most prominent blood lines of this register of merit herd are Noble Oaklands, Golden Jolly, Eminent, Royal Majesty and Dairy's Golden Jolly. Mr. D. G. Gilbert, superintendent of this well-known herd in southern Wisconsin, will be glad to furnish anyone interested with a price list of the young stock that they are offering for sale. They will be still better pleased to show this herd and the ancestors of the animals they are now offering for sale. See page 21.—Adv.

Special Train to Anoka Short-horn Sale

A special train will leave Chicago Saturday morning, December 1st, at 8:40 o'clock, over the Chicago & Northwestern, for Waukesha, Wis., where it will arrive at 11 o'clock. It will return to Chicago after the Anoka sale, leaving Waukesha at 5 p. m., arriving at Chicago at 7:30. The time of departure is set so that connections can be made from all trains arriving in Chicago in the morning.

Matthes Boars Will Suit.

FRED G. MATTHES, Viola, Wis., writes that he has made several Duroc Jersey boar sales and that the men to whom he shipped have been more than pleased. He has seven boars for sale that are good enough to ship on approval. Two are by Pathfinder 2d, and they weigh 179 and 180 pounds. Two are by King the Col. Again that weigh 175 each. Three good boars by a son of Cherry Chief's Wonder, 200, 225 and 235 pounds respectively. These boars are being priced worth the money and if you will write Mr. Matthes for details he will give you an exact description of them. See page 23.—Adv .

Clara I. Barker's JeJrseys.

MISS CLARA I. BARKER, proprietor of Camp Barker Farm Jersey herd, is offering for sale a few choice young bulls that are particularly fine individuals and bred from register of merit stock. They are of the Noble of Oakland, Pogis 99th of Good Farm, Gamboge's Knight and Golden Fern's Lad breeding. These young bulls are priced to sell quickly and Miss Barker will be glad to furnish pictures and detailed descriptions of the animals mentioned.—Adv.

Boars for Sale.

HAUK BROS., Cassville, Wis., can sell you a boar—Poland China—if you want one. They have them that are large individuals and are bred right. Write them your wants. See page 23.—Adv.

Sheep and Goats.

MR. GEO. A. PHILIPPI, Bear Creek, Wis., is offering a limited number of choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep in both ewes and rams for sale; also high-class registered Angora goats of both sexes from the leading show and breeding flocks in the central states.—Adv.

Coats' Chester Whites.

MR. O. P. COATS, Elkhorn, Wis., whose Chester White herd is well known throughout the state, is now offering for sale two two-year-old boars and one yearling boar that are good enough to head any herd; also a number of spring boars that will weigh better than 200 pounds. Mr. Coats also has a few fine spring gilts and 30 choice September pigs for sale. The September pigs he is offering at $15 each to be shipped when three months old. Mr. Coats is making it easy for farmers to get started in Chester Whites with a small initial outlay of capital. We trust persons interested will kindly mention The Wisconsin Farmer when writing Mr. Coats regarding his herd. See page 22.—Adv.

Fred Gurr, Lake Mills, Wisconsin.

MR. GURR is offering for sale a young Holstein bull sired by a son of King Segis Pontiac Polkadot, a full brother in breeding to the $50,000 King Segis Pontiac Alcartra. The dam of the calf Mr. Gurr is offering for sale has a record of 18 pounds at three years and has an 18-pound 26-month-old daughter. Mr. Gurr is known to have animals of good individuality and we can, therefore, recommend his offering to our readers. See page 22.—Adv.

Edge Has Good Durocs.

DON'T forget Wm. Edge, Fennimore, Wis., that genial Duroc breeder of Grant county. If you want Durocs, write Edge, he has them and has them good and if he ships you a boar or a gilt you can rest assured they will be right. See page 23.—Adv.

Hartley Stock Farm.

W. T. HARTLEY, owner of Hartley Stock Farm, and breeder of Short-horn cattle and Poland China hogs, is located near La Crosse, Wis. His advertisement starts with this issue, offering for sale 20 Short-horn cows and heifers and 30 bulls. A representative of The Wisconsin Farmer recently saw this stock and says that anyone wanting a good bull or some good females can find them in this herd, and they can be bought worth the money. The colors are good, and they are in excellent condition. In Poland Chinas Mr. Hartley is offering 50 head of boars and gilts. Write him your wants. See advertisement on page 21.—Adv.

Warmington's 701.8-Pound Two-Year-Old Jersey Bull.

P. G. WARMINGTON, Honey Creek, Wis., is offering for sale a handsome young bull, whose dam is in the register of merit class AA, having produced 701.8 pounds of butter as a junior four year old. Her dam made 447 pounds at 13 years and the sire of this two-year-old bull is a grandson of Boutillier, the highest record cow on the Island. Anyone looking for a high-class Jersey bull combining individuality and register of merit performance to a high degree will do well to write Mr. Warmington for further particulars regarding this animal. See page 21.—Adv.

Kirst Has Some Great Gilts.

WE recently saw the A. L. Kirst Chesters at Tomah, and we are glad to say that he has some of the best gilts we have seen. They will average around 200 pounds, and have the desired stretch with good backs and feet. The boars have all been shipped out, and have given good satisfaction so far. The gilts are being bred to a 300-pound spring pig of Chief Keokuk breeding, and are for sale for immediate shipment. See page 22.—Adv.

Knight's Recent $700 Kentucky Purchase.

MR. WM. M. KNIGHT, Eagle, Wis., recently attended W. R. Spann's fifteenth semi-annual sale of Island bred and imported Jerseys at Shelbyville, Ky., and purchased a cow that is estimated by well-informed Jersey breeders to be the best daughter of the great Oxford Majesty. This cow was one of the richest bred animals of the sale and has Oxford Lad breeding on both sides of her pedigree. She now has a register of merit test of 529.2 pounds butter and 8,253 pounds milk. In addition to this royal breeding and splendid register of merit performance, she is a cow of outstanding individuality, being a large cow with good lines and possessing an exceptionally good udder and teats. Besides all these points of interest she is safely in calf to Mabel's Raleigh's Prince. We prophecy a great future for Mr. Knight in the Jersey business as he is one of the most enthusiastic men of the state, anxious to breed animals that excel in individuality and register of merit performance. It will be remembered that last fall it was Mr. Knight's herd that was most prominent at the leading county fairs and that took a big share of the blues at the Wisconsin state fairs. One of the most outstanding animals of his show herd this fall was Eminent's Safety Bell 2d, that was first in seven county fairs and also first at the state fair. She is a particularly handsome heifer and would have given a very good account of herself at the National Dairy Show. See page 21.—Adv.

Cole Has a Great Lot of Gilts.

ON the 12th a representative of The Wisconsin Farmer called on A. W. Cole, at Lodi, Wis., and reports that he saw 20 of the nicest and most uniform lot of Poland China gilts that he has seen this fall. We feel safe in saying that the 20 head would have averaged 225 pounds on the above date, and every one with a good foot, bone and back. They were great, and Mr. Cole prefers to sell them open, rather than hold them over and breed them. However, if they are not sold within the next week or so they will all be bred. If interested in open gilts, write Mr. Cole, for these gilts will please anyone. See page 23.—Adv.

Quackenbush, of Melrose.

IF you could see the herd of Poland China sows owned by W. W. Quackenbush, Melrose, Wis., you would want a boar or a gilt out of some of them. Quackenbush has the goods and if you should order a boar and some gilts of him, you can rest assured that you would get a good pig. He sent his "tail-enders" to Chicago and he sure has a nice lot of gilts. If you have not purchased that boar, we gladly refer you to this breeder. He will treat you right and you will get your money's worth. Write him. See page 23.—Adv.

Write Derenthal.

WE have just been advised by H. A. Derenthal, Wykoff, Minn., that he has no more March Chester White boars for sale, but his April and May pigs are doing fine and ready to ship out at a price in keeping with their age. These are well grown and are of the very best Chester White blood lines. These late pigs may suit you and if interested it will do no harm to write for further details. See page 22.—Adv.

Reese, of Brooklyn.

LOUIE REESE, Brooklyn, Wis., has had a good demand for Poland China boars and gilts. There is generally a reason, when a man is able to sell when others can't. He either sells cheap or else has very choice stock. We don't know what price Reese gets for his Polands, but he did have a nice lot when we were there a short time ago. He will sell you a boar or a gilt—get busy.—Adv.

McKerrow's Shropshires and Oxfords.

FARMERS interested in Shrops and Oxfords should not forget the fact that George McKerrow & Sons' Co., Pewaukee, Wis., have 100 yearlings and lambs at reasonable prices. McKerrows have been breeding sheep for 30 years and have established correct type as has been demonstrated many times at the leading shows where their herds have been on exhibition. See page 23.—Adv.

Special.

ALLIC S. KNUDSON, Brodhead, Wis., is offering for sale some Guernsey bulls that should appeal to the critical buyer. If you appreciate breeding and individuality, you cannot help but be pleased with the youngsters offered by Mr. Knudson. Get in touch with him at once if in need of a Guernsey bull. Mention The Wisconsin Farmer.—Adv.

Orion King.

DON'T forget Orion King, that good son of the champion King Orion, and owned by Mike Stoehr, Viroqua, Wis. Mr. Stoehr is breeding a fine lot of big, stretchy gilts to this boar

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

and they will be for sale as soon as they are safely settled. If you are going to want a bred sow carrying a litter by one of the best young Duroc boars in the state, write Stoehr. See page 23.—Adv.

Important.

MEN interested in Poland Chinas should write W. W. Quackenbush, Melrose, Wis., and let him tell you about the boars and gilts that he has for sale. The boars are fine in every respect and will please the prospective buyer. The gilts are great and the man that wants a few gilts for a winter sale can find them at Quackenbush's that will be a credit to any sale offering. They can be bought so that they will sure make money unless they die. It is useless to talk about the breeding, for those that follow the game know that he bought some of the best sows sold in Minnesota and Wisconsin last winter. We recommend this big-type Poland herd. See page 23.—Adv.

Guernseys and Durocs.

ALLIC S. KNUDSON, Brodhead, Wis., has a wonderful herd of Guernsey cattle. Some good A. R. records have been made from this herd and if you want a bull with A. R. backing, Mr. Knudson has some that will suit you. He also has a nice herd of Durocs and just at this time has a nice lot of spring boars and gilts to sell. You cannot help but be pleased with the class of stock this breeder raises. Write him for details and please mention this publication. See this page and page 23.—Adv.

Buy a Shea Boar.

DENNIS SHEA, Melvina, Wis., has as good a lot of spring pigs as we have seen. He had a large number of boars and has sold many to old customers, but he still has 15 or 20 that are good enough to ship on mail orders and give satisfaction; in fact Dennis will ship on approval if you wish. No one can be fairer. The breeding is the best and the boars are good. What more do you want? See page 23.—Adv.

Bates Cattle.

DON'T forget that B. W. Little, of Janesville, Wis., has a herd of Short-horns that for Bates breeding is second to none in the state. If you want cattle that trace to the fountain herd, communicate with B. W. Little. He has some very nice young bulls for sale, around a year old, of the very best breeding. Let him describe them to you. See page 21.—Adv.

Milking Short-horns.

LET Marquart Bros., Milton Junction, Wis., quote prices and describe the milking records back of the young bulls they are offering for sale. They have a grand herd of cattle. See page 21.—Adv.

Scotch Short-horn Bulls.

IF you are in the market for a Scotch bull of the very choicest breeding visit the Kennedy herd. Mr. Kennedy has them as good as can be found in the Northwest, and if you would like to spend the day looking at the best herd of Short-horn cows in the state visit J. E. Kennedy, Janesville, Wis. See page 21.—Adv.

Chief Defender.

R. C. CHURCH, Elkhorn, Wis., and the owner of that big yearling, Chief Defender, advises us that he is sold out of Duroc boars, having had a good call for the boars sired by "Chief." He is breeding his gilts to this good boar, and they are being sold now. If you want the big kind, here is the place. See page 23.—Adv.

Good Polands.

WM. HAUK, Cassville, Wis., had some of the nicest Poland Chinas we saw when we made a trip over Grant county a short time ago. He has boars and gilts for sale, and will try hard to please those interested in this breed. Write him and please mention The Wisconsin Farmer. See page 23.—Adv.

Write O'Keefe.

IF you'll write M. H. O'Keefe & Son, Waunakee, Wis., they will be pleased to describe the Duroc Jersey boars and gilts that they have for sale. They have a nice lot, and The Wisconsin Farmer does not hesitate a minute to recommend Mr. O'Keefe to prospective buyers. See page 23.—Adv.

Ackerman Has Poland Chinas for Sale.

WM. F. ACKERMAN, Glen Haven, Wis., will sell boars or gilts, and if you want a boar or a few gilts write him. They are sired by A. Big Orange, the boar that sired so many good pigs while in this herd. Ackerman can send you a good spring pig worth the money. See page 23.—Adv.

Jerseys—Stubley.

IF you are in need of anything in the line of Jersey cattle, write Fred Stubley, Black Earth, Wis. Mr. Stubley has one of the largest Jersey herds in the state, and if you want a few females or a good bull with A. R. backing, write him for further information. See page 21.—Adv.

George Offers Choice Boars.

WALTER GEORGE has some Chester White boars on hand that should be working for someone. If you want the big kind, not fat big, but naturally big, George has that kind, the good-footed, high-backed, strechy kind. Write George at Evansville, Wis. See page 22.—Adv.

Poland China Boars.

WM. SMILEY & SONS, Albany, Wis., advise us that they still have a few good Poland China boars that they will ship out. Many of their old customers can use these boars and the old customers are Smiley's best customers. They guarantee every boar. See page 23.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22. Short-horn Congress Sale, Chicago.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

Fred Wright's Holstein Sale.

Having disposed of his farm near Milton Junction, Wis., Mr. Fred Wright held a sale Wednesday, November 7th. The cattle were right off pasture. The yearling heifers, while very promising, were thin. The calves were in nice sale shape, showing good care and feed. While the prices of the cows were not high, it will be noticed by comparing them with the prices of the grades, of which there were eight, three with calves at foot, that the selling price of the pure breds was twice that of the grades. As there was no other expense except for foundation stock and $1 per animal registration fee on the cost difference of the pure bred over the grades, this sale is certainly a strong argument for pure-bred stock. The individual sales and averages were as follows:

Mutual Inka of Rock, Jas. Sprackling, Janesville $250
Heifer calf, Jas. Sprackling 185
Plebe Crissie, Allen B. Godfrey, Milton 165
Heifer, Ralph H. Harvey, Evansville 110
Mutual Korndyke of Rock, F. W. Walmer, Whitewater 155
Heifer, Geo. A. Fox, Sycamore, Ill. 85
Mutual Caroline of Rock, Frank Fisher, Janesville 175
Heifer, Geo. Fox 145
Juliana Ykema of Rock, John Wehinger, Janesville 95
Mooie Aaggie of Rock, L. Silver, Milton 225
Colantha Sadie Tietje 2d, James Sprackling 240
Heifer, Jas. Sprackling 130
Juliana Bess of Rock, Jas. Sprackling 250
Bull, James Sprackling 70
Cornucopia Roella Hengerveld, L. Silver 190
Bull, F. W. Walmer 25
Inka De Kol Princess 2d, Alf Austin, Milton Junction 165
Bull, Herman Schmeling, Milton 75
Mutual Pontiac Fobes, Jas. Sprackling 220
Heifer, James Sprackling 100
Mutual Pauline of Rock, F. W. Walmer 170
Bull, F. W. Walmer 110
Mutual Cornucopia of Rock; Ralph Hudson, Milton Junction 185
Bull, Ralph Hudson 45
Zeldenrust Pietertje Pontiac, J. W. Richardson, Milton Junction 175
Bull, F. W. Walmer 120
Mutual Homestead of Rock, E. W. Fisher, Janesville 145
Bull, James Sprackling 80
Inka De Kol Princess, Alf Austin 155
Bull, Leonard Odenwalder, Milton 65
Inka Mercedes Blackhawk De Kol, James Sprackling 220
Bull, James Sprackling 55
Inka Beauty De Kol, Allen B. Godfrey 125
Mutual Melani of Rock, James Sprackling 185
Heifer, Alf Austin 115
Bull, Alf Austin 75

SUMMARY.

36 head .....$5,080; average....$141.11
17 cows ..... 3,270; average.... 192.34

3 yearling heifers, $370; average $123.33. 15 calves under one year old, 10 bulls and 5 heifers, $1,345; average $89.67. One barren heifer, $95. 11 grades, 8 cows with 3 small calves, $791.

Make Your Live-Stock "Make Good"

The need for beef, pork, mutton, milk, butter, cheese, hides and wool was never as great, and prices never as high. This is your big opportunity, so "speed up" your stock. Help meet this unusual demand and make bigger profits than ever before.

Pratts Animal Regulator

added to the ration daily makes horses, cattle, sheep and swine more productive and profitable. Makes your live-stock "make good"—or your money back.

Pratts Animal Regulator increases strength, growth and production in a *natural* way by *keeping the stock in perfect health.* It tones up the whole system—sharpens appetite—improves digestion—expels irritating worms—regulates the bowels—makes all organs do their work well and efficiently. That means more work from horses and mules—more milk from dairy animals—more flesh in shorter time—*less expense* and *bigger profits.* Prove it at our risk under this guarantee:—

Our dealer in your town has instructions to supply you with Pratts Preparations under our square-deal guarantee—"*Your money back if YOU are not satisfied*"—the guarantee that has stood for nearly 50 years.

Write for Free 96 Page Book—"Pratts Practical Pointers on the Care of Live Stock and Poultry."

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BERKSHIRE SWINE.

BERKSHIRE BOARS Ready for Service

Gilts Right to Breed

SIRED BY ALDOW CLIMAX, 1917 grand champion Minnesota and Wisconsin State Fairs. This advertisement will appear but once.
WHITMORE BROS. :: :: :: :: Lyons, Wis.

GUERNSEY CATTLE.

JEFFERSON COUNTY GUERNSEY BREEDERS' ASSOCIATION

THERE ARE OVER 100 HERDS of Guernsey cattle in this vicinity, from which to make selections. High-class, pure-bred females can be purchased in limited numbers while pure-bred bulls and grades of all ages are more numerous. No commission or livery to pay. Inspection desired.
H. A. MAIN, Secretary :: :: :: Ft. Atkinson, Wis.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch,** a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

HAMPSHIRE SWINE.

HAMPSHIRE SWINE

DIVIDEND PRODUCERS
DELLBROOK HAMPSHIRES SATISFY

We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.

DELLBROOK FARM
A. L. DAMON, Mgr. Richland Center, Wis.

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

TOO LATE TO CLASSIFY.

A Trio of Durocs for Sale

WE ARE OFFERING a pair of good Duroc Jersey boars and one gilt for sale at prices that should move them at once. Write for particulars.
R. B. HERRLING Glenbeulah, Wis.

FOR SALE—Registered Tamworth hogs, both sexes, one Guernsey bull, one Oxford ram lamb. Albert Getter & Sons, Viroqua, Wis.

Tilden Farms' Guernseys

FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address

Tilden Farms
James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS

FOR SALE—Three bulls large enough for service, two by Celosia's Glenwood, whose dam has three A. R. records averaging over 500 lbs. fat; one by Frank Rilma, whose dam made 558 lbs. fat and is full sister to May Rilma, 1,073 lbs. fat.; former world's record, still has second highest record of the breed. 12 head of bull calves. Am overstocked and would sell 15 head of cows and heifer calves priced very reasonable if taken at once.
ALLIC S. KNUDSON R. 5, Brodhead, Wis.

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

May Rose Bulls FOR SALE

MAY ROSE and double **May Rose**-bred Guernsey bulls, ranging from 1 mo. to 1 year from **A. R.** dams with records up to **661 lbs. fat.** Also a few choice A. R. cows and heifers, near descendants of the great **Imp. King of the May.**
JOHN H. WILLIAMS Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers. 18 to 24 months old.
GEO. O. LUCIA Green Bay, Wis.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by **Auriculas King of the May** and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

ANOKA FARMS

SHORT-HORNS

SATURDAY, DECEMBER 1

NO mention of the Short-horn breeding industry in this country could in any sense be called complete without according high rank to Anoka Farms, Waukesha, Wis. The productions of this great establishment have left their impress upon the Short-horn cattle of this country for all time. Even greater achievements in the future is the aim at Anoka, and each year's offering to the public adds new luster to the record of the herd. The sixteenth annual sale will be held at the farm Saturday, December 1st, and for this event there will be presented what is by far the strongest lot of cattle ever produced there. Breeding, quality and individual excellence are to be found to the utmost degree. Thirty-three females are in the list, daughters of sires of so much note as Regal Stamp, Imp. Rusper Champion, Crystal Stamp, Young Denmark by Village Denmark, Collynie Mine, and they leave nothing to be desired. Ten of the older heifers in the list will have been served by sale day by either Lavender Sultan or Masterpiece, a fact that gives them much added value. Included in this sale is the entire Anoka show herd, winner at Des Moines, Hamline and Milwaukee, and entered for the International, where the animals will be shipped and exhibited if the buyers so desire. The bull offering is an outstanding one in every particular, and youngsters are listed that are bound to become sires of sensational note. No individual study can be made of this lot of Short-horns. Representatives of the best families known to the breed are listed in abundance, and each one bears the Anoka stamp of excellence. The writer has been familiar with the sale offerings at Anoka for many years, and does not hesitate to pronounce the cattle that will be offered for public approval December 1st, the best lot that has ever been submitted by Anoka, and he believes their superior could not be produced by any other breeding establishment in the country. They are the last word in high-class Short-horns, and deserve the utmost consideration at the hands of the breed's adherents.

A handsome photogravure of this remarkable lot of cattle has been prepared, and one of these together with a catalog for the sale will be sent to any address upon application. The production is deserving of the widest possible distribution.

(Signed) FRED V. JOHNSON, Wisconsin Farmer representative.

A special train will leave Chicago for Waukesha, over the Chicago & Northwestern Railroad at 8:40 o'clock, Saturday morning, December 1st, arriving at Waukesha at 11 o'clock. Returning it will leave Waukesha at 5 p. m., reaching Chicago at 7:30. Applications for catalogs and photogravures should be addressed to Anoka Farms, Waukesha, Wis. Kindly mention this paper. Colonels Jones and Reppert will sell the cattle.

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. **The Short-horn is the breed for you.**
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

HARVEY H. LITTLE CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

FOR SALE
SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females; 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

KITTY CLAY HERD

MILKING hornless Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best families of milking Short-horns.
J. WARREN HOYT Rosendale, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED OHANDLER, R. 7, Chariton, Ia.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS
Females and Bulls for Sale
Write the following breeders:

J. B. Ahlers	West Bend,	Washington County
C. S. Arnold	Holcombe,	Chippewa County
Edward Bennett	Black Earth,	Dane County
J. O. Baker	Wagner,	Marinette County
Byron Curran	Taylor,	Jackson County
L. F. Bigelow & Son	Brooklyn,	Green County
J. W. Martin & Son	Gotham,	Richland County
Wm. Radke	Black Earth,	Dane County
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L. C. Underwood	Avoca,	Iowa County
J. F. Wulff	Grafton,	Ozaukee County
Wm. Wulff	Grafton,	Ozaukee County
Henry Zeigler	Middleton,	Dane County
John A. Curran	Sechlerville,	Jackson County
Lars J. Lee	Cambridge,	Dane County

OLD GLORY RED POLLS

WE are now offering bargains: 18 choice cows and heifers, both open and bred. Also 20 good young bulls. The kind that win at the pail as well as the show ring. Write or visit us. **CURRAN BROS.,** Sechlerville, Wis. Railroad station, Hixton.

Headquarters for
RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

Kindly mention this paper when writing.

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use

at six months

YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN

Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis.

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many cows we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with **11 A. R. O. daughters,** represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous King Pontiac Champion strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)

Oconomowoc, Wis. Box F

Olathe-Holsteins

HERD SIRE—Sir Ross Ormsby Mercedes 184275; the records of his dam and sire's dam average semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.

SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

Lake View Farm

Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a grandson of King Segis Pontiac Paikador 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26 month's old daughter, the next dam a 19-lb. cow.

FRED GURR :: :: **Lake Mills, Wis.**

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

HE'LL DO IT—Improve your herd with this young son of Sir Hengerveld Korndyke Ormsby, born May 27, '17. Sire, son of Pietertje Maid Ormsby, 35.56 butter, 7 days, and full brother to Miss Korndyke Maid Ormsby, butter, 365 days, 1,255.62; milk, 25,418.3 lbs. Dam a 11.35-lb. 2-yr.-old daughter King of the Blacks and Whites. Nicely marked and a good individual. Write for price, pedigree and photo. Walcowis Farms, N. Dickinson & Son, Lake Geneva, Wis.

We Are Offering

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.

E. B. WATROUS Troy Center, Wis.

RAG APPLE PONTIAC

SIRE, Rag Apple Korndyke, sire of $25,000 Holstein bull. Dam, a 30-lb. daughter of King of the Pontiacs. A. R. O. cows and daughters in calf to him are priced reasonable. Also two choice heifer calves.

TULLOCH FARMS Genoa, Wis.

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.

EDGEWOOD FARMS, INC. Pewaukee, Wis.

FAIRVIEW STOCK FARM HOLSTEINS.

I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL, Whitewater, Wis.**

HOLSTEIN BULL FOR SALE.

11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.

L. V. GARVENS R. 12, Brookfield, Wis.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address

B. F. SCHAUB Honey Creek, Wis.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.

JOHN NORTH Kilbourn, Wis.

HOLSTEINS

WATCH THIS SPACE.

ALBERT RHODA East Troy, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. O. KENYON & SONS, ELGIN, ILL.**

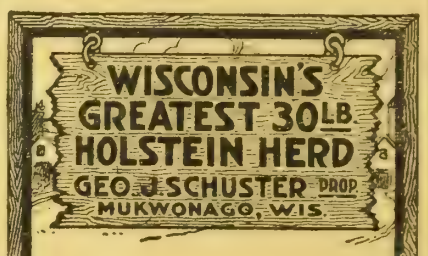
HOLSTEIN-FRIESIAN CATTLE.

Grahamholm Bargains

$750 WILL BUY this handsome 30-lb. grandson of King Segis, born Feb. 27, 1916. As indicated by the cut he is a striking individual, well marked and ready for active service. His sire is likewise a good individual and a worthy son of the great King Segis, having already 14 A. R. O. daughters to his credit. His dam, Pauline Govers De Kol 2d, has 30.03 lbs. butter, 569.50 lbs. milk, 7 days, 122.18 lbs. butter, 2,442.50 lbs. milk in 30 days. Also captured the 32d association prize in 1914. Write for particulars.

W. J. BOYNTON, Mgr.
Rochester Minnesota

Govers Pauline Segis Grahamholm (185290)



We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.

KIRKPATRICK BROS. Reedsburg, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.

W. H. S. RHODA Watertown, Wis.

RUST BROS.

OFFER the richly bred Holstein bull, **Sir Ina Lotta Hengerveld 188663,** born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. **Arthur Rust, West Allis, Wis.**

TRIED HOLSTEIN SIRE

PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.

GEO. A. WILSON Neillsville, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.

JOHN L. FISHER Janesville, Wis.

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address

SWOBODA BROS. Troy Center, Wis.

Crites Bros.' Holsteins

WATCH THIS SPACE

HONEY CREEK WIS.

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

A. R. O. HOLSTEIN SERVICE BULL.

ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.

MOSS BROS. Troy Center, Wis.

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

CHESTER WHITE SWINE.

APRIL and MAY BOARS

CHESTERS

OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.

H. A. DERENTHAL Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.

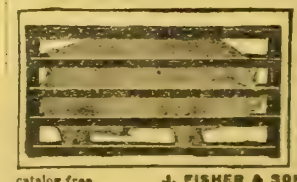
B. H. BABCOCK Evansville, Wis.

FOR SALE

PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.

O. P. COATES R. 4, Elkhorn, Wis.



CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.

J. FISHER & SON Box 13 Eastman, Wis.

CHESTER GILTS

MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address

A. L. KIRST Tomah, Wis.

SPECIALS

IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.

WALTER GEORGE Evansville, Wis.

Schoolmaster, Chief Keokuk, Crandell's Wonder Chesters

GILTS AND BOARS of the above breeding for sale, guaranteed to please YOU. All I want is a trial. Write me.

WM. C. KIRST Tomah, Wis.

CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet,** a junior yearling half brother of **Prince Again,** the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson,** a son of **Royal Blood.** Also March and April gilts sired by **Guy's Comet,** and grand champion boar, **Perfect Prince. Wm. C. Scheibe, Burlington, Wis.**

Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.

JOHN PELLETT & SON Viola, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.

CARL HICKCOX R. 3, Spring Green, Wis.

FROSTS' BIG-TYPE O. I. C.'S

200 SUMMER and fall pigs, the kind that won us 86 prizes at five state fairs. Boars, pairs or trios, no kin. Registered free and priced to sell. Address

S. D. & B. H. FROST R. 2L, Kingston, Mo.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.

ART. G. HOSKINS Dodgeville, Wis.
Mile west of town.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.

ADOLPH NUTTLEMAN West Salem, Wis.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.

THE HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 18.

POLAND CHINA SWINE.

MARTINY POLAND BOAR BARGAINS

SPECIAL PRICE—A little over pork. Twenty Big-Type Poland China Boars, many by Big Bone Wonder, one of the best breeding boars in the United States. Boars of same breeding as my first prize litter at state fair. Also have a Hancher-bred yearling and a Golden Gate Giant fall yearling for sale. Winners this fall. Order a boar. If he don't suit, I'll refund your money.
L. P. MARTINY :: :: Chippewa Falls, Wis.

YOUR OPPORTUNITY--NOW

AM OFFERING some wonderful POLAND CHINA boars and gilts that weigh over 200 (Nov. 9th) and they are sired by six of the best breeding and show boars in the Northwest. Their dams were sale toppers last fall. Priced below their value, for they must be sold quick. If you want to get the benefit, get in early.
W. W. QUACKENBUSH (Shipping Point, Black River Falls.) Melrose, Wis.

J. D. McDONALD WEST SALEM, WISCONSIN

HAVE SOME CHOICE spring boars for sale. Same breeding as my WINNERS. Two fall boars that were winners. 75 fall pigs, special prices on pairs and trios.

GERSTDALE JONES ($6,600)

Have four good spring boars for sale by Gerstdale Jones—litter mates to one I am going to use. Buy one of these boars and get in the "front row." Let me quote prices.
Wisconsin's Greatest Poland Herd. :: :: Bred Sow Sale February 6th.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

SMILEY

IF YOU NEED A POLAND BOAR, write us. Don't forget that a SMILEY GUARANTEE goes with every boar—we never have a dissatisfied customer—get on the list.
WM. SMILEY & SONS. Albany, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

Boars all Sold

HAVE HAD A GOOD DEMAND for Poland spring boars. Now offer gilts, to be shipped when safe in pig. SMOOTH BIG BONE A 2D has made good, his pigs are the first to sell. If you want choice, write now.
J. F. DILEY Rush Lake, Wis.

Minn.'s Premier Poland Herd

A FEW CHOICE SPRING BOARS left, by YOUNG'S BIG JOE, MASTER'S GIANT and ORANGE WONDER. No gilts for sale until TUES., FEB. 5, 1918.
P. W. YOUNG Box 100, Prosper, Minn.

Keep Your Eye Here

I OWN BIG BEN 2D by BIG BEN. I own BLUE VALLEY TIMM 2D. I own GREAT PROSPECT, the 700-pound, first-prize yearling sow at Minnesota, 1917. I own MOUW'S BLACK MAID 2D and other sows that should put my herd "on the map." Nothing for sale but fall pigs.
J. F. O'BRIEN R. 5, Madison, Wis.
"Poland Chinas"

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write
WM. F. ACKERMAN Glen Haven, Wis.
"Grant County."

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.
C. E. NORTON Brooklyn, Wis.

Polands-Boars, Gilts, Fall Pigs

A FEW GOOD BOARS LEFT. Some well-grown spring gilts, will sell them open or breed them. Thirty early fall pigs, both sexes. Write us.
A. W. COLE Lodi, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

POLANDS

BOARS AND GILTS—Fed and bred big. Write me.
WM. HAUK Cassville, Wis.
"Grant County."

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

DUROC JERSEY SWINE.

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.
JOHN WALDHAM & SON Janesville, Wis.

Kindly mention this paper when writing.

DUROC JERSEY SWINE.

"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.
ED PARKER & SON :: :: :: :: Janesville, Wis.
Bred Sow Sale February 1st.

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mae's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
F. R. CONSTANCE :: :: :: Waupaca, Wis.

INVESTOR JR. BY INVESTOR — BACHELOR GANO BY COL. GANO

DUROCS SHIPPED ON APPROVAL—Have some big, well-grown boars that must please you. A grand assortment of breeding. Sows bred to above herd boars will be sold in our sale, January 31st. Bear this fact in mind. Write us about boars.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
PERRY GOODRICH Burnett, Wis. — **W. W. BIRD,** Cambria, Wis.

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.
ALLIC S. KNUDSON :: :: :: R. 5, Brodhead, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

GEO. D. SPRAIN & SONS
WEST SALEM WISCONSIN

LET EDGE DO IT

HE CAN FILL YOUR ORDER for he has one of the herds that put Fennimore on the DUROC MAP. If you like good red hogs with good pedigrees, write Edge.
WM. EDGE FENNIMORE, WIS.
"Grant County."

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?
R. C. CHURCH Elkhorn, Wis.

FASHION DUROCS

FEW BOARS LEFT. Offer gilts and sows bred to a son of Royal King. Only a few, so order early.
ISAAC HIGGINS Gotham, Wis.

ONLY A FEW, BUT GOOD—DUROC BOARS

SIRED by P. S. WONDER AND PROUD CHIEF JR. I'll ship them on approval—no money until you get your boar home—if he don't please ship him back. ORDER NOW.
ALFRED E. KIRST Tomah, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.
M. H. O'KEEFE & SON Waukanee, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

Buy a Duroc
That has Outstanding quality.
But pay some Attention to the breeding.
Bred right, fed right, pRiced right.
If you want them on approval will Ship that way.

DENNIS SHEA Melvina, Wis.
(Near Sparta)

SOW SALE JANUARY 29, 1918

DUROC JERSEY BOARS

IMMUNIZED

TO CLOSE THEM OUT WE ARE SELLING CHOICE 175 to 200-lb. boars for $40 each, satisfaction or money refunded.
JOHN H. BERRY & SONS Iowa City, Iowa

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Mo.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: Brodhead, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
W. W. GOODRICH Ft. Atkinson, Wis.

Durocs on Approval

WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

ORION COL. S., COL. S. Jr., ORION CHIEF

BOARS ALL SOLD. Booking orders for sows bred to ORION COL. S. Order now.
W. C. JENKINS Bangor, Wis.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Canniff, Juneau, Wis.

DUROC BOARS—April farrow out of Pathfinder 2d and son of mighty Prince Illustrator. Write Anton Hegge, R. 4, Box 3, Westby, Wis.

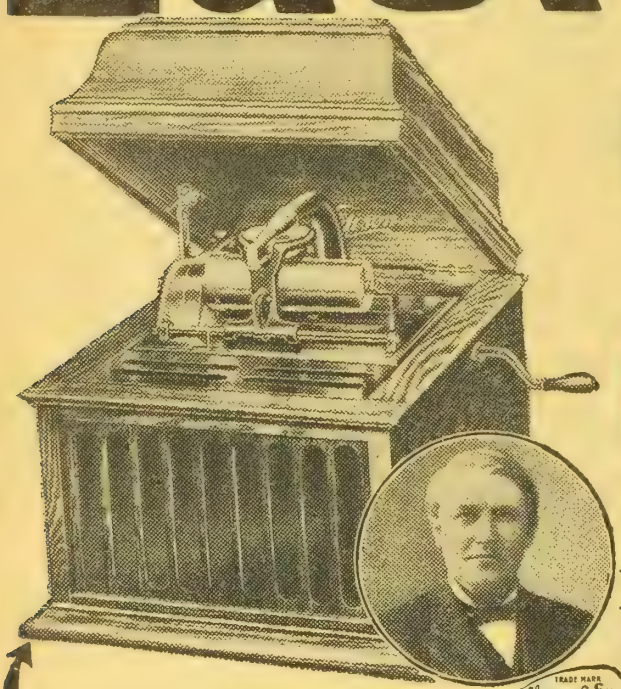
Last Chance

To Get the

Genuine New Edison

at the

Old Price!



Here is your chance, and it's the last one! The very last announcement that will be made in this paper before the big increase in price on the New Edison Phonograph. Price goes up positively on January 1st, 1918.

Orders for this increase have come from Mr. Edison himself. High cost of materials and labor have made it necessary. Mr. Edison regrets the necessity of this price raise, but conditions make it essential. So, if you want a New Edison, now is the time to get it. Don't put it off. Act now!

Still Only $1.00

After Free Trial!

You may have the old offer if you hurry. But there's no time to be lost. Rush in the coupon below. Mr. Edison's great new phonograph with the new diamond stylus reproducer and 12 of the very latest Blue Amberol Indestructible Records sent to you on absolutely free trial. ***Send no money!***

If you wish to keep Mr. Edison's superb new instrument after the free trial, send us only $1.00. Pay the balance of $36.90 which includes the small war tax of 90c effective at once—for the complete outfit in easy payments of only $3.50 a month.

Think of it—a $1.00 payment, and a few dollars a month to get this outfit of Mr. Edison's new phonograph with the Diamond Stylus Reproducer, the life-like music—the same wonderful Blue Amberol Records—all the musical results of the highest priced outfits. The *finest* the *best* that money can buy at very much less than the price at which imitations of the Genuine New Edison are offered.

After years of labor on his favorite invention, Mr. Edison has made the music of the phonograph true to life. There is no reason, now—especially since we make this rock-bottom offer—why should you be satisfied with anything less than Mr. Edison's genuine instrument. You are under no obligation on this free trial offer.

Hear the New Edison in your own home before you decide to buy.

MAIL Coupon Below!

Convince yourself first. Get the New Edison in your home on free trial. See what a wonderful instrument it is—how it brings the music of the world's greatest singers and players, the sweet, old time melodies the jokes of the funniest vaudeville actors, all right into your parlor as if they were there **in person.** See for yourself how much you **need** the New Edison in your life. See how much happier it will make your home. Just fill out the coupon and send it in. No money down, no C. O. D. You pay us nothing unless you keep the outfit. Send it back if you wish **at our expense.** Or pay only $1.00 after the trial, and $3.50 a month until you have paid $36.90. Send coupon today.

F. K. BABSON, Edison Phonograph Distributors
4598 Edison Block — Chicago, Illinois
Canadian Office: 355 Portage Avenue, Winnipeg, Manitoba

A Remarkable Offer—But You Must Hurry!

Outfit No. 36 Latest model concealed horn instrument. Finished in beautiful fumed oak—elegantly polished. Price, with 12 Blue Amberol Records still, only $36.90. Big increase in price on January 1st. (See terms in coupon below.)

No obligation to buy in sending this coupon; this is just an application for a Free Trial

F. K. BABSON, Edison Phonograph Dists., 4598 Edison Block, **Chicago, Ill.**

Dear Mr. Babson:—As per your offer, I should like to hear Mr. Edison's wonderful new style phonograph with the new Diamond Stylus reproducer in my own home on free trial. Also send me twelve records. If I decide to keep the outfit, I will have the privilege of the rock-bottom price of $36.00 (plus 90c war tax, to be included either with the first payment of $1.00 on your outfit, or with the first monthly payment, just as you prefer) direct from you on special terms. I merely agree to take the outfit promptly from the depot, pay the small freight or express charges, and if I do not find it thoroughly satisfactory, I reserve the right to return the outfit at once at your expense. Otherwise, I will send the first payment of $1.00 within forty-eight hours after the free trial or as soon as possible, in no case exceeding one week, and will make monthly payments thereafter of $3.50 for 10 months. The outfit is to remain your property until the last payment has been make.

My name.....Address or R. F. D. No.....

City.....State.....Ship by.....Express

Shipping Point.....Ship by.....Occupation.....

Age.....Married or single.....If steadily employed at a salary please state.....

How long a resident in your neighborhood and your vicinity.....If there is any possibility of changing your address during the next year, what will be your next address?.....

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 48. THURSDAY, NOVEMBER 29, 1917. WHOLE NO. 1870

Forty-sixth Dairymen's Convention

WITH a particularly excellent program arranged for a three-day session, the Wisconsin Dairymen's Association met for the forty-sixth annual meeting of its existence at Janesville, November 20th to 23d. In spite of the extra efforts of the officials to provide speakers of national reputation for this meeting and in spite of the fact that more than 200 Rock county dairymen and business men had signed the petition for holding the meeting in Janesville, promising a good attendance at each session, there were fewer people there during all of the three days than an ordinary institute draws in a one-day meeting.

Because The Wisconsin Farmer believes the program of particular importance to all dairymen the report of the meeting will be made as complete as the space will permit. It must have been a matter of considerable discouragement to the speakers, some of whom traveled many thousand miles to address the meeting, to find only so few dairymen present.

A feature of the meeting was the address of the Hon. Carl S. Vrooman, assistant secretary of the United States Department of Agriculture. In a straightforward manner Mr. Vrooman brought out the great importance of agriculture in this war. Mingled with his discussion on the agricultural efforts which must be put forth by the American farmers was a fervid plea for greater patriotism. His whole speech and the sincerity of its delivery and the earnestness which showed in the face of the speaker, gave the audience no doubt as to the importance of winning this war. Speaking in particular of dairy products, Mr. Vrooman said: "No country in Europe has enough dairy products or will have for years after the war is over to feed her own people. Herds are depleted and decimated and the call to fill the demand of these countries will come to us. The specter of famine is just over the skyline everywhere in Europe and undernourishment stalks about. The lack of dairy products is the reason for the universal undernourishment from which all the warring nations excepting America are suffering. We have seen the necessity of having a supply of these products, and we must be able by united efforts to continue having an adequate supply of dairy products." The rest of the address was filled with the arguments for supreme patriotism in every direction in order to bring the war to an early and victorious conclusion.

Cow-testing association work, which has been carried on for the last eleven years by the Wisconsin Dairymen's Association, was excellently set forth in the address of Noel Negley, of Madison, who has charge of this work for the association. Greater efficiency, as brought out by means of cow-testing associations, was urged by Mr. Negley. "The dairyman has realized that a good producing cow, well fed and cared for, will make him more money now than ever before but the low-producing cow with the poor management that usually accompanies it, will put him in a hole faster than ever. The dairyman has been dumped into the creek by the critical times we are passing through now and given the comforting advice, 'Sink or swim.' Some have sunk and in many instances the dairy industry of the country has been benefited by the sinking." Mr. Negley's observations, based upon the intimate knowledge of eighty-four associations, with its 2,500 members, and representing the work of 41,200 cows, puts him into the class of those who can talk with authority on the question of efficiency. For every criticism he has for the inefficient dairyman, he also has at his disposal hundreds of proofs of the correctness of his assertions. Mr. Negley is not satisfied with Wisconsin's showing in the cow-testing work. Though the eighty-four associations now operating successfully represent a greater number than can be found in any other state of the Union, there is reason, according to Mr. Negley, for feeling ashamed of Wisconsin. "Here we have a great industry," said Mr. Negley, "made up of over 150,000 dairymen whose annual value of dairy products is approximately $140,000,000 and whose investment in land, cattle and equipment is probably at least $2,500,000,000, with absolutely no records of cost of production or other bookkeeping excepting that of the 2,500 men in cow-testing associations and 450 men in farm management work. Any little one-horse storekeeper with a stock of $1,500 takes his annual inventory, knows the cost of each article and the profit on it at such a price and keeps a complete set of the records." Mr. Negley emphasized especially the present-day conditions as a reason for learning to the last cent the cost of each farm operation in order to have better homes and the greatest of all

(Continued on page 13.)

Math Michels
The Retiring President.

C. E. Lee
Of the Dairy Commission

Noel Negley
Leader of Cow Testing.

R. C. Reed
A Michigan Producer.

Walter Drew
Asst. Attorney-General.

J. B. Bain
Federal Department.

CURRENT EVENTS

THE British made a highly successful assault upon the Germans in northern France last week and proved that the vaunted Hindenburg line is not impregnable after all. General Haig, the British commander, launched a far-flung attack upon the German lines when it was least expected, not preceding the infantry charge by a terrific artillery bombardment, as has been the case heretofore. The result was that the Germans were taken by surprise. The infantry was accompanied by a large battery of heavy tanks, as the converted tractor fighting machines of the British are known. These tanks lumbered their way through the German wire entanglements and over the trenches and shell holes almost as though they never existed. The result of the first day's attack was that the British forced their way through the German lines for as much as five miles, in some places, over a breadth of thirty-two miles. They were still pressing forward at last reports. Approximately 10,000 Germans were taken prisoners, along with a number of heavy guns. The attack was the most successful the allies have made in several months and goes a long ways toward offsetting the Teutonic advances in Italy. The attack was witnessed by General Pershing, although the United States troops did not participate. The Canadians covered themselves with glory, as has been their wont ever since they entered into the fighting over in Europe.

THE Italians have rallied and are making a determined stand against the advancing Germans and Austrians on the banks of the Piave river. Dikes were cut and much of the country in the vicinity of Venice was inundated, resulting in large number of the invaders being drowned, others being marooned where they could be captured or killed, and others being driven back to the main lines. The British and French reënforcements have arrived to strengthen the Italian lines and altogether the situation looks much better than it did a week ago. The fighting is so near to Venice that the guns can be heard there, but no shells have yet struck this famous city. Should the Germans and Austrians succeed in pushing ahead, Venice will undoubtedly be surrendered, as it is an unfortified city and the Italians will not want to sacrifice the priceless art treasures with which Venice is filled. At this writing, however, it looks as though the invaders might be pushed back, or at least held in check, and that Venice may not have to be either surrendered or sacrificed. The Italian troops have gotten their second wind and are fighting strong again.

WHILE the United States and Germany are at war, such a state of affairs does not exist between this country and Austria, Germany's chief ally in the present struggle. Whether war shall be declared upon Austria, as is demanded by Theodore Roosevelt and many other national leaders, promises to be a subject of considerable discussion at the next session of congress, according to Senator Hitchcock, of Nebraska, ranking member of the foreign relations committee. In his opinion the question presents many complications and is one of extreme delicacy as well as important in immediate and future developments of the war. "A declaration of war against Austria-Hungary," said Senator Hitchcock, "might be construed as indorsement of Italy's demands upon Austria. These include a demand for territory which virtually would deprive Austria of every seaport—a fruitful situation for a future war. It is a question whether the United States would be willing to give such an indorsement." Senator Hitchcock said he anticipated that the coming session of congress would be a long one and that from observations during the recess, he believes the public is giving wholehearted support to the war.

THE war bureau of the national committee on prisons and prison labor presented to government officials plans for the collection and disposition to good advantage of junk and other waste accumulated on farms. The committee recommends that the farmer be called upon to collect waste materials and deliver them to county penal institutions, where they would be sorted out and sent to industries as needed. This plan, it is said, would not only regulate the flow of scrap to the market, but would enable institutions to find new means of employment and new sources of revenue which can be applied for the benefit of the prisoners and the institutions.

CHAOS seems to continue in Russia, neither Kerensky nor any other leader having succeeded in restoring even a semblance of order. The forces which overthrew Kerensky are reported to have asked Germany and Austria for an armistice, until peace terms can be discussed which shall end the war so far as Russia is concerned. In the meantime, no shipments of supplies will be permitted to go from the United States to Russia until the situation in that country clears. The American government before allowing the export of goods already on the docks wants to know into whose hands they will fall on their arrival. If the forces which overthrew Kerensky gain control and pursue their program calling for peace with Germany the embargo will be permanent. The provisional Russian government was given credits amounting in all to $325,000,000, of which $191,000,000 already has been advanced. Much of this money has been spent for supplies now awaiting shipment, and the Russians have been given vessels for its transport. Shipments will be held up by denial of bunker coal to the ships.

PRESIDENT WILSON was given a free hand by the railroads in his effort to avert a strike for higher wages by engineers, conductors, trainmen and brakemen. Formal announcement by the railroads' war board that the railroads were ready, should any crisis arise, to place their interests unreservedly in the hands of the president for such disposition as he may determine is necessary in the public interests was expected to clear away misunderstandings of the four brotherhoods over the attitude of the roads, which had caused the unions to refuse to arbitrate the dispute. Possibility of a stoppage in the steady flow of commerce, thereby paralyzing the nation's war preparations, is believed by officials to have passed. They expected that an agreement to leave the wage question to an impartial tribunal would result and already suggestions for means to forestall any further agitation concerning wages and conditions of work during the war, which at the same time would protect the workers in maintaining their standards of life in the midst of war prices, are under consideration. England's example of allowing the board of trade to regulate wages at intervals of several months and at the same time adjust rates to protect the railroads is being given close study.

ALL alien enemies are required to register and to obtain permits for travel, under a proclamation issued by President Wilson. Enemies also are prohibited approaching within 100 yards of water fronts, docks, railroad terminals or storage houses and are forbidden to enter or reside in the District of Columbia. Only Germans will be affected by the proclamation, as it specifies "enemies" and not "allies of enemies." Germans will be barred from employment on all vessels on the ocean or the Great Lakes, and even from traveling on private motorboats of their own. The proclamation applies to continental United States and to the Philippines, Porto Rico and Alaska. The penalty for violation will be internment for the war. Officials explained that the government's action is not intended to be vindictive and that Germans who mean no harm to the United States will not be molested. Under regulations now being framed by the department of justice all Germans may be required to report periodically to officials. The regulations will be promulgated within a few days, but the terms of the president's proclamation become immediately effective.

AMERICAN shipyards whose construction was commandeered by the government, completed last week 20,000 tons of merchant shipping. The shipping board announced that this brought their total output since the commandeering order was issued August 4th, up to twenty-eight vessels of 159,000 tons capacity. With speeding up processes under way tonnage soon will begin to come from the yards at a much faster rate than that, shipping board officials predicted. The first ship of the government's great fleet of nearly 1,000 vessels for which contracts have been let, will be completed in the Skinner & Eddy plant at Seattle, November 24th. It is of steel of 8,800 tons capacity and designed for a speed of eleven knots. The first of the wooden ships will be launched about December 1st.

AMERICAN naval experts do not agree with the view that the lull in submarine activities indicates a collapse of the U-boat campaign or that anti-submarine measures have proved wholly effective. They agree that progress is being made against the menace, but prefer to postpone judgment on whether the U-boat has been eliminated as a factor until the theory has been more thoroughly tested. Meanwhile the American navy will continue its preparation to deal with the menace. It was said officially at the navy department that there was nothing to forecast the possibility of a very heavy toll of ships next week, or at any subsequent periods and that varying results from week to week still were expected.

Crop Yields for 1917.

Some reduction in the estimated yield of corn is shown in the government crop report for November, but the total is still higher than the previous record production. The crop is placed at 3,191,083,000 bushels compared with the estimate of 3,210,795,000 bushels a month ago and 2,583,241,000 bushels raised last year. The crop in point of quality, however, is the poorest on record, being 10 per cent below the ten-year average of 84.2. This was due to the fact that the crop matured later than usual and much of it was caught by frost before it had fully ripened.

Yield of corn per acre is given as 26.4 bushels compared with 24.4 last year and ten-year average of 26.0 bushels. The percentage of corn still left in farmers' hands from the old crop is exceedingly small at 34,745,000 bushels. A year ago there were 87,908,000 bushels on farms, while the five-year average is 100,523,000 bushels.

A potato crop of 439,686,000 bushels is indicated compared with 285,437,000 bushels last year and 362,910,000 bushels, the 1911-15 average. Yield per acre is placed at 101.1 bushels against 80.4 bushels last year. Quality of the potato crop is 3.0 per cent above the ten-year average.

Production of sweet potatoes is estimated at 84,727,000 bushels compared with 70,955,000 bushels last year and 1911-15 average of 60,257,000 bushels. Yield per acre is placed at 93.7 bushels and quality of the crop is 1.8 per cent above the ten-year average.

Flaxseed production is given as 9,648,000 bushels compared with 15,459,000 bushels last year, with quality of crop 1.3 per cent under ten-year average. Kafir corn production was 73,380,000 bushels against 50,340,000 bushels last year.

Weight of wheat per measured bushel is estimated at 58.5 pounds against the ten-year average of 58.2 pounds. Oats, weight per measured bushel was 33.4 pounds compared with ten-year average of 31.6 pounds. Barley, weight per bushel, was 46.6 pounds against 46.6 pounds, the ten-year average.

The buckwheat production of 16,813,000 bushels fell below early forecasts, although it is up to an average in total production compared with former years.

The tobacco crop of 1,185,478,000 pounds is the largest on record.

A Workshop on Every Farm.

To the Editor:—Throughout the year, if a farmer has a roomy and fairly equipped workshop, very many jobs of repairing farm tools and general equipment can be done. On a farm there is always something in the way of repairing buildings, farm tools and implements, and new small articles to make, and not only is much time often saved, but the usual expense of such work is avoided.

It is during the winter season a farm workshop is of the greatest value. If it is light, heated with a stove, and a fair amount of tools possessed, the farmer and his boys, and perhaps some regular hand employed, can very profitably spend cold, snowy and rainy days doing various kinds of mechanical work and all enjoy it. There is no better pastime for the boys and by a little practice and perseverance they can be made very handy with tools.

If a farmer is compelled to call in a regular mechanic when any repairing is needed, or is under the necessity to send to some shop in a neighboring village everything that needs mending, he is always paying out cost to get that done which if he had a shop and possessed some tools and skill and he and his boys could do it themselves and be all the better in many ways for such work.

There is no doubt but what if farmers' sons were rightly instructed and some pains taken to teach them to use farm tools and machinery they could be made as good mechanics as farmers. So it is good and profitable to possess a farm workshop. W. A. G.

Stocks of pork provisions in Chicago November 1st aggregated only 62,362,592 pounds compared with 93,305,932 pounds a month ago and 81,503,145 pounds on November 1st a year ago. It is up to the hog raiser to bring the pork supply back to normal.

Ask your neighbor to subscribe for The Wisconsin Farmer.

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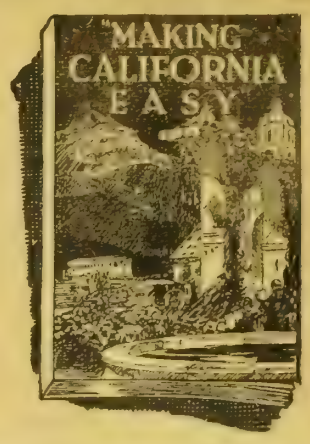

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See page 15. Read The Farmers' Market advertisements. There may be a bargain there for you.

The Wisconsin Farmer

THURSDAY, NOVEMBER 29, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

THE FARM LABOR PROBLEM.

I FIND the case of the farmer, whose help has been snatched away from him by the attitude and action of our army exemption boards, admirably set forth by the Philadelphia Stock Exchange. This organization of business men in America's third largest city has passed a resolution urgently recommending that the government adopt a policy of conscripting men (from the city and other lines of work) for agriculture, just as it does for military service. It holds that this is absolutely necessary if a large crop is to be planted and harvested next year. The resolution states that unless some such action is taken by the government the farmers will refuse to plant the maximum acreage asked for by the food administration.

The statement made by the Philadelphia Stock Exchange applies to agricultural conditions in the East, but it fits grain-belt conditions equally well, so I hope you will pardon me if I print the major part of this ringing declaration, as follows:

We have been advised by farmers of this section of the country, who this year "did their bits" in planting to capacity, that they will not do so next spring unless assured by the government that they will be given sufficient labor for the harvesting. Despite high wages and charges for fertilizer and other production factors, they are willing to plant maximum acreages again, but only with the guarantee that they will be given labor to harvest their crops.

This depletion of the farm labor supply is continuing. Eleven men sent by the Federal Employment Service last week to a New Jersey farmer were immediatly snatched from him for cantonment building, and these eleven were to replace skilled farm hands who had been drafted. This case is typical of many others. Pennsylvania, New Jersey and Delaware are especially suffering because of the number of shipbuilding, munition and other war plants and army cantonments concentrated near by and because of the character of the farming of this region, which requires for the most part skilled men. It is idle to talk of placing schoolboys on farms in sufficient numbers and to exhort farmers to plant. They must be given labor, and of the right kind, which cannot be had except through a scientific system of mobilization, placement and overseeing by the government.

Many of those workers whom farmers are now obtaining refuse to stay long in employment and leave after making a considerable sum by a few days' work. This aggravates the situation, as farmers frequently attempt more on the strength of the employment of these additional men, upon whom they rely for the completion of the tasks begun.

The government must quickly perfect and put into operation a scheme whereby farmers will be assured that their skilled men will not be drafted for military service, whereby those now employed will be kept at work (wages and living conditions, of course, being fair and proper) and whereby they will be assured that their help will not be taken from them by other industries at a time when it is most needed. Agriculture must be placed upon the same basis as the military, with supervision over labor to insure the continuance at work of the labor, on one hand, and fair treatment from the farmers on the other.

The allies and our own armies are dependent upon our farmers for food, and food production must be organized as quickly and as thoroughly as possible. Our farmers are patriotic enough. They are willing to plant to capacity and to pay high wages, but they are right in their demand that they be given and guaranteed a stable, efficient and sufficient labor supply.

What is here set forth as true of the farmers of Pennsylvania, New Jersey and Delaware is even more true of the farmers of Wisconsin, Iowa, Illinois, Nebraska, Missouri, Kansas and all the rest of the grain-belt states. In many respects the farmer has been given the worst of it this year. He was urged by governmental agencies to increase his crop acreage to the maximum, as a patriotic duty; to use fertilizers in order to secure the largest possible yields per acre; to cultivate with care —in a word, to do everything possible in order that production might be magnified to the fullest extent for the needs of America and her allies.

The farmer did as he was urged so strenuously to do, as is shown by the wonderfully increased production of practically all field and garden crops this year. The farmer kept the faith, but others did not. Just as he was about to harvest his bumper crops along came the selective draft, and in most cases his claim for exemption on the grounds of agricultural necessity was denied. Production, on the very point of being materially increased, began to suffer materially and this despite the fact that increased acreage had yielded more per acre than ever before. It is an absolute fact that corn was gathered too early on many farms, for fear of a further depletion of the farm labor supply, with the result that thousands and tens of thousands of bushels are steaming today in grain-belt corn cribs, almost a total loss, because the farmer gathered it too soon for fear of not being able to get help to gather it later. And this year's experience is not a tithe of the cost we will pay next year if this shortsighted policy is not changed. It is possible to fool some of the people all the time and all the people some of the time, but it is going to be impossible to fool all the farmers next year as they were this year.

I am glad that the Philadelphia Stock Exchange has shown so broad a spirit in facing this great national problem, so closely connected with winning the war. Its attitude is in delightful contrast to that of some city libelers of the farmers. But excellent as their intentions undoubtedly are, they have not gone to the root of the matter, at least so far as grain-belt agriculture is concerned. I have little hope that their suggestion for conscripting city labor for farm use will prove of practical value through the Central West. It might help a little here and there, but the thing needed is to exempt the farmer himself entirely from military duty at this time, the same as we would exempt the munition maker. His place can be taken in the trenches by the city's unemployed, without any loss of efficiency, but his place cannot be taken on the farm by any unskilled help. I would as soon think of putting a "drifter," picked up from the city streets, at work on one of my farms as I would of putting him into my office to manage this paper for me. Farm help, to approach the maximum efficiency necessary to supply our army and our people, as well as those of our allies, with food, must be experienced, and the only way to get it is to leave the farmer on the farm, where he will be of more value to the nation a dozen times over than in the trenches.

It is up to us here in the grain belt to make our voices heard on this matter in no uncertain tones, so that its swelling volume will carry into the offices of governmental theorists at Washington and make them understand that we must have farm help next year if crop production is not to suffer to such an extent that the whole world will suffer and our high hopes of making the world safe for democracy be defeated. I believe this with all my heart and soul and mind, and I am urging it solely for the nation's welfare.

A WINTER OF SAVING AND SACRIFICE.

I FIND that the great majority of farmers are just as anxious to save food as they are to raise it; that conservation seems as important to them as production. They do not believe in skimping to the point of niggardliness, but they do realize that every bit of food saved will go toward winning the war, toward making the world safe for democracy. Garbage never was so important, nor so inexcusable, as now.

You may recall that a few weeks ago I printed a very interesting letter from Mr. H. C. McLean, who, like myself, had received the rudiments of his education in a log schoolhouse, who pioneered in the grain belt when land was being homesteaded for $1.25 an acre, and who has literally seen miracles wrought in our fertile Middle West. Mr. McLean told how he uses a small gas engine and a small mill to grind his own whole-wheat flour, how palatable and nourishing they find it, and how it has improved the health of the whole family. If I am to judge by the great number of letters which I have received within the last few days, Mr. McLean is only doing what many others among my readers are doing. What with the housewives busy last summer putting up fruit and vegetables, with home butchering and with home-ground flour served on thousands of farm tables, it begins to look not only as though the farmer were well-nigh independent of the "butcher, the baker and the candlestick maker," but that he is "doing his bit" in saving food for the soldier boys in the trenches and camps.

None of the letters I have received commenting on Mr. McLean's is more interesting than the one from Mr. J. C. Needles, who tells how they solved the bread problem in their household without going to the expense of buying a gas engine and a power mill. Let Mr. Needles tell the story himself:

Dear Mr. Pierce:—Some years ago we learned the value of graham bread for conserving the health, and we learned to like it much better than the fine white bread, but found it often impossible to get good graham flour. Finally we hit upon the plan by buying a small grist mill at a cost of about $3.50, which we fastened to a small table in the summer kitchen, and by getting good recleaned wheat we ground our own flour at the cost of good milling wheat.

At the present price of wheat our flour cost us $3.50 per hundred and it is the best breakfast food we have ever found. There is nothing at all taken out of the wheat and the bran is ground up fine enough to be palatable. We generally grind enough to last a week or two at a time and we do not notice the time used in grinding it, and the mill will last a good many years. We can grind anything the larger mills will grind, but slower, of course.

We have never cared much for biscuits, but we like graham gems baked in the little gem pans, although we generally have the bread baked in loaves. To make the best graham bread we set the yeast at night the same as for ordinary white bread, using white flour, then in the morning when it has raised we work it up with one-half white and one-half whole wheat flour; then when it raises the next time work it out in loaves and put in pans to rise and then bake without letting it rise the second time as is generally done with light bread. When handled properly it makes a nice light loaf which is better when a couple of days old than when first baked, and we find that company who have never cared for graham bread nearly always prefer this to the white bread.

Practically all doctors admit the value of bran as a laxative and also to furnish valuable mineral salts necessary to the health of the body and, in a way, we get medicine as well as food, and conserve the wheat supply at the same time. No family in town need be without good fresh graham on account of not having a gas engine or mill if they will use this method. Good graham mush with cream and sugar makes a fine food for the "kiddies" as well as the old folks.

Here is a splendid example set for all of us. We need not make a large investment in order to save, although there is hardly an investment we can make which will bring better returns, in the long run, than a gasoline engine. But if that is impossible, for the time being, Mr. Needles has a way out of the difficulty. With graham gems, whole-wheat flour, corn bread, johnnycake and so on, we shall not only save food this winter, but build ourselves up into splendid physical condition and be ready to do still more and better work next summer.

While on this subject I want to print another letter brought out as a result of the publication of Mr. McLean's. This one comes to me from an R. F. D. carrier, who preaches a good sermon on the good we can all do, if we will only look about us. Mr. M. A. Crawford writes me as follows:

Dear Mr. Pierce:—This being Sunday night, and getting my chores over early, I picked up your good paper and read your personal page. Two sketches that I ran across were very impressive and show that there are others who are thinking and doing, and how easy it would be for still others to do if they would only try.

Now, to begin with, I must say that I am not quite as fortunate as Mr. McLean—I haven't the mill and am only an R. F. D. carrier with a small farm as a side line. I managed to raise a little wheat and a little corn, so for about a month have been eating corn bread once a day and whole wheat bread twice a day, except when we have company, then we have white bread, as the children call it. Besides saving, I find it beneficial to the health. I feel far better now than before I commenced to use it.

As to lending a helping hand, we have a little boy in our district whose mother is a widow and very poor. She could not clothe him warmly enough to send him to school, so I put in my little mite, made my way around in the district, and in about two and a half hours had enough money to dress the boy in good shape for some time. I am not writing boastingly, but to show that someone must start these things. Let each and every one of us ask ourselves the question, "Am I doing what I can for my country, myself and my neighbor in these times of war and strife?"

Do not such letters as these shame us all into cutting out the unnecessary extravagances and saving wherever and whenever possible? Many of the soldier boys who have gone from our grain-belt farms have left needy and worthy folks behind them; shall we not look around and see where we can lend a helping hand, where a little bit of sympathy and financial aid will help the most? It can be a busy, a useful and an inspiring winter if we will only make it so. Shall we form a "Lend a Hand" club, to help those who need it and thereby better ourselves in every way?

THANKSGIVING THOUGHTS.

A SUBSCRIBER writes to me as follows, in regard to Thanksgiving Day this year, as it differs from other years:

Dear Mr. Pierce: With the whole world at war, with American soldiers being killed and wounded in France, and with our dear farm boys being taken from us, just when they are needed most, what have we got to be thankful for this year?

I sat for a long time, after I first read this letter, looking out of my window, not seeing anything, just thinking. I thought of what a terrible life, what a terrible world, it would be if might were

(Concluded on page 6.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Fertilizers for Wisconsin Farms.

The fertilizer question has been a matter of much discussion, but comparatively few trials have been made either by experiment stations or on farms. Tobacco and potato men have long recognized the healthful qualities of phosphate fertilizers for increasing crop yield. However, no very extensive tests have been made by the soils department of the college of agriculture or any othr persons. Experiments are under way now at many of our county experiment stations which will throw considerable light on the subject. However, the experiments conducted at the Ashland station will do Walworth county little or no good in solving fertility questions.

Fertilizer experiments should be carried on by county agents or the college of agriculture in every county of the state and where soil conditions vary greatly within the county two or three different sections should be investigated in order to have all types and soil conditions represented. There is no more need for fertilizer in Wisconsin than we realize. The old belief that our fertility is still well preserved and the warnings regarding soil fertility depletion apply only to the neighboring state or county should be revised.

Fertilizers are important for increasing crop production. But fertilizers and their application must be thoroughly understood. A campaign to set forth clearly the uses and abuses of fertilizers does little or no good whatsoever unless such campaign includes practical demonstrations on fields within a reasonable distance of every farming community in the state. Such a start as we have said has been made by the county experiment station located at Marshfield, Ashland and other places. However, much more work is necessary than is now being done and more money is required than is now available to the experiment station workers. Whatever facilities there are now at hand are being used to the fullest extent both in increasing the number of experiments and their distribution throughout the state. The importance of the subject, however, particularly in these times when maximum production is all important, warrants greater speed regarding this phase of increasing yields.

There is more money needed, more workers needed and a general expansion to cover all districts necessary in order to bring this about. Everything that we can do to hurry the work is to our advantage. It will help keep Wisconsin in the front rank as an agricultural state and make each and every farm more productive and more profitable to its owner.

Register of Production.

Cows in the cow-testing associations of Wisconsin are not to go unrewarded for their work in the future. The Wisconsin Dairymen's Association has just adopted the plan of Noel Negley, who is in charge of the cow-testing work in the state, to provide for a Register of Production, in which all cows producing 365 pounds of butter fat in a year will be entered. The accuracy of the records will be attested by the owner, the secretary of the local organization and the cow-tester. The charge for entering a cow into this Register of Production will be 50 cents. At the end of each year a book will be published containing all the names of the cows with a record of 365 pounds of butter fat or better.

The reasons for this move are sound principles. The recognition of the grade or pure-bred cows with creditable records is thus assured. Records will also increase the interest in the purchase and sale of cattle on the basis of production. The probability is a further increase of interest will be manifested on the part of those owners having the good-producing cows so that more rapid improvement will take place in individual herds and communities.

The registration slips will be signed by the secretary of the Wisconsin Dairymen's Association, which organization in connection with the University of Wisconsin, is fostering the cow-testing association work. Wisconsin has again stolen a march on all other states by this move.

Discussing the Milk Producer.

B. H. Hibbard, of the Wisconsin station, has been making a study of the market milk situation and he discusses in a series of papers some of the marketing problems which enter into it. For milk going to Chicago at $3.22 per hundred pounds, Mr. Hibbard has figured the division of the consumer's cost to be 7.10 cents for the farmer, .56 of a cent for the railroad, 1.59 cents for the dealer at the plant and 2.50 for delivery. Assuming that each person or firm which handles the milk makes a fair profit on the above basis (and some of them dispute the claim), the price to the consumer would be 11.75 cents a quart, or, to make the cents come out even money, 12 cents a quart. Discussing the claim on the part of the producers that they have a right to a price commensurate with cost with a fair profit added, Mr. Hibbard says:

In recent controversies the representatives have been assuming that he is entitled to a price covering all costs of production and even a profit beyond. This is a reversal of the usual operation of price-making forces. Take, for example, the case of a hog. When prices are a little above cost the pork prduction is suddenly stimulated. When it is below cost the opposite effect is almost immediately produced. A farmer who wishes to produce a great deal of pork next year does not necessarily produce much this year. A man who expects to produce much milk next year must, on the contrary, produce much this year. It is not practicable to keep ten cows one year, forty the next, and then drop back to ten.

Again the producer of milk cannot avail himself of much competition in selling it. With horses or hogs he can withhold them for weeks; can decide which of several markets are best at a given time; can even take them back home and hold them still longer if the price is unsatisfactory. With milk there is no such thing as holding back; it must be sold at once. The farmer who sells to a dealer must make a bargain to cover some period of time as a month or half a year. The competition of the other uses to which milk may be put, as for butter or cheesemaking, is not by any means always adequate in guaranteeing a fair price, since more is required in the production of city milk than for these other purposes.

The farmer may seem to have a right to a price which covers costs, but an unenforceable right is hardly a right at all. He has more nearly a right to what the market will afford. But this does not mean that his rights are determined merely by what a few dealers choose to give him. As in every other similar case, for instance that of labor, the time comes when collective bargaining is the only logical solution.

Farmers have not been adroit in organization. They have, however, been honest. They have felt that they have a right to meet and discuss milk prices, and to name a price which is acceptable to them for their product. That this has been done by many other classes of producers is beyond question, but for the most part the public does not have access to the minutes. The farmers carried on their transactions openly. They did what common sense told them to be the logical method, but in doing so it is claimed that they violated the state anti-trust act. This may be technically true, but if so there will be a stronger demand than ever before that the right to carry on collective bargaining be granted specifically to farmers as it has been to laboring men, and as it presumably has been granted to farmers with respect to interstate commerce by the Clayton amendment to the anti-trust act. Should this weapon be taken away there will be a demoralization of milk prices, and a lot of disgusted, discouraged farmers and out of it a demand for a modification of the anti-trust regulation.

So much for the farmers rights. How about his responsibilities? The farmer has been called unpatriotic and grasping. Suppose his lot be compared with that of the manufacturers, whose business has been regulated and the percentage of profits predetermined. In these cases all costs are taken care of and a profit of some 10 per cent all but insured. The farmer does not ask to be guaranteed 10 per cent, but hopes to be given a fighting chance to make a profit corresponding to the rate of interest which he pays.

If it be the duty of the farmer to provide the consuming public with milk, is it the duty of the public to pay reasonably for the service, or shall the service be in part on a gratuity basis? Why is it not the duty of the shoe manufacturers to provide the public with shoes? Of course they are doing it, but for a consideration, and so far as anyone knows a consideration that is adequate. There is no case in court charging them with conspiracy, yet the prices on all hands have been skyrocketing with remarkable similarity. Is it the farmer's moral duty to go ahead playing a losing game until his stakes are exhausted simply because the old method of marketing fails to give him a just return? It is the farmer's duty to produce to full capacity and to market his produce intelligently so as not to lose out in the struggle for economic independence.

Assuming that all Mr. Hibbard says is true, and he certainly puts it in a very logical way, the peculiar times in which we are living should certainly be taken most seriously into consideration. The demand for milk is immutable, and we are told that food is as important as bullets. We fancy if the question of price of war ammunition were up no one would claim that it is unreasonable to charge the government for munitions full cost of their manufacture and a profit added. This is all the farmer asks for. Mr. Hibbard is absolutely right in saying that the farmer has been honest in his milk producers' organization and evidently we will also have to admit that the farmer has not been adroit. When we tell the farmer in one breath that our very future depends upon him and then tell him in the next breath or by some criminal court proceeding that we don't propose to stand by him in what is fair and right, the farmer's reasoning is taxed to account for the actions. Furthermore, if the farmer can be guaranteed a fair price on wheat and pork, why cannot the system be extended? In the end we arrive at the basic truth which is that the farmer is willing to produce milk for cost plus a fair profit and what industry in America will serve the government or the people to any greater extent?

Value of Wisconsin Farm Products.

There were many at the beginning of the 1917 crop season who were skeptical that the campaign for increased acreage and increased production in Wisconsin would result in much lower prices on all farm products. The department of agriculture has recently issued a statement of farm values of many crops, as of October 15, 1917, and these are compared with October 15, 1916. Corn was worth in 1916, 76 cents a bushel and this year on the same date the average value on the farm of a bushel of corn in Wisconsin was $1.43. Of course, the corn crop did not turn out well in Wisconsin despite all efforts. But the price would have been almost double that of 1916 if we had had a bumper crop. This is proved by the corn values on farms of the nation as a whole, where the corn crop has been increased about 600,000,000 bushels, and the price has gone up just the same. The law of supply and demand is still in effect, but it is no longer local or even nation-wide. The demand for corn is world-wide, just as it is for wheat. Even though we export corn in moderate quantities, we will export other foodstuff, and corn must take the place of the other products at home, so it is the world demand, after all, which affects the market and which is sure to keep the prices up at least for the duration of the war. A year ago the average bushel of wheat on Wisconsin farms was worth $1.55, and October 15, 1917, it was worth $1.99. A year ago oats were worth on Wisconsin farms at this season of the year 47 cents, and today they are worth 58 cents. A year ago a bushel of buckwheat was worth 96 cents and today it is worth $1.63. Barley has increased from $1.02 in 1916 to $1.21 today. Tobacco has increased 40 to 60 per cent. Hay has increased in value on farms from $11 to $15.60 per ton. Apples, on the average, have increased from 90 cents to $1 a bushel. Hogs, worth $8.80 per hundredweight a year ago were worth October 15th, this year, $16.60. This is the most marked increased in live stock values, but other meats have also increased. Beef cattle from this state were worth $8 per hundredweight on farms October 15, 1917, as compared with $5.90 a year ago. Veal has advanced in a twelve months' period from $9.30 to $12.70 per hundredweight, sheep from $5.70 to $12.70 and lambs from $8.30 to $14.50. Unwashed wool had a value on farms in this state November 1st this year of 62 cents a pound, lacking only 2 cents a pound of being double what it was a year ago. Milk cows, on the average all over the state, were listed as worth $66.70 each a year ago and today their value is given as $87.30. Horses have remained practically stationary in value, the war demand a year ago having been sufficiently active to hold up horse values and to keep them up. Two crops stand out alone this year as showing reductions in values on the farm October 15th, as compared with last year and these are potatoes and cabbage. This is due to the fact that the state produced only 13,000,000 bushels of potatoes last year when the normal crop is around 30,000,000 bushels. Cabbage was worth $2.30 per hundredweight last fall and only $1.30 this year. Onions have remained stationary at $1.25 per bushel. Tomatoes have advanced from 96 cents a bushel on the farm to $1.55 a bushel on the farm October 15th this year. Beans are worth $8 a bushel as compared to $5.55 a bushel a year ago—both prices high and the present price a record breaker. Eggs have advanced from 31 to 37 cents a dozen. Poultry has advanced from 13.7 to 16.2 cents per pound. Butter was 35 cents a year ago and 43 cents this fall.

These prices form the basis for encouragement in still greater production. There may be slight fluctuations here and there, but there is every reason to believe that farm values will continue high and that the farmer may reasonably expect to profit by the present stirring times. Those who produce milk are, of course, feeding the higher-priced feeds. Hence they are entitled to higher prices for milk and cream. A year ago bran, according to government report, was worth on an average $26.70 per hundredweight and this fall it was worth $35.20. Cottonseed meal has advanced in a year from $38.30 to $55 a ton.

More Sheep For Wisconsin.

The members of the Wisconsin Advancement Association and the Upper Peninsula Development Bureau seem to be in earnest in their effort to locate hundreds of thousands of sheep on the clover lands of Wisconsin and Upper Michigan. A meeting was held in Milwaukee last Thursday to discuss plans which had previously been talked over at the National Sheep and Wool Growers' meeting in Chicago last September and a conference held in Menominee, Michigan, in October. The purpose of the Milwaukee organization was to further effect plans and arrange for funds to the end that some feasible proposition may be presented to western sheep raisers, who will be gathered at Salt Lake City in January to attend their national meeting. There seems to be no doubt that sheep men are anxious to secure good sheep land. Of course, there is no doubt about the demand for mutton and wool. It was stated by government representatives that Uncle Sam can scarcely find enough wool to make clothing for his soldiers. There can be no doubt that Upper Wisconsin is ideally situated as to market.

Among the other questions is whether the clover lands are a good place for sheep and also whether the sheep are obtainable. As to the first question, there seems to be ample authority for the assertion that Upper Wisconsin is ideal for sheep raising. However, several things must be done. In the first place, a large area of land

(Concluded on page 8.)

Wisconsin Potato Convention and Show.

Plowing.

Selecting Seed.

Planting.

NEARLY two thousand bushels of the "world's best" in potato stock were exhibited in the live stock pavilion, on the University campus, Madison, Wis., last week. It was the sixth annual potato show of the Wisconsin Potato Growers' Association, and the show was held in connection with the annual winter meeting of this great potato society. The work of this association and the stock grown by its members are second to none in the country. While other potato growing communities have had the jump on Wisconsin in the matter of starting promotion work, there is at this time no place in America where keener interest is taken in potato seed, growing, cultivation, spraying, grading or marketing problems. The work is newer in this state but it is also much more enthusiastic than in many of the states where such work has been carried on for many years.

The big contest at the annual potato show is between the several northern counties of the state which present booths, with ten, one bushel exhibits or enough added exhibits to make a total of ten bushels, in competition for the county championship of the state. There are all the problems of potato growing back of these contests. In the first place, the exhibit must be made up of standard varieties such as the Rural New Yorker, Green Mountain, Irish Cobbler, Early Ohio, Triumph, etc. These potatoes exhibited in the state contest must be disease free, true to the generally accepted types of the several varieties, and of proper size and shape to conform to accepted rules governing types. Every possible effort is made to display the potatoes in the most attractive way, though it has been ruled by the association that appearance of the booth must count for very little in judging. Granting that all of the counties entered in this contest raise good potatoes, and that the potatoes are generally free from disease, there is an art in selection which enters very materially into the contest. Mr. W. D. Juday, county agricultural agent of Oneida county, first prize winner for four years, is undoubtedly one of the best men in the country in selecting potatoes for exhibition purposes. Of course Oneida county is a premier potato county, and it has many efficient and conscientious growers who study potato problems carefully and apply their knowledge. But after all this is conceded, it must also be admitted that the county agent has been a formidable aid to the county's prize-winning record by his ability to select from the exhibits offered the very choicest stock to meet the other exhibits representing other counties of the potato district. Oneida county won first this year in the contest, just as she has won in the last three previous years, and she deserved first—that was generally conceded. Several of the county exhibits failed to show a sufficient number of good potatoes to get full credit for the meritorious exhibits set up. Others got somewhat mixed on varieties. One county which seemed to be running neck and neck with Oneida in the contest was cut down in points by reason of the black centers found in a number of the tubers when the judges slashed the potatoes open. One county, with a splendid Green Mountain exhibit, failed to get into real close competition with the top because of the fact that a number of potatoes of the Pearl variety slipped in with the Green Mountains. But on the whole, all of those connected with selection of the county exhibits deserve commendation for their splendid selection and the growers are to be congratulated upon the progress which has been made in standardizing varieties and types in the several important potato centers of the state. The markings, of the county booths were as follows: Oneida, 94½; Barron, 90 2-3; Waushara, 89 1-6; Rusk, 87 2-3; Langlade, 87 1-3; Lincoln, 86 1-6; Marinette, 85 1-6; Forest, 85 1-6; Vilas, 84¼; Waupaca, 83 2-3; Sawyer, 82 5-6; Shawano, 77 1-6; Portage, 75; Brown, 74 1-3; Walworth, 60. The exhibitors in each of the booths and the varieties exhibited were as follows:

Spraying.

Oneida county—Triumphs, Joe Grusch, F. F. Boehm, Charles Peterson, Charles B. Kuney, H. Blumenstein, Wetman Schoenick; Rural New Yorker, F. S. Campbell, Clark G. Kuney; Green Mountain, Chris Mickelson, H. Blumenstein & Son, Clay Camp, W. P. Jewell & Son and G. M. Anderson.

Barron county—A Green Mountain exhibit exclusively, the exhibitors being M. Granum, E. Kringle, Cedar Lake Farms, Mrs. E. L. Cuff, Carl Hazelburg, Mrs. E. Kringle, Gus Kringle, Mrs. E. H. Thompson.

Rusk county—Another Green Mountain exhibit. The exhibitors were Ed Stahl, Jim Faeberg, J. A. Schmidt, John Hurless, J. A. Andress, A. E. Pinny, Henry Koter, Beldenville Farms, Fred Umbrite, A. H. Plant and Jack Schmidt.

Marinette county—Rural New Yorker, Erick Mickelson, W. L. Quaas, W. O. Nivins, L. Stark & Co., F. Lardinos, O. G. White, Boyd & Morton, C. Bolander, M. Hoffman; Triumphs, A. Bolander, Erick Mickelson.

Waushara county—Rural New Yorker, John Leach, Wiliam Riemer, Albert Jones, Fred Bartel, E. Hesnes, Elmer Williams, William Anderson, L. Darling & Son, James Gunderson, Ernest Rohde; Irish Cobbler, Ernest Rohde.

Portage county—Rural New Yorker, Louis Skogland, E. P. Tobie, L. E. Gordon, A. O. Stoltenburg, Anton Brekke, Casper Smith; Triumph, William Scribner.

Sawyer county—Green Mountain, Oscar Holmquist, Oluf Cook, Cunar Moesbek, Ed Brothen; Triumphs, J. Hoff, Nelson Mowers, C. P. West; Rural New Yorker, Dick Nelson, Swan Olson, Peter Gulickson, Walter Weingarten.

Shawano county—Green Mountain, Herman Raffoth, Roman Muscavitch; Rural New Yorker, Alfred Carlston, John Kroll, Emil Nicholson; Triumphs, Eberlein Bros., Otto Nordwig, A. E. Kuhn; Irish Cobbler, Ben Whitehouse, Herman Marotz.

Lincoln county—Triumph, F. Nibbler, E. Schmidtbauer, H. H. Kueling; Green Mountain, R. H. Clark, H. P. Hansen, R. Thielman, Roy Conant, Art Welty, F. Wrabetz, Dan Tiernay; Early Rose, Dan Tiernay, John Lee.

Forest county—Green Mountain, August Draper, A. R. Anklan, George Packard, L. S. Jacobson; Irish Cobbler, George Packard; Early Ohio, Selmer Jacobson; Triumph, C. E. Cummings; Rural New Yorker, Joseph P. Schaenzer, William Krause.

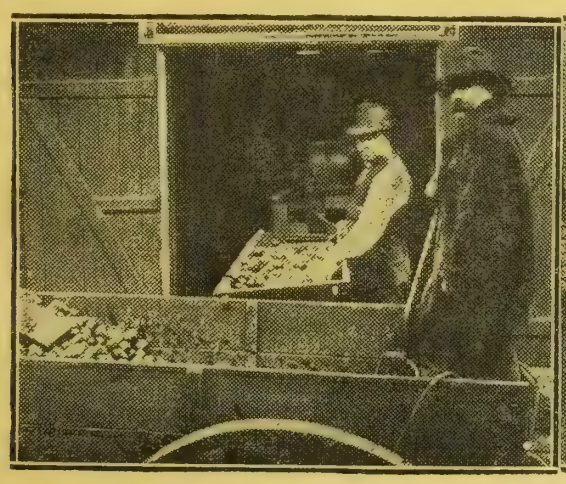
Brown county—Irish Cobbler, Burt Mason; Rural New Yorker, John Splan, John Chambers, William Herring, Jos. Vanden Plas, Alf Caelwaerts; Early Ohio, A. R. Schoen, E. C. Liebmann, Mrs. C. Liebmann, Jos. Vanden Plas.

Langlade county—Rural New Yorker, Lewis Witte, Adam Guenther, Peter Krier, Herman Schroeder, Mrs. Charles Parsons, Schroeder Bros., Charles Schotte; Triumph, John Smith, Mrs. Charles Parsons; Irish Cobbler, Oscar Nelson, Ole Jacobson, Henry Hoffman, Chris Sorrenson.

Waupaca county—All Rurals, E. Kaptichka, Charles Woodward, H. C. Frihart, O. C. Woodward, Charles Rasmussen, Frank Constance, Charles D. Larson, James Christiansen, D. C. Hayward.

Vilas county—Triumph, Charles Reed, J. W. Johnson, Peter Sandbeck, Axel Lindburg, G. G. Sanborn; Rural New Yorker, J. W. Johnson, Gus Reed, Peter Hidern, Aaron Reed; Green Mountain, Julius Trapp, Louis Grenier.

Walworth county—An exhibit of potatoes was put on under auspices of the Lake Geneva Gardeners' and Formen's Association. This was the first exhibit Walworth county has undertaken at the state potato show. A. Martini, of Lake Geneva, and Ed Sparks, of Lake Geneva, are president and secretary, respectively, of the association, which has



Loading.

Grading.

Selling.

(Continued on page 8.)

Family Circle Talks by the Publisher

(Continued from page 3.)

triumphant over right; if the will of a tyrant were world-wide law; if the sun were to be ushered into our lives every morning with the boom of cannon and ushered out every night with the sound of shot and shell, a day and a world given over to militarism. I thought of the sacrifice which is being demanded in so many homes, farm and city alike; of the boy whom we nursed through innumerable childish ailments, on whom we have relied for many years, to whom we have proudly pinned our faith for the future, of this boy rudely snatched from the home circle and sent out to be food for cannon and carrion crow in a distant land. I thought of how I had offered my own son in the last war, a war when there was much less at stake than now, and of how he had come back to me, safe and sound, and had been spared by Providence to be my right hand support, the comfort of my aging years. As I thought, my eyes misted with tears, for I knew there would be many a boy, both from farm and city, who would not come back. I realize that sorrow stalks throughout the land and that it will continue to stalk for long months—perhaps long years—to come. And yet, with it all and through it all, I can see many things for which we should be thankful this year, thankful as never before.

I am not thinking of bounteous crops, of good prices, of a prosperity the like of which we have never known before. These things are not to be weighed against the life blood of your boy and mine. Rather, am I thinking of the days that are to come, after I am gone, after many of you who read these words are gone. My son likewise has a son. Shall we not hand over to that grandson of mine a heritage of honor and righteousness, of world-wide liberty and democracy? Shall we not give him a fair chance to hold his head erect, to walk straight before all men, to earn a good living, to enjoy the fruits of his labor? Shall we not relish the opportunity to say to that grandson—only a little boy now, but potentially a man—that he shall be free, that no tyrant shall make him bow his head, that he shall not wear the livery of shameful servility, that he shall rear children, too, to enjoy that which we enjoy, that which we propose to pass on to him: freedom.

I am thankful that I have lived to see an extravagant nation scourged into economy; that I have lived to see a thoughtless nation lashed into thoughtfulness; that I have lived to see a careless people realize the full measure of their responsibility. I am thankful that I have lived to see a rift in the clouds of tyranny; already there are signs of the dawn, when those across the seas shall enjoy the same privileges that we have long enjoyed. I am thankful that I have lived to see our boys prove their courage. I believe that the strength and vigor of our manhood today was brought about largely by the struggles through which our pioneer fathers succeeded in grubbing a foothold in the prairie and wilderness; we have grown in body and in brain because they fought the good fight against Nature—and won. Shall there not be a still greater growth, both of body and of mind, because our children have had inbred into them patriotism and courage, honor and righteousness, a love and a peace that passeth understanding?

The war will not last forever. I hope and pray that a few months more will see it brought to a close. Next Thanksgiving Day we may bow our heads around the family table—with here and there a vacant chair, to be true—and thank God, as we never thanked Him before, for His wonderful kindness and mercy. Let us not withhold all our thanks until then. The world is being made safe for democracy, which simply means that it is being made safe for your sons and mine, and their sons throughout all the long line. Shall we not therefore give thanks that it is we who are called upon to make the sacrifice, to pay the price, rather than the golden-haired little ones tugging at our knees; that the fight is to be won here and now and not in some indefinite future, when even more may be at stake?

Nor is this all. Can we look about our family circle, our friend circle, and not see many and various reasons, this year, as last year and always, for being thankful? I leave this thought with you this Thanksgiving Day; read what the poet said and bow your heads, for it is good that we realize how blessed we are, even in the midst of sorrow and heartache:

I thank Thee, Lord, that I am straight and strong,
With wit to work and hope to keep me brave;
That two-score years, unfathomed, still belong
To the allotted life Thy bounty gave.

I thank Thee that the sight of sunlit lands
And dipping hills, the breath of evening grass—
That wet, dark rocks and flowers in my hands
Can give me daily gladness as I pass.

I thank Thee that I love the things of earth—
Ripe fruits and laughter, lying down to sleep,
The shine of lighted towns, the graver worth
Of beating human hearts that laugh and weep.

I thank Thee that as yet I need not know,
Yet need not fear, the mystery of the end;
But more than all, and though all these should go—
Dear Lord, this on my knees—I thank Thee for my friend.

James M. Pierce

BADGER FARMER'S MAIL BAG
FARM EXPERIENCES

Keep the Cattle Well Fed.

To the Editor:—Under the auspices of the Jefferson County Council of Defense a series of agricultural meetings are planned for this winter. The first series in November, second in December, third in January and fourth in February, with a grand round-up at the close. The first series were live stock meetings in which Professors Bullock and Negley were the principal speakers. In connection with these meetings the women's meetings were also held in which Mrs. Flagler, emergency food agent for Jefferson and Waukesha counties, took charge. The principal talks were along the lines of feeding and breeding and cow-testing work.

At this time with the high cost of feed and the shortage of labor many of the farmers in this county are up against a pretty tough proposition in order to make their feed go as far as possible and still not allow the herds to run down in production. It was one of the principal objects to show them the importance of keeping the cattle well fed even in spite of the high cost of feed at this time and Mr. Bullock talked along this line. The breeding talks were illustrated with lantern slides and an effort was made to show the importance of having pure-bred animals introduced into the county in place of many of those of poor breeding, which we have at the present time.

In connection with these meetings Mr. Negley talk d on the importance of cow-testing associations. It seems that there are none in this county, although the territory immediately surrounding us is pretty well taken care of in this line. The meetings on the whole, considering the weather, were fairly well attended. Owing to the nice weather and the ground being capable for work, farmers were busy with their fall work and the afternoon meetings suffered accordingly. The meetings held in the evenings were well attended and as a result of these meetings we probably will have three cow-testing associations under way in a very short time.

C. V. Holsinger,
Emergency Food Agent for Jefferson County.

In Brown County.

To the Editor:—The weather so far this month has been ideal for farm work. It is regular Indian summer and is enabling the farmers to get their work done, which was delayed by the cool, rainy weather in October and the heavy snow the last of the month. Farm help is scarce and the boys taken away for the army makes it hard to get along and will be something terrible the coming season.

Potatoes are a good crop and are selling for $1 per bushel. The corn crop was not very good and not many hogs were kept. Clover seed is turning out fair and there is a large acreage. Some hay has been baled and disposed of. At present it is in brisk demand at $20 to $23 per ton. Barley is $1.25 per bushel and oats, 60 cents. There was not much wheat raised. Cheese factories are paying an average net price of from $2.35 to $2.45 per hundredweight for October milk. Condenseries are paying higher. Coal is hard to get and wood is scarce, with prices high. S. J. Shannon.
Brown Co., Wisconsin.

Believes in Sheep.

To the Editor:—I read in The Wisconsin Farmer a few articles about raising sheep in north Wisconsin. I have been a sheep ranger in the West many years and bought a fine 120-acre farm in Taylor county, Wisconsin. I started in sheep four years ago and have at present ninety breeding ewes. I run them all summer on cut-over or stump land. They cut all growing brush down and kill it. They keep all weeds off the farm and do fine from it. Nothing will beat a flock of sheep to help clear land. North Wisconsin is hard to beat for raising sheep because we have green grass the year round. Clover hay and oats are all I want for feeding sheep. We never had any trouble or sickness in sheep, but don't go into the sheep business unless you are a lover of sheep.

I have just one thing against raising sheep in Wisconsin and that is that yelping, good-for-nothing, running-all-over dog. If this dog will be allowed to run in peace much longer in Wisconsin there will be 98 per cent dogs and 2 per cent sheep. Wisconsin should enact a dog law. Five dollar dog tax would be cheap when wool averages around $1 per pound. I know of a man near Dorchester who lost twenty-three sheep in one night by dogs. It was a dead loss to this man because the dog could not be found. Sheep are selling at present for $2[illegible] per head, but don't let the dogs scare you farmers in Wisconsin. Every farmer should keep from five to ten breeding ewes. It is the best paying investment.

I could write a big article about how to raise and run a bunch of sheep successfully, but a man with from five to twenty-five sheep don't need much experience handling sheep. Just help kill the dogs and the sheep will help themselves. To show how eager the farmers in Taylor county are to buy sheep, a car of sheep was sold in two hours, not advertised, for $20 per head.

Mr. Farmer, that pack of weeds on your farm and around your buildings or stump land or stony land, not good for farming, is what sheep like. It will raise you all the wool for your family and once in a while a mutton that will cost you less than pork. Try a few sheep. They will pay for the next fifteen years. E. H. Dehne.
Taylor Co., Wisconsin.

Milk Prices in Brown County.

To the Editor:—The farmers here deliver their milk to the factory at Alaska and receive the following prices per hundred pounds of milk at 35 per cent test, not figuring the whey, which is worth 20 cents per hundred: January, $2.03; February, $2.06; March, $2.03; April, $2.10; May, $2.10; June, $2.03; July, $1.825; August, $2.03; September, $2.31, and the October check we haven't got yet. As Alaska is about seven miles from Algoma, it would not be possible for the farmers to deliver their milk.

The majority of the farmers in this vicinity are investing in mill feeds and believe in feeding well at the present prices rather than let the production of milk decrease. This winter I intend to feed to my dairy cows corn fodder, alfalfa hay, timothy hay, ground oats, ground barley and oil meal. I have these feeds on hand.

If the condensery about to be located here can pay more for milk than the cheese factory under these conditions, I think the majority of the farmers would sell their milk to the condensery. Louis Stoller.
Kewaunee Co., Wisconsin.

Feeding Steers and Hogs.

To the Editor:—I will tell you something of my method of handling steers and hogs. I am not a feeder of either to a great extent—only to feed the produce of the farm, buying as little as possible.

I raise my own steer calves, being all pure-bred Red Polls, and usually sell in April or May at the age of twenty-four to thirty months. My winter feeding is largely clover hay and silage, with corn meal if the silage is deficient in nearly mature corn.

In feeding hogs they are allowed the range of clover pasture in summer with good running water. They also have skim milk and a liberal grain ration. The business of making hogs heavier, I believe, is most profitable even though corn is quite high at present. A. B. Moore.
Fond du Lac Co., Wisconsin.

Growing Corn.

To the Editor:—With relation to corn growing will mention that I have found that rolling land that faces the south makes an ideal cornfield and, as corn stands a lot of drouth, flat fields should be avoided as much as possible on account of holding water and keeping the ground cold and retarding the growth of the corn. I will mention another thing that is done and done by old farmers that I believe to be wrong. Some people in our neighborhood prepare their cornfields, making them rich with manure, and in every detail sufficient to raise a good crop of corn; they then take a horse marker and check the land for hills, making the checks about two and one-half inches deep, and the man that comes along with a planter in a hurry and sticks the planter in these check marks another two and one-half or three inches, and then the corn is down five inches below the surface of the ground and the chances are the crop is spoiled right then and there. I do not claim to be an expert in growing corn, but have had a dandy good crop every year for five seasons. This year I got 142 baskets to the acre right through of Golden Glow and Wisconsin No. 8 and have got for sale 535 bushels of ears hung up in my seed house that is dandy good seed corn. I got first blue ribbon at Shawano County Fair and got a couple down at Madison last winter and one the winter before that; besides, I got first and second this summer and last summer at the corn show held in our town.

I will mention the way I plant my corn. In the first place, it is new land farming up here in Shawano county, northern Wisconsin, and I plant about twelve acres each spring, using a horse marker, and when we come to each check mark for the hill I shove the dirt in with my foot from both sides so it is level with the surface of the ground and drop my four kernels of corn right on the spot leveled and put one inch of dirt on the corn with a hoe. It costs a little more to plant this way, as it is a little slower, but we got our money back in husking time and the people that laughed at me for planting this way don't say anything now only that I was lucky, and I guess I was, for I helped my corn by planting this way so that it was ripe by the time the big frost came on the 9th of September. Chas. Hull.
Shawano Co., Wisconsin.

What Proper Drainage Will Do.

Experience in the Belgium-Holland District, Ozaukee County, Wis.—By Margaret Bauer.

MARSH land does not produce anything, but it is taxed nevertheless. John Mueller, of Belgium, in Ozaukee county, was born and raised on the farm two miles north of Belgium. For the last twenty years at least he has been paying taxes on forty acres of marsh land which was of absolutely no value even as pasture. The assessed value of this land, while not as high as tillable farm land, was high enough to amount to $640 in taxes during this time. For this money he received nothing in return.

Corn Grown on Reclaimed Land.

About eight years ago this condition dawned upon him and several of his neighbors and they decided that as long as the land was taxable there must be some way of making it produce enough to wipe out the years of taxation and yield a good profit besides. After consulting the proper authorities they decided that a drain ditch of sufficient size to carry away the surface water could be constructed at a reasonable cost and all of the land made tillable. The project was to cost in the neighborhood of $8,000 and extend from the town of Belgium northward into the Onion river, a distance of approximately six miles. However, while those in favor of the drainage constituted a majority, a certain number of owners affected by this drain appealed the case to the supreme court and it required five years of litigation and thousands of dollars in fees until the work could be started. It was finally completed early in 1916.

After draining the land tiles were laid at an expense of another $400 and the land completely rid of the surplus water. Then commenced the work of grubbing the stumps and leveling away the excavated dirt. This year the first crop has been harvested.

Thus far only twenty acres have been put under the plow by Mr. Mueller, but from these twenty acres have come the richest harvests of corn, buckwheat, cabbage, mangels and rutabagas. The cost of the ditch was pro-rated among the thirty farmers benefiting from this ditch and Mr. Mueller's share was figured at $30 an acre. From these twenty acres he has harvested this first year $1,000 worth of crops. This is enough to pay for nearly all of the forty acres reclaimed by the ditch. Corn grew to a height of eight and nine feet on most of the farms affected by the ditch and many stands of ten and eleven feet were reported. Mr. Mueller sowed among the corn one pound of rutabaga seed, which has yielded him forty tons in roots worth now on the market $17 per ton.

The buckwheat acreage, though one-third of it was severely injured by frost, yielded a total of ninety-two bushels.

The enthusiasm of the Belgium people over the success of this drain is naturally great. It was, therefore, with a feeling of pride that they welcomed a delegation of 100 West Bend people last month who had made the trip in order to see at first hand the results of the drainage. The West Bend farmers are interested in a similar project. Mr. Lyons, of West Bend, district commissioner of the drain, and Wm. Schannen, of Port Washington, addressed the crowd and explained the condition the land was in previously.

Holland-Belgium Drainage Ditch, Ozaukee County, Wis.

Corn on Anton Foltz Farm, Belgium-Holland Drainage District.

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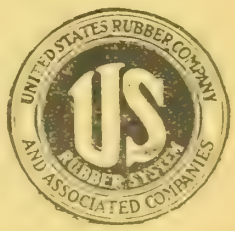

U. S. Rubber Footwear

Additional Editorial

(Continued from page 4.)

must be burned over and it may be necessary to secure special Wisconsin and Michigan legislation to properly accomplish this. Probably the work would have to be put under the direction of state fire marshals in order that it be properly controlled. Such eminent authorities as Geo. McKerrow, of Waukesha county, Wisconsin; F. R. Marshal, of the federal bureau of animal husbandry; W. B. Tyrrene and Frank J. Hagenbarth, of the National Sheep and Wool Growers' Association, believe that sheep can be handled with profit in Upper Wisconsin.

Mr. McKerrow said that he has handled all kinds of live stock in Wisconsin and that sheep more than any other class have helped him to pay for the splendid 200-acre farm he owns in Waukesha county. Furthermore, he has had Upper Wisconsin sheep experience and says that the grasses and root crops, which can be raised in that territory, will put wool and mutton on the market as cheaply as it can be done anywhere and that the quality will not be excelled by any locality in the world. Upper Wisconsin does not have the drouth and hot weather which give lambs their setback in sections further south. Clover and roots are ideal feed, but Mr. McKerrow suggests that western flockmasters coming to Upper Wisconsin will have to learn the root business, especially if they go in for early lambing, as proposed. While some talk and write enthusiastically about two to five sheep per acre in Upper Wisconsin, Mr. McKerrow says not to count on more than one the first year and two the second. There seems to be little danger of disease in Upper Wisconsin. Clover hay can be saved for the months of the year when snow is crusted over and clover hay is a balanced ration for sheep. Mr. McKerrow has fed roots for a number of years and found no bad effects and thinks that proper feeding of roots can about cut the hay ration in two. From ten to twenty tons of roots per acre can be raised in Upper Wisconsin. As a member of the live stock advisory board coöperating with the government, Mr. McKerrow strongly urges a tax of $5 to $10 put on dogs. He said they had a wolf scare at his farm not long ago and that the "wolf" cost him $1,000 in five weeks and when the "wolf" was caught it was found to be a neighbor's dog. It has been estimated by the department of agriculture that it costs $45 per year to feed a dog.

While the land men and sheep growers were in conference at Milwaukee a number of bankers were also holding a meeting to devise methods for procuring funds to finance the sheep industry.

Fertility in a Ton of Straw.

A recent issue of the Illinois Agriculturist contains a contribution by Prof. C. G. Hopkins on the manurial or fertility value of straw. It seems that a ton of straw contains about ten pounds of nitrogen, two pounds of phosphorus and twenty pounds of potassium. In addition, there is, of course, nearly 2,000 pounds of humus-making material. On the other hand, a ton of fresh farmyard manure contains ten pounds of nitrogen (the same as straw), two pounds of phosphorus and only eight pounds of potassium. Moreover, in a ton of manure there is only 500 pounds of humus-making material, as 75 per cent of manure is made up of water. According to this analysis, a ton of straw contains more fertility and more organic matter than a ton of manure, and Professor Hopkins calls attention to the fact that straw decays more slowly and its benefits are less immediate, although, on the other hand, they may be more durable.

The average man does not regard straw as having any such manurial value as is here indicated, although it is a well known fact that popularity of the plan of spreading straw on wheat fields and on meadows is increasing. Chief interest in straw centers in its use for this purpose. Four plots of wheat at the Illinois station that were covered with straw last winter gave an average yield of 46.7 bushels per acre while wheat that remained uncovered yielded 29.2 bushels per acre. Here was an increase of 17.5 bushels per acre that could be attributed wholly to an application of one ton of straw per acre.

Those who have a supply of straw on hand that cannot be used for bedding and feeding should not allow it to rot down where it now is if there is any wheat growing on the farm. If it is spread thinly at the rate of one ton per acre it will unquestionably increase the yield and, furthermore, benefit will be obtained in the crops that follow wheat, because of the nature and character of the fertility and the humus-making material contained in straw.

Wisconsin Potato Convention and Show.

(Continued from page 5.)

forty members and has been established fourteen years. The booth contained exhibits of Green Mountain, Rural New Yorker and Early Ohio varieties and also some varieties unknown to potato shows in Wisconsin, including Late Petosky, Sir Walter Raleigh, New Dearborn, Carmen and Snowflake. The association also exhibited vegetables, including onions weighing over three pounds and nineteen inches in circumferece; leeks, Chinese cabbage and Red Hollander cabbage. The exhibit did not so conform to the show program and rules as to give it a high place in the markings, but the spirit shown by the Walworth county people, and by County Agent L. L. Oldham, in endeavoring to have at least one southern county in the state represented, was noted and appreciated.

The close competition which was noted in the county exhibits contest was also apparent in the individual display. Mr. C. W. Waid, of the Michigan station, and Mr. C. L. Fitch, of the Iowa station, were judges and their work was very acceptable. Mr. Waid, though a strong booster for Michigan potatoes, congratulated the growers of Wisconsin on the splendid stock shown and also upon the spirit manifested to confine the number of varieties grown for seed and commercial purposes, and to accept only those now generally regarded as standard. As usual, there was a good display of Rural New Yorker potatoes. Mr. D. C. Hayward, of Weyauwega, won first, having a very choice display of this popular round, white variety. The other premium winners on Rural New Yorkers were Huser Bros., Grand Rapids, second; O. C. Woodard, Weyauwega, third; Peter Sandbeck, Eagle River, fourth; Charles Beard, Elcho, fifth; John F. Hauser, Bayfield, sixth, and F. S. Campbell, Three Lakes, seventh. From the fact that two out of the first three prizes went to Waupaca county it is apparent that the determination of growers in that county to stick to the one variety and constantly improve their stock, is bearing fruit. Waupaca county is one of the oldest potato counties in Wisconsin, and it now bids fair to merit the title of one of the best.

In the Green Mountain variety John F. Hauser, of Bayfield, won first as usual. It is doubtful whether there is a better grower of Green Mountain potatoes in the county than John F. Hauser. The Green Mountain potato is especially adaptable to the lake region and it is growing in popularity every year. The other prize winners on the individual exhibits of Green Mountain potatoes were Shroeder Bros., Antigo, second; Olaf Cook, Hayward, third; A. T. Johnson, Angus, Barron county, fourth; John Chelmo, Webster, Burnett county, fifth; R. H. Clark Tomahawk, Lincoln county, sixth; Herman Schoenick, Enterprise, Oneida county, seventh; John Lisk, Danbury, Burnett county, eighth.

L. N. Nelson, of Rice Lake, Barron county, had the best individual exhibit of the Irish Cobbler variety. Oscar Nelson, of Antigo, Langlade county, was second; Peter Krier, of Antigo, Langlade county, third; John Lisk, Danbury, Burnett county, fourth, and Herman Schoenick, of Enterprise, Oneida county, fifth.

Eric Mickelson, of Pembine, Marinette county, had the best individual exhibit of Triumphs. The other winners in order were J. W. Smith, Kent, Langlade county, second; Dixon Bros., Almena, Barron county, third; C. G. Kuney, Three Lakes, Oneida county, fourth; Huser Bros., Grand Rapids, Wood county, fifth, and Herman Schoenick, Enterprise, Oneida county, sixth.

Mrs. Charles Parsons, of Antigo, Langlade county, had the best individual exhibit of Burbanks. Ed Kringle, of Rice Lake, Barron county, won second prize. John F. Hauser, Bayfield, Bayfield county, third prize; Gus Kringle, Rice Lake, Barron county, fourth prize, and Charles Schotte, of Antigo, Langlade county, fifth.

The Early Ohio is becoming popular in some sections of central and Upper Wisconsin. L. S. Jacobson, of Mole Lake, Forest county, had the best individual exhibit. Charles Jewel, Rhinelander, Oneida county, was second; John F. Hauser, Bayfield, Bayfield county, third; Florence Stratton, Burlington, Walworth county, fourth, and E. K. Boiset, Lake Geneva, Walworth county, fifth.

In its business session the association reëlected by unanimous vote its present officers, J. W. Hicks, of Chippewa Falls, president; O. C. Woodard, of Weyauwega, vice president, and J. G. Milward, of Madison, secretary and treasurer. At the time this is written no definite decision has been made as to where or when the next annual meeting and show will be held. An invitation has been extended by the citizens of Milwaukee to hold the meeting there. There is a disposition on the part of some of the members to change the date of the meeting and show to the first or second week in December. Most of our potato growers reside in or near the deer territory of Wisconsin and a good many of them dislike to leave the chase in November even for such an important event as the annual potato show.

An important new line of work has been developed in connection with the Wisconsin Potato Growers' Association, coöperating with the Wisconsin Experiment Station and under the direction of Mr. T. L. Bewick. Reference is made to the boys' and girls' club work. This work extends to many departments of agriculture and live stock raising. The potato club work is only an incident in the general plan. At the potato show this year there were exhibits of stock grown by boys' and girls' clubs in Price county, Langlade county, Rusk county, Chippewa county, Waupaca county, Dane county, Rock county, Bayfield county and Portage county. In addition, there were individual exhibits. In the county class the Langlade Club won first and the Price County Club won second. In the individual classes Dawson Hauser, of Bayfield, won first on Early Rose, Triumphs and Russets. Lenhart Parsons, of Antigo, won first on Rurals; Harry Winter, of Antigo, first on Burbanks, and Ruth DeLong, of Oneida county, first on Green Mountains.

A number of notable addresses on potato subjects were heard in connection with the convention and show. These addresses were for the most part practical, but running through them all was a patriotic vein. Perhaps the subject of greatest importance before the potato growers this year is that of grading. By unanimous vote the association endorsed document No. 7 of the United States Food Administration reports. This is the government recommendations as to grading. The purpose is to cut down waste by eliminating culls from good stock. A few culls in a sack of potatoes lowers the value of the whole sack. It is the belief of the government and also of the best-informed potato growers, that the interest of all will be best served by grading. The grower will gain by reason of the fact that he will be able to get better prices for the best stock. An instance was mentioned at the convention illustrating the point. President Hicks, of the association, in company with Mr. Waid, of Michigan, visited the Chicago retail markets recently. They asked for potatoes and found the common stock with all sorts of potatoes, little and big. Alongside of this they found selected potatoes from Idaho selling at a very much higher price. Of course, we all know that just as good potatoes can be selected from Wisconsin and better than can be selected from Idaho. The Wisconsin grower is learning his lesson in this matter. There is no reason why Wisconsin potatoes should not be as well known and favorably known as Wisconsin butter, Wisconsin cheese, Wisconsin cabbage, Wisconsin onions, Wisconsin farm sausage, etc. Grading does not mean, however, that all of the small stock shall be thrown away. On the contrary, the purpose is to save the small stock and to sell it, of course, at a lower price, to those who are willing to use it. This is the way the apple growers of the country are

(Concluded on page 10.)

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Questions and Answers.

Noiseless Muffler.

Is there a gasoline engine muffler that is entirely noiseless without cutting down the power of the engine to any per cent?

Answer.—We do not know of any such muffler. All mufflers decrease the power obtainable from the engine to some extent. A muffler could be constructed that would be almost noiseless, but it would be too large and costly for ordinary use.

Transmission Bands Worn.

I have a new 1917 Model Ford car that I have run about 2,600 miles. I am having a little trouble with my transmission. Whenever I push the clutch, reverse or brake pedal, the transmission gives the car an awful jerky movement. Could you advise me how to overcome this? One man told me I would have to have new brake bands; another told me to tighten up the bands. I tightened them and it did some good for about 100 miles, but now it does the same thing again. I thought that the rivets that hold the bands in place came in contact with the metal so that the bands grab. It has always grabbed a little since I first had it.

Answer.—Try loosening the brake band. It may be adjusted so tight as to put a heavy load on the engine all the time. New bands will be the real solution of your problem. You might be able to drive the rivets down one-thirty-second of an inch below the face of the lining and rerivet them; also rough up the face of the lining slightly with a bastard file—just enough to remove the glaze—with good results. However, you will probably save time and trouble by putting on new linings.

A Magnetic Interrupter.

Would you please show me by a diagram how a magnetic interrupter is constructed and how it acts. How does it differ from a vibrating coil? Would the platinum points wear longer with a larger contact surface?

Answer.—The construction of a magnetic interrupter is the same as for the vibrator of a vibrating coil. Figure 1 shows the usual construction, the condenser being omitted. C is an iron core, made of soft iron wires. W

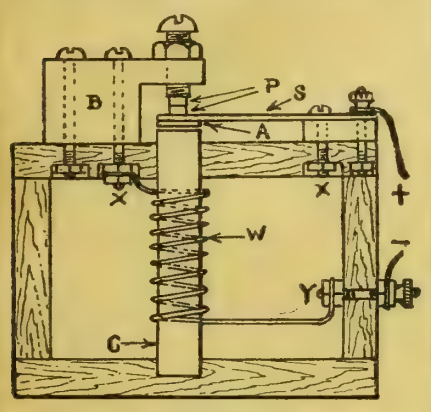

FIGURE 1.

is a coil of many turns of wire, connected to binding posts at X and Y. B is a brass block, supporting the contact screws. PP are the platinum points, S the vibrator spring and A the soft iron armature fastened to the spring. The action is as follows:

When a battery is connected to the plus and minus terminals, the current flows from the battery through the contact spring, S, to the brass block, B, and back to the battery through the coil, W. The current flowing in W makes C a magnet. C then attracts the soft steel disk, A, which pulls the contact points apart and breaks the circuit. C immediately loses its magnetism and the spring rebounds, again closing the circuit at the contact points and again magnetizing C. To prevent sparking at the points, a condenser is usually connected between X and X. In a vibrating coil, W consists of two or three layers of coarse cotton-covered copper wire, and upon this is wound many layers of fine insulated copper wire. One end of the fine wire would be connected to Y and the other end would be connected to the high-tension terminal of the coil. The larger the contact points the longer they should last, and the more they would cost.

Ammeters and Volt Meters.

How does an ammeter differ in construction from a volt meter?

Answer.—Figure 2 shows the common construction for an ammeter. A

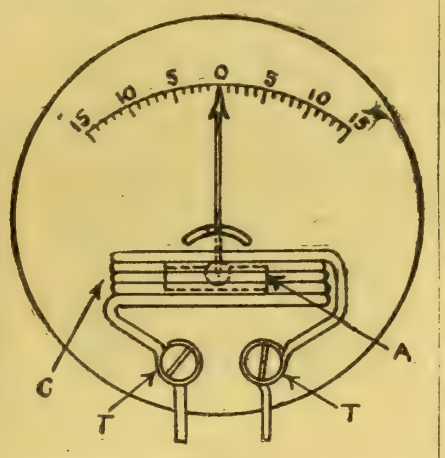

FIGURE 2.

small ammeter is usually connected in series with the circuit so that all the current of the circuit flows through the ammeter. In Figure 2, TT are the terminal binding screws and C a coil of a coarse copper wire. A is a soft steel or permanent magnet pivoted inside the coil. When a current flows through the coil the magnet tends to place itself at right angles to the direction of the current. The pointer is fastened to the magnet, and, as it turns, the pointer moves along the scale. The more the current the farther the magnet turns.

The construction of a volt meter is very similar except that the coil of coarse copper wire is replaced by a coil of fine copper wire of many turns. The volt meter is connected across between the two wires of a circuit, and only a small part of the current passes through it. The large amount of fine wires in the coil creates magnetism with a small amount of current; and the amount of current passing through the coil is in proportion to the voltage. It is the current flowing through the coil that moves the needle, but the current depends upon the voltage.

Magneto Generators.

Why cannot a telephone generator be used for ignition purposes? Why is it that some magnetos generate a current of higher amperage than others?

Answer.—As a rule, the construction of telephone magnetos is not durable and the magneto will soon wear out if run continually. Most of them do not furnish current enough to make good ignition.

The amperage of a magneto is controlled by the size of wire used to wind the armature and the voltage. The larger the wire the greater the amperage for a given voltage. The voltage is controlled by the strength of the field magnets, the number of coils on the armature and the speed of the armature.

A Transmission With Clutches.

If an automobile transmission were driven by chain instead of gears, that is, if there were large and small sprocket wheels combined so as to make the difference in speed; and, instead of shifting gears, if there was a device to lock each sprocket wheel separately so as to engage the speed desired, would a transmission like that last longer than ordinary gears? Do you think that it would be practical and not too expensive?

Answer.—This scheme could be worked out with a fair degree of success. Automobile manufacturers have found, however, that a separate clutch for each speed is not as reliable as shifting gears, there being too many parts on the clutch to get out of order. Whether gears or chains are the more durable is still a subject for debate. The gears seem to have the better of the argument.

Motor Uses Too Much Oil.

What causes a 1917 light four Overland car to use an excess of lubricating oil? They are supposed to run 100 miles on one quart of oil, but I cannot get fifty miles on one quart. There also seems to be a loss of power.

Answer.—First, examine the bottom of the crankcase for leaks. If the oil is not leaking out the pistons probably fit the cylinders too loosely, the rings may not be a good fit, or the cylinder may be scored. This car is usually quite economical in the use of oil.

Power Required to Plow.

I am thinking of buying a Staude Make-a-Tractor attachment for Ford cars. I intend to use it for plowing in medium heavy black soil. In your opinion, how big a plow will it pull, and do you think an attachment of this sort to be practical for plowing? How many pounds drawbar does it take to pull a twelve-inch bottom in medium heavy soil six inches deep?

Answer.—You should be able to pull two twelve-inch bottoms, and probably you would have little difficulty with two fourteen-inch bottoms. The device is practical, though, of course, your Ford car could not be expected to stand up under the work of a regular tractor as well as the tractor would.

Soil such as you describe usually requires a drawbar pull of eight pounds per square inch. For a twelve-inch bottom six inches deep you have 6x12 or seventy-two square inches; 8x72 equals 576; therefore, you would have a drawbar pull of 576 pounds for one bottom, approximately.

The Use of Straw and Stover.

Practical experience as well as experimental work has taught that straw and stover can be used very economically in the ration of almost all kinds of live stock. These roughages are and should be used in the fattening rations of all farm animals except hogs, and should compose the larger part of all wintering or keeping rations for cattle, sheep and horses. Breeding herds of beef cattle or dry dairy cows can be successfully kept on rations composed largely of these materials. Flocks of breeding ewes do well with such feeds when some grain is added. Horses doing very light or no work need little grain if given a plentiful allowance of clean, bright straw or stover. Under certain conditions, of course, grain should be added to the ration, but now it should be conserved as largely as possible for human consumption.

In an experiment conducted at the Indiana Experiment Station to test the feeding value of oat straw it was found that a ration of corn silage, corn and cottonseed meal was just as valuable for economy and extent of gains when used with oat straw as when fed with clover hay. As such a ration is extensively used in various parts of the United States its practical value can readily be seen. Straw and stover are especially valuable for the wintering of breeding herds of beef cattle, and should form a large part of their feed.

Rations suitable for different classes of beef cattle are as follows:

RATIONS FOR WINTERING BREEDING COWS.

Ration 1—Straw, 10 pounds; silage, 20 pounds; cottonseed or linseed meal, 1 pounds.

Ration 2—Straw, 20 pounds; cottonseed or oil cake, 2 pounds.

Ration 3—Straw, 10 pounds; shock corn, 10 pounds; cottonseed meal or linseed meal, 1 pound.

Ration 4—Stover, 35 pounds; cottonseed or linseed oil meal, 1 pounds.

RATIONS FOR FEEDING 1,000-POUND FATTENING STEERS.

Ration 1—Straw, 5 pounds; silage, 18 pounds; corn, 12 pounds.

Ration 2—Straw, 8 pounds; legume hay, 6 pounds; cottonseed cake or linseed cake, 5 pounds.

Ration 3—Stover, 10 pounds; silage, 15 pounds; corn, 12 pounds.

Ration 4—Straw, 5 pounds; stover, 15 pounds; corn, 6 pounds; cottonseed meal, 3 pounds.

Ration for Cow Giving from 20 to 25 Pounds of 4 per cent Mil—Corn stover and straw, unlimited; clover hay, 12 pounds; corn silage, 25 pounds; cottonseed meal, 2 pounds; corn-and-cob meal, 3 pounds; gluten feed, 3 pounds.

In these rations various other feeds may be substituted. In the rations given for wintering breeding cows definite quantities of straw and stover are given. In actual feeding such figures should be somewhat disregarded and the cattle given as much roughage as they will consume.

Yearlings may be fed three-fourths the ration for breeding cows and may be expected to come through the winter in fair to good condition.

For fattening animals straw should always be within reach so that the animal may eat at will. They will usually eat from three to five pounds daily.

Complaints come to The Wisconsin Farmer from a number of our readers who say there is a shortage of stock cars. At Hillsboro, according to one subscriber, there are orders in for cars a week ahead, but the orders were not filled in sufficient quantity to take care of the shipments. There is no doubt the railroads are having some trouble on account of lack of labor and the tremendous demand for shipment of materials. However, the food situation is of great importance and every effort should be made to accommodate the shippers on time so that they will not be subjected to losses by reason of holding their cattle.

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Wisconsin Potato Convention and Show.

(Continued from page 8.)

doing. You can buy fancy, large-sized Jonathan apples in boxes at a big price. You can buy smaller Jonathan apples, all very good stock, at a less price and you can buy the smallest apples, usually in bulk, at a still lower price. All of these apples are sound,

R. H. Aishton
President North-Western Railroad.

disease-free and good, wholesome food, and by the system of grading none of the apple crop is wasted. The shipper is interested in grading potatoes for the reason that it establishes a market standard. The buyer knows what he is getting and when he ships to the market he does not run the chance of having his shipment refused that he would run with a hit-and-miss lot. Grading is expected to put the potato business on a business basis, eliminating waste, insuring fair returns to the grower and a charge to the consumer which is a fair charge for what he gets.

In his annual address Pres. J. W. Hicks spoke of the first meeting of the Wisconsin Potato Growers' Association which was held in Waupaca in November, 1912. At that time there were forty or fifty pails, boxes and sacks of potatoes, including innumerable varieties. The first extensive potato show was held in Grand Rapids in 1914, and it was an eye-opener. Since that time shows have been held at Marinette, Eau Claire and Madison. There never was a time in the history of the country when so many people were interested in potatoes. Wisconsin has just raised one of her largest crops. There will be a large acreage in potatoes next year. Mr. Hicks finds that the commercial growers are gradually improving the quality of their stock. The big, rough, coarse potato with most of the skin rubbed off in washing is now seldom seen at potato shows and the broad, shallow, uniform, clean show box has replaced the old collection of gunny sacks, tin pails, market baskets and old dirty boxes.

As in all public gatherings this year speakers before the Wisconsin Potato Convention discussed the new problems brought on us by our war. Several things seem to be important in this relation. Foremost is increased production. There are several ways to accomplish this. One is to plant more acres. Another is to take better care of the number of acres we have been planting. Another is to increase the production of potatoes in gardens. Another important factor is the elimination of waste in marketing. As good seed as may be obtainable should be placed in the hands of those who will raise potatoes in 1918. Wisconsin has a great deal of such seed; some of it now hid away in cellars and a great deal of it will eventually be passed out for potato stock. Another sidelight of great interest to the potato industry is the education of people to use more potatoes. In America we use less potatoes per capita of any people in any potato-growing country in the world. We get less out of the by-products of potatoes than almost any other potato-growing country. We waste a larger percentage of the potato than is done elsewhere. The government, through its food administration, can help us along these lines. It can help to educate the consumer to buy and use more potatoes and when this is accomplished other foods will be saved, which can be more easily shipped to our soldiers and our allies. Mr. Hoover looks to Wisconsin, as the best organized of any of the potato-growing states, to make the government's suggestions effective. In return the potato growers of Wisconsin have a right to expect of Mr. Hoover

C. W. Waid,
Of Michigan, one of the potato show judges.

and the food administration that educational food campaigns urging the use of more potatoes shall be carried on in a big way.

Our Mr. Magnus Swenson, state food administrator for Wisconsin, took a great interest in the potato show and presided at one of the convention meetings. By special proclamation he made Wednesday, November 21st, Potato Recognition Day.

One of the busiest railroad executives of the country found it worth while to spend a day at the potato show and accepted an invitation to speak. We refer to Mr. R. H. Aishton, president of the North-Western Railway. The North-Western road handles a large per cent of the potato crop shipped locally and out of Wisconsin. President Aishton urged renewed diligence in organization work to promote the potato business in this state. As the head official of a railroad covering such large area in this state, Mr. Aishton has been interested in the development of the potato industry. The North-Western road has coöperated with the organization efforts of the association and the college of agriculture and run special trains carrying the exhibits of standard varieties and also illustrations to show potato diseases and control measures. Mr. Aishton gave some very encouraging figures on the business of agriculture in Wisconsin and remarked that while he was raised in Illinois and spent most of his later life in Iowa, he still takes his hat off to Wisconsin and its people for what they have accomplished. Mr. Ashton referred to our war accomplishments also. On April 1, 1917, the strength of the Wisconsin National Guard was approximately 3,500 men. War was declared April 6th and in the early part of December when our boys went to Waco, Texas, the National Guard strength had been raised to 15,500 men and this was all done by voluntary enlistment. On April 1, 1917, Camp Douglas was in shape to provide for three regiments of infantry, while on July 15th, the date of the president's call, camp

J. G. Milward,
Secretary of the Wisconsin Association.

sites were ready, sidetracks, loading platforms, wagon roads, wells, bath houses, commissary supply houses—all were ready for the full quota of Wisconsin troops. As an example of live, business organization and execution, Mr. Aishton says that work is without parallel.

Mr. Aishton is chairman of the American Railway Association Special Committee on National Defense, or better known as the railroad's war board—hence he knows what he is talking about when he reports the wonderful work accomplished at Camp Douglas. The railroads of America, according to Mr. Aishton, are now operated practically as one system. They are handling the heaviest commercial business they ever had, including the tremendous requirements of the government and have transported a million or more men in regular troop movements. Nine hundred and ninety employes of the North-Western road have voluntarily entered military service. These men are now in France and Russia and 200 of them at Verdun.

In summarizing a great patriotic and practical address, Mr. E. S. Brigham, commissioner of agriculture for the state of Vermont, advised the potato growers of Wisconsin to plan their work for the coming year carefully and thoughtfully and to plant no more potatoes than they can well care for. The best seed obtainable should be planted and fertilizer should be extensively used. Exert every possible means to prevent disease and utilize methods which require the minimum of labor and after having secured a good crop, grade it carefully before sending it to market.

The convention and a number of Madison people and visitors listened to a masterly address by Hon. Carl S. Vrooman, assistant secretary of agriculture. Among other things Mr. Vrooman said that the war would have been over three months ago if the United States had not entered it. He scathingly rebuked the mildly patriotic. He created quite a furor by

Magnus Swenson,
Wisconsin Food Administrator.

suggesting that the atmosphere around the university was not so surcharged with patriotism as it might be.

First Prize County Exhibit at Wisconsin Potato Show.

Handling an Oat Crop.

To the Editor:—The question nowadays often arises how can the farmer grow the best oats and, while I do not pretend to know everything about it, I am willing to give you such experience as I have in this line.

In the first place, I try to keep the land in a continuous rotation and never grow oats more than twice on the same piece of land and this only in exceptional cases.

The rotation starts with a crop of clover followed by corn, then comes barley and after this, spring or winter wheat and the next year oats, when the land is again seeded with clover. Oats should be sown as early in the spring as possible providing, of course, that the ground is in good workable condition.

The fanning mill should not be spared during the time the seed oats should be cleaned and graded; in fact, a good fanning mill kept going for some time before seeding time is very beneficial to all kinds of grain and is a twin brother of fertile soil. Remember that every bushel of good, clean seed will be producing from fifteen to fifty bushels of your new crop, depending, of course, on the kind of grain grown, and if you take pride in farming, you will at least want to be able to say, "Well, my crop looks as good as my neighbor's," and if you can say it looks better, why, then it gives you a still better feeling, although you need not envy anything your neighbor has.

I never sow more than two bushels of oats per acre, seeder measure. The grain should not be cut until the kernel has taken on its natural color when it is ripe enough to cut, for the straw is liable to fool anyone depending on its color alone, especially if it is rusty. The most trouble with growing oats, however, is that too many people try to grow oats entirely on land without giving it much of any rotation. This not only wears out the land for oats, but the oats also.

While it is impossible for all people to have the same success with growing oats that I have had the last eight years, nevertheless almost everyone can do just a little better if they try and the satisfaction of it easily pays for it. I am still trying to do just a little better and feel that I will be able to do it, too. J. L. Krause.

Dodge Co., Wisconsin.

Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 15.

The Dairyman's Responsibility.

The call of war strikes with greater force upon dairymen than upon any other class engaged in productive labor. High prices of feed, high cost of labor and increasing expense in delivering constantly seek to reduce and to annihilate profits. Milk and its various profits are sold in small quantities to a public suffering from enormously inflated prices and which feels as a hardship any increase that a dairyman may be compelled to charge.

Temptations are numerous for dairymen or for farmer producers to vary from their usual line of procedure. Corn has been selling at $2 per bushel and more. This has caused many a man to feel that there might be more profit and less labor in husking his corn and selling at that price than in filling his silo and in selling dairy products as usual. High prices offered for all cattle on the killing market has led a great many men to sacrifice cows and young heifer stock.

The war has made very serious inroads upon dairy help. Some young employes have been drafted. Others have been tempted into factories of one kind or another. Munition makers have paid wages that are almost fabulous. Other industries have made marked increases. The employe of an American dairy farm is distinctly human and as such is ever ready to make a try for the pot of gold at the foot of the rainbow. All these things have thinned the ranks of the dairy workers as the German files at Verdun were thinned by rapid fire and shrapnel.

In the face of these things the dairyman must face his responsibility, great and grave as it is. Our nation and the individual human beings within our land must have milk and dairy products. The greatest cry for sympathy that has come from Germany as defeat becomes more and more apparent is, "We have no milk for our babies." In America we should not permit such condition to arise, but should at once determine that "in America we shall have milk for our babies." No higher and no nobler duty can be performed by our loyal and patriotic dairymen. The operation of the draft has shown us that the nation is above and superior to the individual and that the welfare of the nation must be held foremost. Purely from a national point of view, milk must be provided.

We are producing a record crop of potatoes this year, but an old saying with a slight change has it, "Man cannot live by potatoes alone." While we are increasing the potato and the bread crop we must not overlook as a nation and a state the importance of the dairy product. A shortage cannot be so easily and so quickly remedied as was the shortage in potatoes or as shall the shortage in wheat be overcome.

There is hope for the dairyman. Two-dollar corn is not to be the price when the crop of 1917 shall be marketed. The oat crop is enormous and will have a helpful effect in reducing the price of dairy feeds. There are fewer hogs in the country and fewer beef cattle on feed, both of which will tend to reduce the price that the dairyman will be required to pay for feed. With cheaper feed in sight it is essential that the dairyman feed liberally and well in order to insure himself a good production through the next winter season.

The price of milk will rise as it is rising everywhere. The public knows that dairymen are paying double for their feeds and they are willing to help bear the burden if only a plentiful supply can be depended upon.

This is a time for a dairyman to stay in his business. There is no line of production where it is more essential that the men in the ranks stay by their guns. Even though the profits may not be up to standard, there are periods of temporary depression in all lines and also a corresponding reaction when the net income will be satisfactory. It is invariably the man who stays with his business through any and all conditions and circumstances that wins the greatest success.

The Wrong System to Get Cheap Milk.

To the Editor:—There seems to have been on the part of those proposing to operate on the price of milk either a most thorough lack of real information as to conditions under which milk is produced at the present time or a fine indifference coupled with total disregard.

The dairy cow takes her first little toll of 60 per cent of a good, liberal ration, balanced, to her bodily needs. Then she gives to her liberal feeder and the world the milk that is produced by the other 40 per cent.

It matters not who you are or whence you come, you cannot fool the old cow. She requires just 100 per cent of a liberal, balanced ration, and if she does not get that even to the last ounce, her owner and the world will feel it.

The flow of milk for the winter's supply must, of course, come from the cows that are now fresh in milk or others soon to be fresh in milk. On the producing end of their business as a whole, there is not a more competent, keener line of business men than the men in the dairy business. They know how to feed, what to feed, when to feed, and also those little variations in occasionally changing the feed; how to substitute one food for another when so required by each individual cow, or to save in the cost of production.

The best thing they know is that to keep up and continue a full flow of milk from the dairy cow they must not omit for one day or one hour to feed the cow right up to the full limit of her requirements. Even one ounce short of that last 40 per cent lets off and down from full production of milk.

The dairy business is a very expensive one to enter and be successful, and it is also equally expensive to retire from, especially on short notice. The best authorities and the best breeders inform us that starting with the best grades or pure breds, such as can be usually bought as foundation stock, that "it takes nine or ten successive generations of dairy cows, using the best-producing sires obtainable, to produce dairy cows that can be depended upon to both produce and reproduce a fair percentage of dairy cattle of high dairy qualities."

It requires twenty-two long, weary years to breed nine successive generations of dairy cows, several high-priced sires, and the cost of feeding each calf up to the time when she comes into milk and profit at from twenty-two to thirty months of age.

Here is the required thing of the dairymen throughout the whole country, "Give to us, the people, the largest possible flow of milk to help out the food supply."

Never have the dairymen had a more promising or more productive selection of cows, fresh or soon to be fresh, in milk and capable of doing their part.

Ample feed is in sight and available to feed each one of those cows a liberal 100 per cent of required feed to produce and hold a full flow of milk.

Never has there been a time when the dairyman, knowing fully the needs of the present time of every ounce of milk possible, has made more careful provision and plans in his business with the determination to "do his bit" and part. Like a bolt of lightning out of a perfectly blue sky, this insidious, arbitrary, almost kaiser-like thing seems to strike right down in the dairyman's pathway and de-

The principal dairy states will waste, this winter, 3½ Billion Pounds of Milk

Simply by failing to get it; failing, too, when it would be easy to produce that increase for a world market that demands every possible ounce of food.

Surely this is not the time to overlook any opportunity for increased dairy production and profit. It is no time for waste or neglect. The bending of every effort toward bigger dairy results, for both patriotic and personal reasons, is the duty of every dairy farmer. Here is one way in which the dairy farmers of the principal dairy states could add this winter 3,600,000,000 more pounds of milk. At $3 per cwt. this would mean $108,000,000 more profit.

These are not wild figures. They represent bed-rock facts, and they mean that if all the cows in the principal dairy states were properly watered with James Drinking Cups they would add 3½ billion *more* pounds of milk to this winter's yield—milk that would be worth to the nation as a whole, and to you in part as a producer, at only $3 per hundred, more than a hundred million dollars.

A tidy sum for the dairymen of this country to think about, isn't it? A sum well worth saving in *any* year, but especially so in this period of advancing food prices, increased milk demand and costly feed.

Then there's your own question of labor, and the protection of your herd from disease, to be thought about in this great crisis. James Drinking Cups give each cow clean, safe water that no other cow has had her nose in. They do away with the hard, cold job of herding the cows out to the tank, herding them in again—chopping open the frozen tank.

There are two shortages for you to think about: The world-wide food shortage, and your own pocketbook shortage caused by your cows not getting all the water they want, *when they want it*, at the right temperature, day or night.

They will give more. All they need is the opportunity. James Drinking Cups spell that opportunity. The milk increase of the average cow will *pay for her cup* in 90 days. At the end of that time the account covering the complete installation will be *squared* as a result of increased profit, leaving you the cups for many years of money-making service, either in your present barn or when re-installed in a new one.

Do *your* part toward getting the extra millions which American dairy interests can produce by making milk out of water. Get *your* share of those dollars. It's easy to buy, easy to install and easy to operate James Drinking Cups. We've solved this great watering problem, and solved it *right*—just as we have so many other questions relating to sanitary barn equipment. Write today for booklet, "How to Make More Milk."

JAMES MANUFACTURING COMPANY
ES63 Cane Street, Fort Atkinson, Wis. Elmira, N. Y.

mand, "Give the people the largest flow of milk even to the last ounce, but do this at your risk and absolutely regardless of cost to you.

The pretext for said ruling is that "That part of the people who most need milk as a food can least afford it at a higher cost than at present." Why, if that is the real object and result wished for, why, oh why, make use of the only certain means to drive the price of milk so high that no part of the people, even millionaires, can afford milk as a food?

Supposing it costs the dairyman exactly $3 of his savings (he came by them by hard work and great self-denial) to produce 100 pounds of milk. Now you say to him, "Keep that up, so feed your cows that they will produce up to their full flow and limit and hold that flow up. But remember you can't have but $2 for your 100 pounds of milk."

The real dairyman, with real dairy cows, knows that he must feed each and all 100 per cent of a liberal ration, 60 per cent to maintain the bodily needs of the cow, 40 per cent for the production of milk, first, to produce a full flow of milk, secondly, to maintain and keep up that flow of milk.

If the dairyman risks or uses $3 of his savings to get the feed necessary to produce 100 pounds of milk and you tell him that he cannot have 1 cent of profit and but $2 of his $3 back (remember he had three perfectly good dollars in his pocket to start with), what will he do? He must do what any other business man must do—"quit business before business quits him."

The present condition under which milk must be produced absolutely compels the dairyman to either stand up firmly and throw off the shackles that have bound him or quit the business, and in doing the latter it is not a matter or question of selfish narrowness, of unpatriotism of temper, of a lack of great desire to be of use and really "do his bit" especially at the exact, present time for the good of all concerned.

It is a matter and questilon of just hard, cold, bread-and-butter business—and business self-preservation.

There is another angle to this problem. The real dairymen of this land are real lovers of their cows. It has taken them, as before stated, long, weary, expensive years to produce them. They dislike to work and plan twenty, thirty and even fifty years to get them, then throw them away just as their life's work is through, their dairy cows most valuable.

The conscientious, thoughtful dairyman is fully aware that when this price-fixing and price tinkering have been tried out and ceased and the people have bled, suffered and repented after the operating on prices, that they will want those same dairy cows back again to convert all the future abundant feed into milk, not only for the babes, but all mankind.

If compelled to quit the production of milk on account of prices being fixed at a much lower price than the average and great majority of dairymen can possibly produce milk and said milk producer still is able to keep and unwilling to actually throw away or sell his dairy cows, what will he do? Being unable to feed his cows so as to maintain the full flow of milk, every quart of which is so much needed, he will reduce the full complete ration necessary to hold the full continued flow of 100 per cent down to about 60 per cent, just the feed necessary to keep the cow in good condition. What will be the result? The result is identically the thought in mind when the question was asked, "Why, if the real purpose of price tinkering is to keep the price of milk down within reach and ability to buy, of the people who most need the milk as food, why make use of the only certain means to drive the price so high that no one can afford to buy it?"

For convenience let a daily production of 150,000,000 quarts of milk be the required amount of milk. We will assume that there are enough dairy cows fresh and soon to be fresh in milk to keep up that supply of milk for the next six months or through the winter, providing the dairymen, their owners and feeders, are not barred or hindered and compelled to withhold any part of a full ration necessary to build up and hold that flow and milk supply.

Is it not plainly to be understood that milk will be far cheaper and more easily obtained even if the most extravagant and highest prices demanded by the dairyman and milk producers are paid and the supply of milk is kept fully up to the required 150,000,000 quarts each day, than if the prices are fixed so low that dairymen are actually compelled to either throw in their time, profits and, say from 25 cents up to $1, every time they produce 100 pounds of milk in order to keep up the flow of milk, and they are finally compelled to quit producing milk?

When feed is shut off and away from these faithful servants, the dairy cows, the supply of milk must tumble and fall down, down from millions to thousands of quarts per day.

When that happens who will buy? How about the people most needing milk as a food—will it be more accessible, any cheaper when the flow and supply of milk in the land has fallen to hundreds of quarts each day instead of hundreds of millions of quarts each day?

Even if prices are so fixed as to leave it doubtful in the minds of the dairymen as to whether any profits may be had in the production of milk it is bound to react and cut off the full milk flow needed.

You know that during the past three years almost all mined metals have become very valuable and high in price. The production of all the mines in the United States and Alaska must in the aggregate foot up a nice little amount of wealth in a year. Not a large percentage of the area of Wisconsin is occupied by intensive, exclusive dairy farmers, yet Wisconsin's production of dairy products alone, in one year, exceeds in money value the whole productions of all the mines of the United States and Alaska combined.

Just now is the fitting, opportune time for you consumers to raise your voices and put your shoulders to the wheel to the end and purpose of serving those who most need milk, before, not after, too much price tinkering has been done.

Mr. Doctor, the business part of this question will reach you, too. But you know far better than others that there are thousands of families who need that there shall be a very full and large supply of milk at even a price on a parallel with other foods of equal value, and that in many of these thousands of families there are babes from one month to twelve of age that must have cow's milk and plenty of it or starve. Will you not lift up your voice to help ditch any plan or project that will surely lessen the milk supply?

Mr. Lawyer, if this is merely a matter of law, it is a mighty bad, poor law either in its demands or enforcement that will contribute directly to the death of thousands of babes and children, is it not? If one of you has a nice little fee down in a very comfortable place in your jeans pocket, and thought you might need that little fee and like to keep it just merely to uphold and boost the project to keep the price of milk too low, will you not return that fee and come over to the other side, even if you have to run your furnace or coal stove one-half speed ahead for a few weeks this winter? In part payment for your sacrifice the thought that you had perhaps aided to bring tears of joy in thousands of homes in this land in place of tears of sorrow ought to comfort you.

Having never had a real voice in making their selling prices, the old farmers and dairymen as well have long been used to digging in and out of just such trouble as this. The farmer-dairymen ought, and in due time will, have absolute justice and their rights in these matters of business the same as men in other lines of business—to have a voice in fixing the selling prices of the products of their labor and property.

One last word for the mothers in the thousands of homes that toil and labor for their little loved ones where even the very commonest necessities of life and even that little in the most stinted least amounts for food, clothing and fuel are most that is hoped for by them. Hard-working, overburdened fathers are also to be considered.

Whatever else fails to interest or touch any reader, please do not aid in any way to force and press to the lips of thousands of already overworked, overburdened mothers in this land, this last cup of deep, bitter sorrow, that in addition to all their burdens that they must hold their babes in their arms day by day and hour by hour and see them starve and die only to prove that milk is not cheaper or more accessible or available to those who most need it for food at $1 a quart than at 15 cents.

Rock Co., Wis. Owen S. Day.

Many Cows Freshening.

To the Editor:—Twenty per cent of the cows in the Scandinavia Cow-Testing Association were dry during the month of October and I am sorry to say the remainder were neglected to some extent, as their owners have been rushed laboring with the autumn harvest. Farm labor is very scarce in this locality. Our high cow for October is owned by Ed Shambeau. This cow, a grade Holstein, produced in thirty days 1,280 pounds of 5.5 per cent milk, making 70.4 pounds butter fat. Fourteen cows produced over forty pounds butter fat and three over forty-five pounds. We look forward to a large production next month, as many of our cows are freshening this month.

H. R. Brewster,
Official Tester, Scandinavia Cow-Testing Association.

Jolie Topsie De Kol, H. F. 149723
Age 5-11-12 (City of Cleveland, Owner)
Semi-Official Year Test
29221.5 lbs., Milk 3.52% 1032.37 lbs. Fat

Year tests that Count

These wonderful semi-official records are only a few of a large number of genuine high production tests made under normal conditions with UNICORN DAIRY RATION used as the entire or largest part of the grain ration. They are in no sense forced or freak records as shown by the normal fat percent and the perfect health of these cows and all herds fed on Unicorn Dairy Ration.

Every breeder knows Ajax Flakes (made exclusively by us for years.) Conditions forced us to withdraw it from the market except as one of the ingredients of Unicorn. You will find Unicorn equally efficient as your ration or ration base.

If you have good cows that you want to make even better

Unicorn Dairy Ration

offers you the chance, without exta cost, in fact most likely at a considerable saving.

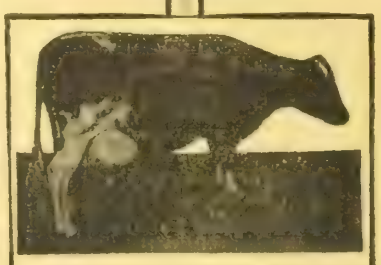
With an average cow we guarantee a reduction in the feed cost of you milk. Give them a chance - if fed right with Unicorn Dairy Ration they will surprise you.

Unicorn can be obtained by any dairyman or breeder east of the Missouri river no matter where located. Every bag is equally uniform and good no matter where you get it.

Write for information and *FREE* copy of Cow Testers' Manual.

Chapin & Co., Dept. H Chicago

Abbie of Riverside.
Champion Guernsey of Michigan
Fred Gleason, Owner
14201 lbs. Milk 5.72% 813 lbs. Fat


Royalton De Kol Violet, H. F. 86460
Age 10 Years (H. A. McQuillan, Owner)
Semi-Official Year Test
29959.6 lbs. Milk 3.46% 1036.45 lbs. Fat

Follyland Nancy A. R. No 5266
Best 2 year old in New York
Follyland Farm Guernseys
12270 lbs. Milk 5.81% 712.6 lbs. Fat

Forty-Sixth Dairymen's Convention.

(Continued from page 1.)

benefits, better home life. The cow-testing associations urge these things because after seeing the business side of the cow-testing work the other farm operations will come under a like scrutiny soon after. Unprofitableness of farm operations will become less and less frequent and adequate profits will begin coming in regularly instead of spasmodically.

The cow we need for profit was shown by demonstration and judging work conducted by Geo. McKerrow, of Pewaukee, veteran pioneer of Wisconsin's better agriculture. The judging was divided into men's and boys' judging work and several classes judged. The prizes for the best judging work among the men were won by the following: First, B. F. Greene, Evansville; second, A. E. Miller, Janesville; third, P. Austin, Janesville; fourth, C. A. Rice, Milton, and fifth, J. W. Jones, Milton Junction. In the boys' contest the following were the winners: First, Will Burdick; second, Clarence Kuhn; third, Geo. Babcock; fourth, Malcolm Boss; fifth, Harry Hurd. All the boys were from Milton.

E. S. Brigham, commissioner of agriculture, of Vermont, spoke on "The Milk Producer and Coöperation." According to Mr. Brigham, the feeling of indignation and wrong suffered by the producers in the past are the natural forerunners of milk strikes and agitation such as we have recently had. On the whole these have accomplished a good purpose, but the final settlement which will place the dairy industry on a stable and businesslike basis must be brought about by peaceful means, such as are under consideration at the present time. It is his belief that the entire responsibility for the country handling of milk must fall upon the dairymen themselves in order that they may dominate the industry and secure consistent and adequate prices. Without these means the milk producers' organizations will ultimately fail in protecting the interests of their members.

Mr. Brigham's plan for the successful foundation towards solving the milk problem lies in the coöperation of the dairymen of a local community to own a community milk plant. "Milk as it is drawn from the cow is no longer a marketable product in any large city," said Mr. Brigham. "The health authorities say that it must be up to a certain standard and that it must be pasteurized to make it safe. Small individual producers are at present offering small lots of a raw product to dealers who are expected in most cases to collect it from widely scattered areas to add the final processes of manufacture to satisfy health requirement, to ship it to market and do all the work of distribution. If the dealer fails to perform all these processes the producer has no market for his milk and must let it go to waste. This is a very weak position for the producer to occupy. The individual producer is practically powerless to help himself. The farmer who has thirty or forty cows may be the most efficient producer because of the personal attention he can give to his herd, but he is not the most efficient marketer. The product of the individual milk producer will make little impression in the city market, but the product of 100 producers brought together at a central plant and processed to satisfy all health requirements is a large enough unit to command attention in any market. An article to be readily marketable must be of standard quality. Our problem is to make standard dairy products a standardized commodity just as available as standard oil or any other standardized commodity the quality of which no consumer any longer doubts."

It is necessary to inform the consumer of the value of milk, according to Mr. Brigham. In New York City following increase in prices an investigation was made of 829 families in which the daily amount of milk had been reduced. Of 2,090 children under six years of age all were found to be either losing in weight or at least not gaining. Milk at 14 cents per quart is a cheap food, but the consumer must be convinced of the fact if we want to sell him more milk, according to Mr. Brigham. In the city of New York where the product of 1,000,000 cows is used annually it would be quite feasible to assess each cow $1 and to undertake a campaign of advertising for $1,000,000 and guarantee standard quality of milk in New York standard quality of milk in New York.

The producers, had there been a greater number present, would have felt that their part was taken care of on the program after hearing the speech of R. C. Reed, secretary of the Michigan Milk Producers' Association. Mr. Reed was enthusiastic for a coöperation between the farmers and the public in order to avert all controversy regarding milk prices. His work in behalf of the milk producers of Michigan has not been limited to securing the demand of his association, but it has been accompanied by pioneer work in educating press and public alike to the real reasons behind price advances. During his labors in behalf of the producers and his efforts towards coöperation with the public, Mr. Reed has been repeatedly attacked not only by the public, but also by the members of his own association. His indomitable spirit, however, has allowed no discouraging thoughts to enter his mind and he has kept right on sawing wood. At one time he told a group of city officials who were accusing him of not being in accord with his own organization the following: "You men are attacking me from in front in every way possible and you do not wish to understand that my efforts in your behalf are sincere. I want to tell you that I know there are a lot of these 'red necks' behind you, as you say tearing me up the back, but I can assure you when they get through with me they are coming after you and you better look out." The Milk Commission of Michigan will meet in Detroit next Friday, December 1st, and there will be decided the price for Michigan milk for the coming months.

The relation of the producer and consumer were discussed by C. E. Lee, assistant dairy commissioner of Wisconsin. Mr. Lee was equally emphatic in urging the greatest efforts on the part of the dairymen to get behind all moves which make for the better understanding between producer and consumer. He quoted several instances where small localities avoided much hard feeling by talking matters over and explaining to women's organizations and the local press exactly their stand, with the result that demands were granted and the public remained satisfied. Certain things are, however, or ought to be, in the opinion of Mr. Lee, reasonable and right in the demands of the consumer. Milk plants and dairy farms furnishing cities with milk ought to be open to the public the year around. Milk should be properly cared for until it is delivered either to the milk dealer or to the consumer. Cows should be healthy. Consumers should, on the other hand, pay their bills promptly, pay for all broken or lost bottles, clean and return bottles daily, properly care for milk after delivery, and, biggest and most important of all, analyze and trace to their source the articles which appear in the daily press on milk problems.

"The Law and the Milk Producer" was taken up by Assistant State Attorney-General Walter Drew in a very legal and only at times unofficial man-

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Cuts corn 100% finer, puts 30% more in silo.

Puts dry fodder in best feeding condition.

No pieces with sharp edges to cause cattle sore mouths

Dry fodder cutters with or without carriers made in all sizes

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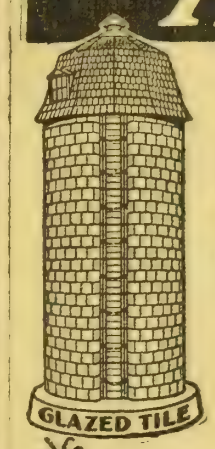


A silo is a *permanent* investment, therefore purchasing a silo is not a question of paying a few dollars more or a few dollars less, but of getting a silo that is *right*—in design, in material, in construction. "Kalamazoo" is the answer. For more than twenty-seven years thousands of successful farmers in all parts of America have put their faith in

Kalamazoo TILE AND WOOD SILOS
"The World's Standard"

Last year alone upwards of *six-thousand* new purchasers of silos unanimously decided in favor of the Kalamazoo. And those who bought twenty or more years ago still swear by the Kalamazoo because time and experience have proven conclusively that Kalamazoo silos are *right*, from every standpoint. There's a big dollar's worth of *value* in every dollar of the cost whether you buy a glazed tile or a wood stave Kalamazoo.

They're built to meet the needs of farmers who know and appreciate the feeding value of ensilage and know how a silo should be built to make and preserve ensilage *right*. Kalamazoo Silos excel in design, material and workmanship—combining every desirable feature a silo should have and embodying the knowledge acquired through long experience in silo building. You can't go wrong in buying a Kalamazoo.

GLAZED TILE SILOS—"Permanent as the Pyramids"—fire-proof, frost-proof, storm-proof, moisture-proof, acid-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost. Easy to build—and once built your silo problem is solved *forever*.

WOOD STAVE SILOS—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete ready to set up. Quickly and easily erected by inexperienced home labor. All Kalamazoo Silos, whether wood or tile, have the famous Kalamazoo Galvanized Steel Door Frames and continuous doors which are universally recognized as the best ever designed.

Write Today for our free descriptive booklet and details of our easy payment plan. If interested in an Ensilage Cutter, ask for Kalamazoo Cutter Catalog.

KALAMAZOO TANK & SILO CO. DEPT. 238 Kalamazoo, Mich.

MILK ..... and WAR TIME

In these days of high prices for dairy products, the "poor milker" is more than ever a liability.

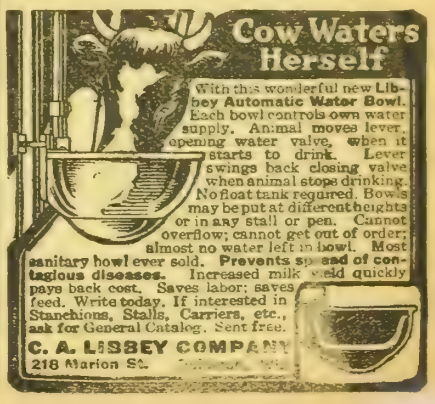
But before you sell the cow that is not producing well, try to improve her condition. Her milk value is much greater than her meat value.

Most poor milkers are non-productive because of some defect of health, which can be quickly remedied by intelligent treatment.

Kow-Kure is a medicine that acts quickly on the organs of digestion and milk production. Its widely known tonic and curative qualities have made it the standard cow medicine for the prevention of disease and the treatment of Abortion, Barrenness, Retained Afterbirth, Scouring, Lost Appetite and Bunches.

Give Kow-Kure a trial; it will do for you what it is doing for thousands of others. Feed dealers and druggists sell Kow-Kure; 55c and $1.10 packages. Send for free treatise, "The Home Cow Doctor."

DAIRY ASSOCIATION CO.,
Lyndonville, Vt.



Cow Waters Herself

With this wonderful new **Libbey Automatic Water Bowl.** Each bowl controls own water supply. Animal moves lever, opening water valve, when it starts to drink. Lever swings back closing valve when animal stops drinking. No float tank required. Bowls may be put at different heights or in any stall or pen. Cannot overflow; cannot get out of order; almost no water left in bowl. Most sanitary bowl ever sold. **Prevents spread of contagious diseases.** Increased milk yield quickly pays back cost. Saves labor; saves feed. Write today. If interested in Stanchions, Stalls, Carriers, etc., ask for General Catalog. Sent free.

C. A. LISBEY COMPANY
218 Marion St.

ner. Mr. Drew quoted the anti-trust law as passed by the Wisconsin legislature in 1893 and cited such facts as the attorney general's office had discovered in connection with the milk producers' associations. He proved to the audience how on a legal basis price-fixing for any commodity, whether justified or unjustified, whether high or low, was not permitted under the existing laws and gave this as the reason for the suit which was instituted by the state several months ago. The need for a change in the law was recognized by the attorney general's office long before the present controversy over milk arose. There is without doubt a justification in certain instances for price-fixing. Before such price-fixing can be legally admitted provision must be made for it by the state legislature. This will be urged at the next session to be held in January and the troubles not only of the milk producers, but also of the pea growers and many other worthy organizations will disappear when such amendments have been made to the law. Every craft has its organizations, according to Mr. Drew, and business developments within the last two years have proved that such associations must exist for the protection of an industry, for unbridled competition is ever the ruin of legitimate business men because it admits the inefficient and greedy. The remedy would lie, in the estimation of Mr. Drew, in a marketing commission. This costs money to maintain and will result in taxation. In the opinion of Mr. Drew, however, the arguments in favor of a marketing commission and a financial support are much the same as for a better quality of milk which is constantly being asked by the consumer.

What to feed during the coming winter was taken up by A. J. Glover, of Ft. Atkinson. In a clear and understandable manner he showed how to formulate a ration for the dairy herd. After discussion on the protein and carbohydrate contents of our leading concentrates and grasses he took time to work out several farm rations, balancing them properly from the feed available on the farm. Wherever advisable the purchase of additional concentrates was shown to bring a profit in increased milk production and greater health of the cows. Timothy hay, according to Mr. Glover, is of as much value in milk production as the northwest wind.

Charles L. Hill, Guernsey breeder of Rosendale, in speaking of the future of dairying in Wisconsin, called attention to the fact that the little Island of Guernsey, off the coast of England, supplies from its 15,000 acres a total

W. D. James

One of the Wisconsin speakers.

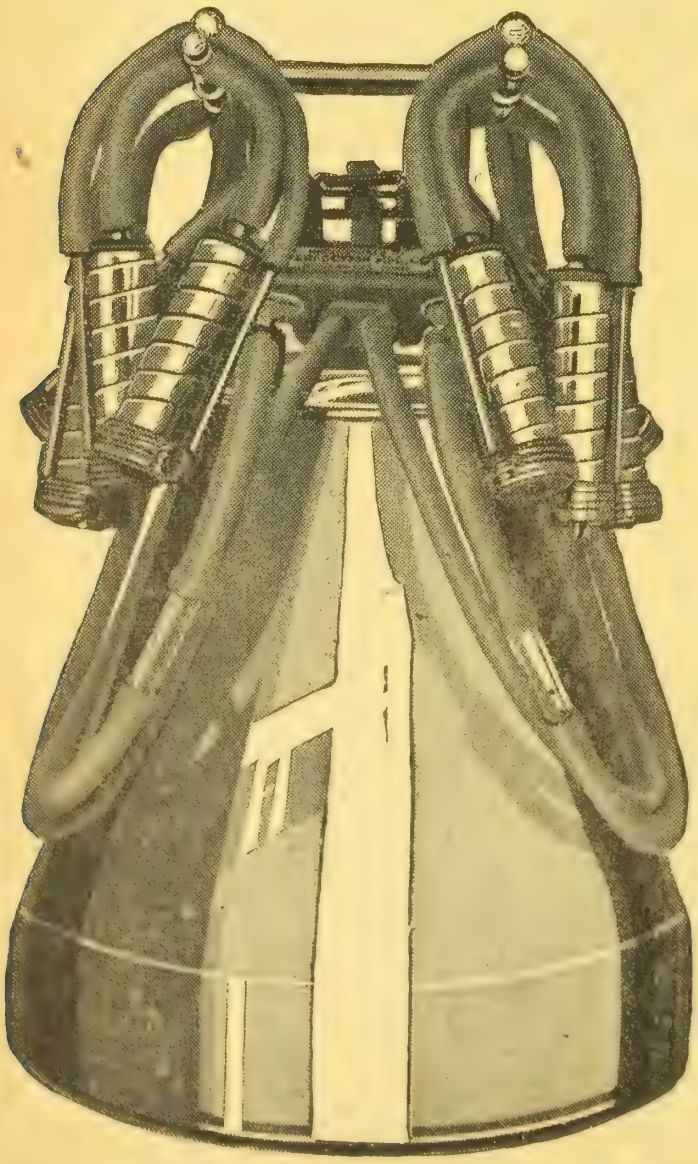
of 45,000 people. If on the same basis of agriculture as practiced on that island the 8,000,000 undeveloped acres in northern Wisconsin were farmed the products would be sufficient to support two-thirds of the present population of the United States. Mr. Hill urged better farms with less labor and shorter hours by the application of better methods to the farm. Advertised more widely dairy products will bring better prices without constant objection to an unsympathetic public.

Growing legumes for the dairy herd was discussed by Dean H. Otis, of the college of agriculture at Madison. Feed and fertilizing constituents are the benefits derived from growing leguminous crops and these, according to Mr. Otis, are of such importance that dairy farm rotations should include such crops. Revising the rotation of a farm so as to grow these crops was shown in excellent fashion by Mr. Otis on a chart which he had prepared. The elimination of the unsuitable crops and the substitution of proper crops in their place was demonstrated as entirely possible and highly profitable. Failures of alfalfa and clover crops were taken care of by substitution of other crops nearly as valuable as feed and soil builders. The mapping out of the farm and making provision for definite and systematic rotation gives the farm manager a vision of his job that projects well into the future. With this vision the farm work can be planned for years to come, enabling the owner to obtain maximum results from such cropping systems.

"Build your barn on paper first" was the advice of W. D. James, of Ft. Atkinson, who spoke on barn building and ventilation. He emphasized each of his points by quoting the problems he has helped to solve in the years of his experience with barn building. Thirty-six feet outside measurement and thirty-four feet inside width is about the best size for the modern dairy barn. Equipment installation which is necessary in the modern barn can best be made at that width and all unnecessary labor saved by proper arrangement of stalls and mangers. Plenty of light and adequate ventilation are as essential, in the estimation of Mr. James, as equipment. Of ventilation in particular Mr. James holds that its importance is not recognized as it should be. "You can make up your mind that you are paying for a ventilating system whether you install it or not," said Mr. James. "The health of your cows and the cleanliness of your barn and the grade of milk drawn in such a barn is entirely dependent upon ventilation. There are 21,000,000 dairy cows in this country today starving for want of air and water. The two things that cost the least are most lacking in the dairy barns of the United States. The first and best investment any dairy farmer can make is to invest in a ventilating system. Fresh air in the barn is going to pay for the cement floor and equipment by its benefits to the animals." According to Mr. James, it is impossible to adapt any system as the standard system for dairy barns. Each barns has its own problems. The barn successfully ventilated by one system cannot be taken as a model by some other owner who wishes to install a system himself.

Resolutions passed by the Wisconsin Dairymen's Association ask for the right of farmers' organizations to meet and determine proper prices for farm products. Governor Philipp will be asked to include in his message to the legislature which will convene in January a special request for the modification of the trust laws. Butter fat and milk products were indorsed as the great necessities of our nation to provide growth and health of our people rather than substitutes such as oleomargarine. The necessity of exempting skilled labor was also called attention to in order to bring about maximum production in 1918 in the same successful degree as during the past year.

Officers were elected for the coming two years. Geo. McKerrow, of Pewaukee, was elected president to succeed Math. Michels, of Peebles, whose term expired. Paul C. Burchard was elected secretary-treasurer of the organization.



PERFECTION MILKER

"I Milk Thirty Cows An Hour, Alone."

THAT'S what farmers who use the Perfection are saying from coast to coast.

The Perfection is the friend who comes in without grumbling or complaining and does the milking. He milks each cow carefully and quickly. He keeps the milk clean. He doesn't howl and swear at the switching of the cow's tail. His quiet businesslike ways seem to please the cow better than those of the hand milkers. With one good man he can milk 30 cows in an hour. And he never quits his job.

The Perfection milks nature's way, with a gentle suction, a spiral downward squeeze, followed by a period of complete release. The suction is adjustable to exactly suit hard or easy milking cows. The Perfection teat cup fits all sizes of teats. It is easy to clean. If your son or your hired man has been called to the colors, you will still be able to get your milking done easily, if you have the Perfection to help you. You can even increase the size of your herd, if you wish and thereby do your share in increasing the production of dairy foods of which the country really is in need.

C. F. Andrews of Richmond, Vermont, says:

"I milk 32 cows with my Perfection Milker in a satisfactory manner in about an hour. I see no change in the amount of milk we get. We have no teat or udder trouble. I know of 40 Perfections in this State, each one of which are satisfactory, and if I were to install another outfit, it would be a Perfection."

T. P. Peterson of Blooming Prairie, Minn., says:

"I use two double unit Perfection Milkers, and with them milk 27 cows in less than an hour. My cows made more butter fat per cow last year, milked with a Perfection Milker, than they ever made before. I bought another Perfection Milking Machine last fall for my other farm. I prefer the Perfection to any of the other makes that I have seen, and I believe it is easier on the cows, and the expense of keeping it in repair is very small. I am satisfied that it has no bad effect on the cows if properly operated I would not be without a Perfection Milker as long as I milk cows."

Get a Perfection Milker and increase your earning capacity. Write today for free copy of our new illustrated catalog.

Perfection Manufacturing Company

2122 E. Hennepin Avenue Minneapolis, Minnesota

VETERINARY

PROFESSIONAL Veterinary advice through this department to regular subscribers only. We do not answer veterinary inquiries for the benefit of "neighbors." Parties desiring information will be required to send their names in full with their address. No question will be answered by mail unless accompanied by a fee of one dollar. In order that correct information may be given, the symptoms should be accurately described, stating of how long standing, together with color and age of animal, and what treatment, if any, has been resorted to. Thoroughly good and reliable veterinary remedies are advertised from time to time on these pages. If they were not good and reliable they could not appear in our paper. Our readers are requested to look them over. You may find here some remedy which will exactly fit your case. All veterinary inquiries should be addressed to this office.

Ailing Animals.

Lump on Jaw.

I have a cow which has a loose lump on her jaw. The lump is hard, but is loose from the jaw. Is her milk good to use?

From the description you give, this is likely not lumpjaw, since it is a hard, loose lump, and if not large, the milk might be used without any harm. However, the proper thing to do is to have this enlargement opened, and if it contains pus or diseased tissue, have it taken out down to healthy tissue, and allow it to heal.

Bloody, Stringy Milk.

I have a seven-year-old cow that gave stringy milk out of first one and then another teat off and on most all summer. About two weeks ago when I went to milk her at night her left front teat was full of stringy milk. When I got that out it came bloody for a day or two, then cleared up. A few days later it clogged up again and when I got it open it was apparently pure blood of a very dark color. She seems to be in perfect health. Can you tell me the cause of this?

The milk from cows in this condition should not be used for human food, but can be used for calves, pigs, etc., until recovery takes place. If the affected quarter shows no inflammation, give one rounded tablespoonful of the following powder once a day for one to two months if necessary: Glauber's salts three parts, baking soda two parts, common salt one part. If the affected quarter is hot and painful and you milk blood from it apply spirits of camphor three parts, lard one part twice to three times a day. Also give internally at one dose one pound of Glauber's salts dissolved in three quarts of warm water. Then follow with the above powder and give wheat bran, two or three quarts, twice a day. Feed grain lightly.

Blackleg.

I lost four calves with blackleg and then I vaccinated the rest. In about two weeks I lost two more. Would you advise vaccinating them again? The rest seem to be all right now.

Sometimes the blackleg vaccine is too old to be potent and at other times when pellets are used they are lost out of the instrument just at the time of the injection and the animal is in fact not treated at all. You should have no further loss, but should this be the case, be sure to get fresh, reliable vaccine and treat all over again.

Canker of the Ear.

I have a good dog one year old and about four months ago he contracted a disease in his head. At times he seems to suffer very much. He will scratch himself behind the ears and rub his head on the ground. After a spell of suffering I notice bloody scales in his ears and as far back as I can see. I have doctored him some for canker ear, but it does not seem to do any good.

If your dog is affected with ordinary canker it should yield to the following treatment. Muzzle and confine the dog and cleanse the ear of all the discharge and scales with hydrogen peroxide and absorbent cotton swabs. Then dry the ears and fill the openings with a powder composed of chinosol (or aristol) fifteen grains, and boric acid one ounce. Then put on an ear cap or bandage to prevent flapping his ears. After this first treatment use nothing but the powder daily. If you should not get results it is probably parasitic canker and will require the services of a veterinarian or dog specialist.

NO Buckles Snaps Billets Loops Holes in Straps Wear on Straps

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looks better, fits better, is four or five times stronger and will last many years longer than ordinary harness. Yet, the price is the same.

It can be adjusted quickly to fit perfectly any size of draft horse.

Don't buy a new harness until you learn all about the Walsh. Inquire immediately at your local dealer's. If he doesn't sell Walsh Harness, write

Walsh Harness Co.
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You can never tell when a horse is going to develop a Curb, Splint, Spavin, Ringbone or lameness. Yet it is bound to happen sooner or later. And you can't afford to keep him in the barn. Keep a bottle of

Kendall's Spavin Treatment

handy at all times. John Sayer of 324 Bronson Ave., Ottawa, Ont., writes: "I would not be without Kendall's Spavin Treatment at any cost. It is a valuable liniment for both man and beast." Get Kendall's Spavin Treatment at any druggist's, $1.10 per bottle—6 for $5.50. "Treatise on the Horse" free—or write to

Dr. B. J. Kendall Co.
Enosburg Falls, Vt., U.S.A.

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PRUSSIAN
COUGH & DISTEMPER REMEDY
GUARANTEED to Relieve
COUGHS, DISTEMPER, COLDS AND ALL THROAT, LUNG AND NASAL TROUBLES IN HORSES.
STOP THAT COLD
PRUSSIAN REMEDY CO., ST. PAUL, MINN.

Trained Men an Important Factor.

To the Editor:—Your invitation to express an opinion and give some points relative to whether education turns boys away from the farm is too enticing to pass up. I respect both your opinions and those of the Colwich, Kansas, gentleman, excerpts from whose interesting letter appears in the August 16th issue. I do not agree with his conclusions, however, and am not a college graduate, but have a wide acquaintance with agricultural college people.

He cites some examples from Kansas which I do not on the whole dispute, but his statement makes the Manhattan institution appear foolish. But if one stops to consider that the Kansas State Agricultural College means only about 800 or so students in actual farm courses out of nearly 3,000, the others taking arts and sciences and engineering and home economics, the percentage may look different. Further, I know for a fact that the records of the animal husbandry department at the Kansas school show fully 90 per cent of the graduates as returning to actual farming. Most of the other 10 per cent are engaged in United States Department extension work, or are teaching agriculture or doing county agent work. This is just one department, of course, but it is all I happen to know.

Yes, we agree that labor is scarce and probably will be scarcer still on the farms during war time. Is this any reason for boys to stay at home in the northern states during winter months, however, and dally around, comparatively speaking, when they might be taking intensive training for farm leadership no less important at this time than the officers' military training schools? Further, it is true beyond doubt that if we are to keep pace with food demands, and raise ten million bushels more with one million fewer men, for example, then how are we to do it except by using better seed, more careful, modern, scientific methods? The same holds true in live stock raising.

Trained brains will make lots of labor unnecessary. That must be admitted.

Now, suppose many farm college graduates do fail to go to farming? I ask you are they not going to make better use of their lives and opportunities and be broader, as a rule, and probably have larger incomes and contribute more to national service in whatever line they may be in, than if these men had never left the farm? Your correspondent fails to recognize that square pegs never fit into round holes, and maybe these men can do better away from the farm than on it after all. Who knows?

To take their places are thousands of college-trained farmers who can farm with reason and improved methods back of them. It is better that such a shift should take place, I think.

And the joke of it actually is that in the shift many town boys feel the call truly and righteously, and after a course in college, accompanied with the required farm experiences, these boys march out upon the wasted, barren places deserted by the farm-born boys, and to the surprise of everybody, make good with the "new-fangled notions."

Then, too, one must not forget that hundreds of college graduates in special farm courses take up lines of extension work and do far more good in a few months, if they are keen and sincere, than the farmer who stays at home, keeps his eager boys tied to old ruts, and refuses to listen to the renaissance in agriculture which is now upon us.

Organizers, demonstrators, lecturers, scientists, veterinarians, juvenile farm club leaders, county agents, live stock association secretaries, editors of farm journals—such important positions attract college-bred farm youths, it is true—and why?

Simply because no man can fill such jobs right until he has had more or less sound farm training and experience. But too often it needs a bit more to go with it, and that is confidence and ability to mingle with people and "talk back" with wide appreciation and understanding. Boys who quit at the district school, as a rule (not the exception), fail to shake off the bashful, hesitant, inward-thinking air of isolation which is by no means a big asset in public service work.

E. R. McIntyre.

Dairymen and cattle feeders have no better lookout from which to view their feeding operations than the silo.

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy so the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

HOLSTEIN COWS WANTED.

WANTED—Forty head of young Holstein cows; twenty extra fancy, highly-bred young grade cows, springing, and twenty head young registered cows. Must be either from dams with not less than 20 pounds or have records of not less than 20 pounds themselves. Send full particulars on whatever number you have in first letter. Jas. W. Magee, Chanute, Kan.

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PRINTING—Special offer: 200 noteheads, 200 envelopes and 200 cards delivered for $4.00. Samples free. Write for prices on sale catalogs. LIVE STOCK PRINTING CO., LaGrange, Ill.

FILM DEVELOPING.

ONE KODAK FILM developed and printed free. Send film and addresses of twelve kodak owners. Try us once. Russell Photo Co., Fond du Lac, Duluth, Minn.

CLOVER SEED.

WANTED—Good quality medium Red and Alsike clover seed. Send samples. Dadmun Brothers, Whitewater, Wis.

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FOR SALE—Six-year-old Percheron stallion, $400. Two-year-old $300. J. Wesley Schaal, Gillett, Wisconsin.

SHEEP.

LINCOLN, Hampshire, Rambouillet, Shropshire, rams. Brogden Farm, Rush Lake, Wis.

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BE YOUR OWN BOSS—GET A FARM HOME IN RICH CORN [illegible] Line, 50 miles St. Paul-Minn. [illegible] ers all say, "I saw nothing better." You'll like this wonderfully prosperous stock and dairy region too. Rich soils, hardwood timber, plenty rainfall, healthful climate, beautiful lakes, fine schools, creameries everywhere. Prices $15 [illegible] up, improved or wild, easy terms. MAP AND LIST FREE. Baker, N-110, St. Croix Falls, Wis.

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WISCONSIN LAND, just over the river from Iowa. Smooth drained land at half price: 520 A., 3 m. from Grand River, Ia., $30 per A., good [illegible] proposition. Will trade 255 A. in No. Mo., Schuyler Co., for live stock. Girton & Lyons, 705 Crocker Bldg., Des Moines, Iowa.

80 ACRES, $4,000—40 ACRES FIELD—Rich clay loam, 5 miles Centuria, Polk county, Wis. Complete buildings, fences, well, etc. New ground and very productive. See this bargain at once. Baker, C-110, St. Croix Falls, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—Have 80 and 160-acre farms, mile from city; must sell one and will rent the other; easy terms. H. V. Peoples, Ladysmith, Wis.

A SIXTY-ACRE FARM, all fenced; fair buildings; bearing orchard, $2,800, $1,000 down, balance 5 per cent. French Rutter, Ferryville, Wis.

IF YOU WANT TO SELL or exchange your property, write me. John J. Black, 2 Main, Chippewa Falls, Wis.

WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

80 ACRES—All tillable, improved, to be sold before January 1. Write Phil Barnes, Hancock, Wisconsin.

STOP, LISTEN! 180-acre creek farm, $3,000, terms, other farms. McGrath, Mountain View, Mo.

POULTRY AND PET STOCK.

GET THE BEST BREEDERS NOW—At reduced prices—cockerels and pullets. Pullets laying. Write your wants, I can furnish them from my seventy-one best breeds of land and water fowls. Satisfaction guaranteed. Henry Shoemaker, Box 425, Janesville, Wis.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

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HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

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SALESMEN WANTED—Several neat appearing young men, aged 18 to 40, to travel and solicit business. Straight salary and expenses. No commission. Experience unnecessary, but must be hustlers. Call personally or write for details. Address Sales Manager, 809 Railway Exchange, Milwaukee, Wis.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

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BOOKKEEPING, accounting, shorthand by mail. Earn $100 to $300 monthly. Women, too, in big demand. Write today for special low rates. R. Haubrich, B. C. S., A. B., Wisconsin School of Accountancy & Stenog'y, 69 Wisconsin, Milwaukee.

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GET PRICES on Owens fanning mills, grain graders, corn graders, before you buy. All sizes on hand. J. L. Owens Company, 1199 Superior St. S. E., Minneapolis, Minn.

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SPORTSMAN—Have your deer heads mounted by E. W. Erdman, Expert Taxidermist, Augusta, Wis. Price lists, 2c.

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LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

War Time Cookbook.

Scrap your old ideas, forget your old habits. Business is not as usual, nothing is as usual. Accustomed routine has yielded to tense, quick action. The very air is vibrant with the will to do and the spirit of courageous adventure. Old grouches are forgotten and old wrongs left to right themselves; everyone is busy and most of us are happy.

The food adventure is part of the game. So scrap your old kitchen ideas, too, and adventure into the realm of food. It will be a voyage of discovery even for good cooks. There are many new things to eat, and many new ways of preparing familiar foods. The American housekeeper must now become an adept in that knowledge of foods that is the common heritage of the European peasants. They have never known the red meat diet of America, yet these hardy peasants have built American railways and dug our subways. Food prejudice should not be allowed to stand in the way. One great source of waste is the influence of custom. People are afraid to try new methods and new dishes.

The housekeeper who is young enough to learn will have some fun getting old recipes down to fighting trim. She will find her best material, however, in the recipes for war dishes that are appearing in magazines and newspapers. Most of this material is prepared by experts in colleges and experiment stations and is too valuable to throw aside.

The main point in planning a war-time cookbook is to arrange the recipes so as to be able to turn at once to the one needed. They may be kept in an indexed scrapbook, or mounted on heavy paper and arranged in a letter file. Perhaps the best advice for keeping recipes is a small filing cabinet arranged like a library card index. A small wooden box or even a pasteboard box will do for the file. The recipes can be written or pasted on cards, with a guide card carrying the index heading to separate the groups.

The headings in this war-time cookbook will be different from the familiar headings of the usual cookbook. The most important group will be meat substitutes. Here will be placed substantial dishes that furnish muscle-building food. These will include combinations of eggs, cheese, beans, nuts and meat with potatoes, rice and hominy. Other headings might be sugar-saving desserts, war breads and war cakes.

This collection should be made not as a curiosity, but as an everyday aid in solving the problem that confronts every American housekeeper and a practical help in carrying out the food pledge. The selection of recipes should be determined by the resources of the locality and the needs of the individual home.

Easy to Make up Jell-O

For making the newest things in desserts and Salads, Jell-O is being used by the best cooks as well as by women in millions of homes who do all of the work about the house as well as the cooking.

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10¢ a package

THE GENESEE PURE FOOD COMPANY, Le Roy, N. Y., and Bridgeburg, Ont.

Pumpkin Canned for Pie.

Would you please publish a recipe for canning pumpkins for pie so that it will keep?—Mrs. G. L. D.

Remove the seeds of the pumpkin (or squash), pare, and cut into small cubes of uniform size. Blanch ten minutes, then plunge quickly into cold water. Place the rubbers in position, fill the jars, packing as closely as possible. Add one teaspoonful of salt to each quart of pumpkin and fill the jars with boiling water. Adjust the tops and partially tighten. Sterilize in hot water bath for one hour, then remove the jars, tighten the tops and set out of draft to cool.

Lice on House Rosebush.

I would be pleased to have you tell me what to do to get rid of little green lice or spiders on a house rosebush. —Subscriber.

A good soapsuds bath will rid your rosebush of these pests. Make the suds the same temperature as the water with which you water your plants, hold the bush over the pan of suds and wash thoroughly. The plant will not be injured in the least and you should have no more trouble with lice.

Rancid Lard.

Is there any way of sweetening rancid lard so that it may be used for cooking? Any information will be greatly appreciated.—Young Housewife.

This is a simple matter. Melt the lard and bring it to a boiling heat. Drop in two or three pieces of charcoal and boil slowly for an hour. Strain through a fine cloth. The charcoal absorbs all the impurities and the lard will be sweet and wholesome.

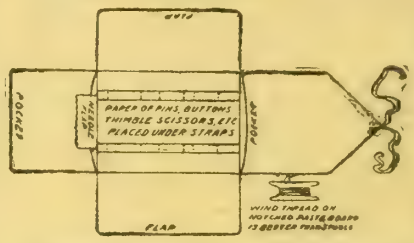
Set of Bags for Soldier.

To the Editor:—I am a new subscriber to your paper and am more than interested in the articles on war and soldier boys, as I have a brother in training. I have just finished a set of bags for his toilet and other articles, and, thinking others may be interested, I am glad to describe them.

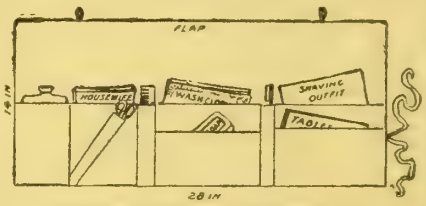
I purchased one yard of twenty-seven-inch khaki cloth, from which I cut the large bag, and the smaller one or housewife is made from the left-over scraps. The straps on the housewife are of half inch elastic stitched at intervals to hold small articles in place.

Perhaps some others who have members of their family in the army would like to make bags like these as Christmas gifts, and so that it will be quite plain I am sending diagrams of each of the bags.

Mrs. F. M. Livingston.



Soldier's sewing kit or housewife. Flaps fold in and bag is rolled and tied with tape to carry in pocket or placed in pocket of larger kit or carry-all.



HANDY KIT OR CARRY-ALL.
Fold flap down, roll and tie with tape.

Corn Bread Recipe.

To the Editor:—Mrs. W. H. B. asked for a corn bread recipe and I am glad to send mine to you in the hope that she will find it what she is looking for.

Scald two and one-half cupfuls of corn meal with boiling water. When cool add one-half cupful molasses, a little salt, one large tablespoonful of lard, one-half cupful sugar, one soup bowl full of bread sponge. Mix stiff with flour and let rise like bread. Bake in a slow oven. Mrs. A. E. Cole.

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THE YOUNG FOLKS.

That Wretched Old Gobbler.

When I went down to grandpa's farm
For a visit—I couldn't stay very long—
There were lots of things I wanted to do:
Now wouldn't you like to
Slide down the haystack, play in the mow,
Ride the horses, and milk the cow?
Now wouldn't you?
But I couldn't so much as climb a tree
'Thout that wretched old gobbler seeing me,
And then he would come with a gobble! and strut,
With his tail spread out, his wings in the dirt
Where he dragged them along to help out the noise.
I suppose it wouldn't have frightened boys,
But girls don't like it, I'll tell you that.
It's enough to make anyone a "fraidy cat."
One day when I went to feed the calf—
He was so funny he'd make you laugh
The way he'd knock the bucket around
And spill the milk all over the ground—
I had just poked it in through the hole in the gate
When the gobbler came. It was too late to go back,
So I went on through, lost my hat, tore my dress, too,
And then grandpa said he would get the old sinner,
He said we would have him for Thanksgiving dinner.
And I didn't feel a bit sorry. Would you? —Gertrude F. Priestley.

Wins Silver Loving Cup.

Dear Young Folks:—I have written you many other letters, but never have seen them in the paper, so I am going to try again. I am thirteen years old, and am in the eighth grade at school.

Susan asked for a brown frosting for her chocolate loaf cake. I can make one that I think she will like. It is called raisin icing. Take one cup of white sugar, three-fourths cup of cream and bring to a boil. Cook it until it forms a soft ball in water. When cooled add one cupful of chopped raisins and one-half cupful of walnuts.

I won the spelling contest in October and will get a silver loving cup for a prize.

I send my love to all the young folks.
Annie.

Helped Father Pick Corn.

Dear Young Folks:—I am a boy eight years old and will be nine the 7th of January. I am in the fifth and sixth grades at school.

I live on a 100-acre farm and have two pets, a colt, born this spring, and a cat. The colt's name is Tommy and the cat's name is Tip. Papa is weaning my colt. When I whistle to him he will come right up to me and he will not kick or bite. When I tell Tip to scratch me he will lick with his tongue, and when I tell him to lick he will stop.

Papa has thirty little pigs. This fall my brother and I helped papa pick corn. Raymond.

Made Pet of a Rain Crow.

Dear Young Folks:—I am nine years old and am in the fourth grade at school.

I will tell you about a pet bird we had about two years ago. One morning after a rain storm my brother found a bird on the ground. It was very little and could not fly. After it grew larger it made so much noise that we named it Screecher. After it grew older we found that our pet was a rain crow. One day when it was just learning to fly we fed it a blackberry and the next morning it was dead.

I think the answer to Susan's riddle —what goes up when the rain comes down?—is a parasol. Vivian.

Learns Her Lessons at Home.

Dear Young Folks:—I am a little girl seven years old, but I have never gone to school. I take my lessons at home, and also take music. I have a little brother six months old and he is the best baby I ever saw.

I always read the Young Folks page and enjoy it very much.

We live on a farm and I have two kittens. Mamma has about forty chickens.

I send my love to all the girls and boys. Genevieve.

Lives With Grandma.

Dear Young Folks:—This is my first letter to you. I am a little girl eleven years old. I live on a ninety-five-acre farm with my grandparents. My mother is dead and I do not know where my papa is.

I go to school a mile away. I am in the sixth grade. Twelve children go to our school. The name of the school is "Scotland."

Grandpa is building a washhouse. Grandma washes with an engine.

I am going to ask a riddle. A marble wall as white as milk, a curtain drawn as soft as silk; there came a thief and broke the wall and there appeared a golden ball. Can you guess my riddle? Hazel.

Uncle Sam Should Be Proud of Her.

Dear Young Folks.—I read your letters all the time and I think they are very interesting. I am ten years old and am in the fifth grade. My father owns a farm. I have two brothers, one sixteen and one six. I go to Sunday school every Sunday.

I own a liberty bond and I am a member of the Red Cross. I also gave a dollar to the Y. M. C. A.

I am sending a recipe for a scriptural cake. Four and one-half cups of I Kings 4:22; one and one-half cups of Judges 5:25 (last clause); two teacups of Jeremiah 6:20 (sugar); two cups of I Samuel 30:12 (raisins); two cups of Nahum 3:12; one cup of Numbers 17:8; two teaspoons of I Samuel 14:25; season to taste with II Chronicles 9:9; six of Jeremiah 17:11; a pinch of Leviticus 2:13; one-half cup of Judges 4:19 (last clause); two teaspoons of Amos 4:5 (baking powder). Dorothy.

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2132—Ladis' "cover all" apron. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42, and extra large, 44 and 46 inches bust measure. It requires 4⅞ yards of 36-inch material for a medium size. Price, 10 cents.

Coat Waist 2184-Skirt 2187—A charming three-piece suit. Pattern 2184 furnishes the coat blouse and waist, and 2187 the skirt. The waist and coat blouse are cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2⅜ yards of 36-inch material for the waist and 3⅜ yards for the blouse, for a 36-inch size. The skirt is cut in 7 sizes also: 22, 24, 26, 28, 30, 32 and 34 inches waist measure, and requires 3⅜ yards of 36-inch material for a 24-inch size. Two separate patterns, 10 cents for each pattern.

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Recipes.

Tomato and Cheese Rarebit.—Two tablespoons fat, two tablespoons flour, three-fourths cup milk, three-fourths cup stewed and strained tomatoes, one-eighth teaspoon soda, two cups finely cut cheese, one egg, slightly beaten, salt, mustard, cayenne. Melt fat, add flour and milk gradually. As soon as mixture thickens add tomatoes mixed with soda; then add cheese, egg, and seasonings to taste. Serve as soon as cheese has melted, on rye toast.

War Pumpkin Pie—One cup molasses, one quart cooked pumpkin, grated peel of one lemon, one-half teaspoon each of nutmeg, cloves and cinnamon, four eggs. Heat the molasses and stir into the pumpkin; add the seasoning and beaten yolks of the eggs. Mix well; add the stiffly beaten whites of the eggs. Bake in a pudding dish and serve cold.

Braised Beef.—Three pounds beef from lower part of round or rump, two tablespoons fat, one-half teaspoon peppercorns, three cloves, one-fourth cup each of carrot, turnip, celery and onion, cut in dice, salt and pepper. Wipe meat, sprinkle with salt and pepper, dredge with barley flour and brown entire surface in fat. Place on rack in deep granite pan or in earthen pudding dish, and surround with vegetables, peppercorns and three cups of boiling water. Cover closely and bake four hours in very slow oven. Baste every half hour and turn after second hour. Throughout the cooking the liquid should be kept below the boiling point. Serve with horseradish sauce or with brown sauce made from liquor in pan.

Barley Drop Molasses Cookies.—One-fourth cup shortening, one-fourth cup sugar, one-half cup molasses, one egg (beaten light), one-half cup thick sour milk, one cup wheat flour, one-half cup barley flour, one teaspoon soda, one-half teaspoon salt, one teaspoon ginger, one-half teaspoon cinnamon. Cream shortening, beat in sugar, then add other ingredients. Drop by spoonfuls on buttered tins. Bake in quick oven.

Dark Cake.—One-half cup butter and lard mixed or all lard, one cup light brown sugar, one cup buttermilk, two cups flour, one tablespoon cocoa, one teaspoon each of cinnamon, soda, baking powder, one-half teaspoon nutmeg, and one-half teaspoon salt if all lard is used. Walnuts, citron, raisins or English walnuts make this cake nice enough for a Christmas cake. You can use two eggs, or it can be made without any.—Mrs. W. J. Sayers.

International Sunday School Lesson.

Lesson for December 2, 1917.

Nehemiah Builds the Wall of Jerusalem

LESSON TEXT—Nehemiah 4:7-21.

GOLDEN TEXT—The Lord is my Helper and I will not fear what man shall do unto me.—Hebrews 13:6.

The lesson of November 18th spoke of Nehemiah journeying to Jerusalem. After his arrival he spent three days in looking over the work; then he told the priests and other leaders his plans. Enthusiasm was awakened, all classes were aroused, the work of the building of the wall of the city was apportioned among the people, and soon half of the wall was completed "for the people had a mind to work."

I. The Wrath of the Enemy, vv. 7-9. The progress of the work kept up the anger of Sanballat the Horonite and his friends who formed an alliance to hinder the wall being built (vv. 7, 8). When God begins to work through his people, Satan is aroused and tries to interfere. It is no sign that a Christian is out of the will of God when opposition is felt. The enemy will always be on hand to try to hinder whenever a real work for God is going forward. Dead formal Christianity runs smoothly and with deadly monotony and Satan lets it alone, but as soon as some results of real work are seen, opposition is at once felt. Thus it was when God sent His Son into the world, and so it has been in every movement for God in the church, and so it will be in the individual Christian life. From the next verse (9) we would almost think that Nehemiah had heard our Lord's injunction to "watch and pray." Many do much watching and fail; many do much praying and fail; but none ever turns to watching and praying without finding victory. Prayer alone means sloth; watching alone means pride; but watching and praying victory.

II. Internal Opposition, vv. 10-14. Sanballat and his friends were not the only ones Nehemiah had to contend with. Among those that worked on the wall were some shirkers and grumblers. They had become discouraged in the work and began to say they could never complete it (v. 10). If Satan fails to hinder the work from the outside, he will attempt to create dissatisfaction on the inside. Internal confusion of the church is more to be dreaded than open opposition from a known enemy. Dissension and confusion in the church can usually be traced to workers becoming discouraged. The plot of the enemy to make a surprise attack was discovered by the Jews who lived outside the city. They reported it not once, but ten times, with the suggestion that the work on the wall be stopped, and safety sought by leaving the city altogether (vv. 11, 12). When the enemy's open opposition fails and discouragement has been tried, an attempt is made to bring fear upon the workers. But the Bible is full of exhortations for Christians to "fear not." Could these workers on the walls of Jerusalem have seen the unseen, it would have made little difference to them whether the enemies were numbered by tens or thousands, and could Christians today realize that God is for them, all opposition would be as nothing. (I Cor. 10:13; Rom. 8:31; Phil. 4:13). Nehemiah at once proceeded to allay the fears (13, 14). Armed forces were arranged about the walls to guard against the reported surprise attack. The warriors were placed so that in the event of battle they would be protecting their own particular families. Then Nehemiah made a short speech of encouragement to the people, the heart of which was "Remember the Lord which is great and terrible." Remembering him would drive the fear away. They who are on the Lord's side are already victors even before the battle has begun. Someone said to a great general before a certain battle began: "I hope the Lord is on our side." The reply was: "I trust we are on the Lord's side." When this is true, there need be no fear whether the enemies be few or many. Nehemiah then exhorted them to fight for their families and their homes. This two-fold secret of the victory is presented to us over and over in this book of Nehemiah, and nowhere is so prominent as in this lesson. Victory for the Christian depends on two things: We must trust in the Lord as though all depended on him, and we must work and fight as though all depended on us. This is the secret of the success of Nehemiah.

III. The Progress of the Work, (vv. 15-21). The speech of Nehemiah having quieted the fears of the people and the enemy having heard that their plans were known and that God had brought their counsel to naught, all the people returned to the work with renewed enthusiasm and purpose (15). There was a rearrangement of forces (16-21). Half of the people worked; half, full armed, stood guard. A trumpeter was beside Nehemiah, so that at the first alarm from outside all the workers and warriors could be called to the threatened spot. Then they went ahead with building the wall.

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POULTRY DEPARTMENT

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning disease, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Horse Sense in the Poultry Business.

To the Editor:—I was very much pleased with the article in your paper recently entitled the "Farmer and the Fancier" and, while I agree with the writer in general, there are some things in it that do not agree with my experience, and I have handled chickens, more or less, for sixty years, having had my first experience when about twelve years old, although I had pet chickens when only eight years old. I always liked chickens, and it seems to me that we had some good chickens long before there was such a thing as a book entitled "American Standard of Perfection." I believe that the first edition was printed and issued in February, 1874. I have a copy of the above book and, while I can say that it is all right as far as giving us disqualifications, defects and the perfect points of the breeds mentioned therein, I have yet to find where it gives any instructions to enable a breeder to mate so as to get the best results. It tells us what is perfect in color, shape, etc., but it does not tell us how to overcome some of the defects that are sometimes found in pure-bred fowls. I am aware that there are some who hold that if we mate only those that are given as perfect in the Standard that we shall surely have good results, but often we do not have good results, and here is where an article written sometimes by a poultry editor does more to help the beginner than does the Standard.

It is possible that a bird may be pure bred and yet have a feather on its shank occasionally. I have known cases where Barred Plymouth Rock breeders have kept the very best birds for years, and yet once in a while they would find a feather cropping out on the shanks. In one case a man pulled out the stub, as he wanted to show that bird, because it was almost perfect otherwise, and when the judge picked up the bird in the show room he noticed where the stub had been pulled and said to the exhibitor, "You did a good job, but not good enough to deceive me," and he disqualified the bird from the show. That bird turned out to be one of the best layers that the man owned, but, of course, would not do to breed from on account of that stub. If the Standard of Perfection were blotted out I do not think that the poultry business would go to the "bow wows," as we had some fine poultry before the Standard existed. I well remember having a Shanghai cock bird, weighing twelve pounds, long before the Standard existed. And we had Dominicks, Crested Polish and many others that were considered good birds at that time and did well in laying, but they were not cared for in those days as they are now. Neither were cattle and horses cared for then as now, and all honor to the men that have done so much to advance the live stock interest to the farmers and others. I know that those men sent out by our colleges have done worlds of good for the farmers and others, yet sometimes those parties meet their equals in men who have made a success in farming. True, today we have boys who are better qualified to run a farm than are their fathers, and all on account of the instruction they have received from our agricultural colleges. You cannot teach an old dog new tricks, and that is the reason so many elderly men will not heed the advice of the younger generation, but I am leaving my subject and must get back to it.

If our Standard of Perfection had something in it in regard to diseases of poultry and some of the remedies it would be worth a great deal more to the poultryman than it is at present, and I also think that the book could be sold at a much lower figure than it now is.

Thirteen years ago I concluded to go into the poultry business as a pastime, and I concluded to try the Rose Comb Rhode Island Reds, as they were said to be a coming bird. I purchased some pullets from a prominent breeder who had fine layers and I was careful to see that they had a fair test. I fed them well and kept an account of all receipts and expenditures and I have found that they have always paid well for their keep. However, in the meantime, I have tried out some other varieties to see how they compared with the Reds. I tried Barred and Buff Rocks, Brown Leghorns, Buff White and Black Orpingtons, Black Langshans and Rose Comb White Minorcas, and I discarded all and kept Reds all through the thirteen years. I never tried any of the Wyandottes until this year, and I am well pleased with them. Last fall while visiting a friend I saw some fine White Wyandottes around a farm home and on inquiry I found them to be the J. C. Fishel strain and I purchased eight fine pullets and mated them to a fine one-year-old cock and I have some fine chickens from the mating.

I have both Red and White pullets that have been laying over two weeks and they were hatched about the last of March. Thus far the Whites are holding their own with the Reds and it looks to me as though I have as good Whites as I have Reds.

There is one thing I have found necessary to good laying, and that is good care and feeding. I have found that hens cannot roost on barbed wire fences during winter, eat snow for their drink and furnish eggs to pay for their keep. Farmers do not need to pay fanciers such high prices for male birds, as they can raise them themselves, or purchase the same from some progressive farmer and they will often find that the birds from the farmer are healthier and better than those from the fancier. I know whereof I speak, as I have tried it. I have line bred my birds and when I wanted to introduce some new blood I purchased a male from a line of good layers and then kept track of the chicks from the new bird to see how the new blood worked. I have observed that Rose Comb birds sometimes throw Single Combs, and those birds are generally the finest kind. I once received a letter from a gentleman asking me if I had any Single Comb birds and I told him that I had four pullets and a cockerel of that kind, but that they were sports from Rose Comb. He ordered those birds and he wrote me afterward that he never had better layers than they were. He told me that they bred nearly all single comb chicks. It is no trouble for a farmer to raise his own male birds if he would only have one or two pens for breeding purposes. Let him pick out about two dozen of his best females and pen them up with good male birds and he would get enough eggs from them for incubating purposes. Some farmers do this and it saves them money and they have as good, and oftentimes better, than they receive from the fancier. When I see the prices that are often paid for cocks and cockerels it comes to my mind that it does not pay the purchaser, but it does the seller. I never show any birds at the poultry shows, as it does not pay to take the chances of having your birds take cold and die, and in some cases they catch some disease that ruins them for breeding purposes. I would say, however, that I have furnished winning birds to parties that have shown them at the Des Moines Poultry Show and also at the state fair in that city. Horse sense is one of the things essential to the success of the poultry breeder, as it is in many other things.

James Lawrey.

Seed Corn

HIGH GERMINATING, northwestern Iowa grown, 1916 crop. Reid's Yellow Dent, Dakota Gold Mine, Wimple's Yellow Dent, Silver King, Pride of North and Minn. No. 13. Price $6 per bushel. Guaranteed to please. Seed corn situation is serious. Order early.
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People's Popular Monthly, 300 Popular Bldg. Des Moines, Iowa

OUR LEGAL DEPARTMENT

THIS department is edited by a practicing lawyer, who has had years of experience at the bar. He will give accurate and reliable answers to all legal questions when they are of sufficient importance to be of practical interest to any considerable number of our readers. Subscribers who desire questions answered in this department should base them upon a brief, plain, concise statement of the actual facts. To insure immediate attention inquiries should be addressed to "The Legal Department," in care of this paper; but as the inquiries sent are at times very numerous, thus delaying printed answers, those to whom it is important to receive an immediate reply by mail should remit $1.00, addressed as above.

Law Questions.

Federal Tax Law.

A Subscriber, South Dakota.—(1) Under the new federal tax law, is a widower who has children, classed as a married or single person? (2) A farmer sold produce for $1,350. His family expenses are $500 and his hired help $150. What is his income for taxable purposes? (3) A farmer sells produce for $3,130, but pays out $1,200 for rent of place. What is his income for taxable purposes?

Answer.—(1) He is classed as unmarried. (2) In such a case there is no taxable income. (3) In such a case there is no taxable income if the farmer is a married man.

Will—Children Not Mentioned.

A Subscriber, Arpin, Wis.—A man having a wife and children died in Wisconsin. He left a will, but did not mention his children in the will, and gave all his property to his wife. His children did not sign away any of their rights and their mother has sold the property. Have the children any lawful claim on their father's estate?

Answer.—If the maker of the will intentionally omitted to mention his children they cannot get any share of his estate, but if such omission was by mistake or not intentional they can get their share as though no will had been made.

Personal Injury on Ranch.

A Subscriber, Mitchell, S. D.—A big ranch in South Dakota, containing from 1,600 to 2,000 acres of land, is operated entirely by hired men, who work by the year, at so much per month, and board themselves. While working on the ranch, one of the hired men was hurt. Can he recover compensation or damages for his injuries from the owners of the ranch?

Answer.—If the injured man can prove that he was hurt by reason of the negligence or carelessness of the ranch owners in providing defective machinery or equipment, he can sue them and recover damages for his injuries; otherwise, he cannot hold them responsible.

Doctor's Charges.

A Wisconsin Subscriber.—When a doctor is called to attend a case of childbirth, and circumcises the child at the request of its parents, can the doctor lawfully charge extra for performing the circumcision, or does it go in with his services at the birth?

Answer.—The doctor can lawfully charge for the operation of circumcision. It is not included in the services of the doctor at childbirth.

Husband and Wife—Mortgage.

A Subscriber, Graettinger, Iowa.—My father and mother own 160 acres of land in Emmet county, Iowa, by a deed which conveys eighty acres to father and eighty acres to mother. There is a $4,000 mortgage on the land, payable next June. Each one of my parents stands half of the mortgage. There are eight children in the family, the youngest being ten years old. Father walked away and has been gone more than three years, and is living with my brother-in-law. (1) How much of father's share of the farm is my mother allowed and can the matter be settled without going to court with it? (2) If father does not return to settle the mortgage next June, or renew same, what will happen?

Answer.—(1) Your mother is not entitled to any share in your father's part of the farm while he is alive. She already has half of it by the deed. If he should die she would be entitled to one-third part of his half and it would then have to be settled in court. (2) If the mortgage is not paid when due the holder of it may foreclose and have the whole farm sold to pay off the mortgage.

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NEWS OF THE SALE RING

Waukesha Holstein Sale.

The Waukesha County Holstein Breeders' Association sale held November 16th at Waukesha was the best fall sale that has been conducted by this association. The first 27 head sold averaged $310. When 55 head had been led through the ring the average was still $310 and when 61 head were sold, the average was $312. No exceedingly high prices were reached, but with few exceptions, the prices for most of the animals consigned were very good. Fred Pabst topped the sale with his 31-pound bull calf which sold for $1,000 to John Brickhane, Elkhart Lake, Wis. Bert Baird's 28-pound cow that has a 910-pound semiofficial yearly record topped the prices paid for females by bringing $800. Aitken Bros., Waukesha, bought her, as well as a number of the other top notchers of the sale. Aitken Bros. are assembling a very high-class herd and should have one of the leading Holstein herds in Waukesha county within a few years. Baird Bros. sold the next highest priced cow in the sale for $700, that went to Frank J. Neimer, Cassville, Wis. D. J. Howell, A. P. Kaye and H. E. Reddelien also consigned some of the choicest cows of the sale. The Carnation Stock Farm sold seven head for an average of $418, including the second highest priced animal of the sale. Their 26-pound son of Johanna McKinley Segis brought $825. There were buyers from a number of the surrounding states, but practically all of the best stuff remained in Wisconsin. The following is a list of sales:

BULLS.

Carnation Segis Ormsby, Dec., 1916; J. F. Jelka, Dundee, Ill. $825
Korndyke Rag Apple Milla, April, 1915; Milan W. DeMerit, Lake Mills, Wis. 320
Carnation Fayne Colantha, Dec., 1915; C. S. Conger, Carmi, Ill. 450
Bairdland Sir Creamelle Segis, Feb., 1917; John Hardy, Pewaukee, Wis. 365
Ormsby Appoline Prince, March, 1916; Theo. Mentgeo, Withee, Wis. 200
———, Jan., 1917; O. H. Brown, New Richmond, Wis. 195
———, April, 1917; Erwin Reis, Waukesha, Wis. 150
Oneida Pontiac Lad, Jan., 1917; M. W. Downing, Waukesha, Wis. .. 180
Brookvale Ormsby King, Feb., 1917; Pardee & Henderson, Eagle, Wis. 110
Kayewood De Kol Pontiac, Dec., 1916; Mat Salentine, Calhoun, Wis. 250
Summit Walker Zerma, May, 1917; Bert Irvin, Carroll, Ill. 500
Pabst King Hengerveld, Mar., 1917; John Brickham, Elkhart Lake, Wis. 1000
Hillvale Beauty Prince, April, 1917; Horace Millis, Whitewater, Wis. 115
Sir Vale Johanna Pontiac 2d, Mar., 1917; R. Nettisheim, Waukesha .. 140
Aaltje Salo Johanna Pontiac 21st, Mar., 1917; J. Lyons, Eagle, Wis. 150
———, May, 1917; H. R. Ameling, Rolla, Mo. 105
Sir Korndyke Fytje Pietertje 2d, Jan., 1917; Wm. White, Waukesha 130

FEMALES.

Lady Bess Segis, Nov., 1912; H. R. Ameling $375
Beauty Pietertje Rag Apple, May, 1915; Connell Bros., Colgate, Wis. 370
Rebecca Mooie Johanna, Nov., 1913; Milwaukee Co. Farm, Wauwatosa, Wis. 280
Lydia Pietertje Segis, Jan., 1913; G. A. Waldenbogard, Rosemount, Minn. 305
Myretta Korndyke De Kol, Jan., 1908; A. G. Camiff, Juneau, Wis. 355
Cande De Kol Westview, May, 1908; Aitken Bros., Waukesha, Wis. 800
Inkey Korndyke Burke, Dec., 1911; Frank J. Neimer, Cassville, Wis. 700
De Freule Piebe Johanna, Sept., 1913; John Spitzer & Son, Brookfield, Wis. 345
De Freule Maxie Snowball, Oct., 1915; Erwin C. Reis 365
Piebe De Cola De Kol, July, 1908; C. S. Conger 330
May Dinkje Van Beers 2d, Nov., 1911; J. W. Goldthorpe, Milton Jct., Wis. 335
Hildegarde Hengerveld, Sept., 1916; Harry H. Newell, Marion, Iowa. 150
Abbekerk Korndyke Hicks, Sept., 1916; John Hardy 165
Rollingdale Pontiac Beets 3d, Sept., 1916; Henry F. Schubel, Lake Beulah, Wis. 160
Blossom Johanna Pearl, Oct., 1916; Irwin Reis, Waukesha, Wis. 120
Lady Model Buckeye, Sept., 1916; Austin Blaine Farm Co., Boscobel, Wis. 160
Brookvale Ormsby Pet, Mar., 1915; O. H. Brown, New Richmond, Wis. 500
Brookvale Ormsby Snowbird, Jan., 1913; Erwin Reis 540
Kayewood Hester Colantha, May, 1915; H. R. Ameling 255
Kayewood Shiela Johanna, May, 1912; Edwin W. Schnitzer, Johnson's Creek, Wis. 455
Kayewood Flora De Kol Girl, Nov., 1907; Edwin W. Schnitzer, Johnson's Creek, Wis. 335
Kayewood Zelma Lassie Korndyke, Nov., 1911; Geo. Dance & Sons, Brookfield, Wis. 305
Sally Fobes Canary Ormsby, June, 1916; Austin Blaine Farm Co. .. 155
Jenny Hamilton Walker Netherland, July, 1916; Pardee & Henderson 160
Oak Lodge Walker Hengerveld 2d, Feb., 1916; M. W. Downing, Waukesha, Wis. 175
Canary Ormsby of Sugar Creek 2d, July, 1913; Austin Blaine Farm Co. 200
Lilly Hartog De Kol Veeman, Apr. 1913; Ira Downing, Waukesha, Wis. 215
Pietje Keyes De Kol 2d, Jan., 1912; Aitken Bros., Waukesha 600
Fobes Alcarta Johanna, Nov., 1914; John Hardy 315
Princess Colantha Maud, June, 1913; G. A. Wildenbogard, Rosemount, Minn. 275
Elsie Hengerveld Korndyke, Feb., 1914; Henry F. Schubel, Lake Beulah, Wis. 245
Watrous Polly Johanna Pontiac, Jan., 1916; J. Lyons, Eagle, Wis. 200
Watrous Lass Johanna Pontiac, Aug., 1915; G. A. Wildenbogard .. 300
Watrous Happy Johanna Pontiac, May, 1916; John Hardy 150
Watrous Trixie Johanna Pontiac, Jan., 1916; Robt. Smith, Mukwonago, Wis. 140
Queen Clothilde Elizabeth 2d, Nov., 1914; Henry F. Schubel, Lake Beulah, Wis. 200
Akkrummer Susan 4th, Nov., 1914; Ira L. Downing 180
Irene Quoque Beets Wayne, June, 1910; Henry F. Schubel 355
Helen Fobes De Kol, Sept., 1908; G. A. Wildenbogard 310
Lady Tressa Ethelind, Nov., 1911; D. J. Howell, Waukesha, Wis. .. 280
Daisy Sindt Johanna, Jan., 1912; Ray Henderson, Eagle, Wis. 335
Mechthilde Daisy Korndyke Segis, Oct., 1912; W. J. Staab, Waukesha, Wis. 420
Duchess Belle De Kol, Sept., 1912; Wm. Taus, Waukesha, Wis. 280
Daisy Sindt Korndyke, Feb., 1915; D. J. Howell, Waukesha, Wis. 350
Bonair Heinse Ormsby, Mar., 1911; C. S. Conger, Carmi, Ill. 450

SUMMARY.

17 males ..... $ 5,185
45 females 13,995
62 head 19,180
Average 309

Cow-Testing Reports.

Value of Good Cows Advances.

To the Editor:—Four hundred twenty-three cows were tested this month and out of this number sixteen were selected to serve in the army of forty-pounds fat producers. This is the smallest number of forty-pound cows that the association has had since it was organized in March, 1916. Unfavorable weather conditions combined with the small amount of grain fed by some of the farmers is one of the reasons

Two more pure-bred sires were placed at the head of two herds this month, one of these replaced a scrub sire that for the poor production this month. was formerly used before the association was started. Eight unprofitable cows were detected and sentenced to the stockyards where they will do more good as "canners" than "producers." Embrat, a grade Holstein cow owned by Ole P. Dobbe, Rosholt, produced 1,354 pounds of milk and 50.1 pounds butter fat, this being the largest individual production from one cow.

The honors for high herd average goes to Alfred Brekke, Galloway. His herd of ten Holsteins averaged 825 pounds milk and 33.3 pounds butter fat per cow. Mr. M. J. Bestul's herd of Holsteins gave Mr. Brekke's herd a merry chase with an average of 810 pounds milk and 32.3 pounds butter fat per cow. The leading Guernsey herd this month is owned by Carl Faldet, Iola. His fourteen Guernsey cows had an average of 586 pounds milk and 31.4 pounds butter fat.

Grade cows in the association are selling for $125 to $200 per head and before the association started $100 to $130 per head was considered a good price. The forty-five-pound list for the thirty-day period ending November 4th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Carl Faldet					
Trixy, G. G.	6	7-1-17	791	5.9	46.7
C. E. Ericksen					
Whiteface, G. G.	9	3-3-17	1000	4.6	46.0
Alfred L. Brekke					
Whity, G. H.	9	- -	1209	3.8	45.9
Otto Halvorsen					
Beauty, Native	8	5-27-17	1040	4.8	49.9
Ole P. Dobbe					
Embrat, G. H.	4	9-27-17	1354	3.7	50.1

Alban-New Hope Cow-Testing Assn., Rosholt, Wis.
M. E. SMITH, Official Tester.

In Dodge County.

To the Editor:—Following is the forty-five-pound list of the Dodge County Cow-Testing Association for the thirty-day period ending October 19, 1917:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Frank Bogda					
Black Beauty, G. H.	6	8-4-17	935	5.7	53.3
C. Zimmerman					
Nichtern, G. H.	6	9-24-17	943	5.1	48.1

J. C. KELLETT, Official Tester.

The Alma Association.

To the Editor:—The highest producing cow for the month of October, in the Alma Association, Buffalo county, Wis., is owned by F. B. Joos. She is a pure-bred Jersey and her production for thirty days was 852 pounds of milk and 59.6 pounds of butter fat. In October F. Hohenstein's herd of fourteen cows averaged 966 pounds of milk and 38.5 pounds of butter fat. Mr. Hohenstein's registered Holstein bull is out of dam with A. R. O. record of 715 pounds of butter fat and 17,000 pounds of milk. The forty-five-pound records for October follow:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
E. Hawley					
Molly, G. G.	7	4-6-17	1104	4.1	45.2
M. Abend					
No. 9, G. H.	6	6-11-17	990	4.8	47.5
No. 3, G. H.	.	.....	992	5.2	51.5
J. Curran					
No. 18, R. J.	4	3-10-17	855	5.4	46.1
No. 22, G. J.	4	6-3-17	780	5.6	45.0
F. Hohenstien					
Nigger, G. H.	4	9-18-17	1200	4.0	48.0
Belle, G. H.	11	9-18-17	1170	4.0	46.8
Cherry, G. H.	11	8-19-17	900	5.2	46.8
T. Joos					
Perry, G. H.	.	9-20-17	852	7.0	59.6

CHARLES J. STAUBER, Official Tester.
JAY DUDLEY, Secretary.

Reedsburg Association.

To the Editor:—The following table gives the name and record of the cows in the Reedsburg Cow-Testing Association which have produced more than forty-five pounds of butter fat or 940 pounds of milk during the period of thirty days, ending November 13, 1917:

Owner, name and breed.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
W. H. Von der Ohe			
No. 9, G. H.	1491	4.6	69.5
No. 5, G. H.	1296	4.8	62.2
Kirkpatrick Bros.			
Gemima, R. H.	1639	3.42	56.0
John Geise			
Lottie, G. H.	1243	4.4	54.6
James Johnson			
Rose, G. G.	840	6.2	62.7
Conrad G. Kruse			
Little Blue, G. H.	1233	4.0	49.9
H. W. Meyer			
Juty, G. H.	1200	3.9	46.8
Lina, G. H.	873	5.2	45.3

G. A. DEEDON, Official Tester.

America Needs More Horses

The American Red Star Animal Relief, whose headquarters are at Albany, N. Y., calls the attention of the American people, and especially of those engaged in agriculture, to the necessity for conserving army-type horses throughout the country. Enormous demand will be made upon the American people before the war is brought to a finish.

Many military experts, including cavalry officers of high command, declare it is more than possible that the horse may be the determining factor in the war. The transport of food to the trenches, the supply of ammunition for the guns, the rapid movement of artillery—these are duties which only the horse can perform. And if open fighting should develop, as it may in some desperate effort to force a final issue, there will be terrific slaughter of cavalrymen and horses.

Europe's horse supply, with the sole exception of Russia, which has enormous resources, has already been sorely taxed. Britain, France and Italy have been buying from outside sources since the war broke out. Canada has furnished enough horses for her own army of half a million, with the prospect of just being able to supply the needed reënforcements as required to make good her casualties. The allied nations are looking to America as their main hope in the matter of horse supplies.

The importance of the horse may be judged from the following facts:

There are 4,500,000 horses engaged in this war.

On the western front the losses over a considerable period averaged 47,000 horses a month.

In eight hours' fighting along a three-mile front at Verdun the French lost 5,011 horses.

Over a million and a half of America's horses have been purchased for service with the allies.

In the first seven months of 1917 the value of horses shipped to Europe from American ports was $25,327,333.

For the month of July alone the value was $1,377,202.

When the American army goes to take its place in force on the battle field next spring it will req ire 400,000 horses for the fighting equipment of a million men. Every month the losses will have to be made good, which means that constant drafts will have to be sent to Europe, to take the place of those animals killed in action, dying from diseases, or lost by submarine attack. America has approximately 22,000,000 horses, but less than one-fifth of these are available for war service. Already there is a decided shortage of the best type of cavalry remount.

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Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Grant County, Wis., Duroc Jersey Breeders' Association.

ON November 16th the breders of Durocs in Grant county met and formed a county association to further the advancement of their chosen breed. We believe there are breeders in Grant county that will eventually be contenders for first place among the state's leading breeders. The association was started with 30 members and the "live wires" of the county are at the "helm." Arthur McKivitt, of the firm of McKivitt Bros., was chosen president. No better stockmen can be found in the state than the McKivitts, and the breeders showed judgment in placing him at the head. Roy Horsfall as vice president is worthy of this honor. He is getting a good herd together and in time we hope to see him at the big shows. In selecting W. C. Edge for secretary-treasurer they picked one of the best hog feeders in the state. Mr. Edge has only been in the pure-bred business about two years and he has "come fast." Take at tip and keep your eye on the "Edge Durocs." We predict champions will come from this herd. J. L. Ervine, J. E. Foster, I. L. Runde and A. S. Huff are directors and they will have their shoulders at the wheel for the good of the breed. While E. A. Heberline has no official title in this organization, yet he is the "man behind the gun." He has worked hard to get better Durocs in Grant county and he has succeeded beyond expectation. The breeders are strong for the genial Ed and he is sure working for their interest. January 25th has been chosen for their first public sale of Durocs. They expect to sell 40 head of bred sows and we can say that they will compare with any gilts to be sold in the state this winter. Watch Grant county Durocs.—Adv.

Atwater's Durocs.

L. F. ATWATER, Bangor, Wis., is very busy sorting and getting the sows bred that he wishes to catalog for his annual brood sow sale. Several of the sows that he showed so successfully have been bred for early March litters. These will be sold in the sale and they will certainly be attractions. The spring gilts are doing fine and when January 30th comes around you will find the Atwater sale offering in its usual bloom. The sows are being bred to Jack Orion 2d, the under-year boar by Orion Cherry King, that was a winner at Hamline and Milwaukee. He is also using a litter mate to "Jack" that he did not show this fall. The popular demand at the winter sale will be sows bred to these two boars. Proud Chief Jr. is in fine condition and some of the best sows are being bred to him. Last spring's pig crop demonstrated that this boar was a producer of the right sort. A few gilts have been bred to a son of Investor. Mr. Atwater is sold out of boars and is refusing to price gilts. However, he has about 75 fall pigs and will sell these in trios to anyone wanting pigs of that age. Here is your opportunity to get into the registered Duroc business on small capital. The price on these trios is very reasonable. Investigate this offer. See advertisement on page 22.—Adv.

J. E. Barstow 26-Pound Record.

J. E. BARSTOW, Randolph, Wis., has become quite an enthusiast in making A. R. O. records since he completed his first test on a cow that made better than 26 pounds in seven days. From the fact that this is the first official seven-day record that Mr. Barstow has made we feel that he has a great future in this work. He now has several other cows on test and is planning to test out a number of other promising cows in his herd. Mr. Barstow is now using Violet Farm King Agatha Pontiac 176233, whose sire is a 36-pound bull now at the head of the Harvest Farms, Mayville, Wis., and which has seven 30-pound sisters, including Mabel Segis Korndyke, 40.32 pounds. The dam of the sire of Mr. Barstow's herd bull is by an excellent transmitting son of the first cow to make 33 pounds in seven days and a cow that is three-quarters sister to Jessie Fobes Bessie Homestead. See page 21.—Adv.

Tilden Farm's Guernseys.

MR. JAMES H. MURPHY, Delavan, Wis., who is manager of the Tilden Farms, writes that they are now offering for sale several choicely bred young bulls out of imported and American bred dams, having records up to 648 pounds of butter fat and sired by some of the best animals of the breed. Mr. Murphy states that he is also in a position to sell a carload of grade and pure-bred heifers. The Tilden Farms Guernsey herd is tubercular tested and on the state accredited list. While visiting this farm last summer we were very much impressed with the uniformly good quality represented in this herd and are pleased to be able to recommend this offering to our readers. See advertisement on page 23.—Adv.

Herrling's Durocs.

MR. R. R. HERRLING, Glenbeulah, Wis., is offering for sale several choice pigs sired by Royal King 4th 182115 by Royal King 560470. The dam of the pigs is Stillman Queen 579006, she by Prince Defender. Mr. Herrling states that the pigs he is offering for sale are the best in the litter—well grown and would suit anybody. See advertisement on page 23.—Adv.

At Martiny's.

A WISCONSIN FARMER representative recently spent the day with Riley Martiny & Son, the Duroc breeders, Baraboo, Wis. They were getting ready for their winter sale and we are glad to report that they have a bunch of gilts listed that will be hard to duplicate. On November 15th the writer weighed some of them and the heaviest one at that time weighed 335. We feel safe in saying that the 40 head would have averaged 225 pounds. They were busy breeding sows and many were bred during the past week. Four boars are being used. The senior herd boar is Bachelor Gano, a son of Col. Gano, and a boar of great smoothness and quality. Investor Jr. is going to be the "big noise" on this farm. This boar is very thin and it is only natural he should not take on flesh very fast at this time of the year, but we predict that he will be one of the best boars in the state, as his worth as a sire is unquestioned. Martinys have the best spring boar we have seen in the four states we have traveled. He is of March farrow and on the above date weighed 330 pounds. He is thin in flesh, but is the biggest framed pig we have seen. He stands as high as the average yearling and has the necessary length to go with his height. He is a big-type pig in every respect and in some herds would be priced at $1,000. We know of poorer pigs of the same age that have been sold for $1,000. They have named him "Big Type" and he is being used in the herd. All the boars have been sold and no gilts are being offered. They have a nice lot of fall pigs and can sell you a trio worth the money. See advertisement on page 22 and in writing please say you saw the advertisement in The Wisconsin Farmer.—Adv.

W. J. Mann, Waukesha, Wis.

MR. MANN is now offering four sons of King Superba, out of good individual A. R. O. dams. It will be remembered that King Superba is a 34-pound son of the noted Milanhurst America De Kol and was purchased at the great Detroit Holstein sale two years ago by several of the most progressive Holstein breeders of Waukesha county. The dam of one of these calves made 12 pounds in seven days eight months after calving. Another has a 20-pound record and is now giving 80 pounds of milk a day. These youngsters are good individuals, well grown and bred in the purple. We trust, therefore, that farmers looking for young bulls with which to improve their herds will write Mr. Mann for further particulars. See advertisement on page 21.—Adv.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

Henry Field Seed Co. Increase Holdings.

THE Henry Field Seed Co., Shenandoah, Iowa, have made a substantial increase in their plant and equipment by taking over the property of the Ratekin Seed House, of that city. The Ratekin building will be used by the Field Co. as a warehouse at present, but the intention is to make a seed corn house of it later on. This will prove a valuable addition to the Field Co., since they have been in need of more space and greater facilities to take care of their rapidly growing business. H. B. Solon, formerly secretary of the Ratekin Co., has become associated with the Field Co. as assistant to Mr. Pitzer, of the garden seed department. The many friends and customers of the Field Co. undoubtedly will be glad to hear of these changes, since they indicate a substantial growth in the company's business operations. With the new additions they are in position to render a more valuable service and give greater satisfaction to their patrons than ever before.—Adv.

Something Extra Good.

W. C. JENKINS, the Duroc breeder that owns that good breeding boar, Orion Col. S., at Bangor, Wis., has eight boars for sale. Mr. Jenkins had a good demand for his boars and was sold out some time ago. In view of the many inquiries he bought eight boars from neighbors that bought bred sows of him last winter. These eight boars are sure good ones—as good as any Jenkins raised. These boars were weighed on November 12th and the lightest one weighed 237 pounds and the heaviest one 287 pounds. They are sure big-type and if you are looking for the big kind that have quality write Jenkins about these boars. This herd is full of the most popular breeding and it will pay you to investigate these boars if you want good Durocs. Don't forget to mention The Wisconsin Farmer. See page 22.—Adv.

Investigate the Quackenbush Polands.

W. W. QUACKENBUSH, Melrose, Wis., advises that he still has a few of his best spring boars left and in order to close them out by December 1st, he is making a price that will appeal to the man that wants a good boar of this breed. These boars are well grown and, as far as breeding is concerned, no one has better. He has boars sired by eight different herd boars of note and Mr. Quackenbush can fit you out with a boar with breeding that will not conflict with what you already have in your herd. We are glad to recommend this herd of big-type Polands, for we are sure that a man can buy by mail and get a pig that will give satisfaction. Regarding gilts none are being offered for sale at this time. After January 1st they will all be bred to Oakwood Big Model, the senior yearling boar that was first at the Minnesota and Wisconsin State Fairs and at La Crosse. Mr. Quackenbush paid $500 for this boar and we consider him one of the best of his age in the state. The choice gilts in this herd bred to such a boar will be attractions after the first of the year. Read Mr. Quackenbush's advertisement on page 22 of this issue. Write him and mention The Wisconsin Farmer.—Adv.

L. M. Scott at Madison.

L. M. SCOTT'S children had two entries in the baby beef show at Madison which were credits to the Hereford breed. Their junior steer was first in class and was in prime condition. L. M. Scott is the man that has those good Herefords at Bagley, Wis., and anyone interested in registered Herefords will make no mistake if they write him. When doing so please mention The Wisconsin Farmer. See page 23.—Adv.

Swan Brothers' Holsteins.

SWAN BROTHERS, Wauwatosa, Wis., have a few young bulls on hand for sale, including a ten-months-old son of a 22-pound junior three year old, sired by a grandson of King of the Pontiacs. The dam of the calf Mr. Swan is offering for sale is a daughter of Daisy Johanna. This calf is well grown, evenly marked and is being offered at a very reasonable figure. See advertisement on page 21.—Adv.

Damon's Hampshires.

A. L. DAMON, Richland Center, Wis., is one of the leading Hampshire breeders of this state. He has a large herd of the best of individuality and breeding. Good boars have been purchased and they have been crossed with some of the best sows money could buy. Mr. Damon has on hand a fine lot of spring boars and a grand assortment of fall pigs, about 100 of the latter. These fall pigs must be sold and if you will write and let him tell you about his "baby herds" we know that you will be interested in the proposition he has to offer. Note the advertisement on page 23 and write at once for further information. Mention The Wisconsin Farmer.—Adv.

Rust Brothers, West Allis, Wis.

WHILE interviewing Arthur Rust at the Waukesha County Holstein sale we learned that their well-known cow, Ida Lotta 5th, has another 29-pound record to her credit, which has been made recently. It will be remembered that Ida Lotta 5th has stood second in the aged cow class at the Wisconsin State Fair for several years. She is a remarkable cow both as an individual and producer and is a good representative of the type of Holsteins which Rust Brothers have been striving to develop. The Rust Brothers' herd is one of the oldest in the state and many of the best Holsteins of the breed have their origin in this well-known herd. See page 21.—Adv.

Extraordinary Holstein Offer.

IF you want a good, nicely-marked Holstein bull, write W. W. Quackenbush, Melrose, Wis. He has a few extra fine young bulls that are ready for service. These bulls are out of high-producing dams, several of them with A. R. O. records, and sired by Sir Pontiac Wayne De Kol 3d 112197 and King Segis Pontiac Polkadot 8th 157647, herd bulls with excellent A. R. O. backing. Mr. Quackenbush will sell bulls worth the money and prospective buyers will make selections if they but see those being offered. Shipment can be made from Black River Falls on Galesville. Investigate this offer at once. When writing, please mention The Wisconsin Farmer. See page 21.—Adv.

Clarence Wenham's Milking Shorthorns.

MR. CLARENCE WENHAM, Fort Atkinson, has been breeding milking Short-horns for nearly 35 years and now has a herd that in some respects presents an interesting study. At the outset Mr. Wenham has endeavored to breed an animal possessing considerable quality as a beef animal and at the same time capable of producing a good flow of milk, having a high butter-fat test. Mr. Wenham has had a number of animals in his herd that has tested as high as 6 per cent. The herd test now is 4.4 per cent, which goes to prove that Mr. Wenham's efforts in this direction have not been in vain. Sweet Ada, Lady Dina and Lady Cloe all have tested 6 per cent and have given from 40 to 50 pounds of milk per day. His senior sire, Fourthe Barron Cambridge 365455, bred by H. F. Newell, Surry, N. H., is a vigorous individual of good size, yet indicating distinct dairy temperament. Mr. Wenham's junior sire was bred by D. T. Marquart, Milton Junction. Mr. Wenham is now offering a yearling bull that represents the best breeding which he has assembled in this herd and is an animal possessing blood lines that would be difficult to equal. We believe, therefore, that any breeder of milking Short-horns on the market for a herd sire would do well to get in touch with Mr. Wenham regarding this yearling bull, as it is seldom that one has an opportunity of procuring an animal possessing just the blood lines represented in this calf. Mr. Wenham's high-testing cows form an important part in the pedigree of the calf in question and on his sire's side the best breeding of the celebrated May and Otis herds is well represented.—Adv.

John Swenson, Willmar, Minn.

AS a breeder of Duroc Jerseys, John Swenson, Willmar, Minn., is one of the best in that state, in fact the Northwest. A few years ago Mr. Swenson bought Big Wonder, the Iowa grand champion, and said to be the most perfect boar of the breed ever shown at the Iowa State Fair. This boar put Mr. Swenson on the map and the boar is still doing service in his herd. This is also the home of E. J.'s Crimson Wonder, the boar that was grand champion at the Minnesota State Fair in 1916. We feel safe in saying that Mr. Swenson bought more good, high-priced champion sows last winter than any breeder in the Northwest. These, added to what he had, gives to this breeder, one of the best if not the best herd of Duroc Jersey sows in the Northwest. Minnesota has some of the best hogs known to the breed and Mr. Swenson is in the "king row." We are glad to refer you to John Swenson if you want a good spring boar—he has them. We are also glad to refer you to him if you like to deal with a man that is "on the square." Write him for further information and you can feel safe in sending him your order. See advertisement on page 22. Mention The Wisconsin Farmer when writing.—Adv.

Hoyt's Milking Short-horns.

MR. J. WARREN HOYT, Rosendale, Wis., is offering some choice young bulls as well as a limited number of cows and heifers sired by the well-known herd bulls, Kitty Clay's Duke and Kitty Clay's Prince. The blood lines on the dam's side of these young bulls which Mr. Hoyt is offering for sale comprise some of the best families of this partictular strain of Short-horns. See advertisement on page 23.—Adv.

Holstein Bulls for Sale.

MR. F. A. SWOBODA, East Troy, Wis., is offering for sale two young bulls sired by Sir Ormsby Johanna De Kol 37th 141165 and out of heavy producing dams. Mr. Swoboda writes that he can also spare two or three heifers from six to nine months of age from this same sire. See page 21.—Adv.

TOO LATE TO CLASSIFY.

GUERNSEYS FOR SALE

10 HIGH-CLASS HEIFERS, part of them bred. Most of them are by the champion island bull, Governor of Myrtle Place II. He will also be offered. Bull calves for sale, out of cows with records as high as 698 lbs. fat.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

POLAND CHINA GILTS

ALL SOLD but one extra good one. Bargain prices on my boars of March farrow. Fall pigs ready for shipment. Write for prices or call and see them.
H. H. SMITH Baraboo, Wis.

HOLSTEIN-FRIESIAN CATTLE.

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.

JOHN D. HETTS :: :: :: **Fort Atkinson, Wis.**

In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous **King Pontiac Champion** strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

YEARLY RECORD BULL CALF
BORN August 3, 1917. Sire, a son of Pietertje Maid Ormsby 35.56 and full brother to Miss Korndyke Maid Ormsby who made in a year, 1,255.62 lbs. butter and 25,418 lbs. milk. Dam, a 21-lb. 3-yr.-old with 715 lbs. butter and 15,029.3 lbs. milk in a year. Calf is three-fourths white and a good individual. Address
N. DICKINSON & SON, Lake Geneva, Wis.
Walcowis Farms.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. **Eau Claire, Wis.**

Sauk Co. Holstein Ass'n

OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write **ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.**

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 25, Grant County Duroc Breeders, Fennimore, Wis. Wm. C. Edge, Secy.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.
Mar. 12, M. V. Miller, Lawler, Iowa.

Short-horn Cattle.

Dec. 1, Anoka Farms, Waukesha, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.
Mar. 15, Interstate Short-horn Breeders' Assn. Bull Sale, Sioux City, Iowa.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

$1000 will buy

THREE SPLENDID registered Holstein cows, safely in calf to a full brother of Pietertje Maid Ormsby. These cows are heavy milkers and good individuals. Write for particulars.
BONNE MEADE STOCK FARM, Randolph, Wis.

A.R.O. Cows and Daughters

THINK—In calf to RAG APPLE PONTIAC, he by Rag Apple Korndyke, out of a 30-lb. daughter of King of the Pontiacs. CAN YOU BEAT IT? Limited number for sale.
TULLOCH FARMS **Genoa, Vernon Co., Wis.**

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac** 174243. Sire **King Pontiac Champion,** Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**
ORRIN HAKE **Jefferson, Wis.**

BELLEVIEW STOCK FARM IS OFFERING

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS **Troy Center, Wis.**

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: **Lake Mills, Wis.**

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. **Pewaukee, Wis.**

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL, Whitewater, Wis.**

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

HOLSTEIN BULL FOR SALE.
11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.
L. V. GARVENS **R. 12, Brookfield, Wis.**

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB **Honey Creek, Wis.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH **Kilbourn, Wis.**

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA **East Troy, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. **Troy Center, Wis.**

HOLSTEIN-FRIESIAN CATTLE.

Grahamholm Bargains

$750 WILL BUY this handsome 30-lb. grandson of King Segis, born Feb. 27, 1916. As indicated by the cut he is a striking individual, well marked and ready for active service. His sire is likewise a good individual and a worthy son of the great King Segis, having already 14 A. R. O. daughters to his credit. His dam, Pauline Govers De Kol 2d, has 30.03 lbs. butter, 569.50 lbs. milk, 7 days, 122.18 lbs. butter, 2,442.50 lbs. milk in 30 days. Also captured the 32d association prize in 1914. Write for particulars.

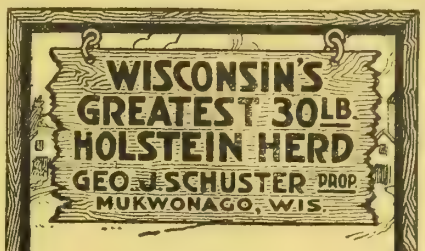
W. J. BOYNTON, Mgr.
Rochester **Minnesota**

Govers Pauline Segis Grahamholm (185246)

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**



We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. **Reedsburg, Wis.**

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA **Watertown, Wis.**

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.24 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON **Neillsville, Wis.**

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER **Janesville, Wis.**

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. **Troy Center, Wis.**

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK **WIS.**

PURE-BRED
HOLSTEINS

Are not only the most profitable but also tho most vigorous breed on earth

They are less susceptible to diseases, require less attention, can consume greater quantities of roughage and turn it into milk and butterfat, and are more persistent producers than any other breed. Write for free information about the Profitable Breed.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

EXTRAORDINARY HOLSTEIN BULLS

OF SERVICEABLE AGE, sired by SIR PONTIAC WAYNE DE KOL 3D 112197 and KING SEGIS PONTIAC POLKADOT 8TH 157647. Every one nicely marked and from high-testing dams. Several A. R. O. records. Write
W. W. QUACKENBUSH **Melrose, Wis.**

Holsteins

WE ARE OFFERING at present two young sons of Sir Ormsby Johanna De Kol 37TH (141165) and cow. Also can spare two or three heifers from six to nine months of age.
F. A. SWOBODA **East Troy, Wis.**

4 SONS of KING SUPERBA

A 34-LB. SON of Milanhurst America De Kol. Three are from A. R. O. dams, one of which is now giving 80 lbs. milk a day. Here is a chance to buy a Holstein herd sire bred in the purple. Write for particulars.
W. J. MANN **Waukesha, Wis.**

A. R. O. RECORDS.
WE HAVE just completed a 26-lb. 7-day record and have a number other good prospects coming on. Our herd bull is a son of a 36-lb. sire, that has seven 30-lb. sisters. Will sell several young Holstein bulls. Write for particulars.
J. E. BARSTOW **Randolph, Wis.**

KING OF THE PONTIACS

WE NOW HAVE a 10-mo.-old Holstein bull calf for sale, sired by a son of King Pontiac Champion, a noted son of King of the Pontiacs. The dam of the calf has 22 lbs. at 3 yrs. Write for price. **SWAN BROS., R. 1, Wauwatosa, Wis.**

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

HAMPSHIRE SWINE.

HAMPSHIRE SWINE

DIVIDEND PRODUCERS
DELLBROOK HAMPSHIRES SATISFY

We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.

DELLBROOK FARM
A. L. DAMON, Mgr. **Richland Center, Wis.**

Valley View Farm

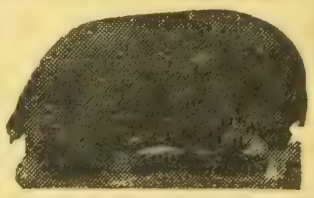
OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI **R. 40, Bear Creek, Wis.**

POLAND CHINA SWINE.

Big-Type POLANDS

I RAISED 27 BOARS by eight different herd sires, and have a few choice ones left. Several by CHIEF PRICE 256331, who sired the first prize boar pig at Minnesota and the largest pig at Omaha. Some by Mc'S BIG BONE 257809, and such noted boars as ORANGE WONDER, BIG BEN JR., BLUE VALLEY KING, JUMBO WONDER and SUNRISE PRICE, out of sows that were sale toppers and state fair winners. Act quick if you want a boar. No gilts for sale until after January 1st. They will be in pig to my $500 OAKWOOD BIG MODEL, first prize senior yearling at Minnesota, Wisconsin and LaCrosse. Weighed 870 pounds in August. Correspondence invited.
W. W. QUACKENBUSH (Jackson Co.) Melrose, Wis.

MARTINY POLAND BOAR BARGAINS



SPECIAL PRICE—A little over pork. Twenty Big-Type Poland China Boars, many by Big Bone Wonder, one of the best breeding boars in the United States. Boars of same breeding as my first prize litter at state fair. Also have a Hancher-bred yearling and a Golden Gate Giant fall yearling for sale. Winners this fall. Order a boar. If he don't suit, I'll refund your money.
L. P. MARTINY :: :: Chippewa Falls, Wis.

J. D. McDONALD WEST SALEM, WISCONSIN

HAVE SOME CHOICE spring boars for sale. Same breeding as my WINNERS. Two fall boars that were winners. 75 fall pigs, special prices on pairs and trios.

GERSTDALE JONES ($6,600)

Have four good spring boars for sale by Gerstdale Jones—litter mates to one I am going to use. Buy one of these boars and get in the "front row." Let me quote prices.
Wisconsin's Greatest Poland Herd. :: :: Bred Sow Sale February 6th.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

Keep Your Eye Here

I OWN BIG BEN 2D by BIG BEN. I own BLUE VALLEY TIMM 2D. I own GREAT PROSPECT, the 700-pound, first-prize yearling sow at Minnesota, 1917. I own MOUW'S BLACK MAID 2D and other sows that should put my herd "on the map." Nothing for sale but fall pigs.
J. F. O'BRIEN R. 5, Madison, Wis.
"Poland Chinas"

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

SMILEY

IF YOU NEED A POLAND BOAR, write us. Don't forget that a SMILEY GUARANTEE goes with every boar—we never have a dissatisfied customer—get on the list.
WM. SMILEY & SONS. Albany, Wis.

Boars all Sold

HAVE HAD A GOOD DEMAND for Poland spring boars. Now offer gilts, to be alinged when safe in pig. SMOOTH BIG BONE A 2D has made good, his pigs are the first to sell. If you want choice, write now.
J. F. DILEY Rush Lake, Wis.

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Polands-Boars, Gilts, Fall Pigs

A FEW GOOD BOARS LEFT. Some well-grown spring gilts, will sell them open or bred them. Thirty early fall pigs, both sexes. Write us.
A. W. COLE Lodi, Wis.

POLANDS

BOARS AND GILTS—Fall and bred big. Write me.
WM. HAUK Cassville, Wis.
"Grant County."

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

Kindly mention this paper when writing.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

Minn.'s Premier Poland Herd

A FEW CHOICE SPRING BOARS left, by YOUNG'S BIG JOE, MASTER'S GIANT and ORANGE WONDER. No gilts for sale until TUES., FEB. 5, 1918.
P. W. YOUNG Box 100, Prosper, Minn.

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write
WM. F. ACKERMAN Glen Haven, Wis.
"Grant County."

185 lbs. at 6 months

IF YOU WANT POLAND BOARS of that description, write us for further information.
HAUK BROS. Cassville, Wis.
"Grant County."

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.
O. E. NORTON Brooklyn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

SHEEP.

RAMS

Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.

THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
THE HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

DUROC JERSEY SWINE.

DUROC JERSEY BOARS ALL SOLD

WE SOLD 29—They averaged $78.00, which shows that the breeders and farmers appreciate our Durocs and the way we do business. We are breeding 40 choice gilts to INVESTOR JR., BACHELOR GANO and BIG TYPE for our JAN. 31ST SOW SALE. You'll want a catalog. Send your name.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

Have a Few Duroc Boars for You

I HAD A LARGE NUMBER of spring boars and have a few good ones left. They are big, heavy bone, high backs and sired by PATHFINDER 2D, COL.'S CHOICE and PAL'S DEFENDER. A breeder wouldn't ship a poor pig on approval. Do you need one?
DENNIS SHEA (Near Sparta) MELVINA, WIS.
Sow Sale January 29th.

"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.
ED PARKER & SON :: :: :: :: Janesville, Wis.
Bred Sow Sale February 1st.

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mae's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
F. R. CONSTANCE :: :: :: Waupaca, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
PERRY GOODRICH Burnett, Wis. W. W. BIRD, Cambria, Wis.

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.
ALLIC S. KNUDSON :: :: :: R. 5, Brodhead, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

GEO. D. SPRAIN & SONS
WEST SALEM WISCONSIN

LET EDGE DO IT

HE CAN FILL YOUR ORDER for he has one of the herds that put Fennimore on the DUROC MAP. If you like good red hogs with good pedigrees, write Edge.
WM. EDGE FENNIMORE, WIS.
"Grant County."

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?
R. C. CHURCH Elkhorn, Wis.

FASHION DUROCS

FEW BOARS LEFT. Offer gilts and sows bred to a son of Royal King. Only a few, so order early.
ISAAC HIGGINS Gotham, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.
M. H. O'KEEFE & SON Waukesa, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

BOARS

HAVE A FEW CHOICE DUROC BOARS, as good as can be found in the state. On Nov. 12th the lightest one weighed 237 lbs. and the heaviest 287 lbs. They are of my very best and popular breeding. They must be sold at once. Write
W. C. JENKINS Bangor, Wis.

ATWATER

FALL DUROC PIGS.

SPRING BOARS all sold. No gilts for sale. Some fine fall pigs. Buy a trio and "get in the game." Sired by my best boars. If you want pigs the price won't stop you. Don't forget Jan. 30th.
L. F. ATWATER Bangor, Wis.

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Wis.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: Brodhead, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
W. W. GOODRICH Ft. Atkinson, Wis.

Durocs on Approval

WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

DUROCS—Bred sows and spring boars and gilts, sired by Col.'s Defender 2d and Corrector Model Jr. Address, mentioning The Wisconsin Farmer, Jesse A. Canniff, Juneau, Wis.

DUROC BOARS—April farrow out of Pathfinder 2d and son of mighty Prince Illustrator. Write Anton Hegge, R. 4, Box 3, Westby, Wis.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

SHORT-HORN CATTLE.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn **bulls** from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

HARVEY H. LITTLE

CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

MARQUART MILKING SHORT-HORNS

WE NOW OFFER BULLS from our best cows and sired by the bulls that "have put us on the map." Our cows give from 6,000 to 10,000 pounds milk by weight. Write for details.
MARQUART BROS. Milton Jct., Wis.

ROYAL OXFORT FOR SALE.

THIS YEARLING bull represents the best Mr. Wenham's 35 years of breeding milking Short-horns has produced. He is 80% Duchess Oxford breeding and his first, second and third dams are exceedingly high testers. Write for particulars.
CLARENCE WENHAM Ft. Atkinson, Wis.

FOR SALE

SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females; 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

SHORT-HORNS

SERVICEABLE Short-horn bulls, sired by Highland Sultan and Buchan Marshal, International prizewinners. Come or write.
W. J. BERND & SONS New Richmond, Wis.

KITTY CLAY HERD

MILKING hornless Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best families of milking Short-horns.
J. WARREN HOYT Rosendale, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

DUROC JERSEY SWINE.

---E. J.'s--- CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,
DUROC BOARS sired by above for the particular buyer.
JOHN SWENSON Willmar, Minn.

ROYAL KING 4TH'S TRIO FOR SALE

WE ARE OFFERING two young Duroc boars and a gilt by the above sire and from a daughter of Prince Defender. These pigs are the best in the litter. Write for prices.
R. B. HERRLING Glenbeulah, Wis.

DUROC BOARS

SIRED BY Col. Volunteer, out of sows sired by a son of Critic B., grand champion at Nebraska Fair. Bred and priced right.
CLARENCE WENHAM Ft. Atkinson, Wis.

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.
JOHN WALDHAM & SON Janesville, Wis.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

RED POLLED CATTLE.

Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from **A. R.** dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLLED DURHAM CATTLE.

D. S. POLLED DURHAM BULL, 14 mos. old, red with star, very thick fleshed and from superior dairy cow. F. S. Bunker, Kilbourn, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It has lands, city property and stocks of goods advertised in its columns from nearly every state, so that you can find just what you're looking for in its columns. Established 19 years and reaches 76,200 readers. Send 25 cents for one year's subscription or $1.00 for five years. Department F, Farm and Real Estate Journal, Traer, Iowa.

ENGRAVING Halftones made from pictures or drawings of stock for your letterheads, post cards, catalog advertising. Quick service, best work, reasonable prices. Write for information.
THE HOMESTEAD COMPANY
Engraving Dept. Des Moines, Iowa

GUERNSEY CATTLE.

JEFFERSON COUNTY GUERNSEY BREEDERS' ASSOCIATION

THERE ARE OVER 100 HERDS of Guernsey cattle in this vicinity, from which to make selections. High-class, pure-bred females can be purchased in limited numbers while pure-bred bulls and grades of all ages are more numerous. No commission or livery to pay. Inspection desired.
H. A. MAIN, Secretary :: :: :: Ft. Atkinson, Wis.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale **Broad Ripple Monarch**, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter [illegible] grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

Tilden Farms' Guernseys

FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address

Tilden Farms
James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS

FOR SALE—Three bulls large enough for service, two by Celosia's Glenwood, whose dam has three A. R. records averaging over 500 lbs. fat; one by Frank Rilma, whose dam made 558 lbs. fat and is full sister to May Rilma, 1,073 lbs. fat.; former world's record, still has second highest record of the breed. 12 head of bull calves. Am overstocked and would sell 15 head of cows and heifer calves priced very reasonable if taken at once.
ALLIC S. KNUDSON R. 5, Brodhead, Wis.

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

May Rose Bulls FOR SALE

MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from **A. R.** dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from **A. R.** dams, as well as a few choice cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.
GEO. O. LUCIA Green Bay, Wis.

A FEW WELL-BRED YOUNG BULLS — the Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

YEARLING GUERNSEY BULL

READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters: 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

CHESTER WHITE SWINE.

APRIL and MAY BOARS CHESTERS

OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.
H. A. DERENTHAL Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

FOR SALE

PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.
O. P. COATES R. 4, Elkhorn, Wis.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
Box 13 **J. FISHER & SON** Eastman, Wis.

SPECIALS

IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.
WALTER GEORGE Evansville, Wis.

CHESTER GILTS

MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address
A. L. KIRST Tomah, Wis.

CHESTER WHITE BARGAINS—Am offering for sale **Guy's Comet,** a junior yearling half brother of **Prince Again,** the grand champion at Iowa and Illinois, 1917, and my fall boar, **Royal Tomson,** a son of **Royal Blood.** Also March and April gilts sired by **Guy's Comet,** and grand champion boar, **Perfect Prince.** Wm. C. Scheibe, Burlington, Wis.

Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON Viola, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

FROSTS' BIG-TYPE O. I. C.'S

200 SUMMER and fall pigs, the kind that won us 86 prizes at five state fairs. Boars, pairs or trios, no kin. Registered free and priced to sell. Address
S. D. & B. H. FROST R. 2L, Kingston, Mo.

CHESTER WHITE BOARS

HAVE SOME 200-LB. March pigs that I must sell to make room for my fall pigs. Attractive prices for the next 30 days. Fall pigs for sale.
ART. G. HOSKINS Dodgeville, Wis.
Mile west of town.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

YORKSHIRE SWINE.

LARGE YORKSHIRES

MARCH AND MAY boars, gilts and fall pigs, either sex, priced to sell.
M. O. LARSEN & SON Colfax, Wis.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

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"Mill to Owner"—Guaranteed Costs

We Still Quote Low Prices Despite Advances in Other Lines

It will cost less **to build now,** in comparison with prices on **all other necessities,** than any time in years. Farm products are bringing 50% to 100% more—yet we can still quote prices on building material only 10% to 15% above a year ago. Conditions after war **must force prices up.** Take advantage of **present** situation.

Model Farm Homes

Practical **5 to 10 room houses. Big, roomy kitchens, entry-washrooms, downstairs bedrooms,** built-in conveniences—a joy to the housewife. Ready-cut—**saves labor, material, time.** Economical. Or not Ready-cut if preferred. Highest grade material. Save "in-between profits." We ship anywhere. Prompt, safe delivery guaranteed. 100,000 customers—some near you.

Costs Less to Build Now!

There never was a better time than now to build your home. In 1914, with corn at 62c, it took 2424 bushels to pay for this house. Today, with corn at $2.00, it takes only 751 bushels. It now costs you less of your crop than ever before.

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Plan No. 1326. Unusually popular. Economical to build. Seven rooms. Many closets; porches; modern kitchen with built-in conveniences. Especially well planned. **$1503**

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Windows

Plain and fancy Windows in all standard sizes and at all prices. Plain rail, glazed, $1.04 up. Transoms, 52c each. Check rail windows as low as 87c.

Colonnades

Makes two rooms into one. Pine or Oak Pedestals with Leaded Glass Doors. Prices include glazing and hardware. As low as $11.50 up to $32.75.

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In yellow pine or red oak. All hardware and glazed. Drawers and doors fitted. A big convenience—lots of storage space Prices upward from $27.00.

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Just a hammer and nails put on this beautiful, clean, economical "Quality" Wall Board. Excellent for repair work. Warm and vermin-proof. Put on dry. Per 1,000 square feet, $27.00.

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Write me about your home-plans and ideas. My entire time is **yours**—just to help you get **the kind of a home you want** and will **most enjoy.** I have studied the homes of thousands of American women, and can give you practical, common-sense suggestions about kitchens, living-rooms, bedrooms, etc., that will save you money and mistakes. There is no charge for this service. Just tell me **approximately** what you want to spend and I will write you **personally.**

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Home Building Adviser to Women
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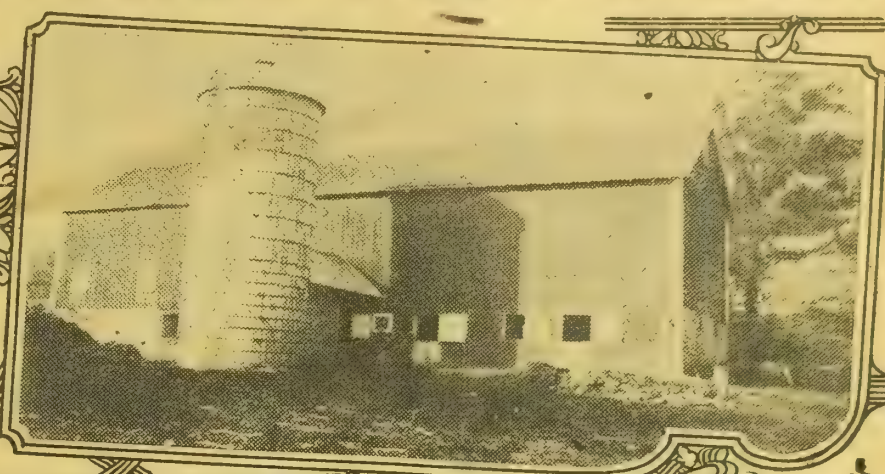
THE WISCONSIN FARMER

VOL. XLVI. NO. 49. THURSDAY, DECEMBER 6, 1917. WHOLE NO. 1871

Share and Share Alike Proves Best

Type of Mares From Which Crop of Colts Is Produced on John S. Donald Farm, Dane County, Wis.



Math Marty Keeps the Cow Barn Whitewashed as Shown by the Open Barn Doors in Above Picture.

Raymond and Robert, Happy and Healthy Products of the Kobbervig Farm.

THE tenants on the John S. Donald farms at Mt. Horeb are renting the farms on the equal share plan. They have done so for a long enough time to speak with authority of the soundness of the plan, and the satisfaction it gives in dollars and comfort.

John S. Donald is well known and liked by Mt. Horeb poeple, who have four times elected him to the state legislature as the representative in the assembly and in the senate. He has also been our secretary of state for four years. Since he was born and raised on a farm in Springdale township, only a few miles from Mt. Horeb, he has the right point of view regarding farming and farm problems.

It is therefore quite natural that Mr. Donald came to the conclusion some fifteen years ago that the cash basis of renting was a poor proposition for landlord and tenant alike. Experience in renting on the cash basis had taught him that after the cash is paid the tenant must, in justice to himself, make the most of his farm operation at the least expense to himself. That the landlord cannot be gainer when soil robbing is practiced was a further observation. Upkeep of the buildings and fences was not to be expected and never occurred. The general appearance of the farmyard ever proclaimed in loud tones that the occupant did not intend to stay longer than one season. The length of the tenant's stay on the place was indeed governed by the profits he made during the year after paying a cash price for each acre rented.

After trying the system of equal sharing for several years Mr. Donald placed his other farms on the same basis, and he now has satisfactory tenants on all three farms. Financially ahead year after year, tenants and landlord are working in perfect harmony from one season to the other.

Everything is on the half interest basis. The landlord furnishes the house, barn and acres. The tenant agrees to work the land, to pay and board all labor and to furnish the necessary machinery for tilling, seeding and harvesting. Mr. Donald buys half of the cattle, horses, seed and poultry. Each farm has on it enough horses to take care of all the needs of the farm. Two brood mares are usually kept on each place and from these the foals are raised each year to displace the depreciating horseflesh and also to help, through sales of surplus horses, to add to the farm profits. The landlord pays half of the service fee and receives half of the sale price of each animal sold.

In the poultry end the choice is left to the tenant to raise chickens for market or sell the eggs. In either case, the first $10 worth of sales belong to the tenant, after which all proceeds are divided equally between the tenant and landlord.

All feeds raised on the farm are marketed through the cows, hogs and horses that are raised on the farm. All stock has the use of a pure-bred sire. The horses are bred to a pure-bred Percheron stallion, a registered Holstein is the herd header for the dairy, and the hogs are pure-bred Poland Chinas. There is enough woodland pasture and meadow on each farm to give the animals plenty of cheap feed during the summer months. Alfalfa and clover in a regular rotation help to make greater production in the milk cows possible.

Matthew Marty has been on his farm for the first year this season. He has rented it from Mr. Donald on the share basis following the death of his father, who farmed it on the same plan for the last eight years. "I believe the equal-share system is the best system upon which to rent a farm, as it gives the renter a greater opportunity to make a profit one year after another. The landlord is more willing to do something for his tenant on this basis, while on the cash basis the landlord takes no interest whatever in his tenant as long as he is sure of his money." Mr. Marty is progressive, as is witnessed by the whitewashed cow barn plainly visible even to the passerby. His grade herd of Holsteins is going to improve steadily under his care, for he feeds and cares for them in the right manner.

Albert Kobbervig, who farms another of Mr. Donald's farms, has been on the place for eight years and has no intention of renting on anything but the present basis. His well-kept yards and barns show that there is existing between the landlord and the tenant coöperation which makes for success. Cows, hogs and horses produce regularly the profits upon which both landlord and tenant depend.

Alva Lust, who has been on the third farm now for the sixth year, is also emphatic in his endorsement of the "share-alike" plan. He would not think of farming on a different basis and his satisfaction is evident all through his conversation. His herd of Holsteins shows the care of a master feeder. He is just as conscientious in taking care of all other stock even though he has only a half interest in them and can expect only one-half of the profits derived from the sale of milk and meat products. His seed corn for the coming season has been safely placed in a spare room above the kitchen.

Mr. Donald is as satisfied with his tenants as they are with the landlord and though he gives much credit to the system, he has every regard for the individual coöperation which is essential to the success of the plan. It is not often that the change in tenants takes place, but when this happens horses and cows and all other belongings are divided into equal numbered groups and the choice is given to landlord or tenant as to which half interest he prefers.

Contracts with new tenants are made for a two-year period, at the end of which time either landlord or tenant is privileged to give notice in September for a discontinuance of relations to become effective the following March. When leases are made for only one year they are usually unsatisfactory, in the opinion of Mr. Donald. Both tenant and landlord have more opportunity of a fair chance for an understanding over a longer period. "Share and share alike is to me a more businesslike proposition," said Mr. Donald. "I am convinced it holds the interest of the tenant to a greater degree than any other system. It leaves a fair profit for both sides and insures continued productiveness."

CURRENT EVENTS

THE British troops, having broken through the German line in northern France, were continuing their progress, although slowly, at the beginning of the week. They are bombarding the town of Cambrai, which is an important railroad junction, and are trying to surround it so as to make its early capture inevitable. At the same time, the Germans are rushing reënforcements there and are making a determined resistance. The British troops gained a great amount of ground in the first few days and released that portion of the French population in the immediate vicinity which has been held prisoners by the Germans for the last three years. The progress since the first days of the big push has been slow, but the British have been able to hold the ground gained, for the most part. While this fighting is in progress, English and French troops have been rushed to the relief of the Italians, who are still able to hold the German and Austrian invaders on the Piave river, within twenty-five miles or so of Venice. It begins to look as though the allies would be able to check the Teutons in northern Italy, while at the same time making enough gains in northern France to give them the advantage in recent fighting. American engineers are said to be participating in the British push, helping to lay the railroads which are so necessary to bring up men and supplies.

A PLEA for peace came from an unexpected quarter last week. The Marquis of Lansdowne, one of England's most noted statesmen, came out in a public statement in which he urged that peace be brought about as soon as possible, not necessarily waiting for the complete defeat of Germany. Lord Lansdowne contends that an immense stimulus probably would be given to the peace party in Germany if it were understood: "First—That the annihilation of Germany as a great power was not desired. Second—That we do not seek to impose upon the German people a form of government [illegible] their choice. Third.—That, ex[illegible] ultimate war measure, we [illegible] to deny to Germany her [illegible] the great commercial [illegible] Fourth—That we are pre[illegible] the war, in concert with [illegible] to examine the interna[illegible] connected with the freedom of the seas. Fifth—That we are prepared to enter into an international pact under which ample opportunities would be afforded for the settlement of international disputes by peaceful means." The Marquis of Lansdowne is a typical representative of the old Tory party. He was a member of Asquith's coalition administration and was secretary for foreign affairs in Lord Salisbury's and Mr. Balfour's ministries. He was viceroy of India and governor general of Canada. He was the last public man in England to be suspected of pacifist tendencies.

OVERTURES have been made to Germany for peace by the Lenine faction, which controls the Russian government at present, having overthrown Premier Kerensky and his government. In fact, a delegation has been sent to Berlin from Petrograd and every effort is being made to end the war between Russia and Germany while the Lenine faction is in control in Russia. Official confirmation of the news from London that German staff officers are in Petrograd acting as military advisers of the Lenine faction probably will be followed promptly by action on the part of the United States and the allies definitely to place the Lenine regime in the list of Germany's allies. If the Germans are there, all doubt as to the purpose of the Lenine faction is removed, and the diplomats will be obliged to withdraw to a neutral capital. Such a development undoubtedly would be followed by immediate cancellation of all orders for supplies for Russia both in the United States and Japan. Several cargoes from the United States are now on the way to Vladivostok, but these can be diverted by wireless orders, and it has been understood that their delivery would be contingent upon evidence that they would not fall into unfriendly hands. With Germans openly advising Lenine and his followers, it is assumed that efforts will be made to carry Russia into the position of an active ally of the central powers. This might produce a most serious situation by making available to Germany the vast stores of food, oil and cotton of Russia and even though the Teutons found it impossible to convert the disorganized country into an active military ally, the million or more German, Austrian and Turkish prisoners held in Russia would be freed for service with the Teutonic armies.

SENATOR HARDING, of Ohio, believes that the government, as a war measure, should enact legislation providing a farm for every soldier returning from the great war who will consent to accept one. In the meantime he suggests the experiment of placing on farms provided by the government, dependents of soldiers and aiding them to cultivate the land. "Not every one, possibly not 25 per cent. of the 2,000,000 men who come out of the ranks at the end of the war," Senator Harding admits, "would want to go on a farm, but 25 per cent would be 500,000 farmers—500,000 farm homes for the future where there were none before. If but 10 per cent wanted to go on farms, there would be 200,000 farm homes established," He says. "This would be no mean asset to the nation. Every thoughtful man realizes that the proper distribution of the land is the basis of national well being. The land should, as far as possible, be in the possession of the men who work it. The magnificence of France, when the supreme test came, has been largely due to the sturdy folk on her farms. They have been the saviors of France in many emergencies."

PROFITS of the wholesale meat industry have been cut to 2½ per cent on each dollar of sales, with the five large packers of the country further restricted to a yearly profit of 9 per cent on the average capital used in the business and temporary returns of 15 per cent on by-products. Joseph P. Cotton, head of the meat division of the federal food administration, announced this policy. The restrictions cover the business from November 1, 1917. Packers are prohibited from adjusting the price of one variety of meat at the expense of others. Their business will be the subject of close scrutiny by the administration. They will not be permitted to conceal or divert the returns by use of other industries. Small packers will be protected from the larger ones. Packers of the nation are divided into groups. The Armour, Cudahy, Morris, Swift and Wilson companies are in one division and other packers are in the second class. The five larger packers are to be charged with the duty of supplying all meats for the allies and United States forces. All others will be required to supply meats for all other domestic consumption.

OPERATION of all railway lines east of Chicago as one centralized system was decided on by the railroad war board, to obtain a maximum of efficiency in traffic movement. Cars and trackage facilities will be pooled, regardless of ownership or the railroad's individual interest. This almost revolutionary move was announced after an all-day conference between members of the war board and government officials, at which many remedies were offered for the freight congestion that has paralyzed transportation in the East. It was adopted as the best and readiest means of meeting a situation that has threatened the production and dispatch abroad of war materials. The roads will be operated by a committee of vice presidents of the lines, under the general direction of the war board, itself comprising five of the country's railway heads. The committee of vice presidents will be given full authority to adopt any measures found necessary to accomplish a unified operation. The operating program calls for the following: Diversion of locomotives, employes and machine tools from western to eastern railroads. Utilization of repair shops on western lines for repairing eastern equipment. Pooling of all tracks and equipment in the east wherever practicable. Pro-rata distribution among eastern roads of open top cars on a basis of tonnage carrying capacity of the equipment in the pool. Diversion from congested lines of freight that can be handled by any open route.

ARRIVAL of American troops in France has kept pace with the expectations of the war department, Secretary Baker said in the first statement he has ever authorized in connection with the progress being made in increasing General Pershing's forces. Mr. Baker declined, however, to state the number of troops forwarded or to indicate whether he anticipated delay from this time. Movement of the forces, he said, depended on two elements, the training and equipment of the men and the availability of ships. "As fast as they are ready, ships and men will be combined," the secretary said. "As many American soldiers are now overseas as we expected in the beginning to have overseas at this time." Mr. Baker indicated that an official statement of the number of American troops in France was not to be expected at any time during the war.

Farm Machinery Must Be Conserved.

Department of Agriculture Gives Some Advice in Press Bulletin.

During the coming winter farmers should give careful attention to the work of repairing all machines which will be used next season. Also, orders for repair parts and new machines should be placed as soon as possible. This will acquaint manufacturers and and their agents with the demand in different sections and enable them to make the best possible distribution. At the same time, it will eliminate expensive delays in transportation at the busy season.

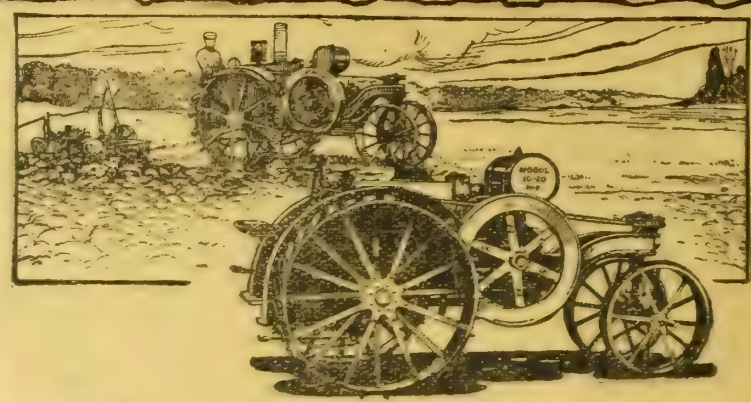
The use of the largest and most improved farm machinery, always desirable, is of special importance. Where large acreages are farmed the largest machinery is the most economical. Many of t[illegible] improveme[illegible] their purc[illegible] the stand[illegible] though the [illegible]

All worn-out machinery should be sold for junk at the first opportunity, the specialists advise, first removing all bolts or other parts which might be useful in repairing other equipment. It is usually false economy to attempt to use a worn-out machine, as the time wasted with breakage and other delays and the extra power required for its operation usually more than offset the saving effected by continuing it in use.

More damage can be done to a machine in half an hour through lack of oil or grease on some bearings than by a whole season's exposure to the weather, the specialists declare. For this sort of neglect there can be no excuse, it is said. Operating a machine without lubrication, especially when the bearings are slightly rusty, will quickly result in the wearing away of the metal, often to a considerable depth, in a very few minutes. Expensive breakages, as well as serious delays, also may be caused by operating machines on which nuts have worked loose or have come off entirely, allowing bolts to loosen or drop out.

All practicable steps should be taken to preserve machinery now on hand. Needless exposure to the weather should be avoided, and in cases where it is not practicable to house machinery when idle, all bearings should receive a thorough application of heavy oil or grease to keep out moisture anud prevent rust. It is believed that on many farms machinery could be more adequately sheltered in the buildings available by exercising care in placing them so as to economize space.

Recent regulations of the federal food administration prohibit the holding of cottonseed in larger quantities than twenty tons for a period longer than sixty days. The plan is to get the cottonseed oil and cake on the market as rapidly as possible and to prevent hoarding.



A Good Tractor to Own

A MOGUL 10-20 kerosene tractor will go a long way toward solving your labor and expense problems. Men who use this tractor properly say it does as much plowing, disking and harrowing in rush seasons as three men and nine horses. In the heat of the harvest fields, and for summer plowing, three four-horse teams can hardly keep up with it, because it works steadily all day long.

Besides, it is so simple that almost anyone can learn to handle it efficiently. A few days' training in the handling of a kerosene engine is usually all that is needed.

These two features make the Mogul 10-20 highly desirable. Add to them the fact that it operates on a fuel that you can always buy, and at a reasonable price, and you have a power plant that is hard to beat for all-the-year-round work in the field or at the belt.

You know the standing and reputation of Mogul tractors. When you buy a tractor, don't overlook this good, simple, reliable, economical three-plow Mogul 10-20. Booklets and folders give complete information. When you write for them, address

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IMPROVED DIAMOND FEED GRINDER

Model "C" Diamond Grinders are particularly recommended for average farm requirements. They have *all* the features you want in a feed mill.

New relief lever permits shaft to run free from buhrs, allowing temporary stop without throwing off belt or stopping engine. *Shaft Runs in Oil* and has end thrust ball bearing with oil well and chain oiler. *Pulley on end of shaft* allows belt being thrown off easily and quickly. *Three sets of buhrs*—fine, coarse, medium—made of irridium iron. Long wear, even grinding, perfect satisfaction guaranteed.

Write today for circular and details of free trial offer. Give name of your implement dealer.

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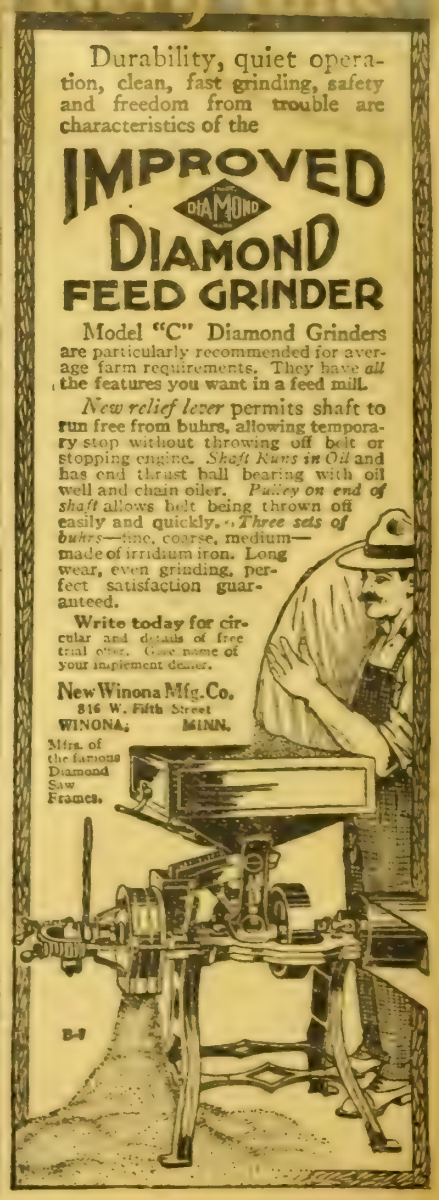

The Wisconsin Farmer

THURSDAY, DECEMBER 6, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

FARM MACHINERY GIVEN RIGHT OF WAY.

I AM glad to see that one branch of the government, at least, realizes the seriousness of the farm situation and proposes to do what it can to relieve it. I refer to the War Industries Board. This board has taken steps to give priority to the shipment of tractors and all agricultural implements, rating them second only to actual munitions of war.

The freight car situation is daily becoming more serious. I saw an item in the paper just a day or two ago in which the statement was made that the government had commandeered 1,500 freight cars in which to ship lumber from the Pacific Northwest to the shipbuilding yards in the East where wooden ships are being built. Cars are being seized almost daily for other governmental work connected with the war. The War Industries Board proposes that farm production shall not suffer more than can be helped, because of this necessity for shipping guns and munitions of war at top speed across the continent.

As I understand it, the War Industries Board does not give a special priority classification to any particular kind of freight, the uses to which it is to be put determining its rating in preferential handling by the railroads. Tractors to be equipped with guns, destined for France, have the highest rating of A-1. Tractors and other farm machinery to be used in crop production during the next year are rated B-1, the highest classification for freight not intended directly for military purposes. A friend sends me a newspaper clipping containing this additional information:

A special war emergency committee of the National Implement and Vehicle Association has been established by the War Industries Board at Chicago. C. S. Brantingham, president of the association, is chairman of the committee. All requests for priority for farming machinery are sent to that committee and its recommendations submitted to the War Industries Board.

In addition, the board is making every effort to insure steel for manufacturers of farming machinery. The board has been deluged with appeals for steel, and it was stated today that everything possible is being done to supply it.

This is as it should be, and I am glad to see the War Industries Board taking such a firm stand. We must have crop production next year, if our soldiers in the field are to win their fight. Without crop production here at home our armies abroad are at the mercy of the foe. The war hinges on our farms as much as on our training camps and our munition factories.

I congratulate the government on discovering, before it is too late, that nothing is more important than that every possible mechanical aid to farming should be placed, without undue delay, in the hands of every available farmer. It may be the beginning of a policy which shall give the farmer labor relief before it is too late.

A NEED FOR REAL CHARITY.

I FIND that in the midst of plenty and prosperity here in the grain belt there are likewise misery and want. Fields have yielded abundantly; yet there are those who, when prosperity was passed around, were not able to help themselves. There are doubtless divers causes: Sickness, bad luck, poor management, army service, and so on and on. But whatever the cause, the result is the same—need, now as winter comes on. It is the duty of those of us who have plenty, or enough, to divide with those who need, especially at this time when the military draft has taken away so many of the breadwinners from so many of our farms.

A fortnight or so ago I printed the letter of a good "mother in Israel" who asked me to give her the name and address of some woman who could make good use of children's outgrown clothing. That letter has brought me dozens of requests for that clothing, for any assistance which I can give or secure. I cannot refrain from quoting from a few of these letters and then telling you what I think you and I, working together, should do. Here is one of the letters which touched me most deeply:

Dear Mr. Pierce: My husband works out by the month. We have six children and he only gets $35 a month and his board, but has house rent to pay. We have no milk, just what we buy at the store. He does not use tobacco, neither does he drink. He is a good hand on the farm, but just because we have a family and people know he can't be idle, they won't pay any more than they can help. So if you could help me find someone that has any clothes that their children have outgrown, or shoes, I would ask God to bless and prosper you and yours for all time. We will help some other poor family when the children are grown to men and women.

I like that last sentence; it shows appreciation. I have already taken steps myself to relieve this particular case. Here is another letter:

Dear Mr. Pierce: I have four children, from two to twelve years old, and we are proving up on a homestead. All who have done that know what one has to go through. My children have to walk two and one-half miles to school and have not the necessary clothing to keep their little bodies warm.

I cannot stand it to think of children suffering. I hope this will be one of the first cases relieved. Here is a letter from an old couple:

Dear Mr. Pierce: Neither my husband nor I have good health. We have two sons absent now, one in the army, the other in the navy. We do not get any help from either one. We would be glad to get anything in the way of clothing or food.

Some day the government will take care of such parents and honor them as they deserve to be. In the meantime, it is up to us to relieve the situation. And here is a letter which brings the tears to my eyes every time I read it:

Dear Mr. Pierce: I see you are helping others and maybe you would help me. My papa died December 6, 1916. We lived on a rented farm. After papa died we had to leave the farm. We now live in town. Mama does some washings to help keep us. There are three of us children. I am the oldest one. I am eleven years old. Please tell that lady that I could wear some of her outgrown clothing if she has any more to give away. Please do not print my name in your paper; some might laugh at me.

I would like to see anyone laugh at that child in my presence. She shows a heroic spirit which I think is splendid. I hope some of my charitable readers will take up this case right away, without delay.

Now here is what I propose to do: I shall turn my office and office force into a sort of clearing association for the letters of the needy and of the generous. If those who have clothing to give away will write to me, I will send them the names of two or three families, in their state or part of the country, who have written to me asking for help. In this way I can bring those who have and those who need into communication. But I shall not stop with this. I want to do my share, so I make this offer: If everyone who sends a box or package to those whose names I furnish (send it by express or parcel post, freight is too slow and uncertain nowadays) will send me a receipt for the amount of carrier charges, I will send them my personal check to cover the bill. Always prepay the charges; some of those who need help cannot even afford to pay the charges. Then send me the receipted bill and I will refund the money to you at once.

The need is great, it demands immediate relief. Will you join with me in driving misery and hunger from as many homes as we can hear of, in bringing joy to many and many a wearied mother's and a perplexed child's heart? Remember the words of the poet:

The Holy Supper is kept, indeed,
In whatso we share with another's need;
Not what we give, but what we share,
For the gift without the giver is bare;
Who gives himself with his alms feeds three,
Himself, his hungering neighbor and Me.

SAVING THE FOODSTUFFS.

I FIND that the question of food conservation (of the substitution of equally palatable and nutritious articles for meat and wheat) is occupying the minds of many of my readers. This is a good thing. The world-wide war will not be won by men and guns alone; food and money are of almost equal importance. It would avail us nothing were we to send millions of highly-trained soldiers to Europe and then deny them the foodstuffs necessary to sustain and strengthen them; if we were to send shiploads of guns and then not raise the money with which to make and to pay for the ammunition for these guns.

Most of my readers who write to me on this subject get right down to brass tacks, as the saying goes. They do not indulge in glittering generalities. They do as Mr. McLean did a few weeks ago: Tell how to make whole-wheat bread by grinding the wheat at home, or give other equally practical advice. Here, for instance, is a good subscriber, Mr. H. C. Morgan, pleading for the saving of beef and pork and the utilization of the rabbits with which the grain belt now abounds. Let Mr. Morgan speak for himself:

Dear Mr. Pierce: We can well afford to divide our meat and bread with our brave soldier boys. I believe a change of diet would improve our health in many cases. Instead of ham and eggs, hot biscuits, pie, cake and coffee for breakfast; beef, bread, potatoes, pie, cake and coffee for dinner; meat, bread, ice cream, cake and coffee for supper, let us have rabbit and pork sausage, meal cakes, milk and butter for breakfast; chicken, wheat bread, potatoes, milk or tea for dinner; corn bread, potatoes, milk, butter and eggs for supper. In that way we could cut down our beef, pork, wheat bread, sugar and coffee 25 per cent—that much more of substantial food to put on the market for our boys. Our rabbits are becoming so numerous in this country that they have become a nuisance. One jack rabbit ground up with an equal amount of fat pork makes first-class sausage. Now let as many as will join in a five-month rabbit drive. Some can be used for the table and some for market.

I am sure the boys will agree heartily with Mr. Morgan. Nothing would suit them better than a five-month rabbit drive. Is not the suggestion a good one?

Here is another good idea, from a woman subscriber this time. Now that farmers' neighborhood clubs are flourishing in such large numbers in the grain belt, and whole communities come together so frequently for social intercourse, the question of refreshments at such rural gatherings is far more important than it was a few years ago, when such meetings were rare. Once more, let my correspondent speak for herself:

Dear Mr. Pierce: Now that we are doing everything possible to save food for the soldiers, would it not be a good idea to cut out all refreshments at our clubs and societies during the period of the war? Now, I know this will not suit some, but if they are patriotic they will make this sacrifice. Surely, if our dear boys can sacrifice their lives, we, as a nation, can sacrifice some of our pleasures. We could still have our social gatherings, but omit refreshments. Most all gatherings serve sandwiches with meat filling, butter, coffee, sugar and cakes, the most necessary things for shipping. Now, most laboring people do but little entertaining after their day's labor. They are too tired to go away. Is it right to ask them to sacrifice on their three meals that they need so badly to keep up their working abilities until this other is done away with?

There is certainly merit in the suggestion. We can have just as enjoyable literary programs, just as inspiring patriotic meetings, just as splendid get-together conferences of all kinds, without any unnecessary waste of food. The spirit of sacrifice and self-denial is abroad in the land; shall we not use every opportunity to advance it, to make it bear tangible results which shall make possible the early winning of the war?

But, says another correspondent of mine, a modest little lady in Lacon, Ill., who wishes her name withheld: "The problem of saving is not one for the women folks alone. Are the men doing their share?" Here is her pertinent query:

Dear Mr. Pierce: My father has taken your valuable paper for many years. It is a very welcome visitor. We all look forward to its coming and pass it along to do more good after we have all read it. One of the most important questions you are discussing nowadays is that of "food conservation" and "economy in the kitchen." Who is more careful than the average farm wife? What is left over from one meal we utilize in some way for the next. We are willing to have our meatless days and our wheatless days. As yet have heard nothing about the tobaccoless days, cigarless days. Now, if you men are really patriotic, cut it out two days a week. Don't expect the wife to do all the economizing in the kitchen. And how about your wheat bins and corncribs? How many rats are you feeding? Are you trying to rid your premises of rats? Now, remember to do without that after-dinner smoke. It's just habit. Count up your tobacco bill for one month. You didn't think it, did you? If your wife had asked you for that amount you would have declared you couldn't spare it. I believe in economy, but don't let it be a one-sided affair. Pull even. Have two tobaccoless days each week before Christmas and you will have more money to buy presents with. Don't kick or swear about it. Look pleasant and take your medicine and help eliminate all kinds of waste. It's our duty.

I read the other day of a man who made a habit of giving as much to the "Smokes for Soldiers" fund as he spent on his own tobacco; every time he bought a nickel cigar he dropped a nickel in the barrel where collections are taken up for soldiers' tobacco. Of course, this only works where a man can afford it. Those who cannot afford this double expenditure would do well to consider my correspondent's inquiry. We cannot say to our women folks, "Save, save, save," over and over again, day after day, and not do some of the saving ourselves. Let us be consistent as well as patriotic.

The duty is upon us all to work hard, in order

(Concluded on page 6.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Wisconsin Holstein Meeting.

It is just a little over a month until the annual meeting of the Wisconsin Holstein-Friesian Breeders' Association will be held at Burlington, Racine county. This is always an important state meeting, but it is doubly so this year by reason of the fact that one of the many objects of the session is to perfect the preliminary arrangements for the entertainment of the national convention to be held in Milwaukee next June.

The dates set for the Burlington meeting are January 8th and 9th and plans have been made for morning and afternoon sessions on both days. On the evening of January 8th the visitors will be given a banquet at the Chamber of Commerce. Another part of the program of special interest will be the inspection of the Wisconsin Condensed Milk Company's plant, where lunch will be served.

The meetings at Burlington are open to all who are interested in the Holstein-Friesian breed of cattle and the advancement of the dairy business in Wisconsin. Undoubtedly this will be one of the most mportant dairy meetings ever held in the state, and, being situated in the heart of the milk-producing district, the attendance will, of course, be large. Burlington may be reached by the Soo Line or the Racine-Freeport division of the Chicago, Milwaukee and St. Paul Railway.

The Wrong Time to Quit.

Some discouraging conditions have been met this year in farming operations and it is not an unusual thing to meet an individual who proposes to sell out his live stock and implements, rent the farm and make a bolt headlong for town or city. In some cases the military draft has worked hardships and instances can be found where a farm owner or even a renter has been left with 100 to 125 acres of corn to be put in the crib by himself alone. The sappiness of the corn and a warm November combined have greatly delayed husking so that in such cases there is really a big undertaking ahead during December and possibly for the balance of the winter.

We can well enter into the feelings of the man who is so discouraged that he proposes to turn his back on the whole thing, but a word of caution may not be out of place. There never has been a time in this country when it was so necessary for every man to be in his right place and from the standpoint of production it is of the utmost importance that even those who consider themselves getting along in years should stand by their post and do their full part.

In any event, retirement from the farm seldom brings that joyous relief that is so fondly anticipated. Some time ago we called attention to a case where a corn-belt farmer sold out his live stock and implements, rented his farm and moved to a near-by town, planning with great enthusiasm to spend the rest of his life happily and serenely. The farm, in this case, was rented for a two-year period and this man found his living expenses greatly in excess of what he anticipated. The rent from his land did little more than to cover the cost of his dwelling house and he even had to skimp along to buy gasoline for his automobile. The house he rented was not in good shape and when repairs were asked for there was no response. If they were to be made he must make them himself. One trouble followed another and all in all his life was filled with fretfulness and annoyance. No one in town cared especially for his society because he found that the time of business men was fully occupied and he did not fit in with the ordinary town-bred loafer.

The end of it all was simply that in two years this man was back on his own farm, having had enough experience in the enjoyment of the loafer's life to last him for all time. Work never seemed so good to him and he learned at a considerable money cost that true happiness comes when one is engaged in daily tasks for which he has been fitted by past experience.

This particular case could be matched by hundreds and thousands of others and, while we do not take it upon ourselves to say that no man should retire to the towns and to the cities with advancing years, we do unhesitatingly aver that in these times no man who has any physical fitness left in him for farm work should leave the farm. He can "do his bit" there better than elsewhere and the labor he performs himself will not only count, but he is the man to direct the effort of others. There will be some greenhorns in farm work to deal with until the end of the war and the landowner is the one to remain in charge. With nearly all farm implements of the riding type, there is not the same degree of irksomeness about labor that formerly existed and a man can be considerably advanced in years and yet at the same time retain the ability to do an important part in putting in and taking off a crop.

> AGRICULTURE LEADS THEM ALL
>
> AT THE HEAD OF ALL SCIENCES AND ARTS, AT HEAD OF ALL CIVILIZATION AND PROGRESS, STAN NOT MILITARISM, THE SCIENCE THAT KILLS, NOR COM- MERCE, THE SCIENCE THAT ACCUMULATES WEALTH, BUT AGRICULTURE, THE MOTHER OF ALL INDUSTRY AND THE MAINTAINER OF HUMAN LIFE.—JAMES A. GARFIELD.

Fertilizers in Rock County

R. John Clark, of Janesville, and J. F. Kemmerer, of Clinton Junction, Wisconsin, are two men who have used fertilizers on their farms during the last year and who have become convinced that there is a distinct benefit in yield and therefore farm profits in doing so. J. F. Kemmerer bought a complete fertilizer, which means one which contained phosphorus, potassium and nitrogen and applied it on forty acres of corn land. His crop of corn was exceedingly good and, though he was located in a section where all the corn was frozen by either the first or the second frost, his field escaped with very little damage. This was possible only because the added nourishment enabled the corn to obtain such a start that by the time the frost appeared it was out of danger. As a result he has today from these forty acres 500 bushels of seed corn in excellent condition, which, if the signs do not fail, will be worth next spring at least $6 to $8 per bushel. The total cost for this fertilizer did not exceed $100. His crop of corn was saved and he was enabled to have a big yield of seed corn available to be sold at a good price besides. He is hardly in doubt about the advantage of using fertilizers for his field.

Mr. Clark had his soils tested by the college of agriculture in 1915. The first thing he learned was that part of his soil was acid. The next piece of information he received was that a limestone pit in his fields contained limestone testing 98 per cent pure and that there was enough of it to lime all the farms in the township. The analysis showed him exactly where lime was needed, where manure was necessary and where phosphorus was required. He followed the advice of the analyst and his corn showed the results plainly. Wherever the application of fertilizer had been made the corn grew rapidly and considerably faster than all other corn unfertilized. This continued throughout the season during rainy weather as well as during the hot weeks. However, the frost which came September 6th proved too much for all the corn and also severely injured Mr. Clark's field. Nevertheless, he has profited to the extent of several dollars over the expense of purchasing and applying the fertilizer by the increased growth of the stalks and the greater tonnage of silage obtained. On one field of corn a complete fertilizer was applied and another received only the acid phosphate of 14 per cent strength. On each field checks were made by skipping large strips of forty rows or more in order to bring out the difference between the fertilized and unfertilized sections.

All summer long these fields were the wonder of the neighbors. The green heavier growing corn could be seen from the roadway.

Many were the visitors who wanted to know why there was such a difference of a part of the corn. The result of this work on the part of Mr. Clark will be noticeable next season when many Rock county farmers having applied fertilizers to their farms will produce more per acre and do so at less expense of the present fertility content of their soils.

The highest cost per acre for the fertilizer was $1.40; the lowest 90 cents. The difference in cost was not warranted in the case of this particular field, as the lower-priced fertilizer did fully as well as the other.

The soil analysis furthermore showed that all soils tested were markedly acid. In the report these things were brought out and the proper course to be followed was included with the discussion of each sample. A specimen of the discussion which goes with each sample is given here just as Mr. Clark received it:

> The soil represented by this sample is soil that has been cropped a long time without having very much fertility returned. This soil in its virgin condition contained a very high amount of nitrogen and phosphorus. Now that the soil has developed a high degree of acidity, the active humus has been reduced so that this soil has become rather inactive—inactive to such an extent that the organisms in the soil cannot work to best advantage and the other chemical reactions in the soil do not go on sufficiently to enable the soil to give up to the crop the fertility element required.
>
> The first step in improvement is liming. The second is the growing of clover and plowing under the clover sod and second growth of clover as frequently as possible. A three-year rotation such as corn followed by grain, followed by clover, practiced on this field for a few rotations (and liming should be practiced before this is begun) is to be recommended to get this land back into good producing condition. The addition of raw rock phosphate to the manure which is applied to this land is to be recommended. This application should be made at the rate of 1,000 pounds of rock phosphate per acre. One application now and another one in about five or six years will go a long way in correcting the conditions prevailing with reference to available phosphorus supply.

Of course, all recommendations made by the soil analyst cannot be followed, but in the main the ideas can be adopted to good advantage wherever possible. Mr. Clark is doing this and will continue to do so and profit by it.

Why Bigger Crops are Needed.

It is possible to get some idea of the declining production in the war-stricken countries of Europe by the official figures from France on wheat production. In 1913 France produced 146,383,330 bushels of wheat. In 1914, the first year of the war, this was decreased to 128,000,000 bushels; in 1915 it was still further decreased to 101,000,000 bushels. The crop of 1916 was only 97,000,000 bushels and the 1917 crop, just recently harvested, amounted to only 66,000,000 bushels. From these figures we get some conception of the responsibility resting upon us to produce more food for the soldiers as well as for the noncombatants in France. In 1913 France produced foodstuffs, including cereals, potatoes and beets, amounting to a total of 35,800,000,000 pounds and in 1917 this had decreased to 22,200,000,000 pounds. The state of Wisconsin has come nobly to the rescue in doing her share to add to the production of the world's food, but we must do more next year. Of course, the food supply of the world does not depend upon the crop in Wisconsin, but by reason of peculiar conditions here we are able to help out a great deal.

Hog Cholera Control.

In a press bulletin published by the national department of agriculture attention is called to what has been accomplished when organized effort was put forth to control hog cholera. In the bulletin referred to the matter is summed up as follows:

> Although hog cholera cannot be completely eradicated from the United States under present conditions, losses [illegible]

Department of Agriculture in experimental work in hog cholera control carried on in a number of counties during the past four years. The work and its results are described in Department Bulletin 584, "The Control of Hog Cholera," recently published by the department.

One of the important results, according to the bulletin, is the fact that the work while effective in reducing the disease, was not repressive while in progress on the hog-raising industry. On the contrary the industry thrived in the experimental counties to a greater degree than in adjacent counties in which no control work was under way.

Actual statistics were taken in the experimental counties and careful estimates were made in the adjacent counties. These show that in one group of three counties where the control work has been under way four years the percentage of loss from hog cholera has remained constantly from one-fourth to two-fifths the percentage of loss in the fifteen surrounding counties. In another group of experimental counties the average percentage of loss as compared with that in eighteen surrounding counties was reduced from approximately nine-tenths in 1913 to less than one-third in 1914 and to about one-sixteenth in 1915.

Specialists who have supervised the control work of the department reach the conclusion that while the eradica- of hog cholera cannot be expected for a considerable time, the material reduction by the use of serum of the enormous losses which annually are caused by the disease is entirely practicable. The essentials for success in combating the disease, they point out, are interest on the part of hog raisers and knowledge of the disease; organization which will facilitate exchange of information as to outbreaks, and secure assistance; serum at reasonable prices and easy of access; and the available service in the community of persons skilled in administering serum.

Where there is no organization that has for its purpose the work of stamping out cholera in a given community, each individual swine breeder should in his own self-interest guard against the spread of the disease when it once makes its appearance in his herd. The department of agriculture is not advocating the plan of administering serum to all healthy hogs regardless of whether cholera is in the community or not, but it does advocate most strenuously the plan of quarantining the first sick animal that shows up in the herd, having this examined for the

presence of cholera, and the treatment of all the well animals in the herd if this disease proves to be present.

War-Time Feeding of the Dairy Cow.

The Wisconsin Experiment Station Dairy Extension Service has been giving some study to a war-time concentrate mixture for dairy cows. This is in the campaign for the purpose of getting better production. Local prices are, of course, taken into consideration in adopting the mixtures suggested.

Under present conditions many farmers may be tempted to feed some such home-grown grain mixture as a mixture of ground oats and ground corn, or corn and cob meal, or barley meal. Fed with silage and even good clover or alfalfa hay, such grain mixtures will not furnish enough protein and will, therefore, produce considably less milk than a better balanced ration. Rather than using such a grain mixture, it will pay to sell some of the home-grown grain and buy protein-rich feeds to balance the ration.

A thousand-pound cow should have one pound of concentrate, grain and meal for every three or four pounds of milk produced, according to this advice from the dairy extension department. Cows producing milk of high percentage of butter fat should receive a much greater proportion of concentrates. In addition to this feed one of the following is needed:

Thirty pounds corn silage and ten pounds hay.

Thirty pounds roots and fifteen pounds hay.

Eight pounds dried beet pulp (soaked for twenty-four hours) and ten pounds hay.

Twenty pounds clover or alfalfa hay.

Twenty pounds timothy, prairie or marsh hay with one or two pounds oil meal.

The following war-time concentrate mixtures for dairy cows to stimulate production are suggested by our dairy extension department.

(1)	Pounds
Corn and cob meal	100
Ground oats	200
Wheat bran	100
Oil meal	100
Gluten feed or dried brewer's grains	100
	600
Percent digestible protein	14.0
Per cent total digestible nutrients	77.5

(2)	Pounds
Ground oats	100
Wheat bran	100
Gluten feed	100
Dried brewer's grains	100
Oil meal	50
	450
Per cent digestible protein	18.0
Per cent total digestible nutrients	75.5

(3)	Pounds
Ground oats	100
Corn meal or barley	100
Wheat bran	100
Cottonseed meal	25
Oil meal	25
	350
Per cent digestible protein	13.1
Per cent total digestible nutrients	72.0

(4)	Pounds
Ground oats	200
Wheat bran	100
Oil meal	50
	350
Per cent digestible protein	13.4
Per cent total digestible nutrients	72.0

If any of our readers have experience with feeding any of these concentrates we will be glad to hear from them on the subject. Experience is the great teacher in these matters and conditions vary so that a hard and fast rule can't be set down.

Anoka Farms Short-horn Sale Sets New Values.

In the sale department of this issue will be found a complete report of the sales at the sixteenth annual offering by Anoka Farms, Waukesha county, December 1st. At this sale one animal brought $17,000, being the record price paid at any time in this country for a Short-horn bull calf. A total of forty-five head of calves and yearlings brought $69,000, or an average of $1,553 each. Eliminating the $17,000 top-price bull calf, the balance of forty-four head averaged $1,203.

Our first thought is to congratulate Mr. Frank W. Harding, of Anoka Farms, on the outcome of this record-breaking sale. But, as a matter of fact, that is taking entirely too narrow a view of the situation. Congratulations belong more to all those conscientious breeders of Short-horn cattle in the country, who must see new values for their breeding stock as a result of the record prices paid at the Anoka Farms' sale. Mr. Harding's sale is national and international in its influence. It is just as important to the beef world as was the record-breaking sale of a Holstein calf in Massachusetts last year to the dairy world. The great success of the Anoka Farms' sale may be attributed largely to the character of the breeding stock which Mr. Harding was able to offer. But in addition to this it reflects the attitude of Short-horn breeders throughout the country. It, in effect, sets new values on all good Short-horn breeding stock, no matter by whom such stock may be owned. It is because of this fact that the sale becomes of more than local importance and The Wisconsin Farmer is happy to record it.

Making Concrete in Cold Weather.

The great value of concrete is keenly appreciated by the man who handles live stock. Its use for feeding floors, for stable floors, mangers, sidewalks, etc., is well known and there are many farms where there would be considerably more concrete structures if men had the time to build them. During the spring, summer and fall months there is such a rush of other matters that building operations of this kind sometimes are neglected, while, on the other hand, building concrete in cold weather has not been the customary thing on the farm.

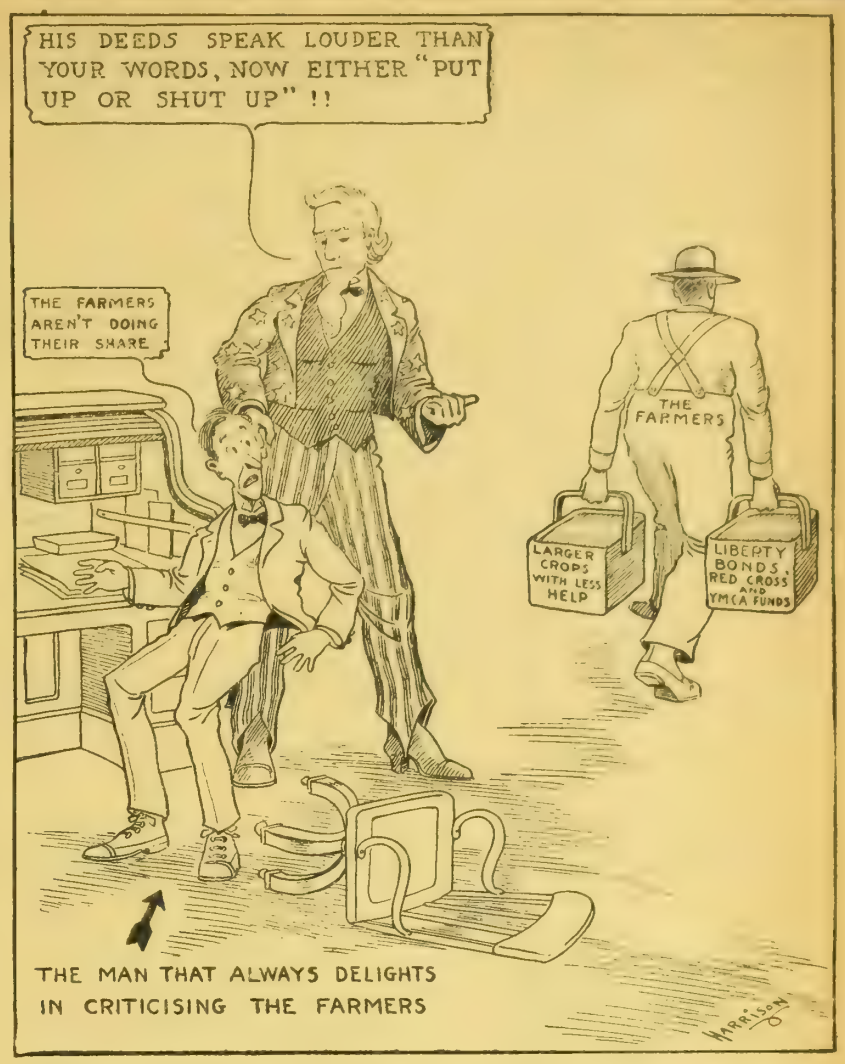
In his book entitled "Farm Concrete," K. J. T. Ekblaw calls attention to the fact that under certain conditions concrete construction work may be carried on during periods of freezing weather if proper precautions are taken. The thing to be kept in mind is that the concrete should not be frozen for a period of forty-eight hours after the materials are put in place, and after that time no harm can come from a freezing temperature.

Mr. Ekblaw calls attention to two plans of handling the concrete so as to prevent freezing. The first one is to lower the freezing point by adding ordinary salt. This plan can be followed when the weather is not very cold, but simply a few degrees below freezing. Ten pounds of salt to 100 pounds of water would prevent freezing at any temperature above 22 degrees F. Of course, it goes without saying that even though salt is used it is advisable to cover up the concrete for two or three days and for this purpose after it has hardened slightly nothing is better than barnyard manure. Many contractors do a great deal of winter building of concrete and adopt the plan of using salt and, in addition, some effective covering.

Then, of course, there is the plan of heating the materials as well as the water. By piling the sand and the cement around a half-cylinder of sheet steel and building a fire in same, the proper temperature can be easily reached. It is important, however, not to get too high a temperature, and Mr. Ekblaw suggests that the temperature should not exceed 150 degrees Fahrenheit. Even water should not be brought to the boiling point and 150 degrees Fahrenheit is high enough also for the water.

Attention is called to the fact that a certain amount of heat is developed during the setting and hardening processes and, therefore, when the materials, including water, are brought to the temperature referred to and the concrete is afterwards covered, there is every reason to believe that it will not freeze for a period of forty-eight hours and after that, as said before, it will be in good condition to set properly. Under ordinary conditions the concrete that is made and put in place without any heating whatever will increase from 70 to 100 or 110 degrees within thirty to forty hours if conditions are at all favorable. This fact should be kept in mind by those who have hesitated about building concrete in the winter, because the resulting product, although wet, will not freeze as easily as plain water.

There is no reason why sidewalks or floors cannot be covered with manure deep enough to absolutely exclude frost until the materials are set and unless the temperature is exceedingly low possibly the plan of using as much as 10 per cent of salt in the water will answer all practical purposes.



THE KICK-BACK WAS WORSE THAN THE KICK-OUT.

May Be Shortage of Farm Implements.

Those who are in a position to order now farm implements that will be needed next year should not delay the placing of their order, according to the advice given by the farm engineering department of the Kansas Agricultural College. The head of this department quotes a government official to the effect that no steel will be allowed to implement manufacturers except that which is reasonably sure of finding its way into some farmer's hands in the form of farm machines. This simply means that unless a manufacturer can demonstrate that he has an actual order for a farm machine he is not going to get the steel with which to make it. On this assumption manufacturers are urgently requesting that orders be placed immediately so a sufficient supply of steel is made available to meet the needs of the situation.

Every man knows whether he will need a new disk, a cultivator, a corn planter, a grain binder or any other implement. He knows it just as well now as he will four months later, and an order placed at the present time may be the means of making that much more steel available for the implement trade.

There is another matter to which attention is especially called and that is the putting into the best possible condition old machines that can be made workable with a few repairs and a little tightening up. It seems that railroad companies as never before have had to go to the junk heap and hunt out old operating equipment and put this in shape for use. If the railroads can carry out this program, then the same policy may be pursued with advantage by those who are apt to discard farm implements. December is going to be a busy month on the average corn-belt farm for the simple reason that considerable corn remains to be cribbed, but there will be times during the periods of bad weather even this month when attention may be turned to the implements, and there will be odd moments through the entire winter when it will pay well to tear down and build up again those implements that are not apt to stand the strain of next year's work.

The average farm implement lasts only a fraction of the time that it should last, because it is not given anything like expert care. We have frequently called attention to the case of a North Dakota wheat farmer who operated grain binders for a period of fourteen years, each binder cutting anywhere from 150 to 250 acres a year. In this particular case worn parts were renewed from time to time so that the binders did not shake to pieces, and as a result these binders will cut anywhere from five to ten times as much grain as the average binder on the corn-belt farms. Just as men with old automobiles are prizing them more today than ever before because there may not be enough new machines to go around next year, so should it be the case with farm implements, and every man should see to it without delay that his outfit will be in condition to carry him through the crop season next year without there being any lack of implements to do any part of the work.

Co-operative Spirit Growing

That coöperative movements in Wisconsin are making headway is shown by B. H. Hibbard in a bulletin "Co-operation in Wisconsin" just issued by the agricultural experiment station, Madison.

Wisconsin is a leader in agricultural "sticking together." Forty per cent of her dairy products are made in factories owned by the farmers. Live stock shipping associations have saved farmers from 50 to 85 cents a hundred pounds, a fact which accounts for the steady growth of these organizations all through the state. With a volume of business second largest in the state, the coöperative feed, elevator and produce companies have a prosperous trade.

To succeed in coöperation, the bulletin suggests that the farmers themselves should be the promoters. The stranger is too often working only for his fee.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Family Circle Talks by the Publisher

(Continued from page 3.)

that production may be increased; and to save, in order that all (fighters and stay-at-homes alike) may be fed. None of us must shirk this plain duty.

A WINTER OF CHEER.

I DO not know how many of my youthful readers can tell, off-hand, who said, "Now is the winter of our discontent." It is immaterial who said it originally, so long as it is not true now. I sincerely hope it will be untrue in every grain-belt farm home into which my words reach.

Why should such a thought enter the minds of any of us of the farm, as we sit by our own fireside, with our loved ones by us, a good book within easy reach, a plate of Jonathan or Grimes Golden apples on the table, perhaps a skilletful of corn popping on the kitchen fire. The fireplace is no longer a sign and symbol of the country home. We have discarded it for the less picturesque but rather more certain register and radiator—cold iron until the heat from the furnace below warms it into being. But because the open hearth has passed shall there go with it the customs which made for merriment, which drove away the discontent from the winter, which made the poet sing of country life in preference to all other?

The husking bee has been revived in many parts of rural America. The red ear still demands its osculatory forfeit, to such an extent that some young Lotharios of the furrow and feed lot have been accused of intentionally painting many an ear of Reid's Yellow Dent a burning crimson before the girls arrive. This may be a base libel; the kisses paid in forfeit are genuine enough.

Let's have a winter of old-style cheer; certainly discontent cannot hold forth against a revival of the customs of our fathers. There's a set of sleigh-bells in many an attic and barn; there's an old-time song book by many a discarded organ; there's a genius in every farmers' neighborhood club who can get up a program of riddles and charades, of anagrams and conundrums; with songs of the days of "Juanita" and so on and on. The "winter of our discontent;" pshaw, spring will be here before we know it—or want it.

Come on now; it's been a long time since I heard a bashful youngster recite "The Smack in School" or "Juanita, be my own fair bride" dragged over a shoal of flats. The winter is here, the snow may be piled high; what of that? It is a time to be merry and here's the best place in all the world—the farm home—ready for it.

THE BOY THAT IS GONE.

I WANT to thank Mrs. George Smart, of North Prairie, Wis., for writing me a letter which gives me an opportunity to present, right in line with her letter, a little poem which I consider one of the best I have run across in my newspaper reading for some time. Mrs. Smart raises the question that we must not confine our sympathy wholly to the mother of the boys who are taken from our farms to become soldiers of Uncle Sam, that the father needs our loving pity just as much. She writes me as follows:

Dear Mr. Pierce: Much sympathy is expressed in these war times for the mothers who have boys in training camps or in France, and it is right that it is so. But what about the fathers? Do they not feel as keenly as we do? I think they do, though, being the stronger, perhaps they can control their feelings better. Our oldest son went to a western camp in September and I assure you his father felt the parting as keenly as I did. And I know that when he is working in the field or about the chores his thoughts are with our boy. Everywhere about us are reminders of our boy—pictures of him, his letters to us from camp, pictures of parts of the camp and many other things. But the hardest of all was when his clothes that he wore when he left us came back from camp. Father tried to comfort me, but I noticed his tears flowed as freely as mine.

Because a man is made of a little sterner, perhaps coarser, stuff than a woman is no reason for believing that his heart is not touched just as much when the boy goes away to the colors; that his tears do not flow just as freely (usually when there is no one looking), or that his heart does not ache as much. I could write my opinions on this subject for an hour, but the little poem I have in mind gives you the whole thing. It carries me back to 1898, when I sent my own boy away to the Spanish war, and watched and hoped and prayed for his return. I am sure it will strike a responsive chord in the hearts of many of my readers, just as it does in mine. I clip it from a newspaper; it is well worth preserving in all our scrap books:

Our last sight uv Bill wuz jest his back,
Far off in th' distance, beneath his pack.
Couldn't go t' th' train, his mother an' me,
A-makin' it harder fer Bill, y' see.
So we stood on the sidewalk, an' watched 'em go—
Shoulder t' shoulder an' row on row.
Bill couldn't speak, but his head wuz high,
Ez he gave us a look an' waved "Good by."
An' I couldn't help feelin', ez fathers will,
"Ef it only wuz me—instead uv Bill!"

We didn't say much, at supper, that night,
An' mother seemed older—more feeble an' white,
But she stuck it out, somehow, ez brave ez could be;
Never thought uv herself, but allus uv me.
Then we seen in th' papers where Bill'd reached France,
An' off t' th' front, at th' very first chance.
It told how th' Frenchmen thanked God, on their knees,
When the Star Spangled Banner flew out on th' breeze.
Still I couldn't help feelin', ez fathers will,
"Ef it only wuz me—instead uv Bill!"

An' so it ran on, with a word now an' then,
That told us uv Bill an' th' rest uv th' men.
An' mother seemed older—more feeble an' white,
As we'd read in th' Bible a chapter at night.
Th' thing 'at hurt most, though, wuz Bill's empty chair,
Drawn up t' th' table ez if he wuz there.
We know he'll be back, when th' world is set free,
An' we'll all be together—Bill, mother an' me.
But I allus keep praying, ez fathers will,
"Fergit 'bout us, God—an' look after Bill."

Many and many a boy from the farm will never come back to his waiting parents; the chair still drawn up to the table will never again be filled. But in the hearts of every one of us there is a great hope, a great longing, a great faith. It is summed up in the words of the poet, the heart-aching prayer of the father, just such a father as you and me:

"Fergit 'bout us, God—an' look after Bill."

James M. Pierce

BADGER FARMER'S MAIL BAG

FARM EXPERIENCES

Pedigreed Rye the Best.

To the Editor:—Winter rye is a popular crop in our neighborhood here in Adams county and is grown on the sandy soils. The samples of winter rye, which won prizes at the last grain show of the Wisconsin Experiment Station at Madison, were taken from fields sown in September, on plowed ground sown at the rate of one-half bushel to the acre with a disk drill and top dressed with manure in the winter and this field yielded twenty-two bushels to the acre. While, of course, this is no great yield, it is above the average yield of common rye, which is twelve to fifteen bushels per acre, and shows that the pedigreed winter rye seed pays. With the increased yield and price it can easily be seen what it means to the grower and there should be more of this pedigreed seed sown so that we might improve seed grains just as we are endeavoring to improve the breeds of live stock. I wish to say in this connection that too much praise can't be given to Prof. R. A. Moore for his work with improved seed grains and also it would be to much advantage for every farmer in this state who can possibly do so to attend the grain show each year at Madison.

Adams Co., Wis. E. D. Cook.

Saving Corn From Frost.

To the Editor:—I have been thinking for some time about writing a letter for The Wisconsin Farmer Mail Bag, as I believe I know a few things about growing corn and I like very much the idea of us farmers talking these matters over in the paper. First of all, I will not plant so much white corn or Wisconsin No. 7 because it is much heavier corn than the Yellow or Golden Glow, known as Wisconsin No. 12. On this account it gets ripe about two or three weeks later than the Yellow. I only plant enough so that I can get it for seed or enough to take to the show. In the second place, every farmer should plant a half acre or a whole acre as soon as he can or as soon as the weather permits so this can grow right away providing the season is favorable. He should not wait until all the corn can be planted, as some farmers do who think they must prepare all the land before they can start to plant corn. Then by the time they are ready to plant it will be two or sometimes three weeks later. Now you take the kind of weather we had last summer every possible growing day is needed for the corn to mature. Nearly every farmer has got a piece of land handy, say a half or a whole acre, aside from his big piece of land which he expects to put in corn and it really doesn't take much trouble to plant this before the rest is planted. I feel that it is very wise for the farmer to plant a little patch like this on the south side where the sun can strike it, especially if it is in a coulee. If this small patch does not get ripe, I suggest following out the plan of picking out early in September when it looks like frost, stalks with good ears and bend them over until they touch the ground. I did this on the 10th of September this season and the ground was soft and wet and the stalks gave way easily. After I had them laid down I covered them with grass and straw and they did not frost a bit. The next day it was warm and I had dodged the frost all right and it kept warm for almost four weeks. I took off the grass and set the stalks straight up again with a pole and this corn got dead ripe. I have some seed now from this corn. I consider that some of these are the finest prize ears I have ever seen. Any farmer who has sandy soil or soft soil can do this so that they can be sure to have seed for themselves. I recommend planting more Golden Glow corn than No. 7. Three years ago when we had good weather for corn I had some great ears. One of them won for me the sweepstakes for corn at all the corn shows and I loaned it to one of the large seed houses to make a picture for their catalog. If we could get weather like we had then, we could always grow fine corn in Wisconsin. The seed house which took the picture of my sweepst[illegible] erable [illegible] sell an[illegible] no trou[illegible] corn if [illegible]

Vernon Co., Wis. John Bendel, Jr.

Believes in Shallow Planting.

To the Editor:—I don't know that I have noticed anything about raising corn the past two or three years that would be new to others, but I have noticed a few things that I expect to follow up in the future. One thing is that I have been planting my corn too deep; I find by planting it just as shallow as I can so as to have it covered, even leaving some in uneven places uncovered and covering them afterward with the hoe, then it is near the surface where it will warm quickly and start to grow while those deeper down in the cold soil haven't even sprouted. Another thing is that I have been planting the corn too thick. I find by having the seed ear-tested I can use the small plate in the planter and by having fewer in a hill the corn matures quicker and have larger and better-filled ears and you have to hunt a good while to find a missed hill. So altogether you have better corn and just as much of it by using the small plate. One other thing I might mention is planting some at least of a very early variety, such as Wisconsin No. 8, and you will almost surely have some to put in the crib. A. N. Kelly.

Iowa Co., Wisconsin.

[P. S.—In answer to Mr. Oelk's inquiry, I plant my winter wheat in the corn stubble after the corn has been taken off for the silo. I either cultivate it in with the seeder and then harrow it or follow the seeder with the disk and then harrow. The past season I raised about forty bushels per acre on three acres, put in on the above plan, and then considerable of the ground was missed by winterkilling.—A. N. K.]

Barley in Richland County.

To the Editor:—Now I have had some experience growing barley, two-rowed variety, also hulless and Pedigree No. 5. I find the Pedigree No. 5 is the most profitable kind to grow. Barley in this part of the state should be sowed on ground that has a slope. Plow your ground in the fall and in the spring give a good disking, harrow and plank before seeding. Be sure you clean your grain with a good fanning mill. Also treat for smut. [illegible] with a drill then plank with harrow. It won't hurt the barley even when sprouted. Barley should be cut a trifle on the green order, as when ripe it gets yellow very easy. Also make long shocks and stand them north and south so as to get sunshine on both sides. This will dry them out quickly. Stack as soon as possible so as to get a good color. This is the way barley is grown at the Wood Lawn Farm, which yielded fifty-two bushels per acre. H. T. Draheim.

Richland Co., Wisconsin.

Eight Boulders for 50 Cents.

To the Editor:—It doesn't cost a great deal of money to blast boulders with dynamite if a man is willing to load his charges. I think the following figures will prove this:

Recently I broke up eight large boulders for Mr. Thomas McFarlin, a neighboring farmer, with three-fourths of a pound of 40 per cent dynamite, eight blasting caps and four feet of fuse. The total cost of the explosives was but 50 cents.

I believe that if more farmers knew how cheaply boulders could be disposed of there would be fewer of them left in the fields to break plow points and harness. Henry Ruzek.

Wisconsin.

Some Stump Blasting Costs.

To the Editor:—There are a great many settlers in this part of the country who have stump land to clear. They are anxious to know what the work should cost. As I have had a great deal of experience in clearing land, the following record of my costs on a recent small job may be of interest:

I recently blasted thirty-four green stumps for Mr. Hoff. They were basswoods and elms. I used altogether seventy-five pounds of 40 per cent dynamite, twenty pounds of 60 per cent dynamite, thirty-six electric blasting caps, and did the work in a day and a half. The total cost of the explosives was $27.75. Henry Ruzek.

Wisconsin.

Forward in the Dairy Industry

After Forty-Six Years of Service Wisconsin Dairymen See Brighter Future —By Noel Negley.

WHEN a man becomes forty-five years old he generally looks around, counts his children and his resources to decide if after all he amounts to much or if he is likely to ever amount to much. To many this is a disappointing and critical period, but to the Wisconsin Dairymen's Association, recently celebrating its forty-sixth birthday at Janesville, it is an event full of pride and happiness. This association enjoys a large and happy family and a verdict from the people of Wisconsin —"Well done, thou good and faithful servant." Its children have been many and their influence great, yet the father association is in good condition to tackle with strength and enthusiasm the many problems confronting the dairy farmer. That first stalwart son born in 1889 was the dairy and food commission, then the dairy school in 1890, soon thereafter in 1892 came the cheesemakers' association, then in 1901 the buttermakers' association, and at last in 1908 was born that favorite daughter—the cow-testing association, which has now eighty-three boys and one girl in the local associations of the state.

On November 21st the Wisconsin Dairymen's Association and the University of Wisconsin announced the birth of a new movement whose name was decided many weeks before as the "Register of Production," and whose destiny is to aid materially in the advancement of the dairy cattle interests of the state. This Register of Production will give publicity to the cows in Wisconsin cow-testing associations that are capable of running the 365 days' race at the average rate of at least one pound of fat a day. It is expected to promote the purchase and sale of cattle on a basis of production, and to increase the interest in better methods of feeding and breeding dairy cattle.

The future of the present dairyman depends on his efficiency in the management of his business, for that stern law of the "Survival of the Fittest" is in action. A strong back and a good arm are essential in every line of work, but the dairyman of today must make use of certain other portions of his anatomy if he survives. Yet, some use all the anatomy that God gave them and then do not succeed. This is often because they work alone without the coöperation of their neighbors and without modern machinery. It was because man became dissatisfied with himself and his progress that he threw away the corn knife and bought a corn binder, he lost the old cream ladle and found a cream separator, he discarded the flail and discovered the threshing machine, he fired the inefficient hired man and may have hired a milking machine, he killed the "slacker" cows and is now raising "patriots," and he used to "guess," now he "knows." The cow-testing association makes for efficiency in man and beast; in fact, the dairyman of today can hardly be efficient without it.

The greatest hindrance to efficiency in dairying is the inefficient cow, and in the battle for increased profits from the business the cow testers of the state have concentrated their fire on the "boarder" cows.

In this battle there are no guns, no grenades, no gas, simply the quiet testimony of the feed record, the milk scale and the Babcock tester. The tactics of the testers who conduct the offensive consist of monthly observations extending over a period of one year, the attack usually being made from a position near the right "flank" of the enemy.

During the past month George Springer, tester for the Dodgeville association, made the greatest gains of any of the eighty-four captains, for he reports the capture of seventeen unprofitable cows. The Wolf River association follows closely with fourteen prisoners, Shawano county with thirteen, Muscoda with twelve, and so on, making a total of 174 captured cows now being "canned" for the boys waging another type of battle "over there."

In the great war "over there" some must sacrifice their lives, others are giving their arms, legs, lungs, sight, hearing or health that we who remain at home may be safe. But the dairyman as a food producer has a great responsibility and a great opportunity to serve his nation. That his work is of importance is shown by the recent classification under the selective service law in which the "heads of necessary agricultural enterprises" are placed in Class 4, next to the last in the classification.

During the past month the man in Wisconsin that produced the most food per cow is Wilhelm Hohenstein, of the Alma Center association. Each of the cows in this herd of fourteen grade Holsteins, headed by a pure-bred Holstein bull, produced an average of 966 pounds of milk and 38.5 pounds of fat in the thirty-one days. If we had more herds like this one belonging to Wilhelm Hohenstein we would not need to worry so much about one Wilhelm Hohenzollern.

In the race for highest butter fat production last month, E. R. Race, of the Winnebago County Association, won the race. He won, not because of his name, but because last year he had the nerve to sell a lot of his lowest producers and replace them with better producers, and then determined to give the whole herd a chance to make good. His six-year-old pure-bred Holstein made the most butter fat of any cow in the association of the state by producing 86.7 pounds of fat during the thirty-one days. We will be interested in seeing what this cow can do in 365 days, for all of the 41,200 cows are entered in the distance races.

Only those who know of the perseverance and doggedness of the allied soldier can appreciate the force of their expression to "carry on." A few dairymen with low-producing herds and poor crops and possibly poor management have become discouraged. The dairyman must "carry on," and it is the duty of the cow-testing associations to make it easier for him to "carry on." During the past month he was aided in many associations by the coöperative purchase of feed in car lots, nineteen cars of feed having been ordered last month, 135 tons of which were purchased by the Winchester association, Alma Center getting three car loads, Amherst & Nelsonville one, Chilton one, Granton two, Marshall one, Shawano one, Walworth two, and the Waukesha Guernsey one. To "carry on" in the business as he should at this time it is necessary to use only the best bulls possible. During the past month eighteen pure-bred bulls were bought, two of which were to replace grades and three to replace scrubs.

Some of our testers have been reading the Bible lately and find they have many people in their community "who having eyes, see not, and having ears do not hear." They find defective hearing especially prevalent, and are trying to appeal through the other senses.

George Springer, tester at Dodgeville, is now sending out a letter each month to members and other good dairymen dealing with various problems of interest to them, especially that of feeding. H. R. Brewster, tester at Scandinavia, has rented a show window in the town of Scandinavia in which will appear exhibits to attract the attention and win the interest of dairymen to the necessity of cow-testing association membership. M. E. Smith, tester of Alban & New Hope Association, is apealing to the eye and the ear through the use of lantern slide lectures, the picture being made of local views and the lectures his observations of the different practices and their results on the dairy farms of the members.

The third annual convention of Wisconsin testers and members of cow-testing associations will be held at Madison during Farmers' Week, February 4th to 9th. The two previous conventions have been of much value to all who could attend and it is expected, with eighty-four associations and 2,500 members, that the coming convention will be the "best ever." If you keep cows or have cows that keep you, be there.

Evangelists insist that when argument and reason fail, personal testimony may win the "unbeliever." If you are a non-member or "unbeliever" in cow-testing association work, will you listen to the personal testimony of these "believers?"

"I was never sorry that I joined the association, but I would not take $100 to be out of it now."—Sever T. Lee, Black Earth.

"The cow-testing association not only makes more money for me, but makes my whole family interested in dairying."—J. C. Nielsen, Bone Lake.

"The cow I was planning on selling before I joined the association has proved the second best in my herd."—Peter Ermire, Cedar Grove.

SUMMARY OF WISCONSIN OCTOBER REPORTS.

Association	Tester	No. of 40-pound cows	Fat production of high cow	Breed	Owner
Alban & New Hope	M. E. Smith	16	50.1	Gr. H.	O. P. Dobe
Alma Center	C. J. Stauber	19	59.7	Reg. J.	F. B. Joos
Amherst & N.	M. Nelson	12	53.9	Gr. H.	O. Borgen
Avalon	L. C. Van Zant	3	50.6	Gr. H.	A. Larsen
Avoca	Bessie Lipsitz	5	45.4	Gr. G.	J. Bridgeman
Baraboo	E. E. Clingman	2			C. Brewster
Bear Creek	J. G. Coleman	13	52.3	Reg. H.	E. Hoffman
Black Earth	J. Uebersetzig	1	41.4	Reg. G.	H. C. Sutcliffe
Bloomfield	R. A. Power	2	42.3	Gr. H.	F. Kundert
Bone Lake-Luck	N. Nielson	4	42.7	Gr. G.	N. J. Nielsen
Brookfield	G. C. Tanner	12	53.6	Reg. J.	F. D. Underwood
Byron	E. H. Stuckert	4	49.3	Gr. H.	F. H. Holland
Cambridge	C. C. Jackson	8	45.9	Gr. H.	Berry Bros.
Cedar Grove	H. Molter	10	56.9	Gr. H.	Huenink & Lubach
Chilton	J. Wolf	9	61.8	Gr. H.	J. Salm
Clintonville	J. W. Binsfeld	9	44.5	Gr. H.	G. Kretschmer
Dodge County	H. Fidler	4	48.1	Gr. H.	C. Zimmerman
Dodgeville	C. D. Springer	3	45.4	S. H.	E. J. Wilson
Door County	G. E. Thull	9	51.6	Native	F. Ash
Dunn Co. No. 3	G. C. Ogle	7		Reg. H.	T. B. Denning
E. Fond du Lac	M. H. Duel	7	59.5	Gr. H.	H. Vetter
Empire	R. A. Boyd	24	64.4	Gr. J.	C. E. Binning
Fox River Valley	F. A. Gaiser	8	45.0	P. B. H.	M. Philips
Gays Mills	R. C. Kirsch	2	42.0	S. H.	L. S. Tichnor
Geneva	N. I. Nelson	13	73.7	P. B. H.	W. E. Palmer
Granton	G. W. Ehlert	8	52.2	Reg. G.	W. S. Davis
Happy Valley	J. B. Koskuil	3	47.5	Native	E. S. Nelson
Haven	A. H. Arends	5	52.6	Gr. H.	L. Gabsch
Kewanee	E. F. Zillmer	2	40.7	Native	C. E. Peterson
La Crosse County	G. D. Scarseth	4	52.1	Gr. J.	T. Lupic
Lindin	A. J. Hunsader	6	53.2	Gr. J.	J. Noonan
Manitowoc	J. E. Bowstead	13	52.4	Gr. H.	J. Pinter
New Holstein	N. Nelson	13	52.8	Gr. G.	H. J. Duecker
Maple Grove	M. Frihart	17	78.3	Native	J. Hofficut
Marshall	G. A. Krueger	11	57.3	Reg. H.	H. Peck
Medford	A. T. Zeddies	1	44.5	Gr. H.	Mrs. P. Brost
Mukwonago	H. Hooyboer	16	52.0	Gr. H.	R. Green
Outagamie	C. Maas	1	44.6	Gr. G.	C. Wassow
Randolph	R. L. Hammond	8	59.0	Gr. J.	M. Alderden
Reedsburg	G. A. Deedon	16	69.5	Gr. H.	W. H. Vonderohl
Rock County	G. R. Brannon	5	49.1	Gr. J.	J. P. Smiley
Rice & Cedar Lake	F. J. Waldman		72.3	Gr. G.	Mrs. F. D. Stout
Rosendale	D. C. Phillips	4	59.7	Reg. H.	H. A. Vollbrecht
Sauk Prairie	E. E. Clingman	5	52.1	Gr. H.	C. F. Rich
Scandinavia	H. R. Brewster	14	70.4	Gr. H.	S. D. Shambeau
Shawano County	C. M. Rydberg	3	44.6	Gr. D.	F. Dittmann
Shawano & Bonduel	S. R. Elkow	1		Reg. G.	A. Wendorff
Sheboygan	G. B. Towne	14	78.4	Reg. H.	E. Titel
Spring Green	J. M. Garrett	1	42.2	Gr. H.	J. Soelduer
Stanley	W. C. Johnson	5	41.8	Reg. H.	A. Keehn
Stratford	H. A. Woodward	6	47.9	Native	J. Spindler
Tigerton	T. Gjermundson	4	48.7	Jersey	A. J. Peterson
Walworth	A. H. Otto	15	64.0	P. B. H.	G. B. Nichols
Waukesha	C. H. Cook	16	54.7	Reg. G.	Dr. G. S. Love
Waukesha-Guer. No. 1	D. A. Green	9	63.4	Gr. G.	S. Hooper
Westby	D C. Kellicutt	5	47.6	Gr. G.	S. Offte
Winchester	J. A. Tool jian	3	50.2	Gr. D.	R. Kittleson
Winnebago	A. Barthe.s	14	86.7	P. B. H.	E. Race
Wolf River	F. C. Pluehler	6	49.1	Gr. G.	L. Raether

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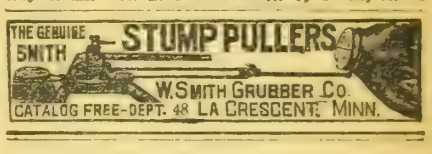
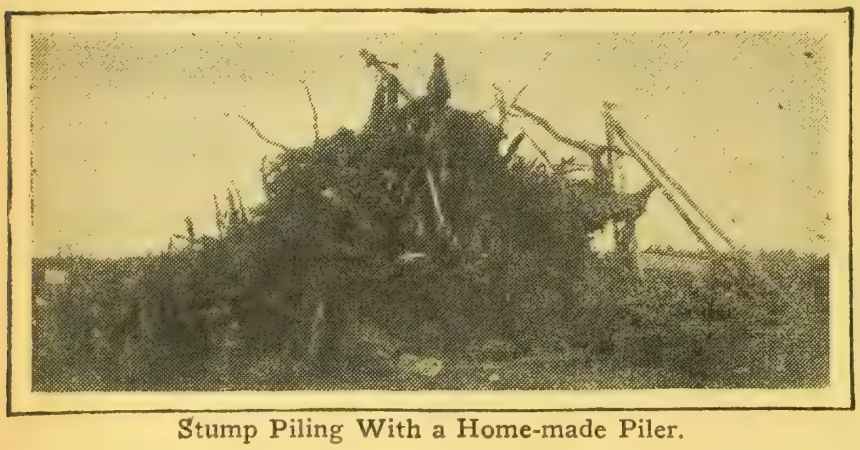


Land Clearing Costs and Methods.

Information Gathered in Land Clearing Work Conducted by the State of Wisconsin—
By L. F. Livingston, Wisconsin Station Engineering Staff.

LAND-CLEARING costs should be reckoned by the stump and not by the acre. Up to the present time when anyone mentioned clearing it was in terms of acreage; that was the unit for determining cost, and that is the big reason why today there is little or no real data on the cost of land-clearing work. There has been a great deal of clearing done in the last ten years and by now there should be a lot of available material published, but the fact that every farmer told his neighbor that his clearing amounted to so much an acre is the cause of so many misleading statements that naturally amount to nothing. Even now the inquiry comes, "How much per acre?" It can't be answered; at any rate, not directly. There are too many factors which have to be taken into consideration beside the extent of the land to be cleared.



Stump Piling With a Home-made Piler.

A Land Clearing Demonstration Crowd.

Every field of cut-over land is covered to a greater or less extent with stumps. These are of various kinds and of various diameters. They are in all stages of decay, and there is a large variation in the number per acre. Besides this, the soils on which they grew may be different, and that alone has a decided effect upon the cost of clearing. So it is easily seen that to state the cost of clearing one should mention all of the above divisions—then there is some basis of comparison.

In the investigation carried on by the state through the college of agriculture, all of these points and several more were taken into consideration. The Land-Clearing Special was conducted from an engineering standpoint and the data was tabulated by experienced men. Eighty per cent of the cut-over land of Wisconsin was at one time white pine forest, so it is natural that most of the work should be done on the eradication of the white pine stump. White pine stumps have great lasting qualities; this fact, though it may not be obvious, is one which enables the stump remover to determine more easily the cost of removal. If a stump is solid there is some chance of knowing how it will act; if it is decayed or rotten, there are no rules which will cover its actions. Thus the problem of cost is somewhat narrowed, as the age of the stump needs only to be considered in a general way.

White pine is of the lateral rooted variety and can be pulled rather easily in comparison to some of the other kinds. But even so, it may be a question as to the best method of pulling and there then comes in a factor, the soil. There are three general classes of soil, clay, loam and sand, and each one affects the root system of the white pine. In the lighter soil, the roots go deeper than in the clay, but they can be pulled cheaper because the clay clings to the stump, while in sand the roots come out clean.

A Horse Power Puller at Work.

This One Will Have to be Cracked.

Speaking of pulling is not to convey the idea that it is the best method of working, for, while in some instances it may be the most economical, another method in most cases is by far the better. The combination use of the horse stump puller and dynamite has proven to be the most economical method in the great majority of the fields that were covered in the upper part of the state. The best type of stump pullers will pull any size of stump, but that is not economy. Why take the time to set power pulleys and extra chokers for the increase of power necessary to pull the large stumps when a small charge of dynamite will break them up in such a way that they can be pulled with a straight line? If the stump is set on the top of the ground or is very shallow rooted, quite often it can be pulled with a single line, but what can be done with it after it is out? To handle such a stump and burn it becomes quite a task. This is also overcome with a small charge of dynamite placed under the center of the crown of the stump, which cracks the stump and knocks off the dirt so that it becomes a simple matter of disposal. White pine pulls easiest from a sandy soil, next from a loamy soil, and considerably harder from a clay soil. The reason for the greater difference between the loam and clay is that the clay not only holds the stump from being pulled, but also sticks to the roots after it is out and increases the cost of disposal.

The one-man stump pullers or rather the man-power stump pullers have had an important part in the land now cleared in Upper Wisconsin. They undoubtedly will pull stumps, as the machine multiplies a man's strength a good many times, of course, at the expense of speed. These machines operate economically in swamp ground where a team would become mired. For the man who has little money the hand-power machine will do good work. Most hand-power machines are best operated by two men, one on the sweep and one with a mattock knocking the dirt from the stumps being pulled. These men, changing jobs every so often, work economically.

If the stump puller alone may be economically used in some places, dynamite may be used in a great many more. For the man of small means who cannot combine with his neighbor to buy a machine, the use of dynamite is economy. For the man who has a field where the stumps are scattered, dynamite is the answer. On a heavy clay soil where the land is damp, dynamite will run a close second to the combination method. Why? For the answer, it is necessary to go into explosives just a little. All explosion is primarily an expansion of gases. Gas expands in all directions; in sand, the force of the blast diffuses through the air spaces between the sand particles, while in clay, especially when moist or wet, there are fewer interstices, and the force of the blast goes through the stump to the atmosphere, taking the stump along with it. It is always better to blast when the ground is damp, and this condition is most prevalent in the spring of the year. The state passed a bill enabling anyone to buy dynamite at cost through them. Definite information may be obtained from A. J. McAndrews at the capitol in regard to when and where to get this dynamite.

The hardwood situation is somewhat different from the white pine in that there are a great many varieties of stumps having different types of root systems. Besides this, every year causes some change in the texture of the stump; in other words, the rate at which a hardwood stump will rot is so much greater than that of the pine stump that each year causes a decided difference in method and cost of removal. With these facts in mind, it is noted that a vast amount of data must be gathered before any exact conclusions can be drawn. However, it is safe to state that where possible it is cheaper to let hardwood stumps stand for five or seven years, or until they are very rotten. Then with the aid of a little dynamite they can be plowed out. While the stumps are rotting, the field makes a very good pasturage, especially for sheep, which are fast becoming a factor in the productions from Upper Wisconsin.

There are two main steps in land clearing, one is getting the stump on top of the ground and the other is getting rid of it after it is out. Few appreciate that this second step is almost as important as the first. In fact, the piling and burning is fully 40 per cent of the work. This is not hard to [illegible] consider that [illegible] pose of. In the ne[illegible] organize some method of handling t[illegible] vast amount of waste—and it is wasted at the present time. But that is getting ahead of the game, the main thing at present is to eradicate the stump as soon as it is out of the ground. There are several ways in which this can be done, and, though peculiar, several of them may be correct. In some instances, say jack pine, which grows in a sandy soil, the stumps are small and can be handled very nicely with a team, the method is to stand all the stumps on end with the roots in the air in as compact a body as possible. They will dry in a short time and burn with ease. This method will hardly hold good for any other type of stump, and a good many people make the mistake of trying to make similar piles of the white pine. The large white pine stumps are the hardest to burn and the worst to handle. The old method was to make small piles usually around the big stumps, but that does not burn the old

Blasting a Stump With Dynamite.

timers unless it is constantly watched and chunked together taking too much time to be economical.

The modern method is to use a piler, since with a piler the stumps can be placed in a high pile. The higher pile generates more heat, and even large green stumps will be consumed. These pilers are of different types and sizes. Some are operated by horses and some by gasoline. Of the horse machines, the homemade Conrath piler gave the best results. This machine can be built for about $50, not counting the labor of putting it together. The plans for it may be obtained from the University of Wisconsin agricultural engineering department. There are some gasoline machines on the market which do excellent work, but we do not have information to compare them with the horse-power machine. The horse machine is worked to an advantage with three teams, two hauling stumps within reach of the piler and the third team on the cross haul. This system works best where the haul is over 150 feet, and in average fields a pile every 300 feet will work out to the best advantage. Where a longer haul is necessary the cross haul team can be used with the others part of the time hauling in. Using a horse machine, a pile can be built twenty-five feet high with as large a base as is necessary.

The exact figures on the cost of clearing white pine stumps on all types of soil in all conditions will be given in a bulletin which is being compiled as a result of the investigations this year. The land-clearing office of the agricultural engineering department will be glad to advise as to methods for individual cases when the proper information is at hand. The number of acres and the kinds of stumps is not enough, but a blank questioneer can be obtained which contains all the questions that need to be answered to show conditions.

More Discussion of the Sheep Situation.

There is a strong demand for more mutton and wool and at present prices sheep production offers good opportunities. Land is available at reasonable cost of rental prices. Sheep can be bought and established flocks bred and reproduced to a good advantage.

Men in northern Wisconsin are successfully and profitably taking advantage of this opportunity.

Follow a plan that adapts itself to Upper Wisconsin sections and one recommended by men experienced in the business. The following suggestions have been made:

Choose land from which the timber has been removed and that has been burned over and well seeded to grass. Too much green brush and too many trees in the pasture prevent the production of first-class mutton and may result in failure.

Seed burned-over land to timothy and alsike; it hastens the production of an abundance of grass.

Sheep keep brush from growing and eat many weeds. They assist in clearing land of brush, but it takes good grass pasture to produce profitable mutton.

Choose land that is more or less rolling and hilly. Low, wet land is not adapted to sheep.

Consult men who "know the game." Either the Wisconsin Sheep Breeders' Association or the Wisconsin Live Stock Breeders' Association, Madison, represent these practical flock masters. Ask to be placed in communication with them.

Buying sheep in the spring when the prices are high and fattening and selling them in the fall cannot be recommended as a money-making undertaking, even though the sheep fatten well. The general practice where the business is at all extensive is to buy ewes in the fall, breed them to the best mutton type rams, have them lamb late in the spring, the last of April and early part of May, and keep both ewes and lambs grazing through the summer on luxuriant pastures.

Buying lambs or wethers in the early fall and fattening them on excellent pasture, like clover, rape or cornfields, or feeding them later on grain and suitable roughage is a feeder's practice which has made money for those understanding the methods of buying, feeding and selling successfully.

Sheep do not require warmth except at lambing time. Having ewes lamb early in May makes it unnecessary to provide expensive shelter. Sheds or barns that keep sheep dry and offer protection against winds and cold drafts are all that is necessary in the sheep industry. Buildings that supply sufficient storage space for hay and other feed necessary for winter feeding are desirable.

Good clover hay, cut when just coming into full bloom and fed night and morning, in quantities that sheep will eat without waste, in addition to two to two and one-half pounds of rutabagas a head daily, provides ample and suitable feed for breeding ewes up to within a few weeks of lambing time. Good silage may be substituted for roots. Alfalfa or mixed hay, pea and oat hay, all constitute roughages that are fed more or less.

A grain mixture consisting of two or more feeds like oats, bran, peas or barley are suitable for ewes as they approach lambing time and until they are on the best of pasture.

Fencing may be regarded as one of the necessities for successful sheep production. Woven wire twenty-six to thirty-four inches high with one wire on top makes a good fence for pasture. Brush fences may be utilized, but they are expensive in labor and subject to being destroyed by fires. A suitable yard or corral should be fenced in a manner to be dog proof. The dog has been a menace to the raising of sheep, but the menace is overcome by always corraling the sheep at night in dog-proof yards or stables.—[Wisconsin Experiment Station.

Wisconsin Dairy School Alumni, Attention.

Former members of the Wisconsin Dairy School no doubt will be pleased to learn that arrangements have been finally perfected by which the dairy school has come into possession of a handsome piano. For some time a fund has been accumulating in the treasury of the association and for the last two years liberal contributions by the classes were made. The present class has also generously contributed and the dairy school students are now in possession of a nice musical instrument which adorns the lecture room in the dairy building. It is the source of a great deal of enjoyment to the members of the class.

Another point that some of the members of the association may be pleased to know is that we have on hand extra class pins of the years '09, '10, '11, '12. Many students purchased their class pins while they were at the school, but some were not financially situated so that they could do so. It may also be that some members of these classes have lost their pins and would like to replace them. We are offering these at the original price, viz., $1.25 apiece. If anyone desires a pin, kindly write the secretary.

Our country is now at war and almost daily we hear of former students that have responded to the call. We would like very much to have the names of such members as are already in the service sent to us so that we can give them due recognition. Possibly some readers know of former students who are now fighting for our country and if such is the case we would be pleased to have them write us. We want the boys who are going to the front and sacrificing so much for us back at home, to feel that our hearts are with them and that we will honor them in every way we possibly can.

Let every former student or others interested write us as soon as they have information concerning our men who have gone to war so that we may have their names for our dairy school war service flag. G. H. Benkendorf. Secretary Wisconsin Dairy School Alumni Association.

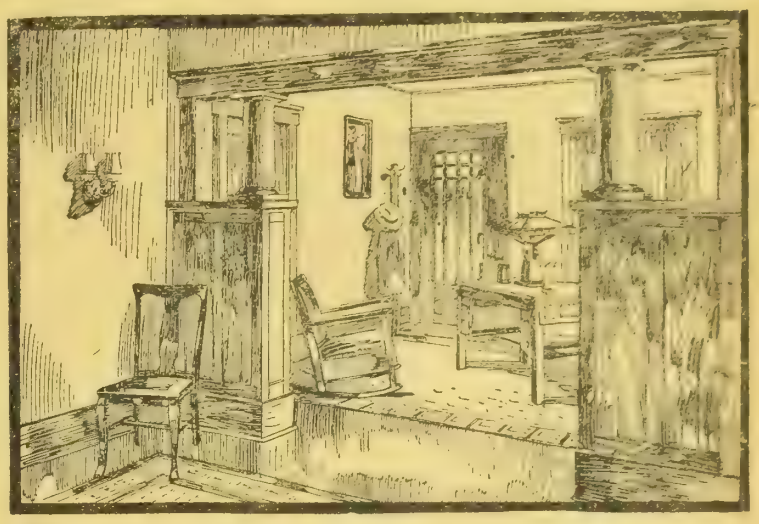
Prepare to Increase the Number of Hogs.

To the Editor:—This means hold on to the present good and reliable brood sows, and possibly double the number now on hand for pigs next spring. From now on to the close of the war, and for some years afterward, the price of fat hogs is bound to be exceedingly high. Even if the government shall be obliged to set the price, it is going to be a good one. Hence, all farmers should enter into hog growing and fattening on a grand scale. Such a course at this time will result in much profit to the farmers, and the people of the world will be able to secure the meat and lard that are now so badly needed.

The main reason the writer urges farmers generally to widen out in hog growing is a patriotic one. The vast armies of the allied nations against the German and Austrian powers must be fed. Good, wholesome meat is very necessary as a fair portion of soldiers' rations. While American farmers are producing meats in general, and pork and lard in particular, they are doing a patriotic act, and will get big pay for all their expense, care and trouble.

The exceedingly high prices of hogs that have prevailed, and will no doubt continue for an indefinite time, have had a tendency to induce far too many farmers to market too much of their breeding stock. This they cannot afford to do. On the contrary, as mentioned, it will be better to largely increase the number of brood sows for next season. W. A. G.

A well-filled silo, a barn full of alfalfa and enough dairy cows to consume the feed grown on the place make a pretty good foundation for a bank account.



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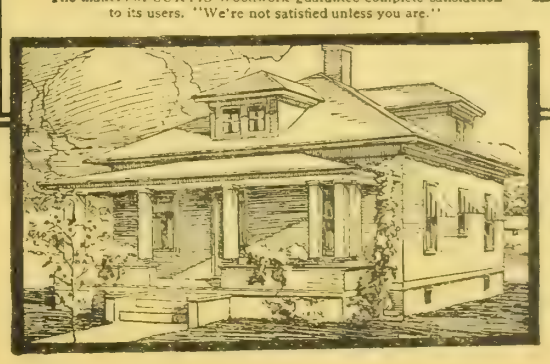

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Milk By-products in Hog Raising.

John M. Evvard, Iowa Experiment Station, Compiles Data for State Board of Agriculture.

HUNDREDS of letters are received annually inquiring as to the value of skim milk or buttermilk for pig purposes. Now skim milk and buttermilk are of about equal value, both being of practically the same composition and both giving approximately the same results in feeding experiments. The whole milk is skimmed once to get the skim milk, but buttermilk is really what is left from the second skimming. The cream is taken from the whole milk and then the butter is taken from the cream—in reality the practical equivalent of skim milk is left as buttermilk in the churn. In truth, we now make practically all of our culture buttermilks which we buy at soda fountains through the use of skim milk, one of which is particularly famed, namely, the Bulgarian buttermilk, a skim milk bacteriological product.

The old rules proposed years ago in order to find out the value of a hundred pounds of skim milk hardly cover the issue nowadays, although they have proven useful in their time. Two of these rules are particularly interesting, the one by Hoard given by Henry and Morrison is as follows: "To find the value of 100 pounds of skim milk when fed alone, multiply the market price of live hogs in cents per pound by five; if fed in combination with corn or barley, multiply by six." On this basis the money value of 100 pounds of skim milk with $10 hogs is 50 cents; $20 hogs, $1. In reality, though this relationship is based between pounds of skim milk and price of hogs per hundred pounds there is very little relationship between the price of hogs and the value of skim milk; this will be shown shortly.

The Gurler rule runs as follows: "The value of 100 pounds of skim milk when fed along with corn to fattening hogs is half the market price of corn per bushel." On this basis, therefore, the value of 100 pounds of milk is 50 cents with $1 corn, and $1 with $2 corn. This relationship, therefore, is on the basis of the price of corn rather than the price of hogs.

In order to determine the value of skim or buttermilk we have done considerable work with buttermilk, and the figures secured are applicable to skim milk.

In an average of four trials in which buttermilk was fed in limited quantity, from two to ten pounds per head daily, to young growing and fattening shoats this section has found that a hundred pounds of buttermilk replaces six pounds of corn and six pounds of meat meal tankage. The tests were run in this way: One group of pigs was self fed on corn and tankage "free-choice" style; another similar group out of the same dams and sire was fed exactly the same ration with the exception that they were given some buttermilk daily. Naturally when they got the buttermilk they would hold up on the corn and tankage.

Physiologically their demands were different with the buttermilk in their stomachs and alimentary tract than where it was not present. By figuring we arrive at the above deductions, namely, that 100 pounds of buttermilk saved six pounds of corn and six pounds of meat meal tankage.

Pricing the corn at $1.68 a bushel or $60 a ton the corn replaced is worth 18 cents and the tankage replaced at $80 a ton is 24 cents, making a total replacement value of 42 cents, hence 100 pounds of buttermilk in these particular experiments were worth 42 cents a hundred pounds. As corn and tankage go up the buttermilk becomes more valuable; as corn and tankage go down it becomes less valuable.

Had these tests been run today and the buttermilk figured on the basis of the above rules the values would be much in excess of 42 cents or with the Hoard rule almost twice as much or about 90 cents; with the Gurler rule, counting the corn at $1.68 a bushel, equals 84 cents or exactly twice the value found. It is readily to be seen, therefore, that buttermilk is worth the price of materials necessary to replace it if buttermilk is not used and corn plus tankage replaces buttermilk.

Let us go further with this proposition and see the effect of feeding buttermilk (remembering always that when we speak of buttermilk we might as well speak of skim milk) in large quantities, giving young growing pigs of fifty-six pounds weight all the buttermilk they possibly can drink, keeping it before them continuously until they reach the weight of 300 pounds. Two groups were fed. Group 1 received shelled corn self-fed plus 60 per cent meat meal tankage self-fed plus wheat middlings self-fed plus rock salt self-fed, all feeds allowed "free-choice" style in separate feeders. Group 2 was fed exactly the same excepting that buttermilk was kept continuously before them in addition to the other feeds.

And how the buttermilk pigs did gain! They relished the buttermilk, coming as it did from the college creamery where the cream before churning was thoroughly pasteurized, thus eliminating disease-producing organisms. The following table shows the number of days required to reach the weight of approximately 300 pounds, feed eaten, gains made and feed required for 100 pounds of gain:

BUTTERMILK VERSUS NO BUTTERMILK.

Record heading	Group I	Group II
Final weight	296	299
Number of days	218	156
Average daily feed eaten:		
Shelled corn	4.87 lb.	2.27 lb.
Meat meal tankage	.37	.14
Butter milk	....	32.16
Wheat middlings	.34	.22
Rock salt	....	....
Average daily gain per pig	1.10	1.54
Feed required for 100 pounds gain:		
Shelled corn	422	148
Meat meal tankage	33	9
Wheat middlings	31	14
Buttermilk	....	2091
Rock salt	.4	.1

Note that the buttermilk pigs made the most rapid gains, reaching 299 pounds in 156 days. It took the "no buttermilk" fed pigs sixty-two days longer to reach 296 poun

Note further that the
the average a little o
pounds of buttermilk
day, and that they ate
as much corn, about a third as much meat meal tankage, and about two-thirds as much wheat middlings as where no buttermilk was given—evidently the buttermilk saved grain.

Note still further than on 100 pounds of gain, although it took a little over a ton of buttermilk or exactly 2,091 pounds, yet this 2,091 pounds saved considerable grain, or, to put it definitely and concretely, this little over a ton of buttermilk saved 294 pounds of corn, twenty-three pounds of meat meal tankage, seventeen pounds of wheat middlings and a quarter of a pound of salt. Putting it on a better basis, 100 pounds of buttermilk saved 14.09 pounds of corn, 1.17 pounds of meat meal tankage, .31 pound of wheat middlings and .01 pound of salt, a total of 16.07 pounds of grain replaced by 100 pounds of buttermilk.

Charging the corn at $60 a ton or $1.68 a bushel, tankage at $80, middlings at $50, and salt at $20 a ton this 100 pounds of buttermilk saved 40.19 cents' worth of feed or it was worth on the basis of values given practically 50 cents a hundred pounds, this on the basis of it being fed in very large quantities.

Bear in mind that the buttermilk also saved time. In reality each 100 pounds of buttermilk saved practically a day's feeding of the pig which meant that you saved a day's labor in the feeding of said pig every time you gave him a hundred pounds of buttermilk in this comparative experiment.

With brood sows this section found that buttermilk has a higher replacement value than with shoats. This is natural and to be expected. In one test we found that 100 pounds of buttermilk saved five pounds of hominy feed, which is practically the same as corn, plus nine pounds of tankage—a total of fourteen pounds of feed. Counting the hominy at $70 a ton and tankage at $80, the saving was 53½ cents, and what is more, the young pigs did better when buttermilk was added to the basal ration of hominy feed and tankage.

With fattening shoats, therefore, we note that in the instance of limited feeding a hundred pounds of buttermilk or skim milk is equal to twelve pounds of grain; when fed in large quantities, sixteen; whereas when fed to sows 100 pounds of similar buttermilk, fresh from the creamery, saved fourteen pounds of grain with suckling sows.

Buttermilk or skim milk, therefore, is valuable according to what it replaces, and in practice in the corn belt it replaces corn plus tankage or similar supplement. We must place its value, therefore, not on the price of hogs but on the price of the things that it takes the place of, in reality the feeds we would use if we did not have the milk by-product.

Most assuredly skim milk and buttermilk are especially valuable feeds when it comes to balancing our ordinary rations, and why should it not be so? Milk was produced for young animals, hence it comes to its own to its fullest extent when fed to suckling pigs, for instance, or to young weanling pigs that are just starting out in the race of life.

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Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 21.

Potato Growers Gain by Grading

Improvement Made by the Middleman Brings to Him Big Profits That Should Go to the Producer.

IT SEEMS quite unnecessary to say that no machine has been made which will grade potatoes as to quality. The mechanical sizer simply sorts as to size, and the stock must be further graded by hand to eliminate potatoes affected by sunburn, dry rot, scab, frost, cuts or other defects. Investigations in nearly any wholesale market, of the manner in which potatoes are prepared for market by the shipper, will usually convince the most skeptical that there is great need of improvement. On every side may be seen quantities which must be sorted before they can be sold or which must be sold ungraded at reduced prices. Large and small, smooth and scabby, or otherwise defective potatoes, frequently are all shipped together.

The amount of money lost to growers, dealers and consumers each year through the shipment of ungraded or poorly graded potatoes cannot be estimated, but that it is very large and mostly unnecessary must be admitted. In many markets scores of men may be seen in cars sorting potatoes. Large quantities that are frosted, decayed, badly cut, bruised, diseased or otherwise defective are thrown away. Usually these are the grower's losses, and besides losing the invoice value of the defective stock culled out of these cars, he is also paying about twice as much for the labor as though he had graded the potatoes on the farm. The railroad receives the only full returns on such cars, for their charges are based on the quantity of potatoes hauled and not on the quality.

Quantities of cull potatoes sorted out of supplies sold to consumers may also be found in most retail stores that handle vegetables. Notwithstanding these losses by wholesalers and retailers, much undesirable stock is passed on to the housewife. This is a common complaint among consumers and they frequently ask why they do not receive better potatoes, stating that they do not buy and use as many potatoes as they would if good ones were always received.

It is found in all sections that the potatoes loaded into cars and shipped from the field at digging time, usually receive less care in sorting for size and grade than those shipped later in the season from warehouses or cellars. This is partly due to the rush to get the crop harvested and partly to carelessness. During some seasons hundreds of carloads are forwarded which, when loaded, are known to have been more or less frosted or frozen in the ground, or sometimes after digging or loading. When a grower or shipper knowingly loads such stock he invites disaster, rejections and losses. During the fall of 1915 hundreds of cars containing blighted, frost damaged or otherwise diseased and decaying potatoes, were shipped. A broker in one city in the Middle West stated that in the previous three weeks 150 cars of potatoes had been rejected on that market on account of poor condition. As this report concerned only one medium-sized market, for just three weeks, the total number rejected for this reason on all markets must have caused serious losses. These potatoes, no doubt, were shipped direct from the field.

Many of the cars of potatoes received on the markets, both bulk and sacked stock, contain only sufficient frosted or otherwise defective tubers to show a few "rots," but the sacks or potatoes near them become wet and it is then necessary to sort the entire car at heavy expense.

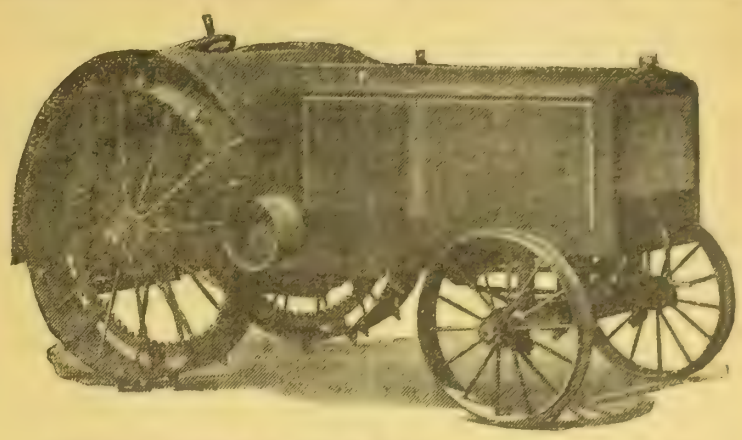
If all growers could have enough storage space so that their crop, when partly frosted or otherwise defective, could be held after digging until the damaged potatoes could all be detected and sorted out, instead of dumply cull stock is being moved, however, after digging, all concerned in marketing them would realize more money, as a rule. One dealer stated recently that in his opinion sentiment has as much to do with the potato market at times as have supply and demand. It is certain that when markets have been flooded for weeks with frosted stock which shows more or less decay, everyone concerned in the marketing of this crop becomes disgusted and the result is a "sick," "draggy" market on which every buyer expects to receive stock at a discount and waits until he does get it at a reduced price. Buyers are then afraid to pay the better price for good potatoes on account of the low price prevailing on "off" stock.

The larger part of the commercial potato crop is stored by growers or dealers and since this must be rehandled and most of it sorted to make certain no decayed stock is shipped, little extra effort would be necessary to grade the potatoes according to fixed standards. The results would more than justify the slight extra expense. The sorting table or "rack," as it is called, is used extensively in Maine and some other districts to sort and grade potatoes when they are shipped from storage. They are emptied on the high end of the rack and as sorted by hand run out at the lower, narrow end into barrels or bags.

Wholesale dealers claim that potatoes always should be bought from producers on their merits, but that at present in many places practically all grades are bought at the same price. This neither penalizes the careless grower nor rewards the progressive; on the contrary, it rewards slack methods and penalizes careful grading. Some dealers freely admit that in their opinion the dealers and all other buyers at points of production are largely responsible for present conditions because they have not given growers sufficient encouragement to grade carefully by always discriminating in price in favor of fancy stock. Competition in buying as well as in selling is very keen. Each buyer or dealer desires to do as large a volume of business as possible, and just as long as the potatoes he purchases can all be resold, everything offered him by growers will be bought almost regardless of grade. If one buyer at loading point refuses a load or a car on account of quality, usually there is another buyer ready to take it at the same price. Inspection by buyers at loading point is not as close and careful as it should be and too much is taken for granted. More care at this point would prevent many later rejections.

A large part of the grading and nearly all of the sizing in northern sections now is done by the local dealers or warehouse men and by the distributors' representatives at their warehouses or loading stations. Of course, the grower is relieved of this extra labor, but he must pay for the buyer's expense in accomplishing this work by taking a lower price for his product and sometimes losing the feeding value of the culls besides.

It should be remembered also that when growers leave the grading to the warehouse men they put themselves just that much farther away from direct dealing with the independent cash buyer or from direct sales to dealers in the cities. However, if the grower lacks the willingness to grade his potatoes effectively it is as well that the warehouse men or local dealer should do it.—[Bulletin.



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The Care of Young Horses.

Practical Suggestions for Feeding and Management During Their Early Life.

COLTS can be housed satisfactorily either in the stable or in an open shed. The main requirements, says Farmers' Bulletin 803, recently issued by the Untied States Department of Agriculture, are that the quarters be dry, sanitary, and provide fairly warm protection from winds. Several foals may run together if the weaker ones are not driven away from their feed by the stronger. The quarters should be kept clean and well bedded and occasionally should be disinfected. Lice are to be suspected when the animals get to rubbing and lose patches of hair. Thorough washing with the proper solutions of coal-tar disinfectants will kill lice. It costs money to feed lice, consequently efforts should be made to keep them down. The foals should be out in the open every day that is not stormy; it is harmful, however, for them to remain out in a cold rain. The foal should be taught to lead and to stand tied during the first winter.

Feeds that will promote growth should be supplied. Good, clean clover hay is palatable and slightly laxative. Timothy hay commonly is fed. Well-cured alfalfa hay free from dust is one of the best roughages for growing, but because of its relatively high protein content it generally is economical to supplement it with other roughage such as timothy, mixed hay, or corn fodder. Besides lending variety to the ration such a method of feeding alfalfa would offset any likelihood of kidney or bowel irregularities. Sheaf oats can be used to advantage to supplement other roughage. The animals should not be allowed to gorge themselves on dry feed. They should be given only what they will clean up readily, but at the same time enough feed should be supplied. Oats, corn and peas, preferably fed ground, are suitable grains. Bran, oil meal or gluten feed will add protein and lend variety. Cottonseed meal should not be fed to foals. Appropriate grain rations for the first winter are: Two parts corn, five parts oats, three parts bran, and one part oil meal; or four parts oats, one part corn and one part bran.

Silage should not be fed to foals to any considerable extent. Sliced roots, such as carrots and sugar beets, are very palatable and have a cooling effect on the digestive system. The quantity of feed generally should be regulated by the appetite, although occasionally the appetite may be too ravenous to be a good indication. The general condition of the colt and the droppings should be observed daily. Usually not over one pound of grain per 100 pounds of live weight should be fed until the animal is two years old. A liberal supply of salt and good water and plenty of fresh air and exercise are essential for the proper development of young horses. Idleness succeeding exercise will cause constipation. It is often said that a horse is made during his first winter. Certainly this is a critical time in the animal's life, and at no other age will proper feed and attention do as much to make of him a good horse. It stunted during the first winter he never will gain proper size and shape.

Foals should be changed from dry feed to pasture gradually and should not be turned on pasture until the grass is old enough not to become washy. Grass is an indispensable factor in the economical and proper physiological development of young horses. Frequently in protected blue grass mountain valleys they thrive the year round on pasture alone. A visit to the foal pasture every few days may be the means of early discovering sickness or injury. The feet of the young animals should be noticed on such visits, and if the hoofs are too long or high on one side they should be trimmed properly. A failure to keep the feet level may result in cracked hoofs or crooked joints. Barbed wire should not be used for fencing the pasture; smooth woven wire is best. If a colt should be cut, disinfect the wound; and if it is a very large one, have it sewed up. The wound should be dusted frequently with boric acid or air-slaked lime until healed, and then greased with vaseline so the hair will grow properly. The animals should have plenty of fresh water and salt, and in hot weather they require shade.

During the second winter the feed and management should be nearly the same as for the first winter, except that the quantity of feed should be increased somewhat, the colt tied up in his stall, and handled frequently. Education by gentle and careful but firm handling at this age will save later much strenuous labor. In this connection Farmers' Bulletin 667, "Breaking and Training Colts," should be consulted.

Agriculture in Rural Schools.

How to Present the Work and Arrange Courses.—By E. L. Luther, Superintendent Wisconsin Farmers' Institutes.

IN ORDER properly to present the work which should be done in agriculture in the rural schools it is necessary to preface this article with a few statements which may not bear much relation to each other, but which do have considerable bearing on the subject in hand.

It is easy to map out courses according to the educational scheme which came down from the fathers. Map out the courses, set up the educational mill, grind out whatever drops into the mill; if the product gets anywhere, all well and good; if the product does not get anywhere, so much the worse for the product. But in the new scheme of education things must be different. A whole lot of factors and problems must be considered and the educational process made to get somewhere.

Before we take up the real problem, let us see what are some of the factors which should be considered in arriving at what the content of rural school instruction in agriculture should be.

1. The teachers are, for the most part, girls who will never be farmers. The pupils are not farmers, may never be farmers, and are anyway years removed from the time when they may be farmers.

2. Medieval traditions and sentiments concerning schools, implanted by a school system which has come down from medieval times, make it difficult for patrons and teachers to have school go on outside of the schoolhouse.

3. The school program is crowded now without adding to it in the way of anything else.

4. There is, as a rule, no school during the growing season.

5. Agriculture is not a "book" study.

With these few statements made, let us stop here to make a few statements of good pedagogy which should influence us all in the development of a modern education.

1. Instruction should be capable of application and use.

2. Instruction should come near to satisfying the needs of the time of life of those to whom the instruction is given.

3. Girls will seldom use systems of farming and systems of farming are far removed in time from the pupil age.

4. We should instruct the pupils as pupils, and not as we want them to be forty years from now.

5. The tasks should not be baby tasks, but the tasks may well be grown-ups' tasks which are within the accomplishment of pupils.

6. The tasks should also be vital and not fruitless.

7. Education should fit for living.

8. People live in communities and have problems which must be surmounted in order to survive.

9. The schools should help to solve the problems of the community and not be simply "cultural" affairs to fit for heaven.

10. This kind of pedagogy divorces "general" agriculture from the rural schools.

The rural course is cultural as now arranged. If agriculture is taught in the rural schools it would seem that at least this one subject might with propriety be presented with a view to its use in bread and butter getting rather than as to its "cultural" value. The speaker is of the opinion that much of what is ordinarily understood as "cultural" has little foundation in fact, but that what is often decried as utilitarian and bread-and-butter education would result in the highest culture were it rightly presented. This view is more or less substantiated by Dean Davenport, of the Illinois College of Agriculture, when he says, "It is a mistake to assume that all of the culture is in the dreamer's mind, or that it is unattainable by him who meets fairly the world's demands."

Agriculture in the rural schools should, therefore, consist in instructing well in a few concrete tasks which find real use and application in the industrial life of the neighborhood in which the rural school finds itself. By concrete tasks is meant things done with the hands. This kind of agricultural instruction is far different from word study from a text-book about general agriculture, the kind of agriculture (?) which we commonly find going on in rural schools when an effort is made to meet the statute requirement for instruction in this branch.

The demands of the neighborhood should in this one branch at least compel the rural school.

What then are some of the "concrete tasks" in which the pupils of the rural schools should be trained when the subject of agriculture is offered to meet the statute requirement? That will, of course, depend upon the industry or industries of the neighborhood in which the particular rural school finds itself. Assuming that the neighborhood is one in which dairying with potato growing is the farm system (and neighborhoods of this kind will predominate in which members of this association will instruct), the following "concrete tasks," with apparatus and reference are suggested:

1. The Babcock Test for Milk and Skim Milk—(a) A Babcock testing outfit. (b) Wisconsin Circular No. 27: "How to Use the Babcock Test."

2. Dairy Cow Milk Records—(a) Milk scales. (b) Record sheets: Ohio Dairy Separator Co., Minneapolis. (c) Wisconsin Circular No. 67: "Cow Testing Pays."

3. A Study of Corn—(a) Wisconsin Circular No. 58. "Selecting, Curing and Testing Seed Corn." (b) Wisconsin Circular No. 8: "Corn Judging." (c) U. S. Bulletin No. 229: "Production of Good Seed Corn." (d) U. S. Bulletin No. 537. "How to Grow an Acre of Corn." (e) U. S. Bulletin No. 617: "School Lessons on Corn." (f) U. S. Bulletin No. 739: "Cutworms in Corn." (g) Collect, name and judge main kinds of corn grown in district.

4. A Study of Potatoes—(a) Wisconsin Bulletin No. 280: "Potato Growing in Wisconsin." (b) Wisconsin Circular No. 52: "Control of Potato Diseases." (c) Wisconsin Circular No. 83: "Fighting the 'Potato Bug.'" (d) Collect main varieties of potatoes for Wisconsin: Rural New Yorker, Green Mountain, Burbank, Triumph, Irish Cobbler, Early Ohio and Early Rose.

5. A Study of Farm Commercial Seeds—(a) Collect, bottle and name seeds of wheat, oats, rye, barley and buckwheat. (b) Collect, bottle and name seeds of red clover, alfalfa, alsike and timothy. (c) Collect and mount sample plants of each of the above. (d) Test samples of above seeds for purity (magnifying glass). (e) Test samples of above seeds for germination (tins and blotters). (f) Wisconsin Circular No. 57. "Fight Grain Smuts and Blights." (g) Wisconsin [illegible] 85 "Stack First—Then Tresh." (h) U. S. Bulletin No. 428: "Testing Farm Seeds in the Home and in the Rural Schools." (i) U. S. Bulletin No. 455: "Red Clover." (j) U. S. Bulletin No. 507: "Smuts of Wheat, Oats, Barley, Corn."

6. A Study of Common Weeds of Field and Garden—(a) Collect, bottle and name seeds of twenty common weeds. (b) Collect, mount and name plants of same seeds. (c) Wisconsin Circular No. 48: "How to Rid Our Farms of Weeds." (d) Wisconsin Weed Samples No. 1. (e) U. S. Bulletin No. 660: "Weeds; How to Control Them."

7. A Study of Dairy Cow Rations—(a) Collect, bottle and name wheat bran, oil meal, cottonseed meal, ground corn, middlings, ground oats. (b) U. S. Bulletin No. 743: "The Feeding of Dairy Cows." (c) U. S. Bulletin No. 777: "The Feeding of Dairy Calves."

8. A Study of Milk—(a) Secure sediment tests from creameries and cheese factories. (b) Make sediment tests (funnel and absorbent cotton). (c) U. S. Bulletin No. 363: "Use of Milk as Food." (d) U. S. Bulletin No. 413: "Care of Milk and its Use in the Home." (e) U. S. Bulletin No. 490. "Bacteria in Milk." (f) U. S. Bulletin No. 602: "Clean Milk: Production and Handling."

A careful inspection of this list of subjects will show that they are all

1. Common, easy and doable in rural schools.

2. As a rule, unused on farms.

3. Can be done in schoolrooms. Do not require field trips.

4. Are men's tasks doable by school children.

5. Of highest economic importance.

6. Of such character that if they were done on all farms by the owners thereof agriculture in Wisconsin would assume a much more profitable character.

The rural school program is now too crowded with subjects to admit of too comprehensive agriculture. It will be noticed that each one of the above tasks is complete in itself. Any one or all may be done in a school year. They easily loan themselves to accomplishment after regular lessons have been prepared. The ordinary teacher drilled in them can easily show pupils how to do them at intermission times and odd moments. The last hour each Friday devoted to them will accomplish considerable. Simple home projects may be arranged easily. Whereas lessons from a text consume regular periods for study and recitation.

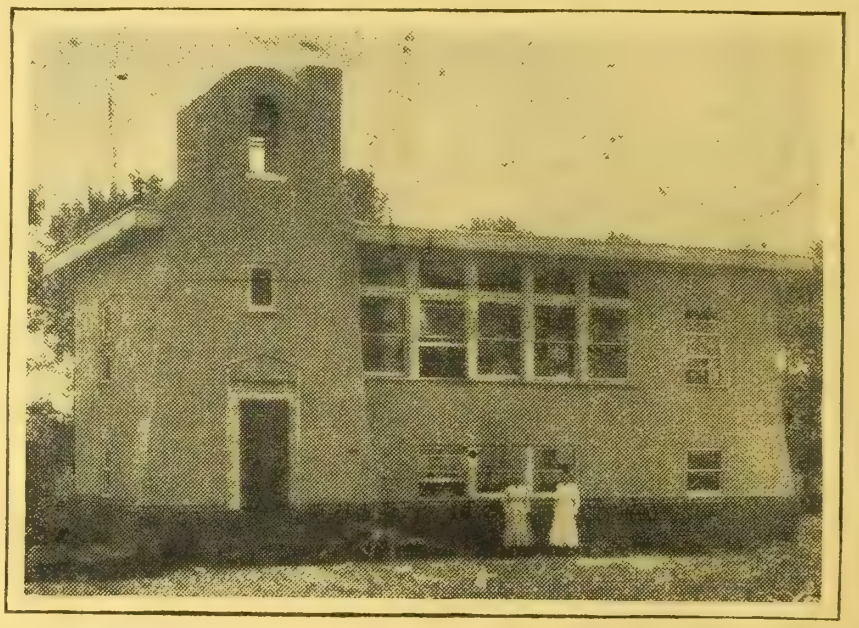
It is incumbent upon the rural school to instruct its pupils in these things not as "cultural" subjects, but to fit them to become more economic than their parents. However, teachers will be surprised to find that pupils who are nourished upon these things will show greater culture than will pupils whose subjects have fitted them to do nothing.

Real instruction in these things and not book and word study of general agriculture is the neighborhood's demand upon the rural school. The demands of the rural school should in turn compel the normal teachers' [illegible] school. Those preparing to grind upon mere book learning [illegible] repeat. The demands of the neighborhood should compel the rural school. The demands of the rural school should compel the normal teachers' training school. The course in the training school should be a preparation for the school below rather than for the school above it. Upon the training which teachers receive depends the character of the instruction which will be given in the school taught. This is a great responsibility upon the normal teachers' training schools.

The expense of materials needed for agricultural work in rural schools is approximately as follows:

Babcock tester from.....	$5.00 to	$15.00
Milk scales	3.00	3.00
Small bottles	2.00	2.00
Small pie tins	1.00	1.00
Magnifying glass or glasses	.50	2.00
Funnel and absorbent cotton	.25	.50
Postage for bulletins and milk record sheets.....	.50	1.00
Cabinet to store apparatus in	5.00	5.00
Total	$17.25	$29.50

The apparatus being so simple and inexpensive, easily within the buying power of any district or basket social, and the real work to be accomplished so within the ability of any ordinary teacher even without special training, may we not expect to see at least these few things which would prove of such benefit to our farming communities become every-day practices in our common schools?



Where Teachers and Scholars Have a Real Chance.

A modern practically fire-proof schoolhouse erected at [illegible] $5,000 with well-lighted and well-ventilated assembly roo[illegible] a hot-air furnace and supplied with modern sanitary facilit[illegible] ing has small rooms for domestic science or manual train[illegible] is not a consolidated school, but used by one district a[illegible] teacher.

A Schoolhouse Which Should be Torn Down.

There are still many districts in Wisconsin where the one-room, old-type, unsanitary, poorly-ventilated, poorly-heated, schoolhouse is in use. But school buildings of this type are disappearing rapidly and especially in the sections of the state which are opening up new territory, modern, sanitary schoolhouses of a splendid type are being erected.

Five cows in the University of Missouri College of Agriculture dairy herd have made records of more than 20,000 pounds of milk in a year. Three of these cows are in the herd at present. Fifteen cows have made records of more than 700 pounds of butter in a year. Five of these are in the herd at present. Three cows in the present herd have records of more than 750 pounds of butter in this time.

Silage might be called winter pasture."

In and Around Wisconsin

A good deal has been said of late relative to the coal situation, but there are many communities in Wisconsin where it is unnecessary to worry about coal for fuel. Wood for fuel still exists in abundance in many parts of Wisconsin and this is the winter to take advantage of local conditions.

Someone has figured out that if all the 1,800,000 dairy cows in Wisconsin would do as well as eighty-three cows in cow-testing associations have done the past year, the production of butter alone in the state would run over $400,000,000. This would be an increase of nearly $300,000,000 more than we now have.

Recent reports reaching the United States from French sources indicate that the shortage of cattle in Germany is not so apparent as in France and Belgium. It is claimed that the Germans have seized about 2,700,000 of France and Belgium cattle and one authority believes that Germany has been able to maintain practically all her original share of cattle.

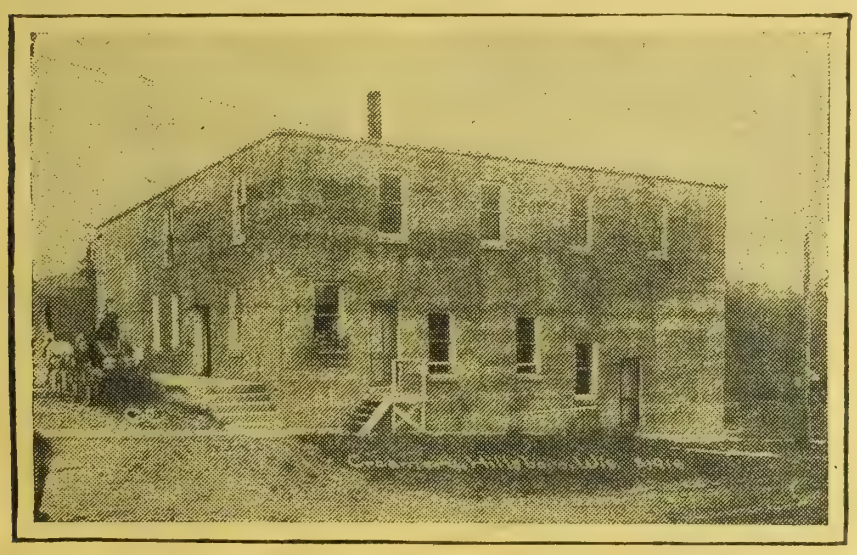
Wisconsin, Ohio, Michigan and Minnesota are four states which have more than twice as big a potato crop this year as in 1916. Iowa showed a gain of 117 per cent, which is the highest increase of any state in the Union. The country as a whole increased the potato yield 54.04 per cent over 1916 and set a high-water mark for potato production with 439,686,000 bushels. The yield in New York is 38,000,000 bushels and slightly in excess of that in Wisconsin.

About thirty farmers of southern St. Croix county recently held a conference at Baldwin to effect plans for putting in hemp next year. Thomas M. Olson, St. Croix county representative, was chairman of the meeting which was addressed by A. H. Wright, of the field crops department, college of agriculture. There were about twenty-five acres of hemp grown in the vicinity of Baldwin last season. One advantage of hemp is that it will aid greatly in choking out quack grass.

B. D. Leith, of the Wisconsin Experiment Station, advises top dressing of wheat to save the Wisconsin crop from winterkilling and he says there are two ways of top dressing—with manure and with straw. The advantage of the first method is that it serves as a protection and also adds to the fertility of the soil. However, the use of manure is more difficult because of climatic conditions in the state. According to Mr. Leith, it must be done with the spreader and the manure must be beaten fine. It must not be spread out in chunks. The manure spreader is best used when the ground is frozen and sometimes this is too late. Unless top dressing with manure can be done at once, it is better and safer to plow under manure. Top dressing with straw is an easy method and there is no danger of smothering the plant. A straw spreader has been invented, consisting of an attachment back of the hayrack and this is being tried at the experiment station farm under the direction of F. M. White. The advantages of top dressing wheat are that the ground is uniformly protected. Fertility is added in the form of a mulch around the young plant and the dressing conserves the moisture so that drying of the soil in the spring is prevented.

Our neighbors in Canada are taking advantage of the shortage of live stock throughout the world. The live stock figures for 1917 in Canada show an increase over 1916 ranging from 4 per cent on hogs to 47 per cent increase for horses. Milk cows increased about 13 per cent; sheep, 17 per cent, and cattle, other than milk cows, 27 per cent. However, the number of head of live stock in Canada is relatively small, especially as compared with the United States. The whole of Canada has about the same number of milk cows that there are in Wisconsin—perhaps a little less.

More than 100 Wisconsin high schools having agricultural subjects in their regular high school courses will enter live stock judging teams in local contests which will be held at twenty-seven different points in the state during the next two months. These contests are in preparation for the third annual junior live stock judging round-up to be held in Madison, February 8th and 9th. The districts have been assigned to committees with these district leaders supervising the preliminary contests: Bayfield, John Light; St. Croix Falls, W. C. Hansen; Roberts, J. M. Hammer; Grand Rapids, W. W. Clark; Cumberland, R. W. Lightfoot; Mondovi, M. L. Geraldson; Wausau, A. G. Burd; Chippewa Falls, W. Christensen; Green Bay, R. H. Camerson; Shawano, W. Dunwiddie; Green Lake, E. H. Manning; Ripon, L. B. Cummings; Waldo, E. S. Brick; Onalaska, T. H. Campion; Blue River, A. J. Opstedal; Viroqua, Irving T. Dean; Mazomanie, M. R. Goddell; Cambria, E. M. Cox; Mt. Hope, P. F. Graf; Livingston, C. R. Wiseman; Blanchardville, W. S. Jacks; Marshall, Ea[illegible] J. Cooper; Milton Junction, M. J. Sahagen; Stoughton, W. O. Boardman; Pewaukee, A. G. Oosterhuis; Rochesterm, E. A. Polley, and Janesville, A. B. West.



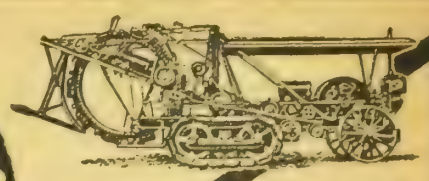
Farmers' Co-operative Creamery, Hillsboro, Wis.

This creamery made over 800,000 pounds of butter in 1916 and 1917. This year on the same property a cheese factory 36x56 has been erected, of the same concrete construction with pebble dash effect. The cheese factory will be occupied in the spring. The creamery paid 45 cents for butter fat in September and the cheese department paid 62½ cents and an overrun to be divided at the end of the year.

These Are the Girls Who Fed and Fitted Baby Beeves for the Recent Madison Show.

Left to right—Floren[illegible] Scott, Bagley; Martha Kelly, Mineral Point; Frances Martin, Bagley; Josephine Herr, Lodi; Genevieve Kelly, Mineral Point; Ethel Feaster, Richland Center.

Ditch Yourself Rich



All over the country—in every county and town, almost on every farm—there is wet, soggy land that needs underdrainage to be at all profitable.

Owners are ready and waiting to have this ditching done by Buckeye Traction Ditchers and will pay *good prices* for contract work.

Why not take this up? You can make it a between-times job or a year round business. Either way it will pay you big. Some ditcher men clear $10 a day *and up,* depending of course on circumstances; but anyway you look at it, the business is a gold mine.

Buckeye Ditchers cut through frost and hardpan. Apron wheels give support on swampy land.

Here is a letter from Mr. H. W. Sherrard, of Twelve Mile, Ind., who cleared $97.96 a day. Sounds good, doesn't it?

"With my No. 1 14½-inch-cut machine my helper and I put in 157 rods of tile in one day, of which 112 rods were for 12-inch tile averaging 48 inches in depth, bringing me 72 cents per rod, and 42 rods of 6-inch tile averaging 38½ inches in depth, bringing 38½ cents per rod—making a total of $97.96 in a single day. I challenge anyone to beat it with a No. 1 machine."

The Buckeye is a *complete* machine. Cuts 100 rods of perfect trench true to grade and ready for the tile every full day. Gasoline or kerosene power, easily managed by one man and not at all liable to breakage.

Our Service Department will coach you about details and help you to get started. Write for "Dollars In Ditches"—a book of facts; mighty interesting reading if *you're* interested.

The Buckeye Traction Ditcher Co., 1721 Crystal Ave. Findlay, Ohio

"A Perfect Trench at One Cut"

BUCKEYE Traction Ditcher

HAEGER Drain Tile Lasts Forever

Half the cost of draining land is labor cost. Why add to this by using inferior tile which breaks, clogging the drain and necessitating repairs? HAEGER Drain Tile is strong, straight and well-burned. No crumbling in the ground and little breakage in handling. Once laid the drain gives good service for a lifetime. Drain your swamp land—raise big crops next year—take advantage of high prices.

FREE BOOK—"FARM LAND DRAINAGE"—sent on request. Buy either direct or through your dealer. Look for the "DIAMOND H" mark.

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FARM LAND DRAINAGE

DRAIN TILE

POOR light in the home is often the cause of nervous disorders resulting from eyestrain. Those who read, work or study at night need good light. American Portable lamps give 400 candle power light for less than ½ cent per hour. Ornamental and handy. Safe as daylight. No smoke, smell or dirt. No wicks to trim, no chimneys to wash. Low in price. Ask dealer or write for circular.

American Gas Machine Company
745 Clark St. ALBERT LEA, MINN.

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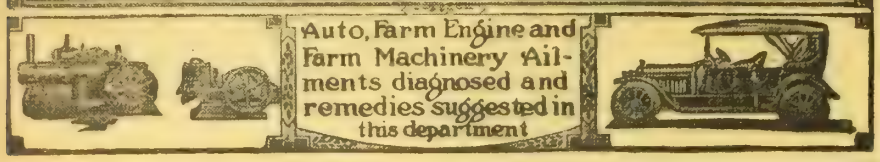
Fits like a glove — smooth and sightly. Made of special heavy warm felting, covered with rich black leatherette. Postpaid $1.35. Hood cover, postpaid $1.90. Tell model and year of Ford. Satisfaction or money back. Write for Book of 739 Ford Bargains, Everything for Fords.

Catalog Free

Efficiency Auto Supply Co. Dept. 33
305-315 So. La Salle St., - Chicago

FARM MECHANICS



Questions and Answers.

Tractor Attachment for Velie.

I have a Velie car, 1913 model. I would like to know of the different companies that make tractor attachments for this car.

Answer.—We do not know of any company making tractor attachments for Velie cars.

Motor Lacks Power.

I have a two-cylinder Model F Buick. It misses. It pulls well when tried with a screw driver; but when running on low, it pulls by jerks and it has no power on high. It has a Schebler carburetor and an Atwater-Kent unisparker.

Answer.—Your car probably needs a general overhauling. The transmission bands should be relined. You probably also need a new set of piston rings. While you have the pistons out examine the cylinders for scored places. Your spark gaps at the spark plug points may be too wide or too narrow. The gap should be the width of a smooth dime.

Primer and Water Cooler.

On the enclosed sheet is a primer that has a priming tank on the dash. Would there be danger of fire? Do you think this primer is better than priming cups? Will the multiblade fan like enclosed cut keep a Ford motor from overheating? What is your opinion of the water circulator shown on the enclosed cut?

Answer.—The primer shown should be superior to priming cups, and there would be but little danger from fire; in fact, not as much danger as there would be while priming an engine through priming cups. Either the multiblade fan or the water circulator should aid in preventing your motor from overheating.

Density Varies Between Cells.

We have a Willard storage battery that has been in use eighteen months. This is a three-cell six-volt battery. In the cell at the positive end, the density of the electrolyte is 1,250. At the other end, the density is 1,150, while at the middle cell it is 1,200. What is the cause of this and the remedy?

Answer.—The difference is probably due to local action within the battery, or it might be caused by more evaporation from one cell than from the others. You should give your battery a fair overcharge and if this does not equalize the gravity of all the cells, add enough acid to the weak cells to bring them to the strength of the strongest one, which is none to high if the figures given above are for a fully charged battery.

Adjusting Marvel Carburetor.

I would like to know the rules for adjusting a Marvel carburetor, used on a twenty-five horse-power 1914 model Buick. I would also like to know whether the camshaft bearings of a 1914 Ford car are simply wedged into place or are they fastened with a screw or key?

Answer.—The two front camshaft bearings are held in place by set screws through the side of the crankcase. The rear bearing is a press fit in the case, no screw being used.

The T head bolt at the bottom of a Marvel carburetor is the gasoline adjustment. The angular screw on top of the float chamber is the air adjustment. The following method of adjusting this carburetor is taken from the "Horseless Age:"

The adjustment is effected by first closing the gasoline needle valve, then opening by turning three-fourths to one turn to the left, the packing being tight enough to hold the needle valve firmly in place. The air adjusting screw should be so adjusted that the end of the screw is about even with the end of the ratchet set spring. The starting choker should be arranged to close the valve completely, in order to enable the engine to draw off gas easily for starting. After the engine has started, close the gasoline needle valve a very little at a time until the engine runs smoothly. To get proper adjustment of the air valve, turn it to the left so that it backs out and releases the air spring until the engine begins to slow down. Then retighten by turning to the right for about one-eighth of a turn at a time until the engine runs smoothly. Advance the spark about two-thirds of its travel, open the throttle quickly and the engine should speed up.

Burning Kerosene in a Ford Car.

I am thinking of attaching a kerosene burner to my Ford car, and I wish to know what you think of it. Is the trouble from carbon too great to make the use of kerosene economical? Would the dissolving of moth balls in the kerosene make it more explosive? I would be pleased to hear of anything that will give me more knowledge on the using of kerosene in the Ford engine.

Answer.—There are several outfits on the market that are said to burn kerosene successfully in the Ford engine, though none of these has come directly under our observation. It is generally admitted that heat is necessary for carbureting kerosene, and, therefore, gasoline is used for starting. As soon as the engine becomes hot, the kerosene is turned on and the gasoline shut off. The kerosene is heated either by passing it through the cooling water or through a chamber around which the exhaust passes; or the exhaust is made to heat the mixture just before it passes into the cylinder. The kerosene should be heated to not less than 170 degrees, but it should not be heated hot enough to char it. If heated too hot, a coating of carbon gradually stops the fuel line.

One company avoids carbon trouble by using a special cylinder head that is so constructed as to reduce the compression of the engine. Other devices depend upon adding a small amount of water vapor to the mixture. This is an old method of preventing carbon trouble in kerosene motors. Moth balls dissolved in the fuel are said to make the mixture more explosive.

Car Does Not Run Well.

We have a four-cylinder Model 1910 Reo car; equipped with Splitdorf low-tension magneto with transformer coil. It has a Stromberg carburetor. We have changed the magneto lately and overhauled it. The car will not start by cranking, but by pulling it a short distance with another car it will start, but it has very little power. Where is the trouble?

Answer.—Any car will run if the mixture is correct, the compression good, the spark good and the motor properly timed. If the compression is not good, regrind the valves or fit the piston with new rings if necessary. It may be necessary to regrind the cylinders if they are badly scored. Good compression is necessary for power. This rule should always be remembered. The spark may be easily tested by taking out the spark plugs and laying them on the top of the cylinders with the wires connected to them, the terminal end of the plug not touching the cylinder. Turn the motor over rapidly by hand and the spark should appear at each of the spark gaps in the proper firing order. If it does not trace the trouble back to its source, which may be a cracked porcelain, a dirty porcelain, a broken wire, a poor connection, worn contact points or a faulty condenser. As for timing the motor, the exhaust should close and the intake open soon after the piston reaches the top dead center, and the spark should occur near dead center just one revolution later. Regard only one cylinder when timing, as if one is right the others should be. The mixture depends upon the carburetor adjustment, which can best be made while the car is running on the road, one man on the running board making the adjustments while another drives the car. See the instructions above for adjusting carburetors. Air leaks around the intake valve stems or at the intake connections often interfere with the mixture and cause the car to run badly, and this may be your trouble.

Trouble With Motorcycle.

I have a 1913 Indian twin-cylinder motorcycle that has been giving me considerable trouble lately. It works fine on the stand, but when on the road it will run about ten yards and then dies down. Sometimes it takes a spell and works fine. I have bought a new Model H Schebler carburetor made especially for this machine. I received no instructions for adjusting the carburetor, and I think the adjustment may be the cause of the trouble. What do you think is wrong with the machine to make it act as it does?

Answer.—First, see that all your electrical connections are tight. A loose connection might cause your trouble. Dirt or water in your fuel might also cause it. A little lint under the float valve or a sticky float valve might be responsible. Be sure that the fuel line is open.

Your carburetor may not be properly adjusted even though the motor runs well on the stand. A further adjustment on the road may be necessary. Include some hills in the road test, as a good mixture on the level will not always work well on hills. If the motor does not run well, vary the gasoline supply by turning the knurled nut or knob of the needle valve without stopping the machine and note the tone of the exhaust. There is a fine, snappy ring to the exhaust of a perfect mixture. With a dull tone and sluggish running, first reduce and then increase the gasoline supply, and note the effect while running on the level. If the motor heats on level ground and overheats on the hills the mixture is too rich. If the running is weak and not accompanied by heating, give more gasoline, as the mixture is too weak. The response of a motor to the spark advance is a good test; if much advance is needed to produce a good acceleration, the mixture is too lean. An immediate response to a change in the spark position is an indication of a correct mixture. A maximum advance is not needed except at highest speed. Continue the road trial until the carburetor works well at both low and high speeds, the high speed adjustment being made large by adjusting the tension on the air valve spring and the low speed adjustment by varying the needle valve. The color of the exhaust flame for a perfect mixture is a dark blue. A yellow tint indicates too lean a mixture, while a red tint shows too rich a mixture. A black smoke

The Farmer's Concrete Mixer
SHELDON Batch Mixer Price $11.50 Up

The Sheldon was designed especially for the farm. Highly praised by users. Farmers everywhere call it the ideal mixer. Used today all over the United States. A big success. Small enough to be easily moved—big enough to keep 6 men busy. Low in price. Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer.

Read What These Sheldon Owners Say

I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much—DANA WEIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township—JOHN ROSE Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*—D. M. BRUBAKER, Freeport, Ill.

FREE PLANS

Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

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If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $3 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

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Shows our full line of mixers which are sold direct to you on strong guarantee. *Thirty days trial* privilege. No other like it. Patented. Two styles, hand and power. Mixes 2 1-2 cubic feet a minute. One man can operate it, but it will keep 2, 3, 4, 5 or 6 men busy. Continuous chain drive. Tilting dump. Easily and quickly moved. All parts guaranteed. Does work equal to $400 mixers. Be sure to get the catalog. Write today.

My New Special Offer

I want to tell you about my co-operative plan by which you can get my time-tried, thoroughly proven Sheldon Batch Concrete Mixer at little or no cost to you. I want ten men in every county to accept my special co-operative offer right now. Are you going to be one of the ten? Write and say: "Send me special offer."

The Sheldon will pay for itself on first small job. Takes the backache out of concrete. Makes possible those many small improvements that add so much to the value of your land.

SHELDON MANUFACTURING COMPANY, Box 739, Nebawka, Neb.

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Get My New 1918 Prices—Buy Engines Direct!

Stop—don't buy an engine yet. Learn what I save you now on the exact engine you want. Get my new 1918 prices—my way of doing my bit to help the men and women on the farm help the nation in the cry for bigger crops. Get my proposition. It's a winner and will open your eyes to the engine business and how I save you this big money on engines by buying direct the manufacturers. We make our engines complete in our own factories and sell them to you at wholesale.

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My offer—besides patriotic prices—means five easy buying plans—with terms to suit. I also give a power test on your own farm. Listen to this: "I can't give your engine praise enough. I had a 6 h.p. Galloway engine belted to my 16-in. corn mill, and it does the work where an 8 h.p. of another make did not. —M. F. Shoemake, Defeated, Tenn." "My 6 h.p. Galloway was 5 years old last fall. Works perfectly, good for 15 years yet.—H. W. Barnes, Delphi, Ind."

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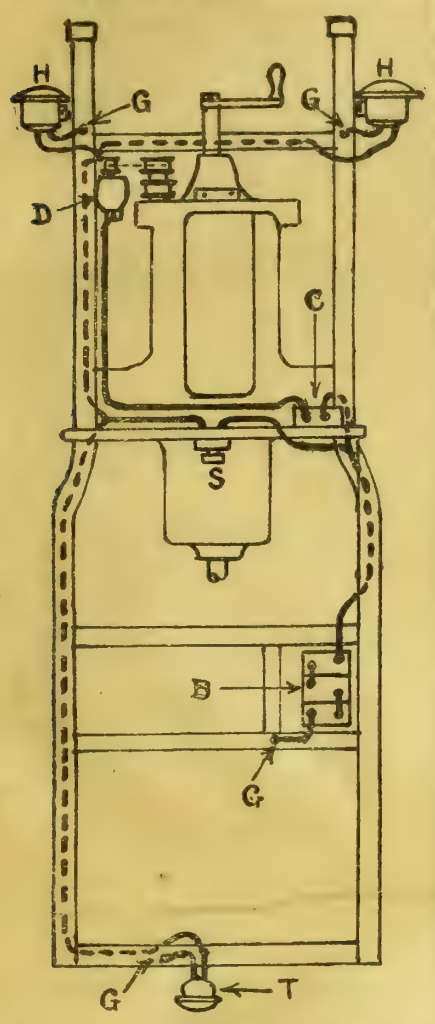
from the exhaust shows too rich a mixture, while popping back in the carburetor is caused by too lean a mixture. A white smoke from the exhaust indicates too much oil.

Electric Lights on Auto.

Will you kindly answer this question for me: Can I make my lights on my car from a dynamo, and how?

Answer.—You can. You will need a six-volt sixty ampere hour storage battery, an automatic cut-out, a charging dynamo of eight or ten volts and eight amperes capacity; also the switch and necessary wiring. Your dealer in auto supplies should be able to furnish you with all this material.

The greatest problem will be mounting the dynamo. One method is shown



in the figure. Nearly all motors have a fan drive pulley held on its shaft by means of a nut. This nut may be removed and an extension shaft made to screw on in place of the nut. On this extension shaft, a pulley may be mounted to run the generator by a belt.

In the figure, one terminal of the generator is grounded, only one wire leading from it. All wires are shown in heavy solid or dotted lines, the dotted lines indicating that the wire is inside the channel iron of the frame. The wire from the generator, D, runs to the cut-out, C. From cut-out, C, a wire runs to the battery, B. Soldered to this wire is a wire leading to the switch, S, on the dash. From the switch a wire branches off to each of the lamps. One terminal of each lamp and one terminal of the battery are grounded at GGGG. These ground connections must make good metallic contact with the frame. HH are the head lights, T is the tail light. Use six-volt lights in all lamps, the tail light being two candle power and the head lights eight to twelve candle power.

Maximum Carloading Urged.

Real Economy in Hauling Heavy Loads.

American railroads are now moving more traffic than was possible under the old system of operation. Yet the traffic offering is still beyond the reasonable capacity of the railroads.

This situation presents the problem of further increasing carrying capacity in the shortest possible time to meet military needs and for distributing necessities among our people. New railway equipment can be added but slowly; factories are working night and day on government war needs. Shortage of labor is a factor in holding back other improvements. A means immediately available for increasing car efficiency is heavier loading and prompt loading and unloading. This situation was pointed out soon after the entrance of the United States into the war and many shippers and receivers responded in an effective manner, but the response was not as general as desired.

Railroads claim that while they have built cars of greater capacity, larger locomotives, and have provided heavier rails, there has been less progress in scientific car loading than in any other field of railroad operation.

The advantage of maximum loading to the public is apparent. For example: Richard Roe and John Doe, living at Urbana, Illinois, order farm supplies from Chicago. Each order amounts to 30,000 pounds and they are placed separately at slightly different times. Two 36-foot box cars, each weighing 40,000 pounds with a carrying capacity of 80,000 pounds, loaded at a minimum of 30,000 pounds, ae required to carry these supplies from Chicago to their destination. The gross weight of the two cars and contents is 140,000 pounds and the freight charges $45.00 per car.

Should Richard Roe and oJhn Doe order their farm supplies together, the entire shipment could be placed in one 36-foot car. The gross weight of the car and contents would b but 100,000 pounds and the total freight charges, $90.00. This would save the haul of 40,000 pounds dead weight and one boxcar. Thus one car would be added to the railroa equipment without expense; one car space would be saved on each loading track, yard track, passing track, unloading track and in the train, and the cost of one car saved in the railroad's capital stock investment. In addition to this, the efficiency of the locomotive in handling the commodity would be increased.

Were it not for the campaign by the railroads for heavier loading and the response from some shippers it would have been impossible, particularly in the East, to move traffic last season. Different classes of shippers have met with the Food Administration, set aside selfish interests, considered a situation, dealt with it as a whole and by coöperation have accomplished things which, under different conditions, would have been almost impossible.

Farmers can assist materially in the present emergency by clubbing together, when ordering farm supplies direct from manufacturer. Prompt loading and unloading of shipments is also important. These matters are of vital concern and everyone is asked to lend his hearty coöperation for the common good.

Why More Sheep.

To the Editor:—The call for more sheep goes up from all parts of the country. Not always is it evident just why this appeal should be heeded by the general farmers of this country. As it appears to me, here are some of the reasons that may be given why our farmers might well increase their flocks.

The first thing the practical farmer wants to know about any proposition is, "Will it pay?" On this score there can be no doubt about it. There is money in wool, money in growing lambs for the market and money in selling grown-up sheep for meat. This is not a bare statement. Facts and figures prove it to be true.

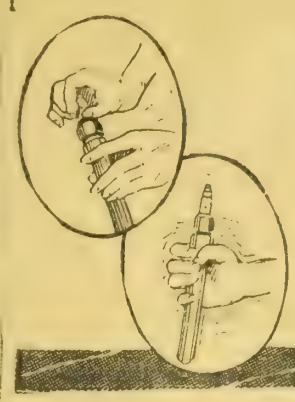
The cost for hired help is less for sheep than for almost any farm animal we have. It is true that for a time in the spring of the year when the lambs are coming the farmer must provide care and shelter for his flock. Not to do this will invite loss of lambs and greatly cripple the work of the year. At other seasons, sheep will quite take care of themselves. Give them a good pasture, a never-failing supply of water and a bit of salt now and then and they are all right.

A sheep will enrich a farm greatly by the droppings it leaves wherever it goes. The manure from sheep is very rich.

If we have pastures that are rather weedy, sheep will clear them up as well as any farm animal I know of. I have seen them take a field where the goldenrod was higher than their backs and thick as could be everywhere and clean it up in a short time. Brush of all kinds can be taken care of in the same way. The world needs more wool and mutton. Much is said about the patriotic duty of growing wheat, corn and other farm stuffs. To my mind, the same thing applies to the keeping of sheep. If there were no other reason why every farmer whose land is adapted to this business should invest in at least a few sheep, seems to me this is sufficient. The need of the world is great.

Sheep keeping is a branch of farming that most men enjoy. Few men but like to see sheep about them. There is in most men a natural shepherd instinct. No others should undertake to keep sheep. If one is not attracted by the presence and care of sheep, but greatly prefers to do some other kind of farming, he should by all means leave the sheep-keeping industry to somebody else, for he will not be very apt to succeed. To do anything out of a sense of duty, and for that reason alone, is to almost warrant the prediction of failure.

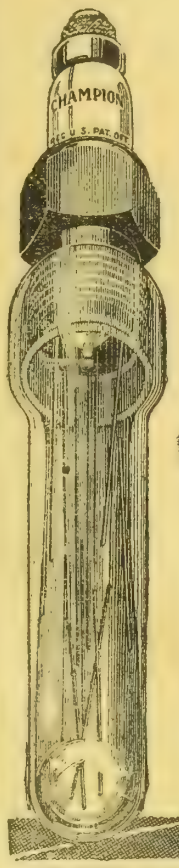
Then, finally, more sheep are needed to supply the leather demands of our own and neighboring nations. Leathers of all sorts are short. In some countries people are going barefoot today. Hides are scarce and high in price. It is worth while for all American farmers to do what they can to meet this universal want. E. L.



Champion "Minute" Spark Plug Cleaner

Clean Plugs
—and Hands Clean

WITHOUT taking the plug apart, in a fraction of the time it used to take to *half*-clean your spark plugs, you can now get them *really* clean without even soiling your hands.



Just half fill the tube of the cleaner with gasoline, screw the plug in the socket at the top and give it a vigorous shaking.

The gasoline softens the carbon and the little flying needles pick it off in small particles and leave the plug cleaner than you could get it in the old laborious way.

Champion Minute Spark Plug Cleaners cost only 75 cents, come in a neat wooden box that will pack neatly in your tool case and are sold by supply dealers and garage men everywhere. Get yours today.

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Toledo, Ohio

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DAIRY

Polk County Butter and Cheese Association.

To the Editor:—It might be said that the Polk county butter and cheese makers, through their association, have accomplished a great deal of good during the eight years that they have been organized.

They meet once or twice a year for a discussion of various topics of interest to the men who make the butter and the cheese of the county. At the meeting held October 18th an extra effort was made to get the producers to attend. One of the speakers was requested to present their phase of the work and at future meetings the milk and cream producers will be invited to attend.

These local, or county meetings, are the means of getting the boys together for a friendly discussion of the problems in which they are interested. It also creates an interest in good butter and good cheese.

The men come to these meetings with a jar of butter or box of cheese under their arms and each has the opportunity of seeing the judges do the work. These men may be counted on for an exhibit at the state or national convention and the state fair as well. One out of every nine tubs entered at the Wisconsin State Fair in September came from Polk county, with nearly the same ratio for the Wisconsin exhibit at the recent Milwaukee national.

That the boys make good butter all the time is shown by the scores placed upon the butter from this county at four contests held during September and October. (See table.)

SCORES RECEIVED BY POLK COUNTY MEN.

Name	N. W. State Fair Chippewa Falls	Wisconsin State Fair	Mil. Nat. Conv.	Polk county
P. Kristensen, Cushing	95.25	94.66	94.50	94.50
B. Luidvig, Milltown	74.75	95.33	95.50	94.50
Albert Erickson, Amery, R. 4	94.37	95.33	94.33	95.00
C. Back, Luck	93.25	95.83	94.50	96.00
R. Butler, Amery	93.25	95.00	94.33	....
J. Vigen, Frederic	92.50	92.16	92.50	....
Elmer Erickson, R. 2, Luck	....	....	93.00	94.75
H. D. Harrison, Clear Lake	....	95.50	93.50	....
J. E. Mattson, St. Croix Falls	....	95.00	96.00	94.75
George Nelson, Atlas	....	95.33	....	94.50
Emil Holverson, Nye	....	92.50	....	....
L. Butler, Lewis	....	....	....	93.25
Average	93.89	94.66	94.24	94.63

A close study of these scores reveals the fact that the men consistently make good butter and the different judges were in tune. Not the same man came out on top each time. This is not to be expected when there are several high-scoring tubs entered. It is doubtful if another county in the state can show an equal record for total entries, number of scorings and an average score of 94.40 for thirty-three tubs.

It cannot be said that the good butter of Polk county is the result of any one line of activity, but a combination of several. Coöperation has done its share, not only because a large percentage of the factories are being operated on a coöperative basis, but also because of the coöperation existing between the buttermakers. A large number of the milk and cream producers are interested in the production of good raw material. This may be due to the demand made by the management of the various factories for good butter and standing by the makers in their efforts along these lines.

The county has a number of well-equipped factories, some of which may be classed among the best in the state.

Climatic conditions also favor the production of good milk and cream and the dairymen are beginning to realize that the best is none too good. The future will see better cows, well-equipped barns and a large number of the cow owners familiar with feed values; now the cows may be fed to secure greatest returns.

It is to be regretted that there are a few dairymen in the county who are not interested in the future welfare of the community in which they live. They do not patronize the local creamery and they are not inclined to take kindly to instruction pertaining to the production of clean, well-flavored milk and cream.

May the work of the Polk county association continue and the indifferent dairymen be reached.

Polk Co., Wis. Albert Erickson.

The Calf on the Way Up.

To the Editor:—Just now on our own farm we have some of the likeliest looking heifers coming on that we ever owned. One of them will soon begin to give milk and the rest will be along in a few weeks. These heifers are of the same breed we have had a good many years and from the same cows practically as in former years, but I am sure we never had finer stock than these are.

One reason why these heifers have made such growth is that it so happened that when they were young calves we could give them warm milk right from the separator. On account of the tie-up in the milk business the creamery at the village a couple of miles away did not do business, leaving it for the farmers to do as they could with their milk. We got a separator and made our own butter. That left us with the skim milk, and we gave it to the calves and the pigs, and some to the hens. Never did we get better return from skim milk than we did that year.

This proves to me the value of a good start. This year we have not been making butter, so we have not had the sweet skim milk and our calves show the difference, although we have done our best by the use of stock foods and other means to make up for the loss of this finest of calf foods.

Where one has not the milk it is harder work to start the calf well, but that it can be done I am sure. A few days ago I saw a calf that has not had any milk, but has been fed some grain, plenty of hay and what water it would drink, together with freedom from the pest of flies. This calf was born in the spring of 1917, but I have seen many calves nearly a year old that were not a bit larger. I ought to say, also, that this calf never has known what unkindness was, and this I know has had a good effect upon its growth.

On the way up the calf that gets acquainted with the feel of a brush and comb has a marked advantage over one that is left with rough hair and dirty skin. The condition of the hide has much to do with the health and so with the thriftiness of the calf. If the pores of the skin get stopped up, so that the calf cannot breathe through them, it will take more food to keep the animal growing. For this reason, grooming is worth money. It takes but a few minutes every day to go over the calf with comb and brush carefully, and, saying nothing about looks, we will surely find that the calf will grow faster.

The worth of good water and plenty of it daily is another good thing for the calf, no matter what else it may be getting in the way of feed or drink. There is something about water that neither milk nor stock food contains, something the calf needs, as well as all other living creatures. This ought to be fresh and given in a trough or bucket that is perfectly clean, for we must not forget that from unclean vessels come the germs which, taken into the body of the calf, are pretty sure to convey disease.

Then, too, the hay fed ought to be good hay, free from dust or any weeds that would injure the calf. It is a good plan to tuck away in some corner of the barn a little hay to be fed exclusively to the calves. Subscriber.

Save the Heifers.

To the Editor:—There seems to be in many parts of the country altogether too much discrimination against heifer calves where stock raising is carried on in connection with other lines of farming. How often do we hear the farmer say, "How fortunate that calf is a male. It means more money for me and more beef for the butcher."

Now, what I am driving at is that this is an entirely wrong way of looking at the matter. Every strong, promising heifer calf has its value.

And in these times of scarcity in live stock their value is of no small importance. It is this same discrimination against heifer calves that has, in large measure, led to a dearth in cows in many places; even in long drives it is impossible to find good cows for the dairy in very large numbers. The farmer is and has been feeding up his surplus stuff into steers for beef and sending his heifer product quite early to the block, through the avenue of young veal or yearlings. Really you cannot sell your surplus heifers to the average feeder, for he

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wants the steers, and will hound the country over for this beef product.

It is this procedure that is having a telling effect upon the cattle industry and if some of us are not headed round soon and induced to give more attention to the production and preservation of heifers the dairy business of this country will sooner or later suffer a critical shortage. In fact, in many parts of the country the effects are already being felt, in the scarcity of females, shortage of cream and butter products and tendency towards higher prices to consumers. Now let's all get together and do with our heifer calves as the old miser does his dollars, "hold them till the eagle squalls" and raise more and the first thing we know we will be up early in the morning milking and separating the cream and by noon have the cream check in hand for our labors, and then see if you don't feel better. R. B. R.

Dairying on the Institute Program.

Dairying constitutes one of the most important fields of all the agricultural life of our nation. There is not a single person who is not interested in some manner or means in production or consumption of dairy products. Scarcely is there a man, woman or child who attends an institute in one of our well-established communities but is pleased to see dairying or some of its problems have a place on the program. There is probably no other line of farm work that secures such universal attention as does dairying. Such being the case, it is well to begin early to plan that this important business shall have its rightful place upon the institute programs of all our countries.

The war has brought serious problems to the dairyman. To some extent each must right his problems alone and he must meet them in a manner peculiar to his own situation. Yet there is some help to be gained by rubbing shoulders and swapping ideas with fellow dairymen who may have encountered the same troubles, but have met them in a different manner. The speakers furnished by the state come with a message of useful [illegible] gestions and [illegible] pos-

variety of topics that are available as subjects for talks or papers. However, in many cases the problem of feeding is paramount in its interest. This year it is perhaps more vital. Everyone is interested in keeping down the cost of feeding and in producing a maximum milk flow. Some good dairymen hesitate to pay the prevailingly high price for dairy feeds wondering whether or not the returns in milk will justify the enormous expenditure of money. On this topic there is unlimited opportunity to use home talent. Every dairyman is buying closely and has figured a great deal. Out of numerous suggestions which will be made there are certain to be some valuable ideas.

The war has struck the help problem almost as a torpedo strikes the helpless merchant ship. In this again can the state speaker or local talent speak to very attentive audiences. In this connection a talk on experiences with a milking machine or a visit to a farm where a machine is in operation will be very acceptable. Thousands and thousands of times men have said, "If it were not for the milking I should be able to handle the situation." Perhaps the milking machine offers a solution. At any rate, it deserves consideration pro and con relative to its merits and demerits. In this, as in other topics, there is no place superior to an institute for threshing the matter out. Women are substituting for men in the barns or upon delivery wagons. No more timely topic is available than the possibilities of women assisting in dairy operations.

Coöperation is ever coming to the forefront with dairymen. They are neighborly and realize that it pays to work together. Possibly they are able to get feed at a lower rate per ton by buying in car lots and by paying cash. This has been done and a talk by some man in charge of this kind of work will mean dollars and cents to assembled dairymen. Coöperative buying of dairy stock and coöperative selling never lose their interest and the dairying of many sections is rapidly coming to a basis of united effort in this respect. Cow-testing association work and herd records never lose interest. In some places the institute is made the annual occasion for a complete public report by the tester or by some man well acquainted with the work relative to the results secured from the herds of the county.

The judging of dairy stock or a demonstration in judging is always very acceptable. A great deal depends upon the community as to what will be most acceptable in this line. Where dairying is in its beginning a demonstration by a capable man who will point out the points that are required to make a good cow is doubtless best. Where dairying is well established it is often advisable to hold a contest in judging dairy cows. Often it is possible to visit some farm for this work and in most cases the farm visits add to the interest and zest of the occasion.

The future of the dairy business is always a subject of interest. All realize that the future can be nothing but bright, yet there is a question in every man's mind as to how best to prepare for the future. He is not quite certain as to how best to meet it. Here is a topic upon which a man with extensive experience, broad [illegible] e of great [illegible] unity or individual men [illegible] some of the great problems of the business.

An institute usually has upon its program topics in which the people have shown the greatest interest. Such being the case it is manifest that people who desire to have dairying upon the program must express their desires to the institute chairman or to the program committ e. Doubtless it is well to begin early as the program might be filled if those interested were to wait until near the date of the institute. It is possible in the event that not a sufficient amount of time on the regular program can be devoted to dairying to arrange for a special day devoted to that subject. In this a combination of state speakers and local talent can fill a day perfectly. Dairymen should see to it that their interests have the share of attention which they deserve. Some preliminary work done in arousing interest and enthusiasm will insure that the institute will be a big event for the community.

Grain for Calves.

Whole milk is "nature's balanced ration" for the calf. When skim or separated milk is fed, other feeds are used to supply the fat which has been removed. Proprietary calf feeds or meal, for feeding with separated milk, have been put on the market. Many of these have merit, but by using the feeds usually found on the farm or in markets near by the farmer can generally mix a grain ration which is as good and costs less.

Wheat bran is a grain which is readily taken by young calves. Inasmuch as one of the essential points is to induce the calf to eat grain as early as possible, bran in many cases is one of the ingredients in the mixtures. Corn, a feed very commonly found on the farm, has an excellent physiological effect upon cattle of all ages and to a great extent may take the place of the fat removed from the milk. It is, therefore, one of the very best grains to use with skim milk. Experiments in Virginia tend to show that corn fed to calves should be cracked rather than finely ground. Cracked corn and wheat bran, therefore, should be the basis of the feed mixture. Ground oats are very good for the purpose, but they are not grown on the farm so commonly as corn and in many cases cost much more per unit of feed than corn and bran. The following mixtures are recommended:

1. Three parts cracked corn and one part wheat bran.
2. Three parts cracked corn, one part wheat bran and one part ground oats.
3. Three parts cracked corn, one part wheat bran, one part ground oats and one part linseed meal.
5. Five parts cracked corn, one part wheat bran, one part ground oats, and one part blood meal.
5. Oats, ground.

When the calf is in its second week it should begin to receive grain, and when one month old it should eat about half a pound a day. After this time the quantity of grain may be gradually increased, feeding the calf all that it will take until three pounds a day is reached; this will probably be some time during the third month. Grain, when fed with separated milk, should never be put into the milk. It is questionable whether the preparation of grain in any way, such as soaking or boiling, is advisable under any circumstances. Grain should be furnished in separate feed boxes so placed that it cannot be soiled by the droppings of the calf, but at the same time where the calf can get at it readily. There should be no corners in which wet feeds may ferment, and the utmost care should be taken to keep the grain fresh and clean at all times. —[United States Bulletin.

Lost Money on Hogs.

To the Editor:—Can't you persuade Mr. Hoover to step in between the hog raisers and the packers before it is too late? I have just finished one year of hard work raising hogs to help feed the people, and kept account of everything. I have just sold $2,000 worth of hogs and the expense was $2,300 in round numbers besides my time which I got nothing for. Now I want to be patriotic, but that doesn't pay for hog feed.

If I had sold my feed during the year at market price I would not have had to work the whole year for $300 less than nothing. I am not the only one in the same boat. We have lots of men who have given up and will not breed their sows. It is too bad that something cannot be done in time to save us in time of need.

I see Mr. Pinchot and one other man were turned down on their report to Mr. Hoover and both resigned. This has got to come and the sooner the better. Every hog in this locality has gone to market or to soft cornfield farther south. We can't buy any more corn of the farmers for $1 and haul it fifteen miles, which I did at the last, and it was half soft at that. Oats are 64 cents. I am feeding them to my pigs for winter feed. I have to clean up yet this winter and go out of the business if I can't get over 20 cents for hogs here at home. Not one hog in ten that left our market this fall has been finished pork.

Edmunds Co., S. D. A. L. Jones.

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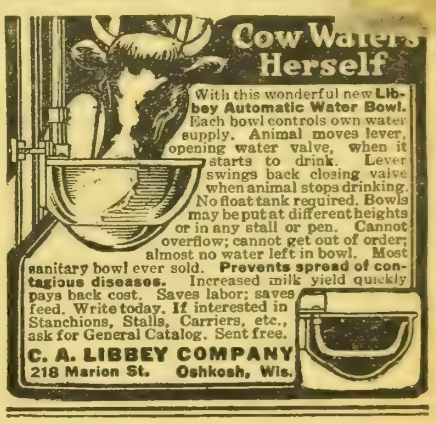

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How to pick a good brood sow?

How to feed your cows to give the right color to your butter?

How to prepare cattle for shipment to avoid heavy shrinkage?

How to get rid of worms quickly?

How to pick a good dairy cow?

How to tell when pregnant animals will drop their offspring?

These and many other valuable questions are answered in a new Live Stock Book we have just issued and which we will gladly mail, postpaid, to anyone who will write for a copy.

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It is a thorough treatise on worms in live stock. Illustrates the various kinds of worms—tells how they rob the animals of their food nutrition—how they cause fatal diseases—why they are the direct and indirect cause of over $200,000,000 live stock losses annually and 90% of all live stock diseases.

It tells why no farm or farm animal is free from these costly pests unless regular treatment is practiced. Tells how to get rid of them at very little cost and practically no labor.

It tells about SAL-VET—that wonderful "Veterinary Salt"—a medicated salt which has saved thousands and thousands of dollars for American farmers. How quickly it gets rid of stomach and intestinal worms; how it tones the blood and aids the digestion; how it helps every animal to thrive better, look better, grow and fatten faster and costs so little that it really is not an expense but a big profit maker for live stock owners.

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Preserve Your Breeding Stock.

Breeders Are Assured Liberal Profits for Hogs, Cattle and Sheep—By Arthur Leonard, President of the Chicago Union Stockyards.

MANY American farmers are making a big mistake. They have marketed too many brood sows, and now they are marketing too many pigs.

The recent marked increase in average weight together with a marked decrease in numbers, has been followed by much lighter average weight and increasing receipts at market. These facts are significant to those who study the hog situation.

A similar mistake is being made in the marketing of cattle. Too many beef cows are being sacrificed, and too many young cattle and beef steers that are in no better than feeder condition.

To the average American farmer the world war is still a far-off event. He has been too busy since this country entered it to be fully aware of the meaning of that fact, or to clearly realize its tremendous bearing upon American agriculture.

Thus far he has thought of the war mainly as it affects the labor necessary to produce and gather the crops he has planted and their market value.

When he does wake up to the true significance of this great struggle, he will see that preservation of breeding stock on farms is one of the most vital factors to all the people of every nation, in order that the world's rapidly disappearing supply of meats, wool and leather may be replenished. Everything points to a continuance of the war for some time to come. The world's needs will increase as the war goes on. Is it not plain that the demands upon agriculture for food and clothing will grow greater and greater with each month of destruction; that it will be impossible to produce an adequate supply, especially of animal products, such as meats, leather and wool, unless breeding herds are maintained, and that such demands and the needs for breeding stock to replenish the wasted herds and flocks will continue long after the war ceases; that this country must be looked to mainly for such supplies and breeding stock, and that those American farmers who are wise enough to realize this fact and prepare for the world's coming greatest needs which are inevitable, will reap the greatest rewards for their foresight, in both money and the gratitude of their fellow men?

The short-sighted policy, which strangles the bird in hand and lets those in the bush fly away; which, for the sake of a few extra dollars now, sacrifices breeding stock and thereby destroys the foundation for supplying the world's future needs, not only deprives this nation of vital necessities in its struggle to help the world, but also takes away the foundation for the abundant profits that would otherwise be the sure reward for waiting and developing the opportunity which is thus afforded.

Without sufficient seed, there can be no adequate crop of any kind. A world scarcity and greatly increased needs everywhere for all animal products can have but one meaning, and that is sustained market prices for all kinds of live stock during the war and for years after.

In measuring the farmer's supposed advantage in selling his old corn and animals separately at present prices for both, the effects of this short-sighted policy upon the future corn market, as well as on future hog prices, should be given careful consideration.

All authorities agree that about 80 per cent of the total annual corn crop of the United States is fed to live stock, about 30 per cent being fed to hogs in the principal corn-belt states.

That leaves only about 20 per cent, or less than 600,000,000 bushels, to be marketed as corn.

Now, suppose that only 70 per cent of the entire corn crop were fed to live stock, which would leave 10 per cent of same, or about 300,000,000 bushels more corn to be sold as corn.

That would mean an increase of fifty per cent in the quantity of corn thrown upon the grain market.

Now if we take into consideration the further fact that there is an estimated yield this year in the United States of 3,210,000,000 bushels of corn, which is an increase of 627,000,000 bushels over the crop of 1916, or 456,000,000 bushels over the previous five-year average, and to this increase we add the above increase of some 300,000,000 bushels which would ordinarily be fed to live stock, to say nothing of the millions of bushels heretofore used for making whiskey, alcohol, etc., it is easily seen that the usual quantity of corn thrown upon the grain market and sold as corn will be more than doubled during the season just about to open.

The amount of corn consumed directly as human food is so small compared to that fed to live stock, that any probable increase in the former would scarcely affect the proportions of the entire crop; so that, notwithstanding any such increase, and in spite of the great world demand for cereals, there is more than likely through the coming year to be a large surplus of corn thrown upon the markets for grain, with resulting declines in market value, while the inevitable coming scarcity of live stock at market, as the result of the heavy marketing, both last year and this, which leaves the shortage in the country, together with the greatest demand ever known for meats, leather, wool and all animal products and by-products, gives a positive assurance of sustained prices for live stock of all kinds.

Of course, market prices will fluctuate temporarily, but the readiness with which prices quickly recover from the effects of every overcrowding of the markets attests the sound underlying basis of values.

If growers generally will only hold their animals, regardless of temporary fluctuations, until ready for market, instead of rushing them in on every break for fear the good prices will end, and thereby tending to break the market, there would be comparatively even and regular market values at well-sustained levels and violent fluctuations would be avoided.

While there is no doubt concerning a general shortage of hogs in the country, yet the owners of hogs have little confidence in the future of market prices for hogs, while the disposition to hold marketable corn for higher prices is strong, and these two tendencies together are likely to produce within the next sixty days a considerable rush to market with young hogs, causing a temporary decline of prices, with resulting great scarcity afterward and still higher prices than now prevail.

The logic of the whole situation points to liberal progts for those who study it broadly in the light of facts and hold onto their young and feeding stock until matured and ready for slaughter, and especially so for all who have good breeding stock of any kind.

The whole world will be clamoring at their doors for it at almost unprecedented prices, both during the period of the war and for sometime afterward.

Bacon sells at retail in London for a price equivalent to 60 cents, while the normal price is only about 18 cents. If this indicates the relation of supply to demand it doesn't seem that hog raising can be overdone for some time to come.

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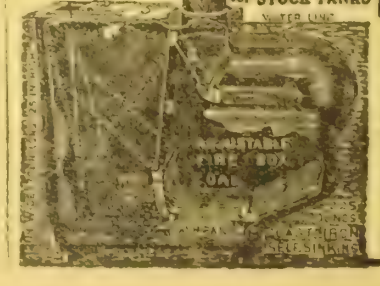

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POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Timely Advice to Poultry Breeders.

To the Editor:—The time is at hand to think of next year's poultry crop. In the first place, you should select your best and most vigorous birds, also those that are the nearest to standard variety of fowls. For instance, take about eight or ten of your best females and a good active cock or cockerel and pen them away from the rest of the flock. Begin right now, don't wait until March or even later. By penning them early in the winter they get better used to their quarters and better acquainted and you will have better results. If every farmer would do this, what a splendid flock of fowls he would have, and by getting a new pure-bred male or a good setting of eggs or two once in a while from a reliable breeder he would soon have as choice a flock of fowls as there is in the country.

Also, the hatching season is to be considered at this time of the year. If you use hens for hatching you must have a place separate from the other flock of fowls so that they will not be disturbed by other fowls or some other noise. A setting hen wants a rather dark place and she does not want to be disturbed any more than is necessary. The nest where the hen is to set should be made comfortable with plenty of short hay or straw. Put a china egg or two in the nest and then take old Biddy (always in the evening) and put her on the new nest. She will take more kindly to the new nest if she is changed in the [illegible] see that the [illegible] leaves the nest once a day until the nineteenth or twentieth day; after that leave her alone until the twenty-second or twenty-third day, at which time all the chicks should be hatched if the hen has set well during the entire twenty-one days. It is well to run your hand under the hen after the chicks begin to hatch and remove all the egg shells, otherwise the shells sometimes slip over another egg that has been picked or not picked and the chick in that egg smothers.

A good many poultry breeders and farmers use incubators. Now, here, dear reader, I want to warn you, buy the best incubator on the market; that is, one that is built right and will hatch good, strong, healthy chicks. I have found that the best place to run an incubator is in a good basement, one that is well ventilated and has good, pure air. Always follow the instructions that come with the machine. I find in order to be successful with an incubator you must have a good brooder. You should also have a good brooder house to put the brooder in. I find that a coal burner brooder produces a uniform heat and there is no danger of smothering the chicks.

W. F. Gernetzky.
Columbia Co., Wisconsin.

Hints on Line Breeding.

To the Editor:—Most poultry fanciers are much interested in line breeding. As a fancier I believe to get good show birds you must line breed, but it is a thing that you must be very careful about. I believe in line breeding you can easily breed out of a good laying strain. A few years ago when I had been line breeding I began to notice that I did not have as good a laying strain, so I got a change of blood and I could notice the next year that I had a better laying strain. Also in line breeding your birds will not be as vigorous or as large. I think that when they are so line bred it is hard to get the eggs fertile and if your eggs are fertile the chicks are generally weak.

To get good show birds, however, you must line breed some, but not too much. About two years ago I used one male of new blood and one of my stock of the line bred and the eggs were more fertile from the bird of the new blood and the chicks were stronger and grew better. The eggs from the pen of the old line-bred stock did not hatch well, the chicks were not strong and did not grow as they should.

Clyde H. Davis.
Waukesha Co., Wisconsin.

Breeding for Exhibition.

To the Editor:—I find that many farmers have the idea that exhibition poultry are not profitable producers. I have found it to be the opposite, at least, with Buff Orpingtons. The Standard-bred Buff Orpington is essentially a practical fowl. The Standard calls for a full-breasted, deep-bodied bird of good length and a long, level keel, broad back of good length and width carried to the tail. Standard weights are: Cock, ten pounds; cockerel, eight and one-half pounds; hen, eight pounds; pullet, seven pounds.

As long as we stick to the Standard in our selection of breeding birds we will have a most practical fowl. The Buff Orpington is a great winter layer, a first-class setter and mother, and as a market fowl is unsurpassed.

A great many breeders have made the mistake of breeding considerably over Standard weight. By doing this they lose on the egg yield, the mothers are too clumsy as mothers, and they are too coarse and apt to be too leggy to top the market as a table [illegible] has been that [illegible]gton birds have [illegible]able, from the [illegible]point, as well

The breeder that can combine with this Orpington type the proper shade of buff with strong undercolor and more of the inner fancy points, such as proper color of eye, beak and earlobes, combs of good shape and free from side sprigs, legs free from feathers, stubs, etc., than his fellow breeders, is the man that wins at the shows and the successful breeder of exhibition Buff Orpingtons. All of these last-named points have nothing to do with the practical side of the breed, but make them pleasing to the eye as well as profitable.

If I were about to start breeding exhibition Buff Orpingtons, I would take in a few of the largest shows in my vicinity and spend all my time studying the winners, thereby fixing in my mind the proper Orpington type and shade of buff to breed to, at the same time getting acquainted with as many of the breeders as possible and getting all the pointers possible from them. I would then go to the breeder I had the most confidence in and who breeds his winners, not buys them, and buy a trio of birds mated by him, or a couple of settings of eggs from his best hens for my foundation stock.

They will not be perfect birds, as the perfect bird has not yet been produced. But if they are mated properly the male will be strong, where the females are weak. For instance, if the male is a little long legged and short in the back with the tail carried too high, the females will be a little low down with nice, long backs and low-tail carriage. If the females are a little weak in color of eye and have gray in the wing the male should be especially strong in these points, etc. But when it comes to color, do not mate a dark bird with a light female and expect good results. Procure as near the proper shade of buff in both sexes as you can afford to buy.

You can perfect your strain better by line breeding than by introducing new blood in a haphazard way each year. Do not breed any closer than cousins. For a few years go back to the same breeder for new blood and tell him just what points your birds are weak in, so he can send you birds strong in those points. Then later on if you see another breeder's birds that you like especially well, that, as a strain, are strong where yours are weak, buy a bird or eggs from him and mate carefully with yours, keeping strict track of the progeny by marking the little chicks with a toe punch, so that when they are developed and should not come up to your expectations, you can discard the whole lot without damaging your strain. On the other hand, if they should develop the qualities you are looking for you can infuse the blood into your entire strain, thereby improving it.

It is a great game and the more you study it the more interested you become in the race to produce the perfect bird. At the same time, you are doing your share in the improving of the general utility flocks of the country.

Selling your big, husky cockerels that fall short on the exhibition points to farmers improves their flock, just as the pure-bred sire is doing in every branch of live stock breeding.

S. D. Seymour.
Milwaukee Co., Wisconsin.

Kitchen Waste for Hens.

When kitchen and table waste is to be fed to poultry it should be selected and prepared with a view to getting its full food value and at the same time making it entirely acceptable to the birds.

Not all of the refuse and scraps from the kitchen is suitable for poultry food. Some things, as vegetable peelings, may be used when they constitute only a small part of the scraps, but when they are in excessive quantities it is better to dispose of them separately.

The same is true of coffee grounds and tea leaves. Fat meat in large pieces should not be put with scraps for poultry, because a hen can swallow a much larger piece of fat than is good for her. But cutting waste fat meat in pieces no larger than one would cut for himself at the table, and by making sure that the fat does not exceed ten per cent of the scraps fed at one time the dangers in feeding fat are avoided.

The best way to save kitchen waste for poultry is to keep a one-gallon jar, of glazed or galvanized ware, with a cover in a convenient place, putting into this scraps of bread, cake and meat from the table, remnants of servings of vegetables, cereals, pies, puddings, etc., and whatever waste from the preparation of meals is suitable to combine with these things in a mash.

Once a day the contents of the jar should be turned into a pail of appropriate size and as much ground feedstuff mixed with them as can be stirred in with a strong iron spoon or a wooden stirring stick. The amount and kinds of ground feeds to be used will depend upon the quantity of water with the scraps and whether any particular article predominates.

For thickening a mixture of scraps of ordinary variety a mixed meal of equal parts by weight, of corn meal, bran and middlings is good. If there is an unusual proportion of very rich food in the scraps it may be desirable to use bran alone for thickening. The more meal that can be stirred in and still have all the meal moist the better. Mixing can be done much more easily and thoroughly by mixing in a pail having a capacity about three times the amount of the scraps mixed at one time.

If the mash with scraps makes more than one meal for the flock, the pail should be kept covered until the next feeding. As a rule, it is not advisable to feed such a mash oftener than twice a day, but if mixed quite dry it may be fed three times. The occasion for this will exist only where scraps are so abundant that when thickened with meal they may be made the exclusive diet. This is not as good a ration as one containing some hard grain, but it may be used a long time without any bad results.

Even at the highest prices recently paid for hogs, skim milk fed to them is worth not more than 1 cent a pound. Yet one cent a pound, or approximately one cent a pint, is very cheap for any human food, and particularly for food so high in nutritive value as skim milk.

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Edited by Marion Harris Neil

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UPPER WISCONSIN

Why Have Meatless Days in 1918?

To the Editor:—For years the number of sheep raised in the United States has been decreasing, while the demand for woolen cloth and for mutton has been on the increase until the demand has far outrun the supply.

Even in Australia the number of sheep has fallen off greatly owing to the death of a great number of sheep caused by the drouth. They tell me that if all the wool grown in the United States last year was made into all-wool cloth, not half of Uncle Sam's daughters could have a new wool dress.

There are many places in this country of ours that are well adapted to sheep raising.

In the western states the sheep men have been driven out by the homesteaders. There are thousands of acres of unimproved land in Wisconsin where sheep could be raised on the native grass and at the same time clean up the land.

Here in Upper Wisconsin splendid crops of clover, alfalfa, oats, corn and wheat can be raised that will carry the sheep through the winter and fatten them for market. There are excellent shipping facilities here, too. In Marinette county there are some sheep raisers making it pay. One of these men, Mr. Hardiman, is splendidly equipped for taking care of the sheep. He has a sheep barn that accommodates hundreds of sheep and he has 700 acres of land. Mr. Hardiman began his married life in the hills of Kentucky on rented land. Mr. Hardiman has sixty beautiful young ewes that he will carry through the winter and then give to two of his children to start herds for the coming year. The sheep Mr. Hardiman sold this year brought him $12 each and he got an excellent price for his wool.

Yes, mutton chops are high priced and so is woolen goods. Why not get a home of your own, you renters, who are paying higher rents each year, and raise sheep? Nothing succeeds like success. Let there be no more "meatless days" and let us fear no "eatless days."

Mrs. Lucy L. Ferguson.
Marinette Co., Wisconsin.

Part of the Hardiman Sheep.

Mr. Hardiman's Picturesque Home in Upper Wisconsin.

County Agent's Work in Ashland County, Wisconsin.

County Agent C. B. Post, of Ashland county, has filed with the county clerk a statement summarizing his activities for the fiscal year recently closed. Mr. Post's activities for the past year have been much the same as those of other county agents in Upper Wisconsin and have been directed along the lines of greater production of foodstuffs. Field experiments were not tried, but all efforts were centered on increased acreage and increased production. Last winter's work was not affected by the war. Mr. Post tested 235 cows for tuberculosis and found one reactor, a remarkable record for a

An Upper Wisconsin Sheep Barn.

county which is developing the dairy business as rapidly as is Ashland county. Mr. Post tested the cows of four herds for contagious abortion and spent from one to two days on each of nine farms disinfecting the barns and giving advice relative to the care of cows affected with this disease. The county agent advised with veterinarians and farmers and assisted in establishing preventive measures, which helped to control three outbreaks of hog cholera and two of blackleg. He also dehorned 76 head of cattle last spring. Throughout the year Mr. Post has continued the work of testing milk; securing pure-bred bulls and exchanging bulls from one farm to another in the county. He has assisted farmers, and more particularly new settlers, in securing good grade cows and heifers and in a few cases, pure-bred cows. With the assistance of bankers in Ashland county Mr. Post was able to place 34,000 pounds of dynamite in the hands of farmers, at cost. The Farmers' Equity, of Butternut, assisted Mr. Post in securing two cars of lime, which was distributed at cost to farmers of that vicinity. Mr. Post finds that whitewash sprayers are being used in dairy barns of the county, frequently, and ventilation systems have been installed in several instances and old barns have been remodeled. The county agent helped to organize one community club and encourage the work of three others, which had already been started.

Since the war began Mr. Post has brought into the county three carloads of seed potatoes and distributed same to farmers and gardeners, at cost. He has also proved that pedigreed seed grain is better than the ordinary varieties and he was able to place all seed ordered in the county from grain grown in the county and ship out 1,300 bushels of seed oats and barley. Farmers in the southern part of Ashland county are growing Marquis spring wheat with good results. When the Wisconsin Advancement Association put on their pedigreed winter wheat campaign this fall they secured one-fifth of their seed wheat, 1,000 bush[illegible] from the farmers of A[illegible]

The [illegible] work was done under the supervision of Mr. Post on nineteen farms and four of these farms were putting in tile drains. Four orchards have been pruned and sprayed with Mr. Post's assistance. Good crops were produced in three of these orchards; the other was badly diseased, but is recuperating nicely. Mr. Post also assisted in spraying infected shade trees in Ashland, but was obliged to give up this work in order to spend most of his time in the country. In Ashland county 411 school gardens were planted. The work was carried on with the coöperation of County Superintendent Hagman and Mr. Hedges, of Northland College.

The report which Mr. Post makes is his second and our readers will recognize that it is a good one. The report emphasizes the importance of county agent work in Upper Wisconsin.

Langlade County Potato Show.

That Langlade county can raise large yields of potatoes as well as those of high-quality was proven at the fourth annual potato show recently held at Antigo.

According to the latest government reports, Langlade county produced the highest yield of potatoes, averaging 160 bushels per acre, for any county in Wisconsin this year. But the members of the local potato growers' association and others interested in raising potatoes showed that quality can be combined with quantity.

This year it was more difficult than usual to exhibit potatoes, for the period of dry weather injured the shape of tubers and rendered it hard to find correct types. The shortage of help which affected nearly every farm, with a late season and harvest, kept many growers from selecting show samples at digging time.

The display of Rural New Yorkers was the largest, for this variety is perhaps the most popular of the late white varieties grown in this county. The quality and type of several samples was exceptionally good and demonstrated what careful culture and seed selection will do. Chas. Beard, Elcho, won first on this variety, with Louis Winter, Antigo, and Schroeder Bros., Antigo, R. R. 3, next.

The Irish Cobblers were second in number of exhibits, but equally high in quality. Cobblers are becoming more popular every year, for many growers are abandoning the late varieties owing to the long season needed to properly ripen. The earlier varieties, such as Cobbler, seem to combine yield with many other desirable qualities, so they will be largely planted by growers who formerly raised late stock. The silver cup on Cobblers went to Oscar Nelson, second place to Pete Krier and third to Chris. Sorenson.

Selecting Certified Seed Potatoes on a Langlade County Farm.

On account of the higher prices now paid for Triumphs this variety was the center of great interest. An exceptionally fine sample was shown by J. W. Smith, of Kent, while Louis Winter, Antigo, and Mrs. Chas. Parsons, Antigo, were the second and third winners. Triumphs, they say, do [illegible] newly cleared land [illegible] are not planted by [illegible] have been very ex[illegible]ivation for some [illegible] there are a few grow[illegible] having very good success raising this variety on old land and are being well paid for their trouble. At the present market prices Triumphs are selling for 50 cents more per bushel than other varieties. The southern trade demands this variety and are willing to pay well for good seed stock.

Burbanks, Green Mountains, Early Ohio, Early Rose were represented by only a few samples of each variety, but they were of fairly good type and quality.

The exhibit as a whole was more free from disease than at past shows and shows that growers are learning the advantages of treating their seed before planting.

The exhibit in the young people's class was large and the samples exhibited show that the boys are quickly learning how to plant and pick out the correct types of the different varieties. Harry Winter, Antigo, won the cup offered for first place, with Leonard Parsons and Willie Winters close contenders, all with good samples of Rurals.

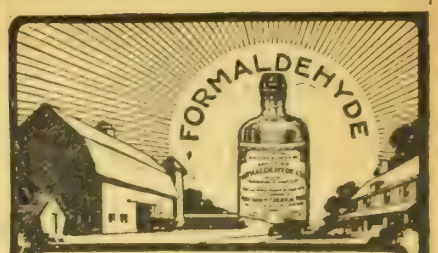
E. L. Luther, superintendent of farmers' institutes, with J. W. Brann, field inspector for the Wisconsin Potato Growers' Association, judged the exhibits. Mr. Luther spoke at the annual meeting of the local association on the value of hill selection for seed and told of the good results he had obtained in this way while he was county agircultural agent of Oneida county. Mr. Brann gave the growers an interesting talk on potato diseases and the preventive measures which should be used.

A special feature of the show was a class for the largest rutabaga grown in the county. The largest baga, weighing over twenty-five pounds, was entered by Joe Florian, of Antigo.

At the business meeting of the association the following officers were elected for the ensuing year: President, Oscar Nelson, Antigo; vice president; Chas. Beard, Elcho; secretary, J. J. Garland, Antigo; treasurer, Chris. Sorenson, Antigo.

It was decided to send to the state potato show at Madison the choicest samples from the show and also make a county exhibit of the seed stock grown here.

One-third of the grain ration by weight should be made up of bulky feeds.



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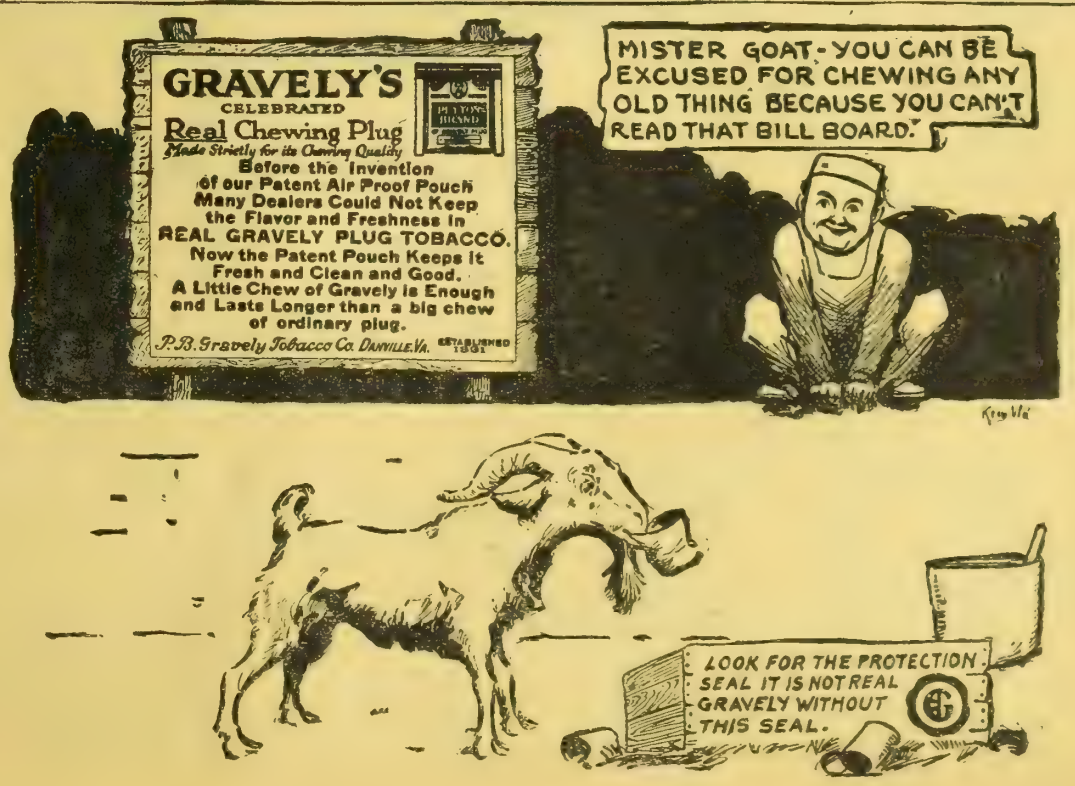

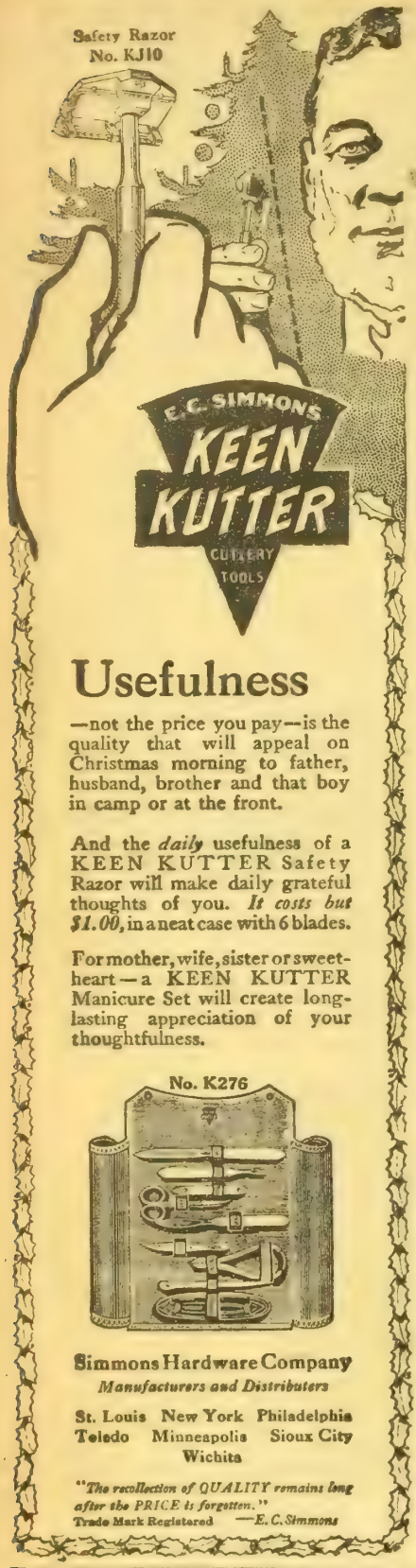

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How Shall We Spend Christmas?

There is a great deal of talk these days about the matter of celebrating Christmas in the usual way by an exchange of gifts. Some are of the opinion that the demands upon us all, by those less fortunate than ourselves, are so great this year that no money or time should be spent in the purchase or preparation of gifts. Others are equally insistent that giving is the spirit of Christmas and that we should this year, more than ever, when there is already so much suffering and so much sorrow to tax our minds and hearts, bring pleasure and happiness to those we love and to those whom we have always remembered in a charitable way.

There is much to be said on each side and clearly this is a question for each individual to decide for himself according to his own conscience. It goes without saying that none of us are going to be extravagant this year, indeed, we do not even believe that an expensive or useless gift would bring joy to the person who receives it. We are afraid that such a person might say, "My friend loves me and I am happy in her love, but why does she not love me enough to share my gift with the unfortunates? Does she not know that I would understand?" For we do all understand, don't we? We all know that the world is crying for food and clothing and love, and if we make our Christmas gifts with thought not only for our friends but for the others—the hungry and the cold and the neglected—there will be Christmas cheer for all. As said before, we must each decide for ourselves, for, after all, it is only a question of how we can best spread the spirit of Christmas.

But we want to make one plea for the little folks. The children will be looking forward to Christmas. Some of them are old enough to have the grown-up view of doing all for others, but the little baby folks will not—it is only the happiness and the lighted candles and the Christmas greens that appeal to them. Here, again, we must fit our actions to the needs of the case. Christmas is going to take more thought in every household this year than ever before, but the extra thought and the extra planning and the full measure of charity and love that we are all going to put into our preparations, whichever course we pursue, are going to make it a wonderful Christmas—one that the Christ Child will look upon as a beautiful gift day in His honor.

The Silverfish a Household Pest.

Perhaps you have pulled out a book or some old papers and have seen a glistening, silver or pearl-gray insect vanish quickly down a crevice. And perhaps you have thought no more about the insect, but have wondered why the gold lettering on a book had a worn look or the surface of the leaves were scraped and roughened. Or it may be that you have found fabrics that have been packed away, damaged, and have been unable to account for it.

If such damage has been done or you have caught sight of such an insect it is well to institute a program of investigation and eradication.

This insect, because of its glistening body, its quick, gliding movements, and its ability to appear and as quickly disappear, has received a number of popular names, among which are silverfish, slicker, silver louse, silver witch, sugarfish, woodfish and bristletail. The silverfish is a real pest in libraries, particularly in regard to book bindings. They feed upon the surfaces of heavily glazed paper and eat off gold lettering in order to get at the paste beneath.

Its activities among fabrics is confined to starched clothing, linens, lace or muslin curtains and silks which have been stiffened with sizing. Also, they often eat the paste from beneath wall paper, causing the paper to scale off. It has been known to feed upon carpets, plush coverings of furniture, and even upon certain vegetable drugs.

It is seldom that the silverfish causes damage except where such articles as it feeds upon have been stored away and left undisturbed for a considerable length of time. It is most active in the summer because it likes warmth. In storerooms or in the case of houses that are closed for some time they multiply rapidly and the damage done by them is correspondingly great.

Since the silverfish causes injury to clothing, books, etc., in its attempt to get at the starch or glue in them, advantage may be taken of this craving to poison the insects by slipping into all the crevices where they occur—in bookshelves and backs of mantels, under baseboards and in the bottoms of drawers—pieces of cardboard on which a thin boiled starch paste, poisoned with powdered white arsenic, has been spread and dried. The department of agriculture gives the following formula for making the paste: Flour, one pint; white arsenic, one-half to three-fourths ounce; water. The arsenic should be added to the flour and sufficient water used to make a thin paste by boiling. Complete relief has

THE SILVERFISH.

been secured by this measure. In giving this formula the department lays special emphasis on the fact that great care should be exercised to keep the arsenic, the poison paste, and the poisoned bits of cardboard where young children will not get hold of them.

There is a powder called pyrethrum that may be dusted upon bookshelves or in drawers which is quite effective in ridding the premises of the silverfish, the only drawback to this method being the fact that the powder loses its power as an insecticide after long exposure to the air and must be renewed at frequent intervals.

Stored objects and fabrics that are liable to damage from the silverfish should be aired frequently to guard against the pest.

Snipe the Sniper.

Somebody is trying to snipe the canned goods of the American housewife. Now when the German snipers get busy on the western front, the boys are sent out to snipe the snipers. The women might try their hands at sniping these snipers of home-canned fruits and vegetables. Reports have been steadily circulated that the government will take over all home-canned goods in excess of family needs or levy a special tax on it. The department of agriculture and the food administration have repeatedly denied the story. Newspapers and farm journals have contradicted it, and still it keeps bobbing up.

The latest form of this sniping of food supplies is the report that home-canned fruits and vegetables are causing food poisoning. None of these stories have any basis, in fact. The reports may be put out to cover the work of thieves who are trying to frighten the women into giving up their supplies, or they may have their origin in German propaganda, or both causes may help to circulate the story.

Surely no sensible woman will be frightened into emptying her shelves for thieves, nor will she doubt her ability to tell when a can of fruit is "working." The best answer the women can make to this ugly propaganda is to refill the jars and thus snipe the sniper. Many things are available for canning in small quantities—pumpkin, squash, carrots, parsnips, spinach, turnips and, in the far South, many summer vegetables.

The food situation grows more serious. If the home pantry is filled, start a neighborly shelf. There will be dire need of food among our own people before the winter is over. Many a soldier's family will need help. Hungry neighbors serve the enemies' cause. So fill up the jars and snipe the sniper.

Tuberculosis.

Tuberculosis is caused by bacteria that thrive within the different tissues of the body, most commonly those of the lungs. The tuberculosis bacteria are a good deal like weeds in a field. The crop that has been well put in and is growing on a rich soil will smother the weeds at first if the crop has a good start. Poorly nourished plants are less able to fight the weeds. Tuberculosis bacteria find it hard to get a start on well-nourished tissue and if they get a start on poorly nourished tissue they can often be driven out by good nourishment. This means that the body must be well supplied with such nourishing foods as milk, eggs, meat, butter, vegetables, fat, etc., and that the person live in fresh air, as the food cannot be properly used in the body without fresh air. Sleeping in the open is very important. The person should also have rest so that all the nourishment from the food can be used to build up the body. It is well to remember that poorly nourished tissue is the most apt to be attacked by tuberculosis germs and that plenty of fresh air is as necessary to nourishment as is food.—[Agr. Dex. Dept. North Dakota Agricultural College.

To Help the Housewife.

When soaking salt fish, see that the skin side is uppermost, otherwise the salt will settle in the fish instead of in the water.

Before cleaning polished furniture with oil or furniture polish rub it well with a cloth wet with vinegar. This will remove the dirt and finger marks and greatly improve the finished appearance.

Use the flour left on your bread board after making bread or cookies for thickening gravies.

Save the paraffin from your jelly and preserve glasses for next year. Wash and store away. It can be melted and used again.

To clean light furs mix together two cupfuls of flour, two cupfuls of bran and one-fourth cupful of fuller's earth. Brush and shake the furs well, lay them on a table and rub in the mixture with a coarse piece of flannel, rubbing the fur the wrong way. Shake out the cleaning powder and go over the furs the second time, using only bran. Shake the bran out and wipe the fur with a clean cheesecloth.

If figs or dates are cooked with the breakfast food it will not take so much sugar.

War-time economy suggests to many women the utilizing of their husbands' worn shirts in the making of feeding and play aprons for small boys and girls. The back of the shirt cuts a good bib apron, fastening at the back with a snapper at the neck and tapes lower down.

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Recipes for the War-Time Table.

Oatmeal Raisin Bread.—Two cups boiling water, one cup rolled oats, one tablespoon shortening, one-half cup molasses, one-half tablespoon salt, one-half yeast cake dissolved in one-half cup lukewarm water, four cups white flour, one cup rye flour, one cup raisins. Add boiling water to oats and shortening and let stand one hour. Add molasses, salt, dissolved yeast cake and both kinds of flour. Beat thoroughly, let rise, add raisins (stoned), beat again, turn into greased bread pans, let rise again and bake fifty minutes in a moderate oven.

Creamy Omelet.—Three tablespoons fat, three tablespoons flour, three eggs, one-half teaspoon salt, one and one-half cups milk. Melt fat, add flour and cold milk, stirring constantly. Cook until smooth and thick, add seasoning, and cool. Add well beaten yolk and fold in stiffly beaten whites. Turn into hot, well-greased skillet, cook until slightly brown and firm on bottom, then place in oven to finish cooking. Serve immediately.

Apples En Casserole.—One-fourth peck apples, one and one-half cups brown sugar, a pinch of salt. Wash and quarter, pare and core the apples. Lay in a casserole dish, cut side up; cover with the brown sugar and salt. Bake in a hot oven until tender.

Oatmeal Macaroons.—One cup sugar, two eggs, two and one-half cups rolled oats, one tablespoon fat. Mix dry ingredients. Add the eggs and the melted butter. Bake fifteen or twenty minutes in a slow oven.

Molded Rice With Raspberry Sauce.—Cook one-third cup rice with one pint milk in double boiler until very soft. Remove from fire, add one-third cup sugar and one-half tablespoon granulated gelatin, softened in a little cold water. Pour into individual molds and allow to cool.

Raspberry Sauce.—One cup canned raspberries, one-half cup water, one-fourth cup sugar, one teaspoon lemon juice, one-half tablespoon cornstarch, one-half tablespoon fat. Add water to the raspberries and cook until the boiling point is reached; remove from fire and strain. Mix sugar and cornstarch; pour the hot raspberry mixture over this, stirring constantly. Cook until mixture thickens; remove from fire; add fat and lemon juice. Cool and serve on molded rice.

E YOUNG FOLKS.

he Young Folks Are Helping

The other day a little eleven-year-old girl told us that she had just finished knitting a muffler for the soldiers. She declared she "though she would never see the day she finished it," but just the same she asked the Red Cross for more yarn for wristlets and now her needles are flying as busily as ever.

It isn't easy for a little eleven year old to sit quietly and knit when she might be spending the time at play, but we are proud that there are such little girls in our country and we are proud to know them. There are thousands of other little girls doing just what this one is and they are real little patriots and are helping Uncle Sam win the war, just as truly as their big brothers over in the trenches in France.

We know of little boys, too, who have scoured the country for gloves and other bits of kid, and leather and fur to make wind-proof vests for the soldiers. Many of the boys are running errands and doing such odd jobs as they can find to do to earn money to give to the Y. M. C. A. and various other funds that grow only when each of us does his duty. Some of the little boys and girls have even bought their own Liberty Bonds. These little folks are not asking father or mother to do their share—they are doing it themselves, loyally and bravely and happily. We are proud of all our boys and girls and wish they would write and tell us what they are doing.

Mamma's Helper.

Dear Young Folks:—I am a little girl twelve years old. I have brown eyes and dark hair. I have one little brother whose name is Lawrence. We have great times together.

I help mamma with the house work. I help wash and dry dishes, make the beds, carry in wood, cook, and do many other things about the house.

The children and I have great times together at school. We play rabbit and ball. I am in the seventh grade.

We milk six cows. We live two and a quarter miles from our nearest town.
Lorene.

The Farm Is Best.

Dear Young Folks:—I thought I would write you another letter to see what success I would have this time. I am a girl ten years old and live on grandpa's farm of 400 acres.

This year I raised a little garden and sold my vegetables to mother. I raised beans, onions, radishes and popcorn. My brother raised some watermelons, but the frost killed the vines before they were ripe. The frost killed mother's tomatoes too. I like to live on a farm so we can raise gardens. I wouldn't give up farm life for anything.

During vacation we went down in the woods fishing and one day my brother caught a great big fish. We go berry picking, too, and nut gathering. We go after the cows. Oh, there are ever so many nice things we do during our summer vacation. We go for many trips in the car and I like that very much.

We live two miles from town, where we drive to school every day. We drive a horse named Doll. Catherine.

Going to Have a Big Garden.

Dear Young Folks:—I am nine years old. I have read your letters many times and like them very much.

My father has a 320-acre farm seven miles from town. Next spring I am going to have a pony and mamma is going to have chickens and a cow. We used to have a team but we sold it and we have a car now. We are going to make a tractor out of it.

Next summer I am going to have a big truck garden. Paul Kenneth.

International Sunday School Lesson.

Lesson for December 9, 1917.

Ezra and Nehemiah Teach the Law.

LESSON TEXT—Nehemiah 8:1, 4, 5, 6, 8-12. Read entire chapter.

GOLDEN TEXT—Thy word is a lamp unto my feet, and a light unto my path. —Ps. 119:105.

The first day of the seventh month (8:2) was about October 444 B. C. Seven days feast (vv. 15-18) was the feast of the Tabernacles beginning the 15th of the seventh month (October) and continuing for seven or eight days (Lev. 23). Nehemiah was the governor; Ezra the scribe, chief priest; and Artaxerxes, king of Persia, ruler over Palestine. It would be interesting to look up the sudden injection of Ezra's name into this discourse; also the special reasons for teaching the Bible. There is in this chapter a record of a full week and of the daily events of that week.

I. The Preparation. Go back to verse 70 of the preceding chapter, and you will find that the temple had just been receiving some large gifts. The task of finishing the wall was also completed, all of which gives point to verse one, where it says that the people gathered themselves together as one man. This was an ancient open-air meeting, one we do well to study. The people requested Ezra to "bring the book." It needed no catch-penny operations to draw the crowd together. The writer of Nehemiah calls the book "the law which the Lord hath commanded unto Moses." (See v. 1 cf. v. 14.) This, of course, would include Leviticus, Numbers and Deuteronomy, an indication as to the Mosaic authorship of the Pentateuch, which is in line with the statement that Jesus Christ made that it was God who had written it as he had commanded Moses. It was not a mob; there was organization and equipment. (See v. 3 and 4.) The Bible was also read so that the people could understand it (v. 2); certainly something that is in demand in our present day. Ezra opened the book in the sight of all the people, for he stood on an elevation above them (v. 5) and read "distinctly."

II. The Reading of the Word. They read the book, not from some commentary or quarterly, though these have value in their place. The reading began with reverence. Reverence for but not a worship of the book. The Bible is not a fetish or a charm against sickness or accident. The verse "caused the people to understand the law," (v. 7) probably means that it was translated into the vernacular, the language of the common people. While God's word is a plain book and easy to read, nevertheless men of spiritual understanding are needed to "rightly divide" it unto the people (v. 7). However, the great interpreter of the Bible given by the Father is the Holy Spirit himself (John 16:12-15; I John 2:20-27). This method of beginning the study of the word and its continuance as presented in these verses is a good suggestion for modern Sunday school workers.

III. The Hearing of the Word. (vv. 9-17). As Ezra and Nehemiah and their associates and Levites taught the people, there was a five-fold result. First: There was conviction and mourning. The word of God always convicts of sin, but the people were told not to mourn over the past, nor were they to weep, for all the people wept (v. 9). When men hear the words of the law there will be conviction of sin. (See Eph. 6:7; Heb. 4:12.) Weeping may not, however, be conviction (2 Cor. 7:10). Weeping weakens, but that was not designed, rather the exhilaration of joy. Moreover, they were to seek the refreshment of food and drink. Indeed, the joy of the Lord was to be their strength (v. 10). "And there was very great gladness." (v. 17). In verse 11 we are told that the Levites exhorted the people to hold their peace, that the day was holy and that they should be grieved. To this the people responded (v. 12), and made great mirth, because they had understood the declaration of the word of the Lord. Notice that joy and gladness came after

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obedience, also that Nehemiah, the governor, had a part in the teaching. It is a great thing for any people when their civil rulers are genuine, intelligent, and spiritual leaders. The people were instructed to show their gratitude as well as their piety by remembering "those for whom nothing had been prepared" (v. 10). The fourth result was peace (v. 11)—the peace of right relation with God (Rom. 5:1; Phil. 4:7).

Fifth Result: Service.

Mourning can very easily be continued too long, and, therefore, it was necessary to employ the emotion of mirth and the exercise of work that the people might enter into this peace. The fifth result, therefore, was service (v. 12). Notice that their thanksgiving portions and their service were based upon an intelligent knowledge of God's word. If there is anything that present-day social service needs, it is the illumination which comes from a knowledge of God's word. Last of all, worship (vv. 13-18). Worship is a compound of "worth" and "ship."

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The Self-feeder for Fattening Sheep.

To the Editor:—In fattening sheep the self-feeder is a time and labor-saver. Before I used the self-feeder I had mangers with tight bottoms. These had to be cleaned out twice a day before the sheep got their grain. That took some time. Then in addition the grain ration had to be measured out and mixed twice a day, and as soon as they had the grain cleaned up the roughage had to be hustled into them.

With the self-feeder it is an entirely different proposition. The feeders have to be filled two or three times a week, but then we take time enough off to do it right, and after the job is done we are all free to do something else. In the granary we have a floor above where all the mill feed is thrown and the corn and cob meal as it comes from the grinder. We have a large grain box holding nearly 100 bushels. All that there is to do is to throw down so many scoopfuls of this and so many of that. The oats are kept in bins just below. All the feed is then mixed in the wagon box and the horses do the carrying for us. In the sheep shed there are two feeders along the sills. Windows are cut in the sides of the shed. We drive alongside and the feed is scooped through the windows. When the shed is full of sheep we have to have more feeders than these, so some portable ones are kept at hand, but these are placed as near the doors as possible, so the matter of filling them becomes easy.

Many object to the self-feeder on the ground that the gains so made are not economical enough, but I have never been able to see any difference unless it has been in favor of the feeders. Of course, when the feeder attendant is at all careless he is likely to lose a few lambs when starting them, and again if he does not watch pretty carefully they are likely to go when they are on full feed. If the water is off for a day or two and then they get a chance to fill up on it all at once common sense tells you that something will be doing. You must watch to see that they are feeding down properly or they may be without feed for a day or so and then to have so much all at once will nearly always give trouble. Any man who is fattening lambs, wethers or old ewes, must be careful, and the man with the self-feeder need not be more careful than any ordinary feeder should be if he is out for the most profit.

That is what I keep sheep for—profit. To be sure, I like them, but my love for them is not strong enough to cause me to keep them unless there was profit for me in them.

When starting a bunch on the self-feeder one must not feed too much concentrates. We use oat hulls at the start to lighten up the ration, gradually lessening the amount and substituting some other feed as the time goes on. Of late years corn and cob meal combined with oats has been one of my principal feeds, but lately I have been adding a few sacks of this molasses feed since wheat bran and shorts have gone so high. It is very hard to get mill feed at a price which will return profits. Screenings and that sort of thing are now being utilized for fancy chicken feeds and cheap flour at prices that the farmer cannot afford to pay, so it is best to try to have feeds of your own growing and mix them yourself.

The self-feeder, as a rule, results in quicker gains than the other way of feeding, and, even though the gains are no greater, if they are quicker this often means much when the market gets fickle on your hands.

It also means just as much when you care to stock up again as soon as the first lot is off your hands, and if you are not careful you will be anxious to stock up again soon when you once try the self-feeders out thoroughly. During the summer when it is desirable to feed the sheep some, nothing is quite so handy as the self-feeders in the field so they can go at will when you are busy in the fields with the crops. I have made some good money fattening sheep by feeding them grain while on pasture during the summer, as no food is required to maintain heat, and thus everything goes to making weight, and gains are easily and quickly made and at very low cost. There is much in having the cost of gains as low as possible, and no time is equal to summer for that.

Subscriber.

FARMERS' MARKET

WANTED — FOR SALE — TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may have live stock, poultry and eggs or machinery for sale. You may want to sell or buy a farm. Write your copy for the advertisement. The rate is six cents per word, each insertion.

The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

REAL SHEEP PROPOSITIONS—626½ acres good grazing and agricultural land, a grade retailing at $20 per acre, joining two fine lakes; sufficient food for 6,000 sheep. One mile to railroad station, N. W. line. Price $10.50. 480 acres splendid agricultural land, well adapted for sheep raising, with fine trout stream, 1 mile from railroad village. Price $11. 440 acres specially good agricultural land, high, dry land, with deeply imbedded stream; similar land retails at $30 per acre and more. 4 miles from railroad. Price $12.50 per acre. Larger tracts of grazing land at proportionately lower prices. The E. L. C. Co., G-M. Dept. 10, Merrill, Wis.

CHOICE BARGAINS—80 acres, gently sloping, 60 acres cleared, good buildings; 4 miles from town; stock, machinery and crops included, $4,200. 120 acres, fair buildings, good timber, $1,700. 80 acres, 25 acres free of stumps, log buildings, $1,400. 40 acres, 15 acres cleared, good log buildings, $1,100. Cut-over land, $10 to $20 per acre. All descriptions have productive clay soil. Write for details to The E. L. C. Co., F-M., Dept. 10, Merrill, Wis.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

WISCONSIN LAND, just over the river from Iowa. Smooth drained land at half price. 520 A., 5 m. from Grand River, Ia., $50 per A., good stock proposition. Will trade 255 A. in No. Mo., Schuyler Co., for live stock. Girton & Lyons, 705 Crocker Bldg., Des Moines, Iowa.

80 ACRES, $4,000—40 ACRES FIELD—Rich clay loam, 5 miles Centuria, Polk county, Wis. Complete buildings, fences, well, etc. New ground and very productive. See this bargain at once. Baker, C-110, St. Croix Falls, Wis.

WANTED TO HEAR FROM OWNER of good ranch for sale. State cash price, full particulars. Address, mentioning this paper, D. F. Bush, Minneapolis, Minn.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR SALE—Have 80 and 160-acre farms, mile from city; must sell one and will rent the other; easy terms. H. V. Peoples, Ladysmith, Wis.

I WANT TO HEAR FROM OWNER of a farm or unimproved land for sale. Mrs. W. Booth, Pulaski, Iowa.

80 ACRES—All tillable, improved, to be sold before January 1. Write Phil Barnes, Hancock, Wisconsin.

POULTRY AND PET STOCK.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; *Chicago* winners; great layers; established 1892; eggs for hatching: *$1.50, 15; $4.50, 50;* $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

CHILCOTE STRAIN S. C. Brown Leghorns. Increase your egg yield by purchasing my bred-to-lay Stalk cockerels, $1 each, while they last. Frank Chilcote, Washington, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

WHITE HOLLAND TURKEYS FOR SALE—Thos. Hamilton, Loyal, Wis.

MAMMOTH BRONZE TURKEYS—Mrs. Marcus Hanson, Westby, Wis.

SEED CORN.

SEED CORN—Northwestern Iowa grown seed corn, high-testing, fine quality, crop of 1916. Varieties: Reid's Yellow Dent, Wimple's Yellow Dent, Dakota Gold Mine, Silver King. Also Early White Dent, Minn. 13, Pride of the North, 1917. Fancy ear seed in boxes, $7 per bushel. Graded shelled seed, $6 per bushel. Guaranteed to test satisfactorily or money back and freight paid both ways. L. N. CRILL SEED COMPANY, Westfield, Iowa.

SALESMEN WANTED.

SALESMEN WANTED—Owing to conditions brought about by the war we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $3,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

GOVERNMENT POSITIONS.

MEN, WOMEN WANTED—$90 month; government positions. Thousands vacancies. List positions free. Write immediately. Franklin Institute, Dept. K176, Rochester, N. Y.

PRINTING.

PRINTING—Special offer: 200 letheads, 200 envelopes, and 200 cards delivered for $1.60. Samples free. Write for special offer of sale stationery. LIVE STOCK PRINTING CO., LaCrosse, Pa.

FANNING MILLS.

GET PRICES on Owens fanning mills, grain graders, corn graders, before you buy. All sizes on hand. J. L. Owens Company, 1197 Superior St., S. E., Minneapolis, Minn.

TANNING.

LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

LEARN TELEGRAPHY.

FOR A RAILROAD TRAINING [illegible] Wisconsin [illegible], Oshkosh, Wis.

Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

A. W. Arnold Sells Short-horns December 20th.

A. W. (CAP) ARNOLD will hold a sale of registered Short-horns at his East Side Farm, adjoining the town of Galvesville, Wis., on Thursday, December 20th. For this, his first sale, Mr. Arnold has listed a very useful lot of cows, heifers and bulls. Of the 30 cows that sell, 15 of them have calves at their side and are in calf again. It is only natural to expect these cows that are raising large calves to be a little thin in flesh, but they are big, roomy matrons and every one has a good udder and capable of raising a good calf. The calves are sired by Village Coronet, a two-year-old Scotch bull by Village Omega, out of a straight Augusta cow. The cows and heifers are also in calf to him. One of the good cows in the sale is sired by Prince Imperial. One of the real producing cows of the herd is of the Janesville Champion Rose family. She is the dam of a heifer that Mr. Harding purchased for export to South America. Some of the good heifers in the sale are sired by The Governor 351958, he by Village Marshal 302358. A cow of exceptional merit is by Merry Robin and tracing to Imp. Mazurka. A white heifer that has been in the money wherever shown is sired by White Rock. She is a three year old and a grand individual. A roan, 1915, by Scotch Cumberland, is one of the attractions of this offering. She will please the most critical. The cows have excellent udders and are good milkers. There are five two-year-old heifers in calf that are choice. Ten yearlings sell open. Of the bulls there are three that are good enough for the best herds. Village Coronet is the Scotch bull that has been used in the herd and he will be sold. Dale's Star is a senior yearling that was first wherever shown this fall. He was sired by Dale's Clarion by Double Dale by Avondale out of a Victoria cow. There will also be a roan senior bull calf in the sale, a full brother to the bull mentioned above. These bulls are outstanding in every respect. Besides these Scotch bulls there will be a number of real choice Scotch-topped bulls from heavy milking dams. It will pay you to investigate this sale offering. Read the advertisement on page 29 of this issue. Note the location as described in the advertisement. The catalog is interesting—get one at once and when writing please say you saw the advertisement.

[illegible] recently our [illegible] a few hours on this farm. Rag Apple Pontiac is without doubt one of the best young bulls in the state and we doubt if there is a better bred one, he being by Rag Apple Korndyke out of a 30-pound daughter of King of the Pontiacs. We have analyzed his pedigree in previous issues. At this time we wish to say something of the cow herd. In the herd is a fine large daughter of Homestead Jr. De Kol, a bull that needs no comment as a sire. This cow has an A. R. O. junior three-year-old record of 21 pounds and she is out of a 30-pound daughter of Piebe De Kol Burke. Her grandam has an A. R. O. of 32.20. Uneeda Korndyke Bertina made 21 pounds as a junior two and she is by the noted Johanna McKinley Segis. She is out of a 25.75-pound dam. Howtje Calamity Vale has a 27-pound record and is a full sister to a 30-pound cow. Jiebe Ormsby has made two 24-pound records and her dam has just made 28 pounds at ten years. Miama Mink has a junior three-year-old record of 25 pounds and milked 94 pounds in a day. Space will not permit us mentioning all of the good A. R. O. cows in this herd. They are safe in calf to Rag Apple Pontiac. At this time the Tulloch Farms offer a few good heifers safe in calf to the excellent bull mentioned above. They are priced very reasonable and should be good property, in as much as they will soon freshen to the service of one of the best young Holstein bulls in the Northwest. If you are interested, write for tabulated pedigree of this bull and information relative to the heifers. See page 30.—Adv.

Matthes Buys Son of Giant Invincible.

THE Duroc fraternity has heard of the sensational Giant Invincible, the largest junior yearling boar shown this year for which $2,500 was paid. Fred G. Matthes, Viola, Wis., one of the younger Duroc breeders of the state, and by the way, a real hog man, has just purchased a son of this sire for use in his herd. Mr. Matthes has scoured the country for a boar and we think he made a wise selection in buying this good boar. This is new blood for Wisconsin, as he is the only pig sired by Giant Invincible at the head of a good herd, in the state. Mr. Matthes will breed him to Pathfinder, Cherry Chief Wonder and King the Col. bred sows and he will certainly have aristocracy to offer next spring. He advises that he has had good sales, having shipped several boars to different parts of the state. He ships on approval, which goes to show that he has raised boars that he feels satisfied will give satisfaction. If you want a big, rugged Duroc boar and want to see him before you pay, write Fred G. Matthes, Viola, Wis., and please mention The Wisconsin Farmer. See page 31.—Adv.

J. Warren Hoyt's Milking Short-horns.

WHILE looking over Mr. Hoyt's milking Short-horn herd the other evening we were much impressed with the uniformly good individuals, which Mr. Hoyt has gotten together by careful selection and painstaking care. There was a progressive atmosphere around the Hoyt Farm and we were much interested in going through the new barn to find out that he had introduced the most modern equipment and that he had taken advantage of many labor-saving devices, which would do much to make regular work of the barn agreeable and pleasant. The Kitty Clay is one of the prominent families in this herd. Kitty Clay 47th bred by Flora V. Spencer, was purchased by Mr. Hoyt several years ago at the E. H. Urtous sale, Springcreek, Pa. She is the dam of Kitty Clay's Duke, the present senior herd sire. This animal is a particularly good individual possessing a decided dairy temperament as well as having a fine top line and good handling qualities. In view of the fact that Mr. Hoyt has used this animal as long as it is possible for him to do so advantageously he has decided to offer him for sale. Judging from the uniformly good yearling heifers that we noticed running out in the lot this sire is an animal which milking Short-horn breeders would do well to keep in mind as a prospective herd sire. About 80 per cent of Mr. Hoyt's herd are eligible to the double standard herd books. Mr. Hoyt also has Champion Rose blood and Young Mary's quite well distributed through his herd, which seem to blend quite nicely with the Kitty Clay strain which he introduced quite a number of years ago. Mr. Hoyt will price one bull calf, one yearling bull and six yearling heifers sired by Kitty Clay's Duke. See advertisement on page 27.—Adv.

Constance Can Supply Your Wants.

F. R. CONSTANCE & SONS, Waupaca, Wis., have several, big, rugged, well-grown Duroc boars for sale at reasonable prices. The season is "ripe" now for good farmer boars. By the first of the year the boar crop will have changed hands. If you want to take the "leavings" all right, but if you want boars that will be the means of improving your spring crop, get one of these boars being offered by Messrs. Constance. They are reliable breeders and The Wisconsin Farmer is glad to recommend them. When writing please mention The Wisconsin Farmer. See page 31.—Adv.

Field Men for The Wisconsin Farmer.

[illegible] R. [illegible], eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

W. A. Lawson, Rosendale, Wis.

LAST week while visiting breeders in the vicinity of Rosendale we called upon W. A. Lawson and spent a half hour very pleasantly looking over his herd of Guernseys. Mr. Lawson has a number of excellent foundation cows in his herd as well as a number of their heifers coming on that give the appearance of being promising prospects. Mr. Lawson's junior herd sire is a grandson of Golden Secret out of Lina Bettina, one of the high record cows in the West, having a record of 740 pounds fat. While looking over the surplus of Mr. Lawson's herd we discovered two young bulls sired by a son of Glenwood Stranford that has 21 A. R. daughters. One of these calves is out of a 500-pound cow, whose record was made on two milkings a day under ordinary farm conditions. The other is out of an imported cow having a record of 400 pounds. It will probably be remembered that Mr. Lawson is in company with Mr. Wells and Mr. Hill that purchased the well-known senior and grand champion Guernsey bull at the state fair this year. May King Vrangue of Ingleside was formerly owned by Fruit Brothers, who have a number of his daughters that have made a wonderful showing in A. O. work. We were also interested in looking over Mr. Lawson's herd of Berkshires. Though not large in number they were of exceedingly high quality.—Adv.

Hoskins, of Dodgeville.

WE have just had a letter from Art G. Hoskins, Dodgeville, Wis., advising that he has ten Chester White boars that he wants to get in the hands of men that appreciate good boars. They were farrowed the fore part of April and weigh from 160 to over 200 pounds. Hoskins has a good herd of Chesters and he can send you a boar that will please you. He is not holding out for big prices, but wants to sell these on short notice. Here is a chance to get a good spring boar worth the money. See page 27.—Adv.

Charles A. Peterson, Rosendale, Wis.

IT probably is not known by all of the Jersey breeders of Wisconsin that Mr. Peterson has been appointed Jersey Extension man for the state of Wisconsin by the American Jersey Cattle Club of America. We feel that the club could not have made a better selection in view of the active manner in which Mr. Peterson has taken hold of the work of developing Jerseys, particularly his own herd. Those who watched the judging of Jerseys at the state fair this fall will recall distinctly the fact that Mr. Peterson's show herd gave an excellent account of itself amid the keenest competition of all the dairy judging at this fair. His two-year old, Glory's Pearline, was third at Iowa, shown as a dry cow, second at Minnesota when she was springing and was first and senior champion at Wisconsin, defeating grand champion cow at Minnesota. Ibsen's Pearl, a three-year-old cow, likewise gave a good account of herself at the fall shows, being first at Minnesota, in both the open and register of merit classes. His yearling and two-year-old bulls were also first at Minnesota. Ibsen's Chief was first-prize two year old and grand champion in the Jersey specials class, which means that this animal according to the A. J. C. C. ruling had to be owned at least one year by the exhibitor prior to the show. One of the most promising heifers in Mr. Peterson's herd at present is Glory's Autumn Sunshine by Ibsen's Glory and from a 700-pound dam. We cannot help but feel that the Jersey interests throughout the state should in every way possible coöperate with Mr. Peterson in giving him an opportunity to make his enthusiasm for the best interests of the breed felt throughout the state. Locate communities wishing assistance in conducting interesting meetings should get in touch with Mr. Peterson at once regarding such matters.—Adv.

Smiley Boars All Gone.

WM. SMILEY & SONS, Albany, Wis., advise that they are sold out of spring boars and change their advertisement accordingly. One of the sons lives at Rockton, Ill., and he is a breeder of Polled Durham cattle. Just at this time he has for sale a number of bulls of serviceable age that he is offering for quick sale. He has reds and roans and will gladly answer any inquiries. Write Jas. B. Smiley, Rockton, Ill., and mention The Wisconsin Farmer.—Adv.

Reese Has Gerstdale Jones Boar.

LOUIE L. REESE, Brooklyn, Wis., spent the price of a good boar in railroad fare during the past few months, looking for a herd boar. Not that he did not see good boars, but Reese is a critical buyer and will not buy until he finds what he wants, then he will pay the price. He visited McDonald's herd and saw the litter Mac had by Gerstdale Jones and Reese found what he was looking for. If you want to know what Gerstdale Jones boars are worth just read the reports of sales where boars of this breeding have been sold. Spring boars by this sire have sold as high as $2,500. Gerstdale Jones boars will add prestige to any herd. Mr. Reese has sows by Fessy's Timm, A Wonder, King of Wonders and others of popular breeding. They will be bred to this boar and he will certainly be able to make some "noise" when the pigs begin to come next spring. Don't forget that Louie L. Reese has a good herd of big-type Polands.—Adv.

Bates Short-horns.

B. W. LITTLE, Janesville, Wis., owns a strictly Bates bred herd of Short-horn cattle. Those that are interested in the milking Short-horns have read about the cow, Rose of Blackwood, the Minnesota Short-horn cow that just completed a yearly official record, giving in that length of time 17,656 pounds of milk. This was in competition with over 700 cows of all breeds. This cow is a descendant of the well-known Thos. Little herd and B. W. Little now has the herd made up of the same line of breeding as the cow that just made this record. A cow in the Little herd just completed her yearly record and gave 13,300 pounds. Her dam was by Dairyman, the sire of Dairyman Jr. Mr. Little has some bulls of serviceable age for sale. They come from the line of breeding that has made good for the past century. Write B. W. Little and please mention The Wisconsin Farmer. See page 27.—Adv.

What Wm. M. Knight Is Doing With Jerseys.

WM. M. KNIGHT, Eagle, Wis., has been engaged in breeding Jerseys for 12 years and has assembled a herd which in point of individuality will compare favorably with any in the state. Two years ago Mr. Knight was very successful in the show season and last year his herd took most of the blue ribbons at seven county fairs. Eminence Safety Belle 2d, first in her class at Milwaukee and at seven county fairs last year, is an outstanding individual in this show herd. Trial's Noble of Oaklands 2d also completed an unbroken record last year and his junior heifer calf, Trial's Pretty Maid, finished the circuit with the same distinction. Mr. Knight's herd sire, Trial's Noble of Oaklands, showed this year as a two year old and was first and champion at seven county fairs and second in class at state fair. Not only as a show herd, but also on records, Mr. Knight's herd has made a wonderful showing. The following is a partial list of some of the records which have been made on the Oak Grove Jersey Farm. Eminence Desirable at 15 years made 425 pounds of butter, 8,350 pounds milk in 248 days; Volunteer's Nellie has a record of 447 pounds of butter, 7,394 pounds of milk; Volunteer's Sally, 597 pounds butter, 9,540 pounds milk; Volunteer's Lottie, 443 pounds of butter, 7,911 pounds milk in 331 days; May of Oak Grove at two and a half made 621 pounds butter, 10,089 pounds milk; Sally of Oak Grove two years and two months made 594 pounds butter, 9,660 pounds milk, state record when made; The King Sons Girley, two years nine months, 392 pounds butter, 6,002 pounds of milk; Coffey of Oak Grove two years three months, 447 pounds butter, 7,207 pounds milk; Commander Sally, two years four months, 393 pounds butter, 7,349 pounds milk, and Fancy Lock, one year 11 months 346 pounds butter, 5,091 pounds milk. In addition to these records The breeding in Mr. Knight's herd consists mostly of Noble of Oaklands and Eminence strains and the present herd sire is Trial's Noble of Oaklands 2d, sired by the noted $15,000 bull, Noble of Oaklands and out of the splendid cow, Trial's Sweet Bread, that has a record of 563 pounds butter and 8,492 pounds milk in a year. A partial list of animals which Mr. Knight will sell at present is as follows: Trial's Noble of Oaklands 2d, the remarkable prize-winning calf previously referred to; a prize-winning yearling bull whose dam has 658 pounds butter; several other choice young bulls out of high record dams and several heifers. Most of these youngsters are sired by Trial's Noble of Oaklands 2d. See page 28.—Adv.

Special Price on Fall Pigs.

L. P. MARTINY, Chippewa Falls, Wis., advises that he has had a good trade in spring boars and is about sold out. The demand is for the get of his great breeding boar, Big Bone Wonder. Just now Mr. Martiny offers about 40 fall pigs of September farrow. If you will note the advertisement on page 31 of this issue you will see just what he has for sale. Don't forget that Martiny has the popular big types and is using three real outstanding herd boars. We are always glad to recommend Mr. Martiny and his stock. Every one knows about his high-class Guernsey herd and if you need a young bull, this is the time and place to write—get busy. Don't forget to mention The Wisconsin Farmer, please.—Adv.

O'Brien Buys Gerstdale Jones Boar.

J. J. O'BRIEN, Madison, Wis., is the man that owns the best junior yearling Poland China sow in the state. His sow herd throughout is of the most popular breeding, so he wanted to get a boar that would be in keeping with his sows. Gerstdale Jones is the big noise at the present time. Besides being a wonderful breeding boar, the fact that he recently sold for the record price of $6,600, has made him a by-word among Poland China breeders. Mr. O'Brien is to be congratulated on his good judgment. His advertisement appears in this issue. Keep O'Brien in mind when thinking of big-type Poland Chinas.—Adv.

Stump Puller for Land Clearing.

A STUMP puller that is admirably adapted to the needs of the farmer is the "K" hand-power stump puller, manufactured by W. J. Fitzpatrick, of San Francisco, Cal. It weighs but 171 pounds and can be wheeled about like a barn truck. With one of these outfits Thos. Cunningham, farm manager of the Western Fuel Company, pulled down a fir tree in eight minutes. Although the machine was purchased only recently, he has already cleared 30 acres of land with it, with no expense whatever for repairs.—Adv.

Charles L. Hill, Rosendale, Wis.

WHILE passing through Rosendale last week we ran across Mr. Hill coming in from his farm and indulged in a little chat on the latest news in the Guernsey world. Mr. Hill is generally recognized as being the best

informed man on Guernseys in this country. It was not surprising, therefore, that we should be able to obtain some interesting information with reference to the development of the Guernsey industry in Fond du Lac county. Mr. Hill stated that an importation of Guernseys had just left the quarantine in New York for Fond du Lac county the day of our visit. With a few exceptions these animals will be distributed in Fond du Lac county—the rest going to Winnebago county.—Adv.

Trutschell Bros., Sheboygan Falls, Wisconsin.

WHILE walking behind the cows of Trutschell Brothers' herd last week we were confronted by the following placards, which were printed in large letters and posted at the head of the respective cows entitled to these records. Our attention was first called to the grand old foundation cow, Bessie Wa Wa De Kol, a 26.93-pound cow that has by her side three outstanding daughters; one is Earl Rigtje Belle with 32.40 pounds in seven days; Eagle Rigtje Pearl, 29.26 pounds, and Eagle Rigtje Viola, 24.42 pounds as a senior two year old. Other cows, some of which have even greater records to their credit, that claimed our attention are as follows: Eagle Rigtje Jessie, 32.71; Rigtje Daisy De Kol, 33.70; Eagle Rigtje Yesletime, 29.50; Eagle Rigtje Queen, 29.20 and Eagle Rigtje Beauty, 29.15. Trutschell Bros. are now using at the head of this splendid herd, a 34.42-pound son of Pinehurst Piebe, the noted cow of the former Pinehurst Dairy herd. The sire of most of the cows, whose records have been given, was Sir Rigtje of Pinehurst, whose dam had 918 pounds butter, 23,000 pounds milk in a year. It is evident, therefore, that the five eight months old calves now owned by Trutschell Bros. have exceptional good yearly backing. Breeders looking for size, good individuality, large seven-day and semiofficial yearly backing should keep this herd in mind when looking for a good herd sire.—Adv.

Milford Meadows' Holstein Herd.

MR. BLAINE is just completing a large modern barn, 172x38 feet, which will contain eight stalls for test cows and a feed storage room accommodating six to eight carloads of feed. Those who have had an opportunity of visiting the Milford Meadows Stock Farm will remember that they were already well equipped before the erection of this new barn and that they are now in a better position than ever to develop the animals in their great herd. The last time we visited this farm they had on hand a number of choice young bulls from their best cows, which were strong in the breeding of Wisconsin's great herd sire, Homestead Junior De Kol. For size and uniformly good individuality we do not believe that this breeding can be beaten. In fact at the last Lake Mills Holstein sale, a young bull bred along these lines sold for $3,000, one of the best sales ever made by the Lake Mills Holstein Company. It would, therefore, pay farmers and breeders alike before selecting their herd sires to write to the Milford Meadows Stock Farm for a complete sale list of their young bulls, as in so doing they will be given a wide range of animals from which to make selections. These animals are not priced beyond the average farmer except in particular instances where their dams happen to have exceptional records. See advertisement on page 30.—Adv.

Madson Has Great Boar.

SOME time ago Madson & Sons, Madison, Wis., purchased a spring boar sired by Bill's Chief, a son of that good sire, Mouw's Chief. Bill's Chief is a half brother to Chief Defender the Illinois grand champion. This was one of the best big-type spring boars the writer saw this spring and we have been advised that he has made a wonderful growth since the Madsons began to grow him out. Good gilts are being bred to this boar and, as they will not hold a bred sow sale this winter, these gilts are for sale. They have a few spring boars yet for sale and they will guarantee to please you if you want a big quality boar. Write them and say you saw the advertisement in The Wisconsin Farmer. See page 31.—Adv.

Geo. Goelzer, Plymouth, Wisconsin.

MR. GOELZER, who has a splendid modern, up-to-date barn on his farm, has also seen to it that he has an up-to-date herd sire at the head of his herd. He is now using a 33-pound bull, which is from one of the best cows in the well-kown Trutschell herd. We feel that Mr. Goelzer has taken a correct step in selecting so worthy a herd sire, and the offspring from his good cows by this sire should be tripled in value. We were also impressed with a number of good aged cows in Mr. Goelzer's herd, which in no small degree are responsible for the good lines possessed by the young stock in this herd.—Adv.

A Saving in Feed Cost.

WHEN live stock drink ice cold water in winter time, the water takes a large amount of heat from their bodies which must be replaced by heavier feeding of expensive heat-producing foods. A Cowboy tank heater will temper the water and thereby save this expense of extra feeding. It's an investment that soon pays for itself. It is absolutely safe and so reasonable in cost that every stockman can afford to have one. Learn about the Cowboy heater at once by writing to The Willis Mfg. Co., 52 Seventh Street, Mendota, Ill. See page 18.—Adv.

Bloomington Horse Sale.

MGR. C. W. HURT, advises us that the annual sale of draft horses under the management of the Breeders' Sale Co. will be held in Bloomington, Ill., January 22d to 25th, inclusive. Particulars will appears later. Applications for entry blanks, etc., should be made to C. W. Hurt, Arrowsmith, Ill.—Adv.

A. L. Williams' Estate, Fond du Lac, Wisconsin.

WE were greatly pleased while visiting the A. L. Williams Estate last week to find that C. A. Williams, his son, and executor of the estate, is taking hold of things in such a way as to continue the splendid work started by his father. The breeding of the two herd sires now in use indicates the farsightedness of the one directing the breeding operations of this herd. The senior sire, Dutchland Colantha Belle Boy, is practically a 28-pound son of Colantha Johanna Lad, one of the most noted herd sires in the East. This animal is a handsome individual well marked, and is the sire of a number of very prominent animals that are used as herd headers throughout the state. Mr. W. H. Stiener is now using a 30-pound son of this bull. The junior herd sire now being used on the Williams herd is Colantha Sir Aaggie Rag Apple, a grandson of Colantha Johanna Lad and a 33-pound son of Colantha Sir Aaggie, another of the noted sires used in the D. W. Field herd. A great per cent of the cows in Mr. Williams, herd are daughters of the senior herd bull so that the young stock on hand at present are especially strong in the Colantha Johanna Lad breeding. We question if there is another herd in the state that contains a higher percentage of the blood of this noted sire. Mr. Williams is now offering for sale five young bulls, including a 25-pound son of the junior sire.—Adv.

Bonne Meade Stock Farm, Randolph, Wisconsin.

ONE THOUSAND DOLLARS will buy three exceptionally high-class cows bred to a full brother to Pietertje Maid Ormsby, generally known as one of the greatest cows in the Northwest. We have visited the Bonnie Mead Stock Farm several times during the last six months and have been much impressed with the get of the sire to which these cows are bred. At present they have as nice a lot of yearlings sired by this bull as you would wish to look at. Considering the individuality of the cows referred to and their ability to produce we feel that they are a good buy at the figure quoted. See advertisement on page 30.—Adv.

Emil Titel, Plymouth, Wis.

WE have always known that Mr. Titel has been doing some splendid yearly work, but were never so forcibly impressed with this fact as we were last week while looking over his splendid array of yearly record cows. It will be remembered that two years ago it was Mr. Titel's cow that stood first in the cow-testing asociation contest at the Wisconsin State Fair. She would have been also first this year had she not been barred from entry. The dam of this cow as well as her sister make a trio, which in the point of individuality and high yearly records have scarcely an equal in the breed.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 25, Grant County Duroc Breeders, Fennimore, Wis. Wm. C. Edge, Secy.
Jan. 28, Ames Bros., Weaver, Minn.
Jan. 28, Rock County Duroc Jersey Breeders, John L. Fisher, Mgr., Janesville, Wis.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Derheimer, Spencer, S. D.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.
Mar. 12, M. V. Miller, Lawler, Iowa.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.
Feb. 26, H. A. Derenthal, Wykoff, Minn.

Short-horn Cattle.

Dec. 20, A. W. Arnold, Galesville, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.
Mar. 15, Interstate Short-horn Breeders' Assn. Bull Sale, Sioux City, Iowa.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

Draft Horses.

Jan. 22-25, Breeders' Sale Co., Bloomington, Ill. C. W. Hurt, manager.

Anoka Champion Brings $17,000

All Short-horn Records Broken at the Anoka Farms Sale, Waukesha County, Wisconsin, December 1st.

SHORT-HORN public sale records went glimmering at the 16th annual sale at Anoka Farms, Waukesha, Wis., December 1st. A representative attendance of Short-horn breeders and admirers was on hand, every section of the United States and Canada being represented. They were there expecting to have an opportunity to place values upon a great lot of cattle, and they were not disappointed. The value of the offering is best evidenced by the fact that of the 45 head sold, 28 sold for $1,000 per head or better. It was a day for making Short-horn history, and the result of the sale is the best possible evidence of the present stable condition of the breeding business, and emphasizes more than ever the fact that Anoka Farms may well be considered the fountain head for all that is best in Short-horns. The main interest of the sale centered around the prize-winning Champion of Anoka, the yearling son of Sultan's Stamp, and out of a dam by Leader of Fashion, making him a double bred Whitehall Sultan. He was started at $5,000 by Harry Hopley, of the Hopley Stock Farm, Atlantic, Iowa, and was quickly carried up to $12,000, the bidders being Mr. Hopley, J. W. McDermott, Kahoka, Mo.; J. H. Degginger, Albany, Mo., and B. F. Hales, Chicago, Ill., who owns a large farm and herd of high-class Short-horns at Prairie View, Ill. At $16,000 Mr. Degginger dropped out, and the bull went to Mr. Hales on a bid of $17,000. This is the highest price ever paid in this country for a yearling Short-horn calf. Mr. Hales was a strong contender on most of the older females, his total purchases for the day amounting to $26,475, he buying seven females in addition to the bull. W. L. Smith, Utah, Ala., paid $5,000 for the yearling Royal Stamp by Crystal Stamp, and Carpenter & Carpenter, Baraboo, Wis., secured Masterpiece, a yearling Orange Blossom by Right Sort, for $4,000. The top for females was $2,600, paid by Mr. Hales for the January heifer calf, Augusta Anoka by Crystal Stamp. He also paid $1,650 for Augusta Anoka 6th by Rusper Champion, and Lespedeza Farm, Hickory Valley, Tenn., gave a like sum for Anoka Proud Lady, a yearling daughter of Collynie Mine. The detailed sale list makes interesting reading, showing as it does the very wide range of distribution of the cattle, they going to buyers from every corner and section of the country, and the remarkable uniform range of values. Eliminating the $17,000 paid for Anoka Champion leaves 44 cattle selling for $52,975, or the sensational average of $1,203 per head. Pres. Reid Carpenter, of the American Short-horn Breeders' Association, made a very pleasing talk at the opening of the sale, and Mr. Harding, while thanking the people for their attendance, said that any credit for the excellent condition of the cattle should go to Manager Sim and the other men who had them in charge. It was another demonstration of the prepotency of the Whitehall Sultan blood, as the majority of the animals in the sale were closely related to that champion sire. Like all events at Anoka Farms, every detail was carefully looked after and there was no hitch from start to finish. Another great success can be credited up to this progressive and creative breeding establishment, and the Short-horn fraternity generally can congratulate themselves on having to their credit so successful and clean a sale. Col. Carey M. Jones sold the cattle and certainly did his work in a most masterful way. He had the able assistance of Col. Fred Reppert. The detailed sale list follows:

FEMALES.

Fanny Anoka, calved 1916; Edellen Farms, Lake Forest, Ill.	$1,125
Columbia Anoka, calved 1916; McMillan & McMillan, Lodi, Wis.	1,100
Augusta Anoka 5th, calved 1917; B. F. Hales, Prairie View, Ill.	2,600
Anoka Proud Lady, calved 1916; Lespedeza Farm, Hickory Valley, Tenn.	1,650
Augusta Anoka 6th, calved 1917; B. F. Hales	1,650
Clipper Anoka 7th, calved 1917; Robert R. Ward & Sons, Benton, Ill.	1,150
Clipper Anoka 6th, calved 1916; Carpenter & Ross, Mansfield, Ohio	1,450
Athene Anoka, calved 1917; Robert R. Ward & Sons	1,000
Beatrice Anoka 3d, calved 1917; B. F. Hales	1,000
Village Belle 16th, calved 1916; F. C. Landon, Winona, Minn.	1,150
Miss Lavender, calved 1916; B. F. Hales	1,200
Select Beauty, calved 1916; Hopley Stock Farm, Atlantic, Iowa	1,050
Cracidian Flora, calved 1916; R. C. Forbes, Henry, Ill.	925
Imp. Lady Evelyn 35th, calved 1916; E. W. Childs, Hartington, Neb.	1,000
Beauty Anoka 2d, calved 1916; Bellows Bros., Maryville, Mo.	1,250
Village Queen 9th, calved 1916; B. W. Ayler, Grandin, N. D.	975
Augusta Anoka 4th, calved 1916; Carpenter & Carpenter, Baraboo, Wis.	1,300
Missie Sultana 3d, calved 1916; B. F. Hales	1,025
Village Maid 45th, calved 1916; B. W. Ayler	1,000
Missie Sultan, calved 1916; B. F. Hales	1,200
Claret 3d, calved 1916; R. C. Forbes	925
Broadhooks Lady, calved 1917; Frank Scofield, Hillsboro, Tex.	575
Beauty Anoka 3d, calved 1917; Texas Agricultural College, College Station, Tex.	900
Orange Blossom Lady, calved 1916; Robert R. Ward & Sons	725
Imp. Wimple 4th, calved 1917; W. L. Warnock & Son, Loveland, Colo.	1,050
Imp. Lady Ythan 29th, calved 1917; B. F. Hales	800
Anoka Pauline 5th, calved 1916; Thos Stanton, Wheaton, Ill.	1,000
Lovely Princess 2d, calved 1916; F. R. Edwards, Tiffin, Ohio	[illegible]
Golden Wreath 10th, calved 1916; J. W. McDermott, Kahoka, Mo.	[illegible]
Crimson Duchess 38th, calved [illegible]	[illegible]

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

HARVEY H. LITTLE
CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

KITTY CLAY HERD

MILKING hornless Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best families of milking Short-horns.
J. WARREN HOYT Rosendale, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

BLODGETT
Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

ROYAL OXFORT FOR SALE.

THIS YEARLING bull represents the best Mr. Wenham's 35 years of breeding milking Short-horns has produced. He is 80% Duchess Oxford breeding and his first, second and third dams are exceedingly high testers. Write for particulars.
CLARENCE WENHAM Ft. Atkinson, Wis.

FOR SALE
SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females; 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

FOR SALE

REGISTERED Short-horn bulls, 2 to 14 mos. old. Red and roan. Milk and beef. Call or write.
H. A. SWENSON Tony, Wis.

TWO good roan Short-horn bulls, 6 to 8 months by White Scotch SULTAN GOODS. F. S. Bunker, Kilbourn, Wis.

POLLED DURHAM CATTLE.

Polled Durham Bulls
SHORT-HORNS WITHOUT HORNS

I OFFER a few thick, sappy, rugged bulls of serviceable age at a very reasonable figure. Reds and roans. WRITE ME.
JAS. B. SMILEY Rockton, Ill.
(On Ill.-Wis. line.)

1916; Park Salter, Augusta, Kan. 600
Anoka Gloster 6th, calved 1916; Jesse C. Andrews, West Point, Ind. 575

BULLS.

Anoka Champion, calved 1916; B. F. Hales 17,000
Royal Stamp, calved 1916; W. L. Smith, Utah, Ala. 5,000
Merry Stamp, calved 1916; E. W. Ayler 2,000
Rosebud Champion, calved 1917; George W. Cline, Pilot Mound, Iowa 1,450
Masterpiece, calved 1916; Carpenter & Carpenter 4,000
Clipper Perfection, calved 1916; John H. Seeley, Mt. Pleasant, Utah 1,500
Nonpareil Crystal, calved 1916; Wm. Tregonning, Dodgeville, Wis. 700
Anoka Proud Star, calved 1916; Henry Stehr, Zumbrota, Minn. 800
Imp. Scottish Knight, calved 1916; J. C. Olson, Hartington, Neb. 1,000
Secret Clarion, calved 1916; H. C. Lookabaugh, Watonga, Okla. 400
Chief Consul, calved 1916; F. C. Hutten, Valparaiso, Ind. 400
Royal Marquis, calved 1917; W. W. Brown, Amenia, N. D. 800
Anoka Advocate, calved 1917; E. W. Carr, St. Lawrence, S. D. 450
Anoka Bachelor, calved 1917; Cahill Bros., Rockford, Ia. 1,000

SUMMARY.

31 females...$33,475; average....$1,112
14 bulls ..... 36,500; average.... 2,600
45 head ..... 69,975; average.... 1,553

Brugger's Holstein Sale.

Carl Brugger held a dispersion sale of his private herd of Holsteins at his farm near Fond du Lac, November 27th. Fifty-one head of Holstein cattle sold at an average of $182 per head. The females brought splendid prices. The males offered for sale were young calves. The following is the prices of the animals sold:

FEMALES.

Grace Wayne Mooie Korndyke, Jan., 1911 $200
Nellie Korndyke Mooie Wayne, Oct., 1912 250
Undercliff Nellie Korndyke Segis, Jan., 1917 145
Undercliff Model Korndyke Wayne, Jan., 1916 255
Undercliff Beauty Segis Korndyke, Dec., 1915 210
Sita Watson Korndyke, Feb., 1913 295
Mooie Netherland Goldie, Mar., 1916 200
Cherry De Kol Ruby, Mar., 1916 200
Queen Mooie Fobes De Kol, Jan., 1916 200
Mulvie Pontiac, Feb., 1913 210
Undercliff De Kol Mulvie Pontiac, April, 1916 [illegible]
Kittie Clay Victor, Mar., [illegible]
Pet Mercedes [illegible]
[illegible]
April, 1917 145
Green Valley Duchess De Kol, Sept., 1911 225
Undercliff De Kol Segis, Mar., 1916 220
Undercliff Philpail Pontiac Segis, Oct., 1914 265
———, Oct, 1917 130
Undercliff Jessie Pontiac Segis, Nov., 1916 160
———, Sept., 1917 125
Susan Pontiac Korndyke, Nov., 1911 455
Undercliffe Susan Segis Korndyke, Jan., 1915; 285
Undercliff De Kol Segis Korndyke 175
Molly Beets Segis, Oct., 1911 280
Molly Pontiac Rutherford Segis, Sept., 1913 305
Undercliff Molly De Kol Segis, Oct., 1916 150
Undercliff Clothilde Segis, Feb., 1916 200
Jane Posch Pontiac Korndyke, Dec., 1912 375
Lady Bess of Hillsboro 2d, Dec., 1912 325
Undercliff Lady Bess De Kol Segis, Feb., 1916 200
Inka Korndyke Posch, Feb., 1913 220
———, Oct., 1917 100
Undercliff Johanna Colantha, May, 1917 115

SUMMARY.

9 bulls .....$ 455
36 females 8,070
45 head 8,525
Average 189

Boys' and Girls' Awards.

The individual awards to boys and girls in club classes at the recent Wisconsin Potato Growers' Show at Madison, were as follows:

Rural New Yorker—1st Harry Winter, Antigo; 2d Ted Moss, Kempster; 3d Charles Sharra, Tony; 4th Clair L. Woodard, Weyauwega; 5th Dawson Hauser, Bayfield; 6th Willie Winter, Antigo; 7th Lawrence Guenther, Antigo; 8th Lawrence Guenther, Antigo.

Green Mountain—1st Ruth De Long, Woodruff; 2d Dawson Hauser, Bayfield; 3d Dean Van Patter, Glen Flora; 4th Ivan Chamberlain, Ladysmith; 5th York McHugh, Bruce; 6th Jake Thomas, Kalish; 7th Esther Hanson, Ladysmith; 8th Elizabeth Martt, Conrath.

Russet—1st Dawson Hauser, Bayfield.

Early Ohio—1st Leonard O'Keefe, Stevens Point; 2d Florence Stratton, Burlington; 3d Selma Sorenson, Antigo; 4th Leonard M. Blasher, Marshal; 5th Thedmore R. Beers, Sun Prairie; 6th Frank Bihlmayer, Sun Prairie; 7th Walter Renk, Sun Prairie; 8th R. Schiller, Sun Prairie.

Burbank—1st Leonard [illegible] tigo, R. R. 1; 2d [illegible]

Tractor Saved Two Teams.

To the Editor:—In regard to the tractor, we think it is a profitable investment. We have an 8-16 and have plowed with it in the last two years over 300 acres, pulling, most of the time, three fourteen-inch bottoms, and have double disked, pulling two fourteen-blade disks on the plowed ground. Besides, we have put in all our small grain, disked stalk ground, dragged roads (pulling two seven-foot drags with 150 pounds weight on each drag), and have graded roads with a large grader.

Up to date we have had less than $20 expense for repairs. In plowing, pulling three fourteen-inch bottoms, it takes 2.7 gallons of coal oil per acre, twenty-seven gallons for ten acres or one day's work. Doing other work it takes twenty-five gallons a day. Coal oil costs us on an average 8½ cents per gallon. We use on an average one gallon of lubricating oil per day, which costs us 26 to 28 cents a gallon in half-barrel lots.

We also use our tractor for stationary work, such as sawing wood, grinding fuel, shelling corn and other work.

In using our tractor we have saved two teams the year around and if we could plow corn with the tractor we would be able to do all the work to be done by horses with one team.

In our estimation, the tractor is a very profitable investment.

The Wisconsin Live Stock Breeders' Association has appointed a war committee composed of experienced feeders and handlers of live stock, who will appear with the agricultural committee in the State Council of Defense. The committee is composed of James Dillon, Mondovi, representing swine interests; Ralph Reynolds, of Lodi, representing the beef interests; Wm. F. Renk, of Sun Prairie, representing the sheep interests; Walter L. Houser, Mondovi, representing the horse interests, and S. H. Bird, of South Byron, representing dairy cattle interests.

Dairy cows must be kept quiet and never hurried or worried.

In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous King Pontiac Champion strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

Buy Your Boy a Blue Ribbon Shetland Pony for Christmas.
HOWARD DIVAN BROWNTOWN, WIS.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS
WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Mesher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

JEFFERSON COUNTY GUERNSEY BREEDERS' ASSOCIATION
THERE ARE OVER 100 HERDS of Guernsey cattle in this vicinity, from which to make selections. High-class, pure-bred females can be purchased in limited numbers while pure-bred bulls and grades of all ages are more numerous. No commission or livery to pay. Inspection desired.
H. A. MAIN, Secretary :: :: :: Ft. Atkinson, Wis.

GUERNSEYS FOR SALE
10 HIGH-CLASS HEIFERS, part of them bred. Most of them are by the champion island bull, Governor of Myrtle Place II. He will also be offered. Bull calves for sale, out of cows with records as high as 698 lbs. fat.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

2 to 8 Months Old Guernsey Bulls
SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

Tilden Farms' Guernseys
FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address
Tilden Farms
James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS
FOR SALE—Three bulls large enough for service, [illegible] Celosia's Glenwood, whose dam has three [illegible]ds averaging over 500 lbs. fat; one by [illegible]a, whose dam made 558 lbs. fat and is [illegible] to May Rilma, 1,073 lbs. fat.; former [illegible]ord, still has second highest record of [illegible] 12 head of bull calves. Am over- [illegible] would sell 15 head of cows and heifer [illegible] very reasonable if taken at once.
ALLIO S. KNUDSON R. 5, Brodhead, Wis.

A GOOD GUERNSEY BULL
IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

May Rose Bulls FOR SALE
MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

Tratt Guernsey Herd
THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

Merriman's Guernseys
WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few choice cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm
OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

BROWN CO. GUERNSEYS
SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.
GEO. O. LUCIA Green Bay, Wis.

A FEW WELL-BRED YOUNG BULLS — The Harlem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

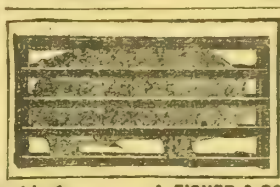
YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Voeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

CHESTER WHITE SWINE.

APRIL and MAY BOARS CHESTERS
OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.
H. A. DERENTHAL Wykoff, Minn.

CHESTERS
IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

FOR SALE
PURE-BRED CHESTER WHITE SWINE
TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.
O. P. COATES R. 4, Elkhorn, Wis.



CHESTERS
OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
J. FISHER & SON Box 18 Eastman, Wis

PRICES SLASHED
A FEW heavy April CHESTER boars. They MUST BE SOLD—what do you want? Good enough to ship on approval. I can fill your order.
ART. G. HOSKINS Dodgeville, Wis.

CHESTER WHITE BARGAINS—Am offering for sale Guy's Comet, a junior yearling half brother of Prince Again, the grand champion at Iowa and Illinois, 1917, and my fall boar, Royal Tomson, a son of Royal Blood. Also March and April gilts sired by Guy's Comet, and grand champion boar, Perfect Prince. Wm. C. Scheibe, Burlington, Wis.

SPECIALS
IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.
WALTER GEORGE Evansville, Wis.

CHESTER GILTS
MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address
A. L. KIRST Tomah, Wis.

Schoolmaster 38th. W. A.'s Wonder
IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON Viola, Wis.

"HICKCOX"
CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 3, Spring Green, Wis.

Ready for Business
CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

AUCTIONEERS.

H. O. TELLIER
AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

HEREFORD CATTLE.

HEREFORDS
JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

OAK GROVE JERSEY FARM

WM. M. KNIGHT, Proprietor, EAGLE, WISCONSIN

SHOW RING PERFORMANCE

Our herd has been shown at the leading fairs of the state since 1915 and has invariably taken the lion's share of the blues. This year our yearling heifer, **Eminent's Safety Belle 2d (390457)** was first at seven county fairs and the Wisconsin State Fair. Likewise our get of sire, two-year-old and senior bulls, aged cows and junior bull calf were first at all the county fairs and made a strong bid for first place at the state fair. **Trial's Noble of Oaklands 2d (155214)**, junior bull calf, in fact, was first everywhere he was shown. The consistency with which our herd has been winning should be a conclusive proof of the superb type and individuality of our herd.

REGISTER OF MERIT WORK

Every cow in our herd either has a creditable Register of Merit Record. a record not yet reported or is now on test. The following is a partial list of Register of Merit records we have made in our herd. **Eminent's Desirable (213887)** at 15 yrs. made 425 lbs. butter, 8,350 lbs. milk in 248 days; **Volunteer's Nellie (233554)**, 447 lbs. butter, 7,394 lbs. milk one year; **Volunteer's Sally**, 597 lbs. butter, 9,540 lbs. milk; **Volunteer's Lotty**, 433 lbs. butter, 7,911 lbs. milk; **Sally of Oak Grove**, at 2 yrs., 2 mo., 594 lbs. butter, 9,660 lbs. milk, state record when made; **May of Oak Grove**, 2 yrs., 6 mo., 628 lbs. butter, 10,089 lbs. milk; **The King's Son's Girlie**, 2 yrs., 9 mo., 392 lbs. butter, 6,268 lbs. milk; **Coffey of Oak Grove**, 2 yr., 3 mo., 447 lbs. buter, 7,207 lbs. milk; **Commander's Sally**, 2 yrs., 4 mo., 393 lbs. butter, 7,349 lbs. milk, 264 days, and **Fancy Lock**, 1 yr., 11 mos., 346 lbs. butter, 5,098 lbs. milk.

The best daughter of the great Oxford Majesty. Recently purchased at W. R. Spann's sale, for $700.00.

Trial's Noble of Oaklands (129365), our present herd sire and a prize-winning son of Noble of Oaklands.

Eminent's Safety Belle 2d (390457), first prize yearling heifer, Wisconsin State Fair, and seven county fairs.

BREEDING OF OUR HERD

According to a number of the best judges of the breed, we purchased recently at W. R. Spann's fifteenth semi-annual sale, the best daughter of the great **Oxford Majesty. Oxford Majesty's Jonquil (306608 Imp.)** is a grand individual, has a R. M. record of 529 lbs. butter, 8,253 lbs. milk, and is safely in calf to **Mabel's Raleigh Prince**, due to freshen January 30th. We intend to give this cow an opportunity to increase her present record. Most of our cows are of the **Noble of Oaklands and Eminent** breeding. Our present herd sire is Trial's Noble of Oakland, sired by **Noble of Oaklands**, that sold for $15,000.00, and is a consistent winner in the show ring. For twelve years we have given the subject of breeding Jerseys careful study and the quality of our young stock makes us feel as though our efforts have been rewarded.

ANIMALS FOR SALE

At present we are offering our **junior bull calf** for sale that was first prize at seven county fairs and the **Wisconsin State Fair**. He is out of a dam that has 594 lbs. butter in a year. Also a yearling bull that was a consistent prize winner and from a dam having 658 lbs. butter to her credit. In addition to these two bulls we have several others out of high record Register of Merit dams, as well as a limited number of heifers sired by a prize-winning son of Noble of Oaklands, that we will price. These youngsters are worthy of careful inspection. Let us send you a price list. Our farm si 2½ miles east of Eagle and 30 miles west of Milwaukee.

ADVANTAGES IN BUYING OAK GROVE FARM JERSEYS

Correct Type.

Popular Breeding.

Register of Merit Records.

Freedom from Infectious Diseases.

Properly Grown.

Quick Shipments.

Prompt Transfers.

Active Herd, Moderate Prices.

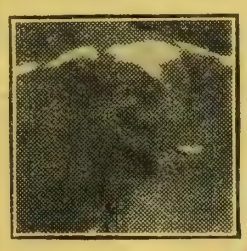
A. W. ARNOLD'S SHORT-HORN SALE

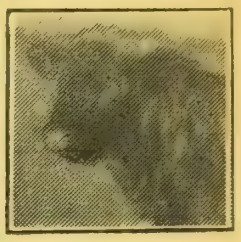
AT EAST SIDE FARM

GALESVILLE, WISCONSIN, THURSDAY, DECEMBER 20

30 COWS, 15 WITH CALVES AT FOOT; 5 TWO-YEAR-OLD HEIFERS IN CALF; 10 OPEN YEARLINGS; 15 SERVICEABLE BULLS

EVERY ANIMAL TUBERCULIN TESTED





For this, my first Short-horn sale, I will offer you a good, useful, clean lot of cows, heifers and bulls. This offering will not be fitted for sale, but are in working condition, much to your benefit. **15 cows sell with calves at foot** by Village Coronet by Village Omega out of a straight Augusta dam. This bull sells in the sale. Will sell five choice two-year-old heifers, all safe in calf. Also 10 yearling heifers, open.

BULLS—Besides Village Coronet, Dale's Victory is listed, he by Dale's Clarion by Double Dale, out of a Victoria cow. He is a senior calf and was shown the past season. Also Dale's Star, a full brother to Dale's Victory, a year older, first wherever shown this year as senior yearling. These three bulls are good enough to do service in any registered herd of Short-horns. You can afford to travel many miles to buy bulls of this caliber. The balance of the bull offering consists of good topped bulls, the type that the good farmer wants.

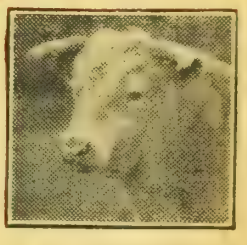
LOCATION—Galesville is on the Wisconsin side of the Mississippi river between La Crosse and Winona, Minnesota. No matter where you live, if you get to La Crosse or Winona you can get to this sale. Good train service so that you can get away the evening of the sale.

Tuberculin Tested

Every male and female in this sale has been tested and a clean bill of sale goes with every animal. All bulls and females guaranteed breeders.

I WANT YOU AT THE SALE
A CATALOG FOR THE ASKING

You can't afford to miss this sale if you want a few Short-horns that will make money for you. Good heifers, cows and calves and in calf again. Serviceable bulls.



AUCTIONEER:
H. O. TELLIER

T. P. SHREVE
FIELD MAN WIS. FARMER

A. W. ARNOLD, Prop., EAST SIDE FARM, GALESVILLE, WIS.

HOLSTEIN-FRIESIAN CATTLE.

WISCONSIN'S GREATEST 30LB. HOLSTEIN HERD
GEO. J. SCHUSTER PROP.
MUKWONAGO, WIS.

We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

EXTRAORDINARY
HOLSTEIN BULLS
OF SERVICEABLE AGE, sired by SIR PONTIAC WAYNE DE KOL 3D 112197 and KING SEGIS PONTIAC POLKADOT 8TH 157647. Every one nicely marked and from high-testing dams. Several A. R. O. records. Write
W. W. QUACKENBUSH Melrose, Wis.

RUST BROS.
OFFER the richly bred Holstein bull, Sir Ina Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

Holsteins
WE ARE OFFERING at present two young sons of Sir Ormsby Johanna De Kol 37TH (141165) and cow. Also can spare two or three heifers from six to nine months of age.
F. A. SWOBODA East Troy, Wis.

BELLEVIEW STOCK FARM IS OFFERING
FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, Aaltje Johanna 28.57 lbs. His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

Lake View Farm
Lake Mills, Wisconsin
I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26 months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: Lake Mills, Wis.

A. R. O. RECORDS.
WE HAVE just completed a 26-lb. 7-day record and have a number other good prospects coming on. Our herd bull is a son of a 36-lb. sire, that has seven 30 lb. sisters. Will sell several young Holstein bulls. Write for particulars.
J. E. BARSTOW Randolph, Wis.

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON Neillsville, Wis.

FOR SALE
REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER Janesville, Wis.

HOLSTEIN BULL CALF
FOR SALE—Five months old. Dam, Finderne Audelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. Troy Center, Wis.

Crites Bros.' Holsteins
WATCH THIS SPACE
HONEY CREEK WIS.

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls
We are reserving one for our own use

at six months

YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

ELM COURT FARM BRIGGSVILLE, WISCONSIN
Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis

SOLD
THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. Lake Mills, Wis.

We Do Not Claim the World's Record, But We Do Claim a World of Records
16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. Fannie L. De Kol, one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

A.R.O. Cows and Daughters
THINK—In calf to RAG APPLE PONTIAC, he by Rag Apple Korndyke, out of a 30-lb. daughter of King of the Pontiacs. CAN YOU BEAT IT? Limited number for sale.
TULLOCH FARMS Genoa, Vernon Co., Wis.

$1000 will buy
THREE SPLENDID registered Holstein cows, safely in calf to a full brother of Pietertje Maid Ormsby. These cows are heavy milkers and good individuals. Write for particulars.
BONNE MEADE STOCK FARM, Randolph, Wis.

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. W.G.MARSHALL, Whitewater, Wis.

Hillside Holsteins
FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. Reedsburg, Wis.

Olathe-Holsteins
HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

HOLSTEIN BULLS
OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA Watertown, Wis.

KING OF THE PONTIACS
WE NOW HAVE a 10-mo.-old Holstein bull calf for sale, sired by a son of King Pontiac Champion, a noted son of King of the Pontiacs. The dam of the calf has 22 lbs. at 3 yrs. Write for price. SWAN BROS., R. 1, Wauwatosa, Wis.

ORCHARD LAWN HERD
OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB Honey Creek, Wis.

NOW IS THE TIME
RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

$400 Bargain
$400 WILL BUY a 29.23-lb. grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON R. 1, Rochester, Minn.

YEARLY RECORD BULL CALF
BORN August 3, 1917. Sire, a son of Pietertje Maid Ormsby 35.56 and full brother to Miss Korndyke Maid Ormsby who made in a year, 1,255.62 lbs. butter and 25,418 lbs. milk. Dam, a 21-lb. 3-yr.-old with 715 lbs. butter and 15,029.3 lbs. milk in a year. Calf is three-fourths white and a good individual. Address
N. DICKINSON & SON, Lake Geneva, Wis.
Walcowls Farms.

Holsteins of Quality at Farmers' Prices
WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. Pewaukee, Wis.

4 SONS of KING SUPERBA
A 34-LB. SON of Milanhurst America De Kol. Three are from A. R. O. dams, one of which is now giving 80 lbs. milk a day. Here is a chance to buy a Holstein herd sire bred in the purple. Write for particulars.
W. J. MANN Waukesha, Wis.

$25 HOLSTEINS $25
YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. J. A. Roberts, Cattle Expert, Waukesha, Wis.

HOLSTEIN BULL FOR SALE.
11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.
L. V. GARVENS R. 12, Brookfield, Wis.

HOLSTEIN CALVES
WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write W. O. KENYON & SONS, ELGIN, ILL.

HOLSTEINS
WATCH THIS SPACE.
ALBERT RHODA East Troy, Wis.

A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. Troy Center, Wis.

Sauk Co. Holstein Ass'n
OFFERS CAR OR MORE registered Holstein cows and heifers. For particulars, write ORRIE KIRKPATRICK, Secy. & Treas., Reedsburg, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

JERSEY CATTLE.

CEYLON COURT
JERSEYS
THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE
DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM
HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys
PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS
HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys
YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

ABERDEEN ANGUS CATTLE.

RAISE
BABY BEEF
ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

10 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

SHEEP.

RAMS
Shropshires -- Oxfords
100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

Valley View Farm
OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

HAMPSHIRE SWINE.

HAMPSHIRE SWINE
DIVIDEND PRODUCERS
DELLBROOK HAMPSHIRES SATISFY

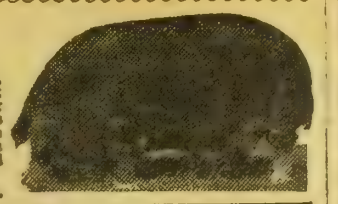
We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.
DELLBROOK FARM
A. L. DAMON, Mgr. Richland Center, Wis.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

POLAND CHINA SWINE.

SPECIAL PRICES ON FALL PIGS



I HAVE FOR SALE 40 pigs of August and September farrow, sired by Big Bone Wonder, the boar everybody is talking about; Smooth Price, a 1,000-lb. boar, and by Knoxall by the great Big Knox. There are some great herd boar and brood sow prospects among them. Am breeding 30 spring gilts, mostly by Big Bone Wonder, for March, April and May farrow. Also have some bulls of Glenwood breeding, half-brothers to the junior and grand champion bull at the Indiana State Fair, for sale.
L. P. MARTINY Chippewa Falls, Wis.

J. D. McDONALD
WEST SALEM, WISCONSIN

HAVE SOME CHOICE spring boars for sale. Same breeding as my WINNERS. Two fall boars that were winners. 75 fall pigs, special prices on pairs and trios.

GERSTDALE JONES ($6,600)

Have four good spring boars for sale by Gerstdale Jones—litter mates to one I am going to use. Buy one of these boars and get in the "front row." Let me quote prices.
Wisconsin's Greatest Poland Herd. :: :: Bred Sow Sale February 6th.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM; a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

Big-Type POLANDS

I RAISED 27 BOARS by eight different herd sires, and have a few choice ones left. Several by CHIEF PRICE 256331, who sired the first prize boar pig at Minnesota and the largest pig at Omaha. Some by Mc'S BIG BONE 257809, and such noted boars as ORANGE WONDER, BIG BEN JR., BLUE VALLEY KING, JUMBO WONDER and SUNRISE PRICE, out of sows that were sale toppers and state fair winners. Act quick if you want a boar. No gilts for sale until after January 1st. They will be in pig to my $500 OAKWOOD BIG MODEL, first prize senior yearling at Minnesota, Wisconsin and LaCrosse. Weighed 870 pounds in August. Correspondence invited.
W. W. QUACKENBUSH (Jackson Co.) Melrose, Wis.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Boars all Sold

GOOD DEMAND for Poland spring boars. Now offer gilts, to be shipped when safe in pig. SMOOTH BIG BONE A 2D has made good, his pigs are the first to sell. If you want choice, write now.
J. F. DILEY Rush Lake, Wis.

... Premier Poland Herd

A FEW CHOICE SPRING BOARS left, by YOUNG'S BIG JOE, MASTER'S GIANT and ORANGE WONDER. No gilts for sale until TUES., FEB. 5, 1918.
P. W. YOUNG Box 100, Prosper, Minn.

Keep Your Eye Here

I OWN BIG BEN 2D by BIG BEN. I own BLUE VALLEY TIMM 2D. I own GREAT PROSPECT, the 700-pound, first-prize yearling sow at Minnesota, 1917. I own MOUW'S BLACK MAID 2D and other sows that should put my herd "on the map." Nothing for sale but fall pigs.
J. F. O'BRIEN R. 5, Madison, Wis.
"Poland Chinas"

Polands-Boars, Gilts, Fall Pigs

A FEW GOOD BOARS LEFT. Some well-grown spring gilts, will sell them open or breed them. Thirty early fall pigs, both sexes. Write us.
A. W. COLE Lodi, Wis.

RED POLLED CATTLE.

RED POLLS

WISCONSIN BREEDERS

Females and Bulls for Sale

Write the following breeders:

J. B. Ahlers	West Bend, Washington	County
C. S. Arnold	Holcombe, Chippewa	County
Edward Bennett	Black Earth, Dane	County
J. O. Baker	Wagner, Marinette	County
Byron Curran	Taylor, Jackson	County
L. F. Bigelow & Son	Brooklyn, Green	County
J. W. Martin & Son	Gotham, Richland	County
Wm. Radke	Black Earth, Dane	County
J. W. Salter & Sons	Unity, Marathon	County
L. C. Underwood	Avoca, Iowa	County
J. F. Wulff	Grafton, Ozaukee	County
Wm. Wulff	Grafton, Ozaukee	County
Henry Zeigler	Middleton, Dane	County
John A. Curran	Sechlerville, Jackson	County
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Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. C. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write
WM. F. ACKERMAN Glen Haven, Wis.
"Grant County."

CHANCE
Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.
JULIUS PETERSON Kilbourn, Wis.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write
JAS. DERIVAN Fox Lake, Wis.

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.
C. E. NORTON Brooklyn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

DUROC JERSEY SWINE.

---E. J.'s---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916,
BIG WONDER,
GRAND CHAMPION IOWA, 1913,

DUROC BOARS sired by above for the particular buyer.
JOHN SWENSON Willmar, Minn.

DUROC JERSEY SWINE.

"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.
ED PARKER & SON :: :: :: :: Janesville, Wis.
Bred Sow Sale February 1st.

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mac's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
F. R. CONSTANCE :: :: :: Waupaca, Wis.

DUROC JERSEY BOARS
ALL SOLD

WE SOLD 29—They averaged $78.00, which shows that the breeders and farmers appreciate our Durocs and the way we do business. We are breeding 40 choice gilts to INVESTOR JR., BACHELOR GANO and BIG TYPE for our JAN. 31ST SOW SALE. You'll want a catalog. Send your name.
RILEY MARTINY & SON :: :: :: Baraboo, Wis.

Have a Few Duroc Boars for You

I HAD A LARGE NUMBER of spring boars and have a few good ones left. They are big, heavy bone, high backs and sired by PATHFINDER 2D, COL.'S CHOICE and PAL'S DEFENDER. A breeder wouldn't ship a poor pig on approval. Do you need one?
DENNIS SHEA (Near Sparta) MELVINA, WIS.
Sow Sale January 29th.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
PERRY GOODRICH Burnett, Wis. W. W. BIRD, Cambria, Wis.

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.
ALLIC S. KNUDSON :: :: :: R. 5, Brodhead, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

GEO. D. SPRAIN & SONS
WEST SALEM WISCONSIN

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.
MIKE STOEHR Viroqua, Wis.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE Evansville, Wis.

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?
R. C. CHURCH Elkhorn, Wis.

FASHION DUROCS

FEW BOARS LEFT. Offer gilts and sows bred to a son of Royal King. Only a few, so order early.
ISAAC HIGGINS Gotham, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.
M. H. O'KEEFE & SON Waukanee, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. Viroqua, Wis.

ROYAL KING 4TH'S TRIO FOR SALE

WE ARE OFFERING two young Duroc boars and a gilt by the above sire and from a daughter of Prince Defender. These pigs are the best in the litter. Write for prices.
R. B. HERRLING Glenbeulah, Wis.

BOARS

HAVE A FEW CHOICE DUROC BOARS, as good as can be found in the state. On Nov. 12th the lightest one weighed 237 lbs. and the heaviest 287 lbs. They are of my very best and popular breeding. They must be sold at once. Write
W. C. JENKINS Bangor, Wis.

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.
JOHN WALDMAN & SON Janesville, Wis.

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Mo.

DUROC BOARS

SIRED BY Col. Volunteer, out of sows sired by a son of Critic B., grand champion at Nebraska Fair. Bred and priced right.
CLARENCE WENHAM Ft. Atkinson, Wis.

LARGE TYPE

60 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.
F. H. BURT :: Brodhead, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS POYNETTE, WIS.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

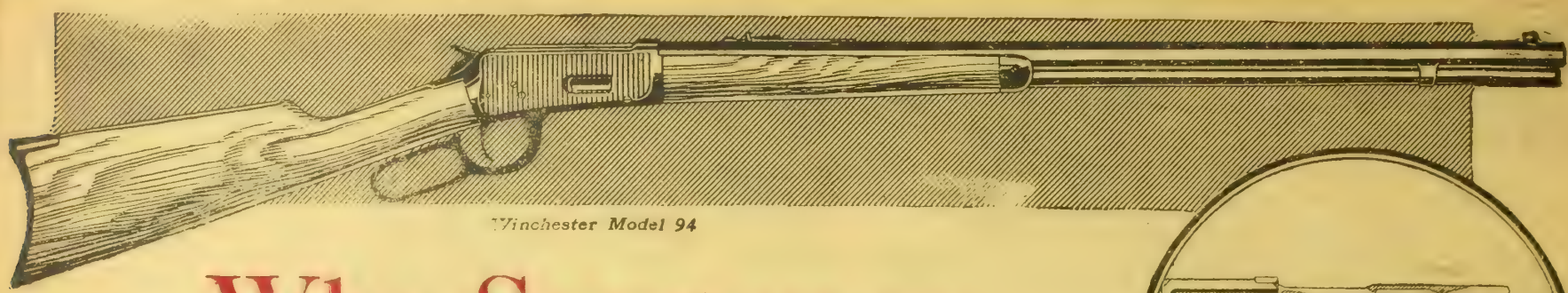
FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
W. W. GOODRICH Ft. Atkinson, Wis.

Durocs on Approval

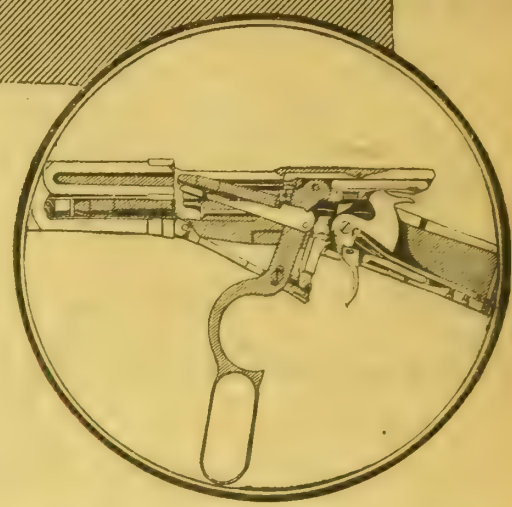
WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance Well bred and well grown. Write
FRED G. MATTHES Viola, Wis.

DUROC BOARS—April farrow out of Pathfinder 2d and son of mighty Prince Illustrator. Write Anton Hegge, R. 4, Box 3, Westby, Wis.



Winchester Model 94

Why Sportsmen choose the "94"



Strong, smooth action, few working parts of the Model 94

The Winchester Model 94 repeating rifle is chosen by more sportsmen than any other because of its wide variety of uses.

The Model 94, as nearly as any rifle on the market, is an all-'round rifle.

Deer hunters choose it because it is a sure game-getter within the range that most shots at deer come.

Campers and canoe hunters take it because it is accurate even for birds, makes very little noise, and will stand all sorts of rough handling.

New shooters prefer it because of its lightness and very slight recoil.

Farmers demand it because they can get it in the exact caliber they need, at a low price, and can buy the ammunition for it anywhere that firearms are sold.

Because of this wide adaptability the Winchester Model 94 is the gun for the one-gun hunter; but for the same reason it is also a great favorite with sportsmen who own many guns.

The Winchester Model 94 is furnished in a great variety of styles, in five different popular calibers, (.25-35 and .30 Winchester, .32 Winchester Special, .32-40 and .38-55 cartridges), and in an extra light-weight model (weight about 7½ lbs.). For the high power cartridges this rifle is fitted with a nickel steel barrel.

The barrel *is* the gun

Men who know guns realize that the accuracy and durability of a rifle lie in the barrel. On the quality of the barrel depends the quality of the gun. There is absolutely no difference in the standard of quality of the barrels on the highest and lowest priced Winchester guns. With Winchester the barrel *is* the gun and the single standard of quality has been attained only by the most unremitting attention to the boring, finishing and testing of the barrel.

The Winchester barrel

The barrel of the Winchester Model 94 has been bored to micrometer measurements for the cartridge it is meant to shoot. In rifling the barrel, the exact twist that is necessary to produce the best results with a given cartridge has been mathematically calculated and is verified by exhaustive practical tests before leaving the factory.

A bullet fired from a Winchester barrel spins point on with unerring accuracy to the limit of its range. The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that, with proper care, will last a lifetime.

What (P/W) means

This mark on the barrel means *Viewed and Proved Winchester.* This stamp stands for Winchester's guarantee of quality, with 50 years of the best gun-making reputation behind it.

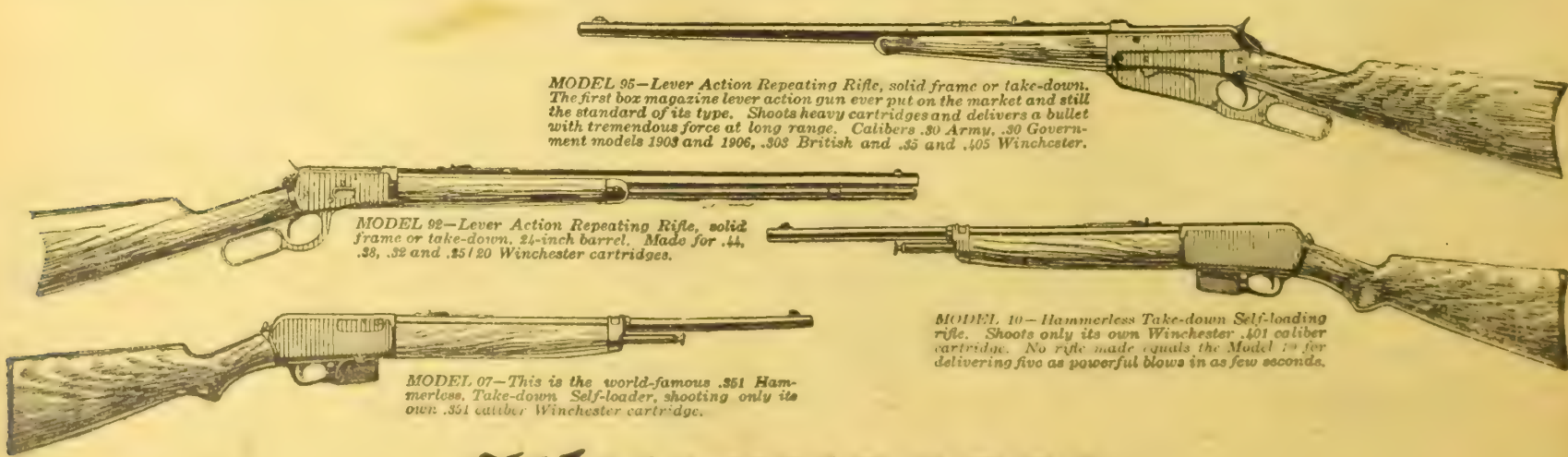
Every rifle that bears the name "Winchester" and that is marked with the Winchester Viewed and Proved stamp has been fired many times for accuracy and smooth action, and with excess loads for strength. At every stage of Winchester manufacture, machine production is supplemented by human craftsmanship. It is a *test and adjustment process.*

It is this thoughtful care in manufacturing that has produced in the Model 94 a rifle of unsurpassed game-getting qualities and that has made it the favorite with hunters the world over.

Write for details of Winchester rifles, shotguns and ammunition

The Winchester catalog is an encyclopedia on rifles, shotguns and ammunition. Every hunter should have one. It gives detailed specifications of the Model 94 and describes at length the principles on which every one of the world famous Winchester rifles and shotguns is built. Write today. We will mail you a copy free, postpaid.

WINCHESTER REPEATING ARMS CO.
Dept. WX-S New Haven, Conn.



MODEL 95—Lever Action Repeating Rifle, solid frame or take-down. The first box magazine lever action gun ever put on the market and still the standard of its type. Shoots heavy cartridges and delivers a bullet with tremendous force at long range. Calibers .30 Army, .30 Government models 1903 and 1906, .303 British and .35 and .405 Winchester.

MODEL 92—Lever Action Repeating Rifle, solid frame or take-down, 24-inch barrel. Made for .44, .38, .32 and .25/20 Winchester cartridges.

MODEL 10—Hammerless Take-down Self-loading rifle. Shoots only its own Winchester .401 caliber cartridge. No rifle made equals the Model 10 for delivering five as powerful blows in as few seconds.

MODEL 07—This is the world-famous .351 Hammerless, Take-down Self-loader, shooting only its own .351 caliber Winchester cartridge.

WINCHESTER

World Standard Guns and Ammunition

More Than 90,000 Circulation

THE WISCONSIN FARMER

VOL. XLVI. NO. 50. THURSDAY, DECEMBER 13, 1917. WHOLE NO. 1872

International A Food Training Camp

The Drafters in Harness Proved to Be One of the Attractive Features of the International.

DESIGNATED by the Department of Agriculture as a special food production and conservation agency—a food training camp—the International Live Stock Exposition, Chicago, which closed its gates December 8th, made a record that in many respects surpassed former achievements. While the 1917 state fair circuit was fairly successful, it is nevertheless true that live stock entries showed a marked falling off in a number of instances. This falling off by no means indicated a lessened interest in pure-bred live stock production. Indeed, on the contrary, there never has been a more lively concern shown regarding the great value of pure-bred animals as a basis of the meat industry as has existed during the greater part of the present year. Possibly the real explanation of the decrease in the number of state fair entries was the high price of feed, many breeders preferring to conserve their grain and roughage rather than to use it in fitting animals for the show ring. On the other hand, the International, which is the great closing event of the show circuit, had the largest entry list of its entire history. Not only was the list large, but it was a well-balanced one, there being a superb showing of horses, cattle, sheep and swine.

One of the unique features of the International this year was under the supervision of the Domestic Science Department of the Iowa Agricultural College. A staff of experts was engaged during the entire week in a most important kind of instructional work designed especially to show ways and means of conserving those food products that are especially needed by our allies. Much was accomplished during the week to arouse visitors to the necessity of using what might be called perishable foods, thereby conserving those that are transported with the least loss. The four things that must be saved are wheat, meats, fat and sugar, and the International Live Stock Exposition last week did an important part in getting into the minds of those interested in these matters practical methods so that each one shall become in the future a food conserver. The instructors in charge of this department made a special plea for breaking down sectional lines that have existed in the past in the matter of cookery, and this school of instruction accomplished much by way of bringing together the best recipes obtained in the north, in the south, in the east and in the west. The visitor who was privileged to hear the lectures and see the practical demonstrations was convinced that food might be conserved without the daily diet becoming monotonous, and to this end much valuable literature was distributed. The keen interest shown in this kind of work was a most satisfying omen as to the attitude of our people toward the whole problem of conservation. Special emphasis was placed on the request of Mr. Hoover that we reduce our present consumption of wheat at least 25 per cent, using in its place other products, of which corn meal must be an important factor. The management of the International is to be congratulated because of the success that attended this feature of the exposition last week.

The Grand Champion Steer, Merry Monarch,
A 1,600-pound Pure-bred Short-horn shown by Purdue University.

The Experiment Stations have always taken an important part in exhibiting live stock, particularly in the fat classes, but Superintendent Heide has been working diligently to extend the educational influences of these institutions. This year a considerable number of the stations installed educational exhibits that attracted a large number of visitors. The exhibit of the Iowa Station was designed to show the practicability of eliminating tuberculosis from the breeding herd by a system of quarantine that made it possible to retain valuable breeding animals even when they were diseased. By taking the calves away from their dams at birth it was found that very few proved to be reactors, and in this way good breeding animals were utilized year after year even though they are diseased sufficiently to react to the tuberculin test. The Iowa Station also made a special exhibit designed to show that self-fed hogs will make more rapid gains and more economical gains than can be made by hand-feeding, thus eliminating an important labor item. The Nebraska Station, by a series of charts, brought vividly to the minds of visitors the nature of rations designed to give the best results in feeding steers. It was shown that the use of a small proportion of cottonseed meal in conjunction with corn will make more rapid gains and more economical gains than a straight corn ration. Exceedingly instructive charts were also exhibited by the Ohio, Pennsylvania and Texas Stations, and the International is to be commended for the foresight displayed in obtaining these exhibits. Many

(Continued on page 8.)

CURRENT EVENTS

PRESIDENT WILSON delivered his message to congress, on its convening for the long winter session, last week; the major part of the message being devoted to war problems and to the necessity of the United States declaring war upon Austria, as it did upon Germany last April. The president asserted that it was not necessary to include Bulgarian and Turkey (other allies of Germany) in the war declaration as yet, that this can be left to a future date, but that a declaration of war with Austria is absolutely necessary now. The president also asserted that this is no time for premature peace talk, but that the war must be fought through until Germany is made a real democracy and will never dare again to assail the liberty of the world. The peace which the president will be willing to accept will accomplish the following things: "It must deliver the once fair lands and happy peoples of Belgium and northern France from the Prussian conquest and the Prussian menace, but it must also deliver the peoples of Austria-Hungary, the peoples of the Balkans, and the peoples of Turkey, alike in Europe and in Asia, from the imprudent and alien domination of the Prussian military and commercial autocracy." In many respects the president's last message is the strongest of any he ever sent to congress and will undoubtedly rank among the great state papers of the nation. The president concluded with these ringing words: "The purposes of the central powers strike straight at the very heart of everything we believe in; their methods of warfare outrage every principle of humanity and of knightly honor; their intrigue has corrupted the very thought and spirit of many of our people; their sinister and secret diplomacy has sought to take our very territory away from us and disrupt the union of the states. Our safety would be at an end, our honor forever sullied and brought into contempt were we to permit their triumph. They are striking at the very existence of democracy and liberty. It is because it is for us a war of high, disinterested purposes, in which all the free peoples of the world are banded together for the vindication of right, a war for the preservation of our nation and of all that it has held dear of principle and of purpose, that we feel ourselves doubly constrained to propose for its outcome only that which is righteous and of irreproachable intention, for our foes as well as for our friends. The cause being just and holy, the settlement must be of like motive and quality. For this we can fight, but for nothing less noble or less worthy of our traditions. For this cause we entered the war and for this cause will we battle until the last gun is fired."

CONGRESS lost no time in acting upon President Wilson's suggestion for a declaration of war against Austria. The very day after it listened to the president's message, resolutions declaring war were introduced in both houses, the resolution reading in this manner: "Whereas the imperial and royal Austro-Hungarian government has severed diplomatic relations with the government of the United States of America and has committed acts of war against the government and the people of the United States of America, among which are its adherence to the policy of ruthless submarine warfare adopted by its ally, the imperial German government with which the United States of America is at war, and by giving to its ally active support and aid on both land and sea in the prosecution of war against the government and the people of the United States of America, therefore, be it resolved, by the senate and house of representatives of the United States of America in congress assembled, that a state of war be and is hereby declared to exist, and to have existed since noon of the fifth day of December, 1917, between the United States of America and the imperial and royal Austro-Hungarian government; and that the president be, and he is hereby, authorized and directed to employ the entire naval and military forces of the United States and the resources of the government to carry on war against the imperial and royal Austro-Hungarian government, and to bring the conflict to a successful termination all the resources of the country are hereby pledged by the congress of the United States." It is confidently expected that congress will pass this, or a similar resolution, with but few opposing votes, probably before these words are read. There is a general disposition in congress to back up the president in his war policy. American troops can hardly be rushed to the aid of the Italians, hard pressed by the Austrians, until such a war declaration is passed; hence the haste with which the powers at Washington are working.

DECLARATION of war on Austria-Hungary automatically will make enemy aliens of 1,174,973 Austrians and 495,609 Hungarians in the United States, according to the last census. The number is doubtless much greater now. Scores of them will be arrested within a few hours after a declaration of war. Many of these men have been under surveillance by department of justice agents for months, but have not been taken into custody because of lack of definite evidence against them. A serious shortage in mine labor is feared as one of the eventualities of the declaration of war on Austria-Hungary. The number of Austro-Hungarians employed in the mines of the country will run into the tens of thousands. There are other thousands of Austro-Hungarians employed in munitions plants. Under the president's proclamation they would be discharged immediately from such employment. The president pointed out in his message to congress that Austria has become merely a vassal of Germany and is no longer an independent nation; hence the necessity of including it with Germany in the declaration of war. Had it not been for the success of the recent drive against the Italians, Austria might by this time be in a position to consider peace, or even to ask for it, but now that Germany has bolstered up the Austrian forces, Austria will probably be content to let the war proceed until it meets with heavier reverses than it has yet suffered.

NOTWITHSTANDING the most severe fighting, at an immense cost in human lives, the Germans have been unable to break through the line which the English troops recently drove through their lines in northern France. Last week saw some of the most desperate and deadly fighting of the entire war, but at its conclusion the British forces were intact, though the Germans lay dead in rows. The English have been unable to take the town of Cambrai, which they had surrounded and which is an important railroad junction, but they were not obliged to retire to any considerable distance and were holding their ground well. It is expected that another English drive will be made in the near future, the English policy apparently being to keep up the fighting all winter, regardless of weather conditions. It has been announced that American engineers were quite a factor in the recent great English advance and that they bore themselves extremely well.

A WAR budget of more than eleven billion dollars to pay army and navy costs during the fiscal year 1919 faced congress when the government's estimates were presented. The sum represents only the strictly military expenses that can be estimated so far in advance and is more than two and a half billion larger than similar appropriations made for the years 1917-1918. So far as the estimates show it provides only for raising and maintaining an army of 1,500,000 men and carrying out naval and coast fortification increase projects already authorized. The chief item in the budget is for the military establishment of the army, to cost $6,615,936,553, an increase of $1,365,907,609 over the total of army appropriations made at the last session. The only means of determining the size of the army provided for is in the estimates of $1,003,933,676 for pay. This is $159,294,558 greater than appropriations obtained last session for the pay of 62,000 officers and 1,208,300 enlisted men of the line and 398,000 enlisted men of the various auxiliary corps.

AN interallied war conference was held in Paris last week, participated in by the United States, France, England and the other leading nations engaged in the war against Germany. Probably the greatest result of the conference was the decision to create an international organization to coördinate the utilization of transport facilities. In this way, without hampering the employment of the various nations' resources, it is planned for them to restrict their imports to permit as much tonnage as possible to be released for the carrying of American troops. The conference provided for an interallied committee to carry out the decisions of the body with regard to unity of action in the production of war manufactures, such as armaments and airplanes, by way of avoiding duplications and for specialization by the the various nations in the branches of production for which they are best fitted. This means that all the countries fighting Germany and Austria will provide transports for the conveyance of American troops to France and not make the United States depend entirely upon its own shipping facilities; also that the whole business of war will be put upon a systematic basis. The conference is deemed to be a long step toward the more efficient coöperation of the allies and ultimate victory.

THE collision, in Halifax harbor last week, of a French ship loaded with munitions and a Norwegian ship in the Belgian relief service caused the death of over 2,000 residents of Halifax and resulted in what has already been called "the worst disaster on the American continent." The Norwegian ship rammed the French munition ship and in seventeen minutes the entire cargo of munitions had exploded with such force that one-half of the town of Halifax was blown up or set on fire and the explosion was heard and felt sixty to seventy-five miles away. The relief work started at once, but it was an almost helpless task at first. Men, women and children were literally blown to pieces by the thousands. Canadian officers who have seen two and three years' service on the battlefields of Europe declare that they never saw such awful widespread destruction. Children were killed when their bodies were hurled against telephone poles and whole schools were done away with in a twinkling. An investigation will be made, but at first reports the catastrophe seemed to be only an accident, with no German plotting visible. Relief is being rushed from other towns in Nova Scotia, from the United States and from all parts of the world.

IN ordering an investigation of complaints of alleged discrimination against negro men in the national army, Secretary Baker made it plain that he considers most of the complaints unwarranted and due to German propaganda. The inquiry is to determine whether the war department's instructions have been carried out that the negroes be not required to do an unfair share of the manual labor of the army. The complaints are held by the secretary to be unwarranted in view of the fact that more than 626 graduates of the negro officers' training camp have been commissioned in the medical corps and that a full fighting division—the Ninety-second national army division—of 30,000 negro troops is being organized "for duty in France under Gen. Pershing."

Somewhere in America

Laying submarine cable, hundreds of miles of it, to scores of isolated lighthouses is one of the telephone tasks made necessary by the war. The Bell System has also built lines connecting some two hundred coast guard stations.

It has built complete telephone systems for fifteen National Army cantonments and fifteen National Guard camps, each a city in size, and also at many naval, officer's reserve, mobilization and embarkation camps and at army and navy stations.

It has provided an enormous increase in long distance facilities throughout the country, that satisfactory service may be maintained between cantonments, training camps, guard outposts, military supply stations, war industries, the National Capital and other centers of Government activity.

The Government facilities at the National Capital have already been increased three-fold and there has been a tremendous increase in local and toll facilities.

Fifteen thousand miles of telephone wire have been taken from other use for the exclusive service of the Government and some 20,000 miles of telegraph facilities also provided.

Meanwhile the Bell System has given generously of its man power, until over seven thousand men are in service or recruited for military duty.

Members of the Bell System whether they have already gone to France or whether they have stayed at their posts to help mobilize the country for victory, are equally in the service of the Nation.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy *One System* *Universal Service*

The Private Lighting Plant.

The introduction of electricity into the farm home has done much toward solving the back-to-the-farm or rather the stay-on-the-farm problem, in the opinion of Clarence E. Reid, professor of electrical engineering in the Kansas State Agricultural College.

Modern conveniences which electricity makes possible, combined with the good, clean living that cannot be duplicated in any town, tend to make the country compete successfully with the bright lights of the city streets for both the boy and the girl.

It is now generally recognized that electricity furnishes the cleanest, safest, most effective and mose convenient system of artificial lighting. It is especially valuable for use on the farm—in the house, stables, and barns where there is always danger of fire when oil, acetylene, or gas lamps are used. Many of the farm chores must necessarily be done in the early morning or late evening and as a safe, convenient, and time saving light the electric lamp far surpasses any other form of lighting.

A large percentage of fire losses in rural communities are due to the use of oil lamps and other dangerous illuminants. A fire once started in the country is certain to be more destructive than in town because of the lack of help and fire fighting facilities

Probably the most common motor driven device for the home is one of the many types of washing machines. The introduction of one of these into the home not only eliminates the greater part of the labor of washday but saves a great deal of the wear and tear on the clothes.

The sewing machine, the churn, and in fact all motor-driven devices for the home, use a surprisingly small amount of power—not more than that used by two or three incandescent lamps. The other useful and labor saving machines are the motor-driven separator and grindstone. When the monotonous tasks may be quickly and easily finished farm life becomes a real pleasure.

"However much the farmer has appreciated the desirability of having electric lights, he has lived too far from any source of power to be able to buy it at a reasonable cost," said Professor Reid. "The private lighting plant has for the most part been regarded as a luxury even for the wealthy city farmer."

The Wisconsin Farmer

THURSDAY, DECEMBER 13, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

TRAINING CITY BOYS FOR FARM LABOR.

EVEN before the war began I printed frequent articles to show that farm labor is among the most skillful and technical of any; that farming requires not only a particular gift or aptitude, but also the closest study of changing conditions and an open-minded acceptance of new discoveries and inventions. Since the war began I have continued these articles every little while. My purpose in the last three years has been twofold: First, to continuously and consistently impress upon the farmer the necessity of using only the most efficient labor and of realizing the nobility and usefulness of his calling; second, to open the eyes of our public officials to the fact that trained labor can poorly be spared from the farm even for our armies and that its place cannot possibly be filled by unskilled labor from the towns and cities, no matter how willing that labor may be.

I have had far too much experience myself with untrained farm help ever to concede that a man, however strong, can be taken from the city and made into an efficient farm hand in a short time. Farming is a calling to which men are born rather than made. Even when they are made, the process is a long and tedious one. Farming requires a knowledge not only of agricultural fundamentals, but likewise of chemistry, physics, engineering, electricity and such a host of other things as precludes its being adopted and practiced in any haphazard manner. I have had hopes, every little while, of convincing certain of our public officials of the truth of this statement, but they seem impervious to conviction and continue the even tenor of their way, unhearing, unseeing and unheeding. I refer, in particular, to certain of our army exemption boards, concerning whose stand in regard to the exemption of farm labor I have already written at length.

Having such firm convictions, it is gratifying to me to find corroboration given so conclusively by a New York farmer, writing in a recent issue of the New York Sun. This eastern farmer sought the assistance of the great city editor in an attempt to secure the help necessary to bring his crops through to the harvest. He heard from all sorts and conditions of people—invalids in need of a country vacation; drunkards, whose wives believed they could be cured on a farm; "jokers, who wanted to get a rise out of a hayseed;" slackers, who hoped to avoid the draft; and so on and on. As to the result, let the New York farmer speak for himself. These are his exact words, as printed in the Sun:

> Out of twenty to whom was accorded an interview, seven showed up, two who knew nothing of farming, but were "willing to learn," one whose reference acknowledged his ability, but added that he would need watching and was "wanted" in his home town for thieving.
>
> From among the remaining applicants one was chosen for the farm; he was to come out with his wife and begin haying—a kind and decent couple nearing the half century mark. Clean, kind, intelligent, the man yet was a disappointment to himself and to us.
>
> Plunged into the midst of haying, he could not harness a team, could not manage a mowing machine, did not know how to pitch, load or mow away hay. Willing he was, and did all he could; but was swept off his feet by the hustle. Things did not "go;" there was no time and there was no one at leisure to impart proper instruction; also a man of that age does not take kindly to instruction—and that is natural enough.
>
> We parted good friends, and shorthanded and harassed we got in the hay alone—all a little too ripe, all a little too dry and many tons short of what there would have been if all had been cut, dried and hauled in season with the requisite number of hands.
>
> We sowed no grains, we did not dare to; so have to buy what we use. The result is we cannot run the number of cows normal to the farm, nor provide adequately for those we have. We shall get through the winter, but only "by the skin of our teeth"—an uncomfortable and an eminently unprofitable method.

Even in the face of such convincing testimony, the idea persists in the minds of some members of some of our exemption boards that labor can be supplied the farmer overnight, that the riffraff of the town pool halls can be herded out to the farms and production can thereby be continued undiminished. Nothing could be further from the truth.

It is a positive relief, in such a crisis and with so much ignorance prevalent, to find a sensible and feasible solution of the farm labor problem presented by the director of the extension department of one of our grain-belt agricultural colleges. I have the honor to be a member of the State Council of Defense in the state where this particular agricultural college is located. In the course of my duties on this council there came to me a letter from this college man, setting forth the details of a plan for recruiting city boy labor for farm work. I can do no better than to quote a few sentences from the letter, which I have before me as I write:

> The plan I have in mind is, briefly, to give instruction to the city boys who desire work on the farms, along the line of haltering, bridling, harnessing, hitching and driving one, two three and four-horse teams to farm implements. City boys get in bad with farmers in nine cases out of ten because they don't know how to handle a team. They unbuckle the hames at the tops and let the tongue down before unhooking the tugs and do other foolish things.
>
> It would be very easy to put a ten weeks' course of instruction in handling horses in all of our high schools in this state that have city boys and it would be comparatively easy to find some keen, intelligent, retired farmer or other person who would be willing to do the teaching.

Here is the most feasible plan I have yet seen presented for solving the farm labor problem of the future. I shall do what I can to induce the State Council of Defense, of which I am a member, to approve the plan and to put it into early active operation. Every day that we lose is a day wasted. There are thousands of eager city boys who would be willing and glad to come out to our farms next summer, but unless they have some preliminary training they are worse than useless. A ten weeks' course this winter will give them the fundamentals necessary, so that by next spring or summer they will be material which the farmer can shape into at least a passable farm hand for the emergency.

This much is certain: We must have skilled labor if our farm production is to continue, and skilled farm labor is not to be had by the mere waving of a magic wand, even when held in the hand of an ambitious or designing politician. Two duties present themselves to us: First, to allow the present labor to remain on the farm until it can be supplanted by labor equally efficient; second, to train new labor into efficiency without a moment's delay. Unless both of these things are done our production will suffer, our prosperity will diminish and our chances of victory on the field of battle will wane. Must we be forever blind to the truth, when so much is at stake?

WHERE HEROISM IS FOUND

LAST week I printed a letter from Mrs. George Smart, of North Prairie, Wis., in which she pointed out that the father of the soldier boy, who leaves his comfortable farm home for the uncertainties and dangers of army life, is entitled to fully as much sympathy as the mother. I find her letter supplemented, most interestingly, by one received about the same time from a farm father, who has given his four boys to fight for Uncle Sam and who now finds it necessary to leave the new home and return to the old, where he knows he can get along better until the boys come back from the war. This farm father (George W. Scott is his name) shows such a spirit as the embattled farmers at Lexington showed when they fired the shot that was heard around the world and gave the British redcoats their first touch of battle. He has given all four sons to the cause of freedom, but is ready to go himself should his country need him. I cannot say how proud I am of the opportunity to print such a splendid letter as this one from Mr. Scott:

> Dear Mr. Pierce: I note your very excellent articles regarding the war and the general condition of our country and I am sure proud of your able arguments. The war has taken all four of the boys, and of course we feel very lonesome at times, and proud, too. We are going to have to give up our new home and go back to the old home and wait patiently the return of the boys.
>
> The government is calling for production and how am I, or any other farmer, going to do this when they take away all of our help? Well, I am proud we had four good, red-blooded boys to give to the service of our country, and they did not wait for the draft, either. So my good wife and myself can go back over the hill and sing the songs we used to sing and do all in our power to win the fight. You can imagine the feeling of my good wife, but she never shed a tear or broke down, until they were all gone, and then she said: "Daddy, did you tell the boys never to give up? I hope you did." But you can read a world in her face.
>
> I myself have joined the special service reserve, and it may be I may yet join the boys. I am willing to do anything or go anywhere to win the fight, so here's hoping you may keep up the good fight, and let's all join hands and show a solid, united front. If my subscription should expire in the meantime keep the paper coming and if I am not at home, mother will send you your money. May God bless you and keep you long, long years in your grand, good work.

Do you catch the significance of these two letters, the one last week from Mrs. Smart, the one this week from Mr. Scott? Each gives praise for unselfish loyalty to the other; the woman to the man, the man to the woman. The truth is, father's heart and mother's heart beat equally strong for the red, white and blue these days. We are in the midst of the greatest war the world has ever known. Sorrow has already come to many a farm home, as a result of this war. It will stalk into many another farm home before it is ended. Yet father and mother sit in the twilight, hand in hand, singing the old songs which the youthful voices used to carry, dreaming of the boy who has quit the old home place and may, at that very moment, be lying face upward in No Man's Land, his life blood oozing away. And as the winter night settles down upon the farm home and the rafters creak and crackle in the snappy cold, a quavering voice is raised in prayer, or perhaps "My Country, 'Tis of Thee" is sung falteringly, but through to the very last line; then silence and darkness—and dreams of the days when war shall be over and The Boy shall come back.

Believe me, my friends, not all the heroism is on the field of battle these days. You can find it, too, in many and many a farm home, thousands of miles from the battle line.

WHEN THE R. F. D. CARRIER ENLISTS.

I AM quite interested in the word which comes to me from Washington, to the effect that whenever a rural free delivery carrier enters the army or navy, it will be permissible to appoint any member of his family to his post without reference to civil service rules. The ruling was made in the case of a grain-belt girl, Miss Edith Strand, of Princeton, Ill., who asked permission to continue carrying mail on a rural route in place of her brother, who had enlisted for service as an aviator. Permission was at first refused, but the president's wife is said to have interceded for the plucky grain-belt girl, with the result that the president made an order in her favor. Similar privileges will be extended in similar cases, which undoubtedly means that the way is now open for other women to take over R. F. D. routes when the male members of their family are drafted or voluntarily enlist in Uncle Sam's fighting forces.

In this connection, my attention has recently been called to the fact that Mrs. Hettie Rankin, of Bates City, Mo., lays claim to the honor of being the oldest woman R. F. D. carrier, in point of continuous service, among all the 264 women whom Uncle Sam employs to haul mail to his farmer patrons. Mrs. Rankin drives a rural mail route daily, out of Bates City, twenty-five miles in length. She serves eighty-four rural mail boxes and handles on an average 7,284 pieces of mail a month. She has been driving the route continuously since November 1, 1903.

In the fourteen years which Mrs. Rankin has been driving for Uncle Sam she has failed to make her daily trip but twice. Once was when the bridges were washed away by a storm and the other time was when the roads were blockaded with snow. It is estimated that she has traveled 103,200 miles. She uses a buggy and two horses, and until the last few years she fed and groomed the horses herself. "Mail carrying is hard work, much too hard for most women, especially in winter," says Mrs. Rankin. "I entered the service because I had loved ones dependent upon me and I wanted to make steady money and be sure of my job. I was as happy as a kid when I passed the examination and got regular work at $33 a month." Mrs. Rankin has proved so faithful and efficient that today she receives $100 a month and an annual vacation of fifteen days on full pay.

If any of my readers know of a case of longer or more efficient service than this, I would be delighted if they would write me. In the meantime, the honor belongs to Mrs. Rankin.

VICTORY DEPENDS ON FARMS.

EVER since the war began I have contended that the man who raises a full crop of foodstuffs is every bit as patriotic and as necessary as the man who bears arms against the enemy; that production must keep pace with destruction. For a time I was practically alone in this contention. But now, I rejoice to say, the tide of public opinion is turning. Men are beginning to realize that the farmer is as necessary, is as vital a factor in ultimate defeat or victory, as the soldier. All over the country—not alone here in the grain belt, where the centers of food production are located—this idea is being expressed over and over again,

(Concluded on page 25.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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THE WISCONSIN FARMER, Madison, Wisconsin

Expanding Wisconsin Dairy Cattle Market.

Wisconsin farmers with plenty of good breeding stock for sale are rejoicing with their southern friends over the emancipation of 65,520 square miles in nine states from the cattle tick quarantine regulations.

The first day of December was the red-letter day set by order of Secretary Houston for the release of this great territory from the clutch of the dreaded cattle tick, the parasite which made shipments of improved stock into the territory an impossibility, and which greatly hindered the free interchange of trade relations to the mutual benefit of both southern and northern farmers.

It further tended to check the South's usefulness to the national war commissary department, and meant an appalling annual waste of grain and geedstuffs given to sick cattle.

Wisconsin is interested in this change for the better because since March 1st there have been nearly 200 carloads of dairy cattle, grades and pure breds, sent out of the state to sections of the South and Southwest which were less well provided with foundation stock with which to maintain the nation's maximum production in dairy products. Milk, butter, cheese, condensed milk—all these vital army needs must be increased immeasureably as speedily as possible.

The release of this vast southern territory to more northern breeding stock with good dairy records behind them means much. The South has the feed to give the cows, which the North in many cases lacks.

Further, it has been observed by men connected with these notable transfers of breeding stock southward that the trade has been checked and many favorable openings closed simply because of cattle tick quarantine.

Commissioners of agriculture, county agents, secretaries of commercial clubs and leading bankers of Arkansas, Texas, Louisiana and Mississippi have written to the Wisconsin breeders to the effect that they would be anxious to coöperate in getting some northern stock imported into their regions were it not for the cattle tick menace.

The governor of Mississippi declared December 1st a special state holiday. He desired all to join in celebrating the release of twenty-eight counties in the state, and at his office in the capital he received congratulations from the United States Department of Agriculture and several adjoining state executives.

The order releases large areas in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma and Texas. That the campaign will wax stronger against the tick next year is promised as certain, and it is believed that by 1921 the tick will have been dipped out of existence in the South.

The Rock Island Railroad, which taps a considerable area in the southwestern states, is allied with the Wisconsin interests which desire to establish a secure breeding stock market in the newly opening dairy lands of the country.

Most of the outside buyers who have come to the Badger state since last spring in search of dairy breeding stock have generally been accompanied by county agents or state live stock specialists of some sort. Local licensed veterinarians did the tuberculosis testing and all details were taken care of without friction. To date not a single complaint has been received from buyers.

As a means of quickly shifting valuable animals from centers having a surplus to places of scarcity, and thus adding much to the food-producing capacity of the country the plan offers great possibilities. The emancipated tick area makes these possibilities still more permanent and reassuring.

Direct trade between outside buyer and Wisconsin breeder means a considerable saving of time and money; besides, it also tends to restore confidence and make sales more satisfactory. As most of the local deals have been consummated through county agricultural representatives the plan is placed on a broader, less personal foundation, and assures the buyer fair treatment.

However, the greatest effect for good which the interstate breeding stock trade will bring out is that Wisconsin live stock centers will gain new vigor, and places which have hitherto been listless in the matter will awake to their position. When outsiders come in after stock they tell plainly and unmistakably what they want. They want calves of a certain age and a certain breed. Unless Wisconsin dairy communities get together with better purpose and plan to handle this trade right, buyers are bound to look elsewhere for stock.

Organization for standardization of production, although pretty long words, make a phrase which sums up the thing to be desired, and the new freedom of the South's tick territory will help to bring it about.

Potato Silage for Wisconsin

Further tests in the making and feeding of potato silage will be undertaken by the United States Department of Agriculture in coöperation with the animal husbandry department of the college of agriculture, University of Wisconsin.

The experiments were introduced to Wisconsin people by Dr. L. A. Rounds, of the United States Department of Agriculture, in a special exhibit and demonstration at the State Potato Growers' convention held here this week.

Potato silage as feed for hogs is being advocated by Dr. Rounds and others, following careful trials. Tanks of relatively small dimensions will be used in the Wisconsin tests. No attempt will be made to put the potato silage into silos.

The object of the work is to seek a possible aid to the corn ration and also to utilize the cull potatoes as well as to work up those injured for commercial use by frost or bin damage.

Potato silage has been made in Germany, but there a special culture medium was used to start active fermentation in the chopped potatoes. Dr. Rounds has originated a plan whereby the potatoes after grinding are put at once into water-tight receptacles, such as barrels or tanks, along with about 2 per cent of corn meal sprinkled in among the material. A weighted covering then is put over the top of the "potato silo." The mixture is then tamped down and covered for several inches with cornstalks or leaves.

Fermentation starts at once, and if the weather is warm gas bubbles appear in twenty-four hours. Considerable pressure is developed, which requires additional weights on the cover. After a few days this movement subsides, but fermentation is not completed until the end of three weeks, depending on the temperature.

"By the use of the corn meal to provide a lactic acid fermentation in the potatoes the Americans have improved on the German plan," said Dr. Rounds in explanation. "The use of from 2 to 5 per cent of corn meal mixed with the crushed potatoes will insure a true acid fermentation which will convert potatoes into silage."

It is claimed that the work may be done upon any scale and that losses should be small where reasonable care is used. The resulting potato silage, according to some specialists, is acid in flavor, free from putrid odors and has the consistency and appearance of the original crushed potato.

The machine which Dr. Rounds used for his exhibition at the state potato show in Madison crushed the tubers by passing them through an apple grater which has been modified by substituting rows of blunt spikes in place of the grater knives.

The Live Stock Situation.

In the annual report of the secretary of agriculture, David F. Houston, which has recently come from the press, special attention is called to the fact that our population has increased about 13,000,000 in the last ten years, whereas there has been an actual decrease in the live stock for the same period. In some respects, however, according to the secretary, the situation is encouraging because there has been an increase in the number of milk cows in the last four or five years. At the present time there are 23,906,000 milk cows as against 22,768,000 a year ago and 20,497,000 in 1913 before the European war began. Four years ago there were 51,482,000 sheep in the United States, but in 1917 this was reduced to 46,059,000. Hogs have decreased in numbers more than 4,000,000 head, although hog production is greater now than at the beginning of the European war.

The department proposes to expend a good deal of energy to the end that greater returns are forthcoming from hogs and poultry. These give the quickest returns and funds have been appropriated to employ a considerable number of specialists to give their entire time to the task of increasing the number of hogs. There will be thirty-nine specialists who will devote their energies to giving instruction in poultry raising, so that in this way the department hopes to greatly enhance meat production. Already field agents of the department have assisted in the transfer of 100,000 cattle from localities where there is a shortage of feed into those regions where feedstuffs are relatively abundant. This in itself is an important factor, considered from the standpoint of the welfare of the nation and the part this country shall play in the great conflict now under way.

In connection with the campaign to increase meat production the bureau of animal industry is prepared to deal with live stock diseases that are now causing heavy losses in a more effective manner than ever before. Forty-six workers have been added to the force now engaged in combating cattle ticks in the South and it is reported that 51 per cent of the original infested territory has now been cleared of the tick. It is reported that hog cholera losses have decreased 30 per cent during the last year and sixty-five additional veterinarians have been assigned to the work of controling this disease during the coming year. Some nineteen specialists have also been detailed to assist in combating tuberculosis of cattle and swine as well as abortion in cattle, while other specialists are engaged in the work of controlling blackleg of cattle and anthrax of domestic animals.

Shall Wisconsin Increase Hemp Acreage?

Unless hemp seed prices take a decided downward trend it is doubtful if Wisconsin farmers will invest very heavily in this great fiber crop another season. They will, at least, not extend the present acreage should high prices prevail for seed. The demand for food crops and live stock products will also tend to keep hemp enthusiasm from spreading.

Andrew H. Wright, of the Wisconsin station, who is helping to promote the state's hemp growing along safe and sane lines, made a plain statement this week from his headquarters at the college of agriculture. He declared that unless Wisconsin can feel sure that net returns from hemp will be large the growers cannot afford to develop new sections for the production of the crop. Present quotations from seed-producing centers warrant the assumption on the part of Wisconsin growers that the price level will be kept rather beyond the safety point.

Should Wisconsin be able to get seed at about $6 a bushel (forty-four pounds in a bushel of hemp) and lay it down in the state for $7, a fairly good acreage could be planted next spring, with the possibility of opening some new centers. Six dollars is said to be a liberal price for Kentucky seed growers to get, and one which is entirely fair considering production costs, interest rates and other items.

Kentucky growers may be laboring under a false impression as to the exact demands for hemp seed, Mr. Wright says. Instead of the demand being greater than the supply, the reverse is true.

The total amount of hemp seed available this year will be larger than usual. The amount raised in Kentucky will be practically the same as last year; several thousand bushels of old seed were held over; and over 5,000 bushels of seed were grown this year in Kansas and California.

It is estimated that there will be about 60,000 bushels of seed produced. Last year the total acreage in the United States was estimated at less than 43,000 acres.

The rate of seeding usually advocated is one bushel to the acre, so this means that there will be about 60,000 acres planted if all the seed is used. This would mean, however, an increase of about 17,000 acres in the principal hemp-raising states. Will there be as large an increase as this? This is the doubtful point at issue.

Wisconsin will do well to equal its 7,000-acre point made in 1917. Of these, 1,000 acres were sown at a contract price of a stated sum for each ton of cured stalks. It is not expected that this contract will be renewed again—at least, not for so large an area.

Under existing conditions Wisconsin will do well to get out an acreage of hemp large enough to protect the capital already invested in machinery and breaking plants. Demand for seed is also on the wane in California, where a smaller acreage is anticipated for next year. In the Dakotas and Minnesota and other northwestern states where over 8,000 acres were grown last year, the crop was unsuccessful, and it is doubtful if any seed will be used in that region next spring. The chief hemp increase will be in Ohio, Indiana and Michigan, where the crop is grown on muck land and there is plenty of machinery to care for the crop.

Whether or not Wisconsin can progress in hemp culture this year, then, depends on conditions beyond the control of its growers. The result will be awaited with interest.

The Farmer's Interest in the Village Library.

Are the librarians in the small towns of Wisconsin really alive to the rural population, or do they cater almost exclusively to town readers or country folks solely interested in literature, music or art?

How about farm journals and agricultural experiment station bulletins and reports? Would it be an easy matter to obtain a copy of such publications in the average small-town Wisconsin library?

After visiting a few such libraries and talking with farm folks in a number of places it seems evident that there is a strong case against the small-town library in this respect, namely, that it has failed to get the true perspective on economic conditions and has failed to fill a real demand for service on the part of country readers who help support it.

First, let it be understood that, although the farmer does not directly pay a tax to support the small-town library, yet as a constant trader and patron of the town in which it is located he is indirectly responsible for much of the wealth which is taxed to pay for the library. No one can deny that fact.

Therefore, why are not the needs of the farmer given more consideration in selecting lists of books and periodicals for small-town libraries and reference shelves?

Take the experience of a county agent in Kentucky, who told the writer that he had a group of boys nicely started on the preparation of programs and debates for winter club meetings,

but they lacked enthusiasm for the subject because of a dearth of ready reference books and magazines. The subjects were all of direct farm application, yet the town library contained nothing to aid them in outlining their papers and preparing arguments.

For instance, should a debater wish to seek the records of sales for a certain breed of stock, or data on feeding trials, milk production statistics or other proof with which to arm himself against attack by his rivals, where would he go?

Some might answer that the average farmer receives all sorts of publications and bulletins and doesn't need a library. This is true enough, but overlooks one important fact—the real reason why libraries were created and are maintained at public expense.

Libraries are kept to file, index, cross-index, catalog and otherwise tabulate facts for the benefits of those who need facts in a hurry and without lost motion. They are the time savers of a busy public—or should be. Hence if they do not keep accurate and careful index of farm publications and have farm journals of sectional value bound for constant reference what is their service? It amounts to little for the farmer and the farmer's family.

At home the bulletins and magazines become piled up hodge-podge and finally become lost at house-cleaning time, if not sooner. The library must keep the official files for the farmers of its bailiwick. It is not only a privilege, but a duty.

Does your own home town library keep bound volumes of farm papers, at least those applicable to this field? Does it afford ready reference and up-to-date help in farm problems? For the good of yourself and community we hope it does.

Cold Weather Tips for Tractor Owners.

A special kind of care should be given the tractor during the winter whether it is idle or in use, and to this end the Avery Manufacturing Company has recently sent out to the owners of Avery tractors some instructions involving the principal points to be kept in mind. Doubtless these will apply equally well to all tractors and we, therefore, quote from this circular:

As cold weather approaches one cannot be too careful about letting a motor freeze up. Hundreds of motors are frozen up every year by the first cold weather that comes, because the owners neglect to drain them out and think, "Oh well, it won't freeze hard enough tonight to do any harm." If a tractor must be run after freezing weather sets in, it must be drained every night immediately upon stopping the motor, or an anti-freezing solution used in the radiator.

In very cold weather we find that kerosene can be used very successfully as a cooling agent, also a solution of 33 1-3 per cent of denatured alcohol and water. If about 10 per cent of glycerine is used in this solution it will prevent the alcohol from evaporating so fast.

Also as cold weather comes on, it is generally necessary to use a lighter oil in your motor, as instructed in the instruction book; otherwise, the motor will get so stiff nights that it will be practically impossible to start in the morning.

It is also necessary to prime heavier and in some cases use a higher test gasoline for priming than in warm weather.

It is also necessary to keep the plugs perfectly clean for starting, as moisture is much more apt to form on the plug and short circuit it in cold weather than in warm weather.

If you are going to lay the tractor away for a while, you should, when stopping the tractor on its last run, pour in a pint or more of oil into each priming cup and then shut the motor down immediately afterward. This oil will be drawn into the cylinders and will coat the valves and valve stems with an oil film which will protect them from rust.

In putting a tractor away, it should be looked over very carefully to see that all parts of the cooling system are drained thoroughly. If the tractor sits high at one end or the other, water may lodge in certain places and if freezing does not damage it, it will rust the parts and in time cause trouble.

The user of a tractor will find it a paying proposition to house the tractor at all times when it is not in service. However, if it is not housed, there should be something placed over the stack of the radiator which will prevent snow and rain getting in, and a tarpaulin or canvas large enough to cover the motor complete used, as the motor should not stand out and take the weather.

The fuel tanks should be drained and protected so that it will be impossible for water to get into them. If the last time the tanks are filled with fuel a pint of cylinder oil to each five of fuel is put into the fuel tanks, it will leave an oil film on the inside of the tanks which will be very beneficial in prolonging the life of same.

Also in putting away a tractor the user should make a note of all parts that will be needed to put on the tractor when it is put into service again in the spring, for if you wait until time to use the tractor in the spring, you are not only liable to overlook some of these parts, but there may be a delay in getting them promptly.

In addition to these suggestions, attention is called to the fact that little oversights in caring for the tractor during the winter are often expensive in the end and cause long delays when it is necessary to put the tractor into use. Naturally, manufacturing companies are in a better position during the winter months than at any other time to attend to the needs of their customers and no man can afford to enter upon his spring work without having his tractor in tip-top condition. The life of the tractor depends not only upon the kind of care given to it when it is in operation, but also upon the attention to details that it receives when idle. In any event, considerable of an investment is involved and no man can afford to give his tractor anything but the best of care.

Save Calves From Beef Cows.

The hue and cry about the marketing of veal calves and a continuation of the practice because of its effect on the future meat supply is often entirely uncalled for. Certain types of calves from the dairy breeds can be dealt with at a profit only in one way, and that is to convert them into veal. If they are kept until they are two or three years old they will eat their heads off several times over and never make satisfactory beef. On the other hand, something should be done to stem the tide of marketing vealers of the beef breeds. Attention is called to this matter by an Illinois subscriber who writes:

There are several reasons why beef cattle are scarce, but one of the foremost is that farmers are selling so many of their veal calves at the age of six weeks or even younger, at times. They do not seem to consider how much loss is incurred by so doing. These calves can be placed on pasture and before the owner realizes it they are old and large enough to be put on dry feed and be fattened for market. This is one reason for the scarcity of feeding cattle, but most of the farmers who sell calves at such a tender age do it simple because they do not care to feed a steer for market.

As I am a frequent visitor at our local stock pens, where a large amount of stock is shipped weekly, I cannot but notice the number of small calves that are brought in daily by the farmers of this as well as other communities. One day last week, one man with whom I was well acquainted and who is a large stock breeder, brought in four calves, all of which were small, but were good Short-horn stock. I asked him why he was selling these calves of such good quality when he was prepared to feed and grow them. He replied that he wanted to get them out of the way so that he could sell his milk. This farmer could have easily raised these calves until they would have brought him upwards or perhaps better than $100, and a good part of that would have been profit.

There is the proposition, many farmers have never tried keeping their young stock and do not know the real value of it. A calf that is born, reared and fattened on the same farm is the one that pays best. Not only is it a better feeder, but it is a quiet and hearty animal. Not every farmer, of course, is prepared to feed cattle, but if he wishes he can be, without a great deal of expense. Not every farmer on the other hand, knows how to feed and fatten cattle, but this can be learned by beginning with a small number and gaining experience little by little. Ask other farmers and read of other feeder's experience and then apply their methods to your own herd.

It is poor economy to underfeed, however expensive feeding materials may be. If a herd of cattle are on the farm to be fattened the corncrib must not be nailed solid nor contents spared. When cattle are being finished a variety of feeds must be given and if it is not grown on the owners farm it must be bought, for it is a good investment to buy feed when cattle are high and like they are apt to stay.

We feed only what will be cleaned up between feeding times. Regularity is an important point. Good, fresh water is another real necessity. We allow the feeders to have free access to an open shed and a large straw stack that is in the feeding pen. I feed corn stover, clover hay, crushed corn, cottonseed meal, and balance with silage.

I find that cattle cannot be fed at so much profit unless hogs are allowed to follow them. Much corn is thrown from the feeding troughs by the indifferent steer, and this scattered grain, including the droppings, makes a fattening ration for a number of good-sized shoats.

Those who can get cattle and hogs to feed should not question the advisability of feeding the corn rather than selling it. The price for good beef is most likely to hold. I usually have a bunch to sell during February thus giving ample time to clean the pens of all manure before the spring crops demand attention.

Now that there is an actual shortage in the meat supply and the price is correspondingly high, every stockman should undertake to solve this problem for himself and save, wherever it is possible, the calves that have a cross or two of beef blood in them. Whether desirable or not, we are nevertheless going rapidly in the direction of producing specialized stock, whether along beef or dairy lines, but in spite of this an important place is occupied by the grade animal of mixed breeding. One Short-horn, Angus or Hereford cross even on a dairy animal effects a tremendous change in the progeny and all animals of such breeding should in these times not be marketed before they weigh 1,000 or 1,200 pounds.

THE WORST OF THEM ALL
The Firebrand Who Fights the Farmer and the Food Supply.

Splitting Potato Eyes.

Seed potatoes were high in price last spring and growers were using every possible means to obtain a crop by the use of as little seed as possible. In some instances potato parings were planted and in other cases men were so economical in the use of their seed as to split the eye. Men could be found who have no faith in the latter plan, but believe that this results in destroying the eye absolutely.

In order to test the matter out the experimental department of the Emerson-Brantingham Implement Company conducted an experiment during the present season by planting severed eyes. One eye was divided into two parts and each part planted in a hill by itself. Soil conditions were exceedingly unfavorable, but one of these half eyes produced three potatoes and the other four, or an average of three and one-half potatoes per hill. When an eye was cut into four parts and each part planted in a hill by itself two and three-fourths tubers per hill were produced. The matter was even carried further and one eye cut into six parts, the result being that each hill from these six parts produced an average of one and one-half tubers. There was but little variation in the size of the potatoes from the different cuttings, but it will be observed that the smaller the cutting the less the yield in the number of tubers. The two hills from the one eye produced seven potatoes, while the four hills from one eye produced eleven potatoes and on the other hand the six hills from the one eye produced nine normal potatoes in addition to two that were so small as to be unfit for use. In the latter case there was one blighted hill that produced nothing.

The conclusion to be drawn from this little experiment is simply this, that split potato eyes will grow. On the other hand, the reduction in the number of tubers per hill when the division becomes too fine would indicate that the practice of cutting the eyes is not on the whole a profitable one. The matter is of special interest to those who use the fork or cylinder type of potato planter, because it shows that eyes pierced or split by the planter forks which catch and drop the pieces into the furrow are not necessarily destroyed, but may perhaps grow almost as well as whole eyes. This is important in these times when so much is being said and done in favor of utilizing machine instead of hand power in every possible way.

Salting soft corn as it is being put into the crib has proved to be an effective measure against heating and rotting. After each load of corn goes into the crib, about a peck of common salt or ground rock salt is scattered over the top. The salt draws out the moisture, which then evaporates. The brine on the grain prevents molding before evaporation is completed. Farmers who have tried the method say the salt does not seem to injure the corn in any way.

BADGER FARMER'S MAIL BAG

FARM EXPERIENCES

Beds and Bedding for Swine.

To the Editor:—Hogs of all ages and sizes require comfortable sleeping quarters to realize for their owners full benefit for food consumed. This applies more especially to their accommodations from fall until spring. Stock of all kinds are more sensitive to cold wind and wet surroundings than many persons realize. Hogs, when on pasture, during cold nights will root a deep hole and bury themselves, or will pile one on top of another for warmth. This is unhealthy for them if practiced any length of time. All hog pastures should have portable sleeping pens. They are convenient and not expensive, and can be removed quickly with a pair of horses from one place to another. Fill these huts with corn stover, straw or leaves, nail a piece of heavy sacking or carpet across the top of the door, letting the sides and the bottom hang loose. This will keep out the wind and will not prevent the hogs going in or out. With this arrangement, and with the nests kept dry, hogs will be comfortable on pasture or in wood lots until real cold weather sets in. In very cold weather the most convenient and best place to winter pigs is in the barn. Provide for them dry sleeping quarters, free from wind currents; have all sleeping quarters well ventilated, however. A room that on a cold morning is filled with particles of frost adhering to the side walls and ceiling, caused by steam rising from the pigs, is not properly ventilated. It is unhealthy for man or beast to live in such an atmosphere.

Shredded cornstalks make good bedding, and the hogs will eat considerable of it. Oat and buckwheat straw are both bad for hogs to sleep in; they cause scurf, cracked skin and continued itching. Dry leaves make good bedding, but they lack lasting qualities; they break into small pieces and get damp quickly. Baled shavings and sawdust make nice bedding for warm weather; they absorb moisture and impart a pleasant odor, but are too cold and uncomfortable for winter use. I consider rye and wheat straw the best of all materials, given in quantities sufficient for them to burrow into during cold weather, and they will be dry and comfortable.

It is imperative that all beds, of whatever material they are made, be changed when they become damp, never waiting for them to get real wet and nasty, because dampness causes rheumatism and pneumonia.

Neither should the bedding get broken fine and dusty; then it is very injurious to the lungs. Prevention is better than a prescription for a cure.

All our sleeping rooms have wooden floors, but they accumulate more or less moisture and necessitate a change of bedding often. In order to economize on straw we build a portable bunk for each pen, made by placing on edge five strips of 2x4 scantling, four feet three inches long, and to these nailed four boards, one foot wide and nine feet long, leaving one inch space between the boards for drainage. Around the four sides of this floor are nailed boards one foot wide with a 2x4 eight-inch-long piece in each corner to strengthen them. This makes a strong, substantial bunk, eight inches deep, with bottom raised four inches above the floor, making the hogs dry and warm. These bunks can be made any size to accommodate the pen, etc. The size mentioned fits our rooms. Place the bunk in the corner of the pen and round it up full of straw and it will accommodate ten to fifteen shoats weighing upwards of a hundred pounds each. I have never used a more economical scheme for utilizing straw. By shaking it up, removing when wet and adding a little more straw when necessary, the beds will last a couple of weeks before getting broken and dusty; then clean out entirely and replenish. Pigs after eating will crawl into these ideal beds and will be comfortable and contented, and the contented pigs are the profitable ones for the farmer to grow.

Subscriber.

When to Cut Tobacco.

To the Editor:—Forty-nine years ago I began growing tobacco. A few years later I decided that there were certain days better than others on which to cut tobacco for it to cure up nicely and have a rich, "waxy" and heavy body. To find out the way to tell these dates, and to tell them ahead, has been a hard job, but I was finally successful. To explain, let me say that tobacco has an oily substance which is its natural possession. It has a sap (water) like other vegetation. When the sap rises it runs the oil out through the pores of the leaves, on the principle that oil and water won't mix, and the oil, being the lighter, is pushed out by the sap. Tobacco cut in this state will be light and "chaffy." You see, there is nothing but sap in the tobacco and when cured this sap is gone. It evaporates and leaves the tobacco light and worthless, but to cut tobacco when the sap is down and the oil has full sway, you can cure it up nicely and with a heavy body; it will be rich and "waxy." This happens because the tobacco is full of oil, instead of sap, and the oil can't evaporate and remains in the tobacco to make it rich and heavy. It has been my experience that we must cut tobacco when there is oil in it if we expect to have oil in it when cured. For instance, you have experiences cutting one week and having excellent luck, and then cut a few days later, probably off the same piece of ground, and with riper tobacco and have no luck at all.

I shall be pleased to answer any correspondence from tobacco growers who may want to write me, provided postage is sent for reply.

Davie Co., N. C. D. V. Davis.

Wisconsin Corn for Illinois.

To the Editor:—I was very much interested in the recent article in your paper by Mr. Chas. Hull, of Shawano county, Wisconsin. Now it happens that I was born and raised in the good old state of Wisconsin and when I want something extra good I send back to Wisconsin to get it. I saw Mr. Hull's corn at Madison last year at the corn show and it strikes me that it is what we need here in Illinois to be certain to mature a crop. If Mr. Hull has a quantity of seed corn, he evidently will have no trouble in disposing of it. F. W. Siperly.

Whiteside Co., Illinois.

[Editor's Note.—We are not at all surprised at the way our readers have grabbed at Mr. Hull's suggestion that he might have some seed corn to dispose of. Seed corn is scarce not only in Wisconsin, but also in sections farther south and we have had so much soft corn in the last few years that there is likely to be a slight tendency toward getting northern-grown seed if it is obtainable.]

Good Seed is Essential.

To the Editor:—I will say that I do not consider myself an expert in raising barley as yet, but will be glad to say something to the "Mail Bag" readers regarding my experience. The most important things are, first, good soil; second, good seed and, third, good, dry seed bed. I generally plow clover sod for corn in the fall and spread fertilizer on over winter and plant with corn in the spring. And then in the fall I plow up the corn ground early and again in the spring when the soil is nice and dry, I work it with a spring-tooth harrow and then I sow it with a drill, using about one and one-half bushels to the acre. This barley is drilled in about one inch deep in heavy clay soil. Then I drag the ground very thoroughly. It must be remembered this is Pedigreed No. 6 barley and the best seed I can find. I usually pick some of the largest heads so I have about one-half bushel of the very best seed. A very important thing is getting good seed. It is not possible to raise first-class grain from anything else but good seed.

Peter Dengel.

La Crosse Co., Wisconsin.

Crop Rotation With Oats.

To the Editor:—I have seen quite a few letters in The Wisconsin Farmer Mail Bag department in regard to raising corn, wheat, oats and barley. Will say that I have had some experience in raising a better grade of oats and have been quite successful inasmuch as my oats have been awarded first prize in their class for two years at the grain show held at Madison. This show is under the auspices of the Wisconsin Experiment Association. In addition to this I scored sweepstakes prize last year over all oats at the show. Of course, these things please me very much and it is a great gratification to a man to be successful after he has tried hard. For the benefit of the readers of The Wisconsin Farmer I will briefly outline what I consider the most important factors in getting a large yield of a good quality oats.

My soil is a gravel and sandy loam. I have the Swedish Select, also known as Wisconsin No. 5 oats. This latter oat has a very large, plump kernel well adapted to the medium and light soil, grows a large straw, not so well adapted to the real heavy clay or loam soil on account of the straw getting too large and has a tendency to lodge. To raise a good crop of any kind we should not forget that unless we keep our soil in a fertile state we should not expect a large yield even with favorable weather conditions.

This can be accomplished even on light soil by keeping all the live stock that can be pastured and fed during the winter months and by proper rotations of crops with clover. I use a three-year rotation. Clover first crop cut for hay, second crop may be pastured or turned under and followed next year with potatoes, third year, oats and seeded to clover. If potatoes are not raised, corn or some other cultivated crop should be substituted. The year the cultivated crop is raised the ground should be well prepared before planting and thoroughly worked as late in the summer as the crop would permit in order to kill quack grass and other noxious weeds. This is not only important for the cultivated crop, but it will be of immense benefit to the oat crop the following year.

Plowing should be done in the fall, during winter or early spring. I apply about five to six loads of barnyard manure per acre. Oats should be seeded early in the spring soon as the frost is out of the ground and it is in shape to work.

The ground should be thoroughly disked before seeding. The seeding is done with a single disk drill six inches apart with grass seed attachment. I seed about three bushels of oats per acre. The oats should be well cleaned and graded and only the best seed should be used.

I also treat my seed with a formaldehyde solution to prevent smut. After the seeding is done the land is rolled. Under favorable weather conditions a yield of from fifty to seventy-five bushels per acre should be realized. Chris Michelson.

Oneida Co., Wisconsin.

Varieties of Alfalfa.

To the Editor:—We sowed two different varieties of alfalfa last spring, one being Cossack Baltic and the other Grimm, and so far as I can see there is not any difference. However, I have one and one-fourth acres of the ordinary alfalfa, which I cut three times this year and which yielded five tons for the three cuttings. The last cutting was on the third day of September and as I write this on November 30th, the alfalfa is two and one-half inches tall, nice, thick and green.

Henry Ruhnke.

Kewaunee Co., Wisconsin.

Two Handy Farm Devices.

To the Editor:—Though only a hired man, I read your paper and find it very interesting and get lots of valuable hints out of it that the boss and I can talk over and try. Have not even a common school education and all I do know has been gained through reading papers and I believe that if a person has anything of value to save time and labor, he should pass it on, especially in these times of need. Now I have two things that we have tried and found to save labor and time, and I will try and explain them to you, and if you think they are worth publishing, do. If not, no harm done anyway.

The first is in regard to hanging seed corn. We take a piece of binder twine about twelve feet long, tie a loop in one end, hang loop on a nail overhead. Start and lay one ear in the bight about four feet from the loop and then half stitch with the loose end, and then keep laying ears on top of each other and keep on half stitching each one. Your ears will all lay parallel to each other, and can then be hung in a very small space. After curing, pull out your ears, cut off loop and pull out your twine when you can roll up and put away for next year.

My second idea is in regard to returning hayfork in barn. We tie a small rope to carrier, then run rope through small pulley on opposite side of barn floor from mow. Then run rope through pulley attached to sufficient weight and then up again and tied to rafter. We have the weight in a slide. Of course, the horses have to pull up the weight, after load is on track. After load has got to desired place unhook from evener and fork and carrier will return to stop block. It is helping us and if we could get anybody else to get any benefit from it, they are welcome. If anyone is interested and don't understand it fully, write. Our outfit cost 75 cents outside our own labor.

Chas. H. Yandry.

Jefferson Co., Wisconsin.

Why More Sheep in Wisconsin.

To the Editor:—To the question, "Why Wisconsin farmers should have sheep?" my answer is as follows: It would be a patriotic move for our country. It would help to clothe our soldiers and also feed them. Also the farmer will make more clear profit on a small flock than any other animal on the farm without exception. It takes very little to winter a sheep. Wild hay or clover will do it and they pick good living until the pastures are well covered with snow and in spring will find good living two weeks earlier than any other animal in pasture. A flock of Cotswold sheep will average between twelve to fifteen pounds of wool in spring, which will more than pay for the trouble of feeding and also feed and hay. Now your crop of lambs is about all clear profit. I mention a small flock because I know if a farmer only tries it he will soon increase it to a larger one when he sees for himself the easy money come in his pocketbook and also be patriotic to his country in time of war. As I said before, the soldiers are in great need of our wool and mutton, so let us help to win the war and also swell our pocketbook. G. Marco.

La Crosse Co., Wisconsin.

WISCONSIN FARMERS' CLUBS

Federation of Clubs in Rock County.

To the Editor:—On Friday, November 30th, a meeting for the purpose of federating all the farmers' clubs of Rock county into a county organization was held at Fulton.

All the farmers' clubs of Rock county were invited to meet with the Fulton Social Center and perfect the county organization. A meeting was held in the hall at 2 o'clock at which time Prof. C. J. Galpin, of Madison, spoke on the subject, "The Farmers' Clubs of Wisconsin." Following this was a speech by Assistant Dean Otis, of the agricultural college at Madison, on "The Purpose and Results of Cooperation." Our county agent, L. A. Markham, then gave the purpose of the meeting. We already have a county organization called the "Rock County Farmers' Improvement Association." This association now includes the Farm Management Society and the Stock Breeders' Society. These societies have been doing a good deal along their lines, but there are many other interests in the county that need developing and it was thought a wise plan to gather together into the present county organization all the organized societies, working under different names, but all working along the same kind of lines of community uplift, so the twelve farmers' clubs of Rock county were called together to consider the advisability of thus federating themselves together for united efforts in all practical farm and rural matters and especially a united effort to increase farm production in Rock county for war needs. Owing to the unpleasant weather and bad roads delegates from only four societies besides our own were present. Practically all twelve clubs sent word of their willingness to join the movement. A committee was appointed at the afternoon meeting to draft a set of resolutions and make suggestions towards this end and report at the evening meeting.

Supper was served at the hall from 5:30 to 7:30. Somewhere about 125 people were served.

The evening meeting which was held in the church was opened by singing "America."

Reports from delegates from the visiting societies were given and the resolutions formulated by the committee were read and adopted. These resolutions were as follows:

Whereas the organized Rural Clubs of Rock county need the help of each other

Be it resolved that these clubs federate, and at the invitation of the Rock County Farmers' Improvement Association affiliate themselves with that organization

Further be it resolved that clubs not represented here may become members of the federation by applying to the acting secretary of the association

Further be it resolved that the clubs here recommend the organization of committees and recommend chairmen of the committees who shall be members of the executive committee of the Rock County Farmers' Improvement Association.

The chairmen of these committees to be as follows:

Chairman of rural clubs committee, J. E. Wallin; chairman boys' and girls' committee, Clayton Stoney; chairman soils committee, R. J. Clark; chairman live stock committee, E. H. Parker; chairman farm management committee, W. J. Dougan; chairman women's work committee, Cora Thorsen; chairman crops committee, E. L. Bingham.

Be it further resolved that these clubs recommend that the county agent be the acting secretary of the Rock County Farmers' Improvement Association until the next annual meeting.

Signed by committee
J. E. Wallin
Chas. Shumead
A. M. Batang

A piano solo by Miss Etta Hubbell and a song by C. W. Raymond preceded the illustrated lecture given by Prof. C. J. Galpin on farm conditions in Norway and Denmark as contrasted with Rock county. The beautiful pictures were taken by Professor Galpin during a recent trip to those countries.

While the crowd was not as large as could be desired, owing to the condition of the roads and the damp weather, yet it was very enthusiastic and much interested in the program and especially in the accomplishment of the real object of the meeting—the federation of the farmers' clubs of the county into a practical, workable organization through which any line of work looking to the betterment of farm life and farm conditions in the county can be carried out. The county agent now has an organization through which he can work to accomplish practical results. Much credit is due our efficient county agent, Mr. L. A. Markham, for his efforts in bringing this about.

These are times when loyalty to our country means much. Loyalty to our country means loyalty to our own community right here at home. To help make our community more efficient as a helpful factor in our country's production, to help in its general uplift in all ways possible and especially to join and work through any organization which has for its object the betterment of conditions right here at home is one of the highest hopes of patriotism.

A patriotism that says much about helping our country in times of war and yet refuses to lift a hand to help the community uplift, but rather stands outside and criticises and scoffs at such efforts in a cheap kind of patriotism and is not taken seriously at such times as these.

To foster a patriotism that will serve our country's interests in times of war and in times of peace by serving our own community's best interests is one of the objects of this federation of farmers' clubs.

The first annual meeting of the association will be held at Janesville some time in January. It is hoped by that time all the farmers' clubs will have become members of this county association. J. E. Wallin,

President Fulton Social Center, Edgerton, Rock county, Wis.

Farmers' Courses.

Farmers' courses are already started in Wisconsin, and much loyalty and enthusiasm for home defense measures and increased food production along all lines is evident.

Many applications for these community meetings have been received to date; in fact, far more than could well be taken care of by the state agricultural extension workers. The list as scheduled now is as follows: December 12th-13th, Green Lake; January 8th-9th, Vesper and Black Creek; January 10th-11th, New London; January 11th-12th, Portage ,and Mauston; January 15th-16th, Algoma; January 16th-18th, Sturgeon Bay; January 20th-22d, Amherst; January 24th-25th, Ogdensburg; January 31st-February 1st, Onalaska; March 12th-13th; Mondovi; March 14th-15th, Roberts.

As fast as other towns get into line and file petitions for the meetings the list will contain them. The meetings have been shortened to two days.

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It is the insulation that protects the plates from contact with one another—and consequently ruining the battery.

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This important factor in long battery life is backed up by Willard Service, which will test and fill your battery regularly, give you good advice in battery care, and offers expert work when you need repairs or recharging.

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(Continued from page 1.)

a stockman could be found, pencil in hand, jotting down items of instruction from those charts thereby obtaining specific and direct information.

Owing to the heavy loss that annually occurs among hogs and cattle because of the presence of tuberculosis, a successful attempt was made this year by the Chicago Live Stock Exchange to inaugurate a movement designed to eventually eliminate this disease. The loss from tuberculosis at the seven principal live stock markets during a twelve-month period amounts to fifty trainloads composed of forty cars each. At present prices this amounts to $50,000,000, and the food administration has called attention to the importance of inaugurating some system of stamping out the disease that will check at least part of this loss. Mr. H. R. Smith, commissioner of the Live Stock Exchange, succeeded in bringing together a large number of stockmen and sanitarians to launch a movement designed to lessen this loss. It was the consensus of opinion among those present that it will be advisable in the firt place to work out some sort of system with pure-bred herds by which breeders would be given a certificate indicating that they have an accredited or a disease-free herd after complying with certain requirements. At the present time the requirements of the different states are not similar and it was urged at this meeting that a special attempt be made to make them similar. Congressman Sloan, of Nebraska, has in charge a bill that will be presented at the coming session that will call for an appropriation of $1,000,000 to be used by the animal husbandry division of the department of agriculture for the purpose of stamping out the disease which is causing the enormous loss above referred to. The general plan is to place the burden partly on the federal government, partly on the individual states and very lightly on the breeder of pure-bred stock. Loss in hogs from tuberculosis shows up invariably where they follow diseased cattle, there being very little disease propagated through inheritance. Instances have been known where half the hogs following a diseased dairy herd were unfit for human food. The movement that was started last week by the Live Stock Exchange is one that should receive the endorsement of every man who is giving his support to the policy of sensible conservation. Nothing can be more short-sighted than to work heroically in the saving of small amounts when at the same time we are allowing this tremendous annual waste from disease.

Special interest always centers around the grand champion steer of the show and this year, as has become quite the custom, the prize was landed by one of the experiment stations. The foreign judge, Mr. Cridlan, was unable to be present and the task allotted to him fell to T. E. Robson, the well-known Canadian judge and stockman. To Purdue University, or, rather, to the Indiana Experiment Station, belongs the honor of breeding and fitting the grand champion steer, Merry Monarch, a 1,600-pound two-year-old pure-bred Short-horn of the richest breeding, being a grandson of the great Whitehall Sultan, of show yard fame. The winner in this case, according to J. S. Douglas, superintendent of live stock at the Indiana station under Prof. J. H. Skinner, the chief of the department, was never a pampered steer and was never tided over the hard periods of life by a nurse cow. He has been carried along since babyhood on the milk of his dam, plenty of good grass and an abundance of ensilage along with cracked corn, ground oats and oil meal. During the last six months he has been fed three times daily on cracked corn and ground oats with a little barley, and beginning September 1st one meal of cooked rye was fed daily with the amount of corn gradually reduced. The grain ration consisted of from six to eight pounds of cracked corn, three to five pounds of ground oats, and, as said before, a light ration of cooked rye along with ten pounds of corn ensilage fed in two feeds daily, together with all the clover hay that he would consume. Merry Monarch was presented to the judge in an absolutely ripe condition, being a notably smooth-fleshed steer, a deep-bodied fellow with character showing all over him, and if one could overlook the "heifer type" characteristic of the hind quarters, as indicating wasty cutting, there and then his defects ended. The winning of this prize brings great renown to the Short-horn breed and reflects remarkable credit upon the feeding methods employed at the Indiana station. The selling price of this steer, namely, $2.10 a pound, was a record breaker. Merry Monarch first sold for $2.05 per pound to the American Short-horn Breeders' Association and afterwards sold at $2.10 to Armour & Co., and the proceeds donated to the Red Cross Society.

There was lively interest shown in the educational exhibit installed by the bureau of animal industry of the department of agriculture in the form of a sheep movie. This was nothing more nor less than a display of the details involved in the process of transforming raw wool into the finished product. Beginning with the sheep, every detail of the operation was shown, including cleaning, scouring, grading, carding, spinning and weaving. Of special importance to the visitor was the apparent large percentage of waste due to dirt and foreign materials in wools, this running all the way from 5 to 20 per cent. Never before has so much interest in mutton and wool production been shown as at the present time and the endeavor of the department of agriculture to give special attention to this important subject met with hearty commendation from exposition visitors last week. According to statistics presented by the department, it requires the product of twenty-one sheep to maintain a single soldier under arms, and, this being the case, it becomes apparent at once that production must be increased if we are in the near future to take care of our army and supply our home markets.

No feature of the International was of greater interest than the draft horse classes, considering the fact that most of the entries were American bred. There were thirty and even forty horses in some of the younger classes, every one of which was bred on an American farm, and there was in evidence plenty of scale, substance and quality. Those who have been pessimistic over the possibilities of American horsemen attaining the high standards reached in Europe were most agreeably surprised last week by the character of the entries in the leading draft breeds. More and more we are settling down to deal with the drafter, as the automobile has practically eliminated the road horse. There is a brisk demand for good draft geldings and a look into the future reveals the fact that there is an important place yet in the industries for good, big, active work horses. In no single department of the International has greater progress been made than in the class of American-bred horses, and there were hundreds of men present last week who can recall periods in the early days of the International when scarcely a single creditable American-bred horse was shown. While it is true that the stoppage in the importation of drafters has been made a necessity, yet it is also true that the management of the International has been endeavoring to encourage in every possible way the breeding of pure-bred draft horses in this country, and it looks now as if we had at last firmly established this important industry.

There were twelve entries in the stock judging contest this year, that is, students were entered from twelve educational institutions. Prof. J. H. Shepard, of the North Dakota Experiment Station, was in charge and everything was carried through according to program. The International since the beginning has favored the holding of these contests, the management believing that they tend to stimulate interest in better live stock. Many individuals now occupying a high place in the animal husbandry world have in the past been on these judging teams. The list includes Chas. Gray, secretary American Aberdeen Angus Breeders' Association; Wayne Dinsmore, secretary of the American Percheron Society of America; R. J. Kinzer, secretary American Hereford Breeders' Association; H. J. Gramlich, professor of animal husbandry at the University of Nebraska, and many others. In this year's contest the students from Nebraska carried away first honors, their rating being 3,972 points. Kansas was second, with 3,651 points, while third place was allotted to the students from the Texas Agricultural College, with a rating of 3,644 points. Then followed the University of Minnesota, with a rating of 3,618 points, while the students from the Iowa Agricultural College won fifth place with 3,579 points. In this connection it is interesting to note that a member of the judging team from the Iowa agricultural College was Miss Edith Curtiss, a daughter of Prof. C. F. Curtiss, dean of agriculture. Miss Curtiss stood fifth as an individual among the sixty students who entered the contest. The remaining institutions in the order of their winnings were University of Missouri, 3,578 points; Purdue University, 3,542 points; Pennsylvania State College, 3,537 points; Ohio State University, 3,520 points; Ontario Agricultural College, 3,433 points; North Dakota Agricultural College, 3,419 points; South Dakota Agricultural College, 3,343 points.

Although official figures of the attendance are not available, it is a safe assertion to say that it was a "near" record breaker, if, indeed, a new record was not established. As many as 45,000 persons passed through the turnstiles in one day and when one considers that the fair was under full steam for seven days it may safely be concluded that the great exhibits installed this year were inspected by 150,000 or 200,000 persons. True it is that the amphitheater was filled at each evening performance, but previous to the performance those in attendance fairly lined the stalls and pens, all being more or less directly or indirectly interested in animal husbandry. Sightseeing at the International never was so favorable as this year. Stalls and pens had been provided for the large increase in entries and every visitor had clear sailing in the pleasurable task of inspection. The visitors to the show included a considerable number of Canadian stock men, while, in addition, many officials of the Canadian government were present to study the details of this great American exposition. Canada has used the provincial and Dominion fair system to a very large extent in building up her live stock industry and a most commendable interest was manifest by those who officially represented Canada.

Irvine's Grand Champion Belgian Mare, Lista.

BREEDING CATTLE.

Short-horns.—The wonderfully fine display of Short-horns was one of the features of this show. Never before have the classes been so large or so full of high quality animals. The judging, which was done by W. A. Dryden, Brooklyn, Ontario, was an exceedingly hard job. Several times Mr. Dryden called on the consulting judge, Robert Miller, Stouffville, Ontario, for help in deciding the cases that were most difficult to place. In spite of the larger classes the judging was done apparently to the satisfaction of everyone, for not a word of complaint from the ringside was heard. The aged bull class, consisting of ten entries, was a magnificent one, as it stood with Maxwalton Commander, owned by Gillespie & Son, of Oklahoma, at its head. This bull later was made grand champion. This was the first show of any consequence at which Maxwalton Commander had been exhibited this year and his superior quality was a surprise to many breeders. He was shown at the International last year and at that time stood very well in his class. Maxwalton Commander is a little over four years old, a handsome roan, and of great prepotency. He was sired by the great champion of champions, Avondale and is out of Imp. Roan Lady 36th. But this bull was by no means the whole show in the aged class, and noted sires as Lespedeza Sultan, Revolution and King Cumberland 3d showed against him with six others of great merit. The grand champion of the Des Moines fair at the opening of the show season had to be contented with eighth place in this class.

The two-year-old class, headed by Imperial Mistletoe, of Lespedeza Farm, was also a very fine one. The senior and junior yearling classes each had 10 head in the ring. The senior and junior bull calf classes were very large, containing 31 and 32 entries each. Nothing, perhaps, created greater interest than the senior calf class, as it contained Anoka Champion, the calf which was sold at the Anoka Farms sale just prior to the Chicago show, for over $17,000. "Will he head his class?" was in the minds of every Short-horn man at the show. He was in fine show condition and admittedly a superior calf. But there was a better one in the ring—Sunrise by Cornerstone, owned by Eliason, of Minnesota. It took both judges a long time to decide between the two, but they finally gave the honors to the Minnesota calf. After the judging was all completed Carpenter & Ross tried to buy Sunrise, but didn't succeed, though they offered Mr. Eliason $30,000 for the bull. Mr. Eliason had promised not to sell the bull at any price before he left for the show. Royal Stamp, the senior bull calf that stood third in this class sold for $5,000 at the Anoka sale. The junior calf class was headed by a splendid entry of H. C. Lookabaugh, which later became a close contender for junior championship honors.

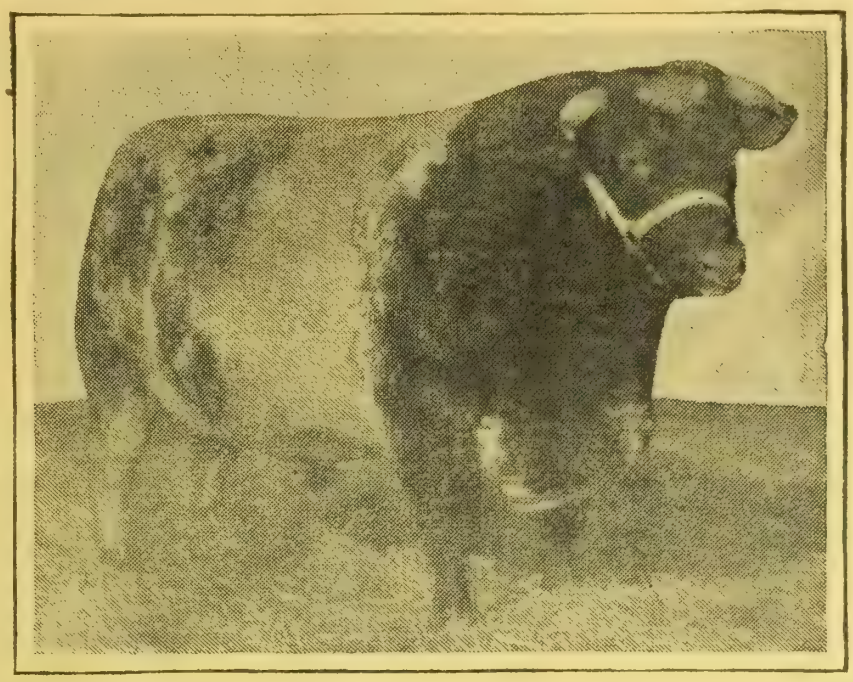
Twelve aged cows with calves at foot presented an imposing sight when brought together in their class. Maxwalton Queen by the great, Avondale, owned by B. F. Hale, was awarded first place. The two-year-old class was headed by the Carpenter & Ross cow, Imp. Lady Dorothy, that has been a consistent winner of grand championships at leading shows this fall. She was later made grand champion cow, a well-deserved honor. Second place in this class was won by the Rose Hedger entry, Viola by Maxwalton Prime, the grand champion of the American Royal this fall. The senior yearling class had an outstanding winner in Lady Clara 9th, owned by Eliason, though the heifer that took second was the grand champion female at the Hamline fair early in the show season. Purdy Bros., of Harris, Mo., were awarded fifth in

this class on their Lady Victoria, the junior champion at the Missouri State Fair.

The junior yearling heifers were headed by the splendid entry of Bellows Bros., Parkdale Victoria 8th, the junior champion female at the recent American Royal. This heifer was an outstanding winner in her class of 23 head, and it didn't take Judge Dryden long to find her. The senior calf class was the largest in the whole show; it numbered 44 head and it took a good one to hold first place. This was accomplished by the Lookabaugh calf, Pleasant Acres Belle, the grand champin female of the Oklahoma State Fair. The Uppermill entry, Villager's Clara, headed the junior calf class of 33 head, closely followed in quality by two most worthy entries. The contest for the junior championship was an interesting one, for though the Bellows Bros. heifer, Parkdale Victoria 8th, was an outstanding individual, she had strong competition in the three first prize winners against which she was shown. The judge's decision in favor of this Missouri heifer, however, was popular. The awards follow in detail:

Exhibitors—Allen Cattle Co., Colorado Springs, Colo.; Anoka Farms, Waukesha, Wis.; Bellows Bros., Maryville, Mo.; H. G. Bowers, Elmwood, Ill.; L. F. Boyle, Hennepin, Ill; James Brown, Dundee, Ill.; Carpenter & Ross, Mansfield, Ohio; Frank Edwards, Tiffin, Ohio; S. G. Eliason, Montevideo, Minn.; Robert Failon, Neponset, Ill.; A. R. Fennern, Avoca, Ia.; I. M. Forbes & Son, Henry, Ill.; F. A. Gillespie & Sons, N. Muskogee, Okla.; B. F. Hale, Prairie View, Ill.; Wm. Henn, Kansas City, Mo.; Wm. Herkelman, Elwood, Ia.; Jackson & White, Hurley, S. D.; Eben E. Jones, Rockland, Wis.; J. E. Kennedy, Janesville, Wis.; J. A. Kilgour, Sterling, Ill.; James P. Lanaghan, Charlotte, Ia.; H. M. Lee, Highgate, Ont.; Lespedeza Farm, Hickory Valley, Tenn.; H. C. Lookabaugh, Watonga, Okla.; O. C. Lower, Atlantic, Ind.; Theo. Martin, Bellevue, Ia.; Maxwell-Miller Cattle Co., Steamboat Springs, Colo.; Jos. Miller & Sons, Granger, Mo.; E. W. Monnier, Elizabeth, Ill.; John McCord, Palos Park, Ill.; J. W. McDermott, Kahoka, Mo.; Ohio State University, Columbus, Ohio; H. H. Powell & Son, Linn Grove, Ia.; J. F. Prather, Williamsville, Ill.; H. Pritchard & Son, Walnut, Ia.; Purdy Bros., Harris, Mo.; Pine Run Farm, Penllyn, Pa.; Howell Rees & Sons, Pilger, Neb.; Reynolds Bros., Lodi, Wis.; W C. Rosenberger, Tiffin, Ohio; Park E. Salter, Wichita, Kan.; Silver Brook Farm, Inc., Muncie, Ind.; Tom Stanton, Wheaton, Ill.; E. J. Thompson & Son, Hurley, S. D.; Frank Toyne & Son, Lanesboro, Ia.; University of Illinois, Urbana, Ill.; Uppermill Farm, Wapello, Ia.; Robert R. Ward & Sons, Benton, Ill.; D. Warnock & Sons, Loveland, Colo.; R. E. Watts & Sons, Miles, Ia.; Williams Bros., Bangor, Wis. Judge, W. A. Dryden, Brooklyn, Ontario.

Bull 3 years or over (10 shown), 1st Gillespie & Son on Maxwalton Commander, 2d Lespedeza Farm on Lespedeza Sultan, 3d Carpenter & Ross on Revolution, 4th Powell & Sons on King Cumberland 2d, 5th Toyne & Son on Eastlawn's Champion, 6th Rosenberger on Maxwalton Pride, 7th Herkelman on Cumberland Standard, 8th Fennern on Choice Cumberland, 9th Bellows Bros. on Parkdale Baron, 10th Henn on Snowstorm; 2 years and under 3 (10 shown), 1st Lespedeza Farm on Imperial Mistletoe, 2d Hales on Field Marshal, 3d Ward & Sons on Senator, 4th Forbes on O. K., 5th Bellows Bros. on Parkdale Rex, 6th Stanton on King's Heir (Imp.), 7th Failon on White Gloster 2d, 8th Warnock & Son on Model Type, 9th Reynolds Bros. on Royal Choice 2d, 10th Pine Run Farm on Red Memory; senior yearling (10 shown), 1st Uppermill Farm on Villager's Coronet, 2d Thompson & Son on Ford Sultan, 3d Watts & Sons on Mysie Champion, 4th Crain on Mount Victoria Type, 5th Jackson & White on Dale Villager, 6th Reynolds Bros. on Ruby's Knight, 7th Gillespie & Son on Nonpareil Scott, 8th Miller & Son on Dale Cumberland, 9th Williams Bros. on Collynie Stamp, 10th Carpenter & Ross on Clan Avondale; junior yearling (21 shown), 1st Lespedeza Farm on Sultan's Beau, 2d Carpenter & Ross on Maxwalton Dower, 3d Bellows Bros. on King Baron, 4th Rosenberger on Sultan Lord, 5th McDermott on Cumberland Marshal 4th, 6th Purdy Bros. on Count Victory, 7th Maxwell Miller Cattle Co. on Princely Stamp, 8th Lookabaugh on Pleasant Dale 4th, 9th Toyne & Son on Crescent Dale, 10th Carpenter & Ross on Maxwalton Landmark; senior calf (31 shown), 1st Eliason on Sunrise, 2d Anoka Farms on Anoka Champion, 3d Anoka Farms on Royal Stamp, 4th Pritchard & Son on Dale Reliance, 5th Brown on Thaxton's Model, 6th Lespedeza Farm on Marshal's Gloster, 7th McDermott on Cumberland Marshal 5th, 8th Bellows Bros. on Supreme Choice, 9th Prather on Village President, 10th Purdy Bros. on Double Victor; junior calf (32 shown), 1st Lookabaugh on Fair Acres Sultan Jr., 2d Pritchard & Son on Dale Viscount, 3d Lespedeza Farm on Sultan's Memory, 4th Uppermill Farm on Villager's King, 5th Uppermill Farm on Villager's Signet, 6th Ward & Sons on Senator's Master, 7th Lespedeza Farm on Lespedeza Collynie, 8th Eliason on Cumberland's Seal, 9th Toyne & Son on Eastlawn's Champion Jr., 10th Carpenter & Ross on Maxwalton Mainstay.



Gillespie & Son's Grand Champion Short-horn Bull, Maxwalton Commander.

Cow 3 years or over (12 shown), 1st Hale on Maxwalton Queen, 2d Gillespie & Sons on Lavina Cumberland 3d, 3d Carpenter & Ross on Max Mina 8th, 4th Jones on Verbena of Oakdale, 5th McCord on Villager Rose, 6th Toyne & Son on Bonnie Belle 14th, 7th Lespedeza Farm on Violet Queen 2d, 8th Boyle on Sultana, 9th Kennedy on Baroness Lady 7th, 10th Toyne & Son on Village Lassie 2d; 2 years and under 3 (11 shown), 1st Carpenter & Ross on Lady Dorothy (Imp.), 2d Rosenberger on Viola, 3d Gillespie & Sons on Lucile, 4th Edwards on Hampton Queen, 5th Carpenter & Ross on Carrie's Last, 6th Kennedy on Windsor Belle 23d, 7th Martin on Woodlawn Ruby, 8th Toyne & Son on Lovely Goods 2d, 9th Edwards on Winifred 9th, 10th Maxwell, Miller Cattle Co. on Silver Blythesome; senior yearling (18 shown), 1st Eliason on Lady Clara 9th, 2d Eliason on Violet Maid 8th, 3d Herkelman on Northcote Gypsy Maid, 4th Jackson & White on Lustris Lass, 5th Purdy Bros. on Lady Victoria, 6th Hale on Anoka Clipper 3d, 7th Carpenter & Ross on Max Damsel, 8th Jones on Victoria Cumberland, 9th Carpenter & Ross on Cumberland Queen; 10th Prather on Village Blossom 8th; junior yearling (23 shown), 1st Bellows Bros. on Parkdale Victoria 8th, 2d Gillespie & Sons on Duchess of Gloster 80th, 3d Rosenberger on Village Gwynne, 4th Rosenberger on Village Gem, 5th Miller & Sons on Choice Mayflower, 6th Uppermill Farm on Villager's Graceful 2d, 7th Lookabaugh on Pleasant Princess, 8th Edwards on Hampton Queen 2d, 9th Bellows Bros. on Clara 70th, 10th Pritchard & Son on Victoria 73d; senior calf (44 shown), 1st Lookabaugh on Pleasant Acres Belle, 2d Bellows Bros. on Lovely of Parkdale 15th, 3d Forbes & Son on Linwood Clara 9th, 4th Anoka Farms on Fanny Anoka, 5th Carpenter & Carpenter on Mysie's Diamond, 6th Uppermill Farm on Villager's Maurine, 7th University of Illinois on Illini Sultana, 8th Anoka Farms on Columbia Anoka, 9th Bellows Bros. on Queen of Beauty 36th, 10th Edwards on Oakdale Mary Ann; junior calf (33 shown), 1st Uppermill Farm on Villager's Clara, 2d Rosenberger on Cloverleaf Gloster, 3d Uppermill Farm on Villager's Lassie, 4th Warnock & Son on Model Lady, 5th Hale on Rosewood Lady 2d, 6th Anoka Farms on Augusta Anoka 5th, 7th Boyle on Gloster Lady 7th, 8th Pritchard & Son on Victoria 74th, 9th Anoka Farms on Augusta Anoka 6th, 10th Jones on Hillshade Beauty.

Senior champion bull, Gillespie & Son on Maxwalton Commander; junior champion bull, Eliason on Sunrise; grand champion bull, Gillespie & Son on Maxwalton Commander; senior champion cow, Carpenter & Ross on Lady Dorothy; junior champion heifer, Bellows Bros. on Parkdale Victoria 8th; grand champion cow, Carpenter & Ross on Lady Dorothy.

Young herd (11 shown), 1st Eliason, 2d Bellows Bros., 3d Uppermill Farm, 4th Rosenberger, 5th Carpenter & Ross, 6th Lookabaugh, 7th Lespedeza Farm, 8th Allen Cattle Co.; calf herd (13 shown), 1st Lookabaugh, 2d Anoka Farms, 3d Uppermill Farm, 4th Eliason, 5th Bellows Bros., 6th Pritchard & Son, 7th Lespedeza Farm, 8th Rosenberger, 9th Forbes & Son, 10th Allen Cattle Co.; get of sire (11 shown), 1st Anoka Farms, 2d Carpenter & Ross, 3d Uppermill Farm, 4th Lookabaugh, 5th Eliason, 6th Bellows Bros., 7th Pritchard & Son, 8th Lespedeza Farm, 9th Edwards; Celedonia Pereda trophy for best 3 Short-horn bulls, F. W. Harding; won last year by Bellows Bros.; Pedro T. Pages trophy for best 3 Short-horn bulls, Uppermill Farm; Carlos M. Duggan trophy for best 2 head, bull and female, Eliason.

Milking Short-horns.—Exhibitors: A. T. Cole, Wheaton, Ill.; Robert Crane, Mt. Victoria, Md.; Findley McMartin & Sons, Claremont, Minn.; Otis Herd, Willoughby, Ohio; D. B. Smith, Mission Hill, S. D.; J. E. & C. B. Wade, Orangeville, Ohio. Judge, Robert Miller, Stouffville, Ontario.

Bull 3 years or over (5 shown), 1st Wade on Queenston Duke, 2d Smith on Penn Johnson, 3d Wade on Glenside Cyrus, 4th McMartin & Sons on Hartford Welfare, 5th Otis Herd on Knight of the Glen; 2 years and under 3 (1 shown), Otis herd on British Prince; 1 year and under 2 (2 shown), 1st Wade on Fairfield King, 2d Otis Herd on Corporal Peach; under 1 year (6 shown), 1st and 2d McMartin & Sons on Welfare Champion and Royal Welfare, 3d and 4th Smith on Sultan Clay and Glenside Lee, 5th and 6th Wade on Master of the Glenn and Edgewood Prince.

Cow 5 years or over, in milk (9 shown), 1st, 2d, 3d, 4th and 5th Otis Herd on White Rose, Braemar Beauty, Nugget's Pride 8th, Bright Lilly (Imp.) and Christmas Rose (Imp.); 3 years and under 5, in milk (5 shown), 1st McMartin & Sons on Roan Lily, 2d Wade on Glenside Honora, 3d Cole on Charming Daughter, 4th Otis Herd on Model "T" 2d, 5th Wade on Bouncing Maid 2d; 2 years and under 3 (7 shown), 1st, 2d and 3d Otis Herd on Rose Clyde, Princess Royal and Glenside Lass, 4th Wade on Glen Laura, 5th Otis Herd on Peach Blossom, 6th Wade on Daisy Washington; senior yearling (5 shown), 1st Otis Herd on Lady of the Glen, 2d Cole on Charming Mille, 3d Wade on Queenston Lady, 4th Otis Herd on Princess Jewel, 5th McMartin & Sons on Christobel; junior yearling (7 shown), 1st and 2d Otis Herd on Blanche's Jewel and Soobagh Darling, 3d McMartin & Sons on Snow Drop, 4th Wade on Regal Duchess, 5th and 6th Otis Herd on Lady Princess and Hopeful Lady; senior calf (8 shown), 1st Wade on Glenwood Marjorie, 2d, 3d and 4th Otis Herd on Roan Maud 5th, Lady Ruby and Lady Maggie, 5th McMartin & Sons on Roan Maud 4th, 6th Wade on Lady Eleanor; junior calf (6 shown), 1st and 2d McMartin & Sons on Red Bud 2d and Snowball 2d, 3d Wade on Glenwood Dairymaid, 4th McMartin &

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The Three Champion Steers of the Show.

On the left, Merry Monarch, grand champion over all breeds; in the center, Kershaw's champion Angus steer, Muskogee, and on the right, the champion Hereford steer, Standard Lad 4th, shown by the University of Missouri.

Sons on Merry Maid 2d, 5th and 6th Otis Herd on Roan Mabel and Lady Rose.

Senior champion bull, Wade on Queenston Duke; junior champion bull, McMartin & Sons on Welfare Champion; grand champion bull, Wade on Queenston Duke; senior champion cow, Otis Herd on White Rose; junior champion heifer, Otis Herd on Lady of the Glen; grand champion cow, Otis Herd on White Rose; aged herd (2 shown), 1st May, 2d McMartin & Sons; young herd (3 shown), 1st Otis Herd, 2d Wade, 3d McMartin & Sons; calf herd (5 shown), 1st and 2d McMartin & Sons, 3d Wade, 4th Otis Herd, 5th Wade; get of sire (5 shown), 1st Otis Herd, 2d McMartin & Sons, 3d Otis Herd, 4th Wade, 5th Otis Herd.

Produce of cow (5 shown), 1st Otis Herd, 2d Wade, 3d Cole, 4th Otis Herd, 5th Wade.

Herefords.—The Hereford show was by all odds the largest that has ever been seen at the International and there is no question but that it was also the best show of individual merit this breed has ever presented. In watching such an array of superb bulls as the Hereford men brought out one thought is driven home to stay and that is the value of the registered sire for building up not only pure-bred, but also the common herds throughout the country. If more cattle raisers would attend this great International show from year to year it would become a most powerful institution in the improvement of live stock throughout the country, for it is simply out of the question to see the superb cattle at this great exhibition without becoming an enthusiast for better stock and there is perhaps no breed that is so impressive in that respect as the Hereford.

When the sixteen aged bulls lined up in their class to be placed by Judge J. F. Green, of Gregory, Texas, it looked as though it might take him hours to pick the winners, and it did take a lot of conscientious work. First place, however, was easily filled by Ardmore, the undefeated winner at this year's shows. This great bull, owned by W. L. Yost, of Kansas City, Mo., is very low set, exceedingly thick-fleshed, and a typical Hereford. He is a dark cherry in color and almost a perfect specimen of bovine excellence. In competition with the other first prize winners he won the grand championship without half trying, and what is more, everybody expected him to win the minute he appeared in the show ring. He was never in better form than he was at this show and that is saying a good deal. Second place was awarded to Prince Brummel, from the Taylor herd in Kentucky, another thick bull of popular type. The Wisconsin bull of J. C. Robinson & Son, Maple's Lad 61st, was placed third in this class.

The two-year-old class, consisting of twelve entries, was another strong one. It was headed by Golden Lad 9th, a J. Crouch & Son entry. He was followed by Woodford 1st, another Yost entry, while third place was won by a Canadian bull, Beau Perfection 48th. Tippecanoe Ideal, owned by Van Natta, of Indiana, stood first in the senior yearling class and Woodford 9th, another Taylor entry, first in the junior yearling class. This young bull is a splendid individual and one of great promise for the future. Later he became the winner of junior championship honors, but had to give way to Ardmore in the contest for grand championship. The calf classes were both large—the seniors having thirty-two and the juniors twenty-seven entries. In the former, Cavalier, owned by E. F. Swinney, of Kansas City, stood first, and to Larry Perfect, another Swinney entry, first place was awarded in the latter class. Both were outstanding individuals.

There was no lack of quality in the aged cow class, fifteen strong. Here the judge found an easy winner in Clive Iris 3d, a low-down, heavy-set, thick-meated cow belonging to Taylor of Kentucky. This cow was not only an easy winner in her class, but she had no more difficulty in carrying away both senior and grand championship honors as the show progressed. There were many splendid specimens in the aged cow class, notable among which were Bonnie Dee, owned by Robinson & Son, and Dorothy Donald 6th, a Yost entry. The two-year-old class had seventeen contestants, first among which stood Taylor's Woodford Lady 5th. Next to her the judge placed a Montana heifer, Lady Perfection 3d, owned by A. B. Cook, of Townsend. Shadeland Jewel 2d, owned by B. T. Bartlett, of Greencastle, Mo., occupied first place in the senior yearling class. Yerba Santa, owned by Robt. H. Hazlett, of Eldorado, Kan., was an outstanding winner in the junior yearling class. This heifer later became junior champion, although the competition for this honor was strongly contested by the first prize winner in the senior calf class, Princess H, a Taylor entry. The winner in the yearling calf class, another Taylor entry, Madam Donald 2d, was also a splendid individual, as she had to be to win in a class of twenty-eight.

Exhibitors.—Wm. Andrews & Sons, Morse, Iowa; C. T. Bailey & Sons, Lowell, Ind.; B. T. Bartlett, Greencastle, Mo.; C. F. Behrent, Oronoque, Kan.; J. H. Bereman, Aurora, Ill.; Frank Bieth, Joliet, Ill.; Birch & Thompson, Lake Geneva, Wis.; G. W. Carroll & Sons, Jackson Center, Pa.; R. C. Church, Elkhorn, Wis.; Thos. Clark, Beecher, Ill.; A. B. Cook, Townsend, Mont.; J. Crouch & Son, Lafayette, Ind.; Curtice Cattle Co., Calgary, Alta.; W. A. Dallmeyer, Jefferson City, Mo.; T. F DeWitt, Parshall, Colo.; Jesse Engle & Sons, Sheridan, Mo.; Enochs & Wortman, Jackson, Miss.; Greene & Dunn, Kenna, W. Va.; Henry M. Halff, Midland, Tex.; Robt. H. Hazlett, Eldorado, Kan.; Jas. V. Hill, Roundhead, Ohio; L. W. Hill, Locust Dale, Va.; Chas. A. Hunter, Chatham, Ill.; Luce & Moxley, Shelbyville, Ky.; H. E. Morrison & Son, Oxford, N. H.; Mousel Bros., Cambridge, Neb.; W. T. McCray, Kentland, Ind.; Oklahoma A. & M. College, Stillwater, Okla.; N. D. Pike, Weatherford, Okla.; James Price, Onalaska, Wis.; J. P. Robinson & Son, Evansville, Wis.; W. H. Roe, Shelbyville, Ky.; W. Rott, Wonewoc, Wis.; L. M. Scott & Sons, Bagley, Wis.; Ernest Smith, Medaryville, Ind.; E. F. Swinney, Kansas City, Mo.; E. H. Taylor, Jr., Frankfort, Ky.; J. E. Thompson, Martinsville, Ill.; University of Illinois, Urbana, Ill.; John W. Van Natta, Lafayette, Ind.; S. H. Velie, Blue Springs, Mo.; C. A. Watson, Apple River, Ill.; W. T. Wright, Mt. Pleasant, Ia.; W. L. Yost, Kansas City, Mo.; Redwine Bros., Fayettville, Ga. Judge, Joseph F. Green, Gregory, Tex.

Bull 3 year or over (16 shown), 1st Yost on Ardmore, 2d Taylor on Prime Brummel, 3d Robinson & Son on Maples Lad 61st, 4th Enochs & Wortman on Prince Rupert 69th, 5th Behrent on Grover Mischief, 6th Rott on Lady's Real; 2 years and under 3 (12 shown), 1st Crouch & Son on Golden Lad 9th, 2d Yost on Woodford 1st, 3d Curtice Cattle Co. on Beau Perfection 48th, 4th and 5th Taylor on Beau Rosemont and Fairfax Knight, 6th Bereman on Perfect Donald 2d, 7th Cook on Sir Beau Donald 5th, 8th McCray on Brummel Fairfax; Senior yearling (22 shown), 1st Van Natta on Tippecanoe Ideal; 2d Rott on Repeater 41st, 3d Bartlett on Gay Lad Jr., 4th Crouch & Son on Dewfurst Perfection, 5th Yost on Duke Real 8th, 6th Taylor on Roehampton 19th, 7th Yost on Bandmaster, 8th Cook on Beau Banner 6th, 9th Swinney on Don Leo, 10th Curtice Cattle Co. on Beau Donald 192d; junior yearling (23 shown), 1st Taylor on Woodford 9th 2d Cook on Panama 37th, 3d Andrews & Sons on Bonnie Brae 101st, 4th Dallmeyer on Price Dare, 5th Mousel Bros. on Princeps Astor, 6th Dallmeyer on Paragon Dare, 7th Yost on Arronmore, 8th Dallmeyer on Howard Dare, 9th DeWitt on The Heir's Return, 10th Robinson & Son on Beau Welcome; senior calf (32 shown), 1st Swinney on Cavalier, 2d Hazlett on Beau Baltimore 25th, 3d Robinson & Son on Maple's Lad 102d, 4th Swinney on Leo Perfect, 5th Robinson & Son on Maple's Lad 97th, 6th McCray on Abner Fairfax, 7th Thompson on Gay Lad 2d, 8th Engle & Sons on Beau Blanchard 54th, 9th Cook on Panama 48th, 10th Bereman on Donald Disturber; junior Calf (27 shown), 1st Swinney on Larry Perfect, 2d Mousel Bros. on Prairie Mischief, 3d University of Illinois on Donald Fairfax, 4th Mousel Bros. on Mischief Mixer, 5th Bartlett on Kleberg Lad, 6th Velie on Prince Boniface, 7th Yost on Beau Champion, 8th Velie on Prince Edison, 9th Taylor on Bright Donald 9th, 10th Luce & Moxley on Prince Rupert 93d.

Cow 3 years or over (15 shown), 1st Taylor on Clive Iris 3d, 2d Robinson & Son on Bonnie Dee, 3d Yost on Dorothy Donald 6th, 4th Bartlett on Rosy Britisher, 5th Enochs & Wortman on Homewood Gem, 6th Taylor on Matron Donald, 7th McCray on Rosetta Fairfax, 8th Crouch & Son on Cherry Lass, 9th Crouch & Son on Bary Van Natta; 2 year and under 3 (17 shown), 1st Taylor on Woodford Lady 5th, 2d Cook on Lady Perfection 3d, 3d Taylor on Belle Blanchard, 4th Yost on Belle Perfection 56th, 5th Enochs & Wortman on Dolly Rupert, 6th Taylor on Woodford Lady 3d, 7th McCray on Marie Fairfax, 8th Bereman on Prince Lass Britisher, 9th Robinson & Son on Maple's Lass 68th, 10th Robinson & Son on Maple's Lass 57th; senior yearling (17 shown), 1st Bartlett on Shadeland Jewel 2d, 2d Yost on Bonnie Doris, 3d Taylor on Majestic Lady, 4th Yost on Dorothy Hampton 23d, 5th Hazlett on Cleen, 6th Dallmeyer on Miriam Dare, 7th McCray on Dolly Fairfax, 8th Crouch & Son on Disturber Lass 2d, 9th Velie on My Merce, 10th Cook on Lady Kitchner 4th; junior yearling (26 shown), 1st Hazlett on Yerba Santa, 2d Cook on Miss Joy, 3d Taylor on Sweet Duchess, 4th Taylor on Belle Woodford 8th, 5th Taylor on Peerless Mischief, 6th Yost on Bonnie Dowager, 7th McCray on Lena Fairfax, 8th Pike on Baby Briton, 9th Bereman on Columbia March On, 10th Engle & Son on Belle Blanchard 26th; senior calf (41 shown), 1st Taylor on Princess H., 2d Hazlett on Bloss 16th, 3d Dallmeyer on Bettie Dare, 4th Taylor on Princess T. 6th, 5th Hazlett on Ozuna, 6th Cook on Lady Panama 49th, 7th Velie on Sarah Velie, 8th Yost on Bonnie Madeline, 9th Swinney on Mazee Perfect, 10th Dallmeyer on Nell Dare; junior calf (28 shown), 1st Taylor on Madam Donald 2d, 2d Andrews & Sons on Miss Brae 96th, 3d Velie on Louise Velie, 4th Yost on Bonnie Augusta, 5th Yost on Bonnie Rosette, 6th University of Illinois on Lady A. Donald, 7th Mousel Bros. on Capitola Mischief, 8th Mousel Bros on Bell Mischief 4th, 9th Cook on Lady Joy, 10th Engle & Sons on Belle Blanchard 49th.

Senior champion bull, Yost on Ardmore; junior champion bull, Taylor on Woodford 9th; grand champion bull, Yost on Ardmore; senior champion cow, Taylor on Woodford Lady 5th; junior champion heifer, Hazlett on Yerba Santa; grand champion cow, Taylor on Woodford Lady 5th; aged herd (8 shown), 1st Taylor, 2d Yost, 3d Cook, 4th Robinson, 5th Crouch & Son, 6th Enochs Farm; young herd (16 shown), 1st Dallmeyer, 2d Hazlett, 3d Swinney, 4th Yost, 5th Cook, 6th Robinson & Son, 7th Velie, 8th Engle & Sons, 9th Andrews & Sons, 10th Van Natta; calf herd (20 shown), 1st Hazlett, 2d Taylor, 3d Swinney, 4th Cook, 5th Engle & Sons, 6th Dallmeyer, 7th Velie, 8th Robinson & Son, 9th Yost, 10th Mousel Bros.; produce of cow (9 shown), 1st Cook, 2d Yost, 3d Taylor, 4th Crouch & Son, 5th Engle & Sons, 6th Robinson & Son, 7th Swinney, 8th Andrews & Sons.

Get of sire (15 shown), 1st Yost, 2d Robinson & Son, 3d Swinney, 4th Dallmeyer, 5th Cook, 6th Engle & Son, 7th Dallmeyer, 8th Swinney.

Aberdeen Angus.—The Angus show was somewhat smaller than usual, but the cattle entered were from the best herds in the country. They were the seasoned winners at this year's shows—the very cream of the Doddy breed. Dr. H. M. Brown, of Hillsboro, Ohio, did the judging and did it to the satisfaction of everyone concerned. The aged bull class consisted of only three entries, but they were exceedingly fine and it was no small job for the judge to decide between them, but he finally placed Broadus Norwood 3d, owned by Cecil & Sons, in first place. The veteran Blackcap Bertram of show yard fame, owned by the Caldwells, of Burlington Junction, Mo., was placed second. In the three-year-old class nine entries were lined up for the judge's decision. The Eckardt bull of New York, Imp. Evenest of Bleaton, headed the class with an Ames entry from Tennessee 2d. To Beginner, owned by Escher & Ryan, third place was given. When the two first bull classes had been placed one began to hear guesses made as to which would become senior and grand champion male, with everyone guessing that Broadus Norwood 3d would be the lucky one and so he proved to be. Empson, one of the Tennessee entries, headed the class of ten senior yearling bulls with Enlate, from the herd of Escher & Ryan, second. The junior yearlings were nicely topped by Ames Plantation Beau, a splendid entry from Tennessee. Next to him stood a youngster from Washington, owned by Congdon & Battles. Escher & Ryan furnished the first in the senior calf class in Bar Marshall, while the Caldwells, of Missouri, contributed first in the junior calf classes with Entian. In selecting the junior champion the judge had no difficulty in deciding in favor of the junior yearling, Ames Plantation Beau.

The aged cow class was an exceedingly strong one. In the first place there were eleven matrons in the ring and all were of the big, smooth, well-fitted kind, so typical of the breed. The Cecil cow, Hillsdale Pride, was placed at the head of her class. The Caldwells' entry, Queen Molly of Sun Dance 3d, was a mighty close competitor for this place, but finally had to be satisfied with second. In the two-year-old class Blackbird Velvet, belonging to the Missouri Caldwells, became winner of first without any difficulty. While Blackbird Velvet is a splendid individual and was in good form, she was beat for senior championship honors by the winner in the aged class, Hillsdale Pride, which later also was pronounced the grand champion. Escher & Ryan furnished the head for the senior yearling classes, Blackbird Gift 13th. The junior yearlings were headed by Queen of Rosemere from the herd of Congdon & Battles, North Yakima, Wash. This heifer later became the junior champion of the breed. In the senior calf class Hillsdale Pride 13th, an Ohio Caldwell entry, stood first, while the corresponding place in the junior calf class was given to the Missouri Caldwell entry, Eritus 5th.

Exhibitors—Ames Plantation, Grand Junction, Tenn.; H. D. Brent, Smithshire, Ill.; C. D. & E. F. Caldwell, Burlington Junction, Mo; J. S. Caldwell & Sons, Chillicothe, Ohio; A. S. Cecil & Sons, Muncie, Ind.; Congdon & Battles, Yakima, Wash.; Clarence W. Eckardt, 21 Liberty St., New York; Escher & Ryan, Irwin, Ia.; John H. Fitch, Lake City, Ia.; W. Miles Gardner, Hamlin, Ia.; John S. Goodwin, Chicago, Ill.; Harrison & Harrison, Indianola, Neb.; Patrick Leahy, Williamsburg, Ia.; Wm. Ljungdale, Manhattan, Kan.; J. W. McClung & Son, Indianola, Neb.; R. E. Newby, Regent, N. D.; Wm. A. Phares, Tipton, Ind.; Berry & Redfield, Hurley, S. D.; F. J. Roberts, Atlantic, Ia.; D. K. Robertson & Son, Madison, Neb.; Sutton & Porteous, Lawrence, Kan.; J. Garrtt Tolan, Farmingdale, Ill.; J. Tudor & Son, Iowa City, Ia.; Ed Watkins & Son, Cambridge, Neb.; Dwight Cutler, DeForest, Mich. Judge, Dr. H. M. Hill, Hillsboro, Ohio.

Bull 3 years or over (3 shown), 1st Cecil & Sons on Broadus Norwood 3d, 2d C. D. & E. F. Caldwell on Blackcap Bertram, 3d Congdon & Battles on Knight of Rosemere; 2 years and under 3 (9 shown), 1st Eckardt on Evenest of Bleaton (Imp.), 2d Ames on Ames Plantation Ito, 3d Escher & Ryan on Prizemere, 4th Berry & Redfield on Blackwood Eric, 5th C. D. & E. F. Caldwell on Blatant, 6th Congdon & Battles on Cherokeer, 7th Goodwin on Bunker Dean, 8th Dutler on Enos of Woodcote; senior yearling (10 shown), 1st Ames on Empson, 2d Escher & Ryan on Enlate, 3d Watkins & Son on Plowman, 4th Fitch on Karo F., 5th Escher & Ryan on Blackcap Poe, 6th Tolan on Pauline's Erwin C., 7th Robertson & Son on Barbarian of Twin Burn, 8th Goodwin on Black Real, 9th Congdon & Battles on Knight of Rosemere 2d, 10th Newby on Blackcap Ben; junior yearling (9 shown), 1st Ames on Ames Plantation Beau, 2d Congdon & Battles on Quality Lad of Rosemere 3d, 3d Cecil & Sons on Flora's Hero, 4th Gardner on Brownell Champion, 5th Cecil & Sons on Broadus Brookman 3d, 6th McClung & Son on E. E. Cressler, 7th Jungdahl on Black Quinto L., 8th Berry & Redfield on Blackbird Peer P., 9th Eckardt on Blacksun; senior calf (14 shown), 1st Escher & Ryan on Bar Marshal, 2d Cutler on Blackwater of Woodcote, 3d C. D. & E. F. Caldwell on Jacquelin, 4th Tudor & Son on Buxom, 5th Goodwin on Proud Heather, 6th Ames on Ames Plantation Easton, 7th Caldwell & Sons on The Evader, 8th Berry & Redfield on Blackwood Bluster, 9th Congdon & Battles on Yakima Prince, 10th Fitch on Quinto K.; junior calf (10 shown), 1st C. D. & E. F. Caldwell on Entian, 2d Escher & Ryan on Black Erwin E., 3d Congdon & Battles on Idolmere 4th, 4th Ames on Ames Plantation Bolivar, 5th Caldwell & Sons on The Exempt, 6th McClung & Son on Ono Vadis 14th, 7th Cutler on Baron of Woodcote 2d, 8th Tudor & Son on Engineer, 9th Congdon & Battles on Yakima Black 4th, 10th Leahy on Mooseland.

Cow 3 years or over (11 shown), 1st Cecil & Sons on Hillsdale Pride, 2d C. D. & E. F. Caldwell on Queen Molly of Sun Dance 3d, 3d Congdon & Battles on Quissy of Meadowbrook, 4th Cutler

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Senior champion bull, Cecil & Sons on Broadus Norwood 3d; junior champion bull, Ames on Ames Plantation Beau; grand champion bull, Ames on Ames Plantation Beau; senior champion cow, Cecil & Sons on Hillsdale Pride; junior champion heifer, Congdon & Battles on Queen of Rosemere 5th; grand champion cow, Cecil & Sons on Hillsdale Pride; aged herd (5 shown), 1st C. D. & E. F. Caldwell, 2d Escher & Ryan, 3d Ames, 4th Congdon & Battles, 5th Cutler; young herd (7 shown), 1st Escher & Ryan, 2d C. D. & E. F. Caldwell, 3d Congdon & Battles, 4th Ames, 5th Caldwell & Sons; calf herd (9 shown), 1st Escher & Ryan, 2d Caldwell & Sons, 3d Goodwin, 4th Congdon & Battles, 5th Tudor & Son; get of sire (9 shown), 1st C. D. & E. F. Caldwell, 2d Ames, 3d Escher & Ryan, 4th Cutler, 5th Escher & Ryan; produce of cow (9 shown), 1st Ames, 2d Caldwell & Sons, 3d Escher & Ryan, 4th C. D. & E. F. Caldwell, 5th Congdon & Battles.

Galloways.—The Galloway show was only moderate in size, though the cattle were well finished for exhibition purposes. A Carnot, the aged bull of H. & G. Croft, Bluff City, Kan., won first in class and senior championship, making him an undefeated winner in the 1917 shows. Junior championship was won by R. W. Brown, of Carrollton, Mo., on his senior yearling, Picador 2d.

The female classes, like those of the bulls, were all small. A good many breeders who had entered stock, for some reason or other, failed to bring their herds. In several cases this was due to transportation difficulties. Croft won first in the aged cow class on Carlotta of L. F. and later on was awarded the senior championship on her. This cow has been a consistent winner at the leading shows this fall and was in fine form at the International. Junior championship honors were taken by Isaac Lincoln, of Aberdeen, S. D., on his senior yearling heifer, Lady Florence 5th.

Exhibtiors—R. W. Brown, Carrollton, Mo.; H. & G. Croft, Bluff City, Kan.; Isaac Lincoln, Aberdeen, S. D.; Simmons & Eager, Hicksville, Ohio; Straub Bros., Avoca, Neb.

Bull 3 years old or over (3 shown), 1st Croft on A. Carnot, 2d Simmons & Eager on Mutineer, 3d Lincoln on Emperor of Drumlaurig; bull 2 years old and under 3 (2 shown), 1st Lincoln on General, 2d Simmons & Eager on Choice Hope; senior yearling (2 shown), 1st Brown on Picador 2d, 2d Croft on Rex of Greenbush; junior yearling (4 shown), 1st Lincoln on Bruseloff, 2d Straub Bros. on Varsity Scotty, 3d Brown on The Quaker, 4th Simmons & Eager on Coast Guard; senior calf (5 shown), 1st Lincoln on Milford L., 2d Brown on Quintilian, 3d Brown on Quibbler, 4th Simmons & Eager on Scotty of Windfall, 5th Simmons & Eager on Nick of Windfall; junior calf (2 shown), 1st Simmons & Eager on Jack of Windfall, 2d Croft on Elrod of Greenbush.

Cow 3 years old or over (4 shown), 1st Croft on Carlotta of L. F., 2d Croft on Little Mary of L. F., 3d Lincoln on Fatima, 4th Simmons & Eager on Mary Leslie; cow or heifer 2 years old and under 3 (4 shown), 1st Lincoln on Mandy, 2d Croft on Meadow Quen, 3d Brown on Our Dainty, 4th Brown on Oak Lass; senior yearling (4 shown), 1st Lincoln on Lady Florence 5th, 2d Lincoln on Maude 5th, 3d Croft on Evelyn of Greenbush, 4th Simmons & Eager on Grace of Windfall; junior yearling (4 shown), 1st Croft on Gwendoline 3d, 2d Lincoln on Florence 6th of L. F., 3d Simmons & Eager on Malmo, 4th Simmons & Eager on Worthy Dimple; senior calf (6 shown), 1st Lincoln on Meta May L. 6th, 2d Lincoln on Martha L. 6th, 3d Simmons & Eager on Meg of Windfall, 4th Simmons & Eager on Dainty of Windfall, 5th Croft on Vina 2d of Greenbush; junior calf (3 shown), 1st Croft on Silvia of Greenbush, 2d Lincoln on Betty I., 3d Brown on Rosalind.

Senior champion bull, Croft on A. Carnot; junior champion bull, Brown on Picador 2d; senior champion cow, Croft on Carlotta of L. F.; junior champion heifer, Lincoln on Lady Florence 5th.

Aged herd (3 shown), 1st Croft, 2d Lincoln, 3d Simmons & Eager; young herd (3 shown), 1st Lincoln, 2d Simmons & Eager, 3d Croft; get of sire (4 shown), 1st Lincoln, 2d Brown, 3d Simmons & Eager, 4th Croft; produce of cow (5 shown), 1st Lincoln, 2d Brown, 3d Lincoln, 4th Croft, 5th Simmons & Eager.

Red Polls.—With the present keen interest in dairying as well as in beef production, the Red Polled show at the International attracted unusual interest this year. This valuable breed of cattle has been steadily growing in popularity in recent years, due principally to the fact that it is in the hands of a large number of constructive breeders who seem to understand how to get a maximum of milk without sacrificing too much in beef-producing qualities. On the other hand, as one looked over the various classes as they were lined up before Judge E. R. Davis, of the University of Nebraska, one could not help but notice that there is a decided approach, particularly among the cows, toward the well-established dairy form which, of course, means loss in beef-making qualities. The bull classes were much smaller than the cow and heifer classes, but there was no dearth of quality. Teddy's Charmer, belonging to Larabee, of Illinois, the bull that has stood first in class at the leading shows this fall and was senior and grand champion at the Des Moines show, headed the aged class and later was made grand champion. The junior grand champion bull, Antone Charmer, also a Larabee entry, won over Homer, the bull that defeated him at both the Iowa and Illinois state fairs. The aged cow class was one of the finest classes in the Red Polled show. It consisted of fourteen splendid individuals, at the head of which stood Susie 2d, a Larabee entry. This cow is a large individual of good dairy form. The Red Polled men are paying more attention to size in the cows than they have been doing in the past, and this was undoubtedly one reason why this cow was placed first, for Constant, the one that took second in this class, was in many respects a more refined individual and other judges might have placed her first. She has an unusually well-developed udder. In the contest for junior championship the junior calf, Cosy Ells Dumplin, owned by Ineichen & Son, was an outstanding winner, but owing to her age did not compete against the fully developed aged cow, Susie 2d, which became the grand champion.

Exhibitors—Adolph P. Arp, Eldridge, Ia.; Clouss & Travis, Manson, Ia.; R. V. Graff, Bancroft, Neb.; Chas. Graff & Son, Bancroft, Neb.; W. S. Hill, Alexandria, S. D.; Geo. Ineichen & Son, Geneva, Ind.; Jos. Kestel, New Lenox, Ill.; J. W. Larabee, Earlville, Ill.; Chas. C. Pope Estate, Yorkville, Ill.; Quality Stock Farm, Kinmundy, Ill.; John Schmiesing, Ft. Laramie, Ohio; S. J. Smith, Chadwick, Ill.; University of Nebraska, Lincoln, Neb. Judge: E. R. Davis, University of Nebraska, Lincoln, Neb.

Bull 3 year or over (6 shown), 1st Larabee on Teddy's Charm, 2d Ineichen & Son on Principle, 3d Hall on Teddy's Perfection, 4th Graff & Son on Vina's International Dandy, 5th Smith on Gene, 6th Clouss & Travis on Charmer's Pride; 2 years and under 3 (4 shown), 1st Larabee on Billy Charm, 2d Arp on Marham, 3d Smith on Teddy's Choice, 4th Ineichen & Son on Master; senior yearling (2 shown), 1st Ineichen & Son on Teddy's Chief, 2d Smith on Ruth's Falstaff; junior yearling (4 shown), 1st Larabee on Homer, 2d Smith on Falstaff Dandy, 3d Hill on Lewis, 4th Pope Estate on Magic; senior calf (8 shown), 1st Graff & Son on Ringleader, 2d Ineichen & Son on Cosy Ell's Zeno, 3d Clouss & Travis on Master, 4th Larabee on Jeff, 5th Graff & Son on Rupert's Last; junior calf (13 shown), 1st Larabee on Antone Charmer, 2d Clouss & Travis on Ruen, 3d Ineichen & Son on Cosy Ell's Starlight, 4th Arp on Ruperta's Teddy, 5th Larabee on Roscoe Charmer, 6th Quality Stock Farm on Zero 2d; 7th Clouss & Travis on Allen.

Cow 3 years or over (11 shown), 1st Larabee on Susie 2d, 2d Hill on Constant, 3d Ineichen & Son on Cosy 2d, 4th Larabee on Jello, 5th Clouss & Travis on Rozell, 6th Smith on Red Ruby 3d, 7th Ineichen & Son on Geneva Zelma; 2 years and under 3 (12 shown), 1st Hill on Rue, 2d Smith on Fern, 3d and 4th Larabee on Miss Charmer and Lady Charmer, 5th Smith on Lady Corporal, 6th Ineichen & Son on Zelnett, 7th Smith on Cornelia; senior yearling (10 shown), 1st Graff on Beau Me, 2d and 3d Hill on Penelope and Brownie, 4th Ineichen & Son on Jewelett, 5th Larabee on Bessy Charmer, 6th Clouss & Travis on Myrtle; junior yearling (8 shown), 1st Ineichen & Son on Zel Rose, 2d Larabee on Graceful Charmer, 3d Schmiesing on Belle of Ell, 4th Ineichen & Son on Rosy Rose, 5th Arp on Diana Lassie 2d, 6th Smith on Pet's Golden Rule; senior calf (9 shown), 1st Larabee on Effie Charmer, 2d Ineichen & Son on Rosy Ell's Countess Ina, 3d Smith on Lady Stowe 7th, 4th Ineichen & Son on Cosy Ell's Bouquet, 5th Smith on Princess Durand, 6th Graff on Beattie; junior calf (10 shown), 1st Ineichen & Son on Cosy Ell's Dumplin, 2d Hill on Cecelia, 3d Clouss & Travis on Dora, 4th Larabee on Maxine, 5th Hill on Marion, 6th Arp on Iowa Jane 2d.

Senior champion bull, Larabee on Teddy's Charm; junior champion bull, Larabee on Antone Charmer; grand champion bull, Larabee on Teddy's Charm; senior champion cow, Larabee on Susie 2d; junior champion heifer, Ineichen & Son on Cosy Ell's Dumplin; grand champion cow, Larabee on Susie 2d; aged herd (7 shown), 1st and 2d Larabee, 3d Ineichen & Son, 4th Hill, 5th Clouss & Travis, 6th Ineichen & Son; young herd (4 shown), 1st Ineichen & Son, 2d Larabee, 3d Hill, 4th Smith; calf herd (5 shown), 1st Larabee, 2d Ineichen & Son, 3d Clouss & Travis, 4th Hill, 5th Smith; get of sire (8 shown), 1st and 2d Larabee, 3d Hill, 4th and 5th Ineichen & Son, 6th Clouss & Travis; produce of cow (11 shown), 1st Larabee, 2d Ineichen & Son, 3d Larabee, 4th Graff & Son, 5th Smith, 6th Hill.

Polled Durhams.—While the Polled Durham show was a good one, it broke no records. In fact, we believe that this breed has shown more cattle at some previous Internationals. The bull classes were all small, ranging from two to four animals in the older classes while as many as six entries were shown in the calf classes. The bull, Scotch Loch Dale, owned by the Leemon Stock Farm, of Hoopeston, Ill., won first in the aged class and was later made senior champion, defeating Roselawn Marshal, the Nebraska bull owned by Hultin that has been senior and grand champion at the leading western shows this fall. In the senior yearling bull class Royal Marshal, from the herd of Rose & Sons, of Indiana, was placed first and Sunny Sultan, the Achenbach bull that has been junior champion at the leading western shows this fall, had to be contented with fourth place, indicating, in a manner, the quality of the young bulls in this show. In the contest for junior championship, however, Royal Marshal was defeated by Proud Marshal, also a Rose & Sons entry. The aged cow class consisted of five entries at the head of which stood Sultana, the big, thick, heavy-fleshed cow of Achenbach Bros. that has been a leading winner in the West this fall. In the two-year-old class Princess Sultana, of the Leemon Farm, stood first, and in the contest for senior championship won over Sultana. There was considerable comment at the ringside on this decision. It did not seem to be very popular, the opinion being that the judge failed to recognize the difference in the ages of the two contestants. Sultana is a five year old and has been raising calves regularly, whereas Princess Sultana is a three year old. However, Judge Robbins justified his decision on the grounds that the older cow showed considerable patchiness behind, a defect that the Polled Durham breeders are striving to eliminate. Gloster Countess 2d, a Hultine entry, stood first in the senior heifer class and Lee Dale Mayflower C., of the Leemon Stock Farm, first in the junior heifer class. Select Fern, another Hultine entry, was first in the junior yearling class, and these three competed with the senior yearling heifer, Lily Brant 4th, of the Leemon Stock Farm, for junior championship honors, which were awarded to the latter.

Exhibitors—Achenbach Bros., Washington, Kan.; P. J. Fosse, St. Cloud, Minn.; Albert Hultine, Saronville, Neb.; Leemon Stock Farm, Hoopeston, Ill.; Purdue University, Lafayette, Ind.; W. W. Rose & Son, Rossville, Ind.; F. J. Schmeeckle, Cozad, Neb.; Frank Tossey, Marysville, Ohio. Judge: Earl E. Robbins, Horace, Ind.

Bull 3 years or over (3 shown)—1st Leemon Stock Farm on Scotch Loch Dale, 2d Fosse on Intense Sultan, 3d Tossey on Millcreek Prince 2d P. D.; 2 years and under 3 (3 shown)—1st Hultine on Roselawn Marshall; 2d Fosse on Heir Apparent, 3d Leemon Stock Farm on Loch Lindale; senior yearling (4 shown)—1st Rose & Sons on Royal Marshall, 2d Leemon Stock Farm on Snowball, 3d Hultine on Royal Goods, 4th Achenbach Bros. on Sunny Sultan; junior yearling (2 shown)—1st Fosse on Ashburn Sultan, 2d Hultine on Double Goods; senior bull calf (4 shown)—1st Rose & Sons on Proud Marshall; 2d Hultine on Christmas Goods, 3d Achenbach Bros. on Imperial Cumberland, 4th Leemon Stock Farm on Lee Dale Cumberland; junior calf (6 shown)—1st Rose & Sons on Royal Sultan, 2d Leemon Stock Farm on Lavender Dale, 3d Hultine on Gloster Goods, 4th Rose & Sons on Sultan's Perfection, 5th Leemon Stock Farm on Lee Dale.

Cow 3 years or over—1st Achenbach Bros. on Sultana, 2d Hultine on Winsome, 3d Leemon Stock Farm on Lancaster Maid 9th, 4th Leemon Stock Farm on Millcreek Duchess 4th, 5th Tossey on Millcreek Duchess 2d; 2 years and under 3 (6 shown)—1st Leemon Stock Farm on Princess Sultana, 2d Hultine on Siren 2d, 3d Leemon Stock Farm on Loch Dale's Violet, 4th Achenbach Bros. on Sultana Frances, 5th Fosse on Lady Dorothy; senior yearling (7 shown)—1st Leemon Stock Farm on Lily Brant 4th, 2d Leemon Stock Farm on Scottish Belle 15th, 3d Rose & Sons on Meadow Victoria, 4th Rose & Sons on Crimson Scarlet; junior yearling (7 shown)—1st Hultine on Select Fern, 2d Leemon Stock Farm on Lee Dale Mayflower, 3d same on Lee Dale Sultana, 4th Achenbach Bros. on Sultana Tarankful; senior calf (6 shown), 1st Hultine on Gloster Countess 2d, 2d Leemon Stock Farm on Lee Dale Sultana B., 3d Rose & Sons on Sultan's Rosemary; junior calf (7 shown), 1st Leemon Stock Farm on Lee Dale Mayflower C., 2d Hultine on

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Geo. H. Simpson, Sole Owner and Maker of "The Acme Line," Wheaton, Ill.

THIS FEEDER FREE

No chore, no mixing—they feed themselves ACME WORM BOUNCER.

O. W. Ricks, New Lisbon, Indiana, writes: "Pigs like ACME PIG MEAL fine, did well on it, ship 4,000 lbs. more."

L. B. Woods, North Bend, Nebraska, Duroc Breeder, says: "ACME PIG MEAL is great." November 21st ordered 1,000 lbs. more.

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Equal to Milk. Protein 28½%.

Is a *full* and complete *ration,* nothing else is fed with it. You know how pigs do fed *milk*—that is how pigs do fed **Acme Pig Meal,** equal to milk. Start when the pigs will eat, it so takes the place of milk they will wean themselves at 8 weeks of age, prevents runts, setbacks, and retains the *baby pig fat.* 15 pounds makes 15 gallons *"milk equal,"* enough for one pig 30 days for 65c. A balanced and complete ration until 4 months of age. 25% cheaper than any other.

500 pounds.....$4.40 per hundred
1000 pounds..... 4.35 per hundred
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During the years Acme Worm Bouncer has been sold, I do not know of a single user **who lost his hogs with Cholera, who fed Acme Worm Bouncer for 30 days and continued to feed it.**

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Lady Fair, 3d Fosse on Lady Marily 21st.

Senior champion bull, Leemon Stock Farm on Scotch Loch Dale; junior champion bull, Rose & Sons on Proud Marshal; senior champion cow, Leemon Stock Farm on Princess Sultana; junior champion heifer, Leemon Stock Farm on Lily Brant 4th; aged herd, 1st Leemon Stock Farm, 2d Hultine, 3d Leemon Stock Farm, 4th Tossey; young herd (4 shown), 1st Leemon Stock Farm, 2d Rose & Sons, 3d Hultine, 4th Achenbach Bros.; calf herd (3 shown), 1st Rose & Sons, 2d Leemon Stock Farm, 3d Hultine; get of sire (5 shown), 1st Rose & Sons, 2d Leemon Stock Farm, 3d Achenbach Bros., 4th Fosse; produce of cow (5 shown), 1st Leemon Stock Farm, 2d Achenbach Bros., 3d Leemon Stock Farm, 4th Rose & Sons.

FAT CATTLE.

The fat stock show, including cattle, hogs and sheep, was by far the largest that has ever been held at the International. The single classes of fat steers were unusually strong and interesting. In the Short-horn classes Sultan Selin, a senior yearling owned by the Purdue University, received the championship. He won over the two-year-old Merry Monarch, also owned by the Purdue University, which later became the grand champion of the show. This is an unusual occurrence and was due probably to the fact that Mr. Dryden, of Ontario, judged the pure-bred steers and Mr. Robson, of Ontario, the final championships. In the Hereford class Standard Lad 4th, a senior yearling owned by the University of Missouri, won the championship. In the Angus class Muscogee, a two year old, was made champion. This steer was owned and shown by Mr. Kershaw. In the Galloway class Bonnie Lad, a two year old owned by the University of Nebraska, won the champion, and in the grades and cross breds Liberty Bond, a senior calf owned by Mr. Yost, of Kansas City, won the championship ribbon. In the Red Polls Rudolph, a yearling shown by the University of Nebraska, became the champion. And in the Polled Durham class Kilmore Victor 10th, a yearling owned by the Purdue University, was the champion. In the champions of all ages Merry Monarch, the Purdue two year old, won. In the yearlings of this same class Fyvie Prince, a senior yearling Angus steer, stood first, and among the calves of this class Liberty Bond, the senior cross-bred calf of Yost, stood first. In the final contest for grand champion Yost's cross-bred calf was a very close contender for highest honors, but the judge finally decided to give it to Merry Monarch. It will be seen from the above that Purdue University won a great many prizes in the fat classes. And it is interesting to mention in this connection that the grand champion steer, the first senior yearling Short-horn, the first senior calf and the first junior calf were all sired by Lavender Sultan. We know of no sire that has had so many prize winners in the same show at Chicago in one year. It was a mighty fine lesson in prepotency.

The grand champion steer weighed 1,610 pounds and sold at auction for $2.10 per pound. In other words, he brought $3,381. He sold twice; was first purchased by the American Short-horn Breeders' Association for $2.05 and was then resold for the benefit of the Red Cross to Armour & Co. for $2.10. The carload lots of steers were quite up to the standard. In fact, it was generally conceded that the grand champion load, which was shown by E. P. Hall, of Mechanicsburg, Ill., was the finest finished load of cattle ever seen at the International. This makes the fourth time that Mr. Hall has won the grand championship in carload lots. This load was sold at auction for the phenomenal price of $42.50 per hundredweight and the steers averaged 1,090 pounds. Thirty-six loads of fat cattle sold for an average of $18.22 per hundredweight. The range was from $14 to $42.50, and the bulk sold at $16 to $18 per hundredweight. The general market was off the day of the sale, which accounts for the comparatively low average for International show cattle as compared with former years. The carload feeder show was a very fine one from a quality standpoint, but it was rather small. Eight loads of feeders sold at auction for an average of $11.83 per hundredweight, and the champion load brought $13.95. Twenty carloads of show hogs sold for an average of $16.90 per hundredweight and the champion load brought $21.25. The thirty-three car lots of show sheep ranged in price from $14.25 to $22 per cwt., the latter being paid for the champion load. There were more entries for the slaughter tests in cattle, hogs and sheep than usual. The Iowa State College won first honors in the steer competition on a pure-bred Angus calf weighing $1,185 pounds and which dressed 66.58 per cent. In the hog slaughter tests first was awarded to F. E. Bond, of Ava, Ill., on a cross-bred Berkshire-Chester White-Poland China barrow that weighed 200 pounds and dressed 84 per cent. The highest dressed lamb in this contest was furnished by Heart's Delight Farm, of New York. This lamb weighed 82 pounds and dressed 57.3 per cent and sold at auction for the exceedingly high price of 77½ cents a pound. There were twenty-two steers, forty-one hogs and forty-three sheep in the various slaughter contests. Following are the awards:

Fat Short-horns.

Exhibitors—Day & Rothrock, Spokane, Wash.; Theodore Fricke, State Center, Ia.; Wm. Herkelman, Elwood, Ia.; Iowa State College, Ames, Ia.; Eben E. Jones, Rockland, Wis.; Kansas State Agricultural College, Manhattan, Kan.; Lespedeza Farm, Hickory Valley, Tenn.; J. W. McDermott, Kahoka, Mo.; Findley McMartin & Sons, Claremont, Minn.; Ohio State University, Columbus, Ohio; Oklahoma A. & M. College, Stillwater, Okla.; Pennsylvania State College, State College, Pa.; Purdue University, Lafayette, Ind.; Reynolds Bros., Lodi, Wis.; Silver Brook Farm, Inc., Muncie, Ind.; Clifford Tague, Kirkman, Ia.; University of Illinois, Urbana, Ill.; University of Minnesota, St. Paul, Minn.; University of Missouri, Columbia, Mo.; University of Nebraska, Lincoln, Neb. Judge: W. A. Dryden, Brooklyn, Ont.

The awards follow: Steer, calved between Jan. 1, 1915, and Sept. 1, 1915 (11 shown), 1st Purdue University on Merry Monarch, 2d Purdue University on Bapton Buddie, 3d Reynolds Bros. on White Velvet, 4th Oklahoma Agricultural College on Bennie Dale, 5th Kansas State Agricultural College on Archer Dale, 6th and 7th Russell on Downsview Lad and Stubby Rex, 8th Ohio State University on Ohio's Nabol; senior yearling (9 shown), 1st Purdue University on Sultan Selim, 2d Russell on Clear the Way, 3d Reynolds Bros. on Lightning Flash, 4th Kansas State Agricultural College on Barmpton Prince, 5th University of Illinois on Ace of Diamonds; 6th Lespedeza Farm on Charley, 7th University of Illinois on Major Goods, 8th Iowa State College on Royal Choice; junior yearling (11 shown), 1st Purdue University on Warden, 2d Kansas State Agricultural College on Gulnare Dale, 3d Silver Brook Farm on Tommy, 4th Ohio State University on Ohio's Lavender Lad, 5th University of Missouri on Choice Dale, 6th Herkelman on Pete Cumberland, 7th Oklahoma A. & M. College on Barmpton's Choice, 8th University of Illinois on Illini Goldie's Pride; senior calf (16 shown), 1st Purdue University on New Year's Sultan, 2d Day & Rothrock on Hercules, 3d Russell on Shorty, 4th Purdue University on Merry Chimes, 5th University of Illinois on Illini Model 2d, 6th Kansas State Agricultural College on Golden Dale 2d, 7th Reynolds Bros. on Roan King, 8th University of Illinois on Illini Sultan; junior calf (9 shown), 1st Purdue University on New Year's Sultan, 2d Reynolds Bros. on Volunteer, 3d Iowa State College on Marmion, 4th Jones on Hillshade Laddie, 5th Russell on Martin, 6th University of Minnesota on North Star, 7th Ohio State University on Ohio's Pride, 8th University of Nebraska on Snowball.

Champion steer, Purdue University on Sultan Selim; herd of three head (8 shown), 1st and 2d Purdue University, 3d Russell, 4th Reynolds Bros., 5th Kansas State Agricultural College.

Fat Aberdeen Angus.

Exhibitors—Ames Plantation, Grand Junction, Tenn.; C. D. & E. F. Caldwell, Burlington Junction, Mo.; J. S. Caldwell & Sons, Chillicothe, Ohio; A. S. Cecil & Sons, Muncie, Ind.; Congdon & Battles, Yakima, Wash.; John S. Goodwin, Chicago, Ill.; Purdue University, Lafayette, Ind.; Sutton & Porteous, Lawrence, Kan. Judge: Dr. H. M. Brown, Hillsboro, Ohio.

The awards follow: Steer calved between Jan. 1, 1915, and Sept. 1, 1915, (10 shown), 1st Kershaw on Muskogee, 2d Ohio State University on Ohio's Idol, 3d Caldwell & Son on The Attraction, 4th Fanquier Breeders' Ass'n on Virginia Favorite, 5th Kansas State Agricultural College on Glen, 6th and 7th Purdue University on Martha's Prince and Prince Wayne, 8th University of Nebraska on Nebraska White Socks, 9th Fanquier Breeders' Ass'n on Fanquier Favorite, 10th Pennsylvania State College on State's Regent; senior yearling (8 shown), 1st Purdue University on Fyvie Prince, 2d Iowa State College on Iowa White Socks, 3d Goodwin on Ruddy, 4th University of Illinois on Locomotive "U.", 5th Kansas State Agricultural College on Rosegay Lad, 6th and 7th Pennsylvania State College on Bold Count and Andy, 8th Wilson Bros. on Bula Ida; junior yearling (14 shown), 1st C. D. & E. F. Caldwell on Luckily, 2d Bauer on White Sox, 3d Kershaw on Black Muskogee, 4th Goodwin on Best Ever, 5th Iowa State College on Pandean Jr., 6th Purdue University on Blackbird Tom, 7th University of Nebraska on Bob White, 8th Pennsylvania State College on State's Lad "2d," 9th Wilson Bros on White Stockings, 10th Caldwell & Sons on The Limit; senior calf (11 shown), 1st Ames on Ames Plantation Ebony, 2d University of Illinois on Craighead's Baron, 3d, 4th and 5th Iowa State College on Belmont, Besique and Woodrow, 6th C. D. & E. F. Caldwell on Kiahoga 3d, 7th Kansas State Agricultural College on Vala's Rosegay Lad, 8th Purdue University on Black Erin, 9th Hess & Brown on Burman of Quietdale, 10th University of Missouri on Defense; junior calf (7 shown), 1st Oklahoma A. & M. College on Heatherton Lad 2d, 2d Kershaw on Muskogee Boy, 3d University of Minnesota on Jack, 4th Cecil & Sons on Heather Jay, 5th Purdue University on Fyvie Knight 2d, 6th Pennsylvania State College on Deacon, 7th University of Nebraska on Varsity Viola.

Champion steer, Kershaw on Muskogee; herd of three head (7 shown), 1st Kershaw, 2d Kansas State Agricultural College, 3d C. D. & E. F. Caldwell, 4th Purdue University, 5th University of Nebraska, 6th Pennsylvania State College, 7th Seeley.

Fat Herefords.

Exhibitors—B. T. Bartlett, Greencastle, Mo.; Robt. H. Hazlett, Eldorado, Kan.; Oklahoma A. & M. College, Stillwater, Okla.; N. D. Pike, Weatherford, Okla.; E. H. Taylor, Jr., Frankfort, Ky.; Kansas Agricultural College, Manhattan, Kan.; University of Missouri, Columbia, Mo.; H. J. Fluck, Goodenow, Ill.; Pennsylvania State College, Ctate College, Pa.

The awards: Steer calved between Jan. 1, 1915, and Sept. 1, 1915, (5 shown), 1st Kansas State Agricultural College on Fancy Perfection, 2d Taylor on Hasford Lad, 3d University of Missouri on Suspense, 4th Fluck on Fluck's Ensign, 5th Van Voorhis on Highview Samuel; senior yearling (5 shown), 1st University of Missouri on Standard Lad 4th, 2d Taylor on Bondsman Boy, 3d University of Missouri on Discretion, 4th Bartlett on Heir at Law, 5th Kansas State Agricultural College on Don Hessler; junior yearling (3 shown), 1st Kansas State Agricultural College on Fred, 2d Pike on Carration, 3d Fluck on Evergreen Maid; senior calf (7 shown), 1st Kansas State Agricultural College on Victor Hessler, 2d Oklahoma A. & M. College on Beau Franklin 3d, 3d Barlett on Bartlett's Favorite, 4th Taylor on Roehampton 29th, 5th University of Missouri on Emperor 13th, 6th Oklahoma A. & M. College on Beau Franklin 6th, 7th Morgan on Donlin; junior calf (5 shown), 1st Iowa State College on College Standard, 2d Taylor on Gay Prince 2d, 3d University of Nebraska on Refiner, 4th Pennsylvania State College on Pennsy Lad, 5th Fluck on Twin I Am.

Champion steer, University of Missouri on Standard Lad 4th; herd of three head (4 shown), 1st Taylor, 2d Kansas State Agricultural College, 3d University of Missouri, 4th Fluck.

Fat Red Polls.

Exhibitors: W. S. Hill, Alexandria, S. D.; University of Nebraska, Lincoln, Neb.; Adolph P. Arp, Eldridge, Ia.

The awards: Steer calved between Jan. 1, 1915, and Sept. 1, 1915, (2 shown), 1st Hill on Benedict, 2d University of Nebraska on Violet; 1 year and under 2 (3 shown), 1st University of Nebraska on Rudolph, 2d Hill on Madison, 3d Arp on Mac; under 1 year (3 shown), 1st Arp on Luna Lad, 2d University of Nebraska on Everett, 3d Hill on Carmon.

Champion steer, University of Nebraska on Rudolph; herd of three head (2 shown), 1st University of Nebraska, 2d Hill.

Grades and Cross Breds.

Exhibitors—R. M. Anderson & Sons, Newell, Ia.; C. T. Bailey & Sons, Lowell, Ind.; B. T. Bartlett, Greencastle, Mo.; Edwin Bay, Aledo, Ill.; J. M. Bay, Aledo, Ill.; Brann & Moore, Memphis, Tenn.; H. D. Brent, Smithshire, Ill.; Earl R. Buckland, Mapleton, Ia.; A. S. Cecil & Sons, Muncie, Ind.; Claverburn Farm, Colo, Ia.; James Denney, Rose Hill, Ia.; Willet Downey, Aledo, Ill.; Jesse Engle & Sons, Sheridan, Mo.; Fauquier Breeder's Assn., Rectortown, Va.; Griswold Bros., Livingston, Wis.; Edward Grosch, La Moille, Ill.; Clark Hall, Mt. Pleasant, Ia.; Donald C. Hill, Corning, Ia.; Clinton Horlacher, Storm Lake Ia.; Iowa State College, Ames, Ia.; Kansas State Agricultural College, Manhattan, Kan.; Patrick Leahy, Williamsburg, Ia.; Maasdam & Wheeler, Fairfield, Ia.; Horace Mehaffy, Mediapolis, Ia.; Leon Mitchell, Marcus, Ia.; Walter G. Morgan, Goodenow, Ill.; Wendle Mousel, Cambridge, Neb.; F. R. Mullendore, Franklin, Ind.; J. W. McDermott, Kahoka, Mo.; J. D. McGregor, Brandon, Manitoba; Ohio State University, Columbus, Ohio; Oklahoma A. & M. College, Stillwater, Okla.; Geo. J. Peak, Winchester, Ill.; Pennsylvania State College, State College, Pa.; Jas. Price, Onalaska, Wis.; Purdue University, Lafayette, Ind.; Reynolds Bros., Lodi, Wis.; L. F. Richardson, Hedrick, Ia.; Fred Rooth, Joy, Ill.; F. A. Russell, Downsview, Ont.; M. & J. Schaffer, Erie, Pa.; F. J. Schmeeckle, Cozad, Neb.; Silver Brook Farm, Muncie, Ind.; Stoltz & Nolting, Preston, Ia.; C. L. Taggart, Washington, Pa.; Clifford Tague, Kirkman, Ia.; D. & Lester Tirgen, Bellevue, Ia.; Jennie Turner, DeWitt, Ia.; John H. Turner, Jr., DeWitt, Ia.; Willie Turner, DeWitt, Ia.; University of Minnesota, St. Paul, Minn.; University of Missouri, Columbia, Mo.; University of Nebis, Beecher, Ill.; Wilson Bros., Muncie, braska, Lincoln, Neb.; D. D. Van Voor-Ind.; W. L. Yost, Kansas City, Mo. Judge: T. E. Robson, Ontario, Canada.

The wards were as follows: Steer calved between Jan. 1, 1915, and Sept. 1, 1915, (13 shown), 1st Kansas Agricultural College on Hay's Beau, 2d Purdue University on Cressie 2d, 3d McDermott on Roan Dick, 4th Grober on Greenway, 5th Anderson & Son on East Riverside Victor; calved between Sept. 1, 1915, and Jan. 1, 1916, (10 shown), 1st Iowa State College on Johnny Walker, 2d University of Missouri on Dictator, 3d Griswold Bros. on steer by Hopeful Sultan, 4th Richardson on Peerless, 5th Brent on Black Cap, 6th University of Missouri on Edward of Roseburn, 7th Claverburn Farm on Bobby, 8th Grosch on Ted; calved between Jan. 1, 1916, and Sept. 1, 1916, (28 shown), 1st University of Minnesota on Lucy, 2d and 3d University of Nebraska on Willow Dell Tom and Ord Dick, 4th Russell on Bad Egg 3d, 5th Brent on Black Beauty, 6th McDermott on Jimmie, 7th University of Nebraska on Valley Prince, 8th Silver Brook Farms on Billy; calved between Sept. 1, 1916, and Jan. 1, 1917, (19 shown), 1st Yost on Liberty Bond, 2d Iowa State College on Iowa's Best, 3d Brent on Oh! Johnny Oh!, 4th University of Minnesota on Monte, 5th McDermott on Jock, 6th University of Missouri on Decorator, 7th University of Nebraska on Roan Jim, 8th Congdon & Battles on Black Yak; calved since Jan. 1, 1917, (13 shown), 1st Russell on New Year's Gift, 2d Mousel Bros. on Buster Mischief, 3d Lespedeza Farm on Casey Jones, 4th Congdon & Battles on Doc Yak, 5th Cecil & Sons.

Champion steer, Yost on Liberty Bond; herd of three head (7 shown), 1st University of Missouri, 2d McDermott, 3d University of Minnesota, 4th Kansas State Agricultural College.

Any Breed.—Three steers calved since Jan. 1, 1915, get of one sire—1st Purdue University, 2d Iowa State College, 3d Kershaw.

Champions by Ages.—Champion two year old, Purdue University on Merry Monarch (Short-horn); champion yearling, Purdue University on Fyvie Prince (Aberdeen Angus); champion calf, Yost on Liberty Bond (grade); grand champion steer, Purdue University on Merry Monarch (Short-horn); grand champion herd of three, Purdue University.

CATTLE.

Grand Champion Load.

Owner and address.	Breed.
(Yearlings.)	
Ed P. Hall, Mechanicsburg, Ill.	Angus

Champions by Ages.

Prize. Owner and address.	Breed.
(Yearlings.)	
First—E. P. Hall, Mechanicsburg, Ill.	Angus
Second—J. W. Frazier, Rardin, Ill.	Herefords
Third—J. Hunt, Grant Park, Ill.	Angus
(Two Year Olds.)	
First—E. P. Hall	Angus
Second—Mrs. J. A. Casement, Painesville, O.	Herefords
Third—Clint Bollich, Danville, Ill.	Herefords
Fourth—W. E. Dodd, Mattoon, Ill.	Herefords

Corn Belt District.

(Yearlings.)	
First—E. P. Hall	Angus
Second—E. P. Hall	Angus
Third—J. D. Waters & Son, Dawson, Ill.	Short-horns
Fourth—E. P. Hall	Angus
Fifth—J. F. Redfield, Newell, Iowa	Angus
(Two Year Olds.)	
First—E. P. Hall	Angus
Second—J. F. Redfield	Angus
Third—J. D. Waters & Son	Short-horns
Fourth—Herman Sieveka, Wyoming, Ia.	Angus
Fifth—Paul Ehlers, Windell, Ill.	Angus

South Central District.

(Yearlings.)	
First—J. Hunt, Grant Park, Ill.	Angus
Second—Miller Bros., Olds, Iowa	Angus
Third—Miller Bros.	Angus
Fourth—Kansas Ag. College, Manhattan, Kan.	Herefords
Fifth—F. J. Schmecker, Cozad, Neb.	Herefords
(Two Year Olds.)	
First—Clint & Bolich, Danville, Ill.	Herefords
Second—L. T. Richardson, Martinsburg, Iowa.	Herefords
Third—John Hubely, Mason City, Ill.	Herefords
Fourth—Pinnell & Bennett, Kansas, Ill.	Herefords
Fifth—George W. Snyder, Plattsmouth, Neb.	Herefords

Southwest District.

(Yearlings.)	
First—J. W. Frazier	Herefords
Second—J. W. Frazier	Herefords
Third—Joe Garber, Charlestown, Ill.	Herefords
Fourth—J. G. Imboden, Decatur, Ill.	Herefords
Fifth—J. W. Frazier	Herefords
(Two Year Olds.)	
First—Mrs. J. T. Casement, Painesville, Ohio.	Herefords
Second—J. G. Imboden	Herefords
Third—W. C. Norris, La Moille, Ill.	Herefords
Fourth—E. A. McGregor, Washington, Kan.	Herefords
Fifth—W. C. Norris	Herefords

Short-Fed Specials.

(Yearlings.)	
First—J. W. Crabb, Delavan, Ill.	Angus
Second—L. H. White, Rochelle, Ill.	Herefords
Third—D. D. Casemen, Manhattan, Kan.	Herefords
(Two Year Olds.)	
First—T. J. Smith, Lamoni, Iowa	Herefords
Second—J. G. Imboden & Son	Mixed
Third—John Hubely, Mason City, Ill.	Mixed

Champion Carload.

J. G. Craft, Delavan, Ill.	Angus

Feeders.

(Grand Champion.)	
W. L. Harrison, Jr., Raggen, Colo.	Angus

Champion by Ages.

(Yearlings.)	
First—Al A. Neale, Montrose, Colo.	Short-horns
Second—L. H. White, Rochelle, Ill.	Herefords
(Calves.)	
First—W. L. Harrison	Angus
Second—A. M. Mitchell, Hecla, S. D.	Angus

North Central.

(Yearlings.)	
First—L. H. White	Herefords
Second—A. M. Mitchell	Angus
(Calves.)	
A. M. Mitchell	Angus

South Central District.

(Yearlings.)	
First—Al A. Neale	Short-horns
Second—J. W. Tripler, Montrose, Colo.	Short-horns
Third—Robert Taylor, Abbott, Neb.	Angus
(Calves.)	
First—W. L. Harrison, Jr.	Angus
Second—Robert Taylor	Angus

HOGS.

Grand Champion Load.

Owner and address.	Breed.
T. E. Berner, Augusta, Ill.	Berkshires

150 and Under 200 Pounds.

First—D. M. Brown, Delavan, Ill.	Duroc Jerseys
Second—E. J. Hughes, Augusta, Ill.	Hampshires

200 and Under 250 Pounds.

First—G. E. Phillips, Delavan, Ill.	Duroc Jerseys
Second—Michael Meyers, Elwood, Ind.	Hampshires
Third—Otto Schubae, Harlan, Iowa	Chester Whites

250 and Under 350 Pounds.

First—T. E. Berner Augusta, Ill.	Berkshires
Second—F. F. Ide, Illiopolis, Ill.	Poland Chinas
Third—A. R. Hamilton, Augusta, Ill.	Duroc Jerseys

SHEEP.

Grand Champion Load.

Owner and address.	Breed.
A. J. Knollin, Soda Springs, Idaho	Shropshires

Range Lambs.

First—A. J. Knollin, Soda Springs, Idaho.
Second—E. G. Reed, Rockford, Mich.

Range Sheep.

First—R. E. Catton, White Pigeon, Mich.
Second—R. E. Catton.

Range Sheep, Wethers Two Years or Over.

First—J. C. Wilson & Co., Burlington, Wis.
Second—George C. Wood, Windfall, Ind.

Native Lambs.

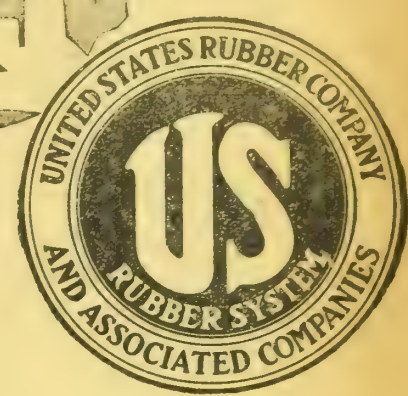
First—Heart's Delight Farms, Chazy, N. Y.
Second—Heart's Delight Farms, Scarsdale, N. Y.
Third—W. D. Mills, Evansville, Wis. Shropshire
Fourth—Russell Conley, Marshall, Mich. Shropshire

Native Sheep, Wethers One Year and Under Two.

First—Flossmoor Farms, Flossmoor, Ill.

THE HORSE SHOW.

Percherons.—A better lot of Percherons has never been shown at the International than was shown this year. Last year there were a greater number of entries and the showing set a new standard of Percheron excellence and supremacy, but from the standpoint of uniformity and quality the 1917 showing has surpassed all previous attainments. This is indeed



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United States Rubber Company
New York

U. S. Rubber Footwear

gratifying to know at a time when the horse business is seriously affected by the high prices of feed and labor. It has been reported that the breeding of mares has fallen off approximately 25 per cent this year due to the acute feed and labor shortage met with in the horse business. But in spite of this unsatisfactory outlook the Percheron business has held its own, if this year's record at the International may be taken as an indication. Of special interest is the fact that a surprisingly large number of the entries were American bred. The female classes brought forth the best exhibits of American-bred mares that have ever been in the show ring, and the excellence of the lot clearly indicates what American breeders can do when they set about their task without upon imported stock. Another significant feature is that the first-prize aged stallion, Philix, of the Singmaster stables, is American bred, while practically all his contestants are imported. After standing first in his class he met and defeated the blue ribbon winners of all other classes, thus winning the senior and grand championship trophies of the show. His closest competitor was Negro, an imported four year old from the Crouch stables, that won the reserve championship in both the senior and grand classifications.

The foremost female of the show was Turquoise, a stylish three year old owned by Dunhams. She easily stood first in her class and later won out in the contest for senior and grand champion mare, although the aged mare, Magicienne, of Vance & Krepps, gave her a sharp battle for the championship trophies. An interesting part of the Percheron show this year was the moving picture film called "Percherons in Peace and War," which was exhibited at the Percheron banquet. This two-reel film shows in story form the usefulness of the Percheron horse on the farm, in the city and in connection with this country's war operations. The film has been released for the free use of farmers' institutes and may be obtained for use by any organization interested in the horse business upon application to the secretary of the Percheron society.

Exhibitors—Annington Farm Co., Dickerson, Md.; Bell Bros., Wooster, Ohio; T. B. Bowman, Boone, Neb.; Thos. Caygill & Sons, Linden, Wis.; Fred Chandler, Chariton, Iowa; W. S. Corsa, White Hall, Ill.; J. Crouch & Son, Lafayette, Ind.; J. P. Detweiler, Congerville, Ill.; Dunhams, Wayne, Ill.; Geo. Eggert, Newton, Iowa; H. C. Elliott, Crawfordsville, Ind.; A. C. Engel, Rockwell City, Iowa; Finch Bros., Joliet, Ill.; Finch Bros., Fargo, N. D.; Frank P. Fox, Indianapolis, Ind.; Ira L. Harker, Dodgeville, Wis.; Harvest Farms Co., Mayville, Wis.; W. L. Houser, Mondovi, Wis.; F. A. Huddlestun, Webster City, Iowa; Luther Huston, Blandinsville, Ill.; Hurdcroft Farm, Monticello, Minn.; Robt. Johnston, Cannonsburg, Pa.; T. J. King, Plainfield, Ill.; Lewis Bros., Marshalltown, Iowa; S. Metz & Sons, Homewood, Ill.; Mooseheart, Mooseheart, Ill.; E. M. Nichols, Princeton, Ill.; Geo. M. Oyster, Jr., Washington, D. C.; J. J. Prendergast, Garfield, Ill.; J. O. Singmaster & Son, Keota, Iowa; S. H. Shively, North Manchester, Ind.; University of Minnesota, St. Paul, Minn.; University of Wisconsin, Madison, Wis.; Vance & Krepps, Farmer City, Ill.; R. P. Wait, Reynolds, Ill.; E. W. Walker & Sons, Mazon, Ill.; Woodside Farms, Sandusky, Ohio. Judges: C. F. Curtiss, Ames, Iowa; Harry McNair, Chicago, Ill.; Robt Graham, Toronto, Ont.

Stallion 5 years or over (12 shown), 1st Singmaster & Son on Philix, 2d Dunhams on Lycee, 3d Bell Bros. on Melitot, 4th Oyster on Milord, 5th Crouch & Son on Margouillis, 6th Corsa on Carnoise; 4 years and under 5 (7 shown), 1st Crouch & Son on Negro, 2d Singmaster & Son on Barnum II, 3d Bell Bros. on Noueux, 4th Woodside Farms on Nectar, 5th Crouch & Son on Nescent, 6th Bell Bros. on Nord, 7th Bell Bros. on Neo; 3 years and under 4 (18 shown), 1st Singmaster & Son on Keota Jalap, 2d Bell Bros. on Carnot Junior, 3d Dunhams on Dunham's Champion (Bumper), 4th Annington Farm Co. on Bonhomme, 5th Crouch & Son on Lauvois, 6th Crouch & Son on Hoffman, 7th Crouch & Son on Woodrow Wilson, 8th Finch Bros. on Innus; 2 years and under 3 (27 shown), 1st Harker on Harker, 2d Dunhams on Arago, 3d Dunhams on Invincible, 4th Singmaster & Son on Aiglonel, 5th Walker & Sons on Woodrow W., 6th Hurdcroft Farm on Promoter, 7th Crouch & Son on Jeranimo, 8th Vance & Krepps on Intended, 9th Vance & Krepps on Giron, 10th Singmaster & Son on Jock, 11th Vance & Krepps on Duke; yearling (29 shown), 1st, 2d, 6th and 8th Corsa on Caira, Carvictox, Carli and Carnolo, 3d Prendergast on Tom B., 4th and 7th Singmaster & Son on Maplegrove Gilsam, and Maple Grove Sirett; 5th Finch Bros. on Rubar; foal (11 shown), 1st Dunhams on Leonard, 2d Dunhams on Lancelot, 3d Francis on Erehart, 4th Oyster on President, 5th Dunhams on Locksley, 6th Huston on Cecil Rhodes.

Stallion and 3 mares, any age (7 shown), 1st Dunhams, 2d Singmaster & Son, 3d Crouch & Son, 4th Oyster; stallion and 3 mares, American bred, any age (5 shown), 1st Singmaster & Son, 2d Dunhams, 3d Crouch & Son, 4th Woodside Farms; get of sire (8 shown), 1st Corsa, 2d Singmaster & Son, 3d Vance & Krepps, 4th Dunhams, 5th Bowman, produce of dam (7 shown), 1st Dunhams, 2d Finch Bros., 3d Vance & Krepps, 4th Woodside Farms, 5th Vance & Krepps, 6th Woodside Farms, 7th King; 3 mares, any age (7 shown), 1st Dunhams, 2d Singmaster & Son, 3d Crouch & Son; 5 stallions, any age (4 shown), 1st Singmaster & Son, 2d Dunhams, 3d Bell Bros.; best 5 imported stallions, Bell Bros.; champion American bred stallion, 1st Singmaster & Son on Philix, 2d Crouch & Son on Negro; champion American-bred mare, 1st Dunhams on Turquoise, 2d Crouch & Son on Ella May.

Mare 5 years or over (14 shown), 1st Vance & Krepps on Magicienne, 2d Singmaster & Son on Keota Hyacinthe, 3d Hurdcroft Farm on Kasbah, 4th University of Minnesota on Fashion Vernon, 5th Dunhams on Donfield, 6th Woodside Farms on Alicia; 4 years and under 5 (6 shown), 1st Dunhams on Trinquante, 2d, 3d and 5th Vance & Krepps on Grace, Iole and Irma, 4th Crouch & Son on Genet, 6th Woodside Farms on Cozette; 3 years and under 4 (11 shown), 1st Dunhams on Turquoise, 2d and 3d Singmaster & Son on Jumynette and Maple Grove, 4th Fox on Ina, 5th Woodside Farms on Queenly, 6th Crouch & Sons on Pet; 2 years and under 3 (14 shown), 1st, 3d and 4th Crouch & Son on Ella May, Lady Radisnoir and Maryette, 2d Bowman on Dorothy, 5th Singmaster & Son on Nira Poule, 6th Woodside Farms on Alice, 7th Annington Farm Co. on Annington Queen, 8th Dunhams on Sylphide; 1 year and under 2 (15 shown), 1st and 6th Singmaster & Son on Lagoceo and Lagaloo, 2d Hurdcroft Farm on Sarah Belle, 3d Dunhams on Dunham's Chorus, 4th Woodside Farms on Woodside Jena, 5th Vance & Krepps on Eulora; foal (8 shown), 1st and 5th Dunhams on Perdita and Karmine, 2d Lewis Bros. on Patricia, 3d and 4th Singmaster & Son on Smith Creek Lagasessa and Smith Creek Lagasetta, 6th University of Wisconsin on Hesperus.

Senior champion stallion, Singmaster & Son on Philix, reserve, Crouch & Son on Negro; junior champion stallion, Harker on Harker, reserve, Corsa on Carira; senior champion mare, Dunhams on Turquoise, reserve, Vance & Krepps on Magicienne; junior champion mare, Crouch & Son on Ella May, reserve, Bowman on Dorothy B.; grand champion stallion, Singmaster & Son on Philix, reserve, Crouch & Son on Negro; grand champion mare, Dunhams on Turquoise, reserve, Crouch & Son on Ella May.

Belgians.—Belgian popularity has made rapid progress in the last few years. This fact has been clearly demonstrated in the show ring, not only by the interest taken in the exhibits and judging of the various classes, but also in the noticeable improvement in quality of the breed. Last year was a record breaker for the Belgians at the International, but the showing this year at least tied that of 1916 and possibly surpassed it. It was a splendid showing throughout, all classes being well filled with real show animals and lacking the usual discards at the end of the line. The only class which was not well represented was that of four-year-old stallions, where only three entries were made, but the quality here more than made up for the scarcity in numbers. Irvinedale Rowdy, the superb sorrel stallion of the Irvine Farms, came in this class and proved himself a winner not only here, but in the sweepstakes, where he became senior and grand champion stallion of the show. Reavedore, a three year old recently sold to Lefebure & Sons by Frank P. Shekleton & Sons, of Lawler, Iowa, was a close competitor of the Irvine stallion, but the judges finally placed him as the reserve, both in the senior and grand sweepstakes. The junior champion was Lefebure's Duke of Elmwood, a two year old of great size and type, but lacking in the wonderful conformation and action of the senior champion. In the senior and grand female sweepstakes Irvine again came to the front, winning both first place and reservie on Lista and Salome. Paramount Lulu, an unusually promising yearling, was made junior female champion, and was well worthy of the place, although she was not a close competitor of the senior champion. While the judging took a great deal of time, in general the awards were very satisfactory. The work was done by a committee of three men, consisting of Eli Springer, Saginaw, Mich.; Harry McNair, U. S. Yards, Chicago, Ill.; W. H. Pew, Ames, Iowa.

Exhibitors—Bell Bros., Wooster, Ohio; Mark Benbow, Wheeling, Ind.; A. W. Blue, Claypool, Ind.; Champlin Bros., Clinton, Iowa; Fred Chandler, Chariton, Iowa; J. Crouch & Son, Lafayette, Ind.; John A. Day, Springport, Ind.; Geo. Eggert, Newton, Iowa; J. H. Etchison, Alexandria, Ind.; Finch Bros., Joliet, Ill.; Finch Bros., Fargo, N. D.; Frank P. Fox, Indianapolis, Ind.; C. G. Good, Ogden, Iowa; William Graff, Minier, Ill.; Houston, Ross & Houston, So. Charleston, Ohio; Chas. Irvine, Ankeny, Iowa; H. Lefebure & Sons, Fairfax, Iowa; Loeser Bros., Ligonier, Ind.; Maple Hill Farms, Sodus, N. Y.; S. Metz & Sons, Homewood, Ill.; Owosso Sugar Co., Alicia, Mich.; J. C. Ritchie, Stratford, Iowa; D. K. Roth, Gibson City, Ill.; Geo. Rupp, Lampman, Sask.; E. A. Silverthorn, Rossville, Ind.; Ervin J. Snider, New Paris, Ind.; Harry Stamp, Roachdale, Ind.; Melvin Tucker, Lucerne, Ind.; Karl L. Ulmer, Topeka, Ind.; E. W. Walker & Sons, Mazon, Ill.; Chas. A. Wentz, Kirby, Ohio; James A. White, Conroy, Iowa. Judges: Eli Sprunger, Saginaw, W. S., Mich.; Harry McNair, Chicago; W. H. Pew, Ames, Ia.

Aged stallion (17 shown), 1st Loeser Bros. on Daron, 2d Merriman on Dispogne, 3d Houston, Ross & Houston on Pluton de Kleyem, 4th Champlin Bros. on Paul de Roosbeke, 5th Crouch & Son on Imbattable de Don; 4 year old (3 shown), 1st Irvine on Irvinedale Rowdy, 2d Crouch & Son on Justification, 3d Finch Bros. on Rex.

Stallion 3 years and under 4 (15 shown), 1st Lefebure & Sons on Reavedore, 2d Crouch & Son on Hercules, 3d Vickery Farms on King, 4th Lefebure & Sons on Indigene, 5th Bell Bros. on Camille, 6th Crouch & Son on Romeo; 2 years and under 3 (25 shown), 1st Lefebure & Sons on Duke of Elmwood, 2d Crouch & Son on Renald d'Or, 3d Champlin Bros. on King de Roosebeke, 4th Rupp on Paramount Wolner, 5th Benbow on Martin de Eastern, 6th Vickery Farm on Ideal; 1 year and under 2 (12 shown), 1st Fox on John de Bois, 2d Lefebure & Sons on Clairon du Balcon, 3d Good on Ruban, 4th and 6th Lefebure & Sons on Fairfax Jean and Fairfax Major, 5th Finch Bros. on Bruno d'Cambron; foal (14 shown), 1st Irvine on Jupiter's Model, 2d and 3d Walker & Sons on Bruno Victor and Bruno Champion, 4th Day on George D.; 5th Metz & Son on Success.

Mare 5 years and over (12 shown), 1st and 5th Crouch & Son on Leontine and Christine Waere, 2d Irvine on Suzette, 3d Good on Margot, 4th Owasso Sugar Co. on Minute de Forchies, 6th Rupp on Duchesse; 4 years and under 5 (5 shown), 1st and 2d Crouch & Sons on Queen and Mattie, 3d and 4th Vickery Farms on Gypsy and Fairy, 5th Rupp on Armilli Queen; 3 years and under 4 (9 shown), 1st and 2d Irvine on Lista and Salome, 3d Owasso Sugar Co. on Flossie, 4th Crouch & Sons on Marquite; 2 years and under 3 (11 shown), 1st Irvine on Irvinedale Paulette, 2d Jones on Paramount Lola, 3d Lefebure & Sons on Nanette 2d, 4th Silverthorn on Aline, 5th Vickery Farms on Nellie, 6th Rupp on Prairie Maid; 1 year and under 2 (18 shown), 1st, 4th and 5th Good on Paramount Lula, Princess B. and Paramount Selma, 2d and 3d Ulmer on Lourdena and Lourette; foal (7 shown), 1st Ritchie on Hazel, 2d Blue on Eva, 3d Merriman on Blondina, 4th Silverthorn on Bonnie, 5th Rupp on Pioneer.

Stallion and 3 mares (2 shown), 1st Irvine, 2d Crouch & Son; 3 animals, get of one sire (7 shown), 1st Irvine, 2d Blue, 3d Silverthorn, 4th Good, 5th Ulmer; 3 mares, property of one exhibitor (7 shown), 1st Irvine, 2d Crouch & Son; 5 stallions, any age, property of exhibitor (3 shown), 1st Crouch & Son, 2d Loeser Bros., 3d Champlin Bros.; 2 animals, produce of one dam, American bred (5 shown), 1st Good, 2d Lefebure & Sons, 3d Crouch & Son, 4th Silverthorn, 5th Blue.

Senior and grand champion stallion, Irvine on Irvinedale Rowdy, reserve Lefebure on Reavedore; junior champion stallion, Lefebure on Duke of Elmwood, reserve Crouch on Renald d'Or; senior and grand champion mare, Irvine on Lista, reserve Irvine on Salome; junior champion mare, Good on Paramount Lulu.

Yearling futurity stallion, 1st Fox on John De Bois, 2d, 4th and 6th Lefebure & Sons on Clairon du Balcon, Fairfax Jean and Fairfax Major, 3d Good on Ruban, 5th and 10th Finch on Bruno de Cambron and Bruno Radiense, 7th Etchison on Bonaparte J. R., 8th Bell Bros. on Delos, 9th Tucker on Mack Houston.

Yearling futurity mare, 1st, 4th, 5th and 9th Good on Paramount Lulu, Princess B., Paramount Selma and Oakdale Girl, 2d and 3d Ulmer on Loudena and Lauretta, 6th Stamp on Julie, 7th Irvine on Jupiter's Lillie, 8th Silverthorn on Louisane 2d, 10th Blue on Pauline.

Shires.—Shires were entirely up to standard this year at the International. The representation was very good, although the number of entries in this breed are never very large at Chicago. Quality and uniformity were evident throughout the showing, and there was a higher percentage of high-class animals shown than is found as a rule where the classes are much larger. Three judges handled the work of tying the ribbons and compared with the usual committee judging, their work was unusually rapid. Among the outstanding animals, Boro Blue Sterer, of the Hawthorn Farm, pushed to the front as senior and grand champion stallion of the breed. He is a large, well-finished stallion and a very straight mover, which had considerable to do with his winning over the junior champion, Royal Edward Albert, a yearling from the McCray & Fowler stables. Eureka Pearl, an American-bred three-year-old mare owned by Hawthorn Farm, stood out in the female sweepstakes as senior and grand champion. Her long, deep body and good feet and legs were noteworthy points in her favor. Among the females as well as in the stallion classes a McCray & Fowler entry came in for junior championship, the award going to Royal Bonny, a finely-formed two year old of splendid Shire type and finish.

Exhibitors—Chas. Cappel, Logansport, Ind.; Fred Chandler, Chariton, Ia.; R. Connor Co., Marshfield, Wis.; Finch Bros., Fargo, N. D.; Finch Bros., Joliet, Ill.; Hawthorn Farm, Lake County, Ill.; F. A. Huddlestun, Webster City, Ia.; S. Metz & Sons, Homewood, Ill.; Meyer Bros., Wadsworth, Ill.; J. C. Moore, Rushville, Ill.; McCray & Fowler, Fithian, Ill.; A. G. Soderberg, Osco, Ill.; Union Stockyards & Transit Co., Chicago, Ill.; E. W. Walker & Sons, Mazon, Ill. Judges: William Bell, Wooster, Ohio; C. F. Curtiss, Ames, Iowa; Alex Galbraith, Edmonton, Alta.

Aged stallion (3 shown), 1st Hawthorne Farm on Boro Blue Sterer, 2d Connor Co. on Royal Patch, 3d Meyer Bros. on Duke of Wellington, 3 year old (3 shown), 1st and 3d McCray & Fowler on Cappel's Roan Boy and Major Defiance, 2d Chappel on Royal Ministrel; 2 year old (7 shown), 1st Finch Bros on Big Ben Duke, 2d [illegible] on Edgewood Major, 3d Moore on Wrydeland's Hero 2d; 4th Chandler on The Shunter, 5th Metz & Son on Farmer's Guide, 6th Connor Co. on Lumberman's Dray King; yearling (7 shown), 1st and 4th McCray & Fowler on Royal Edward Albert and Fearless Eldorado, 2d Hawthorn Farm on Hawthorn Blucherer, 3d Soderberg on Osco King, 5th Moore on Jack Johnson; foal American bred (4 shown), 1st and 4th Hawthorn Farm on Hawthorn Ambassidor and Hawthorn Matchless, 2d Cappel on Cappel's Jackson, 3d Connor & Co. on Bora Fuchsia.

Aged mare (4 shown), 1st, 3d and 5th Hawthorn Farm on Woodside Starlight, Normandy Sweet Briar and [illegible] Boyser 2d Soderberg on Wellington Sunbeam III; 4 year old (2 shown), 1st and 2d Hawthorn Farm on [illegible] Tulip and Hobb's Late Spark; 3 year old (9 shown), 1st and 4th Hawthorn Farm on Eureka Pearl and Hobb's Lots Daisy, 2d and 5th Connor Co. on Dray King's Fashion and Dray Queen Star, 3d McCray & Fowler on Pilot's Royal Pride; 2 year old (7 shown), 1st and 4th McCray & Fowler on Royal Bonny and Queen Delight, 2d, 3d and 5th Hawthorn Farm on Gothic Bells, Elder Moonlight and May Flower B., 6th Connor Co. on Queen of Fashion; yearling (6 shown), 1st, 3d and 5th Hawthorn Farm on Ceylon Court [illegible] and Surprise and Ceylon [illegible] Prince, 2d

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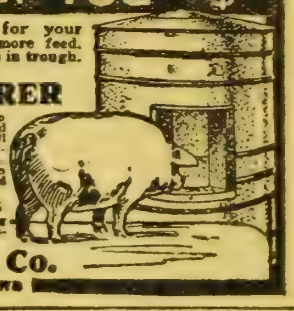

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Moore on Cappel's Narcissus, 4th Cappel on Cappel's Sunshine Lady, 6th McCray & Fowler on Basinghall Bonny; foal, American bred (4 shown), 1st Meyers Bros. on Lady White Sox, 2d Hawthorn Farm on Hawthorn Bloom, 3d McCray & Fowler on Royal Festive, 4th Cappel on Cappel's Topsy.

Stallion and 3 mares any age (5 shown), 1st and 3d Hawthorn Farm, 2d McCray & Fowler, 4th Connor Co., 5th Moore; 3 animals 4 years and under, get of 1 sire (9 shown), 1st McCray & Fowler, 2d Connor Co., 3d and 4th Hawthorn Farm, 5th Moore; 2 animals 4 years and under, produce of 1 dam (4 shown), 1st McCray & Fowler, 2d Connor Co., 3d and 4th Moore; best grade Shire mare or gelding any age (3 shown), 1st, 2d, and 3d Union Stockyards on Country Squire, Wellington and Kid; 5 best stallions any age, owned by one man or firm, McCray & Fowler.

Senior and grand champion stallion, Hawthorn Farm on Boro Blue Sterer; junior champion stallion, McCray & Fowler on Royal Edward Albert; senior and grand champion mare, Hawthorn on Eureka Pearl; junior champion mare, McCray & Fowler on Royal Bonny.

Best American-bred mare 2 years and under, McCray & Fowler on Royal Bonny; best American-bred mare any age, Hawthorn Farm on Eureka Pearl; American-bred yearling stallion, McCray & Fowler on Royal Edward Albert.

Futurities—Yearling stallion, 1st and 4th McCray & Fowler on Royal Edward Albert and Fearless Eldorado, 2d Hawthorn Farm on Hawthorn Bucherer, 3d Soderberg on Osco King, 5th and 9th Moore on Jack Johnson and Victor Blaze, 6th and 10th Cappel on Excelsior and Cappel's Topsman, 7th and 8th McCray & Fowler on Blythwood Mc and Blythwood E.; yearling mare, 1st, 3d and 5th Hawthorn Farm on Ceylon Court Pride, Diamond Surprise and Ceylon Court Primrose; 2d and 7th Moore on Cappel's Narcissus and Moore's Wild Rose, 4th Cappel on Cappel's Sunshine Lady, 6th McCray & Fowler on Basinghall Bonny.

Clydesdales.—The East fought against the Middle West in the Clydesdale contest of the International and the final outcome was practically a draw between the two sections. In numbers the show was about the same as it was last year, but the general quality probably not so good throughout all the classes. In the classes of fillies it was decidedly better; some of the young stuff shown could not be beaten anywhere, but the stallion classes fell down to some extent. R. B. Ogilvie, one of the superintendents of the show, declared that the classes of fillies were some of the best he had ever seen in his experience with the breed. As may be expected in a show of this kind, the champions were strikingly outstanding in both the stallion and mare divisions. No grand champion ribons were tied, since the classifications did not bring the junior and senior champions into competition. Among the outstanding champions deserving special mention were Diamond, a big, powerful four-year-old stallion, owned by Cluett, of Williamstown, Mass., who carried off the purple for senior champion stallion, and Madame Butterfly, a classy three-year-old mare, owned by Edellyn Farms, of Waukegan, Ill., which became senior champion mare.

Exhibitors—Bedminster Farms, Far Hills, N. J.; Blythewood Farm, Pittsfield, Mass.; Geo. A. Cluett, Williamstown, Mass.; Conyngham Bros., Wilkes-Barre, Pa.; Edellyn Farms, Waukegan, Ill.; Fairholme Farm, New Market, N. J.; Finch Bros., Fargo, N. D.; H. Harris Ford, Storm Lake, Ia.; J. W. Garrard, Delphia, Ind.; W. L. Houser, Mondovi, Wis.; Eben A. Jones, Bangor, Wis.; Kansas State Agricultural College, Manhattan, Kan.; James Kennedy, Utica, Ill.; C. W. Lindgren, Ida Grove, Ia.; Leach & Son, Lafayette, Ill.; McLay Bros., Janesville, Wis.; G. W. Merna, Wyoming, Ill.; S Metz & Son, Homewood, Ill; Ohio State University, Columbus, Ohio; Painter Bros., Middletown, Ind.; J. P. Peterson, Herman, Neb.; A. G. Soderberg, Osco, Ill.; South Bros., Orion, Ill.; L. C. Tice, Sully, Ia.; University of Minnesota, St. Paul, Minn.; University of Wisconsin, Madison, Wis.; Geo. P. Williams, Princeton, Ill.; Otha Wyrick, Kempton, Ind. Judges. Andrew McFarlane, Palo, Ia.; George Hutton, Madison, Wis.; Wm. Grant, Regina, Sask.

Aged stallion (6 shown), 1st Cluett on Diamond, 2d Leitch & Son on Milkado, 3d Merna on Samuda, 4th South Bros. on General Davidson, 5th Bedminster Farms on Baron of Bedminster, 6th Samuelson on Wilson; 3 years and under 4 (6 shown), 1st Bedminster Farms on Woodburn King of Bedminster, 2d Fairholme Farms on Golden Chief, 3d Ford on Prince Ulysses, 4th Blythewood Farms on Baron Blythewood, 5th Houser on Badger King, 6th Painter Bros. on Prince Reo; 2 years and under 3 (10 shown), 1st Edellyn Farms on Solid Silver, 2d Lindgren on King Albert 2d, 3d Jones on Trooper's Baron, 4th Conyngham Bros. on Scottish Knight, 5th Blythewood Farms on Blythewood Favorite, 6th Cluett on Heatherbloom; 1 year and under 2 (16 shown), 1st Ford on Proud Archer, 2d and 3d Bedminster Farms on King's Last of Bedminster and King's Best of Bedminster, 4th Leitch & Son on Baron Ashvale 2d, 5th McLay Bros. on King's Messenger, 6th Soderberg on Johnathan, 7th and 8th Conyngham Bros. on Lord Kitchener and Hillside Prince; foal (10 shown), 1st Soderberg on unnamed, 2d and 4th Houser on Peerless Fortune and Perfect Fortune, 3d McLay Bros. on Caruso, 5th Leitch & Son on Ashvale Premier, 6th Peterson on Highland Pride.

Mare 4 years and over (9 shown), 1st McLay Bros., on Bucklyvie Lady, 2d Cluett on Lady Lister, 3d University Farm on Minnesota Prince, 4th South Bros. on Beauty's Maid, 5th and 6th Painter Bros on Adora and Lady Evergreen; 3 years and under 4 (11 shown), 1st Edellyn Farms on Madame Butterfly, 2d Cluett on Osceola Queen, 3d Conyngham Bros. on Hayfield Evangeline, 4th Jones on Sweet Marie, 5th McLay Bros. on King's Baroness, 6th Peterson on Eastlawn's Flash 2d; 2 years and under 3 (5 shown), 1st Cluett on Osceola Duchess, 2d and 3d Edellyn Farms on Flora of Claremont and Ladies' Maid, 4th Conyngham Bros. on Hillside Nora, 5th Leitch & Son on Swift of Avondale; 1 year and under 2 (17 shown), 1st Edellyn Farms on Merlin Princess, 2d Tice on Bonita, 3d Cluett on Favorite Maid, 4th Blythewood Farm on Blythemaid 2d, 5th Conyngham Bros. on Hillside Pearl, 6th Soderberg on Winsome's Favorite; foal (8 shown), 1st Cluett on Portia, 2d and 5th Houser on Lady Footprint and Periwinkle, 3d McLay Bros. on Buckler's Gem, 4th Edellyn Farms on Edellyn Baroness, 6th Jones on Trooper's Beauty.

Stallion and 3 mares, American bred (7 shown), 1st Cluett, 2d Conyngham Bros.; 3d McLay Bros., 4th Houser, 5th Leitch & Son; 3 get of 1 sire, American bred (7 shown), 1st Cluett, 2d Bedminster Farms, 3d Conyngham Bros.; 4th Jones, 5th Soderberg; 2 produce of 1 dam, American bred (7 shown), 1st Cluett, 2d Bedminster Farms, 3d Jones, 4th McLay Bros., 5th Peterson.

Senior champion stallion, Cluett on Diamond, reserve, Leitch & Son on Milkado; junior champion stallion, Edellyn Farms on Solid Silver, reserve, Ford on Proud Archer; senior champion mare, Edellyn Farms on Madame Butterfly, reserve, McLay Bros. on Bucklyvie Lady; junior champion mare, Cluett on Osceola Duchess, reserve, Edellyn Farms on Merlin Princess; champion stallion bred in the United States, Ford on Proud Archer, reserve, Bedminster Farms on Woodburn King of Bedminster; champion mare bred in the United States, Cluett on Osceola Duchess, reserve, McLay Bros. on Bucklyvie Lady.

THE SWINE SHOW.

Chester Whites.—The larger part of the Chester White showing at the International was made up of two herds, one from Michigan and the other from Iowa, while three additional exhibitors made a few scattered entries. Taken as a whole, the show was not so strong as it should have been, although there were some outstanding individuals shown. Judge W. A. Hoover, of Iowa City, Iowa, did not have a very difficult task in the open classes, but it was a different proposition when he came to the championships. In the contest for senior champion boar the points were extremely close between the aged boar, Rival, owned by Adams Bros., Litchfield, Mass., and Investor, the senior yearling boar of Alden Anderson, of Story City, Iowa. The Anderson boar finally won out because of his greater smoothness and finish, although the aged boar had good quality combined with wonderful size and stretch. The senior champion later became grand champion. Anderson also won the junior champion trophy on his senior boar pig, Anxiety 3d. In the female sweepstakes, F. E. Bone, Ava, Ill., captured the senior and grand purples on his aged sow, Mina Dean, an animal of unusual width, scale and finish. In her hams and shoulders she was especially well developed. The junior champion of the Anderson herd gave her a close race for the grand championship, but in spite of her good promise for a pig she was not able to snatch away the trophy.

Exhibitors—Adams Bros., Litchfield, Mass.; Alden Anderson, Story City, Iowa; J. K. Milner, Thorntown, Ind.; F. E. Bone, Ava, Ill.; J. E. McCoy, Warsaw, Ind. Judge: J. W. Brendel, Zionville, Ind.

Boar 2 years or over, 1st Adams Bros. on Rival; 18 months and under 24 (2 shown), 1st Anderson on Investor, 2d Adams Bros. on Dolly Boy; 12 months and under 18 (2 shown), 1st Anderson on Chief's Big Bone, 2d Adams Bros. on Select Boy; 6 months and under 12 (3 shown), 1st Anderson on Anxiety 3d, 2d Adams Bros. on Winning Chief, 3d Milner on Silver Coin Jr.; under 6 months (5 shown), 1st Anderson on Chief's Booster, 2d Adams Bros. on A. J.'s Best, 3d Milner on unnamed, 4th Bone on Success, 5th McCoy on unnamed.

Sow 2 years or over (3 shown), 1st Bone on Mina Dean, 2d and 4th Anderson on Magdalene and Priceless, 3d Adams Bros. on Winning Girl 1st; 18 months and under 24 (3 shown), 1st and 2d Anderson on Miss Chief and Royal Gem, 3d Adams Bros. on Choice Girl; 12 months and under 18 (3 shown), 1st and 2d Anderson on Hawkeye Belle and Hawkeye Belle 2d, 3d Adams on Quality Girl; 6 months and under 12 (3 shown), 1st and 2d Anderson on Smooth Maid and Smooth Maid 2d, 3d Adams Bros. on Winning Lady; under 6 months (7 shown), 1st and 4th Anderson on Orange Best and Orange Best 2d, 2d and 5th Milner on Lady B. 2d and Lady B. 3d, 3d Bone on Mina.

Boar and 3 sows over 1 year (3 shown), 1st and 2d Anderson, 3d Adams Bros.; boar and 3 sows over 1 year bred by exhibitor (2 shown), 1st Anderson, 2d Adams Bros.; boar and 3 sows under 1 year (3 shown), 1st Anderson, 2d Milner, 3d Adams Bros.; boar and 3 shows under 1 year bred by exhibitor (3 shown), 1st Anderson, 2d Milner, 3d Adams Bros.; 4 pigs under 6 months, produce of same sow (4 shown), 1st Bone, 2d Milner, 3d Anderson, 4th Adams Bros; 4 swine, get of same boar, bred by exhibitor (5 shown), 1st and 4th Anderson, 2d Bone, 3d Milner, 5th Adams Bros.

Senior and grand champion boar, Anderson on Investor; junior champion boar, Anderson on Anxiety 3d; senior and grand champion sow, Bone on Mina Dean; junior champion sow, Anderson on Smooth Maid.

Duroc Jerseys.—Although the Duroc Jersey show at the International was not large, there was a noticeable improvement in the quality of the animals shown. For several years the red hogs have been advancing toward a larger bigger-boned type, with plenty of stretch. This type has been found to be the most profitable for pork production and it is gratifying to note the success with which breeders are realizing this type. Ira Jackson, of Tippecanoe City, Ohio, carried away the greatest number of ribbons just as he did last year. Several breeders expressed the opinion that his exhibit of Duroc sows could not be surpassed anywhere. His young boars also made a very strong showing. Orion Cherry King 17th, his senior boar pig, became junior champion boar and pushed the senior champion, Economy 2d, owned by Browning of Hersman, Ill., very hard for the grand championship. But the judge, W. T. Harris, of Morgantown, Ky., finally decided in favor of the senior boar. Jackson took all the female championships without much strong competition. In general the quality of the Duroc showing was greater than was expected.

Exhibitors—H. E. Browning, Hersman, Ill.; J. Young Caldwell, Williamsville, Ill.; A. F. Hughes, Sherman, Ill.; Ira Jackson, Tippecanoe City, Ohio; Henry W. Matern, Lostant, Ill.; Mayfield Farm, Lexington, Ky.; Pennsylvania State College, State College, Pa.; L. L. Shultz, Oxford, Ohio; W. E. Spicer, Bushnell, Ill. Judge: W. T. Harris Morgantown, Ky.

Aged boar (3 shown), 1st Browning on Economy 2d, 2d Matern on Financial King, 3d Schultz on Garnet Colonel's Defender; 18 months and under 24 (2 shown), 1st Jackson on Orion Cherry King 11th, 2d Mayfield Farm on Peerless Imperator Jr.; 12 months and under 18 (4 shown), 1st Caldwell on Aleniator, 2d Spicer on Orion Chief 16th, 3d and 4th Shultz on Brilliant Sensation and Brilliant Defender; 6 months and under 12 (4 shown), 1st Jackson on Orion Cherry King 17th, 2d Mayfield Farm on Imperator's Volunteer, 3d Hughes on Chief of Sangamo 2d, 4th Caldwell on Valley Prince; under 6 months (8 shown), 1st Hughes on Choice Colonel of Sangamo 2d, 2d Jackson, 3d and 4th Mayfield Farm on Imperator's Intruder, 5th Schultz on Pride of Defender 8th.

Aged sow (5 shown), 1st and 4th Mayfield Farm on Cherry King Irene and Mayfield Orion Lady A. 3d, 2d Jackson on King Lady 13th, 3d and 5th Caldwell on Highland Willetta 1st and Golden Glow 4th; 18 months and under 24 (3 shown), 1st Jackson on Orion Willetta 3d, 2d Mayfield Farm on Taxpayer's Gem, 3d Hughes on Top Beauty; 12 month and under 18 (6 shown), 1st Jackson on Joe's Orion Nellie 5th, 2d and 4th Mayfield Farm on Palo Fancy Finish and Mayfield's Imperator Orion, 3d Pennsylvania State College, 5th Caldwell on Ophelia; 6 months and under 12 (9 shown), 1st and 2d Jackson on Joe's Orion Lady 9th and Joe's Orion Lady 10th, 3d and 5th Mayfield Farm on Mayfield Luella and Pal's Wonder Belvie, 4th Hughes on Chief of Sangamo 4th; under 6 months (5 shown), 1st

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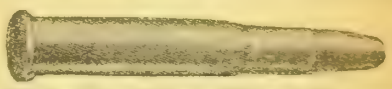

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and 2d Jackson on unnamed, 3d Shultz on unnamed, 4th and 5th Hughes on Chief of Sangamo 7th and Chief of Sangamo 8th.

Boar and 3 sows over 1 year (3 shown), 1st Jackson, 2d Mayfield Farm, 3d Caldwell; boar and 3 sows over 1 year, bred by exhibitor (2 shown), 1st Jackson, 2d Caldwell; boar and 3 sows under 1 year (5 shown), 1st Jackson, 2d Mayfield Farm, 3d Hughes, 4th Caldwell, 5th Shultz; boar and 3 sows under 1 year, bred by exhibitor (4 shown), 1st Jackson, 2d and 3d Hughes, 4th Shultz; 4 pigs under 6 months produce of 1 sow (2 shown), 1st Jackson, 2d Hughes; 4 pigs, get of 1 boar, bred by exhibitor (4 shown), 1st and 2d Jackson, 3d Hughes, 4th Shultz.

Senior and grand champion boar, Browning on Economy 2d; junior champion boar, Jackson on Orion Cherry King 17th; senior and grand champion sow, Jackson on Orion Willetta 3d; junior champion sow, Jackson on Joe's Orion Lady 9th.

Hampshires.—Outstanding quality was the most prominent feature of the Hampshire show at the International. In number the show was hardly up to normal, but the uniformity of the showing and the closeness of the contest made up for the deficiency in this respect. Two exhibitors with complete herds made up most of the showing and there were only two other breeders, each with but a few entries, who took part. Chas. Marker, Auburn, Ill., judge of the breed, completed his task with no great difficulty and his decisions met with popular approval. He selected the Wickfield boar, Captain Silko, a large, well-proportioned animal, for senior and grand champion boar, and Vena 2d, a senior yearling owned by Lewis, for senior and grand champion sow. The principal contestants divided honors equally in the championships, Wickfield Farm winning all the boar sweepstakes and Lewis all the female purple ribbons.

Exhibitors—John R. Lewis, Renssalaer, Ind.; Wickfield Farm, Cantril, Ia.; Col. John S. Cooper, Gilbert, Ill.; Simon Albricht, Tiskilwa, Ill. Judge: Chas. Marker, Auburn, Ill.

Boar 2 years or over (2 shown), 1st Wickfield Farm on Captain Silko, 2d Lewis on Pacific; 18 months and under 24 (1 shown), Lewis on Iowa Boy; 12 months and under 18 (2 shown), 1st and 2d Lewis on Boulder's Duke and Renssalaer Duke; 6 months and under 12 (4 shown), 1st and 3d Wickfield Farm on Defender 2d and Lookout Reminder, 2d Lewis on General's Best 1st, 4th Cooper on Cooper's Andy; under 6 months (3 shown), 1st and 2d Wickfield Farm on unnamed, 3d Albricht on Model Prince.

Sow 2 years or over (4 shown), 1st and 3d Lewis on King's Sister and Belvie, 2d Wickfield Farm on Polly Lookout, 4th Cooper on Community's Raechel Girl 1st; 18 months and under 24 (3 shown), 1st and 3d Lewis on Vena 2d and Lady Malloy, 2d Wickfield Farm on Lookout Girl; 12 months and under 18 (3 shown), 1st and 3d Lewis on Miss Duty and Belva D., 2d Wickfield Farm on Cherokee Pearl; 6 months and under 12 (5 shown), 1st and 2d Wickfield Farm on Birdie Lookout and Nellie Lookout, 3d and 5th Lewis on Elvira and unnamed, 4th Cooper on Cooper's Bessie; under 6 months (5 shown), 1st Lewis on Prattsville Maid, 2d and 4th Albricht on Kitty's Fancy and Lily 2d, 3d and 5th Wickfield Farm on unnamed.

Boar and 3 sows over 1 year (3 shown), 1st and 3d Lewis, 2d Wickfield Farm; boar and 3 sows over 1 year, bred by exhibitor (1 shown), Lewis; boar and 3 sows under 1 year (4 shown), 1st and 4th Wickfield Farm, 2d Lewis, 3d Albricht; boar and 3 sows under 1 year, bred by exhibitor (2 shown), 1st and 2d Wickfield Farm; four pigs under 6 months, produce of one sow (1 shown), Wickfield Farm; four pigs get of one boar, bred by exhibitor (2 shown), 1st Lewis, 2d Wickfield Farm.

Senior and grand champion boar, Wickfield Farm on Captain Silko; junior champion boar, Wickfield Farm on Defender 2d; senior and grand champion sow, Lewis on Vena 2d; junior champion sow, Lewis on Prattsville Maid.

Berkshires.—Special interest centered around the Berkshire at the International this year. Possibly the fact that the grand champion barrow of all breeds and also the grand champion pen of three barrows of all breeds were Berkshires aroused this interest. At any rate it was evident both in the judging of breeding and fat stock. Competition in all classes was unusually keen, considering the small number of exhibitors, and no one breeder was able to get very far ahead of his competitors in number of winnings. Eighty-two breeding animals were in the show and there were very few tailenders in the lot. Double's Majestic, from the Overlook Orchards, attracted considerable attention in his class because of his great stretch and splendid width and strength in the back. He finally came through the show with both the senior and grand champion boar purples. Another boar of interest was Rosicrucian Duke 67th, a senior pig owned by W. E. Spicer, of Bushnell, Ill. Although he lacked the finish of the senior boar, nevertheless he was a splendid animal, showing lots of promise. A big, stretchy sow, Successor's Lady 14th, of the Overlook Orchards, won the senior and grand championships in the female classes with little difficulty, although the junior champion, Rookwood Lady 133d, of the Hamilton Farms, was an unusually fine pig, lacking only the maturity of the senior champion.

Exhibitors—Blythewood Farm, Pittsfield, Mass.; Nelle Fabyan, Geneva, Ill.; Hamilton Farm, Gladstone, N. J.; Hood Farm, Lowell, Mass.; Jenkins Bros., Orleans, Ind.; Mooseheart, Mooseheart, Ill.; Overlook Orchards, Littleton, Mass.; W. E. Spicer, Bushnell, Ill.; Sutton Farm, Lawrence, Kan.; University of Ill., Urbana, Ill. Judges: L. E. Ortig, Bernardsville, N. J., and E. J. Barker, Thorntown, Ind.

Boar 2 years or over (2 shown), 1st Fabyan on King James, 2d University of Illinois on no name; 18 months and under 24 (3 shown), 1st Mooseheart on Mooseheart Rival's Masterpiece, 2d and 3d Fabyan on Riverbank Cyrano and Kingston of Riverbank; 12 months and under 18 (6 shown), 1st Overlook Orchards on Double's Majestic, 2d Hamilton's Superbe Fearnaught, 3d Fabyan on Kingdom of Riverbank, 4th Sutton Farm on Lee's Robinhood 2d, 5th Mooseheart on Double's Climax; 6 months and under 12 (3 shown), 1st Spicer on Romford Duke 67th, 2d Hamilton Farm on Hamilton's Leader, 3d Mooseheart on Rival's premier; under 6 months (5 shown), 1st Hamilton Farms on Hamilton Champion, 2d and 4th Jenkins Bros. on Superb's Assured and Superb's Invincible, 3d Sutton Farm on Robinhood's Successor, 5th Fabyan on no name.

Sow 2 years or over (5 shown), 1st and 3d Overlook Orchards on Successor's Lady 4th and Successor's Duchess 12th, 2d Fabyan on no name, 4th Mooseheart on Mooseheart's Rival Lassie, 5th Hamilton Farm on Matchless Belle 20th; 18 months and under 24 (4 shown), 1st Overlook Orchards on Successor's Lady 14th, 2d and 3d Hamilton Farm on Duchess 481 and Handsome Jewell, 4th Fabyan on King's Marchioness; 24 months and under 18 (7 shown), 1st Overlook Orchards on Longfellow's Double's Daughter, 2d and 3d Hamilton Farm on Champion's Empress 5th and Superb's Duchess 14th, 4th Fabyan on Queen of Riverbank, 5th Mooseheart on Mooseheart Premier Duchess; 6 months and under 12 (12 shown), 1st Jenkins Bros. on Superb Premier's Duchess, 2d Spicer on Romford 156th, 3d Overlook Orchards on Longfellow's Double's Bernice, 4th and 5th Blythewood Farm on no name; under 6 months (6 shown), 1st Hamilton Farm on Rookwood Lady 133d, 2d and 4th Sutton Farm on Lady Peaceful Robinhood and Robinhood's Peaceful Lee, 3d Mooseheart on Mooseheart's Rival's Duchess 5th, 5th Fabyan on Bicountess A of Riverbank.

Boar and 3 sows over 1 year (5 shown), 1st Overlook Orchards, 2d and 4th Mooseheart, 3d Fabyan, 5th Sutton Farm; boar and 3 sows over 1 year bred by exhibitor (4 shown), 1st and 2d Fabyan, 3d Mooseheart, 4th Sutton Farm; boar and 3 sows over 1 year (5 shown), 1st Spicer, 2d Overlook Orcards, 3d Fabyan, 4th Sutton Farm, 5th Mooseheart; boar and 3 sows under 1 year (5 shown), 1st Spicer, 2d and 5th Fabyan, 3d Sutton Farm, 4th Mooseheart; 4 swine get of same boar, bred by exhibitor (5 shown), 1st Hood Farm, 2d Spicer, 3d and 4th Fabyan, 5th Sutton Farm.

Senior and grand champion boar, Overlook Orchards on Double's Majestic; junior champion boar, Spicer on Romford Duke 67th; senior and grand champion sow, Overlook Orchards on Successor's Lady 14th; junior champion sow, Hamilton on Rookwood Lady 33d.

Poland Chinas.—G. L. Burgess & Son, Bement, Ill., exhibited the only herd of Poland Chinas at the International this year. The animals were well fitted for the show and possessed splendid breeding, consequently, Burgess & Son took the blue ribbon in every class in which they were able to make an entry.

FAT SWINE.

Fat swine at the International this year made a better showing both in numbers and quality than they did in 1916. The classes in the various breeds were larger and most of the animals were well finished in spite of the high price of feeds. Berkshires led in the number of entries and also succeeded in winning the highest trophies—those of grand champion barrow and grand champion pen of barrows of any age or breed. Hood Farm, Lowell, Mass., carried off both these prizes. In both cases the decisions met with popular approval, since the Hood Farm without doubt had a wonderful lot of superbly finished barrows. The reserve grand champion barrow was a Hampshire owned by Robert Runkle, of Littleton, Ill. It was a close second to the winner, but lacked the winner's great size and fitting. The trophy for reserve grand champion pen of barrows of any breed was awarded to Ohio State University on their pen of Durocs.

Exhibitors—Hood Farm, Lowell, Mass.; Iowa State College, Ames, Iowa; University of Illinois, Urbana, Ill.; University of Missouri, Columbia, Mo.; Iowana Farm, Davenport, Iowa; Ohio State University, Columbus, Ohio; U. S. Corsa, Whitehall, Ill.; Pennsylvania State College, State College, Pa.; Purdue University, Lafayette, Ind.; Sutton Farm, Lawrence, Kan.; G. L. Burgess, Bement, Ill.; University of Nebraska, Lincoln, Neb.; University of Minnesota, St. Paul, Minn.; Kansas State Agricultural College, Manhattan, Kan.; Ira Jackson, Tippecanoe City, Ohio; F. E. Bone, Ava, Ill.; Leonard Heisel & Son, Cedar Rapids, Ia.; J. K. Milner, Thorntown, Ind.; Bert Meyers, Rochester, Ind.; Robert C. Runkle, Littleton, Ill.; Wickfield Farms, Cantril, Ia.; Simon Albricht, Tiskilwa, Ill.; Raemelton Farm, Mansfield, Ohio.; Otto Schonboe, Harlan, Ia.

Judges—Berkshires: E. J. Barker, Thorntown, Ind.; Poland Chinas: J. M. Camp, Kenney, Ill.; Duroc Jerseys: W. T. Harris, Morganfield, Ky.; Hampshires and Chester Whites: Harry Booth, Union Stockyards, Chicago, Ill.; Yorkshires: D. A. Gaumnitz, South St. Paul, Minn.; Tamworths: T. G. Scheer, Bethany, Ill.; grade and cross breds and champions: W. L. Carlyle, Stillwater, Okla.

Fat Berkshires.—Barrow 18 months and under 24 (12 shown), 1st and 4th Hood Farm, 2d and 5th Iowa State College, 3d and 8th University of Missouri, 6th and 7th Iowana Farms; 12 months and under 18 (4 shown), 1st and 2d Iowana Farms, 3d and 4th University of Illinois; 6 months and under 12 (6 shown), 1st and 5th Hood Farm, 2d and 3d Corsa, 4th and 6th Iowana Farms; under 6 months (11 shown), 1st and 4th Purdue University, 2d and 3d Iowa State College, 5th Pennsylvania State College, 6th and 7th Hood Farm, 8th University of Illinois.

Pen of 3 barrows 18 months and under 24 (6 shown), 1st Hood Farm, 2d Iowa State College, 3d Iowana Farms, 4th University of Missouri, 5th Ohio State University, 6th University of Illinois; 12 months and under 18 (3 shown), 1st Iowana Farms, 2d and 3d University of Illinois; 6 months and under 12 (4 shown), 1st Corsa, 2d Hood Farm, 3d and 4th Iowana Farms; under 6 months (5 shown), 1st Purdue University, 2d Iowa State College, 3d Hood Farm, 4th Pennsylvania State College, 5th Sutton Farm; 5 barrows any age get of one sire (4 shown), 1st Iowa State College, 2d Sutton Farm, 3d and 4th University of Illinois.

Champion barrow, Hood Farm on barrow 18 months and under 24; champion pen of barrows, Hood Farm on pen of barrows 18 months and under 24.

Fat Poland Chinas.—Barrow 18 months and under 24 (3 shown), 1st and 2d University of Illinois, 3d University of Nebraska; 12 months and under 18 (4 shown), 1st and 2d University of Missouri, 3d Pennsylvania State College, 4th Burgess; 6 months and under 21 (9 shown), 1st and 2d Iowa State College, 3d and 5th University of Missouri, 4th University of Illinois, 6th University of Minnesota, 7th and 8th University of Nebraska; under 6 months (7 shown), 1st and 2d Iowa State College, 3d and 6th University of Missouri, 4th and 7th University of Illinois, 5th University of Minnesota.

Pen of 3 barrows 12 months and under 18 (1 shown), University of Missouri; 6 months and under 12 (8 shown), 1st Iowa State College, 2d University of Missouri, 3d University of Nebraska; under 6 months (2 shown), 1st Iowa State College, 2d University of Missouri; pen of 5 barrows, any age, get of one sire (2 shown), 1st Iowa State College, 2d University of Missouri.

Champion barrow, University of Illinois on barrow 18 months and under 24; champion pen of barrows, Iowa State College on pen of barrows 6 months and under 12.

Fat Duroc Jerseys.—Barrow under 6 months (11 shown), 1st Purdue University, 2d and 3d University of Missouri, 4th Iowa State College, 5th University of Minnesota; 6 months and under 12 (9 shown), 1st and 3d Ira Jackson, 2d Kansas State Agricultural College; 12 months and under 18 (6 shown), 1st and 2d Ohio State University, 3d Iowa State College.

Pen of 3 barrows under 6 months (5 shown), 1st University of Missouri, 2d Pennsylvania State College, 3d Kansas State Agricultural College, 4th Ohio State University, 5th Jackson; 6 months and under 12 (3 shown), 1st Jackson, 2d Kansas State Agricultural College, 3d University of Missouri; 12 months and under 18 (2 shown), 1st Ohio State University, 2d University of Missouri.

Champion barrow, Ohio State University on barrow 12 months and under 18; champion pen of barrows, Ohio State University on pen of barrows 12 months and under 18.

Fat Chester Whites.—Barrow 18 months and under 24 (4 shown), 1st and 2d University of Illinois, 3d and 4th Iowa State College; 6 months and under 12 (5 shown), 1st and 2d Meyers,

(Continued on page 25.)

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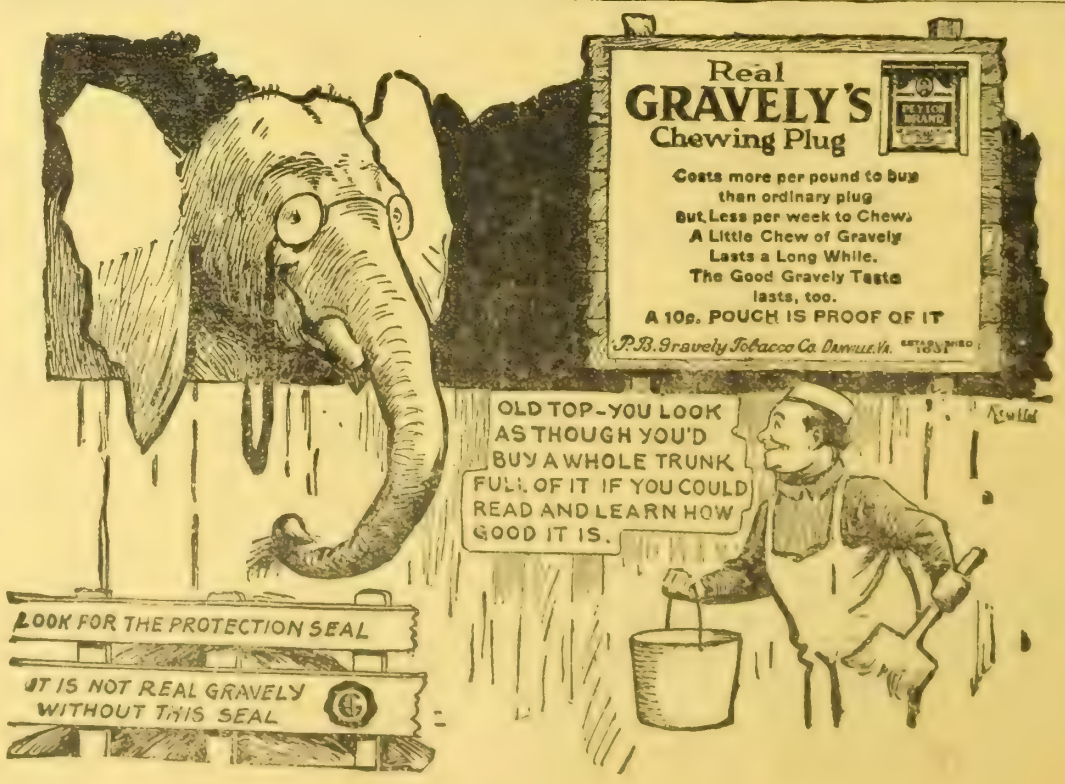


High Cow for October.

In this department this week The Wisconsin Farmer published a reproduction of a picture of a high cow in Wisconsin cow-testing associations for October. This cow is owned by E. G. Race, Winnebago county, Wisconsin, and her name is Gertrude Wayne Colantha Fayne. She is a pure-bred Holstein cow, six years old, and produced 86.7 pounds butter fat during October. A good look at the accompanying illustration will convince almost any dairyman that there is little chance for doubt about this record. It is evident that Gertrude Wayne Colantha Fayne will be able to qualify for yearly record in the registry association. A large per cent of cows in the testing associations of the state are grades, but breeders of pure-bred animals are also interested in cow-testing work. It is estimated that about 13 per cent of the 42,000 cows now on test in these associations are pure breds.

Gertrude Wayne Colantha Fayne.

Pure-bred Holstein, high cow Wisconsin Testing Associations for October—Owned by E. G. Race, Winnebago county.

Dairying Clubs and Better Dairying.

Boys' and girls' dairy clubs are becoming prominent among the projects advocated by our states and by the nation. Correlating the work of the school and the home is revolutionizing the school and is having a very helpful effect upon the home and farm. The dull boy has found a line of interest and often has become fascinated with his club work. The despised grammar has, to him, become an inviting proposition of writing up the story of his calf or his crop and he has become willing to go to any extent in studying out means and methods of writing his composition in correct language.

Dairy clubs for boys and girls and home project work on dairy subjects offer a very interesting line and one upon which the results are very definite and upon which useful conclusions may be drawn. They bring into play all the problems of selection, feeding and shelter. No doubt this line of work was started when each pupil was permitted to bring to school a sample of milk from a favorite cow and to have it tested or to test it for its percentage of butter fat. There may not be very much in a single test of a cow's milk on account of the fact that variations arise from so many different causes. Be that as it may, it has opened up a world of interest worthy of the endeavor of any boy or girl. Naturally questions arose as to the advisability of weighing the milk and testing it regularly. This would give a correct record. Once this record-keeping was started there arose a desire to induce each cow to do her best and this led to liberal feeding. Then, as it was necessary to produce the milk at the cheapest rate possible, it was natural that a careful study be made of the cost of the different feeds available.

Local contests in keeping records have led to family and community interest. Naturally each family desires to see its representative win. Just as surely they were interested in determining the reasons for success or failure. The widely varying results secured by different contestants opened the eyes of many to the fact that cows vary greatly in their ability to return a profit. The interest aroused in this manner has induced many an owner of a dairy herd to start a yearly test on all animals. Cow-testing associations have grown from a nucleus of a a few boys and girls doing testing through the schools. In one instance a dairy extension man made an effort, and a very creditable one, to start a cow-testing association in a certain county. It was found to be a task almost impossible, because not one cow in the country had ever been on test and because not one man in the country had ever had experience in testing his herd. Only about 200 cows were promised when the proposition was turned over to a man employed to teach agriculture and nature study in the schools. Wisely he made it a school project and before a year had passed the people of the country were enthusiastic over testing and since that time practically every cow in the country has been on test.

The worth-while dairy cow contest must run through a year, as it is only a full year's record that can show the real merits or lack of value of the cow. The full-year record will show that the three-months or the one-month or the seven-day contests are not the ones to show the cow's real value in the herd, as it frequently happens that the one that may produce a very good record for a short time is not persistent and may lose on a long test.

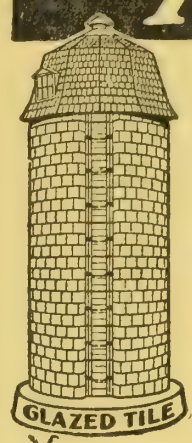
Contests in calf feeding and in growing young heifers through one milking period are worthy of consideration. This requires at least three years of careful work and necessitates almost absolutely that it be done under a system that furnishes some sort of supervision throughout the year. Whatever the nature of any contest it serves a useful purpose if it interests the pupils in dairy or farm work. If it does that it will have a helpful influence upon the cause of better dairying and will help greatly to solve the problem of keeping the boys and girls on the farm.

Jessie Fobes 2d Maude Homestead.

A thirty-one-pound daughter of Homestead Jr. De Kol—This cow owned by S. E. Jones, Watertown, Wis.

Very naturally most of the dairy contest work has been started and conducted by the use of cash prizes. There is merit in this and at the same time there is a lack of permanence attached to it. The plan so rapidly com-

Put Your Faith In A Kalamazoo



A silo is a *permanent* investment, therefore purchasing a silo is not a question of paying a few dollars more or a few dollars less, but of getting a silo that is *right*—in design, in material, in construction.

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Last year alone upwards of *six-thousand* new purchasers of silos unanimously decided in favor of the Kalamazoo. And those who bought twenty or more years ago still swear by the Kalamazoo because time and experience have proven conclusively that Kalamazoo silos are *right*, from every standpoint. There's a big dollar's worth of *value* in every dollar of the cost whether you buy a glazed tile or a wood stave Kalamazoo.

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GLAZED TILE SILOS—"Permanent as the Pyramids"—fire-proof, frost-proof, storm-proof, moisture-proof, acid-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost. Easy to build—and once built your silo problem is solved *forever*.

WOOD STAVE SILOS—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete ready to set up. Quickly and easily erected by inexperienced home labor. All Kalamazoo Silos, whether wood or tile, have the famous Kalamazoo Galvanized Steel Door Frames and continuous doors which are universally recognized as the best ever designed.

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Cuts corn 100% finer, puts 30% more in silo.

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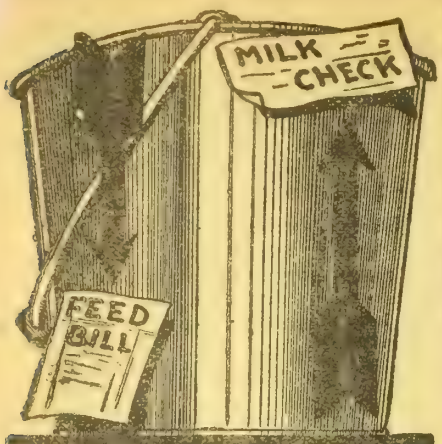

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Every cow in your herd is a milk-making machine—the quantity of milk depending upon her being properly and abundantly fed. The more

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UNIVERSITY OF SOUTHERN MINNESOTA, Dept. F. T. Austin, Minn.

Kindly mention this paper when writing.

ing into practice of correlating it with school studies and making the home work a part basis for school credit no doubt has the greater merit. One of our great states has adopted a system of township vocational teaching whereby the agricultural or vocational teacher is employed for twelve months and devotes all his time during the summer to supervising the home project work, dividing his time during the balance of the year between the school and the home. Other plans are in vogue of furnishing a teacher qualified to do supervisory work in club work all of which are good. The main thing is to supply a teacher that can furnish information and help.

The movement for dairy clubs of some useful type is growing rapidly. This movement has the support of dairymen, teachers, parents, bankers and business men and the record associations. The keenest of interest is manifested everywhere and we may well expect greater things in the future.

Passing of the Farm Churn.

Cream separators and power machinery for creameries are robbing the farm woman of one of her historic, if not poetic, tasks—that of buttermaking. Most of us who grew up on farms will recall the one morning or two or three mornings per week when the churn was brought up from the cellar and when the cream was warmed near the kitchen range and then one or two hours of steady turning or splashing, depending upon the type of churn. The butter was lifted out with wooden paddles and put into a circular bowl, where it was worked, drained and salted. Following that the surplus was put into proper form for marketing. In the winter that usually consisted of working it out in circular molds of one pound each. The surplus was taken to the grocery to be traded out in groceries or perhaps peddled out to a few regular customers, who took a stated amount each week and who paid cash for same. To be the best buttermaker in the neighborhood is no longer prominent among the ambitions of country housewives.

More and more has it become the custom to sell cream off the farm instead of making it into butter. This is just as logical as selling wheat instead of grinding it into flour. Just as the immense grist mills can handle large quantities of wheat more easily and more economically than it could possibly be handled on each farm so can the creameries throughout the country handle the cream from our milk cows more easily and more economically than it could be done on the farms. Whether or not there shall be made on the farm butter for home use is a question that frequently occurs. Rapidly is it ceasing to be the custom to churn even enough for home use. Where cream gathering wagons make their daily or tri-weekly trips it is a simple matter for them to carry butter enough to supply the requirements of each person. When the farm auto or wagon delivers direct to the creamery it certainly is no hardship to bring back the needed quantity of butter.

So great has the practice of disposing of all milk and cream become that in districts where milk is sold to condenseries there have frequently occurred butter famines when upon Saturday evening not a single pound of butter would be available. This was a case of carrying the matter to an extreme. It is doubtless absurd for a specialized dairy community to be without butter for Sunday. Ordinarily, however, this is not apt to occur and the family that sends all of its milk or cream to market will be able to secure all the good butter that may be desired.

The change from selling butter to the grocery has relieved the housewife of the embarrassing necessity of trading out the price of the butter at that particular store. Under present conditions cash is received at the creamery or at the shipping station, which enables the money to be spent at will just as is the money from the sale of wheat or corn or hogs. The grocer, too, feels a very great relief. Formerly it was his duty to take all butter that came to his store. All grades of butter, ranking from very good to very poor, were brought to his counter. It was necessary that he accept all or else some patron would be offended and he might lose trade thereby. For the same reason it was necessary for him to pay one established price to each, else some jealous housewife might be offended. Some butter was so bad that it could not be resold. It was necessary to dispose of this in some other manner, usually at a loss. Now the grocer has little or no country butter to bother him. He sells

SUCRENE Dairy Feed

Cows fed on Sucrene give 25% more milk in three weeks' feeding—at a substantial saving in feed cost.

Our experts have demonstrated this fact many times with Sucrene Dairy Feed on our own experimental farms, and their experience is duplicated by thousands of dairymen and farmers.

SUCRENE DAIRY FEED, Hay and Water Is All Your Cow Needs

to make more milk. Sucrene Dairy Feed is a complete, scientifically correct milk-making ration, supplying necessary protein, carbohydrates, fats and mineral matter to meet the daily needs of the cow for milk production and for maintaining the body in vigorous health all the year 'round.

SUCRENE DAIRY FEED is composed of cottonseed meal, corn gluten feed, ground and bolted grain screenings, corn distillers' dried grains and solubles, clipped oat by-product, molasses, palm kernel meal, calcium carbonate and a little salt. Guaranteed analysis: 16½% protein, 3½% fat, 46% carbohydrates, 14% fibre.

Variety—Palatability—Easy Digestibility—Economy

are four important requisites which give Sucrene Dairy Feed its high place in the dairy world—16 years the recognized standard of milk feed quality.

Save your high priced grain. Order a ton of Sucrene Dairy Feed from your dealer. Accept no substitute. A week's feeding will show satisfactory results in the milk pail. Write us your dealer's name, if he does not handle Sucrene, and we will see that you are supplied.

Fill out and mail us the coupon, for valuable books on care and feeding of farm animals. Check the feeds in which you are interested.

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Where Disease Shows First

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For twenty-five years thousands of the most progressive dairymen have used Kow-Kure as their "first aid" when a cow shows signs of "falling off" or coming down with disease. Particularly before and after the calving period, the use of Kow-Kure is valuable. It is a sure preventive of Milk Fever and Retained Afterbirth, and will enable the organs to resist the diseases which frequently originate at this time.

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A small investment will prove the worth of Kow-Kure in your dairy. Put it to a severe test; try it on your poorest milker and watch results. Druggists and feed dealers sell it; 55c and $1.10 packages.

DAIRY ASSOCIATION CO.,
Lyndonville, Vt.

Free Treatise, "The Home Cow Doctor" Sent to Dairymen on Application

creamery butter of a uniform grade to his patrons and this is satisfactory to them. The housewife comes with cash and purchases his goods to the same extent as under the old barter system.

The passing of the farm churn has been a distinct relief to the housewife and leaves her with more time for the numerous and complex duties of her home. It enables the public to be supplied with a more uniform and possibly a better supply of butter. In every respect the change is to be commended.

Getting Experience in Dairying.

Experience counts for much in the dairy business. The old adage that "Experience is an expensive teacher," is not true if we apply it to the getting and making use of the experience of successful dairymen. The successful experience of men long in the business is genuine useful wisdom. By observation we are able to divide men into two classes, the successful and the unsuccessful. The experience of each is useful. We are not to be imitators. Rather than that we are to think and to consider the experience of each man in the light of its bearing upon our particular case. We shall thus be able to avoid the blunders and pitfalls of the one class and shall follow and shall profit by the success of the other.

Present-day knowledge is largely an accumulation of experience. In some past year a man fed silage in a rather crude manner. Silage proved good and more of it was fed. Types of silos were tried and combinations of silage with other feeds tested until today the silo is adopted widespread as one of the biggest factors in successful dairy feeding. Were a man to close his eyes and his ears to all the experience and knowledge that has accumulated it would be the same as going back to beginning and attempting to learn through mere rough experience what is available public information merely for the asking. Using the silos as an example one can readily see the absurdity of this.

Young men believe in experience. They are proceeding to get it from the best dairymen in the land. Every year there are large numbers of young men at work on dairy farms who contemplate starting into business for themselves. They desire to learn the best practices of those who lead in the game. These young men make very capable hands while at work and it usually is with the greatest reluctance that their employer consents to their release when their term of employment is ended. Experience gained in this way is not expensive. The employer has the benefit of a trustworthy, thoughtful man. The one seeking experience has the benefit of good wages in addition to his experience. Thus if he has sacrificed anything it is merely the difference in his earning power between what he might have earned and what he actually received as a farm hand. Formerly it was required that any man contemplating a career in any certain line was compelled to serve an apprenticeship extending for several years. Often the most capable men of their times secured the groundwork of their success through these years. Getting hard, practical experience as it is done by working for a successful man gives all the benefits of the old-time apprenticeship without the undesirable conditions being attached.

On the show circuit as no other place is the experience intense and valuable. Men who have been turned down have profited by their experience. Others have grumbled and have claimed unfair judging and have refused to progress. The ranks of successful exhibitors are being filled with recruits from the cheerful and thoughtful losers. At winter meetings, at institutes, at picnics and at sales dairymen constantly have opportunity to gain the experience of other men. Progressive men are taking advantage of those opportunities. Experience is valuable and it is most economical when it is the experience of some successful man and applied to our own work. Getting experience has a variety of names. We hear some men speak of it as "swapping ideas." Another says that he likes to "rub shoulders" with dairymen who are making good. Whatever it may be called, the experience of other men may be made to play a very useful part in the success of any dairyman.

The Right Start With Dairy Cows.

In a certain locality are two farmers whose earlier training and experience have been very similar. Both were farm reared. Both made a business of raising farm stock of a very ordinary class. Both had learned to appreciate the little cream checks that came to them when a creamery had been started in a town near by. Both had heard of dairy cattle, but neither really knew anything of them. Each developed a desire to buy cows of a dairy breed which was made possible by a dealer shipping in a supply of cows advertised as dairy stock. The two men made their selections, one of them taking four and the other only one.

The man who purchased four was very sorely disappointed. The supposedly dairy cows gave much less milk than the farm cows he had been milking. The other man, perhaps by accident, secured a really good producer. She was so good that probably twice as much butter fat was sold from her as from any other cow in the locality.

The result after three years is that the man who secured the inferior cows is disgusted. He declares his intention of adhering to his old line of farm cows. The other is enthusiastic. He says that he has proven that there is money in dairying. He will buy more cows and make milking an established line of work on his farm.

It was a mistake for those men to purchase blindly as they did. The second might have been as sorely disappointed as the first. Any man who contemplates starting in dairying should avail himself of all possible sources of help in buying. Always there is some man available who will assist in purchasing. It is much better to wait until selection can be made right than to rush into the game and later be sorry for having done so.

There are well-defined principles that must not be violated. The fact that there are good cows and inferior cows in all breeds is a factor that must be given its full share of consideration. This has an application from the case above. The cows had been shipped in by a dealer who did not know dairy cows, but who had a desire to make money. He had gone to a dairy or semi-dairy section of the country to buy. Very naturally the dairymen of that locality had a number of cull animals they were very anxious to sell. This, combined with the fact that the dealer wanted to buy cheaply, and the other fact as mentioned that he did not know dairy cows, caused him to buy up a lot of very inferior animals. He knew nothing of records. He asked nothing of records. A moment's consideration would have shown that his purchase was doomed to disappointment.

Dairy cows to be profitable producers must have the type of dairy cows. They must have udders of the right shape, large and with good quality. A man must be a competent judge of dairy cattle if he is to buy with any hope of securing animals that will be satisfactory. It is not enough to purchase a cow of the correct type, for there is variation in production with cows of apparent equal merit in conformation. It is the yearly test that qualifies a cow as a desirable animal or not. More than that it is well for the dam to have made a good record and for the sire to be from a high-producing strain. The man mentioned above might well have spent the money the four cows cost him for one good cow. The income from her would have been nearly as much. The cost of feed would have been but little more than one-fourth as much, yet the profits would have been a great deal more on account of the saving of feed.

"It pays to start with good stock" is an axiom with many men of successful experience. Sometimes men are tempted to start with cheaper stock and breed up to a better quality. It is entirely possible to do this, yet it is probable that the lesser income during the years the grading up is in progress makes it the least profitable in the long run. The man who starts with good stock has years the advantage and in many cases will maintain that lead and will be more prosperous while doing it.

Farm Larger Acreage With Tractor.

To the Editor:—I will try and tell you a little of my experience with the tractor in the last three years. I do not find that it will displace any great number of horses the way we farm in this part of the country, but it will increase the acreage.

I have not used my tractor any this year, as I sent the engine to the factory for repairs and the railroad was three months shipping it to the factory and back.

I find the tractor, like all machines, some days will work all day without a mishap and the next day it will be one thing here and another there. Compare it with a corn binder—how fine they work some days and the next day they will give you a hatful of trouble. The horses do not have any show with a tractor in hot weather or any other time. L. W. Weis.

The silo is an absolute necessity any year, but it is especially important when feed is high and when there is any sort of scarcity.

Jolie Topsie De Kol, H. F. 149723
Age 5-11-12 (City of Cleveland, Owner)
Semi-Official Year Test
29221.5 lbs., Milk 3.52% 1032.37 lbs. Fat

Year tests that Count

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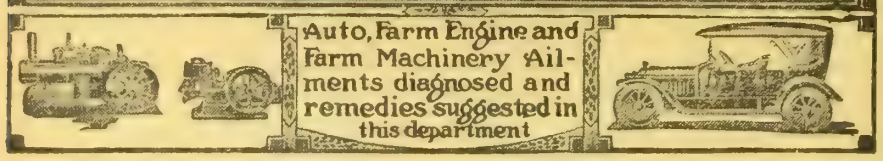

Questions and Answers.

Ford Fans.

Could a two-bladed fan be used on a Ford car by chiseling off the other two blades? Would this be too great a strain on the fan shaft? Please tell me whether it is advisable or not.

Answer.—We do not think this advisable. Should you wish to remove two of the blades, saw them off with a hack saw or drill out the rivets. It might be possible to remove the blades with a cold chisel if considerable care is taken not to spring the fan hub.

Making Engine Pull Itself.

I am thinking of making a one and one-half horse-power engine pull itself. The engine runs 500 R. P. M. I have all the gears except the one on the engine shaft, and I do not know what size it should be. I could change some of the other gears if necessary. I would like for the engine to travel as fast as possible without injury to the engine by jolting. The drive wheel of the truck is thirty inches diameter. This wheel is driven by the drive wheel shaft, which is fitted with a gear four and three-fourths inches diameter. This gear meshes with a gear five and three-fourths inches diameter on a jack shaft. At the other end of the jackshaft, there is a three and three-fourths-inch sprocket that I wish to drive from the sprocket on the engine shaft. How large a sprocket should I use on the engine shaft?

Answer.—Use a sprocket about two and one-fourth inches in diameter on the crank shaft and replace the four and three-fourths-inch gear on the drive axle with a twenty-inch gear, leaving the sprocket and gear on the jack shaft as stated above.

Carbon Causes Spark Plug Trouble.

What do you think would be the most probable cause for our spark plugs getting dirty in our four-cylinder Buick car? The one at the dash and the one next to the fan are the ones to blame. Now, this trouble may be carbon. Would you advise the use of "Worko" tablets to remove carbon? We are using high-test gas and the engine oil is supposed to be good. The same thing bothered last fall till I got four new spark plugs, which stopped the trouble. New plugs fail to remedy this trouble now. We would like to have your help.

Answer.—Evidently too much oil is working up into the cylinders. This may be due to carrying too much oil in the crank case, loose-fitting rod bearings, small pistons, or worn piston rings. Do not carry a higher oil level than the makers specify, and be sure that the oil level gauge is working. If the piston fits the cylinder so loose that it may be inserted in the cylinder with more than one sheet of newspaper wrapped around it, slightly larger pistons should be purchased. New piston rings might stop the trouble. A V-shaped groove cut around the piston just below the lower ring with several small holes drilled in it will probably stop the trouble by allowing the excess oil to drain back into the crank case. We have never used the tablets referred to for preventing carbon. It might be well for you to try them.

Making a Fan.

I would like a little advice on making a blower for a feed cutter. My feed cutter capacity is one to one and one-half tons of dry fodder per hour. I want to use fifteen feet of blower pipe. (1) What size of blower pipe should be used? (2) What sized blower should be used? (3) Please give width and length of fan blades; also diameter of clearance space at the center. (4) How many revolutions per minute should the blower be run? (5) What horse power will be required to run the blower? Please publish diagram.

Answer.—Use blower pipe seven inches in diameter. Six-inch pipe would be large enough if the fodder is cut fine enough to prevent clogging. The fan should be about twenty-two

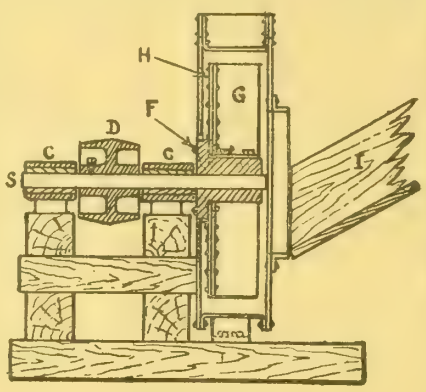

FIGURE 1.

inches diameter, the blades being six inches wide. The diameter of the intake at the center should be about twelve inches. The blower should run at 1,500 R. P. M. The construction of the fan, which may be made at home with few tools, is shown in Figures 1 and 2, Figure 1 being a sectional view. A shaft about one and one-

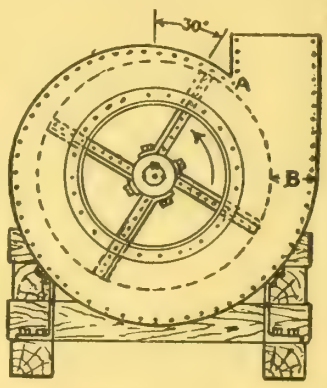

FIGURE 2.

half inches in diameter is mounted on a wooden framework in two bearings, preferably Hyatt roller bearings, as they require less attention and run with less friction than plain bearings. The pulley should be six inches in diameter and have a six-inch face with a liberal amount of "crown." The framework may be made from 4x4 yellow pine. In the figure, S is the shaft, CC the bearings and D the pulley. The fan itself consists of a steel disk twenty-two inches in diameter and one-eighth of an inch thick, bolted to a cast iron hub H. The hub itself should be not less than three inches in diameter and the hub flange should be at least six inches in diameter. The four fan blades are riveted to the disk and bolted to the cast iron hub as shown in Figure 2. It will be noted that the blades are not set radial from the hub, but slope back about 30 degrees, that is, one-twelfth of a circle.

The fan housing should be made of sheet iron one-sixteenth of an inch thick. It may be mounted on the framework by iron straps. The housing should not be mounted central with the fan, but over to one side so that the fan clears the housing only half an inch at point A and five inches at B, Figure 2. A wooden chute, I, conveys the fodder from the cutter to the blower. The sides of the housing should clear the fan one-half inch on each side. A three-horse-power engine should drive the outfit easily. If the blades cause trouble by bending, rivet angle irons on the back of each blade. The fan feeds easier if the blades are narrower at the middle than at the outer end, the construction being somewhat weaker, however. The rotating parts should be very carefully balanced to prevent vibration.

Repairing Radiator.

Can tin and copper be soldered together? How can I mend a radiator that has the two back pipes broken? Could I solder some tin on the pipes, and how can I do it?

Answer.—It is easy to solder tin on copper. Clean the surfaces to be soldered, rubbing them with emery cloth or sandpaper until they are bright. Apply soldering fluid, made by dissolving as much zinc as possible in muriatic acid, washing the surface with it. Heat the surface to be soldered with a small blow torch, taking care not to melt the solder at some other point of the radiator. As soon as the surfaces are hot enough to melt solder, apply solder to them and rub the solder over the surface with a swab wet with soldering fluid. This will tin the surfaces. Press them together and apply enough heat to melt the solder between them. If the pipes are merely cracked, tin the tube as above and cover the crack with solder.

Kerosene for Cooling Tractor.

I am running a corn sheller with my 25-45 horse-power tractor. Would it be advisable to use kerosene in the radiator for cooling as an anti-freeze solution in place of water and alcohol? As the radiator on my tractor has so large a capacity—eighty-five gallons—it is a big job to draw the water off every night and fill it again in the morning. There is no hose in the water line. I have a small extra water tank on the engine to feed the water with the kerosene. I burn kerosene for fuel, starting with gasoline. Would there be danger of fire or of an explosion if I use kerosene for cooling? The cooling liquid is circulated by a pump.

Answer.—We have never recommended kerosene for cooling automobile engines, but under the above conditions we would consider it advisable to use it in a tractor. There would be no more danger of fire than there would be with a strong alcohol solution, and there is no hose to leak and cause trouble. You could probably pipe the heated kerosene to run your engine with improved results. In this case, it would be necessary to make arrangements to keep the required amount in the radiator. As a rule, kerosene is a much better fuel if heated.

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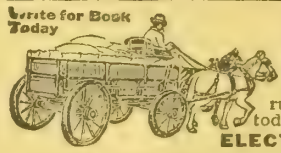

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THE HOME

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Christmas Candies Without Sugar

Sugar is scarce and no patriotic American woman will think of using it this year for Christmas candies, as she has done in the past. This does not mean that she need do without candies during the holidays. The human body needs sweets, but these can be furnished without the use of cane or beet sugar, as there is any number of things which may be used as substitutes—molasses, honey, maple sugar, corn sirup, combination of nuts and fruits—and the resulting confection is both wholesome and attractive. Below are some recipes—without an ounce of cane or beet sugar—that will answer the purpose quite as well as though pounds and pounds of it were used:

Maple Fig Bars.—Two cups maple sugar, one cup chopped figs, three-fourths cup milk, one-fourth teaspoon cream of tartar, one teaspoon lemon flavoring. Grate or shave the sugar, put into iron pan with milk and cream of tartar. Boil slowly twenty-five minutes; add figs and flavoring and boil one minute. Pour into buttered tins and cut into strips or blocks while warm.

Bitter Sweets.—For this purpose use dates, citron, candied orange peel or crystallized fruit. Melt unsweetened chocolate in a double boiler. Keep the chocolate just warm enough to prevent solidifying. With a silver fork drop pieces of fruit into the chocolate. See that each piece is completely coated, then remove to waxed paper to harden.

Corn Sirup Taffy.—Two cups yellow corn sirup, one teaspoonful grated or scraped lemon rind, three tablespoons lemon juice, one teaspoon vanilla. Boil the corn sirup to the hard crack stage as for any taffy. Remove from the fire and stir in scraped lemon rind, lemon juice and vanilla. Pour in well-oiled tins, and when cool enough to handle, pull until light and break into pieces.

Chocolate Dainties.—Put through the meat chopper one-half cup each of dates, figs and nut meats. Add one tablespoon of orange juice, a little grated orange peel, and one square of melted unsweetened chocolate. Mold into balls and roll in chopped nuts. This mixture may be packed in an oiled tin, put under a weight until firm, then cut in any shape desired.

Yellow Jack Straws.—Two cups New Orleans molasses, one teaspoon baking soda, one tablespoon vinegar. Put the molasses into large iron pan over fire, not too hot, stir constantly until it begins to get thick, then test a little in cold water. It must get crisp at once. Add vinegar and baking soda, stir quickly and pour at once on greased platter. When partly cold oil or rub hands with butter and pull rapidly until it is a light yellow. Pull into long thin stips (like straws) and cut into three or four-inch pieces, or into small pieces the same as caramels. Be sure you use a pan that is large enough because the molasses froths when soda and vinegar are added.

Maple Creams.—Boil one cup maple sugar with one cup water until it forms a soft ball when dropped in cold water. Remove from the fire and stir rapidly until it becomes creamy. Form into balls the size of marbles and put nut meats on either side. Lay on wax paper to cool.

Maple or Chocolate Pop Corn Squares.—Boil together two pounds of maple sugar, one pint of new milk and a quarter of a teaspoon of cream of tartar. When the sirup makes a soft ball in cold water, add two tablespoons of butter; stir it gently and remove from the stove; add a teaspoon of vanilla; set the pan in a vessel of cold water and beat until it begins to cool. Then pour into greased, straight-sided pans and strew thick with pop corn. While still soft cut into squares, but cut again in the same lines when cold. Chocolate bars may be made by adding half a cake of bitter chocolate.

Even those who have been in the habit of buying their holiday candies would do well this year to try some of these recipes or purchase similarly made sweets from the dealer.

The Christmas "Piece."

With school and church holiday entertainments in preparation the little girls and boys will be looking about for a "piece," or beseeching mother to find one that suits the occasion. Perhaps one of those here given may save mother an hour's searching:

THE BEAUTIFUL BETHLEHEM BELLS.

Over the roar of the cities, over the hills and the dells,
With a message of peace to the nations, ring the beautiful Bethlehem bells,
Bringing joy to the souls that are sighing in the hovels where poverty dwells—
There is life—there is life for the dying, in the beautiful Bethlehem bells.

Far off, in a land that is lovely, for the tender sweet story it tells,
In the light of a glorious morning rang the beautiful Bethlehem bells;
And still in the hearts of creation an anthem exultingly swells,
At that memory sweet of the ringing of the beautiful Bethlehem bells.

They rang o'er the hills and the valleys, they summoned the glad world that day,
From regions of night to the radiant light of the cot where the Beautiful lay,
And forever and ever and ever a wonderful melody dwells,
In the tender sweet ringing and singing of the beautiful Bethlehem bells.

For they sing of a love that is deathless—a love that still triumphs in loss;
They sing of the love that is leading the world to the calvary cross:
Ring sweet o'er the sound of the cities—ring sweet o'er the hills and the dells,
And touch us with tenderest pities, oh, beautiful Bethlehem bells.
—Frank L. Stanton.

A CHRISTMAS LETTER FROM WILLIE.

"Dear Santa Claus," wrote little Will,
In letters truly shocking,
"I'z been a dood boy,
So pease fill a-heapin' this stocking.

"I want a drum to make pa sick
And drive my mamma crazy;
I want a doggie I can kick,
So he'll not git lazy.

"I want a powder-gun to shoot
Right at my sister Annie,
And a big trumpet I can toot
Just awful loud at grannie.

"I want a druffle big false face,
To scare in fits our baby;
I want a pony I can race
Around the parlor, maybe.

"I want a little hatchet, too,
So I can do some choppin'
Upon our grand piano new
When mamma goes a-shoppin'.

"I want a nice hard rubber ball,
To smash all into flinders
The great big mirror in the hall
And lots and lots of winders.

"And candy that'll make me sick,
So ma all night will hold me,
And make pa git the doctor quick,
And never try to scold me.

"And, Santa Claus, if pap says
I'm naughty, it's a story;
Just say if he whips me I'll
Die and go to kingdom glory."
—Lizzie Alderdice.

THE EMPTY STOCKING.

There's an empty stocking hanging from many a little bed,
Where a God-blown dream hangs over each sleeping curly head;
And the vision gathers nightly of a day that's soon to come,
Where little feet should patter to the music of the drum.

There's an empty stocking hanging by many a wind-blown door,
That must wait in vain for Christmas, in the gray haunts of the poor;
And eyes that now shine brightly shall, through a rain of tears,
See nothing there on Christmas but the sorrow of the years.

But out where splendor centers in the mansions of the great,
No call will go unanswered, no tot will vainly wait;
The Christmas horn will summon—the Christmas drum will roll
The tide of joy in magic through the gateway of each soul.

But where one gift would brighten the dark of weary days,
No reindeer's hoof will thunder o'er Poverty's drear ways;
And so, for God's white season—for some wee dreamer's cause—
Don't you think that you might whisper just a word to Santa Claus?
—Author unknown.

SIGNS OF CHRISTMAS.

When ma begins to tiptoe round
'N we begin to hear
A certain, hushy, whisp'rin' sound
About this time of year,
We know that she'n Sandy Claus
Are fixin' things to do
'N so we never peek, because
They never want us to.

When sister Mary goes about
A-hintin' that she wishes
She had a teapot with a spout
To match her set of dishes,
We know it's time for us to write
Our letters 'n to set 'em.
Beside the hearth, where, in the night,
Ole Sandy Claus'll get 'em.

When all the seats in Sunday school
Are filled 'ith girls and boys,
'N no one ever breaks a rule
'R makes a bit of noise,
We know it can't be very long
Till Sandy will appear,
'N pass his presents to the throng
That comes but once a year.

When Aunt Melindy comes 'n brings
The children 'n the bird,
'N she'n ma make pop corn strings,
We never say a word,
But anybody ought to see
That she has come to stay
Till time to have the Christmas tree,
Which can't be far away.

When pa comes skeanin' crost the lot,
A-lookin' guilty, so't
You'd think he stole the things he got
Inside his overcoat,
We know it's time for us to run
'N carry in the wood
'N see that all our chores are done
'N otherwise be good.
—Willis B. Hawkins.

Advice for the Home Milliner.

It is not a difficult matter to cover the brim of a hat if one but knows how to go about it.

When the brim of the hat is of uniform width and not too wide, a bias strip may be used for covering the brim. If the same material is to be used on the upper and under side, it will not be necessary to have a seam at the edge.

The strip must be cut on the true bias and be about two inches wider than twice the width of the brim. Fold the strip through the middle lengthwise and mark the center with a line of uneven basting. Stretch the material along this folded edge; slip over the brim, keeping the line of basting at the edge and pulling the material snug. Pin in place, putting the pins in at right angles to the edge.

When the strip has been fitted around the brim, mark the place of joining. Remove the pins, take off the material and baste and stretch the seam. Be sure to have the seam with the straight of the goods.

Put the bias over the brim again and pin in place. Have the line of basting at the edge and the seams at the sides, but toward the back. Baste near the edge, catching the material on both the upper and under sides.

Run a gathering thread near each of the cut edges. Pull the material from the edge of the brim toward the crown and adjust the gathers evenly. First pin and baste the material in position on the upper side, taking the stitches just beyond the bend where the brim joins the side crown. Adjust and baste the under side, pulling the material snug.—[Charlotte E. Carpenter.

THE YOUNG FOLKS.

Never Misses a Sunday at Church

Dear Young Folks:—I have written to you before, but I guess Mr. Wastepaper Basket siezed the other one. I never fail to read your letters.

I am a girl of thirteen. My birthday is the third of July. Have any of you a birthday so near a holiday? I live on an eighty-acre farm six miles from town. My mother and I raised chickens this summer and tried to raise ducks, but failed. I have two sisters and two brothers. My youngest brother is six weeks old.

We live one mile from church. How many of you are going to church as regularly as I am? I have gone almost two years without missing one Sunday. We work for gold pins. I have a gold pin and the second Sunday in January I will have a gold wreath on my pin.

We have a pony on which we ride whenever there comes a spare minute. he is very gentle. Five children have ridden him at once. Don't you think that is quite a load? Ora.

Answer to Homer's Riddle.

Dear Young Folks:—I am a farmer boy nine years old. I live on a farm of 240 acres. My father has horses, sheep, cattle and hogs. We also raise lots of chickens.

I have one brother, Merle, aged twelve years, and one sister, Ilene, four years old. My brother and I each have a bicycle.

We don't have very far to go to school because we just live across the road from the schoolhouse. I am in the fourth grade and I like to go to school. We have thirteen pupils, six boys and seven girls.

Homer asked what is the oldest table in the world? I think the answer is the multiplication tabe. Claire.

Made Money for the Library.

Dear Young Folks:—I am eleven years old and in the eighth grade. I have four brothers and six sisters and my father. My dear mother died last winter. My smallest sister is two years old. Her name is Elizabeth.

We had a basket social last week and raised $38.25. We intend to buy a library and some new books.

The day before Thanksgiving we had a dinner at school. We had chicken, pumpkin pie, sandwiches, dressing for the chicken, pickles and salad, besides fruit and candy.

I will answer the riddle three-fourths of chicken, two-thirds of cat and one-half of goat. I think it is Chicago. Elsie.

International Sunday School Lesson.

Lesson for December 9, 1917.

Ezra and Nehemiah Teach the Law.

Lesson for December 16, 1917.

Nehemiah Enforces the Law of the Sabbath.

LESSON TEXT—Nehemiah 13.15-22.

GOLDEN TEXT—Remember the Sabbath Day to keep it holy.—Exod. 20:8.

Nehemiah remained in Jerusalem twelve years, from B. C. 444 to B. C. 432. He was then recalled and was in Persia some years, perhaps five or seven, but returned about B. C. 425, the year Artaxerxes died, for we know that he returned by permission of that king. Therefore, the date of this lesson would be some time in the summer or early autumn of 426 or 427 B. C., sixteen or eighteen years following last Sunday's lesson.

In the section, vv. 10-14, we see that the gifts for the house of God and the Levites, who led in worship, had been neglected. Whenever the house of God and its service of worship is neglected, we may expect that the Sabbath day and the worship of God will also soon fall into contempt. Ezra has dropped out of our history without a word as to his end.

I. "Remember" (v. 14) the Neglect of God's House. (vv. 1-14). The neglect of God's house grew out of the incursion of heathenism into Jewish life. Nehemiah realized that the purity of the race depended upon absolute separation from the mixed multitude. (v. 3). Nehemiah also confronted the difficulty of having a priest, (vv. 4, 5), who had defiled himself and also desecrated the temple, and finally the portion for the support of the priest and the temple worship had been withheld. (v. 10).

II. "Remember" (v. 12) the Sabbath Day. (vv. 15-22). Nehemiah's next and most difficult reform was regarding the fourth commandment. He at once set about to learn the facts; then relates what he saw (v: 15). The record also tells how he testified against them in that they were selling merchandise on the Sabbath Day. He contended with the nobles that they had done evil on the Sabbath day (v. 17). He testified against them that the merchants and sellers of ware had lodged about and within Jerusalem. (vv. 20, 21). The root of the trouble with Judah was that they forgot God's word and followed the devices and desires of their own hearts. The Jewish Sabbath in its outward form on the exact day of the week is not binding upon Gentile Christians (Col. 2:16, 17). It was given to Israel as a people, (Deut. 5:1, 2), as a memorial of their deliverance out of the land of Egypt and the house of bondage. (Deut. 5:6). The Christian, by the death of Christ, is made dead to the letter of the law of Moses, (Deut. 7:4), but the principle of the Sabbath is older than even the law of Moses and is as binding upon the Christian believer as are the many other principles which underlie

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the Mosaic law. In its exact form, the seventh day, the observance of the Sabbath belongs to the old order and not to the Christian order. Christ, who rose from the dead (Rom. 7:4), rose on the first day of the week, and we, as joined to Christ, are not under obligations to the Mosaic law, but to Christ. Therefore, the Lord's day, the resurrection day, the first day of the week, (Rev. 1:10; John 21.20; 1:19-26; Acts 27), is the day of privilege, not of obligation and is more sacred to us than the Sabbath day of these Jews. The Jews in Nehemiah's time showed their contempt of the Lord's day by making is a day of profit, whence this exhortation which we see set forth in this section. This should be a warning and an exhortation to us in these days of a secularized Sabbath.

III. "Remember" (v. 29) the Holy Priesthood. (vv. 23-31). In this section we see that the priesthood had even defiled themselves with women, and again this Nehemiah entered upon a cleansing process (vv. 30-31). The use of this word "remember" in verses 14, 22 and 29 gives strong emphasis to the three cardinal sins against which Nehemiah was battling.

IV. Summary: As in Nehemiah's time, so now, Sabbath desecration is the surest road to national ruin, and a large portion of our present calamity can be traced to growing irreverence for the Lord's day. Jesus swept away the cobwebs of Sabbath irreverence, but did not tear down the house. He kept the principle, but removed the barnacles with which the Pharisees and Jews had encumbered it. Jesus taught that the Sabbath was made for man and not man for the Sabbath, (Mark 2:27, 28), and he set himself as an example in this regard, for he is Lord of that day as well as the other days of the week.

The Sabbath is a day of rest and if observed, workmen without exception will produce more than is possible if it is not observed.

The chief value of the Sabbath, however, is in connection with the worship of God. The feeding of the spiritual nature; the rest which is to be differentiated from mere holiday or pleasure; its need for adult and child life; its educational value; its opportunity for Christian service and exaltation of family relations, all show it to have been created to fill a real need and to manifest the wisdom and goodness of God.

OUR FASHION DEPARTMENT.

ALL PATTERNS 10 CENTS EACH

WE CAN supply our readers with high-grade, perfect-fitting, seam-allowing patterns at 10c each, postage prepaid. Full directions for making, as well as the amount of material required, accompany each pattern. When ordering give correct number and size. Enclose 10c for each pattern.

Send 10c in silver or stamps for our up-to-date fall and winter 1917-1918 catalog, containing 550 designs of ladies', misses' and children's patterns, a concise and comprehensive lesson on dressmaking, also some points for the needle (illustrating thirty of the various simple stitches), all valuable hints to the home dressmaker. Address all orders for patterns and catalogs to THE WISCONSIN FARMER, Madison, Wis.

1945—Children's set of short clothes. The pattern is cut in 5 sizes, 6 months, 1 year, 2 years, 3 years and 4 years. It will require for the dress, 2⅝ yards of 36-inch material. For the drawers, ¾ yard. For the slip, 1½ yards for a 2-year size. Price, 10 cents.

1975—Ladies' dressing or home sack. The pattern is cut in 6 sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 3½ yards of 44-inch material for a 36-inch size. Price 10 cents.

1984—Ladies' house dress with sleeve in either of two lengths. The pattern is cut in 6 sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6¾ yards of 36-inch material for a 36-inch size. Price 10 cents.

2012—Girls' one-piece yoke dress with sleeve in either of two lengths. The pattern is cut in 4 sizes: 4, 6, 8 and 10

1980—Night dress in high or low neck, and with sleeve in either of two lengths, for ladies and misses. The pattern is cut in 3 sizes for misses: 16, 18 and 20 years; and in 6 sizes for ladies: 36, 38, 40, 42, 44 and 46 inches bust measure. It will require 5⅞ yards of 36-inch material for an 18-year size, or 5⅝ yards for a 38-inch size. Price 10 cents.

years. It requires 3¾ yards of 36-inch material for an 8-year size. Price 10 cents.

2019—Girls' one-piece yoke dress, with sleeve in either of two lengths. The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It requires 4⅜ yards of 36-inch material for a 6-year size. Price 10 cents.

2293—A new practical design. The pattern is cut in 4 sizes: Small, 32 and 34 inches; medium, 36 and 38 inches; large, 40 and 42 inches; extra large, 44 and 46 inches bust measure. Size medium requires 3⅝ yards of 36-inch material. Price 10 cents.

2296—A pretty frock—ladies' dress. The pattern is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 requires 6¼ yards of 36-inch material for the dress and 1½ yards for the jumper. Price 10 cents.

2307—A set of new collars. The pattern includes all styles illustrated. It is cut in 3 sizes: Small, medium and large. Size medium requires for No. 1, 1 yard of 27-inch material; for No. 2, 1 yard of 36-inch material; for No. 3, 1¼ yards of 36-inch material. Price 10 cents.

2315—A practical coat model. The pattern is cut in 5 sizes: 4, 6, 8, 10 and 12 years. Size 10 requires 2⅜ yards of 54-inch material. Price 10 cents.

Waist 2317-Skirt 2313—A good costume for general wear. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. A medium size will require for skirt and waist 5⅝ yards of 44-inch material. Two separate patterns, 10 cents for each pattern.

2322—A good school dress. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 12 requires 3½ yards of 44-inch material. Price 10 cents.

A Red Cross Christmas

TO THOSE WHO FEEL POOR

I write as your brother.

We are a large family.

This world-war, made in Germany, against which we are fighting, has sent our incomes down and our expenses up.

The pinch hurts, but it is not going to kill us.

We still have enough and something to spare.

Though we feel poor, don't let us be impoverished by selfish fear!

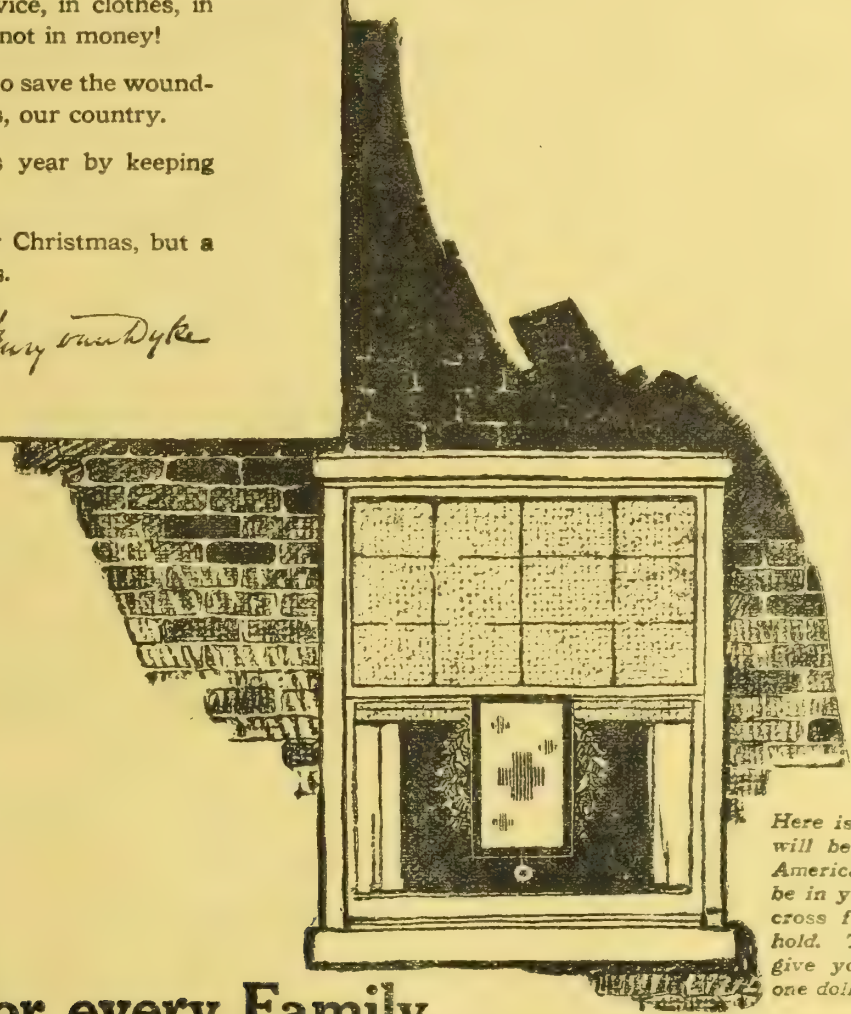
Let us save in food, in service, in clothes, in luxuries and joy-rides—but not in money!

Let us use that by giving it to save the wounded, the suffering, our friends, our country.

Let us keep Christmas this year by keeping up the Red Cross.

Then it will not be a poor Christmas, but a rich Christmas to our hearts.

Henry van Dyke



Here is a Red Cross Service Flag that will be in the windows of millions of American homes this Christmas. It must be in yours—your service flag with a little cross for every member of your household. The nearest Red Cross chapter will give you your flag—it goes with every one dollar membership

A Service Flag for every Family to make this a RED CROSS Christmas of Mercy

ON this, our country's first Christmas, in the most terrible of all wars, there should be a Red Cross Service Flag in millions—fifteen millions—of homes at least.

When your membership dollar is sent on its errand of mercy, a work of relief, which is the noblest thing in the world today, is aided.

Your Red Cross does not ask you at this time for large contributions.

It asks you to become part of it. *Your* Red Cross asks you to be one of ten million more Americans to give one dollar toward world relief.

The merest outline of Red Cross work could fill this whole magazine—go to your local Red Cross chapter—have your rightful share of service. The Christmas spirit *is* the Red Cross spirit. Let a greater Red Cross be America's Christmas gift to our boys and our Allies.

What *is* Your American Red Cross?

An all American, largely volunteer organization devoted to practical service to suffering mankind—in times of peace as in times of war.

Congress authorizes it.

President Wilson heads it.

The War Department audits its accounts.

Pershing in France approves it.

It is working for *your* Army—*your* Navy—*your* Allies.

It is working for you.

Join the Red Cross now—start your $1 on its errand of mercy. Be a member—it is your right

Ten Million New Members by Christmas

The Publishers of The Wisconsin Farmer have donated this space to the American Red Cross in the belief that its readers will heartily respond.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

More "Horse Sense in the Poultry Business."

To the Editor:—I read with interest in last week's Wisconsin Farmer the contribution under the above caption by James Lawrey and wish to congratulate the writer upon his logic concerning the subjects touched upon. However, there are two or three points upon which it occurs to me Mr. Lawrey does not quite take in the situation, so to speak.

I, too, am a "fusser" with poultry, for many years, having handled chickens as a breeder for some fifty-five years, during which time I have kept at one time or other nearly all of the "Standard" varieties, and, like Mr. Lawrey, I find that to make fowls profitable one needs common sense. I wish also to go on record in this connection with the statement that, in my opinion, "breed is not so important as care" to make chickens pay. Nor do I believe that chickens of any kind are so profitable as some enthusiasts would have us believe. If properly managed along common-sense methods, however, I assume that poultry, like other stock well managed, will pay a reasonable profit and afford considerable pleasure to those who really like to have them about.

Notwithstanding that poultry breeding is "as old as the hills," there is yet a deal of ignorance concerning it. And this is true notwithstanding the untold thousands engaged in it and regardless of the fact that poultry shows are legion and the field is full of ably-conducted poultry publications. I believe, however, that this ignorance would be materially lessened if more poultrymen, both fanciers and others interested, would discuss through the various publications their views concerning the various phases of breeding, mating, feeding and so on.

I do not agree with Mr. Lawrey's opinion that the "Standard" could be dispensed with. I believe poultry shows are necessary and important and I believe that without an authority like the "Standard" they would be impossible. The fact that a good-laying fowl is disqualified at the show because it has certain defects is another matter entirely. If we have a "Standard" the poultry judge is bound to abide by it. Otherwise the whole matter of pure-bred poultry would be chaos. One can readily see that because a Plymouth Rock which proved to be a prolific layer was disqualified at the show because it had feathers on legs or toes, it does not follow that another bird equally perfect without said feather would not also be a prolific layer, while at the same time approaching nearer the ideal marked out by recognized authority.

If the Standard is faulty (and there is no question but that in some respects it might be) the remedy is to revise it in those sections where errors have crept in.

It is quite true that before the advent of the "Standard" and the poultry show we had good fowls, but in my opinion we have better, much better, now. Look at the record of the laying contests and of the records of individual flocks. A friend of mine once told me that the best-laying hens he ever owned were cross bred (half Leghorn-half Game), but this does not prove anything against pure-bred fowl or those that are bred to "Standard" points in a high degree. That perfection in the attributes of the hen has been brought about with great rapidity since the birth of the show and the Standard there can be no question. Without these the "fancy" would have been almost an unknown quantity and without the fancy what of the poultry journal? It is my opinion that these spreaders of poultry knowledge would have been few and far between. Of course, there would have been poultry—perhaps the Shanghai or the Indian Ghaga or Chittagong. But what were they as compared to our up-to-date Standard hen?

One thing I will admit and that is that so far as able fowl are concerned I do not believe the Standard has helped to that degree that it has in the perfection of perfect plumage and in the production of egg-producing qualities. In truth, the so-called Malay fowl of India was noted for its great meat qualities and solidity of flesh. The Cornish fowl which was evolved in Cornwall, England, gets its solidity of flesh from another non-standard Indian race, the Aseel, or fighting cock of the rajahs. But who would have known much about the Cornish fowl had it not been that it was made a Standard variety? Who in this country would have known much about the English Sussex fowl had it not been for the Standard? While the latter was able to win more than its share of prizes in the "dressed class" at the English shows and had long been one of the finest table fowls in Britain, it never became prominent until it was Standardized. Now it is bred to color and to a uniform type, retaining, I hope, the qualities that attracted the English fancy and caused it to become a "recognized" variety, and since which time I believe it has been improved as an egg producer.

While Mr. Lawrey discarded a host of varieties to take up the "Reds" and Wyandottes, there are doubtless plenty of other experienced poultrymen who have discarded the two and found some of the kinds he has discarded preferable. As stated, much depends upon condition, such as care, environment, feed and so on. The "keep" which is best for the Brahma is not necessarily best for the Leghorn. And yet the Leghorn is a "humdinger" for eggs if handled right.

Speaking of early laying pullets, I have a neighbor who has a number of pullets which are laying at less than five months of age, and I will say that these pullets are all standard bred birds of one of the well-known Mediterranean varieties. The important thing about this is that he is feeding the Cornell ration and his birds are of a noted "prize" show.

Viroqua, Wis. F. H. Graves.

Handling Poultry in Winter

To the Editor:—Every poultry raiser should put forth special efforts during the coming months to take especially good care of his poultry, not only for the sake of the present good prices of poultry, but in order to get all the eggs possible. Eggs are bound to be a good price all winter, and as they can take the place of meat, at the present very high price of meat, ought to be used more as a meat substitute.

The first thing in taking good care of poultry during the long, cold winter days is a good clean house with plenty of fresh air and exercise. Keep the hens busy, for a singing hen is a laying hen. They should have plenty of warm, clean water and that is hard to keep during the cold days, but a pail of warm water set upon a hot flat stone will keep warm most of the day. The air pressure tanks heated with coal oil are also good to keep the water warm and they also create a little heat in the poultry house. I always feed ear corn in the afternoon about three o'clock so they will have plenty of time to eat all they want before they go to roost. I also give them a mixture of whole grains, mostly oats this year, as everything else is so high, in the scratch room, giving plenty so they can begin scratching early in the morning. At noon I feed a hot mash of boiled potato parings and table scraps mixed moist with a mixture of bran, ground oats and middlings. I always keep pasteurized sour milk ahead of them instead of meat scraps, which I find is cheaper. They also have all the dry ground bone, oyster shells, fine charcoal and grit they want to help themselves to.

To keep your poultry in good health, you must keep a diligent watch and spray for lice and mites. I use blue ointment twice a year on mine and think a sawdust bath one of the best accessories to a poultry house. In the winter when the poultry are shut in, we have to strive to supply for them what they get in the warmer months, and as green food is a large part of their summer food, we must give them a substitute and I find there is nothing better than sprouted oats. Beets and cabbage are also good. It requires a great deal of hard work and care to keep poultry in good condition during the winter, but if you keep poultry, why not give them the care they deserve and they will repay you well. Mrs. Wm. O'Leary.

Honey Creek, Wisconsin.

How She Cares for Chicks.

To the Editor:—I saw an article in The Wisconsin Farmer asking ideas in making the most out of hens the year round. I started in last January, 1917, with twenty-four hens. I set six hens. Had mostly roosters and had ten laying hens and have got eggs every day since last January except two days, and my young May chickens have just commenced laying real well. We have twent-nine young and old to lay this winter. My experience in getting them to lay is this: First, a good, warm henhouse, plenty of sand and straw to scratch in and lime to eat and keep the nests clean with plenty of dry hay or straw. Give them plenty of clean water three times a day. Feed three times a day just lightly. In the morning give them cooked potatoes and wheat; shorts at noon or meat scraps; and at night, cooked corn or cracked corn. When I do not have wheat shorts to make a potato mash I use ground oats or soaked oats. I never give my chickens any cold water in the winter. My income from the eggs since last January, 1917, has been $53, but I expect $5 or $6 more by January, 1918.

I have sold $20 worth of chickens this year. I read all kinds of poultry books, but I take care of my own chickens in my own way. I do not let my chicks run out in stormy days and I feed them every day in the year. Now this is my experience one year with another. I never have had any disease among my chicks.

Mrs. Geo. D. Cain.

Chippewa Co., Wisconsin.

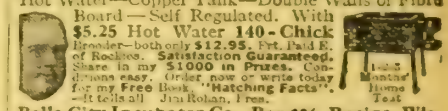
Dr. Hess Instant Louse Killer Kills Lice

"Raise More Poultry"

Is Our Country's Call. *Now is the time to start—the demand is big—every man, woman, boy and girl can help. Besides supplying the Nation with food, you can make big profits with little effort—and this small investment.*

$8.95 Buys Champion 140-Egg Belle City Incubator

Hot Water—Copper Tank—Double Walls of Fibre Board—Self Regulated. With $5.25 Hot Water 140-Chick Brooder—both only $12.95. Frt. Paid E. of Rockies. Satisfaction Guaranteed. Share in my $1000 in Prizes. Conditions easy. Order now or write today for my Free Book, "Hatching Facts"—it tells all. Jim Rohan, Pres.



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GOOD BREEDERS from exhibition and trap-nested laying stock. Write for prices.

WINNEBAGO POULTRY YARDS, A. J. Schloerb, Mgr., R. 23, Omro, Wis.

Family Circle Talks by the Publisher

(Continued from page 3.)

often as though it were some newly made discovery, some great truth which had just been brought to light. Here, for instance, to quote the latest expression which has come to my attention, is a portion of an article in the Philadelphia Public Ledger, written by Mr. Clarence Dubose, of Washington, D. C.:

American agriculture is the greatest potential power on earth today—for it is the indispensable force for the defeat of the Prussian war machine and the salvation of civilization. In the final analysis the winning of the war by America and the allies depends upon the efficiency of the American farms. If America fails in food production, munitions manufacture and military campaigns must also fail, for without food soldiers cannot fight or workmen perform their tasks.

We will win or we will lose this war in the grain fields, the potato patches, the pig pens, the chicken yards and the cattle and sheep pastures of the United States. Whether Prussianism shall perish or be perpetuated will be determined on the farm lands of America long before the final and decisive charge on the battlefields of Europe.

This is practically the same thing which you and I have been saying to each other for three years past, yet the eastern newspaper finds it so novel that it secures a two-column heading, as though it were equal, in news importance, to a victory for the allied arms in the field. Perhaps when the truth of the relationship of agriculture to military success is fully realized there will be such a change in the entire national policy toward the farmer as will insure him the labor supply which is absolutely necessary if full crops are to be raised next year and the next, and will save to the farm the farmer boys who are being drafted from the cornfields and feed lots to the various army camps.

I do not believe in assuming unduly an air of "I told you so," yet it gives me the greatest satisfaction imaginable to find such articles printed as the one I have reproduced herewith. We cannot fight with food alone, neither can we live on shells and ammunition. One is just as important as the other. Why not recognize this fact publicly and nationally and see to it that production is kept up to its present high standard, that it is increased rather than retarded? The farmer needs his boys and hands on the farm; their places cannot be filled by unskilled, inefficient labor from the city. When this fact is officially recognized a long step will have been taken toward winning the war.

A SOLDIER BOY'S ENDORSEMENT.

I AM glad, indeed, to find my stand on the war approved most heartily by a farm boy now serving Uncle Sam as a soldier at Deming, N. M., where so many thousands of the youth of the grain belt are securing the military instruction necessary before they embark for France. I am also glad to find my own opinion of the Young Men's Christian Association endorsed so heartily by a boy who has daily opportunity to appreciate the grand work being done by this organization. But let the farm boy soldier, Mr. Harold B. Fay, speak for himself:

Dear Mr. Pierce: A copy of your valuable paper, several weeks old, just came into my hands, and I was more than pleased to get it, as I had not seen one for over two months. The first thing I looked for, as I always did when home on the farm, was your page of personal views. I was more than interested in your article entitled "Farm Boys in Army Camps." I am a farm boy, a son of the soil, and am proud of the fact. Being a soldier, too, I agree with everything you said in your splendid article.

Through the columns of your paper I would like to thank the public for their contributions to the Army Y. M. C. A. fund. The Y. M. C. A. is doing a wonderful work in camp toward encouraging good morals, affording amusement and recreation for the boys and developing them physically, mentally and spiritually.

I, for one, hope you keep printing your views on current topics and your little sermons indefinitely, for they are doing more good than any words of mine could possibly tell. Again thanking you for your splendid articles and wishing all the farm folks back home success and happiness, I am,

Yours for Old Glory, HAROLD B. FAY.

I call that a splendid letter. Patriotism breathes through every line. It is such boys as this one—going from the farm to the training camp and from there to the field—who can be relied upon to carry Old Glory to complete victory and to make the world safe for democracy. How can any one think for a minute that the farmer is not patriotic, that he is not "doing his bit" to the very extreme of his ability, when a farm boy writes such a letter and shows such a magnificent spirit? I am proud, indeed, to be the recipient of such a letter.

We have been called upon, in recent months, to contribute to many funds; to the Red Cross, the Y. M. C. A., the Belgian Relief Commission, and so on and on. No one of these is more worthy than the Army Y. M. C. A. The green building or the green tent, with the red triangle marking it as the home of the Christian workers, is the only home which many of the boys in camp and field have; it takes the place of the old farm house to the boys who quit the furrow and the feed lot to bear arms for their country. We should be glad to have a chance to help such a worthy cause. The next time the solicitors ask for funds for the Army Y. M. C. A., remember the words of Harold B. Fay, farm boy and soldier, who can be relied upon to do his duty, however grim and tragic that duty may eventually prove to be.

James M. Pierce

International a Food Training Camp.

(Continued from page 16.)

3d University of Minnesota, 4th and 5th University of Illinois; under 6 months (9 shown), 1st and 4th Milner, 2d and 3d Myers, 5th Settle, 6th and 7th University of Illinois, 8th Heisel & Son.

Pen of 3 barrows 18 months and under 24 (2 shown), 1st University of Illinois, 2d Myers; 6 months and under 12 (2 shown), 1st University of Illinois, 2d Meyers; under 6 months (5 shown), 1st Milner, 2d Meyers, 3d Heisel & Son, 4th University of Illinois, 5th Bone; 5 barrows any age get of 1 sire (3 shown), 1st Meyers, 2d and 3d University of Illinois.

Champion barrow, University of Illinois on barrow 18 months and under 24; champion pen of barrows, Milner on pen of barrows 6 months and under 12.

Fat Hampshires.—Barrow 18 months and under 24 (2 shown), 1st Runkle, 2d Wickfield Farms; 6 months and under 12 (8 shown), 1st and 6th Albricht, 2d and 8th Wickfield Farms, 3d and 7th University of Nebraska, 4th and 5th Runkle; under 6 months (4 shown), 1st and 2d University of Nebraska, 3d and 4th University of Illinois.

Pen of barrows 6 months and under 12 (5 shown), 1st and 4th Albricht, 2d Wickfield Farms, 3d Runkle, 5th University of Nebraska; under 6 months (2 shown), 1st University of Nebraska, 2d University of Illinois; 5 barrows any age get of 1 sire (3 shown), 1st Albricht, 2d Wickfield Farms, 3d University of Illinois.

Champion barrow, Runkle on barrow 18 months and under 24; champion pen of barrows, Albricht on barrows 6 months and under 12.

Fat Large Yorkshires.—Barrow weighing 160 to 190 pounds (5 shown), 1st Raemelton Farm, 2d University of Illinois, 3d Ohio State University; barrow weighing 190 to 225 pounds (6 shown), 1st University of Illinois, 2d Ohio State University, 3d Raemelton Farm.

Pen of 3 barrows, weighing 160 to 190 pounds (2 shown), 1st Raemeton Farm, 2d University of Illinois; pen of 3 barrows weighing 190 to 225 pounds (2 shown), 1st Raemelton Farm, 2d University of Illinois.

Champion barrow, University of Illinois on barrow weighing between 190 and 225 pounds; champion pen of barrows, Raemelton Farm on pen of barrows weighing between 190 and 225 pounds.

In the classes of fat Tamworths the University of Illinois was the only exhibitor and furnished an entry in nearly every class.

Grades and Cross Breds.—Barrow weighing 250 and under 350 pounds (6 shown), 1st Raemelton Farm, 2d Schonboe, 3d Ohio State University; barrow weighing 200 and under 250 pounds (8 shown), 1st Pennsylvania State College, 2d and 3d Kansas State Agricultural College; barrow weighing 150 and under 200 pounds (4 shown), 1st and 2d University of Minnesota, 3d Bone.

Pen of 3 barrows, each weighing 250 and under 350 pounds (3 shown), 1st Raemelton Farm, 2d Schonboe, 3d University of Illinois; pen of 3 barrows, each weighing 200 and under 250 pounds, 1st Kansas State Agricultural College, 2d Schonboe, 3d Burgess & Son.

Champion barrow, Pennsylvania State College; champion pen of barrows, Kansas State Agricultural College.

Grand champion barrow any age, breed, grade or cross, Hood Farm on Berkshire barrow; reserve champion, Runkle on Hampshire barrow; grand champion pen of barrows, any age, breed, grade or cross, Hood Farm on pen of Berkshires; reserve champion pen, Ohio State University on pen of Duroc Jerseys.

International Short-horn Sale.

Fifty-two head of cattle for $56,725, an average of $1,091, a top bull at $9,000 and a top female at $4,800, tells in brief the story of the sale of Short-horns at Chicago December 6th, under the auspices of the American Short-horn Breeders' Association. The detailed report shows a wide distribution of the cattle and the prices paid is conclusive evidence of the stability of the trade. The top of the sale was $9,000 paid by Walter J. Hill, White Bear Lake, Minn., for the two-year-old Village Bud bull, Mount Victoria Stamp, by Glorious Dale consigned by Robert Crain, Mount Victoria, Md., and the top for females, $4,800, was paid by B. W. Aylor, Grandin, N. D., for the show and breeding cow, Verbena of Oakdale, by Maxwalton Sultan, with a ten-months heifer calf at foot by Prince Cumberland. This is the highest price ever paid at public sale b. an American breeder for a Scotch-bred cow. This pair was consigned to the sale by Eben E. Jones, Rockland, Wis. The Red Cross heifer, Red Cross Gloster, consigned by Carpenter & Ross, Mansfield, Ohio, for the benefit of the Red Cross, was purchased by Lespedeza Farm, Hickory Valley, Tenn., for $1,000 and Manager Scott announced that the heifer would be returned to the Short-horn Congress sale in Chicago in February and again sold for the benefit of the Red Cross. Col. Carey M. Jones did the selling in his usual effective way, assisted by Cols. Reppert and Kraschel. The list follows:

FEMALES.

Devil's Belle, calved 1916; J. R. Raby, Gatesville, Tex. .....$ 650
Village Queen, calved 1916; Robert R. Ward, Benton, Ill..... 650
Collynie Anverne, calved 1916; E. J. Thompson & Son, Hurley, S. D. 675
Cumberland Queen, calved 1915; Harry Black, Mansfield, O..... 800
Maxwalton Nonpareil, calved 1915; W. L. Smith, Eutaw, Ala..... 1,000
Red Cross Gloster, calved 1917; Lespedeza Farm, Hickory Valley, Tenn. 1,000
Woodland Beauty 9th, calved 1911; B. W. Aylor, Grandin, N. D..... 2,000
Mount Victoria Bride, calved 1914; F. G. Stevens, Stillwater, Pa... 575
Mount Victoria Daisy, calved 1915; F. C. Landon, Winona, Minn... 800
Mount Victoria Helen, calved 1915; Harry Black 650
Locust Grove Secret, calved 1916; M. E. Leigh, St. Joseph, Ill..... 1,000
Winifred 9th, calved 1915; H. H. Tift, Tifton, Ia. 1,000
Gloster Mistress, calved 1917; F. G. Stevens 475
Gloster Queen, calved 1916; James Stuart, Chicago, Ill..... 400
Urbandale Duchess, calved 1916; Bellows Bros., Maryville, Mo... 1,325
Collynie's Belle, calved 1916; L. E. Dailey, Egan, S. D..... 500
Verbena of Oakdale, calved 1912, and c. c.; B. W. Aylor..... 4,800
Victoria Cumberland, calved 1915; L. E. Dailey..... 650
Baroness Lady 7th, calved 1911, and c. c.; Thos. Stanton, Wheaton, Ill. 1,700
Oaklawn Alice, calved 1917; J. R. Raby 700
Oaklawn Annie, calved 1917; J. R. Raby 700
Dainty Duchess 3d, calved 1916; F. C. Landon 1,125
Fair Acres Diana 2d, calved 1916; C. J. McMaster, Altona, Ill..... 750
Wedding Gift 36th, calved 1917; C. J. McMaster..... 950
Maxwalton Augusta 14th, calved 1915; James Stuart 750
Pine Run Gladys, calved 1917; J. R. Raby 450
Mysie 3d, calved 1916; Robert Heuser, Calmar, Ia. 675
Mysie 60th, calved 1916; John Owen, Noblesville, Ind..... 650
Pavona 5th, calved 1916; W. F. Tift 725
Sunny Blink 6th, calved 1916; Frank Scofield, Hillsboro, Tex.. 675
Broadhooks Blossom, calved 1916; Robert Heuser 500
Village Fancy, calved 1912; Robert Heuser 1,075
Miss Mayflower 6th, calved 1916; F. C. Landon..... 800
Lady Cumberland 4th, calved 1916; W. L. Smith..... 1,000

BULLS.

Splendid Thought, calved 1916; J. H. Seeley, Mt. Pleasant, Ia..... 2,200
Candidate, calved 1916; F. M. Wright, Sarkston, S. D..... 350
Village Royal, calved 1916; Compton & Compton, Monroe, O..... 575
Mount Victoria Stamp, calved 1915; Walter J. Hill, White Bear Lake, Minn. 9,000
Snowstorm, calved 1914; Chas. Rice, Indianola, Ill. 550
Regal Master, calved 1917; F. G. Stevens 475
Royal Choice 2d, calved 1915; John Owen 1,000
Dale Villager, calved 1915; Pine Run Farm, Penllyn, Pa. 3,000
Champion Lad, calved 1917; Kruger Bros., Miller, S. D..... 700
Champion's Gift, calved 1916; F. M. Wright 1,000
Gloster's Last, calved 1916; R. A. Osborn, Culver, Ind..... 575
Lord Avondale, Jr., calved 1916; F. A. Heathcote, Watertown, S. D. 1,000
Villager Advocate, calved 1917; Wm. Hoewischer, Sidney, O.... 575
Supreme Sultan, calved 1916; W. A. Turnipseed, Lexington, Ill.. 975
Orange Lad, calved 1917; W. McClintock, Marlinton, W. Va.... 425
Red Memory, calved 1914; Will Dailey & Son, Pipestone, Minn. 500
Village Ruler, calved 1917; S. Wisecarver, DeLand, Ill. 625
Cottonwood Sultan 2d, calved 1916; I. S. Shew, Benton, Ill.... 1,025

International Galloway Sale.

The American Galloway Breeders' Association held a successful sale at Chicago, December 6th, during International week, 20 head selling for $7,535, an average of $377. Fourteen bulls averaged $450. The top of the sale was $1,200, paid by Isaac Lincoln, Aberdeen, S. D., for the two-year-old bull, Picador, consigned by R. W. Brown. Col. Fred Reppert was the auctioneer. The list follows:

FEMALES.

Pride of Seven Oaks, calved 1915; O. H. Swigart, Salisbury, Mo..$ 190
Oak Lass, calved 1914; F. E. Morrison, Gardner, Kan..... 250
Meta May L., calved 1916; O. H. Swigart 200
Martha L. 6th, calved 1916; O. H. Swigart .....
Florence 6th of L. F., calved 1916; H. H. Richmond, Gibson City, Ill. 255
Quiet Edith, calved 1916; O. H. Swigart 100

BULLS.

Rex of Greenbush, calved 1915; John Nichols, Wetonka, S. D...$ 500
Varsity Scotty, calved 1916; C. S. Hechtner, Chariton, Iowa..... 200
Mutineer, calved 1912; J. Frantz & Son, Bluffton, Ohio..... 585
Scotty of Windfall, calved 1916; E. H. Armstrong, Cedaredge, Colo. 475
Opportune, calved 1914; W. J. McCready, Tampico, Ill..... 200
Picador, calved 1915; Isaac Lincoln, Aberdeen, S. D..... 1,200
The Quaker, calved 1916; Jos. Schumacher, Ipswich, S. D..... 550
Quintilian, calved 1916; John A. Edwards, Eureka, Kan..... 350
Quibbler, calved 1916; John A. Edwards 250
Quayle, calved 1916; O. H. Swigart 190
Imp. Emperor of Drumlaurig, calved 1912; Robt. W. Brown, Carrollton, Mo. 850
Floyd L., calved 1916; O. H. Swigart 175
Milford L., calved 1916; O. H. Swigart 325
General, calved 1915; O. H. Swigart 500

International Angus Sale.

The most successful sale of Aberdeen Angus cattle held in this country for years was that under the management of the Aberdeen Angus Breeders' Association at Chicago, December 5th, during the International, when 34 head sold for $34,175, an average of $1,005. There was a strong demand from all sections, the cattle were presented in fine condition, and the result of the sale should be a matter of gratification to every breeder of Angus cattle. The top of the sale was $3,050, this figure being reached twice, each time on a bull. L. R. Kershaw, Muskogee, Okla., paid that figure for the two-year-old Pride bull, Plowman, consigned by Ed Watkins & Son and the Blackbird bull, Ames Plantation Ito, consigned by Hobart Ames, went to C. D. & E. F. Caldwell, Burlington Junction, Mo. The top for females was $1,700, at which figure Dr. J. I. Huggins, Dandridge, Tenn., secured the two-year-old Blackcap 59th. B. C. Dove, of the Willow Lawn Cattle Co., Waverly, Iowa, paid $1,500 each for Momount Blackbird 9th, consigned by W. H. Cooper, and Blackbird Carrie, consigned by John Tudor & Son. A like price was paid by J. S. Caldwell, Chillicothe, Ohio, for Erica of Woodcote 18th, consigned by Dwight Cutler. Colonels Cooper and Reppert were the auctioneers. The detailed list follows:

FEMALES.

Blackcap 59th, calved 1915; Dr. J. I. Huggins, Dandridge, Tenn...$1,700
Emland Mabel 2d, calved 1916; C. W. Eckardt, New York 775

Erica McHenry 24th, calved 1910; C. E. Wood & Son, Mechanicsville, Ia. 1,250
Monmount Blackbird 9th, calved 1913; Willow Lawn Cattle Co., Waverly, Ia. 1,500
Black Ballindalloch, calved 1910; C. E. Woods & Son 450
Blackcap Carrie, calved 1912; Willow Lawn Cattle Co. 1,500
Ballinero's Erica, calved 1914; E. J. Murphy, Iowa City, Ia. 775
Queen Ito Blackwood, calved 1909; Ernest Bacon, Poplar Bluff, Mo. 825
Pride of Meadow Lawn 104th, calved 1916; W. M. Falkenhagen, Montevideo, Minn. 550
Kassa, calved 1914; S. R. Pierce, Creston, Ill. 675
Keziah, calved 1915; Dr. J. I. Huggins 600
Blackbird Baena, calved 1914; Ames Plantation, Grand Junction, Tenn. 725
Blackbird Julia 7th, calved 1915; Dr. J. I. Huggins 1,025
Blackbird Missie 10th, calved 1916; J. A. Huseman, Beecher, Ill. 600
Blackbird of Quietdale 37th, calved 1912; C. E. Woods & Son 825
Kacena, calved 1916; Howard Fraleigh, Forest, Ont. 500
Coquette McHenry 40th, calved 1916; Howard Fraleigh 600
Erica of Woodcote 18th, calved 1914; J. S. Caldwell, Chillicothe, Ohio 1,500
Erica of Woodcote 4th, calved 1909; Ames Plantation 1,000
Glenmere Erica, calved 1911; Hartnell & Lang, Stacyville, Ia. 625
Ames Plantation Pride, calved 1916; Fay Bros., New Richmond, Wis. 525
Ebony's Erica, calved 1915; C. D. & E. F. Caldwell, Burlington Junction, Mo. 850
Gay Rose R., calved 1911; Hartnell & Lang 675
Twin Blackbird 4th, calved 1915; L. R. Kershaw, Muskogee, Okla. 700
Silver Queen W. 4th, calved 1916; Howard Fraleigh 550

BULLS.

Black Real, calved 1916; D. J. McConnell, Bristow, Minn. 775
Plowman, calved 1915; L. R. Kershaw 3,050
Black Sun, calved 1916; J. C. Kimball, Springville, Ia. 525
Pauline's Erwin C., calved 1915; W. M. Falkenhagen 1,700
Ames Plantation Ito, calved 1914; C. D. & E. F. Caldwell 3,050
Flora's Hero, calved 1916; M. M. Mandeville, Aurora, S. D. 1,000
Black Monarch W., calved 1916; A. W. Jones, LaRue, Ind. 500
Barbarian of Twin Burn, calved 1915; A. J. Thompson, Seymour, Ind. 675
E. E. Cressler, calved 1916; L. B. Canum, Aledo, Ill. 600

International Clydesdale Sale.

Forty-two head of Clydesdales, 18 stallions and 24 mares, were sold at Chicago, December 4th, during the International, the sale being under the management of Pres. R. B. Ogilvie, of the American Clydesdale Association. The demand was good and the average of $466 made on the entire offering represents a fair valuation, as there were a number of animals too young to sell to the best advantage. The top was $1,600, paid by Langwater Farms, North Easton, Mass., for the show mare, Buchlyvie Lady, consigned by McLay Bros. E. R. Williams, La Crosse, Wis., paid $1,000 for the outstanding three-year-old mare, Sweet Marie, consigned by Eben E. Jones. The top for a stallion was $1,000, G. W. Birney, Wyoming, Ill., giving that price for the good yearling, Proud Archer, consigned by H. Harris Ford. Colonels Jones and Reppert did the selling. The detailed list follows:

FEMALES.

Buchlyvie Lady, foaled 1912; Langwater Farms, North Easton, Mass. $1600
Hayfield Evangeline, foaled 1914; W. L. Houser, Mondovi Wis. 425
Nannie of Hayfield, foaled 1915; Lowis & Co., St. Louis, Mo. 395
Hillside Nora, foaled 1915; Lowis & Co. 400
Hillside Brownie, foaled 1915; Langwater Farms 675
Blythewood Maid, foaled 1916; W. L. Houser 260
Blythewood Emily, foaled 1916; McLay Bros., Janesville, Wis. 240
Blythewood Bet, foaled 1916; W. B. Dunlap, Fayetteville, N. Y. 225
Scottish Rose, calved 1915; A. G. Soderberg, Osco, Ill. 230
Ohio's Rosebud, calved 1910; Lowis & Co. 390
Jessica, foaled 1916; J. W. Hillman, Dana, Ia. 180
White Heather, foaled 1916; W. L. Houser 280
King's Daughter, foaled 1915; J. W. Hillman 375
Lady Lullibody, foaled 1915; Langwater Farms 750
Fairholme Blossom, foaled 1914; Fay Bros., New Richmond, Wis. 475
Fairholme Lady, foaled 1913; A. G. Soderberg 360
Lady Carruchan, foaled 1906; Walter J. Hill, White Bear Lake, Minn. ..... [illegible]
Fairholme May, foaled 1916; A. G. Soderberg 215
Sweet Marie, foaled 1914; E. R. Williams, La Crosse, Wis. 1000
Black Flossie, foaled 1914; L. E. Gamble, Utica, Minn. 300
Scotlands Maid, foaled 1915; John Timothy, Edmonton, Alberta 330
Chamber Maid, foaled 1914; Lowis & Co. 260
Enterprise Queen, foaled 1915; June H. Brown, Stuart, Ia. 500

STALLIONS

Lord Balcarres, foaled 1912; Lowis & Co. 525
Hillside Prince, foaled 1916; McLay Bros. 280
Scottish Knight, foaled 1915; Lowis & Co. 525
Blythewood Baron, foaled 1914; Lowis & Co. 600
Blythewood Favorite, foaled 1915; Lowis & Co. 225
Blythewood Boreland, foaled 1916; Lowis & Co. 210
Heather Bloom, foaled 1915; Lowis & Co. 435
Woodburn King of Bedminster, foaled 1914; Lowis & Co. 600
Baron of Bedminster, foaled 1912; Lowis & Co. 625
Beacon Light, foaled 1912; A. G. Soderberg 475
King's Signet, foaled 1915; A. G. Soderberg 350
Fairholme Gallant Lad, foaled 1916; Bel Air Farms, Collington, Md. 650
Golden Chief, foaled 1914; Lowis & Co. 725
Trooper's Baron, foaled 1915; A. G. Soderberg 410
Proud Archer, foaled 1916; G. W. Birney, Wyoming, Ill. 1000
Alexander, foaled 1914; A. G. Soderberg 700
Prince Ulysses, foaled 1916; A. F. Smith, Monticello, Minn. 980
Baron Montague, foaled 1912; A. G. Soderberg 425
Ohio's Bruce, foaled 1914; A. G. Soderberg 525

International Red Polled Sale.

Breeders of Red Polled cattle are to be congratulated on their excellent sale at Chicago, December 5th, during the International, 34 head selling for the excellent average of $440. The top of this sale was $2,300, paid by John Schmeising, Fort Doramer, Ohio, for the bull, Principal, while W. L. Hill, Alexandria, S. D., gave $2,000 for the bull, Billy Charmer. The top for females was $1,025, at which price Jean Duluth Farm, Duluth, Minn., secured the good cow, Susie 2d. The cattle were widely distributed, going to buyers from Wisconsin, Minnesota, South Dakota, Ohio, Iowa, Texas, Illinois, Nebraska. Col. Fred Reppert was the auctioneer.

Important Meetings Held.

International Officers Reëlected.

But one change was made in the directorate of the International Live Stock Exposition at the annual meeting held in the Saddle and Sirloin Club in connection with the International Show. All of the officers were reëlected. The new member of the board of directors is Jesse C. Andrews, of West Point, Indiana, one of the leading sheep men of the country and superintendent of the sheep division of the International this year. Mr. Andrews succeeds W. C. Brown, former president of the New York Central Railroad and now an Iowa farmer. The reëlected officers follow: President, Dr. G. Howard Davison, Millbrook, N. Y.; vice presidents, R. B. Ogilvie and Alvin H. Sanders; treasurer, O. T. Henkle, and secretary and manager, B. H. Heide. The directors reëlected follow: A. J. Lovejoy, Roscoe, Ill.; Edward F. Swift, Chicago; E. H. Ingwersen, Chicago; Fred Pabst, Oconomowoc, Wis.; O. E. Bradfute, Wilkes-Barre, Pa.; J. W. Martin, Gotham, Wis., and Robert Miller, Stouffville, Ont.

Short-horn Association.

At the annual meeting of the American Short-horn Breeders' Association, which was held last week, Mr. H. C. Lookabaugh, of Watonga, Okla., was elected to the directory board to succeed A. B. Patterson, of Meridian, Miss. Mr. N. H. Gentry, of Sedalia, Missouri, was elected to succeed himself, defeating his rival, Mr. W. A. Forsythe, of Greenwood, Missouri, by but six votes. Mr. Reed Carpenter, of Mansfield, Ohio, was unanimously elected to succeed himself. The newly elected directors will hold office for a period of three years. A different program was carried out at the annual meeting this year, the business session being preceded by a banquet at which some 265 breeders were present. Part of the session was devoted to the consideration of the accredited herd plan of dealing with tuberculosis, this being presented by Mr. H. O. Weaver, of Wapello, Iowa.

Berkshire Breeders.

A good attendance was present at the annual meeting of the American Berkshire Association held last week at the Stockyards Inn. A social hour was spent first, after which a business session was held. The election of officer resulted in the election of Prof. C. F. Curtiss, Ames, Iowa, president; N. H. Gentry, Sedalia, Mo., vice president; E. W. Smith, Springfield, Ill., treasurer, and Frank S. Springer, secretary. The new directors of the association are J. E. Dodge, Lowell, Mass., and Chas. M. Talmadge, of Newport, Washington. The matter of premiums at state fairs and expositions was referred to a committee and will be taken up later.

Where in **Western Canada** you can buy at from **$15. to $30. per acre good farm land** that will raise **20 to 45 bushels to the acre of $2. wheat**—it's easy to figure the profits. Many Western Canadian farmers (scores of them from the U. S.) have paid for their land from a single crop. Such an opportunity for **100% profit** on labor and investment is worth investigation. Canada extends to you a hearty invitation to settle on her

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Duroc Swine Breeders.

There were about 100 members of the American Duroc Jersey Swine Breeders' Association gathered to attend a banquet and a business session last week. Among other things, a committee of seven members was named to go into conference at a future date with a similar committee from the National Duroc Jersey Record Association, Peoria, Illinois, to consider the consolidation of the two associations. The committee consists of the president, W. T. Harris, of Morganfield, Ky.; Ira Jackson, of Tippecanoe City, Okla.; Thos. Logan, Lafontaine, Ind.; Walter Williams, Marlow, Okla.; W. H. Peacock, Cochran, Ga.; Prof. H. W. Mumford, Urbana, Ill., and Sec. Robert Evans, Chicago. It was decided to increase the capital stock of the association from $25,000 to $50,000, as all of the present shares have been sold. The officers reelected or elected for the first time are Pres. W. T. Harris; vice president, C. E. Mahon, Osborn, Ohio; treasurer, Ira Jackson. Mr. Henry Matern, of Lostant, Ill., and C. E. Mahon, of Osborn, Ohio, were elected directors.

Galloway Breeders.

According to the report made last week by the American Galloway Breeders' Association by Sec. R. W. Brown, of Carrollton, Mo., the affairs of that association are in better condition than ever before. Twenty new members have joined the association during the last year and the shaggy coats were reported by Mr. Brown to be increasing in popularity. The election of officers resulted in the reëlection of G. E. Gilbert, of Wallace, Kan., as president, and R. W. Brown as secretary-treasurer. Mr. Lee W. Straub was chosen first vice president and H. Croft as second vice president. Mr. G. E. Clarke, of Topeka, Kan., succeeded himself on the board of directors, while J. F. Meserve, of Ellis, Kan., and G. A. Eger, of Hicksville, Ohio, were elected to fill the places of Messrs. Thompson and Chase, whose terms expire. The executive committee for next year will be Messrs. Gilbert, Clarke, Straub, Hechtner and Lincoln.

Percheron Society.

At the annual meeting of the Percheron Society of America, which was held at the Congress Hotel, December 3d, the affairs of this society were discussed somewhat in detail. According to the report read by Sec. Wayne Dinsmore, the society has now approximately 9,000 breeders enrolled and seven years ago it had 2,850. There is now a reserve fund of $106,000. There were 10,508 registrations made during the last fiscal year, of which number 10,314 were American bred. There were only sixty-four Percheron horses imported during the last year. The election of directors resulted in the choice of Mr. E. D. White, of Virginia; Mr. W. H. Butler, of Ohio, and H. J. McLaughlin, of Nebraska, these to act for the ensuing three years. The board of directors reëlected Mr. White president and Mr. W. S. Dunham, now serving as a captain in the United States army, was elected vice president. Mr. Wayne Dinsmore is continued as secretary.

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Tell what you have for sale in a little advertisement in THE FARMERS' MARKET. Does not cost much and may be worth a lot to you. Six cents a word per insertion. See page 27.

Angus Breeders.

At the annual meeting of the American Aberdeen Angus Breeders' Association, held at the Palmer House last week, Mr. J. Garrett Tolan, of Farmingdale, Ill., was elected president; Father J. C. White, Winterset, Iowa, vice president; Chas. Gray, secretary, and J. D. Evans, treasurer. The newly elected directors of the association are D. K. Robertson, Madison, Neb.; A. B. Sawyer, Norborne, Mo., and A. A. Armstrong, Camargo, Ill. The holdover members of the board are Chas. Escher, Jr., Botna, Iowa; O. V. Battles, North Yakima, Wash.; Father J. C. White, Winterset, Iowa, and L. R. Kershaw, Muskogee, Okla. The stockholders of the association agreed on the expenditure of $13,000 on publicity during the coming year. The affairs of the association are in a flourishing condition, as indicated by the report of Secretary Gray.

Hampshire Breeders.

A well-attended meeting was held by the American Hampshire Swine Record Association and a movement was started to raise money for the purpose of erecting a new home at Peoria, Illinois. The members present contributed $2,000 as a nucleus for this fund. Officers of the association are: President, C. P. Paulson, Nora, Neb.; vice president, Stanley Morris, Fulton, S. D.; secretary-treasurer, E. C. Stone, Peoria, Illinois. The new directors are A. F. Silver, Cantril Iowa; John Wuicheto, Columbus, Ohio and W. Essig, Tipton, Ind.

In and Around Wisconsin

Racine county is one of the latest of Wisconsin counties to think of a county agent. No man has yet been found for the job, but it seems likely that Racine county will have a man in charge of this work by the time another crop season rolls around.

Farmers' week at the University Farm, St. Paul, Minn., will occur December 31st to January 5th. While this is chiefly a Minnesota meeting many of our northwestern Wisconsin farmers have found it profitable to attend, and have done so because the distance to St. Paul is small.

In ten years since Wisconsin passed the first stallion enrollment act, twenty-one states of the Union have copied the law. This is quite a compliment to Dr. A. S. Alexander, our well-known Badger authority on horses, who drew up the Wisconsin law, as a part of his work for the Wisconsin Department of Agriculture.

The state food administrator, Magnus Swenson, has condemned the policy of combination sales by grocers. Grocers are no longer permitted to sell sugar as a bait to get a large order of other groceries. The only exception is that sugar may be sold in combination with corn meal at the rate of one pound of sugar to one pound of corn meal. This is a conservation measure to try and save more wheat.

Word comes that Wisconsin cows are making a name for themselves in the Center Junction Cow-Testing Association, Jones county, Iowa. Of the ten high-producing cows in the Iowa association for October, nearly all were cows purchased in Wisconsin. No doubt if we could follow the records of many of our Badger cows which have been shipped to other we would have good reason to be proud.

According to federal statistics, this country imported from Europe ninety nine pounds of cheese in August, 1917, as compared to 63,800,000 pounds in August, 1914. Argentina, which imported no cheese to the United States in 1916, sent us 448,000 pounds in August, 1917. So far as Europe is concerned the cheese is going the other way. But the entrance of Argentina as a competitor in the American cheese trade is an entirely new and very interesting factor.

Since the recent visit of T. J. Newbill, of the boys' and girls' club movement in the United States, to Wisconsin, there is renewed interest in plans to get more boys and girls interested in farm work. Mr. Newbill says that this is no time for the number of students in the college of agriculture or the county agricultural schools to fall off. On the contrary, he says the enrollment at these colleges should be more than doubled to the end that more of our boys and girls who have not been familiar with farm work shall become properly prepared to take their place in the food armies of the nation. Mr. Newbill says that in Michigan there are now 30,000 boys and girls enrolled in club work and all of these young people are preparing themselves so that they can put in their best licks to increase production.

Two hundred stockmen were present recently at the first annual meeting of the Jackson County Live Stock Breeders' Association. Among the speakers were President Ristow, Mayor McGillivray, of Black River Falls; T. H. Campion, of La Crosse county; L. H. Robbins, county agent, and D. S. Bullock, of Madison. The association is growing in members and interest.

A report from Grant county says that W. J. Schreiner was on the Chicago market the last week in November with a consignment of 1,470-pound steers which sold at $14 per hundredweight straight. These are said to be the highest priced cattle ever sold out of Grant county on the Chicago market. The Wisconsin Farmer has no records to verify this claim, but we take it for granted the report is correct.

The pride of the One Hundred and Twenty-seventh Regiment, composed of Wisconsin men now in Waco, is "Old Woody," an eagle, which bids fair to have a career similar to that of "Old Abe," the famous Wisconsin war eagle of civil war days. The history of "Old Abe" is very familiar to readers of The Wisconsin Farmer. Sergeant Howe writes to friends at Madison that the eagle, though emblematic of Prussian militarism, as well as being our own national bird, is rarely seen in Germany, but that the members of the One Hundred and Twenty-seventh hope to have an opportunity to show the Germans in Berlin just what an eagle, captured in Wisconsin, really looks like. This bird, "Old Woody" was captured on a farm near Sun Prairie, Dane county, Wisconsin, and he was the center of attraction as the train of soldiers bearing Wisconsin National Guards passed through Baraboo, Madison, Janesville and Beloit last fall en route to Waco.

At a recent county agents' conference, held at Lancaster, Mr. Burlie Dobson, a successful hog breeder in Grant county, undertook to show how pork may be produced at a profit without feeding corn. Mr. Dobson's eleven-year-old son fed six pigs from July 1st to August 29th, for pig club contest. One of the conditions of the contest required that accurate accounts be kept of the gains in weight of the pigs, as well as the amount and kind of feed consumed. The important results of this boy's work are shown in the following statement:

July 1, 1917, 6 pigs weighed	530 lbs.
Aug. 29, 1917, 6 pigs weighed	1100 lbs.
Total gain in 60 days.....	570 lbs.
Gain per day of 6 pigs.....	9½ lbs.
570 pounds gain sold at $17.25 per cwt.	$98.32

COST OF FEED.

Oil meal, 150 lbs. at $2.50 cwt....	$ 3.85
Middlings, 1,000 lbs. at $2.50 cwt.	25.00
Mixed oats and barley ground, 1,200 lbs. at $2.50 cwt.....	30.00
Black Strap molasses, 5 gal. at 30c	1.50
Total cost of feed used.....	60.25
Net profit on 570 lbs. gain.....	38.07
Cost per 100 lbs. gain.....	10.57

These results show that during this period it cost about $1 per day to feed these six pigs, but that each dollar's worth of feed produced $1.63 worth of pork. In spite of the high feed prices of last summer, these pigs would have paid for their feed, if sold as low as $10.57 per hundred pounds. Many farmers should be able to raise hogs profitably by following similar methods of feeding.

The seed corn situation in Wisconsin is mentioned in the Seed Reporter, a leaflet published under direction of the secretary of agriculture. We quote from the Seed Reporter:

Wisconsin will require seed corn in all the northern part of the state, as the crop in this section was practically all killed by September and October frosts and freezing weather. The southern part of the state will have ample supply of seed for its own needs if picked and properly stored. It is believed that those farmers having corn suitable for seed are saving only enough for their own needs, when, as a patriotic duty they should be saving all they can possibly pick. Their own state needs all the Wisconsin corn available and it is likely to repay amply the farmers for any extra effort on their part in saving this much-needed extra supply. Wisconsin has suffered two corn failures in the past three years, thus thei rseed corn supply is about exhausted, and a large amount of Wisconsin corn, grown in Nebraska, will have to be substituted.

The same authority also discusses the clover seed movement as follows:

Wisconsin's clover seed crop of 1917 is about 75 per cent of normal, owing to the lateness of the first and second cuttings. About 10 per cent of the crop had moved from farms to storage points by the middle of October. Alsike is practically all hulled and 50 per cent is at storage points here and abroad. Acreage was less than in 1916, but yield per acre greater. Quality of red clover and alsike seed is very good. Prices, basis recleaned seed, range from $21 to $24 per hundredweight for red, $19 to $22 for alsike, $35 to $43 for white clover. Wisconsin dealers are not anxious to buy and store clover seed at prevailing high prices, but prefer to keep seed moving.

The government is asking an increase of 15 per cent in the number of hogs in the country just as quickly as the increase can be accomplished. Wisconsin is omitted from the published list asking for special increases. Iowa and Illinois are asked to increase the number of hogs 25 and 20 per cent respectively and Missouri is asked to make the increase 50 per cent. The main thing for Wisconsin seems to be to see to it that there is no loss and as much of a gain as can be made.

A NEW FARM FOR YOU

If you are a tenant farmer, or if you are tired of fighting climate handicaps in farming, here is your chance. You can buy, at low prices and on easy terms, a high, gently rolling farm with almost perfect natural drainage in the

HIGHLANDS OF LOUISIANA

ready to clear, plow and plant, where there is ample rainfall, healthful climate, mild winters, 9 months pasture each year—a natural corn and live stock country. Many other Nothern farmers now prospering there. Investigate for yourself! Get the big, new book of facts,

"Where Soil and Climate Are Never Idle,"

FREE if you send for it NOW!

Low rate excursions to the Highlands from nearly all points first and third Tuesdays of each month.

Long-Bell Farm Land Corporation
416 R. A. Long Bldg., Kansas City, Mo.

POULTRY AND SQUABS FOR PROFIT

Foy's big book tells all about it. Contains many colored plates—an encyclopedia of poultry information, written by a man who knows, mailed for 5 cents. Low prices, fowls and eggs.

FRANK FOY, Box 82, CLINTON, IOWA

THE FARMERS' MARKET

WANTED—FOR SALE—TO EXCHANGE

THIS department is to bring the buyer and the seller together. You may want help. You may have live stock, poultry and eggs, or machinery for sale. Maybe you want to sell or to buy a farm. Think how you can advertise now. Write your copy for the advertisement. The rate is six cents per word, each insertion. Note the low cost to reach our 90,000 circulation.

THE WISCONSIN FARMER -:- MADISON, WIS.

POULTRY AND PET STOCK.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

THE MAIN POULTRY YARDS—Breeder of Barred and White Rocks; selling out, everything goes, including prizewinners. Pullets, hens, cockerels, cocks—either sex. For quick sales. John Maas, Hartford, Wis.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

SINGLE COMB RHODE ISLAND RED cocks and cockerels. Single Comb Ancona cockerels, White Indian Runner drakes. Prices right. Address Mrs. Wm. O'Leary, Honey Creek, Wis.

CHILCOTE STRAIN S. C. Brown Leghorns. Increase your egg yield by purchasing my bred-to-lay Stalk cockerels, $1 each, while they last. Frank Chilcote, Washington, Iowa.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

GOLDEN WYANDOTTE COCKERELS—Beautiful birds, $3.00 each; satisfaction guaranteed. Geo. J. Hilst, Green Valley, Ill.

FOX HOUNDS—Field trial winners and guaranteed to be as recommended. Miller's Kennel, Wilton, Wis. Stamps for reply.

WHITE WYANDOTTE COCKERELS—$1.50 each. Columbia County Asylum, Wyocena, Wis.

WHITE LEGHORNS—Price reasonable. Wright Bros., Garden Prairie, Ill.

MAMMOTH BRONZE TURKEYS—Mrs. Marcus Hanson, Westby, Wis.

PRINTING.

PRINTING—Special offer: 200 noteheads, 200 envelopes and 200 cards delivered for $4.00. Samples free. Write for prices on sale catalogs. LIVE STOCK PRINTING CO., LaGrange, Ill.

GOVERNMENT POSITIONS.

MEN, WOMEN WANTED—$90 month; government positions; hundreds vacancies; list positions free. Write immediately. Franklin Institute, Dept. K176, Rochester, N. Y.

FANNING MILLS.

GET PRICES on Owens fanning mills, grain graders, corn graders, before you buy. All sizes on hand. J. L. Owens Company, 1199 Superior St. S. E., Minneapolis, Minn.

TANNING.

LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

REGISTERED HOLSTEIN BULLS.

REGISTERED Holstein bull, ready for service. A beauty. Two of his dams averaged 106.75 lbs. milk 1 day; one made 44.18 lbs. and 4 averaged 37.52 lbs. butter in 7 days, officially. $200. Wisconsin Live Stock Association, Appleton, Wis.

REGISTERED GUERNSEYS.

REGISTERED GUERNSEYS FOR SALE—Mature cows, young cows, bred heifers, bulls all ages, reasonable. Would take good clover hay as part or full payment. Wyndham Farm, Fond du Lac, Duluth, Minn.

HEIFERS AND STEERS.

FOR SALE—32 head heifers and steers, coming two; $45 each, f. o. b. here. C. C. Lyford, Wauzeka, Wis.

FARM LANDS.

GO WHERE LAND IS LOW PRICED—Last year we urged some of our investor friends to purchase certain farm lands in Eastern Oklahoma which were then offered at from $35.00 to $50.00 per acre. Many of these farms in 1917 earned for their owners several times the cost per acre in 1916. We still have a few farms listed for sale at very attractive prices. They are worthy of the consideration of any man who wants to buy a farm. We do not own these lands but with a view to increasing the number of farmers along our railroad, and thereby building up our freight territory, we have interested ourselves in the matter of distributing information in territory where we know there are good farmers, hoping that we can move some of them into eastern Oklahoma. We do not charge anything for our services. We will be well repaid if our territory is built up by the removal thereto of a number of men who know how to farm. If you are interested in a farm in eastern Oklahoma, of the kind referred to above, write me for particulars. R. W. Hockaday, Industrial Commissioner, M., K. & T. Ry., 1505 Railway Exchange Bldg., St. Louis, Mo.

FARM FOR SALE—One of the best dairy and grain farms in Dodge county is now for sale. This place, known as the Cutler farm, is in the garden spot of the state, situated 4 miles east of Beaver Dam and 1½ miles west of Rolling Prairie station on the Watertown and Fox Lake road. It contains about 200 acres, 140 under high state of cultivation, balance first-class pasture land. Sufficient pasturage for 50 cows. Running spring water. Good buildings, including residence for tenant. New barn 100x40 feet, strictly modern, specially designed for dairy. New silo 41 feet high, 16 feet in diameter, connecting with barn. Enough timber on the place for fuel. Deep black soil. Very productive. Inquire at premises or address W. W. Cutler, R. 2, Beaver Dam, Wis.

REAL SHEEP PROPOSITIONS—626½ acres good grazing and agricultural land, a grade retailing at $20 per acre, joining two fine lakes; sufficient food for 6,000 sheep. One mile railroad station, N. W. line. Price $10.50. 480 acres splendid agricultural land, well adapted for sheep raising, with fine trout stream, 1 mile from railroad village. Price $11. 440 acres specially good agricultural land, high, dry land, with deeply imbedded stream; similar land retails at $30 per acre and more. 4 miles from railroad. Price $12.50 per acre. Larger tracts of grazing land at proportionately lower prices. The E. L. C. Co., G-M. Dept. 10, Merrill, Wis.

A SMALL CALIFORNIA FARM earns more money with less work. Raise crops you know: alfalfa, wheat, barley; also oranges, grapes, olives, figs. Ideal for dairying, pigs, chickens. No cold weather; rich soil; low prices; easy terms; good roads, schools, churches. Enjoy life here. Write for our San Joaquin Valley, Dairying, Poultry Raising, Illustrated Folders, free. C. L. Seagrave, Industrial Commissioner, Santa Fe Ry., 1959 Railway Exchange, Chicago.

CHOICE BARGAINS—80 acres, gently sloping, 60 acres cleared, good buildings; 4 miles from town; stock, machinery and crops included, $4,200. 120 acres, fair buildings, good timber, $1,700. 80 acres, 25 acres free of stumps, log buildings, $1,400. 40 acres, 15 acres cleared, good log buildings, $1,100. Cut-over land, $10 to $20 per acre. All descriptions have productive clay soil. Write for details to The E. L. C. Co., F-M., Dept. 10, Merrill, Wis.

560 ACRES—14 miles from town; all fenced, running water; 160 broke; $10. $3,200 cash, or part trade, for cattle and young mares, balance to suit, 8 per cent; mean business. One 540-egg Berry's Biddy incubator, made one successful hatch, works good; price $30; December prices. Pure-bred cockerels, two Black and one White Langshans, 1 Black Orpington, $2.00 each, December prices. Fred Franzen, Sentinel Butte, N. D.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

WISCONSIN LAND, just over the river from Iowa. Smooth drained land at half price. 520 A., 5 m. from Grand River, Ia., $50 per A., good stock proposition. Will trade 255 A. in No. Mo., Schuyler Co., for live stock. Girton & Lyons, 705 Crocker Bldg., Des Moines, Iowa.

80 ACRES, 4 cows, 2 horses, new wagon, mower and hay rake, harness, buggy, chickens, furniture, good buildings and well. Pierce county, Wis. All for $3,800. Herbert, R. 2, Box 15, Red Wing, Minn.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

FOR RENT ON SHARES—120-acre dairy farm. Good chance for honest, sober man with help of his own. Inquire W. A. Canniff, Juneau, Wis.

TWO FARMS FOR SALE—Near town, school, etc. Will rent one to right party. H. V. Peoples, Ladysmith, Wis.

80 ACRES—All tillable, improved, to be sold before January 1. Write Phil Barnes, Hancock, Wisconsin.

WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

FARMS FOR SALE—Address Reuben M. Ellerd, Box 6, Plainview, Texas, owner.

SEED CORN.

SEED CORN—Northwestern Iowa grown seed corn, high-testing, fine quality, crop of 1916. Varieties: Reid's Yellow Dent, Wimple's Yellow Dent, Dakota Gold Mine, Silver King. Also Early White Dent, Minn. 13, Pride of the North, 1917. Fancy ear seed in boxes, $7 per bushel. Graded shelled seed, $6 per bushel. Guaranteed to test satisfactorily or money back and freight paid both ways. L. N. CRILL SEED COMPANY, Westgate, Iowa.

SALESMEN WANTED.

SALESMEN WANTED—Owing to conditions brought about by the war we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

LEARN TELEGRAPHY.

FOR A RAILROAD TRAINING attend the Wisconsin School of Telegraphy, Oshkosh, Wis.

UPPER WISCONSIN

Placing Hogs Along the Soo Line

The Soo railroad which covers a vast portion of Wisconsin's undeveloped northlands has been behind every movement which has had for its object the advancement of agriculture in northern Wisconsin. The road has been one of the most active spirits to get the Land-Clearing Specials started. One of the prime objects of the Soo Line in doing extension work in agriculture has been to give farming in northern counties a good start, for the sooner the farm products of grain and live stock begin to be marketed by northern farmers the sooner will the road receive profits from the investment in rolling stock, land and equipment.

The latest move of this railroad has just finished the first stage of what is hoped to become one of the leading future enterprises of northern Wisconsin. The company has just arranged for the placing of over 600 pure-bred hogs on farms along this line. Through the bankers of the small towns which were visited the financial arrangements were accomplished without undue trouble and more than 200 farmers were assured of a fair chance of breaking into the hog-raising business under fair conditions.

The Soo Line Hog Special started its trip at Chippewa Falls on October 21st and finished on November 15th. On the team were the men who planned the trip, officials of the road and the men to furnish the pigs. In a special car six Duroc Jersey sows and five boars of the same breed were carried as examples of what big-type Duroc Jerseys should look like. At each town moving pictures showing how the hogs are to be handled were shown and a lecture on what is possible and impossible in hog raising followed. The orders for the pigs were taken for June and May delivery. Only trios, consisting of two gilts and one boar, were contracted for, to be delivered at ten weeks of age. The pigs will be delivered at that time by special train covering the same route as the extension train.

Crowds of 100 to 500 farmers came out at each stop, but in most places others were strictly limited to five trios for a town, as the officials recognized the danger of overdoing the good work in any community. The pigs are not to be paid for until one year is up and there will be no interest charge on the notes. The bankers recommended the purchases and handled the notes. The Soo Line assists the bankers to offer this free arrangement and only asks that the pigs be raised right.

The Duroc hogs secured for illustration purposes on the special train were pure-bred stock from the L. F. Atwater farm, La Crosse county, Wisconsin. The special train, above referred to, started from Chippewa Falls and made the trip over the Chicago division to Spencer and thence north to Philips and from Manistique, Michigan, back to Ladysmith, then to Rice Lake, Osceola, Frederick and back to Chippewa Falls.

A year ago officials of the Soo Line started out to make an investigation of various herds and they finally decided to pick Durocs for Upper Wisconsin distribution. After looking over a number of Duroc herds they picked upon Mr. Atwater's as being most to their liking and they made a final decision upon the showing made by Mr Atwater's herd at the Minnesota State Fair, 1917.

It will certainly be a fine thing for Upper Wisconsin if a number of farmers can get well started in the pig business and this is especially true when we consider what a good type of breeding stock they are getting from the Atwater herd.

Potato Experience in Vilas County

Potatoes are fast assuming a recognized place of dependence in the northern farmer's scheme of living, according to evidence brought out at the recent state potato show.

One of the striking examples of what potatoes mean to northern settlers of Wisconsin was told by Oscar Gunderson, county representative of Vilas county, regarding the potato crop raised this year by one of his constituents, Lewis Grenier, of Arbor Vitae. Mr. Grenier was present at the interview with Mr. Gunderson and at the close of the talk showed a bank check for a comfortable sum as evidence that the deal discussed was exactly as represented.

It seems that Mr. Grenier harvested 7,500 bushels of Green Mountains on thirty-six acres of land on his farm just adjoining six forties owned by the forest reserve. These potatoes were sold for good prices—sums running from $1 to $1.30 a bushel.

Two years ago most of this land on which the tubers were raised was in the usual cut-over condition. By hiring Indian labor and doing long hours himself, Mr. Grenier managed to clear fifty-four acres for about $700, using stumping machines almost exclusively.

In the spring of 1916 the most of this tract was sowed to oats, and then seeded to clover. This was then plowed under in the fall and potatoes were planted on the land this summer. The yield and quality has been exceptional and Mr. Grenier helped put the Vilas county booth well toward the front rank in the state contest by his exhibit of Green Mountains.

In Calumet County.

To the Editor:—Mr. John P. Koehler had the highest cow for the month of November. It is a grade Guernsey producing 1,182 pounds of milk and 61.46 pounds of fat. The forty-five-pound list is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Frank Sontag					
Paulina, G. H.	4	10-6-17	1263	3.8	47.99
Dolly, G. G.	4	10-10-17	1210	3.8	45.98
Herman B. Schoen					
Daisy, G. H.	7	10-8-17	1152	4.4	50.68
John Salm					
No. 30, G. H.	7	9-12-17	1380	3.6	49.68
John P. Koehler					
No. 7, G. G.	6	9-5-17	885	5.2	46.02
No. 1, G. G.	4	9-15-17	1182	5.2	61.46

JESSE WOLF, Official Tester,
Chilton Cow-Testing Association,
Chilton, Wis.

The United States Sugar Refining Company's plant at Madison expects to market about 6,000,000 pounds of sugar this year, this being a gain of 33 1-3 per cent over the production of 1916. Mr. R. Zieske, superintendent of the Madison plant, says there is no cause for prejudice against beet sugar in favor of cane sugar. He insists that beet sugar with impurities eliminated is just as good as cane sugar. In fact, the best judges of sugar often make a mistake in selecting beet or cane sugar when the two are placed together.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 25, Grant County Duroc Breeders, Fennimore, Wis. Wm. C. Edge, Secy.
Jan. 28, Ames Bros., Weaver, Minn.
Jan. 28, Rock County Duroc Jersey Breeders, John L. Fisher, Mgr., Janesville, Wis.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Derheimer, Spencer, S. D.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.
Mar. 12, M. V. Miller, Lawler, Iowa.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.
Feb. 26, H. A. Derenthal, Wykoff, Minn.
Feb. 27, H. A. Derenthal, Wykoff, Minn.

Short-horn Cattle.

Dec. 20, A. W. Arnold, Galesville, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.
Mar. 15, Interstate Short-horn Breeders' Assn. Bull Sale, Sioux City, Iowa.

Short-horn Cattle and Percheron Horses.

Feb. 26, Griswold Bros., Livingston, Wis.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

Draft Horses.

Jan. 22-25, Breeders' Sale Co., Bloomington, Ill. C. W. Hurt, manager.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Minnesota Short-horn Breeders' Second Sale.

ON January 4th and 5th the Minnesota Short-horn Breeders will hold their second annual sale at the South St. Paul Stockyards. For this event 86 head have been listed, about an equal number of males and females. Last year's sale was a success beyond expectation and a better lot of cattle have been listed this year. The breeders have learned that good cattle are appreciated and an association sale is not the place to sell the "tail ends." Every animal in this sale has been inspected by the sale committee, and the quality and individuality is assured. The show which will be held on the first day will afford an educational value to those who attend. For this event the services of secretary F. W. Harding have been secured and he will judge the cattle. The showing will start at 10 a. m., January 4th. In the evening following the show the annual meeting and banquet will be held in the St. Paul Commercial Club rooms. A most enjoyable evening was spent at the banquet last year and a better program has been arranged this year. Commencing at 10 o'clock a. m., January 5th, the sale will be opened by the auctioneer, H. O. Tellier. Wisconsin Short-horn men can well afford to attend this show and sale. Some of the best herds in the Northwest are to be found in the state of Minnesota and cattle from these herds have been listed in this sale. The cattle have all been tested and are guaranteed in every way. The catalog is very interesting and can be had for the asking. P. C. Jordan is secretary of this association and should be addressed at Morris, Minn., for a catalog. Don't forget the date and place of the show and sale.—Adv.

At H. H. Smith's, Baraboo.

A WISCONSIN FARMER field man recently had a very pleasant surprise when he saw the H. H. Smith herd of Poland Chinas at Baraboo, Wis. There is no reason why Mr. Smith should not have Polands as good as anyone, but we were not posted as to what he had. Just now Mr. Smith has a few extra good spring boars—the big kind, with lots of quality, good feet and pasterns and they will please. They are sired by King Wonder, a yearling by Great Wonder, he by A Wonder 107353. The dam is by A Wonder 143421, a great combination of big-type breeding. The young boar in the herd is sired by that good Martiny boar, Big Bone Wonder, said by many to be the best aged breeding boar in the state. The dam of this boar is by Smooth Big Bone, so Mr. Smith has the breeding backed up with individuality that should produce results. One of the good yearling sows in this herd is sired by Black Jumbo 2d by Maid's Halvor by Big Halvor; her dam by Mabel's Wonder. Another good sow is by Big Bug out of a Chief Price 2d bred dam. There are also yearlings sired by Mollie Jones' Lad, he by Big Tom out of a dam by Big Jones. The breeding is the very best known to the big-type fraternity. Besides the spring boars, a nice lot of fall pigs are running around the farm and these are for sale at very reasonable figures. See advertisement on page 29 and write H. H. Smith, and tell him your wants.—Adv.

Shea Buys Excellent Boar.

DENNIS SHEA, Melvina, Wis., continues to add good things to his Duroc herd as fast as he can find them. The most recent addition, and the attraction on his farm at the present time, is a yearling boar recently purchased in the east, a son of Taxpayer Model, he by Taxpayer by Morton's Top Col.; dam by Pal's Col. by Premier Col., she out of a Fancy Col. dam. Taxpayer's Model was a grand champion boar at the southern fairs and is now owned by Coldstream Farms. A litter sister to the Shea boar was grand champion sow at the Ohio State Fair this fall. This boar is big, has an ideal back, head and ear, feet and pasterns that are correct; in all a boar worthy to stand at the head of the Shea herd. This boar, together with Col's Choice, the best King the Col. boar in the state, and Pathfinder 2d, a son of Pathfinder, will make the trio of herd sires. Shea has a great lot of high up, stretchy gilts and they should make some sale offering on January 29th. A few real good boars are found on this farm for the late trade. Don't forget the Shea sale—it will be one of the best of the winter sales. Details will appear later.—Adv.

Last Call for Arnold Sale of Short-horns.

THIS is the last opportunity we have of calling your attention to the 65 head of Short-horn cows, heifers and bulls that are to be sold by A. W. Arnold at his farm adjoining Galesville, Wis., on December 20th. Mr. Arnold is selling a good, useful lot of cows and heifers and if you are in need of a few of this breed you will find what you want in this sale. Some 15 head will sell with calves at foot and bred again. Some good useful young bulls of serviceable age will be sold. Everything has been tested and a clean bill of health goes with every animal sold. Galesville is on the Wisconsin side of the river between La Crosse, Wis., and Winona, Minn. The railroad service to and from the sale is good. If you have not received the catalog, write for it at once and please mention The Wisconsin Farmer.—Adv.

Sending Holstein Stock to the Southwest.

THAT there is a great demand for Wisconsin dairy stock, especially of the Holstein breed in Kansas and other southwestern states, is forcibly illustrated by the recent visit to Wisconsin of Mr. Fisk, of Leavenworth. Mr. Fisk bought 101 head of pure-bred cattle at an average of $335 per head. These cattle have been shipped to the Fort Leavenworth tract, a large body of land under the supervision of the government and managed by Mr. Fisk, formerly general manager of the Fred Pabst Stock Farm. Milk from the cows purchased is to be used by the United States government and the herd will be cared for by the Fort Leavenworth prisoners directed by competent men. While in Wisconsin making his purchases Mr. Fisk was materially aided by S. E. Jones, the well-known Watertown breeder, who is an excellent judge of stock and has had a lifetime experience in handling Holsteins. It is not surprising that Mr. Jones was able to secure for Mr. Fisk such a splendid shipment of Holsteins. To head this splendid herd a 30-pound bull was purchased from Fred Pabst, also a son of Pietertje Maid Ormsby and another 30-pound bull from John Irwin, of Minneapolis, Minn. Mr. Jones also sold for this shipment three daughters of Canary Paul Homestead, having records ranging from 18-pound two year olds to 25-pound three year olds. The writer recently accepted the invitation of Mr. Jones to visit his farm two miles from Watertown and see Jessie Fobes 2d Maude Homestead, the famous daughter of Homestead Junior De Kol and one of the living evidences of the superiority of this great sire. She is not only a large individual, possessing practically all of the desirable points in the Holstein conformation, but has already two records recorded above 30 pounds. At five years of age she made 31.17 pounds of butter, 746.90 pounds milk in seven days; 123.54 pounds butter, 2,993.70 pounds milk in 30 days. At seven years she made better than a 30-pound record and 738 pounds milk. At three years she produced 20.05 pounds butter and 660.10 pounds milk, which was the world's record when made. A son of this well-known cow sired by Canary Paul Fobes Homestead, that has more than 23 A. R. O. daughters, is now junior herd sire of Mr. Jones' herd. One of the remarkable records of this cow is that her two seven days' records averaged 742.45 pounds milk, which is considerably above 100 pounds of milk per day. Her 30-pound record was also made with practically an average of 100 pounds of milk per day.—Adv.

Babcock's New Herd Boar.

B. H. BABCOCK, Evansville, Wis., who owns one of the good Chester White herds in the state, has just sent us the breeding of the boar that he is using in his herd this fall. The good gilts that sell in his February 19th sale will be bred to this boar and a son of the grand champion, Pay Streak. Babcock has named this new boar, Hoover. He is sired by Wm.'s Goods, he by the world's champion, William A. The dam is by J. V.'s Perfection, and was second prize senior yearling at Omaha in 1916. A brother to Hoover was first-prize "under six months" at Omaha this fall, and was junior champion. No Chester White breeder in the state has a better bred boar and sows and gilts bred to him should be in demand this winter.—Adv.

Little Offers Bulls for Sale.

HARVEY H. LITTLE, the man of milking Short-horn fame, Evansville, Wis., has three bulls of serviceable age that should go to a herd where they want bulls that have the backing to produce results. One of these bulls, a roan, is just passed a year old. His dam has just finished her year's work and gave 10,600 pounds of milk, her dam gave 10,115. Remember that these records were made under ordinary conditions, no forced feeding at all. This bull is sired by a straight Scotch bull, out of a milking bred dam, so if wanting combination of milk production and beef qualities, this fellow will give satisfaction. Another bull of serviceable age, bred similar to the one men-

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

SHORT-HORN CATTLE.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

HARVEY H. LITTLE CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

AUCTION, SHORT-HORNS—Monday, Dec. 17th, a complete dispersion sale of high-grade Short-horn herd, consisting of 25 young cows, fresh Mar. and Apr., dark red and roan, in good flesh and guaranteed in perfect health and of good milking strain. 10 heifers coming two with calf. All will be sold. Absolutely no reservation. Trains met on day of sale. Arthur Gabler, Highland, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

FOR SALE

REGISTERED Short-horn bulls, 2 to 14 mos. old. Red and roan. Milk and beef. Call or write.
H. A. SWENSON Tony, Wis.

TWO good roan Short-horn bulls, 6 to 8 months by White, Scotch, SULTAN GOODS. F. S. Bunker, Kilbourn, Wis.

Short-horn Bulls for Sale

BULLS 13 months old and younger; also my herd bull, Lord Rapton 385982. Write, or better still, come and see them.
G. MARCO & SONS No. 3, La Crosse, Wis.

SHORT-HORNS

SERVICEABLE Short-horn bulls, sired by Highland Sultan and Buchan Marshal, International prizewinners. Come or write.
W. J. BERND & SONS New Richmond, Wis.

KITTY CLAY HERD

MILKING hornless Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best families of milking Short-horns.
J. WARREN HOYT Rosendale, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

ROYAL OXFORT FOR SALE.
THIS YEARLING bull represents the best Mr. Wenham's 35 years of breeding milking Short-horns has produced. He is 80% Duchess Oxford breeding and his first, second and third dams are exceedingly high testers. Write for particulars.
CLARENCE WENHAM Ft. Atkinson, Wis.

FOR SALE

SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females; 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

POLLED DURHAM CATTLE.

Polled Durham Bulls

SHORT-HORNS WITHOUT HORNS

I OFFER a few thick, sappy, rugged bulls of serviceable age at a very reasonable figure. Reds and roans. WRITE ME.
JAS. B. SMILEY Rockton, Ill.
(On Ill.-Wis. line.)

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

TOO LATE CLASSIFY.

Poland Boars for Farmers

HAVE A FEW smooth, good-footed spring boars for sale. They are big and of choicest breeding. GUARANTEED in every way. Also have a nice assortment of fall pigs—boars and gilts—and will price trios so as to interest you. I HAVE POLANDS TO SELL AND THEY ARE PRICED ACCORDINGLY. Try me.
H. H. SMITH BARABOO, WISCONSIN

tioned above and out of a cow that has averaged 8,000 pounds of milk for four consecutive years, is a good buy. A rcan yearling is being offered that is out of a dam that Mr. Little sold to a Washington party. He is sired by a milking-bred bull that is out of a 7,000-pound three year old and backed up for several generations with the very best milk records. These bulls are in nice condition and the Little guarantee goes with every animal sold. It will pay you to investigate this offer. In writing for further information kindly mention The Wisconsin Farmer. See advertisement on this page.—Adv.

J. C. Hendricks' Sale Offering.

J. C. HENDRICKS, the Poland China wizard of Wisconsin, writes, giving the weights of some of the gilts that go in his February 12th sow sale. These gilts were weighed November 28th. Three Orphan Big Joe gilts weigh 310, 315, 325 pounds. This is the boar that Overton sold for $1,000 at the Iowa State Fair. Six by Northside Wonder averaged 318 pounds; one by Orange Boy weighed 315; two by Smooth Price weighed 300 and 312; two by Black Chief, one weighed 320 and one 317; two by the well-known Orange Wonder, weighed 305 and 310; two Model Major 2d gilts averaged 305 pounds. Space will not permit us to give the weights of all the 40 gilts that go in this sale. Those mentioned were farrowed between the first and 25th of March. Mr. Hendricks writes that they have had no corn, being fed "slop," oats, tankage and plenty of "scenery." These gilts have been bred for March farrow to Ring Leader, said by breeders who are in a position to know, to be one of the greatest breeding boars living. He is the highest priced Poland China boar ever brought to Wisconsin. Wisconsin Orange is also in service. He is a big yearling son of Orange Boy out of a Big Victor dam. Big Disturber is a 1,200-pound prospect and is sired by the $1,500 Disturber. Giant Wonder was the best fall boar R. M. Cassell raised last year and is sired by Giant Leader out of an A Wonder dam. This boar is a wonder and we expect to see him out next year. We predict that Mr. Hendricks will have the greatest lot of gilts ever driven through a sale ring in the Northwest. Send name now for catalog. Remember that he holds the state record for Polands. Don't forget the date.—Adv.

$400 Will Buy a 31-Pound Holstein Bull

SIRE a 30-lb son of Sir Beets Cornucopia Netherland 38460. Dam, Ella Mercedes of Elm Count. Butter, 31.02 lbs. 7 days; 829.78 lbs. one year. He was born Feb. 24, 1917, and is a nice, straight fellow. This is a bargain. Act quick if you want him.

BROOKVALE FARMS
Howell & Gerrit Waukesha, Wis.

DUROCS ON APPROVAL

BOARS weighing from 200 to 250 pounds, extra good. You see your boar before you pay. Satisfaction or no sale. Could make you no better proposition. Order one. Gilts all sold.
FRED G. MATTHES Viola, Wis.

Pabst Bull Calves Popular.

PABST quality bull calves are growing in popularity with southern breeders almost daily. Hardly a day passes but what the Pabst Stock Farm receives inquiries from the South relative to bull calves. One of the most recent purchasers from the sunny south was R. S. Hynson, Manassas, Va. He purchased Pabst Maplecrest Korndye, a young son of Korndyke Segis Johanna, from a daughter of Maple crest King De Kol, the second dam by King Pontiac Champion. Korndyke Segis Johanna is too young to have any tested daughters, but in point of breeding he runs with the best. In public sale he brought $12,500. Pabst Maplecrest Korndyke is a beautiful individual, splendidly marked, and as is true with all this line of breeding considerably more white than black.—Adv.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

JEFFERSON COUNTY GUERNSEY BREEDERS' ASSOCIATION

THERE ARE OVER 100 HERDS of Guernsey cattle in this vicinity, from which to make selections. High-class, pure-bred females can be purchased in limited numbers while pure-bred bulls and grades of all ages are more numerous. No commission or livery to pay. Inspection desired.
H. A. MAIN, Secretary :: :: :: Ft. Atkinson, Wis.

REGISTERED GUERNSEY CATTLE

FOR SALE—Two cows, two bred heifers, one heifer calf, one bull calf, one bull two years old. All tuberculin tested and free from abortion.
RASMUSSEN'S FRUIT FARM, R.5, Oshkosh, Wis.

Tilden Farms' Guernseys

FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address

Tilden Farms
James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS

FOR SALE—Three bulls large enough for service, two by Celosia's Glenwood, whose dam has three A. R. records averaging over 500 lbs. fat; one by Frank Rilma, whose dam made 558 lbs. fat and is full sister to May Rilma, 1,073 lbs. fat.; former world's record, still has second highest record of the breed. 12 head of bull calves. Am overstocked and would sell 15 head of cows and heifer calves priced very reasonable if taken at once.
ALLIO S. KNUDSON R. 5, Brodhead, Wis.

GUERNSEYS FOR SALE

10 HIGH-CLASS HEIFERS, part of them bred. Most of them are by the champion island bull, Governor of Myrtle Place II. He will also be offered. Bull calves for sale, out of cows with records as high as 698 lbs. fat.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

May Rose Bulls FOR SALE

MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few choice cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.
GEO. O. LUCIA Green Bay, Wis.

A FEW WELL-BRED YOUNG BULLS — The Haviem Farm — WRITE YOUR WANTS
Emory C. Meltz GUERNSEYS Appleton, Wis.

2 to 8 Months Old Guernsey Bulls

SIRED by some of the best sires of the breed and mostly out of imported dams.
TAMARACK FARM, DOUSMAN, WIS.
Gustav Pabst, Prop. Fred Southcott, Mgr.

YEARLING GUERNSEY BULL
READY FOR SERVICE. Sired by Auriculas King of the May and out of a granddaughter of Yoeman, whose dam has given 10,700 lbs. of milk and 487 lbs. fat in a year. Price right. Send for pedigree.
W. L. BREITRICK GREENVILLE, WIS.

CHESTER WHITE SWINE.

APRIL and MAY BOARS CHESTERS

OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.
H. A. DERENTHAL Wykoff, Minn.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

FOR SALE PURE-BRED CHESTER WHITE SWINE

TWO BOARS, two years old; one yearling boar. They are good enough to head any herd. Also a number of spring boars that will weigh better than 200 lbs., a few fine spring gilts and 30 choice September pigs, either sex, at $15 each, to be shipped when three months old.
O. P. COATES R. 4, Elkhorn, Wis.

CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
Box 13 J. FISHER & SON Eastman, Wis.

PRICES SLASHED

A FEW heavy April CHESTER boars. They MUST BE SOLD—what do you want? Good enough to ship on approval. I can fill your order.
ART. G. HOSKINS Dodgeville, Wis.

SPECIALS

IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.
WALTER GEORGE Evansville, Wis.

CHESTER GILTS

MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address
A. L. KIRST Tomah, Wis.

Schoolmaster 38th. W. A.'s Wonder

IF YOU BUY a Chester White boar or gilt sired by one of the above boars you will be pleased with your purchase. We have them to sell.
JOHN PELLETT & SON Viola, Wis.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
OARL HICKCOX R. 3, Spring Green, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

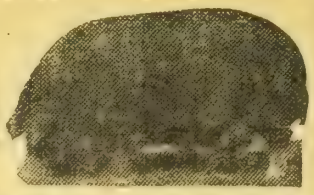
AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

POLAND CHINA SWINE.

SPECIAL PRICES ON FALL PIGS



I HAVE FOR SALE 40 pigs of August and September farrow, sired by Big Bone Wonder, the boar everyone is talking about; Smooth Price, a 1,000 pound boar, and by King Jr. by the great Big Knox. These are some of herd boar and brood sow prospects among them. Am breeding 30 spring gilts, mostly by Big Bone Wonder, to March, April and May farrow. Also have some bulls of Chester breeding, satisfactory to the junior and grand champion boars at the Indiana State Fair, for sale.

L. P. MARTINY Chippewa Falls, Wis.

J. D. McDONALD
WEST SALEM, WISCONSIN

HAVE SOME CHOICE spring boars for sale. Same breeding as my WINNERS. Two fall boars that were winners. 75 fall pigs, special prices on pairs and trios.

GERSTDALE JONES ($6,600)

Have four good spring boars for sale by Gerstdale Jones—litter mates to one I am going to use. Buy one of these boars and get in the "front row." Let me quote prices.

Wisconsin's Greatest Poland Herd. :: :: Bred Sow Sale February 6th.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG LUCK JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

Big-Type POLANDS

I RAISED 27 BOARS by eight different herd sires, and have a few choice ones left. Several by CHIEF PRICE 256331, who sired the first prize boar pig at Minnesota and the largest pig at Omaha. Sired by MAC'S BIG BONE 257809, and such noted boars as ORANGE WONDER, BIG BEN JR., BLUE VALLEY KING, JUMBO WONDER and SUNRISE PRICE, out of sows that were sale toppers and state fair winners. Act quick if you want a boar. No gilts for sale until after January 1st. I expect to ship to my $500 OAKWOOD BIG MODEL, first prize senior yearling at Minnesota, Wisconsin and La Crosse. Weighed 870 pounds in August. Correspondence invited.

W. W. QUACKENBUSH (Jackson Co.) Melrose, Wis.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy milking dam. Write and tell me what you want—we can do business.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have raised and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order now.

R. MEINKING Bangor, Wis.

POLAND CHIAN GILTS

ALL SOLD but one extra good one. Bargain prices on six boars of March farrow. Fall pigs of the superior. Write for prices or call and see me.

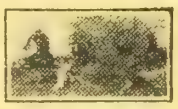
H. H. SMITH Baraboo, Wis.

HAMPSHIRE SWINE.

HAMPSHIRE SWINE

DIVIDEND PRODUCERS

DELLBROOK HAMPSHIRES SATISFY



We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.

DELLBROOK FARM

A. L. DAMON, Mgr. Richland Center, Wis.

RED POLLED CATTLE.

Headquarters for

RED POLLED CATTLE

When in need of a HERD BULL see

J. W. SALTER & SONS Unity, Wis.

RED POLLS

A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.

L. G. UNDERWOOD AVOCA, WIS.

RED POLLED CATTLE

A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

ARE YOU GOING TO BUY LAND?

IF SO, GET A COPY OF OUR JOURNAL FIRST. It lists lands, city property and stocks of goods advertised in its columns [illegible] sale, so that you can first [illegible] for yourself. Established 1888. 19 issues and reaches 76,000 readers. Send [illegible] or $1.00 for [illegible] E. Lake and Rio Grande [illegible]

Boars all Sold

HAVE HAD A GOOD DEMAND for Poland spring boars. Now offer gilts, to be shipped when safe in pig. SMOOTH BIG BONE A 2D has made good, his pigs are the first to sell. If you want choice, write now.

J. F. DILEY Rush Lake, Wis.

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write

WM. F. ACKERMAN Glen Haven, Wis. "Grant County."

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.

ED W. HENDRICKS Hazel Green, Wis.

Keep Your Eye Here

I OWN BIG BEN 2D by BIG BEN. I own BLUE VALLEY TIMM 2D. I own GREAT PROSPECT, the 700-pound, first-prize yearling sow at Minnesota, 1917. I own MOUW'S BLACK MAID 2D and other sows that should put my herd "on the map." Nothing for sale but fall pigs.

J. F. O'BRIEN R. 5, Madison, Wis. "Poland Chinas"

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.

M. MADSON & SONS R. 4, Madison, Wis.

Blue Valley Quality

AND COLUMBUS PAN Poland breeding. New blood for Wisconsin. Gilts and boars for sale. Order now.

JULIUS PETERSON Kilbourn, Wis.

HOW MANY?

THEY'RE READY AND GOOD. POLAND CHINAS THAT PLEASE. Boars or gilts. Write

GEO. DERIVAN Fox Lake, Wis.

15 Polands Average 200 Lbs.

THAT was the average weight of the boars I am offering, October 26th. If the size suits you, I know the price will. Try me.

O. E. NORTON Brooklyn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)

Marinette Co. Insane Asylum Peshtigo, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer

DUROC JERSEY SWINE.

"Where Did You Get That Good Duroc Boar?"

"WHY, from Parker at Janesville and he's sired by KING ORION, the boar that was grand champion of Minnesota and Wis." You have a "talking point" when visitors call to see your hogs. We can't afford to ship a poor boar. Try us—AT ONCE.

ED PARKER & SON :: :: :: :: Janesville, Wis.

Bred Sow Sale February 1st.

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mac's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.

F. R. CONSTANCE :: :: :: Waupaca, Wis.

DUROC JERSEY BOARS
ALL SOLD

WE SOLD 29—They averaged $78.00, which shows that the breeders and farmers appreciate our Durocs and the way we do business. We are breeding 40 choice gilts to INVESTOR JR., BACHELOR GANO and BIG TYPE for our JAN. 31ST SOW SALE. You'll want a catalog. Send your name.

RILEY MARTINY & SON :: :: :: Baraboo, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.

J. W. HIGGINS :: :: :: Gotham, Wis.

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.

PERRY GOODRICH Burnett, Wis. W. W. BIRD, Cambria, Wis.

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.

ALLIO S. KNUDSON :: :: :: R. 5, Brodhead, Wis.

The Draft Necessitates A SACRIFICE

DUROC HERD BOARS for sale: Illustrator Special by Prince Illustrator, Grand Model 21st by Grand Model, and a yearling show boar. Also ten choice spring boars. They must sell. Make us an offer. Will ship on approval.

GEO. D. SPRAIN & SONS
WEST SALEM WISCONSIN

---E. J.'s---
CRIMSON WONDER

GRAND CHAMPION MINNESOTA, 1916, BIG WONDER, GRAND CHAMPION IOWA, 1913,

DUROC BOARS sired by above for the particular buyer.

JOHN SWENSON Willmar, Minn.

Orion King

THE BEST SON of the grand champion Duroc, KING ORION. Will sell gilts and breed them to ORION KING. Boars all sold.

MIKE STOEHR Viroqua, Wis.

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.

CLARENCE GEORGE Evansville, Wis.

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?

R. C. CHURCH Elkhorn, Wis.

FASHION DUROCS

FEW BOARS LEFT. Offer gilts and sows bred to a son of Royal King. Only a few, so order early.

ISAAC HIGGINS Gotham, Wis.

Homestead Durocs

BOARS, GILTS—They will please you; in fact, we guarantee that by shipping on approval. We don't want your money unless you are satisfied. We value your patronage. Write us.

M. N. O'KEEFE & SON Waukesa, Wis.

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.

McCLURG BROS. Viroqua, Wis.

ROYAL KING 4TH'S TRIO FOR SALE

WE ARE OFFERING two young Duroc boars and a gilt by the above sire and from a daughter of Prince Defender. These pigs are the best in the litter. Write for prices.

R. B. HERRLING Glenbeulah, Wis.

BOARS

HAVE A FEW CHOICE DUROC BOARS, as good as can be found in the state. On Nov. 12th the lightest one weighed 237 lbs. and the heaviest 287 lbs. They are of my very best and popular breeding. They must be sold at once. Write

W. C. JENKINS Bangor, Wis.

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.

JOHN WALDMAN & SON Janesville, Wis.

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write

RUNDE BROS. Cuba City, Mo.

DUROC BOARS

SIRED BY Col. Volunteer, out of sows sired by a son of Critic B., grand champion at Nebraska Fair. Bred and priced right.

CLARENCE WENHAM Ft. Atkinson, Wis.

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE, $45 UP.

F. H. BURT :: Brodhead, Wis.

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.

W. A. WEBB & SONS POYNETTE, WIS.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to

L. R. SIEBECKER Baraboo, Wis.

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.

W. W. GOODRICH Ft. Atkinson, Wis.

Durocs on Approval

WILL SHIP you BOARS OR GILTS, price $40 to $60. You don't send any money in advance. Well bred and well grown. Write

FRED G. MATTHES Viola, Wis.

DUROC BOARS—April farrow out of Pathfinder 2d and son of mighty Prince Illustrator. Write Anton Hegge, R. 4, Box 3, Westby, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.

FRED CHANDLER, R. 7, Chariton, Ia.

HOLSTEIN-FRIESIAN CATTLE.

In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous **King Pontiac Champion** strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

RUST BROS.

OFFER the richly bred Holstein bull, Sir Isa Lotta Hengerveld 188663, born Aug. 18, 1915. Ready for service. His dam, Ida Lotta Hengerveld, at 3½ years made 21.34 lbs. of butter in 7 days, 31 days after calving. She is from a long line of heavy producing ancestors, records of her three nearest dams averaging 27.20 lbs. butter in 7 days. She has inherited this heavy producing ability, and transmits it. Sire of bull for sale is Daisy Johanna 5th, 1st prize two year old at Wisconsin State Fair, 1915. His dam has two A. R. O. daughters. Arthur Rust, West Allis, Wis.

Holsteins

WE ARE OFFERING at present two young sons of Sir Ormsby Johanna De Kol 37TH (141165) and cow. Also can spare two or three heifers from six to nine months of age.
F. A. SWOBODA East Troy, Wis.

EXTRAORDINARY HOLSTEIN BULLS

OF SERVICEABLE AGE, sired by SIR PONTIAC WAYNE DE KOL 3D 112197 and KING SEGIS PONTIAC POLKADOT 8TH 157647. Every one nicely marked and from high-testing dams. Several A. R. O. records. Write
W. W. QUACKENBUSH Melrose, Wis.

BELLEVIEW STOCK FARM IS OFFERING

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: Lake Mills, Wis.

A. R. O. RECORDS.
WE HAVE just completed a 26-lb. 7-day record and have a number other good prospects coming on. Our herd bull is a son of a 36-lb. sire, that has seven 30-lb. sisters. Will sell several young Holstein bulls. Write for particulars.
J. E. BARSTOW Randolph, Wis.

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON Neillsville, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER Janesville, Wis.

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. Troy Center, Wis.

HOLSTEIN-FRIESIAN CATTLE.

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.

Emmons Blaine, Prop. **Lake Mills, Wis.**

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

50 lbs. of BUTTER
One Week's Work for One PURE-BRED
HOLSTEIN

No other breed can equal HOLSTEIN RECORDS

All records for production are held by Holstein cows. They are indeed "The Profitable Breed." Learn about them. Free illustrated books.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 148, Brattleboro, Vt.

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac** 174243. Sire **King Pontiac Champion,** Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, **King of the Pontiacs.** Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, **King Segis Pontiac.**
ORRIN HAKE Jefferson, Wis.

A.R.O. Cows and Daughters

THINK—In calf to RAG APPLE PONTIAC, he by Rag Apple Korndyke, out of a 30-lb. daughter of King of the Pontiacs. CAN YOU BEAT IT? Limited number for sale.
TULLOCH FARMS Genoa, Vernon Co., Wis.

$1000 will buy

THREE SPLENDID registered Holstein cows, safely in calf to a full brother of Pietertje Maid Ormsby. These cows are heavy milkers and good individuals. Write for particulars.
BONNE MEADE STOCK FARM, Randolph, Wis.

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL,** Whitewater, Wis.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. Reedsburg, Wis.

Olathe-Holsteins

HERD SIRE—Sir Bess Ormsby Mercedes 184275; the records of his dam and sire's dam average: semi-official record (365 days): milk, 20,574.9 lbs.; butter, 958.3 lbs., per cent fat, 3.7. Will book order for bull calves sired by the above bull and out of yearly record dams at prices ranging from $50 to $75 at one month.
SILVER SPRINGS FARM CO.,
Geo. H. Comings, Pres. Eau Claire, Wis.

HOLSTEIN BULLS

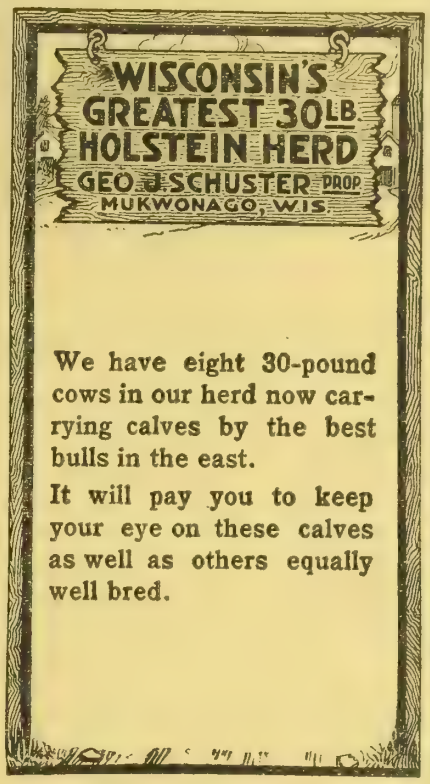
OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA Watertown, Wis.

KING OF THE PONTIACS

WE NOW HAVE a 10-mo.-old Holstein bull calf for sale, sired by a son of King Pontiac Champion, a noted son of King of the Pontiacs. The dam of the calf has 22 lbs. at 3 yrs. Write for price. **SWAN BROS., R. 1, Wauwatosa, Wis.**

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB Honey Creek, Wis.



We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

$400 Bargain

$400 WILL BUY a 29.23-lb. grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON R. 1, Rochester, Minn.

YEARLY RECORD BULL CALF
BORN August 3, 1917. Sire, a son of Pietertje Maid Ormsby 35.56 and full brother to Miss Korndyke Maid Ormsby who made in a year, 1,255.62 lbs. butter and 25,418 lbs. milk. Dam, a 21-lb. 3-yr.-old with 715 lbs. butter and 15,029.3 lbs. milk in a year. Calf is three-fourths white and a good individual. Address
N. DICKINSON & SON, Lake Geneva, Wis.
Walcowis Farms.

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. Pewaukee, Wis.

4 SONS of KING SUPERBA

A 34-LB. SON of Milanhurst America De Kol. Three are from A. R. O. dams, one of which is now giving 80 lbs. milk a day. Here is a chance to buy a Holstein herd sire bred in the purple. Write for particulars.
W. J. MANN Waukesha, Wis.

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

HOLSTEIN BULL FOR SALE.
11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.
L. V. GARVENS R. 12, Brookfield, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA East Troy, Wis.

HOLSTEIN-FRIESIAN CATTLE.

I Want to Buy

5 or 6 good, registered, yearling Holstein heifers and 2 or 3 fresh cows. Harrison S. Green, 1312 First National Bank Building, Milwaukee, Wisconsin.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. Troy Center, Wis.

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

JERSEY CATTLE.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

OAK GROVE JERSEY FARM

HAS FOR SALE—Bulls from Register of Merit dams; age 2 weeks to 1 year old. Breeding: Noble of Oakland, Eminent and Raleigh. Write for particulars.
W. M. KNIGHT Eagle, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters: 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

SHEEP.

RAMS
Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the best show and breeding stock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

Abraham Fur Co.

Fur Special

December 1917

TRAPPERS—Take Advantage of these Special Prices

WE are having an urgent demand from our manufacturing customers for Skunk, Mink and Muskrat. If you will ship your furs to us at once, following the instructions given below, we will pay you more net money than you can get from any fur house in the United States. We need immediate shipments to fill our orders and are giving you an opportunity to benefit by this condition. Besides being in immediate need of more furs we want to introduce our methods of handling shipments to every trapper in your State. One shipment will make you an Abraham Fur Co. shipper for the balance of this season and many more. **Our returns** are the most convincing argument we have and will stand the acid test. Read instructions below and then come on with your shipment of furs.

WISCONSIN FURS

		EXTRA LARGE AS TO QUALITY	LARGE AS TO QUALITY	MEDIUM AS TO QUALITY	SMALL AS TO QUALITY	UNPRIME AS TO QUALITY
SKUNK	Black	$8.00 to $6.75	$6.75 to $6.00	$6.00 to $5.25	$5.25 to $4.50	$3.00 to $1.00
	Short	6.00 to 5.00	5.00 to 4.25	4.25 to 3.75	3.75 to $3.25	2.50 to .75
	Narrow	4.50 to 3.75	3.75 to 3.25	3.25 to 2.75	2.75 to 2.25	2.00 to .50
	Broad	2.00 to 1.50	1.50 to 1.25	1.25 to 1.00	1.00 to .75	.75 to .30
MINK	Dark	$8.50 to $7.00	$6.75 to $6.00	$5.50 to $4.75	$4.00 to $3.25	$2.75 to $1.75
	Average	7.00 to 6.25	6.00 to 5.25	4.75 to 4.00	3.25 to 2.75	2.50 to 1.50
MUSKRAT		$1.40 to $1.10	$1.00 to $0.80	$0.70 to $0.50	$0.50 to $0.35	$0.35 to $0.25

Use This Special Fur Tag

If you have no Abraham Fur Co. tag on hand, cut out attached tag—paste on piece of card board and attach it to your bundle in the regular way. If you use our regular tag on the outside of the bundle, cut out the tag printed here and place it inside package with the furs. Above prices will be paid only to shippers who send in this tag.

Abraham Fur Co.
Department 358
St. Louis, Mo.

Read!

We are the only large fur house in St. Louis who do not deduct 5% for handling your furs. Bear in mind that at present high prices a deduction of 5% means a big difference in your returns. We are direct buyers and all prices quoted by us are net to shippers, less express charges only—no commission—no deduction for handling—we pay what we quote—100 cents for a dollar.

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THE WISCONSIN FARMER

VOL. XLVI. NO. 51. THURSDAY, DECEMBER 20, 1917. WHOLE NO. 1873

GET INTO THE ALFALFA BUSINESS

By L. F. Graber, Secretary Wisconsin Alfalfa Order.

DON'T take any chances on growing alfalfa. Play the game sure. Give alfalfa a square deal and it will treat you doubly square. And it pays to be square with alfalfa, even though it costs extra. Just think of it! Is it not worth while to get into the game when alfalfa hay is worth from $35.00 to $40.00 a ton? Can we afford as a general proposition throughout the southern part of the state, to put in our time, money and energy on a crop that does not produce any more for our efforts than does timothy? Yet Uncle Sam tells us that eight years ago Wisconsin was growing 767,000 acres of pure timothy against 18,000 acres of pure alfalfa and 119,500 acres of pure clover. But we have done better since then. It is safe to say that there are no less than 80,000 acres in Wisconsin today. Alfalfa is coming fast. Get into the game. "Slow but sure" is the motto that leads to success with alfalfa, and such success is worth while.

Not one word against our old friend and standby, red clover. Only this—in many places alfalfa is even superior in quality and yields to clover. But in some sections, particularly in northern Wisconsin where clover grows like a weed and a stand is so easily secured and bounteous yields of this great crop can be cheaply and readily obtained, alfalfa should not be too strongly emphasized, especially if its establishment is difficult, costly and uncertain.

What I have to say in this article is a summary of the experiences of over 1,000 growers of alfalfa in Wisconsin who are members of our alfalfa association, The Alfalfa Order. This article is meant particularly for those who are beginners and for those who have failed with alfalfa. Success with alfalfa is practically assured when your soil—

(1) has plenty of lime in it;
(2) is inoculated;
(3) is sloping and has good drainage;
(4) is reasonably fertile and manured;
(5) is prepared carefully so as to furnish a firm seed bed;

and when your alfalfa is seeded—

(1) with only one bushel of grain as a nurse crop;
(2) with oats cut for hay to prevent overcrowding of the alfalfa plants and too much drying out of the soil as may occur with any late-ripening grain crop (barley matures early and may be cut for grain);
(3) at the rate of 15 to 20 pounds of good hardy seed an acre;
(4) not later than July 15th when alfalfa is started without a nurse crop.

These are the big essentials of alfalfa growing put up in a nutshell. If you want to keep a good stand after you once have it—

(1) use hardy Grimm, Baltic or Cossack alfalfa seed where winterkilling is a serious problem;
(2) do not cut or pasture your alfalfa after the first week in September, even though you only get two crops a year;
(3 avoid putting on manure until after the alfalfa is one year old.

The most vital need of Wisconsin soils for the growing of alfalfa is lime. There is no crop grown in this state that needs as much lime—that must have this lime for successful growth as does alfalfa. Not all soils need extra lime—they may be well supplied but where alfalfa is a continued failure—ninety times out of a hundred the failure is due to a lack of lime in the surface eight inches of soil.

FROM RIGHT TO LEFT THE FIRST TWO ROWS ARE COMMON MONTANA ALFALFA, THREE YEARS OLD, AND BADLY WINTERKILLED. THE NEXT ROW IS THE GRIMM, THICK AND VIGOROUS IN SPITE OF THREE SEVERE WINTERS.

Here is an instance where a macadamized road demonstrated what lime would do for alfalfa. There was about ten acres which had been seeded the previous year on a sloping, well-drained field. The soil was of limestone origin, fertile and well inoculated, as indicated by the presence of nodules on the alfalfa roots. All along the road adjacent to the field sweet clover grew abundantly and limestone cropped out everywhere. Yet the alfalfa field was a sorry sight. Thick enough but it stopped growing in May, turned yellow and wouldn't yield a ton of cured hay an acre. But on the lower end of the field it was fine—thick as hair on a dog, rich green in color and nearly two feet high. Why the difference? That was what I was asked to explain. I tested the soil where the alfalfa thrived so abundantly with the Truog soil acidity testing outfit. It showed but a slight acid reaction. Twenty feet away the soil tested very sour, showing a requirement of four tons of ground limestone an acre for the best results with alfalfa. After explaining the result, this question was put to me with very evident doubtfulness: "Do you mean to tell me that this limestone soil needs lime? How can you make that out?" "Yes," I replied, "that is just exactly what I mean to say. This land has been cropped for years. Each crop took out of the soil its share of lime and the rains leached a whole lot more down into the subsoil. This has left the top eight inches sour and without sufficient lime to counteract the acid. For these reasons your alfalfa is now sickly and yellow. But you will find that as the roots get more thoroughly established in the subsoil they will get what lime the plants need and the alfalfa will improve with age.

"Whenever you seed this field to alfalfa again use four tons of ground limestone an acre put on the surface of the plowed land in the spring or fall. That's a prescription which insures healthy alfalfa, increased yields and bigger profits." "But why is the lower corner of this field doing so well? Why is it not like the rest? That's what's always puzzled me." I expected this question, but fortunately it was easily answered by having observed the condition and evidences of washing alongside of the macadam road. "That road has made possible this heavy growth of alfalfa," I replied. "The road!" he exclaimed. "What in the world has that got to do with my alfalfa?" "Simply this," I answered. "This macadam road was surfaced with ground limestone rock. You can see how in many places it has been pretty well worn off by travel and the rains have carried much of that limestone down through these little ditches into this lower corner of your field. That's why the alfalfa is doing so well there. Nature has demonstrated to you better than I can explain, how badly the rest of your alfalfa field is in need of lime."

Liming is neither expensive nor difficult. Suppose it cost $10.00 an acre to apply three tons of ground limestone. At the present time it would only take an increase of one-third of a ton of alfalfa hay to pay the whole bill! And the value of this lime will last and show itself for a period of six or eight years. Not only this—

(Continued on page 12.)

CURRENT EVENTS

THE helmsman on the Norwegian boat which ran into a French munition steamer in Halifax harbor has been arrested on suspicion of being a German spy. The Norwegian boat was in the Belgian relief service at the time of the collision. The helmsman has been in a Halifax hospital for several days, but there were indications that he was merely shamming illness and when he attempted to escape from the hospital he was put under guard. The collision resulted in the loss of over 1,200 lives in Halifax. Early reports had the loss as high as 4,000, but later reports reduced this considerably. Over 8,000 people were injured and the property loss will mount high into the millions of dollars. The suffering at Halifax was beyond words to express. No sooner had the relief work started than a terrific blizzard set in, stalling relief trains and making it impossible for the work of rescue to be carried on. Three different blizzards struck the town in the early hours after the disaster, retarding work of all kinds. A semblance of order is being restored, but Halifax is terribly stricken. The Red Cross and kindred organizations are doing everything possible to alleviate suffering.

FOLLOWING the resolution adopted by congress with only one dissenting vote (the socialist member, London, of the lower house) President Wilson proclaimed war upon Austria-Hungary last week. Similar action will follow against Germany's other allies, Bulgaria and Turkey, whenever the occasion demands. In proclaiming war the president specified that only dangerous Austro-Hungarians in the United States should be interned and that most of the restrictions applied to Germans should not apply to Austrians. Austrians may neither enter nor leave the United States without obtaining special permission, but no restrictions are placed on the movement of Austrian subjects within the country. They will not be registered by police, under the plan adopted for Germans, and will be allowed to live and work in many zones barred to Germans. In explanation of the proclamation Attorney-General Gregory issued this statement: "Many subjects of Austria-Hungary have already demonstrated their strong loyalty to this country by their faithfulness in industrial work, their organization of recruiting committees and in service with our armies. For the present, therefore, no restrictions will be placed upon the movements of subjects of Austria-Hungary. They are not subject to the restrictions of the previous proclamations relating to German alien enemies. They will be permitted to reside and labor in prohibited areas and to travel freely without molestation. Only those who are dangerous or disloyal are subject to arrest."

JERUSALEM, the holy city, was captured from the Turks by the English forces operating under General Allenby. There is great rejoicing over the victory, as the holy places of Christianity have been under the dominion of the Mohammedans for many centuries. Jerusalem has no particular military or strategic importance, but the conquest is hailed as a great event of the war, nevertheless. That it was due not only to the valor of English arms, but also to American asistance is shown by an official report to Washington which declares "In the campaign as a whole the greater accomplishment has been not the defeat of the Turks, but the conquest of the Sinai desert. The troops who fought at Gaza drank water from Egypt pumped through an American pipe line and were supplied over a broad-gauge railroad clear across the 150 miles of the Sinai desert, which has defeated almost everybody that tried to conquer Egypt for centuries. Every ounce of material for the pipe line, the railroad and the other works came either from Great Britain or the United States. All the time this conquest of the desert has been going on the official communications have been able to say only 'nothing to report' and the public thought we were idle. The fall of Jerusalem was made possible by industry, organization and help of material from the United States." American and other military attaches entered Jerusalem with General Allenby.

PRESIDENT WILSON discussed the question of railroad unification with his cabinet last week and reserved decision on the course he will pursue until after a conference with the railway executives. In official circles it is generally expected that Mr. Wilson will deliver a message to congress within a few days recommending a plan of unification of the transportation systems for the period of the war under some sort of government control. There already is considerable speculation concerning the appointment of a federal administrator or a chairman of a body charged with the exercise of government control. Two members of the cabinet are being discussed for this position. One is Secretary of the Interior Lane, a former member of the interstate commerce commission, and an acknowledged railroad authority, who, however, is opposed to any drastic interference by the government with the operation of the railroads at this time. The other is Secretary of the Treasury McAdoo, who is in favor of government control and has been suggested on the theory that the financing of extensions for war traffic will be the big problem involved in any sort of federal direction of transportation.

WITH Germany massing thousands upon thousands of troops, drawn from the Russian front, behind her lines in France preparatory for the most gigantic drive of the world war, Great Britain faces the crisis with grave alarm. While Hindenburg's cannon are hurling great masses of shells in British positions around Cambrai and Ypres, and over French trenches between the Oise and the Aisne, in Champagne, northeast of Verdun, and in upper Alsace, hunting, evidently for a weak spot, England's leaders are in an uproar. Premier Lloyd George is once more under fire. Important changes in the cabinet are expected. The pacifist element gained new impetus when the Northcliffe papers, which have taken a critical attitude toward the government, hinted that former Premier Asquith intends to give unqualified support to the peace policies of Lord Lansdowne. The former premier's decision will have an important bearing on the future action of the government.

PRESIDENT WILSON has signed a proclamation fixing the alcoholic content of beer manufactured after January 1st at 2¾ per cent, a reduction of one-quarter of 1 per cent from the figures set by Food Commissioner Hoover in a recommendation two weeks ago. The text of the proclamation has not been made public, but it was said at the food administration that it will provide for determining the alcoholic content on a weight basis, rather than on volume. This meets an objection of ale manufacturers, who held that the figure set by Mr. Hoover, 3 per cent of the volume of their product, would make the manufacture of ale impossible. The 2¾ weight basis of measurements will give them approximately 4 per cent of alcoholic content, the ale brewers explained. It is provided in the proclamation that the volume of grain to be used in brewing shall be reduced to an amount, approximately 70 per cent of the amount of grain formerly used, enabling the brewing of the same amount of beer.

UNDER the heading "What America Expects of Us," Capt. Andre Tardieu, high commissioner to the United States, gives the French public some homely truths in a Paris newspaper. America, he writes, is willing to give every assistance to France, but in return has the right to ask her to discipline herself. Captain Tardieu says Americans are astonished by the sight of so many pastry shops open in Paris and will not hesitate further to restrict the consumption of wheat. They will limit commerce in other ways, he predicted, and will give France more tankers for gasoline when they no longer meet on French country roads luxurious automobiles conveying the owners on pleasure trips. "America urges the adoption of the principle of a single man in supreme command of the allied fronts," Captain Tardieu continues. "The Americans do not wish to see a repetition of the Somme battle of 1916—one example in a thousand—when, because it had to be a Franco-British offensive, it was made at the junction of the two armies in a swamp. Mistakes in detail may be made, have indeed already been made by the Americans, but their general conception of the war from military and economic standpoints is simpler and, therefore, better than ours and should be listened to."

Increase the Hog Supply.

To the Editor:—By keeping an extra brood sow and raising well the litter of pigs every farmer in the state will be doing a little to help Wisconsin do her share in aiding the nation to win the war.

A fair price for hogs is assured by the food administration. It has said that the price of hogs this winter will not go below $15.50 per hundred for the average hogs bought on the market. The price for next year's crop of pigs will be fixed according to the price of corn in a ratio of 13 to 1—that is, the price of hogs per hundred will be thirteen times the price of corn during the twelve months previous to marketing.

The government can make these promises because of its enormous buying power. Having complete control over the buying of all pork products for all foreign markets as well as for our own army and navy, it can stabilize the hog markets so as to make these prices good.

Our foreign demand is much larger than ever before. Large packers report that they are now putting very little meat in the coolers, as is usual at this time of year. Buying is so brisk that they cannot accumulate a reserve supply. This means a scarcity of pork and may mean more than one meatless day a week next year. The farmer is running no risk in raising a few pigs to sell. The least that he should do is to raise enough for his own meat. He should do the latter for the safety of his own family and he does not speculate if he raises hogs to sell.

A brood sow tucked away in a comfortable corner will not require very much extra labor. A child can feed her. No one need milk fewer cows because they are feeding an extra brood sow or raise less grain or cut less hay. The extra labor is practically negligible.

Pigs have been driven off many farms because of the sale of whole milk. While skim milk is valuable, it is not necessary, so authorities tell us, for pork production. Pigs turned on pasture as soon as they are weaned and fed liberally on middlings, oil meal, tankage, corn and other grain make good gains—so we are told by those who have tried it—and produce very satisfactory pork without any other than their mother's milk.

If pigs can be raised without milk, then in creamery and cheese factory sections the milk and whey available may be pieced out with other feeds like oil meal, middlings, tankage and grain, and made to go much farther than it now does in feeding more hogs.

Though corn and hogs ordinarily go together, pork can be produced without corn as is done in northern Europe, England, Canada and even in some parts of Wisconsin. If we must have fat—and we must have it to live and be healthy—we must learn how to make some pork without corn. This war may last a long time. We have only been in it a few months and already have meatless meals and meatless days. Should it last two years we may have meatless weeks or be forced to do without meat entirely.

No farmer ought to change his system of farming to raise pigs. Farmers, as a rule, will not do this, and it might be disastrous if they did. If he is milking cows—as most Wisconsin farmers are—he should, without doubt, keep on milking cows, and just as many as he would milk if there wasn't a pig on the place.

The only changes in his farming plans that are necessary are those small ones that will make it possible to raise just a few pigs more than he has done in the past.

If each farmer in the state of Wisconsin will raise just five more pigs (a small litter) than he did this year, the state's pork supply will be increased just 50 per cent.

Hog receipts at the eleven principal markets of the country to date are nearly 17 per cent less than a year ago. October receipts at Milwaukee and Cudahy stockyards are but 60 per cent of last year, so that each farmer should raise another litter of pigs if the state's pork supply is to be maintained and our people kept from going hungry for pork. With a fair price assured he can't lose.

If the war continues we'll need the meat. If the war ends, the world still must eat. K. L. Hatch.

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The Wisconsin Farmer

THURSDAY, DECEMBER 20, 1917.

FAMILY CIRCLE TALKS
BY THE PUBLISHER

WHEN FARM HEARTS ARE TOUCHED.

ABOUT this time each year I have been in the habit of writing a Christmas article. I have sat down and looked back over the year which was closing, thinking of the many things I had to be thankful for personally; of the wonderful mercies and kindnesses of Him who holdeth us all in the hollow of His hands; of the teachings and example of the Christ child, whose birthday we celebrate. I have written my "Christmas sermon" always with a full heart, but never was my heart so overflowing as this year. I am not going to sermonize or philosophize; I am going to turn the Christmas article over to my readers. There will be two texts. The first is "A little child shall lead them." The second is "He went about doing good."

Something like two or three weeks ago I received a letter from a little girl. She had written to me because I had printed another letter offering to send outgrown clothing to whomever might need it. The little girl wrote to me as follows:

Dear Mr. Pierce: I see you are helping others and maybe you would help me. My papa died December 6, 1916. We lived on a rented farm. After papa died we had to leave the farm. We now live in town. Mama does some washings to help keep us. There are three of us children. I am the oldest one. I am eleven years old. Please tell that lady that I could wear some of her outgrown clothing if she has any more to give away. Please do not print my name in your paper; some might laugh at me.

I expected a few answers, for I knew how tender-hearted were many of my readers, but I was not prepared for the tidal wave of generosity which has fairly swamped us. Before I printed this little girl's letter I had myself sent her a box of clothing, which I thought she might find useful. Since I printed it, scores have written to me asking for her name and address, at least one farm home has been offered to her, two men have sent her money (one $2, the other $5) and any number of packages of clothing have come to me, by parcel post, to be forwarded to her and to other needy and deserving poor. I have read most of these letters with sincere feeling, so tenderly are they written, such a world of sympathy and love do they convey. I shall try to answer all the letters personally, but it may be impossible. Each writer has the satisfaction of knowing that his proffers of aid have been appreciated, that after the needs of the little girl have been fully satisfied, whatever has been sent has been distributed among others who needed it just as badly.

I am going to make my Christmas "sermon" this year out of some of these letters; just a handful picked out, almost haphazardly, from the many. Each paragraph below comes from a different writer; they are characteristic of scores of others. Could I write or preach a better Christmas sermon than is to be found in these words, coming from farm homes all over the grain belt, in response to the plea of the little child whose father **is dead:**

I am a young man and our two children are very small, so we have nothing in the clothing line to give. I had a small bean patch this year and we have more than enough to do us. I am a poor man, but the good Lord has seen fit to deal bountifully with us this year, so we have plenty and some to spare. If you will kindly send me the names of some worthy families I will send four or five families eight or ten pounds of navy beans each. I will send them by parcel post and I will pay the postage.

* * *

Would you please send me the names of some worthy farm families with needy children? I am a school-teacher. My pupils are very much interested in the letters you printed and want to send someone a Christmas box.

* * *

I am an old bachelor and live all by myself. If these folks are worthy I will take them and take care of them, if they will keep house for me. I am a poor man, but I have a heart.

* * *

I am thirty-four years old, make good wages and have no one depending on me for support. I have decided to "cut out" spending money foolishly this winter and help someone who needs it. I find a number of men around here who could help at least one person and not hurt them at all. I will help this little girl by sending her a few dollars to buy books and clothing.

* * *

I am getting old and my life companion lies in the cemetery over on the hillside, but I will do all I can to help someone along life's road. I, too, am poor, but of some things I have to spare and of such as I have will I give. May God's noblest blessings rest on you and yours for the noble work you are doing.

* * *

I am a bachelor and a farmer. I have just disposed of my stock at auction and I expect to be called to the colors in the spring. I have a few things that I think would help some poor folks. I would also send money if I knew who needed it most.

* * *

I have a dear son over in France and I want to do all I can to help others and someone can pass it along to him.

* * *

We are heavily in debt and trying to get out of debt, but I can share something with others. Tell me who to send to.

* * *

I have been a widow for three years; only by the grace of God it might have been myself writing these letters asking for help. If you will send me the address of the little girl whose father died and the mother of the six needy children I will send each one ten yards of new tennis flannel.

* * *

We have three children, two girls and a boy, and we have had misfortune to spare. Our crops were poor for three years. Then our little boy drank muriatic acid and came near dying, but the Lord spared him to us. We certainly have had a time. The little fellow has been under an anesthetic six times. His stomach was taken out and cut open. The acid burned his esophagus and the scar caused it to close up so that he could not swallow anything, but he is getting along good now. We owned our own home when we started farming, five years ago, but we certainly do not own any home now, but we can probably help some unfortunate family, as we have some discarded clothes that are serviceable yet, so if you will send me the name and address of some needy family, with children, I will send them the clothes at once.

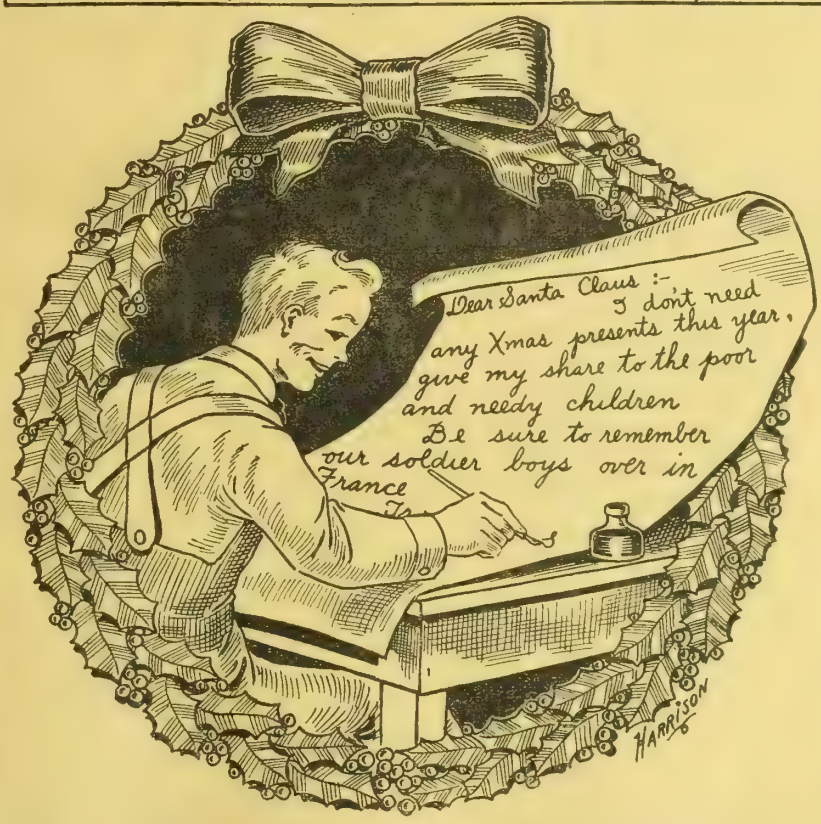
It would be attempting to paint the lily or refine pure gold were I to add any comment to these letters, or attempt to write a Christmas article around them. I can only repeat that "a little child shall lead them" and that among my readers there are literally hundreds and thousands who are fulfilling the words of the Scripture: "He went about doing good." May this good they are doing return to them a hundred-fold, in satisfied hearts, in the fulness of comfort and peace and in the knowledge of good work splendidly done!

I purposely left one of my letters to the end. It needs no comment. It carries the whole Christmas message to every one of you. Read it; heed it; nothing truer or finer was ever written:

I have children of my own and know the need of clothing. I will send whatever I can. The poem you printed was good, but I recall one which I think still better. Here it is:

"Go! give to the poor the charity's bread,
For giving is living," the angel said.
"But must I be giving again and again?"
My weary and wandering answer ran.
"Ah, no," said the angel, piercing me through,
"Just give until the Saviour stops giving—to you."

The Proper Christmas Spirit



The Poor We Always Have With Us; and Remember That "Inasmuch as Ye Have Done It Unto One of the Least of These My Brethren, Ye Have Done It Unto Me."

LET THE NATION OWN THE RAILROADS.

WE HAVE the war to thank for a broadening of ideas, a widening of vision, which it would have taken decades to bring about in peace times. Reforms which marched with lagging steps four years ago are now rushing forward at lightning speed. We are making economic and industrial history, as well as military. The things which we carried in our own minds, unspoken for the most part because it seemed impossible to realize them, are now topics of daily conversation, are now rapidly becoming assured facts.

I believe that by the time the war ends we shall have brought about many changes and reforms in this country which will work for the betterment of all men. It is inevitable that woman suffrage will result from the war; already New York has put its seal of approval on the question, the first state east of the Mississippi to give unqualified commendation to equal rights for both sexes. National prohibition is also likely to result. It is quite probable that congress will take the necessary constitutional steps this very winter. These are things which would have come slowly—if at all—in peace times. But the war has robbed issues of much of their sectionalism, much of the bugaboo of politics; it has presented them to us in the nakedness of truth and we have clothed them with the mantle of legislation and popular approval.

I am convinced in my own mind that the time has come when a great industrial change is needed, when it must be brought about if we are not only to win this war, but to keep our position in the forefront of all the nations of the earth. The change to which I refer is the abolition of private ownership of railroads and the adoption of government ownership. Already there are signs that this is coming in the very near future and that the minds of men (even those who opposed it a few years ago) are open to the fact. We have made rapid progress in this direction in the last three years; I might well say the last year. Already the United States government is preparing to take over the great railroad lines and operate them as one system, for the duration of the war. The president will probably go before congress in a few days and advocate this. Thirty-eight railroads, east of the Mississippi river, are to be operated as one, their rolling stock mobilized, their entire management entrusted to a government supervisor, probably a member of the president's cabinet. It will be but a step from this to the government's taking over the railroads and running them even when peace returns to our fair land.

After all, why should this not be done? What argument, other than the shock of a great change, is there to advance against it? Railroads are public servants; they should be operated with an eye single to the public good. Yet in the past, all too often, they have been operated and manipulated to the advantage of unscrupulous financiers and speculators. Roads have been deliberately wrecked in order that men might make vast fortunes. Grain has been left to rot in the fields, stock has been

(Continued on page 8.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

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Wisconsin Automobile Record.

The state of Wisconsin smashed all its previous automobile records with 164,530 registrations of new and old cars in 1917. This is an increase of over 48,000 above the 1916 registrations, and a gain of more than 41 per cent in the state. The figures are interesting as reflecting the prosperity of this great state, but a careful study of the statistics shows a few things which are rather surprising.

In the first place Upper Wisconsin is gaining in number of automobiles figuring on a percentage basis much more rapidly than other portions of the state, and the counties which are developing farms are making the largest per cent gains. While Fond du Lac and Walworth counties, in southern Wisconsin, gained only about 33 per cent over the previous year's registrations, Ashland county gained 75 per cent. Other counties in Upper Wisconsin gained as follows: Barron, 65 per cent; Bayfield, 79 per cent; Burnett, 75 per cent; Chippewa, 60 per cent; Clark, 54 per cent; Iron, 94 per cent; Langlade, 60 per cent; Marinette, 55 per cent; Oconto, 58 per cent; Oneida, 71 per cent; Price 99 per cent; Rusk, 58 per cent; Sawyer, 57 per cent; Shawano, 54 per cent; Vilas, 60 per cent; Washburn, 84 per cent. As the general average of increase in the state is about 41 per cent it will be seen that Upper Wisconsin has outdistanced all other portions of the state in percentage of gains.

Another fact of interest is that the rural counties have gained a larger percentage, in almost every instance, than the counties in which a large city is situated. Milwaukee county has gained 35 per cent over the registrations for 1916, which is 6 per cent below the general state average. The same condition prevails in La Crosse and Kenosha counties, but Racine county is an exception and has gained 46 per cent.

But Jefferson county, with no large city, and with the business of farming and dairying occupying the attention of most of the people and earning most of the profits, gained 49 per cent, Juneau 48 per cent, Adams 48 per cent, La Fayette 46 per cent, Waukesha 44 per cent, Waupaca 49 per cent, Polk 49 per cent, Wood 47 per cent, St. Croix 43 per cent, Pierce 55 per cent, Trempealeau 50 per cent, Columbia 55 per cent, Sauk 43 per cent, Pepin 52 per cent, Ozaukee 50 per cent, Dodge 51 per cent, Buffalo 46 per cent, Washington 44 per cent, Portage 48 per cent and Marquette 49 per cent. All these are considerably above the general average increase of 41 per cent in the state, and all these counties are chiefly dependent upon farming and agriculture. These percentages are ample proof that the bulk of cars are being sold in the agricultural communities of the state. This is true because the automobile has come to be a utility rather than a luxury on the average farm in Wisconsin. Farmers have been able to use their cars for so many purposes, and have so adjusted their farm work to this rapid means of transportation that they feel they cannot get along without a car. In fact they regard the car almost as important as any machine on the farm.

A year ago we had an automobile in Wisconsin for every twenty-one people. Now we have a car for every fourteen people. In another year the number of cars, provided anything like normal conditions prevail, will pass the 200,000 mark and probably run to 225,000. At 225,000 we will have a car for every ten people in the state. In other words, there will be enough cars to carry all the people of Wisconsin at once with only about four hanging to the running board. There will be enough cars, if they were all lined up at once, to transport nearly a million soldiers, and if for any reason the train service of the country should be paralyzed a very large part of the business of the state could be carried on in automobiles—provided we could get gasoline. A business which in the lifetime of most of the farmers of the state had not been heard of, has developed into one of the most important enterprises in the state. And it is destined to grow still more. There are over 177,000 farms in the state, and when we get to the point where we look upon a car as of just as much importance as a team we will have no less than 177,000 cars on the farms of the state. Many farmers now have two or more cars. It has been remarked that automobiles and silos run along together in the agricultural statistics of the state. Farmers have about 65,000 to 70,000 silos and at least that many automobiles. In the last two or three years the automobile if anything has been getting the jump on the silo. There is no particular relation between the two except that we have found that the man who has a good big silo, and perhaps a couple of them, somehow makes good profits on his farm and soon has an automobile.

Hog Profits.

It was not so many years ago that we used to keep the brood sows confined in small, bare, dirty pens with nothing to eat except corn, some house slop and water when it was thought of and then we wondered why the sow's litters were not large and healthy. A pasture where they could exercise freely was unknown to those sows.

"Pigs were pigs" then, but today pigs are being called upon to feed the world. If such practices as just mentioned were generally followed now there would not be enough meat to even feed a small part of our own country, to say nothing of the world. Even with our increased respect for the hog and the vastly improved methods of feeding, care and management, there is altogether too much neglect for the benefit of all concerned.

It must be remembered that the brood sow must have protein and mineral matter as well as carbohydrates and fat if good, strong-boned, healthy pigs are expected. It is the deficiency of this protein in the form of tankage, meat meal, oil meal, alfalfa and clover, rape, etc., and mineral matter in the form of charcoal, salt, sulphur and ordinary lime that prevents the hog from making rapid and economical gains.

The best feeders, and by "best" we mean those who get the greatest net returns, keep their hogs well supplied with one or more of the above-mentioned feeds at all times. The prices of protein feeds are usually high, but even so they have been found to be cheap and economical for hog feeding. Because a great many feeders do not know the real value of these feeds and because of their apparently high market price, they refrain from using them. This is no time for wasteful feeding practice and if a man does not feed economically he cannot expect reasonable profits.

This lack of protein and mineral matter in the ration is the big reason for sows becoming vicious and eating their pigs. The sow has a depraved appetite. It is commonly recommended to give such sows salt pork. What does this mean? Simply that the salt pork supplies that protein (lean meat) and salt that she is starving for.

We have seen sows heavy with pig eat charcoal until their droppings were black. We have seen vicious sows become excellent mothers when brought under correct management. It must be evident to those who are having trouble in their herds that something is wrong.

It is not customary to see alfalfa or clover hay standing in racks in the hog lot during the months when there is no pasture, but the time is coming and coming fast when such practices will be followed by a large majority of hog growers. Right now is the time to plan a change in the feeding practice. Clean up the pens and arrange for free exercise and there will be less trouble all around and greater returns.

Hog raising, like all the rest of the live stock industry, has a bright future and it is up to the owners to make the best of their opportunities.

Know Your Herd.

It was not so long ago that we were driving along a country road when we were attracted by a neat-appearing farmstead with a herd of about twenty-five uniform-looking cattle grazing in a near-by pasture.

This man, we reasoned, was evidently a progressive breeder in his community. Upon stopping and making the owner's acquaintance we were very much disappointed to find that he knew nothing about the breeding of this excellent lot of individuals. Here was probably a well-bred herd with their registration papers and extended pedigrees, if any, stowed away somewhere in the house in anything but an orderly and systematic way. If a duplicate of those "papers" had been stowed away in this man's head he would probably have been much better off in a financial way.

Isn't it a waste of money to spend years in building up a satisfactory herd of pure-bred animals without ever making any extended effort to learn their breeding? Modern buyers demand to know why when they are asked $200 and more for a single animal and they look to the owner to tell them in a convincing way why they should pay that much. Unless a man knows thoroughly the pedigrees of his animals, he cannot expect to get prices that the animals are really worth and consequently he is losing money.

Take notice of the man who is getting good, substantial prices for his stock and you will find that he knows how much that stock is worth and how much he can get for it. If a man has the ability to build up such a herd as this man has he certainly is capable of learning their breeding.

We acknowledge that learning pedigrees is not the easiest thing in the world, but surely a man cannot afford not to be familiar with the breeding of his own herd.

Room for More Poultry.

Mr. A. D. Wilson, federal food administrator for Minnesota, makes the statement that out of a total of 6,371,502 farms in the United States, 1,527,743 report no egg production in the last census. Here is a wonderful opportunity to increase the meat supply and to increase the number of eggs produced. It scarcely seems possible that there are so many farms in this country where the subject of poultry has been entirely overlooked. It is hard to imagine that any farm in the grain belt section will fail to produce enough poultry and eggs for home consumption. There must be some parts of the country which think much less of poultry than do the farmers of Wisconsin. We would almost as soon think of a farm without a plow or without a team of horses as to think of the farm with no hen coop, no spring frys and no fresh eggs.

The poultry columns of The Wisconsin Farmer offer valuable suggestions to those who wish to increase the production of poultry products on the farm. As we have before stated, it seems almost unreasonable that any considerable number of our readers are not supplied with some chickens. But if there happens to be any, we strongly urge that this condition be corrected just as soon as possible. Dressed poultry and eggs are forms of food which are not shipped to the world's fighting area in any considerable volume. The government has never suggested cutting poultry off the bill of fare and no one has ever suggested an eggless day. These foods are just as valuable in sustaining human life as beef or pork, and because they are such there is no likelihood of losses to poultry raisers or egg producers as long as the present meat shortage exists. There are men who tell us that the shortage of beef and pork will not have been changed into any considerable surplus before men, now in the prime of life, have become whiteheaded. Just how many years it will be before the world is back to the normal production of pork and before the slaughtered beef animals can have been replaced and the relation of beef production to consumption brought back to where it was ten years ago, we are unable to say. But it will not be next year, nor the year after nor in the four or five years following.

Poultry can be raised on the farm without large investments. It can be started in a small way. The growth of the flock, if properly handled, is rapid and the returns either in money if the stock of eggs are sold or in food for the farm family, will be abundant. On the 177,000 farms of Wisconsin there should be 177,000 hen coops and 177,000 flocks. If you are a slacker in this respect, wake up.

The Farm Paper a Splendid Investment.

Mr. J. L. Krause, a subscriber of Dodge county, Wis., writes to The Wisconsin Farmer as follows:

I realize that a timely suggestion or advice can often be of very great value to a reader as, for instance, to myself. In the summer of 1911 I read an interesting article on handling clover seed. The article impressed me so that I followed its suggestions closely, applying the information which I had gained to a field of six acres of medium red clover which produced over five bushels of fine clover seed to the acre. Others in my neighborhood pastured their second crop of clover, saying that it would not pay for the trouble of cutting and hulling, and they tried to talk me out of saving the seed. The seed looked so good to me that I exhibited a peck lot, winning first premium, and from that time until now I have not only done my level best to grow good grain, and get good seed, but to continually improve, and I feel that the end of this work is by no means in sight so far as I am concerned.

Mr. Krause has said in a previous letter to The Wisconsin Farmer that the article to which he refers was published in this paper. Since it was first put into Mr. Krause's head to farm a little better than he had ever done before and excel in special lines, he has had a notable series of successes in capturing awards at the grain shows and fairs. That his exhibits will show up strong at the annual Experiment Association Show at Madison this year is certain, as he has already secured notable recognition at the Wisconsin State Fair and at a number of county fairs. At the state fair Mr. Krause was awarded first on Kherson oats, second on peck of No. 5 oats, second on bundle lots, and second on any other variety. At the big Dodge County Fair Mr. Krause was awarded first on Kherson oats, first on No. 1 and first on No. 5 bundles, and second on peck lot, and also first on any other variety of oats. At the Watertown fair Mr. Krause was awarded a premium on each of the six exhibits he had on display. At the Wisconsin State Fair Mr. Krause took seventeen premiums on twenty-one exhibits of peck lots of grain and sheaf exhibits of grain and grasses.

These facts are stated to show that, in farming, big things may result from a suggestion which may not occupy a great deal of space in the farm paper. At this time The Wisconsin Farmer is making a special offer of three years for $1.50, just half the regular price, and this in spite of the tremendous advances in cost of paper and other items entering into the publishing business. As we write this we have no means of guessing what the price of The Wisconsin Farmer may be before another three years have rolled by. Whether we can make the "three years for $1.50" offer next year we cannot say. Most publishers have already raised subscription rates and some have doubled them. To save money, and be assured of regular delivery of The Wisconsin Farmer for three years, send $1.50 now. It is absolutely certain the price will not be any lower. And as to how much higher it may go we cannot now predict.

Readers of The Wisconsin Farmer

will be interested to know that the paper has 90,000 circulation, much more than that of any other Wisconsin farm weekly, and 78,000 (approximately) of that number are our own Wisconsin folks. An old established paper with such a solid foundation as The Wisconsin Farmer has in the way of paid circulation, will be sure to be always a good paper. The support which the paper receives from the farmers of the state warrants improvement every year, and this is the policy which will be carried out. Send in your subscription now and suggest to your neighbor to do the same. The big subscription rush comes in a few weeks, and the publisher will greatly appreciate it if as many as possible will remit right soon. You have no idea how much prompt remittance helps in handling the accounts in the office.

Wisconsin Farm Power Month.

So much importance is attached at this time to the need of applying something more than horse power in order to secure a maximum of food production that the college of agriculture has inaugurated farm power month and a special course of instructions will be given at the college beginning January 22d and ending February 16th. While the college of agriculture is quite well equipped with trained men to give instruction in agricultural engineering and the application of power to the farm, it has been decided to call in help from outside and trained representatives from shops of several leading farm machinery manufacturing concerns have been invited to participate in the class work. It will not be possible to handle a large number of men at this school and, in fact, it has been decided to limit the number to fifty. These men will have first-hand instruction in the mechanism and operation of gas engines, trucks and tractors. When they have finished this one month's course they will know how these machines are made and why and will have some very good ideas on how the machines can be economically operated.

Mr. F. M. White, of the agricultural engineering department, will direct the course, assisted by the members of the regular staff and the following representatives of manufacturing concerns:

J. W. Dickerson, Hart-Parr Co., Charles City, Iowa; H. L. Thompson, Moline Plow Company, Moline, Ill.; Col. T. A. Peck, Vacuum Oil Co., New York; Fred Glover, vice president, Emerson-Brantingham Co., Rockford, Ill.; L. R. Van Valkenberg, service department, Avery Company; G. B. Gundlogsan, J. I. Case Threshing Machine Company, Racine; E. I. Wood, J. I. Case Plow Co., Racine.

Several ignition and carburetor companies will add strength to the course by sending representatives to address the students. The International Harvester Company has also promised assistance. Advance registration is required for those who take the course.

Uses of Salt on Soft Corn.

Our attention has been called to the practice of using salt on soft corn at cribbing time. The commission firm of James E. Bennett & Co., Chicago, is reported to have employed a specialist to investigate this matter in Whiteside county, Illinois, and here is his report:

Accompanied by an experienced grain dealer I investigated thoroughly the use of salt for preservation of soft corn in the vicinity of Prophetstown (Whiteside county), Illinois. We found numerous places where corn was being salted or had been salted. We interviewed many experienced farmers on the subject and acquired the following interesting information. T. J. Marshall, a large successful farmer, residing about one and a half miles south of Prophetstown, gives us the following data: In 1881, the year in which so many farmers experimented with large yellow seed corn from Kansas, it was found that this corn did not mature. Mr. Marshall informs us that while cribbing corn that year, an elderly German, John Liphart, advised him to salt his soft corn. Liphart stated that this method of preservation had been adopted in Germany and Sweden, the climate not being adapted to maturing corn. Marshall adopted the German's suggestion, operating under his directions to use from two to two and one-half barrels of salt for each 1,000 bushels of corn, that is equivalent of about ten quarts of salt to each ordinary wagonload of ear corn, salt being sprinkled over the corn as it was being placed in the crib. Mr. Marshall states the experiment was a pronounced success. Corn which he cribbed early without salt that year was lost. The crib that was salted came out as dry as a bone, just as bright as it went in and absolutely free from mold and rot though light in weight due to the moisture drawn from the corn by the action of the salt. The process was used from time to time but was again extensively used with the soft corn crop two years ago (1915). Mr. Marshall induced his neighbors to salt their soft corn and informs us the result was highly satisfactory, resulting in many converts. This year these same farmers and many recruits to the method are applying the salt. Practically the entire stock of the common barrel salt in this vicinity was exhausted. E. J. Mathis, of the Mathis Bros. Co., grain dealers at Prophetstown and other points, said his firm has sold several carloads of salt for this corn crop. Local farmers seem to have accepted the salting process and adopted it into their regular method of farming, claiming it has been thoroughly tested on previous occasions and found effective and highly satisfactory. In addition to interviewing farmers who were using the method, we were particularly interested in our visit with Albert Bessire, a big farmer. He showed us one crib of 1,000 bushels of new corn which had been treated with salt. Mr. Bessire removed one of the crib slats and we took out sufficient corn to penetrate an arm's length. We found the corn very cool, in fact cooler than the outside temperature, perfectly sweet, but, of course, wet. This corn had been in crib several days. It is further stated that corn cribbed with salt passes through the winter in its soft or green state, drying only with the coming of spring winds and rising temperatures. It is claimed this soft corn absolutely does not heat. We have looked into the matter carefully and are convinced the process has sufficient merit to justify a thorough investigation, not only by the individual, but by the agricultural departments. Salt retails in Prophetstown at about $2.45 per barrel of 280 pounds. It is stated that the corn comes out in the spring practically free from any taste of salt.

As there is yet a great deal of soft corn to crib it would seem as if the plan of using the amount of salt here suggested may be advantageously carried out. It is a well-known fact that salt tends to prevent newly stored hay from heating and in a measure the same conditions are present in a crib of soft corn. In all probability there will be some heat generated in any event unless the weather is exceedingly cold, and this will possibly break salt down into its component elements, namely, sodium and chlorine, one or both of which unquestionably have a preserving effect on the corn.

The "Off Year" in Apple Production.

Before the session of the Wisconsin State Horticultural Society in Madison last week Mr. R. H. Roberts, of the Wisconsin Experiment Station, discussed the "off year" in the apple business. Some study has been given this apparent habit of some popular varieties in Wisconsin, particularly the Wealthy, to produce well only once in two years. Mr. Roberts says that the general belief that the "off year" is due to exhaustion caused by fruiting is not necessarily correct and that experiments conducted in fruit thinning show that excessive bearing may be prevented by the mere production of blossoms without regard to maturity of the fruit. We quote from Mr. Roberts' paper as follows:

The trees with the large per cent of non-blossoming spurs will normally produce blossoms and fruit again next year. As these were found to have actually borne the greater amount of fruit. It is apparent that fruit production is not necessarily the cause of the off year.

Thinning the fruit has been advanced as a remedy for biennial fruiting. As it has been repeatedly reported as having failed to produce annual bearing, studies were conducted to determine why thinning was not successful in practice. It was found that only where the blossoms or young fruits were removed previous to the time when they would normally be said to have set, was there production of blossoms on the spurs where removals were made in the year following the removals. If the fruits were removed after they had set, no blossom buds were formed on these spurs. As commercial thinning is done after the fruits have attained considerable size and is consequently too late to affect the blossom bud formation of the same season, it is seen why this thinning has failed in practice as a remedy for the off year.

The size of the leaves has a large influence upon the growth of the spurs arising from one-year wood, as it was found that the largest spurs came from the bud where the largest leaf had been the year previous. It was also found that these larger spurs continued to grow and function more vigorously through the successive seasons than the smaller spurs. It is, then, especially important to protect the foliage from injury by insects, diseases, or even spray materials if the trees are to be retained at a maximum fruiting efficiency.

If any one factor of the several studied is to be pointed out as being more particularly responsible for the off year, it would seem from the present studies, to be the production of an excess number of blossom buds. Trees that are very heavily laden with blossoms will not necessarily bear the most fruit, as the set of fruit was found to be inversely proportional to the number of blossom buds present; that is, more fruits were produced on the trees with about one-half fruiting and one-half non-fruiting spurs, than where all the spurs were blossom spurs. From the standpoint of blossom bud formation, this is largely a determining factor, as the spurs which produce blossoms even when they do not set fruits seldom produce a blossom bud the same season. The blossom buds on non-fruiting spurs were found to have begun to form about three or four weeks after the fruit had set, so in cases where the spurs produced blossoms, it seems to have a depleting effect upon the spur which prevents it from producing the blossom bud the same season it produces blossoms.

It may be concluded as a result of the work done thus far that annual bearing is not a plant habit, but is rather the result of a condition within the tree. The fact that an annual production of blossoms can be produced by blossom removal is generally considered to be due to an exhaustion of the plant foods to such a point that blossom bud formation is not possible in the same year in which blossoms and fruit are produced.

It also appears that annual bearing cannot be expected to come from the fruiting of individual spurs in successive seasons. In order to have fruit produced annually, it would seem to be necessary to have two series of spurs on the tree which would alternate with each other in production of blossoms and fruit. It is apparent from a study of non-fruiting spurs that they are the result of two conditions: one is the condition of very weak growth, while the other is the opposite condition, of very vigorous growth; that is, the spurs which produce blossoms are medium sized spurs measuring in length from one-eighth to one-half inch in length. If the spurs are shorter than this, they usually fail to produce blossom buds, while if they are much longer, as two to three inches, they also can be expected to form a terminal leaf bud. This latter condition suggests the line of work to be followed in working out the probable solution for the off year.

Experiments have shown that cultivation, soil, fertility and pruning have had a marked corrective effect upon biennial fruiting.

The studies suggest that this was the direct result of the extra vigorous growth which the well-tended trees produced. These experiments would indicate that we may evpect from further study of the fruiting habit of the apple to be able to work out general suggestions in the matter of pruning and general culture operations that may materially decrease, if not largely eliminate, the condition of biennial bearing which is at present of such economic importance to apple growers.

The studies of the experiments conducted by Mr. Roberts and his associates will certainly be of very great value to the state of Wisconsin if they shall result in a large annual crop and to any considerable extent do away with the discouraging "off year."

Establishing the Farmer's Case.

For some months the consumer has been obliged to pay what he considers a pretty high price for potatoes. Without thinking, the consumer has quite frequently imagined that every farmer who raised a few potatoes was becoming immensely rich. One of our good state journals, the La Crosse Tribune and Leader Press, recently addressed a communication to the Wisconsin Experiment Station asking for some information as to what it cost to produce potatoes. Mr. H. C. Taylor, of the college of agriculture, was put to work on the job and he has prepared an answer dealing with a few fundamental considerations upon the relationship between the cost of producing potatoes and the price which farmers are asking for the crop. Mr. Taylor estimates that the average cost in the Wisconsin potato district for producing potatoes prior to the beginning of the war was $32.47 per acre and he distributed this cost in about the following order:

Labor of man and team	$16.87
Seed	3.39
Spray material	.44
Containers	.44
Taxes	.60
Insurance	.10
Machinery depreciation	2.00
Interest on land at 6 per cent	4.03
Overhead	.84
Manure	3.76
	$32.47

Applying this for the normal yield Mr. Taylor gives the average cost at the farm of 25.6 cents per bushel. To this should be added a hauling charge. But for the year 1917 the cost of production was much higher, Mr. Taylor estimating that this cost increased from $32.47 per acre to $69.50 per acre and distributes this higher cost as follows:

Labor of man and team	$20.00
Twelve bushels of seed at $3	36.00
Spray materials, containers, etc.	1.20
Taxes	.70
Insurance	.10
Machinery depreciation	2.50
Interest on investment in land	4.00
Overhead	1.00
Manure	4.00
	$69.50

This brings the cost per bushel at the farm for the 1917 crop up to 55 cents, being a little more than double what it was before the war. In the ante-war period farmers were prosperous and happy selling potatoes which cost thm 25 cents per bushel at 50 cents per bushel. Mr. Taylor observes that carrying out this same ratio between cost and price the present market price would be $1.10 per bushel at the farm. We quote further from Mr. Taylor's reply to the general inquiry from consumers:

At first this wide difference between cost and selling price (which seems to be essential to prosperity) may seem entirely too large, but the fallacy is in using average cost as the basis of price. As a matter of fact, in the detailed figures secured for the central Wisconsin district, the farm cost of producing potatoes varied from 19.9 cents to 36 cents. On the basis of the available figures the cost on individual farms would range, in 1917, from 40 to 80 cents per bushel at the farm.

If potato production is to continue, the farmer who produces at the higher cost must be kept in the business as well as those who, because of higher efficiency and more favorable circumstances, are able to produce at the lower cost. If prices equaled average cost, the half of the farmers who are producing at a greater cost than the average would be crowded out of the business, and the public would suffer because of a shortage of supply. It is a generally accepted principle in economics that the long-time-average price or normal price of farm products should be sufficient to pay the cost of production under the most unfavorable circumstances, or the highest costs essential to the delivery of the supply needed. On this basis the normal farm price at the present time might be estimated at 80 cents, but to this must be added the cost of storage on the farm (until such time as they are to be marketed), and the cost of marketing. The average haul in the potato district is four miles. The getting of a load of potatoes out of the cellar, hauling them four miles, unloading them, and getting back home is all one man and team will do between chore time in the morning and chore time in the evening this time of year; hence a charge of 10 cents a bushel does not seem abnormal for delivery. On this basis we would have the greatest cost of 90 cents a bushel as the lowest price at which the potatoes could be delivered and yet enable the farmer to stay in the business. If the farmer is to have any profit above costs it would need to be added to this 90 cents. In the long run this farmer will, perhaps, not receive a profit. It is the farmers who are producing at the lower cost that make the profits. But the present time is abnormal in that, due to scarcity of labor, nearly everyone who works is securing a higher return than usual, and the farmer should have his fair share of the surplus profits available due to abnormal conditions.

Farmers, as a class, are impressed with the seriousness of the present situation and will be found willing and ready to do their part in fighting the nation's and world's war for democracy. Of course it is impossible that in doing so they may maintain now and in the future their economic independence of other classes. They, no doubt, will be willing to produce not only at a small profit, but even without profit or at a loss when it becomes a national rule to do so.

So it appears that the farmer is not such a robber after all. Mr. Taylor's figures are quite illuminating. It must be taken into consideration that everyone is pushing the farmer to the limit for added production. This means greater investment on the part of the farmer and in all fairness greater investment of money, time, labor and land must be expected to bring greater returns. Last spring when the farmers were most insistently urged to increase the acreage of potatoes the price of seed was the highest in history. The price of good seed is going to be high text spring, though perhaps more reasonable than in 1917. In the case of wheat the government found it necessary to guarantee a high price to stimulate production, but on potatoes the farmers of Wisconsin took their own chances and they delivered the goods with a tremendous crop.

Ask your neighbor to subscribe for The Wisconsin Farmer.

BADGER FARMER'S MAIL BAG

FARM EXPERIENCES

A Believer in Fertilizer.

To the Ediotr:—Many Wisconsin potato farmers are right in the forefront today when it comes to modern methods of potato culture. Potato growers from other states come here to learn of our growers. Perhaps Wisconsin's growers can learn something from other states.

One of the best small farms in Onondago county, New York, is owned by Mr. Peter Shaver, at Clay, New York. Mr. Shaver has only fifty-four acres of land, yet he takes about as much prduce off it in a year and makes as much net profit as the average farmer who has two or three times as many acres. He grows quite a variety of crops and makes each of them pay a maximum profit.

No cows are kept on the place in the summer, except one for home production. Mr. Shaver feeds about fifteen head each winter to use up the coarse fodder on the farm and furnish some manure. He says he cannot afford to keep cows in the summer, as they interfere with his other work and do not return as much for his labor as do his crops. The manure produced is quite a help in keeping up the humus of his soil and plenty of high-grade commercial fertilizer does the rest.

Mr. Shaver uses commercial fertilizer liberally on each of his crops. He applies 500 pounds on potatoes where manure is used and 1,000 pounds where no manure is used. For corn he spreads 500 pounds broadcast besides a light coating of manure. Other crops such as oats, beans, etc., have applications in proportion. Mr. Shaver says that a number of his neighbors who have farms similar to his use little or no fertilizer, but haul manure from the city ten miles away. Mr. Shaver does not believe in this plan at all. He thinks the cost of the manure is entirely out of proportion to its value when it is hauled any great distance. Besides this, Mr. Shaver says he gets better results with fertilizer and the amount of manure he has than his neighbors who spend as much for manure as he does for manure and fertilizer.

Mr. Shaver always has a good crop yield. His corn usually yields seventy-five to eighty bushels of shelled corn. He has often obtained seventy-five bushels of oats. His clover is always good and he never has trouble getting a good stand. This year he cut fifteen large two-horse loads on five acres.

Mr. Shaver had a splendid field of potatoes this year. Considering its size—nine acres—it was probably as good as any field in New York state. It certainly was the best the writer has seen. The stand was perfect, the fields clean, and the vines showed a wonderful growth. The only regret Mr. Shaver has is that he did not use more fertilizer. "If I had it to do over again, I would use a ton instead of 1,000 pounds," he said. He went on to explain that he had to do just as much work when he put on the smaller amount and h was sure the heavier application would pay him good returns on the investment. This is the attitude a great many progressive farmers are now taking—that more fertilizer reduces the labor per bushel by increasing the yield without materially increasing the labor.

E. G. McCloskey.

Small Value for Whey.

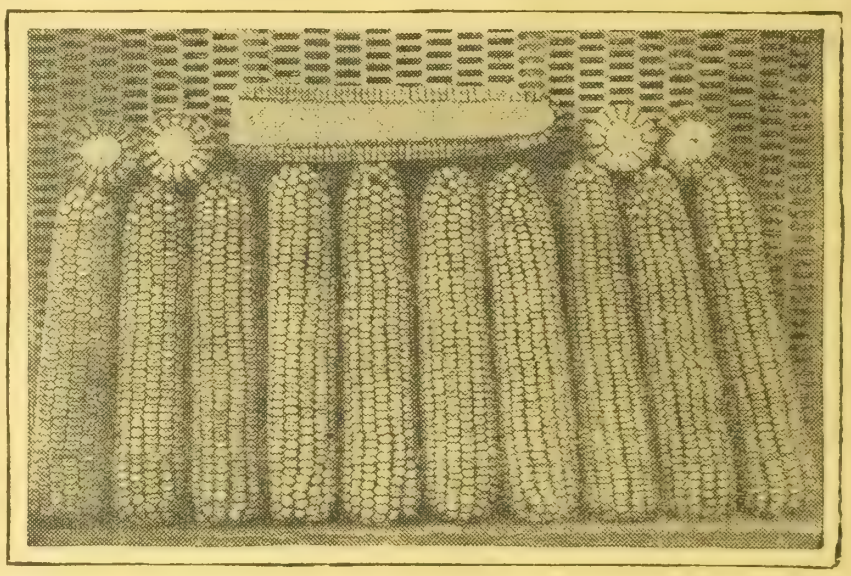
To the Editor:—I am going to give you my opinion about hauling milk to the condensery. With the present high price of feed I think it would be better to haul to the condensery. The whey is being separated at most of the cheese factories, so I don't value good, clean whey any more at much more than 10 cents per hundredweight and I will say that good whey we very seldom get. The average test in our vicinity is about 3.5 to 4 per cent. I have tried to give some study to balancing my ration for the winter and have decided to balance the same with silage, clover hay, mixed clover or timothy hay and alfalfa, using grain feed, Unicorn feed and oats. I have plenty of silage and, while corn was not sufficiently matured this fall, I am hoping that it may be all right for feed. I have not opened my silo as yet. I am a member of the Wolf River Cow-Testing Association and will say that our members are all buying feed in abundance even at the high prices. Quite a few other farmers, who are not members of the association, are rather undecided about buying, as they have no record to show whether it pays or not. Adam G. Brey.

Kewaunee Co., Wisconsin.

Does Not Favor Grading.

To the Editor:—For some time I have been an interested reader of your fine farm paper, and I was recently reading your article about the potato show at Madison. Now I am one of these men who does not believe in grading potatoes at the present high cost of living prices. In this country there are thousands of bushels of potatoes in cellars awaiting a better market and those poor men who are forced to sell to make their interest are selling No. 1 potatoes for $1.10 per hundredweight, No. 2's at 70 cents and No. 3's at 25 cents, but of course the No. 3's are not sold. They are brought back and fed to stock or saved for seed. Unfortunately, these poor farmers will sell all that is salable and will plant the culls, and what do they expect to get in another year? I am a man of poor health, 28 years old, and I have 120 acres half paid for, and I have been doing all in my power to produce more food, but it hurts me to see those nice, small potatoes fed to stock when the rich man could help eat some of them as well as the poor. This grading has not hurt me very much, for my potatoes are fair, and I have sold most of them for an average of $1.15 per bushel, but some of my neighbors have from 1,000 to 2,500 bushels in the cellar, and they are picking these nice, small potatoes and feeding them to their hogs. If the price would range somewhere within the grades of grain prices, I think they would stop feeding them. I am a poor man, but when they had the Red Cross drive I borrowed money from the bank to give for that purpose. I am very much afraid there won't be as many potatoes planted another year, for this ground around here is not the best of soil, and people will be afraid to plant so many of the small potatoes, but this is not going to faze me, for I am going to try and do my bit, if my health will permit. We use one-third less wheat and meat than we did and I think we are fully as well off as before. I wish that readers of this good paper and all others could stop and think not to waste and not to feed stock what we can eat ourselves, especially when there is plenty of other food for the stock. I know there is a large crop of potatoes, and people should eat more potatoes. I am in hopes the war will soon be over and that it will end in favor of the United States and that our farm boys can come back and help get a bumper crop for another year. With best wishes for success to you and all the readers of your good paper,

Portage Co., Wis. J. J. L.



Sample of Wisconsin No. 25 Corn, Raised by C. A. Correll, Marinette County.

Value of Whey.

To the Editor:—There is some talk that the condensery at Algoma is to make a regular practice of gathering milk in the southern part of Kewaunee county, but we have had nothing definite announced as yet. It is my opinion that it will pay farmers to sell to the condensery if the price per hundredweight is 60 to 75 cents higher than at the cheese factories. I am at present feeding oil meal and oats and other farmers in this community are buying bran and oil meal to use with home-grown grains. It seems to be necessary to feed high-protein feeds and we all have to come to it. Silage is a short crop and quite a few farmers in this neighborhood did not get their silos filled and the quality is off about twenty points, the corn being very green and most of it badly frozen.

Kewaunee Co., Wis. W. C. Katel.

[With the present feeding problems, especially connected with the effort to increase hog fat in this country, the value of the whey returned by the cheese factory or the skimmilk left over after using the separator must be taken seriously into consideration. As the condensery leaves the farmer no by-product, it is right that they should pay more for the whole milk. As to what value should be placed on whey or on skimmilk that is a matter effected by each individual case depending upon what stock there is on the farm to utilize this feed. Mr. Katel places a rather high value on whey and it is well to consider its value of some importance rather than to underrate it —Editor.]

A Lesson Learned at Considerable Expense.

To the Editor:—I am glad of the opportunity to send you a few lines giving my experience the past season with Wisconsin No. 25 corn, which I am making a specialty of growing. Will say that this has been an unusual season for corn not only in this northern country, but all through the corn belt there is probably the largest crop of soft corn ever grown. Notwithstanding the cold backward season the Wisconsin No. 25 ripened for me. Help being scarce at the time I concluded that I would cut it in order that I might have more time to husk it out of the shock. I had just begun to husk and place in the drying shed when the unexpected freeze of October came on. Thinking that probably the inside of the shocks might be fit for seed, I saved about a hundred bushels, discarding all ears on the outside of the shock. I have made a number of tests with the following result: Taking five kernels from each ear I found that 50 per cent of the ears all germinated good and strong, 40 per cent of the ears germinated 75 per cent and 10 per cent of the ears didn't germinate at all. Judging from this I could by testing every ear get fifty bushels of good seed; this, of course, is a big job and I am not prepared for it. The lesson that I have learned this season (and it has cost me about a thousand dollars) is to take no chances in the future. I could have saved 300 bushels of good seed had I commenced a week earlier.

C. A. Correll.

Marinette Co., Wisconsin.

Potatoes in Rusk County.

To the Editor:—I will give the readers of the Mail Bag some of my experience in potato growing the past season. I used Green Mountain seed which was as nearly pure as one can get. This seed was treated with a solution of formaldehyde for scab. The seed was planted in rows three feet apart and about sixteen to eighteen inches apart in the row. As I now remember it, I planted early in June, but another year I mean to plant not later than May 15th, for this season the vines were exceptionally well set, but the crop averaged small because of early frost. For cultivation we plowed deep at the first and after that merely kept free from weeds by shallow plowing. To get rid of bugs we hand sprayed, not needing a larger sprayer because the acreage was small. One of the reasons why we have such exceptionally fine potatoes in Rusk county is because we have a light clay loam soil. Farmers who wish to make a specialty of potato growing and have had poor or indifferent success would do well to dispose of their holdings and let them be used for other lines of farming and if they want to continue in the potato business they should come to Rusk county where the soil, climate and rainfall are peculiarly adapted to the potato crop. Fred W. Umbreit.

Rusk Co., Wisconsin.

Wants Information About Buckwheat.

To the Editor:—I would be glad to hear from any of your readers who had experience with buckwheat this past year. It seems a good many got this crop in pretty late. Also I would like to know from any of your readers what the crop paid and especially how it compared with other crops. I know a number of farmers raised buckwheat for the first time, and when the circulars were sent out urging this crop I had a notion to sow some, but did not get to it. In another year I think perhaps it will pay me, but would like to know how others have come out with the crop. Please publish it in the Mail Bag. Thanking you for the many good things in your valuable paper.

John Underlein.

Richland Co., Wisconsin.

[Let's hear from several on this topic.—Editor.]

A cow always responds wonderfully to every improvement in methods of caring for and feeding her.

Co-operative Marketing of Butter.

An Address Read Before the Dairymen's Marketing Conference Columbus, Ohio---By J. R. Morley, of Owatonna, Minnesota.

WAR prices have created considerable interest in the problem of distribution of food products. In the matter of dairy products we must go back to the producing end, as that is really where distribution begins.

To eliminate unnecessary cost, the consumer should be brought as closely as possible to the producer, and the product should be subjected to as few commissions or profits as possible to the end that the producer may get as large a proportion of what the consumer has to pay as is consistent with safe business methods.

When I say safe business methods I have in view the bringing of the farmer and city worker together without danger of financial loss to the farmer or unnecessary delay or inconvenience to the consumer. It must be obvious to all that the individual in the great centers of population in the East can never deal directly with the individual producer in the West when they are separated by a distance of from 1,000 to 1,500 miles.

There have been some advocates of dealing directly, receiving the goods by parcel post, but to my mind this is thoroughly impractical. Take, for example: Greater New York consumes daily approximately 6,000 sixty-three-pound tubs, or 378,000 pounds of butter alone. Some business may have been transacted in this way, but the volume would be so small that it would not be worth mentioning.

We have only one method by which we can reach the desired results and that is coöperative organization. So far as successful coöperative enterprises have been promoted in this country, it has, I think, been confined to the rural communities almost exclusively. The farmer has organized to better his market conditions, giving little thought to the consumer or what further channels his products passed through after leaving his local, home concern.

Many years ago the farmers in different localities became imbued with the idea that the manufacturing of dairy products could be more cheaply done under his own direction and in his own factory than by the old method of individually owned plants. The results of these efforts have exceeded the expectations of the most sanguine.

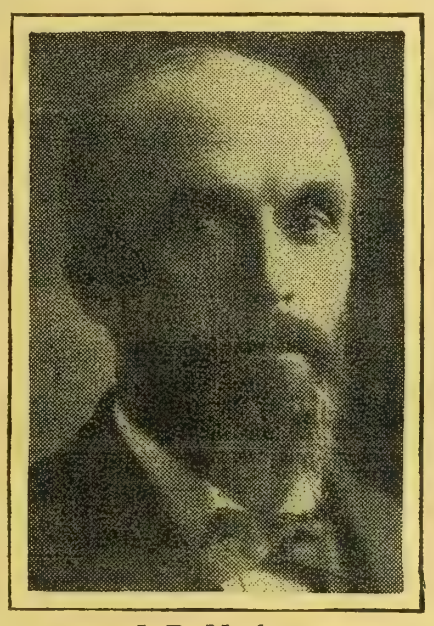
There are in the state of Minnesota alone 646 coöperative creameries and seventy-nine coöperative cheese factories. In operating these manufacturing plants the farmer is not looking for earnings from the operation, but prefers to take everything in the first payment for butter fat. As a result manufacturing is done at cost and without profit to anyone, eliminating the possible profits of manufacturing.

Having been successful in the matter of owning and operating their own creameries and cheese factories the dairymen thought it might be to their advantage to take one advanced step and get nearer to the consumer by organizing for selling in a wholesale way. As a result, a resolution was offered at the annual convention held at Owatonna, Minnesota, in January, 1907, to appoint a committee to investigate the feasibility of organizing a state selling association. As a result of the deliberations of the committee an organizaion was formed in June of that year and incorporated under the provisions of a special act of the legislature.

The name of this corporation was the Minnesota Coöperative Dairies Association, and its principal place of business is St. Paul, Minnesota. The units or stockholders are coöperative creameries, and each creamery is entitled to one vote at all stockholders' meetings, regardless of the number of shares owned by the several creameries. Eligibility to be a director consists in being a stockholder in one of the local units or coöperative creameries that own stock in the state organization. Actual business of handling dairy products was commenced in May, 1908, by appointing a broker at Chicago. The following spring similar arrangements were made at New York and Philadelphia. June 1, 1915, the agency system was abandoned at New York and the association opened its own house and operated it with salaried employes, and it is now doing business at 197 Duane street.

This organization brings the farmer directly on the wholesale market, and has possession of his goods until they pass to the jobber or retailer, or, in other words, it is direct from the farmer to the wholesale market without any intervening agencies. There is one more elimination to bring us direct to the consumer. I have spent considerable time in New York during the past two years, have studied and become somewhat familiar with the methods of distribution and believe it to be perfectly feasible to bring our products directly from the farm to the consumer. It appears that what is to be done in this direction must be done by the farmer through coöperative organization from the country end.

During the time I have spent in New York I have been unable to discover any attempt of the poorer classes to unite in a coöperative way to improve their buying conditions, which I believe they could do if they were to unite. Those people, encouraged by agitators, are more inclined to look for relief from advancing prices and high living costs through legislative



J. R. Morley,

President Minnesota Coöperative Dairies Association.

enactment, municipal markets, cold-storage plants and so forth, rather than by any effort to better their own conditions.

This agitation merely creates discontent among the working class which ultimately results in boycotts, riots and demonstrations that never bring relief. If the same energy that is spent in agitations, creating antagonism to present conditions had been spent in organizing coöperative distributing plants of their own, results might have been quite different to the consumers of New York and other large cities.

The farmers of the Northwest have taken the initiative in their own interests and created their own coöperative manufacturing plants, but no such similar movement has developed among the city consumers, so it would appear that if any further progress is made toward eliminating intervening profits it must be done by the producers. Increasing prices of the past few years and more particularly during the present war period have brought the farmer to realize that he should take more interest in the ultimate consumer, as the purchasing power of the city worker is limited.

My plan would be to add to the present wholesale distributing plants small, inexpensive retail butter, cheese and egg stores, located in different residential districts where the consumer could obtain his supplies first hand, or, in other words, buy directly from the farmer. The producer in turn could operate these various stores in the East along conservative, economical lines and the chain would be complete from the farm to the city door, giving the farmer the maximum price in selling and the buyer the minimum price in making his purchases.

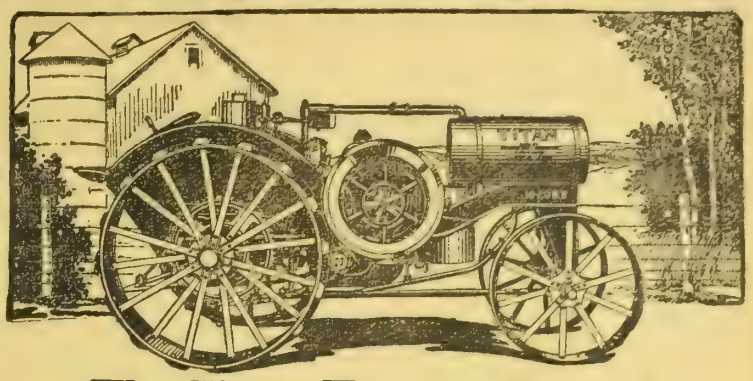
I have lived among the New York people, have studied and become somewhat familiar with distributing conditions from the Battery to the Bronx, and cannot see anything impractical in the plan. The average New York housewife is a very improvident buyer, making her purchases in the smallest possible amounts, not only from day to day, but from meal to meal. They do not appear to have the remotest idea of making larger purchases in the wholesale way. Personally, I do not believe in federal or state paternalism. It is fundamentally wrong and is tending toward socialism. The controlling of products or fixing prices by government agencies, except as a war measure, is wrong and should never be tolerated by an intelligent people. The American citizen should be taught to depend upon his own resources and better his conditions by his own efforts. The western farmer can be depended upon to, in time, work out his problems to a satisfactory conclusion.

The best students of coöperation have pronounced our methods of organization fundamentally right; that is, the local units owning the larger organization instead of being individual memberships. A large or statewide organization with individual membership is unwieldy; there are too many conflicting opinions, and, in a measure, will approach mob rule, while with the plan of smaller units each sending representatives, will be a more deliberate body and better results can be obtained.

In the first instance we have what might be termed a pure democracy; in the second, a representative management, which will always get better results. With our organization of 135 creameries we can have at most only 135 representatives at a stockholders' meeting, while this same aggregation of farmers with individual membership would make a voting population of 13,000 or 14,000.

The farmers of the West are willing and anxious at all times to coöperate with the United States Bureau of Markets in bettering distributing conditions. Notwithstanding the extreme high price of dairy products, the producer is getting none too much for his product when we consider the present cost of production and he is interested in so far as possible eliminating all unnecessary expense between himself and the consumer. But it must be obvious to all that there must be more or less machinery in matters of distribution and why should not the farmer own it all? We can never hope for the urban resident to meet us half way.

Manufacturers of milking machines report an increased interest in their product manifest this year at the various fairs and live stock shows. This very likely may be attributed to the improvement in the machines themselves and also to the great scarcity of farm labor which makes their use more urgent. Experiment stations that have made careful tests with the milking machine find that it is entirely practical and satisfactory in the hands of a competent operator. In other lines of industry, particularly in the factory, it has been found that skilled labor with machinery proves cheaper and more efficient than an abundance of unskilled labor. That there has been a growing interest in milking machines indicates that the dairyman, also, is discovering this fact.



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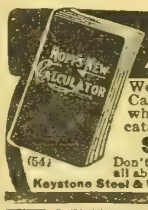

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Family Circle Talks by the Publisher

(Continued from page 3.)

left to die in the pastures, simply that men might play fast and loose with hundreds of millions of dollars and thousands of miles of rails, gambling with the nation's welfare and prosperity. The wrecking of the New Haven and Rock Island systems are malodorous chapters of our industrial history. They should never be repeated. They never could be repeated were the railroads to be taken out of the hands of the speculators and put into the hands of Uncle Sam.

There will be some who will denounce the proposition, mainly because their own interests are opposed thereby. The same men (or others of their ilk) denounced the proposal to have the United States take over the mail service and not to leave it in the hands of private parties. Every great change which has given to the government those duties previously performed by private individuals, to their great profit, has been denounced as socialistic, anarchistic, demagogic. It will be the same with government ownership of railroads. But it is coming, and it is coming soon. Transportation is an important factor in winning the war. But that is not all. It is an equally important factor in time of peace. We produced crops this year to the value of twenty-one billion dollars. Shall we let this fabulous fortune suffer and be diminished because a few financial speculators choose to gamble with railroad stocks while the people demand freight cars and while crops rot in the fields? Shall we hold aloof because the price which we must pay for the railroad equipment seemed fabulously great —before our production reached such immense proportions? A few years ago our national expenses touched the billion-dollar mark for the first time. This year they will hover around the fifteen-billion-dollar mark. We are thinking and acting in bigger units. Shall we hesitate to take over the railroads because the price we must pay seemed large a few years ago?

I believe this is an issue second only to the war. It is occupying the minds of men the nation over. Shall not we of the farm do what we can to bring it about, by discussion and agitation and by such a widespread and unanimous demand as cannot fail to be heard in Washington and be answered favorably? The people demand the right to run their own business; our railroads are a prime factor in our success or our failure, as individuals and as a nation. What argument can be advanced which can weigh against and offset our individual and national good?

SAVE THE FARM FUEL.

I WANT to urge upon all my farmer readers the importance of conserving fuel, because an adequate fuel supply is one of the most important factors in winning the war, which is the most important duty that we as a nation are facing.

Never was our coal and wood supply so important as now. Our boys may enlist to fight for the stars and stripes, but unless we have the coal to run the trains and the ships they cannot be sent to the battle front. We may work day and night making guns and shells, but unless they can be transported to where the cannons roar they are useless. It is the same with food. To produce in abundance and then to allow it to rot in the field or to waste in crib or granary is criminal carelessness. We must have fuel or we cannot win the war. We can have fuel in the required amounts if we, the individuals of this great nation, will practice economy.

The problem of fuel conservation is one especially for the farmer. The average housekeeper in the town or city is of necessity dependent upon the coal or the wood which he purchases from the retail dealer. The city man has no other alternative than to buy from these sources. With the farmer it is different. In practically every case he is dependent upon the coal dealer in the town where he trades, or the coöperative association to which he belongs, for his coal supply. But coal is not the only available or practical fuel. What of the wood which all too many farmers allow to go to waste, every stick of which would save a shovelful of coal to help send food, men and munitions to our boys in the trenches across the seas? Here is where the problem particularly affects the farmer.

I earnestly hope that a campaign of fuel conservation will be launched in every farm home to which my words carry. There are dead branches lying beneath the trees in the pasture; there are rotting fence posts and boards which might easily be collected and which would make splendid fuel for furnace and range. Dead trees, dead limbs, old fence posts, old boards—each one of these will go a long ways toward saving the coal which would otherwise be burned to heat the farm home. But that is not all. What of the coal burned in the engines used to transport coal from mines to farm homes? Burning the dead timber and waste lumber around the farm home saves this fuel of transportation, leaving a double portion to go to the task of moving men, munitions and food across the country and across the seas to France. Send the youngsters down along the river or creek, after school, to bring in the dead wood. They will be doing their bit and fuel conservation will have become an assured fact.

But the heating problem does not end here. Fuel can be saved in divers ways. A little work putting on the storm doors and windows, covering the screen doors with tar paper, using weather stripping around the doors and windows—these and other things of a similar nature will cut down the fuel consumption and at the same time make the task of warming the farm house much easier. In many cases, there is a north room which does not heat well; it is unoccupied most of the winter; why not close it off and save the heat which would otherwise go to warm it needlessly? A pan of water in a room will throw off moisture sufficient to make for health and comfort at a considerably lower temperature than is agreeable in a dry room. Most hot-air furnaces have a water pan for such purpose; keep it filled and thereby conserve fuel and the health of the entire family.

We are having unusual demands made upon us this winter for fuel. We confront a shortage of 50,000,000 tons of coal, notwithstanding the fact that production is being materially speeded. We can save these 50,000,000 tons if we will. I have seen it estimated that a kitchen shovelful of coal saved every day by every householder means an annual saving of 25,000,000 tons. I will do my share. Will you do yours?

The lives of the boys who go out from our farm homes to fight for Old Glory may depend, in the last analysis, upon the dead wood which the children bring in from the creek, to save the coal supply. The people must be roused to the situation; I am doing what I can to open the eyes of the farm folks of the grain belt. I cannot do this thing alone. Will you do your share; save and save and save until every locomotive engine in all our broad land, until every factory in which munitions of war are being made and where our raw foodstuffs are being converted into the finished product to sustain our soldiers, until every steamship leaving our shores, shall run at top speed, twenty-four hours in the day, and the war shall come to an end with the guarantee of peace and freedom which have been our richest heritages throughout all the years of our national life?

THE THANKS OF A WORTHY MOTHER.

IN ANOTHER column this week I print a few of the many scores of letters received from big-hearted men and women of the farm offering to do their bit in relieving the distress which prevails in some places because of the hard winter, the boys taken away for military service, and so on. I cannot refrain from adding another as a sort of postscript to the story told there.

One of the very first letters received by me asking for aid in the way of clothing was from a farm mother with six children. I guess I cannot do better than to reprint a portion of her letter, as follows:

Dear Mr. Pierce: My husband works out by the month. We have six children and he only gets $35 a month and his board, but has house rent to pay. We have no milk, just what we buy at the store. He does not use tobacco, neither does he drink. He is a good hand on the farm, but just because we have a family and people know he can't be idle, they won't pay any more than they can help. So if you could help me find someone that has any clothes that their children have outgrown, or shoes, I would ask God to bless and prosper you and yours for all time. We will help some other poor family when our children are grown to men and women.

It seemed to me that here was a case which demanded immediate relief, so before I could print the letter in the paper, and assistance be secured in this manner, I took the matter up with some of my associates here in the office and together we secured a box of clothing, a little something for each member of the family, adding a package of candy for the little folks, for their mother said they had had none for years, yet were never envious of more fortunate children. We sent this box without delay and today a letter of acknowledgement came to us. I want to print this letter, withholding only the name and address of the woman —which can be had by anyone who wants to add to our little mite and still further help her and her family. The letter needs little, if any, comment. It is a volume of thankfulness written from out a full heart. Here it is:

Dear Mr. Pierce: I received the box all O. K. I wish you could have been here to see the children. We just got word Saturday morning that it was at the depot, so we went Saturday afternoon. We were indeed glad to get the things and thank you more than I can tell you in a letter. The baby, Sarah, said: "We will have to tell God, won't we, papa?" Every piece will come in good play, for I can use them. Those two suits for a lady just fit me, only the skirts are a little long. The children are saving the candy for Christmas. As you have been so kind I will give you the children's names: Laura Esther, thirteen years old; Lawrence Pleasant, aged twelve; Wayne Albert, aged eleven; Cora Anna, aged eight; Beulah Gertrude and Sarah Lucinda (twins), aged four. I hope you can make other people as happy as we are; and may God bless and save everyone who is in such good work is the prayer of this entire family.

What need I add to this letter; so genuine that the heartbeats of a relieved mother can be felt in every line? I read it over and over again, with genuine yuletide happiness. Shall we not all of us do all that we can to drive care, sorrow and want away from such a household and in their place bring happiness and comfort? Next year we must enlist, every one of us, in a movement to bring Christmas cheer to every needy and deserving man, woman and child throughout all the countryside. Will you enlist with me, thus early?

James M. Pierce

IN AND AROUND WISCONSIN

The winter term of the school of agriculture at the University Farm, St. Paul, Minnesota, begins January 7th. This course offers special advantages for young men from the farm, seventeen years of age or over, and in addition to the regular courses military drill will be available to such as desire to fit themselves for army service later.

The Calumet County Holstein-Friesian Breeders' Association held a successful meeting in Chilton, December 1st, and increased its membership by eighteen. This organization now represents 150 pure breds and 500 grades. Secretary Hampke, of the Manitowoc County Association, was present and addressed the meeting. President McGrath, of the Calumet County Guernsey Breeders' Association, also spoke and an interesting letter from Senator Standenmayer was read. In calling the meeting to order Pres. A. T. Hipke urged coöperation among the breeders and said that it was time to stop the "cut-throat methods" which have been in vogue. Mr. Hipke called attention to the responsibility which the world war placed upon Wisconsin farmers, dairymen and breeders and from the interest manifest at the meeting it is apparent that the farmers and breeders in Calumet county intend to do their part.

The Journal of Soil Improvement, published quarterly by the Wisconsin Soil Improvement Association and edited by members of the staff in the Wisconsin College of Agriculture, is making a strong drive to accomplish better handling of acid or sour soils. A statement is made in this journal that over two-thirds of the land area of Wisconsin or over 23,000,000 acres, is acid and needs lime. Liming is recommended as the first step in the improvement of soils which are sour. Liming not only adds materially to the productiveness of the soil by correcting acidity, but it also adds greatly to the effectiveness of all other soil treatments and often doubles the yield of clover and other legumes. The state soils laboratory at Madison was organized for the purpose of helping farmers to understand the needs of their soils. Our readers have the privileges of this laboratory under favorable conditions and should take advantage of the service which is offered.

A. C. Townley, of the National Non-Partisan League, recently visited Washington and asked President Wilson to urge upon congress an appropriation of $50,000,000 for the purchase of seed and feed to be sold at cost to farmers in the Northwest. During the conference, according to an Associated Press Dispatch from Washington, Mrs. Townley pledged to the president and our government the allegiance of northwestern farmers and declared that they desired to do everything in their power to aid the government in winning the war.

The Dane County Fair Association has reëlected Pres. F. Pierstorff, vice-president William Fehlandt, secretary M. M. Parkinson, and treasurer C. A. Hanan. The 1918 Dane County Fair is to be run on an even larger scale than usual. This fair is coming to be recognized as one of the best county fairs in the state.

According to a statement made by J. F. Wotja, Wisconsin raised 21,000 acres of sugar beets in 1917. Three to five acres is the usual size field. One advantage in sugar beets is that the farmer knows in advance what price he will get for the crop. The prevailing price in 1917 was $8 per ton. Yields run from six to twenty-four tons to the acre. So much labor is required that it is not practical for the average farmer to plant a very large acreage to sugar beets.

Serious Session of Fruit Growers.

Wisconsin State Horticultural Society Accepts the Broad Responsibilities of the Hour and Will Aid in Campaign for Bigger Food Supply from the State.

CONFRONTED with the war-time duty of developing to the utmost the commercial fruit and vegetable industries of the state on the one hand, and assuming direct leadership in teaching intensive home gardening as well, the fifty-second annual convention of The Wisconsin State Horticultural Society held at Madison, December 11-13, took on a most serious and deliberate tone. Sessions were held in the state capitol.

At the outset of the convention the keynote of the situation was expressed by Secretary Frederic Cranefield, who emphasized the fact that it is now the absolute duty of every public or semi-public organization concerned in the production of food to postpone for a time such activities as relate only indirectly to that problem, and put extra force into methods of increasing and conserving the commissary stores.

In this line of work the State Horticultural Society has taken a leading part. It was the first in the field with a publication intended to aid the amateur gardener, namely, the special edition of the society's magazine, Wisconsin Horticulture, which was mailed to members and others interested on April 17th.

This initial drive for better home gardens as national food defense measures was quickly followed by the organization of The Wisconsin Gardener's Advisory Council, a group of volunteer workers who directed local efforts in fruit and vegetable growing.

Secretary Cranefield declared that nothing in his fourteen years of service as an official of the society equals the spirit and results accomplished by this brigade of garden guardians.

Brief reports were noted of the war garden activities of the following members of the council:

H. Kaufmann, Marshfield; William J. Hansche, Racine; Hon. Jay F. Lyon, Elkhorn; J. T. Fitchett, Janesville; Melvin Haynes, Sawyer; John D. Jones, Platteville; Scott S. Dey, Wyocena; C. A. Hoffmann, Baraboo; Dr. A. H. Lemke, Wausau; E. Haywarden, Superior; N. E. France, Platteville; Mrs. Coley Strong, West Allis; John J. Blaine, Boscobel; Irving Smith, Ashland; Conrad Engsberg, Lake Mills; E. H. Niles, Oconomowoc; C. W. Meisnest, Manitowoc.

Members of the Gardener's Advisory Council went on record at the convention as firm believers in the ultimate good of the movement in which they were engaged, and pledged to continue the work with added reinforcements next spring. Many of the members stated that winter garden conferences have been planned in their districts in order to review the past season's successes and failures and create wider enthusiasm for future work.

They believe that the sum total in production from 100,000 well worked tenth-of-an-acre gardens is of greater economic importance than 10,000 acres devoted to market gardens. Mr. Cranefield said that Wisconsin does not have quite 5,000 acres devoted to commercial vegetable gardening, while it is not an overstatement to place the Wisconsin home garden area cultivated in 1917 at 200,000 gardens of one-twentieth of an acre each, or 10,000 acres.

Wisconsin Grown Wealthies.

Wives of the visiting delegates and others interested in county council of defense garden movements lent aid to the program. Mrs. H. H. Morgan, chairman of the women's committee for Wisconsin of the National Defense Council, spoke in support of the statewide garden movement, as did Miss Abby L. Marlatt, head of the home economics department at the University of Wisconsin and home economics representative of the United States Food Administration.

Mrs. Morgan uged closer unity and more thorough local organization of all women to the end that war work may become a vital part of home life and ambitions. Miss Marlatt dwelt in particular upon the conservation of fruits and vegetables, and asked horticulturists to support all present and future plans based upon intelligent and rational methods of kitchen economy. Miss Marlatt placed the services of herself and members of the home economics staff at the university at the disposal of women engaged in all phases of food thrift.

Mrs. C. E. Strong, of West Allis, presented the results of the war garden movement in that city. There during the past summer the loyal populace, aided by public information from the State Horticultural Society and the College of Agriculture, planted and cultivated fully 1,200 gardens, averaging 60 by 120 feet in size. Similar accounts of personal interest and devotion to back-lot farming were outlined by Mrs. J. J. Ihrig, Oshkosh, who gave a brief synopsis of the garden plans mapped out for that city next season.

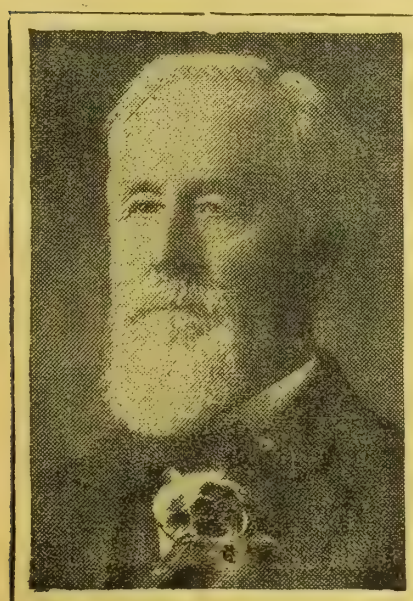
N. A. Rasmussen, president of the society, aided by A. Martini, Lake Geneva, secretary of the Walworth County Foremen's and Gardeners' Association, then provided some technical information to aid the directors of forthcoming garden campaigns. They explained soil requirements and soil management, and gave hints on early crops, succession crops, and the storage of different varieties of fruits and vegetables. Next spring both Mr. Rasmussen and Mr. Martini, through the society's publication and by means of special lectures, will continue to lend help to the cause in many parts of the state.

Owing to the severe weather many of the numbers scheduled on the progrom had to be omitted. The illness of two members of the society also reduced the exhibits somewhat. The display of Wisconsin grown apples and vegetables in the rotunda of the second floor of the capitol was, however, worth coming long distances to see. Hardly without exception, the exhibits of apples were placed by commercial growers, and represented the best products of the Bayfield peninsula, Door peninsula, the Lakeshore district, from Kewaunee county southward to Milwaukee county, and including choice specimens from the famous Kickapoo Valley orchards of Crawford county. Sauk county, with A. K. Bassett, of Baraboo, as its champion, came through the ordeal with a long string of prizes to its credit. Jefferson county was represented no less thoroughly by Freemont Lounsbury, Watertown, who likewise made some "cleanings" in standard varieties.

Nevertheless, there still continues to be a lamentable lack of interest in the annual state apple and fruit show, a fact not easily explained in a casual manner. Some attribute this indifference to a lack of suitable premium awards; some say it is due to the more pressing duties brought about by the national call to arms; while still other members believe the state fair and county and district horticultural shows have weaned away some of the faithful. Judging of exhibits was left to members of the horticultural department of the University of Wisconsin, J. G. Moore in charge.

Some interest was attached to the annual report of the trial orchard committee, William Toole, senior, Baraboo, and M. S. Kellogg, Janesville. In addition to maintaining a trial vineyard at Sparta for the past seven years, the society has eight different test orchards leased and under its personal management. In this work the Wisconsin society leads all other state horticultural associations. The orchards are maintained for the sole purpose of determining to a nicety the sections of the state which can be recommended for this branch of food production on a commercial scale.

The vineyard at Sparta will be abandoned. After seven years' trial the society has found that grapes cannot be grown commercially with any assurance of success in that region. The decision need not act as a check on the efforts of home growers, however, the committee stated, but the fact remains, nevertheless, that only one



Wm. Toole, Sr., Baraboo,
A Veteran in Horticultural Society Work.

N. A. Rasmussen, Oshkosh,
President of the Wisconsin State Society.

D. E. Bingham, Sturgeon Bay,
Vice President of the Wisconsin State Society.

Frederic Cranefield, Madison,
Secretary of the Wisconsin State Society.

profitable crop of grapes suitable in every way to Wisconsin conditions could be produced during the seven years in which the Sparta plot was in operation. The best of care and attention was given the project from the start.

The orchards are located at Gays Mills, Lake Geneva, Pewaukee, Manitowoc, Poplar and Maple, (Douglas county), Weston, Dunn county, and Holcombe, Chippewa county. The orchards at Poplar, Holcombe and Maple are distinctly "trial" orchards, while the remaining ones, located in sections where tree fruits are known to thrive and bear well in good seasons, are termed "model" orchards. Here the demonstrations in spraying, pruning and soil culture are carried on.

An account is opened with each of the model orchards with the expectation that a decided margin of profit will be shown at the end of ten or twelve years. The orchard should then yield profitable crops for twenty years longer with but moderate expense for maintenance. In this way the society hopes to demonstrate the possibilities of fruit growing in Wisconsin without the shadow of a doubt.

The orchard at Poplar, seven acres, is in the heart of the red clay region of northern Wisconsin. There it is proposed to work out the tree-fruit problem for the thousands of settlers who are now on the land and for the sake of others to come. The five-acre orchard at Holcombe, Chippewa county, in the words of the secretary, "would seem to have no rational excuse for existence in the light of our earlier experience with orchards at Barron, Medford and Eagle River, but we may yet be able to raise apples on the hilltops and ridges of this peculiarly broken country. At least we will try." The Weston orchard in the Big Woods of Dunn county, is favorably located, the soil, elevation and drainage resembling those of the orchard at Gays Mills—the one which leads all others thus far in yield and profit.

The Wisconsin apple grading law, which makes compulsory the exact grading and packing of all apples for sale in the state, was discussed, and seemed to meet the hearty approval of the members. It is the first law regulating the fruit industry to be placed on the statute books in Wisconsin, and Dr. E. D. Ball, of the state department of agriculture, has charge of its administration.

The discussions brought out the fact that the law must be respected and upheld if for no other purpose than to open the way for further favorable legislation. To disregard the provisions of the law, which provide that all apples consigned to the regular box and barrel channels of trade must be marked according to four classified and one unclassified descriptions, would be suicide to the progress of Badger horticulture.

The future of Wisconsin horticulture and some things it must stand for was the subject of an address by J. G. Moore, college of agriculture. Mr. Moore's keynote was that Wisconsin commercial fruit growers must aid farmers in adopting better methods of caring for their home orchards. The commercial man has in some cases, Mr. Moore believes, been loath to impart his trade secrets or give useful suggestions to neighboring farm orchardists for fear that these private fruit growers might in time come in line for competition in the open market with a product equal to his own.

He said that the most significant thing in recent horticultural circles in Wisconsin was the awakened interest evinced by the average farm orchard owner in properly caring for his trees. With this in mind, Mr. Moore urged all commercial growers to at least "practice what they preach on their own holdings."

They must spray and prune and cultivate their orchards for the benefit of their farm neighbors as well as themselves. The speaker pointed out that the danger of possible competition from strictly amateur-grown fruit need not worry the commercial grower.

This is true because of two things, he said, namely, that a commercial man really suffers the most damaging 'ort of competition when lots of in-'ior, scabby fruit is thrown on the 'ket. The poor stuff sets the price .evel. Then the premium price above that level which the commercial man gets for his improved article may not be as high relatively, after all, as would be the case in a market where plenty of excellent fruit establishes a higher average price level to start with. The other point is that consumption and demand are always greater and more even when an abundance of high-grade stock is on the market for the public to admire and buy more generally and readily.

Strawberry culture, particularly that of the late varieties, was discussed by M. S. Kellogg, Janesville. These everbearing, "double-barreled" varieties will yield a late summer crop of excellent quality with the proper care. They have probably shown success as a home garden crop rather than a commercial proposition in Wisconsin thus far in the trials, Mr. Kellogg stated. Their backwardness in securing public favor as a dependable commercial crop was laid to the strong competition which the everbearing kinds must face in a market glutted with peaches, pears and early apples. From now on the success of the everbearing kinds depends solely upon a vigorous campaign of education, to set the public at rest as to their merits and calling the housewives' attention to the fact that all home-grown strawberries are not gone by the second week in July. Mr. Kellogg also urged farmers to consider small fruits more carefully next spring, as they would aid the sum total of food production on odd corners of the farm at little expense in time and a relatively small labor outlay, results in average seasons considered.

The best varieties, honesty and care in packing—with or without a state law—were the maxims for successful commercial apple production set forth by A. K. Bassett, well-known Baraboo fruit farmer. When Mr. Bassett bought his present farm it contained a fifty-year-old, neglected orchard. He cleaned, renovated, sprayed and pruned and has since set out sixty-five acres to apple trees. Although receiving an average of $6 a barrel this season, f. o. b. Baraboo, for his winter stocks, with less valuable kinds selling for 75 cents a bushel, containers returnable, Mr. Bassett complains of labor shortage as a drawback to expanding his business just now. His earlier varieties are the Snow or Fameuse, McIntosh, Wealthy, Northwestern Greening and the extra early Duchess of Oldenburg. For strictly winter keeping qualities, he supplies his trade with Salome, Windsor, Russett and Tolman Sweet. All these he has found adapted to south-central Wisconsin conditions over a period of ten years. Mail order shipments direct to consumers took 40 per cent of his crop this year, and dealers in northern and western Wisconsin towns took most of the remaining lots.

Not forgetting the side of home life which ministers to the soul, and helps to imbue a stronger love of country, talks on farmstead planning for beauty as well as utility were given by F. A. Aust and Cecil Britt, University of Wisconsin. Mr. Aust explained the elements to be sought in landscape architecture, using good, hardy Wisconsin vines and shrubs advocated by the college of agriculture and the horticultural society. Mr. Britt, a veteran gardener who comes from Warwickshire, England, with much lore about rose culture, gave the society an interesting ten-minute talk on the chief things which Wisconsin must look for in the successful growing of the national flower of Albion.

R. H. Roberts, of the university horticultural department, in his paper on the cause and control of winter injury to cherry blossom buds, attributed it chiefly to the condition of the buds when winter starts. The more developed the buds are at this season the more susceptible they are to harm. These observations lead one to conclude that much of the winter injury common to older, weaker-growing trees could be prevented by maintaining a more vigorous tree, and thus arrest the extreme development of the blossom buds to the stage at which they are found to be very subject to frost.

More action for central frost-proof warehouses where cranberries could be sorted and shipped with less delay and loss due to frequent and careless handling is the crying need of Wisconsin, said E. K. Tuttle, Tomah, in a brief discussion. At present each grower in the Badger cranberry area works practically alone in his own warehouse in spite of greatly improved conditions brought about by recent successful organizations. Wisconsin raised between 20,000 and 30,000 barrels of cranberries this year, Mr. Tuttle says. Most of the larger, fancy varieties are shipped west, although Chicago annually receives much Badger stock.

Excellent progress in control investigations with respect to the cherry leaf spot was reported by G. W. Keitt, plant disease specialist, University of Wisconsin, who has been conducting coöperative experiments with Door county growers for the past three years. Turning under of dead leaves before blossoming time, plus two, sometimes three spray applications later in the season works wonders against this disease of the cherry. Mr. Keitt and coöperating growers found that three pounds of copper sulphate mixed with three pounds of fresh lime to fifty gallons of water was as effective for commercial control of cherry leaf spot as the 4-4-50 solution. In times of high prices for spray chemicals this means quite a saving besides. The only possible substitute for Bordeaux mixture in times of high prices is lime sulphur, Mr. Keitt says. This, at the rate of five to six quarts to fifty gallons of water in combination with arsenate of lead for insect control, is advised.

An incident of the meeting was the election of officers. N. A. Rasmussen, Oshkosh, was chosen to succeed himself as president; J. A. Hays, Gays Mills, was chosen vice president, while William Toole, Jr., Baraboo, was elected treasurer, and by unanimous vote of the executive committee, Frederic Cranefield was placed again in the secretary's position, a place he has filled for nearly fifteen years.

A representative of The Wisconsin Farmer took pleasure in reminding the executive committee that the first official farm journal report of the initial meeting of the State Horticultural Society, then termed "The Wisconsin Fruit Growers' Association," was recorded in the issue of The Wisconsin Farmer for March 1, 1865. This took the form of a condensed report of the first meeting, signed by J. C. Plumb, Madison, secretary.

The following is a list of the first and second premiums on fruit classes at the show, with the exception of the cranberry division, in which there were but a few exhibits and no judges who could qualify:

Best collection of apples, not less than fifteen varieties, A. K. Bassett, Baraboo; Freemont Lounsbury, Watertown.

Five plates commercial varieties of Wisconsin apples, Kickapoo Valley Development Company, Gays Mills; H. H. Harris, Warrens.

Plate Ben Davis, Carl J. Baer, Baraboo; J. A. Hass, Ellison Bay.

Plate Fameuse, A. K. Bassett; Carl J. Baer.

Plate Gem, A. K. Bassett; L. B. Irish, Baraboo.

Plate Gideon, Freemont Lounsbury; F. B. Sherman, Edgerton.

Plate Golden Russett, A. K. Bassett; Kickapoo Valley Development Association.

Plate Grimes Golden, Arno Meyer, Cascade; F. B. Sherman.

Plate Jonathan, Freemont Lounsbury; A. K. Bassett.

Plate Maiden Blush, N. A. Rasmussen, Oshkosh; Freemont Lounsbury.

Plate McIntosh, Kickapoo Valley Development Co.; A. K. Bassett.

Plate McMahon, Freemont Lounsbury; H. H. Harris.

Plate Newell, Kickapoo Valley Development Co.; C. J. Baer.

Northwestern Greening, Kickapoo Valley Development Co.; A. K. Bassett.

Plate Pewaukee, A. K. Bassett, N. A. Rasmussen.

Plate Plum Cider, Freemont Lounsbury; A. K. Bassett.

Plate Salome, H. H. Harris; Rudolph Schultz, Lake Mills.

Plate Seek-No-Further, A. K. Bassett; Freemont Lounsbury.

Plate Scott Winter, Carl J. Baer; H. H. Harris

Plate Tolman, Carl J. Baer; A. K. Bassett.

Plate Delicious, D. E. Bingham, Sturgeon Bay; L. E. Birmingham, Sturgeon Bay.

Plate Utter, A. K. Bassett, Freemont Lounsbury.

Plate Wealthy, Carl J. Baer; H. H. Harris.

Plate Wolf River, Carl J. Baer; Kickapoo Valley Development Co.

Plate York Imperial, A. K. Bassett; Freemont Lounsbury.

Peck Ben Davis, A. K. Bassett; Freemont Lounsbury.

Peck Fameuse, Carl J. Baer; A. K. Bassett.

Peck Gem, A. K. Bassett; L. B. Irish.

Peck Golden Russett, A. K. Bassett; C. J. Baer.

Peck McIntosh, Kickapoo Valley Development Association; A. K. Bassett.

Peck Newell, Carl J. Baer; A. K. Bassett.

Peck Northwestern Greening, Kickapoo Valley Development Company; A. K. Bassett.

Peck Plum Cider, Freemont Lounsbury; A. K. Bassett.

Peck Seek-No-Further, A. K. Bassett; Freemont Lounsbury.

Peck Scott Winter, Carl J. Baer; H. H. Harris.

Peck Tolman, Carl J. Baer; A. K. Bassett.

Peck Utter, A. K. Bassett; Freemont Lounsbury.

Peck Wealthy, Kickapoo Valley Development Co.; L. B. Irissh.

Peck Wolf River, C. J. Baer; N. A. Rasmussen.

Bushel Northwestern Greening, C. J. Baer; Freemon Lounsbury.

Bushel Wealthy, C. J. Baer; Kickapoo Valley Development Association.

Bushel Fameuse, A. K. Bassett; L. B. Irish.

Exhibit of crabs, Freemont Lounsbury; A. K. Bassett.

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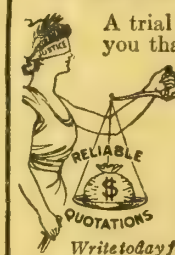

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Questions and Answers.

Power Crosscut Saw.

You recently published a plan of a power crosscut saw. I have a crosscut saw forty-eight inches long and I would like to make a saw frame to run it with a two-horse-power gas engine. Please give the dimensions of the wood pieces and disk wheel. How fast can I run it?

Answer.—It would be best to make the frame out of 4x4 yellow pine or any hard wood, though the lighter pieces could be 2x4's. The rocker arm may be made from a 2x4 piece of oak. It should be about three feet long, the pivot hole being bored about two feet from the saw end. The crank disk should be about twenty inches in diameter, the crank pin being located seven inches from the center of the disk. The crank disk should run seventy revolutions per minute.

Priming a Ford Car.

I have a 1917 Ford car. If I put a priming cup on the intake manifold to prime it in cold weather, would it prime the four cylinders all at one time? Would it be of any use to open up the priming cup in warm weather? Would this method injure the motor in any way?

Answer.—This method of priming should be satisfactory. While it may not prime all the cylinders uniformly, it will prime them enough to start the motor easily. There would be no advantage in opening the priming cup in warm weather; in fact, your motor would not run well at all speeds if you did. Installing a priming cup on the manifold should not injure the motor in any way, but care must be taken not to allow any of the drillings or other dirt to fall into the carburetor or cylinders.

Dry Cells for Lighting.

Will you please tell me how to connect dry cells to an ordinary reading lamp? How many cells will it take and how long will they last? The lamp will be the size generally used.

Answer.—It is not practical to run a reading light from dry cells, as the cost would be over 25 cents per hour for a sixteen candle power light, the size commonly used. You would require not less than thirty dry cells, connected in series-multiple, five in a series, using a twenty-watt six-volt light. That is, you would group your cells five in a set, connecting the cells of each set carbon to zinc. Then connect all the remaining carbon terminals to one lead wire and all the remaining zinc terminals to the other lead wire. Run one of the lead wires to a switch and from the switch run a wire to the light. Then run a wire from the light back to the other battery lead wire.

Patent on Two-Wheeled Tractors.

I would like to have some information as to whether the idea of a two-wheeled tractor is patented by the Moline Plow Company. I am planning to make a two-wheeled tractor out of a Ford chassis, and I would first like to know whether the idea is patented.

Answer.—There are many patents on tractors and the only sure way to avoid infringements would be to have a competent patent attorney look up the records in the patent office. Our understanding is that the idea of making a tractor with two drive wheels is not patented, but that the Moline Plow Company have various patents covering the steering device and general design of their tractor.

Some Tractor Questions.

I am interested in buying a tractor, and do not know just what to buy. Is there any four-cylinder motor that is a successful kerosene burner? Even with low compression, I am informed that no engine can use kerosene successfully unless the mixer or carburetor is on the side of the engine level with the intake pipe, as they say that kerosene cannot be drawn up any distance. Is there any foundation for the statement? Does a four-cylinder motor stand up as well as a two-cylinder motor? Which develops the more power according to the rating? Which is the more expensive to keep up? Which uses the most fuel; one, two or four-cylinder motors? Is a two-cylinder engine that has opposed cylinders as powerful and as good a burner of kerosene as a twin cylinder motor with mixer on top of the cylinders? Is there a successful kerosene engine, one or two cylinders, that works O. K. with the mixer at the bottom of the cylinders?

I have three tractors in view, a four-cylinder 5x6 engine, speed 725 R. P. M., speed two and one-half miles per hour, rated 12-24 horse power, straight gear drive, weight 4,800 pounds, 3,000 pounds draw bar pull on high gear, 4,000 pounds pull on low gear; a two-cylinder 7x8 engine, speed 425 R. P. M., speed three miles per hour on high gear, rated 12-24 horse power, weight 6,500 pounds; and a single-cylinder engine 9x12 speed 450 R. P. M. rated 18-35 horse power, speed three miles per hour weight 4,200 pounds. If this engine is not overrated, it should pull four twelve-inch plows at three miles per hour. Which of these would you recommend for me? I want to use it on a feed grinder that requires a twenty-five-horse-power engine.

Answer.—There are several four-cylinder tractors that handle kerosene successfully. It is a mistaken idea that the kerosene carburetor must be placed level with the intake pipe. For instance, the Moline Universal is often fitted with a kerosene carburetor located several inches below the intake manifold, with the further handicap of a very long intake manifold; yet this outfit handles kerosene very successfully. It all depends upon the design of the equipment. If the air and kerosene are properly heated, but little trouble will be experienced in burning kerosene.

How long a motor will stand up depends upon the design and workmanship rather than upon the number of cylinders. Other things being equal, the four-cylinder motor should stand up the longest, due to a more even strain on the parts. On the other hand, the one or two-cylinder engine has fewer parts to cause trouble. The general trend of tractor design is toward the four-cylinder motor. The rating is purely a manufacturer's guess, and is no comparison between various types of motors. The fuel consumption per horse power is more a question of good carburetor adjustment, and good timing and compression rather than a question of how many cylinders. Other things being equal, the single-cylinder engine should be the more economical, as there is less heat loss due to the larger cylinder diameter. Other things being equal, there is no difference between the power of an opposed cylinder engine and an engine having the cylinders side by side.

Without knowing the make or model of the tractor you are considering, we would choose the four cylinder as the most suitable. Much depends upon the design and workmanship; and we would advise you to go into the construction of the various tractors in detail and also consider dealer which can give you the better service on repair parts. This is a very important matter, especially when the tractor is used for plowing.

A Spark-Plug Tester.

I have seen in a garage a homemade outfit for testing engine spark plugs for cracks and leaks in the porcelains. By turning on the electricity, you can see the spark jump through the porcelain instead of across the gap between the points. Please explain how such an apparatus is made.

Answer.—The arrangement of this apparatus is shown in the figure. I is an iron plate bolted to the top of a wood box, the edge of the plate overhanging the box. In this overhanging

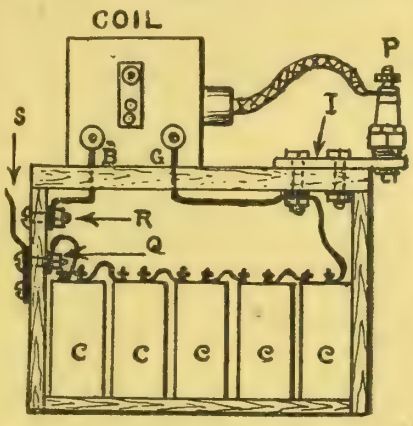


plate a hole is drilled to take the threaded end of the spark plug. It is not necessary to have the hole threaded. A jump spark coil is also mounted on top of the box. Inside the box are five dry cells connected in series. S is a brass strip on the end of the box, serving as a switch. A regular switch could be used.

The bolts Q and R should be brass. The wiring is shown in heavy black lines. When the switch is closed the spark appears at the points of the plug if the plug is good.

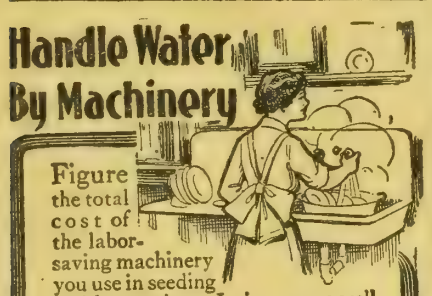
Raises Good Litters.

To the Editor:—I was amused and interested when I read about how to raise large litters of pigs and how to get the sows to exercise. I have raised hogs for forty years and I have no trouble raising large litters and saving them, and no trouble about the sow exercising.

In the first place, select long, lengthy dams, with a sire to match. Don't keep the dams too fat. Let thm run after the cows in the winter and they will exercise. Let them run thus until about two weeks before farrowing time, then shut them up in a hog house, each one in a place by herself. Don't feed too much grain. If you want to slop your hogs after farrowing time, slop them for two weeks before farrowing time and then it won't hurt the pigs. Don't give them much bedding so they can burrow under it. Aim to have the sows farrow about the first of March and select your choice for fall farrowing out of the March litters. I have practiced this for several years and have raised on an average of ten pigs per litter and saved them. Have the fall pigs as early as possible so as to avoid a lot of runts and scabs. I would rather have spring pigs than to have fall runts. T. L. Boozell.

A Wisconsin Farmer subscriber, Mr. Eugene Jordan, of Spooner, Wisconsin, would like to rent a farm where all the live stock and equipment are supplied by the farm owner. He states that he would be in a position to take the place of someone who had to leave the farm because of the military draft.

Handle Water By Machinery



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SHELDON Batch Mixer Price $11.50 Up

The Sheldon was designed especially for the farm. Highly praised by users. Farmers everywhere call it the ideal mixer. Used today all over the United States. A big success. Small enough to be easily moved—big enough to keep 6 men busy. Low in price. Build your own silo, tanks, troughs, floors, foundations, buildings, etc., out of concrete with a Sheldon Batch Mixer.

Read What These Sheldon Owners Say

I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much—DANA WRIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*—WM. PARRS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township—JOHN ROSE, Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*—D. M. BRUBAKER, Freeport, Ill.

FREE PLANS

Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

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If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $8 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

Write For Our New FREE Catalog

Shows our full line of mixers which are sold direct to you on strong guarantee. *Thirty days trial* privilege. No other like it. Patented. Two styles, hand and power. Mixes 2 1-2 cubic feet a minute. One man can operate it, but it will keep 2, 3, 4, 5 or 6 men busy. Continuous chain drive. Tilting dump. Easily and quickly moved. All parts guaranteed. Does work equal to $400 mixers. Be sure to get the catalog. Write today.

My New Special Offer

I want to tell you about my co-operative plan by which you can get my time-tried, thoroughly proven Sheldon Batch Concrete Mixer at little or no cost to you. I want ten men in every county to accept my special co-operative offer right now. Are you going to be one of the ten? Write and say: "Send me special offer."

The Sheldon will pay for itself on first small job. Takes the backache out of concrete. Makes possible these many small improvements that add so much to the value of your land.

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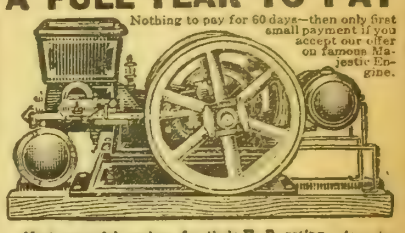
No Money In Advance

A FULL YEAR TO PAY

Nothing to pay for 60 days—then only first small payment if you accept our offer on famous Majestic Engine.



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30 Days Free Trial We will send any size engine you want. Send no money in advance, take 30 days' trial, then if satisfactory keep the engine, make first payment 60 days after its arrival, pay balance in payments 60 days apart. Return the Majestic at our expense if not the best engine you ever saw. Send post card now for FREE CATALOG, prices, no money in advance or terms and our special offer. Let us send you valuable inside facts about gas engines—all free. Write now.

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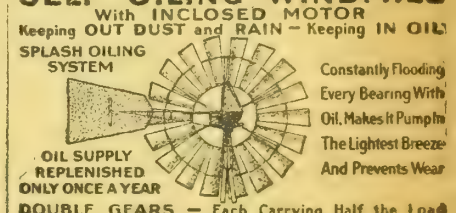

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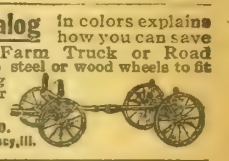
Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.



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GET INTO THE ALFALFA BUSINESS

(Continued from page 1.)

lime often spells the difference between absolute failure and success and failure. In such cases it may be worth 100 times the original investment. Remember this:

(1) You can't grow the biggest crops of alfalfa on sour or acid soil. You can grow good crops of corn on land that is too sour to grow a half ton of alfalfa hay to the acre.

(2) Some fertile soils will grow alfalfa even though the soil is acid, but the stand would last much longer if the soil were sweetened with lime.

(3) Lime takes the sourness out of the land and makes the soil conditions right for alfalfa.

(4) Your soil may not be sour. It may not need lime, but don't take a chance! Test it and find out! It's easy. Use litmus paper, or, better, have your soil tested by the Truog method, which tells you the exact amount of lime necessary to make the soil right for alfalfa. Your county agent or the experiment station will test it for you free of charge.

Ground limestone is probably the cheapest form to use. Air-slaked lime is very satisfactory when it can be obtained cheaply. At least two tons should be used. More may be necessary, but the Truog soil test will tell you the amount required. Here are five good lime regulations:

(1) Always put lime on the surface of plowed land and disk or harrow it in.

(2) Lime sandy soil in the spring. Heavier acid soils can be limed in the fall, winter or spring.

(3) Lime can be spread with a shovel or by means of a manure spreader or a regular lime distributor.

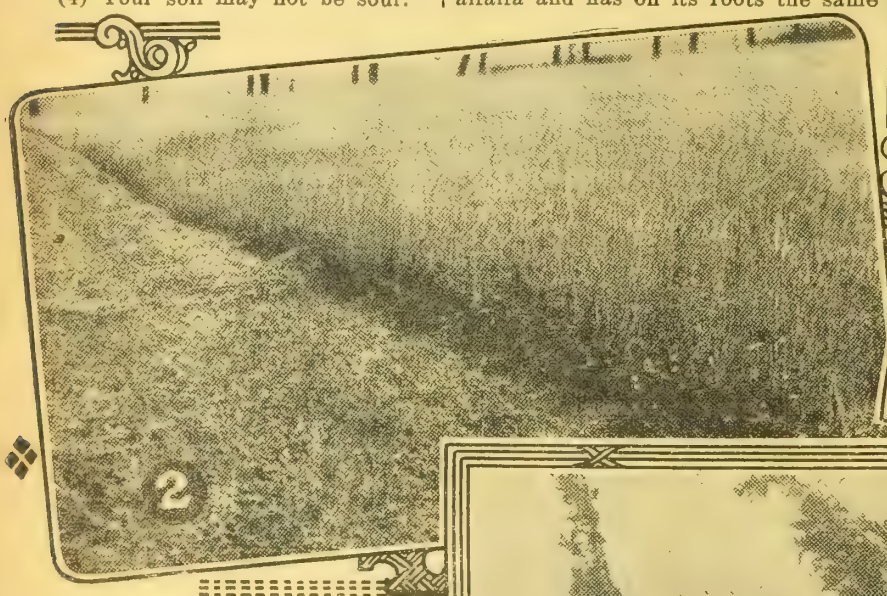
(4) It pays to buy lime in carload lots. The freight costs less. Get together and order a carload.

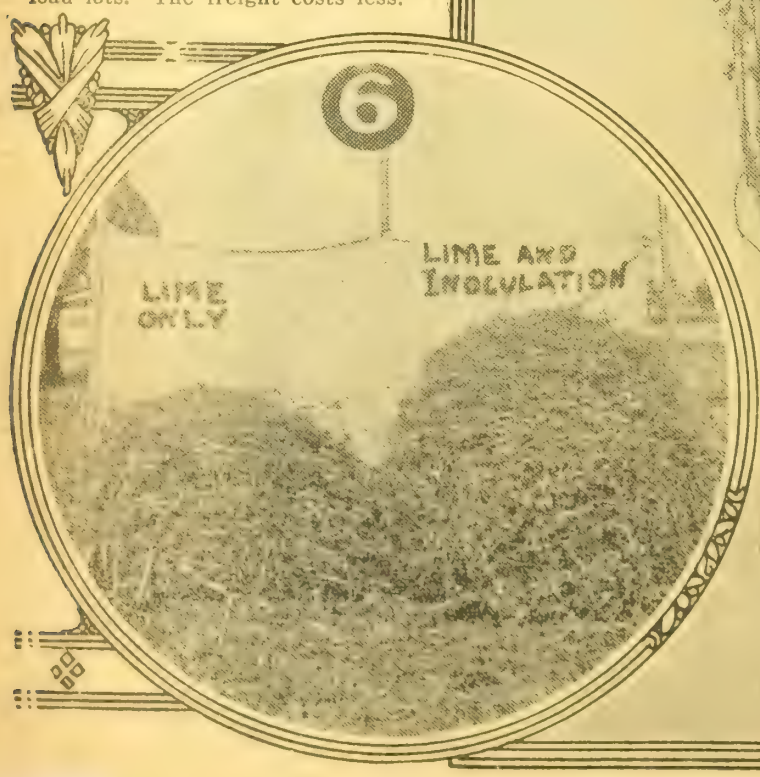
(5) If you are using coarse ground limestone remember it takes an extra ton or more an acre to be equal to the finely ground limestone.

Inoculation.

The alfalfa order will supply its members at cost price of 25 cents an acre fresh inoculation cultures which can be applied to the seed before sowing and which will inoculate the alfalfa plants with the right life-giving bacteria to promote the most rapid growth and the best yields. Not every field needs inoculation, yet poor results often occur where the soil does not contain the right bacteria for alfalfa. Sweet clover is a first cousin of alfalfa and has on its roots the same germs and nodules as alfalfa needs. Fields near the roadside where sweet clover is growing seldom need inoculation because dust from the road carries bacteria to adjoining fields.

The soil method is the surest way of getting fields inoculated. A load of sweet clover or alfalfa dirt spread over an acre just before seeding time inoculates the land. Remember a field once inoculated is always inoculated as far as we know.





ILLUSTRATIONS

1. LIMING SOUR SOILS INSURES SUCCESS WITH ALFALFA.
2. A THIN NURSE CROP MEANS A THICK ALFALFA.
3. ALFALFA FOR HAY AND CORN FOR THE SILO—A COMBINATION FOR FEED PRODUCTION HARD TO BEAT.
4. THE LOWER STRIP OF COMMON ALFALFA WAS SMOTHERED OUT BY ICE SHEETS—THE GRIMM STOOD THE TEST.
5. OUR BIGGEST HAY-PRODUCING PLANT—ALFALFA.
6. INOCULATION DOUBLED THE YIELD—LIME PLOT 1,060 POUNDS TO THE ACRE—LIME AND INOCULATION 2 400 POUNDS TO THE ACRE.

Mix Alfalfa Seed With Your Timothy and Clover.

One of the best and cheapest ways to get your whole farm inoculated is to inoculate alfalfa seed with cultures that you can obtain from the alfalfa order, Madison, Wisconsin, and mix the inoculated alfalfa seed with timothy and clover seed at the rate of about two pounds of alfalfa an acre. Here is what this will do:

(1) It will gradually inoculate your entire field and make soil conditions favorable in this regard for future crops of alfalfa.

(2) It will improve the quality of your hay.

(3) It will demons[illegible] rue

value of alfalfa, especially during dry weather.

(4) It will improve the soil.

(5) It will tell you how well alfalfa will grow on your land.

(6) It does not cost much.

(7) It pays.

How to Seed Alfalfa.

The main thing in growing alfalfa is not so much the method as it is to see that your soil conditions are right. By this I mean lime, inoculation, good drainage and a fertile soil. Under these circumstances any good, common-sense method will succeed. Generally the most convenient and satisfactory method is seed the alfalfa at the rate of fifteen to twenty pounds an acre with one bushel of barley as a nurse crop. If oats are used they should be cut for hay because of their later maturity and because they dry out the soil so badly. As for the rate of seeding, will say that the better your soil is prepared the less the seed required. Where alfalfa is easy to grow fifteen pounds an acre is a great sufficiency, but for beginners twenty pounds is a safer amount. With heavy soils where washing is not apt to occur fall plowing is best. Sand lands are best plowed in the spring. Rolling any spring-plowed soil after seeding and following the roller with a light harrowing where a flat roller is used makes a firm seed bed which is very important with loose soils. Corrugated rollers break up the clods and leave a firm seed bed with a loose surface mulch. Fall plowing gives the soil time to settle and rolling is not necessary.

It is best to have alfalfa follow some well-cultivated crop like corn, tobacco or potatoes. The blue grass will cause great trouble when sod lands are used for alfalfa.

Alfalfa may be seeded alone in June if the soil is put through a careful weed-cleaning process by frequent harrowings beginning early in the spring. This is the surest way to get a stand, but also the most expensive. Alfalfa can be successfully seeded following the early harvest of such crops as canning peas or early potatoes. The land should be double disked, not plowed, and seeded before July 15th.

How to Prevent Winterkilling.

The most serious losses from winterkilling have come as a result of late fall cutting and pasturing. I was on the Cornfalfa Farms, Waukesha, the last week in September, where they have over 200 acres of alfalfa—the largest growers in the state. Peter Swartz, who is president of our alfalfa order, showed me about the fields. It was a revelation. There was a growth of from eight to fourteen inches on every one of those big fields. "How many dollars' worth of hay could you cut from these fields right now, Peter?" I asked. "Oh," he replied, "I guess it would average a ton an acre, but lets be conservative and say 100 tons on the whole farm!"

"And how much would that represent in dollars and cents?" I continued with my queries. "At least $2,000 and more than that, but I want to put it as low as possible," he replied.

"And now, Peter, the question is, are you going to leave this $2,000 worth of alfalfa go to waste? You know these are times of conservation?"

"Well, sir, Mr. Graber, we are not letting anything go to waste and yet not one spear of this alfalfa is going to be cut or pastured this fall. Two thousand dollars is lots of money, but we can't afford to take the chance of having our fields killed out by cutting the third crop after the first week in September. Why, one year we lost sixty acres just this way. Alfalfa needs all this growth to hold the snow for winter protection. No, sir, we have learned by our past mistakes, which cost us a lot of money, that unless we can get three crops of alfalfa before the first week in September it is best to leave the third crop uncut for winter protection."

Variegated Alfalfas Hardy.

But even where late fall cutting or pasturing is not practiced, winterkilling may occur in certain years when open winter weather and much alternate freezing and thawing and the formation of smothering ice sheets occur. Where these difficulties occur it pays to use the genuine Grimm, Baltic or Cossack alfalfa seed, even though it is expensive and may cost from 40 to 50 cents a pound. These varieties are hardy and will live through winters where the common alfalfa coming from seed produced in Montana, the Dakotas or Kansas may kill out. While it may be difficult to buy genuine Grimm, Baltic or Cossack, the production of these varieties, especially the Grimm, has increased so rapidly that one can obtain the seed with reasonable assurance as to its genuineness.

It is advisable for any farmer to at least try out ten or twenty pounds of the Grimm or Baltic in comparison with common Kansas or Montana-grown seed. As to the relative value of the Grimm, Baltic or Cossack, our experimental work has shown them to be about equal in their hardiness or yields. The Cossack seed, being of more recent origin, is very scarce and is now selling in the West for around $1 a pound, while Grimm and Baltic average around 40 to 45 cents.

In buying common alfalfa seed it is important to bear in mind that numerous state-wide tests in this state have shown that the ordinary Kansas and Nebraska-grown alfalfa seeds are as hardy and productive as the common produced in Montana and the Dakotas.

Annual Christmas Carcass Show.

Choice carcasses of baby beef raised and fitted by Wisconsin farm boys and girls will be the exhibit extraordinary at the annual Christmas Carcass Show to be staged again this year by the Plankington Packing Company at their plant in South Milwaukee.

Twenty-four animals will make up the consignment which will be brought to Milwaukee this week direct from the college of agriculture, where the baby beeves have been putting on extra calf fat ever since the second annual Wisconsin Baby Beef Show held there under the direction of the Wisconsin Live Stock Breeders' Association on November 15th.

H. S. Culver, general manager of the Plankington Company, who visited the state baby beef exhibit last month, and C. E. Kewley, the cattle buyer, who bought the animals for the Milwaukee concern, say they are excellent specimens of what the Badger state can do in this line of husbandry. Since the show the animals have been fed at the University Farm and have gained a total of 560 pounds, a very satisfactory gain in view of the entire change of conditions that the calves had to undergo.

One of the lot is the Angus steer fed by Walter Hartman, Lodi, which secured first prize and grand championship at the state show. The steer gained twenty-five pounds during the post-season feeding period just closed.

Two steers in the lot made decidedly large gains in weight during the time the animals have been kept at Madison. These were a Short-horn steer fitted by Leslie Doe, Beldenville, and an Angus steer fed by Howard Roser, Baraboo. The two steers each gained sixty pounds in the twenty-five-day period.

The Hartman steer at 1,055 pounds topped the list, with a Hereford steer from the hands of Will Radl, Lodi, coming second in weight, finishing at 1,015 pounds. Boys and girls whose animals will help make the Milwaukee show successful are: Martha Kelley, Wendell Kelley, Lee Jewell, Mineral Point; Kitchell Sayre, Harold Hall, Edgerton; Harry McCann, John McCann, Janesville; Clyde Taylor, River Falls; Charles Skaife, Livingston; Frances Martin, Bagley; Wayne Martin, Gotham; Leslie Doe, Beldenville; Leslie Foster, Elkhorn; H. Lintner, Arlington; Will Radl, Walter Hartman, Lodi; Howard Roser, Stanley Premo, George Premo, Baraboo; Elwyn Thompson, Lake Geneva, Florence Scott, Ted Scott, Bagley.

Law Questions.

Stallion Service Fee.

A Subscriber, Iowa.—B bred a mare to A's stallion. The mare was served once or twice. Afterwards B had a sale of stock and sold the mare, but left money in a bank to be paid to A for the service fee in case the mare was found to be with colt. Eight months after service the mare died. Can A collect the money for service fee of his stallion, or is B entitled to it?

Answer.—If A can prove that the mare was with foal he can collect the money from the bank. Otherwise B is entitled to have the money returned to him. The fact that the mare died is not important if she was with foal.

School Board Borrowing Money.

A Subscriber, Auburndale, Wis.—Where the voters of a school district in Wisconsin, vote money for the district at their annual meeting, has the schoolboard power to borrow money to pay expenses, until the money voted is paid in?

Answer.—The school board has no right to borrow money unless it is authorized to do so by the voters of the school district at their annual meeting.

Adopted Child.

A South Dakota Subscriber.—A was a widow, and had a daughter, B, who was two years old, and at that age B was adopted by C and D, who were husband and wife. D died this year leaving C with no one to care for B. B is now five years old and her mother, A, has married again. (1) Can A get the custody of B, and if so, would A have to pay for B's support for the last three years?

Answer.—It is very doubtful whether A can now obtain the custody of her daughter unless C consents to it. A might apply to the county court, and if she can prove that the child would be better cared for by her the court might give her the custody and fix the terms of it.

Unfair Dealing—Compromise.

A Subscriber, Loyal, Wis.—A rented a farm to B on the half share plan. A furnished all the cows, and each party furnished one-half the feed, and they raised calves from the cows. As soon as the calves began to give milk, B removed his share of them to his own farm, and A received no profit from them, but B continued to get half the profit from A's share of the calves on the farm he rented from A. B's lease expired two years after he removed his share of said calves from A's farm. Was B's act fair and lawful?

Answer.—B's act was not fair or lawful. By means of it he got an advantage of A to which he was not entitled. A's only remedy now is to bring suit against B for accounting and settlement, and, as this would involve the employment of a lawyer and expensive litigation, it is doubtful whether it would pay A to have such a lawsuit. It would be better if he could compromise the matter with B without going to law if possible.

Hunting License.

An Illinois Subscriber.—(1) If a boy is more than twenty-one years old, can he lawfully hunt on his father's farm in Illinois without a license? (2) If a friend wants me to come and stay on his premises and hunt game there, can I do so without obtaining a hunting license?

Answer.—(1) He must have a license, which he can obtain from the county clerk. It will cost him $1. (2) A license is required in such a case, cost $1.

Farmers who have put money into a tractor can keep up the value of their investment by giving the tractor a little attention at this time of year. Since the field work is practically all done, if the dirt and oil that has accumulated on the exposed parts are cleaned off there will be less deterioration while the machine stands idle. A coat of paint put on places where the paint has worn off will prevent rust and improve the tractor's appearance. Furthermore, the tractor should be thoroughly sheltered. These precautions are small, but they go a long way in lengthening the life of the machine and increasing its capacity for work.

Nearly ten million people subscribed $4,617,000,000 for the 4 per cent Liberty Loan which was recently floated by the government. The minimum estimate of the amount that would be subscribed was placed at $3,000,000,000.

MORE WORK FROM YOUR HORSES

Heavy spring work takes the surplus flesh from the horse. His collar no longer fits. His neck and shoulders chafe and gall. He can't do his full share of work and you lose money. Prevent these evils by using TAPATCO Pads.

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Consisting of wire staple, reinforced with felt washer (note where arrows point). This gives the hook a better hold and prevents pulling off. The weakest point is made strong and life of pad greatly lengthened.

Found Only on Pads Made by Us. Look For The Felt Washer.

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War time profits demand that every acre be made more productive. Draining land doubles its value. But while you are at it, do a good job. Half the cost of draining is in ditching, hauling and laying the tile, and back-filling. Use the best tile you can get. It's poor economy to buy tile that shows heavy breakage in handling or that crumbles in the ground. Stopped up drains are worse than no drains. And replacing broken tile is expensive.

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See page 15. Read The Farmers' Market advertisements. There may be a bargain there for you.

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Wisconsin Poultry Association Show.

With three leading state breeders' clubs preparing to hold annual conventions and give cash prizes, trophies and hatching eggs as inducements to bring out favorites in their respective classes, the fourteenth annual show of the Wisconsin Poultry Association, incorporated, Madison, January 7th-10th, is expected to attract unusually excellent entries of valuable birds.

Coöperating with Sec. James G. Halpin, of the association, in staging the big poultry classes—Badgerdom's annual feathered feature event—are the members of a number of national clubs as well as the three state clubs mentioned previously. The state breed clubs who plan big doings during the show include Barred Plymouth Rock Club, W. H. Eldridge, secretary; White Plymouth Rock Club, J. J. Flad, Madison, secretary, and Buff Wyandotte Club, George M. McDonald, North La Crosse, secretary.

Entries must be made on or before January 3d, with the exception of geese, ducks and rare varieties of fowls. Uniform cooping will be furnished by the association officials. Great encouragement is to be given utility fowls this year. The show is a classified event, and males and females will not be shut together in one coop. Neither will three or four birds of any kind be confined in a coop together. Hence no exhibitor need hesitate to consign valuable poultry to the show, as the best of care will be taken of the entries, both in housing and feeding.

Farm poultry will be accorded fair treatment in the utility classes, and Mr. Halpin does not desire the idea to get out that this show is confined strictly to an exchange of courtesies among professional bird fanciers and breeders.

With present conditions demanding food products at a greater rate of output, Mr. Halpin suggests that it is time to turn away from drawing too close lines in judging fowls, and that utility and performance in the laying and hatching nests should be deemed marks of the greatest importance.

Cows which are good milkers and good mothers make the most desirable all-around type for the dairy. In the same manner, the hen that lays the eggs most consistently the year around and at the same time is not above hatching out a few of them in the interests of increasing the producing power of the family—this is the sort to make a model, Mr. Halpin says.

Breeders are coming to see this, and the ones who more nearly meet this new requirement are the ones whose stock will get the farthest, it is pointed out.

Special display pens for breeders desirous of showing their stock to prospective buyers will be provided at the show next month. Advertising will be allowed on the coops as soon as the specimen is placed on exhibition. Such birds are not in competition and hence will not be judged.

George W. Hackett, North Freedom, will judge Barred and White Rocks, White and Buff Leghorns, R. C. Reds, Brown Leghorns, White and Black Orpingtons and Black Langshans.

George Wells, Oshkosh, will settle the disputes between rival birds of the following families: Buff and Partridge Rocks, Partridge, Golden and Silver Wyandottes, S. C. Reds, White and Buff Leghorns, Buff Orpingtons, Light Brahmas.

Bronze medals will go to champions of the show in the main divisions. Individual trophy cups donated from year to year by prominent Wisconsin poultrymen will also add to the zest of the ring.

The officers of the association are M. C. Gerard, Stoughton, president; Thomas Clayton, Dodgeville, first vice president; Chas. Love, Waukesha,, second vice president; James G. Halpin. Madison, secretary; H. Durfee, Madison, treasurer; J. J. Flad, Madison, superintendent.

Winter Care of the Flock.

A little forethought now would save a lot of trouble later in the winter, when just about everything a fowl is heir to is "ripe." All goes fairly well, even the cold snaps are hardly noticed by a normal chicken, but when the first damp, dank, soggy weather comes to stay a week or ten days, why, you would better look out for trouble.

The keeper of a profitable flock was absent from home for exactly two days through this kind of weather, and on returning home was fairly panic stricken to hear the unmistakable "sniffle" that spells all kinds of trouble. Ten or twelve of the fowls were snuffling proper, and on examination their heads were found to be more or less swelled. It was one of the heavy days, stifling and uncomfortable, that causes one to hardly care whether chickens live or die. And die it seemed they might, sitting on the perches with eyes half closed.

Hoping it was as yet nothing worse than a cold, the poultryman procured a can of kerosene, dipped the head of each fowl into the liquid, and let it go at that for the night. Only that it had been done many times by this veteran poultryman, he would have hesitated about what seems to be rather strenuous medicine. Half of the ailing birds were nearly well the next morning, and another treatment pulled the others through. Fortunately, the weather cleared up, cold and snappy, and this was of great assistance.

Common colds are responsible for more ailments than would seem possible. Roup, canker, bronchitis, catarrh and all kindred diseases would rarely happen if there were no colds to cause the throat to become raw, thus giving the germs a place to begin their attack. To avoid colds, keep on the lookout for dampness and drafts. When the outside is fairly reeking with moisture it is difficult to keep the inside of the poultry quarters from dampness. By changing the litter often and providing ventilation enough to carry off all the foul air, the fowls can be kept reasonably comfortable, and it is a relief to know that this kind of weather cannot last always. This is one of the few times we recommend a reliable tonic fed sparingly. Also, a little permanganate of potash in the drinking water.

To keep the vitality up to the topnotch, however, we need an abundance of green, succulent feed. Fresh vegetables of some sort tone up the digestive organs, and then we are spared the agony of "liver trouble." Sprouted oats is considered first in the matter of green feed, but unless one is equipped for it, it is not advisable. Beets, cabbags or mangels are all good, easily stored and always ready for business. In the event that there is no cabbage to spare for the fowls, by visiting a commercial gardener it is almost always possible to procure cull heads at a small cost.

A good way is to place them, as well as freshly killed rabbits, where the chickens can reach them by leaping to get a bite. Rabbits fill the place of meat scraps, and are plentiful and may be had for the hunting.

Dry, ventilated quarters, good digestion, exercise to keep up circulation, an abundance of bulky succulent feed, and there you are. It is very simple, really, and much easier in the end than neglect. "A duty pushed aside soon returns with seven others at its back."

No Kitchen Waste for Hens

To the Editor:—There was a time, unfortunately, when the story, "Kitchen Waste for Hens," would have had a hearing. Today it is not modern. The time when a woman would set a pan on the kitchen table while she cleared the cupboard preparatory to placing clean papers on the shelves, filling said bucket in the meantime with bread scraps, cold biscuits, corn bread, a few potatoes, meat rinds, possibly stale cookies and other things "too numerous to mention" is no more.

There is a better reason today for not putting pieces of meat in the waste so large that a hen cannot swallow them. As a matter of fact, no fats of any kind are being dumped into the scrap heap for chickens or anything else. Fortunate is the dog that is not going hungry these days, though in mercy's name do not let the stock of any kind suffer.

The odds and ends of vegetables are being all placed in one deep dish and set aside to make soup; a good, nourishing dish is possible, too, where there is an abundance of milk. The parings can be given to the hens, but unless there is a goodly lot of green stuff better feed them raw.

If a mash is desired, all right, but please count on using bran and shorts and oats, anything, everything that is meant for animals, but not "large pieces of fat" that would help to allay the hunger of the world. No table has any business to leave rich scraps of pie and cake and bread and meat; few are the people these days that are serving pastry unless in very limited quantities. We saw a kid the other day who several years ago turned up his nose at two very choice kinds of pie, eagerly devour—devour is the word—a wedge of dried fruit pastry.

This may be a little out of place, but we are chicken cranks and think the hens should have everything coming to them—and ours get it. In return we are serving eggs every morning for breakfast and dividing up with our friends for pumpkin pies.

Patriotic Farm Woman.

George M. Rommel, of the federal department of agriculture, states that there are about 800,000,000 bushels more of grain in the country this year than there was a year ago. Much of this grain should be fed to live stock, since it would cause a considerable slump in prices if thrown onto the market.

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This is proved by the "Successful" 26 year record. You want the "Successful" for a sure success this year. Sell more eggs and chickens—help feed the world.
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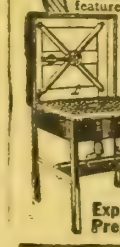
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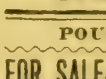
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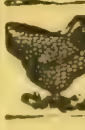
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ALL VARIETIES chickens, ducks, geese, turkeys, bantams and guineas; also eggs, incubators and brooders. Catalog free.
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Certified Growers Incorporate.

To the Editor:—At the State Potato Convention held in Madison, November 19th-24th, a number of certified seed growers formed themselves into an association and incorporated under Chapter 86 of the Wisconsin statutes.

The purpose of this organization is to standardize the certified seed potatoes so that only a very high quality of seed potatoes will be offered for sale as certified seed and to arrange for the selling of this seed through an agency controlled by the association. This organization adopted the name, Wisconsin Certified Seed Potato Association.

The first regular meeting was held in Grand Rapids, Wisconsin, December 7th. A large number of growers were present and all showed a lively interest in the discussions, which were very helpful in forming the by-laws of the association and in establishing a standard grade for certified seed potatoes. It is the general opinion of all the growers that we must put more "quality" in the seed stock for sale and to set the standard high and keep it there. Any member who fails to use careful and proper methods in the growing, sorting, grading and shipping of certified seed potatoes may be expelled from the association. What we want to do is to let the country know that Wisconsin certified seed growers have certified seed potatoes for sale that are bred right, cared for in the field properly, sorted and graded to a standard, second to none in the United States.

We have fifty-five charter members and expect all the certified seed growers to join the association within a few days.

The following are the directors elected at Grand Rapids:

O. C. Woodard, of Weyauwega, term of one year.

Wm. Scribner, of Bancroft, term of two years.

Karl T. Hazelberg, term of three years.

The officers are: President, O. C. Woodard; vice president, Wm. Scribner; secretary-treasurer, Karl T. Hazelberg. Mr. J. W. Hick was appointed adviser to the board of directors.

Karl T. Hazelberg.

Barron Co., Wisconsin.

Cow-Testing Reports.

Probable Shortage of Young Bulls.

To the Editor:—During the month ending December 13th, 1917, 539 cows were tested, of which twenty-three produced forty or more pounds of butterfat. Fred C. Marty's registered Holstein, Mercedes Echo Johanna, heads the list with 1,317 pounds of milk and 64.7 pounds of butter fat. The best grade cow is a Brown Swiss owned by J. M. Freitag. In thirty days she produced 1,191 pounds of milk and 50 pounds butter fat. Grain is not being fed very extensively on account of the prohibitive prices on all mill feeds. Where possible, almost all of the dairymen in this section are feeding all the roughages possible, although some have been forced to buy grain on account of being short on good roughages. Pure-bred breeders are marketing all their male calves, claiming that there is little or no profit in raising them when comparing feed prices and the prices of breeding stock. A shortage in young bulls is likely to be the result.

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Fred C. Marty					
Mercedes Echo Johanna, Reg. Holstein	5	11-16	1317	4.9	64.7
Gerster Hendricka Mercedes De Kol 39th, Reg. Holstein	6	10-16	1539	3.1	47.7
Baltz Hoesly					
Osa Anola Homestead De Kol 29th, Registered	.	10-16	1710	3.4	58.1
J. M. Freitag					
No. 36, G. B. S.	4	10-16	1191	4.2	50.0
Ernest Strahm					
Moose the Black, G. H.	7	10-16	1416	3.4	48.1
Stauffacher Bros.					
Legeler, G. H.	2	10-16	1371	3.4	46.6
Duff, G. H.	4	10-16	1389	3.3	45.8
Wm. Baumgartner					
Prilly Pietertje De Kol, Reg. Holstein	5	11-16	1353	3.1	46.0
Gilbert P. Hoesly					
Rosie Queen, R. H.	8	11-16	1338	3.4	45.5
Wm. Klassy					
No. 2, G. Hol.	6	10-16	1506	3.0	45.2

ALVIN W. WARDAS, Official Tester, Monticello Cow-Testing Association.

In the Pound-a-Day Class.

To the Editor:—I am sending you our yearly record beginning December 1, 1916, and ending December 1, 1917. Forty-pound cows were scarce during November, but December is showing a noticeable improvement. The best records in our association for the year, showing cows entitled to membership in the "pound-a-day" class, were as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Frank E. Shimek,					
P. B. Hol.	9	.....	11,966	3.83	458
Charlie E. Peterson					
Jessie, Native	10	3-13-17	6,836	6.36	421.8
Henry Kassner & Son					
No. 10, G. H.	5	12-12-16	8,866	4.54	403
No. 4, G. H.	7	1-15-17	8,974	4.41	395.3
Charlie Olson					
Topsy, G. J.	8	12-26-16	7,936	5.03	399.1
Matt Chevreny					
Betty, G. H.	6	.....	9,678	4.04	391
Robert C. Glandt					
Spot, G. J.	10	.....	7,295	5.28	386.1
Anton L. Olson					
Maude, G. G.	13	12-9-16	8,194	4.66	381.7
James Wishka					
Julia of Maple, Reg. Hol.	6	.....	10,523	3.53	372.2
Wenzel Chevreny					
Sallie Lane, G. H.	6	12-26-16	9,488	3.93	372.9
Bessie, G. H.	8	12-15-16	11,229	3.82	435.6

EMIL F. ZILLMER, Official Tester, Kewaunee County Cow-Testing Association.

Reedsburg Association.

To the Editor:—The Reedsburg Cow-Testing Association, Sauk county, has made some good records for the month ending December 5th. Attached is a list of forty-five-pound cows for that period:

Owner, name and breed.	Lbs. Milk.	P.C. fat.	Lbs. b'fat
W. H. Vonderahe			
No. 13, Grade Holstein	1245	4.0	49.8
No. 4, Grade Holstein	1107	4.7	47.5
Conrad G. Kruse			
Mercedes, Grade Holstein	2130	3.9	48.0
Edgar Wood			
Grade Holstein	1101	4.6	50.6
Kirkpatrick Bros.			
Jennie Reg. Holstein	1230	4.3	52.9
James M. Johnson			
Heart, Grade Jersey	1011	6.4	65.7
W. H. Huhn			
Josie, Grade Holstein	1530	4.4	67.3
Molly, Grade Holstein	1320	4.9	64.6
W. J. Paff			
No. 1, Grade Holstein	933	4.8	45.7
Wm. H. Vanderahe			
No. 9, Grade Holstein	1176	4.6	54.0
James M. Johnson			
Rose, G. G.	8851	5.1	45.6
Krissy, G. G.	864	6.0	51.8
Walter Carr			
Noby, Grade	1083	5.2	56.3
Blossom, Grade	1092	5.1	55.6

G. A. DEEDON, Official Tester, Reedsburg Cow-Testing Association.

Oats and Bran Fed Chiefly.

To the Editor:—During October 333 cows were tested in the New Holstein Cow-Testing Association, Calumet county. Concentrates are not fed as much as last winter, owing to the high prices of same, oats and bran, being fed the most, although a few are feeding gluten or linseed meal. Oats are 75 cents per bushel; bran, $42; gluten, $55, and oil meal $56 per ton. H. J. Duecker's herd of registered and grade Guernseys carried off the honors for the third consecutive month. This herd averaged 431.5 pounds of fat for the previous cow-testing association year. During October the average of this herd was 33.9 pounds fat and 643 pounds milk. A grade Guernsey in the same herd made 118.95 pounds milk and 52.3 pounds fat in the same month. The condensery paid 71¼ cents per pound for fat and the cheese factories from 63 to 67 cents. The forty-five pound list for October follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
H. J. Duecker					
Redback, G. G.	8	7-1-17	1189.5	4.4	52.3
Vivian, R. G.	3	7-24-17	829.3	5.8	48.1

NANDER NELSON, Official Tester.

Good Records in Walworth County

To the Editor:—A number of splendid records were made in the W. E. Palmer and A. G. Palmer & Son herds during the thirty-day period ending November 30, 1917. W. E. Palmer's four-year-old Holstein, Fall Breeze Veeman Lady, produced 2,589 pounds of 4.5 per cent milk or 116.5 pounds butter fat. A. G. Palmer & Son's Holstein cow, ten-year-old Fall Breeze Beauty 2d, produced 2,640 pounds of 3.6 per cent milk or a total of ninety-five pounds butter fat. A. G. Palmer & Son's two-year-old heifer, Sadie Mercedes, produced 1,578 pounds of 3.1 per cent milk, making a total of 48.9 pounds butter fat. The following is the list of forty-five-pound cows in the Geneva Coöperative Cow-Testing Association for the month ending November 30th:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
D. E. Davis					
Nell	.	10-2-17	1404	3.3	46.3
Daisy	.	10-5-17	1149	4.1	47.1
D. E. Labar					
Speckles, Hol.	6	11-11-17	996	5.5	54.8
J. H. Henderson					
Harry Banker	9	10-28-17	909	5.3	48.2
W. E. Palmer					
Groveland Inka Cordia, Holstein	4	10-6-17	1638	3.5	57.3
Queen Firamia Veeman, Holstein	5	9-21-17	1773	3.8	67.4
Fall Breeze Veeman Lady, Holstein	4	10-30-17	2589	4.5	116.5
Nettie Schoone Pieterje, Holstein	6	10-12-17	1902	3.7	70.4
Oak Lodge Korndyke Corona, Holstein	7	10-3-17	2094	3.0	62.8
Nettie Veeman Pieterje, Holstein	3	9-17-17	3341	3.5	46.9
A. G. Palmer & Son,					
H. Walker D. K. Chase, Holstein	.	10-29-17	1923	3.8	73.1
Fall Breeze Beauty 2d, Holstein	10	11-14-17	2640	3.6	95.0
M. Petrie,					
Echo Aggie Battles, P. Hol.	3	9-18-17	1395	4.0	55.8
F. J. Webster					
May, G. G.	4	11-14-17	840	5.7	47.9
C. D. Webster					
Hazel, Hol.	6	10-6-17	1401	3.3	46.2
Wm. Rouse					
Gold Medal, Hol.	6	11-11-17	1197	3.9	46.7

NORRIS I. NELSON, Official Tester.

In Wood County.

To the Editor:—The high cow in our association for November was pure-bred Holstein Piebe, owned by E. E. Royce. She produced 1,203 pounds of milk testing 5 per cent and netting 60.15 pounds of butter fat. The high herd was owned by Thomas Thompson and is also pure-bred Holsteins. Six cows had an average test of 4.02 per cent and an average butter fat production of 31.89 pounds. Our association has bought two carloads of feed, one of corn and one of gluten. Four systems of drinking cups have been installed by members of our association, and four barns have been whitewashed.

J. B. Davis.

Official Tester, Wood County Association No. 1.

News of the Sale Ring.

International Hereford Sale.

The sale of Herefords at Chicago Friday of the International week under the management of the American Hereford Breeders' Association set a new mark in Hereford sale annals. Two bulls not originally listed for the sale were included in the offering, and one of them, the grand champion Ardmore, considered by many competent judges

(Concluded on page 21.)

VETERINARY INQUIRIES ANSWERED.

THERE never was a time in the past when it was so important to keep farm animals in good healthy condition as it is at present. To this end The Wisconsin Farmer will give free advice to all its readers through the columns of this paper. If you are having trouble of any kind with your live stock and will send The Wisconsin Farmer a detailed statement of the case you will be given expert advice and this will be forthcoming promptly. It is even more important to keep live stock in a healthy condition than it is to doctor them after they get sick and it frequently happens that our veterinary editor can give pointers that will tend to ward off trouble when his instructions are followed. As said before, this service is free and the more of our readers who avail themselves of it the better satisfied the editors and publisher of The Wisconsin Farmer will be.

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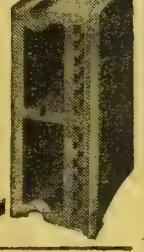

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Because only the best of fish go in Waro-la packages. This year we offer you Waro-la guaranteed fish packed in 100-lb. boxes at the following prices:

Round Herring	8c	Round Wall-eyed Pike	15c
Dressed Sablefish	14c	Dressed Red Snappers	14c
Round Tullibee Whitefish	12c	Round Ocean Whiting	9c
Skatewing	12c		

For 50-lb. boxes add 25c.

Will ship any assortment of above fish in 50 and 100-lb. boxes. Full weight and quality guaranteed. Write for price list of other fish and recipes.

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Dept. W. Duluth, Minn.

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The Wisconsin Farmer, Madison, Wis.

FARM LANDS.

GO WHERE LAND IS LOW PRICED—Last year we urged some of our investor friends to purchase certain farm lands in Eastern Oklahoma which were then offered at from $35.00 to $50.00 per acre. Many of these farms in 1917 earned for their owners several times the cost per acre in 1916. We still have a few farms listed for sale at very attractive prices. They are worthy of the consideration of any man who wants to buy a farm. We do not own these lands but with a view to increasing the number of farmers along our railroad, and thereby building up our trade territory, we have interested ourselves in the matter of distributing information in territory where we know there are good farmers, hoping that we can move some of them into eastern Oklahoma. We do not charge anything for our services. We will be well repaid if our territory is built up by the removal thereto of a number of men who know how to farm. If you are interested in a farm in eastern Oklahoma, of the kind referred to above, write me for particulars. R. W. Hockaday, Industrial Commissioner, M. K. & T. Ry., 1505 Railway Exchange Bldg., St. Louis, Mo.

LANDOLOGY, a magazine giving the facts in regard to the land situation. Three months' subscription FREE. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me LANDOLOGY and all particulars FREE." Address Editor, Landology, Skidmore Land Co., 310 Skidmore Bldg., Marinette, Wis.

80 ACRES, 4 cows, 2 horses, new wagon, mower and hay rake, harness, buggy, chickens, furniture, good buildings and well. Pierce county, Wis. All for $3,800. Herbert, R. 2, Box 15, Red Wing, Minn.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

WILL TRADE farm in Polk county, Ark., for Wisconsin or Illinois land. L. Temmey, 509 Brownell, Lincoln, Neb.

TWO FARMS FOR SALE—Near town, school, etc. Will rent one to right party. H. V. Peoples, Ladysmith, Wis.

WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

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POULTRY AND PET STOCK.

BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

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HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & Vea, Stoughton, Wis.

GOLDEN WYANDOTTE COCKERELS—Beautiful birds, $3.00 each; satisfaction guaranteed. Geo. J. Hilst, Green Valley, Ill.

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WHITE WYANDOTTE COCKERELS—$1.50 each. Columbia County Asylum, Wyocena, Wis.

WHITE LEGHORNS—Price reasonable. Wright Bros., Garden Prairie, Ill.

SALESMEN WANTED.

SALESMEN WANTED—Owing to conditions brought about by the war we have a few well-worked territories open and will be pleased to hear from interested persons. Applicant must be exempt from draft. McConnon & Company, Dept. T, Winona, Minn.

MONEY TO LOAN.

MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be twice the amount of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

REGISTERED HOLSTEIN BULLS.

REGISTERED Holstein bull, ready for service. A beauty. Two of his dams averaged 106.75 lbs. milk 1 day; one made 44.18 lbs. and 4 averaged 37.52 lbs. butter in 7 days, officially. $200. Wisconsin Live Stock Association, Appleton, Wis.

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FOR SALE OR RENT—Blacksmith shop and wagon shop going, good business, also residence. Terms reasonable. If interested write Mrs. P. W. Schatz, Wayside, Wis., for further information.

TANNING.

LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or robe. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

GOVERNMENT POSITIONS.

MEN, WOMEN WANTED—$90 month; government positions; hundreds vacancies; list positions free. Write immediately. Franklin Institute, Dept. K176, Rochester, N. Y.

PRINTING.

PRINTING—Special offer: 200 noteheads, 200 envelopes and 200 cards delivered for $4.00. Samples free. Write for prices on sale catalogs. LIVE STOCK PRINTING CO., LaGrange, Ill.

REGISTERED DUROC JERSEY BOARS

FOR SALE—Registered Duroc Jersey boars, April farrow, weighing 300 lbs. at $50 a head. Andrew Hodorff, R. 35, Eden, Wis.

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THE HOME

LETTERS intended for publication should be accompanied by the name and address of the writer not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., The Wisconsin Farmer, Madison, Wisconsin.

Two Christmas Dinner Menus.

Cream of Celery Soup
Celery Tips
Roast Turkey with Oyster Dressing
Cranberry Sauce
Candied Sweet Potatoes Stewed Corn
Relish
Mince Pie Coffee

Cream of Celery Soup.—Take the coarse outer stalks of the celery, clean and cut into half-inch lengths; put into a saucepan, cover with boiling water and boil until tender. Do not cover the pan. Drain, and save the water. Mash the celery through a colander, return to the water and boil for ten minutes; then strain into a double boiler. To each cup of the celery water add a cup of hot milk. Season to taste with salt and pepper, and for each pint of the liquid add one teaspoon butter and one teaspoon flour rubbed together. Boil for five minutes. Serve with a little dried or freshly chopped parsley on top.

Candied Sweet Potatoes.—Ten sweet potatoes, two tablespoons shortening, two tablespoons sugar, salt and pepper to taste. Cook the potatoes in the usual way. Put the shortening and the sugar into an iron or other heavy pan; set over a slow fire; when melted, add the sweet potatoes and fry very slowly. The shortening and sugar will stick to the potatoes very quickly, so care must be taken not to burn them. Sprinkle with salt and pepper and serve on a hot dish.

Tomato Soup
Baked Ham with Hominy
Baked Apples Creamed Carrots
Spiced Peaches
Steamed Fruit Pudding Coffee

Baked Ham.—A small smoked ham, half a ham or a slice cut three inches or three and a half inches thick from the center of the ham, should be used. Wipe, put on the fire with enough cold water to cover; boil slowly until tender. Boil the day before, and let it cool in the stock. Trim off the skin; place in a shallow pan; cover with half a cup brown sugar, one tablespoon flour and an eighth of a teaspoon pepper; add two cups cold water, and bake until nicely browned. Baste two or three times. Add two cups of cider and two tablespoons flour, mixed with a little cold water; boil for five minutes, add two tablespoons caramel, to make the gravy nice and brown, add salt if needed. Place the ham in the center of a plate and put a border of hominy around it. Pour part of the gravy over the ham and hominy. Garnish the platter with holly leaves.

Steamed Fruit Pudding.—Two cups dried peaches, apples, plums or apricots, two cups flour, one cup milk, two tablespoons melted shortening, one tablespoon baking powder, one-half teaspoon cinnamon, one-half teaspoon nutmeg, two eggs. Wash and soak the fruit overnight; drain. If in large halves or quarters, cut into small pieces; add to the dough, which is made as follows: Sift the flour, baking powder and salt into a bowl; add the milk, well-beaten eggs, shortening and spices; mix well; add the fruit; put into a well-greased mold or kettle. Place in a saucepan of boiling water and steam for two hours. Serve in a shallow bowl with a fruit sauce made from two cups of fruit juice. Bring the juice to a boil; add enough cornstarch to thicken and sugar to taste. Serve both pudding and sauce while hot.

Meats Easily Canned.

The canning season for fruits and vegetables is over, but when butchering time comes the thrifty housewife will have occasion to put her hot water bath or steam pressure cooker into operation again.

Meats can be just as easily and just as successfully canned as vegetables if the same rules are followed. Cleanliness is the first essential. Next in importance is attention to the details of processing or cooking. If the hot water bath method is used the heat must be intense enough to boil the water rapidly and the time should not be counted until the water around the jars boils.

The jars, lids and rubbers should be washed and sterilized with boiling water and the meat should be packed into the hot jars until it reaches the top. If screw-type lids are used they should be made as tight as possible with thumb and little finger before placing the jars in the cooking vessel. If the bail-type jar is used the top bail should be left loose until the jar is taken from the hot water bath. Only first-class rubbers should be used. Good rubbers can be stretched and will return to their natural size. Lids should be tightened as soon as the jars are taken from the hot water bath or steam canner.

If there is not enough meat to fill the jar it is not necessary to do so with water. Usually about a tablespoonful of boiling water, or just enough to create moisture in the jar, will be sufficient. If the meat has been browned before canning and the jar is not filled, the liquid or grease in which the meat has been heated should be poured over it, as there is no danger of getting too much of this and it will make good gravy when the can is opened. All these points—although some of them seem unimportant—have a direct bearing on the success of the canning work and none of them should be overlooked.

In canning beef or hog liver, cut in slices one-third inch thick. Blanch or parboil one minute in boiling water, remove and pack in jars. Add one teaspoonful of salt to each quart. Fill jar with boiling water. This should require only a small amount, as the meat should be packed closely. Some of the water should reach the bottom of the jar and this can be accomplished by pressing the meat away from the sides of the jar with a fork or knife to allow the water to pass. If using the hot water bath outfit, process three hours for pints and three and one-half hours for quarts. If steam canner is used, process in ten to fifteen pounds of steam seventy-five minutes for quarts and sixty minutes for pints.

Champion Agricultural Club.

The Glenwood Mother-Daughter Canning Club, of Leavenworth county, Kansas, has been adjudged the champion agricultural club in thirty-three northern and western states, according to word just received from O. H. Benson, in charge of boys' and girls' work, states relations service, United States Department of Agriculture. The club already had the distinction of ranking first among mother-daughter organizations.

This honor was the result of the work done in 1916 when with twenty-nine teams approximately 11,000 quarts of fruits, vegetables and meats were canned. No team canned fewer than twenty-one varieties and one team put up 253 kinds of products. This year the club has thirty-seven teams, and it is expected that the final report on the work will show an increase over the number of cans filled last year. One mother and daughter have canned 1,023 quarts.

The Glenwood Club was the first mother-daughter canning club in the United States. It was organized in 1915 by P. H. Ross, then county agricultural agent of Leavenworth county, and Otis E. Hall, state club leader, and was composed of eleven teams and twenty-two members. These teams canned 2,900 quarts of products.

In the Glenwood community is a small frame church which stands in the open country four miles from a town, and schoolhouse a mile distant from the church. The Glenwood Club has made itself responsible for the renovation and repair of the church, for the improvement of the church and school yards and for better paid teachers. The county farm bureau has been strengthened, a community club which includes all members of the families represented in the Glenwood Club has been organized, and the whole neighborhood has been united for work and for pleasure through the members of this canning club. Members of the club are preparing and serving free of charge hot lunches for the school children. The school board provided the equipment.

Breakfast Menus.

To the Editor:—I always read the Home department with interest and I noticed an inquiry from one of the readers for breakfast menus. Now I consider one of the best dishes for breakfast is fried mush. For mush to really taste good don't cook it as thick as is generally done. Of course, it is easier handled that way, but not nearly so appetizing. We can make a very satisfactory meal on bread and mush with coffee and oatmeal to finish with. Corn flakes make a nice change. When we butcher we use scrap, liver and the head for pudding by boiling all until tender, then grinding and cooking out the water so it will keep. I reheat a portion for breakfast, using a little water or roasting in the oven. This pudding, with mush, is about the best breakfast we can get.

My husband likes biscuits, so I often make a batch of biscuits for breakfast with nothing more than butter, brown sugar sirup and coffee, or sometimes oatmeal.

Another good breakfast (and a cheap one) is simply pancakes with sirup and coffee. I use only one egg for making the pancakes. Beat the batter well and they will be light. Buckwheat cakes can be had in place of wheat cakes. Mrs. M. A. Whisler.

Household Helps.

Salt sprinkled on a range will absorb all grease splutterings.

A novel idea is to line dresser drawers with paper like that on the walls of the sleeping rooms. Fasten the paper down with thumb tacks.

When sprinkling clothes use hot water. It dampens them more evenly than cold.

Do not throw away the tops of celery. Wash them well, dry thoroughly in the oven and keep in a tightly closed jar to be used as a flavoring for soups and stews.

Paint the lowest step of the cellar stairs white if the cellar is dark. This

plan may save a fall and will do away with feeling for the last step when going down stairs.

Stockings may be cut open after the feet are removed, and be converted into warm tights for small children.

Immediately after ironing stiff shirt-cuffs, bring them together exactly as they will be when the links are in, and fasten with a spring clothespin. They will harden in just the right curve without wrinkles.

Instead of throwing a dirty chamois leather away put it into a weak solution of soda into which you have thrown some grated soap. Leave it for two hours and then rub until clean. Finally rinse the leather in warm, soapy water. Never put it in pure water, as it will grow hard in drying. When it is washed wring the leather in a linen cloth and dry quickly. It can also be rubbed dry and brushed until soft.

THE YOUNG FOLKS.

School Has Community Fair.

Dear Young Folks:—I live on an eighty-acre farm. It is nine miles to town and two and a half miles to school. I am a little girl eight years old. I have a little brother four years old. His name is Wilson.

I started to go to school last year. I went until the snow came too deep and it was too cold, then I brought my books home and studied at home all through the winter and passed my grade. I am in the third grade this year.

We had a community fair in our school last month. It was the first fair ever held at our school. I took first prize on a pine needle basket that I made at school. The prize was a nice book. We had a lunch and a good time.

Margaret.

A Surprise Party.

Dear Young Folks:—I want to join your circle if I may. I always read the Young Folks' page and am always delighted with the letters. I am a little ten year old. We live in the country two miles from town. We do not live on a farm. We live in the depot. My father is a section foreman and my brother works in the depot nights. I have two brothers, but no sisters. We go to country school one mile away from home.

I am going to tell you about a party we had. One of our neighbors had a son who had to go to the training camp to be a soldier and the night before he left we had a surprise party on him. He didn't know anything about it. We all chipped in to buy him a present. We had ice cream, cake and other things to eat. Everyone enjoyed the party. We went home about one o'clock and we were all pretty sleepy. We danced and played many games.

I hope all the Young Folks will enjoy reading my letter. Marie.

A Pet Jack Rabbit.

Dear Young Folks:—I am a boy twelve years old. My birthday was the ninth of December. I wrote to the Young Folks once before, but my letter was not in the paper.

One night when we were coming home from church we saw a rabbit and stopped and got out to get it. It was hurt and we took it home. It got better and would eat corn and grass, and drink lots of water. We kept it in a box and one night it got out and the dogs killed it. Ray.

Wants a Watch for Christmas.

Dear Young Folks:—I have written to your page before, but my letter was not in the paper. I guess there were so many others writing there was not room for it. But I am going to look for it in this time.

I am a boy ten years old and am in the fifth grade at school. I like my teacher very much. We live six blocks from school.

What do you want for Christmas? I want a wrist watch and an overcoat. I think that is all I want. W. G. S.

International Sunday School Lesson.

Lesson for December 23, 1917.

The Story of the First Christmas.

LESSON TEXT—Matthew 2:1-12.

GOLDEN TEXT—There is born to you this day in the city of David, a Savior, who is Christ the Lord.—Luke 2:11.

The story of the birth of Jesus is recorded in three of the four Gospels, Matthew, Luke and John, each of which contributes some feature essential to complete the picture. No one should teach this lesson who does not have a good "harmony of the Gospels." Every year for the forty-five years of the International Sunday School Lessons, we have had the Christmas lesson taken from these three Gospels one at a time. This year in closing the present series, we unite all three Gospels in one complete story, "The Story of the First Christmas."

The order of events should clearly be kept in mind as follows: The angelic announcement to Zacharias, the priest, while in the exercise of his ministerial office. The angelic announcement to Mary, the mother of Jesus, and to Joseph, her espoused husband. Mary's visit to her cousin, Elizabeth, and the birth of John the Baptist. The birth of Jesus and his circumcision on the eighth day (Luke 2:21). His redemption some thirty-one days later, introducing Simon the priest (Luke 2:22), and the purification of the mother.

The coming of Jesus was at the most opportune time in all the history of the world, for Palestine was the central region of the Roman empire. The whole civilized world was subject to Roman domination. He was born while the entire world was at peace, for once in its history. Travel was at its best, for the Roman military roads all centered in Rome and extended throughout the empire. The Greek language was spoken everywhere, along with native languages, so that the Gospel could readily be heard in all parts of the empire. The Old Testament was translated into Greek. The Jews were scattered throughout all lands, carrying this Old Testament with them, and had established their synagogues in nearly every city and town. There was also a widespread intellectual and moral awakening, and there was widespread religious unrest and a hungering for something better.

I. The Search. Notice that he who was born on this first Christmas was the "only begotten of God." This divine being became flesh, a strange and seemingly impossible union, but only such a union of the human and divine could draw man to God. If Jesus had not been identified with the divine nature of God, all the love, honor and devotion which we give to him, would lead us into idolatry. (1) Wisdom seeking (vv. 1, 2). See also Act 13:6. Who these men were, we do not know. They were evidently students of the stars, and perhaps came from Persia whither Balaam went. (Numbers 23:7; Numbers 24:17-19.) They may have known of Daniel's prophecy. They came because they had seen a star. A little light, only a small star, and we may have the sun. (John 8:12.) The highest wisdom is to know God. (Prov. 9:10.) We do not have to seek far to find him. The highest wisdom is also teachable. "Where is he that is born?" These wise men were not the first ones to seek him, for the humble shepherds who had heard the angelic host (Luke 2:15, 16), immediately went to Jerusalem to make sure that the good news was true. Tradition only gives us the names of these men. They typify the world, the first Gentiles who came to seek Jesus. (2) Wickedness Seeking (v. 3-8). It is interesting to note the alarm of Herod, his suspicion and jealousy. Why? Note the carefulness of Herod's search. First the chief priests, who were theologians; then the scribes and lawyers, who were the historians; then the common people who were familiar with the traditions; and, finally, the wise men (v. 7).

II. Wisdom Rewarded (vv. 9-11). Persistent obedient searching after God always brings wisdom. Notice the steps of the wise men. They sought, they found, they rejoiced, they

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worshiped and they gave gifts. The stable of Christ's birth is evidently an exchange for a house (v. 11 and Luke 2:7). The gifts they presented have a threefold significance: Gold, for royalty, indicating divine glory; Frankincense for deity, the aroma of his life; Myrrh, signifying death, his death and its value to mankind. Notice that they did not worship Mary.

III. Wickedness Foiled (vv. 12-16). God intervened (v. 12). Notice the impotent rage of the enemy (v. 16). Christ was delivered, Herod was dismayed, and the people were desolate.

Suggestions: The cry "where" of the human heart is here answered. God answers all honest searching. God himself gave his best gift (John 3:16). God also desires our best gift. We must worship Jesus as king. Religion is not for the Magi alone, nor for the common people; it is for all. We have not far to go to seek the Christ. He is even more than near, "For behold I stand at the door and knock."

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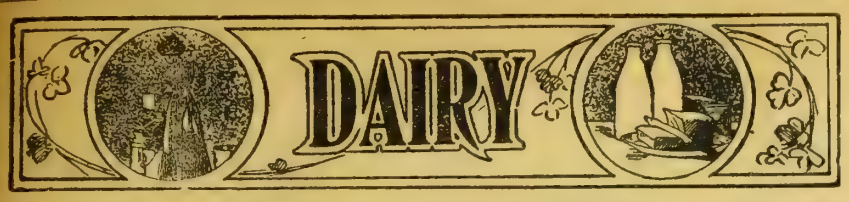

Dairymen Not Profiteers.

No class of producers are operating on a smaller margin of profit at this time than are men engaged in the dairy business. The selling price of dairy products has not kept pace with the increasing cost of feed and labor. Thus while men in some lines have boosted prices and have made immense fortunes, almost overnight, dairymen have seen their profits grow less and less.

Profiteers have taken advantage of war conditions to increase their personal wealth. Dairymen have done nothing of this sort. At no time have they asked for more than a legitimate profit and at no time have they attempted to secure more than that. In fact, many dairymen are trying to pull through the war-time period without utter financial ruin. They hope then for an opportunity to produce at a lower cost and by that means hold to the business of their lifetime.

There is a strong element of patriotism in the way the dairymen are sticking to their job. Milk is badly needed. Probably there is a stronger requirement for milk at this time than ever before. In every war men have distinguished themselves by staying with their ships until they were engulfed in the depths of the sea. Dairymen as a class are more nearly to be compared to those heroic seamen than are any other class of producers. On the average farm where a few cows are kept and other lines of farm and live stock work are carried on there is a strong temptation to curtail the production of milk. This is to be expected on account of possible greater returns from some other lines at this particular time. However, true dairymen realize the need for a plentiful production and are endeavoring to keep up a sufficient supply.

So long as dairymen are given a reasonable opportunity they will prevent milk from becoming so scarce as it is in some European countries where it is reported that babies are starving for the want of milk. Our American dairymen are far too patriotic to produce this wilfully. The public is too patriotic to permit prices to be kept down to such a level that it will be forced upon the dairymen to cease production.

No line of dairying or branch of work pertaining to dairying is booming. In this is full evidence of a lack of profiteering. Dairymen are working hard to make both ends meet. They are happy if they can show even a small balance at the end of the year. They are furnishing probably more food nutrients in return for the raw products than are those engaged in any other line of production. Instead of this being profiteering it is patriotism intensified. Dairymen are doing their share to win the war. They are doing it with a spirit and determination that deserves the praise of everyone who is interested in the welfare of our nation and who desires to see the war brought to a successful conclusion.

The future looks serious, but not forbidding. Price of farm feeds is being regulated to some extent directly or indirectly. The established price on wheat has practically fixed a corresponding price on bran and this has had an effect upon the cost of other feeds. The ratio of price on hogs to corn and the minimum established on hogs is having a stabilizing effect upon corn products. Well-informed dairymen are not worrying about the price of grain going enormously high. With some labor available and by the use of machinery wherever possible they will hold out so long as the war shall continue.

Advances in price which have been made upon dairy products have been forced by the increased cost of production. Those increases have caused resentment in some quarters. Yet any fairminded man is able to see that the cost of production has nearly doubled. There has been no profiteering in this. It has been absolute necessity. People have been thinking the matter over and now realize that the advance has been merited. Now people have come to realize that dairymen, while they are not, strictly speaking, martyrs, are giving a full measure of patriotism as well as a full measure of milk in these turbulent times.

The Dairy Cow Not Always to Blame.

To the Editor:—When the returns from the dairy business are not satisfactory it is not at all unusual for the owner to complain that his cows are poor, and for his friends to advise him to obtain better cows. The explanation is very plausible and the remedy is easy to suggest. But it is often found that the explanation is incorrect and the remedy is impracticable.

It is easier to blame the cows than it is to carefully investigate the real cause of their shortcomings, and it is often pleasanter to do this than it is to admit that the owner may be more deserving of blame than are his cows.

But easy and pleasant ways are not always the right ones. They sometimes lead those who follow them far astray. Comparatively few cows have ever reached the limit of their possible productiveness. The great majority have an actual and a potential accomplishment—what they do and what they have the capacity of doing. The quality of milk which they yield is below what might and ought to be. If judged by their present productiveness they must be ranked as poor cows. But if possible yield is made the basis of judgment many of them go into a higher class.

It is perfectly natural that the owner of a cow that never yields more than a moderate quantity of milk should be dissatisfied. But in a great many, probably in the majority of cases, much can be said of the cow. She has never been placed under conditions which would enable her capacity for milk production to be determined. No intelligent and persistent effort to find whether she can do better than she has done has ever been made. It is true that she may not be valuable, but it is not fair to the cow or profitable to her owner to condemn her as inferior until she has had a fair and adequate trial. She should not be put in the class of poor cows until well-directed efforts for her improvement have been made.

Whenever conditions are at fault they ought to be corrected and the cow then be given a fair period of probation. If this is done it is not at all improbable that a good part of the blame for the shortcomings of which he has complained should be placed on the owner rather than on the cow.

There are various ways in which conditions may fall below a proper standard. There are farms on which the cows require better protection against sudden changes of temperature, from extremes of heat and cold, and from exposure to storms. All causes of discomfort should be removed as fully as possible. It is useless to expect that a cow will do her best if she is not satisfied and contented.

On many farms the principal efforts for improving the conditions and thus increasing the productiveness of the cows should be directed toward the feeding. Changes along this line may be made with great advantage. They may involve the giving of larger quantities of food, or the use of more expensive materials in the ration. Or they may require the use of the same materials in different proportions, or some changes of foodstuffs which will not increase the cost of keeping.

On some farms where the convenience of the owners is regarded as of greater importance than the welfare of the cows, greater regularity in the times of feeding would be of marked benefit. The water supply, too, is sometimes at fault, especially in cold weather. Where this is deficient or the quality poor the yield of milk will be only moderate and the character of what is produced will probably be bad. In cases like these all adverse criticism should be withheld from the cows and bestowed upon the owners.

The only real profitable course to take when the dairy does not yield a fair profit is to find out whether the cows are inherently, and consequently hopelessly, inferior, or whether their low rate of production is due to the conditions under which they are kept and the ration they are receiving. If conditions are made right and the cows still fail to be productive, it is evident that they are lacking in capacity, and the sooner they are made ready for the butcher the better. But be sure first. R. B. R.

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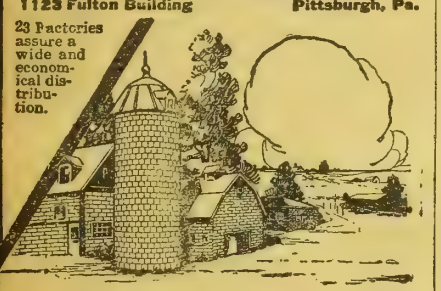

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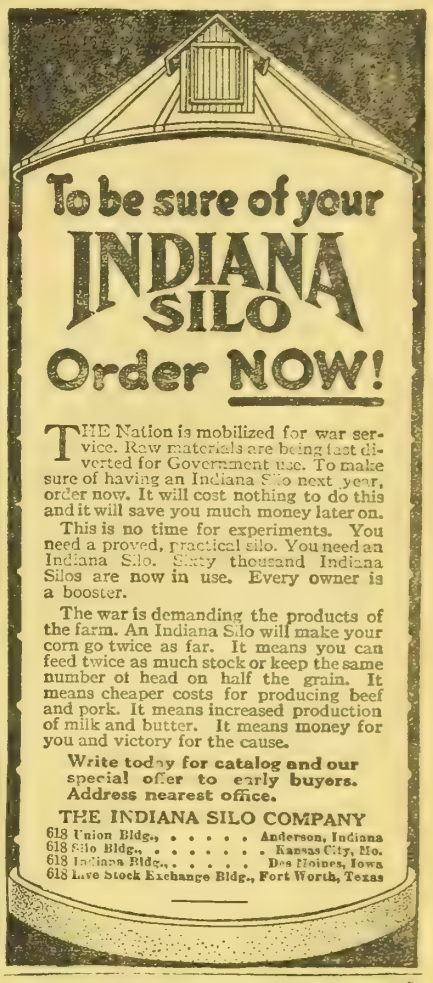

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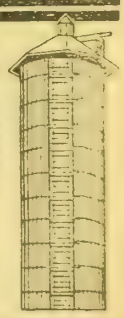

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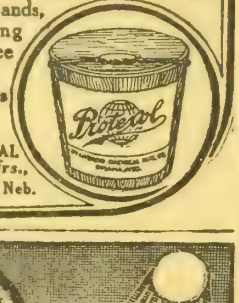

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Sheep at the International Show.

Good Exhibits in All Classes---Wisconsin Figures High in Both Breeding and Fat Classes.

A LIVELY interest was taken in the sheep department of the International Live Stock Exposition this year. Exhibits were sufficiently numerous to make this department an important feature of the exposition and the work of judging never has been watched with greater zeal than was the case this year. Wisconsin University made some creditable entries and it was to be expected that Shepherd Kleinheinz should land some of the best ribbons. He took the championship in the fat Shropshires and the same premium in the fat Rambouillets, but was defeated in the Southdowns by Jesse C. Andrews, of West Point, Ind., who also carried away the grand championship prize. A number of Wisconsin breeders took an important part as exhibitors and a close study of the awards which follow will show that some of the best prizes went to Wisconsin flocks. The following is a list of the prize winners in the breeding classes:

Shropshires.—Exhibitors Jesse C. Andrew, West Point, Ind.; James Brown, Dundee, Ill.; A. Broughton & Sons, Albany, Wis.; H. D. Eddingfield, Mt. Pleasant, Ia.; J. Lloyd Jones, Burford, Ont.; A. J. Knollin, Pocatello, Idaho; Ralph A. Postle, Camp Chase, Ohio; University of Illinois, Urbana, Ill.; Henry L. Wardwell, Springfield Center, N. Y. Judge, Wm. Renk, Sun Prairie, Wis.

Ewe lamb under 1 year (12 shown), 1st Broughton & Sons, 2d Wardwell, 3d Andrews, 4th Knollin, 5th Wardwell, 6th Knollin.

Champion ram, Broughton & Sons on yearling; champion ewe, Broughton & Sons on yearling; flock (5 shown), 1st Broughton & Sons, 2d Andrews, 3d Wardwell, 4th Knollin, 5th Eddingfield; 4 lambs, either sex (5 shown), 1st Wardwell, 2d Broughton & Sons, 3d University of Illinois, 4th Knollin, 5th Andrews; pen of 3 yearling ewes (4 shown), 1st Broughton & Sons, 2d Andrews, 3d Eddingfield, 4th Wardwell; pen of 3 ram lambs (5 shown), 1st Broughton & Sons, 2d Wardwell, 3d Knollin, 4th Andrews; pen of 3 yearling rams (4 shown), 1st Broughton & Sons, 2d Wardwell.

Pettifer Challenge Cup, given by Stephen Pettifer & Sons of Malmsbury, England—Won by Henry L. Wardwell for the best pen of 4 Shropshire lambs of either sex.

Shepherds' prizes (3 entries), 1st Tom Bradbourn, shepherd for J. C. Andrews, 2d Dan Taylor, shepherd for Henry L. Wardwell.

Southdowns.—Exhibitors: Heart's Delight Farm, Chazy, N. Y.; Iowa State College, Ames, Ia.; J. Lloyd Jones, Burford, Ont.; Kansas State Agricultural College, Manhattan, Kan.; Robt. McEwen, London, Ont.; Ohio State University, Columbus, Ohio; University of Illinois, Urbana, Ill.

The awards: Ram 2 years or over (2 shown), 1st McEwen, 2d Iowa State College; 1 year and under 2 (6 shown), 1st McEwen, 2d and 3d Heart's Delight Farm; under 1 year (9 shown), 1st McEwen, 2d Iowa State College, 3d University of Illinois.

Ewe 1 year and under 2 (11 shown), 1st and 3d McEwen, 2d University of Illinois; under 1 year (15 shown), 1st University of Illinois, 2d and 3d McEwen.

Champion ram, McEwen on ram lamb; champion ewe, University of Illinois on ewe lamb; flock, 1st McEwen, 2d Iowa State College, 3d Heart's Delight Farm; pen of 4 lambs, 1st University of Illinois, 2d McEwen, 3d Iowa State College.

Costwolds.—Exhibitors: A. W. Arnold, Galesville, Wis.; Merritt Heath, Muncie, Ind.; L. M. Lee, Highgate, Ont.

The awards: Ram 2 years or over (4 shown), 1st and 3d Arnold; 2d Heath; 1 year and under 2 (2 shown), 1st Arnold, 2d Heath; under 1 year (4 shown), 1st and 3d Arnold, 2d Heath.

Ewe 1 year and under 2 (6 shown), 1st and 2d Arnold, 3d Heath; under 1 year (5 shown), 1st and 2d Arnold, 3d Heath.

Champion ram, Arnold on yearling; champion ewe, Arnold on ewe lamb; flock (3 shown), 1st Arnold, 2d and 3d Heath.

Dorsets.—Exhibitors: Hamilton Farm, Gladstone, N. J.; Hawthorn Farm, Lake County, Ill.; Heart's Delight Farm, Chazy, N. Y.; Kansas State Agricultural College, Manhattan, Kan.

The awards: Aged ram (2 shown), 1st Hamilton Farm, 2d Hawthorn Farm; 1 year and under 2 (3 shown), 1st Hamilton Farm, 2d Heart's Delight Farm, 3d Hawthorn Farm; lamb (5 shown), 1st and 2d Heart's Delight Farm, 3d and 4th Hawthorn Farm.

Aged ewe (6 shown), 1st and 2d Heart's Delight Farm, 2d Hamilton Farm, 4th Kansas State Agricultural College; lamb (7 shown), 1st, 2d and 3d Heart's Delight Farm, 4th Hawthorn Farm.

Champion ram, Hamilton Farm on yearling; champion ewe, Heart's Delight Farm on yearling; flock (3 shown), 1st and 3d Heart's Delight Farm, 2d Hawthorn Farm; 4 lambs, either sex (3 shown), 1st and 3d Heart's Delight Farm, 2d Hawthorn Farm.

Dorset Specials.—A, Best pair of ewes, with suckling lambs, Hamilton Farms, without competition; B, ewe, with twin lambs suckling, 1st and 2d Hamilton Farms.

Cheviots.—Exhibitors: Keith B. Clark, Clark's Hill, Ind.; Turney C. Collins, Leesburg, Ky.; E. Crall & Son, Evansville, Wis.; A. C. Grieve, Xenia, Ohio; Raymond D. Grieve, Xenia, Ohio; University of Wisconsin, Madison, Wis.

The awards. Ram 2 years or over (5 shown), 1st Clark, 2d Raymond Grieve; 1 year and under 2 (5 shown), 1st Clark, 2d Grieve, 3d Collins; under 1 year (5 shown), 1st and 2d Clark, 3d Collins.

Ewe 1 year and under 2 (6 shown), 1st Collins, 2d Clark, 3d Raymond Grieve; under 1 year (9 shown), 1st University of Wisconsin, 2d Raymond Grieve, 3d Collins.

Champion ram, Clark on yearling; champion ewe, Raymond Grieve; flock (3 shown), 1st Collins, 2d Grieve, 3d Clark; 4 lambs, either sex (4 shown), 1st Clark, 2d Collins, 3d Grieve

Hampshires.—Exhibitors: A. W. Arnold, Galesville, Wis.; H. L. Finch, Soda Springs, Idaho; Iowa State College, Ames, Iowa; Kansas State Agricultural College, Manhattan, Kan.; Sherwood Bros., Shelbyville, Mo.; University of Illinois, Urbana, Ill.; Walnut Hall Farms, Donerail, Ky

The awards: Ram 2 years or over (3 shown), 1st and 2d Walnut Hall Farm, 3d Sherwood Bros.; 1 year and under 2 (5 shown), 1st, 2d and 3d Walnut Hall Farm, 4th Arnold, 5th Sherwood Bros.; under 1 year (6 shown), 1st, 2d, 3d, 4th and 5th Walnut Hall Farm.

Ewe 1 year and under 2 (9 shown), 1st and 3d Walnut Hall Farms, 2d Arnold; Hampshire ewe specials, 1st, 2d, 4th and 5th Walnut Hall Farm, 3d Sherwood Bros.; under 1 year (8 shown), 1st Iowa State College, 2d Walnut Hall Farm, 3d University of Illinois.

Champion ram, Walnut Hall Farm on two-year-old ram; champion ewe, Iowa State College on ewe lamb; flock, 1st and 2d, Walnut Hall Farm, 3d Arnold, 4th Sherwood Bros.; pen of 4 lambs, 1st and 2d, Walnut Hall Farm, 3d Sherwood Bros.

Oxfords.—Exhibitors. C. C. Croxen, West Liberty, Ia.; John Graham & Son, Eldorado, Ia.; Iowa State College, Ames, Ia.; R. J. Stone, Stonington, Ill.; University of Illinois, Urabana, Ill.

The awards: Ram 1 year and under 2, (2 shown), 1st Stone, 2d Graham & Sons; under 1 year, 1st Stone, 2d Croxen, 3d Graham & Sons; champion ram, Stone on yearling.

Ewe 1 year and under 2 (4 shown), 1st and 2d Stone, 3d Graham & Sons; lamb (11 shown), 1st Stone, 2d and 3d Graham & Sons; champion ewe, Stone on yearling; flock (2 shown), 1st Stone, 2d Graham; 4 lambs (4 shown), 1st Graham, 2d Stone, 3d Croxen.

Lincolns.—Exhibitors: A. W. Arnold, Galesville, Wis.; Heart's Delight Farm, Chazy, N. Y.; H. M. Lee, Highgate, Ont.

The awards: Ram 2 years or over (2 shown), 1st Lee, 2d Arnold; 1 year and under 2 (3 shown), 1st Lee, 2d and 3d Arnold; under 1 year (7 shown), 1st Heart's Delight Farm, 2d and 3d Lee; 1 year and under 2 (6 shown), 1st, 2d and 3d Lee.

Champion ram, Lee on yearling; champion ewe, Lee on yearling; flock (3 shown), 1st and 3d Lee, 2d Arnold; 4 lambs (3 shown) 1st and 3d Lee, 2d Arnold.

Rambouillets.—Exhibitors: Keith B. Clark, Clark's Hill, Ind.; F. S. King Bros. Co., Laramie, Wyo.; Orth & Mathews, McGuffey, Ohio; Chandler P. Raup, Springfield, Ohio; Shaw Bros., Pottersburg, Ohio; University of Illinois, Urbana, Ill.

The awards: Ram 1 month and under 1 year (12 shown), 1st and 4th University of Illinois, 2d Shaw Bros., 3d and 5th King Bros. Co.

Ewe 2 years or over (8 shown), 1st and 4th Shaw Bros., 2d and 5th, Orth & Mathews, 3d King Bros. Co.; 1 year and under 2 (11 shown), 1st and 4th King Bros. Co., 3d Orth & Mathews, 2d and 5th Shaw Bros; under 1 year (14 shown), 1st University of Illinois, 2d 3d and 4th King Bros. Co., 5th Shaw Bros.; flock (3 shown), 1st King Bros., 2d Shaw Bros., 3d Orth & Mathews.

Champion ram, University of Illinois on yearling; champion ewe, University of Illinois; ram 1 year or over and flock (3 shown), 1st King Bros. Co., 2d Orth & Mathews, 3d Shaw Bros; 4 lambs of either sex (4 shown), 1st University of Illinois, 2d King Bros. Co., 3d Orth & Mathews, 4th Shaw Bros.

Leicesters. All awards in this section went to James Snell, Clinton, Ont., as he filled every class.

Specials—Best pen of 3 lambs, any breed, fed by boy or girl under 19 years of age (7 shown), 1st Lloyd Taggart, Washington, Ia., 2d Ralph Peak, Winchester, Ill.; 3d Willie Turner De Witt, Ia.; 4th John Turner, De Witt, Ia.; 5th Jennie Turner, De Witt, Ia.

FAT SHEEP.

Shropshires.—Exhibitors: Jesse C. Andrews, West Point, Ind.; Keith B. Clark, Clark's Hill, Ind.; H. D. Eddingfield, Mt. Pleasant, Ia.; Iowa State College, Ames, Iowa; Pennsylvania State College, State College, Pa.; R. J. Stone, Stonington, Ill.; University of Missouri, Columbia, Mo.; University of Ohio, Columbus, Ohio; University of Wisconsin, Madison, Wis.; A. J. Knollin, Pocatello, Idaho

The awards: Wether 1 year and under 2, 1st University of Wisconsin, 2d Andrews, 3d Knollin; lamb, 1st University of Wisconsin, 2d and 3d Andrews; champion, University of Wisconsin on yearling; pen of 3 lambs, 1st Andrews, 2d University of Wisconsin, 3d Pennsylvania State College.

Oxfords.—Exhibitors: C. C. Croxen, West Liberty, Ia.; Iowa State College, Ames, Ia.; R. J. Stone, Stonington, Ill.

The awards: Wether 1 year and under 2, 1st and 2d Iowa State College, 3d and 4th Stone; lamb, 1st Iowa State College, 2d and 3d Stone; champion, Iowa State College on yearling; pen of 3 lambs, 1st and 2d Stone.

Costwolds.—Exhibitors. E. Brien & Sons, Ridgetown, Ont.; Merritt Heath, Muncie, Ind.; H. M. Lee, Highgate, Ont.

The awards: Wether 1 year and under 2, 1st Brien & Sons, 2d Lee; lamb, 1st, 2d and 3d Brien & Sons; champion, Brien & Sons on yearling; pen of 3 lambs, 1st Brien & Sons, 2d Heath.

Leicesters.—Exhibitors: H. M. Lee, Highgate, Ont.; James Snell, Clinton, Ont.

The awards: Wether 1 year and under 2, 1st and 2d Snell; lamb, 1st Lee, 2d and 3d Snell; champion, Snell on yearling; pen of 3 lambs, Snell.

Lincolns.—Exhibitors: F. B. Gosnell, Highgate, Ont.; H. M. Lee, Highgate, Ont.; Ohio State University, Columbus, Ohio; Pennsylvania State College, State College, Pa.

The awards: Wether 1 year and under 2, 1st and 2d Lee, 3d Ohio State University; lamb, 1st and 2d Lee, 3d Gosnell; champion, Lee on yearling; pen of 3 lambs, Lee.

Hampshires.—Exhibitors: Iowa State College, Ames, Ia.; Ohio State University, Columbus, Ohio; James Snell, Clinton, Ont.; University of Missouri, Columbus, Mo.; University of Wisconsin, Madison, Wis.; Walnut Hall Farms, Donerail, Ky.; Kansas State Agricultural College, Manhattan, Kan.

The awards: Wether 1 year and under 2, 1st Iowa State College, 2d Kansas State Agricultural College, 3d University of Wisconsin; lamb, 1st, 2d and 4th University of Wisconsin, 3d Walnut Hall Farms; champion, Iowa State College on yearling; pen of 3 lambs, University of Wisconsin.

Rambouillets.—Exhibitors: Purdue University, Lafayette, Ind.; Shaw Bros., Pottersburg, Ohio; University of Wisconsin, Madison, Wis.; Keith B. Clark, Clark's Hill, Ind.

The awards: Wether 1 year and under 2 (4 shown), 1st and 2d University of Wisconsin, 3d Purdue University; lamb (11 shown), 1st Purdue University, 2d University of Wisconsin, 3d Clark; champion, University of Wisconsin.

Southdowns.—Exhibitors: Heart's Delight Farm, Chazy, N. Y.; Iowa State College, Ames, Ia.; Robt. McEwen, London, Ont.; Ohio State University, Columbus, Ohio; Purdue University, Lafayette, Ind.; University of Illinois, Urbana, Ill.; University of Missouri, Columbia, Mo.; University of Wisconsin, Madison, Wis.; Jesse C. Andrews, West Point, Ind.

The awards: Wether 1 year and under 2 (24 shown), 1st Andrews, 2d Iowa State College, 3d University of Wisconsin; lamb (22 shown), 1st and 3d University of Wisconsin, 2d Heart's Delight Farm; champion, Andrews; pen of 3 lambs, 1st University of Wisconsin, 2d Heart's Delight Farm, 3d Andrews.

Dorsets.—Exhibitors. Heart's Delight Farm, Chazy, N. Y.; Kansas State Agricultural College, Manhattan, Kan.; Ohio State University, Columbus, Ohio.

The awards: Wether 1 year and under 2 (7 shown), 1st Kansas State Agricultural College, 2d Heart's Delight Farm, 3d Ohio State University.

Grade and Cross Breds.—Exhibitors: Jesse C. Andrews, West Point, Ind.; H. D. Eddingfield, Mt. Pleasant, Ia.; Heart's Delight Farm, Chazy, N. Y.; Iowa State College, Ames, Ia.; Kansas State Agricultural College, Manhattan, Kan.; A. J. Knollin, Pocatello, Idaho; H. M. Lee, Highgate, Ont.; Ohio State University, Columbus, Ohio; Oklahoma A. & M. College, Stilwater, Okla.; Pennsylvania State College, State College, Pa.; Purdue University, Lafayette, Ind.; R. P. Stone, Stonington, Ill.; Jennie E. Turner, DeWitt, Ia.; John H. Turner, Jr., DeWitt, Ia.; Willie J. Turner, DeWitt, Ia.; University of Illinois, Urbana, Ill.; University of Minnesota, St. Paul, Minn.; University of Missouri, Columbia, Mo.; University of Wisconsin, Madison, Wis.; N. E. Woods & Son, Amo, Ind.

The awards: Long wool types, Wether 1 year and under 2, 1st and 2d Lee; lamb, 1st, 2d and 3d Lee; wether, Lee on yearling; pen of 3 lambs, Lee. Medium wool or down classes, Wether 1 year and under (40 shown), 1st Kansas State Agricultural College, 2d University of Wisconsin, 3d Ohio University; lam (46 shown), 1st, 2d and 3d Heart's Delight Farm; champion, Kansas State College; pen of 5 wethers, 1 year and under 2, 1st University of Wisconsin, 2d Heart's Delight Farm, 3d Ohio State University; pen of 3 lambs, 1st Heart's Delight Farm, 2d Andrews, 3d University of Wisconsin.

Ask your neighbor to subscribe for The Wisconsin Farmer.

Live Stock and Commercial Notes.

Gathered by Representatives of The Wisconsin Farmer.

Minnesota Short-horn Breeders' Sale.

MINNESOTA Short-horn breeders have arranged for a very important show and sale to be held at South Saint Paul January 4 and 5, 1918. The show will be held on January 4th preceding the day of sale. Our readers will be especially pleased to learn that Mr. Frank W. Harding, of Waukesha, Wis., has consented to act as judge at the show. Probably no man in America is more capable of filling this position and his placings in the show ring will furnish valuable points to every stockman who is present. The sale starts at 10 o'clock on the morning of January 5th and there will be offered 86 head of well-bred Short-horn cattle, the pick of a large number of Minnesota herds. Included in this list will be Scotch, Scotch-topped and milking bred Short-horns. A great many of our readers attended the sale last year, which was one of the most important live stock events ever held in the Northwest. That the sale this year will excel last year's records seems to be certain. Breeders will appreciate the opportunity to see the animals in the show ring and to hear the comments of some of the nation's most successful breeders, before the offering is made in the sale ring. On the evening of January 4th the annual meeting nad banquet of the Minnesota Short-horn Breeders' Association will be held at the Saint Paul Commercial Club rooms. A splendid program has been provided. For catalog of this big sale write P. S. Jordon, secretary and sale manager, Morris, Minn. Please mention The Wisconsin Farmer in your letter. See advertisement on page 24.—Adv.

Herefords at Chicago January 9th.

SIXTY head of Herefords—50 females and 10 bulls—will be sold at Chicago January 9th, the cattle coming from the herds of Burch & Thompson and A. C. Bartlett, Lake Geneva, Wis. Included in the bull list will be the imported Eaton Druid (from the Bartlett herd, and the tried sire, Beau Gomez 2d, from the Burch & Thompson lot. Eight strong young bulls are in the sale. The female portion of the offering contains many attractions, and should be in demand sale day. Burch & Thompson are drawing heavily upon the best things in their herd in order to make the sale a very attractive one, while on the part of Mr. Bartlett it amounts practically to a dispersion, as his health is not of the best, and that, added to his inability to secure the necessary help to properly care for the cattle, makes it necessary that he dispose of his cattle. The entire offering is one of merit and strong breeding, and the attendance should be large and the bidding of the liberal kind. Catalogs will be issued by December 20th, and will be sent upon application if you write to Burch & Thompson, Lake Geneva, Wis. Kindly mention this paper when you write.—Adv.

Report Good Sales of Red Polls.

JOHN W. SALTER & SONS, Unity, Wis., continue to enjoy a good trade in Red Polls. They report the following sales made in the last three weeks: One female to Joseph Raab, Auburndale, Wis; one bull and two females to Fred Handke, Granton, Wis.; one bull to Wm. Jakel, Curtis, Wis., and one bull and one heifer to Ed Wettstein, Stanley, Wis. This goes to show that the Salter Red Poll cattle are in steady demand, for the monthly report from this firm always shows numerous sales. If interested in cattle of this breed it is to your interest to investigate the Salter Red Polls. Unity is their postoffice, a short way from Marshfield. See advertisement on page 22.—Adv.

Buys a Son of Giant Invincible.

FRED G. MATTHES, Viola, Wis., we believe is one of the coming Duroc men of the state. He is buying good stock and is a good feeder and these two essentials generally spell success. He has just purchased a son of the $2,500 boar, Giant Invincible. This is the only boar in the state sired by this great yearling and Mr. Matthes is fortunate in getting this boar for service in his herd. The pig is of late farrow, but has the necessary qualifications that go to make a good herd boar. Keep this herd in mind.—Adv.

The Edge Durocs.

WE want to say that Wm. C. Edge has a bunch of Duroc gilts that for size and uniformity cannot be beaten in the state, and when he puts them up for sale in the Grant County Duroc sale at Fennimore, January 25th, they will all acknowledge that he is a real hog man. The gilts have been bred to the $115 spring boar that was purchased in the Atwater sale. He is sired by Dreadnaught, a son of Illustrator. Others have been bred to a son of King Orion. Mr. Edge is located at Fennimore, Wis., and is secretary of the Grant County Duroc Association and you should send him your name so that you will get one of their sale catalogs. Please mention The Wisconsin Farmer.—Adv.

Cole's Poland China Gilts.

IF wishing to buy Poland China gilts that are good ones, write A. W. Cole, Lodi, Wis. Mr. Cole has about 20 and they compare with any we have seen in the state. They are big, yet they have that smoothness and quality that are so desirable. The price asked for these gilts is within the reach of anyone wanting registered Polands.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 10, W. N. Shanks, Worthington, Minn.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 25, Grant County Duroc Breeders, Fennimore, Wis. Wm. C. Edge, Secy.
Jan. 28, Ames Bros., Weaver, Minn.
Jan. 28, Rock County Duroc Jersey Breeders, John L. Fisher, Mgr., Janesville, Wis.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 6, J. D. McDonald, West Salem, Wis.
Feb. 12, D. B. Smith, Mission Hill, S. D.
Feb. 13, Liew Bros., Platte, S. D.
Feb. 15, C. P. Dexheimer, Spencer, S. D.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.
Mar. 12, M. V. Miller, Lawler, Iowa.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.
Feb. 26, H. A. Derenthal, Wykoff, Minn.
Feb. 27, H. A. Derenthal, Wykoff, Minn.

Short-horn Cattle.

Dec. 20, A. W. Arnold, Galesville, Wis.
Feb. 18-22, Short-horn Congress Sale, Chicago.
Mar. 15, Interstate Short-horn Breeders' Assn. Bull Sale, Sioux City, Iowa.

Hereford Cattle.

Jan. 9, Burch & Thompson and A. C. Bartlett, Lake Geneva, Wis. (Sale at Chicago.)

Short-horn Cattle and Percheron Horses.

Feb. 26, Griswold Bros., Livingston, Wis.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

Draft Horses.

Jan. 22-25, Breeders' Sale Co., Bloomington, Ill. C. W. Hurt, manager.

News of the Sale Ring.

(Continued from page 15.)

to be as sensational a bull as the breed has ever produced, was sold for $31,000, the record price for a Hereford bull in this country. The bull was consigned by Walter L. Yost, of Kansas City, and the opening bid was $5,000, made by Frank Fox, Indianapolis, Ind., who with W. A. Pickering, Kansas City, Mo., and A. B. Cook, Helena, Mont., were contending bidders, Mr. Cook dropping out at $25,000 and Mr. Fox at $30,000, the bull going to the Pickering establishment on a bid of $31,000. Mr. Yost later secured Maple's Lad 61st, J. C. Robinson's aged bull entry, and which was placed in the sale at the last minute, for $10,000. The top female brought $2,500, that price being paid by Hamilton Farms, Gladstone, N. J., for Lady Panama 7th, consigned by A. B. Cook. Maple's Lass 57th, from the J. C. Robinson herd, went to Col. E. H. Taylor, Frankfort, Ky., at $2,400. The cattle were well distributed, going to buyers from 14 states. The general average on the 58 head sold was $1,774, the sale totaling $102,875. The 33 bulls averaged $2,400 and the 25 females $950. It was a sale that should be a matter of much gratification to the Hereford fraternity generally, as it sets a high water mark in the beef cattle annals of the country. Col. Reppert did the selling in his usual efficient manner, assisted by Magness and Miller. The detailed list follows:

FEMALES.

Lady Panama 7th, calved 1914; Gladstone Farms, Brunswick, N. J. $2,500
Maple's Lass 57th, calved 1914; Col. E. H. Taylor, Frankfort, Ky. 2,400
Jean Dare, calved 1915; Col. E. H. Taylor, Jr. 875
Dunbar Lady, calved 1916; E. F. Swinney, Kansas City, Mo. 625
Lady Donald 37th, calved 1910; Neely Bros., Lake View, Ia. 825
Columbia March On, calved 1916; W. T. McCray, Kentland, Ind. .. 1,025
Prime Lass Britisher, calved 1914; G. A. Foster, Fairchild, Wis. 775
Sly Perfect, calved 1914; G. A. Foster 650
Miriam Dare, calved 1915; Gladstone Farms 1,175
Jennie Perfection, calved 1914; John H. Bell, Jr., Pittsburgh, Pa.
Alice Lee, calved 1915; O. Harris & Sons, Harris, Mo. 675
Pansy Pink, calved 1916; John H. Bell, Jr. 1,050
Juno Perfection, calved 1915; John H. Bell, Jr. 800
Heroine H 608th, calved 1916; E. B. Gooch, Ute, Ia. 725
Heroine H 609th, calved 1916; E. B. Gooch 525
Helen Fairfax, calved 1916; E. B. Gooch 1,100
Ardis Fairfax, calved 1910; W. T. McCray 1,450
Cherry Fairfax, calved 1915; J. B. Summerhorn, Chicago, Ill. 700
Carl G's Lass 6th, calved 1915; G. A. Foster 800
Belle Blanchard 10th, calved 1915; Hamilton Farms 950
Maple's Lass 71st, calved 1915; Fonner Stock Farm, Decatur, Ind. 625
British Queen, calved 1916; E. B. Gooch 400
Lady Directress, calved 1914; W. T. McCray 750
Lady Perfection 3d, calved 1915; John H. Bell, Jr. 775
Lady Fairfax 1st, calved 1916; John H. Bell, Jr. 900

BULLS.

Ardmore, calved 1913; W. R. & W. A. Pickering, Kansas City, Mo. 31,000
Maple's Lad 61st, calved 1914; Walter L. Yost, Kansas City, Mo. .. 10,000
Paragon Dare, calved 1916; J. L. Jones, Roscoe, Ia. 3,150
Prime Lad Fairfax, calved 1915; Joe Rezac, Tabor, S. D. 2,400
Roehampton 19th, calved 1915; E. B. Gooch 1,175
Illuminator 2d, calved 1916; L. O. Hill, Orange, Va. 700
Perfection Beau, calved 1915; John H. Bell, Jr. 1,100
Roehampton 30tl, calved 1916; S. Russell, Jr., Middletown, Conn. 725
Dunbar King 6th, calved 1916; V. A. McCalahan, Hampshire, Tenn. 700
Lanthus Donald 4th, calved 1915; W. Andrews & Son, Morse, Ia. .. 525
Major Donald, calved 1915; O. F. Russell, Belmont, Wis. 450
Beau Banner 6th, calved 1915; C. F. Raymond, Mitchell, S. D. ... 2,000
Montana Fairfax 22d, calved 1916; Stiles Cattle Co., Fort Yates, S. D. 1,000
Mack Donald, calved 1916; Baker Bros., Victor, Ia. 525
Disturber 12th, calved 1913; Ferguson Bros., Camden, Minn. ... 1,550
Prince Rupert 85th, calved 1916; Armstrong Bros., Livingston, Mont. 1,500
Prince Rupert 86th, calved 1916; Sam Milligan, Waveland, Ind. .. 950
Mapleton Lad, calved 1911; Chas. Fleming, Brooks, Ind. 500
Velvet Fairfax, calved 1916; Magness Bros., Lawrence, S. D. 850
Bright Donald, calved 1913; L. A. Pinard, Wessington Springs, S. D. 1,075
Bright Donald 8th, calved 1916; Cornell University, Ithaca, N. Y. 550
Teddy Retsof, calved 1916; Baker Bros. 375
Beau Welcome, calved 1916; Neely Bros. 1,175
Maple's Lad 102d, calved 1916; Hamilton Farms 1,600
Lady's Real, calved 1914; Mrs. G. C. Clemens, Ord, Neb. 800
Dandy Rex, calved 1915; V. E. Miller, Corning, Ia. 400
Don Leo, calved 1914; Baker Bros. 500
Beau Rosemont, calved 1915; Chas. Mills, Duncan Mills, Cal. 2,200
Fairfax Knight, calved 1915; W. T. McCray 3,400
Woodford 10th, calved 1916; A. L. Cleveland, Versailles, Ky. 4,300
Farquier Fairfax, calved 1916; R. E. Hatton, Corning, Ia. 850
Gay Lad 2d, calved 1916; Dewey King, Olney, Ill. 500
Lorimer, calved 1916; Mousel Bros., Cambridge, Neb. 600

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. Waukesha, Wis.

The Martinys
wish one and all
A Merry Christmas
and
Prosperous New Year
Riley Martiny & Son
Baraboo, Wisconsin

TOO LATE CLASSIFY.

Pure-Bred For Sale Ayrshires

BEING OVERSTOCKED I will sell at reasonable prices, a number of my choice cows and heifers. They are all heavy milkers, run from 40 to 66 lbs. a day. Address Julius C. Moyer, R. 3, Box 102, Elkhorn, Wis., or call and see them. Phone No. Elkhorn, Wis., Red 51, ring 2.

8 GOOD CHESTER WHITE BOARS

WEIGHING from 225 to 275 lbs., of March and April farrow. Two of these are out of the top sow at the Burlington sale. Will be sold at about pork price for the next 15 days.
CARL HICKCOX Spring Green, Wis.

Tilden Farms' Guernseys

FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address
Tilden Farms
James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS

FOR SALE—Three bulls large enough for service, two by Celosia's Glenwood, whose dam has three A. R. records averaging over 500 lbs. fat; one by Frank Rilma, whose dam made 558 lbs. fat and is full sister to May Rilma, 1,073 lbs. fat.; former world's record, still has second highest record of the breed. 12 head of bull calves. Am overstocked and would sell 15 head of cows and heifer calves priced very reasonable if taken at once.
ALLIO S. KNUDSON R. 5, Brodhead, Wis.

GUERNSEYS FOR SALE

10 HIGH-CLASS HEIFERS, part of them bred. Most of them are by the champion island bull, Governor of Myrtle Place II. He will also be offered. Bull calves for sale, out of cows with records as high as 698 lbs. fat.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

May Rose Bulls FOR SALE

MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few choice cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.

BROWN CO. GUERNSEYS

SEVERAL YOUNG BULLS, Glenwood and Gov. of the Chene breeding. Pure-bred cows and heifers. Grade cows and twelve grade heifers, 18 to 24 months old.
GEO. O. LUCIA Green Bay, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

POLAND CHINA SWINE.

The Sale of Sales

FEBRUARY 6TH—I will offer the greatest lot of BIG-TYPE POLAND SOWS ever cataloged for a sale in Wisconsin. The offering will consist of prizewinners and grand champions, bred to Mc's Big Bone, Postmaster, Jumbo's Giant, a son of Orange Boy, and a son of Gerstdale Jones. PLAN NOW TO ATTEND THIS SALE. Let me send you my illustrated catalog. Send me your name.
J. D. McDONALD :: :: :: :: **West Salem, Wis.**

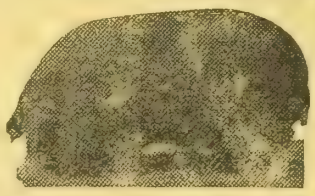
Poland Boars for Farmers

HAVE A FEW smooth, good-footed spring boars for sale. They are big and of choicest breeding. GUARANTEED in every way. Also have a nice assortment of fall pigs—boars and gilts—and will price trios so as to interest you. I HAVE POLANDS TO SELL AND THEY ARE PRICED ACCORDINGLY. Try me.
H. H. SMITH **BARABOO, WISCONSIN**

Big-Type POLANDS

I RAISED 27 BOARS by eight different herd sires, and have a few choice ones left. Several by CHIEF PRICE 256331, who sired the first prize boar pig at Minnesota and the largest pig at Omaha. Some by Mc'S BIG BONE 257809, and such noted boars as ORANGE WONDER, BIG BEN JR., BLUE VALLEY KING, JUMBO WONDER and SUNRISE PRICE, out of sows that were sale toppers and state fair winners. Act quick if you want a boar. No gilts for sale until after January 1st. They will be in pig to my $500 OAKWOOD BIG MODEL, first prize senior yearling at Minnesota, Wisconsin and LaCrosse. Weighed 870 pounds in August. Correspondence invited.
W. W. QUACKENBUSH (Jackson Co.) **Melrose, Wis.**

SPECIAL PRICES ON FALL PIGS



I HAVE FOR SALE 40 pigs of August and September farrow, sired by Big Bone Wonder, the boar everybody is talking about; Smooth Price, a 1,000-lb. boar, and by Knoxail by the great Big Knox. There are some great herd boar and brood sow prospects among them. Am breeding 30 spring gilts, mostly by Big Bone Wonder, for March, April and May farrow. Also have some bulls of Glenwood breeding, half-brothers to the junior and grand champion bull at the Indiana State Fair, for sale.
L. P. MARTINY **Chippewa Falls, Wis.**

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS **R. 4, Madison, Wis.**

IF YOU WANT TO BUY ANYTHING in big-type Poland Chinas, write me. Have five boars of March farrow. The pigs are sired by Big Type Jim Crow.
WILL TREADWELL **R. 30, Glenbeulah, Wis.**

HAMPSHIRE SWINE.

HAMPSHIRE SWINE
DIVIDEND PRODUCERS
DELLBROOK HAMPSHIRES SATISFY

We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.

DELLBROOK FARM
A. L. DAMON, Mgr. **Richland Center, Wis.**

RED POLLED CATTLE.

RED POLLS
WISCONSIN BREEDERS
Females and Bulls for Sale

Write the following breeders:

J. B. Ahlers	West Bend, Washington County
C. S. Arnold	Holcombe, Chippewa County
Edward Bennett	Black Earth, Dane County
J. O. Baker	Wagner, Marinette County
Byron Curran	Taylor, Jackson County
L. F. Bigelow & Son	Brooklyn, Green County
J. W. Martin & Son	Gotham, Richland County
Wm. Radke	Black Earth, Dane County
J. W. Salter & Sons	Unity, Marathon County
L. C. Underwood	Avoca, Iowa County
J. F. Wulff	Grafton, Ozaukee County
Wm. Wulff	Grafton, Ozaukee County
Henry Zeigler	Middleton, Dane County
John A. Curran	Sechlerville, Jackson County
Lars J. Lee	Cambridge, Dane County

Headquarters for
RED POLLED CATTLE
When in need of a HERD BULL see
J. W. SALTER & SONS **Unity, Wis.**

RED POLLS
A FEW GOOD BULL CALVES from A. R. dams for sale from two to four months old. No more females for sale.
L. O. UNDERWOOD **AVOCA, WIS.**

RED POLLED CATTLE
A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING **Bangor, Wis.**

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write
WM. F. ACKERMAN **Glen Haven, Wis.**
"Grant County."

CHANCE
Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS **Hazel Green, Wis.**

Keep Your Eye Here

I OWN BIG BEN 2D by BIG BEN. I own BLUE VALLEY TIMM 2D. I own GREAT PROSPECT, the 700-pound, first-prize yearling sow at Minnesota, 1917. I own MOUW'S BLACK MAID 2D and other sows that should put my herd "on the map." Nothing for sale but fall pigs.
J. F. O'BRIEN **R. 5, Madison, Wis.**
"Poland Chinas"

Jas. Derivan, Fox Lake, Wis.

OFFERING big Poland gilts bred to TIMM EQUAL he by TIMM WONDER by Fessy's Timm. These are the blood lines that count. The price is right.

POLAND CHINA BRED GILTS

TO FARROW in March and April, to Blue Valley Big Bear Jr. Also a few boars left that I will close out at a reasonable price to make room for my fall pigs.
JULIUS H. PETERSON **Kilbourn, Wis.**

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum **Peshtigo, Wis.**

When writing to advertisers kindly mention The Wisconsin Farmer.

DUROC JERSEY SWINE.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: **Gotham, Wis.**

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mac's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
F. R. CONSTANCE :: :: :: **Waupaca, Wis.**

DUROC JERSEY BOARS
ALL SOLD

WE SOLD 29—They averaged $78.00, which shows that the breeders and farmers appreciate our Durocs and the way we do business. We are breeding 40 choice gilts to INVESTOR JR., BACHELOR GANO and BIG TYPE for our JAN. 31ST SOW SALE. You'll want a catalog. Send your name.
RILEY MARTINY & SON :: :: :: **Baraboo, Wis.**

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
PERRY GOODRICH **W. W. BIRD,**
Burnett, Wis. **Cambria, Wis.**

FEBRUARY 1st

PARKER'S "GRAND CHAMPION" DUROC SOW SALE—Sows and gilts SIRED BY or BRED TO the MINN. and WIS. GRAND CHAMPION, "KING ORION." No herd is complete without some Orion Cherry King breeding. Send your name so that I can mail you a catalog.
ED. H. PARKER & SON :: :: :: **Janesville, Wis.**

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.
ALLIO S. KNUDSON :: :: :: **R. 5, Brodhead, Wis.**

More Champion Blood

THAN ANY HERD of Durocs in N. W. If you want Durocs that are bred in the purple just drop me a line. Will not hold a sale so gilts are offered at private sale.
JOHN SWENSON **Willmar, Minn.**

Super-Durocs

WILL DEFY ANY BREEDER in the state to show 20 better spring gilts than I have. They have been bred to a son of DREADNAUGHT and a son of KING ORION and will be sold at FENNIMORE, JAN. 25TH. SEND NAME FOR CATALOG.
WM. C. EDGE **FENNIMORE, WIS.**
(Grant County)

HOMESTEAD DUROCS

—IF YOU WANT BRED GILTS OR SOWS,— write us.
M. H. O'KEEFE & SON **Waunakee, Wis.**

BRED GILTS

DUROC GILTS bred to ORION KING, the best son of the G-C King Orion. If interested, get my prices first.
MIKE STOEHR **Viroqua, Wis.**

After January 1st

WE WILL OFFER bred Duroc sows and gilts. The big kind bred to big boars. Keep this in mind.
GEO. D. SPRAIN & SON **West Salem, Wis.**

DUROCS ON APPROVAL

BOARS weighing from 200 to 250 pounds, extra good. You see your boar before you pay. Satisfaction or no sale. Could make you no better proposition. Order one. Gilts all sold.
FRED G. MATTHES **Viola, Wis.**

Duroc Attractions

HAVE SOME choice spring DUROCS to sell. Also fall pigs that are doing fine. Buy while they come cheap.
CLARENCE GEORGE **Evansville, Wis.**

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?
R. C. CHURCH **Elkhorn, Wis.**

FASHION DUROCS

FEW BOARS LEFT. Offer gilts and sows bred to a son of Royal King. Only a few, so order early.
ISAAC HIGGINS **Gotham, Wis.**

The Real Mortgage Lifters

DUROCS of March and April farrow, either sex. The best of breeding and good individuals. Write for particulars.
McCLURG BROS. **Viroqua, Wis.**

ROYAL KING 4TH'S TRIO FOR SALE

WE ARE OFFERING two young Duroc boars and a gilt by the above sire and from a daughter of Prince Defender. These pigs are the best in the litter. Write for prices.
R. B. HERRLING **Glenbeulah, Wis.**

Kindly mention this paper when writing.

BOARS

HAVE A FEW CHOICE DUROC BOARS, as good as can be found in the state. On Nov. 12th the lightest one weighed 237 lbs. and the heaviest 287 lbs. They are of my very best and popular breeding. They must be sold at once. Write
W. O. JENKINS **Bangor, Wis.**

ORION CHERRY KINGS

CLEANED THE SLATE at all the big shows—the most popular breeding of the day. No herd of DUROCS is "up to date" without some of this breeding and I have the only herd in the state with two sons of ORION CHERRY KING in service. ANNUAL SOW SALE JAN. 30TH. THE ORIGINAL BIG-TYPE HERD IN WISCONSIN.
L. F. ATWATER **BANGOR, WIS.**

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.
JOHN WALDMAN & SON **Janesville, Wis.**

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. **Cuba City, Mo.**

DUROC BOARS

SIRED BY Col. Volunteer, out of sows sired by a son of Critic B., grand champion at Nebraska Fair. Bred and priced right.
CLARENCE WENHAM **Ft. Atkinson, Wis.**

LARGE TYPE

50 DUROC JERSEY BOARS—50. The big, long, prolific kind. Weight 180 to 220. Superior breeding our motto. Satisfaction guaranteed. NO MONEY IN ADVANCE—PRICE $45 UP.
F. H. BURT :: **Brodhead, Wis.**

Du ROCKS Du

WE HAVE SOME that will DU you good. Write for prices. Best of breeding.
W. A. WEBB & SONS **POYNETTE, WIS.**

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER **Baraboo, Wis.**

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
W. W. GOODRICH **Ft. Atkinson, Wis.**

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

HORSES.

PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED OHANDLER, R. 7, Chariton, Ia.

HOLSTEIN-FRIESIAN CATTLE.

In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous King Pontiac Champion strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

Holsteins

WE ARE OFFERING at present two young sons of Sir Ormsby Johanna De Kol 37TH (141165) and cow. Also can spare two or three heifers from six to nine months of age.
F. A. SWOBODA East Troy, Wis.

EXTRAORDINARY HOLSTEIN BULLS

OF SERVICEABLE AGE, sired by SIR PONTIAC WAYNE DE KOL 3D 112197 and KING SEGIS PONTIAC POLKADOT 8TH 157647. Every one nicely marked and from high-testing dams. Several A. R. O. records. Write
W. W. QUACKENBUSH Melrose, Wis.

BELLEVIEW STOCK FARM IS OFFERING

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

Lake View Farm
Lake Mills, Wisconsin

I OFFER HOLSTEIN BULL for sale, that is sired by a good son of King Segis Pontiac Polkadot 75347, that is a full brother to the $50,000 bull, the dam a 18-lb. 3 year old that has an 18-lb. 26-months-old daughter, the next dam a 19-lb. cow.
FRED GURR :: :: Lake Mills, Wis.

A. R. O. RECORDS.
WE HAVE just completed a 26-lb. 7-day record and have a number other good prospects coming on. Our herd bull is a son of a 36-lb. sire, that has seven 30-lb. sisters. Will sell several young Holstein bulls. Write for particulars.
J. E. BARSTOW Randolph, Wis.

TRIED HOLSTEIN SIRE
PLAIN VIEW SIR JOHANNA CLOTHILDE—His sire has 20 A. R. O. daughters, grandsire has 25. Dam has jr. 4 record 23.19 and has 3 A. R. O. daughters. This bull for sale reasonable. Can't use him in my herd.
GEO. A. WILSON Neillsville, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull calves. Good ones.
JOHN L. FISHER Janesville, Wis.

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. Troy Center, Wis.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull calves with good breeding and individual quality, at reasonable prices. For prices and further particulars, address
B. F. SCHAUB Honey Creek, Wis.

HOLSTEIN BULL FOR SALE.
11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.
L. V. GARVENS R. 12, Brookfield, Wis.

HOLSTEIN-FRIESIAN CATTLE.

at three months

You Can't Buy Both of These Bulls

We are reserving one for our own use

at six months

YOU MAY HAVE YOUR CHOICE

No. 1—Born March 3, 1917. His sire, Korndyke Segis Johanna, sold for $12,500. He is from a 38-lb. dam and 40-lb. grandam. His grandsire is King Segis. His dam, Pabst Blackberry, has a record of 31.68 lbs. as a 3 year old. His 8 nearest dams average 32.09 lbs.

No. 2—Born Dec. 25, 1916. His sire, King Colantha Clothilde, is a 31-lb. son of Colantha Johanna Lad. His dam, Segis Blanch Lyons, has a record of 28.9 as a junior 3 year old. Her sire is King Segis. Her dam is Blanch Lyons Netherland, 7-day record of 34.36 lbs.

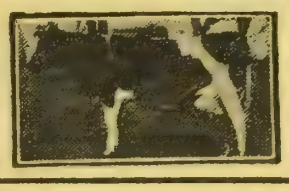
ELM COURT FARM BRIGGSVILLE, WISCONSIN
Address correspondence to W. O. Briggs, 714 Wells Bldg., Milwaukee, Wis

We Do Not Claim the World's Record, But We Do Claim a World of Records

10,900 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol,** one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.



Emmons Blaine, Prop. **Lake Mills, Wis.**

$400 Will Buy a 31-Pound Holstein Bull

SIRE a 30-lb son of Sir Beets Cornucopia Netherland 38460. Dam, Ella Mercedes of Elm Count. Butter, 31.02 lbs. 7 days; 829.78 lbs. one year. He was born Feb. 24, 1917, and is a nice, straight fellow. This is a bargain. Act quick if you want him.

BROOKVALE FARMS
Howell & Gerrit Waukesha, Wis.

A.R.O. Cows and Daughters

THINK—In calf to RAG APPLE PONTIAC, he by Rag Apple Korndyke, out of a 30-lb. daughter of King of the Pontiacs. CAN YOU BEAT IT? Limited number for sale.
TULLOCH FARMS Genoa, Vernon Co., Wis.

$1000 will buy

THREE SPLENDID registered Holstein cows, safely in calf to a full brother of Pietertje Maid Ormsby. These cows are heavy milkers and good individuals. Write for particulars.
BONNE MEADE STOCK FARM, Randolph, Wis.

FAIRVIEW STOCK FARM HOLSTEINS.
I OFFER FOR SALE some Holstein bull calves sired by my Ormsby bull, whose dam is a full sister to the former champion, Pietertje Maid Ormsby. Also a few heifer calves, 5 to 8 mos. No. 1—Born Nov. 20, 1916; sire, King Korndye Hengerveld Grow 166272 (see above); dam, Piebe Pride Pontiac, 24.03 lbs. butter 7 days; her dam, 26 lbs. butter 7 days; a granddaughter of Hengerveld De Kol; price, $250. No. 2—Born Nov. 11, 1916; sire, same as above; dam, Lady America Johanna cow, with 25% same breeding as the 50-lb. cow; 20.86 lbs. in 7 days; price, $150. Write for pedigrees. **W.G.MARSHALL,** Whitewater, Wis.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. Reedsburg, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA Watertown, Wis.

KING OF THE PONTIACS

WE NOW HAVE a 10-mo.-old Holstein bull calf for sale, sired by a son of King Pontiac Champion, a noted son of King of the Pontiacs. The dam of the calf has 22 lbs. at 3 yrs. Write for price. **SWAN BROS.,** R. 1, Wauwatosa, Wis.

$400 Bargain

$400 WILL BUY a 29.23-lb. grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON R. 1, Rochester, Minn.

YEARLY RECORD BULL CALF
BORN August 3, 1917. Sire, a son of Pietertje Maid Ormsby 35.56 and full brother to Miss Korndyke Maid Ormsby who made in a year, 1,255.62 lbs. butter and 25,418 lbs. milk. Dam, a 21-lb. 3-yr.-old with 715 lbs. butter and 15,029.3 lbs. milk in a year. Calf is three-fourths white and a good individual. Address
N. DICKINSON & SON, Lake Geneva, Wis.
Walcowis Farms.

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. Pewaukee, Wis.

4 SONS of KING SUPERBA

A 34-LB. SON of Milanhurst America De Kol. Three are from A. R. O. dams, one of which is now giving 80 lbs. milk a day. Here is a chance to buy a Holstein herd sire bred in the purple. Write for particulars.
W. J. MANN Waukesha, Wis.

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. G. KENYON & SONS, ELGIN, ILL.**

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

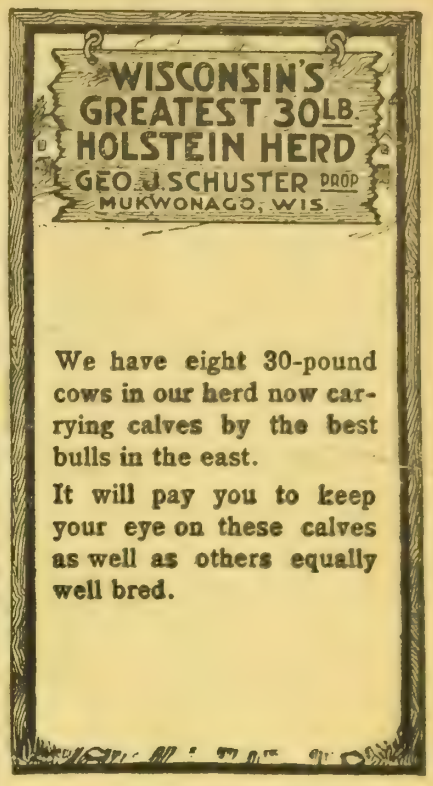
A. R. O. HOLSTEIN SERVICE BULL.
ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. Troy Center, Wis.

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA East Troy, Wis.

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

HOLSTEIN-FRIESIAN CATTLE.



We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

HOLSTEIN BULLS at Farmers' Prices

WE ARE OFFERING a 23-lb. yearling grandson of Colantha Johanna Champion, also a 25-lb. grandson of the same sire. Younger bull calves out of tested dams similarly bred, will be priced.
S. C. STANCHFIELD Fond du Lac, Wis.

A. L. Williams' Estate

IS OFFERING several bargains in young Holstein bulls, sired by a 28-lb. son of Colantha Johanna Lad and a 33-lb. grandson of Colantha Lad. One of these young bulls is out of a 25-lb. dam and sired by the 33-lb. bull. Moderate prices.
A. L. WILLIAMS Fond du Lac, Wis.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

IS NOW offering for sale, Fenwick's Hollie Boy (55212), dropped July 21, 1916. Sire Noble Fenwicks. Dam, Golden Holly Berry, R. M., 658 lbs. butter. Write for price list of other bull calves and heifers.
WM. M. KNIGHT, Proprietor, Eagle, Wis.

CEYLON COURT JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Derry's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

REGISTER OF MERIT JERSEYS
BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

ABERDEEN ANGUS CATTLE.

RAISE BABY BEEF

ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

MINNESOTA SHORT-HORNS

IN ANNUAL SHOW AND SALE

SOUTH ST. PAUL, MINNESOTA, JANUARY 4-5, 1918

86 HEAD OF SELECTED BREEDING SHORT-HORNS

The Minnesota Short-horn Breeders are offering in this, their second annual sale, 86 head of cattle selected from a large number of herds. Each breeder's entry or entries is to be an advertisement for the herd from which it comes. All the cattle have been inspected by a committee and the quality and breeding is assured. Last year's successful sale stands unsurpassed by any other association sale in the state and is indicative of the popularity of Minnesota Short-horns. Scotch, Scotch-topped and milking-bred Short-horns have been listed.

THE SHOW

which will be held on January 4th, the day preceding the sale, has been given special attention this year. Sec. F. W. Harding is to be the judge. Starting at 10:00 a. m., the entire day will be given to the show and judging. This gives you an opportunity to see the cattle in the ring before you buy and also the good advice of Mr. Harding is at your service.

THE SALE

starts at 10:00 a. m. January 5th.

THE ANNUAL MEETING AND BANQUET

will be held during the evening of January 4th after the show. A splendid program has been arranged and a good time is guaranteed, and every one is invited. Plates $1.50. Place, St. Paul Commercial Club Rooms. Auctioneer, H. O. Tellier. Judge F. W. Harding. SOUTH ST. PAUL, MINN., JANUARY 4TH-5TH. For catalog write

P. S. JORDON, SECRETARY AND SALE MANAGER

MORRIS :: :: :: **MINNESOTA**

SHORT-HORN CATTLE.

Short-horn Steers Break World's Record

FORTY SHORT-HORN STEERS, weighing 1,692 lbs., bred in North Dakota, fed in South Dakota, topped the Chicago market July 9th at $14 per cwt., averaging $236.88 per head. They were part of a shipment of eighteen loads of Short-horns, 263 head, which sold for $55,025.39, averaging slightly under $210 per head. Market authorities pronounce this performance without a parallel for all time and regardless of breed. The Short-horn is the breed for you.
AMERICAN SHORT-HORN BREEDERS' ASSOCIATION 13 Dexter Park Ave., Chicago, Ill.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

RIVERDALE STOCK FARM.

SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
HENRY WEHMHOFF R. 19, Burlington, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

FOR SALE

SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females, 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, I write
C. J. SCHOENFELD & SON Fox Lake, Wis.

B. W. Little, JANESVILLE WISCONSIN

STRAIGHT BATES SHORT-HORNS—Have several young bulls from heavy MILKING DAMS. Let me describe them.

KITTY CLAY HERD

MILKING Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best milking families.
J. WARREN HOYT Rosendale, Wis.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
C. E. BLODGETT MARSHFIELD, WIS

TWO good roan Short-horn bulls, 6 to 8 months by White Scotch, SULTAN GOODS. F. S. Porter, Kilbourn, Wis.

HARVEY H. LITTLE CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

FOR SALE

30 HIGH-GRADE Short-horn heifers, tuberculin tested. Also some pure-bred bulls of serviceable age, bred by Prince Sultan by Sultan Stamp.
PETER LERCH R. 16, Pewaukee, Wis.

Short-horn Bulls for Sale

BULLS 13 months old and younger; also my herd bull, Lord Bapton 385982. Write, or better still, come and see them.
G. MARCO & SONS No. 3, La Crosse, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

ROYAL OXFORT FOR SALE.

THIS YEARLING bull represents the best Mr. Wenham's 35 years of breeding milking Short-horns has produced. He is 80% Duchess Oxford breeding and his first, second and third dams are exceedingly high testers. Write for particulars.
CLARENCE WENHAM Ft. Atkinson, Wis.

FOR SALE

REGISTERED Short-horn bulls, 2 to 14 mos. old. Red and roan. Milk and beef. Call or write.
H. A. SWENSON Tony, Wis.

POLLED DURHAM CATTLE.

Polled Durham Bulls

SHORT-HORNS WITHOUT HORNS

I OFFER a few thick, sappy, rugged bulls of serviceable age at a very reasonable figure. Reds and roans. WRITE ME.
JAS. B. SMILEY Rockton, Ill.
(On Ill.-Wis. line.)

HEREFORD CATTLE.

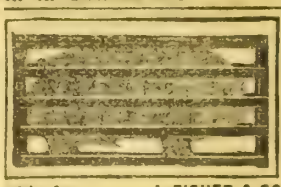
HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

CHESTER WHITE SWINE.

APRIL and MAY BOARS CHESTERS

OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.
H. A. DERENTHAL Wykoff, Minn.



CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
J. FISHER & SON Box 18 Eastman, Wis

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

TWO CHOICE CHESTERS, BOARS,

AND A FEW choice sows for sale, priced for quick sale. These sows will be bred to choice boars and kept until sale in pig. Also a choice litter of September pigs which are fine, priced right.
JOHN PELLETT & SON Viola, Wis.

SPECIALS

IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.
WALTER GEORGE Evansville, Wis.

CHESTER GILTS

MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address
A. L. KIRST Tomah, Wis.

PRICES SLASHED

A FEW fancy April CHESTER boars. They MUST BE SOLD—what do you want? Good enough to ship on approval. I can fill your order.
ART. G. HOSKINS Dodgeville, Wis.

AYRSHIRE CATTLE.

Ayrshires for Sale

COWS, heifers, heifer calves and a few bull calves at very low prices.
YOUR WAY FARM Whitewater, Wis.

AUCTIONEERS.

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THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

SHEEP.

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Shropshires -- Oxfords

100 YEARLINGS AND LAMBS—Big, sturdy, breeding rams at fair prices. Backed by a reputation and a guarantee. Write us at once so we may describe for you what you need for your next breeding ram.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

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OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

CHESTER WHITE SWINE.

"HICKCOX"

CHESTERS—March and April pigs. Good breeding and good individuals. Priced reasonable—satisfaction guaranteed.
CARL HICKCOX R. 8, Spring Green, Wis.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

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THE WISCONSIN FARMER

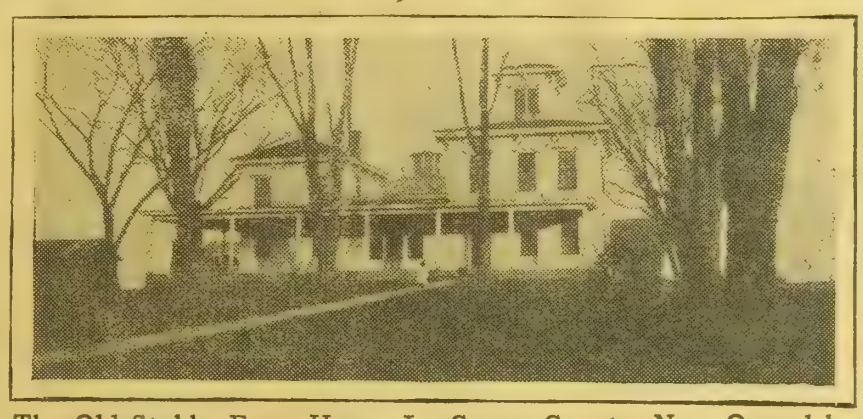
VOL. XLVI. NO. 52. THURSDAY, DECEMBER 27, 1917. WHOLE NO. 1874

Big-Type Polands Won Him Success.

J. D. McDonald, Now a La Crosse County Farmer, Has Had Wide Experience and Made Good Profits by Close Application to the Hog Business.

WHEN the hog sales on one farm amount to over $11,000 in less than a year, it may be safely said that the hog business on such a farm is going along very satisfactorily. It is because The Wisconsin Farmer believes that there are a great many farmers in this state who are neglecting their opportunities in the hog business that we take this opportunity to relate some of the experiences of Mr. J. D. McDonald, a breeder of big-type Poland Chinas, whose name is not only well known in Wisconsin, but in many other states as well. When a man applies the best years of his life and his best mental and physical energies to the hog business to improve the quality of his animals, other breeders and farmers in general are sure to notice it, as in the case of Mr. McDonald, and ready market will be found for the surplus as fast as it is available. Mr. McDonald's name has been associated with the town of North Bend, situated off the railroad in the southwest corner of Jackson county. For fourteen years Mr. McDonald has been plugging away in the North Bend neighborhood and establishing an ever-increasing demand for his stock among the swine men of the corn belt. His herd has been increased gradually from year to year as the demand for hogs has increased. Mr. McDonald's farm near North Bend was a good one, but the growth of his business has made it necessary to get nearer to a railroad station and he quite recently purchased the old Stubbs farm in La Crosse county, where better shipping facilities are available, and the results are already beginning to show the wisdom of this move.

Mr. McDonald's entire working capital and all that he owns today have been earned by hard work and close attention to business details. Without any help from home he began as a stock buyer a great many years ago and through his reputation for honesty and fair dealing secured enough business that he soon had the necessary capital for starting as a renter. Four years later he purchased the North Bend farm and at once branched out into the hog-breeding game in earnest. The foundation for the hog work had been laid long ago so that all that was necessary was paying strict attention to breeding always larger and higher quality hogs and more of them. At the same time Mr. McDonald began breeding Holstein cattle. Both the hogs and the cattle have been steadily improved and their quality is recognized by the live-stock men of Wisconsin and other states.



The Old Stubbs Farm Home, La Crosse County, Now Owned by J. D. McDonald.

An Historic but Ungainly Barn on the Old Stubbs Farm, Which Will Be Replaced by Modern Building.

Hogs Harvesting Frosted Corn on the J. D. McDonald Farm.

The La Crosse county farm comprises 122 acres of land, all tillable and of high fertility. The corn crop, which was frosted during September, might have been a complete loss, but Mr. McDonald turned the hogs into the fields and let them harvest the crop. On the North Bend farm the corn was also injured at the same time and hogging down was likewise practiced there. "I believe it is the best way for putting quick gains on pigs for market," said Mr. McDonald. "Of sixty hogs I had on twelve acres there I made gains of approximately two and one-half pounds a day. The hogs averaged 172 pounds per head when I turned them in and 222 pounds was their weight after the twenty days were up. The field had been pretty well cleaned up by that time, with just enough left in it to give plenty of exercise to a number of sows with fall pigs."

The exercise the hogs receive in hogging down a field of corn gives them a better appetite, in the opinion of Mr. McDonald, and permits them to make more rapid gains than when fed in the lot. Of course, for breeding stock such gains would, in his opinion, be made too rapidly, but for feeders it is the ideal method. On this particular field which the hogs had nearly harvested, sixteen aged sows and their fall litters are now rustling. They will gain in vigor by the exercise and their feed will not be too heavy, for it is regulated. Each day the herdsman goes over the field and scatters sufficient corn over the ground to feed the sows. The small amount which is left in the field of the crop will not make them put on flesh more rapidly than the brood sow should. Mr. McDonald figures that these sows will be in a better condition or at least fully as good as the sows which did not have fall litters and have been hand fed in the lot. The sows received some milk slop beside their corn ration, but nothing else. The field exercise also keeps the bowels in better shape than when the hogs are fed in the lot.

The hog-breeding work at the McDonald farm is carried on on a large scale. About 100 gilts and sows are bred each year and the offspring sold at the annual sale to other breeders and swine raisers all over the corn belt. There are always about 200 hogs in the herd forming the breeding stock, a few surplus boars and gilts.

Size and quality are Mr. McDonald's chief objects in all his breeding work. His hogs have both, as is evidenced by the numerous prizes which are won each year by the McDonald hogs at Minnesota, Wisconsin and Omaha. Boars like Crow's Progress, Matchless Wonder, Mc's Big Bone and sows like Miss Price 4th, Mc's Giantess and a row of others equally high in quality, all having the large Poland size with exceptional smoothness and quality, make up the herd. There is never a falling off in these points from year to year, but rather a steady improvement. One success does not cause Mr. McDonald to be satisfied and let down in the future. Each season's crop is as carefully contemplated as another.

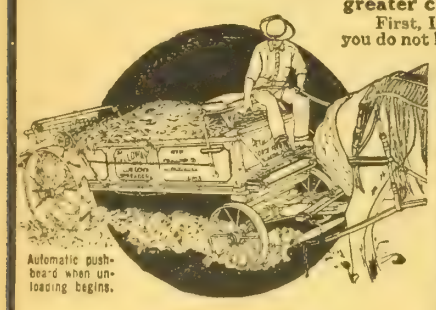
In the dairy work the progress has not been as noticeably rapid, but all stock on the place earns its keep. There—[Concluded on page 6.]

GALLOWAY'S ELEVEN NEW SPREADER IMPROVEMENTS!

"Don't Buy Any Spreader Without Them."

—*WM. GALLOWAY*

I have perfected the manure spreader with eleven new improvements. These improvements are the greatest advanced step in the history of manure spreaders. They bring the manure spreader to its most efficient development. They mean **greater convenience and better spreading.**



Automatic push-board when unloading begins.

First, I built the Galloway new No. 8 Model low-down so you do not have to break your back to load it. Its light draft enables two horses to handle it as easily and cover as much ground as three or four horses can handle other makes. The patented **roller feed**, together with **large drive sprockets** and **double chain drive** are the secret of its light draft.

My **new steel beater** and **wide spreading V-rake** pulverizes the manure and tear the toughest clumps to shreds. My patented **automatic-stop, uniform clean-out** push-board mean there is **no shoveling** or sweeping to clean out the spreader box. The tongue is everlasting, because it is made of pressed steel. The beater teeth are extra strong and durable and do not break off. The double chain drive **direct from the rear wheels** makes it twice as efficient as single chain drive. Metal parts are finished with water-proof paint. You can adjust the Galloway to spread from four to twenty-four loads per acre.

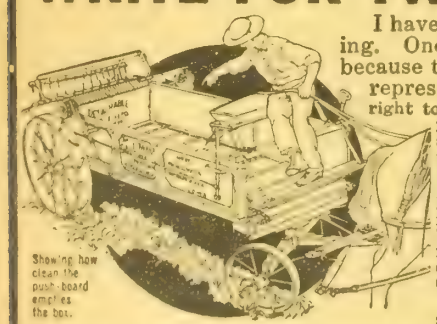
BUY DIRECT FROM FACTORY

On My Money-Saving Plan

How the push-board carries the load to the beater.

Galloway spreaders are all **built complete** in our own immense factories at Waterloo. They are shipped direct to you from the factory floor to your field. You pay only the smallest manufacturer's price, based on a big volume of business. If you pay more than my price, you are simply paying for something that is not there. Many of the new eleven improvements on my new low-down No. 8 Model are patented, and are worth five to fifteen dollars more. But on the Galloway spreader they cost you nothing extra. Only on the Galloway can you get them. Besides these great improvements, I save you **big money** by selling **direct from the factory.**

WRiTE FOR TWO FREE BOOKS



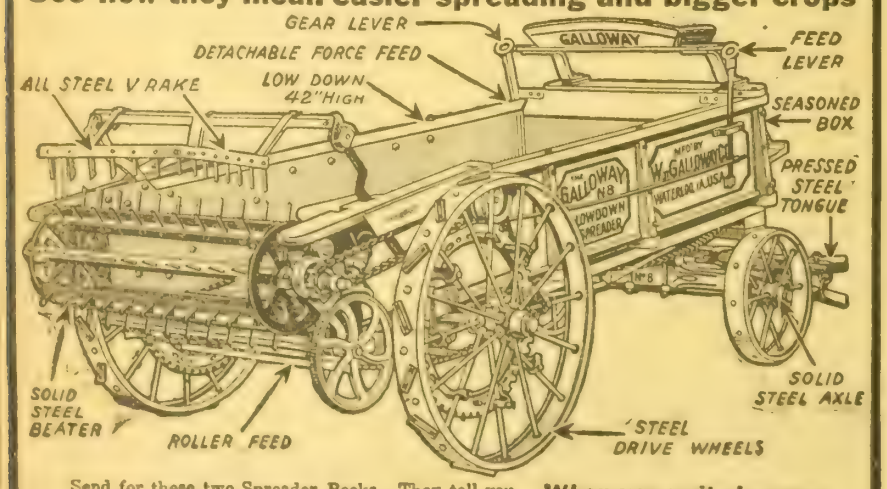
Showing how clean the push-board empties the box.

I have written two valuable books on spreading. One of them I call the "Streak of Gold," because that's exactly what a streak of manure represents on your field. These two books go right to the heart of the Spreader question. They tell you about Spreaders—also the value of spreading and how you can revitalize your soil. I want you to have these two books and read them to find out how and why the Galloway Spreader with all these wonderful eleven improvements can be sold at so low a price. Once you have learned about buying from Galloway **direct from the factory** you will buy no other way. I make it possible to save you freight and ship from the warehouse near you at either St. Paul, Chicago, Council Bluffs or Kansas City, or the factories at Waterloo.

Write me tonight for the valuable book No. 9, and the book, "Streak of Gold."

HERE ARE THE ELEVEN SPREADER IMPROVEMENTS

See how they mean easier spreading and bigger crops



Send for these two Spreader Books. They tell you how to get the most out of your manure crop and how to judge and select a spreader. Write tonight sure.

When you write be sure to ask for Book No. 9

WM. GALLOWAY *President* **WM. GALLOWAY CO.** 39 Galloway Station **WATERLOO, IOWA**

CURRENT EVENTS

THE last three winters have found the fighting in the great war spasmodic, the severe weather where the armies were entrenched preventing any extended troop movements. This winter however, promises to be different and the decisive battle may be fought (or at least started) before winter is over. Owing to the fact that an armistice has been signed with Russia, Germany has been enabled to move great bodies of troops from the Russian battle lines to northern France and Belgium, where they are massed against the British, French and American troops. A terrific German drive is expected in northern France in a short time. The allies are said to be expecting this and to be prepared for it. Germany is in better condition now than it has been for some months past, owing to these reënforcements from the Russian front. While the two armies are thus temporarily resting on their arms in France, the Germans and Italians are hard at it in northern Italy. There is growing confidence in the strength of the allied forces to hold back the Austro-Germans from breaking through into the plains. The snow, which after falling last week only in sufficient quantities to make the frontal positions plainly visible, but not enough to obstruct the enemy's progress, has now begun again, and apparently in earnest. Whatever the results in Italy, war experts continue to believe that the decisive battle will be fought in France and no place else and that the result of the coming campaign there will go a long ways toward determining the war.

NATION-WIDE prohibition won in both houses of congress last week. If ratified by the legislatures of thirty-eight states, within the next seven years, it will become the law of the nation and the manufacture, transportation and sale of intoxicating liquors in this country will be a thing of the past. By a vote of 282 to 128 (more than the necessary two-thirds majority) the lower house of congress passed a resolution which reads as follows: "Resolved, by the senate and house of representatives, That the following amendment to the constitution be, and hereby is, proposed to the states, to become valid as a part of the constitution when ratified by the legislatures of the several states as provided by the constitution: After one year from the ratification of this article, the manufacture, sale or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and the jurisdiction thereof for beverage purposes is hereby prohibited. The congress and the several states shall have concurrent power to enforce this article by appropriate legislation. This article shall be inoperative unless it shall have been ratified as an amendment to the constitution by the legislatures of the several states, as provided in the constitution, within seven years from the date of the submission hereof to the states by the congress." This was passed by the vote of 141 democrats, 137 republicans and four independents. The next day the senate ratified this resolution by a decisive vote. The resolution must be ratified by three-fourths of the states, within seven years, when it will become the law of the land and the liquor problem will have been solved, another war victory in the way of reform.

THAT the submarine situation is decidedly improved and that shipbuilding is keeping pace with ship destruction is the statement made by the British naval expert, Arthur Pollen, who has been in the United States for the past six months. The campaign of the allied navies has at last resulted in keeping the world's ship tonnage from showing a monthly decrease, or soon will do so. Mr. Pollen gives credit for this success to the change in the chief command carried out by the British admiralty last spring and the participation of the American navy. Mr. Pollen pointed out that six months ago the German submarines were causing a net loss in the world's tonnage at the rate of nearly 25 per cent annually. While the present rate of loss is difficult to estimate, it appeared that last month Great Britain launched as much tonnage as she lost; the first ship laid down by the United States since the war has been launched and within the next twelvemonth a substantial portion of the 6,000,000 tons provided for in this country will undoubtedly be floated. Great Britain's shipbuilding program will similarly increase month by month and moreover, the campaign of the allied navies against the submarine will grow in value week by week, he said. In many respects, the submarine has been the greatest foe the allies have had to fight, so that the success of the efforts being made against it is decidedly reassuring.

NEW regulations prescribing the amount of wheat to be used by millers of the United States in manufacturing flour, detailing the manner in which the prices of mill feeds shall be determined and which are calculated to effect a saving of more than 16,000,000 bushels of wheat during the present crop year, were announced recently by the milling division of the federal food administration. The establishment of maximum prices for mill feeds relative to the cost of wheat is expected to result in a marked reduction in their price, and ultimately to lower price of milk and other dairy products. Prescribing the wheat content of flour, the statement says: "No licensee after December 25th shall use more than 264 pounds of clean wheat in making 196 pounds of 100 per cent flour." From the 100 per cent flour so produced the licensee may at his option, remove not more than 5 per cent of clear or low-grade flours, none of which may be mixed with or sold as feed. The 95 per cent of the 196 pounds of flour remaining shall not be subject to further separation or division. Millers are directed to establish, from time to time, a price at which each grade of flour will be sold in carload lots for a period of twenty-four hours after such prices are established, and until a new price is named by the licensee, all flour sold shall be sold at this figure. A margin of 25 cents per barrel bulk at the mill above or below this price is provided, however, for mills "in making a price to meet competition of mills in various territories." Bran is to be sold at a price per ton not exceedingly 38 per cent of the average cost of wheat to the miller, "shorts" and "middlings" are to be sold at approximately $2 per ton above the price of bran, mixed feeds at not more than $4 above this basis figure and flour middlings at not more than $9 above the price of bran.

GOVERNMENT plans for a billion bushel wheat crop next year to help the United States feed its allies, have received a setback. It was disclosed by the December crop report of the department of agriculture that while winter wheat was planted on the largest acreage ever sown to that cereal its condition on December 1st was the lowest on record for that date. A winter crop of 540,000,000 bushels was forecast by the bureau of crop estimates. The actual production will be greater or less than that quantity, according as conditions hereafter are better or worse than average. Although a great spring crop still is hoped to bring the year's total to somewhere near the billion mark. An area of more than 47,000,000 acres was the mark set by the government for farmers to plant to winter wheat this fall, but the December canvass shows that 42,170,000 acres were sown. The farmers did their best, department of agriculture officials say, but conditions were against them. The very dry weather in most of the winter wheat belt was a large drawback, while late harvest of other crops and shortage of farm help were contributing causes for the failure.

THE most that may be expected from a war-time economy campaign is curtailment of luxuries, not a complete abandonment, said Frank A. Vanderlip, natinal director of the war savings movement, in an address. Consequently, he said, business will not be disorganized by even a well-developed thrift campaign. "In the first place," said Mr. Vanderlip, "this campaign of economy is not going to be 100 per cent efficient. There never was a crop approaching the crop that was produced this year in value, $21,000,000,000, against $8,000,000,000 the year the war broke out. Now farmers with all this wealth, workmen with all this added income are not going to be universally economical. The experience of England was that there was not dullness, but great activity in luxuries. The best we can do will only be to hold down this activity in luxuries. No one needs to be alarmed that we are going to suddenly disorganize all business. If each and all of us will do our best with our own affairs and do our best to carry the lesson to others, we may open the workshops sufficiently for the government to perform the tremendous duty that is expected of them. The great work of the day is to win this war." Mr. Vanderlip is the New York financier who resigned a position paying $100,000 a year to take a job with the government, paying the nominal sum of $1 a year. He conceived the idea of putting the war savings stamps on the market, selling them at 25 cents and $5 each. By this means the government hopes and expects to raise $2,000,000,000 with which to aid in carrying on the war. Mr. Vanderlip is a grain-belt product, having been born in Illinois, and is one of the leading men of the nation.

A WARNING to farmers not to ship hogs, but to hold them back for the present in order to avoid falling prices was sent out by J. P. Cotton, head of the meat division of the food administration. In a written statement he said: "Hold back your hogs. On November 2d I stated that the prices of hogs so far as this division could affect them, would not fall below about $15.50 per hundredweight for the average of the packers' droves in Chicago market until further notice. That statement I make again. The packers inform me they are doing their best to aid us in that policy; but largely owing to transportation difficulties in the East, there is now a glut of hogs on the Chicago market, and more hogs than the packers can kill and handle. The farmers and commission men in this territory must help by holding back hogs temporarily, especially from the Chicago market. If there is coöperation, the minimum will be maintained. Do not sacrifice your hogs by dumping them on an overcrowded market."

The Wisconsin Farmer

THURSDAY, DECEMBER 27, 1917.

FAMILY CIRCLE TALKS BY THE PUBLISHER

A NEW YEAR'S MESSAGE.

WE ARE face to face with another year. What does it hold for us of weal and woe? How shall we face its trials, withstand its temptations, repay its successes? These are questions which dominate the thoughts of every one of us as the old year draws to a close and we take stock both of the past and of the future.

We of the farm have had a most prosperous year; our fields have produced abundantly, the prices which we have received for our products have been far in advance of ten-year averages. We have been given the recognition which has always been our due, but which was all too long withheld. The world knows now that success or failure for our armies depends, in the last analysis, upon our efforts in feed lot and field. In many ways 1917 has been the most notable year in the history of American agriculture. Yet I firmly believe that 1918 will surpass it.

We must not content ourselves this year with glib repetitions of "A Happy New Year." We must dedicate ourselves to making it a happy year, all the twelve months through, not only for ourselves, but for all the peoples of the earth. We must feed them and clothe them. We must fight for them, that the world may be made better for all; not necessarily fight with rifle and grenade, but with pitchfork and gasoline engine, plowshare and rake. We are the soldiers of 1918, though we wear no uniform save tattered overalls. We fight under sealed orders, knowing only that the "end of the row" is the goal we are struggling for, and that just so far as we fail to make the end of the row we are derelict in our duty and remiss in our patriotism. Let us fight the good fight and reach the "end of the row" for the noonday rest under the peaceful shade.

There is not one among us—not even the mother of Merle Hay, the grain-belt farm boy who was the first American soldier to lose his life fighting in France—but has something to be thankful for as the new year dawns. If there are absent ones, there are sweet memories. If there are sorrows, somewhere the rift is beginning to appear in the encompassing clouds. If there is pain, sometime the solacing hand will be laid upon our brows. It is for us to bear the heartaches of absences, the sorrows and the pains, and (seeing the good in the bad and the happy in the unpleasant) make our way cheerfully and with smiling faces, no matter where the road may lead. It is not all smooth, level road, without turn or upgrade, to town; neither is it all smooth, level road, without turn or upgrade, through life. I often think of the road which the South Sea island natives built up the mountainside to the home of Robert Louis Stevenson, the only white man who had cast his lot with theirs, who had championed their cause by word and deed and who was their friend in every crisis. They toiled laboriously under the burning, equatorial sun, and when the road was finished they called it the "road of the loving heart." Let us build a road of the loving heart straight from our house to that of our neighbor, girdling the nation with a highway of sympathy, brotherliness and good will toward all men.

When it came time, a week ago, to give my annual Christmas message, I let my readers talk for me. Now that it is time to give my annual New Year's message, I am going to let a reader talk for me again. I do not have the pleasure of personally knowing the writer of the following letter, but I do know (from her words) that she goes about her work with a shining face and a song upon her lips. Can't you hear her singing "Beulah Land" as she washes the dishes, "Brighten the Corner" as she puts the kiddies to bed? Read her letter; you can fairly see her eyes sparkling as she wrote:

Dear Mr. Pierce: After reading your Thanksgiving thoughts I want to tell you some of the things I am thankful for every day. But just for fear someone may not say I do not understand, I will tell you that I was orphaned at eight years of age and I knew what it was to go from "pillar to post," to be separated from my parents and sisters, to make new ties in new homes, to plant my heart there only to have it uprooted and pushed out again and again. I have known what it meant to be lonely, to hunger for affection and a home, and I am not the sheltered wife of a wealthy farmer—we are renters.

Ten years ago I married the man of my choice, a poor man. A year later a little son came to us, which resulted in three years' invalidism for me, with attending expenses and doctor bills. I tell you this that you may know I have had my sorrows, too, but every day I thank God for wifehood, for my good husband, for motherhood. I thank him for strength to work for my loved ones. I thank him for the privilege which is mine to fill every month, every week, yes, every hour, full of happiness through loving service and sacrifice for those I love.

Then I thank HIM that I know whatever the future may hold for me of weal or woe, as long as life lasts nothing can take from me the golden memories of the last ten years of my life. I know that if my husband is called to France, I shall find consolation in knowing that he knows I did all in my power to give him happy memories to fortify him in times of suffering, loneliness and temptation, and I thank God that I have reached the place where I can say "Thy will be done" if my husband must serve his country in that way rather than some pleasanter way we might choose. Only one who has "passed through" can appreciate the agonies of doubt and rebellion one must endure to gain the consent of the heart to say "Thy will be done," when it means separating us from one dearer than life itself. May God give us a spirit of gratitude and wisdom.

MRS. OLA JOHNSON.

Can we not all say a hearty "Amen" to this splendid sentiment? I know I can, and I believe every one of you will join me. "Thy will be done" and "God bless us every one"—these are the words I would speak in every farm house in America's grain belt, if I could but open the door, call in a brotherly greeting and go my way. How much more they mean, in our present crisis, than just a mere "Happy New Year." They sum up all our hopes and fears, all our prayers and tears. I thank Mrs. Johnson for writing such a timely and appropriate New Year's message as I myself never could have hoped to write.

FARM MORTGAGE RATES INCREASED.

I REGRET that the Federal Farm Loan Board has found it necessary to raise the interest rate on loans from 5 per cent to 5½. The general upward movement of interest rates is given as the cause. Inasmuch as there are applications for something like $300,000,000 in farm loans now pending before the board, this increase means that the borrowers will have to pay $1,500,000 more interest annually, on this amount, than they would have paid under the old rates. I am glad to be able to assure those who have already borrowed from Uncle Sam's new land banks that the raise in rates will not affect them; it simply applies to loans to be made in the future.

It is always regrettable that a system cannot be perfected, rather than hampered, with the passing of time. Had the Federal Farm Loan Board started out with loans at 6 per cent and then reduced the rate, at this time, to 5½, the general effect on the borrowing public would have been better. As a system or law becomes perfected through use and familiarity, it is generally administered with less expense and friction. Possibly no one could have foreseen, when the interest rate was established some months ago, that the money market would become as unsettled as it is today; but the government must make its mortgage rates considerably below that of private loaners (to offset the red tape of forming or organizing loan associations, subscribing to stock and guaranteeing other borrowers' debts) or the new law will not meet the need which created it. It is highly probable that insurance companies, commercial loan companies and others which have supplied the bulk of farm mortgage funds heretofore will likewise be obliged to raise their rates, in the near future. If this is the case, Uncle Sam's banks will continue to loan below the commercial rate and the new law will be given a thorough and efficient trial. If private loaners do not increase their rates and the federal land banks loan at only ½ or even 1 per cent below them, the average farmer will continue to patronize local loaners or agents and Uncle Sam's banks will suffer a loss of patronage.

This is really the crucial hour for the new financial system which was designed to give help to the farmers, but which has not been in actual operation a year before it is found necessary to charge farmers a rate so close to that which existed before the law was adopted that but little real relief is in prospect from its administration.

JOIN THE RED CROSS.

I FIRMLY believe that no organization in the world is doing a more needed or better work than the Red Cross Society. It alleviates distress whenever and wherever found. The explosion at Halifax had hardly subsided before Red Cross chapters all over America were taking the necessary steps toward relief; trains with food, shelter tents, medical supplies, doctors and nurses were rushed to the stricken city. It is the same in every great disaster. The Red Cross works in times of peace and of war, among people of all colors, creeds and conditions. It is the great mother of humanity—all suffering people are her children.

The American Red Cross is making a "drive" for membership. I earnestly hope that every one of my readers who can possibly afford it will join. A membership costs $1 a year, a very fine, high-grade magazine being sent to all who pay $2. The society hopes, however, the head of every family who joins will add $1 for each member of his household, so that all America will be enrolled. Thus, if the family consists of a man, his wife and two children, the sum of $5 is hoped for, $2 for the membership for the father or mother (whichever one takes it) and $1 for each of the others, with the magazine coming for a year. The cause is a worthy one, the need is great.

I know that there are many calls for money nowadays, they come almost incessantly. Yet we of the farm are enjoying widespread prosperity. We produced farm crops this year to the value of $21,000,000,000. Shall we not divide with the needy, the suffering and the deserving? Shall we not aid an organization which goes about doing good, asking no questions, only that there be real need? Let me urge upon as many of you as can that you join the Red Cross Society, so that this relief work may continue unimpaired by the need of funds. Should want come to you and yours in some far-reaching disaster, the Red Cross would be the first on the scene to bind up your wounds, put a shelter over your head, fill your mouth with food and see to it that you got on your feet and had a chance to be a man again.

A GOOD OLD WORLD.

THERE never was any doubt in my mind, but now I know it to be true beyond all dispute: It's a good old world, after all. I have had this fact impressed upon me hundreds of times within the last few weeks, ever since I printed the letters from the mother of six children and the little eleven-year-old girl whose father had died recently, who was in real need and who added, "Don't print my name, people might laugh at me." The response from great-hearted, generous men and women of the farm has been so widespread and so magnificently liberal that one could never for an instant harbor any other thought than "It's a good old world, after all."

I cannot give much more space to letters from those who write to me seeking aid and those who write to me offering to relieve distress. While nothing is more important (or interesting to me and all of you, I believe) there are a multitude of matters we must discuss together, and variety must be maintained in our reading just as in our diet. But I cannot refrain from telling a few incidents which have come under my notice, in connection with this "real charity."

For instance, one mail this week brought me three letters from three men, each one of whom had been touched by the need of the farm mother and the farm girl, each one of whom sent their "mite" in the form of a check to relieve worthy cases. I am going to print these three letters, simply omitting the names of the writers, for charity must go about unidentified and unheralded if it is to be real charity. Here was the first I opened:

Dear Mr. Pierce: Enclosed find money order for $5 to be sent to the little eleven-year-old girl who didn't want to be laughed at. I am a bachelor farmer, so have no clothing she could use, but I hope she can get something she needs with this money.

Here is a man who loves children, even though he has none. He has the satisfaction of knowing that he played Santa Claus to a deserving child. The second letter reads as follows:

Dear Mr. Pierce: After reading your paper of December 6th I am sending you my check for $10. Now, Mr. Pierce, I am going to leave the use of this money entirely to you. I want you to apply it where you think it will do the most good. God pity the fatherless children and all those dependent on His mercy.

I whisper a hearty "Amen" to the last sentence and assure my good friend that his money went where it is most needed and where it will brighten many hearts. The third letter was longer. I print it in full:

Mr. James M. Pierce. Friend: I will call you a friend, for I verily think you are a friend of all the farmers. I have been a reader of your paper ever since it first came out, and unless you change I will continue to be one so long as I live. Week before last I read of some in need in your paper. I will send you a check for $20. Divide and send to those

(Continued on page 5.)

THE WISCONSIN FARMER

A WEEKLY JOURNAL OF AGRICULTURE, HORTICULTURE, STOCK RAISING AND ALLIED INDUSTRIES.

BY JAMES M. PIERCE

JAMES ATKINSON, EDITOR-IN-CHIEF

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Why Milk Prices Are High.

Fred Pfeuhler, official tester of the Wolf River Cow-Testing Association, Door county, Wisconsin, has made a comprehensive report showing the opportunity which presents itself to the farmers of his section in the nation's present crisis, and the importance of watching feeding rations. We quote from a recent report of Mr. Pfeuhler:

The farmer raises the food that feeds us. His cotton fields and his sheep give us the clothes we wear. He furnishes us the necessities of life and a generous surplus which is sent to all corners of the earth. His peaceful fields, well planted and tilled, support everything in the world—the industries art, sciences, humanities and those countless clusters of human life which we call cities.

His has been the biggest job—that of starting the world and keeping it going—but he has done it cheerfully, never seeking praise or glory.

While the cities have bought and sold, and grown rich, and fat, he has whistled and laughed, planted and harvested, working twelve to sixteen hours a day with never a murmur. This nation, gathering riches from all the world, almost forgot to whom it owed first of its achievements.

It has taken a great calamity, the world's greatest war, to remind us of what we never should have forgotten—that the farmers are carrying the destinies of nations; that our welfare, yes, even our very lives, depend solely upon his work.

Today finds the American farmers charged with a duty that in ordinary times would be shared equally by the farmers of all nations. Three years of war have so shifted the burden of producing the world's food that never in the history has so great a responsibility been placed on any class of people as rests today on the farmers of America.

As they have met every crisis in the past American farmers are at the world's service today, if they will be guaranteed a fair price above the cost of production of their products.

While all these fine things may be said of the farmer, Mr. Pfeuhler and others who have studied the case understand that the farmer must be given a fair deal in a business way. It has been possible to gather some valuable information in connection with the work of the Wolf River Cow-Testing Association. Mr. Pfeuhler found that in Herd No. 18 of his association the cost of producing 100 pounds of milk testing 4.3 per cent during the month of November was $2.40. The value of the the butter fat at 60 cents per pound was $2.58. The divisions of feeds are as follows:

164 pounds silage.
8[illegible] pounds alfalfa hay.
2[illegible] pounds grain.

This gives, according to Mr. Pfeuhler's statement, a net profit on 100 pounds of milk, above the feed cost alone, of only 18 cents. This includes no profit for investment in land, equipment, or cows.

Of course the herds do not run all alike. Herd No. 20, where 4.6 per cent milk was produced, the cost was $1.82 for each hundred pounds and this butter fat sold at 60 cents per pound and netted $2.76. The feed required to produce 100 pounds of milk in this herd was:

326 pounds silage.
42 pounds clover hay.
26 pounds grain.

This herd showed a net profit, above the feed cost, of 94 cents per hundred pounds.

Herd No. 21 produced 100 pounds of 3.8 per cent milk for $1.66 and this netted $2.28 for the butter fat. The feeding ration was:

458 pounds silage.
No hay.
25 pounds grain,

leaving a net profit of 62 cents per hundred pounds.

In Herd No. 22, 100 pounds of 5 per cent milk was produced for $3.47 and the butterfat value of this milk at 60 cents per pound was $3.00, leaving a loss of 47 cents on each hundred pounds of milk. The feed of this herd was:

276 pounds clover hay.
25 pounds grain.

This shows where the farmer gets off without any silage.

In making up these figures silage value has been estimated at $4 per ton; alfalfa at $30 per ton and clover hay at $20 per ton. The price of grain varied in the different herds from $51 per ton to $60 per ton.

Mr. Pfeuhler's statement illustrates the fact that feeding must be given great study to insure profits. It shows that silage cuts the cost of feeding without diminishing the flow or quality of milk. On the contrary good silage improves these conditions. To feed high-priced grains entirely is a waste. It is the duty of farmers and dairymen to produce as economically as possible and when they do this they have a right to expect a fair price and a fair profit for their product.

Get Needed Spray Materials.

Orchardists, and farmers who have small home orchards from which they are anxious to get as much good fruit as possible, should take steps immediately to secure what spraying materials will be needed next spring. This is a matter that should not be delayed for any length of time, because there will undoubtedly be a great scarcity of some of the insecticides that will be needed to hold the codling moth and other insects in check. Then, too, it is likely that prices of spraying materials will be higher next spring than now; at any rate, it is a practical certainty that they will not be lower. Another thing to consider in this connection is the freight congestion that exists everywhere, which may be greater towards spring. The sooner spraying materials are ordered, the better the chance of securing them will be, and the lower probably also the cost.

Spraying materials should be purchased coöperatively, especially for farm orchards, so that they may be secured in large quantities and at a considerable saving in cost. If you have no local coöperative society see your county agent and let him find out what other farmers in the county need similar materials and then order them all together.

We should spray our fruit trees every year, but an unusual effort to spray should be made next year and as long as the war lasts, because every particle of food that can be produced will be needed. It is the next thing to a crime in these days of food scarcity to allow the products of the orchard to be ruined by insects when a very few dollars spent for spraying materials will remedy this fault and more than pay the cost of spraying in work and material by the production of a larger crop of fruit of superior quality.

Marketing Wisconsin Unfinished Pigs.

A strong appeal is being made to farmers of the state not to market their young pigs unfattened. In portions of the state where there is no feed, or at least not sufficient feed to take care of the pigs raised, farmers should make an effort to market their unfattened pigs to other farmers in Iowa, Illinois or Indiana who have milions of bushels of corn, good enough to feed, but too soft for the market. These farmers prefer to feed this corn rather than to take the risk of dumping it on the market in its present condition. It is reported that one Illinois county is in the market for 50,000 pigs, preferably weighing from seventy pounds to 125 pounds each or even a little heavier. An Indiana county agent has wired the president of the Wisconsin Live Stock Breeders' Association that he can take all the feeder pigs which Wisconsin has to spare. A good many carloads of such pigs have been already forwarded to feed lots in Illinois. Prices have run from $11 to $17 per hundredweight, but few Wisconsin farmers are willing to sell at a lower figure.

Blanks have been made out and furnished county agents of the state and the emergency food agents in an effort to list up all of the pigs, weighing from seventy pounds to 125 pounds or less. These blanks can be secured from the county agent, who will get in touch with feeders in Illinois, Iowa and Indiana and undertake to make arrangements for purchase of the pigs in Wisconsin.

As a patriotic proposition it is better to send the young pigs to some locality where they can be properly fattened. To sell them in the markets at such small weight as seventy pounds to 125 pounds is simply to cut down the pork production in the country and this is just exactly what the food administration is making every possible effort to avoid.

The Old Year: "I hope your burdens will be lighter !!"
The New Year: "I hope so, but I'm willing to carry heavier burdens, if it's necessary to win the war !!"

Heredity in Animal Improvement.

An interesting contribution recently appeared in the Live Stock Journal relating to the part that heredity has played and must always play in the work of animal improvement. It is pointed out by the author of this article that heredity, the foundation law of all animal breeding, declares that "like begets like" and, therefore, in breeding operations, it is important to select parents with as many desirable points and as few objectionable points as possible if any improvement on the progeny is to be expected. The effect of near and remote ancestors is discussed and also the question of prepotency, correlated characteristics and the outcome of the practice of continuous selection with certain definite things in mind. Among other things, the author says:

Heredity is a broad term, it is not simply the relation between the offspring and its parents, but the relation between it and its whole back ancestry. According to Galton's Law of Ancestral Heredity, an animal is the sum product of all its ancestors. The two immediate parents contribute between them one-half of the effective heritage, the grandparents one-fourth, the great-grandparents one-eighth, and so on, so that the effective contributions of the successive generations would be represented by the fractions one-half, one-fourth, one-eighth, one-sixteenth, etc., and the total heritage would be the sum of these fractions, which, extended to infinity, would equal one, thus accounting for the total heritage. This general law applies to generations, not to individual ancestors, and these fractions should be still again divided by the number of ancestors in each generation in order to determine the fractional share contributed by each individual ancestor.

Every ancestor, remote or present, has some influence. But the influence of an ancestor diminishes very rapidly the more distant in generation it is, and an animal in the sixth generation back has practically no influence. It is the "top," rather than the "foundation," that tells.

Although every animal inherits all the character of its two parents, the great majority of those characters never develop visibly in the animal, but lie undeveloped as "latent characters," and may be transmitted on to the next generation and appear as a visible character of these animals. These latent characters account for the occurrence in all breeding operations of animals totally different from their parents, but closely resembling their remote ancestors in some one striking feature, generally color. This is called atavism, or reversion to original type. To the breeder it is of no practical importance, but every animal of such a character should be discarded for all breeding purposes.

When two animals of different character are mated, the resulting progeny will inherit certain noticeable or dominant characteristics from its parents. Other characters will be possessed by the individual, but will not be noticeable, and hence are called recessive characters. These latter are the more numerous, and, all things considered, it is safe to say that the visible and fully-developed characters of an individual constitute but a small proportion of his real possessions. Hence the uncertainty of breeding; we cannot always tell what an animal is like for breeding purposes from outward appearances. An animal of proved worth for breeding purposes is an invaluable asset, and should be retained as long as its vitality lasts.

A prepotent animal is one which can overcome the characters of the other parent, and stamp its own character strongly upon the offspring. A purebred animal is very prepotent when crossed upon a grade or common stock. Animals of the same ancestry differ conversely in their breeding powers. Individual excellence is not a certain guide to breeding powers, and many ordinary individuals are among the greatest breeders. This is neither a mystery nor a fault in heredity. It arises from the fact that individual excellence is partly a matter of individual development, and not a sure index of rich ancestral possessions. The animal may be only fairly well born and faultlessly developed, in which case it will probably be a disappointment as a breeder; or it may be excellently born, but only fairly well developed, in which case it will breed "better than it is itself;" still again, it may be well born and perfectly developed, and be both an ideal individual and an ideal breeder, which is best of all.

Certain characters are correlated. An animal with great length of rib and depth of barrel is always a good feeder; milk production with the triangular dairy form; while the thick, meaty, square type of beef cow always indicates a lack of milk-producing power. This law of correlation illustrates why we can never produce a type of cow that will equal the dairy type for milk production, and at the same time produce steers that will be able to compete with the progeny of special beef breeds. In all breeding operations, we must follow nature, and if two qualities will not breed well together, we must drop the one least essential and adopt other qualities that are correlated to the one we most desire.

We have seen from the law of heredity that an animal is of a very complex composition. All the influences of ancestors are striving for mastery, and

Family Circle Talks by the Publisher

(Continued from page 3.)

you think most in need. Do not mention my name in any way. We are not what you would call "well off," but not in want, as we own 320 acres of Iowa land, not quite all paid. I wish you a very Merry Christmas.

I treasure that letter and shall keep it always. I am glad, indeed, that I am considered a friend by a man so great hearted and so tender hearted. Such men, of a truth, are the salt of the earth.

I divided this money (and more which I have received) among a half dozen worthy families. I cannot tell the story of all, but I am going to print extracts from their letters, showing the plight they were in. You will understand from these brief extracts how much good the money I forwarded to them will do. Each paragraph below is from a different writer, a few from many scores received by me during the last fortnight:

My father is sick and can no longer work very much at a time. My mother works all the time and saves and tries to make ends meet, but it is impossible. There are ten of us and five to send to school and they have such a long ways to go; it is three miles, and have not half enough clothes to wear. I am a girl of sixteen and I help with everything I can, outdoors and indoors. I have even held the plow and cut wood when my father was unable to work and I mean to do everything I can so long as I can help keep their dear little bodies warm, but as long as I cannot do everything won't you please try and help me and I hope to be able to help some other poor person some day, for I surely will be thankful.

• • •

I wish you could help us, as we have had some pretty hard luck in the thirteen years of our married life. We have six children living (two dead) and it is sure hard to get clothes for them, where we have had a crop failure four years out of five. We are renting and are in debt almost hopelessly.

• • •

Surely God will bless the good you have done and are doing. I am mother of a large family and it is hard to make both ends meet. We have had two failures here and husband is not very strong. We have eight little children and it is hard to get their winter clothes.

• • •

I have four children, from two to twelve years of age, and we are proving up a homestead. All who have proved up homesteads know what one has to go through. My children have to walk two and one-half miles to school and have not the necessary clothing to keep their poor little bodies warm.

• • •

I have five little children who need some help very badly from some kind heart. The youngest is seventeen months and the oldest is eight years. The two oldest go to school, but need some clothing very badly. The father has worked hard all summer for $40, nothing furnished, and we have to pay rent. We have had sickness this fall, as the oldest boy was operated on in October and the father was also operated on this fall and has not been able to work since. Our little girl has just got up from pneumonia. Now we are very badly in need of food and clothing and bedding. We are out of flour and have no money to buy any with; we are also out of sugar and lard.

Within the last few weeks I have received scores of letters such as these; every one wringing the heart to read. It is going to be a hard winter in many a humble home; are we doing all that we can to minimize suffering? I have received hundreds of letters offering to send clothing; every one has been appreciated and answered. But many families need money, and some of their wants are being met by the great-hearted men and women of the farm who have sent their checks to me, as did the three men whose letters I print above. It is a good old world, after all; yet how much misery and sorrow and suffering there are in it.

James M. Pierce

we never know which will predominate in the offspring. As a result, no two animals are alike, and even offspring from the same parents are very dissimilar. Variability is an inevitable accompaniment of both reproduction and development, and in breeding variation is to be expected. But this very variation in animals is a source of strength to the breeder. Without variation no improvement would be possible. The parents may be regarded as the average type, and their offspring is distributed both above and below that average, some being better and some not so good. The breeder's object is to select the animals above the average, and breed from these. The whole keynote of breeding is selection, continuous selection. Selection is the most direct and powerful means of improvement at the disposal of the breeder, and is the only means of permanent improvement that is under his direct control.

The great and famous breeders of past days developed and founded breeds in the short space of one lifetime by rejecting a multitude and selecting a few. If selection is not practiced, no improvement can be obtained, as the average of the breed or herd will remain unchanged. Continued selection will shift the type in any desired direction, and after a few generations it will "breed true" in its new form. As variability is not greatly reduced by selection, there is always opportunity for improvement as long as selection continues.

Before selection can be carried out intelligently, an ideal type must be adopted. Once chosen, the standard must be preserved unchanged. One may raise it by adopting an improved standard as one expands in breeding wisdom, but one must never change it, or all one's former breeding operations are nil, and a start must be made at the beginning again.

In selecting breeding animals, utility points are of prime importance. The ideal breeding animal should be a good individual, a good performer and a prolific breeder.

Further attention is called to the fact that the sire is even more than half the herd, being half the first generation, three-fourths of the next, seven-eighths of the third, and so on. By judicious selection of the sire for a few generations the character of the herd may be determined and, because of this, special attention should be given to selecting the sire to cross on pure-bred animals. It is pointed out that the beginner had better buy ten or twelve average females and a good sire than to invest in four or five exceptionally good females. The larger number of cows with a good sire will simply afford a better opportunity to obtain exceptionally good individuals.

Splitting Potato Eyes.

Seed potatoes were high in price last spring and growers were using every possible means to obtain a crop by the use of as little seed as possible. In some instances potato parings were planted and in other cases men were so economical in the use of their seed as to split the eye. Men could be found who have no faith in the latter plan, but believe that this results in destroying the eye absolutely.

In order to test the matter out the experimental department of the Emerson-Brantingham Implement Company conducted an experiment during the present season by planting severed eyes. One eye was divided into two parts and each part planted in a hill by itself. Soil conditions were exceedingly unfavorable, but one of these half eyes produced three potatoes and the other four, or an average of three and one-half potatoes per hill. When an eye was cut into four parts and each part planted in a hill by itself two and three-fourths tubers per hill were produced. The matter was even carried further and one eye cut into six parts, the result being that each hill from these six parts produced an average of one and one-half tubers. There was but little variation in the size of the potatoes from the different cuttings, but it will be observed that the smaller the cutting the less the yield in the number of tubers. The two hills from the one eye produced seven potatoes, while the four hills from one eye produced eleven potatoes and on the other hand the six hills from the one eye produced nine normal potatoes in addition to two that were so small as to be unfit for use. In the latter case there was one blighted hill that produced nothing.

The conclusion to be drawn from this little experiment is simply this, that split potato eyes will grow. On the other hand, the reduction in the number of tubers per hill when the division becomes too fine would indicate that the practice of cutting the eyes is not on the whole a profitable one. The matter is of special interest to those who use the fork or cylinder type of potato planter, because it shows that eyes pierced or split by the planter forks which catch and drop the pieces into the furrow are not necessarily destroyed, but may perhaps grow almost as well as whole eyes. This is important in these times when so much is being said and done in favor of utilizing machine instead of hand power in every possible way.

Automobile a Farm Necessity, Not a Luxury.

A recent announcement emanating from the treasury department of the United States brings the information that the upkeep expenses involved in operating a farm automobile, including gasoline, tires, etc., may be deducted from the income of the farm in the making out of the federal tax statement. Just as one deducts from his total revenue the amount of interest paid during the year as well as the amount of his taxes, so may he deduct the expense involved in the upkeep of his automobile. It is the theory of the government that the farm automobile is not classified as a luxury, but a necessity, and the recommendation of this classification really puts the auto in the class to which it properly belongs.

It must be borne in mind that horse breeding operations in recent years have been carried on with due allowance being made for the auto taking the place of the driving horse. The farmer has been encouraged in every possible way to breed drafters and his assurance that the future will find good draft horses selling well has resulted in changing the basis of breeding operations entirely. A shortage in the automobile supply as affecting farm interests would seriously handicap production. Many forms of produce are now marketed quickly by the auto, including in many cases the delivery of cream at the central station or to local markets. When repairs for machinery are needed trips can be quickly made over a considerable distance if necessary and time saved in that way during the seeding and harvesting season. The type of horse we are breeding today is not adapted to road work save only in those cases where heavy loads must be hauled. If we are obliged to place our drafters in road service, their use on the farm will be interfered with to that extent, and at a time when the draft horse supply is insufficient to meet the needs of the country.

Presumably the apportionment of steel products will be largely made by government authority and it is a splendid omen that the government has already recognized the great utility of the farm auto, and it may reasonably be expected that in the apportionment of steel and other materials utilized in the construction of an auto much in the successful conduct of this great industry that means so farm affairs will not be neglected.

Renew Subscriptions Early.

It will be a great help to Uncle Sam if subscribers will renew their subscriptions now. So many young men engaged in the postal service have been called to the colors that in places the work of the postoffice department has been seriously crippled, though every effort is being made to give good service. Those who renew during the holiday season, after the Christmas rush and before the big subscription rush in January will be helping to make an even distribution of the heavy burdens on the postal department. Remember that The Wisconsin Farmer, despite the advance in costs in production, is making special offer of three years for $1.50 and, as we have said before, we have no means at this time of knowing whether conditions will be such that this same offer can be made next year or not. The Wisconsin Farmer is adding each year to the service given to its subscribers and those who renew early will not only be helping the men who work in the postoffice department, but will also be extending a special favor to the publisher. Here's hoping that every subscriber may have a happy and prosperous year in 1918.

Worms may be killed in jars of potted plants by taking a dozen horse-chestnuts and pouring over them two quarts of hot water. Let stand overnight and with this water thoroughly saturate the earth in the jars. It will not injure the plants, but the worms will be dead in a few hours.

A little soda added to the bluing water will prevent the bluing from streaking or spotting the clothes. Salt will have the same effect.

Food in the mouths of our allies is ammunition no less important than the shells in their siege guns.

Your Next SILO

Before you build it, send for illustrated description of this new and improved storm proof construction. Seven five-eighths inch steel anchor rods (not cables) hold silo securely braced solid as a rock. The new improved Beaver Silo is made of selected coast fir, strong and close grained. Double angle irons forming inner hoops held tight to outer hoops by hook bolts, so that entire silo stands firmly anchored against any possible shock or stress. Compensating lugs with coiled steel springs allow for swelling or shrinking. Thousands in use in Wisconsin.

Tear out this advertisement write your name and address on the margin, and mail to us for illustrated description, also valuable tables which tell you how big a silo you need for your stock and acreage.

Reliable agents wanted.

BEAVER SILO & BOX MFG. CO., Inc.

417 High St. Beaver Dam, Wis.

IN AND AROUND WISCONSIN

John Haugh, who resides near River Falls, on December 6th loaded forty April and May pigs averaging 218 pounds each or a total of 8,720 pounds. He received $1,484.10 for the load. Mr. Haugh fattened these pigs on 1917 corn, which was not the best, but the deal turned out very well for him.

A series of conferences of Wisconsin honey producers are being held in the state. The places and dates of those yet to be held are as follows:

Greenville, Dec. 28; Antigo, Dec. 29; Shawano, Dec. 31; Wausau, Jan. 2; Grand Rapids, Jan. 3; Mauston, Jan. 4; Kilbourn, Jan. 5; Monroe, Jan. 7; Darlington, Jan. 8; Mineral Point, Jan. 9; Lancaster, Jan. 10; Prairie du Chien, Jan. 11; Richland Center, Jan. 13; Lodi, Jan. 14; Baraboo, Jan. 15; Reedsburg, Jan. 16; Union Center, Jan. 17; Tomah, Jan. 18; Black River Falls, Jan. 19; Augusta and Fall Creek, Jan. 21; Eau Claire, Jan. 22; Chippewa Falls, Jan. 23; Glenwood and Emerald, Jan. 24; Menomonie, Jan. 25; Spring Valley and Baldwin, Jan. 26; Elsworth and Beldenville, Jan. 28, and River Falls, Jan. 29.

Fed on beef scraps and only such grain as the ordinary Wisconsin farm affords in abundance, extraordinary laying records are being made in the poultry flocks maintained at the agricultural station farm. The station pullets seem to realize that the nation is at war and, although they were in the shell themselves less than a year ago, have already produced a remarkable number of eggs, with which to help out on meatless days. One lot of thirteen had laid a total of 642 eggs up to December 1st. Individually they have laid from forty to sixty eggs apiece. Figured at 60 cents a dozen, which is the current price at which they are being sold, these pullets have produced an average of $2.46 each. Last fall birds of the same size and weight were sold at about $1.50 each, showing how much more good layers are worth as producers of eggs than of meat. One pullet in the lot has laid seventy eggs, which performance has been carefully noted and chickens hatched from eggs laid by this bird will be used for the establishment of flocks. This wonder-layer laid her first egg at 150 days old. She was but eight months old when her seventieth egg was laid.

Mr. C. P. Bull, of University Farm, St. Paul, Minn., urges farmers to save enough roots to be set out in their garden next spring in order to raise seed for the following year. Mr. Bull advises this same procedure in order to increase stock of seed of carrots, turnips, parsnips and beets. In saving roots for seed-raising the top or crown should not be injured. A dozen roots will yield enough seed for the average garden.

Following are the dates for remaining farmers' institutes in Wisconsin:

Jan. 15-16 — Muscoda, Chaseburg, Cashton, Elroy, Petersburg and Rockland.

Jan. 17-18—Sabin, Coon Valley, Viroqua, Norwalk, Mt. Sterling and Durand.

Jan. 22-23—Woodford, Mt. Vernon, Highland, Fayette, Browntown and Strong's Prairie.

Jan. 31-Feb. 1—Raymond Center, North Freedom, Valley, Reedsville, Mt. Horeb and Mt. Morris.

Feb. 12-13—Footville, Drafton, Lyons, Lomira, Prairie du Sac and Spring Green.

Feb. 14-15—Rock Prairie, Knellsville, Fredonia, Allenton, Sun Prairie and New Lisbon.

Feb. 19-20—Costburg, Rockdale, Cascade, Omro, Ring, Wautoma.

Feb. 21-22—Collins, Marshall, Random Lake, Brandon, Van Dyne and Coddington.

Feb. 26-27—Mishicot, Rhine, Chilton, Greenleaf, Lake Michal's school and Princeton.

Feb. 28-March 1—Kellnersville, Johnsonville, New Holstein, Wayside, Symco and Pine River.

March 5-6—Rosholt, Reesville, Seymour, Stephensville, Tilleda and Delton.

March 7-8—Bear Creek, De Pere, New Franken, Brussels, Shawano and Oxford.

The first farmers' institute meetings following the Christmas vacation will be held January 8th to 11th, inclusive, at Haugen, Ettrick, Lindsey, Blair, Holcomb, Humbird, Colfax, Disco, Cherokee, Alma Center, Bloomer and City Point.

The annual farmers' course at Madison will be held during the week of February 4th to 9th, at which time important conferences of stockmen, grain growers and drainage officials will be held.

The Wisconsin Farmer has always advised its readers to attend the farmers' institutes. The work is more important this year than ever. Watch your local paper for detailed announcement.

The executive committee of the Wisconsin Potato Growers' Association met with the director of the Milwaukee Association of Commerce on Friday, December 14th. Arrangements were made for holding next year's convention and state potato show in the Milwaukee Auditorium, November 17-22, 1918. Milwaukee interests are very enthusiastic over the plan to hold the State Potato Show annually in Milwaukee. The Milwaukee Association of Commerce and the board of directors of the Auditorium have offered the best of coöperation and support to the Wisconsin Potato Growers' Association. A conference of representatives state interests will meet with the Milwaukee Association of Commerce at Milwaukee in March to perfect the necessary organization of committees for the convention.

Mr. John L. Tormey, of Madison, one of the officials of the Wisconsin Short-horn Breeders' Association, says it is better to eat the veal from an unpromising calf than to eat the beef and wear the leather from a poor steer, which has wasted human food all his life. We quote from Mr. Tormey:

I agree that there is more meat on the thousand-pound animal than there is on the veal calf. I also agree that we need the meat, but it would be well to consider if there would not be greater waste of effort, money and human food if we kept all of our cattle up to the weight of 1,000 pounds, than if we ate a few of the calves for veal. Many fanatics have in mind the passing of laws to prohibit the slaughtering of calves and from many sources a cry is raised about the farmer who sells the calves. Why not pass the buck along and condemn the packer, who is uncouth enough to kill them and the consumer, who is canabilistic enough to eat them.

Experience has demonstrated that the calf raised on high-price land can better be made into a 1,000-pound baby beef than kept longer principally, because the young animal is a better conserver of feed. The older the animal becomes, the more costly the gains, because it takes more feed to make the same amount of human food.

This is the answer by a very competent authority to the much discussed veal question.

The second annual corn meeting and show was recently held under the auspices of the agricultural division of the Edgerton High School. Walter L. Houser, representing the Wisconsin Live Stock Breeders' Association, spoke on the business of pure-bred stock raising and gave special emphasis to Wisconsin baby beef contests. There were also addresses by A. J. Glover, of Fort Atkinson, and L. A. Markham, county agricultural agent of Rock county. Obin Lien won the acre corn-growing contest and a prize of $15 offered for the same. He raised 103 bushels of corn to the acre, which is not the best that had ever been done in Rock county, but which was very good for the season 1917. Martin Rucks won the one-fourth-acre potato-growing contest and the $10 prize for the same. He produced fifty-three bushels on one-quarter of an acre.

Six of the Shires from the R. Connor farm, Wood county, Wisconsin, carried away eight prizes, four seconds, one third, one fifth and two sixths at the International Live Stock Show in Chicago. One of the seconds went to Dray King Fashion, the animal which won grand championship of Shires at the 1917 Iowa State Fair.

Big-Type Polands Won Him Success.

(Continued from page 1.)

are now about seventy head of pure-bred Holsteins in the herd. The senior herd sire is a son of King Segis Polkadot and the junior sire is a thirty-three-pound bull recently purchased. Mr. McDonald started his dairy work, as he does all other things, on a conservative basis. He purchased some of the older, tried cows at the sales held around the state and the offspring of these cows was not a matter of unknown quality, for he knew by the former offspring of the animals what kind of calves to expect. He has made a success of his dairy work for this reason and had no losses from unfortunate purchases. With the ideal location of the West Salem farm Mr. McDonald will do more advance registry work and develop his herd to the highest possible degree.

The picture of the barns reproduced on the cover page shows a round barn which was on the place when Mr. McDonald bought the farm. The barn is 172 feet across and is large enough to winter a circus and all attendants. In the center is a silo forty feet across and around it are the stanchions for the dairy cows. The outer circle was formerly used as a feed shed where the cows were turned in after milking and received their hay rations.

Show Herd of Sows Taken Six Weeks After Return From 1917 Show Circuit.

While the arrangement might be considered ideal from the standpoint of cow and man comfort, since the stock must not be driven from the cold barnyard into the barn, it is a most unsanitary arrangement. Mr. McDonald intends to build a modern, sanitary barn and he has already figured the cost of erecting a new building with plenty of light and ventilation and modern equipment. There is enough lumber in this monster round barn to build a dairy barn 100x38 feet and all necessary outbuildings on the farm besides.

A hog house which was on the place when the farm was bought, also does not suit Mr. McDonald from the standpoint of light and arrangement. However, all things cannot be made ideal in the short time one would like to have them so, but another year or two will probably see an entire new set of buildings on the farm, built with a view towards comfort for animals and man, but including light, ventilation and sanitary equipment. Meanwhile hogs and cows will continue to increase in numbers and quality.

Showing a Few 800-Pound Sows Taken After Weaning Pigs.

Sample of March Gilts, Averaging 325 Pounds November 15, 1917.

BADGER FARMER'S MAIL BAG

FARM EXPERIENCES

Growing Seed Corn.

To the Editor:—I will try to outline my system of growing seed corn. To begin with, I begin my corn crop the year before I plant my corn if I intend to plant on oat stubble. I seed all my grain to clover or alfalfa every year. If it fails, I manure it heavy during the winter and then plow for corn in the spring. Should I find I have too much clover for hay, I manure the clover, and plow both under. If I decide to break any sod I manure it and if possible I try to plow same in the fall. In the spring the ground is disked and re-disked and harrowed until it is as mellow as a garden. As early as possible I plant with a two-horse planter in hills, three to four kernels to a hill. Before my corn is planted I ear test every ear, taking six kernels out of every ear. If all six kernels do not show a strong sprout that ear is discarded. This gives me a 100 per cent stand. I have never had to replant a field of corn in the five years I have owned my farm. Have also never had a field destroyed by cutworms. Timothy fields are usually infected with cutworms in certain years. I am not a believer in timothy very much. Clover and alfalfa for me.

I usually do not stop until freezing is gone by in the spring. I would rather have my corn freeze in the spring than in the fall. I have had corn come out of the ground and freeze off, grow up again and produce a good crop of mature corn. I had the same experience this spring. Corn froze off, but in the fall I had a fine crop of mature corn ready to go nearly every ear into the seed house. When my corn is planted the ground is harrowed as often as convenient two or three times to keep weeds down and conserve moisture. Have also harrowed it when corn was all up on a hot day. When corn is high enough, about two or three inches, I begin to cultivate. First cultivation as deep as possible and every successive cultivation being shallower than the one preceding. I also go through my field with the hoe. I continue to cultivate until too big to get through.

On the last 4th of July I had Golden Glow corn over knee high. As soon as ripe I begin to cut in shocks. This year I built a silo, so I husked some of my corn from the standing stalks and then cut the stalks into the silo. The seed is at once taken to my seed house as soon as husked and put on a slatted floor. Some is hung up on hangers and strings. As long as it is not too cold no fire is started. When corn is getting too thick on floor fire is started in the stove and every window opened on dry, windy days to carry off the moisture. I have found by experience that a fire without ventilation is absolutely worse than no fire at all when a large quantity is dried in a tight building. I have never failed to get a ripe crop of corn. This year I had a fine piece of mature Golden Glow corn. Have had also a piece of King Phillip flint corn which was ripe in September. This corn is very early and productive. I also grow Silver King and Murdock. My Murdock was nearly all ripe. The snow caught some of my Silver King, but managed to get some for seed before the snow. I have my seed house 16x26 completely filled with good, choice seed as could be grown this year, so will be able to fill many a farmer's needs. Every year corn is picked as early as possible which hastens maturity a few days every year, so corn can't help but get ripe before killing frost under favorable weather and working conditions. Arthur O. Popp.

Jefferson Co., Wisconsin.

Getting Heavy Yield of Potatoes.

To the Editor:—I will write you a few words regarding my experience in growing potatoes in northern Marinette county. I am located on hardwood land of the rolling character, but have had good results in growing potatoes and the way I prepare my land is as follows: I top dress my spring seeding clover fields with barnyard manure during the following fall and winter. I cut the clover for hay the following summer, plow the second crop under, using a jointer on my plow so as to turn everything under in the last part of August or first part of September. Then I manage to disk a couple of times before winter. The following spring as soon as the ground is dry enough to be worked I double disk it once more, then continue with a spring-tooth drag twice a week till planting time which is around May 25th. Now another important fact is to obtain good seed free from disease and true to shape of a standard variety, such as the Rural New Yorkers, Green Mountain, Triumphs and Irish Cobbler. The two latter ones are early variety.

I am very careful when cutting my seeds, making blocky pieces with no less than two eyes. For planting I use a hand planter which I think is the best for anyone who does not grow more than three or four acres a year. I plant in rows thirty-six inches apart and fifteen inches in the row, as I don't believe in growing these big, coarse, rough, hollow tubers. When I am through planting I continue dragging very lightly with a peg-tooth drag at least twice a week till the potatoes appear out of the ground. Then as soon as they are high enough to see the rows I give them a good, deep cultivation and keep on at least once a week or after every heavy rain, although I am very careful not to cultivate too late. When the vines get about twelve inches high I dig with my hand right in the middle of the rows two or three inches deep. If I find some of these fine, white roots, I rather leave them alone or cultivate very shallow. I never use a shovel plow, but ridge them a little with the cultivator.

I am very sure that anybody who will follow this method will grow a good crop of potatoes and no weeds. However, I am very careful in selecting my seed, making a hill selection every year, which is very important. Up to this time I have never treated my seeds yet and my potatoes are free of scabs and no other disease in them whatever. It's no trick to grow from 250 to 300 bushels per acre by these rules. Fabien Lardinois.

Marinette Co., Wisconsin.

Depth of Potato Planting.

To the Editor:—I am sending you today a picture of my daughter standing in my field of Green Mountain potatoes. This picture was taken while the field was in second bloom and it was surely a fine sight. I can't tell you exactly what the yield was, but our county agent visited the field two or three times du ing digging season and he gave it as his opinion that it would make about 300 bushels per acre in spite of the early freeze. I am especially interested in community growing and standardizing of potatoes, although I am a beginner in this work. I find there is a great deal to learn and it is difficult to lay down set rules for planting and cultivating. However, I believe I can get results by planting the rows about thirty inches apart and eighteen inches apart in the row.

I would like to ask if planting the seed quite deep will make the potatoes set deeper in the ground or does the planting have anything to do with it? J. A. Andress.

Rusk Co., Wisconsin.

[The character of the soil to some extent determines the depth of planting. Experiments conducted for seven years at one of the Canadian stations indicated that the best results were obtained by planting from three to five inches deep. Not only was the yield less where potatoes were planted shallower than three inches, but there was a larger percentage of sunburned potatoes from the shallow planting. At that station where potatoes were planted only one inch deep the yield was satisfactory, but it was found that over 30 per cent of the potatoes were sunburned while, on the other hand, only 4 per cent were sunburned from three-inch planting, and from deeper plantings there was no injury whatever on account of potatoes being exposed to the sun.—Editor.]

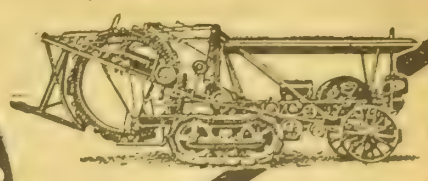
Field of Green Mountain Potatoes in Second Bloom, on J. A. Andress Farm, Rusk County, Wisconsin.

Commercial Fertilizer.

To the Editor:—We have used considerable commercial fertilizer during the past year and previous year and are well satisfied that it pays us. When our men put this in the first year they were skeptical as to the wisdom of the extra investment, but now they are converted to the idea and insist upon it. On our potato farm we have had two very dry seasons—a drouth this year of over four weeks at setting time and last year much worse. We had planted chiefly Triumphs and, while the yields were very much reduced, we find that the fertilized potatoes ran to a much nicer seed type than the others which had grown uneven. At our garden we had even rain conditions and a very good yield of over 275 bushels to the acre, chiefly Rurals. The check rows where no fertilizer was used clearly showed at digging time. We are going to use commercial fertilizer again next year at least to some extent and will say that we no longer consider it an experiment. Eldred Klauser.

Oconto Co., Wisconsin.

Ditch Yourself Rich



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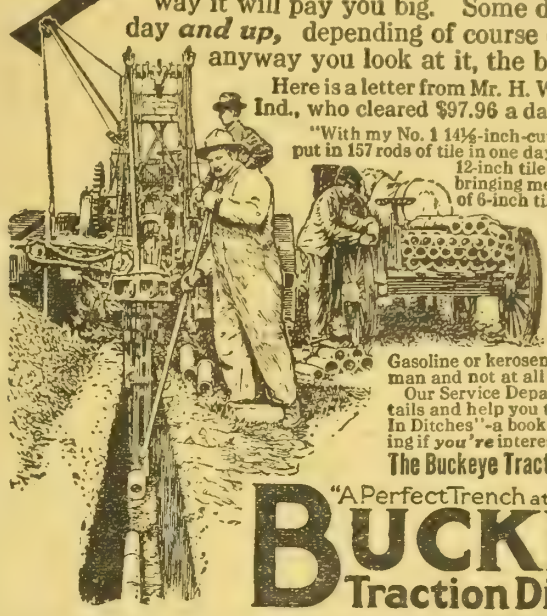

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National Short-horn Congress.

Show and Sale to Be Held in International Live Stock Amphitheater, Chicago, February 18 to 23, 1918.

A MOVEMENT of unusual importance as applied to the live stock interests of the United States has been put on foot by the American Short-horn Breeders' Association. It will be nothing more nor less than a national Short-horn congress, show and sale which will be held at the Union Stockyards, Chicago, February 18 to 23, 1918. There will be 125 bulls, varying in age from twelve months to three years, entered, and 200 females. A special classification prize list has been provided for milking Short-horns, the details of which will be announced later by the Milking Short-horn Club of America. An accurate idea as to the exact character of this show and sale will be obtained from the program, of which we now propose to give a summary.

Beginning at 10 o'clock on Monday, February 18th, two of the older classes of Short-horn bulls will be judged. There will be fifteen prizes in each class, the first five prizes amounting to $40 each, the next five $35 each and the third five $30 each. At 11 o'clock on the same date two classes of younger bulls will be judged and in each class fifteen cash prizes similar to the above will be given. At 1:30 p. m. on the same date the judging of the two older female classes will begin, the first including cows with calves at side or in calf, and the second the oldest heifer class. Twenty prizes will be given on the first classification and a similar number on the second. The prizes will range from $35 down to $20. At 2:30 p. m., February 18th, the two younger female classes will be judged and there will be twenty prizes awarded in each class, ranging from $35 down to $20. At 3:30 p. m. the groups and championships will be judged and at 6:30 p. m. on the same day a banquet will be held and an important program carried out. In addition, there will be a picture film shown reproducing the Short-horns at the recent International Exposition.

On Tuesday, February 19th, the auction sale will begin and will continue until noon, to be again taken up at 1:30 p. m. In the evening there will be no program. On Wednesday, February 20th, the auction will be continued both forenoon and afternoon and a special program has been prepared for the evening of that day, beginning at 8 o'clock p. m. On Thursday, beginning at 10:30 a. m., the auction will be continued and on that date, forenoon and afternoon, the remaining animals will be sold. At 6:30 p. m. on Thursday the Milking Short-horn Club of America will hold a banquet and carry out an interesting and important program. On Friday, February 22d, the milking Short-horns will be judged and in the afternoon of that day they will be sold at auction.

Sec. F. W. Harding, of the American Short-horn Breeders' Association, calls special attention to the fact that every person attending this congress will be furnished a member's badge, and, if desired, a ticket to dinner and entertainment that is part of the Monday evening program, this being furnished at a nominal cost per plate. Mr. Harding says that it is very important that all visitors call at the American Short-horn Breeders' Association bureau in the lobby of the Stockyards Inn on their arrival.

This is indeed a history-making event and we believe that it is only necessary to call attention to it in order to attract the attention of a great many readers of The Wisconsin Farmer. The affairs of the American Short-horn Breeders' Association are in the hands of progressive men and the zeal they are showing in the advancement of the best interests of the breed is but commensurate with the urgent need that exists for the introduction of more good Short-horn blood into the herds of America.

State Inspects Vegetable Seeds.

What the New Wisconsin Laws Provide---By A. L. Stone, State Inspector Wisconsin Department of Agriculture.

THE scope of work and functions of the Wisconsin State Department of Agriculture were greatly broadened and extended by the legislature of 1917. Several lines of regulatory activities heretofore conducted by the experiment station were transferred to the state department. Among these was the inspection of agricultural seeds under the state seed inspection law. Under the law in question the inspection of field crop seeds only has been required.

The legislature of 1917 so amended the law as to extend certain of its restrictions to the sale or offer for sale of vegetable seeds. As applied to crop seeds, the law provides that no package of agricultural seeds exceeding one pound in weight shall be sold, or offered for sale, within the state for seeding purposes unless the same when put up in either open or closed packages shall have attached thereto a label upon which is plainly printed or written in the English language the following:

1. Name and kind of seed.
2. Name of seller, dealer or agent.
3. Purity of the seed.
4. Germination test.
5. Place where grown if the seed is corn, small grains or alfalfa.

Vegetable seeds almost never contain noxious or other weed seeds, and mixtures of the seeds of varieties is almost impossible to detect, so no purity test on vegetable seeds is required. Farmers seldom find fault with the purity of vegetable seeds, but often complain because the seeds fail to grow well. Certain seedsmen who do a package vegetable seed business have been accused of retaining seeds from unsold packages, to mix with new seeds in filling packets for the next year's sales. If the seed is not too old, this practice is perfectly legitimate with certain kinds of seeds which retain their vitality for several years. With certain other varieties the practice is reprehensible and almost certain to result in the entire loss of the crop, or at least a partial loss through delay caused by the necessity of replanting.

Under the amended law, packages of vegetable seeds, irrespective of size or weight, must be labeled with the germination test if it falls more than 5 per cent below the standard of germination for such seed fixed by the state department of agriculture. These standards are carefully being worked out by the state department and will be published in the near future. It is easily possible to set standards so high that no seedsman can do business under them without rendering himself liable, and also higher than is necessary for adequate protection to the growers. This is emphatically true this year because both last year and this growing and harvesting conditions have been so unfavorable as to make the production of vegetable seeds of high vitality almost impossible.

The Wisconsin Department of Agriculture is "empowered to fix standards from time to time" and in years when the conditions are favorable for the production of vegetable seeds of high vitality, the standards of germination will be raised accordingly.

Vegetable seeds are usually sown or planted much more thickly than necessary, on the supposition that much of the seed will not grow. This is a wasteful proceeding, and in a year like this when vegetable seeds are scarce, only enough seed to produce a satisfactory stand should be sown. The standards of germination to be fixed by the department og agriculture may seem low, but if the germination test does not fall below the standard as fixed for any kind of seed, it may be expected to give satisfactory results. There has been no surplus of vegetable seed held over from the preceding year as is usually the case, and because of the short supply, much seed of comparatively low vitality must be used.

UPPER WISCONSIN

Work of Mr. Juday.

A good idea of the faithful and profitable work of an Upper Wisconsin county agent may be gathered from the report recently filed with the county board of Oneida by Mr. W. D. Juday, county agricultural agent of that county. The following items are taken from this report:

Since November, 1916, I have made 549 farm visits and have visited 292 different farms. There have been 1,085 office and telephone calls and 3,214 letters have been written. I have given forty-six talks at farmers' meetings attended by 2,540 people.

The results of the potato development work carried on the past four years stand out as the most prominent feature. The past season has not been the most favorable for a large potato crop, but our average yield has been larger and the quality better than it has been for years. Our table stock has topped the market and many carloads sold at a premium. We have an abundance of certified seed stock again this year, a few cars of which have already been sold at 25 and 40 cents in advance of the regular price. Last spring hundreds of bushels of certified seed sold for $3.50 per bushel and some sold for as high as $4. During the past year Oneida county again won first honors at the state potato show and at the state fair. The advertising these winnings give has meant dollars in our farmers' pockets and has also been a stimulus in getting new settlers here. Right now potato growing is the most profitable line of farming one can engage in and we should make the best of this situation by planting as many potatoes as we can properly take care of. Plant them on the best soil, care for them well and don't be afraid to use a little commercial fertilizer and Bordeaux mixture. Both paid well this year.

Next in importance is the dairy work. Early last spring a campaign was started to ascertain the number of tubercular milk cows in different herds of the country. Twenty-one herds were tested with a total of 250 cows. Six cows reacted making the percentage of tubercular animals in the herds tested about 2½. In the central part of the state about 7 per cent of all dairy cows are tubercular and in the southern part about 14 per cent. This emphasizes the necessity of keeping our herds free of this disease and we can do so only by regularly testing our herds. This work will be continued again next year.

Twenty-six pure-bred dairy animals, fifteen females and eleven males, were brought into the county this year through the help of the county agent. Several pure-bred herds are being established in the county and some day Oneida county will be known for her high producing dairy cattle as well as by her high-class potatoes.

We have also made an effort this year to rid the farmer's herd of his boarder cows. The high-priced feeds fed to a poor cow mean a big loss to the owner. With the high price of milk and butter fat one can feed grain to a good cow at a nice profit.

The third important work was done with the improvement of grain. Winter rye was urged strongly for new land. It is without doubt the surest and most profitable grain crop for the average soil of the county. The acreage for both winter and spring wheat has also increased. Owing to the fact that barley has not done well on sandy soils its acreage has remained about the same. Much work has been done with one treatment of grains with formaldehyde to prevent smut. This treatment is simple, costs about 2 cents an acre and saves on an average of $4 per acre to the farmer. No farmer ought to sow grain without first treating the seed with formaldehyde.

For eighteen weeks I taught agriculture in the training school. This work is important, for were it not for this training most rural school-teachers would begin their teaching career without the slightest idea of the fundamental principles of farming and thus have little or no sympathy for the farmer's real need.

Many other lines of work have also been taken up. Twelve and a half tons of spray material were sold to the farmers at a saving to them of over $3,000. Five carloads of feed were handled at a saving of about $750 and five cars of fertilizer at a saving of about $900. Some of the other problems worked out are figuring balanced rations, planting crop rotations, planning buildings, helping farmers select better varieties of grain and other seeds, advising concerning better cultural practices for all crops.

It is the business of the county agent to call on every farmer who asks for his services and then so far as possible visit other farmers in the county. But the territory is large and the visiting time limited. For this reason any farmer wishing the services of the agricultural agent should feel free to call upon him or write him at any time. Every farmer will be given prompt attention and each call taken care for in the regular order.

The ultimate object of this work is to make Oneida county a more desirable place in which to live both in a financial and social way and any help toward the furtherance of this cause will always be appreciated.

What a fine statement this is. There are many counties in the state of Wisconsin where regular county agents are not now employed which would do well to investigate the system.

Another Farm Loan Organization.

Mr. G. M. Householder, county agent of Hawkins, Rusk county, Wisconsin, has assisted in organizing the Hawkins National Farm Loan Association. Twenty members have signed the articles of incorporation and subscribed $20,000 in loans. Further applications are received.

Calumet County Guernsey Breeders.

To the Editor:—The Calumet County Guernsey Breeders' Association held a successful meeting Saturday at Chilton in spite of the cold weather. Professor Benkendorf, of the dairy department, discussed in detail: The government has established a minimum price of $15.50 on hogs, which equals thirteen times the price of corn; the tremendous market for dairy cows created by war conditions; farmers are justified in raising all good daily heifer calves; skim milk is worth 75 cents per hundred to veal calves and $1 for egg production; and that whole milk, in comparison with other foods, is cheap at 15 cents a quart. Whey is worth one-half as much as skim milk.

Math. Michels, president of Wisconsin Dairymen's Association, a successful and practical Guernsey breeder, of Peebles: "Almost invariably a pure-bred bull increases the value of herds, whether Guernsey or Holstein. Our cows at home receive twenty to thirty pounds of silage and all the best alfalfa, fed several times daily, the cows can consume. The stems are fed to the horses.

"One of the most important essentials of good farm management is a system of farm accounts. The modern business men find it an impossibility to survive without an exact accounting system. Every department must pay for itself, every employe must earn his salary, and so it must be on the farm. Every cow must earn a net income on a profit above her feed cost —she is one of the hired men. And so it is with all the departments on the farm."

Herman J. Duecker gave a very instructive talk on his system of handling his high record cows. He feeds from three to four pounds to every pound of butter fat produced by cow per week from mixture of: 600 pounds bran, 300 pounds oats, 100 pounds oil meal. He feeds his calves from four to ten pounds of whole milk daily, then gradually adds a little warm water and some oil meal jelly. They receive a little milk until they are six months old. As soon as they will eat grain they get what they will clean up after milk from a mixture of ground oats, bran and oil meal, equal parts.

Several other interesting talks created a lively discussion.

It was unanimously decided that members of the Guernsey association should each keep farm accounts in cooperation with Prof. D. H. Otis, farm management expert at Madison. Thirteen members will start in January.

It was also decided unanimously that members of the association who had a boy or girl under nineteen years of age should enter a pure-bred calf in the school fair in November, 1918. Three members started.

Six new members were accepted.

It was decided to hold a barn meeting at the farm of Herman J. Duecker as soon as possible, and that such meetings should be held often and scattered over the county.

Royal Klofanda,
Agricultural Demonstration Agent.

Oconomowoc Poultry Show

That there is a growing interest in the poultry business around Oconomowoc was evidenced by the five-day show of the Oconomowoc Poultry and Pet Stock Association last week. This was the thirteenth annual show and there were about five other birds in addition to pigeons, ducks and geese. W. E. Stanfield, of Hillsdale, Michigan, was judge. Following an address by D. H. Otis, of the Wisconsin College of Agriculture, a movement was launched to organize the Oconomowoc Farm Management Club. The purpose is to put the farms of the territory surrounding Oconomowoc on a business bais not only with reference to poultry, but also along other lines of farm activities.

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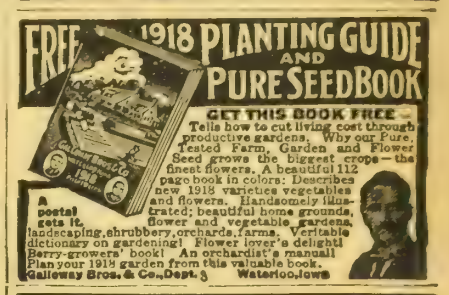

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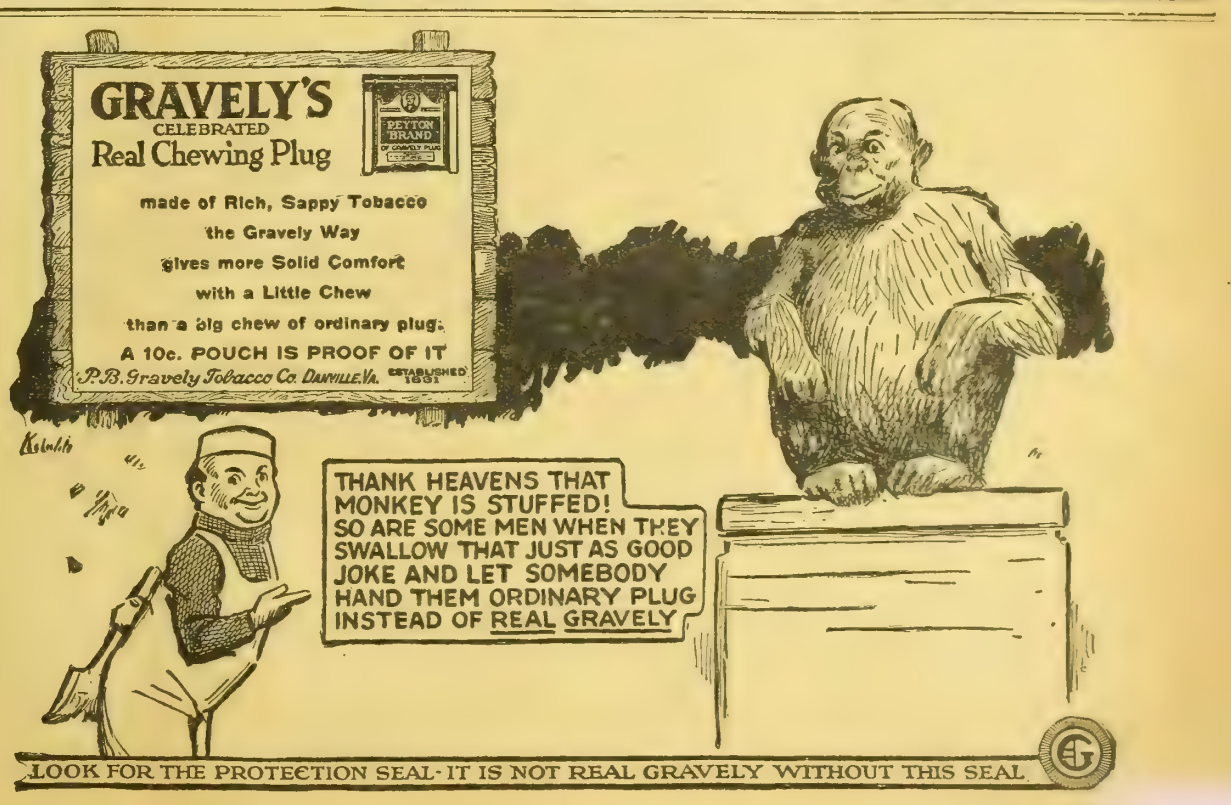

POULTRY

THIS department is edited by a competent poultryman, who will be pleased to answer questions concerning diseases, poultry management, etc., when they can be answered through the department. Questions will not, however, as a rule, be answered by mail, and stamps need not, therefore, be inclosed with inquiries. Address all letters relating to poultry topics to this office.

Wisconsin Poultry Show.

Of the three important specialty club sessions and shows which will grace the doings of the Wisconsin State Poultry Association's annual meeting at Madison, January 7th-11th, those of the Barred Plymouth Rock are apparently attracting the most attention just now.

"This is true because the Barred Rock has long been a general favorite with farmers—it is perhaps the widest known utility fowl at present in Wisconsin," said J. G. Halpin, secretary of the Wisconsin Poultry Association,

The White Plymouth Rock Club and the Buff Wyandotte Club will also hold state meetings of enthusiasts during the show. Both the White Rock and the Buff Wyandotte are in particular favor with farmers as well as fanciers and a great display of these breeds is anticipated.

Members of the Wisconsin Poultry Association who will cheer for these respective breeds in the respective conventions scheduled for the week are:

Barred Plymouth Rocks.—Ives Roberts, Ft. Atkinson; George Hackett, North Freedom; W. A. Belda, De Forest; A. F. Roske, Windsor; D. D. Culham, Stoughton; J. F. Johns, Dodgeville; H. H. Paulsen, Marshfield; Wm. Davenport, Stoughton; L. L. Hare, Monroe; C. H. Alsmeyer, Cottage Grove.

White Rocks.—J. J. Flad, Madison; H. W. Halbach, Watertown; H. H. Paulsen, Marshfield; Wm. Hoffman, Jr., Middleton; F. J. Holt, Sun Prairie; Sylvanus Ames, Stoughton; E. V. Sorley, Tigerton.

Buff Wyandottes.—J. R. Love, Waukesha; Gladys Poultry Yards, Stevens Point; T. L. Clayton, Dodgeville; E. S. Conry, Sun Prairie; F. L. Johns, Platteville; C. H. Oliver, Cambridge.

Handling Poultry During the Winter Months.

To the Editor:—The problem of keeping poultry during the winter months is one which is most annoying and indeed one of the hardest to solve among breeders and exhibitors. The chief thing, however, is to have the birds go into winter quarters in good condition. The houses should be comfortable in such climate as has Wisconsin, although the scratching shed should be so ventilated that plenty of fresh air can circulate throughout.

Just now the feed problem is most difficult, but if the poultry raiser will use good judgment and take a little extra time, the same results can be obtained from feeds which at present are quite reasonable. To the city poultry raiser, I would say that grit, oyster shell or beef scrap should be kept before the hens all the time if eggs are wanted during the winter months. To the poultry raiser of the farm other substitutes can be used to advantage. For instance, if a load of sharp sand is placed in the scratching shed the results are practically the same.

The city poultry man, of course, has to depend almost wholly upon commercial feed. Therefore, it would behoove him to buy such feeds as bran, oats, barley and middlings. Oats, however, should not be fed alone, as fowls will not fatten on it, nor should it be fed dry. It must be soaked or in a wet mash of bran if any results at all are expected.

Then, too, if you want the hens to "shell out" there is nothing like bones boiled down and the liquid substance thickened with bran, middlings or ground oats. Water is indeed essential for egg production and should be kept fresh before the birds. This forcing the hens to lay is not the best policy for breeding purposes. However, this in closing, I should not forget to mention that it is the clean poultry house and yard that gives the best results and if a little caution and care are taken we can make Wisconsin the banner state for poultry of profit, pleasure and show. Olive M. Hoyt.

Walworth Co., Wisconsin.

Finds Duck Raising Profitable.

To the Editor:—I will tell of my experience in raising ducks, as I raise from 200 to 350 a year, besides chickens and geese, and I find ducks the most profitable of the three. They consume more feed, but grow much faster than chickens, are excellent layers and are not bothered with lice.

I usually sell all the duck eggs while there is a good demand for them for setting purposes. The hatching season usually lasts from the middle of March until the middle of June. After the demand for eggs slackens up I set my incubator and all the hens I can at the same time, as ducklings of different ages should not be allowed to run together, for they grow very fast and are so clumsy they trample the small ones to death. The ducklings hatched in incubators are just as strong and grow just as fast as those hatched under hens.

About the middle of last July I took off 202 at one time and this fall when it was time to market them I had 191 fine, large ducks. I sold eighty-four of the smallest ones (although they were a very even bunch) on the market and they brought 81 cents each.

I shall keep a flock of about 100 breeders another year, as duck eggs must be fresh to hatch strong, healthy ducklings. I like to hatch them late in the season, as the weather is warm and they do not have to be cooped up as they do earlier in the season, but they should have plenty of shade. An orchard is an excellent place for them, as it also provides a good many insects for them and they need plenty of room to exercise to keep them healthy.

The ducklings, if properly cared for, are very healthy and are not subject to bowel trouble as are little chicks, but they should never be without plenty of clean water to drink and it should be deep enough to put their heads clear under water, as sometimes their nostrils get closed up and they die for want of air.

It will not hurt them to swim in water if the sun is shining and the weather warm. I have had them swim and play in water till they were soaking wet when but a week old, but never lost one from the effect of it, although I never allow them to do this unless it is quite warm. I like water fountains best for them, as they cannot get the water dirty as in open vessels. After they get older I have a barrel with a hog waterer at the side of it. We fill the barrel with water and put it in the shade and they have plenty of clean water all day.

It is very essential that their coops where they stay at night be clean and dry with a little clean straw for bedding. If this is done you will not be bothered with leg weakness.

I have fed ducklings different kinds of feed with the same result. When flour was more plentiful I bought a cheap grade of flour and made bread and soaked it in milk for them the first few days. Their feed can be mixed with water, but they grow much faster for me when I use milk, as I do not have many meat scraps. After they are two weeks old they can be fed a mash of ground oats and corn and bran with a handful of coarse sand mixed with it and should be fed five times a day all they will clean up nicely. Last summer, flour being high, I baked corn bread for them for a few days, always soaking the bread with milk or water and adding a little sand after that. I fed ground corn and oats, omitting the bran, as I thought it too high to feed profitably.

After about the 1st of September they went to the cornfield and picked up all the feed they had till snow came and now I am feeding oats and ear corn, which they shell readily; also potato or apple parings or any waste vegetables. We have always kept plenty of grit and water where they can get it at all times. When it gets near the laying season I shall feed them a mash of ground oats, corn, bran with some meat scraps. They lay much better when fed soft feed than dry feed.

Mrs. J. H. Wintermute.

Trouble With Turkeys.

To the Editor:—Will you please ask the readers of your paper to give us some turkey talks and tell us why it is so hard to raise turkeys? Do not have much trouble with them at first, but when they are about a month old or so I lose most of them. Have been very careful to feed sparingly and put charcoal in feed. I have kept grit before them all the time, and have chopped up onion tops and put in the feed at least once a day. I have given them pure water with a little permanganate of potassium in it part of the time. A Reader.

[Let us hear from some of our readers who are familiar with the ups and downs of the turkey raising business.—The Editor.]

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FARM LANDS.

GO WHERE LAND IS LOW PRICED—Last year we urged some of our investor friends to purchase certain farm lands in Eastern Oklahoma which were then offered at from $35.00 to $50.00 per acre. Many of these farms in 1917 earned for their owners several times the cost per acre in 1916. We still have a few farms listed for sale at very attractive prices. They are worthy of the consideration of any man who wants to buy a farm. We do not own these lands but with a view to increasing the number of farmers along our railroad, and thereby building up our trade territory, we have interested ourselves in the matter of distributing information in territory where we know there are good farmers, hoping that we can move some of them into eastern Oklahoma. We do not charge anything for our services. We will be well repaid if our territory is built up by the removal thereto of a number of men who know how to farm. If you are interested in a farm in eastern Oklahoma, of the kind referred to above, write me for particulars. R. W. Hockaday, Industrial Commissioner, M., K. & T. Ry., 1505 Railway Exchange Bldg., St. Louis, Mo.

A SMALL CALIFORNIA FARM earns more money with less work. Raise crops you know: alfalfa, wheat, barley; also oranges, grapes, olives, figs. Ideal for dairying, pigs, chickens. No cold weather; rich soil; low prices; easy terms; good roads; schools, churches. Enjoy life here. Write for our San Joaquin Valley, Dairying, Poultry Raising, Illustrated Folders, free. C. L. Seagraves, Industrial Commissioner, Santa Fe Ry., 1959 Railway Exchange, Chicago.

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OKLAHOMA FARM LANDS FOR SALE—Good farm lands for sale at prices ranging from $15 to $40 per acre. Some of this land underlaid with coal, oil and gas or other minerals. Fine climate, good seasons and best of citizenship. Write R. E. Lynch, Tulsa, Okla.

80 ACRES—65 under cultivation, 2½ miles from town, brick house with furnace, big barns, machine sheds, hog house, hen house, granary, tile silo in barn. Peter Wuest, Medford, Wis.

WOULD YOU SELL YOUR FARM if you got your price? Sell direct. No commissions. Particulars free. Charles Renich, G-2, Woodstock, Illinois.

IF YOU WANT TO SELL OR EXCHANGE your property, write me. JOHN J. BLACK, 24 Street, Chippewa Falls, Wis.

WILL TRADE farm in Polk county, Ark., for Wisconsin or Illinois land. L. Temmey, 509 Brownell, Lincoln, Neb.

TWO FARMS FOR SALE—Near town, school, etc. Will rent one to right party. H. V. Peoples, Ladysmith, Wis.

WANTED—To hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

FARMS FOR SALE—Address Reuben M. Ellerd, Box 6, Plainview, Texas, owner.

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BARRED PLYMOUTH ROCKS and Buff Orpington ducks; Chicago winners; great layers; established 1892; eggs for hatching: $1.50, 15; $4.50, 50; $8, 100; prompt delivery and good hatch guaranteed. G. Earl Hoover, R. 24, Matthews, Ind.

HATCHING EGGS; prize-winning S. C. Reds, White Wyandottes, Buff Orpingtons, S. C. White and Brown Leghorns, $1.50 per 15. Ledge View Poultry Farms, Box W. F., Fond du Lac, Wis.

HATCHING EGGS—S. C. Reds, prize-winners all leading shows. Eggs, $1.50, 15; $8, 100. Order from this ad. Address C. L. Pre-Fontaine, Box 600, Fond du Lac, Wisconsin.

RHODE ISLAND REDS—Setting of 15 eggs from pure-bred prize-winning Rhode Island Reds, $2 per setting; three settings for $5. Hildebrandt & [illegible] Wis.

CHOICE MAMMOTH PEKIN, Rouen, Buff ducks, Toulouse and Chinese geese. Ed Sweet, Jr., [illegible] Wis.

WHITE WYANDOTTE COCKERELS—$1.50 [illegible] Wis.

BOURBON RED TURKEYS—Mrs. Allen Wheeler, Hillsboro, Wis.

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THE LIBERTY HOLDER, a [illegible] It will hold any ordinary [illegible] convenient manner for filling [illegible] to variations in sizes of sacks [illegible] of the way when not in use. [illegible] $2.50, prepaid. Satisfaction guaranteed or your money back. Agents wanted. A. P. Craig, Drayton, N. D.

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SALESMEN WANTED—Owing to conditions brought about by the war we have a few well-[illegible] Winona, Minn.

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MONEY TO LOAN on Wisconsin farms in amounts of $5,000 to $25,000. Security must be [illegible] of the mortgage. 6% with privilege of paying $100 or more at any time. Address 206 Washington Bldg., Madison, Wisconsin.

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REGISTERED Holstein bull, ready for service. A [illegible] 27.52 lbs. [illegible] $200. [illegible] Wis.

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MEN, WOMEN WANTED—$90 month; government positions. Write [illegible] Institute, Dept. K176, Rochester, N. Y.

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LET US TAN YOUR HIDE—Cow, horse or calf skins for coat or rug. Catalog on request. The Crosby Frisian Fur Co., Rochester, N. Y.

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Auto, Farm Engine and Farm Machinery Ailments diagnosed and remedies suggested in this department

Questions and Answers.

Tire Filler.

Do you know of a company that makes a fluid to put in a bicyle tire to make it solid?

Answer.—There are at least two companies making such a fluid, which consists largely of cork and rubber. Your dealer in auto supplies should be able to supply you. One of these compounds is called "pneumastic."

Use of "Spark Gaps."

I have bought a set of four spark gaps from an auto supply company. I have since been told that some spark gaps do more harm than good. Is the Marvel one of these? If so, where can I get a set that is practical?

Answer.—We have never heard any complaints from the use of the Marvel spark gap, and see no reason why it should injure your motor. Whether or not it will benefit your motor you can best find out by trying them. It is a disputed point as to whether or not a spark gap is of any value.

Some Steam Engine Questions.

I would like to know the horse power of my little double-cylinder steam engine. The cylinder is two and one-half inches diameter and the stoke is four inches. How much can each cylinder pull? How much steam pressure is required to pull that amount? How much pressure is required to pull it at its limited strength? Would it be strong enough to force as many pounds of water into a tank as it takes pounds of steam? If not, how many pounds could it force? Is it harder to force water in at the top than it is at the bottom of the boiler? Why? Is as much steam used in pulling a light load as in pulling a heavy load? Why is it? Does this engine require a governor to run steadily on unsteady work? If so, how could one be arranged when there is no flywheel or shaft to run one?

Answer.—To find the power of a steam engine, multiply the area of the cylinder in square inches by the average pressure in the cylinder by the length of stroke in feet by the number of power strokes and divide by 33,000, the result being the horse power of the engine. The average pressure in the cylinder may be roughly estimated at one-third the boiler pressure. In a double-acting steam engine, that is, an engine having steam on both sides of the piston, the number of power strokes is equal to twice the number of revolutions of the crankshaft. By the above rule, this engine would develop about one horse power at 300 R. P. M. and 100 pounds boiler pressure, which would be about right for stationary work. Steam automobile engines often run at 500 pounds boiler pressure. The amount of steam pressure that could be carried would depend upon the design of the engine, and could not be told without measuring the parts and calculating their strength.

How much water pressure an engine will pump against depends upon the size of the pump cylinder relative to the steam cylinder. If the average steam pressure in a four-inch diameter engine cylinder is fifty pounds, it should pump against nearly fifty pounds if the pump cylinder is also four inches in diameter, or against 100 pounds if the pump cylinder is only two inches in diameter. Practically, there is no difference between the power required to force water in at the top or bottom of the boiler, the back pressure from the steam being the same in each case. The heavier the load the more the steam required to pull it. The engine derives its power from the steam and the power is proportional to the amount of steam.

We have never seen an engine without a crankshaft or flywheel, excepting turbine engines. We are wondering whether the engine you refer to is a boiler feed pump and not an engine at all. If so, it could not be used as an engine, but could be used to force water into the boiler from which it draws its steam.

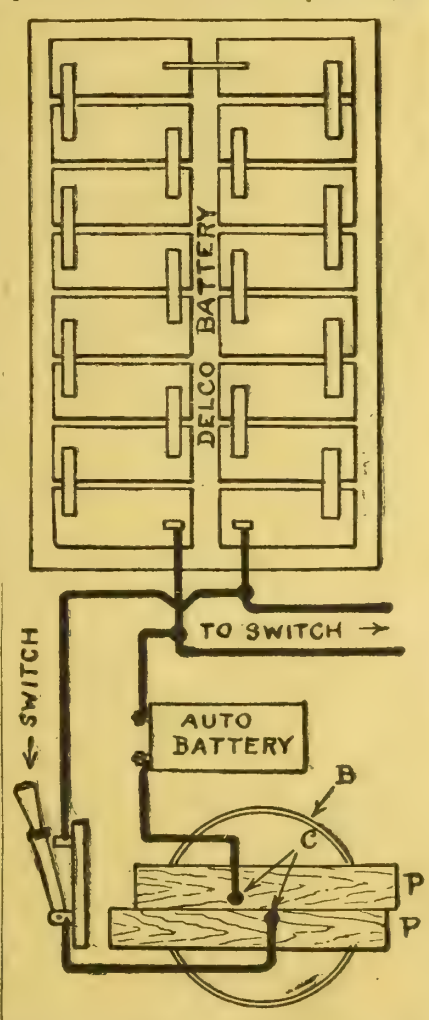
Electrolyte Too Weak.

Last summer I purchased a Model 90 Overland car that has a Gould storage battery. The other day I tested the acid with a hydrometer and it showed only half charge. I ran the engine about four hours as fast as it usually runs on the road when making twenty-two miles per hour. At the end of that time the acid was bubbling and the outside of the battery was as warm as a person's body. Still it did not test more than half charged. I noticed that the acid in the cells looked grayish. Is that all right? Is there something wrong, or did I not run long enough?

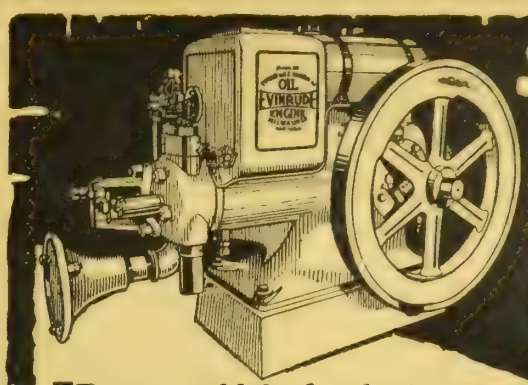
Answer.—Either your hydrometer is wrong or the electrolyte of your battery is too weak. With the battery fully charged add enough acid to each cell to bring the specific gravity up to 1.300. The milky appearance of your electrolyte is due to particles of gas in the electrolyte, and is a natural state of a battery while or after charging.

Charging Auto Batteries From Delco Light.

I have a Delco lighting plant. It generates thirty-two volts. I wish to charge my storage battery from this. Can I take three of the cells out of my lighting battery and put in their place the three cells of my auto battery and charge them? How long would it take to charge them, the generator generating twenty amperes?



Answer.—It would injure your lighting battery to take out three cells as you suggest. The three cells would not be charged as much as the others, which would be an undesirable condition. It would be much better for you to arrange an outfit as shown in the figure. Connect the positive terminal of the auto battery to the positive terminal of the lighting battery and the negative terminal of the auto battery to the negative terminal of the lighting battery through a switch and water resistance as shown in the figure. B is a bucket of salt water; CC are two carbon rods extending down into the water and supported by the boards, PP. To use the outfit, connect the battery, start the engine and close the switch, having the carbon rods well separated. Then move the rods closer together by sliding the boards until the ammeter shows about eight amperes being furnished the auto battery, unless this amoun overloads the generator. You can then charge the auto battery at the same time that you are charging the lighting battery. It would take five to ten hours to charge the auto battery, the time required depending upon the ampere capacity of the battery and the amount of discharge.



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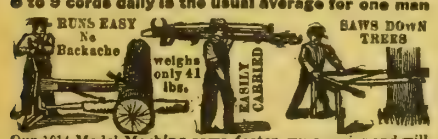
6 to 9 cords daily is the usual average for one man



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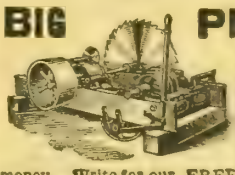

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Ailing Animals.

Weak Digestive Organs.

I have a colt that has had the scours for the past two years. I first thought it was his teeth, but he is coming five years old in the spring and I had a veterinarian look at him and he said it was not his teeth. He advised me to give him castor oil and feed him some flour in his feed, but this did no good. He is worse when eating grain than when he roughs it.

Try to get this horse to eat about one quart of wheat bran and one tablespoonful of oil meal once a day with or without other grain. In addition to this, have your veterinarian get sulpho-carbolate compound and give for several weeks. Also feed regularly with good feed, good water and shelter properly.

Testing of Drugs.

Can you test the medicine that is good for colic? How much would it cost?

If you have a preparation you wish to have tested it will be necessary to send it to a chemist.

Weak Ankles.

I would like some advice regarding my shoats. They were farrowed about the first of May. They get weak in the ankles and in about a week they cannot walk. Have been feeding them corn with slop made of middlings. They eat well and do not look sick.

Try feeding oats instead of corn, and make slop consisting of wheat bran, middlings and a small quantity of oil meal. It should be still more beneficial if you can add milk to this slop.

Sterility.

Last spring when my cows freshened they did not clean properly and discharged matter with a bad odor for thirty days or so. They are young cows ranging in age from three to ten years. Now I have trouble to get them with calf. They are fed alfalfa hay and silage.

Cows fed heavily on corn without much exercise, or cows beginning with contagious abortion, often retain the afterbirth. This, if not removed properly and at the correct time (which is usually from twenty-four to forty-eight hours after calving), results in an inflammation of the womb with either temporary or possibly permanent sterility.

Sniffles.

I have a bunch of forty fall pigs about two months old that have the sniffles. Is this disease contagious, and what will cure it?

Sniffles (or necrobacillosis) is an infectious disease and hogs affected with sniffles show difficulty in breathing, discharge from the nose, or thickening of the bones of the face. A general unthriftiness is noticed in many of the hogs. On account of necrosis of the bones of the face it is not possible to efficiently treat these cases. Separating the well from the affected hogs and changing quarters if possible is advised. If not, thorough disinfection of the pens may give you some degree of satisfaction. Those affected most should be killed and burned. As a rule, disposing of all the hogs on the farm, cleaning and disinfecting thoroughly before purchasing or raising more hogs is the most satisfactory method to combat this disease.

Pinworms.

I have a ten-year-old mare that was troubled with pinworms all last winter. I had our local veterinarian treat her, but with no success. During the summer months I turned her out on grass occasionally and I haven't seen her pass any for some time until just recently since I started to feed her on hay and oats.

It is not an easy matter to treat successfully for pinworms. Their number may be greatly lessened and sometimes the animal may be freed of them entirely by the following treatment which acts indirectly upon the worms by building up the animal's resistance and vitality. She should receive one quart of wheat bran and one heaping tablespoonful of oil meal once or twice a day for two to three months. Also salt regularly. Light driving or work is beneficial.

Blindness in Sheep.

My sheep are going blind. Their eyes are bloodshot all around the pupil and the pupil turns nearly white. The eyes do not water much. I have two flocks and this trouble broke out in both bunches at the same time. The blindness seems to come on them all at once. They eat well. All they had to eat during the summer and fall was blue grass pasture. Would shutting them up in the same yard every night have anything to do with it? They are two year olds and three year olds.

During the fall with sudden changes of weather sheep quite often take cold and their eyes look like they were entirely blind. This may be the case with sheep or this may disappear in a short time. Make a solution of one rounded tablespoonful of boric acid to one pint of warm soft water and bathe their eyes once to twice a day. Do not allow the sheep to be out in the rains, and give them good, dry, well-bedded quarters, and avoid drafts if possible.

Announcement has been made that the food administration will exercise complete control over export shipments of flour from this country to Europe. The intention is to centralize the handling of flour so that there will be the least possible loss either in food value or in shipping facilities. Another feature of the plan is to prevent any irregularities in the time or quantity of shipments made to the allied armies.

For draining land, be sure to get tile of the proper size. If it is too small it will fail in wet weather just when it is needed most. A tile drain that will carry off one-fourth inch of water in twenty-four hours from the area it drains is adequate under most conditions. If the tile is smaller than four inches in diameter it will have a tendency to fill up with silt.

Mr. E. S. Millard, of Beaver Dam, Wisconsin, is anxious to get into communication with Belgan hare breeders. He has read such glowing accounts of the big profits in this business that he is somewhat in doubt about the advisability of taking up this line and he is particularly anxious to hear from those who are breeding Belgian hares on rather a small scale.

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IN TIOGA CO., N. Y.—Farm lays good; clay loam soil; [illegible] as much as any land in the Northwest. 90 acres under plow. Creek-watered, natural grass acres; big meadows, lots of all kinds of fruit; good water; healthy climate; mild winters; good School house, big basement; telephone; 2 big basement barns; ice house, hen house, hog house; [illegible] to school; [illegible] neighbors; on good road; R. F. D. Price $2,500, $1,000 down, easy terms. A. L. WILKINS, R. 2, Owego, N. Y.

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The Best Located and Equipped Dairy Farm and Plant in the State of Iowa

On account of the enormous increase in the Canadian business of The William Galloway Company, which from now on will require more or less of William Galloway's personal time at Winnipeg, we will offer at private sale our 240 acre dairy farm located between Waterloo and Cedar Falls. Farm is equipped down to the very last detail with very best dairy and pure bred stock breeding equipment including fire-proof tile and cement barn, creamery, and two 200-ton silos filled with silage, manure pit, litter carriers, and everything necessary to produce certified milk. New modern horse barn and two fine modern farm dwellings. Barns and houses equipped with every city convenience, including electricity, running water, sewage, etc. Many out buildings, including modern granary, hog, chicken, tool and implement houses. Farm fenced hog tight except sixty acres. Total improvements new and cost over $40,000 five years ago, which would cost 30 to 50% more now. Every foot of the farm tiled and in high state of cultivation and fertility. Positive money-maker for right man. An opportunity for the city man who wants one of the best dairy farms in Iowa, or for business farmer with large family. Milk route brings in gross cash revenue of $10,000 to $12,000 a year, and cannot supply the demand at 15 cents a quart, which business goes to the farm buyer uninterrupted, including good will.

Farm located only ¾ of a mile from pavement of city of Waterloo, population 36,000, one of Iowa's best and most progressive industrial cities, and only three miles from city limits of Cedar Falls, a town of 8,000 people, with rare college advantages, on main road between these two towns, which location guarantees a constant increase and investment value. Not a cheap farm but worth every dollar and more than we ask. Will bear the very closest investigation as an investment and money-making dairy proposition. Farm famous for the many blue and purple ribbons won by its Holstein and Ayrshire herds.

Will make good terms to right party, but do not answer this ad unless you mean business and have money enough to swing a deal of this kind.

Very picturesque and beautiful location; fine oak trees, and beautiful shaded background, ideally landscaped. Also good orchard.

A nationally advertised breeding business and dairy farm like this is a rare opportunity for the right man, so don't delay answering this ad if you are in the market for a proposition of this kind.

Galloway-Messer Farms, Waterloo, Iowa

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Send today for our very low prices on tank heaters and hog waterers. Get our special terms to farmer agents. Write today for free circular, prices and terms.
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that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

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also other Bunches or Swellings. No blister, no hair gone, and horse kept at work. Economical—only a few drops required at an application. $2 per bottle delivered. Book 3 M free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Swollen Veins and Ulcers. $1 and $2 a bottle at dealers or delivered. Book "Evidence" free.
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GUARANTEED to Relieve
COUGHS, DISTEMPER COLDS AND ALL THROAT, LUNG AND NASAL TROUBLES IN HORSES.
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Quality in Dairy Products.

Quality counts in the dairy business. Not infrequently has success or failure hinged upon this one factor. The basic reason why quality counts for so much is the fact that milk is highly susceptible to contamination. The public is aware of this, which knowledge makes it appreciative of quality. Once the public becomes aware of the fact that any certain dairy furnishes milk of excellent quality and which can be depended upon regularly, that dairy is assured of a ready market among the better class of customers.

A few years ago there graduated from the short course in a corn-belt agricultural college a young man who had been enthused with a desire to establish a high-class dairy. Accordingly he began operations on a farm overlooking one of the best cities in the corn belt. He used tuberculin-tested cows when tested herds were rare. He kept his barn and his milk house scrupulously clean. Customers learned that milk from that particular dairy was always clean and wholesome. The result was a demand that could be supplied only in a very small part. Delivery was restricted to a few streets in the residence section nearest the dairy. Thus delivery was made at a low cost and at the same time the proprietor received nearly 50 per cent above the usual price for his milk. It was quality alone that won this success.

Even more striking is the success of a sincere simple-hearted resident of Salt Lake Valley in Utah. In seeking an opportunity to do something for mankind he decided that it should be his work to produce clean milk for babies. In his milk business he had seen that thousands of cases of sickness in babies were caused by poor milk. To save the lives of those children by furnishing pure milk was to be his life work.

This man, of course, tested his cows for tuberculosis. He built a large open shed for shelter in order that the cows might be kept more healthy. He used the barn only at milking time. Beside his milk house he built a sun room, the sides and roof of which were of glass. Utensils used in handling the milk were washed and scalded thoroughly and were then placed in the sun room and kept there throughout the day.

All milk from that farm was clean. Mothers learned of it and sought it for their babies. The fame spread and from all parts of the city there came calls for pure milk. It was not possible to restrict the district over which the milk was delivered. However, the demand was so strong that it could not be sold to any place except with the understanding that it was to be used only for babies. Naturally a price considerably above the average was received for milk from this farm. It was worth the extra price. It was quality that made it good and which made it popular.

Sanitary milk, so called, has always sold at a premium because of its cleanliness. Sanitary milk is produced under the supervision of a city board of health. Just as the people have confidence in the city board of health they likewise have confidence in the sanitary dairies.

In butter, quality counts for much. We have all eaten good butter and we have eaten bad butter. Good butter is always at a premium and poor butter nowhere receives a welcome. In the days when our mothers delivered butter to the local grocery certain ones of them were always very much in favor with the customers on account of the excellence of their butter. There is no one who does not appreciate good butter and who does not detest an inferior product.

Two creameries one time started business in the same town. One made good butter. The other did not. The one survived and prospered, while the other lost prestige and was finally foreed to quit business several thousand dollars in debt.

In cheese quality makes the difference between a palatable article and one utterly unfit to be eaten. The dairy that makes good cheese always has customers on the waiting list and the store that handles only good cheese never lacks for calls for it. On the other hand, the dairy that is unable to make an appetizing article usually has its shelves full and the owner is tempted to blame the ficklemindedness of the public for not consuming his wares. The store whose keeper does not know cheese or who is indifferent and who handles "just cheese" has but little call for it. It is quality in cheese that makes it acceptable to the public and which makes them take it home in goodly portions.

It is good business to produce dairy products of quality. Consumption is increased when quality is present. Quality is pleasing to the consumer and leads him to purchase and to eat more of it. It is plain, then, that quality leads to a greater demand and to a stronger market and to a better price. Quality insures a regular and a substantial market. Quality is in one sense the appreciation of good business methods to the dairy industry. Good business principles require quality and anyone who overlooks this important factor is certain to be less successful financially as well as to be rated as on a lower plane among producers.

Doubtless the quality of dairy products is improved rapidly. Dairymen are watching sanitation on their farms more closely. They know that bacteria cause souring and decay and they know how to avoid them. Improvement in quality means that the average standard of the business is on a higher level. Improvement in quality means advancement and success.

Growth of Cow-Testing Associations.

That coöperative cow-testing associations are successful in this country is shown by the fact that since 1906, when the first association was organized, in Michigan, the number has increased steadily to 459 associations, in forty states. On July 1, 1917, there were 11,720 herds, with a total of 211,966 cows being tested regularly in these associations. The total number of milk cows in the United States at that time was 23,372,200, of which .91 per cent were numbered in these organizations.

The first cow-testing association was organized in Newaygo county, Michigan, January, 1906, is still in existence and now has thirty herds with a total of 304 cows. The following year three new associations were organized in that state. In 1908 three were organized in Maine and one in New York. The next year five other states entered the list.

Wisconsin now leads in the number of associations, eighty-one being in operation in that state. Other leading states are Vermont, with forty-seven; New York, with forty-three; Iowa and Ohio, with thirty each; Minnesota, with twenty-six, and Pennsylvania, with twenty-four. During the year ended June 30, 1917, ninety-five new organizations were established.

Dairy Calves and Veal.

The one big object on a dairy farm is to produce milk. The idea is to produce the greatest quantity of milk in return for the outlay in farm investment and farm equipment and in cows and more directly must the returns be sufficient to pay for labor expended and feed used. The ideals of any good dairymen are for milk production. He is not a beef producer. His help is trained and organized for dairying and not for beef growing. Just now the dairyman's two big problems are the high price of feed and the scarcity and high price of labor. Any venture he may make in the way of beef production increases each of these problems.

With a given amount of feed more edible human food will be produced by dairy cows than by beef animals. Hence, were the dairyman to curtail his milk production in order to grow his male calves to maturity he would be diminishing the amount of food units returned to the world by his farm. The farsighted dairyman believes in the old adage of the "shoemaker sticking to his last."

Economic conditions have given rise to the practice of marketing the surplus dairy calves at an early age. It has been found to be an unprofitable practice to retain dairy-bred calves for beef. At best a dairy-bred steer makes rather poor beef that is discriminated against on the market and which can be marketed only at a lower price than his beef-bred brother. There is less discrimination with reference to calf stock. Dairy-bred veal sells readily and at a good price. One dairyman has said, "I can now sell my calves for $20 each. Were I to feed them through the winter on high-priced grain, hay and silage, I should possibly receive but $22 to $25 for them in the spring. This would be a losing game for me." Doubtless he was expressing the thought of the great majority of dairymen upon the subject of calf slaughter versus the preservation of all calves for beef.

Doubtless nothing but the best of motives prompt those who advocate the feeding out of all calves. However, they omit many of the essential details in their line of talk. A favorite argument is to show the contrast of the amount of beef that is to be

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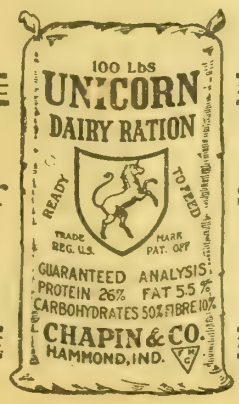

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secured off a young calf or off the same animal fully grown. The practical dairyman sees in that picture quantities of feed to be consumed and hours and days of labor to be expended and farm equipment to be increased and raises a question as to who is to pay for them. There is yet to be seen any critic of calf slaughter who offers to buy up young dairy calves and feed them out on his city lot. Neither has there appeared any man who offers to furnish in advance the amount of feed required to transform a small calf into a full-grown bullock.

Legal restraint upon the slaughter of calves would decrease the amount of milk because fewer cows could be kept on account of feed limitations as described above. Such legal restraint would lead to an inverse increase in the slaughter of cows. It is then to a large extent a question of whether young dairy bull calves shall be slaughtered or whether a greater number of dairy cows shall be sent to the packer. Cows are all too scarce and milk is becoming scarce and high priced. Hence it is more justifiable that milk production shall be increased rather than decreased. The dollars and cents of the business demand that the cows be retained, and, in order to do this, the dairyman must market his calves as he has been doing in the past.

Dehorn the Dairy Heifer.

There are two methods of dehorning dairy animals. One of these which is widely practiced is to allow the horns to grow until the animal is fairly mature and then cut them off with special dehorning clippers. This method removes the horn, but it is a painful and bloody operation. The other method is to prevent the horns from developing.

The calves should be treated when they are from five to ten days old or when the horns are just beginning to show as small buttons and before they break through the skin. The hair should be clipped away from this part of the head with a pair of shears. As soon as the skin is thus made visible it should be broken with a sharp instrument directly over the center of the appearing horn. A deep cut should not be made. As soon as the skin is broken a stick of caustic potash should be rubbed on the horn until the skin is removed over an area slightly less than the size of a dime. The caustic can be purchased in small white sticks about the size of a pencil. One end should be wrapped with paper or cloth to protect the fingers. Rubbing should continue over the surface until it begins to turn white. Too much rubbing may give bad results. As soon as this is complete it is well to grease around the treated area with vaseline.

It is usually better to use the caustic in a dry form rather than to use it wet, because when too much moisture is present it may run down into the calf's eyes and cause injury.

The caustic should be kept in an air-tight bottle because in the presence of air it becomes wet and sticky and is difficult to handle. With a little experience one can perform this operation in about five minutes and horns will never develop, says W. W. Swett, of the University of Missouri College of Agriculture. In case it is not properly done, short spurs will develop. These may be clipped off after a year or two with very little trouble or injury to the animal.

Persistent Milkers Are Most Profitable.

Persistent milkers—the kind that milk well for a whole year, not the type that yield abundantly at first and then soon drop down in production—are the winners in the long run, according to dairymen at the Ohio Experiment Station. The steady cow is usually the most profitable one.

Some cows in the station's coöperative dairy work have yielded considerably above the average at the first of their lactation periods, but within two or three months their yield would fall nearly a third and by the end of the period would be only a fourth of the original production. The average daily yield for the period was found to be more than seven pounds less than that of cows having a comparatively uniform record from month to month.

Cows tend to decrease in milk flow as the lactation period advances. The milk yield of ninety-six Jerseys fell 47 per cent and their fat record 42 per cent in ten months. Ninety-six Holsteins decreased their milk 49 per cent and their fat 47 per cent in the same time. The percentage of fat gradually increased as lactation advanced.

Feeding for Health and Vitality.

To the Editor:—On many dairy farms, especially where large quantities of purchased concentrates are fed, complaint is common that many of the cows fail to breed regularly. This complaint is becoming more common from year to year, and is making serious inroads on the profits of dairy farming. This inability to withstand heavy grain feeding and breed regularly means that some of the cows must be bred several times before becoming safe with calf. The result is some of the cows freshen at the least favorable time, thus cutting down the supply of milk when most needed to keep up even production, and causing a general upsetting of the farmer's plans for the year. In extreme cases abortion and sterility not only sweep away the profits, but ruin the herd for profitable dairy purposes.

It is high time that farmers began to practice methods of feeding dairy cows so that they will last longer, instead of feeding them to get the most milk. By far too radical methods of feeding are being advised by those who assume to be feeding authorities. It is wrong that so many dairy experts have divorced science from common sense in giving scientific advice along lines of feeding. But the most discouraging thing we have to contend with is the fact that so many farmers are willing to let these experts do their thinking for them instead of looking at the problem in relation to the health of their cows.

It is not my intention to discuss the problem of feeding from the standpoint of the veterinarian or scientist, but to present a few plain facts that seem to have a bearing upon the question of maintaining the breeding qualities of our dairy cows. In the first place, the failure to breed regularly is more common where heavy rations of protein by-products are fed. Many dairy experts explain this fact by arguing that great producing cows convert so much of their food into milk that their reproductive organs are very poorly nourished. This condition, however, is unquestionably the result, in great measure, of improper feeding, so that the whole question resolves itself into one of improved methods of feeding. Unfortunately for the dairy farmer, the feeds that possess the greatest amount of protein are the very feeds that possess the least power in nourishing the organs of reproduction. It can be further stated that some of the feeds that possess extraordinary power as milk producers are positive poisons to those organs. Witness the milk-making value of cottonseed meal, then witness the cows that have been fed upon it to the point of barrenness. Cottonseed meal contains, when at its best, a medicinal agent which acts directly upon the uterus and when fed to cows that are large producers it is likely to assist in producing an abortion. The fact that so many good producers abort after carrying their calves up to seven or eight months is a pretty good indication that it is not germ abortion. There are other feeds that have a similar, though less pronounced, effect. Such foods are very rich in protein, and, while they have a place in the economy of feeding dairy cows, they must be fed along with other feeds that counteract their evil effect and furnish an abundant supply of nourishment for the reproductive organs.

An even worse mistake than feeding too much rich protein feeds is that of taking the grain rations away from the cows suddenly and not feeding them enough of anything to properly nourish the growing fetus. Such a practice dwarfs both the milking and breeding qualities, entailing a double loss. It is between these two extremes that we find a safe and profitable system of feeding that provides an abundance of food that contains

less protein, even though a perfectly balanced ration for producing milk is not used. In carrying out this plan oats, bran, corn, clover and alfalfa hay and silage play an important part. It is time that dairy farmers heeded the signs of the times and followed the rules of common sense in feeding their cows. When we have a good cow we should strive to feed her and care for her so that her vigor and reproductive powers will be maintained. This we cannot do so long as we let our thoughts run altogether to milk in the pail. If we do not practice more rational methods of feeding we are sure to smash up in the dairy business before long. J. Meredith.

Program for Holstein Meeting.

The twenty-sixth annual convention of the Holstein-Friesian Breeders' Association of Wisconsin will be held at Burlington, Racine county, January 9-10, 1918. Headquarters will be at the Hotel Burlington and sessions of the convention will be held in the Burlington opera house. Beginning Wednesday morning, January 9th, at 9 o'clock, Mayor Runkel, of Burlington, will deliver the address of welcome, and J. P. Riordan, of Maysville, will respond on behalf of the association. R. J. Schaefer, of Appleton, president of the association, will deliver his annual address, followed by reports from C. J. Schroeder, of Racine, the secretary, and F. J. Bristol, of Oakfield, the treasurer. E. B. Hart, of Madison, will speak Wednesday morning on "The Value of the Fat in Milk in the Nutrition of Young Animals." The afternoon session will convene at 2 o'clock and the first address will be by Bruce Wescott, of Barton, Wisconsin, on "Raising Calves Without Skim Milk." Mr. Hart will give another address illustrated by lantern slides, after which the annual business meeting will be held. The Burlington Chamber of Commerce will provide entertainment for the evening. Thursday morning the convention will again convene at 9 o'clock, concluding first its business session. C. Larson, of Brookings, South Dakota, will speak on "Building up a Dairy Herd Through the Use of the Pure-Bred Sire." At the afternoon session at 2 o'clock Thursday, Oscar Erf, who has given the dairy world some notable papers on the cost of milk production, will speak on this same subject, followed by a discussion led by J. D. Jones, of Racine. In the light of price-fixing by the government, and the discussion incident thereto, this session will undoubtedly develop great interest. Late Thursday afternoon there will be a session of the board of directors.

Organized and incorporated in 1892 the Wisconsin association has had rather a slow development, but during the past year has been making very rapid gains and the membership, both as to personnel and numbers is now becoming fairly representative of the importance of this great breed of dairy cattle in Wisconsin. The Holstein-Friesian Association of America will hold its annual convention and a sale of world-wide importance in the city of Milwaukee in 1918. The dates are June 5th, 6th and 7th. The sale will be managed by H. A. Moyer, of Syracuse, New York, an able sales manager and an authority on Holstein cattle. The sale will be conducted under the auspices of the national association. The sale is to be known and advertised as 'The Moyer National Holstein Sale of Wisconsin." Wisconsin breeders will be given first chance to consign suitable animals, to the extent of at least twenty-five head and as many more as Mr. Moyer may select from Wisconsin herds. Holstein breeders of the state look for the year 1918 to be a record breaker in every respect. A wave of enthusiasm for this breed is sweeping over its loyal supporters in Wisconsin and this means new records in all departments within the coming year.

Cow Testing Reports.

Satisfactory Month in Dodge County.

To the Editor:—This month's work has been quite gratifying in regard to general progress of the association as a whole. Three hundred eighteen cows have been tested during the period, the remainder of the cows of the association being on the dry list. The high herd belonged to Emil Ulrich with his eleven grade Holsteins averaging 919 pounds milk and 33.7 pounds fat. Highest individual record was made by Nichtern, a grade Holstein owned by Carl Zimmerman. Her record was 1,398 pounds milk and 58.7 pounds fat. Several cows detected of "boarding" have been sold, and there are more upon which their owners are keeping a suspicious watch.

Coöperative buying of feed has also been practiced to quite an extent. To date four carloads of bran, one carload of gluten and one carload of oil meal have been bought coöperatively, affecting a saving which was closely estimated to be about $425. One new member has been added to the association. Condensery is paying for December milk, $3.10 for 4 per cent milk with 3 cents additional for every additional point, and cheese factories are paying around $2.80 per hundredweight.

The forty-five-pound list for the thirty-day period ending December 13th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Wm. Warden					
Dolly, G. H.	8	10-19-17	1564	3.2	50.0
Baby, G. H.	4	10-16-17	1107	4.6	50.9
Carl Zimmerman					
Nichtern, G. H.	6	9-24-17	1398	4.2	58.7
Ernest Kuehn					
Dottie, G. H.	6	10-11-17	1439	3.7	53.2
Wm. Klug					
Lady Mary, G. H.	7	10-28-17	1213	3.8	46.1
Clara, G. H.	8	11-2-17	1194	3.8	45.4
Max Fehrer					
No. 4, G. H.	6		1073	4.2	45.1
Wm. Kanzenbach					
Nellie, G. H.	6	10-28-17	1575	3.2	50.4
Emil Ulrich					
Blossom, G. H.	10	10-19-17	1199	4.3	51.6

J. C. KELLETT, Official Tester,
Dodge County Cow-Testing Association.

Manitowoc Association.

To the Editor:—The Manitowoc County Cow-Testing Association reports 400 cows tested during the thirty days ending December 10th. Otto Rogne owns the highest producing cow which yielded 54.9 pounds butter fat. We are receiving $3 for 100 pounds of 4 per cent milk and proportionate amounts for lower or higher tests. Cheese factories paid frm 57 to 64 cents for butter fat during November. The forty-five-pound list for the thirty-day period ending December 10th is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Otto Rogne					
Clara, R. G.	4	10-17-17	1249	4.4	54.9
May, G. G.	3	10-31-17	1061	4.7	47.9
Joe Gintner, Jr.					
Spot, G. H.	10	10-31-17	1167	4.6	53.7
John Pritzl					
Murlottie, G. G.	6	8-10-17	933	5.2	48.5
Clarence Evanson					
Meek, R. H.	7	10-20-17	1165	4.5	52.4
Bryan Mullins					
Lucille, G. H.	6	9-20-17	1184	4.2	49.7

The Manitowoc Co. Cow-testing Association reports 400 cows tested during the 30 days ending December 10th. Otto Rogne owns the highest producing cow, which yielded 54.9 lbs. butterfat. We are receiving $3.00 for 100 lbs. of 4 per cent milk and proportionate amounts for lower or higher tests. Cheese factories paid from 57c to 64c for butterfat during November.

J. E. BOWSTEAD, Official Tester,
Manitowoc Co. Cow-Testing Association.

In Barron County.

To the Editor:—Enclosed find a list of cows in the Rice Lake and Cedar Lake Association for the month of November, producing forty-five pounds of butter fat or over. Wish you would please publish. The list is as follows:

Owner, name and breed.	Age.	When fresh.	Lbs. milk.	P.C. fat.	Lbs. b'fat.
Wm. Kinsey					
Hope, Holstein	5	10-11-17	1320	4	52.8
A. M. Chislaw					
Duchess, P. B. H.	10	10-13-17	1416	3.3	46.7
F. D. Stout					
Alice, P. B. G.	3	10-5-17	1416	4.7	48
Charity, P. B. G.	6	2-25-17	1146	5.2	59.5
Harry Stout					
No. 21, G.	.	.....	1008	4.6	46.3
No. 2, G.	.	.....	1017	4.8	48.8

LLOYD N. KOPP, Official Tester.

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Weight:—17 lbs.
Power Required:—1-6 H.P. per single unit, gas or electric.
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Protected Vacuum Valve Chamber:—patented; automatic—operates with no adjustments.
Demountable Claw:—seamless teat cups, improved mouthpiece rubbers, special grade rubber tubing.
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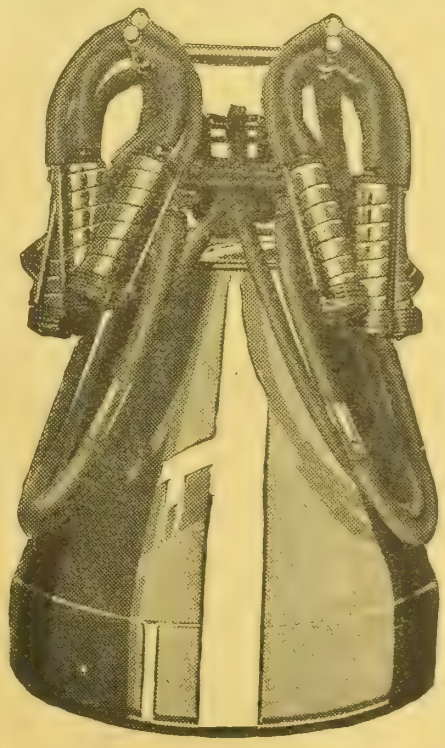

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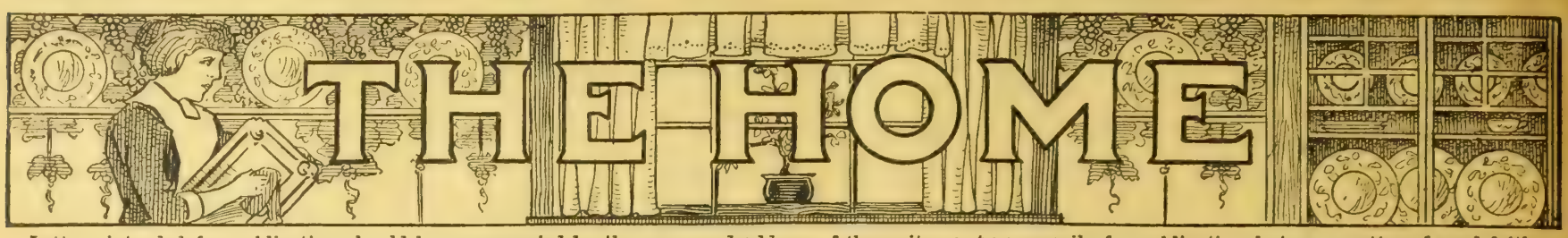

Letters intended for publication should be accompanied by the name and address of the writer, not necessarily for publication, but as a matter of good faith. All communications intended for this department should be addressed to Editor Home Dept., Wisconsin Farmer, Madison, Wis.

If Words Were Birds.

"If words were birds
And swiftly flew
From tips of lips
Owned, dear, by you,
Would they, today,
Be hawks and crows,
Or blue, and true, and sweet—
Who knows?

"Let's play today,
We choose the best;
Birds blue and true,
With dove-like breast.
'Tis queer, my dear,
We never knew
That words like birds
Had wings and flew."

Dried and Corned Beef.

I am very much interested in preserving beef and pork for home use and just now I should like very much to have some good recipes for corned beef and dried beef. I should be very glad to have you describe these processes.—O. S.

Meat from fat animals makes choicer corned beef than that from poor animals. The plate, rump, cross ribs and brisket are the pieces commonly used for this purpose. The meat should be cut into pieces five or six inches square and of a uniform thickness. It should be thoroughly cooked and corned as soon as possible, as any decay in the meat is likely to spoil the brine during the corning process. The meat should never be brined while it is frozen.

Weigh the meat and to each 100 pounds allow eight pounds of salt. Sprinkle a layer of salt one-quarter of an inch in depth over the bottom of the barrel, then pack in the meat as closely as possible, making a layer five or six inches in thickness. Cover this with a layer of salt and follow that with another layer of meat. Continue alternate layers until all the meat and salt have been packed in the barrel, saving enough of the salt to make a good layer over the top. Let this stand overnight, then for each 100 pounds of meat add four pounds of sugar, two ounces of baking soda and four ounces of saltpeter dissolved in a gallon of tepid water. It would require about three gallons more of water to cover this quantity. When the brine is poured over the meat, cover with a loose board and weigh down with a heavy stone or piece of iron so as to keep the meat all under the brine. If any should project, rust would start and the brine would spoil in a short time. Thorough corning should be complete in twenty-eight to forty days.

The brine need not be boiled except in warm weather. However, when the meat is corned during the winter and kept over into the summer, it is best to watch the brine closely during the spring, as it is more likely to spoil at that time than at any other. Should the brine appear to be ropy or not drip from the finger freely when immersed and lifted, it should be drained off the meat and new brine added, first washing the meat thoroughly.

For dried beef the round is most commonly used, the inside of the thigh being considered best, as it is a little more tender than the outside of the round. In preparing meat for dried beef cut lengthwise of the grain, so that the muscle fibers may be cut crosswise when the beef is sliced for table use. A tight jar or cask is necessary for curing.

For each 100 pounds of meat weigh out five pounds of salt, three pounds of granulated sugar and two ounces of saltpeter, and mix all together well. Rub the meat on all surfaces with a third of this mixture and pack it in the jar as tightly as possible. Allow it to remain three days, then remove it and rub again with another third of the mixture. Pack again in the jar, this time putting at the bottom the pieces that were on top the first time. After three days, remove and rub with the remaining third of the mixture and allow to stand for three days more, when it is ready to be removed from the pickle. The liquid which forms in the jar should not be removed, but the meat repacked in it each time. When the meat is finally removed from the pickle it should be smoked and hung in a dry attic or near the kitchen fire where the water will evaporate from it. It is ready for use at any time after smoking, although the longer it hangs in the dry atmosphere the drier it will become.

Use Care in Heating Homes.

Through careful firing, regulation of temperature in rooms, and other means, thousands of tons of coal and, incidentally, an enormous excess fuel bill may be saved this winter. This coal is needed in the development of war-time industries.

The furnace or stove should be fired at regular and frequent intervals, care being taken not to allow the fuel to burn too rapidly.

Some persons are in the habit of forcing fires, overheating their dwellings, and then opening doors and windows in order to maintain comfortable temperatures. This is a waste of fuel and results in depressing the vitality of the occupants of such homes. An overheated smoke pipe usually indicates poor fuel economy.

Living rooms should be kept at a temperature of approximately 68 degrees and bedrooms 60 degrees. A temperature of 68 degrees is sufficient for health and comfort if the air has the proper humidity. To maintain a temperature of 75 degrees requires 10 per cent additional fuel. An even temperature within the rooms promotes fuel economy and contributes to the good health of the occupants.

The fire of a furnace should burn evenly over the whole grate and should be kept free from bright spots. The fuel bed should be kept free from clinkers. Excessive shaking of grates should be avoided in order to prevent loss of fuel.

Five Hundred Cans of Food Her War Bit.

Among the thousands of visitors who examined the food conservation exhibit shown by Iowa State College at the International Live Stock Exposition at Chicago recently was an elderly woman, who told the story of how she had done her war garden bit.

She was a woman of considerable means, wife of a retired farmer, and had expected to live in ease the rest of her days. She spent the summer visiting in a large city with relatives. This family had a vacant lot, so she planted it herself with vegetables and garden truck and took care of it all summer long. Besides supplying the family, she canned over 500 cans for use this winter. "It was my war bit," she said.

Resting the Fern.

Some time ago I noticed on the Home page advice about fern growing. One of your subscribers who said she had good luck with ferns advised letting the plants rest for two months a year. I would like to know which are the best months for this and if the fern is to be taken out of the pot.—Mrs. A. P. W.

If you watch your fern carefully you will be able to tell when it is ready for its rest. At this time it will not make use of so much water and if the usual amount of water is given you will find that it stands on top of the dirt. When this condition exists, give less water—only such an amount as will readily sink into the dirt. The fern is not to be taken out of the pot, but should be cared for in the usual way. The idea is that during its period of rest the fern will not send out any new shoots and, therefore, it will not require so much water.

Troubled With Flies Among Flowers.

To the Editor:—I have been troubled a great deal this fall and winter with flies among my plants and flowers. I cannot seem to get rid of them and I have been wondering if any of the readers have had similar trouble and could tell me what to do. The flies collect thickly around the plants. I do not know what brings them or how to get rid of them and would greatly appreciate advice from others.

Mary LeKose.

Care of Chinese Lily Bulbs.

To the Editor:—Will someone please tell me how to take care of my Chinese lily bulbs after they are through blooming? Will the old bulbs bloom again, and how old must the little bulbs be before they will commence to bloom? I am anxious to save my bulbs for another blooming and should like to know just how to care for them. Perhaps some of the Home page flower lovers can tell me.

An Old Subscriber.

Recipes.

Cream Johnnycake.—Two cups corn meal, half a cup wheat flour, half a teaspoon salt and one teaspoon soda, two eggs, one cup sour cream and one cup sour milk. Sift together the corn meal, wheat flour, salt and soda. Beat the eggs; add sour cream and sour milk and beat again. Stir the two mixtures together. Bake in a pan of such size as to have the mixture half an inch deep.

Southern Hash.—One-half can tomatoes, one pound Hamburger steak, one cup rice, two onions (cut fine), salt and pepper to taste. Boil rice and drain. Add other ingredients. Cook onion in a little fat before mixing. Bake in oven one hour.

Spanish Beans.—Two cups kidney beans, two cups tomato, one cup finely cut onion, one-half cup pimento, two tablespoons drippings, two tablespoons flour, one tablespoon salt. Soak beans overnight; drain, cover with boiling water; boil slowly an hour and a half, or until tender. Drain and add sauce made as follows: Put fat in frying pan, add onion and chopped pimento and fry until tender, but not brown. Add tomato, salt and flour mixed with cold water. Boil five minutes. Pour over beans and simmer ten minutes.

Coddle Apples.—Six tart apples, one cup corn sirup, one-half cup water, stick of cinnamon, or lemon. Pare and core apples. Boil sirup, add cinnamon or lemon juice and place apples in saucepan. Cook slowly until apples are tender.

Honey Cookies.—One-half cup shortening, three-fourths cup sugar, one-half cup honey, grated rind of one lemon, one egg and one yolk, two cups flour, one cup barley flour, four level teaspoons baking powder, chopped almonds, one egg white and sugar for glazing. Cream the shortening; beat in the sugar, then the honey and lemon rind; add the egg and yolk beaten together, then the flour sifted with the baking powder; more flour may be required. Knead slightly, roll into a sheet, cut into rounds, set in a baking pan, rubbed over with fat, brush with the egg white (beaten slightly), sprinkle with the almonds and sugar and bake.

Boston Roast.—Two cups dried kidney beans, one cup bread crumbs, two cups grated cheese, three teaspoons salt, one-half cup liquid, one tablespoon chopped onion. Soak beans twenty-four hours. Cook in salted water until soft. Drain; put through food chopper, add onion, cheese, crumbs, more salt if needed, enough of the water in which the beans were cooked to moisten. Form into loaf. Bake in moderate oven for forty minutes. Baste occasionally with hot water and fat.

Delmonico Potatoes.—Cut cold potatoes into one-third-inch cubes. Prepare white sauce, using three tablespoons barley flour, three tablespoons fat and two cups milk. Arrange potatoes, white sauce and cheese in alternate layers in a baking dish. Cover with oiled crumbs made from barley biscuits. Bake in oven until thoroughly hot and crumbs are brown.

THE YOUNG FOLKS.

Has Brother in France.

Dear Young Folks:—I am a little girl eleven years old. I have auburn hair and blue eyes. I am in the sixth grade and go to town school. We live on a farm of 112 acres.

I have two sisters and six brothers. My youngest brother is over in France working in a base hospital. He has been there since May and he is helping to care for the poor wounded soldiers. The hospital accommodates 2,000 soldiers and about 200 helpers besides the nurses and doctors. My brother works in the quartermaster's department. He has worked in six other departments also. Anna.

Young Folks Enjoy Community Hall.

Dear Young Folks:—I thought I would write and tell you about our community hall. The boys' club met at the schoolhouse for awhile and so did the grange. The boys' club and the grange got the neighborhood to help and they built the hall. They built a basement below and a big room upstairs with a stage in front. They have entertainments, oyster suppers and ice cream suppers.

The boys' club meets on Tuesday night and the grange on Thursday night, and the ladies' aid meets on Wednesday afternoon.

The hall is built between the church and the schoolhouse. They have a stove in the basement to cook on, and some tables for serving.

Last year the grange had a big fair and they are going to have one again this year. At the last fair they showed cattle, horses and mules. They showed all of the fancy work in the hall. The second day of the fair they had a picnic and in the evening they played baseball.

I am ten years old and am in the fourth grade.

I hope the Young Folks will like my letter. Grace.

A Young Trapper.

Dear Young Folks:—I have never written to you before. I am a boy eight years old. I live on a farm of 200 acres and we have eight horses and fifty cattle. I help milk and do some trapping. I caught two skunks and one weasel. Have any of you done any trapping this year?

I go to school most every day and am in the fifth grade.

We have two horses that I can ride. Their names are Bird and Pet. Olaf.

Is Going to Knit for the Soldiers

Dear Young Folks:—I would like to join your circle. I am a little girl eleven years old, with brown eyes and dark hair. I live on a 160-acre farm. I have one brother and four sisters. My brother and two of my sisters are married.

My papa owns a big brown Luverne car. He raises Hereford cattle.

I am going to knit for the soldiers. What are the other girls doing?

I have a dog and two kittens for pets. I go to school and take music lessons every Wednesday night. Helen.

Thinks the Country Best Place to Live.

Dear Young Folks:—I have read your letters for a long time and think they are very nice. I am a little girl fourteen years old and in the seventh grade. We have to go one-half mile to school. I have two brothers and one sister old enough to go to school. My little brother is only nine months old. He is just learning to stand alone. We think he is just about right because he is so cute.

We live on a 160-acre farm, but it is not our farm; we just rent it from another. I would much rather live in the country than in town. I never lived in town, but I think I will take the country for mine. You have got the country for yourself and in the summer you can go out in the pastures and gather armfuls of flowers, and you can wade in the water in the brooks.

Write some more stories, Young Folks. I love to tell stories to the little children, but I don't know any new ones. Virchel.

Ask your neighbor to subscribe for The Wisconsin Farmer.

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1880—Boys' suit. The pattern is cut in 5 sizes: 6, 8, 10, 12 and 14 years. It requires 2⅞ yards of 36-inch material for the blouse, and 1 yard of 44-inch material for the trousers for the 8-year size. Price 10 cents.

1908—Ladies' nightgown. The pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 6⅛ yards of 36-inch material for a 36-inch size. Price 10 cents.

1953—Ladies' waist in surplice style. The pattern is in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires 2¾ yards of 44-inch material for a 36-inch size. Price 10 cents.

2144—A simple house dress. The pattern is cut in 7 sizes. 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 36 requires 6¼ yards of 36-inch material. Price 10 cents.

Waist 2152-Skirt 2153—A stylish gown. Pattern 2153 is cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. The waist pattern, 2152, is cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It will require 6½ yards of 44-inch material to make the entire dress of one material for a medium size. Two separate patterns, 10 cents for each pattern.

2174—A simple dress for school or play. The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2½ yards of 27-inch material for the dress and 1½ yards for the guimpe, for a 4-year size. Price 10 cents.

2185—Infants' set, consisting of a cap, a sack, a nightgown and a dress. For the dress of flouncing, it will require 1¾ yards of 36-inch material with 1¼ yards of plain material for yoke and sleeves. Of nainsook or lawn 36-inches wide it will require 2¼ yards. The gown will require 2½ yards of 24 or 27-inch material. The cap, ½ yard of 18-inch material. The sack requires ⅞ yard of 27-inch material. Price 10 cents.

2302—A pretty frock for mother's girl. The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. Size 10 requires 4¾ yards of 36-inch material. Price 10 cents.

2305—A new apron. The pattern is cut in 4 sizes: Small, 32 and 34; medium, 36 and 38; large, 40 and 42; extra large, 44 and 46 inches bust measure. Size medium requires 3⅜ yards of 36-inch material. Price 10 cents.

2312—A simple and attractive model. The pattern is cut in 3 sizes: 16, 18 and 20 years. Size 16 requires 4⅝ yards of 44-inch material. Price 10 cents.

Waist 2321-Skirt 2319—A new autumn frock. The waist pattern is cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt is cut in 7 sizes: 22, 24, 26, 28, 30, 32 and 34 inches waist measure. It will require 9 yards of 44-inch material for the entire dress for a 36-inch size. Two separate patterns, 10 cents for each pattern.

2323—A simple, stylish dress for the growing girl. The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 3⅜ yards of 44-inch material. Price 10 cents.

International Sunday School Lesson.

(By REV. P. B. FITZWATER, D. D., Teacher of English Bible in the Moody Bible Institute of Chicago.)

Lesson for December 30, 1917.

Review—God's Redeeming Love.

LESSON TEXT—Read Psalms 1:23; 1:24.

GOLDEN TEXT—With Jehovah there is loving kindness, and with him is plenteous redemption.—Ps. 130:7.

The lessons of the past year are the only ones in the six years course which are divided between the Old and the New Testament; therefore, at the close of this year we will review only the last two quarters, emphasizing the fourth which has just been completed.

Like Moses on Mount Nebo, let us glance over the whole period of the monarchy and note the progress and development of the Jewish people. The Jewish race is the marvel of all times, a nation without a country, scattered and peeled, chastised and driven from sea to sea, even slain in large numbers; yet possessed of a vitality which has caused them to endure through the centuries. Their contribution to the civilization of the world has been immeasurable. There is no walk or rank in life, in politics, literature, art science, business, religion, or any other realm where they have not made their impress and rendered their contribution. Any movement which seeks to promote their welfare and to strengthen the bonds of sympathy which preserve race feelings, deserves the aid of all patriotic, liberty loving, God-fearing people, for the Jews are still God's chosen heritage.

The united kingdom with its three kings, Saul, David and Solomon, lasted from about 1100 B. C. to 983 (Meecher), a period of 120 years. Then begins the divided kingdom—Judah and Israel side by side, a double experiment in the progress of the kingdom of God. This period extended from about 982 B. C. to approximately 723, or 721 B. C. Judah had a territory of about 3,400 square miles; Israel 9,400. Judah's capital was Jerusalem; in which was the temple; Israel's capital was Samaria, while it had two centers of false worship. Judah was more sheltered than Israel from close contact with heathenism, especially politically and religiously. Judah had one dynasty of rulers; eleven kings and one queen, all of them from the house of David. Israel had nineteen kings, belonging to nine different families or dynasties. Judah had several very good kings, and there were marked revivals of religion, of prosperity and of deterioration of varying degrees, though resisted from time to time and helped along moral and religious lines through the work of Elijah and Elisha the prophets. The final period of events of this past quarter have reference to Judah alone from the days of Hezekiah, B. C. 722, to the time of the destruction of the city and the temple being destroyed 586 B. C., and lastly we have the period of the exile from the first captivity in 605 B. C. to the restoration and the new temple being erected 516 B. C. This was a period of great discipline and sifting as like unto wheat or of a purifying fire.

The return from exile and the new spiritual nation, dates from about 536 to the close of Bible history, say 400 years before the coming of Christ. A map should be used, and the scholars ought to be familiar with the contemporaneous secular history. There are several particular lessons we ought to learn from this history.

First: Every failure, every moral wrong, every fall into idolatry, every diminution of power for good is the result of a separation from God—a departure from the ways of God and righteousness. It also shows us that God's constant solicitude that the Jews should be kept separate from heathenism and idolatry, had in it the best interests of his own people and could only lead to those blessings which he had prepared for his particular people.

Secondly: The overthrow of Israel is directly attributed to its complete abandonment to idolatry. Beginning with false worship and a dependence upon men, there was the introduction of idolatry and a development of evil which led to a rapid decline, the introduction of revolutions and the final extinguishment of the kingdom.

As to Judah, it finally was brought into captivity because that was the only way that God could purge the nation from the sin of idolatry. They must be taught that there is but one God, that the word of God must be obeyed, and that their safety lay in the faith which they placed in his promises. Th leaders of this period were Zerubbabel, Ezra and Nehemiah, heroic men, men of great consecration and power; also, Esther, the heroine. The prophets of this period are Daniel, Isaiah, Haggai, Zechariah, Malachi. Notice how each and every one aided the cause of righteousness.

There are two great heroes of the return, Ezra and Nehemiah. Take up the actions of each and show how he proved his heroism. A good method of reviewing the past quarter will be to summarize the teachings which center about these two great men. The period of the return is the one that we should emphasize, showing how a return to God and an obedience of his law is the paramount need of the present day in which we live, these days of darkness and evil upon which the world has fallen.

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Round Herring	8c	Round Wall-eyed Pike	15c
Dressed Sablefish	14c	Dressed Red Snappers	14c
Round Tullibee Whitefish	12c	Round Ocean Whiting	9c
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For 50-lb. boxes add 25c.

Will ship any assortment of above fish in 50 and 100-lb. boxes. Full weight and quality guaranteed. Write for price list of other fish and recipes.

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Live Stock and Commercial Field Notes

Collected by Representatives of The Wisconsin Farmer

Johnson Bros.' Great Duroc Offering.

JOHNSON BROS., the premier Duroc Jersey breeders of Winnebago, Minn., sell bred sows this year on Tuesday, January 8th, which starts the "ball rolling" in the Northwest. The entire offering will be made up of tried sows or fall and spring yearlings. These yearlings have been carried over open and naturally they have more size than if they had raised litters when around a year old. It is a great offering from start to finish and any man in need of a few registered Duroc sows should attend this sale. There will be two choice sows by that great breeding boar, Fancy's Victor, that Johnson Bros. had the misfortune to lose last summer. Six daughters of King the Col. would be attractions in any sale. Six by Pathfinder will be attractions. Three of them are half sisters to the Sensational High Orion. They are fall yearlings and big. One of the best sows in the sale is by Chief of Cols. Everyone appreciates this good breeding. A Pal's Premier sow will appeal to many. A sow by Golden Model 9th would look good in most any herd. Besides those mentioned there will be several daughters of the grand champion, Royal King. Some by Chief's Col. 40th, Gano Model Educator, Col. Pilot Wonder, Educator, etc. This is a sale that prospective buyers cannot go wrong on. The Johnson Bros. have the goods and The Wisconsin Farmer does not hesitate to recommend the offering. Wisconsin men that have made good in the breeding business are the ones that have gone out and bought the best. Many in the sale are bred to Orion King, he by Orion Cherry King. Orion King is a full brother to King Orion Cherry, the sire of the 26 spring boars that sold in a recent sale for an average of $420. Some have been bred to Royal King 2d, the best son of Royal King. Orion Combination has been used—he is a son of the well-known John's Combination. You can find what you want in this sale. By all means, get a catalog and if possible attend this great sale. Wisconsin breeders can leave La Crosse the night before the sale on the C., M. & St. P. and go to Austin; stay there that night and go to Winnebago the morning of the 8th; or go to Mankato, Minn., and down to Winnebago from there. If you can't attend send bids to T. P. Shreve. See advertisement on page 22.—Adv.

Stoehr's Orion King.

ORION KING, one of the best sons of the Wisconsin and Minnesota grand champion Duroc, King Orion, is owned by Mike Stoehr, Viroqua, Wis. Few boars in the state can claim a better pedigree. The world's champion Duroc sire is Orion Cherry King, for the get of this great boar has "cleaned the slate" the past two years at all the big shows. Orion Cherry King is the sire of Orion Cherry King Jr., the grand champion boar at Omaha in 1916, that sold for $3,500. Orion Cherry King Jr. is the sire of King Orion, the grand champion boar at the Minnesota and Wisconsin State Fairs, 1917. King Orion is the sire of Orion King. By this you can see that Orion King is no accident—he is produced from a line of breeding that has made good in the show ring and breeding pens. Mr. Stoehr has some good big sows in his herd. Their daughters have been bred to Orion King and are now being offered for sale. They are good and when you get your litter next spring by Orion King you will be glad that you bought a gilt from Stoehr. Write him for further information, and please mention The Wisconsin Farmer. See page 23.—Adv.

Maltby Has Two Good Boars.

C. S. MALTBY, Janesville, Wis., has two big-type Poland China boars that he has reason to feel proud of. Smooth King, a yearling, is big in every respect and is the sire of a bunch of gilts having the same characteristics. He is sired by Goldengate King, a sire of note. To cross on the get of this boar Mr. Maltby purchased a spring boar sired by Mouw's Black Jumbo, the Poppen boar, and he is out of a dam by Mouw's Chief, said by many to be the best living Poland China sire. He is the sire of Chief Defender, the Illinois grand champion. This pig has been recorded as Maltby's Black Jumbo. Smooth King gilts bred to Maltby's Black Jumbo should produce Polands that command attention. Mr. Maltby has a limited number of gilts for sale at reasonable prices. He will also sell a few tried sows and yearlings. These are safe in pig and if you are interested write the owner for details and prices. Note the advertisement on page 23. When writing please mention The Wisconsin Farmer.—Adv.

Turning Trees Into Firewood.

THE coal shortage is making a [illegible] wood [illegible] substitute for coal, so if you have timber on your land which can be turned into fuel, you will be doing a patriotic act [illegible] enough for your own use and putting what you don't need on the market to be sold at good prices. Cutting down trees and sawing up the logs is not as hard a job as it seems. The hard work has been taken out of it by the Folding Sawing Machine made and sold by the Folding Sawing Machine Co., 161 W. Harrison Street, Chicago, Ill. Their advertisement is on page 11. Read it and write for information.—Adv.

Waukesha Stock Farm.

F. E. FOX, Waukesha, Wis., proprietor of the above farm, writes that he has had five cows which have just finished records with an average of 609 pounds butter fat. This is a sample of some of the splendid work which Mr. Fox has been doing along the A. R. lines of herd improvement. The herd sire now standing at the head of this large, well-known herd is Benton's May King of Ingleside 27446, a four-year-old bull of much promise and great A. R. backing. Practically all of the cows in this herd are in calf to the above sire. The sire of Mr. Fox's herd bull is May King of Ingleside, that has sired 19 A. R. cows and that is in turn by Imp. King of the May, the noted May Rose bull that sired Langwater Hope, 1,003 pounds fat at six years. The dam of May King of Ingleside is Dolly Bloom of Langwater, A. R. 674, milk 12,024 pounds, fat 632 pounds and has a daughter with a record of 867 pounds fat. The dam of Benton's May King of Ingleside is Benton's Lady Chesterbrook of Ingleside and has a record of 690 pounds fat at five years, which places her at the head of the roll of honor class AA, as she carried a calf 265 days out of the 365 days on test. She is now on retest and will finish with about 750 pounds fat. Breeders looking for a place to get high-class foundation stock should keep this herd in mind and write to F. E. Fox, who is a prompt correspondent.—Adv.

J. J. Reid & Son, Oconomowoc, Wis.

SEVERAL weeks ago we received a picture of Ashburn Sir Ormsby Segis from the above firm that is a particularly well marked and handsome bull calf, sired by Sir Johanna Belle Boy, a grandson of Colantha Johanna Lad and out of Ashburn Segis Pauline, a very promising cow, that made 26.57 pounds butter in seven days as a junior three year old. This cow is a granddaughter of King Segis and was winner of Holstein-Friesian prize money in 1916. She likewise has 25 per cent of the same breeding as Segis Fayne Johanna, the only 50-pound cow. Write J. J. Reid & Son about him.—Adv.

Cole Buys Gerstdale Jones Boar.

WE have a letter from J. D. McDonald, West Salem, advising that he sold one of the Gerstdale Jones boars to A. W. Cole, Lodi, Wis. The boar purchased by Mr. Cole, was, in the opinion of many, the best boar in the litter. He is being bred to some of the best Poland China gilts that we have seen this fall. Cole has the goods from start to finish. When one can drive onto a farm and find 20 spring gilts that will average 275 pounds by the 10th of December, you can rest assured that he has the goods. These grand gilts are safe in pig to this son of the $6,600 Gerstdale Jones. See page 23.—Adv.

The Old Reliable.

P. N. COLLINS, River Falls, Wis., is one of Wisconsin's breeders who do not make very much noise, but he is selling registered stock all the time. He has the strictly big-type Poland Chinas and if you want anything in this line, he can fill the bill. He has a herd of Short-horn cattle and stock for sale at all times of the year. Mr. Collins has been a regular advertiser in The Wisconsin Farmer for many years and we have never had a complaint concerning his dealings. We gladly recommend him. We only ask that you mention The Wisconsin Farmer when writing for information. See page 23.—Adv.

Smiley Preparing for Great Sale Offering.

WE are glad to report that Wm. Smiley & Sons, Viroqua, Wis., will have the best line-up for their sow sale February 22d they have ever had. The gilts are doing fine and are being bred in good season. Many of them are safe in pig to Grandmaster Bob, he by a son of Big Bob out of an [illegible] pound daughter of Grand Master. We will have more to say later, but don't forget the Smileys this winter—they will sell you good, big Polands.—Adv.

Pellett & Sons' Chesters.

JOHN PELLETT & SONS, Viola, Wis., have two good Chester White spring boars and a few choice gilts priced for quick sale. The sows will be or have been bred to good boars and will be kept until safe in pig. They also have a litter of September pigs that are fine. Write these breeders for further information. See page 21.—Adv.

John Notseter, Deerfield, Wis.

ABOUT a week ago we spent a very delightful afternoon at Mr. Notseter's home and during the visit had a splendid opportunity to survey his excellent herd of Short-horns. The first glance at this herd was enough to convince anyone that Mr. Notseter had been breeding Short-horns for a good many years and that he was in love with the business. The uniformity of the herd also indicated that they had been bred along definite lines, likewise the disposition of the cattle indicated that they had been cared for by people who had their best interests at heart. In looking through a herd of cattle it is not difficult to form quite accurate opinions as to how it has been assembled and what care it has received. Our impressions of Mr. Notseter's herd were the best, and we believe that breeders on the market for Short-horn bulls that will give satisfactory service should inquire for particulars concerning the animals on this farm that are now being offered for sale. A number of years ago Mr. Notseter purchased two particularly good foundation cows; one of these cows was named Molly and the other Miranda. Most of the animals in Mr. Notseter's herd are either direct or indirect descendants from these two cows. Mr. Notseter is now offering a splendid two-year-old bull for sale, as well as three bull calves ranging from seven to nine months of age. See advertisement on page 21.—Adv.

Remember the Minnesota Short-horn Sale.

AS a last reminder we want to call your attention to that important event at South St. Paul, January 4th and 5th, when the Minnesota Short-horn Breeders hold a show and sale of some 90 head of cows, heifers and bulls. On the first day, Secretary F. W. Harding will judge the cattle. That evening there will be a banquet worth going miles to attend. On January 5th the cattle will be sold, sale starting at 9:30 a. m. Attend this sale if interested in cattle of this breed. If you have not received a catalog write to P. S. Jordan, Morris, Minn. When so doing kindly mention The Wisconsin Farmer.—Adv.

Field Men for The Wisconsin Farmer.

J. R. Garver, eastern half of Wisconsin. Address Room 201, Washington Bldg., Madison, Wis.

T. P. Shreve, western half Wisconsin and eastern Minnesota. Address 115 S. Main St., Janesville, Wis.

W. S. Steele, northwest Iowa, South Dakota, western Minnesota. Address Box 109, Sioux City, Iowa.

Fred V. Johnson, Wisconsin, Illinois, Indiana, Ohio, Michigan and Kentucky. Address 924 Hearst Bldg., Chicago, Ill.

Carlos C. Palmer, eastern half of Iowa and Minnesota and swine division in Illinois. Address 2714 High St., Des Moines, Iowa.

A. T. Cole, Missouri. Address 3900 Holmes St., Kansas City, Mo.

M. T. White, western Iowa and northeastern Nebraska. Address 4015 Izard St., Omaha, Neb.

The Burt Farms.

F. H. BURT, Duroc breeder, Brodhead, Wis., writes that his boars have sold well and that he only has a few left. Those on hand weigh from 200 to 270 pounds, the big, growthy kind, and they should make good in the breeding pen. He offers 40 spring gilts and when we last saw this lot, they were the best we ever saw on the Burt Farms. Mr. Burt says they weigh up to 260 pounds and are safe in pig to Great Model 229509, the boar that stood third at Milwaukee last fall and headed the futurity herd. Write him for Duroc information and please mention The Wisconsin Farmer. See page 23.—Adv.

Ceylon Court Farm, Lake Geneva, Wis.

GLENN G. GILBERT, manager, reports that they have just recently sold Loved One's Noble Lad, a yearling bull of much promise, to E. E. Sisson, of Burton View, Ill. This youngster is a grandson of Noble of Oaklands and Eminent. His breeding is well-known throughout Wisconsin and we suggest that Jersey breeders throughout the state desiring animals bred along these lines should get in touch with the Ceylon Court Farm at once, as their sale list is worthy of careful inspection. See advertisement on page 20.—Adv.

Do You Want Red Polls?

L. C. UNDERWOOD, Avoca, Wis., has on hand a fine assortment of Red Poll bulls. Mr. Underwood has one of the best producing herds in Wisconsin and it is an asset to own a bull coming from this good herd. The cows have made creditable A. R. records and if wanting a bull that has the proper backing, let Mr. Underwood quote prices and description. Kindly mention The Wisconsin Farmer when writing for information. See page 21.—Adv.

Hurry if You Want One of Fred Gurr's Polkadot Calves.

FRED GURR, Lake Mills, Wis., writes that he has just sold another one of his choice sons of King Segis Pontiac Polkadot, a full brother in breeding to the Sunset Hall King Segis Pontiac Alcartra. Anyone desiring a bull bred along these lines should write to Mr. Gurr and get order in early. See advertisement on page 20.—Adv.

Birch & Thompson and Bartlett Hereford Sale.

SIXTY head of representative Hereford cattle from the herds of Birch & Thompson and A. C. Bartlett, Lake Geneva, Wis., will be offered at public sale at Chicago, Wednesday, January 9th, and the buying public will be pleased with the offering in its entirety. Birch & Thompson sell 20 of their best breeding cows, 10 with calves at foot by Bonnie Brae 43d, Beau Perfection 33d, Fred Real, while there are a number of cows and heifers bred to these bulls and also to Beau Gomez 2d, a son of the $4,000 Beau Gomez. In the female list is Cora Fairfax by the champion Perfection Fairfax, one of the good things to go through a sale ring this season. The Bonnie Brae bred Miss Princess 20th is a deep, thick, typey one, right sort in every way, and a top one in any sale. Miss Gem 11th, with a heifer calf at foot by Fred Real and rebred to Beau Gomez 2d, represents value in every way. There are a number of heifers in this offering of great promise. Birch & Thompson sell a proven sire in Beau Gomez 2d by Beau Gomez. They are also selling two senior yearling Fairfaxes, Beau Fairfax 2d by $4,000 Beau Fairfax and Emperor Fairfax by Prince Fairfax, that are worthy of consideration. Four strong yearling bulls, the get of Beau Perfection 33d, McVeigh and Homer, are also listed. On part of Mr. Bartlett the sale is practically a dispersion, as his herd manager has been drafted for war, and, as Mr. Bartlett cannot readily fill his place he is reducing his herd to the lowest possible point. There are 13 breeding cows in his offering of the right kind, and seven sell with lusty calves at foot. Practically everything of breeding age is bred to Imp. Eaton Druid or Hero's Meddler, a son of Bonnie Brae 43d. These cows and heifers have had no particular fitting, but are in good shape, and will certainly make money for the buyer. Mr. Bartlett also sells the imported bull, Eaton Druid. He was one of the best bulls brought over by the late George Leigh in his last importation, and his calves show him to be a sire of merit. The breeder looking for an entirely new strain of blood will do well to give consideration to this bull. This entire lot of Herefords will stand inspection. The sale should have liberal support. The advertisement appears on page 21. Look it up and write for copy of the catalog to Birch & Thompson, Lake Geneva, Wis. Kindly mention this paper when you write.—Adv.

Henry Wenham, Milton, Wis.

HOGMEN looking for Duroc Jersey bargains will find them in Mr. Wenham's herd. He is now offering two young sows that are half sisters to King Defender, being out of the same sow as this noted boar. They are both safely in pig to Col. Volunteer bred by Mr. Parker at Janesville, sire Royal King and dam Brown Lady. Mr. Wenham also has a number of choice gilts having plenty of stretch, good bone and splendid backs. These gilts are not bred and we are confident that farmers looking for this class of hogs will find them priced satisfactorily by Mr. Wenham, who has decided to reduce his herd on account of the shortage of his corn crop. See the advertisement on page 23.—Adv.

Ackerman, of Grant County.

W. F. ACKERMAN, Glen Haven, Wis., has one of the good Poland herds in Grant county. He is now in a position to sell bred gilts worth the money. His gilts have been well grown and we are sure they will give satisfaction—the Ackerman Polands always do. They are bred and safe in pig to a Master's Giant-Orange Wonder bred boar. We gladly refer you to Mr. Ackerman. See page 23.—Adv.

A Little More Than Pork Price.

CARL HICKCOX, Spring Green, Wis., writes that he only has eight spring Chester White boars left and in order to clean up in a hurry he will sell these at practically market price. The boars are all right and two of them are out of the top sow in the Burlington sale last winter. Write Mr. Hickcox. See page 21.—Adv.

Maurer's Good Short-horn Business.

RICHARD MAURER & SONS, Fox Lake, Wis., write that they have been having a fine demand for young Short-horn bulls. This firm has some good cattle, Scotch and Scotch-topped breedings, and will gladly quote prices and description on whatever you may wish to buy. Write them. See page 21.—Adv.

Siebecker at Baraboo.

L. R. SIEBECKER, Baraboo, Wis., has a few well-bred boars for sale. He is one of the younger breeders and does not expect to get long prices, but he will give you value received. See page 23.—Adv.

Good Durocs.

W. A. WEBER & SONS, Poynette, Wis., are offering a nice lot of Duroc Jersey spring gilts bred to a very good boar. Their price is in keeping with individuality and breed-

ing. We are glad to recommend these breeders to prospective buyers. See page 23.—Adv.

Ames Bros. to Sell, January 28th.

AMES BROS. the genial Duroc breeders of Weaver, Minn., who own, what we consider, the best son of Pathfinder in the Northwest, will hold their annual sale of bred sows on Monday, January 28th. This sale will be the first of the Wisconsin circuit of Duroc sales and we are glad to say that the offering will compare favorably with any of the week. They will sell 50 head and about 40 of this number have been bred to Pathfinder Disturber, the boar mentioned above. No good breeder of the Northwest will want to be without a spring litter by this good boar. They are also using a son of the Minnesota and Wisconsin grand champion and a son of the $2,500 boar, Giant Invincible. Don't forget the date and watch the January 10th issue of The Wisconsin Farmer for further announcement. If you are going to want a catalog of this sale, make your wants known now to Ames Bros., Weaver, Minn.—Adv.

Howell and Gerrits, Waukesha, Wis.

THE Howell & Gerrits herd has until recently been known as the D. J. Howell Holstein herd, a herd that has been conspicuous in Waukesha county for a number of years and particularly at the recent Holstein sales. It was Mr. Howell's two-year-old heifer that topped the sale last spring. His consignments have always been well fitted and have consequently brought the best prices. They are now offering at private sale a 30-pound son of Sir Beets Cornucopia Netherland and from a 31-pound dam that has a yearly record of 879.49 pounds of butter to her credit. This 31-pound bull calf was born February 24th and is a nice, straight individual. It seems to us that he is a bargain at $400. It will pay breeders interested in such a calf to call on Howell & Gerrits at once for further particulars. See advertisement on page 20.—Adv.

Hewitt Chester Offer.

MR. HEWITT, the Chester breeder living at Galesville, Wis., starts an advertisement in this issue calling attention to Chester White boars that he has for sale. He has some 14 head and they are well bred and well grown and they are priced for quick sale. The man that wants a boar of this breeding will make no mistake if he gets in touch with Mr. Hewitt at once. Most of the breeders, who have been advertising, are sold out, but Mr. Hewitt's advertisement is just starting and you get the pick from a good herd. This breeder has a good lot of sows and they are being bred to a litter mate to the grand champion boar at the Minnesota State Fair this year. Note the advertisement on this page, and when writing for details please mention The Wisconsin Farmer.—Adv.

William Bowe's Poland China Offer.

MR. BOWE states that he has an exceptionally fine lot of Polands for sale and that he will make the following offer to anyone purchasing these hogs, which to us seems very fair. Mr. Bowe is so confident that they will meet the approval of purchasers that he is willing to refund the purchase price and pay the express one way on any animal returned. Anyone looking for high-class Polands should get in touch with Mr. Bowe at once. address him at Fox Lake, Wis. See page 23.—Adv.

P. S. Johnson, Kilbourn, Wisconsin.

MR. JOHNSON states that he has a number of choice bull calves from A. R. O. dams for sale, as well as a limited number of splendid females. See advertisement on page 20.—Adv.

R. J. Thomson, Austin, Minn.

FARMERS interested in fancy poultry, especially the leading varieties, should write for Mr. Thomson's 1918 catalog.—Adv.

With the Duroc Men in Illinois.

FOR the benefit of the Durocs in Wisconsin, the writer called on several Duroc breeders in Illinois who breed and raise hogs of this color believing that Wisconsin needs a little more variety of breeding. We called on the men that had boars with national reputation or sired by same.

The man that owned Orion Chief, The Professor and many other history-making boars is Henry Matern, Lostant, Ill., a breeder that has contributed much to Duroc history. The attraction on the Matern farm is Financial King, a son of L. E.'s Valley King out of a dam by The Professor. Financial King traces five times to Ohio Chief. He is big, a wonderful back, the best of feet and bone in fact is a show boar. He was second at Springfield and Chicago and first at Peoria in 1916. This year he was first at Springfield and second at Chicago, but he was the favorite at Chicago for first and champion. Eminent Chief is another good boar on this farm. He is sired by Cherry Chief and was first at Springfield and Peoria as a senior yearling last year. Honey Boy is a senior yearling by Orion Cherry King. Matern sells Durocs on January 23d—watch for the advertisement in the January 3d and 10th issues. Wisconsin men can use this breeding.

Everett & McDowell, Streator, Ill., have one of the best Duroc herds we saw and they have the best Orion Cherry King boar, age considered, June 26, 1916, that we have seen. They call him Orion Cherry King 7th. He is high up, has a fine-arched back, and ideal head and good eye and feet that are perfect. This boar has been used on some grand sows in this herd. Proud Helen by Proud Col. and the dam of Atwater's grand champion sow, Proud Helen 2d, is owned in this herd. This sale will be advertised in The Wisconsin Farmer. The sale will be held February 7th. Here is what will be found in the sale: Sows by High Chief, American Cherry Chief, American Top Col., O. C. K. Col., Cherry Chief I Am, Col. Jack and Cherry Chief. Don't forget Orion Cherry King 7th, without a doubt one of the best of the Orion Cherry Kings.

At the home of O. C. K.'s Chief. No boar in Illinois has caused as much sensation during the last few months as O. C. K.'s Chief, the massive son of Orion Cherry King. This boar is the biggest O. C. K. boar, combined with quality that the writer has seen. Many of the boars of this breeding are high, have good backs, etc., but this boar is tall yet he has a great spring of rib, deep sides and excellent in the ham. In our estimation he is the best aged boar of this breeding that we know of. W. H. Garber, Washington, Ill., (first station out of Peoria) is the owner of this good boar. He made a boar sale in October and sold 38 at an average of $80—this was his first sale. Mr. Garber holds a bred sow sale on Saturday, January 19th, and will sell 50 head of fancy sows and gilts. Forty will be bred to O. C. K.'s Chief. This sale will be advertised in the January 10th issue of The Wisconsin Farmer. Watch for it so you can get a catalog.

At Van Meter's we had a real feast. These breeders sure have the good ones and when January 22d rolls around we feel safe in saying they will drive into the ring an offering of big sows and gilts that have never been equaled in an Illinois sale. In the first place Cherry Chief Wonder is without a doubt as good a breeding boar as old Cherry Chief ever sired. His get has won more prizes at the Illinois State Fair the last year than all other boars combined. Mollie Wonder 1st, the Illinois grand champion, will be the real attraction. Litter sisters to her also sell. Futurity winners, first-prize yearlings, in fact the aristocracy of the breed. Cherry Chief Wonder gilts have been bred to Van's Orion Cherry King, a mammoth son of Orion Cherry King. To make a long story short this is one of the greatest sale offerings of the year. We will have more to say in The Wisconsin Farmer in the issues of January 3d and 10th. If you should want to write them, the address is W. H. & A. D. Van Meter, Williamsville, Ill.—Adv.

SALE DATES.

Duroc Jersey Swine.

Jan. 8, Johnson Bros., Winnebago, Minn.
Jan. 22, W. B. & A. D. Van Meter, Williamsville, Ill.
Jan. 19, W. H. Garber, Washington, Ill.
Jan. 22, Hugh Irwin, Ireton, Iowa.
Jan. 25, Grant County Duroc Breeders, Fennimore, Wis. Wm. C. Edge, Secy.
Jan. 28, Ames Bros., Weaver, Minn.
Jan. 28, Rock County Duroc Jersey Breeders, John L. Fisher, Mgr., Janesville, Wis.
Jan. 29, Dennis Shea, Melvina, Wis.
Jan. 30, L. F. Atwater, Bangor, Wis.
Jan. 31, Riley Martiny & Son, Baraboo, Wis.
Feb. 1, Ed H. Parker & Son, Janesville, Wis.
Feb. 2, Gant's Farm, Delavan, Wis.
Feb. 7, Everett & McDowell, Streator, Ill.
Feb. 21, State Assn. Sale (9:30 a. m.), Madison. J. D. Gant, Secretary, Delavan.

Hampshire Swine.

Feb. 21, State Assn. Sale (1:30 p. m.), Madison. A. L. Damon, Richland Center.

Poland China Swine.

Feb. 5, P. W. Young, Prosper, Minn.
Feb. 6, J. D. McDonald, North Bend, Wis. (Sale at West Salem.)
Feb. 7, Grant County Breeders' Sale, Lancaster, Wis. (Burlie Dobson, secretary.)
Feb. 8, Bert Irwin, Mt. Carroll, Ill.
Feb. 12, E. W. Hendricks, Hazel Green, Wis.
Feb. 13, J. C. Hendricks, Hazel Green, Wis.
Feb. 21, State Assn. Sale (7:00 p. m.), Madison. Burlie Dobson, Lancaster.
Feb. 22, Wm. Smiley & Sons, Albany, Wis.
Mar. 12, M. V. Miller, Lawler, Iowa.

Chester White Swine.

Feb. 19, Combination Sale (Wm. Butts, Walter George, B. H. Babcock), Evansville, Wis.
Feb. 20, State Association Sale, Madison, Wis. A. H. Kuhlman, Secy., Madison, Wis.
Feb. 26, H. A. Derenthal, Wykoff, Minn.
Feb. 26, G. F. Smith, St. Charles, Minn.
Feb. 27, H. A. Derenthal, Wykoff, Minn.

Short-horn Cattle.

Feb. 18-22. Short-horn Congress Sale, Chicago.
Mar. 15, Interstate Short-horn Breeders' Assn. Bull Sale, Sioux City, Iowa.

Hereford Cattle.

Jan. 9, Burch & Thompson and A. C. Bartlett, Lake Geneva, Wis. (Sale at Chicago.)

Short-horn Cattle and Percheron Horses.

Feb. 26, Griswold Bros., Livingston, Wis.

Holstein-Friesian Cattle.

April 4-5, Inter-County Holstein Sale, Watertown, Wis.

Draft Horses.

Jan. 22-25, Breeders' Sale Co., Bloomington, Ill. C. W. Hurt, manager.

A. W. Arnold's Short-horn Sale.

A. W. Arnold held his first public sale of registered Short-horn cattle at his farm near Galesville, Wis., December 20th, the result of which was very satisfactory to all concerned. The cattle were sold in ordinary condition, in fact many of them were too thin to bring their full value. Many good cows with large calves at foot were the real good buys and the men that were fortunate in getting such should feel duly proud of their buys. The top of the sale was Dale's Star, a roan senior yearling that was a winner at many of the fall fairs. He is sired by Dale Clarion, a son of the great sire, Double Dale. On the dam s side he comes from the Cruickshank Victoria family, one of the most popular of the Scotch families. This bull goes to head the good Richard Maurer & Sons' herd at Fox Lake, Wis., at $1,000. The next top of the sale, also a bull and a full brother to the $1,000 bull, was Dale's Victoria. He went to Hammer Bros., Cooperstown, N. D., at $780. This was a great pair of bulls and were well worth the money paid for them. The top of the females was White Beauty, a two-year-old heifer sired by White Rock, he by Whitehall Sultan, and bought by Chas. Rogers & Son, Union Center, Wis., for $450. The dam is of the noted Campbell Mina tribe. She was well along in calf to Dale's Star, the $1,000 bull. Wisconsin men were on hand to buy cattle. One of the largest crowds we have seen at a sale this year was in attendance and practically everything in the sale went to Wisconsin buyers. It was a good, clean sale in every respect and Mr. Arnold is to be congratulated on the businesslike manner in which he conducted the sale. H. O. Tellier sold the offering.

SUMMARY.

12 bulls	$ 3,740;	average....	$312
42 females	8,720;	average....	208
54 head	12,460;	average....	231

TOO LATE TO CLASSIFY.

SPECIAL
CHESTER INDUCEMENTS

I HAVE A FEW real good CHESTER WHITE boars that I will sell worth the money. They are well bred and in good condition and I guarantee them breeders and right in every way. Priced cheap.
M. R. HEWITT :: :: :: :: Galesville, Wis.

ORION COL. S.
by Col. S. Jr. and
PATHFINDER ORION
by Pathfinder.
DUROC GILTS bred to above boars will be offered later. Address
W. C. JENKINS Bangor, Wis.

RED POLLED CATTLE.

BULLS
SOME RED POLLS from A. R. dams that are very choice. I can suit you with cattle of this breed. Try me.
L. C. UNDERWOOD Avoca, Wis.

Headquarters for
RED POLLED CATTLE
When in need of a HERD BULL see
J. W. SALTER & SONS Unity, Wis.

RED POLLED CATTLE
A FEW nice young bulls and heifers for sale. Address WM. WULFF, Grafton, Wis.

ABERDEEN ANGUS CATTLE.

RAISE
BABY BEEF
ABERDEEN ANGUS THE PREMIER BEEF BREED. Grant County is Wisconsin headquarters; 800 head of registered Angus cattle. Let us supply you with a bull or some females. Write Walter J. Steinhoff, Secretary Grant County Aberdeen Angus Breeders' Assn., Platteville, Wis.

THE MARKETS.

Union Stockyards, Chicago, Ill., December 22.—Live stock feeders all over the country are confronted with a situation that in some respects is unusual and discouraging. Right at the time when everybody is trying to do his bit and when statistics showed that the corn crop was the largest on record, feeders find their corn soft and very inefficient as a fat producer. In reality the actual crop of corn that is merchantable and dry enough to crib safely is small. There is only one thing that can be done with it and that is to feed it as quickly as possible. This is being done, but results are unsatisfactory. Thousands of cattle are being forced on the market in a half-fat and unfinished condition because the corn is not producing the gain that is ordinarily expected. Receipts of cattle for the current month have been much larger than usual for this time of the year due partly to the rush of range cattle from the West which showed the impatience of ranchmen to cut their supply down to a safe winter feeding proposition. From now on practically no range cattle will be marketed, as the roundups are cut off by the cold weather. In the cornbelt section farmers and feeders are watching the market dial very closely and the impulse is to ship their stock half fat rather than feed to a finish. The year's receipts of cattle at Chicago will show an increase of about 550,000, while the gain at ten markets combined will be about 2,900,000.

Although hog values have had a slump of around $1 per cwt. from the high time the fore part of last week, the market is still abnormally high for this time of the year and the trade holds very optimistic views regarding the future. While receipts have expanded materially within the last fortnight, they are still running short of normal for this season of the year. Chicago's receipts of hogs are about 1,700,000 shy of last year and at the 11 principal hog markets of the country the deficit will show up about 4,100,000 head. This means an enormous decrease in pork products at a time when the demand is greater than ever before.

Sheep receipts have been comparatively small for the past month and there is no indication of a liberal supply in the near future. The market, however, has been seriously handicapped again this week by the shortage of cars that has made it impossible for eastern shippers to fill a large percentage of their orders for supplies at this market. This has greatly curtailed competition that, had traffic conditions been more nearly normal, would have proved a big prop under the trade for a wide shipping margin has existed all this week between Chicago and eastern markets. Many feeders who bought lambs last fall at $18@18.50 per cwt. have sent them back to market in finished condition and received $16@16.75. This has discouraged the later feeders from taking hold and few feeding lambs have been sent to the country in recent weeks. Chicago's sheep supply for the year will show a decrease compared with last year of about 750,000 head, while the decrease in receipts for the year at 10 markets will aggregate about 1,250,000.

A reduction of 21,000 cattle in receipts here the first five days this week compared with like period last week has been a price-boosting influence in the trade and the steer market at the close yesterday stood largely 25@35c higher than a week ago on most killing classes. Quality has been of low average and buyers have shown an increasing preference for good weight bullocks, the scarcity of which in the run has been more marked than at any preceding time this season. The workings of the zone-loading system have made Tuesday and Thursday the busiest days of the week instead of Monday and Wednesday as formerly. Under the new zone loading plan shipments within a radius of approximately 300 miles of Chicago are barred from Monday and Wednesday sessions of the market. At this time of the year a big percentage of the supply comes from territory within this 300-mile radius, the Monday and Wednesday runs are naturally comparatively light. An effort is being made to have the first zone changed and it is likely that it will be cut down, possibly to 200 miles. If this is accomplished it is thought receipts will be extremely well distributed during the five chief market days of the week and the benefits of the plan will be thereby materially improved. Now that demand for Christmas trade has been satisfied the extreme high prices paid early in December and previously for prime heavy bullocks are no longer quotable. The best cattle here this week sold at $14.50 and this figure is now considered the extreme limit of the market. There are very few long-fed cattle left in feeders' hands and the proportion of sales above $13 this week has been very small. The crop has consisted chiefly of plain light to good short fed cattle and the bulk of the trading has been within a range of from $9.75@12.25, while a sprinkling of common light killers has sold down around $8.50 and tail-end canner steers as low as $6@7.

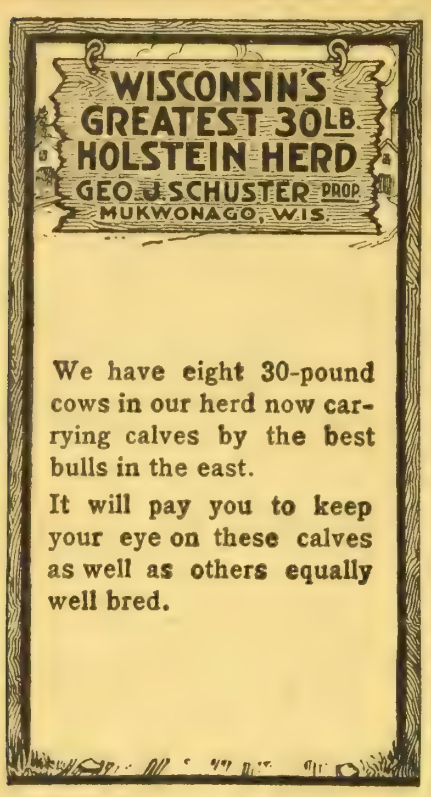
Both Christmas and New Years day will be observed as holidays on this market and the trade is counciling moderate marketings on this account until after the turn of the year. The market is still handicapped by the difficulty shippers are experiencing in securing cars for shipment of stock East on foot, although the traffic situation has been somewhat better this week than last. Once the transportation question is on a more normal basis and feeders rush to liquidate warmed-up cattle subsides the market is expected to hit and maintain a better stride, although for the next 30 days or so the movement of short-fed cattle is likely to continue of good volume.

Butcher cattle have formed a moderate proportion of the week's receipts and fat cows and heifers are generally 15@25 cents higher than a week ago, while canners and cutters have advanced 25@40 cents and bologna bulls are a good half dollar higher, the demand for the latter reasserting itself on improved transportation facilities which permit eastern buyers to take hold more freely. Most of the butcher cows are selling from $6.75@8.50, while a few prime heavy kosher cows are landing up to $11@11.25 and there is increasing call for such. Desirable canner cows are on a $5.75@6 basis and cutters of good strong class sell on up to $6.50. Good to choice heavy bologna bulls are making $8.25@8.65, with fat beef bulls of good class upward from $9 and common light cannery grades at $7@7.50. Veal calf trade continues to show phenomenal strength for this time of the year, the market at the close yesterday being mostly 25 cents higher than a week ago, with good to choice vealers selling at $16@16.25 and prime up to $16.50, equalling the yard record established last September.

The stock and feeding cattle market has been benefited by more moderate receipts and improvement in the car situation. Trade shows 15@25-cent advances over the close last week, but is still quite a little lower than the recent high time and bids fair to work to higher levels. Most of the trading this week has been within a range of from $7.75@9.50 and occasional loads of choice, selected meaty feeders are going out at a cost on up to $10.75@11. Demand, however, has been broader for the lighter, younger cattle this week, many buyers, figuring on generous receipts of short-fed cattle during the next sixty days, showing a preference for something to be roughed through the winter and thrown on grass next spring.

Ask your neighbor to subscribe for The Wisconsin Farmer.

HOLSTEIN-FRIESIAN CATTLE.



We have eight 30-pound cows in our herd now carrying calves by the best bulls in the east.

It will pay you to keep your eye on these calves as well as others equally well bred.

THE DIFFERENCE between a purebred **HOLSTEIN** and the average **COW**

Semi-Official Averages of Holsteins	Average of all cows in U. S.
7,000 Quarts of Milk a year	**1,823** Quarts of Milk a year

The world's record, 31,246.9 pounds of milk in one year, was made by a Holstein cow. Write for free information about this profitable breed.

THE HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 143, Brattleboro, Vt.

$350

WILL BUY a 29.68-lb. bull, sired by Sir Korndyke Hengerveld of Groun (166272), and out of Aaltje Hengerveld Tritomia 3d (138125), 29.68 lbs. in 7 days. This calf is a good individual, well marked, splendid head and top line. Write for further particulars.
W. G. MARSHALL Whitewater, Wis.

The Holstein Bull Advertised is Sold

IF YOU WANT BULLS sired by King Segis Pontiac Polkadot 75347 you will have to buy them very young, for there won't be enough to go around. Watch this ad next issue.
FRED GURR Lake Mills, Wis.

HOLSTEIN BULLS at Farmers' Prices

WE ARE OFFERING a 23-lb. yearling grandson of Colantha Johanna Champion, also a 25-lb. grandson of the same sire. Younger bull calves out of tested dams similarly bred, will be priced.
S. C. STANCHFIELD Fond du Lac, Wis.

"TULLOCH FARMS"

HOLSTEINS

THE HOME of RAG APPLE PONTIAC, a son of RAG APPLE KORNDYKE, out of a 30-lb. daughter of KING OF THE PONTIACS. Particular breeders should be interested in this herd—it's different. Write your wants.
TULLOCH FARMS Genoa, Wis.
(Vernon Co.)

SEVEN HOLSTEIN BULLS

FOR SALE—From 5 to 10 mos. old, sired by a grandson of King of the Pontiacs. These calves are straight, well grown and nicely marked, more white than black. They are bargains at $75 to $100. Come and look them over or write
SWAN BROS. R. 1, Wauwatosa, Wis.

Registered Holstein

BULL CALVES from A. R. O. dams. Also a few females for sale.
P. S. JOHNSON Kilbourn, Wis.

Crites Bros.' Holsteins

WATCH THIS SPACE
HONEY CREEK WIS.

NOW IS THE TIME

RAISE MORE DAIRY CATTLE. Offer nicely marked HOLSTEIN heifers and bulls, sired by JEWEL AAGGIE ALCARTRA 143023.
JOHN NORTH Kilbourn, Wis.

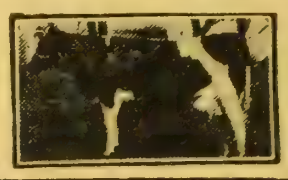
HOLSTEIN-FRIESIAN CATTLE.

HOLSTEIN SIRES

BEFORE buying your next herd sire, write us for description and prices. One born March 25, 1917, largely white, second prize calf 1917 Wisconsin State Fair. Dam 25.61-lb. junior four year old, 704 lbs. butter in 1 year as junior three year old. No. 2, born October 27, 1917, a large show bull. Dam 19.6-lb. junior two year old, 624 lbs. butter 1 year. Dams are large, young cows with every indication of increasing present records. Both calves sired by a 30-lb. show bull.
RACINE STOCK FARM, Reuben Klofanda :: :: Racine, Wis.

SOLD

THE SON of our 28.18-lb. three year old advertised for sale has been sold, but we have other young bulls equally as good or better, sired by our 29 and 31-lb. A. R. O. sires out of A. R. O. dams possessing size and splendid individuality. Write for sale list.



Emmons Blaine, Prop. **Lake Mills, Wis.**

We Do Not Claim the World's Record, But We Do Claim a World of Records

16,800 LBS. MILK AND 711 LBS. BUTTER represents the average semi-official yearly record for the many tests we have run, including two year olds as well as the other junior classes, up to mature cows. **Fannie L. De Kol**, one of our foundation cows, with 11 A. R. O. daughters, represents the high-producing qualities of our herd. Bull calves for sale at all times. Write or come and look them over for yourself.
JOHN D. HETTS :: :: :: Fort Atkinson, Wis.

Holsteins

WE ARE OFFERING at present two young sons of Sir Ormsby Johanna De Kol 37TH (141165) and cow. Also can spare two or three heifers from six to nine months of age.
F. A. SWOBODA East Troy, Wis.

BELLEVIEW STOCK FARM IS OFFERING

FOR SALE Sir Vale Johanna Pontiac (134468), a full brother to the state record four-year-old Holstein, **Aaltje Johanna 28.57 lbs.** His sire, Aaltje Salo Johanna Pontiac, already has a good list of A. R. O. daughters, including a 28-lb. four year old, and his dam, an A. R. O. cow, has three A. R. O. daughters, 28 lbs., 26 lbs. and 20 lbs., respectively. Will also sell two brothers of this breeding, one out of Aaltje Johanna, 28.57 lbs., four years.
E. B. WATROUS Troy Center, Wis.

Holsteins of Quality at Farmers' Prices

WE ARE OFFERING bulls and bull calves for sale, sired by a 30-lb. sire and out of A. R. O. dams with records up to 25.88 lbs.
EDGEWOOD FARMS, INC. Pewaukee, Wis.

$400 Bargain

$400 WILL BUY a 29.23-lb. grandson of King Segis, ready for service. His sire is one of the best sons of King Segis and his dam produced 29.23 lbs. at 12 years, 27.85 lbs. at seven years and has a 580-lb. yearly record. Write for particulars.
W. J. BOYNTON R. 1, Rochester, Minn.

YEARLY RECORD BULL CALF

BORN August 3, 1917. Sire, a son of Pietertje Maid Ormsby 35.56 and full brother to Miss Korndyke Maid Ormsby who made in a year, 1,255.62 lbs. butter and 25,418 lbs. milk. Dam, a 21-lb. 3-yr.-old with 715 lbs. butter and 15,029.3 lbs. milk in a year. Calf is three-fourths white and a good individual. Address
N. DICKINSON & SON, Lake Geneva, Wis.
Walcowls Farms.

4 SONS of KING SUPERBA

A 34-LB. SON of Milanhurst America De Kol. Three are from A. R. O. dams, one of which is now giving 80 lbs. milk a day. Here is a chance to buy a Holstein herd sire bred in the purple. Write for particulars.
W. J. MANN Waukesha, Wis.

$25 HOLSTEINS $25

YOU CAN BUY calves for less, but when you buy from Roberts you get value received. High-grade Waukesha county calves, either sex, 5 weeks old, shipped to your station, express paid, satisfaction guaranteed, for $25. These calves are from high-producing dams and registered bulls. Cows for $120. Write me today. **J. A. Roberts, Cattle Expert, Waukesha, Wis.**

"Crow's Roost" HOLSTEINS

ALL WE CAN DO is to book your order for spring delivery. Our cattle have been in demand. Let us quote prices.
GEO. A. WILSON Neillsville, Wis.

HOLSTEIN CALVES

WE OFFER FOR SALE choice, beautifully marked, 15-16 pure-bred heifer or male calves 1 to 2 weeks old, out of heavy-milking dams, $15 each, crated f. o. b. cars. First check takes them. Write **W. C. KENYON & SONS, ELGIN, ILL.**

A. R. O. HOLSTEIN SERVICE BULL.

ONE YEAR OLD Nov. 3, 1917. Out of a 14-lb. junior two year old and a 30-lb. sire. Dam is out of a 20-lb. cow and is sister to Knight Errant Queen, 28.56 in 7 days and nearly 1,000 lbs. butter in one year. Will ship on approval.
MOSS BROS. Troy Center, Wis.

HOLSTEINS

WATCH THIS SPACE.
ALBERT RHODA East Troy, Wis.

HOLSTEIN and Guernsey calves, bred up for milk, cream and quality, 15-16 pure bred, $15 and $20 each. Baby Cattle Farm, Palmyra, Wis.

$400 Will Buy a 31-Pound Holstein Bull

SIRE a 30-lb son of Sir Beets Cornucopia Netherland 38460. Dam, Ella Mercedes of Elm Count. Butter, 31.02 lbs. 7 days; 829.78 lbs. one year. He was born Feb. 24, 1917, and is a nice, straight fellow. This is a bargain. Act quick if you want him.

BROOKVALE FARMS
Howell & Gerrit Waukesha, Wis.

Bull Calves for Sale

SIRED by my herd bull, **Pabst King Segis Pontiac 174243.** Sire King Pontiac Champion, Wisconsin's leading A. R. O. sire that is by the world's greatest A. R. O. bull, King of the Pontiacs. Dam, a 29.15-lb. daughter of the greatest sire of high-priced bulls, King Segis Pontiac.
ORRIN HAKE Jefferson, Wis.

$1000 will buy

THREE SPLENDID registered Holstein cows, safely in calf to a full brother of Pietertje Maid Ormsby. These cows are heavy milkers and good individuals. Write for particulars.
BONNE MEADE STOCK FARM, Randolph, Wis.

Hillside Holsteins

FIVE registered cows, four have A. R. O. records up to 19 lbs. Price, $1,000. Five nice heifers, some bred to our herd bull, 31 lbs. in a week, 1,146 lbs. yearly. Price $800. Write or come and see him.
KIRKPATRICK BROS. Raedsburg, Wis.

HOLSTEIN BULLS

OF SERVICEABLE AGE and younger, from A. R. O. dams, with records ranging between 20 and 28 lbs. Also cows and heifers. Write for prices.
W. H. S. RHODA Watertown, Wis.

HOLSTEIN BULL CALF

FOR SALE—Five months old. Dam, Finderne Andelina Kaye Korndyke, yearly record at two years of 386 lbs. milk and 13.094 lbs. fat in 7 days. Address
SWOBODA BROS. Troy Center, Wis.

HOLSTEIN BULL FOR SALE.

11 MOS. OLD, about three-fifths white and a good individual. Sire, Julip Segis Korndyke 80640, a grandson of the famous King Segis. Dam, Oak Grove Thelma, 16 lbs. butter in 7 days; 558 lbs. for the year as three year old. Price, $125.
L. V. GARVENS R. 12, Brookfield, Wis.

A. R. O. RECORDS.

WE HAVE just completed a 26-lb. 7-day record and have a number other good prospects coming on. Our herd bull is a son of a 36-lb. sire, that has seven 30-lb. sisters. Will sell several young Holstein bulls. Write for particulars.
J. E. BARSTOW Randolph, Wis.

FOR SALE

REGISTERED HOLSTEIN HEIFERS and bull [illegible] ones.
JOHN L. FISHER Janesville, Wis.

ORCHARD LAWN HERD

OFFERS FOR SALE several fine Holstein bull [illegible] breeding and individual quality, [illegible]. For prices and further par[illegible]
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In Your Herd Means Dollars in Your Pocket

The Pabst Stock Farm Herd is of the famous King Pontiac Champion strain.

Progressive Breeders seek Blue Blooded Stock.

Write for our list, or if possible pay us a visit.

PABST STOCK FARM
(Breeders, Not Dealers)
Oconomowoc, Wis. Box F

EXTRAORDINARY HOLSTEIN BULLS

OF SERVICEABLE AGE, sired by SIR PONTIAC WAYNE DE KOL 3D 112197 and KING SEGIS PONTIAC POLKADOT 8TH 157647. Every one nicely marked and from high-testing dams. Several A. R. O. records. Write
W. W. QUACKENBUSH Melrose, Wis.

A. L. Williams' Estate

IS OFFERING several bargains in young Holstein bulls, sired by a 28-lb. son of Colantha Johanna Lad and a 33-lb. grandson of Colantha Lad. One of these young bulls is out of a 25-lb. dam and sired by the 33-lb. bull. Moderate prices.
A. L. WILLIAMS Fond du Lac, Wis.

JERSEY CATTLE.

OAK GROVE JERSEY FARM

IS NOW offering for sale, Fairwick's Hollie Boy 153212, dropped July 21, 1916. Sire Noble Fenwicks. Dam, Gamon Holly Berry, R. M., 658 lbs. butter. Write for price list of other bull calves and heifers.
WM. M. KNIGHT, Proprietor, Eagle, Wis.

CEYLON COURT

JERSEYS

THE REGISTER OF MERIT HERD of southern Wisconsin. Blood lines: Noble of Oaklands, Golden Jolly, Eminent, Royal Majesty and Denny's Golden Jolly. Write us when in need of a young herd bull.
G. D. GILBERT Lake Geneva, Wis.

JERSEY BULL FOR SALE

DROPPED NOV. 22, 1915. His dam is in Register of Merit, class AA, 701.8 lbs. butter as a junior four year old. Her dam made 447 lbs. butter when 13 years old. His sire is a grandson of Boutillier, the highest record cow on the island. Three of his daughters have already qualified for R. O. M. One of them, three-fourths of the same blood as the bull I am offering for sale, has made in 9 months 487 lbs. butter, age 2 years, 1 month, and will make over 600 lbs. at the rate she is going. Write for price and particulars.
P. G. WARMINGTON Honey Creek, Wis.

Elmdale Farm Jerseys

YEARLING bulls sired by a son of the Gold Medal cow, Inez Rosaire, 725 lbs. butter. For attractive prices write
H. HOLT & SON Oconomowoc, Wis.

Burn Brae Jerseys

PRODUCTION plus TYPE bulls from R. of M. dams. Let us quote you price on your next herd bull.
CHAS. A. PETERSON Rosendale, Wis.

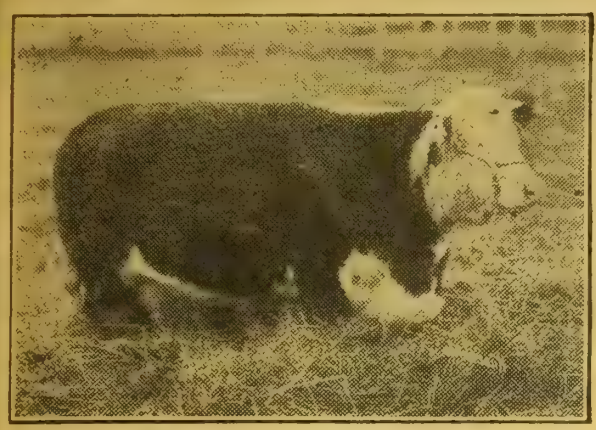
REGISTER OF MERIT JERSEYS

BULL AND HEIFER CALVES from cows that made over 700 lbs. of 85% butter, and by Sophie's Emblem, a grandson of Sophie 19th, and son of Lass 40th, with 1,005 lbs. of 85% butter. For further information write O. R. & K. T. Wiegand, Cleveland, Wis.

JERSEYS

HEIFERS ALL SOLD, but have several especially good bargains in bulls sired by Double Time Varsity King and a son of Golden Maid's Viscount. We are milking fifty cows.
FRED STUBLEY Black Earth, Wis.

Kindly mention this paper when writing.



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Offering of High-Class HEREFORD -CATTLE-

50 FEMALES AND 10 BULLS

Chicago, Illinois

Wednesday, Jan. 9

From the herds of Birch & Thompson and A. C. Bartlett

IMP. EATON DRUID.

50 COWS AND HEIFERS SELL—20 of these come from the herd of Birch & Thompson, 10 of them with calves at foot by Beau Perfection 33d and the show bull, Bonnie Brae 43d, and 10 fine young heifers by the same sires, both bred and open. Included in this list is Miss Princess by Bonnie Brae, well along in calf; Cora Fairfax by Perfection Fairfax, a good one; Miss Gem 11th, with heifer calf by Fred Real and rebred to Beau Gomez 2d. A. C. Bartlett sells a lot of good breeding cows sired by Defender, Dale's Eclipse and Star Wilton, 7 of them with calves at foot. He also offers a string of nice young heifers, several of which are bred to Hero's Meddler, a good son of Bonnie Brae 43d.

10 GOOD BULLS ARE LISTED—There are two proven herd sires in the lot, Beau Gomez 2d by the $4,000 Beau Gomez, and Imp. Eaton Druid, one of the best bulls brought over in the Leigh & George importation. There are also two 12-month-old sons of Beau Gomez 2d that are strong prospects, and two Fairfaxes, Beau Fairfax 2d by the $4,000 Beau Fairfax, and Emperor Fairfax by Prince Fairfax. Four extra good yearlings, two by Beau Perfection 43d, one by McVeigh and one by Hero, complete the bull list. This is an offering of low-down, thick-fleshed breeding cattle that should meet with approval sale day. You will not be disappointed in the offering. Send for the catalog. Mention this paper and address

BIRCH & THOMPSON - - - LAKE GENEVA, WIS.

Cols. Fred Reppert and B. F. Magness, auctioneers. Fred V. Johnson, Wisconsin Farmer representative.

SHORT-HORN CATTLE.

"OAKLAWN" SCOTCH SHORT-HORNS OF QUALITY

50 SCOTCH COWS headed by MAXWALTON AMATEUR by Maxwalton Renown out of a Bruce AUGUSTA cow. I have young bulls for sale and cater to particular buyers. Write
J. E. KENNEDY :: :: :: :: Janesville, Wis.

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SCOTCH and Scotch-topped Short-horn bulls from 9 to 12 months old, bred for beef and milk, both reds and roans for sale. Herd headed by Clipper Sultan 432676, sire Sultan Royal 312046 by Whitehall Sultan 163573. A few cows also for sale.
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HARVEY H. LITTLE

CHAMPION ROSE HERD

THE PREMIER MILKING SHORT-HORN herd of the West. A record kept of every cow in the herd. Every cow of our own breeding. We have choice bulls for sale now. Write
HARVEY H. LITTLE Evansville, Wis.

SHORT-HORNS

SERVICEABLE Short-horn bulls, sired by Highland Sultan and Buchan Marshal, International prize winners. Come or write.
W. J. BERND & SONS New Richmond, Wis.

Short-horn Bulls for Sale

BULLS 13 months old and younger; also my herd bull, Lord Bapton 385982. Write, or better still, come and see them.
G. MARCO & SONS No. 3, La Crosse, Wis.

MAURER & SONS

SHORT-HORNS—When in the market for cattle of this breed write
RICHARD MAURER & SONS Fox Lake, Wis.

SHORT-HORNS

BULLS, COWS AND HEIFERS. Bred for beef and milk. Herd headed by one of the best grandsons of Whitehall Sultan. Address
H. B. DRAKE & SON BEAVER DAM, WIS.

ROYAL OXFORT FOR SALE.

THIS YEARLING bull represents the best Mr. Wright's 35 years of breeding milking Short-horns has produced. He is 80% Duchess Oxford breeding and his first, second and third dams are exceedingly high testers. Write for particulars.
CLARENCE WENHAM Ft. Atkinson, Wis.

FOR SALE

SHORT-HORNS - POLAND CHINAS

I CAN SAVE YOU MONEY—30 bulls, 20 females, 50 boars and gilts. All registered.
W. T. HARTLEY R. 3, LaCrosse, Wis.

THE GREAT WORLD'S FAIR HERDS

40 SHORT-HORN bulls and heifers sired by Village Mystic. 100 big-boned Poland China boars and sows, large litters. Call at Prairie Lawn Stock Farm, or write
O. J. SCHOENFELD & SON Fox Lake, Wis.

KITTY CLAY HERD

MILKING hornless Short-horns. Kitty Clay's Duke and Kitty Clay's Prince at head of herd. Choice bulls, cows and heifers for sale from the best families of milking Short-horns.
J. WARREN HOYT Rosendale, Wis.

BLODGETT Short-horn Bulls for Sale

Scotch or milking strain. Write
O. E. BLODGETT MARSHFIELD, WIS

TWO good roan Short-horn bulls, 6 to 8 months by White, Scotch, SULTAN GOODS. F. S. Bunker, Kilbourn, Wis.

WE ARE OFFERING a fine two-year-old Short-horn bull for sale that is ready for active service. He is a straight, well-covered type that will give satisfaction. Watch next week's issue for a more detailed description of his breeding. We also have three younger bulls for sale. John Notseter, Deerfield, Wis.

FOR SALE

REGISTERED Short-horn bulls, 2 to 14 mos. old. Red and roan. Milk and beef. Call or write.
H. A. SWENSON Tony, Wis.

POLLED DURHAM CATTLE.

Polled Durham Bulls

SHORT-HORNS WITHOUT HORNS

I OFFER a few thick, sappy, rugged bulls of serviceable age at a very reasonable figure. Reds and roans. WRITE ME.
JAS. B. SMILEY Rockton, Ill.
(On Ill.-Wis. line.)

AYRSHIRE CATTLE.

Pure-Bred For Sale Ayrshires

BEING OVERSTOCKED I will sell at reasonable prices, a number of my choice cows and heifers. They are all heavy milkers, run from 40 to 66 lbs. a day. Address Julius C. Moyer, R. 3, Box 102, Elkhorn, Wis., or call and see them. Phone No. Elkhorn, Wis., Red 51, ring 2.

Ayrshires for Sale

COWS, heifers, heifer calves and a few bull calves at very low prices.
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SHEEP.

Valley View Farm

OFFERS a limited number of very choice pure-bred and registered Oxford, Hampshire, Cheviot, Southdown, Delaine, Cotswold and Rambouillet sheep, in both ewes and rams. Also high-class registered Angora goats of both sexes from the leading show and breeding flock in the Central States. Address
GEO. A. PHILIPPI R. 40, Bear Creek, Wis.

MULE-FOOT SWINE.

BIG, GROWTHY Mulefoot hogs from my state fair prize-winning herd. Stock of all ages for sale. Prices low. Chas. Thompson, Letts, Ind.

CHESTER WHITE SWINE.

Ready for Business

CAN now ship you Chester White pigs, boars or gilts, well grown and well bred. Order NOW.
ADOLPH NUTTLEMAN West Salem, Wis.

8 GOOD CHESTER WHITE BOARS

WEIGHING from 225 to 275 lbs., of March and April farrow. Two of these are out of the top sow at the Burlington sale. Will be sold at about pork price for the next 15 days.
CARL HICKCOX Spring Green, Wis.

SPECIALS

IF YOU WANT BIG CHESTERS write me. The boars I offer are long, good feet and high backs—if you want the little, thick, short-legged kind, mine won't suit you. Will ship on approval.
WALTER GEORGE Evansville, Wis.

HEREFORD CATTLE.

HEREFORDS

JUST DROP us a line if you want a bull, we have them to sell. Have ninety cows in the herd, headed by outstanding sires. We invite correspondence and inspection.
L. M. SCOTT & SONS (Grant County) Bagley, Wis.

GUERNSEY CATTLE.

BROAD RIPPLE GUERNSEY FARMS

WE ARE NOW OFFERING for sale Broad Ripple Monarch, a beautiful individual, out of a dam, 11 months on test, that should finish well over 600 lbs., and Broad Ripple Harvard King, whose dam has just finished with 500 lbs. She is a granddaughter of Masher and the calf's sire is a grandson of King of the May.
GEO. W. BROWNE, Prop. :: :: :: Waukesha, Wis.

Tratt Guernsey Herd

THIS HERD was established over thirty years ago. We have always tried to breed from the best. Just at present we have some very promising bull calves, also a few females, for sale.
RALPH TRATT Whitewater, Wis.

GALLOWAY CATTLE.

16 GALLOWAY BULLS and 50 cows and heifers for sale. Some imported cows and some good show cows. Special prices on these as I am overstocked. C. S. Hechtner, Chariton, Iowa.

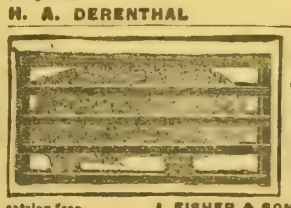
CHESTER WHITE SWINE.

CHESTERS

IF YOU WANT boars of this breed that are BIG and RIGHT in every way, I can supply your wants. Have several sired by the grand champion Pay Streak, out of big sows. Every boar I sell is guaranteed.
B. H. BABCOCK Evansville, Wis.

APRIL and MAY BOARS CHESTERS

OUR EARLY BOARS are all sold. The later boars are being priced accordingly and if you want a "boar bargain" write for prices and description.
H. A. DERENTHAL Wykoff, Minn.



CHESTERS

OUR spring pigs are all sold. We have 75 choice September pigs from our best old sows and we are now booking orders for these pigs to be shipped when three months old. If you will want a good pig order now. Large catalog free.
J. FISHER & SON Box 19 Eastman, Wis

CHESTER GILTS

MY SPRING BOARS sold readily, now offer the gilts. They have been bred to a son of Cardinal and are good ones. Every boar gave satisfaction, gilts will do the same. Address
A. L. KIRST Tomah, Wis.

PRICES SLASHED

A FEW heavy April CHESTER boars. They MUST BE SOLD—what do you want? Good enough to ship on approval. I can fill your order.
ART. G. HOSKINS Dodgeville, Wis.

TWO CHOICE CHESTERS, BOARS,

AND A FEW choice sows for sale, priced for quick sale. These sows will be bred to choice boars and kept until safe in pig. Also a choice litter of September pigs which are fine, priced right.
JOHN PELLETT & SON Viola, Wis.

Tilden Farms' Guernseys

FOR SALE—Several choicely-bred bulls out of imported and American-bred dams with records up to 684 pounds of butterfat, and out of some of the best sires of the breed. Also a carload of grade and pure-bred heifers. Herd tuberculin tested and on state accredited list. Address

Tilden Farms

James H. Murphy, Supt. Delavan, Wis.

SUGAR RIVER STOCK FARM GUERNSEYS

FOR SALE—Three bulls large enough for service, two by Celosia's Glenwood, whose dam has three A. R. records averaging over 500 lbs. fat; one by Frank Rilma, whose dam made 558 lbs. fat and is full sister to May Rilma, 1,073 lbs. fat.; former world's record, still has second highest record of the breed. 12 head of bull calves. Am overstocked and would sell 15 head of cows and heifer calves priced very reasonable if taken at once.
ALLIO S. KNUDSON R. 5, Brodhead, Wis.

GUERNSEYS FOR SALE

10 HIGH-CLASS HEIFERS, part of them bred. Most of them are by the champion island bull, Governor of Myrtle Place II. He will also be offered. Bull calves for sale, out of cows with records as high as 698 lbs. fat.
GEO. McKERROW & SONS CO., Pewaukee, Wis.

A GOOD GUERNSEY BULL

IS A GOOD INVESTMENT—I offer some now out of good type cows and sired by a first prize bull at National Dairy Show. Reasonable prices.
EARL ROBERTS Oconomowoc, Wis.

May Rose Bulls FOR SALE

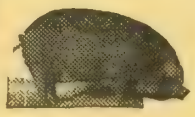
MAY ROSE and double May Rose-bred Guernsey bulls, ranging from 1 mo. to 1 year from A. R. dams with records up to 661 lbs. fat. Also a few choice A. R. cows and heifers, near descendants of the great Imp. King of the May.
JOHN H. WILLIAMS Waukesha, Wis.

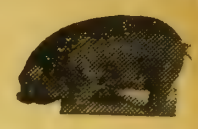
Merriman's Guernseys

WE ARE OFFERING choice young bulls ready for service, from A. R. dams, as well as a few choice cows.
S. A. MERRIMAN Ft. Atkinson, Wis.

Homestead Farm

OFFERS a son of Governor of the Chene, also several young Guernsey bulls sired by this bull. Write for prices and particulars.
W. G. JAMISON & SONS Appleton, Wis.





JOHNSON BROTHERS'

MINNESOTA'S PREMIER DUROC BREEDERS

ANNUAL

BRED SOW SALE

THE GREATEST LOT OF BIG SOWS EVER SOLD IN THE WEST. EVERY ONE A MATURED SOW OR FALL YEARLING.

TUESDAY, JANUARY 8, WINNEBAGO, MINN.

TWO by Fancy's Victor, 6 choice daughters of King the Col., 6 grand fall sows by Pathfinder, 2 by King's Col., 1 great sow by Chief of Col., 1 outstanding sow by Golden Model 9th, others by the champion, Royal King, Col. Pilot Wonder, Gano Model Educator, Educator, The Admiral. All bred for March farrow. You can't duplicate this offering of sows.

Bred to ORION CHERRY, a giant yearling by Orion Cherry King, and full brother to King Orion Cherry. ROYAL KING 2D by the champion Royal King, and the best boar he ever sired.

Sows in herd of Johnson Bros., Winnebago, Minn. Some of these go in our sale January 8, 1917.

Bred to ORION COMBINATION by John's Combination.

Bear in mind that we have never purchased a poor individual; we topped sales when we bought our foundation. The tried sows are right in every way. The fall and spring yearlings are now carrying their first litters, consequently they are big, the high-backed, good-footed kind. You should attend if you like the big kind with quality and breeding. We have the sows that please the critical. The catalog contains history-making pedigrees---did you get yours? We have one for you. Write. If you can't attend send bids to T. P. Shreve, field man for Wisconsin Farmer; we guarantee his purchases. N. G. Kraschel, auctioneer. **Don't forget the date.**

JOHNSON BROTHERS WINNEBAGO, MINN.

Mention The Wisconsin Farmer when writing for catalog

DUROC JERSEY SWINE.

ANNUAL DUROC SHOW AND SALE JANUARY 31, 1918

WE WILL SHOW YOU 40 GILTS that can't be equaled in the state. We will show you 10 brood sows that average 700 lbs. We will show you "BIG TYPE," the $1,000 boar. We will sell you 50 head—every one a good one—bred to INVESTOR JR. BIG TYPE and BACHELOR GANO. The sale they're talking about. Did you send your name for one of the catalogs?
RILEY MARTINY & SON BARABOO, WIS.

CONSTANCE High-Class DUROC BOARS

WE ARE OFFERING spring boars sired by some of the best prizewinners of the breed, as King Defender, grand champion Wisconsin, 1916; King Orion, grand champion Wisconsin and Minnesota, 1917, and Mac's Long Defender, a splendid son of Lee's Defender, grand champion Wisconsin, 1914.
F. R. CONSTANCE :: :: :: Waupaca, Wis.

DUROCS for the particular breeder

DO YOU APPRECIATE GOOD PEDIGREES? I have the most fashionable present-day breeding. IT WON'T COST YOU ANY MORE THAN THE ORDINARY. A son of ROYAL KING heads my herd. Offer boar and gilts by the grand champion, KING ORION. Let me quote you prices on "royal" breeding.
J. W. HIGGINS :: :: :: Gotham, Wis.

Duroc Boars of March and April Farrow

SIRED BY TOMMY DOYLE, the junior champion yearling, 1916, and Long Wonder, first prize yearling at Minneapolis this year. Also a few boars by Tommy Piper, a son of Tommy Doyle, and a show pig.
PERRY GOODRICH Burnett, Wis. **W. W. BIRD,** Cambria, Wis.

FEBRUARY 1st

PARKER'S "GRAND CHAMPION" DUROC SOW SALE—Sows and gilts SIRED BY or BRED TO the MINN. and WIS. GRAND CHAMPION, "KING ORION." No herd is complete without some Orion Cherry King breeding. Send your name so that I can mail you a catalog.
ED. H. PARKER & SON :: :: :: Janesville, Wis.

Sugar River Stock Farm Durocs

25 GOOD, lengthy, heavy-boned boars of April farrow, sired by Taxpayer Orion; dams by Valley G., litter brother to Illustrator and Col.'s Defender II. Have shipped C. O. D. for ten years and only had one returned.
ALLIO S. KNUDSON :: :: :: R. 5, Brodhead, Wis.

MODEL TAXPAYER

By the grand champion, Taxpayer's Model.
COLONEL'S CHOICE,
The best son of King the Col. in the N. W.
PATHFINDER 2D,
A son of the well-known Pathfinder.

This is the breeding that will predominate in my bred-sow sale, JANUARY 29TH. "Durocs with Size."
Send your name for a catalog.
DENNIS SHEA Melvina, Wis.

ORION CHERRY KINGS

CLEANED THE SLATE at all the big shows—the most popular breeding of the day. No herd of DUROCS is "up to date" without some of this breeding and I have the only herd in the state with two sons of ORION CHERRY KING in service. ANNUAL SOW SALE JAN. 30TH. THE ORIGINAL BIG-TYPE HERD IN WISCONSIN.
L. F. ATWATER BANGOR, WIS.

BOARS

HAVE A FEW CHOICE DUROC BOARS, as good as can be found in the state. On Nov. 12th the lightest one weighed 237 lbs. and the heaviest 287 lbs. They are of my very best and popular breeding. They must be sold at once. Write
W. C. JENKINS Bangor, Wis.

DUROC BARGAINS—We are offering two half sisters to the great King Defender. These young sows are safely in pig to Col. Volunteer, a son of Royal King. Also am offering a number of richly-bred gilts that have lots of quality, good bone and fine backs, with plenty of size. We must reduce. Priced to sell. Henry Wenham, Milton, Wis.

BURT FARM DUROCS

A FEW BOARS left at attractive prices. Spring gilts weighing from 230 to 280 lbs., bred to a Golden Model boar. We ship on approval and guarantee satisfaction.
F. H. BURT Brodhead, Wis.

JANESVILLE DUROCS

OFFER 20 well-grown spring boars, that will give satisfaction. All registered. Farm adjoins town. Write or visit us.
JOHN WALDMAN & SON Janesville, Wis.

Orion Cherry Col.

SIRE, Walt's Top Col.; dam, by Orion Cherry King. Duroc fall pigs by above boar for sale. Write
RUNDE BROS. Cuba City, Mo.

DUROC BOARS

SIRED BY Col. Volunteer, out of sows sired by a son of Critic B., grand champion at Nebraska Fair. Bred and priced right.
CLARENCE WENHAM Ft. Atkinson, Wis.

Good Durocs Take Less Feed

I'LL SELL YOU BOARS OR GILTS at farmer prices. The pigs are in fine condition. Write for prices to
L. R. SIEBECKER Baraboo, Wis.

FT. ATKINSON, WIS.

DUROC gilts or boars for sale at reasonable prices. Let me quote prices.
W. W. GOODRICH Ft. Atkinson, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

Super-Durocs

WILL DEFY ANY BREEDER in the state to show 20 better spring gilts than I have. They have been bred to a son of DREADNAUGHT and a son of KING ORION and will be sold at FENNIMORE, JAN. 25TH. SEND NAME FOR CATALOG.
WM. C. EDGE FENNIMORE, WIS. (Grant County)

More Champion Blood

THAN ANY HERD of Durocs in N. W. If you want Durocs that are bred in the purple just drop me a line. Will not hold a sale so gilts are offered at private sale.
JOHN SWENSON Willmar, Minn.

DUROC GILTS

HAVE A FEW CHOICE, BIG GILTS bred to KING ORION JR. I'll ship on approval. Order now.
CLARENCE GEORGE Evansville, Wis.

"DU ROCKS"

OUR GILTS are now bred and safe and they are for sale. We will gladly quote prices and description if you'll write.
W. A. WEBB & SONS Poynette, Wis.

HOMESTEAD DUROCS

—IF YOU WANT BRED GILTS OR SOWS,— write us.
M. H. O'KEEFE & SON Waunakee, Wis.

BRED GILTS

DUROC GILTS bred to ORION KING, the best son of the G-C King Orion. If interested, get my prices first.
MIKE STOEHR Viroqua, Wis.

After January 1st

WE WILL OFFER bred Duroc sows and gilts. The big kind bred to big boars. Keep this in mind.
GEO. D. SPRAIN & SON West Salem, Wis.

DUROCS ON APPROVAL

BOARS weighing from 200 to 250 pounds, extra good. You see your boar before you pay. Satisfaction or no sale. Could make you no better proposition. Order one. Gilts all sold.
FRED G. MATTHES Viola, Wis.

CHIEF DEFENDER

THE LARGEST YEARLING DUROC BOAR in the state. My best gilts are bred to him. Do you want a big-type gilt, bred to this big-type boar?
R. O. CHURCH Elkhorn, Wis.

ROYAL KING 4TH'S TRIO FOR SALE

WE ARE OFFERING two young Duroc boars and a gilt by the above sire and from a daughter of Prince Defender. These pigs are the best in the litter. Write for prices.
R. B. HERRLING Glenbeulah, Wis.

HORSES.

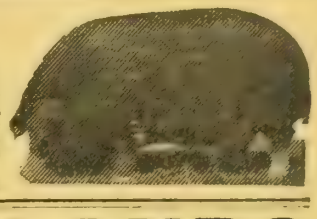
PERCHERONS, BELGIANS, SHIRES—One of the largest breeding herds in the world. I can spare 75 young reg. mares in foal. 2, 3, 4 and 5-yr. stallions, ton and heavier; also yearlings.
FRED CHANDLER, R. 7, Chariton, Ia.

POLAND CHINA SWINE.

O. C. OLSON, STRUM, WIS.

IF YOU WANT TO BUY ANYTHING in big-type POLAND CHINAS write me. Have a large herd and can supply you with boars or gilts or matured sows. The pigs are sired by BIG TYPE JIM, a son of Jim Crow, and many of them are out of MAC'S CHIEF dams, the boar that was twice grand champion at Milwaukee.

SPECIAL PRICES ON FALL PIGS



I HAVE FOR SALE 40 pigs of August and September farrow, sired by Big Bone Wonder, the boar everybody is talking about; Smooth Price, a 1,000-lb. boar, and by Knoxall by the great Big Knox. There are some great herd boar and brood sow prospects among them. Am breeding 30 spring gilts, mostly by Big Bone Wonder, for March, April and May farrow. Also have some bulls of Glenwood breeding, half-brothers to the junior and grand champion bull at the Indiana State Fair, for sale.
L. P. MARTINY Chippewa Falls, Wis.

Big-Type POLANDS

I RAISED 27 BOARS by eight different herd sires, and have a few choice ones left. Several by CHIEF PRICE 256331, who sired the first prize boar pig at Minnesota and the largest pig at Omaha. Some by Mc'S BIG BONE 257809, and such noted boars as ORANGE WONDER, BIG BEN JR., BLUE VALLEY KING, JUMBO WONDER and SUNRISE PRICE, out of sows that were sale toppers and state fair winners. Act quick if you want a boar. No gilts for sale until after January 1st. They will be in pig to my $500 OAKWOOD BIG MODEL, first prize senior yearling at Minnesota, Wisconsin and LaCrosse. Weighed 870 pounds in August. Correspondence invited.
W. W. QUACKENBUSH (Jackson Co.) Melrose, Wis.

Poland Boars for Farmers

HAVE A FEW smooth, good-footed spring boars for sale. They are big and of choicest breeding. GUARANTEED in every way. Also have a nice assortment of fall pigs—boars and gilts—and will price trios so as to interest you. I HAVE POLANDS TO SELL AND THEY ARE PRICED ACCORDINGLY. Try me.
H. H. SMITH BARABOO, WISCONSIN

The Sale of Sales

FEBRUARY 6TH—I will offer the greatest lot of BIG-TYPE POLAND SOWS ever cataloged for a sale in Wisconsin. The offering will consist of prizewinners and grand champions, bred to Mc's Big Bone, Postmaster, Jumbo's Giant, a son of Orange Boy, and a son of Gerstdale Jones. PLAN NOW TO ATTEND THIS SALE. Let me send you my illustrated catalog. Send me your name.
J. D. McDONALD :: :: :: :: West Salem, Wis.

P. N. COLLINS RIVER FALLS WISCONSIN

MY EARLY POLAND boars and gilts are all sold. Have a nice lot of August pigs, that will go cheap, by CHIEF PRICE and SMOOTH JUMBO. Yearling rams sold, some good Oxford lambs. A nice Short-horn bull calf from a heavy-milking dam. Write and tell me what you want—we can do business.

30 YEARS BREEDING POLANDS

THIS FACT ALONE should prove that I have bred and sold POLANDS that have given satisfaction. Have choice BOARS and GILTS to ship this year at prices that you cannot turn down. Send your order at once.
R. MEINKING Bangor, Wis.

Ackerman Poland Chinas

I CAN SELL YOU a spring boar or bred gilts at a price that you can't overlook. They are big, they are well bred, they have quality and they are guaranteed in EVERY way. I HAVE THE GOODS. Write
WM. F. ACKERMAN Glen Haven, Wis. "Grant County."

CHANCE

Model Major 2d For Sale

NO BETTER 3-year-old Poland boar in Wisconsin. Second at Milwaukee, but had friends for first place. Can show you good pigs by him. Price reasonable. Guaranteed.
ED W. HENDRICKS Hazel Green, Wis.

POLAND GILTS

BRED to a son of the $6,600 Gerstdale Jones for sale. Every gilt a big one. Also fall pigs, either sex, priced cheap.
A. W. COLE LODI, WIS.

REMEMBER

I AM FOUNDING one of the best Poland China herds in Wisconsin. Bear this in mind for future reference.
JOHN F. O'BRIEN R. 5, Madison, Wis.

Jas. Derivan, Fox Lake, Wis.

OFFERING big Poland gilts bred to TIMM EQUAL by TIMM WONDER by Fessy's Timm. These are the blood lines that count. The price is right.

POLAND CHINA BRED GILTS

TO FARROW in March and April, to Blue Valley Big Boar Jr. Also a few boars left that I will close out at a reasonable price to make room for my fall pigs.
JULIUS H. PETERSON Kilbourn, Wis.

REGISTERED POLAND CHINAS

WE HAVE a number of spring boars ready for service, also open gilts. Bred gilts January 1st. Satisfaction guaranteed. (Registered Holstein.)
Marinette Co. Insane Asylum Peshtigo, Wis.

When writing to advertisers kindly mention The Wisconsin Farmer.

POLAND CHAMPIONSHIP MATERIAL

BUY FALL PIGS, they come cheaper and you can grow them at a profit. I have 75, every one out of a mature dam and sired by my winners, the grand champion McChief, OAKWOOD BIG MODEL, 870-lb. yearling, first at Minn. and Wis.; OAKWOOD GIANT, first junior yearling at Wis., and Mc'S BIG BONE, the grand boar we expect to show in the aged class next fall. Priced to sell, single, pairs or trios. Write
J. D. McDONALD West Salem, Wis.

LOOK AT THIS

MALTBY'S BLACK JUMBO, by Mouw's Black Jumbo. Dam by Mouw's Chief. A better, big-type pedigree could not be written. Gilts by SMOOTH KING by Goldengate King, have been bred to first mentioned Poland boar. THEY ARE FOR SALE—FIRST WRITE, FIRST SERVED.
C. S. MALTBY Janesville, Wis. "Polands."

POLANDS

MARCH AND APRIL PIGS—The best we ever raised. They have the size and bone. Sired by six great big-type boars. See us for herd headers. Also dual-purpose Short-horn bulls.
M. MADSON & SONS R. 4, Madison, Wis.

Poland Chinas

SHIPPED and if not satisfactory return them and I will pay the express one way. Write your wants to
WM. BOWE Fox Lake, Wis.

HAMPSHIRE SWINE.

HAMPSHIRE SWINE

DIVIDEND PRODUCERS
DELLBROOK HAMPSHIRES SATISFY

We have champion boars ready for service at right prices. Also 150 pigs at weaning age. Write us your wants.
DELLBROOK FARM
A. L. DAMON, Mgr. Richland Center, Wis.

AUCTIONEERS.

H. O. TELLIER

AUCTIONEER
FARMINGTON, MINN.
THOROUGHLY VERSED on pedigrees of leading breeds of live stock.

This Pony FREE

Pollyanna

Pollyanna is a beautiful 3-year-old black Shetland Pony, about 42 inches tall. She weighs about 300 pounds and is worth pretty nearly her weight in gold. Of the 500 Ponies we have given away to Boys and Girls, we think Pollyanna is one of the prettiest.

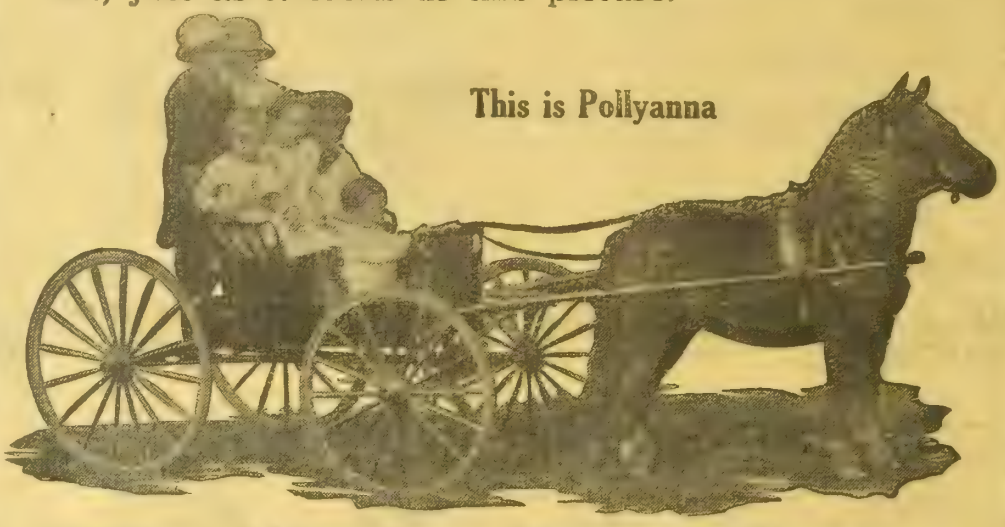
You may have seen lots of Ponies in Circus Parades, but we don't believe you ever saw one prettier than Pollyanna, and we are going to give her to you, or to some other Boy or Girl, who sends in his or her name.

Hitched up to her cute, little Pony Buggy, Pollyanna will pull you and all your boy and girl friends that can pile in. Then, when you are tired of driving, you can throw on the Saddle and Bridle we give with Pollyanna, and go scampering around the country.

Can you think of anything you would rather have than Pollyanna?

Read this page carefully and then send in your name and address at once.

We shall give YOU, or some other Boy or Girl, this Shetland Pony, with complete Buggy, Harness, etc., just as it looks in this picture.



If You Want to Own Pollyanna

or Any One of the Other Ponies we are giving away

The Outfit

Best of all, we send free with Pollyanna the complete Pony Outfit just as you see it in the picture.

Besides the Pony, the Pony Buggy, and the Harness, we also send a Saddle and Bridle, which will make you the most complete outfit money can buy.

The Pony Buggy is the most comfortable riding and easiest pulling we could buy. We have given away so many that we know what kind most boys and girls like.

The handsome nickel-trimmed harness looks just fine on Pollyanna, and the Saddle and Bridle are made to order for her.

No child, no matter how rich his parents may be, owns a nicer Pony and Outfit than this one, and we shall send it free with all charges paid to some Boy or Girl.

This is surely the best chance you ever had to get a Shetland Pony, and if you think you would like to have it, send your name and address right away. Some Boy or Girl is sure to get it.

Send Your Name TODAY

As soon as we hear from you we shall write you all about Pollyanna and the several other Ponies we are giving away, and tell you how to win one of them. Don't let anyone tell you that you cannot win a Pony, because our plan of giving Ponies is different from all others.

We make it easy for children to get Ponies. We use them to advertise our big magazine, the Farmer's Wife. We have already given Ponies to more than 500 Boys and Girls, all over the country. Some of these children who received free Ponies were only 6 or 7 years old, so you know we must have made it easy for them to win. Just send your name and address and see.

(101)

We Have Given Away Over 500 Ponies

Here are the Names of 45 of the Ponies We Have Given Away and the Children Who Won Them:

Bob, John Corn, Pulaski County, Ark.
Sweetheart, Lillias Howe, Nevada Co., Cal.
Pansy, Evelyn Cutler, Windham Co., Conn.
Turk, Alvin Johnson, Bond Co., Ill.
Beauty, Bertram Eldridge, Stark Co., Ill.
Roine, Clarence Busick, Adams Co., Ind.
Bonnie, Amyle Kafer, Carrol Co., Iowa.
Pat, Flossie Meredith, Jasper Co., Iowa.
Jerry, Cleta Johnson, Douglas Co., Kansas.
Toots, Isabelle Whitecraft, Baltimore Co., Md
Clipper, Adelaide Stever, Bristol Co., Mass.
Snap, Jennie Nadeau, Iona Co., Michigan.
Larry, Wilford Schaffer, Grant Co., Minn.
Duke, Dorothy Eagle, Jackson Co., Mo.
Cozy, Charles Young, Cascade Co., Mont.
Hector, Verna Beerbohm, Cuming Co., Neb.
Hummer, Arthur Wallace, Burlington Co., New Jersey.
Dolly, George Adams, Cayuga Co., N. Y.
Tip, Chester McKee, Wayne Co., N. Y.
Winkle, Myrtle Holbrook, Wilkes Co., N. C.
Judge, Louis Schmidt, Morton Co., N. D.
Flo, Lloyd Thomas, Allen Co., Ohio.
Kip, Anna Miller, Logan Co., Ohio.
Flasher, Clarence Morgret, Cambria Co., Pa.
Pert, Georgia Spencer, Warren Co., Pa.
Dapple, Ernest Heckert, York Co., Pa.
Sunshine, Eva Huddleson, Beadle Co., S. D.
Lady, Marion Jones, Franklin Co., Tenn.
Wizard, John Kenyon, Fairfax Co., Va.
Jingo, Pearl Kerr, Grant Co., Wis.
Fritzie, Marie Parker, Knox Co., Ill.
Sambo, Lowell Comeford, Lake Co., Ind.
Laddie, Robbie E. Notton, Chickasaw Co., Ia.
Skip, Harold Wilcox, Greene Co., Ia.
Gyp, Lucile Heflen, Union Co., Ia.
Gypsy, F. Sample, Greenwood Co., Kas.
Scout, Lucinda Anderson, Aitken Co., Minn.
Bouncer, Marville Thompson, Douglas Co., Minn.
Bingo, Alfred Boissier, Nassau Co., N. Y.
Welkie, G. M. Stelzer, [illegible] Co., Ohio.
Lightfoot, Ronnie Ritz, [illegible] Co., Pa.
Zip, Ella Fullam, Orange Co., Vt.
Polly, Alfred Hokenstad, Dane Co., Wis.
Mogul, Roy Podewells, Rock Co., Wis.
Peaches, A. M. Davenport, Klamath Co., Ore.

We haven't room to print the names of all of the 500 children who have won Ponies, but we shall send you the names of several hundred of them, with pictures showing many of them playing with the Ponies we sent them. All you need do is to send your name and address at once. Fill [illegible] or just write your name, address and age on a Postal Card and send to us. Do it today. Address

Pony Pictures Free

When you send in your name, we shall tell you how to get a Free Pony and also send you some Pony Pictures showing the Ponies we are giving away. Write your name below or send it on a postal card.

THE PONY KING,
307 Webb Bldg., St. Paul, Minn.

My Name is.....

P. O...... *Age*.....

State..... *R. F. D.*.....

THE PONY KING, 307 Webb Bldg., St. Paul, Minn.

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